

DC327A Introduction

Demonstration Circuit DC327A is a complete DCE or DTE serial port. The protocols supported are V.28 (RS232), V.35, V.36, RS449, EIA530, EIA530A and X.21. Four jumpers select the proper protocol and other port-configuration settings. The board provides a vehicle for observing the line drivers and receivers on the LTC1546 and LTC1545. Logic-level signals enter and exit the board on the left side and line-level signals enter and exit on the right. The internally generated supplies are observable on the pins at the top of the board.

DC327A is intended for network equipment that interfaces to other equipment using standard serial connections. These applications include routers and wide area networks. The interface design work is as simple as placing this chipset on a board with a handful of small, inexpensive capacitors.

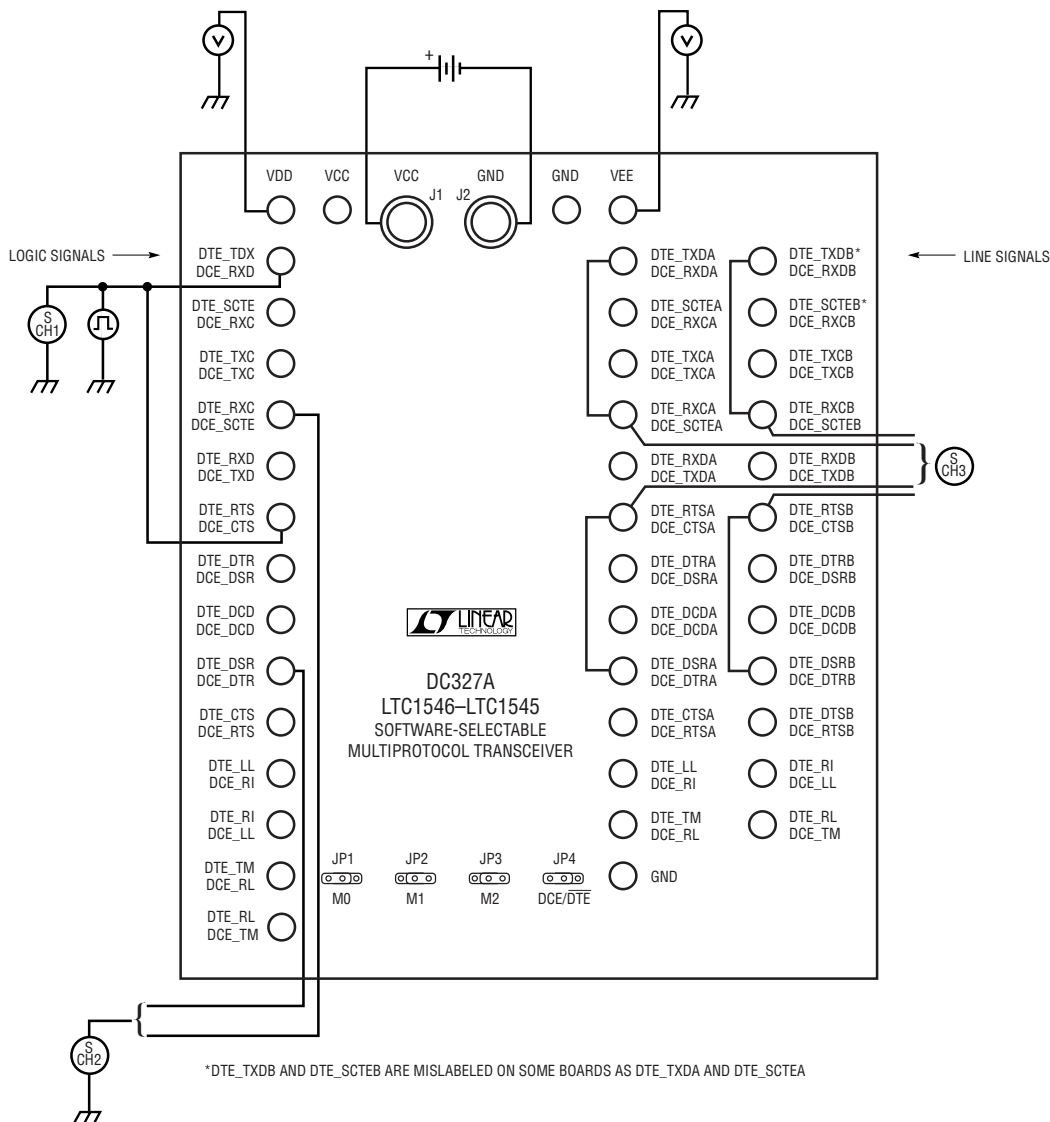


Figure 1. DC327A Test and Measurement Setup

Quick Start Guide

1. Connect the input voltage power supply, meters, pulse generator and oscilloscope as shown in Figure 1.
2. The pulse generator should be set to a 0V to 5V swing.
3. The mode pins M0, M1 and M2, plus the configuration pin $\overline{\text{DCE/DTE}}$ should be configured for the desired protocol and port setting. (M0 = 0, M1 = 0, M2 = 1 and $\overline{\text{DCE/DTE}} = 0$ selects the V.35 DTE mode)
4. Observe the waveforms on the logic signal side and the line signal side of the board. The line driver (TXDA, TXDB) is connected to the line receiver (RXCA, RXCB) to demonstrate the line signals. TRS is also connected to DSR.
5. Observe the internally generated supplies (V_{EE} and V_{DD}).