

# SGPAT Series

## Stand-alone Gigabit Ethernet PoE+ Media Converter

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



The SGPAT Series is a 10/100/1000Base-T to 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 802.3at PoE+ standard, which is also backwards compatible with the IEEE 802.3af 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.

### 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

### Specifications

Standards		IEEE 802.3-2012 IEEE 802.3af IEEE 802.3at PSE-PoE+ IEEE 802.3U IEEE 802.3ab IEEE 802.3z IEEE 802.3x IEEE 802.3az
Switch Features		Max Packet Size: 10,000 bytes Max MAC Addresses: 8k Shared buffer memory: 1Mbit
Dip Switches	Switch 1	Port 3: SFP Mode Up=100/1000 or Down=SGMII
	Switch 2	Port 4: 2nd SFP Mode Up=100/1000 or Down=SGMII
	Switch 3	ALPT: Up=Disabled or Down=Enabled
	Switch 4	Redundant fiber mode: Up=Normal or Down=Redundant
	Switch 5	Revertive mode: Up=Revertive or Down=Non-revertive
	Switch 6	2x Converter mode: Up=Disabled or Down=Enabled (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]
Compliance		EN55022 Class A, EN55024, CE Mark, Power Supply is UL listed
Warranty		Lifetime



### Ordering Information

- 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

- Optional Accessories** (sold separately)
- SFP Modules**
- Cable-CCC-06**  
Cisco DB9 to RJ-45 Console Cable, Blue 6 ft.
- Mounting Options** (sold separately)
- WMBL**  
Wall Mount Bracket 4" [102 mm]
- WMBD**  
DIN Rail Bracket 5" [127 mm]
- RMS19-SA4-02**  
4-Slot Media Converter Shelf

### Features Continued

- 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)

#### 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