MITSUBISHI ELECTRIC CORPORATION
PUBLIC RELATIONS DIVISION
7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo, 100-8310 Japan

FOR IMMEDIATE RELEASE **No. 2978**

Customer Inquiries

Semiconductor & Device Marketing Div.B
Mitsubishi Electric Corporation

www.MitsubishiElectric.com/semiconductors/

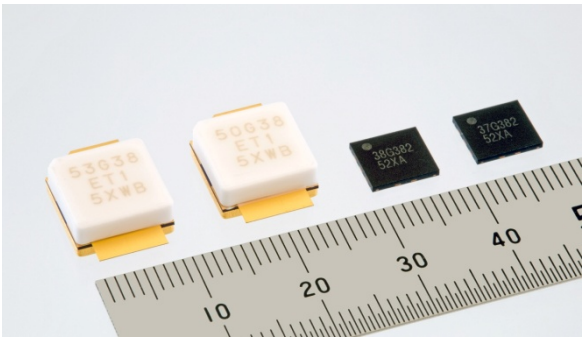
Media Inquiries

Public Relations Division
Mitsubishi Electric Corporation
prd.gnews@nk.MitsubishiElectric.co.jp
www.MitsubishiElectric.com/news/

Mitsubishi Electric to Expand Lineup of 3.5 GHz-band GaN-HEMTs for 4G Mobile-communication Base Transceiver Stations

New products support macro and small cell BTS

TOKYO, December 22, 2015 – Mitsubishi Electric Corporation (TOKYO: 6503) announced today that it would expand its lineup of Gallium Nitride High Electron Mobility Transistors (GaN-HEMTs) for use in Base Transceiver Stations (BTS) operating in the 3.5GHz band of fourth generation (4G) mobile communication systems. The four new GaN-HEMTs offer output power and efficiency levels that are among the highest currently available according to company research as of December 22. Samples will be released starting February 1.



(From left) MGFS53G38ET1, MGFS50G38ET1, MGFS38G38L2 and MGFS37G38L2
GaN-HEMTs for 3.5-GHz 4G mobile communication BTS use

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 the new GaN-HEMTs designed for use in macro BTS and large numbers of micro cells that mobile network operators are employing to increase the data capacity of their advanced 4G networks built with LTE and LTE-Advanced technologies.

Going forward, Mitsubishi Electric will continue to expand its GaN-HEMT lineup for use in different output power and frequencies, and in mobile communication systems beyond 4G.

Product Features

1) Expanded product line-up

- Flangeless ceramic package in 180W and 90W models for macro-cell BTS
- Plastic molded package in 7W and 5W models for micro-cell BTS

2) GaN-HEMT and transistor optimization for high efficiency

- High efficiency helps to reduce the size and power consumption of BTS
- 90W model for macro-cell BTS achieves high drain efficiency (load pull) of 74 percent
- 7W and 5W models for micro-cell BTS achieve high drain efficiency of 67 percent
- High efficiency allows use of simple cooling system, which contributes to smaller size and lower power consumption of BTS

3) Size reduction

- Flangeless ceramic package reduces the size of the devices themselves and power amplifier modules in which they are deployed

Line-up and Main Specifications (new models are underlined)

	Frequency (GHz)	RF performances				Operating Voltage Vd* (V)
		Saturated output power		Linear gain (dB)	Drain efficiency (%)	
		(dBm)	(W)			
MGFS53G38ET1	3.4 to 3.8	52.6	180	17	70	50
MGFS50G38FT1	3.4 to 3.8	50.0	100	17	74	
MGFS50G38ET1	3.4 to 3.8	49.5	90	17	74	
MGFS39G38L2	3.4 to 3.8	39.5	9	20	67	
MGFS38G38L2	3.4 to 3.8	38.4	7	20	67	
MGFS37G38L2	3.4 to 3.8	37.0	5	20	67	

* Drain voltage

Environmental awareness

This product is compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) directive 2011/65/EU.

###

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 4,323.0 billion yen (US$ 36.0 billion*) in the fiscal year ended March 31, 2015. For more information visit:
http://www.MitsubishiElectric.com

*At an exchange rate of 120 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2015