Ourten®

Ethernet Extender
**Model Number: SJ-L-DSL**

Product Description

SJ-L-DSL is network signal extension device, which consists of remote unit and local unit. It can transmit network signal via any two-wire copper cable such as **Cat5, telephone or coaxial cable**. The distance can reach **5,000m** and Max bandwidth can be up to **148Mbps**. Meanwhile, it also can transmit telephone signal simultaneously (**adding an additional splitter**).

This device can be widely applied in network signal extending system, network security system, network information distribution system, network renovation and expansion systems, railway, urban traffic, mining and telecommunication, etc.
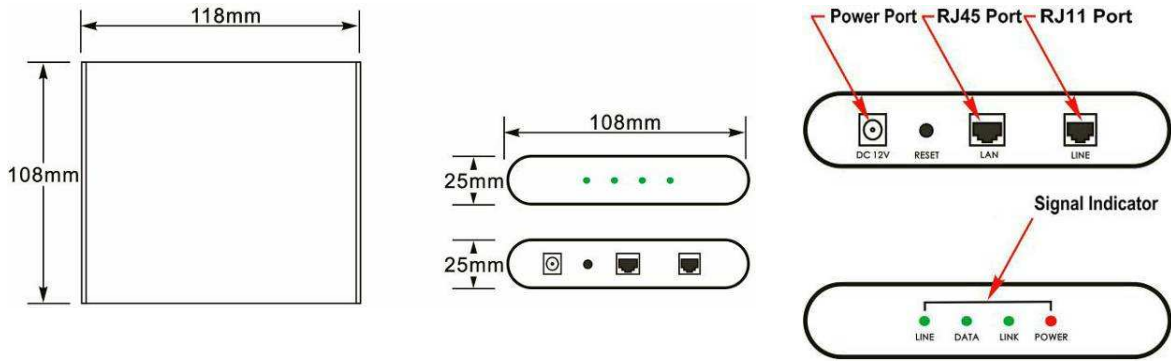
Product Features

◆ Long distance transmission as far as 5,000m.

◆ Max transmission rate reach 148M, 1,200 m can reach 15Mbps

◆ Easy installation, Cat5, telephone or coaxial cable are available

◆ Communication rate adaptive, no need to adjust
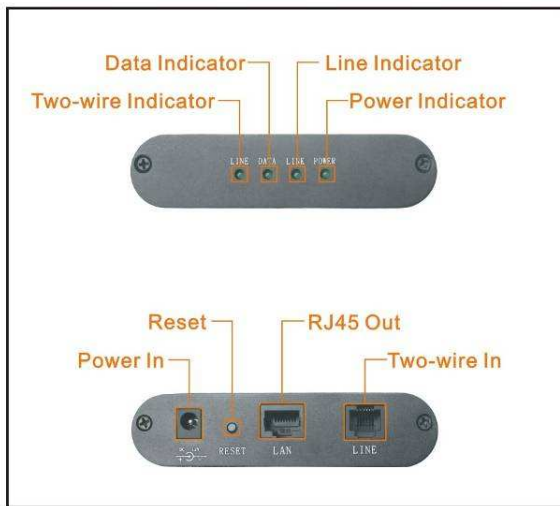
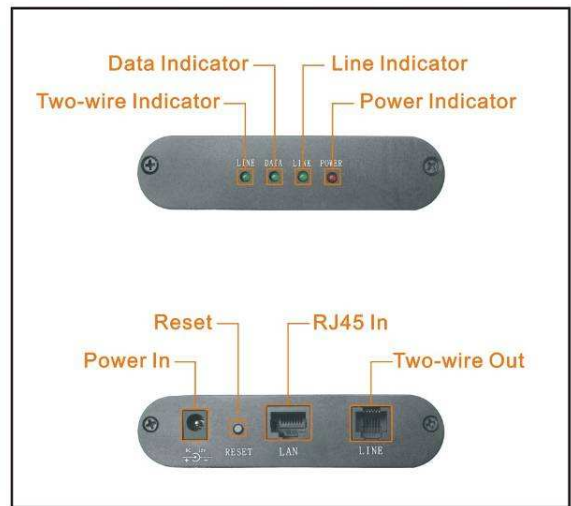◆ Excellent real-time function, strong anti-interference

