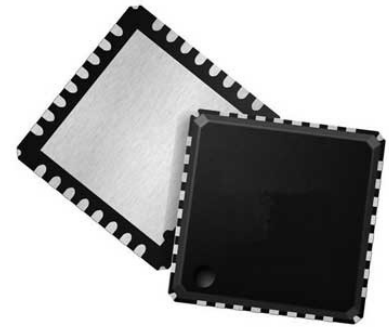


Bluetooth SMART SOC 2Mbps 3V 32-Pin QFN EP T/R**Manufacturer:** [STMicroelectronics, Inc](#)**Package/Case:** QFN32**Product Type:** RF Integrated Circuits**RoHS:** RoHS Compliant/Lead free **Lifecycle:** Active

Images are for reference only

[Inquiry](#)**General Description**

The BlueNRG-1 is a very low power Bluetooth low energy (BLE) single-mode system-on-chip, compliant with Bluetooth specifications.

The BlueNRG-1 extends the features of award-winning BlueNRG network processor, enabling the usage of the embedded Cortex M0 to run the user application code.

The BlueNRG-1 includes 160 kB of programming Flash memory, 24 kB of static RAM memory with retention (two 12 kB banks) and SPI, UART, I2C standard communication interface peripherals. It also features multifunction timers, watchdog, RTC and DMA controller.

An ADC is available to interface with analog sensors, and to read the measurement of the integrated battery voltage sensor. A digital filter is available to process a PDM stream.

The BlueNRG-1 offers the same excellent RF performance of the BlueNRG radio, and the integrated high efficiency DC-DC converter keeps the same ultra-low power characteristics, but the BlueNRG-1 improves the BlueNRG sleep mode current consumption allowing a further increase in the battery lifetime of the applications.

Key Features

Operating supply voltage: from 1.7 to 3.6 V

Integrated linear regulator and DC-DC step-down converter

Operating temperature range: -40 °C to 105 °C

High performance, ultra-low power Cortex-M0 32-bit based architecture core

Programmable 160 kB Flash

24 kB RAM with retention (two 12 kB banks)

1 x UART interface

1 x SPI interface

2 x I2C interface

14 or 15 GPIOs

2 x multifunction timer

10-bit ADC

Watchdog and RTC

DMA controller

PDM stream processor

Recommended For You

BlueNRG-232

STMicroelectronics, Inc

QFN32

BLUENRG-345AC

STMicroelectronics, Inc

QFN32

BLUENRG-355MC

STMicroelectronics, Inc

QFN48

BlueNRG-234

STMicroelectronics, Inc

WLCSP-34

BLUENRG-134

STMicroelectronics, Inc

WLCSP34

BlueNRG-248

STMicroelectronics, Inc

VFQFN48

BLUENRG-355AC

STMicroelectronics, Inc

QFN-32

BLUENRG-234N

STMicroelectronics, Inc

WLCSP-34

BLUENRG-355MT

STMicroelectronics, Inc

VFQFPN-48

BLUENRG-232N

STMicroelectronics, Inc

QFN-32

BLUENRG-345VT

STMicroelectronics, Inc

WLCSP-49

BLUENRG-332AT

STMicroelectronics, Inc

QFN-32

BLUENRG-355AT

STMicroelectronics, Inc

QFN-32

BLUENRG-345AT

STMicroelectronics, Inc

QFN-32

BLUENRG-355VT

STMicroelectronics, Inc

WLCSP-49