



**±48V DC Input Industrial PC PS2 4U ATX
Switching Mode Hot Swap
Mini Redundant Power Supply**

Series	Model No.	Output Watts	Input Voltage	Input Voltage range	Polarity reverse protection
48	STC-481000RD	1000 W continuous	±48V DC	±36V ~ ±72V DC	<u>By fuse</u>

ENVIRONMENTAL CONDITIONS:

- Cooling: Forced Air-cooling, 40x40x28 mm Fan x 2 (With Two Ball Bearing)
- Fan brand: DELTA, NMB, SUNON, SUNON IP68 (for H version) with equivalent specifications
- Operating Temperature: 0°C~+50°C (Full Load)
- Output Power: 100% @ 50°C, 70% @ 60°C
- Operating Humidity: 20%~85% RH. (Non condensing) (95% Optional)
- Storage Temperature: -20°C~+80°C
- Storage Humidity: 10%~90% RH. (Non condensing)
- Operating Altitude: 10M Below Sea level to 3000M Above Sea level

DC INPUT CHARACTERISTICS:

- Input connector type 90A/ DC 500V XT-90
- Input Current 16.4A/ 32.7A (**1000W**) @ Full Load High Line & Low Line
- Inrush Current Less than 50A Cold start @ 25°C ambient

DC OUTPUT CHARACTERISTICS:

Output Voltage	Regulation			Output Current		Ripple & Noise				
	Load	Line	Cross	1000W	Max.					
+5V	±5%	±1%	±5%	1A	35A	50mV				
+12V				1A	72A	120mV				
+3.3V				0.5A	22A	50mV				
-5V(optional)				0A	0.5A	50mV				
-12V				0A	0.3A	120mV				
+5VSB				0A	3.5A	50mV				
Maximum continuous combined load on +3.3 V & +5V DC output shall not exceed				175		Watts				
Maximum continuous combined load on +3.3 V & +5V and 12V DC output shall not exceed				970						
Maximum continuous total DC output power shall not exceed				1000						

OVERALL PERFORMANCE:

- Efficiency: 82% typical @ 48V DC Full Load
- Hold up time: When power shut down DC output 5V must be maintain 1ms @48V DC
- Rise time:
- Power Good Signal: TTL Compatible signal, on delay 100~500ms, off delay 1ms min.
- Short Circuit Protection (SCP): All output equipped with SCP (shutdown and latch off)

- ▶ Over Power Protection (OPP): Peak power protected to $130\% \pm 10\%$ of continuous rated power (shutdown and latch off)
- ▶ Over Voltage Protection (OVP): +3.3V @3.6V~4.3V DC, +5V @5.5V~6.5V DC, +12V @13.2~15.6V DC

RELIABILITY:

- ▶ MTBF: 100,000 hours @ Max. Load, 48V DC & 25°C ambient
- ▶ Safety Standards: Meet IEC60950-1, TÜV EN60950-1
- ▶ Safety Approved:
- ▶ EMI Compatibility (EMC): EN55032:2015/AC:2016, CISPR32:2015, EN61000-3-2:2014, EN61000-3-3:2013, EN55024:2010 +A1:2015

ISOLATION:

- ▶ INPUT and OUTPUT are isolated by transformers and optical couplers
- ▶ Dielectric Withstand: INPUT to OUTPUT: 1000V DC for 60 seconds
- ▶ Dielectric Withstand: INPUT to FRAME GROUND: 1000V DC for 60 seconds
- ▶ Leakage Current: <0.005μA @ 48V DC

LED indicator:

Power module 1: Green LED when power on
Power module 2: Green LED when power on

Alarm function:

In the rear panel with power failure alarm signal to indicate when power failure wire

Alarm reset switch

To reset by switch

Output Device Connector Specific:

- ▶ ATX 24 Pins x 1 Molex 29-01-2240 or equivalent
- ▶ +12V(P4) 4 Pins x 1 Molex 39-01-2040 or equivalent
- ▶ HDD, DVD 4 Pins x 4 Molex 8981-04P or equivalent
- ▶ FDD 4 Pins x 1 AMP 171822-4 or equivalent
- ▶ Serial ATA x 2 Molex 675820000 or equivalent
- ▶ CPU EPS 8 Pins x 1 Molex 39-01-2080 or equivalent
- ▶ PCIE x 2

Standard Output Cable Length:

500 mm / 19.68 Inches

PCB specific:

- ▶ Layers: 6
- ▶ Copper: 3 Oz each layer
- ▶ Thickness: 1.6mm
- ▶ Material: FR4
- ▶ PCB material origin: Taiwan

Power Chassis Dimension:

375(L) x 150(W) x 86(H) mm / 14.76(L) x 5.9(W) x 3.39(H) Inches

Rackmount Chassis solution:

4U IPC Chassis 510mm Model No. GHI419ATX

Screw hole:

Front panel with 4 screw holes
Rear panel bracket with 2 screw holes

Net Weight:

7.7 kg / 16.97 lbs

Gross Weight:

10 kg / 22.05 lbs

Packing Detail:

70 x 33 x 20 cm / 1.63 Cuft / 1pc

Note:

Power Supply is not able to be used in stand alone application

Use Power Supply in Power Chassis Assembly only