VC-350 Ethernet Extender

Description

VC-350 Ethernet Extender is a single channel high-speed Ethernet transmission device.

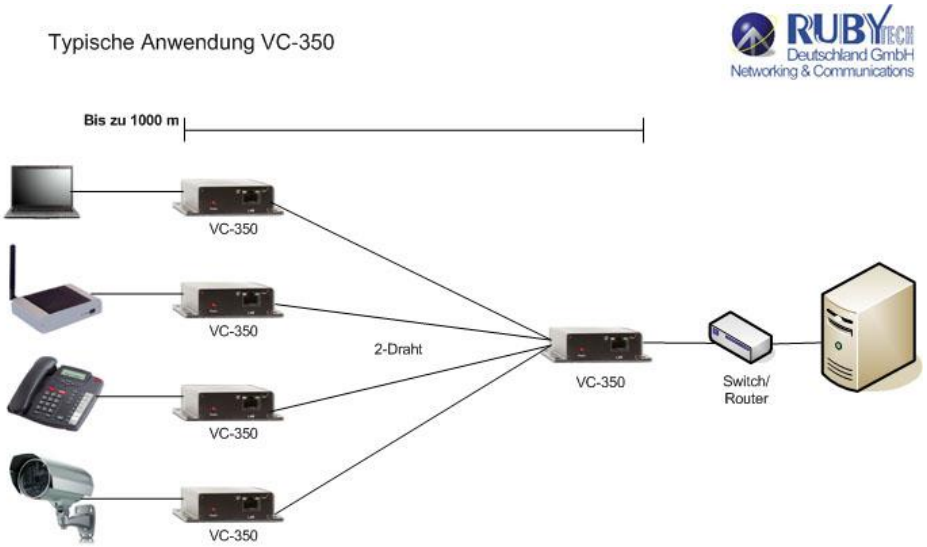
It can transmit Ethernet signal over any 2-wire cable such as coax cable,

Cat5, telephone line, power line and so on.

The max. transmission distance can reach 1.000 meters and the max physical bandwidth can reach 200Mbps.

This device contains the Master and Slave unit, which supports point-to-point and point-to-multipoint network transmission. Now it has a 2P terminals for your choices to connect 2-wire cables. It can greatly simplify the project cabling, apply to expand network system and transmit signals for long distance.

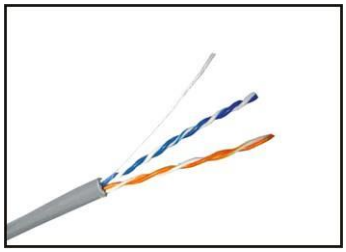
Application



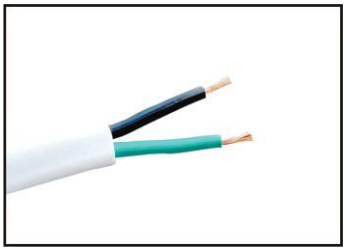
Features

- Max transmission distance can reach 1.000m (RVS 2×1mm²)
- Max physical bandwidth can reach 200Mbps
- Support power over cable technology
- Transparent transmission, no adjustment and no need to change the upper software
- Low power consumption, communication channel dynamic adjustment and high performance error correction coding technology

