

ALX420X – BT4.1 (BR/EDR/LE) Dual Mode Controller

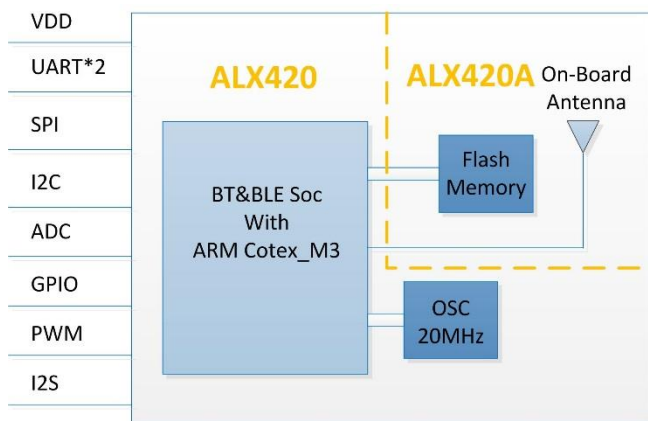
The ALX420X is a family of small, low-powered, self-contained, certified BT4.1 (BR/EDR/LE) dual mode controllers that provide simple HCI UART & PUART to Bluetooth connectivity. These controllers are ideal solutions for device manufacturers who are looking for wireless connectivity in medical and healthcare applications, industrial control equipment, home appliances and smart energy systems.



8mm x 8mm x 2mm

16mm x 10mm x 2.4mm

System Architecture



ALX420X Product Family

ALX420	BT4.1 Dual Mode Controller, No Antenna
ALX420A	BT4.1 Dual Mode Controller, On-Board Antenna

Contact

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Highlights

- Bluetooth 4.1 Dual Mode (BR/EDR/LE)
- Host interfaces: UART, SPI
- Support both Slave & Master mode
- Master mode supports up to 6 slaves
- BLE Supports Slave – Master - Slave bridge function or BLE Gateway
- BLE MIDI, HID, A2DP, AVRCP, MFi support
- BLE MIDI Time Latency < 10ms
- High receive sensitivity, coverage range 50 meters
- Over-the-Air (OTA) upgrade support
- Temperature: -30°C to +85°C
- ROHS/CE/FCC Compliant or Certified

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...

■ ALX420X Specification

Model		ALX420	ALX420A
Size (mm)		8 x 8 x 2	16 x 10 x 2.4
Bluetooth		BT 4.1 Dual Mode (BR/EDR/LE)	
Frequency Band		2402-2480 MHz	
MCU	Core	ARM® Cortex®- M3	
	RAM	352KB	
	ROM	848KB	
Flash (On-Board)		/	1MB
Interfaces		UART, SPI, I2S, I2C, ADC, GPIO	
Tx Power	BR/EDR	+12dBm/+9dBm	
	LE	+9dBm	
Rx Sensitivity	BR/EDR	-95.5/-89.5dBm *	
	LE	-96.5dBm *	
Power Consumption		~10mA @ 5Kbps *	
Coverage Range		50m *	
Antenna		No Antenna	On-Board Antenna
Voltage		3.3V (±10%)	
Temperature		-30°C to +85°C	

■ ALX420X Software Features

Model		ALX420	ALX420A
Work Mode	Transparent	Y	
	ACM *	Y	
Master Mode	Slave Only	Y	
	Master to Slave 1:1	Y	
	Master to Slave 1:N	/	
	Slave/Master/Slave Bridge or Gateway	/	
BLE Profile		MIDI, HID, HOGT (HID over GATT)	
Classic BT Profile		RFCOM, A2DP, AVRCP, iAP2 (MFi)	

* **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.

