STAND-ALONE FAST & GIGABIT ETHERNET POE / POE+ MEDIA CONVERTER

SGPAT1040-305

SGPAT1013-105

10/100/1000Base-T PoE+ PSE to 1000Base-X

The SGPAT Series is a 10/100/1000Base-T to 100/1000Base-SX/LX Gigabit Ethernet Media Converter, that easily and affordably facilitates the connection between different types of network cabling, while also injecting PoE power through the copper RJ-45 port.

Being a Power Sourcing Equipment (PSE) device, the SGPAT media converter combines data received over a fiber optic link with 56VDC input power to provide power and data to a Powered Device (PD) over twisted pair cabling while complying with the IEEE 802.3af PoE and IEEE 802.3at PoE+ standard.

The converter is available in 2-port, 3-port, and 4-port versions and includes PD signature sensing and power monitoring features. Other features include over-current protection, under-current protection, and fault protection input. Active Link Pass Through (ALPT) is supported, which is an automatically activated version of Link Pass Through (LPT) that allows the converter to detect the loss of Receive (Rx) signals on either fiber or copper port and propagate the failure to the end devices, preventing the media converter from isolating those link failures. During a Link Pass Through event, the Auto Power Reset feature will re-set the power to the end PD device, ensuring it is ready to go when the LPT event is corrected.

Markets:

Security & Surveillance

Fiber-to-the-Desk

Applications:

- Single copper to fiber conversion at the network edge while also providing PoE+ to Network Cameras, Wireless Access Points, or to IP Phones
- 3-port version provides an instant fail-over, redundant fiber media conversion to the network edge
- 4-port version provides full 30W of power on each of the twisted pair ports, allowing 2 PoE+ devices to be connected over one fiber link
- 4-port version supports fiber daisy chain configurations to reach remote areas of your facility while deploying PoE+ devices
- Conserve space in high density deployments when 4 port version is configured as two individual media converters in one unit

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Specifications

Standards
- IEEE 802.3-2012
- IEEE 802.3U
- IEEE 802.3x
- IEEE 802.3af PSE-PoE
- IEEE 802.3ab
- IEEE 802.3az
- IEEE 802.at PSE-PoE+
- IEEE 802.3z

Switch Features
- Max Packet Size: 10,000 bytes
- Max MAC Addresses: 8k
- Shared buffer memory: 1Mbit

Dip Switches
- See user manual for complete dip switch functionality

Status LEDs
- PWR: Power being applied to converter
- PoE+: PoE+ Status
- TP – Left LED per Port: Copper Port Link Status
- TP – Right LED per port: Copper Port Speed Status
- Fiber L/A – per port: Fiber Port Link Status
  (See user manual for complete LED Descriptors)

Dimensions
- Width: 3.25" [82 mm]
- Depth: 4.8" [122 mm]
- Height: 1" [25 mm]

Power Source
- External AC/DC 56VDC power adapter

Power Consumption
- 56VDC, 1.17A, 65.5 Watts (assumes both PoE ports are delivering the full 30 Watts)

Environment
- Operating: 0°C to +45°C
- Storage: -40°C to 85°C
- Humidity: 5% to 95% (non-condensing)
- Altitude: 0 – 10,000 ft. (with de-rating)

Weight
- 2 lbs. [0.9 kg]

MTBF
- Without power supply:
  163000 Hrs. (MIL-HDBK 217F)
  450000 Hrs. (Bellcore)
- With power supply:
  42000 Hrs. (MIL-HDBK 217F)
  115000 Hrs. (Bellcore)

Certifications
- EN55022 Class A, EN55024, CE Mark, Power Supply is UL listed

Warranty
- Lifetime

Features

- Wall mount, DIN Rail, or table top

- External AC/DC power supply included

- 2-port 10/100/1000 copper to fiber media conversion with IEEE 802.3at PoE+ on the copper port

- Supports full 30 Watts of power to each twisted pair port

- Various fiber versions available supporting fixed SC, LC, and open SFP

- 3-port version offers (1) RJ-45 PoE+ port and (2) open SFP slots, device can be configured as a 3-port switch or as a 2-port media converter with redundant fiber links

- With redundant fiber enabled, supports a 50ms fail-over time

- 4-port version offers (2) RJ-45 PoE+ ports and (2) open SFP slots, device can be configured as a 4-port switch (with or without redundant fiber) or as two independent PoE+ media converters in one housing

- SFP slots can support 100Base-FX, 1000Base-X, or SGMII based (MSA compliant) SFP modules

- Supports Auto-Negotiation, Auto-MDI/MDIX, Active Link Pass Through (ALPT), and Remote Fault Detection

- Jumbo frame support

- LEDs indicators for power status; per port link, duplex, and activity status; and PoE status

- Legacy PoE status

- Twisted pair ports support IEEE 802.3az Energy Efficient Ethernet for power saving

- Dip switch control of basic feature configuration

- RJ-45 serial port for Command Line Interface (CLI) of advanced port configuration (115200 baud)

Ordering Information

Part Number	Description
SGPAT1013-105	10/100/1000Base-T PoE+ (RJ-45) [100 m/328 ft.] to 1000Base-SX 850nm multimode (SC) [62.5/125um: 220m / 722 ft.] [50/125um: 550m / 1804 ft.] Link Budget: 8.5dB
SGPAT1039-105	10/100/1000Base-T PoE+ (RJ-45) [100 m/328 ft.] to 1000Base-SX 850nm multimode (LC) [62.5/125um: 220m / 722 ft.] [50/125um: 550m / 1804 ft.] Link Budget: 8.0dB
SGPAT1040-105	10/100/1000Base-T PoE+ (RJ-45) [100 m/328 ft.] to 100/1000Base-X Open SFP Slot
SGPAT1040-205	(1) 10/100/1000Base-T PoE+ (RJ-45) [100 m/328 ft.] to (2) 100/1000Base-X Open SFP Slot
SGPAT1040-305	(2) 10/100/1000Base-T PoE+ (RJ-45) [100 m/328 ft.] to (2) 100/1000Base-X Open SFP Slot

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: SGPAT1013-105-NA

-NA = Country Code

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

Accessories Number	Description
SFP Modules	See Lantronix.com for wide variety
Cable-CCC-06	Cisco DB9 to RJ-45 Console Cable, Blue 6 ft.
WMBL	Wall Mount Bracket 4" [102 mm]
WMBD	DIN Rail Bracket 5" [127 mm]
RMS19-SA4-02	4-Slot Media Converter Shelf

Learn more at lantronix.com/sgpat

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