

AE 6190 User Start and Country Options

1. Country settings via internal jumper setting

FRONT PCB Jumpers No. 1 and 2:

Defines default country setting after DC power connection

1 SHORT	: CEPT	EC	FM 40CH 4W
2 SHORT	: GERMANY	dE	FM 80CH 4W, AM 40CH 1W
1 and 2 SHORT	: EUROPE	EU	FM 40CH 4W, AM 40CH 1W
1 and 2 OPEN	: SPAIN	E	FM 40CH 4W, AM 40CH 4W

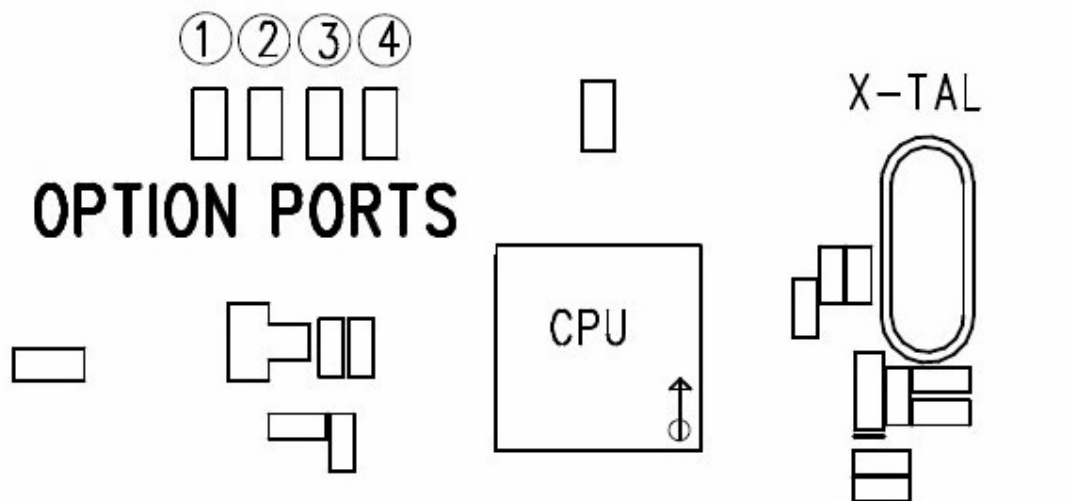
FRONT PCB Jumper No. 4

Allows user setting by key entries or not

4 SHORT	:User selection for country switching via KEY ENTRY not allowed
4 OPEN	:User selection for country switching via KEY ENTRY allowed

3. User selection via keys (if enabled by jumper 4)

- § **AM/FM** KEY LONG PUSH during POWER ON = GERMANY **dE (80/40)**
- § **SC** KEY LONG PUSH during POWER ON = EU AREA **EU (40/40)**
- § **SC+CH9** LONG PUSH during POWER ON = CEPT AREA **EC (40FM)**
- § **CH9** LONG PUSH during POWER ON = RESET to **start setting rS**



Front PCB jumpers / Frontplatine- Lötbrücken



AE 6190 Start – und Ländereinstellungen

1. Ländereinstellungen über interne Lötbrücken

FRONT Platine Brücke Nr. 1 und 2:

Zur Einstellung der ersten Ländereinstellung beim Anschließen an die Stromversorgung

1 VORHANDEN	: CEPT	EC	FM 40CH 4W
2 VORHANDEN	: DEUTSCHLAND dE	FM 80CH 4W,	AM 40CH 1W
1 and 2 VORHANDEN	: EUROPA	EU	FM 40CH 4W, AM 40CH 1W
1 and 2 ENTFERNT	: SPANIEN	E	FM 40CH 4W, AM 40CH 4W

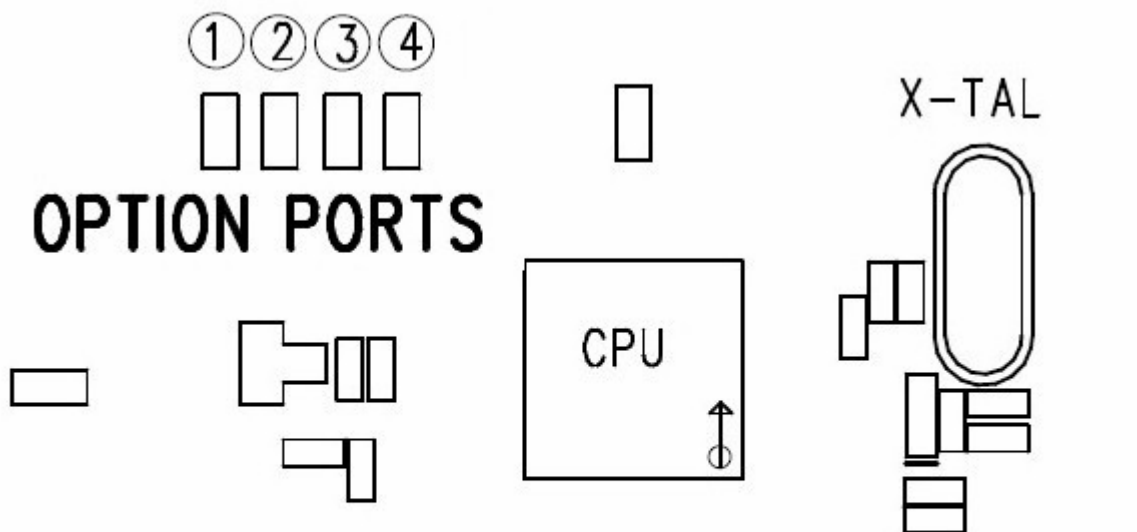
FRONT Platine Brücke Nr. 4

Entscheidet, ob Benutzer Ländereinstellungen durch Tasten verändern darf oder nicht

4 VORHANDEN	:Ländereinstellung über Tasten nicht möglich
4 ENTFERNT	:Ländereinstellung über Tasten erlaubt

3. Länderumschaltung über Tastenkombinationen (sofern über Brücke 4 freigegeben)

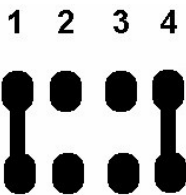
- § **AM/FM** lang drücken während des Einschaltens = GERMANY **dE (80/40)**
- § **SC** lang drücken während des Einschaltens = AM Länder **EU (40/40)**
- § **SC+CH9** lang drücken während des Einschaltens = CEPT Länder **EC (40FM)**
- **CH9** lang drücken während des Einschaltens = RESET **rS** auf die Startposition



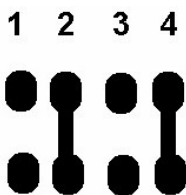
Front PCB jumpers / Frontplatine- Lötbrücken

Beispiele / Examples

1. Feste Beschränkung auf 40 Kanäle CEPT FM *EC* z.B. für Österreich:
fixed limitation to 40 CH CEPT-FM *EC* e.g. for Austria:

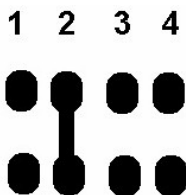


2. Feste Einstellung auf *dE* für Deutschland – fixed setting *dE* for Germany:



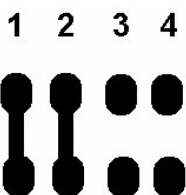
3. Gerät startet mit *dE* für Deutschland (80/40) und kann dann vom Benutzer mit Tasten umprogrammiert werden:

