

Service Manual

Model: DPA 6000



www.altoproaudio.com

Version: .1.0

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Introduction

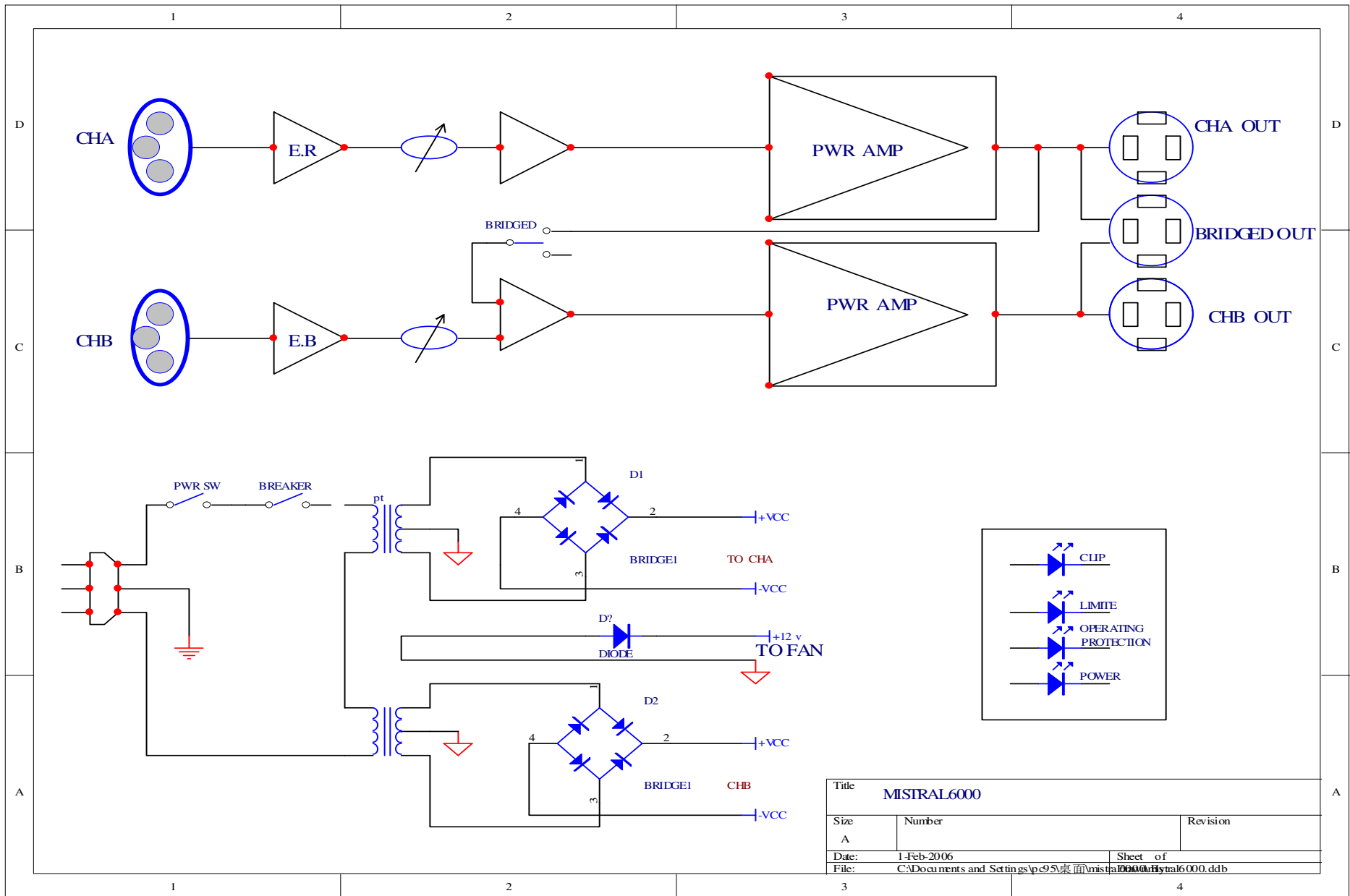
1. Dual channel amplifier

2. The function of Bridge and Limiter

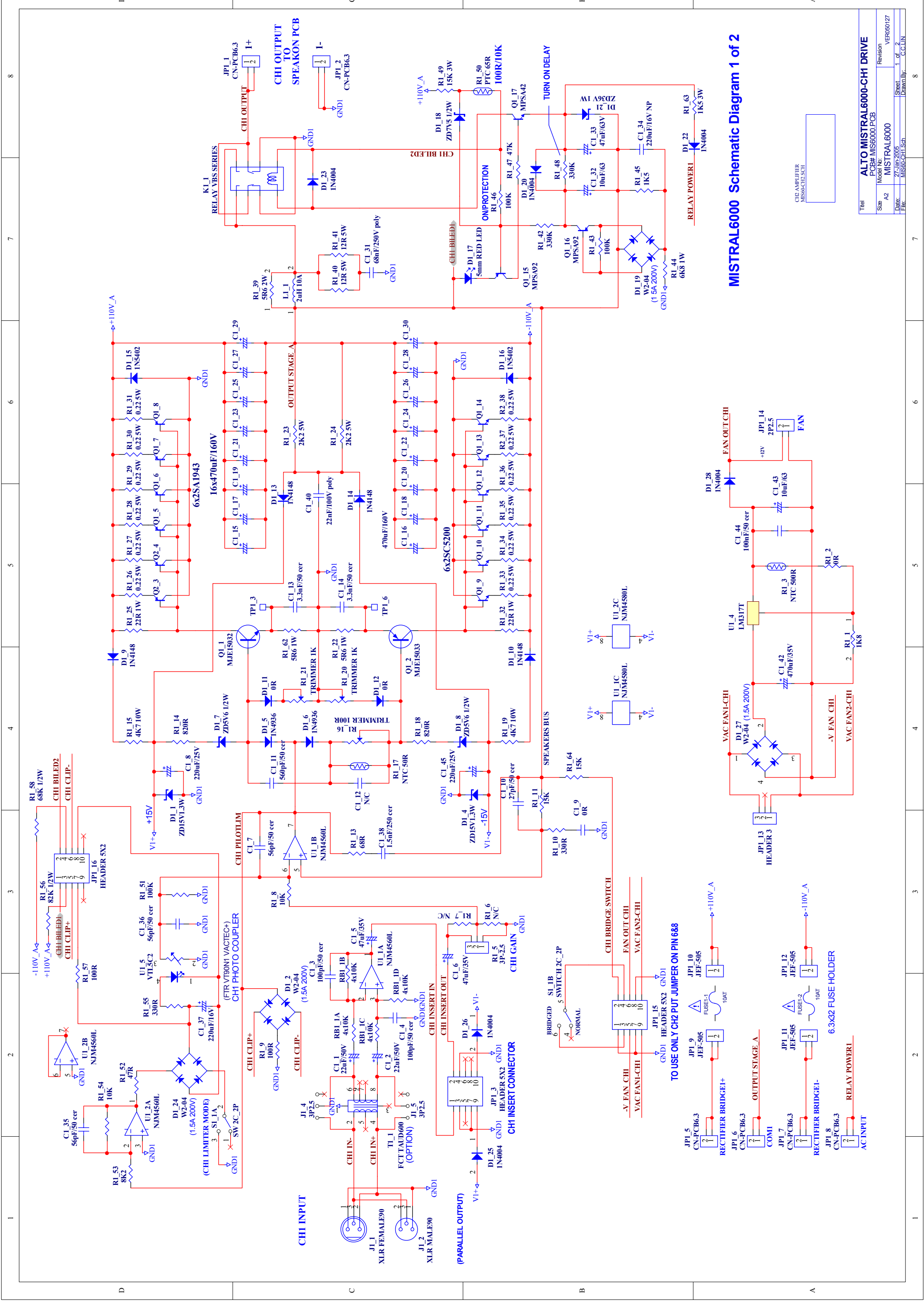
3. Over temperature protection and short circuit protection

4. 1500W high power and low hums

5. DSP audio processing function

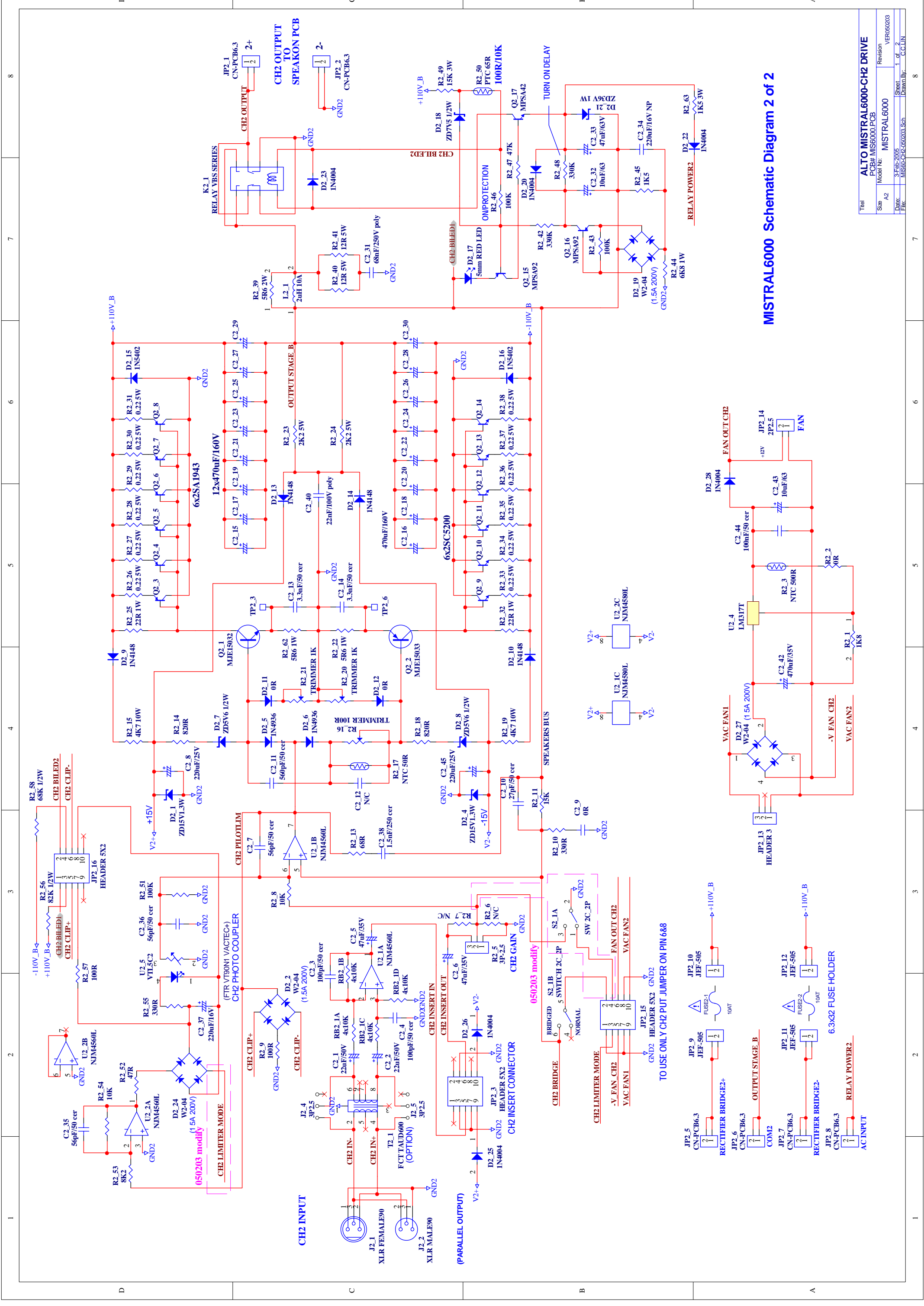


| | | |
|-------------|---|----------|
| Title | | |
| MISTRAL6000 | | |
| Size | Number | Revision |
| A | | |
| Date: | 1-Feb-2006 | Sheet of |
| File: | C:\Documents and Settings\pc95\桌面\mistral6000\mistral6000.ddb | |



MISTRAL6000 Schematic Diagram 1 of 2

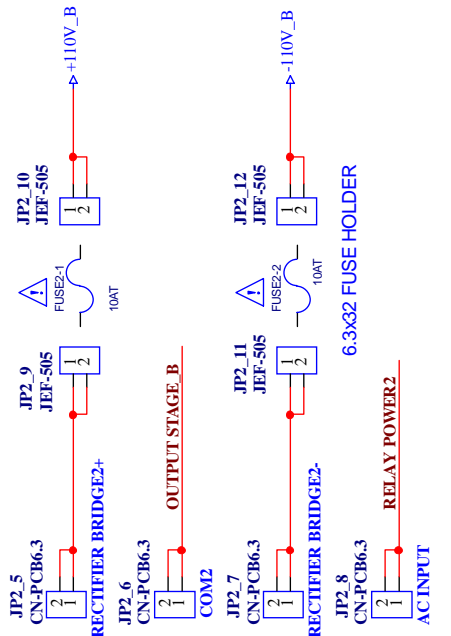
| | |
|-----------|----------------------------|
| Title | ALTO MISTRAL6000-CH1 DRIVE |
| PCB# | MIS6000.PCB |
| Model No. | MISTRAL6000 |
| Revision | VER050127 |
| Size | A2 |
| Date | 27-10-2005 |
| Drawn By | G.C.LIN |
| Sheet | 1 of 2 |



MISTRAL6000 Schematic Diagram 2 of 2

| | | | |
|-------|------------------------|----------------------------|-------------|
| Title | | ALTO MISTRAL6000-CH2 DRIVE | |
| PCB# | | MIS6000.PCB | |
| Size | A2 | Model No. | MISTRAL6000 |
| Date | 3-Feb-2008 | Revision | VER050203 |
| File | MIS6000-CH2-050203.Sch | Sheet | 1 of 2 |
| | | Drawn By: | G.C.LIN |

TO USE ONLY CH2 PUT JUMPER ON PIN 6&8

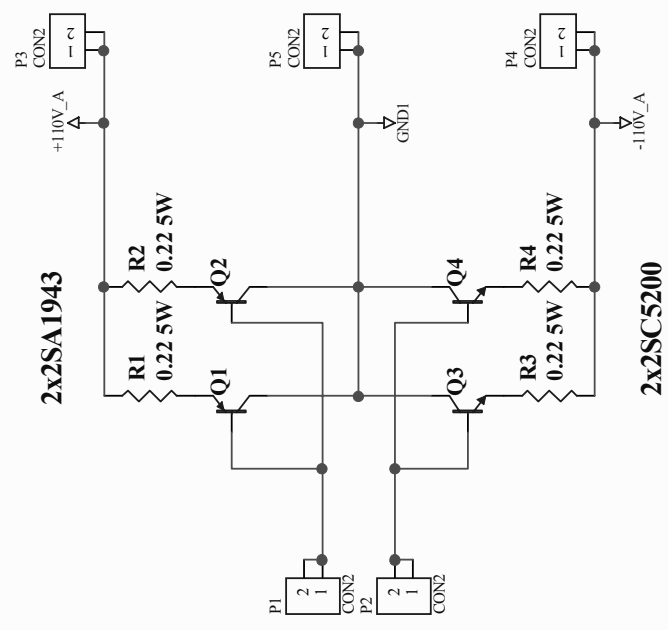


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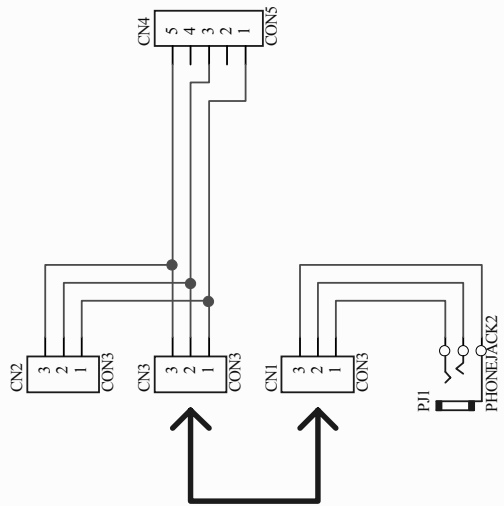
| | | | |
|-------|--------------|---------------------------------------|-------------|
| Title | | ALTO : MISTRAL6000 MAIN2-BOARD | |
| Size | A2 | Model No: | MISTRAL6000 |
| Date: | 27-Jan-2005 | Revision | VER060127 |
| File: | MIS60MN2.Sch | Sheet | 1 of 1 |
| | | Drawn By: | C.CLIN |

D D D D

C C C C

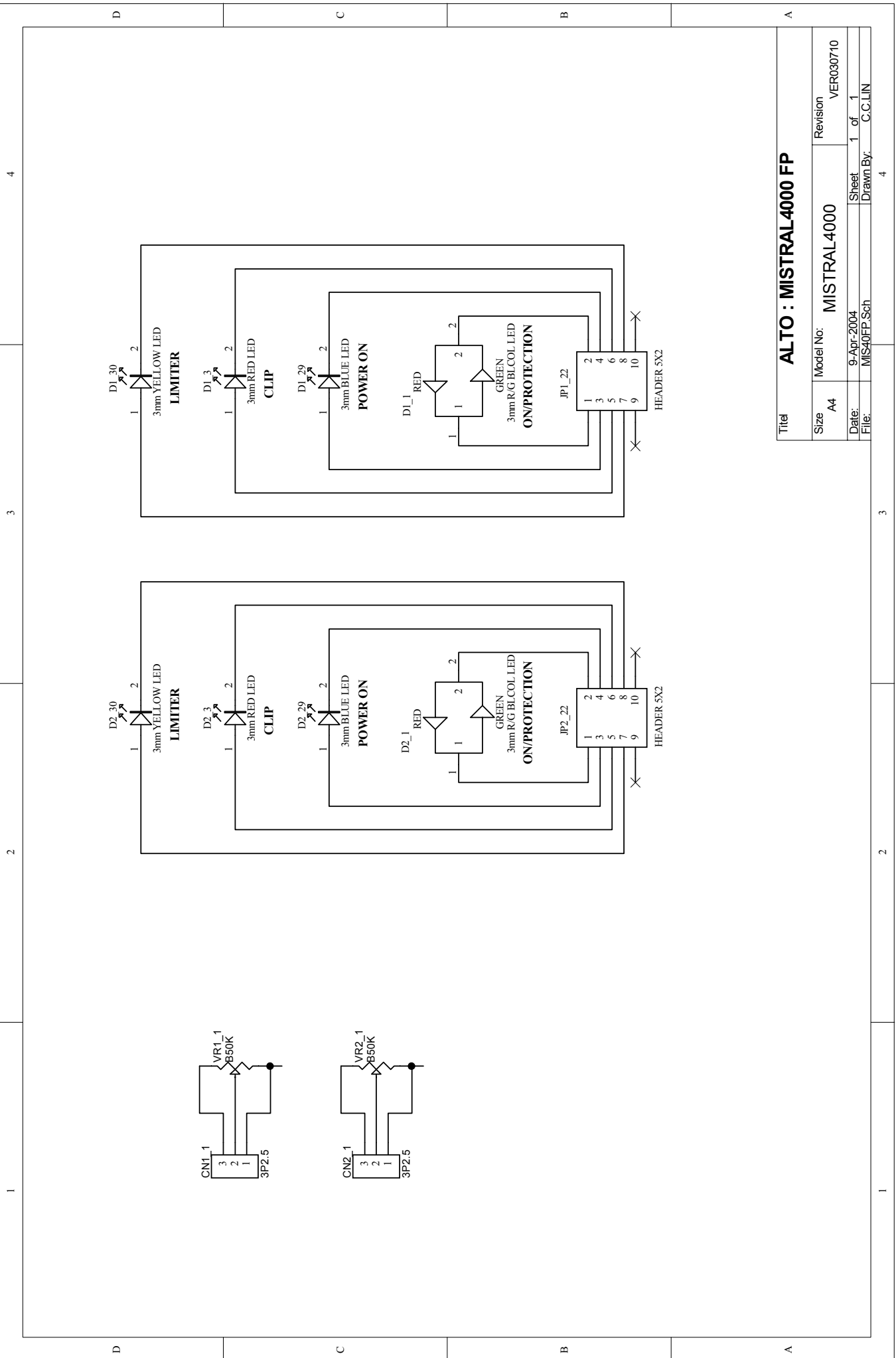
B B B B

A A A A



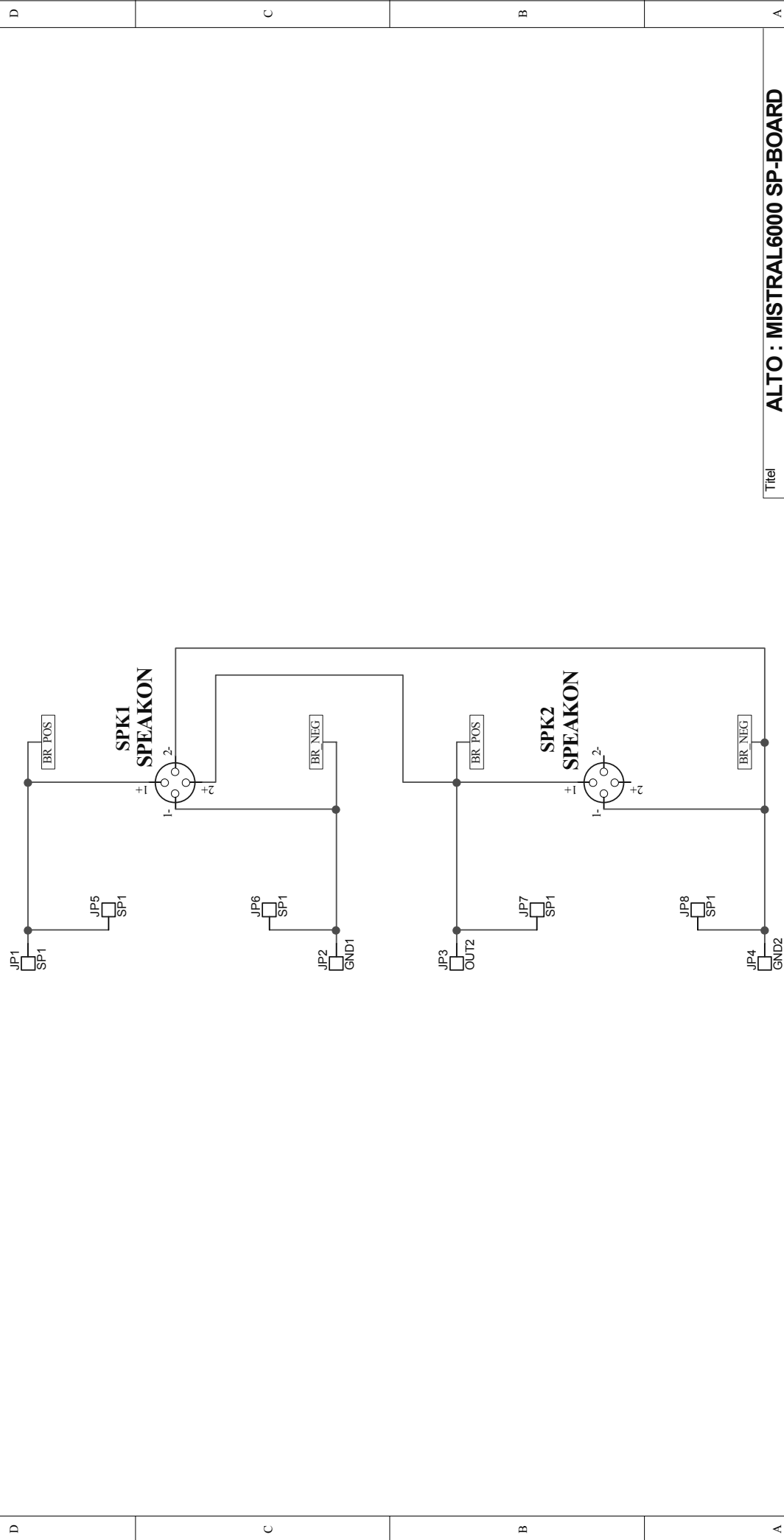
ALTO : MISTRAL4000 INPUT

| | | | |
|-------|--------------------------|-----------|-------------|
| Titel | ALTO : MISTRAL4000 INPUT | | |
| Size | A4 | Model No: | MISTRAL4000 |
| | | Revision | VER031206 |
| Date: | 27-Jan-2005 | Sheet | 1 of 1 |
| File: | MIS40IN.Sch | Drawn By: | C.C.LIN |



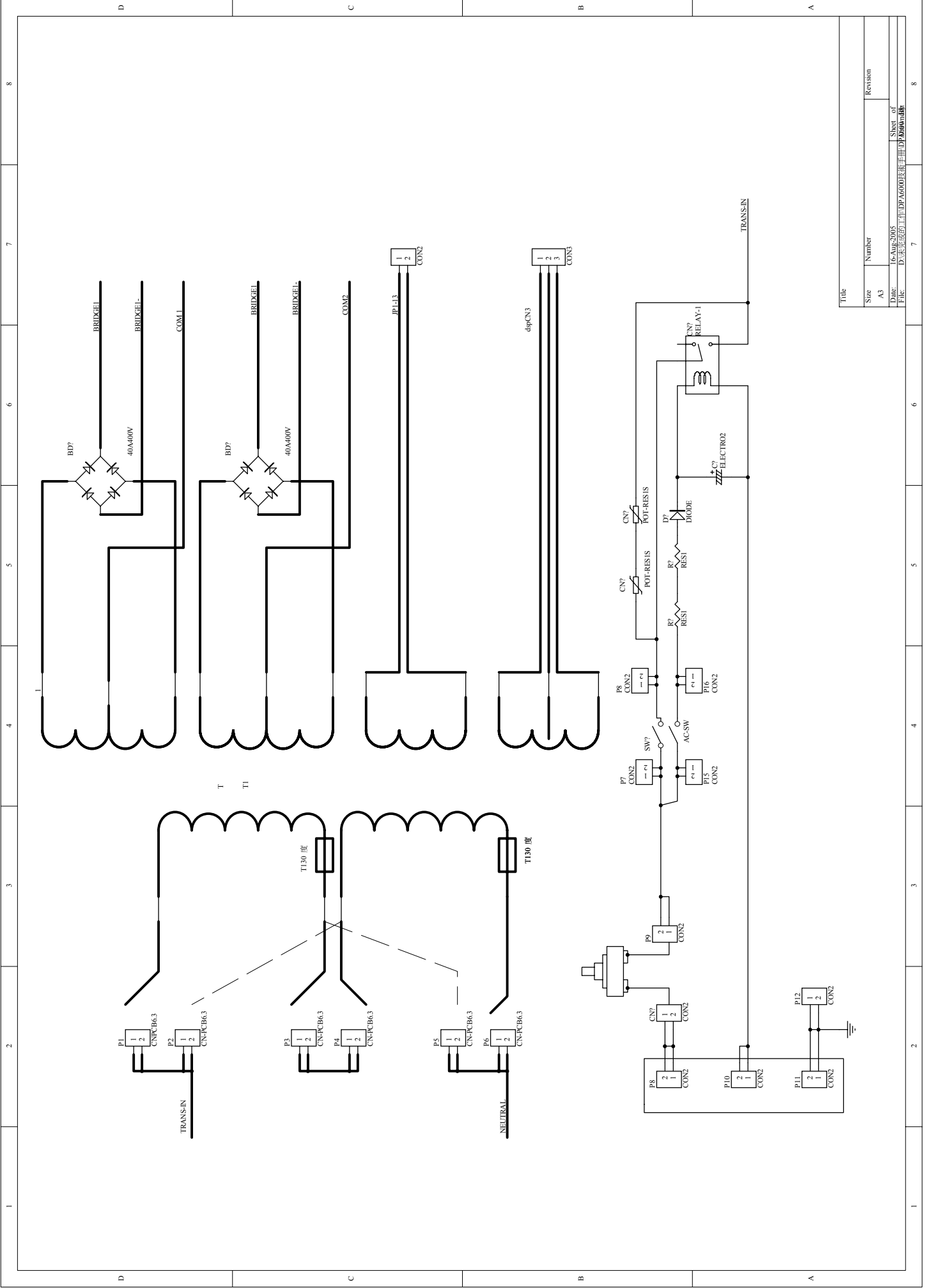
Titel **ALTO : MISTRAL4000 FP**

| | | | | | |
|-------|-------------|-----------|-------------|----------|-----------|
| Size | A4 | Model No: | MISTRAL4000 | Revision | VER030710 |
| Date: | 9-Apr-2004 | Sheet | 1 | of | 1 |
| File: | MIS40FP.Sch | Drawn By: | C.C.LIN | | |

