

Scanning	LIB.

SPECIFICATION FOR APPROVAL

- CUSTOMER : _____

- ITEM : Power Supply Unit.

- DESCRIPTION : 32 Inch LCD Power Supply Unit

- CUSTOMER P/NO : _____

- SUPPLIER P/NO : PVP-2150

- DATE : 2009-10-06

CUSTOMER'S APPROVED

* REV NO: 2.0

APPROVED		
2009.10.06		
MODEL	32 Inch LCD TV	
DESC	Power Supply Unit	
PART NO		
EN'GR	CHKD	APPD

	CUIT	MECH	SAFETY	EMI
CHKD				
APPD				

REMARK

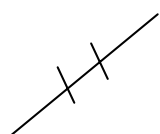
MAKER : POWERVIEW Co.,Ltd.

TEL : 82-32-675-7676

FAX : 82-32-675-3223

DOCUMENTATION FOR APPROVAL

Product	32" LCD Power Supply Unit
Model Name	PVP-2150

Written	Checked	Checked	Approved
			

C O N T E N T S

1. SPECIFICATION

2. BLOCK DIAGRAM

3. P.C.B LAYOUT

4. TEST SHEET

5. MECHANICAL DIAGRAM

6. PACKING DRAWING

7. WORKMANSHIP CHECK

1. SPECIFICATION

PVP-2150 SPECIFICATION

(111 WATTS SWITCHING MODE POWER SUPPLY)

1. STANDARD FEATURES

- * OPEN FRAME SWITCHING MODE POWER SUPPLY
- * UNIVERSAL AC INPUT VOLTAGE
- * 5V/2.0A, 5VD/5.0A, 12V/4.0A, 24V/5.5A REGULATED OUTPUTS
- * SHORT CIRCUIT PROTECTION
- * DESIGN TO MEET ICE60065
- * DESIGN TO MEET CLASS B LIMIT OF EN55022
- * VACUUM IMPREGNATED TRANSFORMER
- * 100 % THERMAL CYCLE AND BURN-IN

2. ELECTRICAL CHARACTERISTICS

2.1. INPUT CHARACTERISTICS

2.1.1. AC INPUT VOLTAGE

- 2.1.1.1. Nominal input voltage : 110 / 220 Vac
- 2.1.1.2. Rated input voltage range : 100 to 240Vac
- 2.1.1.3. Operating input voltage range : 90 VAC to 264 VAC

2.1.2. AC INPUT FREQUENCY

- 2.1.2.1. Nominal input frequency : 60 Hz
- 2.1.2.2. Rated input frequency : 47-63 Hz

2.1.3. AC INPUT CURRENT : MAX 3.0A (RMS) AT 90 VAC

2.1.4. INRUSH CURRENT : Max 60 A Peak at 240 Vac, Max 25 A Peak at 100 Vac

2.1.5. EFFICIENCY : 85% MINIMUM AT FULL LOAD

2.1.6 INPUT LINE FUSE : Internal fuse (5A)

2.2. OUTPUT CHARACTERISTICS

2.2.1. DC OUTPUT

NOMINAL OUTPUT VOLTAGE	LOAD RANGE			OUTPUT REGULATION LIMIT	RIPPLE AND NOISE (Max)
	MIN	TYP	MAX		
5VS	0.1A	1.0A	2.0A	4.95 ~ 5.45 VDC	100mVp-p
5VDD	1.0A	2.0A	5.0A	4.95 ~ 5.45 VDC	100mVp-p
12V	1.0A	2.0A	4.0A	11.4 ~ 12.6 VDC	240mVp-p
24V	0.0A	3.0A	5.5A	22.8 ~ 25.2 VDC	480mVp-p

2.2.1.1. Specified output regulation limit includes load regulation

2.2.1.2. Continuous output shall not exceed total wattage of 111W.

2.2.1.3. Ripple and noise is measured on output connector with 20MHz oscilloscope bandwidth.

2.2.1.4. Ripple and noise is measured with a 10uF Electrolytic capacitor and a 0.1uF Ceramic capacitor between output and ground.

2.2.1.5. Test temperature condition : 0~50 Deg, Ambient

2.2.2 LINE REGULATION : $\pm 1\%$ Measured by varying AC input from 100~240Vac

2.2.3 CROSS REGULATION

NOMINAL OUTPUT VOLTAGE	LOAD RANGE			OUTPUT REGULATION LIMIT	PERCENTAGE (%)
	MIN	TYP	MAX		
5VS	0.1A	1.0A	2.0A	4.95 ~ 5.45 VDC	5%
5VDD	1.0A	2.0A	5.0A	4.95 ~ 5.45 VDC	5%
12V	1.0A	2.0A	4.0A	11.4 ~ 12.6 VDC	5%
24V	2.0A	3.0A	5.5A	22.8 ~ 25.2 VDC	5%

2.2.4 STABILITY : 0.1% Maximun for 8 hours after 1/2 hour warm-up

2.2.5. SHORT CIRCUIT PROTECTION : 5VS, 5VDD Restart

2.2.6. SHORT CIRCUIT PROTECTION : 12V, 24V SHUT DOWN

2.2.7 OVER CURRENT PROTECTION & OVER VOLTAGE PROTECTION

NOMINAL OUTPUT VOLTAGE	OVER CURRENT PROTECTION		OVER VOLTAGE PROTECTION	
	LOAD	SPEC	LOAD	SPEC
5VS	2.0A	-	0.1A	-
5VDD	5.0A	5.0A ~ 10.0A	1.0A	5.6 ~ 6.5V
12V	4.0A	-	1.0A	14.0V ~ 18.0V
24V	5.5A	7.0A ~ 15.0A	2.0A	34.5V ~ 36.5V

2.2.8. OVERSHOOT/UNDERSHOOT : Max 5%

Overshoot/Undershoot due to turn on or turn off at output terminals.

