



Sparkle Power Inc.
 A Leading Power Supply Manufacturer
 Web site: www.sparklepower.com

SPI220LE
(80PLUS, RoHS Compliant)
220/250 Watts Flex ATX Switching Power Supply

Features

- Complied with Flex ATX and ATX12V standard
- Active Power Factor Correction (PFC) meet EN61000-3-2
- High efficiency and reliability
- Compatible with European Union Directive 2002/95/EC (Restriction on Hazardous Substances).
- Remote ON/OFF function
- Internal 12V DC fan included
- Noise Killer (thermal fan speed control function)
- Low noise and ripple
- Output over voltage, short circuit, and over current protection
- 100% Hi-pot, ATE, and burn-in tested
- Re-settable power shut down
- Complies with FCC part 15 subpart J class B 115Vac operation, and CISPR 22 class B at 230Vac operation
- Approved by UL60950, CSA C22.2 NO. 60950, TUV EN60950 or VDE EN60950, NEMKO EN60950 (CB Report) CE

Input Characteristics

Input Range: 90 ~ 264Vac (RMS), Full Range Input
Frequency: 47 ~ 63Hz
Input Current: Max 5A (RMS) @ 115Vac, 3A (RMS) @ 230Vac
Inrush Current: :No damage at cold start

Output Characteristics

Output Voltage	Minimum Load	Normal Load	Maximum Load	Load Reg.	Line Reg.	Ripple & Noise
+3.3V	0.5A	7A	14A	± 5%	± 1%	50mV P-P
+5V	0.5A	8A	16A	± 5%	± 1%	50mV P-P
+12V1	1.0A	8A	16A	± 5%	± 1%	120mV P-P
+12V2	1.0A	5A	10A	± 5%	± 1%	100mV P-P
-12V	0.0A	0.4A	0.8A	± 10%	± 1%	120mV P-P
+5Vsb	0.0A	1.25A	2.5A	± 5%	± 1%	50mV P-P

*220W (50°C): +3.3V, +5V, and +12V total output cannot exceed 215W.
 *250W (25°C): +3.3V, +5V, and +12V total output cannot exceed 245W
 *+3.3V and +5V total output not exceed 110W
 * Total output for this subject power supply is 220W

