
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of report (Date of earliest event reported): August 18, 2017

Amtech Systems, Inc.
(Exact Name of Registrant as Specified in Charter)

Arizona
(State or Other Jurisdiction
of Incorporation)

000-11412
(Commission
File Number)

86-0411215
(IRS Employer
Identification No.)

131 S. Clark Drive, Tempe, Arizona
(Address of Principal Executive Offices)

85281
(Zip Code)

Registrant's telephone number, including area code: (480) 967-5146

Not Applicable
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligations of the registrant under any of the following provisions (see General Instruction A.2.):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

- Emerging growth company
 - If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.
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Section 1 - Registrant's Business and Operations

Item 1.01 Entry into a Material Definitive Agreement

On August 18, 2017, Amtech Systems, Inc. (the "Company" or the "Registrant") entered into an Underwriting Agreement with Roth Capital Partners, LLC, as underwriter (the "Underwriter"), relating to a registered firm commitment underwritten offering of 1,055,000 shares of the Company's common stock, par value \$0.01 per share. In addition, we have granted the Underwriter an option to purchase up to 158,250 additional shares of common stock to cover over-allotments, if any.

The net proceeds to the Company from this offering are expected to be approximately \$9.3 million, after deducting the underwriting discount and other estimated offering expenses payable by the Company. The offering is expected to close on or about August 23, 2017, subject to the satisfaction of customary closing conditions.

The offering is being made pursuant to our effective shelf registration statement on Form S-3 (Registration Statement No. 333-215604) declared effective by the Securities and Exchange Commission on February 6, 2017, as supplemented by an applicable prospectus supplement. A copy of the opinion of the Company's counsel, Squire Patton Boggs (US) LLP, relating to the legality of the issuance and sale of the shares in the offering is filed herewith as Exhibit 5.1.

The Underwriting Agreement contains customary representations, warranties and agreements by the Company, customary conditions to closing, indemnification obligations of the Company and the Underwriter, including for liabilities under the Securities Act of 1933, as amended, other obligations of the parties and termination provisions.

The foregoing description of the offering and the Underwriting Agreement is not complete and is qualified in its entirety by reference to the Underwriting Agreement, which is attached hereto as Exhibit 1.1 and incorporated herein by reference.

Section 7 - Regulation FD

Item 7.01 Regulation FD Disclosure

On August 17, 2017, the Company issued a press release announcing the offering described in Item 1.01. A copy of the press release is included as Exhibit 99.1 to this Current Report and is incorporated herein by reference. On August 18, 2017, the Company issued a press release announcing the pricing of the offering described in Item 1.01. A copy of the press release is included as Exhibit 99.2 to this Current Report and is incorporated herein by reference.

The information contained in this Current Report, including the accompanying Exhibit 99.1 and Exhibit 99.2, is furnished pursuant to Item 7.01 of Form 8-K and shall not be incorporated by reference into any filing of the Registrant, whether made before or after the date hereof, regardless of any general incorporation language in such filing, unless expressly incorporated by specific reference in such filing. The information in this Current Report, including the accompanying exhibits, shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section or Sections 11 and 12(a)(2) of the Securities Act of 1933, as amended.

Section 9 - Financial Statements and Exhibits

Item 9.01 Financial Statements and Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
1.1	Underwriting Agreement dated August 18, 2017
5.1	Opinion of Legal Counsel
99.1	Press Release dated August 17, 2017
99.2	Press Release dated August 18, 2017

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

AMTECH SYSTEMS, INC.

Date: August 18, 2017

By: /s/ Robert T. Hass

Name: Robert T. Hass

Title: Vice President & Chief Financial Officer

Exhibit Index

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AMTECH SYSTEMS, INC.
UNDERWRITING AGREEMENT
1,055,000 Shares of Common Stock

August 18, 2017

Roth Capital Partners, LLC
888 San Clemente Drive, Suite 400
Newport Beach, CA 92660

Ladies and Gentlemen:

Amtech Systems, Inc., an Arizona corporation (the "Company"), proposes, subject to the terms and conditions stated herein, to issue and sell to Roth Capital Partners, LLC (the "Underwriter") an aggregate of 1,055,000 authorized but unissued shares (the "Firm Shares") of common stock, par value \$0.01 per share (the "Common Stock"), of the Company. The Company also proposes to sell to the Underwriter, upon the terms and conditions set forth in Section 4 hereof, up to an additional 158,250 shares of Common Stock (the "Option Shares"). The Firm Shares and the Option Shares are hereinafter collectively referred to as the "Shares."

The Company and the Underwriter hereby confirm their agreement as follows:

1. Registration Statement and Prospectus.

The Company has prepared and filed with the Securities and Exchange Commission (the "Commission") a registration statement on Form S-3 (File No. 333-215604) under the Securities Act of 1933, as amended (the "Securities Act"), and the rules and regulations (the "Rules and Regulations") of the Commission thereunder relating to the Shares and such amendments to such registration statement (including post effective amendments) as may have been required to the date of this Agreement. Such registration statement, as amended (including any post effective amendments), has been declared effective by the Commission. The registration statement, together with the amendments prior to the date of this Agreement, including the information (if any) deemed to be a part of, or incorporated by reference into, the registration statement at the time of effectiveness pursuant to Rule 430B under the Securities Act, or at such time as the case may be, is hereinafter referred to as the "Registration Statement" and the related prospectus, dated February 2, 2017, included in the Registration Statement at the time the Registration Statement first became effective is hereinafter called the "Base Prospectus". If the Company has filed or files an abbreviated registration statement pursuant to Rule 462(b) under the Securities Act (the "Rule 462 Registration Statement"), then any reference herein to the term Registration Statement shall include such Rule 462 Registration Statement.

The Company is filing with the Commission pursuant to Rule 424 under the Securities Act a final prospectus supplement to the Base Prospectus relating to Shares. The final prospectus supplement as filed, along with the Base Prospectus, is hereinafter called the "Final Prospectus." The term "Preliminary Prospectus" means the Base Prospectus, together with any preliminary prospectus supplement used or filed with the Commission pursuant to Rule 424 of the Rules and Regulations, in the form provided to the Underwriter by the Company for use in connection with the offering of the Shares. Such Final Prospectus and any Preliminary Prospectus in the form in which they shall be filed with the Commission pursuant to Rule 424(b) under the Securities Act (including the Base Prospectus as so supplemented) is hereinafter called a "Prospectus." Reference made herein to the Base Prospectus, any Preliminary Prospectus or to the Prospectus shall be deemed to refer to and include any documents incorporated by reference therein and any reference to any amendment or supplement to the Base Prospectus, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include any document filed under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations of the Commissions thereunder, incorporated by reference in such Preliminary Prospectus or the Prospectus, as the case may be. The term "Effective Date" shall mean each date that the Registration Statement and any post-effective amendment or amendments thereto became or become effective.

The Commission has not notified the Company of any objection to the use of form of Registration Statement or any post-effective amendment thereto.

2. Representations and Warranties of the Company Regarding the Offering.

(a) The Company represents and warrants to, and agrees with, the Underwriter, as of the date hereof, as of the Closing Date (as defined in Section 4(d) below) and as of each Option Closing Date (as defined in Section 4(b) below), as follows:

(i) **No Material Misstatements or Omissions.** At each time of effectiveness, at the date hereof, at the Closing Date, and at each Option Closing Date, if any, the Registration Statement and any post-effective amendment thereto complied or will comply in all material respects with the requirements of the Securities Act and the Rules and Regulations and did not, does not, and will not, as the case may be, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Time of Sale Disclosure Package (as defined in Section 2(a)(iii)(A)(1) below) as of 8:30 a.m. (Eastern time) (the “Applicable Time”) on the date hereof, at the Closing Date and on each Option Closing Date, if any, and the Final Prospectus, as amended or supplemented, as of its date, at the time of filing pursuant to Rule 424(b) under the Securities Act, at the Closing Date and at each Option Closing Date, if any, when considered together with the Time of Sale Disclosure Package, did not, does not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. The representations and warranties set forth in the two immediately preceding sentences shall not apply to statements in or omissions from the Registration Statement, the Time of Sale Disclosure Package or any Prospectus in reliance upon, and in conformity with, written information furnished to the Company by any Underwriter specifically for use in the preparation thereof, which written information is described in Section 7(f). The Registration Statement contains all exhibits and schedules required to be filed by the Securities Act or the Rules and Regulations. No order preventing or suspending the effectiveness or use of the Registration Statement or any Prospectus is in effect and no proceedings for such purpose have been instituted or are pending, or, to the knowledge of the Company, are contemplated or threatened by the Commission.

(ii) **Marketing Materials.** The Company has not distributed any prospectus or other offering material in connection with the offering and sale of the Shares other than the Time of Sale Disclosure Package and the roadshow or investor presentations delivered to and approved by the Underwriter for use in connection with the marketing of the offering of the Shares (the “Marketing Materials”).

(iii) **Accurate Disclosure.** (A) The Company has provided a copy to the Underwriter of each Issuer Free Writing Prospectus (as defined below) used in the sale of Shares. The Company has filed, or will timely file, all Issuer Free Writing Prospectuses required to be so filed with the Commission, and no order preventing or suspending the effectiveness or use of any Issuer Free Writing Prospectus is in effect and no proceedings for such purpose have been instituted or are pending, or, to the knowledge of the Company, are contemplated or threatened by the Commission. When taken together with the rest of the Time of Sale Disclosure Package or the Final Prospectus, no Issuer Free Writing Prospectus, as of its issue date and at all subsequent times through the completion of the public offer and sale of Shares, has, does or will include (1) any untrue statement of a material fact or omission to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, or (2) information that conflicted, conflicts or will conflict with the information contained in the

Registration Statement or the Final Prospectus. The representations and warranties set forth in the immediately preceding sentence shall not apply to statements in or omissions from the Time of Sale Disclosure Package, the Final Prospectus or any Issuer Free Writing Prospectus in reliance upon, and in conformity with, written information furnished to the Company by the Underwriter specifically for use in the preparation thereof, which written information is described in Section 7(f). As used in this paragraph and elsewhere in this Agreement:

(1) “Time of Sale Disclosure Package” means the Base Prospectus, the Prospectus most recently filed with the Commission before the time of this Agreement, including any preliminary prospectus supplement deemed to be a part thereof, each Issuer Free Writing Prospectus, and the description of the transaction provided by the Underwriter included on **Schedule I**.

