

Service *Manual*

MODEL: MAXI-Q PC

CONTENT

1. Introduction.....	1
2. Specification.....	2
3. Block Diagram.....	3
4. Schematic Diagram.....	4
5. Wiring Diagram.....	7
6. PCB Layout.....	8
7. Exploded View & Mechanical Parts List.....	20
8. BOM.....	28

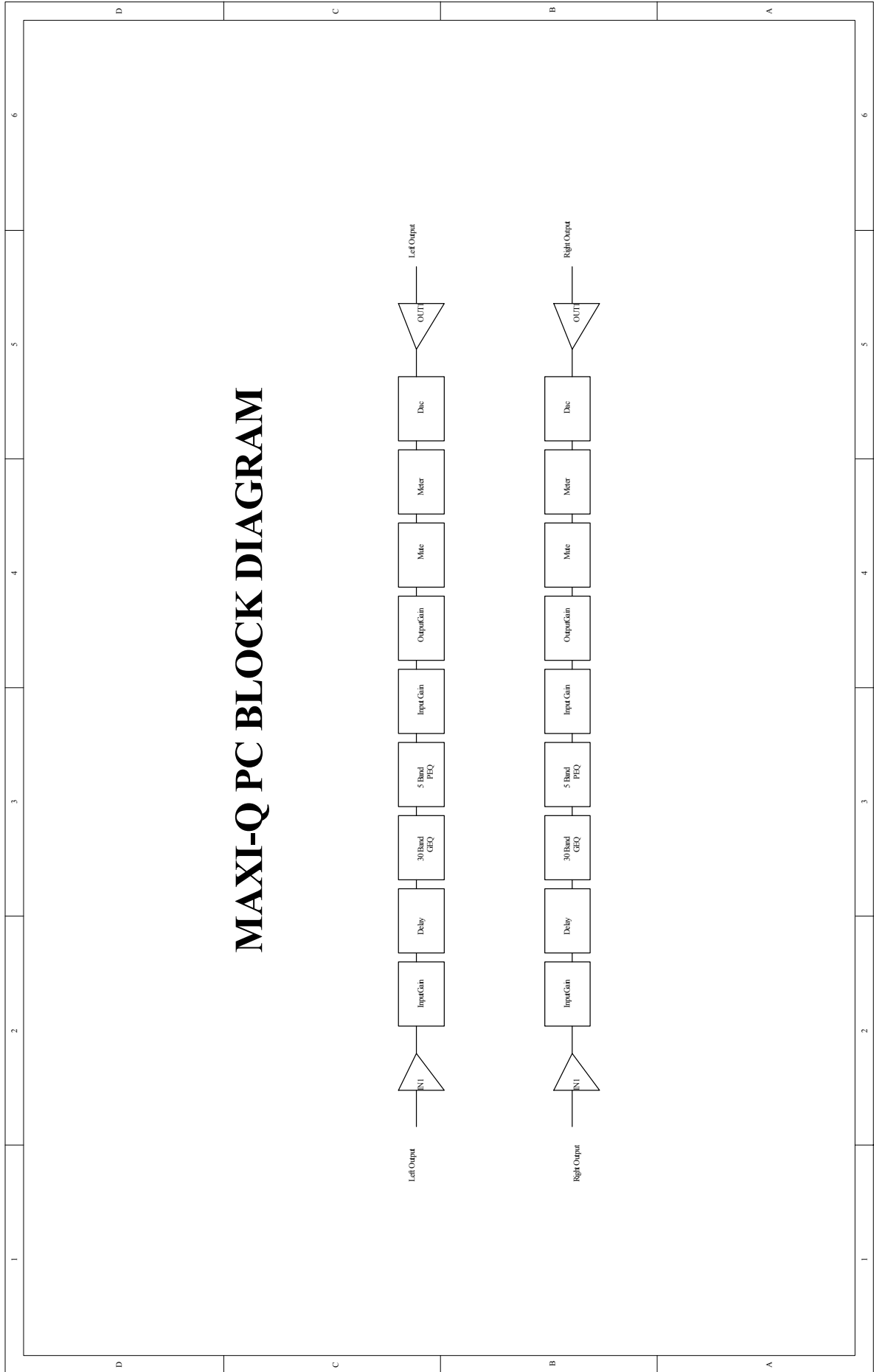
1. Introduction

- Single rack unit.
- 2 COMBO input connectors are compatible with balanced XLR and JACK.
- 2 outputs with balanced XLR connector.
- A/D and D/A converters for a 117dB dynamic range.
- Delay lines up to 2715ms for each channel.
- 10 Factory presets and 128 user presets by large memory capacity.
- Switching power supply.
- 5 Parameter EQ, 30 Graphic EQ output phase control.
- RS485 interference for user connect several MAXI-Q PC sets to computer in seria.
- Remote control

