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MITSUBISHI ELECTRIC BEGINS SHIPMENT OF EXTENDED XFP FOR 80km DWDM APPLICATIONS

Tokyo, September 22, 2005 – Mitsubishi Electric Corporation (President and CEO: Tamotsu Nomakuchi) announced today it has completed development of MF-10KSXB series XFP-E, Extended 10Gbps Pluggable Optical Transceiver, and will begin shipment of samples in October of this year. The XFP-E can transmit a 10 Gbps optical signal up to 80km as well as accommodate DWDM features. Mitsubishi Electric Corporation and Avanex Corporation also agreed to have common XFP-E specifications with this multiple sources agreement being open to other companies.

Outline of sale

	General Outline	Price of Sample	Beginning of Sample shipment	Production Schedule
MF-10KSXB series	Bit rate: 10Gbps Multi-rate (9.95Gbps~11.1Gbps) Transmission distance: 40km/80km Wavelength: 1550nm Single Channel DWDM C band full tunable (Optional) Power consumption: <6W Operation Temperature: -5 to 70°C (-40 to 85°C Optional) External Signal Interface: XFI (XFP MSA 4.0 Compliant)	JPY 300,000 (40Km single channel)	Oct. 1, 2005	1000pcs/Month 1Q/ 2006

Aim of Sale

With the dissemination of broadband Internet access such as xDSL and FTTH, data traffic has increased over trunk line area networks and long haul transmission lines. Increases in data traffic have heightened demand for 10Gbps optical components. In particular, demand for XFP, an industrial standard of 10Gbps transceivers, has increased because of its ease of use and low power consumption. However, to achieve long distance transmission over 40km requires improved thermal dissipation, which is not manageable by current XFP standards. Mitsubishi Electric has successfully managed thermal dissipation by employing extended dual size XFP MSA housing to achieve long distance optical signal transmission.

Features of New products

The XFP-E transceiver module is housed in a MSA compliant extended package, intended for use in 10 Gbps serial optical data communication applications. It is protocol independent. An XFI electrical interface is provided along with a 2 wire serial I2C interface for digital diagnostics.

As an extension of standard XFP MSA 4.0 compliant, it provides convenient and flexible optical interfaces for ultra long haul, DWDM applications as well as back compatibility with SONET/SDH, 10GbE and 10G Fiber Channel XFP transceivers operating from 9.95 Gbps up to 11.09 Gbps. The new XFP-E meets the applicable ITU-T G.691, ITU-T G.709, Telcordia GR-253 and XFP MSA standards.

Target Breakthrough Applications

The extended XFP solution (XFP-E) will be a natural extension and backward compatible to XFP technology to:

- Improve power dissipation (< 6 W)
- Extend temperature range from -5 ~+70 °C to -40 ~+85 °C
- Allow 80 km range WDM applications and above
- Provide suitable footprint for high-end enhanced application:
 - Extended reach
 - Deploy tunable capability into XFP transceiver standard

Main Characteristics

- Protocol Independent 10Gbps transceiver
- Hot pluggable
- Management interface compliant with I2C™ rev. 2 and XFP MSA
- Multi rate from 9.95Gb/s to 11.1 Gb/s (FEC)
- XFI compatible electrical interface through 30pin connector
- Mechanical slot can host two XFP MSA through adaptation box

Customer Benefits

Extended Package

The extended XFP MSA package leads to:

- Improved thermal dissipation for long reach low power consumption applications
- Mounting of high power DWDM laser
- Envision usage of tunable laser sources
- High degree of customization possible due to the improved space available in the extended package

Hot Pluggable

XFP-E still provides all fundamental features required to an XFP MSA 4.0 compliant XFP transceiver, such as the hot plugability. This further reduces manufacturing costs and allows optical port/link repair/upgrade without bringing down the rest of the system.

Heat-sink

The extended package comes with a built-in heat-sink on the top side to further improve power dissipation in any environmental condition, airflow direction and desired pressure drop, thus reducing customers' development and inventory costs.

Digital Diagnostics

2 wire serial management interface for digital diagnostics to provide user access to module identification, customer specific data, link type, static and dynamic monitoring, and a check code mechanism for verifying accuracy in the data registers.

XFI Electrical Interface

To provide low power and low cost 10Gbps serial interconnection.

Connectors

LC Duplex, LC Simplex and fiber-ended connectors available.

Target Applications

Basic Applications

- Datacom
 - 10Gb Fiber Channel

- 10Gb Ethernet (EW, ER)
- Telecommunication
 - 10Gb 40km/80km B&W Sonet/SDH

New Applications

10Gb Sonet/SDH LH and ULH DWDM application

Multi-Sourcing

Mitsubishi Electric Corporation and Avanex Corporation agreed to have common XFP-E specifications, with the aim to create a new market standard and to provide multiple source advantages, with the agreement being open to other companies.

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 3,410 billion yen (US\$ 31.9billion*) in the fiscal year ended March 31, 2005. For more information visit <http://global.mitsubishielectric.com>

*At an exchange rate of 107 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2005.

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