New GaN HEMTs for L to C Band Amplifiers by Mitsubishi Electric

Ratingen, 28th September 2010 - Mitsubishi Electric is introducing three models of gallium nitride (GaN) high electron mobility transistors (HEMTs) with 10W, 20W and 40W output powers, for L to C band (0.5~6.0 GHz) amplifiers. The three devices are designed for use in base stations for mobile phones, very small aperture terminals and other transmission equipment.

The new models feature high output power, high efficiency and high voltage operation with output amplifiers of 10W, 20W and 40W. They have a power added efficiency of about 50% (at 2.6 GHz) and a high voltage operation of 47W. All three devices are integrated into a 4.4mm by 14.0mm small package which helps to reduce the required mounting surface in amplifiers.

In the past, gallium arsenide (GaAs) transistor technology was commonly used for microwave transmitters. Now gallium nitride is gathering attention due to its high breakdown voltage and high saturated electron speed. In March 2010, Mitsubishi Electric became the first company in the world to manufacture fully space qualified GaN HEMTs for C band space applications. HEMT devices that use GaN have higher power density, which helps to save energy and contributes to making transmitters more compact and light weight. Furthermore, they offer an increased operating lifetime.

About Mitsubishi Electric

With over 85 years of experience in providing reliable, high-quality products to both corporate clients and general consumers all over the world, Mitsubishi Electric Corporation is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. With around 106.000 employees the company recorded consolidated group sales of 26,6 billion Euro in the fiscal year ended March 31, 2010.

Since 1978 Mitsubishi Electric is based in Germany near Düsseldorf. As a wholly owned subsidiary of Mitsubishi Electric Corporation in Tokyo it is managing sales and marketing activities for nine Divisions in many European countries.

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