

# Service Manual

**Model: CONTROL60**

30+30 Band Digital Equalizer



[www.altoproaudio.com](http://www.altoproaudio.com)

Version: 1.1

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## 1.Specifications

### Parametric Filters

Gain	- /+15dB step 0.5dB
Freq	20Hz - 20KHz step 1/12 oct
Bandwidth	0.05oct - 3oct step 0.05oct

### Band Pass Filters

High pass Butterworth	
Freq	20Hz - 20KHz step 1/12 oct
Slope	Bypass, 1 <sup>st</sup> ord( - 6dB/oct),2 <sup>nd</sup> ord( - 12dB/oct)

Low pass Butterworth	
Freq	20Hz - 20KHz Step 1/12 oct
Slope	Bypass, 1 <sup>st</sup> ord( - 6dB/oct),2 <sup>nd</sup> ord( - 12dB/oct)

### AUX Section

Delay line	Up to 512 ms min step 21us
Digital input gain	- /+12dB step 0.5dB
Digital output volume	- /+12dB step 0.5dB

### Analog Input Section

Inputs	2 XLR - F electronically balanced
Input Impedance	>40 Kohms
Max. Input Level	+12dBv

### Analog Output Section

Outputs	2 XLR - M electronically balanced
Output Impedance	<200 Ohms
Max. Output Level	+12dBv

### Digital/Analog Interface

Amplitude Response	20Hz - 20KHz
Signal to Noise Ratio	>99 dB
THD+N	0.01%@ 1KHz - 3 dBFS
Sampling Frequency	46.875 KHz
Conversion	Input 20 bits Sigma-Delta
Conversion	Output 24 bits Sigma-Delta

### Memory

Factory preset	36 (6 for each EQ type)
User preset	63

### MIDI Section

Connections	Input/output/thru
Sockets	5 - poles DIN(female)
mode	Photocoupled

### Power Supply

Connector type	3 - pole IEC, grounded
Type	Servo controlled , switching
fuse	210 - 240V: T250mAL250VAC
	95 - 120V: 500mAL250VAC
AC Input	95 - 240V~60 - 50Hz
Rated power consumption	15W

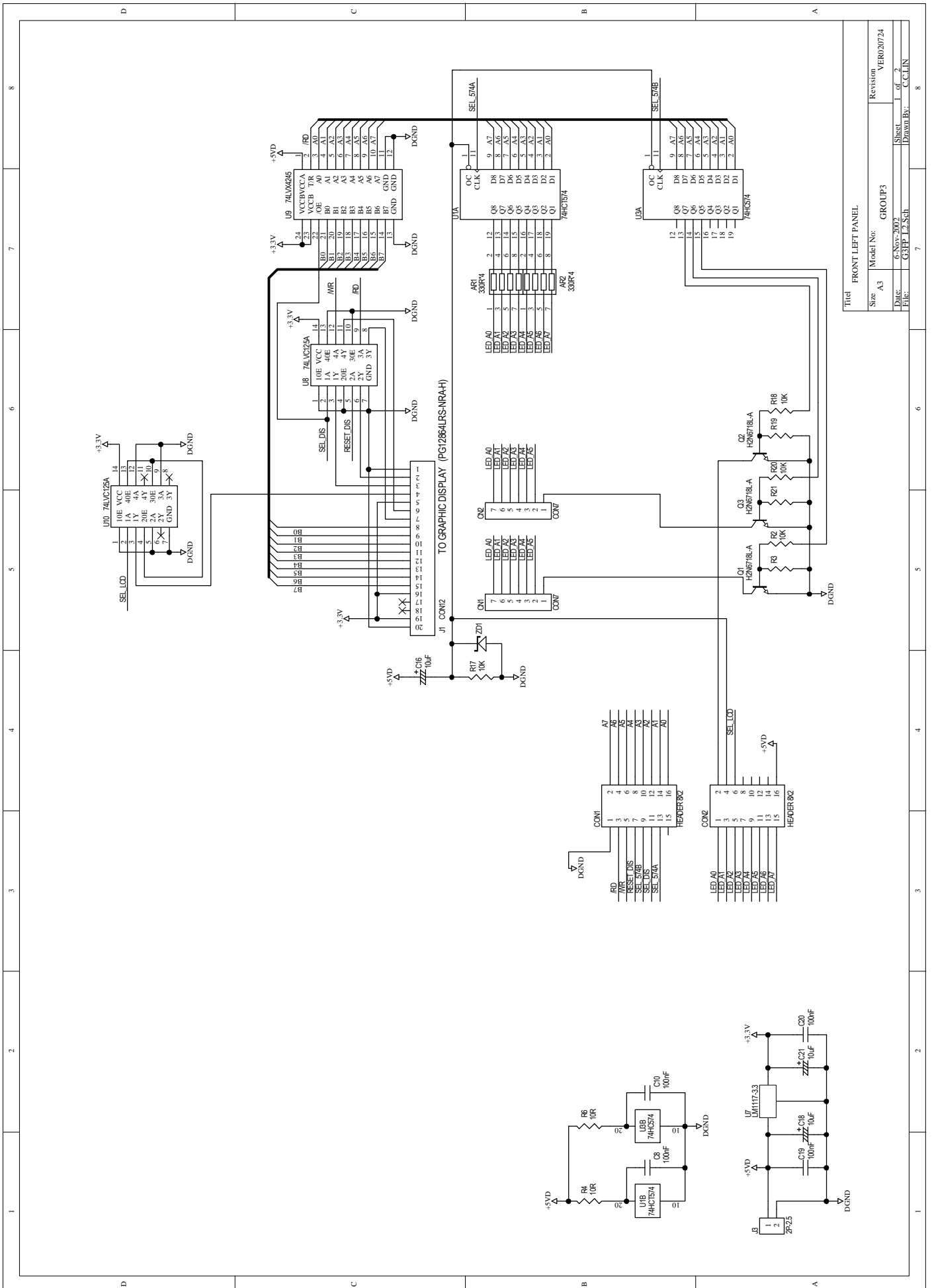
### User Interface

Graphic Display	128X 64 dot
Keyboard	14 user keys/8 LEDs
Vu - meter	2X6 LEDs

### Physical

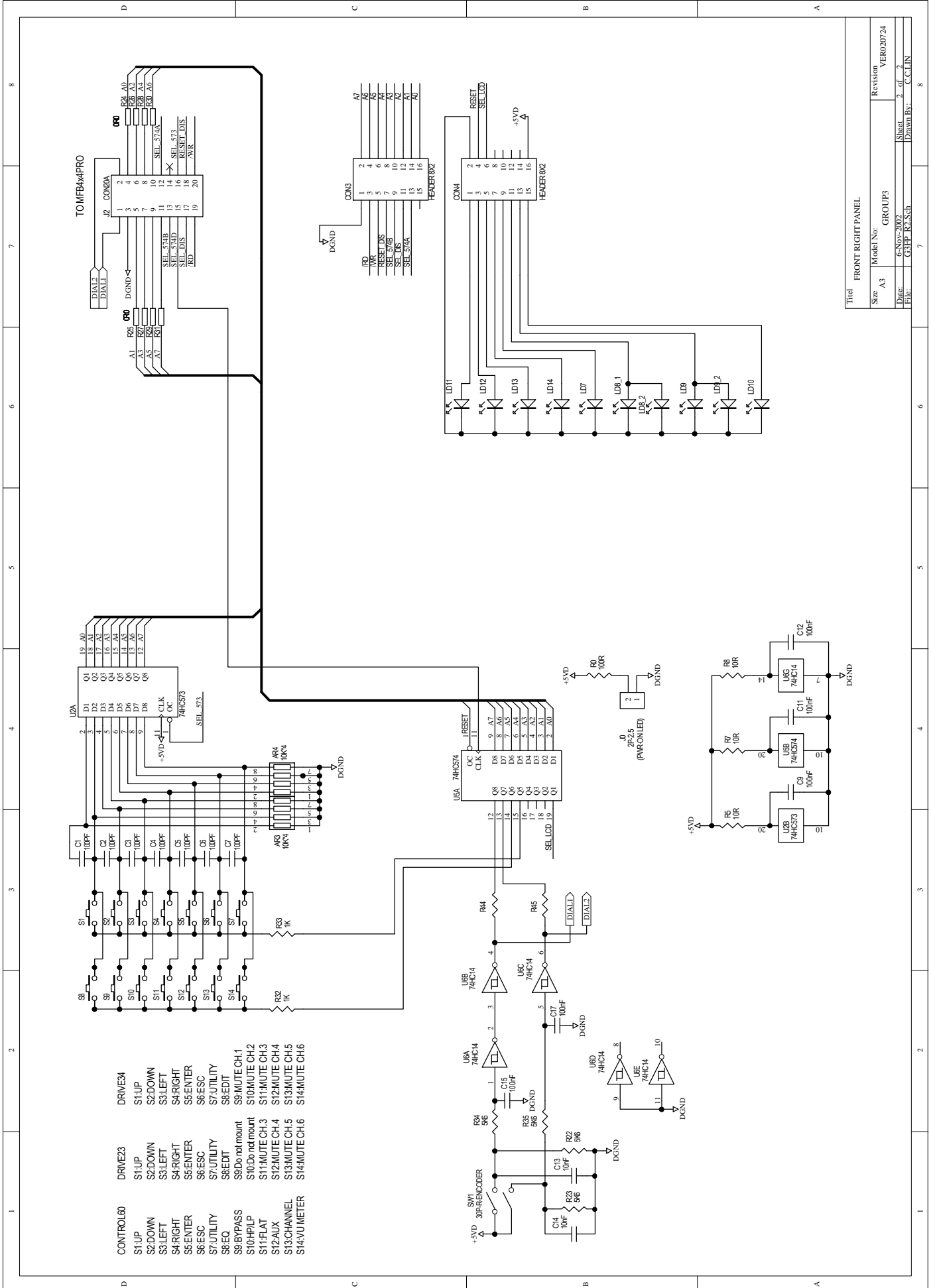
Size	Standard 19"rack mounting
Dimensions	483(W)X232.5(D)X44(H)mm(19"X9.3"X1.7")
weight	3.5Kg(7.72lb)

# 3.Schematic Diagram



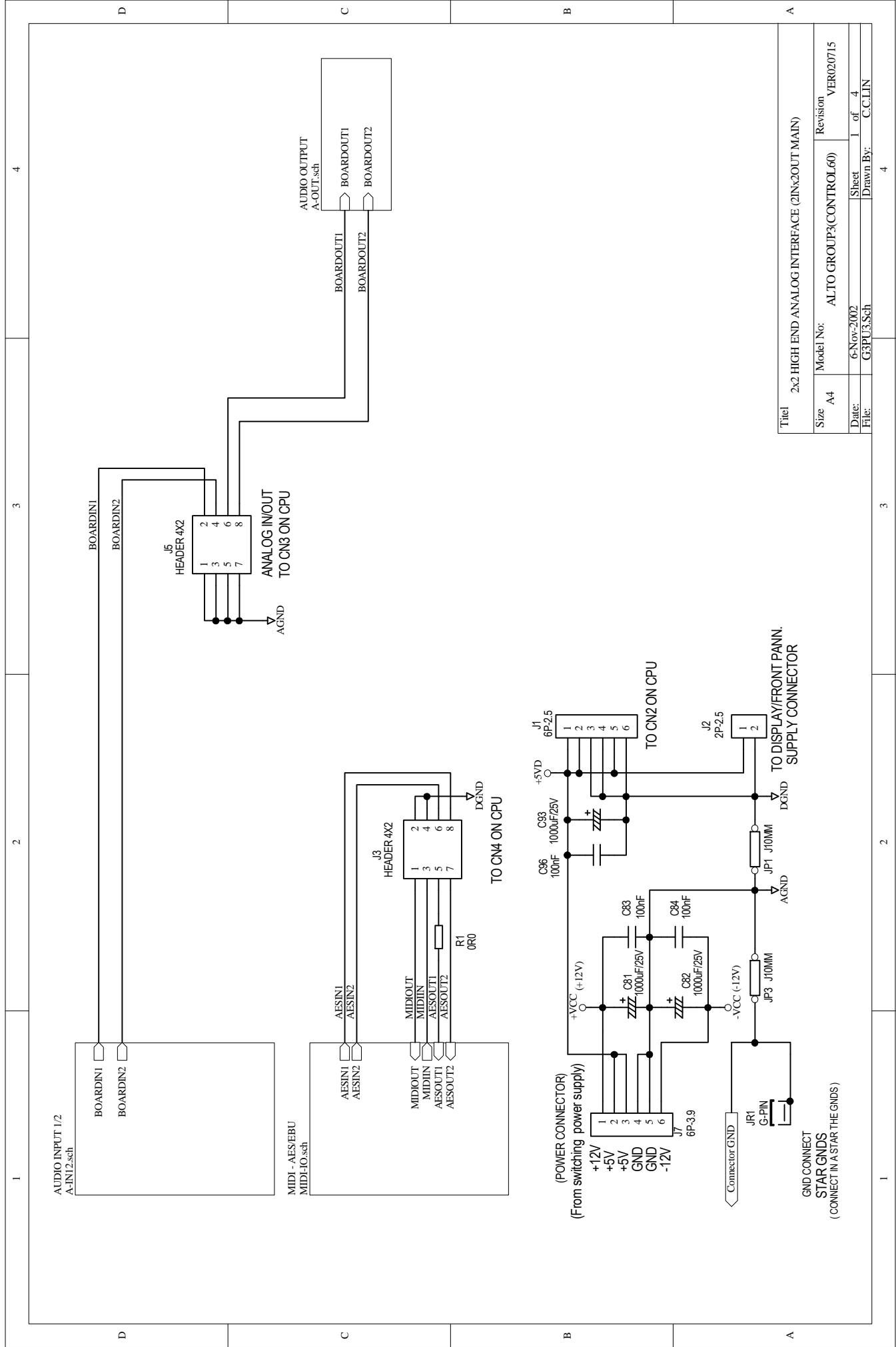
Title		FRONT LEFT PANEL	
Size	A3	Model No.	GROUP3
Date:	6/25/2023	Revision	VER020724
File:	CEP-LS-Sub	Sheet	1 of 2
		Drawn By:	C.C.LIN

1 2 3 4 5 6 7 8

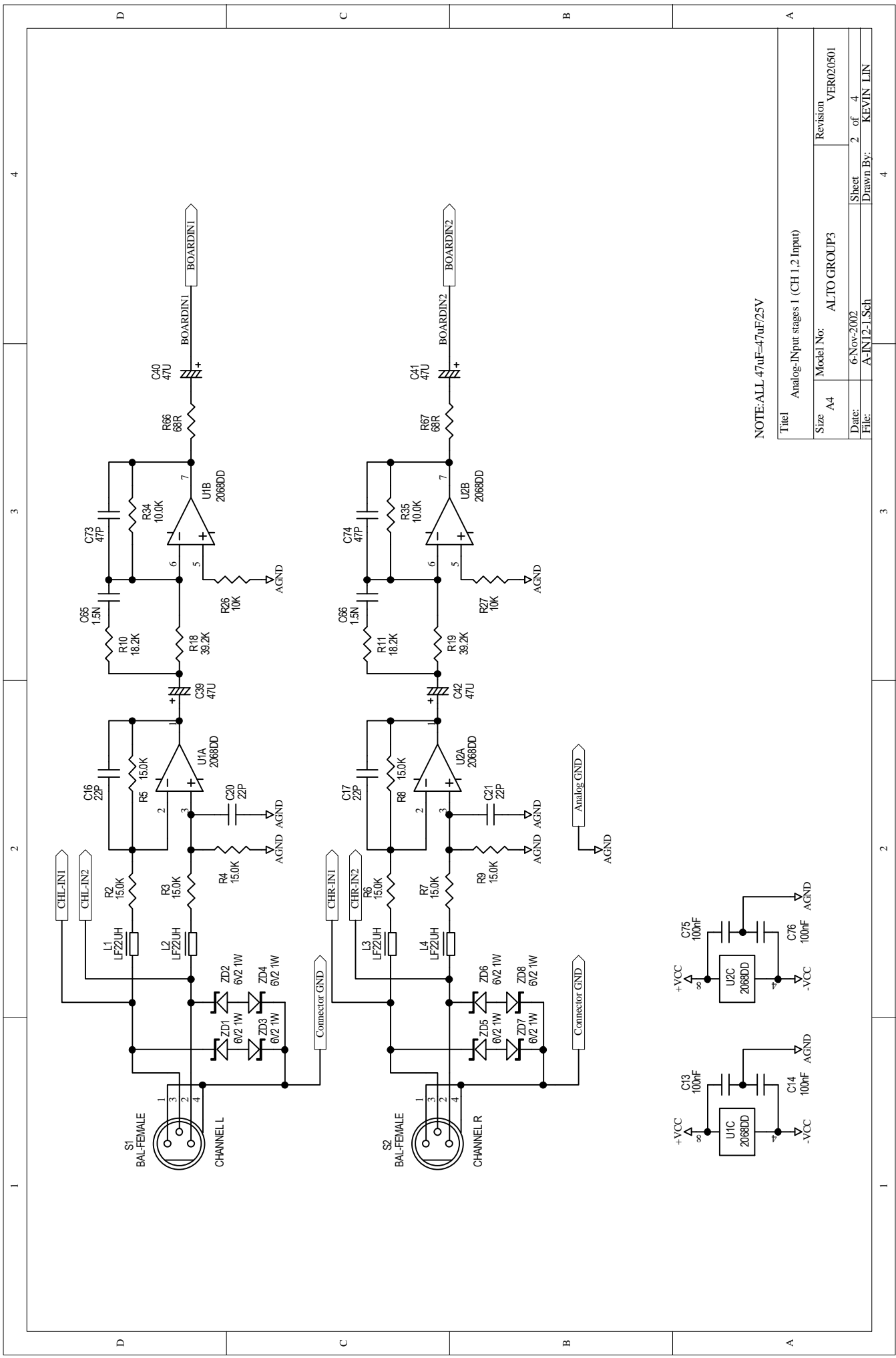


- DRIVE23
  - S1 UP
  - S2 DOWN
  - S3 LEFT
  - S4 RIGHT
  - S5 ENTER
  - S6 ESC
  - S7 UTILITY
  - S8 EDIT
  - S9 BYPASS
  - S10 Do not mount
  - S11 FLAT
  - S12 AUX
  - S13 CHANNEL
  - S14 VU METER
- DRIVE24
  - S1 UP
  - S2 DOWN
  - S3 LEFT
  - S4 RIGHT
  - S5 ENTER
  - S6 ESC
  - S7 UTILITY
  - S8 EDIT
  - S9 MUTE CH.1
  - S10 MUTE CH.2
  - S11 MUTE CH.3
  - S12 MUTE CH.4
  - S13 MUTE CH.5
  - S14 MUTE CH.6
- CONTROL60
  - S1 UP
  - S2 DOWN
  - S3 LEFT
  - S4 RIGHT
  - S5 ENTER
  - S6 ESC
  - S7 UTILITY
  - S8 EDIT
  - S9 Do not mount
  - S10 Do not mount
  - S11 MUTE CH.3
  - S12 MUTE CH.4
  - S13 MUTE CH.5
  - S14 MUTE CH.6

Title		FRONT RIGHT PANEL	
Size	A3	Model No.	GROUP3
Date:	6/25/2002	Revision	VER020724
File:	CSFP-RA-Sub	Sheet	2 of 2
		Drawn By:	C.C.LIN

