

IDS-108FPP – Industrial PoE Switch

 perle.com/products/switches/8-port-industrial-poe-switch.shtml

8 to 10 port Compact DIN Rail PoE Switch

- 8 port 10/100Base-TX (RJ45)
- 8 port 10/100Base-TX (RJ45) plus 1 or 2 SC/ST fiber ports
- 4 PoE/PoE+ PSE capable ports, fully compliant to IEEE 802.3af/at
- Hazardous Location and Industrial Control Equipment Certification
- Corrosion resistant IP30 aluminum case
- Redundant dual power input 24/48 VDC
- Overload current and reverse polarity protection
- Industrial operating temperature support up to -40 to 75C



Perle **Industrial-grade PoE Switches** are designed to stand up to **extreme temperatures, surges, vibrations, and shocks** found in **industrial automation, government, military, oil and gas, mining and outdoor applications**.

In addition, these PoE Switches are classified as **Power Sourcing Equipment (PSE)**. While using standard UTP cables that carry Ethernet data, the IDS-108FPP have 4 ports that also **provide up to 30 watts of power** to Powered Devices (PDs) such as **wireless access points, Voice over IP phones and IP cameras**. Learn more [about PoE](#).

The **IDS-108FPP is an 8 to 10 port Industrial Ethernet Switch** with **Power over Ethernet** providing advanced performance enabling real-time deterministic network operation. It requires no configuration and will operate instantly as soon as you power it up.

IDS-108FPP are **rugged fan-less switches** that are hardened to provide superior reliability **in 0 to 60°C**, or harsh extended operating temperatures **from -40 to 75°C**. They come in a variety of models with 8 copper ports, 8 copper ports plus 1 fiber port or 8 copper ports plus 2 fiber ports.

Perle has been **designing industrial hardware** for serial ModBus and Profinet to Ethernet conversion environments **for over 35 years** and have used this expertise to design the **toughest Ethernet switches on the market**. Don't trust your critical communications to commercial switch products. Perle Industrial Ethernet switches give you proven assurance that your system will keep running for years to come.

IDS-108FPP Industrial PoE Switch Features

Rugged design for harsh environments

- Corrosion resistant IP30 aluminum case
- UL508A Industrial Control Equipment Safety certified
- Hazardous locations - Class1/Div2, ATEX Class1/Zone2

| | |
|--------------------------------|---|
| Reliable operation | <ul style="list-style-type: none"> • Fan-less, no moving parts • Dual power input. Connect to separate power sources for redundancy. <ul style="list-style-type: none"> ◦ Reverse polarity protection ◦ Overload current protection • Handles vibration and shock conditions found in industrial environments |
| PoE and PoE+ (on 4 ports) | Up to 30 Watts per port driving up to four class 4 (IEEE 802.3at Type 2) PDs |
| Input Voltage Booster | Voltage boost technology supports 24V power sources ensuring that a full and proper PSE voltage is provided across all PoE ports |
| Real-time Ethernet performance | <ul style="list-style-type: none"> • Fast wire-speed , store and forward switching, non-blocking architecture • Auto-sensing for speed and duplex • Auto-mdi/mdix-crossover works with straight and crossover cables |

Power

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|-------------------------------------|---|
| Dual Power Input | Both inputs draw power simultaneously. If one power source fails, the other live source can, acting as a backup, supply enough power to meet the operational needs of the switch. Flexible input voltage range : 24/48 VDC Nominal. (18 to 57 VDC) |
| Input Voltage Booster | Voltage boost technology supports 24V industrial power sources ensuring that a full and proper PSE voltage is available across all PoE ports |
| Power Connector | 4-Pin Removable Terminal Block. Grounding screw on metal chassis |
| Maximum Current Consumption @24 vDC | .29 Amps (No PoE PDs attached) 5.6 Amps (4 x PoE+) |
| Maximum Power Consumption @24 vDC | 7 Watts (No PoE PDs attached) 134 Watts (4 x 30 Watts PoE+) |
| Overload Current Protection | Reset-able fuse provides overload current protection |
| Reverse polarity protection | Protection is provided should inputs be reversed |

Access Ports

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|------------|---|
| RJ45 | 8 shielded RJ45 ports for 10/100Base-TX up to 100 meters (328 ft). 4 of these ports are PoE PSE capable Auto-negotiation Auto-MDI/MDIX-crossover for use with either crossover over straight-through cable types Ethernet isolation 1500 V |
| PoE | 4 PoE/PoE+ ports Up to 30 Watts per port (@ switch RJ45) driving up to four class 4 (IEEE 802.3at Type 2) PDs |
| Fiber port | 1 or 2 fixed fiber port models Duplex SC or ST connector <ul style="list-style-type: none"> Multimode 50/125 or 62.5/125 micron fiber cable Single mode 9/125 micron fiber cable Simplex (BIDI, single strand) SC connector <ul style="list-style-type: none"> Multimode 50/125 or 62.5/125 micron fiber cable Single mode 9/125 micron fiber cable PC and UPC type patch cords supported. |

