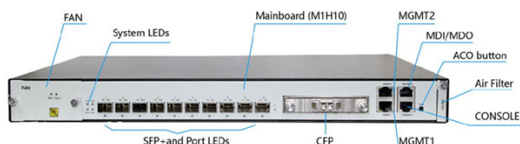


Muxponder 100G

DMAMUXP100G101

DESCRIPTION

This is one of the telecommunication facilities in OTN level which is used for accumulating the 10G traffics and converting them into one 100G, and/or receiving the 100G and Demultiplex traffics and changing them to 10 traffic 10G. This system contains 10 input client ports for receiving services where the +SFP modules are placed in it; and there is one port with GFP module inside. It is used for transmitting and receiving the 100G traffic. The tunable modules are CFP and have the capability of tuning channels in different wavelengths.



Product specification

Performance Data	Technical Indexes
Power Supply	AC: Input 100~240V, 47~63Hz DC: Input -40.5V~-72V
Power consumption	130W with coherent CFP/110W with grey CFP
Client Interface	10 SFP+ based 10G ports (10GE LAN/WAN, STM-64/OC-192, FC8G, OTU2, OTU2e)
System Interface	One CFP based 100G port (coherent CFP, 4x25G DWDM CFP, grey CFP)
Environment	Working temperature: 0°C~45°C Storage temperature: -40°C~70°C Relative humidity: 10%~90%, no condensing

System Side Signal and Multiplexing Structure	100G Grey CFP: OTU4 <--> ODU4 <--> ODU2 or ODU2e or ODUflex
	100G DWDM CFP: OCH <--> OTU4 <--> ODU4 <--> ODU2 or ODU2e or ODUflex
	10G grey SFP+: OTU2/OTU2e <--> ODU2/ODU2e
	10G WDM SFP+: OCH <--> OTU2/OTU2e <--> ODU2/ODU2e
	OC-192/STM-64 (via AMP or BMP) <--> ODU2
Client-Side Signal and Mapping Mode	10GBASE-R (via BMP) <--> ODU2e
	10GBASE-R (via GFP-F) <--> ODU210GBASE-R (via GFP-F extended payload with preamble) <--> ODU2
	FC8G (via BMP) <--> ODUflex
FEC on 100G Port	100G OTU4: G.709 Regular FEC
	100G coherent OCh: Soft-Decision FEC
	Regular FEC (G.709)
FEC on 10G Port	I.4 Super FEC (G.975.1)
	I.7 Super FEC (G.975.1)
In-band DCN Management	GCC0 on OTU4
	GCC1 or GCC2 or GCC1+2 on ODU4
	GCC0 on OTU2/2e
	GCC1 or GCC2 or GCC1+2 on ODU2/2e
Out-band DCN Management	Management Ethernet port
Transmission Protection	SNC/N
	SNC/I
	PRBS
Maintenance	Loopback
Network Management System	SNMP based NMS
Shelf Type and Dimensions(mm) (W*D*H)	440mm*350mm*44mm

Muxponder 10G OTN

DMAMUXP010G082



DESCRIPTION

This is one of the telecommunication facilities in OTN level which provides the possibility of transporting the traffic in different capacities ranging 100Mb to 10Gb on the OUT frame. This system contains 8 input client ports for the recipient services (UNI) and two Uplink (NNI) ports. The NNI1 port serves as the Main Uplink and NNI2 is Protection Uplink. Due to the existence of two ports NNI supporting (the Protection Config function in SNCP brands in Ring networks and/or establishing double routes in the Chain Networks) the function of this system is in this manner; The UNI side consists of eight any-client multi-rate access ports, UNI1 and UNI2 support 100Mbps~11.1Gbps services, and the other six support 100Mbps~6.5Gbps services. The total usable bandwidth of the 8-channel is limited to 20Gbps. The NNI side has two OTU2 ports. As an OTN access device, DMAMUXP010G082 is used to aggregate STM-1/4/16/64 service, GE/10GE service, and arbitrary service rate between 125Mbps and 10.7 Gbps into OTU2 for OTN networking. The 8 UNI ports receive multi services in clients and as the Cross connect already defined in the system, (the system) contains the capability of supporting a combination of TDM and Base Packet services. In the frame, the OTU2 is transmitted to recipient via one of the NNI defined ports. In opposite side; too, the Muxponder 10G receives the OTU2 frame from its NNI port and connects the received traffics to each UNI port of the relevant service client as per the defined CrossConnectConfig; and, the client receives this service.

