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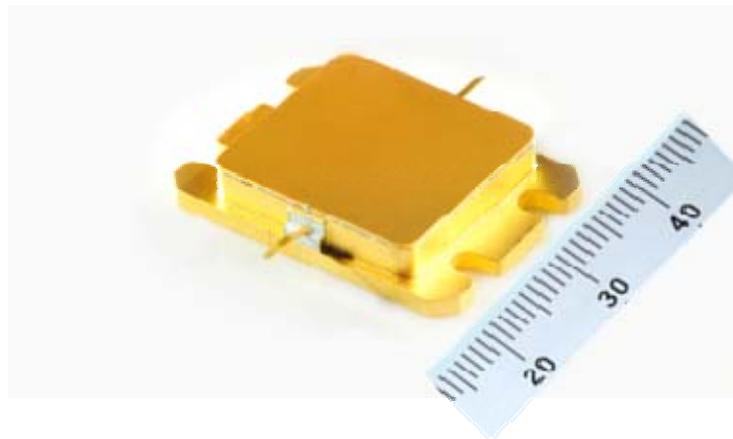
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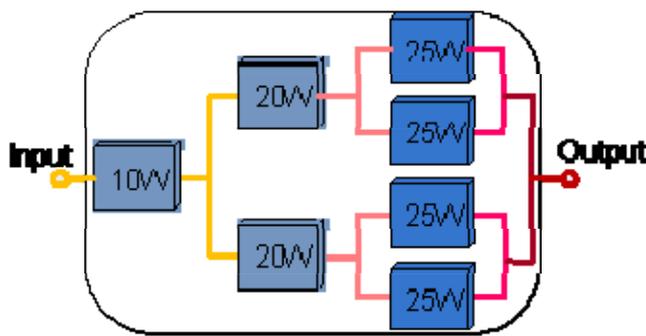
## **Mitsubishi Electric Develops 14GHz Power Amplifier with World's Highest Output Power for Satellite Communications**

**Tokyo, April 25, 2012** – Mitsubishi Electric Corporation (TOKYO: 6503) announced today it has developed a prototype gallium nitride high-electron mobility transistor (GaN HEMT) amplifier with a world-leading (as of April 25, 2012) 100W output power for Ku-band (14GHz) satellite communications. The amplifier is expected to contribute to smaller and lighter transmitters for terrestrial stations used in satellite communications.

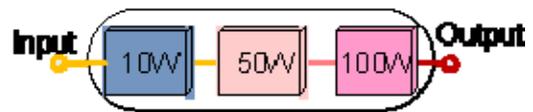


100W Ku-band GaN amplifier

Mitsubishi Electric's high-output GaN HEMT amplifier features a downsized configuration and a low-loss circuit. Output power is double that of the company's existing GaN HEMT amplifier and quadruple that of Mitsubishi Electric's GaAs amplifier. The new amplifier's ability to perform the tasks of four conventional units represents an important contribution to downsize transmitters to one sixth the size of a GaAs amplifier.



Conventional 100W GaAs amplifier system



New 100W GaN amplifier system

Vital satellite communications require robust systems that must work under adverse conditions, such as during natural disasters. High-power output is required for radio transmission from terrestrial stations to satellites in geostationary orbit 36,000 km above sea level. Also, terrestrial stations must be small enough to be transported by vehicles and installed.

Gallium arsenide (GaAs) amplifiers have been used commonly for satellite communication transmitters, but gallium nitride (GaN) amplifiers have become increasingly popular recently because GaN transistors can handle very high voltage.

Comparison of new and previous amplifier characteristics

		Output	Gain
New	<b>GaN amplifier</b>	<b>100W (50dBm)</b>	<b>8dB</b>
Previous (Mitsubishi Electric)	GaN amplifier	62W (47.9dBm)	8dB
	GaAs amplifier	25W (44dBm)	5dB

Mitsubishi Electric began to ship samples of C-band 100W GaN HEMT power amplifiers for satellite communications in 2011.

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**About Mitsubishi Electric**

With over 90 years of experience in providing reliable, high-quality products to both corporate clients and general consumers all over the world, 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. The company recorded consolidated group sales of 3,645.3 billion yen (US\$ 43.9 billion\*) in the fiscal year ended March 31, 2011. For more information visit <http://www.MitsubishiElectric.com>

\*At an exchange rate of 83 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2011