

## WiFi 7 (802.11BE) 4x4 MU-MIMO 2.4GHz Single Band Wireless Module

**Model: WLTE7000E2**



### KEY FEATURES

- Qualcomm QCN6224 'Waikiki' series for Commercial Grade
- Qualcomm QCN9274-I 'Waikiki' series for Industrial grade
- 2.4GHz, 4x4 MU-MIMO, up to 1376 Mbps physical data rate
- Single Band 2.4G 4x4 WiFi 7 (802.11be)
- M.2 E Key Interface with PCIe 3.0
- Based on WK02.2 reference design
- Supports up to 4096-QAM
- -20°C to 70°C operating temperature\*

*\*For industrial-grade environmental temperature requirements, please contact our sales representative for a customized heatsink solution.*

## Specifications

Chipset	Qualcomm QCN6224 'Waikiki' series for Commercial grade Qualcomm QCN9274-I 'Waikiki' series for Industrial grade
System Memory	2Mbit serial I <sup>2</sup> C bus EEPROM
Reference Design	WK02.2
Host Interface	M.2 E Key Interface with PCIe 3.0
Operating Voltage	3.3V
Power Consumption	8W (max)
Wireless	2.4GHz MU-MIMO 802.11b/g/n/ax/be, max 20 dBm per chain 4x U.FL connectors
Frequency Range	2.4 GHz: 2.412~2.472GHz
Modulation Techniques	OFDMA: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM, 4096-QAM
Channel Spectrum Widths for WLAN	Supports 20/40MHz at 2.4GHz
Operating Systems	Linux
Certification	REACH & RoHS Compliance
Environmental Temperature <sup>[1]</sup>	Operating temperature: -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	30 X 52 X 13.1 mm

\*Configurations are subject to change without notifications.

\*\*Can be requested from respective sales executive.

[1] For industrial-grade environmental temperature requirements, please contact our sales representative for a customized heatsink solution.

## RF Performance Table at 2.4GHz with filter

	Data Rate	TX Power (per chain)	TX Power (4 chains)	Tolerance
2.4GHz 802.11be EHT20	MCS 0	20dBm	26dBm	±2dB
	MCS 1	20dBm	26dBm	±2dB
	MCS 2	20dBm	26dBm	±2dB
	MCS 3	19dBm	25dBm	±2dB
	MCS 4	19dBm	25dBm	±2dB
	MCS 5	18dBm	24dBm	±2dB
	MCS 6	18dBm	24dBm	±2dB
	MCS 7	17dBm	23dBm	±2dB
	MCS 8	17dBm	23dBm	±2dB
	MCS 9	16dBm	22dBm	±2dB
	MCS 10	16dBm	22dBm	±2dB
	MCS 11	16dBm	22dBm	±2dB
	MCS 12	15dBm	21dBm	±2dB
	MCS 13	15dBm	21dBm	±2dB
2.4GHz 802.11be EHT40	MCS 0	20dBm	26dBm	±2dB
	MCS 1	20dBm	26dBm	±2dB
	MCS 2	20dBm	26dBm	±2dB
	MCS 3	19dBm	25dBm	±2dB
	MCS 4	19dBm	25dBm	±2dB
	MCS 5	18dBm	24dBm	±2dB
	MCS 6	18dBm	24dBm	±2dB
	MCS 7	17dBm	23dBm	±2dB
	MCS 8	17dBm	23dBm	±2dB
	MCS 9	16dBm	22dBm	±2dB
	MCS 10	16dBm	22dBm	±2dB
	MCS 11	16dBm	22dBm	±2dB
	MCS 12	15dBm	21dBm	±2dB
	MCS 13	15dBm	21dBm	±2dB

	Data Rate	RX Specifications Sensitivity	Tolerance
2.4GHz 802.11be EHT20	MCS 0	-92dBm	±2dB
	MCS 1	-90dBm	±2dB
	MCS 2	-88dBm	±2dB
	MCS 3	-85dBm	±2dB
	MCS 4	-81dBm	±2dB
	MCS 5	-77dBm	±2dB
	MCS 6	-76dBm	±2dB
	MCS 7	-74dBm	±2dB
	MCS 8	-70dBm	±2dB
	MCS 9	-69dBm	±2dB
	MCS 10	-65dBm	±2dB
	MCS 11	-63dBm	±2dB
	MCS 12	-59dBm	±2dB
	MCS 13	-57dBm	±2dB
2.4GHz 802.11be EHT40	MCS 0	-89dBm	±2dB
	MCS 1	-87dBm	±2dB
	MCS 2	-85dBm	±2dB
	MCS 3	-82dBm	±2dB
	MCS 4	-78dBm	±2dB
	MCS 5	-73dBm	±2dB
	MCS 6	-72dBm	±2dB
	MCS 7	-71dBm	±2dB
	MCS 8	-67dBm	±2dB
	MCS 9	-65dBm	±2dB
	MCS 10	-62dBm	±2dB
	MCS 11	-60dBm	±2dB
	MCS 12	-56dBm	±2dB
	MCS 13	-55dBm	±2dB