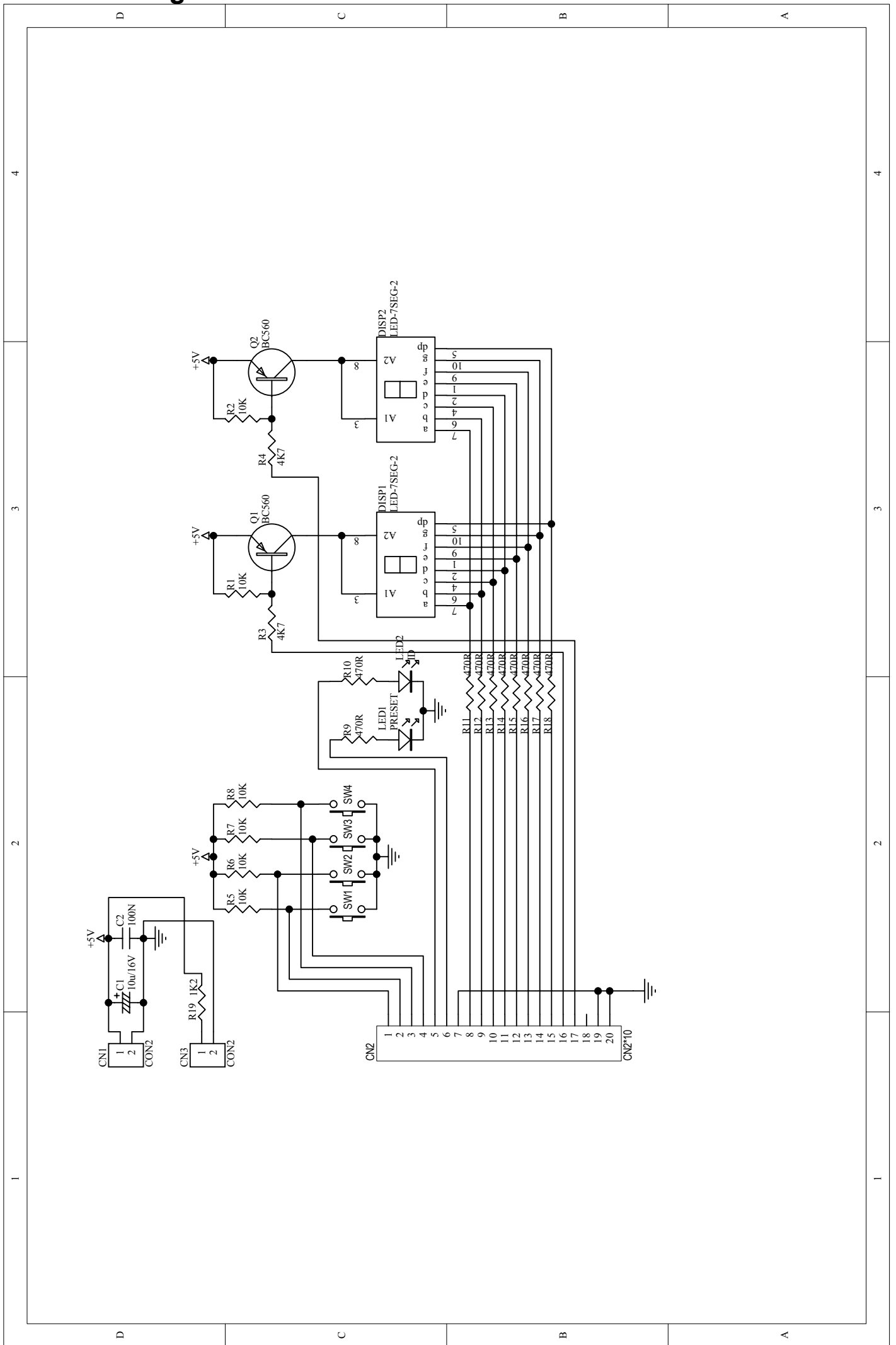
2. Technical Specification

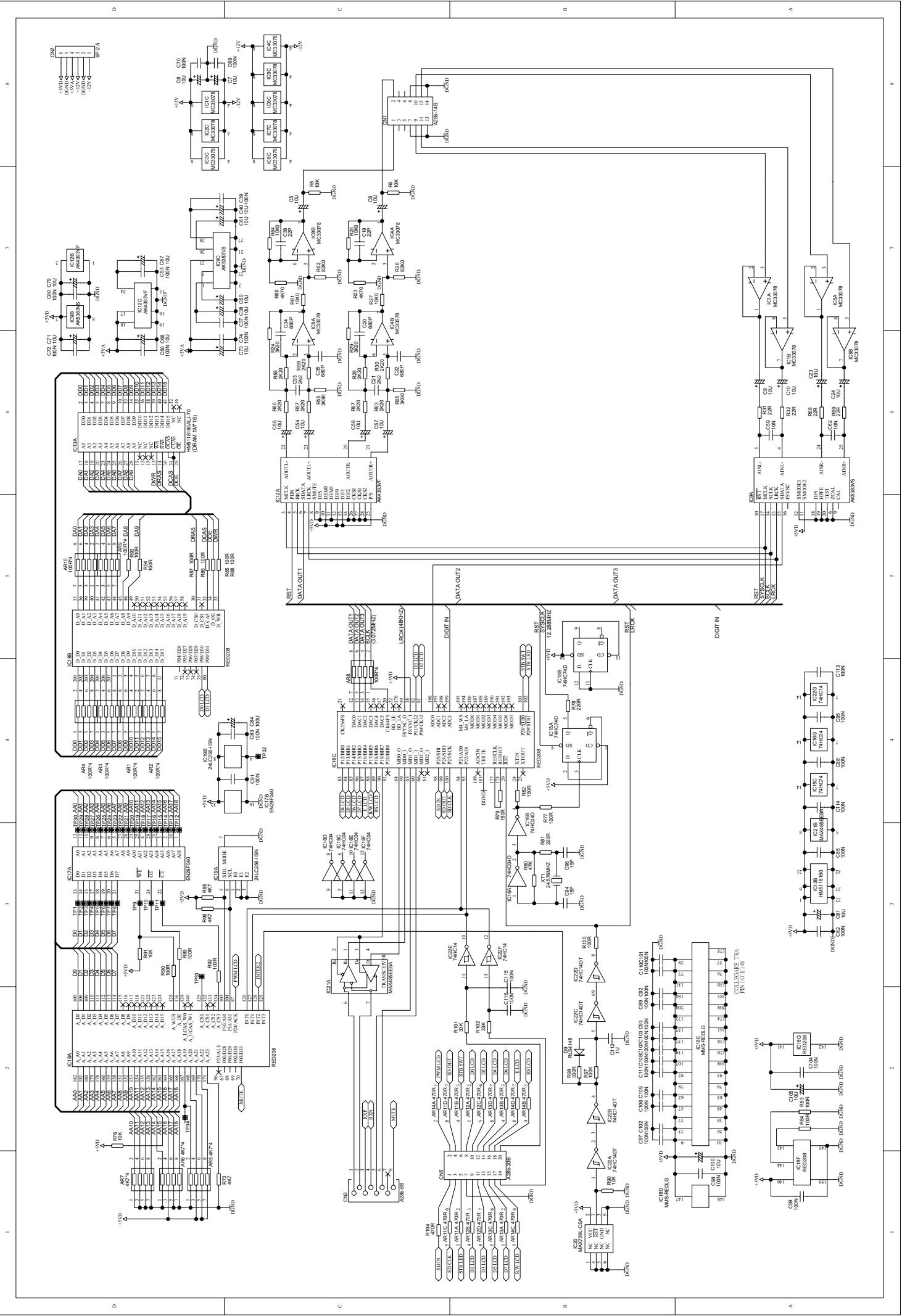
INPUT section	Connectors	2 x COMBO
	Nominal input sensitivity	0 dB (0.775 V)
	Input Impedance	30kOhm, electronically balanced
	Maximum Input Level	+20dBu
	Input Gain	-30 / +6 dB variable in 0.5 dB steps
Output Section	Connectors	2 x XLR-M
	Output Impedance	600 Ohms, electronically balanced
	Nominal Output Level	0 dBu
	Maximum Output Level	+20 dBu
	Output Gain	-30 / +6 dB variable in 0.5 dB steps
DSP Section	A/D converters	24 bit
	D/A converters	24 bit
	Internal dynamics	40 bit
	Sampling frequency	48 kHz
Features	Delay Step	21 microseconds minimum
	Max Delay time	2715ms
	EQ Gain	+15dB, variable in 0.5dB steps
	EQ Bandwidth	0.05 to 3.00 octaves, variable in 0.05 steps
	PEQ freq	15.6 Hz to 16 kHz
	GEQ freq	25 Hz to 20 kHz
	Memories	FACTORY PRESETS are 10 + 128 USER PRESETS
	Communications	9-pin RS232, XLR-F RS485 IN, XLR-M RS485 OUT
General Performance	Frequency Response	20Hz - 20kHz, 0.25dB
	Dynamic range	>117dB 20Hz to 20kHz
	Channel Separation	>100dB 20Hz to 20kHz
	Distortion (THD)	0.05%, 20Hz to 20kHz
	Input Meter	-24dB, -18dB, -12dB, -6dB, CLIP relative to Clip point (+20dBu)
	Output Metering	-24dB, -18dB, -12dB, -6dB, CLIP relative to Clip point (+20dBu)
General	Dimensions	483x44x300 mm
	Weight	4.0 Kg
	Power supply	see label on the unit

