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MITSUBISHI ELECTRIC ANNOUNCES SALE OF INTERNALLY IMPEDANCE MATCHED HIGH OUTPUT GaAs FET AMPLIFIER FOR WiMAX BASE TRANSCEIVER STATIONS IN CENTRAL AND EASTERN EUROPE

Tokyo, November 8, 2007 – Mitsubishi Electric Corporation (President and CEO: Setsuhiro Shimomura) announced today the development of an internally impedance matched high output power Gallium Arsenide Field Effect Transistor (GaAs FET) for 3.6GHz band WiMAX[1] base transceiver stations in the Czech Republic, Poland and other regions in Central and Eastern Europe. Sample shipment begins on December 1, 2007. The device operates at low electric current with reduced distortion, which leads to lower power consumption as well as a smaller size and higher performance of base transceiver stations.

[1] Worldwide Interoperability for Microwave Access: a high-speed wireless communications system with a communication range of 75kilometers (max.).

Summary of Sale

Product	Model	Description	Price of Sample (excl. Tax)	Sample Shipment Date	Production
Internally impedance matched high output power GaAs FET	MGFC47B3538B	f=3.5 -3.8GHz Psat: 50W, GLP: 10dB EVM:2.0%@Po=37dBm	14,200 yen	Dec. 1	5,000 each/month

Point of Sale

On October 18, 2007, the International Telecommunications Union (ITU) adopted the WiMAX system as the international standard for next-generation high-speed wireless transmission technology. The system is expected to spread as a high-speed wireless broadband system, enabling a wider band in local wireless networks as well as larger volumes of data transmission between cellular base stations and access points, as data transmission speed continues to increase for mobile phones.

To reduce installation and operating costs of WiMAX base transceiver stations, it has become a primary concern to reduce size and power consumption of components, and to develop lower current and lower distortion power amplifiers.

Mitsubishi Electric has until now produced power amplifiers used in WiMAX base transceiver stations for markets in Japan, North America, Korea, Australia and Western Europe. To enhance the product line for the global market, the company has developed MGFC47B3538B, an internally impedance matched high output power GaAs FET for the Central and Eastern European markets with lower distortion at low electric current, and Mitsubishi Electric will continue expansion of its power amplifier business for WiMAX base transceiver stations.

Product Features

1) 8dB lower distortion at low electric current, lower power consumption in base transceiver stations

Signal waveform distortion produces feedback in adjacent channels when power amplifiers are operated at low current, so there is a trade-off between current and distortion. Mitsubishi Electric has been able to reduce distortion by 8dB to 1/6 of previous equivalent output power models[2] at a low electric current (1.5 amperes), due to development of a newly designed internally impedance matched circuit and a FET chip optimized for the 3.6 GHz frequency band.

The new model's error vector magnitude (EVM), an index that shows the accuracy of orthogonal frequency division multiplexing (OFDM),[3] is as low as 2%, the top level in the industry. The device will also reduce its power consumption to 1/3 compared to previous models[4] due to low quiescent current (1.5 amperes).

[2] Mitsubishi Electric's WiMAX base transceiver power amplifier MGFC45V3436A, a relative comparison in equivalent conditions

[3] modulation technique used in the WiMAX system

[4] typical value of 3.5-3.8GHz frequency band, Po=37dB

2) Reduced power consumption, reduced installation and operating costs of base transceiver station

Due to its low power consumption, the mechanical size of the new transceiver power amplifiers can be reduced in WiMAX base transceiver stations by reducing the size of the power supply circuit and number of components as well as simplifying the heat-sink design, which leads to low installation and operating costs of base transceiver stations.

3) Easy replacement

Mitsubishi Electric uses the same metal-ceramic package as previous models with the same dimensions, allowing easy replacement of existing amplifiers.

Main Specifications

[MGFC47B3436B]

Frequency Range	f=3.5-3.8GHz
Operating Voltage	Vd[5]=12V、Idq[6]=1.5A、Rg[7]=5Ohm
Output Power	50W
Linear Power Gain	10dB
Error Vector Magnitude	2.0% @Po=37dBm, WiMAX Downlink, 64QAM-3/4, Channel Bandwidth: 6MHz

[5] Drain to Source Voltage

[6] Quiescent Drain Current

[7] Gate Series Resistance

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 (TSE: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 3,855.7 billion yen (US$ 32.7billion*) in the fiscal year ended March 31, 2007. For more information visit

http://global.mitsubishielectric.com

*At an exchange rate of 118 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2007

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