MetroStar™ modules

MCM100

Fast Ethernet

100Base-TX to 100Base-FX Converter Module

This module provides one or two direct and independent 100Base-TX to 100Base-FX conversion channels. As a layer one converter, it is independent from frame size. The module is offered in a large variety of optical interfaces, both dual and single fiber strand, allowing the extension of the network up to 150km.

The bi-directional Fault Propagation (FP) allows network redundancy (provided that the switch/router to which it is connected is properly set to activate an alternate path). The TEST switch disables FP function and it is used for diagnostics purposes. Its RJ-45 port is Auto-Cross compliant, making installation fault free.

The Subscriber Link Emulation (**SLE**) - when link partner is an MA™ enabled device - allows real time notification of the remote user failure while maintaining the fiber link active. The rate limiting mechanism provides the carrier with a platform to ensure SLAs along with high over-subscription rates. Like other *MetroStar* modules, the MCM100 is fully SNMP managed. The embedded MA chip controller allows full management of remote (MA enabled) devices eliminating the need of costly SNMP processors and IP addresses in such devices.

All *MetroStar* modules are hot swappable and equipped with two self-clinching screws for easy and safe module insertion and removal. A special LED indicates that the module is well inserted in its slot and "alive" even before links are connected The module supports additional features: Flow Control and Far End Fault Signaling (FEF)

General Specifications

Standard Compliance
IEEE 802.3u, 100Base-TX, 100Base-FX.
Conversion Method
Direct with FDX advertising and Fault Propagation
RJ-45 ports
Shielded, Auto-Cross compliant, 100m over STP Cat 5 cabling. Default: 100Mb FDX
F/O ports
Simplex/Duplex SC, MM, SM, SFS
OFF-Line Configuration
LEDs
Per module - Power ON
Per Channel - F/O Link/Activity, TP Link/Activity

DIP switches (on board)
HDX/FDX Selector for TP ports
Per channel - Fault Propagation /Test mode
Management
FibroLAN *MetroView* Device Manager
SNMP through *MetroStar* Management Module
Management of remote device : via MA™
Loop-Back test
Over selected link
Features
FEF, Flow Control, FP and SLE

Management Functions

The following management functions are available for the MCM100 module through the *MetroStar* System Management:
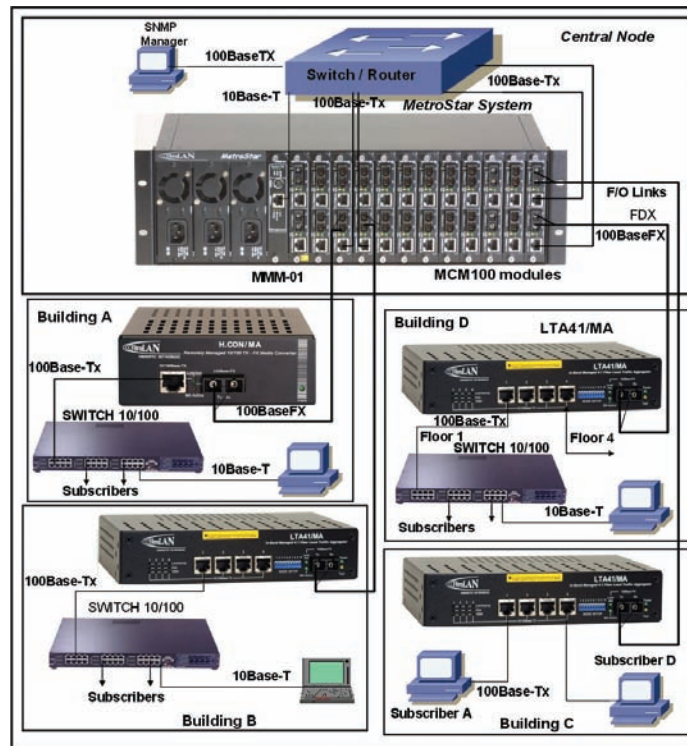**Module Status:** Link TP and F/O port status, Channel bandwidth, TP Duplex mode (DX) FP modes (FO>>TP and TP>>FO), SLE modes, (Up and Downstream), Channel Pause mode (Flow Control), Remote MA device Status (type and Power)
Module Control: Channel 1 and 2 Controls, restore module default values, Reset module
Channel X Control: Set port description, FP/SLE control, enable/disable TP port, Set Duplex mode, Set Pause mode
Channel X FP/SLE control: TP>>FO FP mode, FO>>TP FP mode, Down/Upstream SLE mode
Link Management: Link status, set link bandwidth, perform Loop-back test, Remote Device Control and Status, Restore link default parameters