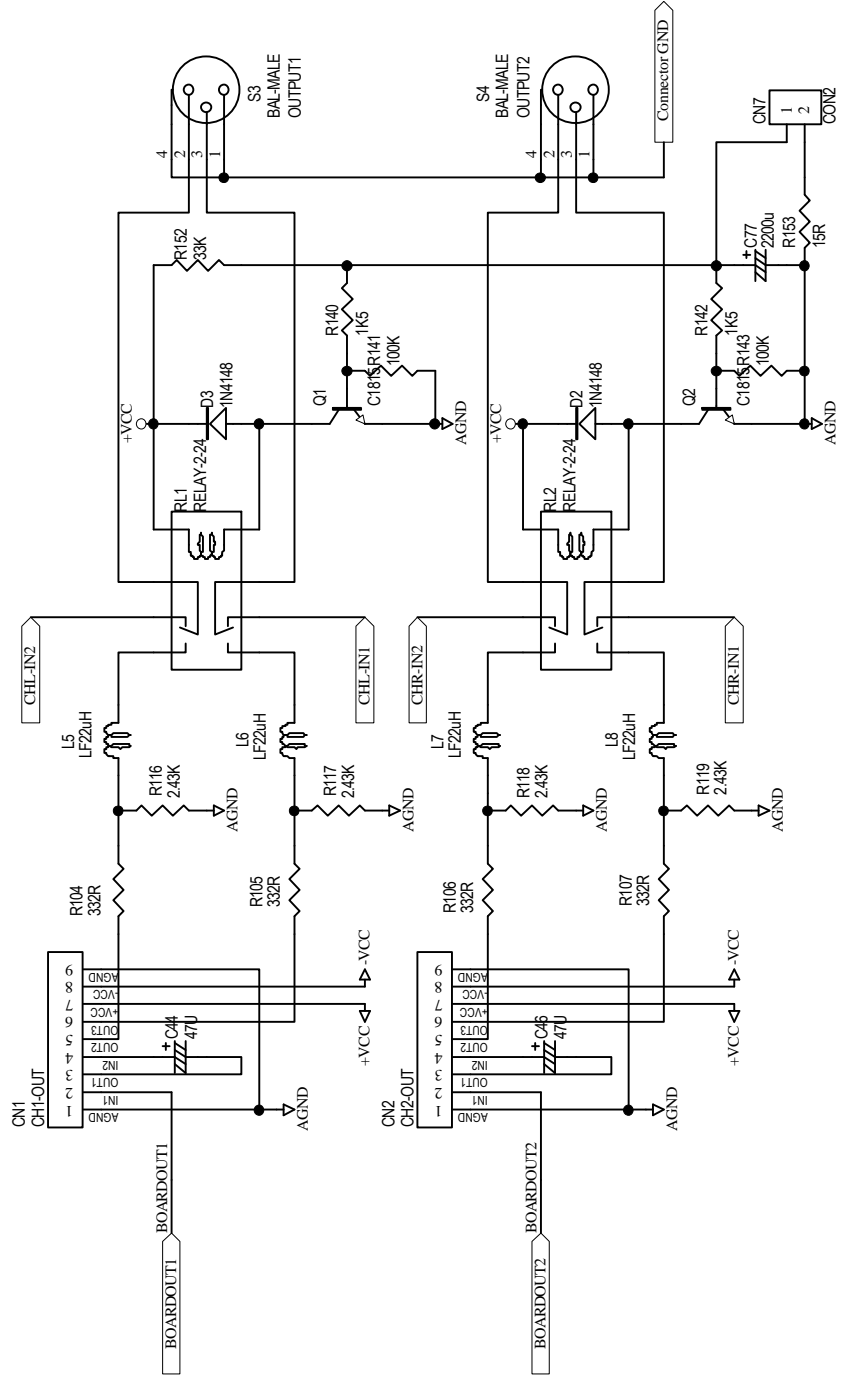


Title			
2x2 HIGH END ANALOG INTERFACE (2INx2OUT MAIN)			
Size	Model No:	Revision	VER020715
A4	ALTO GROUP3(CONTROL60)		
Date:	6-Nov-2002	Sheet	1 of 4
File:	G3PU3.Sch	Drawn By:	C.CLIN



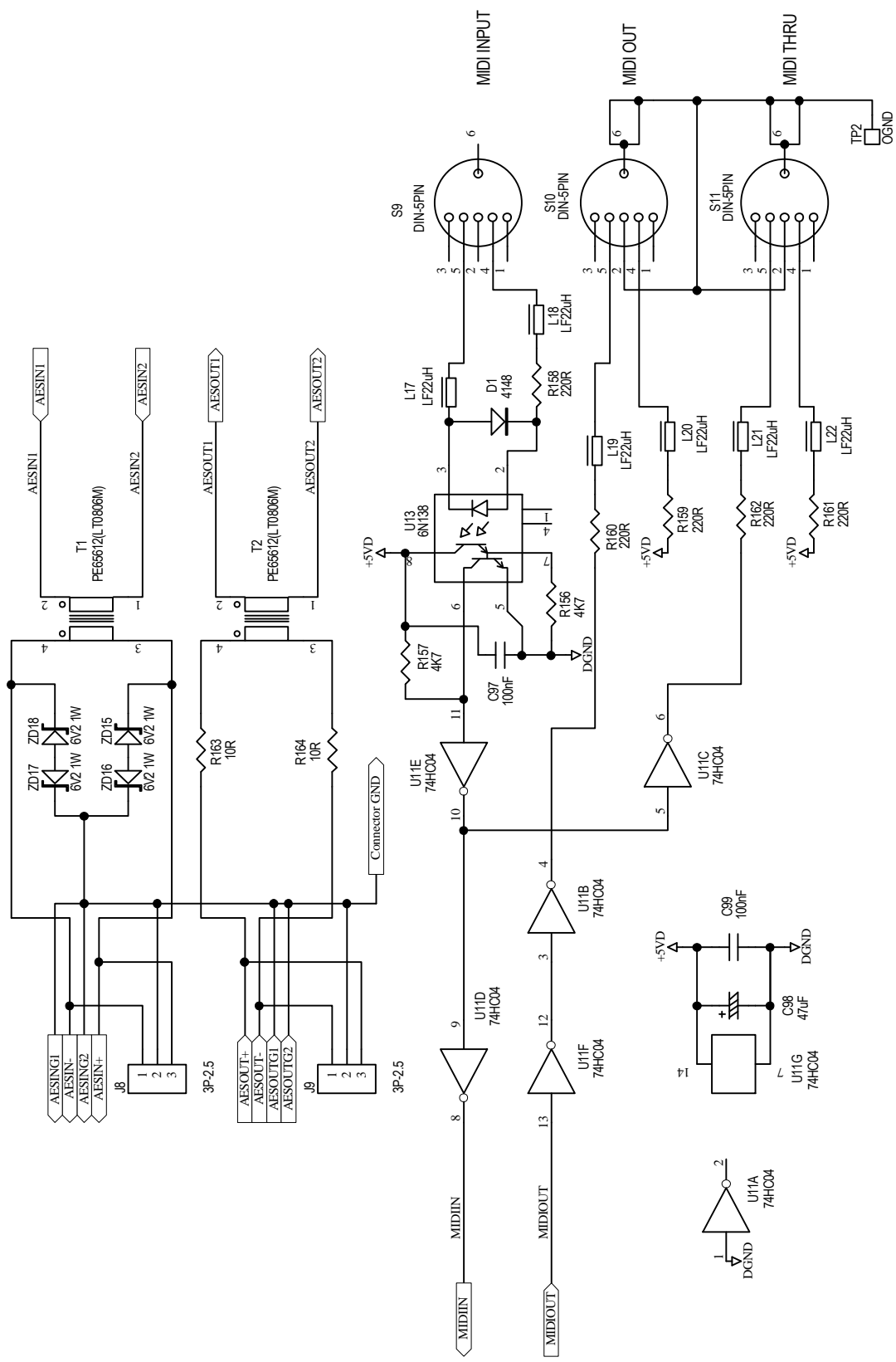
NOTE: ALL 47uF=47uF/25V

Title		Analog-Input stages 1 (CH 1,2 Input)	
Size	A4	Model No:	ALTO GROUP3
Date:	6-Nov-2002	Revision	VER020501
File:	A-IN12-1.Sch	Sheet	2 of 4
		Drawn By:	KEVIN LIN



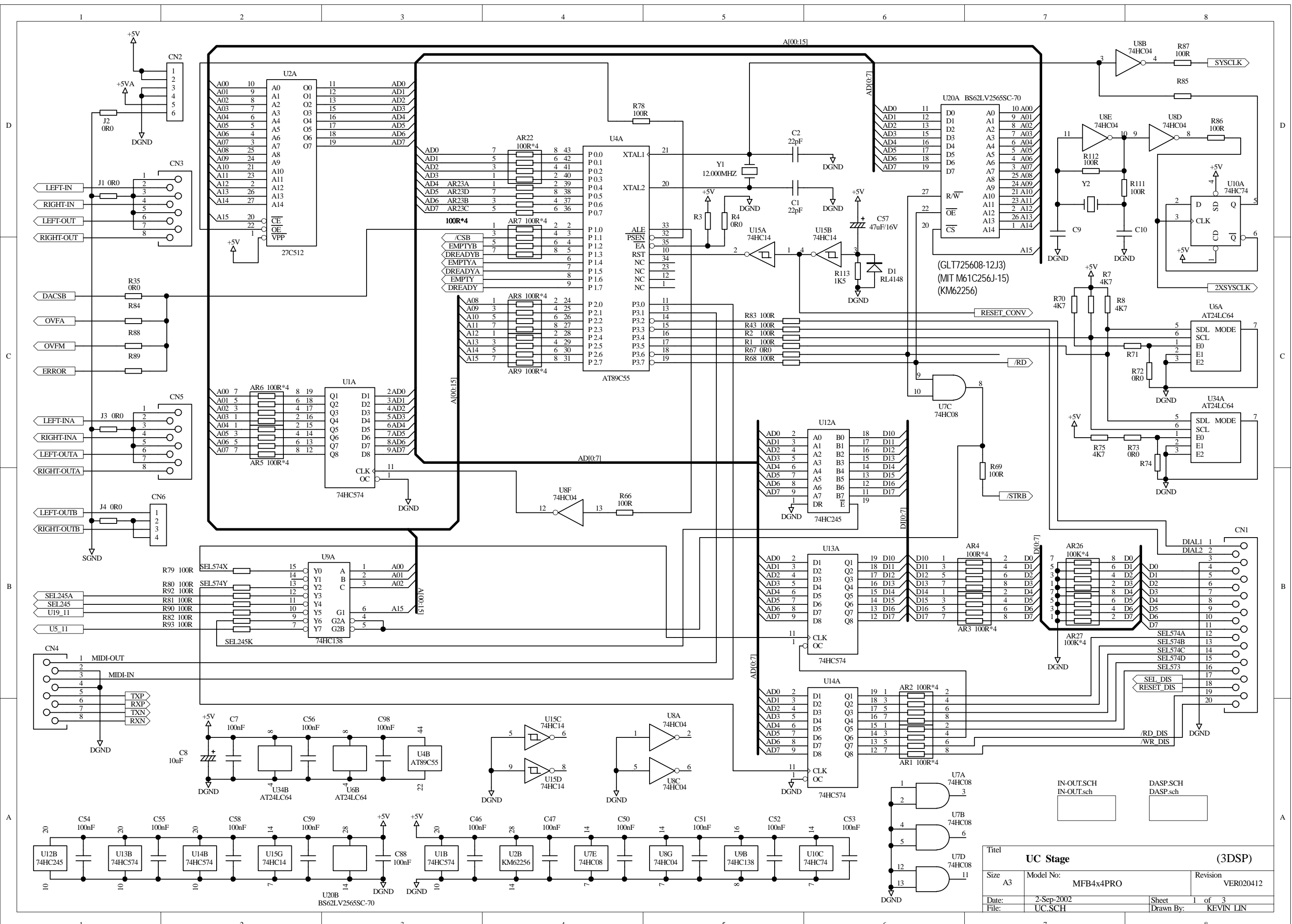
Title: Analog-Output	
Size: A4	Model No: ALTO GROUP3(CONTROL60)
Date: 6-Nov-2002	Revision: VER020715
File: A-OUT1.Sch	Sheet 3 of 4
	Drawn By: C.CLIN



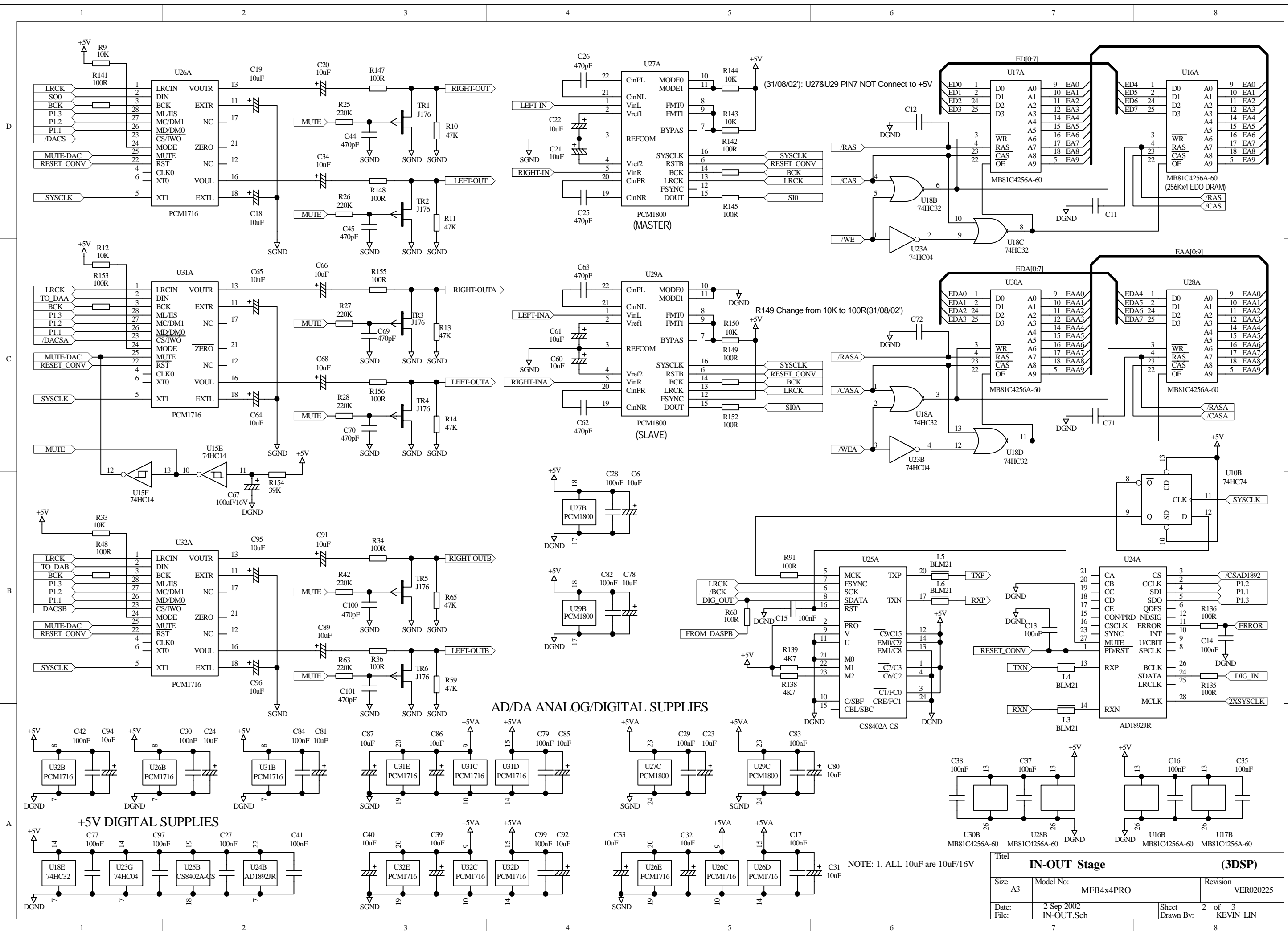


Title: MIDI IN-OUT & AES/EBU DIGITAL STAGE

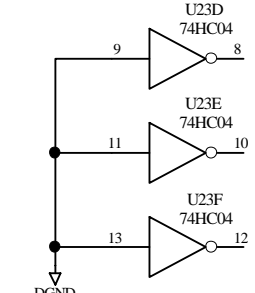
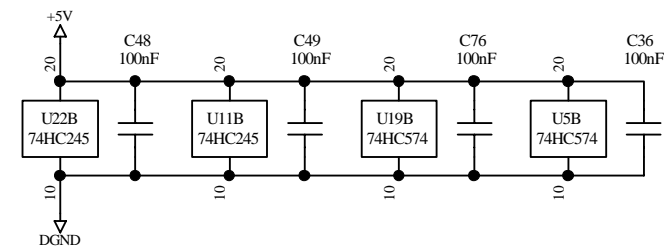
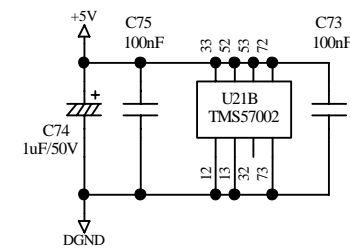
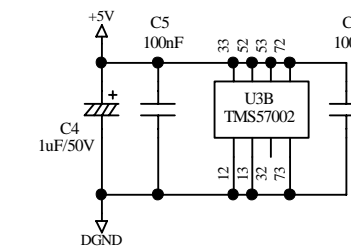
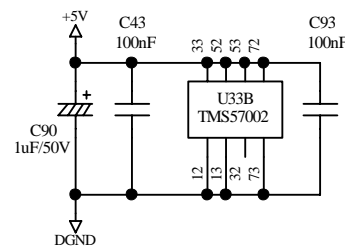
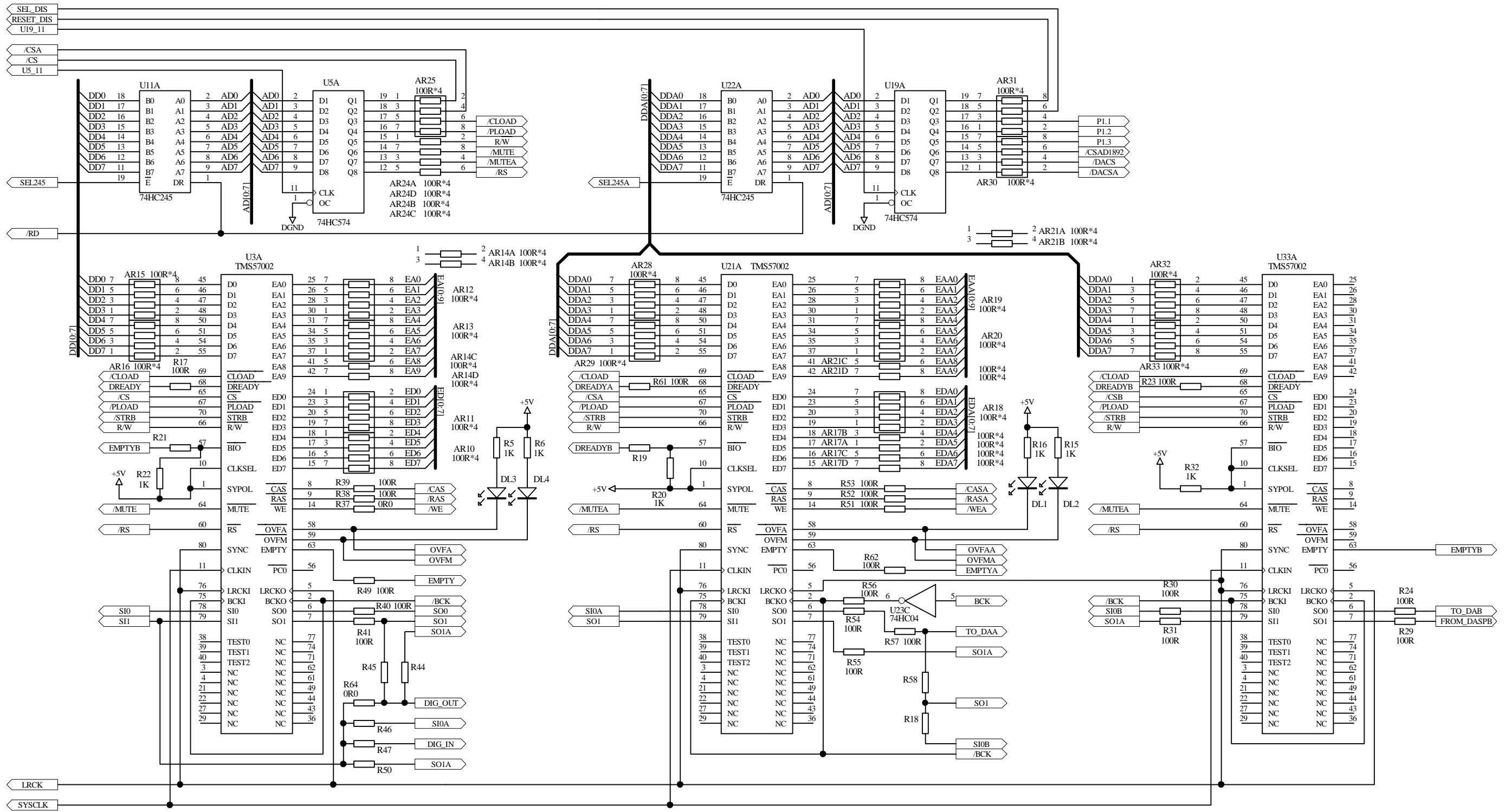
Size	A4	Model No:	ALTO GROUP(CONTROL60)	Revision	VER020715
Date:	6-Nov-2002	Sheet	4	of	4
File:	MIDI-I.O.Sch	Drawn By:	C.CLIN		



Titel		<b>UC Stage</b>		<b>(3DSP)</b>	
Size	A3	Model No:	MFB4x4PRO	Revision	VER020412
Date:	2-Sep-2002	Sheet	1 of 3		
File:	UC.SCH	Drawn By:	KEVIN LIN		

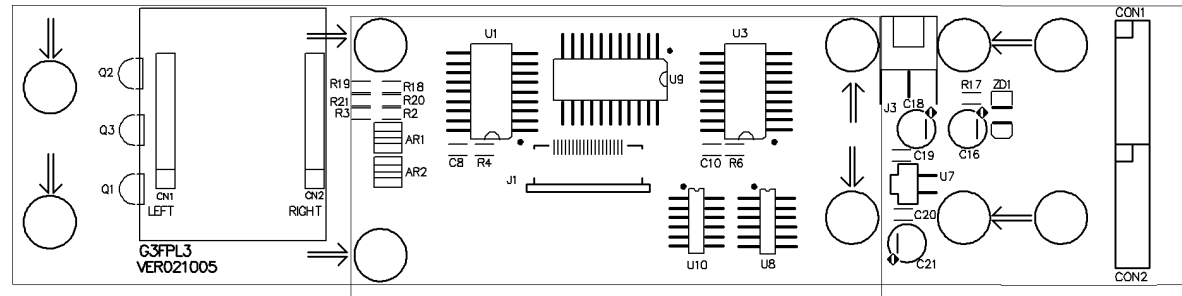


IN-OUT Stage		(3DSP)	
Size	A3	Model No:	MFB4x4PRO
Date:	2-Sep-2002	Revision	VER020225
File:	IN-OUT.Sch	Sheet	2 of 3
		Drawn By:	KEVIN LIN

