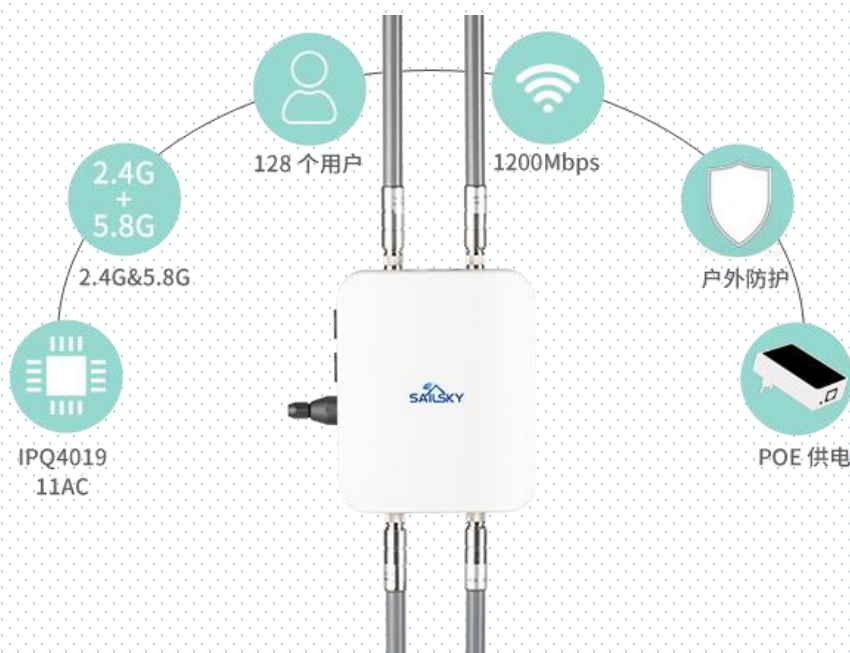# BL290HW

Outdoor Wireless Access Point

The BL290HW is a high-performance, high-speed outdoor 11ac 1200Mbps dual-band base station. It uses a professional industrial-grade Qualcomm chip to provide 2.4GHz and dual 5.8GHz wireless services, with 1 Gigabit WAN/LAN port, 1 Optical port, the highest wireless speed can reach 1200Mbps, the wireless environment is cleaner, the wireless access is more stable, the wireless access users are more, and the wireless rate is faster, which is the wireless of the mine, scenic area, campus, smart city and other crowd-intensive environments. Access provides a good solution.

The PCB 2.4G and 5G WIFI are equipped with two independent signal amplifiers (PAs) and LNAs, and an external 8dbi omnidirectional dual-polarized cylindrical antenna. The wireless coverage radius is up to 150 meters, and the wireless coverage distance is farther. Stronger; also supports intelligent channel analysis and automatic selection of optimal channels, reducing interference and delay, and providing a stable wireless network signal.

In addition, BL290HW supports IEEE 802.3at standard PoE, which can realize 80-100 meters network cable power supply.

BL290HW supports MU-MIMO (Multi-User Multiple Input Multiple Output) technology of Wave2, supports 8 spatial streams, 160MHz channel bandwidth and 256QAM modulation technology, and the transmission rate is greatly improved.

❖ BL290HW is an outdoor high-power carrier-grade wireless base station equipment.
❖ BL290HW is a high-performance new-generation enterprise base station independently developed by our company. The base station product adopts optimized RF transmission technology and supports the second generation 11ac mu-mimo Wave-2 technology. The access user is 3 times that of the traditional AP, providing better coverage and higher signal quality. Hotels, schools, etc.;

❖ BL290HW products support 802.11b/g/n and 802.11ac Wave-2 /a/n protocol standards, built-in 2x2 MIMO antenna design, support 2.4G and 5G terminal access, support up to 1.3Gbps rate

❖ BL290HW adopts waterproof, dustproof and UV-proof design. The internal and external antennas can be switched. It can be connected with omnidirectional/directional high-gain antenna, cast aluminum structure and integrated antenna structure. The good thermal design supports wide temperature application environment of -40 to 55 degrees. Suitable for all-day applications. Support POE power supply and convenient and fast pole mounting design to minimize the complexity of installation and maintenance.

❖ BL290HW supports 4G LTE and supports built-in storage: SSD or SD card. (Required separately)

Product parameters

Model	BL290HW
Chipset	IPQ4019+QCA9886+QCA8075
Memory	256MB DDRIII 128M*16bit
Flash	32MB SPI (reserved to support NAND FLASH)
Size	239*195*83mm

Interface	LAN x 1 : 10/100/1000 Gigabit Etherne supports 802.3at POE Power over Ethernet		
	1*GE SFP combo		
	1* Mini USB console		
	Power Supply x1	Green	ON : Power ON OFF : Power OFF
	SFP	Green	Active: Blinking To 4019 GPIO_45
	LAN x 1	Green	Link: Solid Light Active: Blinking To phy 8075
	WLAN x2	Green	Link: Solid Light Active: Blinking 5G to 4019 GPIO_48 2.4G to 4019 GPIO_49
Power	POE/48V0.65A		

