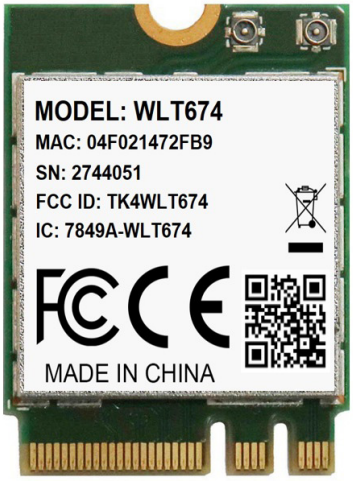
Dual Band 2.4GHz / 5GHz WiFi + Bluetooth Combo M.2 Module

Designed for WLAN/BT and Low-Energy Communications



Model: WLT674

KEY FEATURES

- Qualcomm Atheros QCA6174A-5.
- Supports 2x2 multiple input, multiple output (MIMO) with two spatial streams.
- Supports IEEE 802.11a/b/g/n/ac WLAN standards.
- Enables seamless integration of WLAN/ Bluetooth and low energy technology.
- Provides a highly integrated WLAN System-on-Chip (SoC) for 5GHz 802.11ac, or 2.4GHz / 5GHz 802.11n WLAN applications.
- Supports Bluetooth 5.0 + HS, BLE, and ANT+ and backward compatibility with BT 1.2 and BT 2.X + enhanced data rate.
- Supports BT-WLAN coexistence and ISM-LTE coexistence.
- Supports Simple Pairing (SP) and Enhanced Inquiry Response (EIR) function.
- HCI USB interface to work with Windows upper layer stack.

APPLICATIONS

- Medical devices, security systems, robots, video streaming, PoS, digital signs, gaming machine, medical equipment, tablet PCs, handheld devices, thin client devices.

Specifications

Chipset	QCA6174A-5
WLAN Host Interface	PCIe 2.1 interface
Bluetooth Host Interface	USB 1.1 interface
Operating Voltage	3.3V DC power supply and I/O supply of 1.8V or 3.3V
WLAN Frequency Range	2.412GHz to 2.483GHz, 5.150GHz to 5.850GHz, *Subject to local regulations

Additional Specifications

Standards for WLAN	IEEE 802.11ac/a/b/g/n (2T2R)
Standards for Bluetooth	Bluetooth v5.0, v4.1, v4.0 LE, v3.0+HS, v2.1+EDR
Channel Spectrum Widths for WLAN	Supports 20/40MHz at 2.4GHz Supports 20/40/80MHz at 5GHz
Data Rates for WLAN	802.11b: 11Mbps 802.11a/g: 54Mbps 802.11n: MCS 0 to MCS 7 802.11ac: MCS 0 to MCS 9
Max Data Rates for WLAN	300Mbps on 802.11n networks 867Mbps on 802.11ac networks
Data Rates for Bluetooth	1Mbps, 2Mbps, and up to 3Mbps
Host Interface	M.2 2230, Key A+E
Antenna	2x U.FL connectors, 2T2R Support WiFi / Bluetooth co-existence
Modulation Techniques	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11a/g: OFDM (BPSK, QPSK, 16-QAM, 64-QAM) 802.11n: OFDM (BPSK, QPSK, 16-QAM, 64-QAM) 802.11ac: OFDM (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM)
Certification	CE, FCC, and IC, REACH & RoHS Compliance
Power Consumption	TX: 610 mA RX: 280 mA
Driver Support	Linux with ath10k, Windows 7/8.1/10
Security	64/128-bits WEP, WPA, WPA2, 802.1X
Environmental Temperature	Operating: -20°C to 70°C, Storage: -40°C to 85°C
Environmental Humidity, non-condensing	Operating: 5% to 95%, Storage: 5% to 90%
Dimensions (W × H × D)	22mm × 30mm × 3mm
Weight	6g

