

Scanning	LIB.

## SPECIFICATION FOR APPROVAL

• CUSTOMER	:
• ITEM	: Power Supply Unit.
• DESCRIPTION	: 52 Inch LCD Power Supply Unit
• CUSTOMER P/NO	:
• SUPPLIER P/NO	: PVP-3680
• DATE	: 2009-08-24

<u>CUSTOMER'S APPROVED</u>		* REV NO: 1.1			
APPROVED					
2009. .					
MODEL	52 Inch LCD TV				
DESC	Power Supply Unit				
PART NO					
EN'GR	CHKD	APPD	CUIT	MECH	SAFETY
		REMARK			


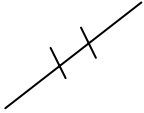


MAKER : POWERVIEW Co.,Ltd.

TEL : 82-32-675-7676

FAX : 82-32-2026-3223

# DOCUMENTATION FOR APPROVAL

Product	52" LCD Power Supply Unit
Model Name	PVP-3680
P/No.	

Written	Checked	Checked	Approved
			

PVP-3680	 (주)파워뷰 POWER VIEW	CONTENTS	A
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# 1. SPECIFICATION

PVP-3680



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# PVP-3680 SPECIFICATION

## ( 356 WATTS SWITCHING MODE POWER SUPPLY )

### 1. STANDARD FEATURES

- \* OPEN FRAME SWITCHING MODE POWER SUPPLY
- \* UNIVERSAL AC INPUT VOLTAGE
- \* 5.2VS/1A, 5.2VD/1.0A, 3.4V/2.8A, 2.8V/1.6A, 6VD/0.8A, 12V/3.0A, 24V/12.5A  
33V/0.02A REGULATED OUTPUTS  
(If 3.4V and 2.8V are not used, the current of 5.2VD increases by 4A.)
- \* 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 : 50/60 Hz
- 2.1.2.2. Rated input frequency : 47-63 Hz

2.1.3. AC INPUT CURRENT : MAX 5A (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)

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## 2.2. OUTPUT CHARACTERISTICS

### 2.2.1. DC OUTPUT

NOMINAL OUTPUT VOLTAGE	LOAD RANGE			OUTPUT REGULATION LIMIT	RIPPLE AND NOISE (Max)
	MIN	TYP	MAX		
5.2VS	0.01A	1.0A	1.0A	4.99V ~ 5.51V	100mVp-p
5.2VD	0A	1.0A	1.0A	4.99V ~ 5.51V	100mVp-p
2.8V	0A	1.6A	1.6A	2.66V ~ 2.94V	60mVp-p
3.4V	0A	2.8A	2.8A	3.23V ~ 3.57V	70mVp-p
12V	0.5A	2.0A	3A	11.4V ~ 12.6V	240mVp-p
6VD	0A	0.8A	0.8A	5.7V ~ 6.3V	120mVp-p
33V	0A	0.02A	0.02A	31.35V ~ 34.65V	500mVp-p
24V	0.1A	12.5A	15A	22.8V ~ 25.2V	480mVp-p

\* If 3.4V and 2.8V are not used, the Current of 5.2VD increases by 4A.

2.2.1.1. Specified output regulation limit includes load regulation

2.2.1.2. Continuous output shall not exceed total wattage of 356W.

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 :  $\pm 2\%$  Measured by varying AC input from 100~240Vac

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### 2.2.3 CROSS REGULATION

NOMINAL OUTPUT VOLTAGE	LOAD RANGE			OUTPUT REGULATION LIMIT	RIPPLE AND NOISE (Max)
	MIN	TYP	MAX		
5.2VS	0.01A	1.0A	1.0A	4.99V ~ 5.51V	100mVp-p
5.2VD	0A	1.0A	1.0A	4.99V ~ 5.51V	100mVp-p
2.8V	0A	1.6A	1.6A	2.66V ~ 2.94V	60mVp-p
3.4V	0A	2.8A	2.8A	3.325V ~ 3.675V	70mVp-p
12V	0.5A	2.0A	3A	11.4V ~ 12.6V	240mVp-p
6VD	0A	0.8A	0.8A	5.7V ~ 6.3V	120mVp-p
33V	0A	0.02A	0.02A	31.35V ~ 34.65V	500mVp-p
24V	0.1A	12.5A	15A	22.8V ~ 25.2V	480mVp-p

\* If 3.4V and 2.8V are not used, the Current of 5.2VD increases by 4A.

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

2.2.5. SHORT CIRCUIT PROTECTION

2.2.6 OVER CURRENT PROTECTION & OVER VOLTAGE PROTECTION

NOMINAL OUTPUT VOLTAGE	OVER CURRENT PROTECTION		OVER VOLTAGE PROTECTION	
	LOAD	SPEC	LOAD	SPEC
5.2VS	1.0A	4.5A ~ 7.5A	0A	7V ~ 9V
5.2VD	1.0A		0A	
2.8V	1.6A		0A	
3.4V	2.8A	3.5A	0A	
12V	3A	8A ~ 12A	0.5A	14V ~ 18V
6VD	0.8A		0A	
33V	0.02A		0A	
24V	12.5A	17A ~ 20A	1A	27V ~ 30V

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2.2.7. OVERSHOOT/UNDERSHOOT : Max 5%

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

2.2.8. DE-ELECTRIC WITHSTANDING VOLTAGE

2.2.8.1. Primary to Secondary : 3 KVac, 1 Minute

2.2.8.2. Cut-Off Current : 10mA

2.2.9. EMI

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

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

2.2.10. SAFETY

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 - 280mm  
Length - 160mm  
Height - 40mm  
(From bottom surface of PCB)

