

### Features

- Qualcomm IPQ9574 Quad-Core ARM-A73 @ 2.2GHz processor.
- Qualcomm Atheros IPQ9574 for Industrial Grade;
- 4x4 on-board 2.4GHz radio, up to 1182Mbps physical data rate;
- Flexible Wi-Fi 6E/Wi-Fi 7 radio configurations via
- 4x M.2 (NGFF) E Key Socket with PCIe 3.0;
- 4x 1Gbps ethernet port, 2x 10Gbps ethernet port;
- 1x USB 3.0 port;



### Applications

- 802.11be support Access Point
- 802.11ax MU-MIMO OFDMA Access Point
- Internet of Things (IoT)
- HD streaming and gaming

### Product Description

DR9574 based on IPQ9574 Chipset is an enterprise wireless module integrated with 4x4 MU-MIMO Wireless 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	-20 ~ 70	° C
Storage Temperature Range	-40 ~ 90	° C
Operating Humidity Range	5 ~ 95 ( non-condensing)	%
Storage Humidity Range	0 ~ 90 ( non-condensing)	%

## Hardware Specifications

Symbol	Parameter
Chipset	Qualcomm IPQ9574 Quad-Core ARM-A73 @ 2.2GHz processor 'Alder' Series
WLAN Host Interface	PCI Express 3.0 Interface
System Memory	2Gb (2x1Gb), DDR4 32-bit (2x16-bit) interface
Standard Operating Voltage	12V
Operating Systems	QSDK
Host Interface	4x M.2 E Key interface with PCIe 3.0
Antenna Cable / Port	4x U.FL Connectors
Frequency Range	2.4GHz: 2.412~2.472GHz
Data Rates for WLAN	2.4GHz 802.11b/g/n/ax/be, max 24dBm per chain
Channel Spectrum Widths for WLAN	Supports 20/40MHz at 2.4GHz
Modulation Techniques	OFDMA: BPSK, QPSK, DBPSK, DQPSK, 16-QAM, 64-QAM, 256-QAM, 1024QAM, 4096QAM
Temperature Range	Operating: -20 °C to 70 °C, Storage: -40 °C to 90 °C
Humidity	Operating: 5% to 95%, Storage: Max. 90%
Certification	REACH & RoHS Compliance
Power Consumption	13W (Board only) 23W (with onboard WiFi, IPQ9574)
Dimensions (WxHxD)	203mm x 139mm x 20mm

**Radio TX RX Specifications(2412MHz-2482MHz)**

Operating Mode	Data Rate	TX Power		RX Specificatio Sensitivity	Tolerance
		Per Chain	4 Chains		
2.4GHz 802.11b	1Mbps	24dBm	30dBm	-98	±2dB
	2Mbps	24dBm	30dBm	-97	±2dB
	5.5Mbps	23dBm	29dBm	-95	±2dB
	11Mbps	23dBm	29dBm	-92	±2dB
2.4GHz 802.11g	6Mbps	24dBm	30dbm	-94	±2dB
	9Mbps	24dBm	30dbm	-91	±2dB
	12Mbps	24dBm	30dbm	-89	±2dB
	18Mbps	24dBm	30dbm	-86	±2dB
	24Mbps	23dBm	29dBm	-84	±2dB
	36Mbps	23dBm	29dBm	-82	±2dB
	48Mbps	23dBm	29dBm	-80	±2dB
	54Mbps	23dBm	29dBm	-78	±2dB
2.4GHz 802.11n HT20	MCS0	24dBm	30dbm	-93	±2dB
	MCS1	24dBm	30dbm	-90	±2dB
	MCS2	24dBm	30dbm	-87	±2dB
	MCS3	24dBm	30dbm	-84	±2dB
	MCS4	23dBm	29dBm	-81	±2dB
	MCS5	23dBm	29dBm	-79	±2dB
	MCS6	23dBm	29dBm	-77	±2dB
	MCS7	23dBm	29dBm	-75	±2dB
2.4GHz 802.11n HT40	MCS0	24dBm	30dbm	-90	±2dB
	MCS1	24dBm	30dbm	-87	±2dB
	MCS2	24dBm	30dbm	-84	±2dB
	MCS3	24dBm	30dbm	-81	±2dB



Operating Mode	Data Rate	TX Power		RX Specificatio Sensitivity	Tolerance
		Per Chain	4 Chains		
2.4GHz 802.11n HT40	MCS4	23dBm	29dBm	-78	±2dB
	MCS5	23dBm	29dBm	-77	±2dB
	MCS6	22dBm	28dBm	-74	±2dB
	MCS7	22dBm	28dBm	-72	±2dB
2.4GHz 802.11AX HE20	MCS0	24dBm	30dBm	-93	±2dB
	MCS1	24dBm	30dBm	-90	±2dB
	MCS2	24dBm	30dBm	-87	±2dB
	MCS3	24dBm	30dBm	-84	±2dB
	MCS4	23dBm	29dBm	-81	±2dB
	MCS5	23dBm	29dBm	-79	±2dB
	MCS6	23dBm	29dBm	-77	±2dB
	MCS7	23dBm	29dBm	-75	±2dB
	MCS8	21dBm	27dBm	-72	±2dB
	MCS9	21dBm	27dBm	-71	±2dB
	MCS10	20dBm	26dBm	-68	±2dB
	MCS11	20dBm	26dBm	-67	±2dB
2.4GHz 802.11AX HE40	MCS0	24dBm	30dBm	-90	±2dB
	MCS1	24dBm	30dBm	-87	±2dB
	MCS2	24dBm	30dBm	-84	±2dB
	MCS3	24dBm	30dBm	-81	±2dB
	MCS4	23dBm	29dBm	-78	±2dB
	MCS5	23dBm	29dBm	-77	±2dB
	MCS6	22dBm	28dBm	-74	±2dB
	MCS7	22dBm	28dBm	-72	±2dB
	MCS8	20dBm	26dBm	-70	±2dB



	MCS9	20dBm	26dBm	-69	±2dB
	MCS10	20dBm	26dBm	-65	±2dB
	MCS11	20dBm	26dBm	-64	±2dB