

Introduction:

Managed Rack-Mount Media Converters and Chassis, 2U, 19" with 16 slots.

Rack-mount Specifications:

- Master and slave structure, Max. cascading chassis is 4
- Supporting remote and local management
- Supporting protocols like CONSOLE, WEB, and SNMP
- Interface for management: RS232 Console Port (RJ45) and 10/100Mbps RJ-45 Ethernet port
- The status of 10/100M media converters with IP113A/C/F/M chipsets can be monitored and queried at the same chassis system
- 10/100/1000M media converter card support SFP, CWDM SFP, DWDM SFP and can also display its DDM function
- Media converter card supports protocols like Q-inQ Double Tag VLAN, IEEE802.1q Tag VLAN and IEEE802.x Flow control
- Support data limit 32k when 100M, 64k when 1000M
- Supporting online upgrading by FTP
- Support LFP function
- Real-time display of voltage and temperature on the chassis and the operating status of the fans

Rack-mount Chassis/Power Supply/Management Card

Part Number	Description
FHM-6005	Managed Rack-mount Chassis, 2u, 19", 16 slots
FHM-6006	Power Supply, AC220
FHM-6007	Power Supply, DC48
FHM-6008	Management Card

10/100 Introduction:

The 10/100 converter complies with IEEE802.3 standards. It is designed to convert data signal between 10/100Base-TX and 100Base-FX Fast Ethernet. the media converter is connected between fiber cable and twisted cable segments with the network operating smoothly. This converter can be used as a standard alone unit or a slide-in module to fit the 19" converter rack. Adopting WDM technology, the 10/100 converter takes only one fiber cable to transmit and receive data, which will save half cabling cost for you.

BiDi WDM - Wave Division Multiplexing Technology allows you to use a 1 fiber cable instead of 2, because transmit and receive channels are separated by different wavelengths.

Converters universal - they can work as standalone modules in point to point applications with external power supply modules - or the same converter can be used as a plug in module in the 19" chassis. Such universal designs saves money and time to your network planning.

Also, it does not matter what type of TX/RX you are using at central side or remote side, they will always operate smoothly.

10/100 Specifications:

- Complies with IEEE802.3 and IEEE802.3u 10/100Base-TX and 100Base-FX
- MTU size supported 1600 bytes maximum
- Supports pure converter mode data forwarding for extreme low latency
- Built in 128kb RAM for data buffer
- Optional forward fragments
- 10/100Mbps and full/half duplex automatically configure in TP port
- Supports end fault function (optional)
- MDI/MDI-X Auto Negotiation
- LED Indicators: Power, FX Link/ACT, 100 TP Link,/ACT, FDX/COL
- FCC Class A & CE approved
- LLR, LFP - Link Loss Return (LLR), Link Failure Pass (LFP) features supported
- RoHs compliant
- - Only 1 fiber used instead of 2 - WDM BiDi technology
- - Stainless steel parts (value added feature)
- - Standalone, Wallmount or Hotpluggable in 19" chassis - universal design
- - Wavelength: TX1310nm/RX1550nm; TX1550nm/RX1310nm, for high distance TX1490nm/RX1550nm; TX1550nm/RX1490nm

Technical:

BER: <1E-8

- Data Buffer: 128kb
- Power Temperature Variation: 0.2mw/°C
 - Input Power range (dBm): 0~-40
 - I_{max}: 800mA
 - Power: 2.5 W High performance ICPLUS IP113C chipset based
- Fiber cable: 8.3/125, 8.7/125, 9/125 or 10/125 single-mode, only 1 strand is needed
- Maximum Distance: 120km (available ordering options 20/40/60/80/100/120 km)
- Input Power: 1A@+5VDC or 110~260VAC or 48VDC
- Dimensions: 95 x 70 x 26mm (External Power), 95 x 70 x 26mm (External Power)
- Relative Humidity: 5% to 90%
- Operating Temperature: 0° to 70°
- Storage Temperature: -20° to 70°

10/100 Cards

Part Number	Description
FHM-6040	10/100 RJ45 to FX SC port, 1310, 20km
FHM-6045	10/100 RJ45 to FX SC port, 1310, 50km
FHM-6050	10/100 WDM 1310/1550, 25km side 1
FHM-6051	10/100 WDM 1310/1550, 25km side 2 (FHM-6050 and FCH-6051) Paired
FHM-6055	10/100 WDM 1310/1550, 50km side 1
FHM-6056	10/100 WDM 1310/1550, 50km side 2 (FHM-6055 and FCH-6066) Paired

10/100/1000 Introduction:

To centralize the fiber-optic network installation, the 10/100/1000M Media converter with compact design can be used as a standalone unit as well as being installed into the media chassis. These media chassis can assist in producing the power for the 10/100/1000 Media Converter to maintain the fiber-optic network at one location. As the Gigabit Media Converter fully complies with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T and IEEE 802.3z. The 1000Base-LX/SX Gigabit supports plug and play installation. It also supports flow control and back pressure in half-duplex to eliminate packet loss.