Specifications of the apparatus (front view) include:

- Eight service inputs (UNI)
- Two service outputs (NNI)
- The network port (NM)
- The Console ports
- The BITS port for adjusting the apparatus clock by an outside system
- The RST switch (for the hardware reset of the apparatus).

Muxponder 10G with 322x482x45 (HxWxD) physical dimensions in mm scale

Features

- G.709 defined OTN encapsulation, mapping, and overhead;
- Pluggable optical modules;
- Alarm detection;
- SNMP, CLI command line;
- Intelligent fan with controllable temperature and manual/automatic adjustable fan speed.

Product Specifications

- Eight service inputs (UNI)
- Two service outputs (NNI)
- The network port (NM)
- The Console ports
- The BITS port for adjusting the apparatus clock by an outside system
- The RST switch (for the hardware reset of the apparatus).

Index		Performance Parameter			
Monitoring Interface	SNMP Interface	Connector Type	RJ-45		
		Rate	10/100M		
		Interface Protocols	SNMP Protocol		
Line side optical	Console Interface	Connector Type	RJ-45		
		Baud Rate	115200; Data bit: 8; Stop bit: 1; No parity check		
		Electrical Specifications	RS-232		
	OUT Input Rn Parameter	Receiving sensitivity dBm	-21(PIN) <-28(APD)		
		Receiver Reflection	<-27		
		Overload power dBm	0(PIN) -9(APD)		
		Input signal wave-length area-nm	1280~1565		
	OUT 1 interface	OUT Output Sn parameters	Optical Spectral Properties	Maximum -20dB Spectrum width-nm Minimum side mode suppression ratio-dB	1(SFP) 35
			Center frequency	Nominal center frequency-THz Center frequency offset	192.1~196.0 ≤ ±12.5(100 GHz)
		Average transmit power	Max-dBm Min-dBm	6 0	
			Minimum extinction Ratio	8.2 (SFP)	
		Dispersion accommodation value-ps/nm	3600 (DM SFP)		
		Eye Frame	Meets ITUT.G957 or ITUT.G959.1		
		OUT 2 interface	Rate - Gbit/s	9.953~11.318	
			OUT input Rn parameters	Receiving sensitivity dBm	-14(PIN) <-21(APD)
	Receiver Reflection			<-27	
	Overload power dBm			>0(PIN) >-9(APD)	
	Input signal wavelength area-nm			1280~1565	
	OUT output sn parameters		Optical spectral properties	Maximum -20dB spectrum width-nm Minimum side mode. / Suppression ratio-dB	<0.3(NRZ) >30
			Central frequency	Nominal center frequency-THz Center frequency offset	Meets ITU-T G.694.1 ≤ ±12.5(100 GHz)
				Average Transmit power dBm	-3 ~ 1
		Minimum extinction Ratio dB	8.2		
		Dispersion accommodation value-ps/nm	-300 ~ 800		
		Eye Frame	Meets ITUT.G957 or ITUT.G959.1		
	Client-side optical interface	Srm-1 interface	Rate	155 Mbit/s	
Line pattern			Scramble NRZ		
Optical interface			According to the selected SFP/SFP+ module		
Connector			Standard	LC dual Fiber Bi-directional (SFP)	
			Optional/s	LC single Fiber Bi-directional (SFP)	