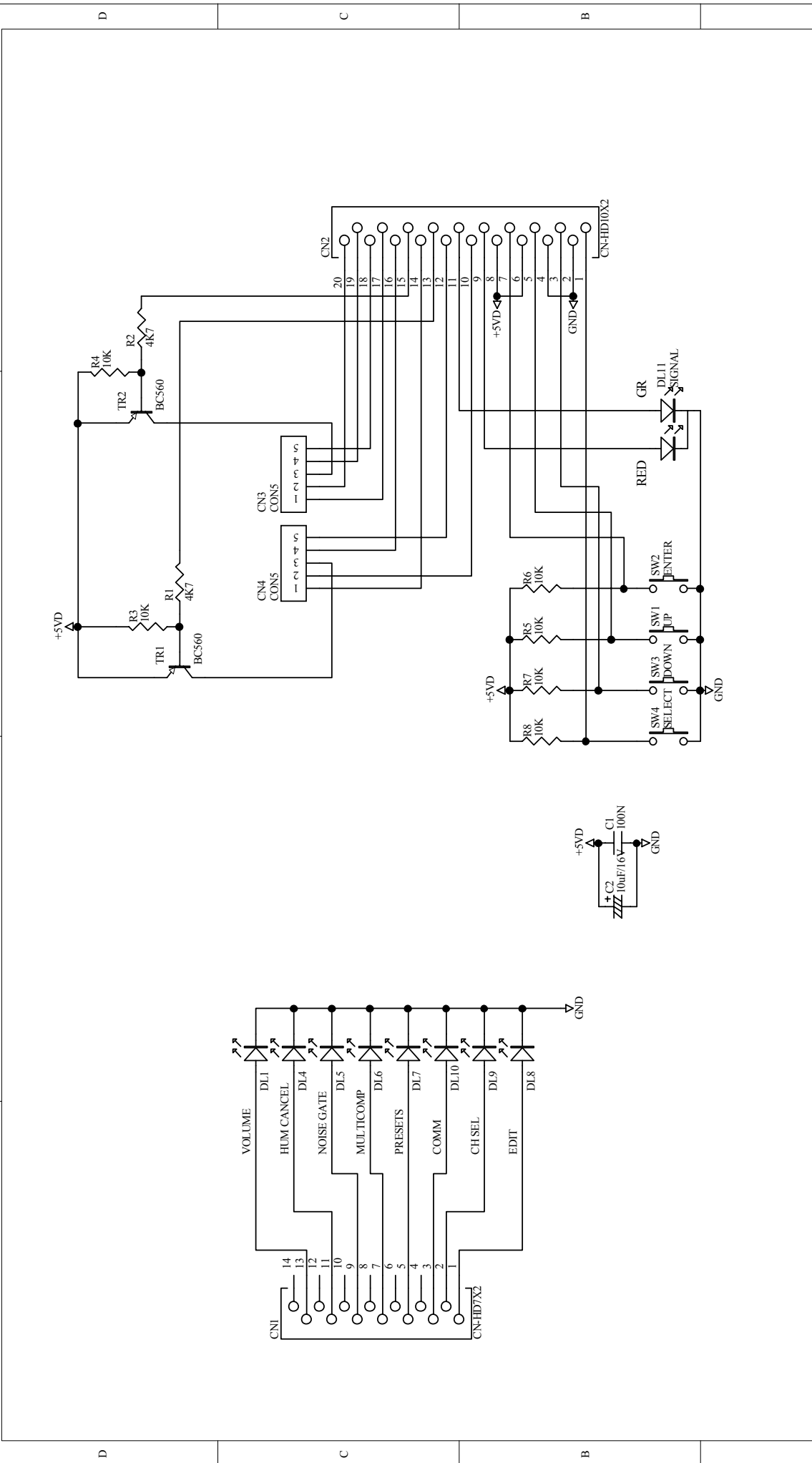


Titel ALTO : MISTRAL6000 SP-BOARD

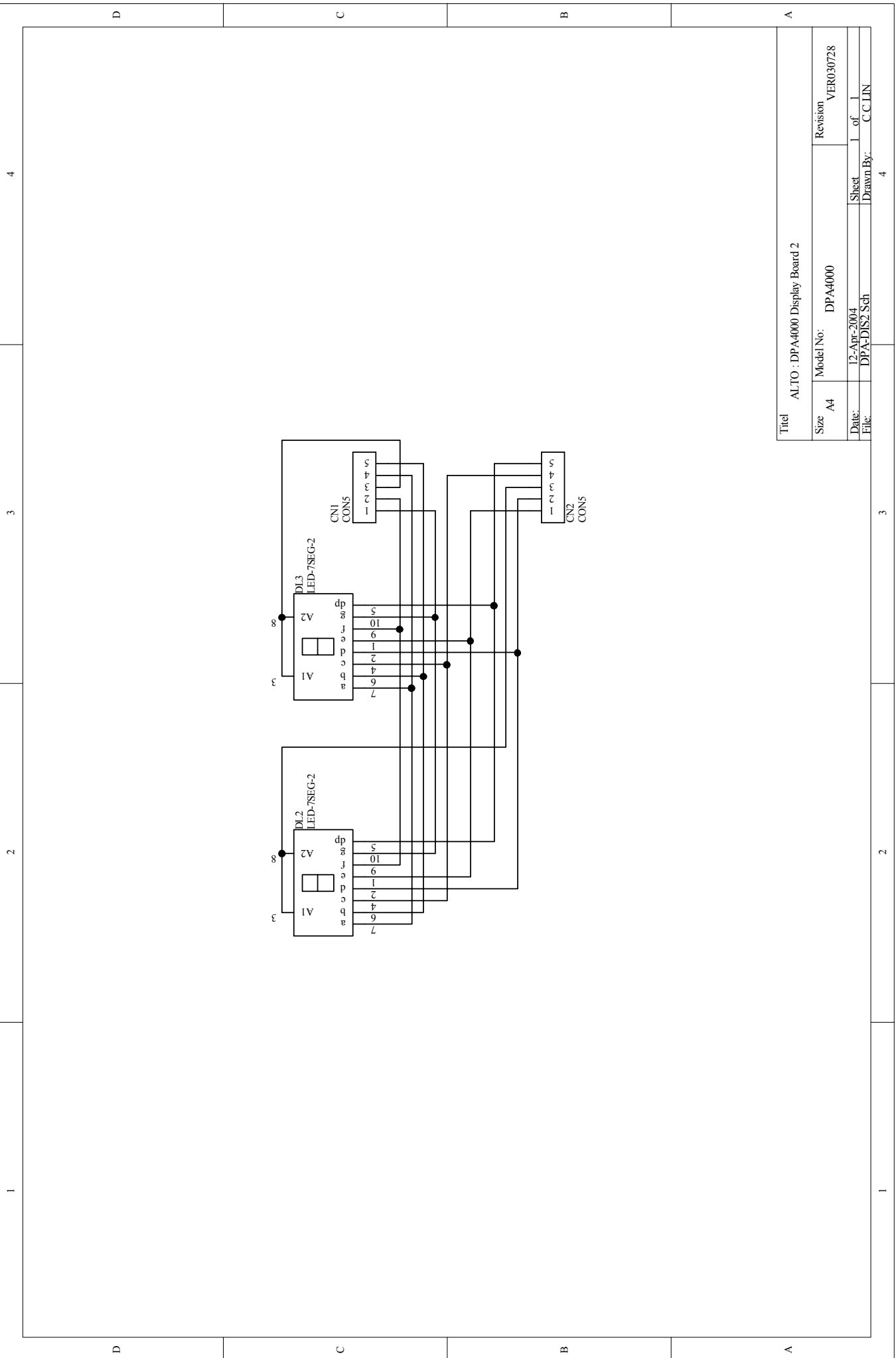
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|-------|-------------|-----------|-------------|-----------|-----------|
| Size | A2 | Model No: | MISTRAL6000 | Revision | VER060127 |
| Date: | 27-Jan-2005 | Sheet | 1 of 1 | Drawn By: | C.CLIN |
| File: | MIS60SP.Sch | | | | |



| | |
|--------------------------------------|-------------|
| Title | |
| Size | Number |
| A3 | |
| Date | Sheet of |
| File | Drawn/Check |
| D:\未完成的工程\DF\AG0001\主板\DF\AG0001.BRD | |



| | | | |
|-------|-------------|--------------------------------|-----------|
| Title | | ALTO : DPA4000 Display Board 1 | |
| Size | A4 | Model No. | DPA4000 |
| Date: | 12-Apr-2004 | Revision | VER030728 |
| File: | DPA-DIS Sch | Sheet | 1 of 1 |
| | | Drawn By: | C.C.LIN |



| | | | |
|-------|--------------|--------------------------------|-----------|
| Title | | ALTO : DPA4000 Display Board 2 | |
| Size | A4 | Model No: | DPA4000 |
| Date: | 12-Apr-2004 | Revision | VER030728 |
| File: | DPA-DIS2 Sch | Sheet | 1 of 1 |
| | | Drawn By: | C.C.LIN |

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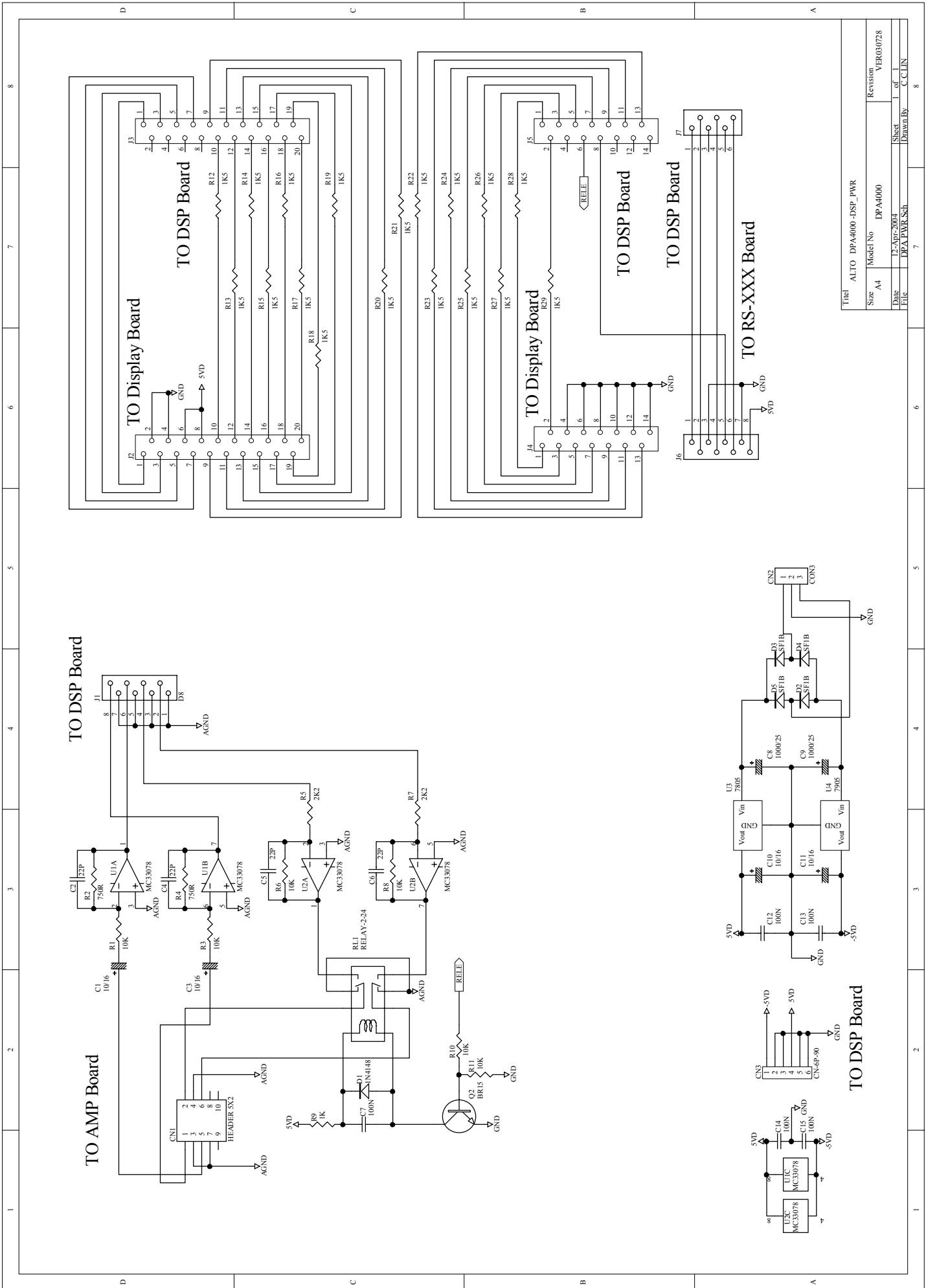
A

3

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4



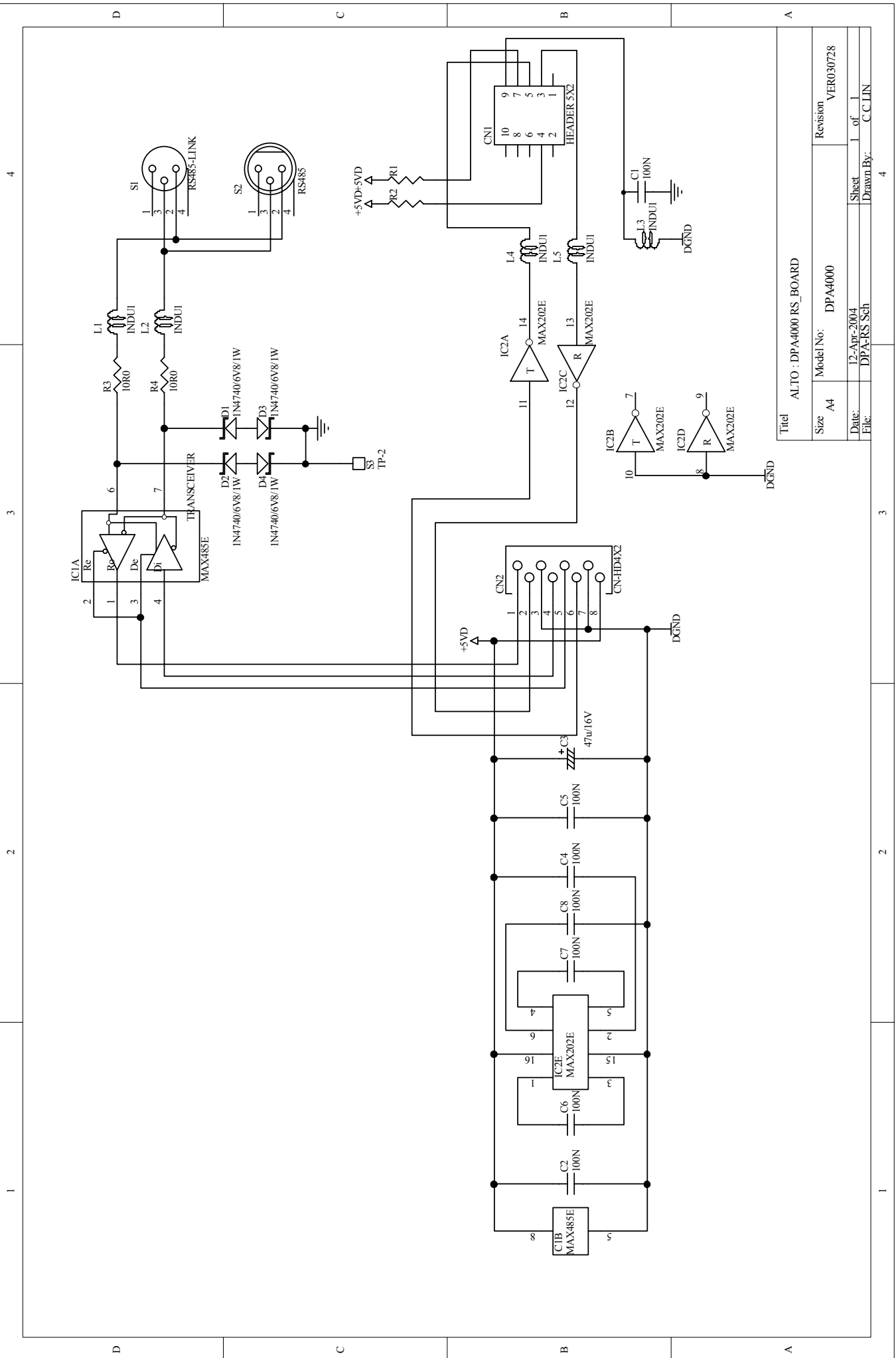
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|----------|----------------------|
| Title | ALTO DPA4000-DSP_PWR |
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| Model No | DPA4000 |
| Date | 12-Apr-2004 |
| File | DPA_PWR_Sch |
| Revision | VER030728 |
| Sheet | of 1 |
| Drawn By | C.C.JIN |

TO DSP Board

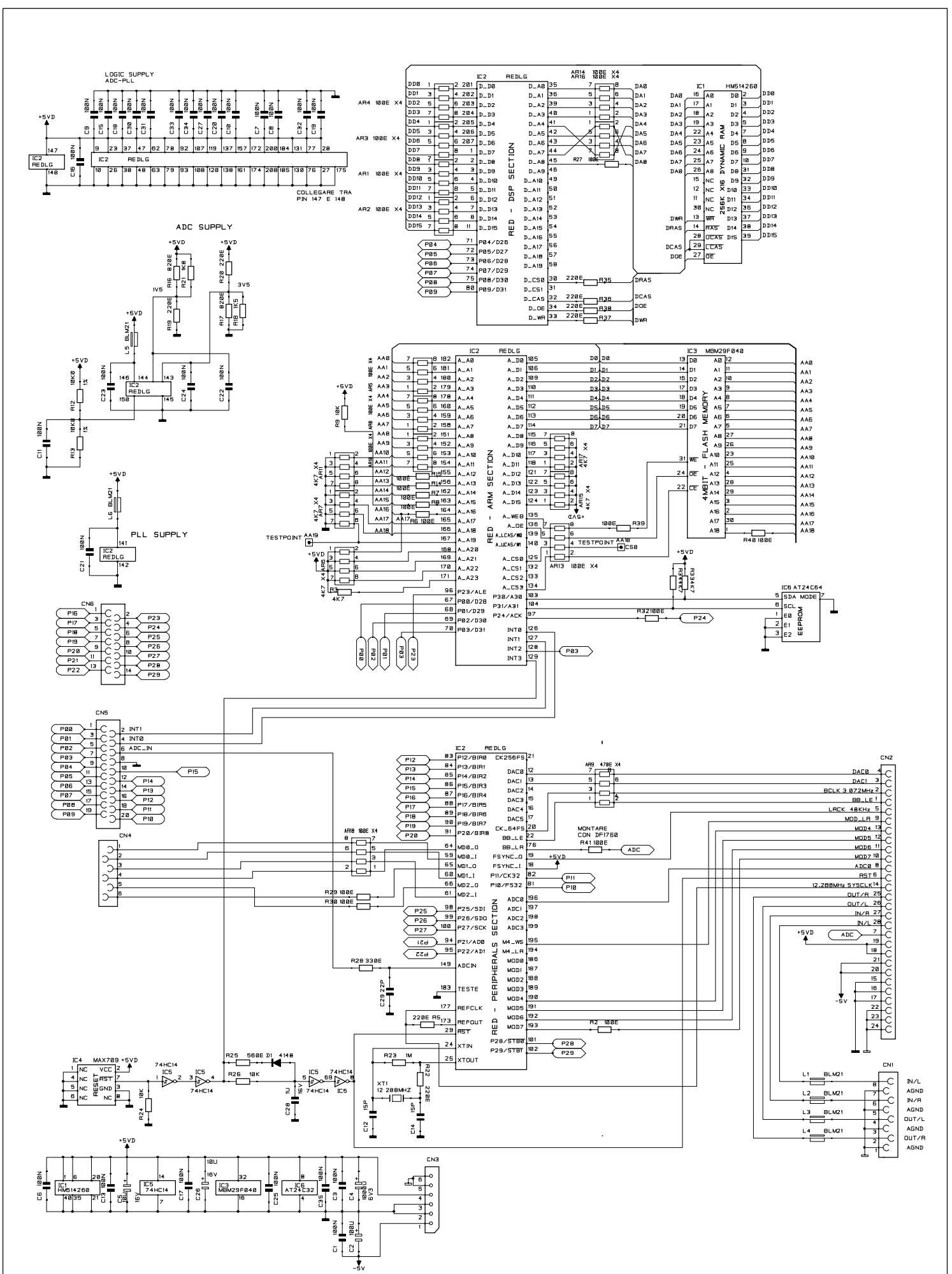
TO AMP Board

TO Display Board

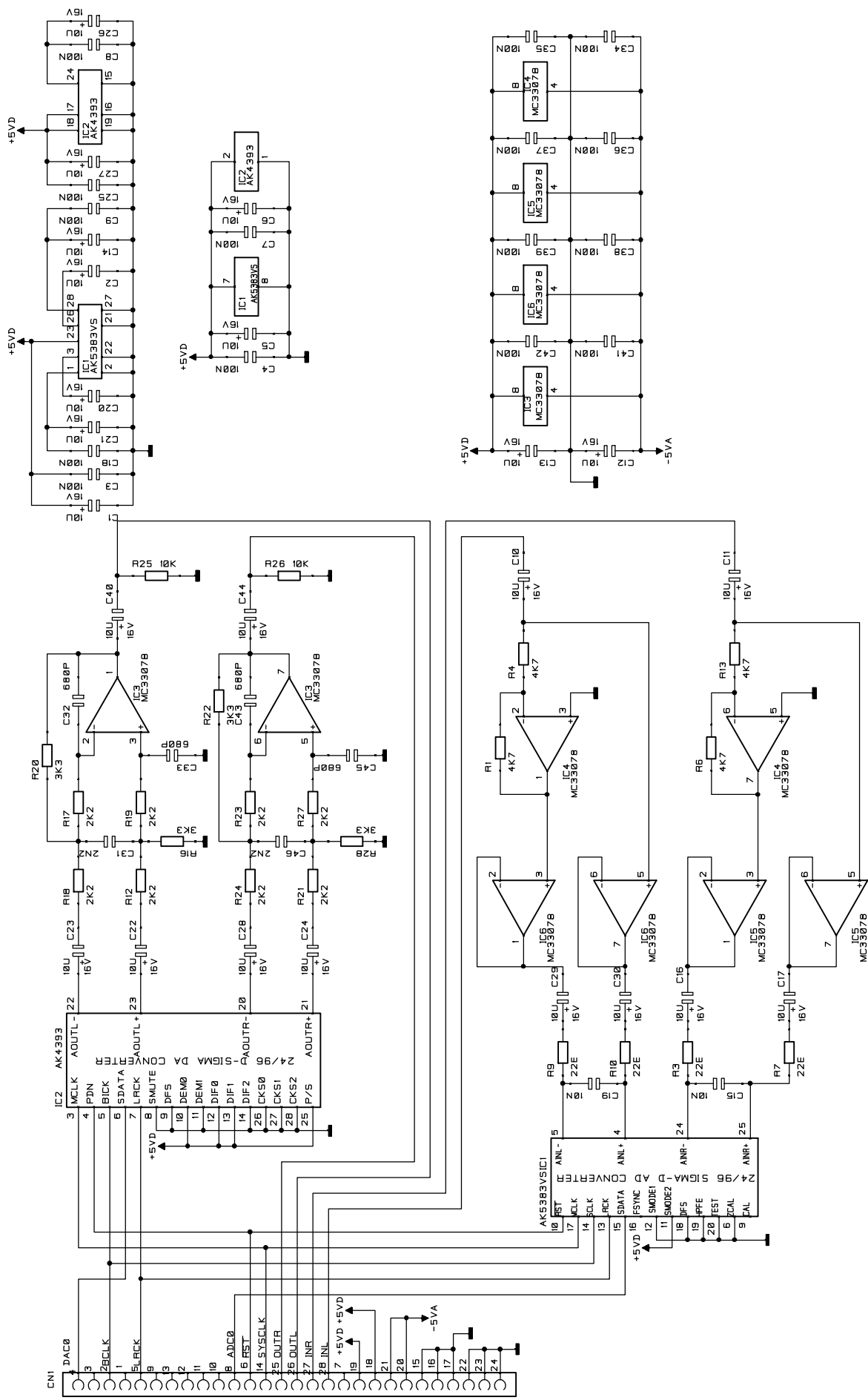
TO RS-XXX Board



| | | | |
|-------|-------------|-------------------------|-----------|
| Title | | ALTO : DPA4000 RS_BOARD | |
| Size | A4 | Model No: | DPA4000 |
| Date: | 12-Apr-2004 | Revision | VER030728 |
| File: | DPA-RS Sch | Sheet | 1 of 1 |
| | | Drawn By: | C.C.LIN |

