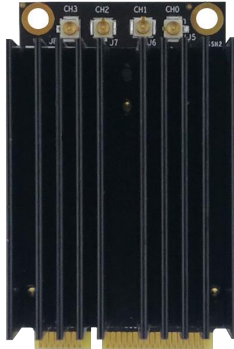


WiFi 6 (802.11ax) 4x4 MU-MIMO 2.4GHz Single Band Wireless Module

Model: WLE3000H2



KEY FEATURES

- Qualcomm Atheros QCN6024/9024 for commercial grade
- Qualcomm Atheros QCN9074 for industrial grade
- 2.4GHz, 4x4 MU-MIMO OFDMA Technology, up to 1376.4Mbps physical data rate
- Single Band 2.4GHz 4x4 WiFi 6 (802.11ax)
- MiniPCIe interface with PCIe 3.0
- Heat sink allows free air operation
- Supports IEEE 802.11d, e, h, i, k, r, u, v time stamp, w standard
- Designed for High Bandwidth Enterprise Wireless Access Points

Specifications

Chipset	Qualcomm Atheros QCN6024/9024 'PINE' Series for Commercial Grade Qualcomm Atheros QCN9074 'PINE' Series for Commercial Grade
System Memory	2Mbit serial I ² C bus EEPROM
Reference Design	PN01.1
Host Interface	MiniPCIe interface with PCIe 3.0
Operating Voltage	3.3V
Power Consumption	8W (Max)
Wireless	2.4GHz 802.11b/g/n/ax, max 20dBm per chain 4x U.FL Connectors
Frequency Range	2.412~2.472GHz
Modulation Techniques	OFDMA: BPSK, QPSK, DBPSK, DQPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM
Channel Spectrum Widths for WLAN	Supports 20/40MHz at 2.4GHz
Operating Systems	OpenWRT
Certification	FCC, CE Certified, REACH and RoHS Compliance
Environmental Temperature	Operating (Commercial Grade): -20°C to 70°C, Storage: -40°C to 90°C Operating (Industrial Grade): -40°C to 85°C, Storage: -40°C to 90°C
Environmental Humidity, Non-Condensing	Operating: 5% to 95%, Storage: Max. 90%

*Configurations are subject to change without notifications.

**Can be requested from respective sales executive.

RF Performance Table

	Data Rate	TX Power (per chain)	TX Power (4 chains)	Tolerance
2.4GHz 802.11b	1Mbps	20dBm	26dBm	±2dB
	2Mbps	20dBm	26dBm	±2dB
	5.5Mbps	20dBm	26dBm	±2dB
	11Mbps	20dBm	26dBm	±2dB
2.4GHz 802.11g	6Mbps	20dBm	26dBm	±2dB
	9Mbps	20dBm	26dBm	±2dB
	12Mbps	20dBm	26dBm	±2dB
	18Mbps	20dBm	26dBm	±2dB
	24Mbps	19dBm	25dBm	±2dB
	36Mbps	19dBm	25dBm	±2dB
2.4GHz 802.11n HT20	48Mbps	18dBm	24dBm	±2dB
	54Mbps	18dBm	24dBm	±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	19dBm	25dBm	±2dB
2.4GHz 802.11n HT40	MCS 6	19dBm	25dBm	±2dB
	MCS 7	19dBm	25dBm	±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	19dBm	25dBm	±2dB
2.4GHz 802.11ax HE20	MCS 6	19dBm	25dBm	±2dB
	MCS 7	19dBm	25dBm	±2dB
	MCS 8	18dBm	24dBm	±2dB
	MCS 9	18dBm	24dBm	±2dB
	MCS 10	17dBm	23dBm	±2dB
	MCS 11	17dBm	23dBm	±2dB

