

Operation Description

FCC ID: PPQ-WP8331
IC ID: 4491A-WP8331

The WP8331 is a two radios, dual band, 802.11ac access point. It provides powerful WLAN supporting wireless speed up to 300Mbps on 2.4GHz and 867Mbps on 5GHz, one Ethernet port to connect to the backbone network, one Ethernet ports can be aggregated to connect to one computer through the network cables. Besides, the WP8331 supports 802.3at PoE PD to allow the device powered by PoE switch remotely.

To protect data during wireless transmission, the device supports WEP data encryption and WPA/WPA2 wireless security to ensure network safely.

The WP8331 is ideal for a variety of medium density enterprise and hotspot environments including SMBs, hotels, retail outlets and branch offices.

For 15.407(c)

The AP device will turn off transmitter during no information transmission, and turn on receiver for detecting ACK message from remote client device. If ACK is received within expected time slot, the AP device will be still in standby mode until information transmission is needed again, otherwise it will resent the information.

Product Specifications and Features

Key Components / Connectors / Performance	
Processor	QCA IPQ4028
Wireless Chipset	Integrated with IPQ4028 – 2.4G Integrated with IPQ4028 – 5G
BT/BLE	CSR8510 (optional, layout reserved via USB to SoC)
GE PHY	QCA8072
SPI Flash	64Mbytes (pin-to-pin downsize) – default
NAND Flash	128MB – optional/reserved
DDR3	256Mbytes (pin-to-pin downsize or upsize to 1GB)
Console	Internal console port
Interfaces	

Ethernet	<p>1x 10/100/1000 Base-TX MDI/MDIX RJ-45 port with PoE PD 802.3 at 1x 10/100/1000 Base-TX MDI/MDIX RJ-45 port</p> <p>Compliant with following standards:</p> <ol style="list-style-type: none"> 1. IEEE 802.3/802.3u 2. Hardware based 10/100/1000, full/half, flow control auto negotiation 3. Full duplex IEEE 802.3x flow control and half duplex back-pressure flow control
Wireless	<p>802.11ac 2.4GHz on board 802.11ac 5GHz on board BT/BLE on board</p> <p>2 internal antennas – 2.4G antenna 2 internal antennas – 5G 1 internal antenna – BT/BLE</p> <p>IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, IEEE 802.11ac compliant</p> <p>Data Rate: 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 802.11g: 54, 48, 36, 24, 18, 12, 9 & 6 Mbps 802.11b: 11, 5.5, 2 & 1 Mbps 802.11n : 20 MHz BW: 130, 117, 104, 78, 52, 39, 26, 13Mbps 40 MHz BW: 270, 243, 216, 162, 108, 81, 54, 27 Mbps 802.11ac : 20MHz BW : 173, 144, 130, 115, 86, 57, 43, 28,14 Mbps 40MHz BW : 400, 360, 300, 270, 240, 180, 120, 90, 60, 30 Mbps 80MHz BW : 867, 780, 650, 585, 520, 390, 260, 195, 130, 65 Mbps</p> <p>Modulation: 802.11g: OFDM, BPSK, QPSK, 16QAM, 64QAM 802.11b:CCK(11&5.5 Mbps), DQPSK (2Mbps), DBPSK (1Mbps), DSSS 802.11n: PSK/CCK, DBPSK, DQPSK, OFDM 802.11ac: DSSS, OFDM, MIMO-OFDM, 16QAM, 64QAM, 256QAM</p>

Functional Block Diagram

