

COMARRA

TELECOM TRANSMISSION SOLUTION



64 Port Plus - E1 Monitoring Groomer

Product Brochure & Data Sheet

COMARRA

E-Mail: info@comarra.co.uk

Web Site: <http://www.comarra.co.uk>



64 Port Plus - E1 Monitoring Groomer

Introduction

The VCL-MegaConnect-Jr - 64 Port Plus E1 Monitoring Groomer is suitable for non-intrusive monitoring of upto 32, "live" E1 traffic links, bidirectionally (i.e. in both transmit and receive directions through its 64 E1 receivers) through a high impedance (Hi-Z) path. Additionally, the equipment also provides 16 E1 ports that shall connect the aggregated time-slots which have been non-intrusively "monitored" from the 32, "live" E1 traffic links to the user's protocol analysers, test probes, etc.

Description

The VCL-MegaConnect™, 64 Port Plus E1 Monitoring, occupies only a 3U high rack-space, and is a compact 19-inch stand-alone unit. The unit is powered by and operates on a dual (1+1 protocol) -48V DC power supply. An AC input adapter is also optionally available for AC mains operation.

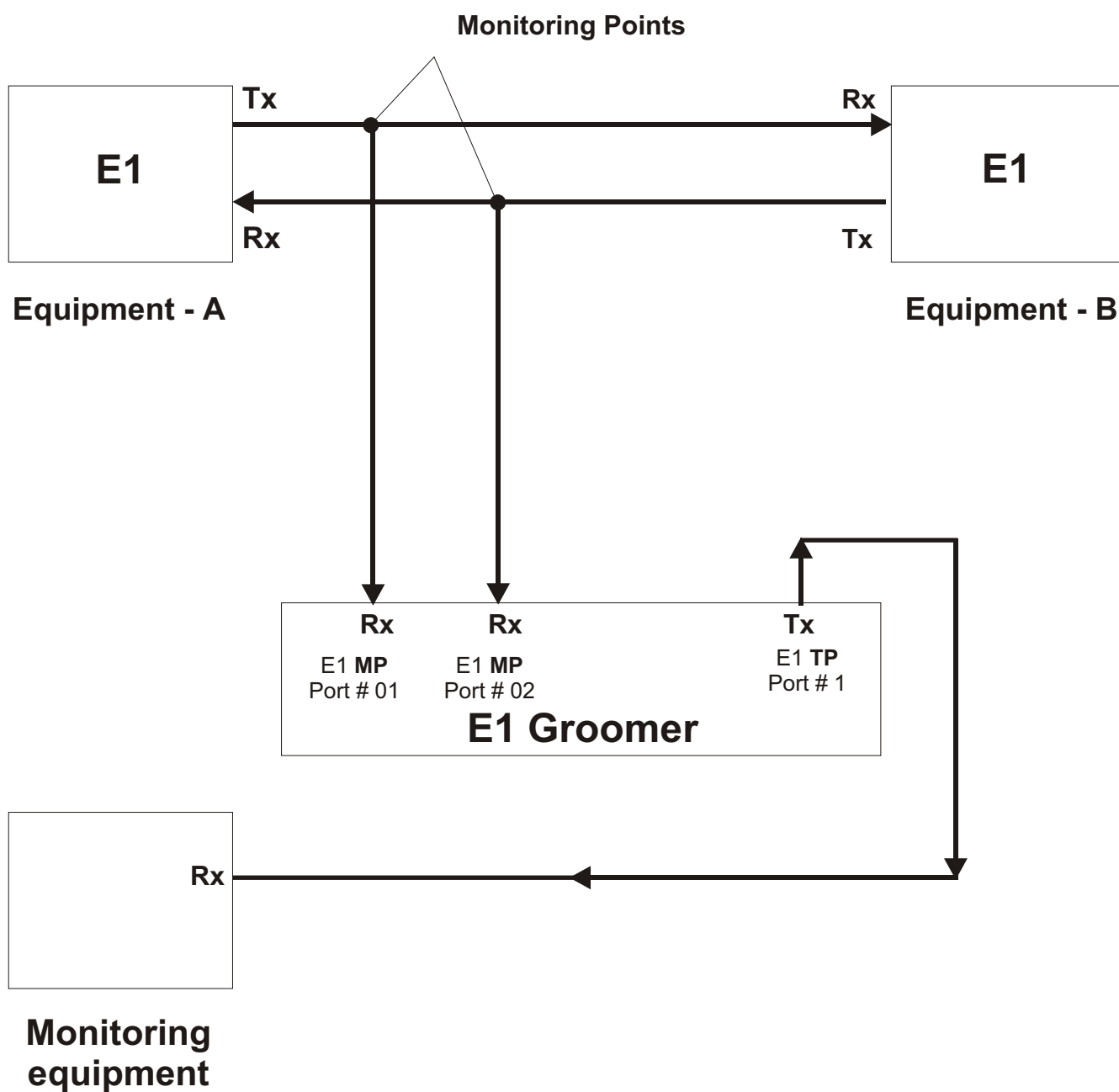
The equipment is provided with BOTH, RS232 Serial Interface for COM Port connection and as well as a TCP/IP LAN Interface (10BaseT) for providing equipment access through Telnet over a LAN/TCI/IP link. The user may select and use either of these ports for executing HyperTerminal text commands for configuration 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 LAN/TCP/IP link, remotely. The system is also supplied with an easy to use Windows (95, 98, Me, XP) Graphical User Interface that provides the user a complete control to prepare multiple configuration "maps" and store them as easy to read data files. Dry contact relay alarm output is also available at rear of the system to connect the system to external audio/visual alarm output through a dry relay contact.

