

VALIANT COMMUNICATIONS LIMITED



64 Port E1 (32 E1 Link) HSL (High Speed Signaling Link) Monitoring Equipment

Product Brochure & Data Sheet

INDIA

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Product Overview

The VCL-64HSL, 64 Port E1, HSL (High Speed Signaling Link) Monitoring Equipment is suitable for “non-intrusive” monitoring application and for monitoring of upto 32, "live" HSL E1 (High Speed Link) traffic links, bi-directionally (i.e. in both transmit and receive directions).

64 Port E1 (32 E1 Link) HSL (High Speed Signaling Link) Monitoring Equipment



Description

The VCL-64HSL, 64 Port E1, HSL (High Speed Signaling Link) Monitoring Equipment is equipped with 64 E1 receive ports, through which the “tapped / monitored” signal of the 32 “live” HSL E1 links” is input from a high impedance (Hi-Z) point of a DDF / patch-panel. The equipment also provides 64 E1 transmit (output) ports from where the regenerated and reproduced E1 “monitored” link output is obtained by the user to connect to protocol analysers, test probes, billing servers etc. as a normal E1.

The VCL-64HSL, 64 Port E1, HSL (High Speed Signaling Link) Monitoring Equipment is capable of monitoring a -20dBdsx (0.3 Volt Pulse) input E1 signal through a Hi-Z path, without in any way affecting or disturbing the "live" E1 traffic that is required to be monitored.

The VCL-64HSL, 64 Port E1, HSL (High Speed Signaling Link) Monitoring Equipment, occupies only a 2U high rack-space, and is a compact 19-inch stand-alone unit. The unit is powered by and operates on a -48V DC power supply.

An AC mains option is also available with an external AC-DC converter.

The equipment is provided with a RS232 as well as a USB serial data interface for local equipment access and management through a serial data port. The equipment is also provided with a 10/100BaseT ethernet interface for remote equipment access over a TCP/IP link.

The user may select and use either of these ports for executing HyperTerminal text commands for configuration etc. The access for configuration and system management is provided through CLI (Command Line Interface) text commands which may be executed either from a serial (COM) Port of a PC or through the TCP/IP 10/100BaseT LAN Interface. The 10/100BaseT LAN Interface allows the equipment to be connected on a TCP/IP network for remote access for configuration and monitoring over TCP/IP link.

The system is also supplied with an easy to use Windows XP and Windows 7 compatible Graphical User Interface for easy equipment control and management.

Dry contact relay alarm output is also available at rear of the system to connect the system to an external alarm output through a dry relay contact.

User selectable resistive high impedance inputs eliminates the requirement of patch panel with Protective Monitoring Points (PMP).

Shelf Description:

VCL-64HSL, 64 Port E1, HSL (High Speed Signaling Link) Monitoring Equipment is a 2U, 19 Inch Shelf, fitted with a backplane that provides rear access of all external interfaces, including the 2Mbps electrical I/Os, safety ground and external alarm extension connectors. The system management and control interfaces are provided on the front panel for easy operator access.

The 2Mbps, Input and the Output E1 Interfaces are 120 Ohms, terminated on DB37 connectors.

Highlights, Features and Applications

- Monitors upto 32 bi-directional E1 HSL signaling links
- Powered through a dual - 48 V DC power input for 1+1 redundancy
- Remotely accessible and manageable over TCP/IP links
- User selectable resistive high impedance inputs eliminates the requirement of patch panel with Protective Monitoring Points (PMP)
- Compact 2U high, 19-inch rack mountable chassis
- Used in Billing, Network Quality Management, Fraud Management and Lawful Intercept applications
- SNMP V2 Monitoring
- RS232 and USB COM Port provide for the local access
- Windows XP / Windows 7 based GUI

Indications and Alarm Monitoring

- Loss of incoming signal at any E1 Port (LOS Alarm)
- All Ones Alarm (AIS Alarm)
- Configuration Error
- Status of the E1 Monitoring Port
- 3.3 V Volts Power Supply
- - 48V DC Input Voltage present

