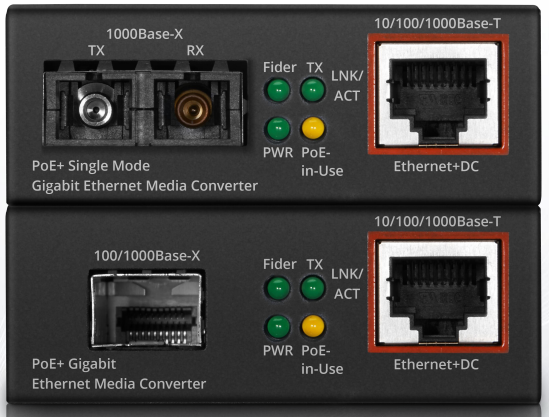
PoE+ Ethernet Media Converter Datasheet

Cost Effective Data Link and Power Sourcing Solution.



Overview

The PoE+ Gigabit Ethernet Media Converter supports the IEEE 802.3af PoE standard and IEEE 802.3at PoE+ standard. While using standard Cat5/5e/6 cables that carry Ethernet data, the converter can also provide power to a Powered Devices. It transparently connect copper to fiber while providing up to 30W Power over Ethernet to devices such as IP cameras, VoIP phones and wireless access points.

The PoE+ Gigabit Ethernet Media Converter is an ideal solution to deliver data and power to network devices directly via the RJ45 interface without the need of installing extra power outlets and electrical cabling.

Benefits

- Compliant with IEEE802.3af/at standard
- Supports a maximum of 30 watts of output power
- Copper Interface with Data + Power output and support auto-negotiation, auto-MDI/MDI-X
- Remote power feeding up to 100m
- IEEE 802.3x Flow Control
- Store and Forward mechanism

Key Features

Data Link and Power Sourcing Solution

The PoE+ Gigabit Ethernet Media Converter is designed specifically to satisfy the growing demand for higher power required network equipment such as PTZ (Pan, Tilt & Zoom) network cameras, PTZ speed dome cameras, color touch-screen VoIP telephones, multi-channel IEEE 802.11a/b/g/n wireless LAN access points and other network devices that need a higher power to function normally.

Fiber-optic Link Capability Extends the Range of Network Deployment

The maximum distance between the PoE PSE and PD is 100 meters. To extend the network device deployment range, the PoE+ Gigabit Ethernet Media Converter is integrated with Fiber interface. It is used to convert optical Ethernet signal to electrical Ethernet signal that allows two different segments to connect easily, efficiently and inexpensively. The PMC-1F1T can convert 10/100/1000BASE-T signal to 100/1000BASE-X and the PMC-1SC1T-SM can convert 10/100/1000BASE-T signal to 1000BASE-X, both provides different diverse fiber connecting types to meet different network applications.

With the long fiber distance support, it still sustains the transmission performance as high as 1000Mbps. It works in the high performance Store and Forward mechanism, and can prevent packet loss with IEEE 802.3x flow control (full duplex).

Link Fault Pass Through Function

The PoE+ Gigabit Ethernet Media Converter provides DIP switch to disable or enable the Link Fault Pass Through Function. When the DIP switch is ON, the Link Fault Pass Through Function is enabled. Then if the TP line or fiber line of the device which connected to the converter loses the link, the converter's fiber will disconnect the link of transmission. It can immediately alarm the administrators over the issue from the link media and provide an efficient solution to monitor the network power usage.

Flexible PoE Network Deployment

The PoE+ Gigabit Ethernet Media Converter provides 52V DC power over Ethernet cables, just insert DC voltage into Cat.5/5e/6 cable, allowing the cable between the PoE splitters to transfer data and power simultaneously for up to 100 meters. Then it will spilt the digital data and the power into two kinds of selectable DC outputs 5V DC/12V DC or 12V DC/24V DC. Thus, it reduces cables and the dedicated electrical outlets on the wall, ceiling or any unreachable place. Most of all, it also eliminates the time for installation. The high Power over Ethernet solution frees the security IP camera and wireless AP deployment from restrictions of power outlet locations.

For the places difficult to find the power outlet, the PoE+ Gigabit Ethernet Media Converter provides the easiest way to power your Ethernet devices such as wireless PoE access point or IEEE 802.3at PoE+ splitter with non PoE compliant Internet camera. For instance, users can flexibly install the security IP camera, wireless access point and other IEEE 802.3at compliant network equipment around the corner in the public areas such as station or freeway for surveillance demands, or build a wireless roaming environment on the campus or at the airport.

Specification

	PMC-1F1T	PMC-1SC1T-SM
Copper Interface	1x 10/100/1000Base-T RJ45	1x 10/100/1000Base-T RJ45
Fiber Optic Interface	1x 100/1000Base-X SFP	1x 1000Base-X SC
Fiber Maximum Distance	Vary on SFP Module	10km
Optic Wavelength	Vary on SFP Module	1310nm
Max. Optic Launch Power	Vary on SFP Module	-3dBm
Min. Optic Launch Power	Vary on SFP Module	-9.5dBm
Max. Input Power	Vary on SFP Module	-20dBm
Receive Sensitivity	Vary on SFP Module	-14.4dBm
PoE Standard	Compliant with IEEE802.3af/at	
Input Voltage	52~56V DC, 0.58A	
Output Voltage	52V DC	
PoE Power Budget	30W	
Power Consumption	30.16W~32.48W	
Power Pin Assignment	End-Span, 1/2 (+), 3/6 (-)	
Switch Architecture	Store and Forward	
Flow Control	Back pressure for half duplex mode IEEE 802.3x pause frame for full duplex mode	
Jumbo Frame	9K	
Cable	Twisted-pair: Cat 5/5e/6 Ethernet cable Fiber Optic: MM: 50/125 μm or 62.5/125 μm fiber optic cable SM: 9/125 μm fiber optic cable	

Specification

	PMC-1F1T	PMC-1SC1T-SM
Speed	Twisted-pair: 10/100Mbps for half/full duplex 1000Mbps for full duplex Fiber Optic: PMC-1F1T: 100/1000Mbps for full duplex PMC-1SC1T-SM: 1000Mbps for full duplex	
Standards and Protocols	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-TX/100BASE-FX IEEE 802.3ab Gigabit Ethernet IEEE 802.3z Gigabit Ethernet over Fiber Optic IEEE 802.3x Flow Control IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus	
Quality Certification	FCC, CE, RoHS, REACH, RCM, EAC, WEEE	
Operating Temperature	0 to 50℃	
Storage Temperature	-40 to 70℃	
Operating Humidity	5 to 90%, non-condensing	
Storage Humidity	5 to 90%, non-condensing	
MTBF	＞50,000 Hours @ 25 ℃	
Dimensions (Hx Wx D)	1.02"x 2.76"x 3.7" (26x70x94mm)	