Client-side optical interface	Stm-4 interface	Rate	622 Mbit/s
		Line pattern	Scramble NRZ
		Optical interface	According to the selected SFP/SFP+ module
		Connector	Standard Optional/s LC dual Fiber Bi-directional (SFP) LC single Fiber Bi-directional (SFP)
	Stm-16 interface	Rate	2.5 Gbit/s
		Line pattern	Scramble NRZ
		Optical interface	According to the selected SFP/SFP+ module
		Connector	Standard Optional/s LC dual Fiber Bi-directional (SFP) LC single Fiber Bi-directional (SFP)
	Stm-64 interface	Rate	10 Gbit/s
		Line pattern	Scramble NRZ
		Optical interface	According to the selected SFP/SFP+ module
		Connector	Standard Optional/s LC dual Fiber Bi-directional (SFP) LC single Fiber Bi-directional (SFP)
Client-side optical interface	FE ethernet interface	Rate	125 Mbit/s
		Optical interface	According to the selected SFP/SFP+ module
		Connector type	SFP
		Interface standard	IEEE 802.3
	CE ethernet interface	Working mode	Auto negotiation, forced 100M full duplex
		Rate	1.25 Gbit/s
		Optical interface	According to the selected SFP/SFP+ module
		Connector type	SFP
	10G Ethernet interface	Interface standard	IEEE 802.3
		Working mode	Auto negotiation, forced 1000M full duplex
		Rate	10Gbit/s
		Interface standard	IEEE 802.3
Client-side optical interface	OUT1 interface	Optical interface	According to the selected SFP/SFP+ module
		connector	SFP
		Transmission rate	2.5Gbit/s
		Line pattern	Scramble NRZ
	OUT2 interface	Optical interface	According to the selected SFP/SFP+ module
		connector	SFP+
		Transmission rate	10Gbit/s
		Line pattern	Scramble NRZ
Client-side optical interface	External clock Input/output interface	rate	2048 Kbit/s or 2048 KHz
		Connector type	RJ45
	voltage	voltage	AC~220v(AC 85v ~ 264v)
	power	power	<28w
	Environment	Operating temperature	0~50 centigrade
		Storage temperature	-25 ~ 60 centigrade
		Relative Humidity	10 ~ 90 % RH (non -condensing)
	Physical Dimension H/D/W	Size-mm	44.180.360
	Weight full load	< 2.1 Kg	

1U Management 8*1GE to 2*10GE Muxponder card

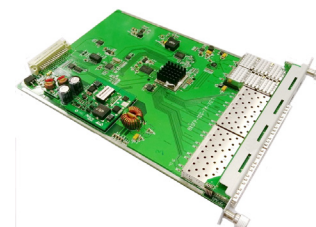
DMAMUXPXXFP082

DESCRIPTION

DMAMUXPXXFP082 is a Muxponder uses advanced TDM technology to transport eight separate 1G Ethernet data streams into two 10G Ethernet trunk ports, as well as provide 1+1 traffic protection for 2*10G Ethernet. It can improve fiber utilization and achieve reliable 1+1 protection. It is a cost-effective high-quality management system when plugged in Fiberroad 1U chassis to implement device configuration, control and maintenance easily.

Features

Wide range of applications: 10GE Data MUX/deMUX Wave-length Conversion WDM/OADM
Support 2*10GE trunk mode
Support 10G 1+1 protection mode
Up to 2 10GE ports (with XFP fiber module)
Up to 8 GE independent ports (with SFP fiber module)
Support SNMP-based network management
Support CLI, web, telnet and NMS (network management system)
Graded management mode (common user, super user or administrator)



Product Specification

Performance Data	Technical Indexes
Part number	DMAMUXPXXFP082
Module type	XFP*2 optical module optional SFP*8 optical module optional
Center wavelength	Compliance with ITU-I standard
Data Rate (Gbps)	Client Side: 1000Base-X/100Base-FX Line Side: 10.3Gbps
Optical interface type	Client Side: SFP*8 Line Side: XFP*2
NMS	TELNET、SNMP、WEB
Dimensions	482.6(W)x350(D)x43.6(H)
Power Consumption	≤15W