

Service Manual

ATS-909X2

FM Stereo / AIR / MW / LW / SW PLL Synthesized Receiver

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Specification

FM. ELECTRICAL PERFORMANCE

Model : ATX-909X2		Brand : SANGEAN			Date : 2020/7/8	
Temp : 25° C		R.H : 75%				
Test Item	Condition			Value		Unit
	Input	Output	freq	Nom.	Lim.	
Tuning Range		S/N=6dB	Min	87.5	±0.05	MHz
			Max	108.0	±0.05	
Intermediate freq.		S/N=6dB		10.7	±0.05	MHz
Max. Sensitivity		S/N=6dB	90MHz		16	dBμ
			98MHz		16	
			106MHz		16	
Usable Sensitivity		S/N=30dB	90MHz	16	22	dBμ
			98MHz	16	22	
			106MHz	16	22	
Image Rejection						dB
I.F. Rejection						dB
3dB Limiting(1mV)	80dBμ		98MHz	20	26	dBμ
Min. output	60dBμ			0.6	3	mv
Tuning Ind. Sens. (4 nd.dot)				13	18	dBμ
Auto. Scan. Stop. Sens.				18	24	
Stereo indicator Sens.				26	±4	
Stereo separation (1KHz)	60dBμ			25	20	dB
Spurious rejection					50	dB
S/N Ratio				50	44	dB
Current Consumption	60 dBμ	R.O.		160	190	mA
Am. suppression	60dBμ.EMF				30	dB
Output Power	400Hz	10%T.H.D			>1	W
T.H.D.(75KHz dev.)	400/1kHz			2	4	%
Over load capacity		10%T.H.D		106	dBμ	
Earphone output power (75KHz dev 32Ω)	60dBμ	VR Max.		2	0.9	mW
*Lowest Batt. volt.	60dBμ		98MHz	3.9	4.2	V
Audio Fidelity. -3dB (W/Pre-emphasis-50us)	60dBμ	TONE. NORMAL	98MHz	300 6K	380 4.5K	Hz
TONE action 10kHz/1kHz Volume @Center Position	60dBμ	MUSIC	98MHz	+2	0	dB
	60dBμ	MENS	98MHz	-22	-16	
Supply Voltage : DC 9 V		R.O : 50 mW		Load : 4-Ohm-SPK		
Modulation : 1000Hz/22.5 Dev						
Remark : ** Test is used real speaker as load ** Band width default set→110KHZ ** TONE -NORMAL		110khz		Released / Tested by :		
		85khz				
		65khz				

Specification

MW ELECTRICAL PERFORMANCE

Model : ATS-909X2		Brand : SANGEAN			Date : 2020/7/8	
Temp : 25° C		R.H : 75%				
Test Item	Condition			Value		Unit
	Input	Output	freq	Nom.	Lim.	
Tuning Range			Min.	520	±1	KHz
			Max.	1710	±1	
Intermediate freq.		S/N=6 dB	1st IF 2nd IF	55845 450	±1	KHz
Max. Sensitivity		S/N=6 dB	603KHz		58	dBμ/m
			999KHz		56	
			1404KHz		56	
Usable Sensitivity		S/N=20dB	603KHz	58	64	dBμ/m
			999KHz	56	62	
			1404KHz	56	62	
Image Rejection		S/N=6 dB	1404KHz	36	30	dB
I. F. Rejection(450KHz)		S/N=6 dB	999KHz		50	dB
Selectivity(±10KHz)		S/N=6 dB			40	dB
Bandwidth (Wide 6k)6dB		S/N=6 dB		7	4-8	KHz
Bandwidth (Narrow1.8k)6dB		S/N=6 dB		4.5	2.5-6	KHz
T. H. D.(5mV)	74 dBμ/m			2	4	%
Lowest Batt. Volt.	74 dBμ/m			3.9	4.2	V
Hum Modulation.	100 dBμ/m					dB
Tuning Ind. Sens.(4nd.dot)				54	60	dBμ/m
Auto. Scan. Stop. Sens.				56	62	dBμ/m
S/N Ratio	74 dBμ/m				32	dB
Current Consumption	74 dBμ/m			180	210	mA
Power off Current	POWER OFF				180	uA
Audio fidelity(-6dB)					150	Hz
Band width 3KHZ	74 dBμ/m				1800	
Output power AM MOD=80%	74 dBμ/m 400Hz	MAX 10%T.H.D			>1	W
Over Load Capacity	30%Mod	10%T.H.D			100	dBμ/m
A. G. C. F. O. M.	100dBμ/m				50	dB
A. C.A.(. ±10KHz)					28	dB
Whistle Modulation(5mV/M)	74 dBμ/m		2IF/3IF		15	%
Supply Voltage : DC9 V		R.O : 50 mW		Load : 4-Ohm-SPK		
Modulation : 1000Hz/30%Mod						
Remark : ** Test is used real speaker as load ** Band width default set→3KHZ ** TONE -NORMAL		6KHZ wide		2.5KHZ	Approved by :	Released / Tested by :
		4KHZ		1.8KHZ Narrow		
		3KHZ				

Specification

SW ELECTRICAL PERFORMANCE

Model : ATS-909X2		Brand : SANGEAN			Date : 2020/7/8	
Temp : 25° C		R.H : 75%				
Test Item	Condition			Value		Unit
	Input	Output	freq	Nom.	Lim.	
Tuning Range			Min.	1711	±1K	KHz
			Max.	29999	±1K	
Intermediate freq.		S/N=6dB	1 st . IF 2 nd . IF	55845 450	±1	KHz
Max. Sensitivity		S/N=6dB	3900KHz		22	dBμ
			15100KHz		18	
			25600KHz		18	
Usable Sensitivity		S/N=20dB	3900KHz	22	28	dBμ
			15100KHz	18	24	
			25600KHz	18	24	
Calibration		S/N=6dB	3900KHz 15100KHz 25600KHz		±1	KHz
Audio fidelity(-6dB)	60 dBμ		15100KHz		200	Hz
Band width 2.5khz					1800	Hz
Selectivity(±10KHz)		50		dB		
Bandwidth (Wide 4k)6dB		6		4-8	KHz	
Bandwidth (Narrow 1k)6dB		4.5		3-7	KHz	
T. H. D. (60 emf dBμ)		2		4	%	
A. G. C. F. O. M.(86 dBμ)				60	dB	
Image Rejection		42		36	dB	
I. F. Rejection (450KHz)		76		60	dB	
Lowest Batt. Volt.		3.9		4.2	V	
Hum Modulation (5Mv)					dB	
Tuning Ind. Sens.(4 nd .dot)				18	dBμ	
Auto. Scan. Stop. Sens.				<20	dBμ	
S/N Ratio (60 dBμ)				40	dB	
Output power- AM MOD=80%		10%T.H.D			>1	W
Over Load Capacity	30%mod.	10%T.H.D		86	80	dBμ
RF Gain Control				28	±6	dB
SSB/CW sens.(S/N=10dB)				-3	+3	dBμ
Current Consumption	60 dBμ			160	190	mA
A.C.A.(±10KHz)					28	dB
Supply Voltage : DC 9 V			R.O : 50 Mw		Load : 4-Ohm-SPK	
Modulation : 1000Hz/30% Mod						
Remark : ** Test is used real speaker as load ** Band width default set→2.5KHZ						Approved by : Released / Tested by :
	4khz Wide	3khz	2.5khz	1.8khz	1khz Narrow	

Specification

LW ELECTRICAL PERFORMANCE

Model : ATS-909X2		Brand : SANGEAN			Date : 2020/7/8	
Temp : 25°C		R.H : 75%				
Test Item	Condition			Value		Unit
	Input	Output	freq	Nom.	Lim.	
Tuning Range			Min.	100	±1	KHz
			Max.	519	±1	
Intermediate freq.		S/N=6dB	1st. IF 2nd. IF	55845 450	±1	KHz
Max. Sensitivity		S/N=6dB	180KHz		68	dBμ/m
			216KHz		66	
			279KHz		64	
Usable Sensitivity		S/N=20dB	180KHz	68	74	dBμ/m
			216KHz	66	72	
			279KHz	64	70	
Image Rejection			279KHz	30	24	dB
I.F. Rejection	450KHz	S/N=6dB	225KHz		30	dB
Selectivity(±10KHz)		S/N=6dB	216KHz		40	dB
Bandwidth -6dB		S/N=6dB				KHz
T. H. D. (10mV)	80dBμ/m			2	5	%
Lowest Batt. Volt.	74dBμ/m			3.9	4.2	V
Hum Modulation						dB
Tuning Ind. Sens.(4nd.dot)					72	dBμ/m
Auto. Scan. Stop. Sens.					<72	dBμ/m
S/N Ratio (5mV)	74dBμ/m				20	dB
Current Consumption	74dBμ/m			160	190	mA
Tone action(3KHz)	74dBμ/m	NORMAL /NEWS				dB
Audio fidelity(-6dB)	74dBμ/m				150	Hz
Band width 3KHZ					1.8	KHz
Output power AM MOD=80%	74dBμ/m 1KHz	MAX 10%T.H.D			>1	W
Over Load Capacity	30%mod.	10%T.H.D			106	dBμ/m
A. G. C. F. O. M.	100dBμ/m					dB
Whistle Modulation			2IF/3IF			%
Supply Voltage : DC 9 V		R.O : 50 mW		Load : 4-Ohm-SPK		
Modulation : 1000Hz/30% Mod						
Remark : ** Test is used real speaker as load ** Band width default set(with AM same)→3KHZ ** TONE -NORMAL		Approved by :		Released / Tested by :		

Specification

AIR ELECTRICAL PERFORMANCE

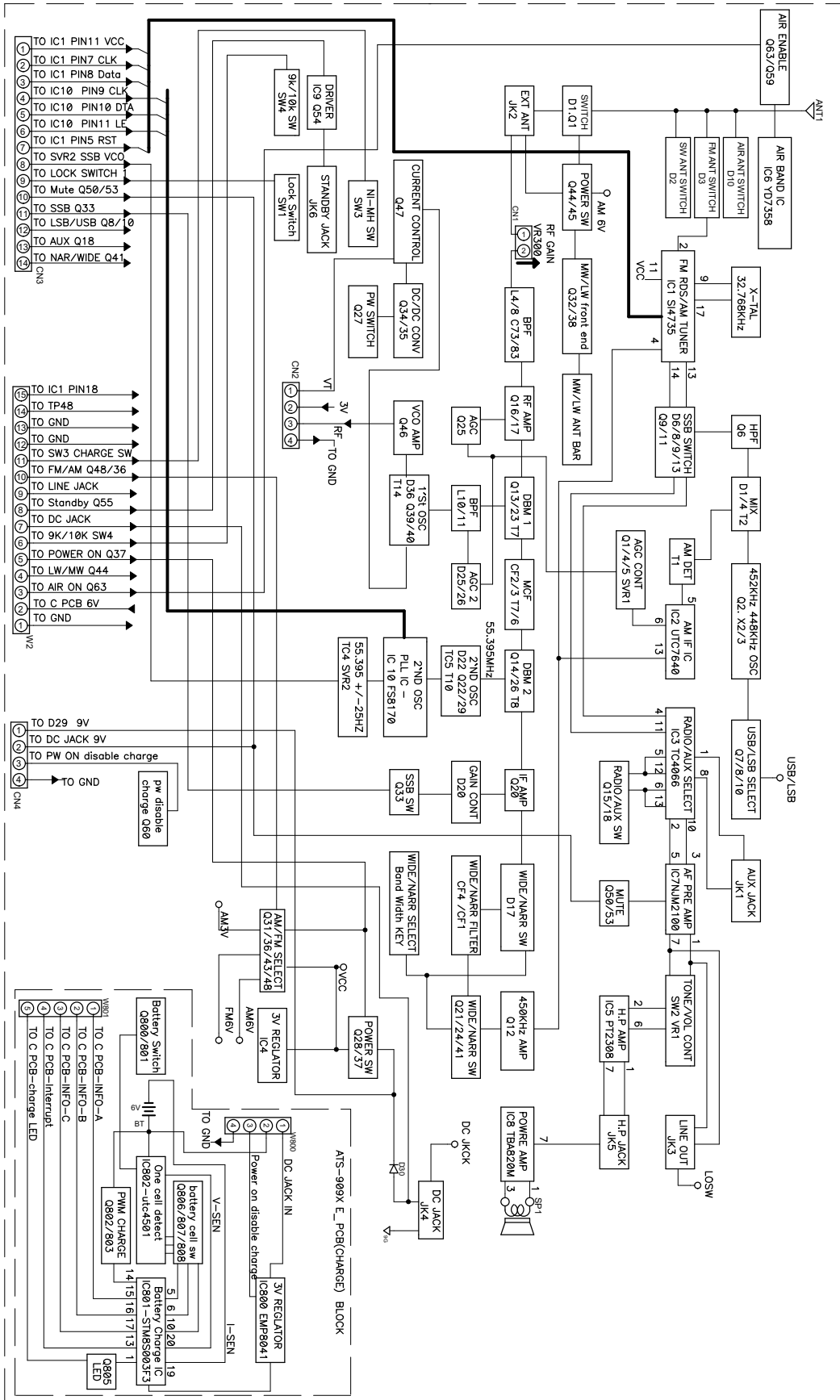
Model : ATS-909X2		Brand : SANGEAN			Date : 2020/7/8	
Temp : 25°C		R.H : 75%				
Test Item	Condition			Value		Unit
	Input	Output	freq	Nom.	Lim.	
Tuning Range			Min.	118	±1	MHz
			Max.	137	±1	
Intermediate freq.		S/N=6 dB	1st. IF 2nd. IF	55845 450	±1	kHz
Max. Sensitivity		S/N=6 dB	119MHz		14	dBμ
			127MHz		14	
			136MHz		14	
Usable Sensitivity		S/N=20dB	119MHz	24	30	dBμ
			127MHz	24	30	
			136MHz	24	30	
Image Rejection	6.31MHz	S/N=6 dB	136MHz	36	30	dB
I. F. Rejection(55.845MHHz)		S/N=6 dB	118MHz		50	dB
Selectivity(±10KHz)		S/N=6 dB	127MHz			dB
Bandwidth (WIDE)6 dB		S/N=6 dB				KHz
Bandwidth (NARROW)6 dB		S/N=6 dB				KHz
T. H. D.(5mV)	60 dBμ			2	4	%
Lowest Batt. Volt.	60 dBμ			3.9	4.2	V
Hum Modulation.	60dBμ					dB
Tuning Ind. Sens.(4nd.dot)					26	dBμ
Auto. Scan. Stop. Sens.				7	13	dBμ
S/N Ratio	60 dBμ				35	dB
Current Consumption	60 dBμ			160	190	mA
Audio fidelity(-6dB)	60 dBμ				150	Hz
Band width 4khz					2100	
Output power AM MOD=80%	60dBμ400Hz	MAX 10%T.H.D			>1	W
Over Load Capacity	30%Mod	10%T.H.D			80	dBμ/m
A. G. C. F. O. M.	60dBμ					dB
A. C.A.(. ±10KHz)						dB
Supply Voltage : DC 9 V			R.O : 50 mW		Load : 4-Ohm	
Modulation : 1000Hz/30%Mod						
Remark : ** Test is used real speaker as load ** Band width default set→4KHZ ** TONE -NORMAL	 Band Width	6khz	Approved by :		Released Tested by :	
	 Band Width	4khz				
	 Band Width	2khz				

Specification

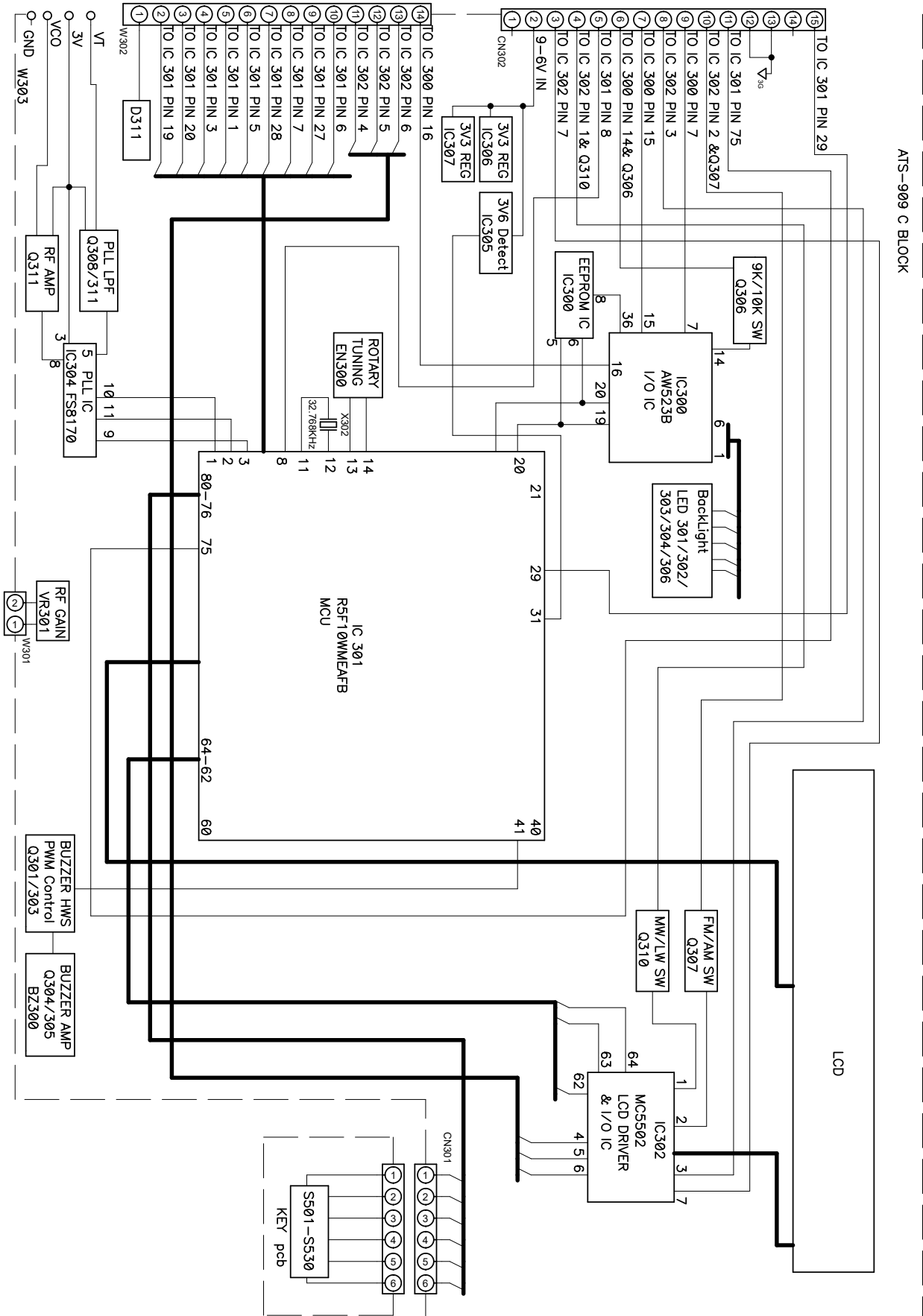
AUX-IN ELECTRICAL PERFORMANCE

Model : ATS-909X2		Brand : SANGEAN		Date : 2020/7/8	
Temp : 25° C		R.H : 75%			
Test Item	Condition		Value		Unit
			Nom.	Lim.	
Output Power	AUX IN=0.5V/1KHz THD=10%			>1	W
AUX IN Dynamic Range	Output=R.O THD=3% AUX IN=1KHz		1.5	1	V
I/S (Input Sensitivity)	AUX IN=1KHz OUT= 10% THD Volume=MAX		200	±50	mV
DISTORTION	AUX IN =I/S 1KHz OUT=R.O		0.5	1	%
MIN OUTPUT	AUX IN =I/S 1KHz Volume=MIN		1	3	mV
S/N RATIO	AUX IN =I/S 1KHz&GND OUT=R.O		56	50	dB
Frequency Response TONE -NORMAL	AUX IN=0.15V/1KHz OUT=50mW=0dB	100Hz	-7	±2	dB
		10KHz	-5	±3	
LINE OUT LEVEL (REC OUT IMPD=10K)	AUX IN =I/S 1KHz		250	±80	mV
Supply Voltage : Adaptor DC 9V		R.O : 50mW		Load : 4-Ohm-SPK	
Remark : ** Test is used real speaker as load ** TONE -NORMAL		Approved by :		Released / Tested by :	

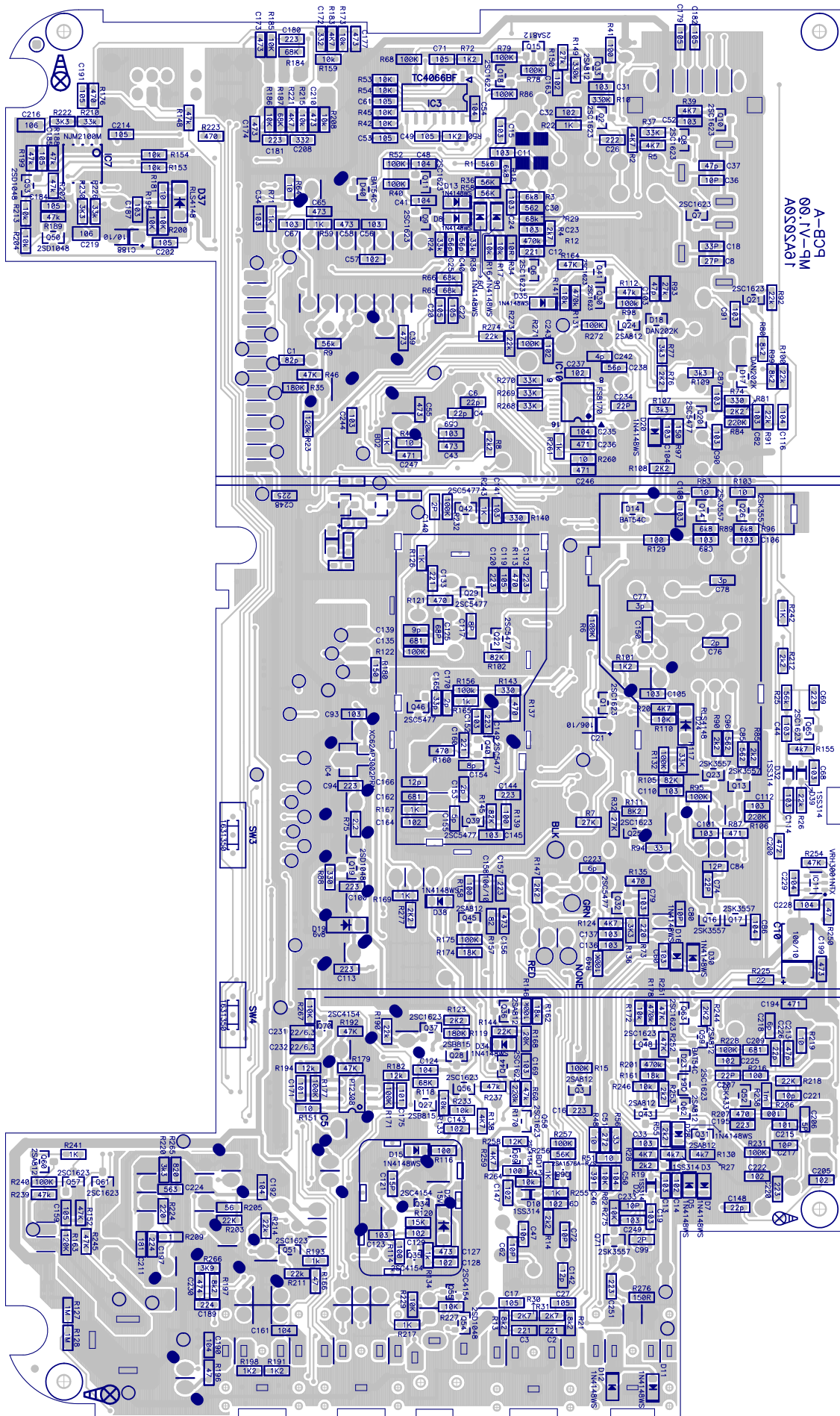
PCB-A&E BLOCK DIAGRAM



9



PCB-A BOTTOM VIEW



PCB-C
MP-V1.00
16A2030A

LED304
[Value]

LED303
[Value]

LED302
[Value]

