As filed with the Securities and Exchange Commission on October 30, 2013

Registration No. 333-

SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM S-3

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

TTM Technologies, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of

incorporation or organization)

91-1033443 (I.R.S. Employer Identification Number)

1665 Scenic Avenue, Suite 250 Costa Mesa, California 92626 (714) 327-3000

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Todd B. Schull

Executive Vice President, Chief Financial Officer, Treasurer and Secretary

TTM Technologies, Inc.

1665 Scenic Avenue, Suite 250 Costa Mesa, California 92626

(714) 327-3000

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to: Brian H. Blaney, Esq. Logan Miller, Esq. Greenberg Traurig, LLP 2375 East Camelback Road, Suite 700 Phoenix, Arizona 85016 (602) 445-8000

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of the Registration Statement.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in

connection with dividend or interest reinvestment plans, check the following box. It fit this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement

number of the earlier effective registration statement for the same offering. If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Non-accelerated filer

(Do not check if a smaller reporting company)

Accelerated filer Smaller reporting company

X

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered(1)	Amount to be registered(1)	Proposed maximum offering price per security(1)(2)	Proposed maximum aggregate offering price(1)(2)	Amount of registration fee(3)
Common Stock, par value \$0.001 per share(4)		_	_	
Preferred Stock, par value \$0.001 per share(4)		_	_	_
Debt Securities	—	—	_	_
Warrants	—	—	_	_
Units	—		_	
Total(5):	\$250,000,000	—	\$250,000,000	\$32,200.00

(1) Pursuant to Rule 457(i) under the Securities Act of 1933 (the "Securities Act"), the securities registered hereunder include such indeterminate number of shares of common stock and preferred stock, number of warrants and units and principal amount of debt securities as may be issued upon conversion or exchange of any preferred stock, warrants or debt securities registered hereunder that provide for conversion or exchange, upon exercise of warrants or pursuant to the anti-dilution provisions of any such securities.

(2) The proposed maximum per unit and aggregate offering prices per class of securities will be determined from time to time by the registrant in connection with the issuance by the registrant of the securities registered under this registration statement and is not specified as to each class of security pursuant to General Instruction II.D of Form S-3 under the Securities Act.

(3) Calculated pursuant to Rule 457(o) under the Securities Act.

(4) Includes an indeterminate number of shares of common stock or preferred stock as may be sold from time to time, at indeterminate prices.

(5) Any securities registered hereunder may be sold separately or as units with other securities registered hereunder. The proposed maximum offering price per unit will be determined by the registrant in connection with the issuance of the securities. In no event will the aggregate offering price of all securities issued from time to time pursuant to this registration statement exceed \$250,000,000.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and it is not soliciting an offer to buy these securities, in any state where the offer or sale is not permitted.

PROSPECTUS

SUBJECT TO COMPLETION, DATED OCTOBER 30, 2013

\$250,000,000



Common Stock Preferred Stock Debt Securities Warrants Units

We may offer and sell from time to time, in one or more series or issuances and on terms that we will determine at the time of the offering, any combination of common stock, preferred stock, debt securities, warrants, and units up to an aggregate amount of \$250,000,000.

This prospectus provides you with a general description of the securities we may offer and sell. We will provide specific terms of any offering in a supplement to this prospectus. Any prospectus supplement may also add, update, or change information contained in this prospectus. You should carefully read this prospectus and the applicable prospectus supplement as well as the documents incorporated or deemed to be incorporated by reference in this prospectus before you purchase any of the securities offered hereby.

These securities may be offered and sold in the same offering or in separate offerings; to or through underwriters, dealers, and agents; or directly to purchasers. The names of any underwriters, dealers, or agents involved in the sale of our securities and their compensation will be described in the applicable prospectus supplement.

Our common stock is listed on the Nasdaq Global Select Market under the symbol "TTMI." We will make application to list any shares of common stock sold by us under this prospectus and any prospectus supplement on the Nasdaq Global Select Market. We will provide information in any applicable prospectus supplement regarding any listing of securities other than shares of our common stock on any securities exchange.

This prospectus may not be used to consummate a sale of our securities unless accompanied by the applicable prospectus supplement.

You should consider the risks that we have described in this prospectus and in the accompanying prospectus supplement before you invest. See "Risk Factors" beginning on page 3.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2013

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission (referred to as the SEC) utilizing a "shelf" registration process. Under this shelf registration process, we may sell any combination of the securities registered in one or more offerings, up to a total dollar amount of \$250,000,000. This prospectus provides you with general information regarding the securities that we may offer in the future. Each time we sell securities, we will provide a prospectus supplement that contains specific information about any offering by us.

The prospectus supplement also may add, update, or change information contained in the prospectus. You should read both this prospectus and the prospectus supplement related to any offering as well as additional information described under the heading "Where You Can Find More Information."

We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus or any accompanying prospectus supplement or any "free writing prospectus." We are offering to sell, and seeking offers to buy, securities only in jurisdictions in which offers and sales are permitted. The information contained in this prospectus and in any accompanying prospectus supplement is accurate only as of the date of their covers, regardless of the time of delivery of this prospectus or any prospectus supplement or of any sale of our securities. Our business, financial condition, results of operations, and prospects may have changed since those dates. You should rely only on the information contained or incorporated by reference in this prospectus or any accompanying prospectus supplement, you should rely on the information contained in this prospectus and the prospectus supplement, you should rely on the information contained in this prospectus and the prospectus supplement, you should rely on the information in the prospectus and the prospectus supplement, you should rely on the information contained in this prospectus and the prospectus supplement, you should rely on the information in the prospectus supplement, provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date — for example, a document incorporated by reference into this prospectus supplement. The test there into the statement in the document having the later date modifies or supersedes the earlier statement.

In this prospectus, the terms "we," "our," and "us" refer to TTM Technologies, Inc. and its subsidiaries, unless otherwise specified.

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PROSPECTUS SUMMARY

The following summary does not contain all of the information that may be important to purchasers of our securities. Prospective purchasers of securities should carefully review the detailed information and financial statements, including the notes thereto, appearing elsewhere in or incorporated by reference into this prospectus.

Our Company

We are a leading global provider of time-critical and technologically complex printed circuit board (PCB) products and backplane assemblies (PCBs populated with electronic components), which serve as the foundation of sophisticated electronic products. We are the largest PCB manufacturer in North America and the seventh largest PCB manufacturer in the world, based on 2012 revenues, according to a report by NT Information and Prismark Partners LLC, PCB industry research firms. We generated approximately \$1.3 billion in net sales in 2012 and approximately \$663.4 million in net sales during the two quarters ended July 1, 2013. We had 16,115 employees worldwide as of July 1, 2013, and we operate a total of 14 specialized and integrated facilities in the United States and China. We focus on providing time-to-market and advanced technology products and offer a one-stop manufacturing solution to our customers from engineering support to prototype development through final volume production. This one-stop solution allows us to align technology development with the diversified needs of our customers, many of whom are based in high growth markets, and to enable them to reduce the time required to develop new products and bring them to market. We serve a diversified customer base in various markets throughout the world, including manufacturers of networking/communications infrastructure products, touch screen tablets and smartphones. We also serve the commercial aerospace, defense, high-end computing, and industrial/medical industries. Our customers include both original equipment manufacturers (OEMs) and electronic manufacturing services (EMS) providers.

Our Offices

We maintain our principal executive offices at 1665 Scenic Avenue, Suite 250, Costa Mesa, California 92626. Our telephone number is (714) 327-3000. Our website is located at *www.ttmtech.com*. Other than as described in "Where You Can Find More Information" on page 37 of this prospectus, the information on, or that can be accessed through, our website is not incorporated by reference in this prospectus or any prospectus supplement, and you should not consider it to be a part of this prospectus or any prospectus supplement. Our website address is included as an inactive textual reference only.

The Securities that may be Offered

We may offer up to \$250,000,000 of common stock, preferred stock, debt securities, warrants and units in one or more offerings and in any combination. In this prospectus, we refer to the common stock, preferred stock, debt securities, warrants and units collectively as "securities." This prospectus provides you with a general description of the securities we may offer. A prospectus supplement, which we will provide each time we offer securities, will describe the specific amounts, prices, and terms of the securities we offer. We will also include in the prospectus supplement information, when applicable, about material U.S. federal income tax considerations relating to the securities, and the securities exchange, if any, on which the securities will be listed. This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

Common Stock

We may offer shares of our common stock, par value \$0.001 per share, either alone or underlying other registered securities convertible into our common stock. The holders of our common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. Subject to preferences that may be applicable

to any outstanding preferred stock, the holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by our board of directors out of funds legally available for that purpose. In the event of our liquidation, dissolution, or winding up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock then outstanding. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock.

Preferred Stock

Our certificate of incorporation, as amended, authorizes our board of directors to issue one or more series of preferred stock and to determine, with respect to any series of preferred stock, the terms and rights of such series without any further vote or action by our stockholders. The existence of authorized but unissued shares of preferred stock may enable our board of directors to render more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, or other extraordinary transaction. Any issuance of preferred stock with voting and conversion rights may adversely affect the voting power of the holders of common stock, including the loss of voting control to others. The existence of authorized but unissued shares of preferred stock will also enable our board of directors, without stockholder approval, to adopt a "poison pill" takeover defense mechanism. We have no present plans to issue any shares of preferred stock.

Debt Securities

We may offer secured or unsecured obligations in the form of one or more series of senior or subordinated debt. The senior debt securities and the subordinated debt securities are together referred to in this prospectus as the "debt securities." The subordinated debt securities generally will be entitled to payment only after payment of our senior debt. Senior debt generally includes all debt for money borrowed by us, except debt that is stated in the instrument governing the terms of that debt to not be senior to, or to have the same rank in right of payment as, or to be expressly junior to, the subordinated debt securities. We may issue debt securities that are convertible into shares of our common stock. If we issue debt securities at a discount from their original stated principal amount, then, for purposes of calculating the total dollar amount of all securities issued under this prospectus, we will treat the initial offering price of the debt securities as the total original principal amount of the debt securities.

The senior and subordinated debt securities will be issued under an indenture between us and a trustee. We have summarized the general features of the debt securities to be governed by the indenture. The indenture has been filed as an exhibit to the registration statement of which this prospectus forms a part. We encourage you to read the indenture. Instructions on how you can get copies of this document are provided in the section entitled "Where You Can Find More Information" on page 37 of the prospectus.

Warrants

We may issue warrants for the purchase of common stock, preferred stock or debt securities. We may issue warrants independently or together with other securities.

Units

We may issue units comprised of one or more of the other classes of securities issued by us as described in this prospectus in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit.

RISK FACTORS

Investing in our securities involves a high degree of risk. Please see the risk factors described under the caption "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2012 on file with the SEC, and each subsequently filed Quarterly Report on Form 10-Q, each of which are incorporated by reference in this prospectus and in any accompanying prospectus supplement. Before making an investment decision, you should carefully consider these risks as well as information we include or incorporate by reference in this prospectus and in any accompanying prospectus supplement. The risks and uncertainties we have described are not the only ones facing our company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations.

FORWARD-LOOKING STATEMENTS

This prospectus and each prospectus supplement includes and incorporates forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (referred to as the Securities Act), and Section 21E of the Exchange Act of 1934, as amended (referred to as the Exchange Act). All statements, other than statements of historical fact, included or incorporated in this prospectus or any prospectus supplement regarding our strategy, prospects, plans, objectives, future operations, future revenue and earnings, projected margins and expenses, technological innovations, future products or product development, product development strategies, markets for our services, potential acquisitions or strategic alliances, the success of particular product or marketing programs, the amount of revenue generated as a result of sales to significant customers, financial position, and liquidity and anticipated cash needs and availability are forward-looking statements. The words "anticipate," "believe," "could," "estimate," "expect," "forecast," "intend," "may," "plan," "predict," "project," "seek," "target," "will," "would," and similar expressions or the negatives thereof are intended to identify forward-looking statements.

Actual results or events could differ materially from the forward-looking statements we make. Among the factors that could cause actual results to differ materially are the factors discussed under "Risk Factors" in our Form 10-K for the fiscal year ended December 31, 2012 and each subsequently filed Quarterly Report on Form 10-Q. We also will include or incorporate by reference in each prospectus supplement important factors that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Should one or more known or unknown risks or uncertainties materialize, or should underlying assumptions prove inaccurate, actual results could differ materially from past results and those anticipated, estimated, projected, or implied by these forward-looking statements. You should consider these factors and the other cautionary statements made in this prospectus, any prospectus supplement, or the documents we incorporate by reference. While we may elect to update forward-looking statements wherever they appear in this prospectus, any prospectus supplement, or the documents incorporated by reference. While we may elect to update forward-looking statements wherever they appear in this prospectus, any prospectus supplement, or the documents incorporated by reference. While we may elect to update forward-looking statements wherever they appear in this prospectus, any prospectus supplement, or the documents incorporated by reference. While we may elect to update forward-looking statements wherever they appear in this prospectus, any prospectus supplement, or the documents incorporated by reference, we do not assume, and specifically disclaim, any obligation to do so, whether as a result of new information, future events, or otherwise. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

PROSPECTUS SUPPLEMENTS

This prospectus provides you with a general description of the proposed offering of our securities. Each time that we sell securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may add to, update, or change information contained in this prospectus and should be read as superseding this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described under the heading "Where You Can Find More Information."

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The prospectus supplement will describe the terms of any offering of securities, including the offering price to the public in that offering, the purchase price and net proceeds of that offering, and the other specific terms related to that offering of securities.

RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth our ratio of earnings to fixed charges for the periods indicated:

	Six Months	Year Ended December 31,				
	Ended July 1, 2013	2012	2011	2010	2009	2008
Ratio of earnings to fixed charges	2.1 m	$\frac{2012}{n/a(1)}$	3.4x	5.3x	1.6x	$\frac{2008}{n/a(1)}$
	3.1X	$\Pi/\mathfrak{a}(-)$	J.7A	J.JA	1.0A	II/ a(-)

(1) Earnings were not sufficient to cover fixed charges for the periods indicated. Additional earnings of \$169.9 million and \$61.6 million in the years ended December 31, 2012 and 2008, respectively, would have been required to achieve a ratio of 1:1.

For purposes of calculating these ratios, earnings consists of the sum of (a)(i) pre-tax income from continuing operations before adjustment for income or loss from equity investees; (ii) fixed charges; (iii) amortization of capitalized interest; (iv) distributed income of equity investees; and (v) our share of pre-tax losses of equity investees for which charges arising from guarantees are included in fixed charges, minus (b)(i) interest capitalized; and (ii) the noncontrolling interest in pre-tax income of subsidiaries that have not incurred fixed charges. The term fixed charges means the sum of (x) interest expensed and capitalized; (y) amortized premiums, discounts and capitalized expenses related to indebtedness; and (z) an estimate of the interest within rental expense.

USE OF PROCEEDS

Except as may be otherwise set forth in any prospectus supplement accompanying this prospectus, we will use the net proceeds we receive from sales of securities offered hereby for general corporate purposes, which may include the repayment of indebtedness outstanding from time to time and for working capital, capital expenditures, acquisitions, and repurchases of our common stock or other securities. Pending these uses, the net proceeds may also be temporarily invested in short-term securities. When specific securities are offered, the prospectus supplement relating thereto will set forth our intended use of the net proceeds that we receive from the sale of such securities.

SECURITIES WE MAY OFFER

The following is a general description of the terms and provisions of the securities we may offer and sell by this prospectus. These summaries are not meant to be complete. This prospectus and the applicable prospectus supplement will contain the material terms and conditions of each security. The prospectus supplement may add, update or change the terms and conditions of the securities as described in this prospectus. However, no prospectus supplement will offer a security that is not included in the Registration Statement of which this prospectus is a part at the time of its effectiveness or offer a security of a type that is not described in this prospectus. This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

DESCRIPTION OF COMMON STOCK

This section describes the general terms of our common stock. A prospectus supplement may provide information that is different from this prospectus. If the information in the prospectus supplement with respect to our common stock being offered differs from this prospectus, you should rely on the information in the prospectus supplement. A copy of our certificate of incorporation, as amended, has been incorporated by reference from our filings with the SEC as an exhibit to the registration statement of which this prospectus forms a part. Our common stock and the rights of the holders of our common stock are subject to the applicable provisions of the Delaware General Corporation Law (which we refer to as Delaware law), our certificate of incorporation, as amended, our fourth amended and restated bylaws, and the rights of the holders of our preferred stock, if any, as well as some of the terms of our credit agreement and any other outstanding indebtedness.

As of September 30, 2013, under our certificate of incorporation, as amended, we had the authority to issue 200,000,000 shares of common stock, par value \$0.001 per share. As of September 30, 2013, 82,638,931 shares of our common stock were outstanding and were held of record by approximately 285 stockholders.

The following description of our common stock, and any description of our common stock in a prospectus supplement may not be complete and is subject to, and qualified in its entirety by reference to, Delaware law and the actual terms and provisions contained in our certificate of incorporation, as amended, and fourth amended and restated bylaws, each as amended from time to time. See "Certain Provisions of Delaware Law and Our Charter and Bylaws," beginning on page 26, for more information.

Voting Rights

Each outstanding share of our common stock is entitled to one vote per share of record on all matters submitted to a vote of stockholders and to vote together as a single class for the election of directors and in respect of other corporate matters. At a meeting of stockholders at which a quorum is present, for all matters other than the election of directors, all questions shall be decided by the vote of the holders of a majority of the outstanding shares of stock entitled to vote thereon present in person or by proxy at the meeting, unless the matter is one upon which a different vote is required by express provision of law or our certificate of incorporation, as amended, or fourth amended and restated bylaws. Directors will be elected by a plurality of the votes of the shares present at a meeting. Holders of shares of common stock do not have cumulative voting rights with respect to the election of directors or any other matter.

Dividends

Holders of our common stock are entitled to receive dividends or other distributions when, as, and if declared by our board of directors. The right of our board of directors to declare dividends, however, is subject to any rights of the holders of other classes of our capital stock, any indebtedness outstanding from time to time, and the availability of sufficient funds under Delaware law to pay dividends.

Preemptive Rights

The holders of our common stock do not have preemptive rights to purchase or subscribe for any of our capital stock or other securities.

Redemption

The shares of our common stock are not subject to redemption by operation of a sinking fund or otherwise.

Liquidation Rights

In the event of any liquidation, dissolution, or winding up of our company, after the payment or provisions for payment of all debts and liabilities of the corporation and all preferential amounts to which the holders of our preferred stock are entitled with respect to the distribution of assets in liquidation, the holders of shares of our common stock are entitled to receive any of our assets available for distribution to our stockholders ratably in proportion to the number of shares held by them.

Options and Restricted Stock Units

From time to time, we have issued and expect to continue to issue options, performance-based restricted stock units (referred to as PRUs) and restricted stock units (referred to as RSUs) to various directors, employees, and officers of our company. As of September 30, 2013, we had (i) outstanding stock options to purchase 953,883 shares of our common stock, of which 928,883 shares of common stock were issuable upon exercise of vested stock options as of that date; (ii) 1,921,148 shares of common stock underlying outstanding PRUs and RSUs, of which 212,557 are vested but not yet released in connection with awards granted to non-employee directors; and (iii) 1,895,926 shares of common stock reserved for future grant or issuance under our 2006 Incentive Compensation Plan.

Listing

Our common stock is listed on the Nasdaq Global Select Market under the symbol "TTMI."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company. Its address is 6201 15th Avenue, Brooklyn, New York 11219, and its telephone number is (800) 937-5449.

DESCRIPTION OF PREFERRED STOCK

This section describes the general terms of our preferred stock to which any prospectus supplement may relate. A prospectus supplement will describe the terms relating to any preferred stock to be offered by us in greater detail and may provide information that is different from terms described in this prospectus. If the information in the prospectus supplement with respect to the particular preferred stock being offered differs from this prospectus, you should rely on the information in the prospectus supplement. A copy of our certificate of incorporation, as amended, has been incorporated by reference from our filings with the SEC as an exhibit to the registration statement. A certificate of designation or amendment to our certificate of incorporation, as amended, will specify the terms of the preferred stock being offered, and will be filed or incorporated by reference as an exhibit to the registration statement before the preferred stock is issued. The following description of our preferred stock, and any description of the preferred stock in a prospectus supplement, may not be complete and is subject to, and qualified in its entirety by reference to, Delaware law and the actual terms and provisions of Delaware Law and Our Charter and Bylaws," beginning on page 26, for more information.

As of September 30, 2013, under our certificate of incorporation, as amended, we had the authority to issue 15,000,000 shares of preferred stock, par value \$0.001 per share, which are issuable in series on terms to be determined by our board of directors. Accordingly, our board of directors is authorized, without action by the stockholders, to issue preferred stock from time to time with such dividend, liquidation, conversion, voting, and other rights and restrictions as it may determine. All shares of any one series of our preferred stock will be identical, except that shares of any one series issued at different times may differ as to the dates from which dividends may be cumulative. All series shall rank equally and shall provide for other terms as described in the applicable prospectus supplement. As of September 30, 2013, there were no outstanding shares of our preferred stock.

Terms of Preferred Stock to Be Offered

Unless provided in a prospectus supplement, the shares of our preferred stock to be issued will have no preemptive rights. Any prospectus supplement offering our preferred stock will furnish the following information with respect to the preferred stock offered by that prospectus supplement:

- the title and stated value of the preferred stock;
- the number of shares of preferred stock to be issued and the offering price of the preferred stock;
- any dividend rights;
- · any dividend rates, periods, or payment dates, or methods of calculation of dividends applicable to the preferred stock;
- the date from which distributions on the preferred stock shall accumulate, if applicable;
- the terms and conditions, if applicable, upon which the preferred stock will be convertible into our common stock, including the conversion price (or manner of calculation thereof);
- any right to convert the preferred stock into a different type of security;
- any voting rights attributable to the preferred stock;
- any rights and preferences upon our liquidation, dissolution or winding up of our affairs;
- any terms of redemption;
- · the procedures for any auction and remarketing, if any, for the preferred stock;
- the provisions for a sinking fund, if any, for the preferred stock;

- any listing of the preferred stock on any securities exchange;
- a discussion of federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to distribution rights (including whether any liquidation preference as to the preferred stock will be treated as a liability for purposes of determining the availability of assets for distributions to holders of stock ranking junior to the shares of preferred stock as to distribution rights);
- any limitations on issuance of any series of preferred stock ranking senior to or on a parity with the series of preferred stock being offered as to distribution rights and rights upon the liquidation, dissolution, or winding up or our affairs; and
- · any other specific terms, preferences, rights, limitations, or restrictions of the preferred stock.

Rank

Unless otherwise indicated in the applicable prospectus supplement, shares of our preferred stock will rank, with respect to payment of distributions and rights upon our liquidation, dissolution, or winding up, and allocation of our earnings and losses:

- senior to all classes or series of our common stock and to all of our equity securities ranking junior to the preferred stock;
- on a parity with all equity securities issued by us, the terms of which specifically provide that these equity securities rank on a parity with the preferred stock; and
- junior to all equity securities issued by us, the terms of which specifically provide that these equity securities rank senior to the preferred stock.

Distributions

Subject to any preferential rights of any outstanding stock or series of stock, our preferred stockholders are entitled to receive distributions when, as, and if declared by our board of directors, out of legally available funds and to share pro rata based on the number of preferred shares, common stock and other parity equity securities outstanding. The rates and dates of payment of dividends will be set forth in the prospectus supplement relating to the applicable series of preferred stock. Dividends will be payable to holders of record of preferred stock as they appear on our books or, if applicable, the records of the depositary referred to below on the record dates fixed by the board of directors. Dividends on a series of preferred stock may be cumulative or noncumulative.

We may not declare, pay, or set apart for payment dividends on the preferred stock unless full dividends on other series of preferred stock that rank on an equal or senior basis have been paid or sufficient funds have been set apart for payment for:

- · all prior dividend periods of other series of preferred stock that pay dividends on a cumulative basis; or
- the immediately preceding dividend period of other series of preferred stock that pay dividends on a noncumulative basis.

Partial dividends declared on shares of preferred stock and each other series of preferred stock ranking on an equal basis as to dividends will be declared pro rata. A pro rata declaration means that the ratio of dividends declared per share to accrued dividends per share will be the same for each series of preferred stock. Similarly, we may not declare, pay, or set apart for payment non-stock dividends or make other payments on the common stock or any other of our stock ranking junior to the preferred stock until full dividends on the preferred stock have been paid or set apart for payment for

- · all prior dividend periods if the preferred stock pays dividends on a cumulative basis; or
- the immediately preceding dividend period if the preferred stock pays dividends on a noncumulative basis.

Liquidation Preference

Upon the voluntary or involuntary liquidation, dissolution, or winding up of our affairs, then, before any distribution or payment shall be made to the holders of any common stock or any other class or series of stock ranking junior to the preferred stock in our distribution of assets upon any liquidation, dissolution, or winding up, the holders of each series of our preferred stock will be entitled to receive, after payment or provision for payment of our debts and other liabilities, out of our assets legally available for distribution to stockholders, liquidating distributions in the amount of the liquidation preference per share (set forth in the applicable prospectus supplement), plus an amount, if applicable, equal to all distributions accrued and unpaid thereon (which shall not include any accumulation in respect of unpaid distributions for prior distribution periods if the preferred stock does not have a cumulative distribution). Unless otherwise specified in the applicable prospectus supplement, after payment of the liquidating distributions to which they are entitled, the holders of preferred stock will have no right or claim to any of our remaining assets. In the event that, upon our voluntary or involuntary liquidation, dissolution, or winding up, the legally available assets are insufficient to pay the amount of the liquidating distributions on all of our outstanding preferred stock and the corresponding amounts payable on all of our preferred stock and all other such classes or series of equity securities will share ratably in the distribution of assets in proportion to the holders of our preferred stock and all other such classes or series of equity securities.

If the liquidating distributions are made in full to all holders of preferred stock, our remaining assets will be distributed among the holders of any other classes or series of equity securities ranking junior to the preferred stock upon our liquidation, dissolution, or winding up, according to their respective rights and preferences and in each case according to their respective number of shares of stock.

Conversion Rights

The terms and conditions, if any, upon which shares of any series of preferred stock are convertible into other securities will be set forth in the applicable prospectus supplement. These terms will include the amount and type of security into which the shares of preferred stock are convertible, the conversion price (or manner of calculation thereof), the conversion period, provisions as to whether conversion will be at the option of the holders of the preferred stock or us, the events requiring an adjustment of the conversion price, and provisions affecting conversion in the event of the redemption of that preferred stock.

Redemption

If so provided in the applicable prospectus supplement, our preferred stock will be subject to mandatory redemption or redemption at our option, in whole or in part, in each case upon the terms, at the times, and at the redemption prices set forth in such prospectus supplement. Unless we default in the payment of the redemption price, dividends will cease to accrue after the redemption date on shares of preferred stock called for redemption and all rights of holders of such shares will terminate, except for the right to receive the redemption price. No series of preferred stock will receive the benefit of a sinking fund except as set forth in the applicable prospectus supplement.

Registrar and Transfer Agent

The registrar and transfer agent for our preferred stock will be set forth in the applicable prospectus supplement.

If our board of directors decides to issue any preferred stock, it may discourage or make more difficult a merger, tender offer, business combination, or proxy contest, assumption of control by a holder of a large block of our securities, or the removal of incumbent management, even if these events were favorable to the interests of stockholders. Our board of directors, without stockholder approval, may issue preferred stock with voting and conversion rights and dividend and liquidation preferences that may adversely affect the holders of our other equity or debt securities.

DESCRIPTION OF DEBT SECURITIES

This section describes certain general terms and provisions of the debt securities we may offer under this prospectus and one or more prospectus supplements. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a prospectus supplement. The following description of debt securities will apply to the debt securities offered by this prospectus unless we provide otherwise in the applicable prospectus supplement. The applicable prospectus supplement for a particular series of debt securities may specify different or additional terms.

We may issue "senior," "senior subordinated," or "subordinated" debt securities. "Senior securities" will be direct obligations of ours and will rank equally and ratably in right of payment with other indebtedness of ours that is not subordinated. "Senior subordinated securities" will be subordinated in right of payment to the prior payment in full of senior indebtedness, as defined in the applicable prospectus supplement, and may rank equally and ratably with any other senior subordinated indebtedness. "Subordinated securities" will be subordinated in right of payment to senior subordinated securities.

