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SPECIFICATION FOR APPROVAL

• CUSTOMER	: DiBOSS
• ITEM	: Power Supply Unit.
• DESCRIPTION	: 26~32" LCD TV PSU
• CUSTOMER P/NO	: 104543
• SUPPLIER P/NO	: DBP2632-200B
• DATE	: 2006-09-18

CUSTOMER'S APPROVED

* REV NO: 4.0

APPROVED		
2006 . . .		
DiBOSS		
MODEL	Power Supply Unit.	
DESC	26~32" LCD TV PSU	
PART NO		
EN'GR	CHKD	APPD

	CUIT	MECH	SAFETY	EMI
CHKD				
APPD				

REMARK

★ Safety Standard Parts [안전규격부품 List]

Power Cord, Power Plug, X/Y-Capacitor, Power Switch, Fuse, SMPS Trans, Stand-By Trans, Photo coupler, Insulation(절연) Resistor, Discharge(방전) Resistor, Fusing Resistor, FBT.CPT, CPT Socket, DY, D-Coil, Line Filter, PCB Material, Front / Back-cover Material Relay(1-2차간), Varistor, Adapter

★ EMC Standard Parts [전자규격 부품 List]

Power Plug, Line Filter, X-Capacitor, Y-Capacitor, SMPS Trans, Tuner, Saw-Filter, Shield Case, Oscillator, Pattern Change

★ Green [유해물질 확인사항]

This item must meet the RoHS standards



DOCUMENT NUMBER: HE-RA-06088

DOCUMENTATION FOR
APPROVAL

Product	26~32" LCD TV PSU
Model Name	DBP2632-200B
Customer P/No.	104543

Written	Checked		Approved
			

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Revision history

Rev No.	Contents	Date of approval	Checked	Remark
2.0	1. BUYER[DiBOSS]의 D-SUB 미사용에 의한 부품 삭제. - P802[RS232C] 삭제 - P805[SMW200-10P] 삭제 - R881 R882 R883 R884 [100 ohm J 2012] 삭제 - ZD820 ZD821 ZD822 [5.1V B ZENER DIODE] 삭제 - JP210 삭제 2. 부품 수급 원활. - C921 : 47UF 10V → 47UF 16V 변경 3. BAR CODE LABEL 변경 - BUYER[DiBOSS]의 Part Number. 4자리에서 6자리로 변경. - PB6818AXXX0001 → PB6818A1045430001 변경	2006.08.18 2006.08.18 2006.08.18		
3.0	1. BAR-CODE LABEL 변경 - 양산時 17자리 적용 CODE 인식 ERROR 발생 우려. - 현재 17자리에서 15자리로 변경 PB6904A104543XXXX → 6904A104543XXXX	2006.09.04		
4.0	1. BRIDGE DIODE [KBJ406G] Delivery 문제로 인한 Multi 부품 적용. - D801 : KBJ606G 600V 6A (DIODES) Multi 추가	2006.09.18		

Rev No.	Contents	Date of approval	Checked	Remark

CTQ Management

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POWER SPECIFICATION

1. INTRODUCTION

1.1 Product Description

This specification defines the input, output, performance characteristics, environment, noise and safety requirements for a LCD power supply.

1.2 Parameter Specification

Unless specification otherwise, all parameters must be met over the limit of temperature Load, and input voltage.

2. ELECTRICAL REQUIREMENTS

2.1 Input Requirements

2.1.1 Input Voltages

- Normal Voltage: 100 ~ 240 Vrms
- Voltage Range : 90 ~ 264 Vrms

2.1.2 Input Frequency

- Normal Frequency: 50 ~ 60Hz
- Frequency range : 47 ~ 63Hz

2.1.3 Input Current

- under 2.9 Arms at 100Vac & load Max

2.1.4 Configuration

- 3 Conductors (Live, Neutral, F.G)

2.1.5 Input Fuse

- The live line side of the input shall have a fuse.

2.1.6 Primary Over Current Protection

- An adequate internal fuse on the AC input line shall be provided.

2.1.7 Inrush Current

The inrush current of power supply shall be less than the rating of its critical components (including bulk rectifiers and surge limiting device) for all condition of line voltage of 2.1.1

- Cold start: under 100Apeak at AC 220Vac (Wall-Out)

2.1.8 Efficiency

The power supply efficiency shall be more than 80% measure at the 90Vac maximum load as specified in paragraph 2.2.1 with the AC input set at the nominal voltage.

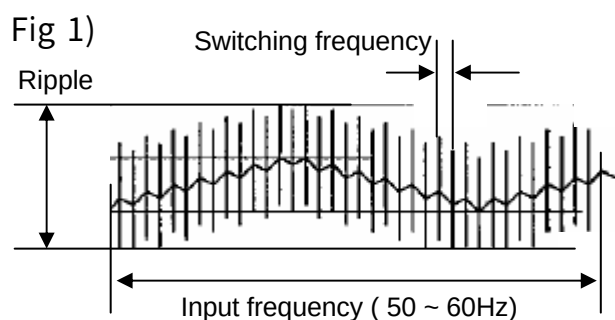
2.1.9 Power Factor

- over than 0.9 at 100~240Vac & max load condition.

2.2 Output Requirements

2.2.1 Electrical characteristics

N o	Item	Condition		Specification			
				STBY	Vo1	Vo2	Tun.
1	Output Voltage	Rating	Load Max (refer to #2 MAX)	5V	12V	24V	33V
		Tolerance		±5%	±5%	±5%	±5%
		Ripple(mV)	Load Max (*1)	300	300	500	500
		Cross reg1	1.24V : Variable 2.Other : Min.	±5%	±5%	±5%	±5%
		Cross reg2 (off mode)		±5%	0V	0V	0V
2	Load Current (*3)	TOTAL Max.	MAX. LOAD (Po= 206W)	1.5A	2.5A	7.0A	0.03A
		Min-1	Off Mode	0.5A	0A	0A	0A
3	Inrush Current	Inrush	Possible Range Refer to (*2)				
		Duration					
4	OCP	Range[A]	1. Check Line : Variable 2. Other : Load Max	-	-	Min 10A	-
5	OVP	Range[V]		-	-	-	-
6	SCP	Yes, No	1. Check Line : Short to GND 2. Other : Load Max	Yes	Yes	Yes	-

***1) Ripple Test**

- 1-1) Test 방법 : Ripple test는 fig 1을 따른다
1-2) Test Point : power output 각 pin

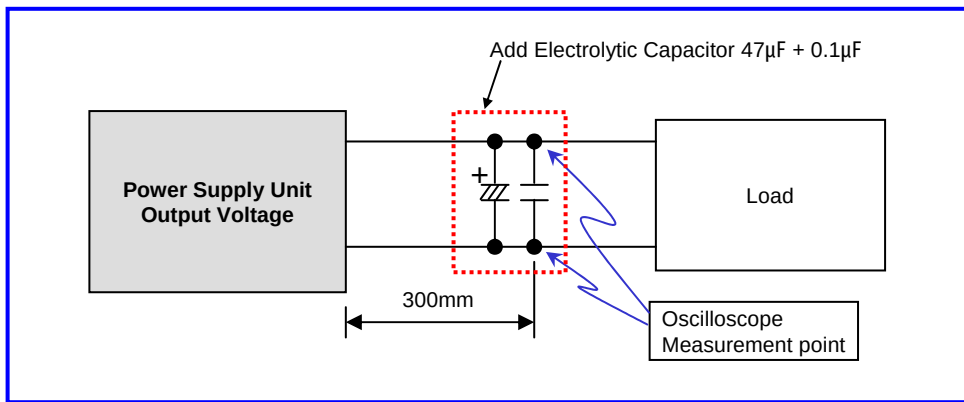
***2) Inrush current**

- 2-1) power가 cover할 수 있는 range를 의미함.
2-2) spec over시 voltage dip, 부품 dead가능성 있으므로
명기된 spec 이상 사용하지 말 것.

***3) Load current : HNE Aging / RQA test standard**

* Power On/Off Voltage : 3V ~ 5V

*4) Test Point : power output 각 pin



※ Ripple and noise are measured at the end of output cable which are added a 0.1uF ceramic capacitor and 47uF electrolytic capacitor.(connected parallel)

2.2.2 Output Voltage Requirement

The total output voltage regulation shall be $\pm 5\%$, including the effects of line voltage variation, load current, ripple and noise, and the AC component of the load Current.
The effect of dynamic load changes is not included in this limit.

2.2.3 Overshoot

The output overshoot at turn –on shall not exceed 10% of normal voltage value with or without the load connected.

2.2.4 Hold up Time

The power supply shall maintain voltage regulation within the specified limits in paragraph 2.2.1 for at least 32ms after lost of input voltage measure at 100Vac and at maximum output load.

2.2.5 Output Rise Time

At turn on the rise time of output voltage shall be less than 20msec.

※ Measured from the 10% point to the 90% point of the normal

2.2.6 Turn-on sequence

AC-ON → 1sec → PWR-CTL-ON → 1 sec → Load ON

It takes 1 S, all lines voltage stabilization to active high PWR-ON Signal.

2.2.7 STAND BY POWER CONSUMPTION (AC230V/60Hz)

Output Voltage	STB 5V	12V	24V	33V
Load [A]	250mA	PWL_CTL OFF		
Wattage [W]	3W	0W		

☞ Test condition

- Temperature: 25°C room temperature
- Test equipment: Electronic load → CR-mode(Continuously resistance)

2.3 Power Output Protection

2.3.1 Over Current Protection(OCP)

The power supply shall not be damaged by over current load.

The OCP function must be operated if current exceed maximum rating.

☞ The OCP point is measured when other output load is a maximum.

At this time, no hardware failure and No fire, when the output voltage decrease to 0V(shutdown).

2.3.2 Short Circuit Protection(SCP)

An output short circuit is defined as output impedance of less than 0.1 ohms.

The power supply shall not be damaged by short between DC output and DC ground.

3. RELIABILITY

3.1 Mean Time Between Failure(MTBF)

The power supply shall be designed and produced to have a mean time between failures (MTBF) Of 40,000 operating hours at 90% confidence – level while operating under the following condition.

- AC input voltage : 110Vac and 230Vac
- Duty cycle : 6hours ON, 2hours OFF
- Ambient Temp. : $25 \pm 2^{\circ}\text{C}$
- Humidity : prevailing condition

3.2 Life/Power On Hours

The power supply must be designed to operate for 40,000 power on hours.
About 5 years at an ambient temperature of 25°C

3.3 Burn-in Test Condition

More than 4 hours at $40^{\circ}\text{C}(\pm 5^{\circ}\text{C})$, Normal input voltage.
AC on/off must be test 1 time after burn-in.

