

FOM Family

E1/T1/Voice/Datacom Fiber Multiplexer with Built-in 100Mbps Ethernet Trunk

FMUX01A/Plus



The FMUX01A/Plus is a 1U, 19" rack mountable, PDH fiber optic multiplexer that transmits up to 16 channels plus a wire speed 100Base-TX Fast Ethernet channel over a single fiber optic link. The FMUX01A/Plus chassis is available in five different power configurations: single AC, single DC, dual AC, dual DC or AC+DC. The AC supplies operate from 90~260VAC while DC supplies operate from 36~72VDC or 20~60VDC. From the rear of the chassis, one to four hot swappable quad E1 or T1 line cards, serial data communications (V.35, X.21, RS-530) or FXO/FXS voice cards are supported. The standard FMUX01A/Plus configuration may be viewed or set via the front panel LCD/menu keys, serial VT-100 terminal connection, Telnet or SNMP.

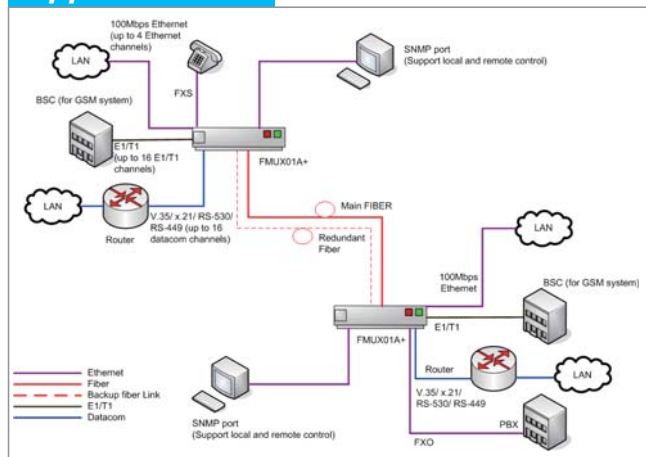
Features

- 1U, 19 (23)" 4 slot chassis
- 16 E1 (2.048Mb/s) Multiplexer, 100Mbps Ethernet and RS-232 data (async)
- RS-232 port for system console
- One alarm output port, one Order Wire port
- SNMP management
- LCD plus menu keys for local configuration
- 2 plug-in I/O slots for optical interface cards

Specifications

Ports	Connector : 1x9 (SC, ST, FC)
Optical Interface :	Data rate : 155.52Mbps
	Bit Error Rate : Less than 10^{-11}
	Cable type : MM 62.2/125 μ m, 50/125 μ m. SM 9/125 μ m
	Distance : MM 2km. SM 15/30/50/80/120km, WDM 20/40/60/80km
Electrical Interface :	Wavelength : 1310, 1550nm
	Console, SNMP : RJ45
	Ethernet : 2 x RJ45
	Alarm : RS232 (DB9F)
Standard	E1:ITU-T, T1:ITU-T, AT&T, ANSI, Ethernet: IEEE802.3x
LEDs	PWR, Alarm, LBK, RD, LCK, RNG, ACO, Port, Channels
Power	AC : 100 ~240V
	DC24 : 20 ~ 60V, DC48 : 36 ~ 72V
Power Consumption	< 40W
Dimensions	250 x 438 x 43mm
(D x W x H)mm	
Weight	3.58 kg
Temperature	0~50°C (Operating) ,0~70°C (Storage)
Humidity	10~90% non-condensing
Certification	CE, FCC, RoHS
MTBF	57350 hours

Application



Specifications - Modules

Fiber Optical Module

Ports	1 + 1 ports (redundant)
Fiber Cable	9/ 125 um for single mode ; 50/ 125 or 62.5/ 125 for multi-mode
System Power Gain	> 25dB@1*10 ⁻¹⁰
Wavelength Range	1280 — 1550nm
Connector	SC, FC, ST

