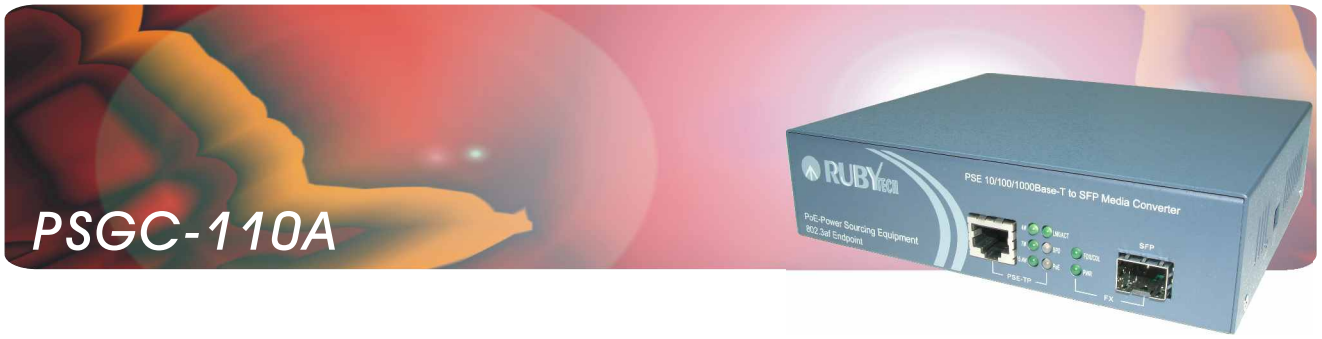
Media Converter Solutions



PSGC-110A:

10/100/1000Base-T to SFP PoE PSE GbE Media Converter

Key Features

- IEEE802.3af PoE (Power over Ethernet) PSE compatible
  - ---Internal AC power supply
  - ---Over-current protection
  - ---Under-current detection
  - ---Minimum load sensing
  - ---Fault Protection Input
  - ---PSE MDI power enable/disable
- LFP (Link Fault Pass-through) and FEF (Far End Fault)
- Supports one 10/100/1000Base-T Gigabit Ethernet UTP port and one 1000Base-SX / LX (SFP) Gigabit Ethernet Fiber port
- Supports 802.3x flow control for full-duplex ports and backpressure for half-duplex ports
- Supports comprehensive types of fiber with different distances and connections, including Bidi/LC and so on
- Supports auto mode on the TP port
- DIP switch to set configurations
  - ---DIP 1: LFP/LFP DIS
  - ---DIP 2: PoE/PoE DIS
  - ---DIP 3: Bridge Mode/Cut Through Mode
- Supports jumbo frame (Normal Mode: 2KB, Cut-Through Mode: 9KB)
- RoHS Compliance

Overview

PSGC-110A is designed a 10/100/1000 Base-T to 1000Based-SX/LX (SFP) GbE media converter, which allows two types of network segments to be connected easily and inexpensively. Complied with IEEE802.3af Power Over Ethernet standard, this AC powered PoE media converter is a Power Sourcing Equipment (PSE) which combines data received over a TP link with 48VDC power, providing power to IEEE802.3af powered device (PD) over the existing CAT5 UTP cable. The converter includes a PD signature sensing and power monitoring features.

Technical Specifications

- **Standards**
  IEEE802.3 10Base-T,
  IEEE802.3u 110ase-TX,
  IEEE802.3z/ab 1000Base-T,
  IEEE802.3x full-duplex flow control,
  1000Base-SX/LX
- **Cable**
  UTP: Cat. 5 cable and up to 100m
  Fiber:
  ---1000SX: 50/125, 62.5/125, or 100/140μm multi-mode
  ---1000LX: 8.3/125, 8.7/125, 9/125 or 10/125μm single-mode
- **Cable Connection Parameter**
  TP Cable Limitations: Cat. 5 and up to 100m
  Fiber Cable Limitations:

	Multi-Mode Fiber 62.5/125μm		Multi-Mode Fiber 50/125μm	
	Bandwidth MHz-Km	Distance	Bandwidth MHz-Km	Distance
1000SX 850nm	160	220m	400	500m
	200	275m	500	550m
1000LX 1310nm/ 1550nm	Single-Mode Fiber 9/125μm Single-Mode transceiver 1310nm: 10/30Km Single-Mode transceiver 1550nm: 50Km			