3.2 WEIGHT : 800g

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CONTENTS

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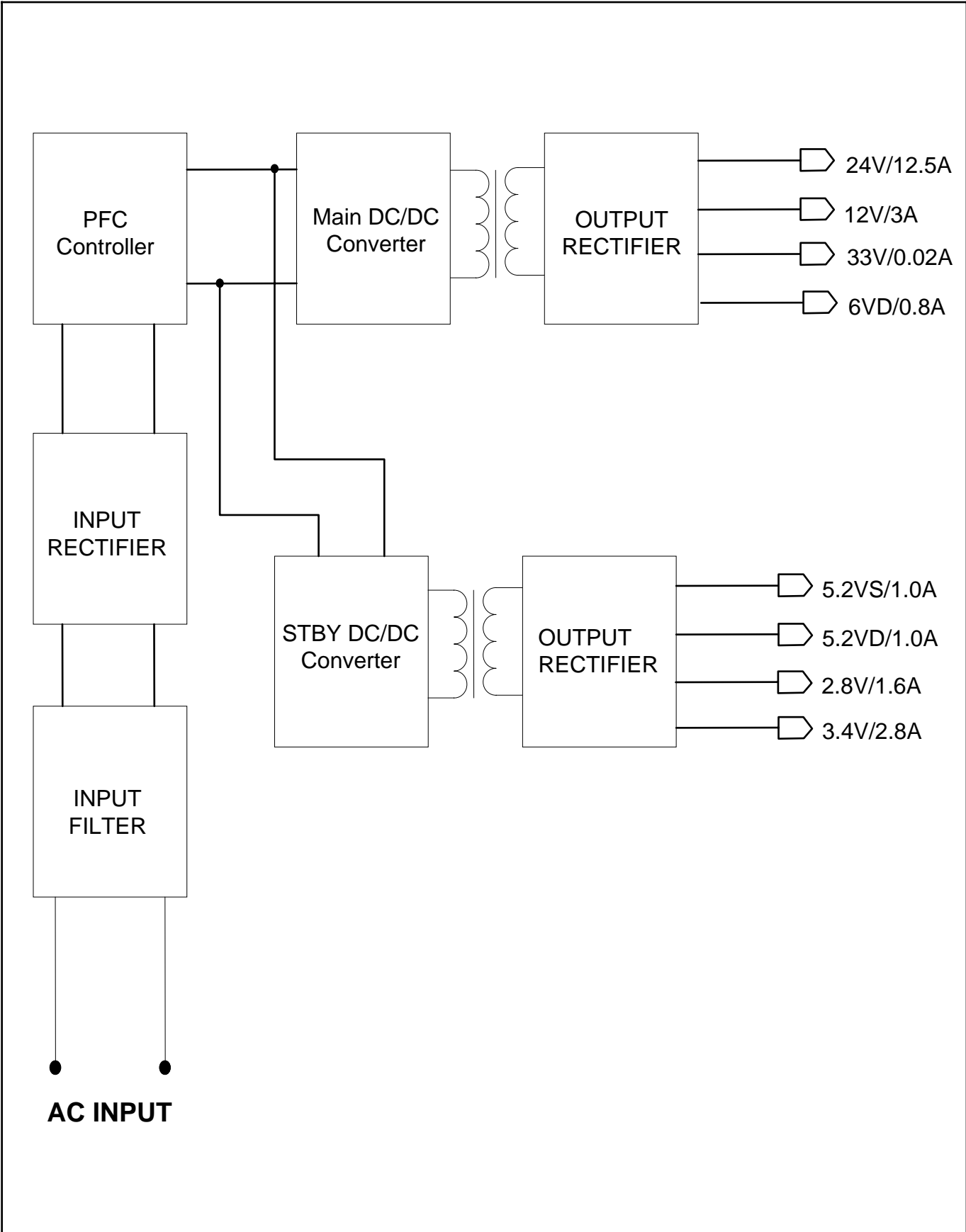
## 2. BLOCK DIAGRAM

PVP-3680



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# 3. SCHEMATIC DIAGRAM

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# 4. PART LIST

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# 5. PCB LAYOUT

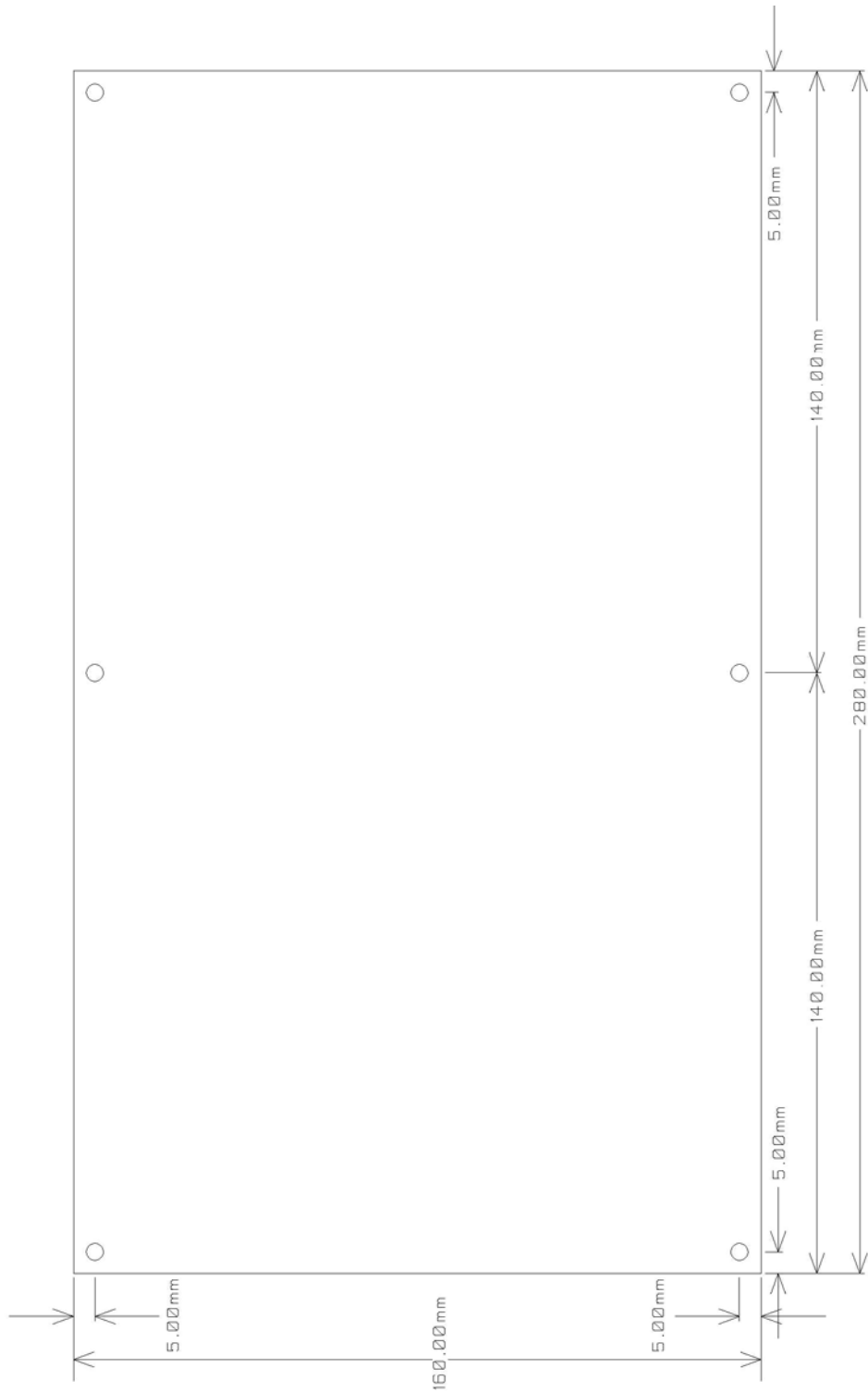
PVP-3680



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PSU Assembly dimension : 280(W)mm \* 160(L) mm \* 40(H)mm