The Groomer is capable of non-intrusively monitoring upto 32 "live" E1 links and then groom the selected 64 Kbps time-slots to the 16 additional E1 Ports provided in the equipment. The 64, E1 receivers of the Groomer shall connect to the 16, E1 "live traffic" links which are to be Monitored, Non-Intrusively, 16 additional (Normal-Z) E1 Ports are also provided by the equipment which shall route the aggregated data of the "monitored" time-slots to the user's test equipment, such as protocol analysers, test probes, billing servers etc.

The Groomer (E1 Monitoring DACS) is capable of monitoring a -20dBdsx (0.3Volt Pulse) 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 equipment offers the user with complete flexibility to choose and select time-slots from each of the 32 E1 links that are being monitored, without limitation or restrictions, through the internal TSI non-blocking switch (data received by the equipment's 64 E1 receivers) and then aggregate the selected time-slots to the 16 E1 ports that shall connect to the test equipment, such as protocol analysers/test probes, billing servers, etc.

Non - Intrusive Monitoring Application



Where TP is testing E1 Point and MP is Monitoring E1 Point.

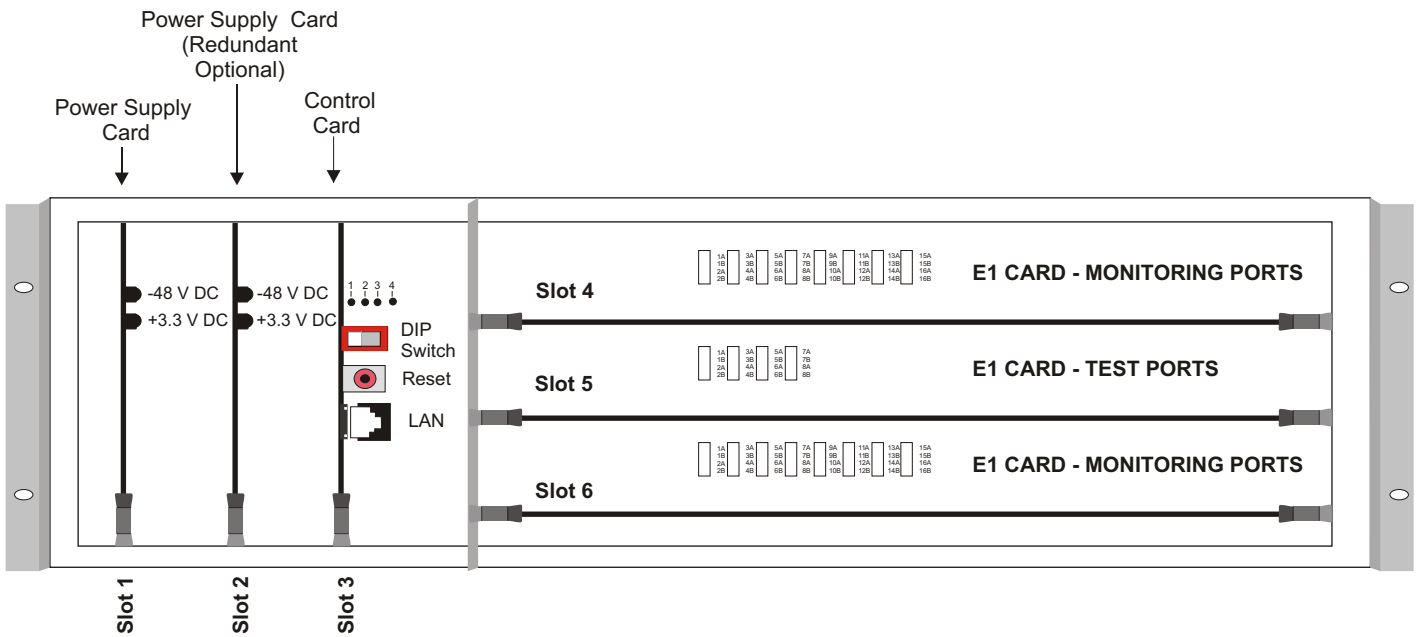
VCL-MegaConnect E1, 64 Port Groomer

Shelf Description:

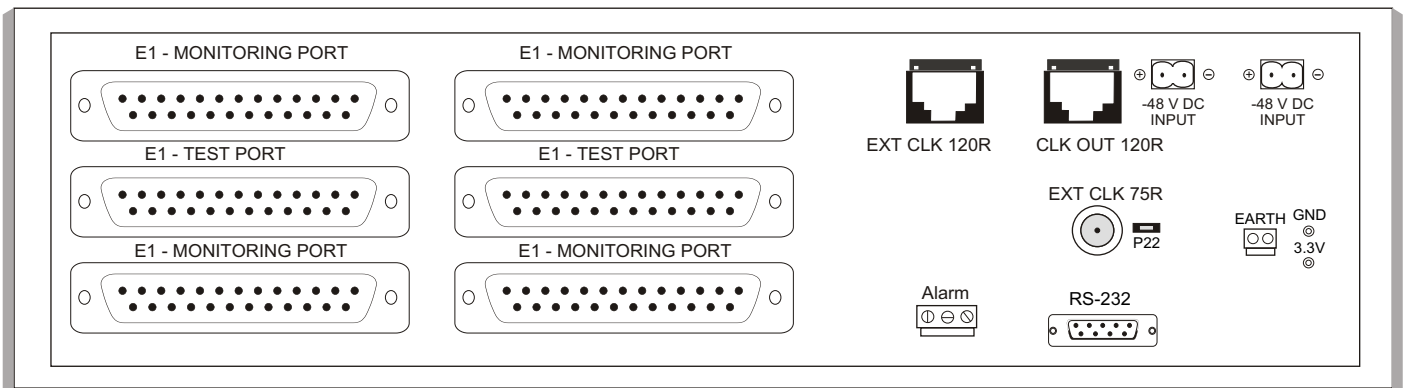
The VCL-MegaConnect E1, 64 Port Groomer unit is a 3U, 19-inch shelf, fitted with a backplane that provides rear access of all external interfaces. The 2Mbps electrical I/Os, power input, alarm extension and the NMS port are all accessed from the backplane.

The 2Mbps, E1 Interfaces are, 120 Ohms twisted pairs.

