

# 20th Annual Needham Growth Conference

January 17, 2018



# Safe Harbor Statement

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Certain matters discussed in this presentation, including statements concerning market growth in IC content and WLCSP integration; “Cohu500” strategy goals and financial targets; Cohu products market share gain targets; incremental sales from PANTHER and Vision Inspection products; Contactor sales growth; gross margin expansion; tight Opex control; estimated 2017 financial results and cash flow; and strategic investment goals are forward-looking statements that are subject to risks and uncertainties that could cause actual results to differ materially from those projected or forecasted. Such risks and uncertainties include, but are not limited to, our ability to convert new products under development into production on a timely basis and to meet customer delivery and acceptance requirements for new products; failure to obtain customer acceptance resulting in the inability to recognize revenue and accounts receivable collection problems; revenue recognition impacts due to ASC 606; market adoption of new products; intense competition in the test handler industry; our reliance on patents and intellectual property; failure of critical suppliers; customer concentration; compliance with U.S. export regulations; impacts from Tax Cuts and Jobs Act of 2017; our ability to successfully integrate acquired businesses and operations; ERP system implementation issues; the seasonal, volatile and unpredictable nature of capital expenditures by semiconductor manufacturers; and rapid technological change. These and other risks and uncertainties are discussed more fully in Cohu's filings with the Securities and Exchange Commission, including the most recently filed Form 10-K and Form 10-Q. These forward-looking statements are not assurances of future performance and speak only as of the date hereof, based on information currently available to us. Cohu assumes no obligation to update the information in this presentation.

This presentation includes certain non-GAAP financial measures, including non-GAAP EBITDA, gross margin and diluted EPS. These non-GAAP measures are in addition to, not a substitute for or superior to, measures of financial performance prepared in accordance with U.S. GAAP. The non-GAAP financial measures used by Cohu may differ from the non-GAAP financial measures used by other companies. A reconciliation of these measures to the most directly comparable U.S. GAAP measure is included in the Appendix to these slides.

# Opportunities for Growth and Differentiation



# Corporate Profile

**Global technology and market leader in \$2 billion\* Semiconductor Final Test Handlers, Contactors and Vision Inspection**



Company  
NASDAQ

**COHU**



Revenue  
(LTM\*\*)

**\$339M**



EBITDA  
(LTM\*\*)

**16%**



Net Cash  
(3Q17)

**\$129M**



Employees  
(Worldwide)

**~1,750**

***We create leading-edge solutions for  
semiconductor test and inspection***

\* VLSI Research and Company estimates  
\*\* LTM as of 3Q17; EBITDA reflects non-GAAP

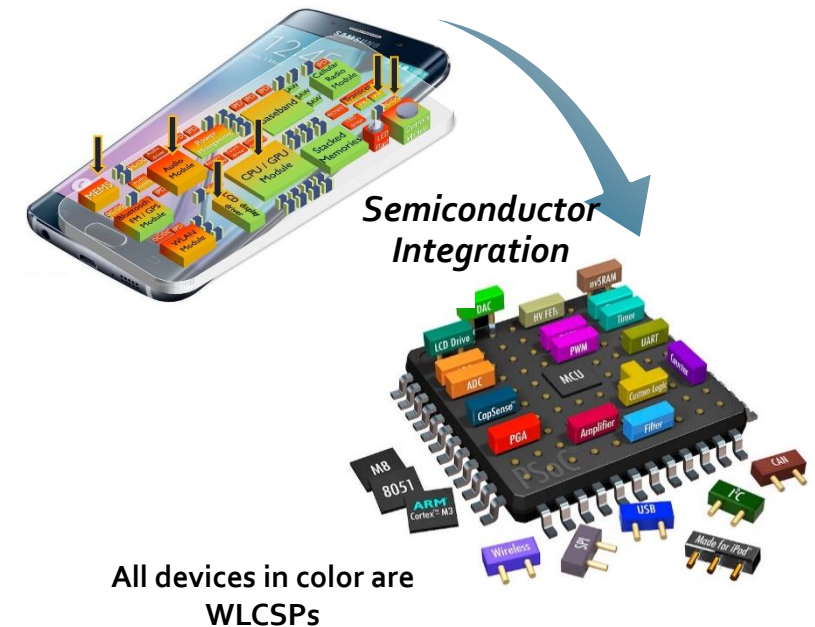
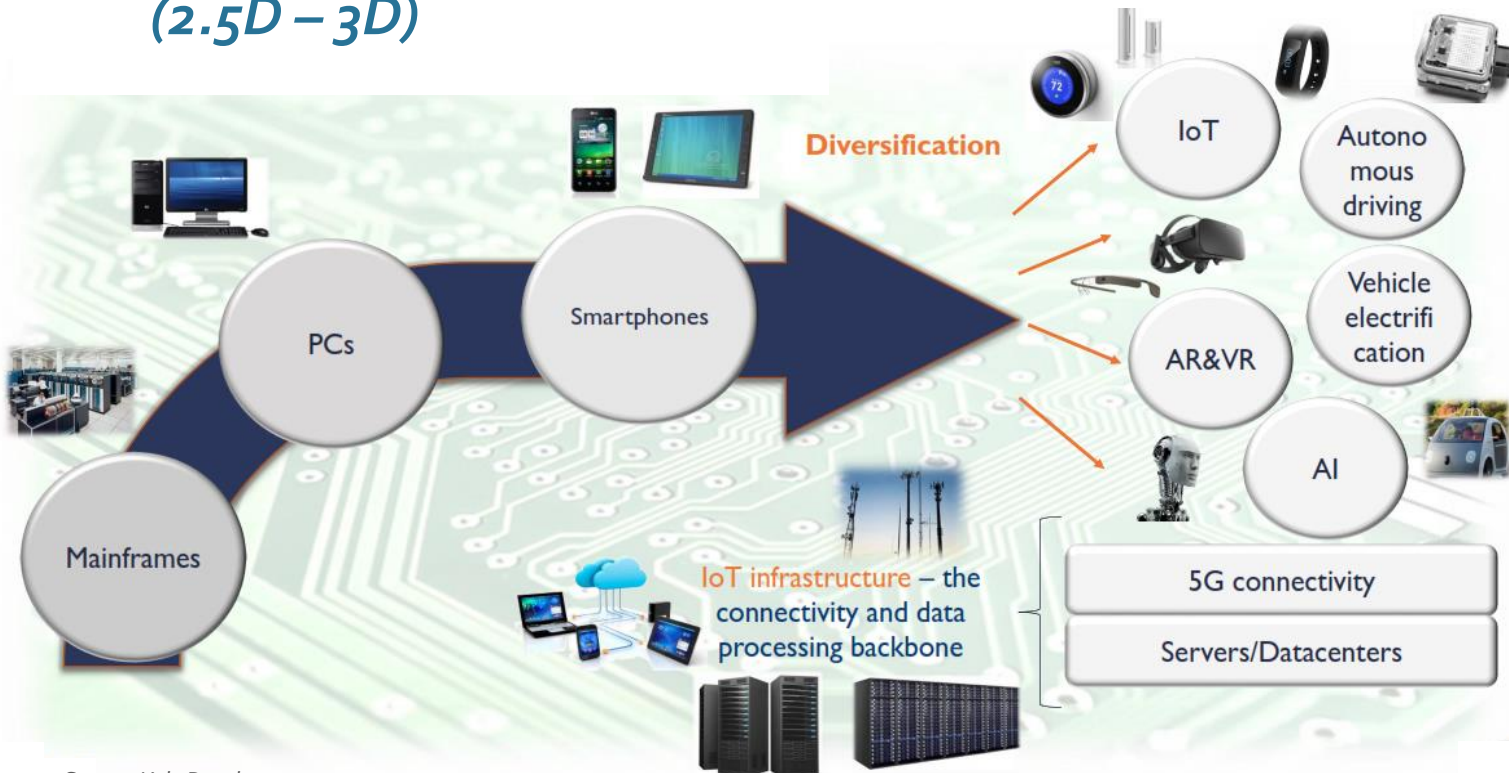


