miConverter S-Series

S/GXT Gigabit Ethernet Media Converter
S/FXT Fast Ethernet Media Converter

The *miConverter* S/GXT Gigabit fiber to 10/100/1000BASE-T and the S/FXT Fast Ethernet fiber to 10/100/1000BASE-T media converters are ideal for mobile applications where light weight, compact size and low power are critical requirements. Weighing less than 2.5 oz. (72 grams), and about the length of a standard house key, the *miConverter* S-Series converters can conveniently slip into any pocket or laptop carrying case for easy portability.

These ultra-compact media converters can be USB powered, enabling fiber connectivity to locations where AC or DC power is unavailable, such as field-deployed fiber-to-the-laptop and military applications. Fiber is run directly to the laptop, where it is converted to copper UTP and connected to a laptop RJ-45 port with a standard Ethernet patch cable. Power is supplied to the media converter by the laptop's USB port using a standard USB cable, eliminating the need for an electrical outlet.

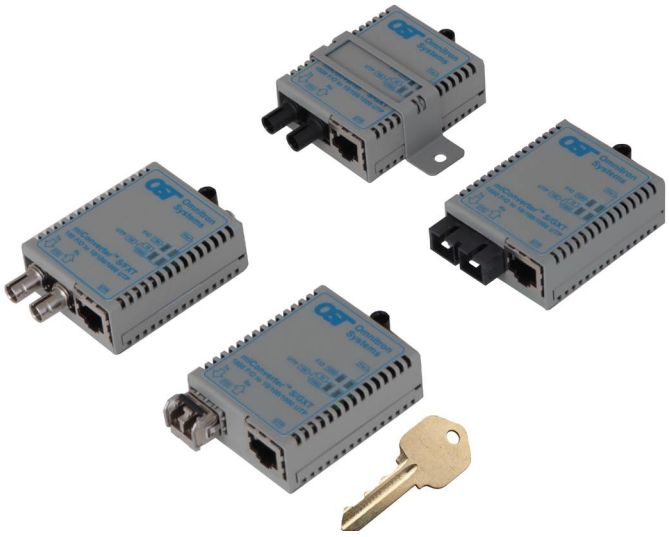
The *miConverter* S-Series delivers plug-and-play set up with an RJ-45 port that auto-negotiates the speed, duplex mode and cross-over functions for laptops with 10BASE-T, 100BASE-TX or 1000BASE-T Ethernet. LEDs provide intuitive display indicating power, network connectivity and data activity.

The S-Series is available with 100BASE-FX or 1000BASE-X fixed fiber transceivers (SC or ST connectors), and supports multi-mode, single-mode and single-fiber options. It also supports Small Form Pluggable (SFP) transceivers. SFP transceivers enable adaptability to different fiber types, speeds and distances, and support Coarse Wave Division Multiplexing (CWDM) technology to increase the bandwidth capacity of fiber infrastructure.

S-Series media converters support a standard operating temperature range of 0 to 50°C. Models are also available with a wide operating temperature range of -40 to 65°C for deployments in harsh environments.

For applications not utilizing USB power, the S-Series product is also available with a country specific AC/DC power adapter, providing compatibility with electrical outlet types found around the world.

Easy to pack and convenient for mobile applications, the S-Series media converter is available with an optional traveling case that stores the media converter, power adapter, USB cable and other accessories.



SFPs and key not included

KEY FEATURES

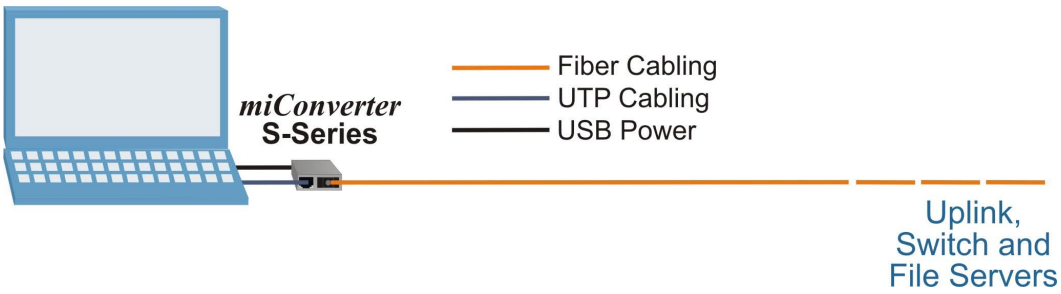
- Miniature Gigabit and Fast Ethernet copper to fiber media converters for mobile applications
- Smallest media converters available
- Ultra compact and weighs less than 2.5 oz.
- USB powered for portability
- Cost effective
- Plug-and-Play capability with auto-negotiation
- Fiber port supports 1000BASE-X or 100BASE-FX
- Small Form Pluggable (SFP) transceivers or fixed fiber connectors (SC, ST)
- Multimode and single-mode fiber options
- UTP port supports 10/100/1000BASE-T
- Supports Jumbo Ethernet Frames up to 10,240 bytes
- LED indicators for Power, UTP and Fiber status
- AC power supply options for US and International
- Convenient travel case
- Wide temperature range of -40 to 65°C
- Lifetime Warranty and free 24/7 Technical Support

APPLICATION EXAMPLE

The application diagram depicts a laptop computer connected to a fiber network.

The *miConverter* S-Series media converter connects to the laptop using two cables. The USB Power Cable draws electrical current from the USB port (1.0 or 2.0) of the laptop. The UTP cable provides connectivity between the laptop and the copper port on the converter. The converter provides 10/100/1000BASE-T UTP to a 1000BASE-X or 100BASE-FX fiber conversion, which can extend the fiber link up to 140km. Power from the USB port of the computer is automatically shut off when the computer is powered down, turning off the media converter.

