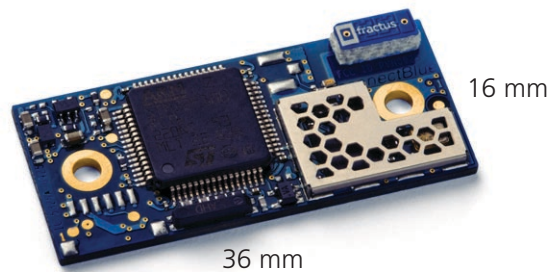


Bluetooth OEM Serial Port Adapter



Product Brief OBS411

The OEM SERIAL PORT ADAPTER™ 411 series is a Bluetooth™ module with support for the Serial Port Profile (SPP) for fast and secure transparent serial data transmissions. The module has a small form factor and low build height, and supports the Bluetooth™ 2.1+EDR standard for enhanced data rates (Bluetooth 3.0 prepared via firmware upgrade). Since the Bluetooth stack is embedded in the module it does not require any driver or stack in your host so that you can be up and running in the shortest possible time. It is fully Bluetooth™ qualified and radio type approved for Europe, US and Canada, and has the connectBlue™ standard interface for compatibility over time and radio technologies.

KEY FEATURES

- Embedded Bluetooth stack (SPP, DUN, PAN)
- Customer developed embedded applications
- Bluetooth 2.1+EDR Qualified as End Product
- Bluetooth 3.0 prepared via firmware upgrade
- High Speed UART (SPI, I²C, GPIO on request)
- Very high throughput and low latency
- Easy configuration by AT commands
- connectBlue Low Emission Mode™
- Radio type approved for Europe, US and Canada
- Compliant with EMC, Safety and Medical standards
- Wireless Multidrop™ with up to 3 slaves
- Extended Data Mode™ for separated multi-point data channels
- Internal or external antenna
- Industrial and Automotive temperature range -30°C to +85°C

BLUETOOTH SUPPORT

Bluetooth version 2.1+EDR (Qualified and Listed as Product)
 Bluetooth version 3.0 prepared via firmware upgrade
 Supported Bluetooth Profiles:
 Generic Access Profile (GAP)
 Serial Port Profile (SPP)
 Dial-up networking Profile (DUN GW, DUN DT)
 Personal Area Networking Profile (PAN) roles PANU & NAP
 File Transfer Profile (FTP)*
 Object push Profile (OPP)*
 Output power: Class 1 +4 dBm (excluding antenna gain)
 Receive sensitive level: -84 dBm
 Range: 150 m (approximate, line-of-sight)
 Multipoint connections: Up to 3 active slaves (7 slaves*)

BLUETOOTH CHIPSET AND STACK

Radio: ST-Ericsson STLC2500DB
 Microprocessor: ST STM32F
 Stack: connectBlue Embedded Bluetooth Stack

SOFTWARE

All software embedded in the module (Bluetooth stack and application).
 Configurable via AT commands (via Bluetooth or serial port)
 Customer developed applications can be embedded
 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)

HARDWARE INTERFACE

UART Logic-level
 Supported baud rates: 1200 bit/s - 921.6 Kbit/s
 Support for non-standard baud rates
 Flow control: CTS/RTS (hardware) or none
 12 digital IOs (firmware option)
 4 A/D-converter channels (10-bit) (firmware option)
 SPI*
 I²C*

CONNECTORS

Board-to-board connector
 Solder land pads
 JST 6-pin connector (optional)
 U.fl. antenna connector (external antenna version only)

POWER SUPPLY

3.0-6.0 VDC

CURRENT CONSUMPTION

Power save mode (stop mode): 0.6 mA
 Connected, not transmitting: 15.5 mA
 Transmitting @115.2 kbps (average): 25.1 mA

DIMENSIONS

Size: 16x36x3 mm (2 mm height on request)
 Weight: 2 g

* In progress, please contact us for details

TYPE APPROVALS

R&TTE (Europe)
 FCC/CFR 47 part 15
 IC (Industrie Canada)

ENVIRONMENTAL

Operating temperature: -30°C to +85°C (-40°C on request)
 Storage temperature: -40°C to +125°C
 Humidity RH 5-90% non-condensing

CERTIFICATIONS AND COMPLIANCE

R&TTE Directive 1999/5/EC:

Effective use of frequency spectrum
 EN 300 328 V1.7.1 (2006-05)

EMC

EN 301 489-1 V1.8.1 (2008-04)
 EN 301 489-17 V1.3.2 (2008-04)
 EN 61000-6-2 (2005)

Health and safety

EN 50371:2002
 EN 60950-1:2006 and/or IEC 60950-1:2005 (2nd Edition)

Medical Electrical Equipment

IEC 60601-1-2 (2007)

ARTICLE NUMBERS

cB-OBS411i-04

OEM Bluetooth Serial Port Adapter 411 with integrated antenna, board-to-board connector and solder land pads

cB-OBS411x-04

OEM Bluetooth Serial Port Adapter 411 with connector for external antenna, board-to-board connector and solder land pads

cB-OBS411i-06

OEM Bluetooth Serial Port Adapter 411 with integrated antenna, board-to-board connector, solder land pads and JST 6-pin connector

cB-OBS411x-06

OEM Bluetooth Serial Port Adapter 411 with connector for external antenna, board-to-board connector, solder land pads and JST 6-pin connector

connectBlue™

The strongest connection in a wireless world

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