Typical Topology

MetroStar™ equipped with a management module can be monitored and managed from any SNMP management station running popular management platforms (e.g. FibroLAN's MetroView, HP OpenView, SNMPc, etc)

Ordering Information

MCM100-01SC/ST/MT	Single Channel 100Base-TX to FX converter, Multi-mode 2km, Dual SC/ST/MTRJ connectors, **MA**
MCM100-01SMR7	Single Channel 100Base-TX to FX converter, Single-mode 7km, 1310nm, Dual SC connectors, **MA**
MCM100-01SMR	Single Channel 100Base-TX to FX converter, Single-mode 15km, 1310nm, Dual SC connectors, **MA**
MCM100-01SM	Single Channel 100Base-TX to FX converter, Single-mode 25km, 1310nm, Dual SC connectors, **MA**
MCM100-01SML	Single Channel 100Base-TX to FX converter, Single-mode 40km, 1310nm, Dual SC connectors, **MA**
MCM100-01SML2	Single Channel 100Base-TX to FX converter, Single-mode 70km, 1310nm, Dual SC connectors, **MA**
MCM100-01SML3	Single Channel 100Base-TX to FX converter, Single-mode 100km, 1550nm/DFB, Dual SC connectors, **MA**
MCM100-01SMLX	Single Channel 100Base-TX to FX converter, Single-mode 150km, 1550nm/DFB, Dual SC connectors, **MA**
MCM100-01SMRF15	Single Channel 100Base-TX to FX converter, Single-mode, Single Fiber Strand, 1550nm Tx, **20km**, simplex SC, **MA**
MCM100-01SMLF15	Single Channel 100Base-TX to FX converter, Single-mode, Single Fiber Strand, 1550nmDFB, Tx, **40km**, simplex SC, **MA**
MCM100-01SMXF15	Single Channel 100Base-TX to FX converter, Single-mode, Single Fiber Strand, 1550nmDFB, Tx, **80km**, simplex SC, **MA**
MCM100-02SC/ST/MT	Dual Channel 100Base-TX to FX converter, Multi-mode 2km, Dual SC/ST/MTRJ connectors, **MA**
MCM100-02SMR7	Dual Channel 100Base-TX to FX converter, Single-mode 7km, 1310nm, Dual SC connectors, **MA**
MCM100-02SMR	Dual Channel 100Base-TX to FX converter, Single-mode 15km, 1310nm, Dual SC connectors, **MA**
MCM100-02SM	Dual Channel 100Base-TX to FX converter, Single-mode 25km, 1310nm, Dual SC connectors, **MA**
MCM100-02SML	Dual Channel 100Base-TX to FX converter, Single-mode 40km, 1310nm, Dual SC connectors, **MA**
MCM100-02SML2	Dual Channel 100Base-TX to FX converter, Single-mode 70km, 1310nm, Dual SC connectors, **MA**
MCM100-02SML3	Dual Channel 100Base-TX to FX converter, Single-mode 100km, 1550nm/DFB, Dual SC connectors, **MA**
MCM100-02SMLX	Dual Channel 100Base-TX to FX converter, Single-mode 150km, 1550nm/DFB, Dual SC connectors, **MA**
MCM100-02SMRF15	Dual Channel 100Base-TX to FX converter, Single-mode, Single Fiber Strand, Simplex SC 1550nm Tx, **20km**, SC, **MA**

Specifications are subject to change w/without prior notice

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