

JetNet 6910G/7714G M12 Railway Ethernet Switch Quick Installation Guide V1.1

Overview

The JetNet 6910G/7714G series are Managed Ethernet Switch with rugged connection for Railway communication. It adopts M12 connector to make well connection with Enclosure interface for In-Train application, including Power, Ethernet and console/USB interfaces. This Quick Installation Guide will guide you on system installation and wiring the interfaces.

Package Check List

- ▶ M12 Switch
- Console (M12-A/DB9 RS232) cable
- ▶ Mounting Kits
- ▶ Quick Installation Guide

Powering System

The JetNet Railway M12 Switch is designed for Train on-board IP Surveillance application. The Switch's power input voltage is fully compliant with train's power system. The specification of power input voltage shows in table following.

JetNet 6910G GbE - M12 X-Code 8-PIN, Female

| Cat-6, Cat-7 Shielding Twisted Cable, 24-26AWG | | | | |
|--|--------------------|---|--|--|
| Pin | Description | Po E | | |
| 1 | Bidirectional (0)+ | PoE V+ / P | | |
| 2 | Bidirectional (0)- | PoE V+ / P | | |
| 3 | Bidirectional (1)+ | PoE V- / N | | |
| 4 | Bidirectional (1)- | PoE V- / N | | |
| 5 | Bidirectional (3)+ | | | |
| 6 | Bidirectional (3)- | | | |
| 7 | Bidirectional (2)- | | | |
| 8 | Bidirectional (2)+ | | | |
| | Pin 1 2 3 4 5 6 7 | Pin Description 1 Bidirectional (0)+ 2 Bidirectional (0)- 3 Bidirectional (1)+ 4 Bidirectional (1)- 5 Bidirectional (3)+ 6 Bidirectional (3)- 7 Bidirectional (2)- | | |

JetNet 7714G GbE - M12 A-Code 8-PIN, Female

| Cat-6, Cat-7 Shielding Twisted Cable, 24-26AWG | | |
|--|-----|--------------------|
| Pin Assignment drawing | Pin | Description |
| 7 6 8 3 3 5 | 1 | Bidirectional (3)- |
| | 2 | Bidirectional (3)+ |
| | 3 | Bidirectional (2)- |
| | 4 | Bidirectional (2)+ |
| | 5 | Bidirectional (1)- |
| | 6 | Bidirectional (1)+ |
| | 7 | Bidirectional (0)- |
| | 8 | Bidirectional (0)+ |

Specification of System Power

| Power Type | HVDC | LVDC |
|-----------------------|----------|---------|
| Typical Input Voltage | DC 110V | DC 24V |
| Voltage Variation (V) | 77~137.5 | 16.8~30 |
| Power Redundant | √ | √ |
| Reverse Protection | √ | √ |

System Wiring

The railway Ethernet Switch adopts several type of M12 connectors for the power, Ethernet signal, management &USB Flash Disk for management and system backup. Therefore, the connection is different from the traditional Ethernet connector. The figures as following describe the definition of each conductor.

Power Connector - M12 A-Code 4-PIN, Male

| Pin Assignment drawing | Pin | Description |
|------------------------|-----|---------------|
| 7 / 1 | 1 | Power-2, DC+ |
| / • • \ | 2 | Power-1, DC+ |
| (••) | 3 | Power-1, DC - |
| 3 4 | 4 | Power-2, DC - |

| Specification of Power Cable - AWG/ mm² | | | |
|---|-----|------|-------------|
| Model | AWG | mm² | Current (A) |
| HVDC (DC 110V version) | 18 | 0.82 | 2.3 (Max) |
| LVDC (DC 24V version) | 13 | 2.62 | 7.4 (Max) |

JetNet 6910G/7714G FE - M12 D-Code 4-PIN, Female

| Cat-6, Cat-7 Shielding Twisted Cable, 24~26AWG | | | |
|--|-----|-------------|------------|
| Pin Assignment drawing | Pin | Description | PoE |
| | 1 | TX+ | PoE V+ / P |
| 1 2 | 2 | RX+ | PoE V- / N |
| 4 3 | 3 | TX- | PoE V+ / P |
| | 4 | RX- | PoE V- / N |

Console/ USB Backup Port - M12 A-Code 8 PIN, Female

| RS-232 Console | | |
|------------------------|-----|----------------|
| Pin Assignment drawing | Pin | Description |
| 7 6 8 3 3 5 | 1 | RS232_TX |
| | 2 | RS232_RX |
| | 3 | RS232_GND |
| | 4 | N/A |
| | 5 | USB Data+ |
| | 6 | USB Data- |
| | 7 | USB power (5V) |
| | 8 | USB Ground |

Software Setup

You can configure the switch via the RS-232 console interface with the attached console cable. Or you can remotely manage the switch via network. You can choose Telnet/SSH, Web/HTTPS management.

Preparation for console management

Attach the RS-232 DB9 connector to your PC's COM port. Connect the M12-A connector to the console port of the JetNet Switch.

- 1. Go to Start > Program > Accessories > Communication > Hyper Terminal
- 2. Give a name to the new console connection.
- 3. Choose the COM name and select the correct serial settings. The serial port settings of Switch are as blow:

JetNet 6910G: 9600bps, No parity check, 8 Data bits, 1 stop bit

JetNet 7714G: 115200bps, No parity check, 8 Data bits, 1 stop bit

After connected, you will see the Switch login request. Type the username and password and then you can login. The default username is "admin", password is "admin".

Follow the manual to configure the software features.

Preparation for Web management

Before you attempt to use the embedded web interface to manage switch operation, verify that JetNet Switch is properly installed on your network and that every PC on this network can access the switch via the web browser.

Launch the web browser (Internet Explorer or Mozilla Firefox) on the PC.

Type http://JetNet Managed Switch_IP_Address (The default IP address is 192.168.10.1.),

then press Enter. The login screen will appear next. Type in the user name and password and click "OK" button. The welcome page of the Web-Based management interface will appear then. The default user name and password is admin/admin



Support

5 Years Warranty

Each of Korenix's product is designed, produced, and tested with high industrial standard. Korenix warrants that the product(s) shall be free from defects in materials and workmanship for a period of five (5) years from the date of delivery provided that the product was properly installed and used.

This warranty is voided if defects, malfunctions or failures of the warranted product are caused by damage resulting from force measure (such as floods, fire, etc.), other external forces such as power disturbances, over spec power input, or incorrect cabling; or the warranted product is misused, abused, or operated, altered and repaired in an unauthorized or improper way.

Attention! To avoid system damage caused by sparks, please DO NOT plug in power connector when power is on.

The product is in compliance with Directive 2002/95/EC and 2011/65/EU of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronics equipment (RoHS Directives & RoHS 2.0)

Korenix Customer Service

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