LED301
[Value]

LED306
[Value]

44

1

43

91

ATS-969X2

LC0300

SW307
ENCODER
STEP

EN300

4.332MHz X301

LED302
LIGHT

SW308

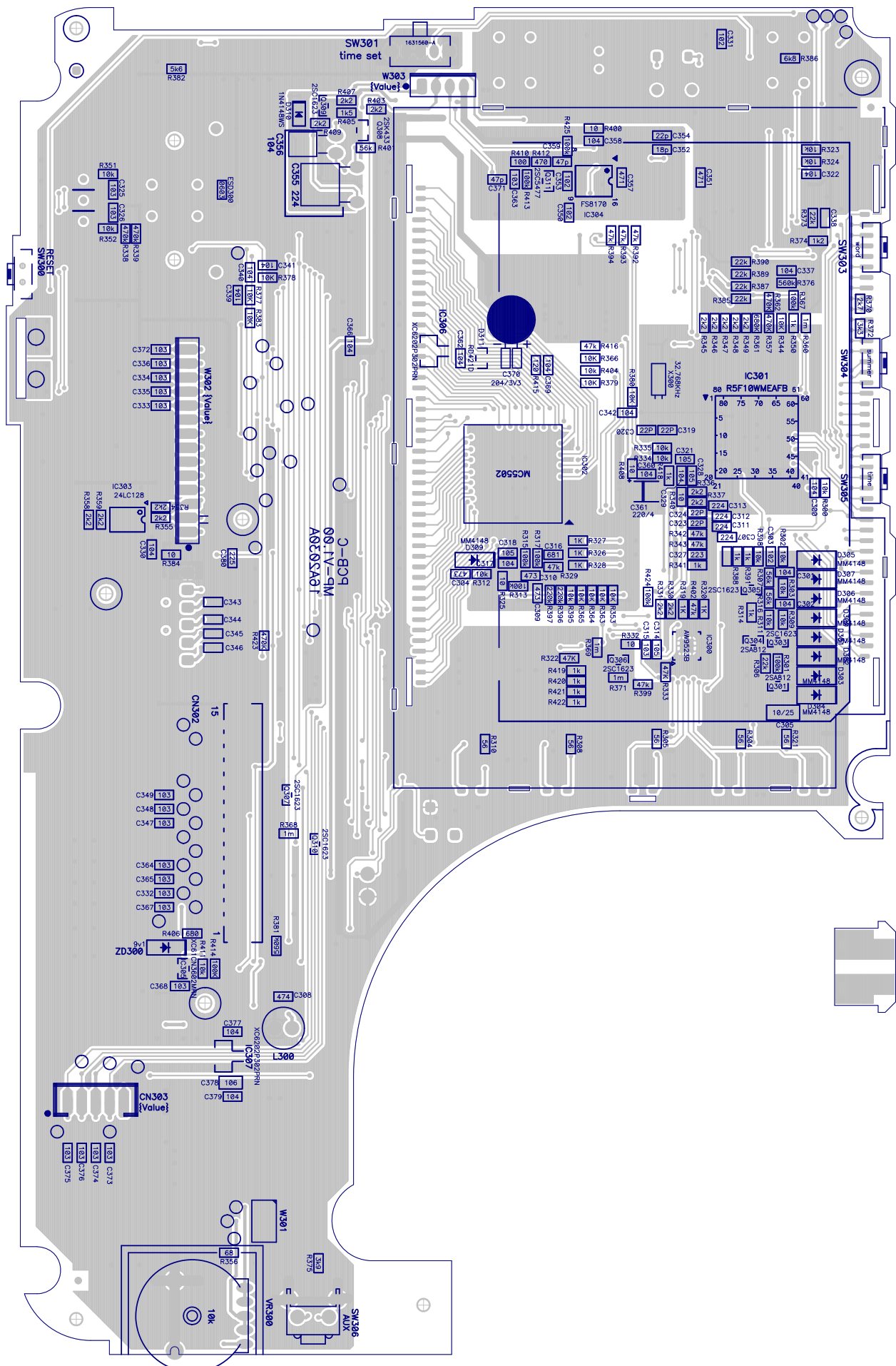
POWER

TC300
30P

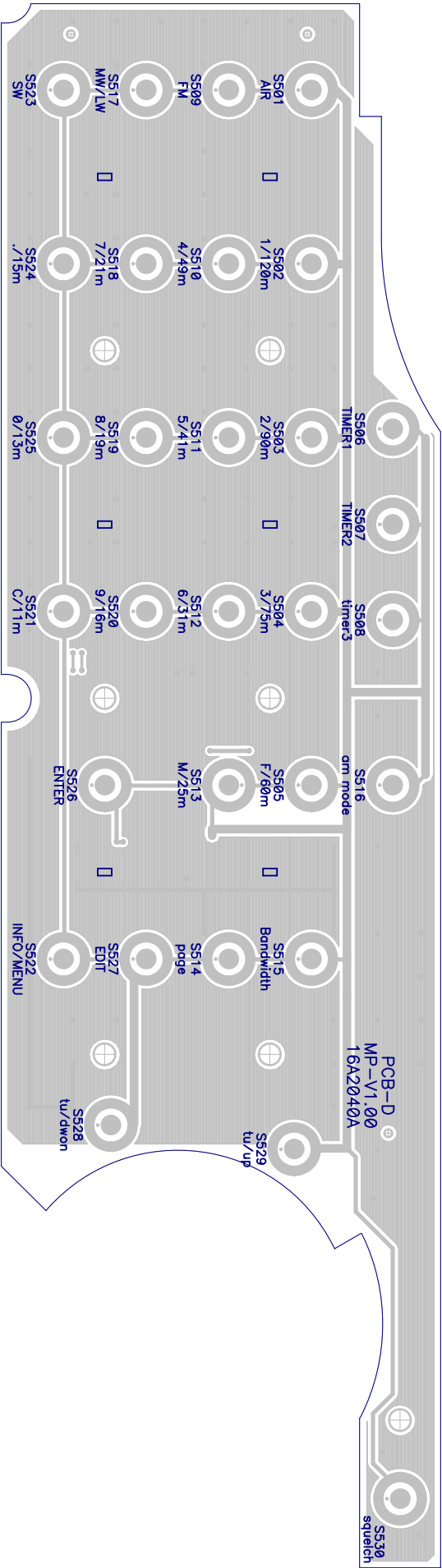
CN301 {Value}

BZ300
500.30F

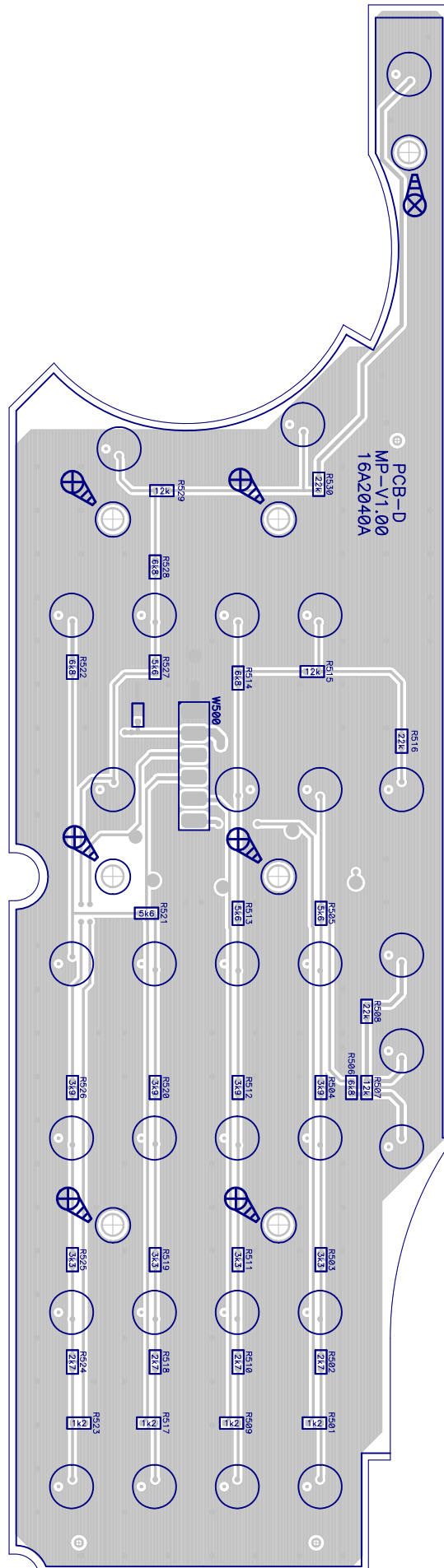
PCB-C BOTTOM VIEW



PCB-D TOP VIEW

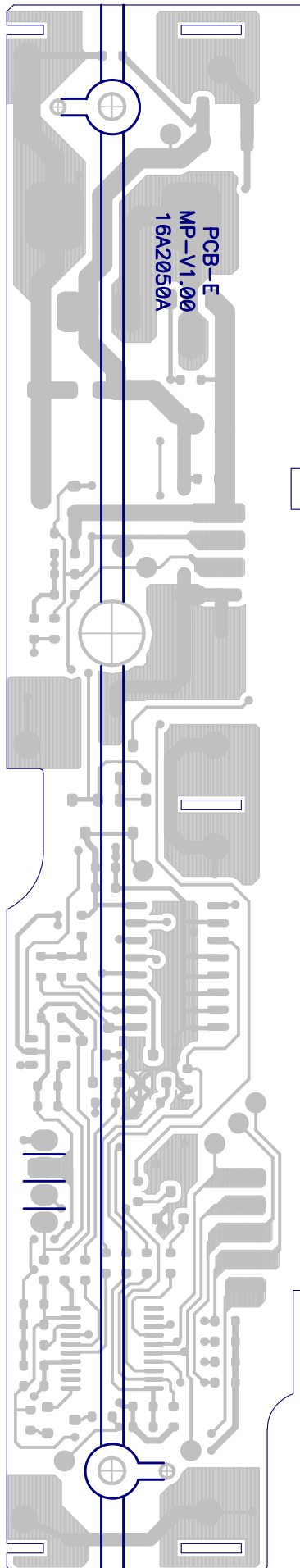


PCB-D BOTTOM VIEW

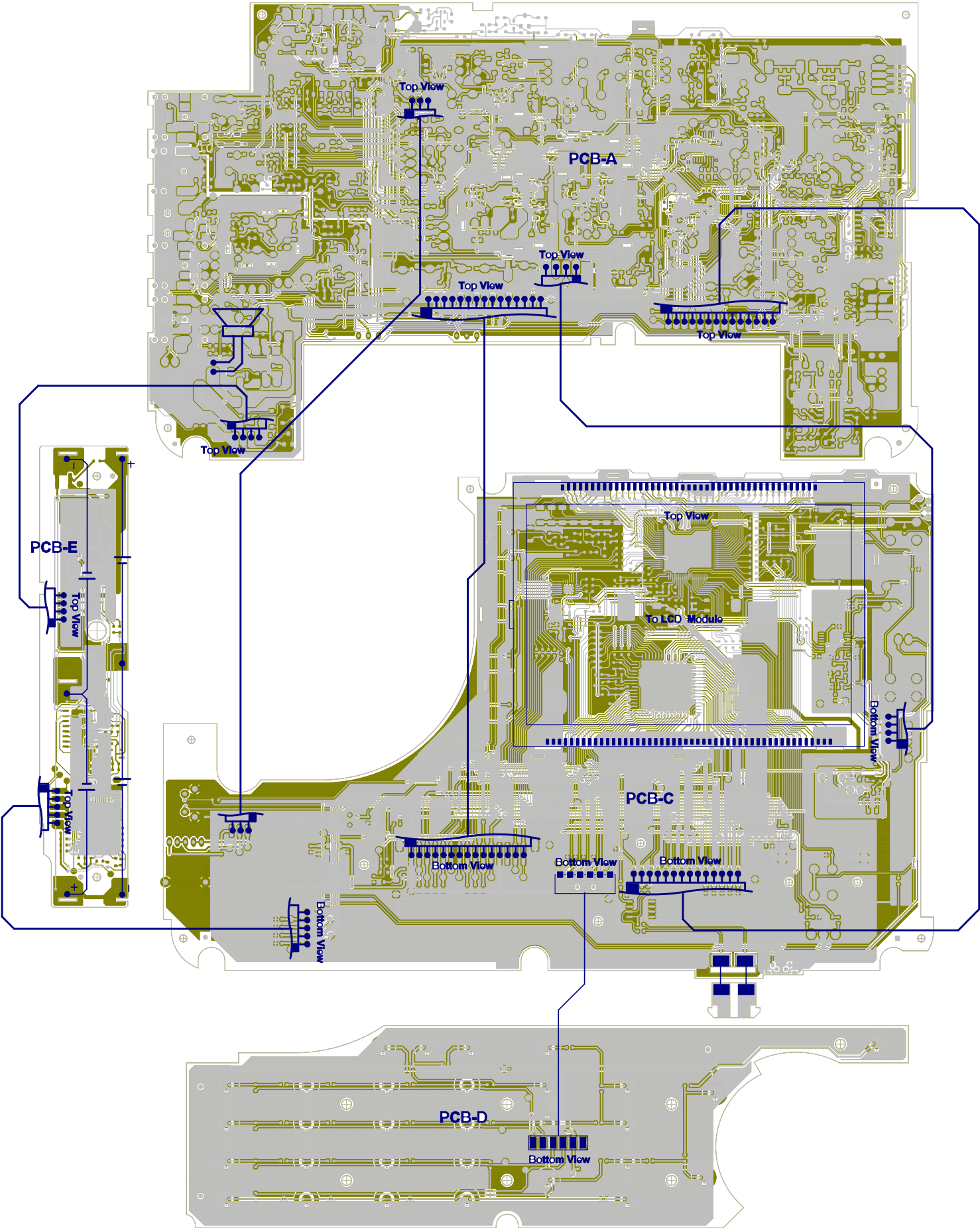


[illegible]

