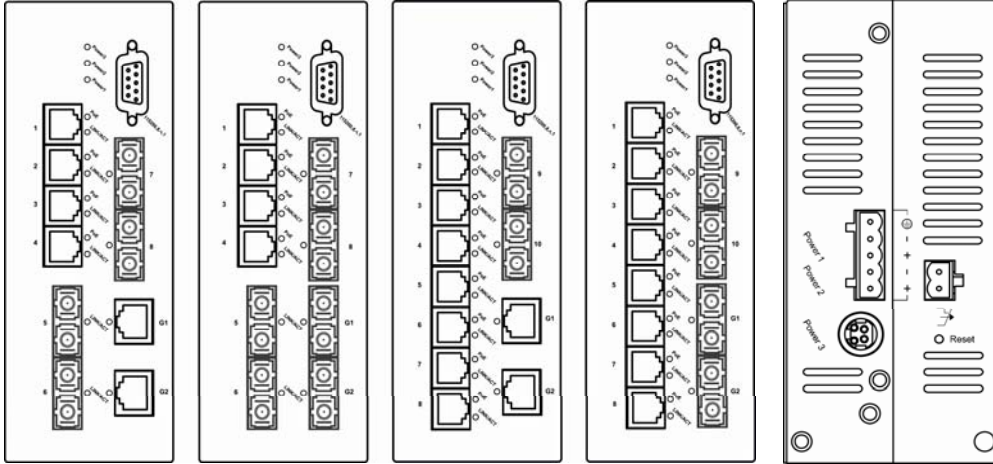This quick start guide describes how to install and use the Hardened Managed PoE (Power over Ethernet) Ethernet Switch. This is the switch of choice for harsh environments constrained by space.

Physical Description

The Port Status LEDs and Power Inputs

LED	State	Indication
10/100Base-TX		
LINK/ACT	Steady	A valid network connection established.
	Flashing	Transmitting or receiving data. ACT stands for ACTIVITY.
PoE	Steady	Power Device (PD) is connected.
	Off	Power Device (PD) is disconnected.
100Base-FX/BX		
LINK/ACT	Steady	A valid network connection established.
	Flashing	Transmitting or receiving data. ACT stands for ACTIVITY.
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.

Power Input Assignment		
Power3	48VDC	DC Jack
Power2 +	47-55VDC	
Power2 −	Power Ground	
Power1 +	47-55VDC	Terminal Block
Power1 −	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 two power inputs can be used to power up this switch. Redundant power supplies function is supported.

Functional Description

- 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.
- RS-232 console, Telnet, SNMP v1 & v2c & v3, RMON, Web Browser, and TFTP management.
- Supports Command Line Interface in RS-232 console.
- Supports 8192 MAC addresses. Provides 2M bits memory buffer.
- Supports IEEE802.3af Power over Ethernet (PoE) Power Sourcing Equipment (PSE).
- Supports IEEE802.3/802.3u/802.3ab/802.3z/802.3x. Auto-negotiation: 1000Mbps-full-duplex; 10/100Mbps-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.
- Store-and-forward mechanism. Full wire-speed forwarding rate.
- Alarms for power and port link failure by relay output.
- Power Supply: Redundant 47-55VDC Terminal Block power inputs or 48VDC DC Jack power input.
- Operating voltage and Max. current consumption: 0.31A @ 48VDC. Power consumption: 15W Max.
- -40℃ to 75℃ (-40℉ to 167℉) operating temperature range.
  Tested for functional operation @ -40℃ to 85℃ (-40℉ to 185℉).
- Hardened metal case.
- Supports Din-Rail or Panel Mounting installation.

<Note> Make sure to readjust RTC Time of this switch to function accurately after this switch has been powered off for over 72 hours.