2.2.9. DE-ELECTRIC WITHSTANDING VOLTAGE

2.2.9.1. Primary to Secondary : 3 KVac, 1 Minute

2.2.9.2. Cut-Off Current : 10mA

2.2.10. EMI

2.2.10.1. Shall be designed to meet CLASS B Limit of EN55022.

2.2.10.2. Shall be designed to meet CLASS B Limit of FCC

2.2.11. SAFETY

2.2.11.1. CB

2.3. GENERAL CHARACTERISTICS

2.3.1. OPERATING TEMPERATURE RANGE : 0 TO 40'C

2.3.2. OPERATING HUMIDITY : 5 TO 90% RH (Non-Condensing)

2.3.3. STORAGE TEMPERATURE : -10'C TO 85'C

2.3.4. STORAGE HUMIDITY : -10'C TO 85'C, 20 TO 90 % RH

2.4 Lightning Surge Test

2.4.1. Common Mode Minimum : 3KV pass

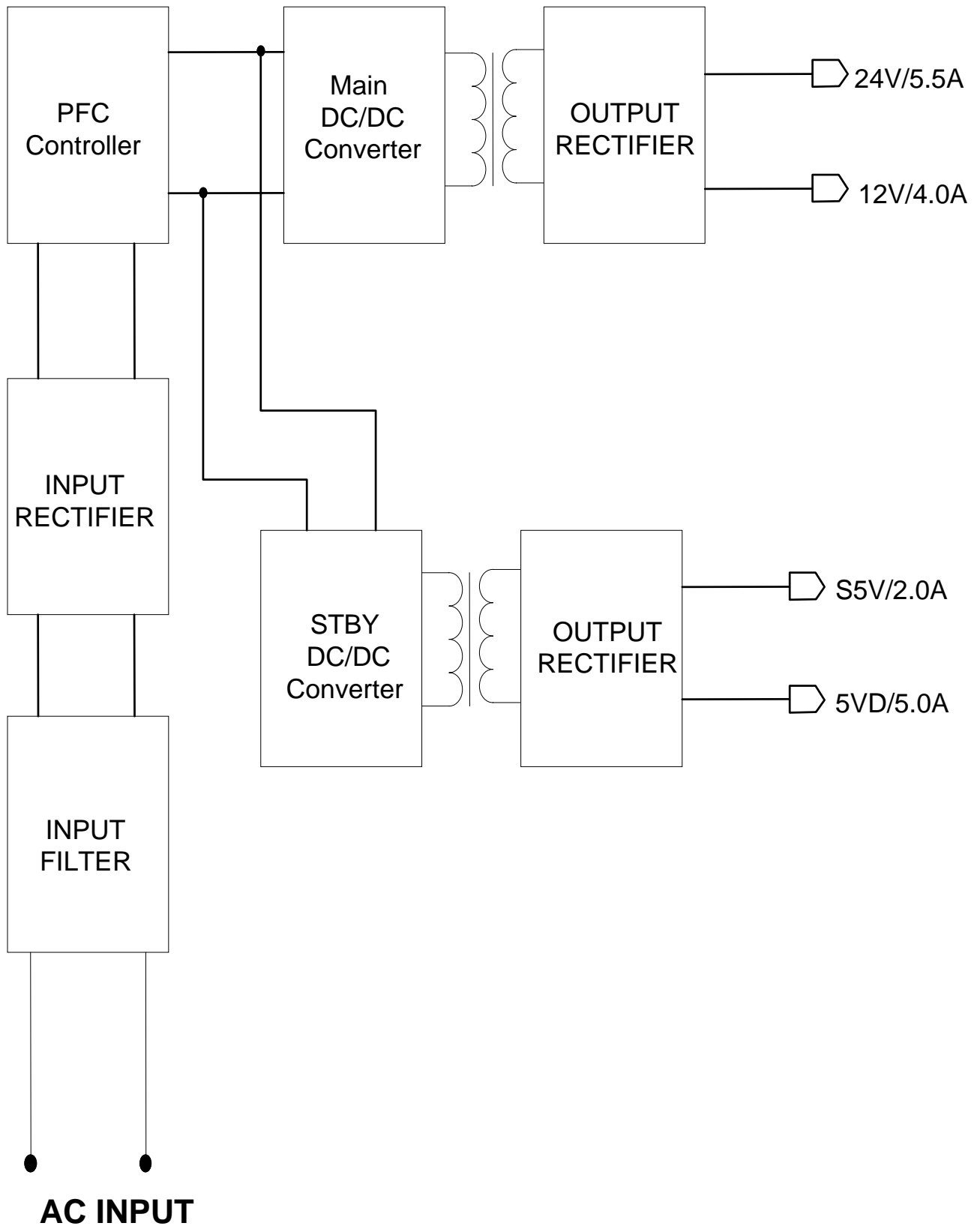
2.4.2. Normal Mode Minimum : 1.5KV pass

3. MECHANICAL CHARACTERISTICS

3.1. SIZE (OVERALL) : Width - 210mm
Length - 130mm
Height - 28mm
(From bottom surface of PCB)

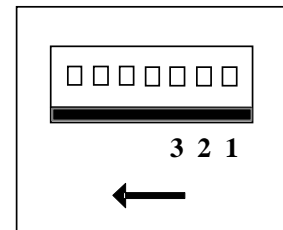
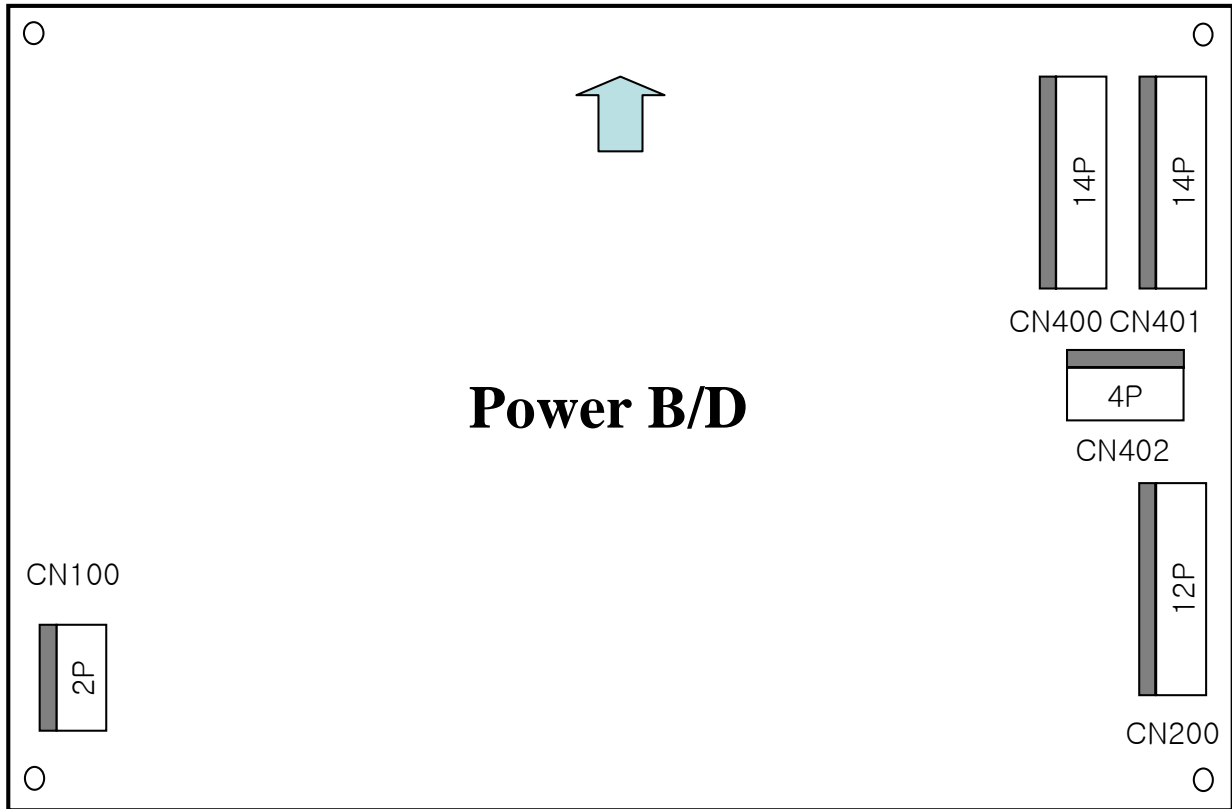
3.2 WEIGHT : 660g