Front View of the Shelf



Rear View



Indications and Alarm Monitoring

- Loss of incoming signal at any E1 Port
- Configuration Error Alarm
- Clock Status
- 1 to 64 E1 Ports - LED indicators to indicate the status of each E1 Monitoring Port
- 1 to 16 E1 Ports - LED indicators to indicate the status of each E1 Test Port
- +3 Volts Power Supply
- -48V DC Input Voltage present
- Configuration Error

Programmable Features

- Specifying the priority sequence for clock selection
- Enabling or Disabling E1 Ports (masking) of the E1 Ports that are not in use
- Creating a cross connect between E1s at DS-O level (single time-slot level) using the CLI text commands or Windows based GUI
- Telnet interface for remote programming

Status Monitoring

- Clock Selection
- Status of alarms
- Enabled/Disabled status of E1 Ports
- Monitoring of the VCL-MegaConnect E1 64 Port Groomer, status and configuration

Shelf Configuration

VCL-MegaConnect E1 64 Port Groomer			
S. No.	Part #	Product Description	Qty
1.	MC-64E1/16-MON-GROOMER	VCL-MegaConnect E1 64 Port Groomer	1

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	DB-37 (Female)
Impedance	Hi-Z for Non-Intrusive Monitoring
Compliance	G.703
Available Time-Slots	1-31
Jitter	G.823
Framing	G.704
Compliance (for Hi-Z Monitoring)	G.772
Receive Signal Sensitivity	Upto -20dBdsx (0.3 Volt Pulse)
Number of E1 Receivers to connect to the Monitored Links	64 E1 Receivers. Capable of non-intrusively monitoring upto 32 E1 links bidirectionally

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

Line Rate	E1 (2.048 Mbps \pm 50 bps)
Connector	DB-37 (Female)
Impedance	120 Ohms
Available Time-Slots	1-31
Jitter	G.823
Pulse Shape Compliance	G.703
Signal Pulse	3.0 Volt - as per G.703
Framing	G.704
Number of E1 Ports	16

Power Supply

Power Supply	-48V DC (-40V DC to -60V DC)
Power Consumption	30 watts

Time-slot selection

Any MP to Any TP through an internal, best byte, non-blocking TSI Switch.

Clock

Internal	AT&T Tr62411, Telcordia GR-1244-CORE Stratum 3, Stratum 4, Enhanced and Stratum 4, ETSI ETS 300 011, ITU-T G.813 Option 1
Loop-timed External	75 Ohms - 2.048 MHz

Management and Control

Serial management port (RS232) - COM Port
10/100 BaseT for remote management over a LAN
10/100 BaseT Telnet over a TCP-IP network

Xport (Telnet Specification)

Network Interface	RJ-45 Ethernet 10BaseT or 100BaseT-TX (auto sensing)
Compatibility	Ethernet Version 2.0 IEEE802.3
Protocols Supported	ARP, UDP/IP, TCP/IP, Telnet, ICMP, SNMP, DHCP, BOOTP, TFTP, Auto IP, SMTP and HTTP
LEDs	10Base-T and 100Base-TX Activity, Full/half duplex.
Management	Serial login, Telnet login, GUI (Graphical User Interface)
EMI Compliance	Radiated and conducted emissions - complies with Class B limits of EN 55022:1998 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 N55024:1998 RF Common Mode Conducted Susceptibility complies with EN55024:1998

Command Language

Command Line Interface (English text commands)
Windows based GUI (optional)

Chassis

3U High
19-inch rack-mounting shelf

Mechanical Specifications

Rack Mounting	Standard 19 Inch. DIN Rack
Height	133.00 mm (3U)
Depth	260.00 mm
Width	477.00 mm
Weight	4.00 kg.

Ordering Information

VCL-MegaConnect E1 64 Port Groomer			
S. No.	Part #	Product Description	Qty
1.	MC-64E1/16-MON-GROOMER	VCL-MegaConnect E1 64 Port Groomer	1

Notes : _____

Technical specifications are subject to changes without notice.
Revision 03 - March 10, 2007.



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