# Diversification of Semiconductor Market Drivers

No single leading driver, but a diverse growing market

Increasing IC content in vehicles, factory automation, mobile devices (*phones, AR&VR*), servers and exponential increase in connectivity (*Internet-of-Things*)

Technology drivers with growing integration of wafer-level CSPs in complex packages (*2.5D – 3D*)



Source: Yole Development

# Semiconductor Manufacturing and Test Process

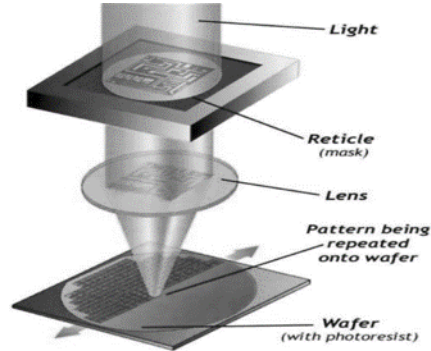
## Wafer



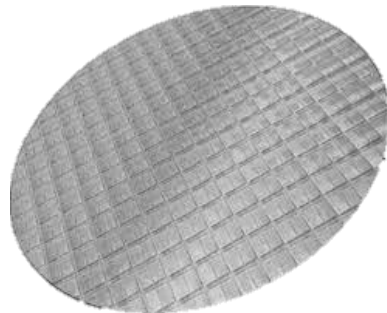
Starting as a pure silicon ingot, wafers are manufactured as ultra-high purity monocrystalline silicon wafers



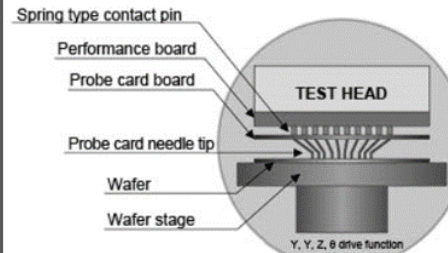
## Wafer Processing



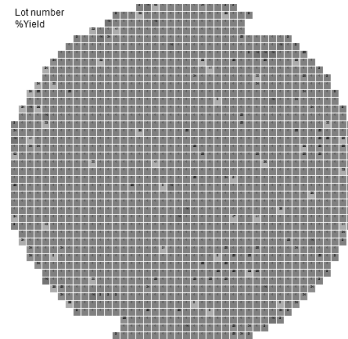
Circuit patterns are then printed onto wafers and a fine electronic circuit is formed by injecting ions



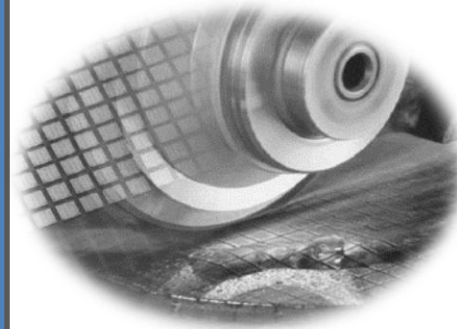
## Wafer Test



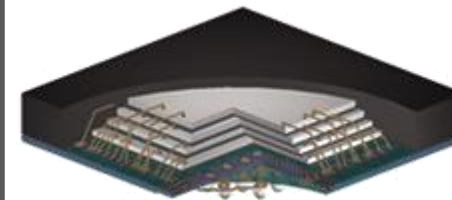
Each chip formed on the wafer is then tested for its electrical properties and basic functionality



