

LXT332

Dual T1/E1 Line Interface Unit with Crystal-less Jitter Attenuation

General Description

The LXT332 is a fully integrated Dual Line Interface Unit (DLIU) for both 1.544 Mbps (T1) and 2.048 Mbps (E1) applications. It features B8ZS/HDB3 encoders and decoders, and a constant low output impedance transmitter for high return loss. Transmit pulse shape is selectable for various line lengths and cable types.

The LXT332 incorporates an advanced crystal-less digital jitter attenuator, switchable to either the transmit or receive side. This eliminates the need for an external quartz crystal. It offers both a serial interface (SIO) for microprocessor control and a hardware control mode for stand-alone operation.

The LXT332 offers a variety of advanced diagnostic and performance monitoring features. It uses an advanced double-poly, double-metal CMOS process and requires only a single 5-volt power supply.

Applications

- PCM / Voice Channel Banks
- Data Channel Bank / Concentrator
- T1 / E1 multiplexer
- Digital Access and Cross-connect Systems (DACS)
- Computer to PBX interface (CPI & DMI)
- SONET/SDH Multiplexers
- Interfacing Customer Premises Equipment to a CSU
- Digital Loop Carrier (DLC) terminals

Features

- Digital (crystal-less) jitter attenuation, selectable for receive or transmit path, or may be disabled
- High transmit and receive return loss
- Constant low output impedance transmitter with programmable equalizer shapes pulses to meet DSX-1 pulse template from 0 to 655 ft
- Meets or exceeds industry specifications including ITU G.703, ANSI T1.403 and AT&T Pub 62411
- Compatible with most industry standard framers
- Complete line driver, data recovery and clock recovery functions
- Minimum receive signal of 500 mV, with selectable slicer levels (E1/DSX-1) to improve SNR
- Local, remote, and dual loopback functions
- Built-In Self Test with QRSS Pattern Generator
- Transmit / Receive performance monitors with Driver Fail Monitor (DFM) and Loss of Signal (LOS) outputs
- Receiver jitter tolerance 0.4 UI from 40 kHz to 100 kHz
- Available in 44-pin PLCC and 44-pin QFP

LXT332 Block Diagram