Fixed Fiber Port Specs

| Fiber1 Type | Transmit (dBm) | | Receive (dBm) | | Power Budget (dB) | Wavelength (nm) | IEEE | Core Size (um) | Modal Bandwidth (MHz *Km) | Maximum Operating Distance |
|--------------------|----------------|-------|---------------|-------|-------------------|----------------------------|------------------------------|----------------|---------------------------|----------------------------|
| | Min | Max | Min | Max | | | | | | |
| MMF (Duplex SC/ST) | -20.0 | -12.0 | -31.0 | -14.0 | 11.0 | 1310 | 100Base-FX | 50 | 800* | 5 Km 3.1 mi |
| | | | | | | | | 62.5 | 500* | 4 Km 2.5 mi |
| | | | | | | | | 62.5 | 200 | 2 Km 1.2 mi |
| MMF (Simplex SC) | -15.0 | 0.0 | -28.0 | -8.0 | 13.0 | 1310 / 1550 1550 / 1310 | 100Base-BX-U 100Base-BX-D | 62.5 | 200 | 2 Km 1.2 mi |
| SMF (Duplex SC/ST) | -18.0 | -7.0 | -32.0 | -3.0 | 14.0 | 1310 | 100Base-LX | 9 | ** | 20 Km 12.4 mi |
| SMF (Simplex SC) | -14.0 | -8.0 | -32.0 | -3.0 | 18.0 | 1310 / 1550 1550 / 1310 | 100Base-BX-U 100Base-BX-D | 9 | ** | 20 Km 12.4 mi |
| SMF (Duplex SC/ST) | -5.0 | -0.0 | -34.0 | -3.0 | 29.0 | 1310 | 100Base-EX | 9 | ** | 40 Km 24.9 mi |
| SMF (Simplex SC) | -8.0 | -3.0 | -33.0 | -3.0 | 18.0 | 1310 / 1550 1550 / 1310 | 100Base-BX-U 100Base-BX-D | 9 | ** | 40 Km 24.9 mi |
| SMF (Duplex SC/ST) | -5.0 | 0.0 | -34.0 | -3.0 | 29.0 | 1550 | 100Base-ZX | 9 | ** | 80 Km 49.7 mi |
| SMF (Duplex SC/ST) | 0.0 | 5.0 | -35.0 | -3.0 | 35.0 | 1550 | 100Base-ZX | 9 | ** | 120 Km 74.6 mi |

* 1db/km multimode fiber cable

** as per ITU-T G.652 SMF specifications

Switch Properties

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|-------------------------------------|--|
| Standards | <ul style="list-style-type: none"> • IEEE 802.3 for 10Base-T • IEEE 802.3u for 100Base-TX and 100Base-FX • IEEE 802.3x for Flow Control • IEEE 802.3af Power Over Ethernet • IEEE 802.3at Power Over Ethernet |
| Processing Type | Store and Forward, non-blocking architecture |
| MAC Address Table Size | 8K |
| Packet Buffer Memory | 1 Mbit |
| Indicators | |
| P1 | This green LED is turned on when power is applied to the power #1 input |
| P2 | This green LED is turned on when power is applied to the power #2 input |
| RJ45 Ethernet | These integrated colored LEDs indicate link, activity and speed for each port. |
| Fiber Link | Fiber link LED indicates Link and Data Activity |
| Environmental Specifications | |
| Operating Temperature Ranges | Standard temperature models : 0° C to 60° C (32° F to 140° F). Industrial extended temperature models : -40° C to 75° C (-40 F to 167° F) |
| Storage Temperature Range | Minimum range of -25° C to 70° C (-13° F to 158° F). -40 C to 85 C (-40 F to 185 F) for industrial extended temperature models |
| Operating Humidity Range | 5% to 90% non-condensing |
| Storage Humidity Range | 5% to 95% non-condensing |
| Operating Altitude | Up to 3,048 meters (10,000 feet) |
| Chassis | Aluminum with an IP30 ingress protection rating |
| Din Rail Mountable | DIN Rail attachment included. Mounts to standard 35 mm DIN rail in accordance with DIN EN 60175. Removable to accommodate optional Panel/Wall mount kit |
| Maximum Heat Output | 24 BTU/Hr |

