

eBMU PMB8753/2 SPP-AT

BlueMoon® Universal Family

Extended to Embedded Data Transfer Applications

THE SINGLE CHIP SYSTEM IC, eBMU, is a fully integrated Bluetooth® device with integrated stack for data transfer applications. Bluetooth stack layers up to RFCOMM are integrated in ROM. Additional profiles, applications or command interfaces are 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.

The low-cost system requires only a few external components. The small BGA package offers a small solution footprint. Reference design and design kit are available for quick and easy design-in.

The 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.

Complete system SW, this product supports the Serial Port Profile (SPP) with an extended AT command-set, supporting both Device A and Device B role configuration. HID profile and other applications can be offered as Customized Software on request.

Applications

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

Main Features

- Single-chip Bluetooth system device
- Low BOM no external Flash memory
- Ready Bluetooth Qualified Product v2.0 + EDR
 - Enhanced data rate
 - Adaptive frequency hopping
 - Fast connection setup
- BT stack up to RFCOMM in ROM
- SPP Device A and B support
- Low Power Mode
- SW application upgrade over UART
- Security mode
- GPIO support for up to 8 GPIO
- Bluetooth Power Class 2
- High RF sensitivity (-88dBm @ 0.01% BER)
- RoHS compliant

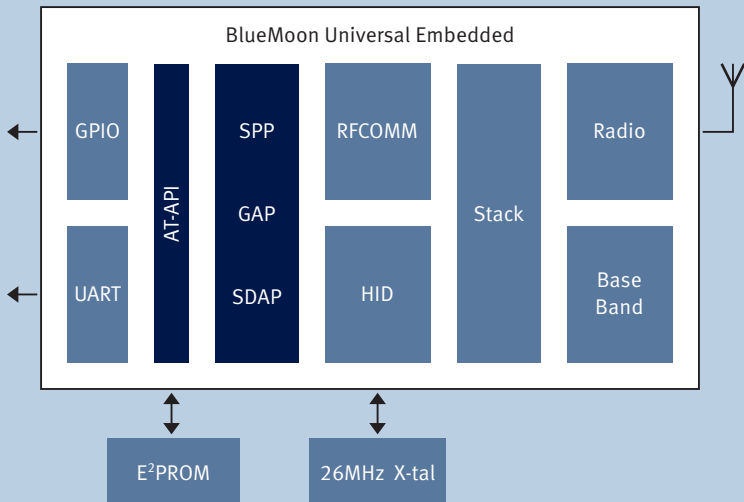
Key Benefits

- Complete system solution including BT stack plus SPP, GAP, SDAP profile and AT command set
- Minimal host application
- Patching capability offering large flexibility on
 - Enhancement of existing functionalities
 - Bug fixing
- Standard applications offering accelerated time to market
- High performance processor system enabling replacement of external host solution with a completely embedded system for high volume applications
- BT qualified reference design
- Support for crystal or external clock
- Specific Production mode

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Block Diagram



BlueMoon Universal Embedded

- 0.13µm CMOS technology
- Bluetooth 2.0 + EDR
- Integrated Stack
- Integrated RFCOMM protocol
- AT command interface available
- Standard applications available

Interfaces

- High speed UART – 3.25Mbps
- GPIOs with wake-up capability
- Single voltage power supply
- Support direct connect to 2xAA
- 50Ω 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 interface
- USB to UART converter
- Reference design
- Documentation

Product Summary

Type	Sales Code	Temperature Range	Package
eBMU	PMB8753/2 V1.01	-40C to +70C	PG-WFSGA-65
	PMB8753/2 V1.11	-40C to +85C	

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