Product Overview:

VCL-6046, SCADA Unit, is an intelligent device which can be used to transport the telemetry data and SCADA signal status over an Ethernet network from un-manned remote substations over an Ethernet channel.

The VCL-6046 provides up to 5 x dry-contact relay open/close sensing inputs and 5 x 5V digital IO's for connecting and monitoring various alarms such as rack-door open alarm, fire alarm, smoke alarm, flooding alarm etc. The VCL-6046 also provides 3 x 0-5V and 3 x 4-20mA inputs for monitoring SCADA parameters, remotely. Additionally, it can also be used to monitor up to 8 x double-pole breaker status, remotely.

4 x dry contact relay outputs also provided to turn-on / turn-off / power-cycle electrical equipment remotely.

VCL-6046 is a ruggedized unit which makes it suitable for remotely monitoring and managing critical infrastructure such as un-manned sub-stations, un-manned railway and metro-rail assets and in similar applications that require high reliability industrial equipment.

VCL-6046 SCADA Unit is password protected with capabilities that meet and exceed the most demanding security requirements.

Network Interfaces:

- 1 x Fiber Optical port (SFP based)
- 1 x 10/100BaseT RJ45 Electrical port

Management Interfaces:

- 1 x RS232/RS485 port (user switchable / user selectable)
- 1 x USB management port
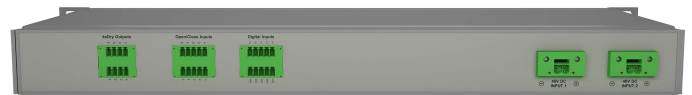
SCADA Interfaces:

- 5 x Dry contact relay open/close sensing inputs
- 5 x 5V Digital IO's for monitoring status alarms
- 16 x Digital inputs for monitoring breaker status (IEC-60870-5-104 Output)
- 3 x 0-5V inputs (IEC-60870-5-104 Output)
- 3 x 4-20mA inputs (IEC-60870-5-104 Output)
- 4 x Dry contact relay outputs

Environmental (Operational):

- Operating Temperature : -10 °C to 55 °C
- Storage Temperature : -20 °C to 75 °C
- Operating Humidity : 10% ~95% relative humidity, non-condensing
- Storage Humidity: 10% ~ 95% @40 °C; non-condensing.

Front View

Back View

Highlights:

- High-Reliability, Industrial Grade Hardware
- Dual redundant power supply inputs
- Suitable for installation in critical infrastructures like utilities, sub stations, railways and airports
- Supports Ethernet Electrical and Optical Transmission Interfaces
- Secure Boot
- Easy Installation and Management
- SSH (Secure Access Control) with encrypted password
- SNMPv2 and SNMPv3
- Infrastructure neutral.

Other Specifications:

Power Supply Input Options:

24V DC, 48V DC, 110VAC/60Hz, 240VAC/50Hz, 110V DC and 220V DC (1+1) Redundant Power Input Options

Indicators	2 x Power Supply Indicators
MTBF (hours)	101292
IP Level Protection	IP20
Max. Power Consumption	< 20 Watts

CE Compliance:

- Low Voltage Directive 2014/35/EU
- Electromagnetic Compatibility 2014/30/EU

Other Regulatory Compliance:

- RoHS
- CE Marking
- Complies with FCC Part 68 and EMC FCC Part 15

Physical Dimension:

19 Inch, 1U High Rack Mount

- D x W x H: 178mm x 477mm x 45mm
- Net Weight: 3.50 Kgs

EMI, EMC, Surge Withstand and other Compliances:

EN 50081-2	EN 50082-2	IEC 60068-2-29
IEC 61000-4-6 (Conducted Immunity)	IEC 60068-2-1	IEC 60068-2-2
IEC 60068-2-78	IEC 60068-2-14	IEC 60068-2-1
CISPR 32 / EN55032 Class A (Conducted Emission and Radiated Emission)		
IS 9000 (Part II Sec. 1-4, Part III Sec. 1-5, Part IV, Part 14 Sec. 1-3)		
IEC 61000-4-4	IEC 61000-4-5	IEC 61000-4-8
IEC 61000-4-3 (Radiated Immunity)		IEC 61000-4-2

Ordering Information:

Part#	Description
VCL-6046-6033-SCADA-RAC	VCL-6046, SCADA Unit 19-Inch, Rack Mount Version Transmission Interfaces: - 1 x 10/100 Optical Fiber Port (SFP based / without SFP) - 1 x 10/100 Base-T RJ45 Electrical port - 1 x USB, 1 x RS232/RS485 port - 5 x Dry contact relay open/close sensing inputs - 5 x 5V Digital IO's for monitoring status alarms - 16 x Digital inputs for monitoring breaker status (IEC-60870-5-104 Output) - 3 x 0-5V inputs (IEC-60870-5-104 Output) - 3 x 4-20mA inputs (IEC-60870-5-104 Output) - 4 x Dry contact relay outputs - Management: CLI, GUI, SSH, SNMP - Installation Kit: System Core Cables, Mounting Hardware, Documentation, User Manual **Add Power Supply Option**

Add Power Supply (Any one option):

AC220	1 x 110~240V AC, 50/60 Hz, Power Supply Input
DC024	1 x 24V DC Power Supply Input
DC048	1 x 48V DC Power Supply Input
DC220	1 x 110~250V DC Power Supply Input
ACDC	1 x 110~240V AC, 50/60 Hz, Power Supply Input 1 x 48V DC Power Supply Input
AC220R	2 x 110~240V AC, 50/60 Hz, Power Supply Input [Redundant]
DC024R	2 x 24V DC Power Supply Input [Redundant]
DC048R	2 x 48V DC Power Supply Input [Redundant]
DC220R	2 x 110~250V DC Power Supply Input [Redundant]

Select SFP Option from below:

VCL-EMOD 0193	SFP Transceiver, Duplex LC, 100Mbps, 13dB, 1310nm, 9 Miles / 15Km, SM (Single-Mode)
VCL-EMOD 0194	SFP Transceiver, Duplex LC, 100Mbps, 29dB, 1310nm, 25 Miles / 40Km, SM (Single-Mode)
VCL-EMOD 0217	SFP Transceiver, Duplex LC, 100Mbps, 34dB, 1550nm, 49 Miles / 80Km, SM (Single-Mode)
VCL-EMOD 0402	SFP Transceiver, Duplex LC, 100Mbps, 36dB, 1550nm, 99 Miles / 160Km, SM (Single-Mode)

U.S.A.
Valcomm Technologies Inc.
4000 Ponce de Leon Blvd.,
Suite 470, Coral Gables,
FL 33146, U.S.A.
E-mail: us@valiantcom.com

U.K.
Valiant Communications (UK) Ltd
Central House Rear Office,
124 High Street, Hampton Hill,
Middlesex TW12 1NS, U.K
E-mail: gb@valiantcom.com

INDIA
Valiant Communications Limited
71/1, Shivaji Marg,
New Delhi - 110015,
India
E-mail: mail@valiantcom.com