

Amphenol

BLE Module

B102C



Overview

B102C is a Bluetooth module based on Realtek RTL8762CMF which is featuring BLE v5.0, and powerful ARM® Cortex™-M4 MCU. The embedded low power crystal improves the power consumption by enabling optimal power save modes.

B102C is delivered with Amphenol firmware that could support Bluetooth low Energy Serial Port Service, beacons, and simultaneous peripheral and central roles - all configurable from a host by using AT commands.

B102C offers full flexibility for customers who prefer to add their application to run on the built-in Cortex-M4. With 4Mbits FLASH, 4Kb eFuse and 160 KB SRAM.

Key Feature

- 0°C to +70°C
- BLE 5.0
- 160KB RAM and 4 Mbits Flash
- Compact size: 13.5 mm × 21.0 mm × 2.3 mm

Key Benefit

- 24 GPIOs, 2 UART and 2 SPI
- RTC supported
- OTA firmware update supported

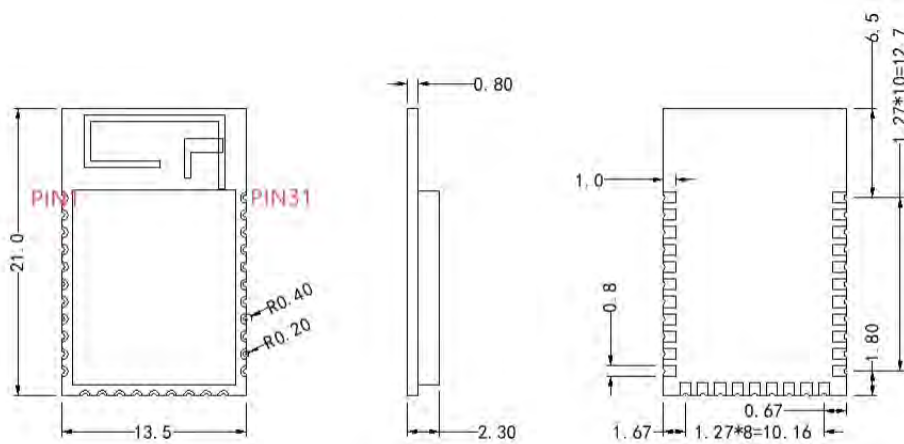
Application Interfaces

- ◆ IOT
- ◆ Low-Power Sensors
- ◆ Lighting Products
- ◆ Building Automation
- ◆ Fitness devices
- ◆ Wearable
- ◆ Mouse, Keyboard. Multi-touch track pad
- ◆ Remote control toys

Features

Bluetooth	
Version	BLE Version 5.0
RF	
Frequency	2400MHz~2483MHz
Modulation	GFSK at 1Mbps, 2Mbps data rates
Transmit power	+8dBm
Receiver sensitivity	-98dBm (BLE mode)
Antenna	Integrated PCB antenna or external antenna
Current Consumption	
TX only @ 0 dBm	15.6 mA
TX only @ +4 dBm	18.8 mA
TX only @ +7 dBm	21.8 mA
RX only @ 1 Mbps	14.6 mA
Power down	450nA
Deep Sleep mode	2.5 μ A
Electrical Character	
Flash	4Mb
eFuse	4Kb
Interface	SPI,UART,I2C
Power supply	3V to 3.6V
Operation Temperature	-30 to +85°C

Dimension



Unit: mm