

JetNet 3706f

Industrial 6-port Web-Managed PoE Fiber Switch



- Four 10/100 TX Power Over Ethernet ports and two 100 FX uplink ports
- Support IEEE802.3 at PoE plus
- Dual mode PoE design to support both DC 48V and DC 24V
- Up to 30W per port for High Power solution
- PoE control and schedule by hour/weekly basis
- Patented Rapid Super Ring technology (RSR), back up system recovery time less than 5ms
- Built in hardware watchdog timer for system auto-reset
- Aluminum rugged enclosure with IP-31 grade protection

Overview

JetNet 3706f is designed for industrial PoE applications, such as IP surveillance or wireless access points, where 30W per port and DC 24V PoE is required. JetNet 3706f 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 up to 30W in each of the four PoE ports. Redundant 24~55VDC power inputs guarantees your operation

will not be stopped due to power disruption. JetNet 3706f can auto-detect 24V & 48V power input and deliver 24V & 48V PoE output, allowing more applications where DC 48V is not an option.

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

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.



▶ Scheduling PoE Control

The concept from UPS power scheduling control is used for JetNet 3706f PoE power delivery. JetNet 3706f can follow the weekly schedule on an hourly basis to power on/off on any given PoE port. Each PoE port can apply to different schedules. This feature helps you to save time and money for power on/off maintenance.



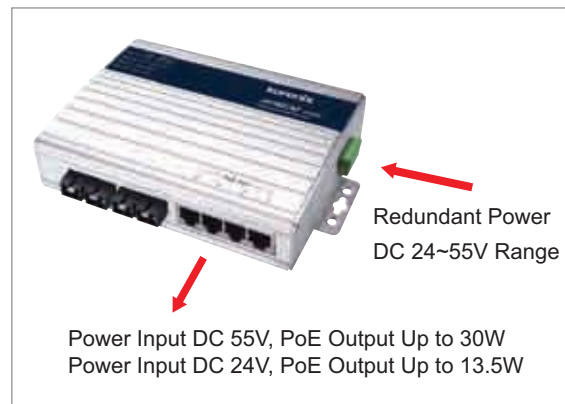
▶ DC 24V & DC 48V Power Over Ethernet System

JetNet 3706f accepts dual-mode PoE by 24V or 48VDC. JetNet 3706f is able to detect different input power voltages and to perform powered devices detection, classification, powering and disconnection processes automatically. The dual-mode PoE powering is very useful for public transportation systems with DC24V power supply, or any applications without DC48V power source.



▶ High Power Forwarding System

The IEEE802.3af Power over Ethernet standard specifies 15.4w power budget for PD system. However, 15.4w is not enough for some applications. JetNet 3706f follows two PoE mechanisms, IEEE802.3af and High Power pre-standard IEEE802.3at for 30W power budget. To recognize the PD classification ID, a powerful micro-processor is used in JetNet 3706f for power detection, classification, powering and disconnection processes. The JetNet 3706f can power PD with different PD classification ID. For the IEEE802.3af standard PD, the JetNet 3706f supports maximum 61.4W power forwarding ability with DC 48V power.



Specification

Technology

Standard:

IEEE 802.3 10Base-T
 IEEE 802.3u 100Base-T/100 Base FX
 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: 1.785Mpps

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 PD classification detection, class ID 0~3 follow IEEE802.3af standard, and 30W High power deliver procedures for class ID 4.

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.

Management

Management interface: Web browser, JetView

Firmware upgrade: TFTP, Local file 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 Rapid Super Ring function for network redundancy with 5ms network recovery time. JetNet 3706f also conforms with IEEE802.1D 2004 edition for RSTP and STP standard protocols

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. 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

100Base-FX: SC Connector

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)

100Base-FX: Multi-mode fiber: 50~62.5/125um; Single-mode fiber: 8~10/12um

Fiber Transceiver:

JetNet 3706f-m, Multi-mode: 2KM max. distance

Wave-length: 1310nm

Min Tx Power:-19dBm

Max Tx Power:-14dBm

Min Rx Sensitivity:-30dBm

Link budget:11dBm

JetNet 3706f-s, Single-mode: 30KM max. distance

Wave-length:1310nm

Max Tx Power:-8dBm

Min Tx Power:-15dBm

Min Rx Sensitivity:-34dBm

Link budget:19dBm

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)

Power Requirements

System Power: Support positive or negative power system with DC 24~50V power input range and polarity reverse 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:

0.68kg with package

0.64kg without package

Environmental

Operating Temperature: -10 ~ 60°C

Operating Humidity: 5% ~ 95%, (non-condensing)

Storage Temperature: -40 ~ 80 °C

Storage Humidity: 5%~ 95%, (non-condensing)

Regulatory Approvals

Safety: CE/EN60950

EMI:

FCC Class A; CE/EN55022:2003 Class A;

EMS:

EN61000-4-2:1998, ESD

EN61000-4-3:1998, RS

EN61000-4-4:1995, EFT

EN61000-4-5:1995, Surge

EN61000-4-6:1996, CS

Shock: IEC60068-2-27

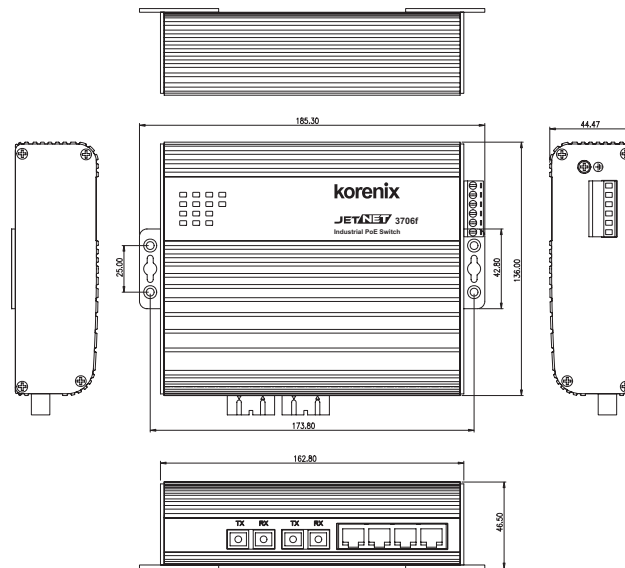
Vibration: IEC60068-2-6

Free Fall: IEC60068-2-32

MTBF: 272,306 Hours, MIL-HDBK-217F GB standard

Warranty: 5 years

Dimensions



Ordering Information

JetNet 3706f-m Industrial 6-10/100TX + 2 100FX Web-Managed PoE Switch, Multi-mode 2KM/SC

Includes:

- JetNet 3706f-m, four PoE injectors plus two 100FX Multi-mode fiber ports, 2KM/SC connector
- Quick Installation Guide
- CD-User Manual
- DIN Rail Mount kit

JetNet 3706f-s Industrial 6-10/100TX + 2 100FX Web-Managed PoE Switch, Single-mode 30KM/SC

Includes:

- JetNet 3706f-s, four PoE injectors plus two 100FX Single-mode fiber ports, 30KM/SC connector
- Quick Installation Guide
- CD-User Manual
- DIN Rail Mount kit

Optional Accessories

- 48VDC Din-Rail Power: DR-75-48
- 48VDC PoE Splitter: PD1205