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**MITSUBISHI ELECTRIC LAUNCHES
NEW S-BAND HIGH POWER AMPLIFIER MODULE**

TOKYO, August 3, 2004 – Mitsubishi Electric Corporation (President and CEO: Tamotsu Nomakuchi) has developed a new S-band (2.5-2.7GHz) amplifier module which has high output power, high gain and low distortion. The module is for transmission usage as part of the Multi-channel Multi-point Distribution Service (MMDS), which provides wireless broadband internet access to household users via fixed radio base stations. Samples will be available for sale from August 5, 2004, at a cost of 10,000 yen (excl. tax), while annual production capacity is expected to reach 200,000 units.

Recently MMDS, which is capable of covering a range of 30km from each individual fixed base station, has been one of the Fixed Wireless Access (FWA) systems drawing considerable attention, in the United States in particular. MMDS was traditionally used for uni-directional cable television services. However, with the addition of a bi-directional communication capability it now allows for wireless broadband connection services, the market for which looks set to expand significantly in years to come.

In order to increase usage of these services, a means of making cheaper the equipment required by household users to enable a wireless broadband connection is currently being sought. However, lowering the cost of modules has been made problematic due to the fact that in order to reduce the negative effect of interference with other users of MMDS, a transmission device possessing high linearity and low distortion is absolutely necessary. In response to this problem, Mitsubishi Electric developed this new, low-cost S-band amplifier module, which possesses a saturation power of 30W. Looking to the future, Mitsubishi Electric intends to

continue to be extremely active in developing products capable of enabling wireless broadband access on alternative bandwidths in countries all over the world.

The new S-band amplifier module allows for high quality transmission from radio base stations, and thanks to Mitsubishi Electric's exclusive HFET¹ device technology a saturation power of 30W was achieved. At a high output power, such as 34.5dBm (approx. 2.8W), the linear gain is high (21dB) and distortion is very low (minus 60dBc), and yet there is no interference with other channels. Plus, due to the use of a new module structure the price is nearly half that of its discrete device predecessor, providing a significant saving to household users. Finally, as the module possesses an internal matching circuit, the load on the matching circuit in the equipment required by household users is eliminated.

1: Hetero Structure Field Effect Transistor

Fig. 1: Main Specifications

<i>Item</i>	<i>Specification</i>
Model Name	MGFS45H2201G
Saturation Power	30W typ.
Gain	21dB (at output power of 34.5dBm)
Distortion	-60dBc typ. (at output power of 34.5dBm, OFDM ² modulation)
Operating Conditions:	
Frequency Range	2.5 – 2.7 GHz
Drain Supply Voltage	10V
Idle Current	1 st stage 2.5A (tuned to 1 st stage gate voltage)
	2 nd stage 7.0A (tuned to 2 nd stage gate voltage)
Pulse Operation Period	5msec. max (duty ratio 20% max)
Input/Output Impedance	50 Ohms
Case Temperature	25 Celsius
Size (w x l x h)	57.1mm x 23.8mm x 6.4 mm

2: Orthogonal Frequency Division Multiplexing

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 3,309 billion yen (US\$31.2 billion*) in the fiscal year ended March 31, 2004. For more information visit <http://global.mitsubishielectric.com>

*At an exchange rate of 106 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2004.