We need not issue all debt securities of one series at the same time. Unless we provide otherwise, we may reopen a series, without the consent of the holders of such series, for issuances of additional securities of that series.

We will issue the senior debt securities and senior subordinated debt securities under a senior indenture, which we will enter into with the trustee to be named in the senior indenture. We use the term "indenture" or "indentures" to refer to both the senior indenture and the subordinated indenture. Each indenture will be subject to and governed by the Trust Indenture Act of 1939, as amended (referred to as the Trust Indenture Act), and we may supplement the indenture from time to time. Any trustee under any indenture may resign or be removed with respect to one or more series of debt securities, and we may appoint a successor trustee to act with respect to that series. We have filed a form of indenture between us as the issuer, and American Stock Transfer & Trust Company as the indenture trustee, as an exhibit to this registration statement, of which this prospectus forms a part. The terms of the senior indenture and subordinated debt securities to the senior subordinated debt securities. The following to the subordinated debt securities and the indenture are summaries only, are subject to change, and are qualified in their entirety to the detailed provisions of the indenture, any supplemental indenture, and the discussion contained in any prospectus supplements.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and detailed or determined in the manner provided in a board of directors' resolution, an officers' certificate or by a supplemental indenture. The particular terms of each series of debt securities will be described in a prospectus supplement relating to the series, including any pricing supplement. We may issue debt securities with terms different than those of debt securities that we previously issued.

We can issue an unlimited amount of debt securities under the indenture that may be in one or more series with the same or various maturities, at par, at a premium or at a discount. We will set forth in a prospectus supplement, including any pricing supplement relating to any series of debt securities being offered, the initial offering price, the aggregate principal amount and the following terms of the debt securities:

- the title of the debt securities of the series;
- the series designation and whether they are senior, senior subordinated, or subordinated debt securities;

- any limit upon the aggregate principal amount of debt securities of the series that may be authenticated and delivered under the indenture (except for debt securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other debt securities of the series pursuant to the indenture);
- the price or prices (expressed as a percentage of the aggregate principal amount) at which the debt securities will be sold and, if other than the principal amount of the debt securities, the portion of the principal amount of the debt securities payable upon the maturity of the debt securities;
- the date or dates on which the principal of the debt securities of the series is payable;
- the rate or rates that may be fixed or variable at which the debt securities of the series shall bear interest, if any, or the manner in which such rate or rates shall be
 determined, the date or dates from which such interest shall accrue, the interest payment dates on which such interest shall be payable, and the record dates for the
 determination of holders to whom interest is payable;
- the place or places where the principal of, premium, if any, and any interest, if any, on debt securities of the series shall be payable or the method of such payment, if by wire transfer, mail, or by other means, if other than as provided herein, and where the debt securities can be surrendered for transfer, exchange, or conversion;
- the price or prices at which (if any), the period or periods within which (if any), and the terms and conditions upon which debt securities of the series may be redeemed, in whole or in part, at our option or obligation;
- the obligation, if any, to redeem, purchase, or repay debt securities of the series, in whole or in part, pursuant to any sinking fund or analogous provisions or at the
 option of a holder and the price or prices at which and the period and periods within which and the terms and conditions upon which debt securities of the series
 shall be redeemed, purchased, or repaid pursuant to such obligation;
- the dates, if any, on which, and the price or prices at which, the debt securities of the series will be repurchased by us at the option of the holders and other detailed terms and provisions of such repurchase obligations;
- if convertible, the initial conversion price, the conversion period, and any other terms governing such conversion;
- if other than denominations of \$1,000 and any multiple thereof, the denominations in which debt securities of the series shall be issuable;
- if other than the principal amount thereof, the portion of the principal amount of debt securities of the series which shall be payable upon declaration of acceleration of maturity;
- any addition to, change in, or deletion from the covenants that applies to debt securities of the series;
- any addition to, changes in, or deletion from the events of default with respect to the debt securities of a particular series and any change in the right of the trustee or the requisite holders of such debt securities to declare the principal amount thereof due and payable;
- the trustee for the series of debt securities;
- the forms of the debt securities of the series in bearer or fully registered form (and, if in fully registered form, whether the debt securities will be issuable, in whole or in part, as global debt securities);
- whether the debt securities of the series shall be issued in whole or in part in the form of a global debt security or securities; the terms and conditions, if any, upon
 which such global debt security or securities may be exchanged in whole or in part for other individual debt securities, and the Depositary for such global debt
 security or securities;
- the provisions, if any, relating to any security provided for the debt securities of the series;

- any other terms of the series (which terms may modify, supplement, or delete any provision of the indenture with respect to such series; provided, however, that no
 such term may modify or delete any provision hereof if imposed by the Trust Indenture Act; and provided, further, that any modification or deletion of the rights,
 duties, or immunities of the trustee hereunder shall have been consented to in writing by the trustee);
- the terms and conditions, if any, upon which the debt securities of the series shall be exchanged for or converted into other securities or property or securities of another person;
- any depositories, interest rate calculation agents, exchange rate calculation agents, or other agents with respect to debt securities of such series if other than those
 appointed herein;
- · whether the debt securities rank as senior subordinated or subordinated or any combination thereof and the terms of any such subordination;
- the form and terms of any guarantee of any debt securities of the series;
- the terms and conditions of any defeasance provisions;
- the currency of denomination of the debt securities;
- · the designation of the currency, currencies, or currency units in which payment of principal of, premium, and interest on the debt securities will be made;
- whether the debt securities will be listed on any securities exchange or quotation system;
- if payments of principal of, premium, or interest on the debt securities will be made in one or more currencies or currency units other than that or those in which the debt securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;
- the manner in which the amounts of payment of principal of, premium, or interest on the debt securities will be determined, if these amounts may be determined by
 reference to an index based on a currency or currencies other than that in which the debt securities are denominated or designated to be payable or by reference to a
 commodity, commodity index, stock exchange index, or financial index;
- whether and under what circumstances, if any, additional amounts on any debt securities will be paid in respect of any tax, assessment, or governmental charge and, if so, whether we will have the option to redeem the debt securities instead of making the payment;
- the terms and conditions pertaining to transfer, sale, or other assignment of the debt securities; and
- if the debt securities are to be issued upon the exercise of debt warrants, the time, manner, and place for the debt securities to be authenticated and delivered.

We may issue debt securities that are exchangeable and/or convertible into shares of our common stock. The terms, if any, on which the debt securities may be exchanged for and/or converted will be set forth in the applicable prospectus supplement. Such terms may include provisions for conversion, either mandatory, at the option of the holder or at our option, in which case the number of shares of common stock or other securities to be received by the holders of debt securities would be calculated as of a time and in the manner stated in the prospectus supplement.

We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium and interest on any series of debt securities



is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

You should review carefully the applicable prospectus supplement for information with respect to events of default and any covenants applicable to the debt securities being offered.

Payments and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of, and interest and any additional amounts on, the debt securities of a particular series at the office of the paying agents designated by us, except that, unless we otherwise indicate in the applicable prospectus supplement, we may make interest payments by check, which we will mail to the holder. Unless we otherwise indicate in a prospectus supplement, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series.

Form, Transfer, and Exchange

Each debt security will be represented by either one or more global securities registered in the name of The Depository Trust Company, as Depositary, or a nominee of the Depositary (as a "book-entry debt security"), or a certificate issued in definitive registered form (as a "certificated debt security"), as described in the applicable prospectus supplement. Except as described under "Global Debt Securities and Book-Entry System" below, book-entry debt securities will not be issuable in certificated form.

Certificated Debt Securities

You may transfer or exchange certificated debt securities at the trustee's office in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may transfer certificated debt securities and the right to receive the principal of, premium and interest on certificated debt securities only by surrendering the old certificate representing those certificated debt securities and either we or the trustee will reissue the old certificate to the new holder or we or the trustee will issue a new certificate to the new holder.

Global Debt Securities and Book-Entry System

Each global debt security representing book-entry debt securities will be deposited with, or on behalf of, the Depositary, and registered in the name of the Depositary or a nominee of the Depositary.

The Depositary has indicated it intends to follow the following procedures with respect to book-entry debt securities.

Ownership of beneficial interests in book-entry debt securities will be limited to persons that have accounts with the Depositary for the related global debt security, whom we refer to as participants, or persons that may



hold interests through participants. Upon the issuance of a global debt security, the Depositary will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal amounts of the book-entry debt securities represented by the global debt security beneficially owned by such participants. The accounts to be credited will be designated by any dealers, underwriters or agents participating in the distribution of the book-entry debt securities. Ownership of book-entry debt securities will be shown on, and the transfer of the ownership interests will be effected only through, records maintained by the Depositary for the related global debt security (with respect to interests of participants) and on the records of participants (with respect to interests of persons holding through participants). The laws of some states may require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to own, transfer or pledge beneficial interests in book-entry debt securities.

So long as the Depositary for a global debt security, or its nominee, is the registered owner of that global debt security, the Depositary or its nominee, as the case may be, will be considered the sole owner or holder of the book-entry debt securities represented by such global debt security for all purposes under the indenture. Except as described herein or in any applicable prospectus supplement, beneficial owners of book-entry debt securities will not be entitled to have securities registered in their names, will not receive or be entitled to receive physical delivery of a certificate in definitive form representing securities and will not be considered the owners or holders of those securities under the indenture. Accordingly, to exercise any rights of a holder under the indenture, each person beneficially owning book-entry debt securities must rely on the procedures of the Depositary for the related global debt security and, if that person is not a participant, on the procedures of the participant through which that person owns its interest.

We understand, however, that under existing industry practice, the Depositary will authorize the persons on whose behalf it holds a global debt security to exercise certain rights of holders of debt securities, and the indenture provides that we, the trustee and our respective agents will treat as the holder of a debt security the persons specified in a written statement of the Depositary with respect to that global debt security for purposes of obtaining any consents or directions required to be given by holders of the debt securities pursuant to the indenture.

We will make payments of principal of, and premium and interest on, book-entry debt securities to the Depositary or its nominee, as the case may be, as the registered holder of the related global debt security. We, the trustee and any other agent of ours or agent of the trustee will not have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in a global debt security or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

We expect that the Depositary, upon receipt of any payment of principal of, premium or interest on a global debt security, will immediately credit participants' accounts with payments in amounts proportionate to the respective amounts of book-entry debt securities held by each participant as shown on the records of the Depositary. We also expect that payments by participants to owners of beneficial interests in book-entry debt securities held through those participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of those participants.

We will issue certificated debt securities in exchange for each global debt security if the Depositary is at any time unwilling or unable to continue as Depositary or ceases to be a clearing agency registered under the Exchange Act, and a successor Depositary registered as a clearing agency under the Exchange Act is not appointed by us within 90 days. In addition, we may at any time and in our sole discretion determine not to have any of the book-entry debt securities of any series represented by one or more global debt securities and, in that event, we will issue certificated debt securities in exchange for the global debt securities of that series. Global debt securities will also be exchangeable by the holders for certificated debt securities if an event of default with respect to the book-entry debt securities represented by those global debt securities has occurred and is continuing.

Any certificated debt securities issued in exchange for a global debt security will be registered in such name or names as the Depositary shall instruct the trustee. We expect that such instructions will be based upon directions received by the Depositary from participants with respect to ownership of book-entry debt securities relating to such global debt security.

For additional discussion of book-entry and certificated securities, see the section entitled "Legal Ownership of Securities" included in this prospectus. We have obtained the foregoing information in this section concerning the Depositary's book-entry system from sources we believe to be reliable. We take no responsibility for the Depositary's performance of its obligations under the rules and regulations governing its operations.

Covenants

Unless we provide otherwise in the applicable prospectus supplement, the debt securities will not contain any restrictive covenants, including covenants restricting us or any of our subsidiaries from incurring, issuing, assuming or guaranteeing any indebtedness secured by a lien on any of our or our subsidiaries' property or capital stock, restricting us or any of our subsidiaries from entering into any sale and leaseback transactions or restricting us or our subsidiaries from repurchasing outstanding capital stock.

Merger, Consolidation, and Sale of Assets

Unless we provide otherwise in the applicable prospectus supplement, we may not consolidate with or merge into, or convey, transfer or lease all or substantially all of our properties and assets to, any person (a "successor person"), unless:

- either we are the surviving person or the successor person is a corporation, partnership, trust or other entity organized and validly existing under the laws of any United States domestic jurisdiction;
- the surviving person expressly assumes our obligations on the debt securities and under the indenture;
- immediately after giving effect to the transaction, no event of default, and no event that, after notice or lapse of time, or both, would become an event of default, shall have occurred and be continuing under the indenture; and
- certain other conditions are met.

Events of Default under the Indenture

Unless we provide otherwise in the applicable prospectus supplement, an "event of default" means, with respect to any series of debt securities, any of the following:

- default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of that default for a period of 30 days (unless the entire amount of such payment is deposited by us with the trustee or with a paying agent before the expiration of the 30-day period);
- default in the payment of principal of or premium on any debt security of that series when due and payable;
- · default in the deposit of any sinking fund payment, when and as due in respect of any debt security of that series;
- default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the
 indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 60 days after we receive written
 notice from the trustee or we and the trustee receive written notice from the holders of not less than a majority in principal amount of the outstanding debt securities
 of that series as provided in the indenture;

- · certain events of our bankruptcy, insolvency or reorganization; and
- any other event of default provided with respect to debt securities of that series that is described in the applicable prospectus supplement accompanying this prospectus.

No event of default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an event of default with respect to any other series of debt securities. An event of default may also be an event of default under our bank credit agreements or other debt securities in existence from time to time and under certain guaranties by us of any subsidiary indebtedness. In addition, certain events of default or an acceleration under the indenture may also be an event of default under some of our other indebtedness outstanding from time to time.

Unless we provide otherwise in the applicable prospectus supplement, if an event of default with respect to debt securities of any series at the time outstanding occurs and is continuing (other than certain events of our bankruptcy, insolvency or reorganization), then the trustee or the holders of not less than a majority in principal amount of the outstanding debt securities of that series may, by written notice to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) of and accrued and unpaid interest, if any, of all debt securities of and accrued and unpaid interest, if any, of all outstanding debt securities will become and be immediately due and payable without any declaration or other act by the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before the trustee has obtained a judgment or decree for payment of the money due, the holders of a majority in principal amount of the outstanding debt securities of that series and principal which has become due other than by acceleration and certain other conditions, rescind and annul such acceleration if the rescission would not conflict with any judgment or decree and if all events of default, other than the non-payment of defaults, see the discussion under the heading "Modification of Indenture and Waiver" below. We refer you to the prospectus supplement relating to any series of debt securities default and the continuation of an event of default.

The indenture also provides that the holders of not less than a majority in principal amount of the outstanding debt securities of any series may waive any past default with respect to that series and its consequences, except a default involving the following:

- · our failure to pay the principal of, and interest and any additional amounts on, any debt security; or
- a covenant or provision contained in the indenture that cannot be modified or amended without the consent of the holders of each outstanding debt security affected by the default.

The trustee is generally required to give notice to the holders of debt securities of each affected series within 90 days of a default actually known to the trustee unless the default has been cured or waived. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any default or event of default (except in payment on any debt securities of that series) with respect to debt securities of that series if it in good faith determines that withholding notice is in the interest of the holders of those debt securities.

Unless we provide otherwise in the applicable prospectus supplement, the indenture will provide that the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any holder of outstanding debt securities, unless the trustee receives indemnity satisfactory to it against any loss, liability or expense. Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series shall have the right to direct the time, method and place of conducting

any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series. The trustee may, however, refuse to follow any request that conflicts with the indenture or any law or which may be unduly prejudicial to the holders of the debt securities of the applicable series not joining in the request, or that may involve the trustee in personal liability.

Unless we provide otherwise in the applicable prospectus supplement, no holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

- that holder has previously given to the trustee written notice of a continuing event of default with respect to debt securities of that series; and
- the holders of at least 25% in principal amount of the outstanding debt securities of that series have made written request, and offered reasonable indemnity, to the trustee to institute such proceeding as trustee, and the trustee shall not have received from the holders of a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding the foregoing, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, premium and any interest on that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

The indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a certificate as to compliance with the indenture. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any default or event of default (except in payment on any debt securities of that series) with respect to debt securities of that series if it in good faith determines that withholding notice is in the interest of the holders of those debt securities.

Modification of Indenture and Waiver

Unless we provide otherwise in the applicable prospectus supplement, we and the trustee may modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We and the trustee may not make any modification or amendment without the consent of the holder of each affected debt security then outstanding if that amendment will:

- · reduce the percentage of the principal amount of debt securities whose holders must consent to an amendment or waiver;
- reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous provision;
- reduce the rate of, or change the time for payment of interest on, any debt security;
- reduce the principal of or change the fixed maturity of any debt security or waive a redemption payment or alter the redemption provisions with respect thereto;
- make any debt security payable in money other than that stated in the debt security (including defaulted interest);
- reduce the principal amount of original issue discount securities payable upon acceleration of the maturity thereof;
- make any change to certain provisions of the indenture relating to, among other things, the right of holders of debt securities to receive payment of the principal of, premium and interest on those debt securities, the right of holders to institute suit for the enforcement of any payment or the right of holders to waive past defaults; or

waive a default in the payment of the principal of, or interest on, any debt security, except to the extent otherwise provided for upon acceleration of maturity.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may, on behalf of the holders of all debt securities of that series, waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may, on behalf of the holders of all the debt securities of that series, waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or any interest on any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration.

We and the trustee may modify or amend an indenture, without the consent of any holder of debt securities, for any of the following purposes:

- to cure any ambiguity, defect, or inconsistency;
- to comply with the provisions regarding successors to us upon any consolidation or merger, or sale, assignment or other disposition of all or substantially all our properties or assets;
- to comply with any requirements of the SEC in connection with the qualification of the indenture under the Trust Indenture Act;
- to add or change any provisions of the indenture to facilitate the issuance of, or to liberalize the terms of, the debt securities issued in bearer form, or to permit or
 facilitate the issuance of debt securities in uncertificated form, provided that this action will not adversely affect the interests of the holders of the debt securities of
 any series in any material respect;
- to add to, change or eliminate any of the provisions of the indenture in respect of one or more series of debt securities, provided, however, that any such addition, change, or elimination (A) shall neither (i) apply to any debt security of any series created prior to the execution of such supplemental indenture and entitled to the benefit of such provision nor (ii) modify the rights of the holder of any such debt security with respect to such provision or (B) shall become effective only when there is no outstanding debt security of any series created prior to the execution of such supplemental indenture and entitled to the benefit of such provision;
- to add to existing covenants additional covenants for the benefit of the holders of all or any series of debt securities, to surrender any right or power conferred upon us in the indenture, or to add events of default for the benefit of holders of all or any series of debt securities;
- · to secure previously unsecured debt securities;
- to establish additional series of debt securities as permitted under the indenture;
- to establish the form or terms of debt securities of any series, including the provisions and procedures, if applicable, for the conversion or exchange of the debt securities into other securities or property;
- to evidence and provide for the acceptance or appointment of a successor trustee or facilitate the administration of the trusts under the indenture by more than one trustee;
- to make any provision with respect to the conversion or exchange of rights of holders pursuant to the requirements of the indenture;
- to close the indenture with respect to the authentication and delivery of additional series of debt securities or to qualify, or maintain qualification of, the indenture
 under the Trust Indenture Act; or
- to supplement any of the provisions of the indenture to the extent necessary to permit or facilitate defeasance and discharge of any series of debt securities, provided
 that the action shall not adversely affect the interests of the holders of debt securities of any series in any material respect.

A vote by holders of debt securities will not be required for clarifications and certain other changes that would not adversely affect holders of the debt securities.

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

Legal Defeasance

Unless the terms of the applicable series of debt securities provide otherwise, we may be discharged from any and all obligations in respect of the debt securities of any series. We will be so discharged upon the deposit with the trustee, in trust, of money and/or United States government obligations or, in the case of debt securities denominated in a single currency other than United States dollars, foreign government obligations (as described at the end of this section) that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants to pay and discharge each installment of principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of such payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, we have delivered to the trustee an opinion of counsel stating that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that holders of the debt securities of such series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amount and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred.

Defeasance of Certain Covenants

Unless the terms of the applicable series of debt securities provide otherwise, upon compliance with certain conditions we may omit to comply with the restrictive covenants contained in the indenture, as well as any additional covenants contained in the applicable prospectus supplement.

The conditions include:

- depositing with the trustee money and/or United States government obligations or, in the case of debt securities denominated in a single currency other than United States dollars, foreign government obligations, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants to pay principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities; and
- delivering to the trustee an opinion of counsel to the effect that the holders of the debt securities of that series will not recognize income, gain or loss for United
 States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax in the same
 amount and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

Covenant Defeasance and Events of Default

If we exercise our option, as described above, not to comply with certain covenants of the indenture with respect to any series of debt securities, and the debt securities of that series are declared due and payable because of the occurrence of any event of default, the amount of money and/or United States government obligations or foreign government obligations on deposit with the trustee will be sufficient to pay amounts due on the debt

securities of that series at the time of their stated maturity but may not be sufficient to pay amounts due on the debt securities of that series at the time of the acceleration resulting from the event of default. However, we will remain liable for those payments.

"Foreign government obligations" means, with respect to debt securities of any series that are denominated in a currency other than United States dollars:

- direct obligations of the government that issued or caused to be issued such currency for the payment of which obligations its full faith and credit is pledged, which are not callable or redeemable at the option of the issuer thereof; or
- obligations of a person controlled or supervised by or acting as an agency or instrumentality of that government, the timely payment of which is unconditionally
 guaranteed as a full faith and credit obligation by that government, which are not callable or redeemable at the option of the issuer thereof.

Guarantees

Our payment obligations under any series of debt securities may be guaranteed by us or one or more of our subsidiaries. The terms of any such guarantee will be set forth in the applicable prospectus supplement.

Subordination

We will set forth in the applicable prospectus supplement the terms and conditions, if any, upon which any series of senior subordinated securities or subordinated securities is subordinated to debt securities of another series or to other indebtedness of ours. The terms will include a description of the following:

- the indebtedness ranking senior to the debt securities being offered;
- any restrictions on payments to the holders of the debt securities being offered while a default with respect to the senior indebtedness is continuing;
- · any restrictions on payments to the holders of the debt securities being offered following an event of default; and
- provisions requiring holders of the debt securities being offered to remit some payments to holders of senior indebtedness.

Conversion and Exchange Rights

The terms on which debt securities of any series may be convertible into or exchangeable for our common stock, preferred stock or other securities or property of our company will be described in the applicable prospectus supplement. These terms will include the following:

- the conversion or exchange price, or the manner of calculating the price;
- the exchange or conversion period;
- whether the conversion or exchange is mandatory, or voluntary at the option of the holder, or at our option;
- · any restrictions on conversion or exchange in the event of redemption of the debt securities and any restrictions on conversion or exchange; and
- the means of calculating the number of shares of our common stock, preferred stock, or other securities or property of our company to be received by the holders of debt securities.

The conversion or exchange price of any debt securities of any series that are convertible into our common stock or preferred stock will be adjusted for any stock dividends, stock splits, reclassification, combinations, or similar transactions, as set forth in the applicable prospectus supplement.



Redemption of Debt Securities

The debt securities may be subject to optional or mandatory redemption on terms and conditions described in the applicable prospectus supplement. Subject to such terms, we may opt at any time to partially or entirely redeem the debt securities.

If less than all the debt securities of any series are to be redeemed or purchased in an offer to purchase at any time, the trustee will select the debt securities of that series to be redeemed or purchased as follows: (1) if the securities of such series are listed on any national securities exchange, in compliance with the requirements of the principal national securities exchange on which the debt securities of that series are listed, or (2) if the debt securities of that series are not listed on a national securities exchange, on a pro rata basis, by lot, or by such other method as the trustee deems fair and appropriate.

Except as otherwise provided as to any particular series of debt securities, at least 30 days but not more than 60 days before a redemption date, we will mail a notice of redemption to each holder whose debt securities are to be redeemed. From and after notice has been given as provided in the applicable indenture, if funds for the redemption of any debt securities called for redemption shall have been made available on the redemption date, the debt securities will cease to bear interest on the date fixed for the redemption specified in the notice, and the only right of the holders of the debt securities will be to receive payment of the redemption price.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the state of New York, except to the extent that the Trust Indenture Act is applicable.

General

We may issue warrants to purchase common stock (which we refer to as common stock warrants), preferred stock (which we refer to as preferred stock warrants) or debt securities (which we refer to as debt security warrants). Any of these warrants may be issued independently or together with any other securities offered by this prospectus and may be attached to or separate from those securities.

While the terms we have summarized below will generally apply to any future warrants we may offer under this prospectus, we will describe the particular terms of any warrants that we may offer in more detail in the applicable prospectus supplement. The terms of any warrants we offer under a prospectus supplement may differ from the terms we describe below.

We may issue the warrants under a warrant agreement, which we will enter into with a warrant agent to be selected by us. We use the term "warrant agreement" to refer to any of these warrant agreements. We use the term "warrant agent" to refer to the warrant agent under any of these warrant agreements. The warrant agent will act solely as an agent of ours in connection with the warrants and will not act as an agent for the holders or beneficial owners of the warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

We will incorporate by reference into the registration statement of which this prospectus is a part the form of warrant agreement, including a form of warrant certificate, which describes the terms of the series of warrants we are offering before the issuance of the related series of warrants. The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement applicable to a particular series of warrants. We urge you to read the applicable prospectus supplements related to the warrants that we sell under this prospectus, as well as the complete warrant agreements that contain the terms of the warrants.

Other Warrants

We will describe the terms of any common stock warrants, preferred stock warrants or debt security warrants in the applicable prospectus supplement. Those terms will include, to the extent applicable:

- the title of the warrants;
- the offering price and the aggregate number of warrants offered;
- the designation, number and terms of the securities purchasable upon exercise of the warrants;
- · the designation and terms of the other securities, if any, with which the warrants are issued and the number of warrants issued with each such security;
- the date on and after which the holder of the warrants can transfer them separately from the related common stock or series of preferred stock;
- the price at which each underlying security may be purchased upon exercise, including, if applicable, any provisions for changes to or adjustments in the exercise
 price and in the securities or other property receivable upon exercise;
- · the terms of any rights to redeem or call, or accelerate the expiration of, the warrants;
- the date on which the right to exercise the warrants begins and the date on which that right expires;
- United States federal income tax consequences of holding or exercising the warrants; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the warrants.

Unless specified in the applicable prospectus supplement, common stock warrants, preferred stock warrants or debt security warrants will be in registered form only.

A holder of warrant certificates may exchange them for new certificates of different denominations, present them for registration of transfer and exercise them at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement. Until any warrants to purchase common stock, preferred stock or debt securities are exercised, holders of the warrants will not have any rights of holders of the underlying common stock, preferred stock or debt securities, including any rights to receive dividends or to exercise any voting rights, except to the extent set forth under the heading "Warrant Adjustments" below.

Exercise of Warrants

Each warrant will entitle the holder to purchase for cash shares of common stock, preferred stock or debt securities at the applicable exercise price set forth in, or determined as described in, the applicable prospectus supplement. Warrants may be exercised at any time up to the close of business on the expiration date set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Warrants may be exercised by delivering to the corporation trust office of the warrant agent or any other officer indicated in the applicable prospectus supplement (a) the warrant certificate properly completed and duly executed and (b) payment of the amount due upon exercise. As soon as practicable following exercise, we will forward the debt securities, shares of common stock or preferred stock purchasable. If less than all of the warrants represented by a warrant certificate are exercised, a new warrant certificate will be issued for the remaining warrants.

Amendments and Supplements to the Warrant Agreements

We may amend or supplement a warrant agreement without the consent of the holders of the applicable warrants to cure ambiguities in the warrant agreement, to cure or correct a defective provision in the warrant agreement, or to provide for other matters under the warrant agreement that we and the warrant agent deem necessary or desirable, so long as, in each case, such amendments or supplements do not materially adversely affect the interests of the holders of the warrants.

