Product Number: **SP510CM-L**

Ultra High Speed 52Mbps, 8 Channel Multi-Protocol Transceiver

Features:

- 52Mbps Differential Transmission Rates
- Adjustable Logic Pin – down to 1.65V
- +5V Only Operation
- ±15kV ESD Tolerance for Analog I/Os
- Internal Transceiver Termination Resistors for V.11/V.35
- Interface Modes:
  - RS-232 (V.28)
  - EIA-530 (V.10 & V.11)
  - X.21 (V.11)
  - EIA-530A (V.10 & V.11)
  - RS-449/V.36
- Software Selectable Protocols with 3-Bit Word
- Eight Drivers and Eight Receivers
- V.35/V.11 Receiver Termination Network Disable Option
- Internal Line or Digital Loopback Testing
- Easy Flow-Through Pinout
- Individual Driver/Receiver Enable/Disable Controls
- Operates in DTE or DCE Mode

Description:

The SP510 is industry’s fastest serial transceiver that supports eight (8) popular serial interface standards for Wide Area Network (WAN) connectivity. The SP510 is fabricated using a low power CMOS process technology, and incorporates Exar’s regulated charge pump allowing +5V only operation with an adjustable logic pin down to 1.65V. Exar's patented charge pump provides a regulated output of +5.8V, which will provide enough voltage for compliant operation in all modes. Eight (8) drivers and eight (8) receivers can be configured via software for any of the above interface modes at any time. The SP510 requires no additional external components for compliant operation for all of the eight (8) modes of operation other than four capacitors used for the internal charge pump. All necessary termination is integrated within the SP510 and is switchable when V.35 drivers and V.35 receivers, or when V.11 receivers are used. The SP510 provides the controls and transceiver availability for operating as either a DTE or DCE.

Additional features with the SP510 include internal loopback that can be initiated in any of the operating modes by use of the LOOPBACK pin. While in loopback mode, receiver outputs are internally connected to driver inputs creating an internal signal path bypassing the serial communications controller for diagnostic testing. The SP510 also includes a latch enable pin with the driver and receiver address decoder. The internal V.11 or V.35 receiver termination can be switched off using a control pin (TERM_OFF). All eight (8) drivers and receivers in the SP510 include separate enable pins for added convenience. The SP510 is ideal for WAN serial ports in networking equipment such as routers, access concentrators, network muxes, DSU/CSU's, networking test equipment, and other access devices.