Gigabit Ethernet Copper-to-Fiber Media Converter, SM LC, 20km, 10/100/1000 Mbps, RJ45 to LC, Full Metal, 9K Jumbo Frames, TAA Compliant

Product ID: MCM1110SMLC20

This Gigabit Ethernet to fiber media converter offers a reliable way to extend your network up to 20 km (12.4 mi) using single-mode LC fiber, providing increased range, enhanced security, and reduced interference compared to copper-based connections. It's TAA compliant and designed for government and commercial applications where long-distance and rack-mountable fiber access is needed.

Convert 10/100/1000 Mbps RJ-45 to Gigabit LC fiber using a media converter that complies with IEEE 802.3 standards. It supports full/half duplex, auto-negotiation, MDI/MDI-X, and 9K jumbo frames for high-performance networking in mixed copper-fiber environments.

Built with a compact full metal chassis, this converter includes LED indicators for power and link activity, plus a DIP switch to enable Link Fault Passthrough (LFP) with LLCF/LLR for easier network troubleshooting and reliability.

Deploy in minutes with plug-and-play setup and multiple mounting options including wall-mount, DIN-rail, or media chassis installation. It includes a 5V DC, 2A power adapter, making it ideal for server rooms or network closets.

Certifications, Reports and Compatibility

Applications

Features

• Extend Ethernet Over Extraordinary Distances: Convert and extend a 10/100/1000 Mbps Ethernet signal to Gigabit single-mode LC fiber, up to 20km (12.4mi); For specialized edge, industrial / remote deployments requiring long-range, secure wired connectivity

• Reliable Performance & Diagnostics: Compatible with 1000BASE-T (IEEE 802.3ab) and 1000BASE-LX (IEEE 802.3z); Supports full/half duplex, 9K jumbo frames, auto-negotiation, and auto MDI/MDI-X; DIP switch enables Link Fault Passthrough (LFP) with LLCF/LLR

• Durable, Compact Design: All-metal chassis provides strong shielding and long-term durability, while the compact size fits easily into tight spaces; Built-in LED indicators make it easy to monitor link, power, and activity at a glance

• Install Flexibly in Any Environment: Plug-and-play media converter supports wall, DIN rail, or chassis mounting for secure placement in server rooms or network closets; Includes a 5V DC power adapter for consistent operation

• The IT Pro's Choice: Engineered for edge, on-prem, and aerospace/defense applications requiring compliant connectivity; TAA certified and lab-tested for mission-critical reliability and backed by free lifetime 24/5 multilingual technical support

Hardware

	Warranty	2 Years
	PoE	No
	WDM	No
	Industry Standards	IEEE 802.3ab 1000BASE-T
		IEEE 802.3z 1000BASE-LX
		IEEE 802.3 10BASE-T
		IEEE 802.3u 100BASE-TX

Performance

	Maximum Data Transfer Rate	2 Gbps (Full-Duplex)
	Max Transfer Distance	20 km (12.4 mi)
	Type	Single Mode
	Wavelength	1310nm
	Fiber Operating Mode	Half/Full-Duplex
	Flow Control	None
	Remote Management	No

	Ability	
	Compatible Networks	1000 Mbps (1 Gbps)
	Auto MDIX	Yes
	Jumbo Frame Support	9K max.
	Switching Architecture	None
	MTBF	50,000 Hours

Connector(s)

	Local Unit Connectors	1 - Fiber Optic LC Duplex
		1 - RJ-45

Indicators

	LED Indicators	1 - PWR
		1 - RPF
		1 - LFP
		1 - LNK
		1 - LINK - RJ45
		1 - FULL - RJ45

Power

	Power Source	AC Adapter Included
	Input Voltage	100 - 240 AC
	Input Current	0.4 A
	Output Voltage	5 DC
	Output Current	2 A
	Center Tip Polarity	Positive
	Plug Type	M
	Power Consumption (In Watts)	4.6

Environmental

	Operating Temperature	0C to 50C (32F to 122F)
	Storage Temperature	-10C to 70C (14F to 158F)
	Humidity	5~95% RH (Non-condensing)

Physical Characteristics

	Color	Black
	Material	Metal
	Product Length	2.8 in [70 mm]
	Product Width	3.7 in [94 mm]
	Product Height	3.7 in [94 mm]
	Weight of Product	0.0 lb [0.0 kg]

Packaging Information

	Package Length	11.0 in [28.0 cm]
	Package Width	5.2 in [13.3 cm]
	Package Height	2.6 in [6.6 cm]
	Shipping (Package) Weight	11.6 oz [328.0 g]

What's in the Box

	Included in Package	1 - Media Converter
		1 - Universal Power Adapter
		1 - Product Documentation

Warranty Information

	Warranty	2 Years

*Product appearance and specifications are subject to change without notice.