2. BLOCK DIAGRAM



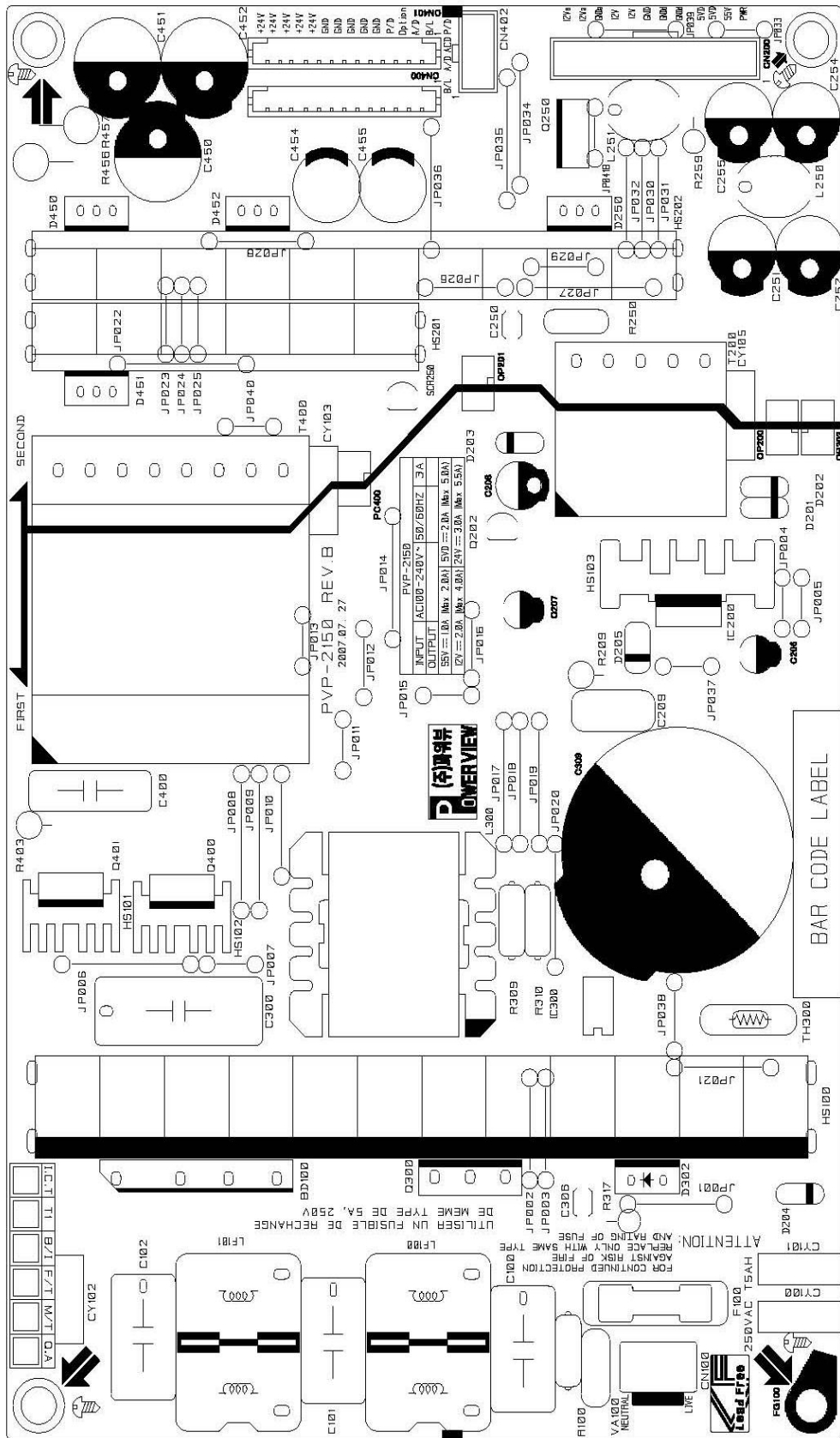
3. PCB LAYOUT

1) Pin Assignment & Wafer Specification



PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	DESCRIPTION
CN100	AC(L)	NC	AC(N)												YM396-03AV
CN200	PWR	S5V	5VD	5VD	GNDd	GNDd	GND	12V	12V	GNDa	12Va	12Va			SMW250-12P
CN400	B/L	A/D	OPT	P/D	GND	GND	GND	GND	GND	24V	24V	24V	24V	24V	20010WS-14P
CN401	B/L	A/D	OPT	P/D	GND	GND	GND	GND	GND	24V	24V	24V	24V	24V	20010WS-14P
CN402	B/L	A/D	ACD	P/D											SMW250-04P