| | |
|--------------------------------------|---|
| MTBF | 606,418 hours (without fiber module) 350,726 hours (with 1 fixed fiber module) 316,656 hours (with 2 fixed fiber modules) <i>MTBF Calculation model based on MIL-HDBK-217-FN2 @ 30 °C</i> |
| Product Weight and Dimensions | |
| Weight | 0.37 Kg, 0.82 lbs |
| Dimensions | 111 x 138 x 47.4 mm, 4.37 x 5.43 x 1.87 inches |
| Packaging | |
| Shipping Weight | 0.52 Kg, 1.15 lbs |
| Shipping Dimensions | 170 x 260 x 70 mm, 6.69 x 10.24 x 2.76 inches |
| Contents Shipped | Industrial Ethernet Switch with DIN Rail attachment Terminal block Installation guide |
| Standards and Certifications | |
| Safety | IEC 62368-1 (ed 2) EN 62368-1:2014 UL 60950-1 CSA C22.2 No. 60950-1 IEC 60950-1:2005+A1:2009 and EN 60950-1:2006+A11:2009+A1:2010+A12:2011 CE Mark UL508 (Industrial) |
| EMC Emissions | FCC 47 Part 15 Class A CISPR 22:2008/EN55022:2010 (Class A) EN61000-6-4 |
| EMC and Immunity | CISPR 24:2010/EN 55024:2010 IEC/EN 61000-4-2 (ESD) : Contact discharge +/- 4kV, Air Discharge +/- 8kV IEC/EN 61000-4-3 (RS) : 10V/m IEC/EN 61000-4-4 (EFT) : DC power line +/- 2 kV, Data Line +/- 1kV IEC/EN 61000-4-5 (Surge) : DC power line, Line/Line +/- 0.5kV, Line/Earth +/- 0.5kV, Data Line line/earth +/- 1kV IEC/EN 61000-4-6 (CS) : 150kHz to 80 MHz; 10V IEC/EN 61000-4-8 : 30A/m IEC/EN 61000-6-2 (General Immunity in Industrial Environments) |
| Industrial Safety | UL508 (Safety standard for Industrial Control Equipment) CSA C22.2 No. 142 |
| Hazardous Locations (Hazloc) | ANSI/ISA 12.12.01, Class I Division 2 Groups A-D (formerly known as UL 1604) CSA C22.2 No. 213 ATEX Class I Zone 2, EN60079-0, 15 |

Laser Safety EN 60825-1:2007
Fiber optic transmitters on this device meet Class 1 Laser safety requirements per IEC-60825 FDA/CDRH standards and comply with 21CFR1040.10 and 21CFR1040.11.

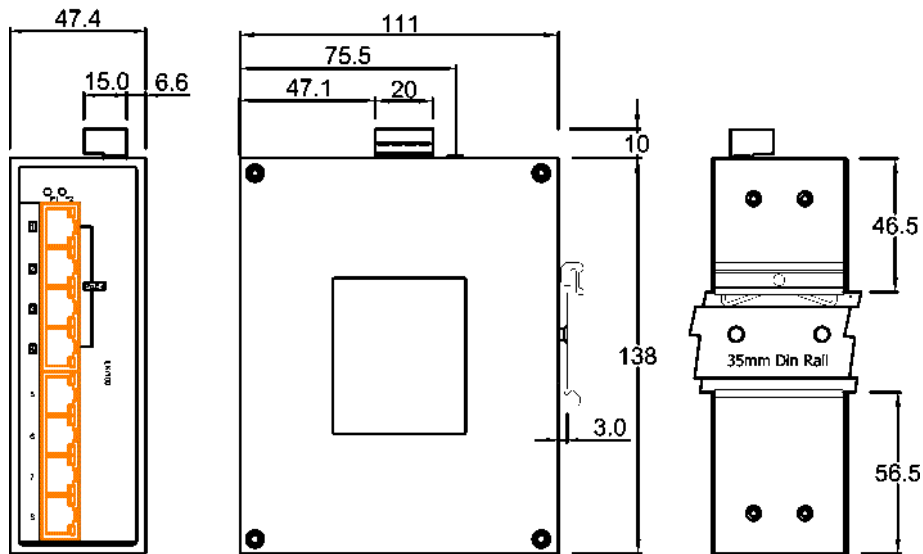
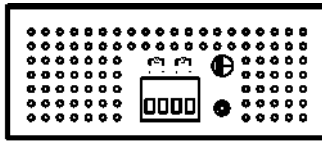
Environmental Reach, RoHS and WEEE Compliant

Other ECCN: 5A991

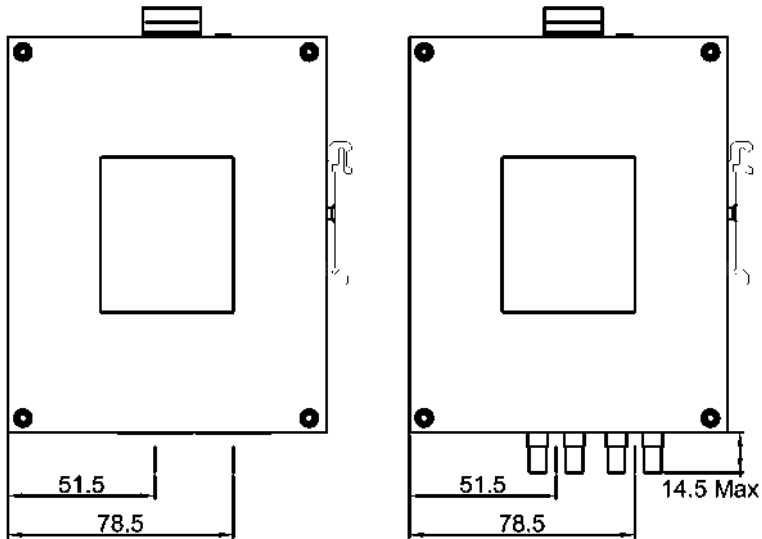
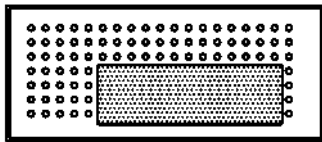
HTSUS Number: 8517.62.0020

