MEGMEET®

SPECIFICATION
产品规格书

Revision: 1.0

Issued Date：2016-09-26

Model : MP5565-90V1200 A

Description: POWER SUPPLY & LED DRIVER SPECIFICATION

PREPARED BY 编写	CHECKED BY 审核	APPROVED BY 批准
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Revision History

修订履历

Revision 版本/次	Change Item (修改项次)	Date (修改日期)
1. 0	Initial Release (初版发行)	2016-09-26

Content 目录

1. Electrical Specification 电气规格

1.1 Table 1 Input Electrical Characteristics（输入特性）

Input voltage range 输入电压	AC90V to AC264V
Normal voltage range 标称输入	AC100V to AC240V
Frequency range 频率范围	(50Hz or 60Hz)±5%
Max input ac current 最大输入电流	Max. 3.5A at full load and AC90V input
Inrush current (cold start) 冷启浪涌电流	50A (TYP. peak) at 120Vac; 100A (TYP. peak) at 220Vac
Efficiency 效率	80%min at AC100V or AC240V input and full load
Harmonic current 谐波电流	Meet GB17625.1or IEC61000-3-2 Class D
Touch Currents 接触电流	Less than 0.35mA (peak) at AC240V input
Standby Power Consumption 待机功耗	≤0.5W at AC240V 50Hz input and +5VSB output current≤20mA
Input Fuse 输入保险	T5.0AH 250V~

1.2 Output Electrical Characteristics（输出特性）

1.2.1 Table 2 Constant Voltage Output Specification（恒压输出规格）

Output Channel 输出通道	Output Rated Voltage 输出额定电压	Voltage Regulation 电压调整率	Min. current 最小电流	Rated current 额定电流	Peak current 峰值电流
+5VSB	+5V	±5%	0.02A	0.5A	1.5A
+5V	+5V	±5%	0.1A	2.5A	3.5A
+12V	+12V	±10%	0.1A	3.5A	4.5A
+24V	+24V	±10%	0.1A	0.6A	1.5A

Note: The testing of peak current shall be performed under other dc output load rating and the peak current pulse width within 50ms conditions.峰值电流的测试条件是其它负载为额定负载时测试，且脉宽小于 50 毫秒。

1.2.2 Table 3 Constant Current Output Specification（恒流输出规格）

Output Channel 输出通道	Output Voltage Rang 输出电压范围	Current Regulation 电流调整率	Output Rated Current 输出额定电流
LED1	109V-130V	±8%	0.6A
LED2	109V-130V	±8%	0.6A

1.2.3 Table 4 DC Output Ripple & Noise. （输出纹波和噪声）

Output Channel	Output Rated Voltage	Ripple & Noise (Peak-peak, 峰-峰值)	
		Ta:25℃	Normal Input and Full Load
+5VSB	+5V	100mV	
+5V	+5V	100mV	
+12V	+12V	120mV	
+24V	+24V	240mV	

Note: Ripple & Noise test 纹波和噪声测试

1)the Bandwidth of oscilloscope is set to 20MHz.
示波器带宽设置在 20 兆赫兹。

2)Use a 0.1uF ceramic capacitor in parallel with a 10uF electrolytic capacitor at output connector terminals for ripple & noise measurements.
输出端并联一个 0.1uF 的陶瓷电容和一个 10uF 的电解电容来测试纹波和噪声。

1.2.4 Table 5 Dynamic Response Of Output. （输出动态响应）

Output Channel	Output Rated Voltage	Response Regulation of Output Voltage 输出电压响应调整率					
		Step Load 阶跃负载	Slew Rate	Frequency Rang	Step Load 阶跃负载	Slew Rate	Frequency Rang
		Min. to 50% or 50% to Max.	0.2A/us	50Hz~ 100Hz	Min. to Max.	0.2A/us	50Hz~ 100Hz
+5VSB	+5V	±5%			±10%		
+5V	+5V	±5%			±10%		
+12V	+12V	±10%			±10%		
+24V	+24V	±10%			±10%		

1.2.5 Table 6 Hold-Up Time（输出保持时间）

Output Channel	Output Rated Voltage	Hold-Up Time			
		120Vac input	Full Load	220Vac input	Full Load
+5VSB	+5V	≥10 ms		≥10 ms	
+5V	+5V	≥10 ms		≥10 ms	
+12V	+12V	≥10 ms		≥10 ms	
+24V	+24V	≥10 ms		≥10 ms	

1.2.6 Table 7 DC Output Overshoot During Turn-On/Off（输出超调）

Output Channel	Output Rated Voltage	Overshoot voltage(V)超调电压	
		Turn-on 开机	Turn-off 关机
+5VSB	+5V	≤10%	≤10%
+5V	+5V	≤10%	≤10%
+12V	+12V	≤10%	≤10%
+24V	+24V	≤10%	≤10%

Note: All of dc output current from Min. to Max. 测试时负载范围：最小到最大。

1.2.7 Table 8 DC Output Voltage Rise Time（输出上升时间）

Output Channel	Output Rated Voltage	Rise time	
		120Vac input and Full Load	220Vac input and Full Load
+5VSB	+5V	≤50 ms	≤50 ms
+5V	+5V	≤100 ms	≤100 ms
+12V	+12V	≤100 ms	≤100 ms
+24V	+22V	≤100 ms	≤100 ms

Note: The rise time measured is when the output voltages rise from10% to 90% of specified output voltage Vout observed on the channel waveform.
上升时间为输出电压从 10%上升到 90%的时间。

1.3 Protection（保护功能）

1.3.1 Table 9 DC Output Over Current Protection（输出过流保护）

Output Channel	Over Current	Comments
+5VSB	≥2.5A (TYP.)	Hiccup 保护后重启
+5V	≥3.5A (TYP.)	Hiccup 保护后重启
+12V	≥4.5A (TYP.)	Hiccup 保护后重启
+24V	≥1.5A (TYP.)	Hiccup 保护后重启

Note: The over current protection should be tested at other load rating.
过流保护测试是在其它各路额定负载时测试。

1.3.2 Table 10 DC Output Short Circuit Protection（输出短路保护）

Output Channel	Comments
+5VSB	Hiccup 保护后重启
+5V	Hiccup 保护后重启
+12V	Hiccup 保护后重启
+24V	Hiccup 保护后重启

Note: The Short Circuit protection should be tested at other load rating.
短路保护测试是在其它各路额定负载时测试。

1.4 Table 11 Remote On/Off Control（遥控功能）

PS/ON Signal	Comments	Outputs
PS/ON - High	≥3.0V&2.0mA	Output
PS/ON - Low	≤0.5V	X
PS/ON -Open	--	X

The power supply DC outputs shall be enable with an active- TTL-compatible signal(PS/ON). The +5VSB is on whenever the AC power is present. The signal level must be between 0-5V.
输出受控于一个 TTL 电平兼容的信号（PS/ON）。+5VSB 路输出电压 AC 上电后就建立了。此信号电平需在 0-5V 之间。

* When PS/ON is pulled to TTL high, the DC outputs are to be enabled.
  PS/ON 高电平，打开输出。
* When PS/ON is pulled to TTL low or open circuit, the DC outputs are to be disabled.
  PS/ON 低电平或悬空，关闭输出。

1.5 **Table 12 The Backlight On/Off Control（背光控制）**

BL/ON Signal	Comments	Outputs
BL/ON-High	≥3.0V&2.0mA	Output
BL/ON-Low	≤ 0.5V	X
BL/ON-Open	--	X

The Constant Current Source DC outputs current shall be enable with an active-TTL-compatible signal(BL/ON). The signal level must be between 0-5V.