(2) “Issuer Free Writing Prospectus” means any “issuer free writing prospectus,” as defined in Rule 433 under the Securities Act, relating to the Shares that (A) is required to be filed with the Commission by the Company, or (B) is exempt from filing pursuant to Rule 433(d)(5)(i) or (d)(8) under the Securities Act, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g) under the Securities Act.

(B) At the time of filing of the Registration Statement and at the date hereof, the Company was not and is not an “ineligible issuer,” as defined in Rule 405 under the Securities Act or an “excluded issuer” as defined in Rule 164 under the Securities Act.

(C) Each Issuer Free Writing Prospectus listed on **Schedule I** satisfied, as of its issue date and at all subsequent times through the Prospectus Delivery Period (as defined below), all other conditions as may be applicable to its use as set forth in Rules 164 and 433 under the Securities Act, including any legend, record-keeping or other requirements.

(iv) **Financial Statements.** The financial statements of the Company, together with the related notes and schedules, included or incorporated by reference in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus comply in all material respects with the applicable requirements of the Securities Act and the Exchange Act, and the rules and regulations of the Commission thereunder, and fairly present the financial condition of the Company as of the dates indicated and the results of operations and changes in cash flows for the periods therein specified in conformity with U.S. generally accepted accounting principles (“GAAP”) consistently applied throughout the periods involved. No other financial statements or schedules are required under the Securities Act, the Exchange Act, or the Rules and Regulations to be included or incorporated by reference in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus.

(v) **Independent Accountants.** To the Company's knowledge, Mayer Hoffman McCann P.C., which has expressed its opinion with respect to the audited financial statements and schedules incorporated by reference as a part of the Registration Statement and incorporated by reference in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, is an independent registered public accounting firm with respect to the Company within the meaning of the Securities Act and the Rules and Regulations.

(vi) **Accounting and Disclosure Controls.** The Company and its Subsidiaries (as defined below) maintain systems of "internal control over financial reporting" (as defined under Rules 13a-15 and 15d-15 under the Exchange Act) that comply with the requirements of the Exchange Act and have been designed by, or under the supervision of, their respective principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP, including, but not limited to, internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (v) the interactive data in eXtensible Business Reporting Language included or incorporated by references in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus fairly present the information called for in all material respects and are prepared in accordance with the Commission's rules and guidelines applicable thereto. Since the date of the latest audited financial statements included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, there has been no change in the Company's internal control over financial reporting that has materially and adversely affected, or is reasonably likely to materially and adversely affect, the Company's internal control over financial reporting.

The Company maintains disclosure controls and procedures that have been designed to ensure that material information relating to the Company and any Subsidiaries is made known to the Company's principal executive officer and principal financial officer by others within those entities; and such disclosure controls and procedures are effective.

As used herein, the term "Subsidiary" means each of the entities set forth in Exhibit 21.1 to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2016 and the term "Subsidiaries" means all of such entities, taken as a whole. Except for the Subsidiaries, the Company does not, directly or indirectly, own or control any equity interest in any other entity that would constitute a "Subsidiary" as that term is defined in Rule 405 under the Securities Act.

(vii) **Forward-Looking Statements.** The Company had a reasonable basis for, and made in good faith, each “forward-looking statement” (within the meaning of Section 27A of the Securities Act or Section 21E of the Exchange Act) contained or incorporated by reference in the Registration Statement, the Time of Sale Disclosure Package, the Final Prospectus or the Marketing Materials.

(viii) **Statistical and Marketing-Related Data.** All statistical or market-related data included or incorporated by reference in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, or included in the Marketing Materials, are based on or derived from sources that the Company reasonably believes to be reliable and accurate, and the Company has obtained the written consent to the use of such data from such sources, to the extent required.

(ix) **Trading Market.** The Common Stock is registered pursuant to Section 12(b) of the Exchange Act and is approved for listing on the Nasdaq Global Select Market (“**Nasdaq**”). There is no action pending by the Company or, to the Company’s knowledge, Nasdaq to delist the Common Stock from Nasdaq, nor has the Company received any notification that Nasdaq is contemplating terminating such listing. When issued, the Shares will be listed on Nasdaq.

(x) **Absence of Manipulation.** The Company has not taken, directly or indirectly, any action that is designed to or that has constituted or that would reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares.

(xi) **Investment Company Act.** The Company is not and, after giving effect to the offering and sale of the Shares and the application of the net proceeds thereof, will not be an “investment company,” as such term is defined in the Investment Company Act of 1940, as amended.

3. ***Representations and Warranties Regarding the Company.***

(a) The Company represents and warrants to, and agrees with, the Underwriter, as of the date hereof and as of the Closing Date and as of each Option Closing Date (if any), as follows:

(i) **Good Standing.** Each of the Company and its Subsidiaries has been duly organized and is validly existing as a corporation or other entity in good standing under the laws of its jurisdiction of incorporation. Each of the Company and its Subsidiaries has the power and authority (corporate or otherwise) to own its properties and conduct its business as currently being carried on and as described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, and is duly qualified to do business as a foreign corporation or other entity in good standing in each jurisdiction in which it owns or leases real property or in which the conduct of its business makes such qualification necessary, except where the failure to so qualify would not have or be reasonably likely to result in a material adverse effect upon the business, prospects, properties, operations, condition (financial or otherwise) or results of operations of the Company and its

Subsidiaries, taken as a whole, or in its ability to perform its obligations under this Agreement (a “Material Adverse Effect”).

(ii) **Authorization.** The Company has the power and authority to enter into this Agreement and to authorize, issue and sell the Shares as contemplated by this Agreement. This Agreement has been duly authorized, executed and delivered by the Company and constitutes the valid, legal and binding obligation of the Company, enforceable against the Company in accordance with its terms, except as may be limited by federal or state securities laws and except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting the rights of creditors generally and subject to general principles of equity.

(iii) **Contracts.** The execution, delivery and performance of this Agreement and the consummation of the transactions herein contemplated will not (A) result in a breach or violation of any of the terms and provisions of, or constitute a default under, any law, order, rule or regulation to which the Company or any Subsidiary is subject, or by which any property or asset of the Company or any Subsidiary is bound or affected, (B) conflict with, result in any violation or breach of, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or give to others any right of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) (a “Default Acceleration Event”) of, any agreement, lease, credit facility, debt, note, bond, mortgage, indenture or other instrument (the “Contracts”) or obligation to which the Company or any Subsidiary is a party or by which any property or asset of the Company or any Subsidiary is bound or affected, except to the extent that such conflict, default, or Default Acceleration Event not reasonably likely to result in a Material Adverse Effect, individually or in the aggregate, or (C) result in a breach or violation of any of the terms and provisions of, or constitute a default under, the Company’s charter or by-laws.

(iv) **No Violations of Governing Documents.** Neither the Company nor any of its Subsidiaries is in violation, breach or default under its certificate of incorporation, by-laws or other equivalent organizational or governing documents.

(v) **Consents.** No consents, approvals, orders, authorizations or filings are required on the part of the Company in connection with the execution, delivery or performance of this Agreement and the issue and sale of the Shares, except (A) the registration under the Securities Act of the Shares, which has been effected, (B) the necessary filings and approvals from Nasdaq to list the Shares, (C) such consents, approvals, authorizations, registrations or qualifications as may be required under state or foreign securities or Blue Sky laws and the rules of the Financial Industry Regulatory Authority, Inc. (“FINRA”) in connection with the purchase and distribution of the Shares by the Underwriter, (D) such consents and approvals as have been obtained and are in full force and effect, and (E) such consents, approvals, orders, authorizations and filings the failure of which to make or obtain is not reasonably likely to result in a Material Adverse Effect.

(vi) **Capitalization.** The Company has an authorized capitalization as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final

Prospectus. All of the issued and outstanding shares of capital stock of the Company are duly authorized and validly issued, fully paid and nonassessable, and have been issued in compliance with all applicable securities laws, and conform to the description thereof in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus. All of the issued shares of capital stock of each Subsidiary of the Company have been duly and validly authorized and issued, are fully paid and non-assessable and, except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims. Except for the issuances of options or restricted stock in the ordinary course of business, since the respective dates as of which information is provided in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, the Company has not entered into or granted any convertible or exchangeable securities, options, warrants, agreements, contracts or other rights in existence to purchase or acquire from the Company any shares of the capital stock of the Company. The Shares, when issued and paid for as provided herein, will be duly authorized and validly issued, fully paid and nonassessable, will be issued in compliance with all applicable securities laws, and will be free of preemptive, registration or similar rights and will conform to the description of the capital stock of the Company contained in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus.

