

Foreedge

**WIFI 6 dual-band AX3000
ceiling wireless access
point
W688AP**

Product Brochure

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Product Introduction :

W688AP is a high-performance, high-speed 11ax indoor dual-band ceiling AP that can provide 2.4G and 5.8GHz dual-band wireless services. 2.4G provides a maximum access rate of 574Mbps, and 5G provides a maximum access rate of 2402Mbps .



Product Features :

- It has better transmission quality, higher transmission rate, and the concurrent rate of the whole machine can reach up to 3000 Mbps .
- Using Qualcomm IPQ chip, supporting 160Mhz, greatly expanding the user capacity, and can support 1 28 users .
- The heat sink adopts a snap-on structure design and special surface coating treatment, which makes the heat dissipation effect more ideal.
- The radio frequency uses a high-power external FEM, which has stable performance, wide wireless range and longer transmission distance.

Specifications :

| Hardware specifications | | | | | |
|---------------------------------|---|-------|----------|------|----------|
| Product number | W688AP | | | | |
| Flash | SPI NOR 8 MB SPI NAND 128 MB | | | | |
| DDR3 | External 512MB*1 | | | | |
| 2.4G operating frequency band | 2.4GHz – 2.484GHz | | | | |
| 2.4G WIFI transmission protocol | 802.11 b / g / n / ac / ax | | | | |
| 5G operating frequency band | 5.150GHz ~ 5.825GHz | | | | |
| 5G WIFI transmission protocol | 802.11 a / n / ac / ax | | | | |
| Built-in antenna 2.4G | 2 2.4G antennas, each with a gain of 4dBi | | | | |
| Built-in antenna 5G | 2 5.8G antennas, each gain: 4dBi | | | | |
| Maximum rate | 2.4G provides a maximum access rate of 574Mbps, and 5G provides a maximum access rate of 2402Mbps | | | | |
| 2.4G wireless power | 802.11b | 11M | 24±2dBm | 1M | 24±2dBm |
| | 802.11g | 54M | 21±2dBm | 6M | 23±2dBm |
| | 802.11n HT20 | MCS7 | 20±2dBm | MCS0 | 22±2dBm |
| | 802.11n HT40 | MCS7 | 20±2dBm | MCS0 | 22±2dBm |
| | 802.11ax HE20 | MCS11 | 18±2 dBm | MCS0 | 22±2 dBm |
| | 802.11ax HE40 | MCS11 | 18±2 dBm | MCS0 | 22±2 dBm |

Specifications :

| | | | | | |
|----------------------------|----------------|-------|----------|------|----------|
| 5G Wireless Power | 802.11n HT20 | MCS7 | 18±2 dBm | MCS0 | 21±2 dBm |
| | 802.11n HT40 | MCS7 | 18±2dBm | MCS0 | 21±2dBm |
| | 802.11ac VHT80 | MCS9 | 17±2dBm | MCS0 | 21±2dBm |
| | 802.11ax HE20 | MCS11 | 17±2dBm | MCS0 | 21±2dBm |
| | 802.11ax HE40 | MCS11 | 17±2 dBm | MCS0 | 21±2 dBm |
| | 802.11ax HE80 | MCS11 | 17±2 dBm | MCS0 | 21±2 dBm |
| | 802.11ax HE160 | MCS11 | 17±2 dBm | MCS0 | 21±2 dBm |
| 2.4G receiving sensitivity | 802.11g | 54M | -72 dBm | 6M | -90 dBm |
| | 802.11n HT20 | MCS7 | -70 dBm | MCS0 | -87 dBm |
| | 802.11n HT40 | MCS7 | -68 dBm | MCS0 | -85dBm |
| | 802.11ax HE20 | MCS11 | -60dBm | MCS0 | -83dBm |
| | 802.11ax HE40 | MCS11 | -56dBm | MCS0 | -83dBm |
| 5G reception sensitivity | 802.11n HT20 | MCS7 | -70dBm | MCS0 | -90dBm |
| | 802.11n HT40 | MCS7 | -68dBm | MCS0 | -88dBm |
| | 802.11ac VHT80 | MCS9 | -58dBm | MCS0 | -85dBm |
| | 802.11ax HE20 | MCS11 | -62dBm | MCS0 | -88dBm |
| | 802.11ax HE40 | MCS11 | -58dBm | MCS0 | -86dBm |
| | 802.11ax HE80 | MCS11 | -55dBm | MCS0 | -84dBm |
| | 802.11ax HE160 | MCS11 | -51dBm | MCS0 | -82dBm |

Specifications :

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|---------------------------|--|
| 2.4G EVM | 802.11b:≤-10dB ; 802.11g: ≤-25dB ; 802.11n:≤-28dB; 802.11ax:≤-35dB |
| 5G EVM | 802.11a:≤-25 dB; 802.11n: ≤-28 dB; 802.11ac:≤-32 dB ; 802.11ax:≤-35 dB |
| Frequency deviation (ppm) | ±20ppm |
| Interface (WAN) | 1 10/100/1000/adaptive WAN port, supports POE 48V power supply; |
| Interface (LAN) | 1 Console port |
| External buttons | Reset button (press and hold for 6-10 seconds to restore to factory default settings) |
| Status Indicator | WAN port light, LAN port light, three-color light (three different colors represent: sys-red, 2.4G-green, 5.8G-blue) |
| powered by | DC2.0 12V1.5A , PoE 802.3at |
| Maximum power consumption | < 16W |
| Product Size | 1 86 mm × 186 mm × 37 mm |
| weight | 0.55kg |
| working environment | Normal operating temperature: -10°C to 55°C; Storage temperature: -40°C to 70°C; Humidity: 5% to 95% (no condensation) |
| ESD | Air discharge +/- 8 K, contact discharge +/- 4K |
| surge | Common mode 2K, differential mode 1K |

Software Features :

| | |
|-------------------|--|
| front page | Working mode: Fat AP mode and Thin AP mode |
| | Wireless AP download rate, wireless AP upload rate, running time |
| | Device information, device description, intranet information, WIFI information |
| Support Mode | Gateway mode: The device is connected to the WAN through the WAN port and then uses static IP, DHCP or PPPOE to access the Internet |
| | AP mode: The device covers other clients and devices with wireless network signals, and uses Ethernet to connect to other routers to access the WAN. |
| wireless function | SSID Broadcast |
| | Number of SSIDs: 4 (2.4GHz) + 4 (5GHz), support Chinese SSID |
| | Hide SSID function |
| | Wireless encryption: OPEN, WPA/WPA2PSK-TKIPAES, WPA3PSK-TKIPAES |
| | Wireless MAC address filtering: support whitelist |
| | Spectrum navigation (5G first) |
| | WiFi timer off function |
| | User isolation: isolation between wireless networks and isolation within APs |
| | Transmit power setting |
| | Wireless client number limit |
| | QoS: WMM |

Software Features :

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|-------------------|---|
| Internet function | Connection method: static address, obtained from the management server, obtained from the gateway |
| | DHCP server: It can be a built-in DHCP server or an external DHCP server |
| | Cloud Platform Server |
| | Firewall function |
| | PPPOE function: Support PPPOE dial-up function |
| Device Management | Backing up configuration information |
| | Restore configuration information |
| | reset |
| | Restart includes scheduled restart and immediate restart |
| | Firmware Upgrade |
| | Time management includes system display time and time synchronization |
| | System log |
| | Fat and thin AP switching function |