

COHU INC  
Form 10-K  
March 14, 2019

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**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 December 29, 2018**

**OR**

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
**Commission file number 1-4298**

**COHU, INC.**

*(Exact name of registrant as specified in its charter)*

**Delaware**

*(State or other jurisdiction of  
Incorporation or Organization)*

**95-1934119**

*(I.R.S. Employer Identification No.)*

**12367 Crosthwaite Circle, Poway, California 92064-6817**

*(Address of principal executive offices) (Zip Code)*

**Registrant's telephone number, including area code: (858) 848-8100**

**Securities registered pursuant to Section 12(b) of the Act:**

<u>Title of Each Class</u>	<u>Name of Exchange on Which Registered</u>
Common Stock, \$1.00 par value	The NASDAQ Stock Market LLC

**Securities registered pursuant to Section 12(g) of the Act:**

None

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 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, a smaller reporting company or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company

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

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 voting stock held by non-affiliates of the registrant was approximately \$463,000,000 based on the closing stock price as reported by the NASDAQ Stock Market LLC as of June 29, 2018. Shares of common stock held by each officer and director and by each person or group who owns 5% or more of the outstanding common stock have been excluded in that such persons or groups may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 5, 2019, the Registrant had 40,812,404 shares of its \$1.00 par value common stock outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Proxy Statement for Cohu, Inc.'s 2019 Annual Meeting of Stockholders to be held on May 8, 2019, and to be filed pursuant to Regulation 14A within 120 days after registrant's fiscal year ended December 29, 2018, are incorporated by reference into Part III of this Report.

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COHU, INC.

FORM 10-K FOR THE FISCAL YEAR ENDED DECEMBER 29, 2018

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*The following discussion should be read in conjunction with the Consolidated Financial Statements and notes thereto included elsewhere in this Annual Report on Form 10-K. This Annual Report on Form 10-K contains certain forward-looking statements including expectations of market conditions, challenges and plans, within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and is subject to the Safe Harbor provisions created by that statute. These forward-looking statements are based on management’s current expectations and beliefs, including estimates and projections about our business. Statements concerning financial position, business strategy, and plans or objectives for future operations are forward-looking statements. These statements are not guarantees of future performance and are subject to certain risks, uncertainties, and assumptions that are difficult to predict and may cause actual results to differ materially from management’s current expectations. Such risks and uncertainties include those set forth in this Annual Report on Form 10-K under the heading “Item 1A. Risk Factors”. The forward-looking statements in this report speak only as of the time they are made and do not necessarily reflect management’s outlook at any other point in time. We undertake no obligation to update publicly any forward-looking statements, whether as a result of new information, future events, or for any other reason. However, readers should carefully review the risk factors set forth in other reports or documents we file from time-to-time with the Securities and Exchange Commission (“SEC”) after the date of this Annual Report.*

**PART I**

**Item 1. Business.**

Cohu, Inc. (“Cohu”, “we”, “our”, “us” and the “Company”) was incorporated under the laws of California in 1947, as Kalbfell Lab, Inc. and commenced active operations in the same year. Our name was changed to Kay Lab in 1954. In 1957, Cohu was reincorporated under the laws of the State of Delaware as Cohu Electronics, Inc. and in 1972 our name was changed to Cohu, Inc.

On October 1, 2018, we acquired Xcerra Corporation (“Xcerra”), a Massachusetts-based company. Xcerra, formerly known as LTX-Credence Corporation, is a global provider of test and handling capital equipment, interface products and related services to the semiconductor and electronics manufacturing industries. Xcerra designs, manufactures and markets products and services that address the broad, divergent requirements of the automotive, industrial, mobility, medical and consumer end markets, offering a comprehensive portfolio of solutions and technologies, and a global network of strategically deployed applications and support resources. Xcerra operated in the semiconductor and electronics manufacturing test markets through its atg-Luther & Maelzer, Everett Charles Technologies (ECT), LTX-Credence and Multitest businesses. The acquisition of Xcerra extended Cohu’s market position in the test handler and test contactor markets and expanded Cohu’s addressable market with our entry into the semiconductor ATE and bare board PCB tester markets. The results of Xcerra’s operations have been included in our consolidated results since October 1, 2018.