5 year warranty

IDS-108FPP with Standard DIN Rail

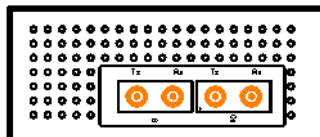
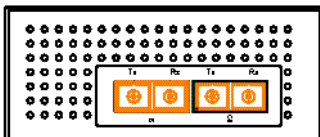


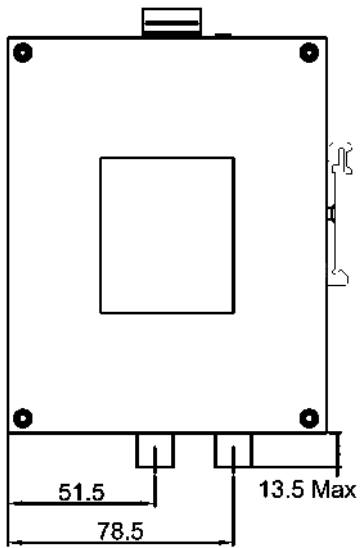
RJ45 Models



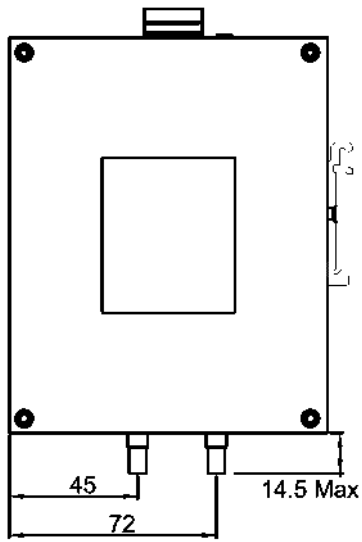
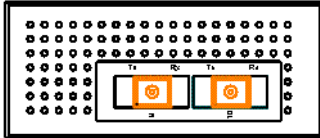
SC Models