Output Voltage	STB 5Vo	12Vo	24Vo	33Vo
Aging Load [A]	1.2A	2A	4.0A	0A

 Test condition

- Test equipment: Electronic load → CR-mode(Continuously resistance)

4. SAFETY & EMS

Safety

4.1 Earth Leakage current

The power supply leakage current shall be less than 0.5mA

4.2 Hi-Pot Test(Dielectric withstand voltage)

- ① Primary to Secondary : 3.0KVac for 1 minute
→ 3.6KVac for 1 seconds (mass production)
 - ② Primary to F.G : 1.5KVac for 1 minute
→ 1.8KVac for 1 seconds (mass production)
- ※ Cut-off current : 10mA

4.3 Insulation Resistance

Insulation resistance shall be $8\text{M}\Omega \sim 12\text{M}\Omega$ at 500Vdc between primary Live, Neutral line and secondary.

4.4 Input AC Surge

The power supply withstand 300Vrms input for 10 seconds.

4.5 Surge & Impulse Test

- ① Lightning Surge : $\pm 2\text{kV}(\text{L1} \sim \text{L2})$ 3 time, $\pm 3\text{kV}(\text{L1} \sim \text{FG}, \text{L2} \sim \text{FG})$ 3 times
- ② Impulse Noise Test : 2kV, Normal/Common mode, Polarity(+,-) / Phase($0^{\circ} \sim 360^{\circ}$)

4.6 RFI / EMI Standards

The power supply shall comply with a following RFI/EMI standards when tested in a system configuration.

- F.C.C federal rules and regulations part 15, sub parts B computing device.
- CISPR22, class B. "NORDIC/EUROPE"

The limits shall be met with a margin of at least more than 6dB at all applicable frequencies.

4.7 Safety Standards

The Power Supply Unit shall be tested with the following safety standards.

- UL1310 (Safety of information technology equipment) listed. "USA"
- CSA C22.2, NO234 level 3 output, class 2 output. "CANADA"
- CB Report : IEC60065

5. ENVIRONMENT REQUIREMENTS

5.1 Temperature

- Operating Temp. : 0 ~ 60°C (※0 ~ 40°C: with Case)
- Storage Temp. : -20 ~ 60°C

5.2 Humidity

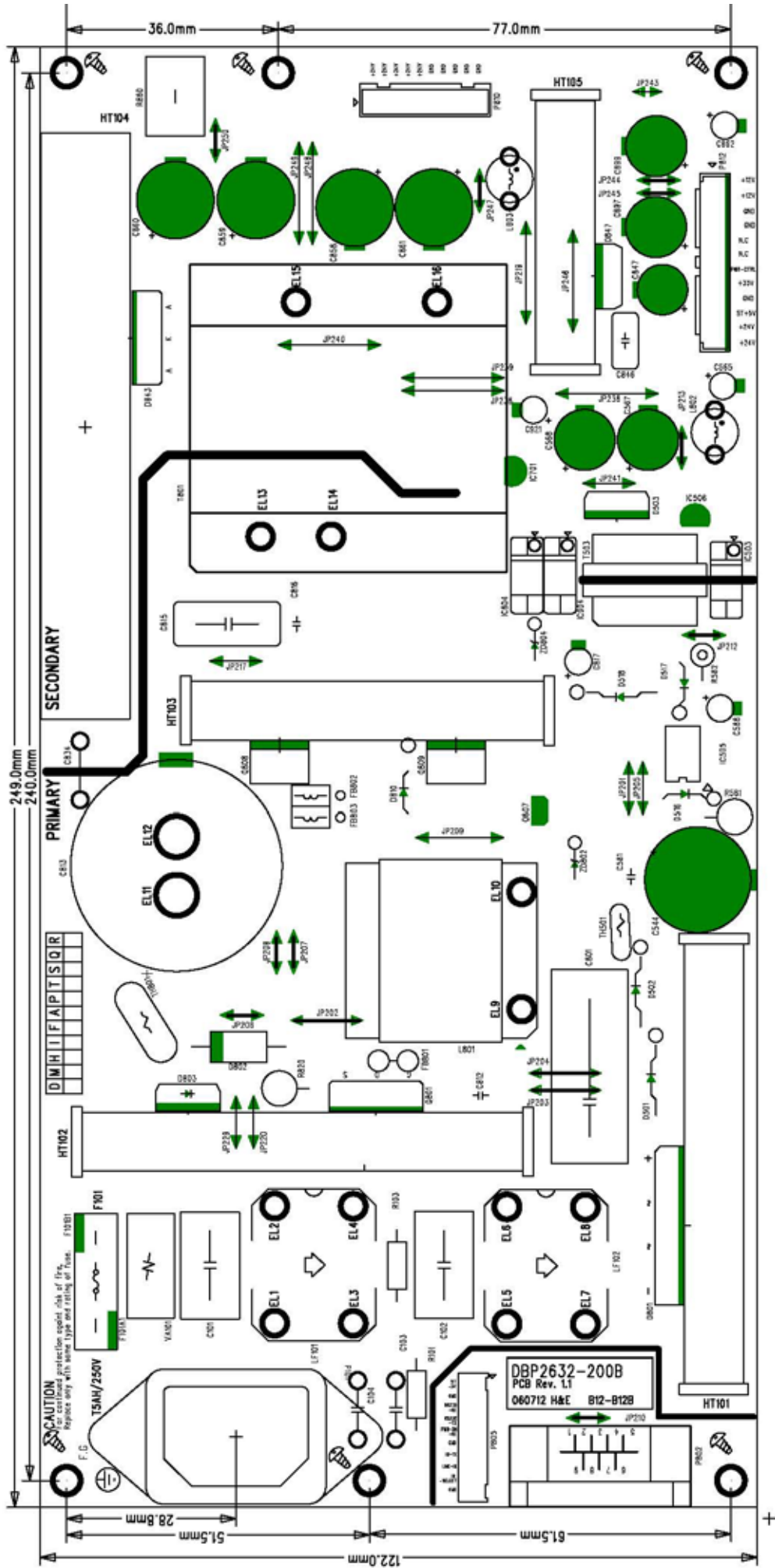
- Operation humidity : 30 ~ 85% non-condensing
- Storage humidity : 5 ~ 90% non-condensing

6. CONNECTORS

6.1 Pin Configuration & Connector

P101 (IS-7001)		P810 (SMW200-10P)		P812 (SMW250-12P)	
Pin No.	Assignment	Pin No.	Assignment	Pin No.	Assignment
1	Live	1	+24V	1	+12V
2	F.G	2	+24V	2	+12V
3	Neutral	3	+24V	3	GND
		4	+24V	4	GND
		5	+24V	5	INV-BRI
		6	GND	6	INV-CTL
		7	GND	7	PWR-CTL
		8	GND	8	+33V
		9	GND	9	GND
		10	GND	10	ST+5V
				11	+24V
				12	+24V

7. PCB Dimension



POWER PARTS LIST

NO	DESCRIPTION	P/C	LOCATION	QTY	VALUE	VENDOR
1	PCB ASS'Y	0		1.0000	POWER NDDC ASSEMBLY	H&E Co., LTD
2	BAR CODE	1		1.0000	8 X 42	SHUN JIN
3	OUT BOX	1		0.1000	520 X 340 X 210 X T8	NEWEA IND.
4	BOX PAD(PSU)	1		0.2000	490 X 330 X T8	NEWEA IND.
5	CROSS PAD ASS'Y	1		0.1000	500 X 340 X 165 X T8	NEWEA IND.
6	INNER PACK	1		1.0000	300 X 180	
7	FLUX	2		0.0010	ALPHA CLEANING	ALPHA
8	DILUENT	2		0.0010	ALCOHOL, ISO-PROP	
9	SOLDER	2		0.0030	D1.0 WIRE SN:96.5% AG:3%, CU:0.5%	HEESUNG SOLDER NIHON GAMMA
10	SOLDER	2		0.0050	BAR SOLDER SN:96.5% AG:3%, CU:0.5%	HEESUNG SOLDER NIHON GAMMA
11	SILICON	2		0.0080	KE-3490G,KE402RTV TSE3854D-W	SHINETSU TOSHIBA
12	HEAT SINK ASS'Y	2	HT101	1.0000	KBJ406G ASS'Y	
13	HEAT SINK	3	HT101	1.0000	W75 * H25 * D10	JS-TECH JONGSUNG
14	DIODE BD	3	D801	1.0000	600V 4A DIODES KBJ406G RBV406H 600V 6A DIODES KBJ606G	DIODES SANKEN DIODES
15	SCREW DRAWIN	3	D801	1.0000	+ D3.0 L 10.0 MSWR	JUNGGUMSA DONGYANG HAPDONG
16	SILICON GREASE	3	D801	0.0001	G746 YG6111	SHINETSU GE TOSHIBA
17	HEAT SINK ASS'Y	2	HT102	1.0000	STW26NM60 YG972S6R ASS'Y	
18	HEAT SINK	3	HT102	1.0000	W75 * H25 * D10	JS-TECH JONGSUNG
19	TRANSISTOR FET	3	Q801	1.0000	STW26NM60 T0-247	ST
20	SCHOTTKY DIODE	3	D803	1.0000	YG972S6R 600V 10A T0-220AB FSF10A60	FUJI NIEC
21	SCREW DRAWIN	3	D803	1.0000	+ D3.0 L 10.0 MSWR	JUNGGUMSA DONGYANG HAPDONG
22	SCREW DRAWIN	3	Q801	1.0000	+ D3.0 L12.0 MSWR	JUNGGUMSA DONGYANG HAPDONG
23	SILICON GREASE	3	D803	0.0001	G746 YG6111	SHINETSU GE TOSHIBA
24	SIL-PAD	3	Q801	1.0000	SILICON-PAD 19 * 23 NO	BERGQUIST
25	HEAT SINK ASS'Y	2	HT103	1.0000	STP9NK60Z ASS'Y	
26	HEAT SINK	3	HT103	1.0000	W60 * H25 * D10	JS-TECH JONGSUNG
27	FET	3	Q808 Q809	2.0000	STP9NK60, T0-220	ST
28	SCREW DRAWIN	3	Q808 Q809	2.0000	+ D3.0 L 10.0 MSWR	JUNGGUMSA DONGYANG HAPDONG
29	SIL-PAD	3	Q808 Q809	2.0000	SILICON-PAD 13 * 18 NO	BERGQUIST

