

C-100MM Fast Ethernet Media Converter Modules

100Base-FX to 100Base-X Fiber Mode Conversion



- 100Base-FX to 100Base-X Fiber to Fiber Media Converters
- Multimode to multimode or multimode to single mode
- Extend multimode fiber to 120km (or more through chaining)
- Choice in SC, LC and ST fiber connector models
- Signal regeneration prevents signal degradation
- Advanced Features: **Link Pass-Through**, Far-End Fault, loopback for each fiber connection

Installed in a high density **Perle Media Converter Chassis**, Perle's feature rich **C-100MM Fast Ethernet Fiber to Fiber Media Converter Module** enables transparent fiber extension of 100Base-FX multimode fiber to 100Base-FX multimode or 100Base-LX/EX/ZX/BX single mode fiber.

Perle's advanced features make the end to end fiber link completely transparent. This allows for more efficient troubleshooting and less on-site maintenance. In addition, a lifetime warranty and free worldwide technical support make **Perle's C-100MM Fast Ethernet Fiber to Fiber Media Converter Modules** the smart choice for IT professionals.

Whether you need to extend **multimode to multimode** or **multimode to single mode**, Perle has an extensive range of C-100MM Fast Ethernet Fiber to Fiber Media Converter Modules to meet your fiber conversion requirement.

C-100MM Fiber to Fiber Features: 100Base-FX to 100Base-X

Link Pass-Through

- When enabled, the state of the receiver on one 100Base-X interface is reflected on the other 100Base-X fiber transmitter.
 - If disabled, the 100Base-X fiber interfaces operate independently. Far-End Fault indication on the 100Base-X fiber interface has no effect on the other interface.
 - Using Link Pass-Through with Far-End Fault minimizes data loss when a fault occurs. If a fault occurs, the end devices have the indication of a failure available to making trouble shooting easier.
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Far-End Fault (FEF)

- When enabled, the media converter transmits the Far-End Fault Indication over the fiber connection whenever a receive failure is detected. The media converter continuously monitors the fiber connection and clears the Far-End Fault Indication condition when a valid signal is received.
 - When disabled, Far-End Fault Indications are not transmitted regardless of the condition of the receive signal on the 100Base-X fiber connection.
 - The action the media converter takes on receiving a Far-End Fault Indication is dependent on the Link Pass-Through switch setting.
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Signal Regeneration

Signal regeneration maintains signal integrity and allows for maximum fiber to fiber connections without degradation.

Cascading

Media converters can be cascaded. Two or more media converters can be chained in a link to achieve even greater distances.

Pause (IEEE 802.3xy)

Pause signaling is an IEEE feature that temporarily suspends data transmission between two devices in the event that one of the devices becomes overwhelmed. The media converter is transparent to Pause frames.

VLAN

The Media Converter is transparent to 802.1Q VLAN tagged packets.

Remote Loopback

The Media Converter can perform a loopback on each 100Base-X fiber interface.

Specifications				
Lifetime limited warranty	Reach, RoHS and WEEE Compliant	HTSUS Number: 8517.62.0020	UNSPSC Code: 43201553	ECCN: 5A991
				
Indicators				
Power / TST	This green LED is turned on when power is applied to the media converter. Otherwise it is off. The LED will blink slowly when in Loopback test mode.			
Fiber link 1 / Receive activity (LK1)	This green LED is operational only when power is applied. The LED is on when the 100Base-X link is on and flashes with a 50% duty cycle when data is received.			
Fiber link 2 on / Receive activity (LK2)	This green LED is operational only when power is applied. The LED is on when the 100Base-X link is on and flashes with a 50% duty cycle when data is received.			
Switches: On-Board				
Link Pass Through	• <i>Enabled (Default)</i> - When the state of the receiver is changed on one of the 100Base-X interfaces it is reflected on the other 100Base-X fiber transmitter. • If disabled, the 100Base-X fiber interfaces operate independently. Far-End Fault indication on the 100Base-FX fiber interface has no effect on the other interface.			
Far-End Fault (FEF)	• <i>Enabled (default)</i> - The media converter transmits the Far-End Fault Indication over the fiber connection whenever a receive failure is detected. The media converter continuously monitors the fiber connection and clears the Far-End Fault Indication condition when a valid signal is received. • <i>When Disabled</i>, Far-End Fault Indications are not transmitted regardless of the condition of the receive signal on the 100Base-X fiber connection.			

Remote Loopback #1	- The media converter can perform a loopback on the link #1 fiber interface. Disabled (Default - Up) - Enabled - The 100Base-X receiver is looped to the 100Base-X transmitter. The 100Base-TX transmitter is taken off the interface.
Remote Loopback #2	- The media converter can perform a loopback on the link #2 fiber interface. Disabled (Default - Up) - Enabled - The 100Base-X receiver is looped to the 100Base-X transmitter. Link #1's fiber transmitter is taken off the interface.
Cables	
Fiber Optic Cable	- Multimode: 62.5 / 125, 50/125, 85/125, 100/140 micron - Single Mode: 9/125 micron (ITU-T 625)
Packet Transmission Characteristics	
Bit Error Rate (BER)	<10 ⁻¹²
Environmental Specifications	
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	minimum range of -25°C to 70°C (-13°F to 158°F)
Operating Humidity	5% to 90% non-condensing
Storage Humidity	5% to 95% non-condensing
Operating Altitude	Up to 3,048 meters (10,000 feet)
Heat Output (BTU/HR)	11.9
Maximum Power Consumption (watts)	3.5
MTBF (Hours)	489,076 Hours <i>Calculation model based on MIL-HDBK-217-FN2 @ 30°C</i>
Mechanical - Hot Swapping Card	
Edge Connector	32 pin DIN 41612 / IEC 60603-2 Type B/2 Male. First make, last break for ground and power