## Assembly Process



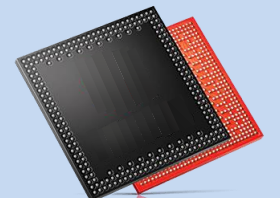
Die are saw cut from the wafer, assembled onto substrates where final package configuration is completed



## Test & Inspection

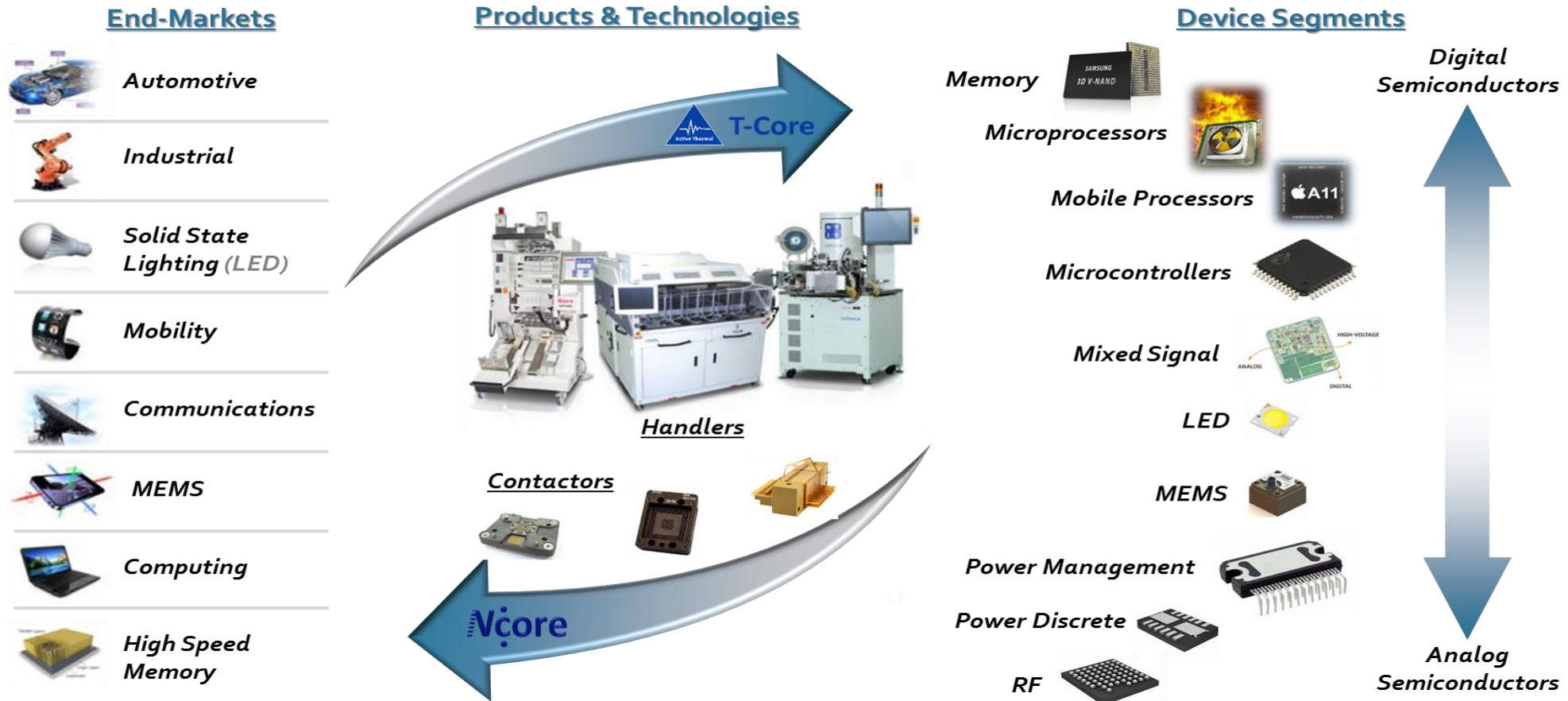


Completed packages are then rigorously tested and inspected for reliability and performance through final test equipment simulating end applications and conditions



# Multiple Markets – Leading Solutions

Thermal and Vision Inspection technologies enabling higher yield  $\Rightarrow$  **customer value**





# Competitive Differentiation

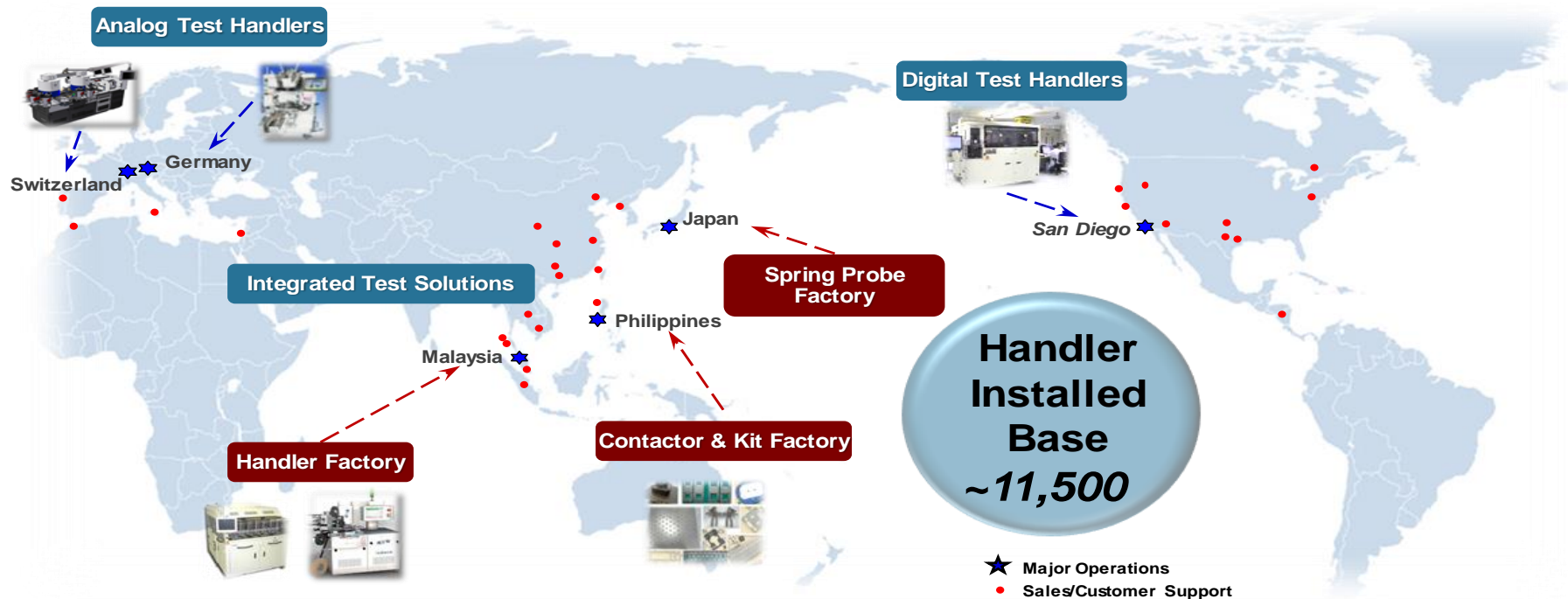
Solutions that result in higher test and inspection yield