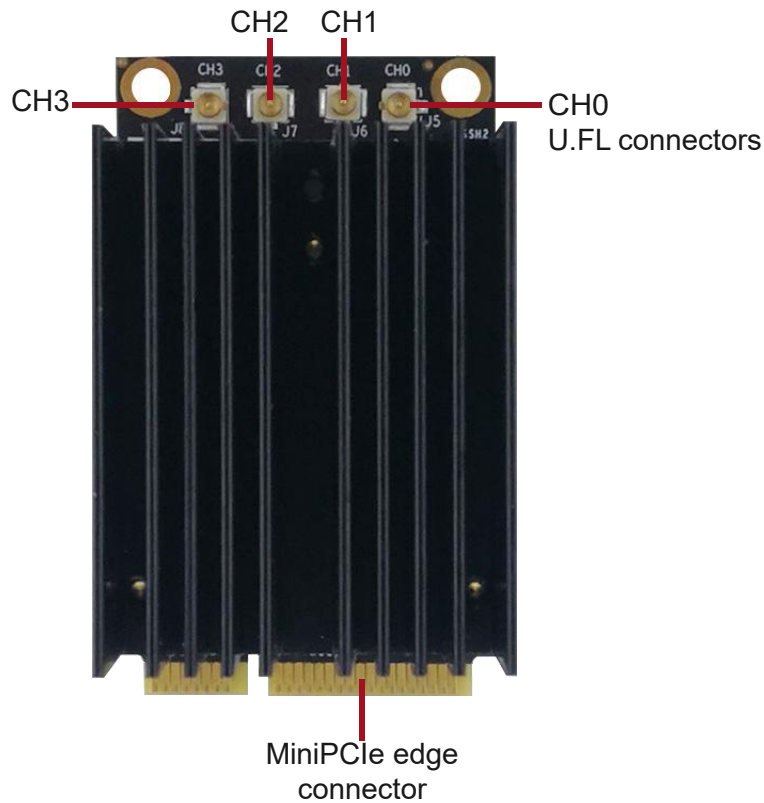
	Data Rate	RX Specifications Sensitivity	Tolerance
2.4GHz 802.11b	1Mbps	-100dBm	±2dB
	2Mbps	-98dBm	±2dB
	5.5Mbps	-96dBm	±2dB
	11Mbps	-93dBm	±2dB
2.4GHz 802.11g	6Mbps	-96dBm	±2dB
	9Mbps	-94dBm	±2dB
	12Mbps	-92dBm	±2dB
	18Mbps	-91dBm	±2dB
	24Mbps	-86dBm	±2dB
	36Mbps	-85dBm	±2dB
2.4GHz 802.11n HT20	48Mbps	-82dBm	±2dB
	54Mbps	-79dBm	±2dB
	MCS 0	-96dBm	±2dB
	MCS 1	-94dBm	±2dB
	MCS 2	-92dBm	±2dB
	MCS 3	-87dBm	±2dB
	MCS 4	-85dBm	±2dB
	MCS 5	-82dBm	±2dB
2.4GHz 802.11n HT40	MCS 6	-80dBm	±2dB
	MCS 7	-78dBm	±2dB
	MCS 0	-92dBm	±2dB
	MCS 1	-91dBm	±2dB
	MCS 2	-89dBm	±2dB
	MCS 3	-85dBm	±2dB
	MCS 4	-82dBm	±2dB
	MCS 5	-79dBm	±2dB
2.4GHz 802.11ax HE20	MCS 6	-78dBm	±2dB
	MCS 7	-76dBm	±2dB
	MCS 0	-95dBm	±2dB
	MCS 1	-93dBm	±2dB
	MCS 2	-92dBm	±2dB
	MCS 3	-88dBm	±2dB
	MCS 4	-85dBm	±2dB
	MCS 5	-81dBm	±2dB
MCS 6	-80dBm	±2dB	
2.4GHz 802.11ax HE20	MCS 7	-77dBm	±2dB
	MCS 8	-74dBm	±2dB
	MCS 9	-71dBm	±2dB
	MCS 10	-68dBm	±2dB
	MCS 11	-65dBm	±2dB

RF Performance Table

	Data Rate	TX Power (per chain)	TX Power (4 chains)	Tolerance
2.4GHz 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	19dBm	25dBm	±2dB
	MCS 6	19dBm	25dBm	±2dB
	MCS 7	19dBm	25dBm	±2dB
	MCS 8	18dBm	24dBm	±2dB
	MCS 9	18dBm	24dBm	±2dB
	MCS 10	17dBm	23dBm	±2dB
	MCS 11	17dBm	23dBm	±2dB

	Data Rate	RX Specifications Sensitivity	Tolerance
2.4GHz 802.11ax HE40	MCS 0	-93dBm	±2dB
	MCS 1	-90dBm	±2dB
	MCS 2	-87dBm	±2dB
	MCS 3	-81dBm	±2dB
	MCS 4	-79dBm	±2dB
	MCS 5	-77dBm	±2dB
	MCS 6	-75dBm	±2dB
	MCS 7	-75dBm	±2dB
	MCS 8	-73dBm	±2dB
	MCS 9	-70dBm	±2dB
	MCS 10	-68dBm	±2dB
	MCS 11	-63dBm	±2dB

Component Map



Ordering Configuration

Item Code	Model	Description
COMMERCIAL GRADE (-20°C to 70°C)		
WLE3000H2 7A0624S	WLE3000H2	QCN6024 4x4 802.11b/g/n/ax support 2.4GHz MiniPCle interface with PCIe 3.0 Module
WLE3000H2 7A0924S	WLE3000H2	QCN9024 4x4 802.11b/g/n/ax support 2.4GHz MiniPCle interface with PCIe 3.0 Module
WLE3000H2 7A0974S	WLE3000H2	QCN9074 4x4 802.11b/g/n/ax support 2.4GHz MiniPCle interface with PCIe 3.0 Module
INDUSTRIAL GRADE (-40°C to 85°C)		
WLE3000H2 7B000S-I	WLE3000H2-I	QCN9074 4x4 802.11b/g/n/ax support 2.4GHz MiniPCle interface with PCIe 3.0 Module

Chipsets Comparisons

		QCN6023	QCN6024	QCN9024	QCN9074
Bands	4.9GHz	-	-	-	
	6GHz	-	-		
	165MHz	-	-	-	
	4k QAM	-	-		
Advanced 11ax Features	#clients	96	128	256	512
	#OFDMA users	6	8	16	37
	#MU-MIMO users	3	4	4	4
	UL/DL OFDMA				
	DL OFDMA w/ TxBF	-	-		
	DL MU-MIMO				
	UL MU-MIMO (R2)				
	Spectrum Scan	-	-		
Management	aDFS/aSA	aDFS	aDFS	aDFS/aSA	aDFS/aSA
	RF Sensing				
Others	FIPS L2	-	-	-	