PET-102GT++

Industrial 2-port Gigabit High Power PoE++ Extender

Features

- Support 1 port PoE P.D. input to 2 port POE P.S.E output with 10/100/1000 Base-T(X) for power and data extender
- Support P.S.E. based on IEEE 802.3af/at standard
- PoE P.D. input support up to 90watts max.
- PoE P.S.E. output support up to 90watts max. per port
- Multiple unit , daisy-chain installation support
- High reliability and rigid IP-30 housing
- DIN-Rail and wall mount design

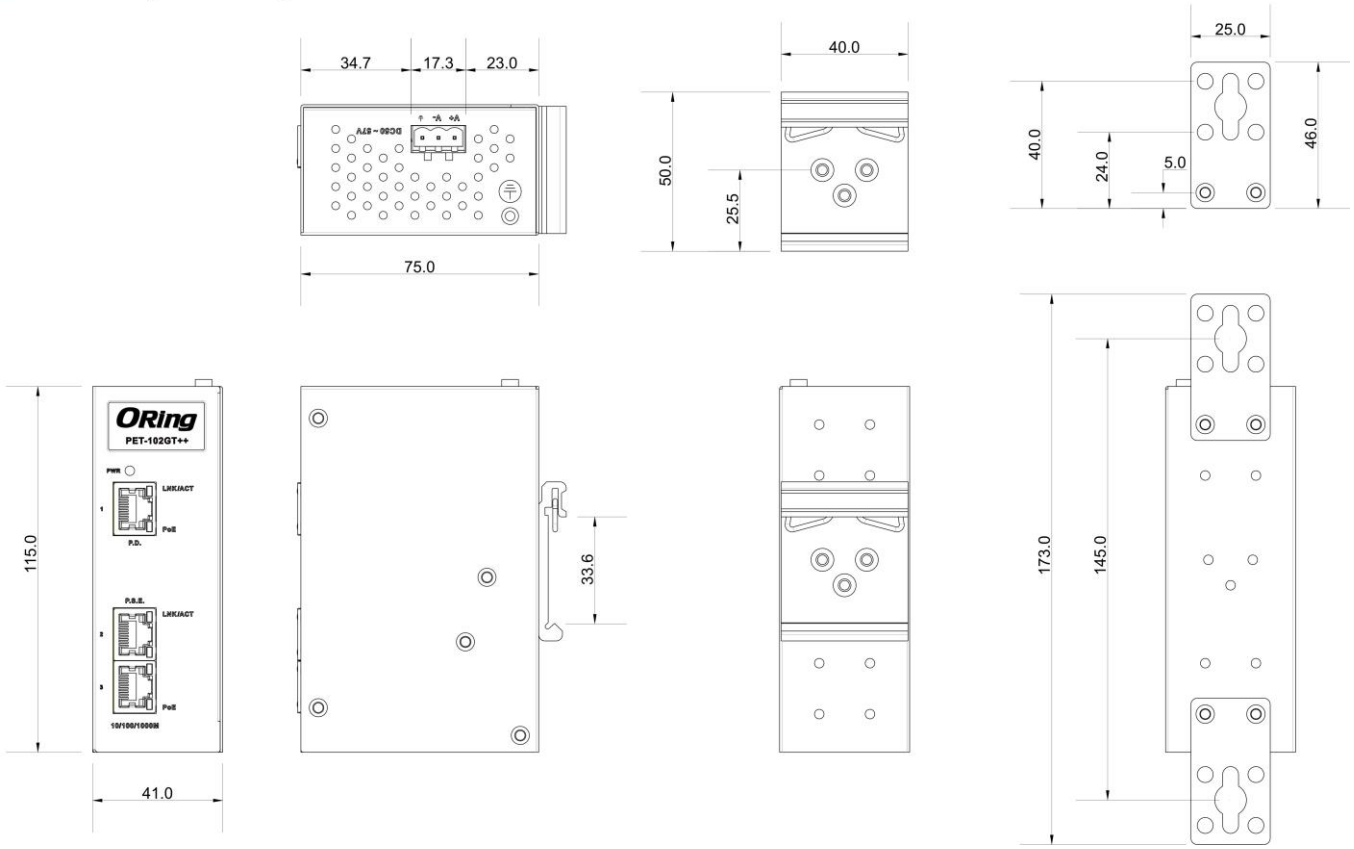
Introduction

ORing PET-102GT++ is a high power PoE extender and compatible with IEEE802.3at/af[Note1] standard. With one 10/100/1000TxBase-T(X) P.D. input port and two 10/100/1000TxBase-T(X) P.S.E. output ports, the device not only pass on Ethernet data but also feed on and forward power from the previous PoE device to the next device. Furthermore, the PET-102GT++ can be powered by external DC power sources. By using external DC power to compensate for power losses caused by long-haul transmission, users can continue to use the PoE extender to enlarge the distance unlimitedly. With the ability to provide 90Watts[Note3] PoE power per port, the PET-102GT++ is surely a user-friendly and high-power PoE extender.

Note1: The equipment being powered must be fully IEEE 802.3at/802.3af compliant in order for the power supply to be able to sense the PoE devices signature and apply power. Power is supplied on Ethernet pins 1/2 (V+) and 3/6 (V-).

