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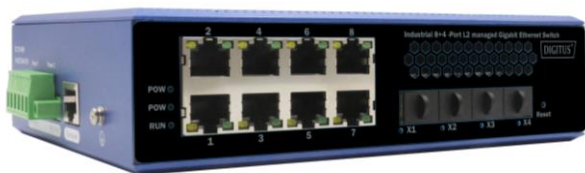# Industrial 8 + 4-port L3 managed Gigabit Ethernet (PoE) Switch

Quick Installation Guide
DN-651160, DN-651161

Table Content

1. Overview

This is a L3 managed industrial PoE Ethernet switch with 8 Port 10/100/1000Mbps RJ45 (PoE) +4 Port 1000/2500/10000Mbps SFP, support one console port. The Ethernet switch adopts Layer 2 protocol required by the industrial site to ensure the stability of the communication network. This series of switches adopt low power consumption and fanless design to ensure no noise interference, while supporting -40~80°C working temperature and good EMC electromagnetic compatibility performance to ensure stable work in harsh industrial environments, and to build fast for industrial applications such as factory automation, intelligent transportation, and video surveillance. Stable network terminal access network provides a safe and reliable solution.

2. Features

- Data control: support 802.3X full-duplex flow control, support network storm suppression
- Redundant network: support STP/RSTP/MSTP, support ERPS (self-healing time <20ms)
- Multicast management: support IGMP Snooping V1/V2/V3
- Redundancy backup: supports the virtual route redundancy protocol VRRP

- VLAN: Support IEEE 802.1Q VLAN, effectively isolate the broadcast domain
- Link aggregation: support link static/dynamic aggregation, providing perfect bandwidth utilization
- QOS: Support COS\DSCP, 4 queues, support WRR\SP scheduling mode
- Security management: support ACL access control list, support 802.1X
- Management function: support WEB, CLI, SNMP management methods
- Monitoring and maintenance: support port mirroring, interface status monitoring, log management
- Supports static routes. IPV6
- Supports NTP clients. Support PTP（1588v2）
- IP40 protection grade

3. Specification

3.1 standard

IEEE802.3i 10Base-T,IEEE802.3u 100Base-TX, IEEE802.3ab 1000Base-T,IEEE802.3z 1000Base-X,IEEE 802.3ae 10GBase-X,IEEE802.3x Flow Control,IEEE802.1d-Spanning Tree Protocol,IEEE802.1w-Rapid Spanning Tree Protocol,IEEE802.1q-VLAN , IEEE 802.3ad, IEEE802.1p-Class of Service,IEEE802.1X-Port Based Network Access Control,IEEE802.3af,IEEE802.3at etc.

3.2 Interface
DN-651160: 8 Port Gigabit RJ45 + 4port 10G SFP
DN-651161: 8 Port Gigabit RJ45 (PoE) +4 Port 10G SFP

3.3 Work environment
Working temperature: -40～80 °C
storage temperature: -40～85 °C
relative humidity: 5%～95% (no condensation)

3.4 Switch
Bandwidth (switch capacity): 1.2Tbps
Packet Buffer Memory: 32Mbit
Packet Forwarding Rate: 406Mpps
MAC Address Table: 32K

3.5 Power supply
Input voltage: DC12-48V (DN-651160)
Input voltage: DC48-57V (DN-651161)
(Two-way power redundancy backup)
Access terminal:
Block terminal, Support dual power redundancy
Support built-in over current 4.0A protection
Support reverse connection protection
Max Power consumption: 18W

3.6 Mechanical characteristic

IP40 aluminum housing
DIN rail installation
Natural colling, no fan
Weight: 0.8Kgs
Measurement: 175.6 x 135 x 45.5 mm

3.7 Industrial standard

FCC CFR47 Part 15, EN55032, Class A
IEC61000-4-2 (ESD): ±8kV (contact), ±12kV (air)
IEC61000-4-3 (RS): 10V/m (80~1000MHz)
IEC61000-4-4 (EFT): Power Port: ±2kV; Data Port: ±1kV
IEC61000-4-5 (Surge): Power Port: ±2kV/CM, ±1kV/DM;
Data Port: ±4kV/CM, ±2kV/DM
IEC61000-4-6 (CS): 3V (10 kHz-150 kHz);
10V (150 kHz-80MHz)
IEC61000-4-16 (Common mode conduction): 30V
(cont.), 300V (1s)
Frequency range：150kHz-80MHz
Impact: IEC 60068-2-27
Free Fall: IEC 60068-2-32
Vibration: IEC 60068-2-6