Connection Diagram
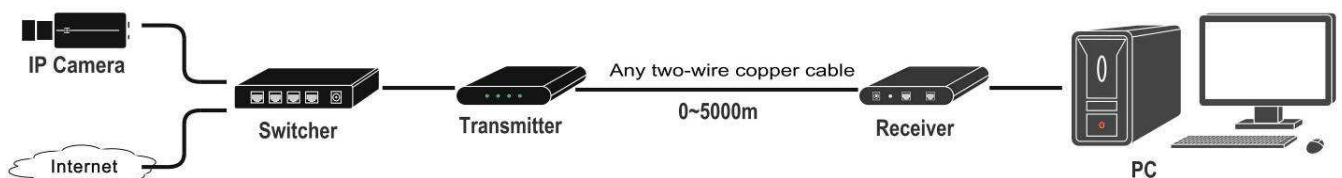
Terminal and Dimension

Terminal Instructions

Transmitter

Receiver

Installation Instructions

1. Connect the local Ethernet Extender LAN port

to the network equipment RJ45 output.

The LINE port uses RJ11 connector to

connect the two core cable (extension part).

2. Connect the low-voltage power supply (DC12V) to

the port then power signal indicator lights

Link signal indicator lights

3. Connect the other end of the two-core cable with

RJ11 connector to the remote Ethernet Extender

LINE port .The LAN port is connected to the

network equipments (such as network cameras)

through network patch cord.

4. Connect the low-voltage power supply (DC12V) to

the port , then red power signal indicator

lights , Link signal indicator lights

5. When network transmission is smooth, the

Ethernet Extender automatically tries to connect. The

LINE signal indicator continuously flash

about 10 times then they light all the time. The DATA

signal indicator quickly flash show network

signal transmission which is smooth.

6. The RESET button are used when

network transmission is not smooth. It only can

recover the transmission channel of Ethernet

Extender.

Transmission Rate Parameters

Cable Standard	Transmission Distance	Total Transmission Rate (Maximum)	Transmission Rate (Downlink Maximum)	Transmission Rate (Uplink Maximum)
26AWG/0.4mm×2	150m	148Mbps	74Mbps	74Mbps
	300m	90Mbps	54Mbps	36Mbps
	600m	43Mbps	23Mbps	20Mbps
	900m	30Mbps	15Mbps	15Mbps
	1200m	15Mbps	9Mbps	6Mbps
	3000m	2.4Mbps	1.3Mbps	1.1Mbps
	5000m	0.79Mbps	0.44Mbps	0.35Mbps
	6000m	0.25Mbps	0.15Mbps	0.1Mbps

Technical Parameters

Category		Description
Power	Available Voltage Range	12VDC
	Power Consumption	<4.5W
Protection	Transmission Channel Lightening	4KV 10/700us, common mode lightning: Level 4
		1KV 10/700us, differential mode lightning: Level 1
		Executive Standard: IEC61000-4-5
	Product Electrostatic Protection	1a contact discharge Level 4
		1b air discharge Level 4
		Executive Standard: IEC61000-4-2
Reliability	MTBF	>30000 hours
Product Physical Characteristic	Dimensions (L × W × H)	118mm×108mm×25mm(including the terminal length)
	Material	Aluminum
	Color	Black
	Net weight	0.5KG/ Pair
Operating Environment	Working Temperature	0℃～50℃
	Storage Temperature	0℃～85℃
	Humidity	＜95%

Accessory and Cable Tips
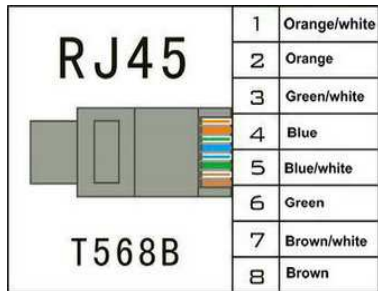
Use EIA/TIA568B standard to make RJ45 terminal

Use two wires connection (2, 3) of four wires to make RJ11 terminal

Telephone Line: CAT3 telephone cables or above

Twisted Pair: CAT5 or above

Coaxial Cable: RG 59 or above

RJ11 to BNC connector for coax cable transmission(Optional)

Power Adapter: DC12V/1A (Optional)

Product Use Notes

1) Signal transmission cable must be the copper cable. Other material cables will cause the decrease of signal transmission quality and distance.

