Product Datasheet

2.4G/300Mbps Wireless Bridge

ONV-CPE300

OVERVIEW

ONV-CPE300 wireless bridge is a high-performance, high-stability 2.4GHz multi-purpose wireless transmission product developed by ONV. The wireless transmission rate is up to 300Mbps, and the built-in 8dBi high-gain directional antenna is adopted, so that the distance between receiving and transmitting can reach 1KM. This product supports relay and wireless ISP function, which can realize long-distance wireless signal transmission. ONV-CPE300 adopts dust-proof, waterproof, and lightning-proof housing and antenna, which can work stably for a long time in various outdoor environments. It supports DC12V power supply/24V POE main/standby dual power supply and remote reset functions for easy management. It can realize point-to-point, point-to-multi-point, and outdoor wireless coverage and other applications to meet the wireless transmission coverage requirements of elevator monitoring, rural areas, factory districts, scenic spots, squares, and other indoor and outdoor environments.

FEATURE

High gain antenna, 300M high-speed transmission

◇ Adopt 802.11n MIMO wireless technology, provide 300Mbps wireless transmission rate.

◇ Built-in high gain dual-polarized antenna, the signal is stronger and the transmission is farther.

Engineering-level hardware design, professional outdoor transmission

◇ Qualcomm high-performance enterprise-level chips, industrial-grade materials, high-speed and stable anti-interference, meet the needs of various installation environments.

◇ Industrial-grade integrated molding shell, with IP61 dustproof, waterproof, adaptable to various harsh environments such as wind and sun, rain, snow, and freezing, and can work normally and stably even in extremely high and low-temperature environments.

Easy to install and easy to maintain

◇ The factory settings are free of matching. Support one-key quick digital pairing, easy and efficient.

◇ Support point-to-point, point-to-multi-point data transmission, centralized management.

◇ The installation is simple and convenient, and the signal strength is intelligently indicated.

