

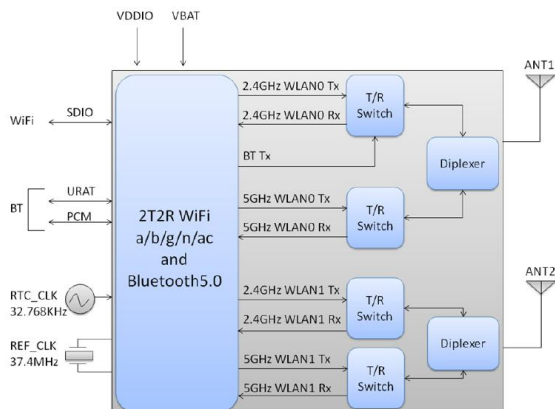
ALXC29B – Wi-Fi and Bluetooth module

The Alinket ALXC29B is a fully Wi-Fi and Bluetooth functionalities module with seamless roaming capabilities and advance security, also it could interact with different vendors' 802.11a/b/g/n/ac 2x2 Access Points with MIMO standard and can accomplish up to speed of 867Mbps with dual stream in 802.11n to connect the wireless LAN. Furthermore ALXC29B included SDIO interface for Wi-Fi, UART/ PCM interface for Bluetooth.



ALXC29B

System Architecture



Contact

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A Global Voyager in IoT solution

Highlights

IEEE 802.11 Key Feature

- TX and RX low-density parity check (LDPC) support for improved range and power efficiency.
- 802.11 a/b/g/n/ac , Dual-stream spatial multiplexing up to 867 Mbps data rate.
- 20, 40, 80 MHz channels with optional SGI (256 QAM modulation)
- Real simultaneous dual-band
- Supports 2 antennas(U.FL) with two for WLAN port and one Bluetooth port.

Bluetooth Key Feature

- BT host digital interface:
 - HCI UART (up to 4 Mbps)
 - PCM for audio data
- Complies with Bluetooth Core Specification Version 5.0.
- Supports extended synchronous connections (eSCO), for enhanced voice quality.
- Adaptive frequency hopping (AFH) for reducing radio frequency interference.

Applications

- Health & fitness equipment including heart rate monitors, blood pressure, weight scales, thermometers
- Control, automation, security and Alliance for Wireless Power wireless charging
- Consumer: toys, robots, remote controls
- Location, proximity detection
- And more...

■ ALXC29B Specification

Model Name	ALXC29B	
Product Description	2T2R 802.11 a/b/g/n/ac Wi-Fi + BT 5.0 Module	
WiFi Interface	Support SDIO V3.0/2.0	
BT Interface	UART / PCM	
Dimension	L x W: 25 x 16 (typical) mm, H: 2.35 (Maximum) mm	
Operating temperature	-30°C to 85°C	
Storage temperature	-40°C to 105°C	
Humidity	Operating Humidity 10% to 95% Non-Condensing	
WiFi 2.4 GHz	WLAN Standard	IEEE 802.11b/g/n & Wi-Fi compliant
	Frequency Range	2.400 GHz ~ 2.4835 GHz (2.4GHz ISM Band)
	Number of Channels	2.4GHz : Ch1 ~ Ch13
	Modulation	802.11b : DQPSK、DBPSK、CCK 802.11 g/n : OFDM /64-QAM、16-QAM、QPSK、BPSK
WiFi 5.8 GHz	WLAN Standard	IEEE 802.11a/n/ac & Wi-Fi compliant
	Frequency Range	5.15~5.35GHz、5.47~5.725GHz、5.725~5.85GHz (5GHz UNII Band)
	Number of Channels	5.15~5.35GHz: Ch36 ~ Ch64
		5.47~5.725GHz: Ch100 ~ Ch140
		5.725~5.85GHz: Ch149 ~ Ch165
	Modulation	802.11a : OFDM /64-QAM、16-QAM、QPSK、BPSK 802.11n : OFDM /64-QAM、16-QAM、QPSK、BPSK 802.11ac : OFDM /256-QAM、OFDM /64-QAM、16-QAM、QPSK、BPSK
Bluetooth	Bluetooth Standard	GFSK、DQPSK、8DPSK、LE(1Mbps)、2LE(2Mbps)
	Host Interface	UART
	Frequency Band	2402 MHz ~ 2480 MHz
	Number of Channels	79 channels for classic、40 channels for BLE
	Modulation	FHSS, GFSK, DPSK, DQPSK

* **Note:** Please contact your local sales office or distributors for more information.

About Alinket Technology, INC.

Alinket offers a range of leading cloud-connected wireless communication controllers including Wi-Fi, Bluetooth, BLE, and Wi-Fi + BT/BLE. Alinket is building an effective eco-system for the IOT world.