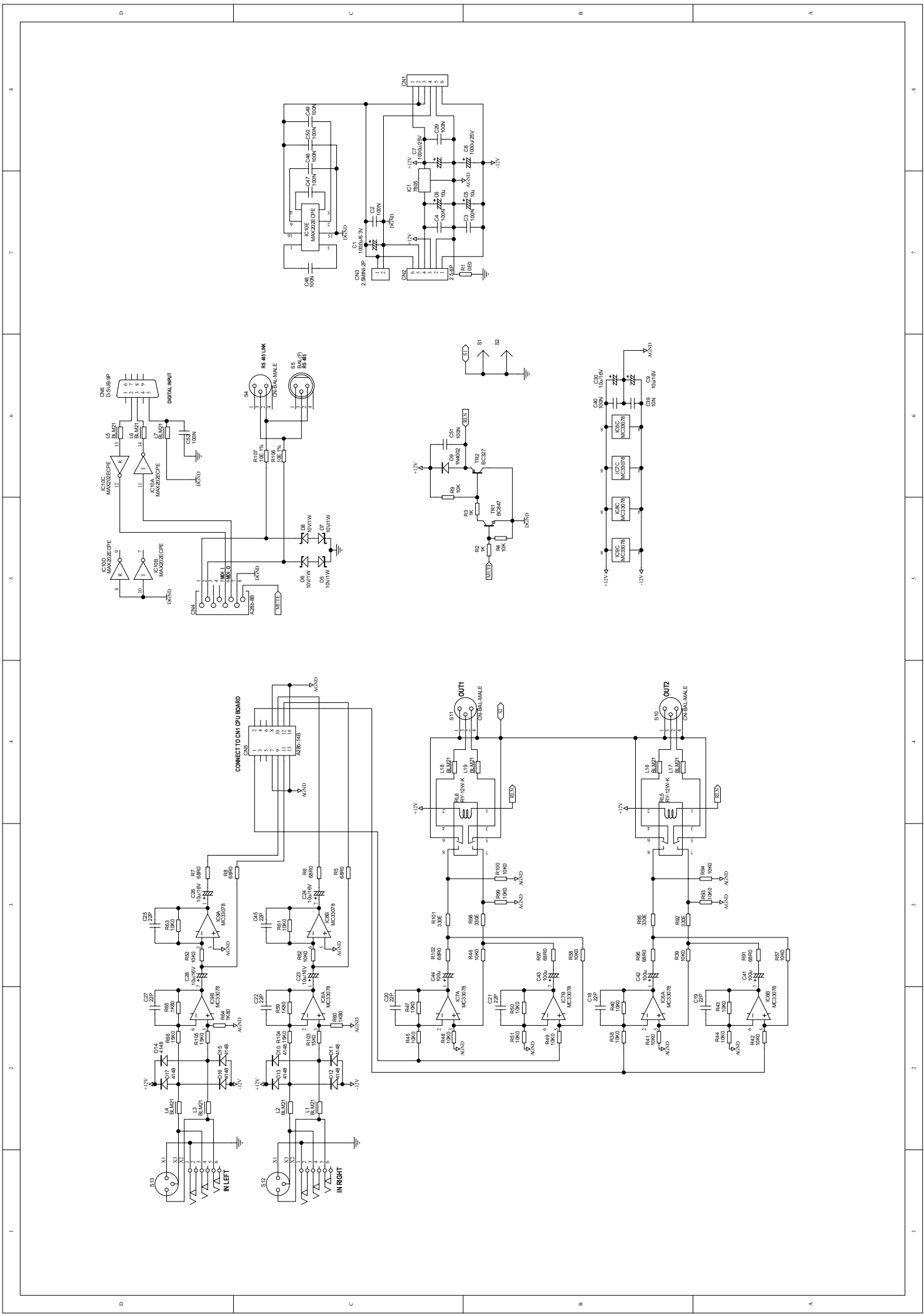
3. Block Diagram



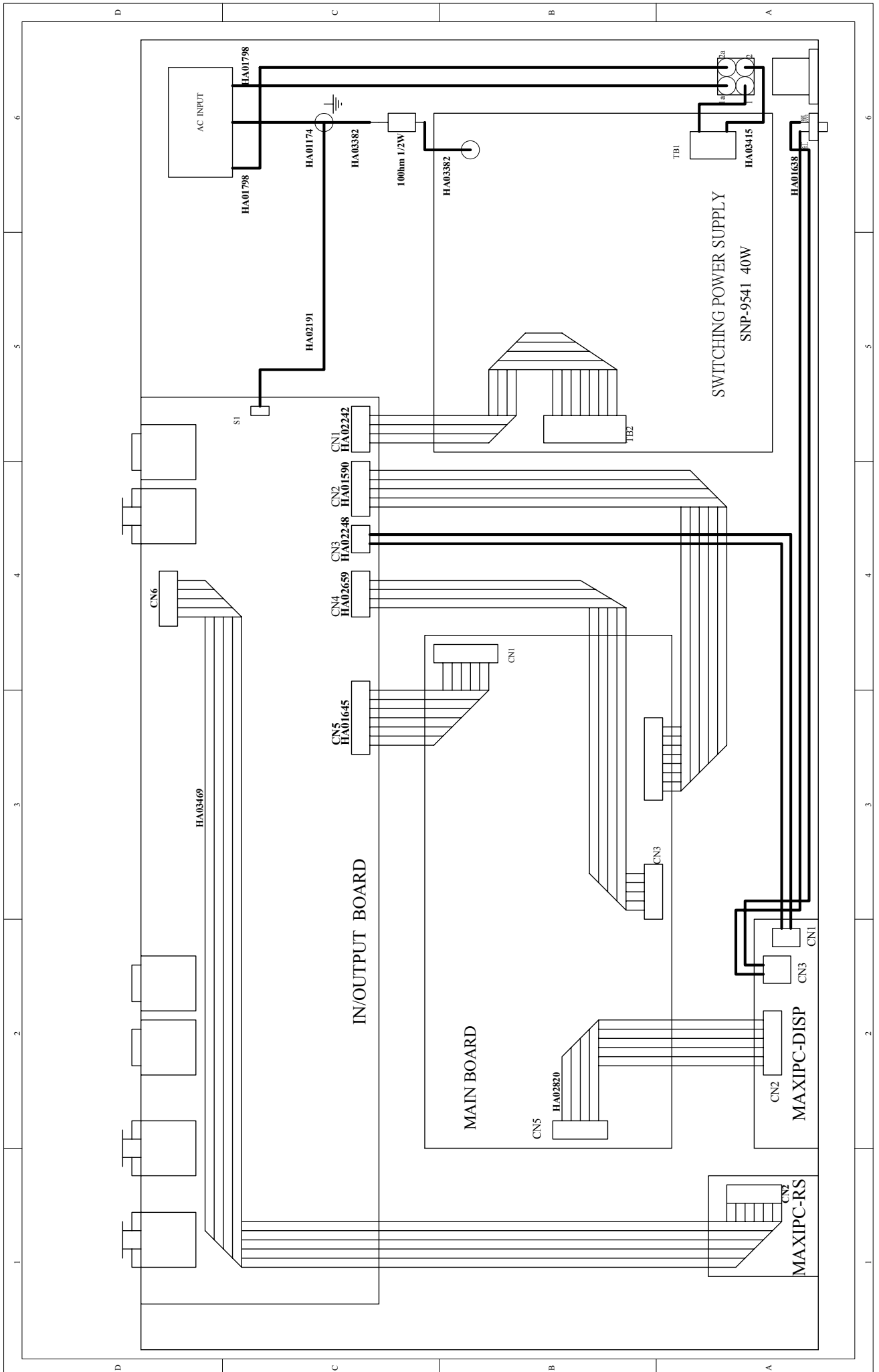
4. Schematic Diagram

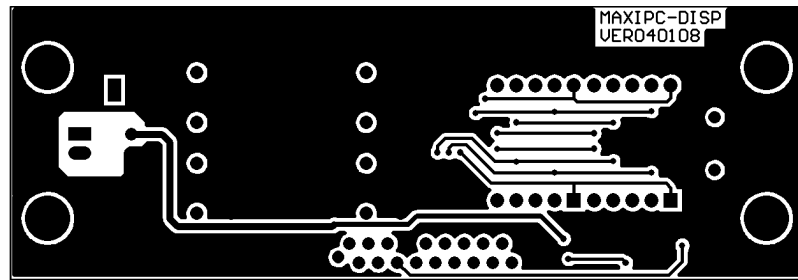




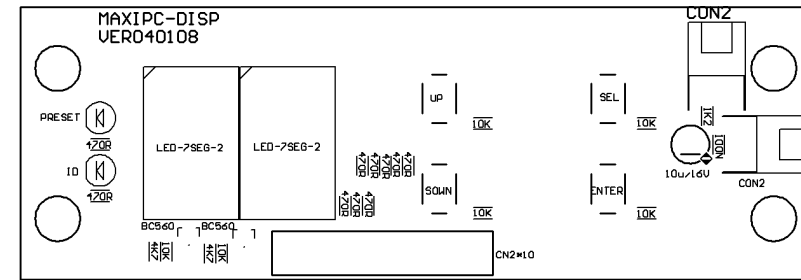


5. Wiring Diagram

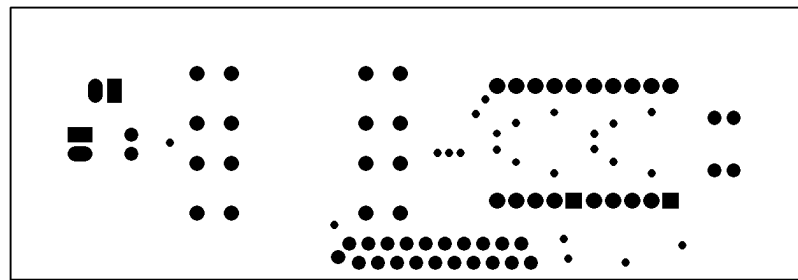




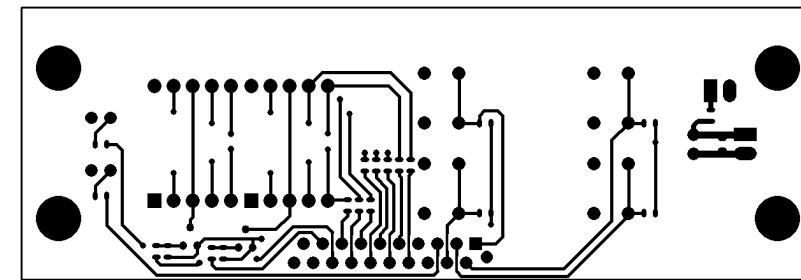
PCB : MAXIPC-DISP Bottom Layer



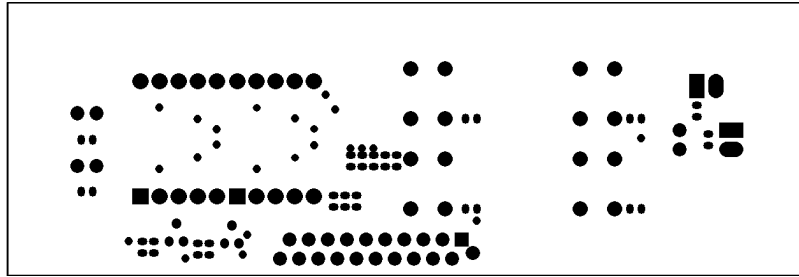
PCB : MAXIPC-DISP Top overlay



PCB : MAXIPC-DISP Bottom Solder Mask

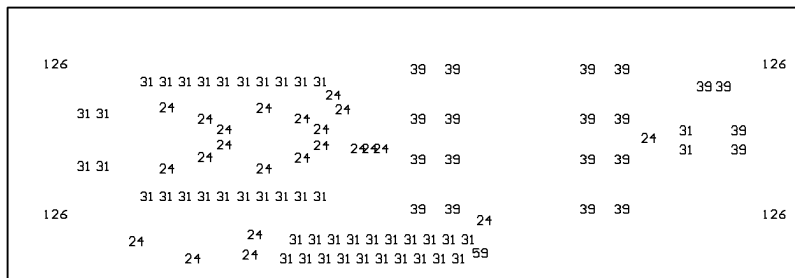


PCB : MAXIPC-DISP Top Layer

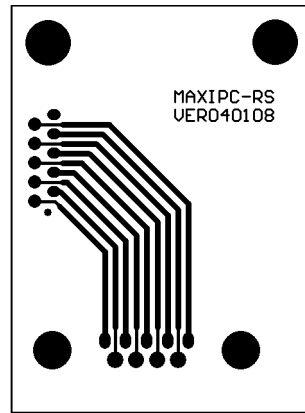


PCB : MAXIPC-DISP Top Solder Mask

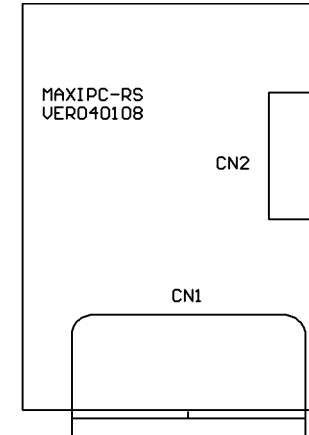
Tool	Hole Size	
T1	24mil (0.6096mm)	23
T2	31mil (0.7874mm)	46
T3	39mil (0.9906mm)	20
T4	59mil (1.4986mm)	1
T5	126mil (3.2004mm)	4
Totals		94



