

PAV Multiplexer PMUX-01

01 - 16 Channel E1, T1 and Datacom Fibre Optic Multiplexer

- 19" Rackmountable and 1U high
- Multiplex up to 16 2Mbps channels over fibre
- Interfaces - G.703, X.21, V.35, RS530
- Dual AC and DC Power options
- 1 + 1 Fibre protection
- Setup via front panel LCD, VT-100 or SNMP



PMUX 01

The PMUX01 is a single unit(1U), 19" rack mountable, E1/T1, Datacom and Ethernet Bridge multiplexer that transmits over a single fibre optic/infrared links. The PMUX01 features a modular design that provides a wide variety of customised user configurations. The optical fibre interface module is available in a number of standard fibre connections and with standard or optional redundant optical connections.

The PMUX01 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 20~60VDC. From the rear of the chassis, one to four quad E1 or T1 line cards, Datacom (V.35, X21, RS530), or Ethernet Bridge cards are supported.

All line cards provide completely transparent transmission of E1, T1, Datacom or Ethernet regardless of frame mode or timeslot assignment. Optional hardware cards are also available for external clock and SNMP. The standard PMUX01 configuration may be viewed or set via the front panel LCD/menu keys, serial VT-100 terminal connection or Telnet/SNMP with SNMP option.

Features

- Channel Capacity: 4,8,12 or 16 channels
- Auto Laser Shutdown (ALS) to prevent hazardous laser radiation to personnel
- Real Time Clock (RTC) run by backup battery to avoid time setting loss caused by power disruption.
- Configuration data can be stored into flash buffer to avoid any loss caused by power disruption.
- System performance: less than 1 error in 10^{10} bits.
- Modularized interface: G703 E1 and T1
Datacom(V.35/RS-449,530/X.21)
Ethernet Bridge 10/100 Base-T
- Alarm relay contacts provided which can offer major and minor alarms with audible and visible alarm output
- TFTP remote software upgradeable (for SNMP option)
- Local and remote loop-back functions
- Redundant Fibre 1+1Protection (optional)
- Management: local side can be managed via keypad, Terminal and Telnet ; Remote side can be managed via Inband Terminal, Telnet and Optional SNMP

Specifications

E1/T1 Interface		Ethernet Interface	
Bit Rate	(E1) 2.048Mbps+/-50ppm (T1) 1.544Mbps+/-50ppm	Compliance:	IEEE 802.3/802.3u
Line Code	(E1) HDB3/AMI (T1) B8ZS/AMI	Connector	Shielded RJ-45
Line Impedance	(E1) 120ohms/75ohms +/-5% (T1) 100 ohms +/-5%	Data Rate	10/100Mbps; Half Duplex 20/200Mbps; Full Duplex
Jitter performance	(E1) complies with G.823 (T1) complies with G.824	Filtering and Forwarding:	90,000 packets/sec
Pulse Mask	Complies with ITU-T G.703	Delay:	1 Frame
Connector	RJ-45 or BNC (75 ohms E1)	WAN Protocol:	HDLC

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Datacom Interface		Clock Mode	Transparent, Recovery,
Card Type	V.35 interface RS-530 interface (Include X.21 and RS-449) RS-232 interface	Control Signal	1. CTS always On or follows RTS 2. DSR constantly ON, except during test loops
Bit Rate	n x 64K, n = 1 to 32 V.35 & RS-530 up to 2Mbps RS-232 up to 128Kbps (SYNC)		(RS-530 DSR always connect to DTR)
Line Code	NRZ External – from data port Internal from oscillator	Test Loops	3. DCD constantly ON, except during fibre signal loss
		Connector Type	Local loop back, Remote loop back, V.54 Uses HD-68 pin D type Female

Power (May be single/dual DC or single/dual AC in one set or one AC plus one DC in one set)		System	
DC	20~60VDC	EMI	FCC, Part 15, Sub B (ClassA)
AC	90~260VAC@47-63Hz	Alarm	4 relay contacts
Consumption	40VA	Temperature	0~60°C, 32~140°F (operating)
MTBF Figure	50,000 hours	Humidity	Up to 95% (non-condensing)
		Dimensions	45x436x257mm (HxWxD) 1.75x17x10.125 inch (HxWxD)
Craft Interface			
Interface	RS-232C Asynchronous		
Bit rate	19200,8,N,1		

Optical Interface

Optical Specifications (redundant fibre has identical specifications as primary)

Type	Standard types			
	M-M	S-M	S-M	S-M
Distance (Km)	2	15	30	50
Wavelength (nm)	1310	1310	1310	1310
BER	<10 ⁻¹⁰	<10 ⁻¹⁰	<10 ⁻¹⁰	<10 ⁻¹⁰
Sensitivity dBm	-31	-32	-35	-36
Output power dBm	-20	-20	-15	-8
Power margin dBm	11	12	20	28
Return loss dBm	-12	-12	-12	-12
Connector Type	ST	v	v	v
	SC	v	v	v
	LC	v	v	v
	MT-RJ	v	v	v
	FC	v	v	v

M-M: multi-mode S-M: single-mode

PAV Data Systems maintain a continuous process of research and development, and as such, all specifications within this document are subject to change without notice.