
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended March 31, 2010

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission file number 000-30941

AXCELIS TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

34-1818596

(IRS Employer
Identification No.)

108 Cherry Hill Drive

Beverly, Massachusetts 01915

(Address of principal executive offices, including zip code)

(978) 787-4000

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No .

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, of any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No .

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act) Yes No

As of May 12, 2010 there were 104,162,629 shares of the registrant's common stock outstanding.

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Axcelis Technologies, Inc.
Consolidated Statements of Operations
(In thousands, except per share amounts)
(Unaudited)

	Three months ended March 31,	
	2010	2009
Revenue		
Product	\$ 40,278	\$ 17,734
Service	8,222	7,784
Royalties, primarily from SEN	—	210
	<u>48,500</u>	<u>25,728</u>
Cost of revenue		
Product	30,320	18,232
Service	5,173	4,489
	<u>35,493</u>	<u>22,721</u>
Gross profit	13,007	3,007
Operating expenses		
Research and development	9,133	9,535
Sales and marketing	6,604	6,879
General and administrative	7,700	10,670
Restructuring charges	—	984
	<u>23,437</u>	<u>28,068</u>
Loss from operations	(10,430)	(25,061)
Other income (expense)		
Gain on sale of SEN	—	1,080
Equity loss of SEN	—	(3,238)
Interest income	29	63
Interest expense	—	(1,676)
Other, net	(407)	(205)
	<u>(378)</u>	<u>(3,976)</u>
Loss before income taxes	(10,808)	(29,037)
Income taxes	293	118
Net loss	<u>\$ (11,101)</u>	<u>\$ (29,155)</u>
Net loss per share		
Basic and diluted net loss per share	<u>\$ (0.11)</u>	<u>\$ (0.28)</u>
Shares used in computing basic and diluted net loss per share		
Weighted average common shares	<u>104,116</u>	<u>103,284</u>

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Axcelis Technologies, Inc.
Consolidated Balance Sheets
(In thousands)
(Unaudited)

	March 31, 2010	December 31, 2009
ASSETS		
Current assets		
Cash and cash equivalents	\$ 34,801	\$ 45,020
Restricted cash	6,843	4,918
Accounts receivable, net	34,293	19,094
Inventories, net	105,205	114,558
Prepaid expenses and other current assets	10,474	10,016
Total current assets	191,616	193,606
Property, plant and equipment, net	40,226	40,868
Long-term restricted cash	—	2,245
Other assets	12,700	13,884
	<u>\$ 244,542</u>	<u>\$ 250,603</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	\$ 12,822	\$ 9,680
Accrued compensation	10,627	9,267
Warranty	730	638
Income taxes	1,099	1,499
Deferred revenue	5,295	5,127
Other current liabilities	3,760	3,546
Total current liabilities	34,333	29,757
Long-term deferred revenue	910	563
Other long-term liabilities	3,781	3,884
Commitments and contingencies (Note 11)		
Stockholders' equity		
Preferred stock	—	—
Common stock	104	104
Additional paid-in capital	489,308	488,321
Treasury stock	(1,218)	(1,218)
Accumulated deficit	(287,048)	(275,947)
Accumulated other comprehensive income	4,372	5,139
	<u>205,518</u>	<u>216,399</u>
	<u>\$ 244,542</u>	<u>\$ 250,603</u>

See accompanying Notes to these Consolidated Financial Statements

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Axcelis Technologies, Inc.
Consolidated Statements of Cash Flow
(In thousands)
(Unaudited)

	Three months ended March 31,	
	2010	2009
Cash flows from operating activities		
Net loss	\$ (11,101)	\$ (29,155)
Adjustments to reconcile net loss to net cash used for operating activities		
Undistributed loss of SEN	—	3,238
Depreciation and amortization	1,937	1,861
Gain on sale of SEN	—	(1,080)
Deferred Taxes	167	—
Accretion of premium on convertible debt	—	133
Stock-based compensation expense	817	858
Provision for excess inventory	758	4,727

Changes in operating assets & liabilities		
Accounts receivable	(15,425)	6,228
Inventories	8,252	2,973
Prepaid expenses and other current assets	(362)	1,615
Accounts payable & other current liabilities	4,922	(3,297)
Deferred revenue	526	11
Income taxes	(408)	76
Other assets and liabilities	54	(270)
Net cash used for operating activities	(9,863)	(12,082)
Cash flows from investing activities		
Expenditures for property, plant, and equipment	(263)	(213)
Decrease in restricted cash	319	—
Proceeds from sale of SEN	—	129,377
Net cash provided by investing activities	56	129,164
Cash flows from financing activities		
Repayment of convertible debt	—	(83,344)
Financing fees and other expenses	(431)	—
Proceeds from exercise of stock options	32	—
Proceeds from Employee Stock Purchase Plan	169	182
Net cash used for financing activities	(230)	(83,162)
Effect of exchange rate changes on cash	(182)	(371)
Net increase (decrease) in cash and cash equivalents	(10,219)	33,549
Cash and cash equivalents at beginning of period	45,020	37,694
Cash and cash equivalents at end of period	<u>\$ 34,801</u>	<u>\$ 71,243</u>

See accompanying Notes to these Consolidated Financial Statements

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Axcelis Technologies, Inc.

Notes To Consolidated Financial Statements (Unaudited)

(All tabular amounts in thousands, except per share amounts)

Note 1. Nature of Business and Basis of Presentation

Axcelis Technologies, Inc. (“Axcelis” or the “Company”), is a worldwide producer of ion implantation, dry strip and other processing equipment used in the fabrication of semiconductor chips in the United States, Europe and Asia. In addition, the Company provides extensive aftermarket service and support, including spare parts, equipment upgrades, and maintenance services to the semiconductor industry.

Until March 30, 2009, the Company owned 50% of the equity of a joint venture with Sumitomo Heavy Industries, Ltd. (“SHI”) in Japan. Detailed information about the Company’s investment in the joint venture is provided in Note 2.

During the three months ended March 31, 2010, the Company experienced negative cash flows from operations of \$9.9 million predominately driven by an \$11.1 million net loss. Cash and cash equivalents at March 31, 2010 were \$34.8 million, compared to \$45.0 million at December 31, 2009. The Company’s 2010 plan includes improvement in revenue and operating cash flow and reduction in working capital as compared to 2009. The Company believes that based on its current market, revenue and expense forecasts, its existing cash and cash equivalents will be sufficient to satisfy its anticipated cash requirements. During the quarter ended March 31, 2010 the Company continued to benefit from improving market conditions and increased capacity utilization at customers’ manufacturing facilities. Industry forecasts project this positive trend to continue throughout the remainder of 2010 and into 2011. Should the market recovery not continue as expected, the Company believes it can control spending levels to provide sufficient liquidity to support operations through 2010. However, the absence of a continuing market recovery in 2010 would likely have a material effect on the Company’s liquidity entering 2011.

The accompanying unaudited consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. In the opinion of management, all adjustments, which are of a normal recurring nature, considered necessary for a fair presentation of these financial statements have been included. Operating results for the interim periods presented are not necessarily indicative of the results that may be expected for other interim periods or for the year as a whole.

The balance sheet at December 31, 2009 has been derived from the audited financial statements at that date but does not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. For further information, refer to the consolidated financial statements and footnotes thereto included in Axcelis Technologies, Inc.’s Annual Report on Form 10-K for the year ended December 31, 2009.

Note 2. Sale of Investment in SEN

Until March 30, 2009, the Company owned 50% of the equity of a joint venture with Sumitomo Heavy Industries, Ltd. (“SHI”) in Japan. This joint venture, which was known as SEN Corporation, an SHI and Axcelis Company (“SEN”), licensed technology from the Company relating to the manufacture of specified ion implantation products and had exclusive rights to manufacture and sell these products in the territory of Japan. On March 30, 2009, pursuant to a Share Purchase Agreement dated February 26, 2009, the Company sold to SHI all of the Company’s common shares in SEN in exchange for a cash payment of 13 billion Yen, which resulted in proceeds of approximately \$132.8 million before advisor fees and other expenses of \$10.6 million. The sales

price was determined through an arm's length negotiation. This transaction terminated all prior agreements among the three parties relating to the SEN joint venture. In addition, the arbitration with SEN initiated by Axcelis in Tokyo was dismissed.

In connection with the sale of its investment in SEN, on March 30, 2009, the Company and SEN entered into a License Agreement pursuant to which the parties have cross licensed each other to use certain patents and technical information on a non-exclusive, perpetual, royalty-free, worldwide basis, provided that the Company and SEN received sole exclusive licenses for 4 years in the U.S. and Japan, respectively. The licenses to technical information cover only technical information shared by the parties prior to the date of the license, so the license to SEN does not cover technical information relating to the Optima HD and Optima XE. The

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license also excludes patents relating to Axcelis' work in molecular implant and certain patents developed for the Optima HD and Optima XE. The parties provided each other with limited warranties regarding their right to grant these licenses, and indemnity with respect thereto, but disclaim any warranty regarding the validity or freedom from infringement of the licensed intellectual property. Neither party will provide any support for the other party's use of the licensed intellectual property.

The sale of the Company's investment in SEN on March 30, 2009, resulted in a gain of approximately \$1.1 million. This gain includes net proceeds of \$122.2 million (after payment of advisor fees and other costs of \$10.6 million) and cumulative foreign translation gain of \$23.5 million, previously recorded in other comprehensive income, reduced by the carrying value of the investment on the date of sale of \$144.6 million. The gain from the sale of the Company's investment in SEN is recorded in other income.

On March 30, 2009, a portion of the proceeds of the sale were used to pay off, in full, the amounts due to the holder of the Company's 4.25% Convertible Senior Subordinated Notes. See Note 8.

Note 3. Stock-Based Compensation

The Company maintains the Axcelis Technologies, Inc. 2000 Stock Plan (the "2000 Plan"), a stock award and incentive plan which permits the issuance of options, restricted stock, restricted stock units and performance awards to selected employees, directors and consultants of the Company. The Company also maintains the Axcelis Technologies, Inc. Employee Stock Purchase Plan (the "ESPP"), an Internal Revenue Code Section 423 plan. The 2000 Plan and the ESPP are more fully described in Note 14 to the consolidated financial statements in the Company's 2009 Annual Report on Form 10-K.

The Company recognized stock-based compensation expense of \$0.8 million and \$0.9 million for the three months ended March 31, 2010 and 2009, respectively. These amounts include compensation expense related to restricted stock units, restricted stock, non-qualified stock options and stock expected to be issued under the ESPP.

Note 4. Net Loss Per Share

Basic earnings per share is computed by dividing income available to common stockholders (the numerator) by the weighted-average number of common shares outstanding (the denominator) for the period. The computation of diluted earnings per share is similar to basic earnings per share, except that the denominator is increased to include additional common shares that would have been outstanding if the potentially dilutive common shares had been issued. Because the Company has net losses for the three-month periods ended March 31, 2010 and 2009, any potentially diluted common shares related to outstanding stock options, restricted stock, restricted stock units and convertible debt have been excluded from the calculation of net loss per share because the effect would be anti-dilutive.

Note 5. Comprehensive Loss

The components of comprehensive loss are as follows:

	Three months ended	
	March 31,	
	2010	2009
	(in thousands)	
Net loss	\$ (11,101)	\$ (29,155)
Other comprehensive loss		
Foreign currency translation adjustments	(767)	(11,789)
	<u>\$ (11,868)</u>	<u>\$ (40,944)</u>

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Note 6. Inventories

The components of inventories are as follows:

	March 31,	December 31,
	2010	2009
	(in thousands)	
Raw materials	\$ 67,472	\$ 69,661
Work in process	19,755	27,654
Finished goods (completed systems)	<u>17,978</u>	<u>17,243</u>

When recorded, reserves reduce the carrying value of inventory to its net realizable value. The Company establishes inventory reserves when conditions exist that indicate inventory may be in excess of anticipated demand or is obsolete based upon assumptions about future demand for the Company's products or market conditions. The Company regularly evaluates the ability to realize the value of inventory based on a combination of factors including forecasted sales or usage, estimated product end- of- life dates, estimated current and future market value and new product introductions. Purchasing and usage alternatives are also explored to mitigate inventory exposure. As of March 31, 2010 and December 31, 2009, inventory is stated net of inventory reserves of \$36.3 million and \$37.0 million respectively.

Note 7. Product Warranty

The Company offers a one to three year warranty for all of its products, the terms and conditions of which vary depending upon the product sold. For all systems sold, the Company accrues a liability for the estimated cost of standard warranty at the time of system shipment and defers the portion of systems revenue attributable to the fair value of non-standard warranty. Costs for non-standard warranty are expensed as incurred. Factors that affect the Company's warranty liability include the number of installed units, historical and anticipated product failure rates, material usage and service labor costs. The Company periodically assesses the adequacy of its recorded liability and adjusts the amount as necessary.

Changes in the Company's product warranty liability are as follows:

	Three months ended	
	March 31,	
	2010	2009
	(in thousands)	
Balance at December 31	\$ 726	\$ 3,530
Warranties issued during the period	463	284
Settlements made during the period	(546)	(695)
Changes in estimate of liability for pre-existing warranties during the period	115	(874)
Balance at March 31	\$ 758	\$ 2,245
Amount classified as current	\$ 730	\$ 2,089
Amount classified as long-term	28	156
Total Warranty Liability	\$ 758	\$ 2,245

Note 8. Financial Arrangements

Bank Credit Facility

On March 12, 2010, the Company amended its existing revolving credit facility with a bank. The amended agreement provides for borrowings up to the lesser of \$20 million or specified percentages of the amounts of qualifying accounts receivable and inventory. The facility has certain financial covenants requiring the Company to maintain minimum levels of operating results and

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liquidity. Borrowings made under the facility will bear interest at the greater of 6% or the bank's prime rate plus 2%. The agreement will terminate on March 12, 2011.

The Company's current forecast projects that the Company will not be in compliance with all financial covenants at the close of the second quarter. The Company has executed a term sheet received from the bank providing for a modification to the revolving credit agreement by amending the financial covenants. This term sheet is subject to final approval by the bank. Based on current forecasts, the Company believes it will be in compliance with the financial covenants, as proposed to be modified in the term sheet, throughout 2010. The Company believes it will obtain final bank approval and close on the modifications to the bank credit facility by the end of May 2010. However, there can be no assurance that such final approval and closure will occur by the end of May or at all.

The Company believes that based on its current market, revenue and expense forecasts, its existing cash and cash equivalents will be sufficient to satisfy its anticipated cash requirements.

Convertible Subordinated Debt

On March 30, 2009, Axcelis used a portion of the proceeds of the sale of its interest in SEN (see Note 2) to pay all amounts due (approximately \$85 million) under an Indenture between Axcelis and U.S. Bank National Association, as trustee, relating to the Company's 4.25% Convertible Senior Subordinated Notes, resulting in an extinguishment of the debt in full.

Note 9. Income Taxes

Income tax expense relates principally to operating results of foreign entities in jurisdictions, primarily in Asia, where the Company earns taxable income. The Company has significant net operating losses in the United States and certain foreign tax jurisdictions and, as a result, does not pay significant income taxes in those jurisdictions. Accordingly, the effective income tax rate is not meaningful.

Note 10. Significant Customers

For the three months ended March 31, 2010, one customer accounted for approximately 16.6% of revenue. For the three months ended March 31, 2009, two customers accounted for approximately 14.8% and 13.8% of revenue, respectively.

Note 11. Contingencies

Litigation

The Company is, from time to time, a party to litigation that arises in the normal course of its business operations. The Company is not presently a party to any litigation that it believes might have a material adverse effect on its business operations.

Indemnifications

The Company's system sales agreements typically include provisions under which the Company agrees to take certain actions, provide certain remedies and defend its customers against third-party claims of intellectual property infringement under specified conditions and to indemnify customers against any damage and costs awarded in connection with such claims. The Company has not incurred any material costs as a result of such indemnifications and has not accrued any liabilities related to such obligations in the accompanying consolidated financial statements.

Note 12. Recent Accounting Pronouncements

In September 2009, the FASB issued a new accounting standard to provide guidance on revenue recognition criteria for multiple-element arrangements. The new accounting standard modifies the criteria used to separate elements in a multiple-element arrangement by introducing the concept of best estimate of selling price, establishing a hierarchy of evidence for determining selling price (fair value), requiring the use of relative selling price method and prohibiting the use of the residual method to allocate arrangement consideration among units of accounting. The new accounting standard also expands the disclosure requirements for all multiple element arrangements and is effective prospectively for revenue arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010 (January 1, 2011 for a calendar year-end entity). The Company is currently evaluating the impact of adopting this pronouncement.

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Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Certain statements in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in this Form 10-Q are forward-looking statements that involve risks and uncertainties. Words such as may, will, should, would, anticipates, expects, intends, plans, believes, seeks, estimates and similar expressions identify such forward-looking statements. The forward-looking statements contained herein are based on current expectations and entail various risks and uncertainties that could cause actual results to differ materially from those expressed in such forward-looking statements. Factors that might cause such a difference include, among other things, those set forth or referred to under "Liquidity and Capital Resources" and "Risk Factors" and others discussed elsewhere in this Form 10-Q. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect management's analysis only as of the date hereof. We assume no obligation to update these forward-looking statements to reflect actual results or changes in factors or assumptions affecting forward-looking statements, except as may be required by law.

Overview

The semiconductor capital equipment industry is subject to significant cyclical swings in capital spending by semiconductor manufacturers. Capital spending is influenced by demand for semiconductors and the products using them, the utilization rate and capacity of existing semiconductor manufacturing facilities and changes in semiconductor technology, all of which are outside of our control. As a result, our revenues and gross margins, to the extent affected by increases or decreases in volume, fluctuate from year to year and period to period. The industry experienced a downturn beginning in the second half of 2008 which extended through 2009, although signs of improvement began during the fourth quarter of 2009 and have continued through the first quarter of 2010. Our gross margins are also affected by the introduction of new products. We typically become more efficient in manufacturing products as they mature. Our expense base is largely fixed and does not vary significantly with changes in volume. Therefore, we experience fluctuations in operating results and cash flows depending on our revenues as driven by the level of capital expenditures by semiconductor manufacturers.

The sizable expense of building, upgrading or expanding a semiconductor fabrication facility is increasingly causing semiconductor companies to contract with foundries to manufacture their semiconductors. In addition, consolidation and partnering within the semiconductor manufacturing industry is increasing. We expect these trends to continue to reduce the number of our potential customers. This growing concentration of Axcelis' customers may increase pricing pressure as higher percentages of our total revenues are tied to the buying decisions of a particular customer or a small number of customers.

Although we believe that we have competitive products, since mid-2008 challenging market conditions have severely limited our ability to increase sales and market share. During this period, adverse market conditions such as credit constriction, higher unemployment, lower corporate earnings, lower business investment and lower consumer spending severely impacted many technology manufacturers and significantly lowered the demand for our products. In the quarter ended March 31, 2010, we have seen signs that the economy, and the market for our products, are beginning to improve leading to improved revenues. Our expense base is reduced from earlier periods due to cost reduction initiatives implemented in 2009 and 2008.

Operating results for the periods presented are not necessarily indicative of the results that may be expected for future interim periods or years as a whole.

Critical Accounting Estimates

Management's discussion and analysis of our financial condition and results of operations are based upon Axcelis' consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, we evaluate our estimates, including those related to revenue recognition, income taxes, accounts receivable, inventory and warranty obligations. Management's estimates are based on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

There has been no material change in the nature of our critical accounting estimates and judgments as described in Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2009.

Results of Operations

The following table sets forth our results of operations as a percentage revenue for the periods indicated:

Axcelis Technologies, Inc.
Consolidated Statements of Operations
Percentage of Revenue
(Unaudited)

	Three months ended March 31,	
	2010	2009
Revenue		
Product	83.0%	68.9%
Service	17.0	30.3
Royalties, primarily from SEN	—	0.8
Total revenue	<u>100.0</u>	<u>100.0</u>
Cost of revenue		
Product	62.5	70.9
Service	10.7	17.4
Total cost of revenue	<u>73.2</u>	<u>88.3</u>
Gross profit	26.8	11.7
Operating expenses		
Research and development	18.8	37.1
Sales and marketing	13.6	26.7
General and administrative	15.9	41.5
Restructuring charges	—	3.8
Total operating expenses	<u>48.3</u>	<u>109.1</u>
Loss from operations	(21.5)	(97.4)
Other income (expense)		
Gain on sale of SEN	—	4.2
Equity loss of SEN	—	(12.6)
Interest income	—	0.2
Interest expense	—	(6.5)
Other, net	(0.8)	(0.8)
Total other income (expense)	<u>(0.8)</u>	<u>(15.5)</u>
Loss before income taxes	(22.3)	(112.9)
Income taxes	0.6	0.5
Net loss	<u>(22.9)%</u>	<u>(113.4)%</u>

Three months ended March 31, 2010 in comparison to the three months ended March 31, 2009

Revenue

Product

Product revenue, which includes systems sales, sales of spare parts and product upgrades, was \$40.3 million or 83.0% of revenue for the three months ended March 31, 2010, compared with \$17.7 million, or 68.9% of revenue for the three months ended March 31, 2009. The increase in product revenue in the three-month period ended March 31, 2010 is attributable to the strengthening of the semiconductor market and a related increase in capital spending by semiconductor manufacturers.

A portion of our revenue from system sales is deferred until installation and other services related to future deliverables are performed. The total amount of deferred revenue at March 31, 2010 and 2009 was \$6.2 million and \$14.4 million, respectively. The decline was mainly due to the decrease in systems sales in 2009.

Service

Service revenue, which includes the labor component of maintenance and service contracts and fees for service hours provided by on-site service personnel, was \$8.2 million, or 17.0% of revenue for the three months ended March 31, 2010, compared with \$7.8 million, or 30.3% of revenue, for the three months ended March 31, 2009. Although service revenue should increase with the expansion of the installed base of systems, it can fluctuate period to period

based on capacity utilization at customers' manufacturing facilities, which affects the need for equipment service. The slight increase was due to an increase in fabrication utilization in the semiconductor industry.

Royalties

We had no royalty revenue in the three months ended March 31, 2010 compared with \$0.2 million, or 0.8% of revenue for the three months ended March 31, 2009. Royalties were earned primarily under our prior license agreement with SEN. As a result of the sale of our investment in SEN, SEN has had no further royalty obligations since March 30, 2009.

Ion Implant

Included in total revenue of \$48.5 million is revenue from sales of ion implantation products and service which accounted for \$41.3 million, or 85.2% of total revenue in the three months ended March 31, 2010, compared with \$22.2 million, or 86.3%, of total revenue for the three months ended March 31, 2009. The dollar increase was due to the factors discussed above for product revenues.

Aftermarket

The Company's product revenues include sales of spare parts and product upgrades as well as complete systems. We refer to the business of selling spare parts and product upgrades, combined with the sale of maintenance labor and service contracts and service hours, as the "aftermarket" business. Included in total revenue of \$48.5 million is revenue from our aftermarket business of \$32.5 million for the three months ended March 31, 2010, compared to \$18.4 million for the three months ended March 31, 2009. Aftermarket revenue generally increases with expansion of the installed base of systems but can fluctuate period to period based on capacity utilization at customers' manufacturing facilities which affects the sale of spare parts and demand for equipment service. After hitting bottom in the first quarter of 2009 capacity utilization across the industry has increased in every subsequent quarter. This has resulted in successive improvements in aftermarket revenue each quarter, a trend that is expected to continue throughout 2010 based on industry projections.

Gross Profit

Product

Gross profit from product revenue was 24.7% for the three months ended March 31, 2010, compared to gross profit of (2.8%) for the three months ended March 31, 2009. Approximately 9.9% of the 27.5% increase was attributable to a lower provision for excess inventory. The remaining 17.6% increase in gross profit from product revenues is attributable to higher system sales volume

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and the related favorable absorption of fixed overhead costs, which accounted for 13.5%, and the favorable impact of increased parts and upgrade revenue at higher margins, which accounted for 4.1%.

Service

Gross profit from service revenue was 37.1% for the three months ended March 31, 2010, compared to 42.3% for the three months ended March 31, 2009. The decrease in gross profit is attributable to changes in the mix of service contracts.

Research and Development

Research and development expense was \$9.1 million in the three months ended March 31, 2010, a decrease of \$0.4 million, or 4.2%, compared with \$9.5 million in the three months ended March 31, 2009. The decrease was due to decreased payroll costs (\$0.5 million) due to a reduction in research and development headcount and increased other miscellaneous expense (\$0.1 million).

Research and development expense was attributable to the following activities for the three months ended March 31, 2010: 44% for new product development, 36% for improvement of existing products, and 20% for product testing.

Sales and Marketing

Sales and marketing expense was \$6.6 million in the three months ended March 31, 2010, a decrease of \$0.3 million, or 4.3%, compared with \$6.9 million for the three months ended March 31, 2009. The decrease was due to decreased payroll costs (\$0.5 million) due to a reduction in sales and marketing headcount, offset by increased travel costs (\$0.2 million).

General and Administrative

General and administrative expense was \$7.7 million for the three months ended March 31, 2010, a decrease of \$3.0 million, or 28.0%, compared with \$10.7 million in the three months ended March 31, 2009. The decrease was primarily due to decreased professional fee expenses (\$3.2 million), decreased other miscellaneous expenses (\$0.1 million) and increased payroll costs (\$0.3 million).

Restructuring

The Company incurred no restructuring charges in the three months ended March 31, 2010. During the three months ended March 31, 2009, we implemented a reduction in force to further reduce costs to mitigate deteriorating industry fundamentals. This reduction in force resulted in a restructuring charge of \$1.0 million for separation and outplacement costs.

Other Income (Expense)

The sale of the Company's investment in SEN in the first quarter of 2009 resulted in a gain of approximately \$1.1 million. This gain includes net proceeds of \$122.2 million and cumulative foreign translation gain of \$23.5 million, previously recorded in other comprehensive income, reduced by the carrying value of the investment on the date of sale of \$144.6 million.

Equity loss attributable to SEN was \$3.2 million for the three months ended March 31, 2009. As a result of the sale of the Company's investment in SEN, subsequent to March 31, 2009, the Company will no longer record equity income or loss from SEN.

Interest expense decreased by \$1.7 million for the three months ended March 31, 2010, compared to the three months ended March 31, 2009. The decrease for the three months ended March 31, 2010 is due to the payment in full of the convertible senior subordinated notes on March 30, 2009. At March 31, 2010 the Company had no outstanding obligations incurring interest.

Income Taxes

We incur income tax expense relating principally to operating results of foreign entities in jurisdictions, principally in Asia, where we earn taxable income. We have significant net operating loss carryforwards in the United States and certain

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foreign jurisdictions, principally Europe, and, as a result, we do not currently pay significant income taxes in those jurisdictions and we do not recognize the tax benefit for such losses as discussed in Note 9 to the consolidated financial statements. Accordingly, our effective income tax rate is not meaningful.

