

Non-Managed Family

Non-Managed 8 Slots Media Converter Center



FMC-CH08

The FMC-CH08 is a 2U high 10" (or half 19") chassis that supports up to 8 non-managed FMC or V2MC media converters. The FMC-CH08 provides an economic solution in low density fiber converter installations where no management features are required. Each FMC or VDTU2A-301 converter is an independent Ethernet to fiber or Ethernet to copper media converter that may be used as a stand-alone converter or placed in the FMC-CH08 chassis. When two chassis are connected in tandem, they fit exactly into a 2U 19" rack space. With one of three built-in power options of universal AC (100-240VAC), DC 18-36VDC or DC 36-72VDC, the FMC-CH08 provides the working DC voltages for up to 8 FMC or VDTU2A-301 converters. The built in cooling fan ensures that temperatures in the rack remain within the tolerated working range.

Features

- 2U, 10" (or half 19") rack supports up to 8 FMC converter
- Chassis with single built-in power available in AC or DC models.
- Cross flow cooling fan built-in.
- Designed for rack mounting in tandem

Specifications

Power	AC : 100 ~240V DC24 : 18 ~ 36V, DC48 : 36 ~ 72V
Power Consumption	< 45W
Dimensions (D x W x H)mm	196 x 252 x 89mm
Weight	1.47 kg
Temperature	0~50°C (Operating) ,0~70°C (Storage)
Humidity	10~90% non-condensing
Certification	CE, FCC, RoHS
MTBF	65,000 h (25°C)

Non-managed Family

Non-Managed 17 Slots Media Converter Center



FMC-CH17

The FMC-CH17 is a 2U high 19" chassis that supports up to 17 non-managed FMC or V2MC media converters. The FMC-CH17 provides an economic solution in low density fiber converter installations where no management features are required. Each FMC or VDTU2A-301 converter is an independent Ethernet to fiber or Ethernet to copper media converter that may be used as a stand-alone converter or placed in the FMC-CH17 chassis. With two slots for hot swappable power modules, this chassis can support redundant power from any of three power options, universal AC (100-240VAC), DC 18-36VDC or DC 36-72VDC. The FMC-CH17 provides the working DC voltages for up to 17 FMC or VDTU2A-301 converters. The built in cooling fan ensures that temperatures in the rack remain within the tolerated working range.

Features

- 2U, 19 (23)" rack supports up to 17 FMC converter
- Chassis with redundant AC / DC power
- Cooling fan
- LED indicators

Specifications

LEDs	Power, Fan
Power	AC : 100 ~240V DC24 : 18 ~ 36V, DC48 : 36 ~ 72V
Power Consumption	<100W
Dimensions (D x W x H)mm	303 x 438 x 88mm
Weight	7.9 kg
Temperature	0~50°C (Operating) ,0~70°C (Storage)
Humidity	10~90% non-condensing
Certification	CE, FCC, RoHS
MTBF	65,000 h (25°C)

Ordering Information

FMC-CH08

- *FMC-CH08-AC* 8 slots Rack with Internal AC 100~240V
- *FMC-CH08-DC24* 8 slots Rack with Internal DC 24V
- *FMC-CH08-DC48* 8 slots Rack with Internal DC 48V

FMC-CH17

- *FMC-CH17-CH* 2U 19" 17-slot chassis
- *FMC-CH17-AC* AC 100 ~ 240V power module
- *FMC-CH17-DC24* DC 18 ~36V power module
- *FMC-CH17-DC48* DC 36 ~72 power module

FMC Non-Managed Fiber Media Converter Family

All the FE converters are available with fiber transceivers that support distances as follows:

Single mode: 15/30/50/80/120Km, Multi-mode : 2Km and WDM: 20/40/60/80Km

GbE converters are available in 10/20/40/50/80/120Km, Multi-mode: 550M/2Km & WDM:10/20/40/60/80Km

POF converters reach up to 50 meters



FMC-1000ES
Non-Managed Gigabit Ethernet 10/100/1000 Fiber Media Converter with SFP slot