PCB-E BOTTOM VIEW

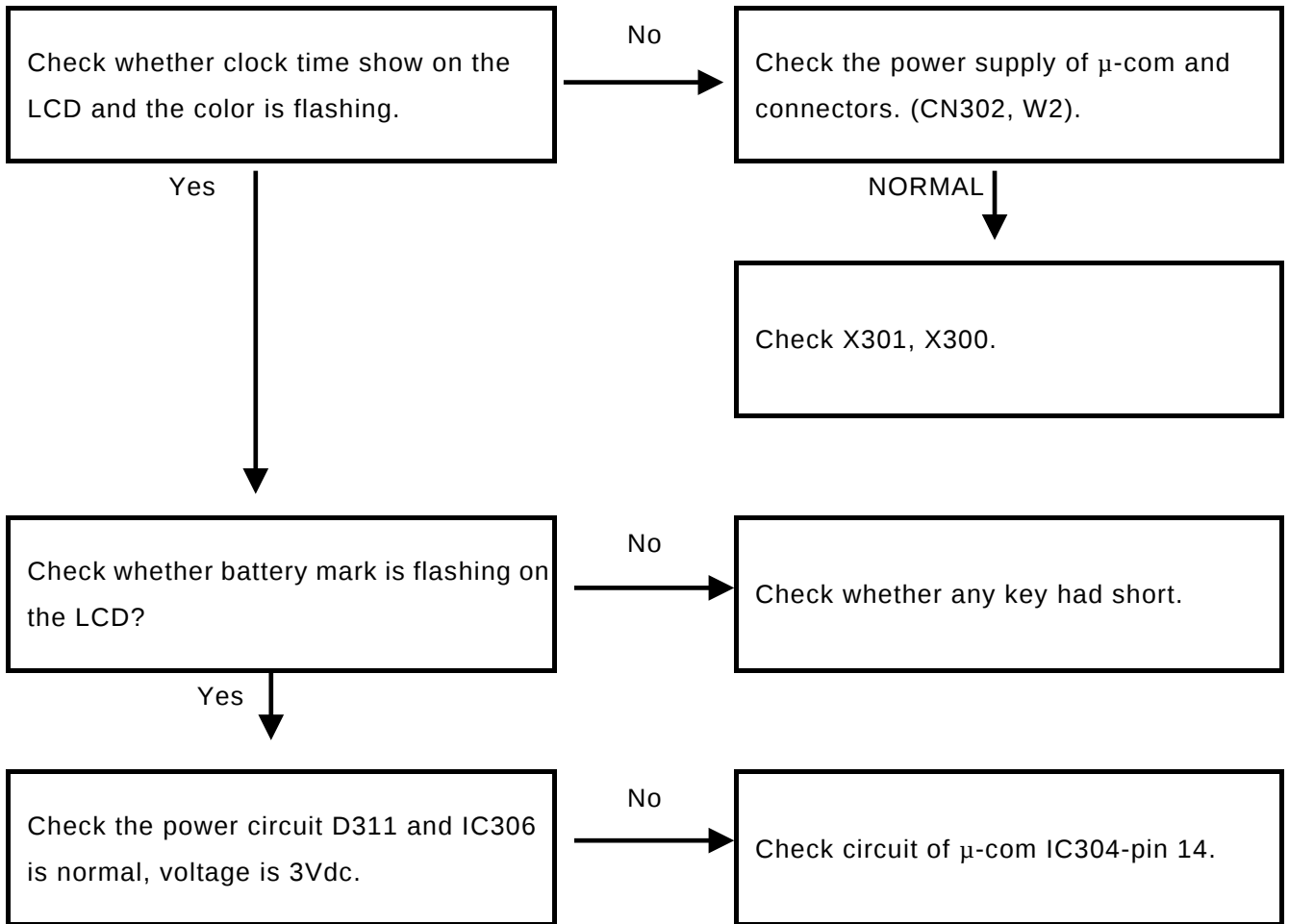


WIRING DIAGRAM

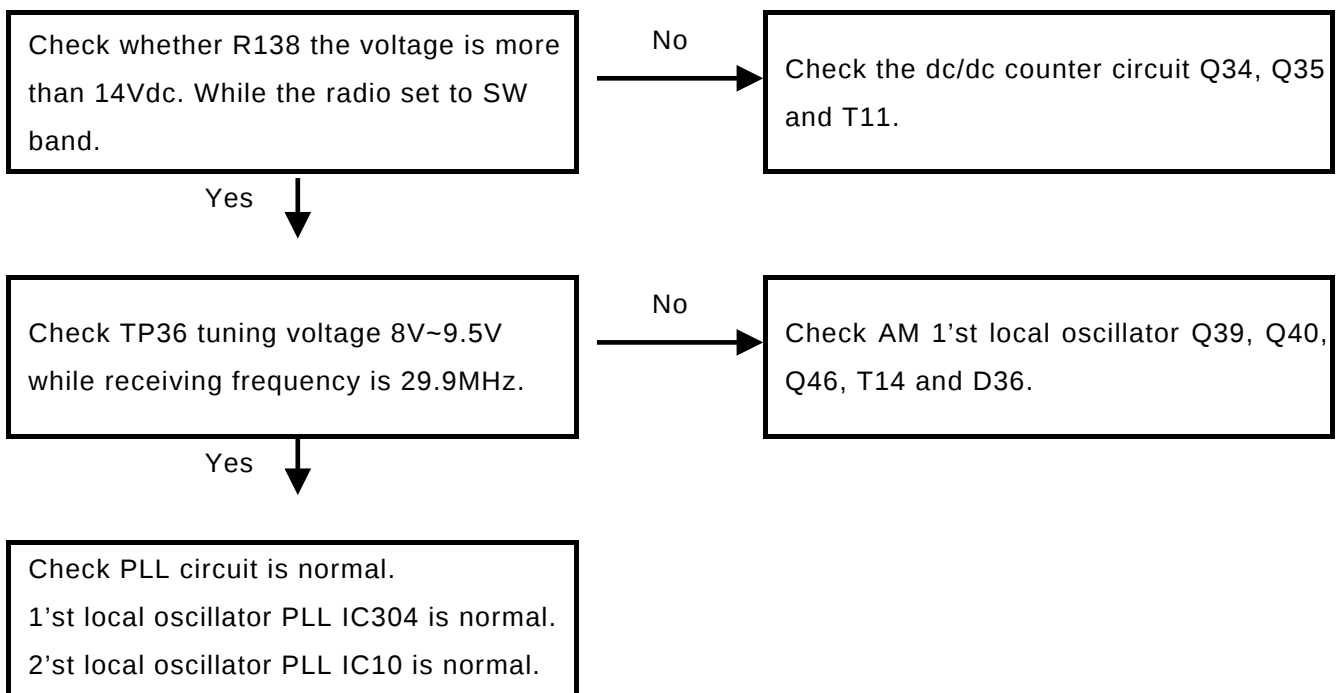


TROUBLESHOOTING FLOW CHART

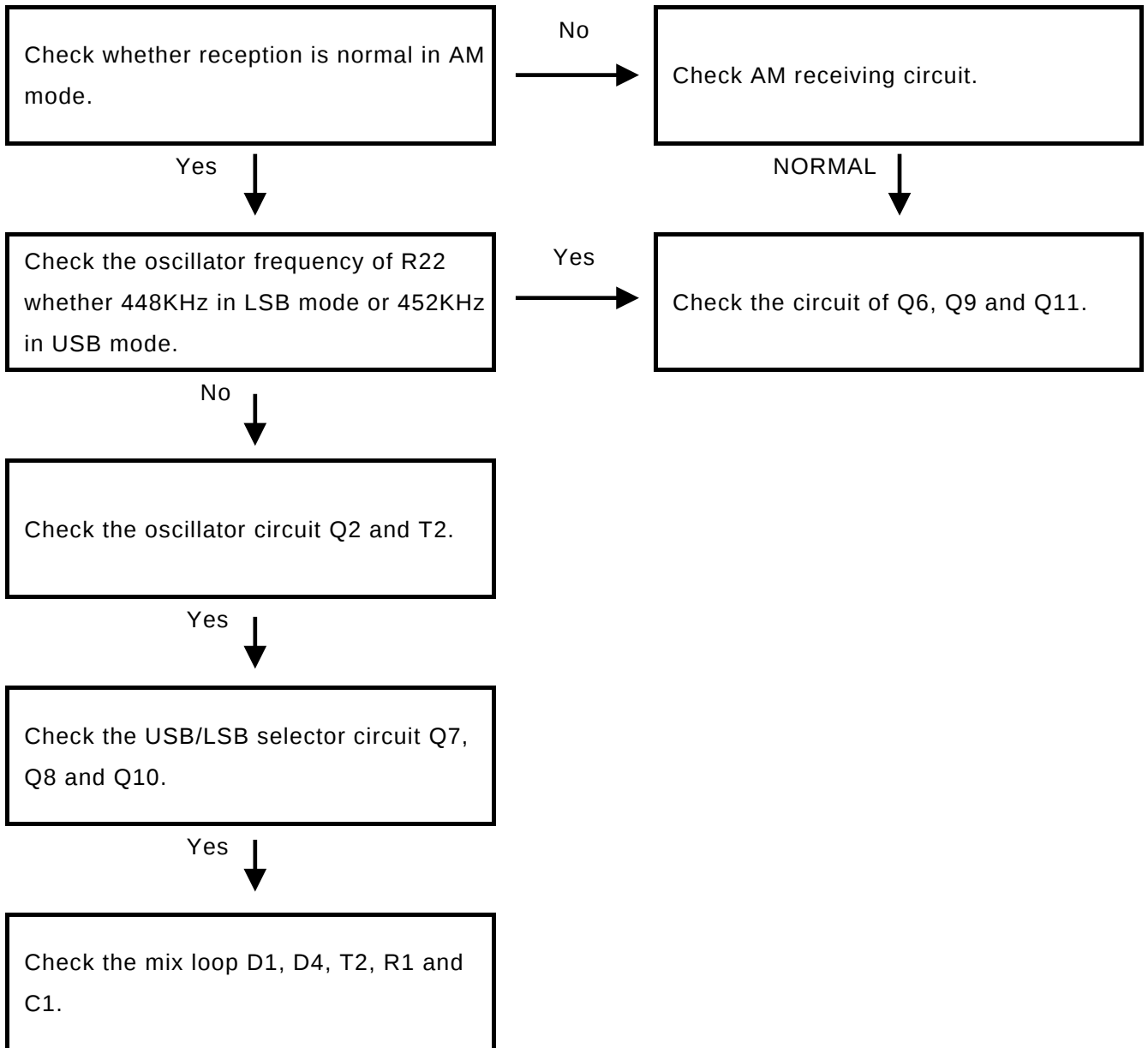
(1) The radio power can not turn to ON



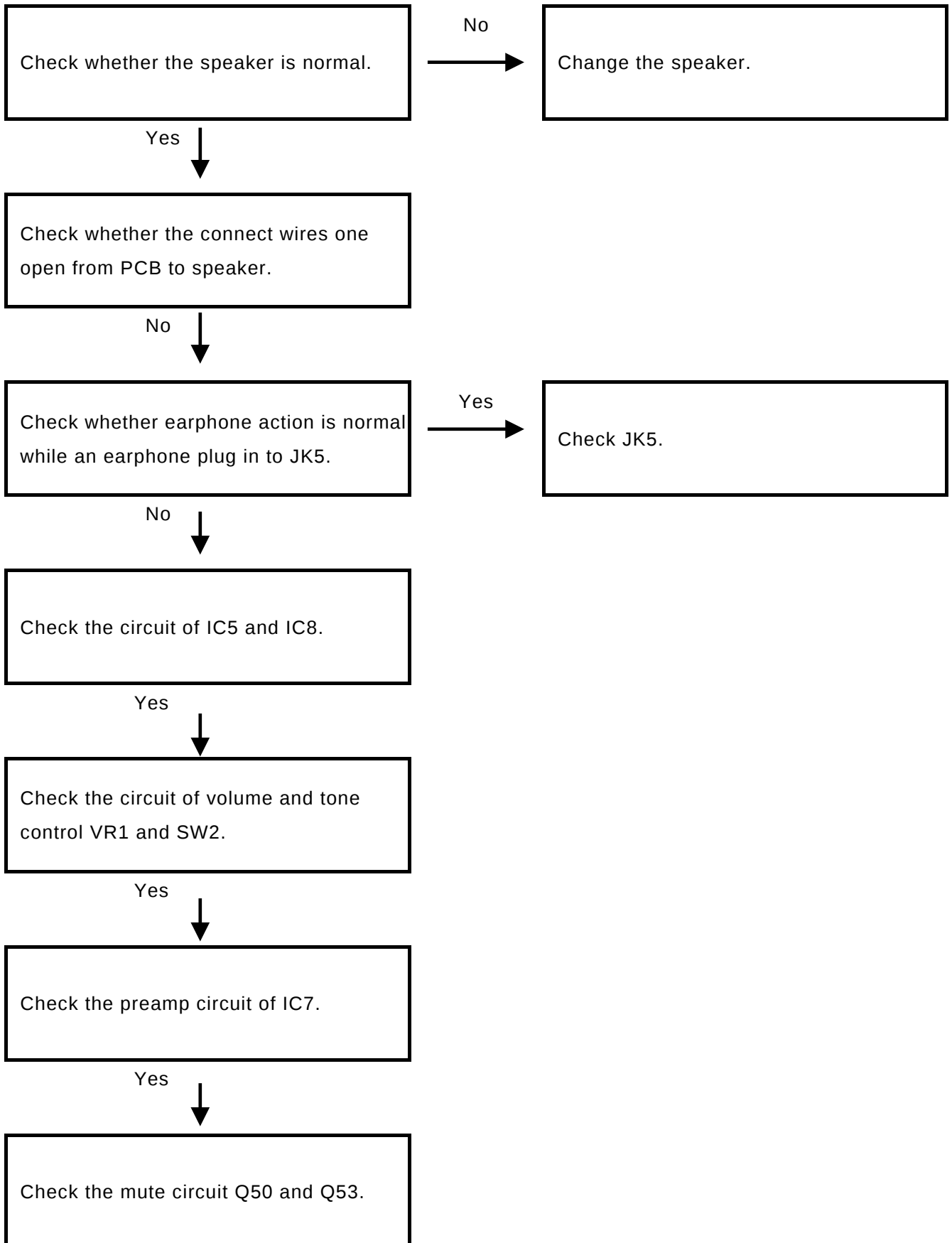
(2) PLL do not work in AM band



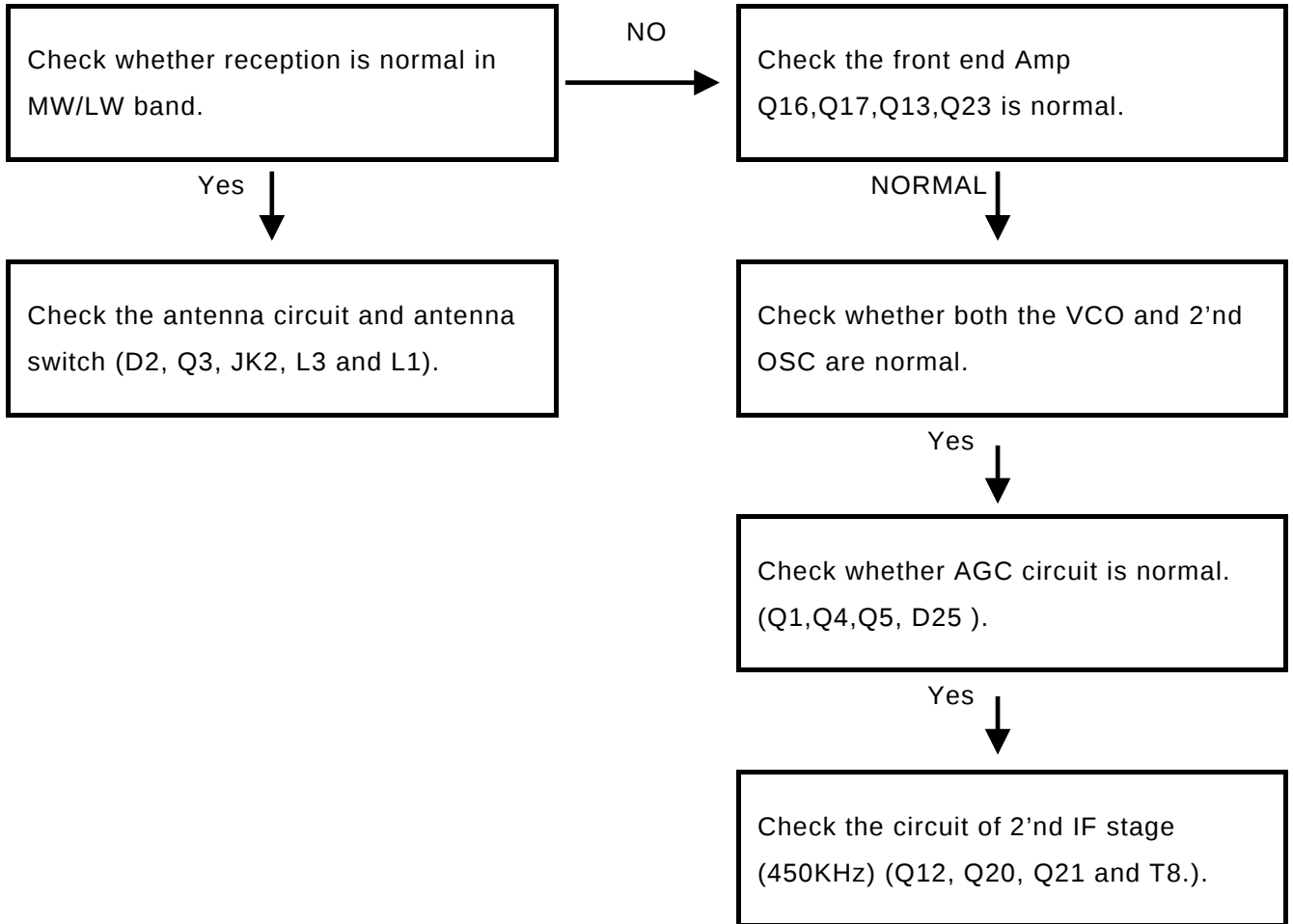
(3) SSB function do not work



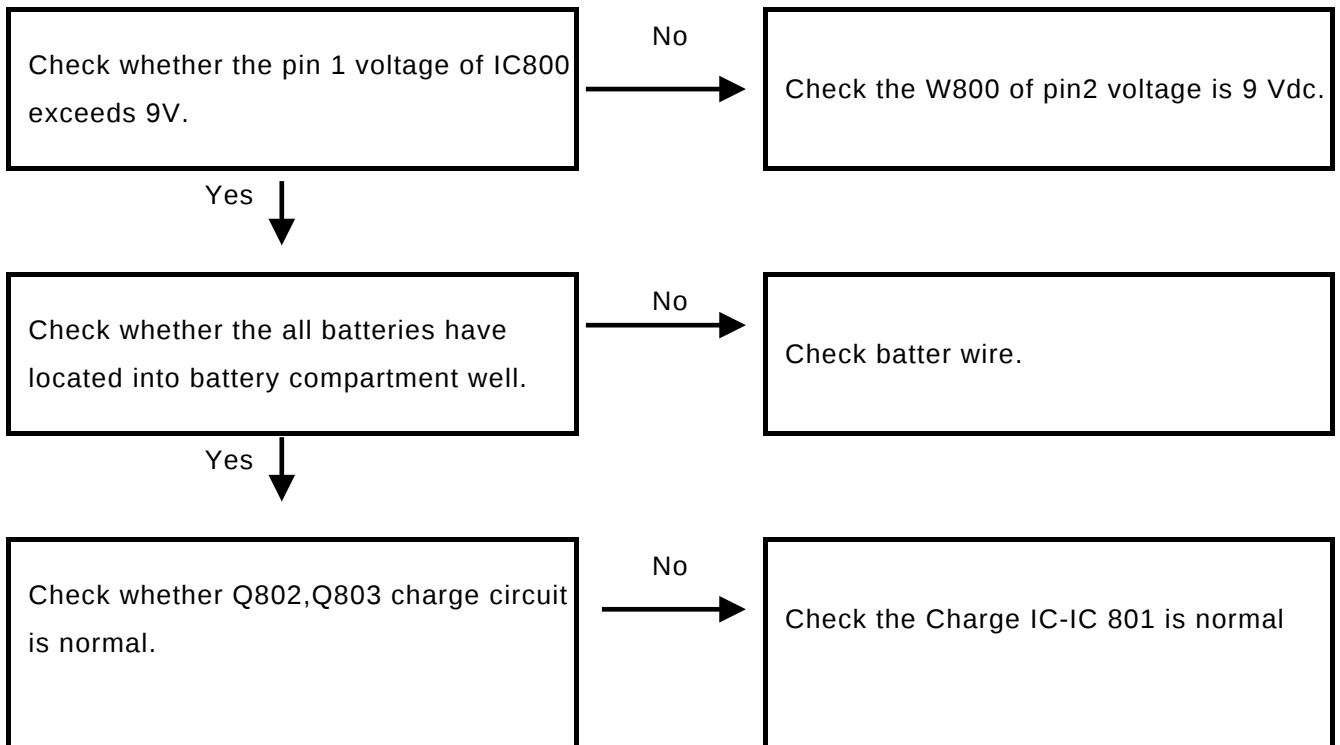
(4) Speaker have not voice output



(5) Weak sensitivity in AM band



(6) Charge does not work



(7) AIR BAND function do not work

Check whether reception is normal in AIR mode.

Yes
↓

Check TP36 tuning voltage 8.5V while receiving frequency is 137MHz.

No
↓

Check the AIR circuit D42 and D43 circuit is normal.

Yes
↓

Check AM RF circuit.
T4,T6,T8 circuit is normal..

Yes
↓

Check AIR receiving circuit.
CHECK D1,L2,L22 is normal.

ELECTRICAL PARTS LIST

000dK100C

ATX-909X2

Date : 2020/09/21

PART NO.	DESCRIPTION	Q'TY	REMARK
1001660	CH LSI R5F10WMEAFB LQFP-80	1	IC301,
1001720	CH LSI STM8S003F3P6 TSSOP-20	1	IC801,
1010211	IC YD7358 SIP9	1	IC6,
1011362	CH IC XC62FP3002PRN	1	IC4,
1012072	CH IC NJM2100M DMP8	1	IC7,
1013890	CH IC PT2308 8PIN SO-P	1	IC5,
1014821	CH IC HEF4066BT	1	IC3,
1016450	CH IC XC6202P302PRN	2	IC306,IC307,
1016920	IC LTV-817C DIP4	1	IC9,
1016970	IC TA7640APL-D16-T DIP16	1	IC2,
1017311	CH IC XC61CN3602MR-G SOT-23	1	IC305,
1017551	CH IC Si4735-D60-GM/R QFN20	1	IC1,
1017560	CH IC EMP8041-33VF05NRR	1	IC800,
1017760	IC TBA820ML-D08-T DIP-8	1	IC8,
1017841	CH IC 4051G-S16-R SOP-16	1	IC802,
1017971	CH IC FS8170-LF TSSOP-16	1	IC10,
1017971A	CH IC FS8170-LF TSSOP-16	1	IC304,
1018930	CH IC VRH3001NTX SOT-25	1	IC11,
1019030	CH IC AW9523BTQR TQFN-24L	1	IC300,
1019500	CH IC MC5502E LQFP-64	1	IC302,
101A0490	CH IC 24LC128T-I/SN SOIC-8	1	IC303,
1020211	CH TR 2SB815 B7	2	Q27,Q28,
1020251T	TR UTC2SA1020G-Y-T9N-B TO-92NL	1	Q49,
1020420	CH TR 2SA1576AT106-R	1	Q68,
1020530	CH TR 2SA812-M6 SOT-23	13	Q3,Q15,Q24,Q31,Q33,Q36,Q43, Q45,Q59,Q60,Q62,Q301,Q304,
1021140	CH TR BTB1424AM3-R SOT-89	1	Q802,
1022272	CH TR 2SC4154-G hFE:400	5	Q34,Q35,Q55,Q69,Q70,
1022311	CH TR 2SC5477-T112-1	10	Q12,Q20,Q311, Q22,Q29,Q32,Q39,Q40,Q42,Q46,
1022560	CH TR 2SC1623-L6 SOT-23	32	Q4,Q5,Q51,Q56,Q57,Q58,Q61,Q63,Q64, Q1,Q2,Q6,Q7,Q8,Q9,Q10,Q11,Q18, Q21,Q25,Q30,Q37,Q41,Q44,Q48,Q65, Q303,Q305,Q306,Q307,Q309,Q310,
1022561	CH TR 2SC1623-L7 SOT-23	5	Q803,Q805,Q806,Q807,Q808,
1023010	CH TR 2SD1048 X6	4	Q19,Q50,Q53,Q54,
1030081	FET 2SK715W	1	Q38,
1030100	CH FET 2SK433B KB	2	Q52,Q308,
1030381	CH FET CJ3415 SOT-23	2	Q800,Q801,
1030451	CH FET 2SK3557-7-TB-E SOT-23	7	Q14,Q16,Q17,Q26,Q13,Q23,Q71,
1030570T	FET 2SK2880A-T TO-92	1	Q47,
1040041T	SCHOTTKY ST60P-T DO-35	2	D1,D4,
1041403	CH SCHOTTKY SS12 DO-214AC	1	D801,

ELECTRICAL PARTS LIST

000dK100C

ATX-909X2

Date : 2020/09/21

PART NO.	DESCRIPTION	Q'TY	REMARK
1041560	CH DIODE FM4004 SMA	1	D29,
1042151	CH DIODE RB421D	1	D311,
1042280	CH DIODE DAN202KT146	2	D17,D18,
1042360	CH DIODE 1N4148WS-FL SOD-323FL	17	D6,D8,D9,D11,D12,D13,D15,D16, D20,D30,D34,D35,D38,D28,D5,D7,D310,
1043031	VARICAP SVC201 TO-92S	3	D22,D43,D48,
1043072	VARICAP 1SV101 TO-92S	1	D42,
1043300	VARICAP SVC203 TO-92S	1	D36,
1045460	CH ZENER ZMM5245B-15V	1	D27,
104547B	CH ZENER BZV55B6V8	1	D19,
104547E	CH ZENER BZV55B9V1	1	ZD300,
1046012	CH DIODE DSW-LL4148-TR-ST	5	D24,D37,D302,D309,D301,
1046300	CH SCHOTTKY BAT54CN3 SOT-23	5	D14,D23,D40,D802,D803,
1046310	CH DIODE 1SS314 SOD-323	9	D21,D25,D26,D33,D2,D3,D10,D32,D39,
1050491	LED RED 3Ø 304SD2J-001	1	LED300,
10621030	CH LED WHT SJ-4020-8000K	5	LED301,LED302,LED303,LED304,LED306,
1110470	BAR ANT & COIL 0470	1	BAR1,
1120952	ADJ. COIL 0952	1	T2,
1120991	ADJ. COIL 0991	1	T1,
1122262	ADJ. COIL 2262	2	T4,T6,
1122282	ADJ. COIL 2282	1	T12,
1122422	ADJ. COIL 2422	1	T7,
1122443	ADJ. COIL 2443	2	T10,T14,
1123602	ADJ. COIL 3602	1	T8,
1123713	ADJ. COIL 3713	1	T11,
1124530	ADJ. COIL 4530	1	L20,
113102J052E	CH WOUND 1uHJ-2520	1	L15,
113221J051E	CH WOUND 220nHJ-2520	3	L4,L8,L11,
113222J052E	CH WOUND 2.2uHJ-2520	4	L6,L14,L18,L17,
11337ML-1	CH WOUND IND.100uH M-K	1	L800,
113392J052E	CH WOUND 3.9uHJ-2520	1	L3,
113471J051E	CH WOUND 470nHJ-2520	2	L5,L10,
113473J052E	CH WOUND 47uHJ-2520	2	L1,L23,
1136104	FIXED COIL 10mHL 4Ø	1	T13,
113821J051E	CH WOUND 820nHJ-2520	1	L24,
113822J052E	CH WOUND 8.2uHJ-2520	2	L13,L16,
1143051U	SP COIL 4Ø×2.75T×0.6-L	2	L21,L22,
1146E50U	SP COIL 2.5Ø×1.75T×0.6-L	1	L2,
1148070U	SP COIL 3.6Ø×2.75T×0.7-L	1	L19,
1150034	TOROID COIL 170uH	1	T5,
1150311	CH BEAD 1K-1608	2	BD1,BD2,
116155K58U19	WOUND-V 1.5mHK 5Øx8	1	L12,
116224K58U19	WOUND-V 220µHK 5Øx8	1	L25,

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116474K58U19	WOUND-V 470μHK 5Øx8	2	L7,L9,
1210412	CH TC 30P GRN 3mm	4	TC3,TC4,TC5,TC300,
1210550	TC 50P 7mm GRN	2	TC1,TC2,
131B503A7011	R-VR 50KAx2 RD14K L=15	1	VR1,
131C103BK014	R-VR 10KB F-1001G T2.8X16	1	VR300,
132DV1030011	S.F-VR 10KB FTB06-02HL	1	SVR1,
132DV2040011	S.F-VR 200KB FTB06-02HL	1	SVR2,
1601440	LCD GHH4921SA01 ATS-909XB	1	LCD300,
1622510	SPK 3" 4Ω 3W BLK	1	
1625150	CH BUZZER 050030F-03040	1	BZ300,
1630531	SW SLIDE 1P2C-12D01N	1	SW301,
1631330	TACT SW.1P1C	1	SW306,
1631600	TACT SW 100±50gf 4.3mm	2	SW302,SW308,
1631890	TACT SW 160+-50gf 7mm	1	SW307,
1632120	SW SLIDE 3P2C-SV65020F	2	SW1,SW2,
1632142	CH TACT SW 160±50gf 3.5mm	4	SW300,SW303,SW304,SW305,
1632181	METAL DOME SW 30P ASS'Y	1	S500,
1632710	SW SLIDE 1P2C SS-12D01A-GA3-S191	2	SW3,SW4,
1640010	JACK EP 3.5φ N/SW BLK	1	JK1,
1640030	JACK EP 3.5φ W/SW BLK	2	JK3,JK5,
1640610G	JACK EP 3.5Ø W/SW ST GRN	1	JK2,
1647101	JACK DC TC18-013 D=2.0	1	JK4,
1649051	JACK REC STANDBY	1	JK6,
1649800	BATTERY SOCKET BC-1-601	1	CN301,
1650042	X'TAL 55.845M 49T3	2	CF2,CF3,
1650150	X'TAL 32.768KHZ±10Ppm 2×6	2	X1,X300,
1650291	X'TAL 4.332M±20Ppm AT-49	2	X4,X301,
1660171	FILTER LT450ITU	1	CF1,
1660361	FILTER LT450JTW	1	CF4,
1664104	RESO ZTB453E	1	X2,
1664114	RESO ZTB449E	1	X3,
16A2020A	PCB A ATS-909XB 1.2T/2	1	
16A2030A	PCB C ATS-909XB 1.2T/2	1	
16A2040A	PCB D ATS-909XB 1.2T/2	1	
16A2050A	PCB E ATS-909XB 1.2T/2	1	
1700H2015V053	CH HOUSING 2x15P-V	1	CN302,
1701H2003V013	HOUSING 2x3P-V	1	CN1,
1701H2004V013	HOUSING 2x4P-V	1	CN4,
1701H2005V013	HOUSING 2x5P-V	1	CN303,
1701H2014V013	HOUSING 2x14P-V	1	CN3,
1701H2504V033	HOUSING 2.5x4P-V	1	CN2,
170310143040	CNT/W-A 100(2+3P)	1	W301,
170312154010	CNT/W-A 120(2.5+4P)	1	W303,

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170315144030	CNT/W-A 150(2+4P)P=2	1	W800,
17035504E010	CNT/W-A 55(14P+14P)P=2	1	W302,
17035504F010	CNT/W-A 55(2+15P)	1	W2,
170357001040	CNT/W-A 57(ANT+1P)	1	ANT1,
170370045050	CNT/W-A 70(2+5P)	1	W801,
170370201010	CNT/W-A 7000(PLUG+1P)	1	WIRE,
170A12152010	W-A/2 122(6+9)	1	W1,
1730510	EN/SW DC23H1010312 20P	1	EN300,
1900851	Surge ESD 0603ESDA2-TR2	1	ESD300,
1SdK0100	ATS-909XB	1	
1SdK0200	ATS-909XB	1	
3A85P701WL	EARPHONE(EU-15)	1	
3A8A09B103B00	ADA/SW 9V/1.2A VI CE BLK	1	
4110482B	CC 104K 50V R20X7R2L	1	C356,
44106347T2H0	EL 106M 16V 4x7-T 105	3	C5,C111,C151,
4410645AT2H0	EL 106M 25V 5x11-T 105	1	C38,
4410725AT0H0	EL 107M 10V 5x11-T 105	1	C186,
4410725AT2H0	EL 107M 10V 5x11-T 105	10	C92,C95,C98,C102,C168,C176, C183,C198,C204,C212,
4410736AT0H0	EL 107M 16V 6.3x11-T 105	2	C66,C97,
44226347T2H0	EL 226M 16V 4x7-T 105	1	C122,
44475447T2H0	EL 475M 25V 4x7-T 105	3	C7,C130,C45,
44476247T0H0	EL 476M 10V 4x7-T 105	5	C88,C115,C167,C178,C203,
4447738AT0H0	EL 477M 16V 8x11-T 105	2	C193,C146,
48224J8T015	MP/C 224J 100V-T P=5mm	1	C355,
4922410	CH SUPERCAP DMS3R3224R	1	C370,
4A10733	CH EL 107M 16V 6.3x5.3	1	C807,
4B106K2015	CH TA 106K 10V-3216	2	C21,C188,
4B107K2215	CH TA 107K 10V-6032	1	C10,
4B227M0115	CH TA 227M 4V-3528	1	C361,
5402001	CH CC 020C 50V NPO-C	6	C118,C76,C140,C153,C170,C99,
5403001	CH CC 030C 50V NPO-C	3	C75,C77,C78,
5404001	CH CC 040C 50V NPO-C	1	C242,
5405001	CH CC 050C 50V NPO-C	4	C131,C107,C155,C206,
5406001	CH CC 060C 50V NPO-C	1	C218,
5408001	CH CC 080C 50V NPO-C	2	C117,C154,
5409001	CH CC 090C 50V NPO-C	1	C139,
5410001	CH CC 100J 50V NPO-C	9	C73,C233,C36,C47,C62,C72,C80,C217,C221,
5410101	CH CC 101J 50V NPO-C	3	C171,C175,C215,
5410261	CH CC 102K 50V X7R-C	21	C42,C252,C237,C243,C303,C331, C9,C14,C32,C57,C128,C129,C143,C353, C147,C163,C164,C205,C222,C225,C350,
5410361	CH CC 103K 50V X7R-C	74	C35,C126,C134,C138,C63,C70, C109,C112,C249,C375,C376,C332, C11,C13,C15,C19,C23,C24,C31, C33,C34,C44,C52,C56,C59,C60, C67,C68,C79,C82,C87,C89,C90, C91,C93,C101,C104,C106,C108,