4. Package

- Industrial switch 1pcs
- User manual 1pcs
- Block terminal 1pcs

5. Switch Panel

Side panel: P1 and P2 are the number of connecting terminals, P+1 and P-1 are respectively to the positive and negative poles to be connected; Earthing screw used for earthing equipment.

Front panel: the yellow light on RJ45 port is the link light. It is on, when the connection is established and the transmission data is flashing. The green light on RJ45 port is the POE light, which is only on when the switch port supplies power to the downlink PD. Green LED on is for system operation. The power indicator "POW" shows whether the current device is received power in normal.
There are also green LED for optical link status.

Switch size (mm) 175.6* 135*45.5
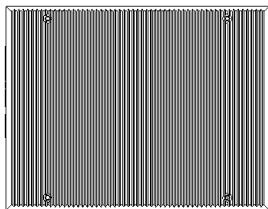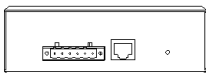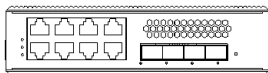
6. LED Indicator

LED Indicator	Status	Definition
Power	Red LED on	Power work in normal
	Red LED off	No power or power in trouble
RJ45 LED	Yellow LED on	Ethernet work in normal
	Yellow LED flashing	Link communication in normal
	Green LED on	PoE feeding to PD device in normal
	Green LED off	No PoE work

| RUN	Green LED slowing flashing	System run in normal
Optical LED	Green LED on	Optical work in normal

7. Installation Caution

7.1 Installation precautions

In order to avoid damage to equipment and personal injury caused by improper use, please follow the following precautions:

- In order to avoid damage caused by falling of the equipment, please put the equipment in a stable environment.
- When supplying power to the equipment, pay attention to confirm the range of power supply voltage, as well as the positive and negative poles of the power supply, so as not to damage the equipment by wrong operation.
- In order to reduce the risk of electric shock, ensure that the equipment is well grounded in the working environment.
- No matter when, please do not arbitrarily remove the equipment shell.
- When placing the switch, please avoid the area with dust and strong electromagnetic interference

7.2 Din rail installation

The first step is to check the grounding and stability of the guide rail: the guide rail slot of the switch is clamped into the guide rail; the second step: from the center to both sides of the guide rail positioning screws in order. Step 3: Use screws to fix the mounting rail card slot on the fixed guide groove at both ends of the guide rail to ensure that the guide rail and the switch are fixed on the guide rail vertically and stably.
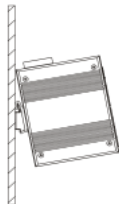
7.3 grounding

Fix the grounding wire to the grounding screw above the switch, and ensure good reliable connection of the grounding system.
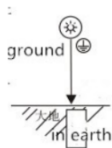
7.4 Power Connection

Insert the power cord into the specified position of the 6-core terminal, and insert the terminal into the standard power supply inlet (P+1 and P-1 input corresponding to the first power supply P1, and P+2 and P-2 input corresponding to the second power supply P2).
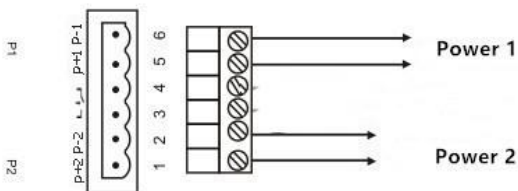
8. Management system Login

This series of Managed ethernet switches provides a serial port-based management system program debugging port. Located at the front of panel to log in to the command line.

Console port: baud rate 115200
Web IP: 192.168.10.12
User name: admin
Password: admin

For detail Web manual support, please visit product website at www.assmann.com

This is a Class A product. In home environment, this product may cause radio interference. In this case, the user may be required to take appropriate measures.

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