3) TOP SILK



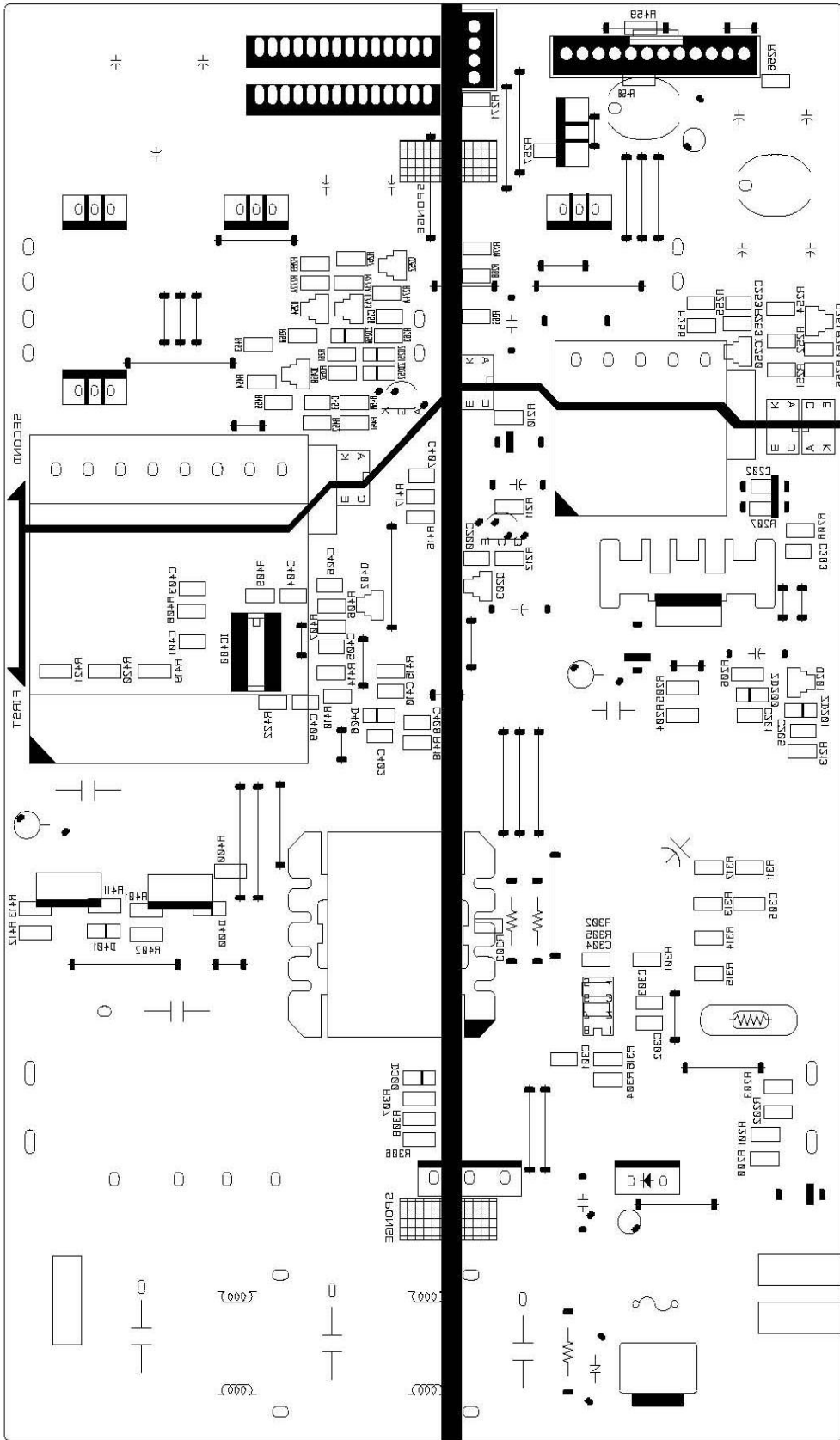
PVP-2150



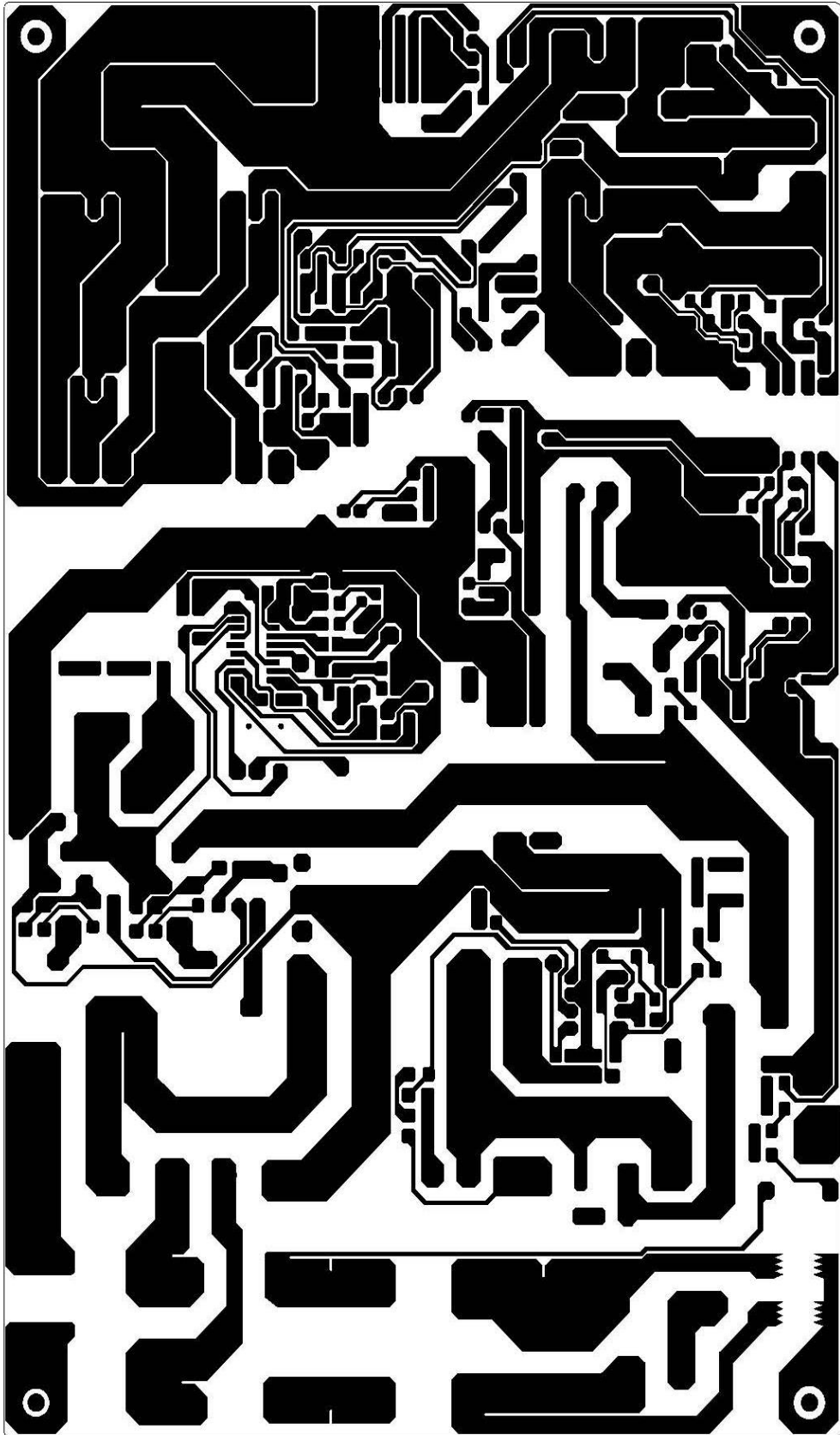
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4) BOTTOM SILK