1% better yield on \$400 billion semiconductor industry = \$4 billion

Scale ⇒ Largest R&D (~\$38 million) in the industry

Global Operations meeting production ramp requirements

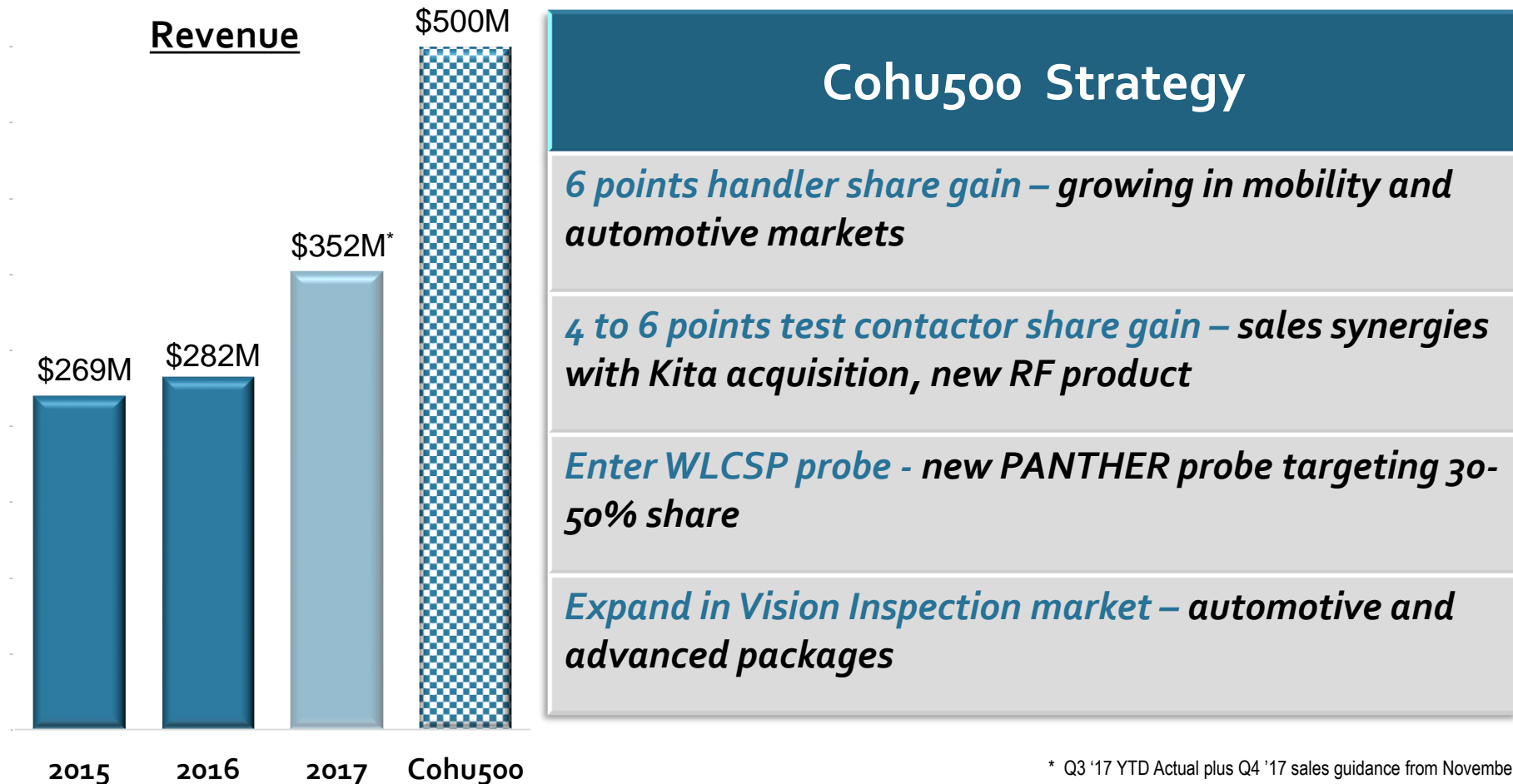
Sales & Service to support customers 24/7 globally





# Delivering Positive Results

Achieving growth  $\Rightarrow$  *share gain in core handlers, new WLCSP prober, expansion in test contactors*



