
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 July 3, 2016
☒ 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 001-34218
COGNEX CORPORATION

(Exact name of registrant as specified in its charter)

Massachusetts

(State or other jurisdiction of
incorporation or organization)

04-2713778

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

**One Vision Drive
Natick, Massachusetts 01760-2059
(508) 650-3000**

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

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

Large accelerated filer ☒ Accelerated filer ☐
Non-accelerated filer ☐ 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 July 3, 2016, there were 85,109,036 shares of Common Stock, \$.002 par value per share, of the registrant outstanding.

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PART I: FINANCIAL INFORMATION
ITEM 1: FINANCIAL STATEMENTS

COGNEX CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Three-months Ended		Six-months Ended	
	July 3, 2016	July 5, 2015	July 3, 2016	July 5, 2015
	(unaudited)		(unaudited)	
Revenue	\$ 147,274	\$ 143,829	\$ 243,479	\$ 245,202
Cost of revenue	35,213	30,508	56,181	52,852
Gross margin	112,061	113,321	187,298	192,350
Research, development, and engineering expenses	19,671	18,302	40,226	35,288
Selling, general, and administrative expenses	42,715	43,241	81,053	83,174
Operating income	49,675	51,778	66,019	73,888
Foreign currency gain (loss)	330	(39)	230	620
Investment income	1,447	957	2,584	1,807
Other income (expense)	222	(55)	429	(365)
Income from continuing operations before income tax expense	51,674	52,641	69,262	75,950
Income tax expense on continuing operations	8,660	9,125	11,363	12,962
Net income from continuing operations	43,014	43,516	57,899	62,988
Net income (loss) from discontinued operations (Note 14)	(255)	198	(255)	1,228
Net income	\$ 42,759	\$ 43,714	\$ 57,644	\$ 64,216
Basic earnings per weighted-average common and common-equivalent share:				
Net income from continuing operations	\$ 0.51	\$ 0.50	\$ 0.68	\$ 0.72
Net income (loss) from discontinued operations	\$ (0.01)	\$ —	\$ —	\$ 0.02
Net income	\$ 0.50	\$ 0.50	\$ 0.68	\$ 0.74
Diluted earnings per weighted-average common and common-equivalent share:				
Net income from continuing operations	\$ 0.50	\$ 0.49	\$ 0.67	\$ 0.71
Net income (loss) from discontinued operations	\$ (0.01)	\$ —	\$ (0.01)	\$ 0.01
Net income	\$ 0.49	\$ 0.49	\$ 0.66	\$ 0.72
Weighted-average common and common-equivalent shares outstanding:				
Basic	85,107	87,199	85,024	86,977
Diluted	86,806	89,185	86,713	88,951
Cash dividends per common share	\$ 0.075	\$ 0.07	\$ 0.145	\$ 0.07

The accompanying notes are an integral part of these consolidated financial statements.

COGNEX CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In thousands)

	Three-months Ended		Six-months Ended	
	July 3, 2016	July 5, 2015	July 3, 2016	July 5, 2015
	(unaudited)		(unaudited)	
Net income	\$ 42,759	\$ 43,714	\$ 57,644	\$ 64,216
Other comprehensive income (loss), net of tax:				
Cash flow hedges:				
Net unrealized gain (loss), net of tax of (\$15) and \$48 in the three-month periods and net of tax of (\$97) and (\$25) in the six-month periods, respectively	(302)	237	(879)	(283)
Reclassification of net realized (gain) loss into current operations	190	69	186	179
Net change related to cash flow hedges	(112)	306	(693)	(104)
Available-for-sale investments:				
Net unrealized gain (loss), net of tax of \$243 and (\$128) in the three-month periods and net of tax of \$510 and \$6 in the six-month periods, respectively	1,351	(333)	2,632	566
Reclassification of net realized (gain) loss into current operations	(141)	(192)	(128)	(221)
Net change related to available-for-sale investments	1,210	(525)	2,504	345
Foreign currency translation adjustments:				
Foreign currency translation adjustments, net of tax of (\$155) and \$107 in the three-month periods and net of tax of \$174 and (\$529) in the six-month periods, respectively	(2,546)	2,450	2,614	(8,240)
Net change related to foreign currency translation adjustments	(2,546)	2,450	2,614	(8,240)
Other comprehensive income (loss), net of tax	(1,448)	2,231	4,425	(7,999)
Total comprehensive income	\$ 41,311	\$ 45,945	\$ 62,069	\$ 56,217

The accompanying notes are an integral part of these consolidated financial statements.

COGNEX CORPORATION
CONSOLIDATED BALANCE SHEETS
(In thousands)

	July 3, 2016 (unaudited)	December 31, 2015
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 54,929	\$ 51,975
Short-term investments	294,593	296,468
Accounts receivable, less reserves of \$802 and \$736 in 2016 and 2015, respectively	61,219	42,846
Unbilled revenue	25,500	24
Inventories	25,882	37,334
Prepaid expenses and other current assets	23,601	15,847
Total current assets	485,724	444,494
Long-term investments	307,703	273,088
Property, plant, and equipment, net	53,406	53,285
Goodwill	81,448	81,448
Intangible assets, net	4,453	6,315
Deferred income taxes	29,083	26,517
Other assets	2,623	2,609
Total assets	\$ 964,440	\$ 887,756
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 14,157	\$ 7,860
Accrued expenses	36,061	33,272
Accrued income taxes	3,238	985
Deferred revenue and customer deposits	15,733	11,571
Total current liabilities	69,189	53,688
Deferred income taxes	326	319
Reserve for income taxes	5,651	4,830
Other non-current liabilities	2,630	3,252
Total liabilities	77,796	62,089
Shareholders' equity:		
Common stock, \$.002 par value – Authorized: 200,000 and 140,000 shares in 2016 and 2015, respectively, issued and outstanding: 85,109 and 84,856 shares in 2016 and 2015, respectively	170	170
Additional paid-in capital	330,969	311,008
Retained earnings	603,204	566,613
Accumulated other comprehensive loss, net of tax	(47,699)	(52,124)
Total shareholders' equity	886,644	825,667
	\$ 964,440	\$ 887,756

The accompanying notes are an integral part of these consolidated financial statements.

COGNEX CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Six-months Ended	
	July 3, 2016	July 5, 2015
	(unaudited)	
Cash flows from operating activities:		
Net income	\$ 57,644	\$ 64,216
Adjustments to reconcile net income to net cash provided by operating activities:		
(Gain) loss on sale of discontinued business	255	—
Stock-based compensation expense	11,261	11,577
Depreciation of property, plant, and equipment	5,577	4,816
Amortization of intangible assets	1,862	2,183
Amortization of discounts or premiums on investments	204	377
Realized (gain) loss on sale of investments	(128)	(221)
Revaluation of contingent consideration	(463)	—
Change in deferred income taxes	(2,943)	(2,010)
Change in operating assets and liabilities:		
Accounts receivable	(17,737)	(5,387)
Unbilled revenue	(25,507)	(52,697)
Inventories	11,964	(11,200)
Accounts payable	6,224	(1,645)
Accrued expenses	1,762	(3,887)
Accrued income taxes	2,245	8,719
Deferred revenue and customer deposits	3,998	8,485
Other	(6,907)	(5,323)
Net cash provided by operating activities	49,311	18,003
Cash flows from investing activities:		
Purchases of investments	(455,915)	(222,834)
Maturities and sales of investments	427,196	252,768
Purchases of property, plant, and equipment	(5,347)	(9,525)
Cash paid for purchased technology	—	(10,475)
Net cash received (paid) from sale of discontinued business	(113)	—
Net cash provided by (used in) investing activities	(34,179)	9,934
Cash flows from financing activities:		
Issuance of common stock under stock plans	8,700	21,457
Repurchase of common stock	(8,718)	(35,848)
Payment of dividends	(12,335)	(6,110)
Payment of contingent consideration	(337)	—
Net cash provided by (used in) financing activities	(12,690)	(20,501)
Effect of foreign exchange rate changes on cash and cash equivalents	512	(1,439)
Net change in cash and cash equivalents	2,954	5,997
Cash and cash equivalents at beginning of period	51,975	55,694
Cash and cash equivalents at end of period	\$ 54,929	\$ 61,691
Non-cash items related to discontinued operations:		
Depreciation and amortization expense	\$ —	\$ 566
Capital expenditures	—	482
Stock-based compensation expense	—	427

The accompanying notes are an integral part of these consolidated financial statements.

COGNEX CORPORATION
CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY
(In thousands)

	Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Shareholders' Equity
	Shares	Par Value				
Balance as of December 31, 2015	84,856	\$ 170	\$ 311,008	\$ 566,613	\$ (52,124)	\$ 825,667
Issuance of common stock under stock plans	461	—	8,700	—	—	8,700
Repurchase of common stock	(208)	—	—	(8,718)	—	(8,718)
Stock-based compensation expense	—	—	11,261	—	—	11,261
Payment of dividends	—	—	—	(12,335)	—	(12,335)
Net income	—	—	—	57,644	—	57,644
Net unrealized gain (loss) on cash flow hedges, net of tax of (\$97)	—	—	—	—	(879)	(879)
Reclassification of net realized (gain) loss on cash flow hedges	—	—	—	—	186	186
Net unrealized gain (loss) on available-for-sale investments, net of tax of \$510	—	—	—	—	2,632	2,632
Reclassification of net realized (gain) loss on the sale of available-for-sale investments	—	—	—	—	(128)	(128)
Foreign currency translation adjustment, net of tax of \$174	—	—	—	—	2,614	2,614
Balance as of July 3, 2016 (unaudited)	<u>85,109</u>	<u>\$ 170</u>	<u>\$ 330,969</u>	<u>\$ 603,204</u>	<u>\$ (47,699)</u>	<u>\$ 886,644</u>

The accompanying notes are an integral part of these consolidated financial statements.

COGNEX CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

NOTE 1: Summary of Significant Accounting Policies

As permitted by the rules of the Securities and Exchange Commission applicable to Quarterly Reports on Form 10-Q, these notes are condensed and do not contain all disclosures required by generally accepted accounting principles (GAAP). The Company has provided expanded disclosures related to its revenue recognition accounting policy in this quarterly report on Form 10-Q. Reference should be made to the consolidated financial statements and related notes included in the Company's Annual Report on Form 10-K for the year ended December 31, 2015 for a full description of significant accounting policies.

In the opinion of the management of Cognex Corporation (the "Company"), the accompanying consolidated unaudited financial statements contain all adjustments, consisting of normal, recurring adjustments and financial statement reclassifications, including those related to the disposition of a business (more fully described in Note 14), necessary to present fairly the Company's financial position as of July 3, 2016, and the results of its operations for the three-month and six-month periods ended July 3, 2016 and July 5, 2015, and changes in shareholders' equity, comprehensive income, and cash flows for the periods presented.

The results disclosed in the Consolidated Statements of Operations for the three-month and six-month periods ended July 3, 2016 are not necessarily indicative of the results to be expected for the full year.

On July 6, 2015, the Company completed the sale of its Surface Inspection Systems Division (SISD). The financial results of SISD are reported as a discontinued operation for all periods presented.

Revenue Recognition

In order to recognize revenue, the Company requires that a signed customer contract or purchase order is received, the fee from the arrangement is fixed or determinable, and the collection of the resulting receivable is probable. Assuming that these criteria have been met, product revenue is generally recognized upon delivery, revenue from maintenance and support programs is recognized ratably over the program period, and revenue from consulting and training services is recognized when the services have been provided. When customer-specified acceptance criteria exists that are substantive, product revenue is deferred, along with associated incremental direct costs, until these criteria have been met and any remaining performance obligations are inconsequential or perfunctory.

For the majority of the Company's revenue transactions, revenue recognition and invoicing both occur upon delivery. In certain circumstances, however, the agreement with the customer provides for invoicing terms which differ from revenue recognition criteria, resulting in either deferred revenue or unbilled revenue. Invoicing that precedes revenue recognition is common for various customers in the logistics industry where milestone billings are prevalent, resulting in deferred revenue. Conversely, the Company records unbilled revenue in connection with a material customer in the consumer electronics industry. For this arrangement, the Company recognizes revenue for all delivered products when the first production line that incorporates these products is validated, because at that point the remaining performance obligations are inconsequential or perfunctory. Invoicing for all delivered products occurs as the production lines incorporating those products are installed over a period of several weeks. The Company also has a technical support obligation related to this arrangement for which revenue is deferred and recognized over the support period of approximately six months.

Certain customers are offered pricing discounts on current sales based upon purchasing volumes or preferred pricing arrangements, for which revenue is reported net of these discounts.

NOTE 2: New Pronouncements

Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers"

The amendments in ASU 2014-09 will supersede and replace all currently existing U.S. GAAP, including industry-specific revenue recognition guidance, with a single, principle-based revenue recognition framework. The concept guiding this new model is that revenue recognition will depict transfer of control to the customer in an amount that reflects consideration to which an entity expects to be entitled. The core principles supporting this framework include (1) identifying the contract with a customer, (2) identifying separate performance obligations within the contract, (3) determining the transaction price, (4) allocating the transaction price to the performance obligations, and (5) recognizing revenue. This new framework will require entities to apply significantly more judgment. This increase in management judgment will require expanded disclosure on estimation methods, inputs, and assumptions for revenue recognition.

In March 2016, ASU 2016-08, "Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," was issued, in April 2016, ASU 2016-10, "Identifying Performance Obligations and Licensing," was issued, and in May

2016, ASU 2016-12, "Narrow-Scope Improvements and Practical Expedients" was issued. These Updates do not change the core principle of the guidance under ASU 2014-09, but rather provide implementation guidance. ASU 2015-14, "Deferral of the effective date," amended the effective date of ASU 2014-09 for public companies to annual reporting periods beginning after December 15, 2017. Early adoption is permitted, but only beginning after December 15, 2016. The Financial Accounting Standards Board may release additional implementation guidance in future periods. Management will continue to evaluate the impact of this standard as it evolves.

Accounting Standards Update (ASU) 2015-11, "Inventory - Simplifying the Measurement of Inventory"

ASU 2015-11 requires companies to measure most inventory at the lower of cost and net realizable value, thereby simplifying the current guidance under which a company must measure inventory at the lower of cost or market. This ASU eliminates the need to determine replacement cost and evaluate whether said cost is within a quantitative range. This ASU also further aligns U.S. GAAP and international accounting standards. For public companies, the guidance in ASU 2015-11 is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. Early adoption is permitted. Management does not expect ASU 2015-11 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-01, "Financial Instruments - Recognition and Measurement of Financial Assets and Financial Liabilities"

ASU 2016-01 provides guidance related to certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The amendments in this Update affect all entities that hold financial assets or owe financial liabilities. This ASU requires equity investments (except those accounted under the equity method) to be measured at fair value with changes in fair value recognized in net income. However, an entity may choose to measure equity investments that do not have readily determinable fair values at cost minus impairment. This ASU also eliminates the requirement for public companies to disclose the methods and significant assumptions used to estimate the fair value for financial instruments measured at amortized cost on the balance sheet, and it requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the balance sheet or the accompanying notes to the financial statements. For public companies, the guidance in ASU 2016-01 is effective for annual periods beginning after December 15, 2017, and interim periods within those annual periods. Early adoption is not permitted except for certain amendments in this Update. Management does not expect ASU 2016-01 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-02, "Leases"

ASU 2016-02 creates Topic 842, Leases. The objective of this Update is to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet, and disclosing key information about leasing arrangements. This ASU applies to any entity that enters into a lease, although lessees will see the most significant changes. The main difference between current U.S. GAAP and Topic 842 is the recognition of lease assets and lease liabilities on the balance sheet for those leases classified as operating leases under current U.S. GAAP. Topic 842 distinguishes between finance leases and operating leases, which are substantially similar to the classification criteria for distinguishing between capital leases and operating leases under current U.S. GAAP. For public companies, the guidance in ASU 2016-02 is effective for annual periods beginning after December 15, 2018, and interim periods within those annual periods. This ASU should be applied using a modified retrospective approach. Management is in the process of evaluating the impact of this Update.

Accounting Standards Update (ASU) 2016-05, "Derivatives and Hedging - Effect of Derivative Contract Novations on Existing Hedge Accounting Relationships"

ASU 2016-05 applies to all reporting entities for which there is a change in the counterparty to a derivative instrument that has been designated as the hedging instrument. The amendments in this Update clarify that a change in the counterparty does not, in and of itself, require de-designation of that hedging relationship provided that all other hedge accounting criteria continue to be met. For public companies, the guidance in ASU 2016-05 is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. This ASU should be applied on either a prospective basis or a modified retrospective basis. Management does not expect ASU 2016-05 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-13, "Financial Instruments - Measurement of Credit Losses"

ASU 2016-13 applies to all reporting entities holding financial assets that are not accounted for at fair value through net income (debt securities). The amendments in this Update eliminate the probable initial recognition threshold to recognize a credit loss under current U.S. GAAP and, instead, reflect an entity's current estimate of all expected credit losses. In addition, this Update broadens the information an entity must consider in developing the credit loss estimate, including the use of reasonable and supportable forecasted information. The amendments in this Update require that

credit losses on available-for-sale debt securities be presented as an allowance rather than as a write-down and an entity will be able to record reversals of credit losses in current period net income. For public companies, the guidance in ASU 2016-13 is effective for annual periods beginning after December 15, 2019, and interim periods within those annual periods. This ASU should be applied through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. Management does not expect ASU 2016-13 to have a material impact on the Company's financial statements and disclosures.

NOTE 3: Fair Value Measurements

Financial Assets and Liabilities that are Measured at Fair Value on a Recurring Basis

The following table summarizes the financial assets and liabilities required to be measured at fair value on a recurring basis as of July 3, 2016 (in thousands):

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Assets:			
Money market instruments	\$ 7,178	\$ —	\$ —
Corporate bonds	—	248,922	—
Treasury bills	—	110,979	—
Asset-backed securities	—	105,185	—
Euro liquidity fund	—	48,941	—
Sovereign bonds	—	48,181	—
Agency bonds	—	31,781	—
Municipal bonds	—	7,365	—
Cash flow hedge forward contracts	—	205	—
Liabilities:			
Cash flow hedge forward contracts	—	757	—
Economic hedge forward contracts	—	26	—
Contingent consideration liability	—	—	2,200

The Company's money market instruments are reported at fair value based upon the daily market price for identical assets in active markets, and are therefore classified as Level 1.

The Company's debt securities and forward contracts are reported at fair value based upon model-driven valuations in which all significant inputs are observable or can be derived from or corroborated by observable market data for substantially the full term of the asset or liability, and are therefore classified as Level 2. Management is responsible for estimating the fair value of these financial assets and liabilities, and in doing so, considers valuations provided by a large, third-party pricing service. For debt securities, this service maintains regular contact with market makers, brokers, dealers, and analysts to gather information on market movement, direction, trends, and other specific data. They use this information to structure yield curves for various types of debt securities and arrive at the daily valuations. The Company's forward contracts are typically traded or executed in over-the-counter markets with a high degree of pricing transparency. The market participants are generally large commercial banks.

The Company did not record an other-than-temporary impairment of these financial assets during the six-month period ended July 3, 2016.

The Company's contingent consideration liability, related to the acquisition of Manatee Works, Inc. in 2015, is reported at fair value based upon probability-adjusted present values of the consideration expected to be transferred using significant inputs that are not observable in the market, and is therefore classified as Level 3. Key assumptions used in these estimates include probability assessments with respect to the likelihood of achieving the revenue milestones and discount rates consistent with the level of risk of achievement. The contingent consideration is remeasured each reporting period with changes in fair value recorded in "Other income (expense)" on the Consolidated Statements of Operations.

The following table summarizes the activity for the Company's liability measured at fair value using Level 3 inputs for the six-month period ended July 3, 2016 (in thousands):

COGNEX CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

Balance as of December 31, 2015	\$ 3,000
Payment of contingent consideration	(337)
Fair value adjustment to the contingent consideration	(463)
Balance as of July 3, 2016	<u>\$ 2,200</u>

Financial Assets that are Measured at Fair Value on a Non-recurring Basis

The Company has an interest in a limited partnership, which is accounted for using the cost method and is required to be measured at fair value on a non-recurring basis. Management is responsible for estimating the fair value of this investment, and in doing so, considers valuations of the partnership's investments as determined by the General Partner. Publicly-traded investments in active markets are reported at the market closing price less a discount, as appropriate, to reflect restricted marketability. Fair value for private investments for which observable market prices in active markets do not exist is based upon the best information available including the value of a recent financing, reference to observable valuation measures for comparable companies (such as revenue multiples), public or private transactions (such as the sale of a comparable company), and valuations for publicly-traded comparable companies. The valuations also incorporate the General Partner's own judgment and close familiarity with the business activities of each portfolio company. Significant increases or decreases in any of these inputs in isolation may result in a significantly lower or higher fair value measurement. The portfolio consists of securities of public and private companies, and consequently, inputs used in the fair value calculation are classified as Level 3. The Company did not record an other-than-temporary impairment of this investment during the six-month period ended July 3, 2016.

Non-financial Assets that are Measured at Fair Value on a Non-recurring Basis

Non-financial assets such as property, plant and equipment, goodwill, and intangible assets are required to be measured at fair value only when an impairment loss is recognized. The Company did not record an impairment charge related to these assets during the six-month period ended July 3, 2016.

NOTE 4: Cash, Cash Equivalents, and Investments

Cash, cash equivalents, and investments consisted of the following (in thousands):

	July 3, 2016	December 31, 2015
Cash	\$ 47,751	\$ 45,951
Money market instruments	7,178	6,024
Cash and cash equivalents	<u>54,929</u>	<u>51,975</u>
Corporate bonds	90,700	54,376
Asset-backed securities	68,879	61,994
Euro liquidity fund	48,941	47,730
Treasury bills	42,013	109,360
Sovereign bonds	24,022	21,440
Agency bonds	13,177	978
Municipal bonds	6,861	590
Short-term investments	<u>294,593</u>	<u>296,468</u>
Corporate bonds	158,222	176,575
Treasury bills	68,966	44,437
Asset-backed securities	36,306	24,582
Sovereign bonds	24,159	13,503
Agency bonds	18,604	8,180
Municipal bonds	504	4,869
Limited partnership interest (accounted for using cost method)	942	942
Long-term investments	<u>307,703</u>	<u>273,088</u>
	<u>\$ 657,225</u>	<u>\$ 621,531</u>

Corporate bonds consist of debt securities issued by both domestic and foreign companies; asset-backed securities consist of debt securities collateralized by pools of receivables or loans with credit enhancement; the Euro liquidity fund invests in a portfolio of investment-grade bonds; treasury bills consist of debt securities issued by both the U.S. and foreign governments; sovereign bonds consist of direct debt issued by foreign governments; agency bonds consist of domestic or foreign obligations of government agencies and government sponsored enterprises that have

COGNEX CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

government backing; and municipal bonds consist of debt securities issued by state and local government entities. The Euro liquidity fund is denominated in Euros, and the remaining securities are denominated in U.S. Dollars.

The following table summarizes the Company's available-for-sale investments as of July 3, 2016 (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Short-term:				
Corporate bonds	\$ 90,642	\$ 84	\$ (26)	\$ 90,700
Asset-backed securities	68,842	52	(15)	68,879
Euro liquidity fund	48,753	188	—	48,941
Treasury bills	41,995	18	—	42,013
Sovereign bonds	24,015	8	(1)	24,022
Agency bonds	13,176	1	—	13,177
Municipal bonds	6,845	16	—	6,861
Long-term:				
Corporate bonds	157,541	920	(239)	158,222
Treasury bills	68,756	210	—	68,966
Asset-backed securities	36,252	78	(24)	36,306
Sovereign bonds	24,076	83	—	24,159
Agency bonds	18,610	—	(6)	18,604
Municipal bonds	500	4	—	504
	\$ 600,003	\$ 1,662	\$ (311)	\$ 601,354

The following table summarizes the Company's gross unrealized losses and fair values for available-for-sale investments in an unrealized loss position as of July 3, 2016 (in thousands):

	Unrealized Loss Position For:					
	Less than 12 Months		12 Months or Greater		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Corporate bonds	\$ 32,420	\$ (65)	\$ 34,302	\$ (200)	\$ 66,722	\$ (265)
Asset-backed securities	26,480	(18)	10,966	(21)	37,446	(39)
Agency bonds	15,802	(6)	—	—	15,802	(6)
Sovereign bonds	8,101	(1)	—	—	8,101	(1)
	\$ 82,803	\$ (90)	\$ 45,268	\$ (221)	\$ 128,071	\$ (311)

As of July 3, 2016, the Company did not recognize any other-than-temporary impairment of these investments. In its evaluation, management considered the type of security, the credit rating of the security, the length of time the security has been in a loss position, the size of the loss position, our intent and ability to hold the security to expected recovery of value, and other meaningful information. The Company does not intend to sell, and is unlikely to be required to sell, any of these available-for-sale investments before its effective maturity or market price recovery.

