

Scanning	LIB.

## SPECIFICATION FOR APPROVAL

• CUSTOMER	:
• ITEM	: Power Supply Unit.
• DESCRIPTION	: 42 Inch LCD Power Supply Unit
• CUSTOMER P/NO	:
• SUPPLIER P/NO	: PVP-2420
• DATE	: 2009-06-01

<u>CUSTOMER'S APPROVED</u>		* REV NO: 1.2			
APPROVED					
2009. 06. 01					
MODEL	42 Inch LCD TV				
DESC	Power Supply Unit				
PART NO					
EN'GR	CHKD				APPD
		REMARK			

MAKER : POWERVIEW Co.,Ltd.

TEL : 82-32-675-7676

FAX : 82-32-675-3223

# DOCUMENTATION FOR APPROVAL

Product	42" LCD Power Supply Unit
Model Name	PVP-2420
Customer P/NO	

Written	Checked	Checked	Approved



# C O N T E N T S

1. SPECIFICATION

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2. BLOCK DIAGRAM

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3. P.C.B LAYOUT

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4. MECHANICAL DIAGRAM

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# 1. SPECIFICATION

# PVP-2420 SPECIFICATION

## ( 242 WATTS SWITCHING MODE POWER SUPPLY )

### 1. STANDARD FEATURES

- \* OPEN FRAME SWITCHING MODE POWER SUPPLY
- \* UNIVERSAL AC INPUT VOLTAGE
- \* 5VS/1.2A, 5VDD/4A, 12V/2A, 24V/8A  
REGULATED OUTPUTS
- \* SHORT CIRCUIT PROTECTION
- \* DESIGN TO MEET EN60950
- \* 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 4.0 A (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 (8.0A)

## 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	1.2A	1.5A	4.75 ~ 5.46 VDC	100mVp-p
5VD	1.0A	4.0A	5.0A	4.75 ~ 5.46 VDC	100mVp-p
12V	1A	2.0A	4.0A	11.4 ~ 12.6 VDC	240mVp-p
24V	0A	8.0A	10.0A	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 242W.

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 0.1F 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	1.2A	1.5A	4.75 ~ 5.46 VDC	5%
5VD	1.0A	4.0A	5.0A	4.75 ~ 5.46 VDC	5%
12V	1.0A	2.0A	4.0A	11.4 ~ 12.6 VDC	5%
24V	2.0A	8.0A	10A	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	1.2A	4.5A ~ 7.5A	0.1A	-
5VD	4A	-	1.0A	5.6V ~ 6.5V
12V	2A	-	1.0A	14.0V ~ 18.0V
24V	8A	14A ~ 18.0A	2.0A	27.5V ~ 29.5V

