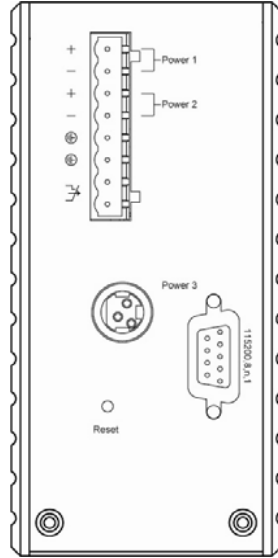


Hardened Managed Ethernet Switch

This quick start guide describes how to install and use the hardened Managed Ethernet Switch. This is the switch of choice for harsh environments constrained by space.

Physical Description

The Port Status LEDs and Power Inputs



LED	State	Indication
10/100Base-TX, 100Base-FX/BX		
LINK/ACT	Steady	A valid network connection established.
	Flashing	Transmitting or receiving data. ACT stands for ACTIVITY.
100	Steady	Connection at 100Mbps speed.
10/100/1000Base-TX, 1000Base-SX/LX/BX		
LINK/ACT	Steady	A valid network connection established.
	Flashing	Transmitting or receiving data. ACT stands for ACTIVITY.
1000	Steady	Connection at 1000Mbps speed.

Power Input Assignment		
Power3	12VDC	DC Jack
Power2	+ 12-48VDC	
	- Power Ground	Terminal Block
Power1	+ 12-48VDC	
	- Power Ground	
⊕	Earth Ground	
Relay Output Rating		1A @ 24VDC
Relay Alarm Assignment		
⚡ FAULT	*Warning signal disable for following:	
	1.The relay contact closes if Power1 and Power2 are both failed but Power3 on. 2.The relay contact closes if Power3 is failed but Power1 and Power2 are both on.	

DC Terminal Block Power Inputs: There are three power inputs can be used to power up this switch. Redundant power supplies function is supported.

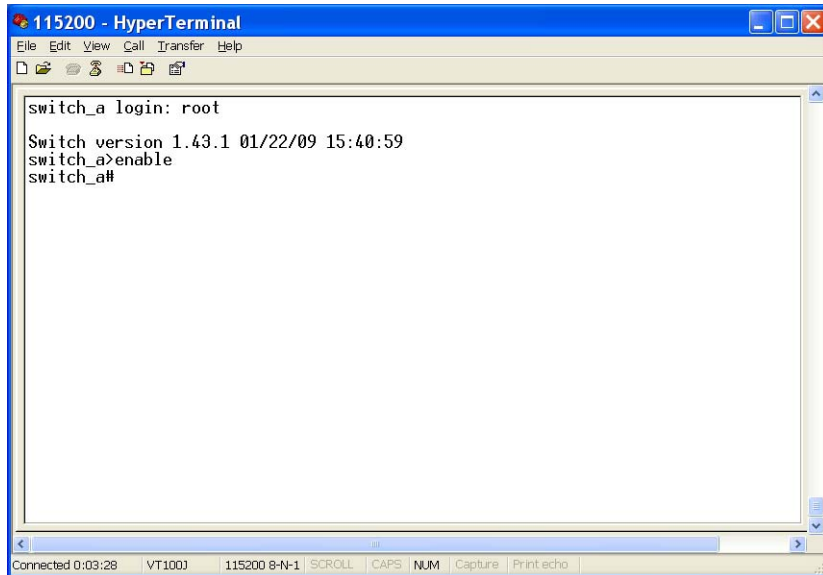
Functional Description

- Complies with EN50121-4 environmental requirements for railway applications.
- Meets NEMA TS1/TS2 Environmental requirements such as temperature, shock, and vibration for traffic control equipment.
- Meets EN61000-6-2 & EN61000-6-3 EMC Generic Standard Immunity for industrial environment.
- Manageable via SNMP, Web-based, Telnet, and RS-232 console port.
- Supports Command Line Interface in RS-232 console.
- Support 802.3/802.3u/802.3ab/802.3z/802.3x. Auto-negotiation: 10/100/1000Mbps, full/half-duplex; Auto MDI/MDIX.
- 100Base-FX: Multi mode SC or ST type, Single mode SC or ST type. 100Base-BX: WDM Single mode SC type.
- 1000Base-SX/LX: Multi mode or Single mode SC type. 1000Base-BX: WDM Single mode SC type.
- Support 8192 MAC addresses. Provides 2M bits memory buffer.
- Alarms for power and port link failure by relay output.
- Power Supply: Redundant DC Terminal Block power inputs or 12VDC DC JACK with 100-240VAC external power supply.
- Operating voltage and Max. current consumption: 0.92A @ 12VDC, 0.46A @ 24VDC, 0.23A @ 48VDC. Power consumption: 11W Max.
- 40°C to 75°C (-40°F to 167°F) operating temperature range. Tested for functional operation @ -40°C to 85°C (-40°F to 185°F).
- Supports Din-Rail or Panel Mounting installation.

