Communications

XRT75L03

Three-Channel DS3/E3/STS-1 Line Interface Unit with Jitter Attenuator

Features
Receiver
• Integrated Adaptive Receive Equalizer
• On-chip Clock and Data Recovery Circuit for high input Jitter tolerance
• Compliant with Jitter Transfer Template outlined in ITU G.751, G.752, G.755 and GR-499 CORE, 1995 standards
• Meets ETSI TBR 24 Jitter transfer requirements
• 5V Tolerant I/O
• Available in a 128-pin TQFP
• Industrial temperature range (-40°C to 85°C)

Transmitter
• Compliant with Bellcore GR-499, GR-253 and ANSI T1.102 specification for transmit pulse
• Tri-State Transmit Output capability for redundancy applications
• Individual Transmitters can be independently turned on or off

Jitter Attenuator
• On-Chip advanced crystal-less Jitter Attenuator for each channel
• Jitter Attenuator selectable in Receive or Transmit Paths
• Selectable FIFO Size: 16- or 32-Bit
• Meets the Jitter and Wander specifications described in T1.105.03b, ETSI TBR-24, Bellcore GR-253 and GR-499 standards
• Jitter Attenuator can be disabled

Applications
• E3/DS3 Access Equipment.
• STS-SPE to DS3 Mapper
• DSLAMs
• Digital Cross Connect Systems
• CSU/DSU Equipment
• Routers
• Fiber Optic Terminals

The XRT75L03 is a three-channel fully integrated Line Interface Unit (LIU) and Jitter Attenuator for E3/DS3/STS-1 applications. It incorporates three independent Receivers, Transmitters and Jitter Attenuators in a single 128-pin TQFP package.

The XRT75L03 transmits shaped waveforms meeting the G.703, T1.102 and Bellcore GR-499 and GR-253 specifications. Each channel has an independent programmable pulse shaper that can be set to meet or exceed the cross connect pulse mask requirement for up to 450 feet cable length. Each transmitter can be turned off for redundancy support and saving power.

The XRT75L03's differential receiver provides high noise interference margin, and is able to receive the data over 1000 feet of cable or with up to 12 dB of cable attenuation.