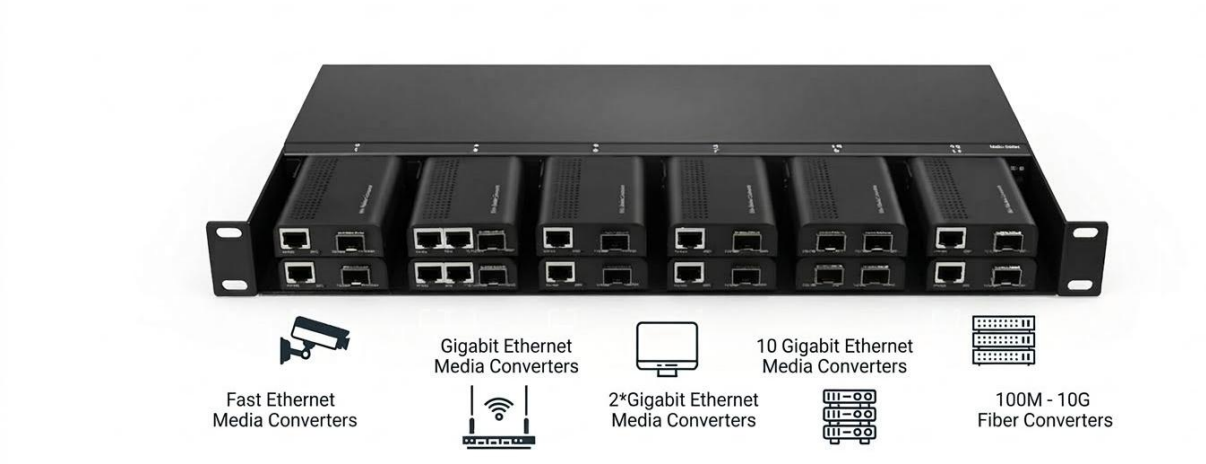
Media Converters Portfolio

1G and Multi-Rate (100M–10G) Ethernet Media Converters

Product Overview

E.C.I. NETWORKS media converters provide reliable and flexible connectivity between copper and fiber Ethernet networks or between different fiber infrastructures. Designed for enterprise, telecom, industrial, and data center environments, these compact converters support Gigabit Ethernet and multi-rate Ethernet up to 10G.

Using pluggable SFP and SFP+ optical modules, the converters allow operators to select the appropriate fiber type, wavelength, and distance according to deployment requirements. The mini form factor supports standalone deployment or centralized installation in a 12-slot rackmount chassis, providing a scalable architecture for network expansion



Product Portfolio

Model	Ports	Max Speed	Conversion Type
EN-MC-SFPRJ45	1× RJ45 + 1× SFP	1G	Copper ↔ Fiber
EN-MC-SFPSFP	2× SFP	1G	Fiber ↔ Fiber
EN-MC-SFP2RJ45	2× RJ45 + 1× SFP	1G	Dual Copper ↔ Fiber
EN-MC-SFPPRJ45	1× RJ45 + 1× SFP+	10G (Multi-Rate)	Copper ↔ Fiber
EN-MC-SFPPSFPP	2× SFP+	10G (Multi-Rate)	Fiber ↔ Fiber

Product Features

- Supports 10M / 100M / 1G / 2.5G / 5G / 10G Ethernet
- Copper-to-fiber and fiber-to-fiber media conversion
- SFP/ SFP+ pluggable fiber interface
- Compatible with single-mode, multimode, and BiDi optics
- Jumbo frame support
- Link Fault Pass-Through (LFP) for fault propagation
- Auto Laser Shutdown (ALS) protection
- DIP switch configurable operation modes
- Fanless metal enclosure for silent operation
- Supports standalone operation or rackmount chassis deployment

Applications

- Enterprise Networks
  - Extend copper Ethernet links to fiber across buildings or floors.
- Data Centers
  - Enable copper server interfaces to connect to fiber aggregation networks.
- Telecom Access Networks
  - Provide multi-rate Ethernet connectivity between access devices and fiber infrastructure.
- Industrial Connectivity
  - Offer electrical isolation and long-distance connectivity through fiber.

Installation & Operational Features

The mini media converters are designed for simple deployment and maintenance. Their hot-swappable design allows quick installation, replacement, or troubleshooting without disrupting other devices in the network.

The converters support Link Fault Pass-Through (LFP). When a link failure occurs on one side, the fault is automatically propagated to the opposite interface. This enables administrators to quickly identify and resolve connectivity issues, minimizing potential network downtime.

For operational flexibility, DIP switches allow administrators to configure key functions, including LFP, Auto Laser Shutdown (ALS), and media conversion modes.

