

Communications

XRT5997

Seven Channel E1 Line Interface Unit

Features

- Complete Single- or Seven-Channel E1 Transceiver
- Low Power 3.3V Operations
- TCLK Duty Cycle Adjust Circuitry

Applications

- Network Multiplexers
- Central Office Switch
- Digital Cross Connect
- Telecommunications

The XRT5997 is a seven-channel E1 Line Interface Unit (LIU), and, along with the XRT59L91 single-channel E1 transceiver, provide a wide array of design options, and capabilities for leading-edge, high-speed data transmission -- including Synchronous Digital Hierarchy (SDH) -- applications.

The XRTL91 and XRT5997 are primarily targeted toward manufacturers of E1 equipment. Some of the primary target applications include telecommunications manufacturers utilizing multi-channel line cards, as well as, network multiplexers, central office switches and digital cross connects.

Typical of SDH applications, E1 line cards have 21 channels. By virtue of Exar's innovative seven-channel design (XRT5997), only three devices, instead of the customary seven, are needed for a standard Analog Front End (AFE). This device count reduction improves both board real estate, and system costs allowing OEMs to offer the latest, most competitive systems to their customers.

For each device, there is an independent driver and receiver circuitry for each channel, allowing seamless Pulse Code Modulation (PCM) interfacing. Each of the drivers can be independently disabled giving designers' greater flexibility in developing optimal power management and back-up redundancy solutions.

Because both devices are based upon standard CMOS process, conversion of AMI line coded signals to TTL/CMOS logic levels is virtually automatic. In addition, designers have the flexibility to interface to either 75 or 120-Ohm lines for transformer coupled configurations.

The XRT59L91ID is available in a 16-lead JEDEC SOIC package. Similarly, the XRT5997IV is available in a 100-pin TQFP package. Both products are designed for industrial temperature ranges.