30	BUSHING	3	Q808 Q809	2.0000	NYLON INSULATING BUSHING 6*3.5,D3.0	DONGA BESTECH
31	HEAT SINK ASS'Y	2	HT105	1.0000	MBRF20H100CTG ASS'Y	
32	HEAT SINK	3	HT105	1.0000	W45 * H25 * D10	JS-TECH JONGSUNG
33	SCHOTTKY DIODE	3	D847	1.0000	MBRF20H100CTG 100V 20A T0-220AB FCH20A(U)10 STPS20H10CFP	GS NIEC ST
34	SCREW DRAWIN	3	D847	1.0000	+ D3.0 L10.0 MSWR	JUNGUMSA DONGYANG HAPDONG
35	SILICON GREASE	3	D847	0.0001	G746 YG6111	SHINETSU GE TOSHIBA
36	HEAT SINK ASS'Y	2	HT104	1.0000	KCH30A10 ASS'Y	
37	HEAT SINK	3	HT104	1.0000	W100 * H30 * D15	JS-TECH JONGSUNG
38	DIODE RECTIF	3	D843	1.0000	KCH30A10 100V 30A T0-247 DSSK30-01A STPS30H100CFP	NIEC IXYS ST
39	SCREW DRAWIN	3	D843	1.0000	+ D3.0 L12.0 MSWR	JUNGUMSA DONGYANG HAPDONG
40	SIL-PAD	3	D843	1.0000	SILICON-PAD 19*23 NO	BERGQUIST
41	VARISTOR ASS`Y	2	VA101	1.0000	0VR6211109AA VARISTOR	
42	VARISTOR	3	VA101	1.0000	SVC621D-14A INR 14D 621 TVR 14 621	SAMWHA AMOTECH THINKING
43	VARISTOR CAP	3	VA101	1.0000	VARISTOR D-14 CAP V-0 GRAD	HAWHEE MFG HEANGSUNG
44	AC SOCKET	2	P101	1.0000	250V 15A 7001	I-SHENG
45	CAPACITOR AL	2	C858 C859 C860 C861	4.0000	1000UF 35V M KMG RD KM	SAMYOUNG SAMWHA SAMXON
46	CAPACITOR AL	2	C897 C899	2.0000	1000UF 25V M KMG RD KM	SAMYOUNG SAMWHA SAMXON
47	CAPACITOR AL	2	C544	1.0000	47UF 450V M KMF SAMYOUNG 18X25 WL	SAMYOUNG SAMWHA
48	CAPACITOR AL	2	C813	1.0000	150UF 450V M Φ35mm X 25mm TDA	SAMYOUNG SAMWHA SAMXON
49	CAPACITOR CERA	2	C103 C104 C834	3.0000	1000PF 250VAC M Y-CAP	SAMHWA DONGIL
50	DIODE RECTIF	2	D802	1.0000	1000V 3A UF5408 UF3007	GS DIODES
51	CAPACITOR MPP	2	C815	1.0000	303 800V MPP 15MM	WOOJIN MYUNGSUNG
52	CAPACITOR POLY	2	C801	1.0000	105 630V BMPP J BOX TYPE	MYUNGSUNG
53	CAPACITOR POLY	2	C101 C102	2.0000	474 275VAC 337 M 15MM	PILKOR SUNIL CARLI

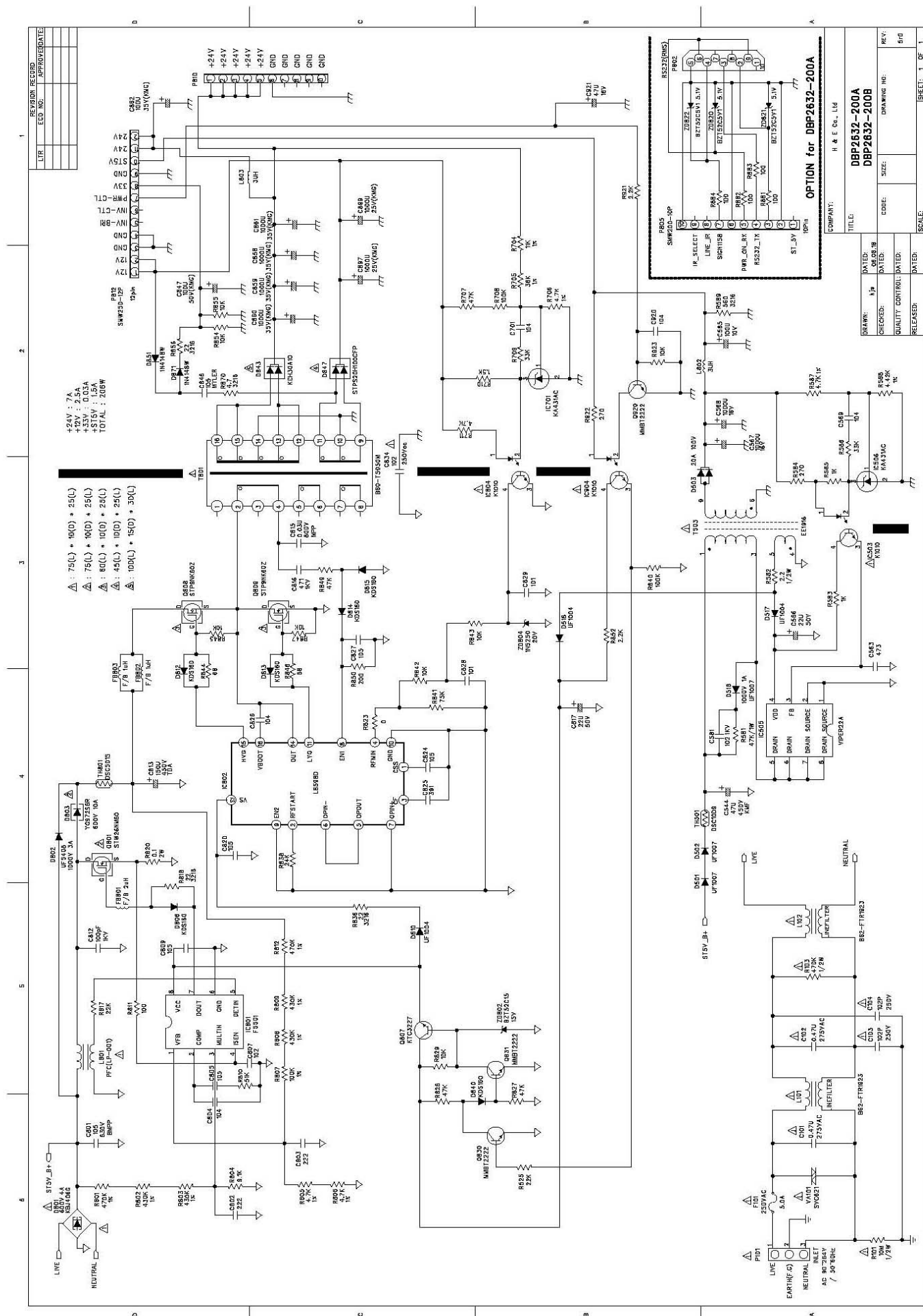
54	FUSE	2	F101	1.0000	FUSE CERAMIC TUBE 250V 5A HIGH BRK	LITTELFUSE BUSSMANN
55	IC OPTO-C	2	IC503 IC804 IC904	3.0000	LTV817...BN4P K1010	LITE-ON COSMO
56	STAND BY IC	2	IC505	1.0000	VIPER22A DIP-8	ST
57	SCHOTTKY DIODE	2	D503	1.0000	MBRF20H100CTG 100V 20A TO-220AB STPS20H100CFP FCH20A(U)10	GS ST NIEC
58	LINE FILTER	2	LF101 LF102	2.0000	B62-FTR1923	HNE
59	CHOKE COIL	2	L802 L803	2.0000	3UH CHOKE COIL	HNE
60	RESISTOR RW	2	R820	1.0000	0.1 OHM F 2W R-FORMING	DI-ELEC. SMART ELEC.
61	RESISTOR CEMENT	2	R860	1.0000	680 OHM J 5W	DI ELEC. SMART ELEC.
62	THERMISTOR	2	TH801	1.0000	NTC 5 OHM D15 DSC-5D-15 TP 5D15	DSC THERMOMETRICS
63	TRANSFORMER	2	L801	1.0000	LP-001	SOOJUNG
64	TRANSFORMER	2	T503	1.0000	B60-T1916A EE1916	HNE
65	TRANSFORMER	2	T801	1.0000	B60-T5050M MB3-EPC50-Z 332412	HNE
66	CONNECTOR	2	P812	1.0000	SMW250-12P	YEONHO
67	CONNECTOR	2	P810	1.0000	SMW200-10P	YEONHO
68	GROUP PCB	2		1.0000	POWER NDCC SMD ASSEMBLY	
69	IC PFC	3	IC801	1.0000	FA5501AN S0D-8	FUJI
70	IC MAIN RESONANT	3	IC802	1.0000	L6598D S01C-16	ST
71	DIODE SWITCHING	3	D806 D812 D813 D814 D815 D840	6.0000	1N4148WS S0D-323 KDS160	DIODES KEC
72	DIODE SWITCHING	3	D851 D871	2.0000	1N4148W S0D-323	DIODES RECTRON ROHM
73	TRANSISTOR NPN	3	Q830 Q831 Q920	3.0000	MMBT2222A S0T23 TP	INFINEON FAIRCHILD
74	CAPACITOR CHIP	3	C828 C829	2.0000	101 50V J 2012 C0G	PILKOR SAMWHA COMPOSTAR
75	CAPACITOR CHIP	3	C825	1.0000	391 50V J 2012 C0G	PILKOR SAMWHA COMPOSTAR
76	CAPACITOR CHIP	3	C807	1.0000	102 50V K 2012 X7R	PILKOR SAMWHA COMPOSTAR
77	CAPACITOR CHIP	3	C802 C803	2.0000	222 50V K 2012 X7R	PILKOR SAMWHA COMPOSTAR
78	CAPACITOR CHIP	3	C563	1.0000	473 50V K 2012 X7R	PILKOR SAMWHA COMPOSTAR

