

ALX8XX – WLAN 802.11 a/b/g/n Wi-Fi Controller

The ALX8XX is a family of small, low-powered, self-contained, certified 2.4G single band or 2.4G/5G dual band network controllers. It can bring internet connectivity to your devices through various interfaces such as UART, USB, SPI, SDIO etc. These controllers are ideal solutions for device manufacturers who are in medical and healthcare, industrial control, home appliances and smart energy systems.

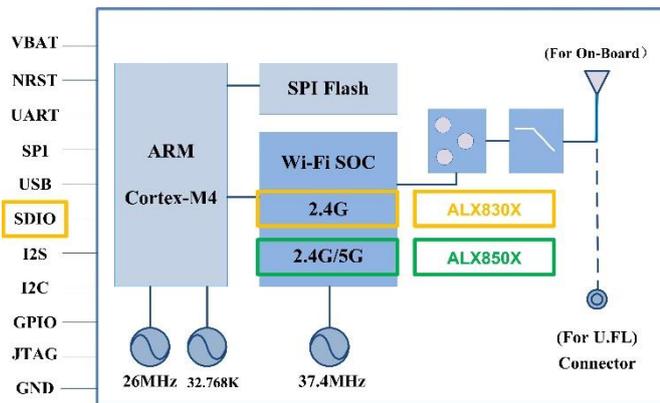
ALX830X

ALX850X



28mm (W) * 14.3mm (D) * 2.2mm (H)

System Architecture



ALX8XX Product Family

ALX830X	Wi-Fi 2.4G, Single Band Controller, Antenna On-Board or U.FL
ALX850X	Wi-Fi 2.4G/5G, Dual Band Controller, Antenna On-Board or U.FL

Contact

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Highlights

- WLAN 802.11 2.4G single band or 2.4G/5G dual band to meet different applications
- Rich host interfaces: UART, SPI, USB, SDIO
- Multi-Socket TCP/UDP connections
- Network configuration APP – Flashlink, AP & Server one time fast configure
- Support Wi-Fi STA & SoftAP dual mode
- Roaming (optimized trigger mechanism)
- Enterprise security – WPA/WPA2-Enterprise or 802.1x/EAPoL
- Over-the-Air (OTA) upgrade support
- Temperature: -30°C to +85°C
- ROHS/CE/FCC Certification

Applications

- Environmental & energy
- Medical and healthcare
- Industrial control and monitor
- Smart city, smart home
- Wireless sensing network
- Wireless audio & video
- Smart toys & robots
- And more...

ALX8XX Specification

Model		ALX830X	ALX850X
Size (mm)		28 x 14.3 x 2.2	
Wi-Fi Technology		IEEE802.11 b/g/n	IEEE802.11 a/b/g/n
Frequency Band		2.4G	2.4G & 5G
MCU	Core	ARM® Cortex®- M4 @100MHz	
	RAM	128KB	
	ROM	512KB	
Flash (On-Board)		1MB	
Interfaces		UART, SPI, USB, I2C, ADC, GPIO	
		SDIO (only ALX83X support)	
Tx Power (dBm) *	2.4G (b/g/n)	+18.5, +18, +14.5	+19.5, +18, +16.5
	5G (a/n)	/	+19, +16.5
Rx Sensitivity (dBm) *	2.4G (b/g/n)	-95, -90, -90	-95, -92, -92
	5G (a/n)	/	-90.5, -90.5
Power Consumption *		~75mA @ 500Kbps	
Antenna		X=A, On-Board Antenna X=B, External Antenna, support U.FL connector	
Voltage		3.3V (±10%)	
Temperature		-30°C to +85°C	

ALX8XX Software Features

Model		ALX830X	ALX850X
Work Mode	Transparent	Y	
	ACM *	Y	
	TM & ACM Mixed	Y	
Wi-Fi Security		WEP, WPA/WPA2 – Personal & Enterprise (EAPoL)	
Network Protocols		TCP/UDP, IP, HTTP, DHCP, DNS, CoAP, LWM2M	
Low Power Mode		Y	
Roaming		Y	
STA & SoftAP Mode		Y	
WeChat – AirKiss		Y	
Location Kit		Y	
Audio Kit		Y	

* 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.

