

Digilent PmodRS232™ Converter Module Board Reference Manual

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Overview

The PmodRS232 Converter Module Board (the RS232 module) translates voltage from the logic levels used by Digilent system boards to the RS232 voltage used for serial communications.

The RS232 module creates a two-way I/O exchange by converting RS232 voltage to logic level voltage and converting logic voltage to RS232 voltage. RS-232 voltage levels are -3 to -12V for a logic '1', and +3 to +12 for a logic '0'.

The RS232 module is configured as a data communications equipment (DCE) device. It connects to data terminal equipment (DTE) devices, such as the serial port on a PC, using a straight-through cable.

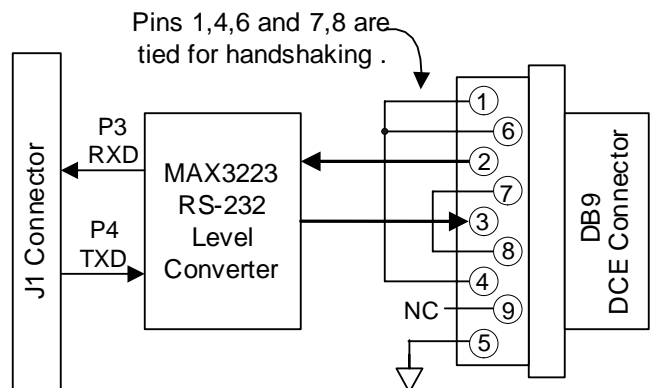
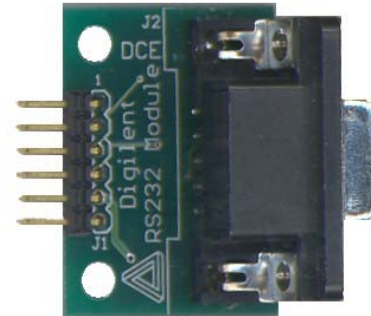
Features include:

- Max3223 integrated circuit
- a DB9 connector and 6-pin header
- transmit and receive functions
- small form factor (1.00" x 1.30").

Functional Description

The RS232 module is configured as a 3-wire DTE serial port, with one wire carrying transmit data, one receive data, and the third signal-ground. The module converts logic signals arriving on J1 pin 4 to RS-232 voltage, and RS-232 voltage signals arriving on the DB-9 pin 2 to logic levels.

The RS232 module has a 6-pin header for easy connection to a Digilent system board. Some system boards, like the Digilent Pegasus board, have a 6-pin header that can connect to the RS232 module with a 6-pin cable. To connect the RS232 module to other Digilent



RS232 Circuit Diagram

system boards, a Digilent Modular Interface Board (MIB) and a 6-pin cable may be needed. The MIB plugs into the system board, and the cable connects the MIB to the RS232 module.