Console Configuration

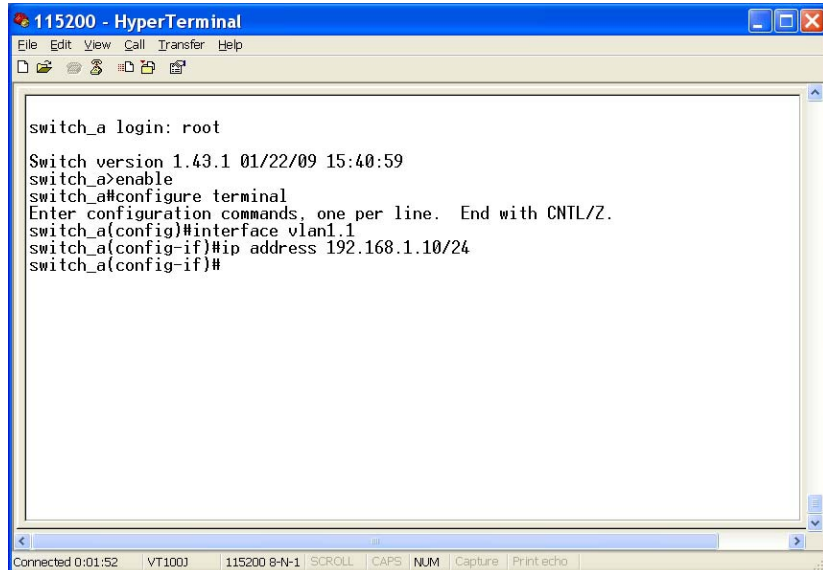
- Connect to the switch console:
 - Connect the DB9 straight cable to the RS-232 serial port of the device and the RS-232 serial port of the terminal or computer running the terminal emulation application. Direct access to the administration console is achieved by directly connecting a terminal or a PC equipped with a terminal-emulation program (such as HyperTerminal) to the switch console port.
- Configuration settings of the terminal-emulation program:
 - Baud rate: 115,200bps, Data bits: 8, Parity: none, Stop bit: 1, Flow control: none.
- Press the "Enter" key. The Command Line Interface (CLI) screen should appear as below:
- Logon to Exec Mode (View Mode):
 - At the "switch_a login:" prompt just type in "root" and press <Enter> to logon to Exec Mode (or View Mode). And the "switch_a>" prompt will show on the screen.

Hardened Managed Ethernet Switch



```
115200 - HyperTerminal
switch_a login: root
Switch version 1.43.1 01/22/09 15:40:59
switch_a>enable
switch_a#
```

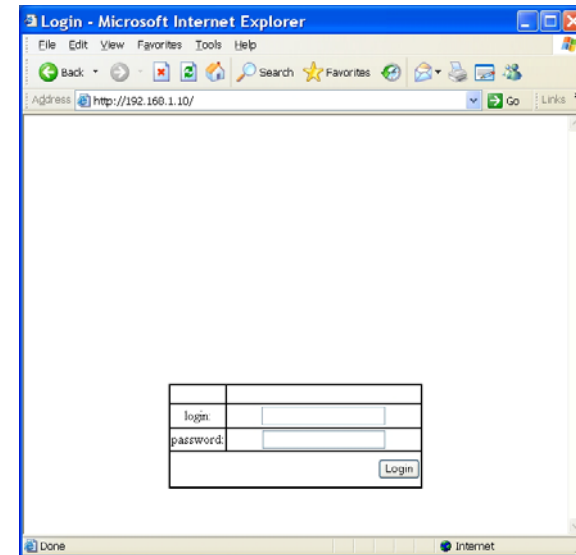
- Logon to Privileged Exec Mode (Enable Mode):
At the “switch_a>” prompt just type in “enable” and press <Enter> to logon to Privileged Exec Mode (or Enable Mode). And the “switch_a#” prompt will show on the screen.
- Logon to Configure Mode (Configure Terminal Mode):
At the “switch_a#” prompt just type in “configure terminal” and press <Enter> to logon to Configure Mode (or Configure Terminal Mode). And the “switch_a(config)#” prompt will show on the screen.



```
115200 - HyperTerminal
switch_a login: root
Switch version 1.43.1 01/22/09 15:40:59
switch_a>enable
switch_a#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch_a(config)#interface vlan1
switch_a(config-if)#ip address 192.168.1.10/24
switch_a(config-if)#
```

Web Configuration

- Login the switch:
Specify the default IP address (192.168.1.10) of the switch in the web browser. A login window will be shown as below:



- Enter the factory default login ID: root.
Enter the factory default password (no password).
Then click on the “Login” button to log on to the switch.

