User Manual for BTM740B (for AIP PC)

1. Introduction

BTM740B BT Module containing Bluetooth 3.0 / Mac compatible Bluetooth Module/ Baseband optimized Radio with UART interface.

2. Hardware Configuration

2.1 Main Chipset Information

Item	IC Vendor	Part Number
Bluetooth 3.0 MAC/Baseband/Radio	CSR	CSR8670

2.2 Block Diagram

Block Diagram of BT Module is as Figure.1.

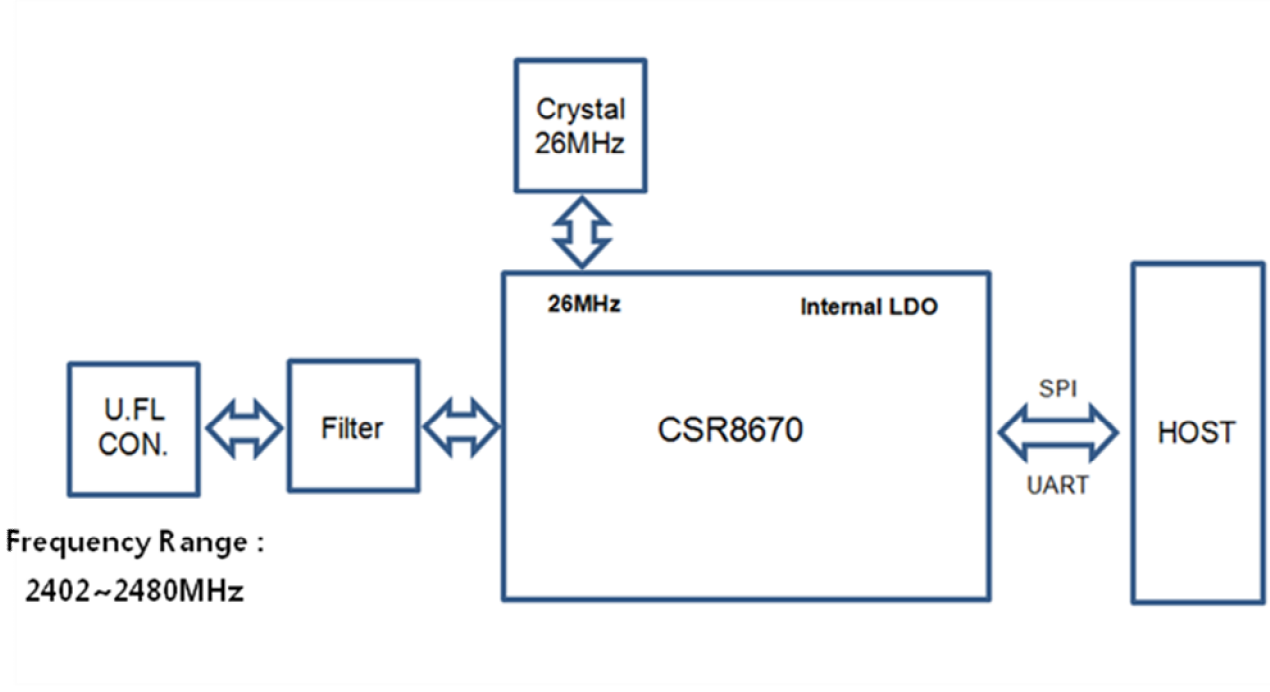

Figure.1 BTM740B Block Diagram

3. Pin Description

Pin descriptions are as Table.3.

PAD NO	Name	Interface	I/O	Description
68, 69	A3.3V	Analog	I	3.3V Power supply input
42	RESET	Digital	I	POR (Power of Reset)
52	UART Tx	Digital	O	UART data output
53	UART Rx	Digital	I	UART data input
55	I2S_WS	Digital	I/O	I2S Word select
57	I2S_SDOUT	Digital	I/O	I2S Data
58	I2S_SCLK	Digital	I/O	I2S Clock
63	BT_AUDIO_SW	Digital	I/O	Audio Mode Select S/W
1,2	BT3.3V	Analog	I	3.3V Power supply input
18	SPI_CLK	Digital	I/O	SPI clock
19	SPI_MISO	Digital	O	SPI data output
21	SPI_CS	Digital	I/O	Chip select for SPI
22	SPI_MOSI	Digital	I	SPI data input
3,14,17,20,23 29,32,35,38,59 64,67,70~89, 97~127	GND	Analog	-	Ground
4~13,15,16 24~28,30,31, 33,34,36,37,39,40 41,43~51,54,56 60,61,62,65,66, 90,91,92	NC	-	-	NO CONNECTOR

Table.3 Pin Description

4. Detail Specifications

- Frequency : 2402~2480 MHz
- Number of Channel : 79ch
- Oscillation : VCO
- Operating Voltage : TYP. DC 3.3 V
- Current Consumption : Max.100mA
- Dimension : 22 mm X 26 mm X 2.5 mm
- Weight : 2.5g
- Operating Temperature : -10℃ ~ +50℃
- Communication : Semi-Duplex Operation
- Modulation : 2FSK, pi/4 DQPSK, 8DPSK

*This wireless device may cause propagation interferences so can't available for life-saving services.

6. Notice

I.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, 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, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

USERS MANUAL OF THE END PRODUCT:

The end user has to be informed that the FCC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. If the size of the end product is smaller than 8x10cm, then additional FCC part 15.19 statement is required to be available in the users manual: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this

device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

LABEL OF THE END PRODUCT:

The final end product must be labeled in a visible area with the following " Contains **FCC ID: A3LBTM740B** ". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

IC Radiation Exposure Statement:

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

IMPORTANT NOTE:

This module is intended for OEM integrator. The OEM integrator is still responsible for the IC compliance requirement of the end product, which integrates this module.

Under such configuration, the IC RSS-102 radiation exposure limits set forth for an population/uncontrolled environment can be satisfied.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

LABEL OF THE END PRODUCT: The final end product must be labeled in a visible area with the following " Contains **IC : 649E-BTM740B** ".

IC Statement

RSS-Gen 7.1.2

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This radio transmitter (identify the device by certification number, or model number if Category II) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum
gain indicated for that type, are strictly prohibited for use with this device.

RSS-GEN statment. :

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisee aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.