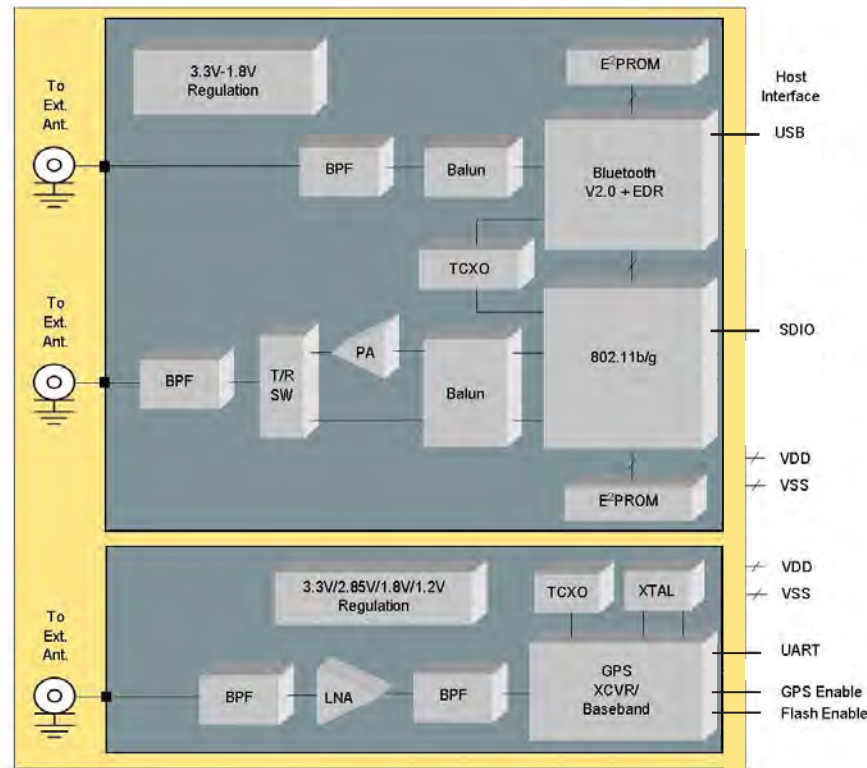


W2CBWG01 - Bluetooth™ /WiFi/GPS - Half Minicard

The W2CBWG01 is a fully integrated 802.11b/g WLAN, Bluetooth™ and GPS Solutions designed specifically for ultra-mobile portable electronics. Designed to interface with the INTEL Menlow/Atom Ultra-Mobile PC Platform, the module incorporates two separate functional devices onto one Mini Card Platform. Also available is the W2CBWG03, which has a fully integrated 802.11b/g WLAN and Bluetooth™ but no GPS.



Complete Multi-Mode Radio Subsystem

- ISM Band 802.11b/g
- Full support for 802.11e (QoS)
- Support for 802.11i (Security)
- Bluetooth v2.0 + EDR™
- 20 Channel High Performance GPS Receiver
- Fully Integrated Coexistence Solution



Features

- Uses half height Mini-Card Form Factor
- Certified Bluetooth™ and Wi-Fi™ Radio Solution with Coexistence
- Integrated Ultra Low Power Consumption GPS
- INTEL Menlow/Atom Platform I/O Pin Definition
- RoHS Compliant

Applications

- Ultra Mobile Personal Computers
- Mobile Internet Devices
- MP3 Audio and MP4 Video Players
- Personal Digital Assistants (PDAs)
- VOIP Phones and Terminals
- Industrial Products
- Handheld Terminals
- Other Portable Devices which require Wireless Connectivity.

Driver Support

- Driver Support for WinXP, Vista, Linux and WinCE Available for Selected Processors.
- Contact Sales for More Information

Ordering Information

- W2CBWG01-T - WiFi /BT/GPS Half Minicard , Tray
- DEV KITS - Use W2CBW003-DEV and W2SG004 Dev.

W2CBWG01 - Specifications

Package Dimensions

- 26.8(L) x 30.0mm(W) x 3.6mm(H)

Package Type

- Half Height Mini Card

Interfaces

- SDIO 1.1 interface for 802.11 Wi-Fi™
- USB 2.0 Interface for Bluetooth™
- UART NMEA for GPS
- 50Ω Antenna Launch for each Radio

Temperature Range

- Operating Temperature: -20°C to +75°C
- Storage Temperature: -40°C to +85°C
- Humidity: 5% to 95%, Non-condensing

Operating Frequencies

- 80-2.11b/g & Bluetooth: 2.4GHz Band
- GPS 1.57542 GHz

802.11+Bluetooth™ 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.

802.11 + Bluetooth™ Receiver Sensitivity:

- 54 Mb/s @ -74 dBm 802.11g OFDM
- 6 Mb/s @ -90 dBm 802.11g OFDM
- 11 Mb/s @ -88 dBm 802.11b DSSS
- 1 Mb/s @ -90 dBm 802.11b DSSS
- 1 Mb/s @ -84 dBm BT GFSK
- 2 Mb/s @ -87 dBm BT π/4 DQPSK
- 3 Mb/s @ -80 dBm BT 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 EDCS
- WEP, TKIP, WPA and AES/CCMP per 802.11i

802.11 + Bluetooth™ Data Rates:

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

GPS Acquisition Time (TTTF):

- Hot Start TTTF @ -136 dBm: 0.6 sec
- Hot Start TTTF @ -141 dBm: 0.9 sec
- Hot Start TTTF @ -146 dBm: 1.9 sec
- Cold Start TTTF @ -136 dBm: 36 sec
- Reacquisition @ -136 dBm: 100 msec

Receiver Sensitivity - GPS

- Minimum Acquisition Signal : -141 dBm
- Minimum Tracking Signal: -157 dBm