

SEMTECH CORP  
Form 10-K  
March 23, 2017

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

---

FORM 10-K

---

(Mark One)

Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended January 29, 2017  
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 1-6395

---

SEMTECH CORPORATION  
(Exact name of registrant as specified in its charter)

---

Delaware 95-2119684  
(State or other jurisdiction of (I.R.S. Employer  
incorporation or organization) Identification No.)

200 Flynn Road, Camarillo, California, 93012-8790  
(Address of principal executive offices, Zip Code)

Registrant's telephone number, including area code: (805) 498-2111  
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock par value \$.01 per share	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act:  
None  
(Title of Class)

---

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  
Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

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

Edgar Filing: SEMTECH CORP - Form 10-K

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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 (Do not check if a smaller reporting company) Smaller reporting company

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

The aggregate market value of the common stock held by non-affiliates of the registrant (based upon the closing sale price of \$25.42 on the NASDAQ Global Select Market) as of July 31, 2016 was approximately \$1.1 billion. Stock held by directors, officers and shareholders owning 10% or more of the outstanding common stock (as reported by shareholders on Schedules 13D and 13G) were excluded as they may be deemed affiliates. This determination of affiliate status is not a conclusive determination for any other purpose.

Number of shares of Common Stock, \$0.01 par value per share, outstanding at March 17, 2017: 65,973,747

---

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the following documents are incorporated by reference in Part III, Item numbers 11, 12, 13 and 14 and portions of Item 10 of this report to: Definitive Proxy Statement in connection with registrant's annual meeting of shareholders to be held on June 15, 2017, to be filed no later than 120 days after the end of the registrant's fiscal year ended January 29, 2017.

---

SEMTECH CORPORATION  
INDEX TO FORM 10-K  
FOR THE YEAR ENDED JANUARY 29, 2017

PART I

Item 1	<u>Business</u>	<u>5</u>
Item 1A	<u>Risk Factors</u>	<u>15</u>
Item 1B	<u>Unresolved Staff Comments</u>	<u>32</u>
Item 2	<u>Properties</u>	<u>32</u>
Item 3	<u>Legal Proceedings</u>	<u>33</u>
Item 4	<u>Mine Safety Disclosure</u>	<u>33</u>

PART II

Item 5	<u>Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	<u>34</u>
Item 6	<u>Selected Financial Data</u>	<u>35</u>
Item 7	<u>Management’s Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>37</u>
Item 7A	<u>Quantitative and Qualitative Disclosures About Market Risk</u>	<u>59</u>
Item 8	<u>Financial Statements and Supplementary Data</u>	<u>61</u>
Item 9	<u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	<u>119</u>
Item 9A	<u>Controls and Procedures</u>	<u>119</u>
Item 9B	<u>Other Information</u>	<u>120</u>

PART III

Item 10	<u>Directors, Executive Officers and Corporate Governance</u>	<u>121</u>
Item 11	<u>Executive Compensation</u>	<u>121</u>
Item 12	<u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	<u>121</u>
Item 13	<u>Certain Relationships and Related Transactions, and Director Independence</u>	<u>121</u>
Item 14	<u>Principal Accounting Fees and Services</u>	<u>121</u>

PART IV

Item 15	<u>Exhibits, Financial Statement Schedules</u>	<u>122</u>
Item 16	<u>Form 10-K Summary</u>	<u>126</u>
	<u>Signatures</u>	<u>128</u>

2

---

Unless the context otherwise requires, the use of the terms "Semtech," "the Company," "we," "us" and "our" in this Annual Report on Form 10-K refers to Semtech Corporation and, as applicable, its consolidated subsidiaries.

