JetNet 3706
Industrial 6-port Web-Managed PoE Plus Switch

■ Four 10/100 TX Power over Ethernet ports and two redundant 10/100 TX uplink ports

■ DC 24V Power Input for DC 22V output through Ethernet (Non-standard PoE)

■ DC 48V Power Input for IEEE 802.3af 48V PoE output

■ Up to 30W per port for High Power solution by Power Input DC 55V (IEEE 802.3at)

■ UP to 100W for total power budget (IEEE 802.3at)

■ Forced mode powering

■ Support IEEE 802.3af for PoE detection and PoE classification resistors

■ PoE control and schedule by hour/weekly basis

■ Auto-detect Powered Device status for device auto-reset (LPLD)

■ Patented Multiple Super Ring technology (MSR™), back up system recovery time up to 5ms

■ Built-in hardware watchdog timer for system auto-reset

■ Aluminum rugged enclosure with IP-31 grade protection

■ -25~60°C operating temperature for hazardous environment application

CE FC c(UL)us LISTED ☒ RoHS

Overview

JetNet 3706 is an web-smart PoE plus switch designed for industrial PoE applications such as IP surveillance or wireless access points, where 30W per port and/or 24VDC PoE is required. JetNet 3706 is in compliance with both IEEE 802.3af PoE as well as the pioneer standard of IEEE802.3at PoE Plus design (enhancement of 802.3af) for boosting PoE delivery up to 30W in each of the four PoE ports. Redundant power inputs guarantees your operation will not be stopped due to power disruption. JetNet 3706 can detect both 24V and 48V power inputs from PD and determine to deliver 24V or 48V PoE outputs, which enables the applications where request 24V instead of 48V.

The award winning IP31 rigid aluminum flat casing and wide operation temperature range ensure reliable operation for mass transit vehicles or outdoor usage.

PoE Port Schedule

Korenix provides an hourly/weekly scheduling mechanism for advanced power control. Each PoE port can be configured as on/off by hourly basis. This feature meets economic power management, security, or customer-specific requirements.
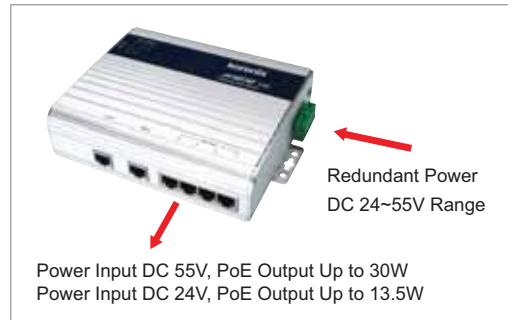
Easy PoE Configuration

The four PoE ports can be configured to enable, disable, or schedule PoE function by the web interface. The Power mode provides Standard mode for IEEE 802.3af PD, Manual mode for user configuration of the power limit to IEEE 802.3af standard PD, or Ultra mode for user configuration to perform at the 30w power limitation. After configuration, the real-time status of PoE is shown in web interface.

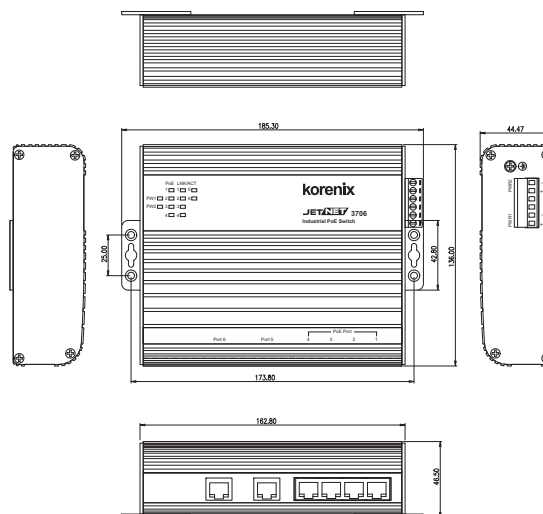## Wide Range Power Input / Output Voltage

IEEE802.3af defines nominal power supply at 48V. As a result, most PSE receive 48V power input and then deliver power to PD at the operation range from 44V to 57V. However, for many industrial environments without 48V mains power system, this rule is not applicable. It is neither applicable to those nonstandard PDs that do not work within the standard operation range.

Korenix's PoE switch equips a mechanism that can accept wide range of power input voltages and deliver a correspondent level of power. This is especially useful, for example, to power a 24V nonstandard PD or to power existing non-PoE apparatus with an

Redundant Power
DC 24~55V Range

Power Input DC 55V, PoE Output Up to 30W
Power Input DC 24V, PoE Output Up to 13.5W

accessorial PoE splitter in the public transportation system that has 24V system only.