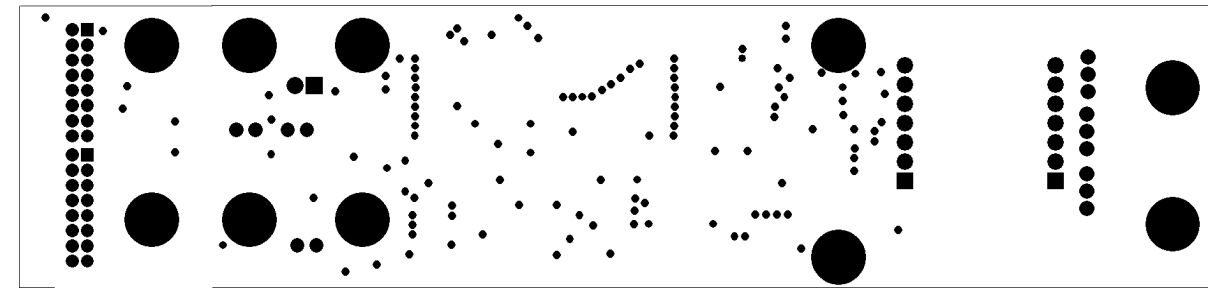


Titel		DASP Stage (3DSP)	
Size	A3	Model No:	MFB4x4PRO
Date:	2-Sep-2002	Revision	VER020225
File:	DASP.Sch	Sheet	2 of 3
		Drawn By:	KEVIN LIN

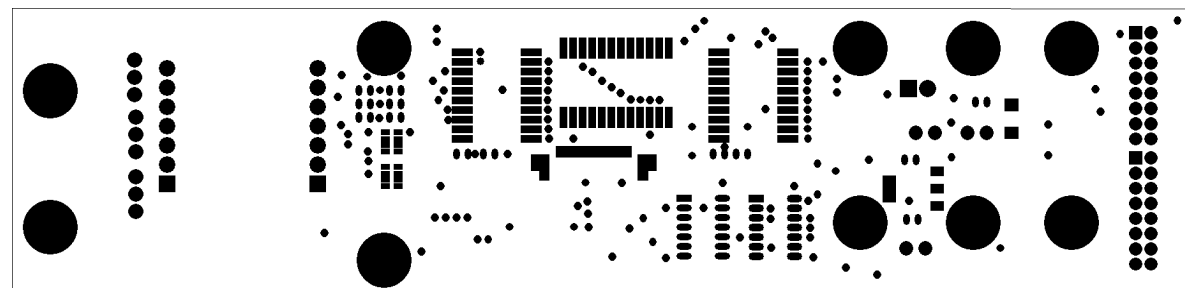
#### 4. Printed Circuit Diagram



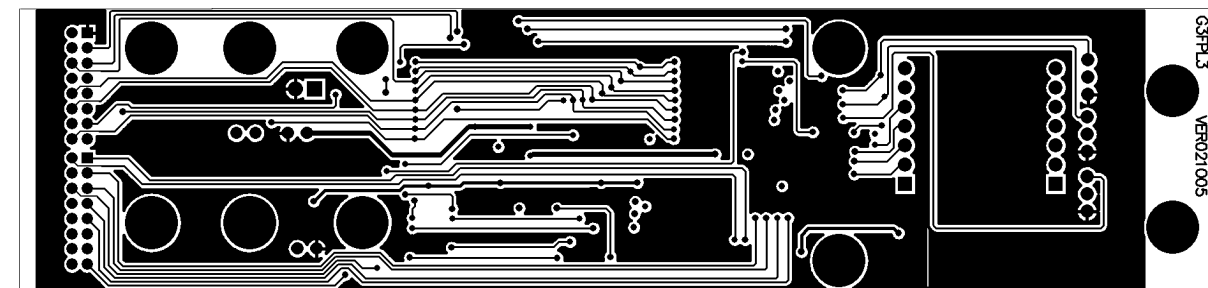
G3FPL3 Top Silkscreen



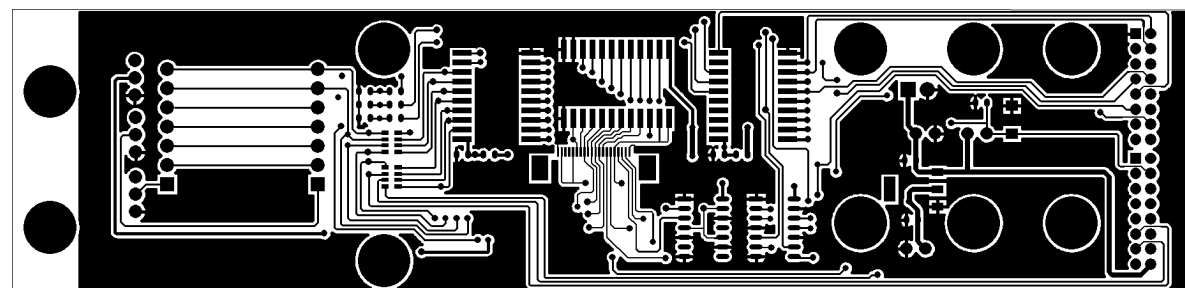
G3FPL3 Bottom Solder Mask



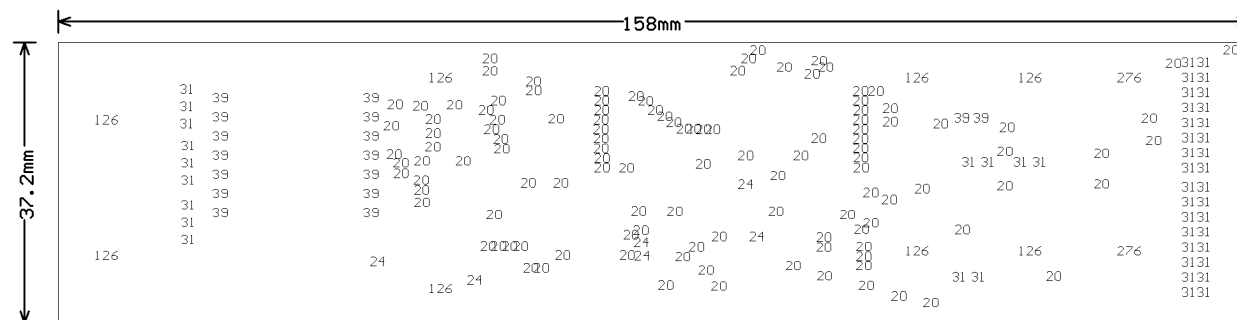
G3FPL3 Top Solder Mask



G3FPL3 Bottom Layer

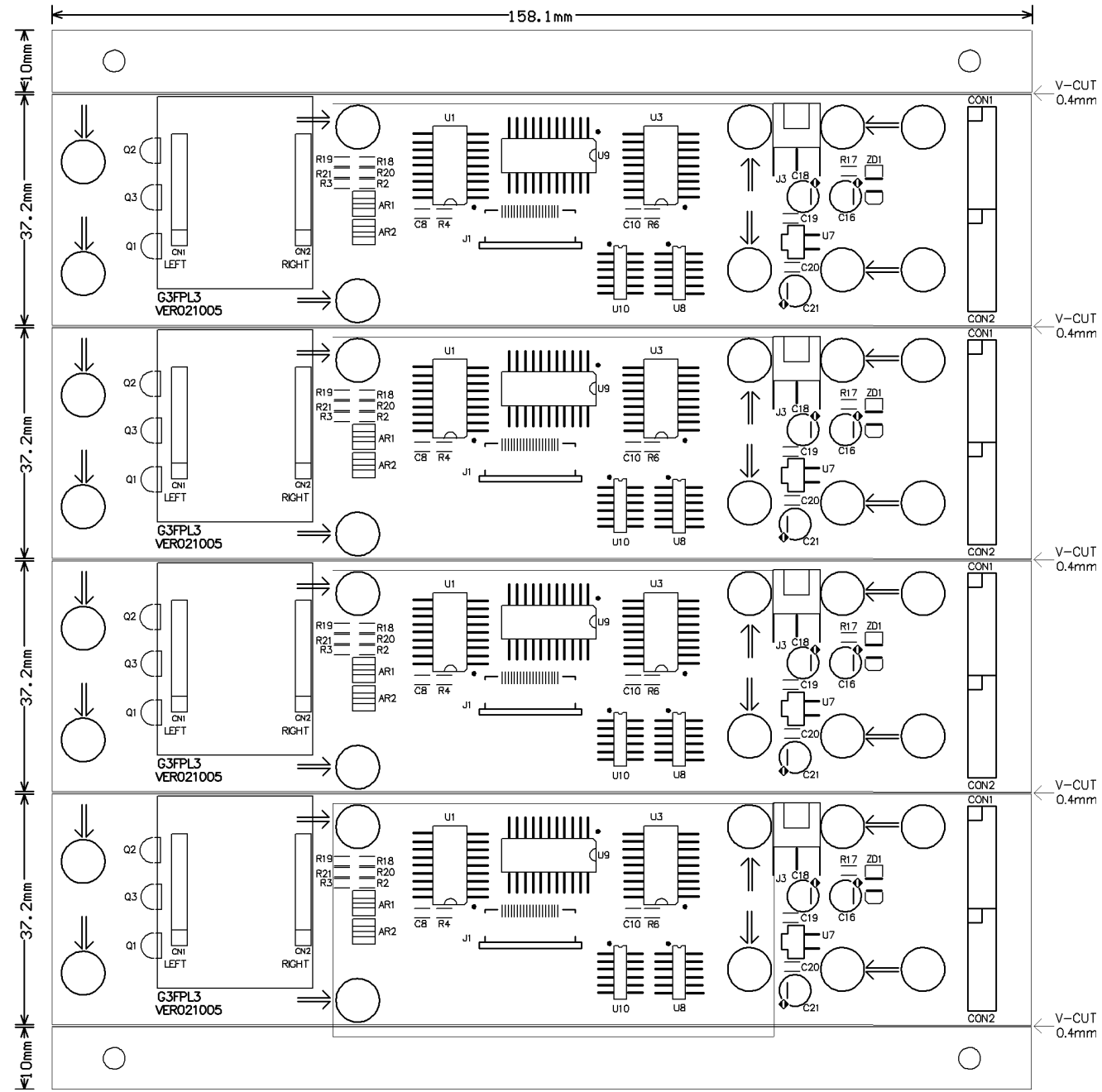


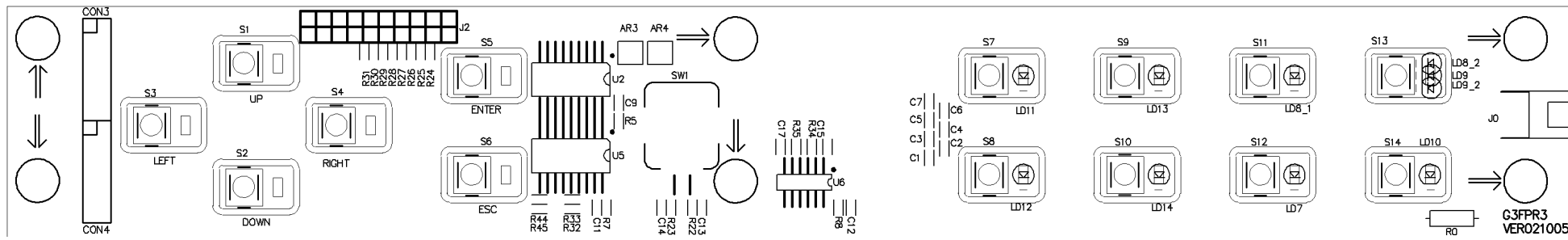
G3FPL3 Top Layer



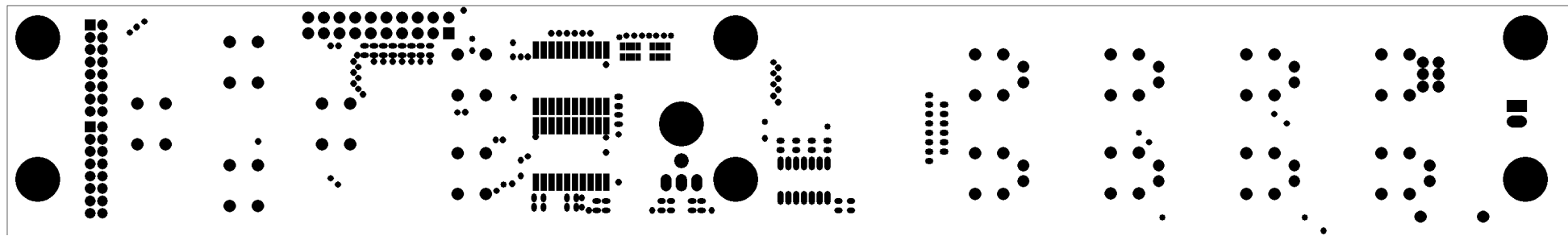
G3FPL3 Drill Drawing

Tool	Hole Size	Hole Count Plated	
T1	20mil (0.508mm)	119	
T2	24mil (0.6096mm)	7	
T3	31mil (0.7874mm)	47	
T4	39mil (0.9906mm)	16	
T5	126mil (3.2004mm)	8	NPTH
T6	276mil (7.0104mm)	2	NPTH
<b>Totals</b>		<b>198</b>	

