Up to 1.2KM

# IEXT224-4PH

## Long Reach PoE Extenders

*(Phone line and Coaxial cable)*

IEXT224-4PH is intended to extend the reach of Ethernet Data and IEEE 802.3at Power over Ethernet beyond its natural limitations of 100 meters. The solution works in pairs for point-to-point connectivity. The unit at the local site can transmit data and remote power feeding power over a single pair of telephone grade UTP wire or Coaxial cable up to 1,200 meters. The unit at the remote side provides four 10/100Base-TX IEEE 802.3at PoE ports for total power budget of 30W and can receive its power from the local unit when power is unavailable at the remote side.

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 and utility market applications where environmental conditions exceed commercial product specifications.

## Feature

- Long transmission data and power feeding distance up to 1200 meter
- Complies with IEEEE 802.3at PoE
- Simultaneous transmission of Ethernet data and PoE Power over Phone line wire or coaxial cable
- Centralized management of power supply
- Eliminated the need for power supply at remote sites
- Easy cabling for quick installation
- Quick deployment and easy maintenance.
- Flexible and efficient power management
- Dip Switch to option the remote unit that can be powered by remote-side power or local power.
- Display data rate by LED
- Display real power loading by LED

## Specifications

| | | |
|---|---|---|
| **Hardware Interfaces** | **Standard** | |
| | IEEE802.3 | 10Base-T |
| | IEEE802.3u | 100Base-TX |
| | IEEE802.3af | PoE |
| | IEEE802.3af | PoE+ |
| | ITU-T G.993.2 | VDSL2 |
| **Power over Copper PoE Extender with 4x 10/100Base-TX IEEE 802.3at PoE Ports** | | |
| **Network Connector** | Terminal Block for Copper Port<br>BNC Female for Coaxial Port<br>4 x RJ-45 10/100Base-TX IEEE 802.3at PoE Port | |
| **Dip Switch** | SW 1: Selectable Asy (30a) or Sym(17a) (VDSL2 Profile) | |
| | SW 2 : Selectable target SNR margin 6dB or 9dB | |
| | SW 3 : Selectable Remote Power:<br>OFF: Enable Feeding power by remote unit (Figure 1)<br>ON: Disable Feeding power by remote unit (Figure 2) | |
| **LED** | Active: System Status | |
| | Local PWR : Local Power mode (See Figure 2) | |
| | Remote PWR: Remote Power (See Figure 1) | |
| | PoE: PoE Port Status for per PoE Port | |
| | PoE Output: 5/15/30 Watts (Display total PoE loading) (Remote power mode) | |
| | Line Speed: Link/20/40/60/80/100 Mbps | |
| **Standards Support** | VDSL2 ITU-T G.993.2 | |
| | VDSL2 Profiles: 17a and 30a | |
| **Protocol Support** | Transparent bridging to higher layer protocols | |
| **Operating Temperature** | -40°C to 75°C | |
| **Storage Temperature** | -40°C to 85°C | |
| **Humidity** | 10% - 95% (non-condensing) | |
| **Power Supply** | Redundant dual 48VDC (44~57VDC) Input power (Removable Terminal Block) | |
| **Power Consumption** | 65 Watts maximum | |
| **Housing** | Rugged Metal, IP30 Protection and fanless | |
| **Dimensions** | 106.5 x 62 x 135 mm (D x W x H) | |
| **Weight** | IEXT-224-4PH-L : 705g (local)<br>IEXT-224-4PH-R : 715g (remote) | |
| **Installation Mounting** | DIN Rail mounting, and Wall Mounting | |
| **MTBF** | IEXT224-4PH : IEXT224-4PH-L - 253,543 Hours<br>IEXT224-4PH-R - 233,606 Hours<br>(MIL-HDBK-217) | |
| **Certification** | | |
| **EMS** | CE, FCC | |
| **Safety** | EN60950-1 | |
| **Shock** | IEC60068-2-27 | |
| **Freefall** | IEC60068-2-32 | |
| **Vibration** | IEC60068-2-6 | |
| **Transmitting rate and PoE Power budget** | | |

