

**SAMSUNG**

# DUAL BAND GSM TELEPHONE SGH-A400

# **SERVICE** *Manual*

## DUAL BAND GSM TELEPHONE



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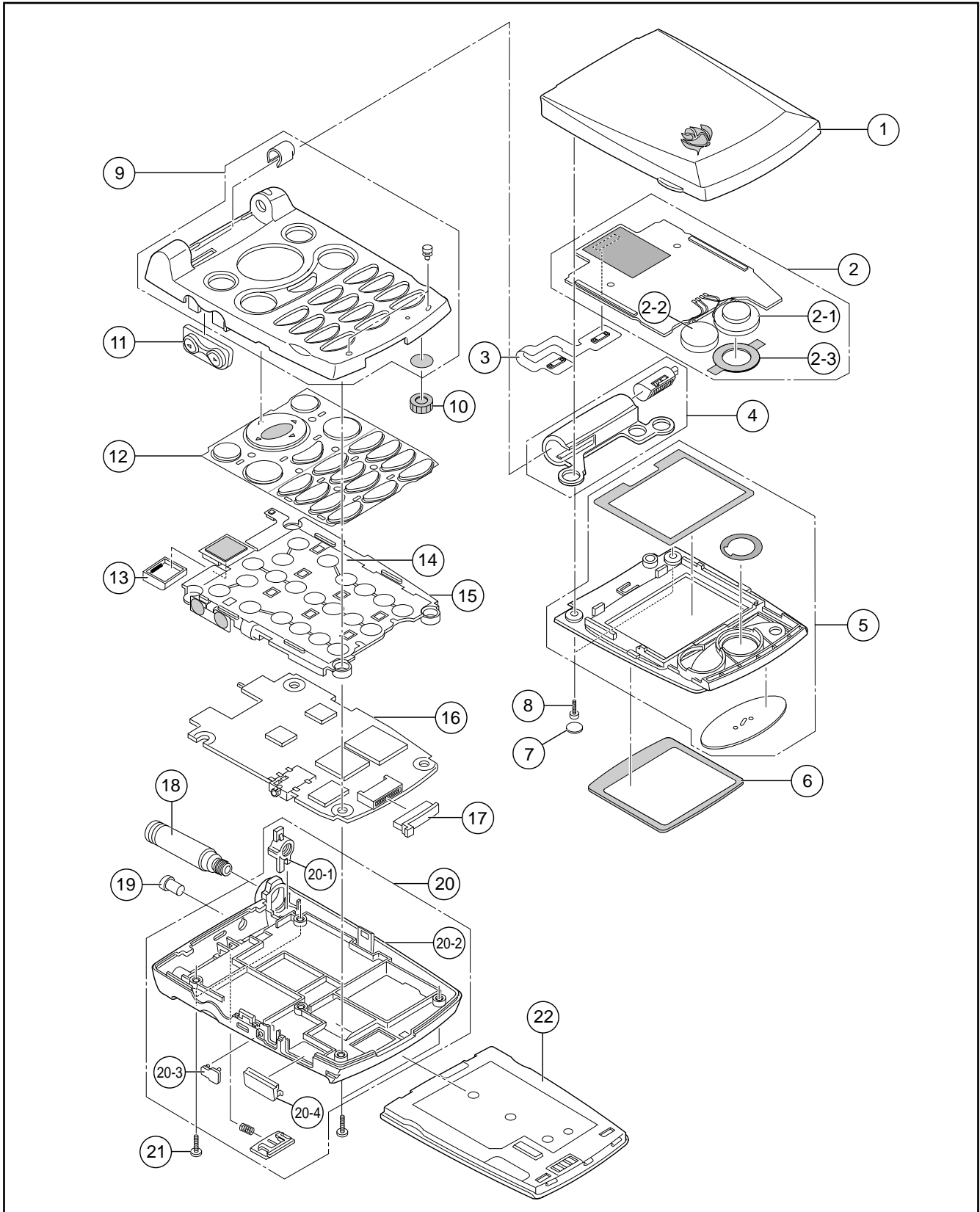
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# 1. SGH-A400 Exploded View and its Parts List

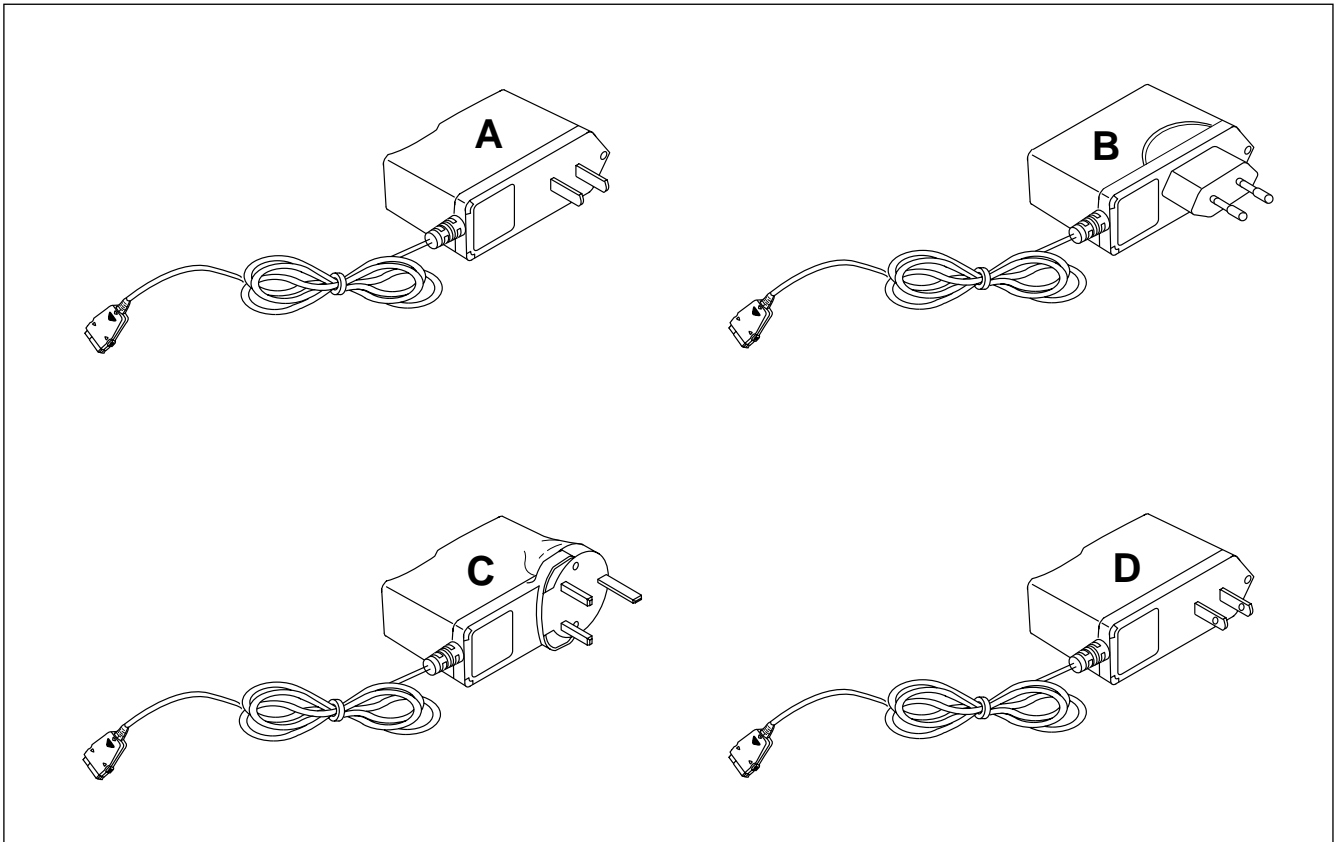
## 1-1 SGH-A400 GSM Telephone Exploded View



## 1-2 SGH-A400 GSM Telephone Parts List

NO		DESCRIPTION	SEC.CODE	REMARK	
1		MEC-FOLDER UPPER	GH75-01200A	SA	
2		LCD ASS'Y	GH07-00084A	SA	
	2-1	SPEAKER ASS'Y	GH59-00239A	SA	
	2-2	VIBRATOR ASS'Y	GH31-00030A	SA	
	2-3	SHIELD NET	GH74-01653A	SA	
3		FPCB	GH59-00242A	SA	
4		HINGE HOLDER ASS'Y	GH75-01109B	SA	
5		MEC-FOLDER LOWER	GH75-01201A	SA	
6		WINDOW-LCD	GH72-01726B	SA	
7		HOLE SHEET	GH74-01013K	SA	
8		SCREW-MACHINE	6001-001155	SA	
9		MEC-FRONT COVER	GH75-01198A	SA	
10		MIC	GH59-00245A	SA	
11		VOLUME ASS'Y	GH75-00948A	SA	
12		KEY PAD-SILVER	GH72-02705A	SA	
13		HOLDER-BUZZER	GH73-00777A	SA	
14		KEY-PCB ASS'Y	GH59-00217A	SA	
15		SHIELD COVER	GH71-00512A	SA	
16		PBA	GH92-00985A	SA	
17		COVER CONNECTOR	GH73-00779A	SA	
18		ANTENNA	GH42-00119A	SA	
19		RF JACK HOLDER	GH73-00502F	SA	
20		MEC-REAR COVER	GH75-01199A	SA	
	20-1	ANTENNA LOCKER	GH71-00511A	SNA	
	20-2	REAR COVER	GH72-02702A	SNA	
	20-3	COVER-EARPHONE	GH73-00776A	SNA	
	20-4	WINDOW-IrDA	GH72-02825A	SNA	
21		SCREW-MACHINE	6001-000883	SA	
22		BATTERY	GH43-00347A	SA	650 mAh

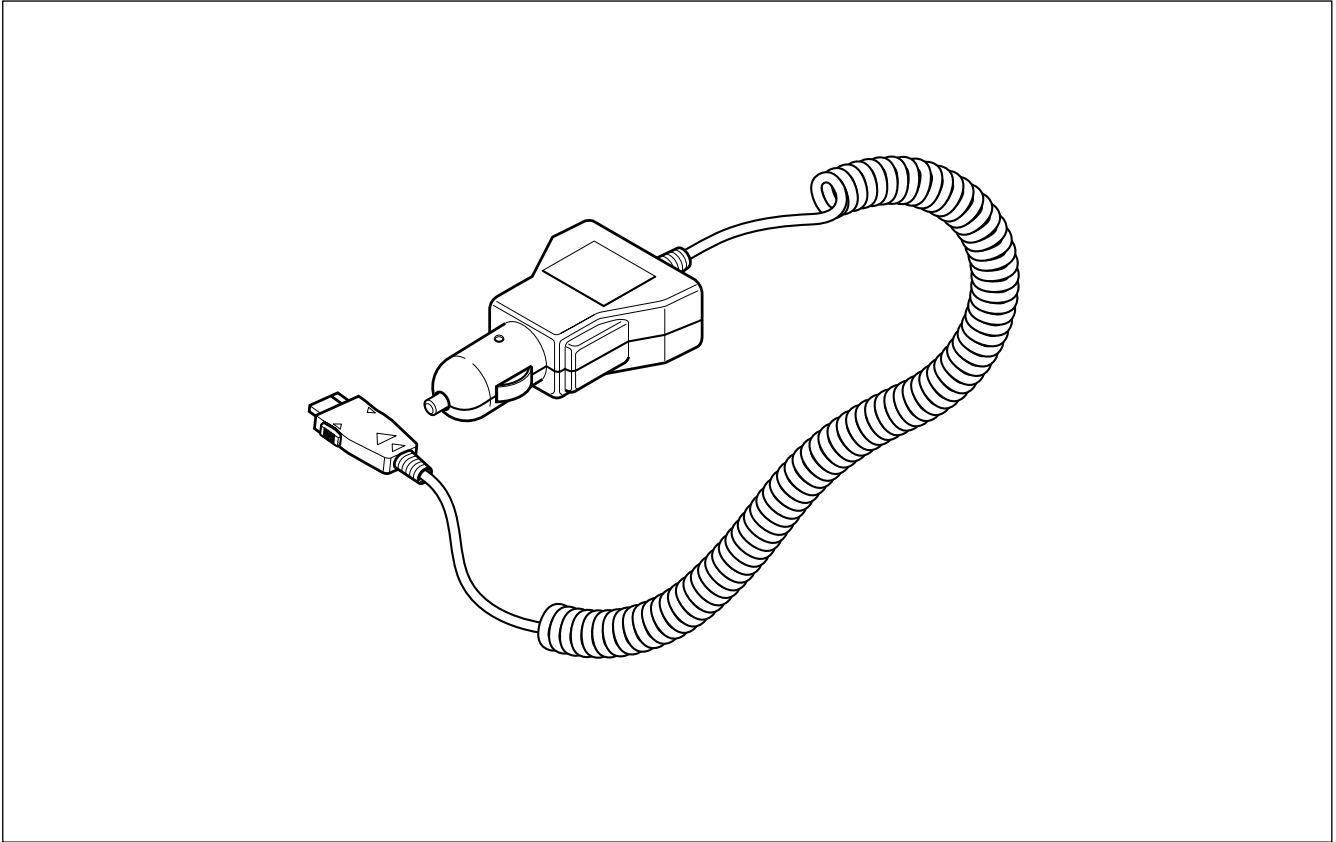
### 1-3 SGH-A400 Travel Adapter



### 1-4 SGH-A400 Travel Adapter Parts List

TYPE	SEC CODE	REMARK
A	GH44-00171A	CHINA
B	GH44-00184A	EUROPE
C	GH44-00171C	UNITED KINGDOM
D	Gh44-00171E	TAIWAN

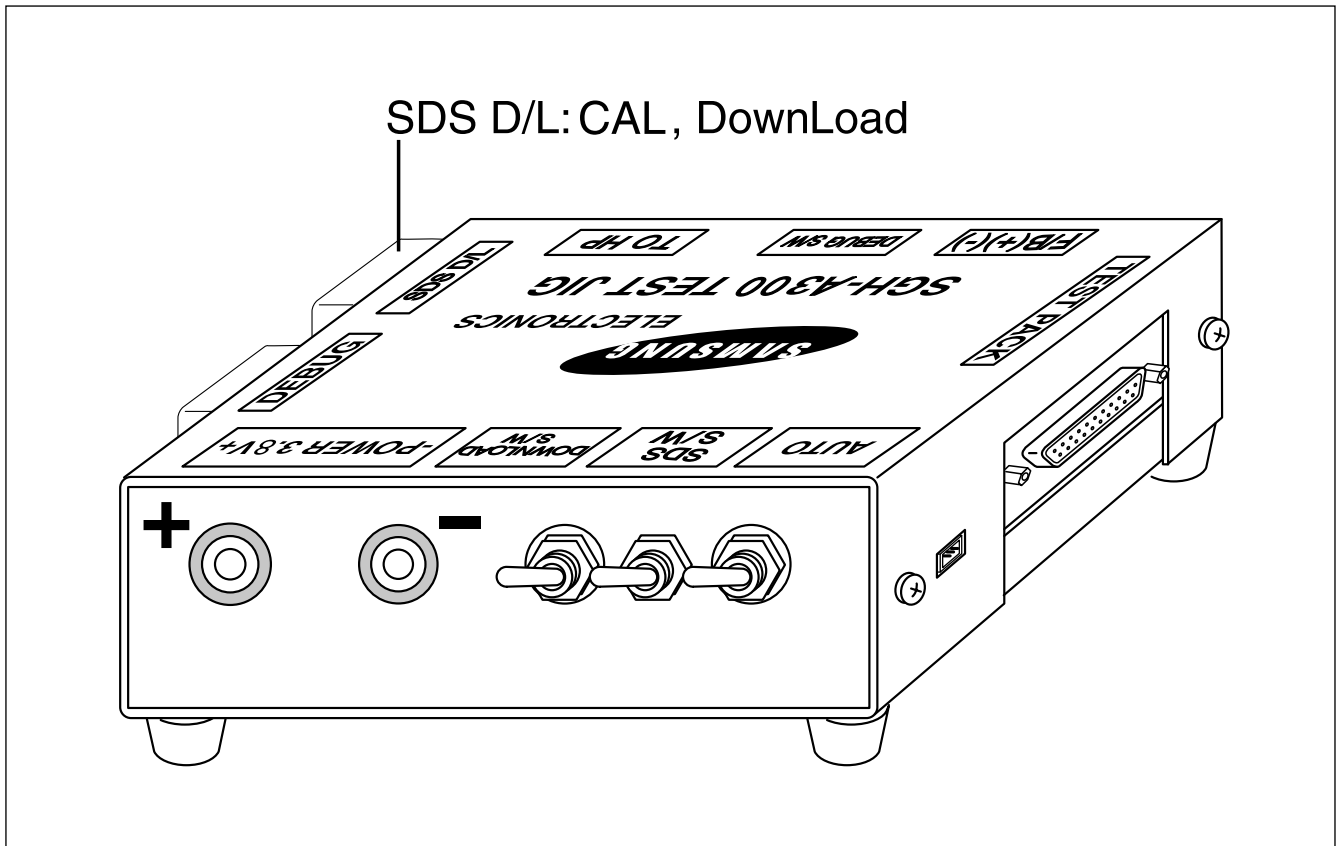
### 1-5 SGH-A400 Cigarette Lighter Adaptor



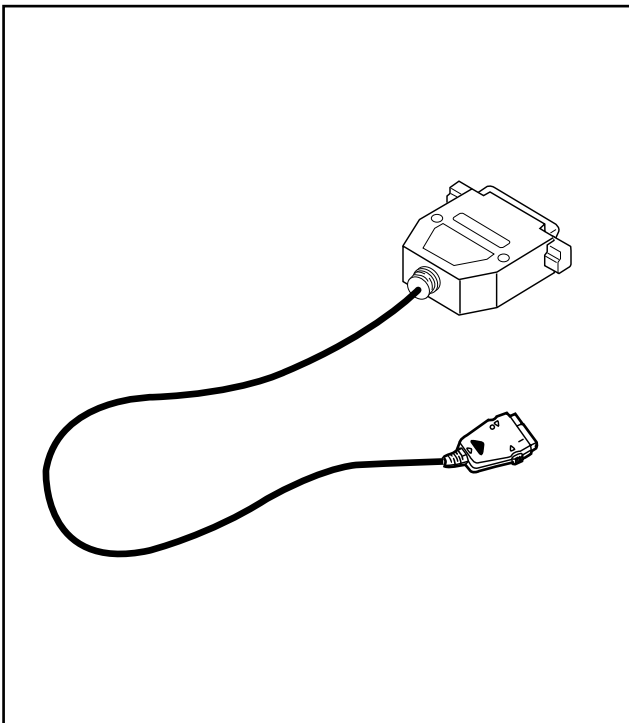
### 1-6 SGH-A400 Cigarette Lighter Adapter Parts List

DESCRIPTION	SEC CODE	REMARK
Cigarette Lighter Adapter Code	GH44-00195A	BLACK

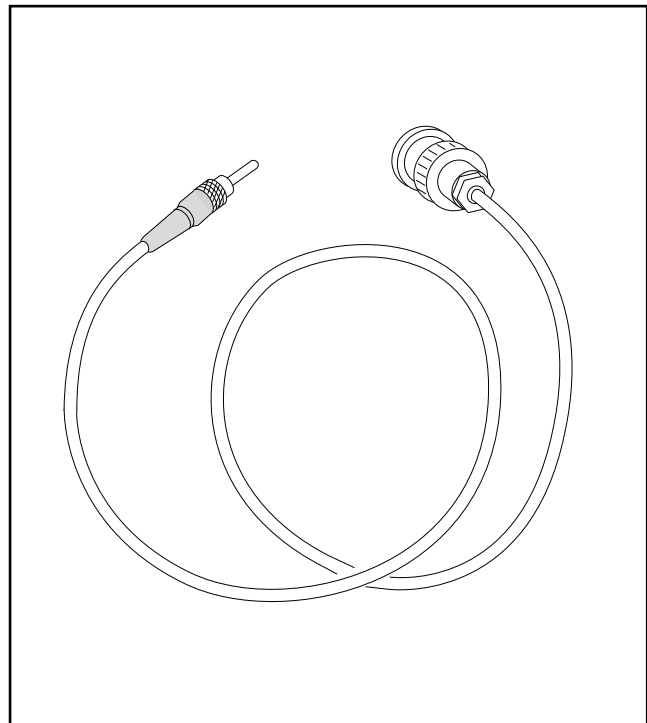
### 1-7 SGH-A400 Test Jig (GH80-00161A)



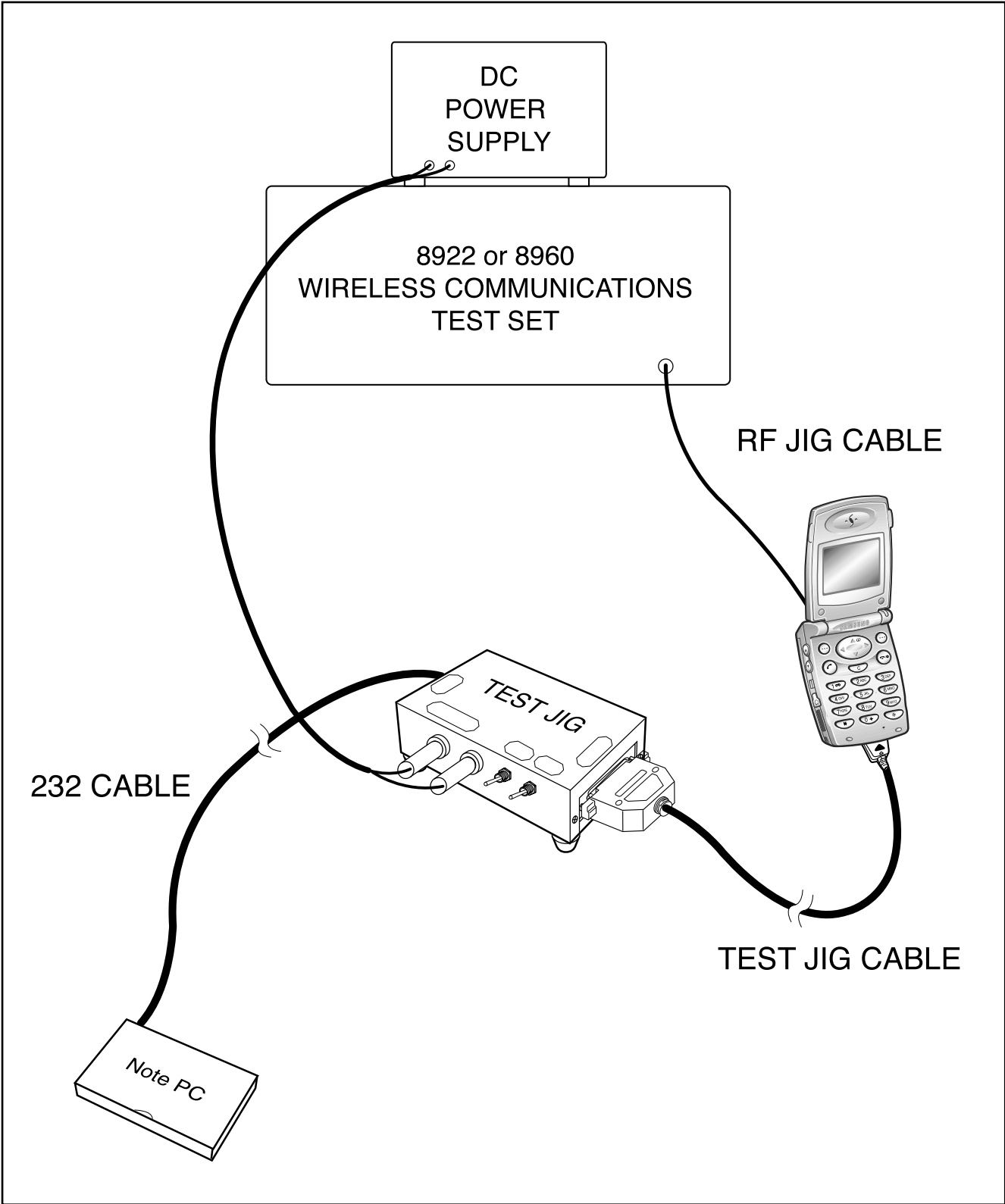
#### 1-7-1 SGH-A400 Test Jig Cable (GH39-00096A)



#### 1-7-2 SGH-A400 RF Jig Cable (GH39-00093A)



### 1-7-3 SGH-A400 Test Jig





## 2. SGH-A400 Electrical Parts List

Level	SEC CODE	REFERENCE	DESCRIPTIONS	Remark
0	GH92-00985A			
1	4302-001119	BAT200	BATTERY-LI(2ND) 3 V, 0.1MAH, -, -, 3.1 V, -	
1	2203-000311	C100	C-CERAMIC, CHIP 0.12 nF, 5 %, 50 V, NP0, TP,	
1	2203-005065	C101	C-CERAMIC, CHIP 1000 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-000330	C102	C-CERAMIC, CHIP 0.012 nF, 5 %, 50 V, NP0, TP,	
1	2203-005571	C103	C-CERAMIC, CHIP 10000 nF, +80-20 %, 6.3 V, Y5 V,	
1	2203-000359	C104	C-CERAMIC, CHIP 0.15 nF, 5 %, 50 V, NP0, TP,	
1	2203-000233	C106	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C107	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2404-001151	C108	C-TA, CHIP 33 uF, 20 %, 6.3 V, LZ, TP, 3216	
1	2203-005571	C109	C-CERAMIC, CHIP 10000 nF, +80-20 %, 6.3 V, Y5 V,	
1	2203-000278	C110	C-CERAMIC, CHIP 0.01 nF, 0.5 pF, 50 V, NP0, TP,	
1	2203-000628	C111	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2203-001432	C112	C-CERAMIC, CHIP 47 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-005158	C113	C-CERAMIC, CHIP 0.0022 nF, 0.25pF, 50 V, NP0, TP,	
1	2203-005061	C114	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-001432	C115	C-CERAMIC, CHIP 47 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-000628	C116	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C117	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-005571	C118	C-CERAMIC, CHIP 10000 nF, +80-20 %, 6.3 V, Y5 V,	
1	2203-005061	C119	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-005061	C120	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-001432	C121	C-CERAMIC, CHIP 47 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2404-001105	C200	C-TA, CHIP 10 uF, 20 %, 6.3 V, GP, TP, 2012	
1	2203-005061	C201	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-005509	C202	C-CERAMIC, CHIP 330 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-000359	C203	C-CERAMIC, CHIP 0.15 nF, 5 %, 50 V, NP0, TP,	
1	2203-000359	C204	C-CERAMIC, CHIP 0.15 nF, 5 %, 50 V, NP0, TP,	
1	2203-005061	C205	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-000254	C206	C-CERAMIC, CHIP 10 nF, 10 %, 16 V, X7R, TP, -	
1	2203-000679	C207	C-CERAMIC, CHIP 0.027 nF, 5 %, 50 V, NP0, TP,	
1	2404-001017	C208	C-TA, CHIP 1 uF, 20 %, 10 V, GP, TP, 2012, 2, 0	
1	2203-000679	C209	C-CERAMIC, CHIP 0.027 nF, 5 %, 50 V, NP0, TP,	
1	2203-005065	C210	C-CERAMIC, CHIP 1000 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-000359	C211	C-CERAMIC, CHIP 0.15 nF, 5 %, 50 V, NP0, TP,	

Level	SEC CODE	REFERENCE	DESCRIPTIONS	Remark
1	2203-005509	C212	C-CERAMIC, CHIP 330 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-005061	C213	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-005061	C214	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-005061	C280	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-000233	C300	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2203-000233	C301	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2203-005053	C302	C-CERAMIC, CHIP 0.0039 nF, 0.25 pF, 50 V, NP0, TP,	
1	2203-005053	C303	C-CERAMIC, CHIP 0.0039 nF, 0.25 pF, 50 V, NP0, TP,	
1	2203-005446	C304	C-CERAMIC, CHIP 0.0027 nF, 0.1pF, 50 V, NP0, TP,	
1	2404-001234	C305	C-TA, CHIP 68 uF, 20 %, 6.3 V, -, TP, 3.3x2.7x1.7mm	
1	2203-005061	C306	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-000438	C308	C-CERAMIC, CHIP 1 nF, 10 %, 50 V, X7R, TP, -	
1	2203-005053	C309	C-CERAMIC, CHIP 0.0039 nF, 0.25 pF, 50 V, NP0, TP,	
1	2203-000628	C310	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2203-000628	C311	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2301-001230	C312	C-FILM, CHIP 10 nF, 5 %, 16 V, TP, 2012, -	
1	2404-001105	C313	C-TA, CHIP 10 uF, 20 %, 6.3 V, GP, TP, 2012	
1	2203-000940	C314	C-CERAMIC, CHIP 470 pF, 10 %, 50 V, X7R, TP, -	
1	2203-000812	C315	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000254	C316	C-CERAMIC, CHIP 10 nF, 10 %, 16 V, X7R, TP, -	
1	2203-000254	C317	C-CERAMIC, CHIP 10 nF, 10 %, 16 V, X7R, TP, -	
1	2203-000836	C318	C-CERAMIC, CHIP 390 pF, 10 %, 50 V, X7R, TP, -	
1	2203-005664	C319	C-CERAMIC, CHIP 4700 nF, 10 %, 6.3 V, X5R, TP, 2012	
1	2203-000812	C320	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000438	C321	C-CERAMIC, CHIP 1 nF, 10 %, 50 V, X7R, TP, -	
1	2203-000278	C322	C-CERAMIC, CHIP 0.01 nF, 0.5 pF, 50 V, NP0, TP,	
1	2203-005446	C323	C-CERAMIC, CHIP 0.0027 nF, 0.1pF, 50 V, NP0, TP,	
1	2203-000278	C324	C-CERAMIC, CHIP 0.01 nF, 0.5 pF, 50 V, NP0, TP,	
1	2203-000254	C325	C-CERAMIC, CHIP 10 nF, 10 %, 16 V, X7R, TP, -	
1	2203-000425	C326	C-CERAMIC, CHIP 0.018 nF, 5 %, 50 V, NP0, TP,	
1	2203-000425	C327	C-CERAMIC, CHIP 0.018 nF, 5 %, 50 V, NP0, TP,	
1	2203-005065	C328	C-CERAMIC, CHIP 1000 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-000940	C329	C-CERAMIC, CHIP 470 pF, 10 %, 50 V, X7R, TP, -	
1	2203-000330	C330	C-CERAMIC, CHIP 0.012 nF, 5 %, 50 V, NP0, TP,	
1	2203-000836	C331	C-CERAMIC, CHIP 390 pF, 10 %, 50 V, X7R, TP, -	
1	2203-005481	C332	C-CERAMIC, CHIP 47 nF, 10 %, 10 V, X7R, TP, -	
1	2203-005664	C333	C-CERAMIC, CHIP 4700 nF, 10 %, 6.3 V, X5R, TP, 2012	

Level	SEC CODE	REFERENCE	DESCRIPTIONS	Remark
1	2203-000386	C334	C-CERAMIC, CHIP 0.015 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C335	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2301-001230	C336	C-FILM, CHIP 10 nF, 5 %, 16 V, TP, 2012, -	
1	2203-005158	C337	C-CERAMIC, CHIP 0.0022 nF, 0.25pF, 50 V, NP0, TP,	
1	2203-005158	C338	C-CERAMIC, CHIP 0.0022 nF, 0.25pF, 50 V, NP0, TP,	
1	2203-000812	C339	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C340	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-002443	C341	C-CERAMIC, CHIP 0.33 nF, 10 %, 50 V, X7R, TP,	
1	2203-002443	C342	C-CERAMIC, CHIP 0.33 nF, 10 %, 50 V, X7R, TP,	
1	2203-002443	C343	C-CERAMIC, CHIP 0.33 nF, 10 %, 50 V, X7R, TP,	
1	2203-002443	C344	C-CERAMIC, CHIP 0.33 nF, 10 %, 50 V, X7R, TP,	
1	2203-000254	C345	C-CERAMIC, CHIP 10 nF, 10 %, 16 V, X7R, TP, -	
1	2203-000254	C346	C-CERAMIC, CHIP 10 nF, 10 %, 16 V, X7R, TP, -	
1	2203-005061	C400	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-000233	C401	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2203-005061	C402	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-005065	C403	C-CERAMIC, CHIP 1000 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-005065	C404	C-CERAMIC, CHIP 1000 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-005664	C405	C-CERAMIC, CHIP 4700 nF, 10 %, 6.3 V, X5R, TP, 2012	
1	2203-005664	C406	C-CERAMIC, CHIP 4700 nF, 10 %, 6.3 V, X5R, TP, 2012	
1	2203-005065	C408	C-CERAMIC, CHIP 1000 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-000995	C409	C-CERAMIC, CHIP 0.047 nF, 5 %, 50 V, NP0, TP,	
1	2203-000359	C410	C-CERAMIC, CHIP 0.15 nF, 5 %, 50 V, NP0, TP,	
1	2203-000359	C411	C-CERAMIC, CHIP 0.15 nF, 5 %, 50 V, NP0, TP,	
1	2203-000254	C412	C-CERAMIC, CHIP 10 nF, 10 %, 16 V, X7R, TP, -	
1	2203-005065	C413	C-CERAMIC, CHIP 1000 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-000233	C414	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2404-001239	C415	C-TA, CHIP 100 uF, 20 %, 6.3 V, WT, TP, 3.3x2.7x	
1	2203-005562	C416	C-CERAMIC, CHIP 10000 nF, +80-20 %, 10 V, Y5 V,	
1	2203-005061	C417	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-000940	C418	C-CERAMIC, CHIP 470 pF, 10 %, 50 V, X7R, TP, -	
1	2203-000812	C419	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-005796	C420	C-CERAMIC, CHIP 2200 nF, 10 %, 10 V, X7R, TP, 2012	
1	2203-000278	C421	C-CERAMIC, CHIP 0.01 nF, 0.5 pF, 50 V, NP0, TP,	
1	2203-000233	C500	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2203-000438	C501	C-CERAMIC, CHIP 1 nF, 10 %, 50 V, X7R, TP, -	
1	2203-000812	C503	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	

Level	SEC CODE	REFERENCE	DESCRIPTIONS	Remark
1	2203-000233	C504	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2203-000233	C505	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2203-000278	C506	C-CERAMIC, CHIP 0.01 nF, 0.5 pF, 50 V, NP0, TP,	
1	2203-005056	C507	C-CERAMIC, CHIP 0.0068 nF, 0.25 pF, 50 V, NP0, TP,	
1	2203-000233	C508	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2203-000233	C509	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2203-005234	C511	C-CERAMIC, CHIP 0.0012 nF, 0.25pF, 50 V, NP0, TP,	
1	2203-000628	C512	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2203-000628	C513	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2203-000278	C515	C-CERAMIC, CHIP 0.01 nF, 0.5 pF, 50 V, NP0, TP,	
1	2203-000628	C516	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2203-000628	C517	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C518	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C519	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000278	C520	C-CERAMIC, CHIP 0.01 nF, 0.5 pF, 50 V, NP0, TP,	
1	2404-001239	C521	C-TA, CHIP 100 uF, 20 %, 6.3 V, WT, TP, 3.3x2.7x	
1	2203-005148	C522	C-CERAMIC, CHIP 100 nF, 10 %, 16 V, X7R, TP, 1608,	
1	2203-000628	C525	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2203-000233	C526	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C527	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000233	C530	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2203-000233	C532	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C533	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-005061	C534	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-000278	C535	C-CERAMIC, CHIP 0.01 nF, 0.5 pF, 50 V, NP0, TP,	
1	2203-000628	C537	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2203-000438	C538	C-CERAMIC, CHIP 1 nF, 10 %, 50 V, X7R, TP, -	
1	2203-000254	C539	C-CERAMIC, CHIP 10 nF, 10 %, 16 V, X7R, TP, -	
1	2203-000696	C540	C-CERAMIC, CHIP 0.002 nF, 0.25 pF, 50 V, NP0, TP,	
1	2203-000466	C541	C-CERAMIC, CHIP 0.001 nF, 0.25 pF, 50 V, NP0, TP,	
1	2203-000679	C542	C-CERAMIC, CHIP 0.027 nF, 5 %, 50 V, NP0, TP,	
1	2203-000233	C543	C-CERAMIC, CHIP 0.1 nF, 5 %, 50 V, NP0, TP,	
1	2301-001475	C544	C-FILM, CHIP 3.9 nF, 5 %, 16 V, TP, 2.0 x 1.25 x 0.9mm	
1	2203-000995	C545	C-CERAMIC, CHIP 0.047 nF, 5 %, 50 V, NP0, TP,	
1	2203-000628	C546	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2203-000278	C547	C-CERAMIC, CHIP 0.01 nF, 0.5 pF, 50 V, NP0, TP,	
1	2203-001432	C548	C-CERAMIC, CHIP 47 nF, +80-20 %, 16 V, Y5 V, TP,	

Level	SEC CODE	REFERENCE	DESCRIPTIONS	Remark
1	2203-005065	C549	C-CERAMIC, CHIP 1000 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2007-007771	C550	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP,	
1	2203-005509	C551	C-CERAMIC, CHIP 330 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-000725	C552	C-CERAMIC, CHIP 3.9 nF, 10 %, 50 V, X7R, TP, -	
1	2203-005509	C553	C-CERAMIC, CHIP 330 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-000812	C600	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000628	C601	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2404-001151	C602	C-TA, CHIP 33 uF, 20 %, 6.3 V, LZ, TP, 3216	
1	2203-005148	C603	C-CERAMIC, CHIP 100 nF, 10 %, 16 V, X7R, TP, 1608,	
1	2203-000812	C604	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000628	C605	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2203-005367	C606	C-CERAMIC, CHIP 6800 nF, +80-20 %, 25 V, Y5 V, TP,	
1	2203-000812	C608	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C609	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-002968	C610	C-CERAMIC, CHIP 0.051 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C611	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2404-001151	C613	C-TA, CHIP 33 uF, 20 %, 6.3 V, LZ, TP, 3216	
1	2203-000812	C614	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-005065	C615	C-CERAMIC, CHIP 1000 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-000812	C616	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-005061	C617	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-005061	C618	C-CERAMIC, CHIP 100 nF, +80-20 %, 16 V, Y5 V, TP,	
1	2203-000628	C620	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2203-005065	C621	C-CERAMIC, CHIP 1000 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-005065	C622	C-CERAMIC, CHIP 1000 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-000628	C625	C-CERAMIC, CHIP 0.022 nF, 5 %, 50 V, NP0, TP,	
1	2404-001239	C627	C-TA, CHIP 100 uF, 20 %, 6.3 V, WT, TP, 3.3x2.7x	
1	2203-005065	C630	C-CERAMIC, CHIP 1000 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-001412	C631	C-CERAMIC, CHIP 0.03 nF, 5 %, 50 V, NP0, TP,	
1	2203-001412	C632	C-CERAMIC, CHIP 0.03 nF, 5 %, 50 V, NP0, TP,	
1	2404-001105	C634	C-TA, CHIP 10 uF, 20 %, 6.3 V, GP, TP, 2012	
1	2404-001105	C635	C-TA, CHIP 10 uF, 20 %, 6.3 V, GP, TP, 2012	
1	2203-000812	C636	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C637	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C638	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C639	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C640	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	

Level	SEC CODE	REFERENCE	DESCRIPTIONS	Remark
1	2203-000812	C641	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C642	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C643	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C644	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C647	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-005065	C651	C-CERAMIC, CHIP 1000 nF, +80-20 %, 10 V, Y5 V, TP,	
1	2203-000359	C652	C-CERAMIC, CHIP 0.15 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C657	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000386	C658	C-CERAMIC, CHIP 0.015 nF, 5 %, 50 V, NP0, TP,	
1	2203-000386	C659	C-CERAMIC, CHIP 0.015 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C660	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C662	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C663	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C664	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C665	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C666	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000812	C667	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	2203-000438	C670	C-CERAMIC, CHIP 1 nF, 10 %, 50 V, X7R, TP, -	
1	2203-000812	C671	C-CERAMIC, CHIP 0.033 nF, 5 %, 50 V, NP0, TP,	
1	3709-001190	CN400	CONNECTOR-CARD EDGE 6P, 2.54MM, SMD, -	
1	3705-001178	CN500	CONNECTOR-COAXIAL SMC, JACK, 100 Mohm,	
1	3722-001530	CN600	JACK-PHONE 5P, 2.6PI, A uF, BLK, -	
1	3710-001585	CN601	CONNECTOR-SOCKET 20P, 2R, 0.5mm, SMD-S, A uF	
1	3711-004623	CN602	CONNECTOR-HEADER BOX, 20P, 2R, 0.5mm,	
1	3710-001653	CN604	CONNECTOR-SOCKET 18P, 1R, 0.5mm, SMD-A, A uF	
1	0407-000115	D200	DIODE-ARRAY DAN202U, 80 V, 100 mA, CA2-3, SC-70,	
1	0401-001033	D201	DIODE-SWITCHING MCL4154, 25 V, 200 mA, M-MELF,	
1	0405-001093	D300	DIODE-VARACTOR MA4ST230, 12 V, -, SOT-23, TP	
1	0401-001033	D402	DIODE-SWITCHING MCL4154, 25 V, 200 mA, M-MELF,	
1	0402-001463	D500	DIODE-RECTIFIER HSMS-2825, 15 V, 1 A, SOT-143,	
1	0407-000115	D601	DIODE-ARRAY DAN202U, 80 V, 100 mA, CA2-3, SC-70,	
1	2903-001211	F300	FILTER-CERAMIC BP, 14.6MHz, 300KHz, 6dB, 1dB,	
1	2904-001165	F301	FILTER-SAW 400MHZ, .28MHZ, +-70KHZ, TP, 6.5DB, -	
1	2904-001096	F500	FILTER-SAW 1.8425GHz, 75MHz, +-37.5MHz/2.5dB,	
1	2904-001281	F501	FILTER-SAW 947.5MHz, 25MHz, +-12.5MHz/1.4dB,	
1	2007-007771	F502	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP,	
1	2703-000310	L100	INDUCTOR-SMD 1.8 uH, 10 %, 0.8x1.6x0.8mm	

