75W DC Input Power over Ethernet Midspan
Ultra Power over Ethernet Single Port Injector



Features

- Full 75W Ultra Power
- Diagnostic LEDs
- Gigabit Compatible
- 1 Year Warranty
- Limited Power Source
- DC Input
- Full Protection OCP, OVP
- Single Source 4 Pair Power Current Sharing
- Broken Wire Detection
- 12.5K Detection Standard

Applications

- Satellite Receiver
- Wireless Network Access Points
- LCD Displays
- Security Cameras
- Kiosks
- Computer Workstations

Safety Approvals

- CE

Mechanical Characteristics

- Length: 166mm (6.53in)
- Width: 80mm (3.15in)
- Height: 44mm (1.73in)
- Weight: 0.5Kg (1.1lbs)

Output Specifications

Model	DC Output Voltage	Load (1)		Regulation	
		Min.	Max.	Line	Load
POE75D-1UP	+56V	15mA	670mA	54-57V DC under all conditions	

Note (1): Output is over both data and spare pairs for combined load of 1.34A.

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POE75D Characteristics WWW.PHIHONG.COM

INPUT:

DC Input Voltage Rating
36 to 72V DC

DC Input Current
4.0A, 32V DC at maximum load
2.0A, 72V DC at maximum load

OUTPUT:

Total Output Power
75W

Ripple and Regulation
250mV maximum

DC Offset
No data degradation with DC imbalance 18mA per min.

Efficiency
85% (typical) at maximum load, at 48V DC

Transient O/P Voltage Protection
60V maximum

ENVIRONMENTAL:

Temperature

Operation	-20 to +40°C
Non-operation	-25 to +65°C

Humidity

Operation	5 to 90%

EMI
FCC Part 15 Class B
EN55022 Class B

Isolation Test
Primary to Secondary: 2121VDC for 1 minute 10mA
Primary to Field Ground: 2121VDC for 1 minute, 10mA
Secondary to Field Ground: 2121VDC for 1 minute, 10mA
(4 Second Ramp up Time)

Immunity

ESD:	EN61000-4-2	Level 3
RS:	EN61000-4-3	Level 3
EFT:	EN61000-4-4	Level 2
Surge:	EN61000-4-5	Level 2

Insulation Resistance
Primary to Secondary: >10M OHM 500VDC
Primary to Field Ground: >10M OHM 500VDC

Over Voltage Protection
Conforms to UL 60950-1 paragraph 2.2.3

Over Current, Short Circuit Protection
Outputs equipped with short circuit protection and overload protection as per 802.3at specifications except max average current is 1.34A.
The output can be shorted permanently without damage

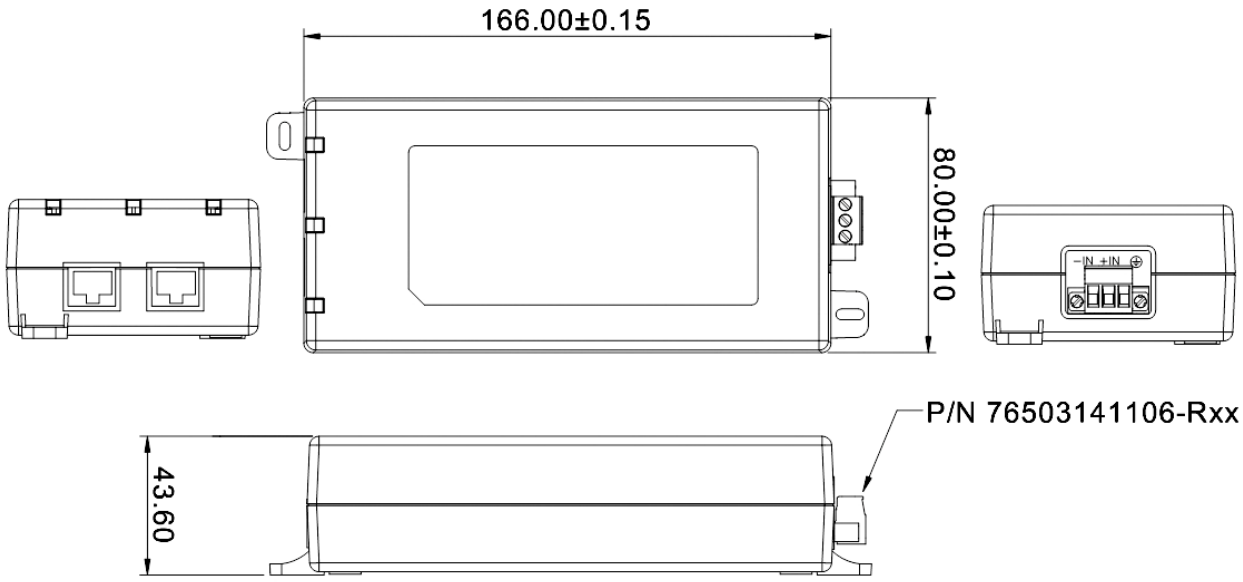
MTBF
150K Hours minimum at maximum load, 48VDC, and ambient 25°C

Indicators
Green LED 1: DC Power “ON”
Red LED: Fault detected
Green LED 2: Valid load detected and connected

Input Connector
-- Anytek OQ0355510000G
Mate – Anytek TJ0350520000G OR TJ035152000G
Anytek is part of Giga-Way Technology Corp.

Output Connection
4-pair powering for full power
Pins 3,6, 4,5(+) Pins 1,2, 7,8 (-)

Warranty
1 Year



Description of LED Functions for Gigabit Power Injector

Power-up Sequence:

Upon power-up, all 3 LEDs will light for 2 seconds, as part of the self-test for the internal microprocessor software. After the 2 seconds period, the "ON" LED will illuminate green. The DC output voltage is now available for powering a compliant load.

Detection Sequence:

Once a compliant load is attached to the output RJ45 connector, the green "CONNECT" LED will illuminate. This LED will be solid if connected at 75W.

Should the load be non-compliant then the LEDs will blink a code specific to the cause for non-detection.

Detection Failure Codes:

1. Incorrect resistive signature – The green “CONNECT” and red “FAULT” LEDs will blink 3 times.
2. Incorrect capacitive signature – The green “ON” LED will blink 3 times.
3. Incorrect Voffset – The green “CONNECT” and green “ON” LEDs will blink 3 times.
4. Unstable current measurement – The green “ON” LED will blink 3 times
5. Low voltage sensed during detection (overload) – The red “FAULT” LED will blink 3 times

After the LEDs blink 3 times the Power Injector will continue to try to detect a valid load. Until the correct load is applied, the LEDs will continue to blink. If there is an open circuit connected to the output RJ45 then the LEDs will not blink but the Power Injector will continue to try to detect a valid load.

Fault Sequence:

Should there be a fault such as an overload or short circuit then the red "FAULT" LED will illuminate. The red “FAULT” LED will illuminate for 2 seconds and then go off as the power supply tries to re-detect a valid load. If there is a problem detecting the load, the LED will indicate a possible fault as per the codes in the section above.