79	CAPACITOR CHIP	3	C569 C701 C804 C826 C920	5.0000	104 50V K 2012 X7R	PILKOR SAMWHA COMPOSTAR
80	CAPACITOR CHIP	3	C805 C809 C820 C824 C827	5.0000	105 16V Z 2012 Y5V	PILKOR SAMWHA COMPOSTAR
81	RESISTOR CHIP	3	R844 R846	2.0000	68 OHM J 2012	PILKOR SAMWHA COMPOSTAR
82	RESISTOR CHIP	3	R811	1.0000	100 OHM J 2012	PILKOR SAMWHA COMPOSTAR
83	RESISTOR CHIP	3	R850	1.0000	200 OHM J 2012	PILKOR SAMWHA COMPOSTAR
84	RESISTOR CHIP	3	R584 R922	2.0000	270 OHM J 2012	PILKOR SAMWHA COMPOSTAR
85	RESISTOR CHIP	3	R585 R583	2.0000	1K OHM J 2012	PILKOR SAMWHA COMPOSTAR
86	RESISTOR CHIP	3	R710	1.0000	1.5K OHM J 2012	PILKOR SAMWHA COMPOSTAR
87	RESISTOR CHIP	3	R852 R921	2.0000	2.2K OHM J 2012	PILKOR SAMWHA COMPOSTAR
88	RESISTOR CHIP	3	R711	1.0000	4.7K OHM J 2012	PILKOR SAMWHA COMPOSTAR
89	RESISTOR CHIP	3	R804	1.0000	9.1K OHM J 2012	PILKOR SAMWHA COMPOSTAR
90	RESISTOR CHIP	3	R842 R843 R845 R847 R923	5.0000	10K OHM J 2012	PILKOR SAMWHA COMPOSTAR
91	RESISTOR CHIP	3	R817 R525	2.0000	22K OHM J 2012	PILKOR SAMWHA COMPOSTAR
92	RESISTOR CHIP	3	R838	1.0000	24K OHM J 2012	PILKOR SAMWHA COMPOSTAR
93	RESISTOR CHIP	3	R709 R586	2.0000	33K OHM J 2012	PILKOR SAMWHA COMPOSTAR
94	RESISTOR CHIP	3	R826 R827 R829 R707 R849	5.0000	47K OHM J 2012	PILKOR SAMWHA COMPOSTAR
95	RESISTOR CHIP	3	R841	1.0000	75K OHM J 2012	PILKOR SAMWHA COMPOSTAR
96	RESISTOR CHIP	3	R810	1.0000	82K OHM J 2012	PILKOR SAMWHA COMPOSTAR
97	RESISTOR CHIP	3	R708 R840	2.0000	100K OHM J 2012	PILKOR SAMWHA COMPOSTAR

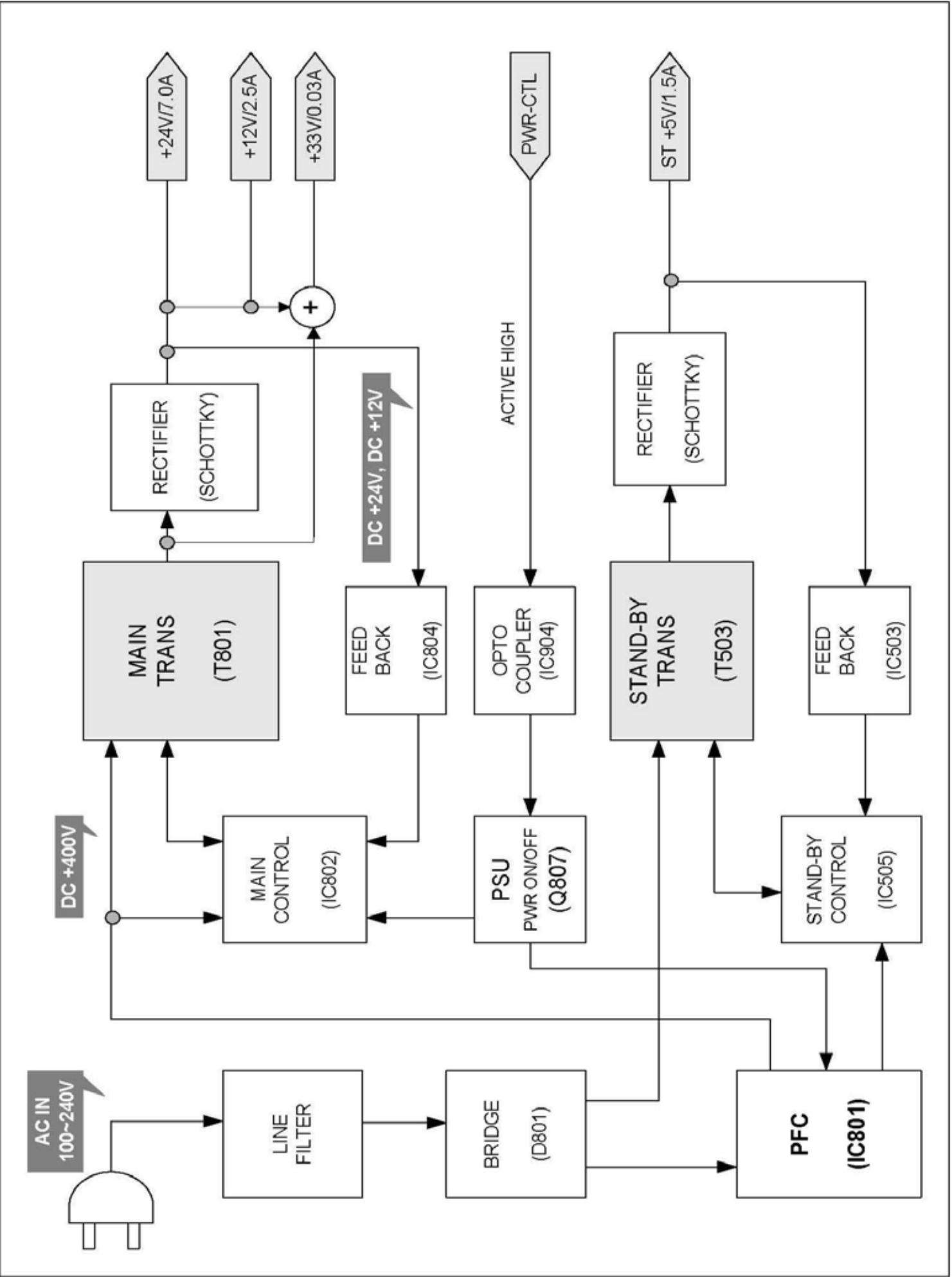
98	RESISTOR CHIP	3	R588	1.0000	4.42K OHM F 2012	PILKOR SAMWHA COMPOSTAR
99	RESISTOR CHIP	3	R706 R587 R805 R806	4.0000	4.7K OHM F 2012	PILKOR SAMWHA COMPOSTAR
100	RESISTOR CHIP	3	R704	1.0000	11K OHM F 2012	PILKOR SAMWHA COMPOSTAR
101	RESISTOR CHIP	3	R705	1.0000	36K OHM F 2012	PILKOR SAMWHA COMPOSTAR
102	RESISTOR CHIP	3	R807	1.0000	100K OHM F 2012	PILKOR SAMWHA COMPOSTAR
103	RESISTOR CHIP	3	R802 R803 R808 R809	4.0000	430K OHM F 2012	PILKOR SAMWHA COMPOSTAR
104	RESISTOR CHIP	3	R801 R812	2.0000	470K OHM F 2012	PILKOR SAMWHA COMPOSTAR
105	RESISTOR CHIP	3	R870	1.0000	4.7 OHM J 3216	PILKOR SAMWHA COMPOSTAR
106	RESISTOR CHIP	3	R818 R836 R856	3.0000	22 OHM J 3216	PILKOR SAMWHA COMPOSTAR
107	RESISTOR CHIP	3	R589	1.0000	560 OHM J 3216	PILKOR SAMWHA COMPOSTAR
108	RESISTOR CHIP	3	R854 R855	2.0000	10K OHM J 3216	PILKOR SAMWHA COMPOSTAR
109	PCB ASS'Y	3		1.0000	POWER NDDC AI ASSEMBLY	
110	CAPACITOR AL	4	C847	1.0000	100UF 50V KMG SAMYOUNG RD SAMWHA KM SAMXON	SAMYOUNG SAMWHA SAMXON
111	CAPACITOR AL	4	C566 C817	2.0000	22UF 50V KMG SAMYOUNG RD SAMWHA KM SAMXON	SAMYOUNG SAMWHA SAMXON
112	CAPACITOR AL	4	C862	1.0000	100UF 35V KMG SAMYOUNG RD SAMWHA KM SAMXON	SAMYOUNG SAMWHA SAMXON
113	CAPACITOR AL	4	C567 C568	2.0000	1000UF 16V KMG SAMYOUNG RD SAMWHA KM SAMXON	SAMYOUNG SAMWHA SAMXON
114	CAPACITOR AL	4	C565	1.0000	100UF 10V KMG SAMYOUNG RD SAMWHA KM SAMXON	SAMYOUNG SAMWHA SAMXON
115	CAPACITOR AL	4	C921	1.0000	47UF 16V KMG SAMYOUNG RD SAMWHA KM SAMXON	SAMYOUNG SAMWHA SAMXON
116	CAPACITOR CERA	4	C812	1.0000	100PF B 1KV K DISK	SAMWHA DUSAN DONGIL

117	CAPACITOR CERA	4	C816	1.0000	470PF B 1KV K DISK	SAMHWA DUSAN DONGIL
118	CAPACITOR CERA	4	C581	1.0000	1000PF B 1KV K DISK	SAMHWA DUSAN DONGIL
119	CAPACITOR-MPE	4	C846	1.0000	105 J 63V MYLER(MKT)	PILKOR
120	DIODE RECTIF	4	D517 D518 D810	3.0000	UF1004 D041 TP UF4004	DIODES VISHAY
121	DIODE RECTIF	4	D501 D502 D516	3.0000	UF1007 D041 TP UF4007	DIODES VISHAY
122	FILTER BEAD	4	FB802 FB803	2.0000	FERRITE 1UH 3565R TP	SCE SAMHWA
123	FILTER BEAD	4	FB801	1.0000	FERRITE 2UH BFD3565R DUAL TP	SCE SAMHWA
124	THERMISTOR	4	TH501	1.0000	NTC 10 OHM 9PHI DSC-10D-9 TP 10D9	DSC THERMOMETRICS
125	HOLDER	4	F101A1 F101B1	2.0000	FUSE NON CLIP MC994C	LITTELFUSE BUSSMANN
126	NPN-TR	4	Q807	1.0000	KTC3227	KEC
127	IC SHUNT	4	IC701 IC506	2.0000	KA431Z 1% T0-92 TP	FAIRCHILD WOOSUK SEMI
128	RESISTOR CC	4	R103	1.0000	470K OHM J 1/2W AXIAL	PILKOR SMART ELEC.
129	RESISTOR CC	4	R101	1.0000	10M OHM J 1/2W AXIAL	PILKOR SMART ELEC.
130	RESISTOR FIX	4	R582	1.0000	2.2 OHM J 1/2W R-FORM	DI ELEC. SMART ELEC.
131	RESISTOR FIX	4	R581	1.0000	47KΩ J 1W R-FORM	DI ELEC. SMART ELEC.
132	DIODE ZENER	4	ZD802	1.0000	1N5245 15V B D035 TP	VISHAY ON-SEMI PCTRONIX
133	DIODE ZENER	4	ZD804	1.0000	1N5250 20V B D035 TP	VISHAY ON-SEMI PCTRONIX
134	JUMP WIRE	4	JP201~JP209 JP212 JP213 JP217 JP219 JP220 JP229 JP236 JP238~JP241 JP243~JP250	28.0000	JUMPER D0.6 TP	DI ELEC. SMART ELEC.
135	EYELET	4	EL1 EL2 EL3 EL4 EL5 EL6 EL7 EL8 EL9 EL10 EL13 EL14 EL15 EL16	14.0000	1.6 * 3.0(ΦD * H)	DAELIN
136	EYELET	4	EL11 EL12	2.0000	2.3 * 3.0(ΦD * H)	DAELIN
137	PCB	4	PCB	1.0000	CEM-1 Single layer 122 * 247 Version 1.1	DONG MYUNG DAESUN

