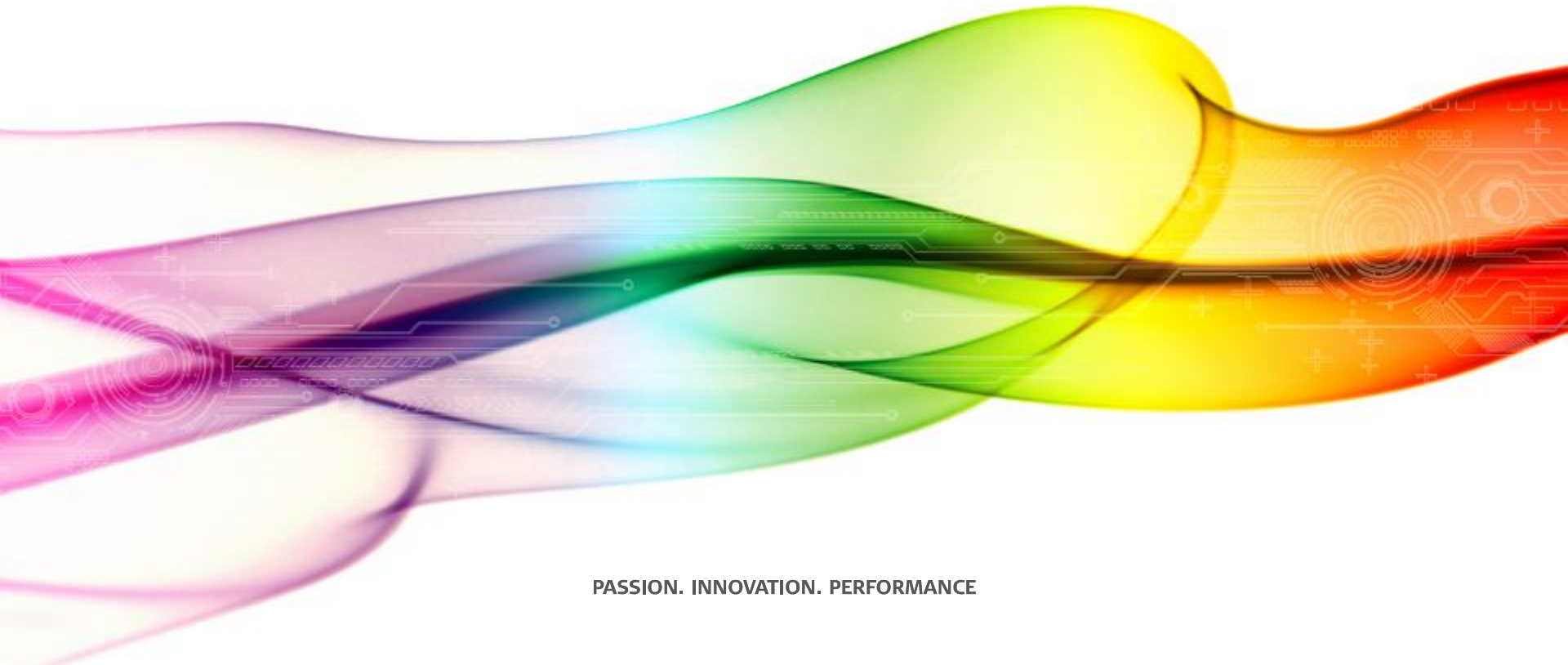


December Quarter 2016

February 14th, 2017



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Cautionary Statement Regarding Forward-Looking Statements