ST Models

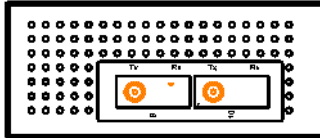




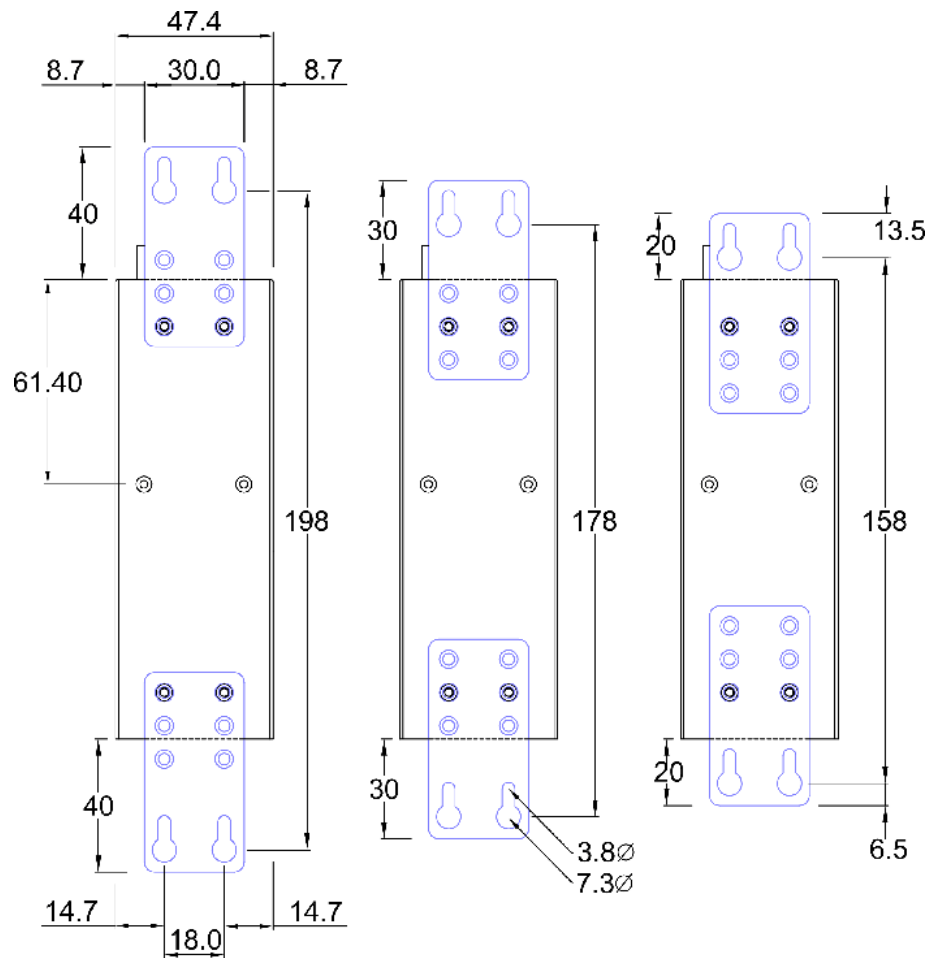
Single Fiber SC Models



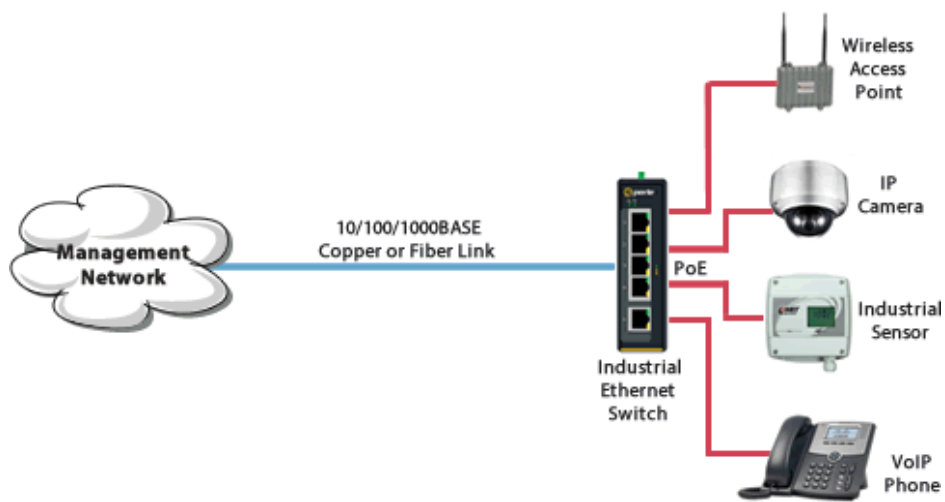
Single Fiber ST Models



IDS-108F with Optional Wall/Panel Mount Brackets



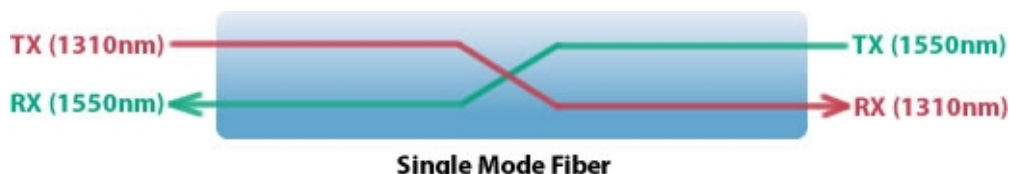
IDS-108FPP Industrial Switch Power over Ethernet (PoE)Diagram



Single Mode / Single Strand (WDM) Fiber

Connecting devices over a single fiber strand (also referred to as “Bi-Directional” BiDi or Simplex)

To reduce costs, or where there are limits on available fiber, Wavelength-Division Multiplexing (WDM) technology may be utilized. WDM uses separate transmit and receive frequencies to communicate on a single fiber strand. WDM technology relies on the fact that optical fibers can carry many wavelengths of light simultaneously without interaction between each wavelength. Thus, a single fiber can carry many separate wavelength signals or channels simultaneously. WDM systems are divided into different wavelength patterns, conventional/coarse (CWDM) and dense (DWDM).



When Single Strand fiber is used, you will need an “Up” side and a “Down” side when interconnecting fiber devices.

Perle offers a wide variety of Single Fiber (“Up/Down”) [Ethernet Switches](#) and [Media Converters](#) for use with single strand of fiber.

Select a Model to obtain a Part Number – IDS-108FPP

Operating Temperature (Std) = 0° C to 60° C (32° F to 140° F)

Models with 8 x 10/100/1000Base-T (RJ45) Connectors

Choose your Fiber Connections from the table below
100Base-X Duplex Fiber

| Model | Fiber Connector | Transmit (dBm) | | Receive (dBm) | | Power Budget (dB) | Wavelength (nm) | Fiber Type | Operating Distance |
|-----------------------------------|---------------------|----------------|-------|---------------|-------|-------------------|-----------------|------------|--------------------|
| | | Min | Max | Min | Max | | | | |
| IDS-108FPP | NO Fiber Connection | | | | | | | | |
| IDS-108FPP-M2SC2 | 1 x Duplex SC | -20.0 | -12.0 | -31.0 | -14.0 | 11.0* | 1310 | MMF | 5 km* (3.1 mi) |
| IDS-108FPP-M2ST2 | 1 x Duplex ST | -20.0 | -12.0 | -31.0 | -14.0 | 11.0* | 1310 | MMF | 5 km* (3.1 mi) |
| IDS-108FPP-S2SC20 | 1 x Duplex SC | -18.0 | -7.0 | -32.0 | -3.0 | 14.0 | 1310 | SMF | 20 km (12.4 mi) |