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FMC-1000E
Non-Managed Gigabit Ethernet 10/100/1000 Fiber Media Converter

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FMC-10/100
Non-Managed Fast Ethernet 10/100 Fiber Media Converter

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FMC-10/100P
Non-Managed Fast Ethernet 10/100 Fiber Media Converter with PoE Feature

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FMC-10/100I
In-band Managed Fast Ethernet 10/100 Fiber Media Converter

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FMC-10/100IP
In-band Managed Fast Ethernet 10/100 Fiber Media Converter with PoE Feature

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Model Name		FMC-1000ES	FMC-1000E	FMC-10/100	FMC-10/100P	FMC-10/100I	FMC-10/100IP
Fiber Interface	Wave Length (nm)	1310/1470-1610	1310/1470-1610	1310/1550	1310/1550	1310/1550	1310/1550
	Connector Type	SFP-LC	SC	SC, ST, FC	SC, ST, FC	SC, ST, FC	SC, ST, FC
	Ports	1-port 1000Base-SX/LX	1-port 1000Base-SX/LX	1-port 100Base-FX	1-port 100Base-FX	1-port 100Base-FX	1-port 100Base-FX
Copper Interface	Connector Type	RJ-45	RJ-45	RJ-45	RJ-45	RJ-45	
	Ports	1-port 10/100/1000Base-T	1-port 10/100/1000Base-T	1-port 10/100Base-TX	1-port 10/100Base-TX	1-port 10/100Base-TX	
Power	DC 12V	✓	✓	✓	✓	✓	✓
Front Panel	DIP Switch	✓	✓	✓	✓	✓	✓
	Diagnostic LEDs	✓	✓	✓	✓	✓	✓
Features	MTU (MAX Packets)	1632	1632	2046	2046	2046	2046
	Auto MDI/MDIX	✓	✓	✓	✓	Remote monitor	✓
	Auto-negotiation or forced mode	✓	✓	✓	✓	✓	✓
	Link Fault Pass through (LFP) functio	✓	✓	✓	✓	✓	✓
	Flow control (Pause)	✓	✓	✓	✓	✓	✓



VDTU2A-301
Non-Managed VDSL2 to Ethernet LAN Extender

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FMC-10/100POF-O (Optolock Type)
Non-Managed Fast Ethernet 10/100 Fiber Media Converter

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FMC-10/100POF-S (SMI Type)
Non-Managed Fast Ethernet 10/100 Fiber Media Converter

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FMC-10/100-AC (Internal AC power)
Non-Managed Fast Ethernet 10/100 Fiber Media Converter

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FMC-10/100-DC (Internal DC power)
Non-Managed Fast Ethernet 10/100 Fiber Media Converter

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Model Name		VDTU2A-301	FMC-10/100POF-O	FMC-10/100POF-S	FMC-10/100-AC	FMC-10/100-DC
Fiber Interface	Wave Length (nm)	-----	650	650	1310/1550	1310/1550
	Connector Type	-----	Optolock	SMI	SC, ST, FC	SC, ST, FC
	Ports	-----	1-port 100Base-FX	1-port 100Base-FX	1-port 100Base-FX	1-port 100Base-FX
Copper Interface	Connector Type	1x RJ-45 to 1x RJ11	RJ-45	RJ-45	RJ-45	RJ-45
	Ports	RJ45: 10/100Base-TX, RJ11:VDSL2	1-port 10/100Base-TX	1-port 10/100Base-TX	1-port 10/100Base-TX	1-port 10/100Base-TX
Power	DC 12V	✓	✓	✓	✓	✓
Front Panel	DIP Switch	✓	✓	✓	✓	✓
	Diagnostic LEDs	✓	✓	✓	✓	✓
Features	MTU (MAX Packets)	1522	1600	1600	2046	2046
	Auto MDI/MDIX	✓	✓	✓	✓	✓
	Auto-negotiation or forced mode	✓	✓	✓	✓	✓
	Link Fault Pass through (LFP) functio	✓	✓	✓	✓	✓
	Flow control (Pause)	✗	✓	✓	✓	✓