The *miConverter* S-Series media converter is an excellent solution for fiber-to-the-laptop applications where Gigabit fiber connectivity is required and local power is not available.



SPECIFICATIONS

Model	*miConverter* S/GXT	*miConverter* S/FXT
Description	1000BASE-X Fiber to 10/100/1000BASE-T UTP Converter	100BASE-FX Fiber to 10/100/1000BASE-T UTP Converter
Protocols	10BASE-T, 100BASE-TX, 1000BASE-T, 1000BASE-X	10BASE-T, 100BASE-TX, 1000BASE-T, 100BASE-FX
Frame Size	10,240 byte max frame size	
Compliance	UL, CE, FCC 15 Class B	
UTP Cable	EIA/TIA 568A/B, Cat 5 and higher	
Fiber Cable	Multimode: 50/125, 62.5/125, 100/140um Single-mode: 9/125um	
Copper Connector	RJ45	
Fiber Connector	SFP: LC Dual Fiber: SC, ST Single-Fiber: SC	
LED Display	Pwr, F/O, UTP	
Dimensions	W: 1.75" x L: 2.25" x H: 0.84"	
Weight	without power adapter: 2.5 oz. with USB cable: 3.8 oz. with AC power adapter (US) and USB: 5.42 oz.	
DC Power Input Connector	USB micro-B	
DC Power Requirements	0.5A @ 5VDC	
AC Power Requirements (US)	100-120VAC 50-60Hz 0.02A @ 120V	
AC Power Requirements (Univ.)	100-240VAC 50-60Hz 0.02A @ 120VAC	
Temperature	Standard: 0 to 50°C Wide: -40 to 65°C Storage: -40 to 80°C	
Humidity	5 to 95% (non-condensing)	
Altitude	-100m to 4000m	
MTBF (hrs)	without power adapter: 1,300,000 US power adapter: 50,000 Univ power adapter: 200,000	

ORDERING INFORMATION

Fiber Type	Distance	Connector Type				Tx λ (nm)	Rx λ (nm)	Min. Tx Power (dBm)	Max. Tx Power (dBm)	Min. Rx Sense (dBm)	Max. Rx Sense (dBm)	Min. Atten (dB)	Link Budget (dB)
		ST	ST Metal	SC	SFP (LC)								
***miConverter* S/FXT Fast Ethernet Fiber Media Converter**													
SFP	-	-	-	-	1619-0-x	-	-	-	-	-	-	-	-
MM/DF	5km	1600-0-x	1600M-0-x	1602-0-x	-	1310	1310	-24	-14	-31	-14	-	7
SM/DF	30km	1601-1-x	1601M-1-x	1603-1-x	-	1310	1310	-15	-8	-31	-8	-	16
SM/SF*	20km	-	-	1610-1-x	-	1310	1550	-15	-5	-30	-3	-	15
SM/SF*	20km	-	-	1611-1-x	-	1550	1310	-15	-5	-30	-3	-	15
***miConverter* S/GXT Gigabit Ethernet Fiber Media Converter**													
SFP	-	-	-	-	1639-0-x	-	-	-	-	-	-	-	-
MM/DF	220m/ 550m	1620-0-x	1620M-0-x	1622-0-x	-	850	850	-10	-4	-17	-3	-	7
SM/DF	12km	1621-1-x	1621M-1-x	1623-1-x	-	1310	1310	-9.5	-3	-19.5	-3	-	10
SM/DF	34km	-	-	1623-2-x	-	1310	1310	-5	0	-23	-3	3	18
SM/SF*	20km	-	-	1630-1-x	-	1310	1550	-9.5	-3	-20	-3	-	10.5
SM/SF*	20km	-	-	1631-1-x	-	1550	1310	-9.5	-3	-20	-3	-	10.5

When choosing power options, replace (-x) in the model number with the suffix number that corresponds to the selected power adapter.

-1	Includes US AC/DC power adapter and USB power cable
-1T	Includes US AC/DC power adapter, USB power cable and travel case
-3	Includes European AC/DC power adapter and USB power cable
-4	Includes UK AC/DC power adapter and USB power cable
-5	Includes Australian AC/DC power adapter and USB power cable
-6	NO AC/DC power adapter. Includes USB power cable
-6T	NO AC/DC power adapter. Includes USB power cable and travel case
-8	Includes Japan AC/DC power adapter and USB power cable
-8T	Includes Japan AC/DC power adapter, USB power cable and travel case

Example: 1623-2-4 = SM / DF / 34km with UK AC/DC power adapter and USB power cable.

*Single-Fiber converters must be used in pairs. The Tx wavelength on one end has to match the Rx wavelength on the other.
For wide temperature models (-40 to 65° C), add a "W" to the end of the model number.

Contact Omnitron for other configurations.

Accessories	
Model No	**Description**
9146-1	Spare US/USB AC/DC power adapter and 3ft. USB power cable
9146-3	Spare Euro/USB AC/DC power adapter and 3ft. USB power cable
9146-4	Spare UK/USB AC/DC power adapter and 3ft. USB power cable
9146-5	Spare Aus/USB AC/DC power adapter and 3ft. USB power cable
9146-8	Spare Japan/USB AC/DC power adapter and 3ft. USB power cable
9146-6	3ft. USB power cable (standard Type A plug to micro-B plug)
1691-0	*miConverter* S-Series wall mount bracket
1692-0	Spare *miConverter* S-Series travel case

Optional Travel Case

Travel Case has individual pockets to hold the converter, cable and power adapter.

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