Wireless specification

Working frequency	Radio I: 11b/g/n : 2.412 ~ 2.484 GHz Radio II: 11ac/a/n :5.18 ~ 5.24 & 5.26 ~ 5.32 & 5.5 ~ 5.7 & 5.745 ~ 5.825 GHz

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Wireless specification

Modulation	OFDM: BPSK, QPSK, 16-QAM, 64-QAM DBPSK, DQPSK, CCK
Working channel	North America 11, Japan 14, Europe 13 5G depends on the country you set up
Wireless setting·	Working mode AP / WDS/Repeater Wireless mode 11ac/11a/11b/ 11g /11n Channel selection (displays the number of channels in different areas by country setting) Channel bandwidth (Auto, 20Mhz, 40Mhz) Transmission rate 2.4GHz: 11n only, 11b/g/n mix, 11b only, 11b/g, 11g only 5GHz: 11n only mode, 11a/n mix mode, 11a only mode, 11ac only mode
Receiving sensitivity (typical)	802.11b -95dBm @ 1Mbps -91dBm @ 11Mbps 802.11g -94dBm @ 6Mbps -78dBm @ 54Mbps 802.11n (2.4GHz) -90dBm @ MCS0 -73dBm @ MCS7 -87dBm @ MCS8 -70dBm @ MCS15 / 802.11a -94dBm @ 6Mbps -78dBm @ 54Mbps 802.11n (5GHz) -90dBm @ MCS0/HT20 -71dBm @ MCS7 /HT20 -87dBm @ MCS1/HT40 -68dBm @ MCS7/HT40

802.11b		
	1Mbps-11Mbps	27+/-2 dBm
	6Mbps -9Mbps	27+/-2 dBm
	12Mbps -18Mbps	25+/-2 dBm
	24Mbps -36Mbps	25+/-2 dBm
	48Mbps -54Mbps	25+/-2 dBm
	MCS 0-1 / 8-9	27+/-2 dBm
	MCS 2-3 / 10-11	27+/-2 dBm
	MCS 4-5 / 12-13	27+/-2 dBm
	MCS 6-7 / 14-15	27+/-2 dBm

Wireless specification

802.11b	6Mbps~9Mbps	25+/-2 dBm
	12Mbps~18Mbps	23+/-2 dBm
	24Mbps~36Mbps	23+/-2 dBm
	48Mbps~54Mbps	23+/-2 dBm
	MCS 0-1 / 8-9	23+/-2 dBm
	MCS 2-3 / 10-11	23+/-2 dBm
	MCS 4-5 / 12-13	23+/-2 dBm
	MCS 6-7 / 14-15	23+/-2 dBm
	MCS9	23+/-2 dBm

Software specifications

System Requirements

System Requirements	Windows7 ,98,ME,NT,2000,XP MAC OS X (10.4)
Management method	WEB IP
Support browser	Microsoft IE 6.0 or above, Firefox 2.0 or above

Status

System status	System message	System runtime, device name, wireless MAC address, LAN port MAC address, country, current time, software version
	Current IP settings	IP address, subnet mask, default gateway, DHCP, DNS.

Software specifications

Status

System status	Current wireless settings	Ap mode, wireless channel/frequency, Layer 2 user isolation, multiple SSID settings
User list		Display the users on the current connection, only the users who are authenticated and connected normally
System log		Display system triggered log events

Wireless function list

Operating mode	AP
802.11 mode selection	802.11b/g/n 802.11an
Channel setting	Manual / Auto (automatically select the best channel)
Transmission rate setting	Manual / Auto
Output power control	User-defined output power in dBm
Power saving mode	Wireless power saving mode is controllable
Multiple SSID support (multiple APs)	Support 2.4G 4 SSID support 5.8G 4 SSID Separate WIFI settings and security settings for each SSID

Wireless function list

WEP	WPE(64/128bit)
WPA/WPA2	TKIP/AES
MAC address filtering	Provide 30 MAC address filtering
802.1x certification	MD5/ TLS/ TTLS, PEAP

Software specifications

Wireless function list

802.1x support	TTLS, PEAP
LAN port settings	IP (check validity and DHCP server IP range) MAC
DHCP server	DHCP address pool length update time DHCP user list
Multiple SSID VLNA	SSID-based 802.1Q VLAN
Management VLAN (Ethernet VID)	Users can specify VID user management
Tag/ Untag option	Independent VLAN settings can be enabled or disabled
Add a VLAN tag	Any packet entering the device without a VLAN tag will have a VLAN tag inserted into a PVID (Ethernet Port VID)
Backup/restore settings	Backup Current Settings Restore Backup Settings Restore Factory Defaults
QOS management	WMM
Network management	Support management software centralized management
Firmware upgrade	Allows users to save current settings or restore factory defaults due to upgrades
Advanced management	Automatic restart setting
RADIUS account	Support

Environmental and physical parameters

Operating temperature	Operating temperature: -40 ° C ~ 70 ° C Storage temperature: -40 ° C ~ 85 ° C
Humidity	0%~90% typical non-condensing

Package Contents

BL290HW host, manual, antenna, mounting bracket, (light verbal, cost extra)

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