IEXT101

Industrial Ethernet Extender

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*

EN50121-4 EN61000-6-2 EN61000-6-4

Industrial-grade Ethernet 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 1- or 2-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 or 2 pair UTP cable (see figure 1)
- Quick deployment and easy maintenance

Specifications

Standard	IEEE 802.3	10Base-T
	IEEE 802.3u	100Base-TX
Hardware Interfaces	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 ~ 75°C	
Storage Temperature	-40 ~ 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 25mm (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 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
4KV Surge Protection	Supported for UTP
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-31
Vibration	IEC 60068-2-6

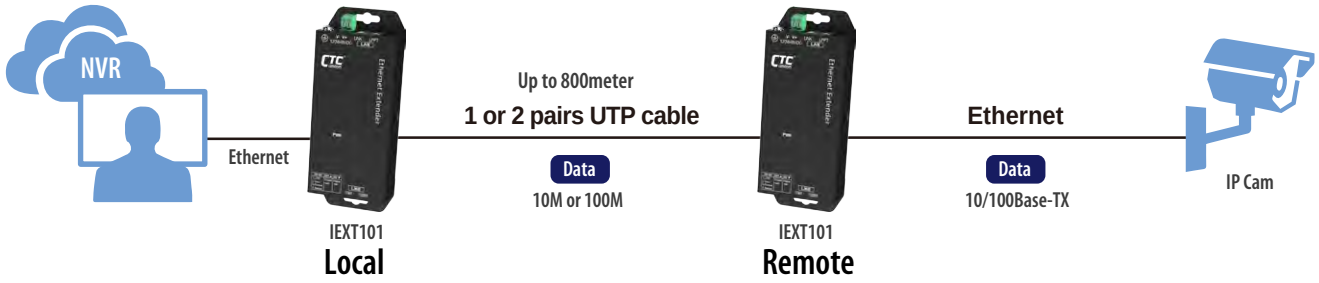
Extension Distance vs Speed (Table 1)

Cat5e /Cat6 UTP cable

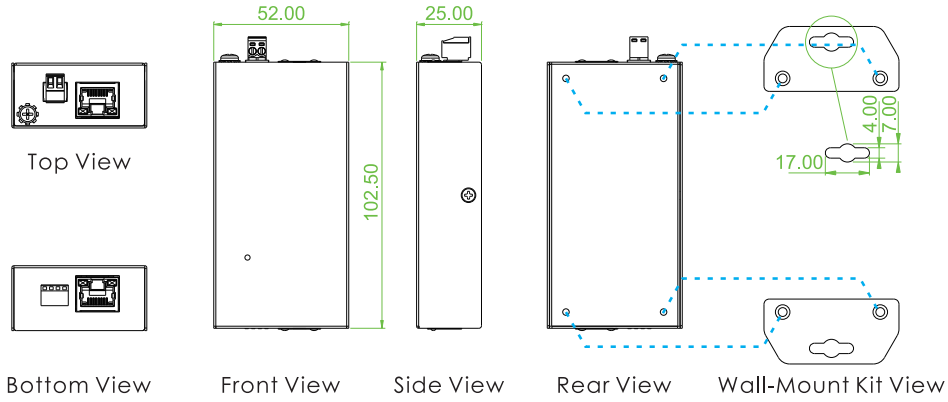
Extension Distance (Meter)	Link speed (Mbps)	
	2 pairs	1 pairs
100	100	100
200	100	100
300	100	100
400	100	10
500	100	10
600	100	10
700	10	10
800	10	10

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 (Up to 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 24VDC, 24W, -20 ~ 70°C