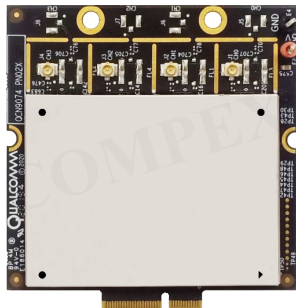


WiFi 6E (802.11ax) 4x4 MU-MIMO OFDMA 6GHz Single Band Wireless Module

Model: WLW3000H6



KEY FEATURES

- Qualcomm Atheros QCN9024/9074
- 6GHz band, 4x4 MU-MIMO OFDMA Technology, up to 4804Mbps physical data rate
- Single Band 6GHz 4x4 WiFi 6E (802.11ax)
- M.2 E Key interface with PCIe 3.0
- 4 spatial streams (4SS)

Specifications

Chipset	Qualcomm Atheros QCN9024/9074 'PINE' Series
System Memory	2Mbit serial I ² C bus EEPROM
Reference Design	Qualcomm Atheros PN02.6
Host Interface	M.2 E Key interface with PCIe 3.0
Operating Voltage	5V
Power Consumption	16W
Wireless	6GHz 802.11a/n/ac/ax, max 20dBm per chain 4x U.FL Connectors
Frequency Range	US: 6115 - 7.125GHz EU: 5.945 - 6.425GHz
Modulation Techniques	OFDMA: BPSK, QPSK, DBPSK, DQPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM, 4096-QAM
Channel Spectrum Widths for WLAN	Supports 20/40/80/160MHz at 6GHz
Operating Systems	OpenWRT
Certification	REACH and RoHS Compliance
Environmental Temperature	Operating: -20°C to 70°C, Storage: -40°C to 90°C
Environmental Humidity, Non-Condensing	Operating: 5% to 95%, Storage: Max. 90%
Dimensions (W x H x D) in mm	57 x 60 x 6.3

*Configurations are subject to change without notifications.

