



VCL-MX Version 6

80E1, 160Mbps Voice & Data Multiplexer

Features and Highlights

- 160Mbps, 80 E1 fully non-blocking digital access cross-connect at 64Kbps (DS-0) level (2480 DS-0s)
- For use in Point-to-Point, Point-to-Multi point, Add-Drop (Drop-Insert), Tree and Star topology
- 1+1 E1 Link Protection / E1 Port Redundancy
- 1+1 Control Card Processor Redundancy
- 1+1 Cross-Connect Redundancy / 1+1 Timing (Synchronization Clock) Redundancy
- 1+1, Power Supply Redundancy (Dual Power Inputs)
- Integrated IEEE C37.94 (850nm / 1310nm) Teleprotection Differential Protection Card
- 4 Binary (110V DC / 220V DC) Command Teleprotection Card
Provides Distance Protection using 110V DC / 220V DC Binary Commands.

Features and Highlights

- 144 FXO or 144 FXS channels per unit
- 72 E&M 2-wire / 4-wire channels per unit
- Any “mix” of data and voice channels in a single unit
- Sub-rate multiplexing to provide up to 4 asynchronous data channels in a single 64Kbps time-slot
- Universal Slots – slot independent system so that any type of interface card may be inserted and used in any card slot
- Supports CAS Custom / User Programmable ABCD Signaling
- Supports Long Loops of up to 1200 Ohms.

E1 Drop-Insert PDH Voice And Data Multiplexers

Voice Interfaces

- FXO
- FXS
- E&M (2 Wire and 4 Wire)
- FXS-FXS (Hot-line)
- Ring Generator (75V RMS).

Data Interfaces

- 8E1 plus 100Mbps Ethernet fiber optical transport interface.

Data Interfaces

- Channelized E1 / Fractional E1 data
- RS-232 asynchronous data
- V.24 synchronous / asynchronous data
- G.703, @ 64 Kbps, co-directional
- V.35, V.36, X.21, V.11, RS530, RS449 synchronous
- Relay I/O for Breaker Status Monitoring
- IEEE C37.94 Teleprotection Interface
- 4 Binary (110V DC / 220V DC) Command Teleprotection Card.

E1 Drop-Insert PDH Voice And Data Multiplexer



Front View - VCL-MX Version 6

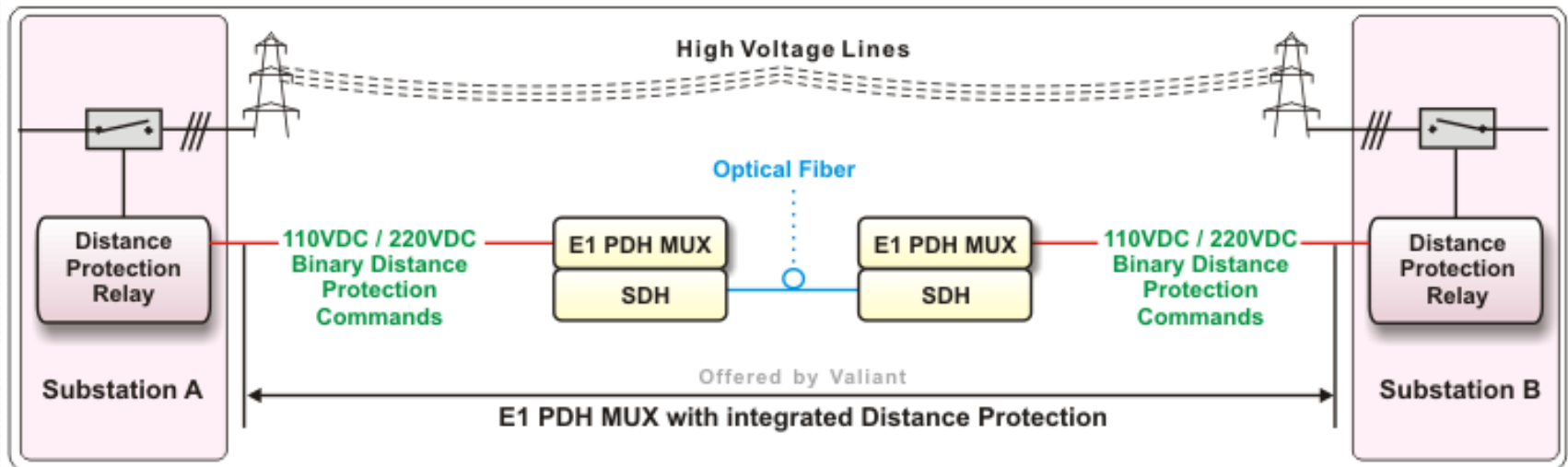
VCL-MX with 4 Binary Command Teleprotection Card



4 Binary (110V DC / 220V DC) Command Teleprotection Card.
Provides Distance Protection using 110V DC / 220V DC Binary Commands.
Each MUX supports up to 4 x Binary Protection Cards.