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

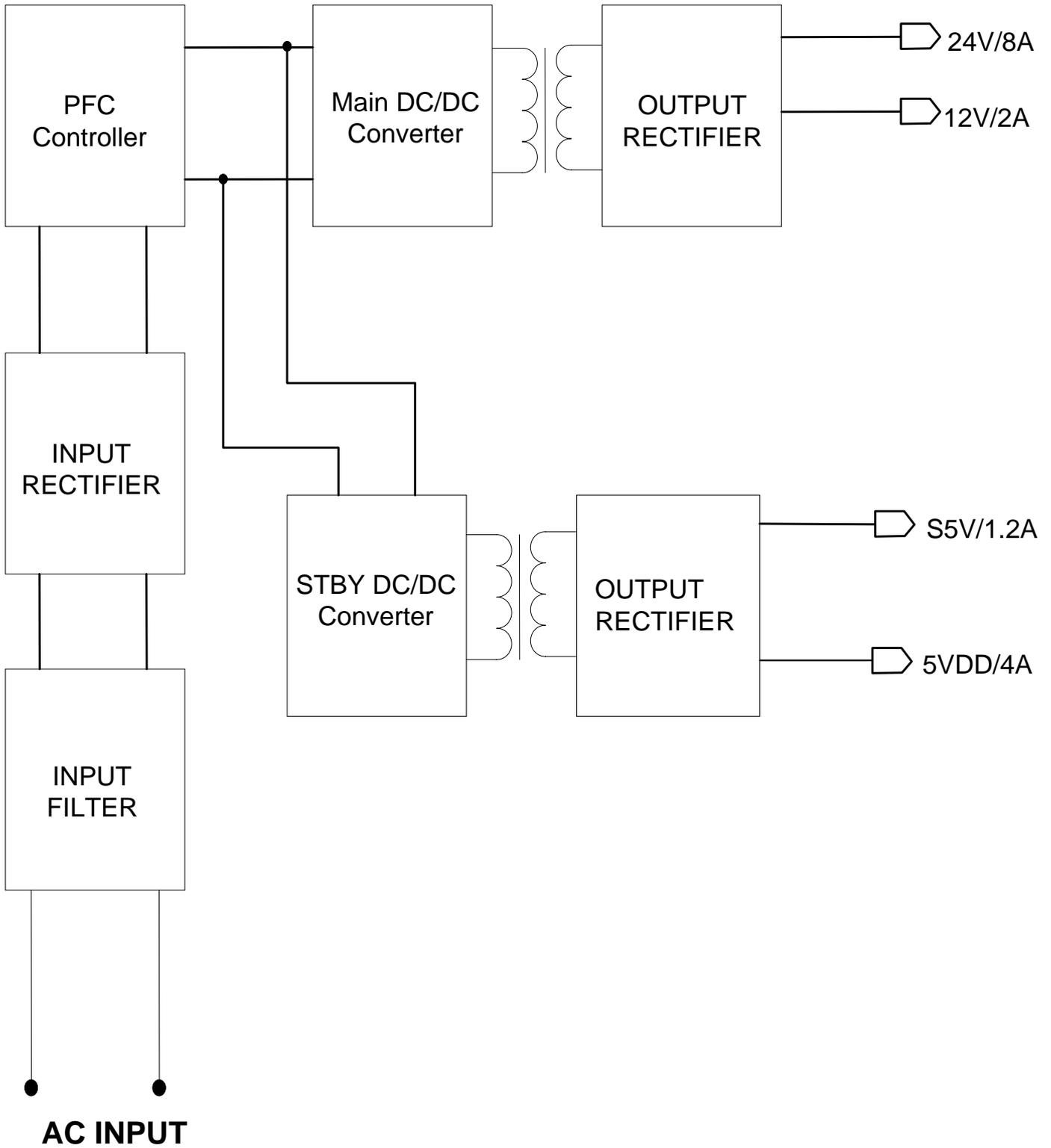
2.4.2. Normal Mode Minimum : 1.5KV pass

3. MECHANICAL CHARACTERISTICS