This presentation includes statements that constitute forward-looking statements within the meaning of safe harbor provisions of the Private Securities Litigation Reform Act of 1995 relating to future events or our future performance, such as statements regarding, but are not limited to, anticipated growth opportunities and projections about our business and its future revenues, expenses and profitability. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, level of activity, performance or achievements to be materially different than expressed or implied by these forward looking statements. You should not place undue reliance on forward-looking statements since they involve known and unknown risks, uncertainties and other factors which are in some cases beyond our control. These risks and other factors include but are not limited to: our dependency on three product lines; our dependency on a small number of large customers and small number of suppliers; the highly cyclical and competitive nature of the markets we target and we operate in; our inability to reduce spending during a slowdown in the semiconductor industry; our ability to respond effectively on a timely basis to rapid technological changes; our ability to recognize the benefits of ReVera acquisition and risks that the acquisition may disrupt current plans and operations and impact relationships with customers, distributors and suppliers; our dependency on PEMs; risks related to exclusivity obligations and non-limited liability that may be included in our commercial agreements and arrangements; our ability to retain our competitive position despite the ongoing consolidation in our industry; risks related to our dependence on our manufacturing facilities; risks related to changes in our order backlog; risks related to the worldwide financial instabilities; risks related to our intellectual property; new product offerings from our competitors; unanticipated manufacturing or supply problems; risks related to government programs we participate in; risks related to taxation; changes in customer demand for our products; risks related to currency fluctuations, risks related to acquisitions we may pursue and risks related to our operations in Israel. The matters discussed in this presentation also involve risks and uncertainties summarized under the heading “Risk Factors” in Nova’s most recent Annual Report on Form 20-F filed with the Securities and Exchange Commission. These factors are updated from time to time through the filing of reports and registration statements with the Securities and Exchange Commission.

Any forward-looking statements contained in this presentation are made as of the presentation date and Nova Measuring Instruments Ltd. is under no obligation to revise or update these forward-looking statements.

This following presentation includes financial measures that are not calculated in accordance with generally accepted accounting principals (GAAP). The presentation of this non-GAAP financial information is not intended to be considered in isolation or as a substitute for the financial information prepared and presented in accordance with GAAP. Nova's earning release, including a presentation of the most directly comparable financial measures calculated and presented in accordance with GAAP and a reconciliation of each GAAP to non-GAAP financial measure discussed in the presentation is available at the Investors section of the company’s website.

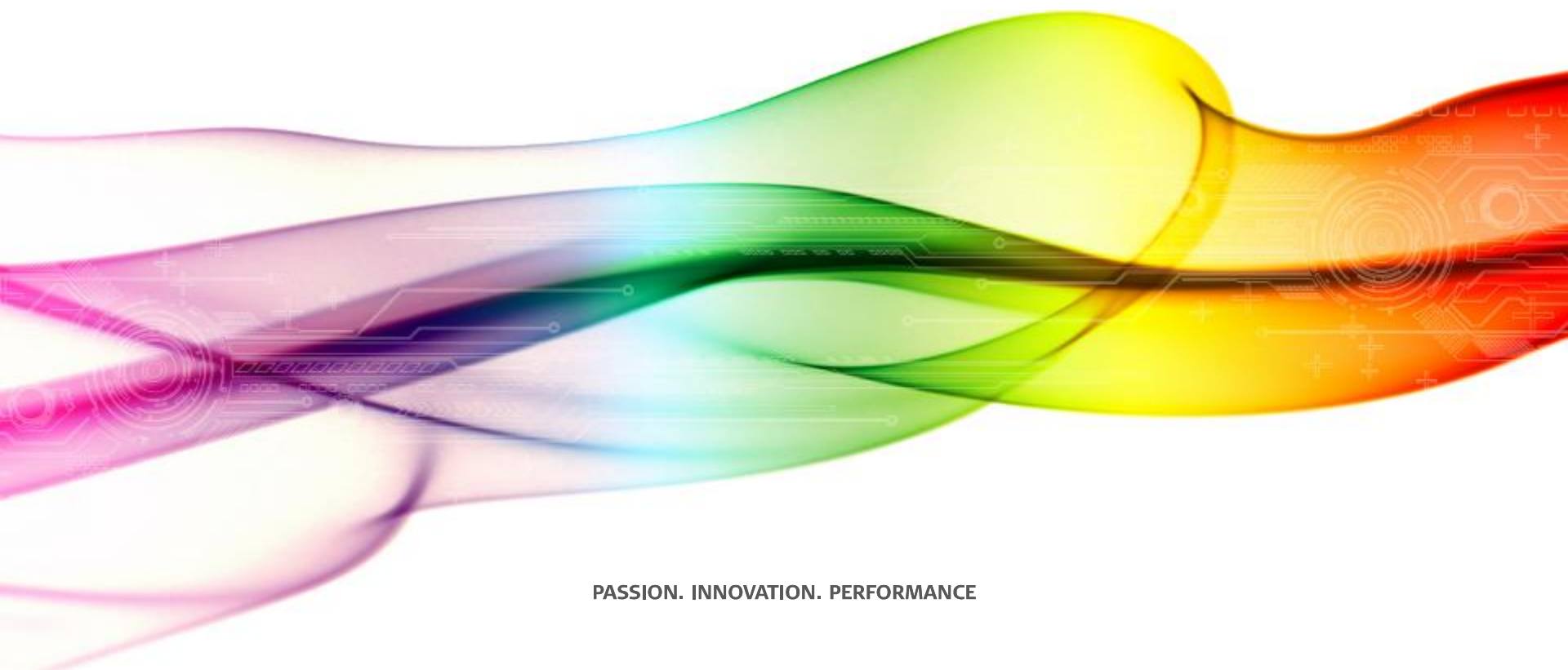
Certain of the information contained herein concerning economic trends and performance is based upon or derived from information provided by third party consultants and other industry sources. We have not independently verified and cannot assure the accuracy of any data obtained by or from these sources.

