TERADYNE

Fellow Shareholders,

It all came together in 2010. With excellent revenue growth, record profitability, solid market share gains, exceptional cash flow and steady new-market expansion… 2010 was one of our best years ever.

While world economies slowly crawled out of the recession, technology consumers couldn't wait. They bought smart phones in record numbers, upgraded networks and storage capacity, and stood in line to be the first to own the latest tablet. Whether they were engaged in social networking in China or social revolution in the Middle East, connectivity and instant access to information drove them all. And the electronics industry, which had started its recovery in the second half of 2009, turned it on throughout 2010 to meet their demand.

That's where we came in. While we test a wide range of electronic assemblies, our main focus is in testing the integrated circuits that power consumer electronics; from flash memory in digital cameras to the millions of microcontrollers in automobiles and white goods, to touch screen controllers, and power management chips in the latest tablets and smart phones. We test them all, ensuring their quality and reliability.

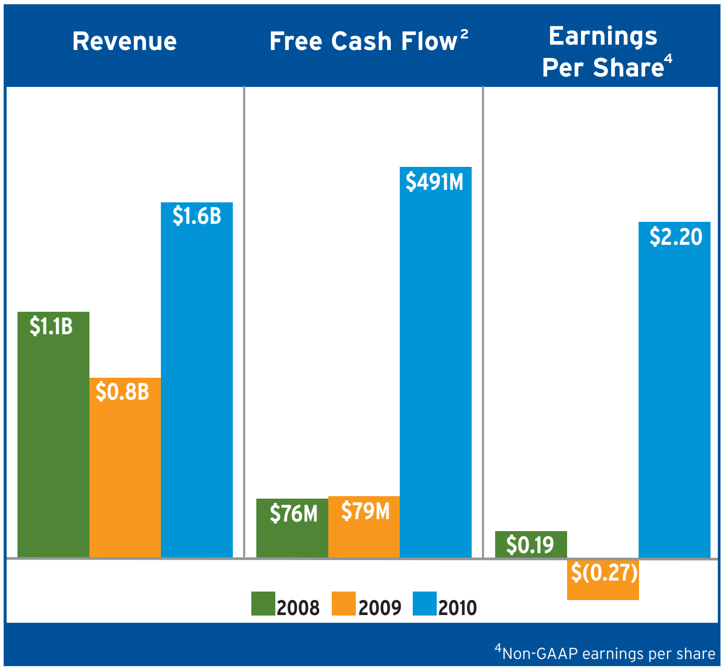
Mike Bradley, Teradyne CEO

Our challenge in 2010 was threefold: (1) Meet the steepest ramp in chip-maker test demand in over ten years; (2) gain market share; and (3) keep fixed costs in check so we could deliver solid results even in a sharp market correction.

I'm proud to say that we accomplished all three, and here are the numbers that make the case. In 2010, we:

- Increased revenues by 96 percent to just over $1.6 billion (our 4th highest ever).
- Achieved a 28 percent operating profit[1] (our highest ever).
- Generated $491 million in free cash flow[2] (again, our highest ever).
- Increased quarterly shipments by 108 percent in the first three periods, then reduced them by 42 percent in the final quarter.
- Maintained our quarterly break even at just above $200 million throughout the year[3].
- Delivered the highest growth in revenues, profits and market share of any company in our sector.

All of this helped lift our stock price by 31 percent for the year. This is a strong reflection that our business model now delivers industry-leading performance, with about ten points higher operating profit no matter where we are in the capital equipment cycle.



Obviously our results were helped by a rising market. The System-on-Chip (SOC) test industry that is our core market, doubled to $2.6 billion in the year. We captured about 60 percent of that growth, propelling our market share from 41 percent to nearly 50 percent for the year. Our focus on the fast-growing mobility, power management and automotive markets fueled that momentum. We're connected to market leaders in the fastest growth segments in SOC test and invest over $150 million in engineering each year to make sure that alignment stays tight.

While the SOC market was doubling, the memory test market gradually grew back to $700 million, far short of the over $1 billion size of prior years. Our memory test revenues topped $100 million and we now stand at No. 2 in market share, up from No. 4 just two

1 Non-GAAP profit before interest and tax
2 A Non-GAAP measure calculated by adjusting GAAP cash flow from operations to include property, plant and equipment additions
3 A Non-GAAP measure

Employees celebrate Teradyne's 50th anniversary with a bowling party in Singapore

years ago. The Magnum and UltraFLEX-M products are well positioned in both the flash memory and DRAM sectors, so there is good runway ahead as the memory market continues its comeback.

Hard Disk Drive (HDD) Test was a mixed-bag in 2010 after a very good launch in 2009. While our market coverage expanded with new capability for enterprise drive testing, business was choppy as netbook and PC demand fluctuated during the year. But our new test capability, combined with a broader customer base, sets us up for upwards of $100 million dollars in annual revenues going forward. Not bad for an internal start-up in 3 years.

Our Defense business, which performed so well in the 2009 downturn, shrank as some military contracts were delayed in the ever tightening national budget squeeze. Nevertheless, this Mil/Aero sector continues to contribute steadily to our bottom line.

So what do we do next? First, is to stay focused on our chip testing business. That's where we have our strongest market presence and it's where our future starts every day. Second, is to back our new market offensives in memory, performance analog and Hard Disk Drive test. And third, is to exploit the M&A frontier for investments that could build an even stronger product portfolio around our existing core.

On this last point, investors are justified in asking what kinds of acquisition candidates we're considering, especially as we sit with over a billion dollars of gross cash and marketable securities at year-end. Of course, we'd like to replicate the Nextest and Eagle Test acquisitions of 2008. That was money well-spent as those units have strengthened both our market coverage and our bottom line; each with record results this past year. And while our acquisition appetite isn't limited to electronic test, it is tempered by the requirements of profit contribution, technology leverage and customer access. We'll be motivated by the right opportunity, not compelled by our level of resources.

A few years ago the clouds around the semiconductor test industry were ominous. Too many competitors, relentless R&D requirements and little to offset slowing growth in the personal computer end market. Add to that constant innovation in parallel test and manufacturing productivity, and the outlook was challenging. So we squeezed, cut and optimized; we took some pretty tough medicine. And it was worth it because it helped us fund new products, focus on higher-growth segments and bring on some powerhouse acquisitions. We're proud of the momentum we now have as well as the discipline behind it. And while I said at the outset of this letter that it all came together this year, we believe we can sustain industry-leading performance with our new business model.

As I mentioned in my letter last year, 2010 was the 50th year of Teradyne's existence. Most of our employees weren't alive when Alex and Nick set up shop above Joe and Nemo's hotdog stand in Boston in 1960. But they know how we started, what our values are and where we're headed. They did an exceptional job for all of us this past year...

...and it was a great way to start the next 50.

Michael A. Bradley
President & Chief Executive Officer
Teradyne, Inc.

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