MetroStar™ modules

MCM110

Fast Ethernet

10/100Base-TX to 100Base-FX Buffered Converter Module

The MCM110 belongs to the ***MetroStar*** modules family products
This module provides one or two buffered and independent 10/100Base-TX to 100Base-FX conversion channels.
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 TP port is auto-negotiating; other modes can be forced to successfully interconnect with any type of device. Selective Fault Propagation from the F/O port to the TP port or vice versa allows network redundancy (provided that the switch/router to which it is connected is properly set to activate an alternate path).

The module supports additional features: Flow Control, Far End Fault Signaling (FEF) for F/O Link testing, Subscriber Link Emulation (SLE) and Loop-back test over the selected link.
Like other ***MetroStar*** modules, the MCM110 is fully SNMP managed. The embedded MA chip 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.

General Specifications

Standard Compliance
IEEE802.3u, 100Base-TX, 10Base-T, 100Base-FX, FDX Flow Control (IEEE 802.3x), HDX Back Pressure flow control

RJ-45 ports
Shielded, 100m over STP Cat 5 cabling
Auto-Negotiation or Manual mode (A/N disabled)

Diagnostic LEDs
Per module - Power ON
Per Channel - F/O Link/Activity,
TP Link/Activity

Management
FibroLan *MetroView* Device Manager
SNMP through *MetroStar* Management module

OFF-Line configuration feature

Conversion Method
Buffered with bi-directional Fault Propagation
Wire Speed Switching, 64 Kbytes Frame Buffers, 1K MAC addresses
Large frame (1536 Bytes) handling

F/O ports
operate at 100Mbps and FDX.
Features: Flow Control, Far End Fault, bi-directional Fault Propagation and Subscriber Link Emulation (SLE)

DIP switches (on board)
Per channel: Fault Propagation ON/OFF (FO>TP,TP>FO)
Auto-Negotiation ON/OFF
TP port selection: HDX/FDX and 10/100Mb

Management of Remote Devices :
via MA™ Micro Agent Technology

Extensive Loop-Back Test

Management Functions

The following management functions are available for the MCM110 module through the managed MetroStar System (through the serial connection or a Telnet connection):
Module Status: Link TP and F/O port status, Channel bandwidth (upstream and downstream), FP modes (FO>>TP and TP>>FO), SLE modes, (Up and Downstream), Channel Pause mode (Flow Control), TP Link configuration (Auto-Negotiation, Duplex mode, and Line data Rate), Remote MA device Status (type and Power)
Module Control: Channel 1 and 2 Controls, restore module default values, Reset module
Channel Control: Set port description, FP/SLE control, enable/disable TP port, Set Auto-Negotiation, Set Duplex mode, Set Pause mode, Set Line Data Rate (10/100Mb)
Channel X FP/SLE control: TP>>FO and FO>>TP modes, Downstream and Upstream SLE modes
Link Management: Link status, set link bandwidth, perform Loop-back test, Remote Device Control and status, Restore link default parameters.

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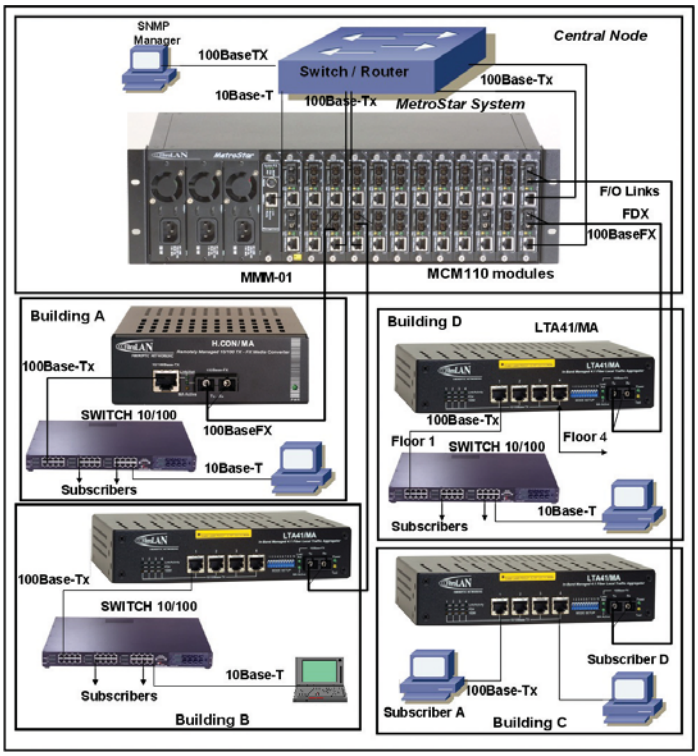
Typical Topology