2) Transmitting network data signal by mixing twisted pair, telephone line connection is forbidden.

3) This device has no waterproof design. Please use the product in dry environment.

4) Please choose matching power supply specification (DC12V/1A) to supply power for devices respectively.

5) Check the local unit and remote unit carefully before use. **Green indicator is remote unit. Red indicator is local unit.** If you install local unit and remote unit conversely, the devices can not work.

6) Long-distance cable connections must be standard connection method, such as welding or use connectors.

7) If the devices fail, you do not disassemble or repair, please contact us timely.

Simple Fault Cases

Panel Indicator	Feature	Phenomenon
POWER	ON	Power supply work smoothly.
	OFF	Power supply can not work smoothly.
LINE	ON	The line has been activated
	OFF	The line has not been activated
	Flashing	The line is trying to activate.
LINK	ON	Correct connection of Ethernet interface.
	OFF	Disconnection of Ethernet interface.
DATA	Flashing	Ethernet is receiving and sending data.
	OFF	No data transceiver of Ethernet interface.

Tips: If devices activation fails, the devices will automatically re-try to activate after an intervals. In this interval of time (about 1 minute), LINE indicator is off.
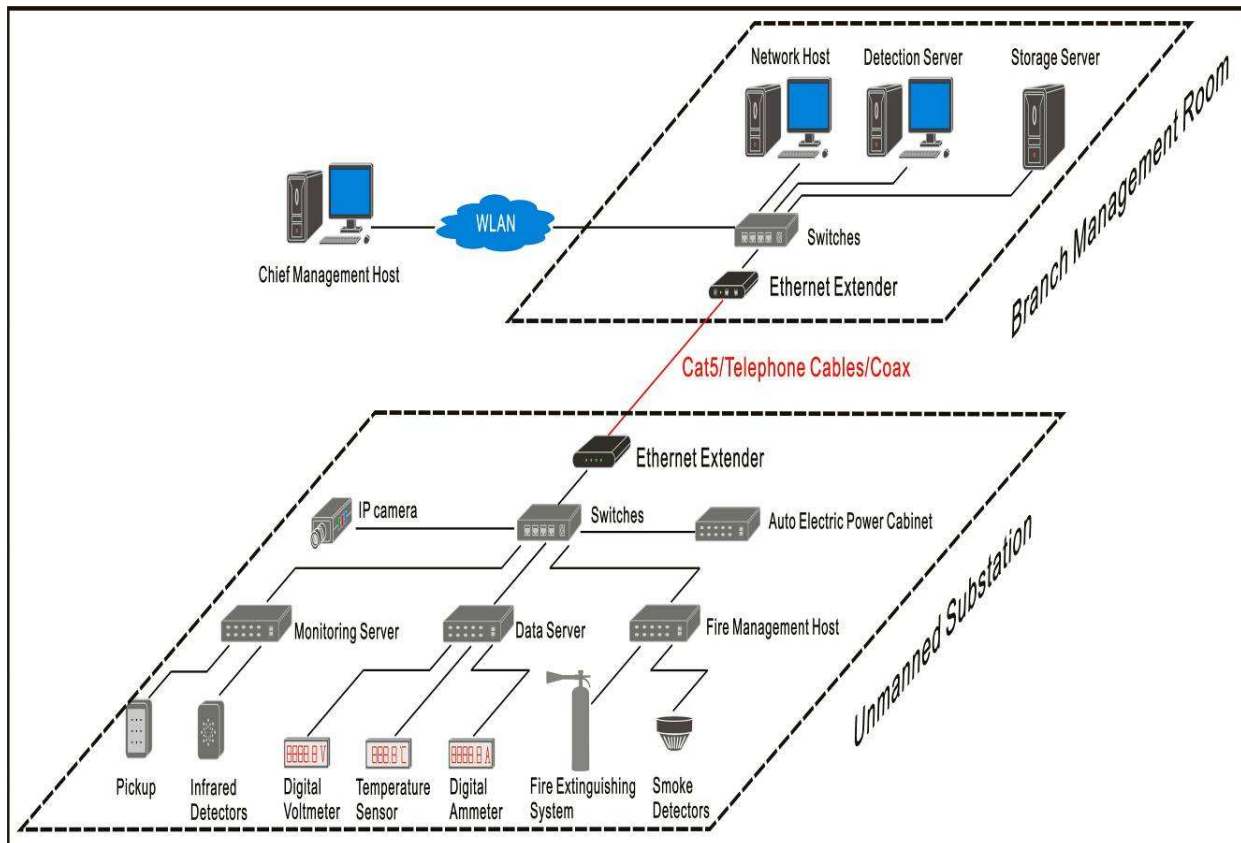
Application Field Cases
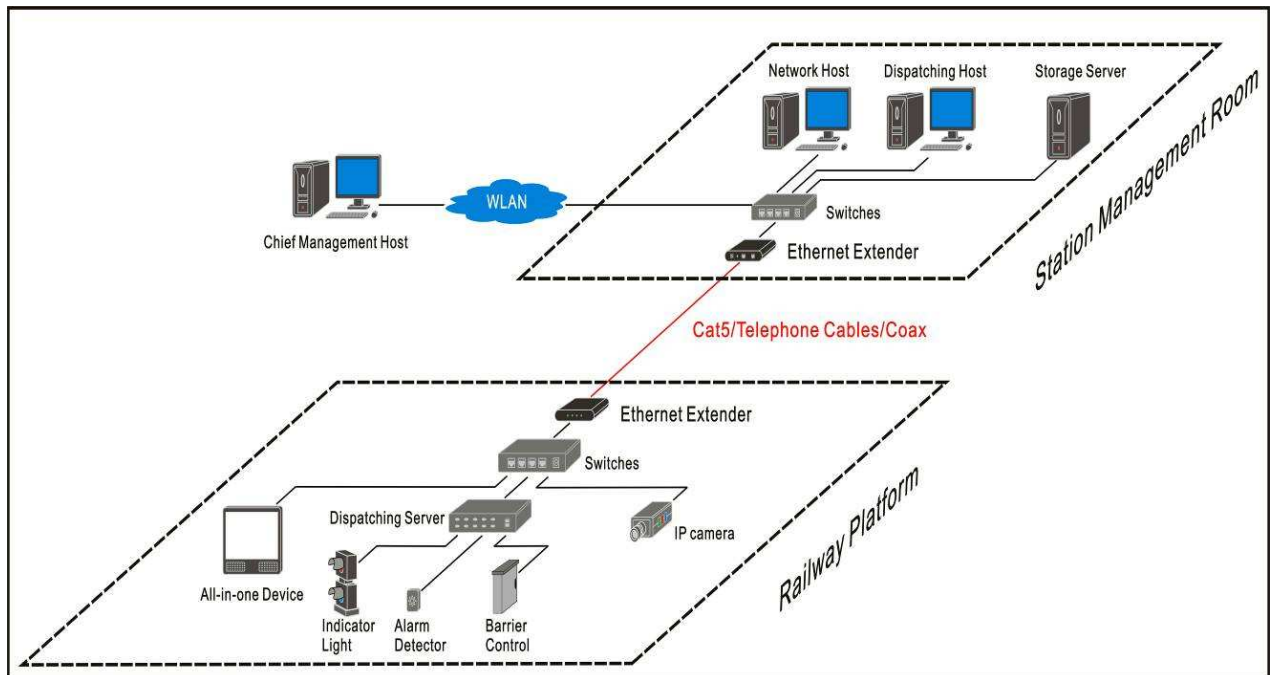
Railway System Application:

IP surveillance and network data transmission become more and more important in railway system. It refers to digital information platforms, network data dispatching and IP surveillance, which need excellent transmission solution. Ethernet Extender is very good choice.


