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Product Inquiries:

Hideo Sasaki
High Frequency & Optical Semiconductor
Overseas Marketing Division
Tel +81- 72-780-3837
Sasaki.hideo@dn.MitsubishiElectric.co.jp
<http://www.mitsubishichips.com/>

Media Contact:

Travis Woodward
Public Relations Division
Mitsubishi Electric Corporation
Tel: +81-3-3218-3380
Travis.Woodward@eb.MitsubishiElectric.co.jp
<http://global.mitsubishielectric.com/news/>

MITSUBISHI ELECTRIC ANNOUNCES SALE OF 1.49m HIGH POWER LASER DIODE “ML9xx46 SERIES” FOR FTTH (G-PON)

Tokyo, October 17, 2006 – Mitsubishi Electric Corporation (President and CEO: Setsuhiro Shimomura) announced today it has completed development of ML9xx46 series, a high output laser diode for use in optical fiber communication capable of transmission rates of 2.5Gbps. The diode will be most suitable for Fiber To The Home (FTTH) applications such as Gigabit Passive Optical Networks (G-PON¹). Sample shipments will begin on November 11, 2006.

¹A Gbps class network that connects to multiple subscribers by branching from a single optical fiber.

Sale Summary

Product Name	Specification	Price of sample (tax)	Date of sample shipment	Planned date of production	Plan of production
ML9xx46	1.49□m DFB-LD (Distributed feedback laser diode) High output power (15mW) High speed response (2.5Gbps) Standard TO-56 CAN package Products with aspherical lens which realize high coupling efficiency are available.	\$40	Nov., 2006	Jan. 2007	10,000 pcs / month

Aim of Sale

FTTH, most widely used as Passive Optical Networks (PON), will need to improve its downstream transmission speed (from access station to subscriber) to respond to continuing increasing needs. PON transmission rates are below 1.25 Gbps, and many access stations are moving towards the improved G-PON transmission rates of 2.5 Gbps. G-PON will begin serious commercialization in the U.S starting in Japanese fiscal 2007.

With improvements in transmission speed, the industry has sought to secure optical input/output strength on the receiving side by using higher than previous optical output on the transmitting side. The ML9xx46 series can respond to increasing speed demands with one of the best optical output rates in the industry as well as a large operating range of -40c - +85c.

Features

1) High optical output for high speed FTTH

Laser diodes have been limited to optical output of 10 mW since response speed diminishes with optical output at high. By optimizing the construction of the active layer where the laser diode emits light, the ML9xx46 series has improved optical conversion efficiency at high temperatures with an optical output of 15 mW and operating range of -40°C - $+85^{\circ}\text{C}$, one of the best in the industry. We've also improved modulation bandwidth by reducing capacitance of the laser diode. 15mW optical output with an excellent response time of 2.5 Gbps will increase speeds of FTTH.

2) Reduced power consumption of transmitter using high coupling efficiency lens

Using an aspherical lens increases coupling efficiency (efficiency of light entering optic fiber from the laser), with a 70% coupling efficiency² in the ML920T46S model. This reduces operating current, which leads to reduced power consumption in the transmitter

²value when using single mode fiber

Product Characteristics

	Typical Value ³	Conditions
Threshold Current	30mA	Tc=85°C
Slope Efficiency	0.35W/A	Po=15mW, Tc=25°C
	0.2W/A	Po=15mW, Tc=85°C
Coupling Efficiency ^{*4}	70%	SMF(10/125)
Peak Wavelength	1.49 μm	Po=15mW, Tc=25°C

³Typical value. Not guaranteed. Please see datasheet to confirm guaranteed values.

⁴In case of ML920T46S with aspherical lens

About Mitsubishi Electric

With over 80 years of experience in providing reliable, high-quality products to both corporate clients and general consumers all over the world, Mitsubishi Electric Corporation (TSE: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 3,604 billion yen (US\$ 30.8billion*) in the fiscal year ended March 31, 2006. For more information visit <http://global.mitsubishielectric.com>

*At an exchange rate of 117 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2006.