恒流源输出受控于一个 TTL 电平兼容的信号（BL/ON）。此信号电平需在 0-5V 之间。

* When BL/ON is pulled to TTL high, the DC current outputs are to be enabled.
BL/ON 高电平，打开输出。

* When BL/ONis pulled to TTL low or open circuit, the DC outputs are to be disabled.
BL/ON 低电平或悬空，关闭输出。

1.6 Table 13 Adjust Backlight Brightness（调光）

ADJ Signal	Comments
ADJ-High	≥3.0V&2.0mA
ADJ-Low	≤0.5V
ADJ-Duty	20%-100%
ADJ-Frequency	150Hz -200Hz

The ADJ pin must be connected to a ADJ signal. The ADJ signal can adjust the backlight brightness,the wider the duty cycle, the brighter the backlighting. The signal level must be between 0-5V.
ADJ 脚需接 ADJ 信号。此 ADJ 信号能调节背光亮度，ADJ 信号占空比越宽，背光越亮。此信号电平需在 0-5V 之间。
Note: The DC dimming is not applicable to this power supply.
注意：此电源不接受直流调光。

2. Safety （安全）

2.1 Standards（标准）

The power supply shall comply with the following Standards:
电源安全满足下列标准：
1) UL60950
2) EN60950
3) GB8898-2011

2.2 Precaution Class for protection against electric shock （防电击保护措施类别）

Class II

2.3 Insulation（绝缘性能）

2.3.1 Table 14 Insulation Resistance（绝缘阻抗）

Input To Output	≥10MΩ (with DC500V at room temperature)
Input To FG	≥10MΩ (with DC500V at room temperature)

2.3.2 Table 15 Dielectric strength（绝缘强度）

Input To Output	AC3000V 50Hz 1minute ≤10mA
Input To FG	AC1500V 50Hz 1minute ≤10mA

3. EMC （电磁兼容性）

3.1 EMI （电磁干扰）

The power supply shall comply with the following Standards:
电源电磁干扰满足下列标准：

1) Conduction Emission : （传导干扰度）
*CISPR13(55013)
*EN55013
*GB13837
*GB9254 CLASS B
*FCC PART13

2) Radiated Emission : （辐射干扰度）
*CISPR13(55013)
*EN55013
*GB13837
*GB9254 CLASS B
*FCC PART13

Note：The power board should be assembled in customer product to test for passing the above criterion.需配合用户电路整机通过上述标准。

3.2 EMS （电磁抗扰）

The power supply shall comply with the following Standards:
电源电磁抗扰满足下列标准：

1) ESD （静电抗扰度）
*GB17626.2
*IEC/EN61000-4-2

2) EFT （脉冲群抗扰度）
*GB17626.4
*IEC/EN61000-4-4 3kV

3) SURGE （雷击浪涌）
*GB17626.5
*IEC/EN61000-4-5 1.5kV/3kV

4） DIP (电压跌落)
*GB17626.11
*IEC/EN61000-4-11

4. Environmental Requirement （工作环境）

4.1 Temperature （环境温度）

* Operating 工作温度: -10℃ to +40℃.
* Storage 存储温度: -20℃ to +80℃.

4.2 Humidity （环境湿度）

* Operating 工作: From 10%to90% relative humidity (non-condensing).
* Storage 存储: From 5% to95% relative humidity (non-condensing).

4.3 Altitude （海拔高度）

* Operating: Less than 5000m（适用于在海拔低于 5000 米条件下使用）
* Storage: Less than 5000m （适用于在海拔低于 5000 米条件下储存）

4.4 Climates （气候要求）

* For tropical climates（适用于热带气候）

4.5 Cooling Method （冷却方式）

* Ventilation cooling . 风道自然冷却

4.6 Vibration （振动耐受）

10-55Hz, 19.6m/s²(2G), 20minutes each along X, Y and Z axis.

需配整机满足如下标准：
10-55Hz, 49.0m/s² (5G),3minutes period, 60minutes each along X, Y and Z axis.

4.7 Shock（冲击耐受）

49m/s²(5G),11ms, once each X, Y and Z axis.

需配整机满足如下标准：
196.1m/s² (20G), 11ms, once each X , Y and Z axis.

5. Dimension （物理尺寸）

* 210mm X180 mm X14.5mm(元件面高) (长 L *宽 W * 高 H).

6. Weight （重量）

* TBD.

7. Pin Connection (连接器脚位定义)

Table 16 CN101(3Pin)

NO.	Pin Connection	Function
①	L	AC INPUT LINE
②	---	NC
③	N	AC INPUT NUTURE

Note: CN101 -- TYPE : pitch3.96mm

Table 17 CN201(13Pin)

NO.	Pin Connection	Function
①②⑨⑩⑪	GND	+5VSB、+5V AND +12V CHANNELS DC RETURN
③④⑦⑧	+5V	+5V CHANNEL DC OUTPUT
⑥	5VSB	5VSB CHANNEL DC OUTPUT
⑤	PS/ON	SMPS ON/OFF CONTROL(ON = HIGH)
⑫⑬	+12V	+12V CHANNEL DC OUTPUT

Note: CN201 -- TYPE : pitch2.5mm

Table 18 CN202（4Pin）

NO.	Pin Connection	Function
①②	+24V	+24V CHANNEL DC OUTPUT
③④	GND	+24V CHANNELS DC RETURN

Note: CN202 -- TYPE : pitch2.5mm

Table 19 CN206（3Pin）

NO.	Pin Connection	Function
①	LED1+	LED1 CHANNELS CURRENT OUTPUT
②	/	NC
③	LED1-	LED1 CHANNEL CURRENT RETURN

Note: CN206 -- TYPE : pitch2.0mm

Table 20 CN207（3Pin）

NO.	Pin Connection	Function
①	LED2+	LED2 CHANNELS CURRENT OUTPUT
②	/	NC
③	LED2-	LED2 CHANNEL CURRENT RETURN

Note: CN207 -- TYPE : pitch2.0mm

Table 21 CON208(6Pin)