(vii) **Taxes.** Each of the Company and its Subsidiaries has (a) filed all foreign, federal, state and local tax returns (as hereinafter defined) required to be filed with taxing authorities prior to the date hereof or has duly obtained extensions of time for the filing thereof and (b) paid all taxes (as hereinafter defined) shown as due and payable on such returns that were filed and has paid all taxes imposed on or assessed against the Company or such respective Subsidiary, except as currently being contested in good faith and for which appropriate reserves have been established on the books and records of the Company to the extent required by GAAP. The provisions for taxes payable, if any, shown on the financial statements included or incorporated by reference in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus are sufficient for all accrued and unpaid taxes, whether or not disputed, and for all periods to and including the dates of such consolidated financial statements. No material issues have been raised (and are currently pending) by any taxing authority in connection with any of the returns or taxes asserted as due from the Company or its Subsidiaries, and no waivers of statutes of limitation with respect to the returns or collection of taxes have been given by or requested from the Company or its Subsidiaries. The term “taxes” means all federal, state, local, foreign, and other net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments, or charges of any kind whatever, together with any interest and any penalties, additions to tax, or additional amounts with respect thereto. The term “returns” means all returns, declarations, reports, statements, and other documents required to be filed by the Company and its Subsidiaries in respect to taxes.

(viii) **Material Change.** Since the respective dates as of which information is given (including information incorporated by reference) in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, (a) neither the Company nor any of its Subsidiaries has incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions other than in the ordinary course of business, (b) the Company has not declared or paid any dividends or made any distribution of any kind with respect to its capital stock; (c) there has not been any change in the capital stock of the Company or any of its Subsidiaries (other than a change in the number of outstanding shares of Common Stock due to the issuance of shares upon the exercise of outstanding options or warrants, upon the conversion of outstanding shares of preferred stock or other convertible securities or the issuance of restricted stock awards or restricted stock units under the Company's existing stock awards plan, or any new grants thereof in the ordinary course of business), (d) there has not been any material change in the Company's long-term or short-term debt, and (e) there has not been the occurrence of any Material Adverse Effect.

(ix) **Absence of Proceedings.** There is not pending or, to the knowledge of the Company, threatened, any action, suit or proceeding to which the Company or any of its Subsidiaries is a party or of which any property or assets of the Company or any of its Subsidiaries is the subject before or by any court or governmental agency, authority or body, or any arbitrator or mediator, which is reasonably likely to result in a Material Adverse Effect.

(x) **Permits.** The Company and each of its Subsidiaries holds, and is in compliance with, all franchises, grants, authorizations, licenses, permits, easements, consents, certificates and orders ("Permits") of any governmental or self-regulatory agency, authority or body required for the conduct of its business, and all such Permits are in full force and effect, in each case except where the failure to hold, or comply with, any of them is not reasonably likely to result in a Material Adverse Effect or adversely affect the consummation of the transactions contemplated by this Agreement.

(xi) **Good Title.** The Company and each of its Subsidiaries have good and marketable title to all property (whether real or personal) described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus as being owned by them that are material to the business of the Company, in each case free and clear of all liens, claims, security interests, other encumbrances or defects, except those that are disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus and those that are not reasonably likely to result in a Material Adverse Effect. The property held under lease by the Company and its Subsidiaries is held by them under valid, subsisting and enforceable leases with only such exceptions with respect to any particular lease as do not interfere in any material respect with the conduct of the business of the Company and its Subsidiaries.

(xii) **Intellectual Property.** The Company and each of its Subsidiaries owns or possesses or has valid right to use all patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses,

inventions, trade secrets and similar rights (“Intellectual Property”) necessary for the conduct of the business of the Company and its Subsidiaries as currently carried on and as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus. To the knowledge of the Company, no action or use by the Company or any of its Subsidiaries involves or gives rise to any infringement of, or license or similar fees for, any Intellectual Property of others, except where such action, use, license or fee is not reasonably likely to result in a Material Adverse Effect. Neither the Company nor any of its Subsidiaries has received any notice alleging any such infringement or fee. To the Company’s knowledge, none of the technology employed by the Company or any Subsidiary has been obtained or is being used by the Company or such Subsidiary in violation of any contractual obligation binding on the Company or such Subsidiary or, to the Company’s knowledge, any of the officers, directors or employees of the Company or any Subsidiary, or, to the Company’s knowledge, otherwise in violation of the rights of any persons, except in each case for such violations as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(xiii) **Employment Matters.** There is (A) no unfair labor practice complaint pending against the Company, or any of its Subsidiaries, nor to the Company’s knowledge, threatened against it or any of its Subsidiaries, before the National Labor Relations Board, any state or local labor relation board or any foreign labor relations board, and no grievance or arbitration proceeding arising out of or under any collective bargaining agreement is so pending against the Company or any of its Subsidiaries, or, to the Company’s knowledge, threatened against it and (B) no labor disturbance by the employees of the Company or any of its Subsidiaries exists or, to the Company’s knowledge, is imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its or its Subsidiaries, principal suppliers, manufacturers, customers or contractors, that could reasonably be expected, singularly or in the aggregate, to have a Material Adverse Effect. The Company is not aware that any key employee or significant group of employees of the Company or any Subsidiary plans to terminate employment with the Company or any such Subsidiary.

(xiv) **ERISA Compliance.** No “prohibited transaction” (as defined in Section 406 of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder (“ERISA”), or Section 4975 of the Internal Revenue Code of 1986, as amended from time to time (the “Code”)) or “accumulated funding deficiency” (as defined in Section 302 of ERISA) or any of the events set forth in Section 4043(b) of ERISA (other than events with respect to which the thirty (30)-day notice requirement under Section 4043 of ERISA has been waived) has occurred or could reasonably be expected to occur with respect to any employee benefit plan of the Company or any of its Subsidiaries which would reasonably be expected to, singularly or in the aggregate, have a Material Adverse Effect. Each employee benefit plan of the Company or any of its Subsidiaries is in compliance in all material respects with applicable law, including ERISA and the Code. The Company and its Subsidiaries have not incurred and could not reasonably be expected to incur liability under Title IV of ERISA with respect to the termination of, or withdrawal from, any pension plan (as defined in ERISA). Each pension

plan for which the Company or any of its Subsidiaries would have any liability that is intended to be qualified under Section 401(a) of the Code is so qualified, and nothing has occurred, whether by action or by failure to act, which could, singularly or in the aggregate, cause the loss of such qualification.

(xv) **Environmental Matters.** The Company and its Subsidiaries are in compliance with all foreign, federal, state and local rules, laws and regulations relating to the use, treatment, storage and disposal of hazardous or toxic substances or waste and protection of health and safety or the environment which are applicable to their businesses (“Environmental Laws”), except where the failure to comply has not had and would not reasonably be expected to have, singularly or in the aggregate, a Material Adverse Effect. To the Company’s knowledge, there has been no storage, generation, transportation, handling, treatment, disposal, discharge, emission, or other release of any kind of toxic or other wastes or other hazardous substances by, due to, or caused by the Company or any of its Subsidiaries (or, to the Company’s knowledge, any other entity for whose acts or omissions the Company or any of its Subsidiaries is or may otherwise be liable) upon any of the property now or previously owned or leased by the Company or any of its Subsidiaries, or upon any other property, in violation of any law, statute, ordinance, rule, regulation, order, judgment, decree or permit or which would, under any law, statute, ordinance, rule (including rule of common law), regulation, order, judgment, decree or permit, give rise to any liability, except for any violation or liability which has not had and would not reasonably be expected to have, singularly or in the aggregate, a Material Adverse Effect; and there has been no disposal, discharge, emission or other release of any kind onto such property or into the environment surrounding such property of any toxic or other wastes or other hazardous substances with respect to which the Company or any of its Subsidiaries has knowledge.

(xvi) **SOX Compliance.** The Company is in compliance in all material respects with all applicable provisions of the Sarbanes-Oxley Act of 2002 and all rules and regulations promulgated thereunder or implementing the provisions thereof.

(xvii) **Money Laundering Laws.** The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance in all material respects with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any Governmental Entity (collectively, the “Money Laundering Laws”); and no action, suit or proceeding by or before any Governmental Entity involving the Company or any of its Subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened. “Governmental Entity” shall be defined as any arbitrator, court, governmental body, regulatory body, administrative agency or other authority, body or agency (whether foreign or domestic) having jurisdiction over the Company or any of its Subsidiaries or any of their respective properties, assets or operations.

(xviii) **Foreign Corrupt Practices Act.** Neither the Company, nor any of its Subsidiaries, nor any director or officer of the Company or any Subsidiary, nor, to the knowledge of the Company, any employee, representative, agent, affiliate of the Company or any of its Subsidiaries or any other person acting on behalf of the Company or any of its Subsidiaries, is aware of or has taken any action, directly or indirectly, that would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the “FCPA”), including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any “foreign official” (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the FCPA and the Company and, to the knowledge of the Company, its affiliates have conducted their businesses in compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

(xix) **OFAC.** Neither the Company nor any of its Subsidiaries nor any director or officer of the Company or any Subsidiary, nor, to the knowledge of the Company, any employee, representative, agent or affiliate of the Company or any of its Subsidiaries or any other person acting on behalf of the Company or any of its Subsidiaries is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department (“OFAC”); and the Company will not directly or indirectly use the proceeds of the offering of the Shares contemplated hereby, or lend, contribute or otherwise make available such proceeds to any person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(xx) **Insurance.** The Company and each of its Subsidiaries carries, or is covered by, insurance in such amounts and covering such risks as is adequate for the conduct of its business and the value of its properties and as is customary for companies engaged in similar businesses in similar industries.

(xxi) **Books and Records.** The minute books of the Company and each of its Subsidiaries have been made available to the Underwriter and counsel for the Underwriter, and such books (i) contain a complete summary of all meetings and actions of the board of directors (including each board committee) and stockholders of the Company (or analogous governing bodies and interest holders, as applicable), and each of its Subsidiaries since the time of its respective incorporation or organization through the date of the latest meeting and action, and (ii) accurately in all material respects reflect all transactions referred to in such minutes.

