CSR Extends Relationship with SiGe Semiconductor, Selects PA2423L Bluetooth Class 1 Power Amplifier for BlueCore2 Reference Design

SiGe Semiconductor announced that CSR (Cambridge Silicon Radio) has chosen SiGe's PA2423L Class 1 Bluetooth(TM) power amplifier for its BlueCore(TM)2 reference design.

The BlueCore2 reference design is the third of CSR's BlueCore-based development systems to integrate a power amplifier from SiGe Semiconductor's PA2423 family of devices. The combination of CSR's BlueCore2 radio and SiGe Semiconductor's PA2423L power amplifier enables system designers to meet all consumer requirements for performance, battery life and cost in systems including cellular phones, PCs, PDAs, PCMCIA cards and access points.

CSR's BlueCore2 reference design is based on the company's second-generation single-chip Bluetooth radio, which offers twice the output power, half the power consumption, and a dramatic reduction in cost compared to its predecessor. Also integrated on the reference design are the baseband, microcontroller, Bluetooth software stack, CMOS RF transceiver, and SiGe Semiconductor's PA2423L power amplifier.

Packaged in a 6-lead LPCC that measures only 1.6x3.0mm, the PA2423L is the world's smallest fully encapsulated Bluetooth Class 1 power amplifier. The PA2423L also provides leading performance to ensure high signal integrity in real-world Bluetooth environments. The device produces +22.5 dBm output power with 45 percent power-added efficiency including matching circuit losses, which extends the transmission range, and overcomes antenna and filter losses while meeting Bluetooth 1.1 requirements.