



## ±48V DC Input Industrial PC ATX 2.01 & 2.03 Switching Mode Power Supply

Series	Model No.	Output Watts	Input Voltage	Input Voltage range	Polarity reverse protection
<b>48</b>	STC-481200	1200 W continuous	±48V DC	±36V ~ ±72V DC	Not Protected

### ENVIRONMENTAL CONDITIONS:

▶ Cooling:	Forced Air-cooling, <b>80x80x25 mm Fan x 2 pcs</b>
▶ Fan type:	DC type, 2 x Ball Bearing, 6200 rpm, Optional Fan Control Card
▶ Fan Noise Level:	70dBA @ Full Load
▶ Fan brand:	SUNON, DELTA, ADDA, NMB with the same specification
▶ Operating Temperature:	0°C~+50°C (-20°C~+60°C, H version is optional) Full Load
▶ Output Power:	100% @ 50°C
▶ Output Power:	70% @ 60°C
▶ Output Power:	50% @ 70°C
▶ Operating Humidity:	20%~85% RH. (Non condensing) (95% RH 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 (*)	220A thickness 1.0mm/ 1port Positive Terminal/ 1port Negative Terminal
▶ Input Current	19A/38A(1200W) @Full Load High Line & Low Line
▶ Inrush Current	Less than 90A Cold start @25°C ambient

**(\*) Note: See pictures of Input Terminal Connector at the Bottom of this document**

### DC OUTPUT CHARACTERISTICS:

Output Voltage	Regulation			Output Current		Ripple & Noise
	Load	Line	Cross	1200W		
+5V	±3%	±1%	±5%	Min	Max	50mV
+12V				0A	35A	120mV
+3.3V				0A	92A	50mV
-5V				Optional	Optional	50mV
-12V				0A	1A	120mV
+5VSB	±5%			0A	4A	50mV
+3.3 V & +5V & 12V DC all individual transformer. Max. output current as specification						Wattage
Maximum continuous total DC output power shall not exceed						
<b>1200</b>						

## OVERALL PERFORMANCE:

- ▶ Efficiency: 75% typical @48V DC Full Load
- ▶ Hold up time:
- ▶ 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%±10% of continuous rated power (shutdown and latch off)
- ▶ Over Voltage Protection (OVP): +3.3V@4.4V, +5V@6V, +12V@15.6V

## RELIABILITY:

- ▶ MTBF: >90,000 hours @max. Load, 48V DC & 25°C ambient
- ▶ Safety Standards: Meet IEC60950-1, 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

## 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 2	Molex 8981-04P or equivalent
FDD 4 Pins x 2	AMP 171822-4 or equivalent
Serial ATA x 8	Molex 675820000 or equivalent
Process EPS 8 Pins x 1	Molex 39-01-2080 or equivalent
PCIe x 4	

## Standard Output Cable Length:

610 mm / 24 Inches

## PCB specific:

- ▶ Layers: 4
- ▶ Copper: 3 Oz
- ▶ Thickness: 1.6mm
- ▶ Material: FR4
- ▶ PCB material origin: Taiwan

## Power Chassis Dimension:

270(L) x 150(W) x 86(H) mm / 10.63(L) x 5.9(W) x 3.39(H) Inches

## Net Weight:

4.7 kg / 10.36 lbs

## Gross Weight:

5.3 kg / 11.68 lbs

## Packing Detail

2 PCs / Carton  
N.W. 10.8 kg / 23.8 lbs  
G.W. 11.8 kg / 26.0 lbs

## Measurement of Carton

0.045 m<sup>3</sup> / 1.58 Cu. Ft

**Input Connector Terminal Pictures:**

