

## Product Datasheet

# 5.8GHz 300Mbps Outdoor Wireless Bridge (ONV-WQ300M5805)



## OVERVIEW

The ONV-WQ300M5805 is a long-range 5.8G wireless transmission device that uses wireless communication technology and air as a medium for network data transmission, enabling long-distance point-to-point or point-to-multipoint interconnection. The working data link layer enables local area network interconnection, and the transmission distance can reach up to 5km.

## FEATURE

### ■ Simplified construction and convenient operation and maintenance

- ◇ Support 24V PoE power supply, eliminating the need for independent power cable laying and simplifying the front-end installation process. The overall deployment is quick and flexible, and the subsequent maintenance is intuitive and efficient, significantly reducing labor and time costs.

### ■ Adaptive power adjustment

- ◇ Built-in automatic power control mechanism dynamically adjusts transmission power based on actual transmission distance and environmental changes. Even in ultra-close-range deployments, it effectively avoids interference caused by excessively strong signals, ensuring consistently smooth and stable video playback.

### ■ Intelligent networking and flexible expansion

- ◇ Supports automatic networking between A and B devices, flexibly enabling one-to-one and one-to-many modes, and automatically switching master and slave roles without additional configuration. Adopts a WDS (Wireless Distributed System) networking architecture, compatible with video and data transmission needs, ensuring convenient and efficient network expansion.

### ■ Deeply optimized video transmission

- ◇ Dedicated protocol optimization for wireless video surveillance scenarios and deep tuning of the underlying wireless driver effectively handle dynamic bursts of traffic, ensuring the real-time performance and integrity of high-speed video transmission, significantly improving anti-interference capabilities, and achieving a reliable experience with smooth video playback and no dropped frames.

### ■ Economical and environmentally friendly, overcoming geographical limitations

- ◇ Eliminates the constraints of complex terrains such as mountains and open areas on wired network deployment, saving on lengthy engineering projects such as trenching and cable laying, and significantly shortening the construction cycle. Equipment is relocatable and reusable, with no risk of investment lock-in, and offers the economic advantages of flexible expansion and rapid cost recovery.

### ■ Green and energy-saving design

- ◇ Adopting a low-power, high-performance hardware architecture, the RF and radiation indicators fully comply with national standards. Supports Dynamic MIMO Power Saving Mode (DMPS) and Automatic Power Saving Transmission (APSD), intelligently

identifying the actual load of the terminal, dynamically adjusting bidirectional power, and optimizing device sleep strategies to achieve refined energy consumption management.

## TECHNICAL SPECIFICATION

| Model                    | ONV-WQ300M5805                                                                                   |         |         |
|--------------------------|--------------------------------------------------------------------------------------------------|---------|---------|
| Main Controller Solution | AR9344                                                                                           |         |         |
| DRAM                     | DDR2 64M                                                                                         |         |         |
| FLASH                    | 8M                                                                                               |         |         |
| Wired Interface          | 2*10/100Mbps LAN ports                                                                           |         |         |
| Data Rate                |                                                                                                  |         |         |
| 11a                      | 54M,48M,36M,24M,18M,12M,9M,6Mbps                                                                 |         |         |
| 11n                      | 7.2M,14.4M,21.7M,28.9M,43.3M,57.8M,65M,72.2M,14.4M,28.9M,43.3M,57.8M,86.7M,115.6M,130M,144.4Mbps |         |         |
| Transmission Method      | Direct sequence amplification (DSSS)                                                             |         |         |
| Modulation Method        | OFDM/BPSK/QPSK/CCK/DQPSK/DBPSK                                                                   |         |         |
| Standard                 | IEEE802.11n,IEEE802.11a ,IEEE802.3u                                                              |         |         |
| Supported Protocol       | CSMA/ CA, TCP/ IP, IPX/ SPX, NetBEUI, DHCP, NDIS3, NDIS4, NDIS5                                  |         |         |
| Frequency Range          | 4900~6100MHz                                                                                     |         |         |
| Power Consumption        | ≤3W                                                                                              |         |         |
| Power Supply             | PoE24V 1A (Default) (max voltage: 24V)                                                           |         |         |
| RF Power @25℃±2dB        |                                                                                                  |         |         |
| 802.11a                  | 6-24Mbps                                                                                         |         | 23±2dBm |
|                          | 36-48Mbps                                                                                        |         | 21±2dBm |
|                          | 54Mbps                                                                                           |         | 20±2dBm |
| 802.11n                  | HT20                                                                                             | MCS 0-3 | 23±2dBm |
|                          |                                                                                                  | MCS 4   | 21±2dBm |