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.
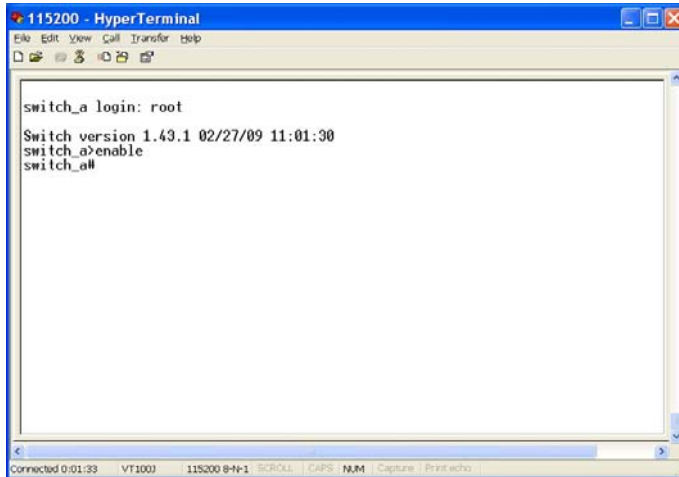
- Logon to Privileged Exec Mode (Enable Mode):
  At the "switch_a>" prompt just type in "enable" and press <Enter> to logon to Privileged Exec Mode (or Enable Mode). And the "switch_a#" prompt will show on the screen.
- Logon to Configure Mode (Configure Terminal Mode):
  At the "switch_a#" prompt just 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.
- Set new IP address and subnet mask for Switch:
  At the "switch_a(config)#" prompt just type in "interface vlan1.1" and press <Enter> to logon to vlan 1 (vlan1.1 means vlan 1). And the "switch_a(config-if)#" prompt will show on the screen.
  Command Syntax: "ip address A.B.C.D/M". "A.B.C.D" specifies IP address. "M" specifies IP subnet mask. "M"= 8: 255.0.0.0, 16:255.255.0.0, or 24: 255.255.255.0.
  For example, At the "switch_a(config-if)#" prompt just type in "ip address 192.168.1.10/24" and press <Enter> to set new IP address (192.168.1.10) and new IP subnet mask (255.255.255.0) for Switch.
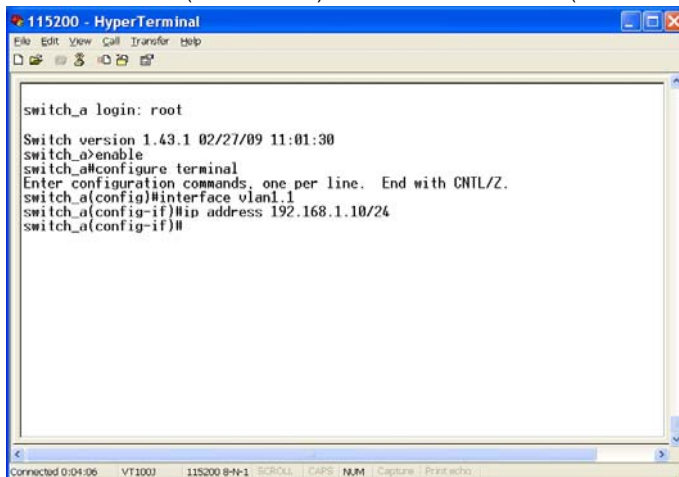
Web Configuration

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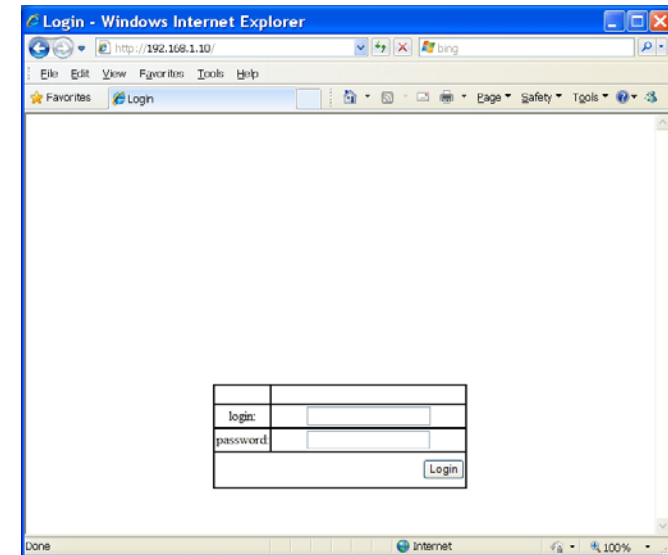
- Enter the factory default login ID: root.
  Enter the factory default password (no password).
  Then click on the "Login" button to log on to the switch.