

T3/E3 Interface

Extending T3/E3 distance up to 100km



- *Copper-to-multimode fiber conversion to 2km, or copper-to singlemode fiber conversion up to 100km*
- *B3ZS (T3)/HDB3 (E3) bipolar line code support support on the copper interface*
- *Local and remote loopback monitoring*
- *No jitter for maximum transmission quality*
- *Independent clocking on TX and RX ports*

T3/E3 Copper-to-Fiber

The Radiance T3/E3 interface provides cost effective high-speed integration and conversion of T3 (44.736Mbps) or E3 (34.368Mbps) serial copper telco communication lines to fiber optic links. The T3/E3 interface line card can connect to PBX's, multiplexers, ATM/Frame Relay devices, routers, network servers and video CODECS achieving extended distances, high density, high quality of transmission, and improved security.

Regardless of line codes or framing, the copper data stream is converted to optical signals for greater noise immunity and longer transmission. The T3/E3 interface line card supports remote fiber optic links up to 2km over multimode (1310nm) and 100km over single-mode fiber (1550nm).

The T3/E3 interface card operates seamlessly with low bit delay, and all signal activity is converted ensuring accurate communication within connected segments.

Unique Remote Test Capability

The T3/E3 Interface Line Cards provide independent copper and fiber loopback modes to isolate problems within a specific segment of the network.

Management options for Radiance line cards are accomplished through Metrobility's GUI-based NetBeacon® or WebBeacon™ Element Manager, any standard SNMP application, or through terminal console commands (CLI). This ability provides management control over the line card's configuration and immediate notification of a problem to a management station.

NetBeacon displays information about port type (T3/E3), transmit code configuration, line length configuration, line status, and loopback status as well as standard information such as serial number, revision level, date installed, etc.

Flexible Platform Options

All Metrobility® modular interfaces are supported in Metrobility's Radiance and Lancast chassis.

The standalone version is enclosed in a rugged metal fabrication to offer superior reliability for the most demanding environments. Each standalone is equipped with an external, universal AC power supply.

Product Highlights

Extends T3/E3 distances up to 100km without repeaters

Local and remote loopback capability

ST or SC connectors on the fiber optic ports

NRZ (non-return to zero) data and clock encoding ensures reliable clock recovery at the remote fiber port

Surge protection for both ports

User selectable line build out for short- and long haul connections

Supports all common line codes

Optional management information:

- Fiber and copper signal status
- Port operational status
- Port loopback mode
- Board serial ID

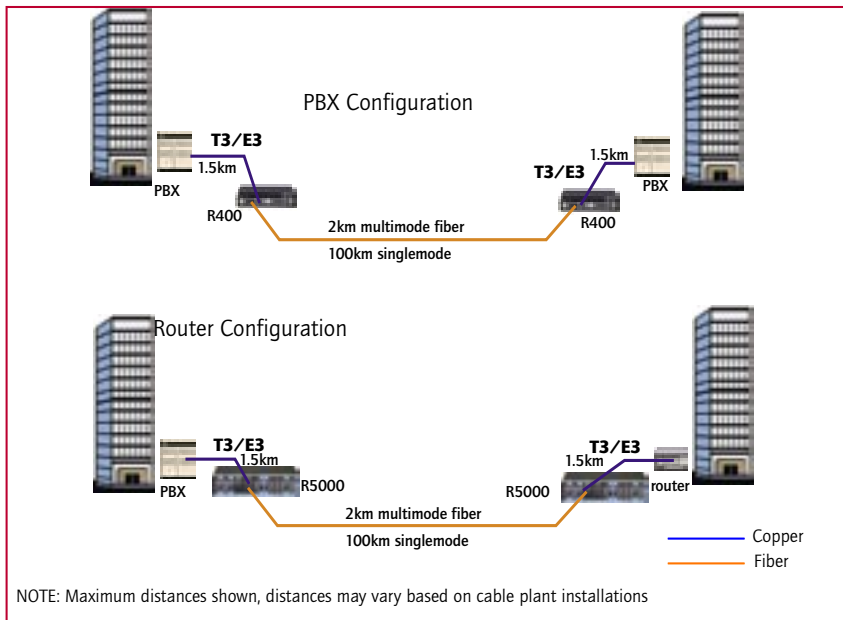
Link and loopback LEDs

Low power consumption

High MTBF

Designed to be NEBS Level 3 compliant

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Available Models

Line Card	Standalone	Port 1	Port 2	Max. Supported Segment Length	
				Port 1	Port 2
R115-23	2115-23-01	T3 copper Dual BNC	Multimode fiber SC	1.5km	2km
R115-24	2115-24-01	T3 copper Dual BNC	Singlemode fiber SC	1.5km	15km
R115-25	2115-25-01	T3 copper Dual BNC	Multimode fiber ST	1.5km	2km
R115-26	2115-26-01	T3 copper Dual BNC	Singlemode fiber ST	1.5km	15km
R115-27	2115-27-01	T3 copper Dual BNC	Singlemode fiber SC (LH)	1.5km	40km
R115-2J	2115-2J-01	T3 copper Dual BNC	Singlemode fiber SC (ELH)	1.5km	100km
R115-1X	2115-1X-01	T3 copper Dual BNC	Singlemode fiber SC 1550/1310 (BWDM)	1.5km	20km
R115-1Y	2115-1Y-01	T3 copper Dual BNC	Singlemode fiber SC 1310/1550 (BWDM)	1.5km	20km
R175-23	2175-23-01	E3 copper Dual BNC	Multimode fiber SC	1.0km	2km
R175-24	2175-24-01	E3 copper Dual BNC	Singlemode fiber SC	1.0km	15km
R175-25	2175-25-01	E3 copper Dual BNC	Multimode fiber ST	1.0km	2km
R175-26	2175-26-01	E3 copper Dual BNC	Singlemode fiber ST	1.0km	15km
R175-27	2175-27-01	E3 copper Dual BNC	Singlemode fiber SC (LH)	1.0km	40km
R175-2J	2175-2J-01	E3 copper Dual BNC	Singlemode fiber SC (ELH)	1.0km	100km
R175-2X	2175-2X-01	E3 copper Dual BNC	Singlemode fiber SC 1550/1310(BWDM)	1.0km	20km
R175-2Y	2175-2Y-01	E3 copper Dual BNC	Singlemode fiber SC 1310/1550(BWDM)	1.0km	20km

Network Connections

Twisted Pair Interface

Connector	Shielded RJ-45, 8 pin jack
Impedance	100 Ohms T3 (balanced pair) 120 Ohms E3 (balanced pair)
Link Length	Up to 1,310 feet/396m (short haul) Up to 4,500 feet/1.37km (long haul CSU)

Multimode Fiber Interface

Connector	ST or SC
Link Length	Up to 2km full duplex
Rx Input Sensitivity	-31 dbm peak minimum
Output Power	-20 dbm to -14 dbm

Singlemode Fiber Interface

Connector	ST or SC			
Link Length	15km	40km	100km	
Rx Input Sensitivity (dbm peak min)	-32.5	-35	-37	
Output Power	-23 to -17	-5 to 0	-3 to 0	

Specifications

Power	+5.0vdc @ 1.0 A, 5W average
Oper. Temp.	0°C to 55°C
Storage Temp.	-30°C to 70°C
Relative Humidity	5% to 95% non-condensing
Weight	5 oz; .14kg

Standalone Dimensions

1.7"H x 3.3"W x 4.8"L
12.3cm x 8.3cm x 4.3cm

Standalone Weight

1 lb; .45 kg

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.

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