Card insertion and removal	Captive thumb screws enable fast insertion and removal. Can be further tighten with a screwdriver.
Product Weight	
Weight	0.15 kg, 0.33 lbs
Packaging	
Shipping Weight	0.33 kg, .73 lbs
Shipping Dimensions	203 x 38 x 152 mm, 8 x 1.5 x 6 inches
Regulatory Approvals	
Emissions	• FCC Part 15 Class A • CISPR 32 / EN 55032 • EN61000-3-2
Immunity	CISPR 35 / EN 55035
Safety	• UL/EN/IEC 62368-1 • CAN/CSA C22.2 No. 62368-1 • UL 60950-1 • IEC 60950-1(ed 2); am1, am2 • EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 • CE
Laser Safety	• EN 60825-1 • Fiber optic transmitters on this device meet Class 1 Laser safety requirements per IEC-60825 FDA/CDRH standards and comply with 21CFR1040.10 and 21CFR1040.11.

Product List



C-100MM-M2ST2 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (ST) [2 km/1.2 miles] to 100Base-FX 1310nm multimode (ST) [2 km/1.2 miles]

Part Number(s)

05061010



C-100MM-M2SC2 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (SC) [2 km/1.2 miles] to 100Base-FX 1310nm multimode (SC) [2 km/1.2 miles]

Part Number(s)

05061000



C-100MM-M2LC2 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (LC) [2 km/1.2 miles] to 100Base-FX 1310nm multimode (LC) [2 km/1.2 miles]

Part Number(s)

05061020



C-100MM-S2ST20 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (ST) [2 km/1.2 miles] to 100Base-LX 1310nm single mode (ST) [20 km/12.4 miles]

Part Number(s)

05061040



C-100MM-S2SC20 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (SC) [2 km/1.2 miles] to 100Base-LX 1310nm single mode (SC) [20 km/12.4 miles]

Part Number(s)

05061030



C-100MM-S2LC20 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (LC) [2 km/1.2 miles] to 100Base-LX 1310nm single mode (LC) [20 km/12.4 miles]

Part Number(s)

05061050



C-100MM-S2ST40 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (ST) [2 km/1.2 miles] to 100Base-EX 1310nm single mode (ST) [40 km/24.9 miles]

Part Number(s)

05061070



C-100MM-S2SC40 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (SC) [2 km/1.2 miles] to 100Base-EX 1310nm single mode (SC) [40 km/24.9 miles]

Part Number(s)

05061060



C-100MM-S2LC40 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (LC) [2 km/1.2 miles] to 100Base-EX 1310nm single mode (LC) [40 km/24.9 miles]

Part Number(s)

05061080



C-100MM-S2ST80 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (ST) [2 km/1.2 miles] to 100Base-ZX 1550nm single mode (ST) [80 km/49.7 miles]

Part Number(s)

05061100



C-100MM-S2SC80 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (SC) [2 km/1.2 miles] to 100Base-ZX 1550nm single mode (SC) [80 km/49.7 miles]

Part Number(s)

05061090



C-100MM-S2LC80 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (LC) [2 km/1.2 miles] to 100Base-ZX 1550nm single mode (LC) [80 km/49.7 miles]

Part Number(s)

05061110



C-100MM-S2ST120 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX
1310nm multimode (ST) [2 km/1.2 miles] to 100Base-ZX 1550nm single mode (ST) [120 km/74.6 miles]

Part Number(s)

05061130



C-100MM-S2SC120 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX
1310nm multimode (SC) [2 km/1.2 miles] to 100Base-ZX 1550nm single mode (SC) [120 km/74.6 miles]

Part Number(s)

05061120



C-100MM-S2LC120 - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX
1310nm multimode (LC) [2 km/1.2 miles] to 100Base-ZX 1550nm single mode (LC) [120 km/74.6 miles]

Part Number(s)

05061140



C-100MM-S1ST20U - Fast Ethernet Fiber to Fiber Media Converter Module. 100BASE-FX
1310nm multimode (ST) [2 km/1.2 miles] to 100Base-BX 1310nm TX / 1550nm RX single strand fiber, single mode (ST) [20 km/12.4 miles]

Part Number(s)

05061590



C-100MM-S1ST20D - Fast Ethernet Fiber to Fiber Media Converter Module. 100BASE-FX 1310nm multimode (ST) [2 km/1.2 miles] to 100Base-BX 1550nm TX / 1310nm RX single strand fiber, single mode (ST) [20 km/12.4 miles]

Part Number(s)

05061600



C-100MM-S1SC20U - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (SC) [2 km/1.2 miles] to 100Base-BX 1310nm TX / 1550nm RX single strand fiber, single mode (SC) [20 km/12.4 miles]

Part Number(s)

05061150



C-100MM-S1SC20D - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (SC) [2 km/1.2 miles] to 100Base-BX 1550nm TX / 1310nm RX single strand fiber, single mode (SC) [20 km/12.4 miles]

Part Number(s)

05061160



C-100MM-S1SC40U - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (SC) [2 km/1.2 miles] to 100Base-BX 1310nm TX / 1550nm RX single strand fiber, single mode (SC) [40 km/24.9 miles]

Part Number(s)

05061170



C-100MM-S1SC40D - Fast Ethernet Fiber to Fiber Media Converter Module, 100Base-FX 1310nm multimode (SC) [2 km/1.2 miles] to 100Base-BX 1550nm TX / 1310nm RX single strand fiber, single mode (SC) [40 km/24.9 miles]

Part Number(s)

05061180