LANTRONIX®

SGFEB Series

Media Converters

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

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

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, 100M, or SGMII Multiport Models with additional 4 position dipswitch: 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 = 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 UKCA 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

RMS19-SA4-02
4-slot Media Converter Shelf

WMBL
Wall Mount Bracket

WMBD
DIN Rail Mount Bracket

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