**KEY FEATURES & BENEFITS**

- Bluetooth LE 5.0 certification to ensure interoperability with the latest generation of smartphones and tablets
- State-of-the-art security and privacy features to protect against eavesdropping attacks during pairing stage
- Faster data transfer rate with data packet length extension to boost Over-The-Air firmware update in the field
- Extended battery life thanks to very high efficiency combined with ultra-low latency technology
- Excellent RF link budget (up to 96 dB)
- Accurate RSSI for power control
- Up to 8 dBm maximum output power
- Operating temperature up to 105 °C

**KEY APPLICATIONS**

- Smart watches, fitness, wellness and sport wearables
- Consumer medical
- Security/proximity
- Remote control
- Home and industrial automation
- Assisted living
- Mobile phone peripherals
- Lighting
- PC peripherals

Compliant with Bluetooth LE 5.0 specifications, ST’s BlueNRG-2 and BlueNRG-2N Bluetooth LE application and network processors ensure interoperability with the latest generation of smartphones and offer ultra-low current consumption with robust RF performance, increasing the battery lifetime of applications. ST’s Bluetooth LE stack adds state-of-the-art communication, security and privacy along with an Data Packet Length Extension for a faster data transfer.

### Bon deripsen vider

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Core</td>
<td>32-bit Cortex-M0 up to 32MHz</td>
<td>MCU Companion</td>
</tr>
<tr>
<td>Memory</td>
<td>256 Kbytes upgradable Flash (both Bluetooth LE stack and application code)</td>
<td>24 Kbytes ultra-low-leakage RAM with full-data retention Pre-loaded and upgradable Bluetooth LE stack</td>
</tr>
<tr>
<td>Peripherals</td>
<td>SPI, UART, PC, PDM stream processor, ADC, RTC, Timers, Watchdog and DMA controller</td>
<td>Selectable SPI or UART interface (via 1 GPIO)</td>
</tr>
<tr>
<td>Package</td>
<td>QFN48, 6x6mm, QFN32, 5x5mm, WLCSP34, 2.56x2.66mm</td>
<td>QFN32, 5x5mm, WLCSP34, 2.56x2.66mm</td>
</tr>
</tbody>
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### AVAILABLE TOOLS AND TECHNICAL DOCUMENTATION

**Evaluation kits**

- **BlueNRG-2**
  - STEVAL-IDB008V2
  - STEVAL-IDB009V1
  - STEVAL-BC002V1B
- **BlueNRG-2N**
  - X-NUCLEO-BNRG2A1

**SW tools**

- **BlueNRG-2**
  - STSW-BNRGUI
  - STSW-BLUENRG1-DK
  - STSW-BNRF001
  - STSW-BNRG-MESH
  - STSW-BLPROFILES
  - STSW-BNR1STLINK
  - STSW-BNRGFLASHER
- **BlueNRG-2N**
  - X-CUBE-BLE2
  - X-CUBE-BLE flushed

**User Manuals (*)**

- **BlueNRG-2**
  - UM2058
  - UM2109
  - UM2379
  - UM2406
- **BlueNRG-2N**
  - UM2667

(*): Browse BlueNRG-2 and BlueNRG-2N online to access the full list of documents (Application Notes, Programming Manuals)

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Order code: FLBNRG0720

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