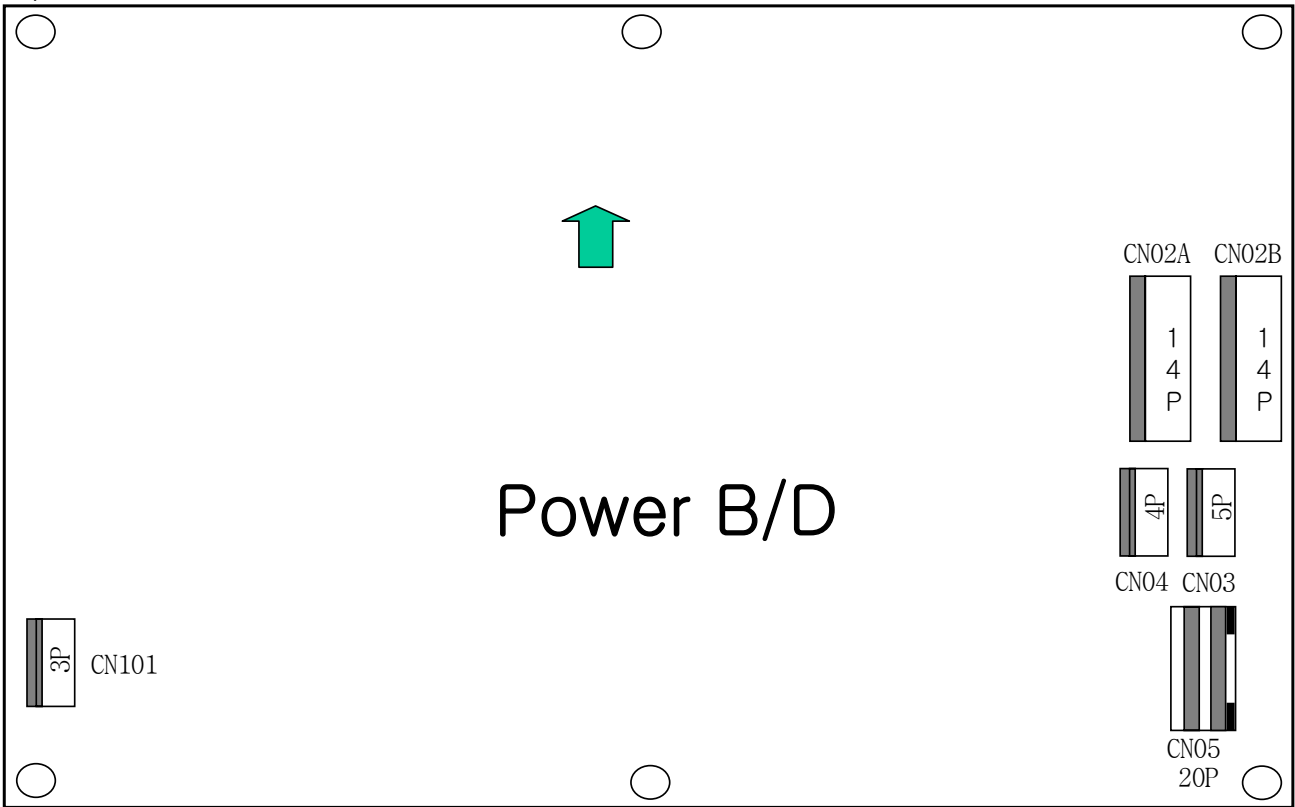
PVP-3680



CONTENTS

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# 1) CONNECTOR PIN ASSIGN



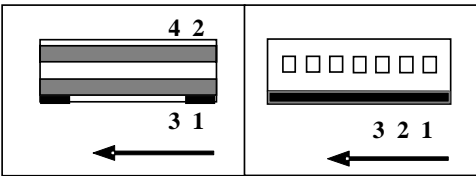
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Pin No.	Output name
1	DIM
2	PWM
3	BON
4	ADM
5	GND
6	GND
7	GND
8	GND
9	GND
10	24V
11	24V
12	24V
13	24V
14	24V

CN05 SMW200-20C			
Pin No.	Output name	Pin No.	Output name
1	NC	2	NC
3	GND	4	5.2VS
5	+12V	6	+12V
7	GND	8	GND
9	5.2VD	10	5.2VD
11	GND	12	GND
13	3.4V	14	3.4V
15	GND	16	GND
17	2.8V	18	2.8V
19	GND	20	P/ON