(xxii) **No Undisclosed Contracts.** There is no Contract or document required by the Securities Act or by the Rules and Regulations to be described in the Registration Statement, the Time of Sale Disclosure Package or in the Final Prospectus or to be filed as an exhibit to the Registration Statements which is not so described or filed

therein as required; and all descriptions of any such Contracts or documents contained in the Registration Statement, the Time of Sale Disclosure Package and in the Final Prospectus are accurate and complete descriptions of such documents in all material respects. Other than as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, no such Contract has been suspended or terminated for convenience or default by the Company or any Subsidiary party thereto or any of the other parties thereto, and neither the Company nor any of its Subsidiaries has received notice, and the Company has no knowledge, of any such pending or threatened suspension or termination, except for such pending or threatened suspensions or terminations that have not had, and would not reasonably be expected to have, a Material Adverse Effect, individually or in the aggregate.

(xxiii) **No Undisclosed Relationships.** No relationship, direct or indirect, exists between or among the Company or any of its Subsidiaries on the one hand, and the directors, officers, stockholders (or analogous interest holders), customers or suppliers of the Company or any of its Subsidiaries on the other hand, which is required to be described in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus and which is not so described.

(xxiv) **Insider Transactions.** All transactions by the Company with office holders or control persons of the Company have been duly approved by the board of directors of the Company, or duly appointed committees or officers thereof, if and to the extent required under applicable law.

(xxv) **No Registration Rights.** No person or entity has the right to require registration of shares of Common Stock or other securities of the Company or any of its Subsidiaries within 90 days of the date hereof because of the filing or effectiveness of the Registration Statement or otherwise, except for persons and entities who have expressly waived such right in writing or who have been given timely and proper written notice and have failed to exercise such right within the time or times required under the terms and conditions of such right. Except as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, there are no persons with registration rights or similar rights to have any securities registered by the Company or any of its Subsidiaries under the Securities Act.

(xxvi) **Continued Business.** No supplier, customer, distributor or sales agent of the Company or any Subsidiary has notified the Company or any Subsidiary that it intends to discontinue or decrease the rate of business done with the Company or any Subsidiary, except where such discontinuation or decrease has not resulted in and could not reasonably be expected to result in a Material Adverse Effect.

(xxvii) **No Finder's Fee.** There are no claims, payments, issuances, arrangements or understandings for services in the nature of a finder's, consulting or origination fee with respect to the introduction of the Company to the Underwriter or the sale of the Shares hereunder or any other arrangements, agreements, understandings,

payments or issuances with respect to the Company that may affect the Underwriter's compensation, as determined by FINRA.

(xxviii) **No Fees.** Except as disclosed to the Underwriter in writing, the Company has not made any direct or indirect payments (in cash, securities or otherwise) to (i) any person, as a finder's fee, investing fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who provided capital to the Company, (ii) any FINRA member, or (iii) any person or entity that has any direct or indirect affiliation or association with any FINRA member within the 12-month period prior to the date on which the initial Preliminary Prospectus was filed with the Commission ("Filing Date") or thereafter.

(xxix) **Proceeds.** None of the net proceeds of the offering will be paid by the Company to any participating FINRA member or any affiliate or associate of any participating FINRA member, except as specifically authorized herein.

(xxx) **No FINRA Affiliations.** To the Company's knowledge, and except as otherwise set forth in the FINRA questionnaires delivered to the Underwriter or its counsel, no (i) officer or director of the Company or its Subsidiaries, (ii) owner of 5% or more of any class of the Company's securities or (iii) owner of any amount of the Company's unregistered securities acquired within the 180-day period prior to the Filing Date, has any direct or indirect affiliation or association with any FINRA member. The Company will advise the Underwriter and counsel to the Underwriter if it becomes aware that any officer, director of the Company or its Subsidiaries or any owner of 5% or more of any class of the Company's securities is or becomes an affiliate or associated person of a FINRA member participating in the offering to the extent not disclosed in the FINRA questionnaires.

(xxxi) **No Financial Advisor.** Other than the Underwriter, no person has the right to act as an underwriter or as a financial advisor to the Company in connection with the transactions contemplated hereby.

(xxxii) **Certain Statements.** The statements set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus under the caption "Business – Patents," insofar as they purport to describe the provisions of the laws and documents referred to therein, are accurate, complete and fair in all material respects, and under the caption "Description of Common and Preferred Stock," insofar as they purport to constitute a summary of (i) the terms of the Company's outstanding securities, (ii) the terms of the Shares, (iii) the terms of the documents referred to therein, and (iv) the provisions of the laws referred to therein, are accurate, complete and fair in all material respects.

(xxxiii) **Prior Sales of Securities.** Except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, the Company has not sold or issued any shares of Common Stock during the six-month period preceding the date hereof, including any sales pursuant to Rule 144A under, or Regulations D or S of, the Securities Act, other than shares issued pursuant to employee benefit plans, stock option

plans or other employee compensation plans or pursuant to outstanding preferred stock, options, rights or warrants or other outstanding convertible securities.

(b) Any certificate signed by any officer of the Company and delivered to the Underwriter or to counsel for the Underwriter shall be deemed a representation and warranty by the Company to the Underwriter as to the matters covered thereby.

4. Purchase, Sale and Delivery of Shares.

(a) On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell the Firm Shares to the Underwriter, and the Underwriter agrees to purchase the Firm Shares. The purchase price to be paid by the Underwriter to the Company for each Firm Share shall be \$9.025 per share.

(b) The Company hereby grants to the Underwriter the option to purchase some or all of the Option Shares and, upon the basis of the warranties and representations and subject to the terms and conditions herein set forth, the Underwriter shall have the right to purchase at the purchase price set forth in Section 4(a) all or any portion of the Option Shares as may be necessary to cover over-allotments made in connection with the transactions contemplated hereby. This option may be exercised by the Underwriter at any time and from time to time on or before the thirtieth (30th) day following the date hereof, by written notice to the Company (the "Option Notice"). The Option Notice shall set forth the aggregate number of Option Shares as to which the option is being exercised, and the date and time when the Option Shares are to be delivered (such date and time being herein referred to as the "Option Closing Date"); *provided, however*, that the Option Closing Date shall not be earlier than the Closing Date (as defined below) nor earlier than the first business day after the date on which the option shall have been exercised nor later than the fifth business day after the date on which the option shall have been exercised unless the Company and the Underwriter otherwise agree.

(c) Payment of the purchase price for and delivery of the Option Shares shall be made on an Option Closing Date in the same manner and at the same office as the payment for the Firm Shares as set forth in subparagraph (d) below.

(d) The Firm Shares will be delivered by the Company to the Underwriter, against payment of the purchase price therefor by wire transfer of same day funds payable to the order of the Company, at the offices of Roth Capital Partners, LLC, 888 San Clemente Drive, Suite 400, Newport Beach, CA 92660, or such other location as may be mutually acceptable, at 6:00 a.m. Pacific Time, on the date specified for regular way settlement in Rule 15c6-1(a) under the Exchange Act (or if the Firm Shares are priced after 4:30 p.m. Eastern time, the date specified therein), or at such other time and date as the Underwriter and the Company determine pursuant to Rule 15c6-1(a) under the Exchange Act, or, in the case of the Option Shares, at such date and time set forth in the Option Notice. The time and date of delivery of the Firm Shares is referred to herein as the "Closing Date." On the Closing Date, the Company shall deliver the Firm Shares, which shall be registered in the name or names and shall be in such denominations as the Underwriter may request

at least one (1) business day before the Closing Date, to the account of the Underwriter, which delivery shall be made through the facilities of the Depository Trust Company's DWAC system.

5. Covenants.

(a) The Company covenants and agrees with the Underwriter as follows:

(i) The Company shall prepare the Final Prospectus in a form approved by the Underwriter and file such Final Prospectus pursuant to Rule 424(b) under the Securities Act not later than the Commission's close of business on the second business day following the execution and delivery of this Agreement, or, if applicable, such earlier time as may be required by the Rules and Regulations.

(ii) During the period beginning on the date hereof and ending on the later of the Closing Date or such date as determined by the Underwriter the Final Prospectus is no longer required by law to be delivered in connection with sales by an underwriter or dealer (the "Prospectus Delivery Period"), prior to amending or supplementing the Registration Statement, including any Rule 462 Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, the Company shall furnish to the Underwriter for review and comment a copy of each such proposed amendment or supplement, and the Company shall not file any such proposed amendment or supplement to which the Underwriter reasonably objects.

(iii) From the date of this Agreement until the end of the Prospectus Delivery Period, the Company shall promptly advise the Underwriter in writing (A) of the receipt of any comments of, or requests for additional or supplemental information from, the Commission, (B) of the time and date of any filing of any post-effective amendment to the Registration Statement or any amendment or supplement to the Time of Sale Disclosure Package, the Final Prospectus or any Issuer Free Writing Prospectus, (C) of the time and date that any post-effective amendment to the Registration Statement becomes effective and (D) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of any order preventing or suspending its use or the use of the Time of Sale Disclosure Package, the Final Prospectus or any Issuer Free Writing Prospectus, or of any proceedings to remove, suspend or terminate from listing or quotation the Common Stock from any securities exchange upon which it is listed for trading or included or designated for quotation, or of the threatening or initiation of any proceedings for any of such purposes. If the Commission shall enter any such stop order at any time during the Prospectus Delivery Period, the Company will use its reasonable efforts to obtain the lifting of such order at the earliest possible moment. Additionally, the Company agrees that it shall comply with the provisions of Rules 424(b), 430B or 430C as applicable, under the Securities Act and will use its reasonable efforts to confirm that any filings made by the Company under Rule 424(b) or Rule 433 were received in a timely manner by the Commission (without reliance on Rule 424(b)(8) or 164(b) of the Securities Act).

