

Bluetooth Serial Converter UART Interface 19200bps User's Guide

Table of contents

| | |
|--------------------------------------------------------------------|---|
| Chapter1. Bluetooth Serial Converter UART Interface 19200bps | 1 |
| Chapter2. Contact Us | 8 |

Bluetooth Serial Converter UART Interface 19200bps

NOTES:

Product Version : Ver 1.0

Document Version : Ver 1.0

Chapter1. Bluetooth Serial Converter UART Interface

19200bps

Key Features

- ✧ Bluetooth Spec v2.0+EDR Compliant
- ✧ Enhanced Data Rate (EDR) compliant with V2.0.E.2 of specification for both 2Mbps and 3Mbps modulation modes
- ✧ Class 2 Type Output Power
- ✧ Full Speed Bluetooth Operation with Full Piconet Support
- ✧ Scatternet Support
- ✧ 3.3V Operation
- ✧ Minimum External Components
- ✧ UART Interface
- ✧ Support for 8Mbit External Flash Onboard
- ✧ Support for 802.11Co-Existence
- ✧ RoHS Compliant



Product Description

GL-6B is a Class 2 Bluetooth module using BlueCore4-AudioROM chipset from leading Bluetooth chipset supplier Cambridge Silicon Radio.

This converter is used to convert a UART with 19200bps, one start bit, 8 data bits, one stop bit, no parity bit format to Bluetooth UART protocol. It can not talk to a same device but only to PC Bluetooth dongle. That is, it will create communication between an embedded microcontroller and a PC, but not between 2 embedded devices.

For the password, normally it doesn't need a password, when PC could find the converter, just double click it and the connection will be created. If it requests you to input password all the same, it shall be 0000 or 1234.

Applications

- ✧ Bluetooth Carkit
- ✧ PCs
- ✧ Computer Accessories

Bluetooth Serial Converter UART Interface 19200bps

◇ Access Points

Specifications

| | |
|--------------------------|------------------------------------|
| Operating Frequency Band | 2.4GHz-2.48GHz unlicensed ISM band |
| Bluetooth Specification | V2.0+EDR |
| Output Power Class | Class2 |
| Operating Voltage | 3.3V |
| Host Interface | UART |
| Dimension | 26.9mm(L)×13mm(W)×2.2mm(H) |

* Specification are subject to change without prior notice

Electronics Characteristics

| Absolute Maximum Ratings | | |
|--------------------------|----------|----------|
| Rating | Min | Max |
| Storage Temperature | -40°C | +150°C |
| Supply Voltage | -0.4V | 5.6V |
| Other Terminal Voltage | VSS-0.4V | VDD+0.4V |

| Recommended Operating Conditions | | |
|----------------------------------|-------|--------|
| Operating Conditions | Min | Max |
| Operating Temperature Range | -40°C | +150°C |
| Guaranteed RF Performance Range* | -40°C | +150°C |
| Supply Voltage | 2.2V | 4.2V |

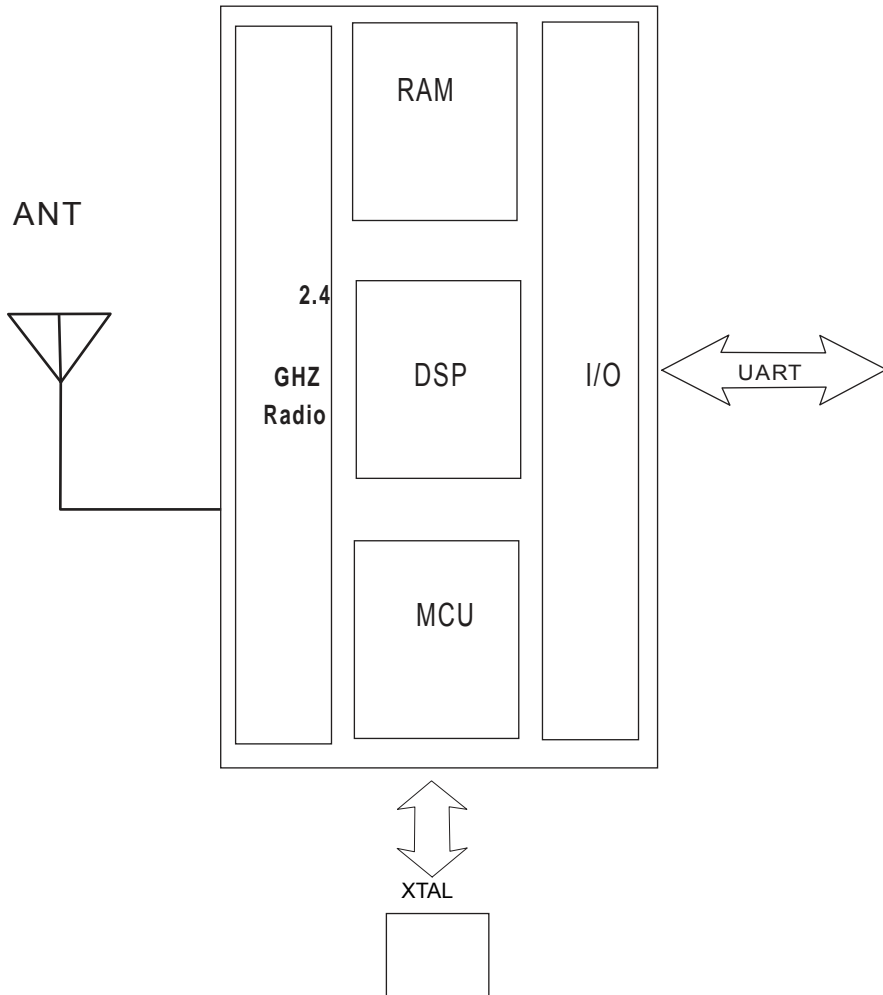
* Typical figures are given for RF performance between -40°C and +105°C.