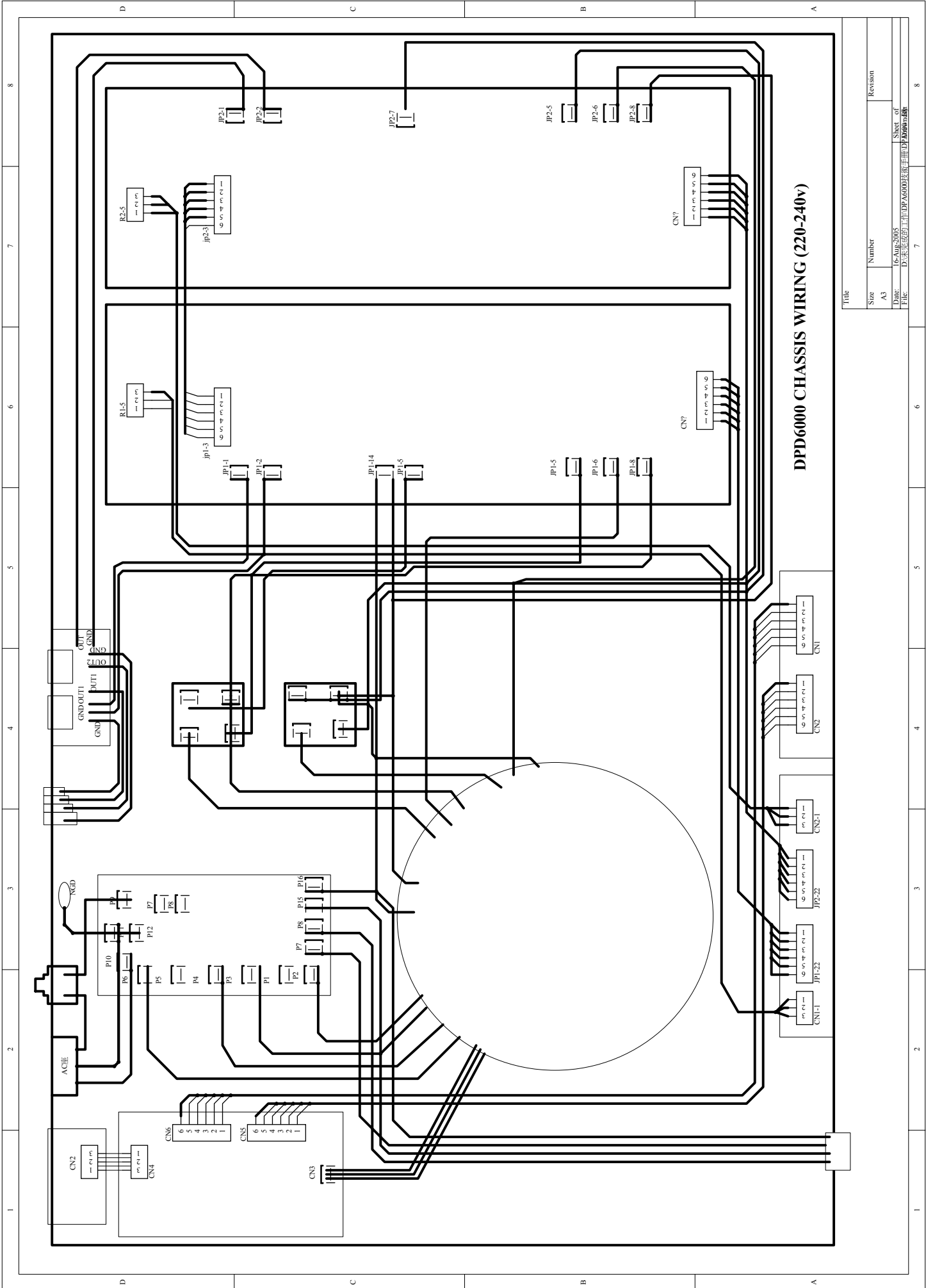


| | | | | |
|------------------|---------------|----------------------------|--------|---|
| DRW G RICCI | DWG# 768263 | PCB# | 313089 | Music Media Soft s.r.l. |
| CKD L. GIBIN | DATE 17/09/01 | SCHEMATIC DIAGRAM | | ALL RIGHTS ARE RESERVED. NO COPIES OR REPRODUCE THIS DOCUMENT WITHOUT WRITTEN CONSENT BY M.S. |
| APP. F. GAZZILLI | REV. B | PEGASUS/PROMASTER DX BOARD | | |



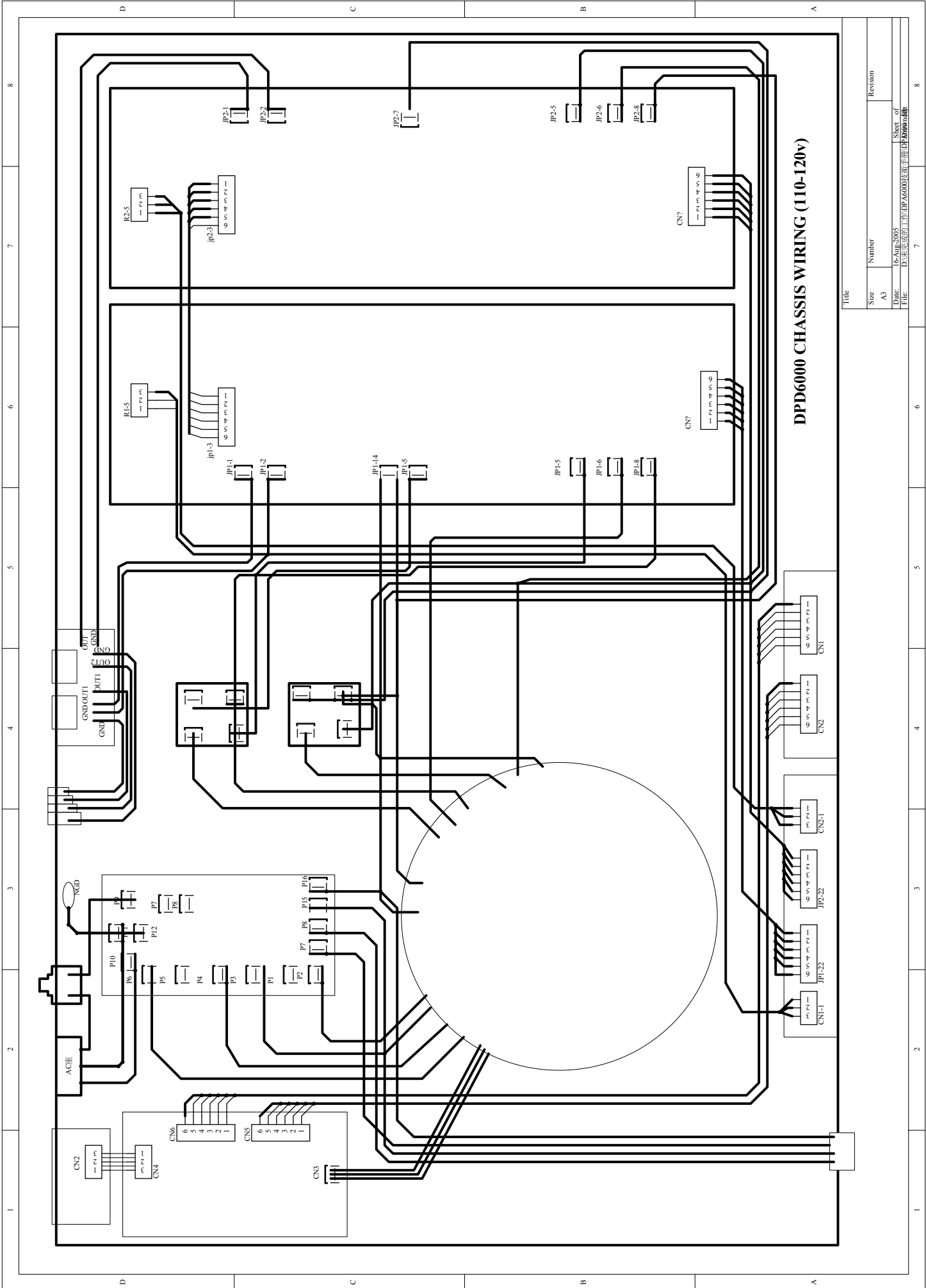
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|------|---------|------|----------|--------------------------------|--------|-------------------------|
| DRW | L.GIBIN | DWG# | 768264 | PCBR# | 313111 | Music Media Soft s.r.l. |
| CKD | L.GIBIN | DATE | 03/12/01 | SCHEMATIC DIAGRAM | | |
| APP. | B | REV. | B | AD-DA BOARD HIGH CON AKM CONV. | | |

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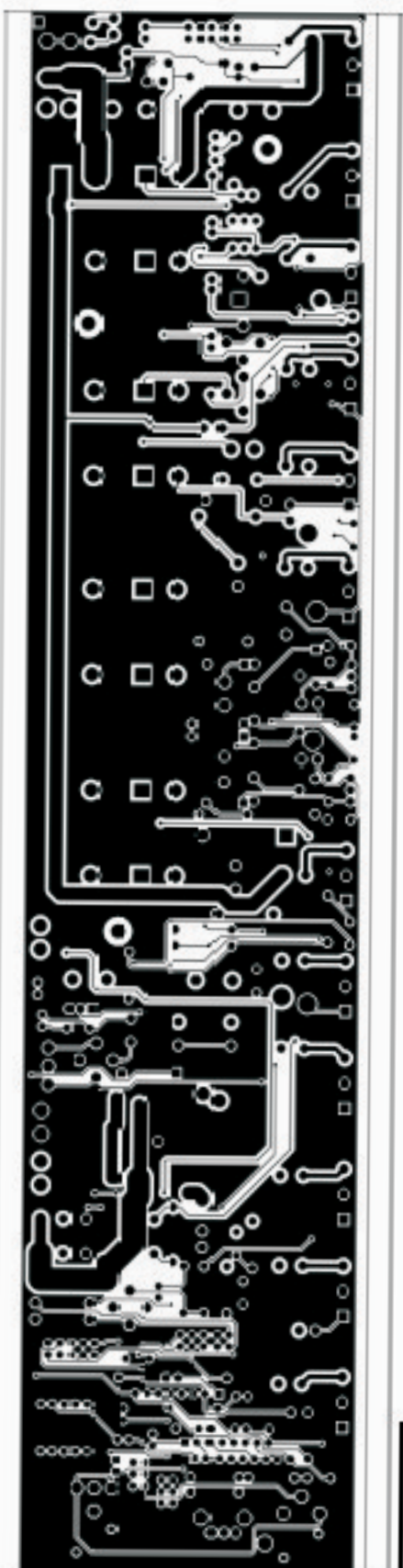
DPD6000 CHASSIS WIRING (220-240V)

| | |
|--|----------|
| Title | |
| Size | Number |
| A3 | |
| Date | Revision |
| File | |
| 完成的工作: DPD6000 主板手册 (DPD6000) 第 8 页 文件: D:\完成的工作\DPD6000 主板手册 (DPD6000) | |

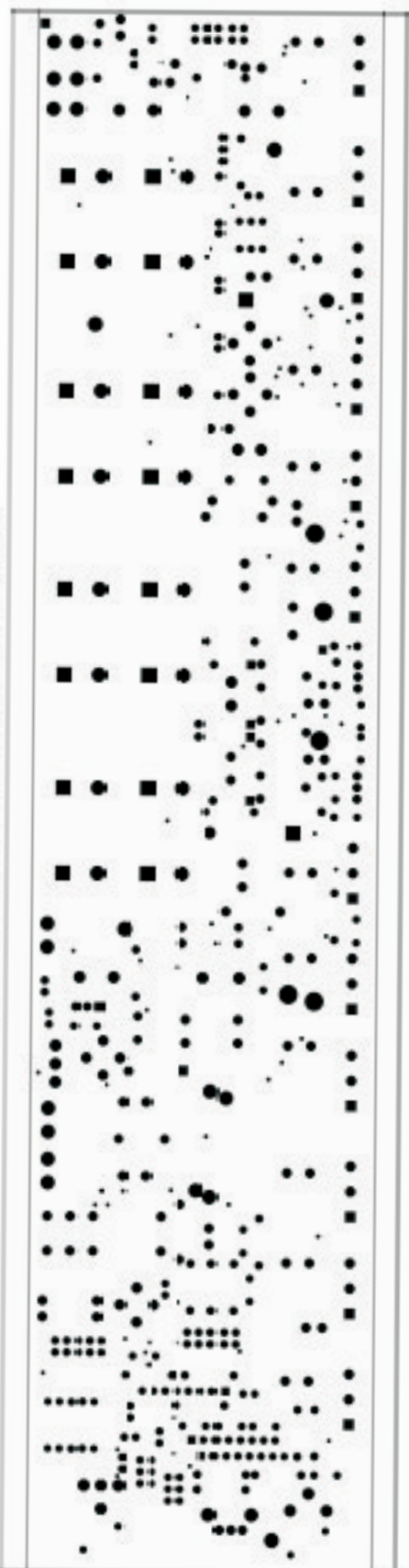


DPD6000 CHASSIS WIRING (110-120v)

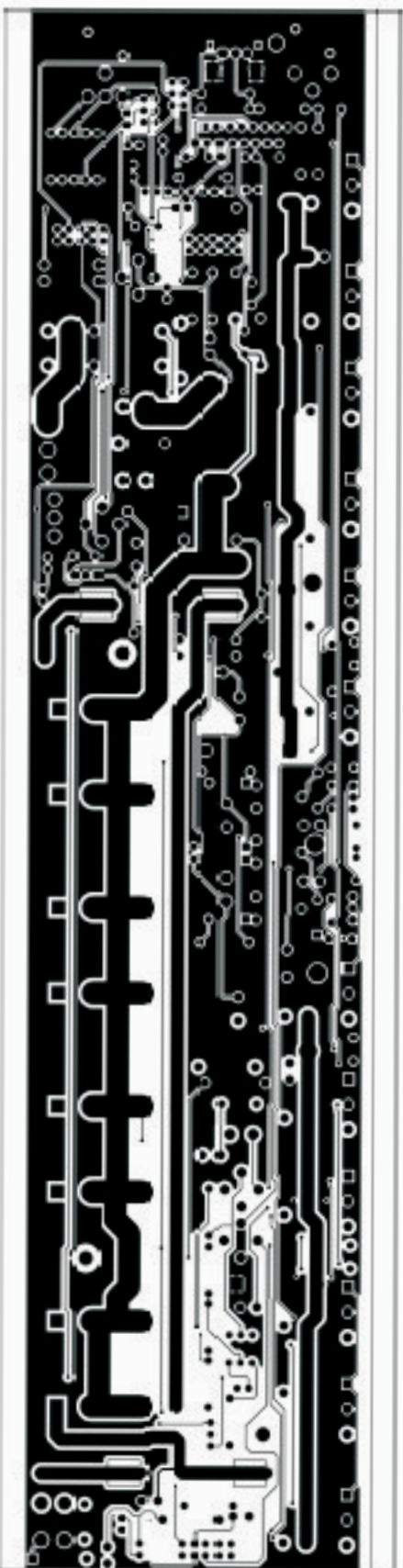
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|--|----------|
| Title | |
| Size | Number |
| A3 | |
| Date | Revision |
| File | |
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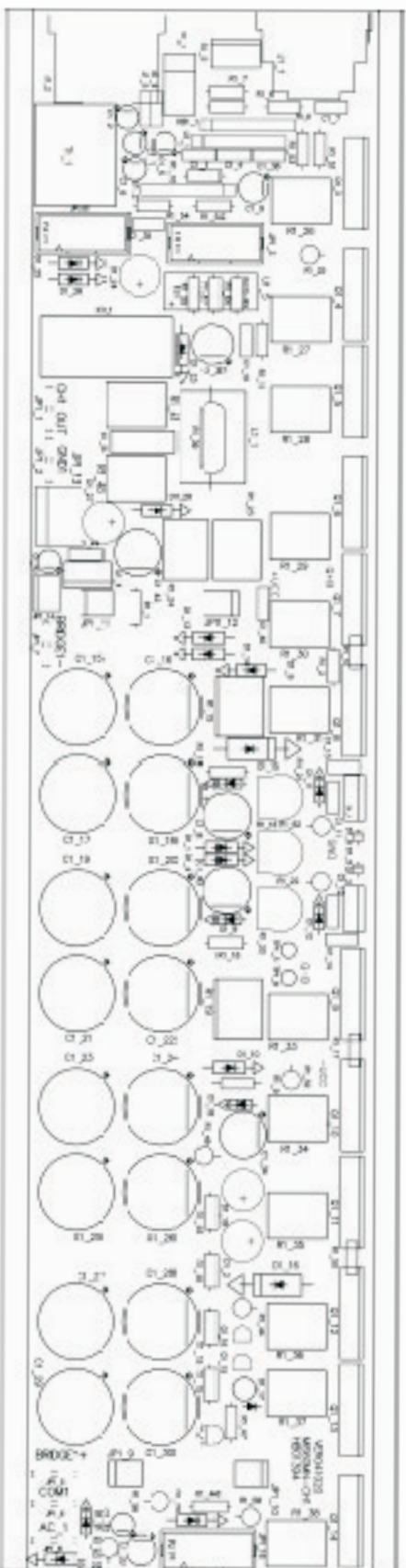
PCB : MIS60MN-CH1 Bottom Layer



PCB : MIS60MN-CH1 Bottom Solder Mask

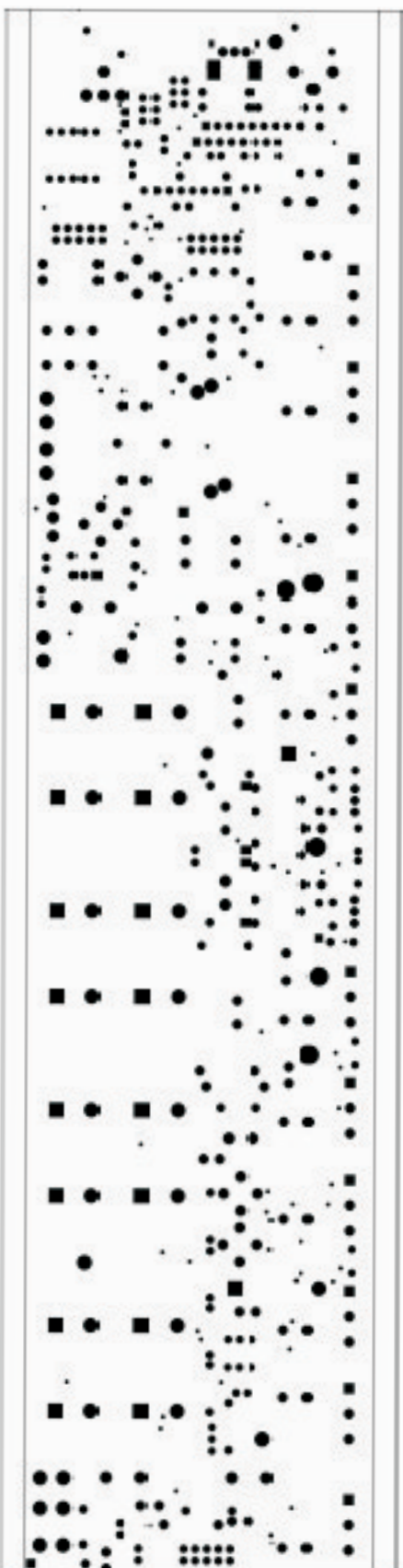


PCB : MIS60MN-CH1 Top Layer

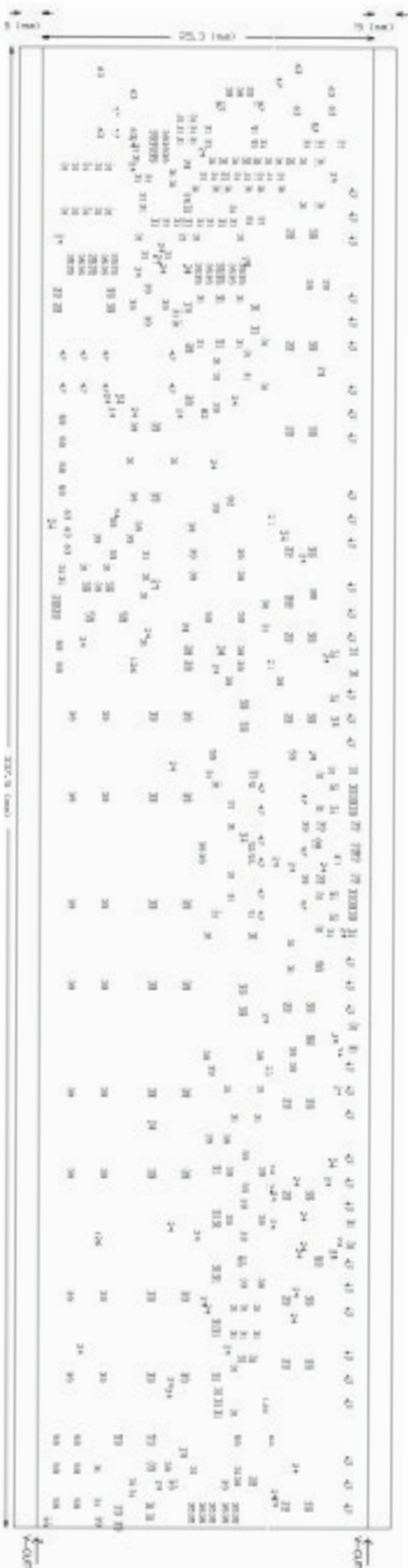


PCB : MIS60MN-CH1 Top Overlay

版次：VER041020

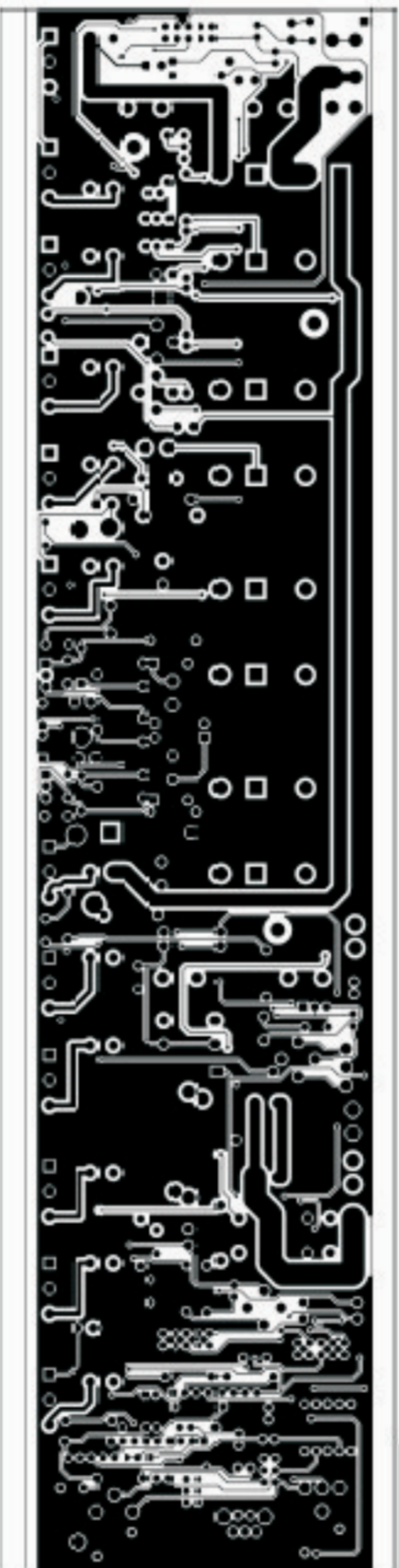


PCB : MIS60MN-CHI Top Solder Mask

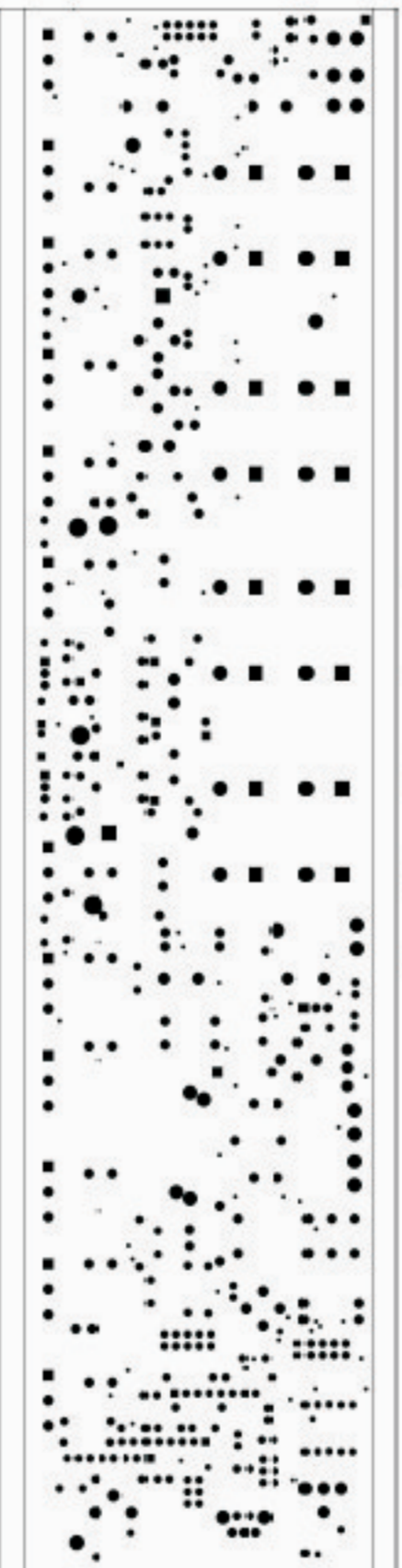


PCB : MIS60MN-CH1 Drill Drawing

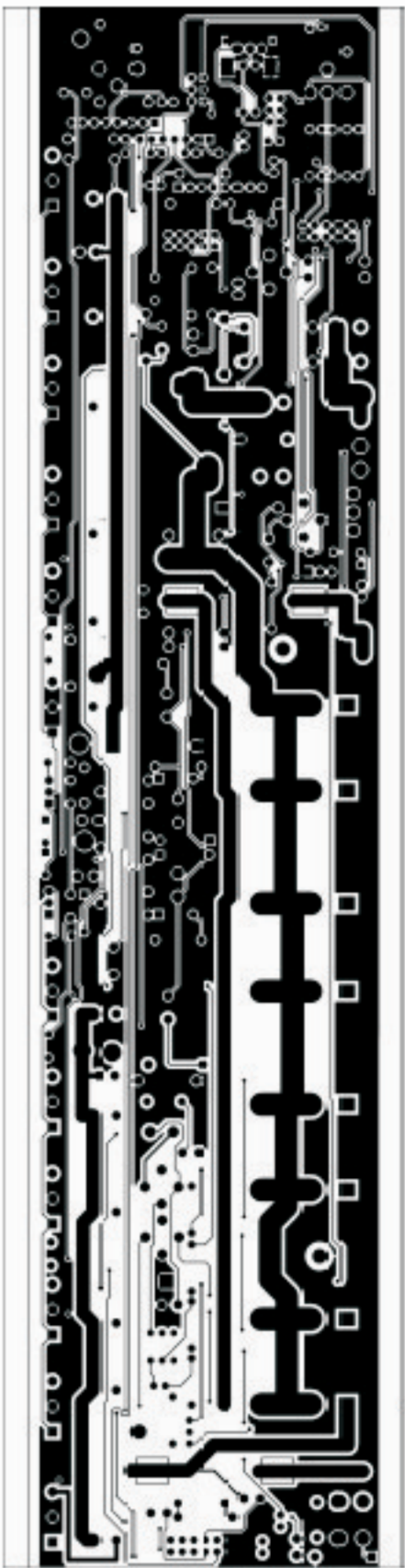
| Tool | Hole Size | Hole Count Placed | Tool Travel |
|--------|-------------------|-------------------|--------------------------|
| T1 | 24mil (0.6096mm) | 76 | 53.61 inch (1412.47 mm) |
| T2 | 31mil (0.7874mm) | 171 | 61.05 inch (1550.63 mm) |
| T3 | 35mil (0.889mm) | 30 | 28.63 inch (727.27 mm) |
| T4 | 39mil (0.9906mm) | 134 | 73.62 inch (1869.96 mm) |
| T5 | 47mil (1.1938mm) | 57 | 31.67 inch (804.29 mm) |
| T6 | 59mil (1.4986mm) | 24 | 32.59 inch (827.87 mm) |
| T7 | 63mil (1.6002mm) | 9 | 12.40 inch (315.08 mm) |
| T8 | 82mil (2.0828mm) | 2 | 6.76 inch (171.66 mm) |
| T9 | 87mil (2.2098mm) | 2 | 3.38 inch (85.96 mm) |
| T10 | 98mil (2.4892mm) | 5 | 11.19 inch (284.29 mm) |
| T11 | 63mil (1.6002mm) | 2 | 2.39 inch (60.62 mm) |
| T12 | 126mil (3.2004mm) | 3 | 20.93 inch (531.70 mm) |
| Totals | | 534 | 340.23 inch (8641.80 mm) |