Warrant Adjustments

Unless the applicable prospectus supplement states otherwise, the exercise price of, and the number of securities covered by, a common stock warrant, preferred stock warrant or debt security warrant will be adjusted proportionately if we subdivide or combine our common stock or preferred stock, as applicable. In addition, unless the prospectus supplement states otherwise, if we, without payment:

- issue capital stock or other securities convertible into or exchangeable for common stock or preferred stock, or any rights to subscribe for, purchase or otherwise
 acquire any of the foregoing, as a dividend or distribution to holders of our common stock or preferred stock;
- pay any cash to holders of our common stock or preferred stock other than a cash dividend paid out of our current or retained earnings or other than in accordance with the terms of the preferred stock;
- · issue any evidence of our indebtedness or rights to subscribe for or purchase our indebtedness to holders of our common stock or preferred stock; or
- issue common stock or preferred stock or additional stock or other securities or property to holders of our common stock or preferred stock by way of spinoff, splitup, reclassification, combination of shares or similar corporate rearrangement,

then the holders of common stock warrants, preferred stock warrants and debt security warrants, as applicable, will be entitled to receive upon exercise of the warrants, in addition to the securities otherwise receivable upon exercise of the warrants and without paying any additional consideration, the amount of stock and other securities and property such holders would have been entitled to receive had they held the common stock, preferred stock or debt securities, as applicable, issuable under the warrants on the dates on which holders of those securities received or became entitled to receive such additional stock and other securities and property.

Except as stated above, the exercise price and number of securities covered by a common stock warrant, preferred stock warrant and debt security warrant, and the amounts of other securities or property to be received, if any, upon exercise of those warrants, will not be adjusted or provided for if we issue those securities or any securities convertible into or exchangeable for those securities, or securities carrying the right to purchase those securities or securities convertible into or exchangeable for those securities.

Holders of common stock warrants, preferred stock warrants and debt security warrants may have additional rights under the following circumstances:

- · certain reclassifications, capital reorganizations or changes of the common stock or preferred stock, as applicable;
- · certain share exchanges, mergers, or similar transactions involving us and which result in changes of the common stock or preferred stock, as applicable; or
- · certain sales or dispositions to another entity of all or substantially all of our property and assets.

If one of the above transactions occurs and holders of our common stock, preferred stock or debt securities are entitled to receive stock, securities or other property with respect to or in exchange for their securities, the holders of the common stock warrants, preferred stock warrants and debt security warrants then outstanding, as applicable, will be entitled to receive upon exercise of their warrants the kind and amount of shares of stock and other securities or property that they would have received upon the applicable transaction if they had exercised their warrants immediately before the transaction.

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DESCRIPTION OF UNITS

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes the material terms and provisions of the units that we may offer under this prospectus. Units may be offered independently or together with common stock, preferred stock, debt securities, and warrants offered by any prospectus supplement, and may be attached to or separate from those securities. While the terms we have summarized below will generally apply to any future units that we may offer under this prospectus, we will describe the particular terms of any series of units that we may offer in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below.

We will incorporate by reference into the registration statement of which this prospectus is a part the form of unit agreement, including a form of unit certificate, if any, which describes the terms of the series of units we are offering before the issuance of the related series of units. The following summaries of material provisions of the units and the unit agreements are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the units that we sell under this prospectus, as well as the complete unit agreements that contain the terms of the units.

General

We may issue units consisting of common stock, preferred stock, debt securities, and/or warrants in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time, or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including the following:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer, or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under "Description of Common Stock," "Description of Preferred Stock," "Description of Debt Securities," and "Description of Warrants," will apply to each unit and to any common stock, preferred stock, debt security, or warrant included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in such numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

Title

We, the unit agent, and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purposes and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary.

CERTAIN PROVISIONS OF DELAWARE LAW AND OUR CHARTER AND BYLAWS

The following paragraphs summarize certain provisions of Delaware law and our certificate of incorporation, as amended, and fourth amended and restated bylaws. The summary does not purport to be complete and is subject to and qualified in its entirety by reference to Delaware law and to our certificate of incorporation, as amended, and fourth amended and restated bylaws, copies of which are on file with the SEC as exhibits to reports previously filed by us. See "Where You Can Find More Information."

Anti-Takeover Effects

General

Our certificate of incorporation, as amended, our fourth amended and restated bylaws, and the Delaware General Corporation Law contain certain provisions that could delay or make more difficult an acquisition of control of our company not approved by our board of directors, whether by means of a tender offer, open market purchases, a proxy contest, or otherwise. These provisions have been implemented to enable us to develop our business in a manner that will foster our long-term growth without disruption caused by the threat of a takeover not deemed by our board of directors to be in the best interests of our company and our stockholders. These provisions could have the effect of discouraging third parties from making proposals involving an acquisition or change of control of our company even if such a proposal, if made, might be considered desirable by a majority of our stockholders. These provisions may also have the effect of making it more difficult for third parties to cause the replacement of our current management without the concurrence of our board of directors.

There is set forth below a description of the provisions contained in our certificate of incorporation, as amended, and fourth amended and restated bylaws and the Delaware General Corporation Law that could impede or delay an acquisition of control of our company that our board of directors has not approved. This description is intended as a summary only and is qualified in its entirety by reference to our certificate of incorporation, as amended, and fourth amended and restated bylaws, as well as the Delaware General Corporation Law.

Authorized but Unissued Preferred Stock

Our certificate of incorporation, as amended, authorizes our board of directors to issue one or more series of preferred stock and to determine, with respect to any series of preferred stock, the terms and rights of such series.

We believe that the ability to issue additional preferred stock will provide us with increased flexibility in structuring possible future financings and acquisitions and in meeting other corporate needs that may arise. Having such authorized shares available for issuance will allow us to issue shares of preferred stock without the expense and delay of a special stockholders' meeting. The authorized shares of preferred stock, as well as our common stock, will be available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of the Nasdaq Global Select Market or other organizations on which our securities are then listed or quoted. Our board of directors has the power, subject to applicable law, to issue additional series of preferred stock that could, depending on the terms of such series, impede the completion of a merger, tender offer, or other takeover attempt. For instance, subject to applicable law, such series of preferred stock might impede a business combination by including class voting rights that would enable the holder to block such a transaction.

Number of Directors; Removal; Filling Vacancies

Our certificate of incorporation, as amended, and fourth amended and restated bylaws provide that the number of directors shall be fixed only by resolution of our board of directors from time to time. Our fourth amended and restated bylaws provide that directors may be removed by stockholders at a special meeting called expressly for that purpose only both for cause and by the affirmative vote of at least a majority of the shares



entitled to vote, provided that such removal shall become effective only in accordance with Section 2.4(b) of our fourth amended and restated bylaws. Our certificate of incorporation, as amended, provides that vacancies on the board of directors are filled by a majority vote of the remaining directors.

Classified board of directors

Our certificate of incorporation, as amended, provides for our board of directors to be divided into three classes, as nearly equal in number as possible, serving staggered terms. Approximately one-third of our board of directors will be elected each year. The provision for a classified board could prevent a party who acquires control of a majority of our outstanding common stock from obtaining control of the board of directors until our second annual stockholder meeting following the date the acquirer obtains the controlling share interest. The classified board of directors provision could have the effect of discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of us and could increase the likelihood that incumbent directors will retain their positions.

Stockholder action

Our certificate of incorporation, as amended, provides that stockholder action may be taken at an annual or special meeting of stockholders and by written consent in lieu of a meeting. Our certificate of incorporation, as amended, and fourth amended and restated bylaws further provide that special meetings of stockholders may be called only by the chairman of the board of directors, our chief executive officer, a majority of the board of directors, or our secretary. Stockholders are not permitted to call a special meeting, but stockholders holding at least a majority of all shares entitled to vote on the issue or issued proposed to be considered at a special meeting, may demand such special meeting by delivering a written demand for such special meeting to the secretary of the corporation which contains the information with regard to the issues or issues proposed as is required by the fourth amended and restated bylaws.

The provisions of our certificate of incorporation, as amended, and fourth amended and restated bylaws limiting stockholders from calling a special meeting may have the effect of delaying consideration of a stockholder proposal until the next annual meeting. Moreover, a stockholder may not be able to force stockholder consideration of a proposal over the opposition of the board of directors by calling a special meeting of stockholders prior to the time a majority of the whole board, our chairman, or our chief executive officer believes such consideration to be appropriate.

Advance notice for stockholder proposals and director nominations

Our fourth amended and restated bylaws establish an advance notice procedure for stockholder proposals to be brought before any annual or special meeting of stockholders and for nominations by stockholders of candidates for election as directors at an annual meeting or a special meeting at which directors are to be elected. Subject to any other applicable requirements, including, without limitation, Rule 14a-8 under the Exchange Act, only such business may be conducted at a meeting of stockholders as has been brought before the meeting by, or at the direction of, our board of directors, or by a stockholder who has given our secretary timely written notice, in proper form, of the stockholder's intention to bring that business before the meeting. The presiding officer at such meeting has the authority to make such determinations. Only persons who are nominated by, or at the direction of, our board of directors, or who are nominated by a stockholder that has given timely written notice, in proper form, to our secretary prior to a meeting at which directors are to be elected, will be eligible for election as directors.

To be timely, notice of nominations or other business to be brought before any meeting must be delivered to our secretary not less than 90 days nor more than 120 days prior to the anniversary date of the annual meeting for the preceding year.

A stockholder's notice must provide (a) as to each person whom the stockholder proposes to nominate for election or re-election as a director, all information that is required by applicable law to be disclosed with regard to someone seeking election or re-election as a director of a corporation, and (b) as to any other business that the stockholder proposes to bring before the annual meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting, any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made, and all other information that is stockholder giving notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on our books, and of such beneficial owner, and (ii) the class and number of shares of our stock that are owned beneficially and of record by such stockholder and such beneficial owner.

Amendments to certificate of incorporation and bylaws

Certain provisions of our certificate of incorporation, as amended, and fourth amended and restated bylaws, such as staggered director terms, may be amended only by the holders of at least 80% of the shares entitled to vote at an annual or special meeting of stockholders.

Delaware business combination statute

Section 203 of the Delaware General Corporation Law applies to our company. Section 203 provides that, subject to certain exceptions, a corporation shall not engage in any "business combination" with any "interested stockholder" for a three-year period following the time that such stockholder becomes an interested stockholder unless the following conditions have been satisfied:

- prior to such time, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced (excluding certain shares); or
- on or subsequent to such time, the business combination is approved by the board of directors of the corporation and by the affirmative vote of at least 66/3% of the outstanding voting stock at an annual or special meeting that is not owned by the interested stockholder.

Section 203 generally defines an "interested stockholder" to include the following:

- any person that is the owner of 15% or more of the outstanding voting stock of the corporation, or is an affiliate or associate of the corporation and was the owner of 15% of more of the outstanding voting stock of the corporation at any time within three years immediately prior to the relevant date; and
- the affiliates and associates of any such person.

Section 203 generally defines a "business combination" to include the following:

- mergers and sales or other dispositions of 10% or more of the assets of the corporation with or to an interested stockholder;
- · certain transactions resulting in the issuance or transfer to the interested stockholder of any stock of the corporation or its subsidiaries;
- certain transactions that would result in increasing the proportionate share of the stock of the corporation or its subsidiaries owned by the interested stockholders; and
- receipt by the interested stockholder of the benefit, except proportionately as a stockholder, of any loans, advances, guarantees, pledges, or other financial benefits.

Under certain circumstances, Section 203 makes it more difficult for a person that would be an "interested stockholder" to effect various business combinations with a corporation for a three-year period, although a company's certificate of incorporation or stockholder-adopted bylaws may exempt a corporation from the restrictions imposed by Section 203. Neither our certificate of incorporation, as amended, nor our fourth amended and restated bylaws exempt our company from the restrictions imposed by Section 203. It is anticipated that the provisions of Section 203 may encourage companies interested in acquiring our company to negotiate in advance with our board of directors since the stockholder approval requirement would be avoided if the board of directors approves, prior to the time the acquirer becomes an interested stockholder, either the business combination or the transaction that results in the acquirer becoming an interested stockholder.

Liability and Indemnification of Officers and Directors

Limitation on liability of directors

Our certificate of incorporation, as amended, and fourth amended and restated bylaws eliminate the personal liability of our directors to our company and its stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent such exemption or limitation of liability is not permitted under the Delaware General Corporation Law as currently in effect or as it may be amended after the date of this offering memorandum. In addition, our certificate of incorporation, as amended, provides that any future repeal or amendment of its terms will not adversely affect any rights of directors existing under the certificate of incorporation, as amended, with respect to acts or omissions occurring prior to such repeal or amendment. We have also entered into indemnification agreements with our directors and executive officers.

Under Delaware law as in effect on the date of this offering memorandum, our directors remain liable for the following:

- any breach of their duty of loyalty to our company and its stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- · any transaction from which a director derives an improper personal benefit; and
- any unlawful distributions, under a provision of the Delaware General Corporation Law that makes directors personally liable and that expressly sets forth a negligence standard with respect to such liability.

The provisions in our certificate of incorporation, as amended, and fourth amended and restated bylaws that eliminate liability as described above will apply to our officers if they are also directors of our company and are acting in their capacity as directors and will not apply to our officers who are not directors or who are not acting in their capacity as directors.

Indemnification

The Delaware General Corporation Law contains provisions permitting and, in some situations, requiring Delaware corporations to provide indemnification to their officers and directors for losses and litigation expenses incurred in connection with their service to the corporation in those capacities. In addition, we have adopted provisions in our certificate of incorporation, as amended, and fourth amended and restated bylaws and entered into indemnification agreements that require us to indemnify the directors, executive officers, and certain other representatives of our company against expenses and certain other liabilities arising out of their conduct on behalf of our company to the maximum extent and under all circumstances permitted by law. Indemnification includes advancement of reasonable expenses in certain circumstances.

The Delaware General Corporation Law permits indemnification of a director of a Delaware corporation, in the case of a third-party action, if the director

- conducted himself or herself in good faith; and
- reasonably believed that;

- · his or her conduct was in, or not opposed to, the corporation's best interests, or
- in the case of any criminal proceeding, had no reasonable cause to believe that his or her conduct was unlawful.

The Delaware General Corporation Law further provides for mandatory indemnification of directors and officers who are wholly successful on the merits or otherwise in litigation. The Delaware General Corporation Law limits the indemnification that a corporation may provide to its directors in a derivative action in which the director is held liable to the corporation, or in any proceeding in which the director is held liable on the basis of his or her improper receipt of a personal benefit.

Indemnification for Securities Act Liabilities

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee, depositary, or warrant agent maintain for this purpose as the "holders" of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names as "indirect holders" of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

See also the section entitled "Description of Debt Securities — Form, Transfer, and Exchange" above for additional discussion of book entry and certificated form of ownership as such forms of ownership impact the rights and obligations of purchasers of debt securities to be issued under this prospectus.

Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary's book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers. Upon the issuance of a global security, the depositary will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal amounts of the book-entry securities represented by the global security beneficially owned by such participants. The accounts to be credited will be designated by any dealers, underwriters, or agents participating in the distribution of the book-entry securities. Ownership of book-entry securities will be shown on, and the transfer of the ownership interests will be effected only through, records maintained by the depositary for the related global security (with respect to interests of participants) and on the records of participants (with respect to interests of persons holding through participants). The laws of some states may require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to own, transfer, or pledge beneficial interests in book-entry securities.

Only the person in whose name a security is registered is recognized as the holder of that security. Securities issued in global form will be registered in the name of the depositary or its participants. Consequently, for securities issued in global form, we will recognize only the depositary as the holder of the securities, and we will make all payments on the securities to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a book-entry security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker, or other financial institution that participates in the depositary's book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities in non-global form. In these cases, investors may choose to hold their securities in their own names or in "street name." Securities held by an investor in street name would be registered in the name of a bank, broker, or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he, she, or it maintains at that institution.

For securities held in street name, we will recognize only the intermediary banks, brokers, and other financial institutions in whose names the securities are registered as the holders of those securities, and we will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any applicable trustee and of any third parties employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name, or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with depositary participants or customers or by law, to pass it along to the indirect holders but does not do so. Whether and how the holders contact the indirect holders is up to the holders.

Special Considerations for Indirect Holders

If you hold securities through a bank, broker, or other financial institution, either in book-entry form or in street name, you should check with your own institution to determine the following:

- · how it handles securities payments and notices;
- whether it imposes fees or charges;
- how it would handle a request for the holders' consent, if ever required;
- · whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- · how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- · if the securities are in book-entry form, how the depositary's rules and procedures will affect these matters.

Global Securities

A global security is a security that represents one or any other number of individual securities held by a depositary. Generally, all securities represented by the same global securities will have the same terms. Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depositary for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depositary, its nominee, or a successor depositary, unless special termination situations arise. We describe those situations below under "Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial



interests must be held by means of an account with a broker, bank, or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued in global form only, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

We may at any time and in our sole discretion determine not to have any of the book-entry securities of any series represented by one or more global securities and, in that event, we will issue certificated securities in exchange for the global securities of that series.

Special Considerations for Global Securities

The rights of an indirect holder relating to a global security will be governed by the account rules of the investor's financial institution and of the depositary, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depositary that holds the global security.

If securities are issued only in the form of a global security, an investor should be aware of the following:

- an investor cannot cause the securities to be registered in his, her, or its name, and cannot obtain non-global certificates for his, her, or its interest in the securities, except in the special situations we describe below;
- an investor will be an indirect holder and must look to his, her, or its own bank or broker for payments on the securities and protection of his, her, or its legal rights
 relating to the securities, as we describe above;
- an investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;
- an investor may not be able to pledge his, her, or its interest in a global security in circumstances where certificates representing the securities must be delivered to
 the lender or other beneficiary of the pledge in order for the pledge to be effective;
- the depositary's policies, which may change from time to time, will govern payments, transfers, exchanges, and other matters relating to an investor's interest in a
 global security;
- we and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in a global security, nor do we
 or any applicable trustee supervise the depositary in any way;
- the depositary may, and we understand that DTC will, require that those who purchase and sell interests in a global security within its book-entry system use
 immediately available funds, and your broker or bank may require you to do so as well; and
- financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in a global security, may also have their own policies affecting payments, notices, and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.



Special Situations When a Global Security Will Be Terminated

In a few special situations described below, the global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own name, so that they will be direct holders. We have described the rights of holders and street name investors above.

Unless we provide otherwise in the applicable prospectus supplement, the global security will terminate when the following special situations occur:

- if the depositary notifies us that it is unwilling, unable, or no longer qualified under the Exchange Act to continue as depositary for that global security and we do not
 appoint another institution to act as depositary within 90 days;
- · if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

The prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular types and series of securities covered by the applicable prospectus supplement. When a global security terminates, the depositary, and not we or any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION

We may sell the securities described in this prospectus from time to time in one or more of the following ways:

- to or through underwriters or dealers;
- directly to one or more purchasers;
- through agents; or
- through a combination of any of those methods of sale.

The prospectus supplement with respect to the offered securities will describe the terms of the offering, including the following:

- the name or names of any underwriters or agents;
- any public offering price;
- the proceeds from such sale;
- · any underwriting discounts or agency fees and other items constituting underwriters' or agents' compensation;
- · any over-allotment options under which underwriters may purchase additional securities from us;
- · any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchanges on which the securities may be listed.

We may distribute the securities from time to time in one or more of the following ways:

- at a fixed public offering price or prices, which may be changed;
- at prices relating to prevailing market prices at the time of sale;
- at varying prices determined at the time of sale; or
- at negotiated prices.

Unless otherwise indicated in the applicable prospectus supplement, if we use underwriters for a sale of securities, the underwriters will acquire the securities for their own account. The underwriters may resell the securities in one or more transactions, including negotiated transactions, at a fixed public offering price, or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. Unless otherwise indicated in a prospectus supplement, the underwriters will be obligated to purchase all the securities of the series offered if they purchase any of the securities of that series. We may change from time to time any initial public offering price and any discounts or concessions the underwriters allow or reallow or pay to dealers. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement naming the underwriter the nature of any such relationship. We may designate agents who agree to use their reasonable efforts to solici purchases for the period of their appointment or to sell securities on a continuing basis. We may also sell securities directly to one or more purchasers without using underwriters or agents.

Underwriters, dealers, or agents may receive compensation in the form of discounts, concessions, or commissions from us or from purchasers of the securities as their agents in connection with the sale of the securities. These underwriters, dealers, or agents may be considered to be underwriters under the Securities Act. As a result, discounts, commissions, or profits on resale received by underwriters, dealers, or agents may be treated as underwriting discounts and commissions. Each prospectus supplement will identify any underwriter, dealer, or agent and describe any compensation received by them from us. Any initial public offering price and any discounts or concessions allowed or reallowed or paid to dealers may be changed from time to time.

Unless otherwise specified in the applicable prospectus supplement, each class or series of securities will be a new issue with no established trading market, other than our common stock, which is listed on the Nasdaq Global Select Market. We may elect to list any other class or series of securities on any exchange, but we are not obligated to do so. It is possible that one or more underwriters may make a market in a class or series of securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We cannot give any assurance as to the liquidity of the trading market for any of the securities.

In connection with any offering, the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions, and penalty bids in accordance with Regulation M under the Exchange Act.

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.
- Over-allotment involves sales by the underwriters of shares of our common stock in excess of the number of shares the underwriters are obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares of our common stock over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares of our common stock involved is greater than the number of shares in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option or purchasing shares of our common stock in the open market.
- Syndicate covering transactions involve purchases of our common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares of our common stock available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option so that if there is a naked short position, the position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the shares of our common stock in the open market after the pricing of any offering that could adversely affect investors who purchase in that offering.
- Penalty bids permit the representatives of the underwriters to reclaim a selling concession from a syndicate member when the common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, over-allotments, syndicate covering transactions, and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on the Nasdaq Global Select Market or otherwise and, if commenced, may be discontinued at any time.

Underwriters, dealers, and agents may be entitled under agreements entered into with us to indemnification against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments they may be required to make in respect of these liabilities thereof. Underwriters, dealers, and agents and their affiliates may be customers of, may engage in transactions with, or perform services for us in the ordinary course of business for which they receive compensation.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon by Greenberg Traurig, LLP, Phoenix, Arizona.

EXPERTS

The consolidated financial statements of TTM Technologies, Inc. as of and for the years ended December 31, 2011 and 2012, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2012 (which is included in Management's Report on Internal Control over Financial Reporting), incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2012, have been incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows of TTM Technologies, Inc. and subsidiaries for the year ended December 31, 2010 included in our Annual Report on Form 10-K for the year ended December 31, 2012, have been incorporated by reference herein in reliance upon the report of KPMG LLP, an independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly, and current reports, proxy statements, and other information with the SEC under the Exchange Act. Through our website a*www.ttmtech.com*, you may access, free of charge, our filings, as soon as reasonably practical after we electronically file them with or furnish them to the SEC. Other information contained in our website is not incorporated by reference in, and should not be considered a part of, this prospectus or any accompanying prospectus supplement. You also may read and copy any document we file at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our SEC filings are also available to the public from the SEC's website at *www.sec.gov*.

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC to register the securities offered hereby under the Securities Act. This prospectus does not contain all of the information included in the registration statement, including certain exhibits and schedules. You may obtain the registration statement and exhibits to the registration statement from the SEC at the address listed above or from the SEC's website.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information that we incorporate by reference is considered to be part of this prospectus. Information that we file with the SEC in the future and incorporate by reference in this prospectus automatically updates and supersedes previously filed information as applicable.

We incorporate by reference into this prospectus the following documents filed by us with the SEC, other than any portion of any such documents that are not deemed "filed" under the Exchange Act in accordance with the Exchange Act and applicable SEC rules:

- our Annual Report on Form 10-K for the year ended December 31, 2012;
- our Quarterly Reports on Form 10-Q for the quarters ended April 1, 2013 and July 1, 2013;
- our Current Reports on Form 8-K filed with the SEC on January 31, 2013, February 28, 2013, March 6, 2013, March 18, 2013, April 29, 2013, June 25, 2013, and September 12, 2013;
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2012 from our definitive proxy
 statement on Schedule 14A filed with the SEC on March 14, 2013; and
- the description of our common stock contained in the Registration Statement on Form 8-A filed with the SEC on August 8, 2005, including any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference into this prospectus all documents (other than any portions of any such documents that are not deemed "filed" under the Exchange Act in accordance with the Exchange Act and applicable SEC rules) filed by us under Section 13(a), 13(c), 14, or 15(d) of the Exchange Act after the date of the initial registration statement and before effectiveness of the registration statement, and after the date of this prospectus.

You may request a copy of these filings at no cost, by writing or telephoning us as follows:

TTM Technologies, Inc. Attention: Corporate Secretary 1665 Scenic Avenue, Suite 250 Costa Mesa, California 92626 (714) 327-3000

Any statement contained in a document that is incorporated by reference will be modified or superseded for all purposes to the extent that a statement contained in this prospectus or any accompanying prospectus supplement, or in any other document that is subsequently filed with the SEC and incorporated by reference, modifies or is contrary to that previous statement. Any statement so modified or superseded will not be deemed a part of this prospectus or any accompanying prospectus supplement, except as so modified or superseded. Since information that we later file with the SEC will update and supersede previously incorporated information, you should look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or any accompanying prospectus supplement or in any documents previously incorporated by reference have been modified or superseded.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the fees and expenses payable by the registrant in connection with the offering described in the registration statement. All of the amounts shown are estimates, except for the SEC registration fee:

to b	be Paid
SEC Registration Fee \$3	2,200
Accountants' Fees and Expenses	*
Legal Fees and Expenses	*
Printing and Engraving Expenses	*
Transfer Agent Fees	*
Trust Fees and Expenses	*
Miscellaneous Fees	*
Total \$	*

* These fees cannot be estimated at this time, as they are calculated based on the securities offered and the number of issuances. An estimate of the aggregate expenses in connection with the sale and distribution of the securities being offered will be included in the applicable prospectus supplement.

Item 15. Indemnification of Directors and Officers.

Our certificate of incorporation, as amended, and fourth amended and restated bylaws limit the liability of directors to the fullest extent permitted by the Delaware General Corporation Law. In addition, our certificate of incorporation, as amended, and fourth amended and restated bylaws provide that we will indemnify our directors and officers to the fullest extent permitted by law. In addition, we have entered into indemnification agreements with our current directors and executive officers and expect to enter into a similar agreement with any new directors or executive officers.

Section 145 of the Delaware General Corporation Law empowers a Delaware corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending, or completed action, suit, or proceeding, whether civil, criminal, administrative, or investigative (other than an action by or in the right of such corporation) by reason of the fact that such person is or was a director, officer, employee, or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee, or agent of another corporation or enterprise. In accordance with Delaware law, the certificate of incorporation, as amended, and the fourth amended and restated bylaws of the registrant provide that the registrant will indemnify and advance expenses, to the fullest extent permitted by Delaware law, to each person who is or was a director or officer of the registrant, or who serves or served any other enterprise or organization at the request of the registrant (an "Indemnitee").

Under Delaware law, to the extent that an Indemnitee is successful on the merits in defense of a suit or proceeding brought against him or her by reason of the fact that he or she is or was a director, officer, or agent of the registrant, or serves or served any other enterprise or organization at the request of the registrant, the registrant shall indemnify him or her against expenses (including attorneys' fees) actually and reasonably incurred in connection with such action.

If unsuccessful in defense of a third-party civil suit or a criminal suit, or if such a suit is settled, an Indemnitee may be indemnified under Delaware law against both (i) expenses, including attorneys' fees, and



(ii) judgments, fines, and amounts paid in settlement if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the registrant, and, with respect to any criminal action, had no reasonable cause to believe his or her conduct was unlawful.

If unsuccessful in defense of a suit brought by or in the right of the registrant, where the suit is settled, an Indemnitee may be indemnified under Delaware law only against expenses (including attorneys' fees) actually and reasonably incurred in the defense or settlement of the suit if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the registrant except that if the Indemnitee is adjudged to be liable for negligence or misconduct in the performance of his or her duty to the registrant, he or she cannot be made whole even for expenses unless a court determines that he or she is fully and reasonably entitled to indemnification for such expenses.

Also under Delaware law, expenses incurred by an officer or director in defending a civil or criminal action, suit, or proceeding may be paid by the registrant in advance of the final disposition of the suit, action, or proceeding upon receipt of an undertaking by or on behalf of the officer or director to repay such amount if it is ultimately determined that he or she is not entitled to be indemnified by the registrant. The registrant may also advance expenses incurred by other employees and agents of the registrant upon such terms and conditions, if any, that the board of directors of the registrant deems appropriate.

Item 16. Exhibits.