Dimension

Dimension (Unit =mm)



Connector and Pin Definition

1000 Base-T

	RJ-45 Input (Data Only)		RJ-45 Output (Data and Power)	
Pin	**Symbol**	**Description**	**Symbol**	**Description**
1	BI_DA+	Data BI_DA+	BI_DA+ (**Vdc1+**)	Data BI_DA+ and Feeding Power(+)
2	BI_DA-	Data BI_DA-	BI_DA- (**Vdc1+**)	Data BI_DA- and Feeding Power(+)
3	BI_DB+	Data BI_DB+	BI_DB+ (**Vdc1-**)	Data BI_DB+ and Feeding Power(-)
4	BI_DC+	Data BI_DC+	BI_DC+ (Vdc2+)	Data BI_DC+ Feeding Power(+)[Note2]
5	BI_DC-	Data BI_DC-	BI_DC- (Vdc2+)	Data BI_DC- Feeding Power(+)[Note2]
6	BI_DB-	Data BI_DB-	BI_DB- (**Vdc1-**)	Data BI_DB- and Feeding Power(-)
7	BI_DD+	Data BI_DD+	BI_DD+ (Vdc2-)	Data BI_DD+ Feeding Power(-)[Note2]
8	BI_DD-	Data BI_DD-	BI_DD- (Vdc2-)	Data BI_DD- Feeding Power(-)[Note2]

10/100 Base-TX

	RJ-45 Input (Data Only)		RJ-45 Output (Data and Power)	
Pin	**Symbol**	**Description**	**Symbol**	**Description**
1	Rx+	Data Receive	Rx+ (**Vdc1+**)	Data Receive and Feeding power(+)
2	Rx-	Data Receive	Rx- (**Vdc1+**)	Data Receive and Feeding power(+)
3	Tx+	Data Transmit	Tx+ (**Vdc1-**)	Data Transmit and Feeding power(-)
4	NC	Not Connected	NC (Vdc2+)	Not Connected Feeding power(+)[Note2]
5	NC	Not Connected	NC (Vdc2+)	Not Connected Feeding power(+)[Note2]
6	Tx-	Data Transmit	Tx- (**Vdc1-**)	Data Transmit and Feeding power(-)
7	NC	Not Connected	NC (Vdc2-)	Not Connected Feeding power(-)[Note2]
8	NC	Not Connected	NC (Vdc2-)	Not Connected Feeding power(-)[Note2]

