BT40N, an nRF5340 + nRF21540 module, $10.92 at 1K pcs, in stock

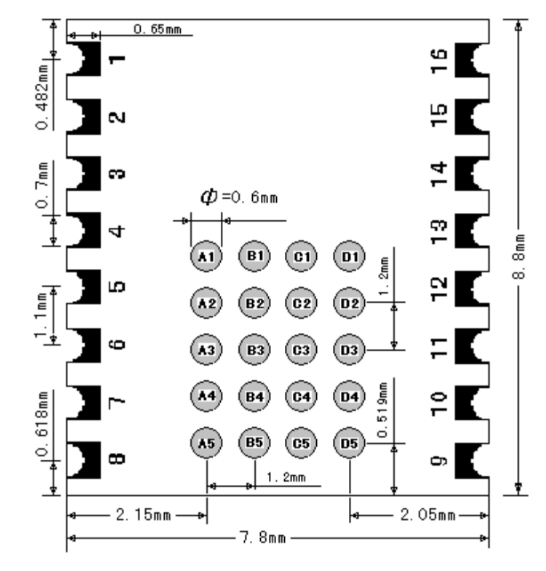
BC832, Micro BLE 5.3 Module for Wearable IoTs



BC832 with castellated/LGA hybrid pins

BC832 is a Bluetooth Low Energy (BLE) 5.3 with NFC module using Nordic nRF52832 SoC. A chip antenna is integrated.

Size of this micro module is 7.8x8.8x1.3mm. It has 16 castellated pins for applications needing limited number of GPIOs. Additional 20 LGA (Land Grid Array) pins provide access to all nRF52832 GPIO pins.



BC832

Specifications

- Nordic nRF52832 CIAA with ARM Cortex M4F
- 512 KB flash, 64 KB RAM
- Complete RF solution with integrated antenna
- NFC-A tag interface for Out Of Band pairing
- 128-bit AES HW encryption
- Serial Wire Debug (SWD)
- Nordic SoftDevice Ready
- Over-The-Air (OTA) firmware update

Up to 30 GPIOs, firmware configurable and Peripherals

- 12 bit/200KSps ADC, 8 configurable channels with programmable gain
- Type 2 near field communication (NFC-A) tag
- 64 level comparator
- 15 level low power comparator with wake-up from system OFF mode
- Temperature sensor
- 3x 4-channel pulse width modulator (PWM) units with EasyDMA
- Digital microphone interface (PDM)
- 5x 32 bit timers with counter mode
- Up to 3x SPI Master/Slave with Easy DMA
- Up to 2x I2C compatible 2-wire master/slave
- I2S with EasyDMA
- UART (CTS/RTS) with EasyDMA
- Programmable peripheral interconnect (PPI)
- Quadrature Demodulator (QDEC)
- AES HW encryption with EasyDMA
- Autonomous peripheral operation without CPU intervention using PPI and Easy DMA
- 3x real time counter (RTC)
- BC832: production will continue, not recommended for a new design.
- BC832-p: uses a nRF52832 CIAA G to support approtect. This module is for all new designs.

Power:

- Operation voltage: 1.7V to 3.6V
- Peak current: 5.4 mA RX, 5.3 mA TX at 0 dBm.
- 0.4 uA OFF mode, 1.8 uA idle

RF Performance

- RX sensitivity: -96 dBm
- TX power: -20 to +4 dBm in 4 dB steps
- Line of Sight Range: 50 meters (150 feet).

Miscellaneous

- Sizes: 7.8x8.8x1.3mm
- Operation Temperature: -40°C to +85°C
- Integrated shield to resist EMI

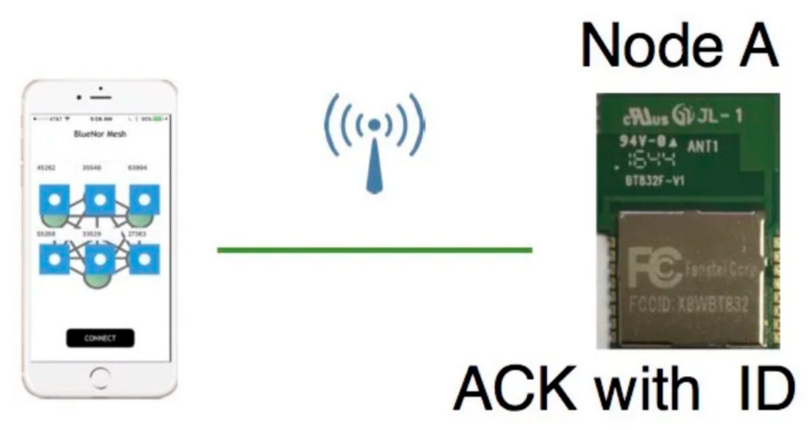
Certifications:

- FCC ID: X8WBC832
- IC (Industrial Canada) ID: 4100A-BC832
- Europe: Compliant
- Japan (TELEC): 201-200838/00
- QDID: 97989

Measuring Bluetooth Ranges in Mesh Networks

Bluetooth Mesh Evaluation board is preloaded with mesh protocol testing firmware. Up to 65536 nodes are supported. Each node can be addressed and controlled by smartphone.

Bluetooth range between a pair of BC832 is shorter than between a phone and a BC832. A different firmware is required to measure the range between a pair of BC832.



Measuring BC832 Bluetooth range with a smartphone

Procedures for measuring Bluetooth ranges.

1. Download BlueNor Mesh User Manual from the DOWNLOAD section below.
2. Download BlueNor Mesh APK from Google Play Store.
3. Follow **Procedures to Send Message in Mesh Network** in the manual.
4. Test for the maximum range to receive an ACK from node A.

