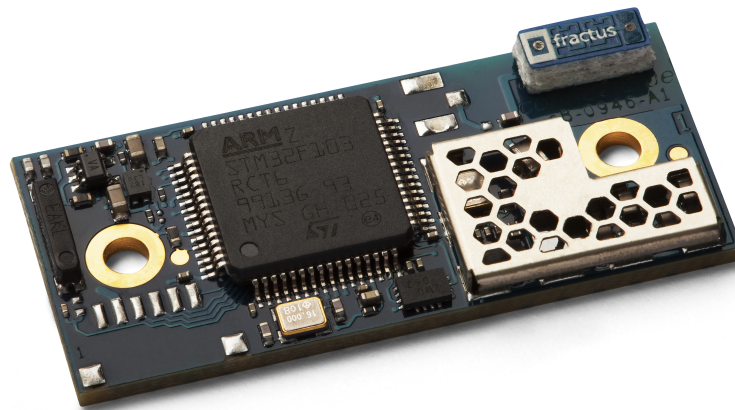


Bluetooth Serial Port Module



Product Brief OEM Bluetooth Serial Port Module OBS421

The Bluetooth Serial Port Module OBS421 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. Via an upcoming firmware upgrade, the module is prepared for Bluetooth v4.0 including Bluetooth low energy technology. 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 Europe, Japan, US 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 (Bluetooth v4.0 prepared via firmware upgrade)
- Android support
- Mid-range (0-300m)
- High Speed UART
- Very high throughput and low latency
- Easy configuration by AT commands
- Radio type approved for Canada, Europe, Japan and US
- Compliant with EMC, Safety and Medical standards
- connectBlue Low Emission Mode™
- Wireless Multidrop™ with up to 7 slaves
- Extended Data Mode™ for separated multipoint data channels
- Internal or external antenna
- Industrial and Automotive temperature range -30°C to +85°C*
- Possible to load customer specific configuration in production

Technical Data - OEM Bluetooth Serial Port Module OBS421

Wireless Standard

Classic Bluetooth technology

Standard Specification

Bluetooth v2.1+EDR (Qualified and Listed as Product)
Bluetooth v4.0 prepared via firmware upgrade

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): 300m & 11dBm

External antenna (range & max output power incl. antenna): 300m & 13dBm

2.4 GHz channels: 1-79

Radio: Texas Instruments CC2564

Microprocessor: ST STM32F

Stack: connectBlue Embedded Bluetooth Stack

Type Approvals

Europe (R&TTE)

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

Canada (IC)

Japan

Interface

UART Logic-level

Via external transceiver, RS232 and RS422/485 option

Max baud rate: 1.5 Mbit/s

Support for non-standard baud rates

Flow control: CTS/RTS (hardware) or none

9 digital I/O pins

Features

Throughput: 1.3 Mbps

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

Configurable via AT commands (via Bluetooth or serial port)

Maximum number of slaves: 7 (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)

Customer developed applications can be embedded

Repeater functionality for extended range

iPhone/iPod touch/iPad and Android support:

- Via custom design, implementable support of SPP/PAN Bluetooth connection with iOS devices with firmware for use by MFi licensees
- Supports SPP/PAN Bluetooth connection with Google Android OS devices

Power

Power supply voltage: 3.0 - 6.0 VDC

Current consumption (minimum): 0.6 mA @3.0V

Current consumption (average Tx): 44 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 (2 mm height on request)

Weight: 2 g

Certifications and Compliance

R&TTE Directive 1999/5/EC:

- Effective use of frequency spectrum: EN 300 328 V1.7.1 (2006-10)
- EMC: EN 301 489-1 V1.8.1 (2008-04), EN 301 489-17 V2.1.1 (2009-05), EN 61000-6-2 (2005)
- Health and safety: EN 50371:2002, EN 60950-1:2006 + A11:2009 and/or IEC 60950-1:2005 (2nd Edition)

Medical Electrical Equipment:

- IEC 60601-1-2 (2007)

Article numbers

For article number descriptions, please see

www.connectblue.com * JST version limited to -25°C to +85°C



connectBlue®

The strongest connection in a wireless world

HEAD OFFICE: connectBlue AB | Norra Vallgatan 64 3V | SE-211 22 Malmö | Sweden | Phone +46 40-6307100 | Fax +46 40-237137

US OFFICE: connectBlue Inc. | 8201 164th Ave NE, Suite 200 | Redmond, WA 98052 | USA | Phone +1 425 442 5854 | Fax +1 312 277 3209

GERMAN OFFICE: connectBlue GmbH | Raiffeisenstrasse 19 | DE-85276 Pfaffenhofen | Germany | Phone +49 8441 786 4160 | Fax +49 8441 786 4161

info@connectblue.com | us-info@connectblue.com | www.connectblue.com