| | | | | | | | | | |
|---------------------------|---------------|-------|-------|-------|------|-------|------|-----|-----------------|
| <u>IDS-108FPP-S2ST20</u> | 1 x Duplex ST | -18.0 | -7.0 | -32.0 | -3.0 | 14.0 | 1310 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-S2SC40</u> | 1 x Duplex SC | -5.0 | 0.0 | -34.0 | -3.0 | 29.0 | 1310 | SMF | 40 km (25 mi) |
| <u>IDS-108FPP-S2ST40</u> | 1 x Duplex ST | -5.0 | 0.0 | -34.0 | -3.0 | 29.0 | 1310 | SMF | 40 km (25 mi) |
| <u>IDS-108FPP-S2SC80</u> | 1 x Duplex SC | -5.0 | 0.0 | -34.0 | -3.0 | 29.0 | 1550 | SMF | 80 km (50 mi) |
| <u>IDS-108FPP-S2ST80</u> | 1 x Duplex ST | -5.0 | 0.0 | -34.0 | -3.0 | 29.0 | 1550 | SMF | 80 km (50 mi) |
| <u>IDS-108FPP-S2SC120</u> | 1 x Duplex SC | 0.0 | 5.0 | -35.0 | -3.0 | 35.0 | 1550 | SMF | 120 km (75 mi) |
| <u>IDS-108FPP-S2ST120</u> | 1 x Duplex ST | 0.0 | 5.0 | -35.0 | -3.0 | 35.0 | 1550 | SMF | 120 km (75 mi) |
| <u>IDS-108FPP-DM2SC2</u> | 2 x Duplex SC | -20.0 | -12.0 | -31.0 | 14.0 | 11.0* | 1310 | MMF | 2 km (1.2 mi) |
| <u>IDS-108FPP-DM2ST2</u> | 2 x Duplex ST | -20.0 | -12.0 | -31.0 | 14.0 | 11.0* | 1310 | MMF | 2 km (1.2 mi) |
| <u>IDS-108FPP-DS2SC20</u> | 2 x Duplex SC | -18.0 | -7.0 | -32.0 | -3.0 | 14.0 | 1310 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-DS2ST20</u> | 2 x Duplex ST | -18.0 | -7.0 | -32.0 | -3.0 | 14.0 | 1310 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-DS2SC40</u> | 2 x Duplex SC | -5.0 | 0.0 | -34.0 | -3.0 | 29.0 | 1310 | SMF | 40 km (25 mi) |
| <u>IDS-108FPP-DS2ST40</u> | 2 x Duplex ST | -5.0 | 0.0 | -34.0 | -3.0 | 29.0 | 1310 | SMF | 40 km (25 mi) |
| <u>IDS-108FPP-DS2SC80</u> | 2 x Duplex SC | -5.0 | 0.0 | -34.0 | -3.0 | 29.0 | 1550 | SMF | 80 km (50 mi) |

| | | | | | | | | | |
|----------------------------|---------------|------|-----|-------|------|------|------|-----|----------------|
| <u>IDS-108FPP-DS2ST80</u> | 2 x Duplex ST | -5.0 | 0.0 | -34.0 | -3.0 | 29.0 | 1550 | SMF | 80 km (50 mi) |
| <u>IDS-108FPP-DS2SC120</u> | 2 x Duplex SC | 0.0 | 5.0 | -35.0 | -3.0 | 35.0 | 1550 | SMF | 120 km (75 mi) |
| <u>IDS-108FPP-DS2ST120</u> | 2 x Duplex ST | 0.0 | 5.0 | -35.0 | -3.0 | 35.0 | 1550 | SMF | 120 km (75 mi) |

* 1db/km multimode 50/125 micron fiber cable

Single Fiber (Simplex / BiDi) Models Recommended use in pairs

Models with 8 x 10/100/1000Base-T (RJ45) Connectors

Choose your Fiber Connections from the table below
100Base-X Simplex (BiDi) Fiber

| Model | Fiber Connector | Transmit (dBm) | | Receive (dBm) | | Power Budget (dB) | Wavelength (nm) TX / RX | Fiber Type | Operating Distance |
|---------------------------|-----------------|----------------|------|---------------|------|-------------------|-------------------------|------------|--------------------|
| | | Min | Max | Min | Max | | | | |
| <u>IDS-108FPP-M1SC2U</u> | 1 x Simplex SC | -15.0 | 0.0 | -28.0 | -8.0 | 13.0 | 1310 / 1550 | MMF | 2 km (1.2 mi) |
| <u>IDS-108FPP-M1SC2D</u> | 1 x Simplex SC | -15.0 | 0.0 | -28.0 | -8.0 | 13.0 | 1550 / 1310 | MMF | 2 km (1.2 mi) |
| <u>IDS-108FPP-M1ST2U</u> | 1 x Simplex ST | -15.0 | 0.0 | -28.0 | -8.0 | 13.0 | 1310 / 1550 | MMF | 5 km (3.1 mi) |
| <u>IDS-108FPP-M1ST2D</u> | 1 x Simplex ST | -15.0 | 0.0 | -28.0 | -8.0 | 13.0 | 1550 / 1310 | MMF | 5 km (3.1 mi) |
| <u>IDS-108FPP-DM1ST2U</u> | 2 x Simplex ST | -15.0 | 0.0 | -28.0 | -8.0 | 13.0 | 1310 / 1550 | MMF | 5 km (3.1 mi) |
| <u>IDS-108FPP-DM1ST2D</u> | 2 x Simplex ST | -15.0 | 0.0 | -28.0 | -8.0 | 13.0 | 1550 / 1310 | MMF | 5 km (3.1 mi) |
| <u>IDS-108FPP-S1ST20U</u> | 1 x Simplex ST | -14.0 | -8.0 | -32.0 | -3.0 | 18.0 | 1310 / 1550 | SMF | 20 km (12.4 mi) |