Application Diagram for Binary Command Teleprotection Card

Distance Protection through E1 PDH MUX using 110V DC / 220V DC Binary Commands



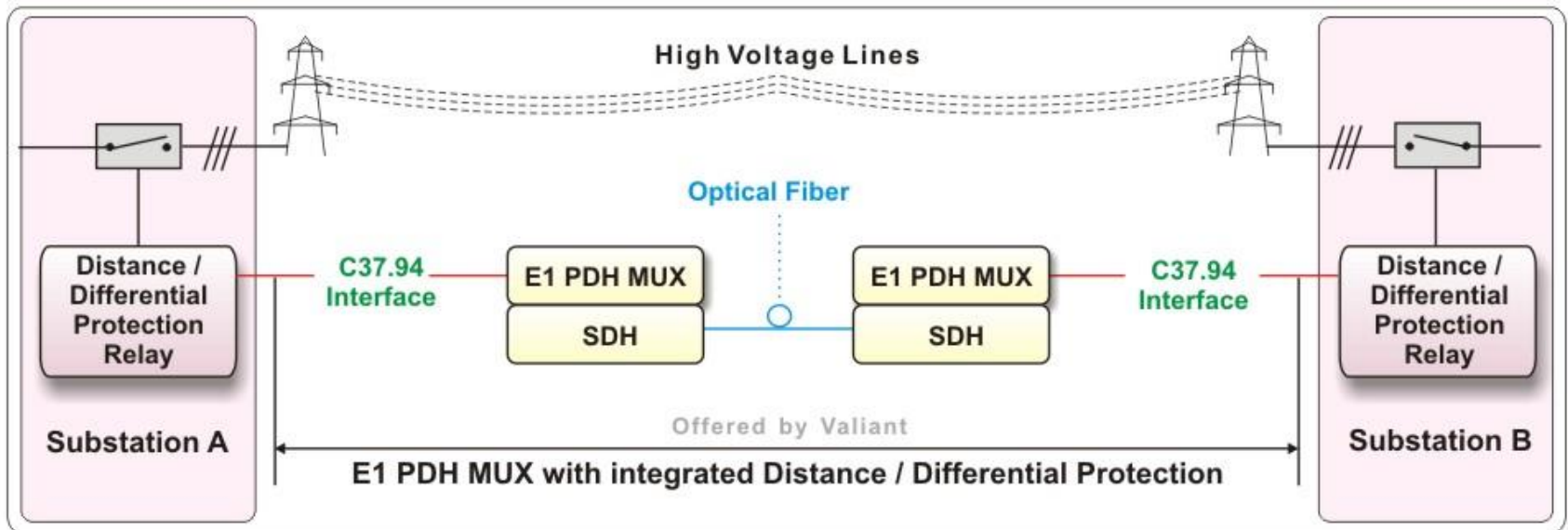
VCL-MX with C37.94 Teleprotection Card



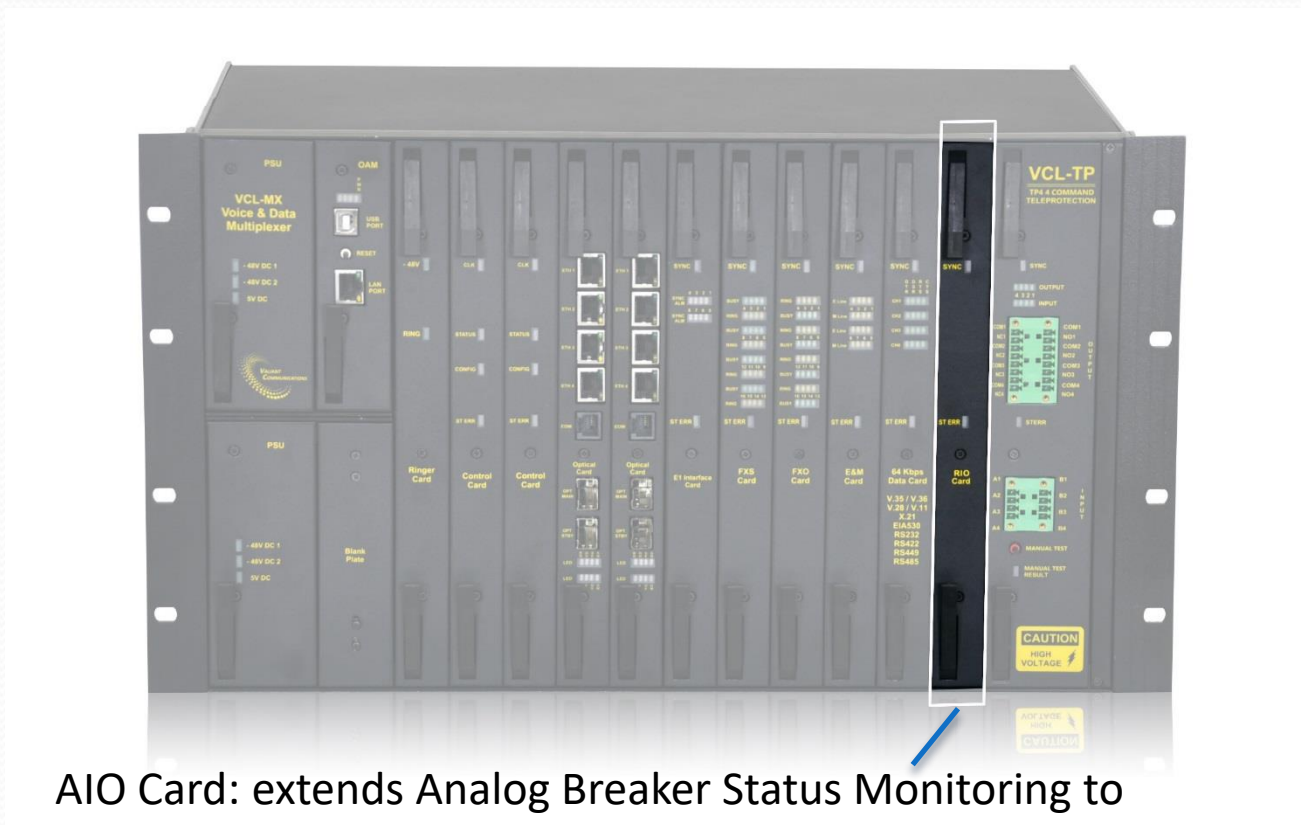
IEEE C37.94 Teleprotection Card Provides Distance / Differential Protection using C37.94 Teleprotection Interface. 4 x C37.94, 850nm / 1310nm Optical Interfaces per card. Each MUX supports up to 9 x C37.94 TP Cards.

Application Diagram