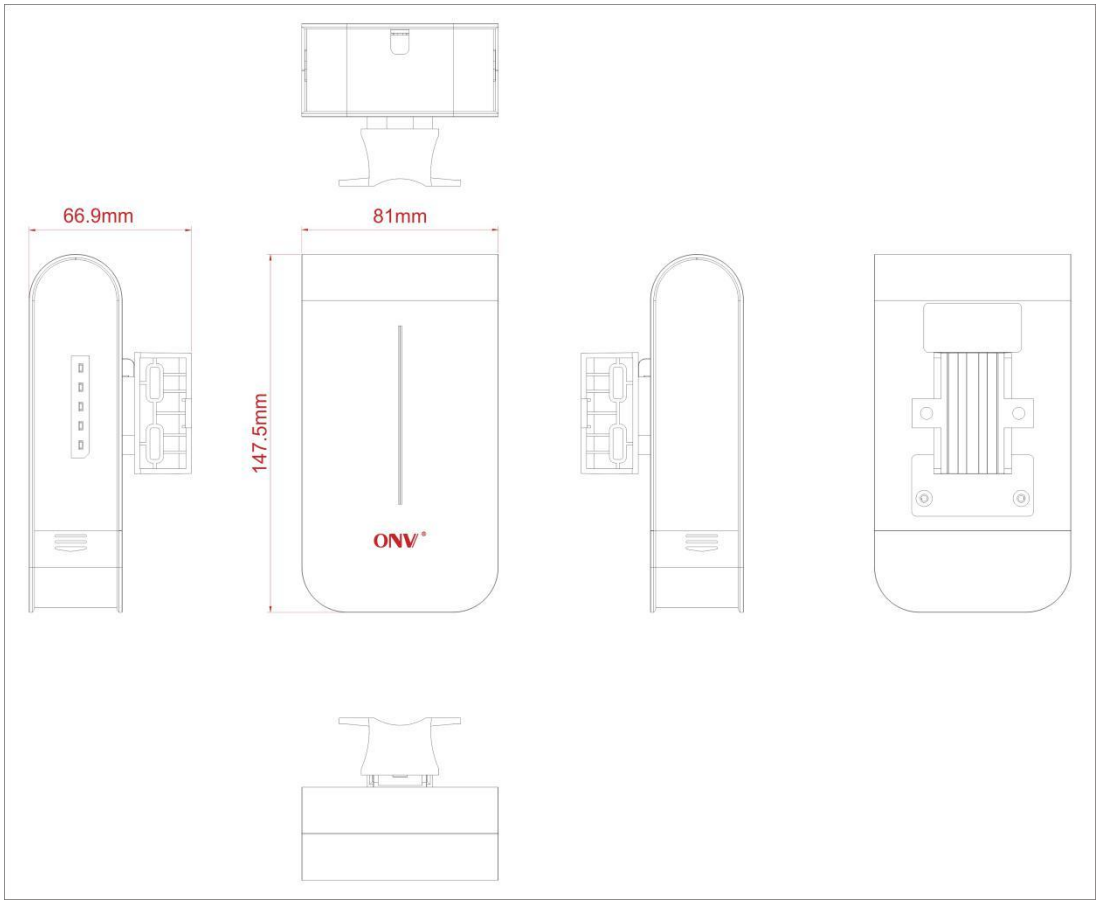
TECHNICAL SPECIFICATION

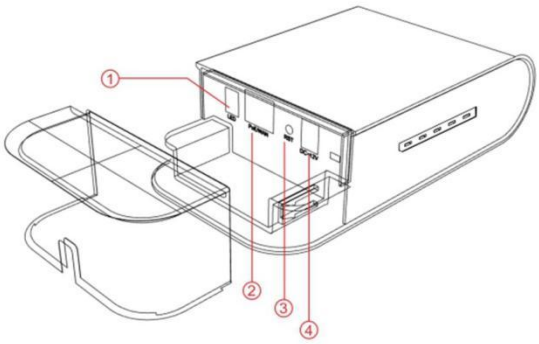
Model	ONV-CPE300
Interface Characteristics	
Fixed Port	1*10/100M 24V PoE port(Data/Power) 1*DC5521 12VDC power port
Ethernet Port	10/100Base-TX auto-sensing,Full/half duplex MDI/MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meter) 100BASE-TX: Cat5 or later UTP(≤100 meter)
Chip Parameter	
Chip	AR9531, 650MHz
Network Protocol	IEEE802.3u 100Base-TX, IEEE802.11b/g/n
DDR2 Memory	64MB
Flash	8MB
RF Design	Dual-stream single frequency, 2T2R 300M MIMO technology
Working Frequency	2.4~2.4835GHz,802.11b/g/n
Transmit Power	18dBi
Antenna Type	Built-in dual-polarization directional antenna, horizontal 60 degrees, vertical 30 degrees, gain 8dBi
Transmission Rate	300Mbps
Wireless Transmission Distance	1km(Max)
LED Indicator	System: SYS (green), network: NET (green), signal indicator: (green)
Reset Switch	Yes, Press for 20 seconds and release to restore factory settings
RF Parameter	
Modulation Mode	OFDM=BPSK,QPSK, 16-QAM, 64-QAM DSSS=DBPSK, DQPSK, CCK

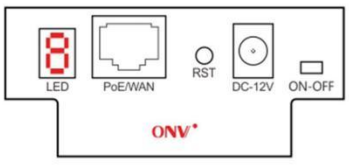
Receiving Sensitivity	802.11n(2.4GHz)	802.11g	802.11b
	-90dBm @ MCS0	- 90dBm @ 6Mbps	- 95dBm @ 1Mbps
	-70dBm @ MCS7	- 72dBm @ 54Mbps	- 90dBm @ 11Mbps
	-90dBm @ MCS8		
	-68dBm @ MCS15		
Transmit Power	802.11n(2.4GHz) (±1.5dBm)	802.11g(±1.5dBm)	802.11b(±1.5dBm)
	14dBm@ MCS0~2/MCS8~10	18dBm @ 6~24Mbps	18dBm @1~11Mbps
	14dBm @ MCS3/MCS11	18dBm @ 36Mbps	
	14dBm @ MCS4/MCS12	16dBm @ 48Mbps	
	14dBm @ MCS5/MCS13	16dBm @ 54Mbps	
	14dBm @ MCS6/MCS14		
	14dBm @ MCS7/MCS15		
Power Supply			
Power Supply Mode	12VDC or 24VDC Passive PoE power supply		
Power Consumption	Standby<3W,Full Load≤5W		
Power Supply/ Input Voltage	Wall-mounted 24VDC PoE. Input AC:100~240V 50-60Hz 0.5A		
Physical Parameter			
Operation TEMP / Humidity	-40~+70°C;5%~90% RH Non condensing		
Storage TEMP /	-40~+75°C;5%~95% RH Non condensing		

