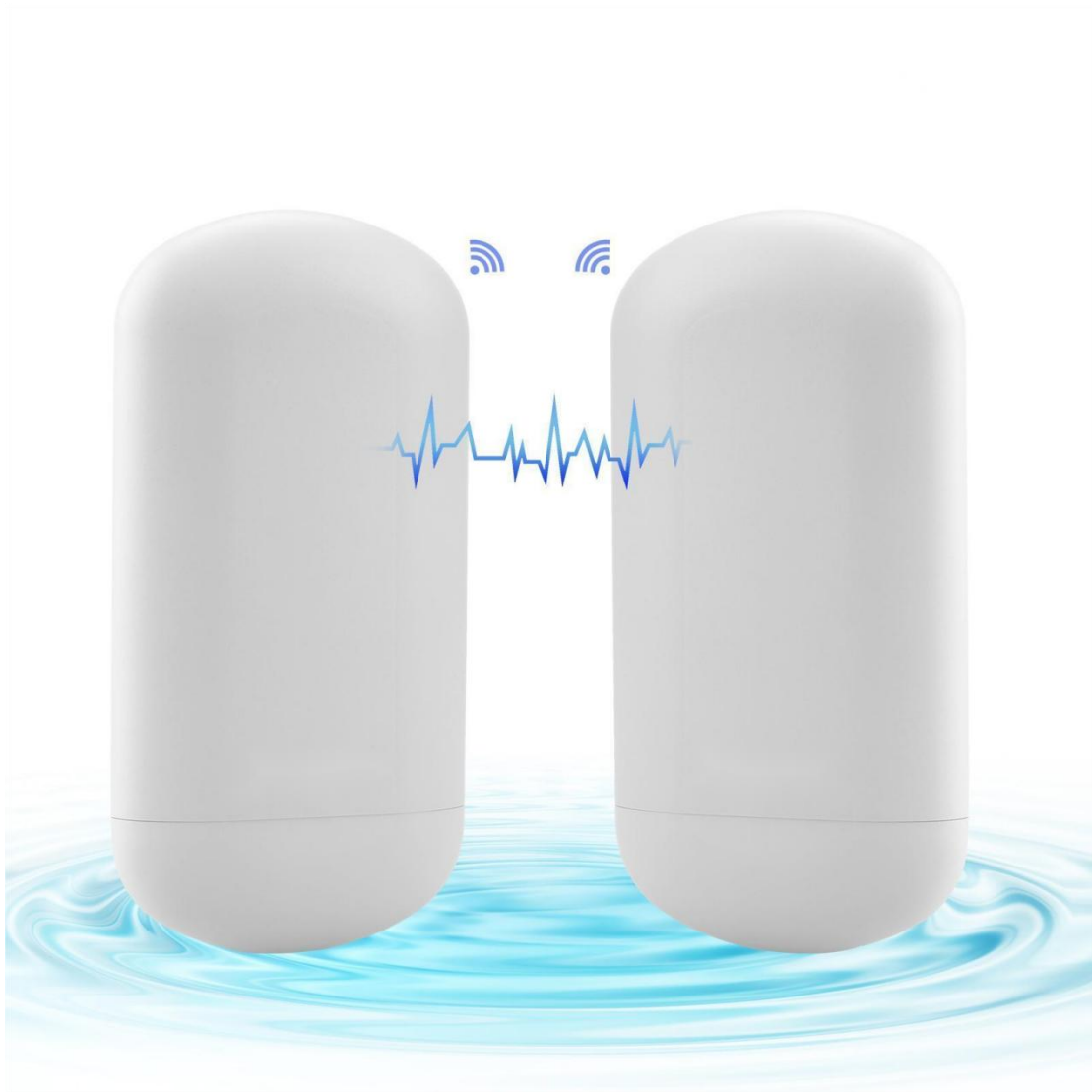


5.8G 450Mbps Outdoor CPE

Model: WB451



Description:

WB451 is an outdoor enterprise-class wireless bridge working on 5.8GHz 802.11ac, with up to 450Mbps speed via 100M Ethernet. It uses digital tube pairing for easy PTP/PTMP (≤ 8) setup, supports 24V PoE (50–70m) or 12V/1A DC power, and integrates an 8dBi directional antenna. With IP65 weatherproof protection, it ensures stable medium- to short-range video and data transmission.

Main Features:

- **High-Performance Hardware** – Qualcomm enterprise-class chipset, industrial-grade circuit design, supports IEEE 802.11ac, delivering 450Mbps wireless and 100Mbps wired throughput.
- **Robust Outdoor Protection** – IP65-rated housing, resistant to wind, rain, dust, sun, with wide temperature tolerance for harsh environments.
- **Strong Wireless Capability** – High-power RF design with high receiving sensitivity and built-in 8dBi directional antenna, providing stable links up to 1km (LOS).
- **Flexible Power Supply** – Supports 24V PoE (up to 70m cable) and 12V/1A DC input, reducing deployment cost and improving flexibility.
- **Easy Pairing & Management** – Digital tube pairing (PTP/PTMP ≤ 8) without PC configuration, simple web interface, rich status indicators, batch management support.
- **Enhanced Security** – WPA2-PSK encryption, SSID hiding, packet filtering optimization for video surveillance, ensuring data safety.
- **Compact & Easy Installation** – Lightweight design with wall or pole mounting options, quick to deploy, reducing installation difficulty.
- **Continuous Optimization** – Regular feature upgrades, performance improvements, and dedicated support for security and monitoring applications.