Power Consumption

| Operation Mode | Connection Type | UART Rate (Kbps) | Average | Unit |
|-------------------------|-----------------|------------------|---------|------|
| Page Scan | - | 115.2 | 0.42 | mA |
| ACL No Traffic | Master | 115.2 | 4.60 | mA |
| ACL with File Transfer | Master | 115.2 | 10.3 | mA |
| ACL 1.28s Sniff | Master | 38.4 | 0.37 | mA |
| ACL 1.28s Sniff | Slave | 38.4 | 0.42 | mA |
| Standby Host Connection | - | 38.4 | 40 | µA |

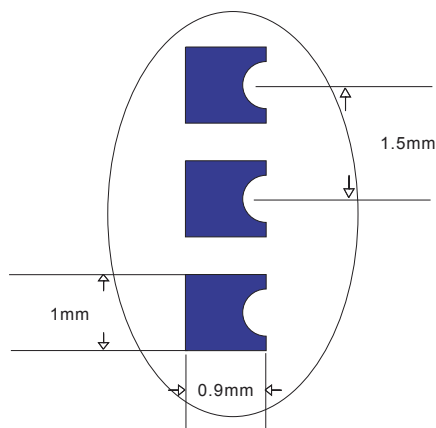
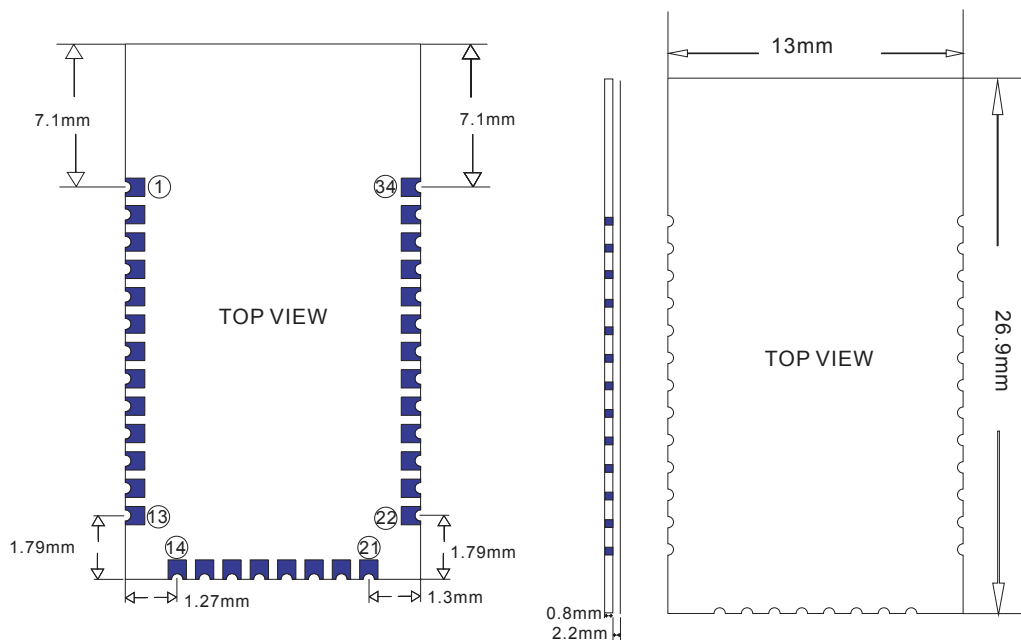
* Low power mode on the linear regulator is entered and exited automatically when the chip enters/leaves Deep Sleep mode. For more information about the electrical characteristics of the linear regulator, see section 4 in this document.

