eBMU PMB8753/2

BlueMoon® Universal Family extended to Embedded applications

BlueMoon® Universal Embedded – The complete single chip Bluetooth® system

THE SINGLE CHIP SYSTEM IC, eBMU, is a fully integrated *Bluetooth®* device with intergrated stack and profiles for data transfer applications. A basic profile set is integrated in ROM. Additional profiles, applications or command interfaces can be loaded from external memory.

THE HIGH PERFORMING eBMU offers outstanding range and efficient utilization of low power modes. It is compliant to BT 2.0 plus enhanced data rate and is equipped with a powerful ARM7 processor with capacity for advanced applications.

OUR LOW COST SOLUTION requires only a few external components. The 5x5mm BGA package offers a small PCB footprint. Reference design and design kit are available for quick and easy design-in.

OPTIMIZED SYSTEM partitioning with extensive patching capabilities of ROM code together with applications and complimentary profiles loaded from external memory provides a highly flexible and upgradeable solution.

STANDARD APPLICATION software like for example SPP profile and AT command handler, will be available. Customized application Software is offered to high volume customers.

Applications
- Consumer
- Automotive & Industrial
- Data transfer & synchronization
- Remote control
- Sensors
- Keyboard
- Mouse
- Gaming control

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Key Benefits
- User friendly system solution with *Bluetooth®* stack and profiles included
- High performance system offering data throughput up to 2,1Mbit/s
- Range up to 80meter with standard class2 operation
- Extensive patching capability offering large flexibility on
  - Enhancement of existing functionalities
  - Adding of new functionality
  - Bug fixing
  - Standard applications and BT qualified reference design resulting in accelerated time-to-market
- High performance processor system enabling replacement of external host solution with a completely embedded system for high volume applications
- Extended temperature range, up to -40°C to +85°C, making device suitable for wide range of applications

Key Features
- *Bluetooth®* power class 2
- Single-chip *Bluetooth®* system device
- *Bluetooth®* 1.2 and 2.0 + EDR
  - Enhanced data rate
  - Adaptive frequency hopping
  - Fast connection setup
- BT stack for data applications in ROM
- ARM7TDMI-STM ARM® CPU
- HID and RFCOMM profiles in ROM
- High RF sensitivity (-90 dBm@0.1% BER)
- Support for crystal or external clock
- GPIO Support for up to 25GPIO
- RoHS compliant

Communication Solutions

Never stop thinking

BlueMoon Universal Embedded
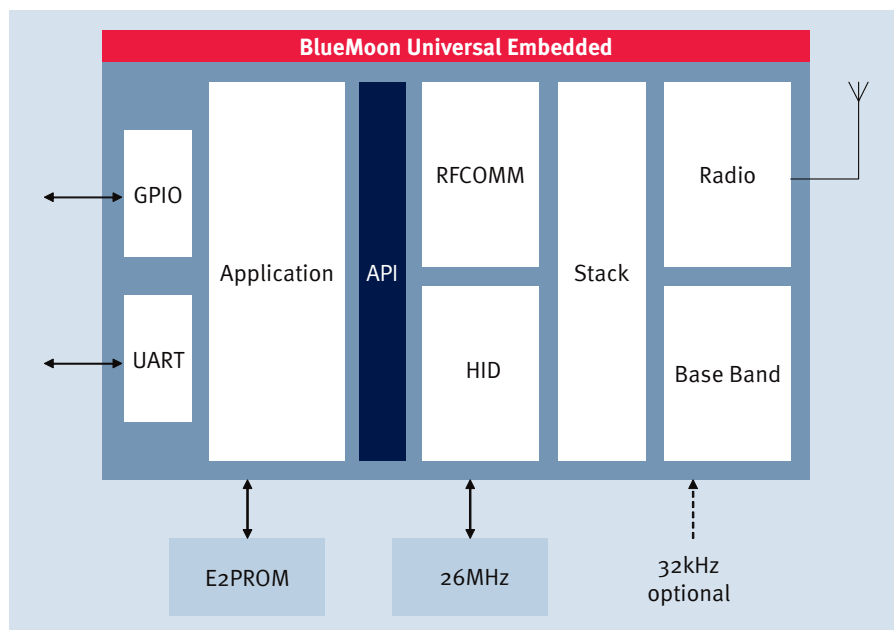
Block Diagram
- 0,13µm CMOS technology
- *Bluetooth*® 1.2 and 2.0+EDR
- Integrated stack
- Integrated HID and RFCOMM profiles
- API available for custom applications
- Standard applications:
  – SPP with AT commands
  – HID with keyboard application

Interfaces
- High speed UART – 3.25Mbps
- GPIOs with wake-up capability
- Single voltage power supply
- Support direct connect to 2xAA
- 50Ohm balanced antenna interface
- 26MHz crystal or 26MHz reference frequency
- Optional 32kHz low power clock

Development Kit
The Development Kit is a complete platform for development and evaluation
- SW for standard applications
- AT command Interface tool
- HCI command Interface tool
- 2 HW boards
- UART and USB interfaces
- Reference design
- Documentations

Product Summary

Type	Sales Code	Package
eBMU	PMB8753/2	PG-WFSGA-65
Development Kit	eBMU Kit SPP	
	eBMU Kit HID	