

DFS1/4 SDH Transport Unit

The DFS1/4 blade is the SDH transport unit of the DynaFlex Multiservice Access Platform. The DFS1/4 allows users to connect DynaFlex systems over an SDH backbone to transport E1 and high capacity Ethernet services.

SDH, Ethernet and TDM

The DFS1/4 transports Gigabit Ethernet and E1/TDM services over an SDH network.

The DFS1/4's Gigabit capabilities cost-effectively drives Ethernet services to the network edge, enabling the delivery of resilient, managed, IP-based services.

The DFS1/4 is typically deployed by Network Operators to increase the bandwidth capacity of their networks and adapting to new Ethernet driven traffic demands whilst maintaining traditional PDH based services.

The DFS1/4 allows customers to migrate to an SDH network from existing PDH only transport networks. This unit can be installed in a DynaFlex subrack alongside other DynaFlex family multiplexers and interface units.

The DFS1/4 has two multi-rate STM-1/STM-4 trunk interfaces and two fixed rate STM-1 interfaces that can operate as a trunk or tributary.

An integrated switch fabric ensures maximum bandwidth utilisation by enabling both high order and low order cross connection of tributary services onto available network bandwidth.

The platform combines Ethernet and E1 transmission systems over an optical trunk with speeds of up to STM-4.

Four independently configurable Ethernet interfaces are provided. Each interface supports rate limiting and speeds up to the available trunk bandwidth.

Up to 12 E1 interfaces are provided.

SDH interfaces provide flexibility in network design, configurable in protected Ring, Linear MIIdspan, Point-to-Point or composite network topologies.

SNCP and MSP/1+1 network protection schemes assure protection switching in less than 50ms.

The platform also optimizes Ethernet bandwidth utilization by harnessing VCAT and LCAS for dynamic bandwidth adjustment and fine grain bandwidth allocation over the optical trunk.

Cross connections can also be made between trunks within a single node at the VC12, VC3, and VC4 level.

Management

The DFS1/4 Transport Unit can be managed using Telnet and SNMP. Additionally, Avara's ASPeCT Element Manager can be used to manage the DFS1/4 over an encrypted TCP connection for secure access.

Remote software download and unit configuration using TFTP is available as is a comprehensive set of SNMP traps and alarms for fault management.

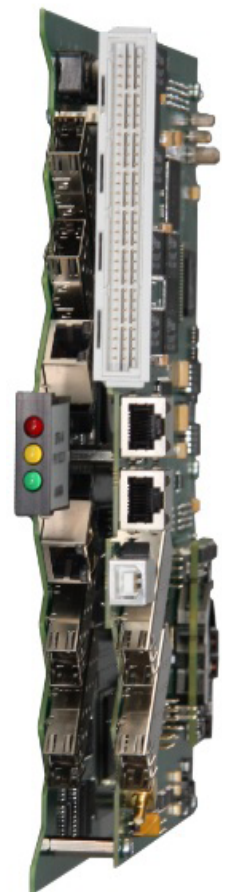
Technical Highlights

Interfaces (Single Slot)

- 2 x STM1/4 (SFP)
- 2 x STM1 (SFP)
- 2 x 10/100/1000Base-T (RJ48)
- 2 x 1000Base-X (SFP)
- 12 x E1
- 2 x V.11 (Q1 Transport)

Key Features

- Hot-pluggable into DynaFlex
- Interoperable with third party SDH platforms
- Manageable via SNMP & ASPeCT.
- -20 to -72 VDC Power Supply
- -20 to +65 °C operation



Technical Specifications

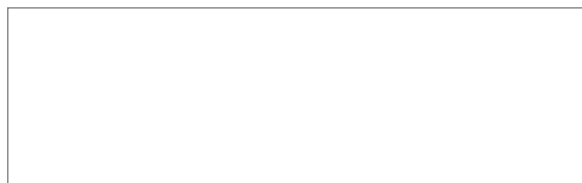
Model Order Code P61102.01 DYF-DFS14-12E1	SDH STM1/4 Transport Unit	Management Local Remote	Ethernet SNMP
Network Timing Node Synchronisation Sync out	E1 ports 1-4/Internal G.703 E1 ports 1-4	Power Power Supply Power Consumption	-20 to -72 VDC 30 W (Max.)
SDH Interfaces Interfaces Topology Protection Switch Time SDH Multiplexing Cross Connect Capacity	2 x 155/622 Mbps (SFP) 2 x 155 Mbps (SFP) Ring, Terminal, Linear Midspan SNCP/UPSR, MSP/1+1 Sub 50ms VC12, VC3, VC4 HO 10xVC-4 or 30xVC-3 LO 630xVC-12	Alarm Reporting Front panel LED Mechanical Height-Depth-Width	Major (red) Minor (yellow) A, B and D alarms reported to bus for relay contact activa- tion on PIU 233 x 160 x 51mm
E1 Interfaces Interface Impedance Connector	12 x E1 2.048 Mbps 120 Ohms Euro Connector	Environmental Operating Temperature Relative Humidity	-20 °C to +65 °C 5-90% (Non-condensing)
Ethernet Interfaces Interface Standards WAN Protocols Connector	2 x 10/100/1000BaseT 2 x 1000Base-X (SFP) IEEE 802.3 GFP, PPP, LAPS (X.86) RJ45 and SFP	Standards ITU-T G.703 ITU-T G.707 ITU-T G.783 ITU-T G.803 ITU-T G.805 ITU-T G.806 ITU-T G.825 ITU-T G.826 ITU-T G.841 ITU-T G.957 ITU-T G.7041/Y.1303 AS/ACIF S016 ITU-T V.11	IEEE 802.3 Ethernet RFC1157 SNMP RFC1213 MIB II EN55022 Class A Emissions EN60950 Safety EN55024 Immunity EN50082-2 Generic Immunity ETS 300 019 -1-1 Operational ETS 300 019 -1-2 Storage ETS 300 019 -1-3 Transport RCM Mark CE Mark

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