wi2wi
Wireless 2 Wireless

The **Future** of Integrated **Wireless Today**™

W2CBW003

Complete 802.11 + Bluetooth™ System in Package Solution designed specifically for mobile and embedded applications such as Smartphones, PDAs and MP3 Players.

General Description:

The W2CBW003 System-in-Package (SiP) is a complete multifunction 802.11 and BT v2.0 radio. Our radio solution is designed specifically for the developers of portable electronics such as MP3/MP4 Players, PDAs and Smartphones. The W2CBW003 features a small footprint, integrated coexistence solution and interfaces commonly required by handheld/portable devices. The W2CBW003 gives developers a quicker time to market, and lower cost to integrate Wi-Fi™ and Bluetooth™ functionality into their portable/handheld products.

Key Features:
- Small Form Factor. 12mm X 12mm x 1.4mm
- System-in-Package LGA Solution
- Certified Dual Mode Radio
- Ultra Low Power Consumption
- Optimized RF & Electrical Design
- RoHS Compliant
- Support for most popular Handheld Interfaces

Applications:
- MP3 Audio and MP4 Video Players
- WLAN Handheld Terminals
- Smartphones
- Personal Digital Assistants (PDAs)
- VOIP Phones and Terminals
- Industrial Products
- Handheld Terminals
- Digital Cameras and Video Recorders
- Other Portable Devices which require Wireless connectivity.

Certified Dual Mode Radio Subsystem:
- ISM Band 802.11b/g
- Full support for 802.11e (QoS)
- Support for 802.11i (Security)
- Bluetooth v2.0 + EDR™
- Fully Integrated Coexistence Solution

Interfaces:
- SDIO 1.1 or G-SPI Interface for 802.11 Wi-Fi™
- UART or USB Interface for Bluetooth™
- PCM Audio Interface for Bluetooth™
- Serial Peripheral Interface (SPI) for both radios for Integration, Test and Diagnostics.
- Programmable I/O Pins
  - PIO for 802.11b/g Applications
  - PIO for Bluetooth Applications
- 50Ω Antenna Launch for each Radio

Driver Support:
WinXP
WinVista
WinCE
LINUX*
*Can be ported to other Operating Systems

Part Numbers:
W2CBW003-1
- 802.11b/g SDIO/UART Interface, Tape & Reel

W2CBW003-2
- 802.11b/g SDIO/USB Interface, Tape & Reel

W2CBW003-DEV
- W2CBW003 Development System
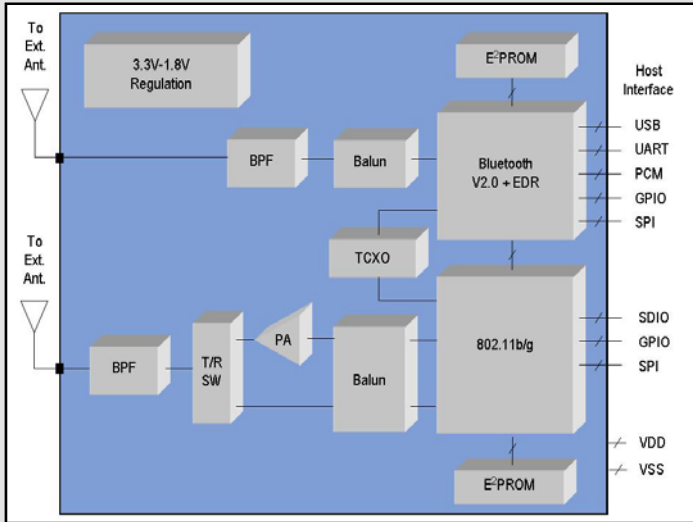
The W2CBW003 SiP delivers a complete, dual radio solution. All functionality, including the radio modem, interface control, diagnostics, timing, power regulation and coexistence are included in a certified compact ready to integrate package.

Dimensions/Package Type:
12mm x 12mm x 1.4mm, LGA

Data Rates:
802.11 b/g
- DSSS/CCK: 1, 2, 5.5, and 11Mb/s
- OFDM: 6, 9, 12, 18, 24, 36, 48, and 54Mb/s
Bluetooth
- V2.0: up to 1 Mb/s
- EDR: 2, 3Mb/s

Input Power:
- Supply Voltage 3.3V

Power Consumption:

	802.11	Bluetooth™	Dual Mode
TX	230 mA	45 mA	275 mA
RX	210 mA	32 mA	242 mA
IEEE Power Save	10 mA		
Standby		20 mA	30 mA
Sleep	2 mA	2 mA	4 mA

Temperature Range:
- Operating Temperature: -20˚C to +75˚C
- Storage Temperature: -40˚C to +85˚C

Transmit Power:
- 802.11 b Pout = +15 dBm Typ.
- 802.11g Pout = +15 dBm Typ.
- Bluetooth v2.0 Pout = +3 dBm Typ.
- Bluetooth EDR Pout = -1 dBm Typ.

Receiver Sensitivity:
802.11 b/g
- 54 Mb/s @ -74 dBm OFDM
- 6 Mb/s @ -90 dBm OFDM
- 11 Mb/s @ -88 dBm DSSS
- 1 Mb/s @ -90 dBm DSSS
Bluetooth
- 1 Mb/s @ -84 dBm GFSK
- 2 Mb/s @ -87 dBm π/4 DQPSK
- 3 Mb/s @ -80 dBm 8DPSK

Baseband Modulation:
802.11 b/g
- OFDM, CCK
Bluetooth™ v2.0
- GFSK
Bluetooth™ EDR:
- π/4 DQPSK, 8DPSK

Quality of Service/Security Support:
- 802.11e EDCF
- WEP, TKIP, WPA and AES/CCMP per 802.11i

Your Wi2Wi Representative:

About Wi2Wi, Inc.
Operating since 1997, Wi2Wi Inc. is a premier supplier of Modem, 802.11, Bluetooth, GPS and combination solutions Wi2Wi develops and supplies Module and System-in-Package Wireless Products to the world's largest Handheld, PC and Peripheral OEMs. Wi2Wi, with its patent-pending wireless integration technology along with industry leading silicon and supply chain partners, is committed to providing cost effective, high quality solutions for the wireless communications market.

To request more information about Wi2Wi please contact us at: info@wi2wi.com
or visit us on the web at www.Wi2Wi.com

www.DataSheet4U.com