| | | | | | | | | | |
|----------------------------|----------------|-------|------|-------|------|------|-------------|-----|-----------------|
| <u>IDS-108FPP-S1ST20D</u> | 1 x Simplex ST | -14.0 | -8.0 | -32.0 | -3.0 | 18.0 | 1550 / 1310 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-DS1ST20U</u> | 2 x Simplex ST | -14.0 | -8.0 | -32.0 | -3.0 | 18.0 | 1310 / 1550 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-DS1ST20D</u> | 2 x Simplex ST | -14.0 | -8.0 | -32.0 | -3.0 | 18.0 | 1550 / 1310 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-S1SC20U</u> | 1 x Simplex SC | -14.0 | -8.0 | -32.0 | -3.0 | 18.0 | 1310 / 1550 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-S1SC20D</u> | 1 x Simplex SC | -14.0 | -8.0 | -32.0 | -3.0 | 18.0 | 1550 / 1310 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-S1SC40U</u> | 1 x Simplex SC | -8.0 | -3.0 | -33.0 | -3.0 | 25.0 | 1310 / 1550 | SMF | 40 km (25 mi) |
| <u>IDS-108FPP-S1SC40D</u> | 1 x Simplex SC | -8.0 | -3.0 | -33.0 | -3.0 | 25.0 | 1550 / 1310 | SMF | 40 km (25 mi) |
| <u>IDS-108FPP-DM1SC2U</u> | 2 x Simplex SC | -15.0 | 0.0 | -28.0 | -8.0 | 13.0 | 1310 / 1550 | MMF | 2 km (1.2 mi) |
| <u>IDS-108FPP-DM1SC2D</u> | 2 x Simplex SC | -15.0 | 0.0 | -28.0 | -8.0 | 13.0 | 1550 / 1310 | MMF | 2 km (1.2 mi) |
| <u>IDS-108FPP-DS1SC20U</u> | 2 x Simplex SC | -14.0 | -8.0 | -32.0 | -3.0 | 18.0 | 1310 / 1550 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-DS1SC20D</u> | 2 x Simplex SC | -14.0 | -8.0 | -32.0 | -3.0 | 18.0 | 1550 / 1310 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-DS1SC40U</u> | 2 x Simplex SC | -8.0 | -3.0 | -33.0 | -3.0 | 25.0 | 1310 / 1550 | SMF | 40 km (25 mi) |
| <u>IDS-108FPP-DS1SC40D</u> | 2 x Simplex SC | -8.0 | -3.0 | -33.0 | -3.0 | 25.0 | 1550 / 1310 | SMF | 40 km (25 mi) |

Industrial Ethernet Switch Accessories

| | |
|--|---|
| <u>Panel Mount kit PM3</u> | Brackets for attaching 30 to 40mm wide Perle IDS industrial switches inside a control panel or to a wall. |
| <u>Rack Mount Kit RM4U</u> | Bracket for mounting one or more Perle DIN Rail switches in a standard 19" rack. Occupies "4U" of vertical rack space. 275 mm (10 inches) deep |
| <u>DIN Rail 48V Power Supply</u> | IDPS-48-240-XT - DIN-Rail 48 VDC , 240Watt power supply with universal 85 to 264 VAC or 120-370 VDC input , -10 to 70°C extended operating temperature. <u>Power Supply Specifications</u> . |
| <u>TRIO-PS/1AC/48DC/10 Power Supply</u> | TRIO-PS/1AC/48DC/10 Power Supply - DIN-Rail 48 VDC , 480 Watt power supply with universal 85 to 264 VAC, 30 to 56V DC output range adjustable, -25 to 70°C extended operating temperature. <u>Power Supply Specifications</u> . |
| <u>UNO-PS/1AC/24DC/150W Power Supply</u> | UNO-PS/1AC/24DC/150W Power Supply - DIN-Rail 24 VDC , 150 Watt power supply with universal 85 to 264 VAC, -25 to 70°C extended operating temperature. <u>Power Supply Specifications</u> . |

Select a Model to obtain a Part Number – IDS-108FPP

Operating Temperature (Ind) = -40° C to 75° C (-40 F to 167° F)

Models with 8 x 10/100/1000Base-T (RJ45) Connectors

Choose your Fiber Connections from the table below
100Base-X Duplex Fiber

| Model | Fiber Connector | Transmit (dBm) | | Receive (dBm) | | Power Budget (dB) | Wavelength (nm) | Fiber Type | Operating Distance |
|-----------------------------|---------------------|----------------|-------|---------------|-------|-------------------|-----------------|------------|--------------------|
| | | Min | Max | Min | Max | | | | |
| <u>IDS-108FPP-XT</u> | NO Fiber Connection | | | | | | | | |
| <u>IDS-108FPP-M2SC2-XT</u> | 1 x Duplex SC | -20.0 | -12.0 | -31.0 | -14.0 | 11.0* | 1310 | MMF | 5 km* (3.1 mi) |
| <u>IDS-108FPP-M2ST2-XT</u> | 1 x Duplex ST | -20.0 | -12.0 | -30.0 | -14.0 | 10.0* | 1310 | MMF | 5 km* (3.1 mi) |
| <u>IDS-108FPP-S2SC20-XT</u> | 1 x Duplex SC | -18.0 | -7.0 | -32.0 | -3.0 | 14.0 | 1310 | SMF | 20 km (12.4 mi) |