Radio starts with *dE* and can programmed by key entries:

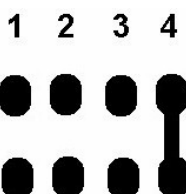


4. Gerät startet mit *EU* für Europa (40/40) und kann dann vom Benutzer mit Tasten umprogrammiert werden

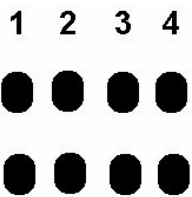
Radio starts with *EU* for Europe (40/40) and can then be programmed by key entries



5. Feste Einstellung auf E (40/40, 4 Watt AM) für Spanien –
Fixed setting for Spain (40/40, AM 4 Watt):



**6. Gerät startet mit E für Spanien und ist über Tasten programmierbar-
Radio starts with setting for Spain and can then be programmed by key
entries:**

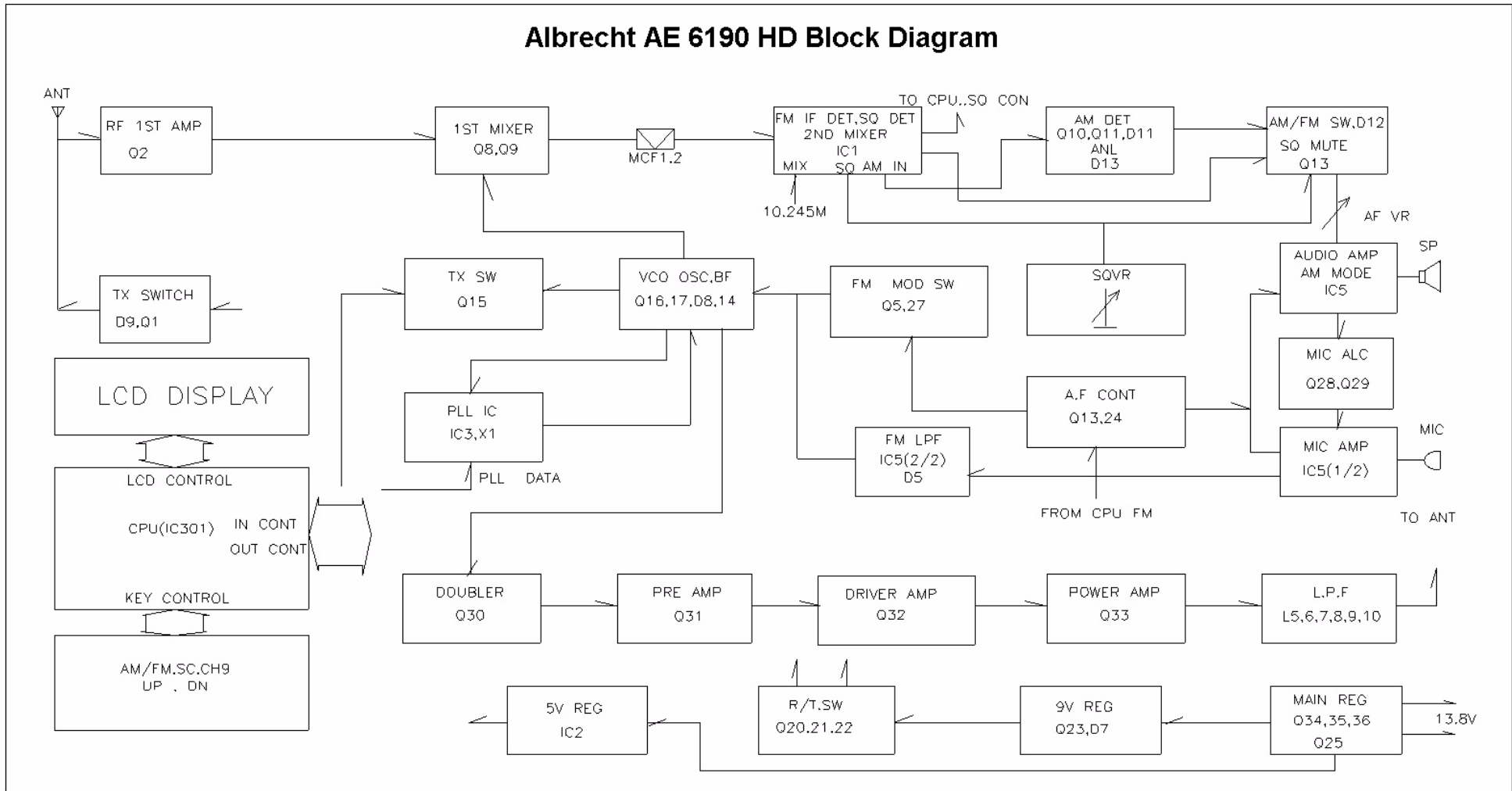


Bitte beachten: Einstellungen wie **E** sind nur in den betreffenden Staaten zulässig und dürfen in anderen Ländern nicht vorhanden bzw. benutzt werden. **Österreich** erlaubt generell nicht die Benutzung von Umschaltungen, die dem Benutzer von außen zugänglich sind. Vor einer Reise nach Österreich muss durch einen autorisierten Servicebetrieb die Einstellung nach Beispiel 1 vorgenommen werden, anderenfalls darf das Gerät zwar mitgenommen, aber nicht benutzt werden. Für den Vertrieb in Österreich steht eine bereits werkseitig limitierte Version unter der Typenbezeichnung **AE 6190 HD- FM** zur Verfügung.