Enclosure of final product will reduce Bluetooth range. Interference from other wireless sources, walls, and other physical objects will also reduce Bluetooth range. Bluetooth range in end user environment will be shorter.

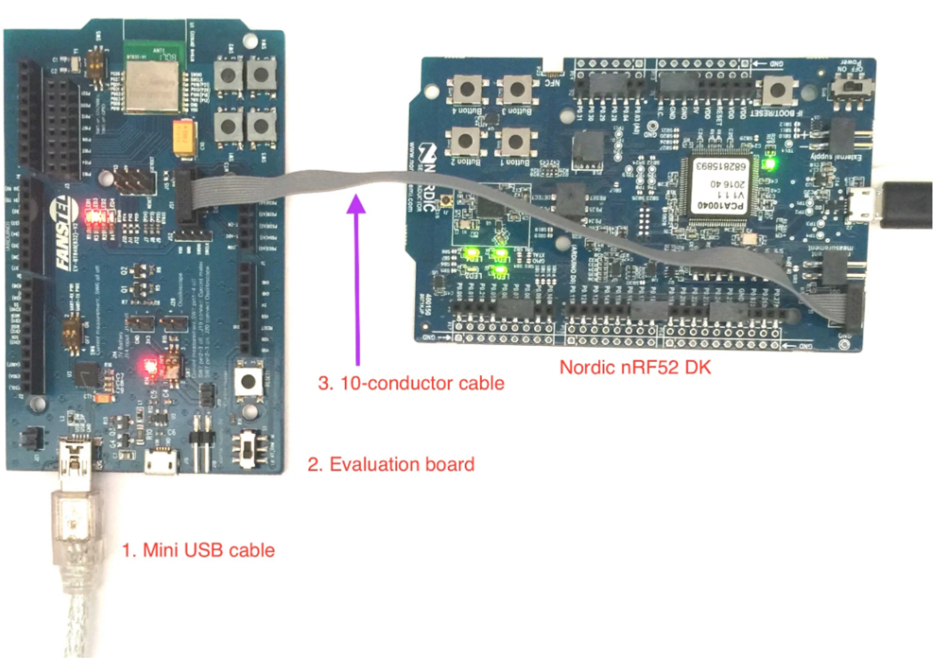
Datasheets, certificates, evaluation board schematics are available for download.

Evaluation Board EV BC832

EV BC832 is preloaded with BlueNor nRF5x application and SoftDevice S132 V5.0.0 Bluetooth 5 stacks. It can be used with Android app BlueNor nrf5x available at Google Play Store. You can send commands from an Android phone to toggle LED light on evaluation board. You can also send button pressing signal from evaluation board to Android device.

SDK and Android app source codes are available for download in the **Bluetooth 5 Codes** section of Download BlueNor Document. Other application codes can be downloaded from the same webpage.

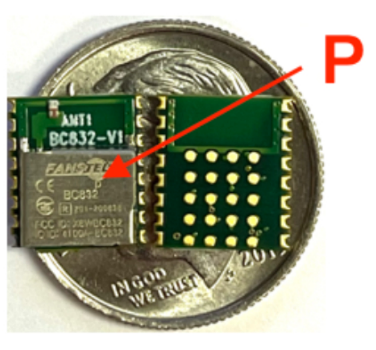
To load other codes or to develop your own, a Nordic nRF52 DK is required but not included.



Order Products

In reel quantity (1K pcs), unit price of BC832 is $5.74.

For production lead time and volume discount, please email Fanstel



BC832-p, micro Bluetooth 5.3, nRF52832 module, approtect version.

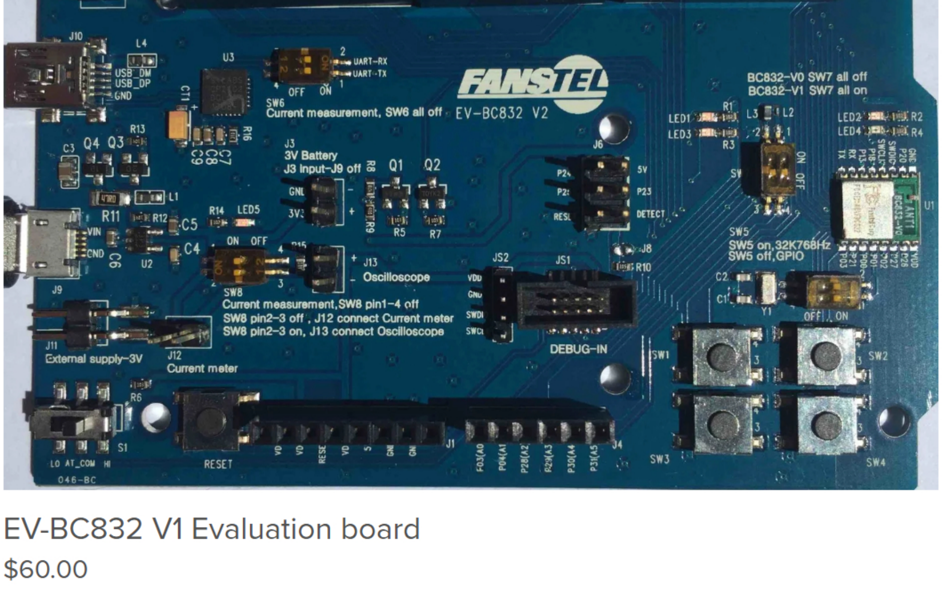
from $6.88

Micro nRF52832 module, size 7.8x8.8x1.3mm. It supports approtect.

Size:

Select Size

– 1 + ADD TO CART



EV-BC832 V1 Evaluation board

$60.00

30 GPIOs

DC to DC converter can be enabled

ADD TO CART