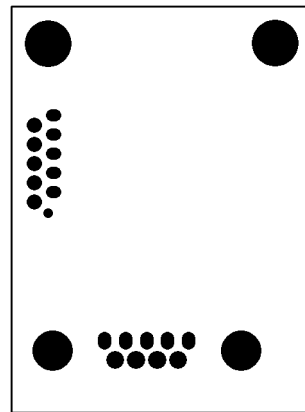
PCB : MAXIPC-DISP Drill Drawing



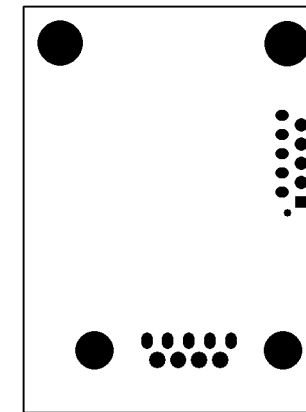
PC B : MAXIPC-RS Bottom Layer



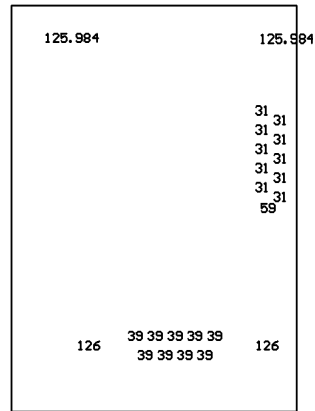
PC B : MAXIPC-RS Top overlay



PC B : MAXIPC-RS Bottom Solder Mask

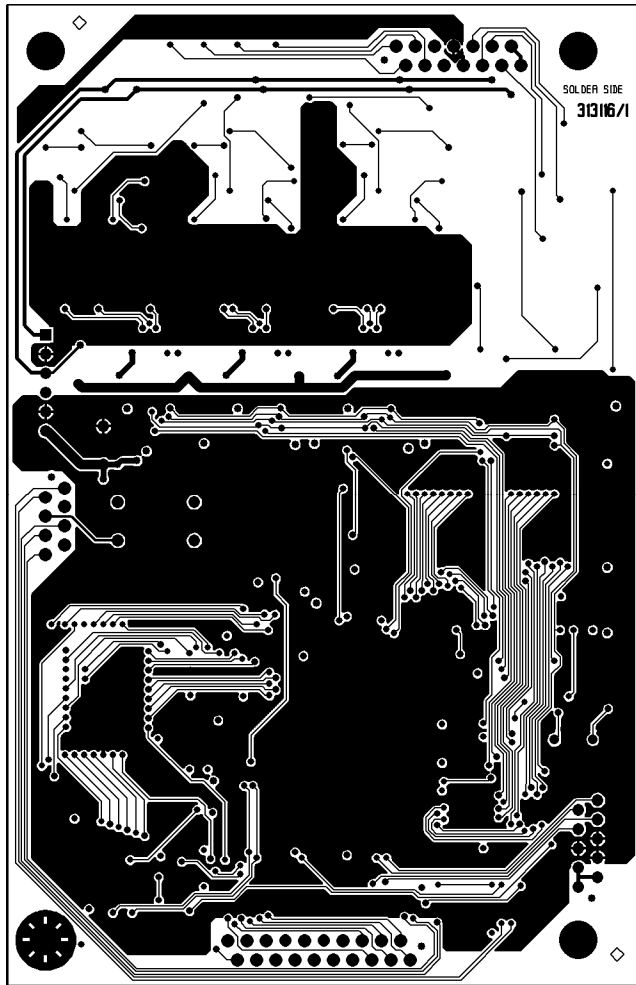


PCB : MAXIPC-RS Top Solder Mask

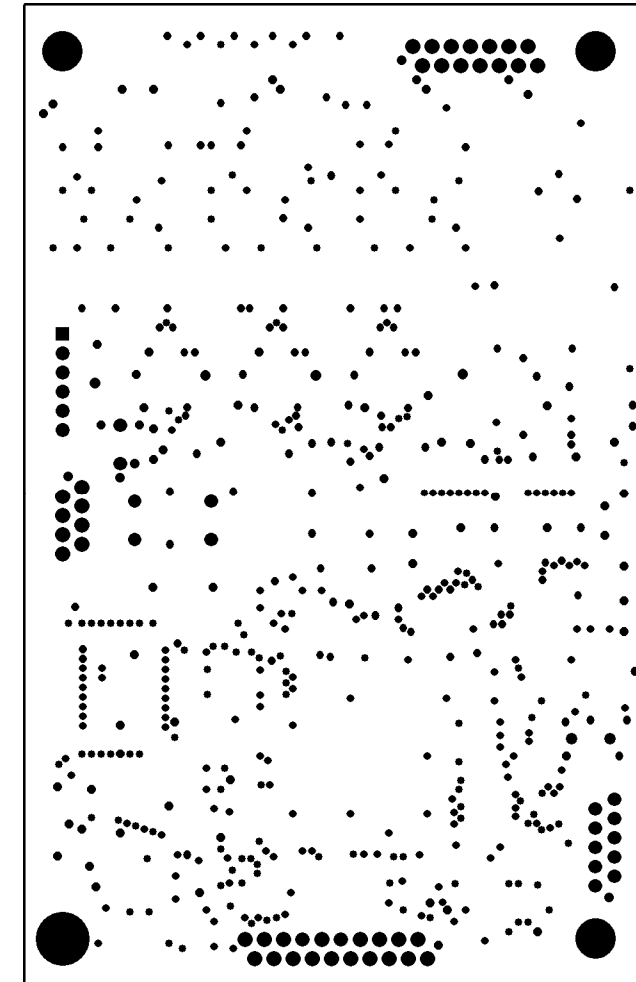


Tool	Hole Size	Hole Count
T1	31mil (0.7874mm)	10
T2	39mil (0.9906mm)	9
T3	59mil (1.4986mm)	1
T4	126mil (3.2004mm)	4
Totals		24