3.1. SIZE (OVERALL) : Width - 251mm  
Length - 158mm  
Height - 35mm  
(From bottom surface of PCB)

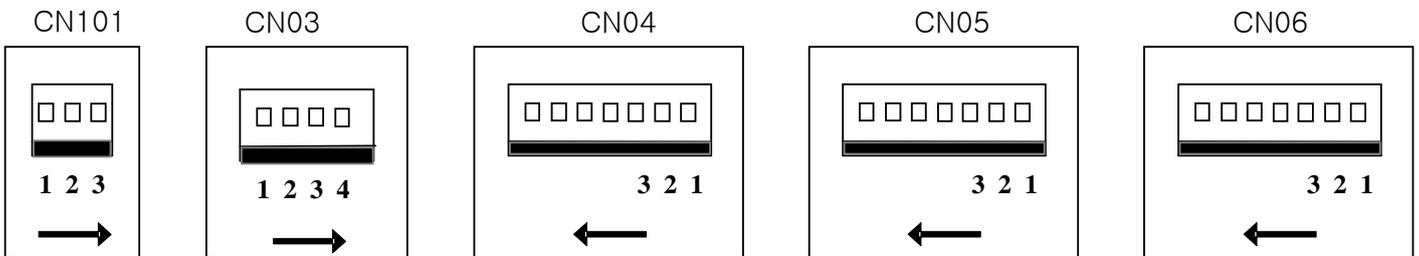
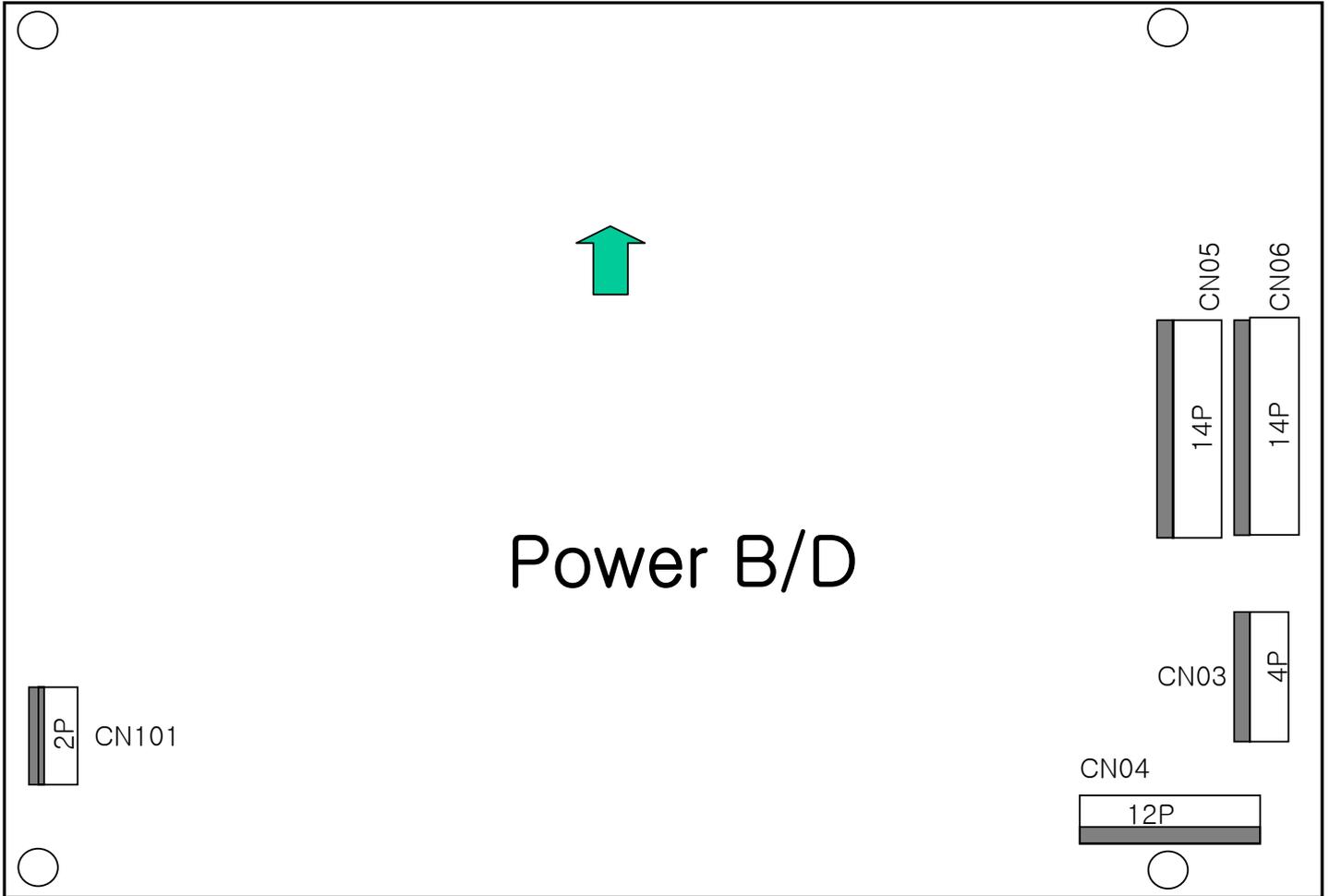
3.2 WEIGHT : 800g