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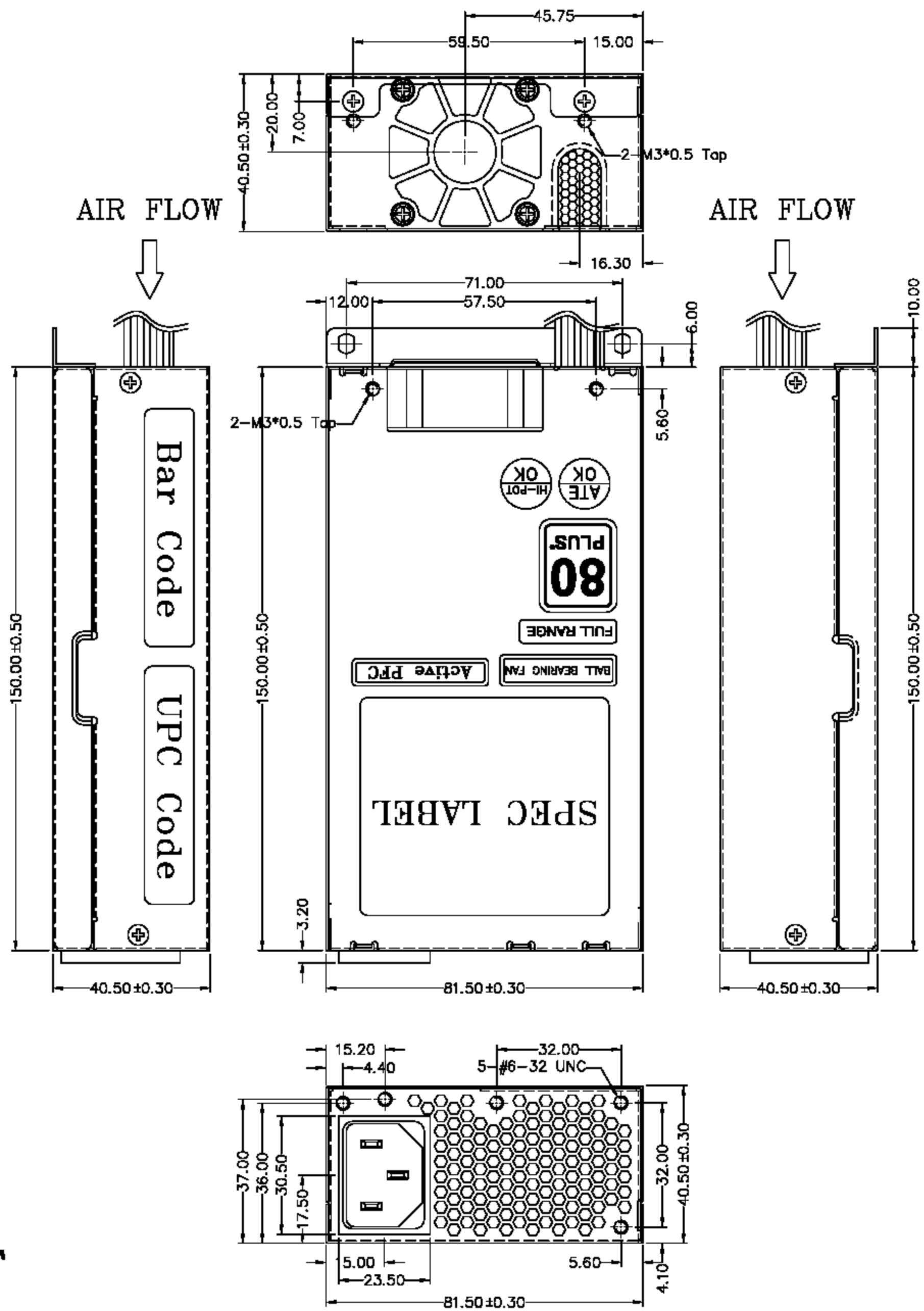
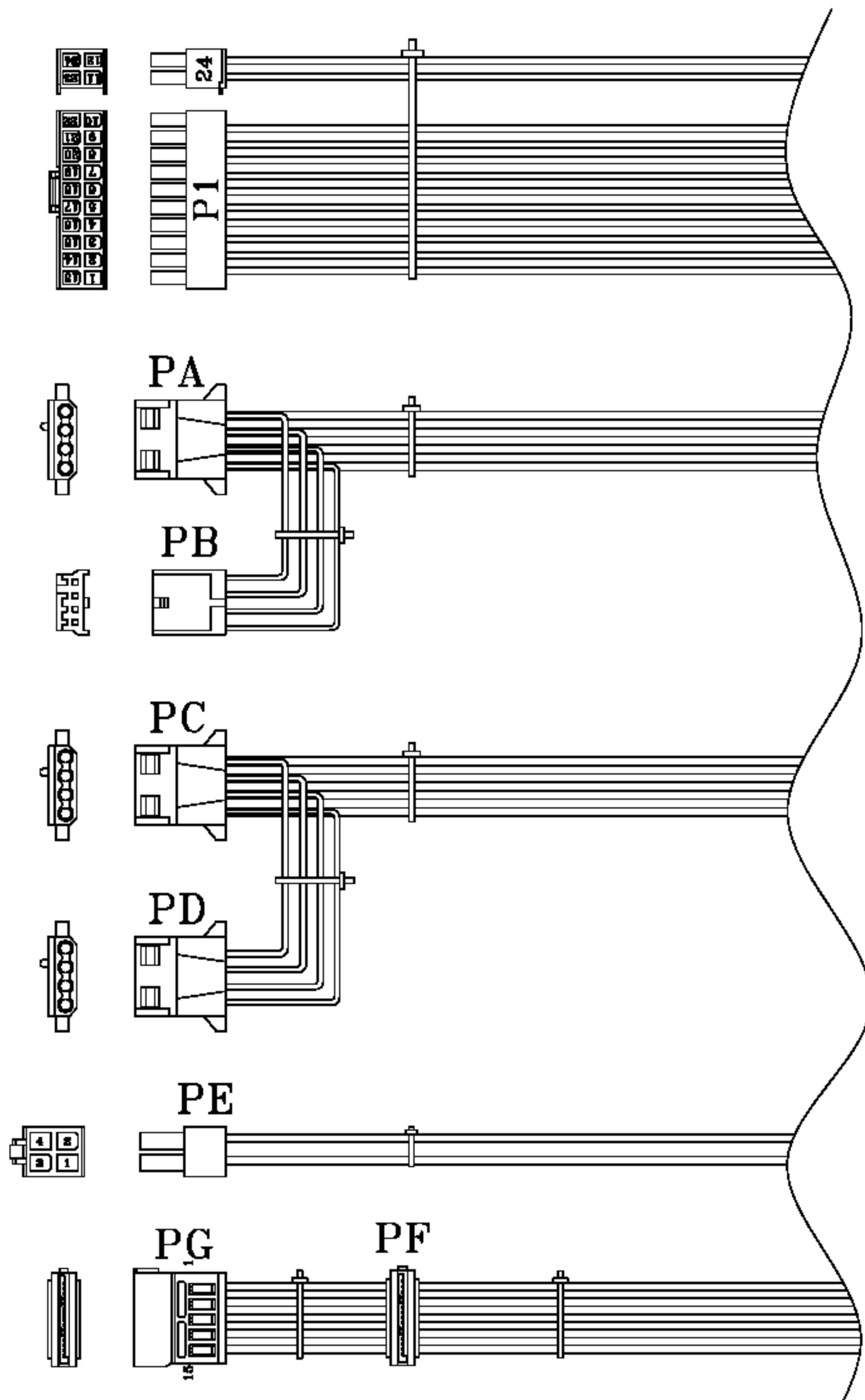
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Specification

