DXC-100 Module
D8E1T1
8-Port E1/T1 Interface Module

- Eight E1 or T1 links on a single module
- Any port can be configured for either E1 or T1 operation
- Up to 10:1 hardware redundancy available via the DXC-100PSX unit
- Monitoring and control by ASCII terminal, Telnet, or by RADview Network Management System

D8E1T1 is an 8-port E1/T1 module for use with the modular multiservice access node DXC-100. The module provides E1 or T1 links over copper cable and operates at E1/T1 or fractional E1/T1 rates.

D8E1T1 provides up to eight E1 or T1 links, in any combination. It uses D4, ESF, or G.70x framing and AMI, B8ZS, or HDB3 line coding.

Setup, control, and diagnostics can be performed using an ASCII terminal connected to the supervisory port. Alternatively, these can be performed using Telnet or the RADview SNMP element management system connected to the Ethernet 10/100BaseT port.

Diagnostic capabilities include local, remote, and inband code-activated loopbacks on each E1/T1 port. Also, a BER test can be performed on any link. For voice applications, call-processing ABCD signaling bits can be monitored.

The module has an RJ-48M 50-pin female Telco connector, which is convertible to 8 RJ-45 connectors via an adaptor cable (see *Ordering*).

In a stacked DXC-100 configuration, each DXLC module installed in Nests 2 to 8 can also perform all the functions of the D8E1T1 main module. To achieve this, a D8E1T1 interface module should be installed at the rear of each DXC-100 chassis, to provide 8 additional E1/T1 ports.

Up to 10:1 hardware redundancy is available via the external DXC-100PSX unit.

8-port, E1/T1 copper links for the DXC-100 family of modular cross-connects

RAD
data communications
The Access Company

Specifications

Number of Ports
8

Standards
Complies with the relevant sections of the following technical standards:

ITU-T Rec. G.703, G.704, G.706, G.732, G.733, G.734, G.775, G.796, G.821, G.823, G.826, G.921

AT&T TR-62411, TR-54016, TR-43801

ANSI T1.101, T1.403, T1.107, T1.102

Bellcore TR-TSY-000170, TR-TSY-000499, TR-TSY-000194, TR-TSY-000191

Connector
50-pin RJ-48M connector on the rear interface module, convertible to 8 RJ-45 connectors via adaptor cables (see *Ordering*)