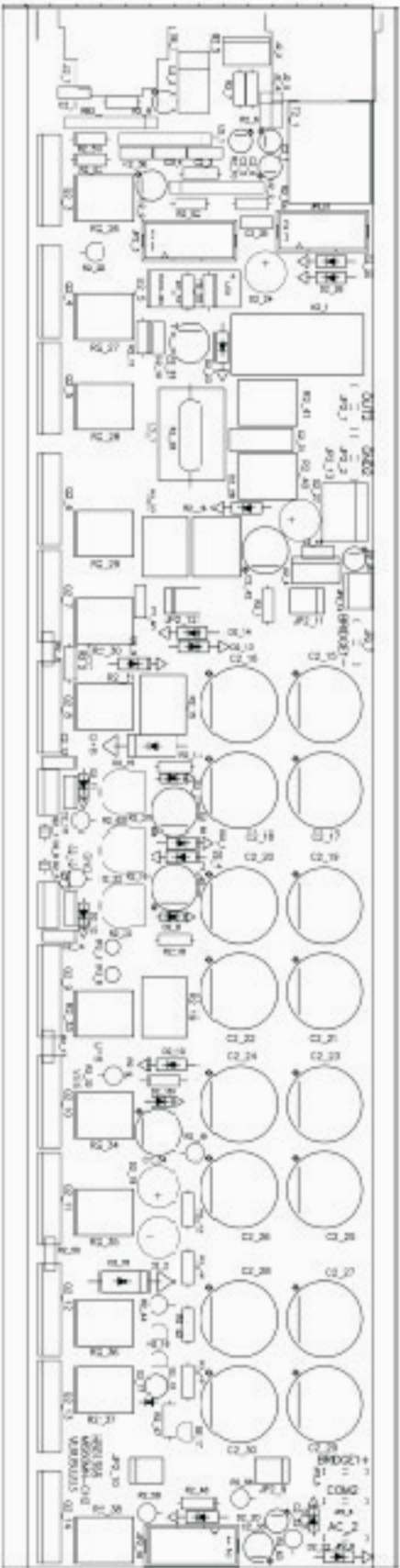
PCB : MIS60MN-CH2 Bottom Lay



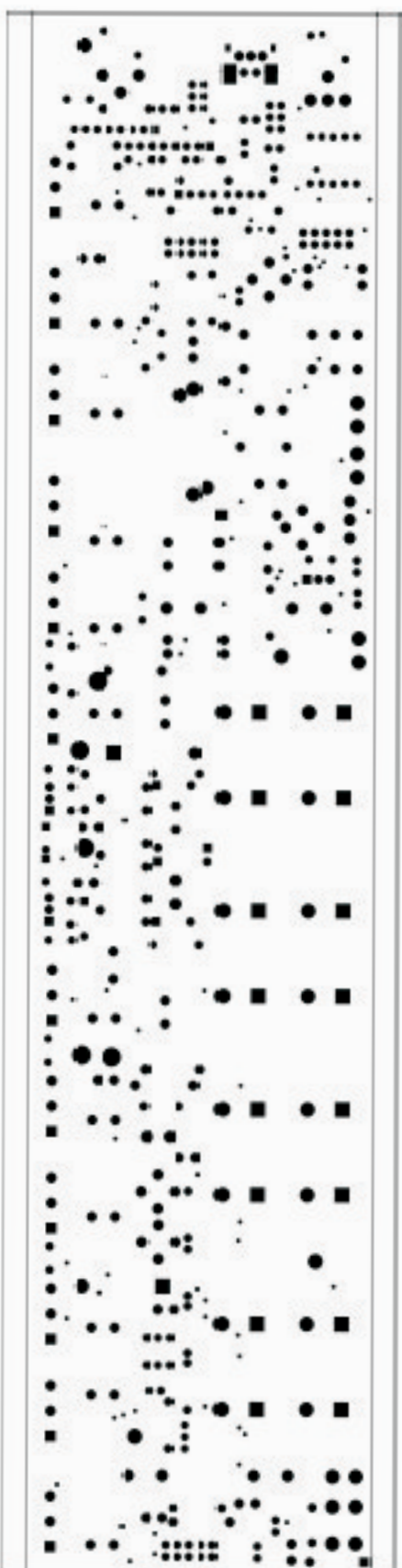
PCB : MIS60MN-CH2 Bottom Solder Mask



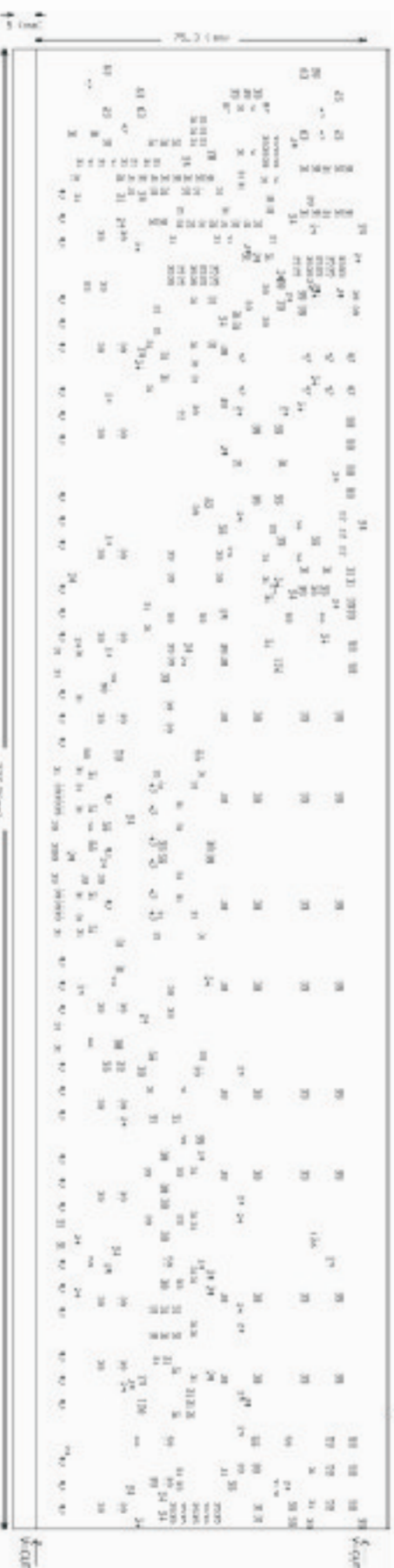
PCB : MIS60MN-CH2 Top Layer



PCB : MIS60MN-CH2 Top Overlay



PCB : MHS60MN-CH2 Top Solder Mask



PCB : M1S60MN-CH2 Drill Drawing

| Tool | Hole Size | Hole Count Plated | Tool Travel |
|---------------|-------------------|-------------------|---------------------------------|
| T1 | 28mil (0.6096mm) | 77 | 56.72 Inch (1440.66 mm) |
| T2 | 28mil (0.7112mm) | 4 | 10.55 Inch (268.04 mm) |
| T3 | 31mil (0.7874mm) | 169 | 69.22 Inch (1758.16 mm) |
| T4 | 35mil (0.889mm) | 30 | 30.96 Inch (786.40 mm) |
| T5 | 39mil (0.9906mm) | 134 | 71.14 Inch (1806.98 mm) |
| T6 | 47mil (1.1938mm) | 57 | 34.76 Inch (882.83 mm) |
| T7 | 59mil (1.4986mm) | 24 | 37.87 Inch (961.79 mm) |
| T8 | 63mil (1.6002mm) | 9 | 11.10 Inch (282.00 mm) |
| T9 | 82mil (2.0828mm) | 2 | 8.40 Inch (213.44 mm) |
| T10 | 87mil (2.2098mm) | 2 | 6.16 Inch (156.58 mm) |
| T11 | 98mil (2.4892mm) | 5 | 11.76 Inch (298.78 mm) |
| T12 | 63mil (1.6002mm) | 2 | NPTH 6.76 Inch (171.64 mm) |
| T13 | 126mil (3.2004mm) | 3 | NPTH 26.20 Inch (665.59 mm) |
| Totals | | 538 | 381.61 Inch (9692.87 mm) |



PCB : MIS60MN2 Bottom Layer



PCB : MIS60MN2 Bottom Solder Mask



PCB : MIS60MN2 Top Layer



PCB : MIS60MN2 Top Overlay

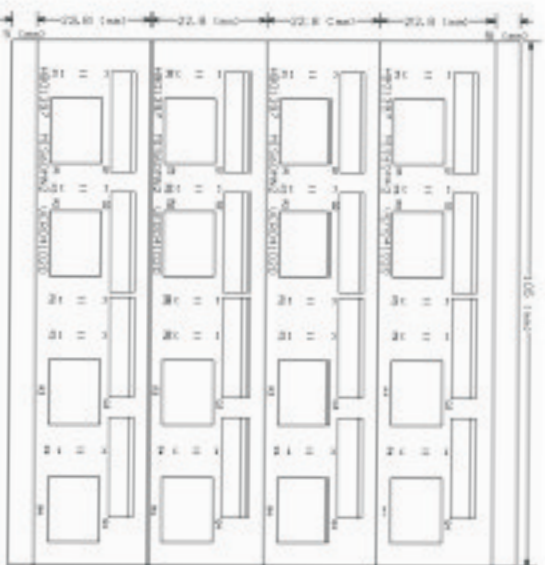


PCB : MIS60MN2 Top Solder Mask



PCB : MIS60MN2 Drill Drawing

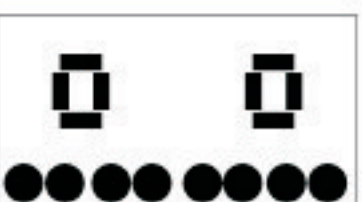
| Tool | Hole Size | Hole Count Placed | Tool Travel |
|--------|------------------|-------------------|------------------------|
| T1 | 39mil (0.9906mm) | 8 | 6.99 Inch (177.42 mm) |
| T2 | 47mil (1.1938mm) | 12 | 6.82 Inch (173.19 mm) |
| T3 | 63mil (1.6002mm) | 10 | 7.20 Inch (182.95 mm) |
| Totals | | 30 | 21.01 Inch (533.56 mm) |



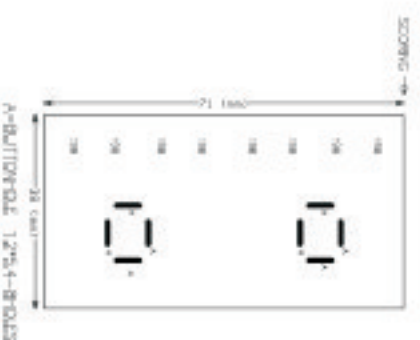
PCB : MIS60MN2 Top Overlay 連片示意图



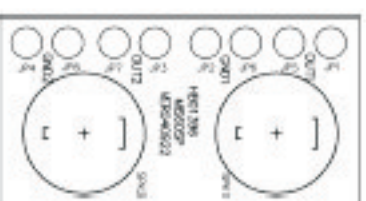
PCB : MIS60SP Bottom Layer



PCB : MIS60SP Bottom Solder Mask

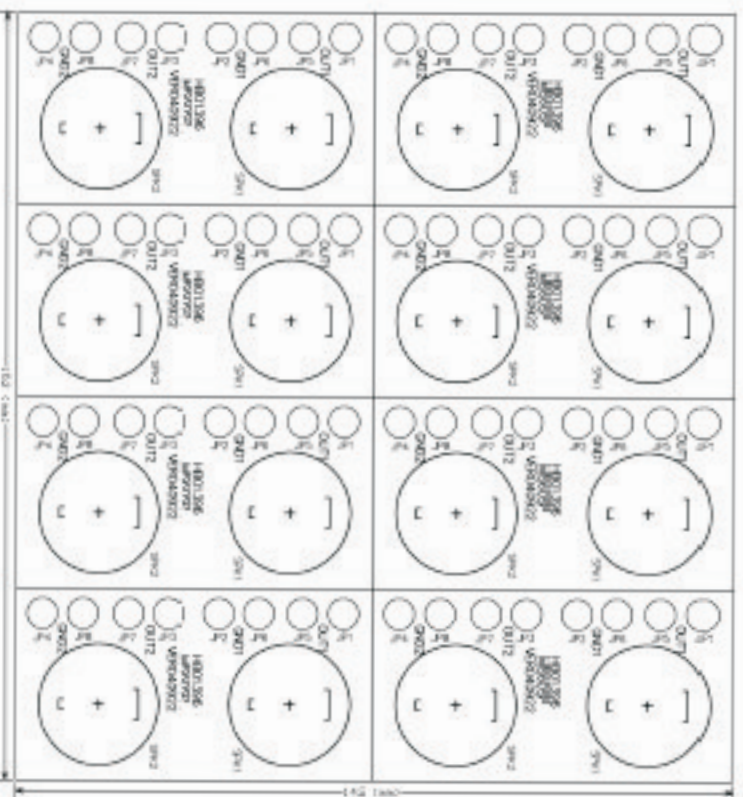


PCB : MIS60SP Drill Drawing

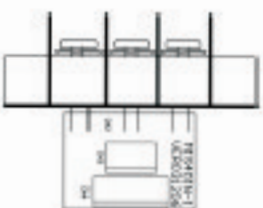


PCB : MIS60SP Top Overlay

| Tool | Hole Size | Hole Count |
|---------------|------------------|------------|
| T1 | 98mil (2.4892mm) | 8 |
| Totals | | 8 |



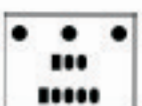
PCB：MIS60SP 連片示意图



PCB : MIS40IN-1 Top Overlay



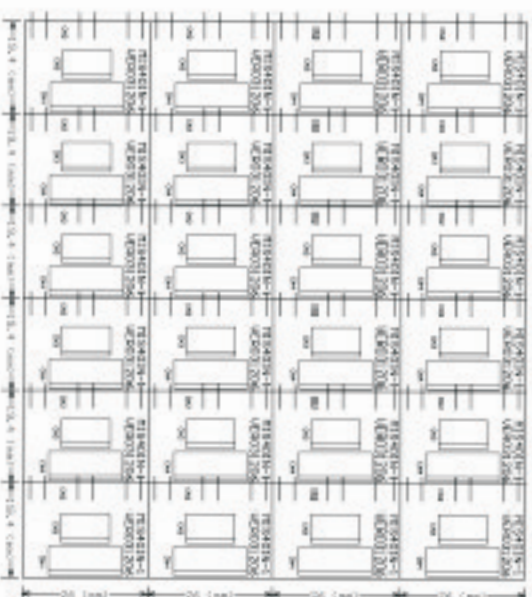
PCB : MIS40IN-1 Bottom Layer



PCB : MIS40IN-1 Bottom Solder Mask



PCB : MIS40IN-1 Drill Drawing



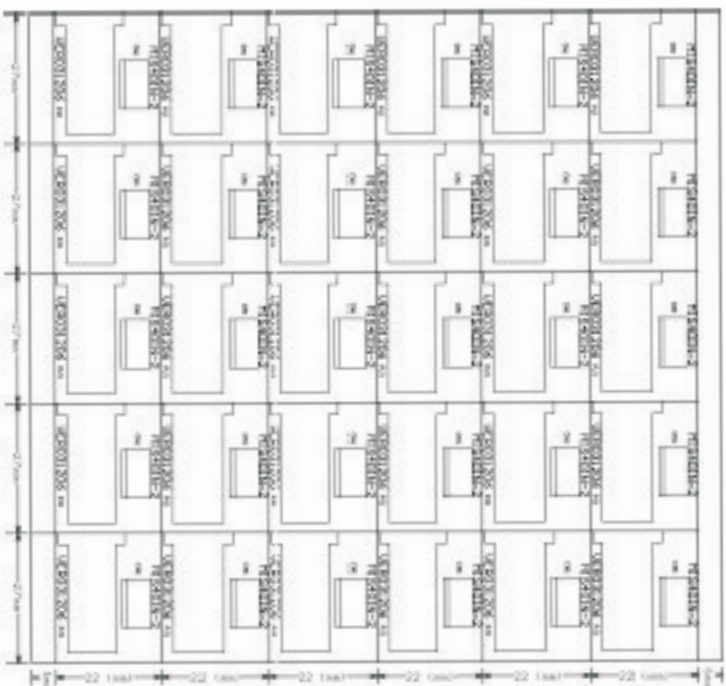
| Tool | Hole Size | Hole Count Placed |
|--------|------------------|-------------------|
| T1 | 30mil (0.9906mm) | 8 |
| T2 | 63mil (1.6002mm) | 3 |
| Totals | | 11 |



PCB : MIS40IN-2 Top Overlay



PCB : MIS40IN-2 Bottom Layer

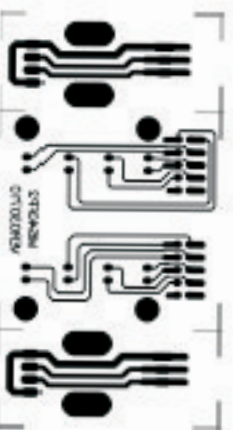


PCB : MIS40IN-2 Bottom Solder Mask

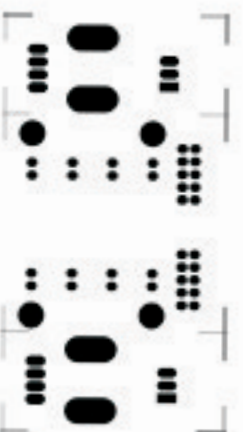


PCB : MIS40IN-2 Drill Drawing

| Tool | Hole Size | Hole Count Placed |
|---------------|------------------|-------------------|
| T1 | 30mil (0.9906mm) | 3 |
| T2 | 70mil (2.0066mm) | 4 |
| Totals | | 7 |



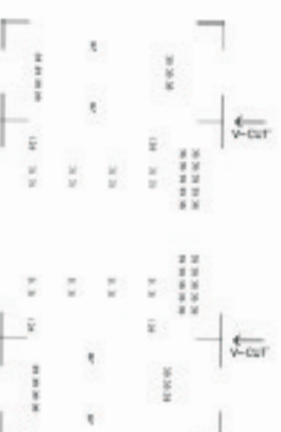
Bottom Layer



Bottom Solder Mask



Top Overlay



Drill Drawing

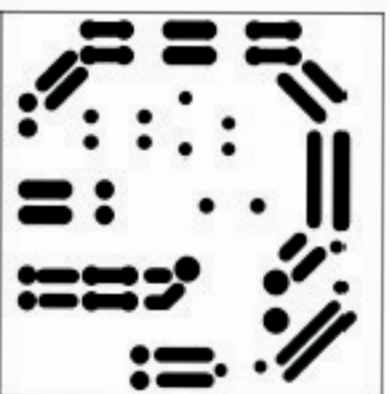
| Tool | Hole Size | Hole Count Planned |
|---------------|------------------|--------------------|
| T1 | 31mil (0.7874mm) | 16 |
| T2 | 35mil (0.889mm) | 20 |
| T3 | 39mil (0.9906mm) | 14 |
| T4 | 87mil (2.2098mm) | 4 |
| T5 | 126mil (3.204mm) | 4 |
| Totals | | 58 |



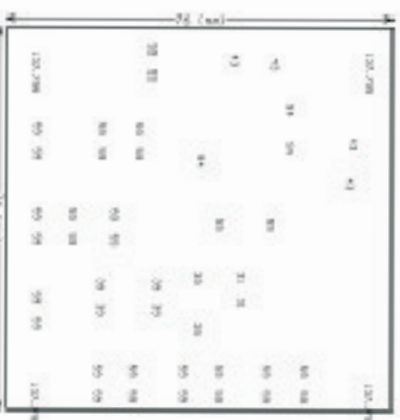
PCB : MIS60PWR Bottom Layer



PCB : MIS60PWR Top Overlay

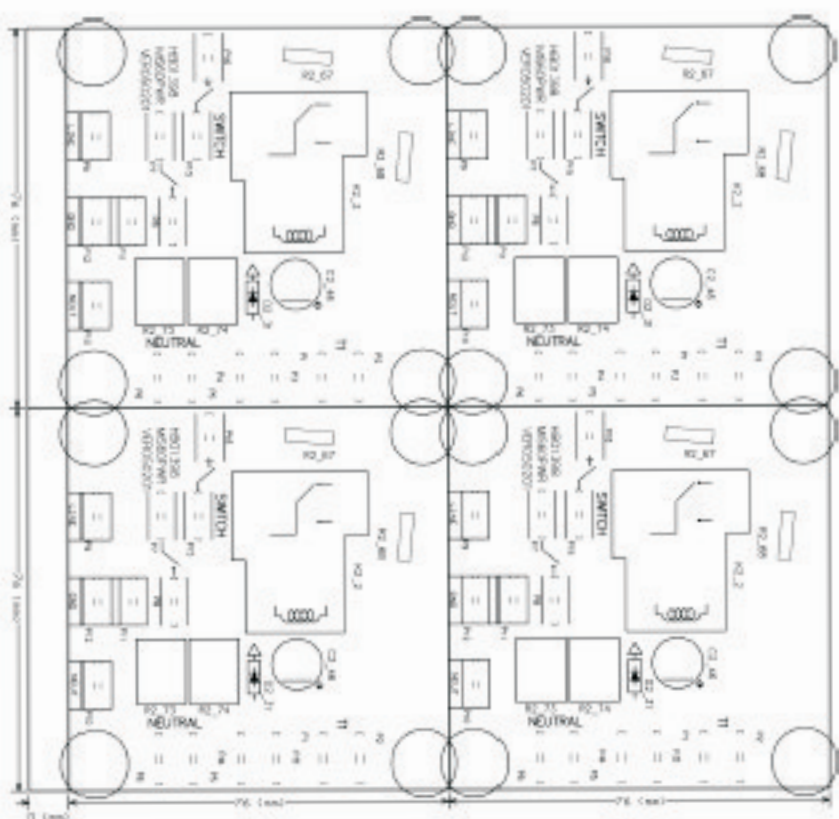


PCB : MIS60PWR Bottom Solder Mask

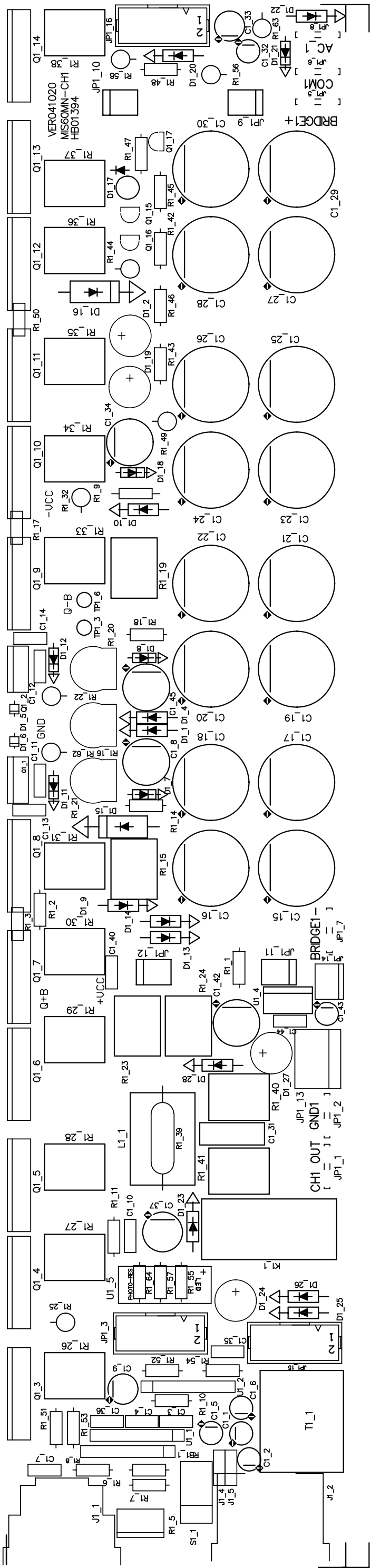


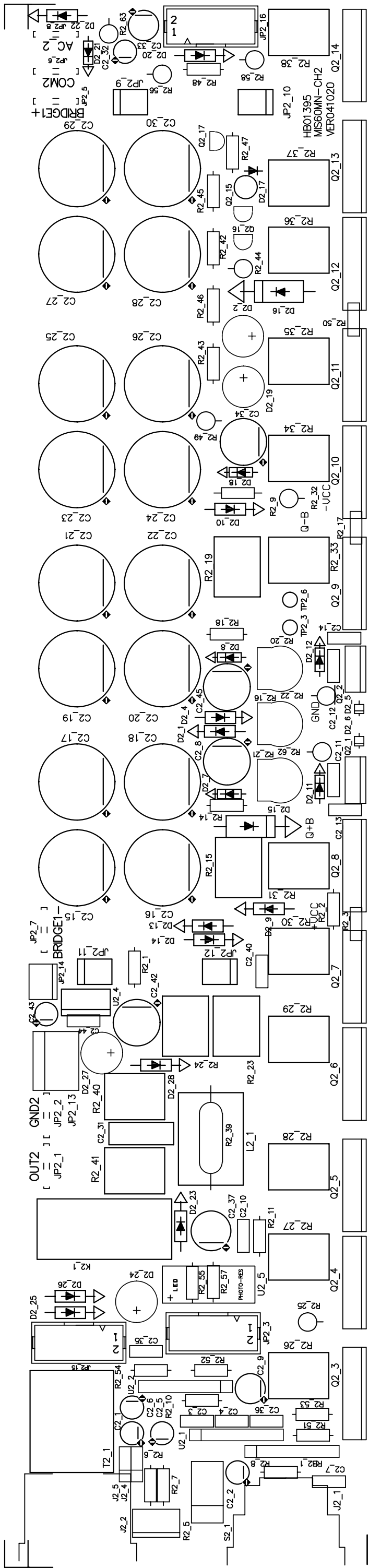
PCB : MIS60PWR Drill Drawing

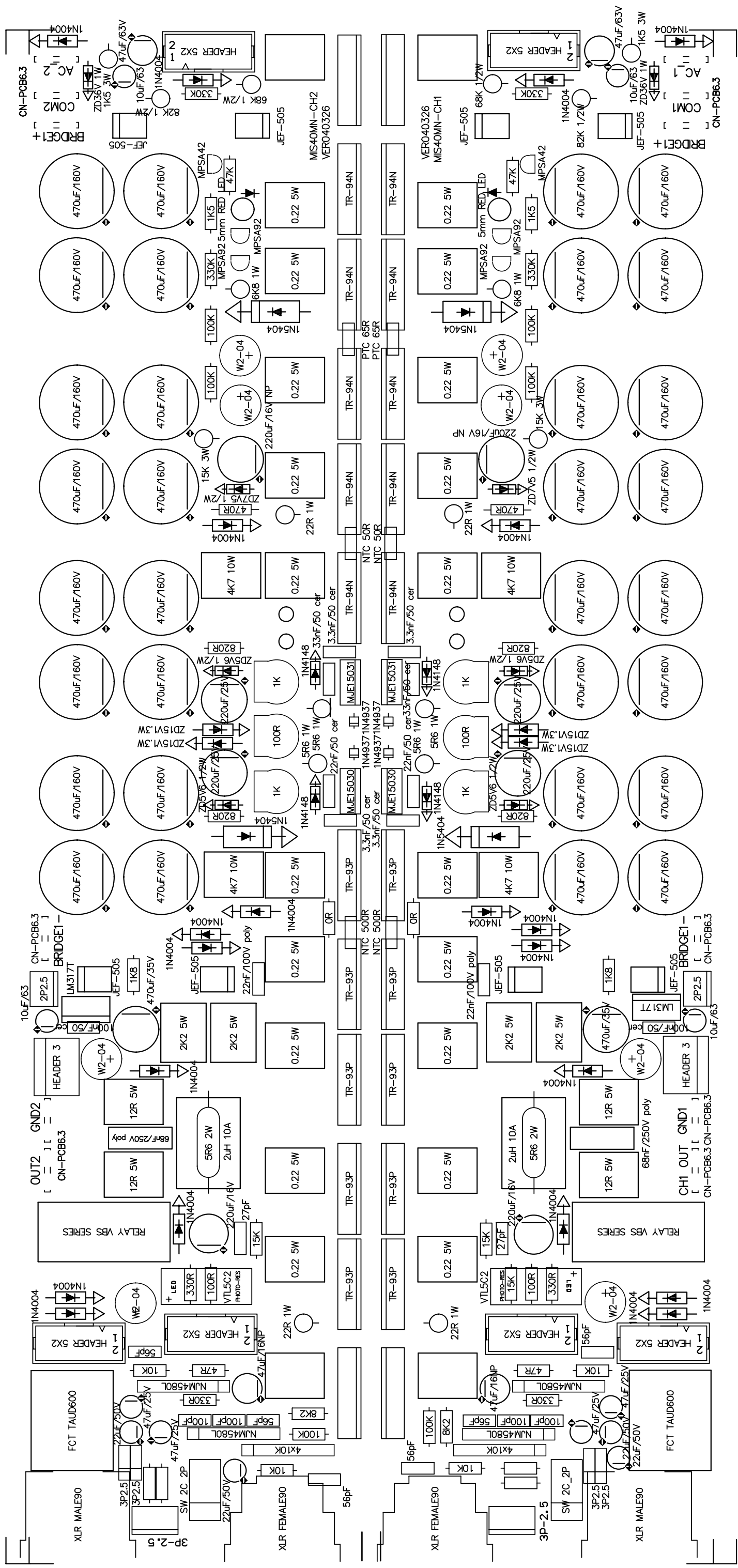
| Tool | Bob Size | Bob Count | Tool Travel |
|--------|-------------------|-----------|-------------------------|
| T1 | 31mil (0.7874mm) | 2 | 6.57 Inch (166.77 mm) |
| T2 | 39mil (0.9906mm) | 6 | 7.41 Inch (188.28 mm) |
| T3 | 43mil (1.0922mm) | 4 | 6.52 Inch (165.66 mm) |
| T4 | 59mil (1.4980mm) | 30 | 17.05 Inch (432.94 mm) |
| T5 | 94mil (2.3876mm) | 3 | 6.44 Inch (163.56 mm) |
| T6 | 138mil (3.5032mm) | 4 | 14.24 Inch (361.62 mm) |
| Totals | | | 98.13 Inch (2501.82 mm) |



