

IEEE802.11 a/b/g/n Wi-Fi 2.4G/5G & BT/BLE4.0

Multi-Mode IoT Controller



Features

Size: 12 mm (W) * 12 mm (D) * 1.5 mm (H)

IEEE 802.11 a/b/g/n, WLAN 2.4G/5G dual band,
BT/BLE 4.0 Multi-Mode IoT Controller

Small size, easy to integrate

High speed SDIO 2.0 & UART interface

High Wi-Fi & BT Performance

Low Power Consumption

Operating temperature: -30 to 85°C

FCC and CE compliance

RoHS certification

Applications

Environmental & energy monitoring

Wireless Sensing, remote data logging

Appliance control

Fitness equipment

Medical and Healthcare

Industrial Control and Monitoring

Smart Home, Smart Appliances

Home Energy Management System

Wireless Audio

Smart toys & robots

And more...

Using a Wi-Fi or BT IoT controller to connect your device to the internet only solves half the problem. Alinket provides a set of development tools and middleware system to support global IoT products developing and cloud connecting.

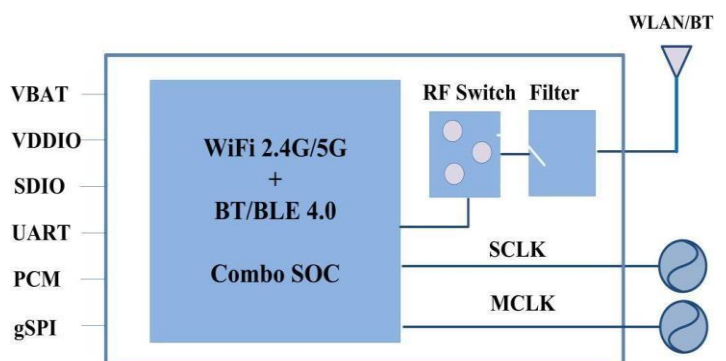
Highlights

The ALXC28 is a family of small, low-powered, self-contained, certified 2.4G/5G Wi-Fi & BT/BLE 4.0 IoT network controllers. It can bring internet connectivity to your devices through various interfaces such as SDIO, UART, SPI, PCM, etc. The controllers are an ideal solution for device manufacturers who are looking for wireless connectivity in medical and healthcare applications, industrial control equipment, home appliances and smart energy systems.

The ALXC28 controllers are completely compatible with Alinket Linux development kit architecture and

support Alinket proprietary software architecture.

ALXC28 SYSTEM ARCHITECTURE



ALXC28 Specification

Technology	2.4GHz & 5GHz, IEEE802.11 a/b/g/n; BT/BLE 4.0 compliant
Wi-Fi Security	WEP, WPS, WPA, WPA2, WMM, WAPI, AES
Interfaces	SDIO (V2.0), UART, gSPI, PCM
Data Rate	50Mbit/s SDIO/gSPI, 4Mbit/s UART
Microprocessor & Memory	ARM CM3, 512kB flash and 128kB RAM
Max. RF Transmit Power	Wi-Fi 2.4 GHz: +19.5dBm (11b), +18dBm (11g), +16.5dBm (11n); Wi-Fi 5GHz: +16.5dBm (11a), +15dBm (11n); BT: 10dBm (max.)
Min. Receive Sensitivity	Wi-Fi 2.4GHz: -99dBm (11b), -92dBm (11g), -89dBm (11n); Wi-Fi 5GHz: -91.2dBm (11a), -91.1dBm (11n); BT: -94.5dBm
Voltage	3.3V±10%
Peripherals	ADC, GPIO, I2S, I2C
Wi-Fi Power Consumption	Work Mode: 60 mA; Sleep Mode: 1 mA; Deep Sleep: 4uA
BT Power Consumption	Work Mode: 6.7-28.3mA; Standby Mode: 43uA; Idle & Sleep Mode: 6uA

Evaluation Board

Evaluating the ALXC28 controller using Alinket's Wi-Fi & BT software is agile and friendly by simply plugging the board into a PC using a standard JTAG and getting started on one of our demo application. The evaluation board includes:

Mini-USB connector; USB power supply

Rich peripheral interfaces

LEDs



Contacts

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Or visit us at www.alinket.com for more information

ALXC28

ALXC28	Wi-Fi 2.4G/5G & BT/BLE 4.0, Multi-Mode Controller, External antenna
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About Alinket Technology, INC.

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

