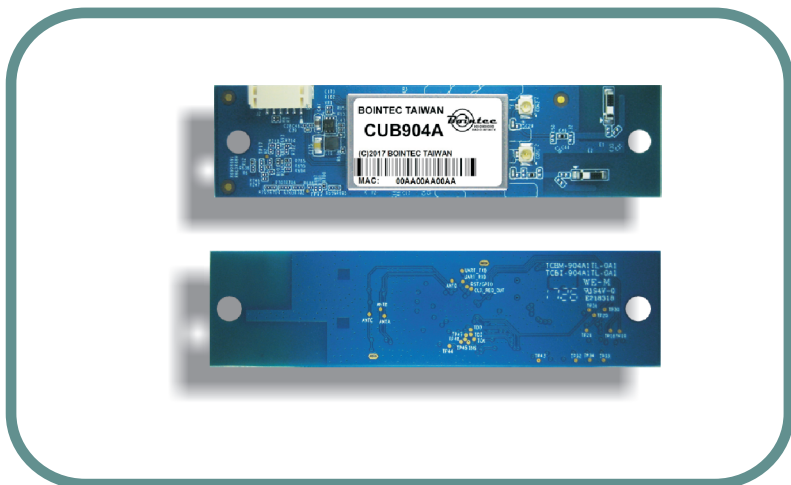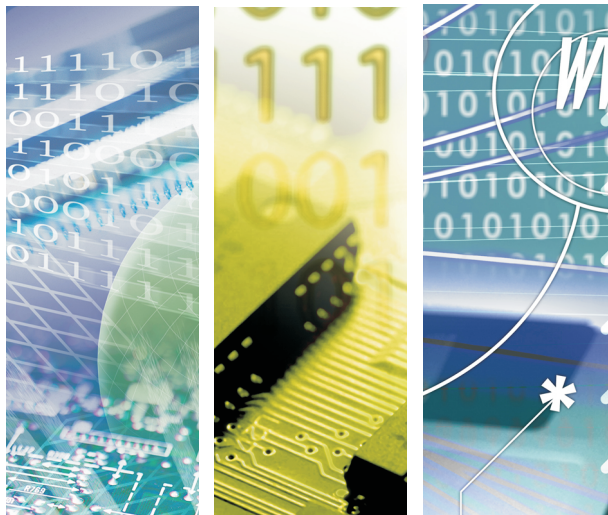# CUB904A
IEEE 802.11a/b/g/n Wi-Fi with USB Module

CUB904A

802.11a/b/g/n USB 2.0 Interface, *2T2R,* 9374

Introduction of Products

CUB904A is a WLAN module supporting IEEE 802.11 a/b/g/n standard by the USB 2.0 interface. This is a small form factor WLAN module engineered for the wireless connectivity. It is truly a cost-effective solutions for the current wireless market with the powerful performance. Besides, CUB904A possesses the dual band features and 2X2 MIMO technology (2T2R). Moreover, it can achieve the max throughput of 300Mbps based on its comprehensive modulation technique.

CUB904A provides an easy design for various environments such as household appliances, industry, consumer and automobile applications. It contains two CHIP antennas on the module and reserve two RF connector for external antenna. It is convenient for all users to use two screw holes on the module in order to assemble on customer's host board or custom boards. Based on the compact size module and robust setup scheme, CUB904A provide those advantages to enhance the value of our customer's target product.
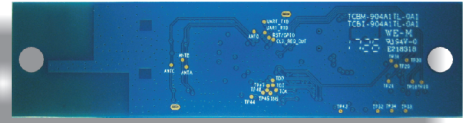
Product Highlight

- Main Chip:AR9374X-BL3D

- Industrial grade Wifi module

- IEEE 802.11 a/b/g/n, 5GHz and 2.4GHz bands

- HT20/HT40 and dual band of 2.4GHz and 5GHz

- Supporting 2X2 MIMO Technology

- 802.11a: 6, 9, 12, 24, 36, 48, 54Mbps; 802.11b: 1, 2, 5.5, 11Mbps; 802.11g: 6, 9, 12, 24, 36, 48,54Mbps ; 802.11n: Support PHY rate up to 300Mbps.