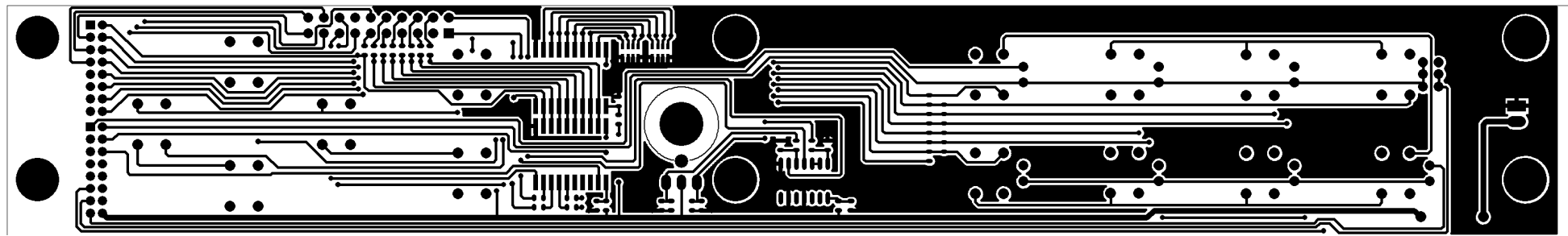




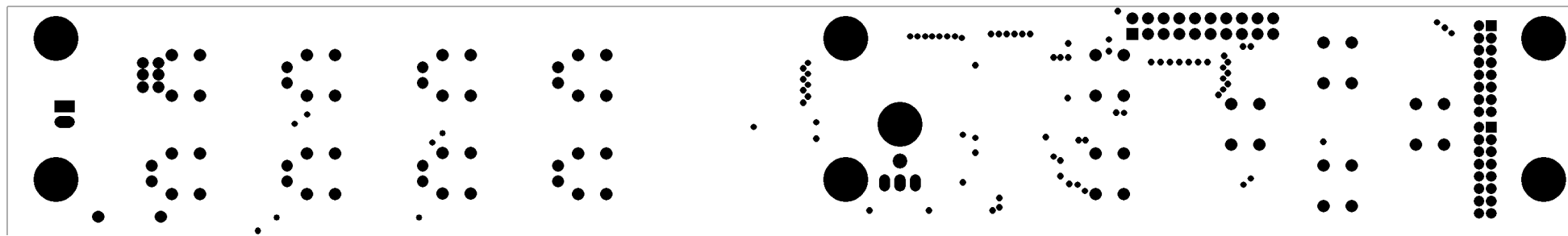
G3FPR3 Top Silkscreen



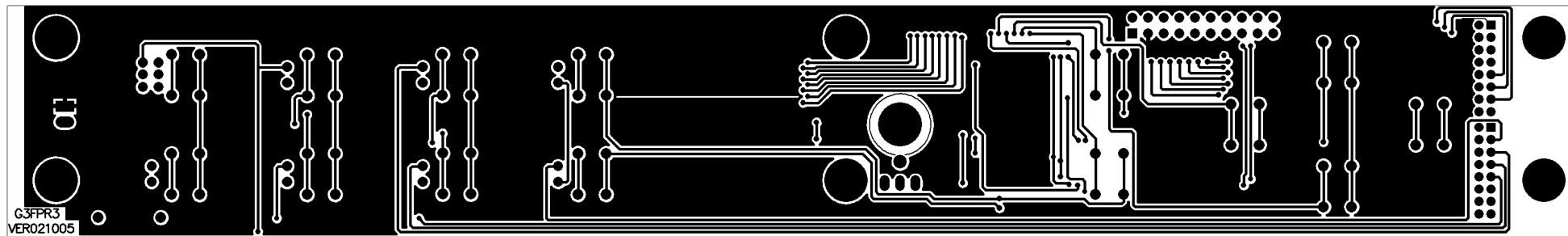
G3FPR3 Top Solder Mask



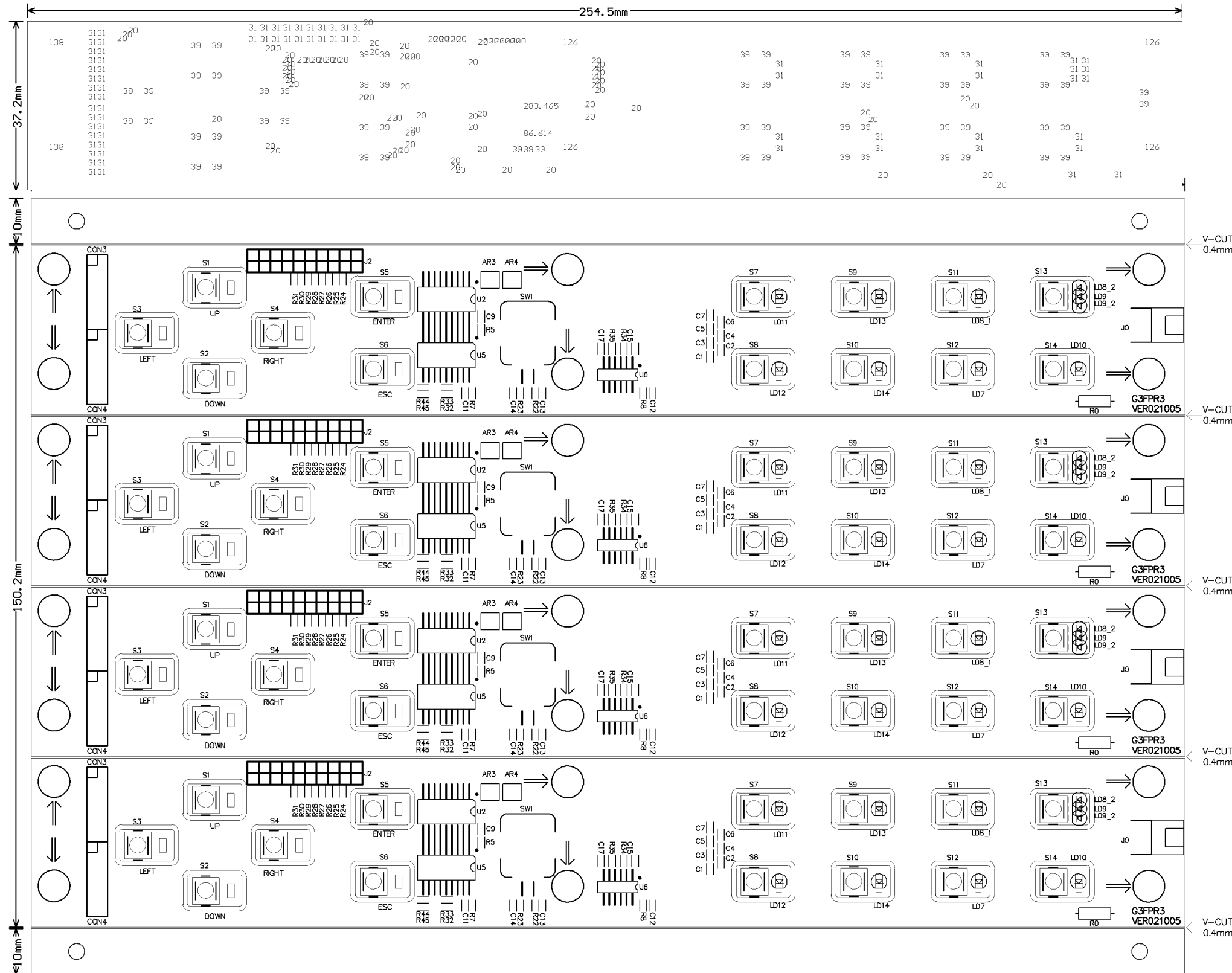
G3FPR3 Top Layer



G3FPR3 Bottom Solder Mask



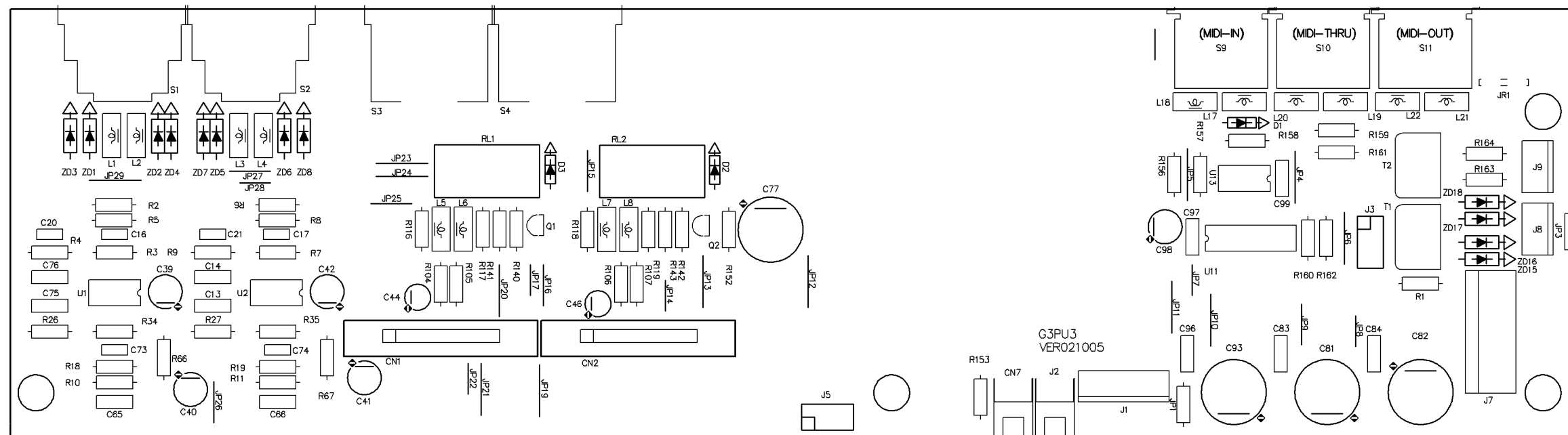
G3FPR3 Bottom Layer



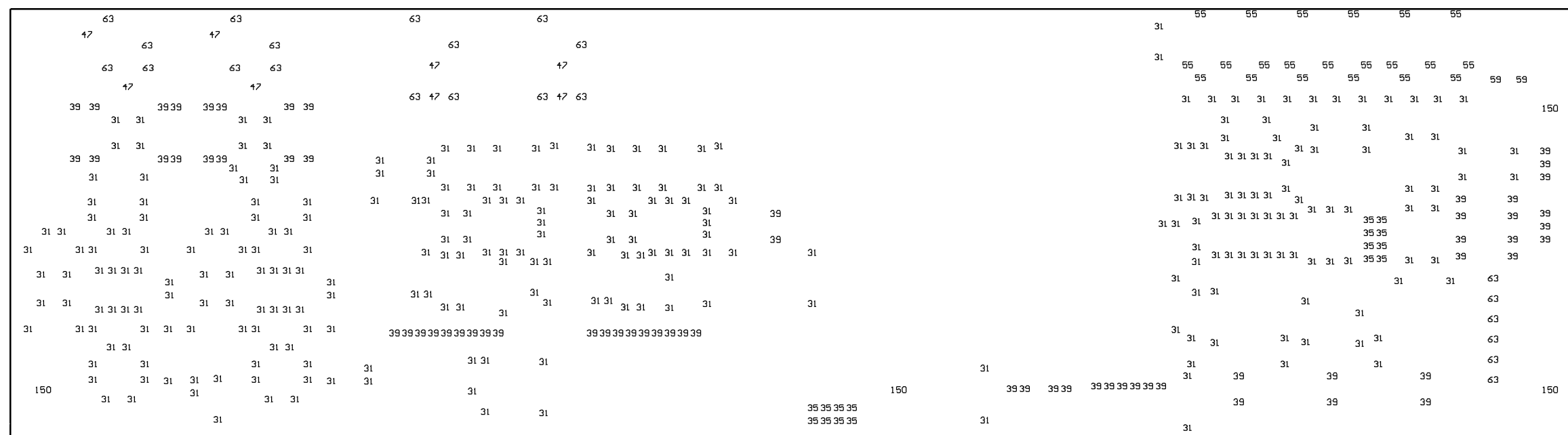
G3FPR3 Drill Drawing

Tool	Hole Size	Hole Count Plated	
T1	20mil (0.508mm)	84	
T2	31mil (0.7874mm)	74	
T3	39mil (0.9906mm)	61	
T4	87mil (2.2098mm)	1	
T5			
T6	280mil (7.112mm)	1	
T7			
T8	126mil (3.2004mm)	4	NPTH
T9	138mil (3.5052mm)	2	NPTH
<b>Totals</b>		<b>227</b>	





G3PU3 Top Silkscreen

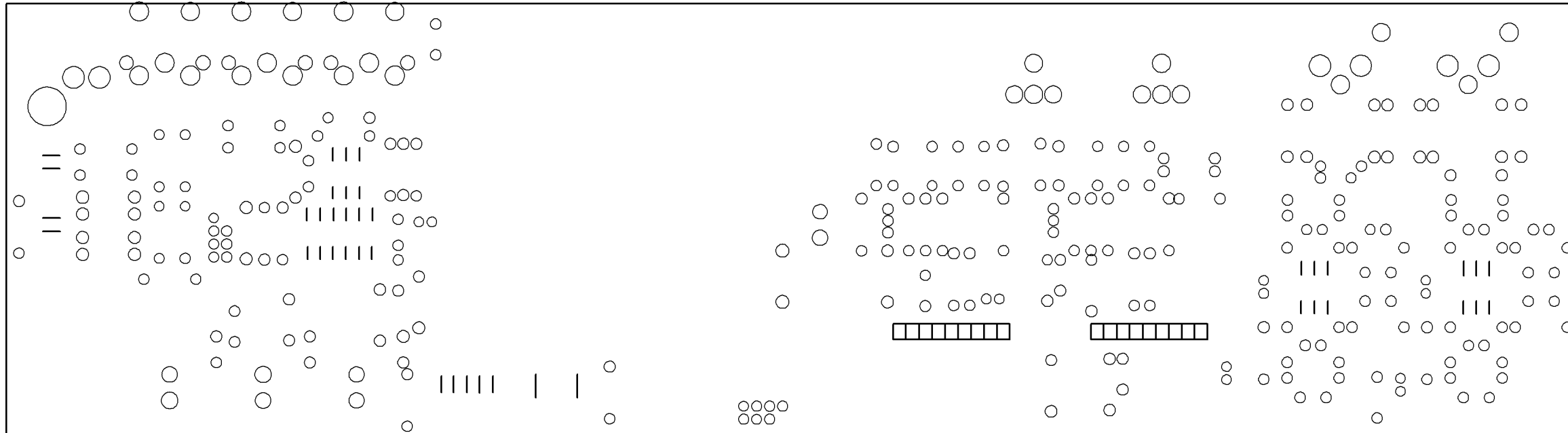


G3PU3 Drill Drawing

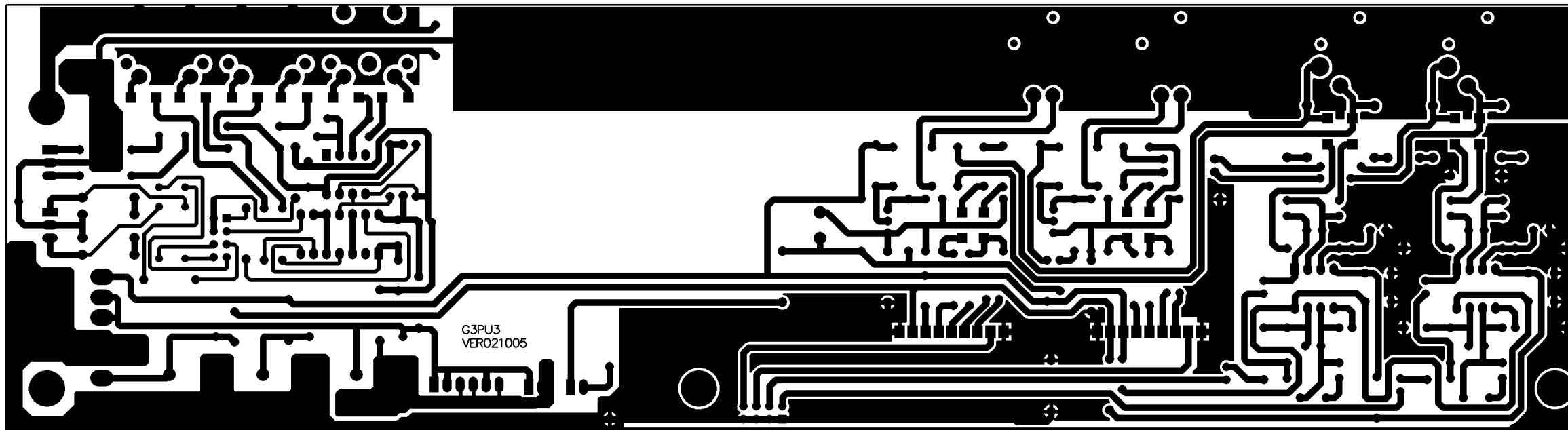
Tool	Hole Size	Hole Count Plated
T1	31mil (0.7874mm)	290
T2	35mil (0.889mm)	16
T3	39mil (0.9906mm)	66

T4	47mil (1.1938mm)	8
T5	55mil (1.397mm)	21
T6	59mil (1.4986mm)	2
T7	63mil (1.6002mm)	18

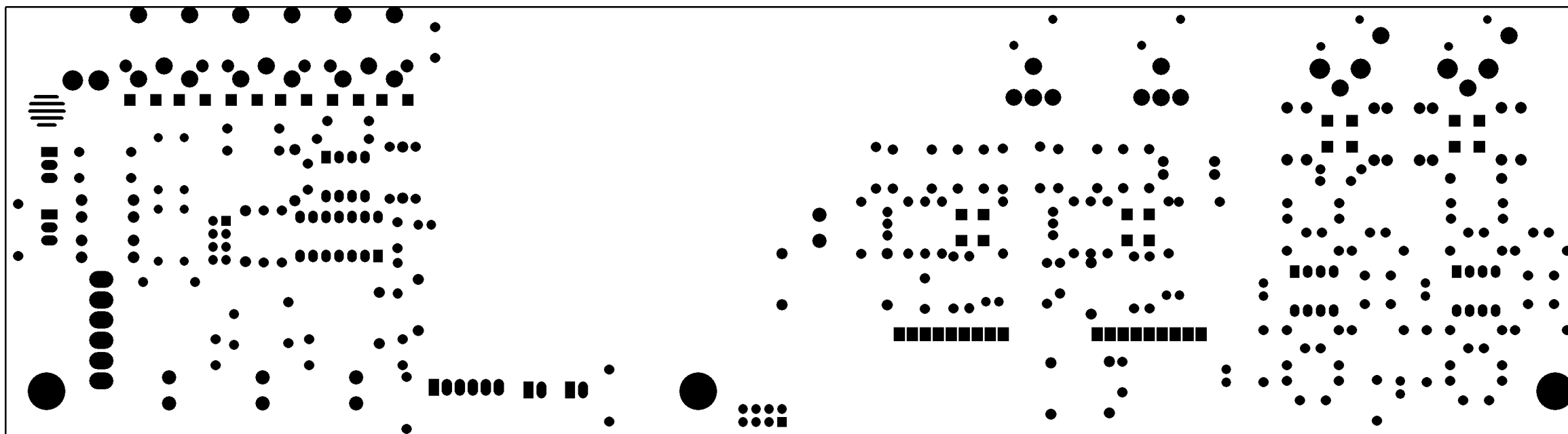
T8	150mil (3.81mm)	4	NPTH
T9	63mil (1.6002mm)	4	