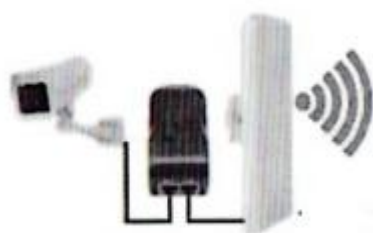
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|--------------------------|-------------------------------------------------|-------------------------------|---------|
|                          |                                                 | MCS 5                         | 20±2dBm |
|                          |                                                 | MCS 6                         | 20±2dBm |
|                          |                                                 | MCS 7                         | 19±2dBm |
|                          | HT40                                            | MCS 0-3                       | 21±2dBm |
|                          |                                                 | MCS 4                         | 21±2dBm |
|                          |                                                 | MCS 5                         | 20±2dBm |
|                          |                                                 | MCS 6                         | 19±2dBm |
|                          |                                                 | MCS 7                         | 18±2dBm |
| Sensitivity              |                                                 |                               |         |
| 802.11a                  | 6Mbps ≤ 92dBm                                   | 54Mbps ≤ -76dBm               |         |
| 802.11n                  | HT20                                            | MCS 0 ≤ -86, MCS 7≤ -68dBm    |         |
|                          | HT40                                            | MCS 0 ≤ -83dBm, MCS 7≤ -65dBm |         |
| Antenna System           |                                                 |                               |         |
| Frequency Range          | 5180~5825MHz                                    |                               |         |
| Polarization Direction   | Vertical (60° horizontal/30° vertical)          |                               |         |
| Gain                     | 14DBi                                           |                               |         |
| Management               |                                                 |                               |         |
| Web Management           | Support                                         |                               |         |
| Telnet                   | Support                                         |                               |         |
| Serial                   | Support                                         |                               |         |
| Security                 |                                                 |                               |         |
| MAC Address Control      | Support                                         |                               |         |
| Encryption               | WEP encryption (64/128 bits), WPA, WPA2, 802.1x |                               |         |
| Physical Parameter       |                                                 |                               |         |
| Operation TEMP/ Humidity | -30°C~+65°C, ≤95% RH non-condensing             |                               |         |
| Storage TEMP/ Humidity   | 0°C~+40°C, ≤95% RH non-condensing               |                               |         |
| Dimension                | 250*95*65mm                                     |                               |         |
| Net /Gross Weight        | 0.58kg/ 1.01kg                                  |                               |         |

## DIMENSION



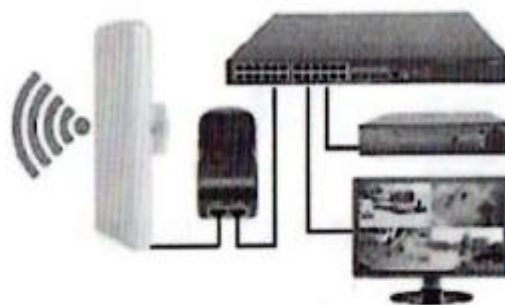
## APPLICATION

### Point-to-point connection



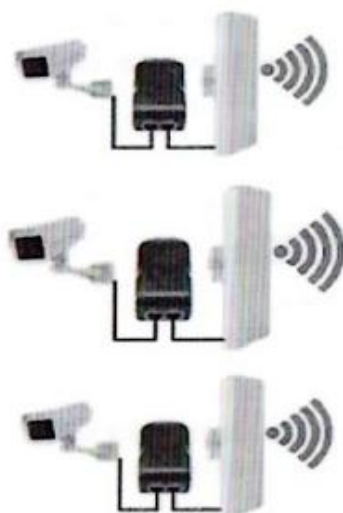
Bridge connects to the POE port of the power supply

Camera connects to the LAN port of the power supply



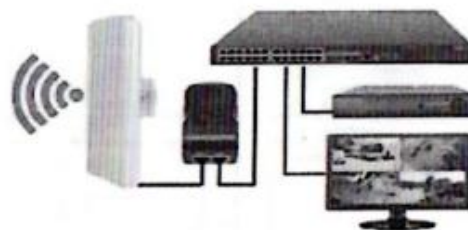
Bridge connects to the POE port of the power supply, the LAN port of the power supply connects to the Switch or NVR

### Point-to-multiple connection



Bridge connects to the POE port of the power supply  
Camera connects to the LAN port of the power supply

Launch angle 60°



Bridge connects to the POE port of the power supply, the LAN port of the power supply connects to the Switch or NVR

## ORDERING INFORMATION

| Model          | Description                                                                                                |
|----------------|------------------------------------------------------------------------------------------------------------|
| ONV-WQ300M5805 | 300M outdoor wireless bridge with 2*10/100M RJ45 ports. 802.11 a/n, 2*2 MIMO PoE 24V, 5.8G, 14dBi antenna. |

## CONTACT US



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

Tel: 0086-755-33376606

Fax: 0086-755-33376608

WeChat: ONV-PoE-IoT

Email: onv@onv.com.cn

Skype: onv@onv.com.cn

Teams: onv@onv.com.cn

Website: www.onvcom.com, www.onvswitch.com

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

Factory Address: Building B3, Galaxy Artificial Intelligence Industrial Park, No. 333,

Zhongkai 6th Road, Chenjiang Street, Zhongkai High-tech Zone, Huizhou