## Special Note

### Regarding Forward-Looking and Cautionary Statements

This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, as amended, based on our current expectations, estimates and projections about our operations, industry, financial condition, performance, operating results, and liquidity. Forward-looking statements are statements other than historical information or statements of current condition and relate to matters such as future financial performance, future operational performance, the anticipated impact of specific items on future earnings, and our plans, objectives and expectations. Statements containing words such as "may," "believe," "anticipate," "expect," "intend," "plan," "project," "estimate," "should," "will," "designed to," "projections," or "business outlook," or other similar expressions constitute forward-looking statements. Forward-looking statements involve known and unknown risks and uncertainties that could cause actual results and events to differ materially from those projected. Potential factors that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to: fluctuation in the Company's future results; downturns in the business cycle; reduced demand for the Company's products due to global economic conditions; business interruptions; the Company's reliance on a limited number of suppliers and subcontractors for component and materials; potentially insufficient liability insurance if the Company's products are found to be defective; obsolete inventories as a result of changes in demand and change in life cycles for the Company's products; the Company may be unsuccessful in developing and selling new products; the Company's products having to undergo a lengthy and expensive qualification process without any assurance of product sales; the Company's products failing to meet industry standards; the Company's inability to protect intellectual property rights; the Company suffering losses if its products infringe the intellectual property rights of others; the Company's need to commit resources to product production prior to receipt of purchase commitments; increased business risk from foreign customers; the Company's foreign currency exposures; potential increased tax liabilities and effective tax rate if the Company needs to repatriate funds held by foreign subsidiaries; export restrictions and laws affecting the Company's trade and investments; competition against larger, more established entities; increased competition due to industry consolidation; the loss of any one of the Company's significant customers; volatility of customer demand; termination of a contract by a distributor; government regulations and other standards that impose operational and reporting requirements; the Company's failure to comply with applicable environmental regulations; compliance with conflict minerals regulations; increase in the Company's cost of doing business as a result of having to comply with the codes of conduct of certain of the Company's customers and suppliers; volatility of the Company's effective tax rate; changes in tax laws and review by taxing authorities; taxation of the Company in other jurisdictions; the Company's failure to maintain effective internal control over financial reporting and disclosure controls and procedures; the Company's limited experience with government contracting; potential government investigations and inquiries; loss of the Company's key personnel; risks associated with companies the Company has acquired in the past and may acquire in the future and the Company's ability to successfully integrate acquired businesses and benefit from expected synergies; the Company may be required to recognize additional impairment charges; the Company may be adversely affected by new accounting pronouncements; the Company's ability to generate cash to service its debt obligations; restrictive covenants in the Company's credit agreement which may restrict its ability to pursue its business strategies; the Company's reliance on certain critical information systems for the operation of its business; costs associated with the Company's indemnification of certain customers, distributors and other parties; the Company's share price could be subject to extreme price fluctuations; the impact on the Company's common stock price if securities or industry analysts do not publish reports about the Company's business or adversely change their recommendations regarding the Company's common stock; anti-takeover provisions in the Company's organizational documents could make an acquisition of the Company more difficult; the Company is subject to litigation risks which may be costly to defend.

Additionally, forward-looking statements should be considered in conjunction with the cautionary statements contained in this Annual Report on Form 10-K, including, without limitation, information under the captions "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors" and additional factors that accompany the related forward-looking statements in this Annual Report on Form 10-K, in the Company's other filings with the Securities and Exchange Commission ("SEC"), and in material incorporated herein and therein by reference. In light of the significant risks and uncertainties inherent in the forward-looking information included herein that may cause actual performance and results to differ materially from those predicted, any such forward-looking information should not be regarded as representations or guarantees by the Company of future performance or results, or that its objectives or plans will be achieved, or that any of its operating expectations or financial forecasts will be realized. Reported results should not be considered an indication of future performance. Investors are cautioned not to place undue reliance on any forward-looking information contained herein, which reflect management's analysis only as of the date hereof. Except as required by law, the Company assumes no obligation to publicly release the results of any update or revision to any forward-looking statement that

3

---

may be made to reflect new information, events or circumstances after the date hereof or to reflect the occurrence of unanticipated or future events, or otherwise.

In addition to regarding forward-looking statements with caution, you should consider that the preparation of the consolidated financial statements requires us to draw conclusions and make interpretations, judgments, assumptions and estimates with respect to certain factual, legal, and accounting matters. Our consolidated financial statements might have been materially impacted if we had reached different conclusions or made different interpretations, judgments, assumptions or estimates.

## PART I

### Item 1. Business

#### General

We are a leading global supplier of analog and mixed-signal semiconductor products and were incorporated in Delaware in 1960. We design, develop, manufacture and market a wide range of products for commercial applications, the majority of which are sold into the enterprise computing, communications, high-end consumer and industrial end-markets.