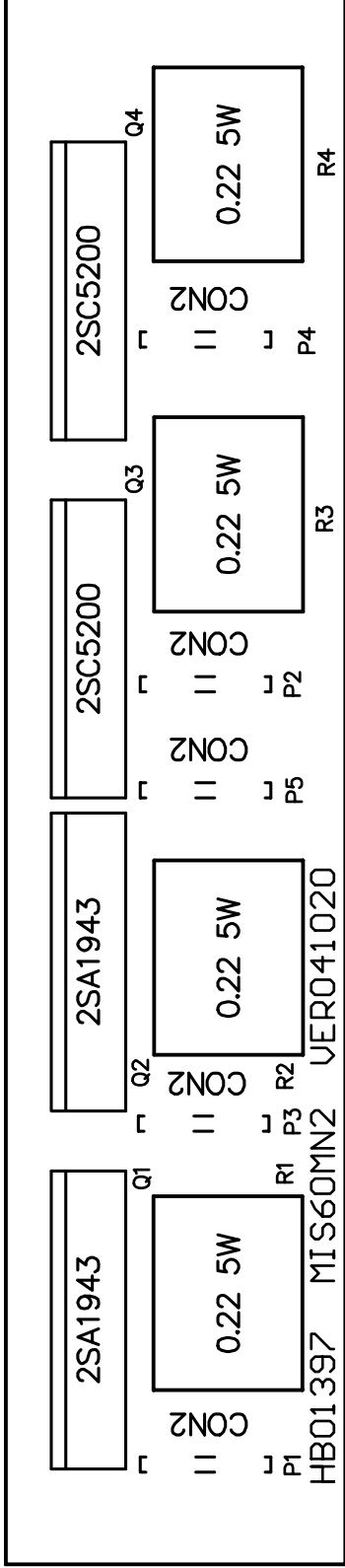
PCB：MIS60PWR 連片示意图

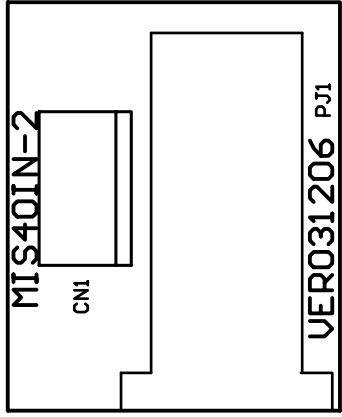
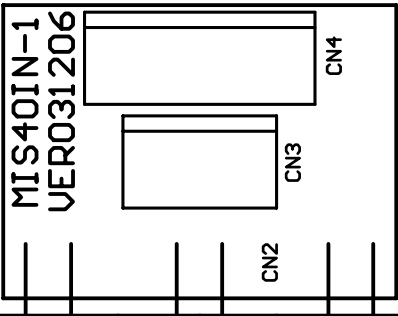
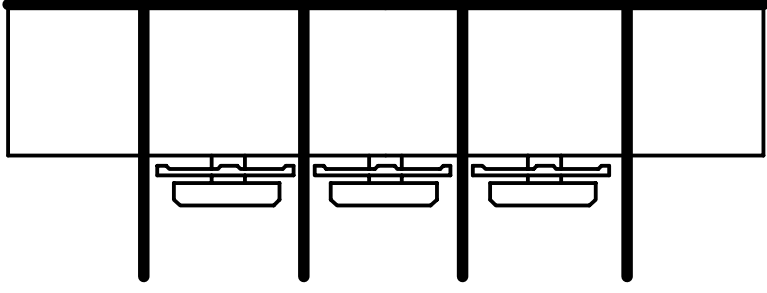


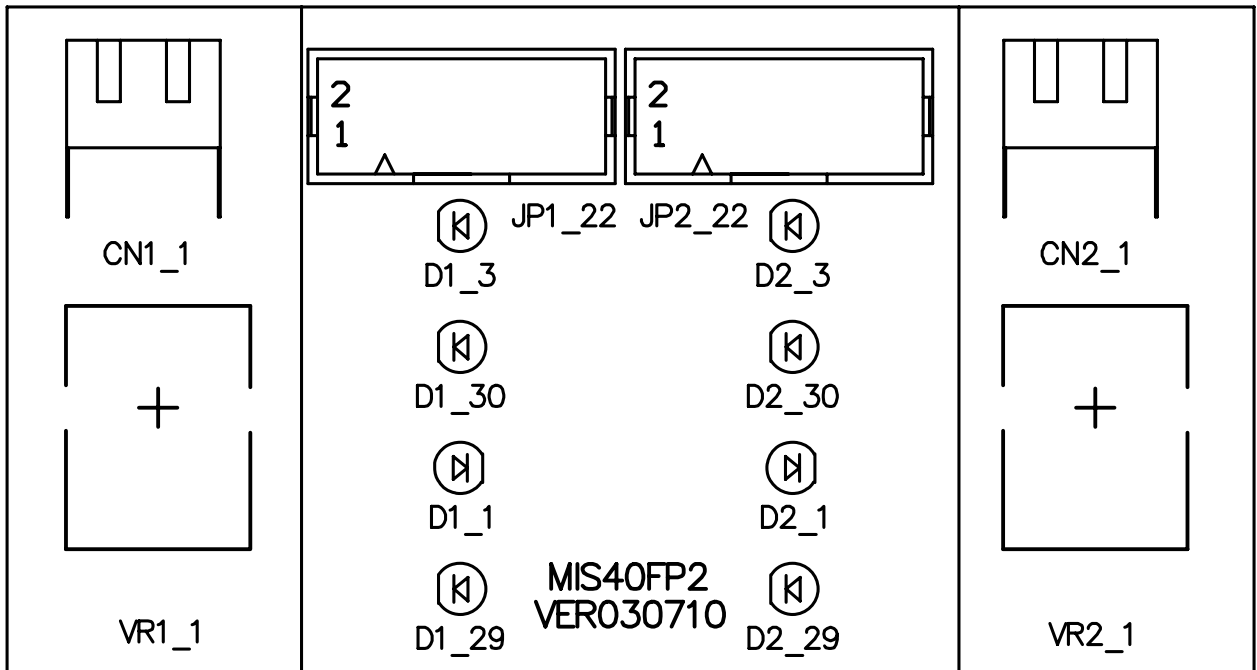


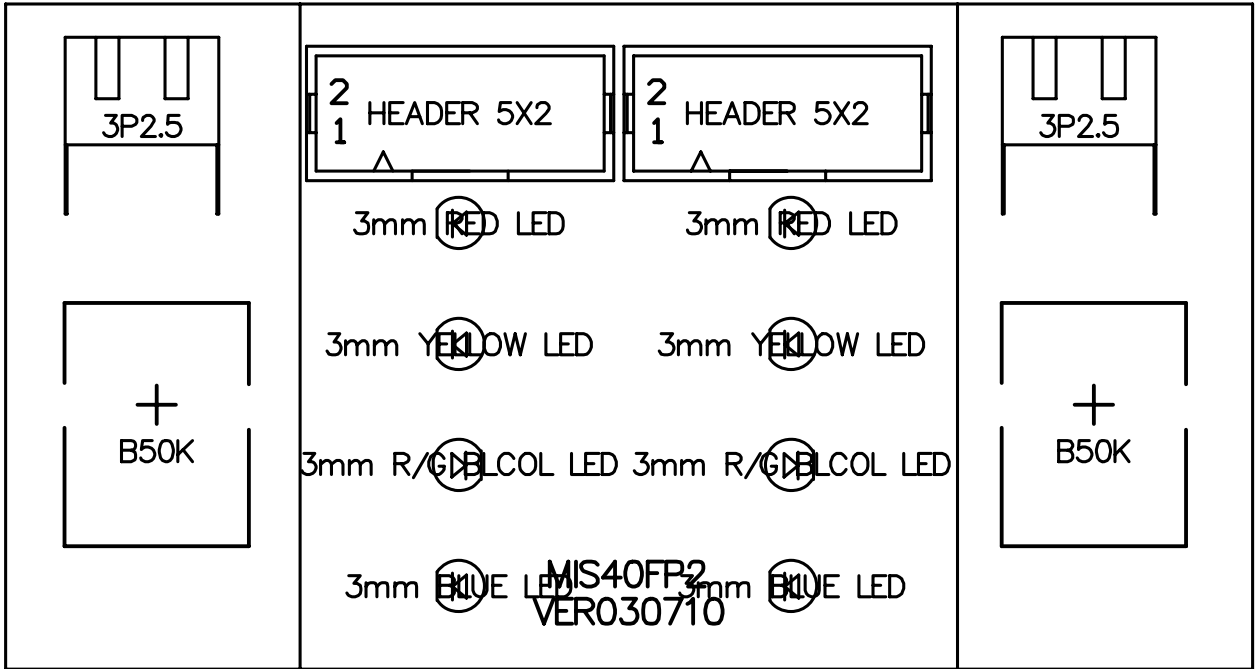


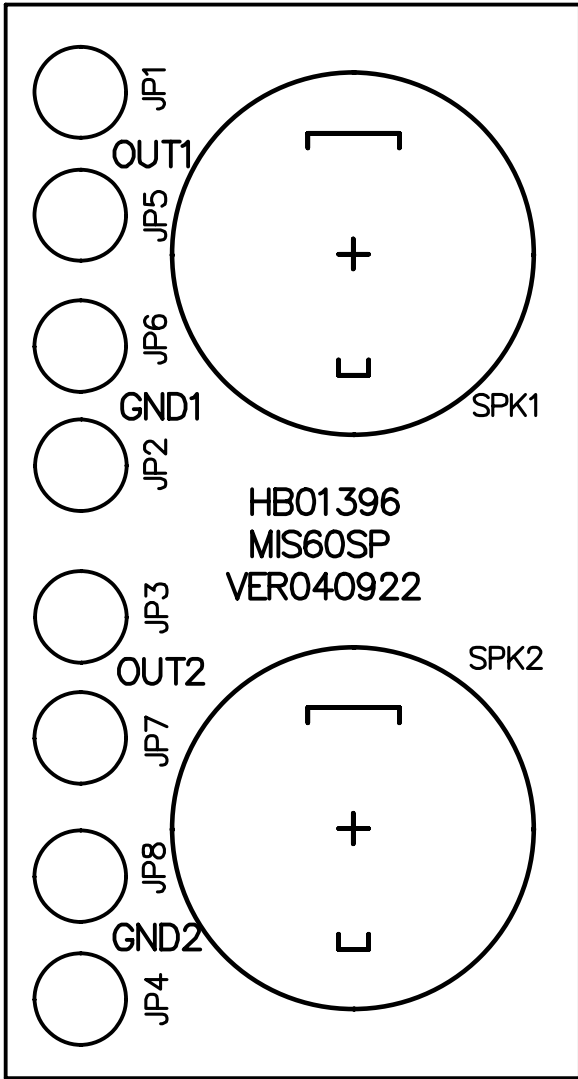
MIS40MN(MIS4000)

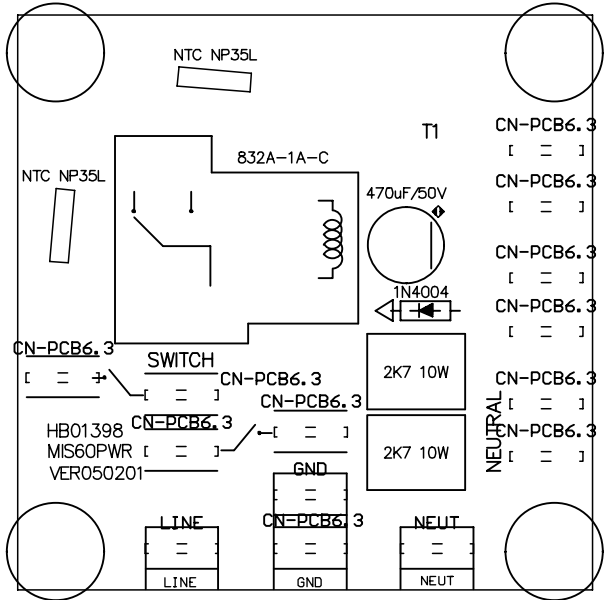
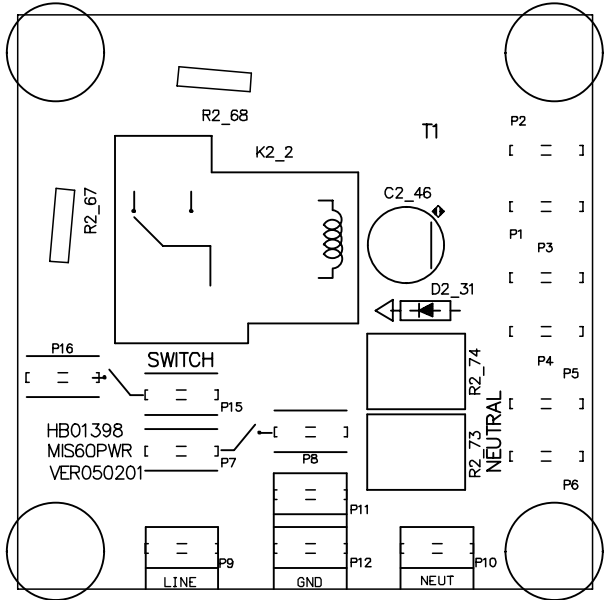