Electric Power System Application:

With rapid development of the electric power system, the substations of human operating equipments gradually become unattended and intelligent trend. Now Ethernet Extender is widely used in electric power system.
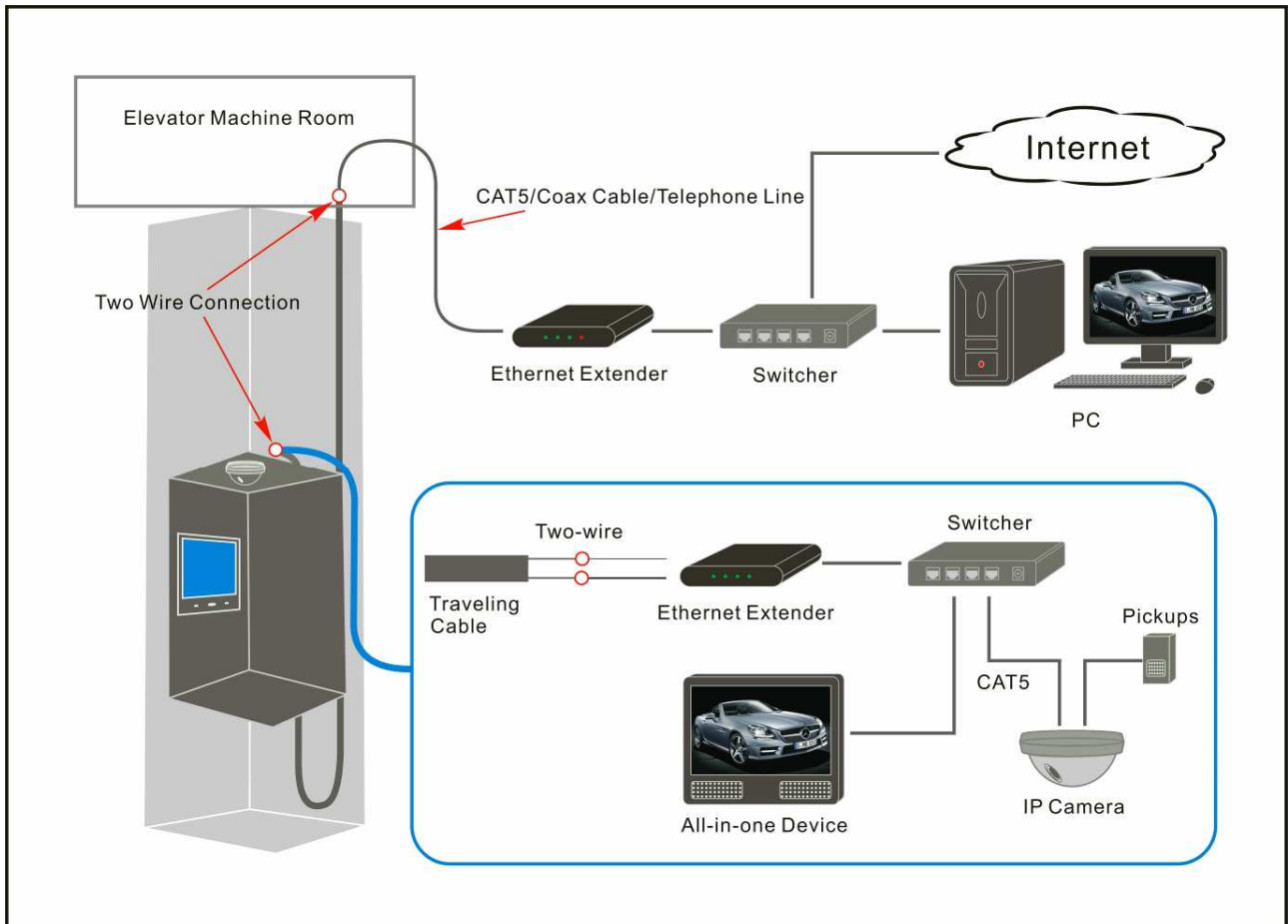
Elevator System Application:

