

Features

- Qualcomm Atheros QCN9274 for Industrial Grade;
- Maxim Tx power 22dBm per chain;
- 6GHz, 4x4 MU-MIMO, up to 11530Mbps physical data rate;
- Support up to 4096-QAM;
- M.2 connector;
- PCI Express 3.0 Interface;



Applications

- Security Surveillance
- Commercial radio coverage
- Hotel Wireless application
- Country coverage
- Forest fire protection engineering
- Some special scene application

Product Description

DR9274-6G based on QCN9274 Chipset is an enterprise wireless module integrated with 4x4 MU-MIMO Dual Band 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 ~ 85	°C
Operating Humidity Range	5 ~ 95 (non-condensing)	%
Storage Humidity Range	0 ~ 90 (non-condensing)	%

Hardware Specifications

Symbol	Parameter
Chipset	Qualcomm Atheros QCN9274/QCN6274
WLAN Host Interface	PCI Express 3.0 Interface
System Memory	2Mbit serial I ² C bus EEPROM
Standard Operating Voltage	5V
Operating Systems	QSDK
Host Interface	M.2 E Key interface with PCIe 3.0
Antenna Cable / Port	4x MMCX Connectors
Frequency Range	6GHz 802.11ax/be, max 22dBm per chain
Channel Spectrum Widths for WLAN	Supports 20/40/80/160/320MHz at 6GHz
Modulation Techniques	OFDMA: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024QAM, 4096QAM
Temperature Range	Operating: -20 °C to 70 °C, Storage: -40 °C to 85 °C
Humidity	Operating: 5% to 95%, Storage: Max. 90%
Certification	REACH & RoHS Compliance
Power Consumption	8.5W(Normally)
Dimensions (WxHxD)	30mm x 50mm x 14.5mm

RF Performance Table at 6GHz

Operating Mode	Data Rate	TX Power		RX Specificatio	Tolerance
		Per Chain	4 Chains	Sensitivity	
6GHz 802.11ax/BE HE20	MCS 0	22dBm	28dBm	-85dBm	±2dB
	MCS 1	20dBm	26dBm	-83dBm	±2dB
	MCS 2	20dBm	26dBm	-81dBm	±2dB
	MCS 3	20dBm	26dBm	-78dBm	±2dB
	MCS 4	20dBm	26dBm	-76dBm	±2dB
	MCS 5	18.5dBm	24.5dBm	-75dBm	±2dB
	MCS 6	18.5dBm	24.5dBm	-72dBm	±2dB
	MCS 7	17.5dBm	23.5dBm	-69dBm	±2dB
	MCS 8	17.5dBm	23.5dBm	-66dBm	±2dB
	MCS 9	17dBm	23dBm	-62dBm	±2dB
	MCS 10	17dBm	23dBm	-59dBm	±2dB
	MCS 11	22dBm	28dBm	-85dBm	±2dB
	MCS 12	20dBm	26dBm	-83dBm	±2dB
	MCS 13	20dBm	26dBm	-81dBm	±2dB
6GHz 802.11ax/BE HE40	MCS 0	21dBm	27dBm	-88dBm	±2dB
	MCS 1	21dBm	27dBm	-87dBm	±2dB
	MCS 2	21dBm	27dBm	-85dBm	±2dB
	MCS 3	21dBm	26dBm	-82dBm	±2dB
	MCS 4	20dBm	26dBm	-79dBm	±2dB
	MCS 5	20dBm	25.5dBm	-77dBm	±2dB
	MCS 6	19.5dBm	25.5dBm	-75dBm	±2dB
	MCS 7	19.5dBm	24.5dBm	-72dBm	±2dB
	MCS 8	18.5dBm	24.5dBm	-69dBm	±2dB
	MCS 9	18.5dBm	23.5dBm	-66dBm	±2dB
	MCS 10	17.5dBm	23.5dBm	-63dBm	±2dB
	MCS 11	17.5dBm	23dBm	-59dBm	±2dB
	MCS 12	17dBm	23dBm	-56dBm	±2dB
	MCS 13	17dBm	27dBm	-88dBm	±2dB
6GHz 802.11ax/BE HE80	MCS 0	21dBm	27dBm	-88dBm	±2dB
	MCS 1	21dBm	27dBm	-86dBm	±2dB
	MCS 2	21dBm	27dBm	-83dBm	±2dB
	MCS 3	21dBm	27dBm	-80dBm	±2dB
	MCS 4	20dBm	26dBm	-78dBm	±2dB
	MCS 5	20dBm	26dBm	-76dBm	±2dB
	MCS 6	19.5dBm	25.5dBm	-74dBm	±2dB
	MCS 7	19.5dBm	25.5dBm	-71dBm	±2dB
	MCS 8	18.5dBm	24.5dBm	-68dBm	±2dB
	MCS 9	18.5dBm	24.5dBm	-66dBm	±2dB
	MCS 10	17.5dBm	23.5dBm	-63dBm	±2dB
	MCS 11	17.5dBm	23.5dBm	-60dBm	±2dB
	MCS 12	17dBm	23dBm	-56dBm	±2dB
	MCS 13	17dBm	23dBm	-53dBm	±2dB

RF Performance Table at 6GHz

Operating Mode	Data Rate	TX Power		RX Specificatio	Tolerance
		Per Chain	4 Chains	Sensitivity	
6GHz 802.11ax/BE HE160	MCS 0	21dBm	27dBm	-84dBm	±2dB
	MCS 1	21dBm	27dBm	-82dBm	±2dB
	MCS 2	21dBm	27dBm	-80dBm	±2dB
	MCS 3	21dBm	27dBm	-78dBm	±2dB
	MCS 4	20dBm	26dBm	-75dBm	±2dB
	MCS 5	20dBm	26dBm	-72dBm	±2dB
	MCS 6	19.5dBm	25.5dBm	-70dBm	±2dB
	MCS 7	19.5dBm	25.5dBm	-68dBm	±2dB
	MCS 8	18.5dBm	24.5dBm	-65dBm	±2dB
	MCS 9	18.5dBm	24.5dBm	-63dBm	±2dB
	MCS 10	17dBm	23dBm	-60dBm	±2dB
	MCS 11	17dBm	23dBm	-58dBm	±2dB
	MCS 12	16dBm	22dBm	-53dBm	±2dB
	MCS 13	16dBm	22dBm	-50dBm	±2dB
6GHz 802.11ax/BE HE320	MCS 0	21dBm	27dBm	-82dBm	±2dB
	MCS 1	21dBm	27dBm	-79dBm	±2dB
	MCS 2	21dBm	27dBm	-76dBm	±2dB
	MCS 3	21dBm	27dBm	-73dBm	±2dB
	MCS 4	20dBm	26dBm	-70dBm	±2dB
	MCS 5	20dBm	26dBm	-67dBm	±2dB
	MCS 6	19.5dBm	25.5dBm	-63dBm	±2dB
	MCS 7	19.5dBm	25.5dBm	-61dBm	±2dB
	MCS 8	18.5dBm	24.5dBm	-58dBm	±2dB
	MCS 9	18.5dBm	24.5dBm	-56dBm	±2dB
	MCS 10	16.5dBm	22.5dBm	-53dBm	±2dB
	MCS 11	16.5dBm	22.5dBm	-51dBm	±2dB
	MCS 12	14.5dBm	20.5dBm	-49dBm	±2dB
	MCS 13	14.5dBm	20.5dBm	-47dBm	±2dB

Version

NO	Name	Mainchip	FEM supplier	Maxim power consumption
1	DR9274-6G	QCN9274	Skywork	8.5W
2	DR9274-6GK	QCN9274	KCT	7W