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FOR IMMEDIATE RELEASE

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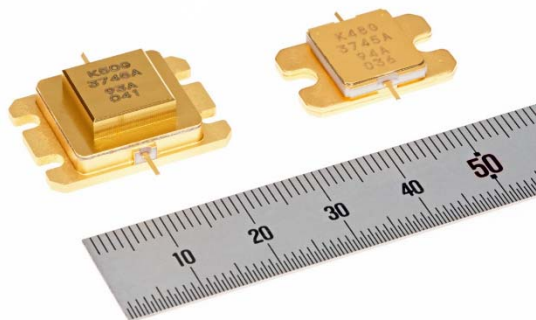
Mitsubishi Electric to Expand Lineup of Ku-band GaN-HEMTs

New models will support multi-carrier communications, increased data transmission capacity and downsizing of satellite-communication earth stations

TOKYO, December 12, 2019 – [Mitsubishi Electric Corporation](http://www.mitsubishielectric.com) (TOKYO: 6503) announced today that its lineup of gallium-nitride high-electron-mobility transistors (GaN-HEMTs) for satellite-communication (SATCOM) earth stations will be expanded with the addition of new Ku-band (12-18GHz) 70W and 100W GaN-HEMTs suitable for multi-carrier applications. The 70W-model GaN-HEMT achieves low third-order intermodulation distortion (IMD3)* with a wide offset frequency** of up to 400MHz, which is believed to be the industry's highest level, while the 100W-model GaN HEMT combines unmatched power output with low IMD3 and an offset frequency of up to 200MHz. Mitsubishi Electric will begin shipping samples of both models on January 15.

* Measure of an amplifier's distortion performance in the case of two-tone signals

** Frequency difference between two-tone signals, used in IMD3 measurements



GaN HEMTs for Ku-band SATCOM earth stations
Left: MGFK50G3745A (100W) Right: MGFK48G3745A (70W)

The demands for Ku-band satellite communications and satellite news-gathering (SNG) are rapidly growing to support communications during natural disasters and in rural areas where the installation of cable network equipment is difficult. In addition, increasingly large-capacity, high-speed communications have expanded needs for both multi-carrier and single-carrier satellite communications. Mitsubishi Electric's new GaN HEMTs are expected to accelerate the realization of smaller earth stations as well as faster and larger-capacity communications for various needs.

Sales Schedule

Product	Application	Model	Overview			Shipment
			Frequency	Saturated output power	Offset frequency	
Ku-band GaN-HEMTs	SATCOM earth stations	MGFK48G3745A	13.75–14.5 GHz	48.3dBm (70W)	Up to 400MHz	Jan. 15, 2020
		MGFK50G3745A		50.0dBm (100W)	Up to 200MHz	

Product Features

1) *Industry-leading wide offset frequency up to 400MHz for large-capacity satellite communication*

- The MGFK48G3745A model uses a new matching circuit to deliver an industry-leading wide offset frequency, which is 80 times higher than that of current models, and low IMD3 with a wide offset frequency of up to 400MHz, for large-capacity, high-speed satellite communications, including for multiple carriers.

2) *Unrivalled output power up to 100W will contribute to downsizing of SATCOM earth stations*

- The MGFK50G3745A model uses optimized transistor matching circuits to deliver 100W peak output power and low IMD3 to help downsize SATCOM earth stations by reducing on-board components.

Revised Lineup and Main Specifications (new models in bold)

Model	MGFG5H1503	MGFK48G3745	MGFK48G3745A	MGFK50G3745	MGFK50G3745A
Frequency	13.75GHz–14.5GHz				
Saturated output power	43dBm (20W)	48.3dBm (70W)	48.3dBm (70W)	50.0dBm (100W)	50.0dBm (100W)
Linear gain	24dB	12dB	11dB	10dB	10dB
Offset frequency @IMD3=-25dBc	Max. 5MHz	Max. 5MHz	Max. 400MHz	Max. 5MHz	Max. 200MHz

Environmental Awareness

These products are compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) directives 2011/65/EU and (EU) 2015/863.

Note: Development of these products has been partially supported by Japan's New Energy and Industrial Technology Development Organization (NEDO).

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About Mitsubishi Electric Corporation

With nearly 100 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 a revenue of 4,519.9 billion yen (US\$ 40.7 billion*) in the fiscal year ended March 31, 2019. For more information visit:

www.MitsubishiElectric.com

*At an exchange rate of 111 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2019