Liquidity and Capital Resources

Our liquidity is affected by many factors. Some of these relate specifically to the operations of our business, for example, the rate of acceptance of the Optima product line, and others relate to the uncertainties of global economies, including the availability of credit, and the condition of the overall semiconductor equipment industry.

We have net operating loss and tax credit carryforwards, the tax effect of which aggregate \$90.2 million at December 31, 2009. These carryforwards, which expire principally between 2018 and 2028, are available to reduce future income tax liabilities in the United States and certain foreign jurisdictions. The sale of our investment in SEN generated taxable income which we will off-set with existing net operating loss carry forwards.

During the three months ended March 31, 2010, the Company experienced negative cash flows from operations of \$9.9 million, predominately driven by our \$11.1 million net loss. Cash and cash equivalents at March 31, 2010 were \$34.8 million, compared to \$45.0 million at December 31, 2009.

On March 12, 2010, we amended our existing revolving credit facility with a bank. The amended agreement provides for borrowings up to the lesser of \$20 million or specified percentages of the amounts of qualifying accounts receivable and inventory. The facility has certain financial covenants requiring us to maintain minimum levels of operating results and liquidity. The Company's current forecast projects that the Company will not be in compliance with all financial covenants at the close of the second quarter. The Company has executed a term sheet received from the bank providing for a modification to the revolving credit agreement by amending the financial covenants. This term sheet is subject to final approval by the bank. Based on current forecasts, the Company believes it will be in compliance with the financial covenants, as proposed to be modified in the term sheet, throughout 2010. The Company believes it will obtain final bank approval and close on the modifications to the bank credit facility by the end of May 2010. However, there can be no assurance that such final approval and closure will occur by the end of May or at all.

We believe that based on our current market, revenue and expense forecasts, our existing cash and cash equivalents will be sufficient to satisfy our anticipated cash requirements. Our 2010 forecast reflects revenue and gross margins consistent with our understanding of customer plans, the improving market conditions currently forecasted by the industry (and experienced by the Company to date in 2010), and increasing capacity utilization at customers' manufacturing facilities, which has had a positive impact on our aftermarket business for the past several quarters. Forecasted operating expense levels are based on 2010 run rates. Should the market recovery in 2010 not proceed in accordance with industry forecasts and our expectations, we believe we can control spending levels to provide sufficient liquidity to support operations through 2010. However, the absence of a continuing market recovery in 2010 would likely have a material effect on our liquidity entering 2011.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

As of March 31, 2010, there have been no material changes to the quantitative information about market risk disclosed in Item 7A to our annual report Form 10-K for the year ended December 31, 2009.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act") as of the end of the period covered by this report (the "Evaluation Date"). Based on this evaluation, our principal executive officer and principal financial officer concluded that, as of the Evaluation Date, these disclosure controls and procedures are effective.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) identified in connection with the evaluation of our internal control that occurred during the first quarter of 2010 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION**Item 1. Legal Proceedings.**

The Company is not presently a party to any litigation that it believes might have a material adverse effect on its business operations. The Company is, from time to time, a party to litigation that arises in the normal course of its business operations.

Item 1A. Risk Factors.

As of March 31, 2010, there have been no material changes to the risk factors described in Item 1A to our annual report on Form 10-K for the year ended December 31, 2009.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

None.

Item 3. Defaults Upon Senior Securities.

The information responsive to this item was previously disclosed in Form 8-K filed on January 15, 2009.

Item 4. (Removed and Reserved).**Item 5. Other Information.**

The following information is provided in lieu of a Form 8-K.

The Annual Meeting of Stockholders of Axcelis Technologies, Inc. was held on May 7, 2010 at the Company's corporate offices in Beverly, Massachusetts. Out of 104,135,179 shares of Common Stock (as of the record date of March 9, 2010 entitled to vote at the meeting, 86,011,811 shares, or 82.6%, were present in person or by proxy.

- (a) *Election of Directors.* Each of the two directors nominated for election at the Annual Meeting was elected by a plurality of votes cast, to serve for a one year term ending in 2011, and until their successors are elected. The vote was as follows:

Nominee	Number of Votes For	Number of Votes Withheld
Patrick H. Nettles	59,234,473	3,335,955
Geoffrey Wild	59,790,184	2,780,244

- (b) *Ratification of Appointment of Auditors.* A majority of the votes cast at the meeting were voted in favor of the proposal to ratify the appointment by the Board of Directors of Ernst & Young LLP as the independent auditors of our financial statements for the year ending December 31, 2010. The following sets forth the tally of the votes cast on the proposal:

Number of Votes For	Number of Votes Against	Number of Votes Abstaining
84,253,054	468,011	1,290,476

Item 6. Exhibits.

The following exhibits are filed herewith:

Exhibit No	Description
3.1	Amended and Restated Certificate of Incorporation of the Company adopted May 6, 2009. Incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed with the Commission on May 11, 2009.
3.2	Bylaws of the Company, as amended as of August 8, 2007. Incorporated by reference to Exhibit 3.2 of the Company's Form 10-Q for the quarter ended June 30, 2007, filed with the Commission on August 9, 2007.
10.1	Amended and Restated Loan and Security Agreement dated as of March 12, 2010 between the Company and Axcelis Technologies CCS Corporation, as borrowers, and Silicon Valley Bank. Filed herewith.
10.2	Export-Import Bank Loan and Security Agreement dated as of March 12, 2010 between the Company and Axcelis Technologies CCS Corporation, as borrowers, and Silicon Valley Bank. Filed herewith.
10.3	Axcelis Management Incentive Plan, as amended and restated by the Compensation Committee of the Board of Directors on February 11, 2010. Incorporated by reference to Exhibit 10.2 of the Company's report on Form 10-K for 2009 filed with the Commission on March 15, 2010.

- 31.1 Certification of the Principal Executive Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated May 12, 2010. Filed herewith.
- 31.2 Certification of the Principal Financial Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated May 12, 2010. Filed herewith.
- 32.1 Certification of the Principal Executive Officer pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code (Section 906 of the Sarbanes-Oxley Act), dated May 12, 2010. Filed herewith.
- 32.2 Certification of the Principal Financial Officer pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code (Section 906 of the Sarbanes-Oxley Act), dated May 12, 2010. Filed herewith.

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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, thereunto duly authorized.

DATED: May 12, 2010

AXCELIS TECHNOLOGIES, INC.

By: /s/ STEPHEN G. BASSETT

Stephen G. Bassett
Executive Vice President and Chief Financial Officer
Duly Authorized Officer and Principal Financial Officer

AMENDED AND RESTATED LOAN AND SECURITY AGREEMENT

THIS AMENDED AND RESTATED LOAN AND SECURITY AGREEMENT (this “**Agreement**”) dated as of the Effective Date between **SILICON VALLEY BANK**, a California corporation, with its principal place of business at 3003 Tasman Drive, Santa Clara, California 95054 and with a loan production office located at One Newton Executive Park, Suite 200, 2221 Washington Street, Newton, Massachusetts 02462 (“**Bank**”), and **AXCELIS TECHNOLOGIES, INC.** and **AXCELIS TECHNOLOGIES CCS CORPORATION**, each a Delaware corporation with offices located at 108 Cherry Hill Drive, Beverly, Massachusetts 01915 (individually and collectively, jointly and severally “**Borrower**”), provides the terms on which Bank shall lend to Borrower and Borrower shall repay Bank. This Agreement amends and restates in its entirety that certain Loan and Security Agreement dated as of April 23, 2008 by and among Borrower and Bank. The parties agree as follows:

1 ACCOUNTING AND OTHER TERMS

Accounting terms not defined in this Agreement shall be construed following GAAP. Calculations and determinations must be made following GAAP. Capitalized terms not otherwise defined in this Agreement shall have the meanings set forth in Section 13. All other terms contained in this Agreement, unless otherwise indicated, shall have the meaning provided by the Code to the extent such terms are defined therein.

2 LOAN AND TERMS OF PAYMENT

2.1 **Promise to Pay.** Borrower hereby unconditionally promises to pay Bank the outstanding principal amount of all Credit Extensions and accrued and unpaid interest thereon as and when due in accordance with this Agreement.

2.1.1 **Revolving Advances.**

(a) **Availability.** Subject to the terms and conditions of this Agreement and to deduction of Reserves, Bank shall make Advances not exceeding the Availability Amount. Amounts borrowed under the Revolving Line may be repaid and, prior to the Revolving Line Maturity Date, reborrowed, subject to the applicable terms and conditions precedent herein.

(b) **Termination; Repayment.** The Revolving Line terminates on the Revolving Line Maturity Date, when the principal amount of all Advances, the unpaid interest thereon, and all other Obligations relating to the Revolving Line shall be immediately due and payable.

2.1.2 **Letters of Credit Sublimit.**

(a) As part of the Revolving Line and subject to the deduction of Reserves, Bank shall issue Letters of Credit for Borrower’s account. Such aggregate amounts utilized hereunder shall at all times reduce the amount otherwise available for Advances under the Revolving Line; provided, however, Letters of Credit issued by the Bank for Borrower’s account prior to the Effective Date, including any amounts drawn from time to time thereunder, shall not reduce the amount available for Advances under the Revolving Line nor be deemed Letters of Credit for purposes of this Agreement. The face amount of outstanding Letters of Credit (including drawn but unreimbursed Letters of Credit and any Letter of Credit Reserve) may not exceed Two Million Five Hundred Thousand Dollars (\$2,500,000.00) minus the aggregate amount of all Credit Extensions outstanding from time to time under Sections 2.1.3 and 2.1.4 hereof. If, on the Revolving Line Maturity Date (or the effective date of any termination of this Agreement), there are any outstanding Letters of Credit, then on such date Borrower shall provide to Bank cash collateral in an amount equal to 105% of the face amount of all such Letters of Credit plus all interest, fees, and costs due or to become due in connection therewith (as estimated by Bank in its good faith business judgment), to secure all of the Obligations relating to said Letters of Credit. All Letters of Credit shall be in form and substance acceptable to Bank in its sole discretion and shall be subject to the terms and conditions of Bank’s standard Application and Letter of Credit Agreement (the “**Letter of Credit Application**”). Borrower

agrees to execute any further documentation in connection with the Letters of Credit as Bank may reasonably request. Borrower further agrees to be bound by the regulations and interpretations of the issuer of any Letters of Credit guaranteed by Bank and opened for Borrower’s account or by Bank’s interpretations of any Letter of Credit issued by Bank for Borrower’s account, and Borrower understands and agrees except in the case of gross negligence or willful misconduct by Bank that Bank shall not be liable for any error, negligence, or mistake, whether of omission or commission, in following Borrower’s instructions or those contained in the Letters of Credit or any modifications, amendments, or supplements thereto.

(b) The obligation of Borrower to immediately reimburse Bank for drawings made under Letters of Credit shall be absolute, unconditional, and irrevocable, and shall be performed strictly in accordance with the terms of this Agreement, such Letters of Credit, and the Letter of Credit Application.

(c) Borrower may request that Bank issue a Letter of Credit payable in a Foreign Currency. If a demand for payment is made under any such Letter of Credit, Bank shall treat such demand as an Advance to Borrower of the equivalent of the amount thereof (plus fees and charges in connection therewith such as wire, cable, SWIFT or similar charges) in Dollars at the then-prevailing rate of exchange in San Francisco, California, for sales of the Foreign Currency for transfer to the country issuing such Foreign Currency.

(d) To guard against fluctuations in currency exchange rates, upon the issuance of any Letter of Credit payable in a Foreign Currency, Bank shall create a reserve (the “**Letter of Credit Reserve**”) under the Revolving Line in an amount equal to ten percent (10%) of the face amount of such Letter of Credit. The amount of the Letter of Credit Reserve may be adjusted by Bank from time to time to account for fluctuations in the exchange rate. The availability of funds under the Revolving Line shall be reduced by the amount of such Letter of Credit Reserve for as long as such Letter of Credit remains outstanding.

2.1.3 **Foreign Exchange Sublimit.** As part of the Revolving Line and subject to the deduction of Reserves, Borrower may enter into foreign exchange contracts with Bank under which Borrower commits to purchase from or sell to Bank a specific amount of Foreign Currency (each, a “**FX Forward Contract**”) on a specified date (the “**Settlement Date**”). FX Forward Contracts shall have a Settlement Date of at least one (1) FX Business Day after the contract date and shall be subject to a reserve of ten percent (10%) of each outstanding FX Forward Contract in a maximum aggregate amount equal to Two Hundred Fifty Thousand Dollars (\$250,000.00) (the “**FX Reserve**”). The aggregate amount of FX Forward Contracts at any one time shall not exceed ten

(10) times the amount of the FX Reserve minus the aggregate amount of all Credit Extensions outstanding from time to time under Sections 2.1.2 and 2.1.4 hereof. Any amounts needed to fully reimburse Bank will be treated as Advances under the Revolving Line and will accrue interest at the interest rate applicable to Advances.

2.1.4 Cash Management Services Sublimit. Borrower may use up to Two Million Five Hundred Thousand Dollars (\$2,500,000.00) of the Revolving Line minus the aggregate amount of all Credit Extensions outstanding from time to time under Sections 2.1.2 and 2.1.3 hereof, for Bank's cash management services which may include merchant services, direct deposit of payroll, business credit card, and check cashing services identified in Bank's various cash management services agreements (collectively, the "**Cash Management Services**"). Any amounts Bank pays on behalf of Borrower for any Cash Management Services and not immediately reimbursed will be treated as Advances under the Revolving Line and will accrue interest at the interest rate applicable to Advances.

2.2 Overadvances. If, at any time, (i) the sum of (a) the outstanding principal amount of any Advances (including any amounts used for Cash Management Services), plus (b) the face amount of any outstanding Letters of Credit (including drawn but unreimbursed Letters of Credit and any Letter of Credit Reserve), plus (c) the aggregate amount of any outstanding FX Forward Contracts exceeds (ii) the lesser of either the Revolving Line or the Borrowing Base (the amount by which (i) exceeds (ii) being an "**Overadvance**"), Borrower shall immediately pay to Bank in cash such Overadvance. Without limiting Borrower's obligation to repay Bank any amount of the Overadvance, Borrower agrees to pay Bank interest on the outstanding amount of any Overadvance, on demand, at the Default Rate.

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2.3 Payment of Interest on the Credit Extensions.

(a) **Interest Rate; Advances.** Subject to Section 2.3(b), the principal amount outstanding under the Revolving Line shall accrue interest at a floating per annum rate equal to the Prime Rate plus two percent (2.00%), which interest shall be payable monthly, in arrears, in accordance with Section 2.3(f).

(b) **Default Rate.** Immediately upon the occurrence and during the continuance of an Event of Default, Obligations shall bear interest at a rate per annum which is three and one-half of one percent (3.50%) above the rate that is otherwise applicable thereto (the "**Default Rate**"). Fees and expenses which are required to be paid by Borrower pursuant to the Loan Documents (including, without limitation, Bank Expenses) but are not paid when due shall bear interest until paid at a rate equal to the highest rate applicable to the Obligations; provided, however, no interest shall accrue on such fees and expenses to the extent funds are available to be deducted by the Bank from Borrower's accounts if such deduction is not timely made by Bank at no fault of Borrower. Payment or acceptance of the increased interest rate provided in this Section 2.3(b) is not a permitted alternative to timely payment and shall not constitute a waiver of any Event of Default or otherwise prejudice or limit any rights or remedies of Bank.

(c) **Adjustments to Interest Rate.** Changes to the interest rate of any Credit Extension based on changes to the Prime Rate shall be effective on the effective date of any change to the Prime Rate and to the extent of any such change. Bank shall use its best efforts to give Borrower prompt notice of any such change in the Prime Rate; provided, however, that any failure by Bank to provide Borrower with notice hereunder shall not affect Bank's right to make changes in the interest rate based on changes in the Prime Rate.

(d) **Computation of Interest.** Interest on the Credit Extensions and all fees payable hereunder shall be computed on the basis of a 360-day year and the actual number of days elapsed in the period during which such interest accrues. In computing interest on any Credit Extension, the date of the making of such Credit Extension shall be included and the date of payment shall be excluded; provided, however, that if any Credit Extension is repaid on the same day on which it is made, such day shall be included in computing interest on such Credit Extension.

(e) **Debit of Accounts.** Bank may debit any of Borrower's deposit accounts, including the Designated Deposit Account, for principal and interest payments or any other amounts Borrower owes Bank when due. These debits shall not constitute a set-off. The provisions of the previous sentence shall not apply to deposit accounts designated as, and exclusively used for, payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of Borrower's employees.

(f) **Interest Payment Date.** Interest is payable monthly, in arrears, on the last calendar day of each month. All accrued but unpaid interest on the Advances shall be due and payable on the Revolving Line Maturity Date.

(g) **Payments.** All payments (including prepayments) to be made by Borrower under any Loan Document shall be made in immediately available funds in U.S. Dollars, without setoff or counterclaim, before 12:00 p.m. Eastern time on the date when due. Payments of principal and/or interest received after 12:00 p.m. Eastern time are considered received at the opening of business on the next Business Day. When a payment is due on a day that is not a Business Day, the payment shall be due the next Business Day, and additional fees or interest, as applicable, shall continue to accrue until paid.

2.4 Fees. Borrower shall pay to Bank:

(a) **Commitment Fee.** A fully earned, non refundable commitment fee of \$250,000.00 on the Effective Date; and

(b) **Letter of Credit Fees.** Bank's customary fees and expenses for the issuance, modification or renewal of Letters of Credit, including, without limitation, its customary fees upon the issuance, each anniversary of the issuance, modification and the renewal of such Letter of Credit by Bank; and

(c) **Termination Fee.** In accordance with the terms of Section 12.1, a termination fee; and

(d) **Unused Revolving Line Facility Fee.** A fee (the "**Unused Revolving Line Facility Fee**"), payable monthly, in arrears, on a calendar year basis, in an amount per annum equal to the Unused Line Fee Percentage of

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the average unused portion of the Revolving Line, as reasonably determined by Bank. The unused portion of the Revolving Line, for the purposes of this calculation, shall include amounts reserved under the Cash Management Services Sublimit for products provided and under the Foreign Exchange Sublimit for FX Forward Contracts. Borrower shall not be entitled to any credit, rebate or repayment of any Unused Revolving Line Facility Fee previously earned by Bank pursuant to this Section notwithstanding any termination of the Agreement, or suspension or termination of Bank's obligation to make loans and advances hereunder; and

(e) **Bank Expenses.** All Bank Expenses (including reasonable attorneys' fees and expenses, plus expenses, for documentation and negotiation of this Agreement) incurred through and after the Effective Date, when due.

2.5 Withholding. Payments received by Bank from Borrower hereunder will be made free and clear of any withholding taxes. Specifically, however, if at any time any governmental authority, applicable law, regulation or international agreement requires Borrower to make any such withholding or deduction from any such payment or other sum payable hereunder to Bank, Borrower hereby covenants and agrees that the amount due from Borrower with respect to such payment or other sum payable hereunder will be increased to the extent necessary to ensure that, after the making of such required withholding or deduction, Bank receives a net sum equal to the sum which it would have received had no withholding or deduction been required and Borrower shall pay the full amount withheld or deducted to the relevant governmental authority. Borrower will, upon request, furnish Bank with proof satisfactory to Bank indicating that Borrower has made such withholding payment provided, however, that Borrower need not make any withholding payment if the amount or validity of such withholding payment is contested in good faith by appropriate and timely proceedings and as to which payment in full is bonded or reserved against by Borrower. The agreements and obligations of Borrower contained in this Section 2.5 shall survive the termination of this Agreement.

3 CONDITIONS OF LOANS

3.1 Conditions Precedent to Initial Credit Extension. Bank's obligation to make the initial Credit Extension is subject to the condition precedent that Borrower shall consent to or have delivered, in form and substance satisfactory to Bank, such documents, and completion of such other matters, as Bank may reasonably deem necessary or appropriate, including, without limitation:

- (a) duly executed original signatures to the Loan Documents to which it is a party;
- (b) its Operating Documents and a good standing certificate of Borrower certified by the Secretary of State of the State of Delaware as of a date no earlier than thirty (30) days prior to the Effective Date;
- (c) completed Borrowing Resolutions for Borrower;
- (d) certified copies, dated as of a recent date, of financing statement searches, as Bank shall request, accompanied by written evidence (including any UCC termination statements) that the Liens indicated in any such financing statements either constitute Permitted Liens or have been or, in connection with the initial Credit Extension, will be terminated or released;
- (e) the Perfection Certificates executed by Borrower and each Guarantor;
- (f) [intentionally omitted];
- (g) a legal opinion of Borrower's counsel dated as of the Effective Date together with the duly executed original signatures thereto;
- (h) the duly executed original signatures to each Guaranty, each Guarantor Security Agreement, and the Pledge Agreements, together with the completed Borrowing Resolutions for Guarantor;
- (i) evidence satisfactory to Bank that the insurance policies required by Section 6.7 hereof are in full force and effect, together with appropriate evidence showing loss payable and/or additional insured clauses or endorsements in favor of Bank; and

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- (j) payment of the fees and Bank Expenses then due as specified in Section 2.4 hereof.

3.2 Conditions Precedent to all Credit Extensions. Bank's obligations to make each Credit Extension, including the initial Credit Extension, is subject to the following:

- (a) timely receipt of a completed and executed Transaction Report; and
- (b) the representations and warranties in Section 5 shall be true, accurate and complete in all material respects on the date of the Transaction Report and on the Funding Date of each Credit Extension; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date, and no Default or Event of Default shall have occurred and be continuing or result from the Credit Extension. Each Credit Extension is Borrower's representation and warranty on that date that the representations and warranties in Section 5 remain true, accurate and complete in all material respects; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date; and
- (c) as determined in Bank's reasonable business judgment, there has not been a Material Adverse Change.

3.3 Covenant to Deliver. Borrower agrees to deliver to Bank each item required to be delivered to Bank under this Agreement as a condition to any Credit Extension. Borrower expressly agrees that a Credit Extension made prior to the receipt by Bank of any such item shall not constitute a waiver by Bank of Borrower's obligation to deliver such item, and any such Credit Extension in the absence of a required item shall be made in Bank's sole discretion.

3.4 Procedures for Borrowing. Subject to the prior satisfaction of all other applicable conditions to the making of an Advance set forth in this Agreement, to obtain an Advance (other than Advances under Sections 2.1.2 or 2.1.4), Borrower shall notify Bank (which notice shall be irrevocable) by electronic mail, facsimile, or telephone by 12:00 p.m. Pacific time on the Funding Date of the Advance. Together with such notification, Borrower must promptly deliver to Bank by electronic mail or facsimile a completed Transaction Report executed by a Responsible Officer or his or her designee. Bank shall credit Advances to the Designated Deposit Account. Bank may make Advances under this Agreement based on instructions from a Responsible Officer or his or her designee or without instructions if the Advances are necessary to meet Obligations which have become due. Bank may rely on any telephone notice given by a person whom Bank believes is a Responsible Officer or designee.

4 CREATION OF SECURITY INTEREST

4.1 Grant of Security Interest. Borrower hereby grants Bank, to secure the payment and performance in full of all of the Obligations, a continuing security interest in, and pledges to Bank, the Collateral, wherever located, whether now owned or hereafter acquired or arising, and all proceeds and products thereof. Borrower represents, warrants, and covenants that the security interest granted herein is and shall at all times continue to be a first priority perfected security interest in the Collateral (subject only to Permitted Liens that may have superior priority to Bank's Lien under this Agreement or the Export-Import Agreement). If Borrower shall acquire a commercial tort claim, Borrower shall promptly notify Bank in a writing signed by Borrower of the general details thereof and upon request of Bank grant to Bank in such writing a security interest therein and in the proceeds thereof, all upon the terms of this Agreement, with such writing to be in form and substance reasonably satisfactory to Bank.

Bank's lien and security interest in the Collateral shall continue until Borrower fully satisfies its Obligations in cash. Upon payment in full in cash of the Obligations (except for contingent indemnification obligations for which no claim has been made) and at such time as Bank's obligation to make Credit Extensions has terminated, Bank shall, at Borrower's sole cost and expense, release its Liens in the Collateral and all rights therein shall revert to Borrower.

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Notwithstanding the foregoing, it is expressly acknowledged and agreed that the security interest created in this Agreement only with respect to Export-Related Accounts Receivable, Export-Related Inventory and Export-Related General Intangibles (as such terms are defined in the Export-Import Agreement) is subject to and subordinate to the security interest granted to Bank in the Export-Import Agreement with respect to such Export-Related Accounts Receivable, Export-Related Inventory and Export-Related General Intangibles.

4.2 Authorization to File Financing Statements. Borrower hereby authorizes Bank to file financing statements, without notice to Borrower, with all appropriate jurisdictions to perfect or protect Bank's interest or rights hereunder, including a notice that any disposition of the Collateral except as permitted by the terms of this Agreement, by either Borrower or any other Person, shall be deemed to violate the rights of Bank under the Code. Such financing statements may indicate the Collateral as "all assets of the Debtor" or words of similar effect, or as being of an equal or lesser scope, or with greater detail, all in Bank's discretion, provided that such financing statements shall acknowledge the rights of SEN under the SEN License.

5 REPRESENTATIONS AND WARRANTIES

Borrower represents and warrants as follows:

5.1 Due Organization, Authorization; Power and Authority. Borrower and each of its Domestic Subsidiaries is validly existing and in good standing as a Registered Organization in its jurisdiction of formation and is qualified and licensed to do business and is in good standing in any jurisdiction in which the conduct of its business or its ownership of property requires that it be qualified except where the failure to do so could not reasonably be expected to have a material adverse effect on Borrower's business. In connection with this Agreement, Borrower has delivered to Bank completed certificates each signed by Borrower and Guarantor, respectively, entitled "Perfection Certificate". Borrower represents and warrants to Bank that (a) Borrower's exact legal name is that indicated on the Perfection Certificate and on the signature page hereof; (b) Borrower is an organization of the type and is organized in the jurisdiction set forth in the Perfection Certificate; (c) the Perfection Certificate accurately sets forth Borrower's organizational identification number or accurately states that Borrower has none; (d) the Perfection Certificate accurately sets forth Borrower's place of business, or, if more than one, its chief executive office as well as Borrower's mailing address (if different than its chief executive office); (e) Borrower (and each of its predecessors) has not, in the past five (5) years, changed its jurisdiction of formation, organizational structure or type, or any organizational number assigned by its jurisdiction; and (f) all other information set forth on the Perfection Certificate pertaining to Borrower and each of its Subsidiaries is accurate and complete (it being understood and agreed that Borrower may from time to time update certain information in the Perfection Certificate after the Effective Date to the extent permitted by one or more specific provisions in this Agreement). If Borrower is not now a Registered Organization but later becomes one, Borrower shall promptly notify Bank of such occurrence and provide Bank with Borrower's organizational identification number.