Exhibit Number Description 1.1 Underwriting Agreement, dated May 8, 2008, by and among the Registrant, J.P. Morgan Securities Inc. and UBS Securities LLC(1) 1.2 Form of Underwriting Agreement* 2.1 English translation of Equity Interest Transfer Agreement, dated March 13, 2013, by and between Shengyi Technology Co., Ltd. and the Registrant(2) 2.2 English translation of Equity Interest Transfer Agreement, dated March 13, 2013, by and between Shengyi Technology Co., Ltd. and the Registrant(2)** 3.1 Certificate of Incorporation, as amended(3) 3.2 Fourth Amended and Restated Bylaws(4) 4.1 Indenture, dated as of May 14, 2008, between the Registrant and American Stock Transfer and Trust Company(1) 4.2 Supplemental Indenture, dated as of May 14, 2008, between the Registrant and American Stock Transfer and Trust Company(1) 4.3 Form of Registrant's common stock certificate(3) Sell-Down Registration Rights Agreement, dated December 23, 2009, by and among Meadville Holdings Limited, MTG Investment (BVI) Limited, and TTM 4.4 Technologies, Inc.(5) 4.5 Registration Rights Agreement, dated as of April 9, 2010, by and among Tang Hsiang Chien, Su Sih (BVI) Limited, and the Registrant(6)

4.6 Shareholders Agreement, dated as of April 9, 2010, by and among Meadville Holdings Limited; Su Sih (BVI) Limited; Tang Hsiang Chien; Tang Chung Yen, Tom; Tang Ying Ming, Mai; and the Registrant(6)

Exhibit Number	
4.7	First Amendment to Shareholders Agreement, dated September 14, 2012, by and among Tang Hsiang Chien; Su Sih (BVI) Limited; Tang Chung Yen, Tom; Tang Ying Ming, Mai; and the Registrant(7)
4.8	Specimen Certificate of Preferred Stock*
4.9	Form of Warrant Agreement and Certificate*
4.10	Form of Debt Security*
4.11	Form of Indenture
4.12	Form of Unit Agreement and Unit Certificate*
5.1	Opinion of Greenberg Traurig, LLP
12.1	Statement of Computation of Ratio of Earnings to Fixed Charges
23.1	Consent of Greenberg Traurig, LLP (contained in Exhibit 5.1)
23.2	Consent of PricewaterhouseCoopers LLP
23.3	Consent of KPMG LLP
24.1	Power of Attorney of Directors and Executive Officers (included on the signature page of the Registration Statement)
25.1	Statement of Eligibility on Form T-1 under the Trust Indenture Act of 1939 of the Trustee under the Indenture
* ** (1) (2) (3) (4) (5)	To be filed by amendment to this registration statement or by a report filed under the Securities Exchange Act of 1934, as amended, and incorporated herein by reference. The appendices to this exhibit have been omitted in reliance on Item 601(b)(2) of Regulation S-K and will be furnished supplementally to the SEC upon request. Incorporated by reference to the registrant's Form 8-K as filed with the Securities and Exchange Commission (the Commission) on May 14, 2008. Incorporated by reference to the registrant's Form 10-Q as filed with the Commission on May 7, 2013. Incorporated by reference to the registrant's Form 8-K as filed with the Commission on June 6, 2011. Incorporated by reference to the registrant's Form 8-K as filed with the Commission on March 2, 2011. Incorporated by reference to the registrant's Form 8-K as filed with the Commission on Duce 23, 2009.
(6) (7)	Incorporated by reference to the registrant's Form 8-K as filed with the Commission on April 13, 2010.

(7) Incorporated by reference to the registrant's Form 8-K as filed with the Commission on September 19, 2012.

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the

foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i), (a)(1)(ii), and (a)(1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference into the registration statement or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each suchpost-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the

offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the registrant is relying on Rule 430B:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of this registration statement or in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned

registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(d) The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(e) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act ("Act") in accordance with the rules and regulations prescribed by the Commission under section 305(b)(2) of the Act.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Costa Mesa, California, on the 30th day of October, 2013.

TTM TECHNOLOGIES, INC.

By: /s/ Todd B. Schull

Todd B. Schull Executive Vice President, Chief Financial Officer, Treasurer, and Secretary

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints jointly and severally, Kenton A. Alder and Todd B. Schull and each one of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place, and stead, in any and all capacities, to sign any and all amendments (including pre-effective and post-effective amendments) to this registration statement, and to sign any registration statement and amendments thereto for the same offering pursuant to Rule 462(b) under the Securities Act of 1933, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all which said attorneys-in-fact and agents, or any of them, or their or his or her substitute or substitutes, may lawfully do, or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

Signature	Title	Date
/s/ Kenton A. Alder Kenton A. Alder	Chief Executive Officer and Director (Principal Executive Officer)	October 30, 2013
<u>/s/ Thomas T. Edman</u> Thomas T. Edman	President and Director	October 30, 2013
/s/ Todd B. Schull Todd B. Schull	Executive Vice President, Chief Financial Officer, Treasurer and Secretary (Principal Financial and Accounting Officer)	October 30, 2013
/s/ Robert E. Klatell Robert E. Klatell	Chairman of the Board	October 30, 2013
/s/ James K. Bass James K. Bass	Director	October 30, 2013
/s/ Phillip G. Franklin Phillip G. Franklin	Director	October 30, 2013

Signature	<u>Title</u>	Date
/s/ Jacques S. Gansler Jacques S. Gansler	Director	October 30, 2013
/s/ Ronald W. Iverson Ronald W. Iverson	Director	October 30, 2013
/s/ John G. Mayer John G. Mayer	Director	October 30, 2013
/s/ Tom Chung Yen Tang Tom Chung Yen Tang	Director	October 30, 2013
/s/ Dov S. Zakheim Dov S. Zakheim	Director	October 30, 2013

EXHIBIT INDEX

Exhibit

- 1.1 Underwriting Agreement, dated May 8, 2008, by and among the Registrant, J.P. Morgan Securities Inc. and UBS Securities LLC(1)
- 1.2 Form of Underwriting Agreement*

Number

- 2.1 English translation of Equity Interest Transfer Agreement, dated March 13, 2013, by and between Shengyi Technology Co., Ltd. and the Registrant(2)
- 2.2 English translation of Equity Interest Transfer Agreement, dated March 13, 2013, by and between Shengyi Technology Co., Ltd. and the Registrant(2)**
- 3.1 Certificate of Incorporation, as amended(3)
- 3.2 Fourth Amended and Restated Bylaws(4)
- 4.1 Indenture, dated as of May 14, 2008, between the Registrant and American Stock Transfer and Trust Company(1)
- 4.2 Supplemental Indenture, dated as of May 14, 2008, between the Registrant and American Stock Transfer and Trust Company(1)
- 4.3 Form of Registrant's common stock certificate(3)
- 4.4 Sell-Down Registration Rights Agreement, dated December 23, 2009, by and among Meadville Holdings Limited, MTG Investment (BVI) Limited, and TTM Technologies, Inc.(5)
- 4.5 Registration Rights Agreement, dated as of April 9, 2010, by and among Tang Hsiang Chien, Su Sih (BVI) Limited, and the Registrant(6)
- 4.6 Shareholders Agreement, dated as of April 9, 2010, by and among Meadville Holdings Limited; Su Sih (BVI) Limited; Tang Hsiang Chien; Tang Chung Yen, Tom; Tang Ying Ming, Mai; and the Registrant(6)
- 4.7 First Amendment to Shareholders Agreement, dated September 14, 2012, by and among Tang Hsiang Chien; Su Sih (BVI) Limited; Tang Chung Yen, Tom; Tang Ying Ming, Mai; and the Registrant(7)
- 4.8 Specimen Certificate of Preferred Stock*
- 4.9 Form of Warrant Agreement and Certificate*
- 4.10 Form of Debt Security*
- 4.11 Form of Indenture
- 4.12 Form of Unit Agreement and Unit Certificate*
- 5.1 Opinion of Greenberg Traurig, LLP
- 12.1 Statement of Computation of Ratio of Earnings to Fixed Charges
- 23.1 Consent of Greenberg Traurig, LLP (contained in Exhibit 5.1)
- 23.2 Consent of PricewaterhouseCoopers LLP
- 23.3 Consent of KPMG LLP
- 24.1 Power of Attorney of Directors and Executive Officers (included on the signature page of the Registration Statement)
- 25.1 Statement of Eligibility on Form T-1 under the Trust Indenture Act of 1939 of the Trustee under the Indenture

* To be filed by amendment to this registration statement or by a report filed under the Securities Exchange Act of 1934, as amended, and incorporated herein by reference.

- The appendices to this exhibit have been omitted in reliance on Item 601(b)(2) of Regulation S-K and will be furnished supplementally to the SEC upon request.
 Incorporated by reference to the registrant's Form 8-K as filed with the Securities and Exchange Commission (the Commission) on May 14, 2008.
- Incorporated by reference to the registrant's Form 10-Q as filed with the Securities and Exchange Commission
 Incorporated by reference to the registrant's Form 10-Q as filed with the Commission on May 7, 2013.
- (3) Incorporated by reference to the registrant's Form 8-K as filed with the Commission on June 6, 2011.
- (4) Incorporated by reference to the registrant's Form 8-K as filed with the Commission on March 2, 2011.
- (5) Incorporated by reference to the registrant's Form 8-K as filed with the Commission on December 23, 2009.
- (6) Incorporated by reference to the registrant's Form 8-K as filed with the Commission on April 13, 2010.
- (7) Incorporated by reference to the registrant's Form 8-K as filed with the Commission on September 19, 2012.

TTM TECHNOLOGIES, INC.

and

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC

as Trustee

Guaranteed to the extent set forth therein by the Guarantors named herein.

INDENTURE

dated as of

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- Section 1.03 Incorporation by Reference of Trust Indenture Act
- Section 1.04 Rules of Construction

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CROSS-REFERENCE TABLE*

Trust Indenture	
Act Section	Indenture Section
310(a)(1)	7.10
(a)(2)	7.10
(a)(2) (a)(3)	N.A.
(a)(4) (a)(5)	N.A.
(a)(5)	7.10
(b)	7.03, 7.08; 7.10
(c)	N.A.
311(a)	7.11
(b)	7.11
(c)	N.A.
312(a)	2.05
(b)	11.03
(c)	11.03
313(a)	7.06
(b)(1)	N.A.
(b)(2)	7.06
(c)	7.06; 11.02
(d)	7.06
314(a)	4.03; 10.02; 11.05
(b)	N.A.
(c)(1)	11.04
(c)(2)	11.04
(c)(3)	N.A.
	N.A.
(e)	11.05
(f)	N.A.
315(a)	7.01(b)(ii), 7.02
(b)	7.02, 7.05; 10.02
(c)	7.01(a), 7.02
(d)	7.01(d), 7.02
(e)	6.11
316(a)(last sentence)	2.13(f)
(a)(1)(A)	6.05
(a)(1)(B)	6.04
(a)(2)	N.A.
(b)	6.07
(c)	2.12; 9.03
317(a)(1)	6.08
(a)(2)	6.09
(a)(2) (b)	2.04
(0)	2.04 11.01
318(a)	
(b)	N.A.
(c)	11.01

N.A. means not applicable * This Cross-Reference Table is not part of the Indenture.

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INDENTURE dated as of by and among TTM TECHNOLOGIES, INC., a Delaware corporation (the "Company"), the guarantors listed on Schedule 1 hereto (herein called the "Guarantors") and AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC, as Trustee (the "Trustee").

The Company has duly authorized the execution and delivery of this Indenture to provide for the issuance from time to time of its debentures, notes, or other evidences of indebtedness to be issued in one or more series (the "Securities"), as herein provided, up to such principal amount as may from time to time be authorized in or pursuant to one or more resolutions of the Board of Directors or by supplemental indenture.

Each party agrees as follows for the benefit of the other parties and for the equal and ratable benefit of the Holders of each series of the Securities:

ARTICLE 1

DEFINITIONS AND INCORPORATION BY REFERENCE

Section 1.01 Certain Definitions.

"Affiliate" of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For purposes of this definition, "control," as used with respect to any Person, shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise; provided, however, that beneficial ownership of 10% or more of the Voting Securities of a Person shall be deemed to be a controlling interest in such Person. For purposes of this definition, the terms "controlled by," and "under common control with" have correlative meanings.

"Agent" means any Registrar, Paying Agent, authenticating agent, or co-Registrar.

"Board of Directors" means, with respect to any Person, the board of directors of such Person (or, if such Person is a limited liability company, the board of managers of such Person) or similar governing body or any authorized committee thereof.

"Board Resolution" means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors or pursuant to authorization by the Board of Directors and to be in full force and effect on the date of such certification (and delivered to the Trustee, if appropriate).

"Business Day" means any day other than a Legal Holiday.

"Closing Date" means the date on which the Securities of a particular series were originally issued under this Indenture.

"Commission" means the Securities and Exchange Commission.

"Company" means the party named as such above until a successor replaces it pursuant to this Indenture and thereafter means the successor.

"Company Order" means a written order signed in the name of the Company by two Officers, one of whom must be the Company's principal executive officer, principal financial officer, or principal accounting officer and delivered to the Trustee.

"Company Request" means a written request signed in the name of the Company by its Chairman of the Board, a President or a Vice President, and by its Treasurer, an Assistant Treasurer, its Secretary, or an Assistant Secretary, and delivered to the Trustee.

"Corporate Trust Office" shall mean the corporate trust office of the Trustee.

"Default" means any event that is, or with the passage of time or the giving of notice or both would be, an Event of Default.

"Depositary" means, with respect to the Securities of any series issuable or issued in whole or in part in the form of one or more Global Securities, the person designated as Depositary for such series by the Company, which Depositary shall be a clearing agency registered under the Exchange Act; and if at any time there is more than one such person, "Depositary" as used with respect to the Securities of any series shall mean the Depositary with respect to the Securities of such series.

"Exchange Act" means the Securities Exchange Act of 1934, as amended.

"GAAP" means generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board, or in such other statements by such other entity as have been approved by a significant segment of the accounting profession, which are applicable to the circumstances as of the Closing Date.

"Global Security" shall mean a Security issued to evidence all or a part of any series of Securities that is executed by the Company and authenticated and delivered by the Trustee to a Depositary or pursuant to such Depositary's instructions, all in accordance with this Indenture and pursuant to Section 2.01, which shall be registered as to principal and interest in the name of such Depositary or its nominee.

"Guarantee" means a guarantee by any Guarantor of an obligation under this Indenture.

"Holder" or "Securityholder" means a Person in whose name a Security is registered in the register of Securities kept by the Registrar.

"Indenture" means this Indenture, as amended or supplemented from time to time.

"Interest" when used with respect to an Original Issue Discount Security that by its terms bears interest only after Maturity, means interest payable after Maturity.

"Maturity" when used with respect to any Security, means the date on which the principal of such Security or an installment of principal becomes due and payable as therein or herein provided, whether at Stated Maturity or by declaration of acceleration, call for redemption or otherwise.

"Officer" means, with respect to any Person, the Chairman of the Board, a Chief Executive Officer, the President, the Chief Operating Officer, the Chief Financial Officer, any Vice-President, the Treasurer, the Controller, the Secretary, any Assistant Treasurer, or any Assistant Secretary of such Person.

"Officers' Certificate" means a certificate signed by two or more Officers, one of whom must be the principal executive officer, principal financial officer, or principal accounting officer of the Company that meets the requirements of Section 11.05 hereof.

"Opinion of Counsel" means an opinion from legal counsel who is reasonably acceptable to the Trustee that meets the requirements of Section 11.05 hereof. The counsel may be an employee of or counsel to the Company or the Trustee.

"Original Issue Discount Security" means any Security which provides that an amount less than its principal amount is due and payable upon acceleration after an Event of Default.

"Person" means any individual, corporation, partnership, joint venture, association, limited liability company, joint stock company, trust, unincorporated organization or government, or other entity.

"principal" of a Security means the principal amount due on the Stated Maturity of the Security plus the premium, if any, on the Security.

"Securities" means the Securities authenticated and delivered under this Indenture.

"Securities Act" means the Securities Act of 1933.

"Stated Maturity" when used with respect to any Security or any installment of interest thereon, means the date specified in such Security as the fixed date on which the principal of such Security or such installment of interest is due and payable.

"Subsidiary" means, with respect to any specified Person: (i) any corporation, association, or other business entity of which more than 50% of the total voting power of shares of capital stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers, or trustees of the corporation, association, or other business entity is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person (or a combination thereof); and (ii) any partnership (a) the sole general partner or the managing general partner of which is such Person or a Subsidiary of such Person, or (b) the only general partners of which are that Person or one or more Subsidiaries of that Person (or any combination thereof).

"TIA" means the Trust Indenture Act of 1939 (15 U.S.C. §§77aaa-77bbbb) as in effect on the date on which this Indenture is qualified under the TIA; provided, however, that in the event the TIA is amended after such date, "TIA" means, to the extent required by such amendment, the Trust Indenture Act, as amended.

"Trust Officer" when used with respect to the Trustee, means any officer with direct responsibility for the administration of this Indenture and also means, with respect to a particular corporate trust matter, any other officer to whom such matter is referred because of his knowledge of and familiarity with the particular subject.

"Trustee" means the party named as such above until a successor becomes such pursuant to this Indenture and thereafter means or includes each party who is then a trustee hereunder, and if at any time there is more than one such party, "Trustee" as used with respect to the Securities of any series means the Trustee with respect to Securities of that series. If Trustees with respect to different series of Securities are trustees under this Indenture, nothing herein shall constitute the Trustees of the same trust, and each Trustee shall be the trustee of a trust separate and apart from any trust administered by any other Trustee with respect to a different series of Securities.

"U.S. Government Obligations" means securities that are (i) direct obligations of the United States of America for the payment of which its full faith and credit is pledged or (ii) obligations of a person controlled or supervised by and acting as an agency or instrumentality of the United States of America, the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America that is not callable or redeemable at the option of the issuer thereof, and shall also include a depository receipt issued by a bank or trust company as custodian with respect to any such U.S. Government Obligation or a specific payment of interest on or principal of any such U.S. Government Obligation held by such custodian for the account of the holder of a depository receipt, provided that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the U.S. Government Obligation evidenced by such depository receipt.

Section 1.02 Other Definitions.

Term	Defined in Section
"Bankruptcy Law"	6.01
"Custodian"	6.01
"Event of Default"	6.01
"foreign government obligations"	8.01
"Legal Holiday"	11.07
"Paying Agent"	2.03
"Place of Payment"	2.01
"redemption price"	3.03
"Registrar"	2.03

Section 1.03 Incorporation by Reference of Trust Indenture Act.

Whenever this Indenture refers to a provision of the TIA, the provision is incorporated by reference in and made a part of this Indenture. The following TIA terms used in this Indenture have the following meanings:

"indenture securities" means the Securities.

"indenture securityholder" means a Securityholder.

"indenture to be qualified" means this Indenture.

"indenture trustee" or "institutional trustee" means the Trustee.

"obligor" on the Securities means the Company and any Guarantor and any successor obligor on the Securities.

All other terms used in this Indenture that are defined by the TIA, defined by TIA reference to another statute or defined by Commission rule under the TIA have the meanings so assigned to them.

Section 1.04 Rules of Construction.

Unless the context otherwise requires:

(a) a term has the meaning assigned to it;

(b) an accounting term not otherwise defined has the meaning assigned to it in accordance with GAAP;

(c) "or" is not exclusive;

(d) words in the singular include the plural, and in the plural include the singular;

(e) provisions apply to successive events and transactions; and

(f) references to sections of or rules under the Securities Act shall be deemed to include substitute, replacement of successor sections or rules adopted by the SEC from time to time.

ARTICLE 2

THE SECURITIES

Section 2.01 Unlimited In Amount, Issuable In Series, Form, and Dating.

The aggregate principal amount of Securities that may be authenticated and delivered under this Indenture is unlimited. The Securities may be issued in one or more series. There shall be established in or pursuant to a Board Resolution or an Officers' Certificate pursuant to authority granted under a Board Resolution or established in one or more indentures supplemental hereto, prior to the issuance of Securities of any series:

(a) the title of the Securities of the series (which shall distinguish the Securities of the series from all other Securities);

(b) the series designation and whether they are senior Securities, senior subordinated Securities;

(c) any limit upon the aggregate principal amount of Securities of the series that may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of the series pursuant to this Article 2);

(d) the price or prices (expressed as a percentage of the aggregate principal amount) at which the Securities will be issued and, if other than the principal amount of the Securities, the portion of the principal amount of the Securities payable upon the maturity of the debt securities;

(e) the date or dates on which the principal of the Securities of the series is payable;

(f) the rate or rates that may be fixed or variable at which the Securities of the series shall bear interest, if any, or the manner in which such rate or rates shall be determined, the date or dates from which such interest shall accrue, the interest payment dates on which such interest shall be payable, and the record dates for the determination of Holders to whom interest is payable;

(g) the place or places where the principal of, premium, if any, and any interest, if any, on Securities of the series shall be payable or the method of such payment, if by wire transfer, mail, or by other means, if other than as provided herein, and where the Securities can be surrendered for transfer, exchange, or conversion;

(h) the price or prices at which (if any), the period or periods within which (if any), and the terms and conditions upon which (if other than as provided herein) Securities of the series may be redeemed, in whole or in part, at the option, or as an obligation, of the Company;

(i) the obligation, if any, of the Company to redeem, purchase, or repay Securities of the series, in whole or in part, pursuant to any sinking fund or analogous provisions or at the option of a Holder thereof and the price or prices at which and the period and periods within which and the terms and conditions upon which Securities of the series shall be redeemed, purchased, or repaid pursuant to such obligation;

(j) the dates, if any, on which, and the price or prices at which, the Securities of the series will be repurchased by the Company at the option of the Holders thereof and other detailed terms and provisions of such repurchase obligations;

(k) if convertible, the initial conversion price, the conversion period, and any other terms governing such conversion;

(1) if other than denominations of \$1,000 and any multiple thereof, the denominations in which Securities of the series shall be issuable;

(m) if other than the principal amount thereof, the portion of the principal amount of Securities of the series which shall be payable upon declaration of acceleration of the Maturity thereof pursuant to Section 6.02 hereof;

(n) any addition to, change in, or deletion from the covenants set forth in Articles 4 or 5 that applies to Securities of the series;

(o) any addition to, changes in, or deletion from the Events of Default with respect to the Securities of a particular series and any change in the right of the Trustee or the requisite Holders of such Securities to declare the principal amount thereof due and payable pursuant to Section 6.02 hereof;

(p) the Trustee for the series of Securities;

(q) the forms of the Securities of the series in bearer or fully registered form (and, if in fully registered form, whether the Securities will be issuable, in whole or in part, as Global Securities);

(r) whether the Securities of the series shall be issued in whole or in part in the form of a Global Security or Securities; the terms and conditions, if any, upon which such Global Security or Securities may be exchanged in whole or in part for other individual Securities, and the Depositary for such Global Security and Securities;

(s) the provisions, if any, relating to any security provided for the Securities of the series;

(t) any other terms of the series (which terms may modify, supplement, or delete any provision of this Indenture with respect to such series; provided, however, that no such term may modify or delete any provision hereof if imposed by the TIA; and provided, further, that any modification or deletion of the rights, duties, or immunities of the Trustee hereunder shall have been consented to in writing by the Trustee);

(u) the terms and conditions, if any, upon which the Securities of the series shall be exchanged for or converted into other securities or property of the Company or securities of another person;

(v) any depositories, interest rate calculation agents, exchange rate calculation agents, or other agents with respect to Securities of such series if other than those appointed herein;

(w) whether the Securities rank as senior subordinated Securities or subordinated Securities or any combination thereof and the terms of any such subordination;

(x) the form and terms of any guarantee of any Securities of the series;

(y) the terms and conditions of any defeasance provisions;

(z) the currency of denomination of the Securities;

(aa) the designation of the currency, currencies, or currency units in which payment of principal of, premium, and interest on the Securities will be made;

(bb) whether the Securities will be listed on any securities exchange or quotation system;

(cc) if payments of principal of, premium, or interest on the Securities will be made in one or more currencies or currency units other than that or those in which the Securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;

(dd) the manner in which the amounts of payment of principal of, premium, or interest on the Securities will be determined, if these amounts may be determined by reference to an index based on a currency or currencies other than that in which the Securities are denominated or designated to be payable or by reference to a commodity, commodity index, stock exchange index, or financial index;

(ee) whether and under what circumstances, if any, additional amounts on any Securities will be paid in respect of any tax, assessment, or governmental charge and, if so, whether the Company will have the option to redeem the Securities instead of making the payment;

(ff) the terms and conditions pertaining to transfer, sale, or other assignment of the Securities; and

(gg) if the Securities are to be issued upon the exercise of debt warrants, the time, manner, and place for the Securities to be authenticated and delivered.

All Securities of any series shall be substantially identical except as to denomination and except as may otherwise be provided in or pursuant to such Board Resolution or Officers' Certificate or in any such indenture supplemental hereto.

The principal of and any interest on the Securities shall be payable at the office or agency of the Company designated in the form of Security for the series (each such place herein called the "Place of Payment"); *provided, however*, that payment of interest may be made at the option of the Company by check mailed to the address of the Person entitled thereto as such address shall appear in the register of Securities referred to in Section 2.03 hereof.

Each Security shall be in one of the forms approved from time to time by or pursuant to a Board Resolution or Officers' Certificate, or established in one or more indentures supplemental hereto. Prior to the delivery of a Security to the Trustee for authentication in any form approved by or pursuant to a Board Resolution or Officers' Certificate, the Company shall deliver to the Trustee the Board Resolution or Officers' Certificate by or pursuant to which such form of Security has been approved, which Board Resolution or Officers' Certificate shall have attached thereto a true and correct copy of the form of Security that has been approved by or pursuant thereto.

The Securities may have notations, legends, or endorsements required by law, stock exchange rule, or usage. Each Security shall be dated the date of its authentication.

Section 2.02 Execution and Authentication.

One or more Officers shall sign the Securities for the Company by manual or facsimile signature.

If an Officer whose signature is on a Security no longer holds that office at the time the Security is authenticated, the Security shall nevertheless be valid.

A Security shall not be valid until authenticated by the manual signature of the Trustee. The signature shall be conclusive evidence that the Security has been authenticated under this Indenture.

The Trustee shall authenticate Securities for original issue upon receipt of a Company Order.

The Trustee may appoint an authenticating agent acceptable to the Company to authenticate Securities. An authenticating agent may authenticate Securities whenever the Trustee may do so. Each reference in this Indenture to authentication by the Trustee includes authentication by such agent. An authenticating agent has the same rights as an Agent to deal with the Company or an Affiliate of the Company.

Section 2.03 Registrar and Paying Agent.

The Company shall maintain an office or agency where Securities of a particular series may be presented for registration of transfer or for exchange (the "Registrar") and an office or agency where Securities of that series

may be presented for payment (a "Paying Agent"). The Registrar for a particular series of Securities shall keep a register of the Securities of that series and of their registration of transfer and exchange. The Company may appoint one or more co-Registrars and one or more additional paying agents for each series of Securities. The term "Paying Agent" includes any additional paying agent. The Company may change any Paying Agent, Registrar, or co-Registrar without prior notice to any Securityholder. The Company shall notify the Trustee in writing of the name and address of any Agent not a party to this Indenture.

If the Company fails to maintain a Registrar or Paying Agent for any series of Securities, the Trustee shall act as such. The Company or any of its Affiliates may act as Paying Agent, Registrar, or co-Registrar.

The Company hereby appoints the Trustee the initial Registrar and Paying Agent for each series of Securities unless another Registrar or Paying Agent, as the case may be, is appointed prior to the time Securities of that series are first issued.

Section 2.04 Paying Agent to Hold Money in Trust

Whenever the Company has one or more Paying Agents it will, prior to each due date of the principal of or interest on, any Securities, deposit with a Paying Agent a sum sufficient to pay the principal or interest so becoming due, such sum to be held in trust for the benefit of the Persons entitled to such principal or interest, and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of its action or failure so to act.