RF Performance Table for 6GHz

	Data Rate	TX Power (per chain)	TX Power (4 chains)	Tolerance
6GHz 802.11a	6Mbps	20dBm	26dBm	±2dB
	9Mbps	20dBm	26dBm	±2dB
	12Mbps	20dBm	26dBm	±2dB
	18Mbps	20dBm	26dBm	±2dB
	24Mbps	20dBm	26dBm	±2dB
	36Mbps	20dBm	26dBm	±2dB
	48Mbps	20dBm	26dBm	±2dB
	54Mbps	20dBm	26dBm	±2dB
6GHz 802.11n/ac VHT20	MCS 0	20dBm	26dBm	±2dB
	MCS 1	20dBm	26dBm	±2dB
	MCS 2	20dBm	26dBm	±2dB
	MCS 3	20dBm	26dBm	±2dB
	MCS 4	20dBm	26dBm	±2dB
	MCS 5	20dBm	26dBm	±2dB
	MCS 6	20dBm	26dBm	±2dB
	MCS 7	20dBm	26dBm	±2dB
6GHz 802.11n/ac VHT40	MCS 8	16dBm	22dBm	±2dB
	MCS 0	20dBm	26dBm	±2dB
	MCS 1	20dBm	26dBm	±2dB
	MCS 2	20dBm	26dBm	±2dB
	MCS 3	20dBm	26dBm	±2dB
	MCS 4	20dBm	26dBm	±2dB
	MCS 5	20dBm	26dBm	±2dB
	MCS 6	20dBm	26dBm	±2dB
	MCS 7	20dBm	26dBm	±2dB
	MCS 8	16dBm	22dBm	±2dB
6GHz 802.11ac VHT80	MCS 9	16dBm	22dBm	±2dB
	MCS 0	20dBm	26dBm	±2dB
	MCS 1	20dBm	26dBm	±2dB
	MCS 2	20dBm	26dBm	±2dB
	MCS 3	20dBm	26dBm	±2dB
	MCS 4	20dBm	26dBm	±2dB
	MCS 5	20dBm	26dBm	±2dB
	MCS 6	20dBm	26dBm	±2dB
	MCS 7	20dBm	26dBm	±2dB
	MCS 8	16dBm	22dBm	±2dB
6GHz 802.11ac VHT80	MCS 9	16dBm	22dBm	±2dB
	MCS 0	20dBm	26dBm	±2dB
	MCS 1	20dBm	26dBm	±2dB
	MCS 2	20dBm	26dBm	±2dB
	MCS 3	20dBm	26dBm	±2dB
	MCS 4	20dBm	26dBm	±2dB
	MCS 5	20dBm	26dBm	±2dB
	MCS 6	20dBm	26dBm	±2dB
	MCS 7	20dBm	26dBm	±2dB
	MCS 8	16dBm	22dBm	±2dB
6GHz 802.11a	6Mbps	TBD		±2dB
	9Mbps	TBD		±2dB
	12Mbps	TBD		±2dB
	18Mbps	TBD		±2dB
	24Mbps	TBD		±2dB
	36Mbps	TBD		±2dB
	48Mbps	TBD		±2dB
	54Mbps	TBD		±2dB
6GHz 802.11n/ac VHT20	MCS 0	TBD		±2dB
	MCS 1	TBD		±2dB