Business Highlights

2016 Fourth Quarter and Annual Results

Eitan Oppenheim

President and Chief Executive Officer



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December Quarter Results - Highlights

- Quarterly Financial Results

- Record revenues - \$50.2M – quarterly record high, exceeding guidance
- Record Non-GAAP net income of \$11.7 million - exceeding guidance
- Record quarterly bookings - elevated Book to Bill ratio
 - Generated by multiple Memory & Foundry customers
 - For both XPS and OCD solutions

- Customer mix

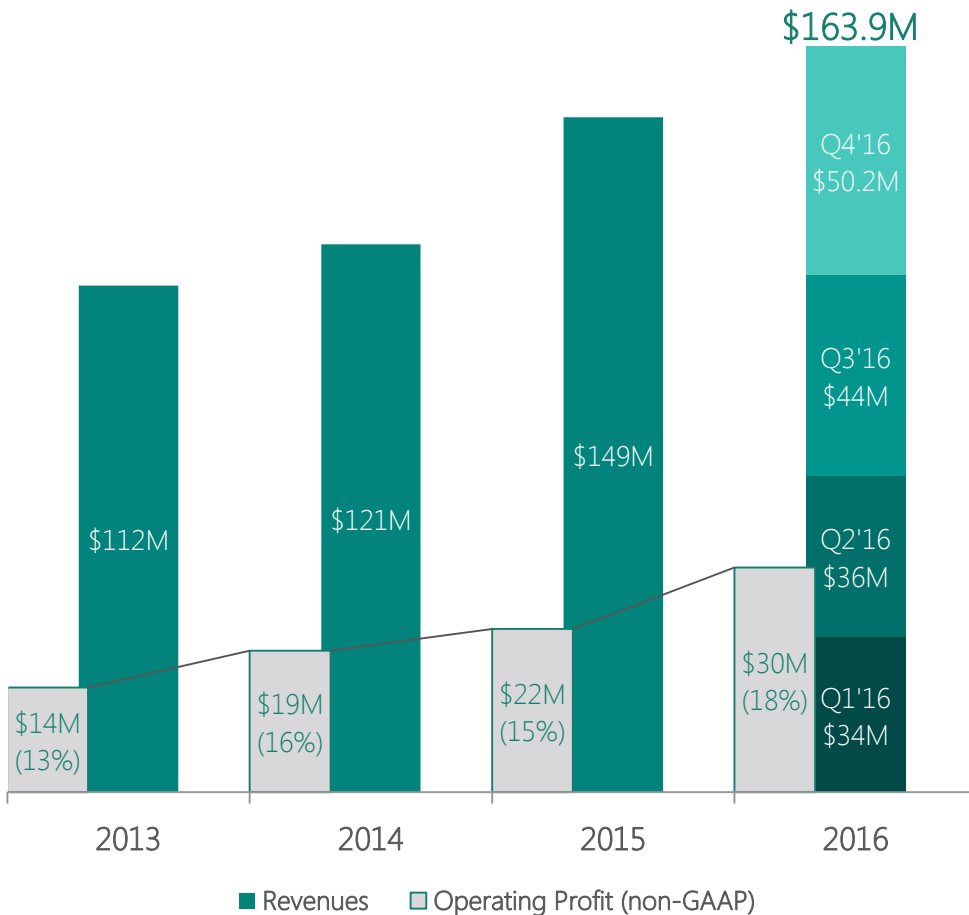
- ~40% of products' revenues – from Memory customers
- Wins in 3D NAND advanced nodes
- Added new Memory name to the customer mix
- Foundries – diversified delivery – 40nm to 5nm
- Increased proliferation of XPS in Memory and Foundry