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

MCM110-01SC/ST/MT	Single Channel 10/100Base-TX to FX converter, Multi-mode 2km, Dual SC/ST/MTRJ connectors, **MA**
MCM110-01SMR7	Single Channel 10/100Base-TX to FX converter, Single-mode 7km, 1310nm, Dual SC connectors, **MA**
MCM110-01SMR	Single Channel 10/100Base-TX to FX converter, Single-mode 15km, 1310nm, Dual SC connectors, **MA**
MCM110-01SM	Single Channel 10/100Base-TX to FX converter, Single-mode 25km, 1310nm, Dual SC connectors, **MA**
MCM110-01SML	Single Channel 10/100Base-TX to FX converter, Single-mode 40km, 1310nm, Dual SC connectors, **MA**
MCM110-01SML2	Single Channel 10/100Base-TX to FX converter, Single-mode 70km, 1310nm, Dual SC connectors, **MA**
MCM110-01SML3	Single Channel 10/100Base-TX to FX converter, Single-mode 100km, 1550nm/DBF, Dual SC connectors, **MA**
MCM110-01SMLX	Single Channel 10/100Base-TX to FX converter, Single-mode 150km, 1550nm/DBF, Dual SC connectors, **MA**
MCM110-01SMRF15	Single Channel 10/100Base-TX to FX converter, Single-mode, Single Fiber Strand, 1550nm Tx, **20**km, simplex SC, **MA**
MCM110-01SMLF15	Single Channel 10/100Base-TX to FX converter, Single-mode, Single Fiber Strand, 1550nm/DFB Tx, **40**km, simplex SC, **MA**
MCM110-01SMRF1313	Single Channel 10/100Base-TX to FX converter, Single-mode, Single Fiber Strand, 1310nm Tx/Rx, **20**km, simplex SC, **MA**
MCM110-02SC/ST/MT	Dual Channel 10/100Base-TX to FX converter, Multi-mode 2km, Dual SC/ST/MTRJ connectors, **MA**
MCM110-02SMR7	Dual Channel 10/100Base-TX to FX converter, Single-mode 7km, 1310nm, Dual SC connectors, **MA**
MCM110-02SMR	Dual Channel 10/100Base-TX to FX converter, Single-mode 15km, 1310nm, Dual SC connectors, **MA**
MCM110-02SM	Dual Channel 10/100Base-TX to FX converter, Single-mode 25km, 1310nm, Dual SC connectors, **MA**
MCM110-02SML	Dual Channel 10/100Base-TX to FX converter, Single-mode 40km, 1310nm, Dual SC connectors, **MA**
MCM110-02SML2	Dual Channel 10/100Base-TX to FX converter, Single-mode 70km, 1310nm, Dual SC connectors, **MA**
MCM110-02SML3	Dual Channel 10/100Base-TX to FX converter, Single-mode 100km, 1550nm/DBF, Dual SC connectors, **MA**
MCM110-02SMLX	Dual Channel 10/100Base-TX to FX converter, Single-mode 150km, 1550nm/DBF, Dual SC connectors, **MA**
MCM110-02SMRF15	Dual Channel 10/100Base-TX to FX converter, Single-mode, Single Fiber Strand, 1550nm Tx, **20**km, simplex SC, **MA**

Specifications are subject to change w/without prior notice

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