	MCS 2	TBD		±2dB
	MCS 3	TBD		±2dB
	MCS 4	TBD		±2dB
	MCS 5	TBD		±2dB
	MCS 6	TBD		±2dB
	MCS 7	TBD		±2dB
6GHz 802.11n/ac VHT40	MCS 8	TBD		±2dB
	MCS 0	TBD		±2dB
	MCS 1	TBD		±2dB
	MCS 2	TBD		±2dB
	MCS 3	TBD		±2dB
	MCS 4	TBD		±2dB
	MCS 5	TBD		±2dB
	MCS 6	TBD		±2dB
	MCS 7	TBD		±2dB
	MCS 8	TBD		±2dB
6GHz 802.11ac VHT80	MCS 9	TBD		±2dB
	MCS 0	TBD		±2dB
	MCS 1	TBD		±2dB
	MCS 2	TBD		±2dB
	MCS 3	TBD		±2dB
	MCS 4	TBD		±2dB
	MCS 5	TBD		±2dB
	MCS 6	TBD		±2dB
	MCS 7	TBD		±2dB
	MCS 8	TBD		±2dB

RF Performance Table for 6GHz

	Data Rate	TX Power (per chain)	TX Power (4 chains)	Tolerance
6GHz 802.11ax HE20	MCS 0	20dBm	26dBm	±2dB
	MCS 1	20dBm	26dBm	±2dB
	MCS 2	20dBm	26dBm	±2dB
	MCS 3	20dBm	26dBm	±2dB
	MCS 4	20dBm	26dBm	±2dB
	MCS 5	20dBm	26dBm	±2dB
	MCS 6	20dBm	26dBm	±2dB
	MCS 7	20dBm	26dBm	±2dB
	MCS 8	16dBm	22dBm	±2dB
	MCS 9	16dBm	22dBm	±2dB
	MCS 10	14dBm	20dBm	±2dB
	MCS 11	14dBm	20dBm	±2dB
6GHz 802.11ax HE40	MCS 0	20dBm	26dBm	±2dB
	MCS 1	20dBm	26dBm	±2dB
	MCS 2	20dBm	26dBm	±2dB
	MCS 3	20dBm	26dBm	±2dB
	MCS 4	20dBm	26dBm	±2dB
	MCS 5	20dBm	26dBm	±2dB
	MCS 6	20dBm	26dBm	±2dB
	MCS 7	20dBm	26dBm	±2dB
	MCS 8	16dBm	22dBm	±2dB
	MCS 9	16dBm	22dBm	±2dB
	MCS 10	14dBm	20dBm	±2dB
	MCS 11	14dBm	20dBm	±2dB
6GHz 802.11ax HE80	MCS 0	20dBm	26dBm	±2dB
	MCS 1	20dBm	26dBm	±2dB
	MCS 2	20dBm	26dBm	±2dB
	MCS 3	20dBm	26dBm	±2dB
	MCS 4	20dBm	26dBm	±2dB
	MCS 5	20dBm	26dBm	±2dB
	MCS 6	20dBm	26dBm	±2dB
	MCS 7	20dBm	26dBm	±2dB
	MCS 8	16dBm	22dBm	±2dB
	MCS 9	16dBm	22dBm	±2dB
	MCS 10	14dBm	20dBm	±2dB
	MCS 11	14dBm	20dBm	±2dB

