



Product Operation Manual

VL-EMS Network Management Module

Ver 1.0



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Contents

Contents	1
1. Introduction	2
1.1 Overview	2
1.2 Features.....	2
1.3 Specifications.....	2
2. Operation Panel Description	3
3. Precautions	4
4. Configuring the VL-EMS Module	5
4.1 Installation.....	5
4.2 Removing the VL-EMS Module.....	5
5. Maintenance and Troubleshooting	6
5.1 Troubleshooting.....	6

1. Introduction

1.1 Overview

The VL-EMS equipment management module is mounted in the first slot of the VLink platform to provide local monitoring, configuration, and remote management. This module is able to communicate with the rest of the modules via USB port for local access or via RJ45 Ethernet port for remote access. The VL-EMS module provides NMCP (Network Management Console Program) for monitoring and configuration along with a PC compatible graphical user interface (GUI). The VL-EMS integrates the SNMP protocol and the SCTE-HMS-MIBs for remote access via a standard SNMP agent.

1.2 Features

- Short circuit protection
- USB interface for local monitoring and setting
- RJ45 10Mbps Ethernet port for communication with SNMP
- LEDs to indicate data access activity
- Hot-swap design

1.3 Specification

Parameter	Unit	Spec
Communication Interface		
USB port		USB B type, 115200bps
Ethernet port		RJ45, SNMP, 10Mbps manual configuration function
General		
Operation Temperature	°C	0 to 50
Storage Temperature	°C	-40 to 70
Relative Humidity	%	Max.85%, non-condensing
Dimensions	cm	2.4W x 11.0H x 39.5D
Weight	Kg	1
Power Consumption	W	<5

All specifications are subject to change without notice.

2. Operation Panel Description

The components and features of the chassis are shown in Figure 2.1 and described in Table 2.1 and 2.2.

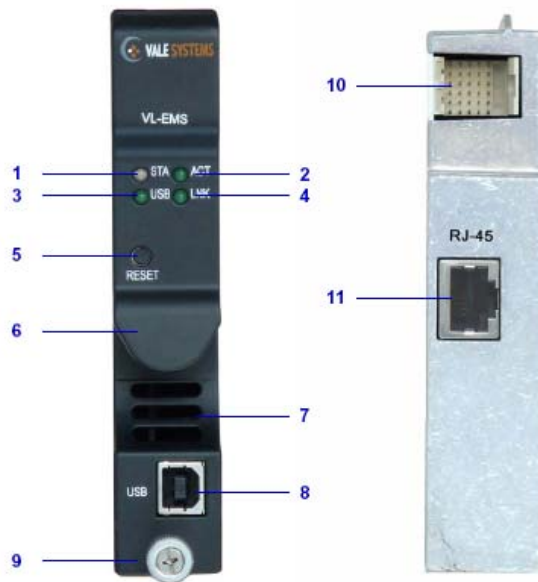


Figure 2.1 VL-EMS Network Management Module Panels

Table 2.1 VL-EMS Components

Component	Function
Module Housing	The enclosure, with guide rails on the top and bottom, contains the EMS module, rear panel with connectors, and a front panel.
Rear Panel	Includes the RJ-45 Ethernet port, backplane connector which provide signal and power connections to the chassis backplane.
Front Panel	Includes LED indicators, push buttons and USB port.

Table 2.2 VL-EMS Module Controls and Connectors

(Refer to Figure 2.1)

Item	Description	Function
1	STA LED	When the light is Green, the module is working. When the light is Red, at least one of the 8 fans of the VL-CH chassis has failed
2	ACT LED	When the light flashes green, the module is accessing data through the RJ-45 port. When there is no light, the module is not accessing data.
3	USB LED	When the light is green, the USB port is connected to the PC. When there is no light, the USB port is not connected to the PC.
4	LNK LED	When light green, the Ethernet port is connected to the PC When no light, the Ethernet port is not connected to PC
5	Reset push button	When the RESET push button is pressed, the module executes the reset function.
6	Handle	For module install and uninstall
7	Heat dissipation hole	Airflow for heat dissipation of the module
8	USB port	USB protocol, B type
9	Thumbscrew	Fix the power supply module onto the chassis
10	30pin connector	Provides power and signals to the chassis backplane, connector type is male
11	RJ-45 port	SNMP protocol, 10Mbps, Half duplex.

