

**FOR IMMEDIATE RELEASE**

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**MITSUBISHI ELECTRIC ANNOUNCES SALE OF ‘MGFS39E2527’  
HIGH POWER InGaP HBT AMPLIFIER FOR WiMAX TERMINALS**

**Tokyo, June 12, 2008** – Mitsubishi Electric Corporation (President and CEO: Setsuhiro Shimomura) announced today the development of a high power amplifier with InGaP HBT,<sup>1</sup> the MGFS39E2527, for fixed-line WiMAX<sup>2</sup> communication terminals in subscriber lines. The amplifier achieves top-level performance with high output power and low distortion. Sample shipment begins August 20, 2008.

1: Indium Gallium Phosphide Heterojunction Bipolar Transistor, which features high efficiency operation for mobile phone applications.

2: Worldwide Interoperability for Microwave Access, a high-speed wireless communication system with a range of 50 kilometers.

**Summary of Sale**

Model	Specifications	Price of Sample (excl. tax)	Sample Shipment Date	Monthly Production
MGFS39E2527	f=2.5-2.7GHz, Po=30dBm, GIp=40dB, EVM=2.5%	1,000 yen	August 20, 2008	100,000 pieces

**Aim of Sale**

While adoption of broadband communication services is increasing in urban areas, WiMAX is garnering increasing attention for its ability to transmit signals up to 50 kilometers and be applied in areas where installations of broadband communication services are difficult. With WiMAX communication terminals in subscriber lines, there is a demand for a high power transceiver amplifier with low distortion in order to cover a wider WiMAX service area.

Mitsubishi Electric has until now developed and supplied high power amplifiers for mobile and fixed-line WiMAX terminals, including the Pre-WiMAX high power amplifiers for the United States. The new MGFS39E2527 is a high power amplifier for WiMAX communication terminals in subscriber lines, achieving low distortion and high output power of 1 watt, which is top-level in the industry.

**Product Features**

**1) High power and low distortion, enabling coverage over a wider WiMAX service area**

The 6 mm x 6 mm QFN<sup>3</sup> package with low thermal resistance enables operation at high output power. In addition, the optimized circuit with its impedance matched to OFDM (Orthogonal Frequency Division Multiplexing), a modulation technique in the WiMAX system, keeps EVM<sup>4</sup> as low as 2.5%. These developments helped achieve an industry top-level high output power of 30dBm<sup>5</sup>, a 3dB improvement compared to our previous model.<sup>6</sup>

3: Quad Flat Non-leaded integrated circuit package used with surface mounted printed circuit boards. The leads do not extend out from the sides of the package; instead, the contacts are on the bottom.

4: Error Vector Magnitude, an index that shows the accuracy of the modulation signal.

5: A unit of power; 30dBm=100mW.

6: MGFS36E2527

## 2) ***Built-in power detector and attenuator helps decrease components and surface-mounting space***

The new MGFS39E2527 has a built-in power detector, which detects output from the amplifier, and a step attenuator, which controls the output. The built-in power detector and attenuator help decrease components, surface-mounting space and cost in WiMAX communication terminals.

### **Future Developments**

Mitsubishi Electric plans to develop a 3.5GHz-band amplifier with an output power of 30dBm by the end of 2008.

### **Specifications**

Frequency Range	f=2.5-2.7GHz
Operating Voltage	Vc=6V, Vref=2.85V
Output Power	30dBm
Linear Power Gain	40dB
Error Vector Magnitude	2.5% @ 30dBm
Power Detector	1.1V
Step Attenuator	18dB

### **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 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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