



**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 <sup>1</sup>		Regulation	
		Min.	Max.	Line	Load
POE75D-1UP <sup>2</sup>	+56V	15mA	670mA	54-57V DC under all conditions	

Notes:

1. Output is over both data and spare pairs for combined load of 1.34A
2. Consult factory for availability

Phihong is not responsible for any error, and reserves the right to make changes without notice. Please visit our website at [www.phihong.com](http://www.phihong.com) for the most up-to-date specifications and contact information.

**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 5 to 90%

**EMI**

Complies with FCC Class B

Complies with EN55032 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: &gt;10M OHM

500VDC

Primary to Field Ground: &gt;10M OHM

500VDC

**Over Voltage Protection**

Conforms to UL 60950-1 paragraph 2.2.3

**Over Current, Short Circuit Protection**

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

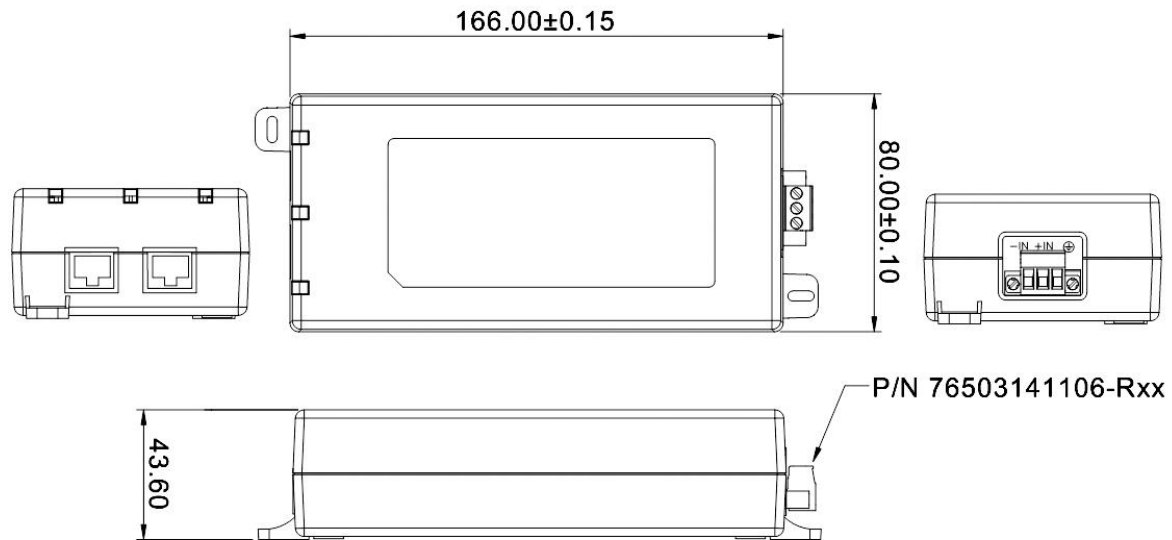
TJ035152000G. Anytek is part of Giga-Way

Technology Corp.

**Output Connection**

4-pair powering for full power

Pins 3,6, 4,5(+) Pins 1,2, 7,8 (-)



### **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.