The Company shall require each Paying Agent other than the Trustee to agree in writing that such Paying Agent will hold in trust for the benefit of the Securityholders of the particular series for which it is acting, or the Trustee, all money held by the Paying Agent for the payment of principal or interest on the Securities of such series, and that such Paying Agent will notify the Trustee of any Default by the Company or any other obligor of the series of Securities in making any such payment and at any time during the continuance of any such Default, upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such Paying Agent. If the Company or an Affiliate acts as Paying Agent, it shall segregate and hold in a separate trust fund for the benefit of the Securityholders of the paying Agent. The Company at any time may require a Paying Agent to pay all money held by it to the Trustee. Upon so doing, the Paying Agent (if other than the Company or an Affiliate of the Company) shall have no further liability for such money. Upon any bankruptcy or reorganization proceedings relating to the Company, the Trustee shall serve as Paying Agent for the Securities.

Section 2.05 Securityholder Lists.

The Trustee shall preserve in as current a form as is reasonably practicable the most recent list available to it of the names and addresses of Securityholders, separately by series, and shall otherwise comply with TIA Section 312(a). If the Trustee is not the Registrar, the Company shall furnish to the Trustee at least seven Business Days before each interest payment date and at such other times as the Trustee may request in writing, a list in such form and as of such date as the Trustee may reasonably require of the names and addresses of Securityholders, separately by series, relating to such interest payment date or request, as the case may be.

Section 2.06 Transfer and Exchange.

Where Securities of a series are presented to the Registrar or a co-Registrar with a request to register a transfer or to exchange them for an equal principal amount of Securities of the same series of other authorized denominations, the Registrar shall register the transfer or make the exchange if its requirements for such transactions are met. To permit registrations of transfers and exchanges, the Company shall issue and the Trustee shall authenticate Securities at the Registrar's request.

No service charge shall be made for any registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any transfer tax or similar governmental charge payable upon exchanges pursuant to Sections 2.09, 2.13, 3.06 or 9.04).



The Company need not issue, and the Registrar or co-Registrar need not register the transfer or exchange of, (i) any Security of a particular series during a period beginning at the opening of business 15 days before the day of any selection of Securities of that series for redemption under Section 3.02 and ending at the close of business on the day of selection, or (ii) any Security so selected for redemption in whole or in part, except the unredeemed portion of any Security of that series being redeemed in part.

Section 2.07 Replacement Securities.

If a mutilated Security is surrendered to the Trustee or if the Holder of a Security claims that the Security has been lost, destroyed, or wrongfully taken, the Company shall issue and the Trustee shall authenticate a replacement Security of same series if the Company's and the Trustee's requirements are met. The Trustee or the Company may require an indemnity bond to be furnished which is sufficient in the judgment of both to protect the Company, the Trustee, and any Agent from any loss which any of them may suffer if a Security is replaced. The Company or the Trustee may charge such Holder for its expenses in replacing a Security.

Every replacement Security is an obligation of the Company and shall be entitled to all the benefit of the Indenture equally and proportionately with any and all other Securities of the same series.

Section 2.08 Outstanding Securities.

The Securities of any series outstanding at any time are all the Securities of that series authenticated by the Trustee except for those canceled by it, those delivered to it for cancellation, and those described in this Section as not outstanding.

If a Security is replaced pursuant to Section 2.07, it ceases to be outstanding unless the Trustee receives proof satisfactory to it that the replaced Security is held by a protected purchaser.

If Securities are considered paid under Section 4.01, they cease to be outstanding and interest on them ceases to accrue.

Except as set forth in Section 2.09 hereof, a Security does not cease to be outstanding because the Company or an Affiliate holds the Security.

For each series of Original Issue Discount Securities, the principal amount of such Securities that shall be deemed to be outstanding and used to determine whether the necessary Holders have given any request, demand, authorization, direction, notice, consent, or waiver shall be the principal amount of such Securities that could be declared to be due and payable upon acceleration upon an Event of Default as of the date of such determination. When requested by the Trustee, the Company shall advise the Trustee of such amount, showing its computations in reasonable detail.

Section 2.09 Temporary Securities.

Until definitive Securities are ready for delivery, the Company may prepare and the Trustee shall authenticate temporary Securities upon a Company Order. Temporary Securities shall be substantially in the form of definitive Securities but may have variations that the Company considers appropriate for temporary Securities. Without unreasonable delay, the Company shall prepare and the Trustee shall authenticate definitive Securities in exchange for temporary Securities.

Holders of temporary securities shall be entitled to all of the benefits of this Indenture.

Section 2.10 Cancellation.

The Company at any time may deliver Securities to the Trustee for cancellation. The Registrar and Paying Agent shall forward to the Trustee any Securities surrendered to them for registration of transfer, exchange, or payment. The Trustee shall cancel all Securities surrendered for registration of transfer, exchange, payment,

replacement, or cancellation and shall return such canceled Securities to the Company at the Company's written request. The Company may not issue new Securities to replace Securities that it has paid or that have been delivered to the Trustee for cancellation.

Section 2.11 Defaulted Interest.

If the Company fails to make a payment of interest on any series of Securities, the Company shall pay such defaulted interest plus (to the extent lawful) any interest payable on the defaulted interest, in any lawful manner. It may elect to pay such defaulted interest, plus any such interest payable on it, to the Persons who are Holders of such Securities on which the interest is due on a subsequent special record date. The Company shall notify the Trustee in writing of the amount of defaulted interest proposed to be paid on each such Security and the date of the proposed payment. The Company shall fix or cause to be fixed any such record date and payment date for such payment, provided that no such special record date shall be less than 10 days prior to the related payment date for such defaulted interest. At least 15 days before any such record date, the Company shall mail to Securityholders affected thereby a notice that states the record date, payment date, and amount of such interest to be paid.

Section 2.12 Special Record Dates.

(a) The Company may, but shall not be obligated to, set a record date for the purpose of determining the identity of Holders entitled to consent to any supplement, amendment or waiver permitted by this Indenture. If a record date is fixed, the Holders of Securities of that series outstanding on such record date, and no other Holders, shall be entitled to consent to such supplement, amendment, or waiver or revoke any consent previously given, whether or not such Holders remain Holders after such record date. No consent shall be valid or effective for more than 90 days after such record date unless consents from Holders of the principal amount of Securities of that series required hereunder for such amendment or waiver to be effective shall have also been given and not revoked within such 90-day period.

(b) The Company may, but shall not be obligated to, fix any day as a record date for the purpose of determining the Holders of any series of Securities entitled to join in the giving or making of any notice of Default, any declaration of acceleration, any request to institute proceedings, or any other similar direction. If a record date is fixed, the Holders of Securities of that series outstanding on such record date, and no other Holders, shall be entitled to join in such notice, declaration, request, or direction, whether or not such Holders remain Holders after such record date; *provided*, *however*, that no such action shall be effective hereunder unless taken on or prior to the date 90 days after such record date.

Section 2.13 Global Securities.

(a) Terms of Securities. A Board Resolution, a supplemental indenture hereto, or an Officers' Certificate shall establish whether the Securities of a series shall be issued in whole or in part in the form of one or more Global Securities and the Depositary for such Global Security or Securities.

(b) Transfer and Exchange. Notwithstanding any provisions to the contrary contained in Section 2.06 of this Indenture and in addition thereto, any Global Security shall be exchangeable pursuant to Section 2.06 of this Indenture for securities registered in the names of Holders other than the Depositary for such Security or its nominee only if (i) such Depositary notifies the Company that it is unwilling or unable to continue as Depositary for such Global Security or if at any time such Depositary ceases to be a clearing agency registered under the Exchange Act, and, in either case, the Company fails to appoint a successor Depositary within 90 days of such event; or (ii) the Company executes and delivers to the Trustee an Officers' Certificate to the effect that such Global Security shall be so exchangeable. Any Global Security that is exchangeable pursuant to the preceding sentence shall be exchangeable for Securities registered in such names as the Depositary shall direct in writing in an aggregate principal amount equal to the principal amount of the Global Security with like tenor and terms.

Except as provided in this paragraph (b) of this Section, a Global Security may not be transferred except as a whole by the Depositary with respect to such Global Security to a nominee of



such Depositary, by a nominee of such Depositary to such Depositary or another nominee of such Depositary, or by the Depositary or any such nominee to a successor Depositary or a nominee of such a successor Depositary.

(c) Legend. Any Global Security issued hereunder shall bear a legend in substantially the following form:

"Unless this certificate is presented by an authorized representative of The Depository Trust Company, a New York corporation ("DTC"), New York, New York, to the issuer or its agent for registration of transfer, exchange, or payment and any certificate issued is registered in the name of Cede & Co. or such other name as may be requested by an authorized representative of DTC (and any payment is made to Cede & Co. or such other entity as may be requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL inasmuch as the registered owner hereof, Cede & Co. has an interest herein.

Transfer of this Global Security shall be limited to transfers in whole, but not in part, to nominees of DTC or to a successor thereof or such successor's nominee and limited to transfers made in accordance with the restrictions set forth in the Indenture referred to herein."

(d) Acts of Holders. The Depositary, as a Holder, may appoint agents and otherwise authorize participants to give or take any request, demand, authorization, direction, notice, consent, waiver, or other action which a Holder is entitled to give or take under this Indenture.

(e) Payments. Notwithstanding the other provisions of this Indenture, unless otherwise specified as contemplated by Section 2.01 hereof, payment of the principal of and interest, if any, on any Global Security shall be made to the Person specified therein.

(f) Consents, Declaration and Directions. Except as provided in paragraph (e) of this Section, the Company, the Trustee, and any Agent shall treat a Person as the Holder of such principal amount of outstanding Securities of such series represented by a Global Security as shall be specified in a written statement of the Depositary with respect to such Global Security, for purposes of obtaining any consents, declarations, or directions required to be given by the Holders pursuant to this Indenture.

Section 2.14 CUSIP Numbers.

The Company in issuing any series of Securities may use "CUSIP" numbers (if then generally in use), and, if so, the Trustee shall use "CUSIP" numbers in notices as a convenience to Holders; provided that any such notice may state that no representation is made as to the correctness of such numbers either as printed on such Securities or as contained in any notice and that reliance may be placed only on the other identification numbers printed on such Securities, and any such action relating to such notice shall not be affected by any defect in or omission of such numbers in such notice. The Company shall promptly notify the Trustee of any change in the "CUSIP" numbers.

ARTICLE 3

REDEMPTION

Section 3.01 Notices to Trustee.

If the Company elects to redeem Securities of any series pursuant to any optional redemption provisions thereof, it shall furnish to the Trustee at least 30 days, but not more than 60 days before a redemption date, an Officer's Certificate which shall specify (i) the provisions of such Security or this Indenture pursuant to which the redemption shall occur, (ii) the redemption date, (iii) the principal amount of Securities of that series to be redeemed, and (iv) the redemption price.

If the Company elects to reduce the principal amount of Securities of any series to be redeemed pursuant to mandatory redemption provisions thereof, it shall notify the Trustee of the amount of, and the basis for, any such reduction. If the Company elects to credit against any such mandatory redemption Securities it has not previously delivered to the Trustee for cancellation, it shall deliver such Securities with such notice.

Section 3.02 Selection of Securities to Be Redeemed.

If less than all the Securities of any series are to be redeemed, or purchased in an offer to purchase at any time, the Trustee shall select the Securities of that series to be redeemed or purchased as follows: (1) if the Securities of such series are listed on any national securities exchange, in compliance with the requirements of the principal national securities exchange on which the Securities of that series are listed, or (2) if the Securities of that series are not listed on a national securities exchange, on a pro rata basis, by lot or by such other method as the Trustee deems fair and appropriate. In the event of a partial redemption or purchase by lot, the particular Securities to be redeemed or purchased will be selected not less than 30 nor more than 60 days prior to the redemption or purchase date by the Trustee from Securities of that series outstanding and not previously called for redemption.

The Trustee shall notify the Company promptly in writing of the Securities or portions of Securities to be called for redemption or purchase and, in the case of any Securities selected for partial redemption or purchase, the principal amount thereof to be redeemed or purchased. Except as otherwise provided as to any particular series of Securities, Securities and portions thereof that the Trustee selects shall be in amounts equal to the minimum authorized denomination for Securities of the series to be redeemed or purchased, the entire outstanding amount of the Securities of the series held by such Holder, even if not equal to the minimum authorized denomination for the Securities of that series, shall be redeemed or purchased. Provisions of this Indenture that apply to Securities called for redemption also apply to portions of Securities called for redemption.

Section 3.03 Notice of Redemption.

Except as otherwise provided as to any particular series of Securities, at least 30 days but not more than 60 days before a redemption date, the Company shall mail a notice of redemption to each Holder whose Securities are to be redeemed.

The notice shall identify the Securities of the series to be redeemed and shall state:

(1) the redemption date;

(2) the redemption price fixed in accordance with the terms of the Securities of the series to be redeemed, plus accrued interest, if any, to the date fixed for redemption (the "redemption price");

(3) if any Security is being redeemed in part, the portion of the principal amount of such Security to be redeemed and that, after the redemption date, upon surrender of such Security, a new Security or Securities in principal amount equal to the unredeemed portion will be issued upon cancellation of the original Securities;

(4) the name and address of the Paying Agent;

(5) that Securities called for redemption must be surrendered to the Paying Agent to collect the redemption price;

(6) that, unless the Company defaults in payment of the redemption price, interest on Securities called for redemption ceases to accrue on and after the redemption

date;

(7) the CUSIP number, if any, of the Securities to be redeemed;

(8) the paragraph of the Securities and/or the section of the Indenture pursuant to which the Securities called for redemption are being redeemed; and

(9) that no representation is made as to the correctness or accuracy of the CUSIP number, if any, listed in such notice or printed on the Securities.

At the Company's request, the Trustee shall give the notice of redemption in the Company's name and at its expense, *provided*, *however*, that the Company shall have delivered to the Trustee, at least 45 days prior to the redemption date, an Officers' Certificate requesting that the Trustee give such notice and setting forth the information to be stated in such notice as provided in the preceding paragraph. The notice mailed in the manner herein provided shall be conclusively presumed to have been duly given whether or not the Holder receives such notice. In any case, failure to give such notice by mail or any defect in the notice of the Holder of any Security shall not affect the validity of the proceeding for the redemption of any other Security.

Section 3.04 Effect of Notice of Redemption.

Except if the giving of a notice of redemption would violate the terms of the Company's credit agreement, and subject to the subordination provisions of any series of Securities, once notice of redemption is mailed in accordance with Section 3.03 hereof, Securities called for redemption become due and payable on the redemption date for the redemption price. Upon surrender to the Paying Agent, such Securities will be paid at the redemption price.

Section 3.05 Deposit of Redemption Price.

On or before 10:00 a.m., New York City time, on the redemption or purchase date, the Company shall deposit with the Trustee or Paying Agent (or, if the Company or any Affiliate is the Paying Agent, shall segregate and hold in trust) money sufficient to pay the redemption or purchase price of all Securities called for redemption on that date other than Securities that have previously been delivered by the Company to the Trustee for cancellation. The Paying Agent shall return to the Company any money not required for that purpose.

If the Company complies with the provisions of the preceding paragraph, on and after the redemption or purchase date, interest shall cease to accrue on the Securities (or the portions thereof) called for redemption or purchase. If a Security is redeemed or purchased on or after an interest record date but on or prior to the related interest payment date, then any accrued and unpaid interest shall be paid to the Person in whose name such Securities were registered at the close of business on such record date. If any Securities called for redemption or purchase shall not be so paid upon surrender for redemption because of the failure of the Company to comply with the preceding paragraph, interest shall be paid on the unpaid principal, from the redemption or purchase date until such principal is paid, and to the extent lawful on any interest not paid on such unpaid principal, in each case at the rate provided in accordance with the terms of the Securities of the series to be redeemed.

Section 3.06 Securities Redeemed or Purchased in Part.

Upon surrender of a Security that is redeemed or purchased in part, the Company shall issue and the Trustee shall authenticate for the Holder at the expense of the Company a new Security of same series equal in principal amount to the unredeemed or unpurchased portion of the Security surrendered.

ARTICLE 4

COVENANTS

Section 4.01 Payment of Securities.

The Company shall pay or cause to be paid the principal of, premium, if any, and interest on the Securities on the dates and in the manner provided in this Indenture and the Securities. Principal, premium, if any, and interest shall be considered paid on the date due if the Paying Agent, if other than the Company or an Affiliate, holds as of

10:00 a.m., New York City time, on that date immediately available funds designated for and sufficient to pay all principal, premium, if any, and interest then due.

To the extent lawful, the Company shall pay interest on overdue principal and overdue installments of interest at the rate per annum borne by the applicable series of Securities.

Section 4.02 Maintenance of Office or Agency.

The Company shall maintain in the City of New York, an office or agency (which may be an office of the Trustee or an affiliate of the Trustee or Registrar) where Securities may be surrendered for registration of transfer or exchange and where notices and demands to or upon the Company in respect of the Securities and this Indenture may be served. The Company shall give prompt written notice to the Trustee of the location, and any change in the location, of such office or agency. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices, and demands may be made or served at the Corporate Trust Office of the Trustee.

The Company may also from time to time designate one or more other offices or agencies where the Securities may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; *provided, however*, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in the City of New York for such purposes. The Company shall give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency.

The Company hereby designates the Corporate Trust Office of the Trustee as one such office or agency of the Company in accordance with Section 2.03.

Section 4.03 Reports.

The Company shall deliver to the Trustee within 15 days after it files them with the Commission copies of the annual reports and of the information, documents, and other reports (or copies of such portions of any of the foregoing as the Commission may by rules and regulations prescribe) that the Company is required to file with the Commission pursuant to Section 13 or 15(d) of the Exchange Act; *provided, however* the Company shall not be required to deliver to the Trustee any materials for which the Company has sought and received confidential treatment by the Commission. The Company also shall comply with the other provisions of TIA Section 314(a).

Delivery of such reports, information, and documents to the Trustee is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers' Certificates).

Section 4.04 Compliance Certificate.

(a) The Company or any Guarantors shall deliver to the Trustee, within 120 days after the end of each fiscal year of the Company, an Officers' Certificate stating that a review of the activities of the Company and its Subsidiaries during the preceding fiscal year has been made under the supervision of the signing Officers (one of whom shall be the principal executive officer, principal financial officer, or principal accounting officer of the Company) with a view to determining whether the Company has kept, observed, performed, and fulfilled its obligations under this Indenture, and further stating, as to each such Officer signing such certificate, that to the best of his or her knowledge the Company has kept, observed, performed, and fulfilled each and every covenant contained in this Indenture and is not in default in the performance or observance of any of the terms, provisions, and conditions of this Indenture (or, if a Default or Event of Default shall have occurred, describing all such Defaults or Events of Default of which he or she may have knowledge and what action the Company is taking or proposes to take with respect thereto) and that to the best of his or her knowledge no event has occurred and remains in existence by reason of which payments on account of the principal of or interest, if any, on the Notes is prohibited or if such event

has occurred, a description of the event and what action the Company is taking or proposes to take with respect thereto.

(b) The Company shall, so long as any of the Securities are outstanding, deliver to the Trustee, forthwith upon becoming aware of any Default or Event of Default, an Officers' Certificate specifying such Default or Event of Default and what action the Company is taking or proposes to take with respect thereto.

Section 4.05 Taxes.

The Company shall pay prior to delinquency, all material taxes, assessments, and governmental levies except such as are contested in good faith by appropriate proceedings or where the failure to effect such payment is not adverse in any material respect to the Holders of any Securities.

Section 4.06 Stay, Extension and Usury Laws.

The Company and any Guarantors covenant (to the extent that it may lawfully do so) that they shall not at any time insist upon, plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay, extension or usury law wherever enacted, now or at any time hereafter in force, that may affect the covenants or the performance of this Indenture; and the Company and each Guarantor (to the extent that they may lawfully do so) hereby expressly waive all benefits or advantages of any such law, and covenant that they shall not, by resort to any such law, hinder, delay, or impede the execution of any power herein granted to the Trustee, but shall suffer and permit the execution of every such power as though no such law has been enacted.

Section 4.07 Calculation of Original Issue Discount.

If, as of the end of any fiscal year of the Company, the Company has any outstanding Original Issue Discount Securities under the Indenture, the Company shall file with the Trustee promptly following the end of such fiscal year (i) a written notice specifying the amount of original issue discount (including daily rates and accrual periods) accrued on such Original Issue Discount Securities as of the end of such year and (ii) such other specific information relating to such original issue discount as may then be required under the Internal Revenue Code of 1986, as amended from time to time.

ARTICLE 5

SUCCESSORS

Section 5.01 When Company May Merge, Etc.

In addition to provisions applicable to a particular series of Securities, the Company shall not directly or indirectly: (i) consolidate or merge with or into another Person (whether or not the Company is the surviving Person) or (ii) sell, assign, transfer, lease, convey, or otherwise dispose of all or substantially all of the properties or assets of the Company and its Subsidiaries in one or more related transactions to any Person unless:

(1) either (x) the Company is the surviving Person; or (y) the Person formed by or surviving any such consolidation or merger (if other than the Company) or to which such sale, assignment, transfer, lease, conveyance, or other disposition shall have been made is a Person organized or existing under the laws of the United States, any state thereof or the District of Columbia;

(2) the Person formed by or surviving any such consolidation or merger (if other than the Company) or the Person to which such sale, assignment, transfer, lease, conveyance, or other disposition shall have been made assumes (by supplemental indenture reasonably satisfactory to the Trustee) all the obligations of the Company under the Securities and this Indenture; and

(3) immediately after the transaction no Default or Event of Default exists.

The Company shall deliver to the Trustee on or prior to the consummation of the proposed transaction an Officers' Certificate to the foregoing effect and an Opinion of Counsel stating that the proposed transaction and such supplemental indenture comply with this Indenture.

Section 5.02 Successor Person Substituted.

Upon any consolidation or merger, or any sale, assignment, transfer, conveyance, or other disposition (other than by lease) of all or substantially all of the assets of the Company in accordance with Section 5.01 hereof, the successor Person formed by such consolidation or into which the Company is merged or to which such sale, assignment, transfer, conveyance, or other disposition is made shall succeed to, and be substituted for (so that from and after the date of such consolidation, merger, sale, conveyance, or other disposition, the provisions of this Indenture referring to the "Company" shall refer instead to the successor Person and not to the Company), and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor Person had been named as the Company herein; *provided, however*, that the predecessor Company shall not be relieved from the obligation to pay principal of, and interest on, any Securities except in the case of a sale, assignment, transfer, conveyance, or other disposition of all or substantially all of the Company's assets that meets the requirements of Section 5.01 hereof.

ARTICLE 6

DEFAULTS AND REMEDIES

Section 6.01 Events of Default.

An "Event of Default" occurs with respect to Securities of any particular series if, unless as otherwise provided in the establishing Board Resolution, Officers' Certificate, or supplemental indenture hereto:

(1) the Company defaults in the payment of interest on any Security of that series when the same becomes due and payable and the Default continues for a period of 30 days;

(2) the Company defaults in the payment, when due, of the principal of, or premium, if any, on any Security of that series when the same becomes due and payable at Maturity, upon redemption (including in connection with any offer to purchase under the terms of such Securities) or otherwise;

(3) an Event of Default, as defined in the Securities of that series, occurs and is continuing, or the Company fails to comply with any of its other agreements in the Securities of that series or in this Indenture with respect to that series and the Default continues for the period and after the notice specified below;

(4) the Company pursuant to or within the meaning of any Bankruptcy Law:

- (A) commences a voluntary case;
- (B) consents to the entry of an order for relief against it in an involuntary case;
- (C) consents to the appointment of a Custodian of it or for all or substantially all of its property;
- (D) makes a general assignment for the benefit of its creditors; or
- (E) admits in writing its inability generally to pay its debts as the same become due.

(5) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that:

(A) is for relief against the Company in an involuntary case;

- (B) appoints a Custodian of the Company or for all or substantially all of its property; or
- (C) orders the liquidation of the Company; and the order or decree remains unstayed and in effect for 60 days.

(6) any other Event of Default provided with respect to Securities of that series which is specified in a Board Resolution, Officers' Certificate, or supplemental indenture establishing that series of Securities.

The term "Bankruptcy Law" means Title 11, U.S. Code or any similar federal or state law for the relief of debtors. The term "Custodian" means any receiver, trustee, assignee, liquidator, or similar official under any Bankruptcy Law.

A Default under clause (3) above is not an Event of Default with respect to a particular series of Securities until the Trustee or the Holders of at least 50% in principal amount of the then outstanding Securities of that series notify the Company of the Default and the Company does not cure the Default within 60 days after receipt of the notice. The notice must specify the Default, demand that it be remedied and state that the notice is a "Notice of Default." Such notice shall be given by the Trustee if so requested in writing by the Holders of 50% of the principal amount of the then outstanding Securities of that series.

Section 6.02 Acceleration.

If an Event of Default with respect to Securities of any series (other than an Event of Default specified in clauses (4) and (5) of Section 6.01) occurs and is continuing, the Trustee by notice to the Company, or the Holders of at least 50% in principal amount of the then outstanding Securities of that series by notice to the Company and the Trustee, may, subject to any prior notice requirements set forth in any supplemental indenture, declare the unpaid principal (or, in the case of Original Issue Discount Securities, such lesser amount as may be provided for in such Securities) of and any accrued interest on all the Securities of that series to be due and payable on the Securities of that series. Upon such declaration the principal (or such lesser amount) and interest shall be due and payable immediately. If an Event of Default specified in clause (4) or (5) of Section 6.01 occurs, all of such amount shall become and be immediately due and payable without any declaration or other act on the part of the Trustee or any Holder. The Holders of a majority in principal amount of the then outstanding Securities of that series by notice to any confict with any judgment or decree and if all existing Events of Default with respect to that series have been cured or waived except nonpayment of principal (or such lesser amount) or interest that has become due solely because of the acceleration.

Section 6.03 Other Remedies.

If an Event of Default with respect to Securities of any series occurs and is continuing, the Trustee may pursue any available remedy to collect the payment of principal or interest on the Securities of that series or to enforce the performance of any provision of the Securities of that series or this Indenture.

The Trustee may maintain a proceeding even if it does not possess any of the Securities or does not produce any of them in the proceeding. A delay or omission by the Trustee or any Securityholder in exercising any right or remedy accruing upon an Event of Default shall not impair the right or remedy or constitute a waiver of or acquiescence in the Event of Default. All remedies are cumulative to the extent permitted by law.

Section 6.04 Waiver of Past Defaults.

Subject to Section 6.02, the Holders of not less than a majority in aggregate principal amount of the then outstanding Securities of any series, by notice to the Trustee, may on behalf of the Holders of the Securities of that series, waive an existing Default or Event of Default with respect to that series and its consequences except a

continuing Default or Event of Default in the payment of the principal (including any mandatory sinking fund or like payment) of, premium, if any, or interest on any Security of that series (including in connection with an offer to purchase); *provided, however*, that the Holders of a majority in aggregate principal amount of the outstanding Securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from such acceleration and its consequences, including any related payment default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other Default or impair any right consequent thereon.

Section 6.05 Control by Majority.

The Holders of a majority in principal amount of the then outstanding Securities of any series may direct the time, method, and place of conducting any proceeding for exercising any remedy with respect to that series available to the Trustee or exercising any trust or power conferred on it. However, the Trustee may refuse to follow any direction that conflicts with law or this Indenture, that the Trustee determines may be unduly prejudicial to the rights of other Holders of Securities of that series, or that may involve the Trustee in personal liability. The Trustee may take any other action which it deems proper that is not inconsistent with any such direction. Notwithstanding any provision to the contrary in this Indenture, the Trustee shall not be obligated to take any action with respect to the provisions of Section 6.02 unless directed to do so pursuant to this Section 6.05.

Section 6.06 Limitation on Suits.

A Holder of Securities of any series may not pursue a remedy with respect to this Indenture or the Securities unless:

(1) the Holder gives to the Trustee written notice of a continuing Event of Default with respect to that series;

(2) the Holders of at least 25% in principal amount of the then outstanding Securities of that series make a written request to the Trustee to pursue the remedy;

(3) such Holder or Holders offer, and, if requested, provide to the Trustee indemnity satisfactory to the Trustee against any loss, liability, or expense;

(4) the Trustee does not comply with the request within 60 days after receipt of the request and the offer and, if requested, the provision of indemnity; and

(5) during such 60-day period the Holders of a majority in principal amount of the then outstanding Securities of that series do not give the Trustee a direction inconsistent with the request.

No Holder of any series of Securities may use this Indenture to prejudice the rights of another Holder of Securities of that series or to obtain a preference or priority over another Holder of Securities of that series.