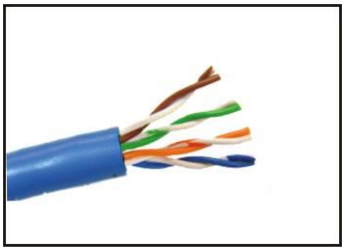
Cable Tips



Telephone Line: Category 3 or above

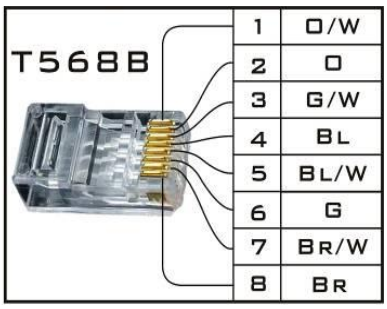


Power Line: RVV, RVS, RVVP, RVB 2×0.5mm2



UTP Cable: Category 5 or above

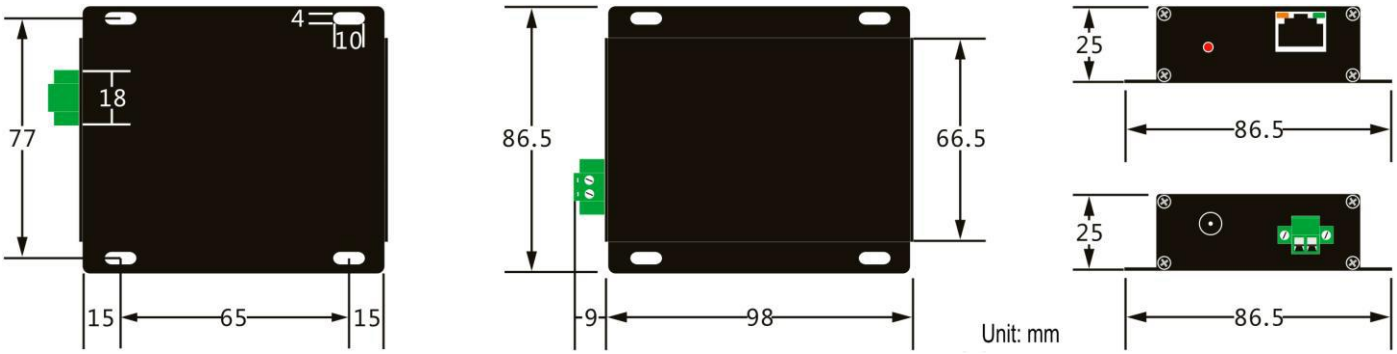
Accessories Spec



RJ45 port by EIA / TIA568B

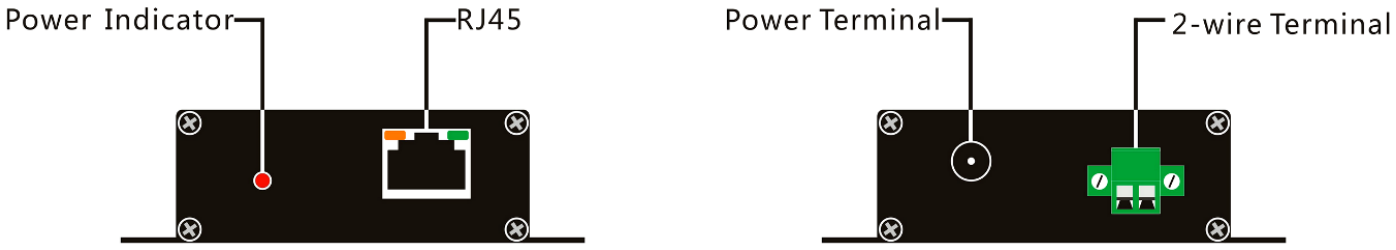
Power Adapter by 12VDC/1A, 5mm female power port (Optional)

Dimension



Note: Dimension error value ±0.5 mm

Terminals

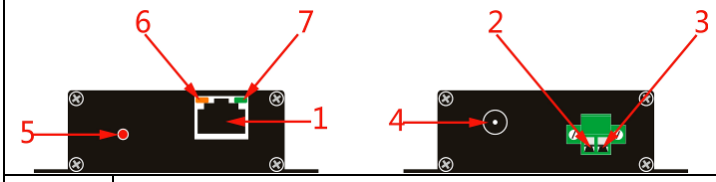


Technical Parameter

Category		Description
Power	Available Voltage Range	12VDC
	Power Consumption	≤2W / PC
Transmission / Rate	Standard Compliance	IEEE1901, IEEE802.3
	Up down Agreement	CSMA/CA
	Physical Speed	200Mbps
	Encryption Way	128-bit AES Encryption
Physical Characteristic	Dimension (L × W × H)	98mm×86,5mm×25mm
	Material	Aluminum
	Net Weight	150g/PC
Operating Environment	Working Temperature	-20℃～60℃
	Storage Temperature	-55℃～125℃
	Working Humidity	20％～85% Non-condensation
	Storage Humidity	10％～90％ Non-condensation

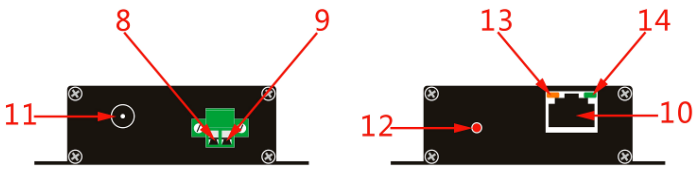
Installation Instructions

Master



Step	Installation Instruction
1	Local Network equipment is connected to RJ45 port of Master unit
2	The connection terminal of A line of 2-wire
3	The connection terminal of B line of 2-wire
4	Connect power supply (12VDC) to the power port
5	Power indicator is always on
6	Network data indicator quickly blinks when data transmission is normal
7	Line indicator is on (In one line, the indicator is always on when powered firstly, indicator is always flash when powered later)

Slave



Step	Installation Instruction
8	The connection terminal of A line of 2-wire
9	The connection terminal of B line of 2-wire
10	Connect the UTP cable of network equipment to RJ45 port of slave unit
11	Connect power supply (12VDC) to the power port
12	Power indicator is always on
13	Network data indicator, it quickly blinks when data transmission is normal
14	Line indicator quickly blinks (In one line, the indicator is always on when powered firstly, indicator is always flash when powered later)

Tip: VC-350 Ethernet Extender signal belongs to high frequency radio frequency signal. Considering the cable loss, please choose better quality connectors.

