

Introduction:

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



The most common application for the VCL-2709-T1 converter is for augmenting legacy IEEE C37.94 data transmission over a T1 network between two sub-stations. By installing a VCL-2709-T1 converter, the existing IEEE C37.94 interfaces from protection relays 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.

- Number of C37.94 interface per unit: 1 Tx, 1 Rx
- Number of T1 interface: 1 T1 (1.544 Mbit/s)

The VCL-2709-T1 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.

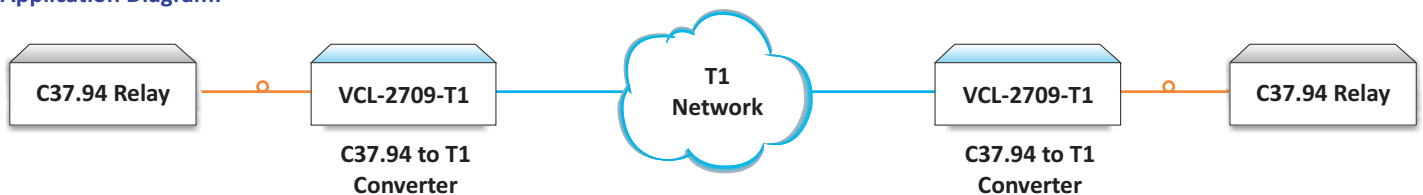
Features:

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 / LC Connector
T1 Interface	RJ45 (Female) Connector.

Application Diagram:



Power Supply:

Power Supply Options (Internal)	24V DC, 48V DC
Power Supply Options (External Adapters)	110V DC and 220V DC

IEEE C37.94 Interface Specifications Option #1:

Interfaces per unit	1 Tx, 1 Rx
Standards	IEEE C37.94
Optical connector	ST
Optical Transmitter	LED
Optical	820nm/850nm Multi-Mode

IEEE C37.94 Interface Specifications Option #2:

Interfaces per unit	1 Tx, 1 Rx
Standards	Modulation as per IEEE C37.94
Optical connector	LC (SFP)
Optical Transmitter	Laser
Optical	820nm/850nm Multi-Mode 1310nm/ 1550nm Single Mode

T1 Interface Specifications:

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

Compliance/ Regulatory:

- RoHS
- CE Marking
- Complies to applicable IEEE and IEC standards
- Complies with FCC Part 68 and EMC FCC Part 15 and CISPR 32 Class A
- Operation ETS 300 019 Class 3.2
- Transportation ETS 300 019 Class 2.3

Mechanical Specifications:

Chassis	DIN Rail Mounting.
W x H x D	190 x 69 x 176.5 mm
Weight	1.5 KG

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