DATA SHEET

EVALUATION MANUAL

Communications

XRT5894

Four-Channel E1 Line Interface (3.3V or 5.0V)

Features

- Compliant with ITU G.703 Pulse Mask Template for 2.048Mbps (E1) Rates
- Four Independent CEPT Transceivers
- Supports Differential Transformer Coupled Receivers and Transmitters
- On Chip Pulse Shaping for Both 75W and 120W Line Drivers
- Compliant with ITU G.775 LOS Declaration/Clearing Recommendation
- Optional User Selectable LOS Declaration/Clearing Delay
- Logical Inputs Accept either 3.3V or 5.0V Levels
- Ultra-Low Power Dissipation
- +3.3V or 5.0V Supply Operations
- Individual Transmit Channel Over Temperature Protection

Applications

- SDH Multiplexer
- Digital Cross Connects

The XRT5894 is an optimized four channel 3.3V line interface unit fabricated using low power CMOS technology. The device contains four independent E1 channels. Each channel performs the driver and receiver functions necessary to convert bipolar signals to logical levels and vice versa. The device requires transformer on both receiver and transmitter sides, and supports both balanced and unbalanced interfaces.

The device offers two distinct modes of LOS detection. The first method, which does not require an external clock, provides an LOS output indication signal with thresholds and delay that comply with the ITU G.775 requirements. In the second mode, the user provides an external clock that increases the delay for LOS declaration and clearing. This feature provides the user with the flexibility to implement LOS specifications that require a delay greater than the G.775 requirements.