Installation Diagram

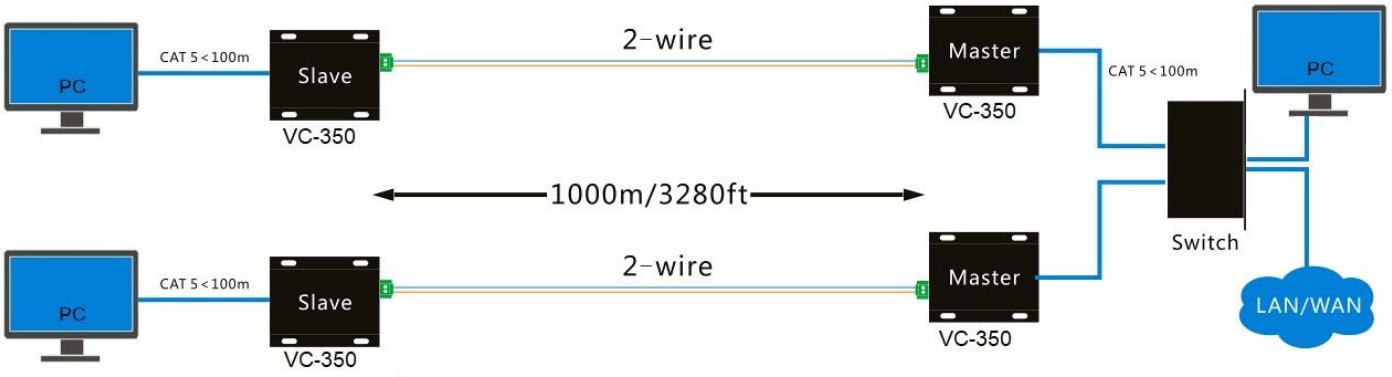


Figure 1 - Typical Installation

Most installations that use the VC-350 involve the replacement of old analog equipment with new IP devices, while reusing the installed wire. In generally, there are two connections types. One is typical connection (**Figure 1 above**) and the other is **Bus-architecture and Daisy Chain Connection** (**Figure 2 and 3 Below**). You can choose the connection type in line with actual environment.

