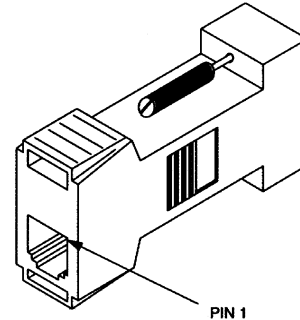
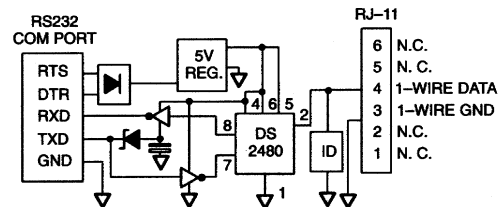


FEATURES

- True-ground interface to an RS232 COM Port for reading and writing 1-Wire devices
- Works with bipolar logic signals of $\pm 5V$ to $\pm 12V$ (RS232C) as well as unipolar signals of 5V to 12V
- Supports reading and writing at regular and Overdrive speeds
- Provides strong pullup to 5V for Temperature, Crypto and EEPROM 1-Wire devices
- Communicates at data rates of 9.6 (default), 19.2, 57.6 and 115.2 kbits/s
- Adapter is powered entirely from an RS232 interface
- Standard DB-9 female connector for mating to the COM Port of a computer and 6-lead RJ-11 connector for easy attachment of standard 1-Wire network cables and probes
- Includes DS2502 ID-Chip (DS9097U-009 only)



SCHEMATIC



ORDERING INFORMATION

- | | |
|-------------|-------------------------|
| DS9097U-009 | DB-9 Connector |
| DS9097U-S09 | Version without ID chip |

DESCRIPTION

The DS9097U-09 is a sophisticated RS232 to 1-Wire Adapter which performs RS232 level conversion and actively generates the 1-Wire communication signals. Together with an adequate TMEX software driver it enables an IBM-compatible PC to directly read all and write any non-EPROM 1-Wire devices connected to the adapter. 1-Wire communication is supported by the adapter for regular as well as Overdrive speed. The serial port must support a data transmission rate of 9600 bits/s. Under software control, the adapter can be set up for RS232 data rates of 19200, 57600 and 115200 bits per second. The two higher rates are recommended for communication at Overdrive speed with Overdrive capable devices connected to the 1-Wire bus. Since the DS9097U-09 operates in a byte mode, every data byte received from the RS232 port generates eight time slots on the 1-Wire bus. At 19200 bits/s data rate the DS9097U-09 is already faster than the DS9097(E) at 115200 bits/s.

The DS9097U-09 is based on the DS2480 Serial 1-Wire Line Driver chip and therefore is **not a plug-in replacement for the DS9097 or DS9097E**. The RXD/TXD Polarity Select input of the DS2480 is tied to Vdd (non-inverting).

The DS2480 will be replaced by the DS2480B chip, which is fully backward compatible to software drivers that accept a 0 as well as a 1 for bit 2 of the Reset-command response byte (see DS2480B data sheet). The iButton™ TMEX Runtime Environment 3.11 or newer is compatible to both 1-Wire Line Driver chips and can be downloaded without charge from <http://www.ibutton.com/software/tmex/index.html>