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**MITSUBISHI ELECTRIC BEGINS SHIPMENT OF NEW SEMICONDUCTOR
LASER DIODE FOR 2.5 Gbps CWDM FIBER OPTIC COMMUNICATION**

Tokyo, January 25, 2005 – Mitsubishi Electric Corporation (President and CEO: Tamotsu Nomakuchi) announced today it has completed development of its ML9xx40 series CWDM (Coarse Wavelength Division Multiplexing) optical fiber communication semiconductor laser as well as the Transmitter Optical Sub Assembly (TOSA) equipped FU-60RDF series, and will begin shipment of samples in February of this year. The semiconductor can operate between 0 to 85 degrees Celsius without temperature control. With its CWDM transmissions of 2.5Gbps over 100km, this semiconductor will realize a compact, low cost and low energy consumption optical fiber system with large transmission capacity for use in metro areas networks over distances of 20km-100km.

Outline of Sale

	General outline	Price of Sample	Beginning of sample shipment	Plans for production
ML9xx40 series	- Semiconductor Laser: DFB-LD. - Communication Speed Distance: 2.5 Gbps/ 100km - Wavelength:1470-1610nm (8 wavelengths at 20nm intervals) - Operable in wide range of temperatures (0 to 85 degrees Celsius)	JPY 4,500	Feb. 1, 2005	8,000pcs/month beginning June 2005

FU-60RDF series	<ul style="list-style-type: none"> - LC receptacle - Internal optical isolator - LC receptacle - Built-in optical isolator 	JPY 18,000	Feb. 1, 2005	8,000pcs/month beginning June 2005
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Aim of Sale

With the popularization of broadband services and increase in Internet subscribers in recent years, the amount of traffic in metro area networks (subscribers who are both off of a 100km trunk line and outside of a 20km access line) has increased. As a result, despite low availability of 4-8 wavelengths, demand for a mid-distance, low cost WDM product has strengthened.

Until now, Mitsubishi Electric has sold the ML9xx19 series, a Distributed Feedback Laser Diode (DFB-LD) for CWDM capable of 2.5 Gbps transmission between 0-70 degrees Celsius. Recently, however, a product capable of 2.5 Gbps transmission between 0-85 degrees Celsius has been strongly demanded. To respond to this market demand, we have now developed a DFB-LD at wavelengths between 1470-1610nm (8 wavelengths at 20 nm intervals,) capable of 2.5 Gbps transmission between 0-85 degrees Celsius. Additionally, we have developed a TOSA-equipped model in the hopes of making a pluggable optical transmitter.

Features of New Products

1) Realization of 2.5 Gbps transmission over 100 km between 0-85 degrees Celsius

In contrast to conventional uniform grating used until now, we utilized quarter-wavelength phase shifted grating to realize a stable single wavelength communication at even 2.5 Gbps modulation at a wide temperature range of 0-85 degrees Celsius. The waves produced by the laser are produced between 1470-1610 nm, where losses to optical fiber are small, so transmission of 100 km is possible.

2) Using eight possible different wavelengths, 20Gbps transmission possible

We realized a DFB-LD that uses eight different wavelengths at 20nm intervals between wavelengths of 1470-1610nm. It is possible for one fiber to transmit a total of 20 Gbps.

3) Stable operation up to 85 degrees Celsius, contribution to miniaturization of communication equipment

Using quarter-wavelength phase-shifted grating, we have been able to make a stable single wave operation. This will simplify heat emission from transmission equipment and contribute to miniaturization. Compared to previous uniform diffractive grating, we are able to achieve an extremely stable single wave oscillation.

Main Characteristics (ML9xx40 series)

Product name	Parameter	Typical value	Condition
ML9XX40 series	Threshold current	35mA	Tc=85 degrees Celsius
	Operation current	70mA	Po=5mW, Tc=85 degrees Celsius
	Slope efficiency	0.22W/A	Po=5mW, Tc=25 degrees Celsius
	Oscillation wavelength	1470-1610nm (20nm interval)	Po=5mW Tc=25 degrees Celsius
	Side-mode suppression ratio	45dB	Po=5mW, Tc=0-85 degrees Celsius
	Power penalty	1.2dB	2.48832Gbps, SMF100km, Tc=0-85 degrees Celsius
FU-60RDF series	Optical output	2mW	Tc=25 degrees Celsius
	Abnormal current	55mA	Tc=85 degrees Celsius
	Tracking error	0.7dB	Tc=0-85 degrees Celsius
	Oscillation wavelength	1470-1610nm (20nm interval)	Pf=2mW Tc=25 degrees Celsius
	Side mode suppression ratio	45dB	Pf=2mW, Tc=0-85 degrees Celsius
	Power penalty	1.2dB	2.48832Gbps, SMF100km, Tc=0-85 degrees Celsius

1) The above characteristics are typical values and cannot be guaranteed

2) Power penalty amounts depend on the laser's operating condition, peripheral circuits and receiver. They may differ from the above amounts, and verification is necessary as to whether they are the power penalty values needed by the customer or not.

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 3,309 billion yen (US\$ 31.2billion*) in the fiscal year ended March 31, 2004.

For more information visit <http://global.mitsubishielectric.com>

*At an exchange rate of 106 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2004.