Section 6.07 Rights of Holders to Receive Payment

Notwithstanding any other provision of this Indenture, the right of any Holder of a Security to receive payment of principal, premium, if any, and interest on the Security, on or after the respective due dates expressed in the Security (including in connection with any offer to purchase), or to bring suit for the enforcement of any such payment on or after such respective dates, shall not, except as provided in the subordination provisions, if any, applicable to such Security, be impaired or affected without the consent of the Holder.

Section 6.08 Collection Suit by Trustee.

If an Event of Default specified in Section 6.01(1) or (2) hereof occurs and is continuing with respect to Securities of any series, the Trustee may recover judgment in its own name and as trustee of an express trust against



the Company for the whole amount of principal (or such portion of the principal as may be specified as due upon acceleration at that time in the terms of that series of Securities), premium, if any, and interest, remaining unpaid on the Securities of that series then outstanding, together with (to the extent lawful) interest on overdue principal and interest, and such further amount as shall be sufficient to cover the costs and, to the extent lawful, expenses of collection, including the reasonable compensation, expenses, disbursements, and advances of the Trustee, its agents, and counsel, and any other amounts due the Trustee under Section 7.07 hereof.

Section 6.09 Trustee May File Proofs of Claim.

The Trustee may file such proofs of claim and other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements, and advances of the Trustee, its agents, and counsel, and any other amounts due to the Trustee under Section 7.07 hereof) and the Securityholders allowed in any judicial proceedings relative to the Company (or any other obligor on the Securities), its creditors, or its property and shall be entitled to and empowered to collect, receive, and distribute any money or other property payable or deliverable on any such claims, and any custodian in any such judicial proceedings is hereby authorized by each Holder to make such payments to the Trustee and, in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee under Section 7.07 hereof. Nothing contained herein shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Securityholder any plan of reorganization, arrangement, adjustment, or composition affecting the Securities or the rights of any Holder thereof, or to authorize the Trustee to vote in respect of the claim of any Securityholder in any such proceeding.

Section 6.10 Priorities.

If the Trustee collects any money with respect to Securities of any series pursuant to this Article, it shall pay out the money in the following order:

FIRST: to the Trustee, its agents, and attorneys for amounts due under Section 7.07 hereof, including payment of all compensation, expense and liabilities incurred, and all advances made, by the Trustee and the costs and expenses of collection;

SECOND: in accordance with the subordination provisions, if any, of the Securities of such series;

THIRD: to Securityholders for amounts due and unpaid on the Securities of such series for principal, premium, if any, and interest, ratably, without preference or priority of any kind, according to the amounts due and payable on the Securities of such series for principal, premium, if any, and interest, respectively; and

FOURTH: to the Company or to such party as a court of competent jurisdiction shall direct.

The Trustee may fix a record date and payment date for any payment to Holders of Securities of any series pursuant to this Section. The Trustee shall notify the Company in writing reasonably in advance of any such record date and payment date.

Section 6.11 Undertaking for Costs.

In any suit for the enforcement of any right or remedy under this Indenture or in any suit against the Trustee for any action taken or omitted by it as a Trustee, a court in its discretion may require the filing by any party litigant in the suit of an undertaking to pay the costs of the suit, and the court in its discretion may assess reasonable costs, including reasonable attorneys' fees and expenses, against any party litigant in the suit, having due regard to the merits and good faith of the claims or defense made by the party litigant. This Section does not apply to a suit by the Trustee, a suit by a Holder pursuant to Section 6.07 hereof or a suit by Holders of more than 10% in principal amount of the then outstanding Securities of any series.

ARTICLE 7

TRUSTEE

Section 7.01 Duties of Trustee.

(a) If an Event of Default has occurred and is continuing, the Trustee shall exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs.

(b) Except during the continuance of an Event of Default known to the Trustee:

(i) the duties of the Trustee shall be determined solely by the express provisions of this Indenture or the TIA and the Trustee need perform only those duties that are specifically set forth in this Indenture or the TIA and no others, and no implied covenants or obligations shall be read into this Indenture against the Trustee; and

(ii) in the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture. However, in the case of any certificates or opinions which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall examine the certificates and opinions to determine whether or not they conform to the requirements of this Indenture (but need not confirm or investigate the accuracy of mathematical calculations or other facts stated therein).

(c) The Trustee may not be relieved from liabilities for its own negligent action, its own negligent failure to act, or its own willful misconduct, except that:

(i) this paragraph does not limit the effect of paragraph (b) of this Section;

(ii) the Trustee shall not be liable for any error of judgment made in good faith by a responsible officer of the Trustee, unless it is proved that the Trustee was negligent in ascertaining the pertinent facts; and

(iii) the Trustee shall not be liable with respect to any action it takes or omits to take in good faith in accordance with a direction received by it pursuant to Section 6.05 hereof.

(d) Whether or not therein expressly so provided, every provision of this Indenture that in any way relates to the Trustee is subject to paragraphs (a), (b), and (c) of this Section.

(e) No provision of this Indenture shall require the Trustee to expend or risk its own funds or incur any liability. The Trustee may refuse to perform any duty or exercise any right or power, including without limitation, the provisions of Section 6.05 hereof, unless it receives security and indemnity satisfactory to it against any loss, liability or expense.

(f) The Trustee shall not be liable for interest on any money received by it except as the Trustee may agree in writing with the Company. Absent written instruction from the Company, the Trustee shall not be required to invest any such money. Money held in trust by the Trustee need not be segregated from other funds except to the extent required by law.

Section 7.02 Rights of Trustee.

Subject to TIA Section 315(a) through (d):

(a) The Trustee may conclusively rely on any document believed by it to be genuine and to have been signed or presented by the proper person. The Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness, or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit.

(b) Before the Trustee acts or refrains from acting, it may require an Officers' Certificate or an Opinion of Counsel, or both. The Trustee shall not be liable for any action it takes or omits to take in good faith in reliance on such Officers' Certificate or Opinion of Counsel.

(c) The Trustee may act through agents and shall not be responsible for the misconduct or negligence of any agent appointed with due care.

(d) The Trustee shall not be liable for any action it takes or omits to take in good faith which it believes to be authorized or within its rights or powers under the Indenture, unless the Trustee's conduct constitutes negligence.

(e) Unless otherwise specifically provided in this Indenture, any demand, request, direction, or notice from the Company shall be sufficient if signed by an Officer of the Company.

(f) The Trustee may consult with counsel of its selection and may rely upon the advice of such counsel or any Opinion of Counsel.

(g) The Trustee shall not be deemed to have notice of any Default or Event of Default unless a Trust Officer of the Trustee has actual knowledge thereof or unless written notice of any event that is in fact such a default is received by the Trustee at the Corporate Trust Office of the Trustee, and such notice references the Securities generally or the Securities of a particular series, as the case may be, and this Indenture.

(h) The permissive rights of the Trustee to do things enumerated in this Indenture shall not be construed as duties.

Section 7.03 Individual Rights of Trustee.

The Trustee in its individual or any other capacity may become the owner or pledgee of Securities and may otherwise deal with the Company or an Affiliate with the same rights it would have if it were not Trustee. Any Agent may do the same with like rights. However, the Trustee is subject to TIA Sections 310(b) and 311.

Section 7.04 Trustee's Disclaimer.

The Trustee makes no representation as to the validity or adequacy of this Indenture or the Securities, it shall not be accountable for the Company's use of the proceeds from the Securities, and it shall not be responsible for any statement in the Securities other than its certificate of authentication.

Section 7.05 Notice of Defaults.

If a Default or Event of Default with respect to the Securities of any series occurs and is continuing and if it is known to the Trustee, the Trustee shall mail to all Holders of Securities of that series a notice of the Default or Event of Default within 90 days after it occurs. Except in the case of a Default or Event of Default in payment on any such Security, the Trustee may withhold the notice if and so long as a committee of its Trust Officers in good faith determines that withholding the notice is in the interests of such Securityholders.

Section 7.06 Reports by Trustee to Holders.

Within 60 days after May 15 in each year, the Trustee with respect to any series of Securities shall mail to Holders of Securities of that series as provided in TIA Section 313(c) a brief report dated as of such May 15 that complies with TIA Section 313(a) (if such report is required by TIA Section 313(a)). The Trustee shall also comply with TIA Section 313(b)(2).

A copy of each report at the time of its mailing to Securityholders shall be mailed to the Company and filed with the Commission and each stock exchange on which any of the Securities are listed, as required by TIA Section 313(d). The Company shall notify the Trustee when the Securities are listed on any stock exchange, and of any delisting thereof.

Section 7.07 Compensation and Indemnity.

The Company shall pay to the Trustee from time to time such compensation as shall be agreed upon in writing for its services hereunder. The Company shall reimburse the Trustee upon written request for all reasonable out-of-pocket expenses incurred by it. Such expenses shall include the reasonable compensation and out-of-pocket expenses of the Trustee's agents and counsel.

The Company shall indemnify each of the Trustee or any predecessor Trustee for any loss, liability, damage, claims or expenses, including taxes (other than taxes based upon, measured by or determined by the income of the Trustee) incurred by it, without negligence or bad faith on its part, in connection with the acceptance or administration of this Indenture and its duties hereunder. The Trustee shall notify the Company promptly of any claim for which it may seek indemnity. The Company shall defend the claim and the Trustee shall cooperate in the defense. The Trustee may have separate counsel and the Company shall pay the reasonable fees and expenses of such counsel. The Company need not pay for any settlement made without its consent.

To secure the Company's payment obligations in this Section, the Trustee shall have a lien prior to the Securities on all money or property held or collected by the Trustee in its capacity as Trustee, except money or property held in trust to pay principal and interest on particular Securities. Such lien will survive the satisfaction and discharge of this Indenture.

If the Trustee incurs expenses or renders services after an Event of Default specified in Section 6.01(4) or (5) hereof occurs, the expenses and the compensation for the services will be intended to constitute expenses of administration under any applicable Bankruptcy Law.

This Section 7.07 shall survive the resignation or removal of the Trustee and the termination of this Indenture.

Section 7.08 Replacement of Trustee.

A resignation or removal of the Trustee with respect to one or more or all series of Securities and appointment of a successor Trustee shall become effective only upon the successor Trustee's acceptance of appointment as provided in this Section.

The Trustee may resign with respect to one or more or all series of Securities by so notifying the Company in writing. The Holders of a majority in principal amount of the then outstanding Securities of any series may remove the Trustee as to that series by so notifying the Trustee in writing and may appoint a successor Trustee with the Company's consent. The Company may remove the Trustee with respect to one or more or all series of Securities if:

(1) the Trustee fails to comply with Section 7.10 hereof;

(2) the Trustee is adjudged bankrupt or insolvent;

(3) a receiver or other public officer takes charge of the Trustee or its property; or

(4) the Trustee becomes incapable of acting.

If, as to any series of Securities, the Trustee resigns or is removed or if a vacancy exists in the office of Trustee for any reason, the Company shall promptly appoint a successor Trustee for that series. Within one year after the successor Trustee with respect to any series takes office, the Holders of a majority in principal amount of the then outstanding Securities of that series may appoint a successor Trustee to replace the successor Trustee appointed by the Company. If a successor Trustee as to a particular series does not take office within 60 days after the retiring Trustee resigns or is removed, the retiring Trustee, the Company, or the Holders of at least 10% in principal amount of the then outstanding Securities of that series may petition any court of competent jurisdiction for the appointment of a successor Trustee.

If the Trustee fails to comply with Section 7.10 hereof with respect to any series, any Holder of Securities of that series who satisfies the requirements of TIA Section 310(b) may petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor Trustee for that series.

A successor Trustee as to any series of Securities shall deliver a written acceptance of its appointment to the retiring Trustee and to the Company. Immediately after that, the retiring Trustee shall promptly transfer all property held by it as Trustee to the successor Trustee (subject to the lien provided for in Section 7.07 hereof), the resignation or removal of the retiring Trustee shall become effective, and the successor Trustee shall have all the rights, powers, and duties of the Trustee under this Indenture as to that series. The successor Trustee shall mail a notice of its succession to the Holders of Securities of that series.

Notwithstanding replacement of the Trustee pursuant to this Section 7.08, the Company's obligations under Section 7.07 hereof shall continue for the benefit of the retiring trustee.

In case of the appointment hereunder of a successor Trustee with respect to the Securities of one or more (but not all) series, the Company, the retiring Trustee and each successor Trustee with respect to the Securities of one or more series shall execute and deliver an indenture supplemental hereto wherein each successor Trustee shall accept such appointment and that (1) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor Trustee all the rights, powers, trusts, and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates, (2) shall contain such provisions as shall be necessary or desirable to confirm that all the rights, powers, trusts, and duties of the retiring Trustee is not retiring shall contain to be vested in the retiring Trustee, and (3) shall add to or change any of the provisions of this Indenture as shall be necessary or desirable to provide for or facilitate the administration of the trusts hereunder by more than one Trustee; *provided, however*, that nothing herein or in such supplemental indenture shall constitute such Trustees of the same trust and that each such Trustee shall be trustee of a trust hereunder separate and apart from any trust trust hereunder administered by any other such Trustee.

Upon the execution and delivery of such supplemental indenture the resignation or removal of the retiring Trustee shall become effective to the extent provided therein and each such successor Trustee, without any further act, deed, or conveyance, shall become vested with all the rights, powers, trusts, and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates.

Section 7.09 Successor Trustee by Merger, Etc.

If the Trustee as to any series of Securities consolidates, merges, or converts into, or transfers all or substantially all of its corporate trust business to, another corporation, the successor corporation without any further act shall be the successor Trustee as to that series.

Section 7.10 Eligibility; Disqualification.

Each series of Securities shall always have a Trustee who satisfies the requirements of TIA Section 310(a)(1), (2) and (5). The Trustee as to any series of Securities shall always have a combined capital and surplus of at least \$25,000,000 as set forth in its most recent published annual report of condition. The Trustee is subject to TIA Section 310(b).

Section 7.11 Preferential Collection of Claims Against Company.

The Trustee is subject to TIA Section 311(a), excluding any creditor relationship listed in TIA Section 311(b). A Trustee who has resigned or been removed shall be subject to TIA Section 311(a) to the extent indicated therein.

ARTICLE 8

SATISFACTION AND DISCHARGE; DEFEASANCE

Section 8.01 Satisfaction and Discharge.

This Indenture will be discharged and will cease to be of further effect with respect to any series of Securities issued hereunder, when:

(1) either:

(a) all Securities of such series that have been authenticated (except lost, stolen or destroyed Securities that have been replaced or paid and Notes for whose payment money has theretofore been deposited in trust and thereafter repaid to the Company) have been delivered to the Trustee for cancellation; or

(b) all Securities of such series that have not been delivered to the Trustee for cancellation have become due and payable by reason of the making of a notice of redemption or otherwise or will become due and payable within one year and the Company or any Guarantor has irrevocably deposited or caused to be deposited with the Trustee as trust funds in trust solely for the benefit of the Holders, cash in U.S. dollars, non-callable U.S. Government Obligations, foreign government obligations, or a combination thereof, in such amounts as will be sufficient without consideration of any reinvestment of interest, to pay and discharge the entire indebtedness on the Notes not delivered to the Trustee for cancellation for principal, premium and accrued interest to the date of Maturity or redemption:

(2) no Default or Event of Default with respect to such series of Securities shall have occurred and be continuing on the date of such deposit or shall occur as a result of such deposit and such deposit will not result in a breach or violation of, or constitute a default under, any other material instrument to which the Company or any Guarantor is a party to or by which the Company or any Guarantor is bound;

(3) the Company or any Guarantor has paid or caused to be paid all sums payable by it under this Indenture with respect to such series of Securities; and

(4) the Company has delivered irrevocable instructions to the Trustee under this Indenture to apply the deposited money toward the payment of the Securities of such series at Maturity or the redemption date, as the case may be. In addition, the Company must deliver an Officers' Certificate and an Opinion of Counsel to the Trustee stating that all conditions precedent to satisfaction and discharge have been satisfied.

Notwithstanding, the satisfaction and discharge of this Indenture with respect to a series of Securities, if money shall have been deposited with the Trustee pursuant to subclause (b) of clause (1) of this Section, the provisions of Section 8.06 shall survive.

For purposes of this Indenture, the term "foreign government obligations" means, with respect to Securities of any series that are denominated in a currency other than United States dollars, (a) direct obligations of the government that issued or caused to be issued such currency for the payment of which obligations its full faith and credit is pledged, which are not callable or redeemable at the option of the issuer thereof; or (b) obligations of a person controlled or supervised by or acting as an agency or instrumentality of that government, the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by that government, which are not callable or redeemable at the option of the issuer thereof.

Section 8.02 Option to Effect Legal Defeasance or Covenant Defeasance.

Unless Section 8.03 or 8.04 is otherwise specified to be inapplicable to Securities of a series, the Company may, at the option of its Board of Directors evidenced by a resolution set forth in an Officers' Certificate, at any time, elect to have either Section 8.03 or 8.04 hereof be applied to all outstanding Securities of any such series upon compliance with the conditions set forth below in this Article Eight.

Section 8.03 Legal Defeasance and Discharge.

Upon the Company's exercise under Section 8.02 hereof of the option applicable to this Section 8.03, the Company and any Guarantor shall, subject to the satisfaction of the conditions set forth in Section 8.05 hereof, be deemed to have been discharged from their respective obligations with respect to all outstanding Securities of any series on the date the conditions set forth below are satisfied (hereinafter, "Legal Defeasance"). For this purpose, Legal Defeasance means that the Company and any Guarantor shall be deemed to have paid and discharged the entire Indebtedness represented by the outstanding Securities of a series, which shall thereafter be deemed to be "outstanding" only for the purposes of Section 8.06 hereof and the other Sections of this Indenture referred to in (a) and (b) below, and to have satisfied all its other obligations under such Securities and this Indenture (and the Trustee, on demand of and at the expense of the Company, shall execute proper instruments acknowledging the same), except for the following provisions which shall survive until otherwise terminated or discharged hereunder: (a) the rights of Holders of outstanding Securities to receive solely from the trust fund described in Section 8.05 hereof, and as more fully set forth in such Section, payments in respect of the principal of, premium, and interest on such Securities when such payments are due, (b) the Company's obligations with respect to such Notes under Article 2 and Section 4.02 hereof, (c) the rights, powers, trusts, duties, and immunities of the Company may exercise its option under this Section 8.03 notwithstanding the prior exercise of its option under this Section 8.03 notwithstanding the prior exercise of its option under this Section 8.03 notwithstanding the prior exercise of its option under Section 8.04 hereof.

Section 8.04 Covenant Defeasance.

Upon the Company's exercise under Section 8.02 hereof of the option applicable to this Section 8.04, the Company or any Guarantors shall, subject to the satisfaction of the conditions set forth in Section 8.05 hereof, be released from their respective obligations under the covenants contained in Sections 4.03, 4.04, 4.05, 4.06, and 4.07, and Section 5.01 hereof with respect to the outstanding Securities of any series on and after the date the conditions set forth in Section 8.05 are satisfied (hereinafter, "Covenant Defeasance"), and the Securities of such series shall thereafter be deemed not "outstanding" for the purposes of any direction, waiver, consent, or declaration, or act of Holders (and the consequences of any thereof) in connection with such covenants, but shall continue to be deemed "outstanding" for all other purposes hereunder (it being understood that such Securities shall not be deemed outstanding for accounting purposes). For this purpose, Covenant Defeasance means that, with respect to the outstanding Securities of any series, the Company or any Guarantors may omit to comply with and shall have no liability in respect of any term, condition, or limitation set forth in any such covenant, whether directly or indirectly, by reason of any reference elsewhere herein to any such covenant or by reason of any reference in any other provision herein or in any other document and such Securities shall be unaffected thereby. In addition, upon the Company's exercise under Section 8.02 hereof of the option applicable to this Section 8.04 hereof, subject to the satisfaction of the conditions set forth in Section 6.01 hereof shall not constitute Events of Default.

The following shall be the conditions to the application of either Section 8.03 or 8.04 hereof to the outstanding Securities of any series. In order to exercise either Legal Defeasance or Covenant Defeasance:

(a) the Company must irrevocably deposit with the Trustee, in trust, for the benefit of the Holders, cash in United States dollars, non-callable U.S. Government Obligations, foreign government obligations, or a combination thereof, in such amounts as will be sufficient, in the opinion of a nationally recognized firm of independent public accountants, to pay the principal of, premium, and interest on the outstanding Securities on the stated date for payment thereof or on the applicable redemption date, as the case may be;

(b) in the case of an election under Section 8.03 hereof, the Company shall have delivered to the Trustee an Opinion of Counsel in the United States reasonably acceptable to the Trustee confirming that (A) the Company has received from, or there has been published by, the Internal Revenue Service a ruling or (B) since the date hereof, there has been a change in the applicable federal income tax law, in either case to the effect that, and based thereon such Opinion of Counsel shall confirm that, the Holders of the outstanding Securities will not recognize income, gain, or loss for federal income tax purposes as a result of such Legal Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred;

(c) in the case of an election under Section 8.04 hereof, the Company shall have delivered to the Trustee an Opinion of Counsel in the United States reasonably acceptable to the Trustee confirming that the Holders of the outstanding Securities will not recognize income, gain, or loss for federal income tax purposes as a result of such Covenant Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred;

(d) no Default or Event of Default shall have occurred and be continuing on the date of such deposit (other than a Default or Event of Default resulting from the incurrence of Indebtedness all or a portion of the proceeds of which will be used to defease the Securities pursuant to this Article Eight concurrently with such incurrence) or insofar as Sections 6.01(4) or 6.01(5) hereof is concerned, at any time in the period ending on the 91st day after the date of deposit;

(e) such Legal Defeasance or Covenant Defeasance shall not result in a breach or violation of, or constitute a default under, any material agreement or instrument (other than this Indenture) to which the Company or any of its Subsidiaries is a party or by which the Company or any of its Subsidiaries is bound;

(f) the Company shall have delivered to the Trustee an Officers' Certificate stating that the deposit was not made by the Company with the intent of preferring the Holders over any other creditors of the Company or with the intent of defeating, hindering, delaying, or defrauding any other creditors of the Company; and

(g) the Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent provided for or relating to the Legal Defeasance or the Covenant Defeasance have been complied with.

Section 8.06 Deposited Money and Government Securities to be Held in Trust; Other Miscellaneous Provisions

Subject to Section 8.07 hereof, all money and non-callable U.S. Government Obligations or foreign government obligations (including the proceeds thereof) deposited with the Trustee (or other qualifying trustee, collectively for purposes of this Section 8.06, the "Trustee") pursuant to Section 8.01 or Section 8.05 hereof in respect of the outstanding Securities shall be held in trust and applied by the Trustee, in accordance with the

provisions of such Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as Paying Agent) as the Trustee may determine, to the Holders of such Securities of all sums due and to become due thereon in respect of principal, premium, if any, and interest, but such money need not be segregated from other funds except to the extent required by law.

The Company shall pay and indemnify the Trustee against any tax, fee, or other charge imposed on or assessed against the cash or non-callable U.S. Government Obligations or foreign government obligations deposited pursuant to Section 8.05 hereof or the principal and interest received in respect thereof other than any such tax, fee, or other charge which by law is for the account of the Holders of the outstanding Securities.

Anything in this Article Eight to the contrary notwithstanding, the Trustee shall deliver or pay to the Company from time to time upon the request of the Company any money or non-callable U.S. Government Obligations or foreign government obligations held by it as provided in Section 8.05 hereof which, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee (which may be the opinion delivered under Section 8.05(a) hereof), are in excess of the amount thereof that would then be required to be deposited to effect an equivalent Legal Defeasance or Covenant Defeasance.

Section 8.07 Repayment to Company.

Any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of, premium, if any, or interest on any Securities and remaining unclaimed for two years after such principal and premium, if any, or interest has become due and payable shall be paid to the Company on its request or (if then held by the Company) shall be discharged from such trust; and the Holder of such Securities shall thereafter look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, shall thereafter look only to the Dompany for payment thereof, that the Trustee or such Paying Agent, before being required to make any such repayment, may at the direction and expense of the Company cause to be published once, in the New York Times and The Wall Street Journal (national edition), notice that such money remains unclaimed and that, after a date specified therein, which shall not be less than 30 days from the date of such notification or publication, any unclaimed balance of such money then remaining will be repaid to the Company.

Section 8.08 Reinstatement.

If the Trustee or Paying Agent is unable to apply any United States dollars or non-callable U.S. Government Securities in accordance with Section 8.03 or 8.04 hereof, as the case may be, by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, then the Company's obligations under this Indenture and the Securities shall be revived and reinstated as though no deposit had occurred pursuant to Section 8.03 or 8.04 hereof until such time as the Trustee or Paying Agent is permitted to apply all such money in accordance with Section 8.03 or 8.04 hereof, as the case may be; *provided, however*, that, if the Company makes any payment of principal of, premium, if any, or interest on any Securities following the reinstatement of its obligations, the Company shall be subrogated to the rights of the Holders of such Securities to receive such payment from the money held by the Trustee or Paying Agent.

ARTICLE 9

SUPPLEMENTS, AMENDMENTS AND WAIVERS

Section 9.01 Without Consent of Holders.

The Company and the Trustee as to any series of Securities may supplement or amend this Indenture or the Securities without notice to or the consent of any Securityholder:

(1) to cure any ambiguity, defect, or inconsistency;

(2) to comply with Article 5;

(3) to comply with any requirements of the Commission in connection with the qualification of this Indenture under the TIA;

(4) to add or change any provisions of this Indenture to facilitate the issuance of, or to liberalize the terms of, Securities issued in bearer form, or to permit or facilitate the issuance of Securities in uncertificated form, provided that this action will not adversely affect the interests of the Holders of the Securities of any series in any material respect;

(5) to add to, change or eliminate any of the provisions of this Indenture in respect of one or more series of Securities *provided*, *however*, that any such addition, change, or elimination (A) shall neither (i) apply to any Security of any series created prior to the execution of such supplemental indenture and entitled to the benefit of such provision nor (ii) modify the rights of the Holder of any such Security with respect to such provision or (B) shall become effective only when there is no outstanding Security of any series created prior to the execution of such supplemental indenture and entitled to the benefit of such provision;

(6) to add to existing covenants additional covenants for the benefit of the Holders of all or any series of Securities, to surrender any right or power conferred upon the Company in this Indenture, or to add events of default for the benefit of Holders of all or any series of Securities;

(7) to secure previously unsecured Securities;

(8) to make any change that does not adversely affect in any material respect the interests of the Securityholders of any series;

(9) to establish additional series of Securities as permitted by Section 2.01 hereof;

(10) to establish the form or terms of Securities of any series, including the provisions and procedures, if applicable, for the conversion or exchange of the Securities into other securities or property;

(11) to evidence and provide for the acceptance or appointment of a successor Trustee or facilitate the administration of the trusts under this Indenture by more than one Trustee;

(12) to make any provision with respect to the conversion or exchange of rights of Holders pursuant to the requirements of this Indenture;

(13) to close this Indenture with respect to the authentication and delivery of additional series of Securities or to qualify, or maintain qualification of, this Indenture under the TIA; or

(14) to supplement any of the provisions of this Indenture to the extent necessary to permit or facilitate defeasance and discharge of any series of Securities, provided that the action shall not adversely affect the interests of the Holders of Securities of any series in any material respect.

Section 9.02 With Consent of Holders.

Subject to Section 6.07, the Company and the Trustee as to any series of Securities may amend this Indenture or the Securities of that series with the written consent of the Holders of a majority in principal amount of the then outstanding Securities of each series affected by the amendment, with each such series voting as a separate class. The Holders of a majority in principal amount of the then outstanding Securities of any series may also waive compliance in a particular instance by the Company with any provision of this Indenture with respect to that series or the Securities of that series; *provided, however*, that without the consent of each Securityholder affected, an amendment or waiver may not:

(1) reduce the percentage of the principal amount of Securities whose Holders must consent to an amendment or waiver;

(2) reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous provision;

(3) reduce the rate of, or change the time for payment of interest on, any Security;

(4) reduce the principal of or change the fixed Maturity of any Security or waive a redemption payment or alter the redemption provisions with respect thereto;

(5) make any Security payable in money other than that stated in the Security (including defaulted interest);

(6) reduce the principal amount of Original Issue Discount Securities payable upon acceleration of the Maturity thereof;

(7) make any change in Section 6.04, 6.07 or this Section 9.02; or

(8) waive a default in the payment of the principal of, or interest on, any Security, except to the extent otherwise provided for in Section 6.02 hereof.