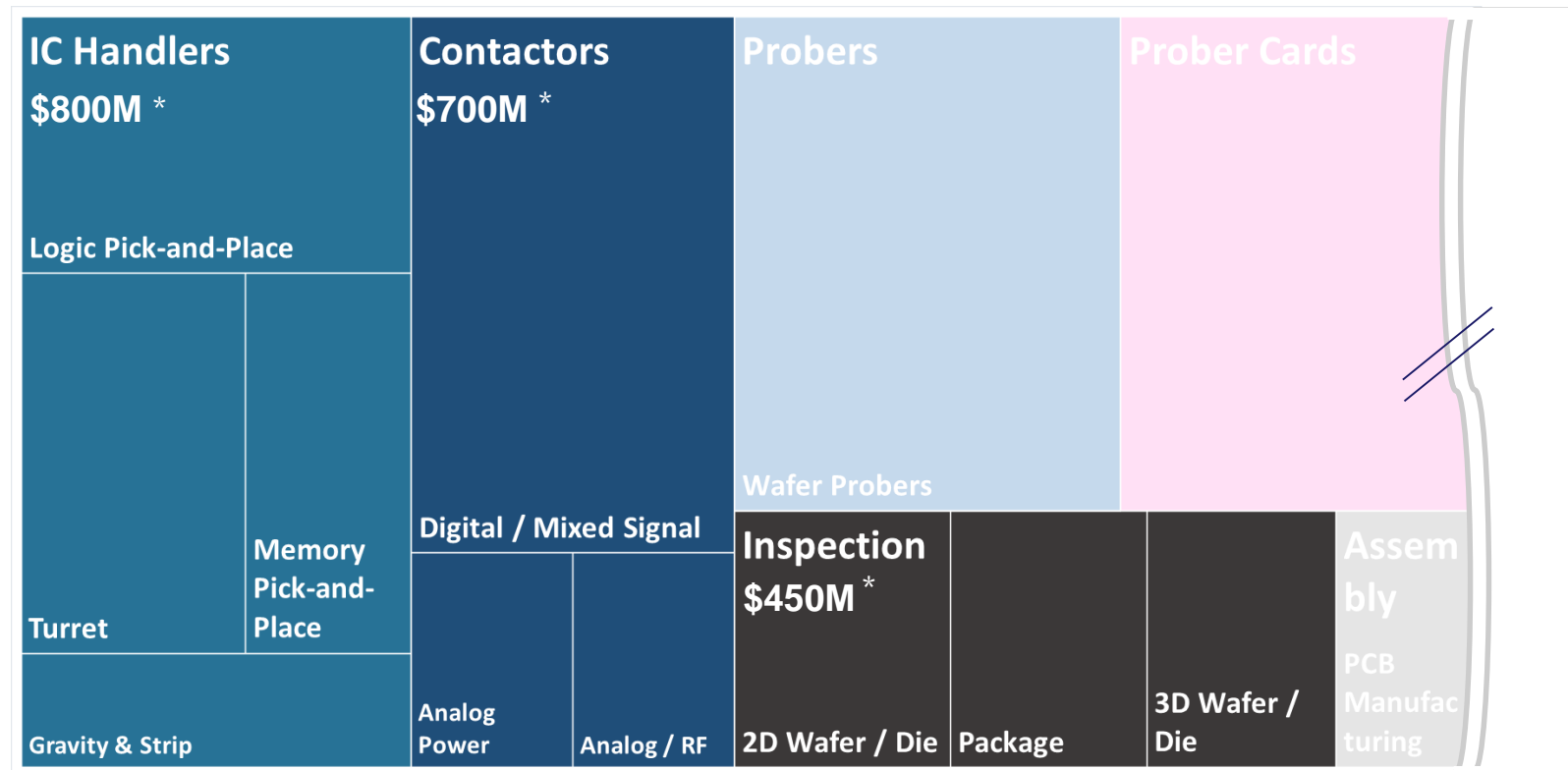
\* Q3 '17 YTD Actual plus Q4 '17 sales guidance from November 2, 2017 earnings call

