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MITSUBISHI ELECTRIC ANNOUNCES SALE OF Ka BAND PLASTIC PACKAGE LOW NOISE GaAs HEMT

Tokyo, January 13, 2009 – Mitsubishi Electric Corporation (President and CEO: Setsuhiro Shimomura) (TOKYO: 6503) announced today that it has developed a Ka band plastic package low noise GaAs high electron mobility transistor (HEMT), the MGF4963BL, which is highly suitable for low noise amplifiers in 18-20GHz band direct broadcast satellite (DBS) reception systems and very small aperture terminal (VSAT) systems. Shipment will begin on February 25, 2009.

Summary of Sale

Product	Model	Features	Sample price (Excl. tax)	Shipment date	Production
Low Noise GaAs HEMT	MGF4963BL	NF: 0.70dB Gs: 13.5dB (f=20GHz)	50 yen	Feb 25, 2009	1,000,000/month

Aim of Sale

Satellite communication systems have traditionally used mainly Ku band DBS systems with a downlink of 12GHz and an uplink of 14GHz. With the recent development and spread of high-speed data links and high-definition broadcasting, increased attention is being paid to Ka band DBS systems, which are more suitable for high-speed and high-volume data communication with a downlink of 20GHz and an uplink of 30GHz. Especially in North America, the service area for DBS systems that deliver high definition TV (HDTV) content is expanding.

In broadcast satellite reception systems, a reception converter inside the antenna receives 20GHz waves from satellites and converts them into 1GHz band intermediate-frequency waves to be sent to the tuner. HEMTs are used in low noise amplifiers for these reception converters. In the first stage of low noise amplifiers, where low noise performance is required, ceramic package HEMTs are typically used due to their high performance, despite their high price. However, with the spread of HDTV content delivered via Ka band DBS, there is an increasing demand for first-stage HEMTs with high performance at a lower price.

Mitsubishi Electric's MGF4963BL is a plastic package HEMT that is more cost effective than ceramic packaged models, and which achieves industry top-level low noise and high gain characteristics that enables it to be used in both the first stage and the second/third stages of amplifiers.

Product Features

1) Industry top-level low noise and high gain characteristics with a plastic package, for reduced cost compared to ceramic packaged models

With a package and chip structure optimized to suit 20GHz band transmission, compared to the company's model for 12GHz (MGF4941AL) when measured at 20 GHz, the new model has a noise figure (NF) of 0.70dB, a 0.05dB improvement, and an associated gain (Gs) of 13.5dB, a 3.0dB improvement. Mitsubishi Electric has achieved these industry top-level characteristics while reducing cost by adopting a plastic package. These improvements enable DBS and VSAT reception system manufacturers to use this product not only in the first stage of low noise amplifiers, where low NF is essential, but also in the second/third stages, where high Gs is important. As a result, this new model will contribute to reducing cost in DBS and VSAT reception systems.

2) An industry standard micro-X package, for shorter development periods

The MGF4963BL has an industry standard micro-X package. Its foot pattern, unchanged from previous models, will shorten development periods for satellite communication equipment manufacturers.

Future Developments

Mitsubishi Electric will increase its lineup of plastic package HEMTs for higher frequencies.

Other Features

- Recommended bias condition: VDS=2V, ID=10mA
- Noise figure (NFmin.): 0.70dB (f=20GHz, typical)
- Associated gain (Gs): 13.5dB (f=20GHz, typical)

About Mitsubishi Electric

With over 80 years of experience in providing reliable, high-quality products to both corporate clients and general consumers all over the world, Mitsubishi Electric Corporation (Tokyo Stock Exchange: 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. The company recorded consolidated group sales of 4,049.8 billion yen (US\$ 40.5 billion*) in the fiscal year ended March 31, 2008. For more information visit <http://global.mitsubishielectric.com>

*At an exchange rate of 100 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2008

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