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TriQuint Announces TriPower™ A Revolutionary New High-Power family of 'Green' Base Station Amplifier RF Transistors

TriQuint's New TriPower™ GaAs HMBT RFICs Reduce Operational Costs, Deliver 55% Efficiency for 3G / 4G Base Station Amplifiers

BARCELONA, SPAIN & HILLSBORO, OREGON (USA) – February 1, 2010 – TriQuint Semiconductor, Inc. (NASDAQ: TQNT), a leading RF products manufacturer and foundry services provider, has released the first products in its new, high-efficiency 'green' TriPower™ family of 3G/4G wireless base station RFICs. TriPower devices allow network operators to address the top two challenges of rapidly-growing consumer demand for bandwidth-hungry smartphones and similar products. TriPower reduces electricity needed to power network base station amplifiers while it allows operators to more easily increase network capacity and speed.

A more efficient amplifier translates into real savings. Imagine a system with 2,000 such amplifiers as might be used to cover one medium-sized city and surrounding area. Comparing the efficiency of TriPower to what's typically deployed today, a TriPower-based network would cut CO₂ emissions by about 340 tons each year. According to the US Forestry Service, each acre of trees absorbs about 2.6 tons of CO₂ annually. Using TriPower in such a system would be the equivalent of adding more than 130 acres of trees to the ecosystem.

"TriPower is a revolutionary advance for base station amplifiers," said TriQuint Networks Vice President, Brian P. Balut. "The complex modulation requirements of 3G and 4G networks cannot be delivered efficiently by legacy semiconductor technologies. As a leader in both GaAs and GaN (Gallium Nitride) technology, TriQuint examined the potential for both types of devices in high-power base station applications. We believe that for reasons of reliability, cost and efficiency, TriPower's GaAs HV-HBT technology is the best choice. Our new TriPower devices provide the greatest reduction in power consumption available on the market today and can enable new, highly-efficient, tower-mounted remote radio head designs. TriPower is game-changing technology."

Balut explained that TriQuint employs proprietary process, design and manufacturing techniques to achieve TriPower's outstanding efficiency performance. TriPower RFICs can be easily linearized using conventional Digital Pre-Distortion (DPD) techniques, he added.

"We believe that any technology that can increase overall efficiency of the RF power amplifier, such as TriPower from TriQuint, will allow the industry to meet the more stringent energy requirements for high PAR (Peak to Average Ratio) amplifiers going forward," said Earl J. Lum, President of EJL Wireless Research LLC. "We forecast that through 2013, higher PAR multi-mode 3G WCDMA / HSPA and 4G LTE base stations will rapidly replace legacy 2G GSM for BTS (base transceiver station) shipments and will increase in market share from 25% to over 50% of the market. On a unit basis, shipments of high PAR amplifiers for base stations will dramatically increase 85% on an annual basis from 2008 through 2013."

Independent researchers at the University of California at San Diego have compared key base station amplifier semiconductor technologies including Silicon LDMOS, Gallium Nitride (GaN) and TriPower GaAs HV-HBT technology. UCSD lead researcher, Professor Donald Kimball, concluded in a paper published in November 2008¹ that TriPower devices offer a clear efficiency advantage.

"There has been a vigorous competition between different transistor technologies for the highest efficiency in base station amplifiers. TriQuint's HV-HBT has clearly come out on top," remarked Prof. Kimball. "HV-HBT is the greenest device for base station radios. It will make a significant difference for power reduction in future systems, including ones in remote areas with limited prime power availability."

Technical Details

TriPower is a family of high-power transistors, key components affecting amplifier design and overall base station electrical power consumption. The name 'TriPower' is derived from three primary benefits of the technology: high power, high efficiency and high linearity. TriPower devices deliver a record 55% efficiency for reduced electricity demand and smaller carbon footprints, compared with today's average efficiency approaching 42% in systems that don't use TriPower technology.

