



## Artisan Technology Group is your source for quality new and certified-used/pre-owned equipment

- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

### SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

### *InstraView*<sup>SM</sup> REMOTE INSPECTION

Remotely inspect equipment before purchasing with our interactive website at [www.instraview.com](http://www.instraview.com) ↗

### WE BUY USED EQUIPMENT

Sell your excess, underutilized, and idle used equipment. We also offer credit for buy-backs and trade-ins. [www.artisanng.com/WeBuyEquipment](http://www.artisanng.com/WeBuyEquipment) ↗

### LOOKING FOR MORE INFORMATION?

Visit us on the web at [www.artisanng.com](http://www.artisanng.com) ↗ for more information on price quotations, drivers, technical specifications, manuals, and documentation

**Contact us:** (888) 88-SOURCE | [sales@artisanng.com](mailto:sales@artisanng.com) | [www.artisanng.com](http://www.artisanng.com)

## 150 WATT HOT SWAP DC POWER SUPPLY

**CompactPCI®**

*Load sharing DC power supply provides 150 watts in a modular 3U format.*

The ZT 6310 power supply features a universal input and quad outputs in a modular package. Capable of supplying a total of 150W, the ZT 6310 is ideal for telecommunication, industrial equipment or other computer applications requiring a modular power supply.

The universal input voltage range is 24 to 87VDC. Four outputs capable of providing a total of 150W are available for +5VDC, +3.3VDC, and  $\pm 12$ VDC. Each output is independently regulated.

The ZT 6310 power supply is 3U high and is compatible with the Eurorack packaging utilized for CompactPCI®.

- ◆ Eurorack-compatible module
- ◆ Drawer-style front panel handle
- ◆ DIN standard input/output connector
- ◆ Hot swap with N+1 load sharing
- ◆ Built-in EMI filter
- ◆ Remote sense on main output (+5V)
- ◆ Overvoltage protection
- ◆ Short circuit protection on all outputs
- ◆ Over temperature protection at 100° C
- ◆ Status LEDs indicate Input OK and Fault
- ◆ Approaching over temperature signal (DEG#)
- ◆ Fail signal (FAL#)

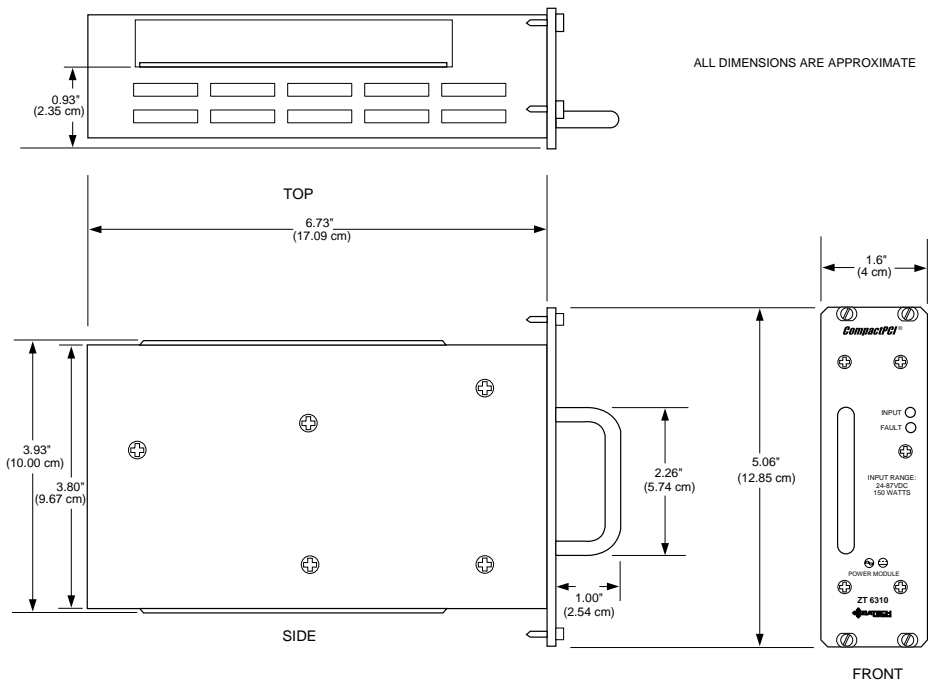


Figure 1.  
ZT 6310  
Mechanical  
Dimensions

## FUNCTIONAL CONSIDERATIONS

### ZT 6310 Operation

The ZT 6310 150W power supply utilizes switching technology operating at 200 KHz to achieve its small size and large power output. An EMI filtered universal input automatically accepts DC inputs from 24 to 87 volts. Optionally, two or more power supplies can be used to implement N+1, load sharing, fault tolerant systems.

**N+1 Redundant** — Two power supplies can share the same input source with either power supply being capable of supplying the entire system's power in the event that one should fail. When there are more than two power supply locations, true N+1 sharing can be utilized in a system requiring more than 150W. For example, a 300W system requires two power supplies plus a third for redundancy.