CN03 SMW250-05P	
Pin No.	Output name
1	GND
2	DIM
3	PWM
4	BON
5	ADM

CN04 SMW250-04P	
Pin No.	Output name
1	12V Audio
2	33V
3	6V
4	GND

CN101 YW396-03AV	
Pin No.	Output Name
1	LIVE
2	N.C
3	NEUTRAL



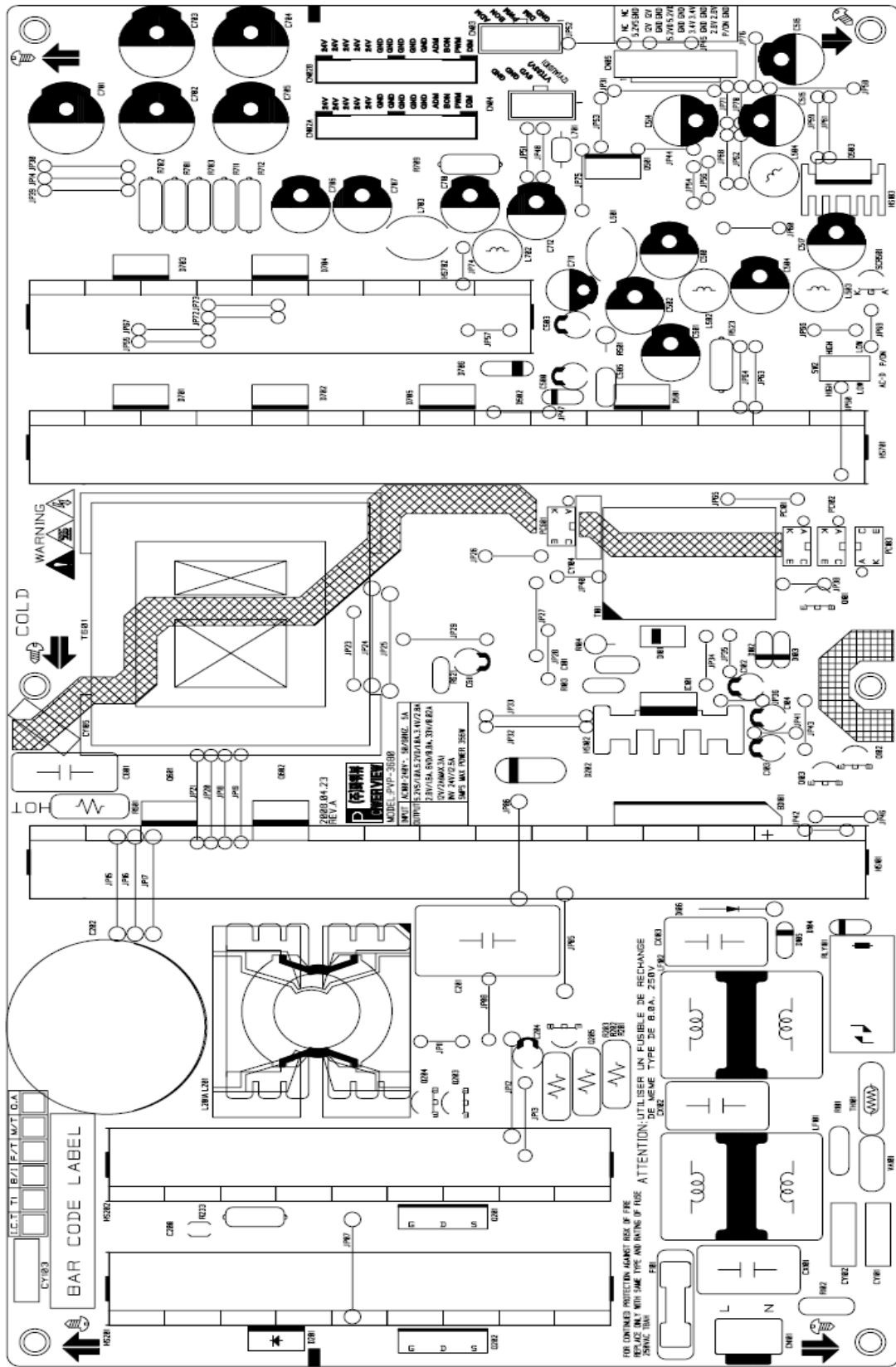
PVP-3680



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### 3) TOP SILK



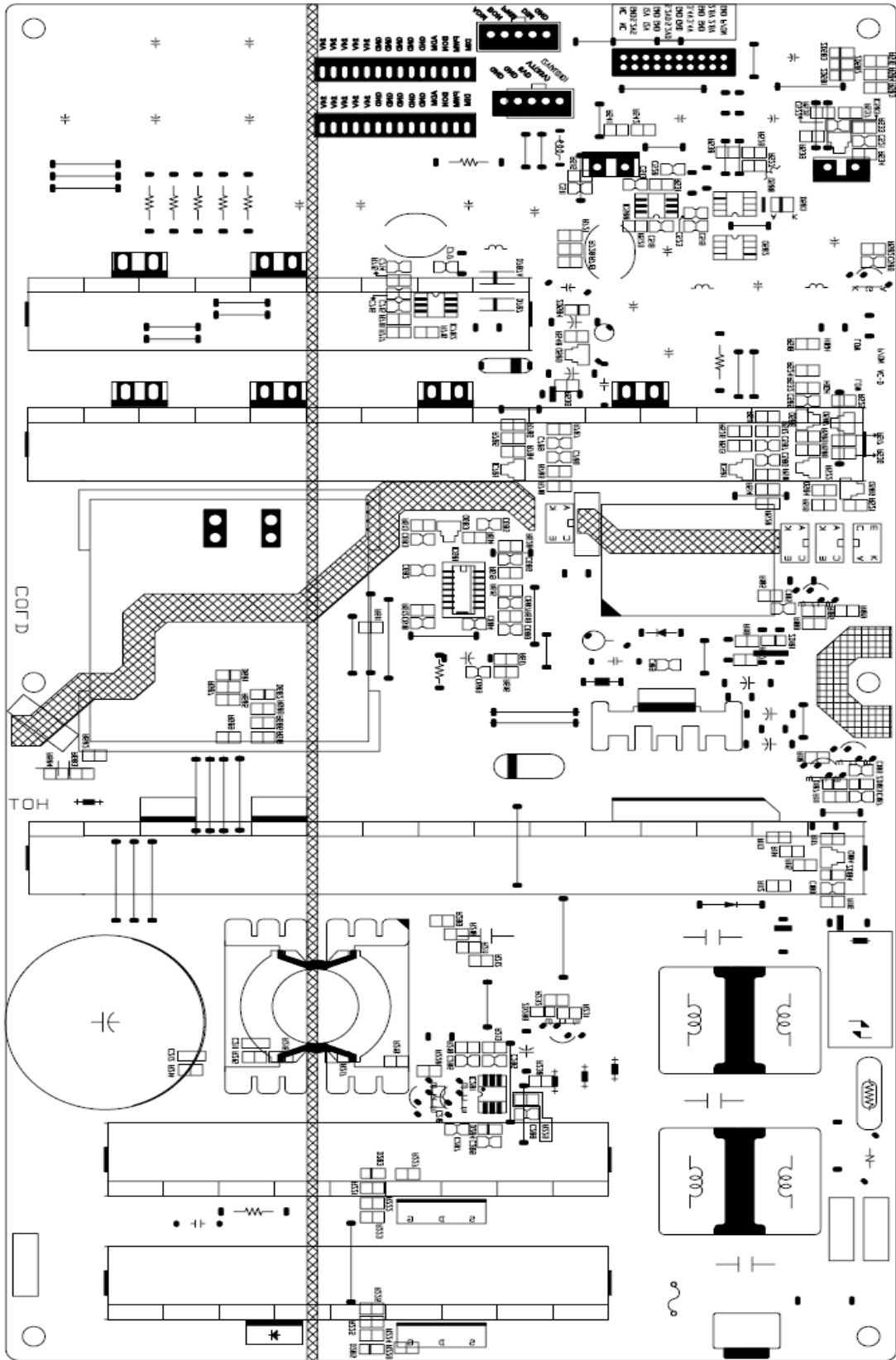
PVP-3680



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### 3) BOTTOM SILK



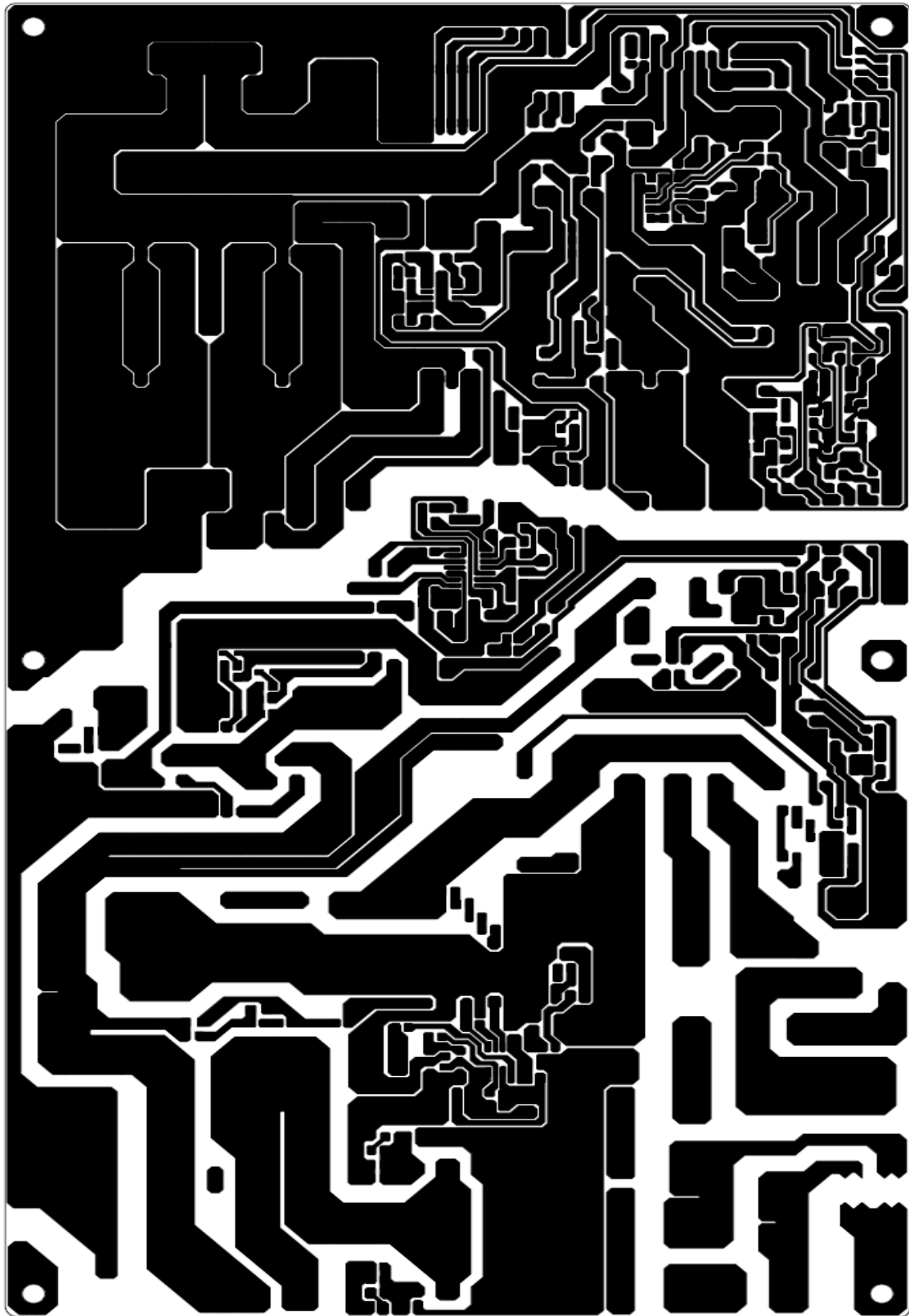
PVP-3680



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# 5) BOTTOM PATTERN



PVP-3680



CONTENTS

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# 6. TEST SHEET

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# 7. MECHANICAL DIAGRAM

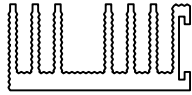
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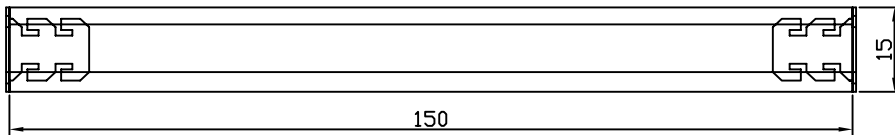
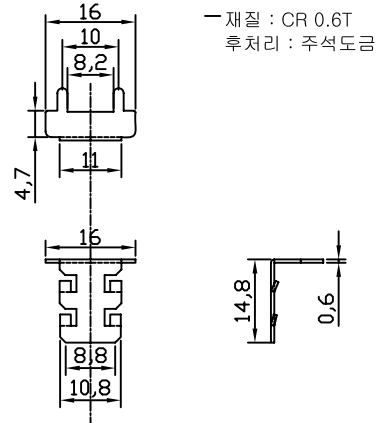
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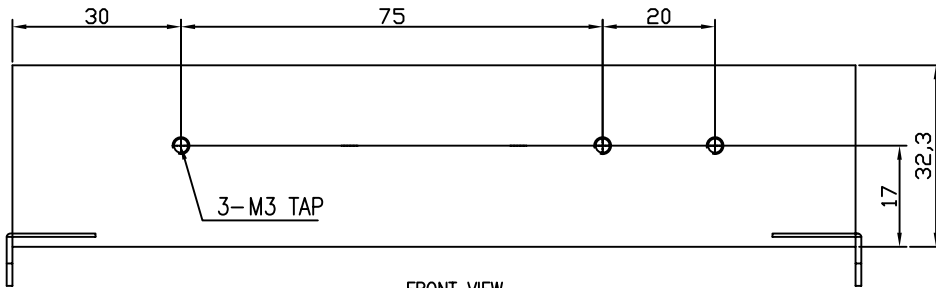
주문처	(주)파워뷰	PART NO.	PVP3680-HS101
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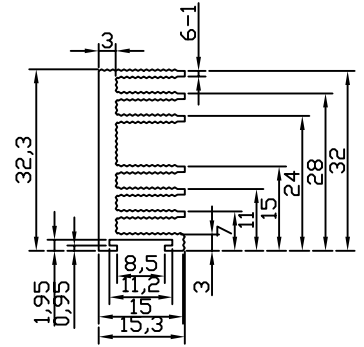
FULL SIZE



BOTTOM VIEW



