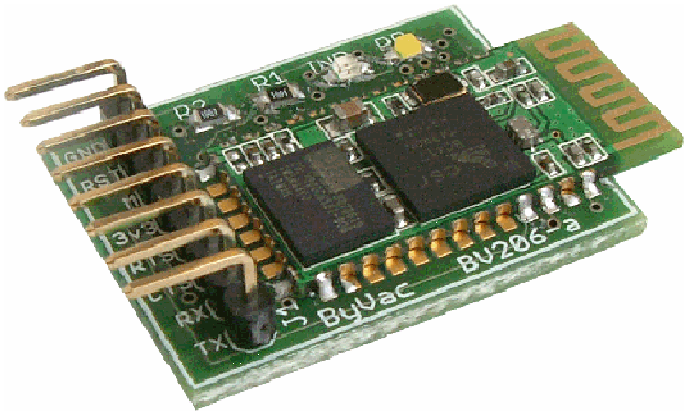
BlueTooth Module BV206



BV206

Bluetooth Module

Product specification Jun 2011 V0.a

Contents

BlueTooth Module BV206

Rev	Change
Jun 2011	Preliminary

1. Introduction

The BV206 is a PCB carrier for the low cost Bluetooth modules based on the Cambridge Silicon Radio Chip. The module will accept a version on the AT command set and so is relatively easy to use.

The PCB has reset and a program pin that allows the module to be operated as slave or master.

2. Features

- Bluetooth Specification v2.0+EDR
- Frequency: 2.4GHz ISM band
- Modulation: GFSK(Gaussian Frequency Shift Keying)
- Transmit power: not more than 4dBm, Class 2
- Sensitivity: not more than -84dBm at 0.1% BER
- Rate: Asynchronous: 2.1Mbps(Max) / 160 kbps
- Synchronous: 1Mbps/1Mbps
- Security features: Authentication and encryption
- Support profiles: Bluetooth serial port (master & slave)
- Power Supply: +3.3VDC 50mA
- Working temperature: –5°C to 45°C
- Max. serial baud rate: 1382400bps, support for hardware flow control transfer
- Dimension: 30mm x 23mm x 2.5 mm

Practically speaking the device is Class 2 which has a range of about 10m and is capable of data rates of 1382400 Baud.

3. Electrical

The board has just one 8 way connector:

Pin	Dir	Description
1	O	TX Transmit
2	I	RX Receive
3	I	CTS Clear to send
4	O	RTS Request to send
5	Pwr	3.3V power input
6	I	Master / Slave
7	I	Reset
8	Pwr	Ground

NOTES: O=output, I=input

The supply must be 3.3V but the input pins are 5V tolerant.

The device does not need anything connecting to the RTS, CTS lines in order to operate.

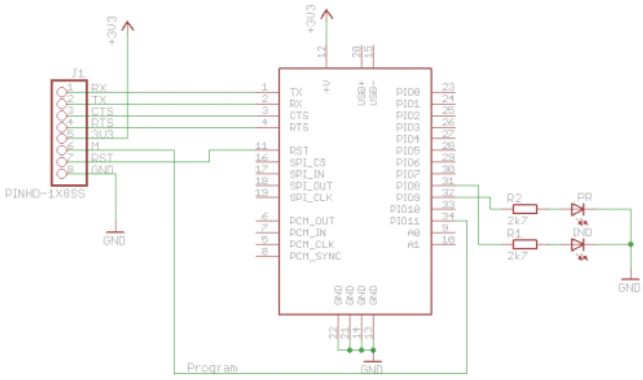
3.1.1. Reset

This should be normally high, taking this line low and then back to high again will reset the device.

3.1.2. Master / Slave

The signal on this line will give access to the AT interpreter when it is high. This will normally be the Master but not necessarily. Access to the AT Command interpreter is required to program the device, carry out enquiries and the like. This is done through the TX and RX lines. When a connection is made to another Bluetooth device the TX and RX is then used to communicate 'through' the device.

4. Circuit



Two LED's are used as status indicators the one marked IND will flash at various rates depending on the status. The one marked PR will illuminate when a connection has been made to another Bluetooth module.

5. More Information

To make this module useable further informant is required. See http://doc.byvac.com look for the product BV206 and there are some third party data sheets describing the command set and the Bluetooth module. There is also some demonstration code.