3. Precautions

Failure to comply with these general safety precautions and with the specific precautions described elsewhere in this manual violates the safety standards of the design, manufacture, and intended use of the device. Vale Systems Inc. assumes no liability for the customer's failure to comply with these precautions.

CAUTION: Do not operate the chassis outside of its maximum ratings. Doing so may result in unsatisfactory performance, unit failure, shortened unit life span, or a safety hazard.

CAUTION: Do not attempt to modify or service any part of this chassis not specifically referred to as replaceable in this manual. Doing so voids the warranty. Return the chassis to Vale Systems Inc. for service and repair.

CAUTION: Do not restrict airflow in front of or behind the chassis. The module should be operated in an ambient environment between 0 and 50°C (32 and 122°F).

CAUTION: Store the module away from corrosive materials, at a temperature between -40 and +70°C (-40 and +158°F), and with no more than 85% humidity, non-condensing.

4. Configuring the VL-EMS Module

4.1 Installation

This section describes the installation process for the equipment management module.

1. Gently insert module into a slot in the front of the chassis. Be careful to align the metal guide rails on the top and bottom of the module with the nylon guides in the interior of the chassis housing.
2. Lock the thumbscrew on the front of the module.
3. The Status LED on the front panel should show a green light.
4. Use a USB direct cable to connect the VL-EMS to your computer and then run the “Console Program” software. Refer the software instructions for operating details.
5. Or use an Ethernet twist-pair cable to connect the VL-EMS to your computer and run the “SNMP” software. Refer the software instructions for operating details.

4.2 Removing the VL-EMS Module

1. Disconnect the RJ-45 cable from the rear panel of the module.
2. Disconnect the USB from the front panel of the module.
3. Loosen the thumbscrew on the front panel of the module.

CAUTION: Do not pull on the thumbscrew to remove the module. Pull on the handle that the thumbscrew goes through to remove the module.

4. Gently pull the module from the chassis using the handle that the thumbscrew goes through.

5. Maintenance and Troubleshooting

This chapter describes the maintenance and troubleshooting information for the EMS module. Authorized personnel should undertake all maintenance and troubleshooting work mentioned hereunder.

5.1 Troubleshooting

Problem	Steps to take
USB Port non-connection	<ol style="list-style-type: none"> 1. Verify that the USB is connected to PC. 2. Verify the execution of the Console Program software. 3. Verify the USB driver is installed in your computer. 4. Verify the USB cable is OK. 5. Verify the USB port of PC is OK. 6. If the USB port is still showing a non-connection, please push the reset button on the front of the module. Then repeat steps 1 and 2. 7. If step 6 failed, please pull out the USB, and plug in the USB again. If the USB port is still showing a non-connection, the unit will require a factory check; contact the manufacturer.
LAN Port non-connection	<ol style="list-style-type: none"> 1. Verify the RJ-45 cable is connected to PC. 2. Verify the execution of the SNMP software. 3. Verify the setting of the IP address and that the sub net mask and gateway are correct. 4. Verify the LAN community type is the same with the settings in the EMS. 5. If the LAN port is still showing a non-connection, please push the reset button on the front of the module. Then repeat steps 1 and 2. 6. If the LAN port is still showing a non-connection, the unit will require a factory check; contact the manufacturer.

DANGER/CAUTION: Do not remove the cover of the receiver under any circumstances. Removing the cover could cause irreparable damage to the unit, and will void your warranty.

DANGER/CAUTION: Do not attempt to modify or service any part of the device. Doing so will void the warranty. Return it to Vale Systems Inc. for service and repair. Contact the Customer Service Department of Vale Systems Inc. for a return authorization number.