Hardware Specification:

Model	WB451H
Chipset	MTK7628KN+7610E
Wireless	450M 802.11a/n/ac 1T1R technology
Memory	64MB RAM
Flash	16MB
Interface	LAN/WAN: 1*10/100Mbps Adaptive RJ45 network interface 1*DC 1* Master-slave DIP switch: master = access point mode, slave = client mode 1* Reset button (short press: add +1 to digital tube display value, long press 5s: restore factory settings)
Antenna	5.8G Built-in high-gain 8dBi directional plate antenna
LED Light	Signal indicator, ETH status, Power, System, Digital tube
Size	168mm*86mm*39mm
Power	24V 1A non-standard PoE / DC 12V 1A, consumption <10W
Waterproof Level	IP65
RF Data	802.11b/g/n/ac, 5.150GHz ~ 5.850GHz
Data Rate	450Mbps
5.8G TX Power	802.11a 54M: 21±2dBm; 6M: 24±2dBm 802.11n HT20 MCS7: 20±2dBm; MCS0: 23±2dBm 802.11n HT40 MCS7: 19±2dBm; MCS0: 22±2dBm 802.11AC MCS9: 18±2dBm; MCS0: 21±2dBm
Receive Sensitivity	802.11a 54M: -68dBm; 6M: -86dBm 802.11n HT20 MCS7: -68dBm; MCS0: -86dBm 802.11n HT40 MCS7: -65dBm; MCS0: -83dBm 802.11AC MCS9: -55dBm; MCS0: -73dBm
EVM	802.11a 54M: ≤-25dB; 802.11n MCS7: ≤-28dB; 802.11AC MCS9: ≤-32dB
PPM	±20ppm

Firmware Specification

Firmware - Operation Mode	Wireless AP, Wireless repeater
Protocol/Standard	IEEE 802.3, IEEE 802.3u, 802.11b/g/n/ac
Other Features	SSID up to 4, SSID hide Wireless Encryption: OPEN, WPA, WPA2, WPA-PSK, WPA2-PSK MAC filter (32 whitelist) WiFi timing off function User isolation, AP isolation

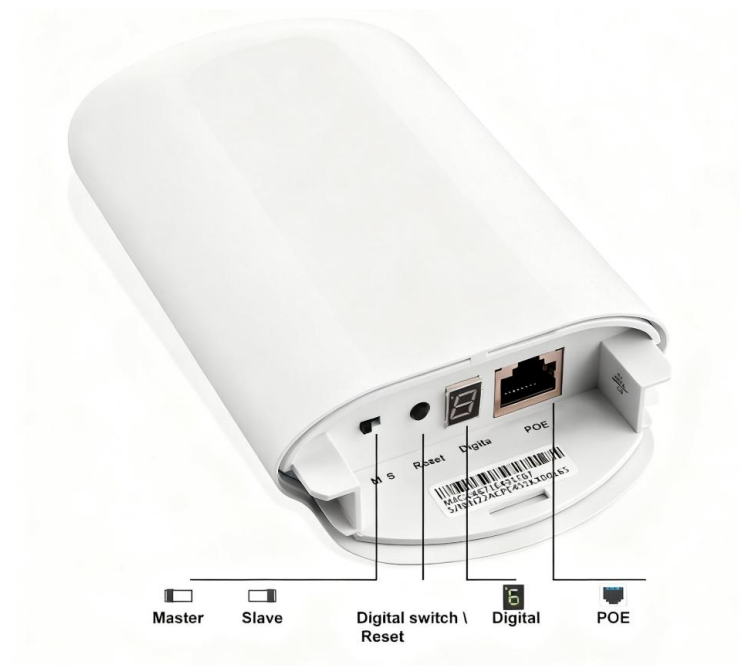
	Max wireless clients: 64
System Setting	Web-based (HTTP/Telnet)
Firmware Upgrade	Via web browser or TFTP
Administration	Configurable Admin Password
Log	Local logs, host logs, log export
Reset	Restore factory defaults
Backup	Restore & save device configuration
Temperature	Working: -20°C ~ 55°C; Storage: -40°C ~ 70°C
Humidity	5% ~ 95% (typical)
Package	CPE451*2 units, 24V PoE Adapter, User Manual, LAN Cable