Dimensions (Unit –mm)

Specification

Technology

Standard:
IEEE 802.3 10Base-T
IEEE 802.3u 100Base-T
IEEE 802.1p Class of Service
IEEE 802.3af Power Over Ethernet(PoE)
IEEE 802.3at High Power PoE

Performance

Switch Technology: Store and Forward Technology with 3.2Gbps wire-speed non-blocking Switch Fabric
System Throughput: 1.78Mpps
MAC Address: 2000
Packet Buffer: Embedded 1Mbits shared buffer
Transfer performance: 14,880pps for Ethernet and 148,800 for Fast Ethernet and transfer packet size from 64 to 1522Bytes
Quality of Service: Meets IEEE802.1p, per port provides 4 priority queues with WRR packet forwarding mechanism
PoE Technology: End-Span wiring architecture
Provides PD classification detection, class ID 0~3 follow IEEE802.3af standard, and class 4 for 30W High power deliver procedures.
Pin assignment: V+ (RJ-45 Pin 4,5), V- (RJ-45 Pin 7,8), TX (RJ-45 Pin 1,2), RX (RJ-45 Pin 3,6)
Protection: Over-current protection by PD class
Power Budget Control: Supports IEEE802.3af PD classification mechanism for 15.4W and class ID number 4 for IEEE802.3at High-power pre-standard 30W
The maximum DC power delivery on each PoE port is 12.9W@DC 24V input or 30W @ DC 55V input with maximum 0.615A current output.

Management

Management interface: Web browser, JetView
Firmware upgrade: TFTP, HTTP and JetView
Quality of Service: Quality of Service determined by port, Tag and IPv4 Type of Service
Class of Service: IEEE802.1p class of service, with 4 priority queues
Network Redundancy: Supports Multiple Super Ring function for network redundancy with 5ms network recovery time. JetNet 3706 also conforms with IEEE802.1D 2004 edition for RSTP and STP standand protocoes
PoE Port Control: Supports user configuration for PoE enable disable, or based on schedule
Power Limit Control: The control mode supports IEEE802.3af standard, Manual and Ultra mode for 30W Hi-power or forced powering mode for Non-standard PD. The maximum DC power delivery on each PoE port is 12.9W@DC 24V input or 30W @ DC55V input

PoE Scheduling Control: Each PoE port can be activated and powered scheduling with different rule. It supports weekly scheduling by hourly basis

Interface

Number of Ports: Four 10/100Base-TX with PoE injector
Two 10/100Base-TX Uplink Ports
Connectors:
10/100TX: RJ-45
Power: 6-pin Terminal Block
Cable: 10Base-T: 4-pair UTP/STP Cat. 3, 4, 5 cable, EIA/TIA-568 100-ohm(100m)
100Base-TX: 4-pair UTP/STP Cat. 5 cable, EIA/TIA-568 100-ohm(100m)
Diagnostic LED:
Power LED: Power 1/Power 2 (Green)
Fast Ethernet Port 1~4: Link(Green)
/Activity (Green blinking),
PoE Powering (Yellow on), PoE Detect (Yellow blinking), PoE Disable (Yellow off), PoE Powering failure (Yellow fast blinking)
Fast Ethernet Port 5,6: Link(Green)/Activity (Green blinking)
Reset Button: For system reboot and factory default setting

Power Requirements

System Power: Supports positive or negative power system
DC 24~55V with reverse polarity protection
Power Consumption: 8Watts @ 48V (Maximum) without PD loading

Mechanical

Installation: DIN-rail mount or Wall mount or Desktop
Case: IP-31 grade aluminum metal case
Dimension: 46.5 mm (H) x 174.8 mm (W) x 136 mm (D) without DIN-rail clip
Weight: 0.70kg with package
0.65kg without package

Environmental

Operating Temperature: -25 ~ 60℃
Operating Humidity: 0% ~ 95%, (non-condensing)
Storage Temperature: -40 ~ 80 ℃
Storage Humidity: 5%~ 95%, (non-condensing)

Regulatory Approvals

Safety: UL60950-1, CAS C22.2 No.60950-1-03
EMI: FCC Class A; CE/EN55022:2003 Class A
EMS:EN61000-4-2,EN61000-4-3,EN61000-4-4, EN61000-4-5,EN61000-4-6
EN 50155 Railway: compliance
Shock: IEC60068-2-27
Vibration: IEC60068-2-6
Free Fall: IEC60068-2-32
MTBF: 324,345 Hours, MIL-HDBK-217F GB standard
Warranty: 5 years

Ordering Information

JetNet 3706 Industrial 6-port Web-Managed PoE Plus Switch
Includes:
- JetNet 3706
- Quick Installation Guide
- CD-User Manual
- DIN Rail Mount kit

Optional Accessories

- DC 48V Din-Rail Power: DR-75-48
- DC 48V Din-Rail Power: MDR-100-48