Enterprise Computing: datacenters, passive optical networks, desktops, notebooks, servers, monitors, printers and other computer peripherals.

Communications: base stations, optical networks, carrier networks, switches and routers, cable modems, wireless LAN and other communication infrastructure equipment.

High-End Consumer: handheld products, smartphones, set-top boxes, digital televisions, tablets, digital video recorders and other consumer equipment.

Industrial: video broadcast equipment, automated meter reading, Internet of Things ("IoT"), smart grid, military and aerospace, medical, security systems, automotive, industrial and home automation and other industrial equipment.

Our end-customers are primarily original equipment manufacturers ("OEMs") and their suppliers, including Alphabet Inc., Cisco Systems, Inc., Huawei Technologies Co., Ltd., LG Electronics, Sharp Corporation, Itron, Inc., Sonova International, Samsung Electronics Co. Ltd. and ZTE Corporation.

#### Overview of the Semiconductor Industry

The semiconductor industry is broadly divided into analog and digital semiconductor products. Analog semiconductors condition and regulate "real world" functions such as temperature, speed, sound and electrical current. Digital semiconductors process binary information, such as that used by computers. Mixed-signal devices incorporate both analog and digital functions into a single chip and provide the ability for digital electronics to interface with the outside world.

The market for analog and mixed-signal semiconductors differs from the market for digital semiconductors. The analog and mixed-signal industry is typically characterized by longer product life cycles than the digital industry. In addition, analog semiconductor manufacturers tend to have lower capital investment requirements for manufacturing because their facilities tend to be less dependent than digital producers on state-of-the-art production equipment to manufacture leading edge process technologies. The end-product markets for analog and mixed-signal semiconductors are more varied and more specialized than the relatively standardized digital semiconductor product markets.

Another difference between the analog and digital markets is the amount of available talented labor. The analog industry relies more heavily than the digital industry on design and applications talent to distinguish its products from one another. Digital expertise is extensively taught in universities due to its overall market size, while analog and mixed-signal expertise tends to be learned over time based on experience and hands-on training. Consequently, personnel with analog training are scarcer than digital trained engineers. This has historically made it more difficult for new suppliers in the analog market to quickly develop products and gain significant market share.

Advancements in digital signal processing technology typically drive the need for corresponding advancements in analog and mixed-signal solutions. We believe that the diversity of our applications allows us to take advantage of areas of relative market strength and reduces our vulnerability to competitive pressure in any one area.

#### Business Strategy

Our objective is to be a leading supplier of analog and mixed-signal semiconductor devices to the fastest growing segments of our target markets. We intend to leverage our pool of skilled technical personnel to develop new products, or, where appropriate, use strategic acquisitions or small strategic investments to either accelerate our position in the fastest growing areas or to gain entry into these areas. In order to capitalize on our strengths in analog and mixed-signal processing design, development and marketing, we intend to pursue the following strategies:





#### Leverage our rare analog/mixed signal design expertise

We have developed a strategy to invest heavily in human resources needed to define, design and market high-performance analog and mixed signal platform products. We have built a team of experienced engineers who combine industry expertise with advanced semiconductor design expertise to meet customer requirements and enable our customers to get their products to market rapidly. We intend to leverage this strategy to achieve new levels of integration, power reduction and performance, enabling our customers to achieve differentiation in their end systems.

#### Continue to release proprietary new products, achieve new design wins, and cross-sell products

We are focused on developing unique, new, proprietary products that bring value to our target customers in our target markets. These products are typically differentiated in performance but are priced competitively. We also focus on achieving design wins for our products with current and future customers. Design wins are indications by the customer that they intend to incorporate our products into their product designs. Although we believe that a design win is an indicator of future potential growth, it does not inevitably result in us being awarded business or receiving a purchase commitment. Our technical talent works closely with our customers in securing design wins, defining new products and in implementing and integrating our products into their systems. We also focus on selling our complete portfolio of products to our existing customers, as we believe the technical expertise of our marketing and sales team allows us to identify and capitalize on cross-selling opportunities.

