

DH-PFWB5-90n

5GHz N300 Outdoor Wireless Base Station



Product Overview

Dahua's DH-PFWB5-90n delivers the highest performance and stability available in the 5 GHz Base Station class. This product combines a highly advanced radio core containing MIMO 2x2 technology with an integrated, high-gain, dual polarization directional antenna. The feature-rich operating system is optimized for ultra-high performance wireless communications while optionally allowing compatibility with older 802.11 a standard devices.

The smart dynamic polling based protocol (TDMA) ensures reliable communication even in congested areas with 64 client devices connected to a base-station.

Equipped with Dahua's dual firmware image feature, remote software upgrades are assured even if a power failure interrupts the process. The device will restart using the prior firmware in the event of an upgrade failure.

The enclosure is made of polycarbonate plastic with UV inhibitors to provide years of outdoor exposure in direct sunlight without cracking. The DH-PFWB5-90n was designed and tested to meet an IP-66 rating as well as vibration, temperature, drop, salt, fog, and electrical surge standards to ensure a high level of reliability unsurpassed in the industry. It is equipped with a grounding lug and a grounded 24-volt PoE to allow a professional installation, resistant to electrical surges. The mounting bracket permits installation on a wall or a pole and provides up to 30 degrees of down-tilt adjustment.

Features

- Integrated 5 GHz (2x2) MIMO radio
- Frequency 5.150- 5.850 GHz (FCC 5.150- 5.250 and 5.725-
- 5.850 GHz)
- High performance and stability
- IP-66 standards rated enclosure
- Improved noise immunity
- TDMA ensures reliable communication
- Powerful OS
- Dual firmware

• Built-in tools including Site Survey, Link Test, Antenna Alignment, Spectrum Analyzer, Ping & Trace help in configuration and debugging

 \cdot Recommended as Base Station for 0~5km PTMP wireless connection

| Technical Specification | | | | | | | |
|-------------------------|---|--|--|--|--|--|--|
| Model | DH-PFWB5-90n | | | | | | |
| Wireless | | | | | | | |
| WLAN Standard | IEEE802.11 a/n | | | | | | |
| Radio Mode | MIMO 2x2 | | | | | | |
| Radio Frequency Band | 5.150 - 5.850 GHz (FCC 5.150 - 5.250 and 5.725 - 5.850 GHz) | | | | | | |
| Transmit Power | Up to 29 dBm (country dependent) | | | | | | |
| Receive Sensitivity | Varying between -97 and -75 dBm depending on modulation | | | | | | |
| Channel Size | 5,10, 20, 40 MHz | | | | | | |
| Modulation Schemes | 802.11 a/n: OFDM (64-QAM, 16-QAM, QPSK, BPSK) | | | | | | |
| Data Rates | 802.11 n: 300, 270, 240, 180, 120, 90, 60, 30 Mbps 802.11 a: 54, 48, 36, 24, 18, 12, 9, 6 Mbps | | | | | | |
| Error Correction | FEC, Selective ARQ | | | | | | |
| Duplexing Scheme | Time division duplex | | | | | | |
| Transmission Distance | 0-5km (recommended), max≥7km | | | | | | |
| Antenna | | | | | | | |
| Туре | Integrated directional panel antenna | | | | | | |
| Gain | 18dBi | | | | | | |
| Wired | | | | | | | |
| Interface | 10/100 Base-T, RJ45 | | | | | | |

| Technical Specification | ı | ٦ |
|----------------------------|---|--------|
| Software | | Т |
| Wireless Operating Modes | Access point (auto WDS), access point (TDMA2), access point (TDMA3), station (WDS, TDMA2,TDMA3), station (ARP NAT) | F |
| Wireless Techniques | Smart station polling, smart auto-channel, adaptive auto modulation, automatic transmit power control (ATPC) | (|
| Wireless Security | WPA/WPA2 personal, WPA/WPA2 enterprise, WACL, user isolation | |
| Wireless QoS | 4 queues prioritization on TDMA | |
| Network Operating Modes | Bridge, router iPv4, router IPv6 | C |
| Network Techniques | Routing with and without NAT, VLAN | F (|
| WAN Protocols | Static IP, DHCP client, PPPoE client | 0 |
| Services | DHCP server, SNMP server, NTP client, router advertisement daemon, ping watchdog | |
| Management | HTTP(S) GUI, SSH, SNMP read, Telnet | |
| Tools | Site survey, link test, antenna alignment, spectrum analyzer, ping & trace | |
| Physical | | |
| Dimensions | 383 mm (Length)× 100mm (width)× 98mm (height) | 1 |
| Weight | 520 g | |
| Mounting | Combination wall / pole mount included | |
| Power | | |
| Power Supply | 12-24 VDC passive PoE (24 V passive PoE adapter is included in the package) | |
| Power Source | 100 – 240V AC | |
| Power Consumption (max) | 4.5W | |
| Environmental | | |
| Operating Temperature | -30°C ~ +70°C | |
| Humidity | 0 ~ 90 % (non-condensing) | |
| Management | | |
| System Monitoring | SNMP v1/2c/3 server, Syslogs, system alerts via e-mail and SNMP trap | |
| Regulatory | | |
| Certification | FCC/CE | |
| Internal Antenna | | |
| Frequency Range | 5.1 – 5.9 GHz | |
| Gain | 18 dBi | |
| Polarization | Dual linear | |
| Cross-pol Isolation | 24dBi | |
| VSWR | <1.7 | |
| Azimuth Beam Width (H pol) | 90° | |
| | | |
| Azimuth Beam Width (V pol) | 90° | |
| Elevation Beam Width | 20° | |

| Technical Specification | | | | | | | | | | |
|---------------------------------------|------------------------------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|--|
| Receive Sensitivity (dBm) | 802.11n/ TDMA (20/40 MHz) | 15 Mbps | 30 Mbps | 45 Mbps | 60 Mbps | 90 Mbps | 120 Mbps | 135 Mbps | 150 Mbps | |
| | | -97 | -95 | -93 | -88 | -85 | -81 | -79 | -77 | |
| | | 30 Mbps | 60 Mbps | 90 Mbps | 120 Mbps | 180 Mbps | 240 Mbps | 270 Mbps | 300 Mbps | |
| | | -94 | -92 | -89 | -85 | -82 | -78 | -77 | -75 | |
| | 802.11a | 6 Mbps | 9 Mbps | 12 Mbps | 18 Mbps | 24 Mbps | 36 Mbps | 48 Mbps | 54 Mbps | |
| | | -97 | -97 | -95 | -93 | -90 | -86 | -82 | -81 | |
| Output Power (dBm, combined) | 802.11n/ TDMA (20/40 MHz) | 15 Mbps | 30 Mbps | 45 Mbps | 60 Mbps | 90 Mbps | 120 Mbps | 135 Mbps | 150 Mbps | |
| | | 29 | 28 | 28 | 28 | 27 | 27 | 25 | 24 | |
| | | 30 Mbps | 60 Mbps | 90 Mbps | 120 Mbps | 180 Mbps | 240 Mbps | 270 Mbps | 300 Mbps | |
| | | 28 | 28 | 28 | 28 | 26 | 26 | 24 | 23 | |
| | 802.11a | 6 Mbps | 9 Mbps | 12 Mbps | 18 Mbps | 24 Mbps | 36 Mbps | 48 Mbps | 54 Mbps | |
| | | 29 | 29 | 29 | 29 | 29 | 27 | 26 | 25 | |
| | | | | | | | | | | |

Dimensions (mm)