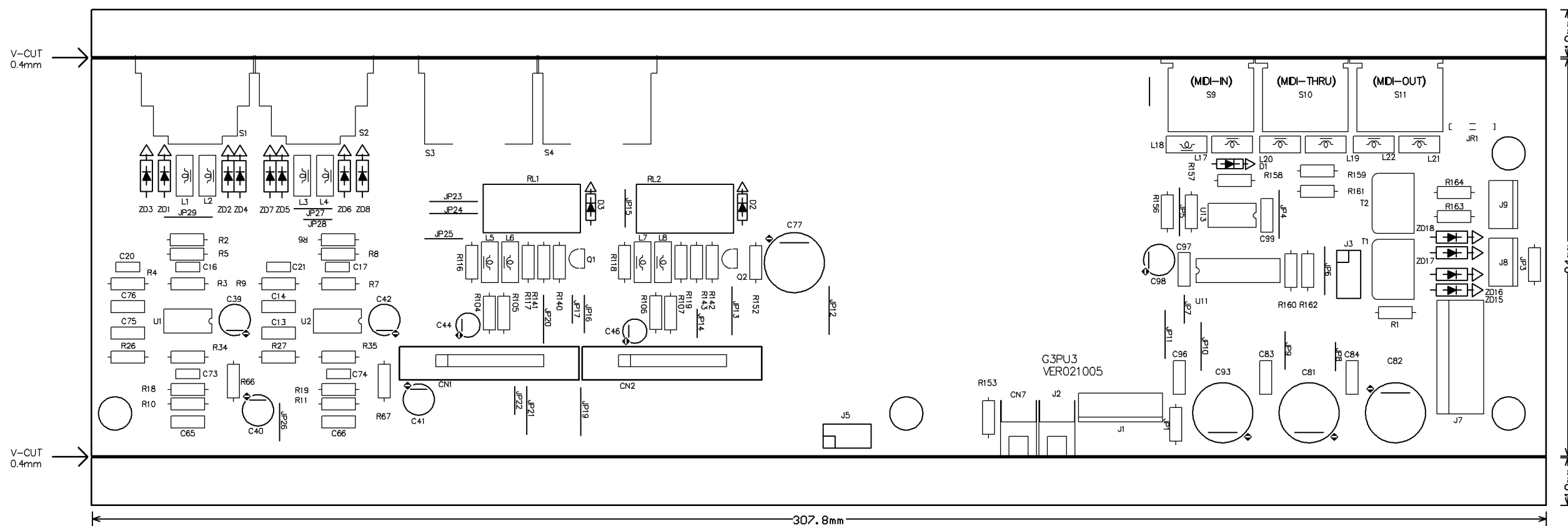
G3PU3 Bottom Scilkscreen

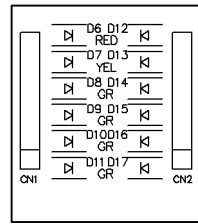


G3PU3 Bottom Layer

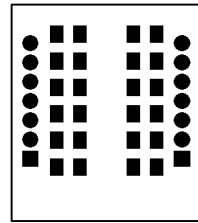


G3PU3 Bottom Solder Mask

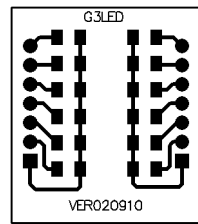




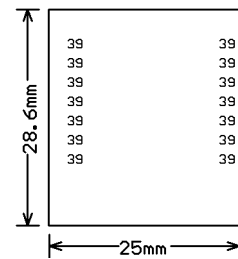
G3LED Top Silkscreen



G3LED Top Solder Mask

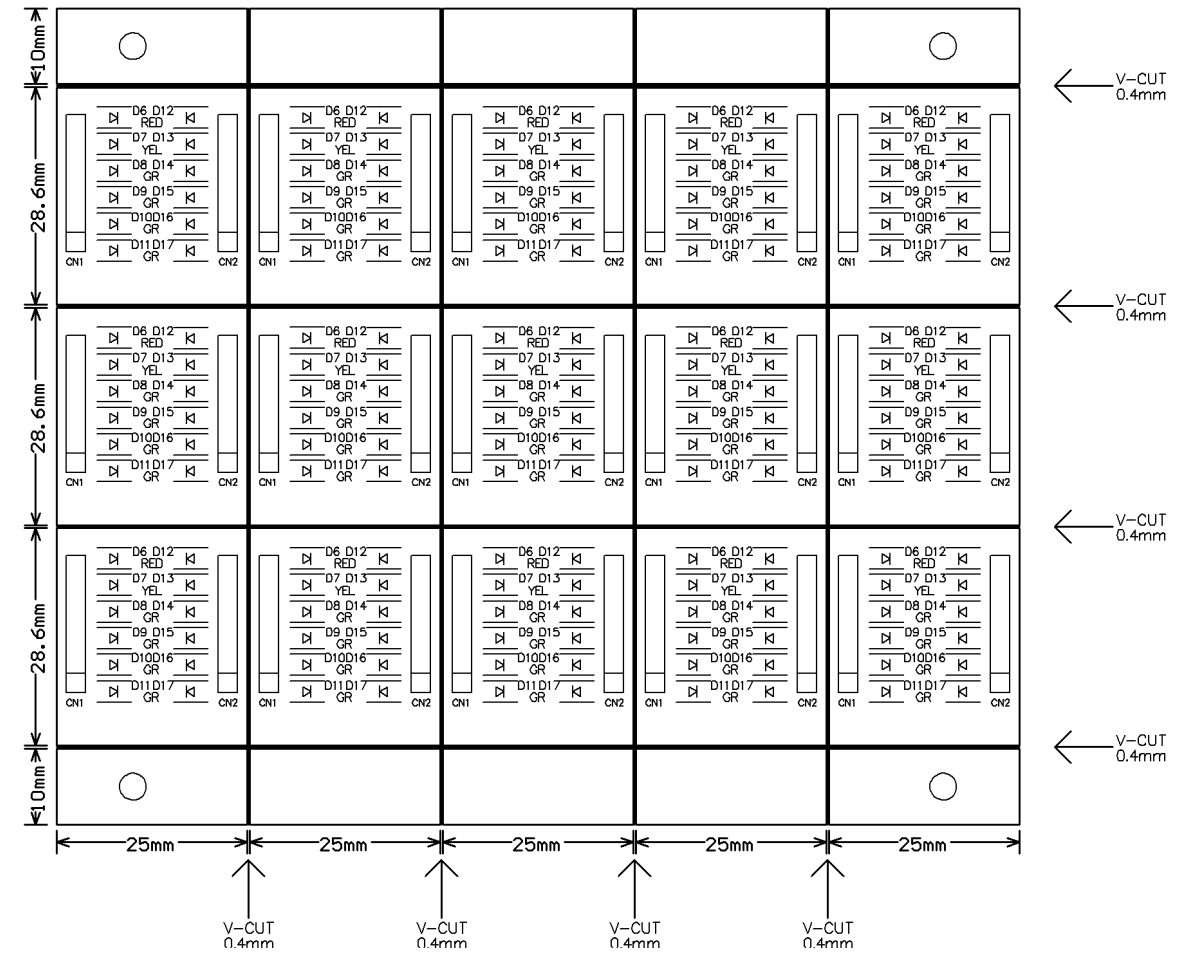


G3LED Top Layer

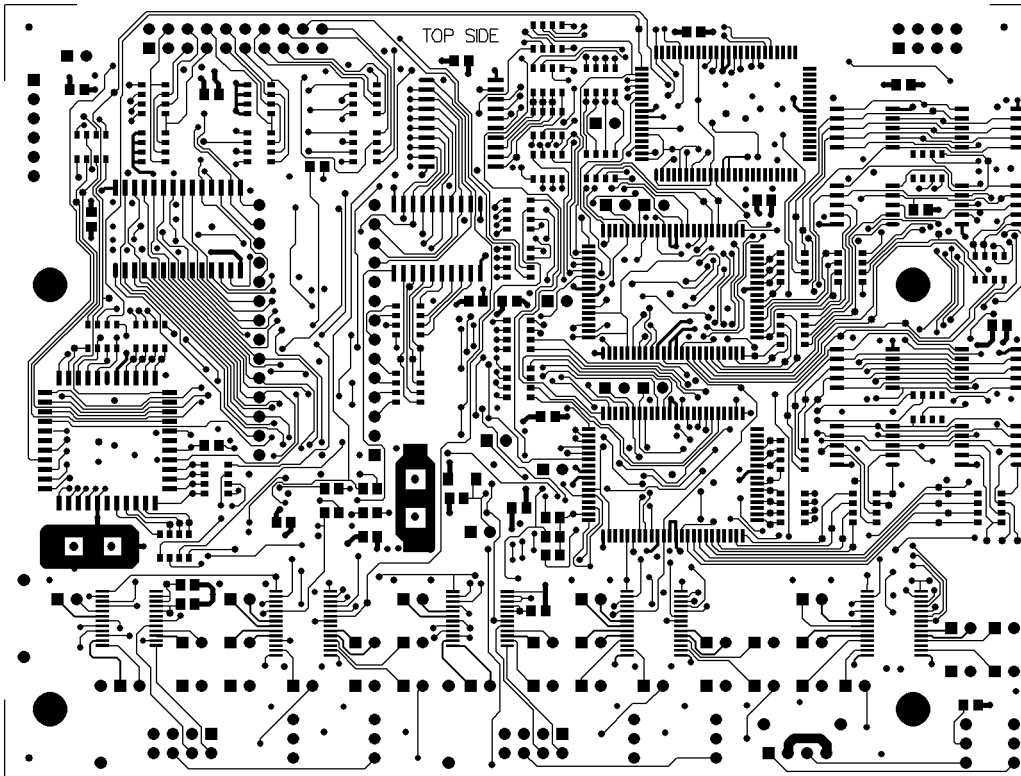


G3LED Drill Drawing

Tool	Hole Size	Hole Count Plated
T1	39mil (0.9906mm)	14
<b>Totals</b>		<b>14</b>

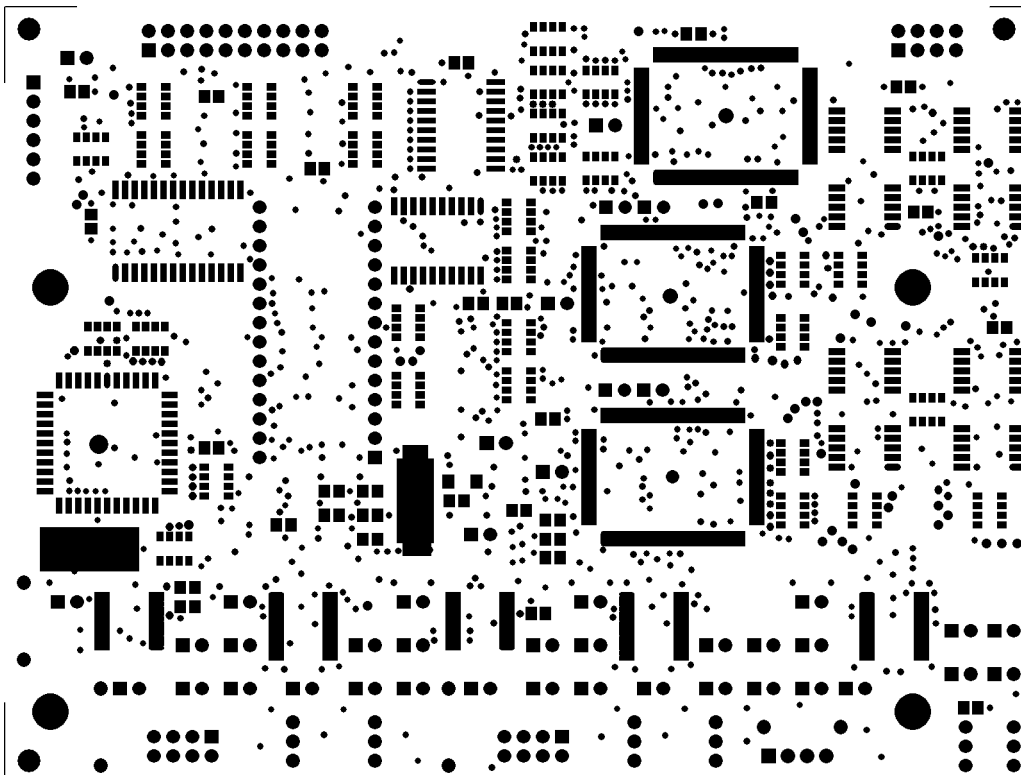


# PCB#MFB4x4PRO TOP LAYER

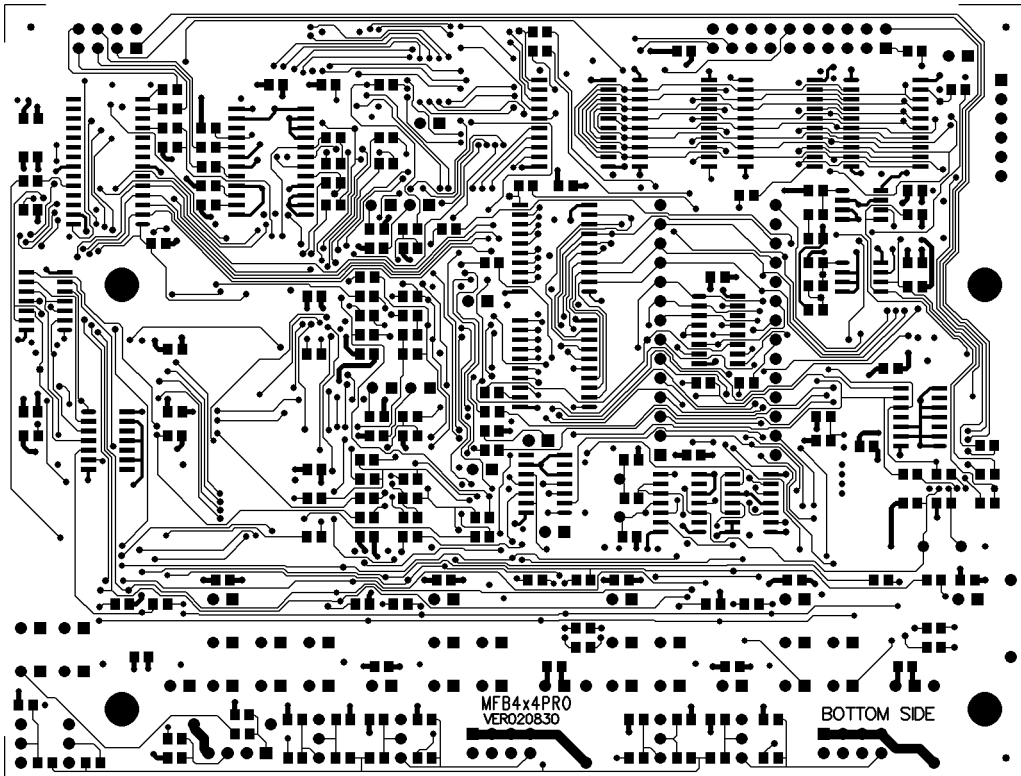


SEED-cod. MFB4x4PRO VER020830

# PCB#MFB4x4PRO TOP SOLDER MASK

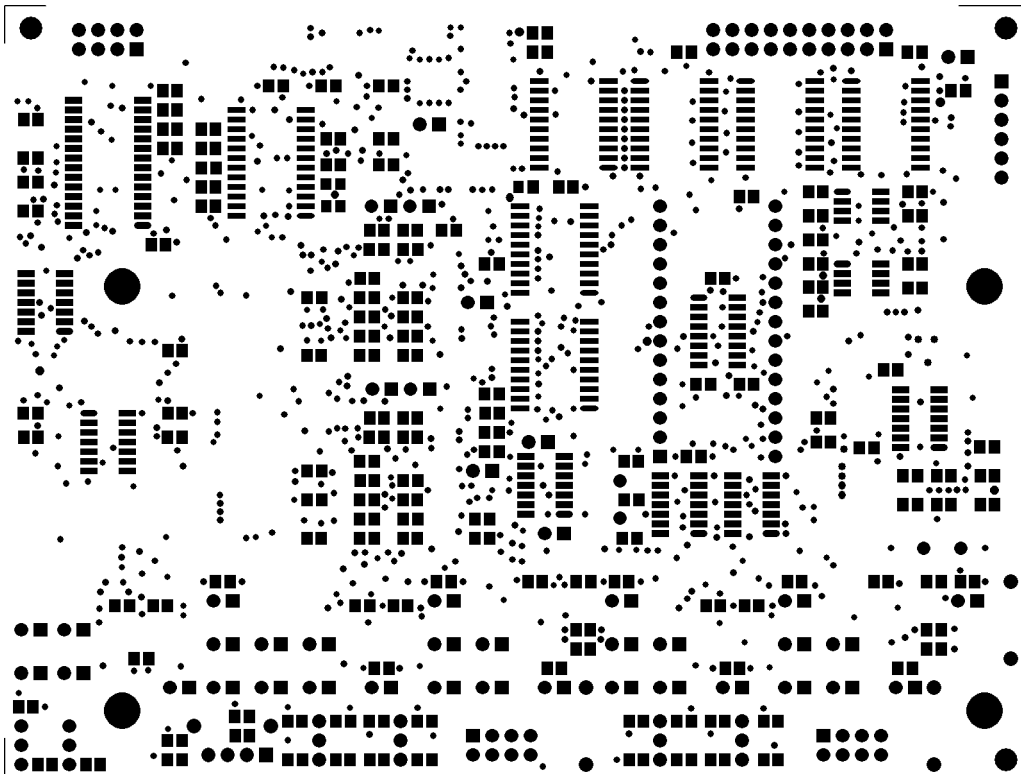


## PCB#MFB4x4PRO BOTTOM LAYER



SEED-cod. MFB4x4PRO VER020830

## PCB#MFB4x4PRO BOTTOM SOLDER MASK

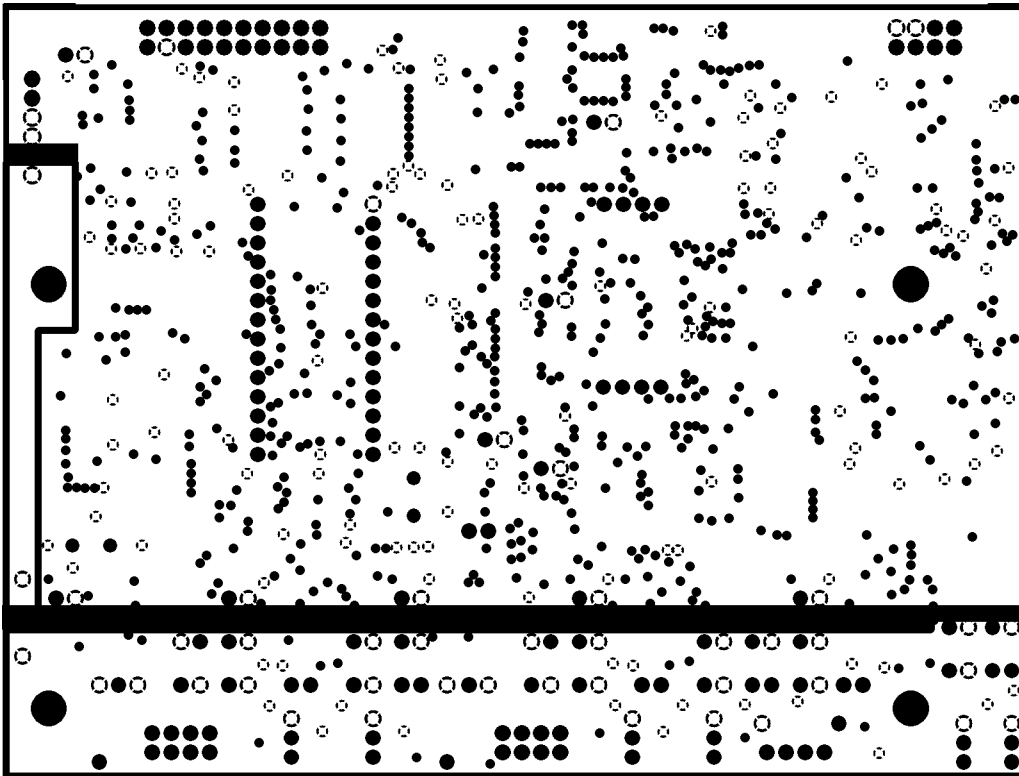


PCB#MFB4x4PRO INTERNAL PLANE1 (VCC)



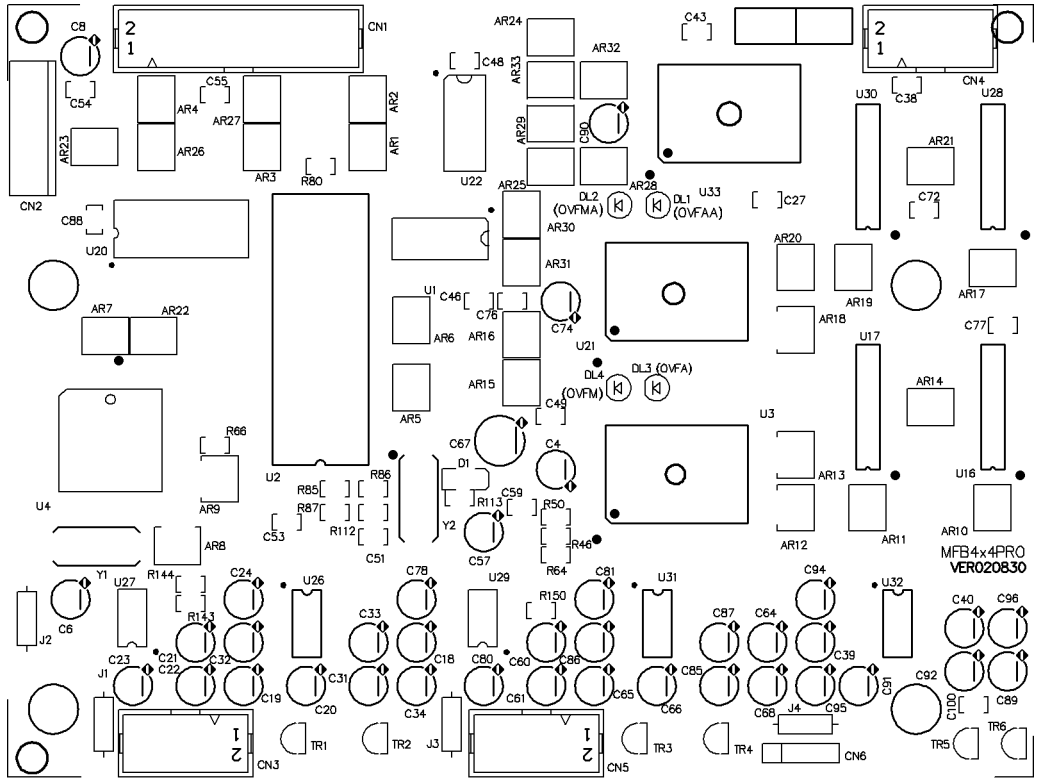
INTERNAL PLANE1(VCC)

PCB#MFB4x4PRO INTERNAL PLANE2 (GND)



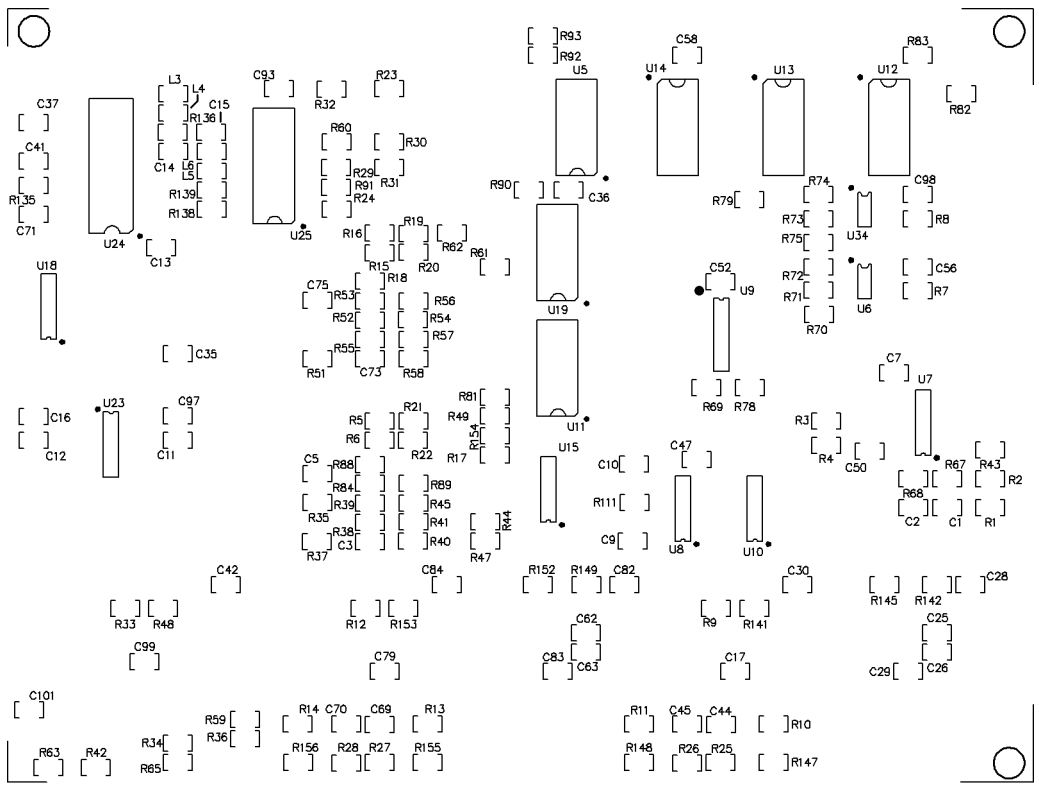
INTERNAL PLANE2(GND)

# PCB#MFB4x4PRO SILKSCREEN TOP LAYER



SILKSCREEN TOP

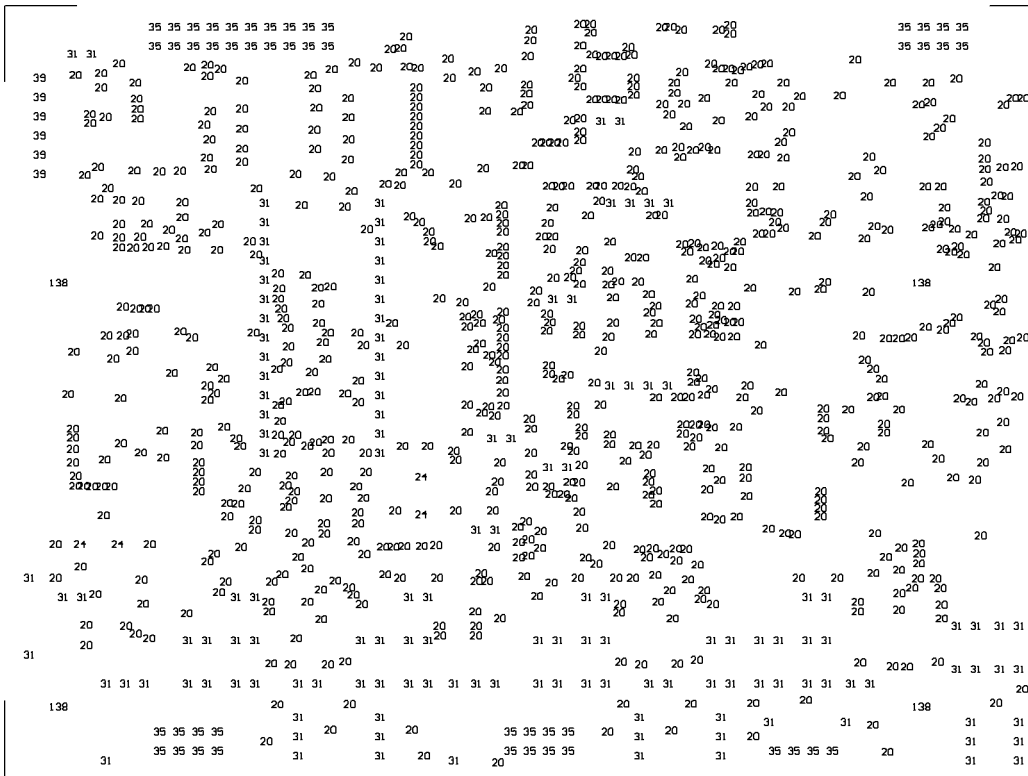
# PCB#MFB4x4PRO SILKSCREEN BOTTOM LAYER



SILKSCREEN BOTTOM



# PCB#MFB4x4PRO DRILL DRAWING



-----  
 NCDrill File Report For: MFB4x4PRO.PCB 31-Aug-2002  
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Layer Pair : TopLayer to BottomLayer

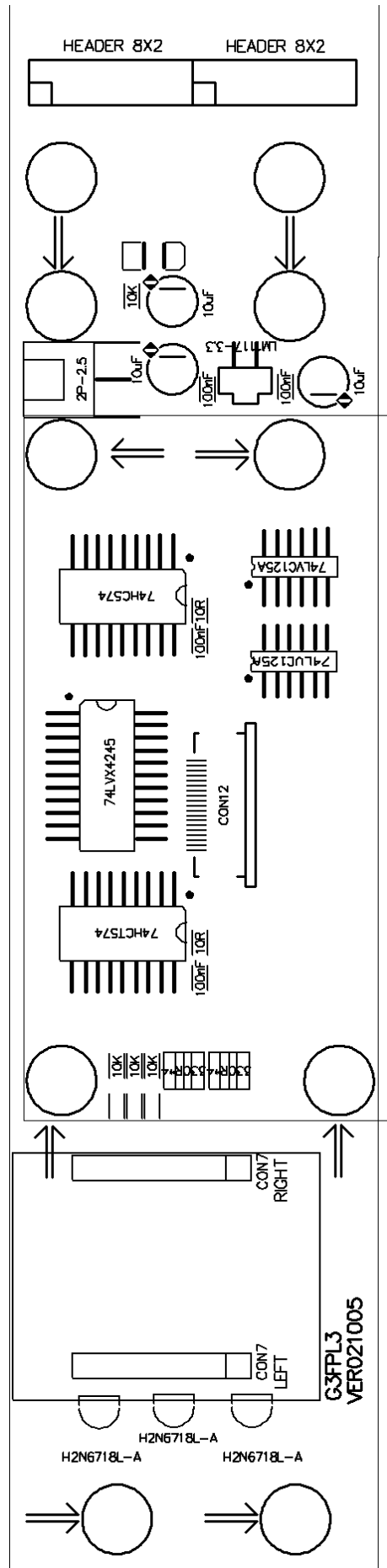
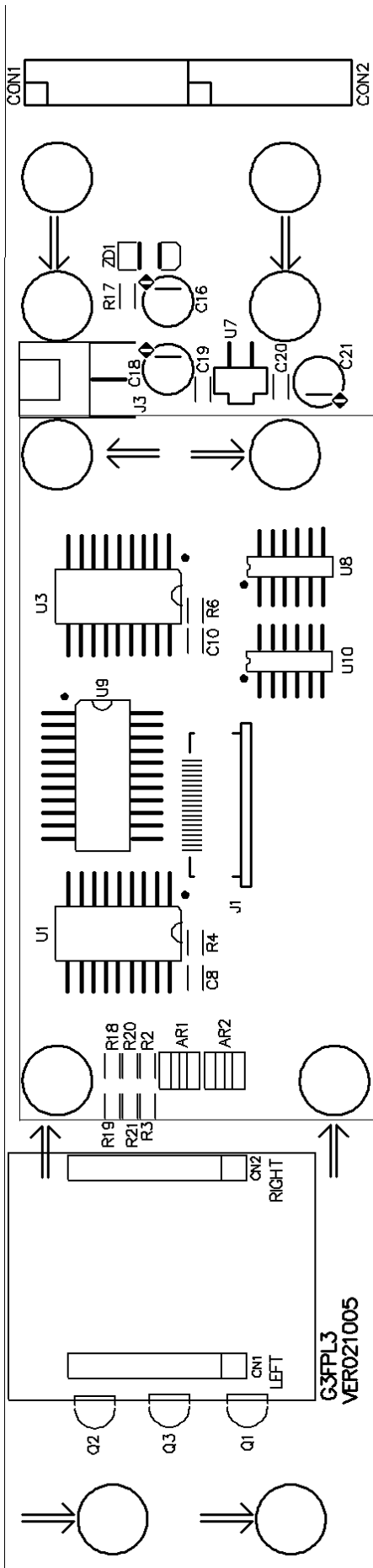
ASCII File : NCDrillOutput.TXT