Management has determined that Xcerra's fixtures services business does not align with Cohu's long-term strategic plan and has determined to engage in a process to divest this portion of the business. As a result, as of December 29, 2018, the assets of our fixtures business are considered "held for sale" and the operations of our fixtures business are considered "discontinued operations". Unless otherwise noted, all amounts presented are from continuing operations.

On January 4, 2017, we acquired Kita Manufacturing Co. LTD. ("Kita"), a Japan-based manufacturer of spring probe contacts used in final test contactors, probe cards, Printed Circuit Board ("PCB") test and connectors sold to customers worldwide. The results of Kita's operations have been included in our consolidated financial statements since that date.

After the acquisition of Xcerra, we determined that we have two reportable segments, Semiconductor Test and Inspection Equipment ("Semiconductor Test & Inspection") and PCB Test Equipment ("PCB Test"). Financial information on our reportable segments for each of the last three years is included in Note 9, "Segment and Geographic Information" in Part IV, Item 15(a) of this Form 10-K.

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Sales by reportable segment, expressed as a percentage of total consolidated net sales, for the last three years were as follows:

	2018	2017 <sup>(1)</sup>	2016 <sup>(1)</sup>
Semiconductor Test & Inspection	98 %	100 %	100 %
PCB Test	2 %	N/A	N/A
	100 %	100 %	100 %

After the acquisition of Xcerra on October 1, 2018 we report in two segments, Semiconductor Test & Inspection (1) and PCB Test. Cohu's historical reported net sales would have been reported in our Semiconductor Test & Inspection segment and have been presented accordingly.

**Our Products**

Cohu is a leading supplier of semiconductor test and inspection handlers, micro-electro mechanical system (MEMS) test modules, test contactors, thermal sub-systems, semiconductor automated test equipment and bare board PCB test systems used by global semiconductor and electronics manufacturers and test subcontractors. We offer a wide range of products and services and revenue from our capital equipment products is driven by the capital expenditure budgets and spending patterns of our customers, who often delay or accelerate purchases in reaction to variations in their business. The level of capital expenditures by these companies depends on the current and anticipated market demand for semiconductor devices and PCBs and the products that incorporate them. Our consumable products are driven by an increase in the number of semiconductor devices and PCBs that are tested and by the continuous introduction of new products and new technologies by our customers.

We currently sell the following products:

*Semiconductor Test.* Semiconductor automated test equipment (ATE) is used both for wafer level and device package testing. Our semiconductor ATE solutions consist of two platforms focused primarily on the system on a chip (SoC) device market. The Diamond series platform, which includes the flagship Diamondx test system, offers high-density packaging for low-cost testing of microcontrollers and cost sensitive consumer and digital-based ASSP such as Power Management and ASIC devices including flat panel display driver devices. The PAX series of testers is focused primarily on the RF Power Amplifier device market.

*Semiconductor Handlers.* Semiconductor test and inspection handlers are used in conjunction with automated test equipment and are used to automate the testing and inspection of packaged semiconductor devices. Our handlers support a variety of package sizes and device types, including automotive, mobile, power, microelectromechanical

systems (MEMS) and microcontrollers, among others. We offer a broad range of test handlers, including pick-and-place, turret, gravity, strip and MEMS.

*Thermal Sub-Systems.* Thermal sub-systems are used by integrated circuit manufacturers in high performance burn-in and system level test. Thermal sub-systems provide fast and accurate temperature control of the integrated circuit during the testing process.

*Bare Board PCB Test Systems.* Bare board PCB test systems are used to test pre-assembly printed circuit boards. Our PCB test systems include flying probe testers, which are used to test low-volume, highly complex circuit boards and do not require the use of a separate test fixture, as well as universal grid testers, which require the use of a separate test fixture and are well-suited to test circuit boards in high volume manufacturing.

*Interface Products.* Our interface products are comprised of test contactors and probe pins. Test contactors serve as the interface between the test handler and the semiconductor device under test such as digital semiconductor devices utilizing spring probe technology, power management and LED semiconductor devices utilizing cantilever technology, and RF semiconductor devices based on high performance contacts designed to operate at frequencies up to 81 GHz. Test contactors are specific to individual semiconductor device designs, need to be replaced frequently and increase in size with the number of devices tested in parallel. Probe pins are physical devices that are used to connect electronic test equipment to the device under test. We offer probes that are incorporated into bare board test systems, loaded PCB test fixtures and semiconductor test contactors. We address a wide range of applications with our spring probes, voltage probes, current probes, near-field probes, temperature probes, demodulator probes and logic probes.

