

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

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#### 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  |

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#### 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) |

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#### 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] |

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#### 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] |

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#### What's in the Box

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

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#### Warranty Information

|          |         |
|----------|---------|
| Warranty | 2 Years |
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*\*Product appearance and specifications are subject to change without notice.*