The Company recorded gross realized gains and gross realized losses on the sale of debt securities totaling \$141,000 and \$0, respectively, during the three-month period ended July 3, 2016 and \$210,000 and \$18,000, respectively, during the three-month period ended July 5, 2015. The Company recorded gross realized gains and gross realized losses on the sale of debt securities totaling \$225,000 and \$97,000, respectively, during the six-month period ended July 3, 2016 and \$408,000 and \$187,000, respectively, during the six-month period ended July 5, 2015. These gains and losses are included in "Investment income" on the Consolidated Statement of Operations. Prior to the sale of these securities, unrealized gains and losses for these debt securities, net of tax, are recorded in shareholders' equity as other comprehensive income (loss).

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The following table presents the effective maturity dates of the Company's available-for-sale investments as of July 3, 2016 (in thousands):

	<1 year	1-2 Years	2-3 Years	3-4 Years	4-5 Years	Total
Corporate bonds	\$ 90,700	\$ 75,069	\$ 77,871	\$ 4,663	\$ 619	\$ 248,922
Treasury bills	42,013	68,034	932	—	—	110,979
Asset-backed securities	68,879	18,867	7,134	10,067	238	105,185
Euro liquidity fund	48,941	—	—	—	—	48,941
Sovereign bonds	24,022	20,317	3,842	—	—	48,181
Agency bonds	13,177	12,897	5,707	—	—	31,781
Municipal bonds	6,861	504	—	—	—	7,365
	<u>\$ 294,593</u>	<u>\$ 195,688</u>	<u>\$ 95,486</u>	<u>\$ 14,730</u>	<u>\$ 857</u>	<u>\$ 601,354</u>

The Company is a Limited Partner in Venrock Associates III, L.P. (Venrock), a venture capital fund. The Company has committed to a total investment in the limited partnership of up to \$20,500,000, with an expiration date of December 31, 2017. The Company does not have the right to withdraw from the partnership prior to this date. As of July 3, 2016, the Company contributed \$19,886,000 to the partnership. The remaining commitment of \$614,000 can be called by Venrock at any time before December 31, 2017. Contributions and distributions are at the discretion of Venrock's management. No contributions were made and no distributions were received during the six-month period ended July 3, 2016.

NOTE 5: Inventories

Inventories consisted of the following (in thousands):

	July 3, 2016	December 31, 2015
Raw materials	\$ 18,263	\$ 27,301
Work-in-process	2,164	3,136
Finished goods	5,455	6,897
	<u>\$ 25,882</u>	<u>\$ 37,334</u>

NOTE 6: Warranty Obligations

The Company records the estimated cost of fulfilling product warranties at the time of sale based upon historical costs to fulfill claims. Obligations may also be recorded subsequent to the time of sale whenever specific events or circumstances impacting product quality become known that would not have been taken into account using historical data. While we engage in extensive product quality programs and processes, including actively monitoring and evaluating the quality of our component suppliers and third-party contract manufacturers, the Company's warranty obligation is affected by product failure rates, material usage, and service delivery costs incurred in correcting a product failure. An adverse change in any of these factors may result in the need for additional warranty provisions. Warranty obligations are included in "Accrued expenses" on the Consolidated Balance Sheets.

The changes in the warranty obligation were as follows (in thousands):

Balance as of December 31, 2015	\$ 4,174
Provisions for warranties issued during the period	1,308
Fulfillment of warranty obligations	(1,369)
Foreign exchange rate changes	89
Balance as of July 3, 2016	<u>\$ 4,202</u>

NOTE 7: Contingencies

Various claims and legal proceedings generally incidental to the normal course of business are pending or threatened on behalf of or against the Company. While we cannot predict the outcome of these matters, we believe that any liability arising from them will not have a material adverse effect on our financial position, liquidity, or results of operations.

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NOTE 8: Indemnification Provisions

Except as limited by Massachusetts law, the by-laws of the Company require it to indemnify certain current or former directors, officers, and employees of the Company against expenses incurred by them in connection with each proceeding in which he or she is involved as a result of serving or having served in certain capacities. Indemnification is not available with respect to a proceeding as to which it has been adjudicated that the person did not act in good faith in the reasonable belief that the action was in the best interests of the Company. The maximum potential amount of future payments the Company could be required to make under these provisions is unlimited. The Company has never incurred significant costs related to these indemnification provisions. As a result, the Company believes the estimated fair value of these provisions is not material.

In the ordinary course of business, the Company may accept standard limited indemnification provisions in connection with the sale of its products, whereby it indemnifies its customers for certain direct damages incurred in connection with third-party patent or other intellectual property infringement claims with respect to the use of the Company's products. The maximum potential amount of future payments the Company could be required to make under these provisions is generally subject to fixed monetary limits. The Company has never incurred significant costs to defend lawsuits or settle claims related to these indemnification provisions. As a result, the Company believes the estimated fair value of these provisions is not material.

In the ordinary course of business, the Company also accepts limited indemnification provisions from time to time, whereby it indemnifies customers for certain direct damages incurred in connection with bodily injury and property damage arising from the installation of the Company's products. The maximum potential amount of future payments the Company could be required to make under these provisions is generally limited and is likely recoverable under the Company's insurance policies. As a result of this coverage, and the fact that the Company has never incurred significant costs to defend lawsuits or settle claims related to these indemnification provisions, the Company believes the estimated fair value of these provisions is not material.

Under the terms of the Company's sale of its Surface Inspection Systems Division (SISD) to AMETEK, Inc., the Company has agreed to retain certain liabilities in connection with its business dealings occurring prior to the transaction closing date of July 6, 2015, and to indemnify AMETEK, Inc. in connection with these retained liabilities and for any breach of the representations and warranties made by the Company to AMETEK, Inc. in connection with the sale agreement itself, as is usual and customary in such transactions. A binding arbitration was concluded in the second quarter of 2016 with respect to certain product performance claims made by an SISD customer, for which the Company remained responsible under the indemnity provisions of the sale transaction. In that proceeding, the tribunal ordered the Company to pay the customer approximately \$326,000, primarily representing a refund of the product purchase price. The tribunal also ordered the customer to pay the Company approximately \$45,000, primarily representing reimbursement of legal fees. The net settlement of \$281,000 was recorded in discontinued operations in the second quarter of 2016.

NOTE 9: Derivative Instruments

The Company's foreign currency risk management strategy is principally designed to mitigate the potential financial impact of changes in the value of transactions and balances denominated in foreign currencies resulting from changes in foreign currency exchange rates. Currently, the Company enters into two types of hedges to manage this risk. The first are economic hedges which utilize foreign currency forward contracts with maturities of up to 45 days to manage the exposure to fluctuations in foreign currency exchange rates arising primarily from foreign-denominated receivables and payables. The gains and losses on these derivatives are intended to be offset by the changes in the fair value of the assets and liabilities being hedged. These economic hedges are not designated as hedging instruments for hedge accounting treatment. The second are cash flow hedges which utilize foreign currency forward contracts with maturities of up to 18 months to hedge specific forecasted transactions of the Company's foreign subsidiaries with the goal of protecting our budgeted revenues and expenses against foreign currency exchange rate changes compared to our budgeted rates. These cash flow hedges are designated as hedging instruments for hedge accounting treatment.

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The Company had the following outstanding forward contracts (in thousands):

Currency	July 3, 2016		December 31, 2015	
	Notional Value	USD Equivalent	Notional Value	USD Equivalent
<i>Derivatives Designated as Hedging Instruments:</i>				
United States Dollar	11,518	\$ 11,518	16,720	\$ 16,720
Japanese Yen	842,500	7,448	942,500	7,605
Hungarian Forint	221,000	779	547,000	1,893
Singapore Dollar	816	576	2,063	1,425
Canadian Dollar	—	—	41	37
British Pound	—	—	25	34
<i>Derivatives Not Designated as Hedging Instruments:</i>				
Japanese Yen	650,000	\$ 6,313	700,000	\$ 5,800
British Pound	1,620	2,146	1,650	2,441
Korean Won	1,750,000	1,521	1,400,000	1,187
Singapore Dollar	1,580	1,171	1,525	1,074
Hungarian Forint	325,000	1,138	250,000	857
Taiwanese Dollar	27,975	867	26,425	800

Information regarding the fair value of the outstanding forward contracts was as follows (in thousands):

	Asset Derivatives				Liability Derivatives			
	Balance Sheet Location	Fair Value		Balance Sheet Location	Fair Value			
		July 3, 2016	December 31, 2015		July 3, 2016	December 31, 2015		
Derivatives Designated as Hedging Instruments:								
Cash flow hedge forward contracts	Prepaid expenses and other current assets	\$ 205	\$ 441	Accrued expenses	\$ 757	\$ 201		
Derivatives Not Designated as Hedging Instruments:								
Economic hedge forward contracts	Prepaid expenses and other current assets	\$ —	\$ 9	Accrued expenses	\$ 26	\$ 43		

The following table presents the gross activity for all derivative assets and liabilities which were presented on a net basis on the Consolidated Balance Sheets due to the right of offset with each counterparty (in thousands):

Asset Derivatives			Liability Derivatives		
	July 3, 2016	December 31, 2015		July 3, 2016	December 31, 2015
Gross amounts of recognized assets	\$ 248	\$ 479	Gross amounts of recognized liabilities	\$ 786	\$ 279
Gross amounts offset	(43)	(29)	Gross amounts offset	(3)	(35)
Net amount of assets presented	\$ 205	\$ 450	Net amount of liabilities presented	\$ 783	\$ 244

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Information regarding the effect of derivative instruments on the consolidated financial statements was as follows (in thousands):

Location in Financial Statements		Three-months Ended		Six-months Ended	
		July 3, 2016	July 5, 2015	July 3, 2016	July 5, 2015
<i>Derivatives Designated as Hedging Instruments:</i>					
Gains (losses) recorded in shareholders' equity (effective portion)	Accumulated other comprehensive income (loss), net of tax	\$ (487)	\$ (72)	\$ (487)	\$ (72)
Gains (losses) reclassified from accumulated other comprehensive income (loss) into current operations (effective portion)	Revenue	\$ (200)	\$ (159)	\$ (203)	\$ (311)
	Research, development, and engineering expenses	2	18	4	19
	Selling, general, and administrative expenses	8	72	13	113
	Total gains (losses) reclassified from accumulated other comprehensive income (loss) into current operations	\$ (190)	\$ (69)	\$ (186)	\$ (179)
Gains (losses) recognized in current operations (ineffective portion and discontinued derivatives)	Foreign currency gain (loss)	\$ —	\$ —	\$ —	\$ —
<i>Derivatives Not Designated as Hedging Instruments:</i>					
Gains (losses) recognized in current operations	Foreign currency gain (loss)	\$ (705)	\$ 233	\$ (1,065)	\$ 342

The following table provides the changes in accumulated other comprehensive income (loss), net of tax, related to derivative instruments (in thousands):

Balance as of December 31, 2015	\$ 206
Reclassification of net realized loss on cash flow hedges into current operations	186
Net unrealized loss on cash flow hedges	(879)
Balance as of July 3, 2016	\$ (487)

Net losses expected to be reclassified from accumulated other comprehensive income (loss), net of tax, into current operations within the next twelve months are \$487,000.

NOTE 10: Stock-Based Compensation Expense

The Company's share-based payments that result in compensation expense consist of stock option grants and restricted stock awards. As of July 3, 2016, the Company had 8,282,076 shares available for grant. Stock options are granted with an exercise price equal to the market value of the Company's common stock at the grant date and generally vest over four years based upon continuous service and expire ten years from the grant date. Restricted stock awards are granted with an exercise price equal to the market value of the Company's common stock at the time of grant. Conditions of the award may be based on continuing employment and/or achievement of pre-established performance goals and objectives. Vesting for performance-based restricted stock awards and time-based restricted stock awards must be greater than one year and three years, respectively.

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The following table summarizes the Company's stock option activity for the six-month period ended July 3, 2016:

	Shares (in thousands)	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2015	6,644	\$ 28.27		
Granted	1,687	33.55		
Exercised	(461)	18.88		
Forfeited or expired	(125)	37.06		
Outstanding as of July 3, 2016	7,745	\$ 29.84	7.3	\$ 102,823
Exercisable as of July 3, 2016	3,408	\$ 21.92	5.6	\$ 72,213
Options vested or expected to vest as of July 3, 2016 (1)	7,025	\$ 29.13	7.2	\$ 98,222

(1) In addition to the vested options, the Company expects a portion of the unvested options to vest at some point in the future. Options expected to vest are calculated by applying an estimated forfeiture rate to the unvested options.

The fair values of stock options granted in each period presented were estimated using the following weighted-average assumptions:

	Three-months Ended		Six-months Ended	
	July 3, 2016	July 5, 2015	July 3, 2016	July 5, 2015
Risk-free rate	1.7%	2.1%	1.7%	2.1%
Expected dividend yield	0.84%	1.25%	0.84%	1.25%
Expected volatility	41%	40%	41%	40%
Expected term (in years)	5.4	5.4	5.5	5.4

Risk-free rate

The risk-free rate was based upon a treasury instrument whose term was consistent with the contractual term of the option.

Expected dividend yield

Generally, the current dividend yield is calculated by annualizing the cash dividend declared by the Company's Board of Directors and dividing that result by the closing stock price on the grant date.

Expected volatility

The expected volatility was based upon a combination of historical volatility of the Company's common stock over the contractual term of the option and implied volatility for traded options of the Company's stock.

Expected term

The expected term was derived from the binomial lattice model from the impact of events that trigger exercises over time.

The Company stratifies its employee population into two groups: one consisting of senior management and another consisting of all other employees. The Company currently expects that approximately 77% of its stock options granted to senior management and 72% of its options granted to all other employees will actually vest. Therefore, the Company currently applies an estimated annual forfeiture rate of 9% to all unvested options for senior management and a rate of 11% for all other employees. The Company revised its estimated forfeiture rates in the first quarters of 2016 and 2015, resulting in an increase to compensation expense of \$334,000 and \$461,000, respectively.

The weighted-average grant-date fair values of stock options granted during the three-month periods ended July 3, 2016 and July 5, 2015 were \$12.22 and \$14.40, respectively. The weighted-average grant-date fair values of stock options granted during the six-month periods ended July 3, 2016 and July 5, 2015 were \$12.25 and \$14.34, respectively.

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The total intrinsic values of stock options exercised for the three-month periods ended July 3, 2016 and July 5, 2015 were \$5,652,000 and \$22,490,000, respectively. The total intrinsic values of stock options exercised for the six-month periods ended July 3, 2016 and July 5, 2015 were \$9,376,000 and \$39,230,000, respectively. The total fair values of stock options vested for the three-month periods ended July 3, 2016 and July 5, 2015 were \$709,000 and \$897,000, respectively. The total fair values of stock options vested for the six-month periods ended July 3, 2016 and July 5, 2015 were \$16,045,000 and \$14,419,000, respectively.

As of July 3, 2016, total unrecognized compensation expense related to non-vested stock options was \$26,079,000, which is expected to be recognized over a weighted-average period of 1.86 years.

The following table summarizes the Company's restricted stock activity for the six-month period ended July 3, 2016:

	Shares (in thousands)	Weighted-Average Grant Fair Value	Aggregate Intrinsic Value (in thousands)(1)
Nonvested as of December 31, 2015	20	\$ 34.05	
Granted	—	—	
Vested	—	—	
Forfeited or expired	—	—	
Nonvested as of July 3, 2016	<u>20</u>	<u>\$ 34.05</u>	<u>\$ 862</u>

(1) Fair market value as of July 3, 2016.

The fair values of restricted stock awards granted were determined based upon the market value of the Company's common stock at the time of grant. The initial cost is then amortized over the period of vesting until the restrictions lapse. These restricted shares will be fully vested in 2018. Participants are entitled to dividends on restricted stock awards, but only receive those amounts if the shares vest. The sale or transfer of these shares is restricted during the vesting period.

The total stock-based compensation expense and the related income tax benefit recognized for the three-month period ended July 3, 2016 were \$4,457,000 and \$1,462,000, respectively, and for the three-month period ended July 5, 2015 were \$4,631,000 and \$1,532,000, respectively. The total stock-based compensation expense and the related income tax benefit recognized for the six-month period ended July 3, 2016 were \$11,261,000 and \$3,690,000, respectively, and for the six-month period ended July 5, 2015 were \$11,577,000 and \$3,869,000, respectively. No compensation expense was capitalized as of July 3, 2016 or December 31, 2015.

The following table presents the stock-based compensation expense by caption for each period presented on the Consolidated Statements of Operations (in thousands):

	Three-months Ended		Six-months Ended	
	July 3, 2016	July 5, 2015	July 3, 2016	July 5, 2015
Cost of revenue	\$ 229	\$ 349	\$ 522	\$ 816
Research, development, and engineering	1,397	1,153	3,576	2,967
Selling, general, and administrative	2,831	2,985	7,163	7,367
Discontinued operations	—	144	—	427
	<u>\$ 4,457</u>	<u>\$ 4,631</u>	<u>\$ 11,261</u>	<u>\$ 11,577</u>

NOTE 11: Stock Repurchase Program

In August 2015, the Company's Board of Directors authorized the repurchase of \$100,000,000 of the Company's common stock. As of July 3, 2016, the Company repurchased 2,519,000 shares at a cost of \$92,654,000 under this program, including 208,000 shares at a cost of \$8,718,000 during the six-month period ended July 3, 2016. In November 2015, the Company's Board of Directors authorized the repurchase of an additional \$100,000,000 of the Company's common stock. Purchases under this November 2015 program will commence upon completion of the August 2015 program. The Company may repurchase shares under these programs in future periods depending upon a variety of factors, including, among other things, the impact of dilution from employee stock options, stock price, share availability, and cash requirements.

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NOTE 12: Taxes

A reconciliation of the United States federal statutory corporate tax rate to the Company's income tax expense on continuing operations, or effective tax rate, was as follows:

	Three-months Ended		Six-months Ended	
	July 3, 2016	July 5, 2015	July 3, 2016	July 5, 2015
Income tax provision at federal statutory corporate tax rate	35 %	35 %	35 %	35 %
State income taxes, net of federal benefit	1 %	1 %	1 %	1 %
Foreign tax rate differential	(18)%	(19)%	(18)%	(19)%
Tax credit	(1)%	— %	(1)%	— %
Discrete tax events	(1)%	— %	(2)%	(1)%
Other	1 %	— %	1 %	1 %
Income tax provision on continuing operations	17 %	17 %	16 %	17 %

In the first quarter of 2016, the Company adopted Accounting Standards Update (ASU) 2016-09, "Improvements to Employee Share-Based Payment Accounting," which was issued by the Financial Accounting Standards Board in March 2016. This Update requires excess tax benefits to be recognized as an income tax benefit in the income statement. Previous guidance required excess tax benefits to be recognized as additional paid-in-capital in shareholders' equity on the balance sheet. This provision is required to be applied prospectively and therefore, prior periods were not restated. Additionally, this ASU also requires excess tax benefits to be classified along with other income tax cash flows as an operating activity in the statement of cash flows. In order to improve comparability, the Company applied this provision of the amendment retrospectively. For the six-month period ended July 5, 2015, the Company reclassified a tax benefit of \$9,358,000 from cash flows provided by financing activities to cash flows provided by operating activities on the consolidated statement of cash flows.

The effective tax rate for 2016 included the impact of the following discrete tax events: (1) a decrease in tax expense of \$463,000 in the first quarter of 2016 and \$745,000 in the second quarter of 2016 from the excess tax benefit arising from the difference between the deduction for tax purposes and the compensation cost recognized for financial reporting purposes from stock option exercises, and (2) an increase in tax expense of \$104,000 recorded in the second quarter of 2016 from the final true-up of the prior year's tax accrual upon filing the actual tax returns. These discrete events decreased the effective tax rate on continuing operations from a provision of 18% to a provision of 17% and 16% for the three-month and six-month periods ended July 3, 2016, respectively.

The effective tax rate for 2015 included the impact of the following discrete tax events: (1) a decrease in tax expense of \$364,000 recorded in the first quarter of 2015 from the expiration of the statutes of limitations for certain reserves for income tax uncertainties, (2) a decrease in tax expense of \$112,000 recorded in the second quarter of 2015 from the final true-up of the prior year's tax accrual upon filing the actual tax returns, and (3) an increase in tax expense of \$65,000 recorded in the second quarter of 2015 from the write down of a deferred tax asset. These discrete events decreased the effective tax rate on continuing operations from a provision of 18% to a provision of 17% for the six-month period ended July 5, 2015. The discrete events noted above did not have an impact on the effective tax rate on continuing operations for the three-month period ended July 5, 2015.

In the first quarter of 2016, the Company adopted Accounting Standards Update (ASU) 2015-17, "Income Taxes - Balance Sheet Classification of Deferred Taxes." This ASU requires that deferred tax assets and liabilities be classified as non-current in a classified balance sheet. In order to improve comparability, the Company applied the amendments in this Update retrospectively to all periods presented. As of December 31, 2015, the Company reclassified current deferred income tax assets and liabilities of \$7,104,000 and \$319,000, respectively, to non-current on the consolidated balance sheet.

During the six-month period ended July 3, 2016, the Company recorded a \$765,000 increase in reserves for income taxes, net of deferred tax benefit. Estimated interest and penalties included in these amounts totaled \$102,000 for the six-month period ended July 3, 2016.

The Company's reserve for income taxes, including gross interest and penalties, was \$6,678,000 as of July 3, 2016, which included \$5,651,000 classified as a non-current liability and \$1,027,000 recorded as a reduction to non-current deferred tax assets. The amount of gross interest and penalties included in these balances was \$702,000. If the

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Company's tax positions were sustained or the statutes of limitations related to certain positions expired, these reserves would be released and income tax expense would be reduced in a future period, less \$700,000 that would be recorded through additional paid-in capital. As a result of the expiration of certain statutes of limitations, there is a potential that a portion of these reserves could be released, which would decrease income tax expense by approximately \$750,000 to \$850,000 over the next twelve months.

The Company has defined its major tax jurisdictions as the United States, Ireland, China, and Japan, and within the United States, Massachusetts and California. Within the United States, the tax years 2012 through 2015 remain open to examination by the Internal Revenue Service and various state tax authorities. The tax years 2011 through 2015 remain open to examination by various taxing authorities in other jurisdictions in which the Company operates.

NOTE 13: Weighted-Average Shares

Weighted-average shares were calculated as follows (in thousands):

	Three-months Ended		Six-months Ended	
	July 3, 2016	July 5, 2015	July 3, 2016	July 5, 2015
Basic weighted-average common shares outstanding	85,107	87,199	85,024	86,977
Effect of dilutive stock options	1,699	1,986	1,689	1,974
Weighted-average common and common-equivalent shares outstanding	86,806	89,185	86,713	88,951

Stock options to purchase 3,904,396 and 4,502,777 shares of common stock, on a weighted-average basis, were outstanding during the three-month and six-month periods ended July 3, 2016, respectively, and 2,171,856 and 1,912,850 for the same periods in 2015, but were not included in the calculation of dilutive net income per share because they were anti-dilutive.