#### Focus on fast-growing market segments and regions

We have chosen to target the analog/mixed signal sub-segments of some of the most exciting and fastest growing end-markets. We participate in these markets by focusing on specific product areas within the analog and mixed-signal market, including products for enterprise computing equipment, high-end consumer equipment, communications infrastructure and certain broad-based industrial markets. All of these markets are characterized by their need for leading-edge, high-performance analog and mixed-signal semiconductor technologies.

The enterprise computing, communications, high-end consumer and industrial end-markets we supply are characterized by several trends that we believe drive demand for our products. The key trends that we believe are significant for our future growth include:

- Increasing bandwidth over high-speed networks, fueling growth in high speed multimedia transmission
- Increasing electronic system requirements for smaller, lighter, more highly integrated and feature rich mobile devices
- Increasing need for more efficient energy management in the home and in industrial environments and the proliferation of "green" standards
- Increasing demands for Internet connectivity to low power sensors

Our products address these market trends by providing solutions that are ultra-low power thus extending battery life, small form factor enabling smaller more mobile devices, highly integrated enabling more functionality within devices and high performance enabling product differentiation within our customer base. Additionally, as communications functions are increasingly integrated into a range of systems and devices, these products require analog sensing, processing and control capabilities, which increases the number and size of our end-markets.

#### Leverage outsourced semiconductor fabrication capacity

We outsource most of our manufacturing in order to focus more of our resources on designing, developing and marketing our products. Our primary outside wafer foundries are based in China, Israel, the United States and Taiwan. We believe that outsourcing provides us numerous benefits, including capital efficiency, the flexibility to adopt and leverage emerging process technologies without significant investment risk, and a more variable cost of goods, which provides us with greater operating flexibility.

#### Products and Technology

We design, develop, manufacture and market high-performance analog and mixed-signal semiconductor products. We operate and account for results in one reportable segment through four product lines: Signal Integrity, Protection, Wireless and Sensing and Power and High-Reliability.

On January 13, 2015, we completed the acquisition of select assets of EnVerv, Inc. ("EnVerv"), a privately held company developing innovative products in the Smart Grid and Power Line Communication ("PLC") market place. This transaction, which was accounted for using the acquisition method of accounting, complements our business in the Metering and Machine to Machine ("M2M") and IoT markets. It is expected that the EnVerv PLC platform

combined with our LoRa® devices and

6

---

wireless radio frequency ("RF") technology platform will create a highly-differentiated and compelling offering to the energy management, smart grid, IoT and residential gateway markets.

On March 4, 2015, we completed the acquisition of Triune Systems, LLC. ("Triune"), a privately-held supplier of wireless charging, isolated switching and power management platforms targeted at high and low power, high efficiency applications. This transaction, which was accounted for using the acquisition method of accounting, expanded our power management portfolio.

Beginning in fiscal year 2016, we split the product line previously known as Protection, Power and High-Reliability into two new product lines now referred to as the Protection Products Group and the Power and High-Reliability Products Group. The presentation of historical performance of these product lines has been recast for consistency for fiscal year 2015.

Our product lines include:

**Signal Integrity Products.** We design, develop and market a portfolio of optical communications, broadcast video and backplane products used in a wide variety of enterprise computing, industrial, communications and high-end consumer applications. Our comprehensive portfolio of integrated circuits ("ICs") for optical transceivers, backplane applications and high-speed interfaces ranges from 100Mbps to 100Gbps and supports key industry standards such as Fibre Channel, Infiniband, Ethernet, passive optical networks ("PON") and SONET. Our broadcast video products offer advanced solutions for next generation video formats, ever increasing data rates and evolving input/output ("I/O") and distance requirements.

**Protection Products.** We design, develop and market high performance protection devices, which are often referred to as transient voltage suppressors ("TVS"). TVS devices provide protection for electronic systems where voltage spikes (called transients), such as electrostatic discharge ("ESD"), electrical over stress ("EOS") or secondary lightning surge energy, can permanently damage sensitive complementary metal-oxide-semiconductor ("CMOS") ICs. Our portfolio of protection solutions include filter and termination devices that are integrated with the TVS device. Our products provide robust protection while preserving signal integrity in high-speed communications, networking and video interfaces. These products also operate at very low voltage. Our protection products can be found in a broad range of applications including smart phones, LCD TVs, set-top boxes, tablets, computers, notebooks, base stations, routers, automobile and industrial instruments.