(iv) (A) During the Prospectus Delivery Period, the Company will comply with all requirements imposed upon it by the Securities Act, as now and hereafter amended,

and by the Rules and Regulations, as from time to time in force, and by the Exchange Act, as now and hereafter amended, so far as necessary to permit the continuance of sales of or dealings in the Shares as contemplated by the provisions hereof, the Time of Sale Disclosure Package, the Registration Statement and the Final Prospectus. If during the Prospectus Delivery Period any event occurs the result of which would cause the Final Prospectus (or if the Final Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) to include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is necessary or appropriate in the opinion of the Company or its counsel or the Underwriter or counsel to the Underwriter to amend the Registration Statement or supplement the Final Prospectus (or if the Final Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) to comply with the Securities Act, or to file under the Exchange Act any document that would be deemed to be incorporated by reference in the Final Prospectus in order to comply with the Securities Act or the Exchange Act, the Company will promptly notify the Underwriter, allow the Underwriter the opportunity to provide reasonable comments on such amendment, prospectus supplement or document, and will amend the Registration Statement or supplement the Final Prospectus (or if the Final Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) or file such document (at the expense of the Company) so as to correct such statement or omission or effect such compliance.

(B) If at any time during the Prospectus Delivery Period there occurred or occurs an event or development the result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement or any Prospectus or included or would include, when taken together with the Time of Sale Disclosure Package, an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at that subsequent time, not misleading, the Company will promptly notify the Underwriter and will promptly amend or will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(v) The Company shall take or cause to be taken all necessary action to qualify the Shares for sale under the securities laws of such jurisdictions as the Underwriter reasonably designates and to continue such qualifications in effect so long as required for the distribution of the Shares, except that the Company shall not be required in connection therewith to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified, to execute a general consent to service of process in any state or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise subject.

(vi) The Company will furnish to the Underwriter and counsel to the Underwriter copies of the Registration Statement, each Prospectus, any Issuer Free Writing Prospectus, and all amendments and supplements to such documents, in each case as soon

as available and in such quantities as the Underwriter may from time to time reasonably request.

(vii) The Company will make generally available to its security holders as soon as practicable, but in any event not later than 15 months after the end of the Company's current fiscal quarter, an earnings statement (which need not be audited) covering a 12-month period that shall satisfy the provisions of Section 11(a) of the Securities Act and Rule 158 of the Rules and Regulations.

(viii) The Company, whether or not the transactions contemplated hereunder are consummated or this Agreement is terminated, will pay or cause to be paid (A) all expenses (including transfer taxes allocated to the respective transferees) incurred in connection with the delivery to the Underwriter of the Shares (including all fees and expenses of the registrar and transfer agent of the Shares, and the cost of preparing and printing stock certificates), (B) all expenses and fees (including, without limitation, fees and expenses of the Company's counsel) in connection with the preparation, printing, filing, delivery, and shipping of the Registration Statement (including the financial statements therein and all amendments, schedules, and exhibits thereto), the Shares, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus, any Issuer Free Writing Prospectus and any amendment thereof or supplement thereto, (C) all reasonable filing fees and reasonable fees and disbursements of the Underwriter's counsel incurred in connection with the qualification of the Shares for offering and sale by the Underwriter or by dealers under the securities or blue sky laws of the states and other jurisdictions that the Underwriter shall designate, (D) the reasonable filing fees and reasonable fees and disbursements of counsel to the Underwriter incident to any required review and approval by FINRA, of the terms of the sale of the Shares, (E) listing fees, if any, and (F) all other costs and expenses incident to the performance of its obligations hereunder that are not otherwise specifically provided for herein. The Company will reimburse the Underwriter for the Underwriter's reasonable out-of-pocket expenses, including legal fees and disbursements, in connection with the purchase and sale of the Shares contemplated hereby up to an aggregate of \$75,000 (including amounts payable pursuant to clauses (C) and (D) above). If this Agreement is terminated by the Underwriter in accordance with the provisions of Section 6 or Section 9, the Company will reimburse the Underwriter for all out-of-pocket disbursements (including, but not limited to, reasonable fees and disbursements of counsel, travel expenses, postage, facsimile and telephone charges) incurred by the Underwriter in connection with its investigation, preparing to market and marketing the Shares or in contemplation of performing its obligations hereunder incurred prior to the effective date of such termination.

(ix) The Company intends to apply the net proceeds from the sale of the Shares to be sold by it hereunder for the purposes set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus under the heading "Use of Proceeds".

(x) The Company has not taken and will not take, directly or indirectly, during the Prospectus Delivery Period, any action designed to or which might reasonably

be expected to cause or result in, or that has constituted, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares.

(xi) The Company represents and agrees that, unless it obtains the prior written consent of the Underwriter, and the Underwriter represents and agrees that, unless it obtains the prior written consent of the Company, it has not made and will not make any offer relating to the Shares that would constitute an Issuer Free Writing Prospectus; provided that the prior written consent of the parties hereto shall be deemed to have been given in respect of the free writing prospectuses included in **Schedule I**. Any such free writing prospectus consented to by the Company and the Underwriter is hereinafter referred to as a “Permitted Free Writing Prospectus.” The Company represents that it has treated or agrees that it will treat each Permitted Free Writing Prospectus as an Issuer Free Writing Prospectus, and has complied or will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely Commission filing where required, legending and record-keeping.

(xii) The Company hereby agrees that, without the prior written consent of the Underwriter, it will not, during the period ending ninety (90) days after the date hereof (“Lock-Up Period”), (i) offer, pledge, issue, sell, contract to sell, purchase, contract to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock; or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise; or (iii) file any registration statement with the Commission relating to the offering of any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock. The restrictions contained in the preceding sentence shall not apply to (1) the Shares to be sold hereunder, (2) the issuance of Common Stock upon the exercise of options or warrants or the conversion of outstanding preferred stock or other outstanding convertible securities disclosed as outstanding in the Registration Statement (excluding exhibits thereto), the Time of Sale Disclosure Package, and the Final Prospectus, or (3) the issuance of employee stock options not exercisable during the Lock-Up Period and the grant of restricted stock awards or restricted stock units or shares of Common Stock pursuant to equity incentive plans described in the Registration Statement (excluding exhibits thereto), the Time of Sale Disclosure Package, and the Final Prospectus.

(xiii) The Company hereby agrees, during a period of three years from the effective date of the Registration Statement, to furnish to the Underwriter copies of all reports or other communications (financial or other) furnished to shareholders, and to deliver to the Underwriter as soon as reasonably practicable upon availability, copies of any reports and financial statements furnished to or filed with the Commission or any national securities exchange on which any class of securities of the Company is listed; provided, that any information or documents available on the Commission’s Electronic Data Gathering,

Analysis and Retrieval System shall be considered furnished for purposes of this Section 5(a)(xiii).

(xiv) The Company hereby agrees to engage and maintain, at its expense, a registrar and transfer agent for the Common Stock.

(xv) The Company hereby agrees to use its reasonable best efforts to obtain approval to list the Shares on Nasdaq.

(xvi) The Company hereby agrees not to take, directly or indirectly, any action designed to cause or result in, or that has constituted or might reasonably be expected to constitute, under the Exchange Act or otherwise, the stabilization or manipulation of the price of any securities of the Company to facilitate the sale or resale of the Shares.

6. Conditions of the Underwriter's Obligation. The obligation of the Underwriter hereunder to purchase the Shares are subject to the accuracy, as of the date hereof and at all times through the Closing Date, and on any Option Closing Date (as if made on the Closing Date or such Option Closing Date, as applicable), of and compliance with all representations, warranties and agreements of the Company contained herein, the performance by the Company of its obligations hereunder and the following additional conditions:

(a) If filing of the Final Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, is required under the Securities Act or the Rules and Regulations, the Company shall have filed the Final Prospectus (or such amendment or supplement) or such Issuer Free Writing Prospectus with the Commission in the manner and within the time period so required (without reliance on Rule 424(b)(8) or 164(b) under the Securities Act); the Registration Statement shall remain effective; no stop order suspending the effectiveness of the Registration Statement or any part thereof, any Rule 462 Registration Statement, or any amendment thereof, nor suspending or preventing the use of the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus or any Issuer Free Writing Prospectus shall have been issued; no proceedings for the issuance of such an order shall have been initiated or threatened by the Commission; any request of the Commission or the Underwriter for additional information (to be included in the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus, any Issuer Free Writing Prospectus or otherwise) shall have been complied with to the satisfaction of the Underwriter.

(b) The Shares shall be approved for listing on Nasdaq, subject to official notice of issuance.

(c) FINRA shall have raised no objection to the fairness and reasonableness of the underwriting terms and arrangements.

(d) The Underwriter shall not have reasonably determined, and advised the Company, that the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus, or any amendment thereof or supplement thereto, or any Issuer Free Writing Prospectus, contains an untrue statement of fact which, in the reasonable opinion of the Underwriter,

is material, or omits to state a fact which, in the reasonable opinion of the Underwriter, is material and is required to be stated therein or necessary to make the statements therein not misleading.

(e) On the Closing Date and on each Option Closing Date, there shall have been furnished to the Underwriter the opinion and negative assurance letters of Squire Patton Boggs (US) LLP, counsel to the Company, each dated the Closing Date or the Option Closing Date, as applicable, and addressed to the Underwriter, in form and substance reasonably satisfactory to the Underwriter.

(f) On the Closing Date and on each Option Closing Date, there shall have been furnished to the Underwriter the negative assurance letter of Lowenstein Sandler LLP, counsel to the Underwriters, dated the Closing Date or the Option Closing Date, as applicable, and addressed to the Underwriter, in form and substance reasonably satisfactory to the Underwriter.

