IEXT101-PH

Long Reach Ethernet & PoE Extender

NEW

- Long distance data transmission and remote **power feeding up to 800 meters**
- Maximum PoE power budget of 30W
- Railway EN50121-4, Heavy Industrial EN61000-6-2, EN61000-6-4, CE, and FCC certified
- 4KV surge protection for PoE, UTP
- Wide operating temperature range, -40~75°C, for use in harsh environments

CE FC EN50121-4 EN61000-6-2 EN61000-6-4

Ver.2022 Jan

CTC's Industrial Grade LAN Extender pair (IEXT101-PH) can extend data and IEEE802.3at PoE+ beyond the standard 100 meters limitation of standard Ethernet. The paired units work in a point-to-point topology over 2 or 4 pair unshielded twisted pair (UTP) cabling up to 800 meters.

The local unit is provided with 55-57VDC and feeds both power and data to the remote unit. The remote unit is then able to provide 10/100Base-TX Ethernet and up to 30 watts via 802.3af/at standard or may be provisioned for 'passive PoE' i.e., always on, for non-standard PoE applications. These devices are ideal when there is no power available at the remote side or where providing power at the remote is difficult or expensive. These products are particularly designed for harsh environments, such as industrial networking, traffic surveillance, security automation applications, IP surveillance, city security, intelligent transportation systems (ITS) and are also suitable for many military or utility market applications where environmental conditions exceed commercial product specifications.

Features

- Long distance data transmission and remote power feeding up to 800 meter on 2/4 pair UTP cable (see figure 1)
- Supports standard IEEE802.3af/at or passive PoE devices
- Eliminates the need for any power supply at the remote side
- Quick deployment and easy maintenance

Specifications

Hardware Standard Interfaces		
IEEE 802.3	10Base-T	
IEEE 802.3u	100Base-TX	
IEEE 802.3af	PoE	
IEEE 802.3at	PoE+	

Network Connector	IEXT101-PH-L (Local unit)
	2 pin Terminal Block for power input connector 1 RJ45 for LAN 10/100Base-TX Ethernet port 1 RJ-45 for extension distance and delivery power and communication data to remote unit
	IEXT101-PH-R (Remote unit) 1 RJ45 for LAN 10/100Base-TX Ethernet and PoE PD, 1 RJ-45 for long distance receiving power and communication data from local unit

Dip Switch	IEXT101-PH-L (Local unit)	
	SW 1: Power over line	Off: Enable On: Disable
	SW 2 : Link Fault Pass Through (LFPT)	Off: Disable On: Enable
	SW 3 : Line Speed	Off: Auto On: 10M
	IEXT101-PH-R (Remote unit)	
	SW 1: PoE for PD	Off: Enable On: Disable
	SW 2 : Link Fault Pass Through (LFPT)	Off: Disable On: Enable
	SW 3 : PoE PD mode	Off: Standard PoE On: Passive PoE

LED	IEXT101-PH-L (Local unit)
	Power (Green) Delivery Power Range <15W (Amber), >15W (Green) LFPT (Amber) LAN Link active (Green) Line Speed/Link active 10M(Amber), 100M(Green)
	IEXT101-PH-R (Remote unit) Power (Green) PoE Power Range for PD <15W (Amber), >15W (Green) LFPT (Amber) LAN Link active (Green) Line Speed/Link active 10M(Amber), 100M(Green)

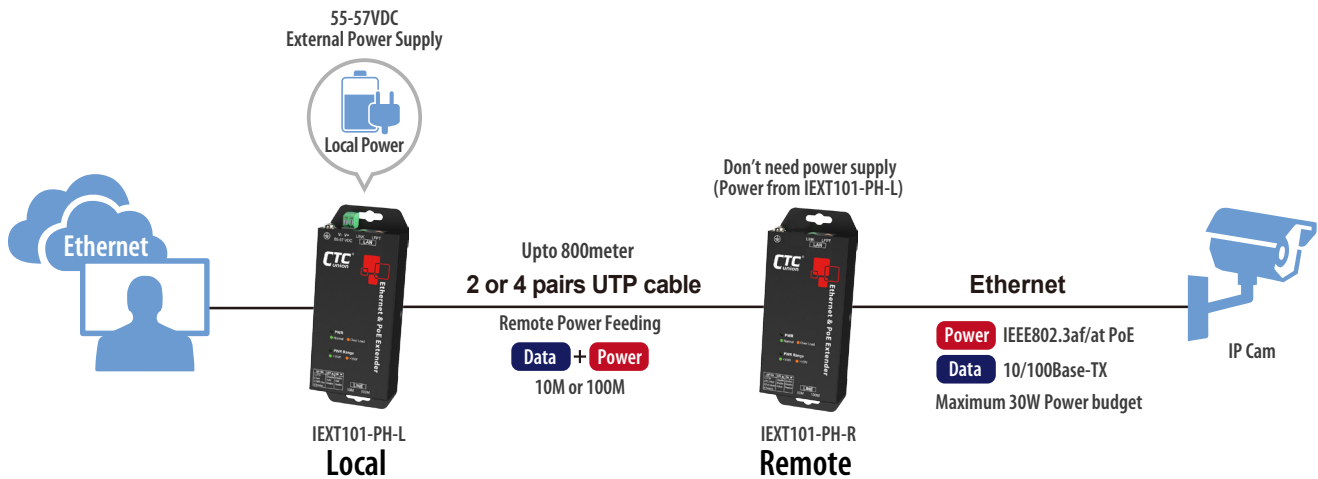| Data rate	The line speed between IEXT101-L and IEXT101-R will be 10M or 100M that depend on extension length or set by DIP SW. The Lan speed of IEXT101-R is same with line speed (extension port). (Please ref figure 1)
Cable	2 or 4 pair UTP cable Cat.5e, Cat. 6 (See Table 1 for Transmitting rate and PoE power budget by difference length) (Please ref figure 1)
Operating Temperature	-40°C to 75°C
Storage Temperature	-40°C to 85°C
Humidity	10% - 95% (non-condensing)
Power Supply	55~57VDC Input power (2pin Removable Terminal Block)
Power Consumption	TBD
Housing	Rugged Metal, IP30 Protection and fanless
Dimensions	102.5 x 52 x 25 mm (D x W x H)
Weight	TBD
Installation Mounting	Wall Mounting
MTBF	TBD
Certification	
EMC	CE (EN55032, EN55035)
EMI (Electromagnetic Interference)	FCC Part 15 Subpart B Class A,CE
Railway Traffic	EN50121-4
Immunity for HeavyIndustrial Environment	EN61000-6-2
Emission for HeavyIndustrial Environment	EN61000-6-4
EMS (Electromagnetic Susceptibility) Protection Level	EN61000-4-2 (ESD) Level 3, Criteria B EN61000-4-3 (RS) Level 3, Criteria A EN61000-4-4 (Burst) Level 3, Criteria A EN61000-4-5 (Surge) Level 3, Criteria B EN61000-4-6 (CS) Level 3, Criteria A EN61000-4-8 (PFMF, Magnetic Field) Field Strength: 300A/m, Criteria A