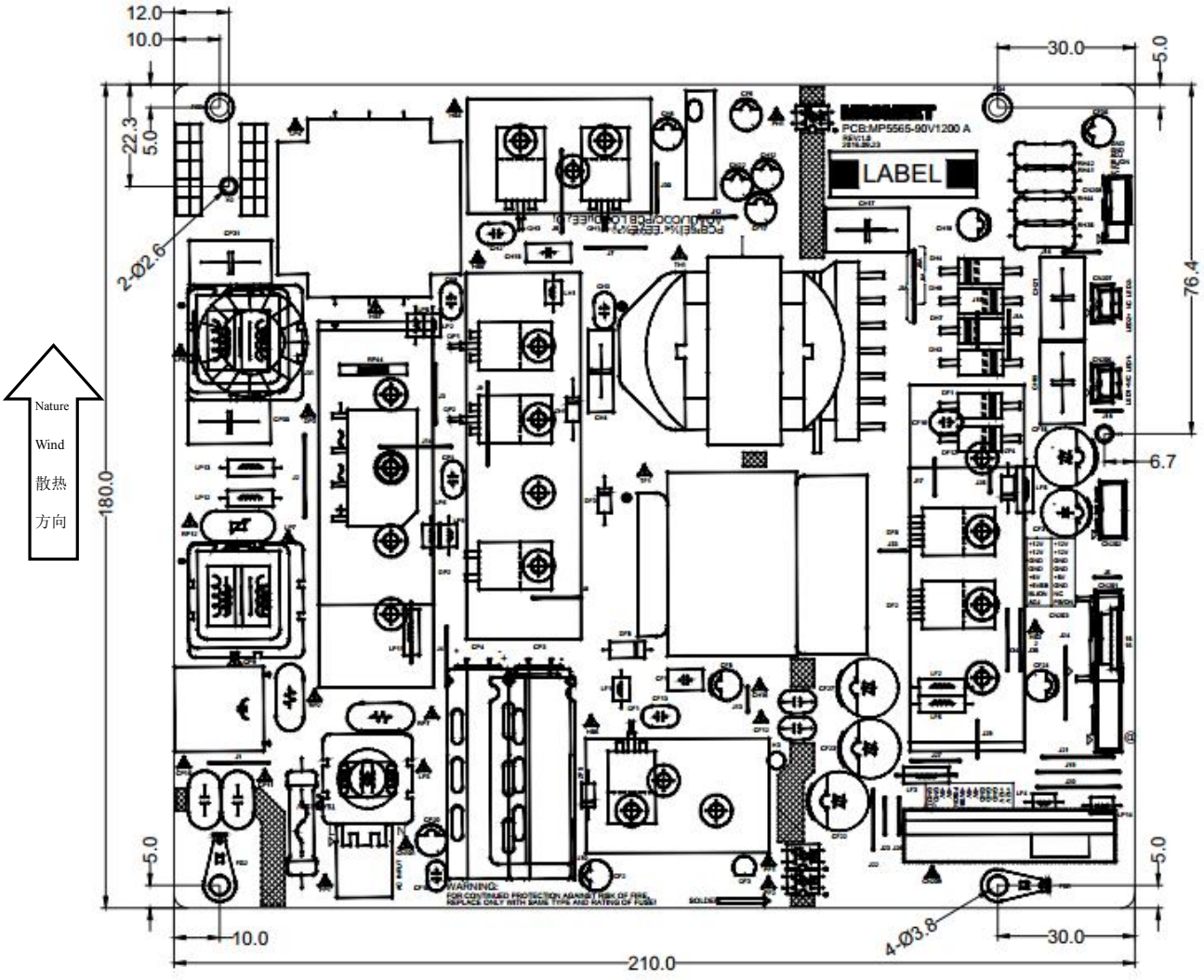
NO.	Pin Connection	Function
①②	NC	NC
③	BL/ON	BL-ON SIGNAL INPUT
④	ADJ	ADJ DIM SIGNAL INPUT
⑤⑥	GND	+12V CHANNEL DC OUTPUT

Note: CON208 -- TYPE : pitch2.0mm

8. Power Supply Mounting （装配）

8.1 Power Supply Mounting（装配结构）

Note: The image shown here is indicative only. If there is inconsistency between the image and the actual product, the actual product shall govern.(此图片仅供参考。若图片与实物有所不同，则以实物为准。)



