



# eUniStone PBA31308/2 SPP-AT

## BlueMoon® Universal Family

### Extended to Embedded Data Transfer Applications

THE COMPLETE SPP SYSTEM MODULE, eUniStone is a fully integrated Bluetooth® device including stack and Serial Port Profile for data transfer applications. With an easy command interface on top enabling an easy in-design and minimal Host requirements.

The ready to use Bluetooth System Module offers a qualified solution for accelerated time-to-market. The high level of integration results into a competitive module footprint providing an optimized pad layout for easy design-in. The eUniStone has been designed with the focus on low cost, long range and easy design-in.

The high performing eUniStone 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.

The low-cost system requires no external components except the antenna. The small module offers a small solution footprint. Reference design and design kit are available for quick and easy design-in.

The optimized system partitioning with patching capabilities of ROM code together with applications and complimentary profiles loaded from external memory provides a highly flexible and upgradeable solution.

The complete eUniStone SYSTEM SW includes 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

#### Main Features

- Complete Bluetooth system device
- Pre qualified Bluetooth product v2.0 + EDR
  - Enhanced data rate
  - Adaptive frequency hopping
  - Fast connection setup
  - On-module Bluetooth reference crystal
  - On-module E²PROM for Bluetooth device data and SW

#### Main Features

- SPP profile implementation
- SPP Device A and B support
- SW application upgrade over UART
- GPIO Support for up to 8 GPIO
- Bluetooth Power Class 2
- High RF sensitivity (-86dBm @ 0.01% BER)
- RoHS compliant

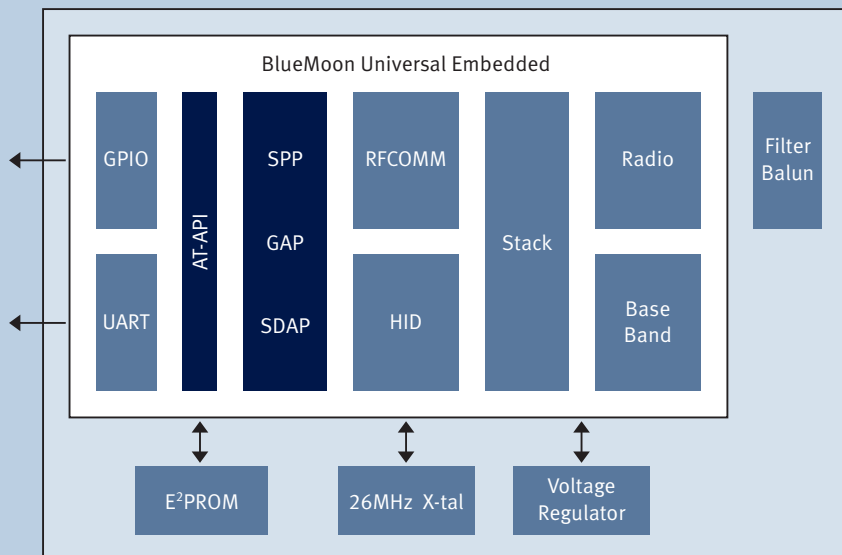
#### Key Benefits

- Complete system solution including BT stack with SPP, GAP, SDAP profile and AT command set
- One-Stop-Shop at Infineon
  - Module directly from IC and software manufacturer
  - Optimized value-chain (lead time, cost, responsibility)
- No external components needed except antenna
- Pre-qualified for Bluetooth, FCC and R&TTE
- Patching capability offering large flexibility on
  - Enhancement of existing functionalities
- Bug fixing
- High performance processor system enabling minimal requirements of external host solution
- Specific Production mode
- Relaxed pad pitch - 1.2mm - easy design
- Infineon provides roadmap from module to chip-on-PCB
- 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 profile
- AT command interface available
- On-module E²PROM
- On-module 26MHz crystal
- On-module balun/filter
- On-module voltage regulator
- 50Ω Antenna interface

### Interfaces

- High speed UART – 3.25Mbps
- GPIOs with wake-up capability
- Single voltage power supply
- Support direct connect to 2xAAA
- 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	Description	Temperatur Range	Package
eUniStone	PBA31308/2 V1.01	-40C to -70C	Module 8.7 x 11.6mm
	PBA31308/2 V1.11	-40C to +85C	54 pads at 1.20mm pitch

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