FRONT VIEW



기준치수	1급	2급	3급	4급
~5 미만	0.05	0.08	0.2	0.3
5~18 미만	0.08	0.1	0.3	0.4
18~50 미만	0.1	0.15	0.4	0.6
50~180 미만	0.2	0.2	0.8	1.2
180~500 미만	0.3	0.5	1.2	2.0
500~1000 미만	0.6	1.0	2.5	4.0

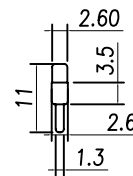
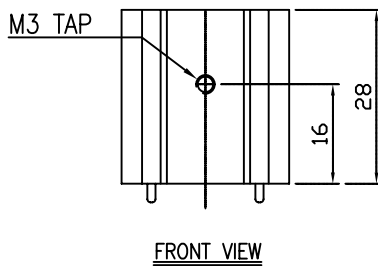
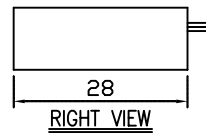
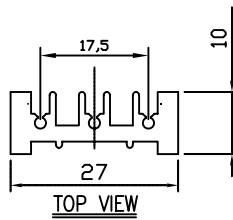
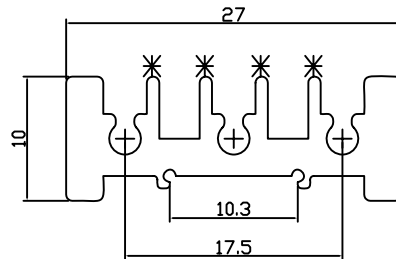
품 명	Heat Sink			NOTE	주 1) 찍힘, 굴힘, 등 외관이상 없을 것. 주 2) 모든 BURR는 제거 할 것. 주 3) 제품승인을 득한 후 양산할 것.	3-3Tap
규 격	32 x 15.3 x 150					
모 델 명	PVP3680					
도 번	HS-101			DATE	2008.02.01	SCALE
ALLOY & TEMPER	AL6063-T5			DRAWING NO.	SHAPR NO.	
DESIGNED	CHECKED	APPROVED	APPROVED			

주문처

(주)파워뷰

PART NO.

PVP3680-HS102



기준치수	1급	2급	3급	4급
~5 미만	0.05	0.08	0.2	0.3
5~18 미만	0.08	0.1	0.3	0.4
18~50 미만	0.1	0.15	0.4	0.6
50~180 미만	0.2	0.2	0.8	1.2
180~500 미만	0.3	0.5	1.2	2.0
500~1000 미만	0.6	1.0	2.5	4.0

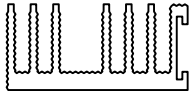
품명	Heat Sink			NOTE	주 1) 찍힘, 굽힘, 등 외관이상 없을 것. 주 2) 모든 BURR는 제거 할 것. 주 3) 제품승인을 득한 후 양산할 것.	1-3Tap
규격	27 x 10 x 28					
모델명	PVP-3680					
도번	HS-102			DATE	2008.02.01	SCALE
ALLOY & TEMPER	AL6063-T5			DRAWING NO.	SHAPR NO.	
DESIGNED	CHECKED	APPROVED	APPROVED			

