

BlueMoon Single Cellular

PMB 8761

BlueMoon® Single Cellular is the optimized Bluetooth® wireless solution for cost-sensitive cellular phone applications. The advanced architecture out of the BlueMoon Single family combines minimal power consumption with excellent RF performance. The high integration level and a cost efficient VQFN package result in an extremely low board area of less than 80 mm² and industry leading cost of ownership.

Being compliant to Bluetooth Standard 1.2 BlueMoon Single Cellular is a reliable solution for the mobile future.

Applications

- Headset and Handsfree
- Dial-up networking
- Data transfer (e.g. object push)
- Synchronization
- Cordless telephony
- Advanced audio

Key Benefits

- True single chip
- Low power consumption
- Smallest size, highest integration, lowest BoM

Key Features

- Bluetooth 1.2 Support
 - Extended SCO
 - Adaptive frequency hopping
 - Fast connection setup
- Integrated ROM for lowest cost
- Programmable power-down mode
- Clock input for joint use with GSM/CDMA/3G clocks (11.5 to 46 MHz)
- Full automatic tuning and trimming (no manual or SW tuning)
- High RF sensitivity (-85 dBm @ 0.1% BER)
- On-chip 2.4 GHz RF driver amplifier with max. +7 dBm output power
- Automatic control of output power for reduced power consumption
- Compatible to available GSM/GPRS/CDMA base band solutions
- P-VQFN-48 package (lead-free/halogen-free)

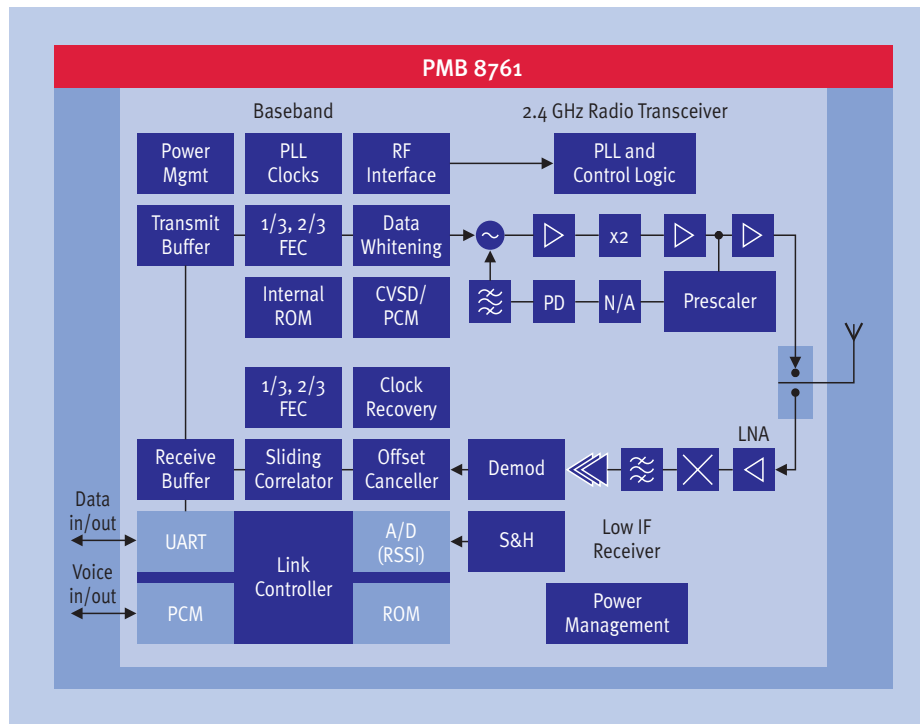
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Wireless Communication

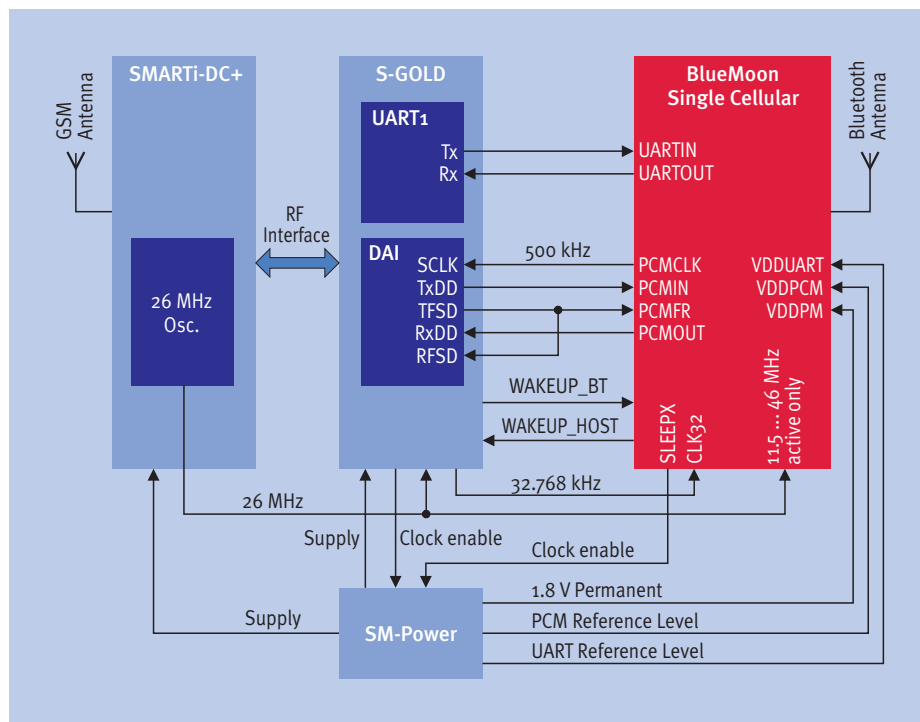


Never stop thinking.



Block Diagram

- UART (2, 4 wired)
- PCM (A-law, μ -law)
- External oscillator
- Control lines for Class 1 PA
- Wake up line
- External 32 kHz low power oscillator
- Integrated RF switch



Application Example Mobile Phone with Bluetooth

Due to its small package size and because of few external components, BlueMoon Single Cellular is the perfect IC solution for Bluetooth enabled cell phones. In this example, the BlueMoon Single Cellular is built into a GSM mobile phone design based on Infineon's cellular ICs. This solution perfectly meets cost and size requirements of the final product.

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Published by
Infineon Technologies AG,
 St.-Martin-Strasse 53,
 D-81669 München

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Template: pb_tmplt.fm/4/2004-01-01

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Ordering No. B114-H7988-G1-X-7600
 Printed in Germany
 PS 0204-5 NB