## 2. BLOCK DIAGRAM



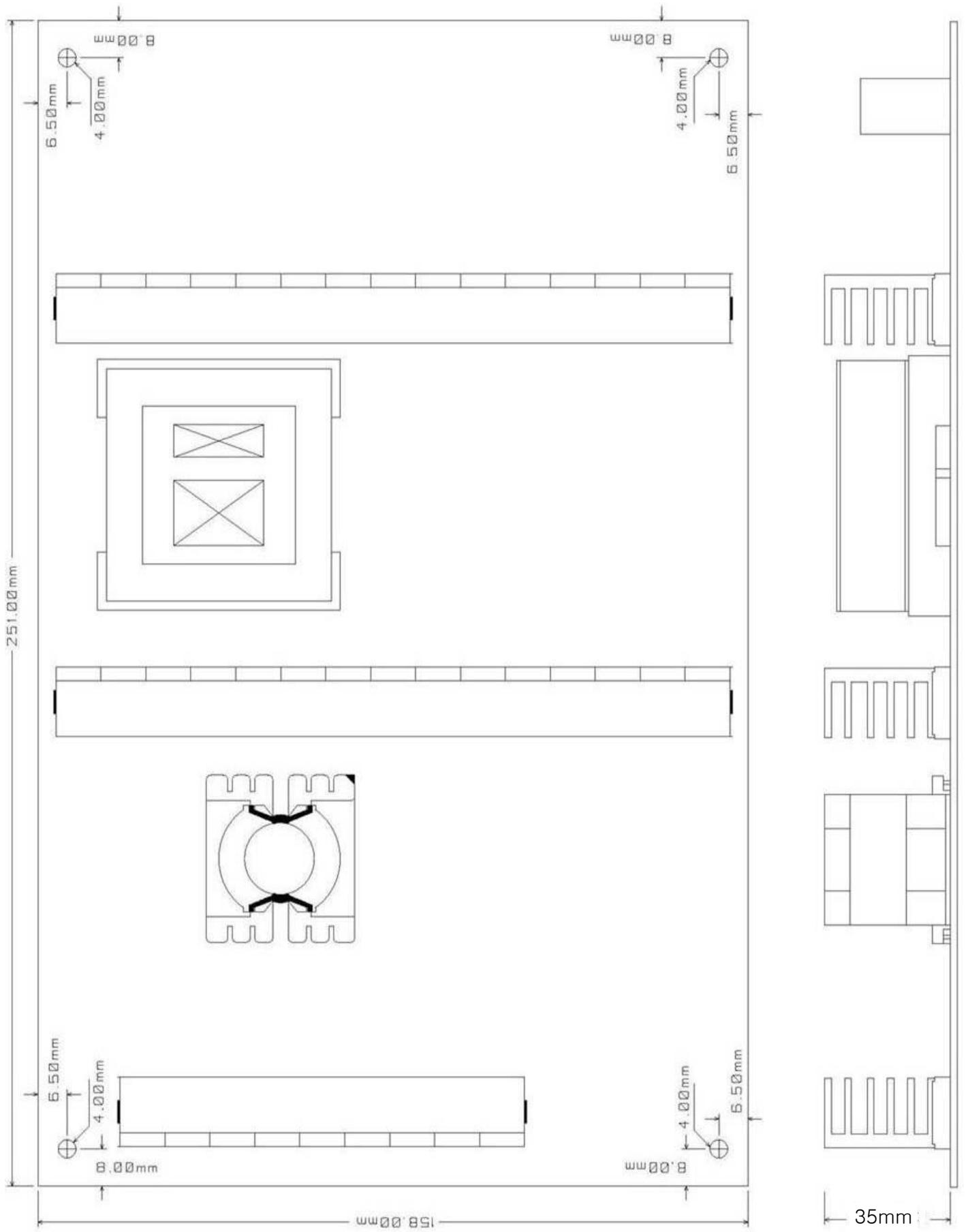
# 3. PCB LAYOUT

# 1) CONNECTOR PIN ASSIGN



PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	DESCRIPTION
CN101	AC(L)	NC	AC(N)												YW396-03AV
CN05	B/L	A/D	N C	OPT	GND	GND	GND	GND	GND	24V	24V	24V	24V	24V	20010WS-14P
CN06	B/L	A/D	N C	OPT	GND	GND	GND	GND	GND	24V	24V	24V	24V	24V	20010WS-14P
CN03	B/L	A/D	ACD	OPTION											SMW250-04P