TriPower products are designed using a high voltage heterojunction bipolar transistor (HV-HBT) gallium arsenide (GaAs)

process, offering wireless base station manufacturers and network operators a much-desired efficiency improvement while meeting the linearity requirements of 3G/4G cellular systems. When used in a symmetric Doherty amplifier application for maximum efficiency boost, two TriQuint TG2H214120 120 Watt devices can deliver over 60 Watts of average WCDMA power with 55% efficiency. Due to TriPower's very high efficiency, operators can place larger amplifiers onto existing cell site towers without a corresponding increase in size or weight. Higher-power amplifiers, in turn, deliver higher data rates to all users in the cell.

TriQuint's TriPower device family will be exhibited at the GSMA Mobile World Congress in Barcelona, Spain (15-18 February 2010). The latest TriPower products are being designed into new generations of 3G/4G base stations.

TriQuint's two new high-efficiency TriPower devices, [TG2H214120 (120W) and TG2H214220 (220W)] are the first in a series of products that will include more frequency bands and power levels in 2010 and beyond. These new devices will expand the 'green' impact of TriPower technology globally to different cellular systems.

Learn more about TriPower at: www.triquint.com/tripower. Meet TriQuint's base station experts at the [GSMA Mobile World Congress](#) in Barcelona, Stand 1A62. Visit mwc2010.triquint.com for TriQuint product details or to arrange a meeting at the Congress. For more information about TriQuint products for mobile devices, wireless networks, defense, aerospace and other applications, visit www.triquint.com. Register for product updates and our newsletter at: www.triquint.com/rf.

¹ "High Efficiency WCDMA Envelope Tracking Base Station Amplifier Implemented with GaAs HVHBTs", © IEEE, November, 2008; Prof. Donald Kimball, Et Al.

FORWARD-LOOKING STATEMENTS:

This TriQuint Semiconductor, Inc. (Nasdaq: TQNT) press release contains forward-looking statements made pursuant to the Safe Harbor provisions of the Private Securities Litigation Reform Act of 1995. Readers are cautioned that forward-looking statements involve risks and uncertainties. The cautionary statements made in this press release should be read as being applicable to all related statements wherever they appear. Statements containing such words as 'leading', 'exceptional', 'high efficiency', 'key role', 'leading supplier', or similar terms are considered to contain uncertainty and are forward-looking statements. A number of factors affect TriQuint's operating results and could cause its actual future results to differ materially from any results indicated in this press release or in any other forward-looking statements made by, or on behalf of, TriQuint including, but not limited to: those associated with the unpredictability and volatility of customer acceptance of and demand for our products and technologies, the ability of our production facilities and those of our vendors to meet demand, the ability of our production facilities and those of our vendors to produce products with yields sufficient to maintain profitability, as well as the other "Risk Factors" set forth in TriQuint's most recent 10-Q report filed with the Securities and Exchange Commission. This and other reports can be found on the SEC web site, www.sec.gov. A reader of this release should understand that these and other risks could cause actual results to differ materially from expectations expressed / implied in forward-looking statements.

FACTS ABOUT TRIQUINT

Founded in 1985, we "Connect the Digital World to the Global Network"[®] by supplying high-performance RF modules, components and foundry services to the world's leading communications companies. Specifically, TriQuint supplies products in the top five mobile phone manufacturers, and is a leading gallium arsenide (GaAs) supplier to major defense and space contractors. TriQuint creates standard and custom products using advanced processes that include gallium arsenide, gallium nitride (GaN), surface acoustic wave (SAW) and bulk acoustic wave (BAW) technologies to serve diverse markets including wireless handsets, laptops, GPS/PND, base stations, broadband communications and military. TriQuint is also the lead researcher in a multi-year DARPA program to develop advanced GaN amplifiers. TriQuint, as named by Strategy Analytics², is the number-three worldwide leader in GaAs devices and the world's largest commercial GaAs foundry. TriQuint has ISO9001 certified manufacturing facilities in Oregon, Texas, and Florida and a production plant in Costa Rica; design centers are located in North America and Germany. Visit TriQuint at www.triquint.com/rf to receive new product information and to register for our newsletters.

² Announced February 2009 and May 2009, respectively.

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