The execution, delivery and performance by Borrower of the Loan Documents to which it is a party have been duly authorized, and do not (i) conflict with any of Borrower's organizational documents, (ii) contravene, conflict with, constitute a default under or violate any material Requirement of Law, (iii) contravene, conflict or violate any applicable order, writ, judgment, injunction, decree, determination or award of any Governmental Authority by which Borrower or any its Subsidiaries or any of their property or assets may be bound or affected, (iv) require any action by, filing, registration, or qualification with, or Governmental Approval from, any Governmental Authority (except such Governmental Approvals which have already been obtained and are in full force and effect or (v) constitute an event of default under any material agreement by which Borrower is bound. Borrower is not in default under any agreement to which it is a party or by which it is bound in which the default could reasonably be expected to have a material adverse effect on Borrower's business.

5.2 Collateral. Borrower has good title to, has rights in, and the power to transfer each item of the Collateral upon which it purports to grant a Lien hereunder, free and clear of any and all Liens except Permitted Liens. Borrower has no deposit accounts other than the deposit accounts with Bank, the deposit accounts, if any, described in the Perfection Certificate delivered to Bank in connection herewith, or of which Borrower has given Bank notice and taken such actions as are necessary to give Bank a perfected security interest therein. The Accounts are bona fide, existing obligations of the Account Debtors.

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The Collateral is not in the possession of any third party bailee (such as a warehouse) except as otherwise provided in the Perfection Certificate. None of the components of the Collateral shall be maintained at locations other than as provided in the Perfection Certificate or as permitted pursuant to Section 7.2. Borrower shall at all times during the term of this Agreement maintain at least two-thirds of its Inventory (based upon the fair market value of all Inventory) at Borrower's 108 Cherry Hill Drive, Beverly, Massachusetts location and at other locations of the Borrower for which Bank has received a landlord's waiver in form and substance reasonably satisfactory to Bank.

All Inventory is in all material respects of good and marketable quality, free from material defects.

Axcelis Technologies, Inc. and Axcelis Technologies CCS Corporation, either individually or jointly, are the sole owners of the intellectual property which Borrower owns or purports to own, including, without limitation, the intellectual property set forth on the Perfection Certificate, except for non-exclusive licenses granted to its customers in the ordinary course of business. Each patent which Borrower owns or purports to own is valid and enforceable and no part of the intellectual property has been judged invalid or unenforceable, in whole or in part, and to the best of Borrower's knowledge, no claim has been made that any part of the intellectual property violates the rights of any third party.

Except as noted on the Perfection Certificate, Borrower is not a party to, nor is it bound by, any Restricted License.

5.3 Accounts Receivable; Inventory.

(a) For each Account with respect to which Advances are requested, on the date each Advance is requested and made, such Account shall be an Eligible Account.

(b) All statements made and all unpaid balances appearing in all invoices, instruments and other documents evidencing the Eligible Accounts are and shall be true and correct and all such invoices, instruments and other documents, and all of Borrower's Books are genuine and in all respects what they purport to be. Whether or not an Event of Default has occurred and is continuing, Bank may notify any Account Debtor owing Borrower money of Bank's security interest in such funds. All sales and other transactions underlying or giving rise to each Eligible Account shall comply in all material respects with all applicable laws and governmental rules and regulations. Borrower has no knowledge of any actual or imminent Insolvency Proceeding of any Account Debtor whose accounts are Eligible Accounts in any Transaction Report. To the best of Borrower's knowledge, all signatures and endorsements on all documents, instruments, and agreements relating to all Eligible Accounts are genuine, and all such documents, instruments and agreements are legally enforceable in accordance with their terms.

(c) For any item of Inventory, such Inventory (i) meets all applicable governmental standards; (ii) has been manufactured in compliance with the Fair Labor Standards Act; (iii) is not subject to any Liens, except the first priority Liens granted in favor of Bank under this Agreement or any of the other Loan Documents or Permitted Liens; and (iv) is located at (A) the Headquarters Location which is (1) prior to the Real Estate Financing, owned by Borrower or (2) after the Real Estate Financing, either owned by Borrower or owned by the Special Subsidiary provided that Bank has received a landlord's waiver in form and substance reasonably satisfactory to Bank or (B) Borrower's 33 Cherry Hill Drive, Beverly, Massachusetts or 54 Cherry Hill Drive, Beverly, Massachusetts locations provided that Bank has received a landlord waiver for the respective location in form and substance reasonably satisfactory to Bank.

5.4 Litigation. There are no actions or proceedings pending or, to the knowledge of the Responsible Officers, threatened in writing by or against Borrower or any of its Subsidiaries involving more than, individually or in the aggregate, One Million Dollars (\$1,000,000) or that would reasonably be expected to have a material adverse effect on Borrower's business.

5.5 No Material Deviation in Financial Statements. All consolidated financial statements for Borrower and any of its Subsidiaries delivered to Bank fairly present in all material respects Borrower's consolidated financial condition and Borrower's consolidated results of operations. There has not been any material deterioration in Borrower's consolidated financial condition since the date of the most recent financial statements submitted to Bank.

5.6 Solvency. The fair salable value of Borrower's assets (including goodwill minus disposition costs) exceeds the fair value of its liabilities; Borrower is not left with unreasonably small capital after the transactions in this Agreement; and Borrower is able to pay its debts (including trade debts) as they mature.

5.7 Regulatory Compliance. Borrower is not an "investment company" or a company "controlled" by an "investment company" under the Investment Company Act of 1940, as amended. Borrower is not engaged as one of its important activities in extending credit for margin stock (under Regulations X, T and U of the Federal Reserve Board of Governors). Borrower has complied in all material respects with the Federal Fair Labor Standards Act. Neither Borrower nor any of its Subsidiaries is a "holding company" or an "affiliate" of a "holding company" or a "subsidiary company" of a "holding company" as each term is defined and used in the Public Utility Holding Company Act of 2005. Borrower has not violated any laws, ordinances or rules, the violation of which could reasonably be expected to have a material adverse effect on its business. None of Borrower's or any of its Subsidiaries' properties or assets has been used by Borrower or any Subsidiary or, to the best of Borrower's knowledge, by previous Persons, in disposing, producing, storing, treating, or transporting any hazardous substance other than legally. Borrower and each of its Subsidiaries have obtained all consents, approvals and authorizations of, made all declarations or filings with, and given all notices to, all Government Authorities that are necessary to continue their respective businesses as currently conducted except where the failure to make such declarations, notices or filings could not reasonably be expected to have a material adverse effect on Borrower's business.

5.8 Subsidiaries; Investments. Borrower does not own any stock, partnership interest or other equity securities except for Permitted Investments.

5.9 Tax Returns and Payments; Pension Contributions. Borrower and its Subsidiaries have timely filed all required tax returns and reports, and have timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower or such Subsidiary. Borrower may defer payment of any contested taxes, provided that Borrower (a) in good faith contests its obligation to pay the taxes by appropriate proceedings promptly and diligently instituted and conducted, (b) notifies Bank in writing of the commencement of, and any material development in, the proceedings, and (c) posts bonds or takes any other steps required to prevent the governmental authority levying such contested taxes from obtaining a Lien upon any of the Collateral that is other than a "Permitted Lien". Borrower is unaware of any claims or adjustments proposed for any of Borrower's prior tax years which could result in additional taxes becoming due and payable by Borrower. Borrower has paid all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms, and Borrower has not withdrawn from participation in, and has not permitted partial or complete

termination of, or permitted the occurrence of any other event with respect to, any such plan which could reasonably be expected to result in any liability of Borrower, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency.

5.10 Use of Proceeds. Borrower shall use the proceeds of the Credit Extensions solely as working capital and to fund its general business requirements and not for personal, family, household or agricultural purposes.

5.11 Full Disclosure. No written representation, warranty or other statement of Borrower in any certificate or written statement given to Bank, as of the date such representation, warranty, or other statement was made, taken together with all such written certificates and written statements given to Bank, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained in the certificates or statements not misleading (it being recognized by Bank that the projections and forecasts provided by Borrower in good faith and based upon reasonable assumptions are not viewed as facts and that actual results during the period or periods covered by such projections and forecasts may differ from the projected or forecasted results).

5.12 Designation of Obligations as Designated Senior Indebtedness. All Obligations, including all principal, interest (including all interest accruing after the commencement of any bankruptcy or similar proceeding, whether or not a claim for post-petition interest is allowable as a claim in any such proceeding), and all fees, costs, expenses and other amounts accrued or due under this Agreement and otherwise shall at all times constitute "Designated Senior Indebtedness" or a similar concept thereof for purposes of any Indebtedness of the Borrower.

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6 AFFIRMATIVE COVENANTS

Borrower shall do all of the following:

6.1 Government Compliance.

(a) Subject to Sections 7.2 and 7.3, maintain its and all its Subsidiaries' legal existence and good standing in their respective jurisdictions of formation and maintain qualification in each jurisdiction in which the failure to so qualify would reasonably be expected to have a material adverse effect on Borrower's business. Borrower shall comply, and have each Subsidiary comply, with all laws, ordinances and regulations to which it is subject, noncompliance with which could have a material adverse effect on Borrower's business.

(b) Obtain all of the Governmental Approvals necessary for the performance by Borrower of its obligations under the Loan Documents to which it is a party and the grant of a security interest to Bank in all of its property. Borrower shall promptly provide copies of any such obtained Governmental Approvals to Bank.

6.2 Financial Statements, Reports, Certificates.

(a) Borrower shall provide Bank with the following:

(i) upon each request for a Credit Extension and, in all events, within thirty (30) days after the end of each month a Transaction Report (and any schedules related thereto including, but not limited to, a schedule of any litigation of the type described in Section 5.4 which may arise or be threatened from and after the Effective Date);

(ii) within thirty (30) days after the end of each month, (A) monthly accounts receivable agings, aged by invoice date, (B) monthly accounts payable agings, aged by invoice date, and outstanding or held check registers, if any, (C) monthly reconciliations of accounts receivable agings for accounts under this Agreement and the Export-Import Agreement (aged by invoice date), transaction reports and general ledger, (D) monthly inventory reports for Inventory valued on a first-in, first-out basis at the lower of cost or market (in accordance with GAAP), Inventory backlog reports, or such other inventory reports as are requested by Bank in its good faith business judgment and (E) a DRAM (Devices for Random Access Memory) report as required by EXIM;

(iii) within forty-five (45) days after the end of each fiscal quarter of Borrower, a Compliance Certificate signed by a Responsible Officer, certifying that as of the end of such quarter, Borrower was in full compliance with all of the terms and conditions of this Agreement, and setting forth calculations showing compliance with the financial covenants set forth in this Agreement and such other information as Bank shall reasonably request, including, without limitation, a statement that at the end of such quarter there were no held checks;

(iv) as soon as available, and in any event within forty-five (45) days after the end of each fiscal quarter of Borrower, quarterly unaudited financial statements, prepared on a consolidated and consolidating basis, in a form reasonably satisfactory to Bank;

(v) within sixty (60) days after the end of each fiscal year of Borrower, (A) annual operating budgets (including income statements, balance sheets and cash flow statements, by quarter) for the then current fiscal year of Borrower, and (B) annual financial projections for the then current fiscal year (on a quarterly basis) as approved by Borrower's board of directors, together with any related business forecasts used in the preparation of such annual financial projections, all prepared on a consolidated and consolidating basis in a form reasonably satisfactory to Bank;

(vi) as soon as available, and in any event within one hundred twenty (120) days following the end of Borrower's fiscal year, annual financial statements prepared on a consolidated and consolidating basis in a form reasonably satisfactory to Bank, certified by, and with an unqualified opinion of, independent certified public accountants acceptable to Bank;

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(vii) within five (5) days of delivery, copies of all statements, reports and notices made available to Borrower's security holders or to any holders of Subordinated Debt (which if filed with the Securities and Exchange Commission may be provided by a link thereto on Borrower's or another website on the Internet);

(viii) prompt report of any legal actions pending or threatened in writing against Borrower or any of its Subsidiaries that could result in damages or costs to Borrower or any of its Subsidiaries of, individually or in the aggregate, One Million Dollars (\$1,000,000) or more; and

(ix) without limiting and in addition to the foregoing, at any time any Credit Extensions are outstanding, (i) a Transaction Report (and any schedules related thereto) bi-weekly on the first Business Day of the related week and (ii) as soon as available, and in any event within forty-five (45) days after the end of each month, monthly unaudited financial statements, prepared on a consolidated basis, in a form reasonably satisfactory to Bank, together with a Compliance Certificate signed by a Responsible Officer.

(b) within ten (10) days after filing, all reports on Form 10-K, 10-Q and 8-K filed with the Securities and Exchange Commission or a link thereto on Borrower's or another website on the Internet.

(c) with the monthly reporting provided pursuant to Section 6.2(a)(ii) above, written notice of (i) any material change in the composition of the intellectual property, (ii) the registration of any copyright (including any subsequent ownership right of Borrower in or to any copyright), patent or trademark not previously disclosed to Bank, or (iii) Borrower's knowledge of an event that materially adversely affects the value of the intellectual property.

(d) within ten (10) days after the end of each fiscal quarter of Borrower, copies of (i) actual invoices representing not less than 10% of the quarter-ended accounts receivable balance and (ii) actual export orders for not less than 10% of the quarter-ended balance of Eligible EXIM Inventory (as defined in the Export-Import Agreement).

6.3 Accounts Receivable.

(a) Schedules and Documents Relating to Accounts. Borrower shall deliver to Bank Transaction Reports, as provided in Section 6.2, on Bank's standard forms; provided, however, that Borrower's failure to execute and deliver the same shall not affect or limit Bank's Lien and other rights in all of Borrower's Accounts, nor shall Bank's failure to advance or lend against a specific Account affect or limit Bank's Lien and other rights therein. If requested by Bank, Borrower shall furnish Bank with copies (or, at Bank's request, originals) of all contracts, orders, invoices, and other similar documents, and all shipping instructions, delivery receipts, bills of lading, and other evidence of delivery, for any goods the sale or disposition of which gave rise to such Accounts. In addition, Borrower shall deliver to Bank, on its request, the originals of all instruments, chattel paper, security agreements, guarantees and other documents and property evidencing or securing any Accounts, in the same form as received, with all necessary indorsements, and copies of all credit memos.

(b) Disputes. Borrower shall promptly notify Bank of all disputes or claims relating to material Accounts. Borrower may forgive (completely or partially), compromise, or settle any Account for less than payment in full, or agree to do any of the foregoing so long as (i) Borrower does so in good faith, in a commercially reasonable manner, in the ordinary course of business, in arm's-length transactions, and reports the same to Bank in the regular reports provided to Bank; (ii) no Default or Event of Default has occurred and is continuing; and (iii) after taking into account all such discounts, settlements and forgiveness, the total outstanding Advances will not exceed the Availability Amount.

(c) Collection of Accounts. Borrower shall have the right to collect all Accounts, unless and until a Default or an Event of Default has occurred and is continuing. Whether or not an Event of Default has occurred and is continuing, Borrower shall hold all payments on, and proceeds of, Accounts in trust for Bank, and Borrower shall immediately deliver all such payments and proceeds to Bank in their original form, duly endorsed, to be applied to the Obligations pursuant to the terms of Section 9.4 hereof. All payments on, and proceeds of, Accounts shall be deposited directly by the applicable Account Debtor into a lockbox account, or such other "blocked account" as

Bank may specify, pursuant to a blocked account agreement in form and substance reasonably satisfactory to Bank in its sole discretion.

(d) Returns. Provided no Event of Default has occurred and is continuing, if any Account Debtor returns any Inventory to Borrower, Borrower shall promptly (i) determine the reason for such return, (ii) issue a credit memorandum to the Account Debtor in the appropriate amount, and (iii) provide a copy of such credit memorandum to Bank, upon request from Bank. In the event any attempted return occurs after the occurrence and during the continuance of any Event of Default, Borrower shall hold the returned Inventory in trust for Bank, and immediately notify Bank of the return of the Inventory.

(e) Verification. Bank may, from time to time, verify directly with the respective Account Debtors the validity, amount and other matters relating to the Accounts, either in the name of Borrower or Bank or such other name as Bank may choose.

(f) No Liability. Bank shall not be responsible or liable for any shortage or discrepancy in, damage to, or loss or destruction of, any goods, the sale or other disposition of which gives rise to an Account, or for any error, act, omission, or delay of any kind occurring in the settlement, failure to settle, collection or failure to collect any Account, or for settling any Account in good faith for less than the full amount thereof, nor shall Bank be deemed to be responsible for any of Borrower's obligations under any contract or agreement giving rise to an Account. Nothing herein shall, however, relieve Bank from liability for its own gross negligence or willful misconduct.

6.4 Remittance of Proceeds. Except as otherwise provided in Section 6.3(c), deliver, in kind, all proceeds arising from the disposition of any Collateral to Bank in the original form in which received by Borrower not later than the following Business Day after receipt by Borrower, to be applied to the Obligations pursuant to the terms of Section 9.4 hereof; provided that, if no Default or Event of Default has occurred and is continuing, Borrower shall not be obligated to remit to Bank the proceeds of the sale of worn out or obsolete Equipment disposed of by Borrower in good faith in an arm's length transaction for an aggregate purchase price of One Hundred Thousand Dollars (\$100,000.00) or less (for all such transactions in any fiscal year). Borrower agrees that it will not commingle proceeds of Collateral with any of Borrower's other funds or property, but will hold such proceeds separate and apart from such other funds and property and in an express trust for Bank. Nothing in this Section 6.4 limits the restrictions on disposition of Collateral set forth elsewhere in this Agreement.

6.5 Taxes; Pensions. Timely file, and require each of its Subsidiaries to timely file, all required tax returns and reports and timely pay, and require each of its Subsidiaries to timely file, all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower and each of its Subsidiaries, except for deferred payment of any taxes contested pursuant to the terms of Section 5.9 hereof, and shall deliver to Bank, on demand, appropriate certificates attesting to such payments, and pay all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms.

6.6 Access to Collateral; Books and Records. Upon reasonable notice (provided no notice is required if an Event of Default has occurred and is continuing), Bank, or its agents, shall have the right, with such frequency as Bank shall determine necessary in its sole discretion (or at the direction of EXIM Bank), to inspect the Collateral and the right to audit and copy Borrower's Books. The foregoing inspections and audits shall be at Borrower's expense, and the charge therefor shall be \$850 per person per day (or such higher amount as shall represent Bank's then-current standard charge for the same), plus reasonable out-of-pocket expenses; provided, however, that Bank shall conduct no more than four (4) such audit(s) per fiscal year at Borrower's expense in the event no Event of Default has occurred and is continuing. In the event Borrower and Bank schedule an audit more than ten (10) days in advance, and Borrower cancels or seeks to reschedules the audit with less than ten (10) days written notice to Bank, then (without limiting any of Bank's rights or remedies), Borrower shall pay Bank a fee of \$1,000 plus any out-of-pocket expenses incurred by Bank to compensate Bank for the anticipated costs and expenses of the cancellation or rescheduling.

6.7 Insurance. Keep its business and the Collateral insured for risks and in amounts standard for companies in Borrower's industry and location and as Bank may reasonably request. Insurance policies shall be in a form, with companies, and in amounts that are reasonably satisfactory to Bank. All property policies shall have a loss payable endorsement showing Bank as loss payee and waive subrogation against Bank, and all liability policies

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shall show, or have endorsements showing, Bank as an additional insured. All policies (or the loss payable and additional insured endorsements) shall provide that the insurer shall endeavor to give Bank at least twenty (20) days notice before canceling, amending, or declining to renew its policy. At Bank's request, Borrower shall deliver certificates of insurance and/or copies of policies and evidence of all premium payments. Proceeds payable under any property policy shall, at Bank's option, be payable to Bank on account of the Obligations. Notwithstanding the foregoing, (a)(x) so long as no Event of Default has occurred and is continuing, Borrower shall have the option of applying the proceeds of any casualty policy up to One Hundred Thousand Dollars (\$100,000.00) with respect to any loss, but not exceeding Two Hundred Fifty Thousand Dollars (\$250,000.00) in the aggregate for all losses under all casualty policies in any one year, toward the replacement or repair of destroyed or damaged property; provided that any such replaced or repaired property (i) shall be of equal or like value as the replaced or repaired Collateral and (ii) shall be deemed Collateral in which Bank has been granted a first priority security interest, and (b) after the occurrence and during the continuance of an Event of Default, all proceeds payable under such casualty policy shall, at the option of Bank, be payable to Bank on account of the Obligations. If Borrower fails to obtain insurance as required under this Section 6.7 or to pay any amount or furnish any required proof of payment to third persons and Bank, Bank may make all or part of such payment or obtain such insurance policies required in this Section 6.7, and take any action under the policies Bank deems prudent.

6.8 Operating Accounts.

(a) Maintain Borrower's and its Subsidiaries' primary operating accounts, disbursement accounts, and other deposit accounts and securities accounts in the United States with Bank and Bank's Affiliates, which accounts shall at all times contain at least 60% of the dollar value of Borrower's and its Subsidiaries' consolidated world-wide cash and Cash Equivalents (excluding cash and Cash Equivalents on deposit in the ABN Amro Pledged Account in an amount not to exceed €4,000,000).

(b) Provide Bank five (5) days prior written notice before establishing any Collateral Account within the United States at or with any bank or financial institution other than Bank or Bank's Affiliates. For each Collateral Account located within the United States that Borrower at any time maintains, Borrower shall cause the applicable bank or financial institution (other than Bank) at or with which any such Collateral Account is maintained to execute and deliver a Control Agreement or other appropriate instrument with respect to such Collateral Account to perfect Bank's Lien in such Collateral Account in accordance with the terms hereunder which Control Agreement may not be terminated without the prior written consent of Bank. The provisions of the previous sentence shall not apply to deposit accounts exclusively used for payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of Borrower's employees and identified to Bank by Borrower as such, deposit accounts with the Bank, or to the Borrower's pledged depository account held by ABN Amro Bank (the "**ABN Amro Pledged Account**") to secure the letters of credit and bank guarantees issued in connection with value added tax recovery initiatives of Axcelis Technologies GmbH, or to those Collateral Accounts identified on Schedule 6.8(b) hereto, provided that (i) the amounts on deposit in the ABN Amro Pledged Account shall not exceed €4,000,000 and (ii) the amounts on deposit in such Collateral Accounts shall not exceed the maximum amounts indicated on Schedule 6.8(b).

6.9 Financial Covenants.

Maintain, to be tested as of the last day of each quarter, unless otherwise noted, on a consolidated basis with respect to Borrower and its Subsidiaries:

(a) Adjusted Quick Ratio. Borrower and its Subsidiaries, on a consolidated basis, shall maintain at all times, a ratio of Quick Assets to Current Liabilities minus Deferred Revenue of at least 1.5:1.0.

(b) Maximum Quarterly Net Losses. Borrower and its Subsidiaries, on a consolidated basis, shall not suffer any Net Loss in excess of: (i) \$13,000,000 for the fiscal quarter ending March 31, 2010; (ii) \$8,500,000 for the fiscal quarter ending June 30, 2010; (iii) \$8,500,000 for the fiscal quarter ending September 30, 2010; and (iv) \$5,000,000 for the fiscal quarter ending December 31, 2010 and each fiscal quarter thereafter.

(c) Liquidity. Borrower shall maintain at all times unrestricted cash and Cash Equivalents at Bank plus the Availability Amount of at least \$30,000,000.

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6.10 Protection and Registration of Intellectual Property Rights.

(a) Borrower shall: (i) protect, defend and maintain the validity and enforceability of its material intellectual property; (ii) promptly advise Bank in writing of material infringements of its intellectual property; and (iii) not allow any intellectual property material to Borrower's business to be abandoned, forfeited or dedicated to the public without Bank's written consent. If Borrower (A) obtains any patent, registered trademark or servicemark, registered copyright, registered mask work, or any pending application for any of the foregoing, whether as owner, licensee or otherwise, or (B) applies for any patent or the registration of any trademark or servicemark, then Borrower shall provide written notice thereof to Bank on a quarterly basis upon the delivery of the Compliance Certificate for such period, and shall execute such intellectual property security agreements and other documents and take such other actions as Bank shall request in its good faith business judgment to perfect and maintain a first priority perfected security interest in favor of Bank in such property. If Borrower decides to register any copyrights or mask works in the United States Copyright Office, Borrower shall: (x) provide Bank with at least fifteen (15) days prior written notice of Borrower's intent to register such copyrights or mask works together with a copy of the application it intends to file with the United States Copyright Office (excluding exhibits thereto); (y) execute an intellectual property security agreement and such other documents and take such other actions as Bank may request in its good faith business judgment to perfect and maintain a first priority perfected security interest in favor of Bank in the copyrights or mask works intended to be registered with the United States Copyright Office; and (z) record such intellectual property security agreement with the United States Copyright Office contemporaneously with filing the copyright or mask work application(s) with the United States Copyright Office. Upon Bank's request, Borrower shall promptly provide to Bank copies of all applications that it files for patents or for the registration of trademarks, servicemarks, copyrights or mask works, together with evidence of the recording of the intellectual property security agreement necessary for Bank to perfect and maintain a first priority perfected security interest in such property. Provide written notice to Bank within thirty (30) days of entering or becoming bound by any Restricted License (other than over-the-counter software that is commercially available to the public). Borrower shall take such steps as Bank requests to obtain the consent of, or waiver by, any person whose consent or waiver is necessary for (i) any Restricted License to be deemed "Collateral" and for Bank to have a security interest in it that might otherwise be restricted or prohibited by law or by the terms of any such Restricted License, whether now existing or entered into in the future, and (ii) Bank to have the ability in the event of a liquidation of any Collateral to dispose of such Collateral in accordance with Bank's rights and remedies under this Agreement and the other Loan Documents, including, without limitation the "Loan Documents" as such term is defined in the Export-Import Agreement.

(b) Borrower and Bank hereby: (i) acknowledge, confirm, and reaffirm that the Consent and Agreement remains in full force and effect and (ii) acknowledge and agree that (A) this Agreement and the Export-Import Agreement, together, shall be deemed to be the "Loan Agreement" under the terms of the Consent and Agreement, (B) the Guarantor Security Agreement shall be deemed to be the "Security Agreement" under the terms of the Consent and Agreement, (C) the IP Agreement shall be deemed to be the "IP Security Agreement" under the terms of the Consent and Agreement and (D) the Loan Documents shall be deemed to be the "Loan Documents" under the terms of the Consent and Agreement.

6.11 Litigation Cooperation. From the date hereof and continuing through the termination of this Agreement, make available to Bank, without expense to Bank, Borrower and its officers, employees and agents and Borrower's books and records, to the extent that Bank may deem them reasonably necessary to prosecute or defend any third-party suit or proceeding instituted by or against Bank with respect to any Collateral or relating to Borrower.

6.12 Further Assurances. Execute any further instruments and take further action as Bank reasonably requests to perfect or continue Bank's Lien in the Collateral or to effect the purposes of this Agreement. Deliver to Bank, within five (5) days after the same are sent or received, copies of all correspondence, reports, documents and other filings with any Governmental Authority regarding compliance with or maintenance of Governmental Approvals or Requirements of Law or that could reasonably be expected to have a material effect on any of the Governmental Approvals or otherwise on the operations of Borrower or any of its Subsidiaries.

