

# EM1020 Series

1000BASE-T to Gigabit SFP Media Converter



## Overview

**This product is discontinued as of 28th August 2020. [click here](#) for alternative product.**

The EM1020 Series provides media conversion between 1000BASE-T(X) and 1000BASE SFP Fiber. The EM1020's fiber design is compatible to 1000BASE SFP fiber transceiver. Also, through DIP switch selection, Link-Fault-Pass-Through (LFPT) function can be active or disabled.

With Gigabit transmission rate, the EM1020 supports Jumbo Frame up to 9K bytes. Also, this commercial grade Gigabit media converter supports EtherWAN's EMC1600 chassis system for easy group installation. the EM1020 is the ideal media converter for enterprise environments.

EtherWAN — "When Connectivity is Crucial."

## Spotlight

### Gigabit Connectivity

- » 1000BASE-TX and 1000BASE-SX/LX/BX Ethernet SFP transmission conversion
- » 1000Mbps Full duplex SFP

### Link-Fault-Pass-Through (LFPT)

- » LFPT function let network operators be aware of network connection status
- » When fiber link is down, LFPT function will turn down Ethernet port to inform connected device that the link is down and vice versa

### Optional Chassis System

- » Supports wall mounting or EtherWAN's EMC1600 chassis system for easy group installation with power redundancy

# Specifications

## Technology

### Standards

- IEEE 802.3ab 1000BASE-T
- IEEE 802.3z 1000BASE-SX/1000BASE-LX
- IEEE 802.3x Full duplex and flow control

### Forward and Filtering Rate

- 1,488,100pps for 1000Mbps

### Processing Type

- Auto Negotiation
  - Auto MDI/MDIX
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## Power

### Input

- 12VDC

### Power Consumption

- 2.4W Max. 0.2A@12VDC
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## Mechanical

### Casing

- Aluminum Case

### Dimensions

- 80.3 x 109.2 x 23.8mm (W x D x H)  
(3.16" x 4.3" x 0.94")

### Weight

- 150g (0.336lbs.)

### Installation

- Wall mounting or use with EMC1600 media converter chassis system

## Interface

### Ethernet Port

- 1000BASE-T: 1 port
- Gigabit SFP: 1 port

### LED Indicators

- Per Unit: Power Status (Power)
  - Per Port: 1000T: Link, Full-duplex/Collision Gigabit SFP: Link, Transmit, Receive
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## Environment

### Operating Temperature

- 0 to 45°C (32 to 113°F)

### Storage Temperature

- -10 to 70°C (-14 to 158°F)

### Ambient Relative Humidity

- 5% to 95% (non-condensing)
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## Regulatory Approvals

### ISO

- Manufactured in an ISO 9001 facility

### Emission Compliances

CE Mark Class A

FCC Part 15B Class A

VCCI Class A

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## Ordering Info

### Model

<b>EM1020-X</b>	1000BASE-T to Gigabit SFP Media Converter
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### Power Adapter Options (X)

<b>A</b>	with external power adapter for AU
<b>E</b>	with external power adapter for EU
<b>J</b>	with external power adapter for JP
<b>K</b>	with external power adapter for UK
<b>U</b>	with external power adapter for USA
<b>3C</b>	with external power adapter for China

### Optional SFP Non-Hardened Type Gigabit Fiber Transceivers

Model Name	Distance	Cable Type	Connector Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
<b>EX-1250NSP-SB1L S</b>	275m/550m	62.5/125µm/50/125µm, MM	Duplex LC	850nm	7.5dBm	-9.5 to -4dBm	-17dBm
<b>EX-1250TBP-MB1L S</b>	550m	62.5/125µm/50/125µm, MM	Single LC	TX: 1310nm RX: 1550nm	7dBm	-10 to -4dBm	-17dBm
<b>EX-1250TBP-LB1L S</b>	550m	62.5/125µm/50/125µm, MM	Single LC	TX: 1550nm RX: 1310nm	7dBm	-10 to -4dBm	-17dBm
<b>EX-1250TSP-MB4L S</b>	10Km	9/125µm, SM	Duplex LC	1310nm	11.5dBm	-9.5 to -3dBm	-21dBm

<b>EX-1250TBP-MB4L S</b>	10Km	9/125μm, SM	Single LC	TX: 1310nm RX: 1550nm	12dBm	-9 to - 3dBm	-21dBm
<b>EX-1250TBP-KB4L S</b>	10Km	9/125μm, SM	Single LC	TX: 1550nm RX: 1310nm	12dBm	-9 to - 3dBm	-21dBm
<b>EX-1250TBP-MB5L S</b>	20Km	9/125μm, SM	Single LC	TX: 1310nm RX: 1550nm	15dBm	-8 to - 3dBm	-23dBm
<b>EX-1250TBP-KB5L S</b>	20Km	9/125μm, SM	Single LC	TX: 1550nm RX: 1310nm	15dBm	-8 to - 3dBm	-23dBm
<b>EX-LS38-C3L-TC-N- EB (DDM)</b>	40Km	9/125μm, SM	Duplex LC	1310nm	20dBm	-3 to +2dBm	-23dBm
<b>EX-LS38-C3L-TC-N- CE (DDM)</b>	40Km	9/125μm, SM	Single LC	TX: 1310nm RX: 1550nm	20dBm	-3 to +2dBm	-23dBm
<b>EX-LS48-C3L-TC-N- CE (DDM)</b>	40Km	9/125μm, SM	Single LC	TX: 1550nm RX: 1310nm	20dBm	-3 to +2dBm	-23dBm

\* More SFP options upon request.

\*\* Link Budget data is based on pair of the same modules.