Block Diagram



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Dimension



Pin Configuration

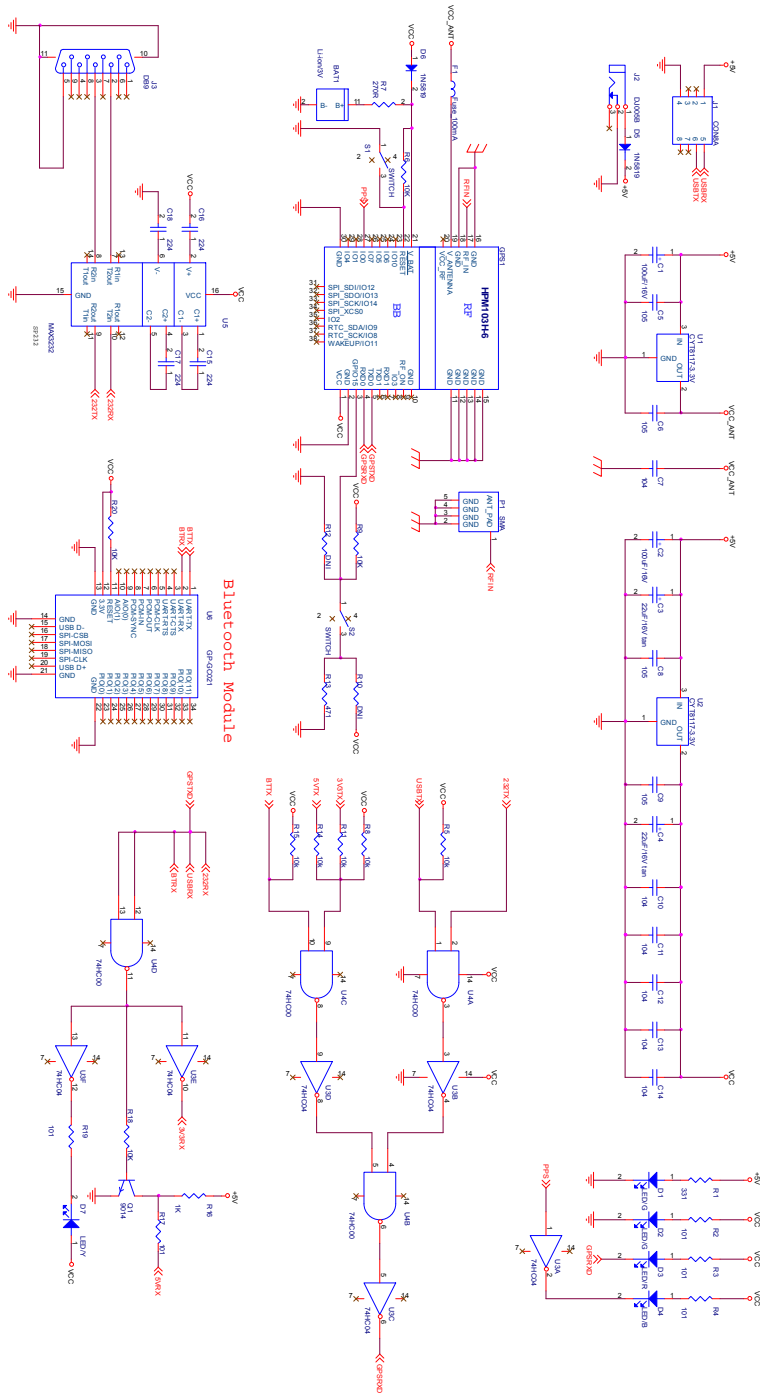
| PIN NO. | NAME | TYPE | FUNCTION | RE-MARK |
|---------|----------|-------------|---------------------------|---------|
| 1 | UART-TX | CMOS Output | UART Data Output | |
| 2 | UART-RX | CMOS Input | UART Data Input | |
| 3 | UART-CTS | CMOS Input | UART Clear to Send Active | |

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| | | | Low | |
|----|----------|-------------|---------------------------------------------------------------------|------------------|
| 4 | UART-RTS | CMOS Output | UART Request to Send Active Low | |
| 5 | NC | - | - | |
| 6 | NC | - | - | |
| 7 | NC | - | - | |
| 8 | NC | - | - | |
| 9 | NC | - | - | |
| 10 | NC | - | - | |
| 11 | RESETB | CMOS Input | Reset if low. Input debounced so must be for >5ms to cause a reset. | |
| 12 | 3.3V | POWER | +3.3V Supply | For 3.3V Version |
| 13 | GND | GND | Ground | |
| 14 | GND | GND | Ground | |
| 15 | NC | - | - | |
| 16 | NC | - | - | |
| 17 | NC | - | - | |
| 18 | NC | - | - | |
| 19 | NC | - | - | |
| 20 | NC | - | - | |
| 21 | GND | GND | Ground | |
| 22 | GND | GND | Ground | |
| 23 | NC | - | - | |
| 24 | NC | - | - | |
| 25 | NC | - | - | |
| 26 | NC | - | - | |
| 27 | NC | - | - | |
| 28 | NC | - | - | |
| 29 | NC | - | - | |
| 30 | NC | - | - | |
| 31 | NC | - | - | |
| 32 | NC | - | - | |
| 33 | NC | - | - | |
| 34 | NC | - | - | |

Bluetooth Serial Converter UART Interface 19200bps

Application Schematics



Bluetooth Serial Converter UART Interface 19200bps

More information about the application schematics and hardware can be got on our website with product number GP-GS010.

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