RS 232 Connection:

The RS232 connection on your microcontroller board is labeled as J9. The following is the pinout:

|  |  |  |  |
| --- | --- | --- | --- |
| Signal | Pin | | Signal |
| No Connection | 1 | 2 | No Connection |
| TXD | 3 | 4 | CTS |
| RXD | 5 | 6 | RTS |
| No Connection | 7 | 8 | No Connection |
| GND | 9 | 10 | 3.3V |

To connect two boards together, you would need 6 female-female wires. We do not require the full functionality of RS232. We will be using a bare minimum “3-wire” implementation. To disable hardware flow control, tie CTS and RTS together (jumper ping 4 and 6 using a wire). To connect to boards together to allow communication, tie GND and 3.3V together across both boards. Then tie TXD with the other boards RXD. (Connections are identical with xbee.)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | TXD | | RXD | | 3.3V | | GND | | CTS | | RTS | |  | |  | | --- | | TXD | | RXD | | 3.3V | | GND | | CTS | | RTS | |

To configure your UART port, set the port to run at 9600 bps, 8-n-1 (8 data bits, no parity bit, 1 stop bit). This is also the configuration needed to run the xbee wireless rf module.

There are header files (uart.h and uart.c) provided in MCF5225x\_SAMPLE\_CODE.zip. For the initialization parameters, we will be using UART channel 0 with the default 48MHz clock. Remember that in rs232, we can only send 8 bits at a time, therefore, you will be sending char variables.

NOTE: The header files uart.h and uart.c has some dependencies on other files in MCF5225x\_SAMPLE\_CODE.zip. To solve this, just move the dependent files into the proper heading/source folder. Also, if you get errors about \_\_interrupt\_\_ void uart0\_handler(void);, just comment those lines out.