Fellow Shareholders,

From both a strategic and financial perspective, 2016 was a very good year for Teradyne. In our largest business, Semiconductor Test, operating profit grew 20% on sales growth of about 14%. This performance led to an overall 19% growth in corporate non-GAAP earnings per share to $1.51. Our System-on-a-Chip test revenue grew 15% on strong demand for our UltraFLEX system for testing chips used in smart phones and other complex electronics. In memory test, the overall market was down but we grew sales 5% on the strength of our Magnum platform used to test advanced NAND devices, driving our memory test share to a record 35%. Our disciplined, decade-plus long strategy of both targeting hot growth segments, and focusing our R&D investments to produce winning products in those segments, has resulted in a doubling of our ATE market share since 2005 to an industry-leading 48%.

We also strengthened our leadership team as Greg Smith took the reins as our Semiconductor Test Division President. Greg is a 30-year industry veteran with deep customer experience, moving from applications engineering early in his career to heading our marketing efforts immediately prior to his new role. He has been a key driver of our steady market share gains and has the experience and vision to drive our semiconductor business forward.

Our strategy to establish a new axis of growth in the fast-growing advanced automation industry also delivered strong results in 2016. We acquired Universal Robots (UR) in 2015 to broaden our business with unique, human-scale, collaborative robots (Cobots), which bring the power of automation to businesses of all sizes. UR revenue of $99M was up 62% compared to calendar year 2015 and delivered solid operating profits. In addition to the top and bottom line results, we strengthened our long-term growth prospects with the addition of seasoned executive Jürgen Von Hollen as President, nearly doubled our global sales and support staff, and expanded our distribution network to over 250 partners. We remain the clear Cobot market leader as a growing list of global customers embrace our easy-to-use, safe, and low-cost products to improve their manufacturing and production operations. After its first full year as part of Teradyne, UR’s prospects are as exciting as ever.

At LitePoint, we took difficult but necessary actions to reduce our cost structure to better align to the smaller wireless test market we face until the next round of new wireless technology begins deployment. The expansion of current generation Wi-Fi and 4G cellular standards has slowed while our customers continue R&D efforts on the next wave of cellular and Wi-Fi standards. We have fully funded R&D programs to capture this next wave. On a GAAP basis, the reduced market outlook triggered a one-time, non-cash charge for goodwill and intangible assets of $338 million.

At the company level, in addition to our non-GAAP EPS improvement, we grew sales 7% to $1.75 billion, delivered a 20% non-GAAP operating profit, and generated $361 million in free cash flow. This was our third consecutive year of sales over $1.6 billion and above-model operating profits. Additionally, we strengthened our balance sheet with a $460 million convertible bond offering late in the year with very favorable terms. With over three-quarters of our cash now being generated outside the U.S. and subject to additional tax if repatriated, this provides us with additional domestic cash to continue our share repurchase program and provides dry powder for any domestic M&A opportunities.

Looking Forward
Long-term success at Teradyne depends on aligning our R&D investments to future demands. Beyond the ongoing growth in device complexity, there are three industry trends that we
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<th>Net Sales ($mm)</th>
<th>Operating Income ($mm)</th>
<th>Operating Margin</th>
<th>Net Income ($mm)</th>
<th>Earnings Per Share</th>
<th>Free Cash Flow ($mm)</th>
<th>Number of Employees</th>
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<tr>
<td>2014</td>
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<td>321</td>
<td>19%</td>
<td>270</td>
<td>$1.25</td>
<td>323</td>
<td>3,900</td>
</tr>
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Non-GAAP Operating Results

expect will be significant positive drivers for our business over the next few years: automotive electronics, millimeter wave communications, and the broad adoption of collaborative robots across the global economy.

All of our groups support the automotive industry at some level today, but the rapid rate of new technology adoption will make autos a bigger part of our future. The growth of automated driver assist systems is creating an explosion of new sensor and data processing chips. These include the increased use of image sensors, accelerometers, enhanced radar systems, vehicle-to-vehicle wireless communication, and advanced processors that integrate these systems. We're a leader in the test of many of these chips and sub-systems today, and we have R&D programs in place to test those still on our customers' drawing boards.

The second major trend is millimeter wave Wi-Fi and 5G cellular. Today, both Wi-Fi and cellular services operate in crowded frequency bands that bottleneck data communications. The world's nearly insatiable demand for data bandwidth is driving standards to higher, less-crowded frequencies and more complex modulation schemes. Over the next few years we expect to see new standards adopted, including ones that operate at millimeter wave frequencies, which are over five times higher than today's standards. Our R&D teams are working hand in hand with leading customers to develop test solutions to meet these future requirements that will require a brand new generation of test equipment.

The third trend is advanced “human scale” automation. “Human scale,” with payload and reach performance similar to production workers, distinguishes Cobots from the heavy industrial automation that has been in use for decades. High-quality products require manufacturing that is precise, repeatable, and in some cases, free of microscopic contamination. Global manufacturers face these challenges while dealing with the need for flexible production lines and relentless economic pressure. Universal Robots’ collaborative robots offer a unique solution to these challenges. They're low cost, easy to “train,” safe enough to work side by side with humans, precise, repeatable, and free of contaminants. All this adds up to a low-cost automation solution for a wide range of companies, across many industries, around the world. As sensors, grippers, software performance, and supporting technologies continue to evolve, the breadth of tasks that can be performed by Cobots will broaden even further.

As a leader in test and collaborative robots, this puts us at the center of these major trends. With leading positions in the test and Cobot markets, $1.6 billion in cash, and just $460 million in long-term debt, Teradyne is strategically and financially stronger than ever. This strength, combined with our disciplined operating model, allows us to invest in the new product development needed to continue our leadership in these markets and continue our balanced capital allocation program.

In 2016, we paid $49 million in dividends and repurchased $146 million of our shares, reducing our share count a further 2%. Since we began the dividend in 2014 and share repurchase program in 2015, we’ve returned $583 million to shareholders and reduced our outstanding share count by 8%. In December, the Board authorized a new $500 million share repurchase plan and we expect to repurchase at least $200 million in shares in 2017. Reflecting confidence in our operating model and the markets we serve, the Board increased the quarterly dividend 17% to $0.07 per share. We also continue to patiently look at M&A opportunities to accelerate our profitable growth.

Teradyne today is 4,300 employees focused on solving complex production problems in test and manufacturing for customers around the globe. 2016 showcased the power of our team, our products, and our disciplined operating model. As we look ahead, we're eager to leverage those strengths to profitably grow Teradyne and deliver additional value to our investors.

Thank you for your investment in Teradyne.

Mark Jagiela
Chief Executive Officer and President, Teradyne, Inc.
March 2017