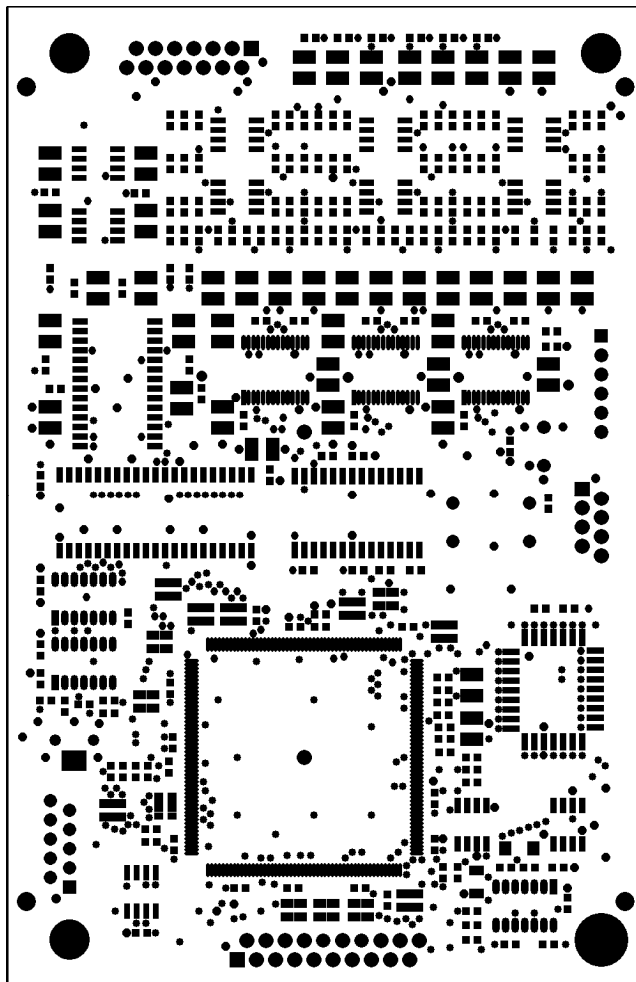
PCB : MAXIPC-RS Drill Drawing



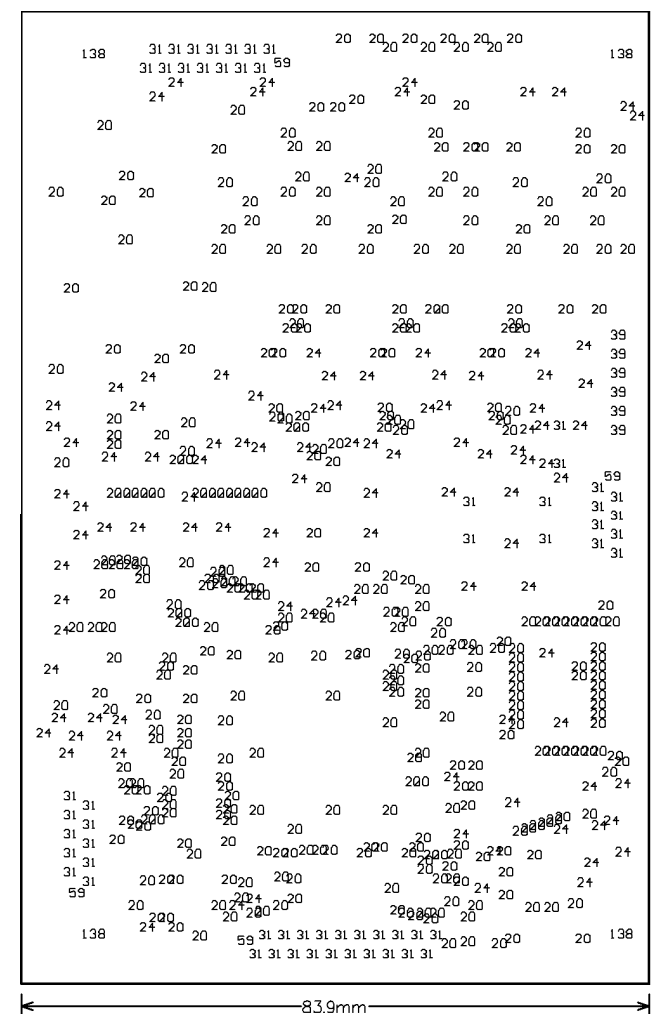
PCB : 313116 Bottom Layer



PCB : 313116 Bottom Solder Mask

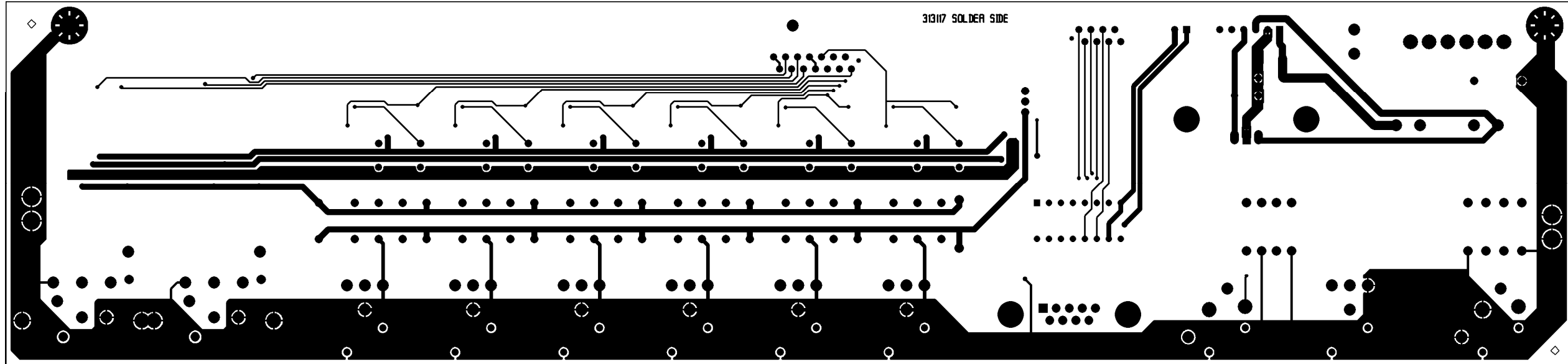


PCB : 313116 Top Solder Mask

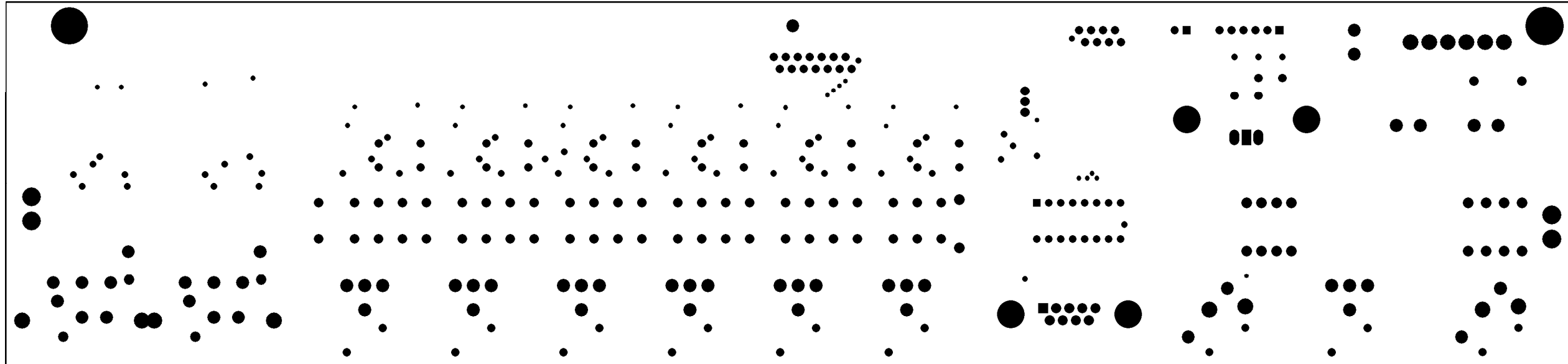


PCB : 313116 Drill Drawing

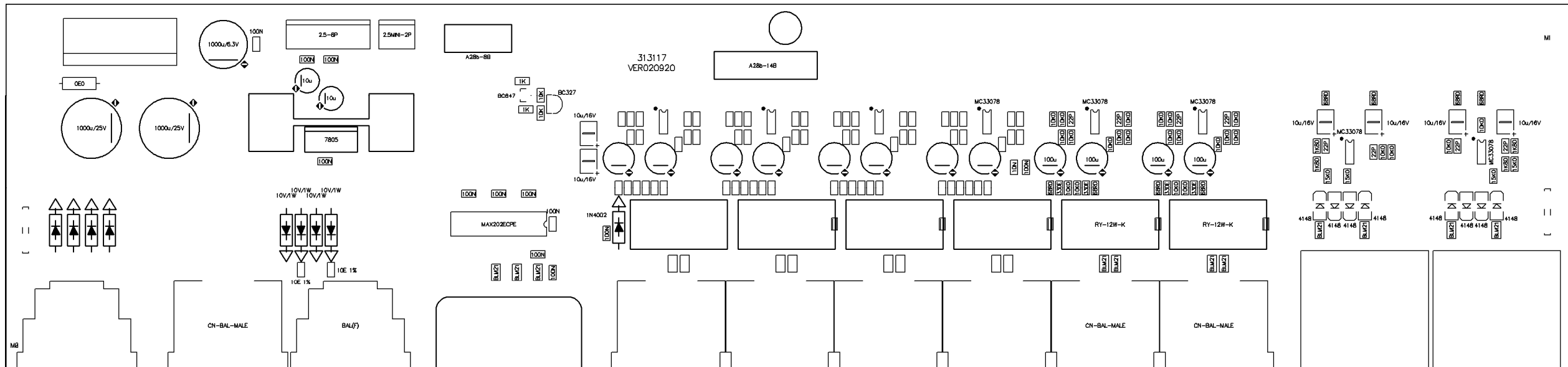
	Tool	Hole Size	
T1	20mil (0.508mm)		400
T2	24mil (0.6096mm)		106
T3	31mil (0.7874mm)		58
T4	39mil (0.9906mm)		6
T5	59mil (1.4986mm)		4
T6	138mil (3.5052mm)		1
T7	138mil (3.5052mm)		3
Totals			578