# Cohu500 Strategy

Mid-term (3-5 years) target

Revenue of \$500 million in

Addressable Market ~\$2 billion\* including Inspection



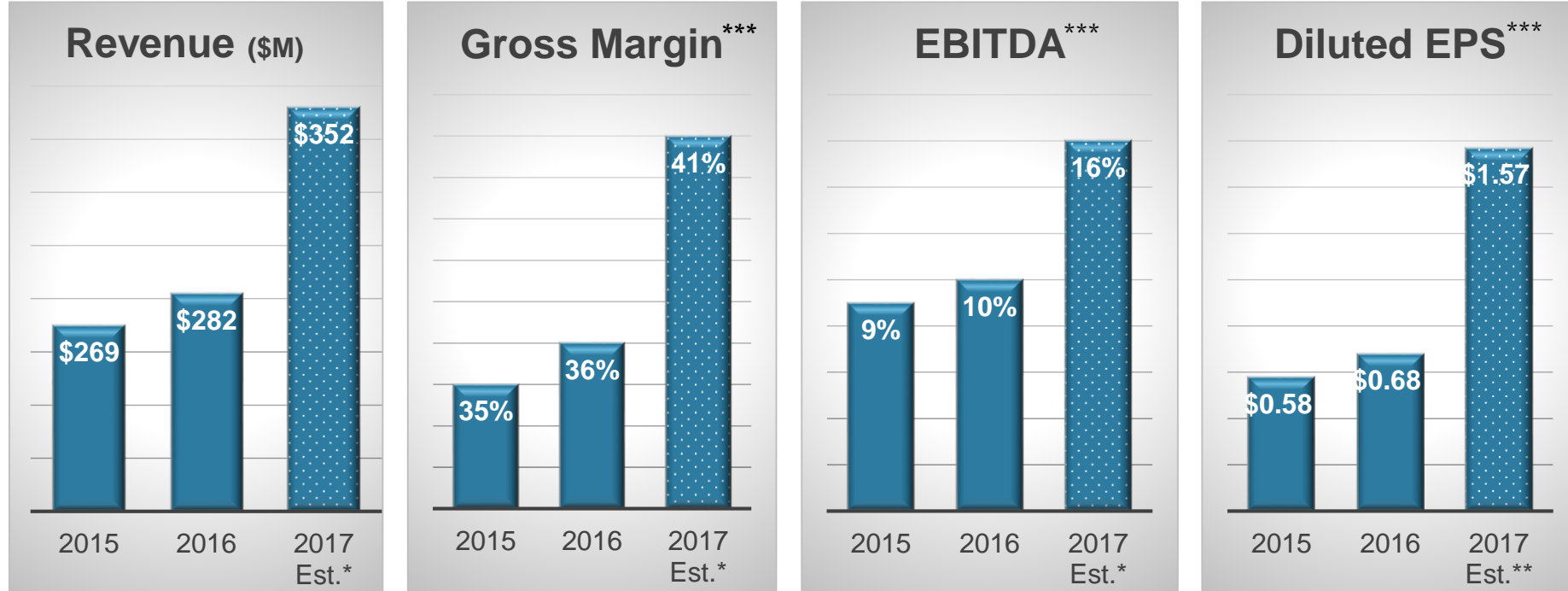
\* VLSI Research and Company estimates

# Delivering Profitability and Shareholder Value





# Strategy & Execution Yielding Results



**Share gain in handler automotive and mobility markets**  
**Growth in contactors with Kita acquisition**  
**Gross margin expansion from Asia manufacturing**  
**Tight Opex control while investing for growth**

\* Q3 2017 YTD Actual plus Q4 2017 guidance from November 2, 2017 earnings call

\*\* Analyst consensus estimates

\*\*\* Amounts are Non-GAAP and exclude amortization of purchased intangibles, stock based compensation expense, acquisition related costs, manufacturing transition and severance costs.

# Cohu500 Mid-Term Target

	2015	2016	2017 Est.*	Cohu500
Sales	\$269M	\$282M	\$352M (\$88M/qtr)	\$500M (\$125M/qtr)
Gross Margin**	35%	36%	41%	45%
EBITDA**	9%	10%	16%	20%

## Strong Revenue Growth

~ 2 pts handler share gain: automotive and mobility

~ 3 pts contactor share gain: new products and sales synergies

## Increasing Gross Margin target to 45%

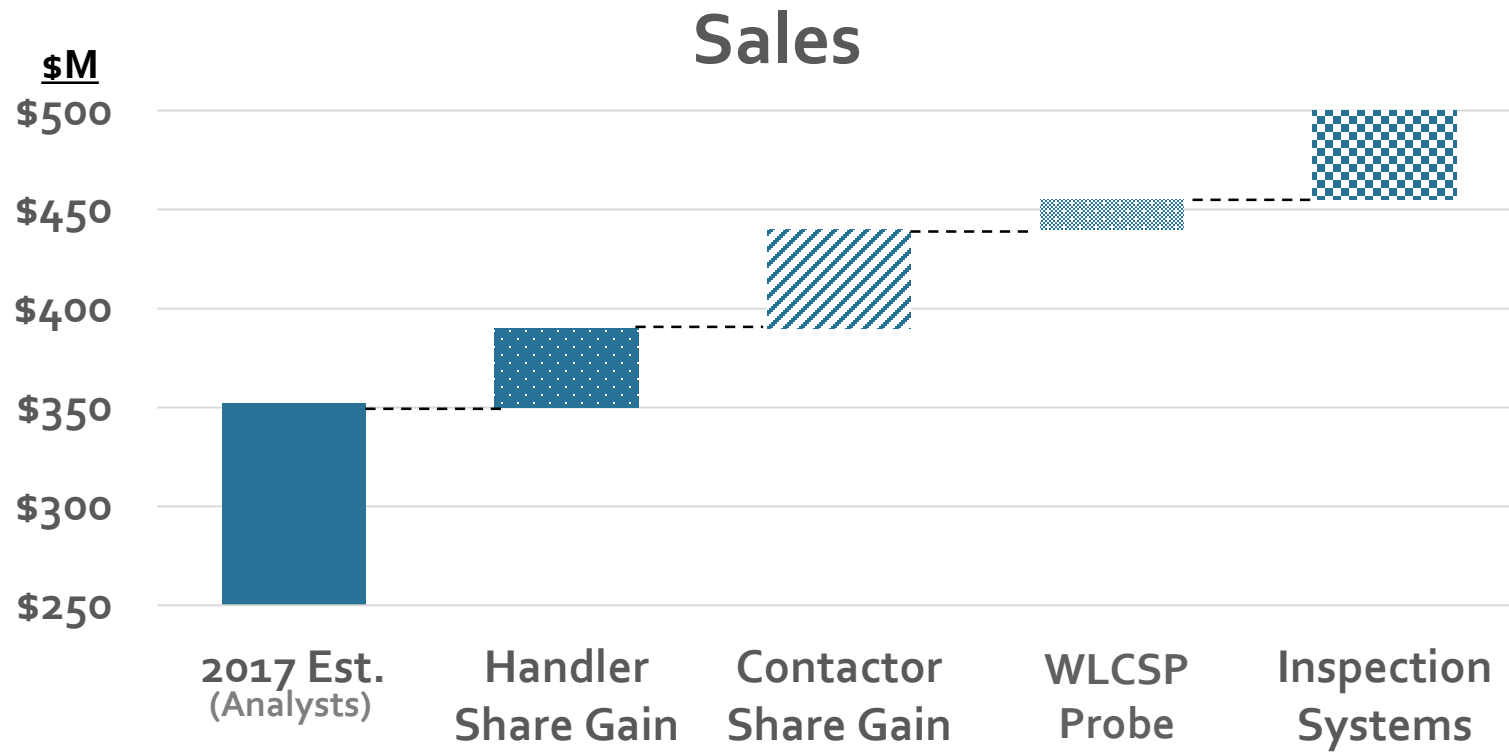
Growing share and expanding in inspection market

New products provide greater differentiation, higher margins

\* Actual results YTD 2017 through Q3 plus Q4 2017 guidance from November 2, 2017 earnings call

\*\* Amounts are Non-GAAP and exclude amortization of purchased intangibles, stock based compensation expense, acquisition related costs, manufacturing transition and severance costs.