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5410361	CH CC 103K 50V X7R-C		C114,C123,C136,C137,C141,C145, C152,C169,C187,C244,C110,C105, C315,C325,C326,C333,C334,C335, C336,C347,C348,C349,C363,C364, C365,C367,C368,C372,C373,C374, C800,C805,C815,C817,C818,
5410467	CH CC 104K 25V X7R-C	37	C41,C48,C50,C54,C86,C116,C124, C161,C190,C192,C235,C228,C229,C250, C300,C301,C302,C317,C322,C329, C330,C337,C339,C340,C341,C342, C358,C360,C362,C366,C369,C377, C802,C803,C809,C814,C379,
5410557	CH CC 105Z 10V Y5V-C	21	C17,C20,C22,C27,C49,C53,C61, C71,C119,C159,C179,C182,C184, C185,C191,C202,C214, C314,C318,C321,C328,
5410567	CH CC 105K 25V X5R-C	1	C806,
5410688	CH CC 106M 6.3V X5R-C	2	C813,C819,
5412001	CH CC 120J 50V NPO-C	3	C84,C142,C166,
5412101	CH CC 121J 50V NPO-C	1	C81,
5415001	CH CC 150J 50V NPO-C	2	C83,C121,
5418001	CH CC 180J 50V NPO-C	1	C352,
5418101	CH CC 181J 50V NPO-C	1	C211,
5422001	CH CC 220J 50V NPO-C	12	C4,C6,C74,C148,C207,C226,C234, C319,C320,C323,C324,C354,
5422101	CH CC 221J 50V NPO-C	5	C2,C3,C12,C133,C160,
5422261	CH CC 222K 50V X7R-C	3	C28,C29,C26,
5422361	CH CC 223K 50V X7R-C	16	C16,C69,C94,C100,C113,C120, C132,C144,C149,C157,C180,C181, C195,C220,C251,C327,
5422446	CH CC 224Z 25V Y5V-C	4	C307,C311,C312,C313,
5422478	CH CC 224K 10V X7R-C	3	C64,C197,C189,
5422575	CH CC 225K 16V X5R-C	2	C248,C380,
5427001	CH CC 270J 50V NPO-C	1	C8,
5427261	CH CC 272K 50V X7R-C	1	C51,
5433001	CH CC 330J 50V NPO-C	2	C18,C165,
5433261	CH CC 332K 50V X7R-C	3	C245,C172,C208,
5439101	CH CC 391J 50V NPO-C	1	C46,
5447001	CH CC 470J 50V NPO-C	6	C241,C103,C213,C37,C359,C371,
5447101	CH CC 471J 50V NPO-C	6	C194,C236,C246,C247,C351,C357,
5447261	CH CC 472K 50V X7R-C	2	C200,C820,
5447361	CH CC 473K 50V X7R-C	15	C39,C43,C55,C58,C65,C127,C156, C177,C199,C210,C173,C174, C304,C309,C310,
5447443	CH CC 474Z 25V Y5V-C	1	C308,
5447466	CH CC 474K 16V X7R-C	1	C816,
5447467	CH CC 474K 25V X7R-C	1	C230,
5456001	CH CC 560J 50V NPO-C	3	C25,C40,C238,
5456261	CH CC 562K 50V X7R-C	3	C30,C85,C96,

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5456367	CH CC 563K 25V X7R-C	1	C224,
5468001	CH CC 680J 50V NPO-C	1	C125,
5468101	CH CC 681J 50V NPO-C	4	C135,C162,C209,C316,
5468161	CH CC 681K 50V X7R-C	1	C811,
5468261	CH CC 682K 50V X7R-C	1	C239,
5468361	CH CC 683K 50V X7R-C	1	C240,
5482001	CH CC 820J 50V NPO-C	1	C1,
5510651	CH CC 106K 16V X5R-A	3	C158,C216,C219,
5510673	CH CC 106Z 10V Y5V-A	1	C378,
5522688	CH CC 226M 6.3V X5R-A	2	C231,C232,
5610693	CH CC 106K 25V X5R-B	1	C305,
61301100	CH RD 10J-0603	19	R44,R48,R51,R64,R83,R103,R151, R181,R219,R260,R34,R803,R834, R325,R332,R340,R384,R400,R408,
61301101	CH RD 100J-0603	11	R67,R216,R129,R264,R410, R41,R114,R116,R139,R158,R206,
61301102	CH RD 1KJ-0603	34	R70,R243,R261,R255,R420,R421,R422, R22,R59,R71,R126,R134,R165,R813,R815, R167,R169,R193,R217,R241,R242,R805, R314,R319,R320,R326,R327,R328, R341,R350,R388,R391,R418,R419,
61301103	CH RD 10KJ-0603	60	R16,R17,R42,R45,R53,R54,R82, R110,R133,R141,R153,R154,R159, R172,R173,R185,R186,R195,R200, R204,R208,R213,R215,R227,R229, R233,R246,R43,R267,R275, R300,R302,R303,R309,R311,R312, R323,R324,R334,R335,R344,R351, R352,R363,R364,R365,R366,R377, R378,R379,R380,R383,R395,R398, R404,R411,R353,R804,R823,R827,
61301104	CH RD 100KJ-0603	38	R47,R414,R424,R425,R831,R832,R833, R6,R15,R40,R49,R52,R68,R78, R79,R86,R95,R98,R122,R132, R146,R156,R171,R175,R177,R228, R231,R232,R240,R271,R272,R257, R301,R313,R315,R317,R367,R413,
61301105	CH RD 1MJ-0603	9	R127,R128,R238,R800,R802, R360,R368,R369,R371,
61301121	CH RD 120J-0603	1	R415,
61301122	CH RD 1K2J-0603	10	R50,R72,R101,R191,R198,R374, R501,R509,R517,R523,
61301123	CH RD 12KJ-0603	6	R182,R194,R258,R507,R515,R529,
61301124	CH RD 120KJ-0603	2	R23,R163,
61301151	CH RD 150J-0603	3	R97,R180,R276,
61301152	CH RD 1K5J-0603	1	R405,
61301153	CH RD 15KJ-0603	1	R120,
61301183	CH RD 18KJ-0603	3	R161,R162,R174,
61301184	CH RD 180KJ-0603	2	R35,R119,

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613011R0	CH RD 1J-0603	1	R209,
61301203	CH RD 20KJ-0603	1	R168,
61301220	CH RD 22J-0603	1	R225,
61301221	CH RD 220J-0603	5	R115,R142,R104,R73,R224,
61301222	CH RD 2K2J-0603	33	R33,R57,R14,R277, R8,R19,R55,R76,R81,R108,R123, R212,R244,R253,R85,R90,R147, R330,R331,R336,R337,R345,R346, R347,R348,R349,R354,R355,R358, R359,R403,R407,R409,
61301223	CH RD 22KJ-0603	22	R63,R508,R516,R530, R26,R91,R92,R100,R144,R190, R203,R211,R214,R218,R273,R274, R306,R373,R385,R387,R389,R390,
61301224	CH RD 220KJ-0603	9	R62,R84,R170,R106,R396,R397, R817,R818,R819,
61301272	CH RD 2K7J-0603	10	R69,R61,R4,R30,R31,R370, R502,R510,R518,R524,
61301273	CH RD 27KJ-0603	5	R262,R7,R32,R93,R150,
613012R2	CH RD 2R2J-0603	1	R75,
61301330	CH RD 33J-0603	2	R56,R94,
61301331	CH RD 330J-0603	4	R74,R88,R140,R143,
61301332	CH RD 3K3J-0603	15	R235,R236,R220,R372,R821, R109,R136,R222,R230,R77,R107, R503,R511,R519,R525,
61301333	CH RD 33KJ-0603	11	R125,R268,R269,R270,R401, R24,R37,R38,R117,R210,R226,
61301334	CH RD 330KJ-0603	2	R149,R10,
61301392	CH RD 3K9J-0603	6	R266,R504,R512,R520,R526,R375,
61301470	CH RD 47J-0603	3	R166,R196,R250,
61301471	CH RD 470J-0603	10	R113,R121,R135,R137,R160,R176, R207,R223,R87,R412,
61301472	CH RD 4K7J-0603	14	R2,R5,R20,R27,R28,R39,R124,R809, R155,R130,R138,R183,R221,R259,
61301473	CH RD 47KJ-0603	34	R11,R801,R828,R829,R830, R46,R60,R112,R148,R152,R164, R179,R188,R189,R192,R199,R202, R237,R239,R245,R251,R252,R254, R322,R329,R333,R342,R343,R392, R393,R394,R399,R402,R416,
61301474	CH RD 470KJ-0603	9	R12,R131,R178,R201, R338,R339,R357,R362,R423,
61301560	CH RD 56J-0603	6	R205,R304,R305,R308,R310,R321,
61301562	CH RD 5K6J-0603	7	R263,R505,R513,R521,R527,R1,R382,
61301563	CH RD 56KJ-0603	7	R9,R25,R36,R58,R256,R307,R316,
61301564	CH RD 560KJ-0603	2	R376,R381,
61301680	CH RD 68J-0603	1	R356,
61301681	CH RD 680J-0603	1	R406,
61301682	CH RD 6K8J-0603	9	R3,R18,R89,R96,R506,R514,R522,R528,R386,

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61301683	CH RD 68KJ-0603	6	R29,R65,R66,R118,R184,R187,
61301684	CH RD 680KJ-0603	1	R361,
61301820	CH RD 82J-0603	1	R157,
61301821	CH RD 820J-0603	1	R265,
61301822	CH RD 8K2J-0603	6	R13,R21,R80,R99,R111,R197,
61301823	CH RD 82KJ-0603	3	R102,R105,R145,
61321183	CH RD 18KF-0603	1	R812,
61321243	CH RD 24KF-0603	1	R811,
615211R0	CH RD 1RF-1206	2	R825,R826,

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1	2000dK00100	LCD LENS	1	A4-dK-02	
2	2000TW0000B	FUNCTION KEY HOLDER	1	A3-TW-01	
3	21004100600	SHI DC/DC-DOWN	1	A4-202-1737	PCB A
4	21005900100	DC/DC SHIELD (UP)	1	A4-800-1217	PCB A
5	2100dK00100	SHIELD CASE	1	A4-dK-03	PCB C
6	2100dK00200	LCD HOLDER	1	A4-dK-04	
7	2100dK00300	BATTERY CONTACT(+)	2	A4-dK-05	REAR CABINETx2
8	2100dK00500	SHIELD COVER A	1	A4-dK-13	PCB A
9	2100dK00600	SHIELD COVER B	1	A4-dK-14	PCB A
10	2100dK0070A	SHIELD COVER C	1	A4-dK-15	PCB A
11	2100dK00800	COPPER FOIL	1	A4-dK-21	MIDDLE CHASSIS
12	2100PL00200	BATTERY CONTACT(-)	2	A4-PL-20A	REAR CABINETx2
13	2100R400200	BATTERY CONTACT(+)	2	A4-R4-15	REAR CABINETx2
14	2100TW00100	ROD ANT BRACKET	1	A4-TW-01	REAR CABINET
15	2100TW00200	VCO SHIELD (DOWN)	1	A4-TW-02	PCB A
16	2100TW00400	STEP KNOB SPRING	1	A4-TW-24	PCB C
17	2100TW00500	COPPER FOIL	1	A4-TW-31	PCB C
18	22005600000	P.C.B. HEMELON	3	A4-066-1313	BAR ANTx1/PCB Cx1/PCB Ax1
19	2200L400200	HEMELON	2	A4-523-40	PCB Ax2
20	2200TW00000	HEMELON 85.0x3.0x0.2T	2	A4-TW-34	REAR CABINETx2
21	2300dK01200	SPONGE 110x20x3	1	A4-dK-23	BATTERY COVER
22	2200TW00200	HEMELON 50.0x7.0x0.2T	1	A4-TW-36	PCB D
23	2200TW00300	HEMELON 40.0x7.0x0.2T	1	A4-TW-36	PCB D
24	2300dK01400	NEP 18x9x1.5	1		DC/DC SHIELD (UP)
25	2300dK00100	DOUBLE TAPE 60x2.5x0.5	2	A4-dK-07	FRONT CABINET&DISPLAY WINDOWx2
26	2300dK00200	LENS MYLAR	1	A4-dK-06	PCB C&LCD
27	2300dK00300	PU 59x2x0.5	2	A4-dK-09	LCD HOLDERx2
28	2300dK00400	SHIELD CASE MYLALR	1	A4-dK-10	SHIELD CASE
29	2300dK00500	PET PLATE	1	A4-dK-11	PCB C
30	2300dK0060A	EVA	1	A4-dK-12	PCB C
31	2300dK01300	NEP 18x18x1.5	1		SPK
32	2300dK00800	EVA BUZZER Ø7.0 t=3.0	1	A4-dK-17	FRONT CABINET
33	2300dK00900	DOUBLE TAPE LCM	1	A4-dK-18	FRONT CABINET&DISPLAY WINDOW
34	2300dK01000	HEMELON t=0.4	3	A4-dK-19	TIME SET KEYx3
35	2300TW00000	PU A t=0.5	1	A4-TW-03	POWER KEY
36	2300TW00100	PU B t=0.5	1	A4-TW-04	LIGHT KEY
37	2300TW00300	PU D t=0.5	1	A4-TW-06	AUX IN KNOB
38	2300TW00400	EVA	1	A4-TW-07	BAR ANT
39	2300TW00600	PU G t=0.5	2	A4-TW-09	LCD HOLDERx2
40	2300TW01000	DOUBLE TAPE A t=0.5	1	A4-TW-13	FRONT CABINET&DISPLAY WINDOW
41	2300TW01300	DOUBLE TAPE D t=0.5	1	A4-TW-16	FRONT CABINET&DISPLAY WINDOW
42	2300TW01500	PC PLATE	3	A4-TW-23	REAR CABINETx3
43	2300TW01700	EVA 41x19x1.0t	2	A3-TW-27	VCO SHIELD(DOWN)x1/SHIELD COVER A&Bx1
44	2300TW02300	PU K Ø27.0x Ø22.0x0.5t	1	A4-TW-32	FRONT CABINET
45	2400dK00100	RUBBER CUSHION Ø5.5X0.5t	2	A4-dK-22	REAR PANELx2
46	2400TW00000	LCD CONDUCT RUBBER	2	A4-TW-18	
47	2400TW00100	TIME SET KEY RUBBER	3	A4-TW-19	TIME SET KEYx3
48	2400TW00200	AUX IN KNOB RUBBER	3	A4-TW-20	POWER KEYx1/LIGHT KEYx1/AUX IN KNOBx1
49	2400TW00300	RUBBER RING	1	A4-TW-21	FRONT CHASSIS

MECHANICAL PARTS LIST

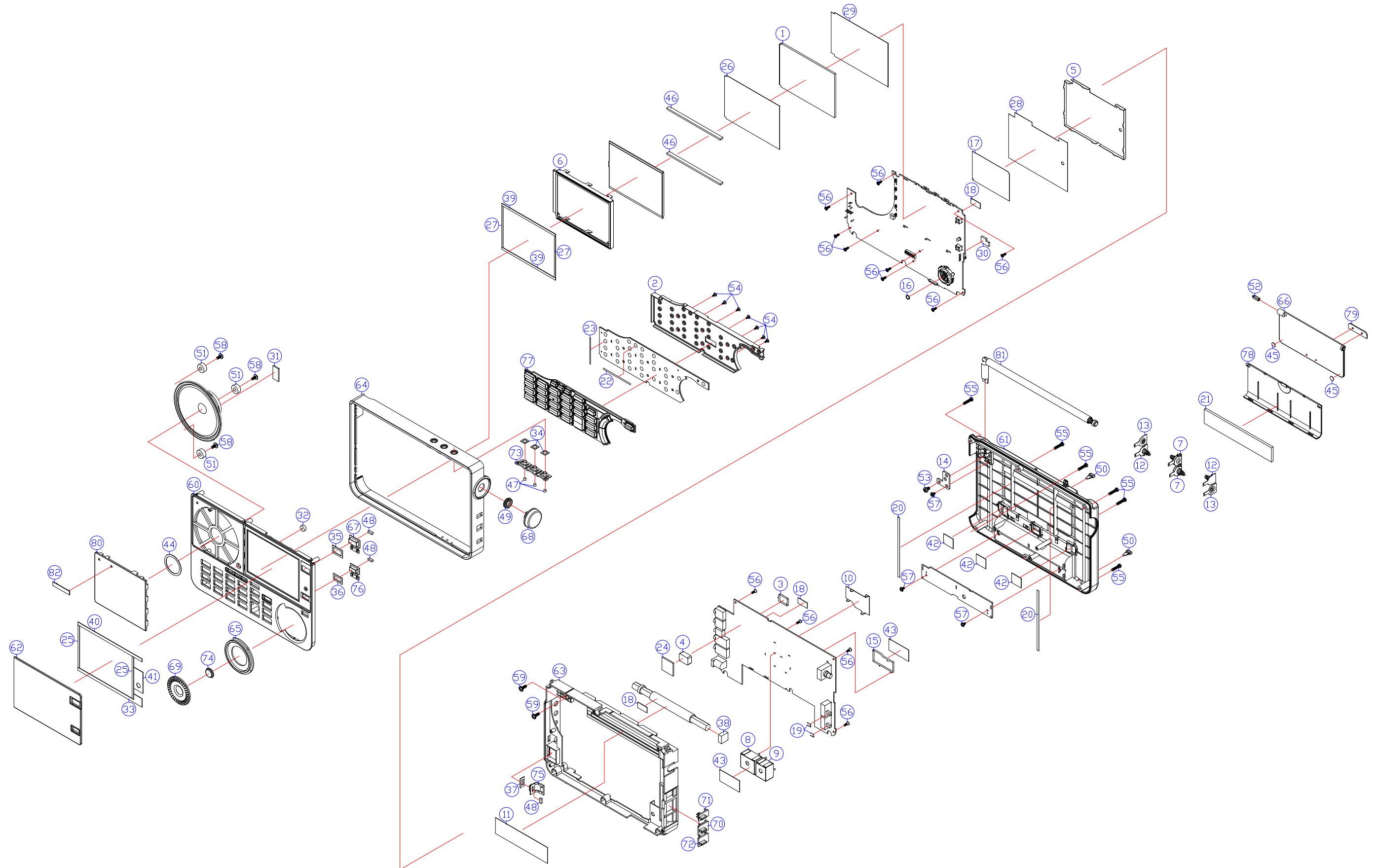
000dK100C

ATS-909X2

Date:2021/1/4

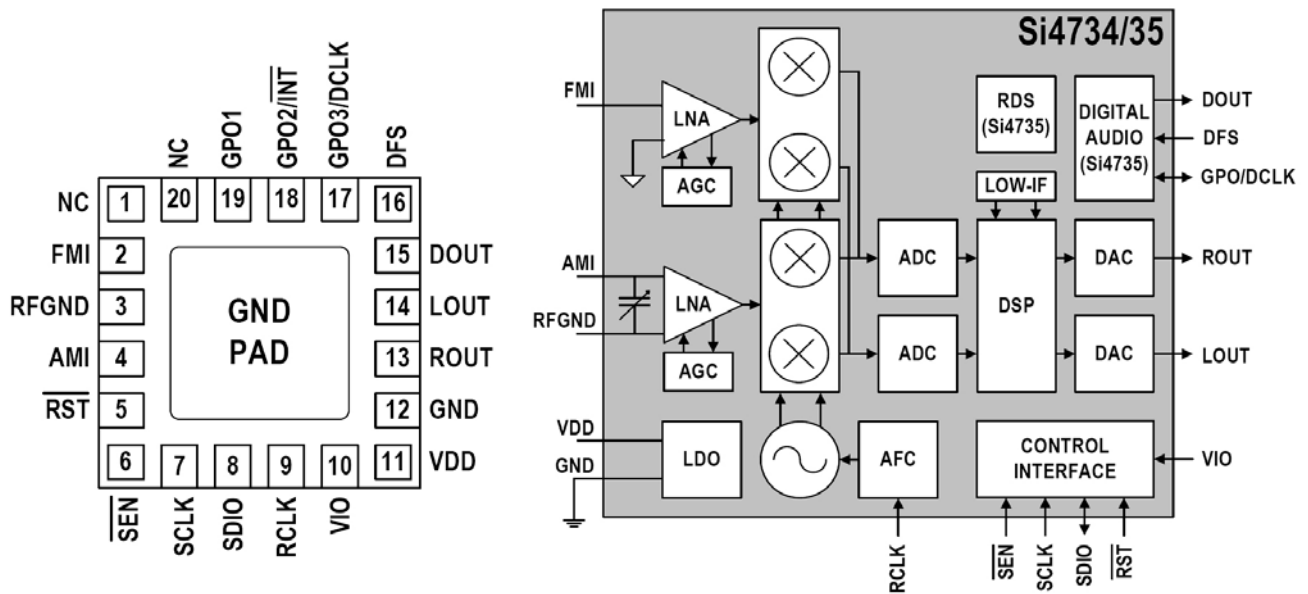
Ref no	PART NO.	DESCRIPTION	Q'TY	DWG NO.	REMARK
50	2400TW00400	FOOT PAD	2	A4-TW-22	REAR CABINETx2
51	2500TW00110	SPACER SUPPORT	3	PG 405A	SPEAKERx3
52	2500TW00210	HINGE	1	同美H38AM-020R	REAR PANEL
53	29S06305001	SCREW JMB 3×5(ZK)	1		ROD ANT
54	29S09990010	SCREW PTP 1.4×4(NI)	7	A4-523-39	FUNCTION KEY HOLDERx7
55	29S10212002	SCREW PTP 2.6×12(NI)	6		REAR CABINETx6
56	29S11106001	SCREW PTF 2×6(ZK)	12		PCB Cx8/PCB Ax4
57	29S15104002	SCREW PTPW 2×4(NI)	3		ROD ANT BRACKETx1/PCB Ex2
58	29S15206001	SCREW PTPW 2.6×6(ZK)	3		SPEAKERx3
59	29S15208002	SCREW PTPW 2.6×8(NI)	2		MIDDLE CHASSIS&ROD ANT BRACKETx2
60	3010TW00A0010	FRONT CABINET	1	A3-TW-05	
61	3030TW00A0010	REAR CABINET	1	A3-TW-07	
62	3050TW0000040	DISPLAY WINDOW	1	A3-TW-09	
63	3061TW00A0010	MIDDLE CHASSIS	1	A3-TW-06	
64	3062TW0000030	FRONT CHASSIS	1	A3-TW-10	
65	3081TW0000010	REVOLVER KNOB PANEL	1	A3-TW-20	
66	3082TW0000030	REAR PANEL	1	A3-TW-23	
67	3101TW0000020	POWER KEY(GRY)	1	A3-TW-11	
68	3102TW000001A	VOLUME KNOB	1	A3-TW-12	
69	3103TW00A0010	REVOLVE KNOB(WHT)	1	A3-TW-13	
70	3104TW0000010	TONE KNOB	1	A3-TW-14	
71	3105TW00A0010	TIME KNOB	1	A3-TW-15	
72	3106TW0000010	ST KNOB	1	A3-TW-16	
73	3107TW0000010	TIME SET KEY	1	A3-TW-17	
74	3108TW0000030	STEP KNOB	1	A3-TW-18	
75	3109TW0000010	AUX IN KNOB	1	A3-TW-19	
76	310ATW0000010	LIGHT KEY	1	A3-TW-21	
77	310BTW0000030	FUNCTION KEY ASS'Y	1	A3-TW-22	
78	3120dK0000010	BATTERY COVER	1	A4-dK-01	
79	3150TW0000010	REAR PLATE	1	A3-TW-24	
80	3230TW0000010	SPK GRILL	1	A3-TW-26	
81	3270TW0000010	ROD ANT	1		
82	3A74TW000010A	SANGEAN BADGE	1		