- Record factory output

Outstanding conclusion to another record year

Growth Track Record

Solid Growth Drivers

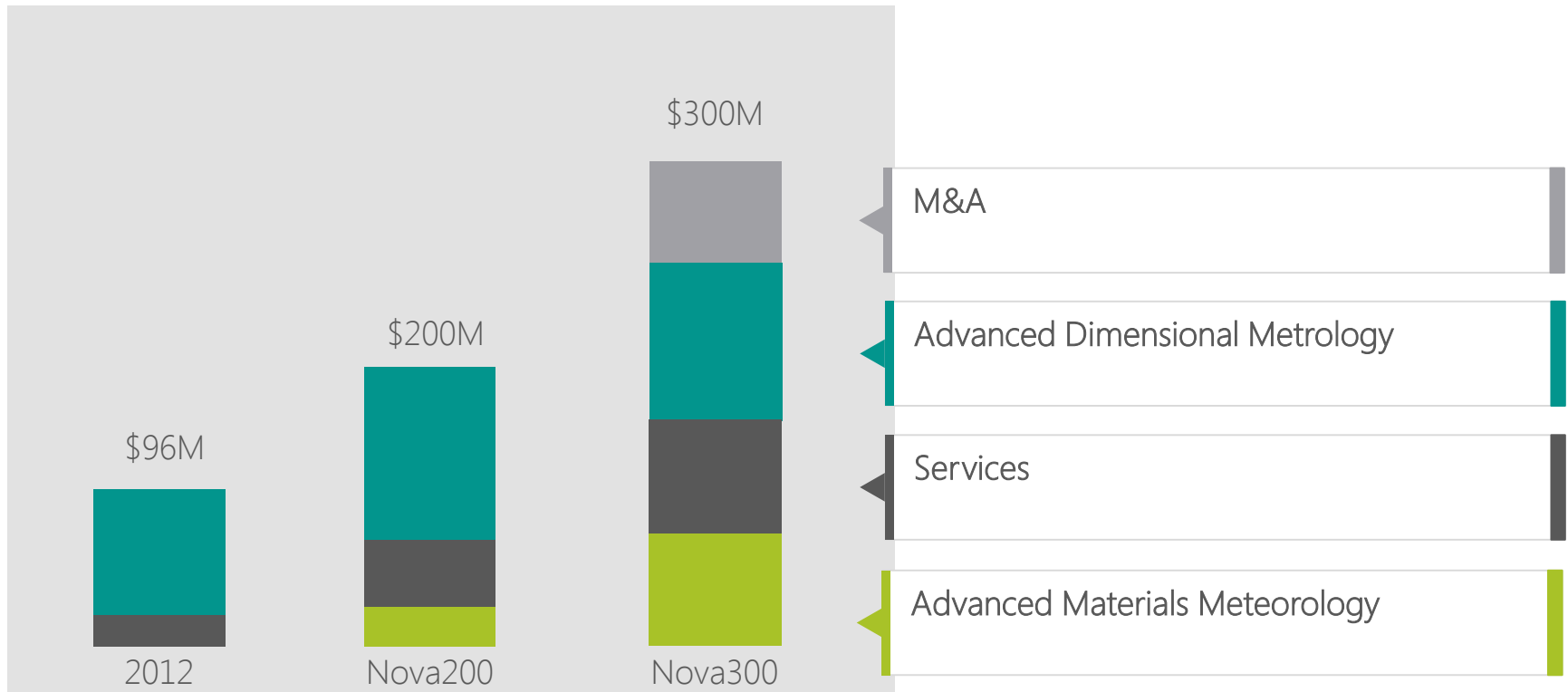


2016 Highlights

- Market outperformance
- 4th Consecutive record year
- Record profitability
- Broader customer base
- Record Foundry & Memory revenues – YOY growth
- Differentiated portfolio - strengthen technical position

2017 - Sustained momentum for continuous growth

From Nova200 to Nova300



Share Gains

