



TP-POE-1824 (G)

DATA SHEET

10/100 and Gigabit 802.3af/at PoE Converters

Features

- Converts 48V 802.3af/at PoE Input to 18V or 24V Passive PoE Output
- Run non-compliant equipment on 802.3af/at PoE switches
- PoE output switchable between 18VDC and 24VDC
- Remotely Power Equipment thru CAT5 Cable up to 100m
- Short Circuit, Over Current and Over Voltage Protection
- High Temperature Operation, 10/100 and Gigabit Ethernet Operation
- Compact size – Floor / Desktop / Wall Mount



TP-POE-1824 (G)
802.3af/at PoE Converter

Applications

- Wireless Access Points and Client Devices
- IP Phone and Security Camera Systems

Description

The TP-POE-1824 is a unique Power over Ethernet adapter which converts an 802.3af/at 48VDC PoE input into a 18V or 24VDC regulated passive PoE output. The PoE output voltage is external jumper selectable and capable of up to 25W power output. The PoE input is IEEE 802.3af/at compatible so the TP-POE-1824 will work with standard 802.3af/at compliant PoE switches or routers. The TP-POE-1824 enables the powering of passive PoE devices from standard 802.3af/at PoE switches, which eliminates the extra expenses usually required to power non compliant equipment.

There are two models available:

TP-POE-1824 which is 10/100MB compatible and has a 12W output.

TP-POE-1824G which is 10/100/1000MB compatible and has a 24W output.

They accept data-in and 802.3af/at PoE to a shielded RJ45 Jack and provide data-out and 18V or 24V PoE on the shielded RJ45 output jack. They work by supplying power to the remote device on the unused Ethernet pins 4,5(V+) and 7,8(V-). The Ethernet spec supports distances up to 100m (328 feet).

They have various protections for surge, short circuit, overload and overvoltage.

Device Pinouts –10/100

RJ-45 Input (Data Only)			RJ-45 Output (Data & Power)	
Pin	Symbol	Description	Symbol	Description
1	RX+	Data Receive(+)	RX+	Data Receive(+)
2	RX-	Data Receive(-)	RX-	Data Receive(-)
3	TX+	Data Transmit(+)	TX+	Data Transmit(+)
4	NC	No Connection	+Vdc (-V for R Model)	DC power(+) (- for R)
5	NC	No Connection	+Vdc (-V for R Model)	DC power(+) (- for R)
6	TX-	Data Transmit(-)	TX-	Data Transmit(-)
7	NC	No Connection	-Vdc (+V for R Model)	DC power(-) (+ for R)
8	NC	No Connection	-Vdc (+V for R Model)	DC power(-) (+ for R)

Device Pinouts – Gigabit – 10/100/1000

RJ-45 Input (Data & Power)			RJ-45 Output (Data & Power)	
Pin	Symbol	Description	Symbol	Description
1	BI_DA+, Vin +/-	Data RX+ / Power(+/-)	BI_DA+	Data RX(+)
2	BI_DA-, Vin +/-	Data RX- / Power(+/-)	BI_DA-	Data RX(-)
3	BI_DB+, Vin +/-	Data TX+ / Power(+/-)	BI_DB+	Data TX(+)
4	BI_DC+, Vin +/-	Data RX+ / Power(+/-)	BI_DC+, Vo+	Data RX(+), DC power(+)
5	BI_DC-, Vin +/-	Data RX- / Power(+/-)	BI_DC-, Vo+	Data RX(-), DC power(+)
6	BI_DB-, Vin +/-	Data TX- / Power(+/-)	BI_DB-	Data TX(-)
7	BI_DD+, Vin +/-	Data RX+ / Power(+/-)	BI_DD+, Vo-	Data RX(+), DC power(-)
8	BI_DD-, Vin +/-	Data RX- / Power(+/-)	BI_DD-, Vo-	Data RX(-), DC power(-)

Specifications

	TP-POE-1824	TP-POE-1824G
DC PoE Output Voltage (+/-2.5%)	18V or 24V (switchable)	18V or 24V (switchable)
Overvoltage Protection	22V or 28V	22V or 28V
Ethernet Interface Speed	10/100	10/100/1000
PoE Input (IEEE 802.3af/at)	36 - 60VDC	36 - 60VDC
Output Current	0.67A @ 18V 0.5A @ 24V	1A @ 18V 1A @ 24V
Output Power	12W Max	24W Max
Load Regulation	5%	
Ripple / Noise	2%	
MTBF (MIL-HDBK-217F (40C))	114,669 Hrs	
EMC Standards	FCC Class B NE55022 Class B	
Safety Standards	UL1950, CSA 22.2 & TUV EN60950	
Operating Temperature	-30 to +60°C (-22 to +140°F)	
Operating Humidity (RH)	5% - 90%	
Storage Temperature	-40 to +80°C (-40 to +176°F)	
Dimensions (LxWxH)	85 x 76 x 36mm (3.4 x 3 x 1.4")	
Weight	150g (5.3oz)	
Warranty	3 Years	

System Ordering:

TP-POE-1824 802.3af/at PoE Converter with 18V or 24V 12W 10/100 Passive PoE output

TP-POE-1824G 802.3af/at PoE Converter with 18V or 24V 24W Gigabit Passive PoE output

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