Non-Managed Family

Non-managed Fast Ethernet to fiber media converter with PoE (802.3af PD)

FMC-10/100, 10/100-AC FMC-10/100-DC, 10/100P



The FMC-10/100 family are Fast Ethernet 10/100Base-TX to 100Base-FX non-managed stand-alone media converters, which give you the options to choose from the most popular fiber cabling connectors, ST, SC, FC, or SFP-LC. Both multi-mode and single mode converter models are available as well as BiDi which allows bi-directional transmissions using only a single fiber cable. When auto-negotiation is selected, these units will automatically tailor themselves to convert both half-duplex and full-duplex signals, according to IEEE802.3u standards. LED indicators signal the power status of the converter, UTP port speed, Link, and duplex status, FX port Link and duplex status. These stand-alone converters may also be concentrated into either the FMC-CH08 or FMC-CH17 non-managed chassis.

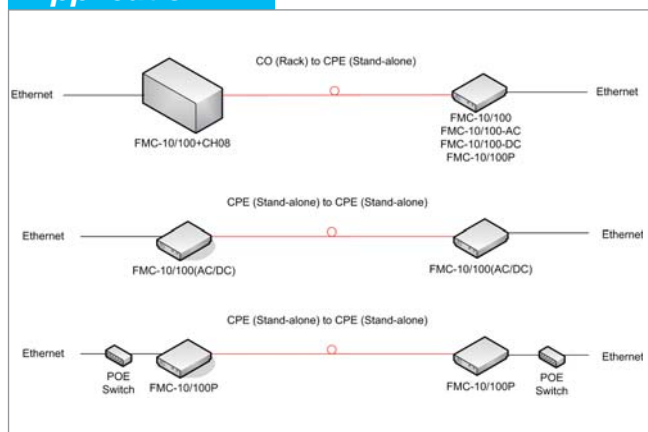
Features

- 10/100Base-TX to 100Base-FX Converter
- Auto-Negotiation or forced mode
- Auto MDI/MDIX
- Forward 1600 bytes (Max.) packets
- Supports Q in Q double tagged frame transparent
- Supports IEEE 802.1q Tag VLAN pass thru
- Support flow control (Pause)
- Supports Link Fault Pass through (LFP)
- Forward 9K jumbo packets in converter mode
- Supports 802.3af Power over Ethernet (only FMC-10/100P)

Specifications

Ports	Connector : 1x9 (SC, ST, FC)
Optical Interface :	Data rate : 100Mbps
	Duplex mode : Full duplex
	Cable type : MM 62.2/125 μ m, 50/125 μ m. SM 9/125 μ m
Distance:	MM 2km, SM 15/30/50/80/120km, WDM 20/40/60/80km
	Wavelength: 1310nm, 1550nm
Electrical Interface :	Connector : RJ45
	Data rate : 10Mbps, 100Mbps
	Duplex mode : Half / Full duplex
	Cable type : 10Base-T Cat.3, 4, 5, UTP, 100Base-TX Cat.5, 5e
	Cable length: 100 meters
Standard	IEEE 802.3, IEEE 802.3u
LEDs	Power, FX Link, TX SPD, TX Link, TX Duplex, FEF
Power	FMC: DC 12V In,
	FMC-AC/DC: AC 100 ~ 240V/ DC 24 ~ 72V
Power Consumption	< 4W
Dimensions (D x W x H)mm	FMC: 108 x 74 x 23mm,
	FMC-AC/DC: 192 x 86 x 30mm
Weight	FMC: 120g, FMC-AC/DC: 550g
Temperature	0~50°C (Operating) ,0~70°C (Storage)
Humidity	10~90% non-condensing
Certification	CE, FCC, RoHS
MTBF	65,000 h (25°C)

Application



Ordering Information

- **FMC-10/100** 10/100Base-TX to 100Base-FX
- **FMC-10/100-AC** 10/100Base-TX to 100Base-FX w/ built-in AC power
- **FMC-10/100-DC** 10/100Base-TX to 100Base-FX w/ built-in DC power
- **FMC-10/100P** 10/100Base-TX to 100Base-FX w/ Power over Ethernet

