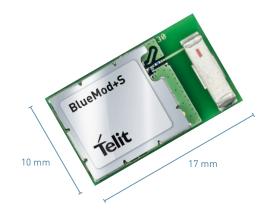


# BlueMod+S

Bluetooth Low Energy Single Mode Module





## Product description

The BlueMod+S is a Bluetooth 4.1 Smart (BLE) solution designed to connect ultra low power wireless sensors and peripherals to Bluetooth v4.x equipped smartphones, tablets, and PCs with low energy consumption.

The module offers several features such as terminal I/O and GATT peripheral, GATT central with terminal I/O peripheral and Automation profile with ADC peripheral.

#### **Profiles**

Terminal I/O works similar to SPP and offers a simple point-to-point connection, including flow control over-the-air, for use cases that require low data rate and transparent data exchange. It is controlled by an AT command interface. The module also comes with a generic GATT interface. This interface allows the use of any Bluetooth Low Energy standard profile as well as customer specific proprietary profiles.

The Automation I/O profile is a standardized Bluetooth profile and supports on the BlueMod+S one analog signal and up to 8 GPIOs. Sensors with an analog interface can be directly connected to the A/D converter of theBlueMod+S. Telit provides an end to end solution for communication with iOS, Android and PC, so the sensor data can be easily send to the remote side. The firmware is designed for hostless battery driven operations and can be configured and updated over the air. The firmware also allows over the air GPIO access to control and read up to 8 GPIO signals or can automatically generate status notifications in case of a GPIO signal change. The functionality includes over the air access to measure voltage or can automatically generate status notifications in case A/D converter voltage rises/falls above/below a defined level. In addition to the Automation I/O profile the modules comes with the Telit proprietary SCIS profile, which offers an over-the-air configuration interface for the module.

GATT Central and Terminal I/O Peripheral allows connecting up to 3 GATT based peripherals in parallel. These peripherals can be based on standardized GATT profiles or custom GATT profiles. At the same time the module can act as a Terminal I/O peripheral itself to easily transfer data to a smartphone, tablet or PC. The module is able to process broadcast information from (i)Beacons and pass the information to the host. This includes the RSSI value for location based services.

## **Key Benefits**

- Bluetooth Smart module (BLE)
- Bluetooth Qualification 4.1
- CE, FCC, IC and KCC qualified
- Terminal I/O Peripheral and GATT server Sample Code for iOS and Android
- GATT Central and Terminal I/O peripheral in parallel
- Automation I/O Peripheral: Cable Replacement for Sensors

### Family Concept

The BlueMod+S and BlueMod+SR as well as the BlueMod+S42 modules are mechanically and electrically compatible. The modules also have compatible software interfaces, and can easily be replaced by each other without additional changes to the hardware or software.

# Combine your BLE module with

Cellular modules



GNSS modules



www.telit.com

**Complete, Ready to Use Access** to the Internet of Things







CONNECTIVITY IOT PLATFO

# BlueMod+S

#### **Profiles**

- Terminal I/O and GATT Peripheral
- GATT Central and Terminal I/O peripheral in parallel
- Automation I/O Peripheral

#### Environmental

- LGA pads
- Ceramic antenna
- Length x Width x Height: 17x10x2.6 mm
- Temperature range: -25°C to +75°C

#### Interfaces

- UART: 9600 bps 921600 bps (asynchronous)
- Other interfaces: I2C, SPI
- GPIOs: Up to 19

## **Approvals**

- Bluetooth Qualification 4.1
- CE, FCC, IC, KCC

# Electrical & Sensitivity

- Power supply: 1.8V to 3.6V
- RF-Power (max): -30 to +5 dBm (software adjustable)
- Power consumption Transmission: 12 mA
- Power consumption stby: 21 μA
- Power consumption deep sleep: 3 μA

#### Tools

- BlueEva+S: evaluation kit
- BlueDev+S: development kit
- BlueDev+S/ANT: development kit



#### Join the Telit Technical Forum

For a quicker and more rewarding integration experience join the Telit Technical Forum. There you can browse the first open forum covering all IoT topics, get direct support by region [EMEA, North America, Latin America, APAC], take part in this quickly growing IoT community and exchange experiences.

Telit reserves all rights to this document and the information contained herein. Products, names, logos and designs described herein may in whole or in part be subject to intellectual property rights. The information contained herein is provided "as is". No warranty of any kind, either express or implied, is made in relation to the accuracy, reliability, fitness for a particular purpose or content of this document. This document may be revised by Telit at any time. For most recent documents, please visit www.telit.com

Copyright © 2016, Telit
\* Copyright © 1990-2016, Python Software Foundation

Telit Communications S.p.A.
Via Stazione di Prosecco, 5/B
I-34010 Sgonico (Trieste), Italy
Phone +39 040 4192 200
Fax +39 040 4192 383

E-Mail EMEA@telit.com

Telit Wireless Solutions Inc. 3131 RDU Center Drive, Suite 135 Morrisville, NC 27560, USA

Phone +1 888 846 9773 or +1 919 439 7977
Fax +1 888 846 9774 or +1 919 840 0337
E-Mail NORTHAMERICA@telit.com

Telit Wireless Solutions Inc. Rua Paes Leme, 524, Conj, 126 05424-101, Pinheiros São Paulo-SP-Brazil Phone +55 11 3031 5051 Fax +55 11 3031 5051

E-Mail LATINAMERICA@telit.com

Telit Wireless Solutions Co., Ltd. 8th Fl., Shinyoung Securities Bld. 6, Gukjegeumyung-ro8-gil, Yeongdeungpo-gu Seoul, 150-884, Korea

Phone +82 2 368 4600 Fax +82 2 368 4606 E-Mail APAC@telit.com







[06.2016]