SIGNAMAX

C-530 Series 10G Managed Switch CLI Management Guide

> Firmware Version V2.1.6

CLI Management Guide

SC53010

12 Port SFP+ 10G Switch

SC53020

48 Port 1440W PoE+ Switch with 4 SFP+ 10G Ports

SC53030

48 Port 860W PoE+ Switch with 4 SFP+ 10G Ports

SC53040

48 Port Switch with 4 SFP+ 10G Ports

SC53050

24 Port PoE+ Switch with 4 SFP+ 10G Ports

SC53060

24 Port Switch with 4 SFP+ 10G Ports and redundant power supplies

SC53070

24 Port Switch with 4 SFP+ 10G Ports

SC53080

8 Port PoE+ Switch with 2 SFP+ 10G Ports

SC53090

24 Port 720W PoE+ Switch with 4 SFP+ 10G Ports

How to Use This Guide

	v1.0.0	2023/04/15	Initial Release
	Revision	Date	Description
Revision History	This section sumn	narizes the changes in eacl	h revision of this guide.
	Quick Start Guide	e	
	For hardware ins	tallation please refer:	
Related Documentation	This guide focuse the Command Lin	es on switch software con ne Interface.	nfiguration through
	Section III "CLI I in the Command	Management": Includes Line Interface.	setting descriptions
	Chapter 1 "Prepa includes PC setti Line Interface.	aring for Management" ngs needed before acces	: This section ssing the Command
	The guide include	es these sections:	
How this Guide is Organized	This guide provid features. It also d interface. For info <i>Web Managemen</i>	les detailed information a lescribes the switch's Co ormation on the Web GU <i>nt Guide</i>	about the switch's key ommand Line I interface refer to
Who Should Read this Guide?	This guide is for r for operating and assumes a basic Networks), the In Management Pro	network administrators w maintaining network equ working knowledge of L ternet Protocol (IP), and tocol (SNMP).	rho are responsible uipment. The guide ANs (Local Area Simple Network
	including how to switch. To deplo operation, you s that you are fam	operate and use the ma by this switch effectively a hould first read the relev iliar with all of its softwar	anagement functions of the and ensure trouble-free ant sections in this guide so re features.

Content

How to Use This Guide	
Chapter 1: Preparing for Management	
1.1. Preparation for Serial Console	7
1.2. Preparation for Web Interface	
1.3. Preparation for Telnet/SSH Interface	11
Chapter 2: Web Management	Error! Bookmark not defined.
2.1. Web Management - Configuration	Error! Bookmark not defined.
2.1.1. Configuration - System	Error! Bookmark not defined.
2.1.2. Configuration - Ports	Error! Bookmark not defined.
2.1.3. Configuration - CFM	Error! Bookmark not defined.
2.1.4. ERPS	Error! Bookmark not defined.
2.1.5. Configuration – DHCPv4	Error! Bookmark not defined.
2.1.6. Configuration – DHCPv6	Error! Bookmark not defined.
2.1.7. Configuration - Security	Error! Bookmark not defined.
2.1.8. Configuration - Aggregation	Error! Bookmark not defined.
2.1.9. Configuration - Loop Protection	Error! Bookmark not defined.
2.1.10. Configuration - Spanning Tree	Error! Bookmark not defined.
2.1.11. Configuration - IPMC Profile	Error! Bookmark not defined.
2.1.12. Configuration - MVR	Error! Bookmark not defined.
2.1.13. Configuration - IPMC	Error! Bookmark not defined.
2.1.14. Configuration - LLDP	Error! Bookmark not defined.
2.1.15. Configuration - SyncE	Error! Bookmark not defined.
2.1.16. Configuration - MAC Table	Error! Bookmark not defined.
2.1.17. Configuration – VLANs	Error! Bookmark not defined.
2.1.18. Configuration – VLAN Translation	Error! Bookmark not defined.
2.1.19. Configuration - Private VLAN	Error! Bookmark not defined.
2.1.20. Configuration - VCL	Error! Bookmark not defined.
2.1.21. Configuration - Voice VLAN	Error! Bookmark not defined.
2.1.22. Configuration - QoS	Error! Bookmark not defined.
2.1.23. Configuration - Mirroring	Error! Bookmark not defined.
2.1.24. Configuration - UPnP	Error! Bookmark not defined.
2.1.25. Configuration – PTP	Error! Bookmark not defined.
2.1.26. Configuration - MRP	Error! Bookmark not defined.
2.1.27. Configuration – GVRP	Error! Bookmark not defined.
2.1.20. Configuration – SFIOW	Errori Bookmark not defined.
2.1.29. Configuration UDI D	Errorl Bookmark not defined.
2.1.30. Configuration – UDLD	Errorl Bookmark not defined.
2.1.31. Configuration – virtual Stack	Errorl Bookmark not defined.
2.2. Web Management - Monitor	Errorl Bookmark not defined.
2.2. Web Management - Monitor	Errorl Bookmark not defined.
2.2.1. Monitor - System	Errorl Bookmark not defined.
2 2 3 Monitor – CFM	Frort Bookmark not defined
2.2.4 Monitor – FRPS	Error! Bookmark not defined
2.2.5. Monitor – DHCPv4	Error! Bookmark not defined
2.2.6. Monitor – DHCPv6	Frror! Bookmark not defined
2.2.7. Monitor – Security	Error! Bookmark not defined
2.2.8. Monitor – Aggregation	Error! Bookmark not defined
2.2.9. Monitor – Loop Protection	Error! Bookmark not defined.