5) BOTTOM PATTERN



4. TEST SHEET

출하검사 전기적 측정 DATA

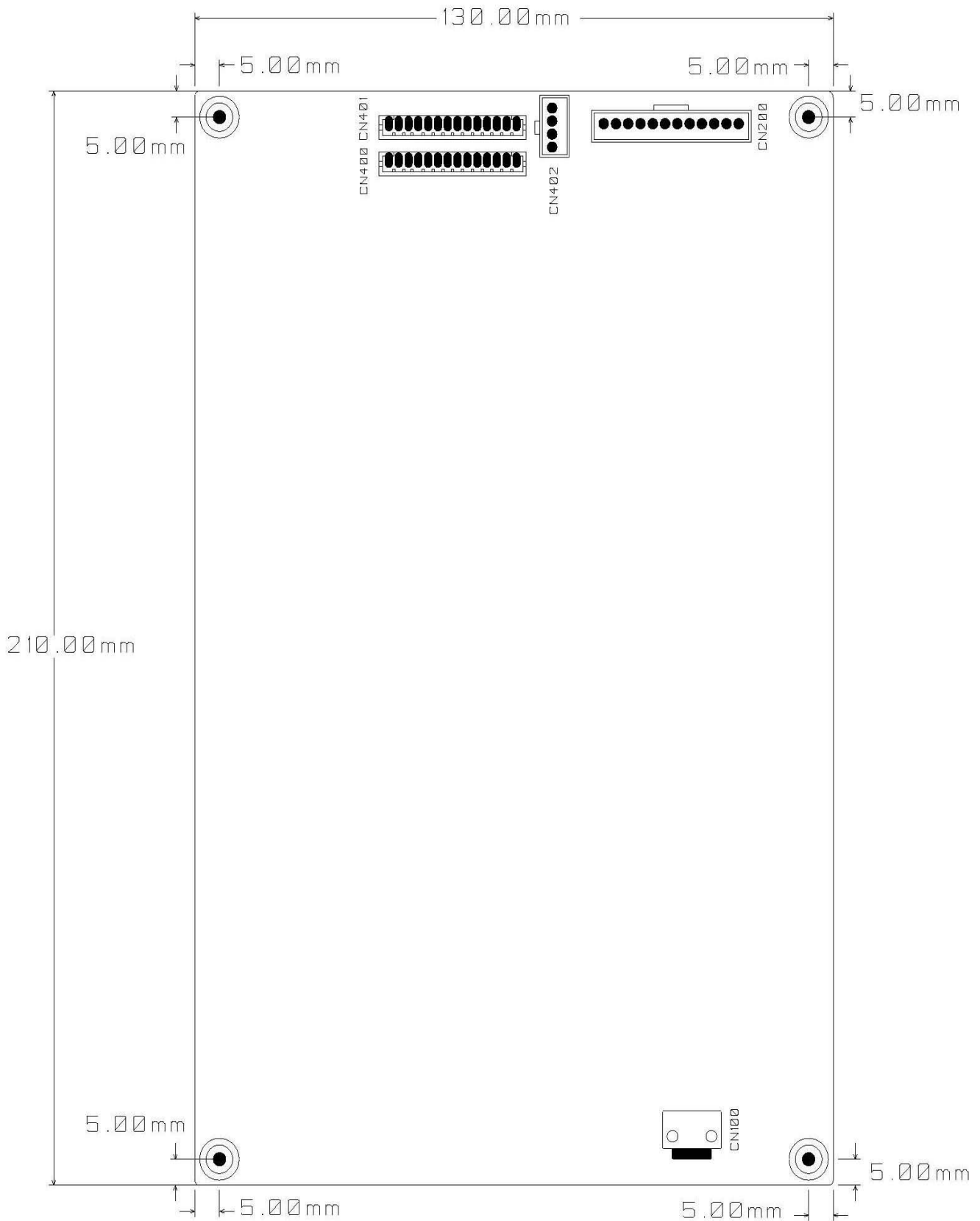
Measurement Item	Output Voltage[Vdc]	Output Current[A]	SPEC	측정DATA																
Output_Voltage	5Vst	2.0	4.95V~5.45V																	
	5VD	5.0	4.95V~5.45V																	
	12V	4.0	11.2V~12.6V																	
	24V	5.5	22.8V~25.2V																	
Max. Load (90V, 60Hz)	5Vst	2.0	4.95V~5.45V																	
	5VD	5.0	4.95V~5.45V																	
	12V	4.0	11.2V~12.6V																	
	24V	5.5	22.8V~25.2V																	
	Power Factor	PF	90.0%~100%																	
Max. Load (264V, 60Hz)	5Vst	2.0	4.95V~5.45V																	
	5VD	5.0	4.95V~5.45V																	
	12V	4.0	11.2V~12.6V																	
	24V	5.5	22.8V~25.2V																	
	Power Factor	PF	90.0%~100%																	
Load_Regulation/Min_load	5Vst	0.1	4.95V~5.45V																	
	5VD	1.0	4.95V~5.45V																	
	12V	1.0	11.2V~12.6V																	
	24V	0.0	22.8V~25.2V																	
Load_Regulation/Max_load	5Vst	2.0	4.95V~5.45V																	
	5VD	5.0	4.95V~5.45V																	
	12V	4.0	11.2V~12.6V																	
	24V	5.5	22.8V~25.2V																	
Cross_Regulation/1	5Vst	2.0	4.95V~5.45V																	
	5VD	5.0	4.95V~5.45V																	
	12V	4.0	11.2V~12.6V																	
	24V	2.0	22.8V~25.2V																	
Cross_Regulation/2	5Vst	2.0	4.95V~5.45V																	
	5VD	5.0	4.95V~5.45V																	
	12V	1.0	11.2V~12.6V																	
	24V	5.5	22.8V~25.2V																	
Cross_Regulation/3	5Vst	2.0	4.95V~5.45V																	
	5VD	1.0	4.95V~5.45V																	
	12V	4.0	11.2V~12.6V																	
	24V	5.5	22.8V~25.2V																	
Cross_Regulation/4	5Vst	0.1	4.95V~5.45V																	
	5VD	5.0	4.95V~5.45V																	
	12V	4.0	11.2V~12.6V																	
	24V	2.0	22.8V~25.2V																	

