

Datasheet

产品名称 (Product): USB security key

产品型号 (Model No.): G4

1. Overview

G4 is powerful, highly flexible ultra-low power Bluetooth low energy (BLE) module using Nordic NRF52840 SoC, with ARM Cortex-M4 CPU, which has floating Point unit (FPU), 1MB flash with cache and 256kB RAM. It offers a wealth of peripherals that include NFC, USB and multiple interface options including Quad SPI (QSPI) USB security key

It has high-end security features included to achieve best in class security with an ARM CryptoCell cryptographic system on chip and a full AES 128-bit encryption suite, it supports BLE mesh

Bluetooth 5.0 long range

Processing power and flash flexibility

Multiprotocol radio

Power Efficiency

Model	G4
Chip	nRF52840 QIAACO
Size	
BLE Antenna	PCB antenna
BT Range	500 meters for bluetooth 5.0
FCC ID	2AV6Q-G4

1.1. Application

- ☐ 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

1.2. Specifications

- Bluetooth 5 ready multi-protocol radio
 - 2Mbps
 - Long range
 - Advertising extensions
 - Improved coexistence (CSA #2)
- 32-bit ARM Cortex-M4F @ 64MHz
- Up to 111 dB link budget for Bluetooth long range mode
- Full-speed 12Mbps USB controller
- Software stacks available as downloads
- Programmable output power from +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)
- Software stacks available as downloads
- Application development independent of protocol stack
- Wide supply voltage range + 1.7V to 5.5V
- QSPI/SPI/2-wire/I²S/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 module
- QSPI/SPI/2-wire/I²S/PDM/QDEC

FCC WARNING STATEMENT

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: -- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.