Safety	EN62368-1 (Pending)
4KV surge protection	Supported for PoE, UTP
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-31
Vibration	IEC 60068-2-6

Transmitting rate and PoE Power budget	
Table 1	TBD
Upto 800meter	
Power Budget	TBD

Application

▶ Remote Power Feeding

55-57VDC
External Power Supply

Local Power

Don't need power supply
(Power from IEXT101-PH-L)

Ethernet

Upto 800meter
2 or 4 pairs UTP cable

Remote Power Feeding

Data + Power

10M or 100M

Ethernet

Power IEEE802.3af/at PoE
Data 10/100Base-TX
Maximum 30W Power budget

IP Cam

IEXT101-PH-L
Local

IEXT101-PH-R
Remote

Dimensions

IEXT101-PH-L

52.00   25.00

102.50

4.00 7.00

17.00
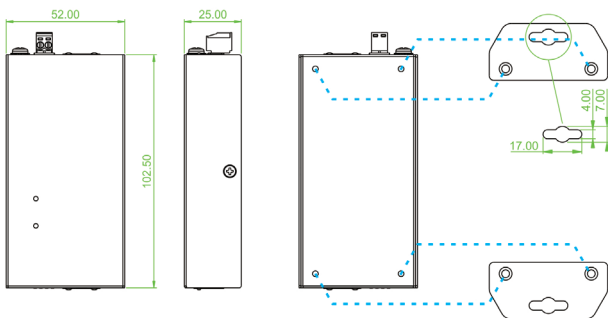
Front View   Side View   Rear View   Wall-Mount Kit View

IEXT101-PH-R

52.00   25.00

102.50

4.00 7.00

17.00
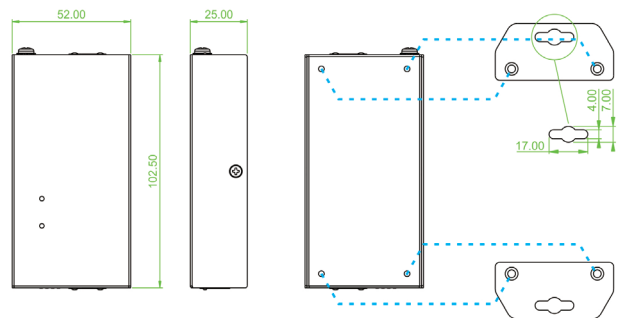
Front View   Side View   Rear View   Wall-Mount Kit View

Ordering Information

Model Name	Local/ Remote Unit	LAN port (Local unit)	Line Port (Extension port)	Lan Port With PoE (Remote unit)		Power input	Certification		
		10/100 Base-TX	10/100M (Upto 800meter)	10/100Base-TX	Power Budget for PD		EN50121-4	EN61000-6-2 EN61000-6-4	CE/ FCC
IEXT101-PH	IEXT101-PH-L	1	1			55~57VDC	V	V	V
	IEXT101-PH-R		1	1	5W~30W	Power from IEXT101-PH-L	V	V	V

■ Package List

- 1 pair of the device (1 local unit IEXT101-PH-L, and 1 remote unit IEXT101-PH-R)
- 2 pin terminal block

Optional Accessories

■ Industrial Power Supply

NDR-120-48	Industrial Power, Input 90 ~ 264VAC / 127 ~ 370VDC, Output 48 VDC, 120W, -20 ~ +70℃
	Note: Please adjust the NDR-120-48 output voltage to 55VDC for better performance.

10-2

www.ctcu.com / sales@ctcu.com
Specifications & design are subject to change without prior notice. Please visit CTC Union website for more details.