출하검사 전기적 측정 DATA

Measurement Item	Output Voltage[Vdc]	Output Current[A]	SPEC	측정DATA									
Cross_Regulation/5	5Vst	0.1	4.95V~5.45V										
	5VD	1.0	4.95V~5.45V										
	12V	1.0	11.2V~12.6V										
	24V	5.5	22.8V~25.2V										
Cross_Regulation/6	5Vst	0.1	4.95V~5.45V										
	5VD	1.0	4.95V~5.45V										
	12V	4.0	11.2V~12.6V										
	24V	2.0	22.8V~25.2V										
Cross_Regulation/7	5Vst	0.1	4.95V~5.45V										
	5VD	5.0	4.95V~5.45V										
	12V	1.0	11.2V~12.6V										
	24V	2.0	22.8V~25.2V										
Cross_Regulation/8	5Vst	2.0	4.95V~5.45V										
	5VD	1.0	4.95V~5.45V										
	12V	1.0	11.2V~12.6V										
	24V	2.0	22.8V~25.2V										
Short_Test/5Vst	5Vst	2.0	~3V										
	5VD	5.0	~6V										
	12V	4.0	~13V										
	24V	5.5	~25V										
Short_Test/Disable	5Vst	2.0	4.95V~5.45V										
	5VD	5.0	4.95V~5.45V										
	12V	4.0	11.2V~12.6V										
	24V	5.5	22.8V~25.2V										
Short_Test/12V	5Vst	2.0	~6V										
	5VD	5.0	~6V										
	12V	4.0	~13V										
	24V	5.5	~12V										
Short_Test/Disable	5Vst	2.0	4.95V~5.45V										
	5VD	5.0	4.95V~5.45V										
	12V	4.0	11.2V~12.6V										
	24V	5.5	22.8V~25.2V										
5VD OCP	5VD		5A~10A										
24V OCP	24V		7A~15A										

5. MECHANICAL DIAGRAM

PSU Assembly dimension : 210(W)mm * 130(L) mm * 28(H)mm



PVP-2150



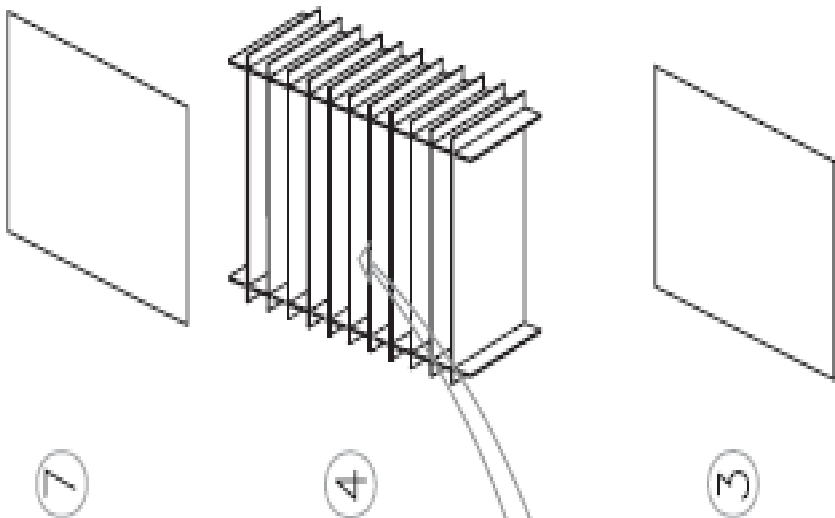
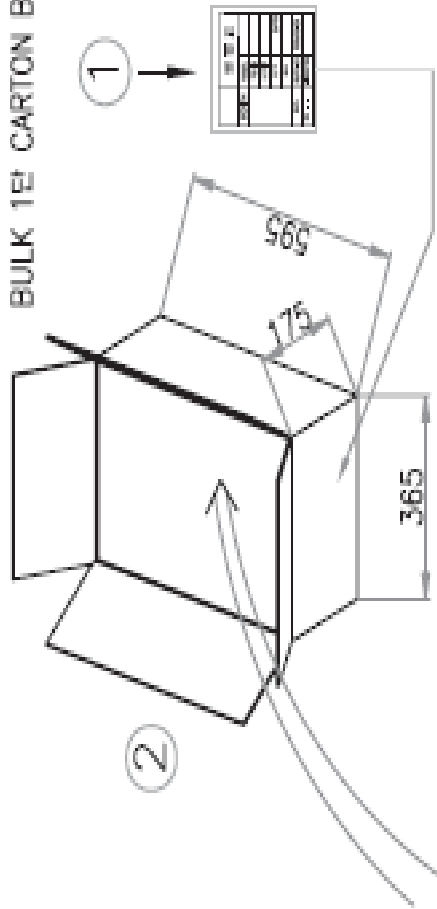
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6. PACKING DRAWING

번호	적용일시	변경내역	변경사유	작성일자
1	-			
2	-			

BULK 1단 CARTON BOX포장



NO	DESCRIPTION	MATERIAL	Q'TY
7	PAD	S/W(5t±1) 265X595	1/10
6	POWER SUPPLY	PVP-2150	10/10
5	BUBBLE BAG	280x240	10/10
4	BULK	SHEET 2/4합조	
3	PAD	S/W(5t±1) 365X595	1/10
2	CARTON BOX	D/W(5t±2) 365X595X175	1/10
1	물품포		1/10