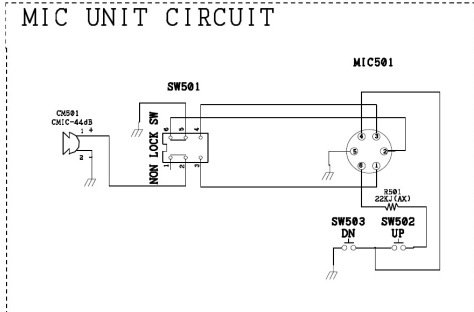
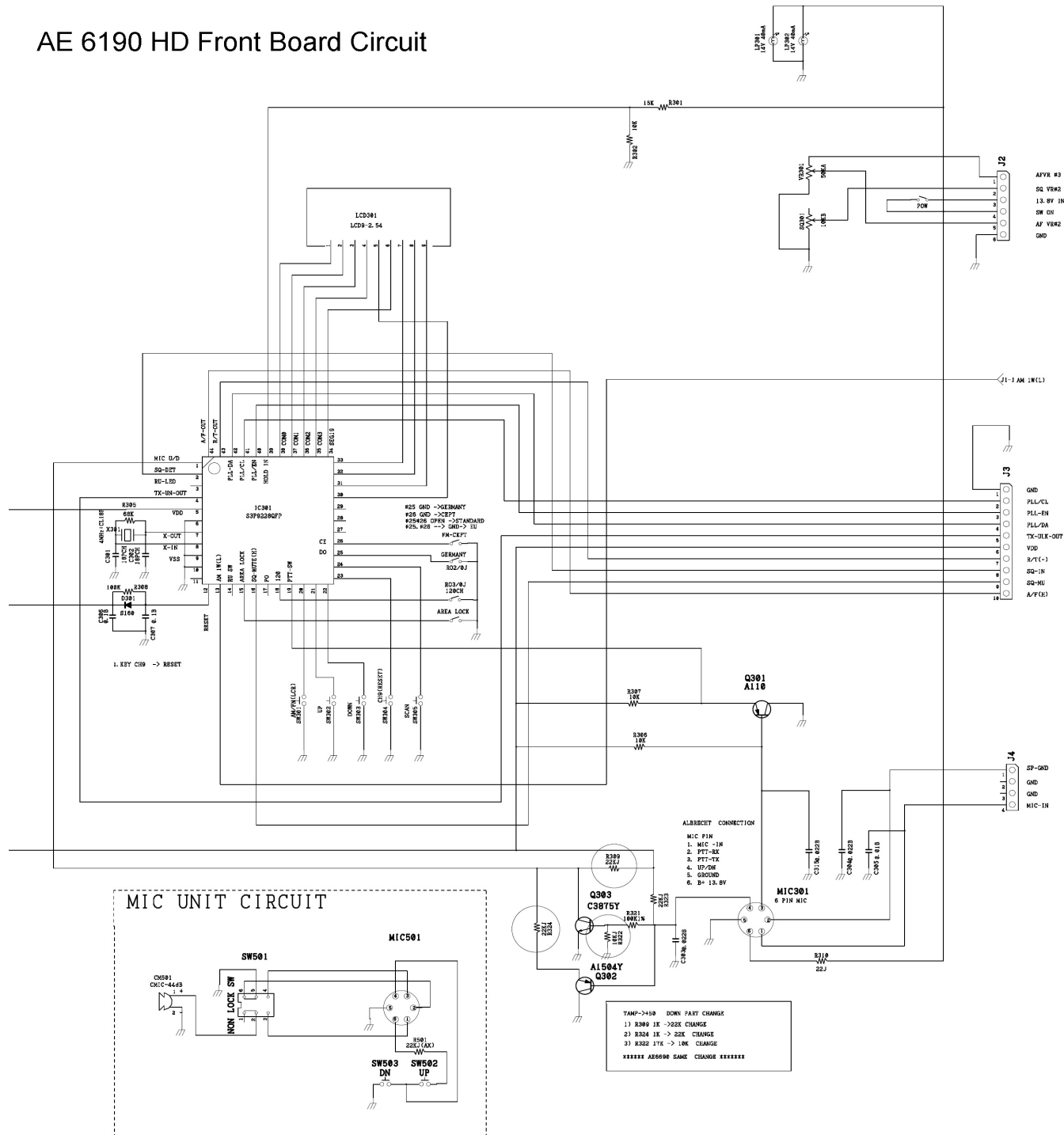
Benutzer aus Deutschland dürfen Ihre Geräte auf Grund der Circulation Card Regelung (siehe Bedienungsanleitung des Funkgeräts) auch in anderen Ländern, die AM gestatten, in der **dE** (80/40) Einstellung benutzen, es ist aber verboten, die Kanäle 41 – 80 dort zu benutzen.

Please note: Settings like **E** are only in the intended country allowed. Austria does not allow the use of any radios, which have user accessible country switches. If a radio shall be used in **Austria**, an authorized distributor must install the setting according to example 1, otherwise the radio may remain installed in the car, but is not allowed to be used.

Albrecht AE 6190 HD Block Diagram

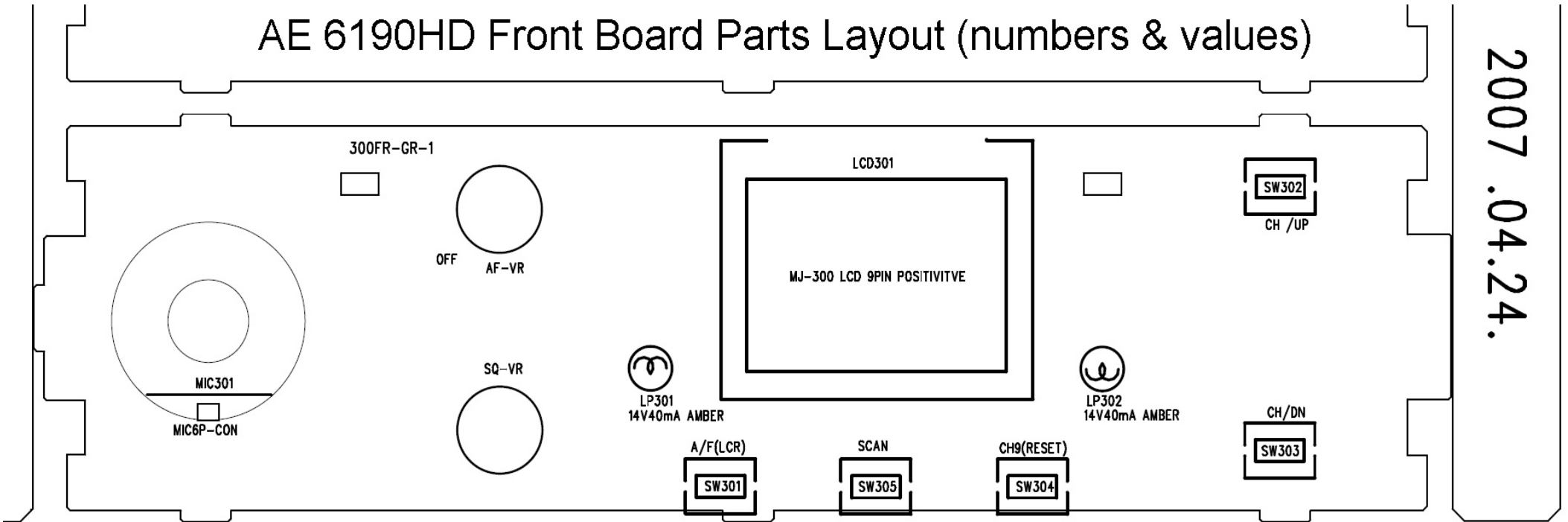


AE 6190 HD Front Board Circuit



	AE6190HD FRONT
REV: 07/08/14	

AE 6190HD Front Board Parts Layout (numbers & values)