8.1 Mount Method（装配事项 ）

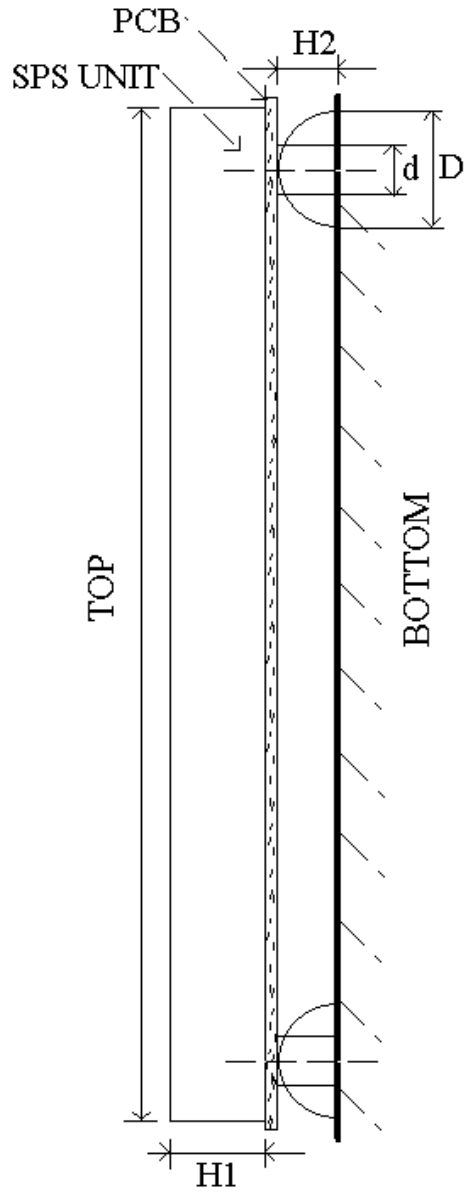
Table 22

D(1*)	≤5.5mm
H2(2*)	≥3.0mm
	≤6.0mm
H1	≤14.5mm

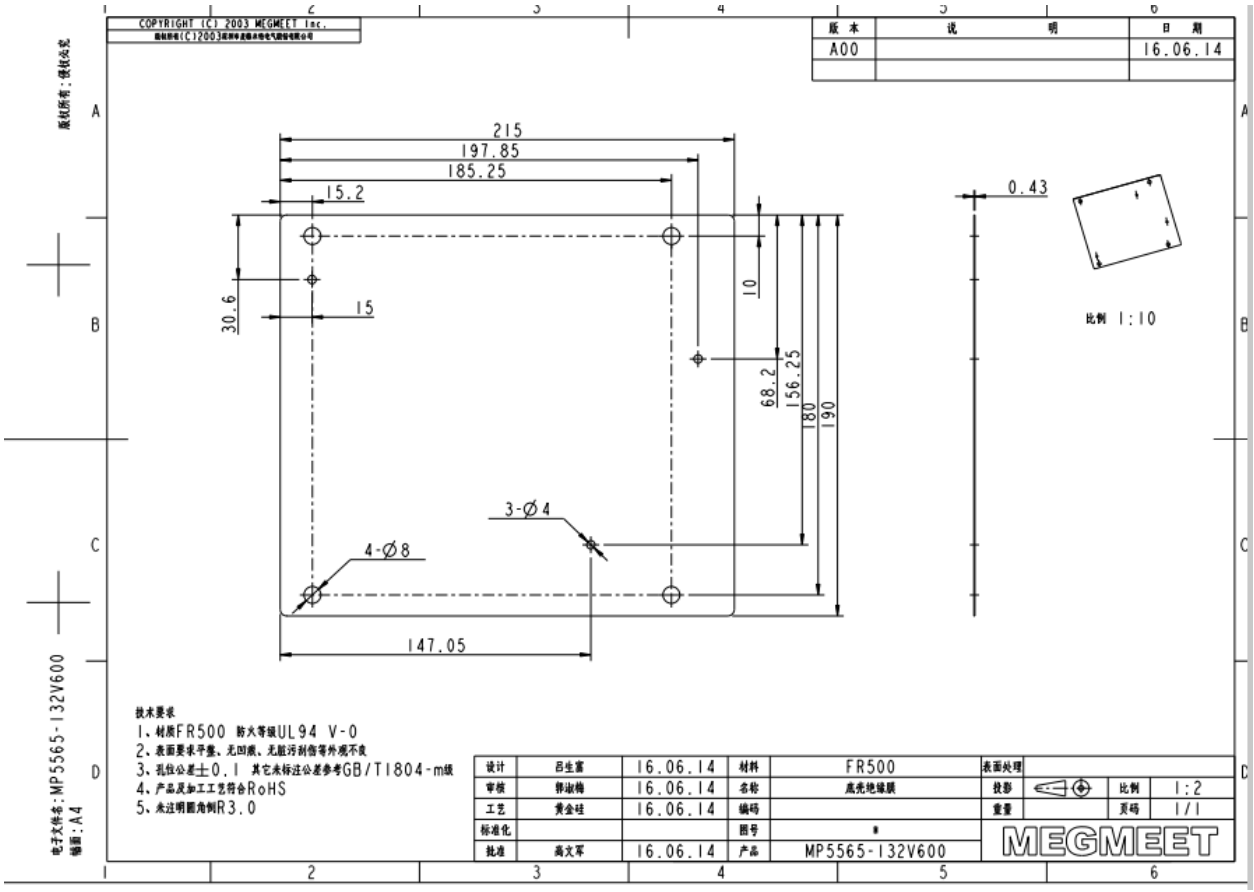
Note:

1*. Mount the unit to the mounting board using M3 screw. The maximum value of the tightening torque is 0.4N-M. The insertion depth of the screw should be less 5.5mm.

2*. Add 215mm×190mm× 0.43mm (W*-H*T)Mylar under PCB



9. Mylar（绝缘麦拉片）



10. Package（包装）

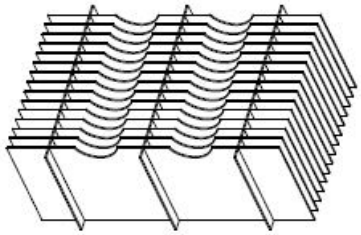
1. Carton (Internal Package)

1）Packing Form：

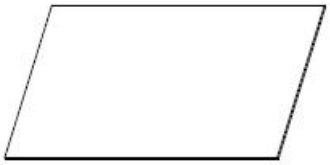
Corrugated fiberboard box

2）Packing Method：

Flat

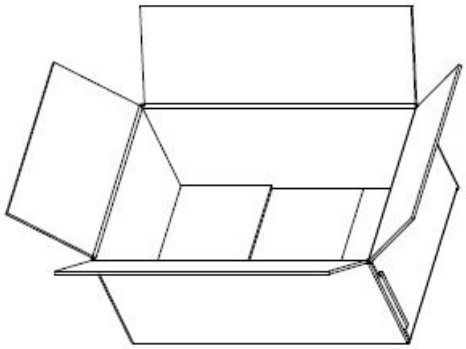


Components of paper cards



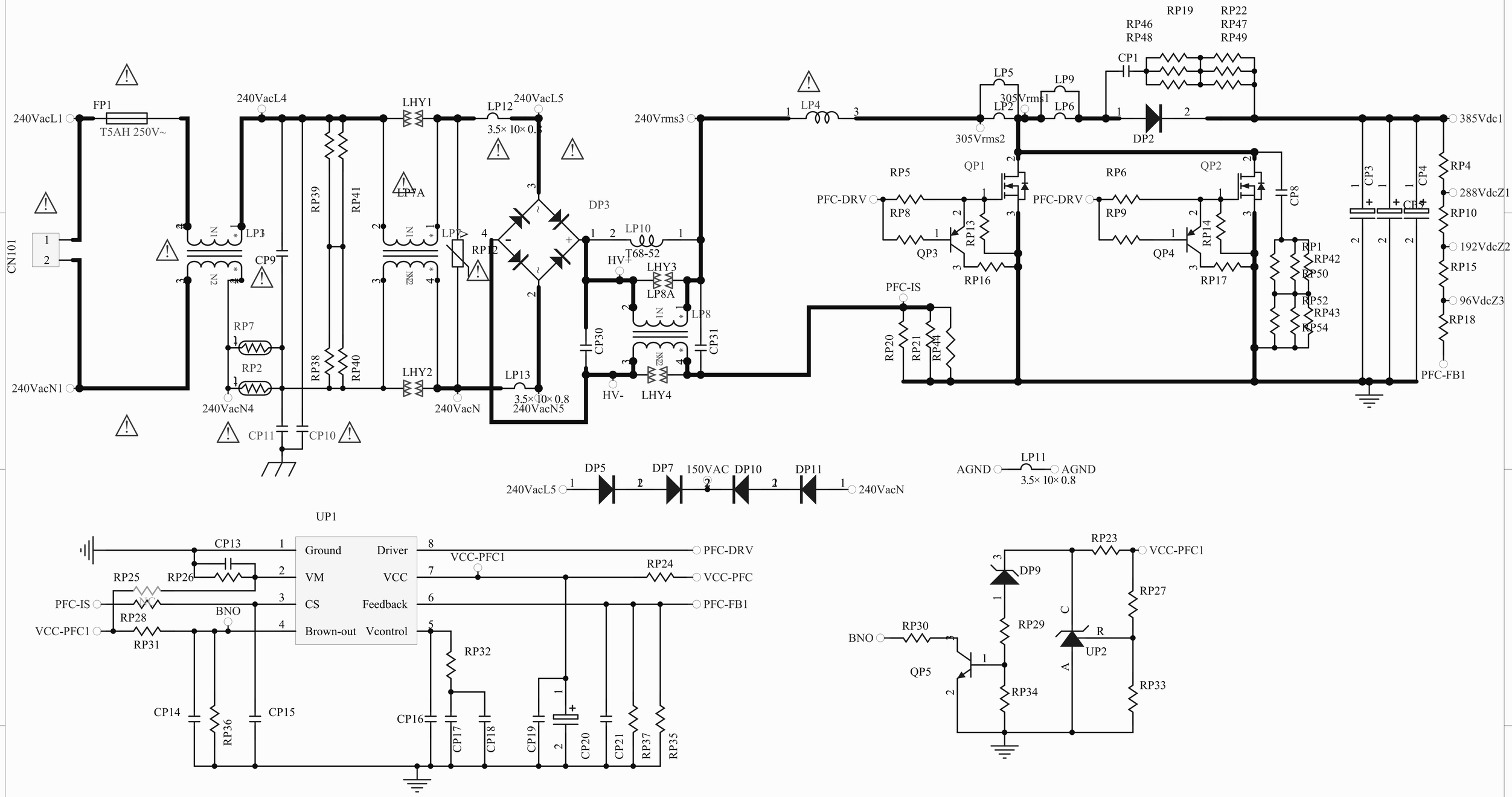
Flat

Corrugated box



2. Packing Specification

Item	Specification
Model	MP5565-90V1200 A
Carton size	mm (Outside dimensions)
Quantity	pcs/ctn
Gross weight	kg
Net weight	kg×pcs