NOTE 14: Discontinued Operations

On July 6, 2015, the Company completed the sale of its Surface Inspection Systems Division (SISD). The financial results of SISD are reported as a discontinued operation for the three-month and six-month periods ended July 3, 2016 and July 5, 2015.

A binding arbitration was concluded in the second quarter of 2016 with respect to certain product performance claims made by an SISD customer, for which the Company remained responsible under the indemnity provisions of the sale transaction. In that proceeding, the tribunal ordered the Company to pay the customer approximately \$326,000, primarily representing a refund of the product purchase price. The tribunal also ordered the customer to pay the Company approximately \$45,000, primarily representing reimbursement of legal fees. The net settlement of \$281,000 was recorded in discontinued operations in the second quarter of 2016, along with \$123,000 of legal fees. The tax benefit related to this expense was \$149,000, resulting in a net loss from discontinued operations of \$255,000.

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The major classes of revenue and expense included in discontinued operations were as follows (in thousands):

	Three-months Ended		Six-months Ended	
	July 3, 2016	July 5, 2015	July, 3 2016	July 5, 2015
Revenue	\$ —	\$ 11,187	\$ —	\$ 23,248
Cost of revenue	—	(5,765)	—	(11,291)
Research, development, and engineering expenses	—	(1,022)	—	(2,126)
Selling, general, and administrative expenses	—	(4,176)	—	(7,800)
Foreign currency gain (loss)	—	77	—	(177)
Operating income from discontinued operations	—	301	—	1,854
Gain (loss) on sale of discontinued operations	(404)	—	(404)	—
Income (loss) from discontinued operations before income tax expense (benefit)	(404)	301	(404)	1,854
Income tax expense (benefit) on discontinued operations	(149)	103	(149)	626
Net income (loss) from discontinued operations	<u>\$ (255)</u>	<u>\$ 198</u>	<u>\$ (255)</u>	<u>\$ 1,228</u>

Significant non-cash items related to the discontinued business were as follows (in thousands):

	Three-months Ended		Six-months Ended	
	July 3, 2016	July 5, 2015	July 3, 2016	July 5, 2015
Capital expenditures	\$ —	\$ 171	\$ —	\$ 482
Stock-based compensation expense	—	144	—	427
Depreciation expense	—	203	—	401
Amortization expense	—	82	—	165

NOTE 15: Subsequent Events

On August 1, 2016, the Company's Board of Directors declared a cash dividend of \$0.075 per share. The dividend is payable September 16, 2016 to all shareholders of record as of the close of business on September 2, 2016.

ITEM 2: MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Forward-Looking Statements

Certain statements made in this report, as well as oral statements made by the Company from time to time, constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Readers can identify these forward-looking statements by our use of the words "expects," "anticipates," "estimates," "believes," "projects," "intends," "plans," "will," "may," "shall," "could," "should," and similar words and other statements of a similar sense. These statements are based upon our current estimates and expectations as to prospective events and circumstances, which may or may not be in our control and as to which there can be no firm assurances given. These forward-looking statements, which include statements regarding business and market trends, future financial performance, customer order rates, the timing for recognition of revenue, expected areas of growth, research and development activities, product mix, investments, and strategic plans, involve known and unknown risks and uncertainties that could cause actual results to differ materially from those projected. Such risks and uncertainties include: (1) the loss of a large customer; (2) current and future conditions in the global economy; (3) the reliance on revenue from the consumer electronics or automotive industries; (4) the inability to penetrate new markets; (5) the inability to achieve significant international revenue; (6) fluctuations in foreign currency exchange rates and the use of derivative instruments; (7) information security breaches or business system disruptions; (8) the inability to attract and retain skilled employees; (9) the reliance upon key suppliers to manufacture and deliver critical components for our products; (10) the failure to effectively manage product transitions or accurately forecast customer demand; (11) the inability to design and manufacture high-quality products; (12) the technological obsolescence of current products and the inability to develop new products; (13) the failure to properly manage the distribution of products and services; (14) the inability to protect our proprietary technology and intellectual property; (15) our involvement in time-consuming and costly litigation; (16) the impact of competitive pressures; (17) the challenges in integrating and achieving expected results from acquired businesses; (18) potential impairment charges with respect to our investments or for acquired intangible assets or goodwill; and (19) exposure to additional tax liabilities. The foregoing list should not be construed as exhaustive and we encourage readers to refer to the detailed discussion of risk factors included in Part I - Item 1A of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015. The Company cautions readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. The Company disclaims any obligation to subsequently revise forward-looking statements to reflect the occurrence of anticipated or unanticipated events or circumstances after the date such statements are made.

Executive Overview

Cognex Corporation is a leading worldwide provider of machine vision products that capture and analyze visual information in order to automate tasks, primarily in manufacturing processes, where vision is required. On July 6, 2015, the Company completed the sale of its Surface Inspection Systems Division (SISD) that specialized in machine vision products that inspected the surfaces of materials processed in a continuous fashion. The financial results of SISD are reported as a discontinued operation for all periods presented.

In addition to product revenue derived from the sale of machine vision products, the Company also generates revenue by providing maintenance and support, consulting, and training services to its customers; however, service revenue accounted for less than 10% of total revenue for all periods presented.

The Company's customers are predominantly in the factory automation market. Factory automation customers purchase Cognex products and incorporate them into their manufacturing processes. Virtually every manufacturer can achieve better quality and manufacturing efficiency by using machine vision, and therefore, this market includes a broad base of customers across a variety of industries, including consumer electronics, automotive, consumer products, food and beverage, medical devices, and pharmaceuticals. Factory automation customers also purchase Cognex products for use outside of the manufacturing process, such as using ID products in logistics automation for package sorting and distribution. Sales to factory automation customers represented 96% of total revenue for the second quarter of 2016 compared to 95% of total revenue for the second quarter of 2015.

A small percentage of the Company's customers are in the semiconductor and electronics capital equipment market. These customers purchase Cognex products and integrate them into the automation equipment that they manufacture and then sell to their customers to either make semiconductor chips or assemble printed circuit boards. Demand from these customers has been relatively flat on an annual basis for the past several years. Sales to semiconductor and electronics capital equipment manufacturers represented only 4% of total revenue for the second quarter of 2016 compared to 5% of total revenue for the second quarter of 2015.

Revenue for the second quarter of 2016 totaled \$147,274,000, representing an increase of \$3,445,000, or 2%, from the second quarter of 2015. Gross margin was 76% of revenue in the second quarter of 2016 compared to 79% of revenue in the second quarter of 2015 due primarily to lower margins on products sold to a material customer in the consumers electronics industry, a trend toward higher hardware content in our product sales, and higher inventory charges in the second quarter of 2016. Operating expenses increased by \$843,000, or 1%, from the second quarter of 2015, as higher personnel-related costs were offset by the settlement of patent litigation actions in the second quarter of 2015. Operating income was \$49,675,000, or 34% of revenue, in the second quarter of 2016 compared to \$51,778,000, or 36% of revenue, in the second quarter of 2015; net income from continuing operations was \$43,014,000, or 29% of revenue, in the second quarter of 2016 compared to \$43,516,000, or 30% of revenue, in the second quarter of 2015; and net income from continuing operations per diluted share was \$0.50 in the second quarter of 2016 compared to \$0.49 in the second quarter of 2015.

Results of Operations

As foreign currency exchange rates are a factor in understanding period-to-period comparisons, we believe the presentation of results on a constant-currency basis in addition to reported results helps improve investors' ability to understand our operating results and evaluate our performance in comparison to prior periods. We also use results on a constant-currency basis as one measure to evaluate our performance. Constant-currency information compares results between periods as if exchange rates had remained constant period-over-period. We generally refer to such amounts calculated on a constant-currency basis as excluding the impact of foreign currency exchange rate changes. Results on a constant-currency basis are not in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) and should be considered in addition to, and not as a substitute for, results prepared in accordance with U.S. GAAP.

Revenue

Revenue increased by \$3,445,000, or 2%, for the three-month period and decreased by \$1,723,000, or 1%, for the six-month period. Changes in foreign currency exchange rates did not have a material impact on revenue in either period. Revenue from factory automation customers increased by \$4,076,000 for the three-month period and decreased by \$461,000 for the six-month period. For both the three-month and six-month periods, lower revenue from a material customer in the consumer electronics industry was offset by growth in factory automation revenue from other customers, to result in relatively flat comparisons to the prior year.

The lower revenue from this customer is due to the timing of when orders are recognized as revenue in each year. In 2015, the majority of revenue from this customer was recognized in the second quarter with a still large, but lesser, amount recognized in the third quarter. In 2016, we expect revenue from this customer to be recognized more evenly between the second and third quarters. This timing has resulted in lower revenue in the second quarter of 2016 compared to the second quarter of 2015; however, we expect to record higher revenue from this customer in the third quarter of 2016 compared to the third quarter of 2015. Revenue from this customer has historically not been significant in either the first or fourth quarters of the year. Future seasonality will depend upon the new product introduction cycles of this customer.

Revenue from other factory automation customers increased by 20% for the three-month period and increased by 11% for the six-month period. These increases were driven by a higher volume of products sold in the Company's largest three regions, the Americas, Greater China, and Europe. The increased volume in the Americas was largely driven by higher revenue from customers in the logistics industry. The seasonality of this industry typically results in higher revenue in the second and third quarters of the year as certain customers are making investments in advance of the year-end holiday season. We typically experience a sequential decline in factory automation revenue during the summer months.

Revenue from semiconductor and electronics capital equipment manufacturers, which represented only 4% and 5% of total revenue for the three-month and six-month periods in 2016, respectively, decreased by \$631,000 for the three-month period and decreased by \$1,262,000 for the six-month period.

Gross Margin

Gross margin as a percentage of revenue was 76% and 77% for the three-month and six-month periods in 2016, respectively, compared to 79% and 78% for the same periods in 2015. The decrease for the three-month period was due in part to lower margins on products sold to a material customer in the consumers electronics industry. Although this customer, which receives preferred pricing, represented a smaller percentage of total revenue in the second quarter

of 2016 compared to the second quarter of 2015, the mix of products sold to this customer in 2016 had lower margins than the mix of products sold in 2015, resulting in a net unfavorable impact on the gross margin for the three-month period. A trend toward higher hardware content in our product sales, as well as higher inventory charges, also contributed to the decrease in gross margin for the three-month and six-month periods. While we expect the trend toward higher hardware content in our product sales to continue as we move away from software-only solutions, the second quarter of 2016 included an inventory charge reducing gross margin by approximately 100 basis points resulting from changes in product development plans that are not expected to recur for the remainder of the year. During the second half of 2016, the Company expects to recognize a greater percentage of total revenue from on-site support services, which carry relatively lower margins.

Operating Expenses

Research, Development, and Engineering Expenses

Research, development, and engineering (RD&E) expenses increased by \$1,369,000, or 7%, for the three-month period and increased by \$4,938,000, or 14%, for the six-month period as detailed in the table below (in thousands).

	Three-month period	Six-month period
RD&E expenses in 2015	\$ 18,302	\$ 35,288
Personnel-related costs	806	2,196
Outsourced engineering costs	(684)	1,060
Company bonus accruals	615	744
Stock option expense	223	608
Foreign currency exchange rate changes	(35)	(245)
Other	444	575
RD&E expenses in 2016	<u>\$ 19,671</u>	<u>\$ 40,226</u>

RD&E expenses increased due to higher personnel-related costs resulting primarily from headcount additions to support new product introductions and anticipated future revenue. Higher company bonus accruals were also recorded in 2016 as a result of the additional headcount and higher achievement levels on plans that were set at the beginning of the year. In addition, stock option expense was higher than the prior year. Although outsourced engineering costs were lower for the three-month period, they were higher for the six-month period due to high costs in the first quarter of 2016 related to the development of engineering prototypes for customer orders that were received in the second quarter of 2016.

RD&E expenses as a percentage of revenue were 13% and 17% for the three-month and six-month periods in 2016, respectively, compared to 13% and 14% for the same periods in 2015. We believe that a continued commitment to RD&E activities is essential in order to maintain or achieve product leadership with our existing products and to provide innovative new product offerings, as well as to provide engineering support for large customers. In addition, we consider our ability to accelerate time to market for new products to be critical to our revenue growth. Therefore, we expect to continue to make significant RD&E investments in the future. Although we target our RD&E spending to be between 10% and 15% of revenue, this percentage is impacted by revenue levels and investment cycles. RD&E spending for the first quarter in each year included investments to support anticipated customer orders in later quarters, resulting in a higher percentage for the six-month period. We expect RD&E expenses to be within the targeted range of 10% and 15% of revenue for the remainder of the year.

Selling, General, and Administrative Expenses

Selling, general, and administrative (SG&A) expenses decreased by \$526,000, or 1%, for the three-month period and decreased by \$2,121,000, or 3%, for the six-month period as detailed in the table below (in thousands).

	Three-month period	Six-month period
SG&A expenses in 2015	\$ 43,241	\$ 83,174
Microscan legal fees and settlement	(3,470)	(5,023)
Personnel-related costs	932	2,255
Company bonus accruals	901	820
Marketing activities	563	641
Foreign currency exchange rate changes	84	(646)
Other	464	(168)
SG&A expenses in 2016	<u>\$ 42,715</u>	<u>\$ 81,053</u>

SG&A expenses decreased from the prior year due to the settlement of patent litigation actions with Microscan Systems, Inc. in the second quarter of 2015. The Company incurred legal fees related to these actions totaling \$1,637,000 and \$3,190,000 in the three-month and six-month periods in 2015, respectively, and recorded a settlement expense of \$1,833,000 in the second quarter of 2015. Offsetting this decrease was higher personnel-related costs resulting primarily from headcount additions, principally sales personnel. Higher company bonus accruals were also recorded in 2016 as a result of the additional headcount and higher achievement levels on plans that were set at the beginning of the year. In addition, the Company increased its spending on marketing activities to promote new products.

Non-operating Income (Expense)

The Company recorded foreign currency gains of \$330,000 and \$230,000 for the three-month and six-month periods in 2016, respectively, compared to losses of \$39,000 for the three-month period in 2015 and gains of \$620,000 for the six-month period in 2015. The foreign currency gains and losses in each period resulted primarily from the revaluation and settlement of accounts receivable, accounts payable, and intercompany balances that are reported in one currency and collected in another.

Investment income increased by \$490,000, or 51%, for the three-month period and increased \$777,000, or 43%, for the six-month period due primarily to increased funds available for investment.

The Company recorded other income of \$222,000 and \$429,000 for the three-month and six-month periods in 2016, respectively, compared to other expense of \$55,000 and \$365,000 for the same periods in 2015. Other income in 2016 included a \$200,000 benefit in the three-month period and a \$463,000 benefit in the six-month period resulting from a decrease in the fair value of the contingent consideration liability that arose from a business acquisition completed in the third quarter of 2015. Other income (expense) also includes rental income, net of associated expenses, from leasing space in buildings adjacent to the Company's corporate headquarters.

Income Tax Expense

The Company's effective tax rate was 17% and 16% of the Company's pre-tax income for the three-month and six-month periods in 2016, respectively, compared to 17% for the same periods in 2015.

The effective tax rate for 2016 included a decrease in tax expense of \$463,000 in the first quarter of 2016 and \$745,000 in the second quarter of 2016 from the excess tax benefit arising from the difference between the deduction for tax purposes and the compensation cost recognized for financial reporting purposes from stock option exercises. In the first quarter of 2016, the Company adopted Accounting Standards Update 2016-09, "Improvements to Employee Share-Based Payment Accounting," which was issued by the Financial Accounting Standards Board in March 2016. This Update requires excess tax benefits to be recognized as an income tax benefit in the income statement. Previous guidance required excess tax benefits to be recognized as additional paid-in-capital in shareholders' equity on the balance sheet. The effective tax rate for 2016 also included an increase in tax expense of \$104,000 recorded in the second quarter of 2016 from the final true-up of the prior year's tax accrual upon filing the actual tax returns.

The effective tax rate for 2015 included a decrease in tax expense of \$364,000 recorded in the first quarter of 2015 from the expiration of the statutes of limitations for certain reserves for income tax uncertainties, a decrease in tax expense of \$112,000 recorded in the second quarter of 2015 from the final true-up of the prior year's tax accrual upon filing the actual tax returns, and an increase in tax expense of \$65,000 recorded in the second quarter of 2015 from the write down of a deferred tax asset.

Excluding the impact of these discrete tax events, the Company's effective tax rate was approximately 18% for all periods presented. The majority of income earned outside of the United States is permanently reinvested to provide funds for international expansion. The Company is tax resident in numerous jurisdictions around the world and has identified its major tax jurisdictions as the United States, Ireland and China. The statutory tax rate is 12.5% in Ireland and 25% in China. International rights to certain of the Company's intellectual property are held by a subsidiary which is tax resident in a country with no income tax, resulting in a foreign effective tax rate lower than the above mentioned statutory rates.

Discontinued Operations

On July 6, 2015, the Company completed the sale of its Surface Inspection Systems Division (SISD) that specializes in machine vision products that inspect the surfaces of materials processed in a continuous fashion. Net loss from discontinued operations was \$255,000 for the three-month and six-month periods in 2016, compared to net income of \$198,000 for the three-month period in 2015 and net income of \$1,228,000 for the six-month period in 2015. Net income from discontinued operations in the prior year represents the operating results of SISD for these periods prior to the sale transaction closing date.

A binding arbitration was concluded in the second quarter of 2016 with respect to certain product performance claims made by an SISD customer, for which the Company remained responsible under the indemnity provisions of the sale transaction. In that proceeding, the tribunal ordered the Company to pay the customer approximately \$326,000, primarily representing a refund of the product purchase price. The tribunal also ordered the customer to pay the Company approximately \$45,000, primarily representing reimbursement of legal fees. The net settlement of \$281,000 was recorded in discontinued operations in the second quarter of 2016, along with \$123,000 of legal fees. The tax benefit related to this expense was \$149,000, resulting in a net loss from discontinued operations of \$255,000.

Liquidity and Capital Resources

The Company has historically been able to generate positive cash flow from operations, which has funded its operating activities and other cash requirements and has resulted in an accumulated cash, cash equivalent, and investment balance of \$657,225,000 as of July 3, 2016. The Company has established guidelines relative to credit ratings, diversification, and maturities of its investments that maintain liquidity.

The Company's cash requirements during the six-month period in 2016 were met with positive cash flows from operations, investment maturities, and the proceeds from stock option exercises. Cash requirements consisted of operating activities, investment purchases, the payment of dividends, the repurchase of common stock, and capital expenditures. Capital expenditures for the six-month period in 2016 totaled \$5,347,000 and consisted primarily of computer hardware, computer software, manufacturing test equipment related to new product introductions, and improvements made to the Company's headquarters building in Natick, Massachusetts.

The Company's Board of Directors declared and paid a cash dividend of \$0.07 per share in the second, third, and fourth quarters of 2015, as well as in the first quarter of 2016. The cash dividend was increased to \$0.075 per share in the second quarter of 2016. Dividends paid during the six-month period in 2016 amounted to \$12,335,000. The dividend in the second quarter of 2015 was the first dividend declared and paid since the fourth quarter of 2012 when the Company's Board of Directors accelerated dividends in advance of an increase in the federal tax on dividends paid after December 31, 2012. Due to these accelerated payments, no dividends were declared or paid in 2013, 2014, or the first quarter of 2015. Future dividends will be declared at the discretion of the Company's Board of Directors and will depend upon such factors as the Board deems relevant including, among other things, the Company's ability to generate positive cash flows from operations.

In August 2015, the Company's Board of Directors authorized the repurchase of \$100,000,000 of the Company's common stock. As of July 3, 2016, the Company repurchased 2,519,000 shares at a cost of \$92,654,000 under this program, including 208,000 shares at a cost of \$8,718,000 repurchased in the second quarter of 2016. In November 2015, the Company's Board of Directors authorized the repurchase of an additional \$100,000,000 of the Company's common stock. Purchases under this November 2015 program will commence upon completion of the August 2015 program. The Company may repurchase shares under these programs in future periods depending upon a variety of factors, including, among other things, the impact of dilution from employee stock options, stock price, share availability, and cash requirements.

The Company believes that its existing cash, cash equivalent, and investment balances, together with cash flow from operations, will be sufficient to meet its operating, investing, and financing activities for the next twelve months. As of July 3, 2016, the Company had approximately \$657 million in cash, cash equivalents, and debt securities that could be converted into cash. In addition, the Company has no debt and does not anticipate needing debt financing in the

near future. We believe that our strong cash position has put us in a relatively good position with respect to our longer-term liquidity needs.

New Pronouncements

Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers"

The amendments in ASU 2014-09 will supersede and replace all currently existing U.S. GAAP, including industry-specific revenue recognition guidance, with a single, principle-based revenue recognition framework. The concept guiding this new model is that revenue recognition will depict transfer of control to the customer in an amount that reflects consideration to which an entity expects to be entitled. The core principles supporting this framework include (1) identifying the contract with a customer, (2) identifying separate performance obligations within the contract, (3) determining the transaction price, (4) allocating the transaction price to the performance obligations, and (5) recognizing revenue. This new framework will require entities to apply significantly more judgment. This increase in management judgment will require expanded disclosure on estimation methods, inputs, and assumptions for revenue recognition.

In March 2016, ASU 2016-08, "Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," was issued, in April 2016, ASU 2016-10, "Identifying Performance Obligations and Licensing," was issued, and in May 2016, ASU 2016-12, "Narrow-Scope Improvements and Practical Expedients" was issued. These Updates do not change the core principle of the guidance under ASU 2014-09, but rather provide implementation guidance. ASU 2015-14, "Deferral of the effective date," amended the effective date of ASU 2014-09 for public companies to annual reporting periods beginning after December 15, 2017. Early adoption is permitted, but only beginning after December 15, 2016. The Financial Accounting Standards Board may release additional implementation guidance in future periods. Management will continue to evaluate the impact of this standard as it evolves.

Accounting Standards Update (ASU) 2015-11, "Inventory - Simplifying the Measurement of Inventory"

ASU 2015-11 requires companies to measure most inventory at the lower of cost and net realizable value, thereby simplifying the current guidance under which a company must measure inventory at the lower of cost or market. This ASU eliminates the need to determine replacement cost and evaluate whether said cost is within a quantitative range. This ASU also further aligns U.S. GAAP and international accounting standards. For public companies, the guidance in ASU 2015-11 is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. Early adoption is permitted. Management does not expect ASU 2015-11 to have a material impact on the Company's financial statements and disclosures. Accounting Standards Update (ASU) 2016-01, "Financial Instruments - Recognition and Measurement of Financial Assets and Financial Liabilities"

ASU 2016-01 provides guidance related to certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The amendments in this Update affect all entities that hold financial assets or owe financial liabilities. This ASU requires equity investments (except those accounted under the equity method) to be measured at fair value with changes in fair value recognized in net income. However, an entity may choose to measure equity investments that do not have readily determinable fair values at cost minus impairment. This ASU also eliminates the requirement for public companies to disclose the methods and significant assumptions used to estimate the fair value for financial instruments measured at amortized cost on the balance sheet, and it requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the balance sheet or the accompanying notes to the financial statements. For public companies, the guidance in ASU 2016-01 is effective for annual periods beginning after December 15, 2017, and interim periods within those annual periods. Early adoption is not permitted except for certain amendments in this Update. Management does not expect ASU 2016-01 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-02, "Leases"

ASU 2016-02 creates Topic 842, Leases. The objective of this Update is to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet, and disclosing key information about leasing arrangements. This ASU applies to any entity that enters into a lease, although lessees will see the most significant changes. The main difference between current U.S. GAAP and Topic 842 is the recognition of lease assets and lease liabilities on the balance sheet for those leases classified as operating leases under current U.S. GAAP. Topic 842 distinguishes between finance leases and operating leases, which are substantially similar to the classification criteria for distinguishing between capital leases and operating leases under current U.S. GAAP. For public companies, the guidance in ASU 2016-02 is effective for annual periods beginning after December 15, 2018, and interim periods within those annual periods. This ASU should be applied using a modified retrospective approach. Management is in the process of evaluating the impact of this Update.

