
BeagleBoard PIC module BC-87

Description

The BeagleBoard PIC module BC-87 (kit) provides all signals necessary for PIC microcontrollers. These include oscillator circuit, reset and programming connector. Signals for PIC I/O ports brought out to header connectors and labeled for easy prototyping. One can exchange PIC microcontroller without the need to disassemble or rewire the rest of the circuit. For example, if you need to upgrade you PIC from a 28 to 40 pin package, just replace the PIC and make use of additional I/O. The board can be used with BeagleBoard breadboard BB-1, other breadboards, or as a separate module.

Features

Supported PICMicros are 16F87*, 18F252, 18F452 and other that have the same pinout. The kit includes high quality double-sided PCB with silk screen, 20 MHz crystal resonator with 22 nF load capacitors, reset switch, 10K and 470 Ohm resistors, 2 0.1 μ F capacitors, 28-pin IC socket, 2 20-pin SIP strips, pinhead and female connectors for programming and port I/O. Circuit diagram for the BC-87 is shown in Figure 1. Programming connector has the following pinout:

<u>Pin #</u>	<u>signal</u>
1	/MCLR
2	Vdd
3	Vss
4	PGD (RB7)
5	PGM (RB6)
6	PGM (RB3)

Assembly

First, install and solder capacitors C1-C3 and resistors. Capacitor C4 is not required in most cases and can be omitted. Then, install the crystal resonator and reset switch. IC sockets and header connectors should be installed last, otherwise it might be hard to install capacitors. Component layout is shown in Figure 2.

Usual soldering considerations should be followed, heat connectors just long enough to make a good contact.