*Spares and Kits.* We provide consumable, non-consumable and spare items that are used to maintain, sustain or otherwise enable customers' equipment to meet its performance, availability and production requirements. We also design and manufacture a wide range of device dedication kits that enable handlers to process different semiconductor packages.



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*Services.* Our worldwide service organization is capable of performing installations and necessary maintenance of systems sold. We provide various parts and labor warranties on test and handling systems and instruments designed and manufactured by us and warranties on certain components that have been purchased from other manufacturers and incorporated into our test and handling systems. We also provide training on the maintenance and operation of our systems.

**Sales by Product Line**

During the last three years, our consolidated net sales were distributed as follows:

	2018	2017	2016
Semiconductor test & inspection systems	54 %	56 %	57 %
Interface products, spares, kits and service	44 %	44 %	43 %
PCB Test Systems <sup>(1)</sup>	2 %	- %	- %

(1)Cohu had no PCB Test Systems sales prior to the acquisition of Xcerra on October 1, 2018.

**Customers**

Our customers include semiconductor integrated device manufacturers, fabless design houses, PCB manufacturers, and test subcontractors. Repeat sales to existing customers represent a significant portion of our sales. During the last three years, customers of our Semiconductor Test & Inspection segment that comprised 10% or greater of our consolidated net sales were as follows:

	2018	2017	2016
Intel	*	11.2%	17.2%
NXP Semiconductors N.V.	*	15.9%	13.7%

\*No single customer exceeded 10% of consolidated net sales for the year ended December 29, 2018.

No customer of our PCB Test segment exceeded 10% of consolidated net sales for the year ended December 29, 2018.

The loss of, or a significant reduction in, orders by these or other significant customers, including reductions due to market, economic or competitive conditions or the outsourcing of final integrated circuit test to subcontractors that are not our customers would adversely affect our financial condition and results of operations and as a result, we believe that our customer concentration is a significant business risk.

Additional financial information on revenues from external customers by geographic area for each of the last three years is included in Note 9, "Segment and Geographic Information" in Part IV, Item 15(a) of this Form 10-K.

## **Sales and Marketing**

We market our products worldwide through a combination of a direct sales force and independent sales representatives. In geographic areas where we believe there is sufficient sales potential, we generally employ our own personnel. Our U.S. sales offices are located in Poway and Milpitas (California), Richardson (Texas) and Norwood (Massachusetts). Our European sales offices are located in Munich, Rosenheim, Wertheim and Kolbermoor (Germany), Grenoble (France), Agrate (Italy) and La Chaux-de-Fonds (Switzerland). We operate in Asia with offices in Singapore, Malaysia, Thailand, Philippines, Taiwan, China, Korea, and Japan. After acquiring Xcerra, we announced that we would terminate Xcerra's distribution arrangements in China and Taiwan and sell and service Xcerra products direct to customers. As a result, in 2019, we are making significant investments in sales and service resources located in China and Taiwan.

Table of Contents**Competition**

The semiconductor equipment industry is intensely competitive and is characterized by rapid technological change and demanding worldwide service requirements. Significant competitive factors include product performance, price, reliability, lead-time, customer support and installed base of products. While we believe that we are the leading worldwide supplier of semiconductor test handling equipment, we face substantial competition in the Japanese and Korean markets which represent a significant percentage of the worldwide market. During each of the last three years our sales to Japanese and Korean customers, who have historically purchased test handling equipment from Asian suppliers, have represented less than 10% of our total sales. Some of our current and potential competitors are part of larger corporations that have substantially greater financial, engineering, manufacturing and customer support capabilities and offer more extensive product offerings than Cohu. In the semiconductor test market, we face competition from two dominant suppliers headquartered in the U.S. and Japan, both of which are substantially larger than Cohu's test business. While we are among the leading worldwide suppliers of test contactors, this market is very fragmented with a large number of global and local competitors. To remain competitive, we believe we will require significant financial resources to offer a broad range of products, maintain customer support and service centers worldwide and to invest in research and development of new products. Failure to introduce new products in a timely manner or the introduction by competitors of products with actual or perceived advantages could result in a loss of competitive position and reduced sales of existing products. No assurance can be given that we will continue to compete successfully throughout the world.