An amendment or waiver under this Section that waives, changes, or eliminates any covenant or other provision of this Indenture that has expressly been included solely for the benefit of one or more particular series of Securities, or that modifies the rights of the Holders of Securities of such series with respect to such covenant or other provision, shall be deemed not to affect the rights under this Indenture of the Holders of Securities of any other series.

It shall not be necessary for the consent of the Holders under this Section to approve the particular form of any proposed amendment or waiver, but it shall be sufficient if such consent approves the substance thereof.

The Company shall mail supplemental indentures to Holders upon request. Any failure of the Company to mail such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such supplemental indenture or waiver.

Section 9.03 Revocation and Effect of Consents.

Until an amendment or waiver becomes effective, a consent to it by a Holder of a Security is a continuing consent by the Holder and every subsequent Holder of a Security or portion of a Security that evidences the same debt as the consenting Holder's Security, even if notation of the consent is not made on any Security; *provided*, *however*, any such Holder or subsequent Holder may revoke the consent as to his Security or portion of a Security if the Trustee receives the written notice of revocation before the date on which the amendment, supplement, or waiver becomes effective. An amendment, supplement, or waiver shall become effective in accordance with its terms and thereafter shall bind every Holder of Securities of that series.

Section 9.04 Notation on or Exchange of Securities.

If an amendment, supplement, or waiver changes the terms of a Security: (a) the Trustee may require the Holder of the Security to deliver it to the Trustee, the Trustee may, at the written direction of the Company and at the Company's expense, place an appropriate notation on the Security about the changed terms and return it to the Holder and the Trustee may place an appropriate notation on any Security thereafter authenticated; or (b) if the Company or the Trustee so determines, the Company in exchange for the Security shall issue and the Trustee shall authenticate a new Security that reflects the changed terms.

Failure to make the appropriate notation or issue a new Security shall not affect the validity and effect of such amendment, supplement, or waiver.

Section 9.05 Trustee to Sign Amendments, Etc.

Subject to the preceding sentence, the Trustee shall sign any amendment or supplemental indenture if the same does not adversely affect the rights, duties, liabilities, or immunities of the Trustee. The Trustee may, but shall not be obligated to, execute any such amendment, supplement, or waiver that affects the Trustee's own rights, duties, liabilities, or immunities under this Indenture or otherwise. The Company may not sign an amendment or supplemental indenture until the Board of Directors approves it. In executing any amended or supplemental indenture, the Trustee shall be entitled to receive and (subject to Section 7.01) shall be fully protected in relying upon, in addition to the documents required by Section 11.04 hereof, an Officer's Certificate and an Opinion of Counsel stating that the execution of such amended or supplemental indenture is authorized or permitted by this Indenture.

ARTICLE 10

GUARANTEES

Section 10.01 Guarantee.

Any series of Securities may be guaranteed by one or more of the Guarantors. The terms and the form of any such Guarantee will be established in the manner contemplated by Section 2.01 for that particular series of Securities.

ARTICLE 11

MISCELLANEOUS

Section 11.01 Indenture Subject to Trust Indenture Act.

This Indenture is subject to the provisions of the TIA that are required to be part of this Indenture, and shall, to the extent applicable, be governed by such provisions.

Section 11.02 Notices.

Any notice or communication is duly given if in writing and delivered in person, sent by first-class mail (registered or certified, return receipt requested), or overnight air courier guaranteeing next-day delivery, addressed as follows:

If to the Company and/or any Guarantor:

TTM Technologies, Inc. 1665 Scenic Avenue, Suite 250 Costa Mesa, California 92626 Attention: Chief Financial Officer Telephone: (714) 327-3000

with a copy to:

Greenberg Traurig, LLP 2375 E. Camelback Rd, Suite 700 Attention: Logan Miller, Esq. Telephone: (602) 445-8000

If to the Trustee:

American Stock Transfer & Trust Company 6201 15th Avenue Brooklyn, New York 11219 Attention: General Counsel Telephone: (718) 921-8200

The Company or the Trustee by notice to the other may designate additional or different addresses for subsequent notices or communications.

All notices and communications (other than those sent to Holders) shall be deemed to have been duly given: at the time delivered by hand, if personally delivered and signed for; five Business Days after being deposited in the mail, postage prepaid; when receipt acknowledged, if telecopied; and the next business day after timely delivery to the courier, if sent by overnight air courier guaranteeing next-day delivery and signed for.

Any notice or communication to a Securityholder shall be mailed by first-class mail, certified or registered, return receipt requested, or by overnight air courier guaranteeing next day delivery to his address shown on the register kept by the Registrar. Failure to mail a notice or communication to a Security holder or any defect in it shall not affect its sufficiency with respect to other Securityholders. If the Company mails a notice or communication to Securityholders, it shall mail a copy to the Trustee at the same time. Any notice or communication shall also be mailed to any Person described in TIA Section 313(c), to the extent required by the TIA.

If a notice or communication is mailed in the manner provided above within the time prescribed, it is duly given, whether or not the addressee receives it.

Section 11.03 Communication By Holders With Other Holders.

Holders may communicate pursuant to TIA Section 312(b) with other Holders with respect to their rights under this Indenture or the Securities. The Company, the Trustee, the Registrar, and anyone else shall have the protection of TIA Section 312(c).

Section 11.04 Certificate and Opinion as to Conditions Precedent.

Upon any request or application by the Company to the Trustee to take any action under this Indenture, the Company shall furnish to the Trustee:

(a) an Officers' Certificate, in form and substance reasonably satisfactory to the Trustee (which shall include the statements set forth in Section 11.05 hereof) stating that, in the opinion of the signers, all conditions precedent and covenants, if any, provided for in this Indenture relating to the proposed action have been complied with; and

(b) an Opinion of Counsel, in form and substance reasonably satisfactory to the Trustee (which shall include the statements set forth in Section 11.05 hereof) stating that, in the opinion of such counsel, such action is authorized or permitted by this Indenture and that all such conditions precedent have been complied with.

Section 11.05 Statements Required in Certificate or Opinion.

Each certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture (other than the certificate provided pursuant to TIA Section 314(a)(4) shall include:

(1) a statement that the Person making such certificate or opinion has read such covenant or condition;

(2) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;

(3) a statement that, in the opinion of such Person, he or she has made such examination or investigation as is necessary to enable him or her to express an informed opinion as to whether or not such covenant or condition has been complied with; and

(4) a statement as to whether or not, in the opinion of such Person, such condition or covenant has been complied with; provided, however, that with respect to matters of fact an Opinion of Counsel may rely on an officer's certificate or certificates of public officials.

Section 11.06 Rules by Trustee and Agents.

The Trustee as to Securities of any series may make reasonable rules for action by or at a meeting of Holders of Securities of that series. The Registrar and any Paying Agent or Authenticating Agent may make reasonable rules and set reasonable requirements for their functions.

Section 11.07 Legal Holidays.

A "Legal Holiday" is a Saturday, a Sunday or a day on which banking institutions in the City of New York, New York or at a place of payment are authorized by law, regulation, or executive order to remain closed. If a payment date is a Legal Holiday at a place of payment, payment may be made at that place on the next succeeding day that is not a Legal Holiday, and no interest shall accrue for the intervening period.

Section 11.08 No Recourse Against Others.

No past, present or future director, officer, employee, manager, securityholder, or incorporator, as such, of the Company or any successor Person shall have any liability for any obligations of the Company or any Guarantor under any series of Securities, any guarantees thereof, or the Indenture or for any claim based on, in respect of, or by reason of such obligations or their creation. Each Securityholder by accepting a Security waives and releases all such liability. The waiver and release are part of the consideration of issuance of the Securities.

Section 11.09 Counterparts.

This Indenture may be executed by the parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

Section 11.10 Governing Law.

The internal laws of the State of New York shall govern and be used to construe this Indenture and the Securities (including any guarantees thereof), without giving effect to the applicable principles of conflicts of laws to the extent that the application of the laws of another jurisdiction would be required thereby.

Section 11.11 Submission to Jurisdiction; Service of Process; Waiver of Jury Trial

Each party hereto hereby submits to the nonexclusive jurisdiction of the United States District Court for the Southern District of New York and of any New York State Court sitting in New York City for purposes of all legal proceedings arising out of or relating to this Indenture, the Securities (including any guarantee thereof) or the transactions contemplated hereby and thereby. Each party hereto irrevocably waives, to the fullest extent permitted by law, any objection which it may now or hereafter have to the laying of the venue of any such proceeding brought in such a court and any claim that any such proceeding brought in such a court has been brought in an inconvenient forum. Process in any such suit, action or proceeding may be served on any party anywhere in the world, whether within or without the State of New York. Without limiting the foregoing, the parties agree that service of process upon such party at the address referred to in Section 11.02, together with written notice of such service to such party, shall be deemed effective service of process upon such party. Each of the parties hereto irrevocably waives any and all rights to trial by jury in any legal proceeding arising out of or relating to this Indenture, the Securities (including any guarantee thereof) or the transactions contemplated hereby.

Section 11.12 Severability.

In case any provision in this Indenture or in the Securities shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 11.13 Effect of Headings, Table of Contents, Etc.

The Article and Section headings herein and the table of contents are for convenience only and shall not affect the construction hereof.

Section 11.14 Successors and Assigns.

All covenants and agreements of the Company in this Indenture and the Securities shall bind its successors and assigns. All agreements of the Trustee in this Indenture shall bind its successors, except as otherwise provided by the terms hereof.

Section 11.15 No Interpretation of Other Agreements.

This Indenture may not be used to interpret another indenture, loan, or debt agreement of the Company or any Subsidiary or of any Person. Any such indenture, loan, or debt agreement may not be used to interpret this Indenture.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed, all as of the date first above written.

ISSUER:

TTM TECHNOLOGIES, INC.

By:

Name: Title:

TRUSTEE:

AMERICAN STOCK TRANSFER & TRUST COMPANY

By:

[

Name: Title:

GUARANTORS:

]

By:

Name: Title:

Schedule 1

GUARANTORS



October 30, 2013

TTM Technologies, Inc. 1665 Scenic Avenue, Suite 250 Costa Mesa, California 92626

Re: TTM Technologies, Inc. — Registration Statement on Form S-3

Ladies and Gentlemen:

As legal counsel to TTM Technologies, Inc., a Delaware corporation (the "Company"), we have assisted in the preparation of the Company's Registration Statement on Form S-3 (the "Registration Statement"), being filed with the Securities and Exchange Commission (the "Commission") by the Company under the Securities Act of 1933, as amended (the "Act"), relating to (i) shares of common stock ("Common Stock"), par value \$0.001 per share, of the Company; (ii) one or more classes or series of shares of preferred stock (the "Preferred Stock"), par value \$0.001 per share, of the Company; (iii) one or more series of debt securities of the Company (collectively, the "Debt Securities"); (iv) warrants to purchase Common Stock, Preferred Stock, Debt Securities, or any combination of those securities (the "Warrants"); (v) units consisting of Common Stock, Preferred Stock, Debt Securities, and/or Warrants (the "Units"); and (vi) the Common Stock, Preferred Stock or Debt Securities, that may be issued upon the exercise of the Warrants or in connection with the Units, whichever is applicable. The Common Stock, Preferred Stock, Debt Securities, Warrants, and Units are hereinafter referred to collectively as the "Securities." The Securities may be issued and sold or delivered from time to time as set forth in the Registration Statement, any amendment thereto, the prospectus contained therein (the "Prospectus") and supplements to the prospectus (the "Prospectus Supplements"), and pursuant to Rule 415 under the Act for an aggregate offering price not to exceed \$250,000,000.

The Debt Securities will be issued pursuant to one or more Indentures (each, an "Indenture"), each to be between the Company and a financial institution identified therein as the trustee (the "Trustee").

The Warrants will be issued under one or more Warrant Agreements (each, a "Warrant Agreement"), each to be between the Company and a counterparty or counterparties identified therein or a financial institution identified therein as the Warrant Agent (each, a "Warrant Agreement Counterparty").

The Units will be issued under one or more Unit Agreements (each, a "Unit Agreement"), each to be between the Company and a counterparty or counterparties identified therein or a financial institution identified therein as the Unit Agent (the "Unit Agreement Counterparty").

ALBANY AMSTERDAM ATLANTA AUSTIN BOSTON CHICAGO DALLAS DELAWARE DENVER FORT LAUDERDALE HOUSTON LAS VEGAS LONDON* LOS ANGELES MEXICO CITY+ MIAMI MILAN** NEW JERSEY NEW YORK ORANGE COUNTY **ORLANDO** PALM BEACH COUNTY PHILADELPHIA PHOENIX ROME** SACRAMENTO SAN FRANCISCO SEOUL* SHANGHAI SILICON VALLEY TALLAHASSEE TAMPA TEL AVIV TYSONS CORNER WARSAW WASHINGTON, D.C. WHITE PLAINS * OPERATES AS GREENBERG TRAURIG MAHER LLP OPERATES AS GREENBERG TRAURIG, S.C. A BRANCH OF GREENBERG TRAURIG, P.A. FLORIDA, USA OPERATES AS GREENBERG TRAURIG GRZESIAK sp.k. OPERATES AS GREENBERG TRAURIG LLP

- FOREIGN LEGAL CONSULTANT
- OFFICE ** STRATEGIC ALLIANCE

GREENBERG TRAURIG, LLP ■ ATTORNEYS AT LAW ■ WWW.GTLAW.COM 2375 East Camelback Road, Suite 700 ■ Phoenix, Arizona 85016 ■ Tel 602.445.8000 ■ Fax 602.445.8100 The facts, as we understand them, are set forth in the Registration Statement.

With respect to the opinions set forth below, we have examined originals, certified copies, or copies otherwise identified to our satisfaction as being true copies, only of the following:

- A. The Certificate of Incorporation of the Company, as amended;
- B. The Fourth Amended and Restated Bylaws of the Company;
- C. The Registration Statement; and
- D. The resolutions of the Board of Directors of the Company relating to the approval of the filing of the Registration Statement and the transactions in connection therewith.

In rendering the opinions set forth below, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the conformity to original documents of all documents submitted to us as duplicates or certified or conformed copies, and the authenticity of originals or such latter documents. We have also assumed that (i) at the time of execution, authentication, issuance, and delivery of the Debt Securities, the Indenture will be the valid and legally binding obligation of the Trustee; (ii) at the time of execution, countersignature, issuance, and delivery of any Warrants, the Warrant Agreement will be the valid and legally binding obligation of each Warrant Agreement Counterparty thereto; and (iii) at the time of execution, countersignature, issuance, and delivery of any Units, the Unit Agreement will be the valid and legally binding obligation of each Unit Agreement Counterparty thereto.

As to various questions of fact material to this opinion, we have relied, to the extent we deemed reasonably appropriate, upon representations or certificates of officers or directors of the Company, without independently verifying the accuracy of such representations and certificates.

In connection with the issuance of the Debt Securities, we have assumed further that (i) at the time of execution, authentication, issuance, and delivery of any Debt Securities, the related Indenture will have been duly authorized, executed, and delivered by the Company; and (ii) the execution, delivery, and performance by the Company of the Indenture and the Debt Securities will not violate the laws of any jurisdiction (provided that as to the Delaware General Corporation Law and the federal laws of the United States we make no such assumption).

TTM Technologies, Inc. October 30, 2013 Page 3

In connection with the issuance of Warrants, we have assumed further that (i) at the time of execution, countersignature, issuance, and delivery of any Warrants, the related Warrant Agreement will have been duly authorized, executed, and delivered by the Company; and (ii) the execution, delivery, and performance by the Company of such Warrant Agreement and such Warrants will not violate the laws of any jurisdiction (provided that as to the Delaware General Corporation Law and the federal laws of the United States we make no such assumption).

In connection with the issuance of the Units, we have assumed further that (i) at the time of execution, countersignature, issuance, and delivery of any Units, the related Unit Agreement will have been duly authorized, executed, and delivered by the Company; and (ii) the execution, delivery, and performance by the Company of such Unit Agreement and such Units will not violate the laws of any jurisdiction (provided that as to the Delaware General Corporation Law and the federal laws of the United States we make no such assumption).

Based solely upon and subject to the foregoing, and subject to the assumptions, limitations, and qualifications stated herein, we are of the opinion that:

(1) With respect to the Common Stock, assuming (i) the Registration Statement (including any amendments thereto) shall become effective under the Act; (ii) the taking by the Board of Directors of the Common Stock and the terms of the offering thereof; and (iii) due issuance and delivery of the Common Stock upon payment therefor in accordance with the applicable definitive underwriting agreement, if applicable, or Prospectus Supplement approved by the Board of Directors of the Common Stock will be validly issued, fully paid, and nonassessable.

(2) With respect to the Preferred Stock, assuming (i) the Registration Statement (including any amendments thereto) shall become effective under the Act; (ii) the taking by the Board of Directors of the Company of all necessary corporate action to authorize and approve the issuance and terms of the Preferred Stock and the terms of the offering thereof; (iii) due filing of the Certificate of Designation with the Delaware Secretary of State setting forth the terms of such Preferred Stock; and (iv) due issuance and delivery of the Preferred Stock upon payment therefor in accordance with the applicable definitive underwriting agreement, if applicable, or Prospectus or Prospectus Supplement approved by the Board of Directors of the Company, the Preferred Stock will be validly issued, fully paid, and nonassessable.

(3) With respect to the Debt Securities, assuming (i) the Registration Statement (including any amendments thereto) shall become effective under the Act; (ii) the taking of all necessary corporate action to approve the issuance and terms of the Debt Securities, the terms of the offering thereof, and related matters by the Board of

TTM Technologies, Inc. October 30, 2013 Page 4

Directors of the Company; (iii) the due execution, authentication, issuance, and delivery of such Debt Securities upon payment of the consideration therefor provided for in a definitive purchase, underwriting, or similar agreement, as applicable, or Prospectus or Prospectus Supplement approved by the Board of Directors of the Company, and otherwise in accordance with the provisions of the applicable Indenture and such definitive purchase, underwriting, or similar agreement, as applicable; and (iv) the conditions in the applicable Indenture have been satisfied, such Debt Securities will constitute valid and legally binding obligations of the Company enforceable against the Company in accordance with their terms.

(4) With respect to the Warrants, assuming (i) the Registration Statement (including any amendments thereto) shall become effective under the Act; (ii) the taking of all necessary corporate action by the Board of Directors of the Company to approve the execution and delivery of a Warrant Agreement and issuance of the Warrants; and (iii) the due execution, countersignature, issuance, and delivery of such Warrants upon payment of the consideration therefor provided for in a definitive purchase, underwriting, or similar agreement, as applicable, or Prospectus or Prospectus Supplement approved by the Board of Directors of the Company, and otherwise in accordance with the provisions of the applicable Warrant Agreement and such definitive purchase, underwriting, or similar agreement, as applicable; and (iv) the conditions in the applicable Warrant Agreement have been satisfied, such Warrants will constitute valid and legally binding obligations of the Company enforceable against the Company in accordance with their terms.

(5) With respect to the Units, assuming (i) the Registration Statement (including any amendments thereto) shall have become effective under the Act; (ii) the taking of all necessary corporate action by the Board of Directors of the Company to approve the execution and delivery of a Unit Agreement and issuance of the Units; (iii) the due execution, countersignature, issuance, and delivery of the Units upon payment of the consideration therefor provided for in a definitive purchase, underwriting, or similar agreement, as applicable, or Prospectus or Prospectus Supplement approved by the Board of Directors of the Company, and otherwise in accordance with the provisions of the applicable Unit Agreement relates to the issuance and sale of Common Stock, the actions described in paragraph 1 above have been taken; (vi) if such Unit Agreement relates to the issuance and sale of Preferred Stock, the actions described in paragraph 2 above have been taken; (vii) if such Unit Agreement relates to the issuance and sale of Warrants, the actions described in paragraph 4 above have been taken, such Units will constitute valid and legally binding obligations of the Company enforceable against the Company in accordance with their terms.

TTM Technologies, Inc. October 30, 2013 Page 5

The opinions set forth in paragraphs 3 through 5 above are subject to (i) the effects of bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium, or other similar laws now or hereafter in effect relating to or affecting creditors' rights generally; (ii) the effects of general equitable principles, including, without limitation, concepts of materiality, reasonableness, good faith and fair dealing, and the possible unavailability of specific performance or injunctive relief, whether enforcement is considered in a proceeding in equity or law; (iii) the discretion of the court before which any proceeding for enforcement may be brought; and (iv) the unenforceability under certain circumstances under law or court decisions of provisions providing for the indemnification of or contribution to a party with respect to a liability where such indemnification or contribution is contrary to public policy.

Although we have acted as counsel to the Company in connection with certain other matters, our engagement is limited to certain matters about which we have been consulted. Consequently, there may exist matters of a legal nature involving the Company in connection with which we have not been consulted and have not represented the Company. This opinion letter is limited to the matters stated herein and no opinions may be implied or inferred beyond the matters expressly stated herein. The opinions expressed herein are as of the date hereof, and we assume no obligation to update or supplement such opinions to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur.

We render this opinion with respect to, and express no opinion herein concerning the application or effect of the law of any jurisdiction other than, the existing laws of the United States of America, and of the Delaware General Corporation Law, the Delaware Constitution, and reported judicial decisions relating thereto.

We hereby expressly consent to any reference to our firm in the Registration Statement, in any registration statement filed pursuant to Rule 462(b) under the Act and in any prospectus supplement filed pursuant to Rule 424 under the Act for this same offering, inclusion of this Opinion as an exhibit to the Registration Statement and the incorporation by reference into any such additional registration statement, and to the filing of this Opinion with any other appropriate governmental agency. In giving this consent, we do not admit that we are experts within the meaning of Section 11 of the Act or within the category of persons whose consent is required by Section 7 of the Act.

Very truly yours,

/s/ Greenberg Traurig, LLP

Computation of Ratio of Earnings to Fixed Charges

	Six Months Ended		Veors Fr	nded December 3	21	
	7/1/2013	2012 (i	2011 n thousands, exce	2010	2009	2008
Fixed Charges:				,		
Interest expense	\$ 12,201	\$ 25,784	\$ 26,504	\$ 22,255	\$11,198	\$ 11,065
Capitalized interest	1,092	1,774	1,828	1,522	287	275
Estimated interest within rental expense	544	1,034	994	1,043	1,501	1,533
Total fixed charges	\$ 13,837	\$ 28,592	\$ 29,326	\$ 24,820	\$12,986	\$ 12,873
Earnings:						
Net income (loss)	\$ 20,305	\$(181,100)	\$ 47,227	\$ 79,899	\$ 4,857	\$(36,911)
Income taxes provision (benefit)	10,129	12,728	26,005	28,738	3,266	(24,460)
Fixed charges	13,837	28,592	29,326	24,820	12,986	12,873
Capitalized interest	(1,092)	(1,774)	(1,828)	(1,522)	(287)	(275)
Amortization of capitalized interest	152	278	235	181	137	64
Total earnings for computation of ratio	\$ 43,331	\$(141,276)	\$100,965	\$132,116	\$20,959	\$(48,709)
Ratio of earnings to fixed charges	3.1x	n/a(1)	3.4x	5.3x	1.6x	n/a(1)

(1) Earnings were not sufficient to cover fixed charges for periods indicated. Additional earnings of \$169.9 million and \$61.6 million in the years ended December 31, 2012 and 2008, respectively, would have been required to achieve a ratio of 1:1.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated March 1, 2013, with respect to the consolidated balance sheets of TTM Technologies, Inc. and subsidiaries as of December 31, 2012 and 2011, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2012, and the effectiveness of internal control over financial reporting, which appears in TTM Technologies, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2012. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP Irvine, California October 30, 2013

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors TTM Technologies, Inc.:

We consent to the use of our report dated March 15, 2011, with respect to the consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows of TTM Technologies, Inc. and subsidiaries for the year ended December 31, 2010, incorporated herein by reference and to the reference to our firm under the heading "Experts" in the registration statement.

/s/ KPMG LLP Salt Lake City, Utah October 30, 2013

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM T-1

STATEMENT OF ELIGIBILITY UNDER THE TRUST INDENTURE ACT OF 1939 OF A CORPORATION DESIGNATED TO ACT AS TRUSTEE

Check if an Application to Determine Eligibility of a Trustee Pursuant to Section 305(b)(2)

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC

(Exact name of trustee as specified in its charter)

New York (State of incorporation of organization if not a U.S. national bank)

6201 15th Avenue, Brooklyn, New York (Address of principal executive offices)

> David H. Brill American Stock Transfer & Trust Company, LLC 6201 15th Avenue Brooklyn, NY 11219 (718) 921-8528 (Name, address and telephone number of agent for service)

TTM TECHNOLOGIES, INC. (Exact name of obligor as specified in its character)

Delaware (State or other jurisdiction of incorporation or organization)

1665 Scenic Avenue, Suite 250 Costa Mesa, California (Address of principal executive offices) 13-3439945 (I.R.S. Employer Identification Number)

> 11219 (Zip Code)

91-1033443 (I.R.S. employer identification No.)

> 92626 (Zip Code)

Debt Securities (Title of the Indenture Securities)

Item 1. General Information.

Furnish the following information as to the trustee:

(a) Name and address of each examining or supervising authority to which it is subject.

New York State Department of Financial Services

One State Street New York, NY 10004-1511

(b) Whether it is authorized to exercise corporate trust powers.

The trustee is authorized to exercise corporate trust powers.

Item 2. Affiliations with Obligor.

If the Obligor is an affiliate of the trustee, describe each such affiliation.

None.

Items 3-15

Items 3-15 are not applicable because, to the best of the trustee's knowledge, the Obligor is not in default under any indenture for which the trustee acts as trustee.

Item 16. List of Exhibits.

Exhibits identified in parentheses below, on file with the Commission, are incorporated herein by reference as an exhibit hereto, pursuant to Rule 7a-29 under the Trust Indenture Act of 1939 (the "Act") and 17 C.F.R. 229.10(d).

Exhibit	Exhibit Title
T-1.1	A copy of the Articles of Organization of the Trustee, as amended to date
T-1.2	A copy of the Certificate of Authority of the Trustee to commence business
T-1.4	Limited Liability Trust Company Agreement of the Trustee
T-1.6	The consent of the Trustee required by Section 321(b) of the Trust Indenture Act of 1939

T-1.7 A copy of the latest report of condition of the Trustee published pursuant to law or the requirements of its supervising or examining authority

SIGNATURE

Pursuant to the requirements of the Trust Indenture Act of 1939, the trustee, American Stock Transfer & Trust Company, LLC, a limited liability trust company organized and existing under the laws of the State of New York, has duly caused this statement of eligibility to be signed on its behalf by the undersigned, thereunto duly authorized, all in the City of New York, and State of New York, on the 30th day of October, 2013.

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC

Trustee

By: /s/ David H. Brill

Name: David H. Brill Title: General Counsel

ARTICLES OF ORGANIZATION

OF

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC

We, the undersigned, all being of full age, four of us being citizens of the United States, having associated ourselves together for the purposes of forming a limited liability trust company under and pursuant to the Banking Law of the State of New York, do hereby certify the following:

- First. The name by which the limited liability trust company is to be known is American Stock Transfer & Trust Company, LLC.
- Second. The place where its principal office is to be located is 59 Maiden Lane, Borough of Manhattan, City, County, and State of New York.
- Third. The amount of its capital contributions is to be Five Million Dollars (\$5,000,000), and the number of units into which such capital contributions are to be divided is five million (5,000,000) units with a par value of \$1.00 each.
- Fourth. The company will not have classes or groups of members, therefore there is only one class of members. Each member shall share the same relative rights, powers, preferences, limitations, and voting powers.
- Fifth. The name, place of residence, and citizenship of each organizer are as follows:

Name	Residence	Citizenship
George Karfunkel	Brooklyn, NY, USA	USA
Michael Karfunkel	Brooklyn, NY, USA	USA
Cameron Blanks	Cremorne Point, Australia	Australia
Timothy J. Sims	Terrey Hills, Australia	Australia
Paul J. McCullagh	Tamarama, Australia	Ireland
Joseph John O'Brien	Bondi Beach, Australia	USA
Jay F. Krehbiel	Darling Point, Australia	USA

- Sixth. The term of existence of the trust company is to be until December 31, 2030, unless the interest holders agree to extend such date.
- Seventh. The number of managers of the company is to be not less than seven nor more than fifteen.
- Eighth. The names of the organizers who shall manage the company until the first annual meeting of members are as follows: George Karfunkel, Michael Karfunkel, Cameron Blanks, Timothy J. Sims, Paul J. McCullagh, Joseph John O'Brien, and Jay F. Krehbiel.
- Ninth. The limited liability trust company is to exercise the powers conferred by Section 100 of the Banking Law. The limited liability trust company shall neither accept deposits nor make loans except for deposits and loans arising directly from the exercise of the fiduciary powers specified in Section 100 of the Banking Law.