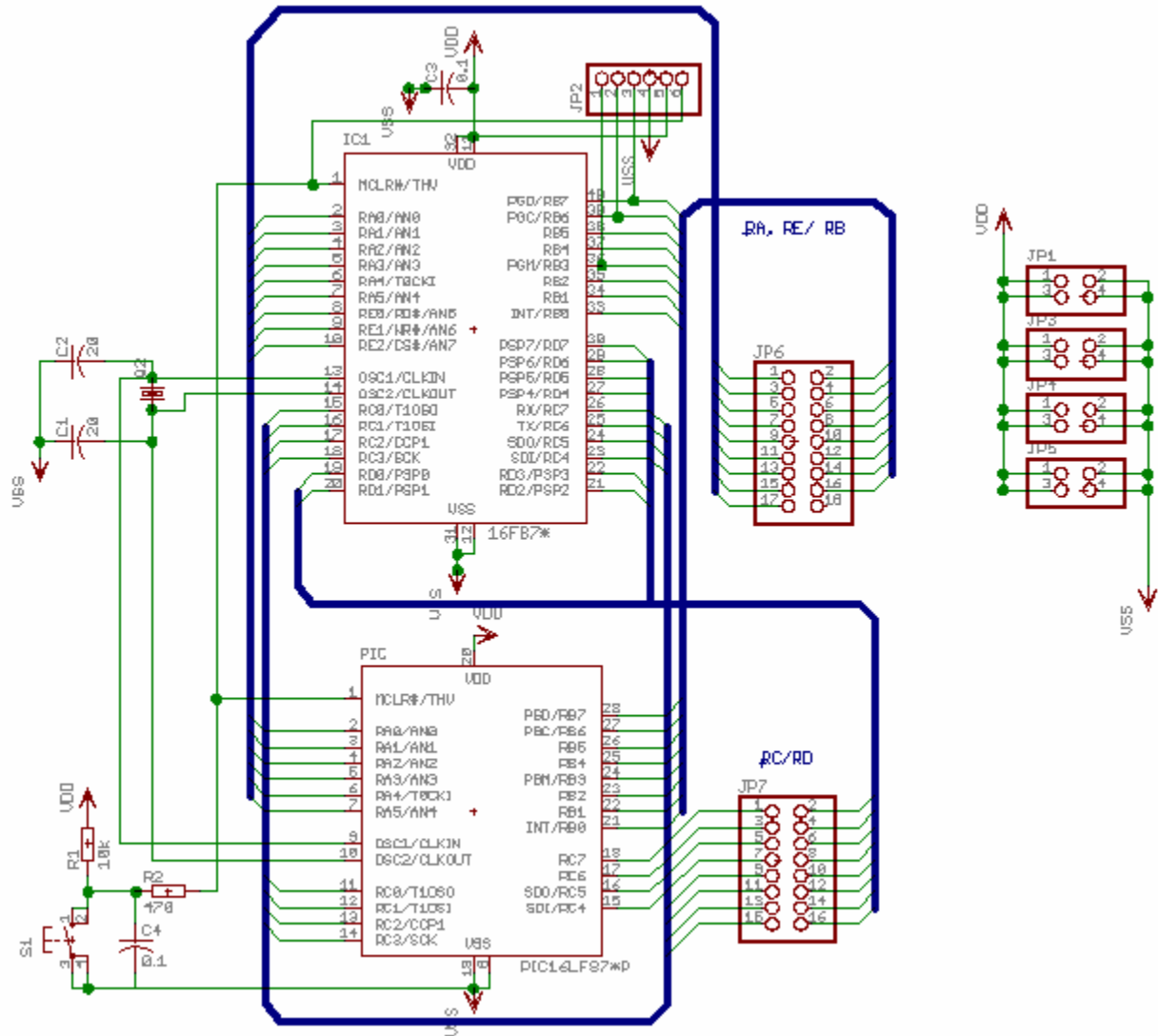


Figure 1. Circuit diagram of PIC module BC-87.

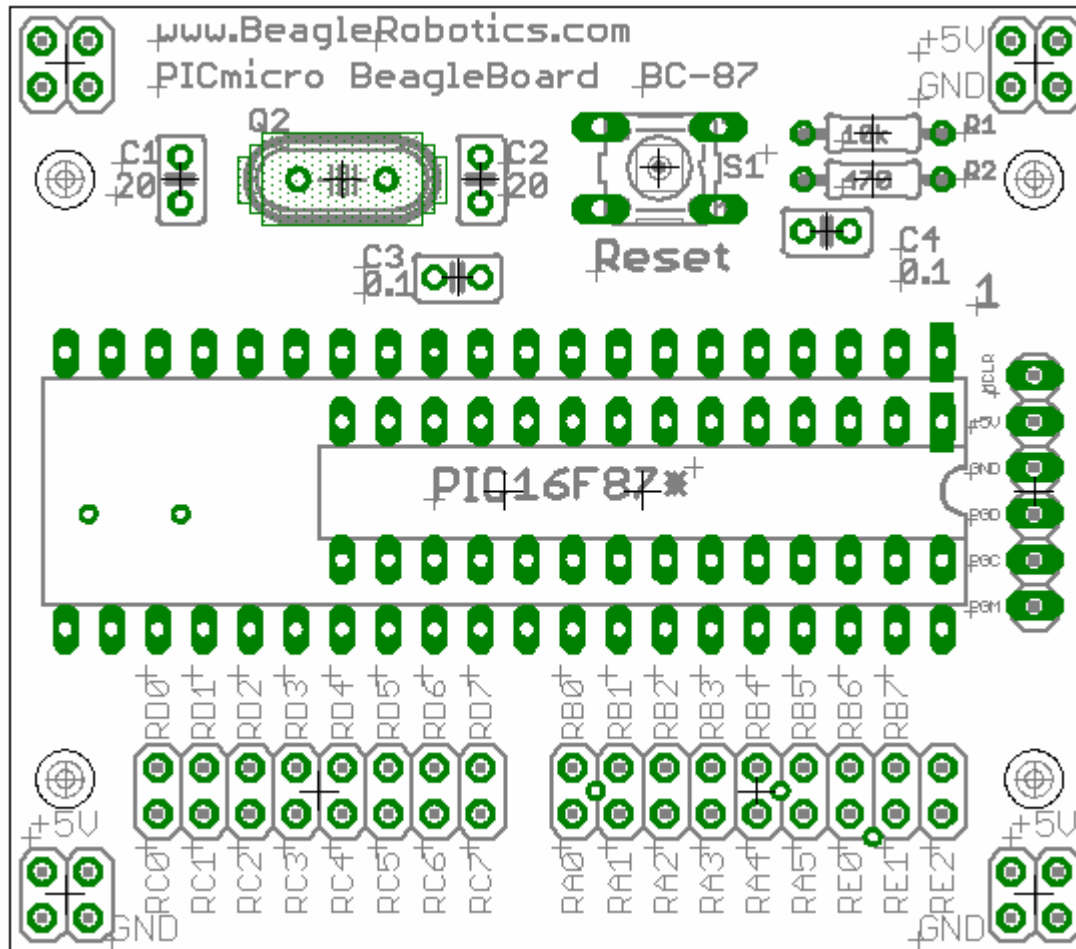


Figure 2. Component layout on BC-87 board.