

Infineon unveils low-noise SiGeC transistor

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Germany's Infineon Technologies unveiled a silicon-germanium-carbon (SiGeC) process technology for high-performance radio-frequency semiconductor devices.

The transistors are intended for a range of radio and wireless applications above 10 gigahertz, such as amplifiers for wireless devices that include satellite radios, WiMax and global positioning systems.

Known as Heterojunction Bipolar Transistors, the devices provide low-noise parameters of 0.75 decibels at 6 GHz with high gain up to 19 dB at 6 GHz.

"These new HBTs give RF designers a dramatic boost in performance, while retaining the desirable features of low cost and manufacturability inherent in devices using traditional SMT packages," said Infineon spokesman Michael Mauer.

The company added that the SiGeC process enabled development of a novel approach to address parasitic grounding and also significantly cut base resistance levels.

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