- **Temperature Range:** Operating 0° C ~ +25° C on 250W output load or 0° C ~ +50° C on 220W output load ; storage & shipping -20° C ~ +80° C
- **Humidity:** 5 ~ 90% on operating, 5 ~ 95% on storage
- **Dielectric Withstand:** Primary frame ground 1800V AC for 1 second
- **Efficiency:** 80% minimum, typical up to 87%
- **Rise time:** Less than 20ms
- **Hold-up Time:** 17ms minimum at nominal input voltage
- **Power Good Signal:** Power on delay time 100 ~ 500ms, off delay 1ms minimum (TTL and CMOS compatible)
- **Leakage Current:** Less than 3.5mA at 264Vac, 50Hz
- **MTBF:** 100,000 hours on maximum load at +25°C
- **Dimensions (LxWxH):**150x81.5x40.5mm /6x3.2x1.6inch



REF. D.	PIN NO.	SIGNAL	WIRE COLOR	GAUGE	CONNECTOR TYPE	LENGTH		
P1 / 24	1	+3.3V	ORANGE	20	JWT C4202H02 -A20P+ C4202H02 -A4P+ OR EQUIV	200±15 mm		
	2	+3.3V	ORANGE	20				
	3	COM	BLACK	20				
	4	+5V	RED	20				
	5	COM	BLACK	20				
	6	+5V	RED	20				
	7	COM	BLACK	20				
	8	PW-OK	GRAY	24				
	9	+6V _b	PURPLE	20				
	10	+12V ₂	YELLOW	20				
	11	+12V ₂	YELLOW	20				
	12	+3.3V	ORANGE	20				
	13	+3.3V	ORANGE	20				
	14	+3.3V _S	BROWN	24				
	15	-12V	BLUE	24				
	16	COM	BLACK	20				
	17	PS-ON	GREEN	24				
	18	COM	BLACK	20				
	19	COM	BLACK	20				
	20							
	21	+5V	RED	20			AMP -480424-0 or EQUIV.	250±15 mm
	22	+5V	RED	20				
	23	+5V	RED	20				
	24	COM	BLACK	20				
PA	1	+12V ₂	YELLOW	20	AMP -480424-0 or EQUIV.	310±15 mm		
	2	COM	BLACK	20				
	3	COM	BLACK	20				
	4	+5V	RED	20				
PC	1	+12V ₂	YELLOW	20	AMP 171822-4 or EQUIV.	150±10 mm		
	2	COM	BLACK	20				
	3	COM	BLACK	20				
	4	+5V	RED	20				
PB	1	+12V ₂	YELLOW	20	AMP -480424-0 or EQUIV.	150±10 mm		
	2	COM	BLACK	20				
	3	COM	BLACK	20				
	4	+5V	RED	20				
PD	1	+12V ₂	YELLOW	20	AMP -480424-0 or EQUIV.	310±15 mm		
	2	COM	BLACK	20				
	3	COM	BLACK	20				
	4	+5V	RED	20				
PE	1	COM	BLACK	20	MOLEX 39-01-2040 or EQUIV.	310±15 mm		
	2	COM	BLACK	20				
	3	+12V ₁	YEL/BLACK	20				
	4	+12V ₁	YEL/BLACK	20				
PF	1	+12V ₂	YELLOW	20	CI1271H30 -16P or EQUIV.	310±15 mm		
	2	COM	BLACK	20				
	3	+5V	RED	20				
	4	COM	BLACK	20				
	5	+3.3V	ORANGE	20				
PG	1	+12V ₂	YELLOW	20	CI1270H30 -16P or EQUIV.	150±10 mm		
	2	COM	BLACK	20				
	3	+5V	RED	20				
	4	COM	BLACK	20				
	5	+3.3V	ORANGE	20				

NOTE:

1. ALL THE LENGTH OF OUTPUT WIRES EXCLUDE HOUSING.

2. 產地標籤依業務指示加貼.

UNIT:mm

FSP P/N.:9PA2201104
SPI P/N.:SPI220LE

MODEL NO. : SPI220LE (S03003)		TITLE: ASSY		SHEET: 1 OF 1		REV:01
R&D (2)	PE	DRAWN		DATE		
				May.08.2007		
INTERIOR COUNTERSIGN:				黃鈺婷		