(g) The Underwriter shall have received a letter of Mayer Hoffman McCann P.C., on the date hereof and on the Closing Date and on each Option Closing Date, addressed to the Underwriter, confirming that they are independent public accountants within the meaning of the Securities Act and are in compliance with the applicable requirements relating to the qualifications of accountants under Rule 2-01 of Regulation S-X of the Commission, and confirming, as of the date of each such letter (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, as of a date not prior to the date hereof or more than five days prior to the date of such letter), the conclusions and findings of said firm with respect to the financial information and other matters required by the Underwriter.

(h) On the Closing Date and on each Option Closing Date, there shall have been furnished to the Underwriter a certificate, dated the Closing Date and on each Option Closing Date and addressed to the Underwriter, signed by the chief executive officer and the chief financial officer of the Company, in their capacity as officers of the Company, to the effect that:

(i) The representations and warranties of the Company in this Agreement that are qualified by materiality or by reference to any Material Adverse Effect are true and correct in all respects, and all other representations and warranties of the Company in this Agreement are true and correct, in all material respects, as if made at and as of the Closing Date and on the Option Closing Date, and the Company has complied in all material respects with all the agreements and satisfied all the conditions on its part required to be performed or satisfied at or prior to the Closing Date or on the Option Closing Date, as applicable;

(ii) No stop order or other order (A) suspending the effectiveness of the Registration Statement or any part thereof or any amendment thereof, (B) suspending the qualification of the Shares for offering or sale, or (C) suspending or preventing the use of the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus or any Issuer Free Writing Prospectus, has been issued, and no proceeding for that purpose has been instituted or, to their knowledge, is contemplated by the Commission or any state or regulatory body; and

(iii) There has been no occurrence of any event resulting or reasonably likely to result in a Material Adverse Effect during the period from and after the date of this Agreement and prior to the Closing Date or on the Option Closing Date, as applicable.

(i) On or before the date hereof, the Underwriter shall have received duly executed lock-up agreements (each a “Lock-Up Agreement”) in the form set forth on **Exhibit A** hereto, by and between the Underwriter and each of the parties specified in **Schedule III**.

(j) The Company shall have furnished to the Underwriter and its counsel such additional documents, certificates and evidence as the Underwriter or its counsel may have reasonably requested.

If any condition specified in this Section 6 shall not have been fulfilled when and as required to be fulfilled, this Agreement may be terminated by the Underwriter by notice to the Company at any time at or prior to the Closing Date or on the Option Closing Date, as applicable, and such termination shall be without liability of any party to any other party, except that Section 5(a)(viii), Section 7 and Section 9 shall survive any such termination and remain in full force and effect.

7. Indemnification and Contribution.

(a) The Company agrees to indemnify, defend and hold harmless the Underwriter, its affiliates, directors and officers and employees, and each person, if any, who controls such Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, from and against any losses, claims, damages or liabilities to which such party may become subject, under the Securities Act or otherwise (including in settlement of any litigation if such settlement is effected with the written consent of the Company), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon (i) an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, including the information deemed to be a part of the Registration Statement at the time of effectiveness and at any subsequent time pursuant to Rule 430B of the Rules and Regulations, or arise out of or are based upon the omission from the Registration Statement, or alleged omission to state therein, a material fact required to be stated therein or necessary to make the statements therein not misleading (ii) an untrue statement or alleged untrue statement of a material fact contained in the Time of Sale Disclosure Package, any Written Testing-the-Waters Communications, any Prospectus, the Final Prospectus, or any amendment or supplement thereto, any Issuer Free Writing Prospectus, or the Marketing Materials or in any other materials used in connection with the offering of the Shares, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, (iii) in whole or in part, any inaccuracy in the representations and warranties of the Company contained herein, or (iv) in whole or in part, any failure of the Company to perform its obligations hereunder or under law, and will reimburse such party for any legal or other expenses reasonably incurred by such party in connection with evaluating, investigating or defending against such loss, claim, damage, liability or action; *provided, however*, that such indemnity shall not inure to the benefit of the Underwriter (or any person controlling the Underwriter) in any such case to the extent that any such loss, claim, damage, liability or action arises out of or is based upon an untrue statement or alleged untrue statement or

omission or alleged omission made in the Registration Statement, the Time of Sale Disclosure Package, any Written Testing-the-Waters Communications, any Prospectus, the Final Prospectus, or any amendment or supplement thereto or any Issuer Free Writing Prospectus, in reliance upon and in conformity with written information furnished to the Company by the Underwriter specifically for use in the preparation thereof, which written information is described in Section 7(f).

(b) The Underwriter will indemnify, defend and hold harmless the Company, its directors and each officer of the Company who signs the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, from and against any losses, claims, damages or liabilities to which such party may become subject, under the Securities Act or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of the Underwriter), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus, or any amendment or supplement thereto or any Issuer Free Writing Prospectus, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus, or any amendment or supplement thereto or any Issuer Free Writing Prospectus in reliance upon and in conformity with written information furnished to the Company by the Underwriter specifically for use in the preparation thereof, which written information is described in Section 7(f), and will reimburse such party for any legal or other expenses reasonably incurred by such party in connection with evaluating, investigating, and defending against any such loss, claim, damage, liability or action. The obligation of the Underwriter to indemnify the Company (including any controlling person, director or officer thereof) shall be limited to the amount of the underwriting discount applicable to the Shares to be purchased by the Underwriter hereunder actually received by the Underwriter.

(c) Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the failure to notify the indemnifying party shall not relieve the indemnifying party from any liability that it may have to any indemnified party except to the extent such indemnifying party has been materially prejudiced by such failure. In case any such action shall be brought against any indemnified party, and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate in, and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party, and after notice from the indemnifying party to such indemnified party of the indemnifying party's election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof; *provided, however*, that if (i) the

indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, (ii) a conflict or potential conflict exists (based on advice of counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party will not have the right to direct the defense of such action on behalf of the indemnified party), or (iii) the indemnifying party has not in fact employed counsel reasonably satisfactory to the indemnified party to assume the defense of such action within a reasonable time after receiving notice of the commencement of the action, the indemnified party shall have the right to employ a single counsel to represent it in any claim in respect of which indemnity may be sought under subsection (a) or (b) of this Section 7, in which event the reasonable fees and expenses of such separate counsel shall be borne by the indemnifying party or parties and reimbursed to the indemnified party as incurred.

The indemnifying party under this Section 7 shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party against any loss, claim, damage, liability or expense by reason of such settlement or judgment. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any indemnified party is a party or could be named and indemnity was or would be sought hereunder by such indemnified party, unless such settlement, compromise or consent (a) includes an unconditional release of such indemnified party from all liability for claims that are the subject matter of such action, suit or proceeding and (b) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(d) If the indemnification provided for in this Section 7 is unavailable or insufficient to hold harmless an indemnified party under subsection (a) or (b) above, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of the losses, claims, damages or liabilities referred to in subsection (a) or (b) above, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriter on the other from the offering and sale of the Shares or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company on the one hand and the Underwriter on the other in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriter on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discount received by the Underwriter, in each case as set forth in the table on the cover page of the Final Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriter and the parties' relevant intent, knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The Company and the Underwriter agree that it would

not be just and equitable if contributions pursuant to this subsection (d) were to be determined by pro rata allocation or by any other method of allocation that does not take account of the equitable considerations referred to in the first sentence of this subsection (d). The amount paid by an indemnified party as a result of the losses, claims, damages or liabilities referred to in the first sentence of this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending against any action or claim that is the subject of this subsection (d). Notwithstanding the provisions of this subsection (d), the Underwriter shall not be required to contribute any amount in excess of the amount of the of the underwriting discount applicable to the Shares to be purchased by the Underwriter hereunder actually received by the Underwriter. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

(e) The obligations of the Company under this Section 7 shall be in addition to any liability that the Company may otherwise have and the benefits of such obligations shall extend, upon the same terms and conditions, to each person, if any, who controls the Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act; and the obligations of the Underwriter under this Section 7 shall be in addition to any liability that the Underwriter may otherwise have and the benefits of such obligations shall extend, upon the same terms and conditions, to the Company's directors, the officers of the Company signing the Registration Statement, and each person who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act.

(f) For purposes of this Agreement, the Underwriter confirms, and the Company acknowledges, that there is no information concerning the Underwriter furnished in writing to the Company by the Underwriter specifically for preparation of or inclusion in the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus or any Issuer Free Writing Prospectus, other than the statement set forth in the last paragraph on the cover page of the Prospectus, the marketing and legal names of the Underwriter, and the statements set forth in the "Underwriting" section of the Registration Statement, the Time of Sale Disclosure Package, and the Final Prospectus only insofar as such statements relate to the amount of selling concession and re-allowance, if any, or to over-allotment, stabilization and related activities that may be undertaken by the Underwriter.

8. Representations and Agreements to Survive Delivery. All representations, warranties, and agreements of the Company contained herein or in certificates delivered pursuant hereto, including, but not limited to, the agreements of the Underwriter and the Company contained in Section 5(a)(viii) and Section 7 hereof, shall remain operative and in full force and effect regardless of any investigation made by or on behalf of the Underwriter or any controlling person thereof, or the Company, its directors, the officers of the Company signing the Registration Statement, and shall survive delivery of, and payment for, the Shares to and by the Underwriter hereunder.