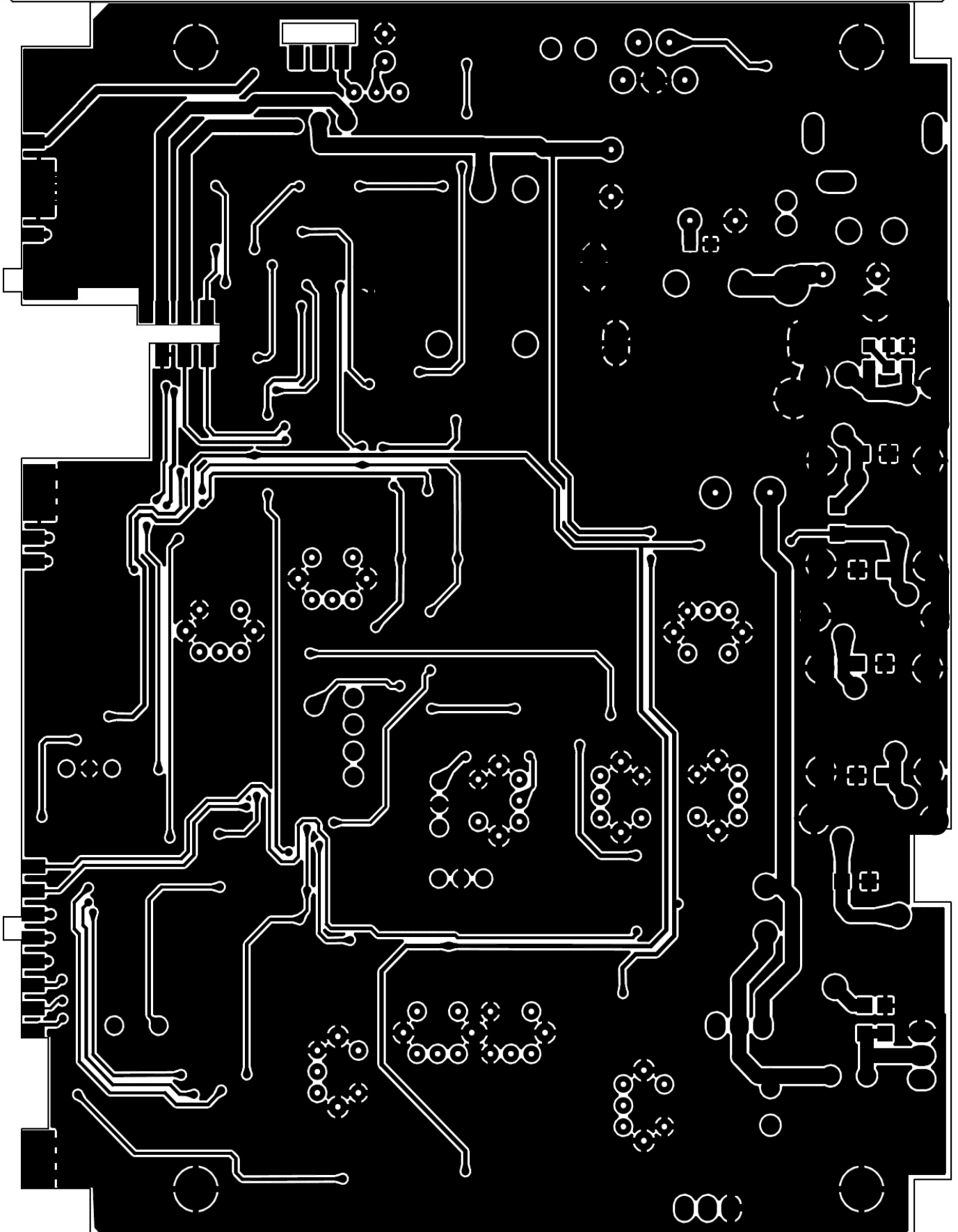
2007.04.24.

 | AE6190HD FRONT,MIC -GR .sch | 2007 . 04 . 27 |

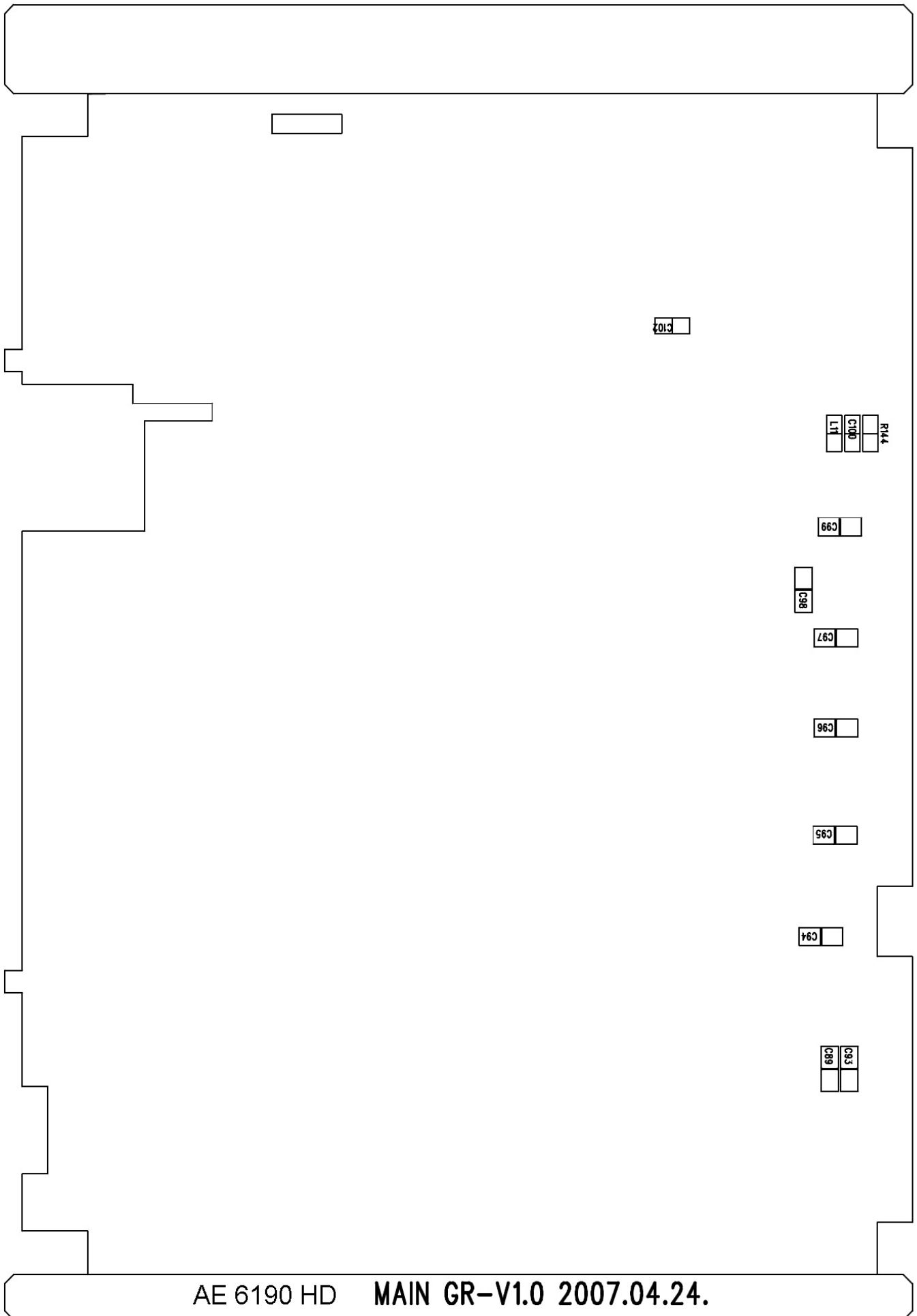
Item	Qty	Reference	Part Name	Manufacturer	Description
1	1	C305	C-SMD,0.01B		
2	3	C303-304	C-SMD,0.022B		
		C315			
3	2	C306-307	C-SMD,0.1B		
4	2	C301-302	C-SMD,18PCH		
5					
6					
7					
8					
9	1	D301	D-A,S160		
10	1	IC301	IC-44QFP,		SAMSUNG CPU
			S3P9228QFP		
11	2	LP301-302	LAMP,14V 40mA		
12	1	LCD301	LCD9-2.54		MJ-300 LCD
13	1	MIC301	6P CONNECTOR		
		MIC501	6P SCOKET		MIC
14	1	CM501	C-MIC 9.7 PIE		MIC
			CMIC-44dB		
15	1	R308	R-SMD,100KJ		
16	1	R321	R-SMD,100K1%		
17	3	R302	R-SMD,10KJ		
		R306-307			
18	1	R301	R-SMD,15KJ		
19	1	R322	R-SMD,17K1%		
20	1	R309	R-SMD,1KJ		
21	1	R324	R-SMD,1KJ		
22	1	R310	R-SMD,22J		
23	1	R323	R-SMD,22K1%		
24	1	R501	R-AX ,22KJ		MIC