6.13 Designated Senior Indebtedness. Borrower shall designate all principal of, interest (including all interest accruing after the commencement of any bankruptcy or similar proceeding, whether or not a claim for post-petition interest is allowable as a claim in any such proceeding), and all fees, costs, expenses and other amounts

accrued or due under this Agreement as "Designated Senior Indebtedness", or such similar term, in any future Subordinated Debt incurred by Borrower after the date hereof.

6.14 Creation/Acquisition of Subsidiaries. Notwithstanding and without limiting the negative covenant contained in Section 7.3 hereof, in the event Borrower or any Subsidiary creates or acquires any Subsidiary, Borrower and such Subsidiary shall promptly notify Bank of the creation or acquisition of such new Subsidiary and, at Bank's request, in its sole discretion, take all such action as may be reasonably required by Bank to cause each such Subsidiary (other than the Special Subsidiary) to, in Bank's sole discretion, become a co-Borrower or Guarantor under the Loan Documents and grant a continuing pledge and security interest in and to the assets of such Subsidiary (substantially as described on Exhibit A hereto); and Borrower shall grant and pledge to Bank a perfected security interest in the stock, units or other evidence of ownership of each Subsidiary (other than the Special Subsidiary).

7 NEGATIVE COVENANTS

Borrower shall not do any of the following without Bank's prior written consent:

7.1 Dispositions. Convey, sell, lease, transfer or otherwise dispose of (collectively, "**Transfer**"), or permit any of its Subsidiaries to Transfer, all or any part of its business or property, except for Transfers (a) of Inventory in the ordinary course of business; (b) of worn-out or obsolete Equipment; (c) in connection with Permitted Liens and Permitted Investments; (d) of non-exclusive licenses for the use of the property of Borrower or its Subsidiaries in the ordinary course of business and (e) of the Headquarters Location to the Special Subsidiary for purposes of effectuating the Real Estate Financing.

7.2 Changes in Business, Management, Ownership, Control, or Business Locations. (a) Engage in or permit any of its Subsidiaries to engage in any business other than the businesses currently engaged in by Borrower and such Subsidiary, as applicable, or reasonably related thereto; (b) liquidate or dissolve, other than the dissolution of the Subsidiaries identified on Schedule 7.2 attached hereto; or (c) have a material change in executive management (provided that Borrower shall have ninety (90) days to retain a replacement reasonably acceptable to Bank) or permit or suffer any Change in Control. Borrower shall not, without at least thirty (30) days prior written notice to Bank: (1) add any new offices or business locations, including warehouses (unless such new offices or business locations contain less than One Million Dollars (\$1,000,000.00) in Borrower's assets or property or Borrower obtains a landlord agreement or bailee agreement in form and substance reasonably satisfactory to Bank), (2) change its jurisdiction of organization, (3) change its organizational structure or type, (4) change its legal name, or (5) change any organizational number (if any) assigned by its jurisdiction of organization.

7.3 Mergers or Acquisitions. Merge or consolidate, or permit any of its Subsidiaries to merge or consolidate, with any other Person, or acquire, or permit any of its Subsidiaries to acquire, all or substantially all of the capital stock or property of another Person. A Subsidiary (other than a Domestic Subsidiary) may merge or consolidate into another Subsidiary or into Borrower and a Domestic Subsidiary may merge into another Domestic Subsidiary or into Borrower.

7.4 Indebtedness. Create, incur, assume, or be liable for any Indebtedness, or permit any Subsidiary to do so, other than Permitted Indebtedness.

7.5 Encumbrance. Create, incur, allow, or suffer any Lien on any of its property, or assign or convey any right to receive income, including the sale of any Accounts, or permit any of its Subsidiaries to do so, except for Permitted Liens, permit any Collateral not to be subject to the first priority security interest granted herein, or enter into any agreement, document, instrument or other arrangement (except with or in favor of Bank) with any Person which directly or indirectly prohibits or has the effect of prohibiting Borrower or any Subsidiary from assigning, mortgaging, pledging, granting a security interest in or upon, or encumbering any of Borrower's or any Subsidiary's intellectual property, except as is otherwise permitted in Section 7.1 hereof and the definition of "Permitted Lien" herein.

7.6 Maintenance of Collateral Accounts. Maintain any Collateral Account except pursuant to the terms of Section 6.8.(b) hereof.

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7.7 Distributions; Investments. (a) Pay any dividends or make any distribution or payment or redeem, retire or purchase any capital stock provided that (i) Borrower may convert any of its convertible securities into other securities pursuant to the terms of such convertible securities or otherwise in exchange thereof, and (ii) Borrower may pay dividends solely in common stock; or (b) directly or indirectly make any Investment other than Permitted Investments, or permit any of its Subsidiaries to do so.

7.8 Transactions with Affiliates. Directly or indirectly enter into or permit to exist any material transaction with any Affiliate of Borrower, except for (i) the sale or other transfer of the Headquarters Location by Borrower to the Special Subsidiary in order to effectuate the Real Estate Financing, (ii) the lease of the Headquarters Location by Borrower from the Special Subsidiary entered into upon such sale, provided that the lease payments payable by Borrower pursuant to such lease shall not exceed the amount necessary to service the Indebtedness incurred by Special Subsidiary in the Real Estate Financing and to pay the ordinary operating costs of the Special Subsidiary and (ii) transactions that are in the ordinary course of Borrower's business, upon fair and reasonable terms that are no less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated Person.

7.9 Subordinated Debt. Make or permit any payment on any Subordinated Debt, except under the terms of the subordination, intercreditor, or other similar agreement to which such Subordinated Debt is subject, or amend any provision in any document relating to the Subordinated Debt which would increase the amount thereof or adversely affect the subordination thereof to Obligations owed to Bank.

7.10 Compliance. Become an "investment company" or a company controlled by an "investment company", under the Investment Company Act of 1940, as amended, or undertake as one of its important activities extending credit to purchase or carry margin stock (as defined in Regulation U of the Board of Governors of the Federal Reserve System), or use the proceeds of any Credit Extension for that purpose; fail to meet the minimum funding requirements of ERISA, permit a Reportable Event or Prohibited Transaction, as defined in ERISA, to occur; fail to comply with the Federal Fair Labor Standards Act or violate any other law or regulation, if the violation could reasonably be expected to have a material adverse effect on Borrower's business, or permit any of its Subsidiaries to do so; withdraw or permit any Subsidiary to withdraw from participation in, permit partial or complete termination of, or permit the occurrence of any other event with respect to, any present pension, profit sharing and deferred compensation plan which could reasonably be expected to result in any liability of Borrower, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency.

8 EVENTS OF DEFAULT

Any one of the following shall constitute an event of default (an "Event of Default") under this Agreement:

8.1 Payment Default. Borrower fails to (a) make any payment of principal or interest on any Credit Extension on its due date, or (b) pay any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) day grace period shall not apply to payments due on the Revolving Line Maturity Date). During the cure period, the failure to cure the payment default is not an Event of Default (but no Credit Extension will be made during the cure period);

8.2 Covenant Default.

(a) Borrower fails or neglects to perform any obligation in Sections 6.2, 6.4, 6.7, 6.8, 6.9, 6.12 or violates any covenant in Section 7; or

(b) Borrower fails or neglects to perform, keep, or observe any other term, provision, condition, covenant or agreement contained in this Agreement or any Loan Documents, and as to any default (other than those specified in this Section 8) under such other term, provision, condition, covenant or agreement that can be cured, has failed to cure the default within ten (10) days after the occurrence thereof; provided, however, that if the default cannot by its nature be cured within the ten (10) day period or cannot after diligent attempts by Borrower be cured within such ten (10) day period, and such default is likely to be cured within a reasonable time, then Borrower shall have an additional period (which shall not in any case exceed thirty (30) days) to attempt to cure such default, and

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within such reasonable time period the failure to cure the default shall not be deemed an Event of Default (but no Credit Extensions shall be made during such cure period). Grace periods provided under this section shall not apply, among other things, to financial covenants or any other covenants set forth in subsection (a) above;

8.3 Material Adverse Change. A Material Adverse Change occurs;

8.4 Attachment; Levy; Restraint on Business. (a) (i) The service of process seeking to attach, by trustee or similar process, any funds of Borrower or of any entity under the control of Borrower (including a Subsidiary) on deposit with Bank or any Bank Affiliate, or (ii) a notice of lien, levy, or assessment is filed against any of Borrower's assets by any government agency, and the same under subclauses (i) and (ii) hereof are not, within ten (10) days after the occurrence thereof, discharged or stayed (whether through the posting of a bond or otherwise); provided, however, no Credit Extensions shall be made during any ten (10) day cure period; and (b) (i) any material portion of Borrower's assets is attached, seized, levied on, or comes into possession of a trustee or receiver, or (ii) any court order enjoins, restrains, or prevents Borrower from conducting any material part of its business;

8.5 Insolvency. (a) Borrower is unable to pay its debts (including trade debts) as they become due or otherwise becomes insolvent; (b) Borrower begins an Insolvency Proceeding; or (c) an Insolvency Proceeding is begun against Borrower and not dismissed or stayed within forty-five (45) days (but no Credit Extensions shall be made while of any of the conditions described in clause (a) exist and/or until any Insolvency Proceeding is dismissed);

8.6 Other Agreements. There is a default in any agreement to which Borrower or any Guarantor is a party with a third party or parties resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any Indebtedness in an amount in excess of Five Hundred Thousand Dollars (\$500,000.00) or that could have a material adverse effect on Borrower's or any Guarantor's business.

8.7 Judgments. One or more judgments, orders, or decrees for the payment of money in an amount, individually or in the aggregate, of at least Five Hundred Thousand Dollars (\$500,000.00) (not covered by independent third-party insurance as to which liability has been accepted by such insurance carrier) shall be rendered against Borrower and shall remain unsatisfied, unvacated, or unstayed for a period of ten (10) days after the entry thereof (provided that no Credit Extensions will be made prior to the satisfaction, vacation, or stay of such judgment, order, or decree);

8.8 Misrepresentations. Borrower or any Person acting for Borrower makes any representation, warranty, or other statement now or later in this Agreement, any Loan Document or in any writing delivered to Bank or to induce Bank to enter this Agreement or any Loan Document, and such representation, warranty, or other statement is incorrect in any material respect when made;

8.9 Subordinated Debt. A default or breach occurs under any agreement between Borrower and any creditor of Borrower that signed a subordination, intercreditor, or other similar agreement with Bank, or any creditor that has signed such an agreement with Bank breaches any terms of such agreement;

8.10 Guaranty; Guarantor Defaults. (a) Any Guaranty of any Obligations terminates or ceases for any reason to be in full force and effect; (b) any Guarantor does not perform any obligation or covenant under any Guaranty of the Obligations; (c) any circumstance described in Sections 8.3, 8.4, 8.5, 8.7, or 8.8. occurs with respect to any Guarantor; (d) the liquidation, winding up, or termination of existence of any Guarantor; (e) the occurrence of any "Event of Default" under (and as defined in) any Guarantor Security Agreement; or (f) the occurrence of any "Event of Default" under (and as defined in) any Pledge Agreement executed and delivered by any Guarantor;

8.11 EXIM Guarantee. If the EXIM Guarantee ceases for any reason to be in full force and effect, or if the EXIM Bank declares the EXIM Guarantee void or revokes any obligations under the EXIM Guarantee;

8.12 EXIM Default. After the effective date of the Export-Import Agreement, the occurrence of an Event of Default under the Export-Import Agreement or the EXIM Loan Documents.

8.11 Governmental Approvals. Any Governmental Approval shall have been (a) revoked, rescinded, suspended, modified in an adverse manner or not renewed in the ordinary course for a full term or (b) subject to any decision by a Governmental Authority that designates a hearing with respect to any applications for renewal of any of such Governmental Approval or that could result in the Governmental Authority taking any of the actions described in clause (a) above, and such decision or such revocation, rescission, suspension, modification or non-renewal (i) has, or could reasonably be expected to have, a Material Adverse Change, or (ii) adversely affects the legal qualifications of Borrower or any of its Subsidiaries to hold such Governmental Approval in any applicable jurisdiction and such revocation, rescission, suspension, modification or non-renewal could reasonably be expected to affect the status of or legal qualifications of Borrower or any of its Subsidiaries to hold any Governmental Approval in any other jurisdiction.

9 BANK'S RIGHTS AND REMEDIES

9.1 Rights and Remedies. While an Event of Default occurs and continues Bank may, without notice or demand, do any or all of the following:

(a) declare all Obligations immediately due and payable (but if an Event of Default described in Section 8.5 occurs all Obligations are immediately due and payable without any action by Bank);

(b) stop advancing money or extending credit for Borrower's benefit under this Agreement or under any other agreement between Borrower and Bank;

(c) demand that Borrower (i) deposits cash with Bank in an amount equal to the aggregate amount of any Letters of Credit remaining undrawn, as collateral security for the repayment of any future drawings under such Letters of Credit, and Borrower shall forthwith deposit and pay such amounts, and (ii) pay in advance all Letter of Credit fees scheduled to be paid or payable over the remaining term of any Letters of Credit; provided, however, if an Event of Default described in Section 8.5 occurs, the obligation of Borrower to cash collateralize all Letters of Credit remaining undrawn shall automatically become effective without any action by Bank;

(d) terminate any FX Forward Contracts;

(e) settle or adjust disputes and claims directly with Account Debtors for amounts on terms and in any order that Bank considers advisable, notify any Person owing Borrower money of Bank's security interest in such funds, and verify the amount of such account;

(f) make any payments and do any acts it considers necessary or reasonable to protect the Collateral and/or its security interest in the Collateral. Borrower shall assemble the Collateral if Bank requests and make it available as Bank designates. Bank may enter premises where the Collateral is located, take and maintain possession of any part of the Collateral, and pay, purchase, contest, or compromise any Lien which appears to be prior or superior to its security interest and pay all expenses incurred. Borrower grants Bank a license to enter and occupy any of its premises, without charge, to exercise any of Bank's rights or remedies;

(g) apply to the Obligations any (i) balances and deposits of Borrower it holds, or (ii) any amount held by Bank owing to or for the credit or the account of Borrower;

(h) ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell the Collateral. Bank is hereby granted a non-exclusive, royalty-free license or other right to use, without charge, Borrower's labels, patents, copyrights, mask works, rights of use of any name, trade secrets, trade names, trademarks, service marks, and advertising matter, or any similar property as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Bank's exercise of its rights under this Section, Borrower's rights under all licenses and all franchise agreements inure to Bank's benefit;

(i) place a "hold" on any account maintained with Bank and/or deliver a notice of exclusive control, any entitlement order, or other directions or instructions pursuant to any Control Agreement or similar agreements providing control of any Collateral;

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(j) demand and receive possession of Borrower's Books; and

(k) exercise all rights and remedies available to Bank under the Loan Documents or at law or equity, including all remedies provided under the Code (including disposal of the Collateral pursuant to the terms thereof).

9.2 Power of Attorney. Borrower hereby irrevocably appoints Bank as its lawful attorney-in-fact, exercisable upon the occurrence and during the continuance of an Event of Default, to: (a) endorse Borrower's name on any checks or other forms of payment or security; (b) sign Borrower's name on any invoice or bill of lading for any Account or drafts against Account Debtors; (c) settle and adjust disputes and claims about the Accounts directly with Account Debtors, for amounts and on terms Bank determines reasonable; (d) make, settle, and adjust all claims under Borrower's insurance policies; (e) pay, contest or settle any Lien, charge, encumbrance, security interest, and adverse claim in or to the Collateral, or any judgment based thereon, or otherwise take any action to terminate or discharge the same; and (f) transfer the Collateral into the name of Bank or a third party as the Code permits. Borrower hereby appoints Bank as its lawful attorney-in-fact to sign Borrower's name on any documents necessary to perfect or continue the perfection of Bank's security interest in the Collateral regardless of whether an Event of Default has occurred until all Obligations have been satisfied in full (except for contingent indemnification obligations for which no claim has been made) and Bank is under no further obligation to make Credit Extensions hereunder. Bank's foregoing appointment as Borrower's attorney in fact, and all of Bank's rights and powers, coupled with an interest, are irrevocable until all Obligations have been fully repaid and performed and Bank's obligation to provide Credit Extensions terminates.

9.3 Protective Payments. If Borrower fails to obtain the insurance called for by Section 6.7 or fails to pay any premium thereon or fails to pay any other amount which Borrower is obligated to pay under this Agreement or any other Loan Document, Bank may obtain such insurance or make such payment, and all amounts so paid by Bank are Bank Expenses and immediately due and payable, bearing interest at the then highest applicable rate, and secured by the Collateral. Bank will make reasonable efforts to provide Borrower with notice of Bank obtaining such insurance at the time it is obtained or within a reasonable time thereafter. No payments by Bank are deemed an agreement to make similar payments in the future or Bank's waiver of any Event of Default.

9.4 Application of Payments and Proceeds. Borrower shall have no right to specify the order or the accounts to which Bank shall allocate or apply any payments required to be made by Borrower to Bank or otherwise received by Bank under this Agreement when any such allocation or application is not specified elsewhere in this Agreement. If an Event of Default has occurred and is continuing, Bank may apply any funds in its possession, whether from Borrower account balances, payments, proceeds realized as the result of any collection of Accounts or other disposition of the Collateral, or otherwise, to the Obligations in such order as Bank shall determine in its sole discretion. Any surplus shall be paid to Borrower by credit to the Designated Deposit Account or to other Persons legally entitled thereto; Borrower shall remain liable to Bank for any deficiency. If Bank, in its good faith business judgment, directly or indirectly enters into a deferred payment or other credit transaction with any purchaser at any sale of Collateral, Bank shall have the option, exercisable at any time, of either reducing the Obligations by the principal amount of the purchase price or deferring the reduction of the Obligations until the actual receipt by Bank of cash therefor.

9.5 Bank's Liability for Collateral. So long as Bank complies with reasonable banking practices regarding the safekeeping of the Collateral in the possession or under the control of Bank, Bank shall not be liable or responsible for: (a) the safekeeping of the Collateral; (b) any loss or damage to the Collateral; (c) any diminution in the value of the Collateral; or (d) any act or default of any carrier, warehouseman, bailee, or other Person. Borrower bears all risk of loss, damage or destruction of the Collateral.

9.6 No Waiver; Remedies Cumulative. Bank's failure, at any time or times, to require strict performance by Borrower of any provision of this Agreement or any other Loan Document shall not waive, affect, or diminish any right of Bank thereafter to demand strict performance and compliance herewith or therewith. No waiver hereunder shall be effective unless signed by Bank and then is only effective for the specific instance and purpose for which it is given. Bank's rights and remedies under this Agreement and the other Loan Documents are cumulative. Bank has all rights and remedies provided under the Code, by law, or in equity. Bank's exercise of one right or remedy is not an election, and Bank's waiver of any Event of Default is not a continuing waiver. Bank's delay in exercising any remedy is not a waiver, election, or acquiescence.

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9.7 Demand Waiver. Borrower waives demand, notice of default or dishonor, notice of payment and nonpayment, notice of any default, nonpayment at maturity, release, compromise, settlement, extension, or renewal of accounts, documents, instruments, chattel paper, and guarantees held by Bank on which Borrower is liable.

9.8 Borrower Liability. Either Borrower may, acting singly, request Credit Extensions hereunder. Each Borrower hereby appoints the other as agent for the other for all purposes hereunder, including with respect to requesting Credit Extensions hereunder. Each Borrower hereunder shall be jointly and severally obligated to repay all Credit Extensions made hereunder, regardless of which Borrower actually receives said Credit Extension, as if each Borrower hereunder directly received all Credit Extensions. Each Borrower waives (a) any suretyship defenses available to it under the Code or any other applicable law, and (b) any right to require Bank to: (i) proceed against any Borrower or any other person; (ii) proceed against or exhaust any security; or (iii) pursue any other remedy. Bank may exercise or not exercise any right or remedy it has against any Borrower or any security it holds (including the right to foreclose by judicial or non-judicial sale) without affecting any Borrower's liability. Notwithstanding any other provision of this Agreement or other related document, each Borrower irrevocably waives all rights that it may have at law or in equity (including, without limitation, any law subrogating Borrower to the rights of Bank under this Agreement) to seek contribution, indemnification or any other form of reimbursement from any other Borrower, or any other Person now or hereafter primarily or secondarily liable for any of the Obligations, for any payment made by Borrower with respect to the Obligations in connection with this Agreement or otherwise and all rights that it might have to benefit from, or to participate in, any security for the Obligations as a result of any payment made by Borrower with respect to the Obligations in connection with this Agreement or otherwise. Any agreement providing for indemnification, reimbursement or any other arrangement prohibited under this Section shall be null and void. If any payment is made to a Borrower in contravention of this Section, such Borrower shall hold such payment in trust for Bank and such payment shall be promptly delivered to Bank for application to the Obligations, whether matured or unmatured.

10 NOTICES

All notices, consents, requests, approvals, demands, or other communication (collectively, "Communication") by any party to this Agreement or any other Loan Document must be in writing and be delivered or sent by facsimile at the addresses or facsimile numbers listed below. Bank or Borrower may change its notice address by giving the other party written notice thereof. Each such Communication shall be deemed to have been validly served, given, or delivered: (a) upon the earlier of actual receipt and three (3) Business Days after deposit in the U.S. mail, registered or certified mail, return receipt requested, with proper postage prepaid; (b) upon transmission, when sent by facsimile transmission (with such facsimile promptly confirmed by delivery of a copy by personal delivery or United States mail as otherwise provided in this Section 10); (c) one (1) Business Day after deposit with a reputable overnight courier with all charges prepaid; or (d) when delivered, if hand-delivered by messenger, all of which shall be addressed to the party to be notified and sent to the address or facsimile number indicated below. Advance requests made pursuant to Section 3.4 must be in writing and may be in the form of electronic mail, delivered to Bank by Borrower at the e-mail address of Bank provided below and shall be deemed to have been validly served, given, or delivered when sent (with such electronic mail promptly confirmed by delivery of a copy by personal delivery or United States mail as otherwise provided in this Section 10). Bank or Borrower may change its address, facsimile number, or electronic mail address by giving the other party written notice thereof in accordance with the terms of this Section 10.

If to Borrower: Axcelis Technologies, Inc.
108 Cherry Hill Drive
Beverly, Massachusetts 01915
Attn: Stephen G. Bassett, Chief Financial Officer and Executive Vice President
Fax: 978-787-4090
Email: Stephen.bassett@axcelis.com

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If to Borrower: Axcelis Technologies, Inc.
108 Cherry Hill Drive
Beverly, Massachusetts 01915
Attn: Lynnette C. Fallon, Executive Vice President HR/Legal, General Counsel and Secretary
Fax: 978-787-4090
Email: lynnette.fallon@axcelis.com

With a copy to: Edward Angell Palmer and Dodge LLP
111 Huntington Avenue
Boston, Massachusetts 02199
Attn: James I. Rubens, Esquire
Fax: 888-325-9130
Email: jrubens@eapdlaw.com

If to Bank: Silicon Valley Bank
One Newton Executive Park, Suite 200
2221 Washington Street
Newton, Massachusetts 02462
Attn: Mark Sperling
Fax: 617.969.5478
Email: msperling@svbank.com

with a copy to: Riemer & Braunstein LLP
Three Center Plaza
Boston, Massachusetts 02108
Attn: Charles W. Stavros, Esquire
Fax: 617.880.3456
Email: CStavros@riemerlaw.com

11 CHOICE OF LAW, VENUE, JURY TRIAL WAIVER AND JUDICIAL REFERENCE

Massachusetts law governs the Loan Documents without regard to principles of conflicts of law. Borrower and Bank each submit to the exclusive jurisdiction of the State and Federal courts in Massachusetts; provided, however, that nothing in this Agreement shall be deemed to operate to preclude Bank from bringing suit or taking other legal action in any other jurisdiction to realize on the Collateral or any other security for the Obligations, or to enforce a

judgment or other court order in favor of Bank. Borrower expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and Borrower hereby waives any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. Borrower hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made by registered or certified mail addressed to Borrower at the address set forth in Section 10 of this Agreement and that service so made shall be deemed completed upon the earlier to occur of Borrower's actual receipt thereof or three (3) days after deposit in the U.S. mails, proper postage prepaid. NOTWITHSTANDING ANYTHING TO THE CONTRARY SET FORTH HEREINABOVE, BANK SHALL SPECIFICALLY HAVE THE RIGHT TO BRING ANY ACTION OR PROCEEDING AGAINST BORROWER OR ITS PROPERTY IN THE COURTS OF ANY OTHER JURISDICTION WHICH BANK DEEMS NECESSARY OR APPROPRIATE IN ORDER TO REALIZE ON THE COLLATERAL OR TO OTHERWISE ENFORCE BANK'S RIGHTS AGAINST BORROWER OR ITS PROPERTY.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, BORROWER AND BANK EACH WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS AGREEMENT, THE LOAN DOCUMENTS OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR BOTH PARTIES TO ENTER INTO THIS AGREEMENT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL.

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12 GENERAL PROVISIONS

12.1 Termination Prior to Revolving Line Maturity Date. This Agreement may be terminated prior to the Revolving Line Maturity Date by Borrower, effective three (3) Business Days after written notice of termination is given to Bank. Notwithstanding any such termination, Bank's lien and security interest in the Collateral shall continue until Borrower fully satisfies its Obligations in cash (except for contingent indemnification obligations for which no claim has been made). If such termination is at Borrower's election (regardless of whether any Default or Event of Default then exists) or at Bank's election due to the occurrence and continuance of an Event of Default (except for, and excluding, an Event of Default caused by an Event of Default under the Export-Import Agreement), Borrower shall pay to Bank, in addition to the payment of any other expenses or fees then-owing, a termination fee in an amount equal to Two Hundred Thousand Dollars (\$200,000.00) (i.e., one percent (1.00%) of the Revolving Line).

12.2 Right of Set-Off. Borrower hereby grants to Bank a Lien and a right of setoff as security for all Obligations to Bank, whether now existing or hereafter arising upon and against all deposits, credits, collateral and property, now or hereafter in the possession, custody, safekeeping or control of Bank or any entity under the control of Bank (including a subsidiary of Bank) or in transit to any of them. At any time after the occurrence and during the continuance of an Event of Default, without demand or notice, Bank may setoff the same or any part thereof and apply the same to any liability or Obligation of Borrower even though unmaturing and regardless of the adequacy of any other collateral securing the Obligations. ANY AND ALL RIGHTS TO REQUIRE BANK TO EXERCISE ITS RIGHTS OR REMEDIES WITH RESPECT TO ANY OTHER COLLATERAL WHICH SECURES THE OBLIGATIONS, PRIOR TO EXERCISING ITS RIGHT OF SETOFF WITH RESPECT TO SUCH DEPOSITS, CREDITS OR OTHER PROPERTY OF BORROWER, ARE HEREBY KNOWINGLY, VOLUNTARILY AND IRREVOCABLY WAIVED.