In-band Managed Family

In-band Managed Fast Ethernet to fiber media converter

FMC-10/100i, 10/100iS FMC-10/100iP, 10/100iPS



The FMC-10/100i family are 10/100Base Ethernet to 100Base-FX fiber stand-alone converters designed for fiber connection to FRM220-10/100i card in a managed FRM220-CH20 chassis. With advanced features like bandwidth control, this media converter is targeted for customer premises equipment in metro LAN, campus, enterprise and FTTx applications. By offering in-band management, this converter can be completely controlled and monitored from a centrally located managed rack controlling all converter settings including band-width control, duplex, and speed configuration. This media converter is completely transparent to Layer 2 and Layer 3 protocols including IEEE 802.1q, VLAN tag, Q in Q, STP, IPX, IP, etc.

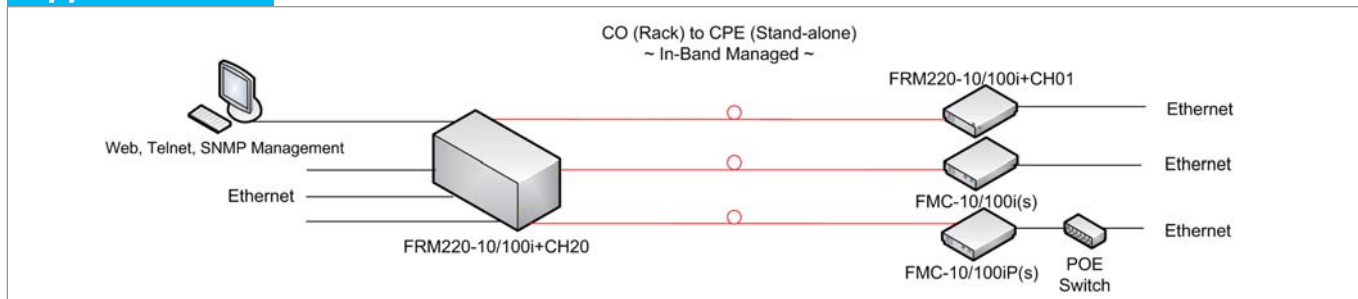
Features

- 10/100Base-TX to 100Base-FX Converter
- Auto-Negotiation or forced mode
- Auto MDI/MDIX
- Forward 2046 bytes (Max.) packets in switch mode
- Forward 9K jumbo packets in converter mode
- Supports Q in Q double tagged frame transparent
- Supports IEEE 802.1q Tag VLAN pass thru
- Supports local / remote In-band management (Monitor and Configure) by the SNMP manager with FRM220-10/100i.
- Bandwidth control (Nx32K or Nx512Kbps)
- Support flow control (Pause)
- Supports remote CPE power fail detect (dying gasp)
- Supports Far End Fault
- Supports Link Fault Pass through (LFP)
- Supports Loop Back Test
- Supports RMON counter
- D/D function for supported SFP fiber transceiver
- Auto Laser Shutdown (ALS)
- Fiber Hardware Reset (FHR)
- Online local / remote f/w upgrade
- Supports 802.3af Power over Ethernet (only FMC-10/100iP)

Specifications

Ports	Connector : 1x9 (SC, ST, FC), SFP LC
Optical Interface :	Data rate : 100Mbps
	Duplex mode : Full duplex
	Cable type : MM 62.2/125 μ m, 50/125 μ m. SM 9/125 μ m
Distance :	MM 2km, SM 15/30/50/80/120km, WDM 20/40/60/80km
	Electrical Interface :
	Connector : RJ45
	Data rate : 10Mbps, 100Mbps
	Duplex mode : Half / Full duplex
	Cable type : 10Base-T Cat.3, 4, 5, UTP, 100Base-TX Cat.5, 5e,
	Distance : 100 meters
Standard	IEEE 802.3, IEEE 802.3u, IEEE802.3ab
LEDs	Power, FX Link, TX SPD, TX Link, TX Duplex, FEF
Power	DC 12V In
Power Consumption	< 4W
Dimensions (D x W x H)mm	108 x 74 x 23mm
Weight	120g
Temperature	0~50°C (Operating) ,0~70°C (Storage)
Humidity	10~90% non-condensing
Certification	CE, FCC, RoHS
MTBF	65,000 h (25°C)

