



FOP4/8/16

4/8/16xE1 + 2xFE over Fibre Multiplexer

- Simultaneously multiplexes 16 E1 and one 10/100 Mbit/s Ethernet tributaries
- Plug in optical transceivers supporting short, medium, long, dual or single fiber options
- Up to 120 km section length
- 1+1 optical Automatic Protection Switch (APS) option
- Ring topology support
- Control and monitoring over Embedded Web server and SNMP (MIB: RFC-2495, RFC 2233, RFC 2493) support for NMS
- Local displaying of remote device alarms
- Compact 1U, stand alone or 19"/ETSI mount options
- External office/environmental dry contact alarm inputs and orderwire option
- 220V AC and/or -48V DC options (dual power protection)
- Embedded BER Built In Self Test (BIST) on all E1 tributaries and Optical line



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Description

FOP16 is optical transmission equipment that combines up to 16 TDM E1 signals and one packet oriented 100 Mbit/s Ethernet signal through the fibre link. Besides, optical multiplexer FOP16 provides many value-added functions and interfaces in order to meet different customers needs. It is a very flexible and efficient way to use the FOP16 in optical transmission network for voice, data, and wireless applications.

FOP16 provides network management system for local/remote maintenance purpose by a well known and friendly GUI based Web Server and standard SNMP. FOP16 also provide switch and LED indications for field application.

On optical transmission line, the FOP16 provide two fibre links for 1+1 protection or ring configuration.

Application

- Point-to-point fibre optic links
- Linear fibre optic networks, providing add-and drop capability
- Supports fibre rings and complex network structure
- Local cross-connect at E1 (2 Mbit/s) levels

Main features

- Plug-in SFP optical transceivers, provides different fiber type and section lengths
- 16 E1 PDH tributary interfaces for 2 Mbit/s
- Full non blocking cross-connect matrix at E1 level
- Wire speed Ethernet bridge functionality
- Optical Line protection, 1+1
- Advanced fault diagnosis (integrated BER tester)
- Integrated network management system
- SNMP northbound and southbound interfaces SNMP MIB
- Control and monitoring using standard SNMP viewer

TECHNICAL DATA

Optical interface 15520 kbit/s

Number of interfaces	up to 2xSFP
Frame	proprietary
Multiplexing method	ITU-TG.472 like

Optical characteristics depends on plug in module characteristics

option -S1A	optical connector LC
light source	FPLD, 1310 nm
output power	-5 dBm
typical section length	49 km
option -S1B	optical connector LC
light source	DFBLD, 1550 nm
output power	-5 dBm
typical section length	100 km
sensitivity for 10 ⁻¹⁰ BER	-34 dBm
maximum input level	-10 dBm

Interface G.703 2 Mbit/s

Type of signal	2048 kbit/s ±50 ppm HDB3
Nominal impedance	75 Ω asymmetric 120 Ω symmetric

Input

Max. cable attenuation	0 - 6 dB at 1024 kHz
Input jitter tolerance	ITU-T G.823
Input return loss	
12 dB in range	50 kHz to 100 kHz
18 dB in range	100 kHz to 2 MHz
14 dB above	2 Mhz

Output

Nominal impulse amplitude	2.37 V ± 0.237 V, 75 .
Impulse shape according to	ITU-T 15/G.703
Output jitter up to 100 kHz	0.25 UI p-p
in range 18 kHz to 100 kHz	0.05 UI p-p

Ethernet interface	2 x10/100 BaseTx (IEEE 802.3)
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Power supply

DC input voltage	-36 to -72 V
Power consumption	<4 W

Environmental conditions

Climatic conditions	class 3.1 ETSI
Temperature	-5°C to +45°C

Physical dimensions (H x W x D)

Unit	440 x 257 x 43.2 mm
Weight	3.15 kg
	rack-mountable hardware included