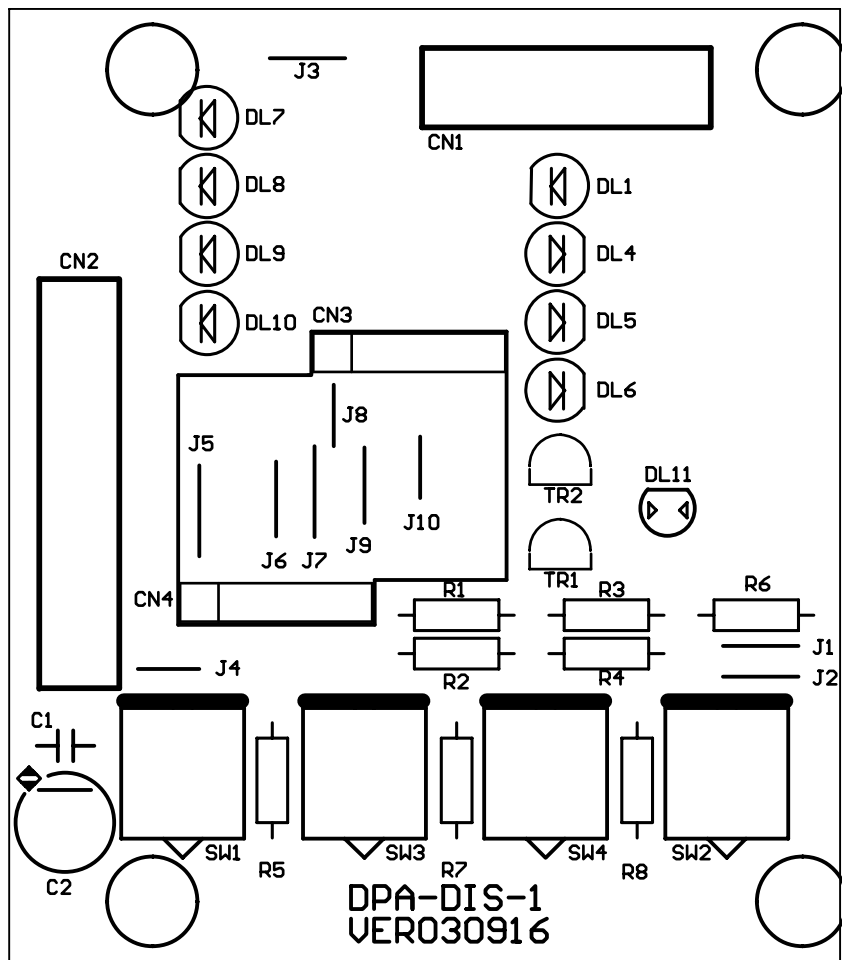


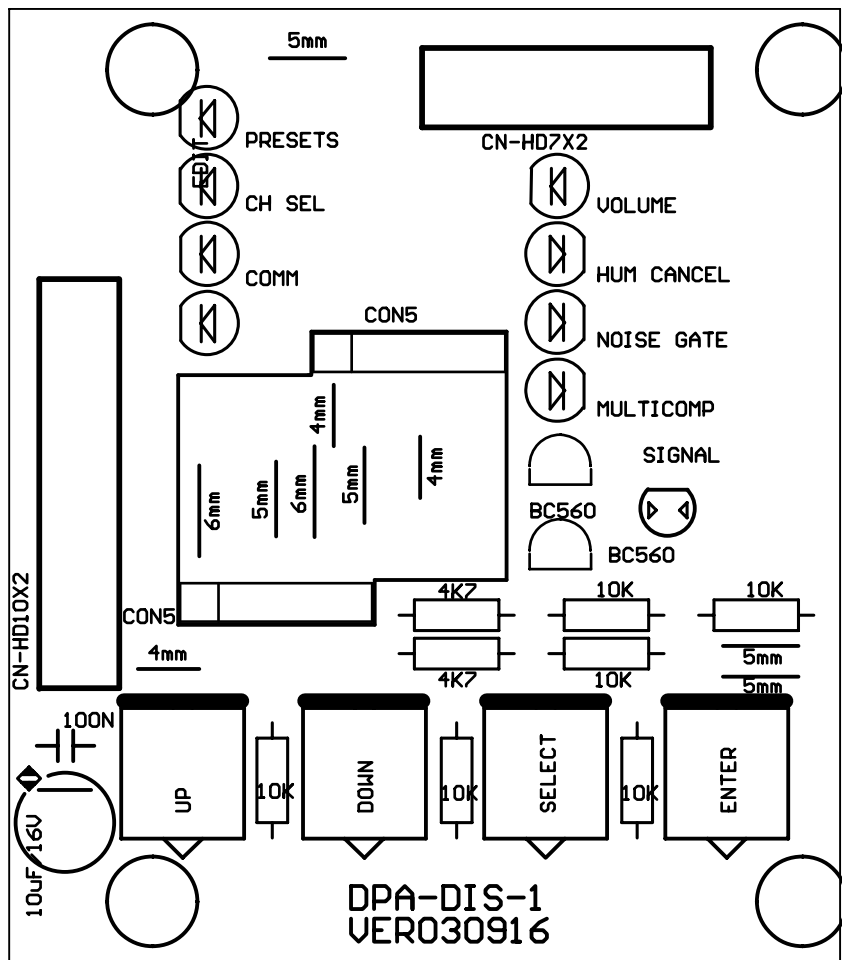


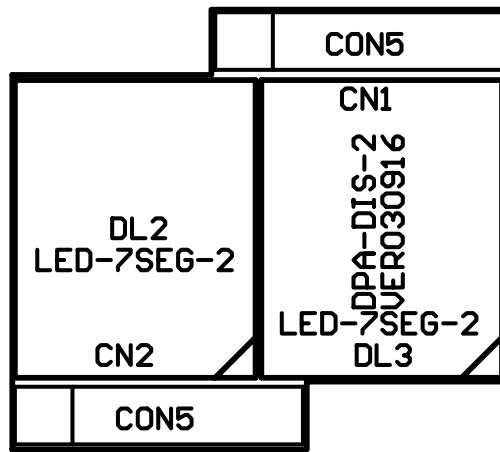


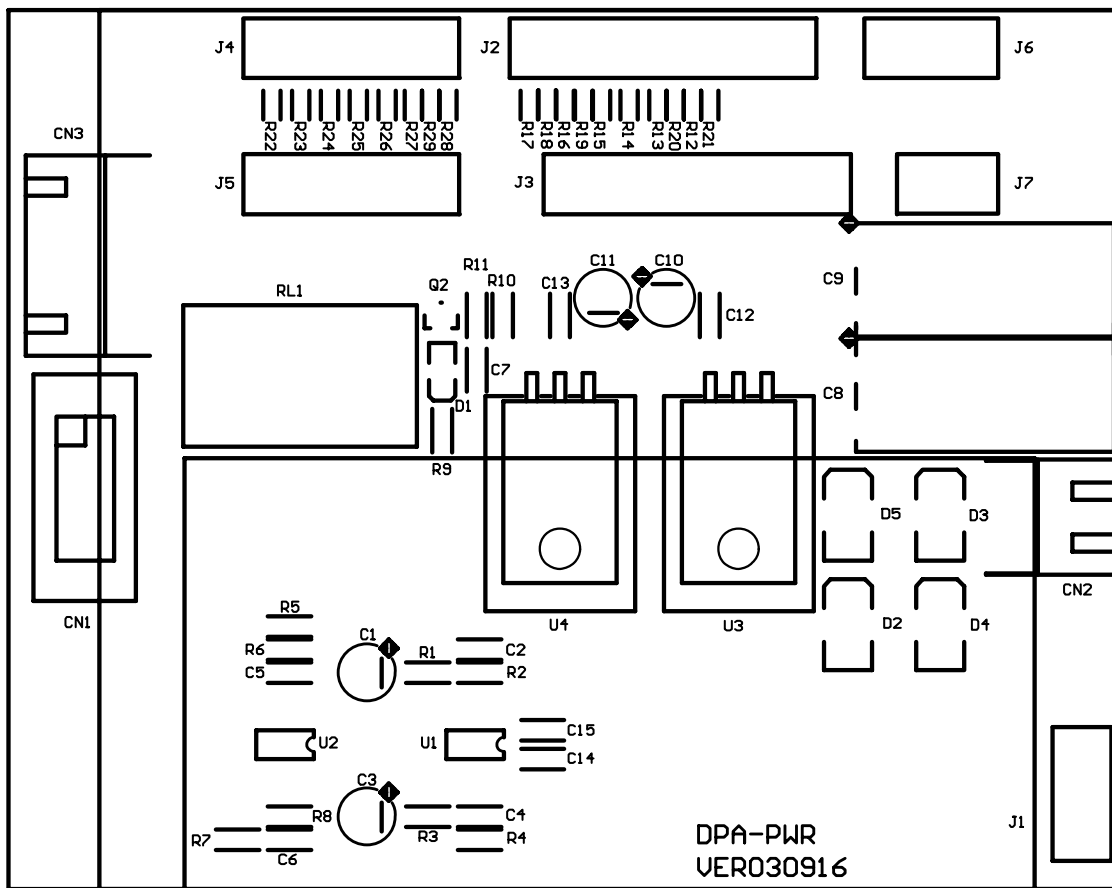


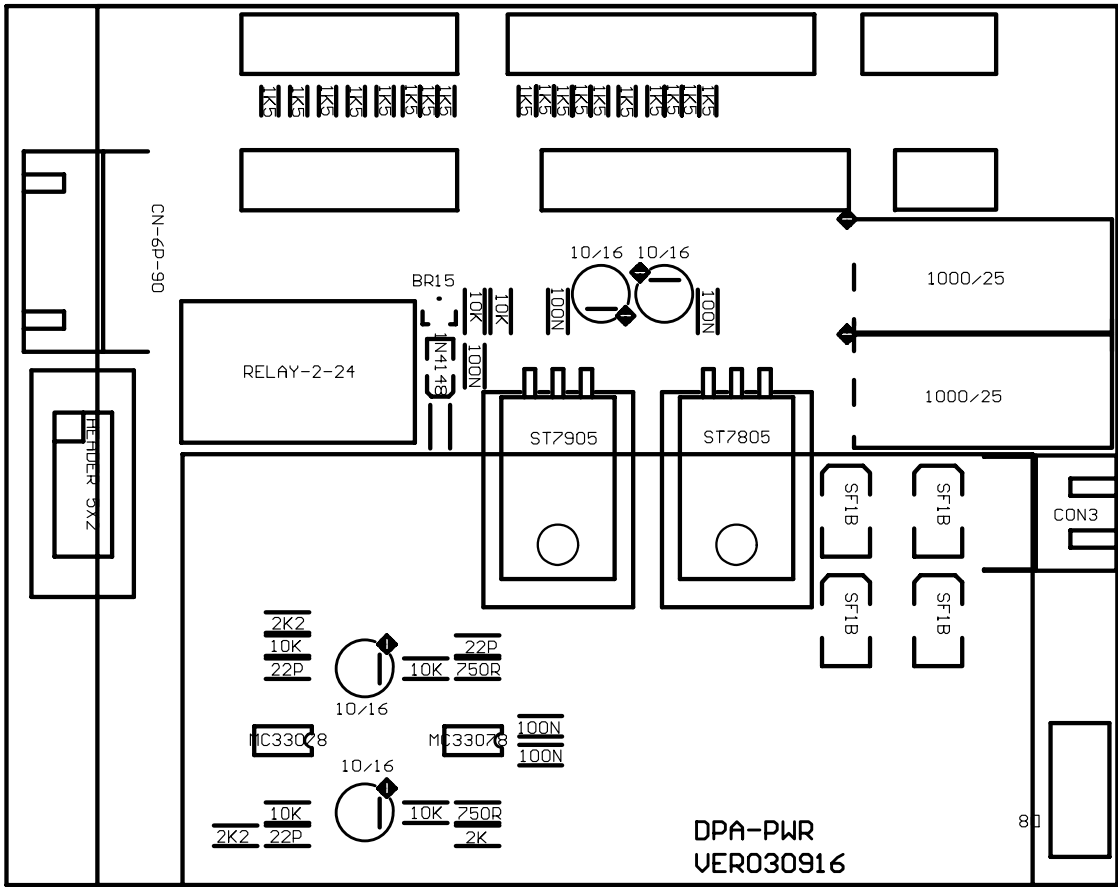


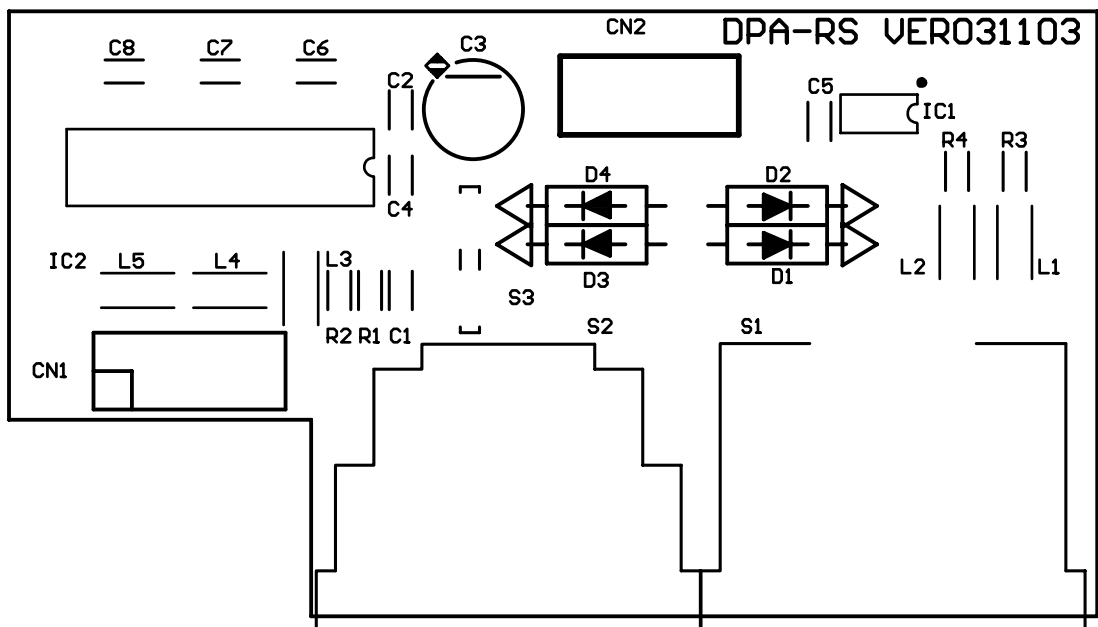


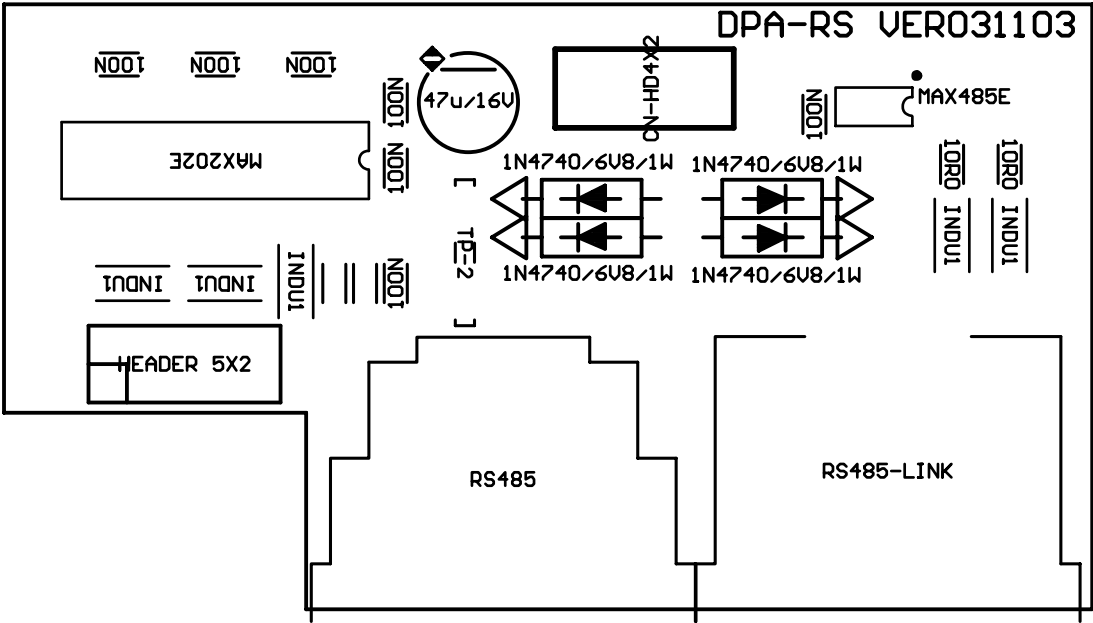


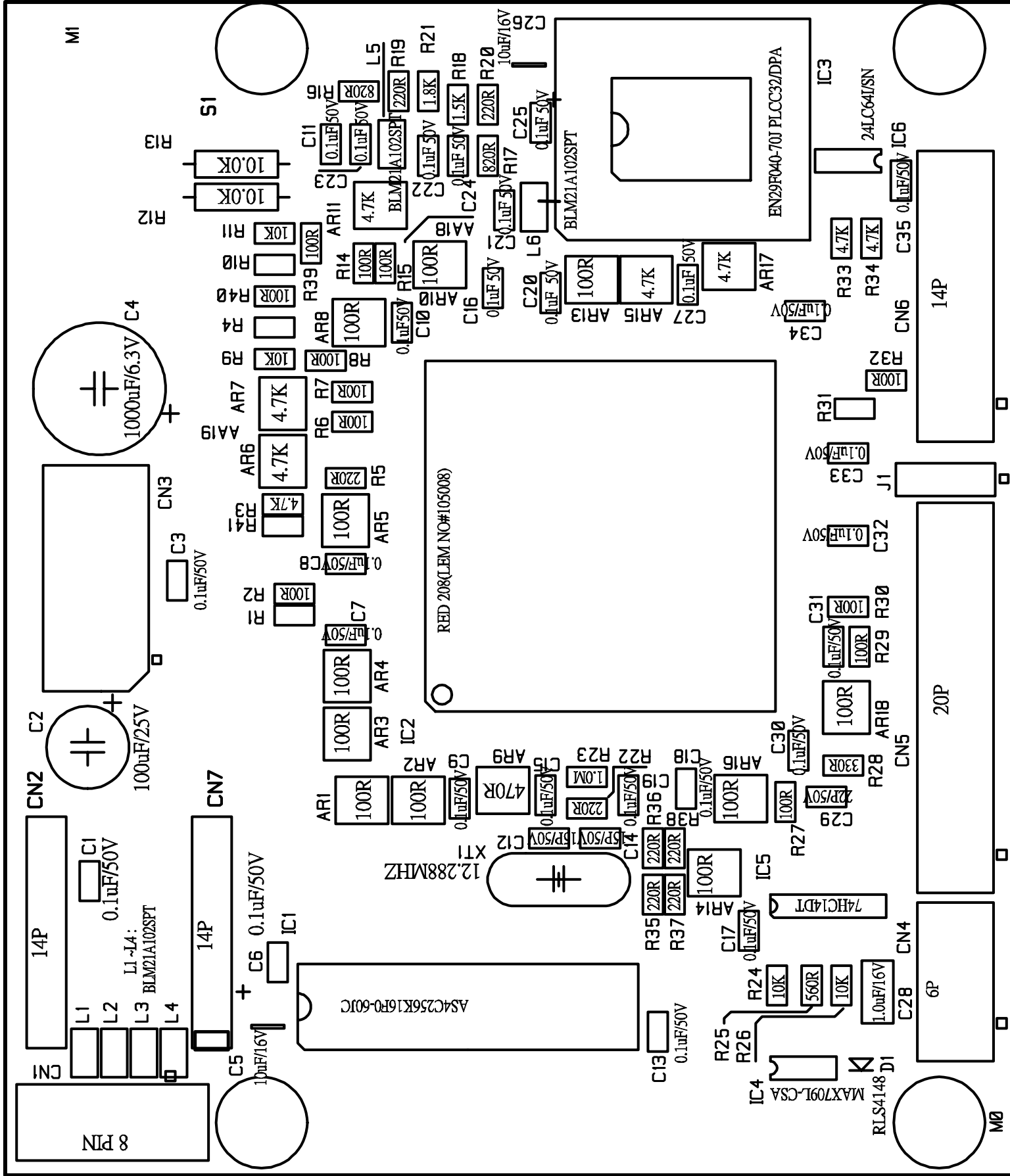




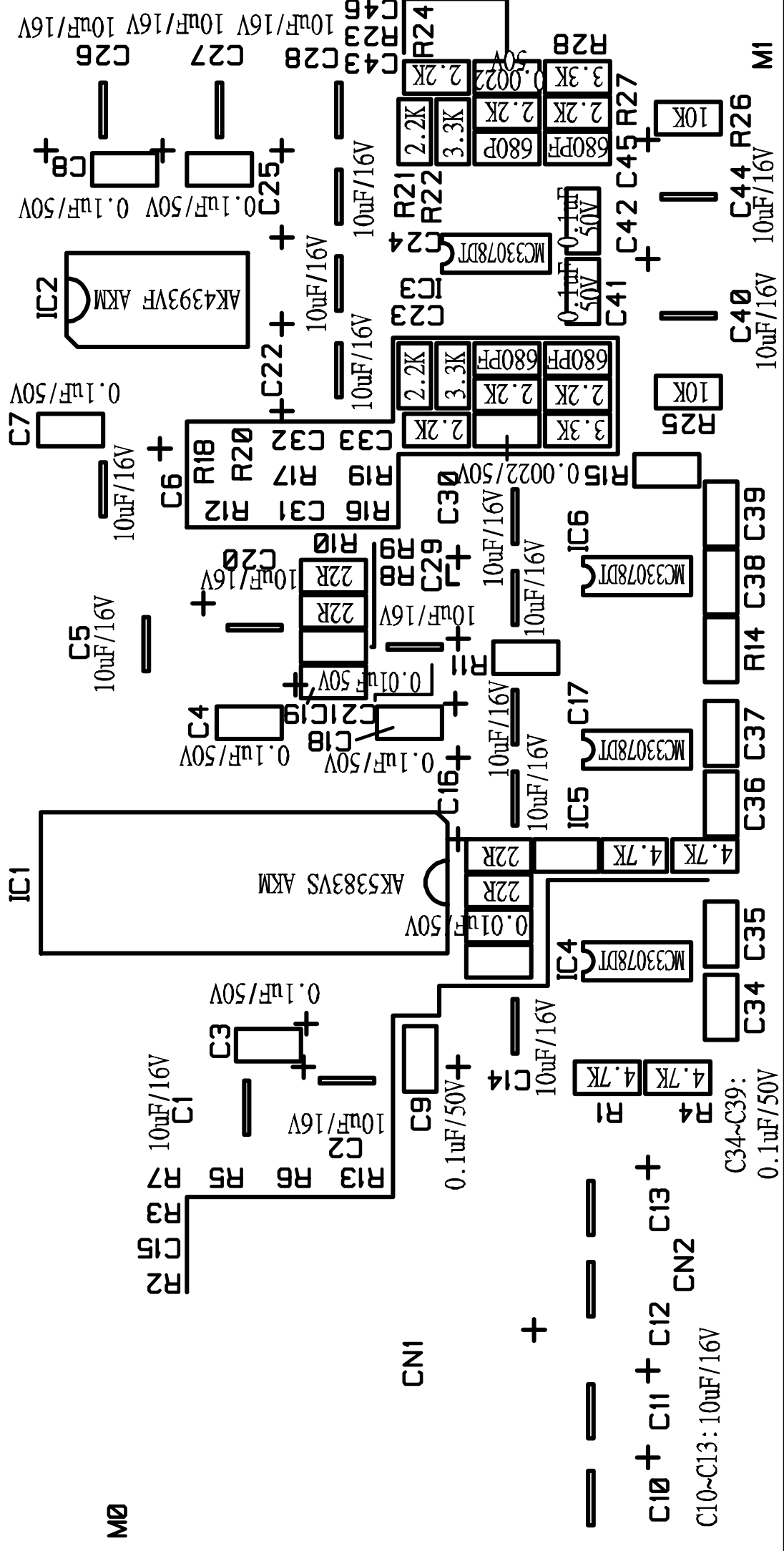








313111 TOP SILK



DPA 6000 TEST PROCEDURES

INSTRUMENTS

1. Multi- purpose meter
2. Audio-precision
3. oscillograph
4. four 4Ω resistor
5. Computer with RS232-PROT

DSP board test procedures

Step 1 : Visual check

Visual check the cosmetic and assembly of amplifier.

Step 2: Connection

- Check if the power switch is turned off.
- Connect the signal generator and CH1-XLR input terminal of the amplifier. Set the signal generator to 1KHz/0.775V (0dB).
- Connect oscillograph CH1 test pen with amplifier CH1 , and oscillograph CH2 test pen with amplifier Ch2.
- Connect 4Ω load to amplifier CH1.
- Connect 4Ω load to amplifier CH2.
- Turn the gain knob of front panel to MIN.

Step 3: Power supply test

- Supply the amplifier with rated voltage (230VAC).
- Check if all the voltage is correct. If they are right, then turn off the power.

Step 4: DSP controlling board test

1. Press ENTER and SEL buttons at the same time and turn on the power.

a. All LEDs light up in turn.

b. LCD displays number "8.8".

2. Press ENTER and SEL buttons at the same time again. Volume SIG-LED should lights up.

a. Press UP button, LCD displays the number "1".

b. Press DOWN button, LCD displays the number "2".

C. Press ENTER button, LCD displays the number "3".

d. Press SEL button, LCD displays the number "4".

Step 5: EEPROM test

1. Press ENTER and SEL buttons at the same time. (HUM CANCEL) LED should lights up. After about 50 seconds:

a. If LCD displays "01", it means EEPROM passes the inspection.

b. If LCD displays "E1", it means EEPROM fails to pass the inspection, and the module stops operation. The test can only go on after the machine has been repaired.

Step 7: RS232 series terminal test

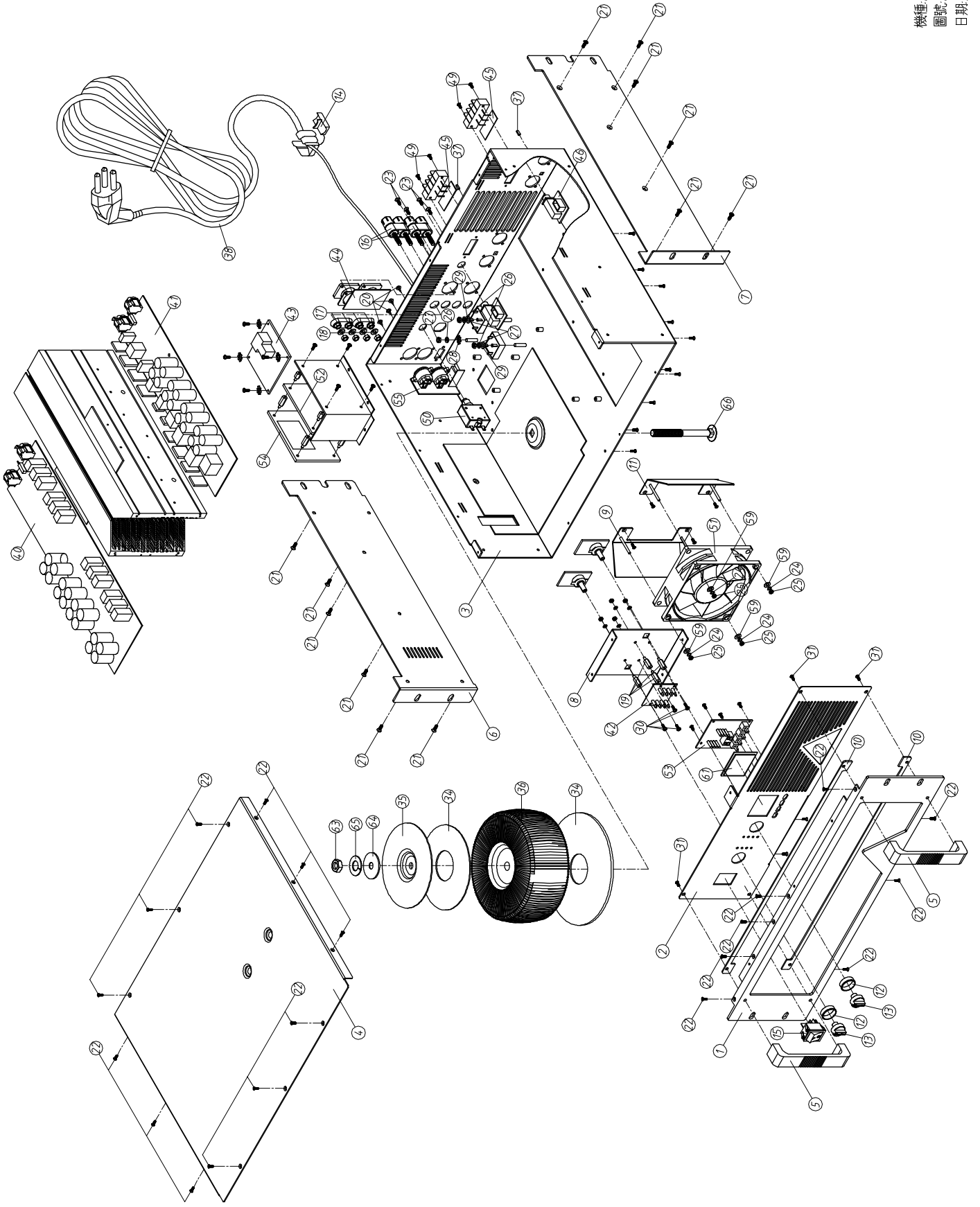
1. Turn off the power and connect computer and amplifier with RS232 wire, and then turn on the power.

2. Check if the software MaxiEditor is connected or offline.

3. If it is connected, the front panel displays number "56".

AMP BOARD TEST PROCEDURE

1. Set the LIMITER switch and BRIDGE switch to the position OFF, and VR of CH1 and CH2 to the position MAX. Turn on the power switch and the blue LED lights up. OPERATING/ PROTECTION LED lights up red. After 2 to 5 seconds, it turns green. The fan works. The sound can be heard while relay is sucked.
2. Input 1KHz/4dB signal to CH1 and CH2 and add 4 Ω load to the output terminal of CH1 CH2. The output should be 69.2V and distortion should be less than 0.5%.
3. DISTORTION (SMPTE-10w): Less than 0.05%
FREQUENCY RESPONSE: 20 to 20kHz +/- 1dB, 10 to 60000Hz +/- 3dB.
SNR: 102~108dB below rated output(full band).
4. Set limiter switch to the position ON. When input 1KHz/+6dB signal, CLIP LED lights up and the output signal keep the same.
5. Press down BRIDGE switch, input 1KHz/3.2dB signal to Ch1, and add 8 Ω load to bridge output terminal. Output is no less than 128V and distortion is no more than 0.7%.
6. Set volume VR to the position MIN and LIMITER switch to the position ON, output should be less than 3mv.
7. Short circuit MAX output, the power consumption should be less than 700W.



PART LIST of DPA 6000

| No | Part No | Description | Specification | Pcs |
|----|---------|--|--|-----|
| 1 | MA04305 | ZC-front pane-silver paint | MISTRAL6000 ALTO_V1.0 | 1 |
| 2 | MA04399 | ZC-front panel-5076 black and blue | DPA6000 ALTO_V1.0 | 1 |
| 3 | MB00419 | ZC-chassis -silver paint | DPA6000 ALTO_V1.0 | 1 |
| 4 | MC00636 | ZC-top cover-silver paint | MISTRAL6000_V1.1 | 1 |
| 5 | MI02404 | ZB-handle-silver paint | MISTRAL6000 20*25.5*124_V1.0 | 2 |
| 6 | MI02399 | ZB-Aluminum front panel fixed rack -paint | MISTRAL6000 left_V1.0 | 1 |
| 7 | MI02397 | ZB-front panel fixed rack -silver paint | MISTRAL6000 right_V1.0 | 1 |
| 8 | MI02401 | ZD-iron front panel-MISTRAL6000-08 | MISTRAL6000_V1.0 | 1 |
| 9 | MI02409 | ZB-partition-silver paint | MISTRAL6000 1.2t*50.2*59.3*122.5 left_V1. | 1 |
| 10 | MI02407 | ZB-padding board -5076 black and blue | MISTRAL6000 422*14*2.0t_V1.0 | 2 |
| 11 | MI02411 | ZB-partition-silver paint | MISTRAL6000 1.2t*50.2*59.3*122.5 right_V1. | 1 |
| 12 | NI02650 | plastic knob-semicircle handle | φ 18*18mm black | 2 |
| 13 | NI02651 | knob fixed sleeve-ABS | 10* φ 22.5 black A600.2 | 2 |
| 14 | NI02853 | power wire clip | 7P-2 SIZE φ 11.0 SJT3C#14 | 1 |
| 15 | HI00022 | power SW | 4P black R13-69A | 1 |
| 16 | HC00295 | cinquefoil terminal | JS205-110 | 2 |
| 17 | MF00020 | color washer | φ 5* φ 12*1t | 4 |
| 18 | MF00039 | spring washer | φ 5* φ 8*1t | 4 |
| 19 | MG00247 | copper pole | M3*10*0.5PH single flat length 16 | 4 |
| 20 | MG00061 | black plated screw-pill-iron board | M3*10 | 12 |
| 21 | MG00295 | black plated screw-head pan | M4*6 | 12 |
| 22 | MG00025 | black plated screw-head pan | M3*6 | 30 |
| 23 | MG00042 | black plated screw-head pan | M3*10 | 16 |
| 24 | MF00037 | spring washer | φ 3.2* φ 5.5*1t | 28 |
| 25 | ME00015 | color nut | 3mm | 12 |
| 26 | MF00038 | spring washer | φ 4* φ 7*1t | 7 |
| 27 | ME00016 | color nut | 4mm | 3 |
| 28 | MF00048 | shake proof | φ 4* φ 8*0.5t | 1 |
| 29 | MF00018 | ZE-washer-color plated | φ 4* φ 10*1t_V1.0 | 2 |
| 30 | MG00041 | black plated screw -pill | M3*6 | 22 |
| 31 | MG00075 | plated screw-head pan | M4*16 | 4 |
| 32 | ME00006 | nut-for R.S | φ 9 | 2 |
| 33 | MF00004 | color washer-for R.S | φ 9* φ 14*0.5t | 2 |
| 34 | NI00437 | rubber loop | φ 20* φ 120*2tB | 2 |
| 35 | MH00766 | ZB-iron piece-zinc color | φ 11* φ 90*2_V1.1 | 1 |
| 36 | TD00467 | loop transformer | PT-DPA6000_115/230V | 1 |
| 37 | NI00312 | power SW button | square 5*5*9 hole 2.8*2.8 black | 2 |
| 38 | HA03442 | power wire EURO 3P | LT-322+1.5*3C(H05VV-F) 2.27M BK | 1 |
| 39 | NC00059 | ZD-fixed board-SA2000-15 | 1*46*46(Sax-2000) | 1 |
| 40 | HK04603 | K-PCB | P-MIS60MN CH1(MISTRAL6000) | 1 |

| | | | | |
|----|---------|-----------------------------------|--------------------------------------|---|
| 41 | HK04604 | K-PCB | P-MIS60MN CH2(MISTRAL6000) | 1 |
| 42 | HK04605 | K-PCB | P-MIS60FP2 | 1 |
| 43 | HK04607 | K-PCB | P-MIS60PWR | 1 |
| 44 | HK04608 | K-PCB | P-MIS60SP | 1 |
| 45 | HK00793 | K-PCB | P-MIS2500-INPUT(terminal block) | 2 |
| 46 | HK00787 | K-PCB | P-MIS2500-INPUT(MIC jack) | 2 |
| 47 | NI01867 | adhesive pad | 20.5*14*7.6mm(SF-006) | 4 |
| 48 | NI00389 | ZD-plasitc washer | φ 12* φ 16*0.5 white | 2 |
| 49 | MG00027 | black plated screw-head pan | M3*12 | 4 |
| 50 | HI00142 | manual returning SW | A0701HM-15A | 1 |
| 51 | HE00083 | fan-1225M12S-PD1 | DC12V/0.6A 120*120*25mm 360mm | 1 |
| 52 | HK03845 | K-PCB | P-DPA2500-PWR-DIP | 1 |
| 53 | HK03846 | K-PCB | P-DPA2500-DISPLAY | 1 |
| 54 | HK03847 | K-PCB | P-DPA2500-RS-DIP | 1 |
| 55 | HK03830 | K-PCB | P-313089-4-DIP | 1 |
| 56 | MG00128 | color screw-pill | M3*16 | 1 |
| 57 | MI00237 | heat sink-Aluminum | FX22 4*34.5*16.5*34.5mm | 1 |
| 58 | MI00409 | fixed board | FX22 | 1 |
| 59 | MF00030 | Nickel washer | φ 3.5* φ 8*0.8t | 4 |
| 60 | NI01863 | button | φ 5.5*W10*7.5 black | 4 |
| 61 | NI02145 | ZC-acrylic-transparent | DPA series ALTO_V1.1 | 1 |
| 62 | MG00588 | external screw-HA02503 attachment | 4.75*11.8mm | 2 |
| 63 | ME00202 | zinc nut-external hexagon 17 | M10*8*1.5PH | 1 |
| 64 | MF00013 | iron washer | φ 10* φ 19*2t | 1 |
| 65 | MF00044 | Nickel plated spring washer | φ 10* φ 16*2t | 1 |
| 66 | MG00619 | zinc screw -T-square | M10*105*1.5PH | 1 |