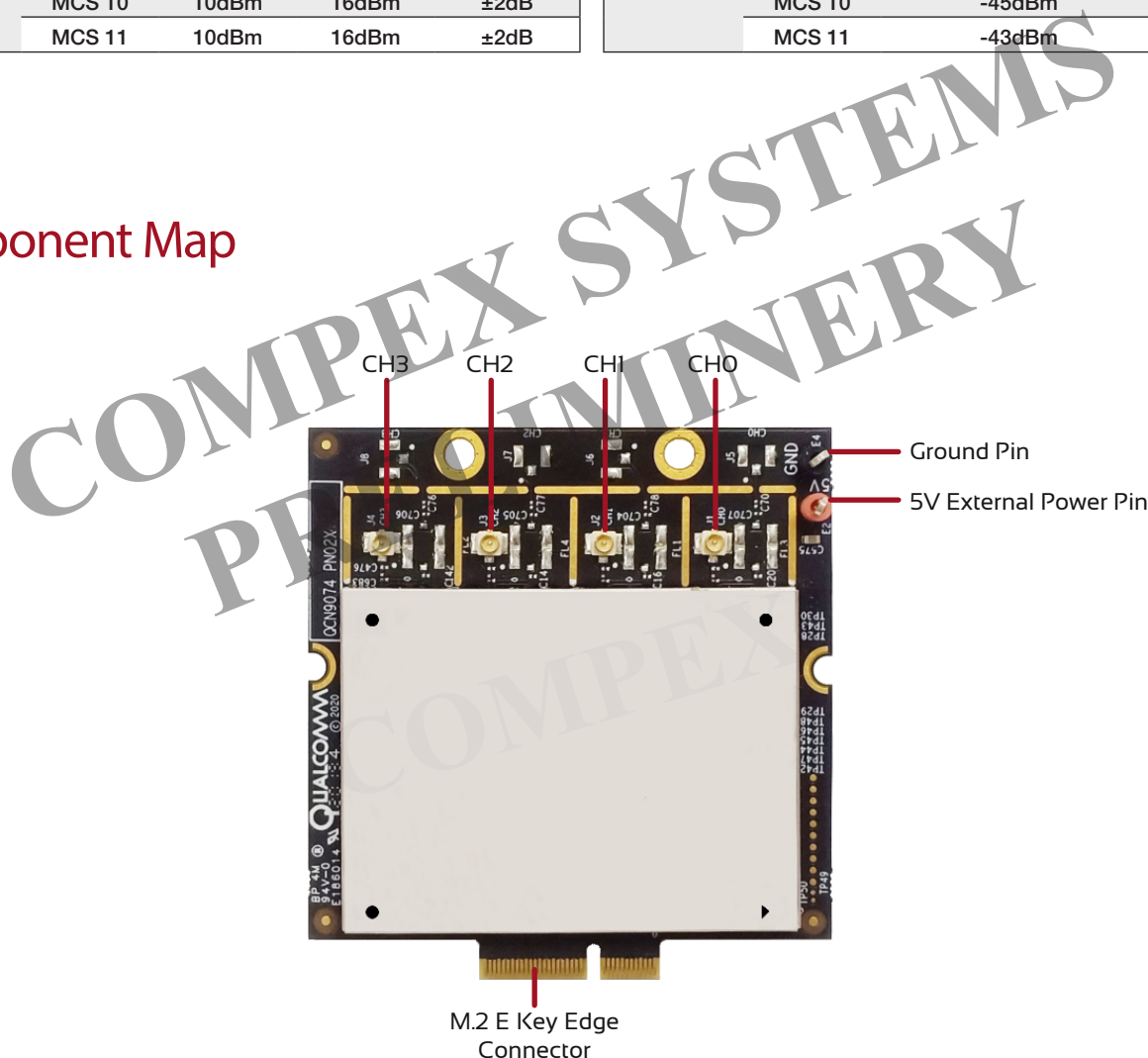
	Data Rate	RX Specifications Sensitivity	Tolerance
6GHz 802.11ax HE20	MCS 0	-82dBm	±2dB
	MCS 1	-79dBm	±2dB
	MCS 2	-77dBm	±2dB
	MCS 3	-74dBm	±2dB
	MCS 4	-70dBm	±2dB
	MCS 5	-66dBm	±2dB
	MCS 6	-65dBm	±2dB
	MCS 7	-64dBm	±2dB
	MCS 8	-60dBm	±2dB
	MCS 9	-57dBm	±2dB
	MCS 10	-54dBm	±2dB
	MCS 11	-52dBm	±2dB
6GHz 802.11ax HE40	MCS 0	-80dBm	±2dB
	MCS 1	-76dBm	±2dB
	MCS 2	-74dBm	±2dB
	MCS 3	-71dBm	±2dB
	MCS 4	-67dBm	±2dB
	MCS 5	-63dBm	±2dB
	MCS 6	-62dBm	±2dB
	MCS 7	-61dBm	±2dB
	MCS 8	-56dBm	±2dB
	MCS 9	-54dBm	±2dB
	MCS 10	-52dBm	±2dB
	MCS 11	-49dBm	±2dB
6GHz 802.11ax HE80	MCS 0	-76dBm	±2dB
	MCS 1	-74dBm	±2dB
	MCS 2	-71dBm	±2dB
	MCS 3	-68dBm	±2dB
	MCS 4	-64dBm	±2dB
	MCS 5	-60dBm	±2dB
	MCS 6	-59dBm	±2dB
	MCS 7	-58dBm	±2dB
	MCS 8	-53dBm	±2dB
	MCS 9	-51dBm	±2dB
	MCS 10	-48dBm	±2dB
	MCS 11	-46dBm	±2dB