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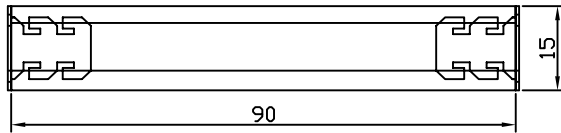
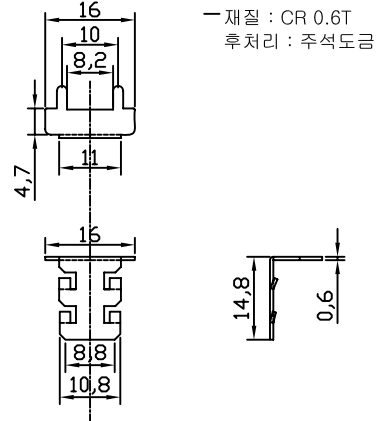
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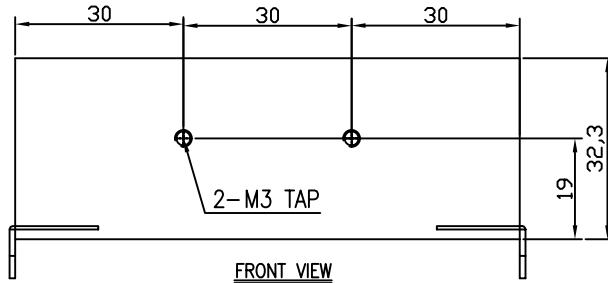
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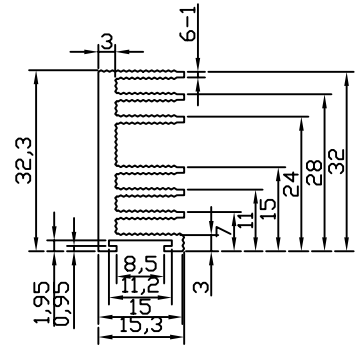
FULL SIZE



BOTTOM VIEW



FRONT VIEW



기준치수	1급	2급	3급	4급
~5 미만	0.05	0.08	0.2	0.3
5~18 미만	0.08	0.1	0.3	0.4
18~50 미만	0.1	0.15	0.4	0.6
50~180 미만	0.2	0.2	0.8	1.2
180~500 미만	0.3	0.5	1.2	2.0
500~1000 미만	0.6	1.0	2.5	4.0

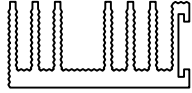
품 명	Heat Sink			NOTE	주 1) 찍힘, 긁힘, 등 외관이상 없을 것. 주 2) 모든 BURR는 제거 할 것. 주 3) 제품승인을 득한 후 양산할 것.	2-3Tap
규 격	32 x 15.3 x 90					
모 델 명	PVP3680					
도 번	HS-201,202			DATE	2008.02.01	SCALE
ALLOY & TEMPER		AL6063-T5		DRAWING NO.		
DESIGNED	CHECKED	APPROVED	APPROVED	SHAPR NO.		

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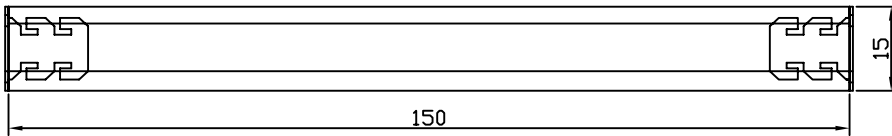
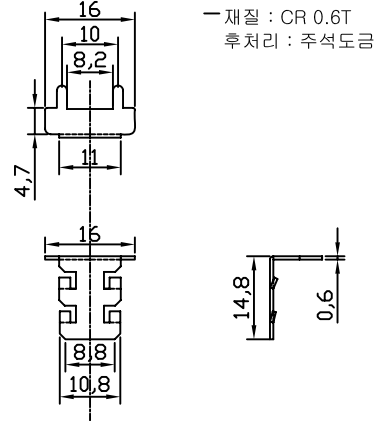
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PART  
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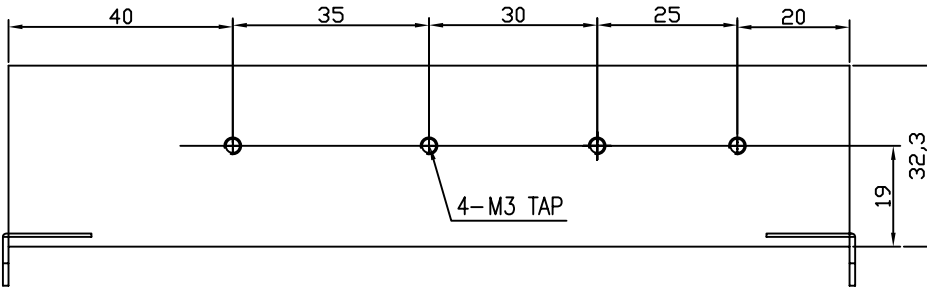
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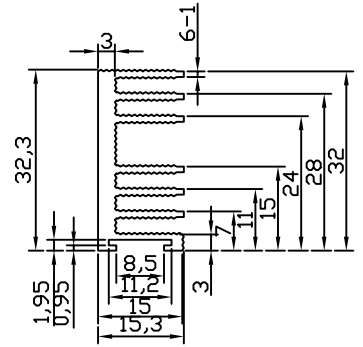
FULL SIZE



BOTTOM VIEW



FRONT VIEW



기준치수	1급	2급	3급	4급
~5 미만	0.05	0.08	0.2	0.3
5~18 미만	0.08	0.1	0.3	0.4
18~50 미만	0.1	0.15	0.4	0.6
50~180 미만	0.2	0.2	0.6	1.0
180~500 미만	0.3	0.5	1.2	2.0
500~1000 미만	0.6	1.0	2.5	4.0

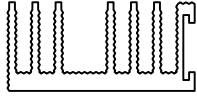
품 명	Heat Sink			NOTE	주 1) 찍힘, 굴힘, 등 외관이상 없을 것. 주 2) 모든 BURR는 제거 할 것. 주 3) 제품승인을 득한 후 양산할 것.	4-3Tap
규 격	32 x 15.3 x 150					
모 델 명	PVP3680					
도 번	HS-701			DATE	2008.02.01	SCALE
ALLOY & TEMPER	AL6063-T5			DRAWING NO.	SHAPR NO.	
DESIGNED	CHECKED	APPROVED	APPROVED			

주문  
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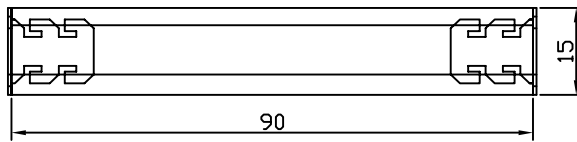
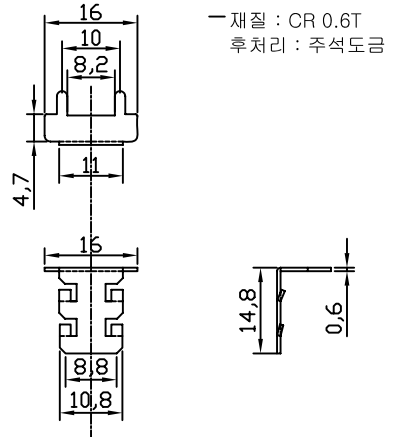
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PART  
NO.