EXPLODE VIEWS

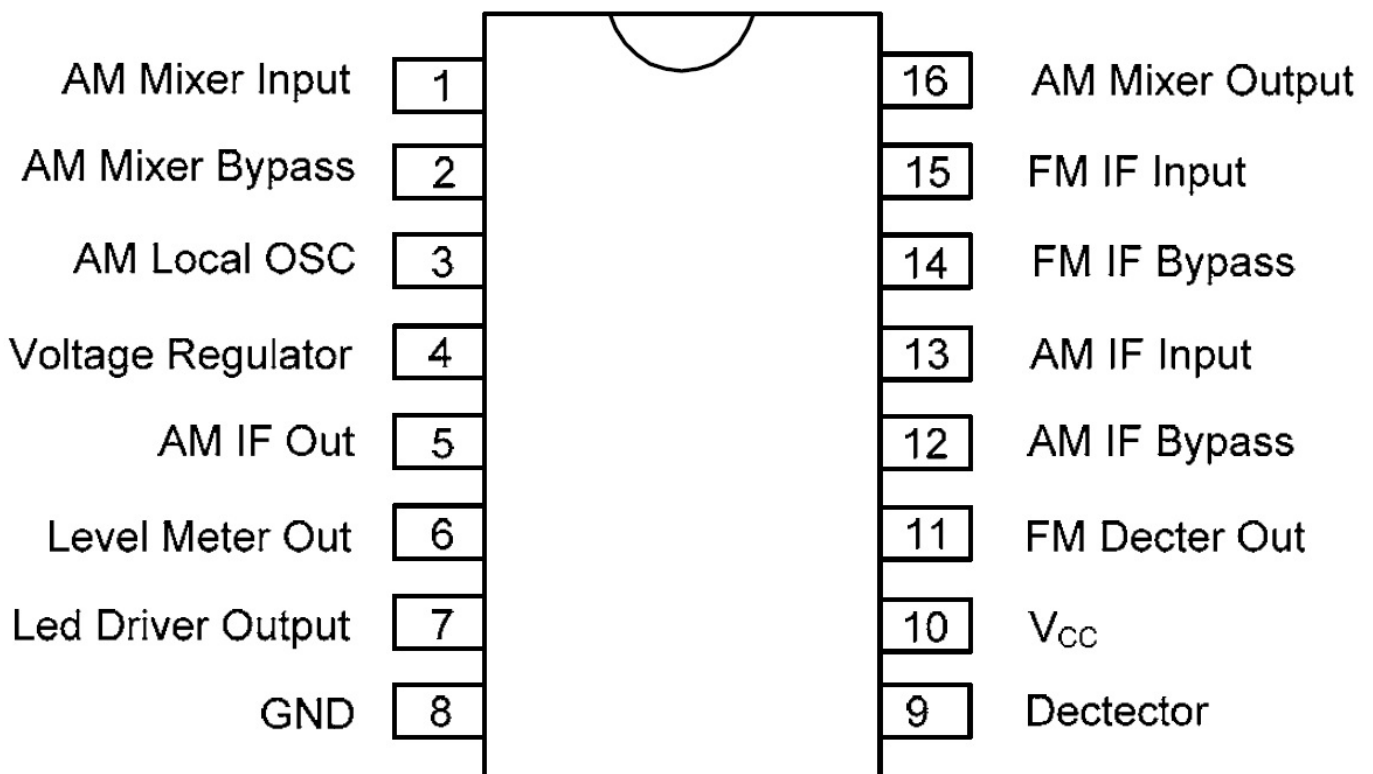


IC CIRCUIT BLOCK DIAGRAM

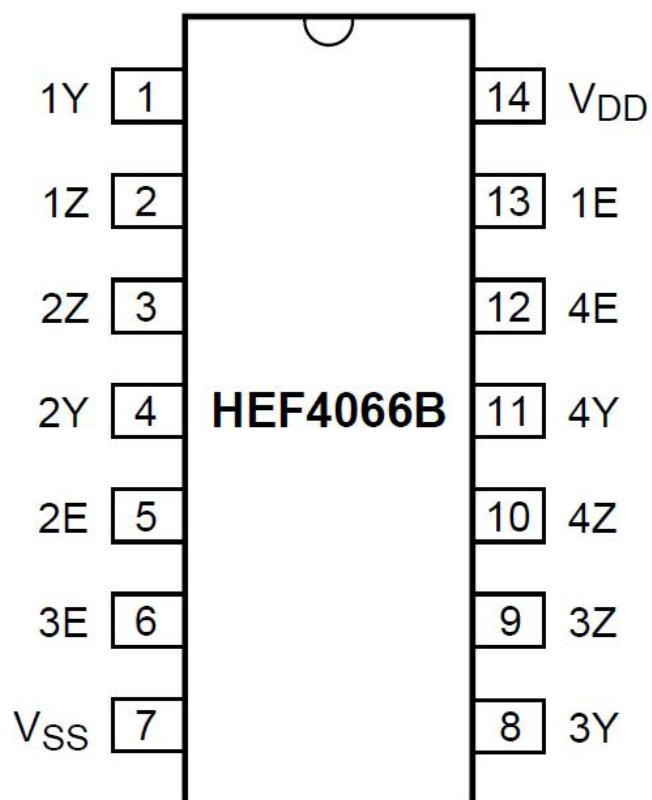
1. IC1 — Si4735-D60-GM/R



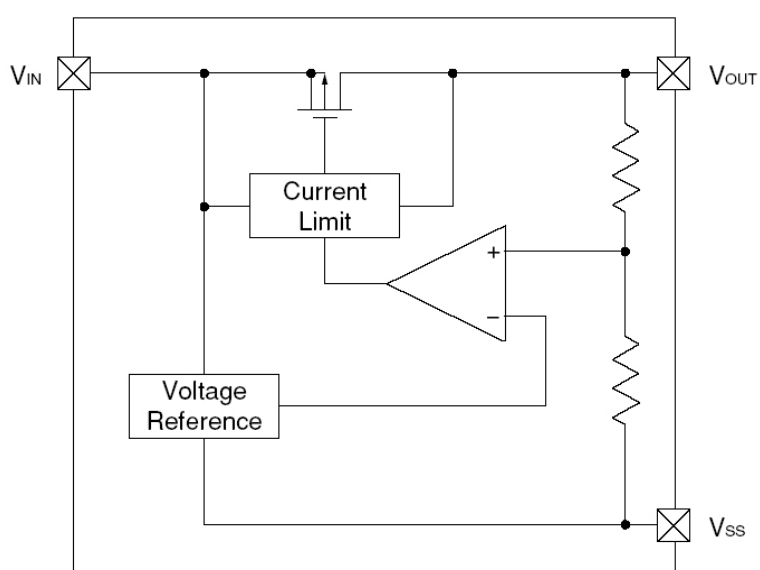
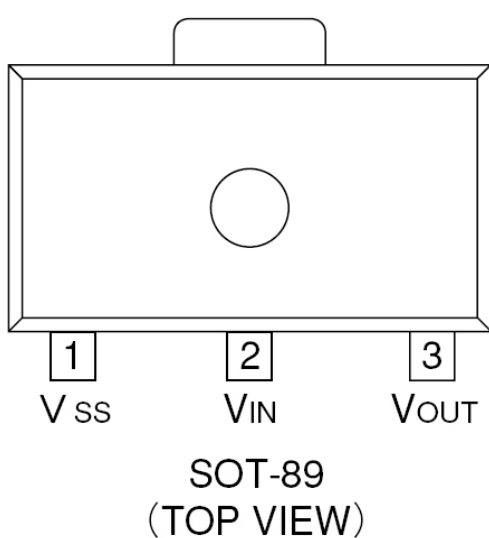
2. IC2 — TA7640APL



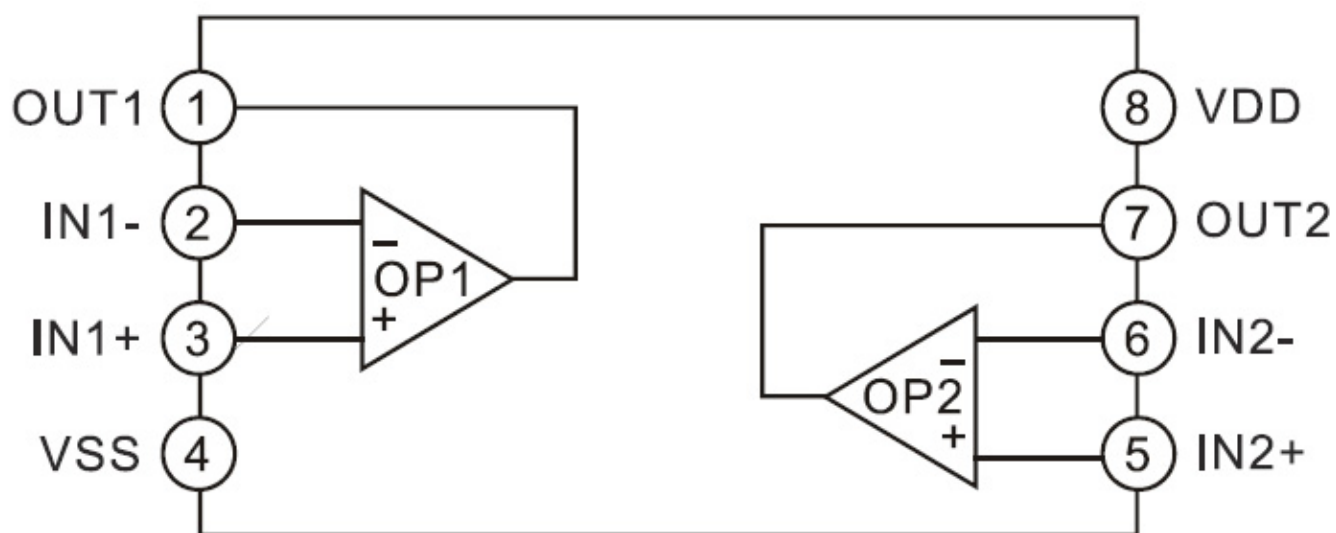
3. IC3 — HEF4066BT



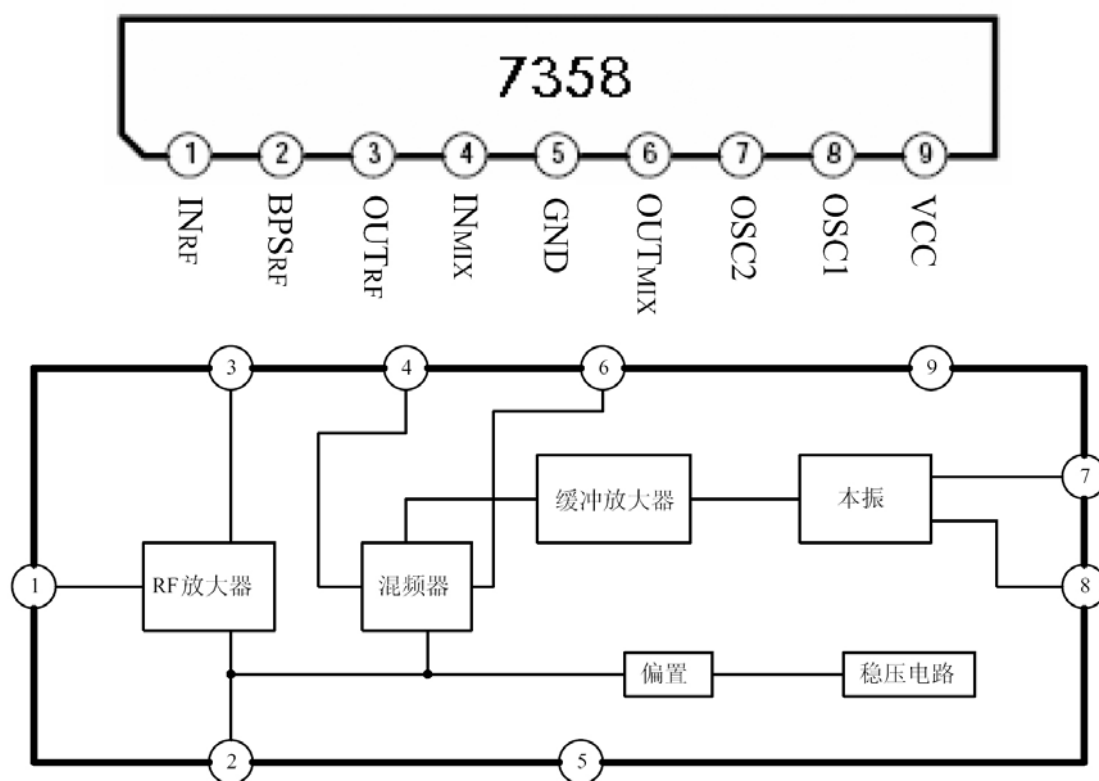
4. IC4 — XC62FP3002PRN



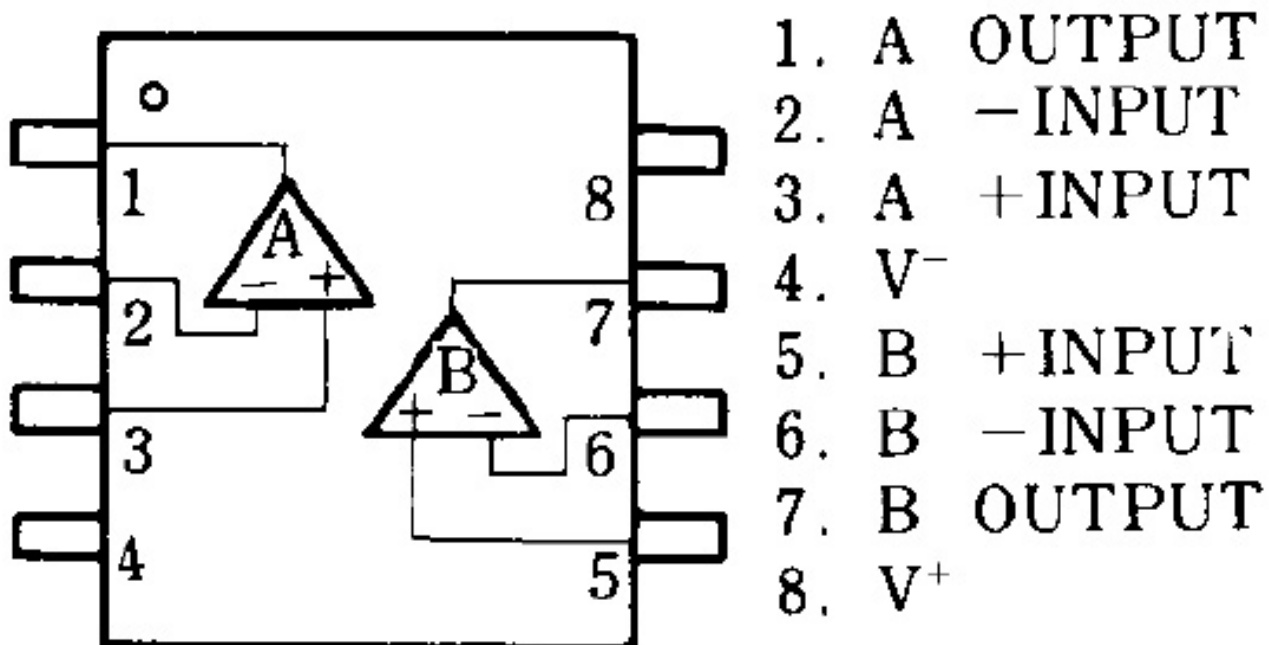
5. IC5 — PT2308 8PIN



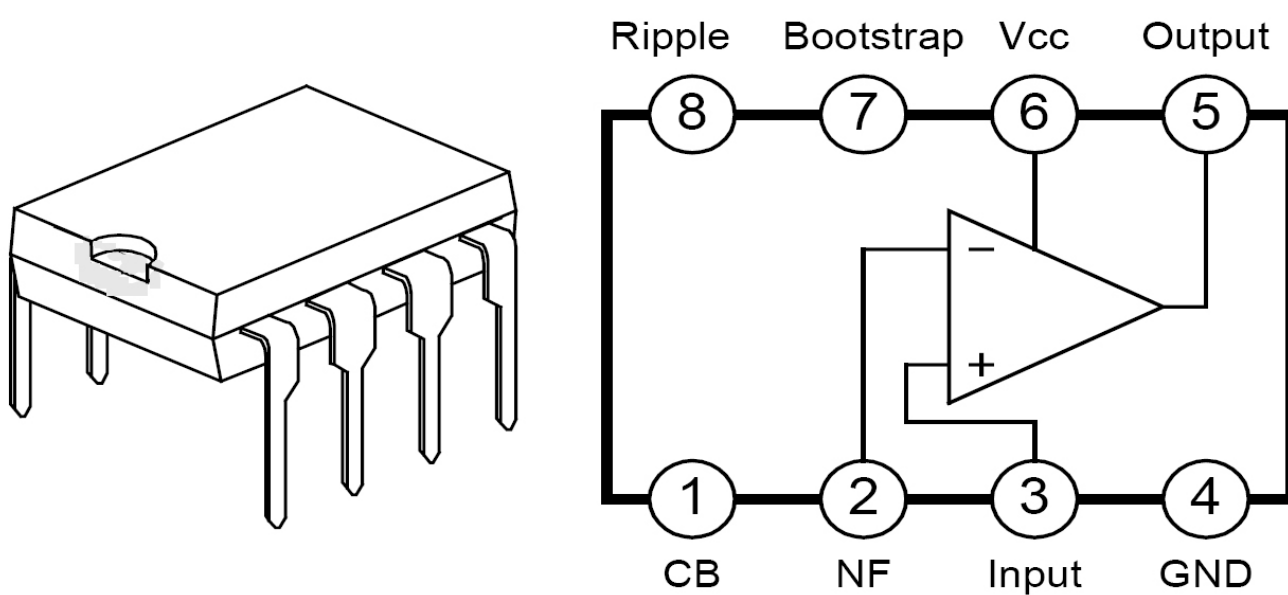
6. IC6 — YD7358



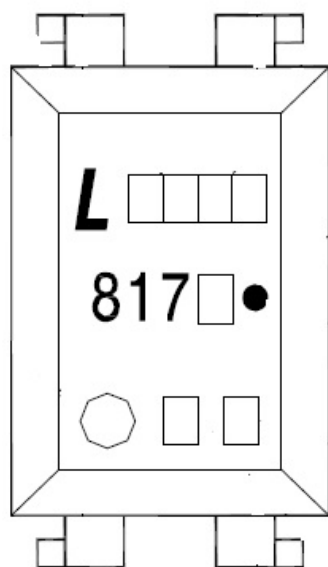
7. IC7 — NJM2100M



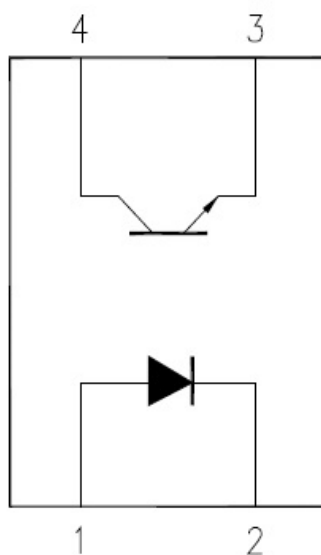
8. IC8 — TBA820ML



9. IC9 — LTV-817C

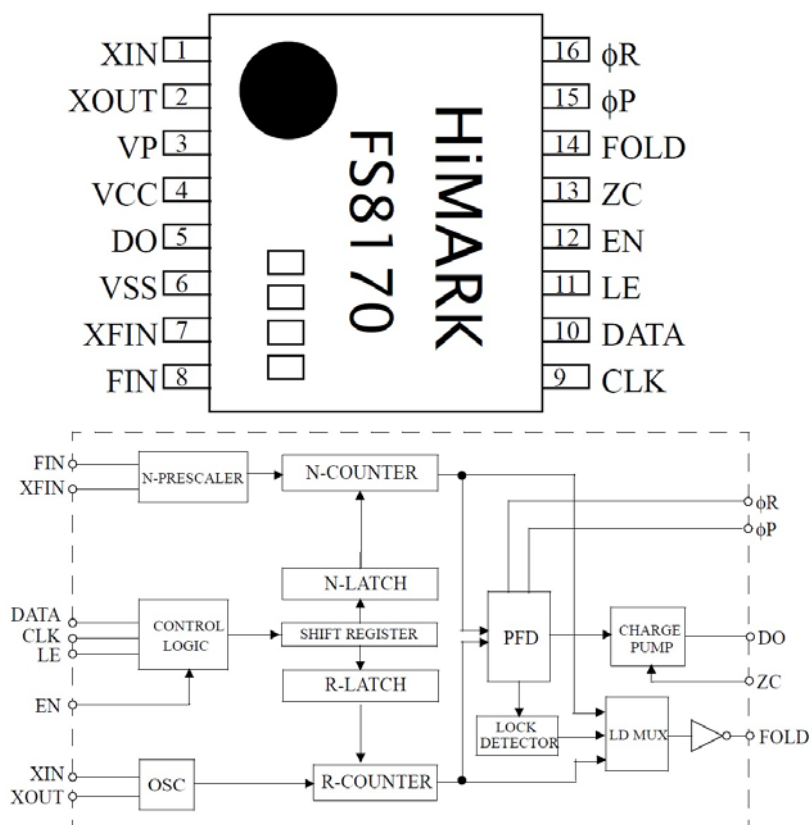


Pin No. and Internal connection diagram

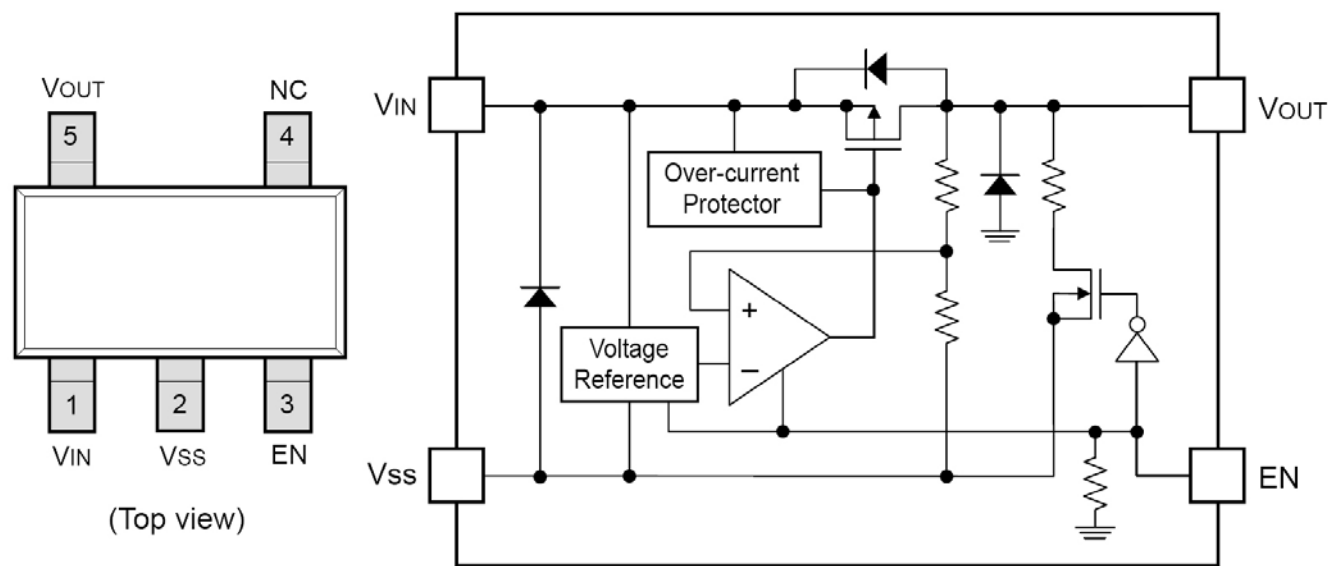


- | | |
|------------|--------------|
| 1. Anode | 3. Emitter |
| 2. Cathode | 4. Collector |