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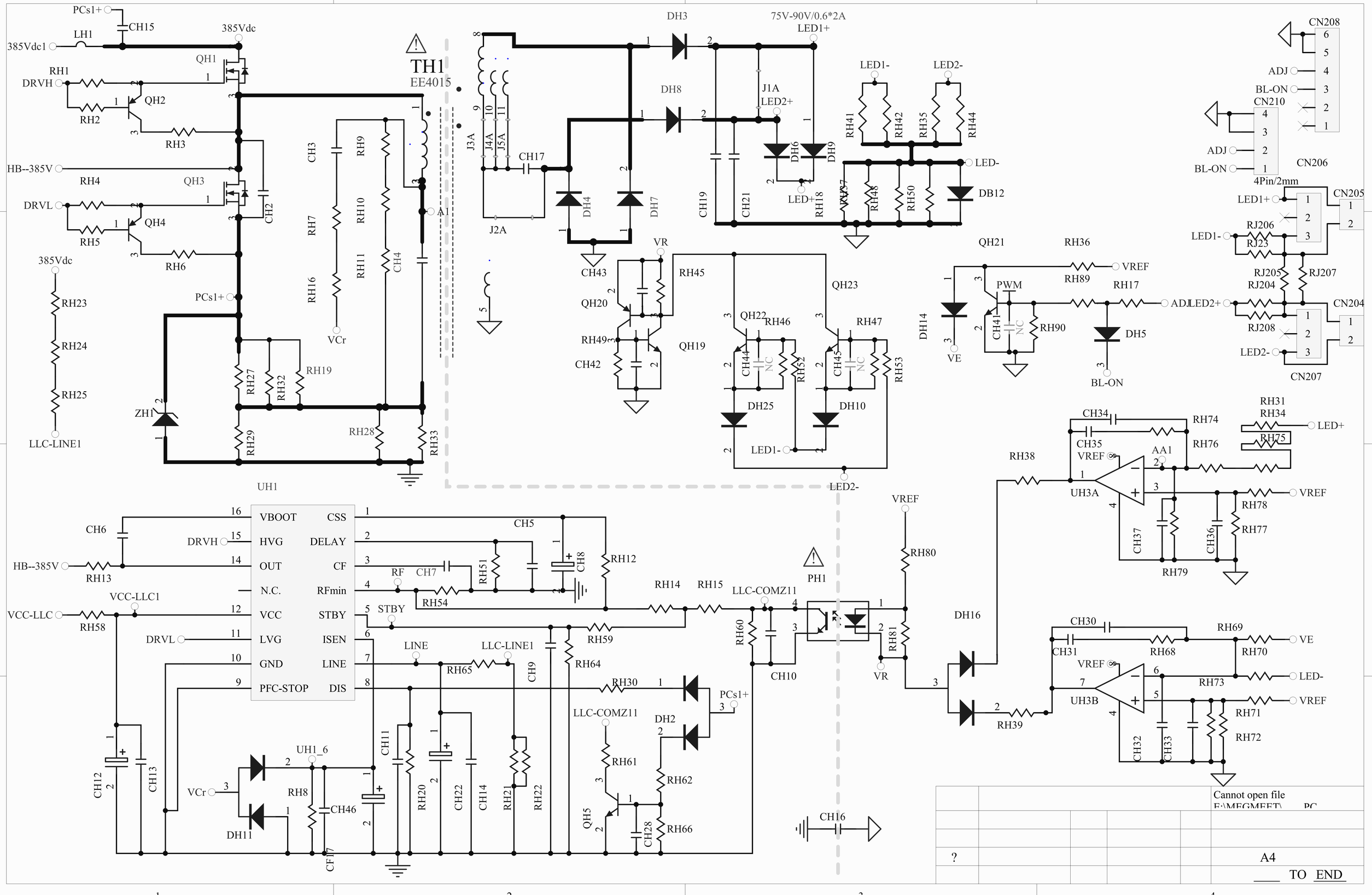
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CH15
LH1
385Vdc
385Vdc1
QH1
RH1
DRVH
QH2
RH2
RH3
HB--385V
RH4
QH3
DRVL
QH4
RH5
RH6
CH2
PCs1+
385Vdc
RH23
RH24
RH25
LLC-LINE1
ZH1
RH27
RH32
RH19
RH29
RH28
RH33
UH1
TH1
EE4015
CH3
RH9
RH7
RH10
RH16
RH11
CH4
VCr
A1
J3A
J4A
J5A
J2A
CH17
DH3
DH8
DH4
DH7
75V-90V/0.6*2A
LED1+
LED1-
LED2-
J1A
LED2+
DH6
DH9
RH41
RH42
RH35
RH44
CH19
CH21
RH37
RH48
RH50
LED-
DB12
LED+
RH18
CH43
VR
RH45
QH20
RH49
CH42
QH19
QH23
QH22
RH46
RH47
CH44
NC
RH52
CH45
RH53
DH25
DH10
LED1-
LED2-
CN208
ADJ
BL-ON
CN210
CN206
4Pin/2mm
CN205
RJ206
RJ23
RJ205
RJ204
RJ207
RJ208
CN204
CN207
QH21
RH36
VREF
RH89
PWM
RH17
ADJ
LED2+
DH14
VE
CH41
RH90
DH5
BL-ON
RH31
RH34
LED+
RH74
CH34
CH35
VREF
RH76
RH75
RH38
AA1
UH3A
RH78
VREF
RH77
CH37
CH36
RH79
16 VBOOT
15 HVG
14 OUT
N.C.
12 VCC
11 LVG
10 GND
9 PFC-STOP
1 CSS
2 DELAY
3 CF
4 RFmin
5 STBY
6 ISEN
7 LINE
8 DIS
CH6
DRVH
HB--385V
RH13
VCC-LLC1
VCC-LLC
RH58
DRVL
CH5
CH8
RH12
RF
CH7
RH51
RH54
STBY
LINE
LLC-LINE1
RH65
CH9
RH64
RH59
RH14
RH15
LLC-COMZ11
PH1
RH60
CH10
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RH80
RH81
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RH69
RH68
RH70
VE
VREF
PWM
RH73
LED-
UH3B
RH39
RH71
VREF
RH72
CH32
CH33
CH12
CH13
UH1_6
VCr
RH8
CH46
DH11
CF17
CH11
RH20
CH22
CH14
RH21
RH22
RH30
PCs1+
LLC-COMZ11
RH61
RH62
QH5
CH28
RH66
DH2
CH16