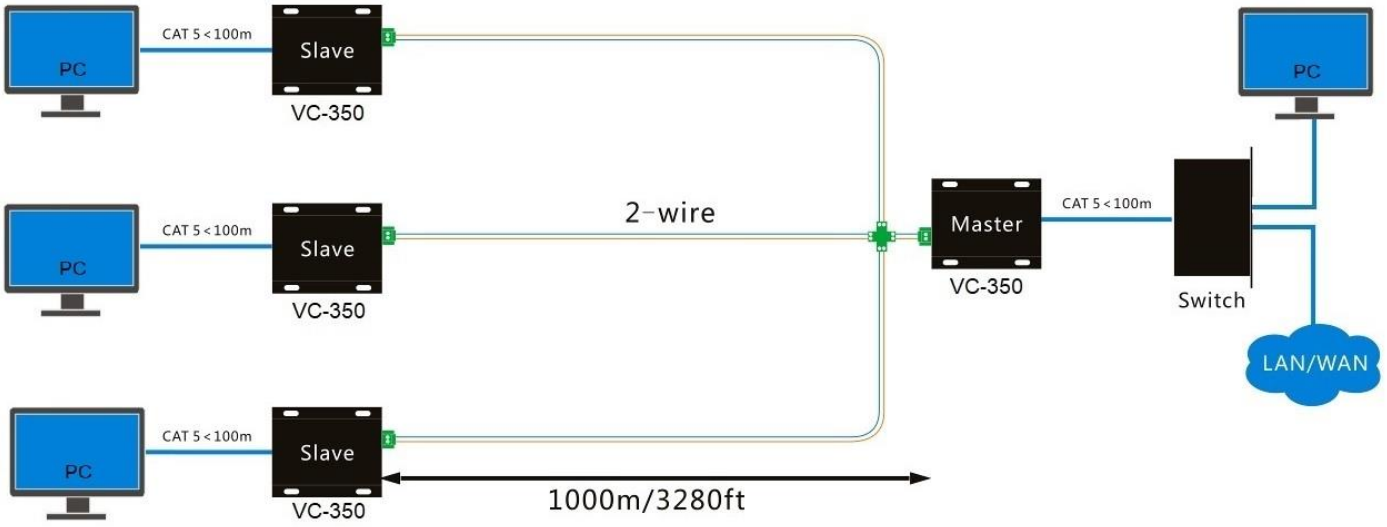


Figure 2 - Bus-architecture Installation

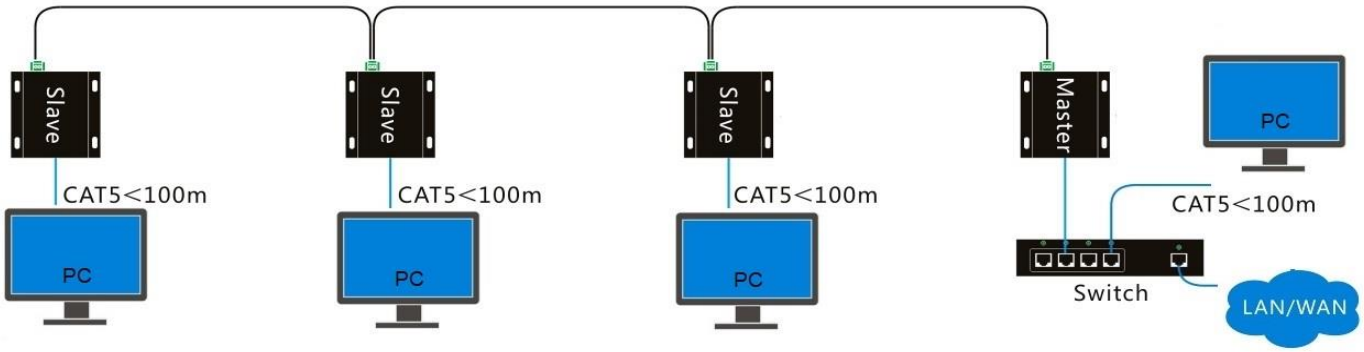
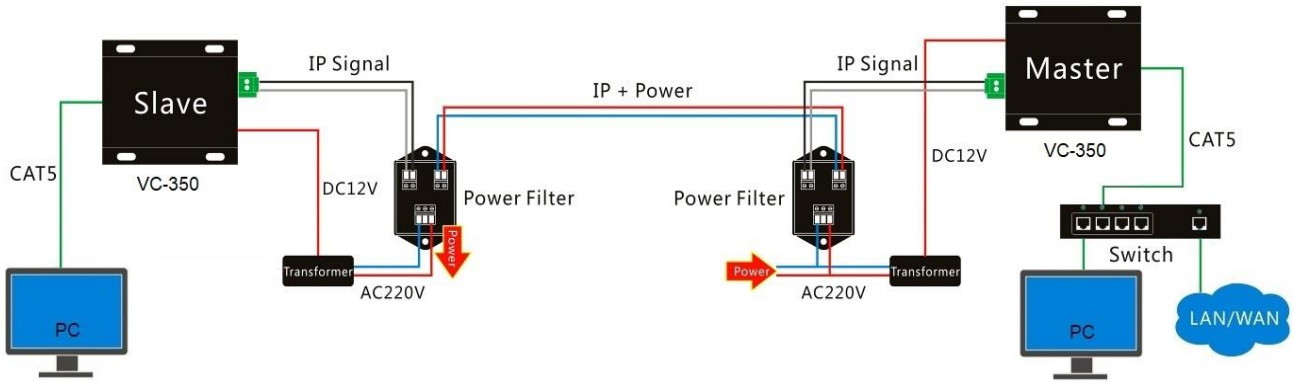


Figure 3 - Daisy Chain Installation

VC-350 can support **Power and Ethernet simultaneous transmission**. When Ethernet signal transmission in power line, to avoid power line interference, you should install Power Filter VC-3-POWFI on each VC-350 unit, installation diagram as below:



Use Tips

When you use VC-350, please follow the below tips as a reference, in order to reduce the fault in the process of using and the inspection work.

1. The device supports auto-negotiation allocation master and slave. It also can be set master-slave side and grouped by software. Each group (one point to multi-point communications group) only allows one Master, others are Slaves. Otherwise, the network data won't be able to transmit. And Master unit should be installed in the local side.
2. Signal transmission cable must be the copper cable. Other material cables will cause the decrease of signal transmission quality and distance.
3. Long distance cable connection must be formal connection methods, such as welding or using connectors.
4. Coaxial cable, twisted-pair cable, telephone line and power line all can be used to transmit network data signal in projects. A variety of cables arbitrary mixed connection also can reduce the quality of signal.
5. Please choose matching power supply (12VDC / 1A).
6. If need to transmit power at the same time, you should install power filter in the front of each device to make sure signal stability.
7. There is no waterproof design for this product, please make sure it is used in dry environment.
8. If device fails, do not disassemble or repair it by yourself. Please contact us timely.

Attentions: Specifications are subject to change without notice. Thank you for choosing us. For more details, please visit our website: **www.rubytech.de**