



BCM2002X 2.4 GHZ BLUETOOTH™ FRAC-N RADIO

BCM2002X FEATURES

- **BQB qualified Bluetooth V1.1 radio transceiver**
- **Fractional-N frequency generation**
 - Supports 12, 13, 19.2, 19.68, or 19.8 MHz reference frequencies
- **Differential RF interface**
- **Typical -80 dBm receiver sensitivity under high interference environments**
- **Typical +3 dBm RF output power satisfied requirements for Class 2 operation**
- **Strong spurious emissions performance**
 - Minimal filtering required to meet mobile phone integration requirements
- **Excellent blocking performance**
 - Minimal filtering required to meet mobile phone integration requirements
- **Highly linear receiver exceeds Bluetooth specifications**
- **Meets FCC radiated emissions requirements without RF filtering or shielding**
- **Low power consumption**
- **Built-in digital RSSI**
- **Programmable PA gain**
- **8mm x 8mm, 52-pin LPCC standard package**

SUMMARY OF BENEFITS

- **Ideal for mobile phone integration**
 - Designed to handle the very harsh environment of mobile phones while maintaining high radio performance and optimizing overall phone performance.
 - In-band and out-of-band blocking performance significantly exceeds Bluetooth requirements.
 - Fractional-N frequency generation technology eliminates the need for a dedicated reference crystal, which is an additional source of RF noise.
- **Monolithic implementation in a standard digital CMOS process with minimal external components provides a manufacturable low-cost Bluetooth RF/IF solution.**
- **On-chip auto-calibration eliminates process variation across components and mitigates temperature variation, enabling the chips to be used in high-volume mobile phone applications.**
- **The BlueRF RXMODE2 unidirectional baseband interface supports connection to a wide variety of baseband devices.**
- **Applications:**
 - GSM, CDMA, GPRS, and WCDMA mobile phones

BCM2002X BlueRF Frac-N Radio Application Example

