



XRT7296 DS3 STS-1 E3 Integrated Line Transmitter

General Description:

The XRT7296 is a fully integrated PCM Line Driver IC intended for DS3 (44.736Mbps) or E3(34.368Mbps) applications. It can also be used for transmitting SONET STS-1 (51.84Mbps) signals over coaxial cable. The IC is designed to complement either XRT7295 DS3/SONET STS-1 or XRT7295E E3 Integrated Line Receivers. The XRT7296 converts input clock and dual-rail unipolar data into AMI pulses according to AT&T Technical Advisory No. 34 or CCITT G.703 recommendations.



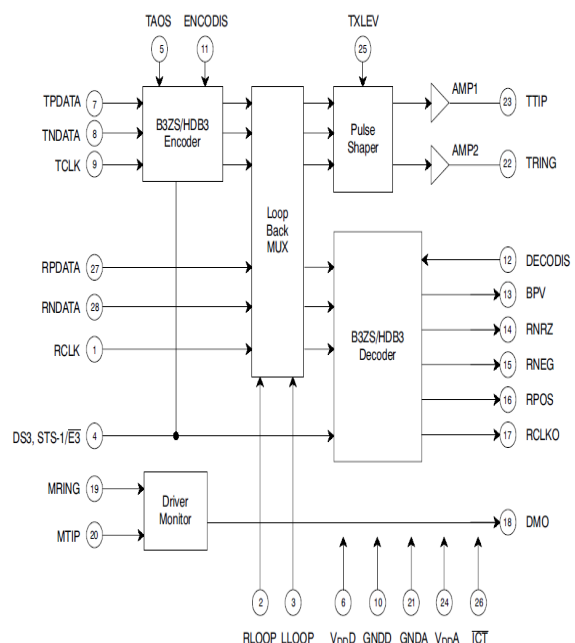
The device provides B3ZS (DS3) or HDB3 (E3) encoding functions for data to be transmitted to the line. A complimentary decoder circuit is also included in the chip for decoding received signals from an external line receiver. Both encoder and decoder functions can be disabled independently through external control pins. In the receive direction, coding errors and bipolar violations are detected and flagged at an output pin.

On-chip pulse shaper circuitry eliminates normally required external components for line equalization to meet the cross-connect template. For system level trouble-shooting and testing, both local and remote loop-backs are possible with the built-in loop-back circuit.

The XRT7296 is manufactured using BiCMOS technology and is packaged in a 28-pin PDIP or SOJ packages. The device requires a single 5V power supply and consumes a maximum power of 700mW. (Line current feed + device dissipation).

Key Features:

- Fully Integrated Transmit Interface for DS3/E3/STS-1
- Integrated Pulse Shaping Circuit



- Compliance with Compatibility Bulletin 119, CCITT Recommendations G.703 and G.824, Bellcore TR-NWT-000499, ANSI T1.404
- Built-in Encoder/Decoder
- Single 5V Power Supply
- Pb-Free, RoHS Compliant Versions Offered

Applications:

- Interface for SONET and DS3/E3 Network Equipment
- Digital Cross Connect Systems
- CSU/DSU Equipment
- PCM Test Equipment
- Fiber Optic Terminals

Related Products Information:

Mfr Part #	Farnell #	Newark #	Description
XRT7296IW-F	1798679	24R1761	DS3 STS-1 E3 Integrated Line Transmitter-28-pin SOJ Package

