

FOR IMMEDIATE RELEASE

No. 2415

Product Inquiries:

Hideo Sasaki
Optical Fiber Communication Device
& Module Marketing Section
Mitsubishi Electric Corporation
Tel: +81-72-780-3837
Sasaki.Hideo@dn.MitsubishiElectric.co.jp

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 Develops Industry's First 10 Gbps Pluggable and Tunable Transceiver for DWDM Optical Communication

Tokyo, September 12, 2007 – Mitsubishi Electric Corporation (President and CEO: Setsuhiro Shimomura) announced today it developed the world's first compact and pluggable 10Gbps optical communications transceiver (MF-10KWXF series) capable of discretionary tuning of all C Band¹ Dense Wavelength Division Multiplexing (DWDM²). The transceiver complies with the 10Gbps form-factor industrial standard, XFP-E (Extended) Multi-Source Agreement (MSA)³, and will be on display at the 33rd European Conference on Optical Communication (ECOC 2007) in Berlin from September 17-19.

¹ Conventional band between 1530nm-1560nm

² A fiber-optic transmission technique that employs light wavelengths to transmit data parallel-by-bit or serial-by-character.

³ For further details please visit: <http://www.xfpe.org>

Development at a glance

Product Name	General Outline
MF-10KWXF series	<ul style="list-style-type: none">• 10 Gbps Transceiver Multi rate operation from 9.95 Gbps to 11.1Gbps for SONET/ SDH⁴ and 10Gbps Ethernet• Tunable within full C band DWDM Optical Interface ITU-T 50GHz grid• Zero chirp and Negative chirp• Hot Pluggable• External Signal Interface: XFI (XFP MSA 4.5 Compliant)• Low power consumption : 7W Maximum• Compact size : 78 x 48 x 12.6 mm• Operating temperature range : -5 - +70 degreeC• Management interface compliant with I2C™ rev. 2 and XFP MSA

⁴ Synchronous Optical NETWORK/Synchronous Digital Hierarchy: international standard for high-speed fiber optic digital communication. It is called SDH mainly in Europe and SONET in North America

Background

With increased Internet traffic in recent years service providers have been rushing to expand transmission volume of optical communications networks. There is an increasing demand for a DWDM system that can handle 64 or 128 wavelengths in a single optical fiber. The need for a tunable optical interface to operate this using pluggable transceiver is increasing.

Aim of Development

The XFP-E MSA compliant optical transceiver MF-10KWXB series for DWDM we commercialized in October of 2006 used a fixed frequency in communication. The MF-10KWXF series is the first hot swappable optical transceiver that can be set to any C Band DWDM grid frequency at the users discretion by mounting an optical tunable laser with a low power consuming semiconductor modulator to the transceiver. The MF-10KWXF series is also 50% smaller and uses 40% less energy compared to previous models.

Special Features

1. Industry's first hot swappable 10Gbps tunable DWDM transceiver

Previous tunable DWDM 10Gbps transceivers were unable to hot swap because they were connected to the substrate with a 300 pin electric connector. This meant that users had to physically remove and insert optical transceiver motherboards and optical interface maintenance was necessary, which made integrating multiple ports on one board impossible. The MF-10KWXF series is pluggable for multiple ports by edge connecting using XFI compliant electric connection conditions.

2. 50% reduced maintenance, 70% reduced used substrate surface area

We've reduced maintenance by 50% and power consumption by 40% to under 7W by using the latest low power consuming XFI CDR IC and using a tunable optical laser module that replaces the LiNB modulator with a power saving semiconductor modulator. It also reduces the occupied substrate surface area by 70% compared to models using a 300-pin transponder by using XFI edge connecting and receptacle design. Combining this with multiple porting will greatly improve mounting density.

3. Deploy tunable capability into XFP transceiver standard

By complying with XFP-E MSA and considering maintenance design using XFI interface, the transceiver can be used with no changes to the user board even when future XFP frequency tuner DWDM optical communications transceivers are developed.

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 3,855.7 billion yen (US\$ 32.7billion*) in the fiscal year ended March 31, 2007. For more information visit <http://global.mitsubishielectric.com>

*At an exchange rate of 118 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2007.