12.3 Successors and Assigns. This Agreement binds and is for the benefit of the successors and permitted assigns of each party. Borrower may not assign this Agreement or any rights or obligations under it without Bank's prior written consent (which may be granted or withheld in Bank's discretion). Bank has the right, without the consent of or notice to Borrower, to sell, transfer, negotiate, or grant participation in all or any part of, or any interest in, Bank's obligations, rights, and benefits under this Agreement and the other Loan Documents; provided, however, that prior to the occurrence of an Event of Default, any such assignment or participation may only be made to an Eligible Assignee.

12.4 Indemnification. Borrower agrees to indemnify, defend and hold Bank and its directors, officers, employees, agents, attorneys, or any other Person affiliated with or representing Bank (each, an "**Indemnified Person**") harmless against: (a) all obligations, demands, claims, and liabilities (collectively, "**Claims**") claimed or asserted by any other party in connection with the transactions contemplated by the Loan Documents; and (b) all losses or expenses (including Bank Expenses) in any way suffered, incurred, or paid by such Indemnified Person as a result of, following from, consequential to, or arising from transactions between Bank and Borrower (including reasonable attorneys' fees and expenses), except for Claims and/or losses directly caused by such Indemnified Person's gross negligence or willful misconduct.

12.5 Time of Essence. Time is of the essence for the performance of all Obligations in this Agreement.

12.6 Severability of Provisions. Each provision of this Agreement is severable from every other provision in determining the enforceability of any provision.

12.7 Correction of Loan Documents. Bank may correct patent errors and fill in any blanks in this Agreement and the other Loan Documents consistent with the agreement of the parties.

12.8 Amendments in Writing; Waiver; Integration. No purported amendment or modification of any Loan Document, or waiver, discharge or termination of any obligation under any Loan Document, shall be enforceable or admissible unless, and only to the extent, expressly set forth in a writing signed by the party against which enforcement or admission is sought. Without limiting the generality of the foregoing, no oral promise or statement, nor any action, inaction, delay, failure to require performance or course of conduct shall operate as, or evidence, an amendment, supplement or waiver or have any other effect on any Loan Document. Any waiver

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granted shall be limited to the specific circumstance expressly described in it, and shall not apply to any subsequent or other circumstance, whether similar or dissimilar, or give rise to, or evidence, any obligation or commitment to grant any further waiver. The Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of the Loan Documents merge into the Loan Documents.

12.9 Counterparts. This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, are an original, and all taken together, constitute one Agreement.

12.10 Survival. All covenants, representations and warranties made in this Agreement continue in full force until this Agreement has terminated pursuant to its terms and all Obligations (other than inchoate indemnity obligations and any other obligations which, by their terms, are to survive the termination of this Agreement) have been satisfied. The obligation of Borrower in Section 12.2 to indemnify Bank shall survive until the statute of limitations with respect to such claim or cause of action shall have run.

12.11 Confidentiality. In handling any confidential information, Bank shall exercise the same degree of care that it exercises for its own proprietary information, but disclosure of information may be made: (a) to Bank's Subsidiaries or Affiliates; (b) to prospective transferees or purchasers of any interest in the Credit Extensions (provided, however, Bank shall use commercially reasonable efforts to obtain such prospective transferee's or purchaser's agreement to the terms of this provision); (c) as required by law, regulation, subpoena, or other order; (d) to Bank's regulators or as otherwise required in connection with Bank's examination or audit; (e) as Bank considers appropriate in exercising remedies under the Loan Documents; and (f) to third-party service providers of Bank so long as such service providers have executed a confidentiality agreement with Bank with terms no less restrictive than those contained herein. Confidential information does not include information that either: (i) is in the public domain or in Bank's possession when disclosed to Bank, or becomes part of the public domain after disclosure to Bank; or (ii) is disclosed to Bank by a third party, if Bank does not know that the third party is prohibited from disclosing the information.

Bank may use confidential information for any purpose, including, without limitation, for the development of client databases, reporting purposes, and market analysis, so long as Bank does not disclose Borrower's identity or the identity of any person associated with Borrower unless otherwise expressly permitted by this Agreement. The provisions of the immediately preceding sentence shall survive the termination of this Agreement.

12.12 Electronic Execution of Documents. The words "execution," "signed," "signature" and words of like import in any Loan Document shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity and enforceability as a manually executed signature or the use of a paper-based recordkeeping systems, as the case may be, to the extent and as provided for in any applicable law, including, without limitation, any state law based on the Uniform Electronic Transactions Act.

12.13 Captions. The headings used in this Agreement are for convenience only and shall not affect the interpretation of this Agreement.

12.14 Construction of Agreement. The parties mutually acknowledge that they and their attorneys have participated in the preparation and negotiation of this Agreement. In cases of uncertainty this Agreement shall be construed without regard to which of the parties caused the uncertainty to exist.

12.15 Relationship. The relationship of the parties to this Agreement is determined solely by the provisions of this Agreement. The parties do not intend to create any agency, partnership, joint venture, trust, fiduciary or other relationship with duties or incidents different from those of parties to an arm's-length contract.

12.16 Third Parties. Nothing in this Agreement, whether express or implied, is intended to: (a) confer any benefits, rights or remedies under or by reason of this Agreement on any persons other than the express parties to it and their respective permitted successors and assigns; (b) relieve or discharge the obligation or liability of any person not an express party to this Agreement; or (c) give any person not an express party to this Agreement any right of subrogation or action against any party to this Agreement.

12.17 Borrower Agreement; Cross-Collateralization; Cross-Default; Conflicts. Both this Agreement and the EXIM Borrower Agreement shall continue in full force and effect, and all rights and remedies under this Agreement and the EXIM Borrower Agreement are cumulative. The term "Obligations" as used in this Agreement and in the EXIM Borrower Agreement shall include without limitation the obligation to pay when due all loans made pursuant to the EXIM Borrower Agreement and the Export-Import Agreement (the "Exim Loans") and all interest thereon and the obligation to pay when due all Advances made pursuant to the terms of this Agreement and all interest thereon. Without limiting the generality of the foregoing, the security interest granted herein covering all "Collateral" as defined in this Agreement and as defined in the Borrower Agreement shall secure all Exim Loans and all Advances and all interest thereon, and all other Obligations. Any Event of Default under this Agreement shall also constitute a default under the EXIM Borrower Agreement, and any default under the EXIM Borrower Agreement shall also constitute an Event of Default under this Agreement. In the event Bank assigns its rights under this Agreement and/or under any note evidencing Exim Loans and/or its rights under the EXIM Borrower Agreement and/or under any note evidencing Advances, to any third party, including, without limitation, the Exim Bank, whether before or after the occurrence of any Event of Default, Bank shall have the right (but not any obligation), in its sole discretion, to allocate and apportion Collateral to the EXIM Borrower Agreement and/or note assigned and to specify the priorities of the respective security interests in such Collateral between itself and the assignee, all without notice to or consent of the Borrowers. Should any term of the Agreement conflict with any term of the EXIM Borrower Agreement, the more restrictive term in either agreement shall govern Borrower.

13 DEFINITIONS

13.1 Definitions. As used in the Loan Documents, the word "shall" is mandatory, the word "may" is permissive, the word "or" is not exclusive, the words "includes" and "including" are not limiting, the singular includes the plural, and numbers denoting amounts that are set off in brackets are negative. As used in this Agreement, the following terms have the following meanings:

"**ABN Amro Pledged Account**" is defined in Section 6.8.

"**Account**" is any "account" as defined in the Code with such additions to such term as may hereafter be made, and includes, without limitation, all accounts receivable and other sums owing to Borrower.

"**Account Debtor**" is any "account debtor" as defined in the Code with such additions to such term as may hereafter be made.

"**Advance**" or "**Advances**" means an advance (or advances) under the Revolving Line.

“**Affiliate**” of any Person is a Person that owns or controls directly or indirectly the Person, any Person that controls or is controlled by or is under common control with the Person, and each of that Person’s senior executive officers, directors, partners and, for any Person that is a limited liability company, that Person’s managers and members.

“**Agreement**” is defined in the preamble hereof.

“**Availability Amount**” is (a) the lesser of (i) the Revolving Line minus any amounts outstanding under the Export-Import Agreement or (ii) the amount available under the Borrowing Base minus (b) the amount of all outstanding Letters of Credit (including drawn but unreimbursed Letters of Credit) plus an amount equal to the Letter of Credit Reserve, minus (c) the FX Reserve, minus (d) any amounts used for Cash Management Services, and minus (e) the outstanding principal balance of any Advances. The aggregate amount of all Advances (including, without limitation, the Dollar equivalent amount of all outstanding Letters of Credit (including drawn but unreimbursed Letters of Credit plus an amount equal to the Letter of Credit Reserve), any outstanding FX Reserve and any amounts used for Cash Management Services) under this Agreement outstanding at any time together with all Credit Extensions made pursuant to the Export-Import Agreement outstanding at any time shall not exceed Twenty Million Dollars (\$20,000,000).

“**Bank**” is defined in the preamble hereof.

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“**Bank Expenses**” are all audit fees and expenses, costs, and expenses (including reasonable attorneys’ fees and expenses) for preparing, amending, negotiating, administering, defending and enforcing the Loan Documents (including, without limitation, those incurred in connection with appeals or Insolvency Proceedings) or otherwise incurred with respect to Borrower.

“**Borrower**” is defined in the preamble hereof

“**Borrower’s Books**” are all Borrower’s books and records including ledgers, federal and state tax returns, records regarding Borrower’s assets or liabilities, the Collateral, business operations or financial condition, and all computer programs or storage or any equipment containing such information.

“**Borrowing Base**” is 80% of Eligible Accounts, as determined by Bank from Borrower’s most recent Transaction Report; provided, however, that Bank may, following any Collateral inspection or audit conducted by or on behalf of Bank, decrease the foregoing percentage in its good faith business judgment based on events, conditions, contingencies, or risks which, as reasonably determined by Bank after consultation with Borrower, may adversely affect Collateral.

“**Borrowing Resolutions**” are, with respect to any Person, those resolutions adopted by such Person’s Board of Directors (or other applicable governing body) and delivered by such Person to Bank approving the Loan Documents to which such Person is a party and the transactions contemplated thereby, together with a certificate executed by its secretary on behalf of such Person certifying that (a) such Person has the authority to execute, deliver, and perform its obligations under each of the Loan Documents to which it is a party, (b) that attached to such certificate is a true, correct, and complete copy of the resolutions then in full force and effect authorizing and ratifying the execution, delivery, and performance by such Person of the Loan Documents to which it is a party, (c) the name(s) of the Person(s) authorized to execute the Loan Documents on behalf of such Person, together with a sample of the true signature(s) of such Person(s), and (d) that Bank may conclusively rely on such certificate unless and until such Person shall have delivered to Bank a further certificate canceling or amending such prior certificate.

“**Business Day**” is any day other than a Saturday, Sunday or other day on which banking institutions in the Commonwealth of Massachusetts are authorized or required by law or other governmental action to close, except that if any determination of a “Business Day” shall relate to an FX Forward Contract, the term “Business Day” shall mean a day on which dealings are carried on in the country of settlement of the foreign (i.e., non-Dollar) currency. is any day that is not a Saturday, Sunday or a day on which Bank is closed.

“**Cash Equivalents**” means (a) marketable direct obligations issued or unconditionally guaranteed by the United States or any agency or any State thereof having maturities of not more than one (1) year from the date of acquisition; (b) commercial paper maturing no more than one (1) year after its creation and having the highest rating from either Standard & Poor’s Ratings Group or Moody’s Investors Service, Inc.; (c) Bank’s certificates of deposit issued maturing no more than one (1) year after issue.

“**Cash Management Services**” is defined in Section 2.1.4.

“**Change in Control**” means any event, transaction, or occurrence as a result of which (a) any “person” (as such term is defined in Sections 3(a) (9) and 13(d)(3) of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), other than a trustee or other fiduciary holding securities under an employee benefit plan of Borrower, is or becomes a beneficial owner (within the meaning Rule 13d-3 promulgated under the Exchange Act), directly or indirectly, of securities of Borrower, representing twenty-five percent (25%) or more of the combined voting power of Borrower’s then outstanding securities; or (b) during any period of twelve consecutive calendar months, individuals who at the beginning of such period constituted the Board of Directors of Borrower (together with any new directors whose election by the Board of Directors of Borrower was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of such period or whose election or nomination for election was previously so approved) cease for any reason other than death or disability to constitute a majority of the directors then in office.

“**Code**” is the Uniform Commercial Code, as the same may, from time to time, be enacted and in effect in the Commonwealth of Massachusetts; provided, that, to the extent that the Code is used to define any term herein or in any Loan Document and such term is defined differently in different Articles or Divisions of the Code, the

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definition of such term contained in Article or Division 9 shall govern; provided further, that in the event that, by reason of mandatory provisions of law, any or all of the attachment, perfection, or priority of, or remedies with respect to, Bank’s Lien on any Collateral is governed by the Uniform Commercial Code in effect in a jurisdiction other than the Commonwealth of Massachusetts, the term “**Code**” shall mean the Uniform Commercial Code as enacted and in effect in

such other jurisdiction solely for purposes on the provisions thereof relating to such attachment, perfection, priority, or remedies and for purposes of definitions relating to such provisions.

“**Collateral**” is any and all properties, rights and assets of Borrower described on Exhibit A.

“**Collateral Account**” is any Deposit Account, Securities Account, or Commodity Account.

“**Commodity Account**” is any “commodity account” as defined in the Code with such additions to such term as may hereafter be made.

“**Compliance Certificate**” is that certain certificate in the form attached hereto as Exhibit B.

“**Consent and Agreement**” means the Consent and Agreement dated as of March 30, 2009 by and among the Bank, SEN, Sumitomo Heavy Industries, Ltd. (solely for purposes of Section 2(b) thereunder), the Borrower and certain of Borrower’s Subsidiaries named therein.

“**Contingent Obligation**” is, for any Person, any direct or indirect liability, contingent or not, of that Person for (a) any indebtedness, lease, dividend, letter of credit or other obligation of another such Person as an obligation directly or indirectly guaranteed, endorsed, co-made, discounted or sold with recourse by that Person, or for which that Person is directly or indirectly liable; (b) any obligations for undrawn letters of credit for the account of that Person; and (c) all obligations from any interest rate, currency or commodity swap agreement, interest rate cap or collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; but “Contingent Obligation” does not include endorsements in the ordinary course of business. The amount of a Contingent Obligation is the stated or determined amount of the primary obligation for which the Contingent Obligation is made or, if not determinable, the maximum reasonably anticipated liability for it determined by the Person in good faith; but the amount may not exceed the maximum of the obligations under any guarantee or other support arrangement.

“**Control Agreement**” is any control agreement entered into among the depository institution at which Borrower maintains a Deposit Account or the securities intermediary or commodity intermediary at which Borrower maintains a Securities Account or a Commodity Account, Borrower, and Bank pursuant to which Bank obtains control (within the meaning of the Code) over such Deposit Account, Securities Account, or Commodity Account.

“**Credit Extension**” is any Advance, EXIM Loan, Letter of Credit, FX Forward Contract, amount utilized for Cash Management Services, or any other extension of credit by Bank for Borrower’s benefit.

“**Current Liabilities**” are all obligations and liabilities of Borrower and its Subsidiaries to Bank (other than obligations and liabilities which are 100% cash secured), plus, without duplication, the aggregate amount of Borrower’s and its Subsidiaries’ consolidated Total Liabilities that mature within one (1) year.

“**Default**” means any event which with notice or passage of time or both, would constitute an Event of Default.

“**Default Rate**” is defined in Section 2.3(b).

“**Deferred Revenue**” is all amounts received or invoiced by Borrower in advance of services to be performed under contracts and/or delivery of products and not yet recognized as revenue.

“**Deposit Account**” is any “deposit account” as defined in the Code with such additions to such term as may hereafter be made.

“**Designated Deposit Account**” is Borrower’s deposit account, account number 330609227, maintained with Bank.

“**Dollars,**” “**dollars**” and “**\$**” each mean lawful money of the United States.

“**Domestic Subsidiary**” means a Subsidiary organized under the laws of the United States or any state or territory thereof or the District of Columbia.

“**Effective Date**” is the date Bank executes this Agreement as indicated on the signature page hereof.

“**Eligible Accounts**” means Accounts which arise in the ordinary course of Borrower’s business that meet all Borrower’s representations and warranties in Section 5.3. Bank reserves the right at any time after the Effective Date to adjust any of the criteria set forth below and to establish new criteria in its good faith business judgment. Without limiting the fact that the determination of which Accounts are eligible for borrowing is a matter of Bank’s good faith judgment, the following (“**Minimum Eligibility Requirements**”) are the minimum requirements for an Account to be an Eligible Account and, unless Bank agrees otherwise in writing, Eligible Accounts shall not include:

- (a) Accounts that the Account Debtor has not paid within ninety (90) days of invoice date regardless of invoice payment period terms;
- (b) Accounts owing from an Account Debtor, fifty percent (50%) or more of whose Accounts have not been paid within ninety (90) days of invoice date;
- (c) Accounts billed in the United States and owing from an Account Debtor which does not have its principal place of business in the United States or Canada;
- (d) Accounts billed and payable outside of the United States;
- (e) Accounts owing from an Account Debtor to the extent that Borrower is indebted or obligated in any manner to the Account Debtor (as creditor, lessor, supplier or otherwise - sometimes called “contra” accounts, accounts payable, customer deposits or credit accounts), with the exception of customary credits, adjustments and/or discounts given to an Account Debtor by Borrower in the ordinary course of its business;

- (f) Accounts for which the Account Debtor is Borrower's Affiliate (or a company in which Borrower or its Affiliates have greater than a 20% ownership interest), officer, employee, or agent;
- (g) Accounts with credit balances over ninety (90) days from invoice date;
- (h) Accounts owing from an Account Debtor, including Affiliates, whose total obligations to Borrower exceed twenty-five (25%) of all Accounts, for the amounts that exceed that percentage, unless Bank, on a case-by-case basis and in its sole discretion, otherwise approves any such Account;
- (i) Accounts owing from an Account Debtor which is a United States government entity or any department, agency, or instrumentality thereof unless Borrower has assigned its payment rights to Bank and the assignment has been acknowledged under the Federal Assignment of Claims Act of 1940, as amended;
- (j) Accounts for demonstration or promotional equipment, or in which goods are consigned, or sold on a "sale guaranteed", "sale or return", "sale on approval", or other terms if Account Debtor's payment may be conditional;
- (k) Accounts for which an Account Debtor has not been invoiced or where goods or services have not yet been rendered to the Account Debtor (sometimes called memo billings or pre-billings);
- (l) Accounts subject to contractual arrangements between Borrower and an Account Debtor where payments shall be scheduled or due according to completion or fulfillment requirements and where the Account Debtor has a right of offset for damages suffered as a result of Borrower's failure to perform in accordance with the contract (sometimes called contracts accounts receivable, progress billings, milestone billings, or fulfillment contracts);

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- (m) Accounts owing from an Account Debtor the amount of which may be subject to withholding based on the Account Debtor's satisfaction of Borrower's complete performance (but only to the extent of that portion of the amount withheld which exceeds ten percent (10%) of the Account; sometimes called retainage billings);
- (n) Accounts subject to trust provisions, subrogation rights of a bonding company, or a statutory trust;
- (o) Accounts owing from an Account Debtor that have been invoiced for goods that have not been shipped to the Account Debtor unless Bank, Borrower, and the Account Debtor have entered into an agreement acceptable to Bank in its sole discretion wherein the Account Debtor acknowledges that (i) it has title to and has ownership of the goods wherever located, (ii) a bona fide sale of the goods has occurred, and (iii) it owes payment for such goods in accordance with invoices from Borrower (sometimes called "bill and hold" accounts);
- (p) Accounts owing from an Account Debtor with respect to which Borrower has received Deferred Revenue (but only to the extent of such Deferred Revenue);
- (q) Accounts for which the Account Debtor has not been invoiced;
- (r) Accounts that represent non-trade receivables or that are derived by means other than in the ordinary course of Borrower's business;
- (s) Accounts for which Borrower has permitted Account Debtor's payment to extend beyond 90 days;
- (t) Accounts subject to chargebacks or others payment deductions taken by an Account Debtor (but only to the extent the chargeback is determined invalid and subsequently collected by Borrower);
- (u) Accounts in which the Account Debtor disputes liability or makes any claim (but only up to the disputed or claimed amount), or if the Account Debtor is subject to an Insolvency Proceeding, or becomes insolvent, or goes out of business; and
- (v) Accounts for which Bank in its good faith business judgment determines collection to be doubtful or otherwise ineligible.

"Eligible Assignee" shall mean any commercial bank, insurance company, investment or mutual fund or other entity that is an "accredited investor" (as defined in Regulation D under the Securities Act) and which extends credit or buys loans as one of its businesses; provided that any direct competitor of the Borrower shall not be an Eligible Assignee.

"Eligible EXIM Inventory" is defined in the Export-Import Agreement.

"Equipment" is all "equipment" as defined in the Code with such additions to such term as may hereafter be made, and includes without limitation all machinery, fixtures, goods, vehicles (including motor vehicles and trailers), and any interest in any of the foregoing.

"ERISA" is the Employee Retirement Income Security Act of 1974, and its regulations.

"EXIM Loan" is defined in Section 12.17.

"EXIM Borrower Agreement" is that certain Export-Import Bank of the United States Working Capital Guarantee Program Borrower Agreement, dated as of the date hereof, executed by Borrower and acknowledged by Bank.

"EXIM Loan Documents" are all documents and agreements executed in connection with the Export-Import Agreement, including, without limitation, the EXIM Borrower Agreement and the EXIM Promissory Note (as defined in the Export-Import Agreement), as each may be amended from time to time.

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“Export-Import Agreement” is that certain Export-Import Loan and Security Agreement, dated as of the date hereof, by and between Borrower and Bank.

“Event of Default” is defined in Section 8.

“Foreign Currency” means lawful money of a country other than the United States.

“Foreign Subsidiary” means any Subsidiary which is not a Domestic Subsidiary.

“Funding Date” is any date on which a Credit Extension is made to or on account of Borrower which shall be a Business Day.

“FX Business Day” is any day when (a) Bank’s Foreign Exchange Department is conducting its normal business and (b) the Foreign Currency being purchased or sold by Borrower is available to Bank from the entity from which Bank shall buy or sell such Foreign Currency.

“FX Forward Contract” is defined in Section 2.1.3.

“FX Reserve” is defined in Section 2.1.3.

“GAAP” is generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other Person as may be approved by a significant segment of the accounting profession, which are applicable to the circumstances as of the date of determination.

“General Intangibles” is all “general intangibles” as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation, all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work, whether published or unpublished, any patents, trademarks, service marks and, to the extent permitted under applicable law, any applications therefor, whether registered or not, any trade secret rights, including any rights to unpatented inventions, payment intangibles, royalties, contract rights, goodwill, franchise agreements, purchase orders, customer lists, route lists, telephone numbers, domain names, claims, income and other tax refunds, security and other deposits, options to purchase or sell real or personal property, rights in all litigation presently or hereafter pending (whether in contract, tort or otherwise), insurance policies (including without limitation key man, property damage, and business interruption insurance), payments of insurance and rights to payment of any kind.

“Governmental Approval” is any consent, authorization, approval, order, license, franchise, permit, certificate, accreditation, registration, filing or notice, of, issued by, from or to, or other act by or in respect of, any Governmental Authority.

“Governmental Authority” is any nation or government, any state or other political subdivision thereof, any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative functions of or pertaining to government, any securities exchange and any self-regulatory organization.

“Guarantor” is any present or future guarantor of the Obligations, including Fusion Technology International, Inc., Fusion Investments, Inc., High Temperature Engineering Corporation, Axcelis Technologies (Israel), Inc. and all present or future Domestic Subsidiaries.

“Guarantor Security Agreement(s)” is each Amended and Restated Security Agreement executed and delivered by a Guarantor to Bank to secure the Guaranty of such Guarantor.

“Guaranty(ies)” is any guaranty of the Obligations executed and delivered by a Guarantor to Bank.

“Headquarters Location” is 108 Cherry Hill Drive, Beverly, Massachusetts.

“Indebtedness” is (a) indebtedness for borrowed money or the deferred price of property or services, such as reimbursement and other obligations for surety bonds and letters of credit, (b) obligations evidenced by notes, bonds, debentures or similar instruments, (c) capital lease obligations, and (d) Contingent Obligations.

“Indemnified Person” is defined in Section 12.4.

“Insolvency Proceeding” is any proceeding by or against any Person under the United States Bankruptcy Code, or any other bankruptcy or insolvency law, including assignments for the benefit of creditors, compositions, extensions generally with its creditors, or proceedings seeking reorganization, arrangement, or other relief.

“Inventory” is all “inventory” as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products, including without limitation such inventory as is temporarily out of Borrower’s custody or possession or in transit and including any returned goods and any documents of title representing any of the above.

“Investment” is any beneficial ownership interest in any Person (including stock, partnership interest or other securities), and any loan, advance or capital contribution to any Person.

“IP Agreement” is that certain Amended and Restated Intellectual Property Security Agreement executed and delivered by Borrower and Guarantors to Bank of even date herewith.

“**Letter of Credit**” means a standby letter of credit issued by Bank or another institution based upon an application, guarantee, indemnity or similar agreement on the part of Bank as set forth in Section 2.1.2.

“**Letter of Credit Application**” is defined in Section 2.1.2(a).

“**Letter of Credit Reserve**” has the meaning set forth in Section 2.1.2(d).

“**Lien**” is a claim, mortgage, deed of trust, levy, charge, pledge, security interest or other encumbrance of any kind, whether voluntarily incurred or arising by operation of law or otherwise against any property.

“**Loan Documents**” are, collectively, this Agreement, the Perfection Certificate, the IP Agreement, the Pledge Agreements, the EXIM Loan Documents, the Guarantor Security Agreements, each Guaranty, any note, or notes executed by Borrower or any Guarantor, and any other present or future agreement executed or delivered by Borrower or any Guarantor and/or for the benefit of Bank in connection with this Agreement, all as amended, restated, or otherwise modified.

“**Material Adverse Change**” is (a) a material impairment in the perfection or priority of Bank’s Lien in the Collateral or in the value of such Collateral; (b) a material adverse change in the business, operations, or condition (financial or otherwise) of Borrower, taken as a whole; or (c) a material impairment of the prospect of repayment of any portion of the Obligations or (d) Bank determines, based upon information available to it and in its reasonable judgment, that there is a reasonable likelihood that Borrower shall fail to comply with one or more of the financial covenants in Section 6 during the next succeeding financial reporting period.

“**Net Loss**” means, as calculated on a consolidated basis for Borrower and its Subsidiaries for any period as at any date of determination, the net loss, after provision for taxes, of Borrower and its Subsidiaries for such period taken as a single accounting period as determined in accordance with GAAP.

