Metrobility® Multi-rate Line Card

R380 supports of variety of protocols

- **Link Loss Return and Link Loss Carry Forward aid in troubleshooting remote network connections**

- **SFPs supply extensive connection options for flexible network configurations, including single channel, BWDM and CWDM**

- **Signal re-amplification, reshaping and re-timing to ensure accurate transmission quality (3R)**

- **Auto-detection or manual frequency settings**

- **SNMP Manageable option - NetBeacon® ESP and WebBeacon - when configured with a management card in a Metrobility platform**

- **Distance extension up to 100km**

- **NEBS Level 3 certified**

- **High MTBF ensures long life and lower cost of ownership**

The Metrobility® Multi-rate Line Card (MRLC) by Telco Systems provides a transparent interface for multimode, singlemode, BWDM (single-strand bi-directional wavelength division multiplexing), and CWDM across a wide range of protocols with data rates ranging from 44.7Mbps to 2.7Gbps.

The R380 Multi-rate Line Card supports DS3, Ethernet, SONET/SDH, fibre channel, and ESCON protocols. Data rate is determined by DIP switch setting on the card, or by software auto-detection, or manual settings in the Metrobility NetBeacon ESP or WebBeacon element management software. The MRLC provides the ability to connect optical network segments operating at different wavelengths, including CWDM lambdas, as well as SFP-based multimode and singlemode optics.

The line card performs 3R (re-amplification, re-shaping and re-timing) signal regeneration on all known data rates or 2R (re-amplification and re-shaping) signal regeneration for protocol transparent data rates.

When configured with wavelength-specific CWDM optics, the MRLC enables service providers to leverage existing fiber infrastructure to provision and manage multiple services over a single fiber pair.
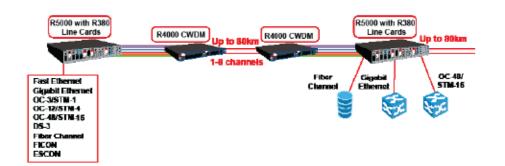
The MRLC utilizes small form-factor pluggable optics (SFP) for maximum flexibility. Because they are hot-swappable, SFP optics enable service providers to change optics on-the-fly for significant time savings with no effect on existing services.

SFP optics support real time digital measurements of transmitted and received optical power levels and internal temperature. These parameters can be monitored through NetBeacon ESP when configured with the R502-M Management Card installed in the Metrobility R5000 platform. The Management Card gathers real-time data to provide critical, up-to-the-minute statistics.

Metrobility® Multi-rate Line Card

R380 provides extensive connection options

Fast Ethernet
Gigabit Ethernet
OC-3/STM-1
OC-12/STM-4
OC-48/STM-16
DS-3
Fiber Channel
FICON
ESCON

Key Applications

☐ **Point-to-point and CWDM topologies using SFP optics**

☐ **Supports various protocols:**
- DS3
- Ethernet
- SONET/SDH
- Fibre Channel
- ESCON

☐ **Extensive connection options for flexible network configurations:**
- Multimode
- Singlemode
- CWDM

Specifications

Interfaces

Data Rate

- 44.7Mbps to 2.7Gbps, depending on optics

General

Environmental

- Operating Temperature   0°C to 50°C
- Operating Humidity   5% - 95% non-condensing
- Storage Temperature   -30°C to 70°C

Physical Specifications

- Power requirements   5V DC @1 A, 5W
- Weight   5 oz (0.14kg)

Standards Compliance

- NEBS Level 3

Safety and EMC Compliance

- UL, CSA, CB
- EN60950 (safety)
- FCC Part 15 Class A
- ICES-003 Class A (emissions)
- EN55022 Class A (emissions)
- EN55024:1998 (immunity)
- IEC 825-1 Classification (eye safety)
- Class 1 Laser Product (eye safety)

Supported Protocols

Protocol	Data Rate	Supported Distances		
	(Mbps)	Multimode	Singlemode	CWDM
DS3	44.73	2km	20km	80km
OC-1	51.84	2km	20km	80km
Fast Ethernet	125	2km	20km, 40km, 80km	80km
OC-3				
STM-1	155.25	2km	20km, 40km, 80km	40km, 80km
ESCON	200	500m	10km, 20km	40km, 80km
OC-12				
STM-4	622.08	500m	10km, 20km	40km, 80km
Fibre Channel 1x	1062.5	500m	10km, 25km, 40km, 70km, 100km	40km, 80km
Gigabit Ethernet	1250	500m	10km, 25km, 40km, 70km, 100km	40km, 80km
Fibre Channel 2x	2,125.00	500m	10km	40km, 80km
OC-48	2,488.32	--	10km	40km, 80km

Ordering Information

Part Number	Description
R380-SS	Multi-rate Optical Transponder (Requires 2 pluggable optics.)