BOM of DPA 6000

| Part No | Description | Specification | Remarks |
|---------|--|--|---------|
| MA04305 | ZC-front panel-silver paint | MISTRAL6000 ALTO_V1.0 | |
| MA00095 | B-front panel-silver paint | MISTRAL600 | |
| MA00072 | D-front panel-MISTRAL6000-01 | MISTRAL6000_V1.0 | |
| MI02402 | N-front panel-Aluminum | 3.1*133*25.5*483_V1.0 | |
| MA04399 | ZC-front panel-5076 black and blue | DPA6000 ALTO_V1.0 | |
| MA04395 | B-front panel-5076 black and blue | DPA4000 | |
| MA04396 | D-front panel-dpa4000-01 | DPA4000 1.5t*22.4*81.4*422 | |
| MJ00088 | R-iron board | 1.5t*2135*1220mm 30.67kg | |
| MB00419 | ZC-chassis-silver paint | DPA6000 ALTO_V1.0 | |
| MB00416 | B-chassis-silver paint | DPA6000 | |
| MB00341 | D-chassis-DPA6000-02 | DPA6000 2.0t*129*385*430_V1.0 | |
| MJ01154 | R-iron board | 2.0t*1850*1220mm 35.4kg | |
| ME00002 | screw bolt | M4*20*0.7PH | |
| ME00040 | iron pole-Nickel plated | hexagon 6.35*M3*10.1 | |
| MI02405 | ZD-partition-MISTRAL 6000-11 | MISTRAL6000 75*176.5*195_V1.0 | |
| MJ00088 | R-iron board | 1.5t*2135*1220mm 30.67kg | |
| MC00636 | ZC-top cover -silver paint | MISTRAL6000_V1.1 | |
| MC00635 | B-top cover-silver paint | MISTRAL6000 15*375*433.4_V1.0 | |
| MC00634 | D-top cover-MISTRAL 6000-15 | MISTRAL6000 15*375*433.4_V1.0 | |
| MJ00088 | R-iron board | 1.5t*2135*1220mm 30.67kg | |
| MI02404 | ZB-handle- silver paint | MISTRAL6000 20*25.5*124_V1.0 | |
| MI02403 | handle-Aluminum | MISTRAL6000 20*25.5*124_V1.0 | |
| MI02399 | ZB-front panel fixed rack-silver paint | MISTRAL6000 左_V1.0 | |
| MI02398 | D-front panel fixed rack-MISTRAL 6000-05 | MISTRAL6000 left_V1.0 | |
| MJ01154 | R-iron board | 2.0t*1850*1220mm 35.4kg | |
| MI02397 | ZB-front panel fixed rack-silver paint | MISTRAL6000 right_V1.0 | |
| MI02396 | D-front panel fixed rack-MISTRAL 6000-04 | MISTRAL6000 right_V1.0 | |
| MJ01154 | R-iron board | 2.0t*1850*1220mm 35.4kg | |
| MI02401 | ZD-front panel-MISTRAL6000-08 | MISTRAL6000_V1.0 | |
| MJ00069 | R-zinc plated board | 1.5t*2135*1220mm 30.67kg | |
| MI02409 | ZB-partition-silver paint | MISTRAL6000 1.2t*50.2*59.3*122.5 left_V1. | |
| MI02408 | D-partition-MISTRAL6000-13 | MISTRAL6000 1.2t*50.2*59.3*122.5 left_V1. | |
| MJ00067 | R-iron board | 0.8t*2135*1220mm 18.69kg | |
| ME00194 | screw bolt | M3*32*0.5PH_V1.0 | |
| MI02407 | ZB-padding board-5076 black and blue | MISTRAL6000 422*14*2.0t_V1.0 | |
| MI02406 | D-padding board-MISTRAL6000-12 | MISTRAL6000 422*14*2.0t_V1.0 | |
| MJ01154 | R-board | 2.0t*1850*1220mm 35.4kg | |
| MI02411 | ZB-partition-silver paint | MISTRAL6000 1.2t*50.2*59.3*122.5 right_V1. | |
| MI02410 | D-partition-MISTRAL6000-14 | MISTRAL6000 1.2t*50.2*59.3*122.5 right_V1. | |
| MJ00067 | R-iron board | 0.8t*2135*1220mm 18.69kg | |
| ME00194 | screw bolt | M3*32*0.5PH_V1.0 | |
| NI02650 | plastic knob-semicircle | φ 18*18mm black | |

| | | |
|---------|---------------------------------------|---|
| NI02651 | knob fixed sleeve -ABS | 10* ϕ 22.5 black A600.2 |
| NI02853 | tie bar for power wire | 7P-2 SIZE ϕ 11.0 SJT3C#14 |
| HI00022 | power switch | 4P black R13-69A |
| SA00200 | bridge rectifier | 40A/400V BP40-04 |
| HA01267 | 2 terminal wire PC 250 | 380mm UL1015 14AWG orange |
| HA03431 | 2terminal wire PC250 round | 110mm UL1015 12AWG green and yellow |
| HC00295 | cinquefoil terminal | JS205-110 |
| MF00020 | color washer | ϕ 5* ϕ 12*1t |
| MF00039 | spring wahser | ϕ 5* ϕ 8*1t |
| HA02469 | header wire | 3P-3P 480mm 28AWG blue |
| HA02470 | header wire | 3P-3P 600mm 28AWG blue |
| HA01394 | header wire AF:W134 | 3P-3P 120 |
| HA02452 | header wire 3130(female)-3130(female) | 10P female *3 415mm UL2651 28AWG PH1.27mm erev |
| HA02448 | 2 terminal wire PC250 | 530mm UL1015 14AWG red |
| HA02449 | 2 terminal wire PC250 | 700mm UL1015 14AWG black |
| HA01244 | 2 terminal wire PC250 terminal | 380mm UL1015 14AWG red |
| HA01198 | 2 terminal wire PC250 terminal | 180mm UL1015 14AWG black |
| MG00247 | copper pole | M3*10*0.5PH single flat total length16 |
| MG00061 | black plated screw-pill-iron board | M3*10 |
| MG00295 | black plated screw-head pan | M4*6 |
| MG00025 | black plated screw-head pan | M3*6 |
| MG00042 | black plated screw-head pan | M3*10 |
| MF00037 | spring wahser | ϕ 3.2* ϕ 5.5*1t |
| ME00015 | color nut | 3mm |
| MF00038 | spring wahser | ϕ 4* ϕ 7*1t |
| ME00016 | color nut | 4mm |
| MF00048 | shake proof | ϕ 4* ϕ 8*0.5t |
| MF00018 | ZE-washer- color plated | ϕ 4* ϕ 10*1t_V1.0 |
| MF00105 | D-washer | ϕ 4* ϕ 10*1t_V1.0 |
| MJ00058 | R-iron board | 1.0t*2135*1220mm 20.45kg |
| MG00041 | black plated scrwe-pill | M3*6 |
| MG00075 | black plated screw-flat | M4*16 |
| ME00006 | nut - for R.S | ϕ 9 |
| MF00004 | color washer -for R.S | ϕ 9* ϕ 14*0.5t |
| NI00437 | rubber loop | ϕ 20* ϕ 120*2tB |
| MH00766 | ZB-iron piece-zinc color | ϕ 11* ϕ 90*2_V1.1 |
| MH00768 | D-iron piece | ϕ 11* ϕ 90*2_V1.1 |
| MJ01154 | R-iron board | 2.0t*1850*1220mm 35.4kg |
| TD00467 | loop transformer | PT-DPA6000_115/230V |
| NI00312 | button of power switch | square 5*5*9 hole 2.8*2.8 black |
| HA03442 | power wire EURO 3P | LT-322+1.5*3C(H05VV-F) 2.27M BK |
| NI00218 | tie bar | ALT-102SB |
| HJ00006 | desiccant | 30g |
| NA00280 | PE bag | 0.05t*820*650mm |

| | | | |
|---------|-------------------------------------|--|---------------------|
| NB03888 | color box | DPA6000 ALTO_V1.0 | |
| NB03193 | inner cardboard | MISTRAL6000_V1.0 | |
| NB03245 | carton | MISTRAL6000 ALTO_V1.0 | |
| NE02227 | ZC-voltage mark 40*17mm | PSA-31500 220-240V | |
| NI00037 | R-25# silver sticker | 0.05*1M | |
| NI00034 | R-light PP | 0.045*1M | |
| NF00061 | warranty card | for ALTO products | |
| NE09384 | ZC-bar code sticker 30*11mm | DPA6000 model bar code _V1.0 | |
| NH00334 | art paper | 0.040*1m | |
| NE11347 | serial bar code 30*11mm | for ALTO PI products of special function | |
| NH00334 | art paper | 0.040*1m | |
| NC00059 | ZD-fixed board -SA2000-15 | 1*46*46(Sax-2000) | |
| NC00175 | R-red board | 1.0t*51mm*100M | |
| HK04603 | K-PCB | P-MIS60MN CH1(MISTRAL6000) | |
| HA02759 | header wire 2.5 | 5P-5P 120mm UL1007 24AWG red yellow black | |
| MI01954 | ZD-fixed rack-MISTRAL4000-09 | MISTRAL4000 1.5t*136*16mm right | |
| MJ00069 | R-zinc plated board | 1.5t*2135*1220mm 30.67kg | |
| NC00181 | ZD-insulation piece-MISTRAL4000-11 | MISTRAL4000 1.6t*136*16mm | |
| NC00041 | R-red board | 1.6t*0.65M*70M | |
| ND00182 | N-silicone sleeve | φ 1*30mm | |
| ND00171 | R-silicone sleeve | φ 1*1000mm | |
| ND00521 | N-silicone sleeve | φ 4*90mm | |
| ND00196 | R-silicone sleeve | φ 4*1000mm | |
| ND00520 | N-silicone sleeve | φ 3*90mm | |
| ND00190 | R-silicone sleeve | φ 3*1000mm | |
| MG00171 | Nickel screw-flat | M3*14 | |
| NC00005 | silicone insulation piece | TO-220 square | |
| NI00279 | N-heat shrink sleeve | φ 15*20mm | U1-4 |
| NI00278 | R-heat shrink sleeve | φ 15*1000mm | |
| MF00037 | spring wahser | φ 3.2* φ 5.5*1t | |
| MF00030 | Nickel washer | φ 3.5* φ 8*0.8t | |
| MJ01200 | ZE-spacer- nickel plated | MISTRAL4000 14.5*30.5*2t | |
| MJ01201 | D-spacer-MISTRAL 4000-06 | MISTRAL4000 14.5*30.5*2t | |
| MJ01154 | R-iron board | 2.0t*1850*1220mm 35.4kg | |
| MI02676 | ZD-heat sink-aluminum-MISTRAL6000-3 | MISTRAL6000 127.5*40*325 1.87kg right_V1.0 | |
| MI02415 | R-heat sink-Aluminum | 127.5*40*4395 ±5 31.555kg_V1.0 | |
| HD00029 | ceramic tube fuse-slow | 15A 250V φ 6*32mm UL | |
| HC00034 | short circuit terminal MINI JUMP | NO.2700 2.54mm/6mm OPEN | |
| HA01933 | jumper | 2.5mm | J1-4,J1-5 |
| HC00076 | male header | 2P 2.5mm 180° | JP1-14 |
| HC00077 | male header | 3P 2.5mm 180° | R1-5 |
| HC00172 | male header | 3P 3.96mm 180° | JP1-13 |
| HC00504 | male header | 10P 2.54mm 180° | JP1-15,JP1-16,JP1-3 |
| HC00111 | balanced MIC socket | 99M-108SP1 | J1-2 |

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|---------|--------------------------|--|---|
| HC00112 | balanced MIC socket | 99M-107SP-1-2 female 90° with PUSH | J1-1 |
| HC00056 | FUSE holder PCB | 8*10.6*1.5 JEF-505 | JP1-10,JP1-11,JP1-12,JP1-9 |
| HK02231 | photoelectric coupler | P-photosensitive resistor+ \varnothing 5LLED | U1-5 |
| RH00020 | photo sensitive resistor | VT90N1 | |
| SA00201 | LED | \varnothing 5 round red (LI3330/A) | |
| NI02779 | N-heat shrink sleeve | \varnothing 9*30mm | |
| NI00274 | R-heat shrink sleeve | \varnothing 9*1000mm | |
| HI00039 | pushing SW | SP70300-0202-11F1-N | S1-1 |
| HI00211 | relay SONG CHUAN | 8P 24VDC/16A 881H-1CC-C | K1-1 |
| RC00348 | semi-fixed resistor | B1K Ω PT1030-V1B102-C1-H10 | R1-20,R1-21 |
| RC00319 | semi-fixed resistor | B100 Ω PT1030-V1B101-C1-H10 | R1-16 |
| RH00025 | P.T.C | 100 Ω (PAS7101ZF) | R1-50 |
| RH00017 | PTC NTC | 50 Ω (TDC05A050J) | R1-17 |
| RH00021 | PTC NTC | 500 Ω (TDC5C150L) | R1-3 |
| CN00060 | fixed inductance | 2uH 10A(CSAF-302824)(\varnothing 1.5mm*12 1/2T) | L1-1 |
| SD00173 | IC | NJM4580L(JRC) | U1-1,U1-2 |
| SD00032 | IC | LM317T | U1-4 |
| SB00021 | power transistor | 2SC5200 | Q1-10,Q1-11,Q1-12,Q1-13, Q1-9,Q1-14 |
| SB00023 | power transistor | 2SA1943-O | Q1-6,Q1-7,Q1-8,Q1-5,Q1-4,Q1-3 |
| SB00129 | transistor | MPSA92(TO92)/(PHI) | Q1-15,Q1-16 |
| SB00130 | transistor | MPSA42(PHILIPS) | Q1-17 |
| SB00044 | transistor | MJE15033 | Q1-2 |
| SB00042 | transistor | MJE15032 | Q1-1 |
| SA00026 | LED | \varnothing 5 round red (B1115) | D1-17 |
| SA00188 | zener diode | 1/2W 7.5V | D1-18 |
| SA00117 | zener diode | 1/2W 5.6V 6B1 | D1-7,D1-8 |
| SA00197 | zener diode | 1W 36V 1N4753 | D1-21 |
| SA00107 | zener diode | 1W 15V 1N4744 | D1-1,D1-4 |
| SA00002 | fast diode | 1A/600V 1N4937 | D1-5,D1-6 |
| SA00187 | rectifying diode | 1N5404 strip type | D1-15,D1-16 |
| SA00098 | rectifying diode | 1A/400V 1N4004 strip type | D1-10,D1-13,D1-14,D1-20,D1-22, D1-23,D1-25,D1-26,D1-28,D1-9 |
| SA00093 | rectifying diode | 1N4148 0.5A strip type | D1-11,D1-12 |
| SA00167 | bridge rectifier | 2A W2-08 | D1-19,D1-24,D1-27,D1-2 |
| CB00180 | electrolysis capacitor | 470uF/160V \varnothing 18*45mm | C1-15,C1-16,C1-17,C1-18,C1-19, C1-20,C1-21,C1-22,C1-23,C1-24, C1-25,C1-26,C1-27,C1-28,C1-29, C1-30 |
| CB00067 | electrolysis capacitor | 470uF/35V \varnothing 10*20mm | C1-42 |
| CB00057 | electrolysis capacitor | 220uF/25V \varnothing 8*11mm pin distance 5mm | C1-8,C1-45 |
| CB00171 | electrolysis capacitor | 220uF/16V NP \varnothing 10*12.5mm | C1-34 |
| CB00055 | electrolysis capacitor | 220uF/16V \varnothing 8*11mm | C1-37 |
| CB00149 | electrolysis capacitor | 47uF/63V \varnothing 6*11mm pin distance 5mm | C1-33 |

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|---------|------------------------------|--|---|
| CB00039 | electrolysis capacitor | 47uF/25V φ 5*11mm | C1-5 |
| CB00169 | electrolysis capacitor | 47uF/16V NP φ 6.3*11mm | C1-9 |
| CB00177 | electrolysis capacitor | 22uF/50V φ 5*11mm | C1-2,C1-1,R1-43 |
| CB00185 | electrolysis capacitor | 10uF/63V φ 5*11mm pin distance 2mm | C1-32,C1-43 |
| CF00013 | metal film capacitor MEF | 0.068uF/250V | C1-31 |
| CF00022 | metal film capacitor MSC | 0.022uF/100V 5% CASE01 | C1-40 |
| CA00053 | ceramic capacitor | 0.1uF SL pin distance 5mm | C1-44 |
| CA00047 | ceramic capacitor | 0.033uF | C1-12 |
| CA00070 | ceramic capacitor | 0.022uF/50V \pm 20% Y5U pin distance 5mm | C1-11 |
| CA00043 | ceramic capacitor | 0.0033uF pin distance 5mm | C1-13,C1-14 |
| CA00024 | ceramic capacitor | 100PF SL pin distance 5mm | C1-3,C1-4 |
| CA00018 | ceramic capacitor | 56PF NPO | C1-36,C1-35,C1-7 |
| CA00010 | ceramic capacitor | 27PF NPO pin distance 5mm | C1-10 |
| RA01016 | cement resistor 5W | 2.2K Ω SQM type | R1-23,R1-24 |
| RA00870 | cement resistor 5W | 12 Ω SQM type | R1-40,R1-41 |
| RA00880 | cement resistor 5W | 0.22 Ω SQM type | R1-27,R1-28,R1-29,R1-30,R1-31, R1-33,R1-34,R1-36,R1-37,R1-26, R1-35,R1-38 |
| RA00063 | metal oxide film resistor 3W | 1.5K Ω RSS P type | R1-63 |
| RA01332 | metal oxide film resistor 3W | 15K Ω P type | R1-49 |
| RA00051 | metal oxide film resistor 2W | 5.6 Ω P type | R1-39 |
| RA00020 | metal oxide film resistor 1W | 6.8K Ω P type | R1-44 |
| RA00007 | metal oxide film resistor 1W | 22 Ω P type | R1-25,R1-32 |
| RA00027 | metal oxide film resistor 1W | 5.6 Ω P type | R1-22,R1-62 |
| RB00010 | integrated resistor 1/8W | 10K Ω 8P C Type | RB1-1 |
| RA00713 | fixed resistor 1/4W | 1.0K Ω F type | C1-6 |
| RA00909 | fixed resistor 1/2W | 82K Ω P type | R1-56 |
| RA00908 | fixed resistor 1/2W | 68K Ω P type | R1-58 |
| RA00242 | fixed resistor 1/4W | 10K Ω M type | R1-54,R1-8 |
| RA00184 | fixed resistor 1/4W | 100 Ω M type | R1-57 |
| RA00282 | fixed resistor 1/4W | 100K Ω M type | R1-43,R1-46,R1-51 |
| RA00219 | fixed resistor 1/4W | 1.8K Ω M type | R1-1 |
| RA00246 | fixed resistor 1/4W | 15K Ω M type | R1-11,R1-64 |
| RA00158 | fixed resistor 1/4W | 0.0 Ω M type | R1-2 |
| RA00217 | fixed resistor 1/4W | 1.5K Ω M type | R1-45 |
| RA00616 | fixed resistor 1/4W | 470 Ω M type pin distance 12.5mm | R1-9 |
| RA00200 | fixed resistor 1/4W | 330 Ω M type | R1-10,R1-55 |
| RA00299 | fixed resistor 1/4W | 330K Ω M type | R1-42,R1-48 |
| RA00174 | fixed resistor 1/4W | 47 Ω M type | R1-52 |
| RA00266 | fixed resistor 1/4W | 47K Ω M type | R1-47 |
| RA00239 | fixed resistor 1/4W | 8.2K Ω M type | R1-53 |
| RA00211 | fixed resistor 1/4W | 820 Ω M type | R1-14,R1-18 |
| HB01394 | PCB-FR4/2L 2oz | MIS60MNCH1_VER041020 | |
| CA00088 | ceramic capacitor | 100PF/1000V pin distance 5mm | |

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|---------|------------------------------|---|---|
| HA03434 | single terminal wire PC187 | 120mm UL1015 20AWG yellow | |
| HA03435 | single terminal wire PC187 | 120mm UL1015 20AWG green | |
| HA03436 | single terminal wire PC187 | 120mm UL1015 14AWG red | |
| HA03437 | single terminal wire PC187 | 120mm UL1015 14AWG white | |
| HA03438 | single terminal wire PC187 | 120mm UL1015 14AWG black | |
| HK04631 | K-PCB | P-MIS60 MN2(CH1) MIS6000 | |
| SB00021 | power transistor | 2SC5200 | Q1,Q2 |
| SB00023 | power transistor | 2SA1943-O | Q3,Q4 |
| HC00217 | PCB soldering terminal | PC187(0.8) | P1,P2,P3,P4,P5 |
| RA00880 | cement resistor 5W | 0.22 Ω SQM type | R1,R2,R3,R4,R5 |
| HB01397 | PCB-FR4/2L | MIS60MN2(1*4)_VER041020 | |
| RA01496 | cement resistor 10W | 5.4K Ω SQM type | R1-15,R1-19 |
| HK04604 | K-PCB | P-MIS60MN CH2(MISTRAL6000) | |
| HB01395 | PCB-FR4/2L 2oz | MIS60MNCH2_VER050203 | |
| RA00211 | fixed resistor 1/4W | 820 Ω M type | R2_14,R2_18 |
| RA00239 | fixed resistor 1/4W | 8.2K Ω M type | R2_53 |
| RA00266 | fixed resistor 1/4W | 47K Ω M type | R2_47 |
| RA00174 | fixed resistor 1/4W | 47 Ω M type | R2_52 |
| RA00299 | fixed resistor 1/4W | 330K Ω M type | R2_42,R2_48 |
| RA00200 | fixed resistor 1/4W | 330 Ω M type | R2_10,R2_55 |
| RA00616 | fixed resistor 1/4W | 470 Ω M type pin distance 12.5mm | R2_9 |
| RA00217 | fixed resistor 1/4W | 1.5K Ω M type | R2_45 |
| RA00158 | fixed resistor 1/4W | 0.0 Ω M type | R2_2 |
| RA00246 | fixed resistor 1/4W | 15K Ω M type | R2_11 |
| RA00219 | fixed resistor 1/4W | 1.8K Ω M type | R2_1 |
| RA00282 | fixed resistor 1/4W | 100K Ω M type | R2_43,R2_46,R2_51 |
| RA00184 | fixed resistor 1/4W | 100 Ω M type | R2_57 |
| RA00242 | fixed resistor 1/4W | 10K Ω M type | R2_54,R2_8 |
| RA00908 | fixed resistor 1/2W | 68K Ω P type | R2_58 |
| RA00909 | fixed resistor 1/2W | 82K Ω P type | R2_56 |
| RB00010 | integral resistor 1/8W | 10K Ω 8P C Type | RB2_1 |
| RA00027 | metal oxide film resistor 1W | 5.6 Ω P type | R2_22,R2_62 |
| RA00007 | metal oxide film resistor 1W | 22 Ω P type | R2_25,R2_32 |
| RA00020 | metal oxide film resistor 1W | 6.8K Ω P type | R2_44 |
| RA00051 | metal oxide film resistor 2W | 5.6 Ω P type | R2_39 |
| RA01332 | metal oxide film resistor 3W | 15K Ω P type | R1_49 |
| RA00063 | metal oxide film resistor 3W | 1.5K Ω RSS P type | R1_63 |
| RA00880 | cement resistor 5W | 0.22 Ω SQM type | R2_27,R2_28,R2_29,R2_30, R2_31,R2_33,R2_34,R2-37, R2_36,R2-26,R2-35,R2-38 |
| RA00713 | fixed resistor 1/4W | 1.0K Ω F type | C2-6 |
| RA00870 | cement resistor 5W | 12 Ω SQM type | R2_41,R2_40 |
| RA01016 | cement resistor 5W | 2.2K Ω SQM type | R2_23,R2_24 |
| CA00010 | ceramic capacitor | 27PF NPO pin distance 5mm | C2_10 |

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|---------|--------------------------|---|--|
| CA00018 | ceramic capacitor | 56PF NPO | C2_35,C2_36,C2_7 |
| CA00024 | ceramic capacitor | 100PF SL pin distance 5mm | C2_3,C2_4 |
| CA00043 | ceramic capacitor | 0.0033uF pin distance 5mm | C2_13,C2_14 |
| CA00070 | ceramic capacitor | 0.022uF/50V±20% Y5U pin distance 5mm | C2_11 |
| CA00047 | ceramic capacitor | 0.033uF | C2_12 |
| CA00053 | ceramic capacitor | 0.1uF SL pin distance 5mm | C2_44 |
| CF00022 | metal film capacitor MSC | 0.022uF/100V 5% CASE01 | C2_40 |
| CF00013 | metal film capacitor MEF | 0.068uF/250V | C2_31 |
| CB00185 | electrolysis capacitor | 10uF/63V φ 5*11mm pin distance 2mm | C2_32,C2_43 |
| CB00177 | electrolysis capacitor | 22uF/50V φ 5*11mm | C2_1,C2_2,R2-43 |
| CB00169 | electrolysis capacitor | 47uF/16V NP φ 6.3*11mm | C2_9 |
| CB00039 | electrolysis capacitor | 47uF/25V φ 5*11mm | C2_5 |
| CB00149 | electrolysis capacitor | 47uF/63V φ 6*11mm pin distance 5mm | C2_33 |
| CB00055 | electrolysis capacitor | 220uF/16V φ 8*11mm | C2_37 |
| CB00171 | electrolysis capacitor | 220uF/16V NP φ 10*12.5mm | C2_34 |
| CB00057 | electrolysis capacitor | 220uF/25V φ 8*11mm pin distance 5mm | C2_8,C2_45 |
| CB00067 | electrolysis capacitor | 470uF/35V φ 10*20mm | C2_42 |
| CB00180 | electrolysis capacitor | 470uF/160V φ 18*45mm | C2_15,C2_16,C2_17,C2_18, C2_19,C2_20,C2_21,C2_22,C2_23 C2_24,C2_25,C2_26,C2_27 ,C2_28,C2_29,C2_30 |
| SA00167 | bridge rectifier | 2A W2-08 | D2_2,D2_19,D2_24,D2_27 |
| SA00093 | rectifying diode | 1N4148 0.5A strip | D2_11,D2_12 |
| SA00098 | rectifying diode | 1A/400V 1N4004 strip | D2_10,D2_13,D2_14, D2_20,D2_22,D2_23, D2_25,D2_26,D2_28,D2_9 |
| SA00187 | rectifying diode | 1N5404 strip | D2_15,D2_16 |
| SA00002 | fast diode | 1A/600V 1N4937 | D2_5,D2_6 |
| SA00107 | zener diode | 1W 15V 1N4744 | D2_1,D2_4 |
| SA00197 | zener diode | 1W 36V 1N4753 | D2_21 |
| SA00117 | zener diode | 1/2W 5.6V 6B1 | D2_7,D2_8 |
| SA00188 | zener diode | 1/2W 7.5V | D2_18 |
| SA00026 | LED | φ 5 round red (B1115) | D2_17 |
| SB00042 | transistor | MJE15032 | Q2_1 |
| SB00044 | transistor | MJE15033 | Q2_2 |
| SB00130 | transistor | MPSA42/(PHILIPS) | Q2_17 |
| SB00129 | transistor | MPSA92(TO92)/(PHI) | Q2_15,Q2_16 |
| SB00023 | power transistor | 2SA1943-O | Q2_5,Q2_6,Q2_7,Q2_8, Q2_4,Q2_3 |
| SB00021 | power transistor | 2SC5200 | Q2_9,Q2_10,Q2_11,Q2_12, Q2_13,Q2_14 |
| SD00032 | IC | LM317T | U2_4 |
| SD00173 | IC | NJM4580L(JRC) | U2_1,U2_2 |
| CN00060 | fixed inductor | 2uH 10A(CSAF-302824) (φ 1.5mm*12 1/2T) | L2_1 |