“**Obligations**” are Borrower’s obligation to pay when due any debts, principal, interest, Bank Expenses and other amounts Borrower owes Bank now or later, whether under this Agreement, the EXIM Loan Documents, the Export-Import Agreement, the Loan Documents, or otherwise, including, without limitation, all obligations relating to letters of credit (including reimbursement obligations for drawn and undrawn letters of credit), cash management services, and foreign exchange contracts, if any, and including interest accruing after Insolvency Proceedings begin and debts, liabilities, or obligations of Borrower assigned to Bank, and the performance of Borrower’s duties under the Loan Documents.

“**Operating Documents**” are, for any Person, such Person’s formation documents, as certified with the Secretary of State of such Person’s state of formation on a date that is no earlier than 30 days prior to the Effective Date, and, (a) if such Person is a corporation, its bylaws in current form, (b) if such Person is a limited liability company, its limited liability company agreement (or similar agreement), and (c) if such Person is a partnership, its partnership agreement (or similar agreement), each of the foregoing with all current amendments or modifications thereto.

“**Overadvance**” is defined in Section 2.2.

“**Perfection Certificate**” is defined in Section 5.1.

“**Permitted Indebtedness**” is:

- (a) Borrower’s Indebtedness to Bank under this Agreement and the other Loan Documents, including, without limitation, the Export-Import Agreement;
- (b) Indebtedness existing on the Effective Date and shown on the Perfection Certificate;
- (c) Subordinated Debt;
- (d) unsecured Indebtedness to trade creditors incurred in the ordinary course of business;
- (e) unsecured Indebtedness with respect to surety bonds, letters of credit and/or and similar instruments in connection with value added tax recovery initiatives of Axcelis Technologies GmbH incurred in the ordinary course of business;
- (f) Indebtedness owing from (i) one Borrower to another Borrower; (ii) any Borrower to any Subsidiary; and (iii) except for trade indebtedness incurred in the ordinary course of business consistent with past practice, any Subsidiary to any Borrower in an aggregate amount of up to \$1,000,000, provided that, in each case, such Indebtedness is incurred in the ordinary course of business of such Borrower or Subsidiary and pursuant to an arms-length transaction;
- (g) Indebtedness owing by Borrower or the Special Subsidiary pursuant to the Real Estate Financing provided that (i) such Indebtedness does not exceed \$30,000,000 in the aggregate outstanding at any time, (ii) such Indebtedness is subject to the terms of an intercreditor agreement in form and substance acceptable to Bank and (iii) no Event of Default exists immediately prior to the incurrence of such Indebtedness or results after giving effect to the incurrence thereof; and
- (h) extensions, refinancings, modifications, amendments and restatements of Permitted Indebtedness referenced in items (a) through (d) and (f) and (g) above, provided that the principal amount thereof is not increased or the terms thereof are not modified to impose more burdensome terms upon Borrower or its Subsidiary, as the case may be.

“**Permitted Investments**” are:

- (a) Investments shown on the Perfection Certificate and existing on the Effective Date;
- (b) Cash Equivalents;

(c) Investments consisting of the endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of Borrower;

(d) Investments consisting of deposit accounts maintained with Bank and subject to Bank's first priority Lien;

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(e) Investments of Subsidiaries in or to Borrower or any Guarantor and Investments of one Borrower in or to another Borrower;

(f) Investments consisting of (i) travel advances and employee relocation loans and other employee loans and advances in the ordinary course of business, and (ii) loans to employees, officers or directors relating to the purchase of equity securities of Borrower or its Subsidiaries pursuant to employee stock purchase plans or agreements approved by Borrower's Board of Directors (or other applicable governing body);

(g) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of business;

(h) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions, to customers and suppliers who are not Affiliates, in the ordinary course of business; provided that this paragraph (h) shall not apply to Investments of Borrower in any Subsidiary; and

(i) Money market funds that (i) comply with the criteria set forth in Rule 2a-7 under the Investment Company Act of 1940, (ii) are rated AAA by S&P and Aaa by Moody's and (iii) have portfolio assets of at least \$500,000,000.00;

(j) Other equity and debt investments that are consistent with the investment policy of the Borrower dated as of March 2003, a copy of which has been delivered to Bank;

(k) Subject to Section 6.6 hereof, Investments of Borrower and its Domestic Subsidiaries consisting of deposit accounts held with foreign financial institutions; provided, that the aggregate dollar value of all such deposit accounts does not exceed 5% of the dollar value of all unrestricted cash of Borrower and its Domestic Subsidiaries; and

(l) Investments of Borrower after the Effective Date (i) in Subsidiaries existing on the Effective Date not to exceed \$1,000,000.00 in the aggregate and (ii) in the Special Subsidiary consisting solely of the ownership of the capital stock of the Special Subsidiary.

"Permitted Liens" are:

(a) Liens existing on the Effective Date and shown on the Perfection Certificate or arising under this Agreement and the other Loan Documents;

(b) Liens for taxes, fees, assessments or other government charges or levies, either not delinquent or being contested in good faith and for which Borrower maintains adequate reserves on its Books, provided that no notice of any such Lien has been filed or recorded under the Internal Revenue Code of 1986, as amended, and the Treasury Regulations adopted thereunder;

(c) purchase money Liens (i) on Equipment acquired or held by Borrower incurred for financing the acquisition of the Equipment securing no more than \$1,000,000 in the aggregate amount outstanding, or (ii) existing on Equipment when acquired, if the Lien is confined to the property and improvements and the proceeds of the Equipment;

(d) Liens incurred in the extension, renewal or refinancing of the indebtedness secured by Liens described in (a) through (c), but any extension, renewal or replacement Lien must be limited to the property encumbered by the existing Lien and the principal amount of the indebtedness may not increase;

(e) leases or subleases of real property granted in the ordinary course of business, and leases, subleases, non-exclusive licenses or sublicenses of property (other than real property or intellectual property) granted in the ordinary course of Borrower's business, if such leases, subleases, licenses and sublicenses do not prohibit granting Bank a security interest;

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(f) non-exclusive license of intellectual property granted to third parties in the ordinary course of business;

(g) the SEN License;

(h) Liens securing the Real Estate Financing provided that the Lien is limited to a mortgage Lien encumbering the Headquarters Location and related fixtures; and

(i) Liens arising from attachments or judgments, orders, or decrees in circumstances not constituting an Event of Default under Sections 8.4 and 8.7.

"Person" is any individual, sole proprietorship, partnership, limited liability company, joint venture, company, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or government agency.

"Pledge Agreement(s)" those certain Pledge Agreements executed and delivered by Borrower and Fusion Technology International, Inc. in favor of Bank.

"Prime Rate" is the greater of (i) four percent (4.00%) and (ii) Bank's most recently announced "prime rate," even if it is not Bank's lowest rate.

“**Quick Assets**” is, on any date, Borrower’s and its Subsidiaries’ consolidated world-wide cash and Cash Equivalents, Accounts, and investments with Bank with maturities of fewer than 12 months determined according to GAAP.

“**Real Estate Financing**” is a mortgage loan financing transaction between Borrower or the Special Subsidiary and an unaffiliated third-party lender whereby such unaffiliated third-party lender provides real estate financing secured solely by a mortgage Lien on the Headquarters Location and related fixtures.

“**Registered Organization**” is any “registered organization” as defined in the Code with such additions to such term as may hereafter be made

“**Requirement of Law**” is as to any Person, the organizational or governing documents of such Person, and any law (statutory or common), treaty, rule or regulation or determination of an arbitrator or a court or other Governmental Authority, in each case applicable to or binding upon such Person or any of its property or to which such Person or any of its property is subject.

“**Reserves**” means, as of any date of determination, upon notice to and after consultation with Borrower, such amounts as Bank may reasonably from time to time establish and revise in its good faith business judgment, reducing the amount of Advances and other financial accommodations which would otherwise be available to Borrower to reflect events, conditions, contingencies or risks which, as determined by Bank in its good faith business judgment, do or may adversely affect in any material way (i) the assets, business or prospects of Borrower or any Guarantor, or (ii) the security interests and other rights of Bank in the Collateral (including the enforceability, perfection and priority thereof).

“**Responsible Officer**” is any of the Chief Executive Officer, President, Chief Financial Officer and General Counsel.

“**Restricted License**” is any material license or other agreement, excluding the SEN License, with respect to which Borrower is the licensee (a) that prohibits or otherwise restricts Borrower from granting a security interest in Borrower’s interest in such license or agreement or any other property, or (b) for which a default under or termination of could interfere with the Bank’s right to sell any Collateral.

“**Revolving Line**” is an Advance or Advances (including, without limitation, Advances made pursuant to the Export-Import Agreement) in an amount equal to Twenty Million Dollars (\$20,000,000).

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“**Revolving Line Maturity Date**” is March 11, 2011.

“**Securities Account**” is any “securities account” as defined in the Code with such additions to such term as may hereafter be made.

“**SEN**” means SEN Corporation, a Japanese company.

“**SEN License**” means that certain License Agreement dated March 30, 2009 by and between the Borrower and SEN.

“**Settlement Date**” is defined in Section 2.1.3.

“**Special Subsidiary**” is a Subsidiary of Borrower formed and operated as a special purpose entity for the sole purposes of (i) owning the Headquarters Location, (ii) entering into the Real Estate Financing and (iii) leasing the Headquarters Location to Borrower.

“**Subordinated Debt**” is indebtedness incurred by Borrower subordinated to all of Borrower’s now or hereafter indebtedness to Bank (pursuant to a subordination, intercreditor, or other similar agreement in form and substance satisfactory to Bank entered into between Bank and the other creditor), on terms acceptable to Bank.

“**Subsidiary**” means, with respect to any Person, any Person of which more than 50.0% of the voting stock or other equity interests (in the case of Persons other than corporations) is owned or controlled directly or indirectly by such Person or one or more of Affiliates of such Person.

“**Total Liabilities**” is on any day, obligations that should, under GAAP, be classified as liabilities on the consolidated balance sheet of Borrower and its Subsidiaries, including all Indebtedness, but excluding all other Subordinated Debt.

“**Transaction Report**” is that certain report of transactions and schedule of collections in the form attached hereto as Exhibit C.

“**Transfer**” is defined in Section 7.1.

“**Unused Line Fee Percentage**” is one and seven-eighths percent (1.875%).

“**Unused Revolving Line Facility Fee**” is defined in Section 2.4(d).

[Signature page follows.]

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as a sealed instrument under the laws of the Commonwealth of Massachusetts as of the Effective Date.

BORROWER:

AXCELIS TECHNOLOGIES, INC.

By: /s/ Mary G. Puma
Mary G. Puma, President

AXCELIS TECHNOLOGIES CCS CORPORATION

By: /s/ Mary G. Puma
Mary G. Puma, President

BANK:

SILICON VALLEY BANK

By /s/ Mark Sperling
Name: Mark Sperling
Title: Vice President

Effective Date: March 12, 2010

EXHIBIT A – COLLATERAL DESCRIPTION

The Collateral consists of all of Borrower’s right, title and interest in and to the following personal property:

All goods, Accounts, Equipment, Inventory, contract rights or rights to payment of money, leases, license agreements, franchise agreements, General Intangibles, commercial tort claims, documents, instruments (including any promissory notes), chattel paper (whether tangible or electronic), cash, deposit accounts, letters of credit rights (whether or not the letter of credit is evidenced by a writing), securities, and all other investment property, supporting obligations, and financial assets, whether now owned or hereafter acquired, wherever located; and

all Borrower’s Books relating to the foregoing, and any and all claims, rights and interests in any of the above and all substitutions for, additions, attachments, accessories, accessions and improvements to and replacements, products, proceeds and insurance proceeds of any or all of the foregoing.

Notwithstanding the foregoing, the “Collateral” does not include more than 66% of the presently existing and hereafter arising issued and outstanding shares of capital stock owned by Borrower of any Foreign Subsidiary which shares entitle the holder thereof to vote for directors or any other matter.

The security interest granted by Debtor to Secured Party in the Axcelis Licensed Intellectual Property (as defined in the SEN License) is subject to the license granted to SEN Corporation pursuant to the terms of the SEN License in accordance with that certain Consent and Agreement dated as of March 30, 2009 among the Debtor, the Secured Party, SEN Corporation and others.

EXHIBIT B - COMPLIANCE CERTIFICATE

TO: SILICON VALLEY BANK
FROM: Axcelis Technologies, Inc. and Axcelis Technologies CCS Corporation

Date:

The undersigned authorized officer of Axcelis Technologies, Inc. and Axcelis Technologies CCS Corporation (“Borrower”) certifies that under the terms and conditions of the Loan and Security Agreement between, inter alia, Borrower and Bank (the “Agreement”), (1) Borrower is in complete compliance for the period ending _____ with all required covenants except as noted below, (2) there are no Events of Default, (3) all representations and warranties in the Agreement are true and correct in all material respects on this date except as noted below; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date, (4) Borrower, and each of its Domestic Subsidiaries, has timely filed all required tax returns and reports, and Borrower has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower except as otherwise permitted pursuant to the terms of Section 5.9 of the Agreement, and (5) no Liens have been levied or claims made against Borrower or any of its Domestic Subsidiaries relating to unpaid employee payroll or benefits of which Borrower has not previously provided written notification to Bank. Attached are the required documents supporting the certification. The undersigned certifies that these are prepared in accordance with GAAP consistently applied from one period to the next except as explained in an accompanying letter or footnotes. The undersigned acknowledges that no borrowings may be requested at any time or date of determination that Borrower is not in compliance with any of the terms of the Agreement, and that compliance is determined not just at the date this certificate is delivered. Capitalized terms used but not otherwise defined herein shall have the meanings given them in the Agreement.

Please indicate compliance status by circling Yes/No under “Complies” column.

<u>Reporting Covenant</u>	<u>Required</u>	<u>Complies</u>
Quarterly consolidated and consolidating and financial statements	Quarterly within 45 days	Yes No

with Compliance Certificate				
Annual financial statement (CPA Audited) + CC	FYE within 120 days		Yes	No
10-Q, 10-K and 8-K	Within 10 days after filing with SEC		Yes	No
A/R & A/P Agings (including EXIM), Inventory reports	Monthly within 30 days		Yes	No
Transaction Report	Monthly within 30 days (bi-weekly if borrowing)		Yes	No
Monthly consolidated financial statements	Monthly within 45 days (if borrowing)		Yes	No

The following Intellectual Property was registered (or a registration application submitted) after the Effective Date (if no registrations, state "None")

<u>Financial Covenant</u>	<u>Required</u>	<u>Actual</u>	<u>Complies</u>	
Maintain, tested on a quarterly (unless otherwise indicated) basis:				
Adjusted Quick Ratio, at all times (tested quarterly)	1.5:1.0	:1.0	Yes	No
Maximum Net Losses, as of the last day of each quarter	(i) \$13,000,000 for the fiscal quarter ending March 31, 2010; (ii) \$8,500,000 for the fiscal quarter ending June 30, 2010; (iii) \$8,500,000 for the fiscal quarter ending September 30, 2010; and (iv) \$5,000,000 for the fiscal quarter ending December	\$	Yes	No

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31, 2010 and each fiscal quarter thereafter

Liquidity (at all times)	\$30,000,000	\$	Yes	No
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The following financial covenant analys[is][es] and information set forth in Schedule 1 attached hereto are true and accurate as of the date of this Certificate.

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Schedule 2 attached hereto sets forth all applications for any patent or the registration of any trademark or servicemark made by Borrower since the date of the last Compliance Certificate delivered to Bank.

The following are the exceptions with respect to the certification above: (If no exceptions exist, state "No exceptions to note.")

AXCELIS TECHNOLOGIES, INC.

BANK USE ONLY

By: _____
Name: _____
Title: _____

Received by: _____
AUTHORIZED SIGNER

Date: _____

AXCELIS TECHNOLOGIES CCS CORPORATION

Verified: _____
AUTHORIZED SIGNER

Date: _____

By: _____
Name: _____
Title: _____

Compliance Status: Yes No

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Schedule 1 to Compliance Certificate

Financial Covenants of Borrower

In the event of a conflict between this Schedule and the Loan Agreement, the terms of the Loan Agreement shall govern.

Dated:

I. **Adjusted Quick Ratio** (Section 6.9(a))

Required: 1.5:1.0

Actual:

A.	World-wide consolidated Unrestricted cash and Cash Equivalents	\$
B.	Accounts	\$
C.	Investments at Bank	\$
D.	Quick Assets (line A plus line B plus line C)	\$
E.	Aggregate value of Obligations to Bank (other than cash secured obligations)	\$
F.	Aggregate value of liabilities of Borrower and its Subsidiaries (including all Indebtedness) that matures within one (1) year	\$
G.	Deferred Revenue	\$
H.	Current Liabilities (the sum of lines E and F, minus line G)	\$
I.	Quick Ratio (line D divided by line H)	

Is line I equal to or greater than 1.50:1:00?

No, not in compliance

Yes, in compliance

II. **Maximum Net Losses** (Section 6.9(b))

Required: \$

Actual:

A. Aggregate value of Borrower losses \$

Is line A less than or equal to \$?

No, not in compliance

Yes, in compliance

II. **Liquidity** (Section 6.9(c))

Required: \$30,000,000

Actual: \$

A. Aggregate Cash and Cash Equivalents at Bank \$

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B. Availability Amount \$

C. Liquidity (the sum of lines A and B) \$

Is line C less than or equal to \$30,000,000?

No, not in compliance

Yes, in compliance

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Schedule 2 to Compliance Certificate

Additional Patents and Trademarks

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EXHIBIT C — TRANSACTION REPORT

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Beverly National Bank	2-8000171-20; Amount not to exceed \$30,000
Bank of America, N.A.	400923.1; Amount (value) not to exceed \$2,000
United States Patent and Trademark Office	Amount not to exceed \$85,000 (used solely for the payment of various fees to USPTO)

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Schedule 7.2

1. Matrix Europe, N.V. (Belgium)
2. Axcelis Technologies, B.V. (Netherlands)

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EXPORT-IMPORT BANK LOAN AND SECURITY AGREEMENT

THIS EXPORT-IMPORT LOAN AND SECURITY AGREEMENT (this “**EXIM Agreement**”) dated as of the Effective Date between **SILICON VALLEY BANK**, a California corporation, with its principal place of business at 3003 Tasman Drive, Santa Clara, California 95054 and with a loan production office located at One Newton Executive Park, Suite 200, 2221 Washington Street, Newton, Massachusetts 02462 (“**Bank**”), and **AXCELIS TECHNOLOGIES, INC.** and **AXCELIS TECHNOLOGIES CCS CORPORATION**, each a Delaware corporation with offices located at 108 Cherry Hill Drive, Beverly, Massachusetts 01915 (individually and collectively, jointly and severally “**Borrower**”), provides the terms on which Bank shall lend to Borrower and Borrower shall repay Bank. The parties agree as follows:

1 ACCOUNTING AND OTHER TERMS

(a) Borrower and Bank are parties to that certain Amended and Restated Loan and Security Agreement dated as of the date hereof (as may be amended from time to time, the “**Domestic Agreement**”), together with related documents executed in conjunction therewith, (as may be amended from time to time, the “**Domestic Loan Documents**”).

(b) Borrower and Bank desire in this EXIM Agreement to set forth their agreement with respect to a working capital facility to be guaranteed by the EXIM Bank.

(c) Accounting terms not defined in this EXIM Agreement shall be construed following GAAP. Calculations and determinations must be made following GAAP. Capitalized terms not otherwise defined in Section 13 of this EXIM Agreement shall have the meanings set forth in Section 13 of the Domestic Agreement. All other terms contained in this EXIM Agreement, unless otherwise indicated, shall have the meaning provided by the Code to the extent such terms are defined therein.

2 LOAN AND TERMS OF PAYMENT

2.1 Promise to Pay. Borrower hereby unconditionally promises to pay Bank the outstanding principal amount of all Credit Extensions and accrued and unpaid interest thereon as and when due in accordance with this EXIM Agreement.

2.1.1 Revolving Advances.

(a) Availability. Subject to the terms and conditions of this EXIM Agreement and to deduction of Reserves, Bank shall make EXIM Advances not exceeding the Availability Amount. Amounts borrowed under the Revolving Line may be repaid and, prior to the Revolving Line Maturity Date, reborrowed, subject to the applicable terms and conditions precedent herein.

(b) Termination; Repayment. The Revolving Line terminates on the earlier of (i) the Revolving Line Maturity Date or (ii) the termination of the Domestic Agreement, when the principal amount of all EXIM Advances, the unpaid interest thereon, and all other Obligations relating to the Revolving Line shall be immediately due and payable.

2.2 Overadvances. If at any time or for any reason the total of all outstanding Credit Extensions (other than Credit Extension made pursuant to the Domestic Agreement) exceeds the Availability Amount (such excess amount being an “**Overadvance**”), Borrower shall immediately pay the amount of the excess to Bank, without notice or demand. Without limiting Borrower’s obligation to repay to Bank the amount of any Overadvance, Borrower agrees to pay Bank interest on the outstanding amount of any Overadvance, on demand, at the Default Rate.

2.3 Payment of Interest on the Credit Extensions.

(a) Interest Rate; EXIM Advances. Subject to Section 2.3(b), the principal amount of all EXIM Advances outstanding under the Revolving Line shall accrue interest at floating per annum rate equal to the Prime Rate plus two percent (2.00%), which interest shall be payable monthly, in arrears, in accordance with Section 2.3(f).

(b) Default Rate. Immediately upon the occurrence and during the continuance of an Event of Default, Obligations shall bear interest at a rate per annum which is three and one-half of one percent (3.50%) above the rate that is otherwise applicable thereto (the “**Default Rate**”). Fees and expenses which are required to be paid by Borrower pursuant to the Loan Documents (including, without limitation, Bank Expenses) but are not paid when due shall bear interest until paid at a rate equal to the highest rate applicable to the Obligations; provided, however, no interest shall accrue on such fees and expenses to the extent funds are available to be deducted by the Bank from Borrower’s accounts if such deduction is not timely made by Bank at no fault of Borrower. Payment or acceptance of the increased interest rate provided in this Section 2.3(b) is not a permitted alternative to timely payment and shall not constitute a waiver of any Event of Default or otherwise prejudice or limit any rights or remedies of Bank.

(c) Adjustments to Interest Rate. Changes to the interest rate of any Credit Extension based on changes to the Prime Rate shall be effective on the effective date of any change to the Prime Rate and to the extent of any such change. Bank shall use its best efforts to give Borrower prompt notice of any such change in the Prime Rate; provided, however, that any failure by Bank to provide Borrower with notice hereunder shall not affect Bank’s right to make changes in the interest rate based on changes in the Prime Rate.

(d) Computation of Interest. Interest on the Credit Extensions and all fees payable hereunder shall be computed on the basis of a 360-day year and the actual number of days elapsed in the period during which such interest accrues. In computing interest on any Credit Extension, the date of the making of such Credit Extension shall be included and the date of payment shall be excluded; provided, however, that if any Credit Extension is repaid on the same day on which it is made, such day shall be included in computing interest on such Credit Extension.

(e) Debit of Accounts. Bank may debit any of Borrower’s deposit accounts, including the Designated Deposit Account, for principal and interest payments or any other amounts Borrower owes Bank when due. These debits shall not constitute a set-off. The provisions of the previous sentence

shall not apply to deposit accounts designated as, and exclusively used for, payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of Borrower's employees.

(f) Interest Payment Date. Interest is payable monthly, in arrears, on the last calendar day of each month. All accrued but unpaid interest on the Advances shall be due and payable on the Revolving Line Maturity Date.

(g) Payments. All payments (including prepayments) to be made by Borrower under any Loan Document shall be made in immediately available funds in U.S. Dollars, without setoff or counterclaim, before 12:00 p.m. Eastern time on the date when due. Payments of principal and/or interest received after 12:00 p.m. Eastern time are considered received at the opening of business on the next Business Day. When a payment is due on a day that is not a Business Day, the payment shall be due the next Business Day, and additional fees or interest, as applicable, shall continue to accrue until paid.

2.4 Fees. Borrower shall pay to Bank:

(a) Commitment Fee. A fully earned, non-refundable commitment fee, payable in accordance with the terms and conditions of the Domestic Agreement; and

(b) Bank Expenses. All Bank Expenses (including reasonable attorneys' fees and expenses, plus expenses, for documentation and negotiation of this EXIM Agreement) incurred through and after the Effective Date, when due.

2.5 Use of Proceeds. Borrower will use the proceeds of the EXIM Advances only for the purposes specified in the EXIM Borrower Agreement. Borrower will not use the proceeds of the EXIM Advances for any purpose prohibited by the EXIM Borrower Agreement.

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2.6 EXIM Guaranty. To facilitate the financing of Eligible EXIM Accounts, the EXIM Bank has agreed to guarantee the EXIM Loans made under this EXIM Agreement, pursuant to a Master Guarantee Agreement, Loan Authorization Agreement and (to the extent applicable) Delegated Authority Letter Agreement (collectively, the "**EXIM Guaranty**"). If, at any time after the EXIM Guaranty has been entered into by Bank, for any reason other than due to any action or inaction of Borrower under the EXIM Guaranty, (a) the EXIM Guaranty shall cease to be in full force and effect, or (b) the EXIM Bank declares the EXIM Guaranty void or revokes any obligations thereunder or denies liability thereunder, Borrower shall immediately repay all outstanding EXIM Advances hereunder, and Borrower shall cash collateralize all issued and undrawn letters of credit issued by Bank, if any. If, at any time after the EXIM Guaranty has been entered into by Bank, for any reason other than as described in the foregoing sentence, (x) the EXIM Guaranty shall cease to be in full force and effect, or (y) the EXIM Bank declares the EXIM Guaranty void or revokes any obligations thereunder or denies liability thereunder, any such event shall constitute an Event of Default under this EXIM Agreement. Nothing in any confidentiality agreement, in this EXIM Agreement or in any other agreement, shall restrict Bank's right to make disclosures and provide information to the EXIM Bank in connection with the EXIM Guaranty.

2.7 EXIM Borrower Agreement. Borrower shall execute and deliver a Borrower Agreement, in the form specified by the EXIM Bank (attached hereto as **Annex A**), in favor of Bank and the EXIM Bank, together with an amendment thereto approved by the EXIM Bank to conform certain terms of such Borrower Agreement to the terms of this EXIM Agreement (as amended, the "**EXIM Borrower Agreement**"). When the EXIM Borrower Agreement is entered into by Borrower and the EXIM Bank and delivered to Bank, this EXIM Agreement shall be subject to all of the terms and conditions of the EXIM Borrower Agreement, all of which are hereby incorporated herein by this reference. From and after the time Borrower and the EXIM Bank have entered into the EXIM Borrower Agreement and delivered the same to Bank, Borrower expressly agrees to perform all of the obligations and comply with all of the affirmative and negative covenants and all other terms and conditions set forth in the EXIM Borrower Agreement as though the same were expressly set forth herein. In the event of any conflict between the terms of the EXIM Borrower Agreement (if then in effect) and the other terms of this EXIM Agreement, whichever terms are more restrictive shall apply. Borrower acknowledges and agrees that it has received a copy of the Loan Authorization Agreement which is referred to in the EXIM Borrower Agreement. If the EXIM Borrower Agreement is entered into by Borrower and the EXIM Bank and delivered to Bank, Borrower agrees to be bound by the terms of the Loan Authorization Agreement, including, without limitation, by any additions or revisions made prior to its execution on behalf of EXIM Bank. Upon the execution of the Loan Authorization Agreement by EXIM Bank and Bank, it shall become an attachment to the EXIM Borrower Agreement. Borrower shall reimburse Bank for all fees and all out of pocket costs and expenses incurred by Bank with respect to the EXIM Guaranty and the EXIM Borrower Agreement, including, without limitation, all facility fees and usage fees, and Bank is authorized to debit any of Borrower's deposit accounts with Bank for such fees, costs and expenses when paid by Bank.