EIA File : NCDrillOutput.DRL

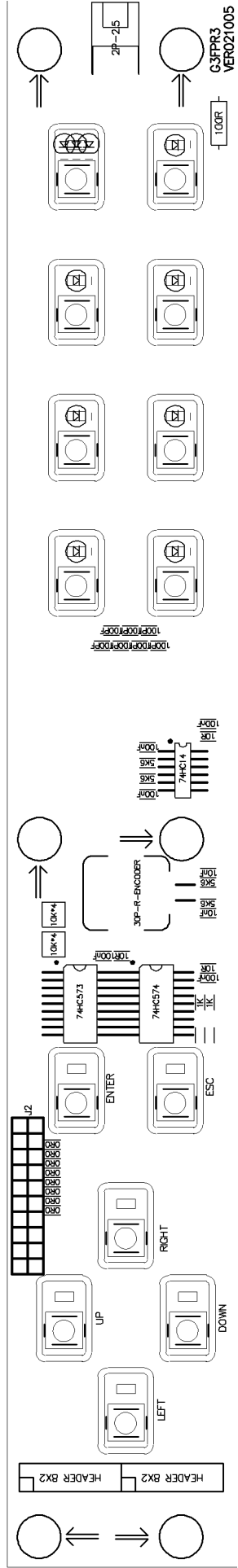
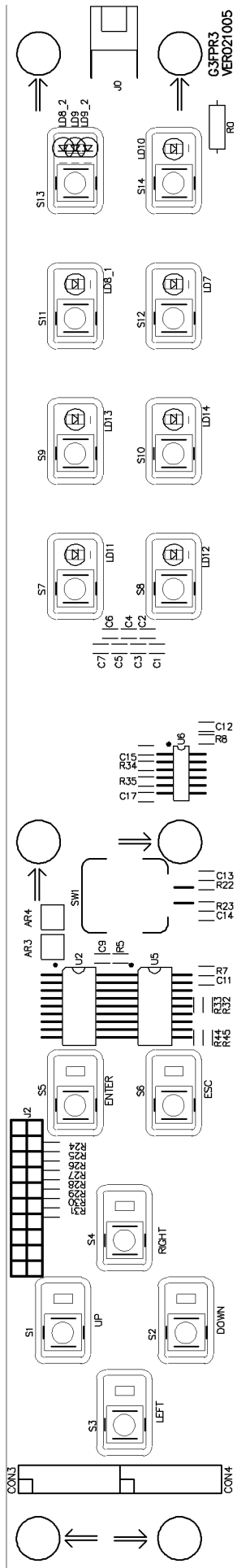
Tool	Hole Size	Hole Count	Plated
T1	20mil (0.508mm)	742	
T2	24mil (0.6096mm)	4	
T3	31mil (0.7874mm)	138	
T4	35mil (0.889mm)	48	
T5	39mil (0.9906mm)	6	
T6	138mil (3.5052mm)	4	NPTH

-----  
 Totals 942  
 -----

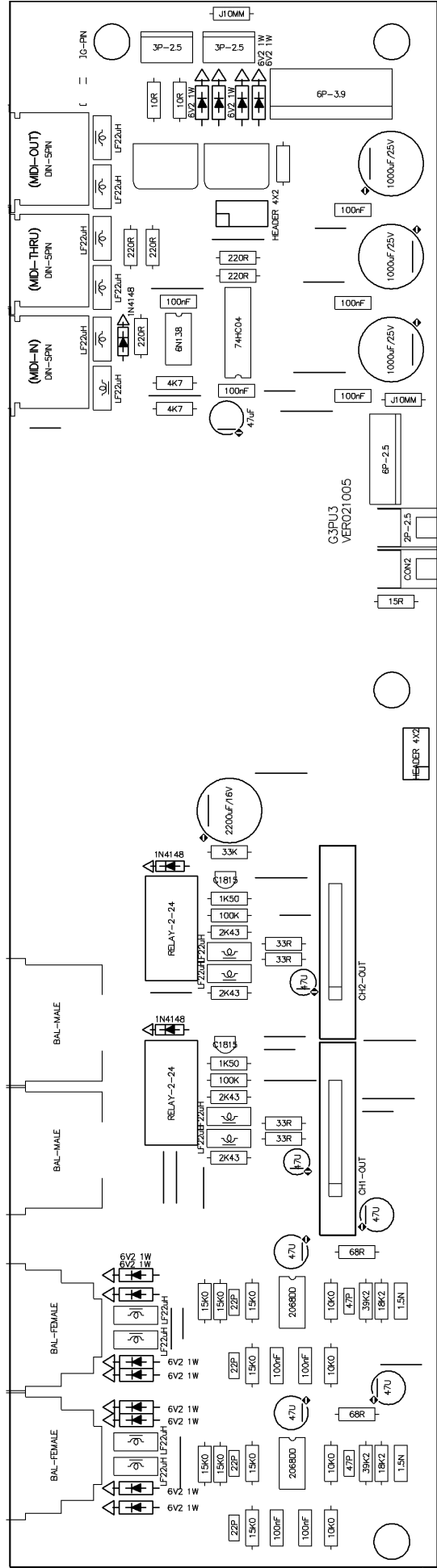
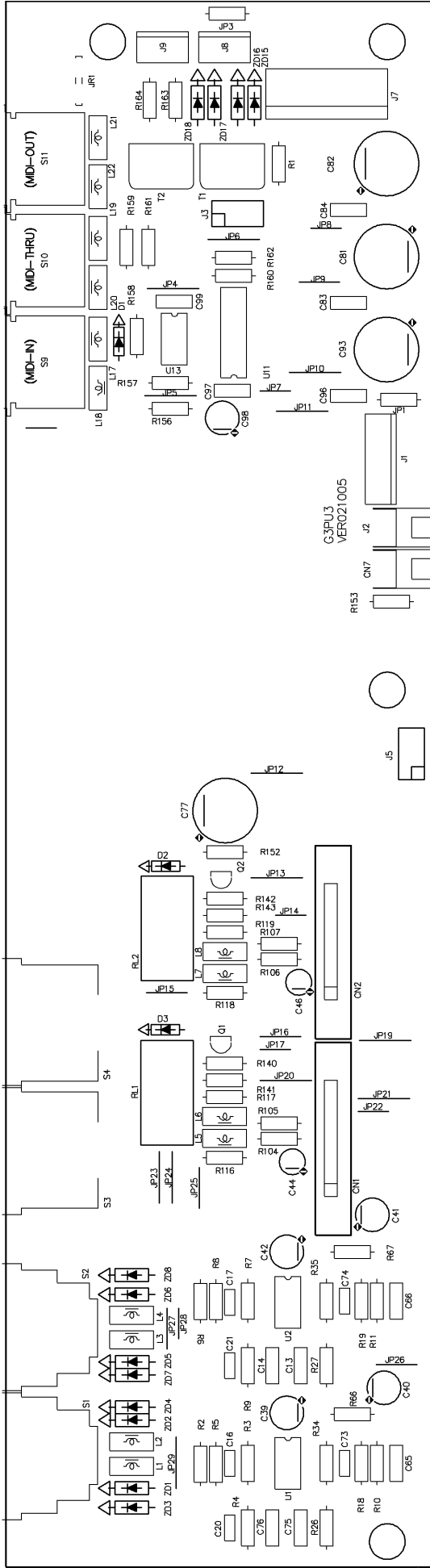
# G3FPL3 (VER021005)



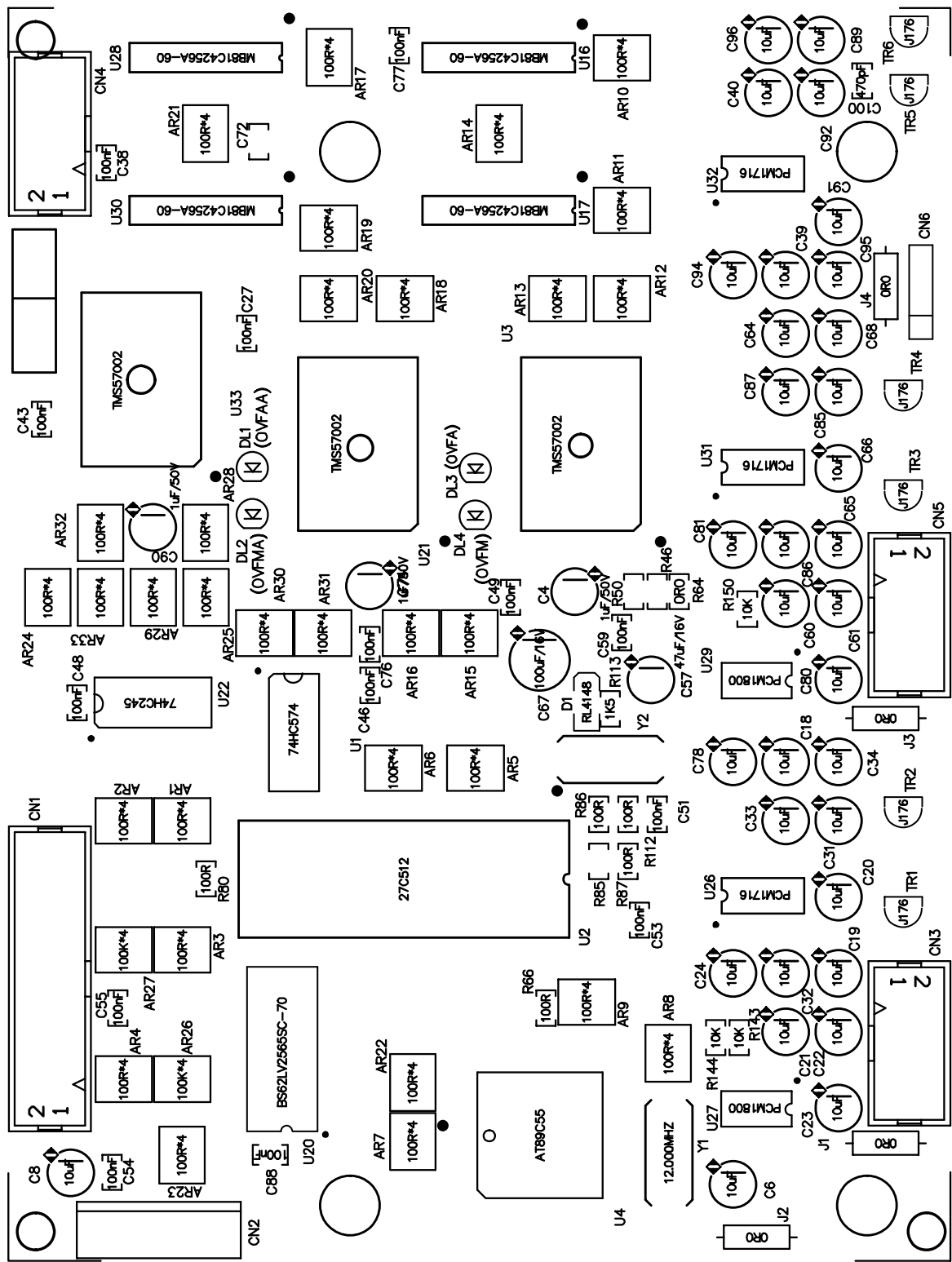
# G3FPR3 (VER021005)



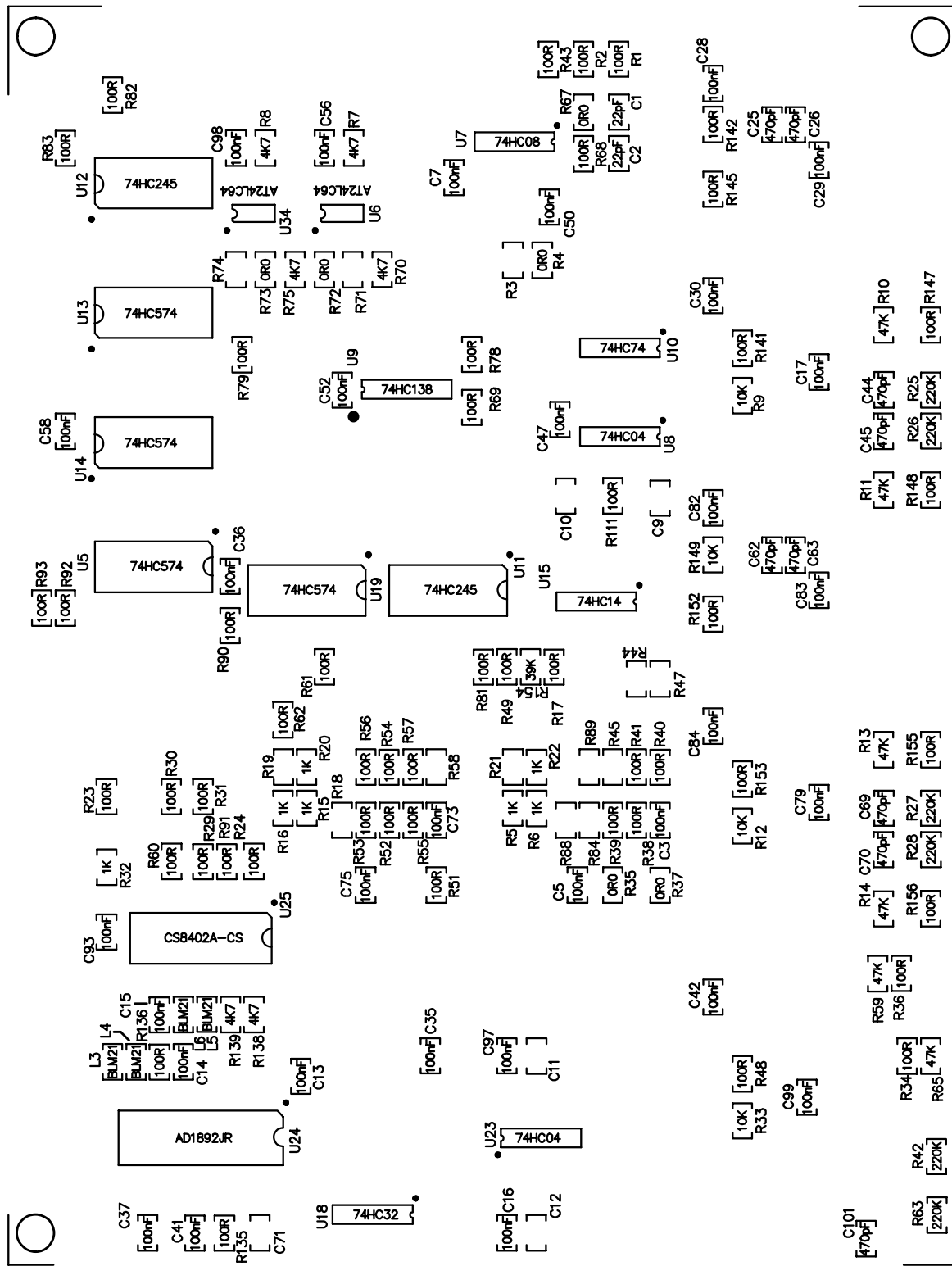
# G3PU3 (VER021005)





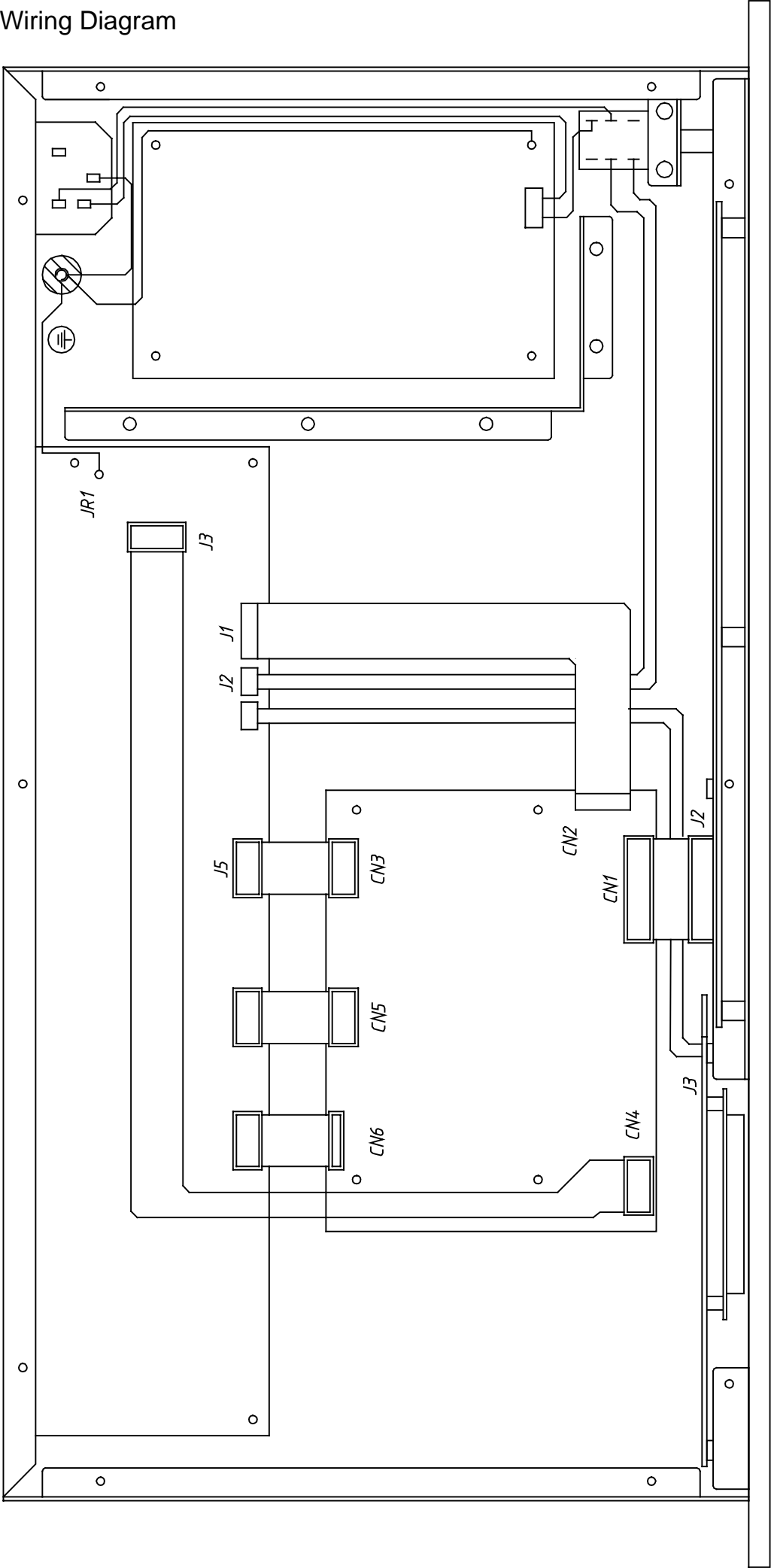


SILKSCREEN TOP



SILKSCREEN BOTTOM

Wiring Diagram





Multi-Level BOM Structure Listing

Report No.: IEBO\_P02  
 Prepared by 980029[廖芙蓉]

Date 2003/04/12  
 Page No.: 1 / 16

Item No. PF00397 Version  
 DESCRIPTION: CONTROL60 UNIT: PCS  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA Date: 2002/12/23