Accounting Standards Update (ASU) 2016-05, "Derivatives and Hedging - Effect of Derivative Contract Novations on Existing Hedge Accounting Relationships"

ASU 2016-05 applies to all reporting entities for which there is a change in the counterparty to a derivative instrument that has been designated as the hedging instrument. The amendments in this Update clarify that a change in the counterparty does not, in and of itself, require de-designation of that hedging relationship provided that all other hedge accounting criteria continue to be met. For public companies, the guidance in ASU 2016-05 is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. This ASU should be applied on either a prospective basis or a modified retrospective basis. Management does not expect ASU 2016-05 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-13, "Financial Instruments - Measurement of Credit Losses"

ASU 2016-13 applies to all reporting entities holding financial assets that are not accounted for at fair value through net income (debt securities). The amendments in this Update eliminate the probable initial recognition threshold to recognize a credit loss under current U.S. GAAP and, instead, reflect an entity's current estimate of all expected credit losses. In addition, this Update broadens the information an entity must consider in developing the credit loss estimate, including the use of reasonable and supportable forecasted information. The amendments in this Update require that credit losses on available-for-sale debt securities be presented as an allowance rather than as a write-down and an entity will be able to record reversals of credit losses in current period net income. For public companies, the guidance in ASU 2016-13 is effective for annual periods beginning after December 15, 2019, and interim periods within those annual periods. This ASU should be applied through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. Management does not expect ASU 2016-13 to have a material impact on the Company's financial statements and disclosures.

ITEM 3: QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

There have been no material changes to the Company's exposures to market risk since December 31, 2015.

ITEM 4: CONTROLS AND PROCEDURES

As required by Rules 13a-15 and 15d-15 of the Securities Exchange Act of 1934, the Company has evaluated, with the participation of management, including the Chief Executive Officer and the Chief Financial Officer, the effectiveness of its disclosure controls and procedures (as defined in such rules) as of the end of the period covered by this report. Based on such evaluation, the Chief Executive Officer and Chief Financial Officer concluded that such disclosure controls and procedures were effective as of that date. From time to time, the Company reviews its disclosure controls and procedures, and may from time to time make changes aimed at enhancing their effectiveness and to ensure that the Company's systems evolve with its business. There was no change in the Company's internal control over financial reporting that occurred during the quarter ended July 3, 2016 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II: OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Various claims and legal proceedings generally incidental to the normal course of business are pending or threatened on behalf of or against the Company. While we cannot predict the outcome of these matters, we believe that any liability arising from them will not have a material adverse effect on our financial position, liquidity, or results of operations.

ITEM 1A. RISK FACTORS

For a complete list of factors that could affect the Company's business, results of operations, and financial condition, see the risk factors discussion provided in Part I—Item 1A of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

The following table sets forth information with respect to purchases by the Company of shares of its common stock during the three-month period ended July 3, 2016:

	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
April 4 - May 1, 2016	—	—	—	\$ 116,064,000
May 2 - May 29, 2016	97,500	40.33	97,500	112,132,000
May 30 - July 3, 2016	110,500	43.31	110,500	107,346,000
Total	208,000	41.92	208,000	\$ 107,346,000

(1) In August 2015, the Company's Board of Directors authorized the repurchase of \$100,000,000 of the Company's common stock. Purchases under this program commenced in the third quarter of 2015. In November 2015, the Company's Board of Directors authorized the repurchase of an additional \$100,000,000 of the Company's common stock. Purchases under this program will commence once the August 2015 program is complete.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

<u>Exhibit Number</u>	
3.1	Restated Articles of Organization of Cognex Corporation effective June 27, 1989, as amended through May 5, 2016
3.2	Articles of Amendment to the Articles of Organization of Cognex Corporation establishing Series E Junior Participating Preferred Stock
3.3	Amended and Restated By-laws of Cognex Corporation, effective December 5, 2013
3.4	Amendment to Amended and Restated By-laws of Cognex Corporation, effective May 5, 2016
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a) under the Securities Exchange Act of 1934*
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a) under the Securities Exchange Act of 1934*
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**
101	xBRL (Extensible Business Reporting Language) The following materials from Cognex Corporation's Quarterly Report on Form 10-Q for the period ended July 3, 2016, formatted in xBRL: (i) Consolidated Statements of Operations for the three-month and six-month periods ended July 3, 2016 and July 5, 2015; (ii) Consolidated Statements of Comprehensive Income for the three-month and six-month periods ended July 3, 2016 and July 5, 2015; (iii) Consolidated Balance Sheets as of July 3, 2016 and December 31, 2015; (iv) Consolidated Statements of Cash Flows for the six-month periods ended July 3, 2016 and July 5, 2015; (v) Consolidated Statement of Shareholders' Equity for the six-month period ended July 3, 2016; and (vi) Notes to Consolidated Financial Statements.
*	Filed herewith
**	Furnished herewith

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.

Date: August 1, 2016

COGNEX CORPORATION

By: /s/ Robert J. Willett

Robert J. Willett

President and Chief Executive Officer

(principal executive officer)

By: /s/ Richard A. Morin

Richard A. Morin

Executive Vice President of Finance and Administration

and Chief Financial Officer

(principal financial and accounting officer)

Exhibit 3.1 Restated Articles of Organization of Cognex Corporation

The Commonwealth of Massachusetts

FEDERAL IDENTIFICATION
Examiner **MICHAEL JOSEPH CONNOLLY**

Secretary of State
ONE ASHBURTON PLACE, BOSTON, MASS: 02108 No. 04-2713778

RESTATED ARTICLES OF ORGANIZATION

GENERAL LAWS, CHAPTER 156B, SECTION 74

This certificate must be submitted to the Secretary of the Commonwealth within sixty days after the date of the vote of stockholders adopting the restated articles of organization. The fee for filing this certificate is prescribed by General Laws, Chapter 156B, Section 114. Make check payable to the Commonwealth of Massachusetts.

We, Robert J. Shillman, President/, and Anthony J. Medaglia, Jr., Clerk/ of

COGNEX CORPORATION

(Name of Corporation)

located at 15 Crawford Street, Needham, Massachusetts 02194

do hereby certify that the following restatement of the articles of organization of the corporation was duly adopted at a meeting held on June 27, 1989, by vote of

<u>3,699,107</u> shares of	<u>Class A Common</u>	out of	<u>4,785,114</u> shares outstanding,
	(Class of Stock)		
<u>21,802</u> shares of	<u>Series A Preferred</u>	out of	<u>21,802</u> shares outstanding, and
	(Class of Stock)		
<u>10,000</u> shares of	<u>Series B Preferred</u>	out of	<u>10,000</u> shares outstanding,*
	(Class of Stock)		

being at least two-thirds of each class of stock outstanding and entitled to vote and of each class or series of stock adversely affected thereby:

1. The name by which the corporation shall be known is:

COGNEX CORPORATION

2. The purposes for which the corporation is formed are as follows:

C || See Page A-1 attached hereto.

P ||

M ||

RA || *and 78,504 shares of Series C Preferred out of 78,504 shares outstanding, and 466,668 shares of Series D Preferred out of 500,002 shares outstanding,
P.C.

Note: If the space provided under any article or item on this form is insufficient, additions shall be set forth on separate 8 ½ x 11 sheets of paper leaving a left hand margin of at least 1 inch for binding. Additions to more than one article may be continued on a single sheet so long as each article requiring each such addition is clearly indicated.

3. The total number of shares and the par value, if any, of each class of stock which the corporation is authorized to issue is as follows:

CLASS OF STOCK	WITHOUT PAR VALUE	WITH PAR VALUE	
	NUMBER OF SHARES	NUMBER OF SHARES	PAR VALUE
Preferred	—	400,000	\$.01
Common	—	10,000,000	\$.002

*4. If more than one class is authorized, a description of each of the different classes of stock with, if any, the preferences, voting powers, qualifications, special or relative rights or privileges as to each class thereof and any series now established:

See Pages B-1 thru B-5 attached hereto.

*5. The restrictions, if any, imposed by the articles of organization upon the transfer of shares of stock of any class are as follows:

None.

*6. Other lawful provisions, if any, for the conduct and regulation of the business and affairs of the corporation, for its voluntary dissolution, or for limiting, defining, or regulating the powers of the corporation, or of its directors or stockholders, or of any class of stockholders:

See Pages C-1 thru C-12 attached hereto.

*If there are no such provisions, state "None".

2. The purpose for which the corporation is formed is as follows: To manufacture, invent, design, develop and to engage in research and consulting work in connection with the production of products for data processors for offices and other markets; to invent, design, discover, or acquire formulae, processes, improvements, inventions, designs, patents, licenses, copyrights, trademarks, trade names and trade secrets applicable to the foregoing and to hold, use, sell, license and otherwise deal in or dispose of the same; to acquire by purchase, deed, mortgage, lease or by any other method and to hold, maintain, operate, improve, develop, sell, exchange, lease, mortgage, pledge, hypothecate, loan money upon and otherwise deal in real and personal property of every kind, character and description and wheresoever situated, including without limitation the stock and securities of the corporation or of any other corporation; to lend money upon, credit or security to, to guarantee or assume obligations of, and to aid in any other manner other concerns wherever and however organized, any obligations of which or any interest in which shall be held by the corporation or in the affairs or prosperity of which the corporation has a lawful interest and to do all acts and things designed to protect, improve and enhance the value of such obligations and interests; and to carry on any business permitted and enjoy all rights and powers granted by the Commonwealth of Massachusetts to a corporation organized under Chapter 156B of the General Laws, as amended.

4. DESCRIPTION OF CAPITAL STOCK

- A. **AUTHORIZED SHARES.** The aggregate number of shares which this Corporation shall have authority to issue is: 10,000,000 shares of common stock having a par value of \$.002 per share (the “Common Stock”) and 400,000 shares of preferred stock having a par value of \$.01 per share (the “Series Preferred Stock”).
- B. **SERIES PREFERRED STOCK.** Shares of Series Preferred Stock may be issued from time to time in one or more series as may from time to time be determined by the Board of Directors, each of said series to be distinctly designated. All shares of any one series of the Series Preferred Stock shall be alike in every particular, except that there may be different dates from which dividends, if any, thereon shall be cumulative, if made cumulative. The voting powers, if any, and the designations, preferences and relative, participating, optional or other special rights or privileges of each such series, and the qualifications, limitations or restrictions thereof, if any, may differ from those of any and all other series at any time outstanding; and, subject to the provisions of subparagraph 1 of Paragraph D hereof, there is hereby expressly vested in the Board of Directors of the Corporation the authority to issue one or more series of the Series Preferred Stock and to fix in the resolution or resolutions providing for the issue of such stock adopted by the Board of Directors of the Corporation the voting powers, if any, and the designations, preferences and relative, participating, optional or other special rights or privileges, and the qualifications, limitations or restrictions of such series, including, but without limiting the generality of the foregoing, the following:
- (1) The distinctive designation of, and the number of shares of the series Preferred Stock which shall constitute such series. The designation of a series of preferred stock need not include the words “preferred” or “preference” and may be designated “special” or other distinctive term. Unless otherwise provided in the resolution issuing such series, the number of shares of any series of the Series Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the Board of Directors in the manner prescribed by law;
 - (2) The rate and times at which, and the terms and, conditions upon which, dividends, if any, on the Series Preferred Stock of such series shall be paid, the extent of the preference or relation, if any, of such dividends to the dividends payable on any other class or classes, or series of the same or other classes of stock and whether such dividends shall be cumulative or non-cumulative and, if cumulative, the date from which such dividends shall be cumulative;
 - (3) Whether the series shall be convertible into, or exchangeable for, at the option of the holders of the Series Preferred Stock of such series or the Corporation or upon the happening of a specified event, shares of any other class or classes or any other series of the same or any other class or classes of stock of the Corporation, and the terms and conditions of such conversion or exchange, including provisions for the adjustment of any such conversion rate in such events as the Board of Directors shall determine;
 - (4) Whether or not the Series Preferred Stock of such series shall be subject to redemption at the option of the Corporation or the holders of such series or upon the happening of a specified event, and the redemption price or prices and the time or times at which, and the terms and conditions upon which, the Series Preferred Stock of such series may be redeemed;
 - (5) The rights, if any, of the holders of the Series Preferred Stock of such series upon the voluntary or involuntary liquidation, merger, consolidation, distribution or sale of assets, dissolution or winding-up, of the Corporation;
 - (6) The terms of the sinking fund or redemption or purchase account, if any, to be provided for the Series Preferred Stock of such series; and
 - (7) Subject to subparagraph 5 of Paragraph D hereof, whether such series of the Series Preferred Stock shall have full, limited or no voting powers including, without limiting the generality-of the foregoing, whether

such series shall have the right, voting as a series by itself or together with other series of the Series Preferred Stock or all series of the Series Preferred Stock as a class, to elect one or more directors of the Corporation if there shall have been a default in the payment of dividends on any one or more series of the Series Preferred Stock or under such other circumstances and on such conditions as the Board of Directors may determine.

C. COMMON STOCK.

- (1) After the Corporation has complied with the requirements, if any, fixed in accordance with the provisions of Paragraph B hereof with respect to (a) dividends on series of the Series Preferred Stock (in accordance with the relative preferences among such series) and (b) the setting aside of sums as sinking funds or redemption or purchase accounts for series of the Series Preferred Stock (in accordance with the relative preferences among such series), and subject further to any other conditions which may be fixed in accordance with the provisions of Paragraph B hereof, then, and not otherwise, the holders of Common Stock shall be entitled to receive such dividends (either in cash, stock or otherwise) as may be declared from time to time by the Board of Directors out of assets of the Corporation legally available therefor and the holders of the Series Preferred Stock shall not be entitled to participate in any such dividends.
- (2) After distribution in full of the preferential amount, if any, to be distributed to the holders of series of the Series Preferred Stock (in accordance with the relative preferences among such series) in the event of voluntary or involuntary liquidation, distribution, dissolution or winding-up, of the Corporation, the holders of the Common Stock shall be entitled to receive all of the remaining assets of the Corporation, tangible and intangible, of whatever kind available for distribution to shareholders, ratably in proportion to the number of shares of Common Stock held by them respectively.
- (3) Except as may otherwise be required by law, each holder of Common Stock shall have one vote in respect of each share of Common Stock held by him on all matters voted upon by the shareholders.

D. OTHER PROVISIONS.

- (1) No holder of any of the shares of any class or series of stock or of options, warrants or other rights to purchase shares of any class or series of stock or of other securities of the Corporation shall have any preemptive right to purchase or subscribe for any unissued stock of any class or series or any additional shares of any class or series to be issued by reason of any increase of the authorized capital stock of the Corporation of any class or series, or bonds, certificates of indebtedness, debentures or other securities convertible into or exchangeable for stock of the Corporation of any class or series, or carrying any right to purchase stock of any class or series, but any such unissued stock, additional authorized issue of shares of any class or series of stock or securities convertible into or exchangeable for stock, or carrying any right to purchase stock, may be issued and disposed of pursuant to resolution of the Board of Directors to such persons, firms, corporations or associations (including such holders or others) and upon such terms as may be deemed advisable by the Board of Directors in the exercise of its sole discretion.
- (2) The relative powers, preferences and rights of each series of the Series Preferred Stock in relation to the powers, preferences and rights of each other series of the Series Preferred Stock shall, in each case, be as fixed from time to time by the Board of Directors in the resolution or resolutions adopted pursuant to authority granted in Paragraph B hereof. The consent, by class or series vote or otherwise, of the holders of such of the series of the Series Preferred Stock as are from time to time outstanding shall not be required for the issuance by the Board of Directors of any other series of the Series Preferred Stock whether or not the powers, preferences and rights of such other series shall be fixed by the Board of Directors as senior to, or on a parity with, the powers, preferences and rights of such outstanding series, or any of them; provided, however, that the Board of Directors may provide in the resolution or resolutions as to any series of the Series Preferred Stock adopted pursuant to Paragraph B hereof, the conditions if any, under which the consent of the holders of a majority (or such greater proportion as shall be fixed therein) of the outstanding

shares of such series shall be required for the issuance of any or all other series of the Series Preferred Stock.

- (3) Subject to the provisions of subparagraph 2 of this Paragraph D, shares of any series of the Series Preferred Stock may be issued from time to time as the Board of Directors of the Corporation shall determine and on such terms and for such consideration as shall be fixed by the Board of Directors.
- (4) Shares of authorized Common Stock may be issued from time to time as the Board of Directors of the Corporation shall determine and on such terms and for such consideration as shall be fixed by the Board of Directors.
- (5) The number of authorized shares of Common Stock and of the Series Preferred Stock, without a class or series vote, may be increased or decreased from time to time (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation entitled to vote thereon.

6. Other lawful provisions for the conduct and regulation of the business and affairs of the corporation, for its voluntary dissolution or for limiting, defining or regulating the powers of the corporation, or of its directors or stockholders, or of any class of stockholders:

No Director or officer shall be disqualified by his office from dealing or contracting as vendor, purchaser or otherwise, whether in his individual capacity or through any other corporation, trust, association or firm in which he is interested as stockholder, director, trustee, partner or otherwise, with the corporation or any corporation, trust, association or firm in which the corporation shall be a stockholder or otherwise interested or which shall hold stock or be otherwise interested in the corporation, nor shall any such dealing or contract be avoided, nor shall any Director or officer so dealing or contracting be liable to account for any profit or benefit realized through any such dealing or contract to the corporation or to any stockholder or creditor thereof solely because of the fiduciary relationship established by reason of his holding such Directorship or office. Any such interest of a Director shall not disqualify him from being counted in determining the existence of a quorum at any meeting nor shall any such interest disqualify him from voting or consenting as a Director or having his vote or consent counted in connection with any such dealing or contract.

No stockholder shall be disqualified from dealing or contracting as vendor, purchaser or otherwise, either in his individual capacity or through any other corporation, trust, association or firm in which he is interested as stockholder, director, trustee, partner or otherwise, with the corporation or any corporation, trust, association or firm in which the corporation shall be a stockholder or otherwise interested or which shall hold stock or be otherwise interested in the corporation, nor shall any such dealing or contract be avoided, nor shall any stockholder so dealing or contracting be liable to account for any profit or benefit realized through any such contract or dealing to the corporation or to any stockholder or creditor thereof by reason of such stockholder holding stock in the corporation to any amount, nor shall any fiduciary relationship be deemed to be established by such stockholding.

Meetings of the stockholders of the corporation may be held at any place within the United States.

The corporation may be a partner in any business enterprise it would have power to conduct by itself.

The directors may make, amend or repeal the by-laws in whole or in part, except with respect to any provision thereof which by law, these Restated Articles of organization or the by-laws requires action by the stockholders.

No director of the Corporation shall be liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director notwithstanding any statutory provision or other law imposing such liability, except for liability of a director (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section sixty-one or sixty-two of Chapter 156B of the Massachusetts General Laws, or (iv) for any transaction from which the director derived an improper personal benefit.

Classified Board of Directors

- (1) The Directors of the corporation shall be divided into three classes: Class I, Class II and Class III. Each class shall consist, as nearly as may be possible, of one-third of the whole number of the Board of Directors. If the number of Directors is not evenly divisible by three, the Board of Directors shall determine the number of Directors to be elected initially into each class. In the election of Directors at the Special Meeting of Stockholders in Lieu of the 1989 Annual Meeting, the Class I Directors shall be elected to hold office for a term to expire at the first annual meeting of the stockholders thereafter; the Class II Directors shall be elected to hold office for a term to expire at the second annual meeting of the stockholders thereafter; and the Class III Directors shall be elected to hold office for a term to expire at the third annual meeting of the stockholders thereafter, and in the case of each class, until their respective successors are duly elected and qualified. At each annual election held after the Special Meeting of Stockholders in Lieu of the 1989 Annual Meeting, the Directors elected to succeed those whose terms expire shall be identified as being of the same class as the Directors they succeed and shall be elected to hold office for a term to expire at the third annual meeting of the stockholders after their election, and until

their respective successors are duly elected and qualified: if the number of Directors changes, any increase or decrease in Directors shall be apportioned among the classes so as to maintain all classes as equal in number as possible, and any additional Director elected to any class shall hold office for a term which shall coincide with the terms of the other Directors in such class and until his successor is duly elected and qualified.

- (2) Notwithstanding any other provisions of these Articles of Organization or the by-laws of the corporation or the fact that a lesser percentage may be specified by law, these Articles of Organization or the by-laws of the corporation, the affirmative vote of the holders of at least eighty (80%) percent of the combined voting power of the outstanding stock of the corporation entitled to vote generally in the election of directors ("Voting Stock"), voting together as a single class, shall be required to amend, alter, adopt any provision inconsistent with or to repeal this provision; provided however that if any such proposal receives the affirmative vote of each holder of at least 15% of the outstanding Voting Stock who also held at least 15% of the outstanding Voting Stock of the corporation on May 15, 1989, then such proposal shall require only the affirmative vote of the holders of at least a majority of the outstanding Voting Stock of the corporation.

Vote Required for Certain Business Combinations

- (A) In addition to any affirmative vote required by law or these Articles of Organization, and except as otherwise expressly provided in Paragraph (B) of this Provision:
1. any merger or consolidation of the corporation or any Subsidiary (as hereinafter defined) with (a) an Interested Stockholder (as hereinafter defined) or (b) any other corporation (whether or not itself an Interested Stockholder) which is, or after such merger or consolidation would be, an Affiliate (as such term is hereinafter defined) of an Interested Stockholder; or
 2. any sale, lease, exchange, mortgage, pledge, grant of a security interest, transfer or other disposition (in one transaction or a series of transactions) to or with (a) an Interested Stockholder or (b) any other person (whether or not itself an Interested Stockholder) which is, or after such sale, lease, exchange, mortgage, pledge, grant of security interest, transfer or other disposition would be, an Affiliate of an Interested Stockholder, directly or indirectly, of substantially all of the assets of the corporation (including, without limitation, any voting securities of a Subsidiary) or any Subsidiary; or
 3. the issuance or transfer by the corporation or any Subsidiary (in one transaction or a series of transactions) of any securities of the corporation or any Subsidiary, or both, to (a) an Interested Stockholder or (b) any other person (whether or not itself an Interested Stockholder) which is, or after such issuance or transfer would be, an Affiliate of an Interested Stockholder in exchange for cash, securities or other property (or a combination thereof); or
 4. the adoption of any plan or proposal for the liquidation or dissolution of the corporation proposed by or on behalf of an Interested Stockholder or any Affiliate of an Interested Stockholder; or
 5. any reclassification of securities (including any reverse stock split), or recapitalization of the corporation, or any merger or consolidation of the corporation with any of its Subsidiaries or any other transaction (whether or not with or into or otherwise involving an Interested Stockholder) which has the effect, directly or indirectly, of increasing the proportionate share of the outstanding shares of any class of equity or convertible securities of the corporation or any Subsidiary directly or indirectly beneficially owned by (a) an Interested Stockholder or (b) any other person (whether or not itself an Interested Stockholder) which is, or after such reclassification, recapitalization, merger or consolidation or other transaction would be, an Affiliate of an Interested Stockholder;

shall not be consummated unless such consummation shall have been approved by the affirmative vote of the holders of at least eighty (80%) percent of the combined voting power of the then outstanding shares of Voting Stock (as hereinafter defined), voting together as a single class. Such affirmative vote shall be required notwithstanding

the fact that no vote may be required, or that a lesser percentage may be specified, by law, in these Articles of Organization or in any agreement with any national securities exchange or otherwise.