25	1	R305	R-SMD,68KJ			
26	1	RO2	R2012 , 0J		GR OP	
27	1	RO3	R2012 , 0J		120 OP	
28	1	FRONT PCB	FR-4 DOUBLE		MJ-300FR-GR	
29	1	MIC PCB	FR-4 DOUBLE		MJ-300MIC-GR	
30	1	MIC CORD	5P 1SHIELD		MIC	
31	1	SW501	SW-6A,NON LOCK		MIC	
			SW 2C-2P			
32	1	SW301	SW-DIP,	TACT 2P		
			AM/FM(LCR)			
33	1	SW304	SW-DIP,	TACT 2P		
			CH9(RESET)			
34	1	SW503	SW-DIP,DN	TACT 4P	MIC	
35	1	SW303	SW-DIP,DOWN	TACT 2P		
36	1	SW305	SW-DIP,SCAN	TACT 2P		
37	2	SW302	SW-DIP,UP	TACT 2P		
		SW502	SW-DIP,UP	TACT 4P	MIC	
38	1	Q301	TR-A,KRA110			
39	1	Q302	TR-A,KTA1504Y			
40	1	Q303	TR-A,KTC1815Y			
41	1	SQ301	VR-9PIE, 10KB			
42	1	VR301	VR-9PIE ,50KA W/SW			
43	1	VR PCB	FR-4 DOUBLE		MJ-300 VR PCB	
44	1	X301	XTL-11X4.5,			
			4MHz:CL18P			