# Path to Cohu500



**Approx. 6 pts handler share gain in growing automotive and mobility**  
**Grow to #1 or #2 in contactors: product performance, global support**  
**Expand in inspection market with automotive and advanced packages**



# Accelerating Growth with Acquisitions

## Strong track record of successful acquisitions

Criteria	Rasco Dec 2008	Ismeca Jan 2013	Kita Jan 2017
Market Expansion	Gravity, Test-in-Strip, MEMS	Turret, Inspection, LED	Spring Probe Contactor
Market Share	#2 in 2008, grew to #1 in 2014	#1, acquired the leader	Top 5 leader and growing
Infrastructure Leverage	100% complementary products; Common sales and customer support	100% complementary products; Common sales and customer support; Malaysia Mfg. and Supply Chain	100% complementary products; Japan Mfg. and Customer Relationships
Realized Synergies	Sales ~ \$16M; Costs ~ \$2M	Sales ~ \$25M; Costs ~\$14M	Mid-Term Target Sales ~ \$16M

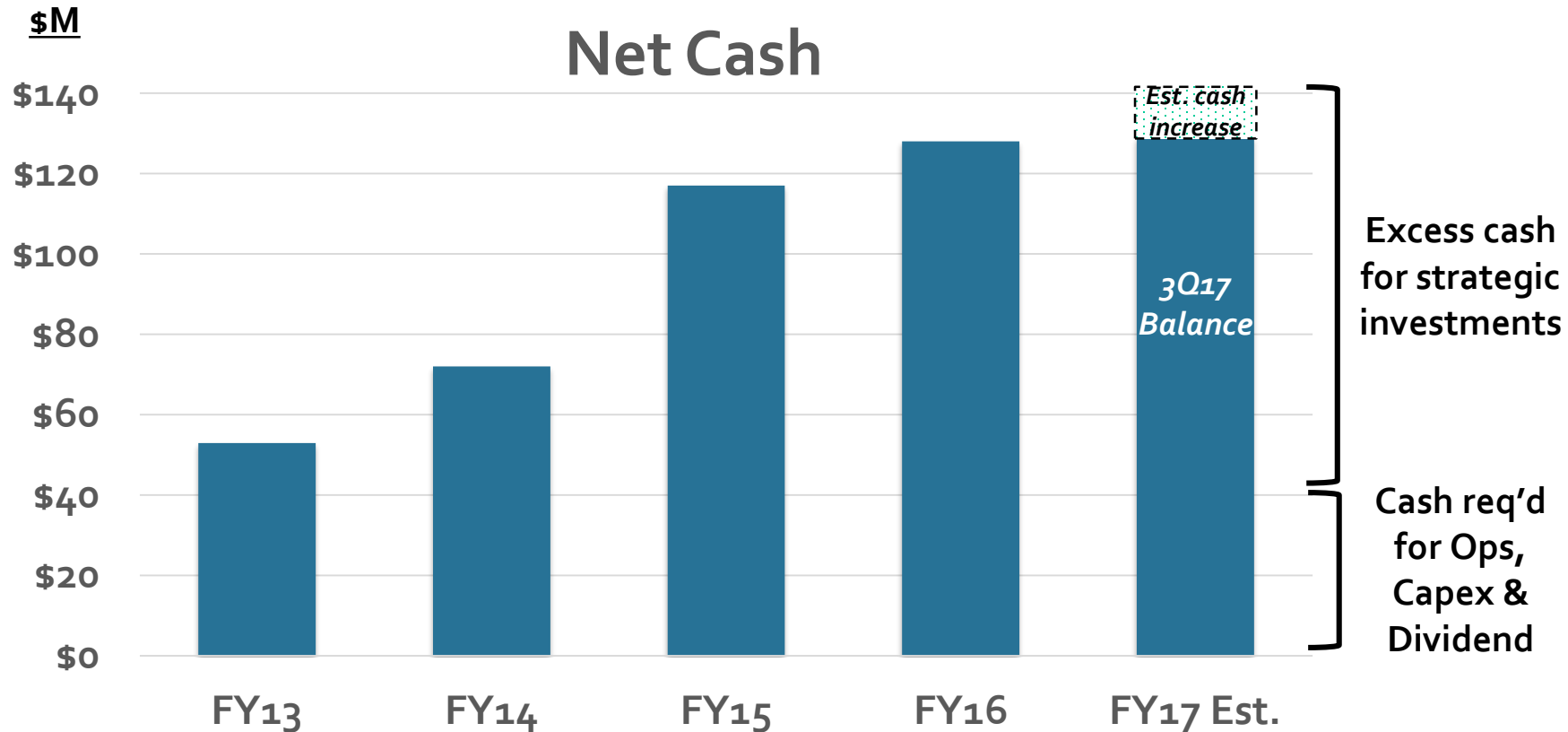
## Acquisition investment criteria

Expand into profitable, complementary markets

Deliver margin in-line with mid-term financial model

Leverage infrastructure: technology, operations, sales and support

# Strong Cash Balance to Support Growth



**\$15M deployed to acquire Kita in January 2017**  
**Projecting operating cash flow of ~\$35M in 2017**  
**Healthy cash conversion cycle at 123 days (3Q17)**