Content

2.2.10. Monitor – Spanning Tree	Error!	Bookmark not	defined.
2.2.11. Monitor – MVR	Error!	Bookmark not	defined.
2.2.12. Monitor – IPMC	Error!	Bookmark not	defined.
2.2.13. Monitor – LLDP	Error!	Bookmark not	defined.
2.2.14. Monitor – PTP	Error!	Bookmark not	defined.
2.2.15. Monitor – MAC Table	Error!	Bookmark not	defined.
2.2.16. Monitor – VLANs	Error!	Bookmark not	defined.
2.2.17. Monitor – MVRP	Error!	Bookmark not	defined.
2.2.18. Monitor – sFlow	Error!	Bookmark not	defined.
2.2.19. Monitor – DDMI	Error!	Bookmark not	defined.
2.2.20. Monitor – UDLD	Error!	Bookmark not	defined.
2.3. Web Management - Diagnostics	Error!	Bookmark not	defined.
2.3.1. Diagnostics – Ping (IPv4)	Error!	Bookmark not	defined.
2.3.2. Diagnostics – Ping (IPv6)	Error!	Bookmark not	defined.
2.3.3. Diagnostics – Traceroute (IPv4)	Error!	Bookmark not	defined.
2.3.4. Diagnostics – Traceroute (IPv6)	Error!	Bookmark not	defined.
2.3.5. Diagnostics – VeriPHY	Error!	Bookmark not	defined.
2.4. Web Management - Maintenance	Error!	Bookmark not	defined.
2.4.1. Maintenance - Restart Device	Error!	Bookmark not	defined.
2.4.2. Maintenance - Factory Defaults	Error!	Bookmark not	defined.
2.4.3. Maintenance - Software	Error!	Bookmark not	defined.
2.4.4. Maintenance - Configuration	Error!	Bookmark not	defined.

Chapter 1:

Preparing for Management

In Preparing for Management:

This section will guide you how to manage this product via serial console, management web page, and Telnet/SSH interface.

The switch provides both out-of-band and in-band managements.

Out-of-band Management: You can configure the switch via RS232 console cable without having the switch or your PC connecting to a network. Out-of-band management provides a dedicated and secure way for switch management.

In-Band Management: In-band management allows you to manage your switch with a web browser (such as Microsoft IE, Mozilla Firefox, or Google Chrome) as long as your PC and the switch are connected to the same network.

- Preparation for Serial Console
- Preparation for Web Interface
- Preparation for Telnet/SSH Interface

Chapter 1: Preparing for Management Preparation for Serial Console

1.1. Preparation for Serial Console

Inside the product package, you can find an RS-232 console cable. Before managing your switch via out-of-band management, please attach this cable's RJ45 connector to your switch's console port and its RS-232 female connector to your PC's COM port.

To access this switch's out-of-band management CLI (Command Line Interface), your PC must have terminal emulator software such as HyperTerminal or PuTTY installed. Some operating systems (such as Microsoft Windows XP) have HyperTerminal already installed. If your PC does not have any terminal emulator software installed, please download and install a terminal emulator software on your PC.

The following section will use HyperTerminal as an example.

- 1. Run HyperTerminal on your PC.
- 2. Give a name to the new console connection.