**Backlog**

Our backlog of unfilled orders for products, by segment at December 29, 2018 and December 30, 2017 was as follows:

<i>(in millions)</i>	2018	2017 (1)
Semiconductor		
Test & Inspection	\$139.8	\$107.6
PCB Test	10.6	-
Total consolidated backlog	\$150.4	\$107.6

After the acquisition of Xcerra on October 1, 2018 we report in two segments, Semiconductor Test & Inspection (1) and PCB Test. Historical backlog amounts would have been reported in our Semiconductor Test & Inspection segment and have been presented accordingly.

Backlog is generally expected to be shipped within the next twelve months. Our backlog at any point in time may not be representative of actual sales in any future period due to the possibility of customer changes in delivery schedules, cancellation of orders, potential delays in product shipments, difficulties in obtaining parts from suppliers or failure to satisfy customer acceptance requirements resulting in the inability to recognize revenue under accounting requirements. Furthermore, many orders are subject to cancellation or rescheduling by the customer with limited or no penalty. A reduction in backlog during any period could have a material adverse effect on our business, financial condition and results of operations.

## **Manufacturing and Raw Materials**

Our principal manufacturing operations are currently located in Malacca and Penang, Malaysia and Kolbermoor and Rosenheim, Germany (handler operations and kits); Laguna, Philippines (kits and test contactors); Fontana, California (probe pins and connectors); Osaka, Japan (probe pins); and Wertheim, Germany (bare board PCB test systems). As part of integrating Xcerra, we have announced that we intend to transfer manufacturing operations from Fontana, Penang and Rosenheim to our other facilities.

We outsource the manufacturing of many of our semiconductor automated test equipment products to Jabil Circuit, Inc. Our contract manufacturing partner is responsible for significant material procurement, assembly, and testing. We continue to manage product design through pilot production for the subcontracted products, and we are directly involved in qualifying suppliers and key components used in all our products. Our contract manufacturer is responsible for funding the capital expenses incurred in connection with the manufacture of our products, except with regard to end-of-line testing equipment and other specific manufacturing equipment utilized in assembling our products or sub-components which are financed and owned by Cohu. Contracting with a global provider such as Jabil, gives us added flexibility to manufacture certain products closer to target markets in Asia, potentially increasing responsiveness to customers while reducing costs and delivery times.

Many of the components and subassemblies we utilize are standard products, although some items are made to our specifications. Certain components are obtained or are available from a limited number of suppliers. We seek to reduce our dependence on sole and limited source suppliers, however in some cases the complete or partial loss of certain of these sources could have a material adverse effect on our operations while we attempt to locate and qualify replacement suppliers.

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### **Patents and Trademarks**

Our technology is protected by various intellectual property laws including patent, license, trademark, copyright and trade secret laws. In addition, we believe that, due to the rapid pace of technological change in the semiconductor and electronic equipment industries, the successful manufacture and sale of our products also depends upon our experience, technological know-how, manufacturing and marketing skills and speed of response to sales opportunities. In the absence of patent protection, we would be vulnerable to competitors who attempt to copy or imitate our products or processes. We believe our intellectual property has value and we have in the past and will in the future take actions we deem appropriate to protect such property from misappropriation. However, there can be no assurance such actions will provide meaningful protection from competition. Protecting our intellectual property rights or defending against claims brought by other holders of such rights, either directly against us or against customers we have agreed to indemnify, would likely be expensive and time consuming and could have a material adverse effect on our operations.

### **Research and Development**

Research and development activities are carried on in our various subsidiaries and are directed toward development of new products and equipment, as well as enhancements to existing products and equipment. Our total research and development expense was \$56.4 million in 2018, \$40.7 million in 2017 and \$34.8 million in 2016. The increase in research and development expense in 2018 was primarily associated with the acquisition of Xcerra, which added research and development expenses totaling \$11.6 million.