Wifi Specification

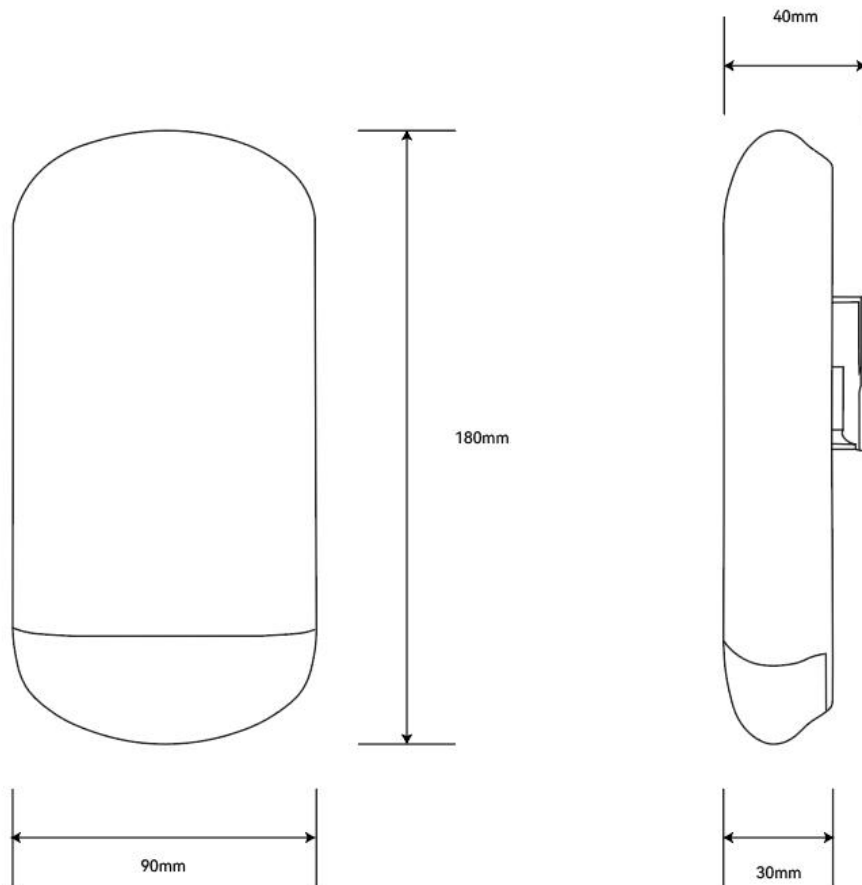
WiFi Spec	
Frequency Range	5G: UNII-1: 5.15~5.35GHz UNII-2: 5.47~5.725GHz UNII-3: 5.725~5.825GHz
Channel	36、40、44、48、52、60、64、149、153、157、161、165
Modulation	802.11a: OFDM (BPSK, QPSK,16-QAM) 802.11n: OFDM (BPSK, QPSK,16-QAM, 64-QAM) 802.11ac: OFDM (BPSK, QPSK,64-QAM, 256-QAM)
Transmission Rate	11a up 54Mbps, 11n up 144Mbps, 11ac up 450Mbps
Receiver Sensitivity	11a: $\leq -86 \pm 1.5 \text{dBm}$ @6Mbps, $\leq -69 \pm 1.5 \text{dBm}$ @54Mbps 11n 20MHz: $\leq -85 \pm 1.5 \text{dBm}$ @MCS0, $\leq -67 \pm 1.5 \text{dBm}$ @MCS7 11n 40MHz: $\leq -82 \pm 1.5 \text{dBm}$ @MCS0, $\leq -64 \pm 1.5 \text{dBm}$ @MCS7 11ac 20MHz: $\leq -84 \pm 1.5 \text{dBm}$ @MCS0, $\leq -59 \pm 1.5 \text{dBm}$ @MCS8 11ac 40MHz: $\leq -82 \pm 1.5 \text{dBm}$ @MCS0, $\leq -56 \pm 1.5 \text{dBm}$ @MCS9 11ac 80MHz: $\leq -78 \pm 1.5 \text{dBm}$ @MCS0, $\leq -52 \pm 1.5 \text{dBm}$ @MCS9
Transmit Power	11a: 17dBm $\pm 1.5 \text{dBm}$ @54Mbps 11n(20/40MHz): 15dBm $\pm 1.5 \text{dBm}$ @MCS7 11ac(40/80MHz): 14dBm $\pm 1.5 \text{dBm}$ @MCS9

Software Functions	
Operation Mode	Bridge Access Point, Bridge Client
Network Topology	Point-to-Point, Point-to-Multipoint (up to eight points)
Management Method	Chinese language WEB remote management / Local centralized management platform for bulk management
Status	The system state/Bridge Status/Interface Status
Bridge	Wireless Mode: Bridge access point/Bridge client Bridge access point: Bridge SSID/Encryption/Bridge Password/Wireless protocol/Wireless bandwidth/Wireless channel/Wireless TX power Bridge client: Bridge SSID/Encryption/Bridge Password/MAC /Wireless channel/Wireless TX power
Network	Obtain IP address: Automatic acquisition/Static IP address/Subnet mask/Gateway/DNS1/DNS2
System	System Debug/Change Password/Reboot/Reset /Upgrade

Interface:



Dimension:



Packaging information:

WB451H*1,
24V PoE Power Adapter*1,
Plastic Clamps*2,
Ethernet Cable*1,
User Manual