

## nRF52840 Low Power BLE Module with Ceramic Antenna

SKU 113990556

### Description

This product is Bluetooth Low Energy (BLE) module using Nordic NRF52840 SoC solution. The nRF52840 is designed around an ARM Cortex-M4 CPU with floating Point unit (FPU) and has 1MB flash with cache and 256kB RAM. As such it has the ability to support complex and demanding applications as a single chip solution. It offers a wealth of peripherals that include NFC, USB and multiple interface options including Quad SPI (QSPI). Security is paramount in today's IoT designs and the nRF52840 has high-end security features included to achieve best in class security with an ARM Cryptocell-310 cryptographic system on chip and a full AES 128-bit encryption suite.

### Features :

- Full Bluetooth 5 support for long radio
- Processing power and flash flexibility
- Multiprotocol radio
- Power Efficiency

## **Specificaitons:**

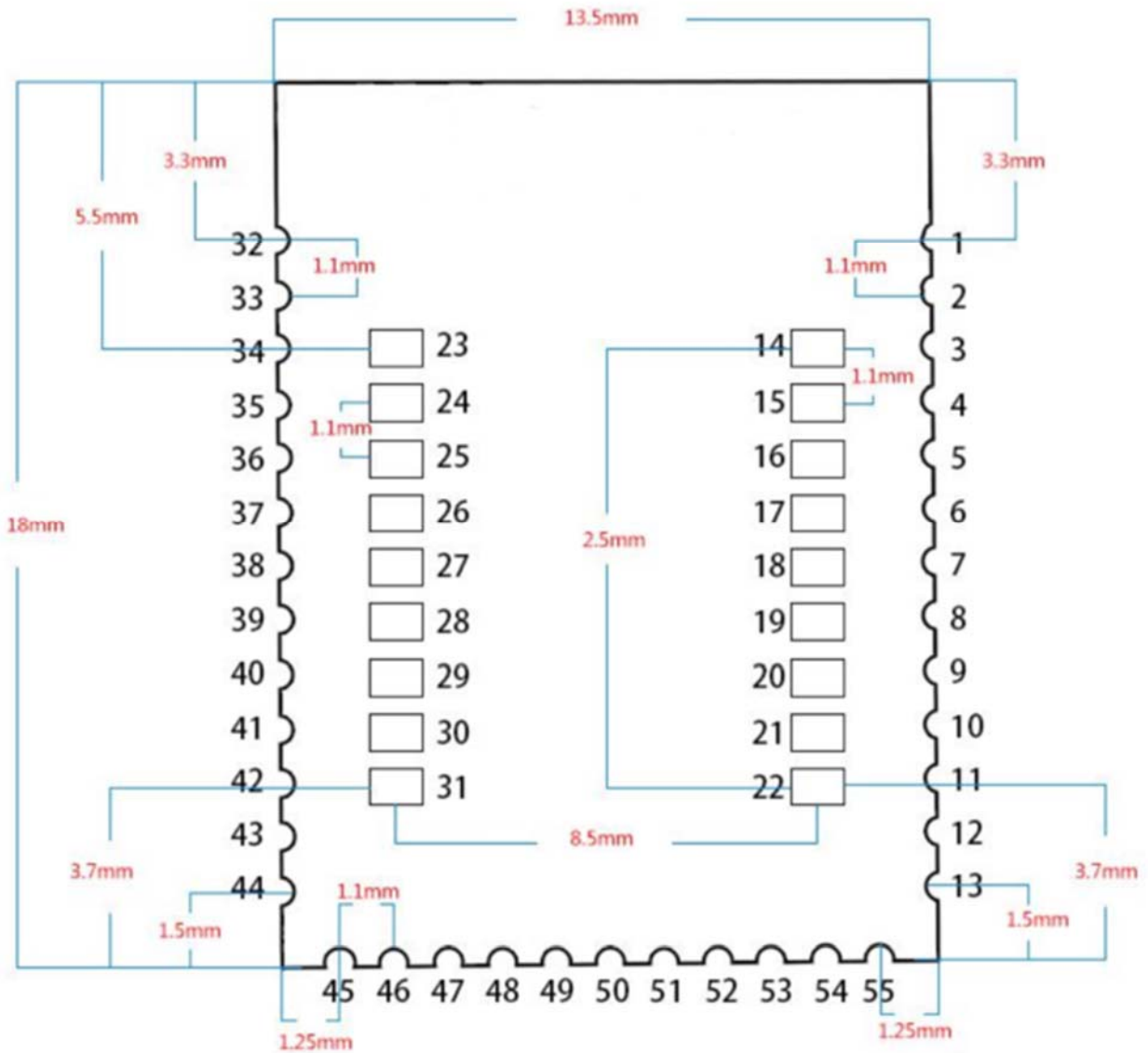
- Bluetooth 5 ready multi-protocol radio
  - 2Mbps
  - Long range
  - Advertising extensions
  - Improved coexistence(CSA#2)
- IEEE 802.15.4 radio support
  - Thread
  - Zigbee
- 32-bit ARM Cortex-M4F@64MHZ
- Up to 111dB link budget for Bluetooth long range mode
- Full-speed 12Mbs USB controller
- NFC Tag-A
- Software stacks available as downloads
- Programmable output power form +8dBm to -20dBm
- On-air compatible with nRF51,nRF24L and nRF24AP series
- High-precision RSSI
- 128 bit AES/ECB/CCM/AAR co-processor
- Single-ended antenna output (on-chip balun)
- Application development independent of protocol stack
- Wide supply voltage range +1.7V to 5.5V
- QSPI/SPI/2-wire/I<sup>2</sup>S/PDM/QDEC
- Programmable Peripheral Interface - PPI
- High speed SPI interface 32MHz
- Quad SPI interface 32MHz
- EasyDMA for all digital interfaces
- RAM mapped FIFO using EasyDMA
- 12bit/200K SPS ADC
- On-chip DC-DC buck converter
- Quadrature demodulator
- -96dBm Sensitivity for Bluetooth Low Energy
- Arm cryptoCell CC310 cryptographic security modele

## **Applications:**

- Internet of Things(IoT)
- SmartHome sensors
- Computer peripherals
- A4WP "Rezence" wireless charging
- Sports and fitness sensors and hubs
- Smart watches
- Interactive games
- Wearables
- Connected white goods
- Voice-command smart remotes
- Beacons

- Connected health products
- RC Toys
- Building automation and sensor networks

## Pin assignments



ECCN/HTS

ECCN	5A991.b
HSCODE	8517709000

## Technical Details

Dimensions	18mm x 14mm x 1.60mm
Weight	G.W 10g N.W 10g
Battery	Exclude
Chip	nRF52840 QIAAC0 Revision 1
BLE Antenna	Ceramic Antenna
BT Range	@500 meter for Bluetooth 5

## Part List

nRF52840 Module	1
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