

Stand-alone Gigabit Ethernet Media and Rate Converter 10/100/1000Base-T to 1000Base-SX/LX

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.



SGFEB1040-330

Key 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

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: 1000 Mbps, 100 Mbps 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 100 Mbps or 10 Mbps 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, 1000M, or SGMII Multiport Models with additional 4 position dipswitch: Switch 1 & 2: Controls the 2nd Fiber SFP port for 1000M, 1000M, 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 = 1000 Mbps, Amber = 100 Mbps, Off = 10 Mbps |
| 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] |
| MTBF | Greater than 250,000 MIL-HDBK-217F Hours. Greater than 687,500 Bellcore Hours When bundled with a typical 50,000 hour power supply: Greater than 41,660 MIL-HDBK-217F Hours Greater than 114,580 Bellcore Hours |
| Certifications | EN55022 Class A, EN55024, FCC Class A, CE Mark Safety: Wall Mounted Power Supply: UL Listed, UL60950 and CSA Certified |
| Warranty | Lifetime |

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)

Optional Accessories (sold separately)

SFP Modules

Supports 100 Mbps and 1000 Mbps fiber SFPs

DC Power Supply

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

Mounting Options (sold separately)

E-MCR-05

12-slot Powered Media Converter Rack

RS19-SA4-02

4-slot Media Converter Shelf

WMBL

Wall Mount Bracket

WMBD

DIN Rail Mount Bracket

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 |