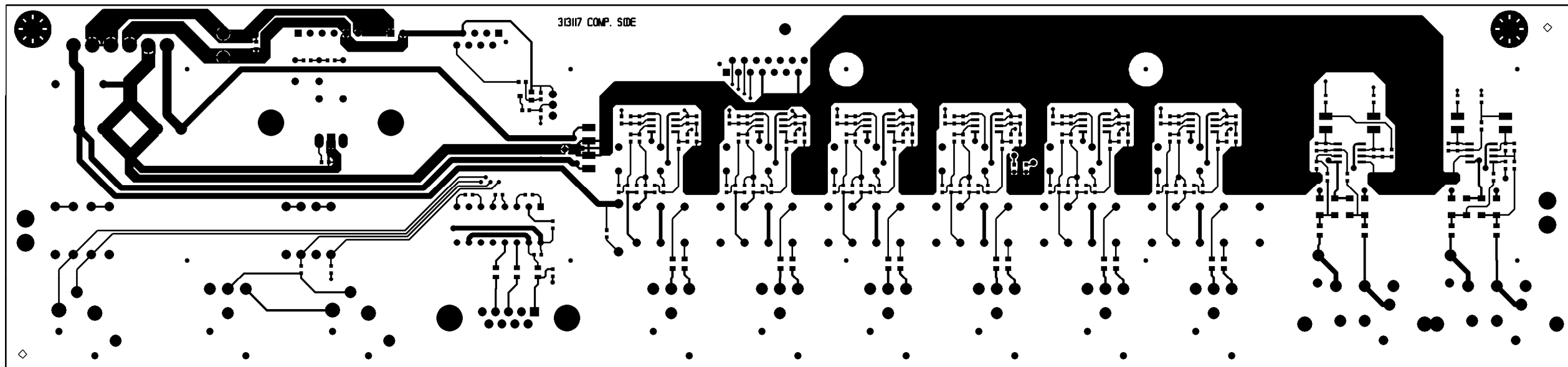
PCB : 313117 Bottom Layer



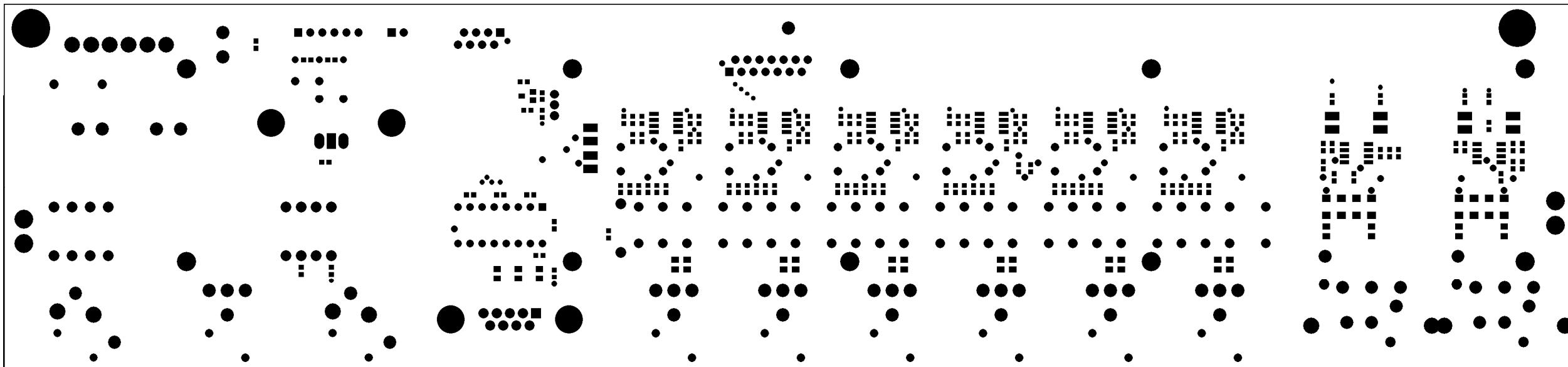
PCB : 313117 Bottom Solder Mask



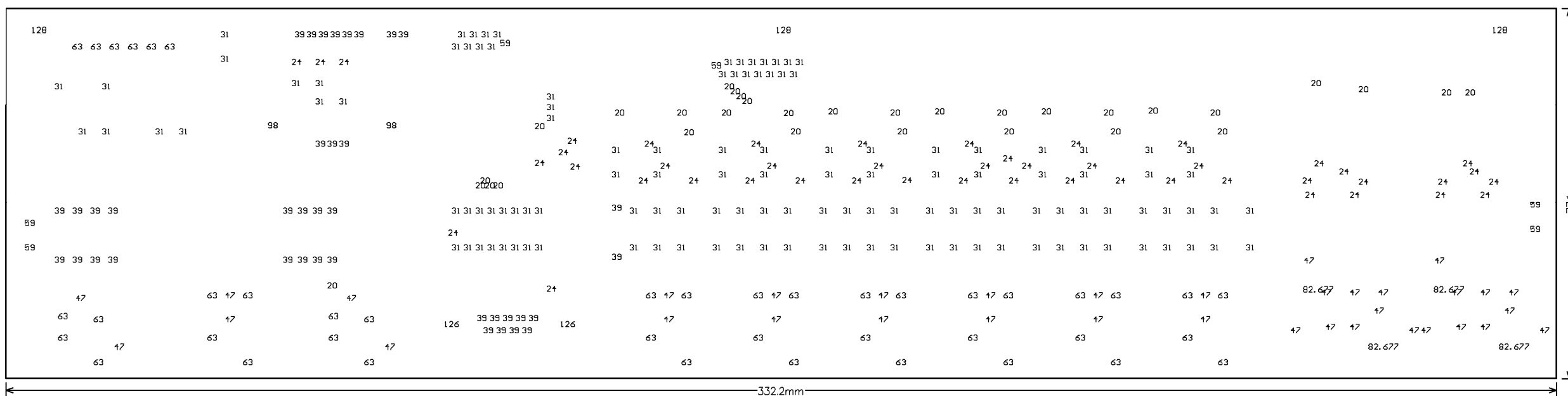
PCB : 313117 Top overlay



PCB : 313117 Top Layer



PCB : 313117 TOP Solder Mask

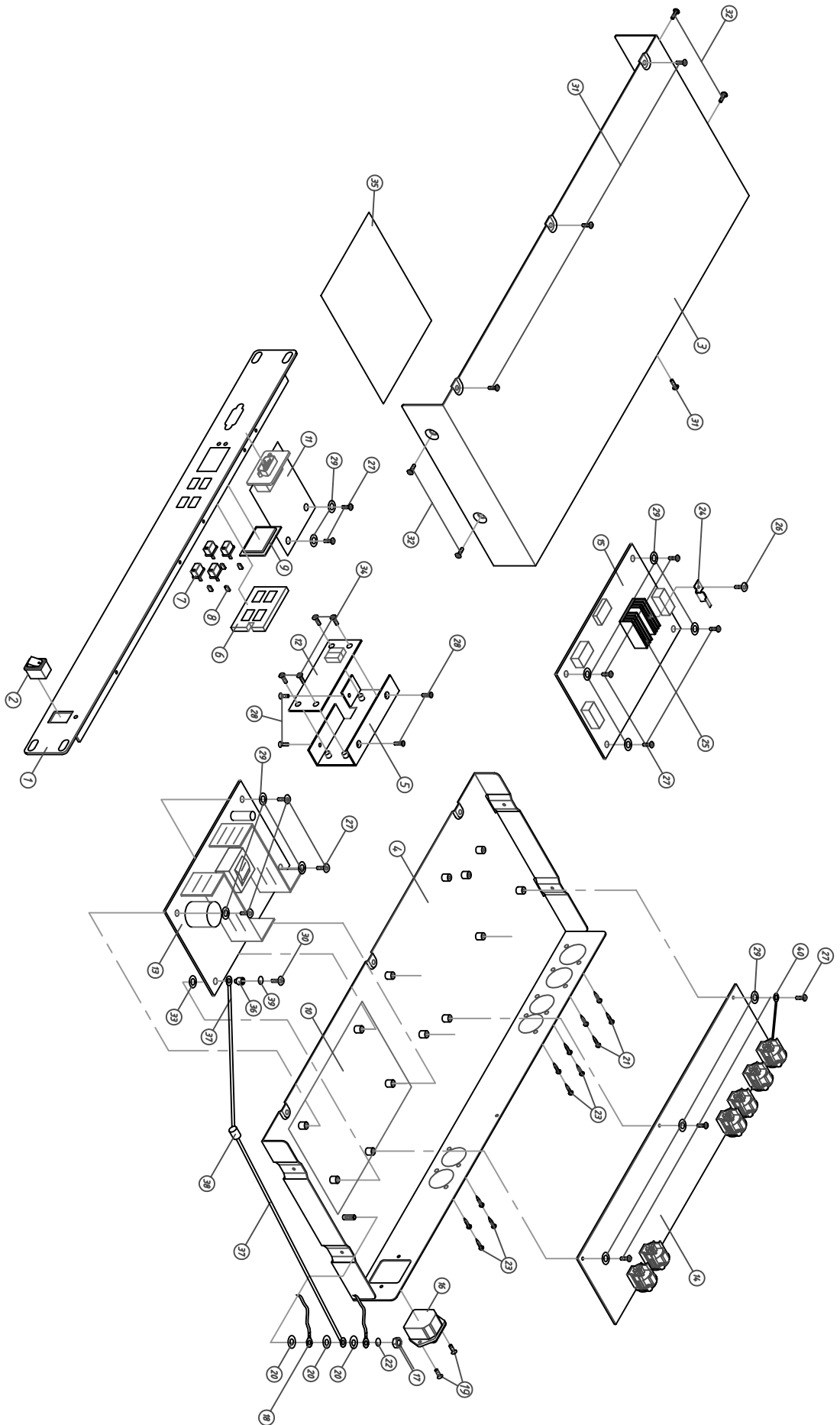


PCB : 313117 Drill Drawingk

Tool	Hole Size	
T1	20mil (0.508mm)	32
T2	24mil (0.6096mm)	47
T3	31mil (0.7874mm)	125
T4	39mil (0.9906mm)	38
T5	47mil (1.1938mm)	36
T6	59mil (1.4986mm)	6
T7	63mil (1.6002mm)	24
T8	98mil (2.4892mm)	2
T9	126mil (3.2004mm)	2
T10	128mil (3.2512mm)	2
T11	63mil (1.6002mm)	18
T12	83mil (2.1082mm)	4
T13	128mil (3.2512mm)	1

Totals		337

7. Exploded Views & Mechanical Parts List



Part List

Mechanical Parts List				
No.	Item NO.	Item Description	Specification	pcs
1	MA05200	panel	MAXI-Q PC ALTO_V1.0	1
2	HI00030	Power supply switch	4P R9D2KKFT0F	1
3	MC00567	Top cover	MAXIDRIVE PC	1
4	MB03445	Rear board	MAXI-Q PC _V1.0	1
5	MI01921	Front panel	MAXIDRIVE PC_V1.0	1
6	ND00304	EV foam	3.5*33.5*50mm	1
7	NI02907	key	12.3*7.3*15.5	4
8	NI02906	Lens key	9*5*2.5	4
9	NI02870	acrylic	MAXIDRIVE PC 34*28*3mm	1
10	NI00217	Insulator-PE	CONTROL30	2
11	HK04520	K-PCB	P-MAXI-Q PC-RS	1
12	HK04521	K-PCB	P-MAXI-Q PC-DISP-DIP	1
13	TG00029	voltage adaptor	SNP-9541-40W (AC-DC)	1
14	HK04518	K-PCB	P-MAXI-Q PU-DIP	1
15	HK04515	K-PCB	P-MAXI-Q MPU-DIP	1
16	HC00008	AC socket	(S)315-B(RF-2004-4.8)	1
17	ME00016	nut	4mm	1
18	HA01174	single terminal wire	CF: W146	1
19	MG00042	black-plated screw- head pan	M3*10	2
20	MF00048	shake proof washer	Φ4*Φ8*0.5t	3
21	MG00027	black-plated screw-flat	M3*12	4
22	MF00038	spring washer	Φ4*Φ7*1t	1
23	MG00061	black-plated screw-pill-iron board	M3*10	8
24	MI00409	fixed piece	FX-22	1
25	MI00237	heat sink	FX-22 4*34.5*16.5*3	1
26	MG00128	Screw-pill	M3*16	1
27	MG00161	Ni screw - flat	M3*6	12
28	MG00025	Black-plated screw-head pan	M3*6	4
29	MF00014	Shake proof washer	Φ3*φ6.5*0.5t	12
30	MG00167	Ni screw-flat	M3*10	1
31	MG00036	Black-plated screw	M3*4	7
32	MG00021	Black-plated screw	M4*6	4
33	NC00089	wooden washer	1*φ4*φ10 black	1

34	MG00041	black-plated screw-pill	M3*6	4
35	NI00200	insulation piece	0.5*100*130(DX24)	1
36	NI02249	insulator	TW-1(TO-220)	1
37	HA03382	single terminal wire	50mm UL1015 18AWG black	2
38	RA00788	fixed resistor 1/2W	10Ohm P type	1
39	MF00037	spring washer	$\varphi 3 * \varphi 5 * 1t$	10
40	MJ00808	power supply fixed clip	WL3-3T	1

