



**Sparkle Power Inc.**  
 A Leading Power Supply Manufacturer  
 Web site: [www.sparklepower.com](http://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

**Sparkle Power Inc.**  
**Main Office**  
 1000 Rock Avenue  
 San Jose, CA 95131  
 TEL: 408-519-8888  
 FAX: 408-519-9999  
 E-MAIL: [info@sparklepower.com](mailto:info@sparklepower.com)

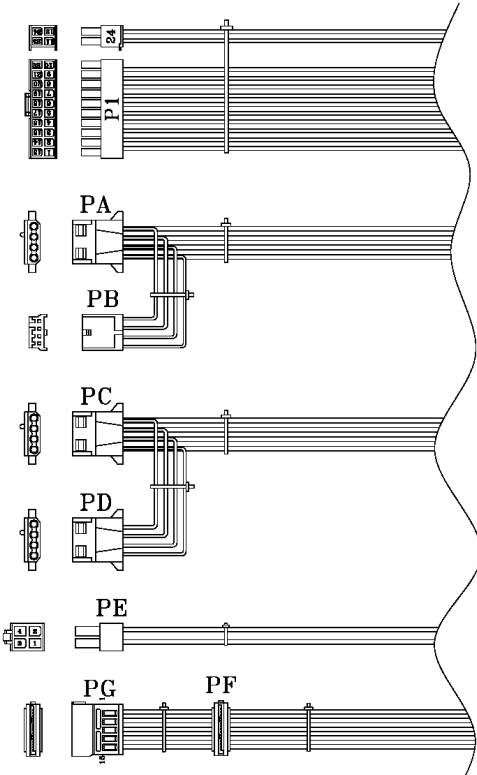
**Sparkle Power Inc.**  
**Los Angeles Office**  
 17071 Green Drive  
 City of Industry, CA 91745  
 TEL: 626-839-7180  
 FAX: 626-839-3395

**Sparkle Power Inc.**  
**Colorado Office**  
 1316 Indian Paintbrush Lane  
 Longmont, CO 80503  
 TEL: 303-776-3281  
 FAX: 303-776-7645



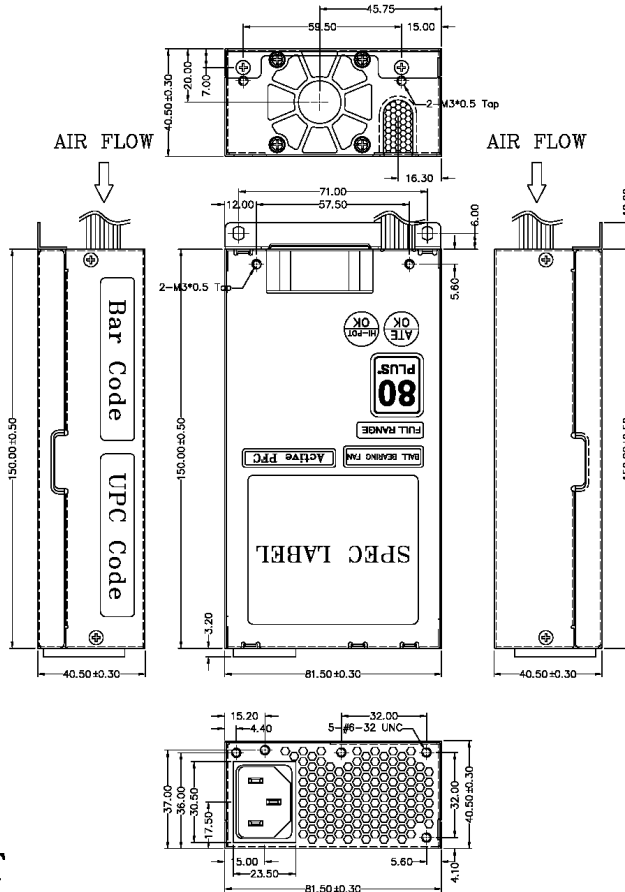
**Specification**

- **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



- NOTE:**
- ALL THE LENGTH OF OUTPUT WIRES EXCLUDE HOUSING.
  - 產地標籤依業務指示加貼。

UNIT:mm



REF. D.	FOR	SIGNAL	WIRE	GAUGE	COMP/20R	LEN(CTE)
1	+	+3.3V	ORANGE	20	PWT	200±16
2	+	+3.3V	ORANGE	20	C4802S02	ELTA
3	COM	BLACK	20	-AMP+	C4802S02	
4	+5V	RED	20	-AMP+	C4802S02	
5	COM	BLACK	20	OR EQUIV		
6	+5V	RED	20			
7	COM	BLACK	20			
8	PW-OK	GRAY	24			
9	+5V6b	PURPLE	20			
10	+12V2	YELLOW	20			
11	+12V2	YELLOW	20			
12	+3.3V	ORANGE	20			
13	+3.3V	ORANGE	20			
14	+3.3Vb	BROWN	24			
15	-12V	BLUE	24			
16	COM	BLACK	20			
17	P2-ON	GREEN	24			
18	COM	BLACK	20			
19	COM	BLACK	20			
20						
21	-5V	RED	20			
22	+5V	RED	20			
23	+5V	RED	20			
24	COM	BLACK	20			
PA	1	+12V2	YELLOW	20	AMP	250±16
	2	COM	BLACK	20	AMP	250±16
	3	COM	BLACK	20	AMP	250±16
PC	1	+12V2	YELLOW	20	AMP	310±16
	2	COM	BLACK	20	AMP	310±16
	3	COM	BLACK	20	AMP	310±16
PB	1	+12V2	YELLOW	20	AMP	150±10
	2	COM	BLACK	20	AMP	150±10
	3	COM	BLACK	20	AMP	150±10
PD	1	+12V2	YELLOW	20	AMP	150±10
	2	COM	BLACK	20	AMP	150±10
	3	COM	BLACK	20	AMP	150±10
PE	1	COM	BLACK	20	MOLEX	310±16
	2	COM	BLACK	20	MOLEX	310±16
	3	+12V1	YEL/BLACK	20	MOLEX	310±16
PF	1	+12V2	YELLOW	20	CLASSIFIED	310±16
	2	COM	BLACK	20	CLASSIFIED	310±16
	3	-5V	RED	20	CLASSIFIED	310±16
PG	1	+12V2	YELLOW	20	CLASSIFIED	150±10
	2	COM	BLACK	20	CLASSIFIED	150±10
	3	-5V	RED	20	CLASSIFIED	150±10
	4	COM	BLACK	20	CLASSIFIED	150±10
	5	+3.3V	ORANGE	20	CLASSIFIED	150±10

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:			黄钰婷	