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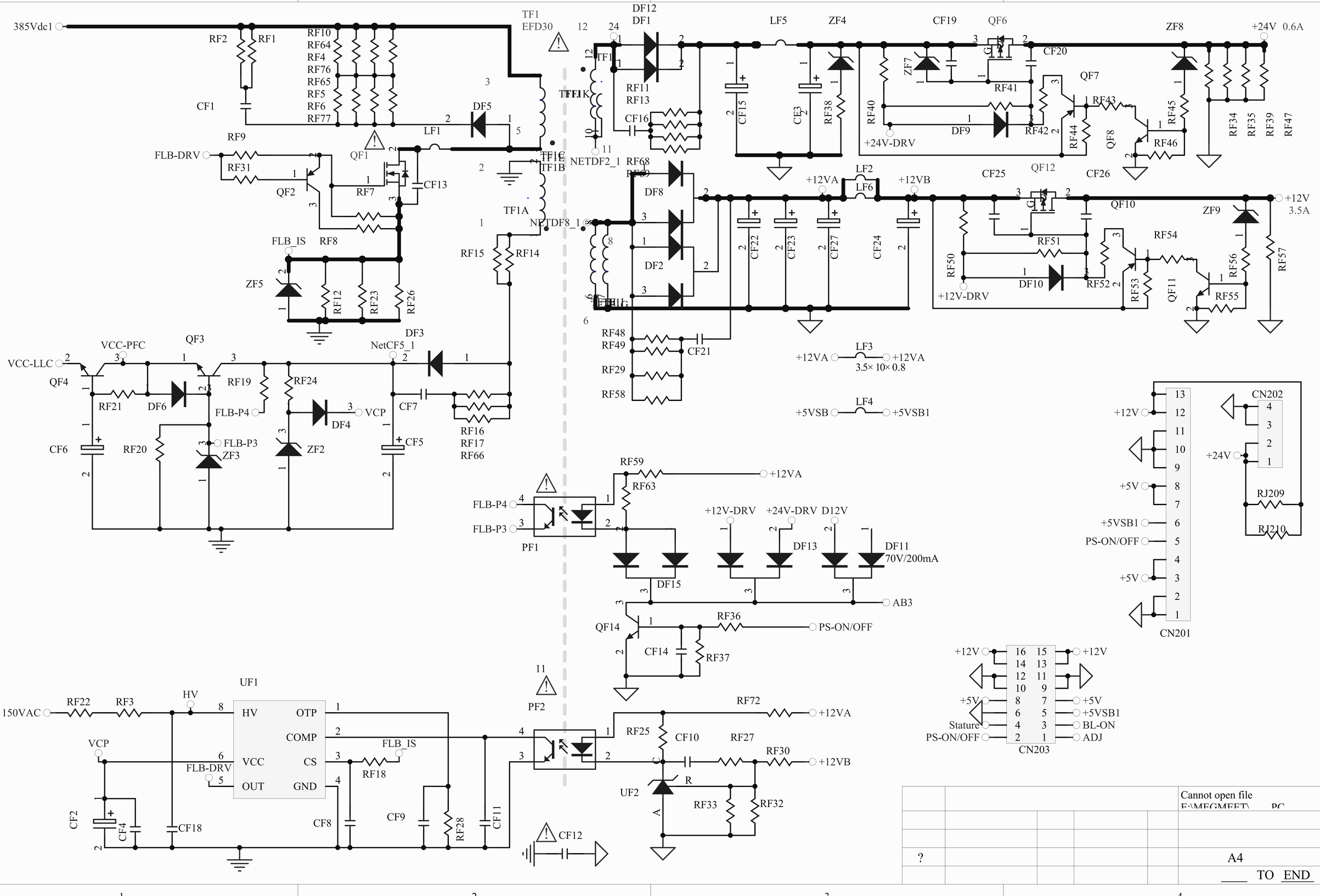
TO END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RF1
RF10
RF64
RF4
RF76
RF65
RF5
RF6
RF77
CF1
TF1
EFD30
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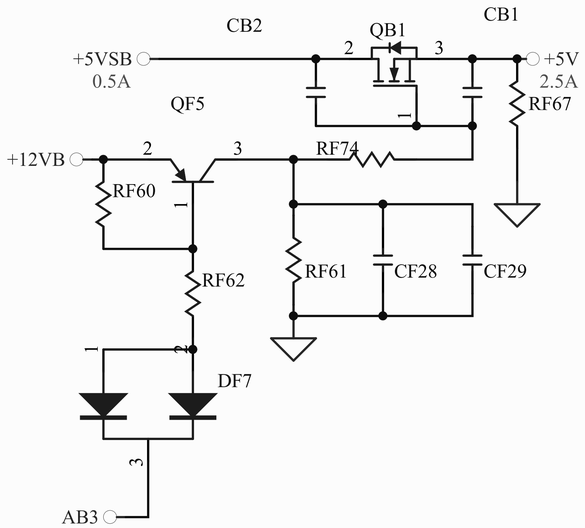
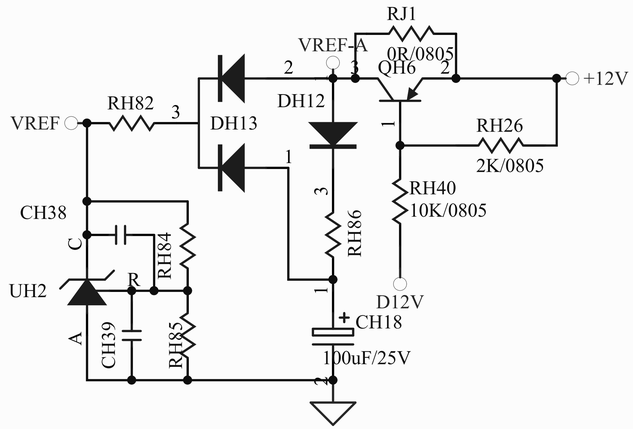
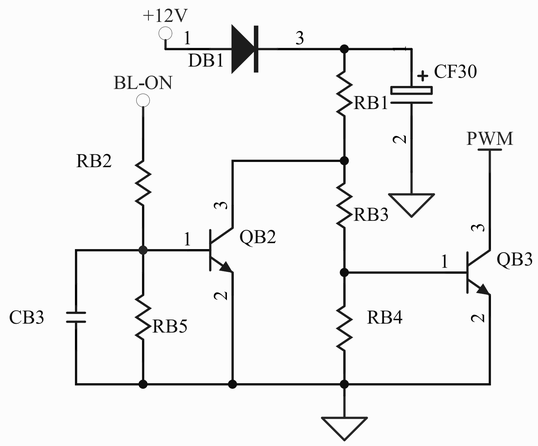
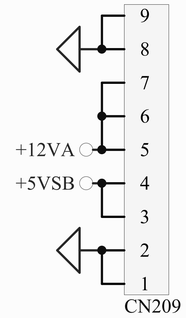
RF9
FLB-DRV
RF31
QF1
QF2
RF7
CF13
TF1C
TF1B
TF1A
FLB_IS
RF8
ZF5
RF12
RF23
RF26
RF15
RF14
NETDF8_1
DF12
DF1
TF1K
RF11
RF13
CF16
NETDF2_1
RF68
RF69
LF5
ZF4
CF19
QF6
CF20
ZF7
RF41
QF7
RF40
+24V-DRV
DF9
RF42
RF43
RF44
QF8
RF45
RF46
ZF8
+24V 0.6A
RF34
RF35
RF39
RF47
CF15
CE3
RF38
CF25
QF12
CF26
+12VA
LF2
LF6
+12VB
DF8
DF2
CF22
CF23
CF27
CF24
QF10
ZF9
+12V
3.5A
RF50
+12V-DRV
DF10
RF51
RF52
RF54
RF53
QF11
RF55
RF56
RF57
RF48
RF49
RF29
RF58
CF21
LF3
+12VA
3.5× 10× 0.8
LF4
+5VSB
+5VSB1
QF3
VCC-PFC
VCC-LLC
QF4
RF21
DF6
RF19
RF24
FLB-P4
DF4
VCP
DF3
NetCF5_1
CF7
RF16
RF17
RF66
CF6
RF20
FLB-P3
ZF3
ZF2
CF5
CN202
+12V
+24V
RJ209
RJ210
+5V
+5VSB1
PS-ON/OFF
CN201
RF59
RF63
+12VA
FLB-P4
FLB-P3
PF1
+12V-DRV
+24V-DRV
D12V
DF13
DF11
70V/200mA
DF15
AB3
QF14
RF36
PS-ON/OFF
CF14
RF37
UF1
150VAC
RF22
RF3
HV
OTP
COMP
CS
GND
VCC
OUT
FLB_IS
RF18
CF2
CF4
CF18
CF8
CF9
RF28
CF11
CF12
PF2
RF72
+12VA
RF25
CF10
RF27
RF30
+12VB
UF2
RF33
RF32
+12V
+5V
+5VSB1
Stature
BL-ON
PS-ON/OFF
ADJ
CN203
Cannot open file
A4
TO END