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0001-----	MA03088 panel CONTROL60 ALTO			PCS	1.0000 1	2002/12/23 Y
0001-----	MA03087 panel CONTROL60			PCS	1.0000 1	2003/01/07 N
0001-----	MA03528 panel CONTROL60			PCS	1.0000 1	2002/03/05 N
0001-----	MA03086 panel CONTROL60			PCS	1.0000 1	2002/07/12 N
0001-----	MI01380 panel 44.2*6.5*483			PCS	1.0000 1	2003/04/11 N
0002-----	MB02031 rear board CONTROL60			PCS	1.0000 1	2002/12/23 Y
0001-----	MB02028 rear board CONTROL60			PCS	1.0000 1	2002/03/05 N
0001-----	MB02030 rear board CONTROL60			PCS	1.0000 1	2002/03/05 N
0001-----	MJ00831 iron board 1*490*274			PCS	1.0000 1	2002/03/05 N
0001-----	MJ00058 iron board 1*2135*1220 20.45kg			PCS KG	1.0000 19 0.00	2002/03/04 N %
0003-----	MC00388 top cover CONTROL60			PCS	1.0000 1	2002/12/23 Y
0001-----	MC00386 top cover CONTROL60			PCS	1.0000 1	2003/01/20 N
0001-----	MC00387 top cover CONTROL60			PCS	1.0000 1	2002/03/06 N
0001-----	MJ00059 iron board 1.2*2135*1220 24.54kg			PCS KG	1.0000 20 0.00	2002/03/06 N %
0004-----	ME00016 colour nut 4m/m			PCS	1.0000 1	2002/12/23 Y
0005-----	MF00038 washer 4* 7*1t			PCS	1.0000 1	2002/12/23 Y
0006-----	MF00048 washer 4* 8*0.5t			PCS	2.0000 1	2002/12/23 Y
0007-----	MG00041 screw M3*6			PCS	13.0000 1	2003/01/10 Y
0008-----	MG00166 screw M3*10			PCS	1.0000 1	2002/12/23 Y
0009-----	NC00089 wood washer 4* 10*1			PCS	1.0000 1	2002/12/23 Y
0001-----	NC00088 insulation 10*1			KG	1.0000 1	2003/02/25 N
0001-----	NC00014 insulator 0.65M*60M*1t			KG	100.0000 39000000	2002/04/04 N
					0.00	%

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Item No. PF00397 Version  
 DESCRIPTION: CONTROL60 UNIT: PCS  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA Date: 2002/12/23

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0010-----	NI02249 caushion TW-1(TO-220)			PCS	1.0000 1	2002/12/23 Y
0011-----	MG00281 screw M3*6			PCS	8.0000 1	2002/12/23 Y
0012-----	MG00025 screw M3*6			PCS	16.0000 1	2002/12/23 Y
0013-----	MG00061 screw M3*10			PCS	8.0000 1	2002/12/23 Y
0014-----	HA02242 wire 6P-6P 200mm UL1007 18AWG			PCS	1.0000 1	2002/12/23 Y
0015-----	HA01696 header wiring IF:W40 3P 350			PCS	1.0000 1	2002/12/23 Y
0016-----	HA01638 row-wire connector wiring 2P 280			PCS	1.0000 1	2002/12/23 Y
0017-----	HA01503 header wiring 2P-2P 250			PCS	1.0000 1	2002/12/23 Y
0018-----	HA01590 row-wire connecting wiring 6P-6P 190			PCS	1.0000 1	2002/12/23 Y
0019-----	HA02077 header wiring 8P-8P 130mm PH=1.27mm			PCS	1.0000 1	2003/01/14 Y
0020-----	HC00008 AC outlet 3515 A TYPE(RF-2004-C-4.8)			PCS	1.0000 1	2002/12/23 Y
0021-----	HA02191 wire 170mm			PCS	1.0000 1	2002/12/23 Y
0022-----	HA02190 wire 150mm			PCS	1.0000 1	2002/12/23 Y
0023-----	HA01174 signle terminal wiring CF:W146 80 green/yellow			PCS	1.0000 1	2002/12/23 Y
0024-----	HA00861 power cord Europe 3P LT-312+LT-501			PCS	1.0000 1	2002/12/23 Y
0025-----	HI00028 power switch PWL-2P2T-T(WP-2-B1)			PCS	1.0000 1	2002/12/23 Y
0026-----	NI00307 key 15*12			PCS	1.0000 1	2002/12/23 Y
0027-----	NI01160 switch cap 14.5*10 YELLOW C			PCS	1.0000 1	2002/12/23 Y
0028-----	SA00065 L.E.D LG2043 green			PCS	1.0000 1	2002/12/23 Y
0029-----	HA01388 row-wire connector wiring 2P 100			PCS	1.0000 1	2002/12/23 Y
0030-----	NI00217 insulator CONTROL30			PCS	1.0000 1	2002/12/23 Y
0001-----	NI00216 insulator 0.5*130*100			PCS	1.0000 1	2003/02/25 N

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Item No. PF00397 Version  
 DESCRIPTION: CONTROL60 UNIT: PCS  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA Date: 2002/12/23

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0001-----	NI00375 film 45*60.5*0.5mm			PCS	1.0000 1 0.00 %	2002/04/06 N
0031-----	NI00200 insulator 0.5*100*130(DX24)			PCS	1.0000 1 0.00 %	2002/12/23 Y
0001-----	NI00375 film 45*60.5*0.5mm			PCS	1.0000 1 0.00 %	2003/02/25 N
0032-----	NI00828 knob 12*7*10.7 072C blue			PCS	14.0000 1 0.00 %	2002/12/23 Y
0033-----	NI02223 light piller 9*5*2.5			PCS	7.0000 1 0.00 %	2002/12/23 Y
0034-----	NI02238 knob 3*W6*25.5 072C			PCS	7.0000 1 0.00 %	2002/12/23 Y
0035-----	NI02117 knob 30*12.5			PCS	1.0000 1 0.00 %	2002/12/23 Y
0036-----	NI02232 lacid plastic panel CONTROL60			PCS	1.0000 1 0.00 %	2002/12/23 Y
0001-----	NI00830 lacid plastic panel 3.5*106*33mm CONTROL60			PCS	1.0000 1 0.00 %	2002/08/23 N
0037-----	TG00029 voltage transformer SNP-9541 40W(AC-DC)			PCS	1.0000 1 0.00 %	2002/12/23 Y
0038-----	NI02085 power switch 22*9.69			PCS	1.0000 1 0.00 %	2002/12/23 Y
0039-----	NI00501 foot cushion 12.7*9*3t(SF-004)			PCS	4.0000 1 0.00 %	2002/12/23 Y
0040-----	NA00137 clip-chain bag 5*7			PCS	1.0000 1 0.00 %	2002/12/23 Y
0041-----	NA00123 PE bag 300*580*0.04			PCS KG	1.0000 1 0.00 %	2002/12/23 Y
0042-----	HJ00006 desiccant 30g			PCS	1.0000 1 0.00 %	2002/12/23 Y
0043-----	NF00061 assurance card LTO			PCS	1.0000 1 0.00 %	2002/12/23 Y
0044-----	NB02093 box ALTOCOMP ALTO			PCS	1.0000 1 0.00 %	2003/01/06 Y
0045-----	NB02165 barrier ALTO DRIVE2.3			PCS	1.0000 1 0.00 %	2003/01/07 Y
0046-----	NB02166 barrier ALTO DRIVE2.3			PCS	1.0000 1 0.00 %	2003/01/07 Y
0047-----	NB02088 box (1H) ALTO 19"			PCS	1.0000 4 0.00 %	2003/01/07 Y
0048-----	NE05004 label ALTO			PCS	4.0000 1 0.00 %	2002/12/23 Y
0049-----	NE10560 label CONTROL60			PCS	4.0000 1 0.00 %	2002/12/23 Y

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Item No. PF00397 Version  
 DESCRIPTION: CONTROL60 UNIT: PCS  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA Date: 2002/12/23

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0001-----	NH00012 bond paper 0.04*1M			M	1.0000 80 0.00 %	2003/02/16 N
0002-----	NI00014 membrane 0.035*1M			M	1.0000 80 0.00 %	2003/02/16 N
0050-----	HD00006 fuse TSD 315mA 250V 5.2*20mm CSA/S/UL/VDE			PCS	1.0000 1 0.00 %	2002/12/23 Y
0051-----	MB01408 rear board CONTROL60			PCS	1.0000 1 0.00 %	2002/12/23 Y
0001-----	MB01405 rear board CONTROL60			PCS	1.0000 1 0.00 %	2003/01/18 N
0001-----	MB01401 rear board CONTROL			PCS	1.0000 1 0.00 %	2002/07/03 N
0001-----	MJ00059 iron board 1.2*2135*1220 24.54kg			PCS KG	1.0000 18 0.00 %	2002/07/03 N
0002-----	ME00036 iron pillar hexagon6.35*M3*9.2			PCS	12.0000 1 0.00 %	2003/01/11 Y
0003-----	MI00009 partition CONTROL30			PCS	1.0000 1 0.00 %	2003/01/11 Y
0001-----	MJ00058 iron board 1*2135*1220 20.45kg			PCS KG	1.0000 234 0.00 %	2002/06/22 N
0004-----	ME00001 screw M4*10*0.7PH			PCS	1.0000 1 0.00 %	2003/01/11 Y
0005-----	MI01357 fixed board CLE2.0			PCS	1.0000 1 0.00 %	2003/01/11 Y
0001-----	MJ00063 Zn-plated board 1.2*2135*1220 24.54kg			PCS KG	1.0000 2542 0.00 %	2002/04/14 N
0052-----	HK03324 K-PC board P-G3FPL-DIP			PCS	1.0000 1 0.00 %	2002/12/23 Y
0001-----	HK03323 K-PC board P-G3FPL-SMD			PCS	1.0000 1 0.00 %	2002/11/12 Y
0001-----	HB00778 pc board G3FPL3(1*4)_VER021005			PCS	1.0000 1 0.00 %	2002/11/12 Y
0002-----	RD00061 SMDfixed resistor 1/10W 10 ±5% 0603 R4,R6			PCS	2.0000 1 0.00 %	2002/11/28 Y
0003-----	RD00101 SMDfixed resistor 1/10W 10K ±5% 0603 R17,R18,R20,R2			PCS	4.0000 1 0.00 %	2002/11/12 Y
0004-----	CI00075 SMDceramic capacitor0603 0.1uF/50V Y5V +80,-20% C10,C19,C20,C8			PCS	4.0000 1 0.00 %	2002/11/12 Y
0005-----	RE00009 resistor 330 *4 ±5% 8P 0603 AR1,AR2			PCS	2.0000 1 0.00 %	2002/11/12 Y

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 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA

UNIT: PCS  
 Date: 2002/12/23

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0006-----	SG00072 SMD integrated circuit 74LVC125AD U10,U8			PCS	2.0000 1 0.00 %	2002/11/12 Y
0007-----	SG00078 SMD integrated circuit SN74HC574DW U1,U3			PCS	2.0000 1 0.00 %	2002/11/12 Y
0008-----	SG00105 SMD integrated circuit SN74LVX4245ADW(TI) U9			PCS	1.0000 1 0.00 %	2002/11/12 Y
0009-----	SF00009 voltage stabilized transistor LM1117MP-3.3 (3.3V, SOT223) U7			PCS	1.0000 1 0.00 %	2002/11/12 Y
0010-----	HC00332 SMD FPC MOLEX 52745-2090 J1			PCS	1.0000 1 0.00 %	2002/11/12 Y
0002-----	HK03327 K-PC board P-G3LED-SMD			PCS	1.0000 1 0.00 %	2002/11/27 Y
0001-----	HB00781 PC board G3LED(1*15)_VER020910			PCS	1.0000 1 0.00 %	2002/11/12 Y
0002-----	SE00002 SMD L.E.D red 67-21SURC/S530-A2/TR8 1210			PCS	2.0000 1 0.00 %	2002/11/12 Y
0003-----	SE00004 SMD L.E.D yellow 67-21UYC/S530-A2/TR8 1210 LD13,LD7			PCS	2.0000 1 0.00 %	2002/11/12 Y
0004-----	SE00003 SMD L.E.D green 67-21SYGC/S530-E1/TR8 1210 LD10,LD11,LD14,LD15,LD16,LD17,LD8,LD9			PCS	8.0000 1 0.00 %	2002/11/12 Y
0003-----	CB00024 electrotytic capacitor 10uF/16V 4*7 C16,C18,C21			PCS	3.0000 1 0.00 %	2002/11/27 Y
0004-----	SB00095 transistor H2N6718L-A Q1,Q2,Q3			PCS	3.0000 1 0.00 %	2002/11/27 Y
0005-----	HC00223 row pin 2.54 180° 7P 3/8/3mm CN1,CN2			PCS	2.0000 1 0.00 %	2002/11/27 Y
0006-----	HC00263 row-wire header 2P 2.5mm 90° J3			PCS	1.0000 1 0.00 %	2002/11/27 Y

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 DESCRIPTION: CONTROL60 UNIT: PCS  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA Date: 2002/12/23

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0007-----	HE00015 LCD模組 LCD			PCS	1.0000 1	2002/11/27 Y
0008-----	@MJ00890 fixed board CONTROL60 LCD			PCS	1.0000 1	2002/11/27 Y
0001-----	MJ00889 iron boaed 1*71.2*39.8			PCS	1.0000 1	2003/02/25 N
0001-----	MJ00999 AL board 1*2000*1000 5.44kg			PCS KG	1.0000 705	2002/06/09 N
0009-----	MG00243 copper tube M3-0.5PH*5single length11			PCS	4.0000 1	2002/11/27 Y
0010-----	MG00036 screw M3*4			PCS	4.0000 1	2002/11/27 Y
0011-----	ME00015 colour nut 3m/m			PCS	4.0000 1	2002/11/27 Y
0012-----	MI00153 front board 37.5*41*11mm CONTROL60			PCS	1.0000 1	2003/01/06 %
0001-----	MJ00833 iron board 1.2*365*72			PCS	1.0000 1	2003/02/24 N
0001-----	MJ00063 Zn-plated board 1.2*2135*1220 24.54kg			PCS KG	1.0000 99	2002/03/04 N
0013-----	MI00876 front board CONTROL60			PCS	1.0000 1	2003/01/06 %
0001-----	MJ00063 Zn-plated board 1.2*2135*1220 24.54kg			PCS KG	1.0000 102	2003/02/25 N
0002-----	ME00038 iron pillar hexagon6.35*M3*8.4			PCS	6.0000 1	2003/02/25 N
0003-----	ME00043 iron pillar hexagon6.35*M3*0.5PH*14			PCS	2.0000 1	2003/02/25 N
0014-----	MG00041 screw M3*6			PCS	13.0000 1	2003/01/10 %
0053-----	HK03326 K-PC board P-G3FPR-DIP			PCS	1.0000 1	2002/12/23 Y
0001-----	HK03325 K-PC board P-G3FPR-SMD			PCS	1.0000 1	2002/11/27 Y
0001-----	HB00780 pc board G3FPR3(1*4)_VER021005			PCS	1.0000 1	2002/11/12 Y
0002-----	RD00059 SMDfixed resistor 1/10W 0 ±5% 0603 R24, R25, R26, R27, R28, R29, R30, R31			PCS	8.0000 1	2002/11/12 Y
0003-----	RD00061 SMDfixed resistor 1/10W 10 ±5% 0603 R5, R7, R8			PCS	3.0000 1	2002/11/28 Y
0004-----	RD00083 SMDfixed resistor 1/10W 1.0K ±5% 0603			PCS	2.0000 1	2002/11/12 Y

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 Date: 2002/12/23  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
	R32,R33					
0005-----	RD00095 SMDfixed resistor 1/10W 5.6K ±5% 0603 R22,R23,R34,R35			PCS	4.0000 1 0.00 %	2002/11/12 Y
0006-----	CI00059 SMDceramic capacitor0603 100PF/50V NPO ±5% C1,C2,C3,C4,C5,C6,C7			PCS	7.0000 1 0.00 %	2002/11/12 Y
0007-----	CI00071 SMDceramic capacitor0603 0.01uF/50V X7R ±10% C13,C14			PCS	2.0000 1 0.00 %	2002/11/12 Y
0008-----	CI00075 SMDceramic capacitor0603 0.1uF/50V Y5V +80,-20% C11,C12,C15,C17,C9			PCS	5.0000 1 0.00 %	2002/11/28 Y
0009-----	RE00001 SMDrow resistor1/16W 10K *4 ±5% 8P 0603 AR3,AR4			PCS	2.0000 1 0.00 %	2002/11/12 Y
0010-----	SG00068 SMD integrated circuit 74HC14DT U6			PCS	1.0000 1 0.00 %	2002/11/12 Y
0011-----	SG00103 SMD integrated circuit 74HC573DT U2			PCS	1.0000 1 0.00 %	2002/11/12 Y
0012-----	SG00078 SMD integrated circuit SN74HC574DW U5			PCS	1.0000 1 0.00 %	2002/11/12 Y
0002-----	RA00184 fixed resistor 1/4W 100 M type R0			PCS	1.0000 1 0.00 %	2002/11/27 Y
0003-----	HI00107 switch RE111-20B3-15F-15P SW1			PCS	1.0000 1 0.00 %	2002/11/27 Y
0004-----	HC00065 row-wire header 2P 2.5mm 90° J0			PCS	1.0000 1 0.00 %	2002/11/27 Y
0005-----	HC00161 row-pin(single)#5200 2.0 180° 2*8P(gold-plated) 4/8.5mm CON3,CON4			PCS	2.0000 1 0.00 %	2002/11/27 Y
0006-----	SA00072 L.E.D 3 red LI2340/A LD10,LD11,LD12,LD13,LD14,LD7,LD9-2			PCS	7.0000 1 0.00 %	2002/11/27 Y

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 DESCRIPTION: CONTROL60 UNIT: PCS  
 Date: 2002/12/23  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0007-----	SA00071 L.E.D 3 green LVG2340/A LD8-2			PCS	1.0000 1 0.00 %	2002/11/27 Y
0008-----	HI00041 button swith 6*6*5 S1,S10,S11,S12,S13,S14,S2,S3,S4,S5,S6,S7,S8,S9			PCS	14.0000 1 0.00 %	2002/11/27 Y
0009-----	HC00458 label 2.54 180° 3P5/7.5mm			PCS	1.0000 1 0.00 %	2002/12/26
0010-----	HA02167 wire 20P-20P 85mm 灰 PH=1.27mm			PCS	1.0000 1 0.00 %	2003/01/13
0054-----	HK03328 K-PC board P-G3PU3-DIP			PCS	1.0000 1 0.00 %	2002/12/23 Y
0001-----	HB00782 pc board G3PU3_VER021005			PCS	1.0000 1 0.00 %	2002/11/12 Y
0002-----	HA01920 jumper wire 6mm JP14,JP17,JP18,JP22,JP28,JP7,JP8			PCS	7.0000 1 0.00 %	2002/11/12 Y
0001-----	HA02249 wire 0.6			M KG	0.0160 1 0.00 %	2002/09/19 N
0003-----	HA01922 jumper wire 8mm JP15,JP16,JP25,JP26,JP27,JP9			PCS	6.0000 1 0.00 %	2002/11/12 Y
0001-----	HA02249 wire 0.6			M KG	0.0180 1 0.00 %	2002/09/19 N
0004-----	HA01925 jumper wire 10mm JP1,JP10,JP11,JP12,JP13,JP19,JP20,JP21,JP23,JP24,JP29, JP3,JP4,JP5,JP6			PCS	15.0000 1 0.00 %	2002/11/12 Y
0001-----	HA02249 wire 0.6			M KG	0.0200 1 0.00 %	2002/09/19 N
0005-----	RA00161 fixed resistor 1/4W 15 M type R153			PCS	1.0000 1 0.00 %	2002/11/12 Y
0006-----	RA00178 fixed resistor 1/4W 68 M type R66,R67			PCS	2.0000 1 0.00 %	2002/11/12 Y
0007-----	RA00194 fixed resistor 1/4W 220 M type R158,R159,R160,R161,R162			PCS	5.0000 1 0.00 %	2002/11/12 Y
0008-----	RA00231 fixed resistor 1/4W 4.7K M type R156,R157			PCS	2.0000 1 0.00 %	2002/11/12 Y



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Item No. PF00397 Version  
 DESCRIPTION: CONTROL60  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA

UNIT: PCS  
 Date: 2002/12/23

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0009-----	RA00170 fixed resistor 1/4W 33 M type R104,R105,R106,R107			PCS	4.0000 1 0.00 %	2002/12/19 Y
0010-----	RA00475 precise resistor 1/4W 1.50K M type R140,R142			PCS	2.0000 1 0.00 %	2002/11/12 Y
0011-----	RA00481 precise resistor 1/4W 2.43K M type R116,R117,R118,R119			PCS	4.0000 1 0.00 %	2002/11/12 Y
0012-----	RA00515 precise resistor 1/4W 10.0K M type R26,R27,R34,R35			PCS	4.0000 1 0.00 %	2002/11/12 Y
0013-----	RA00524 precise resistor 1/4W 15.0k M type R2,R3,R4,R5,R6,R7,R8,R9			PCS	8.0000 1 0.00 %	2002/11/12 Y
0014-----	RA00530 precise resistor 1/4W 18.2K M type R10,R11			PCS	2.0000 1 0.00 %	2002/11/12 Y
0015-----	RA00544 precise resistor 1/4W 33.0K M type R152			PCS	1.0000 1 0.00 %	2002/11/12 Y
0016-----	RA00549 precise resistor 1/4W 39.2K M type R18,R19			PCS	2.0000 1 0.00 %	2002/11/12 Y
0017-----	RA00567 precise resistor 1/4W 100K M type R141,R143			PCS	2.0000 1 0.00 %	2002/11/12 Y
0018-----	CA00008 ceramic capaci tor 22PF NPO C16,C17,C20,C21			PCS	4.0000 1 0.00 %	2002/11/12 Y
0019-----	CA00015 ceramic capaci tor 47PF NPO C73,C74			PCS	2.0000 1 0.00 %	2002/11/12 Y
0020-----	CF00070 capacitor 0.0015uF/63V 2.5%(PFR5 152H63J11L4) C65,C66			PCS	2.0000 1 0.00 %	2002/11/12 Y
0021-----	CH00017 heap-layer capacitor (stand) 0.1uF/50V Y5V PH5 C13,C14,C75,C76,C83,C84,C96,C97,C99			PCS	9.0000 1 0.00 %	2002/11/12 Y