| | | | | | | | | | |
|------------------------------|---------------|-------|-------|-------|------|-------|------|-----|-----------------|
| <u>IDS-108FPP-S2ST20-XT</u> | 1 x Duplex ST | -18.0 | -7.0 | -32.0 | -3.0 | 14.0 | 1310 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-S2SC40-XT</u> | 1 x Duplex SC | -5.0 | 0.0 | -34.0 | -3.0 | 29.0 | 1310 | SMF | 40 km (25 mi) |
| <u>IDS-108FPP-S2ST40-XT</u> | 1 x Duplex ST | -5.0 | 0.0 | -34.0 | -3.0 | 29.0 | 1310 | SMF | 40 km (25 mi) |
| <u>IDS-108FPP-DM2SC2-XT</u> | 2 x Duplex SC | -20.0 | -12.0 | -31.0 | 14.0 | 11.0* | 1310 | MMF | 2 km (1.2 mi) |
| <u>IDS-108FPP-DM2ST2-XT</u> | 2 x Duplex ST | -20.0 | -12.0 | -30.0 | 14.0 | 10.0* | 1310 | MMF | 2 km (1.2 mi) |
| <u>IDS-108FPP-DS2SC20-XT</u> | 2 x Duplex SC | -18.0 | -7.0 | -32.0 | -3.0 | 14.0 | 1310 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-DS2ST20-XT</u> | 2 x Duplex ST | -18.0 | -7.0 | -32.0 | -3.0 | 14.0 | 1310 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-DS2SC40-XT</u> | 2 x Duplex SC | -5.0 | 0.0 | -34.0 | -3.0 | 29.0 | 1310 | SMF | 40 km (25 mi) |
| <u>IDS-108FPP-DS2ST40-XT</u> | 2 x Duplex ST | -5.0 | 0.0 | -34.0 | -3.0 | 29.0 | 1310 | SMF | 40 km (25 mi) |

* 1db/km multimode 50/125 micron fiber cable

Single Fiber (Simplex / BiDi) Models Recommended use in pairs

Models with 8 x 10/100/1000Base-T (RJ45) Connectors

Model Choose your Fiber Connections from the table below
100Base-X Simplex (BiDi) Fiber

| | Fiber Connector | Transmit (dBm) | | Receive (dBm) | | Power Budget (dB) | Wavelength (nm) TX / RX | Fiber Type | Operating Distance |
|-------------------------------|-----------------|----------------|------|---------------|------|-------------------|-------------------------|------------|--------------------|
| | | Min | Max | Min | Max | | | | |
| <u>IDS-108FPP-S1SC20U-XT</u> | 1 x Simplex SC | -14.0 | -8.0 | -32.0 | -3.0 | 18.0 | 1310 / 1550 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-S1SC20D-XT</u> | 1 x Simplex SC | -14.0 | -8.0 | -32.0 | -3.0 | 18.0 | 1550 / 1310 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-DS1SC20U-XT</u> | 2 x Simplex SC | -14.0 | -8.0 | -32.0 | -3.0 | 18.0 | 1310 / 1550 | SMF | 20 km (12.4 mi) |
| <u>IDS-108FPP-DS1SC20D-XT</u> | 2 x Simplex SC | -14.0 | -8.0 | -32.0 | -3.0 | 18.0 | 1550 / 1310 | SMF | 20 km (12.4 mi) |

Industrial Ethernet Switch Accessories

| | |
|--|--|
| <u>Panel Mount kit PM3</u> | Brackets for attaching 30 to 40mm wide Perle IDS industrial switches inside a control panel or to a wall. |
| <u>Rack Mount Kit RM4U</u> | Bracket for mounting one or more Perle DIN Rail switches in a standard 19" rack. Occupies "4U" of vertical rack space. 275 mm (10 inches) deep |
| <u>DIN Rail 48V Power Supply</u> | IDPS-48-240-XT - DIN-Rail 48 VDC , 240Watt power supply with universal 85 to 264 VAC or 120-370 VDC input , -10 to 70°C extended operating temperature. <u>Power Supply Specifications.</u> |
| <u>TRIO-PS/1AC/48DC/10 Power Supply</u> | TRIO-PS/1AC/48DC/10 Power Supply - DIN-Rail 48 VDC , 480 Watt power supply with universal 85 to 264 VAC, 30 to 56V DC output range adjustable, -25 to 70°C extended operating temperature. <u>Power Supply Specifications.</u> |
| <u>UNO-PS/1AC/24DC/150W Power Supply</u> | UNO-PS/1AC/24DC/150W Power Supply - DIN-Rail 24 VDC , 150 Watt power supply with universal 85 to 264 VAC, -25 to 70°C extended operating temperature. <u>Power Supply Specifications.</u> |