Distance / Differential Protection through E1 PDH MUX using C37.94 Optical Interface



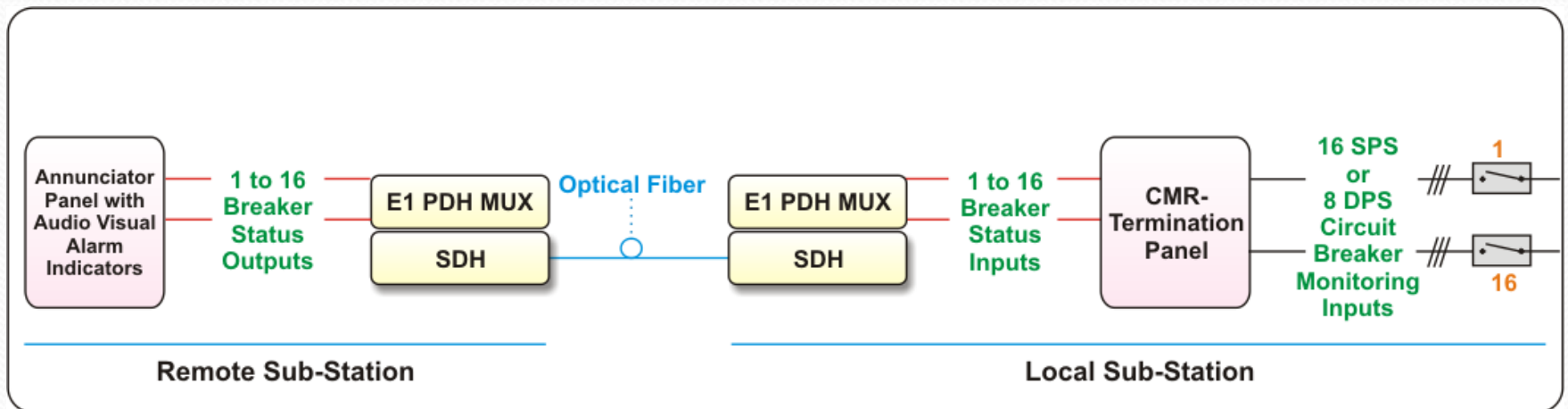
VCL-MX with Relay Card for Breaker Status Monitoring



AIO Card: extends Analog Breaker Status Monitoring to Audio / Visual Annunciator Panel at Remote Location

Application Diagram for Breaker Status Monitoring

RELAY CARD extends Analog Breaker Status Monitoring to Audio / Visual Annunciator Panel at Remote Location



Thank You for your attention

For more details visit us at our Website at

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