**UTP – 24AWG Copper Wire**

| SNR | 6dB | | 6dB | | PoE Output Budget |
|---|---|---|---|---|---|
| Profile | Asymmetrical | | Symmetrical | | |
| Distance | Upstream Rate (Mbps) | Downstream Rate (Mbps) | Upstream Rate (Mbps) | Downstream Rate (Mbps) | |
| 300 m | 65 | 100 | 100 | 100 | 30W |
| 400 m | 45 | 95 | 70 | 70 | 20W |
| 600 m | 30 | 65 | 45 | 45 | 15W |
| 800 m | 10 | 45 | 27 | 27 | 7W |
| 1,000 m | 6 | 35 | 18 | 18 | 5W |
| 1,200 m | 1 | 20 | 8 | 16 | 4W |



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Specifications & design are subject to change without prior notice. Please visit CTC Union website for more details.

**Coaxial Cable**

| SNR | 6dB | | 6dB | | PoE Output Budget |
|---|---|---|---|---|---|
| Profile | Asymmetrical | | Symmetrical | | |
| Distance | Upstream Rate (Mbps) | Downstream Rate (Mbps) | Upstream Rate (Mbps) | Downstream Rate (Mbps) | |
| 400 m | 100 | 100 | 100 | 100 | 30W |
| 600 m | 50 | 100 | 50 | 80 | 20W |
| 800 m | 50 | 100 | 50 | 80 | 15W |
| 1,000 m | 45 | 90 | 50 | 60 | 10W |
| 1,200 m | 40 | 70 | 50 | 50 | 8W |

