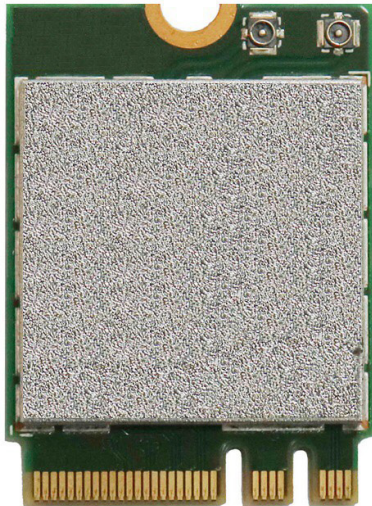


Dual Band 2.4GHz/5GHz WiFi + Bluetooth Combo M.2 Module Designed for WLAN/BT and Low-Energy Communications

Model: WLT674



KEY FEATURES

- Qualcomm Atheros QCA6174A-5.
- Single-die wireless local area network (WLAN) and Bluetooth (BT) combination solution.
- Supports 2x2 multi-user multiple input, multiple output (MU-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 5 GHz 802.11ac, or 2.4 GHz/5 GHz 802.11n WLAN applications.
- Supports Bluetooth 4.1 + 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	Low power PCIe (w/L1 substate) interfaces
Bluetooth Host Interface	USB1.1 interface
Operating Voltage	3.3V DC power supply and I/O supply of 1.8V or 3.3V
WLAN Frequency Range	2.412 ~ 2.483 GHz 5.150 ~ 5.850 GHz *Subject to local regulations

Additional Specifications

Standards for WLAN	IEEE 802.11ac/a/b/g/n (2T2R)
Standards for Bluetooth	Bluetooth 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 0~15 802.11ac: MCS 0~9
Max Data Rates for WLAN	300Mbps on 802.11n networks 867Mbps on 802.11ac networks
Data Rates for Bluetooth	1 Mbps, 2Mbps, and up to 3Mbps
Form Factor	M.2 2230
Antenna	2x IPEX MHF4 connectors, 2T2R Support WiFi/BT 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)
Power Consumption	TX: 610mA RX: 280mA
Driver Support	Windows 7/8.1/10
Security	64/128-bits WEP, WPA, WPA2, 802.1X
Temperature Range	Operating: -20°C to 70°C Storage: -40°C to 85°C
Humidity	Operating: 5% to 95% (non-condensing) Storage: 5% to 90% (non-condensing)
Dimensions (W x H x D)	30mm x 26.8mm x 3.05mm (±0.5mm)
Weight	6g

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 HT20	MCS 7	10dBm	13dBm	±2dB
5GHz 802.11n HT40	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 HT20	MCS 7	-64dBm	±2dB
5GHz 802.11n HT40	MCS 7	-61dBm	±2dB
5GHz 802.11ac VHT80	MCS 9	-51dBm	±2dB
Bluetooth	3Mbps	-70dBm (0.1% BER)	±2dB