10/100/1000 Specifications:

- Complies with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE802.3ab 1000Base-T, IEEE 802.3z 1000Base-SX/LX
- TP port supports 10/100/1000Base-T auto-negotiation and auto-MDI/MDI-X
- 1000Base-SX: 50/125um or 62/125um multi-mode fiber cable, up to 220/550m
- 1000Base-LX: 9/125um single-mode cable provides long distance for 10km
- 1000Base-LX: WDM interface for up to 15km single-mode fiber 9/125um
- 1000Base-LX: WDM interface for up to 60km single-mode fiber 9/125um
- 1000Base-T: 4 Pair Category 5e/6 UTP cable, up to 100 meters
- Layer 2 Key Feature:
 - IEEE 802.3x Full Duplex Flow-Control and Back-Pressure in Half-Duplex eliminate the loss of packets
 - Support auto MDI/MDI-X function
 - Store-and-Forward mechanism
 - Non-blocking full wire-speed forwarding rate
- Media conversion between 10/100/1000Base-T and 1000Base-SX/LX
- Fiber media allows:
 - Multi-mode fiber using SC/LC/WDM connector
 - Single-mode fiber using SC/LC/WDM connector
- Compacts size for working with the Media Chassis
- LED indicators for diagnosing network
- Compact in size, easy installation
- Choice of fiber-connector from SC, LC and WDM multi-mode/single-mode fiber for 1000Base SFP interface



Parameter	Unit	Technical Specification						
Nominal Bit Rate	Gbit/s	9.95						
Distance		LAN	Short Distance	Medium Distance			Long Distance	
Wavelength Range	nm	1290~1330 1529.55~1560.61	1290~1330 1529.55~1560.61	1290~1330 1529.55~1560.61			1529.55~1560.61	
Optical Source Type		SLM						
Output Spectral Width (-20db)	nm	≤1	≤0.2	≤1	≤0.2	≤1	≤0.2	≤0.2
Average Output Optical Power	dBm	-6~1-	-5~-1	-6~1-	-5~-1	-6~1-	-5~-1	-1~2
Extinction Ratio	dB	≥6	≥8.2	≥6	≥8.2	≥6	≥8.2	≥10
Output Optical Eye Diagram		Meets the Standard of ITU-T G.691 (2006)						
Sensitivity	dBm	≤-11	≤-11	≤-14	≤-19	≤-18	≤-24	
Min Overload optical Power	dBm	≥-1	≥-1		≥-10	≥-8	≥-9	
Jitter Tolerance		Compliant with Standard of ITU-T G.825 (2000)	≥-1		≥-10	≥-8	≥-9	

Parameter	Unit	Value Ranges
Work Temperature	°C	-40~+85
Relative Humidity	%	≤90
Power Supply (-48V DC)	V	48±20%
(220V AC)	V	220±20%

10/100/1000 Cards and SFPs

Part Number	Description
FHM-6070	10/100/1000 RJ45 to FX SC port, 1310, 20km
FHM-6075	10/100/1000 RJ45 to FX SC port, 1310, 70km
FHM-6080	10/100/1000 WDM 1310/1550, 20km side 1
FHM-6081	10/100 WDM 1310/1550, 20km side 2 (FHM-6080 and FCH-6081) Paired
FHM-6085	10/100/1000 WDM 1310/1550, 40km side 1
FHM-6086	10/100/1000 WDM 1310/1550, 40km side 2 (FHM-6085 and FCH-6086) Paired
FHM-6090	155m to 4.5G card, SFP to SFP

10G SFP+, XFP

Part Number	Description
FHM-6025	SFP+ to SFP+ 10G card
FHM-6030	SFP+ to XFP 10G card
FHM-6035	XFP-XFP 10G card