Note2: Only valid for LTPoE++ connection

Specifications

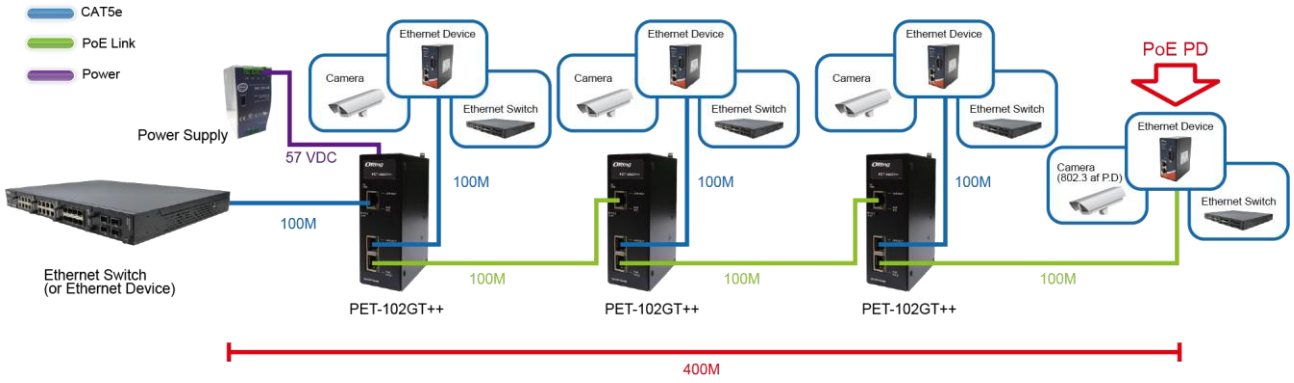
ORing Injector Model	PET-102GT++
Physical Ports	
RJ-45 Ethernet Port with P.D. Input	**1**
RJ-45 Ethernet Port with P.S.E. Output	**2**
Operating Voltage	
Input Voltage	50 ~ 57 VDC
Output Power	90 Watts max[Note3] per port
LED Indicators	
Power Indicator	DC PWR / Ready : 1 x LED Green On : Power is on and functioning Normally.
PoE P.D. Input Port Indicator	Green for Link/Act, Amber for PoE input enabled
PoE P.S.E. outputs Port Indicatior	Green for Link/ACT, Amber for PoE output enabled
Protection	
Short Circuit Protection	Present
Over Load Protection	Present
Physical Characteristic	
Enclosure	IP-30
Dimension (W x D x H)	41(W) x 75 (D) x 115 (H)mm (1.61 x 2.95 x 4.52 inch)
Weight (g)	349g
Environmental	
Storage Temperature	-40 to 80°C (-40 to 176°F)
Operating Temperature	-40 to 75°C (-40 to 167°F)
Operating Humidity	5% to 90% Non-condensing
Regulatory Approvals	
EMC	EN55032 EN55024
EMI	FCC Part 15B Class A CISPR 22 class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27
Free Fall	IEC60068-2-31
Vibration	IEC60068-2-6
Safety	EN60950-1
MTBF	TBC
Warranty	5 years

Note 3: LTPoE++™ PSE technology is applied on this product. Only when an LTPoE++ ™ Powered Device (PD) is attached can the PSE port deliver up to 90W of output power.

Installation and Distance

Power input on the first unit / P.D. attached on the last unit	50VDC	57VDC
IEEE802.3at (25.5W)	Extended 2 unit Max. Distance up to 300 meters	Extended 3 units Max. Distance up to 400 meters
IEEE802.3af (12.95W)	Extended 4 units Max. Distance up to 500 meters	Extended 5 units Max distance up to 600 meters
NO P.D. on the last unit	Extended 5 units Max. Distance up to 600 meters	Extended 6 units Max. Distance up to 700 meters
Note : The test result is with one P.D. device connected to the last unit and only for reference.		

Example for 57VDC power input and attached IEEE802.3at P.D.



Ordering Information

PET-102GT++

Available Model	Model Name	Description
	PET-102GT++	Industrial 2-port Gigabit High Power PoE++ Extender

Packing List

- PET-102GT++ x 1
- DIN-Rail Kit x 1
- Wall-mount Kit x 1
- QIG x 1

Optional Accessories

- DR-75-48 : 75 Watts DIN-Rail power supply
- DR-120-48 : 120 Watts DIN-Rail power supply
- SDR-240-48 : 240 Watts DIN-rail power supply
- SDR-480-48 : 480 Watts DIN rail power supply
- DRP048V60W1BN : 60 Watts DIN-Rail power supply
- DRP048V120W1BN : 120 Watts DIN-Rail power supply
- DRP048V240W1BN : 240 Watts DIN-Rail power supply
- DRP048V480W1BN : 480 Watts DIN-Rail power supply