9. Termination of this Agreement.

(a) The Underwriter shall have the right to terminate this Agreement by giving notice to the Company as hereinafter specified at any time at or prior to the Closing Date or any

Option Closing Date (as to the Option Shares to be purchased on such Option Closing Date only), if in the discretion of the Underwriter, (i) there has occurred any material adverse change in the securities markets or any event, act or occurrence that has materially disrupted, or in the opinion of the Underwriter, will in the future materially disrupt, the securities markets or there shall be such a material adverse change in general financial, political or economic conditions or the effect of international conditions on the financial markets in the United States is such as to make it, in the judgment of the Underwriter, inadvisable or impracticable to market the Shares or enforce contracts for the sale of the Shares, (ii) trading in the Company's Common Stock shall have been suspended by the Commission or Nasdaq or trading in securities generally on the Nasdaq Stock Market, the NYSE or the NYSE American shall have been suspended, (iii) minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required, on the Nasdaq Stock Market, the NYSE or NYSE American, by such exchange or by order of the Commission or any other governmental authority having jurisdiction, (iv) a banking moratorium shall have been declared by federal or state authorities, (v) there shall have occurred any attack on, outbreak or escalation of hostilities or act of terrorism involving the United States, any declaration by the United States of a national emergency or war, any substantial change or development involving a prospective substantial change in United States or international political, financial or economic conditions or any other calamity or crisis, or (vi) the Company suffers any loss by strike, fire, flood, earthquake, accident or other calamity, whether or not covered by insurance, or (vii) in the judgment of the Underwriter, there has been, since the time of execution of this Agreement or since the respective dates as of which information is given in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, any material adverse change in the assets, properties, condition, financial or otherwise, or in the results of operations, business affairs or business prospects of the Company and its Subsidiaries considered as a whole, whether or not arising in the ordinary course of business. Any such termination shall be without liability of any party to any other party except that the provisions of Section 5(a)(viii) and Section 7 hereof shall at all times be effective and shall survive such termination.

(b) If the Underwriter elects to terminate this Agreement as provided in this Section, the Company shall be notified promptly by the Underwriter by telephone, confirmed by letter delivered in accordance with the terms of Section 10 hereof.

10. Notices. Except as otherwise provided herein, all communications hereunder shall be in writing and, if to the Underwriter, shall be mailed, delivered or telecopied to Roth Capital Partners, LLC, 888 San Clemente Drive, Suite 400, Newport Beach, CA 92660, telecopy number: (949) 720-7227, Attention: Managing Director; and if to the Company, shall be mailed, delivered or telecopied to it at Amtech Systems, Inc., 131 South Clark Drive, Tempe, Arizona 85281, telecopy number: (480) 968-3763, Attention: Robert Hass; or in each case to such other address as the person to be notified may have requested in writing. Any party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose.

11. Persons Entitled to Benefit of Agreement. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns and the controlling persons, officers and directors referred to in Section 7. Nothing in this Agreement is

intended or shall be construed to give to any other person, firm or corporation any legal or equitable remedy or claim under or in respect of this Agreement or any provision herein contained. The term “successors and assigns” as herein used shall not include any purchaser, as such purchaser, of any of the Shares from the Underwriter.

12. *Absence of Fiduciary Relationship.* The Company acknowledges and agrees that: (a) the Underwriter has been retained solely to act as underwriter in connection with the sale of the Shares and that no fiduciary, advisory or agency relationship between the Company and the Underwriter has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether the Underwriter has advised or is advising the Company on other matters; (b) the price and other terms of the Shares set forth in this Agreement were established by the Company following discussions and arms-length negotiations with the Underwriter and the Company is capable of evaluating and understanding and understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement; (c) it has been advised that the Underwriter and its affiliates are engaged in a broad range of transactions that may involve interests that differ from those of the Company and that the Underwriter has no obligation to disclose such interest and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; and (d) it has been advised that the Underwriter is acting, in respect of the transactions contemplated by this Agreement, solely for the benefit of the Underwriter, and not on behalf of the Company.

13. *Amendments and Waivers.* No supplement, modification or waiver of this Agreement shall be binding unless executed in writing by the party to be bound thereby. The failure of a party to exercise any right or remedy shall not be deemed or constitute a waiver of such right or remedy in the future. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provision hereof (regardless of whether similar), nor shall any such waiver be deemed or constitute a continuing waiver unless otherwise expressly provided.

14. *Partial Unenforceability.* The invalidity or unenforceability of any section, paragraph, clause or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph, clause or provision.

15. *Entire Agreement.* This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof, including, without limitation, that certain Engagement Letter, dated August 14, 2017 between the Underwriter and the Company (the “Engagement Letter”); *provided, however*, that, notwithstanding the foregoing, the terms and conditions of Section 5, Section 9 and Exhibit I of the Engagement Letter shall remain in full force and effect with respect to any acts or omissions occurring prior to the execution and delivery of this Agreement.

16. *Governing Law.* This Agreement shall be governed by and construed in accordance with the laws of the State of New York.

17. *Submission to Jurisdiction.* The Company irrevocably (a) submits to the jurisdiction of the Supreme Court of the State of New York, Borough of Manhattan or the United States District Court for the Southern District of New York for the purpose of any suit, action, or other proceeding

arising out of this Agreement, or any of the agreements or transactions contemplated by this Agreement, the Registration Statement, the Time of Sale Disclosure Package, any Prospectus and the Final Prospectus (each a "Proceeding"), (b) agrees that all claims in respect of any Proceeding may be heard and determined in any such court, (c) waives, to the fullest extent permitted by law, any immunity from jurisdiction of any such court or from any legal process therein, (d) agrees not to commence any Proceeding other than in such courts, and (e) waives, to the fullest extent permitted by law, any claim that such Proceeding is brought in an inconvenient forum. THE COMPANY (ON BEHALF OF ITSELF AND, TO THE FULLEST EXTENT PERMITTED BY LAW, ON BEHALF OF ITS RESPECTIVE EQUITY HOLDERS AND CREDITORS) HEREBY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY CLAIM BASED UPON, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT, THE REGISTRATION STATEMENT, THE TIME OF SALE DISCLOSURE PACKAGE, ANY PROSPECTUS AND THE FINAL PROSPECTUS.

18. Counterparts. This Agreement may be executed and delivered (including by facsimile transmission or electronic mail) in one or more counterparts and, if executed in more than one counterpart, the executed counterparts shall each be deemed to be an original and all such counterparts shall together constitute one and the same instrument.

[Signature Page Follows]

Please sign and return to the Company the enclosed duplicates of this letter whereupon this letter will become a binding agreement between the Company and the Underwriter in accordance with its terms.

Very truly yours,

AMTECH SYSTEMS, INC.

By: /s/ Robert T. Hass
Name: Robert T. Hass
Title: Vice President & CFO

Confirmed as of the date first above-mentioned

ROTH CAPITAL PARTNERS, LLC

By: /s/ Aaron M. Gurewitz
Name: Aaron M. Gurewitz
Title: Head of Equity Capital Markets

[Signature Page to Underwriting Agreement]

SCHEDULE I

AMTECH SYSTEMS, INC.

1,055,000 Shares of Common Stock

Final Term Sheet

Issuer:	Amtech Systems, Inc. (the "Company")
Symbol:	ASYS
Securities:	1,055,000 shares of common stock, par value \$0.01 per share
Over-allotment option:	Up to an additional 158,250 shares of Common Stock
Public offering price:	\$9.50 per share
Underwriting discount:	\$0.475 per share
Expected net proceeds:	Approximately \$9.3 million (\$10.7 million if the overallotment option is exercised in full) (after deducting the underwriting discount and estimated offering expenses payable by the Company)
Trade date:	August 18, 2017
Settlement date:	August 23, 2017
Underwriter:	Roth Capital Partners, LLC

SCHEDULE II

Free Writing Prospectus

None

SCHEDULE II-1

SCHEDULE III

List of officers and directors executing lock-up agreements

Jong S. Whang
Fokko Pentinga
Robert T. Hass
Paul J. van der Wansem
Robert M. Averick
Michael Garnreiter
Robert F. King
Sukesh Mohan

SCHEDULE III-1

EXHIBIT A

Form of Lock-Up Agreement

Roth Capital Partners, LLC
888 San Clemente Drive
Newport Beach, CA 92660

Gentlemen:

The undersigned understands that you (the "Underwriter"), propose to enter into an Underwriting Agreement (the "Underwriting Agreement") with Amtech Systems, Inc., an Arizona corporation (the "Company"), relating to a proposed offering (the "Offering") of shares of the Common Stock, par value \$0.01 per share (the "Common Stock"), of the Company. Capitalized terms used herein and not otherwise defined shall have the meanings set forth in the Underwriting Agreement.

In consideration of the foregoing, and in order to induce you to participate the Offering, and for other good and valuable consideration receipt of which is hereby acknowledged, the undersigned hereby agrees that, without the prior written consent of the Underwriter (which consent may be withheld in its sole discretion), the undersigned will not, during the period (the "Lock-Up Period") beginning on the date hereof and ending on the date 90 days after the date of the final prospectus relating to the Offering (the "Final Prospectus"), (1) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, or file (or participate in the filing of) a registration statement with the Securities and Exchange Commission in respect of, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for shares of Common Stock (including without limitation, shares of Common Stock which may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the Securities and Exchange Commission and securities which may be issued upon exercise of a stock option or warrant), (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of shares of Common Stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of shares of Common Stock or such other securities, in cash or otherwise, (3) make any demand for or exercise any right with respect to, the registration of any shares of Common Stock or any security convertible into or exercisable or exchangeable for shares of Common Stock, or (4) publicly announce an intention to effect any transaction specific in clause (1), (2) or (3) above.

Notwithstanding the foregoing, the restrictions set forth in clause (1) and (2) above shall not apply to (a) transfers (i) as a bona fide gift or gifts, provided that the donee or donees thereof agree to be bound in writing by the restrictions set forth herein, or (ii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, (b) the acquisition or exercise

of any stock option issued pursuant to the Company's existing stock option plans, including any exercise effected by the delivery of shares of Common Stock of the Company held by the undersigned, or (c) the purchase or sale of the Company's securities pursuant to a plan, contract or instruction that satisfies all of the requirements of Rule 10b5-1(c)(1)(i)(B) that was in effect prior to the date hereof. For purposes of this Lock-Up Agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin.

