

Product Description

VCL-16 E1 + Ethernet PDH Optical Multiplexer is a point to point high performance optical line transmission equipment, combines 16, ITU-T G.703 compliant standard electrical E1s **plus** 100BaseT ethernet signal into an optical data stream for transport over fiber optic pairs. Several transmitter options for different cable types and wave-lengths are available. 1+1 optical path redundancy is offered and available as an option.

VCL-16 E1 + Ethernet PDH Optical Multiplexer

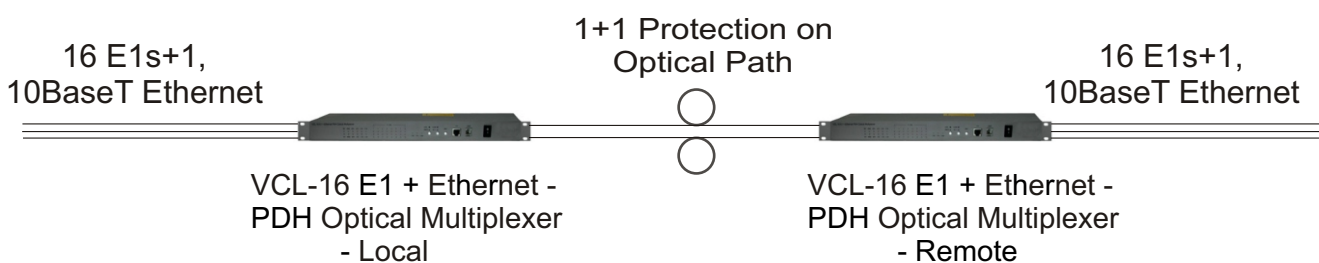


Front View

Features and Highlights

- Integrated E1 Plus Ethernet Optical Multiplexer
- Compact design that performs E1 and Ethernet channel multiplexing & de-multiplexing to an optical output
- Provides visible and audible alarm indication
- Provide Remote power detection (RPD)
- Low power consumption
- Orderwire (EOW) channel for end to end installation and maintenance
- Local and remote loop back test for diagnostics
- 1+1 Fiber Path protection
- ALS (Auto Laser Shutdown) facility for eye safety.
- 10/100M Ethernet Port - 100 Mbps Ethernet data transmission rate complies with IEEE 802.3
- E1 is available with 120 Ohms (RJ45) or 75 Ohms (BNC)
- Supports auto negotiation and flow control (pause)
- Clock options: internal/loop-timed

Application Diagram VCL-16 E1 + Ethernet PDH Optical Multiplexer



Technical Specifications

Electrical Interface	E1
Channel capacity	Upto 16E1
Bit rate	2.048 Mbps \pm 50 ppm
Line code	HDB3
Frame Structure	As per G.704
Electrical Interface	As per G.703
Nominal impedance	120 Ω balanced / 75 Ω unbalanced (optional)
Jitter character	ITU-T G.742, G.823 compliant
Connectors	DB37 interface with RJ-45 connectors (120 Ω balanced) DB37 interface with BNC coaxial connectors (75 Ω unbalanced)

Optical

Type of Transmitter	Class 1 Laser
Transmitter power	\geq -3dBm, \geq -6dBm, \geq -9dBm options, as ordered
Bit rate	155 Mbps
Wavelength	1310/1550nm (optional)
Optical connector	FC/PC
Receiver Sensitivity	\leq -36 dBm
Typical output power	\geq -9dBm
Fully Compliant with ITU-T G.957, G.958 Specification	
Class 1 Laser Product, Compliant with IEC 60825-1	
Compliant with Telcordia (Bellcore) GR-468-CORE	

Safety

Class 1 Laser
Auto Laser Shut Down in the event of fiber break.

Ethernet Interface

10/100BaseT (optional)

Number of Interfaces	1
Interface	RJ45 Ethernet 10BaseT or 100BaseT-TX (auto sensing)
Compliance	Ethernet Version 2.0 IEEE802.3 10Base-T & 100Base-TX Activity, Full/half duplex.
Interface Rate	100 Mbps Ethernet data transmission rate
Connector	RJ-45
Flow Control	Pause

Order Wire Interface

Phone set	Standard 2-wire phone set
Bandwidth	64Kb/s
Coding	PCM

Power Supply

Power Input	AC, DC, AC + DC
DC power	DC - 48V(-36~-72V) / DC 24V optional
AC power	AC 220V (185~265V)
Power consumption	18 Watts maximum

Environment

Temperature	- 5°C ~ +55°C for operation - 40°C to +70°C for storage
Humidity	5% to 95% (35°C)

Physical

Width	440 mm
Depth	202 mm
Height	43.5 mm
Weight	2 kg.
Rack Type	EIA 19-Inch

Ordering Information

S. No.	Product Description	Part No.
1.	VCL-16E1 + Ethernet PDH Optical Multiplexer 19" Metal box / case 1U High Rack Mount Version Supports : - 16 x E1 [120Ω OR 75Ω 2xDB37 (M)] - 1 x Ethernet [100Mbps, Electrical RJ45 (F)] - 2 x Optical [155Mbps, Duplex FC, 1310nm, 40Km, SMF] - 1 x 100-240V AC Power Supply Input - 1 x (-) 48V DC Power Supply Input - 1 x Systems Core Cables, Installation Accessories, Documentation, System User Manual etc (Set)	2161:1-16E1-ETH-ACDC-1310-040

Cables and Accessories Options

Description	Part No.
8E1 75 Ohms Connectorized Cable [DB37F-16BNCF]	VCL-HRNS 1246
8E1 120 Ohms Connectorized Cable [DB37F-8RJ45F]	VCL-HRNS 1255
Optical Patch Cord Connectorized Cable [FC-FC, 10m, SM]	VCL-HRNS 1240
Optical Patch Cord Connectorized Cable [FC-LC, 10m, SM]	VCL-HRNS 1242
Optical Patch Cord Connectorized Cable [2FC-2LC, 10m, SM]	VCL-HRNS 1243
Optical Patch Cord Connectorized Cable [2FC-2SC, 10m, SM]	VCL-HRNS 1257
Connector (Attenuator LC-LC (20 db.))	VCL-ECON 1173
Connector (Attenuator FC-FC (20 db.))	VCL-ECON 1187
Connector (Attenuator SC-SC (20 db.))	VCL-ECON 1198

Technical specifications are subject to changes without notice.

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