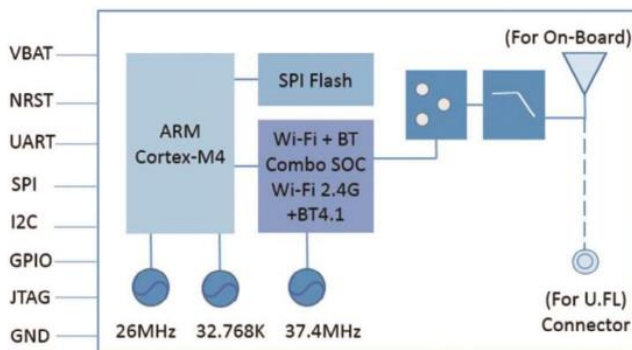


ALC12A_B Wi-Fi & BT/BLE Controller

ALXC12A_B is a small-size, low-power IoT controller developed by ALINKET for medical, industrial, electrical, intelligent energy and other industries. The product supports 2.4G Wi-Fi and BT&BLE and provides multiple host connection interfaces, such as UART, I2C, GPIO, etc. Based on ALINKET IoT development suite (AiDK), ALXC12A_B controller supports custom function development.



System Architecture



Highlights

- Support WLAN 802.11b/g/n 2.4GHz +Bluetooth 4.1 dual mode
- Cypress Wi-Fi & Bluetooth chip and ST ARM Cortex-M4 MCU
- Multiple host interfaces: UART, SPI, USB, etc.
- Support Wi-Fi STA and Soft AP dual mode
- Enterprise Security — WPA/WPA2 enterprise or 802.1x/EAPoL
- Support fast roaming (optimal trigger mechanism)
- Multi-Socket TCP/UDP connection
- Bluetooth master-slave mode
- Network configuration Application Flashlink, AP and One-time server configuration
- Support over-the-air upgrade (OTA)
- Support TCP.UDP.MQTT.COAP.LWM2M IoT access protocol
- Working temperature: -30°C ~ +85°C
- RoHS/CE/FCC Certification

Applications

- Environment and energy
- Medical and Health
- Industrial control and monitoring
- Smart city, Smart home
- Wireless sensing network
- Smart Robots & Toys
- And more...

■ Contact

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■ Ordering Information

ALXC12A : Full-featured Wi-Fi controller with built-in PCB antenna

ALXC12B : Full-featured Wi-Fi controller with U.FL connector

■ ALXC12A_B Specification

Module		ALXC12A_B
Size (mm)		32*16*3.1
Wi-Fi Technology		IEEE802.11 b/g/n
Wi-Fi Band		2.4G
Bluetooth		BT4.1 (BR/EDR/LE)
MCU	Core	ARM® Cortex®-M4@100MHz
	RAM	128KB
	Flash	512KB
Flash		1MB
Interface		UART, SPI, I2C
TX Power (dBm)	2.4G(b/g/n)	+21, +20.5, +17.5
	5G(a/n)	/
	RT/BLE	+12/+8.5
RX Sensitivity (dBm)	2.4G(b/g/n)	-97.5, -91.5, -90.5
	BT/BLE	-94/-97
Power Consumption		~80Ma@500Kbps
Antenna		A: PCB antenna
		B:external antenna with U.FL connector
Working Mode	Pass-through	N
	ACM	Y
Wi-Fi Security		WEP,WPA/WPA2-Personal&Enterprise (EAPoL)
Network protocol		TAP/UDP,IP,HTTP,DHCP,DNS,CoAP,LWM2M
Low Power Consumption		Y
Wi-Fi Roaming		Y
WiFi STA&SoftAP mode		Y
Bluetooth master-slave mode		Y
Voltage		3.3V (±10%)
Temperature		-30°C ~ +85°C
Wi-Fi function		OS: Tree RTOS/Thread X; Application: Flashlink, Firmware (OTA)

■ ALXC12A_B Evaluation Board

Alinket provides ALXC12A_B Evaluation Board to verify various interfaces and functions of the product, which can quickly verify the feasibility of technical solutions, and shorten the R&D cycle.



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.