## Application

**Figure 1 :** Remote Power feeding Enable

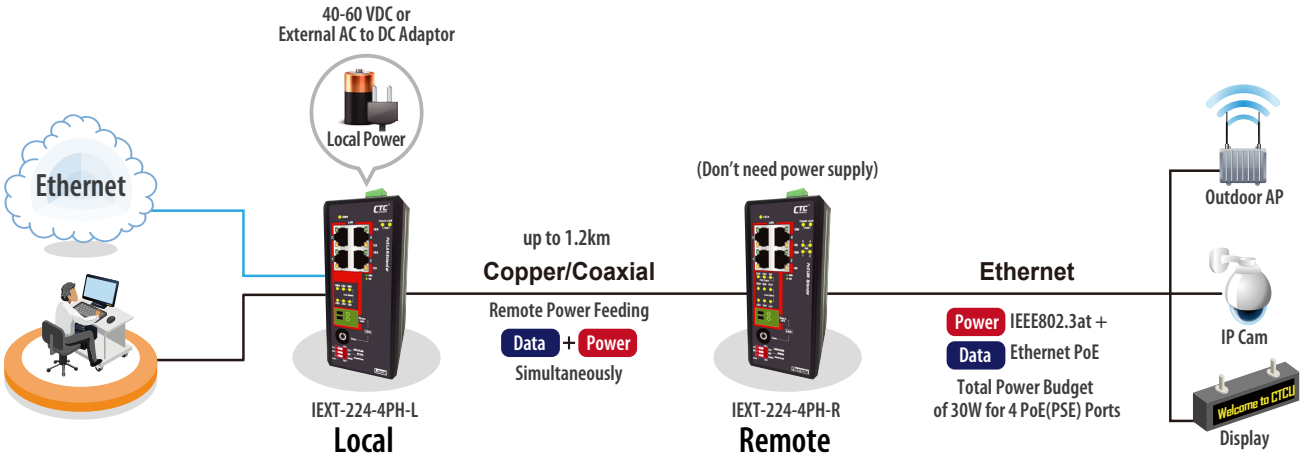
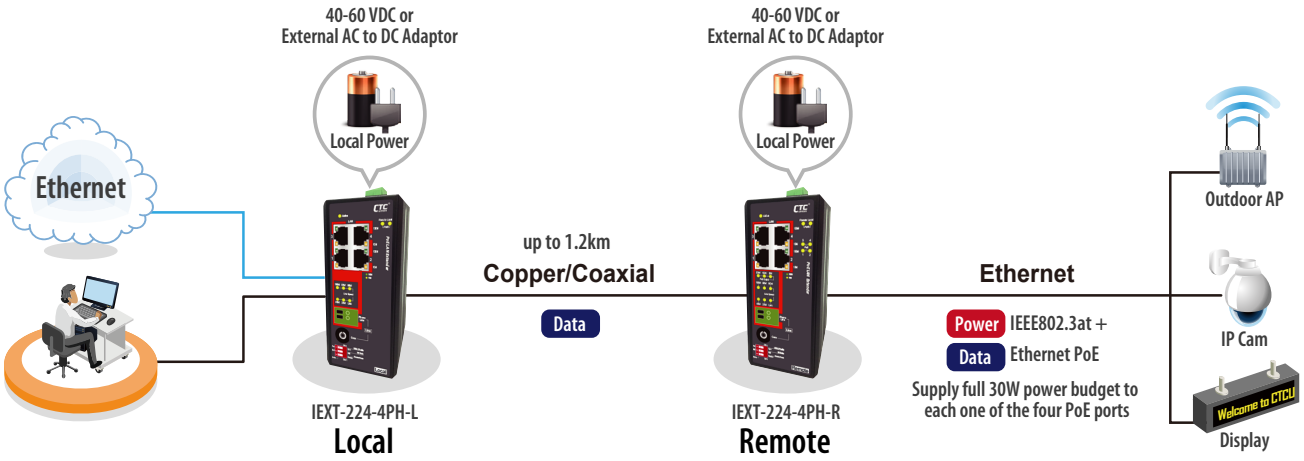
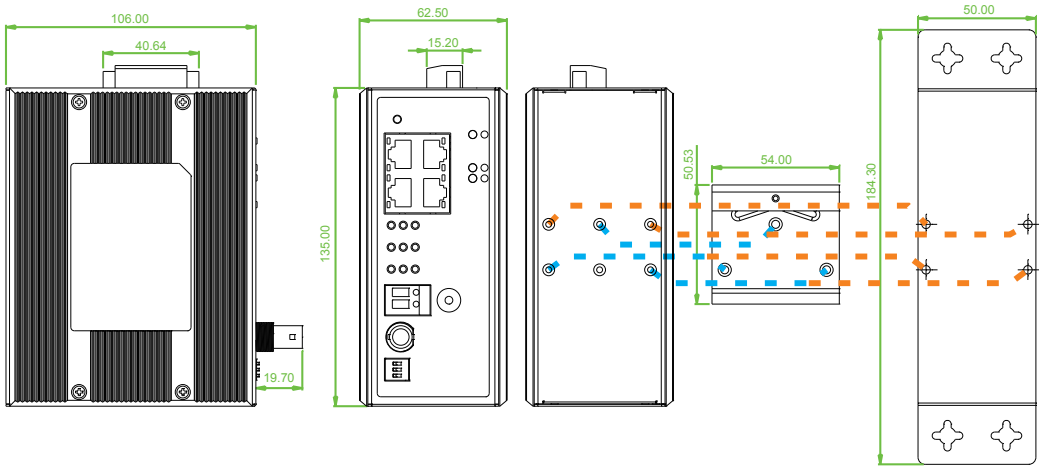



**Figure 2 :** Remote Power feeding Disable



## Dimensions




Side View | Front View | Rear View | DIN-Rail Kit View | Wall-Mount Kit View

## Ordering Information

| Model Name | UTP | Long Distance | | PoE Port IEEE802.3at | Certifiifaction | | |
|---|---|---|---|---|---|---|---|
| | 10/100 | RJ11 | Coaxial | | Safty EN60950-1 | CE | FCC |
| IEXT224-4PH | 4 | 1 | 1 | 4 | V | V | V |

### Optional Accessories

#### Industrial Power Supply

| | |
|---|---|
| NDR-120-48 | Industrial Power, Input 90 ~ 264VAC / 127 ~ 370VDC, Output 48 VDC, 120W, -20 ~ +70℃ |

### Package List

- One pair device of the series (one local and one remote unit)
- Quickly installation guide
- Din Rail bracket with screws
- Wall mount bracket with screws
- Terminal block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