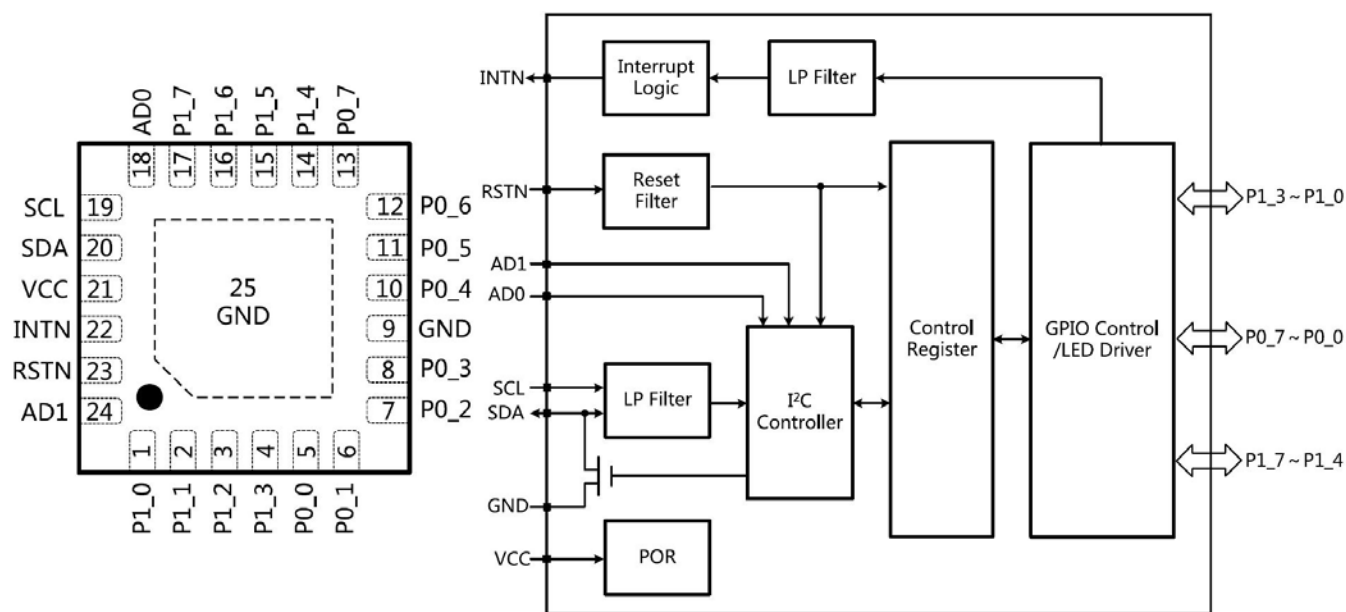
10. IC10 — FS8170-LF



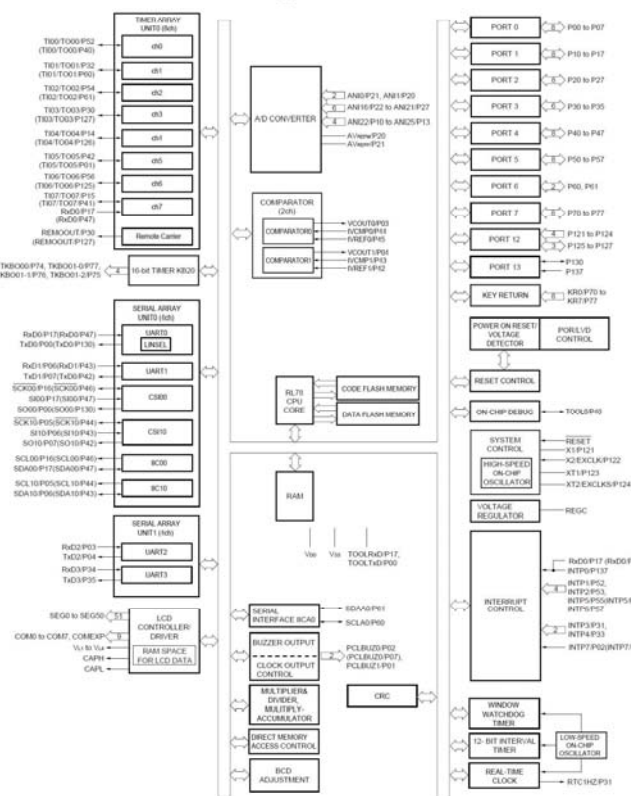
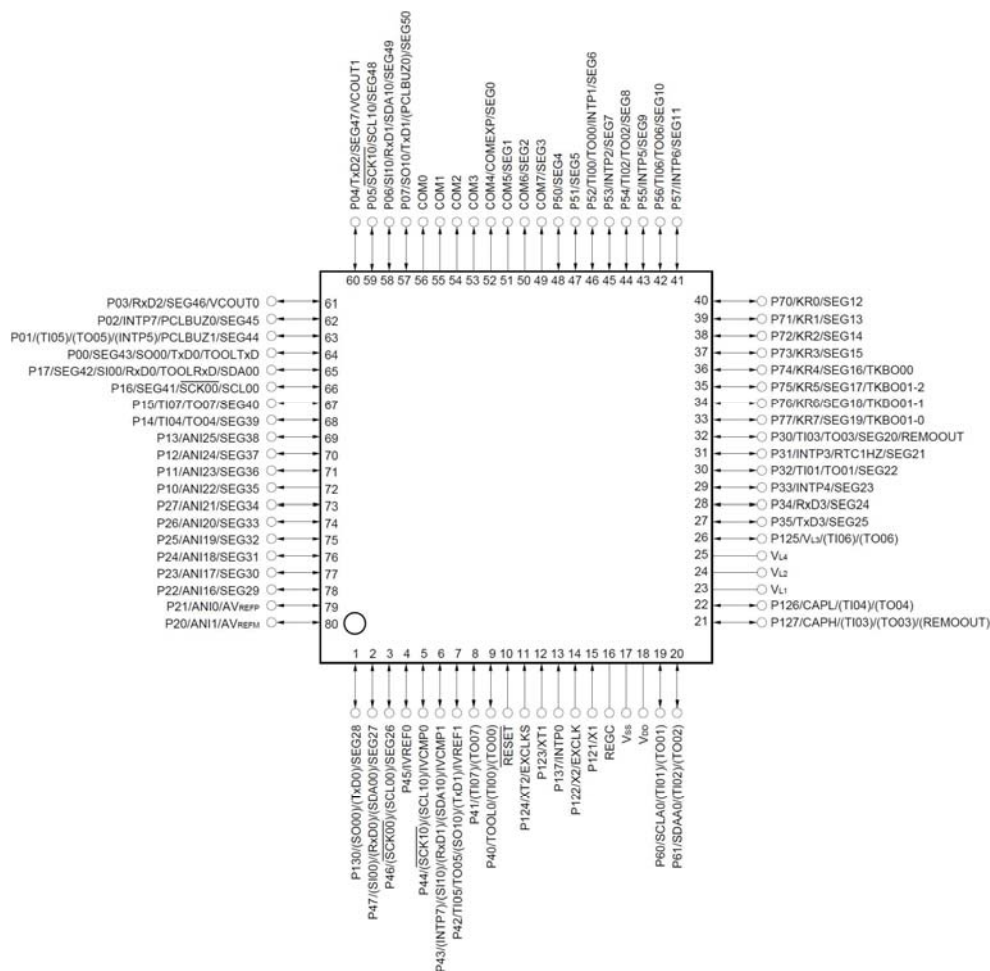
11. IC11 — VRH3001NTX



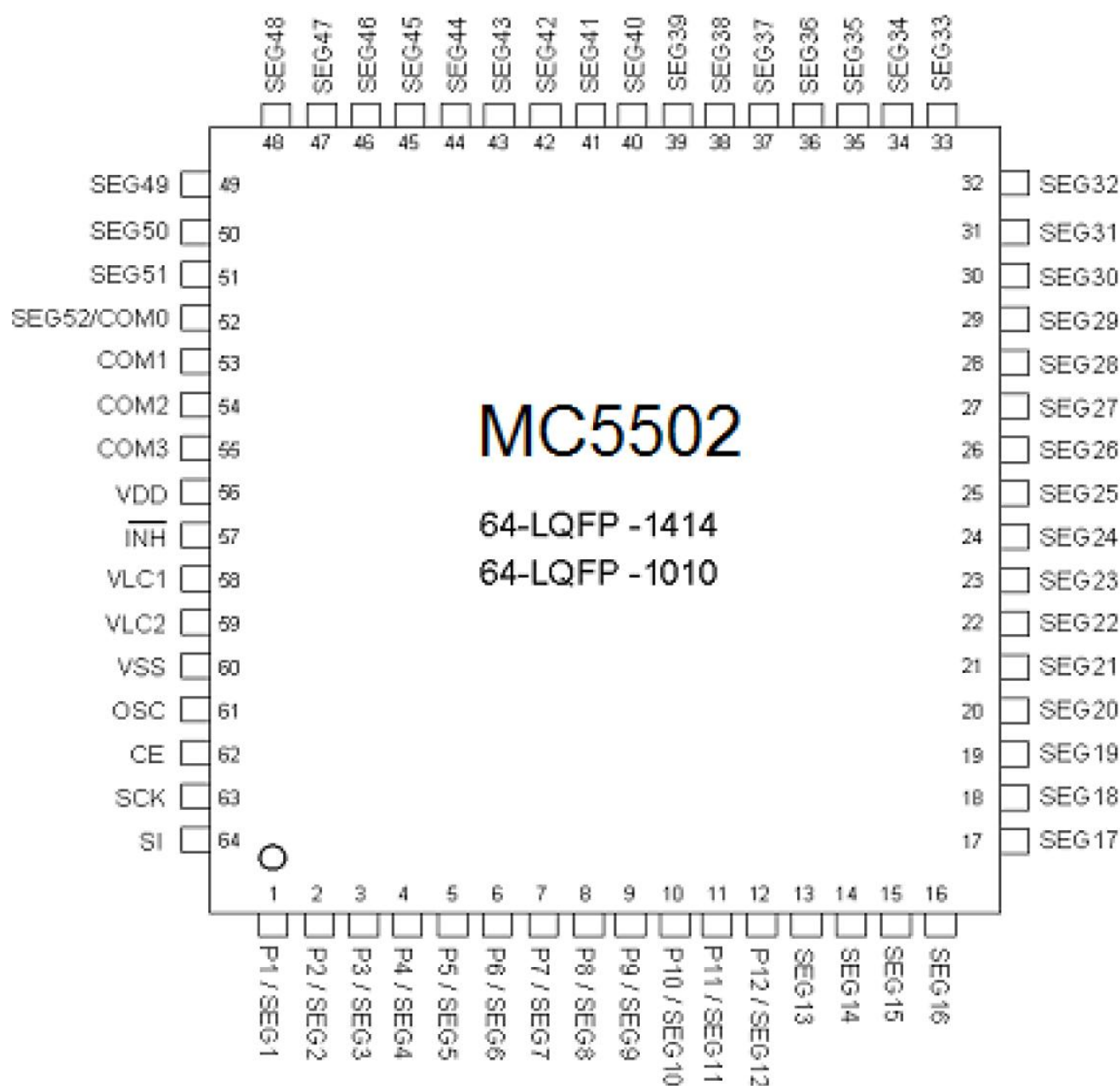
12. IC300 — AW9523BTQR



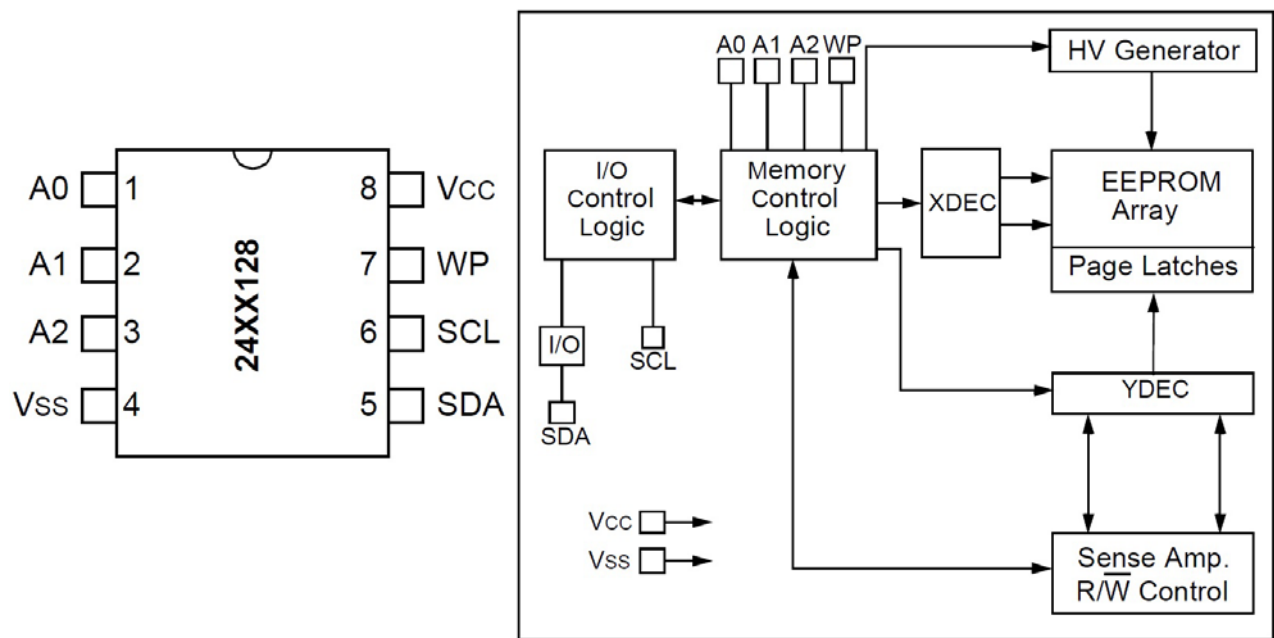
13. IC301 — R5F10WMEAFB



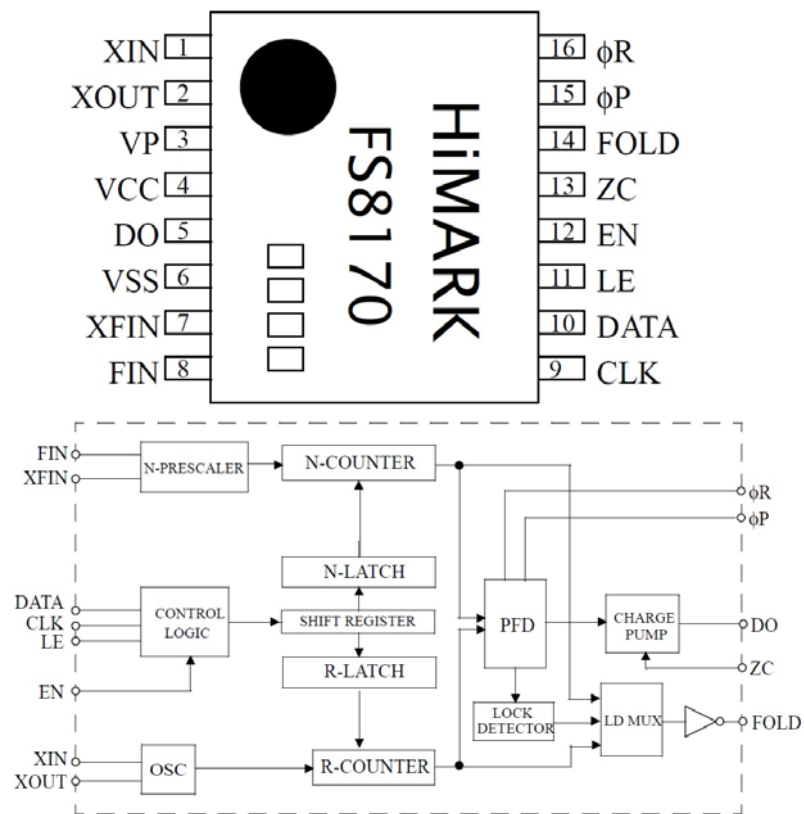
14. IC302 — MC5502E



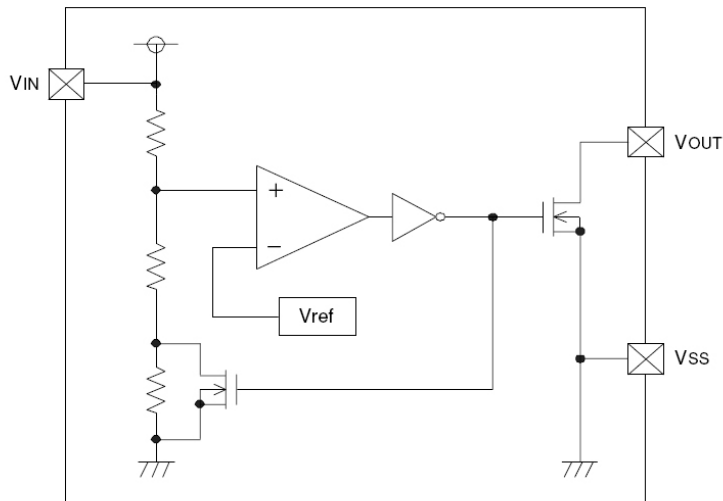
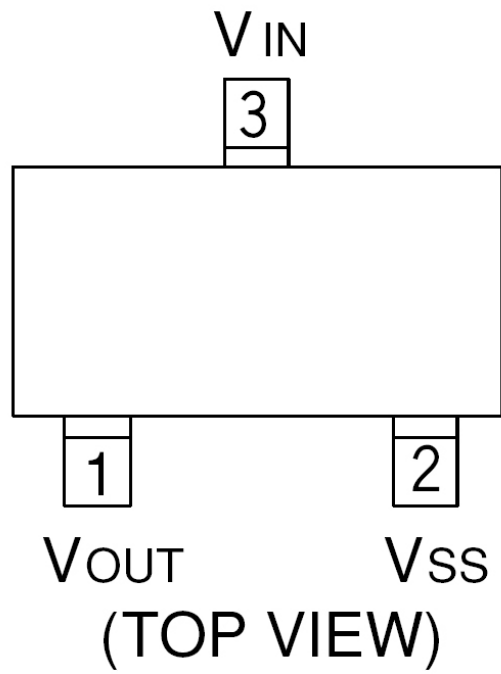
15. IC303 — 24LC128T-I/SN



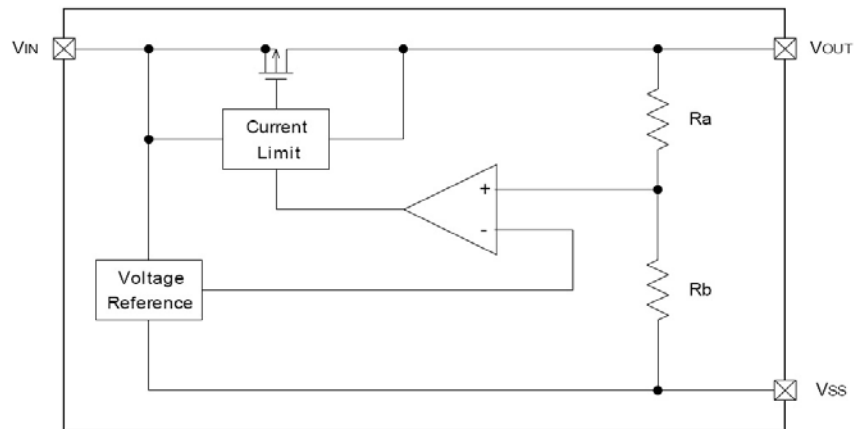
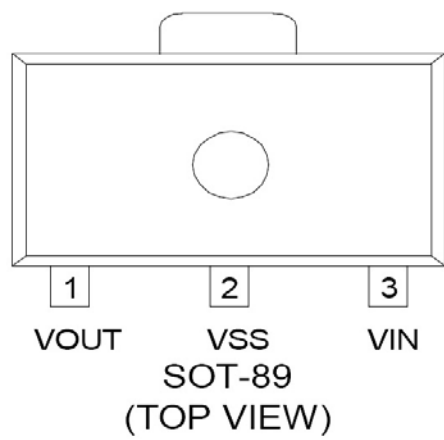
16. IC304 — FS8170-LF



