

SPECIFICATION

High Quality 80 Plus Silver Switching Power Supply

**550W ATX Output
Universal AC Input
Extended PS/2: 150Wx160Lx86H mm
(14 CM Top Mounted Fan)**

P/N: P5550C 8S

**** Specification Approval****

This specification (total 9 pages including cover page) is approved in it's entirety by:

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1.0 INPUT:

1.1 VOLTAGE

MINIMUM	NOMINAL	MAXIMUM	UNITS
90	100-240	264	Vrms

1.2 FREQUENCY

47Hz ~ 63Hz

1.3 CURRENT

115Vac / 8.0A max. 230Vac / 4.0A max.

1.4 INRUSH CURRENT

55A max. when AC input 115Vac at 25⁰C cold start.

110A max. when AC input 230Vac at 25⁰C cold start.

1.5 POWER EFFICIENCY

The efficiency of the power supply should be tested at nominal input voltage 115Vac input, The loading condition for testing efficiency and required minimum efficiency shown in below table

550W(loading shown in Amps)						Required minimum efficiency
Loading	+12V	+5V	+3.3V	-12V	+5VSB	
Full	35.64	12.69	12.69	0.41	2.43	85%
Typical	17.82	6.34	6.34	0.20	1.22	88%
Light	7.13	2.54	2.54	0.08	0.49	85%

1.6 LEAKAGE CURRENT

3.5mA max.

1.7 POWER FACTOR

PF > 0.95 at full load

2.0 OUTPUT:

Voltage	+5V	+3.3V	+12V	-12V	+5Vsb
Max load	25.0A	25.0A	44.0A	0.5A	3.0A
Min load	0.0A	0.0A	1.0A	0.0A	0.0A
Peak load	--	--	--	--	3.5A
Load Regulation	+5,-5%	+5,-5%	+5,-5%	+10,-10%	+5,-5%
Ripple & Noise	50mV	50mV	120mV	120mV	50mV

The continuous total output power is 550W max.

The combined power of +5V and +3.3V is 130W max.

Add 0.1uF and 10uF capacitors across output terminal during ripple & noise test.

2.1 REMOTE ON/OFF

TTL High/PS-OFF; TTL Low/PS-ON

$V_{IL}=0.8V_{max}$, $I_{IL}=-1.6mA_{max}$ @ $V_{in}=0.4V$

$V_{IH}=2.0V_{min}$ @ $I_{in}=-200uA$, $V_{IH}=5.25V_{max}$ @open ckt.

2.2 HOLD-UP TIME

15msec (minimum) at 80% of full load at 230Vac input.

2.3 POWER GOOD DELAY

100-500 msec.

2.4 POWER FAIL DELAY

>1 msec.

2.5 TURN-ON DELAY TIME

2000 msec max. At Nominal Line Full Load.

2.6 TRANSIENT OVERTHOOT

DC output transient step sizes as below table:

Output voltage	+5V	+3.3V	+12V
Max. step size	30%	30%	60%

Load-changing repetition rate of 10m seconds.

Load slew rated 1.0A/uS and capacitive load as below :

+5V	+3.3V	+12V	-12V	+5Vsb
10000uF	10000uF	10000uF	330uF	4700uF

2.7 RISE TIME

20ms max at full load.

3.0 PROTECTION:

When OCP, OVP ,OPP or short protection is triggered the main outputs will be latched off. The main outputs can be reset by cycling the DC remote on/off or AC power. +5Vsb output is auto recovery when fault condition removed.

3.1 OVER CURRENT PROTECTION

- +5V output: 28A~45A
- +3.3V output: 28A~45A
- +12V output: N/A

3.2 No-load operating

No damage or hazardous condition should occur with all the DC output connectors disconnected from the load. The power supply may latch into the shutdown state.

3.3 OVER VOLTAGE PROTECTION

- +3.3V output 4.5 Vmax.
- +5.0V output 7.0 Vmax.
- +12.0V output 15.6 Vmax.

3.4 SHORT PROTECTION

All output to GND.

3.5 OVER POWER PROTECTION

120%~160% of full load

4.0 ENVIRONMENT:

4.1 OPERATING TEMP.	0 to +5
4.2 STORAGE TEMP.	-20 to +70
4.3 OPERATING HUMIDITY	20% to 90%,non-condensing
4.4 STORAGE HUMIDITY	5% to 95%, non-condensing
4.5 OPERATING ALTITUDE	0 to 10,000 feet
4.6 STORAGE ALTITUDE	0 to 50,000 feet