8. BOM

No.	Part No.	Description	Specification	Remark
1	MA05200	panel	MAXI-Q PC ALTO_V1.1	
2	MA04557	panel	MAXIDRIVE PC	
3	MA04558	panel	MAXIDRIVE PC 2*44*12*483mm_V1.0	
4	MI01276	panel	2.0*44*12*483_V1.1	
5	MC00567	top cover	MAXIDRIVE PC	
6	MC00564	top cover	MAXIDRIVE PC	
7	MC00565	top cover	MAXIDRIVE PC_V1.0	
8	MJ00058	single light board	1*2135*1220 20.45kg	
9	MB03445	chassis	MAXI-Q PC_V1.0	
10	MB03446	chassis	MAXI-Q PC	
11	MB03447	chassis	MAXI-Q PC_V1.0	
12	MJ00058	single light board	1*2135*1220 20.45kg	
13	ME00032	iron pillar	Hexagon 6.35*M3*5.2	
14	ME00001	screw pillar	M4*10*0.7PH	
15	ME00036	iron pillar	hexagon6.35*M3*9.2	
16	MI01921	front board	MAXIDRIVE PC_V1.1	
17	MJ00063	iron board	1.2*2135*1220 24.54kg	
18	ME00032	iron pillar	hexagon6.35*M3*5.2	
19	NI02906	light pillar	9*5*2.5mm black	
20	NI02870	acrylic panel	MAXIDRIVE PC 34*28*3mm_V1.0	
21	MI00237	heat-sink	FX22 4*34.5*16.5*34.5mm	
22	MI00409	fixed piece	FX22	
23	NI02907	knob	12.3*7.3*15.5mm black	
24	NI02245	heat conduction rubber	25*25*0.25 white (3M #9890)	
25	HA00861	power cord Europe 3P	LT-312+LT-501	
26	HI00030	power switch-RS	4P R9D2KKFT0F(SHOW 1/0)	
27	HC00008	AC socket	3515 A TYPE(RF-2004-C-4.8)	
28	NI00252	sleeve	φ4*20mm	
29	NI00248	sleeve	φ4*1000mm	
30	NI00254	sleeve	φ4*40mm	
31	NI00248	sleeve	φ4*1000mm	
32	MG00161	screw	M3*6	
33	MG00036	screw	M3*4	
34	MG00021	screw	M4*6	
35	MG00025	screw	M3*6	
36	ND00304	EV foam	3.5t*33.5*42.7mm_V1.5	
37	MG00041	screw	M3*6	
38	MG00042	screw	M3*10	
39	MG00061	screw	M3*10	
40	MG00027	screw	M3*12	
41	ME00016	color nut	4m/m	
42	MG00128	color screw	M3*16	

No.	Part No.	Description	Specification	Remark
43	MF00038	washer	φ4*φ7*1t	
44	MF00014	washer	φ3*φ6.5*0.5t	
45	MF00048	washer	φ4*φ8*0.5t	
46	NC00089	washer	φ4*φ10*1	
47	NC00148	black foil white board	1.0t*80mm(+0.1)*120M	
48	HA01798	wire	250 black	
49	HA01174	single terminal wiring CF:W146	80 green/yellow	
50	HA02191	single terminal wiring	170mm UL1015 18AWG black	
51	HA03382	single terminal wiring	50mm UL1015 18AWG black	
52	HA01590	row-wire connecting wiring	6P-6P 190	
53	HA02248	wire	2P-2P 250mm UL1007 24AWG	
54	HA02659	wire	8P-8P 160mm UL2651 28AWG PH1.27mm	
55	HA01645	header wiring	14P-14P PH1.27 150	
56	HA02821	header wiring	20P-20P 150mm UL2651 28AWG PH1.27	
57	HA02820	wire	20P-20P 150mm UL2651 28AWG PH1.27	
58	CN00041	high frequency magnetism encircle	CL6E SH 27*10*1.3mm	
59	HA02242	wire	6P-6P 200mm UL1007 18AWG	
60	HA03415	wire	2P 100mm UL1617 22AWG white	
61	NI00218	cable tie	ALT-102SB	
62	NE05004	label	ALTO	
63	NH00334	cone paper	0.040*1m	
64	NF00061	assurance card	ALTO	
65	NA00279	clip-chain bag	0.04t*100*150mm_V1.0	
66	AD00012	twin adhesive	90*120mm_V1.0	
67	NA00125	PE bag	0.04t*580*400mm	
68	NA00137	clip-chain bag	5*7	
69	NB02088	carton	(1H) ALTO 19"used to series	
70	HJ00006	dessicant	30g	
71	TG00085	adaptor	PT-45B 42.6W (AC-DC)	
72	NI00200	insulator	0.5*100*130(DX24)_V1.3	
73	NI00375	film	45*60.5*0.5mm	
74	RA00788	fixed resistor 1/2W	10Ω P type	
75	NI00217	insulator	CONTROL30	
76	NI00375	film	45*60.5*0.5mm	
77	NI00501	self-adhere foot cushion	12.7*9*3t(SF-004)	
78	NB02163	barrier	X23,34,40	
79	NB02164	barrier	X23,34,40	
80	HD00006	glass tube fuse	315mA 250V φ5.2*20mm CSA/S/UL/VDE	
81	HA01638	row-wire connector wiring	2P 280	
82	SA00053	L.E.D	φ3 round(red)long foot 26mm	
83	NB03276	gift carton	MAXI-Q PC ALTO_V1.0	
84	NE04216	label	MAXI-Q PC_V1.0	

No.	Part No.	Description	Specification	Remark
85	NH00012	bond paper	0.04*1M	
86	NI00014	membrane	0.035*1M	
87	HA03469	wire	10P-10P PH1.27 400mm	
88	MJ00808	fixed clip	WL3-32T	
89	NF01972	instruction	MAXI-Q PC ALTO_V1.1	
90	NH00149	paper	889*640mm	
91	HK04520	PC board	P-MAXI-Q PC-RS	
92	HB01146	PCB-RS	MAXIPC(4*3)_VER040108	
93	HC00400	connector	D-SHB-9P 90° PCB R/A(7.2mm)	CN1
94	HC00049	row-wire header	10PIN A28b-10B.T.6	CN2
95	AC00179	tin without lead-RS	M705E Sn 3Ag-0.5Cu	
96	HK01711	PC board	P-MAXIPC-DISP-DIP	
97	CB00021	electrolytic capacitor	10uF/16V ϕ 4*5mm	C1
98	HC00263	connector(male)	2P 2.5mm 90°	CN1
99	HC00076	connector(male)	2P 2.5mm 180°	CN3
100	HC00051	row-wire header	20PIN A28b-20B.T.6	CN2
101	SA00053	L.E.D	ϕ 3 round(red)long foot 26mm	LED1,LED2
102	HI00041	push button switch	6*6*5	SW1,SW2,SW3,SW4
103	HH00003	seven display	LSD5121-11	DISP1,DISP2
104	NI01765	LED spacer support	LEDS-10 10mm	
105	HK01712	PC board	P-MAXIPC-DISP-SMD	
106	HB01147	PCB	MAXIPC-DISP(4*2)_VER040108	
107	RD00101	SMD fixed resistor 1/10W	10K Ω \pm 5% 0603	R1,R2,R5,R6,R7,R8
108	RD00093	SMD fixed resistor 1/10W	4.7K Ω \pm 5% 0603	R3,R4
109	RD00078	SMD fixed resistor 1/10W	470 Ω \pm 5% 0603	R18,R11,R12,R13,R14,R15,R16, R17,R9,R10
110	RD00084	SMD fixed resistor 1/10W	1.2K Ω \pm 5% 0603	R19
111	CI00075	SMD ceramic capacitor 0603	0.1uF/50V Y5V +80,-20%	C2
112	SF00053	transistor	MMBT3906(SOT-23)/(PHI)	Q1,Q2
113	AE00449	solder material without lead	9308/Sn Ag Cu	
114	AC00179	tin without lead-RS	M705E Sn 3Ag-0.5Cu	
115	HK04597	PC board	P-MAXI-Q PC PU-DIP	
116	RA00158	fixed resistor 1/4W	0.0 Ω M type	R1
117	SA00104	zener diode	1W 10V 1N4740	D5,D6,D7,D8
118	SA00094	rectifier diode	1N4002/100V	D9
119	CB00026	electrolytic capacitor	10uF/50V ϕ 6*7mm	C5,C6
120	CB00048	electrolytic capacitor	100uF/25V ϕ 6*11mm	C41,C42,C43,C44
121	CB00069	electrolytic capacitor	1000uF/6.3V ϕ 8*11mm	C1
122	CB00072	electrolytic capacitor	1000uF/25V ϕ 10*20mm	C7,C8
123	SD00074	integrated circuit	L7805CV(TO-220)(ST)	IC1
124	SD00019	integrated circuit	MAX202ECPE	IC10
125	SB00059	transistor	BC327-25	TR2