**Hot Swap** — The power supply can be inserted or removed from the system without disturbing operation or reducing the reliability of any associated devices.

**Load Sharing** — Two power supplies can each supply approximately 50% of the total system power during normal operation.

This feature increases overall system reliability by sharing the load responsibilities.

**Fault Tolerant** — A failed power supply will not disturb the operation of the system if the back-up power supply is operating correctly.

### Status LEDs

Two status LED indicators visible from the front of the power supply are provided. The green "INPUT" LED indicates that the input voltage is present. The red "FAULT" LED indicates the status of the FAL# signal described in the System Notification section that follows.

### Remote Sense

A common remote sense on the main (+5V) power supply output will detect the voltage at a load remote from the power supply, compensating for connector, backplane, and wiring voltage drops. The 5S+ and 5S- signals should be connected at the positive and ground +5V load, respectively.

### Current Sharing

Multiple power supplies in the same system share current by the ISH signal. This signal must be bused between all power supplies

in an N+1 load sharing system. For a single power supply, ISH can be left unconnected.

### Inhibit/Enable Inputs

The INH# input signal on the rear connector will turn off the outputs when grounded. The enable (EN#) input must always be connected to ground.

### System Notification

Two fault outputs are available on the rear connector for system notification. One output (DEG#) is an open collector, low true signal that indicates the internal temperature is approaching 90° C. If action does not reverse the internal temperature rise, at 100° C the supply will shut the outputs off. The second output (FAL#) is an open collector, low true signal that indicates that the supply has been inhibited (INH#), the input voltage has been removed, or the main output is over voltage.

150 WATT HOT SWAP DC POWER SUPPLY



**SPECIFICATIONS**

The ZT 6310 is compliant with the following specification:

- CompactPCI Specification, PICMG 2.0, ver. 2.1

**Electrical**

**Input Specifications**

Input Voltage Range: ..... 24-87VDC

Input Filter Type: Common and Differential mode

**Input Current**

Maximum Continuous: ..... 230W

Cold Start, Surge Maximum: ..... 10A (typically 110% of the static source current, lasting <20ms)

**Output Specifications**

Total Voltage Accuracy (load, cross and line regulation across temperature):

- +5V (2A minimum) ..... ±3%
- +12V ..... ±5%
- 12V ..... ±5%
- +3.3V ..... ±5%

Total Output Power (max. continuous @ 40° C): ..... 150W

Current @ +5V (2A minimum) .... 20A

Current @ +12V ..... 2A

Current @ -12V ..... 1A

Current @ +3.3V ..... 3A

**Ripple and Noise** (measured at full load with 20 MHz bandwidth and 22 µF capacitor at load):

- +5V ..... <1.5% P-P
- +12V ..... <1.5% P-P
- 12V ..... <1.5% P-P
- +3.3V ..... <1.5% P-P

Short Circuit Protection: Auto recovery

Overvoltage Protection (+5V): ..... 6 to 7VDC

Turn-On Time: ..... <1s

Hold-Up Time: >1ms @ 90V input (full load)

**General Specifications**

Efficiency: > 70% at 20 to 80% max. load

Switching Frequency: ..... 200 KHz

**ENVIRONMENTAL**

Operating Temperature	0° to 70° Celsius
Storage Temperature	-40° to +85° Celsius
Non-Condensing Relative Humidity	less than 95% at 40° Celsius

**Environmental Specifications**

Overtemp Shutdown: yes, with output shutdown

Cooling Requirement:

Note: Cooling requirements at sea level.

See Figure 2.

Shock and Vibration (Pending): MIL-STD-810E

Vibration, Operating: 20 to 2000 Hz @ 0.04 g<sup>2</sup>/Hz

Vibration, Non-Operating: 20 to 2000 Hz @ 0.04g<sup>2</sup>/Hz

Shock, Operating: ..... 5g @ 11ms

Shock, Non-Operating: ..... 10g @ 6ms

Altitude: ..... 21,000 feet (6.4 Km)

Note: Derate output load in Figure 1 by 15% per 6,000 feet.

Weight: ..... 2.48 lbs (1.12 Kg)

**Agency Approvals (Pending)**

Note: Always connect chassis ground (CG) on the supply to earth ground through a low impedance path.

- UL 1950, CSA 950, TUV / VDE EN60950 agency certified
- IEEE 587, ANSI Std. C62.41 surge suppression
- FCC and VDE "Class B" EMI/RFI requirements, both conducted and radiated with > 3db margin

**Reliability**

MTBF: 50,000 hours (MIL-HDBK-217E)

MTTR: Five minutes (based on module replacement)

**ORDERING INFORMATION**

ZT 6310 150W Hot Swap DC Power Supply

All products are shipped FOB San Luis Obispo, CA, USA. OEM discounts are available for quantity purchases. Contact Ziatech for additional information.