- (B) The provisions of Paragraph (A) of this Provision shall not be applicable to any particular Business Combination (as hereinafter defined) and such Business Combination shall require only such affirmative vote as is required by law and any other provision of these Articles of Organization, if the Business Combination shall have been approved by a majority of the Continuing Directors (as hereinafter defined) or all of the following conditions shall have been met.
1. The transaction constituting the Business Combination shall provide for a consideration to be received by all holders of Common Stock in exchange for all their shares of Common Stock, and the aggregate amount of the cash and the Fair Market Value as of the date of the consummation of the Business Combination of consideration other than cash to be received per share by holders of Common Stock in such Business Combination shall be at least equal to the higher of the following:
 - (a) (if applicable) the highest per-share price (including any brokerage commissions, transfer taxes and soliciting dealers, fees) paid in order to acquire any shares of Common Stock Beneficially owned by an Interested Stockholder M within the two-year period immediately prior to the Announcement Date (as hereinafter defined), (ii) within the two-year period immediately prior to the Determination Date (as hereinafter defined) or (iii) in the transaction in which it became an Interested Stockholder, whichever is highest; or
 - (b) the Fair Market Value per share of Common Stock on the Announcement Date or on the Determination Date, whichever is higher;
 2. If the transaction constituting the Business Combination shall provide for a consideration to be received by holders of any class or series of outstanding Voting Stock other than Common Stock, the aggregate amount of the cash and the Fair Market Value as of the date of the consummation of the Business Combination of consideration other than cash to be received per share by holders of shares of such class or series of Voting Stock shall be at least equal to the highest of the following (it being intended that the requirements of this subparagraph 2 shall be required to be met with respect to every class or series of outstanding Voting Stock, whether or not an Interested Stockholder has previously acquired any shares of a particular class of Voting Stock):
 - (a) (if applicable) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers' fees) paid in order to acquire any shares of such class or series of Voting Stock beneficially owned by an Interested Stockholder (i) within the two-year period immediately prior to the Announcement Date, (ii) within the two-year period immediately prior to the Determination Date, or (iii) in the transaction in which it became an Interested Stockholder, whichever is highest; or
 - (b) the Fair Market Value per share of such class or series of Voting Stock on the Announcement Date or the Determination Date, whichever is higher; or
 - (c) (if applicable) the highest preferential amount per share to which the holders of shares of such class or series of Voting Stock are entitled in the event of any voluntary or involuntary liquidation, dissolution or winding up of the corporation;
 3. The consideration to be received by holders of a particular class or series of outstanding Voting Stock (including Common Stock) shall be in cash or in the same form as was previously paid in order to acquire shares of such class or series of Voting Stock which are beneficially owned by an Interested Stockholder and, if an Interested Stockholder beneficially owns shares of any class or series of Voting Stock which were acquired with varying forms of consideration, the form of consideration for such class or series of Voting Stock shall be either cash or the form used to acquire the largest number of shares of such class or series of voting Stock beneficially owned by it. The price determination in accordance with subparagraphs 1 and 2

of this Paragraph (B) shall be subject to appropriate adjustment in the event of any recapitalization, stock dividend, stock split, combination of shares or similar event;

4. After such Interested Stockholder has become an Interested Stockholder and prior to the consummation of such Business Combination:
 - (a) except as approved by a majority of the Continuing Directors, there shall have been no failure to declare and pay at the regular date therefor the full amount of any dividends (whether or not cumulative) payable on any outstanding preferred stock;
 - (b) there shall have been (i) no reduction in the annual rate of dividends paid on the Common Stock (except as necessary to reflect any subdivision of the Common Stock) other than as approved by a majority of the Continuing Directors and (ii) an increase in such annual rate of dividends as necessary to prevent any such reduction in the event of any reclassification (including any reverse stock split), recapitalization, reorganization or any similar transaction which has the effect of reducing the number of outstanding shares of the Common Stock, unless the failure so to increase such annual rate is approved by a majority of the Continuing Directors;
 - (c) such Interested Stockholder shall not have become the beneficial owner of any additional shares of Voting Stock at a price lower than that paid in the transaction in which it became an Interested Stockholder.
 5. After such Interested Stockholder has become an Interested Stockholder, such Interested Stockholder shall not have received the benefit, directly or indirectly (except proportionately as a stockholder), of any loans, advances, guarantees, pledges or other financial assistance or any tax credits or other tax advantages provided the corporation, whether in anticipation of or in connection with such Business Combination or otherwise; and
 6. A proxy or information statement describing the proposed Business Combination and complying with the requirements of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (or any subsequent provisions replacing such act, rules or regulations) shall be mailed to the stockholders of the corporation, no later than the earlier of (a) thirty (30) days prior to any vote on the proposed Business Combination or (b) if no vote on such Business Combination is required, sixty (60) days prior to the consummation of such Business Combination (whether or not such proxy or information statement is required to be mailed pursuant to such Act or subsequent provisions). Such proxy statement shall contain at the front thereof, in a prominent place, any recommendations as to the advisability (or inadvisability) of the Business Combination which the Continuing Directors, or any of them, may have furnished in writing and, if deemed advisable by a majority of the Continuing Directors, an opinion of a reputable investment banking firm as to the fairness (or lack of fairness) of the terms of such Business Combination, from the point of view of the holder of Voting Stock other than an Interested Stockholder (such investment banking firm to be selected by a majority of the Continuing Directors, to be furnished with all information it reasonably requests and to be paid a reasonable fee for its services upon receipt by the corporation of such opinion)
- (C) For the purposes of this Provision:
1. "Business Combination" shall mean any transaction which is referred to in any one or more of subparagraphs 1 through 5 of Paragraph (A) of this Provision.
 2. "Voting Stock" shall mean stock of all classes and series of the corporation entitled to vote generally in the election of directors.
 3. "Person" shall mean any individual, firm, trust, partnership, association, corporation or other entity.

4. "Interested Stockholder" shall mean any person (other than the corporation or any Subsidiary or any person who was a stockholder of the corporation on January 8, 1981) who or which:
- (a) is the beneficial owner, directly or indirectly, of more than ten (10%) percent of the combined voting power of the then outstanding Voting Stock; or
 - (b) is an Affiliate of the corporation and at any time within the two-year period immediately prior to the date in question was the beneficial owner, directly or indirectly, of more than ten (10%) percent of the combined voting power of the then outstanding Voting Stock; or
 - (c) is an assignee of or has otherwise succeeded to the beneficial ownership of any shares of Voting Stock which were at any time within the two-year period immediately prior to the date in question beneficially owned by an Interested Stockholder, unless such assignment or succession shall have occurred pursuant to a Public Transaction (as hereinafter defined) or any series of transactions involving a Public Transaction.

For the purposes of determining whether a person is an Interested Stockholder, the number of shares of Voting Stock deemed to be outstanding shall include shares deemed owned through application of subparagraph 6 below but shall not include any other shares of Voting Stock which may be issuable pursuant to any agreement, arrangement or understanding, or upon exercise of conversion rights, warrants or option, or otherwise.

5. "Public Transaction" shall mean any (a) purchase of shares offered pursuant to an effective registration statement under the Securities Act of 1933 or (b) open-market purchase of shares on a national securities exchange if, in either such case, the price and other terms of sale are not negotiated by the purchaser and the seller of the beneficial interest in the shares.
6. A person shall be a "beneficial owner" of any Voting Stock:
- (a) which such person or any of its Affiliates beneficially owns, directly or indirectly; or
 - (b) which such person or any of its Affiliates has (i) the right to acquire (whether such right is exercisable immediately or only after the passage of time) pursuant to any agreement, arrangement or understanding or upon the exercise of conversion rights, exchange rights, warrants or options, or otherwise or (ii) the right to vote or to direct the voting thereof pursuant to any agreement, arrangement or understanding; or
 - (c) which is beneficially owned, directly or indirectly, by any other person with which such person or any of its Affiliates has any agreement, arrangement or understanding for the purpose of acquiring, holding, voting or disposing of any shares of Voting Stock.
7. "Affiliate" shall have the meaning ascribed to such term in Rule 12b-2 of the General Rules and Regulations under the Securities Exchange Act of 1934, as in effect on June 27, 1989.
8. "Subsidiary" shall mean any corporation of which a majority of any class of equity security (as defined in Rule 3a1.1 of the General Rules and Regulations under the Securities Exchange Act of 1934, as in effect on June 27, 1989) is owned, directly or indirectly, by the corporation; provided, however, that for the purposes of the definition of Interested Stockholder set forth in subparagraph 4, the term "Subsidiary" shall mean only a corporation of which a majority of each class of equity security is owned, directly or indirectly, by the corporation.
9. "Continuing Director" shall mean any member of the Board of Directors of the corporation who is unaffiliated with, and not a nominee of, an Interested Stockholder and was a member of the Board prior to the time that such Interested Stockholder became an Interested Stockholder, and any successor of a Continuing Director who is unaffiliated with, and not a nominee of, an Interested Stockholder and is recommended to succeed a Continuing Director by a majority of Continuing Directors then on the Board.

10. "Announcement Date" shall mean the date of the first public announcement of the proposed Business Combination.
11. "Determination Date" shall mean the date on which an Interested Stockholder became an Interested Stockholder.
12. "Fair Market Value" shall mean: (a) in the case of stock, the highest closing sale price during the thirty (30)-day period immediately preceding the date in question of a share of such stock on the National Market System of the National Association of Securities Dealers Automated Quotation System or any system then in use on any national securities exchange or automated quotation system, or if no such quotations are available, the fair market value on the date in question of a share of such stock as determined by a majority of the Continuing Directors in good faith; and (b) in the case of property other than cash or stock, the fair market value of such property on the date in question as determined by a majority of the Continuing Directors in good faith.
- (D) A majority of the Continuing Directors shall have the power and duty to determine for the purposes of this Provision, on the basis of information known to them after reasonable inquiry, all facts necessary to determine compliance with this Provision, including, without limitation, (1) whether a person is an Interested Stockholder, (2) the number of shares of Voting Stock beneficially owned by any person, (3) whether a person is an Affiliate of another, (4) whether the requirements of Paragraph (B) of this Provision have been met and (5) such other matters with respect to which a determination is required under this Provision. The good faith determination of a majority of the Continuing Directors on such matters shall be conclusive and binding for all purposes of this Provision.
- (E) Nothing contained in this Provision shall be construed to relieve an Interested Stockholder of any fiduciary obligation imposed by law.
- (F) Notwithstanding any other provisions of these Articles of Organization or the By-laws of the corporation or the fact that a lesser percentage may be specified by law, these Articles of Organization or the By-laws of the corporation, the affirmative vote of the holders of at least eighty (80%) percent of the combined voting power of the then outstanding Voting Stock, voting together as a single class, shall be required to amend, alter, adopt any provision inconsistent with or repeal this Provision; provided however that if any such proposal receives the affirmative vote of each holder of at least 15% of the outstanding Voting Stock who also held at least 15% of the outstanding Voting Stock of the corporation on May 15, 1989, then such proposal shall require only the affirmative vote of the holders of at least a majority of the outstanding Voting Stock of the corporation.

Redemption of Shares

In accordance with Section 6 of Chapter 110D of the General Laws of the Commonwealth of Massachusetts the corporation by action of its Board of Directors is authorized, at the option of the corporation by such Board action but without requiring the agreement of the person who has made a control share acquisition (as defined in said Chapter 110D), to redeem all but not less than all shares acquired in such a control share acquisition in accordance with and subject to the limitations contained in said Chapter 110D including Section 6 thereof.

Supramajority Vote

In addition to any affirmative vote required by law or these Articles of Organization, with respect to certain Business Combinations, until December 31, 1994:

1. any merger or consolidation of the corporation or any Subsidiary with any other corporation, person, business or entity ("Subsidiary" is defined as any corporation of which a majority of any class of equity security (as defined in Rule 3a1.1 of the General Rules and Regulations under the Securities Exchange Act of 1934, as in effect on June 27, 1989) is owned, directly or indirectly, by the corporation); or

2. any sale, lease, exchange, transfer or other disposition (in one transaction or a series of transactions) of all or substantially all of the assets of the corporation, but specifically excluding any granting of a security interest associated with a debt transaction approved by the Board of Directors; or
3. the adoption of any plan or proposal for the liquidation or dissolution of the corporation; or
4. any amendment to or rescission of this subsection of Article 6 entitled "Supramajority Vote";

shall not be consummated unless such consummation shall have been approved by the affirmative vote of the holders of at least eighty (80%) percent of the combined voting power of the then outstanding shares of voting stock of the corporation entitled to vote thereon ("Voting Stock"), voting together as a single class; provided, however that if any such action receives the affirmative vote of each holder of at least 15% of the outstanding Voting Stock of the corporation who also held at least 15% of the outstanding Voting Stock of the corporation on May 15, 1989, then such proposal shall require only the affirmative vote of the holders of that number of the outstanding Voting Stock of the corporation as is required by applicable law, these Articles of Organization or the by-laws.

Exhibit A

**COGNEX CORPORATION
PLAN OF RECAPITALIZATION
June 27, 1989**

1. **COMMON STOCK.** As of the Effective Date (as defined below), Cognex Corporation (the "Company") will complete a one-for-two reverse stock split pursuant to which (A) each holder of two (2) shares of the currently issued and outstanding Class A Common Stock, with \$.001 par value per share ("Old Class A Stock") of the Company will be entitled to receive, in exchange therefor, one (1) share of the newly authorized but unissued Class A Common Stock, with \$.002 par value per share ("New Class A Stock") of the Company and (B) each holder of two (2) shares of the currently issued and outstanding Class B Common Stock with \$.001 par value per share ("Old Class B Stock") will be entitled to receive, in exchange therefor, one (1) share of the newly authorized but unissued Class B Common Stock of the Company with \$.002 par value per share ("New Class B Stock"). Fractional shares will not be issued by the Company and, in lieu thereof, holders will receive cash in an amount equal to the fair value of that fractional share as of the Effective Date as determined by the Board of Directors of the Company. Stockholders must return for exchange all certificates representing shares of Old Class A Stock and Old Class B Stock in order to receive cash or certificates representing New Class A Stock or New Class B Stock. Accompanying the Notice of the Special Meeting is a Letter of Transmittal for each holder to complete, date, execute and return to the Company together with all certificates representing Old Class A Stock and Old Class B Stock. The Transmittal Letter and the certificates will be held by the Company until the Plan of Recapitalization is approved. Certificates representing the New Class A Stock and New Class B Stock need not be issued in the event that the Company completes the total conversion of all of its capital stock to a single series and class of Common Stock. In such event, certificates representing such single class of Common Stock will be issued. If the Plan is not approved, the certificates and the Transmittal Letter will be returned to the holder.
 2. **PREFERRED STOCK.** As a result of the reverse stock split approved in paragraph 1 above, the conversion rates for the Company's currently authorized Preferred Stock shall be adjusted (and Article 4 of the Articles of Organization of the Company shall be amended) as follows: (A) the applicable Conversion Rate for the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, upon the consummation of the reverse stock split, shall be five (5) such that each share of Series A, B and C Preferred Stock converts into five (5) shares of New Class A Stock and (B) the applicable Conversion Rate for the Series D Preferred Stock, upon the consummation of the reverse stock split, shall be one-half (1/2) such that each share of Series D Preferred Stock shall convert into one-half (1/2) share of New Class A Stock.
 3. **AMENDMENTS TO ARTICLES OF ORGANIZATION.** As a result of the reverse stock split approved in paragraph 1 above, by adoption of this Plan of Recapitalization, the Articles of Organization of the Company are amended such that the total number of shares and the par value, if any, of the Common Stock that the Company is authorized to issue shall be changed from 10,000,000 shares of Class A Common Stock with \$.001 par value per share and 2,500,000 shares of Class B Common Stock with \$.001 par value per share to 5,000,000 shares of Class A Common Stock with \$.002 par value per share and 1,250,000 shares of Class B Common Stock with \$.002 par value per share. In addition, by adoption of this Plan of Recapitalization, the Articles of Organization are hereby further amended to increase the number of shares of Class A Common Stock that the Corporation is authorized to issue from 5,000,000 shares with \$.002 par value per share to 10,000,000 shares with \$.002 par value per share (such new shares to be known as "Common Stock"). The Company need not file two separate Articles of Amendment to reflect these amendments and may make one filing with the Secretary of the Commonwealth of Massachusetts showing the ultimate effect to the Articles of Organization of this Plan of Recapitalization.
 4. **EFFECTIVE DATE.** As used herein, the term "Effective Date" shall mean June 28, 1989.
-

*We further certify that the foregoing restated articles of organization effect no amendments to the articles of organization of the corporation as heretofore amended, except amendments to the following articles

Article 3, Article 4 and Article 6

(*If there are no such amendments, state "None".)

Briefly describe amendments in space below:

To Article 3

1. Adopted the Cognex Corporation Plan of Recapitalization on June 27, 1989 (see Exhibit A hereto), following which the only shares of capital stock which the Corporation shall have authority to issue shall be 10,000,000 shares of a single class of Common Stock having a par value of \$.002 per share and 400,000 shares of Preferred Stock par value \$.01 per share, all the previously issued Class A and Class B Common Stock and the Series A, B, C and D Preferred Stock having been converted into shares of a single class of Common Stock.

To Article 4

1. Amended description of each of the different classes of stock.

To Article 6

1. Creation of a classified Board of Directors.
2. Adoption of a Fair Price Amendment.
3. Adoption of provision regarding the redemption by the Corporation of shares acquired in a control share acquisition; and
4. Adoption of provision regarding supramajority voting to approve certain transactions.

IN WITNESS WHEREOF AND UNDER PENALTIES OF PERJURY, we have hereto signed our names this 27th day of June in the year 1989.

/s/ Robert J. Shillman
President

/s/ Anthony J. Medaglia, Jr.
Clerk

THE COMMONWEALTH OF MASSACHUSETTS

RESTATED ARTICLES OF ORGANIZATION
(GENERAL LAWS, CHAPTER 156B, SECTION 74)

I hereby approve the within restated articles of organization and, the filing fee in the amount of \$ having been paid, said articles are deemed to have been filed with me this _____ day of _____, 1989.

/s/ Michael Joseph Connolly
MICHAEL JOSEPH CONNOLLY
Secretary of State

TO BE FILLED IN BY CORPORATION

PHOTO COPY OF RESTATED ARTICLES OF ORGANIZATION TO BE

SENT TO:

Anthony J. Medaglia, Jr.
Hutchins & Wheeler
101 Federal Street, Boston, MA 02110
Telephone (617) 951-6600

Copy Mailed

The Commonwealth of Massachusetts
OFFICE OF THE MASSACHUSETTS SECRETARY OF STATE
MICHAEL J. CONNOLLY, Secretary
ONE ASHBURTON PLACE,
BOSTON, MASSACHUSETTS 02108

04-2713778

FEDERAL IDENTIFICATION NO.

ARTICLES OF AMENDMENT
GENERAL LAWS, CHAPTER 156B, SECTION 72

We, Robert J. Shillman, President/, and Anthony J. Medaglia, Jr., Clerk/ of

COGNEX CORPORATION

(EXACT Name of Corporation)

located at 15 Crawford Street, Needham, Massachusetts 02194

do hereby certify that these ARTICLES OF AMENDMENT affecting Articles NUMBERED:

3

(Number those articles 1, 2, 3, 4, 5 and/or 6 being amended hereby)

of the Articles of Organization were duly adopted at a meeting held on April 30, 1991, by vote of:

Name _____

Approved

2,547,604 shares of

Common Stock _____ out of
type, class and series, (if any)

4,087,176 shares outstanding,

-0- shares of

Preferred Stock	out of
type, class and series, (if any)	

-0- shares outstanding, and

shares of

type, class and series, (if any) out of

shares outstanding, and

CROSS OUT
INAPPLICABLE
CLAUSE

being at least a majority of each type, class or series outstanding and entitled to vote thereon: (1)

C ||

P ||

M		(1) For amendments adopted pursuant to Chapter 156B, Section 70.
<u>RA</u>		(2) For amendments adopted pursuant to Chapter 156B, Section 71.

P.C.

Note: If the space provided under any article or item on this form is insufficient, additions shall be set forth on separate 8 1/2 x 11 sheets of paper leaving a left hand margin of at least 1 inch for binding. Additions to more than one article may be continued on a single sheet so long as each article requiring each such addition is clearly indicated.

To CHANGE the number of shares and the par value (if any) of any type, class or series of stock which the corporation is authorized to issue, fill in the following:

The total presently authorized is:

WITHOUT PAR VALUE STOCKS		WITH PAR VALUE STOCKS		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
COMMON:	N/A	COMMON:	10,000,000	\$.002
PREFERRED:	N/A	PREFERRED:	400,000	\$0.01

CHANGE the total authorized to:

WITHOUT PAR VALUE STOCKS		WITH PAR VALUE STOCKS		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
COMMON:	N/A	COMMON:	15,000,000	\$.002
PREFERRED:	N/A	PREFERRED:	400,000	\$0.01

The foregoing amendment will become effective when these articles of amendment are filed in accordance with Chapter 156B, Section 6 of The General Laws unless these articles specify, in accordance with the vote adopting the amendment, a later effective date not more than thirty days after such filing, in which event the amendment will become effective on such later date.

EFFECTIVE DATE: Date of Filing

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereunto signed our names this Thirtieth day of April, in the year 1991.

/s/ Robert J. Shillman
President

/s/ Anthony J. Medaglia, Jr.
Clerk

THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF AMENDMENT

GENERAL LAWS, CHAPTER 156B, SECTION 72

I hereby approve the within articles of amendment and, the filing fee in the amount of \$5,000.00 having been paid, said articles are deemed to have been filed with me this 9th day of May, 1991.

/s/ Michael J. Connolly
MICHAEL JOSEPH CONNOLLY
Secretary of State

TO BE FILLED IN BY CORPORATION

PHOTOCOPY OF ARTICLES OF AMENDMENT TO BE SENT TO:

**ANTHONY J. MEDAGLIA, JR.
HUTCHINS & WHEELER
101 FEDERAL STREET, BOSTON, MA 02110
TELEPHONE: (617) 951-6600**

EXAMINER

The Commonwealth of Massachusetts
OFFICE OF THE MASSACHUSETTS SECRETARY OF STATE
MICHAEL J. CONNOLLY, Secretary
ONE ASHBURTON PLACE,
BOSTON, MASSACHUSETTS 02108

04-2713778

FEDERAL IDENTIFICATION NO.

ARTICLES OF AMENDMENT
GENERAL LAWS, CHAPTER 156B, SECTION 72

We, Robert J. Shillman, President/, and Anthony J. Medaglia, Jr., Clerk/ of

COGNEX CORPORATION

(EXACT Name of Corporation)

located at 15 Crawford Street, Needham, Massachusetts 02194

do hereby certify that these ARTICLES OF AMENDMENT affecting Articles NUMBERED:

3

(Number those articles 1, 2, 3, 4, 5 and/or 6 being amended hereby)

of the Articles of Organization were duly adopted at a meeting held on April 21, 1992, by vote of:

Name
Approved

<u>5,387,004</u> shares of	<u>Common Stock</u> out of	<u>8,450,806</u> shares outstanding,
	type, class and series, (if any)	
<u>-0-</u> shares of	<u>Preferred Stock</u> out of	<u>-0-</u> shares outstanding, and
	type, class and series, (if any)	
<u> </u> shares of	<u> </u> out of	<u> </u> shares outstanding, and
	type, class and series, (if any)	

CROSS OUT
INAPPLICABLE
CLAUSE

being at least a majority of each type, class or series outstanding and entitled to vote thereon: (1)

C ||
P ||

M		(1) For amendments adopted pursuant to Chapter 156B, Section 70.
<u>RA</u>		(2) For amendments adopted pursuant to Chapter 156B, Section 71.

P.C.

Note: If the space provided under any article or item on this form is insufficient, additions shall be set forth on separate 8 1/2 x 11 sheets of paper leaving a left hand margin of at least 1 inch for binding. Additions to more than one article may be continued on a single sheet so long as each article requiring each such addition is clearly indicated.

To CHANGE the number of shares and the par value (if any) of any type, class or series of stock which the corporation is authorized to issue, fill in the following:

The total presently authorized is:

WITHOUT PAR VALUE STOCKS		WITH PAR VALUE STOCKS		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
COMMON:	N/A	COMMON:	15,000,000	\$.002
PREFERRED:	N/A	PREFERRED:	400,000	\$0.01

CHANGE the total authorized to:

WITHOUT PAR VALUE STOCKS		WITH PAR VALUE STOCKS		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
COMMON:	N/A	COMMON:	25,000,000	\$.002
PREFERRED:	N/A	PREFERRED:	400,000	\$0.01

The foregoing amendment will become effective when these articles of amendment are filed in accordance with Chapter 156B, Section 6 of The General Laws unless these articles specify, in accordance with the vote adopting the amendment, a later effective date not more than thirty days after such filing, in which event the amendment will become effective on such later date.

