

Features

- Qualcomm Atheros QCN6274;
- Qualcomm Atheros QCN9274 for Industrial Grade;
- Maxim Tx power 22dBm per chain;
- 2x2 2.4GHz MU-MIMO, up to 1376Mbps physical data rate;
- 2x 2 5G MU-MIMO, up to 5765Mbps 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-DB based on QCN9274 or QCN6274 Chipset is an enterprise wireless module integrated with 2x2 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 RFenvironment 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 U.FL Connectors
Frequency Range	2.4GHz: 2.412~2.472GHz 5GHz: 5.15~5.825GHz
Data Rates for WALN	2.4GHz 802.11b/g/n/ax/be, max 22dBm per chain 5GHz 802.11a/n/ax/be, max 22dBm per chain
Channel Spectrum Widths for WLAN	Supports 20/40MHz at 2.4GHz Supports 20/40/80/160MHz at 5GHz
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 85 °C
Humidity	Operating: 5% to 95%, Storage: Max. 90%
Certification	REACH & RoHS Compliance
Power Consumption	10W (Maximum) , 8W(Normally)
Dimensions (WxHxD)	30mm x 50mm x 14.5mm

RF Performance Table at 2.4GHz

Operating Mode	Data Rate	TX Power		RX Specificatio	Tolerance
		Per Chain	2 Chains	Sensitivity	
2.4GHz 802.11be EHT20	MCS 0	22dBm	25dBm	-93dBm	±2dB
	MCS 1	22dBm	25dBm	-91dBm	±2dB
	MCS 2	22dBm	25dBm	-88dBm	±2dB
	MCS 3	22dBm	25dBm	-85dBm	±2dB
	MCS 4	20dBm	23dBm	-82dBm	±2dB
	MCS 5	20dBm	23dBm	-79dBm	±2dB
	MCS 6	20dBm	23dBm	-77dBm	±2dB
	MCS 7	20dBm	23dBm	-75dBm	±2dB
	MCS 8	18.5dBm	21.5dBm	-71dBm	±2dB
	MCS 9	18.5dBm	21.5dBm	-68dBm	±2dB
	MCS 10	17.5dBm	20.5dBm	-66dBm	±2dB
	MCS 11	17.5dBm	20.5dBm	-63dBm	±2dB
	MCS 12	17dBm	20dBm	-60dBm	±2dB
	MCS 13	17dBm	20dBm	-57dBm	±2dB
2.4GHz 802.11be EHT40	MCS 0	21dBm	24dBm	-91dBm	±2dB
	MCS 1	21dBm	24dBm	-89dBm	±2dB
	MCS 2	21dBm	24dBm	-86dBm	±2dB
	MCS 3	21dBm	24dBm	-83dBm	±2dB
	MCS 4	20dBm	23dBm	-80dBm	±2dB
	MCS 5	20dBm	23dBm	-76dBm	±2dB
	MCS 6	19.5dBm	22.5dBm	-74dBm	±2dB
	MCS 7	19.5dBm	22.5dBm	-72dBm	±2dB
	MCS 8	18.5dBm	21.5dBm	-69dBm	±2dB
	MCS 9	18.5dBm	21.5dBm	-67dBm	±2dB
	MCS 10	17.5dBm	20.5dBm	-63dBm	±2dB
	MCS 11	17.5dBm	20.5dBm	-60dBm	±2dB
	MCS 12	17dBm	20dBm	-57dBm	±2dB
	MCS 13	17dBm	20dBm	-55dBm	±2dB