2.8 Withholding. Payments received by Bank from Borrower hereunder will be made free and clear of any withholding taxes. Specifically, however, if at any time any governmental authority, applicable law, regulation or international agreement requires Borrower to make any such withholding or deduction from any such payment or other sum payable hereunder to Bank, Borrower hereby covenants and agrees that the amount due from Borrower with respect to such payment or other sum payable hereunder will be increased to the extent necessary to ensure that, after the making of such required withholding or deduction, Bank receives a net sum equal to the sum which it would have received had no withholding or deduction been required and Borrower shall pay the full amount withheld or deducted to the relevant governmental authority. Borrower will, upon request, furnish Bank with proof satisfactory to Bank indicating that Borrower has made such withholding payment provided, however, that Borrower need not make any withholding payment if the amount or validity of such withholding payment is contested in good faith by appropriate and timely proceedings and as to which payment in full is bonded or reserved against by Borrower. The agreements and obligations of Borrower contained in this Section 2.8 shall survive the termination of this Agreement.

3 CONDITIONS OF LOANS

3.1 Conditions Precedent to Initial Credit Extension. Bank's obligation to make the initial Credit Extension is subject to the condition precedent that Borrower shall consent to or have delivered, in form and substance satisfactory to Bank, such documents, and completion of such other matters, as Bank may reasonably deem necessary or appropriate, including, without limitation:

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(a) duly executed original signatures to the Loan Documents to which it is a party;

(b) the Economic Impact Certification, Loan Authorization Notice and EXIM Bank Application Form, in each case duly executed and together with original signatures, as applicable;

(c) duly executed original signatures to the completed Borrowing Resolutions for Borrower;

(d) a legal opinion of Borrower's counsel dated as of the Effective Date together with the duly executed original signatures thereto;

(e) payment of the fees and Bank Expenses then due as specified in Section 2.4 hereof;

(f) duly executed original signatures to the Domestic Loan Documents to which it is a party; and

(g) delivery of all such other documents as Bank reasonably deems necessary or appropriate.

3.2 Conditions Precedent to all Credit Extensions. Bank's obligations to make each Credit Extension, including the initial Credit Extension, is subject to the following:

(a) timely receipt of any export purchase order and an EXIM Borrowing Base Certificate relating to the request;

(b) except as otherwise provided in Section 3.4, timely receipt of an executed Transaction Report;

(c) the representations and warranties in Section 5 shall be true, accurate and complete in all material respects on the date of the Transaction Report and on the Funding Date of each Credit Extension; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date, and no Default or Event of Default shall have occurred and be continuing or result from the Credit Extension. Each Credit Extension is Borrower's representation and warranty on that date that the representations and warranties in Section 5 remain true, accurate and complete in all material respects; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date;

(d) as determined in Bank's reasonable business judgment, there has not been a Material Adverse Change; and

(e) the EXIM Guaranty shall be in full force and effect.

3.3 Covenant to Deliver. Borrower agrees to deliver to Bank each item required to be delivered to Bank under this EXIM Agreement as a condition to any Credit Extension. Borrower expressly agrees that a Credit Extension made prior to the receipt by Bank of any such item shall not constitute a waiver by Bank of Borrower's obligation to deliver such item, and any such Credit Extension in the absence of a required item shall be made in Bank's sole discretion.

3.4 Procedures for Borrowing. Subject to the prior satisfaction of all other applicable conditions to the making of an Advance set forth in this EXIM Agreement, to obtain an EXIM Advance, Borrower shall notify Bank (which notice shall be irrevocable) by electronic mail, facsimile, or telephone by 12:00 p.m. Pacific time on the Funding Date of the EXIM Advance. Together with such notification, Borrower must promptly deliver to Bank by electronic mail or facsimile a completed Transaction Report executed by a Responsible Officer or his or her designee. Bank shall credit EXIM Advances to the Designated Deposit Account. Bank may make EXIM Advances under this Agreement based on instructions from a Responsible Officer or his or her designee or without instructions

if the Advances are necessary to meet Obligations which have become due. Bank may rely on any telephone notice given by a person whom Bank believes is a Responsible Officer or designee.

4 CREATION OF SECURITY INTEREST

4.1 Grant of Security Interest. Borrower hereby grants Bank, to secure the payment and performance in full of all of the Obligations, a continuing security interest in, and pledges to Bank, the Collateral, wherever located, whether now owned or hereafter acquired or arising, and all proceeds and products thereof. Borrower represents, warrants, and covenants that the security interest granted herein is and shall at all times continue to be a first priority perfected security interest in the Collateral (subject only to Permitted Liens that may have superior priority to Bank's Lien under this EXIM Agreement). If Borrower shall acquire a commercial tort claim, Borrower shall promptly notify Bank in a writing signed by Borrower of the general details thereof and upon request of Bank grant to Bank in such writing a security interest therein and in the proceeds thereof, all upon the terms of this EXIM Agreement, with such writing to be in form and substance reasonably satisfactory to Bank.

Bank's lien and security interest in the Collateral shall continue until Borrower fully satisfies its Obligations in cash. Upon payment in full in cash of the Obligations (except for contingent indemnification obligations for which no claim has been made) and at such time as Bank's obligation to make Credit Extensions has terminated, Bank shall, at Borrower's sole cost and expense, release its Liens in the Collateral and all rights therein shall revert to Borrower.

Notwithstanding the foregoing, it is expressly acknowledged and agreed that the security interest created in this EXIM Agreement in all of the Collateral (with the exception of Export-Related Accounts Receivable, Export-Related Inventory and Export-Related General Intangibles) is subject to and subordinate to the security interest granted to Bank in the Domestic Agreement and the security interest created in the Domestic Agreement with respect to such Export-Related Accounts Receivable, Export-Related Inventory and Export-Related General Intangibles is subject to and subordinate to the security interest granted to Bank in this EXIM Agreement with respect to such Export-Related Accounts Receivable, Export-Related Inventory and any Export-Related General Intangibles.

4.2 Authorization to File Financing Statements. Borrower hereby authorizes Bank to file financing statements, without notice to Borrower, with all appropriate jurisdictions to perfect or protect Bank's interest or rights hereunder, including a notice that any disposition of the Collateral except as permitted by the terms of this Agreement, by either Borrower or any other Person, shall be deemed to violate the rights of Bank under the Code. Such

financing statements may indicate the Collateral as “all assets of the Debtor” or words of similar effect, or as being of an equal or lesser scope, or with greater detail, all in Bank’s discretion, provided that such financing statements shall acknowledge the rights of SEN under the SEN License.

5 REPRESENTATIONS AND WARRANTIES

Borrower represents and warrants as follows:

5.1 Domestic Loan Documents. The representations and warranties contained in the Domestic Loan Documents, which are incorporated into this EXIM Agreement by reference, are true, accurate and complete in all material respects, and shall survive the termination of the Domestic Agreement.

5.2 EXIM Borrower Agreement. The representations and warranties contained in the EXIM Borrower Agreement, which are incorporated by reference into this EXIM Agreement, are true and correct in all material respects.

5.3 **Accounts Receivable; Inventory.**

(a) For each Account with respect to which EXIM Advances are requested, on the date each EXIM Advance is requested and made, such Account shall meet the Minimum EXIM Eligibility Requirements set forth in Section 13 below.

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(b) All statements made and all unpaid balances appearing in all invoices, instruments and other documents evidencing the Accounts are and shall be true, accurate and complete in all material respects and all such invoices, instruments and other documents, and all of Borrower’s Books are genuine and in all respects what they purport to be. Whether or not an Event of Default has occurred and is continuing, Bank may notify any Account Debtor owing Borrower money of Bank’s security interest in such funds. All sales and other transactions underlying or giving rise to each Account shall comply in all material respects with all applicable laws and governmental rules and regulations. Borrower has no knowledge of any actual or imminent Insolvency Proceeding of any Account Debtor whose accounts are an Eligible EXIM Account in any EXIM Borrowing Base Certificate. To Borrower’s knowledge, all signatures and endorsements on all documents, instruments, and agreements relating to all Accounts are genuine, and all such documents, instruments and agreements are legally enforceable in accordance with their terms.

(c) For any item of Inventory consisting of Eligible Inventory in any Transaction Report, such Inventory (i) consists either of raw materials, or of finished goods, in good, new, and salable condition, which is not perishable, returned, consigned, obsolete, not sellable, damaged, or defective, and is not comprised of demonstrative or custom inventory, works in progress, packaging or shipping materials, or supplies; (ii) meets all applicable governmental standards; (iii) has been manufactured in compliance with the Fair Labor Standards Act; (iv) is not subject to any Liens, except the first priority Liens granted in favor of Bank under this Agreement or any of the other Loan Documents or Permitted Liens; and (v) is located at (A) the Headquarters Location which is (1) prior to the Real Estate Financing, owned by Borrower or (2) after the Real Estate Financing, either owned by Borrower or owned by the Special Subsidiary provided that Bank has received a landlord’s waiver in form and substance reasonably satisfactory to Bank or (B) at Borrower’s 33 Cherry Hill Drive, Beverly, Massachusetts or 54 Cherry Hill Drive, Beverly, Massachusetts locations provided that Bank has received a landlord waiver for the respective location in form and substance reasonably satisfactory to Bank.

6 AFFIRMATIVE COVENANTS

Borrower shall do all of the following:

6.1 Domestic Loan Documents. Borrower shall comply in all material respects with the terms and provisions of the Domestic Loan Documents, which terms and provisions are incorporated into this EXIM Agreement and shall survive the termination of the Domestic Agreement, which shall include, without limitation, compliance with the financial reporting requirements set forth in the Domestic Agreement and the financial covenants set forth in the Domestic Agreement.

6.2 EXIM Borrower Agreement. Borrower shall comply with all of the terms of the EXIM Borrower Agreement, including without limitation, the delivery of an EXIM Borrowing Base Certificate within thirty (30) days after the end of each month, and with each request for a Credit Extension, any and all notices required pursuant to the EXIM Borrower Agreement. In the event of any conflict or inconsistency between any provision contained in the EXIM Borrower Agreement with any provision contained in this EXIM Agreement, the more strict provision, with respect to Borrower, shall control.

6.3 Terms of Sale. Borrower will, if required by EXIM Bank or Bank, cause all sales of products on which Credit Extensions are based to be (i) supported by one or more irrevocable letters of credit in an amount and of a matter, naming a beneficiary and issued by a financial institution acceptable to Bank and negotiated by Bank.

6.4 Reporting Requirements. Borrower shall deliver all reports, certificates and other documents to Bank as provided in the EXIM Borrower Agreement, including, without limitation, an EXIM Borrowing Base Certificate on a monthly basis, purchase orders and any other information that Bank and EXIM Bank may reasonably request. In addition, Borrower shall comply with the reporting requirements set forth in the Domestic Loan Documents.

6.5 EXIM Insurance. If required by Bank, Borrower will obtain, and pay when due all premiums with respect to, and maintain uninterrupted foreign credit insurance. In addition, if requested by Bank, Borrower will execute in favor of Bank an assignment of proceeds of any insurance policy obtained by Borrower and issued by EXIM Bank insuring against comprehensive commercial and political risk (the “EXIM Bank Policy”). The

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insurance proceeds from the EXIM Bank Policy assigned or paid to Bank will be applied to the balance outstanding under this EXIM Agreement. Borrower will immediately notify Bank and EXIM Bank in writing upon submission of any claim under the EXIM Bank Policy.

6.6 Further Assurances. Execute any further instruments and take further action as Bank reasonably requests to perfect or continue Bank's Lien in the Collateral or to effect the purposes of this EXIM Agreement.

7 NEGATIVE COVENANTS

Borrower shall not do any of the following without Bank's prior written consent:

7.1 Domestic Loan Documents. Violate or otherwise fail to comply with any provisions of the Domestic Loan Documents, which provisions are incorporated into this EXIM Agreement by reference, and shall survive the termination of Domestic Agreement.

7.2 EXIM Borrower Agreement. Violate or otherwise fail to comply with any provision of the EXIM Borrower Agreement, including, without limitation, the negative covenants set forth therein.

7.3 EXIM Guaranty. Take any action, or permit any action to be taken, that causes or, with the passage of time, could cause, the EXIM Guaranty to cease to be in full force and effect.

8 EVENTS OF DEFAULT

Any one of the following shall constitute an event of default (an "Event of Default") under this EXIM Agreement:

8.1 Payment Default. Borrower fails to (a) make any payment of principal or interest on any Credit Extension on its due date, or (b) pay any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) day grace period shall not apply to payments due on the Revolving Line Maturity Date). During the cure period, the failure to cure the payment default is not an Event of Default (but no Credit Extension will be made during the cure period);

8.2 Covenant Default.

(a) Borrower fails or neglects to perform any obligation in Section 6 or violates any covenant in Section 7; or

(b) Borrower fails or neglects to perform, keep, or observe any other term, provision, condition, covenant or agreement contained in this EXIM Agreement or any Loan Documents, and as to any default (other than those specified in this Section 8) under such other term, provision, condition, covenant or agreement that can be cured, has failed to cure the default within ten (10) days after the occurrence thereof; provided, however, that if the default cannot by its nature be cured within the ten (10) day period or cannot after diligent attempts by Borrower be cured within such ten (10) day period, and such default is likely to be cured within a reasonable time, then Borrower shall have an additional period (which shall not in any case exceed thirty (30) days) to attempt to cure such default, and within such reasonable time period the failure to cure the default shall not be deemed an Event of Default (but no Credit Extensions shall be made during such cure period). Grace periods provided under this section shall not apply, among other things, to financial covenants or any other covenants set forth in subsection (a) above;

8.3 Insolvency. (a) Borrower is unable to pay its debts (including trade debts) as they become due or otherwise becomes insolvent; (b) Borrower begins an Insolvency Proceeding; or (c) an Insolvency Proceeding is begun against Borrower and not dismissed or stayed within forty-five (45) days (but no Credit Extensions shall be made while of any of the conditions described in clause (a) exist and/or until any Insolvency Proceeding is dismissed);

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8.4 Domestic Default. The occurrence of an Event of Default under the Domestic Loan Documents. The terms and provisions of the Domestic Agreement are hereby incorporated by reference and shall survive the termination of the Domestic Agreement.

8.5 EXIM Guaranty. If the EXIM Guaranty ceases for any reason to be in full force and effect, or if the EXIM Bank declares the EXIM Guaranty void or revokes any obligations under the EXIM Guaranty.

9 BANK'S RIGHTS AND REMEDIES

9.1 Rights and Remedies. While an Event of Default occurs and continues Bank may, without notice or demand, do any or all of the following:

(a) declare all Obligations immediately due and payable (but if an Event of Default described in Section 8.3 occurs all Obligations are immediately due and payable without any action by Bank);

(b) stop advancing money or extending credit for Borrower's benefit under this EXIM Agreement or under any other agreement between Borrower and Bank;

(c) settle or adjust disputes and claims directly with Account Debtors for amounts on terms and in any order that Bank considers advisable, notify any Person owing Borrower money of Bank's security interest in such funds, and verify the amount of such account;

(d) make any payments and do any acts it considers necessary or reasonable to protect the Collateral and/or its security interest in the Collateral. Borrower shall assemble the Collateral if Bank requests and make it available as Bank designates. Bank may enter premises where the Collateral is located, take and maintain possession of any part of the Collateral, and pay, purchase, contest, or compromise any Lien which appears to be prior or superior to its security interest and pay all expenses incurred. Borrower grants Bank a license to enter and occupy any of its premises, without charge, to exercise any of Bank's rights or remedies;

(e) apply to the Obligations any (i) balances and deposits of Borrower it holds, or (ii) any amount held by Bank owing to or for the credit or the account of Borrower;

(f) ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell the Collateral. Bank is hereby granted a non-exclusive, royalty-free license or other right to use, without charge, Borrower's labels, patents, copyrights, mask works, rights of use of any name, trade secrets, trade names, trademarks, service marks, and advertising matter, or any similar property as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Bank's exercise of its rights under this Section, Borrower's rights under all licenses and all franchise agreements inure to Bank's benefit;

(g) place a "hold" on any account maintained with Bank and/or deliver a notice of exclusive control, any entitlement order, or other directions or instructions pursuant to any Control Agreement or similar agreements providing control of any Collateral;

(h) demand and receive possession of Borrower's Books; and

(i) exercise all rights and remedies available to Bank under the Loan Documents or at law or equity, including all remedies provided under the Code (including disposal of the Collateral pursuant to the terms thereof).

9.2 Power of Attorney. Borrower hereby irrevocably appoints Bank as its lawful attorney-in-fact, exercisable upon the occurrence and during the continuance of an Event of Default, to: (a) endorse Borrower's name on any checks or other forms of payment or security; (b) sign Borrower's name on any invoice or bill of lading for any Account or drafts against Account Debtors; (c) settle and adjust disputes and claims about the Accounts directly with Account Debtors, for amounts and on terms Bank determines reasonable; (d) make, settle, and adjust all claims under Borrower's insurance policies; (e) pay, contest or settle any Lien, charge, encumbrance, security interest, and adverse claim in or to the Collateral, or any judgment based thereon, or otherwise take any action to terminate or discharge the same; and (f) transfer the Collateral into the name of Bank or a third party as the Code

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permits. Borrower hereby appoints Bank as its lawful attorney-in-fact to sign Borrower's name on any documents necessary to perfect or continue the perfection of Bank's security interest in the Collateral regardless of whether an Event of Default has occurred until all Obligations have been satisfied in full (except for contingent indemnification obligations for which no claim has been made) and Bank is under no further obligation to make Credit Extensions hereunder. Bank's foregoing appointment as Borrower's attorney in fact, and all of Bank's rights and powers, coupled with an interest, are irrevocable until all Obligations have been fully repaid and performed and Bank's obligation to provide Credit Extensions terminates.

9.3 Accounts Collection. When an Event of Default occurs and continues, Bank may notify any Person owing Borrower money of Bank's security interest in the funds and verify the amount of the Account. Borrower must collect all payments in trust for Bank and, if requested by Bank, immediately deliver the payments to Bank in the form received from the account debtor, with proper endorsements for deposit.

9.4 Protective Payments. If Borrower fails to obtain the insurance called for by Section 6.7 or fails to pay any premium thereon or fails to pay any other amount which Borrower is obligated to pay under this EXIM Agreement or any other Loan Document, Bank may obtain such insurance or make such payment, and all amounts so paid by Bank are Bank Expenses and immediately due and payable, bearing interest at the then highest applicable rate, and secured by the Collateral. Bank will make reasonable efforts to provide Borrower with notice of Bank obtaining such insurance at the time it is obtained or within a reasonable time thereafter. No payments by Bank are deemed an agreement to make similar payments in the future or Bank's waiver of any Event of Default.

9.5 Application of Payments and Proceeds. Borrower shall have no right to specify the order or the accounts to which Bank shall allocate or apply any payments required to be made by Borrower to Bank or otherwise received by Bank under this EXIM Agreement when any such allocation or application is not specified elsewhere in this EXIM Agreement. If an Event of Default has occurred and is continuing, Bank may apply any funds in its possession, whether from Borrower account balances, payments, proceeds realized as the result of any collection of Accounts or other disposition of the Collateral, or otherwise, to the Obligations in such order as Bank shall determine in its sole discretion. Any surplus shall be paid to Borrower by credit to the Designated Deposit Account or to other Persons legally entitled thereto; Borrower shall remain liable to Bank for any deficiency. If Bank, in its good faith business judgment, directly or indirectly enters into a deferred payment or other credit transaction with any purchaser at any sale of Collateral, Bank shall have the option, exercisable at any time, of either reducing the Obligations by the principal amount of the purchase price or deferring the reduction of the Obligations until the actual receipt by Bank of cash therefor.

9.6 Bank's Liability for Collateral. So long as Bank complies with reasonable banking practices regarding the safekeeping of the Collateral in the possession or under the control of Bank, Bank shall not be liable or responsible for: (a) the safekeeping of the Collateral; (b) any loss or damage to the Collateral; (c) any diminution in the value of the Collateral; or (d) any act or default of any carrier, warehouseman, bailee, or other Person. Borrower bears all risk of loss, damage or destruction of the Collateral.

9.7 No Waiver; Remedies Cumulative. Bank's failure, at any time or times, to require strict performance by Borrower of any provision of this EXIM Agreement or any other Loan Document shall not waive, affect, or diminish any right of Bank thereafter to demand strict performance and compliance herewith or therewith. No waiver hereunder shall be effective unless signed by Bank and then is only effective for the specific instance and purpose for which it is given. Bank's rights and remedies under this EXIM Agreement and the other Loan Documents are cumulative. Bank has all rights and remedies provided under the Code, by law, or in equity. Bank's exercise of one right or remedy is not an election, and Bank's waiver of any Event of Default is not a continuing waiver. Bank's delay in exercising any remedy is not a waiver, election, or acquiescence.

9.8 Demand Waiver. Borrower waives demand, notice of default or dishonor, notice of payment and nonpayment, notice of any default, nonpayment at maturity, release, compromise, settlement, extension, or renewal of accounts, documents, instruments, chattel paper, and guarantees held by Bank on which Borrower is liable.

9.9 EXIM Direction. Upon the occurrence of an Event of Default, EXIM Bank shall have right to (i) direct Bank to exercise the remedies specified in Section 9.1 hereof and (ii) request that Bank accelerate the maturity of any other loans to Borrower.

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9.10 EXIM Notification. Bank has the right to immediately notify EXIM Bank in writing if it has knowledge of any of the following events: (1) any failure to pay any amount due under this EXIM Agreement; (2) the EXIM Borrowing Base is less than the sum of the outstanding Credit Extensions; (3) any failure to pay when due any amount payable to Bank under any Loan Documents owing by Borrower to Bank; (4) the filing of an action for debtor's relief by, against or on behalf of Borrower; or (5) any threatened or pending material litigation against Borrower, or any material dispute involving Borrower.

If Bank sends a notice to EXIM Bank, Bank has the right to send EXIM Bank a written report on the status of events covered by the notice every thirty (30) days after the date of the original notification, until Bank files a claim with EXIM Bank or the defaults have been cured (but no EXIM Advances may be required during the cure period unless EXIM Bank gives its written approval). If directed by EXIM Bank, Bank will have the right to exercise any rights it may have against the Borrower to demand the immediate repayment of all amount outstanding under the EXIM Loan Documents.

9.11 Borrower Liability. Either Borrower may, acting singly, request Credit Extensions hereunder. Each Borrower hereby appoints the other as agent for the other for all purposes hereunder, including with respect to requesting Credit Extensions hereunder. Each Borrower hereunder shall be jointly and severally obligated to repay all Credit Extensions made hereunder, regardless of which Borrower actually receives said Credit Extension, as if each Borrower hereunder directly received all Credit Extensions. Each Borrower waives (a) any suretyship defenses available to it under the Code or any other applicable law, and (b) any right to require Bank to: (i) proceed against any Borrower or any other person; (ii) proceed against or exhaust any security; or (iii) pursue any other remedy. Bank may exercise or not exercise any right or remedy it has against any Borrower or any security it holds (including the right to foreclose by judicial or non-judicial sale) without affecting any Borrower's liability. Notwithstanding any other provision of this EXIM Agreement or other related document, each Borrower irrevocably waives all rights that it may have at law or in equity (including, without limitation, any law subrogating Borrower to the rights of Bank under this EXIM Agreement) to seek contribution, indemnification or any other form of reimbursement from any other Borrower, or any other Person now or hereafter primarily or secondarily liable for any of the Obligations, for any payment made by Borrower with respect to the Obligations in connection with this EXIM Agreement or otherwise and all rights that it might have to benefit from, or to participate in, any security for the Obligations as a result of any payment made by Borrower with respect to the Obligations in connection with this EXIM Agreement or otherwise. Any agreement providing for indemnification, reimbursement or any other arrangement prohibited under this Section shall be null and void. If any payment is made to a Borrower in contravention of this Section, such Borrower shall hold such payment in trust for Bank and such payment shall be promptly delivered to Bank for application to the Obligations, whether matured or unmatured.

10 NOTICES

All notices, consents, requests, approvals, demands, or other communication (collectively, "Communication") by any party to this EXIM Agreement or any other Loan Document must be in writing and be delivered or sent by facsimile at the addresses or facsimile numbers listed below. Bank or Borrower may change its notice address by giving the other party written notice thereof. Each such Communication shall be deemed to have been validly served, given, or delivered: (a) upon the earlier of actual receipt and three (3) Business Days after deposit in the U.S. mail, registered or certified mail, return receipt requested, with proper postage prepaid; (b) upon transmission, when sent by facsimile transmission (with such facsimile promptly confirmed by delivery of a copy by personal delivery or United States mail as otherwise provided in this Section 10); (c) one (1) Business Day after deposit with a reputable overnight courier with all charges prepaid; or (d) when delivered, if hand-delivered by messenger, all of which shall be addressed to the party to be notified and sent to the address or facsimile number indicated below. EXIM Advance requests made pursuant to Section 3.4 must be in writing and may be in the form of electronic mail, delivered to Bank by Borrower at the e-mail address of Bank provided below and shall be deemed to have been validly served, given, or delivered when sent (with such electronic mail promptly confirmed by delivery of a copy by personal delivery or United States mail as otherwise provided in this Section 10). Bank or Borrower may change its address, facsimile number, or electronic mail address by giving the other party written notice thereof in accordance with the terms of this Section 10.