• Albrecht AE 6190 HD main board bottom layout •



• MAIN GR-V1.0 2007.04.24. •



C103

R144
C100
L1

C99

C98

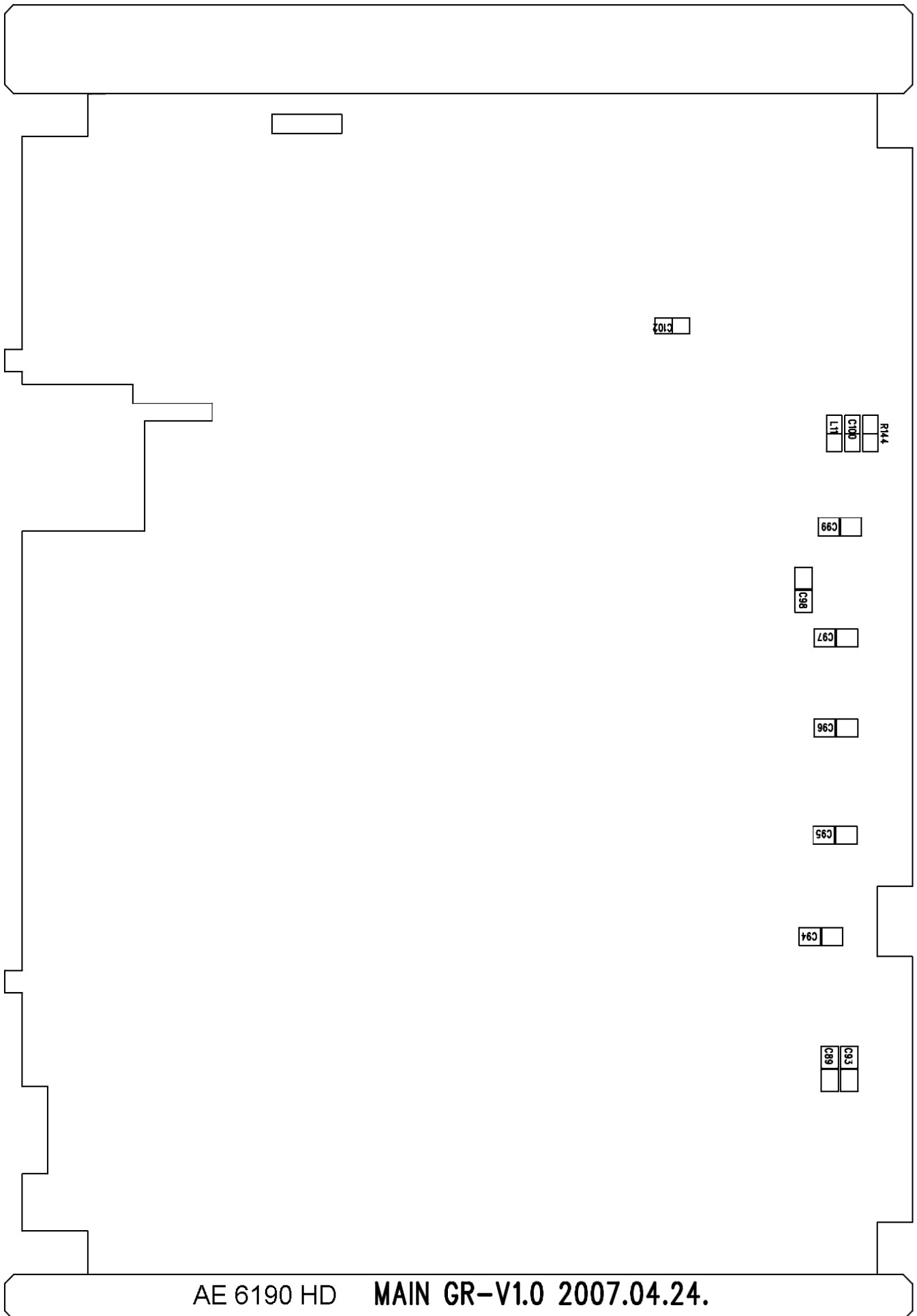
C97

C96

C95

C94

C93
C98



C103

R144
C100
L1

C99

C98

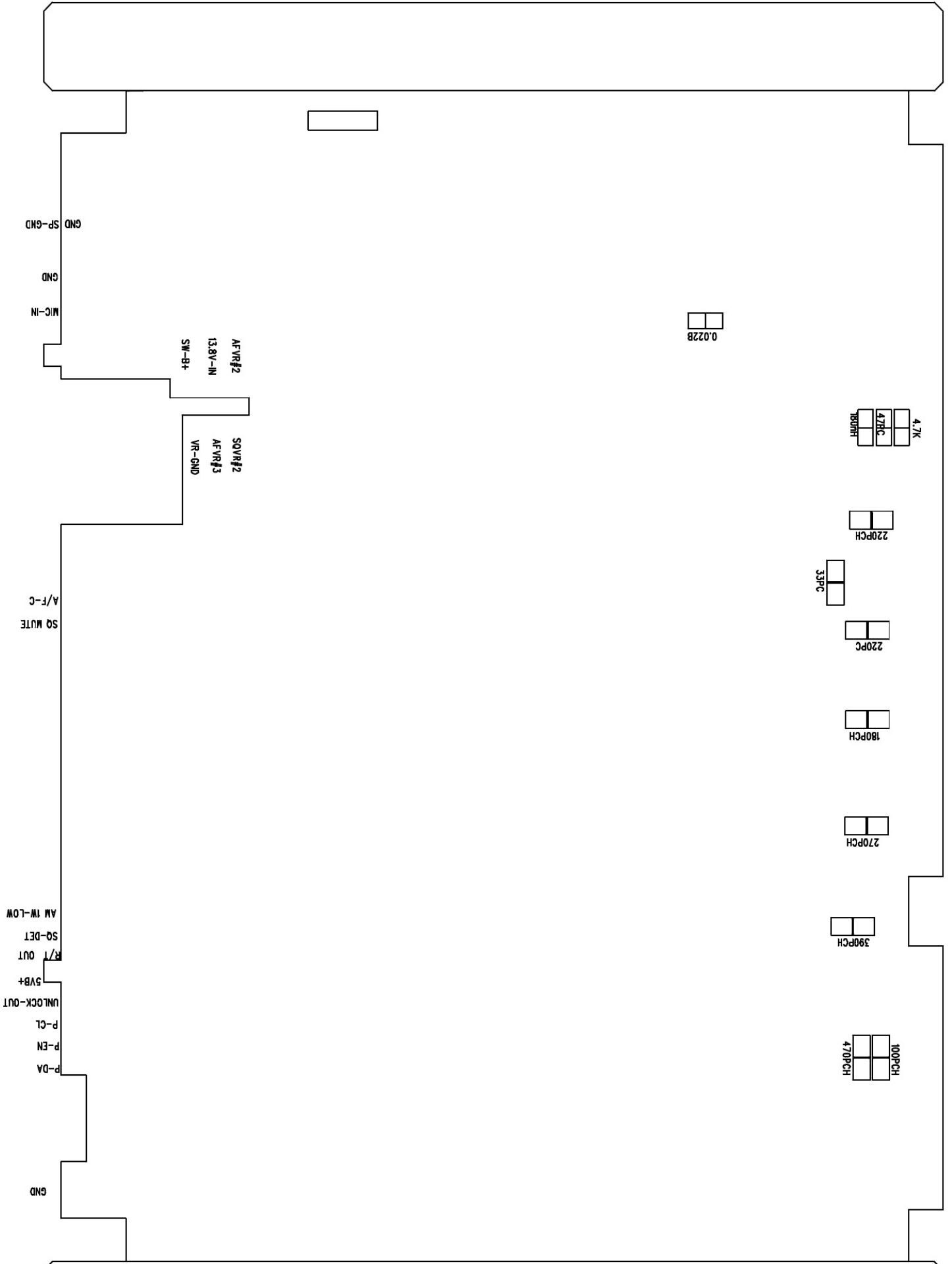
C97

C96

C95

C94

C93
C98



AE 6190 HD MAIN GR-V1.0 2007.04.24.

AE 6190HD MAIN -GR SCH. 2007 . 04 . 27

Item	Qty	Reference	Part Name	Manufacturer	Description
1	1	J2	ANT CONNECTOR		
2	3	C1 C74	C-SMD,0.001B		
		C86			
3	2	C56 C64	C-SMD,0.0047B		
4	1	C65	C-SMD,0.01B		
5	18	C5 C8	C-SMD,0.01B		
		C13-14			
		C16 C30			
		C35-36			
		C38			
		C61-62			
		C66			
		C69-70			
		C78 C81			
		C84-85			
6	10	C3 C24	C-SMD,0.022B		
		C29			
		C31-32			
		C46 C57			
		C59 C77			
		C80			
7	2	C90 C102	C-SMD, 0.022B(2012)		
8	1	C68	C-SMD,0.068B		
9	12	C2 C4 C19	C-SMD,0.1B		
		C21-23			
		C25 C37			
		C63			
		C71-72			
		C110			
10	1	C28	C-SMD,100PCH		
11	1	C93	C-SMD, 100PCH(3216)		
12	1	C41	C-SMD,10PCH		
13	2	C44 C73	C-SMD,150PCH		
14	1	C103	C-SMD, 150PCHD/50V	ANT	
15	1	C51	C-SMD,15PCH		
16	1	C76	C-SMD,180PCH		
17	1	C96	C-SMD, 180PCH(3216)		
18	2	C132-133	C-SMD,1uFB		