POWER SCHEMATIC DIAGRAM



POWER BLOCK DIAGRAM **& DESCRIPTION**



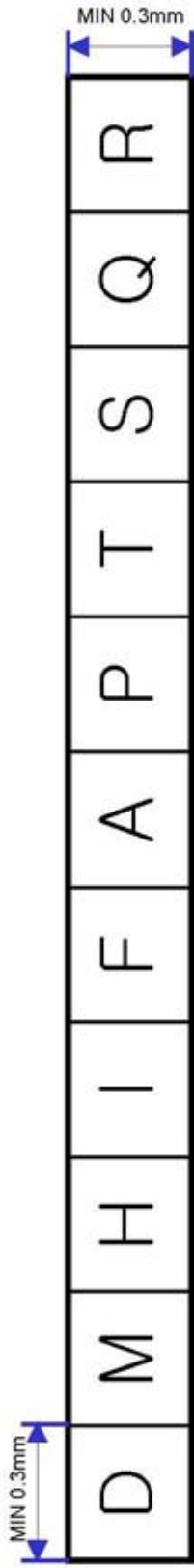
POWER CRITICAL COMPONENTS LIST

part No.	Component/ Object	Manufac-tur er/trademark	type/model	Rating/ Technical Data	Complied with the following stan-dard	mark(s) of conformity granted
P101	Appliance inlet	I-SHENG	IS-7001	250V, 15A	UL	IEC60320-1 IEC60320-1
F101	Fuse	Littelfuse	215	250V, 5A	IEC60127 UL248	VDE,CSA UL
	(alternate)	Bussmann	S505	250V, 5A	IEC60127 UL248 CSA1422-30	VDE,CSAUL
C103,C104	Y-Cap.	Samwha	SD or SC	250V~, 1000pF	IEC 60384-14, UL1414	VDE,CSA UL(E97754)
	(alternate)	Dong il	DA or DS	250V~, 1000pF	IEC 60384-14, UL1414	VDE,CSA UL(E128646)
C834	Bridging Capacitor	Samwha	SD	250V~, 1000pF	IEC 60384-14, UL1414	VDE,CSA UL(E97754)
	(alternate)	Dong il	DA	250V~, 1000pF	IEC 60384-14, UL1414	VDE,CSA UL(E128646)
C101,C102	X-Cap.	Pilkor	PCX2 337	250V~/0.47 uFX2	IEC 60384-14, UL1414	VDE,CSA UL(E165646)
	(alternate)	Carli	MPX	250V~/0.47 uFX2	IEC 60384-14, UL1414	VDE,CSA UL(E120045)
T801	Transformer	H&E	B60-T5050M	Class E	IEC 60065, UL60065	Tested in apparatus
LF101 LF102	Line Filter	H&E	B62-FTR1923	Class A	IEC 60065, UL60065	Tested in apparatus
L801	PFC Coil	SOOJUNG	LP-001	Class A	IEC 60065, UL60065	Tested in apparatus
T503	Transformer	H&E	B60-T1916A	Class A	IEC60065, UL60065	Tested in apparatus
VA101	Varistor	Samwha	SVC621D	3350Vr.m.s	CECC 42201, UL1449	VDE,CSA UL(E97754)
	(alternate)	AMOTECH.,C O.LTD	INR-14D-621	3350Vr.m.s	CECC 42201, UL1449	VDE,CSA UL(E111808)
	(alternate)	THINKING	TVR-14-621	3350Vr.m.s	IEC61051	VDE
TH801	Thermistor	DSC Electronics	DSC-5D-15	5 ohm	UL1434, IEC60730	Tested in apparatus UL(156388)
	(alternate)	Various	Various	5 ohm		
C813	Elec. Capacitor	Various	Various	450V, 150uF	IEC 60065, UL60065	Tested in apparatus
D801	Diode BD	Various	Various	600V, 4A	IEC 60065, UL60065	Tested in apparatus
IC503 IC804 IC904	Opto Coupler	Liteon	LTV817...	Rated 5000Vac	IEC60950, UL1577	VDE,CSA UL(E113898)
	(alternate)	COSMO	KP1010	Rated 5000Vac	IEC60950, UL1577	VDE,CSA UL(E169586)
R101	Conductive path resistor	Smart Electronics Inc.	PRC	10M ohm, 1/2W	VDE 0860/05.39, CCN:FPAV2	VDE,CSA UL(E187666)
	(alternate)	Pilkor	MSR37	10M ohm, 1/2W	VDE 0860/05.39, CCN:FPAV2	VDE,CSA UL(E185525)
R103	Discharge resistor	Various	Various	0.47M ohm	IEC 60065, UL60065	Tested in apparatus
	PCB	Various	Various	Min. V-0	UL 94	UL

¹⁾ an asterisk indicates a mark which assures the agreed level of surveillance

PROCESS MARKING

공정표시 MARK



D : 자살

M : SMD

H : 수산최종

I : ICT

F : 1차 성능

A : AGING

P : HI-POT

T : 최종검사(ATE)

