RIC-E3/ETH, RIC-T3/ETH

10/100BaseT to E3/T3 Interface Converters

RAD

- The units feature fault propagation. If a link failure is detected, the user port is shut down.
- The front and back panel LEDs indicate AIS and LOS line conditions and provide information on the status of the Ethernet link.
- A dry contact alarm relay port is supported via a rear panel 9-pin connector. The port enables relay of the major and minor alarm conditions using Normally Open and Normally Closed operation of the connector pins.

FEATURES

- Interface converters connecting 10/100BaseT LANs over E3/T3 services
- Cost-effective alternative to packet-based E3/T3-to-LAN routing interfaces
- Built-in bridge and VLAN support operating at Fast Ethernet rates
- Fault propagation of E3/T3 error conditions to Ethernet port
- User-selectable multicast and broadcast prevention to WAN
- Plug-and-play LAN connection
- Alarm relay for the transmission of line fault reports
- Fully compatible with IEEE 802.3U

DESCRIPTION

- RIC-E3/ETH and RIC-T3/ETH interface converters, offer a simple, cost-effective connection between E3/T3 services and 10/100BaseT LANs.
- RIC-E3/ETH and RIC-T3/ETH transparently connect unframed E3/T3 and 10/100BaseT links, utilizing the full E3/T3 bandwidth without heavy overhead associated with packet or cell-based technologies.
- Built-in Ethernet bridge with VLAN support enables virtual LAN connectivity.
- The Ethernet interface module performs frame filtering and forwarding at the Fast Ethernet maximum theoretical rate of 150,000 frames per second. The bridge causes no LAN delays.
- The converters provide full control over the multicast and broadcast messages, which can be forwarded from LAN to WAN or blocked from it.
- RIC-E3/ETH and RIC-T3/ETH support autonegotiation, for plug-and-play Ethernet connection without any additional configuration.

RIC-E3/ETH, RIC-T3/ETH

10/100BaseT to E3/T3 Interface Converters

SPECIFICATIONS

E3/T3 INTERFACE

- **Standard**
  E3 or T3, unframed

- **Impedance**
  75Ω, unbalanced

- **Connectors**
  Two shielded BNC, unbalanced

ETHERNET INTERFACE

- **LAN Table**
  1,000 MAC addresses with 5-minute automatic aging

- **Filtering and Forwarding**
  Up to 150,000 frames per second

- **Max Frame Size**
  1536 bytes

- **Buffer**
  320 frames

- **Delay**
  1 frame

- **Standard**
  10/100BaseT IEEE 802.3/ Ethernet V.2

- **Transmission Line**
  4-wire, category 5 UTP, 19 AWG to 26 AWG

- **Connector**
  RJ-45

GENERAL

- **Indicators**
  PWR (green) – Power is ON
  ELECTRICAL LOW (red) – E3/T3 input is below G.703 level
  ELECTRICAL AIS (yellow) – E3/T3 interface received Alarm Indication Signal
  ETH LINK (green) – LAN is connected to the Ethernet interface
  ETH ACT (yellow) – LAN is receiving/transmitting data
  ETH 100 (green) – LAN is operating at 100 Mbps

- **Timing**
  - Receive: recovered from the receive clock signal from the E3/T3 interface
  - Internal: provided by internal crystal oscillator (±25 ppm)

- **Alarm Port**
  9-pin, D-type, female

- **Power**
  AC: 100 to 240 VAC, 50 to 60 Hz, 15 VA
  DC: -40 to -60 VDC, 9W

- **Physical**
  Height: 44 mm (1.7 in)
  Width: 194 mm (7.6 in)
  Depth: 243 mm (9.6 in)
  Weight: 1.4 kg (3.0 lb)

- **Environment**
  Temperature: 0–50°C (32–122°F)
  Humidity: Up to 90%, non-condensing

ORDERING

RIC-E3/ETH/*
10/100BaseT to E3 interface converter

RIC-T3/ETH/*
10/100BaseT to T3 interface converter

* Specify power supply:
  AC for 100 to 240 VAC
  DC for -40 to -60 VDC

OPTIONAL ACCESSORIES

RM-9
Hardware kit for mounting one or two RIC-E3/ETH, RIC-T3/ETH units in a 19-inch rack
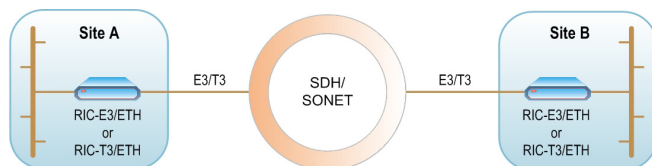
APPLICATIONS

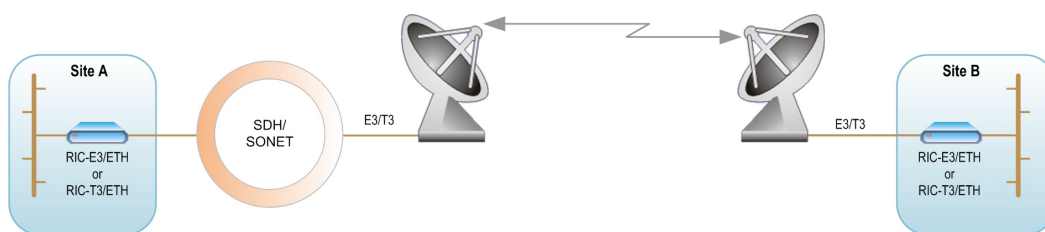**Figure 1. Connecting Remote LANs over E3/T3 Lines**

Figure 2. Connecting LANs over Wireless E3/T3 Link