EFFECTIVE DATE: Date of Filing

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereunto signed our names this 21st day of April, in the year 1992.

/s/ Robert J. Shillman
President

/s/ Anthony J. Medaglia, Jr.
Clerk

THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF AMENDMENT

GENERAL LAWS, CHAPTER 156B, SECTION 72

I hereby approve the within articles of amendment and, the filing fee in the amount of \$10,000.00 having been paid, said articles are deemed to have been filed with me this 3rd day of August, 1992.

/s/ Michael J. Connolly
MICHAEL J. CONNOLLY
Secretary of State

TO BE FILLED IN BY CORPORATION

PHOTOCOPY OF ARTICLES OF AMENDMENT TO BE SENT TO:

**ANTHONY J. MEDAGLIA, JR.
HUTCHINS & WHEELER
101 FEDERAL STREET, BOSTON, MA 02110
TELEPHONE: (617) 951-6600**

The Commonwealth of Massachusetts
OFFICE OF THE MASSACHUSETTS SECRETARY OF STATE
MICHAEL J. CONNOLLY, Secretary
ONE ASHBURTON PLACE,
BOSTON, MASSACHUSETTS 02108

ARTICLES OF AMENDMENT
GENERAL LAWS, CHAPTER 156B, SECTION 72

We, Robert J. Shillman, President/, and Anthony J. Medaglia, Jr., Clerk/ of

COGNEX CORPORATION

(EXACT Name of Corporation)

located at 15 Crawford Street, Needham, Massachusetts 02194

do hereby certify that these ARTICLES OF AMENDMENT affecting Articles NUMBERED:

3

(Number those articles 1, 2, 3, 4, 5 and/or 6 being amended hereby)

of the Articles of Organization were duly adopted at a meeting held on April 25, 1995, by vote of:

Approved

13,514,984 shares of

Common Stock _____ out of _____
 type, class and series, (if any)

18,840,535 shares outstanding,

shares of

_____ out of _____
type, class and series, (if any)

shares outstanding, and

shares of

_____ out of _____
type, class and series, (if any)

shares outstanding, and

CROSS OUT
INAPPLICABLE
CLAUSE

being at least a majority of each type, class or series outstanding and entitled to vote thereon: (1)

C []

P []

M [] (1) For amendments adopted pursuant to Chapter 156B, Section 70.
RA [] (2) For amendments adopted pursuant to Chapter 156B, Section 71.

P.C.

Note: If the space provided under any article or item on this form is insufficient, additions shall be set forth on separate 8 1/2 x 11 sheets of paper leaving a left hand margin of at least 1 inch for binding. Additions to more than one article may be continued on a single sheet so long as each article requiring each such addition is clearly indicated.

To CHANGE the number of shares and the par value (if any) of any type, class or series of stock which the corporation is authorized to issue, fill in the following:

The total presently authorized is:

WITHOUT PAR VALUE STOCKS		WITH PAR VALUE STOCKS		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
COMMON:	N/A	COMMON:	25,000,000	\$.002
PREFERRED:	N/A	PREFERRED:	400,000	\$0.01

CHANGE the total authorized to:

WITHOUT PAR VALUE STOCKS		WITH PAR VALUE STOCKS		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
COMMON:	N/A	COMMON:	60,000,000	\$.002
PREFERRED:	N/A	PREFERRED:	400,000	\$0.01

The foregoing amendment will become effective when these articles of amendment are filed in accordance with Chapter 156B, Section 6 of The General Laws unless these articles specify, in accordance with the vote adopting the amendment, a later effective date not more than thirty days after such filing, in which event the amendment will become effective on such later date.

EFFECTIVE DATE: Date of Filing

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereunto signed our names this 25th day of April, in the year 1995.

/s/ Robert J. Shillman
President

/s/ Anthony J. Medaglia, Jr.
Clerk

THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF AMENDMENT

GENERAL LAWS, CHAPTER 156B, SECTION 72

I hereby approve the within articles of amendment and, the filing fee in the amount of \$35,000.00 having been paid, said articles are deemed to have been filed with me this 18th day of May, 1995.

/s/ William Francis Galvin
WILLIAM FRANCIS GALVIN
Secretary of the Commonwealth

TO BE FILLED IN BY CORPORATION

PHOTOCOPY OF ARTICLES OF AMENDMENT TO BE SENT TO:

**SHANNON D. WHISENART
HUTCHINS & WHEELER & DITTMAR
101 FEDERAL STREET, BOSTON, MA 02110
TELEPHONE: (617) 951-6600**

FEDERAL IDENTIFICATION

NO. 04-2713778

Examiner The Commonwealth of Massachusetts
 William Francis Galvin
 Secretary of the Commonwealth
 One Ashburton Place, Boston, Massachusetts 02108-1512

Name Approved ARTICLES OF AMENDMENT
 (General Laws, Chapter 156B, Section 72)

We, Robert Shillman, *President/
and Anthony J. Medaglia, Jr. *Clerk/
of COGNEX CORPORATION

(Exact name of corporation)

located at One Vision Drive, Natick, MA 01760
(Street address of corporation in Massachusetts)

certify that these Articles of Amendment affecting articles numbered:

3

(Number those articles 1, 2, 3, 4, 5 and/or 6 being amended hereby)

of the Articles of Organization were duly adopted at a meeting held on April 23, 1996, by vote of:

<u>31,729,416</u> shares of	<u>Common Stock</u> (type, class and series, if any)	out of	<u>39,116,359</u> shares outstanding,
<u> </u> shares of	<u> </u> (type, class and series, if any)	out of	<u> </u> shares outstanding, and
<u> </u> shares of	<u> </u> (type, class and series, if any)	out of	<u> </u> shares outstanding, and

C ☐

P ☐

M ☐ (1)**being at least a majority of each type, class or series outstanding and entitled to vote
 thereon:/or (2)**being at least

R.A. ☐ two-thirds of each type, class or series outstanding and entitled to vote thereon and of each type,
 class or series outstanding and entitled to vote thereon and of each type, class or series of stock

whose rights are adversely affected thereby:

*Delete the inapplicable words. **Delete the inapplicable clause.

(1) For amendments adopted pursuant to Chapter 156B, Section 70.

(2) For amendments adopted pursuant to Chapter 156B, Section 71. Note: If the space provided under any article or item on this form is insufficient, additions shall be set forth on one side only of separate 8 1/2 x 11 sheets of paper with a left margin of at least 1 inch. Additions to more than one article may be made on a single sheet so long as each article requiring each addition is clearly indicated.

P.C.

To CHANGE the number of shares and the par value (if any) of any type, class or series of stock which the corporation is authorized to issue, fill in the following:

The total presently authorized is:

WITHOUT PAR VALUE STOCKS		WITH PAR VALUE STOCKS		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
COMMON:		COMMON:	60,000,000	\$.002
PREFERRED:		PREFERRED:	400,000	\$0.01

CHANGE the total authorized to:

WITHOUT PAR VALUE STOCKS		WITH PAR VALUE STOCKS		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
COMMON:		COMMON:	120,000,000	\$.002
PREFERRED:		PREFERRED:	400,000	\$0.01

The foregoing amendment will become effective when these articles of amendment are filed in accordance with General Laws, Chapter 156B, Section 6 unless these articles specify, in accordance with the vote adopting the amendment, a later effective date not more than thirty days after such filing, in which event the amendment will become effective on such later date.

Later Effective date:

SIGNED UNDER THE PENALTIES OF PERJURY, this 23rd day of April, in the year 1996.

/s/ Robert J. Shillman
Robert J. Shillman
President

/s/ Anthony J. Medaglia, Jr.
Anthony J. Medaglia, Jr.
Clerk

*Delete the inapplicable words.

THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF AMENDMENT

GENERAL LAWS, CHAPTER 156B, SECTION 72

I hereby approve the within articles of amendment and, the filing fee in the amount of \$60,000.00 having been paid, said articles are deemed to have been filed with me this 10th day of May, 1996.

Effective date: _____

/s/ William Francis Galvin
WILLIAM FRANCIS GALVIN
Secretary of the Commonwealth

TO BE FILLED IN BY CORPORATION

PHOTOCOPY OF ARTICLES OF AMENDMENT TO BE SENT TO:

**PATRICIA ROBICHAUD
HUTCHINS & WHEELER & DITTMAR
101 FEDERAL STREET
BOSTON, MA 02110
TELEPHONE: (617) 951-6600**

FEDERAL IDENTIFICATION

No. 04-2713778

THE COMMONWEALTH OF MASSACHUSETTS

Examiner WILLIAM FRANCIS GALVIN

Secretary of the Commonwealth
One Ashburton Place, Boston Massachusetts 02108-1512

**ARTICLES OF AMENDMENT
(GENERAL LAWS, CHAPTER 156B, SECTION 72)**

Name
Approved

We, Robert Shillman, *President / XXXXXXXX,
and Anthony J. Medaglia, Jr., *Clerk / XXXXXXXX
of Cognex Corporation
(Exact name of corporation)

location at One Vision Drive, Natick, MA 01760,

(Street address of corporation in Massachusetts)

certify that these Articles of Amendment affecting articles number:

3

(Number those articles 1, 2, 3, 4, 5 and/or 6 being amended)

of the Articles of Organization were duly adopted at a meeting held on

May 8, 2000, by vote of: 35,885,629 shares of Common Stock of
(type, class & series, if any)

42,774,560 shares outstanding,

_____ shares of _____ of
(type, class & series, if any)

_____ shares outstanding, and _____ shares of _____ of
(type, class & series, if any)

C []

C [] (1)** being at least a majority of each type, class or series outstanding and entitled to vote thereon: / or (2)** being at least P [] two-thirds of each type, class or series outstanding and entitled to vote thereon and of each type, class or series of stock whose rights R.A. [] are adversely affected thereby:

*Delete the inapplicable words. **Delete the inapplicable clause.

(1) For amendments adopted pursuant to Chapter 156B, Section 70.

(2) For amendments adopted pursuant to chapter 156B, Section 71.

P.C.

NOTE: IF THE SPACE PROVIDED UNDER ANY ARTICLE OR ITEM ON THIS FORM IS INSUFFICIENT, ADDITIONS SHALL BE SET FORTH ON ONE SIDE ONLY OF SEPARATE 8 1/2 X 11 SHEETS OF PAPER WITH A LEFT MARGIN OF AT LEAST 1 INCH. ADDITIONS TO MORE THAN ONE ARTICLE MAY BE MADE ON A SINGLE SHEET SO LONG AS EACH ARTICLE REQUIRING EACH ADDITION IS CLEARLY INDICATED.

To change the number of shares and the par value (if any) of any type, class or series of stock which the corporation is authorized to issue, fill in the following:

The total presently authorized is:

WITHOUT PAR VALUE STOCKS		WITH PAR VALUE STOCKS		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
Common:		Common:	120,000,000	\$.002
Preferred:		Preferred:	400,000	\$0.01

Change the total authorized to:

WITHOUT PAR VALUE STOCKS		WITH PAR VALUE STOCKS		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
Common:		Common:	140,000,000	\$.002
Preferred:		Preferred:	400,000	\$0.01

The foregoing amendment(s) will become effective when these Articles of Amendment are filed in accordance with General Laws, Chapter 156B, Section 6 unless these articles specify, in accordance with the vote adopting the amendment, a later effective date not more than thirty days after such filing, in which event the amendment will become effective on such later date.

Later effective date: _____

SIGNED UNDER THE PENALTIES OF PERJURY, this 8th day of May, 2000,

/s/ Robert Shillman, *President / XXXXXXXXX
Robert Shillman

/s/ Anthony J. Medaglia, Jr., *Clerk / XXXXXXXXX
Anthony J. Medaglia, Jr.

*Delete the inapplicable words.

THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF AMENDMENT

(GENERAL LAWS, CHAPTER 156B, SECTION 72)

I hereby approve the within Articles of Amendment and, the filing fee in the amount of \$20,000 having been paid, said articles are deemed to have been filed with me this 10th day of May 2000.

Effective date: May 10, 2002

WILLIAM FRANCIS GALVIN

Secretary of the Commonwealth

**TO BE FILLED IN BY CORPORATION
PHOTOCOPY OF DOCUMENT TO BE SENT TO:**

Patricia Robichaud, Corporate Paralegal

c/o Hutchins, Wheeler & Dittmar, 101 Federal Street

Boston, MA 02110

Telephone: 617-951-6653

The Commonwealth of Massachusetts

William Francis Galvin
Secretary of the Commonwealth
One Ashburton Place, Boston, Massachusetts 02108-1512

FORM MUST BE TYPED **Articles of Amendment** FORM MUST BE TYPED
(General Laws Chapter 156D, Section 10.06; 950 CMR 113.34)

- (1) Exact name of corporation: Cognex Corporation
- (2) Registered office address: One Vision Drive, Natick, Massachusetts 01760-2059
(number, street, city or town, state, zip code)
- (3) These articles of amendment affect article(s): Articles 3 and 4.
(specify the number(s) of article(s) being amended (I-VI))
- (4) Date adopted: April 28, 2016
(month, day, year)

(5) Approved by:

(check appropriate box)

the incorporators,

the board of directors without shareholder approval and shareholder approval was not required.

☒ the board of directors and the shareholders in the manner required by law and the articles of organization.

(6) State the article number and the text of the amendment. Unless contained in the text of the amendment, state the provisions for implementing the exchange, reclassification or cancellation of issued shares.

Article 3 is amended to increase the number of shares of common stock, par value \$.002 per share, from 140,000,000 to 200,000,000 shares.

Article 4, subsection A is amended and restated to read as follows:

A. AUTHORIZED SHARES. The aggregate number of shares which this Corporation shall have authority to issue is: 200,000,000 shares of common stock having a par value of \$.002 per share (the "Common Stock") and 400,000 shares of preferred stock having a par value of \$.01 per share (the "Series Preferred Stock").

To change the number of shares and the par value, * if any, of any type, or to designate a class or series, of stock, or change a designation of class or series of stock, which the corporation is authorized to issue, complete the following:

Total authorized prior to amendment:

WITHOUT PAR VALUE		WITH PAR VALUE		
TYPE	NUMBER OF SHARES	TYPE:	NUMBER OF SHARES	PAR VALUE
		Common	140,000,000	\$.002
		Preferred	350,000	\$.01
		Series E Pref	50,000	\$.01

Total authorized after amendment:

WITHOUT PAR VALUE		WITH PAR VALUE		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
		Common	200,000,000	\$.002
		Preferred	350,000	\$.01
		Series E Pref	50,000	\$.01

(7) The amendment shall be effective at the time and on the date approved by the Division, unless a later effective date not more than 90 days from the date and time of filing is specified: __

** G.L. Chapter 156D eliminates the concept of par value, however a corporation may specify par value in Article III Sec G.L. Chapter 156D, Section 6.21, and the comments relative thereto.*

Signed by: /s/ Richard A. Morin ,

(signature of authorized individual)

Chairman of the board of directors,

President,

☒ Other officer,

Court-appointed fiduciary,

on this 29th day of April , 2016 .

** G.L. Chapter 156D eliminates the concept of par value, however a corporation may specify par value in Article III Sec G.L. Chapter 156D, Section 6.21, and the comments relative thereto.*

COMMONWEALTH OF MASSACHUSETTS

William Francis Garvin
Secretary of the Commonwealth
One Ashburton Place, Boston, Massachusetts 02108-1512

Articles of Amendment
(General Laws Chapter 156D, Section 10.06; 950 CMR 113.34)

I hereby certify that upon examination of these articles of amendment, it appears that the provisions of the General Laws relative thereto have been complied with, and the filing fee in the amount of \$60,100 having been paid, said articles are deemed to have been filed with me this 5 day of May,

20 16, at 2:26 a.m./p.m.
time

Effective date: __

(must be within 90 days of date submitted)

WILLIAM FRANCIS GALVIN
Secretary of the Commonwealth

Filing fee: Minimum filing fee \$100 per article amended, stock increases \$100 per 100,000 shares, plus \$100 for each additional 100,000 shares or any fraction thereof,

Examiner

Name approval

C

M

TO BE FILLED IN BY CORPORATION
Contact Information:

Lisa R. Haddad, Esq.

Goodwin Procter LLP

53 State Street , Boston, MA 02109

Telephone: (617)570-1000

** G.L. Chapter 156D eliminates the concept of par value, however a corporation may specify par value in Article III Sec G.L. Chapter 156D, Section 6.21, and the comments relative thereto.*

Email: lhaddad@goodwinprocter.com

Upon filing, a copy of this filing will be available at www.scc.state.nia.us/cor. If the document is rejected, a copy of the rejection sheet and rejected document will be available in the rejected queue.

The Commonwealth of Massachusetts

William Francis Galvin

Secretary of the Commonwealth

One Ashburton Place, Boston, Massachusetts 02108-1512

FORM MUST BE TYPED **Articles of Amendment** FORM MUST BE TYPED

(General Laws Chapter 156D, Section 10.06; 950 CMR 113.34)

(1) Exact name of corporation: Cognex Corporation

(2) Registered office address: 84 State Street, Boston, Massachusetts 02109
(number, street, city or town, state, zip code)

(3) These articles of amendment affect article(s): Articles 6
(specify the number(s) of article(s) being amended (I-VI))

(4) Date adopted: April 28, 2016
(month, day, year)

(5) Approved by:

(check appropriate box)

the incorporators,

the board of directors without shareholder approval and shareholder approval was not required.

☒ the board of directors and the shareholders in the manner required by law and the articles of organization.

(6) State the article number and the text of the amendment. Unless contained in the text of the amendment, state the provisions for implementing the exchange, reclassification or cancellation of issued shares.

Article 6 is amended to add the following at the end of said Article:

Majority Vote for Directors in Uncontested Elections

The By-laws of the corporation may, but are not required to, provide that in a meeting of shareholders other than a Contested Election Meeting, a nominee for director shall be elected to the Board of Directors only if the votes cast "for" such nominee's election exceed the votes cast "against" such nominee's election (with "abstentions," "broker non-votes" and "withheld votes" not counted as a vote "for" or "against" such nominee's election). In a Contested Election Meeting, directors shall be elected by a plurality of the votes cast at such Contested Election Meeting. A meeting of shareholders shall be a "Contested Election Meeting" if there are more persons nominated for election as directors at such meeting than there are directors to be elected at such meeting, as determined in the manner set forth in the By-laws of the corporation.

To change the number of shares and the par value, * if any, of any type, or to designate a class or series, of stock, or change a designation of class or series of stock, which the corporation is authorized to issue, complete the following:

Total authorized prior to amendment:

WITHOUT PAR VALUE		WITH PAR VALUE		
TYPE	NUMBER OF SHARES	TYPE:	NUMBER OF SHARES	PAR VALUE

Total authorized after amendment:

WITHOUT PAR VALUE		WITH PAR VALUE		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE

(7) The amendment shall be effective at the time and on the dare approved by the Division, unless a later effective date not more than 90 days from the date and time of filing is specified: __

** G.L. Chapter 156D eliminates the concept of par value, however a corporation may specify par value in Article III Sec G.L. Chapter 156D, Section 6.21, and the comments relative thereto.*

Signed by: /s/ Richard A. Morin ,

(signature of authorized individual)

Chairman of the board of directors,

President,

☒ Other officer,

Court-appointed fiduciary,

on this 29th day of April , 2016 .

** G.L. Chapter 156D eliminates the concept of par value, however a corporation may specify par value in Article III Sec G.L. Chapter 156D, Section 6.21, and the comments relative thereto.*

COMMONWEALTH OF MASSACHUSETTS

I hereby certify that, upon examination of this document, duly submitted to me, it appears that the provisions of the General Laws relative thereto have been complied with, and I hereby approve said articles; and the filing fee having been paid, said articles are deemed to have been filed with me on:

May 05, 2016 06:00 PM

WILLIAM FRANCIS GALVIN

Secretary of the Commonwealth

** G.L. Chapter 156D eliminates the concept of par value, however a corporation may specify par value in Article III Sec G.L. Chapter 156D, Section 6.21, and the comments relative thereto.*

The Commonwealth of Massachusetts

William Francis Galvin
Secretary of the Commonwealth
One Ashburton Place, Boston, Massachusetts 02108-1512

FORM MUST BE TYPED **Articles of Amendment** FORM MUST BE TYPED
(General Laws Chapter 156D, Section 10.06; 950 CMR 113.34)

- (1) Exact name of corporation: Cognex Corporation
- (2) Registered office address: One Vision Drive, Natick, Massachusetts 01760-2059
(number, street, city or town, state, zip code)
- (3) These articles of amendment affect article(s): Articles 3 and 4.
(specify the number(s) of article(s) being amended (I-VI))
- (4) Date adopted: December 4, 2008
(month, day, year)

(5) Approved by:
(check appropriate box)

the incorporators,

(X) the board of directors without shareholder approval and shareholder approval was not required.
the board of directors and the shareholders in the manner required by law and the articles of organization.

(6) State the article number and the text of the amendment. Unless contained in the text of the amendment, state the provisions for implementing the exchange, reclassification or cancellation of issued shares.

Article 3 and 4. A vote of the board of directors establishing and designating a series of a class of stock and determining the relative rights and preferences thereof. See attached Exhibit A.

P.C. —

To change the number of shares and the par value, * if any, of any type, or to designate a class or series, of stock, or change a designation of class or series of stock, which the corporation is authorized to issue, complete the following:

Total authorized prior to amendment:

WITHOUT PAR VALUE		WITH PAR VALUE		
TYPE	NUMBER OF SHARES	TYPE:	NUMBER OF SHARES	PAR VALUE
Common	N/A	Common	140,000,000	\$0.002
Preferred	N/A	Preferred	400,000*	\$0.01

***50,000 designated as Series E Junior Participating Cumulative Preferred Stock.**

Total authorized after amendment:

WITHOUT PAR VALUE		WITH PAR VALUE		
TYPE	NUMBER OF SHARES	TYPE	NUMBER OF SHARES	PAR VALUE
Common	N/A	Common	140,000,000	\$0.002
Preferred	N/A	Preferred	400,000*	\$0.01

***50,000 designated as Series E Junior Participating Cumulative Preferred Stock.**

(7) The amendment shall be effective at the time and on the date approved by the Division, unless a later effective date not more than 90 days from the date and time of filing is specified: __

** G.L. Chapter 156D eliminates the concept of par value, however a corporation may specify par value in Article III Sec G.L. Chapter 156D, Section 6.21, and the comments relative thereto.*

**RESOLUTIONS OF DIRECTORS ESTABLISHING
SERIES E JUNIOR PARTICIPATING CUMULATIVE
PREFERRED STOCK**

of

COGNEX CORPORATION

Pursuant to Section 6.02 of Chapter 156D of the General Laws of The Commonwealth of Massachusetts:

RESOLVED, that pursuant to authority conferred upon and vested in the Board of Directors by the Restated Articles of Organization, as amended (the "Articles"), of Cognex Corporation (the "Corporation"), the Board of Directors hereby establishes and designates a series of Preferred Stock of the Corporation, and hereby fixes and determines the relative rights and preferences of the shares of such series, in addition to those set forth in the Articles, as follows:

Section 1. Designation and Amount. The shares of such series shall be designated as "Series E Junior Participating Cumulative Preferred Stock" (the "Series E Preferred Stock"), and the number of shares initially constituting such series shall be 50,000.

Section 2.
Dividends and Distributions.