Expanding Foundry position
Inroads & share gains in Memory

SAM/TAM Expansion

Replacing other metrology schemes
New emerging metrology segments

Market Growth

Inflection points
Metrology intensity

A plan is in place to reach \$300M

Guidance – Q1 2017

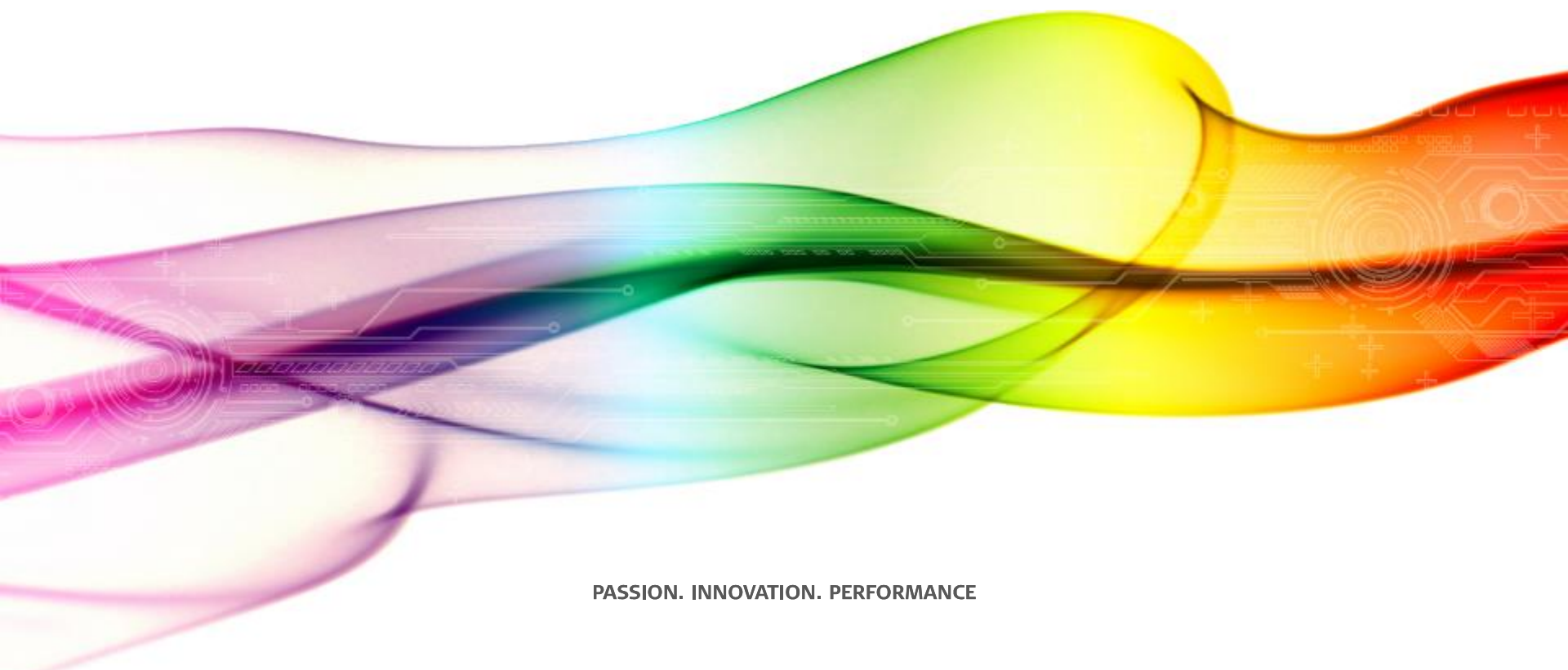
- Guidance for the 1st quarter of 2017
 - \$50 million to \$54 million in revenue
 - \$0.31 to \$0.39 in diluted GAAP EPS
 - \$0.37 to \$0.45 in diluted non-GAAP EPS