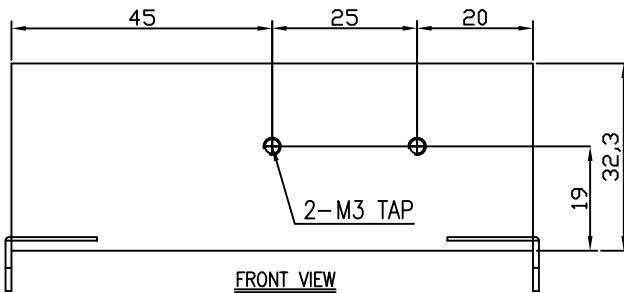
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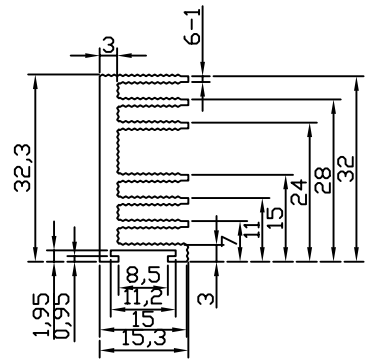
FULL SIZE



BOTTOM VIEW



FRONT VIEW



기준치수	1급	2급	3급	4급
일				
~5 미만	0.05	0.08	0.2	0.3
5~18 미만	0.08	0.1	0.3	0.4
18~50 미만	0.1	0.15	0.4	0.6
50~180 미만	0.2	0.2	0.8	1.2
180~500 미만	0.3	0.5	1.2	2.0
500~1000 미만	0.6	1.0	2.5	4.0

품 명	Heat Sink			NOTE	주 1) 찍힘, 굴힘, 등 외관이상 없을 것. 주 2) 모든 BURR는 제거 할 것. 주 3) 제품승인을 득한 후 양산할 것.
규 격	32 x 15.3 x 90				
모 델 명	PVP-3680				
도 번	HS-702			DATE	2008.02.01
ALLOY & TEMPER	AL6063-T5			SCALE	
DESIGNED	CHECKED	APPROVED	APPROVED	DRAWING NO.	SHAPR NO.

# 8. PACKING DRAWING

PVP-3680



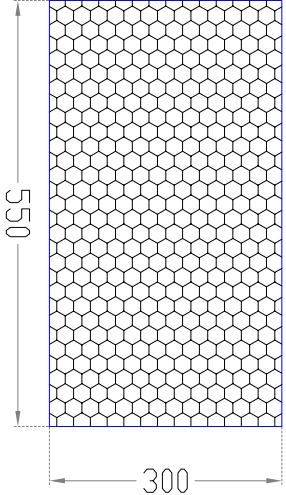
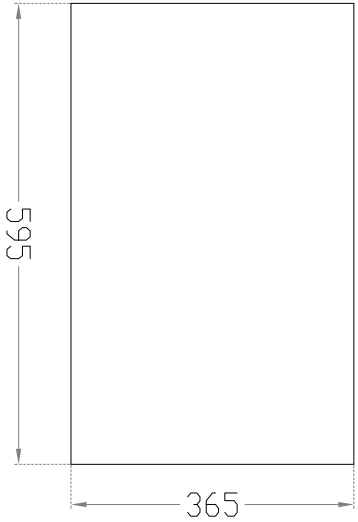
CONTENTS

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표준	재용인시		표준	경내역		표준	경사유	작성차
△	-	-						-
△	-	-						
△	-	-						



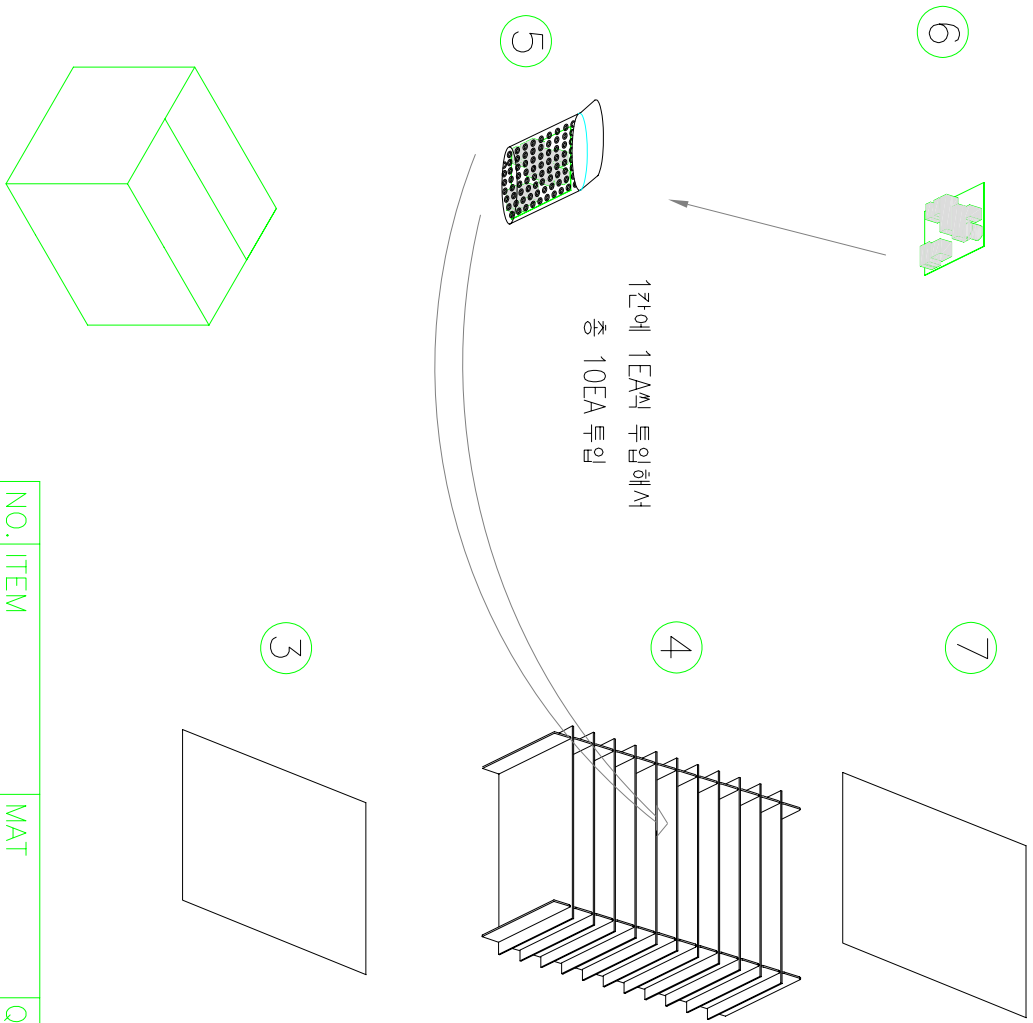
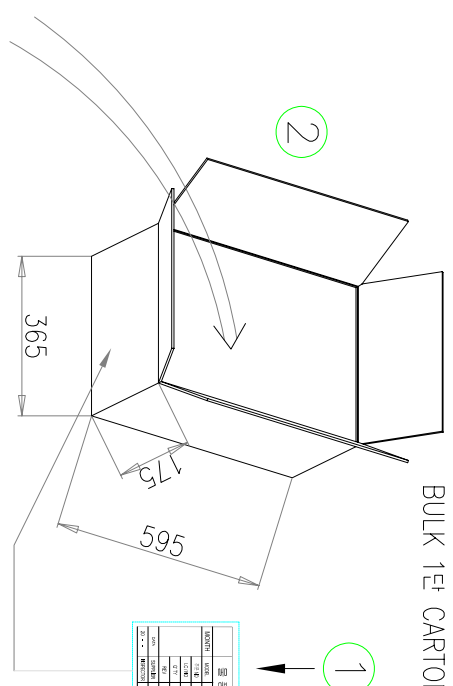
PAD