Technical Specifications

Specification	EN-MC-SFPRJ45	EN-MC-SFPSFP	EN-MC-SFP2RJ45	EN-MC-SFPPRJ45	EN-MC-SFPPSFPP
Converter Type	Copper ↔ Fiber	Fiber ↔ Fiber	Dual Copper ↔ Fiber	Multi-Rate Copper ↔ Fiber	Multi-Rate Fiber ↔ Fiber
Copper Ports	1 × 10/100/1000Base-T RJ45	—	2 × 10/100/1000Base-T RJ45	1 × 100M/1G/2.5G/5G/10GBase-T RJ45	—
Fiber Ports	1 × SFP	2 × SFP	1 × SFP	1 × SFP+	2 × SFP+
Maximum Data Rate	1GbE	1GbE	1GbE	10GbE	10GbE
Supported Speeds	10M / 100M / 1G	1G	10M / 100M / 1G	100M / 1G / 2.5G / 5G / 10G	1G / 10G
Ethernet Standards	IEEE 802.3u, 802.3ab, 802.3x	IEEE 802.3z, 802.3x	IEEE 802.3u, 802.3ab, 802.3x	IEEE 802.3u, 802.3ab, 802.3bz, 802.3an, 802.3ae, 802.3x	IEEE 802.3ae, 802.3x
Forwarding Method	Store-and-Forward	Store-and-Forward	Store-and-Forward	Store-and-Forward	Store-and-Forward
MAC Address Table	2K	2K	2K	2K	2K
Jumbo Frames	12K	12K	9K	16K	16K
Latency	1 µs	1 µs	1 µs	2 µs	2–3 µs
Fiber Type	Multimode / Single-mode				
Fiber Cable	50/125µm, 62.5/125µm MM9/125µm SM				
Copper Cable	Cat5 / Cat5e / Cat6	—	Cat5 / Cat5e / Cat6	Cat5 / Cat5e / Cat6 / Cat6a	—
Maximum Copper Distance	100 m	—	100 m	100 m	—
LED Indicators	PWR, TP/LNK, FX/LNK	PWR, SFP1, SFP2	PWR, TP/LNK, FX/LNK	PWR, TP/LNK, SPD, FX/LNK	PWR, FX1, FX2
DIP Switch Functions	LFP / ALS / FX Reset / FX Speed Set	LFP / ALS / FX Reset / FX Speed Set	Jumbo Frame/ Port Isolation/ FX Speed	LFP / ALS / Media Mode	LFP / ALS
Link Fault Pass-Through	Supported				
Auto Laser Shutdown (ALS)	Supported				
Power Input	DC 5–12V				
External Power Adapter	AC 100–240V				
Power Consumption	<3W			≤5W	
Operating Temperature	0°C to 50°C				
Storage Temperature	–20°C to 70°C				
Housing	Fanless Metal				
Dimensions (H × W × D)	20 × 60 × 90 mm				
MTBF	100,819 hours			>50,000 hours	
Certifications	CE, FCC, RoHS, REACH, RCM				
Warranty	2 Years				
Rackmount Compatibility	EN-MCRCK-12S1RU-AC / EN-MCRCK-12S1RU-DC				

Rackmount Chassis — Technical Specifications

Mini media converters can be deployed individually or installed in a high-density chassis.

- Supports up to 12 mini media converters
- Centralized power distribution
- Dual redundant power supplies
- Hot-swappable converter slots
- Designed for enterprise, telecom, and data center deployments

Specification	EN-MCRCK-12S1RU-AC	EN-MCRCK-12S1RU-DC
Chassis Capacity	12 Media Converter Slots	12 Media Converter Slots
Converter Type	Mini Media Converters	Mini Media Converters
Rack Size	19-inch Rack Mount	19-inch Rack Mount
Height	1RU	1RU
Power Input	AC 100–240V, 50/60Hz	−48V DC
Power Supply	Dual Redundant	Dual Redundant
Output Power	DC 12V per slot	DC 12V per slot
Maximum Power Consumption	36W	36W
Cooling	Internal Brushless DC Fan	Internal Brushless DC Fan
Dimensions (H × W × D)	44.5 × 485 × 270 mm	44.5 × 485 × 270 mm
Weight	3.2 kg	3.2 kg
Operating Temperature	0°C to 50°C	0°C to 50°C
Storage Temperature	−20°C to 70°C	−20°C to 70°C
Warranty	2 Years	2 Years

Ordering information

Part Number	Description
EN-MC-SFPRJ45	1G Copper to Fiber Media Converter
EN-MC-SFPSFP	1G Fiber to Fiber Media Converter
EN-MC-SFP2RJ45	1G Dual Copper to Fiber Media Converter
EN-MC-SFPPRJ45	Multi-Rate Copper to Fiber Media Converter (100M–10G)
EN-MC-SFPPSFPP	Multi-Rate Fiber to Fiber Media Converter (100M–10G)
EN-MCRCK-12S1RU-AC	12-Slot Rackmount Chassis (AC)
EN-MCRCK-12S1RU-DC	12-Slot Rackmount Chassis (DC)

Notice:

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For further information

Office: 1-800-967-1672

Fax : 1-855-201-7283

mailto:sales@ecin.ca

www.ecin.ca