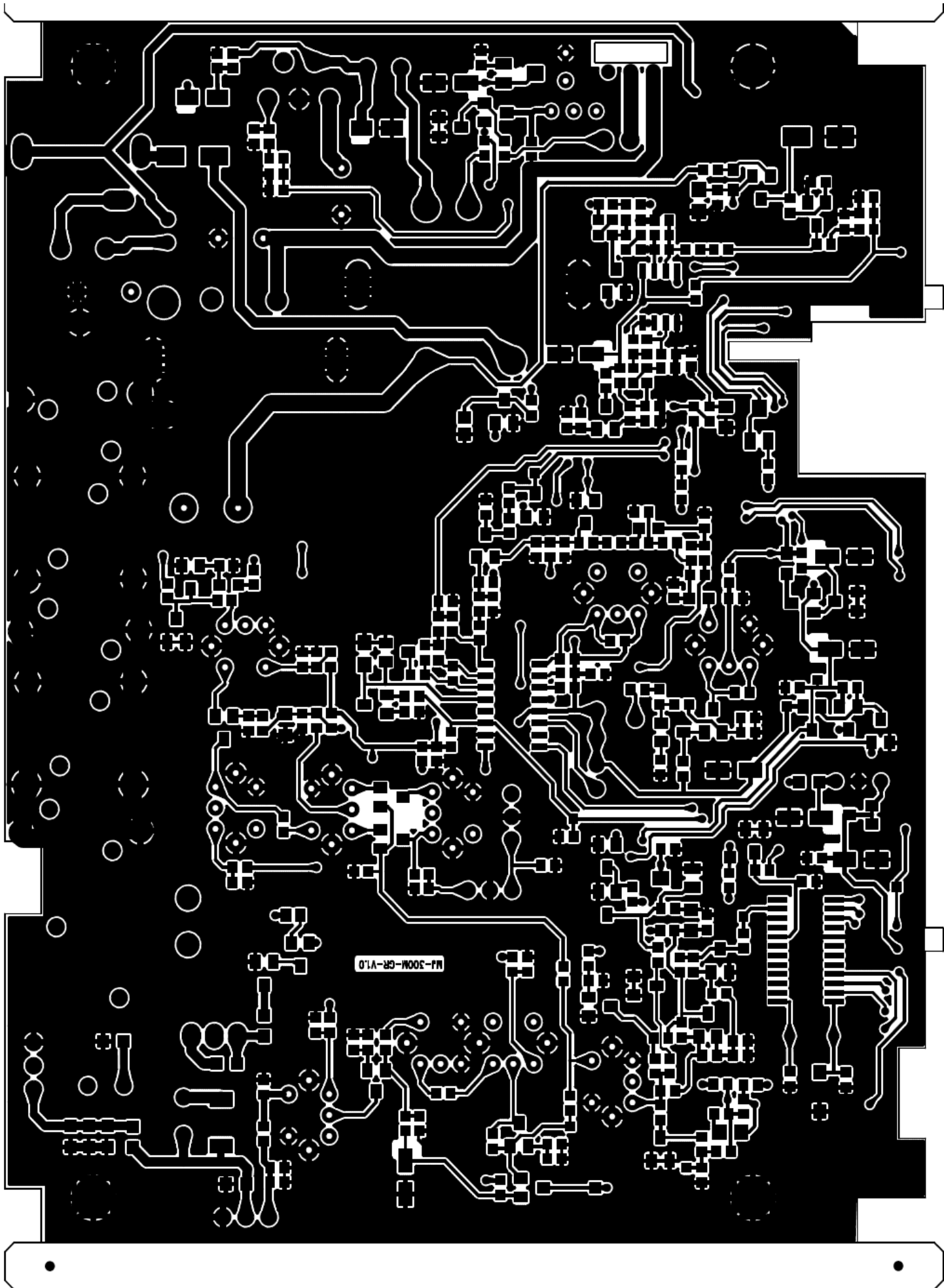
19	1	C39	C-SMD,220PCH			
20	2	C97 C99	C-SMD,			
			220PCH(3216)			
21	1	C43	C-SMD,270PCH			
22	1	C95	C-SMD,			
			270PCH(3216)			
23	2	C11 C17	C-SMD,27PCH			
24	3	C10 C79	C-SMD,330PCH			
		C83				
25	3	C9 C40	C-SMD,33PCH			
		C42				
26	1	C98	C-SMD,			
			33PCH(3216)			
27	1	C94	C-SMD,			
			390PCH(3216)			
28	1	C135	C-SMD,3PCH			
29	1	C134	C-SMD,12V			
			4.7uFB(2012)			
30	2	C116 C131	C-SMD, 12V			
			4.7uFB(2012)			
31	1	C88	C-SMD,			
			470PCH(2012)			
32	1	C89	C-SMD,			
			470PCH(3216)			
33	3	C47-49	C-SMD,47PCH			
34	1	C100	C-SMD,			
			47PCH(2012)			
35	3	C18 C45	C-SMD,5PCH			
		C82				
36	1	C67	C-SMD,680PCH			
37	2	C6-7	C-SMD,680PCH			
38	1	C87	C-SMD,68PCH			
39	2	C91 C115	C-SMD,			
			68PCH(2012)			
40	1	C15	C-SMD,7PCH			
41	1	C12	C-SMD,C820PCH			
42	2	CF1-2	CF-A,10.7M7.5A	FAIR		
43	1	CF3	CF-A,455HT			
44	1	L5	COIL,TANK COIL			
45	1	CN2	CON-2,13.8V	POWER CORD ASSY W/FUSE 5A		
46						
			CONNECTOR			
47	1	CN1	CON-2B,IN-SP	SP CONNECTOR ASSY 2.5 PITCH		
48						
49						
50						

51	1	CT1	CV-SMD,20P				
52	2	D20 D24	D,1N4002				
53	1	D11	D,KDR357				
54	3	D9 D13	D,KDS160				
		D15					
55	2	D2 D6	D,KDS226				
56	2	D1 D5	D,KDS181				
57	3	D4 D12	D,KDS184				
		D25					
58	2	D8 D14	D,KDV251Y				
59	1	D21	DZ ,3.0VB				
60	1	D22	DZ ,5.6VB				
61	1	D7	DZ ,9.1VB				
62	1	TE8	T-A,1/16				
62-1	1	CE23	E-A,1/16				
63	1	TE14	T-A,10/16				
64	2	CE8 CE14	E-C,100/16				
65	2	CE9 CE17	E-L,1000/16				
66	1	CE16	E-C,22/16				
67	1	TE4	T-A,3.3/16				
68	4	CE1 CE6	E-C,33/16				
		CE20 CE22					
69	1	CE15	E-L,330/16				
70	4	CE2 CE7	E-C,47/16				
		CE21 CE10					
71	1	IC2	REG,5V REG	5V150mA			
72	2	IC5	MIC,KIA4558F				
73	1	IC5	POW,TDA2003				
74	1	IC3	IC24-MFP24S,				
		PLL , LC7152M					
75	1	IC1	FM IF,MC3361		YW		
76	1	T3	IFT,047				
77	1	T6	IFT,81450A				
78	1	T7	IFT,81460N				
79	1	T4	IFT,048				
80	1	T1	IFT6,81410A				
81	1	T2	IFT6,81420				
82	2	T9-10	IFT6,81480				
83	1	T11	IFT6,LX18				
84	1	T5	IFT-5,036				
85	1	J1	3.5 PIE JACK				
86	1	L11	L-D,				
		180nH(2012)					
87	1	L3	L-D,				