We work closely with our customers to make improvements to our existing products and in the development of new products. We expect to continue to invest heavily in research and development and must manage product transitions successfully as introductions of new products could adversely impact sales.

### **Environmental Laws**

Our business is subject to numerous federal, state, local and international environmental laws. On occasion, we have been notified by local authorities of instances of noncompliance with local and/or state environmental laws. We believe we are in compliance with applicable federal, state, local and international regulations. Compliance with federal, state, local and international laws that have been enacted or adopted regulating the discharge of materials into the environment or otherwise relating to the protection of the environment and the prevention of climate change have not had a material effect and are not expected to have a material effect upon our capital expenditures, results of operations or our competitive position. However, future changes in regulations may require expenditures that could adversely impact earnings in future years.

**Executive Officers of the Registrant**

The following sets forth the names, ages, positions and offices held by all executive officers of Cohu as of March 5, 2019. Executive Officers serve at the discretion of the Board of Directors, until their successors are appointed.

<b>Name</b>	<b>Age</b>	<b>Position</b>
Luis A. Müller	49	President and Chief Executive Officer
Jeffrey D. Jones	57	Vice President, Finance and Chief Financial Officer
Thomas D. Kampfer	55	Vice President, Corporate Development, General Counsel and Secretary
Pascal Rondé	56	Senior Vice President, Global Customer Group
Christopher G. Bohrson	60	Senior Vice President and General Manager, Test Handler Group
Stephen R. Wigley	62	Vice President and General Manager, Semiconductor Test Group

Dr. Müller has been the President and Chief Executive Officer of Cohu since December 28, 2014. His previous roles at Cohu include serving as President of Cohu's Semiconductor Equipment Group ("SEG") from 2011 to 2014; Managing Director of Rasco GmbH from 2009 to 2011; Vice President of Delta Design's High Speed Handling Group from 2008 to 2011; and Director of Engineering at Delta Design from 2005 to 2008. Prior to joining Cohu, Dr. Müller spent nine years at Teradyne Inc., where he held management positions in engineering and business development.

Mr. Jones joined Cohu's Delta Design subsidiary in July 2005 as Vice President Finance and Controller. In November 2007, Mr. Jones was named Vice President, Finance and Chief Financial Officer of Cohu. Prior to joining Delta Design, Mr. Jones, was a consultant and Vice President and General Manager of the Systems Group at SBS Technologies, Inc., a designer and manufacturer of embedded computer products. Prior to SBS Technologies, Mr. Jones was an Audit Manager for Coopers & Lybrand (now PricewaterhouseCoopers).

Mr. Kampfer joined Cohu in May 2017 as Vice President Corporate Development, General Counsel and Secretary. Mr. Kampfer most recently served from June 2015 to May 2017 as Executive Vice President and Chief Financial Officer of Multi-Fineline Electronix, Inc. Prior to that, Mr. Kampfer served from 2012 to 2015 as President of CohuHD, formerly a division of Cohu, which was divested in 2014. Previously, Mr. Kampfer spent eight years with Iomega Corporation, holding several executive positions, including President and Chief Operating Officer and Vice President, General Counsel and Secretary. Earlier, Mr. Kampfer served in various legal and business development executive roles with Proxima Corporation, and also held various positions in manufacturing engineering and legal at IBM.

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Mr. Rondé joined Cohu in October 2018 with the acquisition of Xcerra, and was appointed Sr. Vice President, Global Customer Group at that time. Mr. Rondé was Sr. Vice President Global Customer Team at Xcerra, a position he held since joining the company's original LTX-Credence group in January 2012. Prior to that, Mr. Rondé was Vice President Global Sales, Service, Support and Business Development for Verigy, Inc. from 2006 to 2011. From 2000 to 2006, he was the Vice President of Global Sales, Service and Support for Agilent Technologies and later Verigy. Mr. Rondé spent the early part of his career in sales and management roles in France at HP, ATE Europe and Saintel.