RF Performance Table at 5GHz

Operating Mode	Data Rate	TX Power		RX Specificatio	Tolerance
		Per Chain	2 Chains	Sensitivity	
5GHz 802.11be EHT20	MCS 0	22dBm	25dBm	-93dBm	±2dB
	MCS 1	22dBm	25dBm	-91dBm	±2dB
	MCS 2	22dBm	25dBm	-88dBm	±2dB
	MCS 3	22dBm	25dBm	-85dBm	±2dB
	MCS 4	20dBm	23dBm	-82dBm	±2dB
	MCS 5	20dBm	23dBm	-79dBm	±2dB
	MCS 6	20dBm	23dBm	-77dBm	±2dB
	MCS 7	20dBm	23dBm	-75dBm	±2dB
	MCS 8	18.5dBm	21.5dBm	-71dBm	±2dB
	MCS 9	18.5dBm	21.5dBm	-68dBm	±2dB
	MCS 10	17.5dBm	20.5dBm	-66dBm	±2dB
	MCS 11	17.5dBm	20.5dBm	-63dBm	±2dB
	MCS 12	17dBm	20dBm	-60dBm	±2dB
5GHz 802.11be EHT40	MCS 0	21dBm	24dBm	-91dBm	±2dB
	MCS 1	21dBm	24dBm	-89dBm	±2dB
	MCS 2	21dBm	24dBm	-86dBm	±2dB
	MCS 3	21dBm	24dBm	-83dBm	±2dB
	MCS 4	20dBm	23dBm	-80dBm	±2dB
	MCS 5	20dBm	23dBm	-76dBm	±2dB
	MCS 6	19.5dBm	22.5dBm	-74dBm	±2dB
	MCS 7	19.5dBm	22.5dBm	-72dBm	±2dB
	MCS 8	18.5dBm	21.5dBm	-69dBm	±2dB
	MCS 9	18.5dBm	21.5dBm	-67dBm	±2dB
	MCS 10	17.5dBm	20.5dBm	-63dBm	±2dB
	MCS 11	17.5dBm	20.5dBm	-60dBm	±2dB
	MCS 12	17dBm	20dBm	-57dBm	±2dB
MCS 13	17dBm	20dBm	-55dBm	±2dB	
5GHz 802.11be EHT80	MCS 0	21dBm	24dBm	-89dBm	±2dB
	MCS 1	21dBm	24dBm	-86dBm	±2dB
	MCS 2	21dBm	24dBm	-83dBm	±2dB
	MCS 3	21dBm	24dBm	-80dBm	±2dB
	MCS 4	20dBm	23dBm	-77dBm	±2dB
	MCS 5	20dBm	23dBm	-72dBm	±2dB
	MCS 6	19.5dBm	22.5dBm	-70dBm	±2dB
	MCS 7	19.5dBm	22.5dBm	-68dBm	±2dB
	MCS 8	18.5dBm	21.5dBm	-65dBm	±2dB
	MCS 9	18.5dBm	21.5dBm	-63dBm	±2dB
	MCS 10	17.5dBm	20.5dBm	-60dBm	±2dB
	MCS 11	17.5dBm	20.5dBm	-57dBm	±2dB
	MCS 12	17dBm	20dBm	-54dBm	±2dB
MCS 13	17dBm	20dBm	-52dBm	±2dB	

RF Performance Table at 5GHz

Operating Mode	Data Rate	TX Power		RX Specificatio	Tolerance
		Per Chain	2 Chains	Sensitivity	
5GHz 802.11be EHT160	MCS 0	21dBm	24dBm	-85dBm	±2dB
	MCS 1	21dBm	24dBm	-83dBm	±2dB
	MCS 2	21dBm	24dBm	-80dBm	±2dB
	MCS 3	21dBm	24dBm	-78dBm	±2dB
	MCS 4	20dBm	23dBm	-74dBm	±2dB
	MCS 5	20dBm	23dBm	-69dBm	±2dB
	MCS 6	19.5dBm	22.5dBm	-67dBm	±2dB
	MCS 7	19.5dBm	22.5dBm	-66dBm	±2dB
	MCS 8	18.5dBm	21.5dBm	-62dBm	±2dB
	MCS 9	18.5dBm	21.5dBm	-60dBm	±2dB
	MCS 10	17dBm	20dBm	-57dBm	±2dB
	MCS 11	17dBm	20dBm	-54dBm	±2dB
	MCS 12	16dBm	19dBm	-51dBm	±2dB
	MCS 13	16dBm	19dBm	-49dBm	±2dB

Product Version

Version	CPU	Chains	Feature
DR9274-DB	QCN6274	4	2.412GHz-2.472GHz & 5.18GHz-5.825GHz
DR9274-DBI	QCN9274	4	2.412GHz-2.472GHz & 5.18GHz-5.825GHz