

IFSYS-5043 Bluetooth® Module

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.

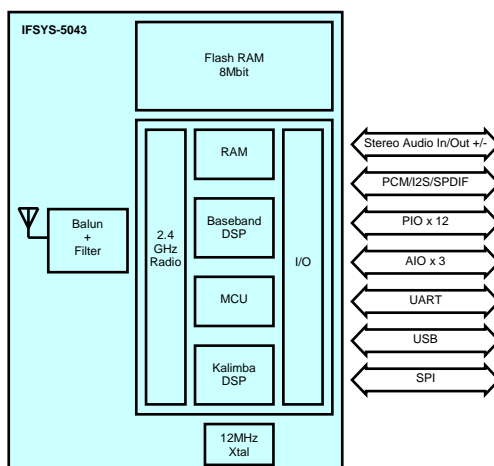


Based on a small form factor design, IFSYS-5043 is intended for easy integration into OEM/ODM designs. IFSYS-5043 supports different software configurations, which enable the module to work in standalone mode for embedded applications, or in hosted mode interfaced to a host processor.

Key features

- Supports built-in *Bluetooth* Profiles for stand-alone applications [see Note *1]
- Bluetooth® V2.0 compliant and FCC (modular) 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
- Single voltage supply.
- 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
- Built-in antenna
- Class 2 Bluetooth module

Physical interfaces

- UART interface (4 signals) - TXD, RXD, RTS# and CTS#.
- 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)
- Power supply & voltage levels:
 - Supply VDD: 3.3Vdc +/- 0.3V
 - Differential Stereo Audio Input/Output: 0 – 1.8Vdc voltage range per differential signal
 - GPIO interface: 0 – 1.8Vdc
 - UART interface: 0 – 3.3Vdc

Applications [see Note *1]

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

Certification/Compliance

- Bluetooth* V2.0 Specification compliant (QD ID: B012734)
- FCC certified (FCC ID: VBR5043)
- 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	IFSYS-5043 (box of 300 units)

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



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