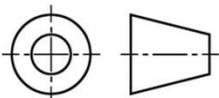
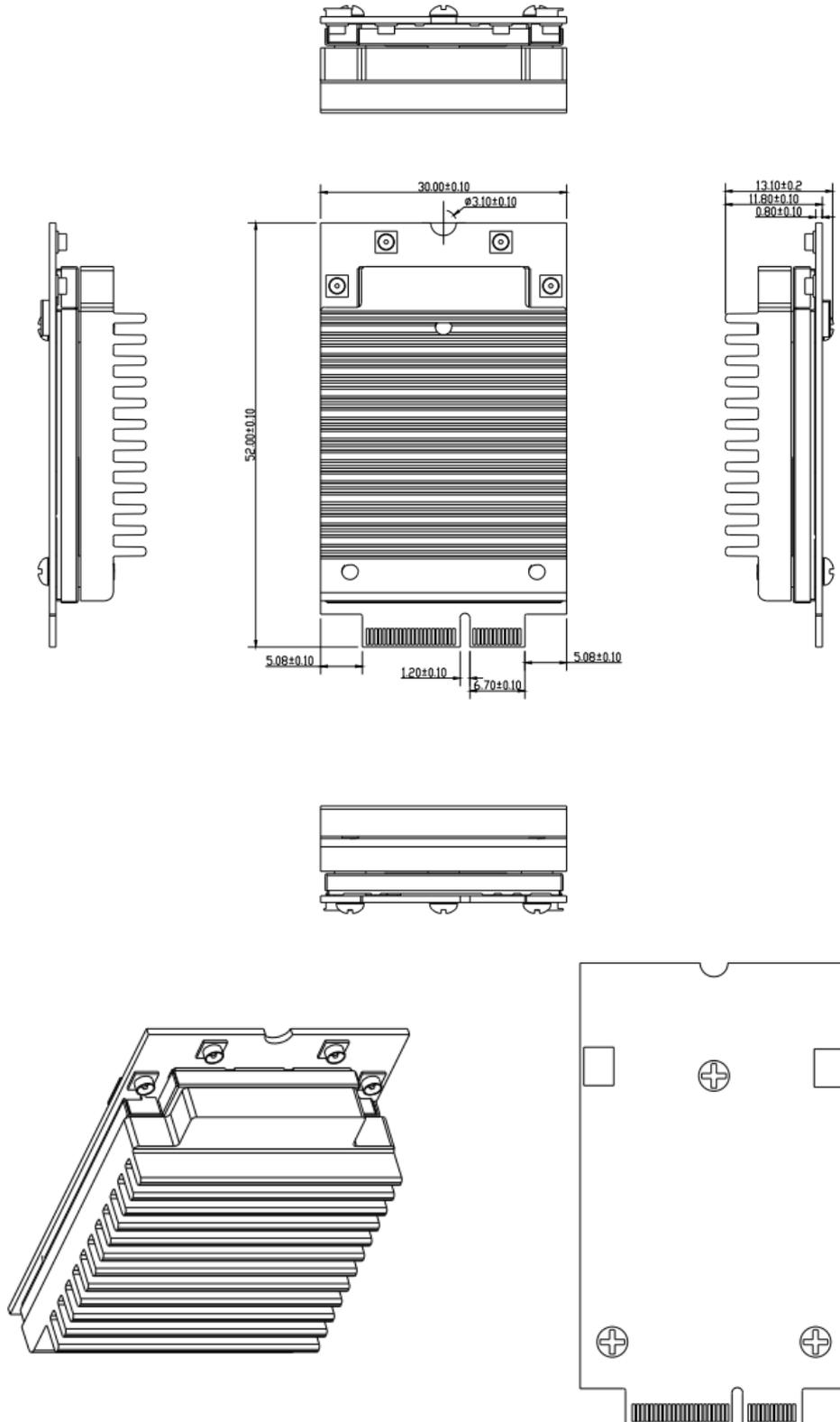
## Component Map

U.FL Connectors  
CH0 CH1 CH2 CH3



M.2 E Key interface with PCIe 3.0

## Mechanical Dimensions



All dimensions are in mm

Copyright © Compex Systems. All rights reserved. COMPEX and the COMPEX logo, are registered trademarks of Compex Systems Pte Ltd. While every effort is made to ensure the information is accurate, Compex does not accept liability for any errors or mistakes that may arise. All specifications are subject to change without notice.

## Software Information

Firmware

OpenWRT Barrier Breaker

## Development Kits

SDK

SDKs with QCA binary drivers are available for software developers.

Accessory

JTAG Programmer, Serial Converter, Power Supply Only if available

## Ordering Configuration

Item Code	Model	Description
WLTE7000E2 7A000TXLG-TE	WLTE7000E2	QCN6224 4x4 802.11b/g/n/ax/be Supports 2.4GHz Single Band M.2 E Key interface with PCIe 3.0 Module
WLTE7000E2 7B000NXLG-I-TE	WLTE7000E2-I	QCN9274-I 4x4 802.11b/g/n/ax/be Supports 2.4GHz Single Band M.2 E Key interface with PCIe 3.0 Module

## Chipset Comparisons

		QCN6224	QCN6274	QCN9274
Band Operation	4 Single Band	✓	✓	✓
	2+2 Dual Band	✓	✓	✓
	2.4GHz	✓	✓	✓
	4.9GHz	-	-	✓
	5GHz	✓	✓	✓
	6GHz	-	✓	✓
	Channel Support	Up to 160MHz at 5GHz	Up to 320MHz at 6GHz	Up to 320MHz at 6GHz
Performance	4K QAM	✓	✓	✓
	#clients	128	256	512
	#OFDMA users	8	16	37
	DL OFDMA + TxBF	-	✓	✓
	DL/UL MU-MIMO	✓	✓	✓
Advanced 11be Features	WFA certified MLO	✓	✓	✓
	Puncture	Static	Static	Static & Dynamic
Others	DPD	✓	✓	✓
	FIPS	-	-	✓
Software Packages	Provisioned Multi Link	✓	✓	✓
	Dense Deployment	✓	✓	✓
	Location & RF Sensing	✓	✓	✓