CN04	DPM	S5V	5Vd	5Vd	GNDd	GNDd	GND	12V	12V	GNDa	12Va	12Va			SMW250-12P

# 4. MECHANICAL DIAGRAM



PVP-2420



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# 5. PACKING DRAWING

PVP-2420

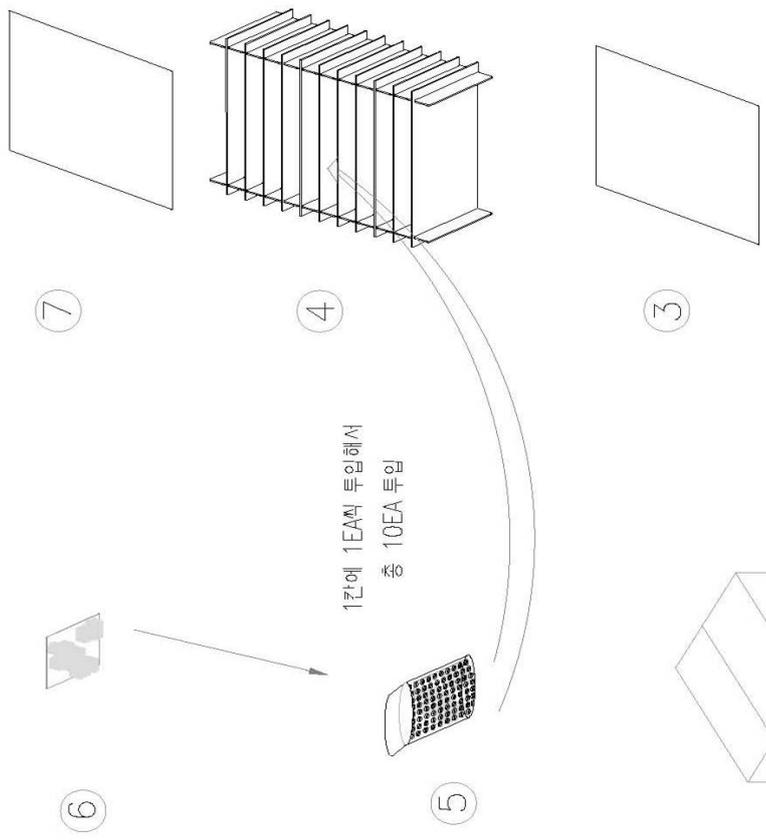
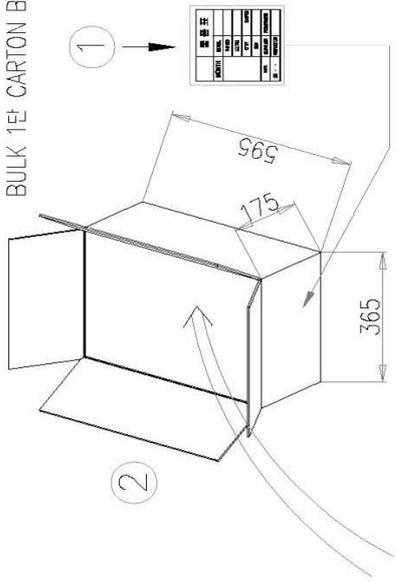


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번호	적용일시	변경내역	변경사유	작성일자
1	-			
2	-			