NO.	ITEM	MAT	Q'TY	UNIT	DRAWING NO.	REMARKS
-----	------	-----	------	------	-------------	---------

Designed by	Checked by	Approved by	-			
07.05.18	07.05.18	07.05.18	-			
S.CH.BYUN	CH.G.JEONG	N.S.KIM	-			
			SCALE	n/s	-	
			UNIT	mm	-	
			ANGLE	3rd	-	
					품명	PVP-2150 포장 방법
					모델	PACKING
					품번	참고도면
					도번	참고도면
					Sheet	Rev.
					4/4	A

A4(297 x 210)

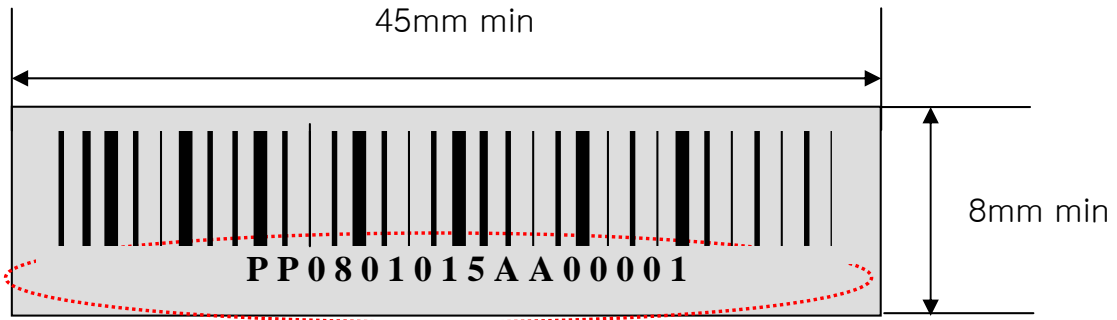
7. WORKMANSHIP CHECK

1) Lead Cutting :
: PCB면으로부터 2.0mm 이내

2) SPONGE A'SSY 부착
: 도면 별첨

3) INSULATOR 부착
: 도면 별첨

1) SERIAL NUMBER LABEL 부착 위치



PP0801015AA00001

일련 번호 : 00001,00002,...

제품 REV : AA,AB,AC, ...

