



SPECIFICATIONS

Bluetooth Module

GUBTCR42M

Version: 0.1

Date: September , 2005

Prepared By: _____

Approved By: _____

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Device Overall Description

The **GUBTCR42M** is designed to provide Bluetooth function on a small form factor. The Bluetooth function is based on CSR BC04-ROM chipset Bluetooth System, which implements the full speed class 2 Bluetooth operations with full 7 slave piconet support. The interface of **GUBTCR42M** to host system is USB and full compliant with USB ver.2.0

Bluetooth

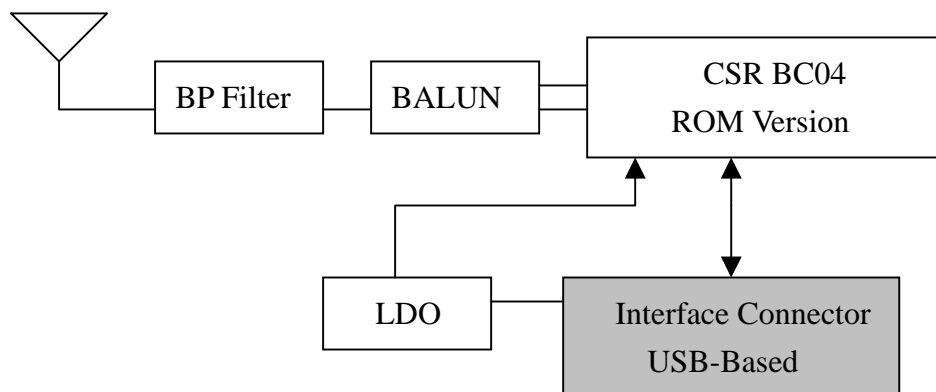
Features

- CSR BC04-ROM Chipset Bluetooth System
- Class 2 Bluetooth operation with full 7 slave piconet support
- Compliant with USB ver 2.0 Interface
- Single onboard Antenna connector support
- Chip Antenna on board (Optional)
- Bluetooth wireless access up to a radius of 32.8 feet (10 Meters)
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Specification Compliance

- Main chip : CSR BC04
- Bluetooth Specification V1.1, V1.2, V2.0+EDR compliant
- USB Specification V2.0 full-speed compliant interface
- RF module Tx power: 2 dBm typical (maximum 4 dBm for Class 2)
- RF module sensitivity : -79dbm +/- 1 dBm at 0.1% Bit Error Rate (BER)
- Bluetooth 2.4GHz~2.4835GHz license-free ISM Band frequency hopping
- Antenna impedance : 50 Ohm

Bluetooth Block Diagram



Modulation Methods

FHSS (Frequency Hopping Spread Spectrum) defined in Bluetooth Specification.

Channel Assignment

Country	Freq. range	RF Channel
Europe & USA	2400~2483.5MHz	Freq.= 2402 + k MHz k=0~78
Japan	2400~2483.5MHz	Freq.= 2402 + k MHz k=0~78
Spain	2445~2475MHz	Freq.= 2449 + k MHz k=0~22
France	2446.5~2483.5MHz	Freq.= 2454 + k MHz k=0~22

Bluetooth Power Consumption

Supply Voltage : 3.3Volt	Current
Idle Mode	40mA
TX Continuous	63mA
RX	40mA

(Varies depending on use environment)

Software & OS support

Microsoft Windows 98SE, Windows ME/2000 /XP, Mac OS 10.2.8 and above

Supported profiles:

- A2DP (Adv. Audio Dist. Profile),
- BIP (Basic Imaging Profile),
- DUN (Dial Up Networking Profile),
- FAX (Fax Profile),
- FTP (File Transfer Profile),
- GOEP (Generic Object Exchange Profile),
- HCRP (Hard Copy Replacement Profile),
- HID (Human Interface Device Profile),
- HSP (Headset Profile),
- OPP (Object Push Profile),
- PAN (Personal Area Network Profile),
- SDAP (Service Discovery Application Profile),
- SPP (Serial Port Profile),
- SYNCH (Synchronization Profile),

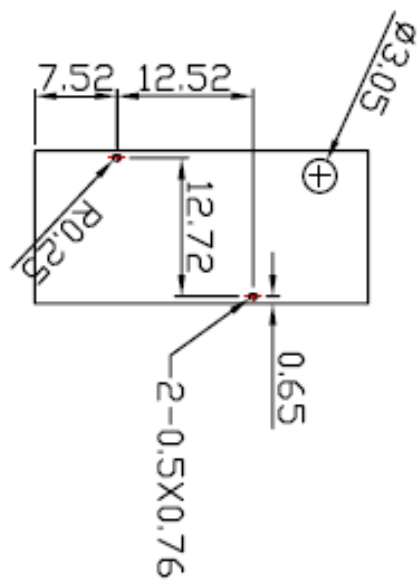
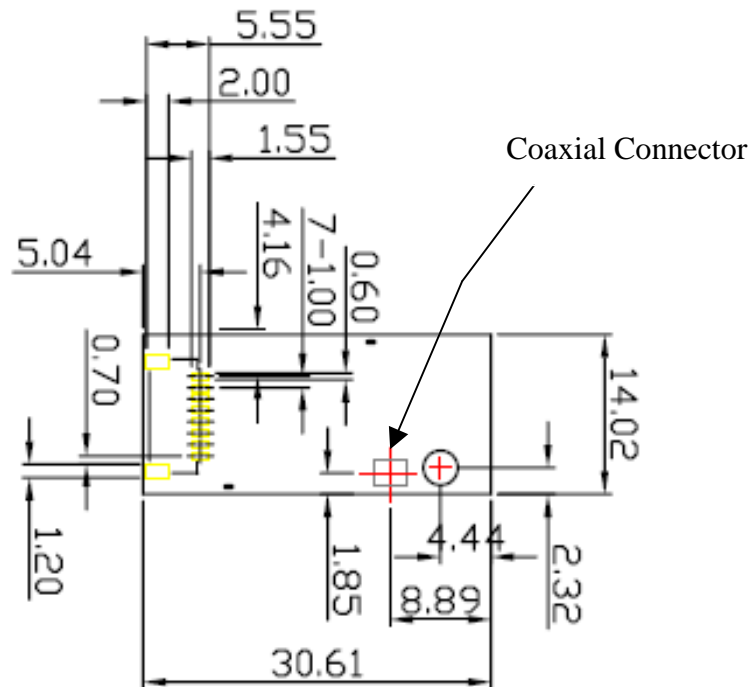
Regulation

CE / FCC /

Depend on OEM customer's requirement

Mechanical Dimension

-30.61mm x 14.02mm x 3.9mm (L x W x H) +- 0.15mm



Antenna Connector

- SMT Ultra Miniature Coax Connector, I-PEX, 20279-001E-01 or compliance

Host Interface Connector

- Connector: Kabo(凱帛) Wafer-1.0-1001-0893

Chip Antenna

- WAL SIN Ceramic Antenna Part No: RFANT5220110A0T

Pinout and Definition

Pin #	Signal Name	Description
1	+3.3V ~ +5V	Positive supply for whole module
2	GND	Ground Pin
3	USB_D-	USB Data Minus
4	USB_D+	USB Date Plus
5	LED	BT activity LED indicator
6	Reserved BT_ACTIVE	BT Active indicator output to inform WLAN NIC. Host side should keep NC if not supported.
7	Reserved WLAN_ACTIVE	WLAN active indicator input from WLAN NIC. Host side should keep NC if not supported.
8	BT_ON#	Active Low to enable Bluetooth function. High to disable the function