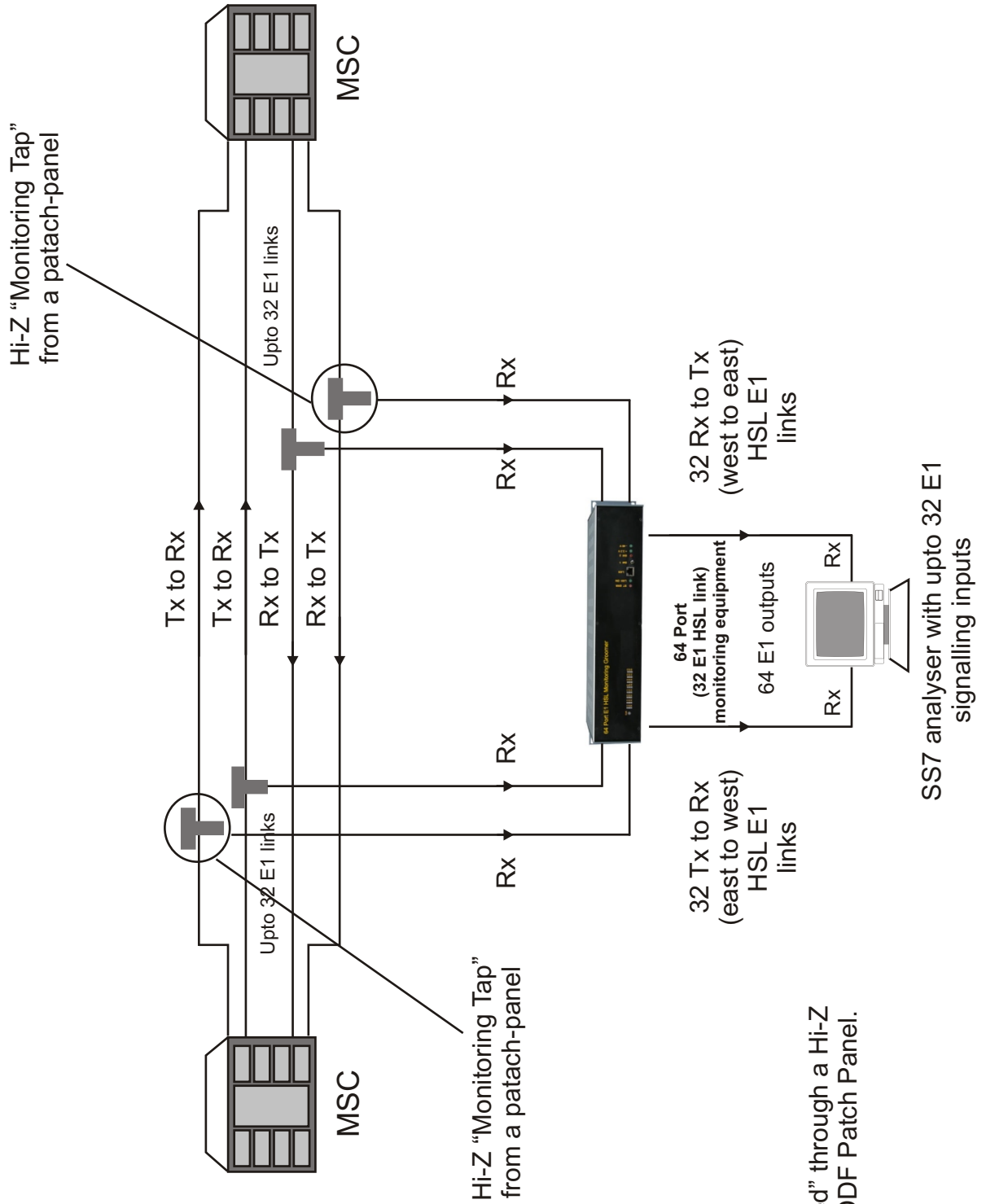
Programmable Features

- Enabling or disabling E1 Ports (masking) of the E1 Ports that are not in use

Status Monitoring

- Status of the E1 Ports in use
- Status of alarms on E1 Input Ports
- Status of Enabled / Disabled E1 Ports

**Application Diagram
32 HSL E1 link(s) monitoring**



Note:
The E1 link is "tapped" through a Hi-Z "Tapping" Port of a DDF Patch Panel.

Technical Specifications

Monitoring E1 Ports (shall connect to the E1 links that are to be Monitored) - Monitored Port (MP)

Line Rate	E1 (2.048 Mbps \pm 50 bps)
Connector	DB37
Impedance	Hi-Z for Non-Intrusive Monitoring
Compliance	G.703
Jitter	G.823
Compliance (for Hi-Z Monitoring)	G.772
Receive Signal Sensitivity	Upto -20dBdsx (0.3 Volt Pulse)
Number of E1 Receivers	64 E1 Receivers to connect to the 32 E1 links that are being monitored.

Test E1 Port (shall connect to the Test Equipment) - Test Port (TP)

Line Rate	E1 (2.048 Mbps \pm 50 bps)
Connector	DB-37
Impedance	120 Ohms
Jitter	G.823
Pulse Shape Compliance	G.703
Output Signal Pulse	3.0 Volt - as per G.703
Number of E1 Transmitters	64 E1 Transmitters / Outputs to connect to the 32 E1 links which are being monitored to Protocol Analysers, Test Equipment etc.

Power Supply

Power Supply	-48V DC (-18V DC to -72V DC) Dual Power Inputs for 1+1 Input Redundancy
Power Consumption	\leq 15 watts

Clock Synchronization Options:

Loop-Timed	E1s synchronized to respective loop-limed clock(s) from the "monitored" E1 Links
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Management and Control Interfaces

Serial Management Port - RS232 Interface
USB Serial Port
10/100 BaseT Telnet over a TCP/IP Network

System Access and Management

Windows XP and Windows 7 compatible GUI
Telnet - CLI (Command Line Interface)
SNMP V2 (MIB File provided with the equipment)

Command Language

Command Line Interface (english text commands)
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NMS (with Telnet) OAM Port Specifications

Network interface	RJ-45 Ethernet 10BaseT or 100BaseTx (auto sensing),MDI-X.
Compatibility	Ethernet Version 2.0 IEEE802.3
Protocols supported	ARP, UDP/IP, TCP/IP, Telnet, ICMP, SNMP
LEDs	10Base-T and 100Base-TX Activity, Full/half duplex.
Management	SNMP , Serial login, Telnet login
EMI Compliance	Radiated and conducted emissions – complies with Class B limits of EN55022:1998
	Direct and Indirect ESD – complies with EN55024:1998
	RF Electromagnetic Field Immunity – complies with EN55024:1998
	Electrical Fast Transient/Burst Immunity – complies with EN55024:1998
	Power Frequency Magnetic Field Immunity – complies with EN55024:1998
	RF Common Mode Conducted Susceptibility – complies with EN55024:1998

Chassis

2U High
19-inch rack-mounting shelf.

Mechanical Specifications

Width	480 mm
Depth	280 mm
Height	90 mm (2U)
Weight	4.20 kg.

Ordering Information

S. No.	Part #	Product Description	Qty
1.	VCL-HSLMON-64E1-1469	64 Port E1 (32 E1 Link) HSL (High Speed Signaling Link) Monitoring Equipment	1

Technical specifications are subject to changes without notice.
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