E1 LINKS

Data Rate per Port
2.048 Mbps

Framing
CRC
CAS

Line Code
HDB3

Jitter Performance
As per ITU-T Rec G.823

Line Impedance
120Ω ±5%, balanced

Pulse Shape
As per ITU-T Rec. G.703

T1 LINKS

Data Rate per Port
1.5444 Mbps

Framing
SF (D4)
ESF

Line Code
AMI, B8ZS

Jitter Performance
As per AT&T TR-62411

Line Impedance
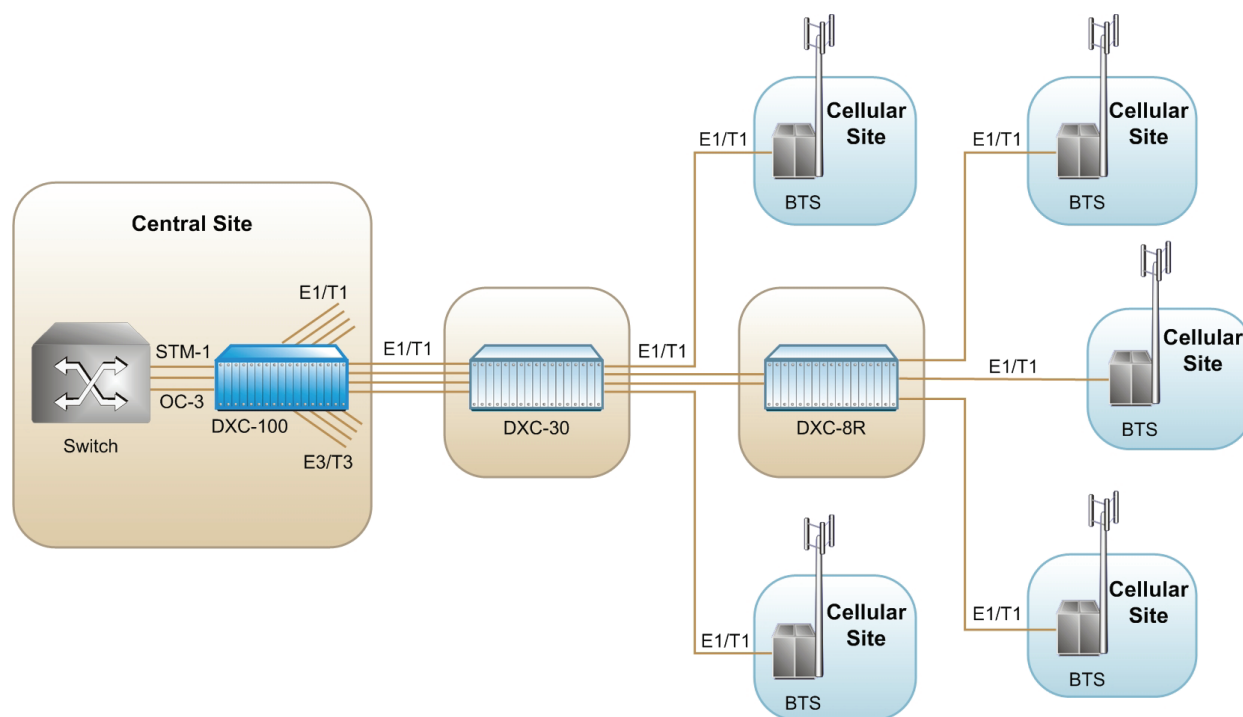100Ω ±5%, balanced

Pulse Shape
As per T1.403

Figure 1. Cellular Aggregation Over E1/T1 Links to a Central Site

Timing
Receive timing is recovered from the incoming line signal or received via the DSMC.2 module

Transmit timing is locked to the DXC-100 master (Stratum 3) clock, incoming line signal, or station clock (all via the DSMC.2 module)

Redundancy Capability
Up to 10:1 with DXC-100PSX

Indicators
READY (green/red): indicates the status of the module set in general

STATUS (red/green): indicates link status separately for each of the E1/T1 links

TEST (yellow): indicates test status for each of the E1/T1 links separately

Timeslot Allocation
User-defined, any timeslot maps to any other timeslot

Diagnostics
Local and remote loopbacks on each module port

BER testing on each port

Inband code activated loopback

Power Consumption
14.3W (2.86A @ +5 VDC)

Configuration
Programmable via DXC-100 management by ASCII terminal, Telnet, or RADview Network Management System

Physical
Front main module:

Height: 26.3 cm (10.3 in)
Width: 2.5 cm (0.9 in)
Depth: 21.3 cm (8.3 in)
Weight: 0.4 kg (0.9 lb)

Rear interface module:

Height: 26.3 cm (10.3 in)
Width: 2.5 cm (0.98 in)
Depth: 12.7 cm (5.0 in)
Weight: 0.5 kg (1.1 lb)

D8E1T1

8-Port E1/T1 Interface Module

Ordering

DXC-100M-8E1T1-?

8-port E1 and T1 module

Legend

? Module type (default is main and interface module set):

M main, front-mounted module

IO interface, rear-mounted module

OPTIONAL ACCESSORIES

DXC-100PSXM-D8E1T1/*

3U DXC-100PSX 8E1/T1 interface module

Legend

* Module type:

P primary module

R redundancy module (one module is required per system)

Note: *One Telco interconnection cable (CBL-100PSX-D8E1T1) is provided with each DXC-100PSX module to connect to DXC-100*

CBL-DXC-100-D8E1T1/B

Straight cable for D8E1T1, 5m (15 ft), RJ-48M 50-pin female Telco connector to 8 × RJ-45 connectors

CBL-DXC-100-D8E1T1/B/X

Cross-cable for D8E1T1, 5m (15 ft), RJ-48M 50-pin female Telco connector to 8 × RJ-45 connectors

RAD
data communications
The Access Company