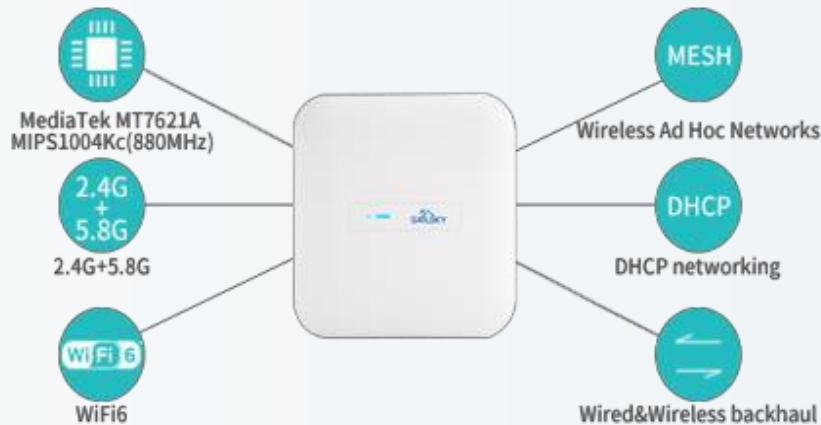




Data Sheet

BL290X WiFi6 Industrial Grade Indoor
Wireless Access Point



Product Overview

BL290X is a high-performance and high-speed indoor 11ax 1800Mbps dual-band AP base station. It adopts the excellent and powerful industrial grade wifi6 Mediatek chip which supports both 2.4GHz and 5.8GHz dual-band. It equips Gigabit WAN/LAN port, 1 optical port. The maximum wireless transmission data rate could reach up to 1800Mbps which enables more wireless access users simultaneously. It provides a professional, stable, reliable, superior and high-speed wireless coverage solution for security monitoring, public safety, mining, wind power, smart grid, smart city, intelligent transportation and other large scales industrial project etc.

The PCB board is equipped with two independent signal amplifiers (PAs) and LNA as well as an external 8dbi Omni-directional dual-polarized cylindrical antenna. The wireless coverage radius can reach up to 200-300 meters. Also, It supports intelligent channel analysis and automatic selection of the best channel to greatly reduce interference and latency that provides more stable and fast wireless network signals.

BL290X adopts advanced Wave2 MU-MIMO (multi-user multiple inputs multiple outputs) technologies. Furthermore, It supports 8 spatial streams, 160MHz channel bandwidth as well as 256QAM modulation technology, The overall transmission rate is greatly enhanced. It's your superior choice for seamless HD streaming, online gaming and other bandwidth-intensive tasks. Enjoy fast, reliable WiFi connections for gaming and streaming in the best quality.

Chipset information

CPU	MediaTek MT7621A MIPS1004Kc(880MHz)
RF	2.4g&5g: MT7915dn
Gigabit PHY	Integrated with MT7621A
Flash Memory	16MBx1SPI NOR flash
DDR Memory	DDR3256MB1200Mbps
Power consumption	1000mW

Gigabit Ethernet port

Ethernet interface	LAN*1: 10/100/1000 auto-sensing (MDI/MDX) RJ-45 WAN*1: 10/100/1000 auto-sensing (MDI/MDX) RJ-45
POE	LAN1&WAN1: Gigabit port operate as a powered device (PD) within standard 802.3at/af Power Over Ethernet from either a mid or end span power source equipment (PSE).

2.4GHz Radio

1x2x2bgn 2.4GHz Radio subsystem

- IEEE 802.11b/g/n/ac/ax MIMO 2x2
- 2.4~2.4835 GHz
- Modulation
- IEEE 802.11b/g:
 - DSSS (DBPSK, DQPSK, CCK)
 - OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
- IEEE 802.11n:
 - OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
- IEEE 802.11ac:
 - OFDM (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM)
- IEEE 802.11ax:
 - OFDM (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM)
- Channels
- IEEE802.11b/g: operation in channels 1-14
- IEEE 802.11n: HT20 and HT40.
- Data rate:
- IEEE 11b: 11/5.5/2/1Mbps
- IEEE 11g: 54/48/36/24/18/12/9/6Mbps
- IEEE 11n:
 - 20MHz: 6.5Mbps~144.44Mbps
 - 40MHz: 13.5Mbps~300Mbps
- IEEE 11ac:
 - 20MHz: 6.5Mbps~173.3Mbps
 - 40MHz: 13.5Mbps~400Mbps
- IEEE 11ax:
 - 20MHz: 8.6Mbps~286.8Mbps
 - 40MHz: 17.2Mbps~573.5Mbps
- TX Power: 19dBm (max) (detail see table)

5GHz Radio

1x2x2a/n/ac 5GHz
Radio subsystem
PCI-e Module

- IEEE 802.11a/n/ac/ax MIMO 2x2
- 5.15~5.850GHz
- Modulation
- IEEE802.11a/n:
OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
- IEEE802.11ac
OFDM (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM)
- IEEE 802.11ax:
OFDM (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM,1024 -QAM)
- Channels
- IEEE 802.11a: Operation in channels 36-165
- IEEE 802.11n: HT20 and HT40
- IEEE 802.11ac: HT20, HT40, and HT80
- IEEE 802.11ax: HT20, HT40, and HT80
- Data Rate:
- IEEE 11a: 54/48/36/24/18/12/9/6Mbps
- IEEE 11n:
20MHz: 6.5Mbps~144.44Mbps
40MHz: 13.5Mbps~300Mbps
- 11ac:
20MHz: 6.5Mbps~173.3Mbps
40MHz: 13.5Mbps~400Mbps
80MHz: 29.3Mbps~867Mbps
- IEEE 11ax:
20MHz: 8.6Mbps~286.8Mbps
40MHz: 17.2Mbps~573.5Mbps
80MHz: 36Mbps~1201Mbps
-
- TX Power: 17dBm (max) (detail see table)

05 LED Indicator

LED

WPS	Green LED
WIFI(2.4gled/5gled)	Green LED
BT	Green LED
WAN/LAN	Green LED

06 Power supply

LED

DC power	100~240VAC, 50/60Hz input, Output: 12V/1.5A
PoE supply	802.3at 48VDC PoE

07 Environmental parameters

Environmental parameters

EMI	-FCC part 15 Class B -CE
Safety	-ul60950-1 -EN60601-1-2 Medical (TBD)
Temperature	-0 to 40 degrees C (Operating Temperature) -20 to 70 degree C (Storage Temperature)
Operating humidity	5% to 95% (Noncondensing)
Non-Operating humidity	5% to 95% (Noncondensing)

Authentication

Authentication

CE, FCC, Rohs

Other connectors and parameters

5G Mobile Networks

USB 3.0BUS M.2_B-KEY (Built-in Micro SIM CARD)
The support mode depends on the module connected

Reset/WPS Key

SW reset

Size

260mm*220mm*45mm

Weight

0.65kg

1. Office, classroom and other indoor places



2. Shopping malls, supermarkets and other places



3 . Restaurants, cafes and other places

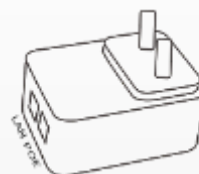


4. Hotel and other places





BL290X ×1

Power adapter ×1
(48V0.5A)Cable ×1
(1 meter)

Product Manual ×1