

Media Converters & SFPs

PoE Enhanced+ Media Converter

(Powered Device (PD) - 30W)



www.dmsimfg.com



The PoE (PSE) Media Converter allows the user to connect fiber to copper via power PoE+ devices. It features a UTP RJ45 port, and an empty SFP port which is customizable with the use of a swappable SFP for single or multimode applications. This media converter auto-detects 10, 100 and 1000mbps bandwidths, and each unit includes an AC power cord for internal power, and PSE controller to output power into CAT twisted pair cable to power devices.

Category	Exceeds 802.3at (Enhanced+)
Classification	0-4
Max. current	600mA
PSE output voltage	50-57V DC
PSE output power	<=30W
PD input voltage	42.5-57V DC
PD max. power	30W
Cable requirements	CAT-5e or better
Power supply cable (pair)	2

FEATURES

- Exceeds IEEE802.3at PoE+standard
- IEEE802.1q
- IEEE802.3z 1000Base-Tx/Fx standard
- PoE PSE compatible
- Supports flow control for full and half duplex operation
- Bandwidth control
- FCC Class A, CE

Standard Media Converter, ORDERING INFORMATION

E(Y)(A)(BB)(CC)(D)

E - Exceeds IEEE802.3at PoE+ standard

Y - Select Transmission Speed

C 10/100
M 10/100/1000

(A) Select Fiber Type

F Multimode
Y Single-mode

(BB) Select Connector Type

31 SFP (LC)
61 SC
67 ST
70 SFP (empty slot)

(CC) Select Operating Wavelength

85 850nm (Multimode)
13 1300nm (Multimode)
10 1310nm (Single-mode/
Multimode)
15 1550nm (Single-mode)

(D) Select Distance

5 550M Multimode
2 2km Multimode
1 10km Single-mode
T 25km Single-mode
4 40km Single-mode
F 50km Single-mode
8 80km Single-mode

Technical Specifications

Standard Protocol	IEEE 802.1q IEEE 802.3z 1000Base-TX/FX standard Exceeds IEEE 802.3at Interface
Operation Mode	Full/Half duplex mode
Connectors	UTP:RJ-45 Fiber: SC/ST/LC AC-inlet connector
RJ-45 Interface	The transmission media adopts CAT5 twisted-pair with maximum length of 100 meter (330 feet).
Fiber Interface	SC/ST/LC fiber interface is a duplex mode type which includes two sets of optical transceiver: TX and RX.
Power Supply Interface	The AC power supply is connected to AC input jack of media converter through the attached AC power cable.
Environmental Parameters	Work Temperature, 0°C~50°C (32°F ~ 122°F) Storage Temperature, -40°C~70°C (-40°F ~ 158°F) Humidity, 5%~90% non-condensing
TP Cable	Cat5 UTP cable
Fiber Cable	Single-mode, 8.3/125, 8.7/125, 9/125, 10/125µm Multimode, 50/125, 62.5/125µm, 100/140µm
Dimensions (mm)	95mm(L) x 71.5mm(W) x25.4mm(H)
Warranty	3 years
Mean Time Between Failure	114,000 hours
TAA Compliant	Yes

DIP Switch Communication Settings

Switch 1	ON	Enable Link Fault Pass-Through
	OFF	Disable Link Fault Pass-Through
Switch 2	ON	Cut-Through(9K)
	OFF	Store and Forward
Switch 3	ON	Flow control enable
	OFF	Flow control disable
Switch 4	ON	FX Speed 100Mbps
	OFF	FX Speed 1000Mbps

1. POE system components

A complete POE system includes PSE (Power Sourcing Equipment) and PD (Powered Device). The PSE device powers Ethernet client devices, and it is the administrator of the entire Power over Ethernet process.

2. There are two international standards for POE: IEEE802.3af and IEEE802.3at, the main parameter difference is as follows:

Category	802.3af (PoE)	802.3at (PoE+)	Exceeds 802.3at (Enhanced+)
Classification	0-3	0-4	0-4
Max. current	350mA	600mA	600mA
PSE output voltage	44-57V DC	50-57V DC	50-57V DC
PSE output power	<=15.5W	<=30W	<=30W
PD input voltage	36-57V DC	42.5-57V DC	42.5-57V DC
PD max. power	15.5W	25.5W	30W
Cable requirements	Unstructured	CAT-5e or better	CAT-5e or better
Power supply cable (pair)	2	2	2

3. If both PSE and PD equipment are standard item, this equipment must comply with the two international standards. If the PD is a non-standard item, the POE (PSE) equipment must be customized.

4. In the early stage of POE development, POE equipment support IEEE802.3af or IEEE802.3at respectively. Nowadays, IEEE802.3at POE equipment can be backward compatible to IEEE802.3af equipment (but IEEE802.3af can't be upward compatible) via a built-in intelligent chip. POE+ equipment with built-in intelligent chips can identify PD equipment automatically and supply suitable power.

5. When checking the POE equipment (PSE or PD), users must confirm the equipment power requirement (PoE, PoE+, or Enhanced+)