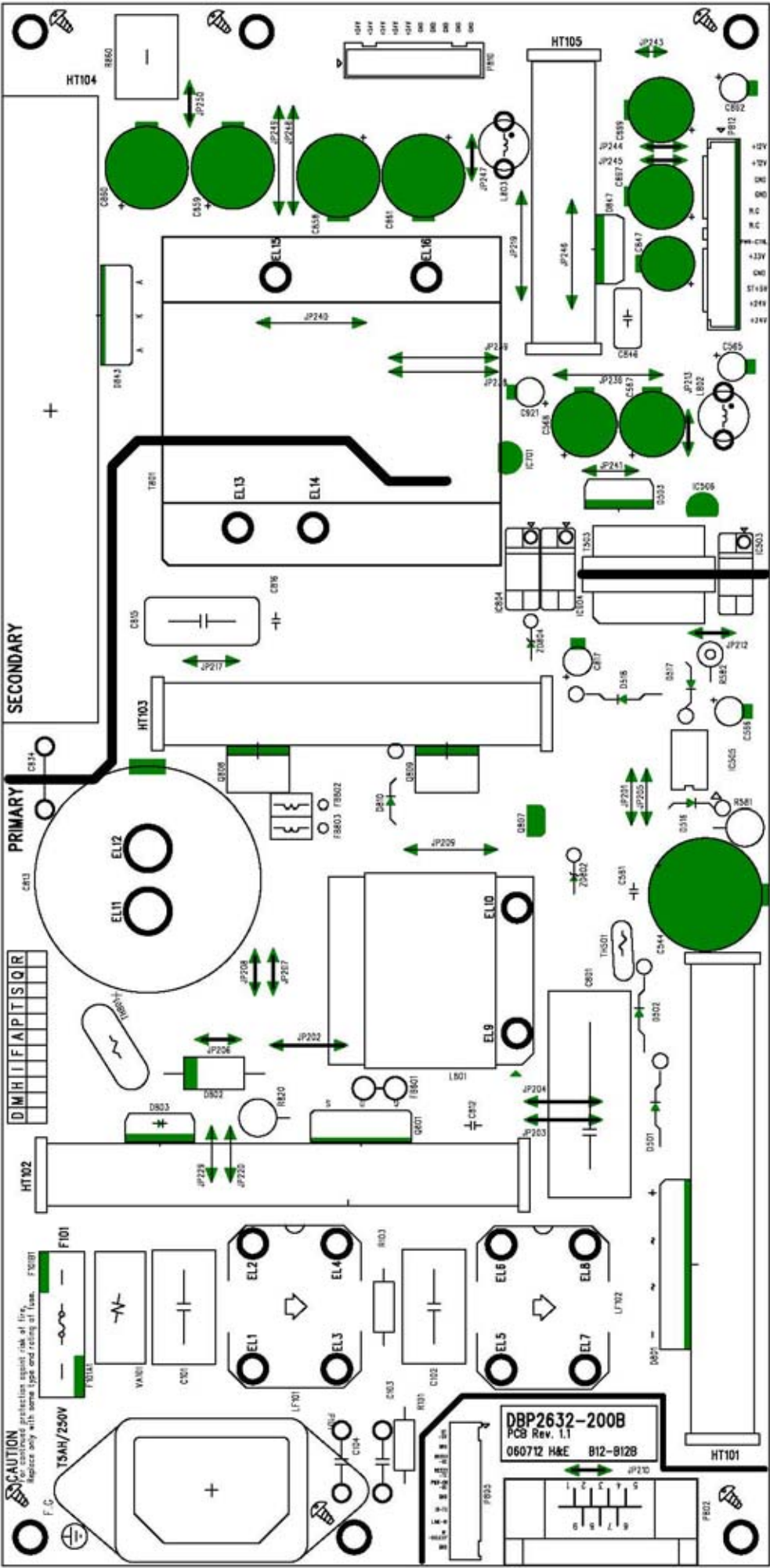
S : SET 검사

Q : QC 검사

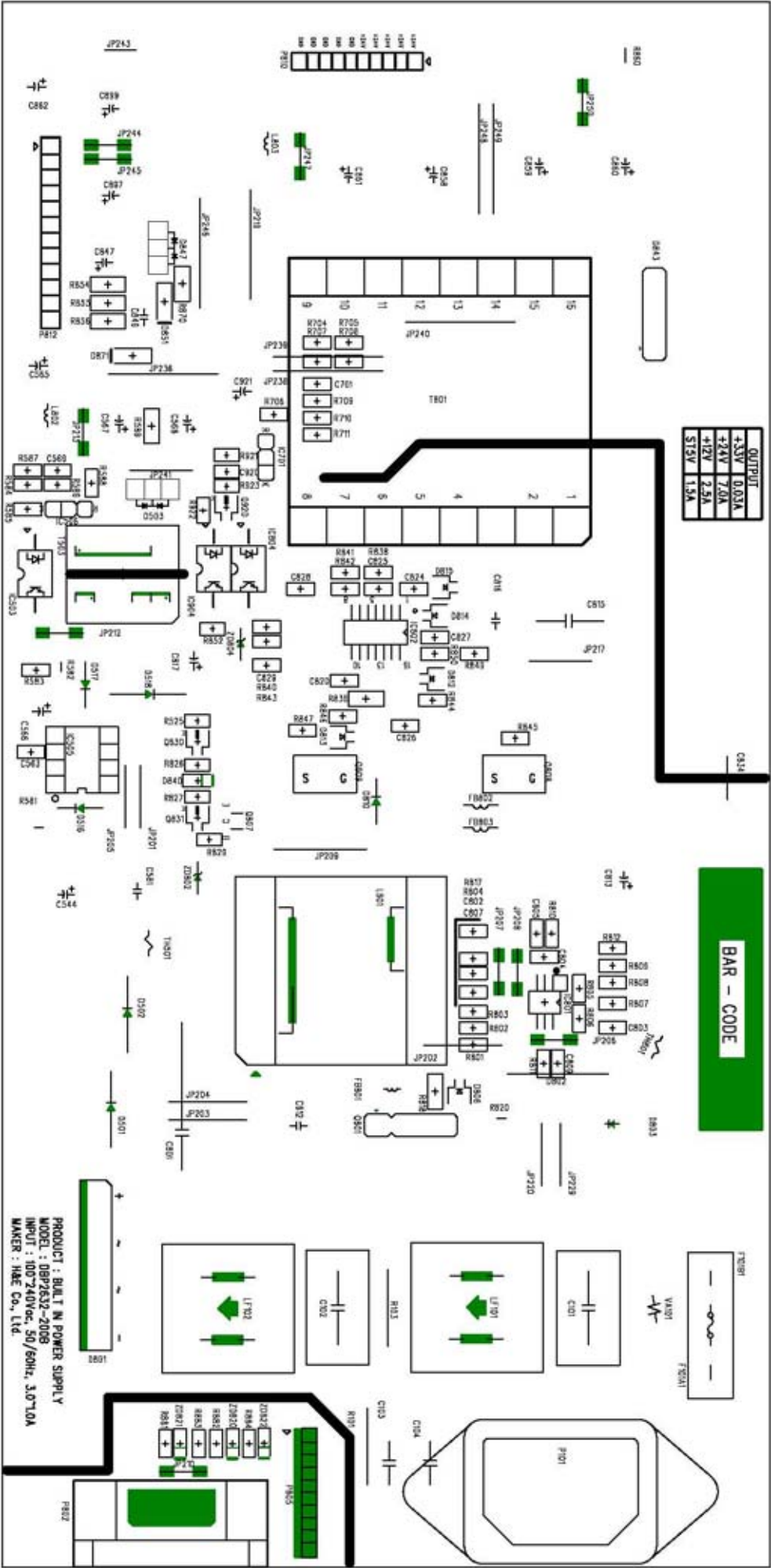
R : 불량 수리

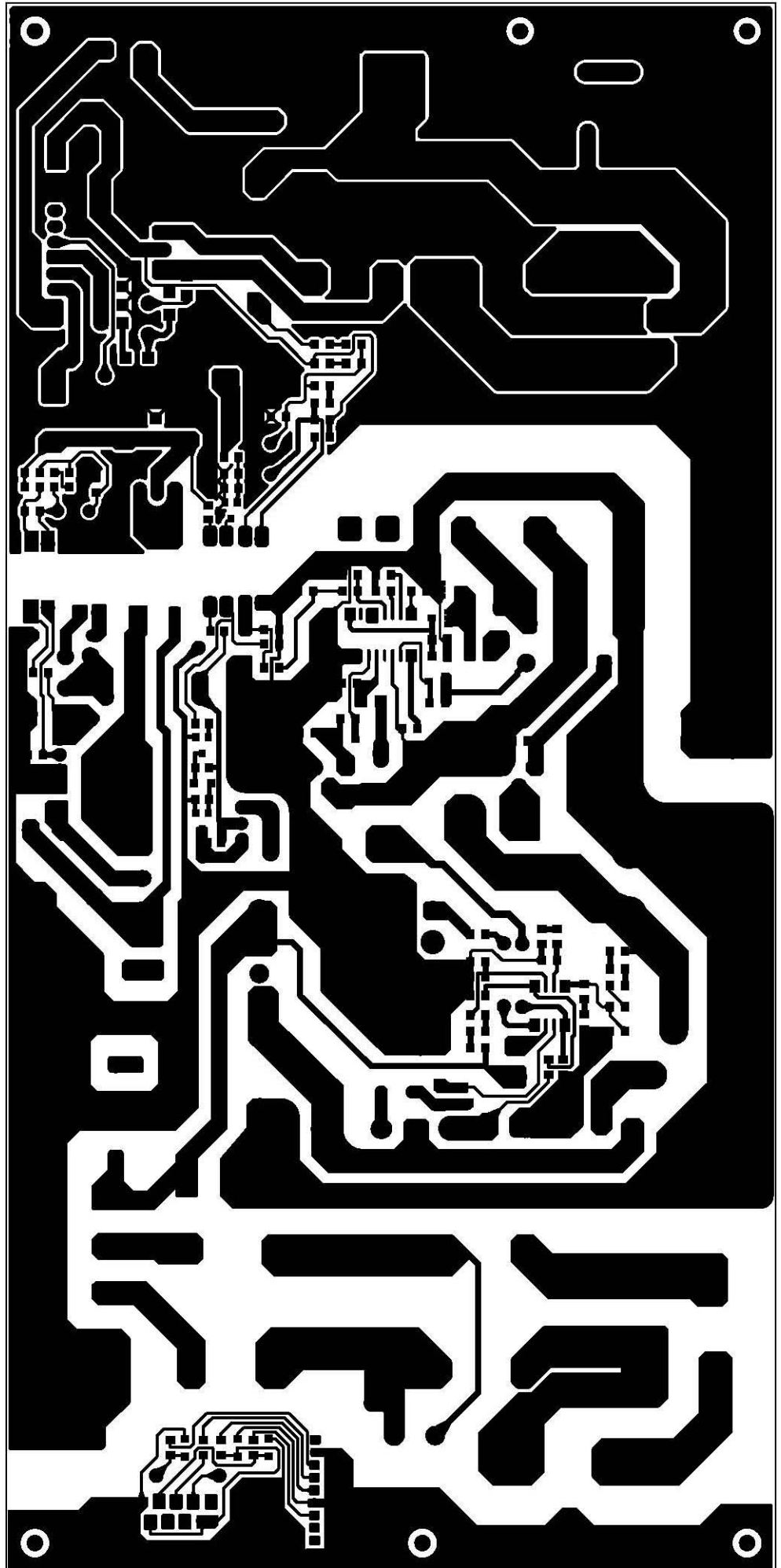
POWER PCB DRAWING

Top Silk

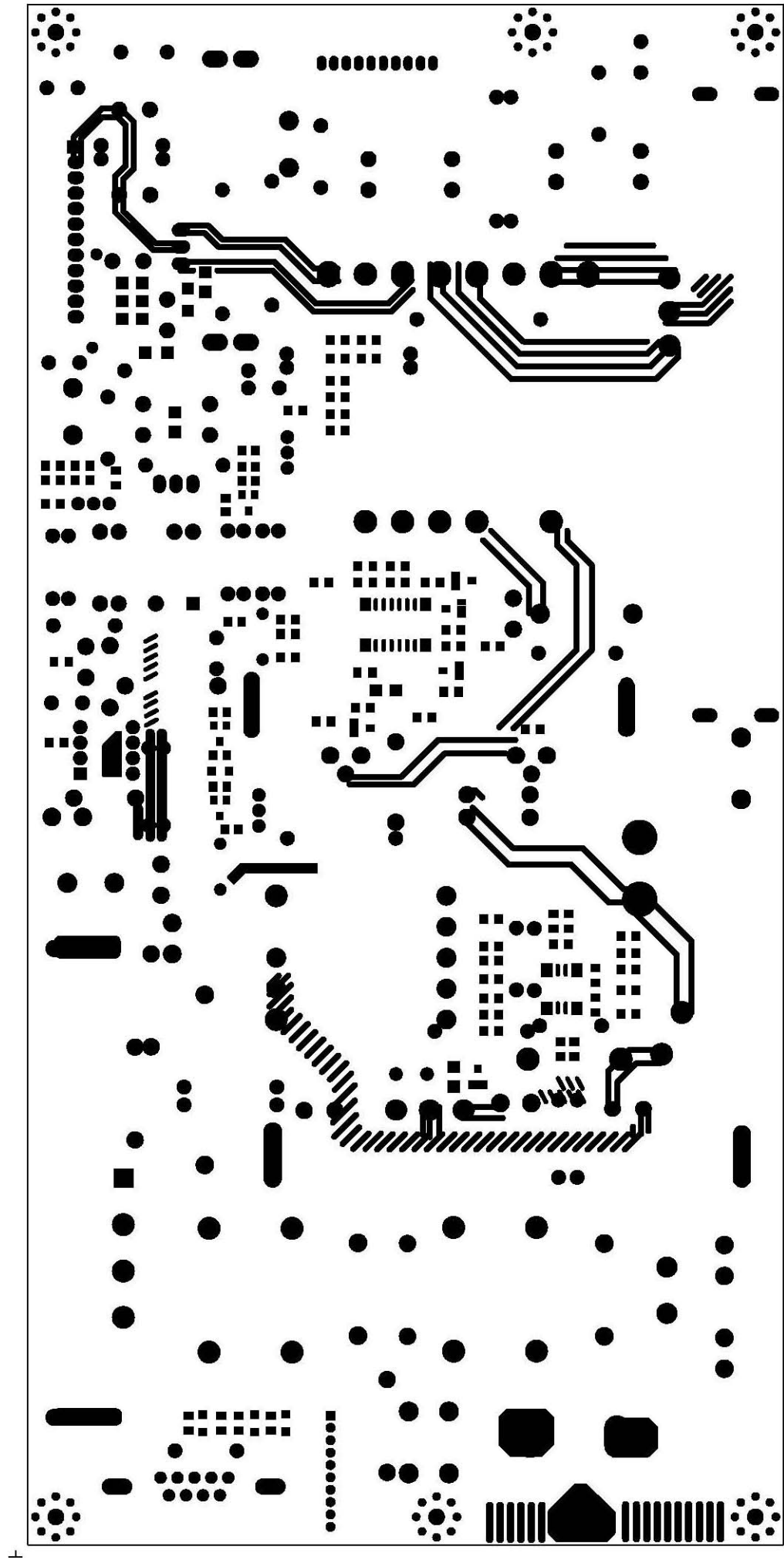


Bottom Silk



Bottom Pattern

Bottom
Pattern solder



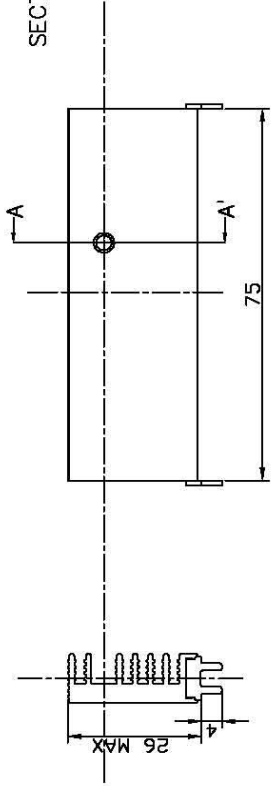
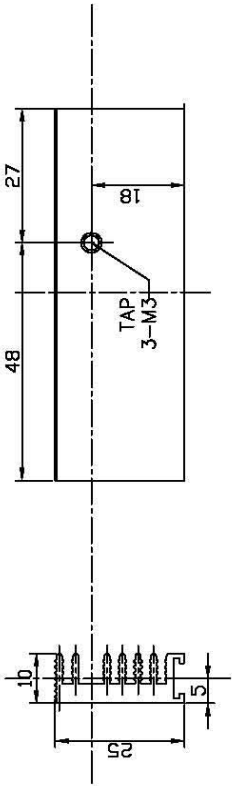
POWER MECHANICAL DRAWING