The foregoing restrictions are expressly agreed to preclude the undersigned from engaging in any hedging or other transaction which is designed to or reasonably expected to lead to or result in a sale or disposition of shares of Common Stock even if such securities would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale or any purchase, sale or grant of any right (including without limitation any put option or put equivalent position or call option or call equivalent position) with respect to any of the shares of Common Stock or with respect to any security that includes, relates to, or derives any significant part of its value from such shares.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Lock-Up Agreement. All authority herein conferred or agreed to be conferred and any obligations of the undersigned shall be binding upon the successors, assigns, heirs or personal representatives of the undersigned.

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar or depositary against the transfer of the undersigned's shares of Common Stock except in compliance with the foregoing restrictions.

The undersigned understands that, if the Underwriting Agreement does not become effective, or if the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the securities to be sold thereunder, the undersigned shall be released from all obligations under this Lock-Up Agreement.

This Lock-Up Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflict of laws principles thereof. The undersigned irrevocably (i) submits to the jurisdiction of the Supreme Court of the State of New York, Borough of Manhattan and the United States District Court for the Southern District of New York, for the purpose of any suit, action, or other proceeding arising out of this Lock-Up Agreement (each a "Proceeding"), (ii) agrees that all claims in respect of any Proceeding may be heard and determined in any such court, (iii) waives, to the fullest extent permitted by law, any immunity from jurisdiction of any such court or from any legal process therein, (iv) agrees not to commence any Proceeding other than in such courts, and (v) waives, to the fullest extent permitted by law, any claim that such Proceeding is brought in an inconvenient forum.

[End of Agreement; Signature Page Follows]

Very truly yours,

Name:

August 18, 2017

Amtech Systems, Inc.
131 S. Clark Drive
Tempe, Arizona 85281

Re: Registration Statement on Form S-3 Filed by Amtech Systems, Inc.

We have acted as counsel to Amtech Systems, Inc., an Arizona corporation (the “Company”), in connection with the registration by the Company of 1,055,000 shares (the “Shares”) of the Company’s common stock, \$0.01 par value per share (the “Common Stock”) issuable pursuant to the Underwriting Agreement dated as of August 18, 2017 by and between the Company and Roth Capital Partners, LLC (the “Underwriting Agreement”) and the Company’s registration statement on Form S-3 (Registration No. 333-215604), as amended, filed with the Securities and Exchange Commission (the “SEC”) in accordance with the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder and declared effective by the SEC on February 6, 2017 (the “Registration Statement”), including a base prospectus and a prospectus supplement relating to the Shares (together, the “Prospectus”). Capitalized terms used herein which are defined in the Underwriting Agreement have the respective meanings ascribed thereto in the Underwriting Agreement, unless otherwise defined herein.

In our capacity as counsel to the Company in connection with the registration of the Shares, we have examined: (i) the Registration Statement, the Time of Sale Disclosure Package and the Preliminary Prospectus Supplement; (ii) the Company’s amended articles of incorporation and by-laws; (iii) certain resolutions of the Company’s board of directors; and (iv) such other proceedings, documents and records as we have deemed necessary for purposes of this opinion.

In our examination of such documents, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the accuracy and completeness of all documents submitted to us, the authenticity of all original documents, and the conformity to authentic original documents of all documents submitted to us as copies. As to all matters of fact, we have relied on the representations and statements of fact made in the documents so reviewed, and we have not independently established the facts so relied on.

Based on the foregoing and subject to the limitations, qualifications and assumptions set forth herein, we are of the opinion that the Shares have been duly authorized, and upon issuance pursuant to the Underwriting Agreement in accordance with the terms of the Underwriting Agreement, the Shares will be validly issued, fully paid and non-assessable.

The foregoing opinion is limited to the laws of the State of Arizona as in effect as of the date hereof, and no opinion is expressed with respect to such laws as subsequently amended, or any other laws, or any effect that such amended or other laws may have on the opinion expressed herein. The foregoing opinion is limited to the matters stated herein, and no opinion is implied or may be inferred beyond the matters expressly stated herein.

We consent to the filing of this opinion as an exhibit to the Company’s Current Report on Form 8-K dated August 18, 2017 and to the reference to us under the heading “Legal Matters” in the Final Prospectus.

Very truly yours,

/s/ Squire Patton Boggs (US) LLP

Squire Patton Boggs (US) LLP

Amtech Announces Proposed Public Offering of Common Stock

TEMPE, Ariz., August 17, 2017 /PRNewswire/ -- Amtech Systems, Inc. (NASDAQ: ASYS), a global supplier of production equipment and related supplies for the solar, semiconductor, and LED markets today announced that it intends to offer shares of its common stock in an underwritten public offering. The offering is subject to market and other conditions, and there can be no assurance as to whether or when the offering may be completed, or as to the actual size or terms of the offering.

Roth Capital Partners is acting as the sole manager for the offering.

The Company plans to use the net proceeds of the offering for general corporate purposes, which may include working capital, capital expenditures and potential acquisitions.

A shelf registration statement relating to the shares of common stock to be issued in the proposed offering was filed with the Securities and Exchange Commission (the "SEC") and is effective. This press release shall not constitute an offer to sell or the solicitation of an offer to buy any of the securities described herein, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction. Copies of the preliminary prospectus supplement and accompanying prospectus will be filed with the Securities and Exchange Commission and, when available, may be obtained from Roth Capital Partners, LLC, 888 San Clemente, Newport Beach, CA 92660, (800) 678-9147 or email: rothecm@roth.com or by accessing the SEC's website, www.sec.gov.

About Amtech Systems, Inc.

Amtech Systems, Inc. is a global supplier of advanced thermal processing equipment to the solar, semiconductor / electronics, and LED manufacturing markets. Amtech's equipment includes diffusion, ALD and PECVD systems and solder reflow systems. Amtech also supplies wafer handling automation and polishing equipment and related consumable products. The Company's wafer handling, thermal processing and consumable products currently address the diffusion, oxidation, and deposition steps used in the fabrication of solar cells, LEDs, semiconductors, MEMS, printed circuit boards, semiconductor packaging, and the polishing of newly sliced sapphire and silicon wafers. Amtech's products are recognized under the leading brand names Tempres Systems[™], Bruce Technologies[™], PR Hoffman[™], R2D Automation[™], SoLayTec, and BTU International.

Safe Harbor / Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 regarding the proposed public offering and the intended use of proceeds from

the offering. The offering is subject to market and other conditions and there can be no assurance as to whether or when the offering may be completed or as to the actual size or terms of the offering. These forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially, including market conditions, risks associated with the cash requirements of our business and other risks detailed from time to time in our filings with the Securities and Exchange Commission, and represent our views only as of the date they are made and should not be relied upon as representing our views as of any subsequent date. We do not assume any obligation to update any forward-looking statements.

Contacts:

Amtech Systems, Inc.

Robert T. Hass

Chief Financial Officer

(480) 967-5146

irelations@Amtechsystems.com

Christensen

Investor Relations

Patty Bruner

(480) 201-6075

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Amtech Prices Underwritten Public Offering of Common Stock

TEMPE, Ariz., August 18, 2017 /PRNewswire/ -- Amtech Systems, Inc. (NASDAQ: ASYS), a global supplier of production equipment and related supplies for the solar, semiconductor, and LED markets today announced the pricing of an underwritten public offering of 1,055,000 shares of its common stock at a price of \$9.50 per share. The Company has also granted to the underwriter a 30-day option to acquire an additional 158,250 shares to cover overallocments in connection with the offering. After the underwriting discount and estimated offering expenses payable by the Company, the Company expects to receive net proceeds of approximately \$9.3 million, assuming no exercise of the overallocation option. The offering is expected to close on August 23, 2017, subject to customary closing conditions.

Roth Capital Partners is acting as sole manager for the offering.

The Company plans to use the net proceeds of the offering for general corporate purposes, which may include working capital, capital expenditures and potential acquisitions.

The shares described above are being offered by Amtech Systems, Inc. pursuant to a registration statement previously filed with and subsequently declared effective by the Securities and Exchange Commission. A prospectus supplement relating to the offering will be filed with the SEC and will be available on the SEC's website at <http://www.sec.gov>.

This press release shall not constitute an offer to sell or the solicitation of an offer to buy any of the securities described herein, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction. Copies of the preliminary prospectus supplement and accompanying base prospectus relating to this offering may be obtained from Roth Capital Partners, 888 San Clemente Drive, Suite 400, Newport Beach, CA 92660, (800) 678-9147 or by accessing the SEC's website, www.sec.gov.

About Amtech Systems, Inc.

Amtech Systems, Inc. is a global supplier of advanced thermal processing equipment to the solar, semiconductor / electronics, and LED manufacturing markets. Amtech's equipment includes diffusion, ALD and PECVD systems and solder reflow systems. Amtech also supplies wafer handling automation and polishing equipment and related consumable products. The Company's wafer handling, thermal processing and consumable products currently address the diffusion, oxidation, and deposition steps used in the fabrication of solar cells, LEDs, semiconductors, MEMS, printed circuit boards, semiconductor packaging, and the polishing of newly sliced sapphire and silicon wafers. Amtech's products are recognized under the

leading brand names Tempress Systems™, Bruce Technologies™, PR Hoffman™, R2D Automation™, SoLayTec, and BTU International.

Safe Harbor / Forward-Looking Statements

This press release contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 regarding the proposed public offering and the intended use of proceeds from the offering. The offering is subject to market and other conditions and there can be no assurance as to whether or when the offering may be completed or as to the actual size or terms of the offering. These forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially, including market conditions, risks associated with the cash requirements of our business and other risks detailed from time to time in our filings with the Securities and Exchange Commission, and represent our views only as of the date they are made and should not be relied upon as representing our views as of any subsequent date. We do not assume any obligation to update any forward-looking statements.

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