RF Performance Table for 6GHz

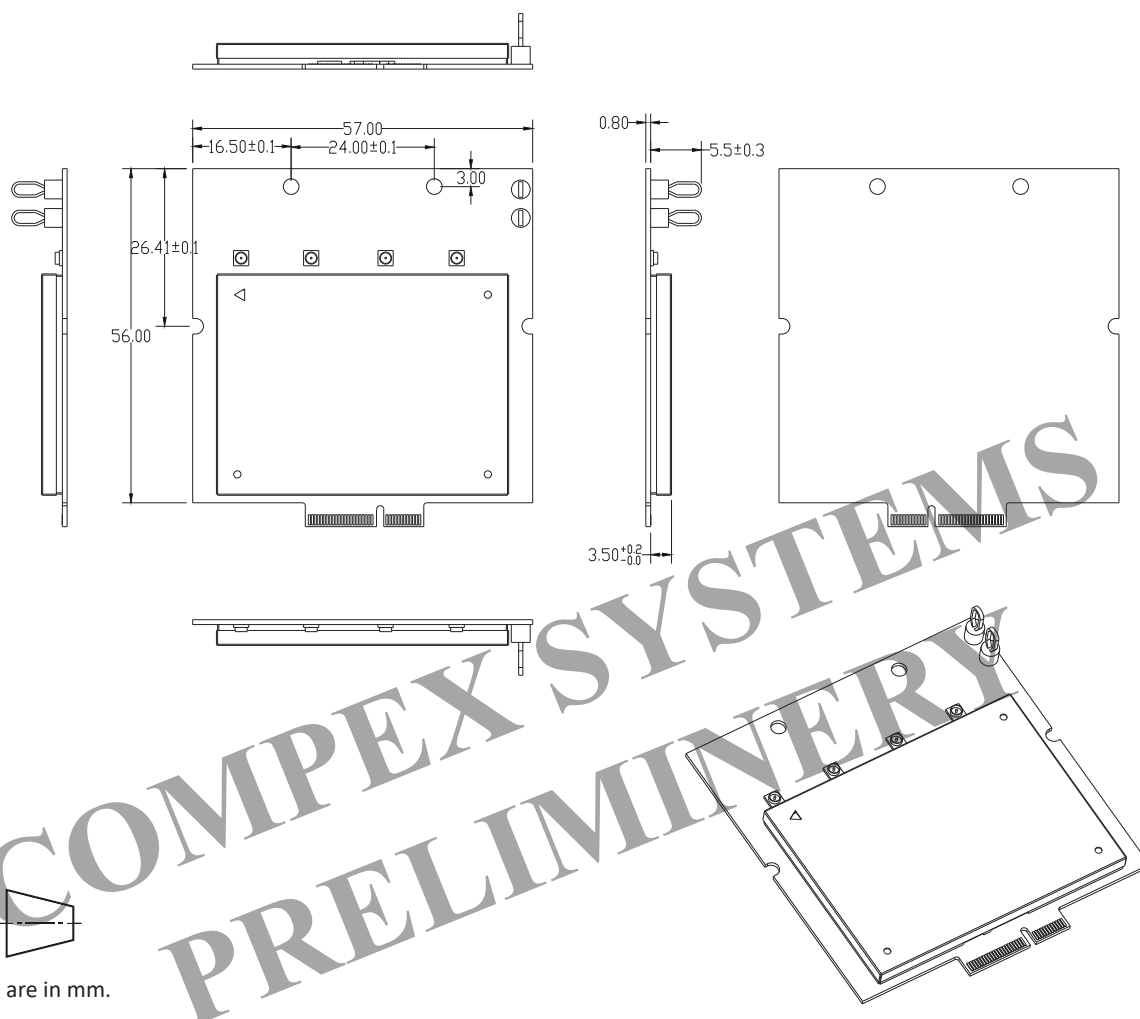
	Data Rate	TX Power (per chain)	TX Power (4 chains)	Tolerance
6GHz 802.11ax HE160	MCS 0	19dBm	25dBm	±2dB
	MCS 1	19dBm	25dBm	±2dB
	MCS 2	19dBm	25dBm	±2dB
	MCS 3	19dBm	25dBm	±2dB
	MCS 4	18dBm	24dBm	±2dB
	MCS 5	18dBm	24dBm	±2dB
	MCS 6	18dBm	24dBm	±2dB
	MCS 7	18dBm	24dBm	±2dB
	MCS 8	14dBm	20dBm	±2dB
	MCS 9	14dBm	20dBm	±2dB
	MCS 10	10dBm	16dBm	±2dB
	MCS 11	10dBm	16dBm	±2dB

	Data Rate	RX Specifications Sensitivity	Tolerance
6GHz 802.11ax HE160	MCS 0	-73dBm	±2dB
	MCS 1	-70dBm	±2dB
	MCS 2	-68dBm	±2dB
	MCS 3	-65dBm	±2dB
	MCS 4	-61dBm	±2dB
	MCS 5	-57dBm	±2dB
	MCS 6	-56dBm	±2dB
	MCS 7	-55dBm	±2dB
	MCS 8	-51dBm	±2dB
	MCS 9	-49dBm	±2dB
	MCS 10	-45dBm	±2dB
	MCS 11	-43dBm	±2dB

Component Map



Mechanical Dimensions



Ordering Configuration

Item Code	Model	Description
WLW3000H6U 8A0924S	WLW3000H6U (QCN9024)	4x4 802.11a/n/ac/ax M.2 Module Support UNII-5 to UNII-8 Band
WLW3000H6U 8A0974S	WLW3000H6U (QCN9074)	4x4 802.11a/n/ac/ax M.2 Module Support UNII-5 to UNII-8 Band
WLW3000H6E 8A0924S	WLW3000H6E (QCN9024)	4x4 802.11a/n/ac/ax M.2 Module Support UNII-5 Band (EU Version)
WLW3000H6E 8A0974S	WLW3000H6E (QCN9074)	4x4 802.11a/n/ac/ax M.2 Module Support UNII-5 Band (EU Version)