

Amphenol

UWB Tag Module

U101B



Overview

U101B module contains UWB transceiver, high-pass filter and on-board UWB antenna. The module has the advantages of high level of integration and small size, and module has high precision and low power consumption. As a UWB RF unit, it can be widely used in various application scenarios and reduce development time for customers.

Key Feature

- -40°C to +85°C
- IEEE 802.15.4z
- Channel5 & Channel 9 supported
- High level integration
- Compact size:19.9mm × 10 mm × 2.3 mm

Key Benefit

- Integrated PCB antenna
- Multi-types interface supported
- Easy control by MCU and BLE

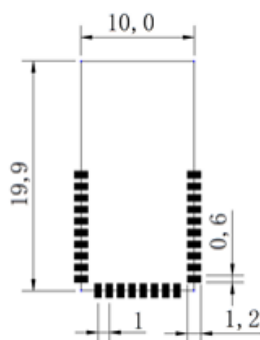
Application Interfaces

- ◆ Secure hands-free access
- ◆ Indoor Navigation
- ◆ Hands-free payments
- ◆ Credential sharing
- ◆ Item tracking
- ◆ Industry Control

Features

Standard	
Standard	IEEE 802.15.4z
RF	
Frequency	6.5 GHz to 8.0GHz
Date rates	850 kbps and 6.8Mbps
Transmit power	-21 dBm/MHz (TYP.)
Receiver sensitivity	CH5: -96dBm /MHz @ 850kbps -92.2dB dBm /MHz @ 6.8Mbps
	CH9: -97.2 dBm /MHz @ 850kbps -91.1dB dBm /MHz @ 6.8Mbps
Current Consumption	
CH5	25mA @ -41.3dBm/MHz VDD2 27mA @ -41.3dBm/MHz VDD3
CH9	25mA @ -41.3dBm/MHz VDD2 37mA @ -41.3dBm/MHz VDD3
RX	75 mA @CH5 90 mA @CH9
Deep Sleep mode	260nA in DEEP SLEEP mode
	850nA in SLEEP mode
Electrical Character	
Interfaces	SPI;GPIO;
Power supply	1.6V to 3.6V
Operation Temperature	-40 to +85°C

Dimension



unit: mm