SiGe Semiconductor's GPS Radio Enables the Industry's Best Combination of Performance, Integration and Power Efficiency

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SiGe Semiconductor today announced that the award winning SE4100 GPS radio IC has been integrated into a series of cost-effective, high-performance modules by Tyco Electronics. The modules leverage the industry-leading combination of low power consumption and high integration of the SE4100 to enable location-based services in a range of automotive telematic and portable consumer electronic devices.

SiGe's SE4100 is based on a highly integrated architecture and power-efficient silicon germanium process that supports the small form factor and battery life requirements of portable electronic devices. The complete GPS radio integrates an on-chip IF filter, VCO including resonator circuit, a 1.9 dB noise figure LNA, and an antenna detect function. The device is supplied in a compact, 4mm x 4mm package with a current draw of 10mA from a 2.7V supply.

"SiGe Semiconductor's radio IC was an easy choice," said Eckart Seitter, global marketing manager, microsystems, Tyco Electronics. "Its performance, integration, and ultra low power consumption make it the best overall GPS radio IC on the market. The smooth combination of the SE4100 with our chosen baseband processor results in the perfect balance of low price and functionality, able to meet the miniature form factor, high performance and long battery life required of today's information system equipment."

Tyco's first GPS module to use the SE4100 is the fully self-contained A1029-A receiver (www.tycoelectronics.com/gps), which combines SiGe's radio with the STA2051 GPS baseband processor from ST Microelectronics. The module is supplied as a surface mount component on tape-and-reel that is easy to assemble and requires less than 28 mm x 22 mm board area. The module features proven accuracy and high availability, enhanced sensitivity, and power efficiency with a consumption of only 125mW in continuous operation. This combination of small form factor and low current draw make the modules ideal for enabling location-based services in a wide range of consumer and automotive products.

"We are very pleased with how Tyco has combined the SE4100 with ST's baseband controller," said Alistair Manley, senior director of marketing, SiGe Semiconductor. "The seamless interface of these devices provides the industry's most integrated chipset, thereby easing design and reducing cost of manufacture. We look forward to our continued collaboration with Tyco and other module manufacturers to enable the next-generation of autonomous and assisted GPS services."

The SE4100 GPS receiver is part of a series of integrated radio ICs for autonomous and assisted GPS applications including cellular handsets, PDAs, aftermarket automotive peripheral devices and laptop computers. SiGe's products are on the forefront of this market, enabling the high integration, low power consumption and performance required of new personal navigation services such as "find a friend," E-911, and restaurant or store navigation.