

Product Overview

The VCL-MX-CPS, 1+1 Automatic Channel Protection Switching Equipment may be used with VCL-MX Version-6, E1 PDH Voice and Data Multiplexer to protect up to 20, 64Kbps and n*64Kbps data channels, or 160 FXS / FXO / Hot-Line channels, or 40 E&M channels, or a mix of the above at customer site / termination point and provide an alternate communication route to each voice and data channel between customer premises equipment and VCL-MX Version-6 voice and data multiplexer chassis.

In the event of the failure of the primary (main) voice or data channel, the VCL-MX-CPS automatically switches the customer premises voice and data equipment to a secondary (standby) voice and data interface.

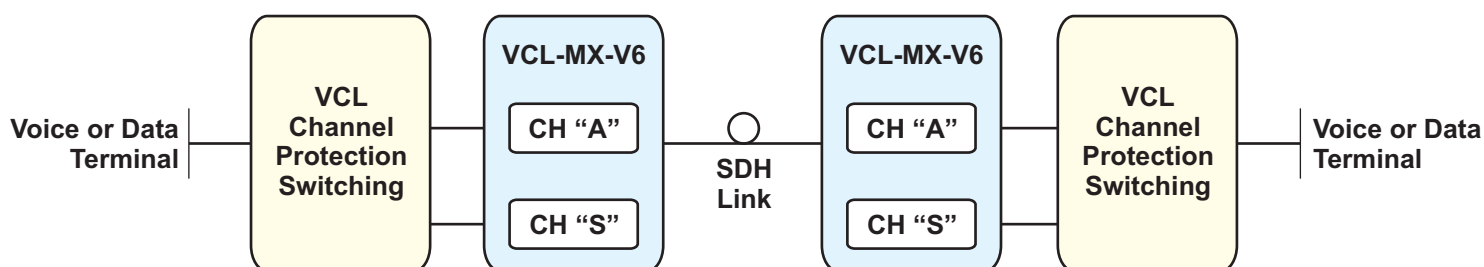
The VCL-MX-CPS equipment is available in a 6U high chassis, which may be mounted in any DIN standard, 19-Inch rack.

This product allows the user to achieve 1+1 (protected) redundant voice and data interface routes between user's voice and data equipment and VCL-MX Version-6 E1 PDH Multiplexer.

Benefits

- Competitive
- Service Level
- Back-haul Network
- Technology Migration
- 1+1 protected -48V DC power supply input
- 1+1 protected control card

Application Diagrams



CH "A" : Active Channel (Voice or Data) /

CH "S" : Standby Channel (Voice or Data)

VCL-MX-V6 : VCL-MX Version 6, E1 PDH Voice and Data Multiplexer

VCL-Channel Protection Switch : Automatic Voice and Data Channel Level Protection Switch

Note: When CH "A" fails or is removed from service, CH "S" is automatically switched in by the CPS (Channel Protection Switch) to ensure continued service at the Voice or Data Terminal.

Voice Interfaces: FXO, FXS, E&M (2 Wire and 4 Wire), FXS-FXS (Hot-line), Ring Generator (75V)

Data Interfaces : Asynchronous: RS232 / RS485 / V.24 / V.11 / V.28

Synchronous: G.703 / V.35 / V.36 / X.21 / RS530 / RS449 / V.24 / V.11 / V.28

Features and Highlights

- High density channel protection
- To provide an independent protected voice or data connectivity between VCL-MX Version 6, E1 PDH Multiplexer and customer premises voice or data equipment.
- To provide 1+1 voice and data interface redundancy.
- Provide 1+1 protection routing / protected path between VCL-MX Version-6 voice and data interfaces and user's voice or data equipment.
- These ensure that mission critical voice and data traffic links are maintained even during E1 backhaul path, interface and multiplexer failures. When the primary (working) interface fails, the customer premises voice and data traffic equipment is automatically re-routed to the standby (secondary) interface to ensure maximum uptime.
- Alternate Facility Advantages
- Service Differentiation Agreements
- Increased Network Reliability and Resilience
- Media and Path Diversity

Example: The user may deploy the VCL-MX-CPS, 1+1 Automatic Channel Protection Switching Equipment to provide an alternate communication route between the customer premises voice or data equipment and VCL-MX Version-6 Voice or Data interfaces. In the event of the failure of the primary voice or data interface, the channel is automatically switched to the alternate / standby voice or data interface of the VCL-MX Version-6 E1 PDH Multiplexer.

Technical Specifications

Channel Protection Chassis: Ordering Code VCL-MX-CPS-S

Total number of card slots	14
Control Card Slots	2 (1+1) for Redundancy
Power Supply Card Slots	2 (1+1) for Redundancy
Channel Protection Card Slots	10

Channel Protection Interface Card: Ordering Code VCL-MX-CPS-C

Total number of protected channels per card	- 16 FXO - 16 FXS - 16 Hot-Line - 4 E&M - 2 Data
Total number of protected channels per chassis	- 160 FXO - 160 FXS - 160 Hot-Line - 40 E&M - 20 Data

DC Power Supply: Ordering Code VCL-MX-1510

Input DC Voltage	-48V DC (nominal)
Range of Input	-36V to -72V DC
Output Voltage	5V filtered -48V (for terminal cards)
Full Load Current	4A at 48V DC
Input Voltage Reversal Protection	Provided in the Card
Over Current Protection	6A at 48V DC
Short Circuit Protection	Current limit 6A. Recovers on removal of Short
Efficiency at Full Load	>91%
Ripple at Full Load	<5mVrms
Spike at Full Load	<50mV

Environmental

Operating Temperature	-20°C to +60°C
Maximum Operating Humidity	95% R.H., Non-Condensing
Maximum Operating Altitude	Up to 3,000 meters above sea level
Operation	Complies with ETS 300 019 Class 3.2
Storage Temperature	-40°C to +70°C
Storage	Complies with ETS 300 019 Class 1.2
Maximum Storage Humidity	98% R.H., Non-Condensing
Maximum Storage Altitude	Up to 3,000 meters above sea level
Transportation	Complies with ETS 300 019 Class 2.3

Mechanical Specifications

Height	266 mm
Width	482 mm
Depth	270 mm
Weight	12 Kgs. (Approximately fully Loaded)

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