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Mitsubishi Electric to Launch Compact Integrated 100Gbps APD-ROSA *Small, low-power-consumption device supports extra-long-haul 100Gbps transmissions equipment*

TOKYO, March 15, 2017 – [Mitsubishi Electric Corporation](http://www.MitsubishiElectric.com) (TOKYO: 6503) announced today that it will begin shipping an avalanche photodiode (APD) receiver optical subassembly (ROSA) capable of supporting 100Gbps optical transmissions on June 1. The new ROSA, which incorporates four high-sensitivity APDs integrated with a compact optical demultiplexer, supports extra-long-haul transmissions, extra-low power consumption and downsizing in Quad Small Form-factor Pluggable (QSFP28) transceivers.

The device will be displayed at the Optical Fiber Communication Conference and Exhibition (OFC) 2017 in Los Angeles, California from March 21 to 23.



Compact integrated 100Gbps APD-ROSA (FU-302RPA)

In response to the growing need to install communication equipment in increasingly confined spaces, Mitsubishi Electric's new APD ROSA offers one of the industry's smallest footprints combined with 40km transmission capability, which will help downsize 100Gbps communication equipment and expand high-speed 100Gbps optical transmission networks.

Product Features

1) APD ROSA supports 100Gbps optical transmissions up to 40km

- High-sensitivity APD with wide bandwidth realized by employing optimal chip structure
- 40km transmission possible without an optical amplifier built in optical transceiver
- Suitable for long-distance transmissions, such as between data centers

2) *Complies with common specifications of coming optical transceivers*

- Built to QSFP28 specifications of next-generation small-footprint optical transceivers as an optical-amplifier-free APD with optimal optical demultiplexer

3) *Power consumption among the industry's lowest*

- Low-power trans-impedance amplifier for APD signals helps to cut power consumption to just 0.4W (typical value), one of the industry's lowest ratings

Sales Schedule

Product	Model	Features	Shipment date
Compact Integrated 100Gbps APD-ROSA	FU-302RPA	- APD with 1.3μm wavelength - LC receptacle	June 1, 2017

Specifications

APD	APD with 1.3μm wavelength × 4
Transmission distance	40km
Receiving sensitivity	-23.5dBm at bit error rate of 1×10^{-6} (typical value)
Operating Power	0.4W (typical value)
Size	6.55mm × 24.6mm × 5.1mm (excluding flexible printed circuits)

Other Features

The ROSA can be combined with Mitsubishi Electric's Compact Integrated 100Gbps EML-TOSA (FU-402REA), which launched in July 2016, to realize optical transceivers that achieve even further compactness and low-power consumption.

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.

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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 4,394.3 billion yen (US\$ 38.8 billion*) in the fiscal year ended March 31, 2016. For more information visit:

<http://www.MitsubishiElectric.com>

*At an exchange rate of 113 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2016