(A)

(i) Subject to the rights of the holders of any shares of any series of preferred stock (or any similar stock) ranking prior and superior to the Series E Preferred Stock with respect to dividends, the holders of shares of Series E Preferred Stock, in preference to the holders of shares of common stock and of any other junior stock, shall be entitled to receive, when, as and if declared by the Board of Directors out of funds legally available for the purpose, quarterly dividends payable in cash on the first day of March, June, September and December in each year (each such date being referred to herein as a "Quarterly Dividend Payment Date"), commencing on the first Quarterly Dividend Payment Date after the first issuance of a share or fraction of a share of Series E Preferred Stock, in an amount per share (rounded to the nearest cent) equal to the greater of (a) \$1.00 or (b) subject to the provisions for adjustment hereinafter set forth, 10,000 times the aggregate per share amount of all cash dividends, and 10,000 times the aggregate per share amount (payable in kind) of all non-cash dividends or other distributions other than a dividend payable in shares of common stock or a subdivision of the outstanding shares of common stock (by reclassification or otherwise), declared on the common stock since the immediately preceding Quarterly Dividend Payment Date, or, with respect to the first Quarterly Dividend Payment Date, since the first issuance of any share or fraction of a share of Series E Preferred Stock. The multiple of cash and non-cash dividends declared on the common stock to which holders of the Series E Preferred Stock are entitled, which shall be 10,000 initially but which shall be adjusted from time to time as hereinafter provided, is hereinafter referred to as the "Dividend Multiple." In the event the Corporation shall at any time after December 4, 2008 (the "Rights Declaration Date") (i) declare or pay any dividend on common stock payable in shares of common stock, or (ii) effect a subdivision or combination or consolidation of the outstanding shares of common stock (by reclassification or otherwise than by payment of a dividend in shares of common stock) into a greater or lesser number of shares of common stock, then in each such case the Dividend Multiple thereafter applicable to the determination of the amount of dividends which holders of shares of Series E Preferred Stock shall be entitled to receive shall be the Dividend Multiple applicable immediately prior to such event multiplied by a fraction, the numerator of which is the number of shares of common stock outstanding immediately after such event and the denominator of which is the number of shares of common stock that were outstanding immediately prior to such event.

(ii)

Notwithstanding anything else contained in this paragraph (A), the Corporation shall, out of funds legally available for that purpose, declare a dividend or distribution on the Series E Preferred Stock as provided in this paragraph (A) immediately after it declares a dividend or distribution on the common stock (other than a dividend payable in shares of common stock); provided that, in the event no dividend or distribution shall have been declared on the common stock during the period between any Quarterly Dividend Payment Date and the next subsequent Quarterly Dividend Payment Date, a dividend of \$1.00 per share on the Series E Preferred Stock shall nevertheless be payable on such subsequent Quarterly Dividend Payment Date.

(B)

Dividends shall begin to accrue and be cumulative on outstanding shares of Series E Preferred Stock from the Quarterly Dividend Payment Date next preceding the date of issue of such shares of Series E Preferred Stock, unless the date of issue of such shares is prior to the record date for the first Quarterly Dividend Payment Date, in which case dividends on such

shares shall begin to accrue from the date of issue of such shares, or unless the date of issue is a Quarterly Dividend Payment Date or is a date after the record date for the determination of holders of shares of Series E Preferred Stock entitled to receive a quarterly dividend and before such Quarterly Dividend Payment Date, in either of which events such dividends shall begin to accrue and be cumulative from such Quarterly Dividend Payment Date. Accrued but unpaid dividends shall not bear interest. Dividends paid on the shares of Series E Preferred Stock in an amount less than the total amount of such dividends at the time accrued and payable on such shares shall be allocated pro rata on a share-by-share basis among all such shares at the time outstanding. The Board of Directors may fix in accordance with applicable law a record date for the determination of holders of shares of Series E Preferred Stock entitled to receive payment of a dividend or distribution declared thereon, which record date shall be not more than such number of days prior to the date fixed for the payment thereof as may be allowed by applicable law.

Section 3.

Voting Rights. In addition to any other voting rights required by law, the holders of shares of Series E Preferred Stock shall have the following voting rights:

(A)

Subject to the provision for adjustment hereinafter set forth, each share of Series E Preferred Stock shall entitle the holder thereof to 10,000 votes on all matters submitted to a vote of the shareholders of the Corporation. The number of votes which a holder of a share of Series E Preferred Stock is entitled to cast, which shall initially be 10,000 but which may be adjusted from time to time as hereinafter provided, is hereinafter referred to as the "Vote Multiple." In the event the Corporation shall at any time after the Rights Declaration Date (i) declare or pay any dividend on common stock payable in shares of common stock, or (ii) effect a subdivision or combination or consolidation of the outstanding shares of common stock (by reclassification or otherwise than by payment of a dividend in shares of common stock) into a greater or lesser number of shares of common stock, then in each such case the Vote Multiple thereafter applicable to the determination of the number of votes per share to which holders of shares of Series E Preferred Stock shall be entitled shall be the Vote Multiple immediately prior to such event multiplied by a fraction, the numerator of which is the number of shares of common stock outstanding immediately after such event and the denominator of which is the number of shares of common stock that were outstanding immediately prior to such event.

(B)

Except as otherwise provided herein or by law, the holders of shares of Series E Preferred Stock and the holders of shares of common stock and the holders of shares of any other capital stock of this Corporation having general voting rights, shall vote together as one class on all matters submitted to a vote of shareholders of the Corporation.

(C)

Except as otherwise required by applicable law or as set forth herein, holders of Series E Preferred Stock shall have no special voting rights and their consent shall not be required (except to the extent they are entitled to vote with holders of common stock as set forth herein) for taking any corporate action.

Section 4.

Certain Restrictions.

(A)

Whenever dividends or distributions payable on the Series E Preferred Stock as , provided in Section 2 are in arrears, thereafter and until all accrued and unpaid dividends and distributions, whether or not declared, on shares of Series E Preferred Stock outstanding shall have been paid in full, the Corporation shall not:

(i)

declare or pay dividends on, make any other distributions on, or redeem or purchase or otherwise acquire for consideration any shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series E Preferred Stock;

(ii)

declare or pay dividends on or make any other distributions on any shares of stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Series E Preferred Stock, except dividends paid ratably on the Series E Preferred Stock and all such parity stock on which dividends are payable or in arrears in proportion to the total amounts to which the holders of all such shares are then entitled;

(iii)

except as permitted in subsection 4(A)(iv) below, redeem, purchase or otherwise acquire for consideration shares of any stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with

the Series E Preferred Stock, provided that the Corporation may at any time redeem, purchase or otherwise acquire shares of any such parity stock in exchange for shares of any stock of the Corporation ranking junior (either as to dividends or upon dissolution, liquidation or winding up) to the Series E Preferred Stock; or

(iv)

purchase or otherwise acquire for consideration any shares of Series E Preferred Stock, or any shares of any stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Series E Preferred Stock, except in accordance with a purchase offer made in writing or by publication (as determined by the Board of Directors) to all holders of such shares upon such terms as the Board of Directors, after consideration of the respective annual dividend rates and other relative rights and preferences of the respective series and classes, shall determine in good faith will result in fair and equitable treatment among the respective series or classes.

(B)

The Corporation shall not permit any subsidiary of the Corporation to purchase or otherwise acquire for consideration any shares of stock of the Corporation unless the Corporation could, under subsection (A) of this Section 4, purchase or otherwise acquire such shares at such time and in such manner.

Section 5.

Reacquired Shares. Any shares of Series E Preferred Stock purchased or otherwise acquired by the Corporation in any manner whatsoever shall be retired and canceled promptly after the acquisition thereof. All such shares shall upon their cancellation become authorized but unissued shares of preferred stock and may be reissued as part of a new series of preferred stock to be created by resolution or resolutions of the Board of Directors, subject to the conditions and restrictions on issuance set forth herein.

Section 6.

Liquidation, Dissolution or Winding Up. Upon any liquidation (voluntary or otherwise), dissolution or winding up of the Corporation, no distribution shall be made (x) to the holders of shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series E Preferred Stock unless, prior thereto, the holders of shares of Series E Preferred Stock shall have received an amount equal to accrued and unpaid dividends and distributions thereon, whether or not declared, to the date of such payment, plus an amount equal to the greater of (1) \$10,000.00 per share or (2) an aggregate amount per share, subject to the provision for adjustment hereinafter set forth, equal to 10,000 times the aggregate amount to be distributed per share to holders of common stock, or (y) to the holders of stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Series E Preferred Stock, except distributions made ratably on the Series E Preferred Stock and all other such parity stock in proportion to the total amounts to which the holders of all such shares are entitled upon such liquidation, dissolution or winding up. In the event the Corporation shall at any time after the Rights Declaration Date (i) declare or pay any dividend on common stock payable in shares of common stock, or (ii) effect a subdivision or combination or consolidation of the outstanding shares of common stock (by reclassification or otherwise than by payment of a dividend in shares of common stock) into a greater or lesser number of shares of common stock, then in each such case the aggregate amount per share to which holders of shares of Series E Preferred Stock were entitled immediately prior to such event under clause (x) of the preceding sentence shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of common stock outstanding immediately after such event and the denominator of which is the number of shares of common stock that were outstanding immediately prior to such event.

Neither the consolidation of nor merging of the Corporation with or into any other corporation or corporations, nor the sale or other transfer of all or substantially all of the assets of the Corporation, shall be deemed to be a liquidation, dissolution or winding up of the Corporation within the meaning of this Section 6.

Section 7.

Consolidation, Merger, etc. In case the Corporation shall enter into any consolidation, merger, combination or other transaction in which the shares of common stock are exchanged for or changed into other stock or securities, cash and/or any other property, then in any such case the shares of Series E Preferred Stock shall at the same time be similarly exchanged or changed in an amount per share (subject to the provision for adjustment hereinafter set forth) equal to 10,000 times the aggregate amount of stock, securities, cash and/or any other property (payable in kind), as the case may be, into which or for which each share of common stock is changed or exchanged, plus accrued and unpaid dividends, if any, payable with respect to the Series E Preferred Stock. In the event the Corporation shall at any time after the Rights Declaration Date (i) declare or pay any dividend on common stock payable in shares of common stock, or (ii) effect a subdivision or combination or consolidation of the outstanding shares of common stock (by reclassification or otherwise than by payment of a dividend in shares of common stock) into a greater or lesser number of shares of common stock, then in each such case the amount set forth in the preceding sentence with respect to the exchange or change of shares of Series E Preferred Stock shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of common stock outstanding

immediately after such event and the denominator of which is the number of shares of common stock that were outstanding immediately prior to such event.

Section 8.

Redemption. The shares of Series E Preferred Stock shall not be redeemable; provided, however, that the foregoing shall not limit the ability of the Corporation to purchase or otherwise deal in such shares to the extent otherwise permitted hereby and by law.

Section 9.

Ranking. Unless otherwise expressly provided in the Articles or a Certificate of Vote of Directors Establishing a Class of Stock relating to any other series of preferred stock of the Corporation, the Series E Preferred Stock shall rank junior to every other series of the Corporation's preferred stock previously or hereafter authorized, as to the payment of dividends and the distribution of assets on liquidation, dissolution or winding up and shall rank senior to the common stock.

Section 10.

Fractional Shares. Series E Preferred Stock may be issued in whole shares or in any fraction of a share that is one ten-thousandth (1/10,000th) of a share or any integral multiple of such fraction, which shall entitle the holder, in proportion to such holder's fractional shares, to exercise voting rights, receive dividends, participate in distributions and to have the benefit of all other rights of holders of Series E Preferred Stock. In lieu of fractional shares, the Corporation may elect to make a cash payment as provided in the Rights Agreement for fractions of a share other than one ten-thousandth (1/10,000th) of a share or any integral multiple thereof.

Section 11.

Amendment. The foregoing Sections 1 through 10, inclusive, and this Section 11 may only be amended in accordance with Section 10.04 of Chapter 156D of the Massachusetts General Laws (or any successor provision).

Signed by: /s/ Richard A. Morin ,

(signature of authorized individual)

Chairman of the board of directors,

President,

(X) Other officer,

Court-appointed fiduciary,

on this 5th day of December , 2008 .

COMMONWEALTH OF MASSACHUSETTS

William Francis Garvin
Secretary of the Commonwealth
One Ashburton Place, Boston, Massachusetts 02108-1512

Articles of Amendment
(General Laws Chapter 156D, Section 10.06; 950 CMR 113.34)

I hereby certify that upon examination of these articles of amendment, it appears that the provisions of the General Laws relative thereto have been complied with, and the filing fee in the amount of \$200 having been paid, said articles are deemed to have been filed with me this 5th day of December,

20 08, at 10:23 a.m./p.m.
time

Effective date: __

(must be within 90 days of date submitted)

WILLIAM FRANCIS GALVIN
Secretary of the Commonwealth

Filing fee: Minimum filing fee \$100 per article amended, stock increases \$100 per 100,000 shares, plus \$100 for each additional 100,000 shares or any fraction thereof,

Examiner

Name approval

C

M

TO BE FILLED IN BY CORPORATION
Contact Information:

Joshua Gallitano, Esq.

c/o Goodwin Procter LLP

Exchange Place, Boston, MA 02109

Telephone: (617)570-1000

Email: __

Upon filing, a copy of this filing will be available at www.scc.state.nia.us/cor. If the document is rejected, a copy of the rejection sheet and rejected document will be available in the rejected queue.

Exhibit 3.3. Amended and Restated By-Laws of Cognex Corporation

AMENDED AND RESTATED BY-LAWS

OF

COGNEX CORPORATION

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AMENDED AND RESTATED BY-LAWS
OF
COGNEX CORPORATION

Article 1

Articles of Organization

The name and purposes of the Corporation shall be as set forth in the Articles of Organization. These By-Laws, the powers of the Corporation and its Directors and shareholders, and all matters concerning the conduct and regulation of the business of the Corporation, shall be subject to such provisions in regard thereto, if any, as are set forth in the Articles of Organization. All references in these By-Laws to the Articles of Organization shall be construed to mean the Articles of Organization of the Corporation as from time to time amended or restated.

Article 2

Fiscal Year

Except as from time to time otherwise determined by the Directors, the fiscal year of the Corporation shall be the twelve months ending on December 31.

Article 3

Meetings of Shareholders

Section 3.1 Annual Meeting. The Annual Meeting of the Shareholders shall be held each year on the date and at the time and place as shall be fixed by the Board of Directors, the Chairman of the Board or the President. Purposes for which an annual meeting is to be held, additional to those prescribed by law and by these By-Laws, may be specified by the Chairman of the Board, the President or by the Directors and shall be specified in the notice of the meeting.

In the event that an annual meeting is not held at the time fixed in accordance with these By-Laws or the time of an annual meeting is not fixed in accordance with these By-Laws to be held within 13 months after the last annual meeting was held, the Board of Directors may designate a special meeting held thereafter as a special meeting in lieu of the annual meeting, and such special meeting shall have, for purposes of these By-Laws or otherwise, all of the effect of an annual meeting. All references in these By-Laws to the annual meeting of the shareholders shall be deemed to refer also to any special meeting in lieu thereof.

To be properly brought before the meeting, business must be of a nature that is appropriate for consideration at an annual meeting and must be (i) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (ii) otherwise properly brought before the meeting by or at the direction of the Board of Directors, or (iii) otherwise properly brought before the meeting by a shareholder. In addition to any other applicable requirements, for business to be properly brought before the annual meeting by a shareholder, the shareholder must have given timely notice thereof in writing to the Secretary of the Corporation. To be timely, each such notice must be given either by personal delivery or by United States mail, postage prepaid, to the Secretary of the Corporation not later than (1) with respect to a matter to be brought before an annual meeting of shareholders, (i) for the annual meeting held in 2014, sixty (60) days prior to the second Tuesday of April 2014 and (ii) thereafter, not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one-hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting (provided, however, that in the event that the date of the annual meeting is advanced by more than thirty (30) days before or delayed by more than sixty (60) days after such anniversary date, notice by the shareholder to be timely must be so delivered not

earlier than the close of business on the one-hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made), and (2) with respect to a matter to be brought before a special meeting of the shareholders not in lieu of an annual meeting, the close of business on the tenth (10th) day following the date on which notice of such meeting is first given to shareholders. The notice shall set forth (i) information concerning the shareholder, including his or her name and address; (ii) a representation that the shareholder is entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to present the matter specified in the notice; and (iii) such other information as would be required to be included in a proxy statement soliciting proxies for the presentation of such matter to the meeting.

Notwithstanding anything in these By-Laws to the contrary, no business shall be transacted at the annual meeting except in accordance with the procedures set forth in this Section; provided, however, that nothing in this Section shall be deemed to preclude discussion by any shareholder of any business properly brought before the annual meeting in accordance with these By-Laws.

Section 3.2 Special Meetings. Special Meetings of the Shareholders may be called at any time by the Chairman of the Board, the President, or by a majority of the Directors acting by vote or a written instrument or instruments signed by them. A Special Meeting of the Shareholders shall be called by the Secretary or in the case of the death, absence, incapacity or refusal of the Secretary, by any other officer upon written application of one or more shareholders who hold at least forty (40) percent in interest of the capital stock entitled to vote thereat and, also, upon application of any holder of at least ten (10) percent of the capital stock

entitled to vote at such meeting, if such ten (10) percent holder also held on May 15, 1989 at least fifteen (15) percent of the capital stock of the Corporation entitled on that date to vote generally on the election of Directors. Such call shall state the date, time, place and purpose of the meeting. Only business within the purpose or purposes described in the meeting notice may be conducted at the special meeting.

Section 3.3 Place of Meetings. All meetings of the shareholders shall be held at the principal office of the Corporation in Massachusetts, unless a different place within Massachusetts or, if permitted by the Articles of Organization, elsewhere within the United States is designated by the Chairman of the Board, the President or by a majority of the Directors acting by vote or by written instrument or instruments signed by them. Any adjourned session of any meeting of the shareholders shall be held at such place within Massachusetts or, if permitted by the Articles of Organization, elsewhere within the United States as is designated in the vote of adjournment.

Section 3.4 Notice of Meetings. A written notice of the place, date and hour of all meetings of shareholders stating the purposes of the meeting shall be given at least seven (7) days and not more than sixty (60) days before the meeting to each shareholder entitled to vote thereat or as otherwise required by the Articles of Organization or applicable law. Notice may be given to shareholders by any means permitted under applicable law, including, without limitation, by leaving such notice with him or at his residence or usual place of business, by mailing, postage prepaid, and addressed to such shareholder at his address as it appears in the records of the Corporation, or by electronic transmission in a manner specified by the shareholder. Such notice shall be given by the Secretary, or in the case of the death, absence, incapacity or refusal of the Secretary, by any other officer or by a person designated either by the

Secretary, by the person or persons calling the meeting or by the Board of Directors. Whenever notice of a meeting is required to be given to a shareholder under any provision of law, of the Articles of Organization, or of these By-Laws, a written waiver thereof, executed before or after the meeting by such shareholder or his attorney thereunto authorized, and filed with the records of the meeting, shall be deemed equivalent to such notice. A shareholder's attendance at a meeting shall constitute waiver of notice to the extent allowed under applicable law.

Section 3.5 Quorum. At any meeting of the shareholders, a quorum for the election of any Director or for the consideration of any question shall consist of a majority in interest of all stock issued, outstanding and entitled to vote at such election or upon such question, respectively, except that if two or more classes of stock are entitled to vote as separate classes for the election of any Director or upon any question, then in the case of each such class a quorum for the election of any Director or for the consideration of such question shall consist of a majority in interest of all stock of that class issued, outstanding and entitled to vote thereon. Stock owned by the Corporation, if any, shall be disregarded in determining any quorum unless held, directly or indirectly, in a fiduciary capacity. Both abstentions and broker non-votes are to be counted as present for the purpose of determining the existence of a quorum for the transaction of business at any meeting. Whether or not a quorum is present, any meeting may be adjourned from time to time by a majority of the votes properly cast upon the question or by the presiding officer, and the meeting may be held as adjourned without further notice except to the extent required by applicable law.

When a quorum for an election is present at any meeting, a plurality of the votes properly cast for any office shall elect such office. When a quorum for the consideration of a question is present at any meeting, a majority of the votes properly cast upon the question shall decide the

question; except that if two or more classes of stock are entitled to vote as separate classes upon such question, then in the case of each such class a majority of the votes of such class properly cast upon the question shall decide the vote of that class upon the question; and except in any case where a larger vote is required by law or by the Articles of Organization. For purposes of determining the number of shares voting on a particular proposal, abstentions and broker non-votes are not to be counted as votes cast or shares voting.

Section 3.6 Action without Meeting. Any action required or permitted to be taken at any meeting of the shareholders may be taken without a meeting if all shareholders entitled to vote on the matter consent to the action in writing and the written Consents are filed with the records of the meetings of shareholders. Such Consents shall be treated for all purposes as a vote at a meeting.

Section 3.7 Proxies and Voting. Except as may otherwise be provided in the Articles of Organization, shareholders entitled to vote shall have one vote for each share of stock entitled to vote owned by them. Shareholders entitled to vote may vote in person or by proxy. Subject to applicable law, a proxy purporting to be executed by or on behalf of a shareholder shall be deemed valid unless challenged at or prior to its exercise and the burden of proving invalidity shall rest on the challenger. Proxies shall be filed with the Secretary, or person performing the duties of Secretary, at the meeting, or any adjournment thereof, before being voted.

The Corporation shall not, directly or indirectly, vote upon any share of its own stock except for shares held by it, directly or indirectly, in a fiduciary capacity. Both abstentions and broker non-votes are to be counted as present for the purpose of determining the existence of a quorum for the transaction of business at any meeting. However, for purposes of determining the

number of shares voting on a particular proposal, abstentions and broker non-votes are not to be counted as votes cast or shares voting.

Article 4

Directors

Section 4.1 Enumeration, Election and Term of Office. The business and affairs of this Corporation shall be managed under the direction of a Board of Directors consisting of not fewer than three (3) nor more than fifteen (15) Directors, the exact number to be determined from time to time by resolution adopted by the affirmative vote of a majority of the entire Board of Directors, such Board of Directors to be divided into such classes and elected by such shareholders as have the right to vote thereon, for such terms as are provided in the Articles of Organization. Each director shall hold office until his successor shall have been elected and qualified, subject to Article 6 of these By-Laws. Whenever used in these By-Laws, the phrase “entire Board of Directors” shall mean that number of Directors fixed by the most recent resolution adopted pursuant to the preceding sentence prior to the date as of which a determination of the number of Directors then constituting the entire Board of Directors shall be relevant for any purpose under these By-Laws. Subject to the foregoing limitations and the requirements of the Articles of Organization, the Board of Directors may be enlarged by the shareholders at any meeting or by the affirmative vote of a majority of the entire Board of Directors then in office.

Nominations for the election of Directors may be made by the Board of Directors or a committee appointed by the Board of Directors or by any shareholder entitled to vote generally in the election of Directors. However, any shareholder entitled to vote generally in the election of Directors may nominate one or more persons for election as Directors at a meeting only if

written notice of such shareholder's intent to make such nomination or nominations has been given, either by personal delivery or by United States mail, postage prepaid, to the Secretary of the Corporation not later than (1) with respect to an election to be held at an annual meeting of shareholders, (i) for the annual meeting held in 2014, sixty (60) days prior to the second Tuesday of April 2014 and (ii) thereafter, not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one-hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting (provided, however, that in the event that the date of the annual meeting is advanced by more than thirty (30) days before or delayed by more than sixty (60) days after such anniversary date, notice by the shareholder to be timely must be so delivered not earlier than the close of business on the one-hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made), and (2) with respect to an election to be held at a special meeting of shareholders not in lieu of an annual meeting, the close of business on the tenth (10th) day following the date on which notice of such meeting is first given to shareholders. Each such notice to the Secretary shall set forth (i) the name and addresses of the shareholder and his or her nominees; (ii) a representation that the shareholder is entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice; (iii) a description of all arrangements or understandings between the shareholder and each such nominee; (iv) such other information as would be required to be included in a proxy statement soliciting proxies or the election of the nominees of such shareholder; and (v) the consent of each nominee to serve as a director of the Corporation if so elected. The Corporation may require any proposed nominee to furnish such other

information as may reasonably be required by the Corporation to determine the eligibility of such proposed nominee to serve as a director of the Corporation. The presiding officer of the meeting may, if the facts warrant, determine that a nomination was not made in accordance with the foregoing procedure, and if he should so determine, he shall so declare to the meeting and the defective nomination shall be disregarded. No director need be a shareholder.

