

VALIANT COMMUNICATIONS LIMITED



VCL-Ethernet to STM-1 Converters (Ethernet over SDH Converters)

Product Brochure & Data Sheet

VALIANT COMMUNICATIONS LIMITED

71/1, Shivaji Marg, New Delhi - 110015, India

Phone: +91-11 4105 5601, +91-11 4105 5602,
+91-11 4105 5603, +91-11 2592 8415,
+91-11 2592 8416, +91-11 2541 0053

Fax: +91-11 4105 5604, +91-11 2543 4300

E-mail: getinfo@valiantcom.com

Website: <http://www.valiantcom.com>

VALIANT COMMUNICATIONS (UK) LTD

1, Acton Hill Mews,
310-328 Uxbridge Road,
London W3 9QN
United Kingdom

E-mail : uk@valiantcom.com

Website: <http://www.valiantcom.com>

Product Overview

Valiant offers its Ethernet to STM-1 converters (Ethernet over SDH Converters) packaged in a 1U (44mm high) box in a 19-inch rack mount chassis.

Front View



VCL-Ethernet to STM-1 Converters

Valiant Ethernet to STM-1 converters (Ethernet over STM-1 converters) provides a 10/100BaseT data interface on the user side which may be used to transport Ethernet traffic over a STM-1 SDH link. The converter provides a simple and cost effective method to convert and transport 10/100BaseT ethernet data over an STM-1 link.

The converter solution complies with relevant ITU-T SDH specifications of G.707, G.781, G.782, G.783, G.784, G.703, G.957, G.958, G.803, G.823, G.825, G.813, G.841. This compact and robust solution for transporting Ethernet over SDH networks.

Available in 4 versions:

1. Optical Ethernet over Optical STM-1
2. Optical Ethernet over Electrical STM-1
3. Electrical Ethernet over Optical STM-1
4. Electrical Ethernet over Electrical STM-1

Applications:

- 10/100 BaseT Ethernet to STM-1 (EoS) conversion (100BaseT over an STM-1 interface)
- Ethernet over STM-1 converter - Remote LAN over wireless E3 application
- Ethernet over STM-1 converter - Remote LAN application

Features:

- Providing standard STM-1 Electric interface compliant to G.664 standard
- Easy to operate
- Applying synchronous multiplexing method and flexible multiplexing mapping structure
- Local and Remote access and monitoring with either RS232 or 10/100BaseT for remote management over TCP-IP network
- Power Supply: -48 V DC or AC power supply options available

Indications and Alarm Monitoring:

- Loss of Signal
- Loss of incoming signal at 100 BaseT Ethernet
- Configuration Error Alarm
- Clock Status
- Configuration Error

Technical Specifications

Ethernet Interface Specifications - 10/100BaseT (Electrical)

Interface Type	10/100BaseT
Number of Interfaces	1 Ethernet Port
Standards Compliance	IEEE 802.3
Transmission Bit Rate	10/100BaseT
Connectors	RJ-45 (10/100 BaseT Electrical) / FC connector (for optical)
LCAS	
GFP/X.86	
Lower and Higher Order Virtual Concatenation	
Full/half duplex, auto-negotiation	

Compliance:

G.703	Provides one standard STM-1 electrical interface complying with G.703
G.707	Network node interface for the synchronous digital hierarchy (SDH)
G.781	Structure of Recommendations on equipment for the Synchronous Digital Hierarchy (SDH)
G.782	Types and characteristics of Synchronous Digital Hierarchy (SDH) equipment
G.783	Characteristics of Synchronous Digital Hierarchy (SDH) equipment functional blocks
G.813	Timing characteristics of SDH equipment slave clocks (SEC)
G.825	Control of Jitter and Wander within Digital Networks Which are Based on the Synchronous Digital Hierarchy (SDH)
G.957	Provides one standard STM-1 optical interface complying with G.957
G.958	Digital line systems based on the Synchronous digital hierarchy for use on optical fiber cables

STM-1 optical interface specifications

Data Rate	155520 kbit/s (STM-1 optical)
Optical Signal	STM-1o (STM-1 optical) signal as per ITU-T G.957, G.958
Frame Structure	As per ITU-T G.707
Laser type	Class 1 Laser
Output optical power	≥ -9dBm (standard), Other power output options available upon request
Receiving sensitivity	≤ -35 dBm (BER ≤ 10 ⁻¹¹)
Optical connector type	FC (option 1), SC (option 2)
Central wavelength	850 nm / 1310 nm / 1550 nm (optional as per purchase order)
Optical transmission Distance	0~40 km (40~120 km optional) with standard 1310 nm SM optical interface

Mechanical Specifications

Rack Mounting	Standard 19 Inch. DIN Rack
Height	43.5 mm.
Depth	227 mm.
Width	440 mm.
Weight	4.0 kg

Power Supply

Input voltage	DC - 48V (range - 36V DC ~ - 72V DC)
Power consumption	20 W

Environmental

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