- **Data Transfer Rate: 2000Mbps/full-duplex**
- **Network Interface**

TP Port	**10/100Base-TX** Auto-Negotiation Auto-MDIX Flow control for Full-Duplex Backpressure for Half-Duplex
TP Port	**1000Base-TX** Auto-Negotiation mode Auto-MDIX only for Auto-Negotiation Flow control for Full-Duplex only
Fiber Port	**1000Base-SX/LX (SFP)** with NWay flow control Link partner must be 1000FDX with NWay flow control

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Other features include over-current protection, under-current detection and fault protection input. The LFP (Link Fault Pass-through) allows the media converter to monitor both the fiber and copper RX ports for loss of signal. In case of a loss of RX signal on one media port, the converter will automatically disable the TX signal to the other media port, thus passing through the link fault. FEF (Far End Fault) enables the converter to stop sending link pulse to the link partner once a loss of the fiber RX signal is encountered. Then the link partner will synchronously stop sending data. FEF prevents loss of valuable data transmitted over invalid link. Combining LFP and FEF troubleshooting features of PSGC-110A, both end devices can be notified of a loss of fiber link.

• LED Indicator

LED	Color	Function
FX LNK/ACT	Green	Lit when fiber connection is good Blinks when fiber data is present
TP LNK/ACT	Green	Lit when TP connection is good Blinks when TP data is present
TP SPD	Green Yellow	Green Lit when TP speed is 1000Mbps Yellow Lit when TP speed is 100Mbps Off when TP speed is 10Mbps
PWR	Green	Lit when 5V power is coming up
PoE PSE-TP	Green	Lit when PoE feeding power is active
	Red	Lit when PoE feeding power is disrupted (In case of overtemperature/overcurrent)
4W	Green	Light when PD Class Type is Class 1
7W	Green	Light when PD Class Type is Class 2
15.4W	Green	Light when PD Class Type is Class 0 or 3

• Hardware Spec

Feature	Detailed Description
Power Characteristics	Requirement: 100~240 VAC, 47~63 Hz
	Consumption: Max. up to 19W
Ambient Temperature	0 ~ 50℃
Humidity	5% ~ 90%
Dimensions	40 (H) x 158 (W) x 133 (D) mm
Weight	0.6kg
EMI	Comply with FCC Part 15 Class A & CE Mark Approval

Packing Information

Carton Dimensions	pcs/Carton	N.W (KG)	G.W (KG)
530x512x345	14	16.4	17.4

Ordering Information

PSGC-110ALC	10/100/1000Base-T to SFP PoE PSE GbE Media Converter, LC Multi-Mode, 850nm
PSGC-110ALC.S10	10/100/1000Base-T to SFP PoE PSE GbE Media Converter, LC Single-Mode 10km 1310nm
PSGC-110ALC.S30	10/100/1000Base-T to SFP PoE PSE GbE Media Converter, LC Single-Mode 30km 1310nm
PSGC-110ALC.S50	10/100/1000Base-T to SFP PoE PSE GbE Media Converter, LC Single-Mode 50km 1550nm
PSGC-110ABL3.S10	10/100/1000Base-T to SFP PoE PSE GbE Media Converter, Bidi LC Single-Mode 10km, 1310nm
PSGC-110ABL5.S10	10/100/1000Base-T to SFP PoE PSE GbE Media Converter, Bidi LC Single-Mode 10km, 1550nm
PSGC-110ABL3.S20	10/100/1000Base-T to SFP PoE PSE GbE Media Converter, Bidi LC Single-Mode 20km, 1310nm
PSGC-110ABL5.S20	10/100/1000Base-T to SFP PoE PSE GbE Media Converter, Bidi LC Single-Mode 20km, 1550nm

Note: One SFP transceiver is included.
We recommend the SFP transceiver from the following vendors:
1.Ruby Tech Corporation
2.Agilient Technologies
3.AVAGO Technologies
4.Finisar Corporation

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3F, No.1, Lane 50, Nan Kang Road, Sec.3, Taipei, Taiwan
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