5.0 HI-POT:(Input/Output isolation)

5.1 PRIMARY TO SECONDARY

1800Vac for 3 seconds

6.0 SAFETY AND CE REQUIREMENTS

6.1 CONDUCTED EMI

1. MEET FCC Class B
2. MEET CISPR 22 Class B
3. MEET BSMI Class B

6.2 SAFETY STANDARDS

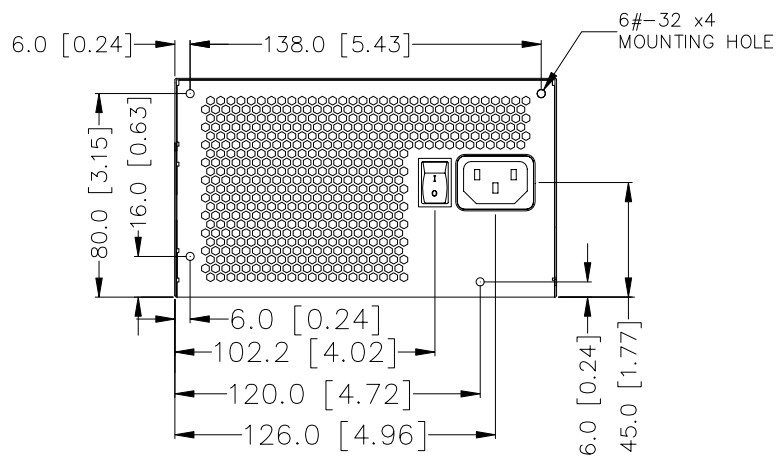
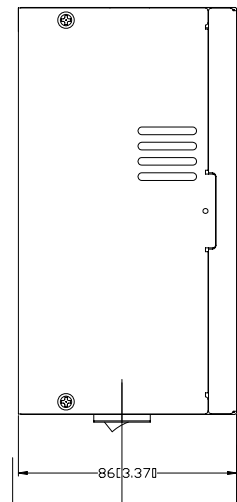
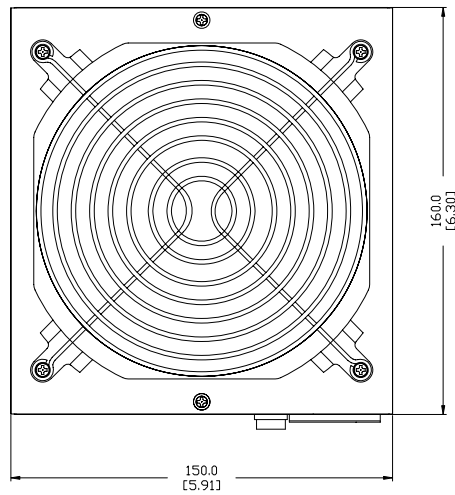
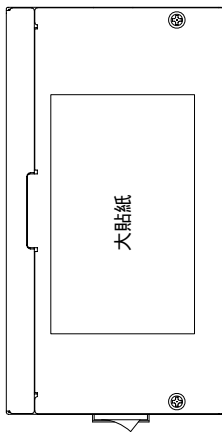
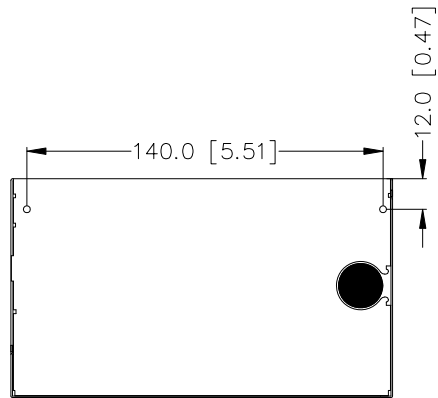
1. MEET CUL (UL 60950)
2. MEET TUV (EN60950)
3. MEET CB (IEC 950)
4. MEET CE
5. MEET CCC