- Host Interface:USB2.0

- Antenna: 2 CHIP antenna or extend antenna supported

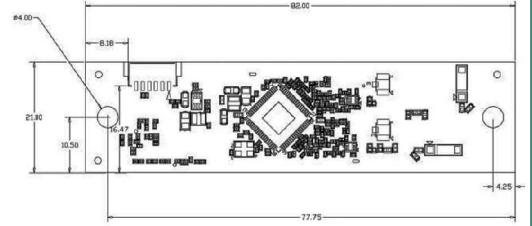- Operating Voltage:5V DC, +/- 9%

- RoHS compliant

General	
Main Chipset	QualComm Atheros AR9374X-BL3D
Frequency band	2.4GHz and 5GHz
Bandwidth	20MHz, 40MHz
Channel Spacing	5MHz
Antenna	2 Chip antenna on the module board (2T2R). Reserved two IPEX connector footprints for external antenna.
Operation Frequency	• USA: 2.400 ~ 2.483GHz, 5.15 ~ 5.35GHz, 5.47 ~ 5.725GHz, 5.725 ~ 5.85GHz.
	• Europe: 2.400 ~ 2.483GHz, 5.15 ~ 5.35GHz, 5.47 ~ 5.725GHz
	• Japan: 2.400 ~ 2.497GHz, 5.15 ~ 5.35GHz, 5.47 ~ 5.725GHz
	• China: 2.400 ~ 2.483GHz, 5.725 ~5.85GHz
Channels Support	• 802.11n b/g
	US/Canada: 11 (1 ~ 11)
	Major European country: 13 (1 ~ 13)
	France: 4 (10 ~ 13)
	Japan: 11b: 14 (1~13 or 14th), 11g: 13 (1 ~ 13)
	China: 13 (1 ~ 13)
	• 802.11n a
	US/Canada: 24 non-overlapping channels (36,40,44,48,52,56,60,64; 100,104,108,112,116,120,124,128,132,136,140; 149,153,157,161,165)
	Europe: 19 non-overlapping channel (36,40,44,48,52,56,60,64; 100,104,108,112,116,120,124,128,132,136,140)
	Japan: 19 non-overlapping channels (36,40,44,48,52,56,60,64; 100,104,108,112,116,120,124,128,132,136,140)
	China: 5 non-overlapping channels (149,153,157,161,165)

Hardware		
Power	5V DC +/- 9%, max.	
Power consumption @ 25℃	Average (mA), Typical	
	Continuous Tx (2.4GHz)	424
	Continuous Rx (2.4GHz)	120
	Continuous Tx (5GHz)	550
	Continuous Rx (5GHz)	130
	Power Saving	50
	Stand by	130
Interfaces	Interface Standard : USB 2.0	

WiFi	
Standard	IEEE 802.11 a/b/g/n standard
Security	64 bit, 128 bit, 152bit WEP Encryption
	802.1x Authentication
	AES-CCM & TKIP Encryption

Dimensions	
PCB Dimension	82 mm x 21 mm x 1mm, 4 Layer, FR4

Temperature	
Operation Temperature	-25 ℃ ~ 70 ℃
Storage Temperature	-40 ℃ ~ 70 ℃

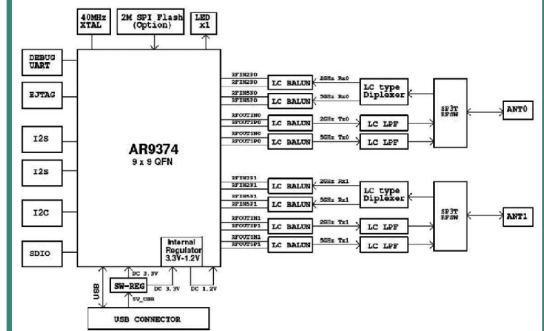| Humidity	
Operation Humidity	15%~85% without condensation
Storage Humidity	• Non-operating: 5% ~ 90% without condensation.
	• Under shipment: 8% ~ 90% without condensation.

Certificate	
RoHS	

Product quick glance

ME Drawing/placement

Block Diagram

Ordering Information

T.CUB904A	CUB904A, Single packed
T.CUB904A-DK	Bointec packed, CUB904A development kit packed
TFGA-CUB904A0-11	finished non packaing,Bointec,CUB904A

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