# IEXT101

## Long Reach Ethernet Extender

- Data transmission up to 800 meters
- 4KV surge protection for UTP
- Wide operating temperature range, -40~75° C, for use in harsh environments
- EN50121-4, EN61000-6-2, EN61000-6-4, CE and FCC certified


Industrial-grade PoE extenders IEX101 extend Ethernet transmission distance beyond the 100-meter limit of standard Ethernet. Paired devices, local and remote unit, operate in a point-to-point topology over 2- or 4-pair unshielded UTP cables up to 800 meters long. This is an ideal solution to solve long-distance transmission problems and save costs, it is designed for harsh environments and can be used in Industrial networks, traffic monitoring, safety automation applications and urban security, smart transportation systems. It is also suitable for many military or utility market applications where environmental conditions exceed commercial product specifications.

## Features

- Long distance data transmission up to 800 meter on 1/2 pair UTP cable (see figure 1)
- Quick deployment and easy maintenance

## Specifications

| | | |
|---|---|---|
| Hardware Standard Interfaces | IEEE 802.3 | 10Base-T |
| | IEEE 802.3u | 100Base-TX |
| Network Connector | 2-pin Terminal Block for power input connector, 1x RJ45 for LAN 10/100Base-TX Ethernet port, 1x RJ-45 for extension distance and communication data to remote unit | |
| Dip Switch | SW 1:Link Fault Pass Through (LFPT) | Off: Disable, On: Enable |
| | SW 2 : Line Speed | Off: Auto, On: 10M |
| LED | Power (Green), LFPT (Amber), LAN Link Active (Green), Line Speed/Link Active 10M(Amber), 100M(Green) | |
| Data rate | The line speed between 2 IEXT101 will be 10M or 100M that depend on extension length or set by DIP SW. (Please ref. figure 1) | |
| Cable | 1 or 2 pair UTP cable Cat.5e, Cat. 6 (See Table 1 for Transmitting rate 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 | 12/24/48VDC (9.6~60VDC) Input power (2pin Removable Terminal Block) | |
| Power Consumption | < 3W | |
| Housing | Rugged Metal, IP30 Protection and fanless | |
| Dimensions | 102.5 x 52 x 25 mm (D x W x H) | |
| Weight | 170g | |
| Installation Mounting | Wall Mounting | |
| MTBF | 2,016,859 Hours (MIL-HDBK-217) | |

### Certification

| | |
|---|---|
| EMC | CE (EN55032, EN55035) |
| EMI (Electromagnetic Interference) | FCC Part 15 Subpart B Class A,CE |
| Railway Traffic | EN50121-4 |
| Immunity for Heavy Industrial Environment | EN61000-6-2 |
| Emission for Heavy Industrial Environment | EN61000-6-4 |

| | |
|---|---|
| EMS (Electromagnetic Susceptibility) Protection Level | EN61000-4-2 (ESD) Level 3, Criteria B<br>EN61000-4-3 (RS) Level 3, Criteria A<br>EN61000-4-4 (Burst) Level 3, Criteria A<br>EN61000-4-5 (Surge) Level 3, Criteria B<br>EN61000-4-6 (CS) Level 3, Criteria A<br>EN61000-4-8 (PFMF, Magnetic Field) Field Strength: 300A/m, Criteria A |
| 4KV Surge Protection | Supported for UTP |
| Shock | IEC 60068-2-27 |
| Freefall | IEC 60068-2-31 |
| Vibration | IEC 60068-2-6 |

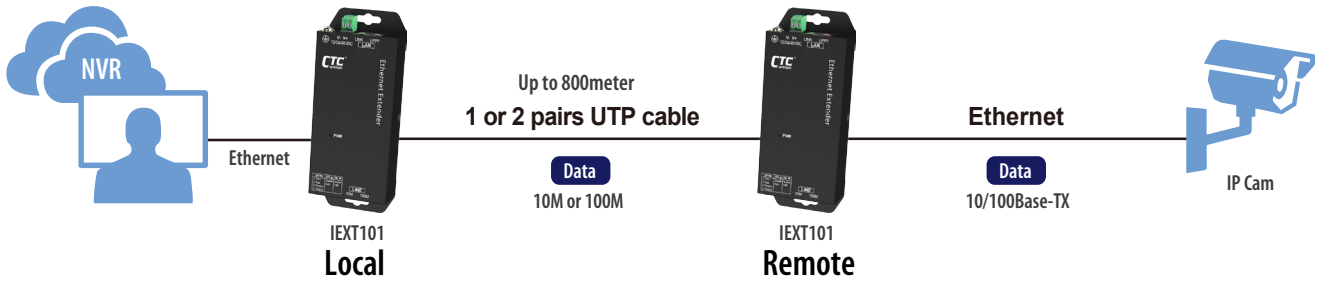
### Extension Distance vs Speed

Cat5e /Cat6 UTP cable

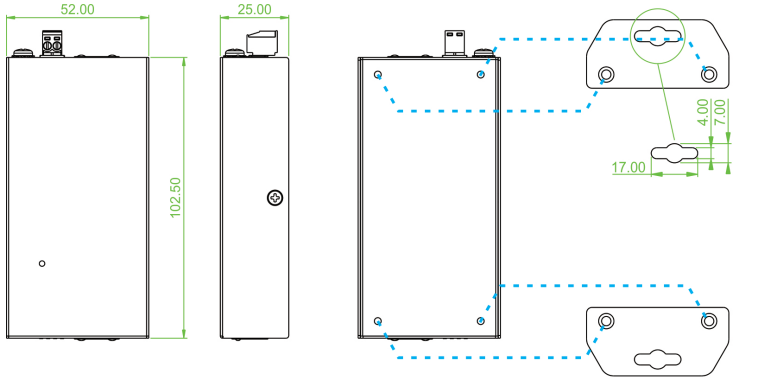
| Extension Distance (Meter) | Link speed (Mbps) | |
|---|---|---|
| | 2 pairs | 1 pairs |
| 100 | 100 | 100 |
| 200 | 100 | 100 |
| 300 | 100 | 100 |
| 400 | 100 | 10 |
| 500 | 100 | 10 |
| 600 | 100 | 10 |
| 700 | 10 | 10 |
| 800 | 10 | 10 |

## Application

**Figure1 : Long distance data transmission application**




## Dimensions




## Ordering Information

| Model Name | Ethernet Port | Line Port (Extension port) | Power Input | Certification | | |
|---|---|---|---|---|---|---|
| | 10/100 Base-TX | 10/100M (Upto 800meter) | | EN50121-4 | EN61000-6-2, EN61000-6-4 | CE, FCC |
| IEXT101 | 1 | 1 | 12/24/48VDC | V | V | V |

## Optional Accessories

### ■ Industrial Power Supply

| | |
|---|---|
| MDR-20-24 | Industrial Power, Input 85~264VAC/120~370VDC, Output 48 VDC, 24W, -20 ~ +70°C |