Application



Ordering Information

- **FMC-10/100i** 10/100Base-TX to 100Base-FX w/ In-band Management
- **FMC-10/100iS** 10/100Base-TX to 100Base-FX SFP w/ In-band Management
- **FMC-10/100iP** 10/100Base-TX to 100Base-FX w/ In-band Management & Power over Ethernet
- **FMC-10/100iPS** 10/100Base-TX to 100Base-FX SFP w/ In-band Management & Power over Ethernet

Non-managed Family

Non-managed Gigabit Ethernet Fiber media converters

FMC-1000E, 1000ES



The FMC-1000E is a copper to fiber Gigabit Ethernet solution designed to make conversion between 10/100/1000Base-TX and 1000Base-SX/LX. The FMC-1000ES provides the fiber gigabit with SFP connector. This non-managed converter has a simple DIP switch for setting auto or forced mode and for enabling or disabling its LFP (Link Fault Pass-thru) feature.

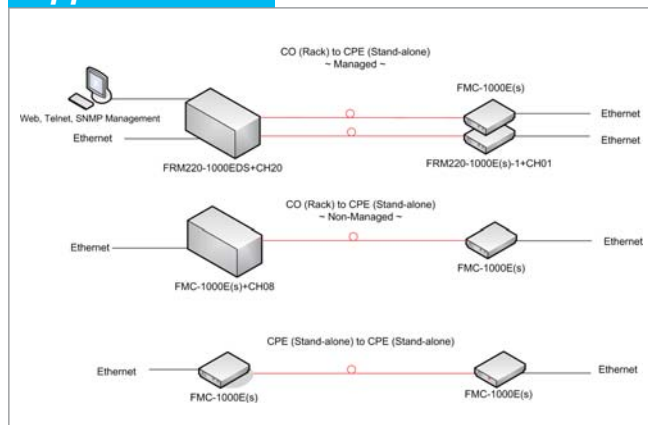
Features

- 10/100/1000Base-T to 1000Base-FX
- Auto-negotiation or forced mode
- Auto MDI/MDIX
- Forward 1632 bytes (Max.) packets
- Supports Flow control (Pause)
- Supports Link Fault Pass through (LFP) function

Specifications

Ports	Connector : 1x9 (SC, ST, FC), SFP LC
Optical Interface :	Data rate : 1000Mbps
	Duplex mode : Full duplex
Cable type :	MM 62.2/125 μ m, 50/125 μ m.
	SM 9/125 μ m
Distance:	MM 2km, SM 15/30/50/80/120km,
	WDM 20/40/60/80km
Wavelength:	850, 1310, 1550nm
Electrical Interface :	Connector : RJ45
	Data rate : 10Mbps, 100Mbps, 1000Mbps
Duplex mode :	Half / Full duplex
	Cable type : 10Base-T Cat.3, 4, 5, UTP,
Cable length:	100Base-TX Cat.5, 5e,
	1000Base-T Cat. 5e or higher

Application



Standard	IEEE 802.3, IEEE 802.3u, IEEE802.3ab, IEEE802.3z
LEDs	Power, FX-Link, TX-Link, TX-SPD, TX-Duplex, LFP
Power	DC In 12V
Power Consumption	< 5W
Dimensions (D x W x H)mm	108 x 74 x 23mm
Weight	120g
Temperature	0~50°C (Operating) ,0~70°C (Storage)
Humidity	10~90% non-condensing
Certification	CE, FCC, LVD, RoHS
MTBF	65,000 h (25°C)

Ordering Information

- **FMC-1000E** Unmanaged Gigabit Ethernet 10/100/1000Base-T to 1000Base-FX
- **FMC-1000ES** Unmanaged Gigabit Ethernet 10/100/1000Base-T to 1000Base-SX/LX SFP

