

S-100MM Fast Ethernet Media Converters

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

Perle's feature rich **S-100MM Fast Ethernet Fiber to Fiber** Media Converters enable 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 S-100MM Fast Ethernet Fiber to Fiber Media Converters** 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 S-100MM Fast Ethernet Fiber to Fiber Media Converters to meet your fiber conversion requirement.

S-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.

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.

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 fast ethernet media converter supports pause negotiation on the 100Base-TX copper connection.

VLAN

The media converter is transparent to 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:	UNSPSC Code:
8517.62.0020	43201553
ECCN:	5A991
	
Power	
Input Supply Voltage	6 - 30 vDC, unregulated (12 vDC Nominal)
Current	0.29 amps
Power Consumption	3.5 watts
Power Connector	5.5mm x 9.5mm x 2.1mm barrel socket
Power Adapter	
Universal AC/DC Adapter	100-240v AC, regulated DC adapter included
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 - accessible through a side opening in the chassis	
Link Pass Through	Enabled (Default) - 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)	• Enabled (default) - 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. • Enabled - The 100Base-X receiver is looped to the 100Base-X transmitter. Link #2's fiber transmitter is taken off the interface.
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 #1 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
MTBF	• Without power adaptor: 503,679 Hours • With power adaptor: 302,090 Hours <i>Calculation model based on MIL-HDBK-217-FN2 @ 30°C</i>
Chassis	Metal with an IP20 ingress protection rating
Mounting	
Din Rail Kit	Optional
Rack Mount Kit	Optional
Product Weight and Dimensions	
Weight	0.3 kg, 0.66 lbs
Dimensions (W x H x D)	120 x 80 x 26 mm, 4.7 x 3.1 x 1.0 inches
Packaging	
Shipping Weight	0.55 kg, 1.2 lbs
Shipping Dimensions	170 x 280 x 70 mm, 6.7 x 10.2 x 2.8 inches
Regulatory Approvals	
Emissions	• FCC Part 15 Class B* • 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.
* When used with a Class B rated AC power adapter.	

Product List



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060004	05060001	05060002	05060005	05060006	05060008



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060014	05060011	05060012	05060015	05060016	05060018



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060024	05060021	05060022	05060025	05060026	05060028



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060034	05060031	05060032	05060035	05060036	05060038



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060044	05060041	05060042	05060045	05060046	05060048



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060054	05060051	05060052	05060055	05060056	05060058



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060064	05060061	05060062	05060065	05060066	05060068



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060074	05060071	05060072	05060075	05060076	05060078



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060084	05060081	05060082	05060085	05060086	05060088



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060094	05060091	05060092	05060095	05060096	05060098



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060104	05060101	05060102	05060105	05060106	05060108



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060114	05060111	05060112	05060115	05060116	05060118



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060124	05060121	05060122	05060125	05060126	05060128



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060134	05060131	05060132	05060135	05060136	05060138



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

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060144	05060141	05060142	05060145	05060146	05060148



S-100MM-S1SC20U - Fast Ethernet Fiber to Fiber Stand-Alone Media Converter, 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]

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060154	05060151	05060152	05060155	05060156	05060158



S-100MM-S1SC20D - Fast Ethernet Fiber to Fiber Stand-Alone Media Converter, 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]

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060164	05060161	05060162	05060165	05060166	05060168



S-100MM-S1SC40U - Fast Ethernet Fiber to Fiber Stand-Alone Media Converter, 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]

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060174	05060171	05060172	05060175	05060176	05060178



S-100MM-S1SC40D - Fast Ethernet Fiber to Fiber Stand-Alone Media Converter, 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]

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060184	05060181	05060182	05060185	05060186	05060188



S-100MM-S1ST20U - Fast Ethernet Fiber to Fiber Media Converter. 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]

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060594	05060591	05060592	05060595	05060596	05060598



S-100MM-S1ST20D - Fast Ethernet Fiber to Fiber Media Converter. 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]

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS	None
05060604	05060601	05060602	05060605	05060606	05060608

Related Accessories

Accessories



DIN Rail Mounting Kit for 4 & 8 port IOLAN desktop models, all Stand-Alone Media Converters and all Stand-alone Ethernet Extenders. Two of these brackets are required for the 8 port STS8-D model.

04030840



Standalone media converter wall / rack mount bracket

05059999

Power Supplies



UK 12VDC / 12W power adapter with Barrel connector for Perle Device Servers, Media Converters, and Ethernet Extenders

04031581



EU 12VDC / 12W power adapter with Barrel connector for Perle Device Servers, Media Converters, and Ethernet Extenders

04031582



USA 12VDC / 12W power adapter with Barrel connector for Perle Device Servers, Media Converters, and Ethernet Extenders

04031584



Australia 12VDC / 12W power adapter with Barrel connector for Perle Device Servers, Media Converters, and Ethernet Extenders

04031586