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 DESCRIPTION: CONTROL60 UNIT: PCS  
 Date: 2002/12/23  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition Rate	Rate
0022-----	CB00039 electrotytic capacitor 47uF/25V C39,C40,C41,C42,C44,C46,C98			PCS	7.0000 1 0.00 %	2002/11/12 Y
0023-----	CB00071 electrotytic capacitor 1000uF/25V C81,C82,C93			PCS	3.0000 1 0.00 %	2002/11/12 Y
0024-----	CB00079 electrotytic capacitor 2200uF/25V 13*25 C77			PCS	1.0000 1 0.00 %	2003/01/15 Y
0025-----	SA00093 rectifier diode 1N4148 0.5A D1,D2,D3			PCS	3.0000 1 0.00 %	2002/11/12 Y
0026-----	SA00100 zener diode 1W 6.2V 1N4735 ZD1,ZD2,ZD3,ZD4,ZD5,ZD6,ZD7,ZD8			PCS	8.0000 1 0.00 %	2002/11/12 Y
0027-----	SB00034 transistor 2SC1815GR Q1,Q2			PCS	2.0000 1 0.00 %	2002/11/12 Y
0028-----	CG00018 filter-EMI FILTER LF-22UH(WAH TAYI) L1,L17,L18,L19,L2,L20,L21,L22,L3,L4,L5,L6,L7,L8			PCS	14.0000 1 0.00 %	2002/11/12 Y
0029-----	SD00121 integrated circuit JRC NJM2068DD U1,U2			PCS	2.0000 1 0.00 %	2003/01/15 Y
0030-----	SB00013 light-electron transistor 6N138 (QTC) U13			PCS	1.0000 1 0.00 %	2002/11/12 Y
0031-----	SD00062 integrated circuit 74HC04N U11			PCS	1.0000 1 0.00 %	2002/11/12 Y
0032-----	HI00008 raley RY-12W-K 12V RL1,RL2			PCS	2.0000 1 0.00 %	2002/11/12 Y
0033-----	HC00263 row-wire header 2P 2.5mm 90° J2			PCS	1.0000 1 0.00 %	2002/11/12 Y
0034-----	HC00065 row-wire header 2P 2.5mm 90° CN7			PCS	1.0000 1 0.00 %	2002/11/12 Y

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Item No. PF00397 Version  
 DESCRIPTION: CONTROL60 UNIT: PCS  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA Date: 2002/12/23

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0035-----	HC00080 row-wire header 6P 2.5mm 180° J1			PCS	1.0000 1 0.00 %	2002/11/12 Y
0036-----	HC00437 row-wire stock 6P 3.96mm 180° J7			PCS	1.0000 1 0.00 %	2002/11/12 Y
0037-----	HC00356 row-pin(double)#2200 2.54 180° 2*4P(gold-plated) 6/11.6mm J3,J5			PCS	2.0000 1 0.00 %	2003/01/15 Y
0038-----	HC00219 DIN socket 5PIN(JY-5005) S10,S11,S9			PCS	3.0000 1 0.00 %	2002/11/12 Y
0039-----	HC00112 MIC jack for balance 99M-107SP-1-2 90° PUSH S1,S2			PCS	2.0000 1 0.00 %	2002/11/12 Y
0040-----	HC00111 MIC jack for balance 99M-108SP1 S3,S4			PCS	2.0000 1 0.00 %	2002/11/12 Y
0041-----	HC00339 connect terminal 6.5m/m (PCF250) JR1			PCS	1.0000 1 0.00 %	2002/11/12 Y
0055-----	HK03330 K-PC board P-BAL0216-DIP			PCS	2.0000 1 0.00 %	2002/12/23 Y
0001-----	HK03329 K-PC board P-BAL0216-SMD			PCS	1.0000 1 0.00 %	2002/11/12 Y
0001-----	HB00705 PCB BAL0216(1*20)_VER020505			PCS	1.0000 1 0.00 %	2002/11/12 Y
0002-----	CI00051 SMDceramic capacitor0603 22PF/50V NPO ±5% C22,C24,C77			PCS	3.0000 1 0.00 %	2002/11/12 Y
0003-----	CI00128 capacitor 0.1uF/25V Y5V +80,-20% C20,C21			PCS	2.0000 1 0.00 %	2002/11/12 Y
0004-----	RD00343 resistor 75 ±1% 0603 C92,C93			PCS	2.0000 1 0.00 %	2002/11/12 Y
0005-----	RD00214 SMDprecise resistor 1/10W 10.0K ±1% 0603 R28,R36,R37,R38,R39,R41			PCS	6.0000 1 0.00 %	2002/11/12 Y
0006-----	RD00344 resistor 11.5K ±1% 0603			PCS	4.0000 1 0.00 %	2002/11/12 Y

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Item No. PF00397 Version  
 DESCRIPTION: CONTROL60 UNIT: PCS  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA Date: 2002/12/23

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
	R68,R69,R70,R72					
0007-----	RD00358 resistor 18.2K ±1% 0603 R12			PCS	1.0000 1 0.00 %	2002/11/12 Y
0008-----	RD00317 resistor 39.2K ±1% 0603 R20			PCS	1.0000 1 0.00 %	2002/11/12 Y
0009-----	SG00118 SMD integrated circuit MC33079DT(ST)MC33079D(ON) U3			PCS	1.0000 1 0.00 %	2002/11/12 Y
0002-----	CF00070 capacitor 0.0015uF/63V 2.5%(PFR5 152H63J11L4) C67			PCS	1.0000 1 0.00 %	2002/11/12 Y
0003-----	CB00037 electrotytic capacitor 47uF/16V 6.3*5 C43,C45			PCS	2.0000 1 0.00 %	2002/11/12 Y
0004-----	HC00406 row pin 2.54 90°9P 6/14mm 1.2mm CN1			PCS	1.0000 1 0.00 %	2002/11/12 Y
0056-----	HK02970 K-PC board P-MFB4*4PRO-DIP_AM/CTL60			PCS	1.0000 1 0.00 %	2002/12/23 Y
0001-----	HK02969 K-PC board P-MFB4*4PRO-SMD_CTL60			PCS	1.0000 1 0.00 %	2002/10/06 Y
0001-----	HB00627 PCB			PCS	1.0000 1 0.00 %	2002/10/06 N
0002-----	MFB4x4PRO(1*2)_VRB020412 RD00002 SMDfixed resistor 1/10W 0 ±5% 0805 R35,R37,R3,R50,R67,R72,R73			PCS	7.0000 1 0.00 %	2002/12/19 N
0003-----	RD00006 SMDfixed resistor 1/10W 100 ±5% 0805 R1,R111,R112,R135,R136,R141,R142,R145,R147,R148,R149, R153,R155,R156,R17,R2,R23,R24,R29,R30,R34,R36,R38,R39, R40,R41,R43,R48,R49,R51,R52,R53,R55,R56,R60,R61,R62, R66,R68,R69,R78,R79,R80,R81,R82,R83,R86,R87,R90,R91, R92,R93			PCS	52.0000 1 0.00 %	2002/10/06 Y
0004-----	RD00018 SMDfixed resistor 1/10W 1.0K ±5% 0805 R15,R16,R20,R22,R32,R5,R6			PCS	7.0000 1 0.00 %	2002/10/06 N
0005-----	RD00020 SMDfixed resistor 1/10W 1.5K ±5% 0805 R113			PCS	1.0000 1 0.00 %	2002/10/06 N

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Item No. PF00397 Version  
 DESCRIPTION: CONTROL60 UNIT: PCS  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA Date: 2002/12/23

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0006-----	RD00027 SMDfixed resistor 1/10W 4.7K ±5% 0805 R138,R139,R7,R70,R75,R8			PCS	6.0000 1 0.00 %	2002/10/06 N
0007-----	RD00032 SMDfixed resistor 1/10W 10K ±5% 0805 R12,R143,R144,R150,R33,R9			PCS	6.0000 1 0.00 %	2002/10/06 N
0008-----	RD00043 SMDfixed resistor 1/10W 39K ±5% 0805 R154			PCS	1.0000 1 0.00 %	2002/10/06 N
0009-----	RD00044 SMDfixed resistor 1/10W 47K ±5% 0805 R10,R11,R13,R14,R59,R65			PCS	6.0000 1 0.00 %	2002/10/06 N
0010-----	RD00052 SMDfixed resistor 1/10W 220K ±5% 0805 R25,R26,R27,R28,R42,R63			PCS	6.0000 1 0.00 %	2002/10/06 N
0011-----	RE00003 SMDrow resistor1/8W 100 *4 ±5% 8P YC-324 AR1,AR10,AR11,AR12,AR13,AR14,AR15,AR16,AR17,AR18,AR19, AR2,AR20,AR21,AR22,AR23,AR24,AR25,AR28,AR29,AR3,AR30, AR31,AR32,AR33,AR4,AR5,AR6,AR7,AR8,AR9			PCS	31.0000 1 0.00 %	2002/10/06 N
0012-----	RE00004 SMDrow resistor1/8W 100K *4 ±5% 8P YC-324 AR26,AR27			PCS	2.0000 1 0.00 %	2002/10/06 N
0013-----	CI00007 SMDceramic capacitor0805 22PF/50V NPO C1,C2			PCS	2.0000 1 0.00 %	2002/10/06 N
0014-----	CI00019 SMDceramic capacitor0805 470PF/50V NPO ±5% C100,C101,C25,C26,C44,C45,C62,C63,C69,C70			PCS	10.0000 1 0.00 %	2002/10/06 N
0015-----	CI00029 SMDceramic capacitor0805 0.1uF/50V Y5V C13,C14,C15,C16,C17,C27,C28,C29,C3,C30,C35,C36,C37, C38,C41,C42,C43,C46,C47,C48,C49,C5,C50,C51,C52,C53, C54,C55,C56,C58,C59,C7,C73,C75,C76,C77,C79,C82,C83, C84,C88,C93,C97,C98,C99			PCS	45.0000 1 0.00 %	2002/10/06 N
0016-----	SE00011 SMD rectifier diode RLS4148 0.5A (LL-34) D1			PCS	1.0000 1 0.00 %	2002/10/06 N
0017-----	SG00067 SMD integrated circuit 74HC04DT U23,U8			PCS	2.0000 1 0.00 %	2002/10/06 N

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Report No.: IEBO\_P02  
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Item No. PF00397 Version  
 DESCRIPTION: CONTROL60 UNIT: PCS  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA Date: 2002/12/23

Version	Item No Item Descri	Loss %	Ver.	Unit	Cardinal Usage Rate Attrition Rate	Effective Date @:Phantom Layer Rate
0018-----	SG00073 SMD integrated circuit 74HC08DT U7			PCS	1.0000 1 0.00 %	2002/10/06 N
0019-----	SG00068 SMD integrated circuit 74HC14DT U15			PCS	1.0000 1 0.00 %	2002/10/06 N
0020-----	SG00074 SMD integrated circuit 74HC32DT U18			PCS	1.0000 1 0.00 %	2002/10/06 N
0021-----	SG00066 SMD integrated circuit 74HC74DT U10			PCS	1.0000 1 0.00 %	2002/10/06 N
0022-----	SG00132 integrated circuit 74HC138DT U9			PCS	1.0000 1 0.00 %	2002/10/06 N
0023-----	SG00093 SMD integrated circuit 74HC245DT U11,U12,U22			PCS	3.0000 1 0.00 %	2002/10/06 N
0024-----	SG00078 SMD integrated circuit SN74HC574DW U1,U13,U14,U19,U5			PCS	5.0000 1 0.00 %	2002/10/06 N
0025-----	SG00025 SMD integratd circuit 24LC64I/SN U34,U6			PCS	2.0000 1 0.00 %	2002/10/06 N
0026-----	SG00102 SMD integrated circuit BS62LV256SC-70 U20			PCS	1.0000 1 0.00 %	2002/10/06 N
0027-----	SG00011 SMD integratd circuit PCM1716E U26			PCS	1.0000 1 0.00 %	2002/10/06 Y
0028-----	SG00010 SMD integratd circuit PCM1800E U27			PCS	1.0000 1 0.00 %	2002/10/06 Y
0029-----	SG00114 smd integrated circuit TMS57002DPHA U21,U3			PCS	2.0000 1 0.00 %	2002/10/06 N
0030-----	SG00115 smd integrated circuit MB81C4256A-60PJ U16,U17,U28,U30			PCS	4.0000 1 0.00 %	2002/10/06 N

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Report No.: IEBO\_P02  
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Item No. PF00397 Version  
 DESCRIPTION: CONTROL60 UNIT: PCS  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA Date: 2002/12/23

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0031-----	C000006 SMD inductor BLM21A102SPT L3,L4,L5,L6			PCS	4.0000 1 0.00 %	2002/10/06 N
0032-----	HC00227 ICjack (SMD) PLCC44 (D03-44T.A.4)			PCS	1.0000 1 0.00 %	2002/10/06 N
0002-----	RA00158 fixed resistor 1/4W 0 M type J1,J2,J3,J4			PCS	4.0000 1 0.00 %	2002/10/06 Y
0003-----	CB00009 electrolytic capacitor 1uF/50V 4*7 C4,C74			PCS	2.0000 1 0.00 %	2002/10/06 Y
0004-----	CB00024 electrotytic capacitor 10uF/16V 4*7 C18,C19,C20,C21,C22,C23,C24,C31,C32,C33,C34,C6,C8			PCS	13.0000 1 0.00 %	2002/10/06 Y
0005-----	CB00036 electrolytic capacitor 47uF/16V 6.3*7 C57			PCS	1.0000 1 0.00 %	2002/10/06 Y
0006-----	CB00053 electrolytic capacitor 100uF/16V 6.3*7 C67			PCS	1.0000 1 0.00 %	2002/10/06 Y
0007-----	SC00003 quartz crystalloid 12.000MHZ HC-49/US ±20PPM Y1			PCS	1.0000 1 0.00 %	2002/10/06 Y
0008-----	SA00053 L.E.D high intensity 3m/m round(red)long foot 26mm DL1,DL2,DL3,DL4			PCS	4.0000 1 0.00 %	2002/10/06 Y
0009-----	HC00356 row-pin(double)#2200 2.54 180° 2*4P(gold-plated) 6/11.6mm CN3,CN4,CN5			PCS	3.0000 1 0.00 %	2002/10/06 Y
0010-----	HC00154 row-pin(double)#2200 2.54 180° 2*10P(gold-plated) 6/11.6mm CN1			PCS	1.0000 1 0.00 %	2002/10/06 Y
0011-----	HC00080 row-wire header 6P 2.5mm 180° CN2			PCS	1.0000 1 0.00 %	2002/10/06 Y
0012-----	HC00359 row-pin(single)#1100 2.54 180° 4P(gold-plated) 6/11.6mm CN6			PCS	1.0000 1 0.00 %	2002/10/06 Y
0013-----	NI01779 LED spacer support LEDS-1 1mm			PCS	4.0000 1 0.00 %	2002/10/06 Y

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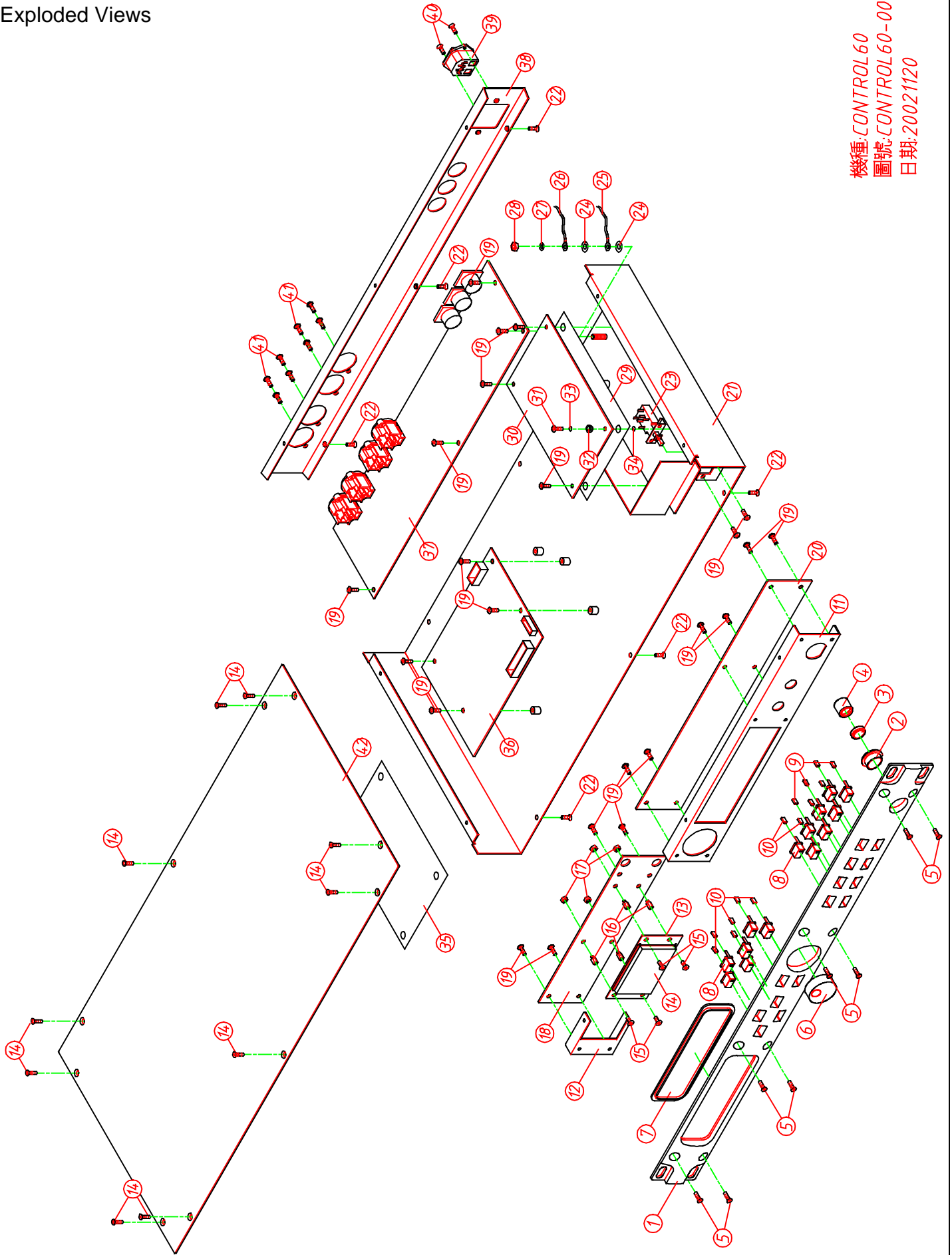
Item No. PF00397 Version  
 DESCRIPTION: CONTROL60  
 CONTROL60\_ALTO\_85~264V\_歐規\_CHINA

UNIT: PCS  
 Date: 2002/12/23

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate @:Phantom Layer	Attrition Rate
0014-----	SG00125 integrated circuit			PCS	1.0000 1	2003/01/16
	P89C51RD2HBA				0.00 %	
0015-----	NE10587 label			PCS	1.0000 1	2003/01/16
	CONTROL60-MI				0.00 %	
0001-----	NH00035 bond paper			M	1.0000 410	2003/02/16 N
	0.06*1M				0.00 %	
0002-----	NI00017 membrane			M	1.0000 410	2003/02/16 N
	0.055*1M				0.00 %	
0057-----	NE02717 label			PCS	2.0000 1	2002/12/23 Y
	MADE IN CHINA				0.00 %	
0001-----	NI00067 R-25#透明龍			M	1.0000 700	2003/01/30 N
	cellophane paper				0.00 %	
0002-----	NI00027 membrane			M	1.0000 700	2003/01/30 N
	0.105*1M				0.00 %	
0058-----	NE10960 label			PCS	1.0000 1	2002/12/24
	CONTROL60				0.00 %	
0001-----	NH00012 bond paper			M	1.0000 80	2002/12/21 N
	0.04*1M				0.00 %	
0002-----	NI00014 membrane			M	1.0000 80	2002/12/21 N
	0.035*1M				0.00 %	
0059-----	HA02243 wire			PCS	1.0000 1	2003/01/15
	8P-8P 320mm UL2651 28AWG PH1.27				0.00 %	
0060-----	NF01202 instruction			PCS	1.0000 1	2003/01/24
	CONTROL60 ALTO				0.00 %	
0001-----	NH00149 paper			張令	1.2500 1	2003/02/07 Y
	889*640mm				0.00 %	



# 8.Exploded Views



機種:CONTROL 60  
圖號:CONTROL 60-00  
日期:20021120