Features

- Qualcomm Atheros IPQ8072A AR Quad Core CPU

- On-board 5GHz radio,up to 2475Mbps physical

  data rate 8 MB NOR Flash,256MB NAND Flash

- On-board 2.4GHz radio,up to 1147Mbps physical

  data rate

- Support 11ax TX Beamforming

- Support 11ac/ax MU-MIMO DL and UL

- Support OFDMA DL and UL

- support with 4x4/5GHz + 4x4/2.4GHz

- Supports Dynamic Frequency Selection (DFS)

Applications

- Dual Band MU-MIMO 802.11g/n/ac/ax

- Access Point Wireless application

- 4x4MU-MIMO 802.11ax Access Point

Product Description

DR8072 V01 based on IPQ8072A chipset is an enterprise wireless module integrated with 2x2(4x4) 5G high power Radio module and 4x4 2.4G high power Radio module designed specifically to provide users with mobile access to high-bandwidth video streaming, voice, and data transmission for office and challenging RF environment in factories,warehouses establishment.

Absolute Maximum Rating

Parameter	Rating	Unit
Operating Temperature Range	-40 to +70	º C
Storage Temperature Range	-40 to +90	º C
Operating Humidity Range	5 to +95 (non-condensing)	%
Storage Humidity Range	0 to +90 (non-condensing)	%

Hardware Specifications

Symbol	Parameter
CPU	Qualcomm Atheros Quad Core ARM Cortex 64 -bit A53 Processor IPQ8072A 2 .2GHz CPU
CPU Frequency	Derived from Qualcomm Atheros AP.HK0 1
System Memory	1x 512MB, DDR4 2400MHz 16-bit interface(RAM can be up to 2GB as optional)
Frequency Range	2.412~2 .472GHz, 5. 150~5 .825GHz
MiniPCIe Slot	1x MiniPCIe Slot with PCIe 3 .0
Modulation Techniques	OFDMA: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024 -QAM
Environmental Temperature	Operating: -20º C to 70º C, Storage: -40º C to 90º C
Flash	NOR Flash: 8 MB NAND Flash: 256MB
Wireless	On-board 4x4 2 .4GHz MU-MIMO OFDMA 802.11b/g/ n/ax , max 1 7dBm per chain On-board 4x4 5GHz MU- MIMO OFDMA 802.11a/ n/ ac/ ax, max 1 7dBm per chain 8 x U.FL Connectors
Reset Buttons	1 x S/ W Reset Button
DC Jack Input	1x DC Jack Connector: 12V-24V
POE	48V passive POE/Active POE(Suport 802.3bt)
Interface	4 x 1 Gbps Ethernet Port, 1x 10Gbps Ethernet Port 1x 10Gbps SFP 2x USB 3 .0 Port 1x JTAG 20 Pin Connector 1x Serial Port 4 Pin Connector
LED	2x RGB LED Indicators
Power Consumption	TBD

Radio RF Specifications (5180MHz-5825MHz)

Operating Mode	Data Rate	TX Power	RX Sensitivity	Tolerance
5GHz 802.11a	6Mbps	27dbm	-97	±2dB
	54Mbps	27dbm	-82	±2dB
5Ghz 802.11n/ac VHT20	MCS0	27dbm	-97	±2dB
	MCS7	25dbm	-83	±2dB
	MCS8	24dBm	-81	±2dB
5Ghz 802.11n/ac VHT40	MCS0	27dbm	-95	±2dB
	MCS7	25dBm	-80	±2dB
	MCS8	24dBm	-77	±2dB
	MCS9	23dBm	-74	±2dB
5Ghz 802.11n/ac VHT80	MCS0	26dbm	-91	±2dB
	MCS7	25dBm	-75	±2dB
	MCS8	24dBm	-72	±2dB
	MCS9	23dBm	-69	±2dB
5Ghz 802.11n/ac VHT80+80	MCS0	24dBm	-84	±2dB
	MCS7	22dBm	-74	±2dB
	MCS8	20dBm	-71	±2dB
	MCS9	19dBm	-68	±2dB
5Ghz 802.11ax HE20	MCS0	27dbm	-96	±2dB
	MCS9	23dBm	-77	±2dB
	MCS10	22dBm	-74	±2dB
	MCS11	22dBm	-71	±2dB
5Ghz 802.11ax HE40	MCS0	27dbm	-94	±2dB
	MCS9	23dBm	-74	±2dB
	MCS10	22dBm	-71	±2dB
	MCS11	22dBm	-68	±2dB
5Ghz 802.11ax HE80	MCS0	26dbm	-91	±2dB
	MCS9	24dBm	-71	±2dB
	MCS10	22dBm	-69	±2dB
	MCS11	22dBm	-66	±2dB
5Ghz 802.11ax HE160	MCS0	24dbm	-86	±2dB
	MCS9	21dBm	-65	±2dB
	MCS10	20dBm	-62	±2dB
	MCS11	18dBm	-59	±2dB

Radio RF Specifications (2412MHz-2482MHz)

Operating Mode	Data Rate	TX Power	RX Sensitivity	Tolerance
2.4Ghz 802.11b	1Mbps	27dbm	-102	±2dB
	2Mbps	27dbm	-99	±2dB
	5.5Mbps	27dbm	-97	±2dB
	11Mbps	27dbm	-95	±2dB
2.4Ghz 802.11g	6Mbps	27dbm	-97	±2dB
	54Mbps	27dbm	-83	±2dB
2.4Ghz 802.11n/ac VHT20	MCS0	27dbm	-95	±2dB
	MCS7	25dbm	-78	±2dB
2.4Ghz 802.11n/ac VHT40	MCS0	27dbm	-93	±2dB
	MCS7	25dbm	-73	±2dB
2.4Ghz 802.11ax HE20	MCS0	27dbm	-95	±2dB
	MCS8	24dBm	-77	±2dB
	MCS9	24dBm	-75	±2dB
	MCS10	22dBm	-72	±2dB
	MCS11	22dBm	-69	±2dB
2.4Ghz 802.11ax HE40	MCS0	27dbm	-92	±2dB
	MCS8	24dBm	-75	±2dB
	MCS9	24dBm	-72	±2dB
	MCS10	22dBm	-69	±2dB
	MCS11	22dBm	-66	±2dB

Interface MAP

4x4 2.4G

4x4 5G

M.2 Card Slot for
WIFI 6E Card

Reset button

1 x 1Gbps Ethernet Ports & POE
3 x 1Gbps Ethernet Ports

10Gbps Ethernet Port

10G SFP

USB3.0

DC JACK