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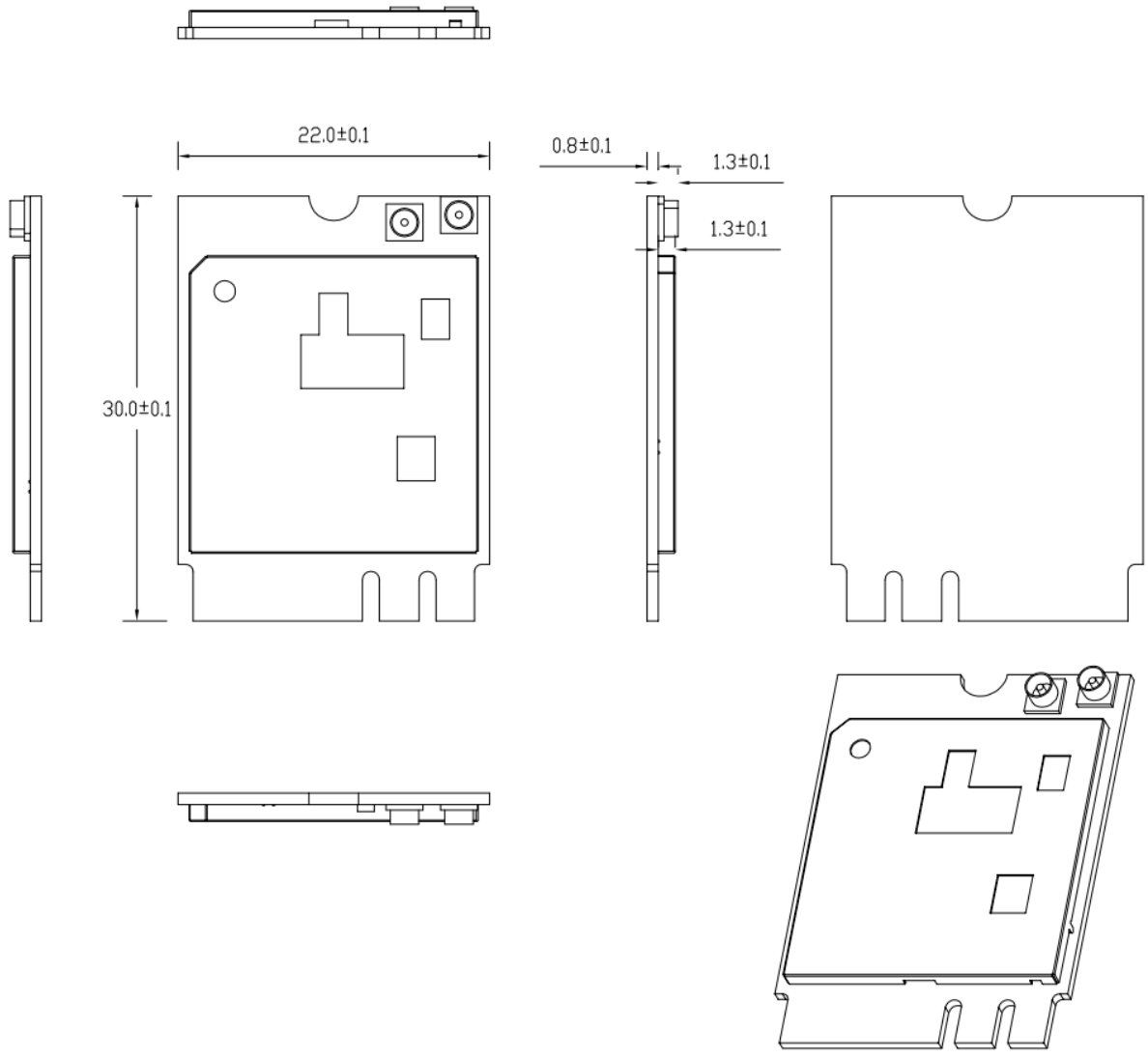
RF Performance Table

	Data Rate	TX Power (per chain)	TX Power (2 chains)	Tolerance
2.4GHz 802.11b	11Mbps	18dBm	21dBm	±2dB
2.4GHz 802.11g	54Mbps	15dBm	18dBm	±2dB
2.4GHz 802.11n HT20	MCS 7	15dBm	18dBm	±2dB
2.4GHz 802.11n HT40	MCS 7	15dBm	18dBm	±2dB
5GHz 802.11a	54Mbps	10.5dBm	13.5dBm	±2dB
5GHz 802.11n VHT20	MCS 7	10dBm	13dBm	±2dB
5GHz 802.11n VHT40	MCS 7	10dBm	13dBm	±2dB
5GHz 802.11ac VHT80	MCS 9	6dBm	9dBm	±2dB
Bluetooth	3Mbps	4~10dBm	-	±2dB

	Data Rate	RX Specifications Sensitivity	Tolerance
2.4GHz 802.11b	11Mbps	-76dBm	±2dB
2.4GHz 802.11g	54Mbps	-65dBm	±2dB
2.4GHz 802.11n HT20	MCS 7	-64dBm	±2dB
2.4GHz 802.11n HT40	MCS 7	-61dBm	±2dB
5GHz 802.11a	54Mbps	-65dBm	±2dB
5GHz 802.11n VHT20	MCS 7	-64dBm	±2dB
5GHz 802.11n VHT40	MCS 7	-61dBm	±2dB
5GHz 802.11ac VHT80	MCS 9	-51dBm	±2dB
Bluetooth	3Mbps	-70dBm (0.1% BER)	±2dB

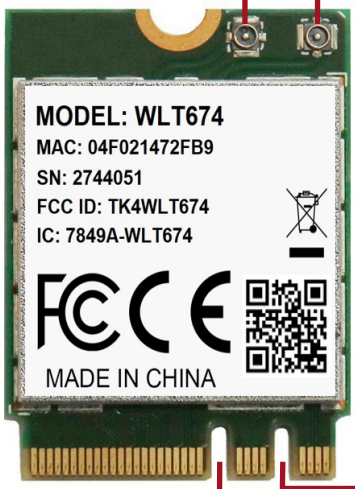
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Dimension Drawing



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Compenent Map



2x U.FL antenna connectors
Both support 2.4GHz and 5GHz

Chain1
WLAN CH1 only

Chain0
WLAN CH0 and Bluetooth

M.2 edge connector

Key A

Key E

Ordering Configuration

Item Code	Model	Description
WLT674 7A0000 1.00	WLT674	M.2 Module