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**No. 2918**

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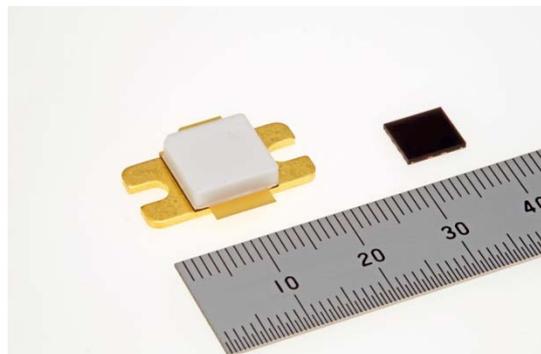
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## **Mitsubishi Electric to Release Sample 3.5GHz-band GaN-HEMT for 4G Mobile-communication Base Transceiver Stations**

*For BTS covering area expansion, small size and low power consumption by high performance*

**TOKYO, March 11, 2015** – [Mitsubishi Electric Corporation](http://www.mitsubishielectric.com) (TOKYO: 6503) announced today that it has developed a Gallium Nitride High Electron Mobility Transistor (GaN-HEMT) offering top-level\* output power and efficiency for use in Base Transceiver Stations (BTS) operating in the 3.5GHz band for fourth generation (4G) mobile communication. Samples will be released starting April 1.

\* Researched on March 11, 2015 by Mitsubishi Electric



GaN-HEMT for 3.5GHz-band 4G mobile communication BTS use  
MGFS50G38FT1 (left) , MGFS39G38L2 (right)

As a result of the deployment of Long Term Evolution (LTE) and LTE-Advanced mobile networks, needs are rising for BTS that can offer increased data volume, smaller size and lower power consumption. In response, Mitsubishi Electric has developed and will begin shipping samples of a world-leading class of high-output, high-efficiency GaN-HEMT for macro- and micro-cell BTS.

## **Product Features**

### **1) *World-leading power output of 100W for macro-cell BTS***

- High-output power realized through transistor optimization.
- Helps to expand BTS coverage range.

### **2) *High efficiency by adopting GaN-HEMT and transistor optimization***

- High efficiency helps to reduce BTS size and power consumption.
- 100W device for macro-cell BTS realizes high drain efficiency\*\* of 74%.
- 9W device for micro-cell BTS realizes high drain efficiency\*\* of 67%.
- High efficiency allows a simpler cooling system, contributing to reduced size and power consumption.

\*\* Load pull measurement

## **Main Specifications**

	Frequency [GHz]	RF performance			Operating voltage Vd*** [V]
		Saturated output power [dBm]	Linear gain [dB]	Drain efficiency** [%]	
MGFS50G38FT1	3.4—3.8	50	17	74	50
MGFS39G38L2	3.4—3.8	39	19	67	

\*\*\* Drain voltage

## **Environmental awareness**

MGFS50G38FT1 and MGFS39G38L2 are compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) directive 2011/65/EU.

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## **About Mitsubishi Electric Corporation**

With over 90 years of experience in providing reliable, high-quality products, 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. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 4,054.3 billion yen (US\$ 39.3 billion\*) in the fiscal year ended March 31, 2014. For more information visit <http://www.MitsubishiElectric.com>

\*At an exchange rate of 103 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2014