

## IFSYS-5043 Bluetooth® Module (CSR BC03)

## Product Brief

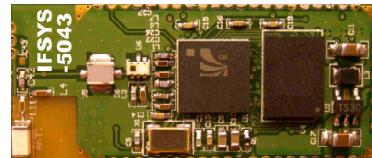
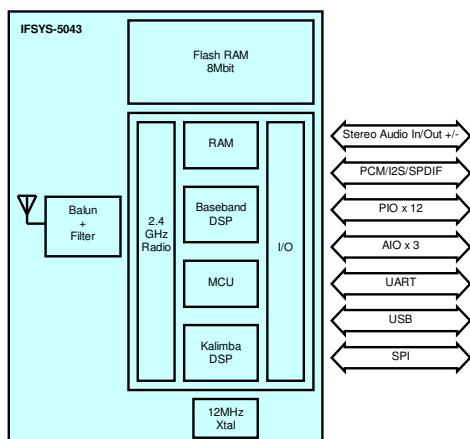
The IFSYS-5043 Bluetooth® Module is a complete Class 2 *Bluetooth* module incorporating an antenna, on-board oscillators, a UART interface for communication to a host processor and a PCM interface for attaching an external codec. IFSYS-5043 is based on the CSR BC03 Multimedia External single chip *Bluetooth* solution.

Based on a small form factor design, IFSYS-5043 is intended for easy integration into OEM/ODM designs. IFSYS-5043 supports different software configurations, which enable the module to work in standalone mode for embedded applications, or in hosted mode interfaced to a host processor.

### Key features

- Supports built-in *Bluetooth* Profiles for stand-alone applications [see Note \*1]
- Bluetooth® V2.0 compliant and FCC certified
- High speed UART interface supports communication at up to 921kbps
- Small form factor surface mounted package facilitates integration into space constrained embedded devices and equipment
- Flexible power supply design options and separate core and I/O power rails allow design into both mains and battery-powered applications.
- Low power requirements of *Bluetooth* technology make the IFSYS-5043 module suited to integration into battery-powered equipment.

### Module Block Diagram





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### SPECIFICATIONS

#### Hardware features

- Complete HCI compliant module featuring single chip CSR BC03 Multimedia External Bluetooth device
- 53-pin surface mount package
- Onboard antenna
- RF shielding



#### Physical interfaces

- UART interface (4 signals) - TXD, RXD, RTS# and CTS#.
- USB interface (2 signals) – DP, DN
- PCM/Codec interface (4 signals) – PCM-SYNC, PCM-CLK, PCM-IN, PCM-OUT.
- GPIO interface (12 signals) – PIO [0..11]
- Analog IO interface (3 signals) – AIO0, AIO1, AIO3
- SPI interface for firmware download – MOSI, MISO, CLK, CSB
- Differential Stereo Audio Input
- Differential Stereo Audio Output



#### Electrical specifications

- Temperature: Operational: 0°C to +70°C, Storage: -20°C to +85°C
- Transmitter power: Bluetooth Class 2 device (4dBm max)
- Bluetooth transmitting range: Up to 10m (free-air)
- Differential Stereo Audio Input/Output: 0 – 1.8Vdc voltage range per differential signal
- Power supply:
  - VDD: 3.3Vdc +/- 0.3V

#### Applications [see Note \*1]

- Wireless Speakers with Remote Control (A2DP-Sink and AVRCP)
- Car Handsfree with Echo-Cancellation (HFP and HSP)

#### Certification/Compliance

- Compliant to Bluetooth V2.0 Specification
- FCC, CE certified
- RoHS compliant

#### Dimensions

- 16mm (L) x 36.5mm (W) x 2.2mm (H)
- Weight: approx. 12g

#### Ordering Information

Order Number	Order Description
IFSYS-5043A:3101	Bulk packed units in box (QTY TBD)

[\*1] Please contact iFoundry for support on other profiles.

#### iFoundry Systems Singapore

Unit 03-20/22  
67 Ayer Rajah Crescent  
Singapore 139950

**For more information:**  
Email: [sales@ifoundrysys.com](mailto:sales@ifoundrysys.com)  
Web: [www.ifoundrysys.com](http://www.ifoundrysys.com)



## FCC Statement

This equipment has been tested and found to comply with Part 15 of the FCC rules. Operation is subject to the condition that this device does not cause harmful interference. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this User Guide, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, the user is encouraged to consult the dealer or an experienced radio/TV technician for help.

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This equipment may not cause harmful interference, and
- 2) This equipment must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications made without the approval of the party responsible for compliance could void the user's authority to operate this equipment.

**Note:** The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications made by the user to this equipment. Such modifications could void the user's authority to operate the equipment.

## RF Exposure Guidelines

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

**Limited Warranty Statement**

IFS warrants that this product is new or has been re-manufactured to meet new standards using new or serviceable used parts. IFS makes no other warranty, either expressed or implied, with respect to this product. IFS specifically disclaims the implied warranties of merchantability and fitness for a particular purpose. Some states or provinces do not allow limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you.

The remedies provided herein are customer's sole and exclusive remedies. In no event shall IFS be liable for any lost profits, direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory.