

**SAMSUNG**

GSM TELEPHONE  
SGH-A500

# ***SERVICE*** *Manual*

GSM TELEPHONE



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# 1. SGH-A500 Specification

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## 1. GSM General Specification

	<b>GSM900 Phase 1</b>	<b>EGSM 900 Phase 2</b>	<b>DCS1800 Phase 1</b>
Freq. Band[MHz] Uplink/Downlink	890~915 935~960	880~915 925~960	1710~1785 1805~1880
ARFCN range	1~124	0~124 & 975~1023	512~885
Tx/Rx spacing	45MHz	45MHz	95MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us
Time Slot Period/Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK
MS Power	33dBm~13dBm	33dBm~5dBm	30dBm~0dBm
Power Class	5pcl ~ 15pcl	5pcl ~ 19pcl	0pcl ~ 15pcl
Sensitivity	-102dBm	-102dBm	-100dBm
TDMA Mux	8	8	8
CELL RADIUS	35Km	35Km	2Km

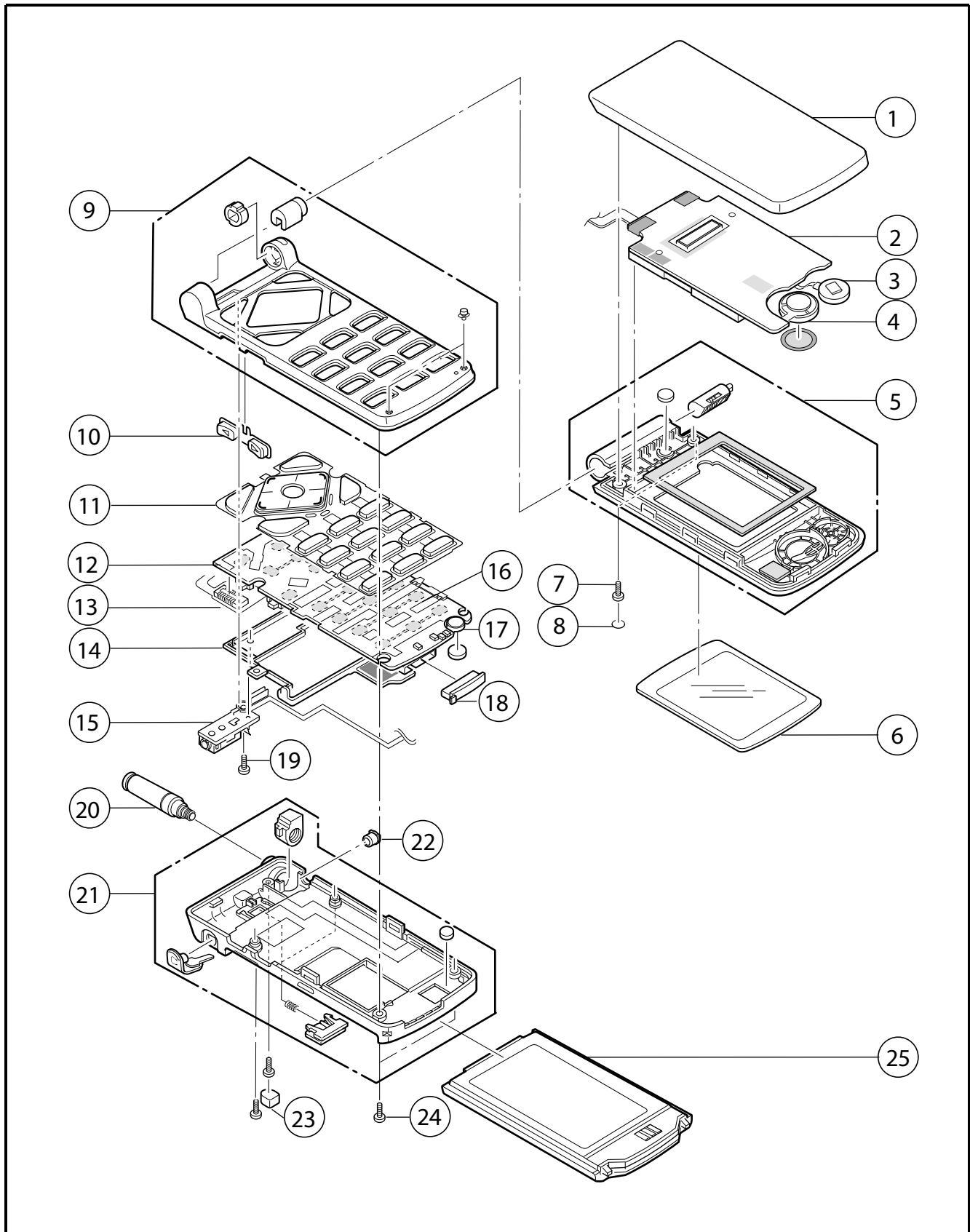
**2. GSM TX power class (@Normal condition)**

<b>TX Power control level</b>	<b>GSM900</b>
5	33 ±2 dBm
6	31 ±3 dBm
7	29 ±3 dBm
8	27 ±3 dBm
9	25 ±3 dBm
10	23 ±3 dBm
11	21 ±3 dBm
12	19 ±3 dBm
13	17 ±3 dBm
14	15 ±3 dBm
15	13 ±3 dBm
16	11 ±5 dBm
17	9 ±5 dBm
18	7 ±5 dBm
19	5 ±5 dBm

<b>TX Power control level</b>	<b>DCS1800</b>
0	30 ±2 dBm
1	28 ±3 dBm
2	26 ±3 dBm
3	24 ±3 dBm
4	22 ±3 dBm
5	20 ±3 dBm
6	18 ±3 dBm
7	16 ±3 dBm
8	14 ±3 dBm
9	12 ±4 dBm
10	10 ±4 dBm
11	8 ±4dBm
12	6 ±4 dBm
13	4 ±4 dBm
14	2 ±5 dBm
15	0 ±5 dBm

## 2. SGH-A500 Exploded View and its Parts list

### 1. Cellular phone Exploded View



2. Cellular phone Parts list

Location NO.	Description	SEC CODE	Remark
1	FOLDER UPPER	GH75-02019A	
2	LCD	GH07-00198A	
3	MOTOR	3101-001239	
4	SPEAKER	3001-001272	
5	FOLDER LOWER	GH75-02018A	
6	WINDOW LCD	GH72-04519A	
7	SCREW	6001-001478	
8	SCREW SHEET	GH68-00370C	
9	FRONT COVER	GH75-02017A	
10	VOLUME KEY	GH75-01734A	
11	KEYPAD	GH75-02021A	
12	MAIN PBA	GH92-01299A	
13	CON TO CON FPCB	GH59-00524A	
14	SHIELD COVER	GH75-02210A	
15	EAR JACK FPCB	GH59-00525A	
16	DOMESHEET	GH59-00510A	
17	MIC	GH59-00491A	
18	CONNECTOR COVER	GH73-01132A	
19	SCREW	6001-001661	
20	ANTENNA	GH42-00225A	
21	REAR COVER	GH75-02020A	
22	RF TEST HOLE COVER	GH73-01348A	
23	RF SCREW HOLE COVER	GH73-00887A	
24	SCREW	6001-001155	
25	BATTERY	GH43-00669A	900mAH
		GH43-00670A	580mAH

3. Test Jig (GH80-01326A)



3-1. RF Test Cable  
(GH39-00172A)



3-2. Test Cable  
(GH39-00171A)



3-3. Serial Cable



3-4. Power Supply Cable



3-5. DATA CABLE  
(PCB086LBE)



3-6. TA  
(GH44-00171A)



3-7. Dongle Lock Key  
(GH80-00815A)



### 3. SGH-A500 MAIN Electrical Parts List

Level	SEC Code	Design LOC	Descriptions
0	GH92-01299A	-	PBA MAIN-SGHA500 REV1.9B BOM
1	GH41-00259A	-	PCB-SGHA500;SGH-A500,FR-3,6L,-,1.00T,100X155
1	GH71-00846A	ANT1	NPR-ANT CONTACT;- ,SGH-A500,C1720C,T0.1,4.35
1	2203-000995	C101,C436	C-CERAMIC,CHIP;0.047nF,5%,50V,NP0,TP,1005
1	2203-000679	C102,C105,C108,C111	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,1005
1	2203-001201	C103	C-CERAMIC,CHIP;0.007nF,0.5pF,50V,NP0,TP,1005
1	2203-000278	C104,C114	C-CERAMIC,CHIP;0.01nF,0.5pF,50V,NP0,TP,1005
1	2203-001124	C107	C-CERAMIC,CHIP;680pF,10%,50V,X7R,TP,1005,-
1	2203-005061	C109,C204,C215,C254	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,1005
1	2203-000812	C110,C113	C-CERAMIC,CHIP;0.033nF,5%,50V,NP0,TP,1005
1	2203-005682	C112	C-CERAMIC,CHIP;0.033nF,5%,25V,NP0,TP,0603
1	2203-000233	C117,C120,C322	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,1005
1	2203-000679	C118,C119,C122,C123	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,1005
1	2203-000359	C121	C-CERAMIC,CHIP;0.15nF,5%,50V,NP0,TP,1005
1	2203-000679	C125,C126,C131,C205	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,1005
1	2203-005054	C127	C-CERAMIC,CHIP;0.0047nF,0.25pF,50V,NP0,TP,100
1	2301-001589	C129	C-FILM,CHIP;18NF,20%,16V,TP,1608,-
1	2404-001268	C130,C309,C604	C-TA,CHIP;10UF,20%,10V,-,TP,2.2X1.25X1.0
1	2203-006053	C132	C-CERAMIC,CHIP;1000NF,10%,10V,X5R,TP,1608
1	2404-001239	C134,C614	C-TA,CHIP;100UF,20%,6.3V,WT,TP,3.3X2.7X1.7MM
1	2203-000386	C201,C235	C-CERAMIC,CHIP;0.015nF,5%,50V,NP0,TP,1005
1	2203-000254	C203,C389,C411,C412	C-CERAMIC,CHIP;10nF,10%,16V,X7R,TP,1005,-
1	2203-000679	C206,C207,C209,C210	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,1005
1	2203-000679	C211,C212,C213,C214	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,1005
1	2203-000679	C216,C218,C229,C255	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,1005
1	2203-005288	C220	C-CERAMIC,CHIP;0.001nF,0.1pF,50V,NP0,TP,1005
1	2301-001590	C222	C-FILM,CHIP;10NF,20%,16V,TP,1608,-
1	2203-000330	C223,C225,C231	C-CERAMIC,CHIP;0.012nF,5%,50V,NP0,TP,1005
1	2203-001239	C224,C227	C-CERAMIC,CHIP;0.082nF,5%,50V,NP0,TP,1005
1	2203-005056	C228,C234	C-CERAMIC,CHIP;0.0068nF,0.25pF,50V,NP0,TP,100
1	2301-001230	C230	C-FILM,CHIP;10nF,5%,16V,TP,2012,-
1	2203-005450	C232,C236	C-CERAMIC,CHIP;0.0056nF,0.1pF,50V,NP0,TP,1005
1	2203-005382	C237	C-CERAMIC,CHIP;0.006nF,0.1pF,50V,NP0,TP,1005
1	2203-001221	C239	C-CERAMIC,CHIP;820pF,10%,50V,X7R,TP,1005,-
1	2203-002443	C241,C312,C226	C-CERAMIC,CHIP;0.33nF,10%,50V,X7R,TP,1005

Level	SEC Code	Design LOC	Descriptions
1	2203-005796	C246,C248,C605, C606	C-CERAMIC,CHIP;2200nF,10%,10V,X7R,TP,2012
1	2203-006090	C249,C601,C602	C-CERAMIC,CHIP;10000NF,10%,6.3V,X5R,TP,2012
1	2203-003027	C250	C-CERAMIC,CHIP;0.82nF,5%,50V,NP0,TP,1608
1	2203-005065	C301	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP,160
1	2203-005050	C302	C-CERAMIC,CHIP;0.0018nF,0.25pF,50V,NP0,TP,100
1	2203-005482	C303,C310,C315, C317	C-CERAMIC,CHIP;100nF,10%,10V,X5R,TP,1005,-
1	2203-005717	C304,C305,C306, C307	C-CERAMIC,CHIP;0.027nF,5%,25V,NP0,TP,0603
1	2203-005480	C311	C-CERAMIC,CHIP;33nF,10%,10V,X7R,TP,1005,-
1	2203-005509	C313	C-CERAMIC,CHIP;330nF,+80-20%,10V,Y5V,TP,1005
1	2203-000438	C316	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-
1	2203-000628	C318	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,1005
1	2203-000679	C319,C321,C325, C439	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,1005
1	2203-005717	C320	C-CERAMIC,CHIP;0.027nF,5%,25V,NP0,TP,0603
1	2203-000885	C330	C-CERAMIC,CHIP;4.7nF,10%,25V,X7R,TP,1005,-
1	2203-000854	C401	C-CERAMIC,CHIP;0.039nF,5%,50V,NP0,TP,1005
1	2203-005061	C404,C408,C410, C413	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,1005
1	2203-002525	C407	C-CERAMIC,CHIP;0.56nF,10%,50V,X7R,TP,1005
1	2404-001105	C409,C432,C501	C-TA,CHIP;10UF,20%,6.3V,GP,TP,2012
1	2203-005061	C414,C416,C417, C418	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,1005
1	2203-000425	C423,C428	C-CERAMIC,CHIP;0.018nF,5%,50V,NP0,TP,1005
1	2404-001281	C430,C431	C-TA,CHIP;22UF,20%,6.3V,WT,TP,2012
1	2203-000679	C443,C444,C448, C450	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,1005
1	2404-001088	C445	C-TA,CHIP;2.2uF,20%,6.3V,GP,TP,2012,-
1	2203-005061	C447,C449,C477, C478	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,1005
1	2203-000679	C479	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,1005
1	2203-005061	C480,C502	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,1005
1	2203-000940	C503	C-CERAMIC,CHIP;470pF,10%,50V,X7R,TP,1005,-
1	2203-005055	C510	C-CERAMIC,CHIP;0.0056nF,0.25pF,50V,NP0,TP,100
1	2203-005796	C607,C608,C609, C610	C-CERAMIC,CHIP;2200nF,10%,10V,X7R,TP,2012
1	2203-005796	C611	C-CERAMIC,CHIP;2200nF,10%,10V,X7R,TP,2012
1	2203-005482	C613	C-CERAMIC,CHIP;100nF,10%,10V,X5R,TP,1005,-
1	2203-001598	C615	C-CERAMIC,CHIP;2200nF,+80-20%,16V,Y5V,TP,201
1	4302-001130	C617	BATTERY-LI(2ND);3V,0.1MAH,-,-,3.1V,-
1	2203-005496	C630	C-CERAMIC,CHIP;220nF,+80-20%,10V,Y5V,TP,1005
1	2203-006093	C634	C-CERAMIC,CHIP;1000NF,+80-20%,6.3V,Y5V,TP,10

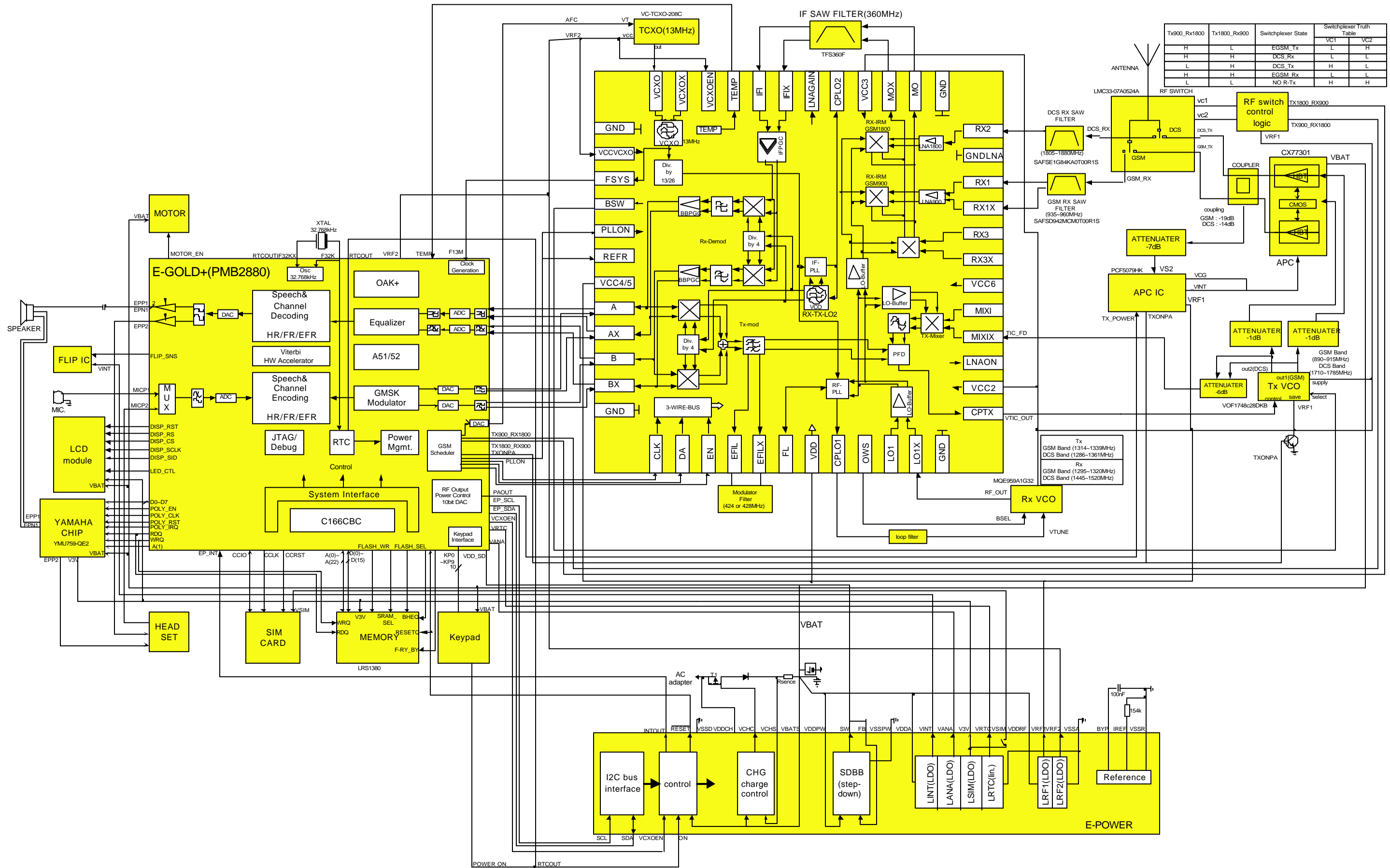


Level	SEC Code	Design LOC	Descriptions
1	3710-001866	CN301	CONNECTOR - SOCKET;3P, -,2.0MM, -,AU
1	3711-005151	CN302	CONNECTOR - HEADER;NOWALL,16P,2R,0.5MM, -,AU
1	3710-001611	CN303	CONNECTOR - SOCKET;18P,1R,0.5mm,SMD-A,AUF
1	3709-001187	CN401	CONNECTOR - CARD EDGE;6P,2.54MM,SMD-A,-
1	3705-001242	CON101	CONNECTOR - COAXIAL; -,JACK,100MOHM,50OHM, -
1	0404-001186	D101	DIODE - SCHOTTKY;BAT62-02W,40V,40MA,SCD80,TP
1	2011-001417	F101,F102	R-NETWORK;5.77/870OHM, -,0.04W,F,CHIP,4P,TP
1	4709-001144	F103	COUPLER - DIRECTION;897.5/1747.5MHZ,19DB/14DB
1	2011-001419	F104	R-NETWORK;44.8/131OHM, -,0.04W,F,CHIP,4P,TP
1	2011-001363	F105	R-NETWORK;50ohm, -,0.04W, -,CHIP,4P,TP
1	2904-001382	F201	FILTER - SAW;1.8425GHZ, -,2.2DB,TP,75MHZ/3.2DB,
1	2904-001383	F202	FILTER - SAW;942.5MHZ, -,1.8DB,TP,35MHZ/3.3DB, -
1	2904-001397	F204	FILTER - SAW;360MHZ, -,67.7KHZ/1.5DB,TP,3.3DB, -
1	2703-002198	L101	INDUCTOR - SMD;10NH,5%,1.0X0.5X0.5MM
1	3301-001362	L103,L213	CORE - FERRITE BEAD;AB,1kohm,1x0.5x0.5mm,50mA,TP,FER
1	2703-002369	L104	INDUCTOR - SMD;1.5NH,0.3NH,1.0X0.5X0.5MM
1	3301-001336	L105,L601	CORE - FERRITE BEAD;AB,220ohm,2x1.25x0.85mm,2000mA,T
1	2703-001802	L201	INDUCTOR - SMD;33UH,20%,2.0X1.25X1.25MM
1	2703-001944	L202,L203	INDUCTOR - SMD;27nH,10%,1.0x0.5x0.5mm
1	2703-001544	L204	INDUCTOR - SMD;39nH,5%,1.7x1.14x1.02
1	2703-001737	L205	INDUCTOR - SMD;2.7nH,0.3nH,1x0.5x0.5mm
1	2703-001233	L206	INDUCTOR - SMD;8.2uH,10%,1.6x0.8x0.8mm
1	2703-001178	L207,L208	INDUCTOR - SMD;3.3nH,0.3nH,1x0.5x0.5mm
1	2703-001970	L211	INDUCTOR - SMD;18nH,5%,1.0x0.5x0.5mm
1	2703-001685	L218	INDUCTOR - SMD;82nH,5%,1.7x1.14x1.02mm
1	2703-000172	L602	INDUCTOR - SMD;22UH,10%,2.5X3.2X2MM
1	0601-001540	LED13	LED;CHIP,BLUE,1.1X0.8MM,485NM
1	0601-001402	LED14	LED;CHIP,RED/Y-GRN,1.2x1.5mm,660/570nm
1	0601-001547	LED501,LED502, LED503	LED;CHIP,BLUE,1.1X0.8MM,468NM
1	0601-001547	LED504,LED505, LED506	LED;CHIP,BLUE,1.1X0.8MM,468NM
1	0601-001547	LED507,LED508, LED509	LED;CHIP,BLUE,1.1X0.8MM,468NM
1	0601-001547	LED510,LED511, LED512	LED;CHIP,BLUE,1.1X0.8MM,468NM
1	0601-001547	LED513,LED514, LED515	LED;CHIP,BLUE,1.1X0.8MM,468NM
1	0601-001547	LED516	LED;CHIP,BLUE,1.1X0.8MM,468NM
1	2806-001297	OSC101	OSCILLATOR - VCO;1748MHZ, -,50OHM,TP,2.8V,40MA
1	2806-001285	OSC201	OSCILLATOR - VCO;1.320GHZ, -,50OHM,TP,2.75V,11

Level	SEC Code	Design LOC	Descriptions
1	2809-001264	OSC202	OSCILLATOR-VCTCXO;13MHZ,-,10KOHM//10PF,TP,
1	2801-003856	OSC401	CRYSTAL-SMD;0.032768MHZ,20PPM,28-ACP,7PF,6
1	0504-001133	Q103	TR-DIGITAL;BCR135T,NPN,250MW,10K/47K,SC-75,T
1	0504-001134	Q502,Q503,Q506	TR-DIGITAL;BCR133T,NPN,250MW,10K/10K,SC-75,
1	0502-001201	Q601	TR-POWER;ZXT13P20DE6,PNP,1100MW,SOT-23-6,T
1	0504-001122	Q602	TR-DIGITAL;DTC123JE,NPN,150MW,17/26,EMT3,TP
1	2007-001298	R101	R-CHIP;51ohm,5%,1/16W,DA,TP,1005
1	2007-000140	R107,R113,R114, R202	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005
1	2007-000775	R108,R450,R453	R-CHIP;33Kohm,5%,1/16W,DA,TP,1005
1	2007-001311	R109	R-CHIP;270ohm,5%,1/16W,DA,TP,1005
1	2007-000139	R110,R111,R569	R-CHIP;220ohm,5%,1/16W,DA,TP,1005
1	2007-007771	R118,R204,R205, R206	R-CHIP;0OHM,5%,1/16W,DA,TP,1005
1	2007-001301	R121	R-CHIP;68ohm,5%,1/16W,DA,TP,1005
1	2007-000140	R203,R211,R213, R301	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005
1	2007-000146	R207,R216,R218, R222	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1005
1	2007-007313	R208	R-CHIP;6.8Kohm,1%,1/16W,DA,TP,1005
1	2007-007309	R209	R-CHIP;12Kohm,1%,1/16W,DA,TP,1005
1	2007-000148	R212,R410,R502	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005
1	2007-001320	R215	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1005
1	2007-000173	R220,R221	R-CHIP;22ohm,5%,1/16W,DA,TP,1005
1	2007-000142	R225	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1005
1	2007-000153	R226,R418	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005
1	2007-000141	R227,R427,R412	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1005
1	2007-000140	R302,R303,R304, R306	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005
1	2007-000162	R305,R411,R416	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005
1	2007-000140	R307,R604,R610	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005
1	2007-000164	R308,R402	R-CHIP;150Kohm,5%,1/16W,DA,TP,1005
1	2007-000155	R309,R310	R-CHIP;27Kohm,5%,1/16W,DA,TP,1005
1	2007-007771	R312,R313,R405, R414	R-CHIP;0OHM,5%,1/16W,DA,TP,1005
1	2007-000156	R315,R317,R408	R-CHIP;30Kohm,5%,1/16W,DA,TP,1005
1	2007-000159	R330	R-CHIP;56Kohm,5%,1/16W,DA,TP,1005
1	2007-000152	R340,R603	R-CHIP;20Kohm,5%,1/16W,DA,TP,1005
1	2007-007193	R403,R404	R-CHIP;5.1OHM,5%,1/16W,DA,TP,1005
1	2007-000758	R409	R-CHIP;330Kohm,5%,1/16W,DA,TP,1005
1	2007-000566	R413	R-CHIP;220Kohm,5%,1/16W,DA,TP,1005
1	2007-007200	R415	R-CHIP;2.4OHM,5%,1/16W,DA,TP,1005
1	2007-000242	R428,R429	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1005

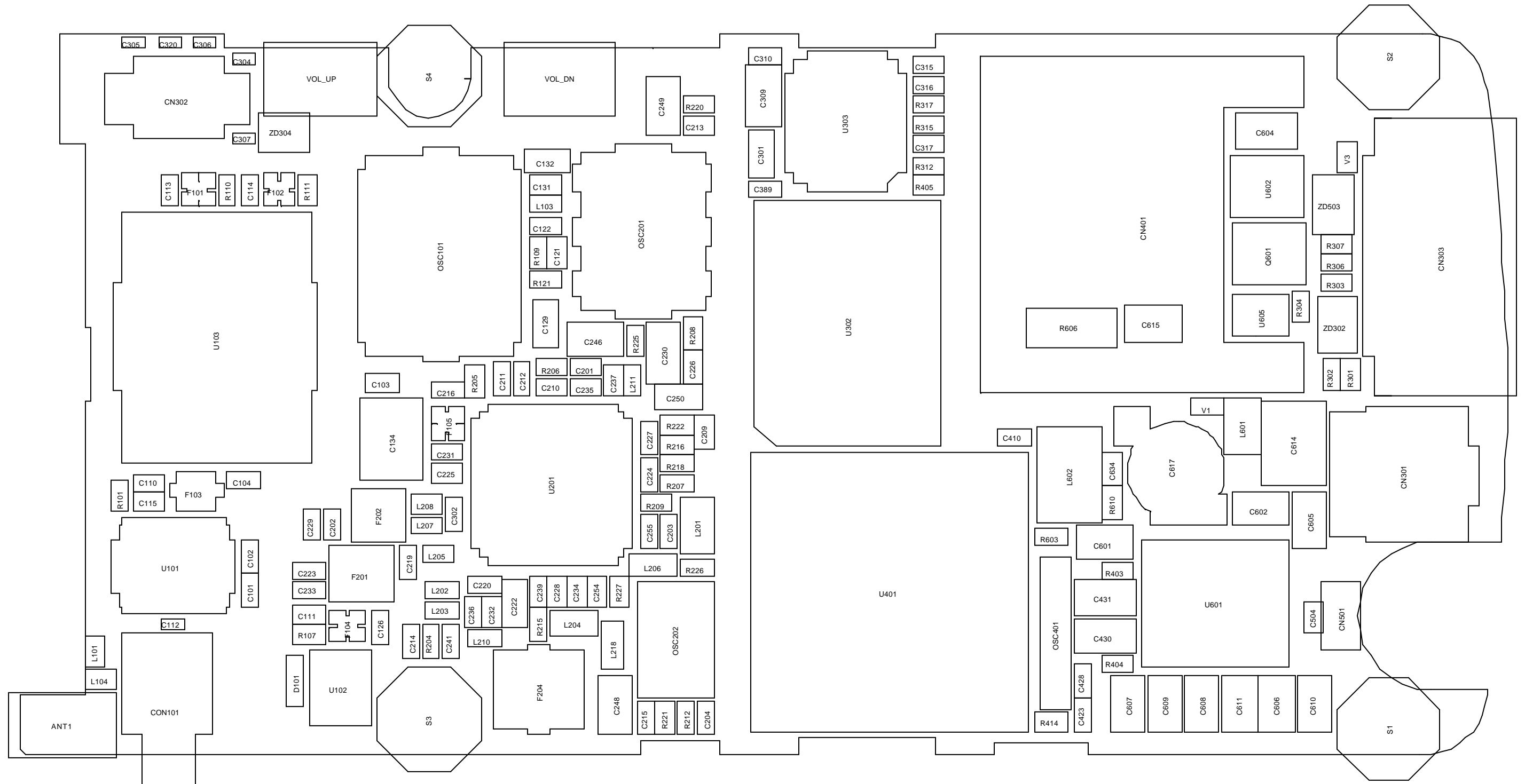
Level	SEC Code	Design LOC	Descriptions
1	2007-000170	R452	R- CHIP;1Mohm,5%,1/16W,DA,TP,1005
1	2007-001290	R501,R503,R522, R523	R- CHIP;24ohm,5%,1/16W,DA,TP,1005
1	2007-007014	R506	R- CHIP;51KOHM,5%,1/16W,DA,TP,1005
1	2007-001307	R512,R513,R520, R521	R- CHIP;180ohm,5%,1/16W,DA,TP,1005
1	2007-001307	R524,R525,R526, R527	R- CHIP;180ohm,5%,1/16W,DA,TP,1005
1	2007-001307	R528,R529,R530, R531	R- CHIP;180ohm,5%,1/16W,DA,TP,1005
1	2007-000138	R567	R- CHIP;100ohm,5%,1/16W,DA,TP,1005
1	2007-003030	R568	R- CHIP;91ohm,5%,1/16W,DA,TP,1005
1	2007-007483	R602	R- CHIP;154Kohm,1%,1/16W,DA,TP,1005
1	2007-008500	R606	R- CHIP;0.1OHM,1%,1/4W,DA,TP,3216
1	2007-000157	R609	R- CHIP;47Kohm,5%,1/16W,DA,TP,1005
1	2007-008117	R611	R- CHIP;2.7Kohm,1%,1/16W,DA,TP,1005
1	2909-001174	U101	FILTER - DUPLEXER;942.5MHZ,897.5MHZ,1.2/1.4DB,
1	1209-001429	U102	IC - ETC, LINEAR;PCF5079HK/C/1,SOT-650,10P,118MIL,PL
1	1201-001754	U103	IC - POWER AMP;- ,MCM,16P,-,-,-,PLASTIC,7V,-,-25TO+10
1	0504-001130	U104,U105,U605	TR - DIGITAL;BCR35PN,NPN/PNP,250MW,10K/47K,SO
1	1205-002203	U201	IC - TRANSCEIVER;PMB6253V1.1,VQFN,48P,7X7MM,P
1	1109-001207	U302	IC - ETC. MEMORY;1380,32MX16/4MX16BIT,CSP,72P,-,85NS
1	1204-001811	U303	IC - MELODY;YMU759-QE2,QFN,32P,-,PLASTIC,6V,-,
1	0902-001560	U401	IC - MICROPROCESSOR;- ,16BIT,P-LFBGA-200-1,200
1	1202-001036	U410	IC - VOLTAGE COMP.;75W56,SSOP,8P,90MIL,DUAL,+ - 7V,CMO
1	1009-001010	U501	IC - HALL EFFECT S/W;A3212ELH-SAMSUNG,SC-59A,3P,82MI
1	1203-002644	U601	IC - BATTERY;PMB6810V1.73,VQFN,40P,6.5X5.5MM,P
1	1203-002127	U602	IC - BATTERY;1734,SOT-23,6P,150MIL,PLASTIC,4.7/5
1	1203-001518	U603	IC - VOLTAGE REGULATOR;5219,SOT-23,5P,63MIL,PLASTIC,
1	1405-001082	V1,V3,V4,ZD301	VARISTOR;5.6V,20A,1x0.5x0.6mm,TP
1	3404-001152	VOL_DN,VOL_UP	SWITCH-TACT;12V DC,20mA,160gf,4.5x4.0x2.3mm,SPST
1	0406-001104	ZD302,ZD500,ZD5 01	DIODE - TVS;ESDA6V1-5W6,6.1/-/7.2V,100W,SOT-32
1	0406-001144	ZD304	DIODE - TVS;ESDA6V1-4F1,6.1/-/7.2V,150W,CSP
1	0406-001104	ZD502,ZD503	DIODE - TVS;ESDA6V1-5W6,6.1/-/7.2V,100W,SOT-32

# 4. SGH-A500 Block Diagram

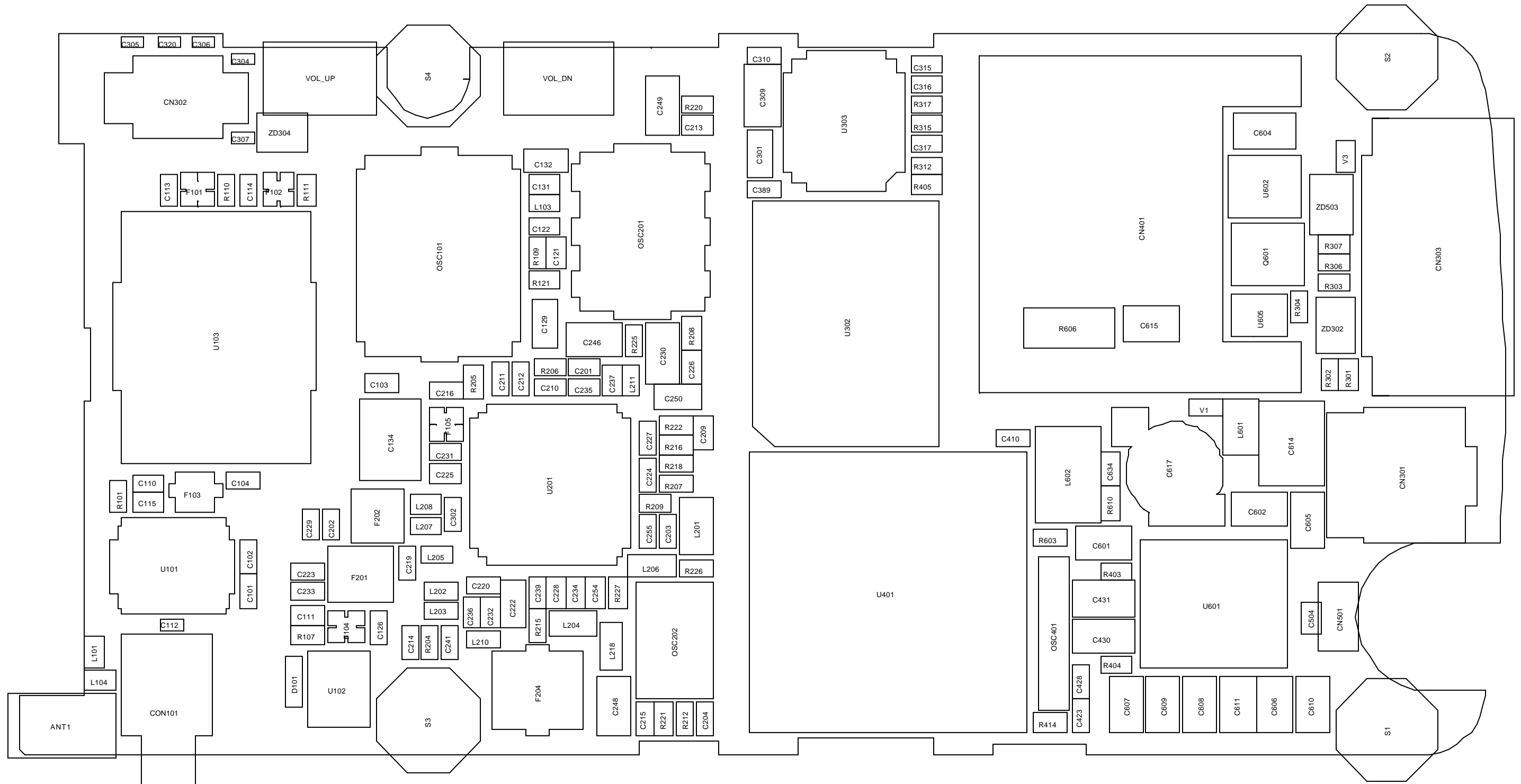


# 5. SGH-A500 PCB Diagrams

## 1. Main PCB Top Diagram

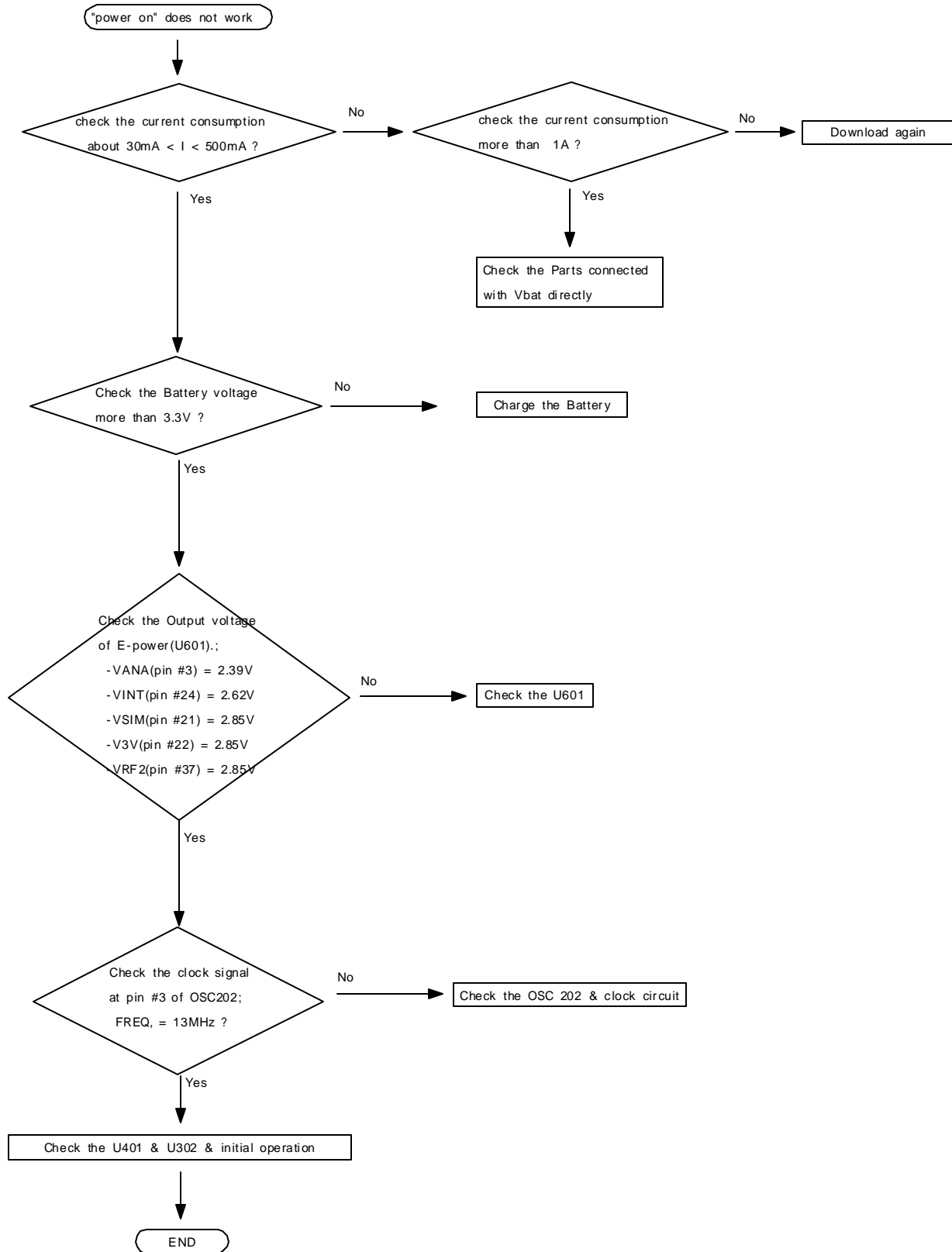


2. Main PCB Bottom Diagram

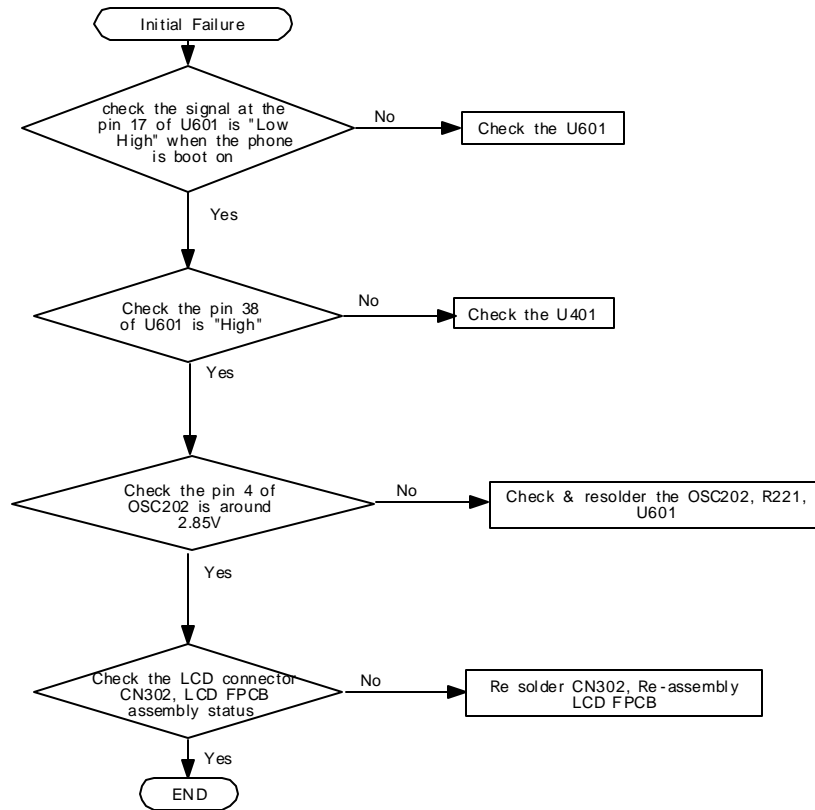


# 6. SGH-A500 Flow Chart of Troubleshooting and Circuit Diagrams

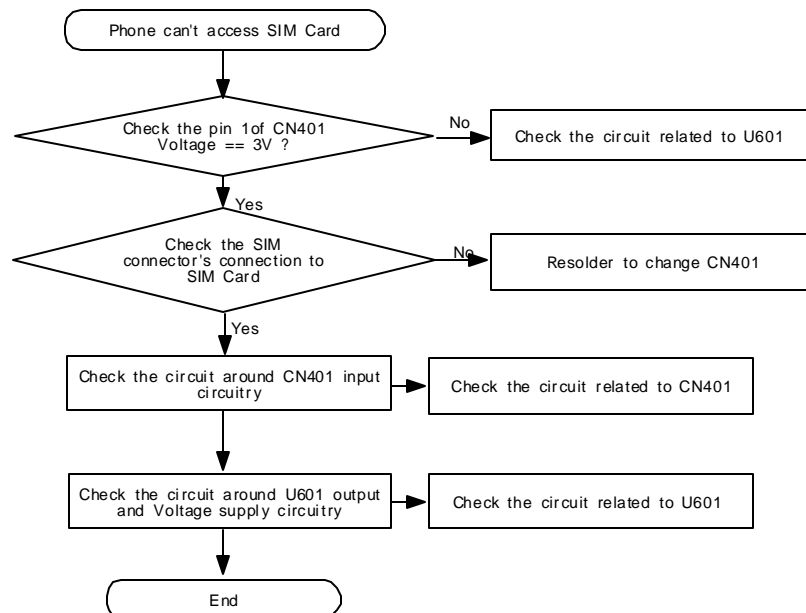
## 1. Power On



## 2. Initial

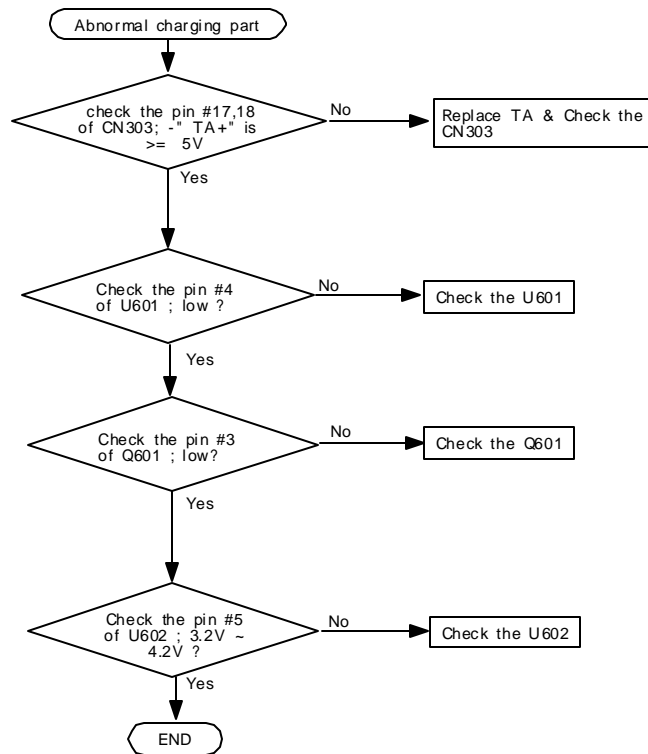


## 3. Sim Part

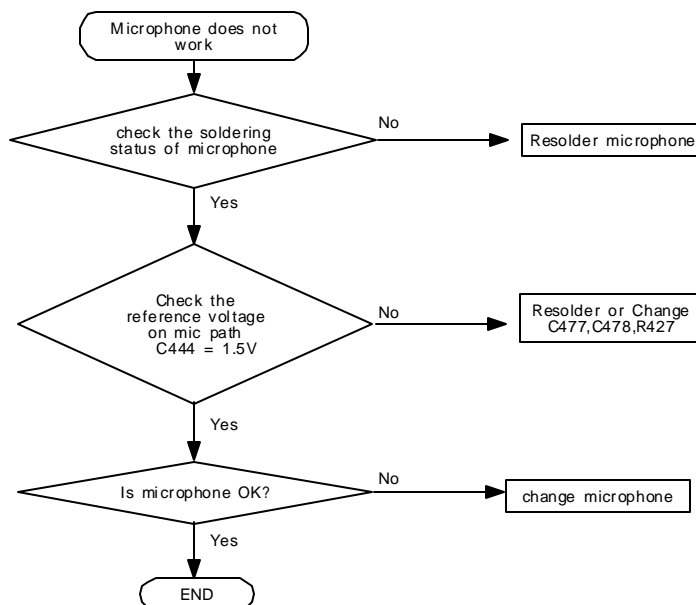




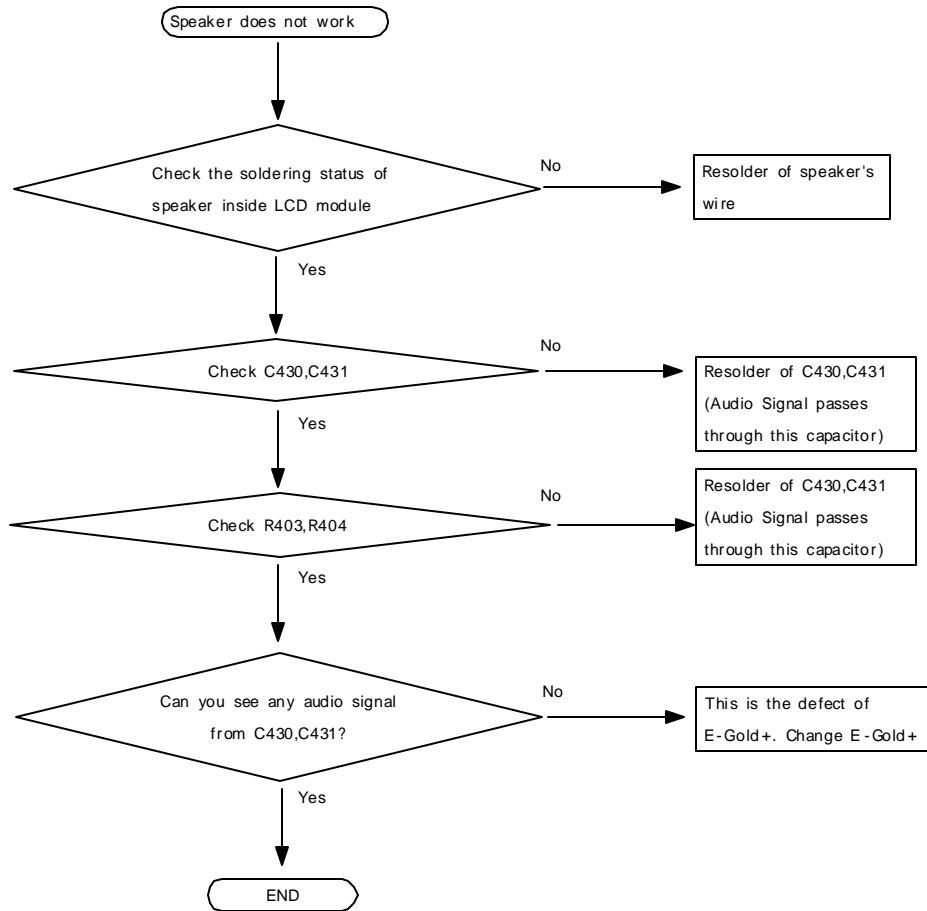
### 4. Charging Part



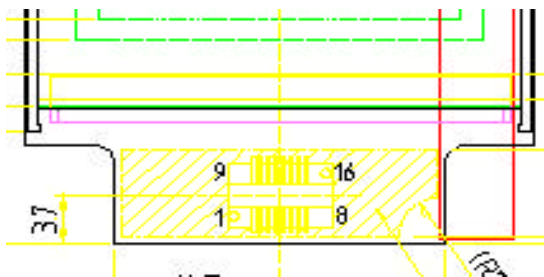
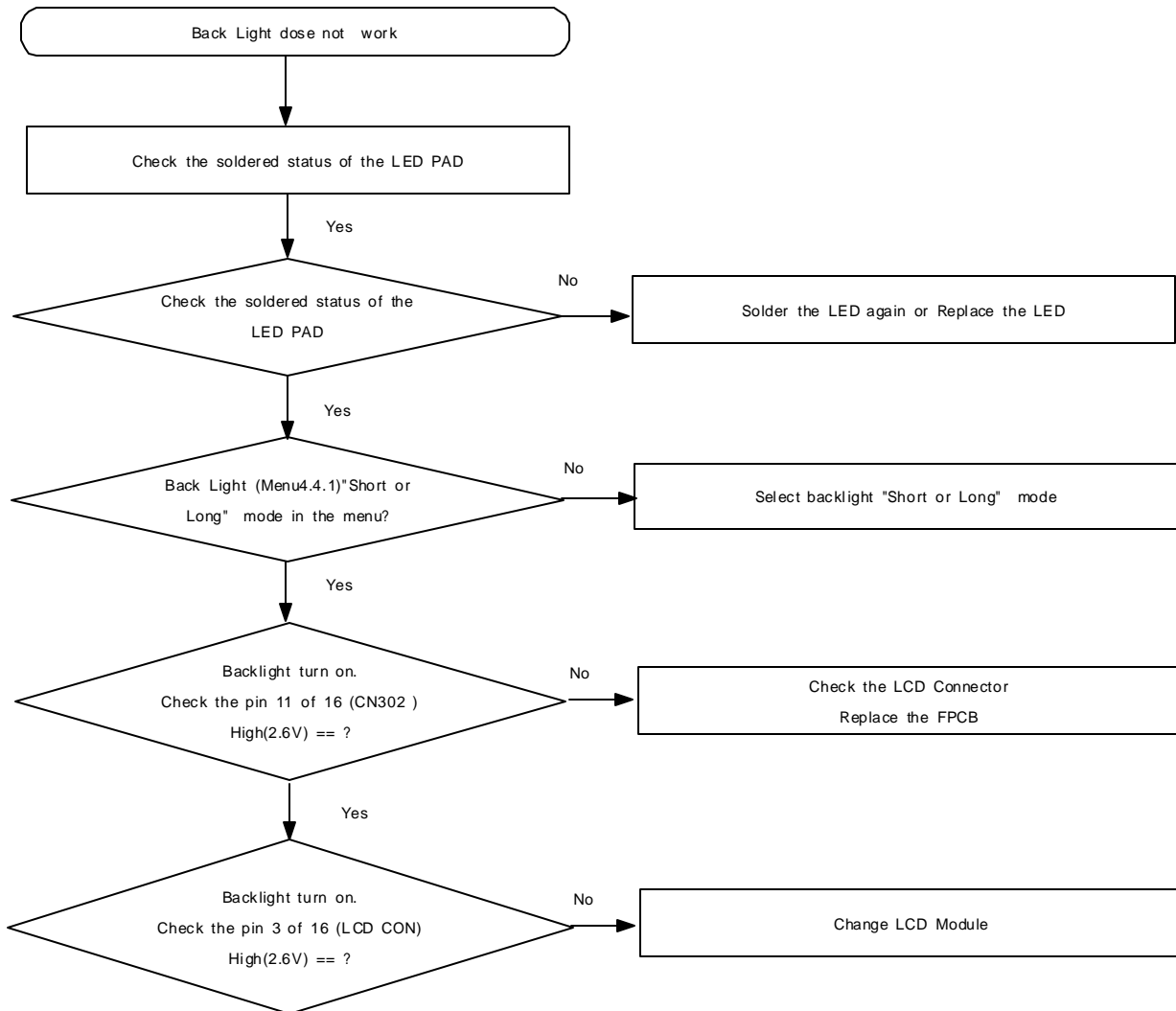
### 5. Microphone Part



## 6. Speaker Part

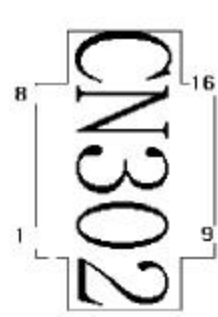


## 7. Backlight PART



LCD

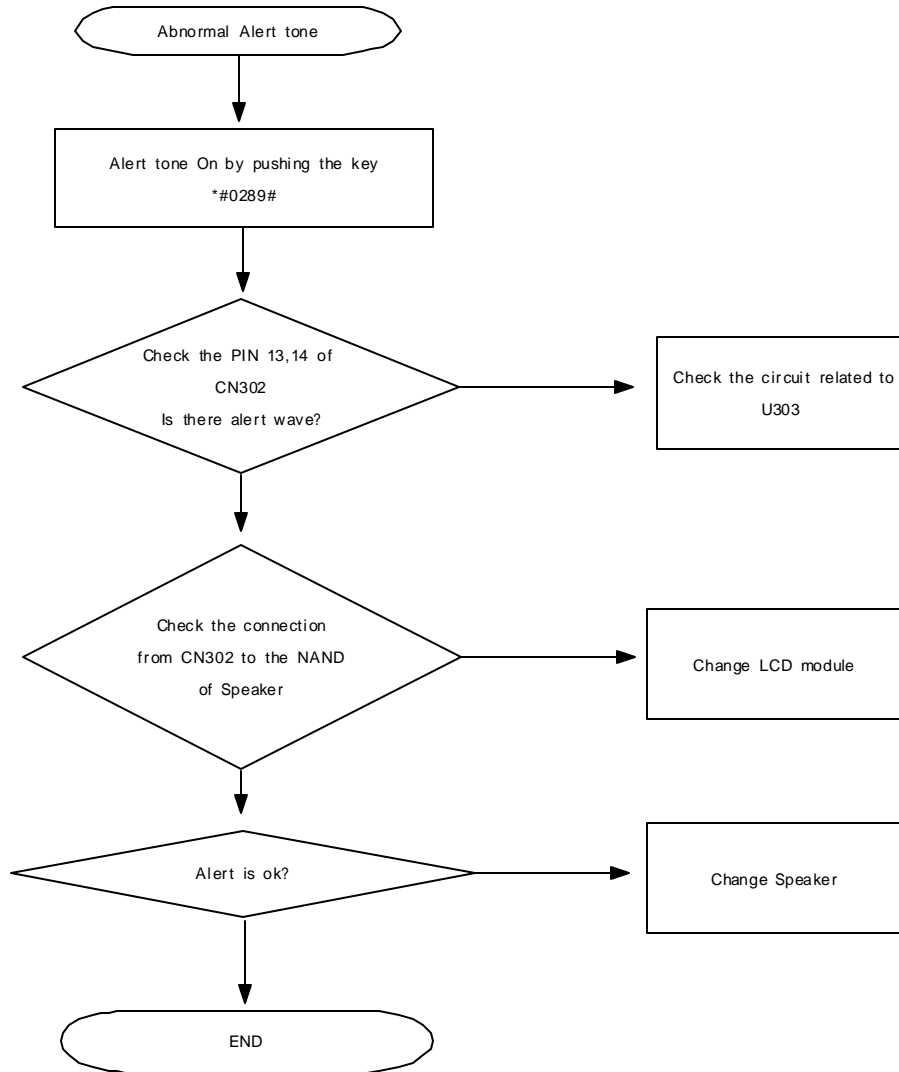
1. VBAT 2. VBAT 3. LED\_IN



Main Board

9. VBAT 10. VBAT 11. LED\_IN

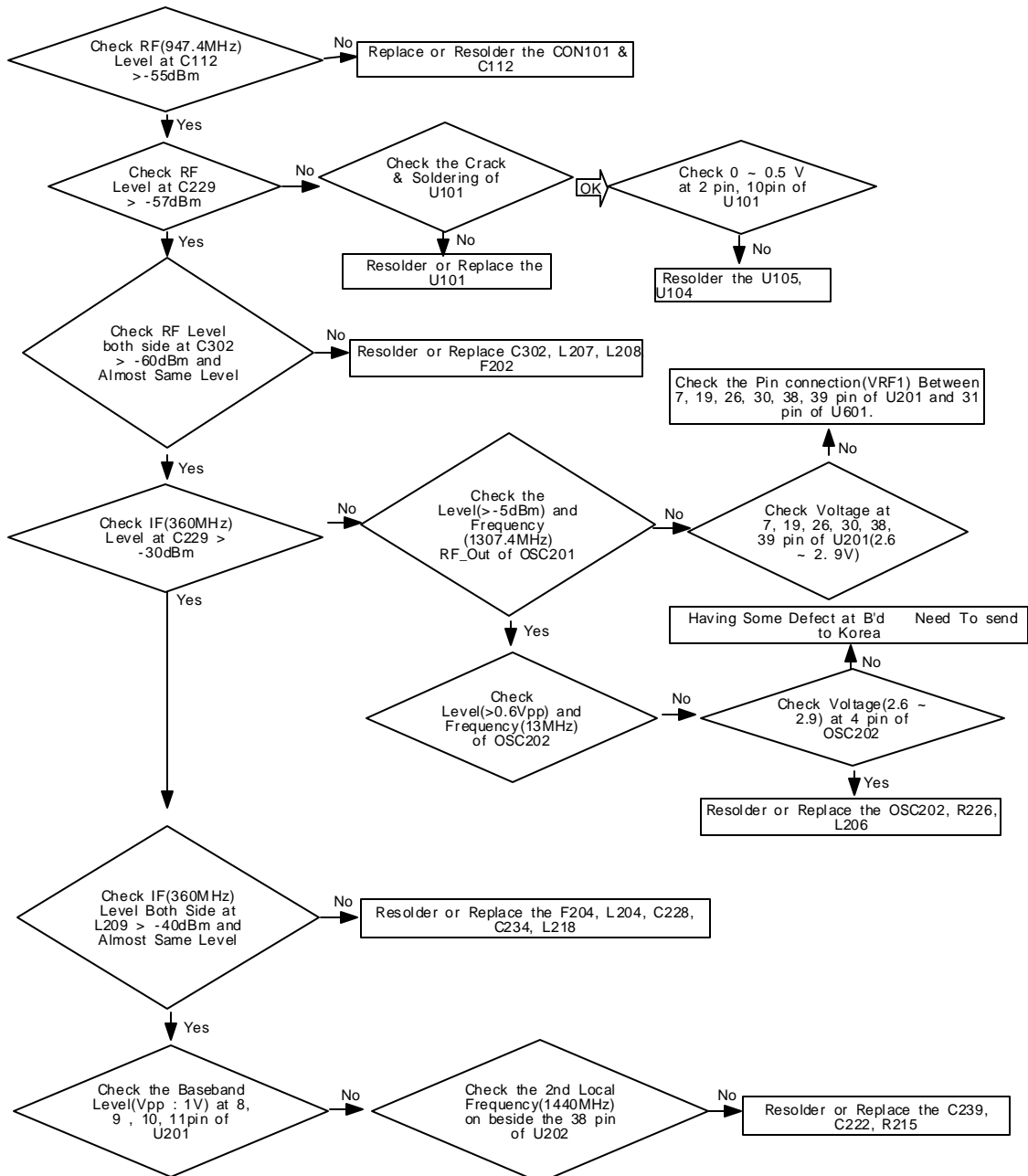
## 8. Alert Tone



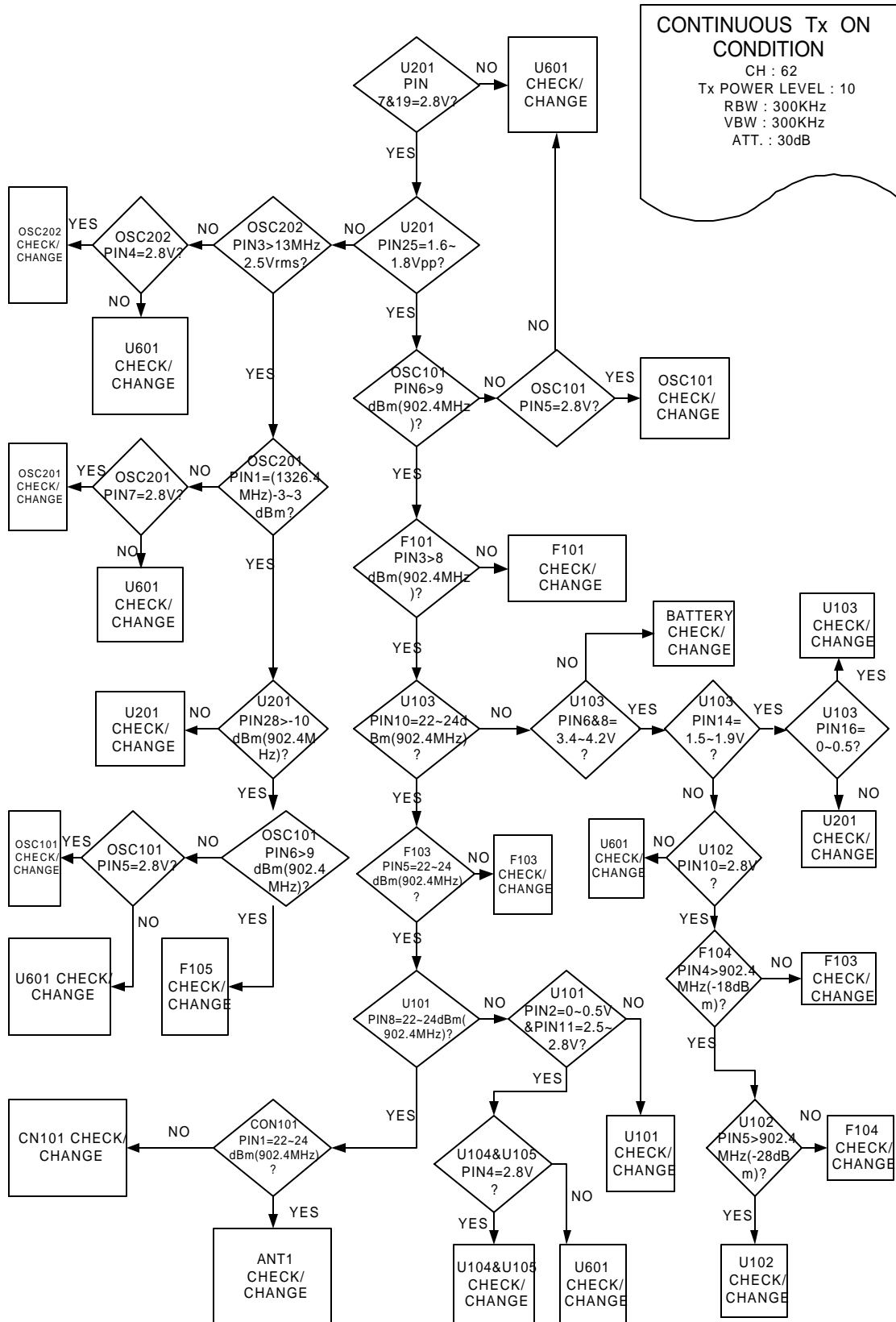
## 9. GSM Receiver

<Test Condition>  
 1. Phone Tool Inline Mode :  
     - RF Mode : Rx Continuous.  
     - ARFCN : Rx 62Ch.  
     - Gain : Rx 88.  
 2. Generator RF Level :-50dBm.  
 3. Measure with Hewlett Packard 85024A active high frequency probe.  
     Measured Value is dependent on Probe Measured Point of Component.

Flow Chart.(GSM : Rx Trouble Shooting)



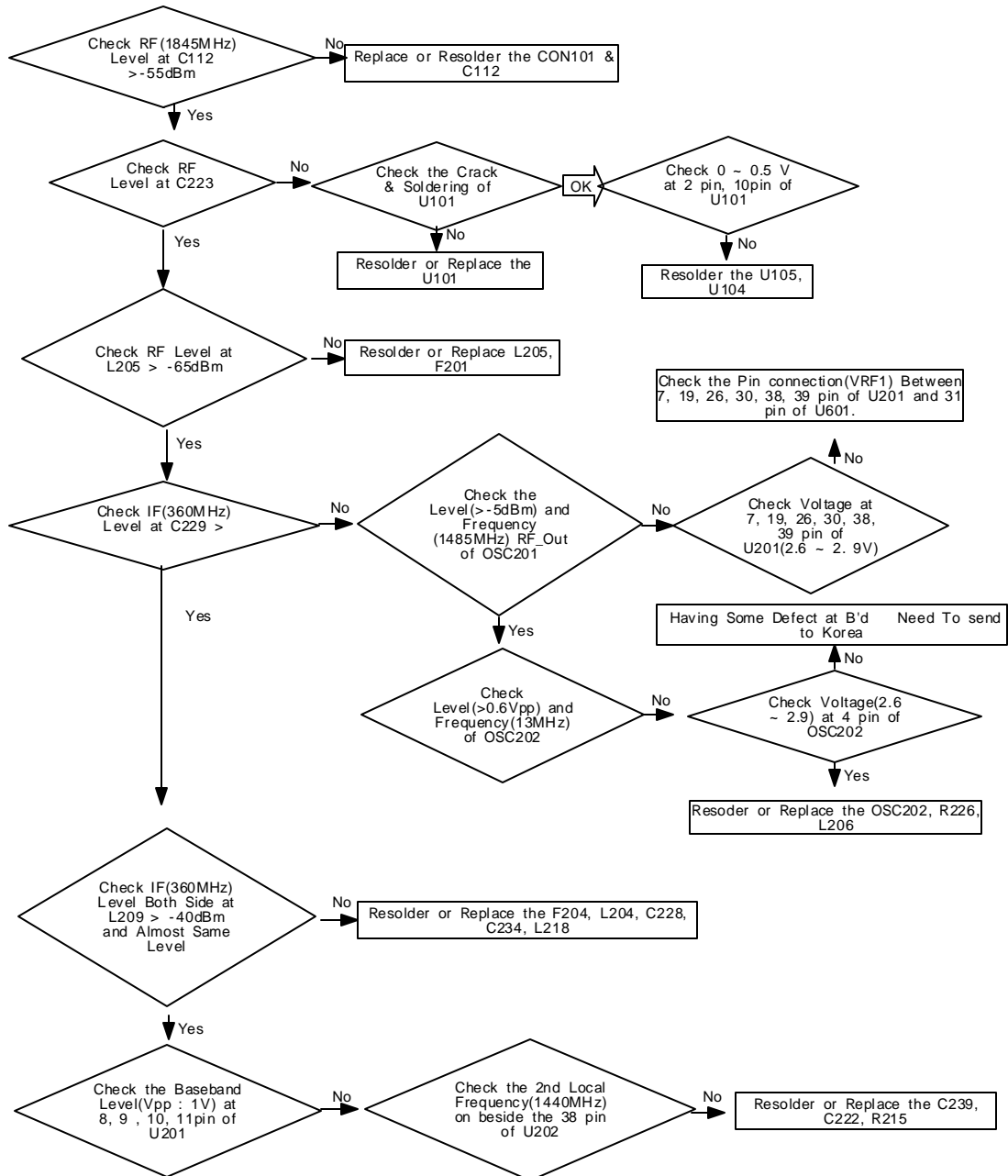
10. GSM transmitter



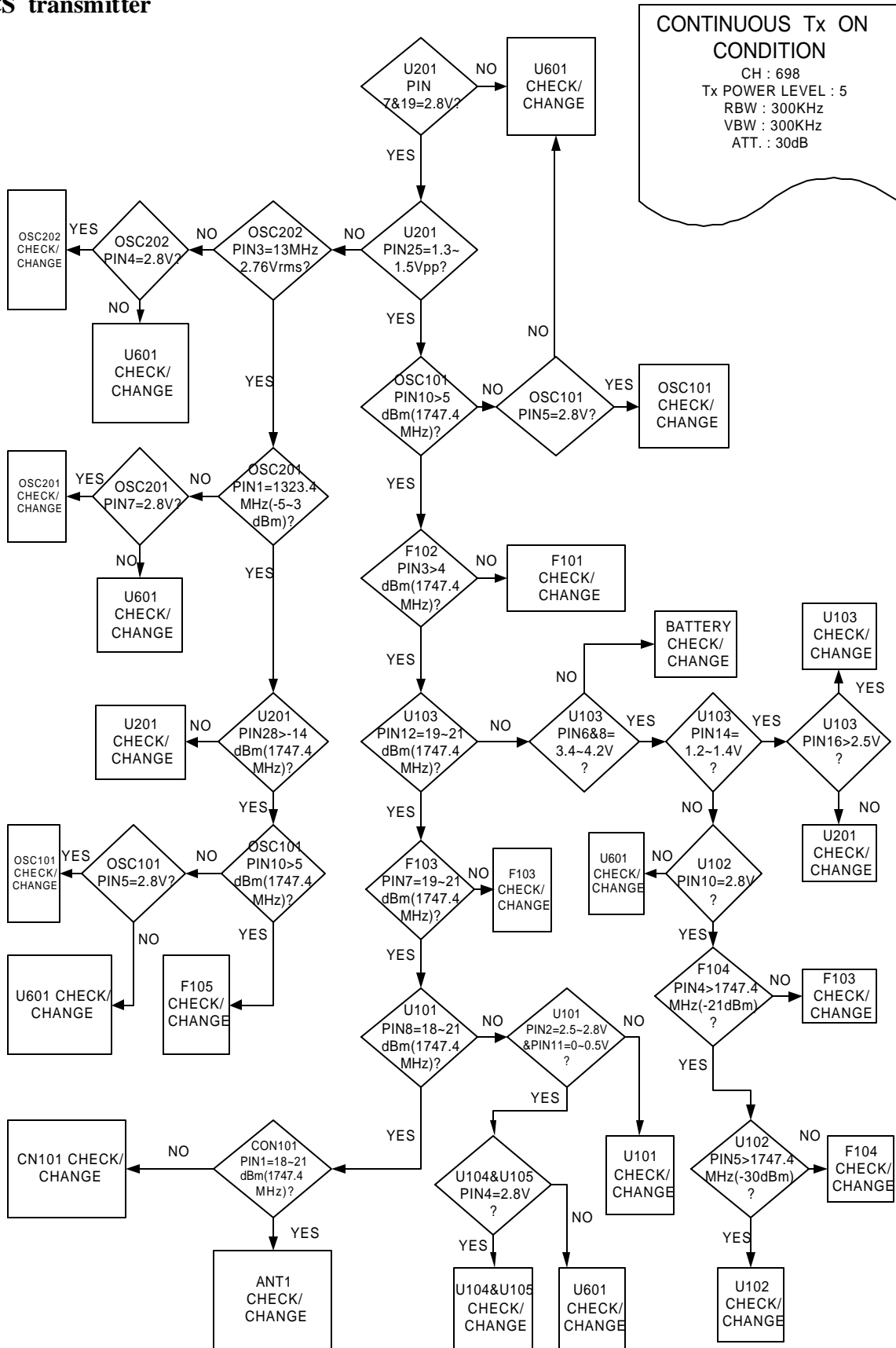
### 11. DCS Receiver

<Test Condition.>  
 1. Phone Tool Inline Mode :  
     - RF Mode : Rx Continuous.  
     - ARFCN : Rx 711Ch.  
     - Gain : Rx 88.  
 2. Generator RF Level : -50dBm.  
 3. Measure with Hewlett Packard 85024A active high frequency probe.  
     Measured Value is dependent on Probe Measured Point of Component.

Flow Chart.(DCS : Rx Trouble Shooting)

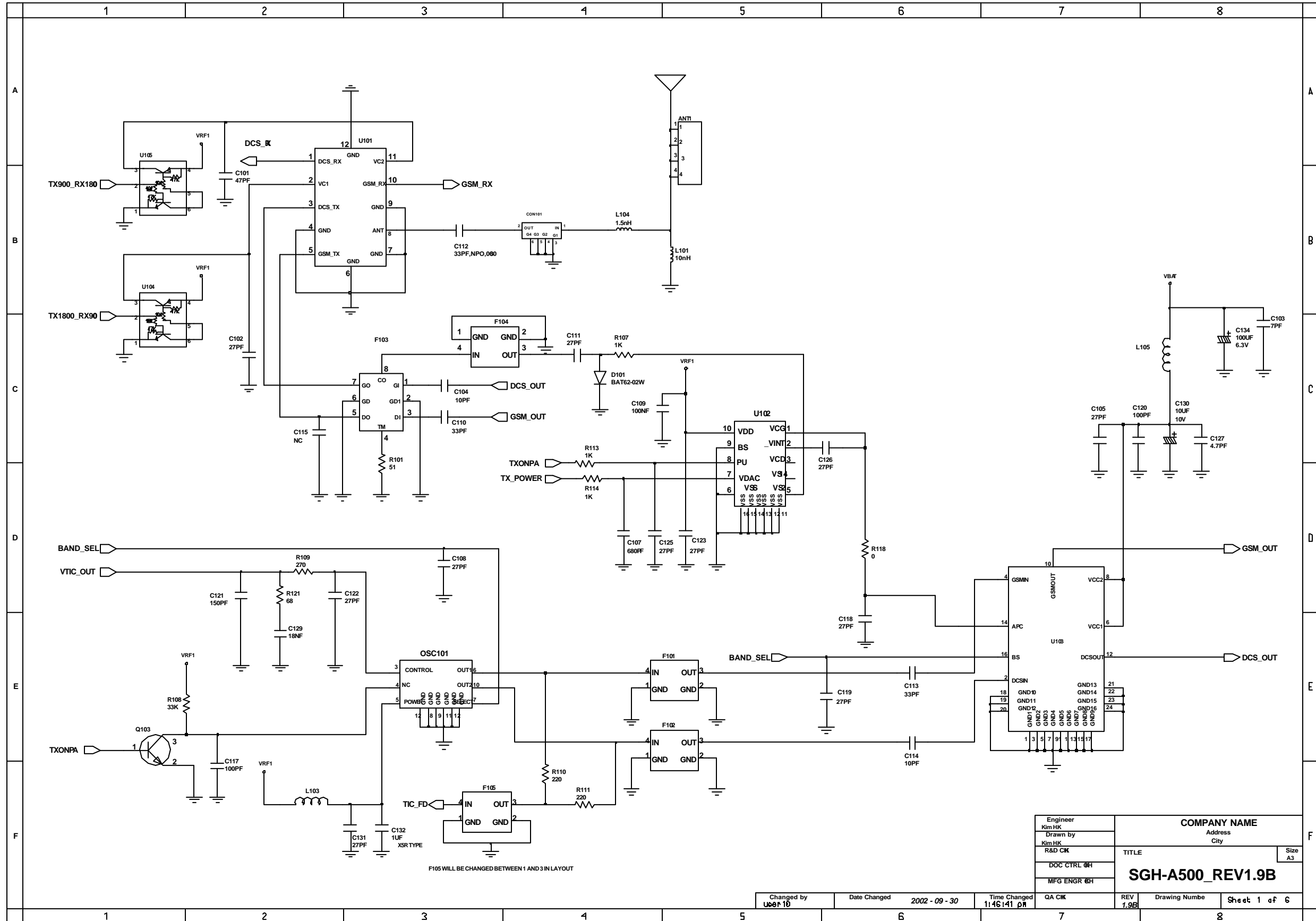


12. DCS transmitter

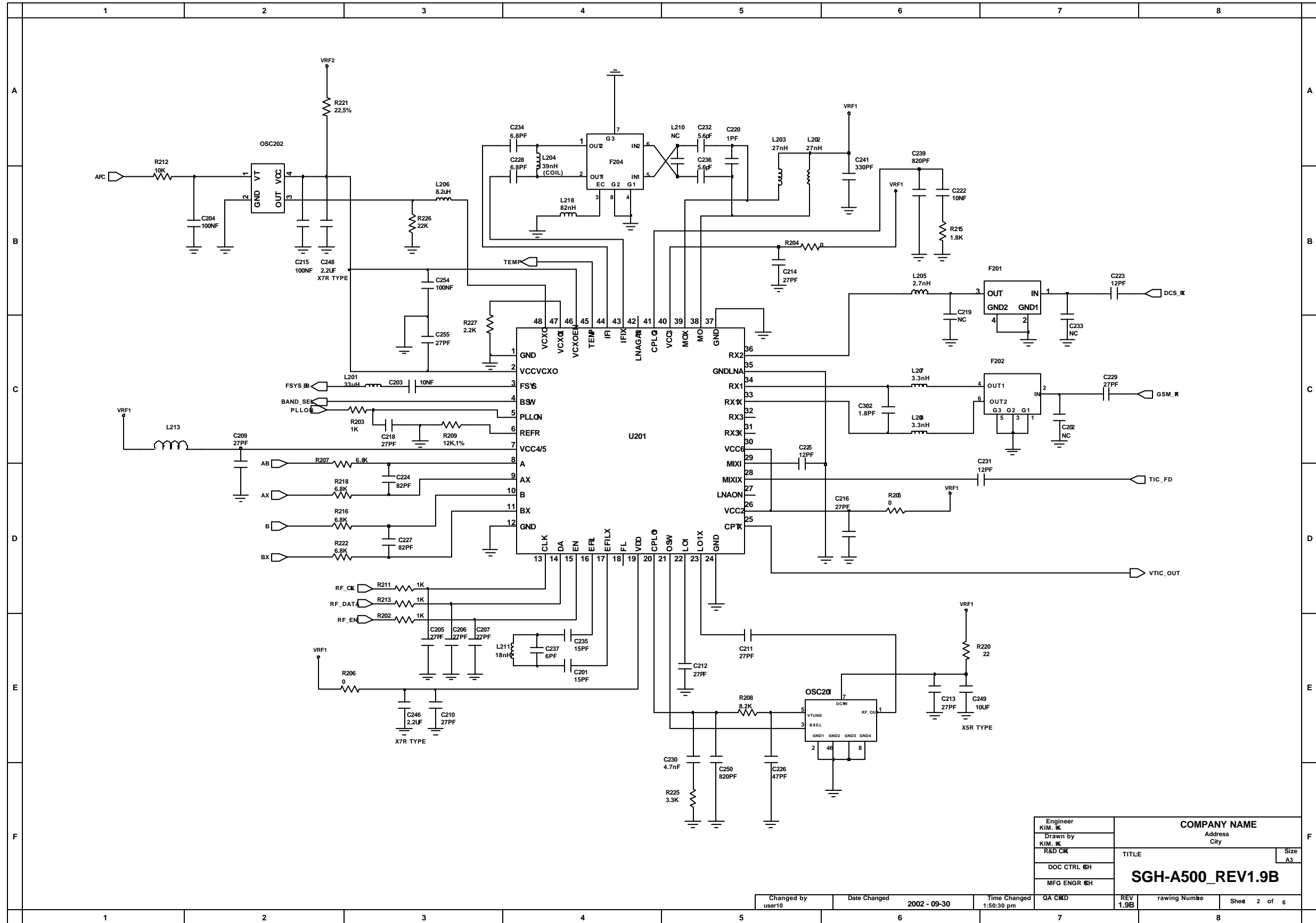




13. RF Circuit Diagram



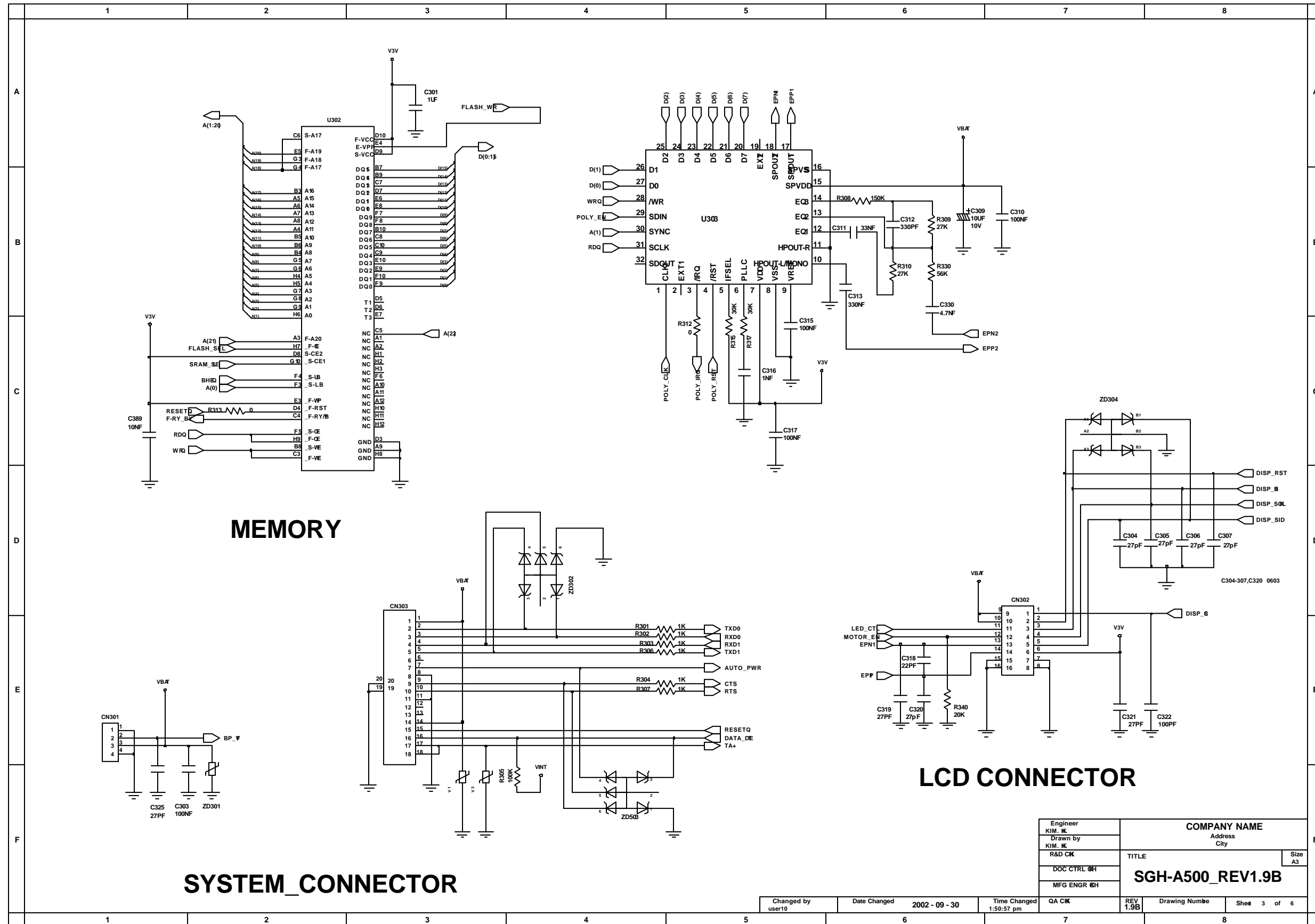
14. RF Trceiver Circuit Diagram



Engineer KIM, R	COMPANY NAME	
Drawn by KIM, R	Address	
R&D CK	City	
DOC CTRL 6H	TITLE	Size A3
MFG ENGR 6H	SGH-A500_REV1.9B	

