

# Bluetooth® micro-sized modules

Fast, flexible, affordable, new Bluetooth solution



The new micro-sized Blue Modules offer the most advanced Bluetooth technology on a highly reliable and affordable platform.

The SPBT2532 Blue Module series is:

- Fast – high data throughput
- Flexible – offering several serial interface options
- Micro-sized – small form factor (10 x 13 mm footprint)

The SPBT2532 Blue Modules represent a cost-effective standalone solution for users requiring a simple wireless link.

## Key features

- Versatile Bluetooth module solutions with on-board STM32 microprocessor, memories (Flash, RAM) and EDR Bluetooth radio transceiver
- SPBT2532 modules compliant with Bluetooth v 2.1 simplify pairing process, so increasing security
- Single 3.3 V supply voltage with embedded regulators
- General-purpose modules
- Suitable for a number of applications through SW profile choice

## Benefits

- Much faster data throughput
- Very small form factor
- More serial interface flexibility/options
- Supports many customizations and custom applications

## Software tools

### AT software for cable replacement

- Embedded Bluetooth AT firmware implements all Bluetooth core protocols and serial port profile (SPP) to replicate UART data traffic over a Bluetooth link. The module can be fully controlled using AT commands, so it is the ideal solution for cable replacement.

### Other SW configurations

- Modules soon to be equipped with medical device profile
- Other popular Bluetooth profiles, such as OBEX and DUN, also available

The Blue Module series establishes a wireless bridge between your device and any other Bluetooth-enabled device.

The micro-sized Blue Modules come with different types of interface (fast UART, SPI, I<sup>2</sup>C) and in a small form factor. They can be used in applications such as notebook PCs and accessories, PDAs, access points and industrial controls, as well as for portable medical equipment.

The SPBT2532 series is designed to ensure maximum performance in a minimum space and includes 4 general-purpose I/O lines, several serial interface options, 4x 12-bit analog-to-digital inputs and up to 2 Mbit/s data throughput.

The SPBT2532 series will include modules for short and long range (class 2 and class 1) profiles, with and without antenna, embedding different SW profile subsets, provided by ST partner Amp'edRF.

On the ST website, you will find the module datasheet, related evaluation board information and updates on new module availability.

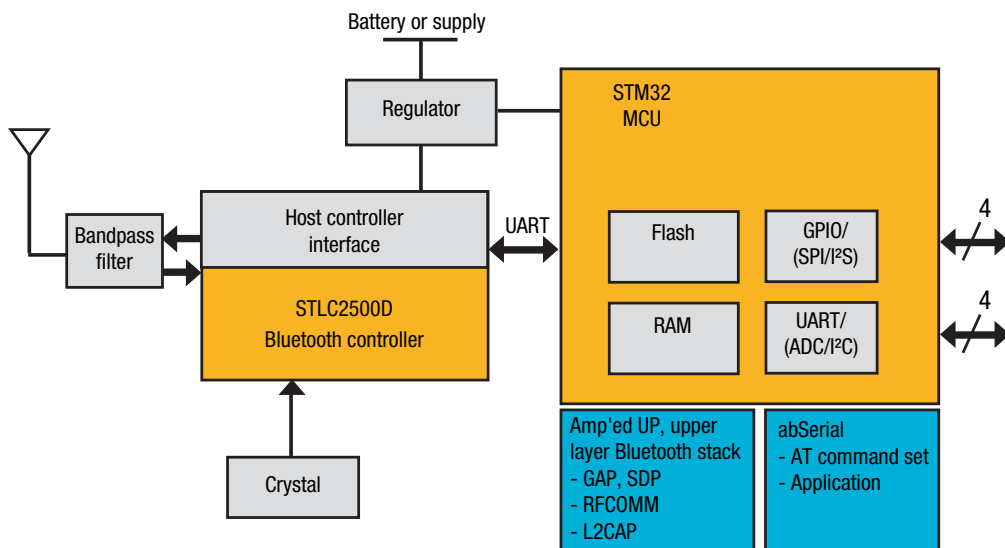
The first module is the SPBT2532C2.AT, a class 2 module without antenna that embeds SPP profile and AT commands. The interfaces dedicated to cable replacement are the UART and 4 GPIOs.

Customized firmware designed by Amp'edRF supports peripheral device interaction, power optimization, security, and other proprietary features.

## Applications

- Cable replacement
- Medical equipment
- Personal computers and accessories
- Laptop PCs and accessories
- Portable devices and accessories
- HID devices (keyboards, mice, joysticks, game controllers)
- Internet access points
- Industrial controls
- Security systems
- Portable hi-fi equipment

## Block diagram



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