Financial Overview

2016 Fourth Quarter and Annual Results

Dror David

Chief Financial Officer



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December Quarter Financial Results

- Quarterly revenues of \$50.2 million, up 14% QoQ & 25% YoY
- Product revenue distribution:
 - Foundry – 60%
 - Memory – 40%
 - >10% Customers:
 - TSMC - 39%
 - Samsung - 20%
 - UMC - 17%

December Quarter Financial Results

- Blended gross margin – 56%
- Non-GAAP Operating Expenses +5% QoQ, mainly S&M
- Operating margins:
 - 21% on a GAAP basis
 - 24% on a non-GAAP basis
- Effective tax rate:
 - 24% on a GAAP basis
 - 5% on a non-GAAP basis, reflecting final utilization of tax credits and incentives in Israel
- Net income:
 - \$8.4M on a GAAP basis, or \$0.30 per diluted share
 - \$11.7M on a non-GAAP basis, or \$0.42 per diluted share, up 24% QoQ & 121% YoY, on a per share basis

2016 Annual Financial Results

- Revenues of \$163.9 million, up 10% YoY
- Product revenue distribution:
 - Foundry – 65% (2015 – 70%; 2014 – 85%)
 - Memory – 35% (2015 – 30%; 2014 – 15%)
 - >10% Customers:
 - TSMC - 37%
 - UMC - 13%
 - SMIC – 13%
 - Samsung - 12%

2016 Annual Financial Results

NON-GAAP

	Target Model (communicated in 2013)	2016 results
Total Revenues	100%	100%
Products Revenues	75%-80%	75%
Services Revenues	20%-25%	25%
Blended Gross Margin*	54%-56%	55%
Products Gross Margin	59%+	61%
Services Gross Margin	40%+	40%
Total Operating Expenses*	35%-37%	37%
R&D, Net	>20%	21%
SG&A	15%	16%
Operating Margin*	18%-20%	18%

2016/2015:
Revenues
+10%
EPS +45%

* Non-GAAP: Excluding amortization of intangibles, stock based compensation expenses and adjustments of deferred tax assets and other non-recurring items. Reconciliation between GAAP and non GAAP is available at the end of the quarterly financial press release.

2017 March Quarter - Guidance

- Revenues of \$50M-\$54M
- Blended gross margin – ~57%
- Operating expenses:
 - \$17.5M-\$18.0M on a GAAP basis
 - \$16.0M-\$16.5M on a non-GAAP basis
- Operating margins: (mid point of guidance)
 - ~22% on a GAAP basis
 - ~25% on a non-GAAP basis
- Effective tax rate – ~16%
- Free cash flow - \$15M-\$20M

THANK YOU



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