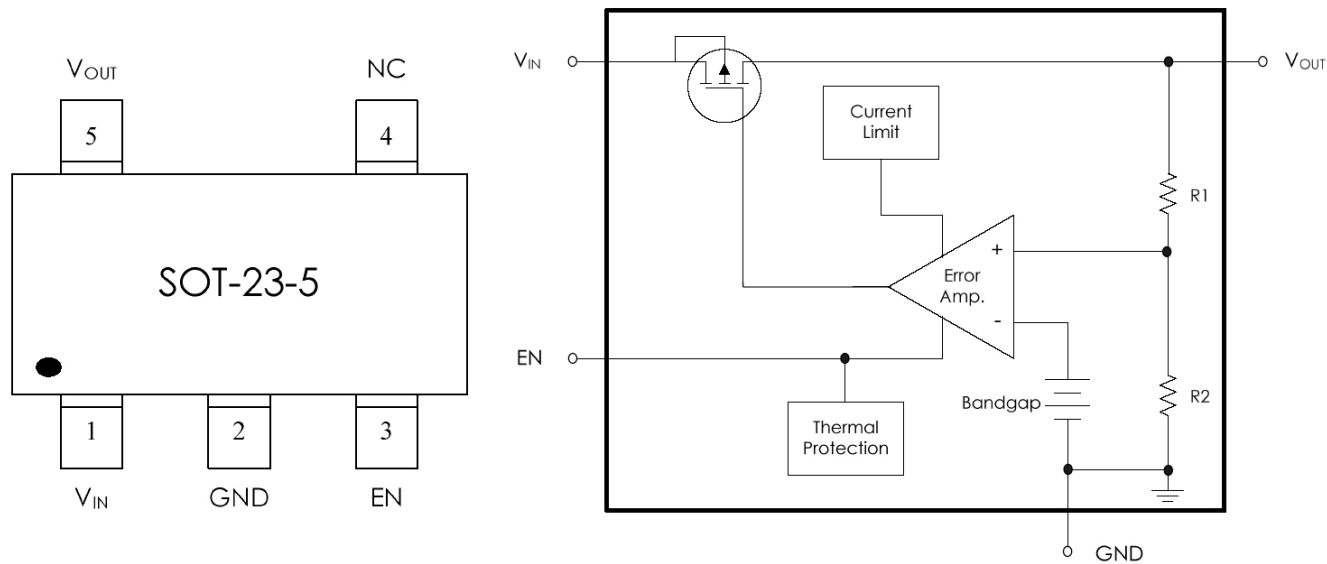
17. IC305 — XC61CN3602MR



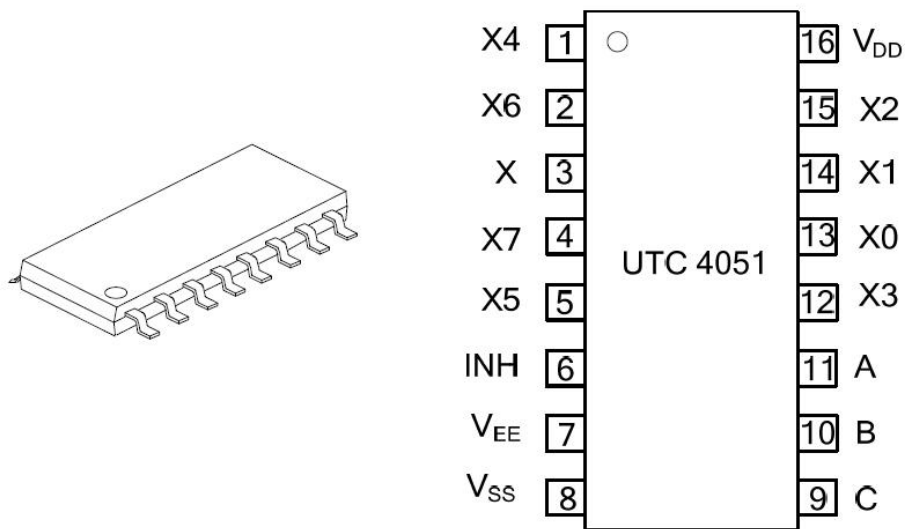
18. IC306 & IC307 — XC6202P302PRN



19. IC800 — EMP8041-33VF05NRR

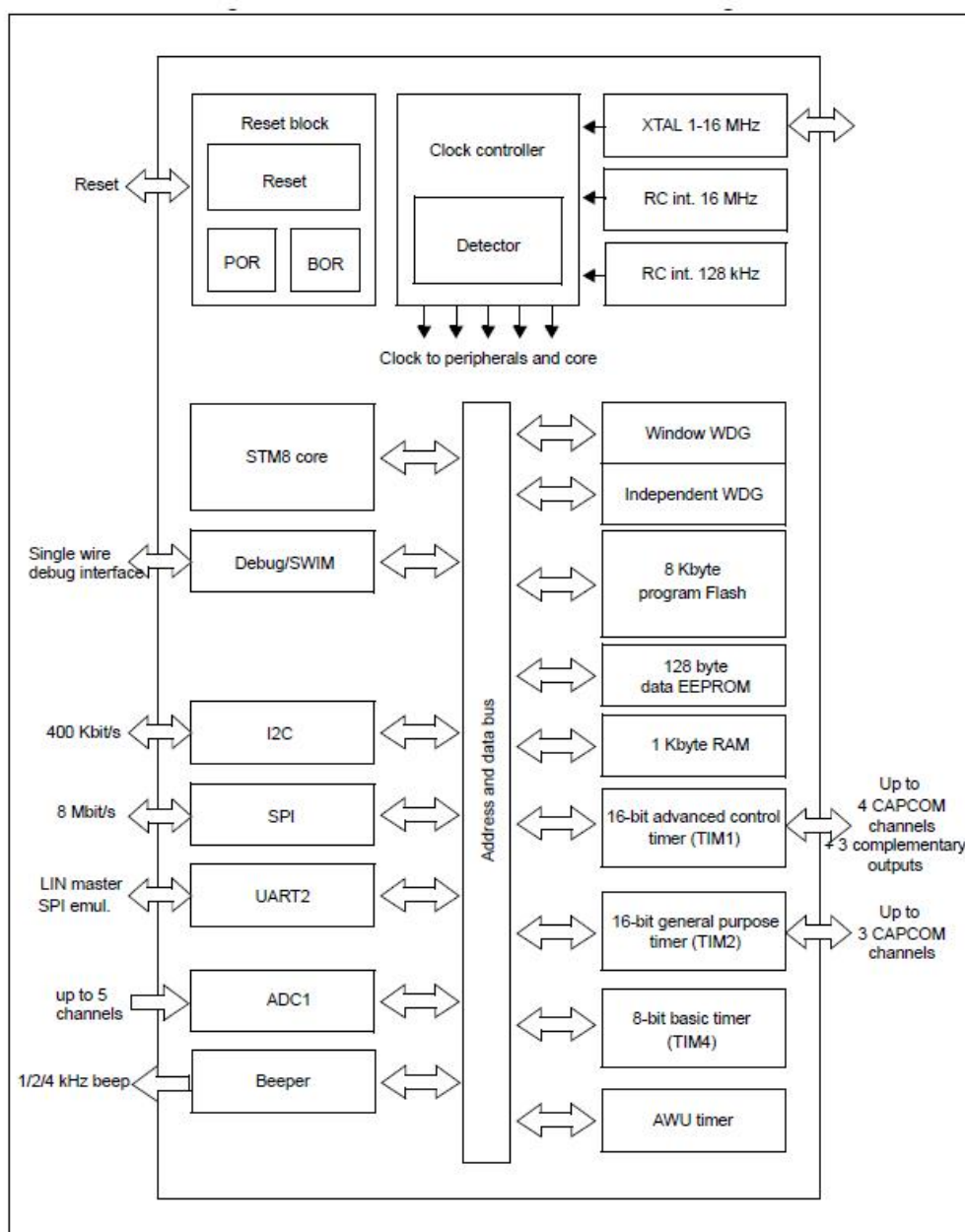
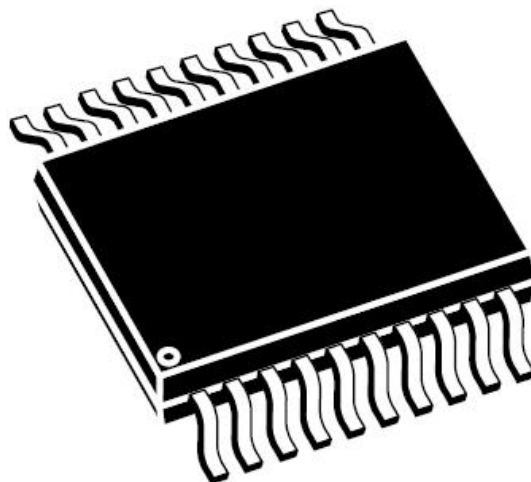


20. IC802 — UTC4051G-S16-R



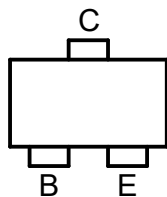
PIN No.	SYMBAL	I/O	NAME AND FUNCTION
3	X	I/O	Common Input/Output
6	INH	I	Inhibit Inputs
7	VEE		Supply Voltage
8	VSS		Ground
11,10,9	A,B,C	I	Binary Control Inputs
13,14,15,12,1,5,2,4	X0~X7	I/O	Independent Inputs/Outputs
16	VDD		Positive Supply Voltage

21. IC801 — STM8S003F3P6



SEMICONDUCTOR LEAD IDENTIFICATIONS

Transistors



2SB815

2SA1576

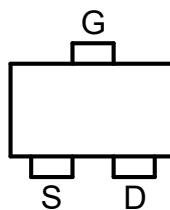
2SA812

2SC5477

2SC1623

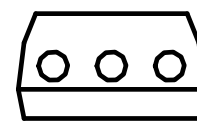
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2SC4154



2SK433B

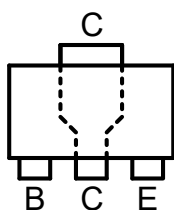
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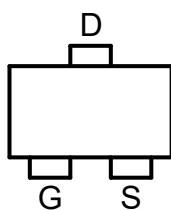
(TOP VIEW)

2SK715W

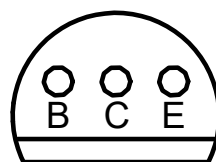
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BTB1424AM3



CJ3415

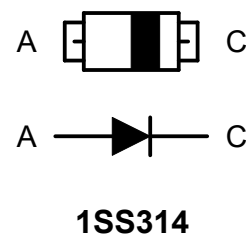
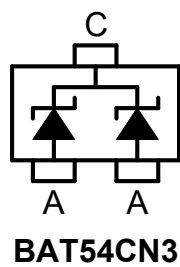
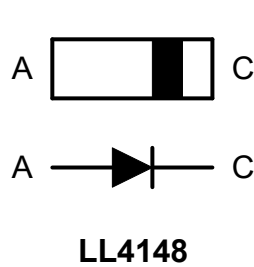
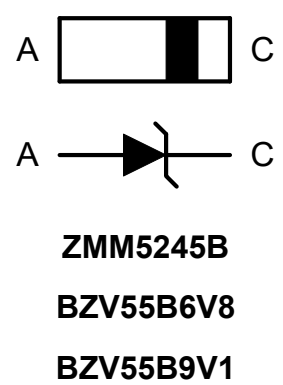
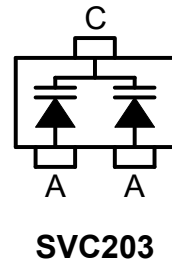
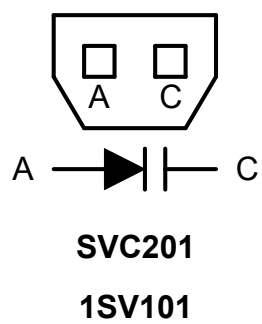
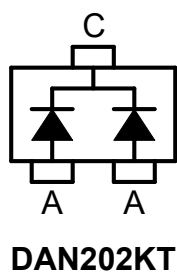
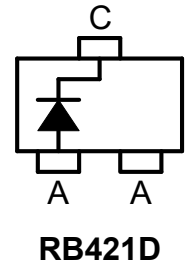
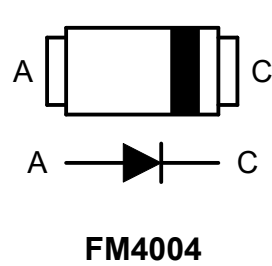
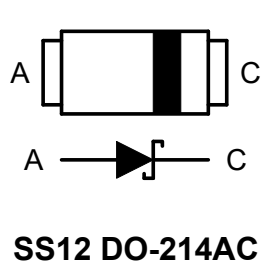
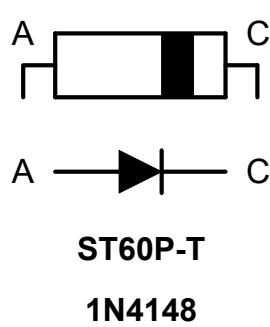


(TOP VIEW)

2SA1020G

(E: Emitter C: Collector B: Base S: Source G: Gate D: Drain)

Diodes



(A: Anode C: Cathode)

IC AND TRANSISTOR VOLTAGE CHART

IC1 — Si4735-D60-GM/R

PIN	FM	MW	LW	SW	AUX	AIR	PIN	FM	MW	LW	SW	AUX	AIR
1	0.56	0.54	0.54	0.54	0.54	0.54	11	2.8	2.86	2.87	2.87	3	3
2	0	0	0	0	0	0	12	0	0	0	0	0	0
3	0	0	0	0	0	0	13	0.74	0.74	0.74	0.74	0	0
4	0	0.46	0.44	0.44	0	0	14	0.74	0.74	0.74	0.74	0	0
5	2.77	2.84	2.84	2.84	3	3	15	0	0	0	0	0	0
6	0	0	0	0	0	0	16	0	0	0	0	0	0
7	2.78	2.78	2.78	2.78	2.78	2.78	17	0.4	0.4	0.4	0.4	0	0
8	2.76	2.8	2.79	2.79	2.79	2.79	18	2.8	2.8	2.87	2.87	0	0
9	0.72	0.73	0.73	0.73	0	0	19	2.62	2.62	2.62	2.62	0	0
10	2.8	2.86	2.87	2.87	3	3	20	0.54	0.54	0.54	0.54	0	0

IC2 — TA7640APL

PIN	FM	MW	LW	SW	AUX	AIR
1	1.52	1.48	1.5	1.5	1.5	1.5
2	1.51	1.48	1.5	1.5	1.5	1.5
3	2.24	2.2	2.2	2.2	2.2	2.2
4	2.24	2.2	2.2	2.2	2.2	2.2
5	0	1.59	1.54	1.54	1.54	1.54
6	0	1.74	1.74	1.74	1.74	1.74
7	3	0.2	0.2	0.2	0.2	0.2
8	0	0	0	0	0	0
9	1.28	1.22	1.21	1.21	1.21	1.21
10	6.16	6.12	6.1	6.1	6.1	6.1
11	6.16	6.12	6.1	6.1	6.1	6.1
12	1.35	1.43	1.43	1.43	1.43	1.43
13	1.34	1.43	1.43	1.43	1.43	1.43
14	1.34	1.43	1.43	1.43	1.43	1.43
15	1.34	1.43	1.43	1.43	1.43	1.43
16	1.36	1.36	1.36	1.36	1.36	1.36

IC3 — HEF4066BT

PIN	FM	MW	LW	SW	AUX	AIR
1	0	0	0	0	0	0
2	0.3	0.26	0.15	0.06	0.08	0.08
3	0.3	0.22	0.13	0.05	0.07	0.07
4	0.3	0.19	0.11	0.05	0.1	0.1
5	0.3	6.09	6.1	6.09	0.02	0.02
6	6.12	6.21	6.22	6.21	6.25	6.25
7	0	0	0	0	0	0
8	0	0	0	0	0	0
9	0	0	0	0	0	0
10	0.35	0.21	0.12	0.04	0.09	0.09
11	0.3	0.18	0.1	0.04	0.06	0.06
12	6.13	6.1	6.1	6.1	0.02	0.02
13	0	6.22	6.22	6.21	6.25	6.25
14	6.24	6.22	6.22	6.22	6.25	6.25

IC4 — XC62FP3002PRN

PIN	FM	MW	LW	SW	AUX	AIR
G	0	0	0	0	0	0
O	3	3	3	3	3	3
I	6.01	6.01	6.01	6.01	6.01	6.01

IC5 — PT2308 8PIN

PIN	FM	MW	LW	SW	AUX	AIR
1	2.58	2.58	2.58	2.58	2.58	2.58
2	2.59	2.59	2.59	2.59	2.59	2.59
3	2.59	2.59	2.59	2.59	2.59	2.59
4	0	0	0	0	0	0
5	2.59	2.59	2.59	2.59	2.59	2.59
6	2.60	2.60	2.60	2.60	2.60	2.60
7	2.60	2.60	2.60	2.60	2.60	2.60
8	5.20	5.20	5.20	5.20	5.20	5.20

IC6 — YD7358

PIN	FM	MW	LW	SW	AUX	AIR
1	0.84	0.84	0.84	0.84	0.84	0.84
2	1.5	1.5	1.5	1.5	1.5	1.5
3	5.39	5.39	5.39	5.39	5.39	5.39
4	1.51	1.51	1.51	1.51	1.51	1.51
5	0	0	0	0	0	0
6	5.79	5.79	5.79	5.79	5.79	5.79
7	5.09	5.09	5.09	5.09	5.09	5.09
8	5.74	5.74	5.74	5.74	5.74	5.74
9	5.78	5.78	5.78	5.78	5.78	5.78

IC7 — NJM2100M

PIN	FM	MW	LW	SW	AUX	AIR
1	2.7	2.7	2.7	2.7	2.7	2.7
2	2.70	2.70	2.70	2.70	2.70	2.70
3	2.69	2.69	2.69	2.69	2.69	2.69
4	0	0	0	0	0	0
5	2.68	2.68	2.68	2.68	2.68	2.68
6	2.71	2.71	2.71	2.71	2.71	2.71
7	2.70	2.70	2.70	2.70	2.70	2.70
8	5.39	5.39	5.39	5.39	5.39	5.39

IC8 — TBA820ML

PIN	FM	MW	LW	SW	AUX	AIR
1	0.64	0.64	0.64	0.64	0.64	0.64
2	0.53	0.53	0.53	0.53	0.53	0.53
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	4.25	4.25	4.25	4.25	4.25	4.25
6	8.07	8.07	8.07	8.07	8.07	8.07
7	7.98	7.98	7.98	7.98	7.98	7.98
8	5.56	5.56	5.56	5.56	5.56	5.56

IC9 — LTV-817C

PIN	FM	MW	LW	SW	AUX	AIR
1	8.04	8.04	8.04	8.04	8.04	8.04
2	7.34	7.34	7.34	7.34	7.34	7.34
3	0	0	0	0	0	0
4	0	0	0	0	0	0

IC11 — VRH3001NTX

PIN	FM	MW	LW	SW	AUX	AIR
1	5.78	5.78	5.78	5.78	5.78	5.78
2	0	0	0	0	0	0
3	5.63	5.63	5.63	5.63	5.63	5.63
4	0	0	0	0	0	0
5	2.99	2.99	2.99	2.99	2.99	2.99

IC10 — FS8170-LF

PIN	FM	MW	LW	SW	AUX	AIR	PIN	FM	MW	LW	SW	AUX	AIR
1	1.35	1.35	1.35	1.35	1.35	1.35	9	0	0	0	0	0	0
2	1.17	1.17	1.17	1.17	1.17	1.17	10	0	0	0	0	0	0
3	2.96	2.96	2.96	2.96	2.96	2.96	11	0	0	0	0	0	0
4	2.96	2.96	2.96	2.96	2.96	2.96	12	2.96	2.96	2.96	2.96	2.96	2.96
5	2.17	2.17	2.17	2.17	2.17	2.17	13	2.95	2.95	2.95	2.95	2.95	2.95
6	0	0	0	0	0	0	14	2.95	2.95	2.95	2.95	2.95	2.95
7	1.99	1.99	1.99	1.99	1.99	1.99	15	0.34	0.34	0.34	0.34	0.34	0.34
8	1.99	1.99	1.99	1.99	1.99	1.99	16	0	0	0	0	0	0

IC300 — AW9523BTQR

PIN	FM	MW	LW	SW	AUX	AIR	PIN	FM	MW	LW	SW	AUX	AIR
1	0.51	0.51	0.51	0.51	0.51	0.51	13	0	0	0	0	0	0
2	0.50	0.50	0.50	0.50	0.50	0.50	14	2.53	2.53	2.53	2.53	2.53	2.53
3	0.51	0.51	0.51	0.51	0.51	0.51	15	2.53	2.53	2.53	2.53	2.53	2.53
4	0.51	0.51	0.51	0.51	0.51	0.51	16	0	0	0	0	0	0
5	0.49	0.49	0.49	0.49	0.49	0.49	17	0	0	0	0	0	0
6	0	0	0	0	0	0	18	2.76	2.76	2.76	2.76	2.76	2.76
7	0	0	0	0	0	0	19	2.76	2.76	2.76	2.76	2.76	2.76
8	0	0	0	0	0	0	20	2.69	2.69	2.69	2.69	2.69	2.69
9	0	0	0	0	0	0	21	2.76	2.76	2.76	2.76	2.76	2.76
10	0	0	0	0	0	0	22	2.74	2.74	2.74	2.74	2.74	2.74
11	0	0	0	0	0	0	23	2.11	2.11	2.11	2.11	2.11	2.11
12	0	0	0	0	0	0	24	2.76	2.76	2.76	2.76	2.76	2.76

IC301 — R5F10WMEAFB

PIN	FM	MW	LW	SW	AUX	AIR	PIN	FM	MW	LW	SW	AUX	AIR
1	0	0	0	0	0	0	21	0.96	0	0	0	0	0
2	0	0	0	0	0	0	22	0.552	0	0	0	0	0
3	0	0	0	0	0	0	23	0.99	0	0	0	0	0
4	0	0	0	0	0	0	24	1.04	0	0	0	0	0
5	0	0	0	0	0	0	25	1.40	0	0	0	0	0
6	0	0	0	0	0	0	26	0	0	0	0	0	0
7	.37	.37	.37	.37	.37	.37	27	2.67	.37	.37	.37	.37	.37
8	2.76	2.76	2.76	2.76	2.76	2.76	28	2.67	2.76	2.76	2.76	2.76	2.76
9	2.78	2.78	2.78	2.78	2.78	2.78	29	2.80	2.78	2.78	2.78	2.78	2.78
10	2.78	2.78	2.78	2.78	2.78	2.78	30	1.40	2.78	2.78	2.78	2.78	2.78
11	0.67	0.67	0.67	0.67	0.67	0.67	31	0	0.67	0.67	0.67	0.67	0.67
12	0.58	0.58	0.58	0.58	0.58	0.58	32	0	0.58	0.58	0.58	0.58	0.58
13	0.58	0.58	0.58	0.58	0.58	0.58	33	1.44	0.58	0.58	0.58	0.58	0.58
14	0.58	0.58	0.58	0.58	0.58	0.58	34	1.40	0.58	0.58	0.58	0.58	0.58
15	2.76	2.76	2.76	2.76	2.76	2.76	35	1.44	2.76	2.76	2.76	2.76	2.76
16	1.79	1.79	1.79	1.79	1.79	1.79	36	1.44	1.79	1.79	1.79	1.79	1.79
17	0	0	0	0	0	0	37	1.40	0	0	0	0	0
18	2.76	2.76	2.76	2.76	2.76	2.76	38	1.46	2.76	2.76	2.76	2.76	2.76
19	2.70	2.70	2.70	2.70	2.70	2.70	39	1.43	2.70	2.70	2.70	2.70	2.70
20	2.66	2.66	2.66	2.66	2.66	2.66	40	1.43	2.66	2.66	2.66	2.66	2.66

IC301 — R5F10WMEAFB

PIN	FM	MW	LW	SW	AUX	AIR	PIN	FM	MW	LW	SW	AUX	AIR
41	2.76	2.76	2.76	2.76	2.76	2.76	61	1.42	1.42	1.42	1.42	1.42	1.42
42	2.76	2.76	2.76	2.76	2.76	2.76	62	1.47	1.47	1.47	1.47	1.47	1.47
43	0	0	0	0	0	0	63	1.47	1.47	1.47	1.47	1.47	1.47
44	1.47	1.47	1.47	1.47	1.47	1.47	64	1.47	1.47	1.47	1.47	1.47	1.47
45	1.43	1.43	1.43	1.43	1.43	1.43	65	1.47	1.47	1.47	1.47	1.47	1.47
46	1.46	1.46	1.46	1.46	1.46	1.46	66	1.47	1.47	1.47	1.47	1.47	1.47
47	1.47	1.47	1.47	1.47	1.47	1.47	67	1.47	1.47	1.47	1.47	1.47	1.47
48	1.45	1.45	1.45	1.45	1.45	1.45	68	1.47	1.47	1.47	1.47	1.47	1.47
49	1.44	1.44	1.44	1.44	1.44	1.44	69	1.47	1.47	1.47	1.47	1.47	1.47
50	1.44	1.44	1.44	1.44	1.44	1.44	70	1.47	1.47	1.47	1.47	1.47	1.47
51	1.47	1.47	1.47	1.47	1.47	1.47	71	1.47	1.47	1.47	1.47	1.47	1.47
52	1.47	1.47	1.47	1.47	1.47	1.47	72	1.47	1.47	1.47	1.47	1.47	1.47
53	1.45	1.45	1.45	1.45	1.45	1.45	73	1.47	1.47	1.47	1.47	1.47	1.47
54	1.45	1.45	1.45	1.45	1.45	1.45	74	3.25	3.25	3.25	3.25	3.25	3.25
55	1.45	1.45	1.45	1.45	1.45	1.45	75	1.61	1.61	1.61	1.61	1.61	1.61
56	1.45	1.45	1.45	1.45	1.45	1.45	76	2.79	2.79	2.79	2.79	2.79	2.79
57	1.45	1.45	1.45	1.45	1.45	1.45	77	2.79	2.79	2.79	2.79	2.79	2.79
58	1.45	1.45	1.45	1.45	1.45	1.45	78	2.79	2.79	2.79	2.79	2.79	2.79
59	1.47	1.47	1.47	1.47	1.47	1.47	79	2.79	2.79	2.79	2.79	2.79	2.79
60	1.47	1.47	1.47	1.47	1.47	1.47	80	2.79	2.79	2.79	2.79	2.79	2.79

PIN	FM	MW	LW	SW	AUX	AIR	PIN	FM	MW	LW	SW	AUX	AIR
1	2.76	2.76	2.76	2.76	2.76	2.76	13	1.37	1.37	1.37	1.37	1.37	1.37
2	0	0	0	2.76	0	0	14	1.37	1.37	1.37	1.37	1.37	1.37
3	0	0	0	0	0	0	15	1.37	1.37	1.37	1.37	1.37	1.37
4	2.76	2.76	2.76	2.76	2.76	2.76	16	1.37	1.37	1.37	1.37	1.37	1.37
5	0	0	0	0	0	0	17	1.37	1.37	1.37	1.37	1.37	1.37
6	0	0	0	0	0	0	18	1.37	1.37	1.37	1.37	1.37	1.37
7	0	0	0	0	0	0	19	1.37	1.37	1.37	1.37	1.37	1.37
8	1.37	1.37	1.37	1.37	1.37	1.37	20	1.37	1.37	1.37	1.37	1.37	1.37
9	1.37	1.37	1.37	1.37	1.37	1.37	21	1.37	1.37	1.37	1.37	1.37	1.37
10	1.37	1.37	1.37	1.37	1.37	1.37	22	1.37	1.37	1.37	1.37	1.37	1.37
11	1.37	1.37	1.37	1.37	1.37	1.37	23	1.37	1.37	1.37	1.37	1.37	1.37
12	1.37	1.37	1.37	1.37	1.37	1.37	24	1.37	1.37	1.37	1.37	1.37	1.37