Changed by user10	Date Changed 2002 - 09-30	Time Changed 1:50:30 pm	QA CKD	REV 1.9B	rawing Numbe	Shee 2 of 6
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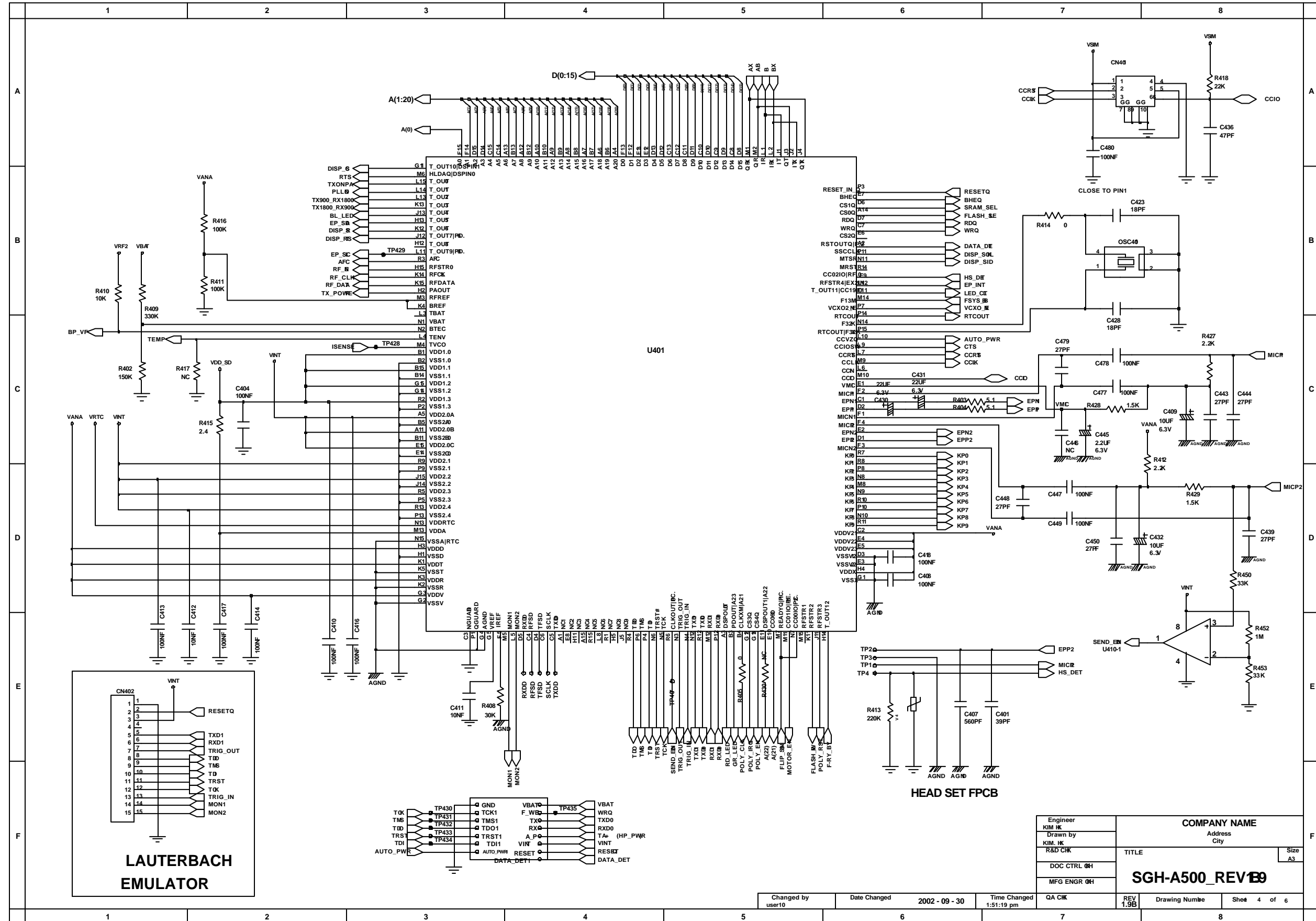
15. Memory & Connector Circuit Diagram



Engineer KIM. IL	COMPANY NAME	
Drawn by KIM. IL	Address	
R&D CK	City	
DOC CTRL 6H	TITLE	Size A3
MFG ENGR 6H	<b>SGH-A500_REV1.9B</b>	

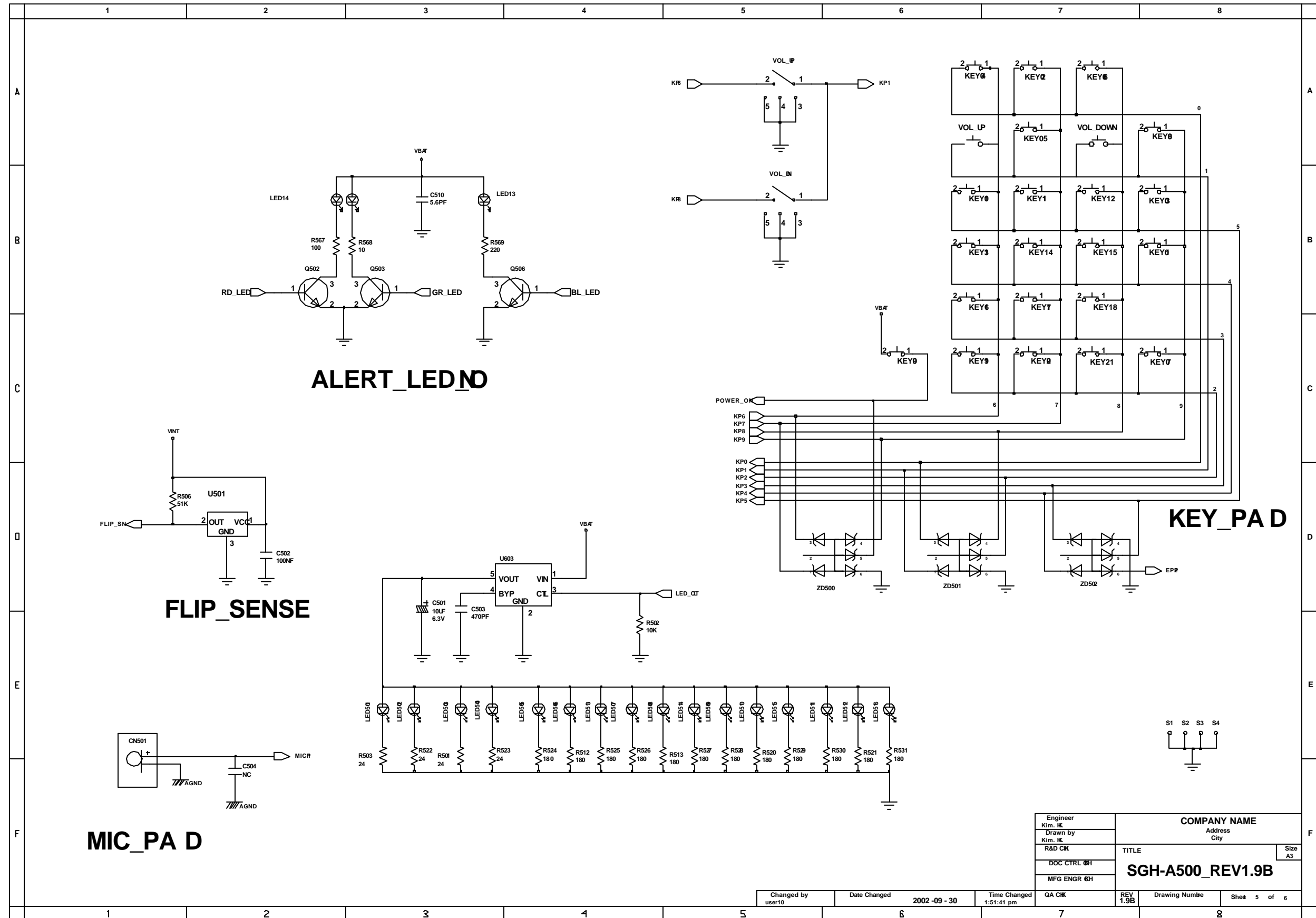
Changed by user10	Date Changed 2002 - 09 - 30	Time Changed 1:50:57 pm	QA CHK	REV 1.9B	Drawing Number	Sheet 3 of 6
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16. Baseband Processor Circuit Diagram



Engineer KIM HK	COMPANY NAME	
Drawn by KIM HK	Address City	
R&D CHK	TITLE	Size A3
DOC CTRL OH	<b>SGH-A500_REV1B9</b>	
MFG ENGR OH	REV 1.5B	Drawing Number
Changed by user10	Date Changed 2002 - 09 - 30	Time Changed 1:51:19 pm
QA CHK	REV 1.5B	Shea 4 of 6

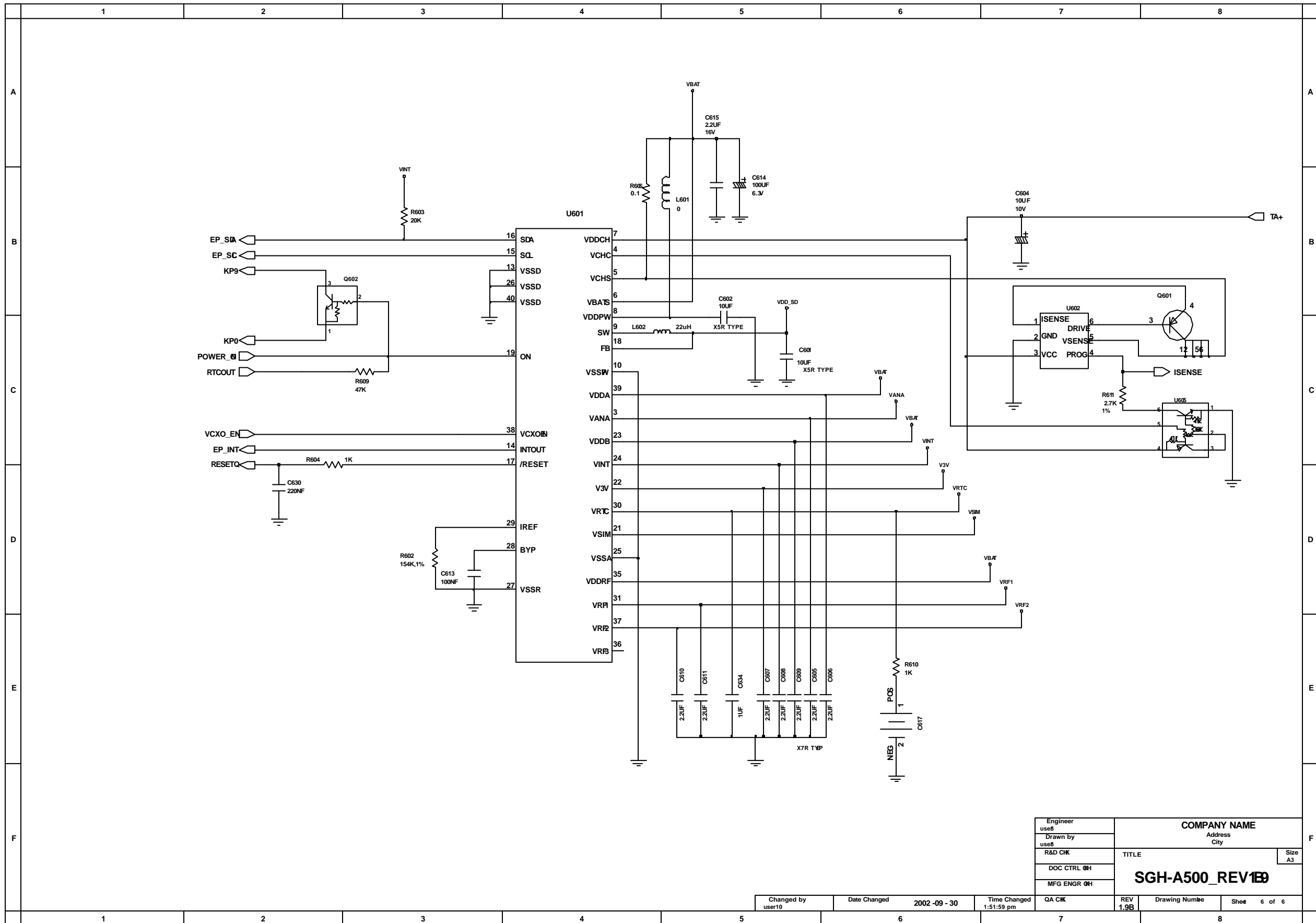
17. Key Matrix & LED Circuit Diagram



Engineer Kim. IK	COMPANY NAME	
Drawn by Kim. IK	Address	
R&D CK	City	
DOC CTRL GH	TITLE	Size A3
MFG ENGR GH	<b>SGH-A500_REV1.9B</b>	

Changed by user10	Date Changed 2002-09-30	Time Changed 1:51:41 pm	QA CK	REV 1.9B	Drawing Number	Shee 5 of 6
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18. Power Management Circuit Diagram



Engineer use8	COMPANY NAME	
Drawn by use8	Address City	
R&D CHK	TITLE	Size A3
DOC CTRL	<b>SGH-A500_REV1B</b>	
MFG ENGR	REV 1.9B	Sheet 6 of 6

Changed by user10	Date Changed 2002-09-30	Time Changed 1:51:59 pm	QA CHK
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BASIC.