B-UWB-MOD1

Data brief

Ultra-wideband module for high-precision indoor location

B-UWB-MOD1 with (top view) and without (bottom view) cover cap. Pictures are not contractual.

Product status link
B-UWB-MOD1

Features

- Surface-mounted device
- 17 × 18 × 2.6 mm
- Precision down to 10 cm
- Measurement rate adjustable up to 250 per second
- Range up to 600 m in LoS (line of sight)
- Data acquisition: UART link
- Control interfaces (secondary mode)
  - SPI (SPI_MISO, SPI_MOSI, SPI_CLK, SPI_CS)
  - Interrupt line
  - Module wakeup line
  - UART (UART_Tx, UART_Rx)
- GPIOs:
  - Up to 16 various alternate functions in the standalone mode
  - Up to 10 predefined functions in the secondary mode
- Channels: 1, 2, 3, 4 (3.25 to 4.75 GHz)
- Bandwidth: 500 MHz and 1 GHz
- Tx mean power: -41.3 dBm/MHz
- Tx peak power: -10 dBm/MHz
- Maximum sensitivity down to -118 dBm
- API for the ready-to-go STMicroelectronics protocol

Description

The B-UWB-MOD1 is an ultra-compact surface-mounted ultra-wideband (UWB) module,combining high precision and versatility to offer best-in-class performance. It fulfils a variety of use case requirements as the kernel of various adjustable device-centric and server-centric configurations.

B-UWB-MOD1 unique design makes it highly adaptive and easy to integrate into any type of electronic device together with its embedded API for firmware upgrade (mode selection, hardware interface selection, external device control).

B-UWB-MOD1-based location systems benefit from a significant operative experience and continuous improvement process to offer nearly boundless levels of customization without any software modification.

B-UWB-MOD1 is available as the core component of the B-UWB-MEK1 module evaluation kit.

1 Ordering information

B-UWB-MOD1 is only available as ultra-wideband module evaluation kit (B-UWB-MEK1).

The B-UWB-MOD1 UWB module embeds the STM32L476JE microcontroller based on the Arm® Cortex®-M4 processor.

Note: Arm is a registered trademark of Arm Limited (or its subsidiaries) in the US and/or elsewhere.

Revision history

Table 1. **Document revision history**

Date	Revision	Changes
15-Mar-2021	1	Initial release.