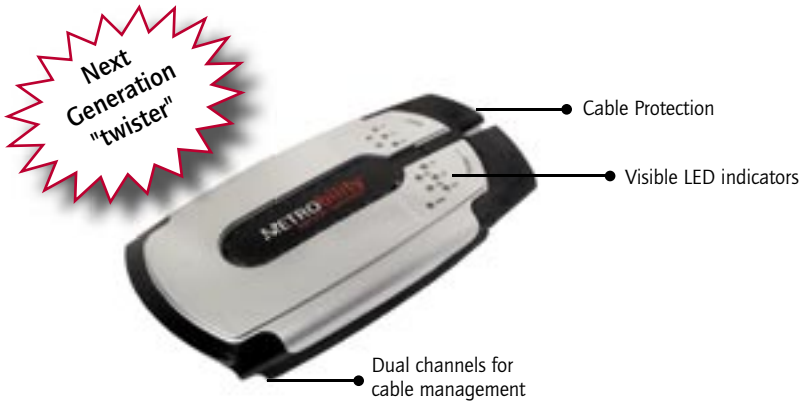
METRObility optical systems

Simply Brilliant Optical Ethernet

DELTA CLASS AutoTwister®

10/100 Auto-negotiation and media conversion



- *Copper-to-fiber media conversion*
- *10/100Mbps speed adaptation*
- *Half-to-full duplex conversion*
- *Link Loss Carry Forward, Link Loss Return and Auto-Recovery*
- *Singlemode fiber up to 100km*

Sleek, compact, and rich in features, Metrobility's 10/100Mbps Delta Class AutoTwister® looks as great as it operates. Designed for desktop or wall mount use in any modern office, this versatile device auto-negotiates from 10Mbps to 100Mbps, allowing existing 10Mbps devices to communicate over a 100Mbps backbone. Network administrators enjoy the benefit of retaining existing 10Mbps devices while upgrading segments of the network as needed. As a media converter, the unit supports mixed media networks by enabling copper-to-fiber media conversion.

Unique Troubleshooting Features

To eliminate trips by network technicians to physically reset the unit following a link failure, the AutoTwister includes auto-recovery to automatically restore link on the fiber line after a link loss event. Auto-recovery works in conjunction with Link Loss Return and Link Loss Carry Forward to identify the loss of a remote network connection.

Unparalleled Operational Features

The Delta Class AutoTwister offers unparalleled performance over long distances - up to 100km - through retiming of the signal. Delta Class integral retiming reduces any jitter to ensure data integrity. Additional features include shared network segment isolation, and auto-negotiation of duplex and speed configurations.

On select models, bidirectional wavelength division multiplexing (BWDM) offers an interface that carries two separate channels in different directions through a single strand of fiber. BWDM eliminates the need to install a second fiber and effectively doubles the fiber capacity on existing fiber cables.

Physical Features

The Delta Class has a sleek new design that incorporates a lightweight, impact resistant enclosure that is made of high durability, fade resistant engineered plastic. The unit is wall mountable and provides channels for cable and power cord management and cable protection. Link and activity LEDs are easily viewed on the top cover.

The unit meets all domestic and international EMI and EMC (static electricity) requirements and passes EN60950 safety and impact standards.

By utilizing state-of-art technology in both the electronics and the enclosure, Metrobility offers a cost-effective product in a rugged lightweight enclosure with superior feature advantages.

The Delta Class AutoTwister – the first converter product that was designed from today's customer's perspective, but with features to accommodate future needs.

The Metrobility® Difference

Network troubleshooting features

- Link Loss Carry Forward (LLCF)
- Link Loss Return (LLR)
- Auto-recovery

Installation features

- Auto-negotiation of duplex and speed
- Integral cable management and protection
- Superior noise immunity
- Wall mountable

Operational features

- Integral retiming (reduces jitter)
- Store and forward switching to improve overall network performance
- High performance switching engine
- VLAN tagging support
- Highly visible LED indicators

Product Features:

- Auto-negotiation switches on all twisted-pair interfaces
- Link Loss Carry Forward, (LLCF) and Link Loss Return (LLR) aids in troubleshooting a remote network connection for all fiber optic ports
- Auto-Recovery restarts fiber link between two back-to-back line cards after a link loss event
- MDI-II to MDI-X switch eliminates the need for crossover cables on twisted-pair ports
- Store-and-forward switching improves overall network performance by buffering packets during times of heavy congestion and prevents the forwarding of corrupted packets
- High-performance switching engine performs forwarding and filtering at full wire speed (148,800 packets per second)
- Accepts packets greater than 64 bytes or less than 1523 bytes
- Ability to learn up to 1,024 MAC addresses
- DIP switches allow selection of individual network modes

Available Models

Model #	Port 1	Port 2	Max. Supported Segment Length Port 1	Port 2
M643-13	10/100BASE-TX RJ-45	100BASE-FX multimode SC	100m	2km
M643-14	10/100BASE-TX RJ-45	100BASE-FX singlemode SC	100m	20km
M643-15	10/100BASE-TX RJ-45	100BASE-FX multimode ST	100m	2km
M643-16	10/100BASE-TX RJ-45	100BASE-FX singlemode ST	100m	20km
M643-17	10/100BASE-TX RJ-45	100BASE-FX singlemode SC	100m	40km
M643-1E	10/100BASE-TX RJ-45	100BASE-FX multimode MT-RJ	100m	2km
M643-1G	10/100BASE-TX RJ-45	100BASE-FX multimode VF-45	100m	20km
M643-1J	10/100BASE-TX RJ-45	100BASE-FX singlemode SC	100m	100km
M643-1K	10/100BASE-TX RJ-45	100BASE-FX multimode LC	100m	2km
M643-1M	10/100BASE-TX RJ-45	100BASE-FX singlemode LC	100m	20km
M643-1X*	10/100BASE-TX RJ-45	100BASE-FX SM-SC / BWDM 1550nm/1310nm	100m	20km
M643-1Y*	10/100BASE-TX RJ-45	100BASE-FX SM-SC / BWDM 1310nm/1550nm	100m	20km

*Each end of the link must be configured with a different receive and transmit wavelength. Order a -1X for one end and a -1Y for the opposite end.

Dual channels for cable management (power and traffic)

Cable protection (viewed from back)

Specifications

Environmental

Operating Temperature	0°C to 50°C
Operating Humidity	5% to 95% non-condensing
Storage Temperature	-25°C to 70°C

Dimensions

7"L x 3.75"W x 1.5"H
17.8cm x 9.5cm x 3.8cm

Weight (including power supply)

1.2 lb; .55 kg

Power, Universal 100-260V AC 50/60Hz

Regulatory

Compliance IEEE802.3/IEEE 802.3/IEEE 802.3u

Safety and EMC UL, CE CSA, EN60950 (safety), FCC Part 15, Class A, EN55022 Class A (emissions), EN55024: 1998 (immunity), IEC 825-1 Classification, Class 1 Laser Product, DOC Class A (emissions)

Additional specifications including optical power and wavelengths may be found in the Delta Class AutoTwister User Manual.

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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.

The Leader in Quality and Reliability

MADE in USA

A6285 ISO 9001

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