**Warranty**

Five years with an optional five-year extension. Call Ziatech for full warranty information.



150 WATT HOT SWAP DC POWER SUPPLY

**CompactPCI®**

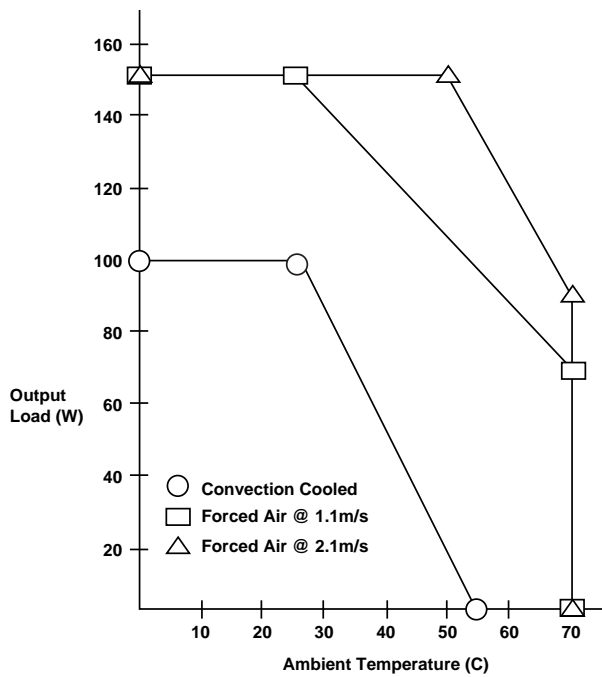


Figure 2. Output Derating Curves For Various Air Flows.

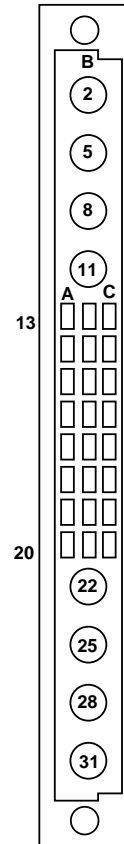


Figure 4. Mating Connector (top view). Pin numbers illustrated are the pin view of the female mating connector. A mating connector is ERNI part #914374; AMP #148370-1 or #97-7200-016.

Pin # (1)	Staging (2)	Mnemonic	Description
<b>Column A</b>			
A13	EL	SP	Spare (do not connect)
A14	EL	INH#	Inhibit Signal
A15	EL	ISH	Current Share Signal
A16	EL	5S-	5V Sense -
A17	EL	5S+	5V Sense +
A18	EL	3.3V	+3.3 VDC
A19	EL	+12V	+12 VDC
A20	EL	-12V	-12 VDC
<b>Column B</b>			
B2	SL	ACL	No Pin Loaded
B5	SL	ACN	No Pin Loaded
B8	-	-	No Pin Loaded
B11	EL	CG(3)	Chassis Ground
B13-18	SL	3.3V	+3.3 VDC
B19	SL	+12V	+12 VDC
B20	SL	-12V	-12 VDC
B22	EL	5V	+5 VDC
B25	EL	GND	Ground
B28	-	-	+DC Input
B31	-	-	-DC Input
<b>Column C</b>			
C13	SL	EN#	Enable Signal
C14	SL	DEG#	Temp. Warning Signal
C15	SL	FAL#	Supply Fail Signal
C16-18	SL	3.3V	+3.3 VDC
C19	SL	+12V	+12 VDC
C20	SL	-12V	-12 VDC

Figure 3. Pin Numbers

- Notes: (1) Mating pin numbers on power supply connector.  
 (2) EL is an Extra Length pin. SL is a Standard Length pin.  
 (3) CG must be connected to earth ground.

© Copyright Ziatech Corporation 1998.  
 All specifications are subject to change without notice.  
 Printed in U.S.A.  
 All brand or product names may be trademarks or registered trademarks of their respective holders.

**ZIATECH**  
CORPORATION

Phone 805-541-0488 / FAX 805-541-5088  
 E-mail info@ziatech.com  
 http://www.ziatech.com



## Artisan Technology Group is your source for quality new and certified-used/pre-owned equipment

- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

### SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

### *InstraView*<sup>SM</sup> REMOTE INSPECTION

Remotely inspect equipment before purchasing with our interactive website at [www.instraview.com](http://www.instraview.com) ↗

### WE BUY USED EQUIPMENT

Sell your excess, underutilized, and idle used equipment. We also offer credit for buy-backs and trade-ins. [www.artisanng.com/WeBuyEquipment](http://www.artisanng.com/WeBuyEquipment) ↗

### LOOKING FOR MORE INFORMATION?

Visit us on the web at [www.artisanng.com](http://www.artisanng.com) ↗ for more information on price quotations, drivers, technical specifications, manuals, and documentation

**Contact us:** (888) 88-SOURCE | [sales@artisanng.com](mailto:sales@artisanng.com) | [www.artisanng.com](http://www.artisanng.com)