RS232 to I2C/SPI/1 Wire Adapter and Controller

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Revision History:

Date	Changes	Initials
2008-01-16	Initial revision	kty
2008-01-17	Fixed link url's, added revision history table, repaginated	kty
2008-01-29	Added Connection Example	kty
2010-02-04	Corrected contact information	kty

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General Information

This adapter is based on the BL233B IC made by Broadcast Equipment Ltd.

No special software is required to operate this adapter. Simply use a terminal program (such as minicom or Hyperterminal) to send and receive commands and data. All commands are plain ASCII as described in the BL233 documentation listed below. Any operating system capable of communicating via RS232 may be used. We have used VB, C++ and PERL to talk to this adapter. Many other programming languages may be used for whatever your application requires.

Although no special software is required, you may use a program called Realterm to communicate with the BL233B IC. This program was written by Broadcast Equipment Ltd, the makers of the BL233B IC. Realterm is a free program and may be downloaded from http://realterm.sourceforge.net/. We offer no support for this program. Please refer to www.i2cchip.com or realterm.sourceforge.net/ for support offerings for this software.

Power
Power may be supplied to this adapter though the supplied barrel jack wire. You may use any voltage between 6 volts and 18 volts to power this adapter using the on board voltage regulator. The 5 volt units may work better with a higher input voltage

Serial defaults:
Baud rate: 57,600 bps
Protocol: No parity, 8 bits, 1 stop bit, Hardware handshaking
These defaults can be changed and permanently set into EEPROM. Refer to the BL233B documentation for instructions.

You must use a DB9M to DB9F or DB9M to DB25F straight-through cable to attach this board to a PC. If you have chosen the RJ45 connector type, you will require a cable with a DB9 male to RJ45 plug wired as RS232D.

Documentation
This board was built around the BL233 IC from Broadcast Equipment Ltd at www.i2cchip.com. Usage documentation in PDF format may be downloaded from i2cchip.com. The URL for the BL233B documentation is located at http://www.i2cchip.com/bl233_b.pdf or http://www.youngbloodtech.com/docs/bl233_b.pdf. We have no affiliation with Broadcast Equipment Ltd. nor the production of the BL233B IC and its related documentation.

If you have any questions concerning this adapter schematic, layout, pinout's or other information not found in the BL233B documentation, contact: Keith Youngblood at (360) 943-8108 or keith@youngbloodtech.com. Please direct any questions relating to the functioning of the BL233B IC to the folks at www.i2cchip.com.

Connections
Our adapter has a 12 position pluggable screw terminal to connect it to your application. The terminal connections are shown below:

The connection to the PC is done with a DB9 female connector (RS232C). There is also an option for an RJ45 connector should you prefer (RS232D). The location of this connector is opposite the end with the screw terminals.

Connection Example