NO.	PART NAME	PART NO.	MATERIAL	REMARK
A	EXTRUSION HEATSINK		AL	

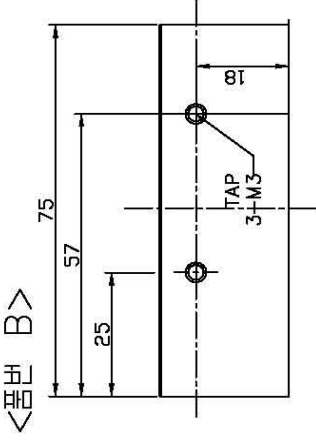
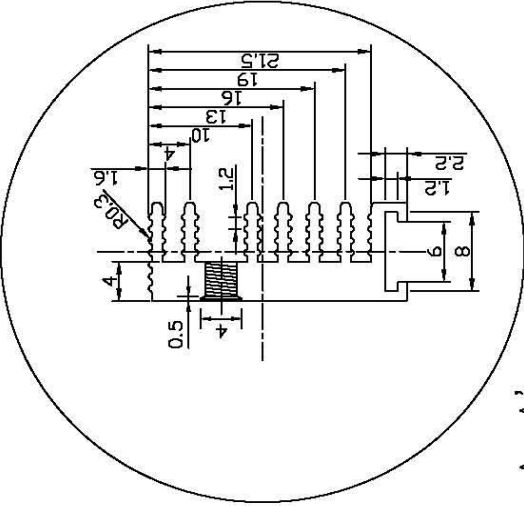
0701-04V '04년 9월

※ HT1, HT2 (PFC, BRIDGE) ※

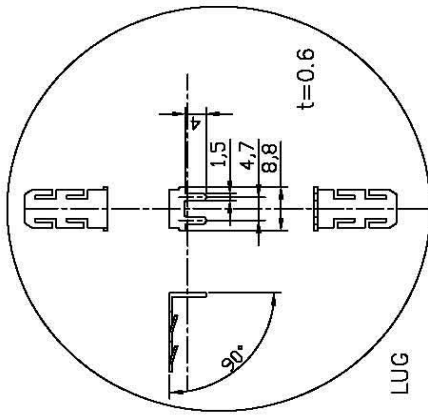
<품번 A>



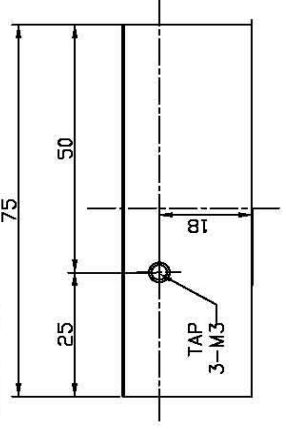
SECTION A-A'



<품번 B>



<품번 C>

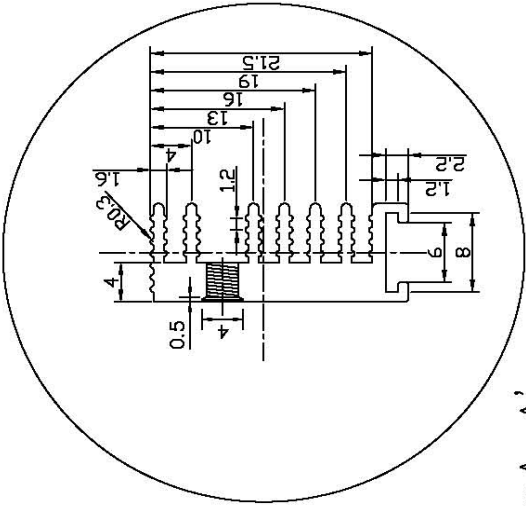
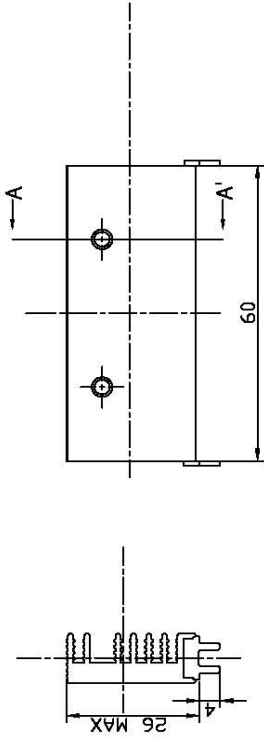
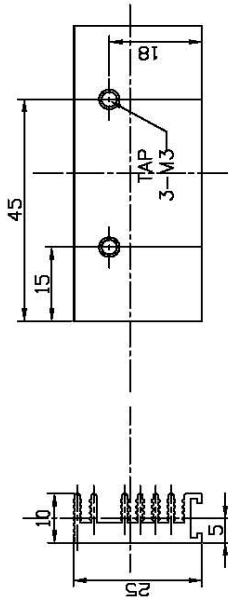


- ※ 지 정 ※
1. 무지정 공차 ±0.2 이하.
 2. 무지정 BENDING : 내측 R0.3 이하.
 3. 체결부 평탄도 유지.
 4. LUG 인장력 : 5Kg 이상.
 5. LUG 휨은 1도 이내.
 6. 외관 및 기능을 해 하는 결함이 없을 것.
 7. 동일 기호부는 형상, 치수 동일.
 8. 양산 전 SAMPLE 제출하여 설계 승인 득할 것.
 9. SAMPLE(초품)제출 시 치수측정, 제작공정도 및 외관검사 자료 제출.
 - 10.0 치수는 설계 인정 치수.

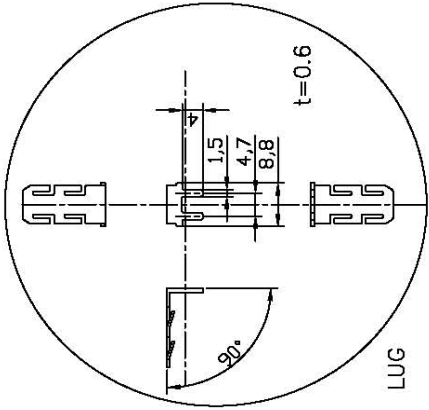
DATE	NAME	UNIT	DESIGN	CHECK	APPR.	REVISIONS	REF. NO.	APP.
2006.07.11								
TITLE						26~32" SMPS		
H&E Co., Ltd						A40-T070		

1701-07A		DWG. NO.	NO.	PART NAME	PART NO.	MATERIAL	REMARK
A40-T071			A	EXTRUSION HEATSINK		AL	

※※ HT3 (FET'S) ※※



SECTION A - A'



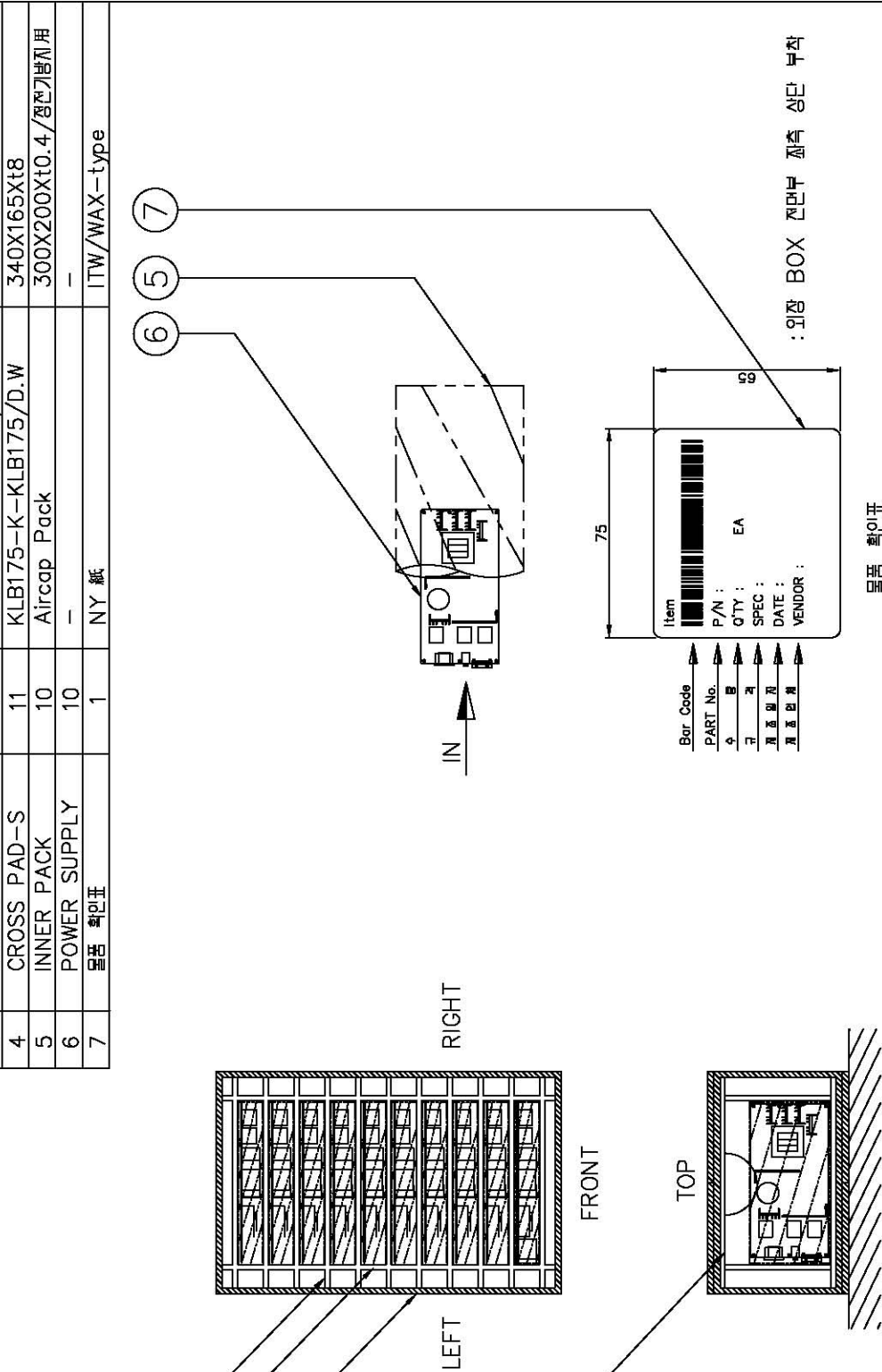
- ※※ 지 정 ※※
1. 무지정 공차 ± 0.2 이하.
 2. 무지정 BENDING : 내측 R0.3 이하.
 3. 체결부 평탄도 유지.
 4. LUG 인장력 : 5Kg 이상.
 5. LUG 휨은 1도 이내.
 6. 외관 및 기능을 해 하는 결함이 없을 것.
 7. 동열 기호부는 형상, 치수 동일.
 8. 양산 전 SAMPLE 제출하여 설계승인 득할 것.
 9. SAMPLE(초품)제출 시 치수측정, 제작공정도 및 외관검사 자료 제출.
 - 10.() 치수는 설계 인정 치수.

