level® one

COInfinity

IES-2880

24 FE + 4 GE Combo SFP Managed Switch -40 to 75C, IEC61850

Quick Installation Guide

Default Setting

IP	192.168.10.1
Login	root
Password	[blank]
Console	115200, n, 8, 1

v1.00 - 1206

Overview

LevelOne IES-2880 Industry Ethernet Switch provides 24 ports 10/100Base plus 4 port Gigabit Combo SFP to enable high speed network at mission-critical environment. With the 1U height rack-mountable size, this switch can be easily installed in the cabinet, plus the clearly visible status LEDs provide simple monitoring of port link activity. Moreover, the SFP slots support pluggable modules that enabling you to choose from a variety of transceivers.

High Reliability

All components are built to withstand harsh environment applications without compromise where humidity, temperature variation and even shock vibration are concerns, including Electric & Utility, Critical Infrastructure, Transportation and Surveillance Security. This device operates under -40 to 75 Celsius (-40 to 167 Fahrenheit) temperature.

Resilient Ring Network

Supports Ring topology network providing simple installation and ultra fast network recovery performance, less than 15ms. Unlike much complex resilient topology, such as a redundant star, the Ring simplifies the network design and requires less cabling installation. In addition, fast network recovery time helps minimize system downtime.

Features

- NEMA TS1/TS2 Environmental requirements such as temperature, shock, and vibration for traffic control equipment
- EN61000-6-2 & EN61000-6-4 EMC Generic Standard Immunity for industrial environment
- RS-232 console, Telnet, SNMP v1 & v2c & v3, RMON, Web Browser, and TFTP management
- Provides 8192 MAC addresses and 3Mbits memory buffer
- Supports IEEE802.3/802.3u/802.3ab/802.3z/802.3x. Auto-negotiation: 1000Mbps-full-duplex; 10/100Mbps-full/half-duplex; Auto MDI/MDIX
- SFP socket for fibre optic expansion
- Store-and-forward & full wire-speed forwarding mechanism
- AC inlet power socket: 100~240VAC, 50~60Hz internal universal PSU.
- Terminal Block power input: +48VDC, -48VDC, 88~370VDC, or 90~264VAC.
- Supports redundant power supplies for flexible application.
- -40℃ to 75℃ (-40°F to 167°F) operating temperature range.
- Tough metal case. with Rack Mounting installation

Package Contents

- IES-2880
- Quick Installation Guide
- CD User Manual
- 19inch Rack mount kits

LED Status

LED	Status	Description
Power	Steady	Power On
	Off	Power Off
10/100Base-TX & 100Base-FX		
Link/ACT	Steady	Network connection established
	Flashing	Transmitting or Receiving data
10/100/1000Base-TX & 1000Base-FX & SFP		
Link/ACT	Steady	Network connection established
	Flashing	Transmitting or Receiving data
SFP		
SFP	Steady	Network connection established
	Off	No SFP

Power Input

AC Inlet	Power	100-240VAC, 50-60Hz internal universal PSU			

Terminal Block Power Supply (Optional)

		+48VDC	-48VDC	88-370VDC	90-264VAC
Terminal Block	Power **+**	+48	0	88-370	L
	−	0	-48	0	N
	Earth Ground				
	Protect Ground				

<Note> Dielectric withstand (Hipot) test for DC power input, must remove metal chip between Earth Ground and Protect Ground of the terminal block power input to avoid damage to the Switch.
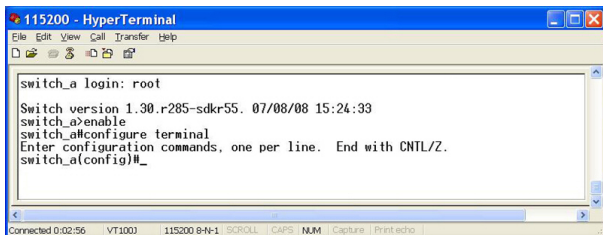
Redundant Power System is also available, please contact your local sales representative for more details

Console Configuration

1. Connect to the switch console:
2. 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.
3. Configuration settings of the terminal-emulation program:
4. Baud rate: 115,200bps, Data bits: 8, Parity: none, Stop bit: 1, Flow control: none.
5. Press the "Enter" key. The Command Line Interface (CLI) screen should appear as below:
6. Logon to Exec Mode (View Mode):
7. 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.

```
switch_a login: root
Switch version 1.30.r285-sdkr55. 07/08/08 15:24:33
switch_a>_
```
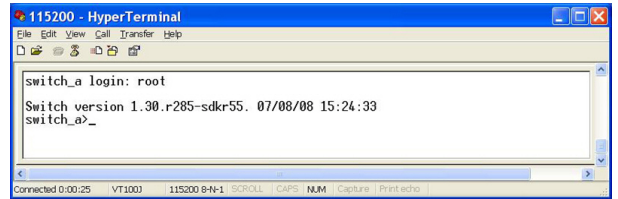
8. Logon to Privileged Exec Mode (Enable Mode):
9. At the "switch_a>" prompt just type in "enable" and press <Enter> to logon to Privileged Exec Mode (or Enable Mode). And the "switch_a#" prompt will show on the screen.
10. Logon to Configure Mode (Configure Terminal Mode):
11. At the "switch_a#" prompt 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.
12. Set new IP address and subnet mask for Switch:
13. 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.
14. 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.
15. 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

```
switch_a login: root
Switch version 1.30.r285-sdkr55. 07/08/08 15:24:33
switch_a>enable
switch_a#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
switch_a(config)#_
```
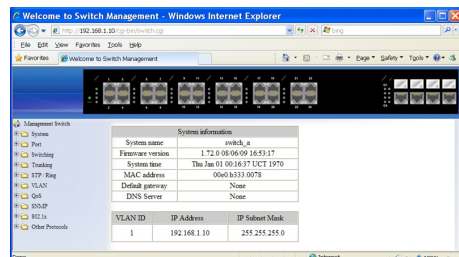
Web Configuration

1. Login the switch:
2. Specify the default IP address (192.168.1.10) of the switch in the web browser. A login window will be shown as below:
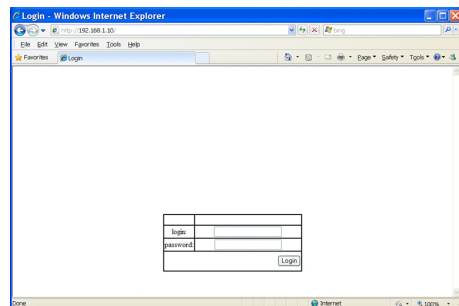
3. Enter the factory default login ID: root.
4. Enter the factory default password (no password).
5. Then click on the "Login" button to log on to the switch.

Note: Please refer to User Manual for more detailed information