PRODUCT DATASHEET

DS3-12p Plug-In Card

DESCRIPTION

Provides 12 DS3 ATM UNI or NNI interfaces. The Calix C7 DS3-12p can be plugged into any of the 20 universal slots within the Calix C7 shelf. Physical access to each DS3 interface is provided through coaxial interface adapters mounted on the back of the Calix C7 shelf. Coaxial interface adapters are available with low profile/high density SMB connectors.

KEY ATTRIBUTES

INTERFACE DENSITY: The Calix C7 14-inch high shelf can be equipped with up to 20 DS3-12p cards for a total of 240 DS3 interfaces per shelf. Up to five shelves can be configured in a single node configuration to deliver 1,200 DS3 interfaces from a single 7-foot bay.

FAULT ISOLATION: Supports terminal, facility and payload loopbacks on all interfaces. This system feature facilitates the fault isolation process in circuits, thus reducing costly troubleshooting and service network down times.

FAULT PREVENTION: The DS3-12p card has been designed to support ANSI T1.231 and GR-820-CORE Issue 2 performance monitoring specifications. The health of the facilities can be evaluated before failure by programming the appropriate performance alarm thresholds for each DS3-12p interface.

END-TO-END SERVICE AUTO PROVISIONING: The user specifies two end points of a particular service. The system then provisions the path and bandwidth (primary and protected) between those two points. The criteria used by the system for path selection is programmable, and the user always has the option of overriding the automatic selection and provisioning services manually.

PLUG AND PLAY: New DS3-12p cards can be added to the system with ease and minimum user intervention, allowing quick and easy turn up of new services. There is no power or bandwidth restrictions, significantly easing the service provider's service planning and forecasting activities.

Calix

S P E C I F I C A T I O N S

DS3-12p Plug-In Card

ORDERING INFORMATION

Calix Part No. 100-00025

PORTS

12 DS3 ports per card
240 DS3 ports per shelf
1200 ports per rack

ELECTRICAL

DSX-3 level at 44.736 Mbps
Line Coding—B3ZS
Frame Format—Meets ANSI T1.107/T1.107a
Signal Format—C-Bit parity
Loopbacks—Facility, Payload, and Terminal

ATM

UNI 3.0/3.1 PVC support
CBR, UBR, rt-VBR, nrt-VBR, and GFR service categories per ATM Forum Traffic Management 4.0/4.1
Full UNI and NNI VPI/VCI fields with translation
14K user PVCs per card
Per-VC dual leaky bucket policing supported on all PVCs
Per-VC traffic shaping supported on all PVCs
F4/F5 OAM cells for management

PHYSICAL ACCESS

Optional interface adapters mounted on the back of the C7 shelf.
SMB connectors (3 options available):

- SMB-12: Supports 12 DS3 interfaces per adapter (up to 10 adapters per shelf)
- SMB-60: Supports 60 DS3 interfaces per adapter (up to 4 adapters per shelf)
- SMB-120: Supports 120 DS3 interfaces per adapter (up to 2 adapters per shelf)

STATUS INDICATORS

FAIL: Red – The card has failed
ACTIVE: Green – One or more ports are provisioned and the card is not in standby mode
STBY: Yellow – The card is ready for a protection switch
NE: Red – At least one DS3 port has near-end failure
FE: Yellow – At least one DS3 port has far-end failure

POWER REQUIREMENTS

Input: –48 VDC
Range: –42.5 to –56.5 VDC

POWER DISSIPATION

35 Watts per card

PHYSICAL DIMENSIONS

Size: 9.3 inches (height) x 0.7 inches (width) x 9.0 inches (depth)

OPERATING ENVIRONMENT

Temperature: –40° C to +65° C (–40° F to +149° F)
Humidity: 5 to 90% non-condensing
Altitude: to 13,125 feet
Storage temperature: –40° C to +70° C (–40° F to +158° F)

NEBS LEVEL 3 COMPLIANCE

Telcordia GR-63-CORE, "Network Equipment-Building System (NEBS) Requirements," Telcordia, Issue 1, October 1995.
Telcordia GR-1089-CORE, "Electromagnetic Compatibility and Electrical Safety," Telcordia, Issue 2, December 1997 with revision 1, February 1999

SAFETY

NTRL-UL 1950

EMI/RFI

FCC Part 15 Class A

STANDARDS SUPPORT

Telcordia GR-199-CORE, Operations Application Messages - Memory Administration
Telcordia GR-499-CORE, Transport Systems Generic Requirements (TSGR): Common Requirements, Issue 2, December 1998
Telcordia GR-820-CORE, Generic Transmission Surveillance, December 1997
Telcordia GR-833-CORE, Network Maintenance: Network Element and Transport Surveillance Messages, February 1999
ANSI T1.102-1993, Digital Hierarchy-Electrical Interfaces
ANSI T1.107, Digital Hierarchy - Formats Specifications 1995
ANSI T1.231, Digital Hierarchy-Layer 1 In-Service Digital Transmission Performance Monitoring, 1997
ANSI T1.404, Network-to-Customer Installation DS3 Metallic Interface Specification, 1994
ANSI T1.646, Broadband ISDN Physical Layer Specification for UNI Including DS1/ATM, 1995
ITU-T, I.610 BISDN Operation and Maintenance Principles and Functions, 1999
ATM Forum UNI 3.0/3.1
ATM Forum Traffic Management 4.0/4.1

Calix
1035 N. McDowell Blvd., Petaluma, CA 94954
tel: 877.766.3500 www.calix.com

#250-00035, Rev. 13