SONET Interface
OC-3/STM-1 and OC-12/STM-4

- *Multimode-to-singlemode to extend distances up to 40km*
- *Complete signal retiming and regeneration to maintain data integrity*
- *Link Loss Carry Forward and Link Loss Return for remote troubleshooting*
- *Extensive proactive element management*

Flexible Media, Distance and Speed

Designed specifically for the Radiance Optical Ethernet R5000, R1000, and R400 platforms, Metrobility's SONET interfaces meet the demands of today's high-speed networks to support longer distances while maintaining high availability, performance and manageability.

Metrobility® offers SONET products for both OC-3/STM-1 (155Mbps) and OC-12/STM-4 (622Mbps).

Extended Distance Support with Retiming

Metrobility's SONET solutions convert fiber-based multimode OC-3/STM-1 connections to singlemode connections to increase SONET network segments from 2km up to 40km, and OC-12/STM-4 segments from 500km to 15km.

All units incorporate signal retiming to ensure that crucial data travels the maximum cable distance without degradation.

Signal retiming restores incoming data and clock information allowing retransmission of data with improved signal quality. This important feature is a cost-effective method for extending the distance capabilities of the network by allowing the cascading of units.

Superior SNMP Management

All line card information is transmitted via a Management Card installed in the Radiance platform.

The Management Card gathers data to provide critical statistics. This information may be accessed from the management station through Metrobility's NetBeacon® Element Management System or most SNMP-based management systems. Using the WebBeacon™ kernel embedded in the management card, all data may also be accessed via the web using a standard web browser.

Troubleshooting Remote Connections

Metrobility's Link Loss Carry Forward (LLCF) and Link Loss Return (LLR) features also assist in troubleshooting remote connections. When LLCF is enabled, ports do not transmit a signal until they receive a signal from the opposite port. So, if the connection breaks, the line card carries the lost link information to the switch or hub which generates a trap to the management station. Link Loss Return (LLR) senses the loss of link on the fiber port and returns a trap to the management station. This feature rapidly notifies IT managers of a failed link to a remote site, even if the remote site is unmanaged.

The Metrobility Difference

Signal retiming and regeneration maximizes network distance

Link Loss Return (LLR) switches and Link Loss Carry Forward (LLCF) features aid in troubleshooting remote network connection

High MTBF for reliable, long-term operation

Optional advanced SNMP-based monitoring and management features for interface line cards

NEBS Level 3 compliant

SONET OC-3/STM-1 and OC-12/STM-4 Technical Specifications

Protocol	Fiber Type and Models	Wavelength	Cable Length	Cable Size Core/Clad	RX Input (min)	RX Input (sat)	TX Output (min)	TX Output (max)	Power Budget (TX Pwr - RX Pwr)*
OC-3/STM-1	Multimode	1310nm	2km (rated)	50µm/125µm	-30dBm	-14dBm	-23.5dBm	-14dBm	6.5dBm
				62.5µm/125µm	-30dBm	-14dBm	-20dBm	-14dBm	10dBm
OC-3/STM-1	Singlemode	1310nm	15km (rated, based on pwr budget)	9µm/125µm	-35dBm	-8dBm	-15dBm	-8dBm	20dBm
OC-3/STM-1	Singlemode LH	1310nm	40km	9µm/125µm	-35dBm	0dBm	-5dBm	0dBm	30dBm
OC-12/STM-4	Multimode	1310nm	500m (rated)	50µm/125µm	-26dBm	-14dBm	-22.5dBm	-14dBm	3.5dBm
OC-12/STM-4	Singlemode	1310nm	15km (rated)	9µm/125µm	-28dBm	-7dBm	-15dBm	-8dBm	13dBm

*Transmit and receive based on minimum specifications

Models

| Line Card	Standalone	Port 1	Port 2	Max. Supported Segment Length Port 1	Port 2
R125-34	2125-34	OC-3/STM-1 multimode SC	OC-3/STM-1 singlemode SC	2km	15km
R125-37	2125-37	OC-3/STM-1 multimode SC	OC-3/STM-1 singlemode SC (LH)	2km	40km
R135-34	2135-34	OC-12/STM-4 multimode SC	OC-12/STM-4 singlemode SC	500m	15km

Specifications

Environmental

Operating Temperature	0°C to 50°C
Operating Humidity	5% to 95% non-condensing
Storage Temperature	-25°C to 70°C
Input Power	5V@0.8A, 4W
Weight	5 oz

Safety and EMC Compliance

UL, CSA, FCC Part 15 (Class A), EN60950 (safety CE), EN55022 Class A (emissions), EN50082-1 (immunity), IEC 825-1 Classification, DOC Class A (emissions), Class 1 Laser Product
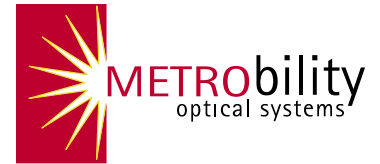
Metrobility Optical Systems is an innovative next generation optical networking company whose focus is on delivering optical access platforms and to harness the power of Ethernet and fiber optics to deliver superior network edge access, connectivity and wavelength multiplexing solutions.

MADE in USA

A6285   ISO 9001

Metrobility Optical Systems, Inc.