Ethernet Extender is widely used in elevator. We can transmit network data signals with two-wire in accompanying cables. The only thing customers do is to install Ethernet Extender at both sides of the cables. It is perfect for IP surveillance and analog system upgrade in elevator. Besides, network information publishing platforms in the elevator also need the support of Ethernet Extender.
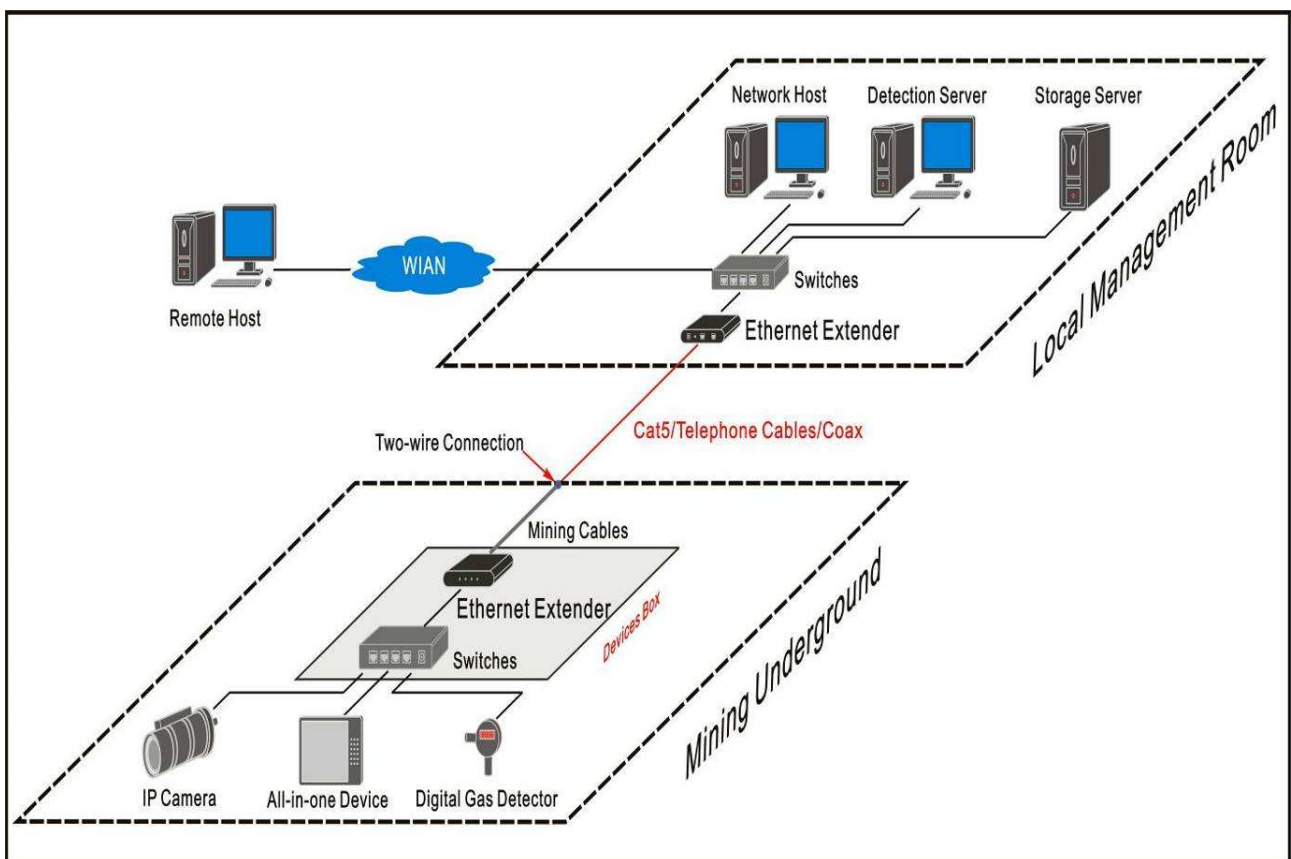
Mining System Application:

IP surveillance and network data transmission in mining system are paid more and more attention. Traditional mining cables resources are suitable for Ethernet Extender use. You can easily achieve high-speed network data signal transmission by installing Ethernet Extender at both sides of the cables. It is very worthwhile to promote.