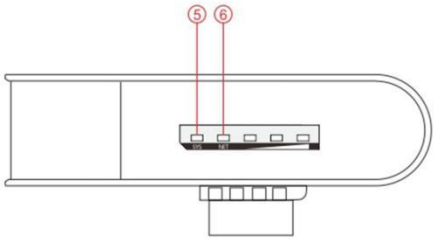
Humidity	
Dimension (L*W*H)	147.5*81*44mm
Net /Gross Weight	<0.2kg / <1.0kg
Installation	Pole-mounted, Wall-mounted
Certification & Warranty	
Lightning protection / protection level	Port lightning protection: 6KV 8/20us; Protection level: IP61
Certification	FCC, CE -EMC /LVD/RF, RoHS
Warranty	3 years, lifelong maintenance.
Software Features	
Operating Mode	Wireless bridge mode or AP mode or universal interrupt mode
Wireless Set-up	BSSID
	Automatically select the signal channel
	Distance control 802.1x ACK time output
	Multiple SSIDs, Max 4 can be configured
Wireless Security	Hide SSID
	WPA/WPA2 (WPA-EAP uses TKIP)
	WPA/WPA2 (WPA-PSK uses TKIP or AES)
	WEP, 64/128/152 bit WEP security password
System Set-up	WEB configuration (HTTP/remote login)
Software Upgrade	WEB webpage or TFTP to upgrade the software
User Management	Configurable user and password
System Monitoring	Equipment and network status statistics
Log	Local log, host log, file transfer log
Restore Set-up	Restore factory default set-up
Backup Function	Back up the system configuration and restore the user's configuration when needed

DIMENSION









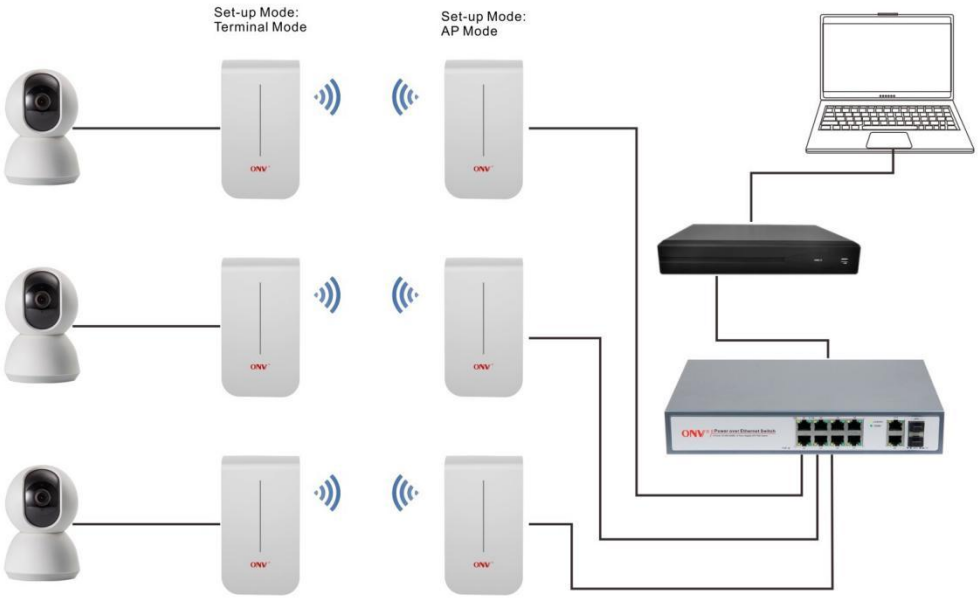
① Indicator—Wireless bridge status
② PoE/WAN port—PoE power supply and data transmission
③ Reset port—Press for 20 seconds and release to restore factory setting
④ DC port—Wireless bridge power supply, free choice of PoE or DC power supply
⑤ SYS—System working indicator
⑥ NET—Network working indicator

APPLICATION

Point-to-point connection diagram

Single camera connection

If the distance among the camera is so far, each camera can be configured with a pair of wireless bridges, and the monitoring center uses a switch to connect the AP ends together and then connect to the DVR.

