LXT335

Quad Short Haul PCM Analog Interface

General Description

The LXT335 is a quad, short-haul, PCM analog line interface for 2.048 Mhz transmission systems. It includes four independent data receivers and four independent line drivers in a single, 64-pin QFP package. Its low impedance transmit output drivers provide constant line impedance whether transmitting marks or spaces. The output pulse amplitudes are also constant, and are stabilized against supply voltage variations. The LXT335 is configurable for either balanced 120 Ω or unbalanced 75 Ω systems and exceeds latest ETSI return loss recommendations. All transmitters incorporate a power down mode with output tri-stating.

The LXT335 features a differential receiver architecture with high noise interference margin. It uses peak detection with a variable threshold for reliable data recovery as low as 500 mV (up to 12 dB of cable attenuation). Each receiver incorporates an analog loss of signal (LOS) detector that meets latest ITU standards. The LXT335 features a driver failure monitoring circuit in parallel to TTIP and TRING that reports driver shorts.

Applications

- High-density E1 line interface cards using digital backend ASICS
- Multiplexers, digital crossconnects, SDH systems

Features

- Quad E1 short haul PCM analog front-end per ITU G.703
- Single rail supply voltage of 5 V (typical)
- Low power consumption of 410 mW (typical)
- Four independent high-performance line drivers with constant low impedance for typical 20 db return loss
- Voltage stabilized output amplitudes
- Four high performance line receivers with 14 db, single tone interference margin
- Data recovery for cable attenuation of up to 12 db at 1024 khz
- On-chip driver short circuit monitoring function
- Local and remote loopback testing function
- Small footprint 64-pin QFP package

LXT335 Block Diagram