480EC Ethernet over SDH/PDH aggregation gateway

Description

480EC is Ethernet over SDH/PDH aggregation gateway that combines Ethernet traffic carried over SDH/PDH into an Ethernet MAN (Metropolitan Area Network). 480EC can aggregate up to remote LANs over fractional E1 inverse multiplexer 416EL, 408EL, 404EL & 401EL using standard bonding protocols.

480EC is a The unit features next-generation Ethernet over SDH/PDH encapsulation and bonding capabilities with support for standard protocols such as generic framing procedure (GFP),. The GFP protocols allow service providers to dynamically allocate bandwidth to their customers. Ethernet port supports 802.1q VLAN, 802.1p QoS & Q-in-Q layer 2 switching features. The dual STM-1 ports support redundancy operation.

480EC can be managed locally by connecting a VT-100 emulated PC to the CID port or remotely through Telnet/SNMP access all on front panel of the unit. Administration, Maintenance, and Provisioning (OAM&P) are provisioned with the use of 16Kbps embedded operation channel (EOC) that runs through the inverse link. Configured with individual IP address for local and remote unit, 480EC is accessible to the Internet users who are managing the units from a far end place.

To ensure operation continuity and accommodate field requirement, 480EC offers choices of AC or DC or AC+DC power.

Features

◆ Support 4 Ethernet ports. Each Ethernet port can be mapped into 1 to 16 E1 (EoPDH) or 1- 63 VC12-Xv (EoSDH) per VLAN ID or port.

◆ Automatically scale down the number of VC12-Xv / E1 links by LCAS (G.7042, G.7043).

◆ Support 10/100/1000M Ethernet port with tag aware and un-aware modes

◆ Meet GFP-F ITU G.7041, G.8040, Virtual concatenation over E1 G.7043, VCAT G.707

◆ Support LCAS G.7042

◆ Comply with ITU-T G.703,G.704 E1 interface

◆ Allow a maximum delay of 220 ms among E1 links or VC12 VCGs.

◆ Support jumbo packet : 9000 bytes

◆ Support 4096 VLAN ID, QinQ and 2048 Mac address learning table

◆ Support management via VT-100, Telnet, SNMP

Specification

STM-1 Interface

Standard:	ITU-T G.707
Optical interface	ITU-T G.957: S-1.1, L-1.1, L-1.2 , SFP
Line rate:	155.520 Mbps
Mapping	VC-12-Xv, X =1 – 63, G.707, G.7041
Link Capacity[LCAS]	G.7042

E1 Interface

Standard:	ITU-T G.703, G.704,
No. of E1 output:	1-16, scaled down automatically per E1 alarms
Line rate:	2048 Kbps +/- 50 PPM
Line Code:	HDB3
Framing:	PCM31, PCM31C, PCM30, PCM30C
Pulse shape:	Meet ITU-T G.703
Impedance:	Balanced 120Ω+/-5% resistive or unbalanced 75Ω+/-5% resistive, software programmable
Connection Type:	RJ-45 or BNC

LAN Interface

Standard:	IEEE 802.3 / IEEE 802.3u
Interface:	IEEE 802.3/802.3u 10/100/1000M Base-T

Data Rate:	N x1.984Mbps[N=1～8]
Bridging Capability:	Complied with IEEE 802.1d transparent bridge
	Supports VLAN ID, Q in Q and up to 2048 MAC addresses learning
Connection Type:	RJ45, 4 ports
Ethernet packet size:	Maximum packet size up to 9K jumbo frame

Fiber LAN interface(option)

Type	One 100Base-FX 802.3u interface or 10/100/1000Base-FX 802.3u interface ,SFP or SC type
Parameter	The detail specification is in order information required like fiber type, wavelength and optical power.

Alarm and Performance

CID interface:	VT-100/RS-232C/Telnet/SNMP/Web server
EOC channel:	16Kbps
SNMP:	meet IETF RFC1157,1212 and 2495@10/100Base Tx with RJ-45 connector

Meet G.821 and G.826 for E1 interface

Fiber interface; LOS, LOF

Maintenance

Loopback: LL, RL and NL(local payload loopback)

Power

AC or DC or AC+ DC is optional

AC: 90 - 260 V @ 50-60 Hz, 0.2A

DC: -36~ -72 V

Mechanic

Desktop (WxHxD)	441mmx45mmx236mm