

Ralph Quinsey, CEO TriQuint Semiconductor, Inc.

Q: *There's a distinct shortage of RF engineers, particularly among engineering school graduates. Has that improved somewhat, or do you see a need for companies like yours to promote careers in microwave engineering via campus promotions, summer internships, contests/competitions, or some other method?*

A: We are proud of the work we do with universities globally, and you are right—in a sector which is growing as quickly as RF, we have to do everything we can to encourage future engineers. To that end TriQuint has more than doubled our internship program between 2010 and 2011; we are actively engaged with approximately two dozen engineering colleges worldwide. Through our Ambassador Program, TriQuint employees are connecting with future engineers from their alumni schools and discussing a future in RF. And our Corporate Giving program often directs dollars and time toward education in engineering. As the appetite for wireless and high-speed data continues to grow, we expect that the hunt for talent will challenge everyone in this sector.

Q: *For those of you primarily in the military market, what do you expect of next year's military budget (as yet undetermined)? For those in the commercial side of the business, are you encouraged by any particular emerging application or technologies?*

A: We are seeing conservative forecasts from our defense customers, and expect DOD cost reductions. We may not see as much budget devoted to new equipment, but certainly see money being allocated to retrofit existing systems, for example, airborne radar. And there are some new programs that will receive budget allocation, such as the joint strike fighter and EQ-36 ground-based radar systems, both of which are expected to drive TriQuint revenue growth for the next 2-3 years, and for JSF, many more years beyond. In part because of tightening federal budgets and the need to more efficiently and effec-

tively transmit data, now more than ever there is a demand for greater machine-to-machine and man-to-machine wireless connectivity.

TriQuint serves defense and aerospace as well as commercial markets, so we see demand for RF innovation from all sides. We are encouraged by the advances we have made in gallium nitride (GaN.) GaN exhibits the high-frequency performance of gallium arsenide combined with superior power handling capabilities. For more than a decade we have been leading GaN development teams in support of Defense Advanced Research Projects Agency (DARPA) programs as well as US Air Force, Army and Naval laboratory initiatives. The learning carries over to our commercial GaN portfolio; for example, our GaN switches handle more power at greater frequency than any other solid-state switch solution.

Q: *After the 2008 economic meltdown, our industry showed great resilience (in general) these past two years. Unfortunately, the global economy remains in turmoil. Have we learned from those tough times, or do you fear another big dip for our industry?*

A: We've certainly felt the ups and downs of market dynamics. The RF industry came to a crawl at the end of 2008 and early 2009, and then shot up dramatically mid-2009, so much that we ran out of capacity. We had to turn orders away in 2010, while we invested at all of our US manufacturing sites. New equipment is nearly qualified, and we have positioned ourselves to support significant volume. We are taking a conservative approach in our hiring and factory ramp in case there is a dip, and will be able to support demand as it materializes. What the market continues to show is that in the ups and downs of the global economy, people increasingly want to be connected and need to communicate remotely. This means that portable, cost-efficient devices that can connect to the internet have greater growth potential. Devices including smartphones that offer multiple capabilities and

a broad range of applications demonstrate their resilience, even in challenging times.

RF connectivity is the fabric of TriQuint business and while we take a conservative short-term growth approach, we see a prosperous future in meeting the long-term demand for innovative RF solutions.

Q: *What new product or technological developments have most excited you and your employees?*

A: TriQuint technology is included in many high-demand consumer products, and our GaN solutions represent some of the most exciting business prospects. Our ability to integrate solutions from our active and passive product portfolios continues to grab the attention of RF designers. By reducing RF part counts, by increasing efficiency, or by lowering our customers' overall costs, we are simplifying the RF aspect of product design. Our engineering teams have access to internal experts—the industry's most advanced and expansive GaAs, GaN, SAW and BAW process development teams and manufacturing facilities. We are inspired when customers invite us into their internal design teams to brainstorm solutions. TriQuint employees are defining future generations of wireless technology. We're setting the path to more highly integrated RF designs, so mobile devices can access the many 2G, 3G and 4G networks—this is an exciting place to be.

Q: *Which markets or technologies do you feel will propel the industry in the coming years?*

A: While we look forward to steady growth in our networks and defense / aerospace business, one of the areas in which we expect significant growth is entry-level smartphones. Our smartphone and mobile internet device business has been very good over the past two years. New, entry-level smartphones that deliver reliable connectivity and a range of internet-based application choices are emerging. These more cost-effective smartphones utilize platforms



that have become widely popular around the world and can appeal to a much broader audience. These new opportunities represent additional mobile device business growth. ♦