IN WITNESS WHEREOF, We have made, signed, and acknowledged this certificate in duplicate this day of March 2008.

/s/ George Karfunkel	
George Karfunkel	Paul J. McCullagh
/s/ Michael Karfunkel	
Michael Karfunkel	Joseph John O'Brien
Cameron Blanks	Jay F. Krehbiel
Timothy J. Sims	
NOTARY:	
State of NY)) ss.:	
County of Kings)	
On this 28th day of March, 2008 personally appeared before me	
George Karfunkel	
Michael Karfunkel	
to me known to be the persons described in and who executed the foregoing certificate,	and severally acknowledged that they executed the same.
	thony J. Foti
Anth	any I Fati

Anthony J. Foti Notary Public, State of New York No. 01FO6022425 Qualified in Kings County Commission Expires March 29, 2011

deposits nor make loans except for deposits and loans arising directly from the exercise of the fiduciary powers specified in Section 100 of the Banking Law.

IN WITNESS WHEREOF, We have made, signed, and acknowledged this certificate	in duplicate this day of March 2008.
	/s/ Paul J. McCullagh
George Karfunkel	Paul J. McCullagh
Michael Karfunkel	Joseph John O'Brien
/s/ Cameron Blanks	/s/ Jay F. Krehbiel
Cameron Blanks	Jay F. Krehbiel
/s/ Timothy J. Sims	_
Timothy J. Sims	
NOTARY:	
State of New South Wales)	
) ss.: County of Australia)	
On this 27th day of March, 2008 personally appeared before me	
to me known to be the persons described in and who executed the foregoing certificate	e, and severally acknowledged that they executed the same.
Cameron R. Blanks	Paul J. McCullagh
Timothy J. Sims	Jay F. Krehbiel
Thioury J. Shirs	
	/-/ Duran days A with a way Distance of

/s/ Brendan Anthony Bateman Brendan Anthony Bateman

deposits nor make loans except for deposits and loans arising directly from the exercise of the fiduciary powers specified in Section 100 of the Banking Law.

IN WITNESS WHEREOF, We ha	ve made, signed, and ac	knowledged this certification	ate in duplicate this	day of March 2008.

eorge Karfunkel	Paul J. McCullagh
	/s/ Joseph John O'Brien
ichael Karfunkel	Joseph John O'Brien
ameron Blanks	Jay F. Krehbiel
	_
mothy J. Sims	
NOTARY: Kingdom of Thailand Bangkok Metropolis Embassy of the United States of America	} ss
State of County of	•
On this day of Mar 27 2008, personally appeared before me	
* Joseph John O'Brien *	

to be the persons described in and who executed the foregoing certificate, and severally acknowledged that they executed the same.

/s/ Chamnannuch Scherer Chamnannuch Scherer

Consular Associate of the United States of America

Indefinite



Whereas, the Articles of Organization of AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC, of New York, New York, have heretofore been duly approved and said AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC has complied with the provisions of Chapter 2 of the Consolidated Laws,

Now Therefore I, David S. Fredsall, as Deputy Superintendent of Banks of the State of New York, do hereby authorize the said AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC to transact the business of a Limited Liability Trust Company, at 59 Maiden Lane, Borough of Manhattan, City of New York within this State.

In Witness Whereof, I have hereunto set my hand and affixed the official seal of the Banking Department, this 30th day of May in the year two thousand and eight.

/s/ David S. Fredsall Deputy Superintendent of Banks

SECOND AMENDED AND RESTATED

LIMITED LIABILITY TRUST COMPANY AGREEMENT

OF

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC

THIS SECOND AMENDED AND RESTATED LIMITED LIABILITY TRUST COMPANY AGREEMENT (the "Agreement") of American Stock Transfer & Trust Company, LLC (the "Company") dated as of this 26th day of June, 2013, by Armor Holding II LLC, as the sole member of the Company (the "Member") amends and restates the Amended and Restated Limited Liability Trust Company Agreement of the Company dated as of the 14th day of March, 2011 in its entirety.

RECITAL

The Member converted the Company into a limited liability trust company under the laws of the State of New York and now desires to amend and restate the written agreement governing the affairs of the Company in accordance with the provisions of the Limited Liability Company Law of the State of New York and any successor statute, as amended from time to time (the "Act") and the Banking Law of the State of New York and any successor statute, as amended from time to time (the "Banking Law").

ARTICLE 1

The Limited Liability Trust Company

a. *Formation*. The Member previously converted the Company into a limited liability trust company pursuant to the Act and the Banking Law; such conversion of the Company from a New York trust company into a New York limited liability trust company was approved by the New York Banking Board on April 17, 2008 in conformity with Section 102-a(3) of the Banking Law. The conversion to a limited liability trust company became effective on May 30, 2008, when the New York State Banking Department issued an Authorization Certificate for the converted entity.

b. <u>Name</u>. The name of the Company shall be "American Stock Transfer & Trust Company, LLC" and its business shall be carried on in such name with such variations and changes as the Board (as hereinafter defined) shall determine or deem necessary to comply with requirements of the jurisdictions in which the Company's operations are conducted.

c. Business Purpose; Powers. The purposes for which the Company is formed are:

(i) to exercise the powers conferred by Section 100 of the Banking Law, including corporate trust powers; personal trust powers; pension trust powers for tax-qualified pension trusts and retirement plans; and common or collective trust powers; provided, however, that the Company shall neither accept deposits nor make loans except for deposits and loans arising directly from the exercise of its fiduciary powers as specified in this Section 1(c); and

(ii) in furtherance of the foregoing, to engage in any lawful act or activity for which limited liability trust companies may be formed under the Banking Law.

d. <u>Registered Office and Agent</u>. The Secretary of State is designated as agent of the limited liability company upon whom process against it may be served. The post office address within or without this state to which the Secretary of State shall mail a copy of any process against the limited liability company served upon him or her is 59 Maiden Lane, Plaza Level, New York NY 10038.

e. Term. Subject to the provisions of Article 6 below, the Company shall continue until December 31, 2030, unless the Members agree to extend such date.

ARTICLE 2 The Member

a. *The Member*. The name and address of the Member is as follows:

Name	Address
Armor Holding II LLC	6201 15th Avenue,
	Brooklyn, New York 11219

b. <u>Actions by the Member; Meetings</u>. All actions taken by a member must be duly authorized by the board of managers of the Member (the "Member's Board") in accordance with the Shareholders Agreement (as hereinafter defined). Subject to the foregoing sentence, the Member may approve a matter or take any action at a meeting or without a meeting by the written consent of the Member. Meetings of the Member may be called at any time by the Member.

c. <u>Liability of the Member</u>. All debts, obligations and liabilities of the Company, whether arising in contract, tort or otherwise, shall be solely the debts, obligations and liabilities of the Company, and the Member shall not be obligated personally for any such debt, obligation or liability of the Company solely by reason of being a member, except as otherwise provided for by law.

d. <u>Power to Bind the Company</u>. Except as required by the Act or the Banking Law, the Member (acting in its capacity as such) shall have no authority to bind the Company to any third party with respect to any matter.

e. Admission of Members. New members shall be admitted only upon the prior written approval of the Member.

f. <u>Engagement of Third Parties</u>. The Company, may, from time to time, employ any Person or engage third parties to render services to the Company on such terms and for such compensation as the Member may reasonably determine, including, attorneys, investment consultants,

brokers or finders, independent auditors and printers. Such employees and third parties may be affiliates of any Member. Persons retained, engaged or employed by the Company may also be engaged, retained or employed by and act on behalf of one or more Member or any of their respective affiliates.

ARTICLE 3 The Board

a. Management By Board of Managers.

(i) Subject to such matters which are expressly reserved hereunder, under the Act, under the Banking Law or under that certain Third Amended and Restated Shareholders Agreement, dated as of August 9, 2011, as amended from time to time, among the Shareholders of Armor Holdco, Inc. and Armor Holdco, Inc. (the "Shareholders Agreement"), to the Member for decision, the business and affairs of the Company shall be managed by a board of managers (the "Board"), which shall be responsible for policy setting, approving the overall direction of the Company and making all decisions affecting the business and affairs of the Company. In accordance with Section 7002 of the Banking Law, the Board shall consist of seven (7) to fifteen (15) individuals (the "Managers"). Such Managers shall be determined from time to time by resolution of the Member in accordance with Section 4.2 of the Shareholders Agreement.

(ii) Each Manager shall be elected by the Member and shall serve until his or her successor has been duly elected and qualified, or until his or her earlier removal, resignation, death or disability. Subject to the provisions of clause (iii) below, the Member may remove any Manager from the Board or from any other capacity with the Company at any time, with or without cause. A Manager may resign at any time upon written notice to the Member.

(iii) The Member may take all actions necessary to cause the Board to consist of the same managers that compose the Member's Board. Accordingly, if any person who is a member of the Members' Board ceases to be a member of such board for any reason, the Member may take such action as is necessary to remove such person from the Board and elect to the Board the person appointed to the Member's Board in place of such person.

(iv) Any vacancy occurring on the Board as a result of the resignation, removal, death or disability of a Manager or an increase in the size of the Board shall be filled by the Member. A Manager chosen to fill a vacancy resulting from the resignation, removal, death or disability of a Manager shall serve the unexpired term of his or her predecessor in office.

b. Action By the Board.

(i) Meetings of the Board shall be held at least once per quarter. Each Manager may call a meeting of the Board upon two (2) days prior written notice to each Manager. The presence of a majority of the Managers then in office shall constitute a quorum at any meeting of the Board. All actions of the Board shall require the affirmative vote of a majority of the Managers then in office.

(ii) Meetings of the Board may be conducted in person or by conference telephone facilities. Any action required or permitted to be taken at any meeting of the Board may be taken without a meeting if such number of Managers sufficient to approve such action pursuant to the terms of this Agreement consent thereto in writing. Notice of any meeting may be waived by any Manager.

c. <u>Power to Bind Company</u>. None of the Managers (acting in their capacity as such) shall have authority to bind the Company to any third party with respect to any matter unless the Board shall have approved such matter and authorized such Manager(s) to bind the Company with respect thereto.

d. Officers and Related Persons.

(i) The Board shall have the authority to appoint and terminate officers of the Company and retain and terminate employees, agents and consultants of the Company. The Board, to the extent permitted by applicable law and as provided in any resolution of the Board, may, from time to time in its sole and absolute discretion and without limitation, delegate such duties or any or all of its authority, rights and/or obligations, to any one or more officers, employees, agents, consultants or other duly authorized representatives of the Company as the Board deems appropriate, including the power, acting individually or jointly, to represent and bind the Company in all matters in accordance with the scope of their respective duties.

ARTICLE 4

Capital Structure and Contributions

a. <u>Capital Structure</u>. The capital structure of the Company shall consist of one class of common interests, par value \$1.00 (the "Common Interests"). Each Common Interests shall entitle its holder to one vote per Common Interest on each matter on which the Member shall be entitled to vote. All Common Interests shall be identical with each other in every respect. The Company shall be authorized to issue 5,000,000 Common Interests. In exchange for all of the outstanding shares of American Stock Transfer & Trust Company held by the Member, the 5,000,000 Common Interests shall be issued to the Member. The Member shall own all of the Common Interests issued and outstanding.

b. <u>Capital Contributions</u>. From time to time, the Board may determine that the Company requires capital and may request the Member to make capital contribution(s) in an amount determined by the Board. A capital account shall be maintained for the Member, to which contributions and profits shall be credited and against which distributions and losses shall be charged.

c. <u>Right to Issue Certificates</u>. The ownership of a Common Interest by a Member shall be evidenced by a certificate (a "Certificate") issued by the Company. All Common Interests in the Company shall be securities governed by Article 8 of the Uniform Commercial Code as in effect from time to time in any jurisdiction, including without limitation the State of New York.

d. *Form of Certificates*. Certificates attesting to the ownership of Common Interests in the Company shall be in substantially the form set forth in Exhibit A hereto and shall state that the Company is a limited liability trust company formed under the laws of the State of New York, the name of the Member to whom such Certificate is issued and that the Certificate represents limited liability trust company interests within the meaning of the Act and the Banking Law. Each Certificate shall bear the following legend:

"THIS CERTIFICATE EVIDENCES COMMON INTERESTS IN THE AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC (THE "COMPANY") AND SHALL BE A SECURITY FOR PURPOSES OF ARTICLE 8 OF THE UNIFORM COMMERCIAL CODE. THE COMMON INTERESTS REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO THE PROVISIONS OF THE SECOND

AMENDED AND RESTATED LIMITED LIABILITY TRUST COMPANY AGREEMENT OF THE COMPANY DATED AS OF JUNE , 2013 (AS MAY BE AMENDED, RESTATED, AMENDED AND RESTATED OR OTHERWISE MODIFIED FROM TIME TO TIME, THE "LLTC AGREEMENT"). A COPY OF THE LLTC AGREEMENT WILL BE FURNISHED TO THE RECORD HOLDER OF THIS CERTIFICATE WITHOUT CHARGE UPON WRITTEN REQUEST TO THE COMPANY AT ITS PRINCIPAL PLACE OF BUSINESS."

e. *Execution*. Each Certificate shall be signed by the Chief Executive Officer, the President, the Secretary, an Assistant Secretary or other authorized officer or person of the Company by either manual or facsimile signature.

f. <u>Registrar</u>. The Company shall maintain an office where Certificates may be presented for registration of transfer or for exchange. Unless otherwise designated, the Secretary of the Company shall act as registrar and shall keep a register of the Certificates and of their transfer and exchange.

g. Issuance. The Certificates of the Company shall be numbered and registered in the interest register or transfer books of the Company as they are issued.

h. <u>Common Interest Holder Lists</u>. The Company shall preserve in as current a form as is reasonably practicable the most recent list available to it of the names and addresses of all holders of Common Interests.

i. <u>Transfer and Exchange</u>. When Certificates are presented to the Company with a request to register a transfer, the Company shall register the transfer or make the exchange on the register or transfer books of the Company; <u>provided</u>, that any Certificates presented or surrendered for registration of transfer or exchange shall be duly endorsed or accompanied by a written instrument of transfer in form satisfactory to the Company duly executed by the holder thereof or his attorney duly authorized in writing. Notwithstanding the foregoing, the Company shall not be required to register the transfer, or exchange, any Certificate if as a result the transfer of the Common Interest at issue would cause the Company or the Member to violate the Securities Act, the Exchange Act, the Investment Company Act, or the laws, rules, regulations, orders and other directives of any Governmental Authority or otherwise violate the terms of this Agreement or the Shareholders Agreement.

j. <u>Record Holder</u>. Except to the extent that the Company shall have received written notice of an assignment of Common Interests and such assignment complies with the requirements of Section 7(a) of this Agreement, the Company shall be entitled to treat the individual or entity in whose name any Certificates issued by the Company stand on the books of the Company as the absolute owner thereof, and shall not be bound to recognize any equitable or other claim to, or interest in, such Common Interests on the part of any other individual or entity.

k. <u>Replacement Certificates</u>. If any mutilated Certificate is surrendered to the Company, or the Company receives evidence to its satisfaction of the destruction, loss or theft of any Certificate, the Company shall issue a replacement Certificate if the requirements of Section 8-405 of the Uniform Commercial Code are met. If required by the Company, an indemnity and/or the deposit of a bond in such form and in such sum, and with such surety or sureties as the Company may direct, must be supplied by the holder of such lost, destroyed or stolen Certificate that is sufficient in the judgment of the Company to protect the Company from any loss that it may suffer if a Certificate is replaced. The Company may charge for its expenses incurred in connection with replacing a Certificate.

ARTICLE 5 Profits, Losses and Distributions

a. <u>Profits and Losses</u>. For financial accounting and tax purposes, the Company's net profits or net losses shall be determined on an annual basis in accordance with the manner determined by the Board. In each year, profits and losses shall be allocated entirely to the Member.

b. *Distributions*. The Board shall determine profits available for distribution and the amount, if any, to be distributed to the Member, and shall authorize and distribute on the Common Interests, the determined amount when, as and if declared by the Board. The distributions of the Company shall be allocated entirely to the Member, provided, however, such distributions are in accordance with the Banking Law.

ARTICLE 6 Events of Dissolution

The Company shall be dissolved and its affairs wound up only upon the occurrence of any of the following events (each, an "Event of Dissolution"):

a. The Board votes for dissolution; or

b. A dissolution of the Company under Section 102-a(2) of the Banking Law or Section 701 of the Act.

ARTICLE 7

Transfer of Interests in the Company

Except upon approval of the Member's Board in accordance with Section 4.2 of the Member's Shareholder's Agreement, the Member may sell, assign, transfer, convey, gift, exchange or otherwise dispose of any or all of its Common Interests and, upon receipt by the Company of a written agreement executed by the person or entity to whom such Common Interests are to be transferred agreeing to be bound by the terms of this Agreement, such person shall be admitted as a member.

ARTICLE 8

Exculpation and Indemnification

a. *Exculpation*. The Member shall not have any liability for the obligations or liabilities of the Company except to the extent provided in the Act or Banking Law. Notwithstanding any other provisions of this Agreement, whether express or implied, or any obligation or duty at law or in equity, none of the Member, Managers, or any officers, directors, stockholders, partners, employees, affiliates, representatives or agents of any of the foregoing, nor any officer, employee, representative or agent of the Company (individually, a "Covered Person" and, collectively, the "Covered Persons") shall be liable to the Company or any other person for any act or omission (in relation to the Company, its property or the conduct of its business or affairs, this Agreement, any related document or any transaction or investment

contemplated hereby or thereby) taken or omitted by a Covered Person in the reasonable belief that such act or omission is in or is not contrary to the best interests of the Company and is within the scope of authority granted to such Covered Person by the Agreement, provided such act or omission does not constitute fraud, willful misconduct, bad faith, or gross negligence.

b. *Indemnification*. To the fullest extent permitted by law, the Company shall indemnify and hold harmless each Covered Person from and against any and all losses, claims, demands, liabilities, expenses, judgments, fines, settlements and other amounts arising from any and all claims, demands, actions, suits or proceedings, civil, criminal, administrative or investigative ("Claims"), in which the Covered Person may be involved, or threatened to be involved, as a party or otherwise, by reason of its management of the affairs of the Company or which relates to or arises out of the Company or its property, business or affairs. A Covered Person shall not be entitled to indemnification under this Section 8 with respect to (i) any Claim with respect to which such Covered Person has engaged in fraud, willful misconduct, bad faith or gross negligence or (ii) any Claim initiated by such Covered Person unless such Claim (or part thereof) (A) was brought to enforce such Covered Person's rights to indemnification hereunder or (B) was authorized or consented to by the Board. Expenses incurred by a Covered Person in defending any Claim shall be paid by the Company in advance of the final disposition of such Covered Person to repay such amount if it shall be ultimately determined that such Covered Person is not entitled to be indemnified by the Company as authorized by this Article 8.

c. Insurance. The Board in its discretion shall have the power to cause the Company to purchase and maintain insurance in accordance with, and subject to, the Act and Banking Law.

d. <u>Amendments</u>. Any repeal or modification of this Article 8 by the Member shall not adversely affect any rights of such Covered Person pursuant to this Article 8, including the right to indemnification and to the advancement of expenses of a Covered Person existing at the time of such repeal or modification with respect to any acts or omissions occurring prior to such repeal or modification.

ARTICLE 9 Miscellaneous

a. *Tax Treatment*. Unless otherwise determined by the Member, the Company shall be a disregarded entity for U.S. federal income tax purposes (as well as for any analogous state or local tax purposes), and the Member and the Company shall timely make any and all necessary elections and filings for the Company to be treated as a disregarded entity for U.S. federal income tax purposes (as well as for any analogous state or local tax purposes).

b. <u>Amendments</u>. Amendments to this Agreement and to the Certificate of Formation shall be approved in writing by the Member. An amendment shall become effective as of the date specified in the approval of the Member or if none is specified as of the date of such approval or as otherwise provided in the Act.

c. <u>Severability</u>. If any provision of this Agreement is held to be invalid or unenforceable for any reason, such provision shall be ineffective to the extent of such invalidity or unenforceability; *provided, however*, that the remaining provisions will continue in full force without being impaired or invalidated in any way unless such invalid or unenforceable provision or clause shall be so significant as

to materially affect the expectations of the Member regarding this Agreement. Otherwise, any invalid or unenforceable provision shall be replaced by the Member with a valid provision which most closely approximates the intent and economic effect of the invalid or unenforceable provision.

d. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York without regard to the principles of conflicts of laws thereof.

e. Limited Liability Trust Company. The Member intends to form a limited liability trust company and does not intend to form a partnership under the laws of the State of New York or any other laws.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the undersigned has duly executed this Agreement as of the date first written above.

ARMOR HOLDING II LLC, as sole member

By: /s/ David H. Brill

Name: David H. Brill Title: Secretary

[Signature Page to Second Amended and Restated Limited Liability Trust Company Agreement]

EXHIBIT A

[FORM OF CERTIFICATE]

Number [*]

Common Interest [*]

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC

a limited liability trust company formed under the laws of the State of New York

Limited Liability Trust Company Common Interest

[Legend]

THIS CERTIFICATE EVIDENCES COMMON INTERESTS IN THE AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC (THE "COMPANY") AND SHALL BE A SECURITY FOR PURPOSES OF ARTICLE 8 OF THE UNIFORM COMMERCIAL CODE. THE COMMON INTERESTS REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO THE PROVISIONS OF THE SECOND AMENDED AND RESTATED LIMITED LIABILITY TRUST COMPANY AGREEMENT OF THE COMPANY DATED AS OF JUNE , 2013 (AS MAY BE AMENDED, RESTATED, AMENDED AND RESTATED OR OTHERWISE MODIFIED FROM TIME TO TIME, THE "LLTC AGREEMENT"). A COPY OF THE LLTC AGREEMENT WILL BE FURNISHED TO THE RECORD HOLDER OF THIS CERTIFICATE WITHOUT CHARGE UPON WRITTEN REQUEST TO THE COMPANY AT ITS PRINCIPAL PLACE OF BUSINESS.

This Certifies that is the owner of fully paid and non-assessable Common Interests of the above-named Company and is entitled to the full benefits and privileges of such Common Interest, subject to the duties and obligations, as more fully set forth in the Agreements. This Certificate is transferable on the books of the Company by the holder hereof in person or by duly authorized attorney upon surrender of this Certificate properly endorsed.

IN WITNESS WHEREOF, the said Limited Liability Company has caused this Certificate, and the Common Interest it represents, to be signed by its duly authorized officer this day of , 20.

By:

[Name]

[Title]

[Exhibit A to Second Amended and Restated Limited Liability Trust Company Agreement]

October 30, 2013

Securities and Exchange Commission Washington, DC 20549 Gentlemen:

Pursuant to the provisions of Section 321 (b) of the Trust Indenture Act of 1939, and subject to the limitations therein contained, American Stock Transfer & Trust Company, LLC hereby consents that reports of examinations of said corporation by Federal, State, Territorial or District authorities may be furnished by such authorities to you upon request therefor.

Very truly yours,

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC

By: /s/ David H. Brill

Name: David H. Brill Title: General Counsel

EXHIBIT T-1.7

comber 2012 FFEC 041 AMERICAN STOCK TRANSF	ER & TRUST COMPANY, LLC - ID RSSD# 27156		Printed: 01/30/2	013 - 1
		Sofe	dule RC 14	
Consolidated Report of Condit and Savings Associations for I				
All schedules are to be reported in thousands of dollar day of the quarter.		distanding as of	he last business	
Schedule RC—Balance Sheet				
ouncalle no balance encor				
	Dollar Amounts in Thousands		Bil Mi Thou	
Assets		11114-010-00	C	
1. Cash and balances due from depository institution	vs (from Schedule RC-A):	5	-11 Mar - 27	
a. Noninterest-bearing balances and currency and	(coin (1)	RCON0081	389 1.a.	
b. Interest-bearing balances (I)		RCON0071	3,255 1.5.	
2. Securities:				
	s, column A)		0 2.8	
	-B, column D)	RCON1773	Ø 2.b.	
3. Federal funds sold and securities purchased und	er agreements to reself.	RCONB987	0 84	
 a. Federal runds sold b. Securities purchased under agreements to rese 		RCONB989	0 3.a. 0 3.b.	
 Securities purchased under agreements to reso Loans and lease financing receivables (from Sch 		HELONID909	· J.D.	
 Loans and lease triancing receivables (from Sch a. Loans and leases held for sale 		RCON5369	0 4.8	
 b. Loans and leases, net of unsamed income 		0	4.b.	
c. LESS: Allow ance for loan and lease losses		0	4.6	
	allow ance (item 4.b minus 4.c)	RCONB529	0 4.d.	
5. Trading assets (from Schedule RC-D)			0 5.	
6. Premises and fixed assets (including capitalized i	eases)	RCON2145	45,260 6.	
7. Other real estate ow ned (from Schodule RC-M)	Premises and fixed assets (including capitalized leases) Cher real estate ow hed (from Schedule RC-M)		0 7	
8. Investments in unconsolidated subsidiaries and a			0 8	
9. Direct and indirect investments in real estate vent			0 9	
10. Intancible assets:		(10-10-00-00-00-00-00-00-00-00-00-00-00-0	State of the state	
n. Goodwill			270,264 10.a.	
b. Other intangible assets (from Schedule RC-M)		RCON0426	263,686 10.b.	
		RCON2160	37,598 11	
11. Other assets (from Schedule RC-F)		HGJUNG100	37,596 11	

 (1) includes cash items in process of collection and unposted debits.

 (2) includes time certificates of deposit not held for triading.

 (3) includes all securities resale agreements, regardless of maturity.

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Schedule RC 15

Schedule RC-Continued

Dollar Amounts in Thou	sands Bil M	B Thou
Liabilities		
13. Deposits:		110
a. In domestic offices (sum of totals of columns A and C from Schedule RC-E)		0
(1) Noninterest-bearing (1) RCON6631	0	7 8
(2) Interest-bearing RCON6636	0	
b. Not applicable		
Federal funds purchased and securities sold under agreements to repurchase:		-
a. Federal funds purchased (2)	RCONB993	0
b. Securities sold under agreements to repurchase (3)		0
15. Trading liabilities (from Schedule RC-D)		0
 Other borrow ed money (includes mortgage indebtedness and obligations under capitalized (from Schedule RC-M) 		5,000
17. Not applicable		
Not applicable Subordinated notes and debentures (4)	RCON3200	0
		9,634
20, Other liabilities (from Schedule RC-G)		-
21. Total liabilities (sum of items 13 through 20)	RCON2948	14,634
22. Not applicable	and the second second	
Equity Capital		
Bank Equity Capital 23. Perpetual preferred stock and related surplus	RCON3838	0
		5.000
24. Common stock	and the second se	040,499
25. Surplus (exclude all surplus related to preferred stock)	NUCH3039 1/	040,408
26. a. Retained earnings	RCON3632 (4	39.681)
a. Retained earnings b. Accumulated other comprehensive income (5)	110010000	00,001
		0
c. Other equity capital components (6)	P630NA130	-
27.	RCON3210	605.818
a. Total bank equity capital (sum of items 23 through 26.c)		005,810
b. Noncontrolling (minority) interests in consolidated subsidiaries	the second se	605.818
28. Total equity capital (sum of items 27.a and 27.b)		
29. Total liabilities and equity capital (sum of items 21 and 28)	RCON3300	620,452

 (1) Includes noninferest-bearing demand, time, and savings deposits.

 (2) Report overnight Federal Home Loan Bank advances in Schedule RC, Item 16, "Other borrow ed money."

 (3) Includes all securities repurchase agreements, regardless of maturity.

 (4) Includes limited-like preferred stock and related surplus.

 (5) Includes, but is not limited benefit presion and other postretirement plan adjustments.

 (6) Includes treasury stock and unearned Employee Stock Ow nership Plan shares.