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Size A4	Number	Revision
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File: F:\PCB 2016\..\BUCK.SchDoc		Drawn By:

FG3
3.8mm
.
FG2
1
FG1
1
FG4
3.8mm
.
QR Code
6mm*6mm
QR Code1
6mm*6mm
.
check1
check
.
LLOO
LOGO
.
WW
LLAA
32*10
.
UL
CQC UL
.
SS
.
H1
NPTH=2.6mm 3/4
.
H2
NPTH=2.6mm 3/4
.
H3
NPTH=2.6mm 3/4
.
MM1
MARK 2
.
MM2
MARK 2
.
MM3
MARK 2
.
HS1
80*25*11mm
PFC-IS
60*25*11
HS3
60*25*11
HS4
PCs1+
40*25*1.5mm
HS5
80*25*11mm
HS7
PFC-IS
80*25*11mm
HS6
40*25*1.5mm
240VacL4 J1A 0.58× 15mm
HV+ J2A 0.58× 20mm
305Vrms1 J3A 0.58× 15mm
PFC-FB1 J4A 0.58× 15mm
385Vdc J5A 0.58× 20mm
+12V J6A 0.58× 7.5mm
HB--385V J7A 0.58× 15mm
385Vdc1 J8A 0.58× 12.5mm
PFC-DRV J9A 0.58× 20mm
FLB-DRV J10A 0.58× 15mm
J11A 0.58× 15mm
VCC-LLC1 J12A 0.58× 10mm
NetCF5_1 J13A 0.58× 7.5mm
VCC-PFC J14A 0.58× 17.5mm
AA1 J15A 0.58× 10mm
J16A 0.58× 10mm
24 J17A 0.58× 10mm
VREF-A J18A 0.58× 7.5mm
BL-ON J19A 0.58× 20mm
ADJ J20A 0.58× 20mm
PS-ON/OFF J21A 0.58× 17.5mm
+12V J35 +12VB
+12V J34 +12VB
NETDF2_1 J33B NETDF8_1 0.58× 7.5mm
240VRMS3 J32 HV+
PFC-IS J31 HV-
DRVL J30A 0.58× 12.5mm
+12VB J29A 0.58× 10mm
+12VA J28A 0.58× 15mm
AB3 J27A 0.58× 12.5mm
+12VB J26A 0.58× 10mm
VREF-A J25A 0.58× 7.5mm
+5V J24A 0.58× 17.5mm
AB3 J23A 0.58× 10mm
+12VA J22A 0.58× 15mm
PFC-DRV RJ2 PFC-DRV 0R/0805
PFC-DRV RJ3 PFC-DRV 0R/1206
PFC-FB1 RJ4 PFC-FB1 0R/0805
VCC-PFC1 RJ6 VCC-PFC1 0R/0805
FLB_IS RJ7 FLB_IS 0R/1206
VCP RJ8 VCP 0R/1206
RJ9 0R/1206
VCC-PFC RJ10 VCC-PFC 0R/0805
VCC-PFC RJ11 VCC-PFC 0R/0805
+12V RJ12 +12V 0R/1206
PCs1+ RJ13 PCs1+ 0R/1206
PFC-IS RJ36 PFC-IS 0R/0805
24 RJ35 NETDF8_1 0R/1206
24 RJ34 NETDF8_1 0R/1206
24 RJ33 NETDF8_1 0R/1206
DGND RJ32 NETDF2_1 0R/1206
DGND RJ31 NETDF2_1 0R/1206
DGND RJ30 NETDF2_1 0R/1206
ADJ RJ15 ADJ 0R/0805
VR RJ16 VR 0R/0805
LED1- RJ17 LED1- 0R/0805
UH1_6 RJ29 UH1_6 0R/0805
VREF RJ18 VREF 0R/0805
+12VB RJ28 +12VB 0R/1206
RJ19 0R/1206
+5VSB1 RJ27 +5VSB1 0R/1206
+5VSB1 RJ26 +5VSB1 0R/1206
VREF RJ21 VREF 0R/1206
VREF-A RJ24 VREF-A 0R/1206
LP14 3.5× 4.7× 0.8
VR RJ22 VR 0R/1206
RJ25 0R/1206