Section 4.2 Powers. The business of the Corporation shall be managed by the Board of Directors, which shall exercise all the powers of the Corporation except as otherwise required by law, by the Articles of Organization or by these By-Laws. In the event of one or more vacancies in the Board of Directors, the remaining Directors, if at least two (2) Directors still remain in office, may exercise the powers of the full Board until such vacancy or vacancies are filled.

Section 4.3 Meetings of Directors. Regular meetings of the Directors may be held without notice at such places and at such times as may be fixed from time to time by the Directors. A regular meeting of the Directors may be held without notice immediately following the Annual Meeting of Shareholders or any special meeting held in lieu thereof.

Special Meetings of Directors may be called by the Chairman of the Board, the President, the Treasurer or any two (2) or more Directors, or if there shall be less than three (3) Directors by any one (1) Director, and shall be held at such time and place as specified in the Call. Reasonable notice of each special meeting of the Directors shall be given to each Director. Such notice may be given by the Secretary or any Assistant Secretary or by the officer or one of the Directors calling the meeting. Notice to a Director shall in any case be sufficient if sent by mail at least ninety-six (96) hours before the meeting addressed to him at his usual or last known business or residence address, or if given to him at least forty-eight (48) hours before the meeting in person or by telephone, voicemail, facsimile, telegraph, teletype, electronic mail or other

electronic means or by handing him a written notice. Notice of a meeting need not be given to any Director if a written waiver of notice, executed by him, before or after the meeting, is filed with the records of the meeting, or to any Director who attends the meeting without protesting prior thereto or at its commencement the lack of notice to him. A notice or waiver of notice need not specify the purposes of the meeting.

Section 4.4 Quorum of Directors. At any meeting of the Directors, a quorum for any election or for the consideration of any question shall consist of a majority of the Directors then in office. Whether or not a quorum is present any meeting may be adjourned from time to time by a majority of the votes properly cast upon the question, and the meeting may be held as adjourned without further notice. When a quorum is present at any meeting, the votes of a majority of the Directors present shall be requisite and sufficient for election to any office and shall decide any question brought before such meeting, except in any case where a larger vote is required by law, by the Articles of Organization or by these By-Laws.

Section 4.5 Consent in Lieu of Meeting and Participation in Meetings by Communications Equipment. Any action required or permitted to be taken at any meeting of the Directors may be taken without a meeting if all the Directors consent to the action in writing, signed by each Director or delivered to the Corporation via electronic transmission, and the written Consents are filed with the records of the meetings of the Directors. Such Consents shall be treated for all purposes as a vote of the Directors at a meeting.

Members of the Board of Directors or any Committee designated thereby may participate in a meeting of such Board or Committee by means of a conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear

each other at the same time and participation by such means shall constitute presence in person at a meeting.

Section 4.6 Committees. By vote of a majority of the Directors then in office, the Directors may elect from their own number an Executive Committee or other Committees and may by like vote delegate to any such Committee some or all of their powers except those which by law may not be delegated.

Article 5

Officers

Section 5.1 Enumeration, Election and Term of Office. The officers of the Corporation shall include a President, a Treasurer and a Secretary, who shall be chosen by the Directors at their first meeting following the Annual Meeting of the Shareholders. Each of them shall hold his office until the next annual election to the office which he holds and until his successor is chosen and qualified or until he sooner dies, resigns, is removed or becomes disqualified.

The Directors may choose one of their number to be Chairman of the Board and determine his powers, duties and term of office. The Directors may at any time appoint such other officers, including one or more Vice Presidents, Assistant Treasurers and Assistant Secretaries as they deem wise, and may determine their respective powers, duties and terms of office.

No officer need be a shareholder or a Director except that the Chairman of the Board shall be a Director. The same person may hold more than one office.

The Company may also designate individuals as divisional, group, or segment vice presidents or vice presidents of a particular function, which individual shall carry such title on a non-executive basis and not as executive officers of the Corporation. Said non-executive vice

presidents may be designated by the Board of Directors or by the President pursuant to Board resolutions so authorizing the President to appoint non-executive vice presidents on a particular occasion or from time to time in his discretion, said honorary vice presidents to be titled "Vice President (specific area of function)" or a similar designation.

Section 5.2 President and Chairman of the Board. The President shall be the Chief Executive Officer of the Corporation and, subject to the control and direction of the Directors or, if one is appointed, the Chairman of the Board, shall have general supervision and control of the business of the Corporation. If there shall be a Chairman of the Board, he shall make his counsel available to the other officers of the Corporation, and shall have such other duties and powers as may from time to time be conferred on him by the Directors. He shall preside at all meetings of the Directors at which he is present, and at all meetings of shareholders. The President shall preside at all meetings of the shareholders and, if he is a Director, at all meetings of the Directors if there shall be no Chairman of the Board or in the absence of the Chairman of the Board.

Section 5.3 Treasurer and Assistant Treasurer. The Treasurer shall have the custody of the funds and valuable books and papers of the Corporation, except such as are directed by these By-Laws to be kept by the Secretary. He shall perform all other duties usually incident to his office, and shall be at all times subject to the control and direction of the Directors. If required by the Directors, he shall give bond in such form and amount and with such sureties as shall be determined by the Directors.

If the Treasurer is absent or unavailable, any Assistant Treasurer shall have the duties and powers of Treasurer and shall have such further duties and powers as the Directors shall from time to time determine.

Section 5.4 Secretary and Assistant Secretary. If the Corporation shall not have a resident agent appointed pursuant to law, the Secretary shall be a resident of the Commonwealth of Massachusetts. The Secretary shall record all proceedings of the shareholders in a book to be kept therefor. The Secretary shall also record all proceedings of the Directors in a book to be kept therefor.

If the Corporation shall not have a transfer agent, the Secretary shall also keep or cause to be kept the stock and transfer records of the Corporation, which shall contain the names of all shareholders and the record address and the amount of stock held by each.

If the Secretary is absent or unavailable, any Assistant Secretary shall have the duties and powers of the Secretary and shall have such further duties and powers as the Directors shall from time to time determine.

Section 5.5 Temporary Secretary. If no Secretary or Assistant Secretary shall be present at any meeting of the shareholders, or if no Secretary or Assistant Secretary shall be present at any meeting of the Directors, the person presiding at the meeting shall designate a Temporary Secretary to perform the duties of the Secretary.

Section 5.6 Other Powers and Duties. Each officer shall, subject to these By-Laws and to the control and direction of the Directors, have in addition to the duties and powers specifically set forth in these By-Laws, such duties and powers as are customarily incident to his office and such additional duties and powers as the Directors may from time to time determine.

Article 6

Resignations, Removals and Vacancies

Section 6.1 Resignations. Any Director or officer may resign at any time by delivering his resignation in writing to the Chairman of the Board, the President or the Secretary or to a

meeting of the Directors. Such resignations shall take effect at such time as is specified therein, or if no such time is so specified, then upon delivery thereof to the President or the Secretary or to a meeting of the Directors.

Section 6.2 Removals. Directors, including Directors elected by the Directors to fill vacancies in the Board, may be removed from office (a) with cause by vote of the holders of a majority of the shares issued and outstanding and entitled to vote generally in the election of Directors; (b) without cause by vote of the holders of at least 80% of the votes entitled to be cast by the holders of all shares of the Corporation entitled to vote generally in the election of Directors, voting together as a single class; or (c) with cause by vote of a majority of the Directors then in office; provided that the Directors of a class elected by a particular class of shareholders may be removed only by vote of the holders of a majority of the shares of such class.

The Directors may terminate or modify the authority of any agent or employee. The Directors may remove any officer from office with or without assignment of cause by vote of a majority of the Directors then in office.

If cause is assigned for removal of any Director or officer, such Director or officer may be removed only after a reasonable notice and opportunity to be heard before the body proposing to remove him.

No Director or officer who resigns or is removed shall have any right to any compensation as such Director or officer for any period following his resignation or removal, or any right to damages on account of such removal whether his compensation be by the month or by the year or otherwise; provided, however, that the foregoing provision shall not prevent such

Director or officer from obtaining damages for breach of any contract of employment legally binding upon the Corporation.

Section 6.3 Vacancies. Any vacancy in the Board of Directors, including a vacancy resulting from an enlargement of the Board, may be filled by the Directors by vote of a majority of the remaining Directors then in office, though less than a quorum, or by the shareholders at a meeting called for the purpose provided that any vacancy created by the shareholders may be filled by the shareholders at the same meeting. Any Director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the class of Directors in which the new Directorship was created or the vacancy occurred and until such Directors' successor shall have been elected and qualified or until he sooner dies, resigns, is removed or becomes disqualified. A vacancy that will occur at a specific later date may be filled before the vacancy occurs but the new Director may not take office until the vacancy occurs.

If the office of any officer becomes vacant, the Directors may choose or appoint a successor by vote of a majority of the Directors present at the meeting at which such choice or appointment is made.

Each such successor shall hold office for the unexpired term of his predecessor and until his successor shall be chosen or appointed and qualified, or until he sooner dies, resigns, is removed or becomes disqualified.

Article 7

Indemnification of Directors and Others

Section 7.1 Definitions. For purposes of this Article 7:

(a) "Director/officer" means any person who is serving or has served as a Director, officer or employee of the Corporation appointed or elected by the Board of Directors or the

shareholders of the Corporation, or any Director, officer or employee of the Corporation who is serving or has served at the request of the Corporation as a Director, officer, trustee, principal, partner, employee or other agent of any other organization.

(b) “Proceeding” means any action, suit or proceeding, civil or criminal, brought or threatened in or before any court, tribunal, administrative or legislative body or agency.

(c) “Expense” means any fine or penalty, and any liability fixed by a judgment, order, decree or award in a Proceeding, any amount reasonably paid in settlement of a Proceeding and any professional fees and other disbursements reasonably incurred in connection with a Proceeding.

Section 7.2 Right to Indemnification. Except as limited by law or as provided in Sections 7.3 and 7.4 of this Article 7, each Director/officer (and his heirs and personal representatives) shall be indemnified by the Corporation against any Expense incurred by him in connection with each Proceeding in which he is involved as a result of his serving or having served as a Director/officer.

Section 7.3 Indemnification Not Available. No indemnification shall be provided to a Director/officer with respect to a Proceeding as to which it shall have been adjudicated that he did not act in good faith in the reasonable belief that his action was in the best interests of the Corporation.

Section 7.4 Compromise or Settlement. In the event that a Proceeding is compromised or settled so as to impose any liability or obligation on a Director/officer or upon the Corporation, no indemnification shall be provided as to said Director/officer with respect to such Proceeding if such Director/officer shall have been adjudicated not to have acted in good faith in the reasonable belief that his action was in the best interests of the Corporation.

Section 7.5 Advances. The Corporation shall pay sums on account of indemnification in advance of a final disposition of a Proceeding upon receipt of an undertaking by the Director/officer to repay such sums if it is subsequently established that he is not entitled to indemnification pursuant to Sections 7.3 and 7.4 hereof, which undertaking may be accepted without reference to the financial ability of such person to make repayment.

Section 7.6 Not Exclusive. Nothing in this Article 7 shall limit any lawful rights to indemnification existing independently of this Article 7.

Section 7.7 Insurance. The provisions of this Article 7 shall not limit the power of the Board of Directors to authorize the purchase and maintenance of insurance on behalf of any Director/officer against any Expense, whether or not the Corporation would have the power to indemnify him against such Expense under this Article 7.

Article 8

Stock

Section 8.1 Stock Authorized. The total number of shares and the par value, if any, of each class of stock which the Corporation is authorized to issue, and if more than one class is authorized, the descriptions, preferences, voting powers, qualifications and special and relative rights and privileges as to each class and any series thereof, shall be as stated in the Articles of Organization.

Section 8.2 Issue of Authorized Unissued Capital Stock; Consideration. The Board of Directors may issue the number of shares of each class or series of stock authorized by the Articles of Organization. The Board of Directors may authorize shares to be issued for any valid consideration. Before the Corporation issues shares, the Board of Directors shall determine that the consideration received or to be received for the shares to be issued is adequate. Such

determination by the Board is conclusive insofar as the adequacy of consideration for the issuance of shares relates to whether the shares are validly issued, fully paid and nonassessable.

Section 8.3 Certificates of Stock. If shares are represented by certificates, each shareholder shall be entitled to a certificate in such form as may be prescribed from time to time by the Directors, stating the number and the class and the designation of the series, if any, of the shares held by him. Such certificates shall be signed by the President or a Vice President and by the Treasurer or an Assistant Treasurer. Such signatures may be facsimiles if the certificate is signed by a transfer agent, or by a registrar, other than a Director, officer or employee of the Corporation. In case any officer who has signed or whose facsimile signature has been placed on such certificate shall have ceased to be such officer before such certificate is issued, it may be issued by the Corporation with the same effect as if he were such officer at the time of its issue.

Every certificate issued by the Corporation for shares of stock at a time when such shares are subject to any restriction on transfer pursuant to the Articles of Organization, the By-Laws or any agreement to which the Corporation is a party shall have the restriction noted conspicuously on the certificate and shall also set forth on the face or back of the certificate either the full text of the restriction, or a statement of the existence of such restriction and a statement that the Corporation will furnish a copy thereof to the holder of such certificate upon written request and without charge. Every stock certificate issued by the Corporation at a time when it is authorized to issue more than one class or series of stock shall set forth upon the face or back of the certificate either the full text of the preferences, voting powers, qualifications and special and relative rights of the shares of each class and series, if any, authorized to be issued, as set forth in the Articles of Organization, or a statement of the existence of such preferences, powers,

qualifications and rights and a statement that the Corporation will furnish a copy thereof to the holder of such certificate upon written request and without charge.

Notwithstanding anything to the contrary provided in these By-Laws and consistent with applicable law, the Board of Directors of the Corporation may authorize the issue of some or all of the shares of any or all of the classes or series without certificates. The authorization shall not effect shares already represented by certificates, until they are surrendered to the Corporation, and by the approval and adoption of these By-Laws, the Board of Directors has determined that all classes or series of the Corporation stock may be uncertificated shares, whether upon original issue, re-issuance or subsequent transfer. Within a reasonable time after the issue or transfer of shares without certificates and to the extent required by applicable law, the Corporation shall send the shareholder a written statement of the information required on certificates.

Section 8.4 Replacement Certificate. In case of the alleged loss or destruction or the mutilation of a certificate of stock, a new certificate may be issued in place thereof, upon such conditions as the Directors may determine.

Section 8.5 Transfers. Subject to the restrictions, if any, imposed by the Articles of Organization, the By-Laws or any agreement to which the Corporation is a party, and unless otherwise provided by the Board of Directors, shares of stock of the Corporation that are represented by a certificate shall be transferred on the books of the Corporation only by the surrender to the Corporation or its transfer agent of the certificate representing such shares properly endorsed or accompanied by a written assignment of such shares or by a written power of attorney to sell, assign or transfer such shares, properly executed, with necessary transfer stamps affixed, and with such proof that the endorsement, assignment or power of attorney is genuine and effective as the Corporation or its transfer agent may reasonably require. Shares of

stock that are not represented by a certificate shall be transferred or assignable on the stock transfer books of the Corporation, by the holders submitting to the Corporation or its transfer agent, such evidence of transfer and following such other procedures as the Corporation or its transfer agent may reasonably require. Except as may otherwise be required by law, by the Articles of Organization, or by these By-Laws, the Corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to receive notice and to vote with respect thereto, regardless of any transfer, pledge or other disposition of such stock, until the shares have been transferred on the books of the Corporation in accordance with the requirements of these By-Laws. It shall be the duty of each shareholder to notify the Corporation of his post office address.

Section 8.6 Record Date. The Directors may fix in advance a time, which shall be not more than seventy (70) days before the date of any meeting of shareholders or the date for the payment of any dividend or the making of any distribution to shareholders or the last day on which the consent or dissent of shareholders may be effectively expressed for any purpose, as the record date for determining the shareholders having the right to notice of and to vote at such meeting and any adjournment thereof or the right to receive such dividend or distribution or the right to give such consent or dissent, and in such case only shareholders of record on such date shall have such right, notwithstanding any transfer of stock on the books of the Corporation after the record date; or without fixing such record date, the Directors may for any such purposes close the transfer books for all or any part of such period.

If no record date is fixed and the transfer books are not closed:

- (1) The record date for determining shareholders having the right to notice of or to vote at a meeting of shareholders shall be at the close of business on the day next preceding the day on which notice is given.
- (2) The record date for determining shareholders for any other purpose shall be at the close of business on the day on which the Board of Directors acts with respect thereto.

Article 9

Miscellaneous Provisions

Section 9.1 Execution of Papers. All deeds, leases, transfers, contracts, bonds, notes, releases, checks, drafts and other obligations authorized to be executed on behalf of the Corporation shall be signed by the President or the Treasurer except as the Directors may generally or in particular cases otherwise determine.

Section 9.2 Voting of Securities. Except as the Directors may generally or in particular cases otherwise determine, the President or the Treasurer may, on behalf of the Corporation (i) waive notice of any meeting of shareholders or shareholders of any other corporation, or of any association, trust or firm, of which any securities are held by this Corporation; (ii) appoint any person or persons to act as proxy or attorney-in-fact for the Corporation, with or without substitution, at any such meeting; and (iii) execute instruments of Consent to shareholder or shareholder action taken without a meeting.

Section 9.3 Corporate Seal. The seal of the Corporation shall be a circular die with the name of the Corporation, the word "Massachusetts" and the year of its incorporation cut or engraved thereon, or shall be in such other form as the Board of Directors or the shareholders may from time to time determine.

Section 9.4 Corporate Records. The original, or attested copies, of the Articles of Organization, By-Laws, and the records of all meetings of incorporators and shareholders, and the stock and transfer records, which shall contain the names of all shareholders and the record address and the amount of stock held by each, shall be kept in Massachusetts for inspection by the shareholders at the principal office of the Corporation or at an office of the Secretary, or if the Corporation shall have a transfer agent or a resident agent, at an office of either of them. Said copies and records need not all be kept in the same office.

Article 10

Amendments

These By-Laws may be altered, amended or repealed or new By-Laws enacted by the affirmative vote of a majority of the entire Board of Directors (if notice of the proposed alteration or amendment is contained in the notice of the meeting at which such vote is taken or if all Directors are present) or at any regular meeting of the shareholders (or at any special meeting thereof duly called for that purpose) by the affirmative vote of a majority of the shares represented and entitled to vote at such meeting (if notice of the proposed alteration or amendment is contained in the notice of such meeting).

Notwithstanding anything contained in the preceding paragraph of this Article 10 to the contrary, either (i) the affirmative vote of the holders of at least eighty (80%) percent of the votes entitled to be cast by the holders of all shares of the Corporation entitled to vote generally in the election of Directors, voting together as a single class, or (ii) the affirmative vote of a majority of the entire Board of Directors with the concurring vote of a majority of the Continuing Directors, voting separately and as a subclass of Directors, shall be required to alter, amend or repeal or adopt any provision inconsistent with, Section 3.1 of Article 3, Section 4.1 of Article 4, Section

6.1 and Section 6.2 of Article 6 and this paragraph of this Article 10; provided however that (notwithstanding any action by the Board of Directors) if such proposal is put to a vote of the shareholders and receives the affirmative vote of each holder of at least 15% of the votes entitled to be cast by the holders of all shares of the Corporation entitled to vote generally in the election of Directors, voting together as a single class (which holders also held on May 15, 1989 at least 15% of the shares of the Corporation entitled on that date to vote generally in the election of Directors), then such proposal shall require only the affirmative vote of a majority of the shares represented and entitled to vote at such meeting. For purposes of this Article 10, the term “Continuing Director” shall have the meaning ascribed to it in Article 6 of the Articles of Organization of the Corporation.

ADOPTED BY THE BOARD OF DIRECTORS: December 5, 2013

**Amendment to Amended and Restated By-Laws of
Cognex Corporation**

The Amended and Restated By-Laws of Cognex Corporation, a Massachusetts corporation, are hereby amended by deleting Section 3.5 in its entirety and replacing such section with the following:

“3.5 Quorum; Voting. At any meeting of the shareholders, a quorum for the election of any Director or for the consideration of any question shall consist of a majority in interest of all stock issued, outstanding and entitled to vote at such election or upon such question, respectively, except that if two or more classes of stock are entitled to vote as separate classes for the election of any Director or upon any question, then in the case of each such class a quorum for the election of any Director or for the consideration of such question shall consist of a majority in interest of all stock of that class issued, outstanding and entitled to vote thereon. Stock owned by the Corporation, if any, shall be disregarded in determining any quorum unless held, directly or indirectly, in a fiduciary capacity. Both abstentions and broker non-votes are to be counted as present for the purpose of determining the existence of a quorum for the transaction of business at any meeting. Whether or not a quorum is present, any meeting may be adjourned from time to time by a majority of the votes properly cast upon the question or by the presiding officer, and the meeting may be held as adjourned without further notice except to the extent required by applicable law.

Other than in a Contested Election Meeting (as defined below), when a quorum is present at any meeting of shareholders, a nominee for Director shall be elected to the Board of Directors if the votes properly cast “for” such nominee’s election exceed the votes properly cast “against” such nominee’s election (with “abstentions,” “broker non-votes” and “withheld votes” not counted as a vote “for” or “against” such nominee’s election). In a Contested Election Meeting, when a quorum for an election is present at any meeting, Directors shall be elected by a plurality of the votes properly cast at such meeting. A meeting of shareholders shall be a “Contested Election Meeting” if there are more persons nominated for election as Directors at such meeting than there are Directors to be elected at such meeting, determined as of the tenth day preceding the date of the Corporation’s first notice to shareholders of such meeting sent pursuant to Section 3.4 of these By-laws (the “Determination Date”); provided, however, that if in accordance with Section 4.1 of these By-laws, shareholders are entitled to nominate persons for election as Director for a period of time that ends after the otherwise applicable Determination Date, the Determination Date shall instead be as of the end of such period.

When a quorum for the consideration of a question (other than an election of Directors) is present at any meeting, a majority of the votes properly cast upon the question shall decide the question; except that if two or more classes of stock are entitled to vote as separate classes upon such question, then in the case of each

such class a majority of the votes of such class properly cast upon the question shall decide the vote of that class upon the question; and except in any case where a larger vote is required by law or by the Articles of Organization. For purposes of determining the number of shares voting on a particular proposal, abstentions and broker non-votes are not to be counted as votes cast or shares voting.”

ADOPTED BY THE SHAREHOLDERS: April 28, 2016

EFFECTIVE ON: May 5, 2016

CERTIFICATION

I, Robert J. Willett, certify that:

- 1 I have reviewed this quarterly report on Form 10-Q of Cognex Corporation;
- 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: August 1, 2016

By: /s/ Robert J. Willett

Robert J. Willett

President and Chief Executive Officer

CERTIFICATION

I, Richard A. Morin, certify that:

- 1 I have reviewed this quarterly report on Form 10-Q of Cognex Corporation;
- 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: August 1, 2016

By: /s/ Richard A. Morin

Richard A. Morin
Executive Vice President of Finance and Administration
and Chief Financial Officer

CERTIFICATION PURSUANT TO
18 U.S.C. 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The undersigned officer of Cognex Corporation (the "Company") hereby certifies to his knowledge that the Company's quarterly report on Form 10-Q for the quarterly period ended July 3, 2016 (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 1, 2016

By: /s/ Robert J. Willett

Robert J. Willett

President and Chief Executive Officer

(principal executive officer)

* This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

CERTIFICATION PURSUANT TO
18 U.S.C. 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The undersigned officer of Cognex Corporation (the "Company") hereby certifies to his knowledge that the Company's quarterly report on Form 10-Q for the quarterly period ended July 3, 2016 (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 1, 2016

By: /s/ Richard A. Morin

Richard A. Morin

Executive Vice President of Finance and Administration
and Chief Financial Officer

(principal financial officer)

* This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