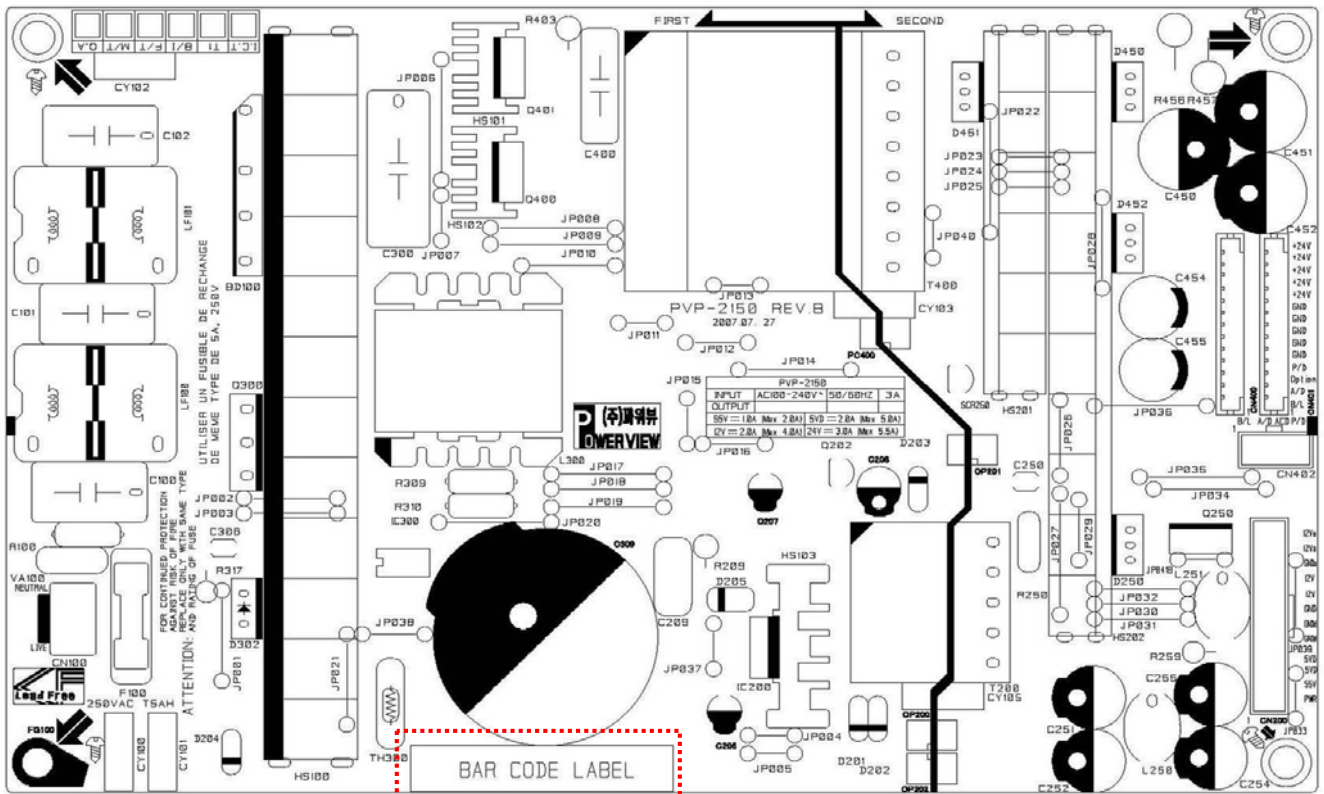
MODEL NO.: 015: PVP-2150

제조주차: 01 : 1주차

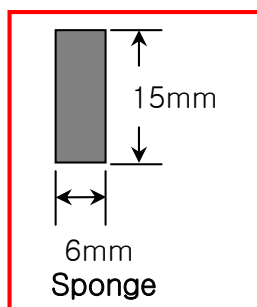
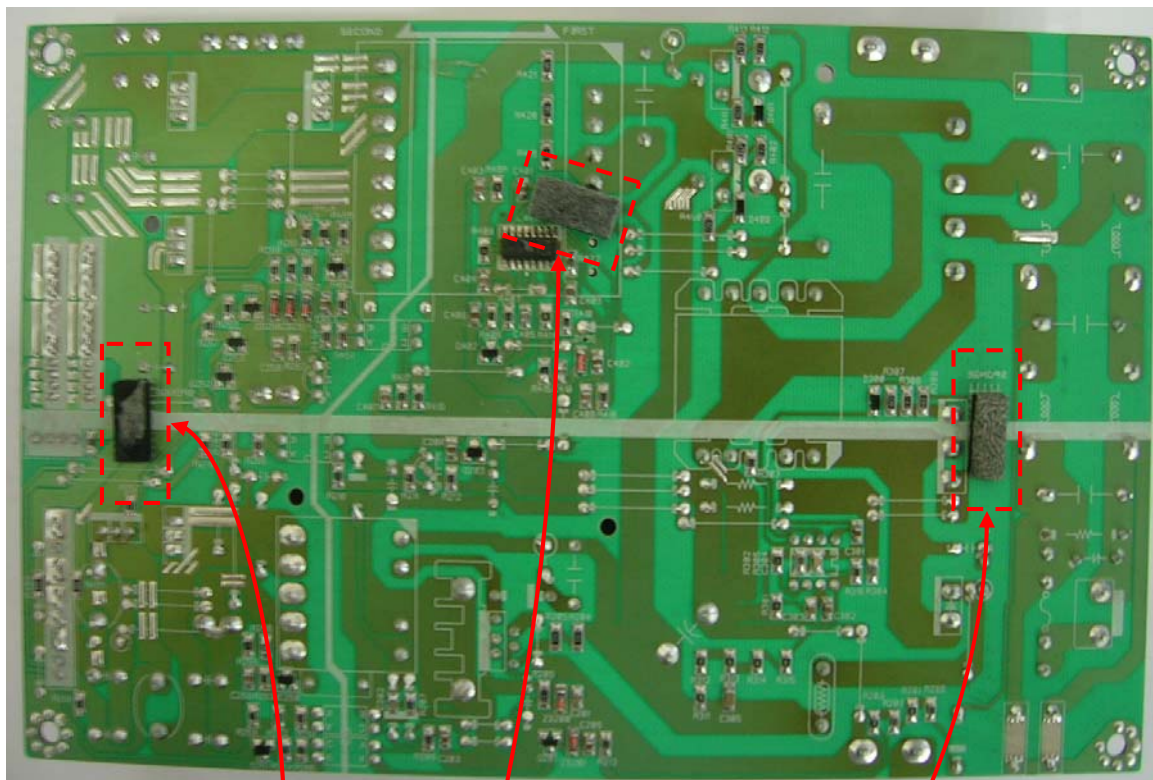
제조년도: 08 : 2008년

Model : P: Power Board

Vendor : P: Power View



2) SPONGE A'SSY 부착

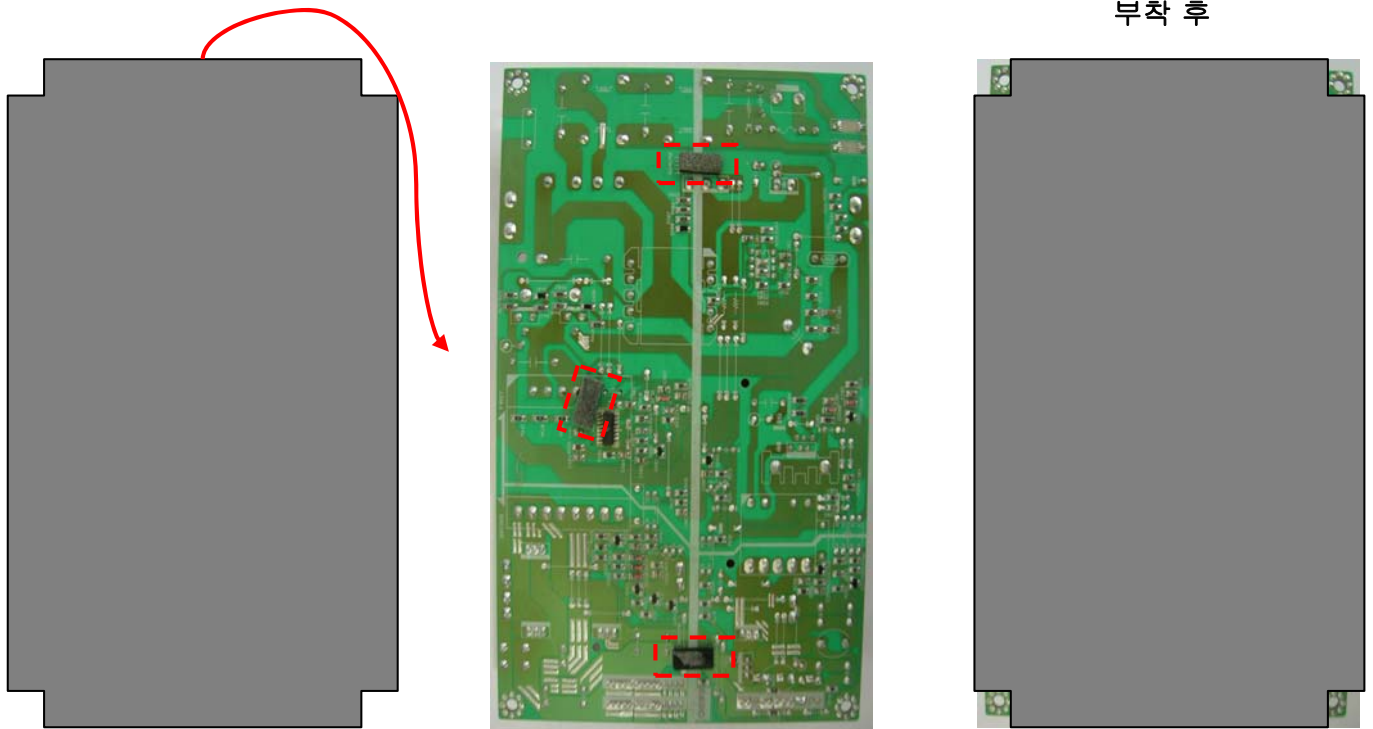


3) INSULATOR 부착

- Sponge A'ssy 부착 후 Insulator 부착



부착



부착 후