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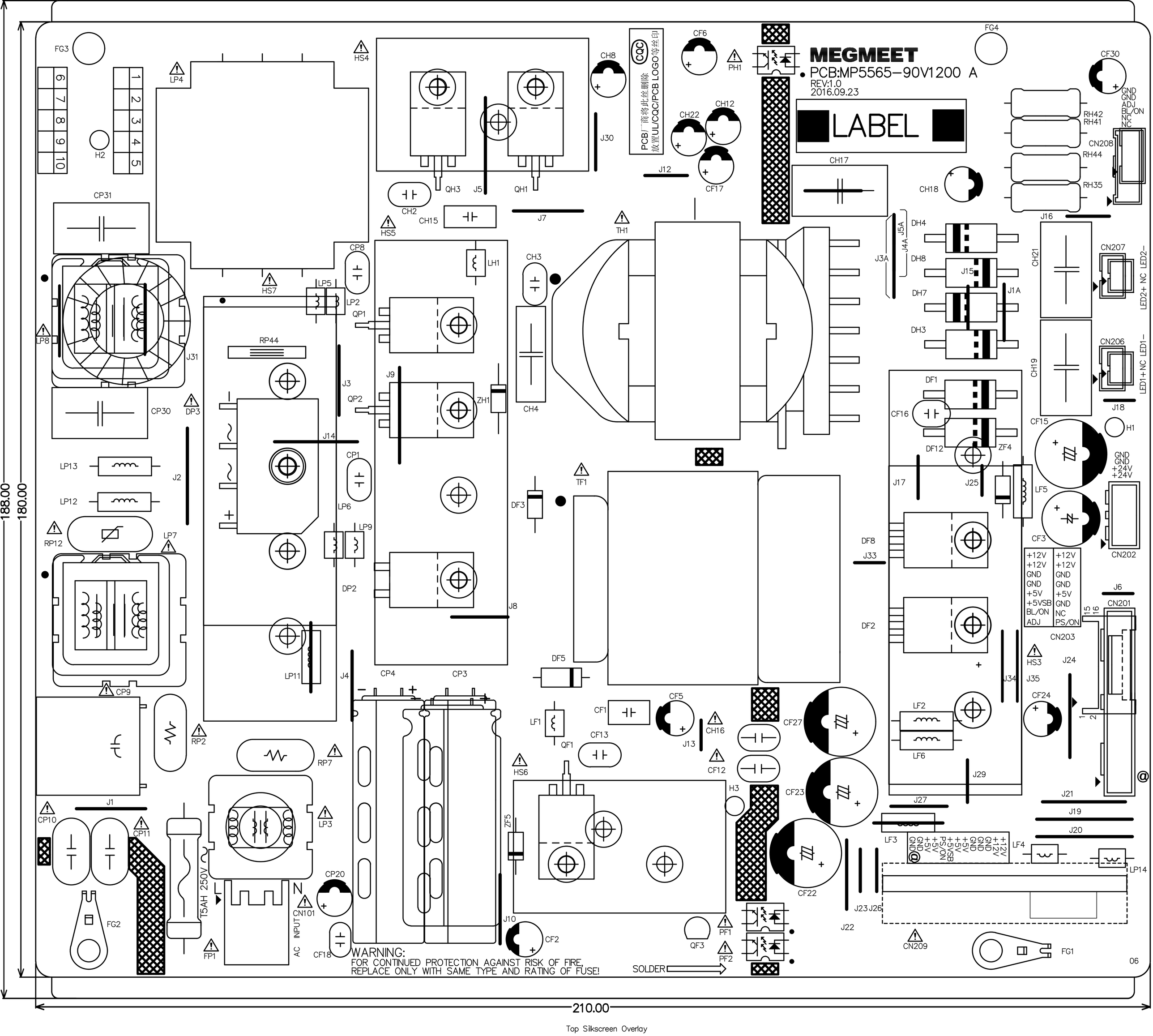
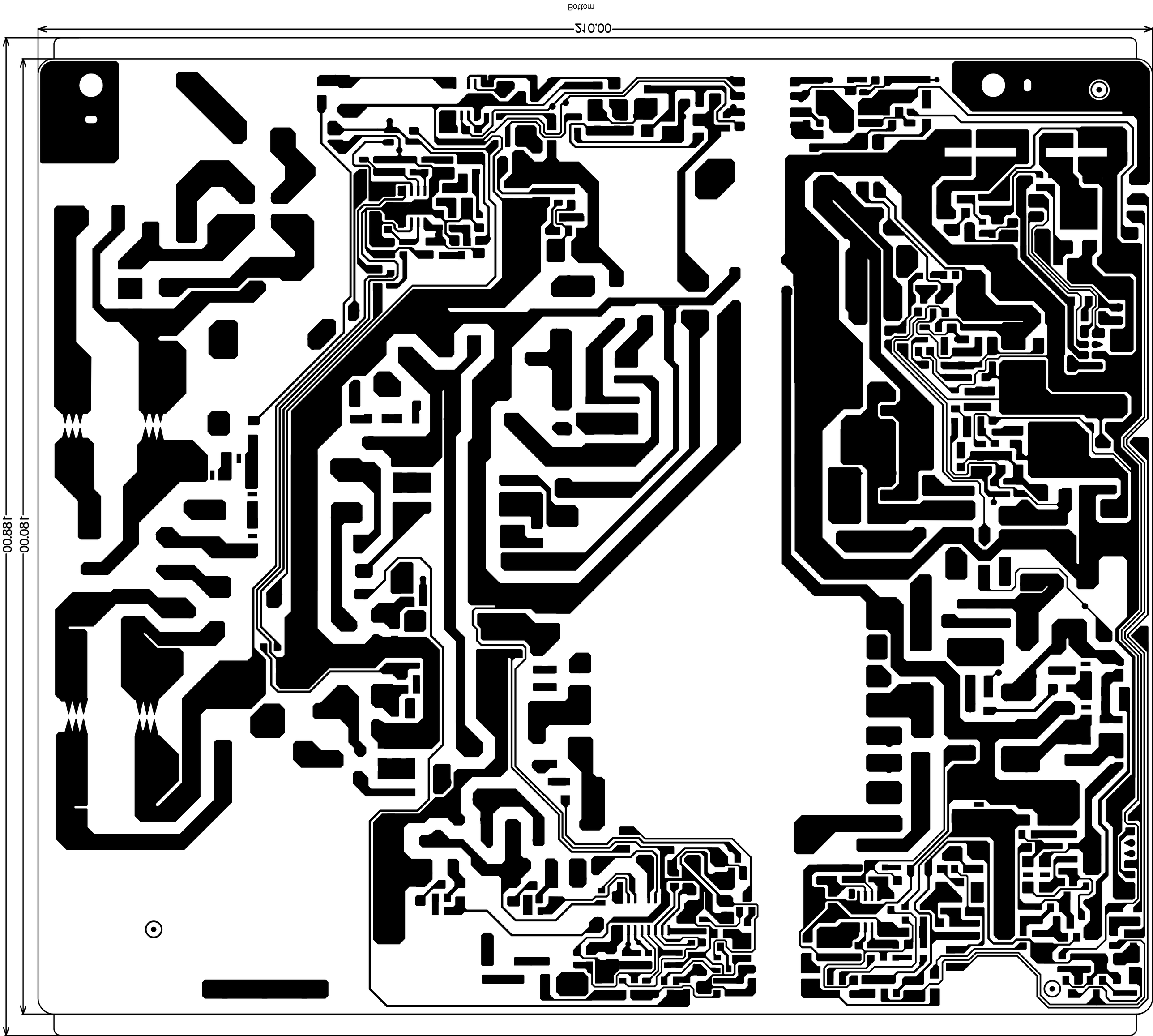


Top Silkscreen Overlay

Bottom



Bottom Silkscreen Overlay