No.	Part No.	Description	Specification	Remark
126	HC00112	balance MIC jack	99M-107SP-1-2 90° PUSH	S5
127	HC00111	balance MIC jack	99M-108SP1	S10,S11,S4
128	HC00113	balance MIC jack	97M-1007P-H 90°	S12,S13
129	HC00437	connector(male)	6P 3.96mm 180°	CN1
130	HC00080	connector(male)	6P 2.5mm 180°	CN2
131	HC00265	connector(male)	2P 2.5mm 180°	CN3
132	HC00048	row-wire header	8PIN A28b-8B.T.6	CN4
133	HC00050	row-wire header	14PIN A28b-14B.T.6	CN5
134	HC00049	row-wire header	10PIN A28b-10B.T.6	CN6
135	HI00008	relay	RY-12W-K 12V	RL5,RL6
136	HC00324	connect terminal	6.5m/m (PC250)	S1,S2
137	MI00257	heat-sink	25*34.6*12*1.5 DX26	
138	NC00005	mica	SB-9500DSP 18*13*0.1t_V1.0	
139	MG00163	screw	M3*8	
140	MF00037	washer	φ3.2*φ5.5*1t	
141	MF00014	washer	φ3*φ6.5*0.5t	
142	ME00015	color nut	3m/m	
143	HK04596	PC board	P-MAXI-Q PC PU-SMD	
144	HB01239	PCB	MAXI-PU(1*2)_VER040408	
145	RD00272	SMD precise resistor 1/10W	10.0Ω ±1% 0603	R106,R107
146	RD00394	SMD precise resistor 1/10W	68.0Ω ±1% 0603	R102,R5,R6,R7,R8,R91,R96,R97
147	RD00393	SMD precise resistor 1/10W	330Ω ±1% 0603	R101,R92,R95,R98
148	RD00419	SMD precise resistor 1/10W	1.80KΩ ±1% 0603	R59,R60,R64,R65
149	RD00214	SMD precise resistor 1/10W	10.0KΩ ±1% 0603	R100,R38,R39,R40,R41,R42,R43,R44, R45,R46,R47,R48,R49,R50,R51,R52,R 57,R58,R61,R62,R63,R93,R94,R99
150	RD00218	SMD precise resistor 1/10W	15.0KΩ ±1% 0603	R103,R104,R105,R66
151	RD00083	SMD fixed resistor 1/10W	1.0KΩ ±5% 0603	R2,R3
152	RD00101	SMD fixed resistor	10KΩ ±5% 0603	R4,R9
153	CI00075	SMD ceramic capacitor	0.1uF/50V Y5V +80,-20%	C2,C29,C3,C4,C40,C46,C4
154	CI00071	SMD ceramic capacitor	0.01uF/50V X7R ±10%	C39
155	CL00006	SMD tantalum capacitor	10uF/16V case B2	C23,C24,C26,C28,C30,C9
156	SE00011	SMD rectifier diode	RLS4148 0.5A (LL-34)	D10,D11,D12,D13,D14,D15
157	SG00040	SMD integrated circuit	MC33078DT(ST)MC33078D(ON)	IC6,IC7,IC8,IC9
158	SF00031	SMD transistor	BC847B(SOT-23)/(PHI)	TR1
159	CO00006	SMD chip inductance	BLM21A102SPT/(MURATA)	L1,L16,L17,L18,L19,L2,L3,L4,L5,L6,L7
160	AE00449	solder material without lead	9308/Sn Ag Cu	
161	CI00266	SMD ceramic capacitor-RS 0603	22PF/50V NPO ±5 %	C18,C19,C20,C21,C22,C25,C27,C45
162	AC00179	tin without lead-RS	M705E Sn 3Ag-0.5Cu	
163	HK04944	PC board	P-MAXI-Q PC MPU-DIP	
164	CB00048	electrolytic capacitor	100uF/25V φ6*11mm	C84
165	SC00102	crystal oscillator	24.576MHZ HC-49/U1.2S±20PPM	XT1
166	HC00048	row-wire header	8PIN A28b-8B.T.6	CN3

No.	Part No.	Description	Specification	Remark
167	HC00050	row-wire header	14PIN A28b-14B.T.6	CN1
168	HC00051	row-wire header	20PIN A28b-20B.T.6	CN5
169	HC00080	connector(male)	6P 2.5mm 180°	CN2
170	HK04945	PC board	P-MAXI-Q PC MPU-SMD	
171	HB00787	PCB	313116_VER020927	
172	RD00063	SMD fixed resistor 1/10W	22Ω ±5% 0603	R31,R32,R68,R69
173	RD00068	SMD fixed resistor 1/10W	100Ω ±5% 0603	R100,R77,R83,R84,R85,R86,R87,R88,R89,R90,R92,R93,R94
174	RD00070	SMD fixed resistor 1/10W	150Ω ±5% 0603	R79,R82
175	RD00073	SMD fixed resistor 1/10W	220Ω ±5% 0603	R78,R81
176	RD00076	SMD fixed resistor 1/10W	330Ω ±5% 0603	R98
177	RD00078	SMD fixed resistor 1/10W	470Ω ±5% 0603	R104
178	RD00093	SMD fixed resistor 1/10W	4.7KΩ ±5% 0603	R73,R95,R96
179	RD00101	SMD fixed resistor 1/10W	10KΩ ±5% 0603	R5,R6,R76,R91,R99
180	RD00108	SMD fixed resistor 1/10W	33KΩ ±5% 0603	R101,R102
181	RD00111	SMD fixed resistor 1/10W	47KΩ ±5% 0603	R80
182	RD00116	SMD fixed resistor 1/10W	100KΩ ±5% 0603	R97
183	RD00414	SMD precise resistor 1/10W	3.90KΩ ±1% 0603	R24,R29,R55,R65
184	RD00415	SMD precise resistor 1/10W	4.70KΩ ±1% 0603	R23,R66
185	RD00214	SMD precise resistor 1/10W	10.0KΩ ±1% 0603	R25,R27,R61,R64
186	RD00416	SMD precise resistor 1/10W	82.0KΩ ±1% 0603	R26,R62
187	RD00392	SMD precise resistor 1/10W	2.20KΩ ±1% 0603	R28,R30,R57,R58,R59,R60,R63,R67
188	RE00006	SMD resistor networks 1/16W	100Ω*4 ±5% 8P 0603	AR1,AR10,AR2,AR3,AR4,AR8,AR9
189	RE00007	SMD resistor networks 1/16W	470Ω*4 ±5% 8P 0603	AR11,AR12,AR13,AR14
190	RE00008	SMD resistor networks 1/16W	4.7KΩ*4 ±5% 8P 0603	AR5,AR6,AR7
191	CI00064	SMD ceramic capacitor 0603	680PF/50V NPO ±5 %	C20,C22,C34,C35
192	CI00067	SMD ceramic capacitor 0603	0.0022uF/50V X7R ±10%	C21,C33
193	CI00071	SMD ceramic capacitor 0603	0.01uF/50V X7R ±10%	C59,C62
194	CI00075	SMD ceramic capacitor 0603	0.1uF/50V Y5V +80,-20%	C101,C102,C103,C104,C106,C107,C108,C109,C110,C111,C113,C114,C115,C116,C37,C39,C53,C56,C69,C70,C72,C74,C80,C82,C83,C85,C88,C89,C91,C92,C93,C95,C97,C98,C99
195	CI00046	SMD ceramic capacitor 1206	1uF/16V Y5V-1206(3216)	C112
196	CL00006	SMD tantalum capacitor	10uF/16V case B2	C10,C100,C105,C23,C24,C38,C40,C5,C54,C55,C57,C58,C6,C60,C61,C67,C68,C7,C71,C73,C79,C8,C81,C9
197	SE00011	SMD rectifier diode	RLS4148 0.5A (LL-34)	D9
198	SG00040	SMD integrated circuit	MC33078DT(ST)MC33078D(ON)	IC1,IC4,IC5,IC8
199	SG00067	SMD integrated circuit	74HC04DT	IC16
200	SG00068	SMD integrated circuit	74HC14DT(SO-14)/(PHI)	IC22
201	SG00066	SMD integrated circuit	74HC74DT	IC15
202	SG00047	SMD integrated circuit	MAX485EESA	IC21
203	SG00069	SMD integrated circuit	MAX709L-CSA	IC20
204	SG00335	SMD integrated circuit	TY-1 ALTO(LEM NO#105008)_V1.1	IC18

No.	Part No.	Description	Specification	Remark
205	SG00128	SMD integrated circuit	RED 208(LEM NO#105008)	
206	SG00060	SMD integrated circuit	GM71C18163CJ-6	IC13
207	SG00134	SMD integrated circuit	24LC256-I/SN	IC19
208	SG00054	SMD integrated circuit	AK4393VF AKM	IC12
209	SG00061	SMD integrated circuit	AK5383VS AKM	IC9
210	HC00611	IC socket (SMD)	PLCC32 (AMP S/N:822516-7)	IC17
211	SG00324	SMD integrated circuit	EN29F040A-70JC(PL032)/MAXI-Q PC CS:AF11	
212	SG00217	SMD integrated circuit	EN29F040A-70JC(PL032)/(E-ON)	
213	NE13746	label	MAXI-Q PC CS:B09F_V1.1	IC17
214	NI00016	membrane	0.05*1M	
215	NH00221	paper	0.055*1M	
216	AE00449	solder material without lead	9308/Sn Ag Cu	
217	CI00264	SMD ceramic capacitor-RS 0603	15PF/50V NPO ± 5 %	C94,C96
218	CI00266	SMD ceramic capacitor-RS 0603	22PF/50V NPO ± 5 %	C19,C36
219	AC00179	tin without lead-RS	M705E Sn 3Ag-0.5Cu	
220	NE13745	label	MAXI-Q PC CS:B09F_V1.1	
221	NH00012	bond paper	0.04*1M	
222	NI00014	membrane	0.035*1M	
223	HA02877	single terminal wiring	60mm UL1015 18AWG black	
224	HA02621	computer connect wire	9P(female)-9P(female) UL2464 28AWG 5000m	