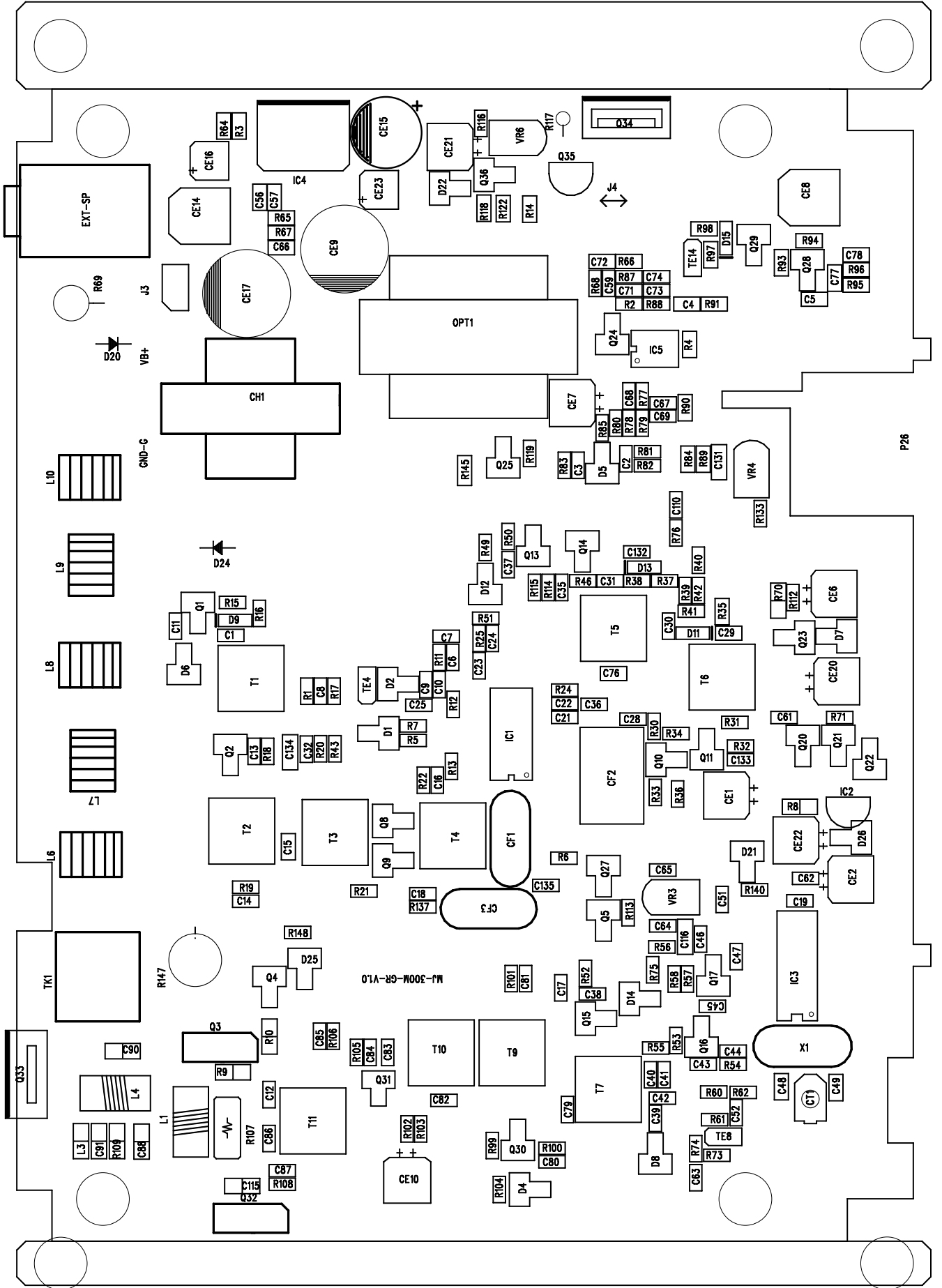
			6.8uH(2012)			
88	1	L1	L-S,6T			
89	1	L9	L-S,7-1/2T			
90	4	L6-8 L10	L-S,8-1/2T			
91	1	L4	L-PICKING			
			COIL			
92	2	R145 R148	R-SMD,0J			
93	1	R58	R-SMD,1.5K			
94	1	R12	R-SMD,1.5M			
95	1	R6	R-SMD,10J			
			OHM/5W CEMENT			
96	5	R19 R84	R-SMD,100J			
			R100-101			
			R133			
97	1	R10	R-SMD,			
			100J(2012)			
98	5	R13 R15	R-SMD,100KJ			
			R49			
			R114-115			
99	10	R25 R51	R-SMD,10KJ			
			R60-61			
			R67			
			R77-79			
			R98 R113			
100	1	R107	R-SMD,			
			120J(5025)			
101	1	R70	R-SMD,15J(2012)			
102	1	R117	R-BULK,150/1W			
103	1	R42	R-SMD,150KJ			
104	4	R5 R50	R-SMD,15KJ			
			R66 R94			
105	1	R85	R-SMD,180KJ			
106	5	R18 R30	R-SMD,1KJ			
			R54 R93			
			R140			
107	1	R9	R-SMD,1KJ(2012)			
108	1	R52	R-SMD,10KJ			
109	1	R64	R-SMD,2.2J			
110	10	R3 R16	R-SMD,2.2KJ			
			R36 R46			
			R62 R65			
			R71 R91			
			R95 R137			
111	5	R1 R20-21	R-SMD,2.7KJ			
			R76 R96			
112	3	R22 R33	R-SMD,220J			

		R119				
113	4	R53 R57	R-SMD,220KJ			
		R88 R99				
114	6	R14 R31	R-SMD,22KJ			
		R68				
		R73-75				
115	2	R2 R89	R-SMD,27KJ			
116	2	R82-83	R-SMD,3.3KJ			
117	2	R32 R97	R-SMD,330J			
118	4	R7 R37	R-SMD,33KJ			
		R41 R90				
119	1	R118	R-SMD,390J			
120	1	R69	R-BULK,4.7/2W			
121	2	R102-103	R-SMD,4.7KJ			
122	1	R144	R-SMD,			
			4.7KJ(2012)			
123	3	R35	R-SMD,47J			
		R105-106				
124	1	R8	R-SMD,22J(2012)			
125	2	R11 R116	R-SMD,470J			
126	6	R38-39	R-SMD,47KJ			
		R43 R55				
		R80-81				
127	2	R87 R104	R-SMD,5.6KJ			
128	1	R56	R-SMD,56J			
129	2	R24 R34	R-SMD,56KJ			
130	1	R108	R-SMD,68J			
131	1	R109	R-SMD,68J(2012)			
132	1	R122	R-SMD,680J			
133	1	R40	R-SMD,68KJ			
134	1	R4	R-SMD,8.2KJ			
135	1	R112	R-SMD,820J			
136	1	R17	R-SMD,82KJ			
137	1	Q21	SOT23,KRA101S			
138	1	Q27	SOT23,KRA102S			
139	1	Q35	TO92L,KTA1241Y			
140	1	Q29	SOT23,KTA1504Y			
141	1	Q3	T-220AB,B1366Y			
142	1	Q34	T-220AB,B1366Y			
143	6	Q4-5	SOT23,KRC102S			
		Q13-14				
		Q22 Q24				
144	1	Q25	SOT23,KRC104S			
145	1	Q33	T-220,2SC2078E			
146	1	Q32	T- ,2SC2314F			
147	1	Q31	TO92			
		C3199GR				

148	8	Q1 Q10-11	SOT23,KTC3875Y		
		Q15 Q20			
		Q23 Q28			
		Q36			
149	6	Q2 Q8-9	SOT23,KTC3880Y		
		Q16-17			
		Q30			
150	1	OPT1	TRANS,24MM		
151	1	CH1	TRANS2,19MM		
152	1	VR4	VR- 3P,1KB		
153	1	VR6	VR- 3P,470B		
154	1	VR3	VR- 3P,5KB		
155	1	X1	XTL- 49/U 8PPM		
			10.245MHZ		
156		MAIN PCB	FR-4 DOUBLE	MJ-800MAIN-GR	



M1-300M-CR-V1.0



P26

M-300M-GR-V10

EXT-SP

CH

OPT1

T1

T2

T3

T4

T9

T10

T11

T5

T6

T7

X1

L10

L9

L8

L7

L6

L4

L3

L2

L1

J3

D20

GND-G

D24

R147

Q3

R10

C85

R106

R105

C84

C83

Q31

R102

R103

C82

C87

R108

C115

Q32

R107

C86

C12

R148

D25

Q4

R104

D4

R100

C80

Q30

R99

C78

D8

C39

C42

C41

C40

R55

R53

R54

C44

Q16

C43

R54

R60

R62

C52

R61

C52

TE8

R74

R73

C63

Q17

C47

C46

C16

R57

R56

R55

R54

R53

R52

R51

R50

R49

R48

R47

R46

R45

R44

R43

R42

R41

R40

R39

R38

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