

# BlueMoon Universal

Next Generation  
Bluetooth Chip Family



## BlueMoon® Universal – the future generation.

The next step in Infineon's Bluetooth® wireless technology is about to become reality. A new scale in integration, miniaturization, and cost reduction will be the basis for the Bluetooth wireless connectivity to get into everybody's daily life.

The BlueMoon UniCellular 1 (PMB 8752) is perfectly suited for cellular phones offering high RF performance and lowest power consumption at unbeatable cost efficiency.

On top of that BlueMoon UniCellular 2 (PMB 8753) provides medium data rate capabilities up to 3 Mbit/s according to the upcoming Bluetooth Standard 2.0.

## Applications

- Headset and Handsfree
- Dial-up networking
- Data transfer
- Synchronization
- Cordless telephony
- Advanced audio

## Key Benefits

- True single chip
- Low power consumption
- Smallest size, highest integration, lowest BoM
- High data throughput
- Excellent RF performance

## Features

- ARM7TDMI-S™ ARM® CPU
- 0.13 µm standard CMOS technology
- Bluetooth 1.2 Support
  - Adaptive frequency hopping
  - Extended SCO
  - Fast connection setup
- Bluetooth 2.0 support (PMB 8753 only)
  - Medium data rate up to 3 Mbit/s
- Firmware up to HCI in integrated ROM
- Lowest power consumption
  - < 40 mA peak in active mode
  - < 20 µA in low power mode
- High RF sensitivity (-90 dBm @ 0.1% BER)
- Dynamic control of output power
- Package options (lead-free/halogen-free)
  - 7 x 7 mm P-VQFN-48
  - 5 x 5 mm PG-WFLGA-56

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[www.infineon.com/bluetooth](http://www.infineon.com/bluetooth)

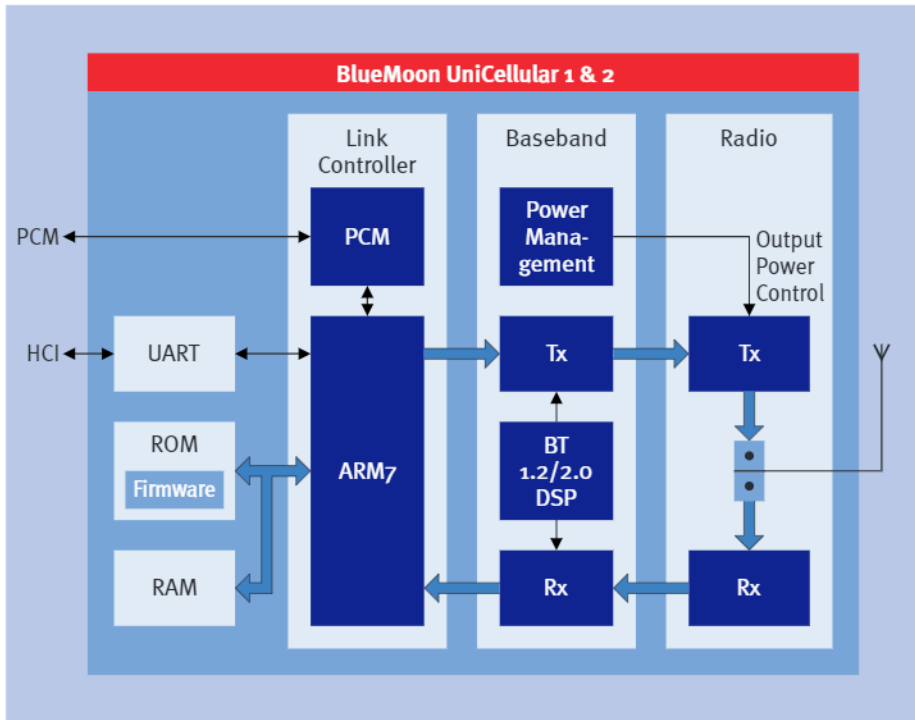
# Wireless Communication



Never stop thinking.

## Block Diagram

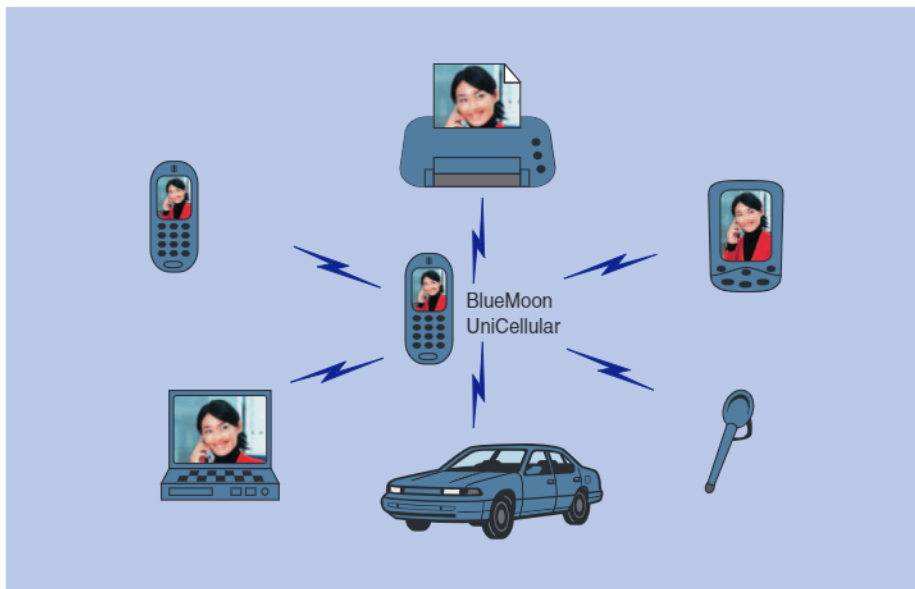
- ARM7
- Firmware in integrated ROM
- 2- or 4- wire UART-HCI (H4/H5)
- PCM audio (I<sup>2</sup>S mode; A-law,  $\mu$ -law)
- Bluetooth 1.2 (e.g. AFH)
- Bluetooth 2.0 (PMB 8753 only)



Type	Sales Code	Package
BlueMoon UniCellular 1	PMB 8752	P-VQFN-48, PG-WFLGA-56
BlueMoon UniCellular 2	PMB 8753	P-VQFN-48, PG-WFLGA-56

## Applications for the Personal Area Network (PAN)

- Mobile phone (voice & data)
- PC/PDA (data, sync, print)
- PC accessories (HID, print, imaging)
- Headset (advanced audio)



How to reach us:

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