[illegible]

Date: 2006. 09. 18

POWER PACKING DRAWING

품번	품명	Q'TY	MATERIAL	규격
1	외장 BOX	1	KLB175-K-KLB175/D.W	540X360X221Xt10
2	PAD	2	S-3S-S/D.W	515X335Xt8
3	CROSS PAD-L	2	KLB175-K-KLB175/D.W	520X165Xt8
4	CROSS PAD-S	11	KLB175-K-KLB175/D.W	340X165Xt8
5	INNER PACK	10	Aircap Pack	300X200Xt0.4/정전기방지용
6	POWER SUPPLY	10	-	-
7	물품 확인표	1	NY 紙	ITW/WAX-type



년월일	시명	변경사항	변경사유	근거	승인
단위:mm	최도	N/S	명	포장 SPEC	
제도년월일	제도	검거	검도	승인	
06.07.11.	박 세원		정	26~32" SMPS	
주 메이치연이			참고	도면	번호
			자료		-

- 지정
- 무지정 허용치 ±1
 - 제질,표면처리 및 기타 전부분에 개발 승인품과 상이한 변경사항이 발생시에는 반드시 사전승인 득한 후 적용할것.
 - 초품 제출시 측정Data , 제질 증명서 첨부할것.

POWER BAR-CODE LABEL DRAWING

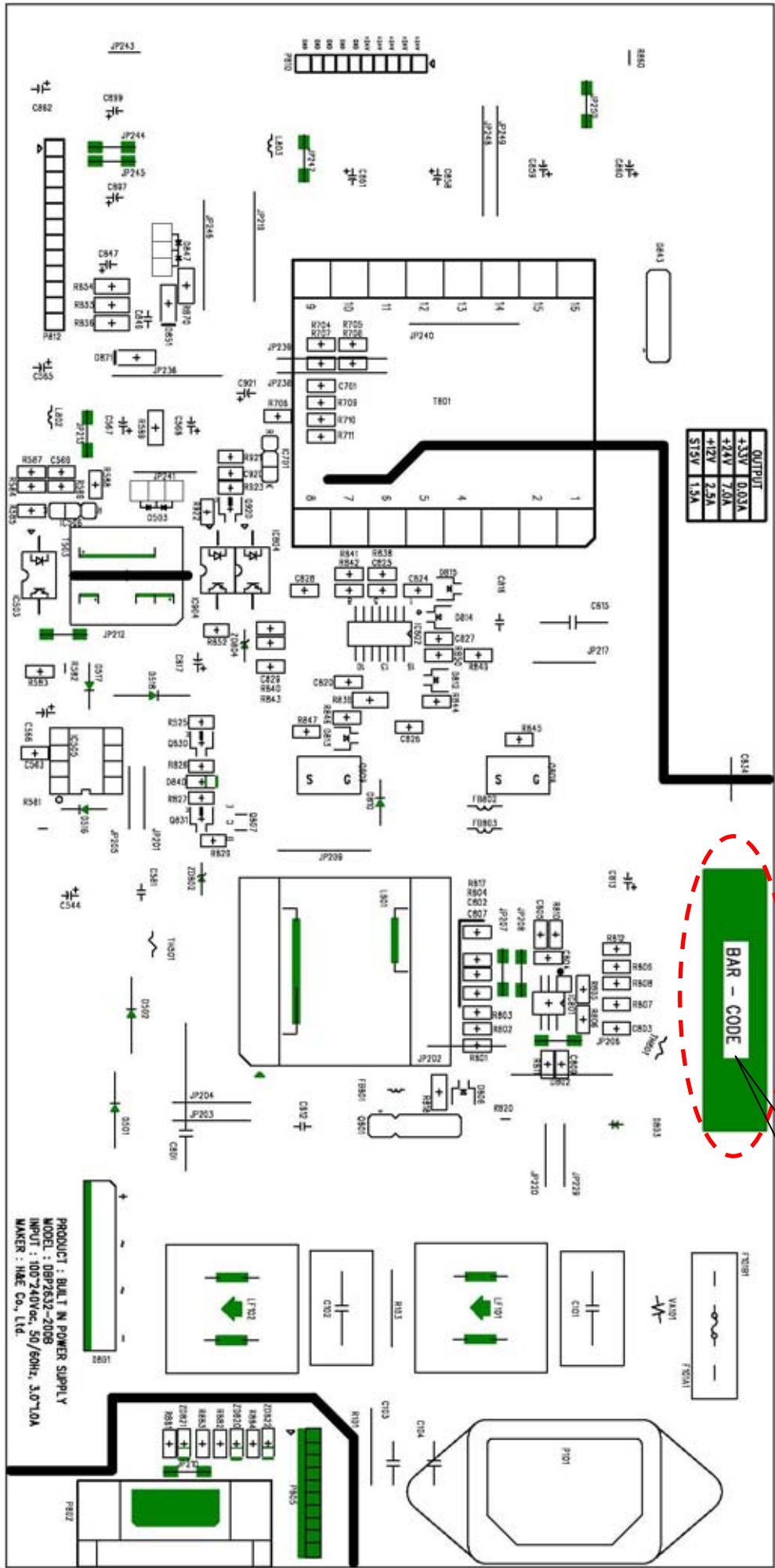
Diagram illustrating the dimensions of a barcode. The total height is 42, and the height of the barcode area is 8. The barcode number is 6904A10454300001.

6904A1045430001

1.2.3...

[illegible]

POWER LABELING POINT

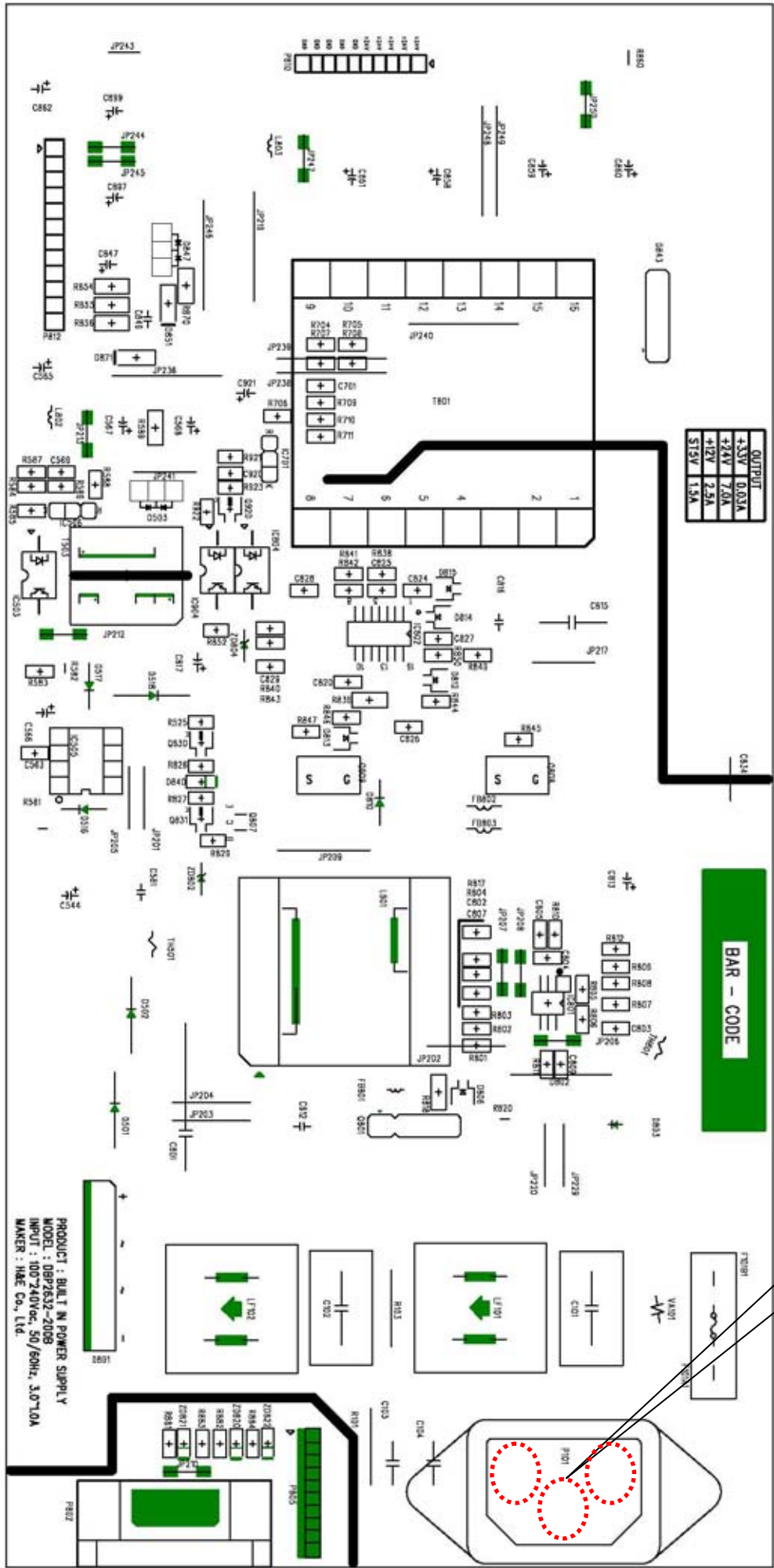


POWER Workman Bonding POINT



Bonding Point P101

POWER Workman Resolder POINT



Resolder
Point
P101