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|---------|-------------------------------------|---|---|
| RH00021 | PTC NTC | 500Ω(TDC5C150L) | R2_3 |
| RH00017 | PTC NTC | 50Ω(TDC05A050J) | R2_17 |
| RH00025 | PTC | 100Ω(PAS7101ZF) | R2_50 |
| RC00319 | semi-fixed resistor | B100Ω PT1030-V1B101-C1-H10 | R2_16 |
| RC00348 | semi-fixed resistor | B1KΩ PT1030-V1B102-C1-H10 | R2_20,R2_21 |
| HI00211 | relay SONG CHUAN | 8P 24VDC/16A 881H-1CC-C | K2_1 |
| HI00039 | pushing SW | SP70300-0202-11F1-N | S2_1 |
| HK02231 | K-photoelectric coupler | P-photosensitive resistor+ φ 5LLED | U2_5 |
| RH00020 | photosensitive | VT90N1 | |
| SA00201 | LED | φ 5 round red (LI3330/A) | |
| NI02779 | N-heat shrink sleeve | φ 9*30mm | |
| NI00274 | R-heat shrink sleeve | φ 9*1000mm | |
| HC00324 | connecting terminal | 6.5mm (PC250) | JP2_1,JP2_2,JP2_5, JP2_6,JP2_7,JP2_8 |
| HC00056 | FUSE holder PCB | 8*10.6*1.5 JEF-505 | JP2_9,JP2_10,JP2_11,JP2_12 |
| HC00112 | balanced MIC socket | 99M-107SP-1-2 female 90° with PUSH | J2_1 |
| HC00111 | balanced MIC socket | 99M-108SP1 male | J2_2 |
| HC00504 | male header | 10P 2.54mm 180° | JP2_15,JP2_16,JP2_3 |
| HC00172 | male header | 3P 3.96mm 180° | JP2_13 |
| HC00077 | male header | 3P 2.5mm 180° | R2_5 |
| HC00076 | male header | 2P 2.5mm 180° | JP2_14 |
| HA01933 | jumper | 2.5mm | J2_4,J2_5 |
| HC00034 | short circuit terminal MINI JUMP | NO.2700 2.54mm/6mm OPEN | |
| HD00029 | ceramic tube fuse -slow | 15A 250V φ 6*32mm UL | |
| MI02400 | ZD-heat sink-Aluminum | 127.5*40*305 MISTRAL6000 left_V1.0 | |
| MI02415 | R-heat sink-Aluminum | 127.5*40*4395 ±5 31.555kg_V1.0 | |
| MJ01200 | ZE-spacer -Nickel plated | MISTRAL4000 14.5*30.5*2t | |
| MJ01201 | D-spacer-MISTRAL4000-06 | MISTRAL4000 14.5*30.5*2t | |
| MJ01154 | R-iron board | 2.0t*1850*1220mm 35.4kg | |
| MF00030 | Nickel washer | φ 3.5* φ 8*0.8t | |
| MF00037 | spring wahser | φ 3.2* φ 5.5*1t | |
| NC00005 | silicone insulation piece | TO-220 square | |
| MG00171 | Nickel screw-flat | M3*14 | |
| ND00520 | N-silicone sleeve | φ 3*90mm | |
| ND00190 | R-silicone sleeve | φ 3*1000mm | |
| ND00521 | N-silicone sleeve | φ 4*90mm | |
| ND00196 | R-silicone sleeve | φ 4*1000mm | |
| ND00182 | N-silicone sleeve | φ 1*30mm | |
| ND00171 | R-silicone sleeve | φ 1*1000mm | |
| NC00181 | ZD-insulation piece -MISTRAL4000-11 | MISTRAL4000 1.6t*136*16mm | |
| NC00041 | R-red board | 1.6t*0.65M*70M | |
| MI01954 | ZD-fixed rack-MISTRAL4000-09 | MISTRAL4000 1.5t*136*16mm right | |
| MJ00069 | R-zinc plated board | 1.5t*2135*1220mm 30.67kg | |
| HA02759 | header wire 2.5 | 5P-5P 120mm UL1007 24AWG red yellow black | |

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|---------|-------------------------------------|--------------------------------------|--|
| CA00088 | ceramic capacitor | 100PF/1000V pin distance 5mm | Q2-1,Q2-2 |
| HA03434 | single terminal wire PC187 | 120mm UL1015 20AWG yellow | |
| HA03435 | single terminal wire PC187 | 120mm UL1015 20AWG green | |
| HA03436 | single terminal wire PC187 | 120mm UL1015 14AWG red | |
| HA03437 | single terminal wire PC187 | 120mm UL1015 14AWG white | |
| HA03438 | single terminal wire PC187 | 120mm UL1015 14AWG black | |
| HK04606 | K-PCB | P-MIS60 MN2 MIS6000 | |
| SB00021 | power transistor | 2SC5200 | Q3,Q4 |
| SB00023 | power transistor | 2SA1943-O | Q1,Q2 |
| HC00217 | PCB soldering terminal | PC187(0.8) | P1,P2,P3,P4,P5 |
| RA00880 | cement resistor 5W | 0.22Ω SQM type | R1,R2,R3,R4,R5 |
| HB01397 | PCB-FR4/2L | MIS60MN2(1*4)_VER041020 | |
| RA01496 | cement resistor 10W | 5.4KΩ SQM type | R2_15,R2_19 |
| HK04605 | K-PCB | P-MIS60FP2 | |
| HA03444 | header wire 3100(male)-3130(female) | 10P10P 450mm UL2651 28AWG PH1.27mm | JP2-22 |
| NI01765 | LED spacer | LEDS-10 10mm | |
| SA00194 | LED | φ 3 round blue LDBK2040 | D1-29,D2-29 |
| RC00209 | potentiometer | A10KΩ RV110-40E1-225A-A14 | VR1-1,VR2-1 |
| HC00066 | male header | 3P 2.5mm 90° | CN1-1,CN2-1 |
| SA00054 | LED | φ 3 round yellow light long pin 26mm | D1-30,D2-30 |
| SA00053 | LED | φ 3 round red light long pin 26mm | D1-3,D2-3 |
| SA00191 | LED | φ 3 orange green (LEG2062) | D1-1,D2-1 |
| HB00947 | PCB-CEM-1 | MIS40FP2_VER030710 | |
| HA02451 | header wire 3100(male)-3130(female) | 10P-10P 250mm UL2651 28AWG PH1.27mm | JP1-22 |
| HK04607 | K-PCB | P-MIS60PWR | |
| HB01398 | PCB-CEM-1 | MIS60PWR(2*2)_VER050201 | |
| CG00044 | NTC | NP35L-Y2 | R2-67,R2-68 |
| RA00954 | cement 10W | 2.7KΩ SQM type | R2-73,R2-74 |
| SA00098 | rectifying diode | 1A/400V 1N4004 strip | D2-31 |
| HC00324 | connecting terminal | 6.5mm (PC250) | P1,P2,P3,P4,P5,P6,P7,P8, P9,P10,P11,P12,P15,P16 |
| HI00159 | relay SONG CHUAN | 4P DC-48V 832A-1A-C | K2-2 |
| CB00021 | electrolysis capacitor | 10uF/16V φ 4*5mm | C2-46 |
| HK04608 | K-PCB | P-MIS60SP | |
| HC00442 | speaker output jack | NL4MP female (NEUTRIK) | SPK1,SPK2 |
| MJ00942 | ZD-fixed rack-CS12-29 | CS12/600 | |
| MJ00061 | R-zinc plated board | 1.0t*2135*1220mm 20.447kg | |
| HA01239 | single terminal wire PC250 terminal | 180mm UL1015 14AWG white | JP5 |
| HA01237 | single terminal wire PC250 terminal | 200mm UL1015 14AWG grey | JP2 |
| HA02471 | single terminal wire PC250 | 360mm UL1015 14AWG white | JP7 |
| HA01258 | single terminal PC250 terminal | 380mm UL1015 14AWG grey | JP8 |
| HA03432 | single terminal wire round | 100mm UL1015 14AWG white | JP1,JP3 |
| HA03433 | single terminal wire round | 100mm UL1015 14AWG grey | JP6,JP4 |
| HB01396 | PCB-CEM-1 | MIS60SP(2*4)_VER040922 | |

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|---------|---------------------------|--|---------------|
| AC00002 | Tin strip | 63/37% | |
| HK00793 | K-PCB | P-MIS2500-INPUT(terminal block) | |
| HB01105 | PCB-FR-1 | MIS40IN-1_VER031206 | |
| HC00297 | terminal block | DT-55-A14W-03(3PH) | CN1 |
| HC00077 | male header | 3P 2.5mm 180° | CN3 |
| HC00079 | male header | 5P 2.5mm 180° | CN4 |
| AC00002 | Tin strip | 63/37% | |
| HK00787 | K-PCB | P-MIS2500-INPUT(MIC socket) | |
| HB01104 | PCB-FR-1 | MIS40IN-2_VER031206 | |
| HC00077 | male header | 3P 2.5mm 180° | CN1 |
| HC00110 | MIC socket | JY-6314-02-340 | JP1 |
| AC00002 | Tin strip | 63/37% | |
| NA00116 | PE bag | 0.04t*170*100mm | |
| NI01867 | adhesive pad | 20.5*14*7.6mm(SF-006) | |
| NI00389 | ZD- plastic washer | φ 12* φ 16*0.5 white | |
| NI00375 | R-white PVC-20# | 450*605*0.5mm(for plastic washer) | |
| MG00027 | black plated screw-flat | M3*12 | |
| NA00279 | plastic bag | 0.04t*100*150mm_V1.0 | |
| AD00012 | two side sticker | 90*120mm_V1.0 | |
| HA03256 | 2 terminal wire PC250*2 | 150mm UL1015 14AWG brown | |
| HI00142 | manual returning SW | A0701HM-15A | |
| ND00149 | N-silicone sleeve | φ 12*130mm | |
| ND00026 | R-silicone sleeve | φ 12*1000mm | |
| HE00083 | fan-1225M12S-PD1 | DC12V/0.6A 120*120*25mm 360mm | |
| HK03845 | K-PCB | P-DPA2500-PWR-DIP | |
| CB00024 | electrolysis capacitor | 10uF/16V φ 4*7mm | C1,C3,C10,C11 |
| CB00072 | electrolysis capacitor | 1000uF/25V φ 10*20mm | C9,C8 |
| SD00074 | IC | L7805CV(TO-220)(ST) | U3 |
| SD00169 | IC | L7905CV(TO-220)(ST) | U4 |
| HC00066 | male header | 3P 2.5mm 90° | CN2 |
| HC00560 | row pin (two rows) #2200 | 2.54 180° 2*5P (gilt) 6/11.6mm | CN1 |
| HC00070 | male header | 6P 2.5mm 90° | CN3 |
| HI00161 | relay | RY-5W-K,5V, dual switch | REL1 |
| HC00047 | female header | 6PIN A28b-6B.T.6 | J7 |
| HC00048 | female header | 8PIN A28b-8B.T.6 | J1,J6 |
| HC00051 | female header | 20PIN A28b-20B.T.6 | J2,J3 |
| HC00050 | female header | 14PIN A28b-14B.T.6 | J5,J4 |
| NC00005 | silicone insulation piece | TO-220 square | |
| NI00863 | plastic bush | TO220B | |
| MG00270 | Nickel screw-flat | M3*10 | |
| MI01820 | ZD-fixed rack-DPA4000-03 | DPA4000 2.5t*42.5*83.8*102.5 | |
| MJ01212 | R-Aluminum board-#1050H24 | 2.5t*2000*1000mm 13.6KG plating material | |
| MG00252 | copper pole | M3*6.2*0.5PH single flat length12 | |
| MG00363 | copper pole | M3*14*0.5PH single flat length 20 | |

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| MG00269 | Nickel screw-flat | M3*6 | |
| HK00602 | K-PCB | P-DPA2500-PWR-SMD | |
| HB01072 | PCB-FR4/2L | DPA-PWR_VER030916 | |
| CI00075 | SMD ceramic capacitor 0603 | 0.1uF/50V Y5V +80 -20% | C7,C12,C13,C14,C15 |
| CI00051 | SMD ceramic capacitor 0603 | 22PF/50V NPO ±5%(TDK) | C2,C4,C5,C6 |
| RD00101 | SMD fixed resistor 1/10W | 10KΩ ±5% 0603 | R1,R3,R6,R8,R10,R11 |
| RD00081 | SMD fixed resistor 1/10W | 750Ω ±5% 0603 | R2,R4 |
| RD00085 | SMD fixed resistor 1/10W | 1.5KΩ ±5% 0603 | R12,R13,R14,R15,R16,R17,R18, R19,R20,R21,R22,R23,R24, R25,R26,R27,R28,R29 |
| RD00059 | SMD fixed resistor 1/10W | 0.0Ω ±5% 0603 | R30,R9 |
| SE00011 | SMD rectifying diode | 0.5A RLS4148 LL-34 | D1 |
| SF00056 | SMD transistor | MMBT3904(SOT-23)/(PHI) | Q2 |
| SG00040 | SMD IC | MC33078DT(ST)MC33078D(ON) | U1,U2 |
| SE00030 | SMD rectifying diode | SFS1B | D2,D3,D4,D5 |
| RD00088 | SMD fixed resistor 1/10W | 2.2KΩ ±5% 0603 | R5,R7 |
| AE00221 | retinol | SJ-617 | |
| AC00002 | Tin strip | 63/37% | |
| HK03846 | K-PCB | P-DPA2500-DISPLAY | |
| HB01071 | PCB-FR-1 | DPA-DIS-1(2*2)_VER050120 | |
| CH00017 | laminated capacitor | 0.1uF/50V Y5V vertical PH5mm pin length 5mm | C1 |
| CB00026 | electrolytic capacitor | 10uF/50V φ 6*7mm pin distance 5mm | C2 |
| RA00647 | fixed resistor 1/8W | 4.7KΩ M type pin distance 6mm | R1,R2 |
| RA00651 | fixed resistor 1/8W | 10KΩ M type pin distance 6mm | R3,R4,R5,R6,R7,R8 |
| HB01070 | PCB-FR4/2L | DPA-DIS-2_VER030916 | |
| HH00005 | LED 7 section indicator | LSD3561-10 | DL2,DL3 |
| HC00435 | row pin (one row) #1100 | 2.54 180° 5P(gild)6/11.6mm | CN3,CN4 |
| SA00051 | LED | φ 3 orange green (BOG303b) | DL11 |
| SA00072 | LED | φ 3 red light (LI2340/A) | DL1,DL4,DL5,DL6, DL7,DL8,DL9,DL10 |
| SB00072 | transistor | BC559C,126(strip) | TR1,TR2 |
| HI00238 | pushing SW | 2 section 6P PS-9226A(NON-LOCK) | SW1,SW2,SW3,SW4 |
| HC00050 | female header | 14PIN A28b-14B.T.6 | CN1 |
| HC00051 | female header | 20PIN A28b-20B.T.6 | CN2 |
| HA01919 | jumper | 5mm | J1,J2,J3,J6,J9 |
| HA02249 | bare wire | φ 0.6 | |
| HA01917 | jumper | 3mm | J4,J8,J10 |
| HA01920 | jumper | 6mm | J5,J7,J3 |
| HA02249 | bare wire | φ 0.6 | |
| NI01771 | LED spacer | LED-5 5mm | DL1,DL10,DL11,DL4,DL5 ,DL6,DL7,DL8,DL9 |
| MG00269 | Nickel screw-flat | M3*6 | |
| NI01876 | LED spacer | 7.6*4.5*184 (one row 41 hole) | |
| AC00002 | Tin strip | 63/37% | |

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| HK03847 | K-PCB | P-DPA2500-RS-DIP | |
| HK00603 | K-PCB | P-DPA2500-RS-SMD | |
| HB01073 | PCB-FR4/2L | DPA-RS_VER031103 | |
| CI00075 | SMD ceramic capacitor 0603 | 0.1uF/50V Y5V +80 -20% | C1,C2,C4,C5,C6,C7,C8 |
| RD00372 | SMD precise resistor 1/8W | 10.7Ω ±1% 0805 | R3,R4 |
| SG00047 | SMD IC | MAX485EESA | IC1 |
| CO00006 | SMD chip inductor 0805 | BLM21A102SPT/(MURATA) | L1,L2,L3,L4,L5 |
| AE00221 | retinol | SJ-617 | |
| HC00324 | connecting terminal | 6.5mm (PC250) | |
| CB00040 | electrolytic capacitor | 47uF/25V φ 5*11mm pin distance 5mm | C3 |
| SA00101 | zener diode | 1W 6.8V 1N4736 | D1,D2 |
| SA00104 | zener diode | 1W 10V 1N4740 | D3,D4 |
| SD00019 | IC | MAX202ECPE | IC2 |
| HA02503 | header wire 7602(male)-3100(male) | 9P-10P 50mm UL2651 28AWG PH1.27mm | CN1 |
| HC00048 | female header | 8PIN A28b-8B.T.6 | CN2 |
| HC00111 | balanced MIC socket | 99M-108SP1 male | S1 |
| HC00112 | balanced MIC socket | 99M-107SP-1-2 female 90° with PUSH | S2 |
| AC00002 | Tin strip | 63/37% | |
| HK03830 | K-PCB | P-313089-4-DIP | |
| CB00048 | electrolytic capacitor | 100uF/25V φ 6*11mm pin distance 5mm | C2 |
| CB00069 | electrolytic capacitor | 1000uF/6.3V φ 8*11mm | C4 |
| RA00515 | precise resistor 1/4W | 10.0KΩ M type | R12,R13 |
| HC00080 | male header | 6P 2.5mm 180° | |
| HC00047 | female header | 6PIN A28b-6B.T.6 | CN4 |
| HC00048 | female header | 8PIN A28b-8B.T.6 | CN1 |
| HC00050 | female header | 14PIN A28b-14B.T.6 | CN6 |
| HC00051 | female header | 20PIN A28b-20B.T.6 | CN5 |
| SC00319 | quartz transistor HC-49/US ±20PPM | 12.288MHZ | XT1 |
| HC00162 | row pin (one row) #6100 | 1.27 180°14P(gild) 6.0/11.54mm | CN2,CN7 |
| ND00098 | EV foam-two side adhesive | 40*14*5 black | |
| HK03831 | K-PCB | P-313089-4-SMD | |
| HB00400 | PCB-FR4/4L | 313089 (90*77.5)_VER020507 | |
| CI00046 | SMD ceramic capacitor 1206 | 1.0uF/16V Y5V-1206(3216) | C28 |
| CI00049 | SMD ceramic capacitor 0603 | 15PF/50V NPO ±5%(TDK) | C12,C14 |
| CI00051 | SMD ceramic capacitor 0603 | 22PF/50V NPO ±5%(TDK) | C29 |
| CI00075 | SMD ceramic capacitor 0603 | 0.1uF/50V Y5V +80 -20% | C1,C10,C11,C13,C15,C17,C16, C18,C19,C20,C21,C22,C23, C24,C25,C27,C3,C30,C31,C32, C33,C34,C35,C6,C7,C8,C9 |
| CL00006 | SMD tantalum capacitor | 10uF/16V case B2 | C26,C5 |
| RD00068 | SMD fixed capacitor 1/10W | 100Ω ±5% 0603 | R14,R15,R2,R27,R29,R30, R32,R39,R40,R6,R7,R8 |
| RD00073 | SMD fixed resistor 1/10W | 220Ω ±5% 0603 | R19,R20,R22,R35, R36,R37,R38,R5 |

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| RD00076 | SMD fixed resistor 1/10W | 330Ω ±5% 0603 | R28 |
| RD00079 | SMD fixed resistor 1/10W | 560Ω ±5% 0603 | R25 |
| RD00082 | SMD fixed resistor 1/10W | 820Ω ±5% 0603 | R16,R17 |
| RD00085 | SMD fixed resistor 1/10W | 1.5KΩ ±5% 0603 | R18 |
| RD00086 | SMD fixed resistor 1/10W | 1.8KΩ ±5% 0603 | R21 |
| RD00093 | SMD fixed resistor 1/10W | 4.7KΩ ±5% 0603 | R3,R33,R34 |
| RD00101 | SMD fixed resistor 1/10W | 10KΩ ±5% 0603 | R11,R24,R26,R9 |
| RD00125 | SMD fixed resistor 1/10W | 1.0MΩ ±5% 0603 | R23 |
| RE00006 | SMD ingrated resistor 1/16W | 100Ω*4 ±5% 8P 0603 | AR1,AR10,AR13,AR14,AR16, AR18,AR2,AR3,AR4,AR5,AR8 |
| RE00008 | SMD ingrated resistor 1/16W | 4.7KΩ*4 ±5% 8P 0603 | AR11,AR15,AR17,AR6,AR7 |
| RE00007 | SMD ingrated resistor 1/16W | 470Ω*4 ±5% 8P 0603 | AR9 |
| SE00011 | SMD rectifying diode | 0.5A RLS4148 LL-34 | D1 |
| SG00068 | SMD IC | 74HC14DT(SO-14)/(PHI) | IC5 |
| SG00049 | SMD IC DRAM(FP)256K*16 | AS4C256K16F0-60JC | IC1 |
| SG00025 | SMD IC EEPROM8K*8(64Kb) | 24LC64I/SN | IC6 |
| SG00184 | W-SMD IC | EN29F040A-70JC/DPA | IC3 |
| SG00217 | SMD IC | EN29F040A-70JC(PL032)/(E-ON) | |
| SG00335 | ZC-SMD IC | TY-1 ALTO(LEM NO#105008)_V1.1 | IC2 |
| SG00128 | SMD IC | RED 208(LEM NO#105008) | |
| SG00069 | SMD IC | MAX709L-CSA | IC4 |
| CO00006 | SMD chip inductor 0805 | BLM21A102SPT/(MURATA) | L1,L2,L3,L4,L5,L6 |
| HC00233 | IC socket-SMD | PLCC32 (D03-32T.A.4) | IC3 |
| AE00221 | retinol | SJ-617 | |
| HK01289 | K-PCB | P-313111-SMD | |
| HB00401 | PCB-FR4/2L | 313111 (37*75)_VER020507 | |
| CI00064 | SMD ceramic capacitor 0603 | 680PF/50V NPO ±5% | C32,C33,C43,C45 |
| CI00067 | SMD ceramic capacitor 0603 | 0.0022uF/50V X7R ±10% | C31,C46 |
| CI00071 | SMD ceramic capacitor 0603 | 0.01uF/50V X7R ±10% | C15,C19 |
| CI00075 | SMD ceramic capacitor 0603 | 0.1uF/50V Y5V +80 -20% | C18,C25,C3,C34,C35,C36,C37, C38,C39,C4,C41,C42,C7,C8,C9 |
| CL00006 | SMD tantalum capacitor | 10uF/16V case B2 | C1,C10,C11,C12,C13,C14,C16, C17,C2,C20,C21,C22,C23,C24, C26,C27,C28,C29,C30,C40, C44,C5,C6 |
| RD00063 | SMD fixed resistor 1/10W | 22Ω ±5% 0603 | R10,R3,R7,R9 |
| RD00088 | SMD fixed resistor 1/10W | 2.2KΩ ±5% 0603 | R12,R17,R18,R19,R21 ,R23,R24,R27 |
| RD00091 | SMD fixed resistor 1/10W | 3.3KΩ ±5% 0603 | R16,R20,R22,R28 |
| RD00093 | SMD fixed resistor 1/10W | 4.7KΩ ±5% 0603 | R1,R13,R4,R6 |
| RD00101 | SMD fixed resistor 1/10W | 10KΩ ±5% 0603 | R25,R26 |
| SG00054 | SMD IC | AK4393VF AKM | IC2 |
| SG00061 | SMD IC | AK5383VS AKM | IC1 |
| SG00040 | SMD IC | MC33078DT(ST)MC33078D(ON) | IC3,IC4,IC5,IC6 |

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| AE00221 | retinol | SJ-617 |
| AC00002 | Tin strip | 63/37% |
| HA02659 | header wire (A28-BT6) | 8P-8P 160mm UL2651 28AWG PH1.27mm grey and red |
| HA02660 | header wire (A28-BT6) | 14P-14P 460mm UL2651 28AWG PH1.27mm grey |
| HA02661 | header wire (A28-BT6) | 20P-20P 460mm UL2651 28AWG PH1.27mm grey |
| HA03964 | header wire 3130(female) | 10P-10P-10P 650mm UL2651 28AWG grey and red |
| HA01661 | header wire (A28-BT6) | 20P-20P PH1.27 65 |
| HA01660 | header wire (A28-BT6) | 14P-14P PH1.27 65 |
| HA01659 | header wire (A28-BT6) | 8P-8P PH1.27 75 |
| HA01658 | header wire (A28-BT6) | 6P-6P PH1.27 65 |
| MG00128 | color screw -pill | M3*16 |
| MI00237 | heat sink-Aluminum | FX22 4*34.5*16.5*34.5mm |
| MI00409 | fixed piece | FX22 |
| NI02245 | insulation plastic piece-2 side adhesive | 25*25*0.25 white (3M #9890) |
| HA02621 | computer connecting wire 7300-09FG | 9P(female)-9P(female) UL2464 28AWG 5000mm grey |
| MF00030 | Nickel washer | φ 3.5* φ 8*0.8t |
| NI01863 | button | φ 5.5*W10*7.5 black |
| NI02145 | ZC-acrylic- transparent | DPA series ALTO_V1.1 |
| NI02146 | N-acylic-transparent | DPA4000 (3t*40*47mm) |
| NA00137 | plastic bag | 5*7 |
| MG00588 | hexagon screw-HA02503 attachment | 4.75*11.8mm |
| ME00202 | zinc screw-external hexagon 17 | M10*8*1.5PH |
| MF00013 | iron washer | φ 10* φ 19*2t |
| MF00044 | nickel plated spring washer | φ 10* φ 16*2t |
| MG00619 | zinc screw-T-square | M10*105*1.5PH |
| NF02199 | user's manual-English | DPA6000 ALTO_V1.0 |
| NH00149 | R-2 side art paper-105g | 889*640mm |