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If to Borrower: Axcelis Technologies, Inc.
108 Cherry Hill Drive
Beverly, Massachusetts 01915
Attn: Stephen G. Bassett, Chief Financial Officer and Executive Vice President
Fax: 978-787-4090
Email: Stephen.bassett@axcelis.com

If to Borrower: Axcelis Technologies, Inc.
108 Cherry Hill Drive
Beverly, Massachusetts 01915
Attn: Lynnette C. Fallon, Executive Vice President HR/Legal, General Counsel and Secretary
Fax: 978-787-4090
Email: lynnette.fallon@axcelis.com

With a copy to: Edward Angell Palmer and Dodge LLP
111 Huntington Avenue
Boston, Massachusetts 02199
Attn: James I. Rubens, Esquire
Fax: 888-325-9130
Email: jrubens@eapdlaw.com

If to Bank: Silicon Valley Bank
One Newton Executive Park, Suite 200
2221 Washington Street
Newton, Massachusetts 02462
Attn: Mark Sperling
Fax: 617.969.5478
Email: msperling@svbank.com

with a copy to: Riemer & Braunstein LLP
Three Center Plaza

11 CHOICE OF LAW, VENUE, JURY TRIAL WAIVER AND JUDICIAL REFERENCE

Massachusetts law governs the Loan Documents (except as otherwise indicated therein) without regard to principles of conflicts of law. Borrower and Bank each submit to the exclusive jurisdiction of the State and Federal courts in Massachusetts; provided, however, that nothing in this EXIM Agreement shall be deemed to operate to preclude Bank from bringing suit or taking other legal action in any other jurisdiction to realize on the Collateral or any other security for the Obligations, or to enforce a judgment or other court order in favor of Bank. Borrower expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and Borrower hereby waives any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. Borrower hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made by registered or certified mail addressed to Borrower at the address set forth in Section 10 of this EXIM Agreement and that service so made shall be deemed completed upon the earlier to occur of Borrower's actual receipt thereof or three (3) days after deposit in the U.S. mails, proper postage prepaid. NOTWITHSTANDING ANYTHING TO THE CONTRARY SET FORTH HEREINABOVE, BANK SHALL SPECIFICALLY HAVE THE RIGHT TO BRING ANY ACTION OR PROCEEDING AGAINST BORROWER OR ITS PROPERTY IN THE COURTS OF

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ANY OTHER JURISDICTION WHICH BANK DEEMS NECESSARY OR APPROPRIATE IN ORDER TO REALIZE ON THE COLLATERAL OR TO OTHERWISE ENFORCE BANK'S RIGHTS AGAINST BORROWER OR ITS PROPERTY.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, BORROWER AND BANK EACH WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS EXIM AGREEMENT, THE LOAN DOCUMENTS OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR BOTH PARTIES TO ENTER INTO THIS EXIM AGREEMENT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL.

12 GENERAL PROVISIONS

12.1 Right of Set-Off. Borrower hereby grants to Bank a Lien and a right of setoff as security for all Obligations to Bank, whether now existing or hereafter arising upon and against all deposits, credits, collateral and property, now or hereafter in the possession, custody, safekeeping or control of Bank or any entity under the control of Bank (including a subsidiary of Bank) or in transit to any of them. At any time after the occurrence and during the continuance of an Event of Default, without demand or notice, Bank may setoff the same or any part thereof and apply the same to any liability or Obligation of Borrower even though unmaturing and regardless of the adequacy of any other collateral securing the Obligations. ANY AND ALL RIGHTS TO REQUIRE BANK TO EXERCISE ITS RIGHTS OR REMEDIES WITH RESPECT TO ANY OTHER COLLATERAL WHICH SECURES THE OBLIGATIONS, PRIOR TO EXERCISING ITS RIGHT OF SETOFF WITH RESPECT TO SUCH DEPOSITS, CREDITS OR OTHER PROPERTY OF BORROWER, ARE HEREBY KNOWINGLY, VOLUNTARILY AND IRREVOCABLY WAIVED.

12.2 Successors and Assigns. This EXIM Agreement binds and is for the benefit of the successors and permitted assigns of each party. Borrower may not assign this EXIM Agreement or any rights or obligations under it without Bank's prior written consent (which may be granted or withheld in Bank's discretion). Bank has the right, without the consent of or notice to Borrower, to sell, transfer, assign, negotiate, or grant participation in all or any part of, or any interest in, Bank's obligations, rights, and benefits under this EXIM Agreement and the other Loan Documents; provided, however, that prior to the occurrence of an Event of Default, any such assignment or participation may only be made to an Eligible Assignee.

12.3 Indemnification. Borrower agrees to indemnify, defend and hold Bank and its directors, officers, employees, agents, attorneys, or any other Person affiliated with or representing Bank (each, an "**Indemnified Person**") harmless against: (a) all obligations, demands, claims, and liabilities (collectively, "**Claims**") claimed or asserted by any other party in connection with the transactions contemplated by the Loan Documents; and (b) all losses or expenses (including Bank Expenses) in any way suffered, incurred, or paid by such Indemnified Person as a result of, following from, consequential to, or arising from transactions between Bank and Borrower (including reasonable attorneys' fees and expenses), except for Claims and/or losses directly caused by such Indemnified Person's gross negligence or willful misconduct.

12.4 Time of Essence. Time is of the essence for the performance of all Obligations in this EXIM Agreement.

12.5 Severability of Provisions. Each provision of this EXIM Agreement is severable from every other provision in determining the enforceability of any provision.

12.6 Correction of Loan Documents. Bank may correct patent errors and fill in any blanks in this EXIM Agreement and the other Loan Documents consistent with the agreement of the parties.

12.7 Amendments in Writing; Integration. All amendments to this EXIM Agreement must be in writing signed by both Bank and Borrower. This EXIM Agreement and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this EXIM Agreement and the Loan Documents merge into this EXIM Agreement and the Loan Documents.

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12.8 Counterparts. This EXIM Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, is an original, and all taken together, constitute one EXIM Agreement.

12.9 Survival. All covenants, representations and warranties made in this EXIM Agreement continue in full force until this EXIM Agreement has terminated pursuant to its terms and all Obligations (other than inchoate indemnity obligations and any other obligations which, by their terms, are to survive the termination of this EXIM Agreement) have been satisfied. The obligation of Borrower in Section 12.3 to indemnify Bank shall survive until the statute of limitations with respect to such claim or cause of action shall have run.

12.10 Confidentiality. In handling any confidential information, Bank shall exercise the same degree of care that it exercises for its own proprietary information, but disclosure of information may be made: (a) to Bank's Subsidiaries or Affiliates; (b) to prospective transferees or purchasers of any interest in the Credit Extensions (provided, however, Bank shall use commercially reasonable efforts to obtain such prospective transferee's or purchaser's agreement to the terms of this provision); (c) as required by law, regulation, subpoena, or other order; (d) to Bank's regulators or as otherwise required in connection with Bank's examination or audit; (e) as Bank considers appropriate in exercising remedies under the Loan Documents; and (f) to third-party service providers of Bank so long as such service providers have executed a confidentiality agreement with Bank with terms no less restrictive than those contained herein. Confidential information does not include information that either: (i) is in the public domain or in Bank's possession when disclosed to Bank, or becomes part of the public domain after disclosure to Bank; or (ii) is disclosed to Bank by a third party, if Bank does not know that the third party is prohibited from disclosing the information.

Bank may use confidential information for any purpose, including, without limitation, for the development of client databases, reporting purposes, and market analysis, so long as Bank does not disclose Borrower's identity or the identity of any person associated with Borrower unless otherwise expressly permitted by this EXIM Agreement. The provisions of the immediately preceding sentence shall survive the termination of this EXIM Agreement.

12.11 Electronic Execution of Documents. The words "execution," "signed," "signature" and words of like import in any Loan Document shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity and enforceability as a manually executed signature or the use of a paper-based recordkeeping systems, as the case may be, to the extent and as provided for in any applicable law, including, without limitation, any state law based on the Uniform Electronic Transactions Act.

12.12 Captions. The headings used in this EXIM Agreement are for convenience only and shall not affect the interpretation of this EXIM Agreement.

12.13 Construction of EXIM Agreement. The parties mutually acknowledge that they and their attorneys have participated in the preparation and negotiation of this EXIM Agreement. In cases of uncertainty this EXIM Agreement shall be construed without regard to which of the parties caused the uncertainty to exist.

12.14 Relationship. The relationship of the parties to this EXIM Agreement is determined solely by the provisions of this EXIM Agreement. The parties do not intend to create any agency, partnership, joint venture, trust, fiduciary or other relationship with duties or incidents different from those of parties to an arm's-length contract.

12.15 Third Parties. Nothing in this EXIM Agreement, whether express or implied, is intended to: (a) confer any benefits, rights or remedies under or by reason of this EXIM Agreement on any persons other than the express parties to it and their respective permitted successors and assigns; (b) relieve or discharge the obligation or liability of any person not an express party to this EXIM Agreement; or (c) give any person not an express party to this EXIM Agreement any right of subrogation or action against any party to this EXIM Agreement.

12.16 EXIM Borrower Agreement; Cross-Collateralization; Cross-Default; Conflicts. Both this EXIM Agreement and the EXIM Borrower Agreement shall continue in full force and effect, and all rights and remedies under this EXIM Agreement and the EXIM Borrower Agreement are cumulative. The term "Obligations" as used in this EXIM Agreement and in the EXIM Borrower Agreement shall include without limitation the obligation to pay when due all loans made pursuant to the EXIM Borrower Agreement and the Export-Import

Agreement (the "EXIM Loans") and all interest thereon and the obligation to pay when due all Advances made pursuant to the terms of this EXIM Agreement and all interest thereon. Without limiting the generality of the foregoing, the security interest granted herein covering all "Collateral" as defined in this EXIM Agreement and as defined in the EXIM Borrower Agreement shall secure all EXIM Loans and all Advances and all interest thereon, and all other Obligations. Any Event of Default under this EXIM Agreement shall also constitute a default under the EXIM Borrower Agreement, and any default under the EXIM Borrower Agreement shall also constitute an Event of Default under this EXIM Agreement. In the event Bank assigns its rights under this EXIM Agreement and/or under any note evidencing EXIM Loans and/or its rights under the EXIM Borrower Agreement and/or under any note evidencing Advances, to any third party, including, without limitation, the EXIM Bank, whether before or after the occurrence of any Event of Default, Bank shall have the right (but not any obligation), in its sole discretion, to allocate and apportion Collateral to the EXIM Borrower Agreement and/or note assigned and to specify the priorities of the respective security interests in such Collateral between itself and the assignee, all without notice to or consent of the Borrowers. Should any term of this EXIM Agreement conflict with any term of the EXIM Borrower Agreement, the more restrictive term in either agreement shall govern Borrower.

13 DEFINITIONS

13.1 Definitions. As used in the Loan Documents, the word "shall" is mandatory, the word "may" is permissive, the word "or" is not exclusive, the words "includes" and "including" are not limiting, the singular includes the plural, and numbers denoting amounts that are set off in brackets are negative. Except as otherwise defined, terms that are capitalized in this EXIM Agreement shall have the meaning assigned in the Domestic Agreement. As used in this EXIM Agreement, the following terms have the following meanings:

"**Availability Amount**" is (a) the lesser of (i) the Revolving Line or (ii) the EXIM Borrowing Base minus (b) the outstanding principal balance of any EXIM Advances. In no event shall the aggregate amount of all Credit Extensions under this EXIM Agreement outstanding at any time together with all other Credit Extensions (as defined in the Domestic Agreement) under the Domestic Agreement exceed Twenty Million Dollars (\$20,000,000).

"**Bank**" is defined in the preamble hereof.

"**Borrower**" is defined in the preamble hereof.

“Country Limitation Schedule” is defined in the EXIM Borrower Agreement.

“Collateral” is any and all properties, rights and assets of Borrower described on Exhibit A.

“Credit Extension” is any EXIM Advance or any other extension of credit hereunder by Bank for Borrower’s benefit.

“Default Rate” is defined in Section 2.3(b).

“Domestic Agreement” is defined in Section 1(a).

“Domestic Loan Documents” is defined in Section 1(a).

“Domestic Revolving Line” means the Revolving Line, as such term is defined in the Domestic Agreement.

“Effective Date” is the date Bank executes this EXIM Agreement and as indicated on the signature page hereof.

“Eligible EXIM Accounts” means Accounts arising in the ordinary course of Borrower’s business from Non-U.S. Account Debtors and that meet all Borrower’s representations and warranties in Section 5.3, conform in all respects to the EXIM Borrower Agreement, and which Bank, in its good faith business judgment, shall deem

eligible for borrowing. Without limiting the fact that the determination of which Accounts are eligible for borrowing is a matter of Bank’s good faith business judgment, the following (the “Minimum EXIM Eligibility Requirements”) are the minimum requirements for an Account to be an Eligible EXIM Account. In no event shall Export-Related Accounts Receivable or Export-Related Overseas Accounts Receivable include any Account:

- (a) that does not arise from the sale of Items in the ordinary course of the Borrower’s business;
- (b) that is not subject to a valid, perfected, and enforceable first priority security interest in favor of the Bank;
- (c) as to which any covenant, representation or warranty contained in the Loan Documents relating to such Account has been breached;
- (d) that is not owned by the Borrower or is subject to any right, claim, or interest of any other party other than the Lien in favor of the Bank;
- (e) with respect to which an invoice has not been sent;
- (f) generated by the sale or provision of defense articles or services, subject to exceptions approved in writing by EXIM Bank;
- (g) that is due and payable from a military buyer, subject to exceptions approved in writing by EXIM Bank;
- (h) that is due and payable from a foreign Buyer located in a country with which EXIM Bank is legally prohibited from doing business as set forth in the current Country Limitation Schedule. (Note: If the Borrower has knowledge that an export to a country in which EXIM Bank may do business, as set forth in the current Country Limitation Schedule, will be re-exported to a country with which EXIM Bank is legally prohibited from doing business, the corresponding receivables (or a pro-rata portion thereof) are not eligible for inclusion in the EXIM Borrowing Base);
- (i) that does not comply with the requirements of the Country Limitation Schedule;
- (j) that by its original terms is due and payable more than one-hundred-twenty (120) days from the date of invoice;
- (k) that is not paid within sixty (60) calendar days from its original due date unless insured through EXIM Bank (or other acceptable) export credit insurance for comprehensive commercial and political risk, in which case ninety (90) calendar days shall apply;
- (l) that arises from a sale of goods to or performance of services for an employee, stockholder, or subsidiary of the Borrower, intra-company receivables or any receivable from a stockholder, any person or entity with a controlling interest in the Borrower or which shares common controlling ownership with the Borrower;
- (m) that is backed by a letter of credit where the Items covered by the subject letter of credit have not yet been shipped, or where the covered services have not yet been provided;
- (n) that the Bank or EXIM Bank, in its reasonable judgment, deem uncollectible or unacceptable; this category includes, but is not limited to, finance charges or late charges imposed on the foreign buyer by the Borrower as a result of the foreign buyer’s past due status;
- (o) that is denominated in non-U.S. currency, unless (i) such Accounts are subject to a Foreign Currency Hedge Agreement or (ii) such Accounts are pre-approved in writing by EXIM Bank;
- (p) that does not comply with the terms of sale as set forth by EXIM Bank;

- (q) that is due and payable from a Buyer who becomes unable to pay its debts or whose ability to pay its debts becomes questionable;

(r) that arises from a bill-and-hold, guaranteed sale, sale-and-return, sale on approval, consignment, or any other repurchase or return basis or is evidenced by chattel paper;

(s) for which the Items giving rise to such accounts receivable have not been shipped to the Buyer or when the Items are services, such services have not been performed or when the export order specifies a timing for invoicing the Items other than shipment or performance and the Items have not been invoiced in accordance with such terms of the export order, or the accounts receivable do not otherwise represent a final sale;

(t) that is subject to any offset, deduction, defense, dispute, or counterclaim, or the buyer is also a creditor or supplier of the Borrower, or the Account Receivable is contingent in any respect or for any reason;

(u) for which the Borrower has made any agreement with the buyer for any deduction therefrom, except for discounts or allowances made in the ordinary course of business for prompt payment;

(v) for which any of the Items giving rise to such Account have been returned, rejected, or repossessed;

(w) that arises from the sale of Items that do not meet 50% U.S. Content requirements;

(x) that arises from or relates to DRAM (Devices for Random Access Memory) Inventory, services or Accounts; or

(y) that is deemed to be ineligible by EXIM Bank.

Bank reserves the right at any time after the Effective Date to adjust the Minimum EXIM Foreign Eligibility Requirements in its good faith business judgment and establish new criteria to determine the foregoing.

“Eligible EXIM Inventory” means, at any time, the aggregate of Borrower’s Inventory, located in the United States and valued at the lower of actual cost or market value, determined in accordance with GAAP (or such other valuation method as Bank and EXIM Bank shall approve, in their sole discretion), which may include raw materials, works in progress, and finished goods accompanied by a purchase order, that is intended for export, and does not include Inventory that:

(a) is not subject to a valid, perfected and enforceable first priority Lien in favor of Bank;

(b) is located at an address that has not been disclosed to the Bank;

(c) is not located in the United States, unless pre-approved in writing by Bank and EXIM Bank, in their sole discretion;

(d) is placed by the Borrower on consignment or held by the Borrower on consignment;

(e) is in the possession of a processor or bailee, or located on premises leased or subleased to the Borrower, or on premises subject to a mortgage in favor of a party other than Bank, unless such processor or bailor or lessor or sublessor or mortgagee (as applicable) of such premises has executed and delivered all documentation which Bank and/or EXIM Bank shall require to evidence its priority with respect to such Inventory as well as their right to gain access to such Inventory;

(f) is produced in violation of the Fair Labor Standards Act or subject to the “hot goods” provisions contained in 29 U.S.C. 215 or any successor statute or section;

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(g) any covenant, representation or warranty with respect to such Inventory contained in the Loan Documents has been breached or is otherwise in violation thereof;

(h) is an Item or is to be incorporated into an Item that does not meet the 50% U.S. Content requirements;

(i) is demonstration Inventory;

(j) consists of proprietary software (i.e. software designed solely for the Borrower’s internal use and is not intended for resale);

(k) is damaged, obsolete, returned, defective, recalled or otherwise unfit for further processing;

(l) that has previously been exported from the United States;

(m) constitutes or will be incorporated into items that constitute, defense articles or services;

(n) is an Item or will be incorporated into Items that will be used in the construction, alteration, operation or maintenance of nuclear power, enrichment, reprocessing, research or heavy water production facilities, unless pre-approved in writing by Bank and EXIM Bank, in their sole discretion;

(o) is an Item or will be incorporated into Items destined for shipment to a country with which EXIM Bank is legally prohibited from doing business as designated in the current Country Limitation Schedule, or that Borrower has knowledge will be re-exported by a foreign buyer to a country in which EXIM Bank is legally prohibited from doing business;

(p) is an Item or will be incorporated into Items destined for shipment to a buyer in a country in which EXIM Bank coverage is not available for commercial reasons as designated in the current Country Limitation Schedule, unless and only to the extent that such Inventory is sold to such foreign buyer on terms of an irrevocable letter of credit, in form and substance acceptable to EXIM Bank, in its sole discretion, and is confirmed by a bank acceptable to EXIM Bank, in its sole discretion;

(q) constitutes or is to be incorporated into Items whose sale would result in an account receivable that would not be an Eligible Export-Related Account Receivable;

(r) is included as eligible inventory under any other credit facility to which Borrower is a party;

(s) is, or is to be incorporated into, an Item that is a Capital Good unless the transaction is in accordance with Section 2.14 “Economic Impact Approval” of the EXIM Borrower Agreement;

(t) that is or relates to DRAM (Devices for Random Access Memory) Inventory, services or Accounts; or

(u) is deemed to be ineligible by EXIM Bank.

Bank reserves the right at any time after the Effective Date to adjust the Eligible EXIM Inventory requirements in its good faith business judgment and establish new criteria to determine the foregoing.

“**Eligible Export-Related Accounts Receivable**” is defined in the EXIM Borrower Agreement.

“**Event of Default**” is defined in Section 8.

“**EXIM Advance**” or “**EXIM Advances**” means an advance (or advances) under the Revolving Line.

“**EXIM Bank**” means Export-Import Bank of the United States.

“**EXIM Borrower Agreement**” is defined in Section 2.7.

“**EXIM Borrowing Base**” is (a) ninety percent (90%) of Hedged Eligible EXIM Accounts; plus (b) sixty percent (60%) of all other Eligible EXIM Accounts billed in a Foreign Currency and not subject to a Foreign Currency Hedge Agreement; plus (c) sixty percent (60%) of Eligible Export Inventory; provided, however, that in any event the amount in clause (c) shall not at any time exceed (i) sixty percent (60%) of the total amounts outstanding and/or requested under any EXIM Borrowing Base and the Domestic Loan Agreement, or (ii)(A) exceed \$7,500,000 at any time for the five Business Days before and after end of each of Borrower’s fiscal quarters or (B) exceed \$5,000,000 at any other time; provided, however, that Bank may decrease the foregoing percentage in its good faith business judgment based on events, conditions, contingencies, or risks which, as determined by Bank, may adversely affect the Collateral.

“**EXIM Borrowing Base Certificate**” is that certain certificate describing the calculation of the EXIM Borrowing Base, provided to Borrower by Bank.

“**EXIM Guaranty**” is defined in Section 2.6.

“**EXIM Loans**” is defined in Section 12.16.

“**EXIM Note**” is a certain Promissory Note of even date executed by Borrower in connection with this EXIM Agreement.

“**Export Orders**” are valid written export orders, evidenced by purchase contracts, for the purchase by a buyer from the Borrower for any Inventory intended for export outside the United States.

“**Export-Related Accounts Receivable**” is defined in the EXIM Borrower Agreement.

“**Export-Related General Intangibles**” is defined in the EXIM Borrower Agreement.

“**Export-Related Inventory**” is defined in the EXIM Borrower Agreement.

“**Export-Related Overseas Accounts Receivable**” is defined in the EXIM Borrower Agreement.

“**Export-Related Overseas Accounts Inventory**” is defined in the EXIM Borrower Agreement.

“**Foreign Currency Hedge Agreement**” means any agreement with respect to any swap, hedge, forward, future or derivative transaction or option or similar other similar agreement or arrangement, each of which is (i) for the purpose of hedging the foreign currency fluctuation exposure associated with Borrower’s operations and Accounts, (ii) acceptable to Bank, in its reasonable discretion, and (iii) not for speculative purposes.

“**Hedged Eligible EXIM Accounts**” are Eligible EXIM Accounts in which (i) all invoices are denominated in Dollars, or (ii) all invoices are in foreign currencies that are subject to a Foreign Currency Hedge Agreement.

“**Item**” and “**Items**” is defined in the EXIM Borrower Agreement.

“**Loan Documents**” are, collectively, this EXIM Agreement, the Perfection Certificate, any subordination agreement, the Domestic Agreement, the Domestic Loan Documents, the EXIM Borrower Agreement, the EXIM Guaranty, the EXIM Note, any note, or notes or guaranties executed by Borrower or any Guarantor, and any other present or future agreement between Borrower any Guarantor and/or for the benefit of Bank in connection with this EXIM Agreement, all as amended, restated, or otherwise modified.

“**Minimum EXIM Eligibility Requirements**” is defined in the defined term “Eligible EXIM Accounts”.

“Obligations” are Borrower’s obligation to pay when due any debts, principal, interest, Bank Expenses and other amounts Borrower owes Bank now or later, whether under this EXIM Agreement, the Domestic Agreement, the other Loan Documents, or otherwise, including, without limitation, all obligations relating to letters of credit, cash management services, if any, and foreign exchange contracts, if any, and including interest accruing after

Insolvency Proceedings begin and debts, liabilities, or obligations of Borrower assigned to Bank, and the performance of Borrower’s duties under the Loan Documents.

“Revolving Line” is an EXIM Advance or EXIM Advances (including, without limitation, Advances made pursuant to the Export-Import Agreement) in an amount equal to Twenty Million Dollars (\$20,000,000.00).

“Revolving Line Maturity Date” is March 11, 2011.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have caused this EXIM Agreement to be executed as a sealed instrument under the laws of the Commonwealth of Massachusetts as of the Effective Date.

BORROWER:

AXCELIS TECHNOLOGIES, INC.

By: /s/ Mary G. Puma
Mary G. Puma, President

AXCELIS TECHNOLOGIES CCS CORPORATION

By: /s/ Mary G. Puma
Mary G. Puma, President

BANK:

SILICON VALLEY BANK

By: /s/ Mark Sperling
Name: Mark Sperling
Title: Vice President

Effective Date: March 12, 2010

EXHIBIT A — COLLATERAL DESCRIPTION

The Collateral consists of all of Borrower’s right, title and interest in and to the following personal property:

All goods, Accounts, Equipment, Inventory, contract rights or rights to payment of money, leases, license agreements, franchise agreements, General Intangibles, commercial tort claims, documents, instruments (including any promissory notes), chattel paper (whether tangible or electronic), cash, deposit accounts, letters of credit rights (whether or not the letter of credit is evidenced by a writing), securities, and all other investment property, supporting obligations, and financial assets, whether now owned or hereafter acquired, wherever located; and

all Borrower’s Books relating to the foregoing, and any and all claims, rights and interests in any of the above and all substitutions for, additions, attachments, accessories, accessions and improvements to and replacements, products, proceeds and insurance proceeds of any or all of the foregoing.

Notwithstanding the foregoing, the “Collateral” does not include more than 66% of the presently existing and hereafter arising issued and outstanding shares of capital stock owned by Borrower of any Foreign Subsidiary which shares entitle the holder thereof to vote for directors or any other matter.

ANNEX A

BORROWER AGREEMENT

CERTIFICATION
of the Principal Executive Officer
Pursuant to Rule 13a-14(a)/15d-14(a) (implementing Section 302 of the Sarbanes-Oxley Act)

I, Mary G. Puma, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Axcelis Technologies, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 12, 2010

/s/ MARY G. PUMA

Mary G. Puma,
Chairman, Chief Executive Officer and President

**CERTIFICATION
of the Principal Financial Officer
Pursuant to Rule 13a-14(a)/15d-14(a) (implementing Section 302 of the Sarbanes-Oxley Act)**

I, Stephen G. Bassett, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Axcelis Technologies, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 12, 2010

/s/ STEPHEN G. BASSETT

Stephen G. Bassett,
Executive Vice President and Chief Financial Officer

AXCELIS TECHNOLOGIES, INC.
Certification of the Principal Executive Officer
Pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code

The undersigned Chief Executive Officer of Axcelis Technologies, Inc., a Delaware corporation, hereby certifies, for the purposes of Section 1350 of Chapter 63 of title 18 of the United States Code (as implemented by Section 906 of the Sarbanes-Oxley Act of 2002) as follows:

This Form 10-Q quarterly report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) and the information contained herein fairly presents, in all material respects, the financial condition and results of operations of the Company.

IN WITNESS WHEREOF, the undersigned has executed this Certification as of May 12, 2010.

/s/ MARY G. PUMA

Mary G. Puma
Chairman, Chief Executive Officer and President of Axcelis Technologies, Inc.

AXCELIS TECHNOLOGIES, INC.
Certification of the Principal Financial Officer
Pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code

The undersigned Chief Financial Officer of Axcelis Technologies, Inc., a Delaware corporation, hereby certifies, for the purposes of Section 1350 of Chapter 63 of title 18 of the United States Code (as implemented by Section 906 of the Sarbanes-Oxley Act of 2002) as follows:

This Form 10-Q quarterly report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) and the information contained herein fairly presents, in all material respects, the financial condition and results of operations of the Company.

IN WITNESS WHEREOF, the undersigned has executed this Certification as of May 12, 2010.

/s/ STEPHEN G. BASSETT

Stephen G. Bassett
*Executive Vice President and Chief Financial Officer of Axcelis
Technologies, Inc.*