Connection Description	?	×
New Connection		
Enter a name and choose an icon for the connection:		
Name:		
lcon:		
🎒 🧶 🤹 🌭 😼		8
<		>
ОКС	ance	ł

3. Choose the COM port that is connected to the switch.

Connect To ? ×			
Notest Test			
Enter details for the phone number that you want to dial:			
Country/region: United States (1)			
Area code: 123			
Phone number:			
Connect using: COM3			
OK Cancel			

Preparation for Serial Console

4. Set the serial port settings as: **Baud Rate:** 115200, **Data Bit:** 8, **Parity:** None, **Stop Bit:** 1, **Row Control:** None.

COM3 Properties	?	×
Port Settings		
		_
Bits per second: 115200	•	
Data bits: 8	•	
Parity: None	•	
Stop bits: 1	•	
How control: None	•	
<u>R</u> estore D)etaults	
OK Cancel	Ap	ply

5. The system will prompt you to login the out-of-band management CLI. The default username/password is **admin/admin**.



1.2. Preparation for Web Interface

The management web page allows you to use a web browser (such as Microsoft IE, Google Chrome, or Mozilla Firefox) to configure and monitor the switch from anywhere on the network.

Before using the web interface to manage your switch, please verify that your switch and your PC are on the same network. Please follow the steps down below to configure your PC properly:

- 1. Verify that the network interface card (NIC) of your PC is operational and properly installed, and that your operating system supports TCP/IP protocol.
- 2. Connect your PC with the switch via an RJ45 cable.
- 3. The default IP address of the switch is **192.168.2.1**. The switch and your PC should locate within the same IP Subnet. Change your PC's IP address to 192.168.2.X, where X can be any number from 2 to 254. Please make sure that the IP address you've assigned to your PC cannot be the same with the switch.

Ethernet Properties	×	
Networking Sharing	Internet Protocol Version 4 (TCP/IPv4) Properties	
Connect using:	General You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.	
This connection uses the following items: 	 Obtain an IP address automatically Use the following IP address: IP address: IP address: IP2 . 168 . 2 . 33 Subnet mask: 255 . 255 . 0 Default gateway: . Obtain DNS server address automatically Obtain DNS server: . Alternate DNS server: . Validate settings upon exit 	
ОК	OK Cancel	

- 4. Launch the web browser (IE, Firefox, or Chrome) on your PC.
- 5. Type **192.168.2.1** (or the IP address of the switch) in the web browser's URL field, and press Enter.



The web browser will prompt you to sign in. The default username/password for the configuration web page is **admin/admin**.

Chapter 1: Preparing for Management Preparation for Web Interface

Veu need to	sign in with "102 169 2 1.90"
You need to	sign in with 192.108.2.1:80
Site message	e PoE
Username:	admin
Password:	****

Preparation for Telnet/SSH Interface

1.3. Preparation for Telnet/SSH Interface

Both telnet and SSH (Secure Shell) are network protocols that provide a text-based command line interface (CLI) for in-band system management. However, only SSH provides a secure channel over an un-secured network, where all transmitted data are encrypted.

This switch support both telnet and SSH management CLI. In order to access the switch's CLI via telnet or SSH, both your PC and the switch must be in the same network. Before using the switch's telnet/SSH management CLI, please set your PC's network environment according to the previous chapter (**2.2. Preparation for Web Interface)**.

Telnet interface can be accessed via Microsoft "CMD" command. However, SSH interface can only be accessed via dedicated SSH terminal simulator. The following section will use *PuTTY* as an example to demonstrate how to connect to the switch's SSH CLI, since both telnet and SSH uses the same way (though using different terminal simulator software) to access in-band management CLI.

Access SSH via Putty:

A "PuTTY Configuration" window will pop up after you run PuTTY.

Input the IP address of the switch in the "Host Name (or IP address)" field. The default IP address of the switch if **192.168.2.1**.

Choose "SSH" on the "Connection type" section, then press "Enter".



If you're connecting to the switch via SSH for the first time, a "**PuTTY Security Alert**" window will pop up. Please press "**Yes**" to continue. This window won't pop up if you're using telnet to connect to the in-band management CLI.

Preparation for Telnet/SSH Interface



PuTTY will prompt you to login after the telnet/SSH connection is established. The default username/password is **admin/admin**.

ピ 192.168.2.1 - PuTTY	-	×
login as: admin admin@192.168.2.1's password:		
Welcome to Vitesse Command Line Interface (v1.0). Type 'help' or '?' to get help.		
		\sim

Chapter 1: Preparing for Management Preparation for Telnet/SSH Interface