6.3 HARMONIC

MEET IEC61000-3-2,Class D

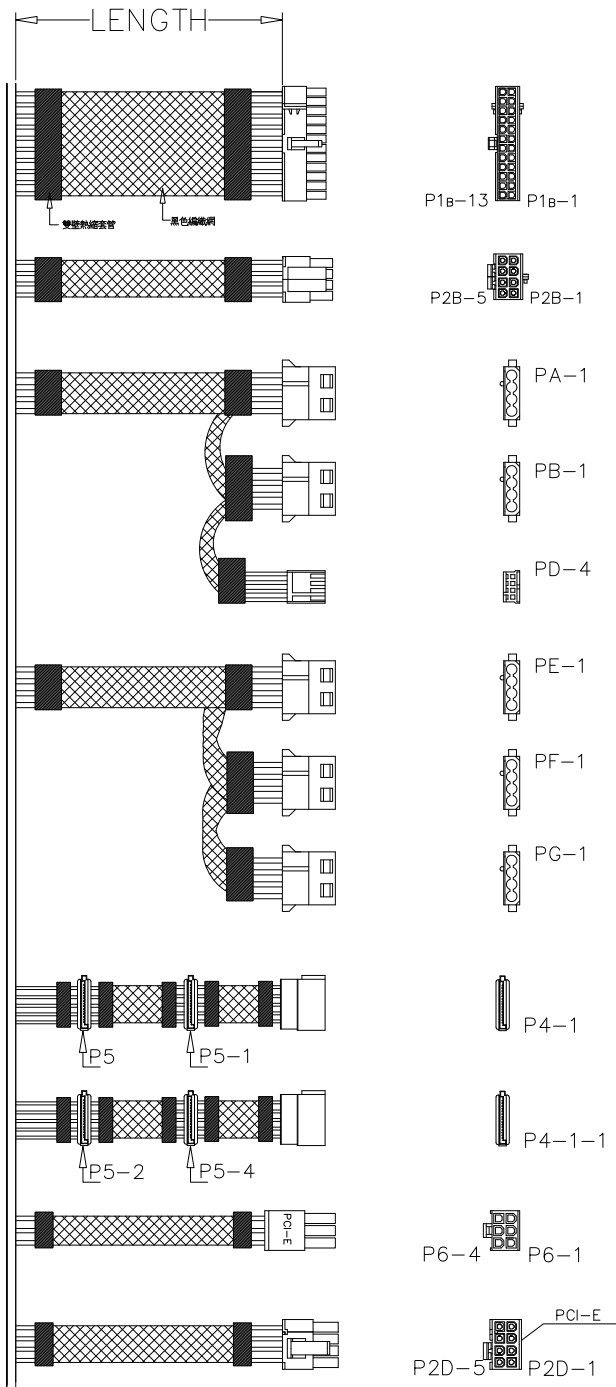
7.0 DIMENSIONS

WxLxH=150x160x86mm 140mm FAN x1 ON TOP



NOTE:

1. CASE TOP: G20-TCEPA01-M100
2. CASE BOT: G20-BCEPA28-M100
3. SECC T=0.8mm



CONN	PIN	WIRE COLOR	OUTPUT	WIRE AWG	LENGTH
P1B	1	ORANGE	+3.3V	18	500±25 (19.7±1.0)
	2	ORANGE	+3.3V	18	
	3	BLACK	GND	18	
	4	RED	+5V	18	
	5	BLACK	GND	18	
	6	RED	+5V	18	
	7	BLACK	GND	18	
	8	GRAY	PG	20	
	9	PURPLE	+5VSB	18	
	10	YELLOW	+12V	18	
	11	YELLOW	+12Vs	20	
	12	YELLOW	+12V	18	
	13	ORANGE	+3.3V	18	
	14	ORANGE	+3.3Vs	20	
	15	ORANGE	+3.3V	18	
	16	BLUE	-12V	18	
	17	BLACK	GND	18	
	18	BLACK	GND	18	
	19	BLACK	GND	18	
	20	NC	NC	18	
	21	RED	+5V	18	
	22	RED	+5Vs	20	
	23	RED	+5V	18	
	24	BLACK	GND	18	
P2B	1	BLACK	GND	18	
	2	BLACK	GND	18	
	3	BLACK	GND	18	
	4	BLACK	GND	18	
	5	YELLOW	+12V	18	
	6	YELLOW	+12V	18	
	7	YELLOW	+12V	18	
	8	YELLOW	+12V	18	
P2D	1	YELLOW	+12V	18	
	2	YELLOW	+12V	18	
	3	YELLOW	+12V	18	
	4	BLACK	GND	18	
	5	BLACK	GND	18	
	6	BLACK	GND	18	
	7	BLACK	GND	18	
	8	BLACK	GND	18	
PA,PE	1	YELLOW	+12V	18	
	2	BLACK	GND	18	
	3	BLACK	GND	18	
	4	RED	+5V	18	
P5	1	ORANGE	+3.3V	18	
	2	BLACK	GND	18	
	3	RED	+5V	18	
	4	BLACK	GND	18	
	5	YELLOW	+12V	18	
P6	1	YELLOW	+12V	18	
	2	YELLOW	+12V	18	
	3	YELLOW	+12V	18	
	4	BLACK	GND	18	
	5	BLACK	GND	18	
	6	BLACK	GND	18	
PB PF,PG	1	YELLOW	+12V	18	
	2	BLACK	GND	18	
	3	BLACK	GND	18	
	4	RED	+5V	18	
PD	1	RED	+5V	20	
	2	BLACK	GND	20	
	3	BLACK	GND	20	
	4	YELLOW	+12V	20	
P4 P4-1 P5-1 P5-4	1	ORANGE	+3.3V	18	
	2	BLACK	GND	18	
	3	RED	+5V	18	
	4	BLACK	GND	18	
	5	YELLOW	+12V	18	

NOTE:

P1B	HOUSING:	WST P4/P20-142002K7	OR EQU
	TERMINAL:	WST I42002PS-2	
P2B	HOUSING:	W.H P4-142002K3A	OR EQU
	TERMINAL:	W.H P4-142002K4A	
PA,PB	HOUSING:	AMP 1-480424-0	OR EQU
PE,PF,PG	TERMINAL:	AMP 60619-4	
PD	HOUSING:	AMP 171822-4	OR EQU
	TERMINAL:	AMP 170262-2	
P4	HOUSING:	WST:P5-112701	OR EQU
P4-1	TERMINAL:	WST:112701PS-00	
P5	HOUSING:	WST P5-112702	OR EQU
P5-1~4	TERMINAL:	WST 112702PL	
P6	HOUSING:	MOLEX 5559-002	OR EQU
	TERMINAL:	MOLEX 39-00-0060	
P2D	HOUSING:	P6-142002K19	
	TERMINAL:	MOLEX 39-00-0060	