

## Safety Information

### Important Safety Information

- ◆ This Injector should be connected only to PoE networks without routing to the outside plant.
- ◆ Installation and removal of the power Injector must be carried out by qualified personnel only.
- ◆ **AC Power Cord Set:**
  - Power cord must have regulatory agency approval for the specific country in which it is used (i.e., UL, CSA, VDE, etc.).
  - Power cord must be a three-conductor type (two current carrying conductors; one ground conductor) terminated on one end by an IEC 60320 appliance coupler (for connection to the Power Injector), and on the other end by a plug containing a ground (earthing) contact.
  - Power cord must be rated for a minimum of 250VAC RMS operation, with a minimum rated current capacity of 5 amps (or a minimum wire gauge of 18 AWG (0.75mm<sup>2</sup>)).

: Power Injectors installed in Australia require power cords with a minimum wire gauge of 16 AWG (1.0mm<sup>2</sup>).

: Injector's "DATA IN" and "DATA & POWER OUT" ports are shielded RJ45 data sockets. They **cannot** be used as Plain Old Telephone Service (POTS) telephone sockets. Only RJ45 data connectors can be connected to these sockets.

- ◆ AC wall socket-outlet must be near Power Injector and easily accessible. You can remove AC power from the Power Injector by disconnecting AC power cord from either the wall socket-outlet or the Power Injector appliance coupler.
- ◆ The Power Injector DATA IN and DATA & POWER OUT interfaces are qualified as SELV (Safety Extra-Low Voltage) circuits according to IEC 60950-1. These interfaces can only be connected to SELV interfaces on other equipment.

### WARNINGS!

- ◆ This Injector should only be connected to the IP device it was bought with. Using the Injector with other IP devices can cause damage to the IP device.
- ◆ Read installation instructions before connecting the Power Injector to its power source.
- ◆ Follow basic electricity safety measures whenever connecting Power Injector to its power source.
- ◆ A voltage mismatch can cause equipment damage and may pose a fire hazard. If the voltage indicated on the label is different from the power outlet voltage, do not connect the Power Injector to this power outlet.
- ◆ Unit can be used only in Restricted Access Locations.



## Recycling and Disposal

Disposal instructions for old products: The WEEE (Waste Electrical and Electronic Equipment) national environmental initiatives has been put in place to ensure that products are recycled using best available treatment, recovery and recycling techniques to ensure human health and high environmental protection. Your product is designed and manufactured with high quality materials and components, which can be recycled and reused. Do not dispose of your old product in your general household waste bin. Inform yourself about the local separate collection system for electrical and electronic products



marked by this symbol:

Use one of the following disposal options :

1. Dispose of the complete product (including its cables, plugs and accessories) in designated WEEE collection facilities.
2. If you purchase a replacement product, hand your complete old product back to the retailer. He should accept it as required by national WEEE legislation.

**Note:** Unless otherwise noted, references to the PD-ACDC48G in this document refer to both the PD-ACDC48G and the PD-ACDC48 power injectors.

### Ordering information:

#### 1-Port 20W Gigabit Power Injector:

- **Product Name: Microsemi ACDC48G**
- **Part Number: PD-ACDC48G/AC**

#### 1-Port 20W Power Injector:

- **Product Name: Microsemi ACDC48**
- **Part Number: PD-ACDC48/AC**

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## Microsemi ACDC48G User Guide 1-Port 20W Power Injector

### Notice

It is Microsemi's policy to improve its products as new technology, components, software, and firmware become available. Microsemi, therefore, reserves the right to change specifications without prior notice.

### Technical Support

If you encounter problems when installing or using this product, please consult the Microsemi website at: <http://www.Microsemi.com>

For technical support, call: +972-9-775-5123  
In the USA: 1-877-480-2323

Email: [sales.support@microsemi.com](mailto:sales.support@microsemi.com)

## Functions and Features

ACDC48G 1-Port 20W injector offers a compact and cost effective power solution for IP phones, WLAN access points, network cameras and other IP terminal installations. ACDC48G converts AC power to 50VDC, power is then provided over the Ethernet cable. ACDC48 supports 10/100 Mbps pass through data rates while ACDC48G supports up to 10/100/1000 Mbps pass through data rates. ACDC48G 1-Port 20W injector can be powered via universal AC input.