**Wireless and Sensing Products.** We design, develop and market a portfolio of specialized RF products used in a wide variety of industrial, medical and communications applications, and specialized sensing products used in industrial and consumer applications. Our wireless products feature industry leading and longest range industrial, scientific and medical radio, enabling a lower total cost of ownership and increased reliability in all environments. This makes these products particularly suitable for M2M and IoT applications. Our unique sensing interface platforms can interface to any sensor and output digital data in any form. Specifically, the proximity sensing capability of our devices enable advanced user interface solutions for mobile and consumer products. Our wireless and sensing products can be found in a broad range of applications in the industrial, medical and consumer markets.

**Power and High-Reliability Products.** We design, develop and market power product devices that control, alter, regulate and condition the power within electronic systems. The highest volume product types within the power product line are switching voltage regulators, combination switching and linear regulators, smart regulators, isolated switches and charge pumps, and wireless charging. Our Power products feature highly integrated functionality for the communications, industrial and computing markets and low-power, small form factor and high-efficiency products for smart phones and other mobile devices, notebook computers, computer peripherals and other consumer devices. The primary application for these products is power regulation for enterprise computing, communications, high-end consumer and industrial systems. Our high-reliability discrete semiconductor products are comprised of rectifiers, assemblies (packaged discrete rectifiers) and other products that are typically used to convert alternating currents into direct currents and to protect circuits against very high voltage spikes or high current surges.

Our High-Reliability products can be found in a broad range of applications including industrial, military, medical, automotive, aerospace and defense systems, including satellite communications.

Systems Innovation Group. Prior to the third quarter of fiscal year 2017, we had a Systems Innovation Group which combined the analog/mixed signal design competencies from our previous Sierra Monolithics, Inc. ("SMI") and Gennum Corporation ("Gennum") acquisitions and was chartered with developing innovative analog/mixed signal intellectual property ("IP") for emerging systems.

On August 5, 2016, we completed the divestiture of our Snowbush IP business (the remaining part of our Systems Innovation Group) to Rambus Inc. ("Rambus") for \$32.0 million in cash along with the opportunity to receive additional payments from Rambus through 2022 based upon a percentage of sales by Rambus of new products expected to be developed by Rambus from

the disposed assets. In fiscal year 2017, we recorded a gain of \$25.5 million on the disposition of this business. Other than this gain, the divestiture did not and is not expected to have a material impact on our consolidated financial statements. Following the divestiture, beginning in the third quarter of fiscal year 2017, we no longer have a Systems Innovation Group.

Our sales by product line are as follows:

	Fiscal Years		
(in thousands)	2017	2016	2015
Signal Integrity	\$258,824	\$221,185	\$219,024
Protection	149,865	138,674	191,341
Wireless and Sensing	81,657	70,712	80,632
Power and High-Reliability	59,117	54,999	64,402
Systems Innovation	205	4,649	2,486
Other: Warrant Shares <sup>(1)</sup>	(5,396 )	—	—
Total	\$544,272	\$490,219	\$557,885

(1) On October 5, 2016, we issued a warrant (the "Warrant") to Comcast Cable Communications Management LLC ("Comcast") to purchase up to 1,086,957 shares (the "Warrant Shares") of our common stock. The Warrant was issued by us to Comcast in connection with an agreement between the parties regarding the intended trial deployment by Comcast of a low-power wide-area Network ("LPWAN") in the United States, based on our LoRa Wireless Radio Frequency Technology. The Warrant is accounted for as equity and the cost is recognized as an offset to net sales over the respective performance period which is expected to be completed by April 2018. The Warrant consists of five performance tranches. The cost associated with each tranche is recognized based on the fair value at each reporting date until vesting which is the measurement date.

#### Semtech End-Markets

Our products are sold primarily to customers in the enterprise computing, communications, high-end consumer and industrial end-markets. Our estimate of sales by major end-market is detailed below:

	Fiscal Years		
(percentage of sales)	2017	2016	2015
Enterprise Computing	31 %	30 %	