The switching time between is less than 50m sec



E1 BNC I/F



E1/T1 Wire-Wrap I/F

Fiber Optical Module

Standards	ITU-T G.703, G.704, G.706, G.732
Ports	4 ports
Framing	Unframed (clear channel)
Data rate	2.048 Mbps ± 50 ppm
Line code	HDB3/AMI
Receive Level	Short haul - 15dB
Line impedance	75 ohms ± 5% / 120 ohms ± 5%
Connector	RJ-45 for 120 ohms BNC for 75 ohms Wirewrap for 120 ohms



E1/T1 RJ - 45 I/F

T1 Interface Module

Standards	ITU-T G.703, G.704, AT&T TR-62411, ANSI T1.403
Ports	4 ports
Framing	Unframed (clear channel)
Data rate	1.544 Mbps ±50 ppm
Line code	B8ZS / AMI
Receive Level	Short haul - 15dB
Line impedance	100 ohms ±5%
Connector	RJ-45 for 100 ohms Wirewrap for 100 ohms

FXO/FXS Module

Standards	G.711 A-law
Voice channel transparent	T.38 and Group III Fax relay at 2.4 ~14.4kbps Fax application
Distance	300m
Bandwidth	64K voice channel
Connector	RJ11*4 (4 voice channel /per unit)
Receive Level	Short haul - 15dB
Internet application	Support modem pass-through



Datacom I/F

Datacom Interface Module

Standards	N/A
Card Type	V.35/ RS-530 (Include X.21 and RS-449) / RS-232 I/F
Bit rate	n x 64K, n = 1 to 32 V.35 & RS-530 up to 2Mbps RS-232 up to 128Kbps (SYNC) V.35H & RS-530H up to 8Mbps
Line code	NRZ
Clock Mode	Transparent, Recovery External (From data port) Internal (From oscillator)
Control Signal	CTS always On or follows RTS DSR constantly ON, except during test loops (RS-530 DSR always connect to DTR) DCD constantly ON, except during fiber signal loss
Test Loops	Local loop back, Remote loop back, V.54
Connector	Type Uses HD-68 pin D type Female with adapter cables

Ordering Information

Master Unit	Description
FMUX01A/Plus -AC	Chassis with one AC power
FMUX01A/Plus -DC1	Chassis with one DC power (20~60V)
FMUX01A/Plus -DC2	Chassis with one DC power (36~72V)
FMUX01A/Plus -AD1	Chassis with one AC and one DC power for Redundancy(20~60V)
FMUX01A/Plus -AD2	Chassis with one AC and one DC power for Redundancy (36~72V)
FMUX01A/Plus -AA	Chassis with two AC power for Redundancy
FMUX01A/Plus -DD1	Chassis with two DC power for Redundancy(20~60V)
FMUX01A/Plus -DD2	Chassis with two DC power for Redundancy(36~72V)
Interface Modules	Description
E1/T1	
FMUX01A/Plus -E1/BNC	4 x G.703 E1 BNC interface card
FMUX01A/Plus -E1/RJ45	4 x G.703 E1 RJ-45 interface card
FMUX01A/Plus -T1/RJ45	4 x G.703 T1 RJ-45 interface card
FMUX01A/Plus -T1/Wire Wrap	4 x G.703 T1 Wire-Wrap interface card
FMUX01A/Plus -E1/Wire Wrap	4 x G.703 E1 Wire-Wrap interface card
V.35 / X.21 / RS-530 /449 /232	
FMUX01A/Plus -V35	V35 interface card with one HD68M to 4 x MB34F cable
FMUX01A/Plus -530	RS-530 interface card with one HD68M to 4 x DB25F cable
FMUX01A/Plus -449	RS-449 interface card with one HD68M to 4 x DB37F cable
FMUX01A/Plus -X21	X.21 interface card with one HD68M to 4 x DB15F cable
Voice	
FMUX01A/Plus -FXO	4 x FXO interface card
FMUX01A/Plus -FXS	4 x FXS interface card
External Clock	
FMUX01A/Plus -EXT/CLK	External Clock interface card
Fiber Uplink Modules	Transceiver Type
FMUX01A/Plus -SCXXX	MM : 002km
FMUX01A/Plus -STXXX	SM : 015,030,050,080,120km
FMUX01A/Plus -FCXXX	WDM : 20A/B,40A/B, 60A/B, 80A/Bkm