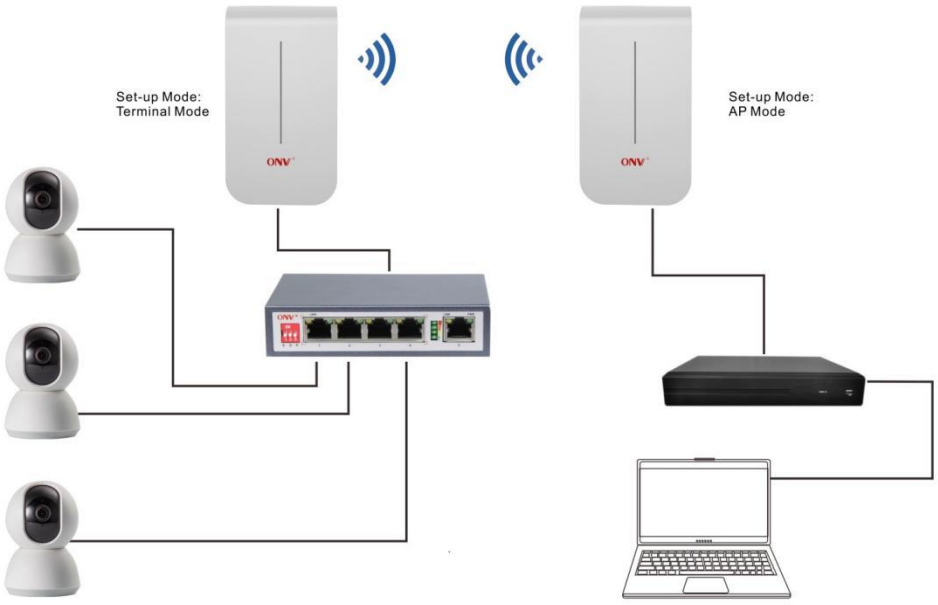


Camera—Wireless Bridge

Wireless Bridge—Switch—DVR—Monitoring Computer

Multiple cameras connection

Connect the camera to the switch, then connect to the wireless bridge to transmit data through a pair of wireless bridges.



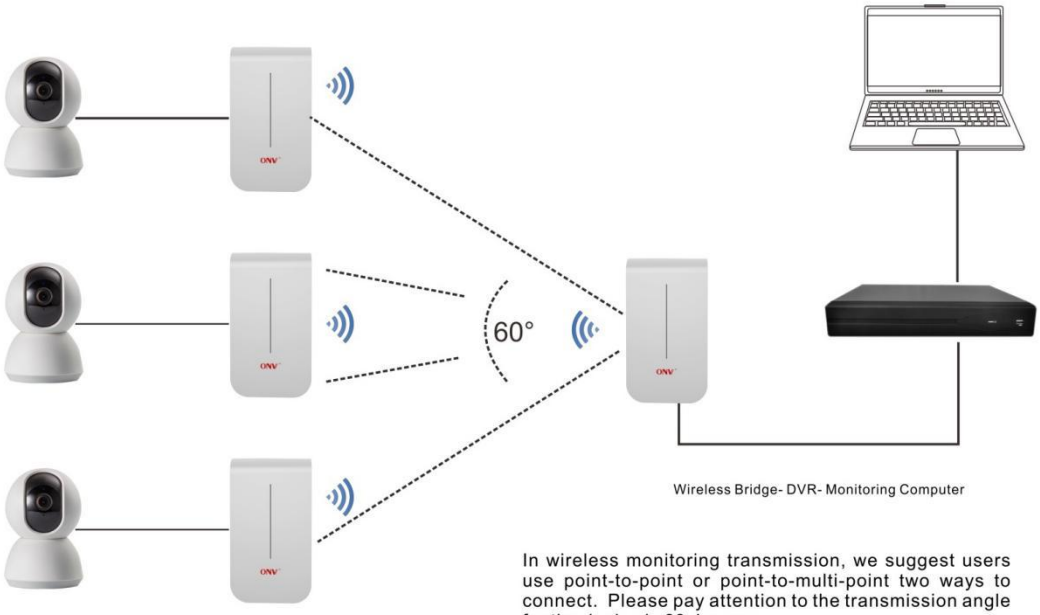
Camera-Switch—Wireless Bridg

Wireless Bridge-—DVR —Monitoring Computer

+86 755 33376606
Optical Network Video Technologies (Shenzhen) Co., Ltd.

