

DR9274E-DB

WiFi7 DBDC 2.4G&5G module



DR9274E-DB



Features

- Qualcomm QCN6274 'Waikiki' series for Commercial grade;
- Qualcomm QCN9274 'Waikiki' series for Industrial grade;
- 2×2 2.4GHz MU-MIMO, up to 1376Mbps physical data rate;
- 2x 2 5G MU-MIMO, up to 5765Mbps physical data rate;
- MiniPCIe Interface with PCIe 3.0

Version	Chip
DR9274E-DB	QCN6274
DR9274E-DBI	QCN9274

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Symbol	Parameter
Chipset	Qualcomm QCN6274 'Waikiki' series for Commercial grade Qualcomm QCN9274 'Waikiki' series for Industrial grade
Wireless	• 2.4GHz 802.11a/n/ax/be, max 20 dBm per chain • 5GHz 802.11a/n/ax/be, max 20 dBm per chain • 2x2 U.FL Connectors
Frequency Range	• 2.4GHz: 2.412~2.482GHz • 5GHz: 5.150~5.885GHz
Modulation Techniques	OFDMA: BPSK, QPSK, DBPSK, DQPSK, 16-QAM, 64-QAM, 256-QAM, 1024QAM, 4096QAM
Wireless	• 2x2 2.4GHz MU-MIMO, up to 1376Mbps physical data rate; • 2 x 2 5G MU-MIMO, up to 5765Mbps physical data rate;
Bandwidth	• Supports 20/40MHz at 2.4GHz • Supports 20/40/80/160MHz at 5GHz
Power Supply	3.3V

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Interface	MiniPCle Interface with PCIe 3.0
Environmental Temperature	Operating(Commercial Grade): -20°C to 70°C, Operating(Industrial Grade): -40°C to 85°C,
Storage Temperature	Storage: -40°C to 90°C
Environmental Humidity, Non-Condensing	Operating: 5% to 95%, Storage: Max. 90%
Power Consumption	9W Maxim
Certification	REACH & RoHS Compliance
Dimensions (W x H x D) in mm	30 X 50.8 X 12.5 mm

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5GHz 802.11be EHT20	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications Sensitivity	Tolerance
	MCS0	20dbm	23dbm	-93dbm	±2dB
	MCS1	19dbm	22dbm	-90dbm	±2dB
	MCS2	18dbm	21dbm	-87dbm	±2dB
	MCS3	18dbm	21dbm	-85dbm	±2dB
	MCS4	17dbm	20dbm	-83dbm	±2dB
	MCS5	17dbm	20dbm	-81dbm	±2dB
	MCS6	16dbm	19dbm	-78dbm	±2dB
	MCS7	16dbm	19dbm	-76dbm	±2dB
	MCS8	15dbm	18dbm	-75dbm	±2dB
	MCS9	15dbm	18dbm	-72dbm	±2dB
	MCS10	14dbm	17dbm	-69dbm	±2dB
	MCS11	14dbm	17dbm	-66dbm	±2dB
	MCS12	13dbm	16dbm	-62dbm	±2dB
	MCS13	13dbm	16dbm	-59dbm	±2dB

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5GHz 802.11be EHT40	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications Sensitivity	Tolerance
	MCS0	20dbm	23dbm	-90dbm	±2dB
	MCS1	19dbm	22dbm	-88dbm	±2dB
	MCS2	18dbm	21dbm	-87dbm	±2dB
	MCS3	18dbm	21dbm	-85dbm	±2dB
	MCS4	17dbm	20dbm	-82dbm	±2dB
	MCS5	17dbm	20dbm	-79dbm	±2dB
	MCS6	16dbm	19dbm	-77dbm	±2dB
	MCS7	16dbm	19dbm	-75dbm	±2dB
	MCS8	15dbm	18dbm	-72dbm	±2dB
	MCS9	15dbm	18dbm	-69dbm	±2dB
	MCS10	14dbm	17dbm	-66dbm	±2dB
	MCS11	14dbm	17dbm	-63dbm	±2dB
	MCS12	13dbm	16dbm	-59dbm	±2dB
	MCS13	13dbm	16dbm	-56dbm	±2dB

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5GHz 802.11be EHT80	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications Sensitivity	Tolerance
	MCS0	20dbm	23dbm	-88dbm	±2dB
	MCS1	19dbm	22dbm	-86dbm	±2dB
	MCS2	18dbm	21dbm	-83dbm	±2dB
	MCS3	18dbm	21dbm	-80dbm	±2dB
	MCS4	17dbm	20dbm	-78dbm	±2dB
	MCS5	17dbm	20dbm	-76dbm	±2dB
	MCS6	16dbm	19dbm	-74dbm	±2dB
	MCS7	16dbm	19dbm	-71dbm	±2dB
	MCS8	15dbm	18dbm	-68dbm	±2dB
	MCS9	15dbm	18dbm	-66dbm	±2dB
	MCS10	14dbm	17dbm	-63dbm	±2dB
	MCS11	14dbm	17dbm	-60dbm	±2dB
	MCS12	13dbm	16dbm	-56dbm	±2dB
	MCS13	13dbm	16dbm	-53dbm	±2dB

