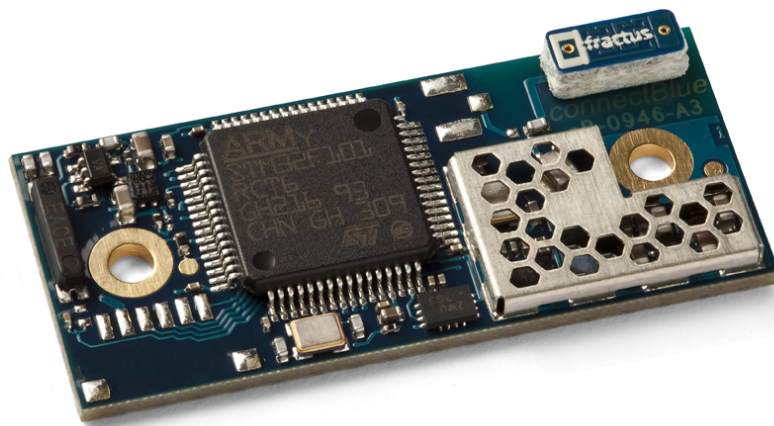


# Bluetooth Serial Port Module



## Product Brief OEM Bluetooth Serial Port Module OBS419

The Bluetooth Serial Port Module 419 supports the Serial Port Profile (SPP) for fast and secure transparent serial data transmissions. The module has a small form factor, low build height, and supports Bluetooth v2.1+EDR. With the Bluetooth stack embedded you can be up and running quickly as there is no need for a driver or stack in your host. The module is fully Bluetooth qualified and radio type approved for US, Europe, Japan and Canada. It also has the connectBlue standard interface for compatibility over time and radio technologies.

- Embedded Bluetooth stack (SPP, DUN, PAN)
- Bluetooth v2.1+EDR Qualified as End Product
- Electrically, mechanically and software compatible with OBS411
- Supports SPP connections to Android devices
- High Speed UART
- Throughput up to 950 kbps
- Easy configuration by AT commands
- Radio type approved for US, Europe, Japan and Canada
- Compliant with EMC, Safety and Medical standards
- connectBlue Low Emission Mode™
- Wireless Multidrop™ with up to 3 slaves
- Extended Data Mode™ for separated multipoint data channels
- Internal or external antenna
- Industrial temperature range -30°C to +85°C\*
- Possible to load customer specific configuration in production
- Individually tested in production

# Technical Data - OEM Bluetooth Serial Port Module OBS419

## Wireless Standard

Classic Bluetooth technology

## Standard Specification

Bluetooth v2.1+EDR Qualified and Listed as Product Supported Bluetooth Profiles:

- Serial Port Profile (SPP)
- Dial-up networking Profile (DUN GW, DUN DT)
- Personal Area Networking Profile (PAN) roles PANU & NAP

## Radio, Chipset and Stack

Internal antenna (range & max output power incl. antenna): 75m & 6dBm

External antenna (range & max output power incl. antenna): 150m & 8dBm

2.4 GHz channels: 1-79

Radio: Texas Instruments CC2560

Microprocessor: ST STM32F10x

Stack: connectBlue Embedded Bluetooth Stack

## Type Approvals

Europe (ETSI R&TTE)

US (FCC/CFR 47 part 15 unlicensed modular transmitter approval)

Canada (IC RSS)

Japan (MIC - formerly TELEC)

## Interface

UART Logic-level

Via external transceiver, RS232 and RS422/485 option

Max baud rate: 1.25 Mbit/s

Support for non-standard baud rates

Flow control: CTS/RTS (hardware) or none

9 digital I/O pins

## Features

Throughput: 950 kbps

All software embedded in the module (Bluetooth stack and application)

Configurable via AT commands (via Bluetooth or serial port)

Maximum number of slaves: 3 (point-to-point, point-to-multipoint)

connectBlue Low Emission Mode™ for not disrupting other 2.4GHz radios

Extended Data Mode™ for separated multipoint data channels (different data can be sent to / received from each slave)

Simple Pairing

Quality of Service (QoS)

Repeater functionality for extended range

Supports SPP/PAN Bluetooth connection with Google

Android OS devices

## Power

Power supply voltage: 3.0 - 6.0 VDC

Current consumption (minimum): 0.63 mA @3.0V

Current consumption (average Tx): 20 mA @3.0V

## Connectors

Board-to-board connector

Solder land pads

JST 6-pin connector (optional)

U.fl. antenna connector (external antenna version only)

## Mechanical

Operating temperature: -30°C to +85°C\*

Machine mountable

Mounting holes

Dimensions: 16x36x3 mm

Weight: 2 g

## Certifications and Compliance

R&TTE Directive 1999/5/EC:

- Effective use of frequency spectrum: EN 300 328
- EMC: EN 301 489-1, EN 301 489-17, EN 61000-6-2
- Health and safety: EN 50371, EN 60950-1 and/or IEC 60950-1

Medical Electrical Equipment:

- IEC 60601-1-2

## Article numbers

For article number descriptions, please see [www.connectblue.com](http://www.connectblue.com)

\* JST version limited to -25°C to +85°C



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