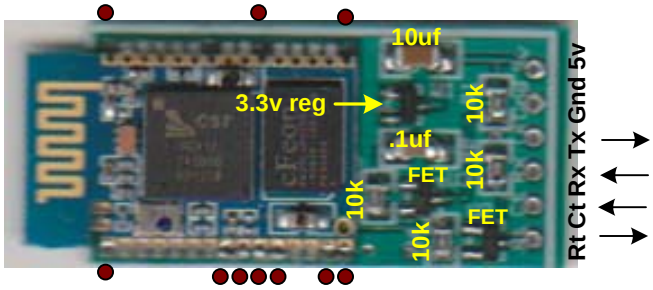
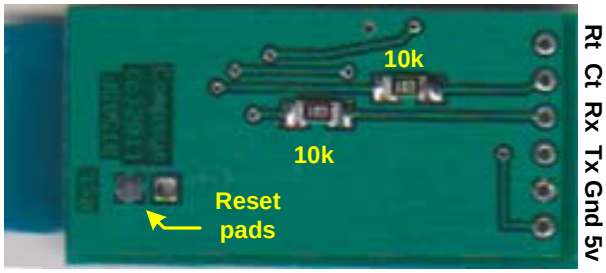
Bluetooth BTM-182 RS232 module 5v carrier board

The BTM-182 module is a versatile and inexpensive bluetooth device. It is a Class 2 module with printed pcb antenna, *Bluetooth* standard Ver. 2.0 + EDR compliant. Low current consumption, 3.0V or 1.8V operation. Possible Interfaces: USB, UART & PCM (for voice CODEC), RoHS compliant. Small outline. 25.0x14.5x2.2 mm

The BTM-182 is available from several suppliers including www.sparkfun.com



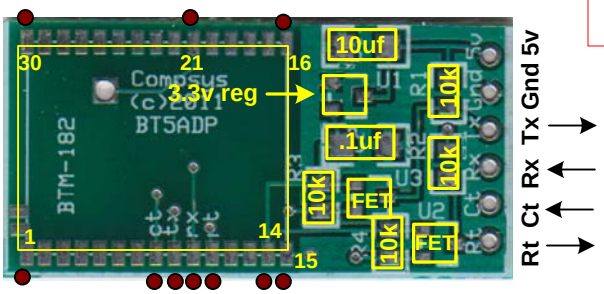
Top side with BTM182 and components mounted. Brown dots are the minimum soldering points.

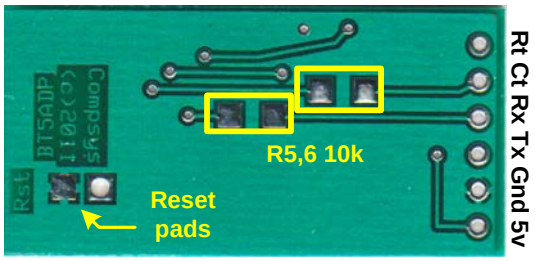


Bottom side with R5 and R6 10K resistors mounted

DO NOT REVERSE VOLTAGE SUPPLY!

Optional Reset pads can be wired with a momentary switch to reset the BTM-182 module





Bottom side to mount R5 and R6 10K resistors

PARTS
R1-4 10k 0805 size smd res
R5,6 10k 1206 size smd res
C1 10uf smd cap
C2 0.1uf smd cap
U1 3.3v regulator
U2,U3 Mosfet BSS138 or equiv

Default RS232 parameters: 19200, 8 data, No Parity, 1 Stop bit
Device Name: Serial Adapter PIN # 1234

1. **Carefully align and mount the 3.3 reg and the two Mosfets**
2. **Mount the two capacitors C1 and C2 (10 uf, 0.1 uf)**
3. **Mount R1-R4 (10k small smd resistors)**
4. **Mount R5,6 (10k smd resistors) on the backside of the pcb**
5. **Test the circuit by supplying 5v and checking Pin 14 for 3.3v**
6. **Very carefully align the BTM-182 module with the pcb pads and tack solder one corner. Double check alignment and then tack solder the opposite corner. Check alignment again before soldering the remaing pads. NOTE: Only a few pads are required for the RS232 mode. The corners are soldered to ensure secure mounting. The only pins actually used are:8-11, 14,15 and 21.**

Construction Hints

Assembly of this kit requires that the user has the necessary tools and skills to work with SMD (surface mount device) components. If you are not comfortable with soldering miniature parts, then please seek assistance from someone who is capable to do so. Small mistakes can cause many frustrating hours of grief in trouble shooting!

Minimum tools required:
A fine point low power (25w max) soldering iron and thin solder. Ideally, 0.022" diameter (or less) silver-bearing non-corrosive rosin core should be used. In addition. narrow needle nose pliers, diagonal cutting pliers, good quality tweezers, large magnifying glass, volt-ohm meter, and a 7 to 12 vdc power supply.

Make sure that you work in a clean well lighted area and have adequate desk area. If you have carpeting then please be aware of static discharge as well as accidentally losing tiny components in the carpets fiber. SMD capacitors and resistors are very tiny and can quickly become lost in the carpeting.

Disclaimer and Terms of Agreement

As with any kit, only the individual parts supplied are guaranteed against defects and not the user assembled unit. All kit parts are purchased from reputable sources such as Digikey Inc, Allied Electronics and Mouser Inc, however, should a kit part be ascertained to be defective it will be replaced at no charge within 30 (thirty) days of the purchase date. Beyond that, COMPSys Workbench and / or the COMPSys developer(s) assume no liability and WILL NOT be held liable nor be held responsible wholly or in part for any damages caused by the construction of and / or use of their products sold .

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