Mr. Bohrson was appointed Sr. Vice President and General Manager, Test Handler Group in October 2018. Mr. Bohrson was Vice President and General Manager for Digital Test Handlers from January 2017 until his promotion, and served as Vice President Sales and Service, Americas from May 2016 to January 2017. Prior to joining Cohu, from 2007 through 2016, Mr. Bohrson held several executive positions at Bosch Automotive Service Solutions/SPX lastly as Vice President and General Manager of the OEM Diagnostics and Information Solutions group. Prior to that, Mr. Bohrson spent twenty years working in a variety of management and technical roles at Teradyne, Inc.'s semiconductor and broadband test division in the U.S. and Asia.

Mr. Wigley joined Cohu in October 2018 with the acquisition of Xcerra, and was appointed Vice President & General Manager, Semiconductor Test Group at that time. Mr. Wigley was Vice President and General Manager of the Xcerra's Semiconductor ATE Group from 2013 until joining Cohu. Prior to that, he served in executive marketing and product roles with LTX-Credence for 17 years. Mr. Wigley also held senior roles at RVSI and Schlumberger ATE, with assignments in the Americas, Europe and Asia.

## **Employees**

At December 29, 2018, we had approximately 3,500 employees, of which approximately 1,600 were added as a result of our acquisition of Xcerra. Our employee headcount has fluctuated in the last five years primarily due to the volatile and unpredictable business conditions in the semiconductor equipment industry. Over the last several years, our headcount has also been impacted by acquisitions and divestitures. Our employees in the United States and most locations in Asia are not covered by collective bargaining agreements, however, certain employees at our operations in Germany are represented by works councils and employees in La Chaux-de-Fonds, Switzerland are members of the micro-technology and Swiss watch trade union. The Collective Bargaining Agreement of "Metallurgie (ingenieurs et cadres)" is applicable to all employees of our French subsidiary and certain employees in our China operation belong to local trade unions. We have not experienced any work stoppages and consider relations with our employees to be good. We believe that a great part of our future success will depend on our continued ability to attract and retain qualified employees. Competition for the services of certain personnel, particularly those with technical skills, is intense. There can be no assurance that we will be able to attract, hire, assimilate and retain a sufficient number of qualified employees.

## **Available Information**

Our web site address is [www.cohu.com](http://www.cohu.com). We make available free of charge, on or through our web site, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports, as soon as reasonably practicable after such material is electronically filed with the Securities and Exchange Commission. Our Code of Business Conduct and Ethics and other documents related to our corporate governance are also posted on our web site at [www.cohu.com/investors/corporategovernance](http://www.cohu.com/investors/corporategovernance). Information contained on our web site is not deemed part of this report.



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**Item 1A. Risk Factors.**

*Set forth below and elsewhere in this report on Form 10-K and in other documents we file with the SEC, are risks and uncertainties that could cause actual results to differ materially from the results expressed or implied by the forward-looking statements contained in this Annual Report. Before deciding to purchase, hold or sell our common stock, you should carefully consider the risks described below in addition to the other cautionary statements and risks described elsewhere, and the other information contained, in this Annual Report on Form 10-K. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business. If any of these known or unknown risks or uncertainties actually occurs with material adverse effects on Cohu, our business, financial condition and results of operations could be seriously harmed. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment.*

***We may fail to realize all of the anticipated benefits of the Xcerra acquisition or those benefits may take longer to realize than expected.***

Cohu acquired Xcerra Corporation (“Xcerra”) on October 1, 2018, whereby Xcerra became a wholly owned subsidiary of Cohu (the “Merger”). Our ability to realize the anticipated benefits and synergies of the Merger will depend, to a large extent, on our ability to integrate Xcerra, which is expected to be a complex, costly and time-consuming process. The integration process may disrupt our business and, if implemented ineffectively, could restrict the realization of the full expected benefits. The failure to meet the challenges involved in the integration process and to realize the anticipated benefits of the Merger could cause an interruption of, or a loss of momentum in, our operations and could adversely affect our business, financial condition and results of operations.

In addition, the integration of Xcerra may result in material unanticipated problems, expenses, liabilities, competitive responses, and loss of customers, suppliers and other business relationships. Additional integration challenges include:

difficulties entering new markets or manufacturing in new geographies where Cohu has no or limited direct prior experience;  
such a new market for Cohu, the automated test equipment market, is intensely competitive with entrenched large competitors who are much larger than Cohu;  
successfully managing relationships with Cohu and Xcerra’s combined supplier and customer base;