BUBBLE BAG

NO. ITEM	MAT	Q'TY	UNIT	DRAWING NO.	REMARKS
Designed by	Checked by	Approved by	MAT.		품명 PAD / BUBBLE BAG
			FINISH		모델 PVP-3680
			SCALE	1/10	
			UNIT	mm	품번
			ANGLE	3rd	도번
					Sheet 3/4
					Rev. A

번호	적용일시	변경내역	변경사유	작성일자
1	-	-		
2	-	-		

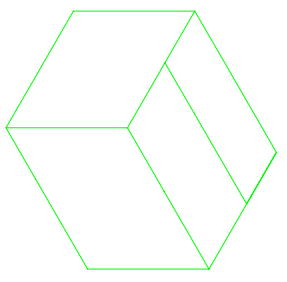
BULK 1단 CARTON BOX포장



NO	DESCRIPTION	MATERIAL	Q'TY
7	PAD	S/W(5±1) 265X595	1/10
6	POWER SUPPLY	PVP-2150	10/10
5	BUBBLE BAG	280x240	10/10
4	BULK	SHEET 2/4참조	
3	PAD	S/W(5±1) 365X595	1/10
2	CARTON BOX	D/W(5±2) 365X595X175	1/10
1	물품표		1/10

NO. ITEM	MAT	Q'TY	UNIT	DRAWING NO.	REMARKS
Designed by	Checked by	Approved by	MAT.	-	품명 PVP-3680 포장 방법
			FINISH	-	모델 PACKING
			SCALE	n/s	품번 참고도면
			UNIT	mm	도번 참고도면
			ANGLE	3rd	4/4

포장 완료 상태



# 9. WORKMANSHIP CHECK

PVP-3680



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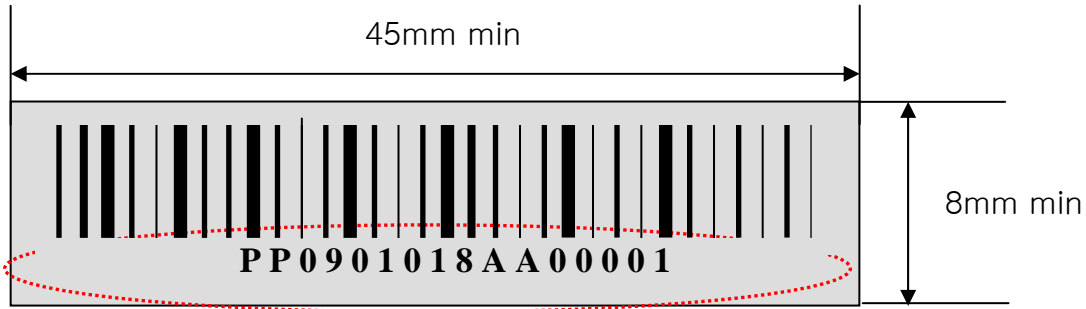
1) Lead Cutting :

: PCB면으로부터 2.0mm 이내

2) Bonding Point

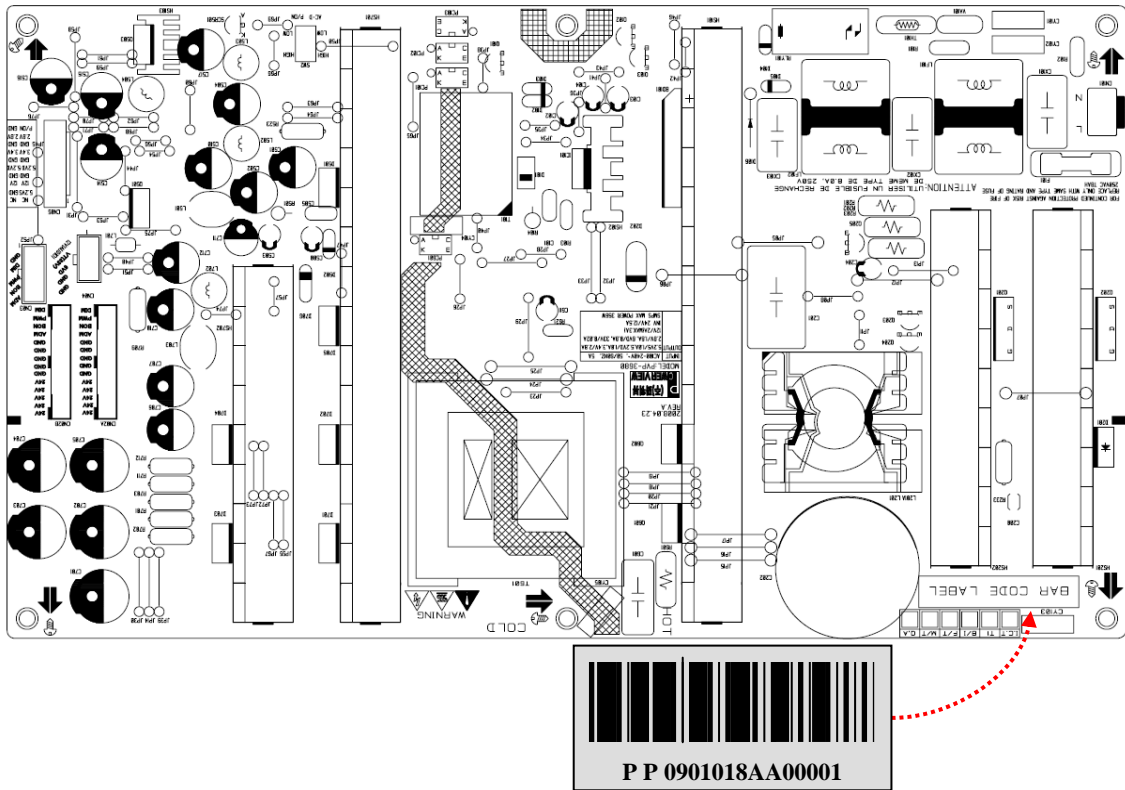
: 도면 별첨

# 1) SERIAL NUMBER LABEL 부착



**PP0901018AA00001**

일련 번호 :	00001,00002,...
제품 REV :	AA,AB,AC, ...
MODEL NO.:	018: PVP-3680
제조주차 :	01 : 1주차
제조년도 :	09 : 2009년
Model :	P: Power Board
Vendor :	P: Power View



PVP-3680



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## 2) Bonding Point



Bonding Point 1 : LF101, CY101, CY102 Bonding

Bonding Point 2 : TH101, RLY101 Bonding



Bonding Point 2 : CY103, P.C.B Bonding

PVP-3680

 (주)파워뷰  
POWER VIEW

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A