# Expanding Mid-Term Target to \$500M

## Increasing TAM to \$2 Billion

*with new WLCSP prober, investments in vision inspection and test contactors*

## Focused on Differentiation

thermal control, vision inspection and integrated test solutions that enable higher customer yield

## Gaining Share in Core Markets

with growing automation, artificial intelligence and communications rqmts. in automotive, mobility & IoT

## Strategic Acquisitions

in profitable, complementary markets leveraging infrastructure and delivering synergies

## Profitability & Cash Flow

with low cost manufacturing structure and Opex leverage

## Cohu500 Target

delivers 45% gross margin\* and 20% EBITDA\* at \$500M

\* Amounts are Non-GAAP and exclude amortization of purchased intangibles, stock based compensation expense, acquisition costs, manufacturing transition and severance costs.



# Appendix



 Cohu

# Reconciliation of GAAP to Non-GAAP Results

Earnings Reconciliation	12 Months Ending		12 Months Ending		9 Months Ending		12 Months Ending	
	Dec 26,	Diluted	Dec 31,	Diluted	Sept 30,	Diluted	Sept 30,	Diluted
	2015	EPS	2016	EPS	2017	EPS	2017	EPS
Income (Loss) From Continuing Operations - GAAP	\$5,792	\$0.22	\$3,260	\$0.12	\$26,226	\$0.92	\$28,532	\$1.00
Share Based Compensation	6,755	0.25	7,143	0.26	5,336	0.19	7,188	0.25
Amortization of Purchased Intangible Assets	7,032	0.26	6,902	0.25	3,164	0.11	4,702	0.17
Manufacturing Transition and Severance Costs	970	0.04	1,498	0.05	452	0.02	948	0.03
Other Acquisition Costs	0	0.00	1,777	0.06	328	0.01	1,224	0.04
Inventory Step-Up	0	0.00	0	0.00	1,404	0.05	1,404	0.05
Impairment of Goodwill and Other Assets	273	0.01	0	0.00	0	0.00	0	0.00
Gain on Sale of Facility	(3,198)	(0.12)	0	0.00	0	0.00	0	0.00
Reduction of Indemnification Receivable	0	0.00	588	0.03	0	0.00	588	0.02
Adjustment to Contingent Consideration	0	0.00	0	0.00	668	0.02	668	0.02
Tax Effect of Non-GAAP Adjustments	(1,961)	(0.07)	(2,408)	(0.09)	(1,316)	(0.05)	(2,347)	(0.08)
Income From Continuing Operations - Non-GAAP	\$15,663	\$0.58	\$18,760	\$0.68	\$36,262	\$1.27	\$42,907	\$1.51
Weighted Average Shares - GAAP and Non-GAAP	Diluted	26,788	Diluted	27,480	Diluted	28,640	Diluted	28,464

Gross Profit Reconciliation	12 Months Ending		12 Months Ending		9 Months Ending		12 Months Ending	
	Dec 26,	% of Net	Dec 31,	% of Net	Sept 30,	% of Net	Sept 30,	% of Net
	2015	Sales	2016	Sales	2017	Sales	2017	Sales
Net Sales	\$269,654		\$282,084		\$268,614		\$339,308	
Gross Profit - GAAP	89,038	33.0%	94,828	33.6%	106,295	39.6%	131,822	38.9%
Share Based Compensation	566	0.2%	398	0.1%	327	0.1%	416	0.1%
Amortization of Purchased Intangible Assets	5,420	2.0%	5,170	1.8%	2,015	0.8%	3,153	0.9%
Manufacturing Transition and Severance Costs	0	0.0%	75	0.0%	0	0.0%	0	0.0%
Inventory Step-Up	0	0.0%	0	0.0%	1,404	0.5%	1,404	0.4%
Gross Profit - Non-GAAP	\$95,024	35.3%	\$100,471	35.6%	\$110,041	41.0%	\$136,795	40.3%

Adjusted EBITDA Reconciliation	12 Months Ending		12 Months Ending		9 Months Ending		12 Months Ending	
	Dec 26,	% of Net	Dec 31,	% of Net	Sept 30,	% of Net	Sept 30,	% of Net
	2015	Sales	2016	Sales	2017	Sales	2017	Sales
Income (Loss) From Operations - GAAP	\$7,959	3.0%	\$5,665	2.0%	\$30,082	11.2%	\$33,134	9.8%
Depreciation Expense	4,240	1.6%	3,510	1.2%	3,567	1.3%	4,351	1.3%
Amortization of Purchased Intangible Assets	7,032	2.6%	6,902	2.4%	3,164	1.2%	4,702	1.4%
Share Based Compensation	6,755	2.5%	7,157	2.5%	5,336	2.0%	7,188	2.1%
Manufacturing Transition and Severance Costs	970	0.4%	1,498	0.5%	452	0.2%	948	0.3%
Other Acquisition Costs	0	0.0%	1,778	0.6%	328	0.1%	1,224	0.4%
Inventory Step-Up	0	0.0%	0	0.0%	1,404	0.5%	1,404	0.4%
Impairment of Goodwill and Other Assets	273	0.1%	0	0.0%	0	0.0%	0	0.0%
Gain on Sale of Facility	(3,198)	-1.2%	0	0.0%	0	0.0%	0	0.0%
Reduction of Indemnification Receivable	0	0.0%	588	0.2%	0	0.0%	588	0.2%
Adjustment to Contingent Consideration	0	0.0%	0	0.0%	668	0.2%	668	0.2%
Adjusted EBITDA - Non-GAAP	\$24,031	8.9%	\$27,098	9.6%	\$45,001	16.8%	\$54,207	16.0%