Non-Managed Family

Non-managed Fast Ethernet Plastic fiber media converters



FMC-10/100POF-O, 10/100POF-S

The FMC-10/100POF family is a Fast Ethernet 10/100Base-TX to 100Base-FX non-managed stand-alone media converter which uses plastic optical fiber (POF). POF, as it is widely known, offers affordable, high-end connectivity for small office and home networks. With speeds of 100 Mbps optical Ethernet, it is a superior alternative to copper used in traditional networks. This is especially true for applications such as triple play and IPTV. The advantages to professional installers and amateur do-it-yourselfers are numerous. The discrete 2mm x 4.5mm duplex cable is easily concealed under carpets or easily pulled inside walls without breaking, while it can be easily cut with a pair of scissors. POF is robust enough to survive even the most novice installer. Troubleshooting is a snap as it uses 650nm visible red light to transfer data from one device to another. A quick glance inside the cable will indicate connectivity to the network by a red glow; no red light means no connection. It's that simple.

POF is completely safe. Because it is a light-based solution, there is no EMI (electro-magnetic interference) so it won't interfere with or be interfered by other electrical equipment. POF is already used in millions of cars worldwide to drive entertainment and information networks and has been proven reliable even in the most rugged environments. These stand-alone converters may also be concentrated into either the FMC-CH08 or FMC-CH17 non-managed chassis.

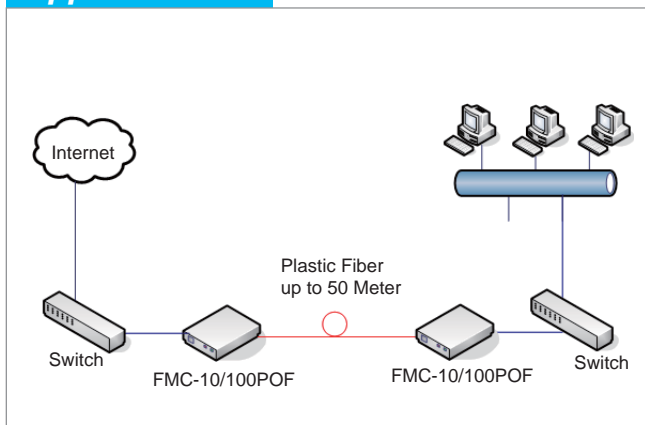
Features

- 10/100Base-TX to 100Base-FX Converter
- Auto-Negotiation or forced mode
- Auto MDI/MDIX
- Forward 1600 bytes (Max.) packets
- Supports Q in Q double tagged frame transparent
- Supports IEEE 802.1q Tag VLAN pass thru
- Support flow control (Pause)
- Supports Link Fault Pass through (LFP)
- Compact size and simple installation

Specifications

Ports	Connector : 1x9 (SC, ST, FC), SFP LC
Optical Interface :	Data rate : 100Mbps
	Duplex mode : Full duplex
	Cable type : Simplex POF cable
	Distance : MM 50meters
Electrical Interface :	Wavelength: MM 650nm
	Connector : RJ45
	Data rate : 10Mbps, 100Mbps
	Duplex mode : Half / Full duplex
	Cable type : 10Base-T Cat.3, 4, 5, UTP, 100Base-TX Cat.5, 5e
Distance : 100 meters	
Standard	IEEE 802.3, IEEE 802.3u
LEDs	Power, FX Link, TX SPD, TX Link, TX Duplex, FEF
Power	DC 12V In
Power Consumption	< 4W
Dimensions (D x W x H)mm	108 x 74 x 23mm
Weight	120g
Temperature	0~50°C (Operating) ,0~70°C (Storage)
Humidity	10~90% non-condensing
Certification	CE, FCC, RoHS
MTBF	65,000 h (25°C)

Application



Ordering Information

- **FMC-10/100POF-S** 10/100Base-TX to 100Base-FX SMI
- **FMC-10/100PPF-O** 10/100Base-TX to 100Base-FX Optolock