### PD-ACDC48/G EMC Compliance:

- ◆ FCC Part 15 class B and EN55022 class B
- ◆ EN55024
- ◆ VCCI

### PD-ACDC48/G Safety Compliance:

- ◆ UL/cUL per 60950-1 2<sup>nd</sup> Ed.
- ◆ GS mark

### Preliminary Steps

- ◆ Ensure that AC power is applied to Power Injector, using an operational AC cable with an appropriate ground connection.
- ◆ Ensure that output Ethernet cable is connected to the DATA & POWER OUT port.
- ◆ Verify that power ready Ethernet compatible device is connected.

### WARNING

**Do not use cross over cable between Power Injector output port and load device!**

### Installation

Power Injector can be placed on a desktop.

 Before placing Power Injector:

- ◆ Do not cover Power Injector or block the airflow to the injector with any foreign objects. Keep Power Injector away from excessive heat and humidity and free from vibration and dust.
- ◆ Ensure that the cable length from Ethernet network source to the terminal does not exceed 100 meters (333 Feet). The injector is not a repeater and does not amplify the Ethernet data signal.
- ◆ Use a splitter if desired; ensure splitter is connected close to the terminal and not on Power Injector!
- ◆ No "on-off" switch exists; simply plug Power Injector into an AC power source.

### Installing the Unit

1. Connect Power Injector to an AC outlet (100-240VAC), using a standard power cord
2. Connect the DATA IN jack (input) to the remote Ethernet network switch's Patch panel and the DATA & POWER OUT jack (output) to the terminal.

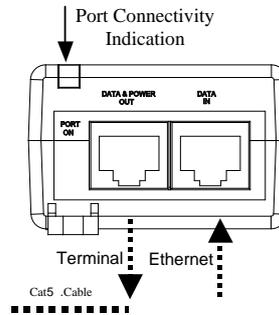


Figure 1: Connecting the Power Injector

### Indicators

AC LED	OFF	Blue
Blue	Power off indication	Power on indication (power is active)

### Specifications

Environmental Specifications		
Mode	Temperature	Humidity
Operating	0 to 40°C 32 to 104°F	10 to 90%; (no condensation allowed)
Storage	-20 to 70°C -4 to 158°F	10 to 90%; (no condensation allowed)

### Electrical Specifications

Input Voltage	100-240VAC (50/60Hz)
Maximal Input Current	0.6 Ampere
Available Output Power (max.)	20 Watts
Nominal Output Voltage	50VDC

### Ethernet Interface

<b>Input (DATA IN):</b> Ethernet 10/100/1000Base-T	RJ45 female socket
<b>Output (DATA &amp; POWER OUT):</b> Ethernet 10/100/1000Base-T, plus 50VDC	RJ45 female socket, with DC voltage on wire pairs, 4-5 (+) & 7-8(-).

### Troubleshooting

Symptom	Corrective Steps
<b>Power Injector does not power up</b>	<ol style="list-style-type: none"> <li>1. Verify a reliable power cord is used.</li> <li>2. Verify voltage at the power inlet is between 100 and 240 Vac.</li> <li>3. Remove and reapply power to device and check the indicators during power up sequence.</li> </ol>
<b>The PD does not operate</b>	<ol style="list-style-type: none"> <li>1. Verify Power Injector detects a PD.</li> <li>2. Verify PD is designed for injector operation.</li> <li>3. Verify you are using a standard Category 5/5e/6, straight-wired cable, with four pairs.</li> <li>4. If an external power splitter is in use, replace it with a known-good splitter.</li> </ol> <p>Ensure input Ethernet cable is connected to the DATA IN port.</p> <ol style="list-style-type: none"> <li>5. Verify PD is connected to the DATA &amp; POWER port.</li> <li>6. Try to reconnect the same PD into a different Power Injector. If it works, there is probably a faulty port or RJ45 connection.</li> <li>7. Verify there is no short over any of the twisted pair cables or over the RJ45 connectors.</li> </ol>
<b>The end device operates, but there is no data link</b>	<ol style="list-style-type: none"> <li>1. Verify port indicator on the front panel is continuously lit.</li> <li>2. If an external power splitter is in use, replace it with a splitter known as good.</li> <li>3. Verify that for this link, you are using standard UTP/FTP Category 5 straight (non-crossover) cabling, with all four pairs.</li> <li>4. Verify that Ethernet cable length is less than 100 meters from Ethernet source to load/remote terminal.</li> <li>5. Try to reconnect the same PD into a different Power Injector. If it works, there is probably a faulty port or RJ45 connection.</li> </ol>