BULK 1단 CARTON BOX포장



1간에 1EA씩 투입해서  
총 10EA 투입

NO	DESCRIPTION	MATERIAL	Q'TY
7	PAD	S/W(5t±1) 265X595	1/10
6	POWER SUPPLY	PVP-2420	10/10
5	BUBBLE BAG	280x240	10/10
4	BULK	SHEET 2/4참조	
3	PAD	S/W(5t±1) 365X595	1/10
2	CARTON BOX	D/W(5t±2) 365X595X175	1/10
1	물품표		1/10

NO.	ITEM	MAT	Q'TY	UNIT	DRAWING NO.	REMARKS
Designed by	07.05.18	07.05.18	07.05.18	MAT.	-	품명 PVP-2420 포장 방법
Checked by	07.05.18	07.05.18	07.05.18	FINISH	-	모델 PACKING
Approved by	07.05.18	07.05.18	07.05.18	SCALE	n/s	품번 참고도면
S.CH.BYUN	CH.G.JEONG	CH.G.JEONG	N.S.KIM	UNIT	mm	도번 참고도면
				ANGLE	3rd	Sheet Rev.
						4/4 A

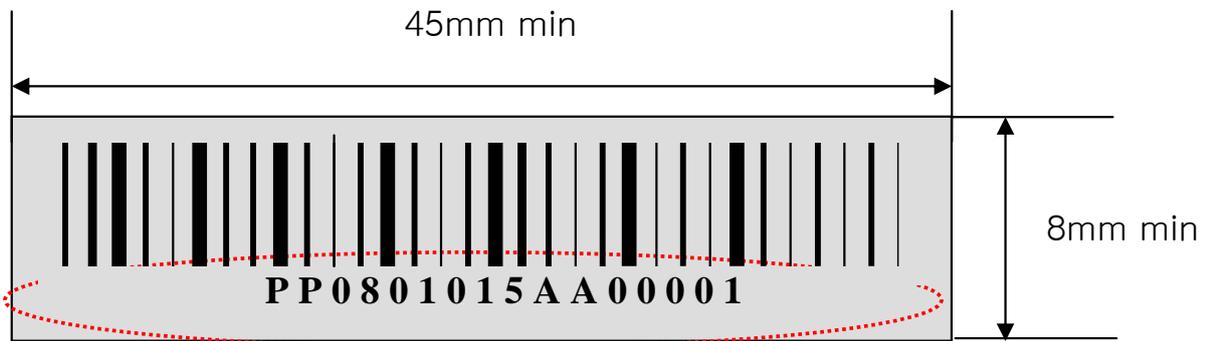
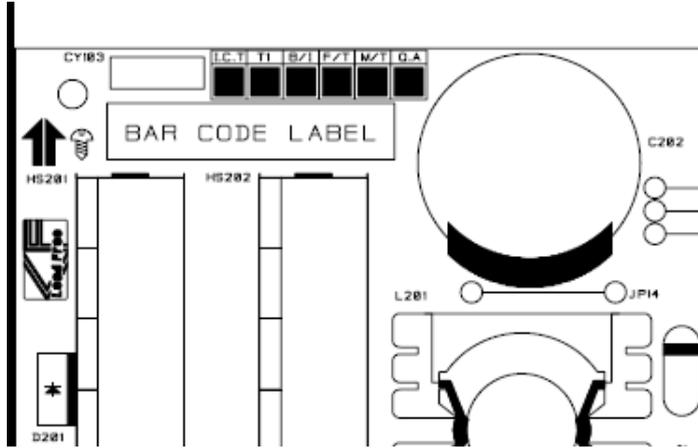
포장 완료 상태

A4(297 x 210)

# 6. WORKMANSHIP CHECK

1) Lead Cutting :  
: PCB면으로부터 2.0mm 이내

2) Label Point



**PP0801015AA00001**

일련 번호 :	00001,00002,...
제품 REV :	AA,AB,AC, ...
MODEL NO.:	014: PVP-2420
제조주차 :	01 : 1주차
제조년도 :	08 : 2008년
Model :	P: Power Board
Vendor :	P: Power View