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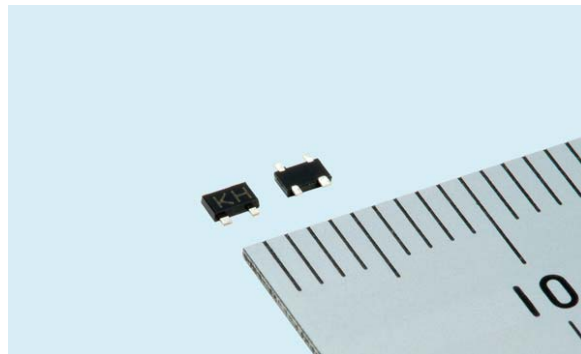
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**Mitsubishi Electric to Launch Ku-band Low-noise GaAs HEMT**

*Simplifies production and improves performance of direct broadband satellite receiver modules*

**TOKYO, November 19, 2013** – [Mitsubishi Electric Corporation](http://www.mitsubishielectric.com) (TOKYO: 6503) announced today it will launch a gallium arsenide (GaAs) high-electron mobility transistor (HEMT), the MGF4937AM, as a low-noise amplifier for receiver modules in direct broadband satellites (DBS) and very small aperture terminals (VSAT). Offering the world's lowest noise-figure performance among fully molded package products, Mitsubishi Electric's new GaAs HEMT will simplify the manufacture and improve the performance of receiver module systems. Shipments will begin on December 20 at an initial production volume of four million units per month. Mitsubishi Electric will exhibit MGF4937AM GaAs HEMT at 2013 Microwave Workshops & Exhibition (MWE 2013) in PACIFICO YOKOHAMA, Japan from November 27 to 29.



MGF4937AM

The market for wireless communication systems created with satellites is growing rapidly, mainly in developing countries because they can be deployed at lower costs than wired systems created with optical fiber networks. As such, demands are increasing for DBS and VSAT receiver modules that offer both improved noise performance and simplified manufacturing. Conventionally, hollow-type package transistors are generally used in first-stage low-noise amplifiers (LNA) due to their strong noise performance, but this complicates assembly.

Mitsubishi Electric's MGF4937AM GaAs HEMT, however, improves the transistor structure and optimizes packaging while achieving noise performance that is unsurpassed for a fully molded package and almost the equal of hollow-type packages.

### **Product Features**

#### ***1) Lowest noise performance among fully molded package products***

Minimum noise figure (NF) of 0.37dB, which is 0.08dB less than conventional fully molded package products, contributing to higher performance in receiver modules.

#### ***2) Standard 4pin fully molded package***

- Simple structure as a standard 4-pin fully molded package
- By replacing hollow-type package transistors, simplifies the customer's production line for greater efficiency.

### **Other Features**

Recommended bias conditions:  $V_{DS}=2V$ ,  $I_D=10mA$

Minimum noise figure (NF): 0.37dB (f=12GHz, typical)

Associated gain (Gs): 13.0dB (f=12GHz, typical)

### **Environmental awareness**

MGF4937AM GaAs HEMT is compliant with the European Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (RoHS).

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### **About Mitsubishi Electric Corporation**

With over 90 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) 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. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 3,567.1 billion yen (US\$ 37.9 billion\*) in the fiscal year ended March 31, 2013. For more information visit <http://www.MitsubishiElectric.com>

\*At an exchange rate of 94 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2013