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5GHz 802.11be EHT160	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications Sensitivity	Tolerance
	MCS0	20dbm	23dbm	-84dbm	±2dB
	MCS1	19dbm	22dbm	-82dbm	±2dB
	MCS2	18dbm	21dbm	-80dbm	±2dB
	MCS3	18dbm	21dbm	-78dbm	±2dB
	MCS4	17dbm	20dbm	-75dbm	±2dB
	MCS5	17dbm	20dbm	-72dbm	±2dB
	MCS6	16dbm	19dbm	-70dbm	±2dB
	MCS7	16dbm	19dbm	-68dbm	±2dB
	MCS8	15dbm	18dbm	-65dbm	±2dB
	MCS9	15dbm	18dbm	-63dbm	±2dB
	MCS10	14dbm	17dbm	-60dbm	±2dB
	MCS11	14dbm	17dbm	-58dbm	±2dB
	MCS12	13dbm	16dbm	-53dbm	±2dB
	MCS13	13dbm	16dbm	-50dbm	±2dB

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2.4GHz 802.11be EHT20	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications Sensitivity	Tolerance
	MCS0	20dbm	23dbm	-92dbm	±2dB
	MCS1	20dbm	23dbm	-90dbm	±2dB
	MCS2	20dbm	23dbm	-87dbm	±2dB
	MCS3	19dbm	22dbm	-85dbm	±2dB
	MCS4	18dbm	21dbm	-83dbm	±2dB
	MCS5	17dbm	20dbm	-81dbm	±2dB
	MCS6	16dbm	19dbm	-78dbm	±2dB
	MCS7	15.5dbm	18.5dbm	-76dbm	±2dB
	MCS8	15dbm	18dbm	-75dbm	±2dB
	MCS9	15dbm	18dbm	-72dbm	±2dB
	MCS10	14dbm	17dbm	-69dbm	±2dB
	MCS11	14dbm	17dbm	-66dbm	±2dB
	MCS12	13dbm	16dbm	-62dbm	±2dB
	MCS13	13dbm	16dbm	-59dbm	±2dB

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2.4GHz 802.11be EHT40	Data Rate	TX Power (one chain)	TX Power (two chains)	RX Specifications Sensitivity	Tolerance
	MCS0	20dbm	23dbm	-90dbm	±2dB
	MCS1	20dbm	23dbm	-88dbm	±2dB
	MCS2	20dbm	23dbm	-87dbm	±2dB
	MCS3	19dbm	22dbm	-85dbm	±2dB
	MCS4	18dbm	21dbm	-82dbm	±2dB
	MCS5	17dbm	20dbm	-79dbm	±2dB
	MCS6	16dbm	19dbm	-77dbm	±2dB
	MCS7	15.5dbm	18.5dbm	-75dbm	±2dB
	MCS8	15dbm	18dbm	-72dbm	±2dB
	MCS9	15dbm	18dbm	-69dbm	±2dB
	MCS10	14dbm	17dbm	-66dbm	±2dB
	MCS11	14dbm	17dbm	-63dbm	±2dB
	MCS12	13dbm	16dbm	-59dbm	±2dB
	MCS13	13dbm	16dbm	-56dbm	±2dB

Pin out

PIN	Description	PIN	Description
2	VDD3P3_PCIE	1	PCIEO_WAKE_3P3_N
4	GND	3	NC
6		5	NC
8		7	PCIEO_CLKREO_3P3_N
10		9	GND
12		11	PCIEO_REFCLK_N
14		13	PCIEO_REFCLK_P
16		15	GND
18	GND	17	
20		19	
22	PCIE RST	21	GND
24	VDD3P3_PCIE	23	PCIEO_TXO_N
26	GND	25	PCIEO_TXO_P

PIN	Description	PIN	Description
28		27	GND
30		29	GND
32		31	PCIEO_RXO_N
34	GND	33	PCIEO_RXO_P
36		35	GND
38		37	GND
40	GND	39	VDD3P3_PCIE
42		41	VDD3P3_PCIE
44	PCIE_LED0	43	GND
46	PCIE_LED1	45	
48		47	
50	GND	49	
52	VDD3P3_PCIE	51	



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