IC302 — MC5502E

PIN	FM	MW	LW	SW	AUX	AIR	PIN	FM	MW	LW	SW	AUX	AIR
25	1.37	1.37	1.37	1.37	1.37	1.37	45	1.37	1.37	1.37	1.37	1.37	1.37
26	1.37	1.37	1.37	1.37	1.37	1.37	46	1.38	1.38	1.38	1.38	1.38	1.38
27	1.37	1.37	1.37	1.37	1.37	1.37	47	1.37	1.37	1.37	1.37	1.37	1.37
28	1.37	1.37	1.37	1.37	1.37	1.37	48	1.38	1.38	1.38	1.38	1.38	1.38
29	1.37	1.37	1.37	1.37	1.37	1.37	49	1.37	1.37	1.37	1.37	1.37	1.37
30	1.37	1.37	1.37	1.37	1.37	1.37	50	1.37	1.37	1.37	1.37	1.37	1.37
31	1.37	1.37	1.37	1.37	1.37	1.37	51	1.37	1.37	1.37	1.37	1.37	1.37
32	1.37	1.37	1.37	1.37	1.37	1.37	52	1.37	1.37	1.37	1.37	1.37	1.37
33	1.37	1.37	1.37	1.37	1.37	1.37	53	1.38	1.38	1.38	1.38	1.38	1.38
34	1.37	1.37	1.37	1.37	1.37	1.37	54	1.37	1.37	1.37	1.37	1.37	1.37
35	1.37	1.37	1.37	1.37	1.37	1.37	55	1.37	1.37	1.37	1.37	1.37	1.37
36	1.37	1.37	1.37	1.37	1.37	1.37	56	2.77	2.77	2.77	2.77	2.77	2.77
37	1.37	1.37	1.37	1.37	1.37	1.37	57	2.77	2.77	2.77	2.77	2.77	2.77
38	1.37	1.37	1.37	1.37	1.37	1.37	58	1.82	1.82	1.82	1.82	1.82	1.82
39	1.37	1.37	1.37	1.37	1.37	1.37	59	0.92	0.92	0.92	0.92	0.92	0.92
40	1.37	1.37	1.37	1.37	1.37	1.37	60	0	0	0	0	0	0
41	1.37	1.37	1.37	1.37	1.37	1.37	61	2.09	2.09	2.09	2.09	2.09	2.09
42	1.37	1.37	1.37	1.37	1.37	1.37	62	0	0	0	0	0	0
43	1.37	1.37	1.37	1.37	1.37	1.37	63	0	0	0	0	0	0
44	1.37	1.37	1.37	1.37	1.37	1.37	64	0	0	0	0	0	0

IC303 — 24LC128T-I/SN

PIN	FM	MW	LW	SW	AUX	AIR	PIN	FM	MW	LW	SW	AUX	AIR
1	0	0	0	0	0	0	5	2.68	2.68	2.68	2.68	2.68	2.68
2	0	0	0	0	0	0	6	2.70	2.70	2.70	2.70	2.70	2.70
3	0	0	0	0	0	0	7	0	0	0	0	0	0
4	0	0	0	0	0	0	8	2.80	2.80	2.80	2.80	2.80	2.80

IC305 — XC61CN3602MR

PIN	FM	MW	LW	SW	AUX	AIR
1	2.99	2.99	2.99	2.99	2.99	2.99
2	0	0	0	0	0	0
3	8.06	8.06	8.06	8.06	8.06	8.06

IC306 — XC6202P302PRN

PIN	FM	MW	LW	SW	AUX	AIR
1	3.01	3.01	3.01	3.01	3.01	3.01
2	0	0	0	0	0	0
3	8.06	8.06	8.06	8.06	8.06	8.06

IC304 — FS8170-LF

PIN	FM	MW	LW	SW	AUX	AIR	PIN	FM	MW	LW	SW	AUX	AIR
1	0	0	0	0	0	0	9	0	0	0	0	0	0
2	0	0	0	0	0	0	10	0	0	0	0	0	0
3	0	0	0	0	0	0	11	0	0	0	0	0	0
4	0	0	0	0	0	0	12	0	0	0	0	0	0
5	0	0	0	0	0	0	13	0	0	0	0	0	0
6	0	0	0	0	0	0	14	0	0	0	0	0	0
7	0	0	0	0	0	0	15	0	0	0	0	0	0
8	0	0	0	0	0	0	16	0	0	0	0	0	0

IC307 — XC6202P302PRN

PIN	FM	MW	LW	SW	AUX	AIR
1	3.02	3.02	3.02	3.02	3.02	3.02
2	0	0	0	0	0	0
3	8.06	8.06	8.06	8.06	8.06	8.06

IC800 — EMP8041-33VF05NRR

PIN	FM	MW	LW	SW	AUX	AIR
1	8.84	8.84	8.84	8.84	8.84	8.84
2	0	0	0	0	0	0
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0

IC801 — STM8S003F3P6

PIN	FM	MW	LW	SW	AUX	AIR	PIN	FM	MW	LW	SW	AUX	AIR
1	0	0	0	0	0	0	11	0	0	0	0	0	0
2	0	0	0	0	0	0	12	0	0	0	0	0	0
3	0	0	0	0	0	0	13	0	0	0	0	0	0
4	0	0	0	0	0	0	14	0	0	0	0	0	0
5	0	0	0	0	0	0	15	0	0	0	0	0	0
6	0	0	0	0	0	0	16	0	0	0	0	0	0
7	0	0	0	0	0	0	17	0	0	0	0	0	0
8	0	0	0	0	0	0	18	0	0	0	0	0	0
9	0	0	0	0	0	0	19	0	0	0	0	0	0
10	0	0	0	0	0	0	20	0	0	0	0	0	0

IC802 — UTC4051G-S16-R

PIN	FM	MW	LW	SW	AUX	AIR	PIN	FM	MW	LW	SW	AUX	AIR
1	3.20	3.20	3.20	3.20	3.20	3.20	9	8.58	8.58	8.58	8.58	8.58	8.58
2	0	0	0	0	0	0	10	8.58	8.58	8.58	8.58	8.58	8.58
3	0	0	0	0	0	0	11	8.58	8.58	8.58	8.58	8.58	8.58
4	0	0	0	0	0	0	12	1.18	1.18	1.18	1.18	1.18	1.18
5	0	0	0	0	0	0	13	0	0	0	0	0	0
6	0	0	0	0	0	0	14	1.16	1.16	1.16	1.16	1.16	1.16
7	0	0	0	0	0	0	15	1.22	1.22	1.22	1.22	1.22	1.22
8	0	0	0	0	0	0	16	8.77	8.77	8.77	8.77	8.77	8.77

Transistor

	PIN	FM	MW	LW	SW	AUX	AIR
Q1	B	0	5.42	5.42	5.42	0	0
	E	0	6.1	6.1	6.1	0	0
	C	0	6	6	0.25	0	0
Q2	B	1.48	1.48	1.48	1.48	1.48	1.48
	E	0.39	0.88	0.88	0.89	0.39	0.39
	C	3.03	3	3	3	3.03	3.03
Q3	B	0.72	1.38	1.38	1.3	0.72	0.72
	E	0.89	0.88	0.88	0.89	0.89	0.89
	C	2.82	1.97	1.97	2.78	2.82	2.82
Q4	B	2.7	1.97	1.97	2.68	2.7	2.7
	E	2.1	1.31	1.31	2.1	2.1	2.1
	C	3	3	3	3	3	3
Q5	B	0	0	0	0.07	0	0
	E	0	0	0	0	0	0
	C	0	1.34	1.34	0	0	0
Q6	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	1.34	1.33	1.33	1.35	1.34	1.34
Q7	B	0	0	0	0.07	0	0
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q8	B	0	0	0	0.06	0	0
	E	0	0	0	0	0	0
	C	1.33	0	0	1.33	1.33	1.33
Q9	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	1.32	1.32	1.32	1.32	1.32	1.32
Q10	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	0.54	0.54	0.54	0.54	0.54	0.54
Q11	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0

	PIN	FM	MW	LW	SW	AUX	AIR
Q12	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q13	S	1.52	1.52	1.52	1.52	1.52	1.52
	D	4.22	4.22	4.22	4.22	4.22	4.22
	G	0.38	0.38	0.38	0.38	0.38	0.38
Q14	S	1.15	1.15	1.15	1.15	1.15	1.15
	D	4.94	4.94	4.94	4.94	4.94	4.94
	G	0	0	0	0	0	0
Q15	B	2.97	2.97	2.97	2.97	2.97	2.97
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q16	S	5.92	5.92	5.92	5.92	5.92	5.92
	D	0.60	0.60	0.60	0.60	0.60	0.60
	G	0	0	0	0	0	0
Q17	S	5.92	5.92	5.92	5.92	5.92	5.92
	D	0	0	0	0	0	0
	G	0	0	0	0	0	0
Q18	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	2.94	2.94	2.94	2.94	2.94	2.94
Q19	B	6.79	6.79	6.79	6.79	6.79	6.79
	E	6.13	6.13	6.13	6.13	6.13	6.13
	C	8.07	8.07	8.07	8.07	8.07	8.07
Q20	B	0	0	0	0	0	0
	E	0.14	0.14	0.14	0.14	0.14	0.14
	C	0.58	0.58	0.58	0.58	0.58	0.58
Q21	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q22	B	0.74	0.74	0.74	0.74	0.74	0.74
	E	0	0	0	0	0	0
	C	2.41	2.41	2.41	2.41	2.41	2.41

	PIN	FM	MW	LW	SW	AUX	AIR
Q23	S	1.44	1.44	1.44	1.44	1.44	1.44
	D	4.22	4.22	4.22	4.22	4.22	4.22
	G	0.38	0.38	0.38	0.38	0.38	0.38
Q24	B	5.89	5.89	5.89	5.89	5.89	5.89
	E	5.95	5.95	5.95	5.95	5.95	5.95
	C	0	0	0	0	0	0
Q25	B	0.70	0.70	0.70	0.70	0.70	0.70
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q26	S	1.14	1.14	1.14	1.14	1.14	1.14
	D	4.94	4.94	4.94	4.94	4.94	4.94
	G	0	0	0	0	0	0
Q27	B	7.40	7.40	7.40	7.40	7.40	7.40
	E	8.09	8.09	8.09	8.09	8.09	8.09
	C	8.09	8.09	8.09	8.09	8.09	8.09
Q28	B	7.37	7.37	7.37	7.37	7.37	7.37
	E	8.14	8.14	8.14	8.14	8.14	8.14
	C	8.08	8.08	8.08	8.08	8.08	8.08
Q29	B	1.52	1.52	1.52	1.52	1.52	1.52
	E	0.86	0.86	0.86	0.86	0.86	0.86
	C	2.0	2.0	2.0	2.0	2.0	2.0
Q30	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	5.87	5.87	5.87	5.87	5.87	5.87
Q31	B	2.29	2.29	2.29	2.29	2.29	2.29
	E	3.0	3.0	3.0	3.0	3.0	3.0
	C	2.95	2.95	2.95	2.95	2.95	2.95
Q32	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q33	B	0	0	0	0	0	0
	E	2.95	2.95	2.95	2.95	2.95	2.95
	C	0	0	0	0	0	0
Q34	B	0.48	0.48	0.48	0.48	0.48	0.48
	E	0	0	0	0	0	0
	C	7.13	7.13	7.13	7.13	7.13	7.13

	PIN	FM	MW	LW	SW	AUX	AIR
Q35	B	0.58	0.58	0.58	0.58	0.58	0.58
	E	0	0	0	0	0	0
	C	0.49	0.49	0.49	0.49	0.49	0.49
Q36	B	5.39	5.39	5.39	5.39	5.39	5.39
	E	6.12	6.12	6.12	6.12	6.12	6.12
	C	5.95	5.95	5.95	5.95	5.95	5.95
Q37	B	0.65	0.65	0.65	0.65	0.65	0.65
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q38	S	0	0	0	0	0	0
	G	0	0	0	0	0	0
	D	0	0	0	0	0	0
Q39	B	0.70	0.70	0.70	0.70	0.70	0.70
	E	0	0	0	0	0	0
	C	2.71	2.71	2.71	2.71	2.71	2.71
Q40	B	1.50	1.50	1.50	1.50	1.50	1.50
	E	0.83	0.83	0.83	0.83	0.83	0.83
	C	2.09	2.09	2.09	2.09	2.09	2.09
Q41	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	5.87	5.87	5.87	5.87	5.87	5.87
Q42	B	1.72	1.72	1.72	1.72	1.72	1.72
	E	0	0	0	0	0	0
	C	2.63	2.63	2.63	2.63	2.63	2.63
Q43	B	6.01	6.01	6.01	6.01	6.01	6.01
	E	6.13	6.13	6.13	6.13	6.13	6.13
	C	0	0	0	0	0	0
Q44	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	5.88	5.88	5.88	5.88	5.88	5.88
Q45	B	5.89	5.89	5.89	5.89	5.89	5.89
	E	5.98	5.98	5.98	5.98	5.98	5.98
	C	0	0	0	0	0	0
Q46	B	0.73	0.73	0.73	0.73	0.73	0.73
	E	0	0	0	0	0	0
	C	2.36	2.36	2.36	2.36	2.36	2.36

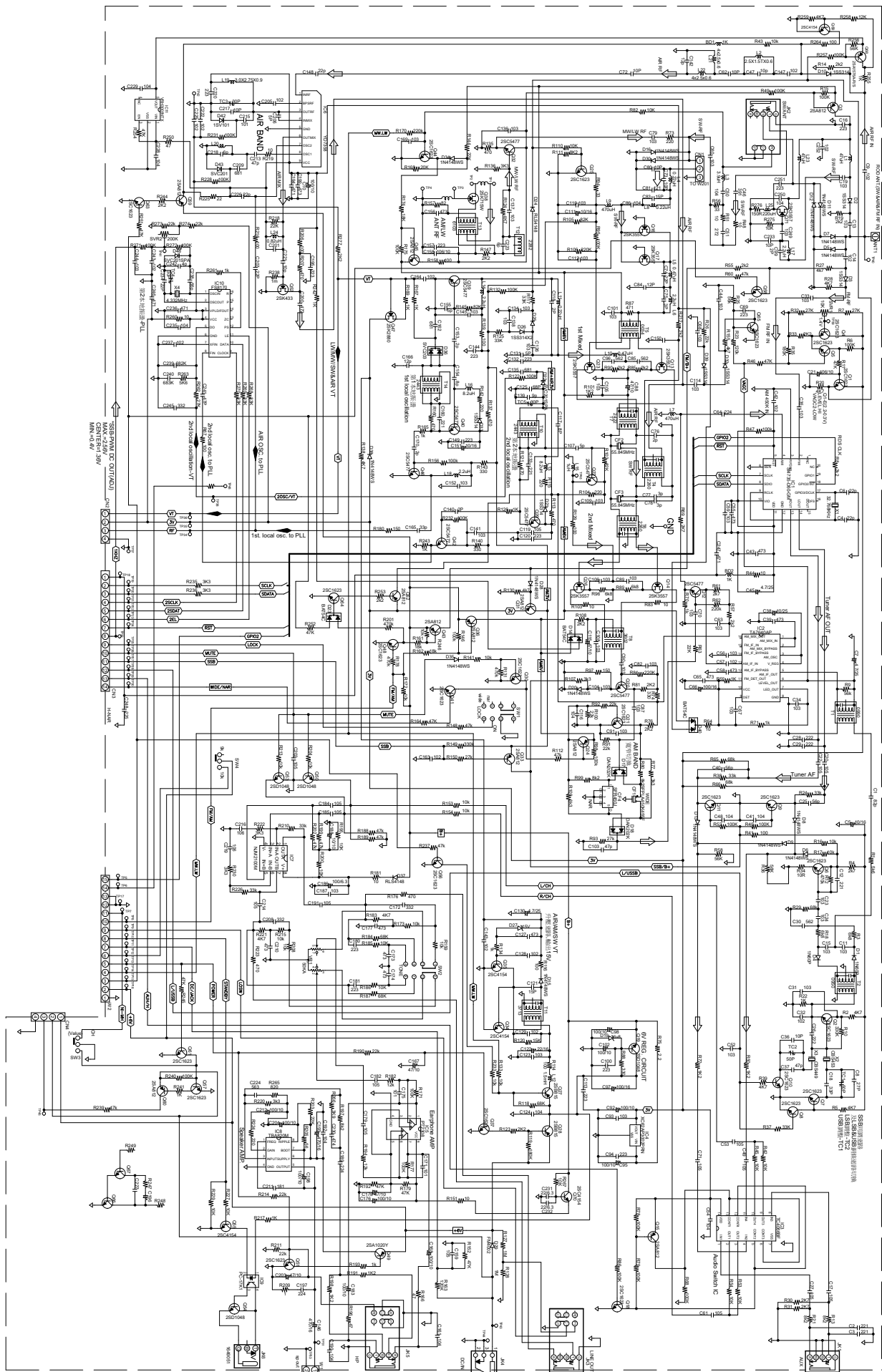
	PIN	FM	MW	LW	SW	AUX	AIR
Q47	S	7.38	7.38	7.38	7.38	7.38	7.38
	G	8.16	8.16	8.16	8.16	8.16	8.16
	D	8.15	8.15	8.15	8.15	8.15	8.15
Q48	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	5.8	5.8	5.8	5.8	5.8	5.8
Q49	B	7.38	7.38	7.38	7.38	7.38	7.38
	C	8.36	8.36	8.36	8.36	8.36	8.36
	E	8.15	8.15	8.15	8.15	8.15	8.15
Q50	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q51	B	0.66	0.66	0.66	0.66	0.66	0.66
	E	0	0	0	0	0	0
	C	1.98	1.98	1.98	1.98	1.98	1.98
Q52	S	0	0	0	0	0	0
	D	0	0	0	0	0	0
	G	0	0	0	0	0	0
Q53	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q54	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q55	B	7.38	7.38	7.38	7.38	7.38	7.38
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q56	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	7.39	7.39	7.39	7.39	7.39	7.39
Q57	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	8.45	8.45	8.45	8.45	8.45	8.45
Q58	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0

	PIN	FM	MW	LW	SW	AUX	AIR
Q59	B	5.54	5.54	5.54	5.54	5.54	5.54
	E	6.13	6.13	6.13	6.13	6.13	6.13
	C	0	0	0	0	0	0
Q60	B	8.45	8.45	8.45	8.45	8.45	8.45
	E	8.95	8.95	8.95	8.95	8.95	8.95
	C	0	0	0	0	0	0
Q61	B	0.55	0.55	0.55	0.55	0.55	0.55
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q62	B	2.27	2.27	2.27	2.27	2.27	2.27
	E	3.0	3.0	3.0	3.0	3.0	3.0
	C	2.96	2.96	2.96	2.96	2.96	2.96
Q63	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	5.54	5.54	5.54	5.54	5.54	5.54
Q64	B	0.62	0.62	0.62	0.62	0.62	0.62
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q65	B	0.28	0.28	0.28	0.28	0.28	0.28
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q68	B	0.99	0.99	0.99	0.99	0.99	0.99
	E	0.36	0.36	0.36	0.36	0.36	0.36
	C	0	0	0	0	0	0
Q69	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q70	B	5.95	5.95	5.95	5.95	5.95	5.95
	E	5.29	5.29	5.29	5.29	5.29	5.29
	C	6.12	6.12	6.12	6.12	6.12	6.12
Q71	S	0	0	0	0	0	0
	D	0.69	0.69	0.69	0.69	0.69	0.69
	G	0	0	0	0	0	0
Q301	B	2.35	2.35	2.35	2.35	2.35	2.35
	E	3.02	3.02	3.02	3.02	3.02	3.02
	C	3.0	3.0	3.0	3.0	3.0	3.0

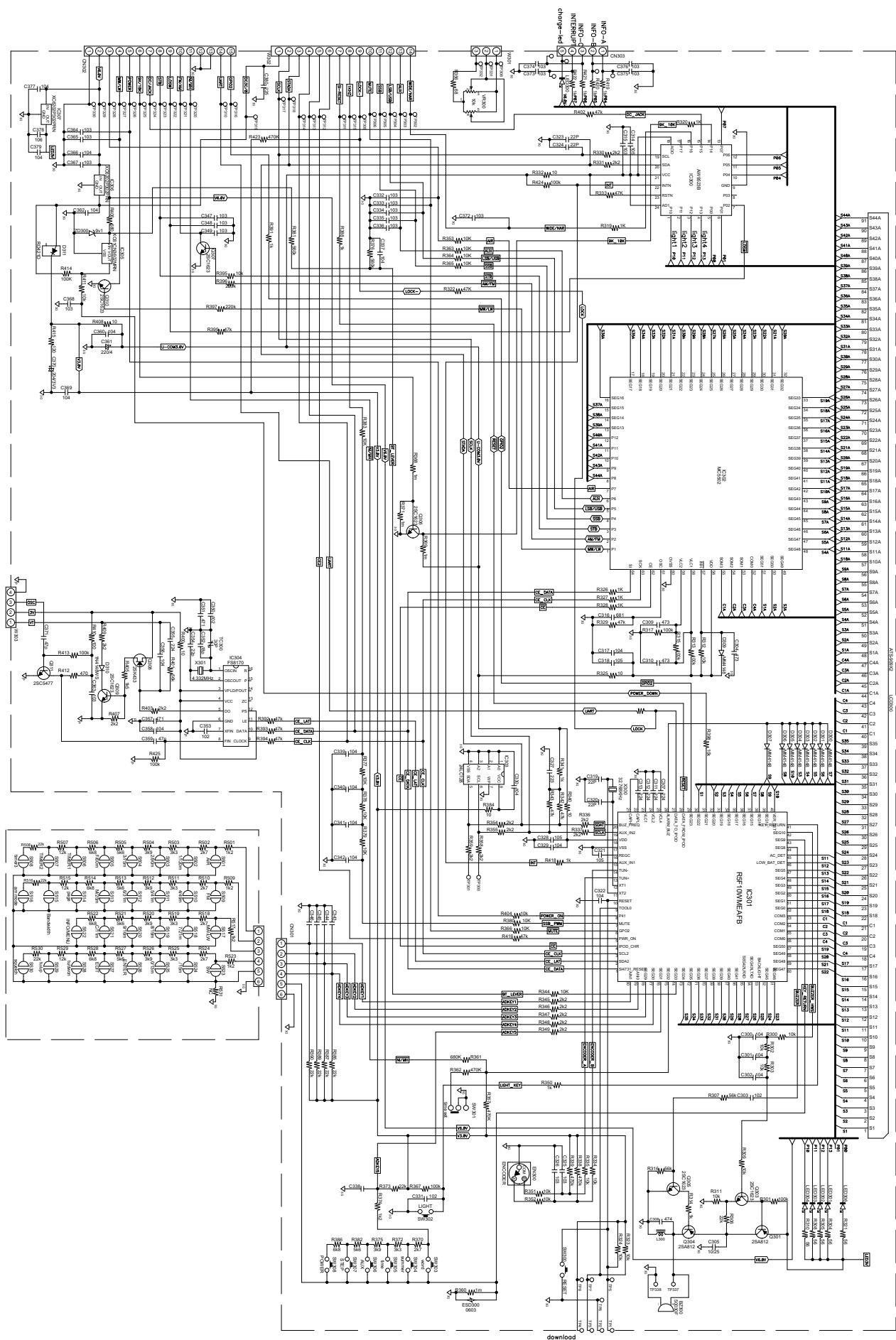
	PIN	FM	MW	LW	SW	AUX	AIR
Q303	B	2.71	2.71	2.71	2.71	2.71	2.71
	E	2.15	2.15	2.15	2.15	2.15	2.15
	C	2.37	2.37	2.37	2.37	2.37	2.37
Q304	B	2.44	2.44	2.44	2.44	2.44	2.44
	E	3.01	3.01	3.01	3.01	3.01	3.01
	C	0	0	0	0	0	0
Q305	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	2.46	2.46	2.46	2.46	2.46	2.46
Q306	B	0	0	0	0	0	0
	E	0	0	0	0	0	0
	C	2.53	2.53	2.53	2.53	2.53	2.53
Q307	B	0.63	0.63	0.63	0.63	0.63	0.63
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q308	S	1.01	1.01	1.01	1.01	1.01	1.01
	D	3.0	3.0	3.0	3.0	3.0	3.0
	G	0.55	0.55	0.55	0.55	0.55	0.55
Q309	B	0.59	0.59	0.59	0.59	0.59	0.59
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q310	B	0.62	0.62	0.62	0.62	0.62	0.62
	E	0	0	0	0	0	0
	C	0	0	0	0	0	0
Q311	B	0.74	0.74	0.74	0.74	0.74	0.74
	E	0	0	0	0	0	0
	C	1.83	1.83	1.83	1.83	1.83	1.83

	PIN	CHARGE
Q800	G	0
	S	5.36
	D	5.35
Q801	G	0.21
	S	5.36
	D	5.35
Q802	B	5.35
	E	5.36
	C	5.36
Q803	B	0
	E	0
	C	5.35
Q805	B	0
	E	0
	C	4.09
Q806	B	0
	E	0
	C	5.18
Q807	B	0
	E	0
	C	5.17
Q808	B	0
	E	0
	C	0

PCB-A SCHEMATIC DIAGRAM



PCB-C&D SCHEMATIC DIAGRAM



PCB-E SCHEMATIC DIAGRAM

