Introduction:

The VCL-2709-T1, IEEE C37.94 to T1 Converter is a ruggedized and robust, sub-station-hardened protocol converter which converts IEEE C37.94 Interface to a T1 Telecom Interface, and vice-versa. VCL-2709 is designed for use in point-to-point applications.

The VCL-2709 meets and complies with the IEC-61850-3, EMI, EMC, Surge and Temperature specifications making it suitable for sub-station installations to provide uninterrupted service even in the most demanding and harsh environments.

VCL-2709, C37.94 to T1 Application:

The most common application for the VCL-2709 converter is for augmenting legacy IEEE C37.94 data transmission over a T1 network between two substations. By installing a VCL-2709 converter, the existing IEEE C37.94 data can be transmitted over the T1 network without incurring large capex or without the tiresome task of having to replace or rewire the IEEE C37.94 Relays which need to be interconnected to the far end substations over T1 (SONET) transmission links.

Features:

- VCL C37.94 to T1 Converter is a cost-effective solution to transport protection relay devices or any industrial application devices reliably over an existing T1 / SONET communications network.

Connectors:

- Power: Terminal Block, 2-Pin Supply Connector
- IEEE C37.94 Interface: ST Connector
- T1 Interface: RJ45 (Female) Connector.

Chassis:

- DIN Rail Mounting.

Power Supply:

- Power Supply Options (Internal) 24VDC, 48VDC
- Power Supply Options (External Adapters) 110VDC and 220VDC

C37.94 Interface Specifications:

- Number of interfaces per card 1 Tx, 1 Rx
- Standard IEEE C37.94
- Optical 820nm / 850nm Multi-Mode
- Optical connector ST
- Optical Transmitter LED

T1 Interface Specifications:

- Interfaces 1 x T1 Interface (1.544 Mbit/s)
- Frame structure As per ITU G.704
- Code B8ZS
- Framing ESF
- Nominal Impedance 100 Ohms balanced

Compliance/ Regulatory:

- RoHS
- CE Marking
- Complies to applicable IEEE and IEC standards
- Complies with FCC Part 68 and EMC FCC Part 15 and CISPR 22 Class A
- Operation ETS 300 019 Class 3.2
- Transportation ETS 300 019 Class 2.3

Mechanical Specifications:

<table>
<thead>
<tr>
<th>Width</th>
<th>190.0 MM</th>
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<tbody>
<tr>
<td>Height</td>
<td>69.0 MM</td>
</tr>
<tr>
<td>Depth</td>
<td>176.5 MM</td>
</tr>
<tr>
<td>Weight</td>
<td>1.5 KG</td>
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</tbody>
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Technical specifications are subject to changes without notice. Revision – 1.1, August 06, 2019