

SGFEB Series

Stand-alone Gigabit Ethernet Media and Rate Converter

10/100/1000Base-T to 1000Base-SX/LX



SGFEB1013-130

SGFEB1040-330

Features

- Auto Negotiation
- Auto-MDI/MDIX
- Link Pass Through
- Far End Fault (FEF)
- Remote Fault Detect
- Provides rate conversion while also increasing transmission distances
- Supports multimode or single mode fiber
- Versions available with fixed SC or LC optics, as well as modular SFP optics
- Long haul transmission distances are supported with a variety of SFP modules
- SFP ports support dual speeds: 100/1000/SGMII
- Multiport versions provide 3 or 4 port switch functionality or provide redundant fiber links
- Supports IEEE 802.3az Energy Efficient Ethernet

The SGFEB Series is a stand-alone media converter that provides an interface between 10/100/1000Base-T ports and 1000Base-SX/LX ports, allowing users to integrate fiber optic cabling into 10/100/1000 copper environments. Operating at Layer 2, the data link layer, this converter not only converts copper to fiber, it also provides rate conversion allowing legacy 10/100 copper devices to connect to 1000Base-SX/LX fiber.

Specifications

Standards	IEEE 802.3 IEEE 802.3ab IEEE 802.3u IEEE 802.3z IEEE 802.3az
Data Rates	Copper: 10/100/1000 Mbps Fiber: 1000Mbps, 100Mbps also supported via SFP port
Filtering Addresses	8K MAC Addresses
Max Frame Size	10,260 byte Jumbo Frames
Dip Switches	Two Port Models Switch 1: TP1 - Auto-Negotiation Enable / Disable Switch 2: TP1 - Force 100Mbps or 10Mbps with switch 1 disabled Switch 3: TP1 - Force Full or Half-Duplex with switch 1 disabled Switch 4: Link Pass Through Enable / Disable Switch 5 & 6: Controls the Fiber SFP port for 1000M, 100M, or SGMII Multiport Models with additional 4 position dip-switch: Switch 1 & 2: Controls the 2nd Fiber SFP port for 1000M, 100M, or SGMII Switch 3 & 4: Fiber Redundancy Enable/Disable, Revertive Mode, and Fiber P2/P3 blocking
Status LEDs	PWR (Power): On = Power is provided to converter LACT (Fiber Link/Activity): On = Link, Blink = Activity RJ-45 Upper Left (TPLink/Activity/Duplex): Green = Link Full-Duplex, Blink = Activity, Amber = Link Half-Duplex, Blink = Activity RJ-45 Upper Right (Speed): Green = 1000Mbps, Amber = 100Mbps, Off = 10Mbps
Dimensions	Width: 3.25" [82.55 mm] Depth: 4.8" [121.92 mm] Height: 1" [25 mm]
Power Consumption	2.2 Watts
Power Input	7.5 to 24 VDC, Provided by wide input AC Wall Mount Adapter
Environment	Operating: 0°C to 50°C Storage: -15°C to 65°C Humidity: 5% to 95% (non-condensing) Altitude: 0 - 10,000 ft.
Weight	2 lbs. [0.90 kg]
Compliance	EN55022 Class A, EN55024, FCC Class A, CE Mark Safety: Wall Mounted Power Supply: UL Listed, UL60950 and CSA Certified
Warranty	Lifetime

Power Supply Included

To order the corresponding country specific power supply, add the extension from the list below to the end of the SKU
Ex: SGFEB1040-130-NA

-NA = Country Code

NA = North America, LA = Latin America, EU = Europe, UK = United Kingdom, SA = South Africa, JP = Japan, OZ = Australia, BR = Brazil



Ordering Information

SGFEB1040-130

10/100/1000Base-T (RJ-45) [100 m/328 ft.]
to 100/1000Base-X SFP Slot (empty)

SGFEB1013-130

10/100/1000Base-T (RJ-45) [100 m/328 ft.]
to 1000Base-SX 850nm multimode (SC)
[62.5/125 um: 220 m/722 ft.] [50/125 um: 550
m/1804 ft.] Link Budget 7.5 dB

SGFEB1039-130

10/100/1000Base-T (RJ-45) [100 m/328 ft.]
to 1000Base-SX 850nm multimode (LC)
[62.5/125 um: 220 m/722 ft.] [50/125 um: 550
m/1804 ft.] Link Budget 8.0 dB

SGFEB1014-130

10/100/1000Base-T (RJ-45) [100 m/328 ft.] to
1000Base-LX 1310nm single mode (SC)
[10 km/6.2 mi.] Link Budget 10.5 dB

SGFEB1024-130

10/100/1000Base-T (RJ-45) [100 m/328ft.] to
1000Base-SX 1310nm Extended multimode
(62.5/125mm fiber only) (SC) [up to 2 km]
Link Budget 7.0 dB

SGFEB1019-130

10/100/1000Base-T (RJ-45) [100 m/328 ft.]
to 1000Base-LX 1310nm single mode (LC)
[10 km/6.2 mi.] Link Budget 10.5 dB

SGFEB1040-230

(1) Port 10/100/1000Base-T (RJ-45)
[100 m/328 ft.] to (2) Ports 100/1000Base-X
SFP Slot (empty)

SGFEB1040-330

(2) Port 10/100/1000Base-T (RJ-45) [100
m/328 ft.] to (2) Ports 100/1000Base-X SFP
Slot (empty)

Single Fiber Products

SGFEB1029-130

10/100/1000Base-T (RJ-45) [100 m/328 ft.]
to 1000Base-LX 1310nm TX/1550nm RX
single mode (SC) [20 km/12.4 mi.]
Link Budget 13.0 dB

SGFEB1029-131

10/100/1000Base-T (RJ-45) [100 m/328 ft.]
to 1000Base-LX 1550nm TX/1310nm RX
single mode (SC) [20 km/12.4 mi.]
Link Budget 13.0 dB

Optional Accessories (sold separately)

SFP Modules

Supports 100Mbps and 1000Mbps fiber SFPs

DC Power Supply

SPS-2460-SA or SPS-2460-PS: wide input 24 -
60 VDC power supply

Mounting options

E-MCR-05

12-Slot Powered Media Converter Rack

RMS19-SA4-02

4-Slot Media Converter Shelf

WMBL

Wall Mount Bracket

WMBD

DIN Rail Mount Bracket