Point-to-multi-point connection diagram

If the angle of the camera and the monitoring center are less than 60 degrees, there can consider one point-to-multi-point connection. It can reduce the wireless bridges with the transmitting mode, which can save cost a lot. Please pay attention that it has to meet the angle and broadband requirements.



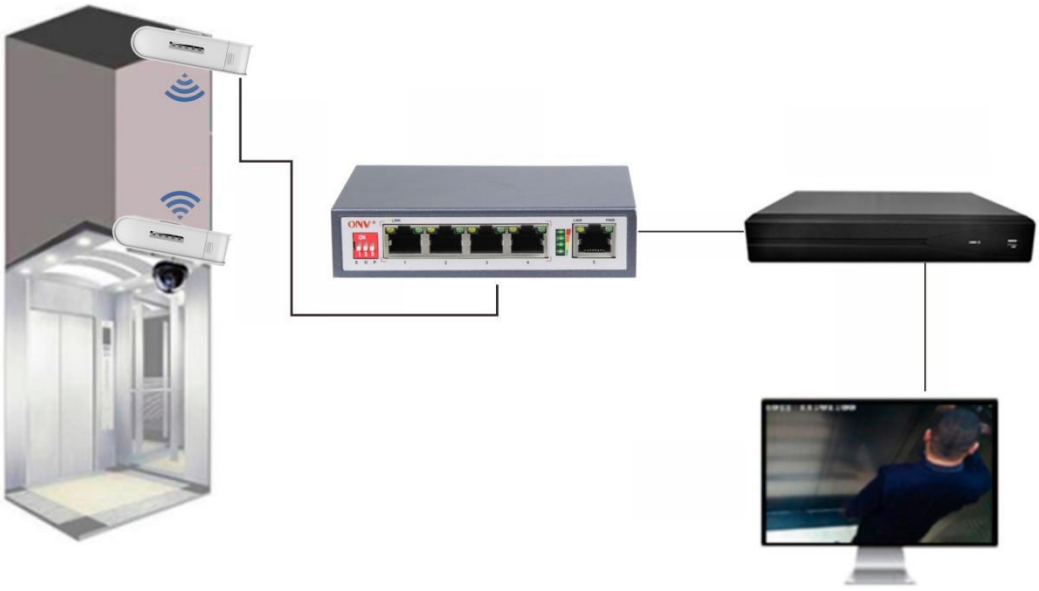
Wireless Bridge- DVR- Monitoring Computer

In wireless monitoring transmission, we suggest users use point-to-point or point-to-multi-point two ways to connect. Please pay attention to the transmission angle for the device is 60 degrees

Camera-Wireless Bridge

Elevator Monitoring

Installation way 1
One wireless bridge is installed on the top of the elevator hoistway, and the other is installed on the top of the elevator car.
Installation way 2
One wireless bridge is installed at the bottom of the elevator hoistway, and the other is installed at the bottom of the elevator car.



Wireless Bridge-Switch- DVR- Monitoring Computer

Wireless Bridge Connection

Connect a pair of wireless bridges to the DC/PoE power supply,
then connect the camera or video recorder through the network cable.

Wireless Bridge-Power Supply-Camera

Wireless Bridge-Power Supply -NVR

ORDERING INFORMATION

Model	Description	Power Supply
ONV-CPE300	2.4G/300Mbps wireless bridge can support 1*10/100M 24VDC passive PoE power supply, transmission distance 1km, pole-mounted installation.	24VDC POE power supply

PACKING LIST

	CONTENT	QTY	UNIT
PACKING LIST	2.4G/300Mbps wireless bridge	1	Pair
	24VDC PoE power supply	2	PC
	Double head RJ45 network cable	2	PC
	Hanging ear and stainless steel band	1	Pair
	User Guide	1	PC
	Warranty Card	1	PC

CONTACT US

Optical Network Video Technologies (Shenzhen) Co., Ltd.

Tel: 0086-755-33376606

Fax: 0086-755-33376608

Email: onv@onv.com.cn

Website: www.onvcom.com

Zip: 518000

Headquarter Address: Room 1003, Block D, Terra Building, Futian District, Shenzhen, China

Factory Address:The 4-6th Floor, No. 59, HuaNing Road, Xinwei Community, Dalang Street, Longhua District, Shenzhen, China