Level	SEC CODE	REFERENCE	DESCRIPTIONS	Remark
1	2703-001543	L300	INDUCTOR-SMD 33 nH, 5 %, 1.8x1.12x1.02mm	
1	2703-001513	L301	INDUCTOR-SMD 100 nH, 5 %, 1.8x1.12x1.02mm	
1	2703-002214	L302	INDUCTOR-SMD 8.2 nH, 5 %, 1.6X0.8X0.8MM	
1	2703-001513	L303	INDUCTOR-SMD 100 nH, 5 %, 1.8x1.12x1.02mm	
1	2703-001545	L304	INDUCTOR-SMD 47 nH, 5 %, 1.8x1.12x1.02mm	
1	2703-001543	L305	INDUCTOR-SMD 33 nH, 5 %, 1.8x1.12x1.02mm	
1	2703-001547	L306	INDUCTOR-SMD 10 nH, 5 %, 1.8x1.12x1.02mm	
1	2703-001547	L307	INDUCTOR-SMD 10 nH, 5 %, 1.8x1.12x1.02mm	
1	2703-001547	L308	INDUCTOR-SMD 10 nH, 5 %, 1.8x1.12x1.02mm	
1	2703-002218	L400	INDUCTOR-SMD 100 uH, 20 %, 3.3X1.5X0.8MM	
1	2703-001954	L501	INDUCTOR-SMD 2.7 nH, 0.3 nH, 1.0x0.5x0.5mm	
1	2703-002213	L502	INDUCTOR-SMD 3.3 nH, 5 %, 1.6X0.8X0.8MM	
1	2703-002212	L503	INDUCTOR-SMD 1.6 nH, 5 %, 1.6X0.8X0.8MM	
1	2703-001514	L504	INDUCTOR-SMD 68 nH, 5 %, 1.8x1.12x1.02mm	
1	2703-002213	L505	INDUCTOR-SMD 3.3 nH, 5 %, 1.6X0.8X0.8MM	
1	2703-002284	L506	INDUCTOR-SMD 8.2 nH, ±0.5 nH, 1.6X0.8X0.8MM	
1	2703-001514	L507	INDUCTOR-SMD 68 nH, 5 %, 1.8x1.12x1.02mm	
1	2703-000175	L600	INDUCTOR-SMD 270 nH, 10 %, 0.8x1.6x0.8mm	
1	3301-001208	L602	CORE-FERRITE BEAD AB, 1.6x0.8x0.8mm, -, -	
1	2703-002298	L603	INDUCTOR-SMD 8.2 nH, ±10 %, 1.6X0.8X0.8MM	
1	4709-001144	LAM1	COUPLER-DIRECTION 897.5/1747.5MHZ,	
1	0604-001146	LED600	PHOTO-IRDA -, 875NM, 500 mW, 30DEG, TP	
1	2801-003695	OSC100	CRYSTAL-SMD 19.5MHz, 10ppm, 28-ABK, 10.2pF, 20	
1	2801-003747	OSC200	CRYSTAL-SMD .032768MHZ, 30PPM, 28-ACM, 9PF,	
1	2806-001191	OSC300	OSCILLATOR-VCO 1258-1360MHZ, -, 50 ohm, TP,	
1	0501-000162	Q200	TR-SMALL SIGNAL 2SA1576, PNP, 200 mW, SOT-323,	
1	0504-000168	Q201	TR-DIGITAL RN1104, NPN, 100 mW, 47K/47K, SSM, TP	
1	0501-002357	Q400	TR-SMALL SIGNAL ZUMT619, NPN, 500 mW, SOT-323,	
1	0501-002202	Q401	TR-SMALL SIGNAL MMBT2222AWT1, NPN, 150 mW,	
1	0504-001012	Q500	TR-DIGITAL DTC114YE, NPN, 150 mW, 10K/47K,	
1	0504-001012	Q501	TR-DIGITAL DTC114YE, NPN, 150 mW, 10K/47K,	
1	0504-001042	Q502	TR-DIGITAL BCR10PN, NPN/PNP, 250 mW, 10K/10K,	
1	0504-000168	Q600	TR-DIGITAL RN1104, NPN, 100 mW, 47K/47K, SSM, TP	
1	0501-002346	Q601	TR-SMALL SIGNAL 2SB1427, PNP, 500 mW, SOT-89,	
1	0501-002356	Q603	TR-SMALL SIGNAL -, NPN, 250 mW, SOT-323, TP,	
1	0504-001012	Q604	TR-DIGITAL DTC114YE, NPN, 150 mW, 10K/47K,	
1	0504-001012	Q605	TR-DIGITAL DTC114YE, NPN, 150 mW, 10K/47K,	

Level	SEC CODE	REFERENCE	DESCRIPTIONS	Remark
1	2007-000140	R100	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000140	R101	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-001313	R103	R-CHIP 330 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-007092	R104	R-CHIP 1.1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000775	R105	R-CHIP 33 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-007468	R106	R-CHIP 121 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-007092	R107	R-CHIP 1.1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000137	R207	R-CHIP 2 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000148	R209	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000148	R211	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000148	R212	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000148	R213	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000148	R214	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000148	R215	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000138	R216	R-CHIP 100 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-007771	R217	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-000170	R218	R-CHIP 1 Mohm, 5 %, 1/16 W, DA, TP,	
1	2007-000140	R219	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-007771	R280	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-001288	R300	R-CHIP 18 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-001288	R301	R-CHIP 18 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-001323	R302	R-CHIP 3 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000172	R303	R-CHIP 10 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-000172	R304	R-CHIP 10 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-001288	R305	R-CHIP 18 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-001323	R306	R-CHIP 3 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-008213	R307	R-CHIP 4.3 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-007001	R308	R-CHIP 3.9 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000172	R309	R-CHIP 10 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-001298	R310	R-CHIP 51 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-000172	R311	R-CHIP 10 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-000146	R312	R-CHIP 6.8 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000138	R313	R-CHIP 100 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-007136	R314	R-CHIP 4.7 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-000172	R315	R-CHIP 10 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-001298	R316	R-CHIP 51 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-000172	R317	R-CHIP 10 ohm, 5 %, 1/16 W, DA, TP,	



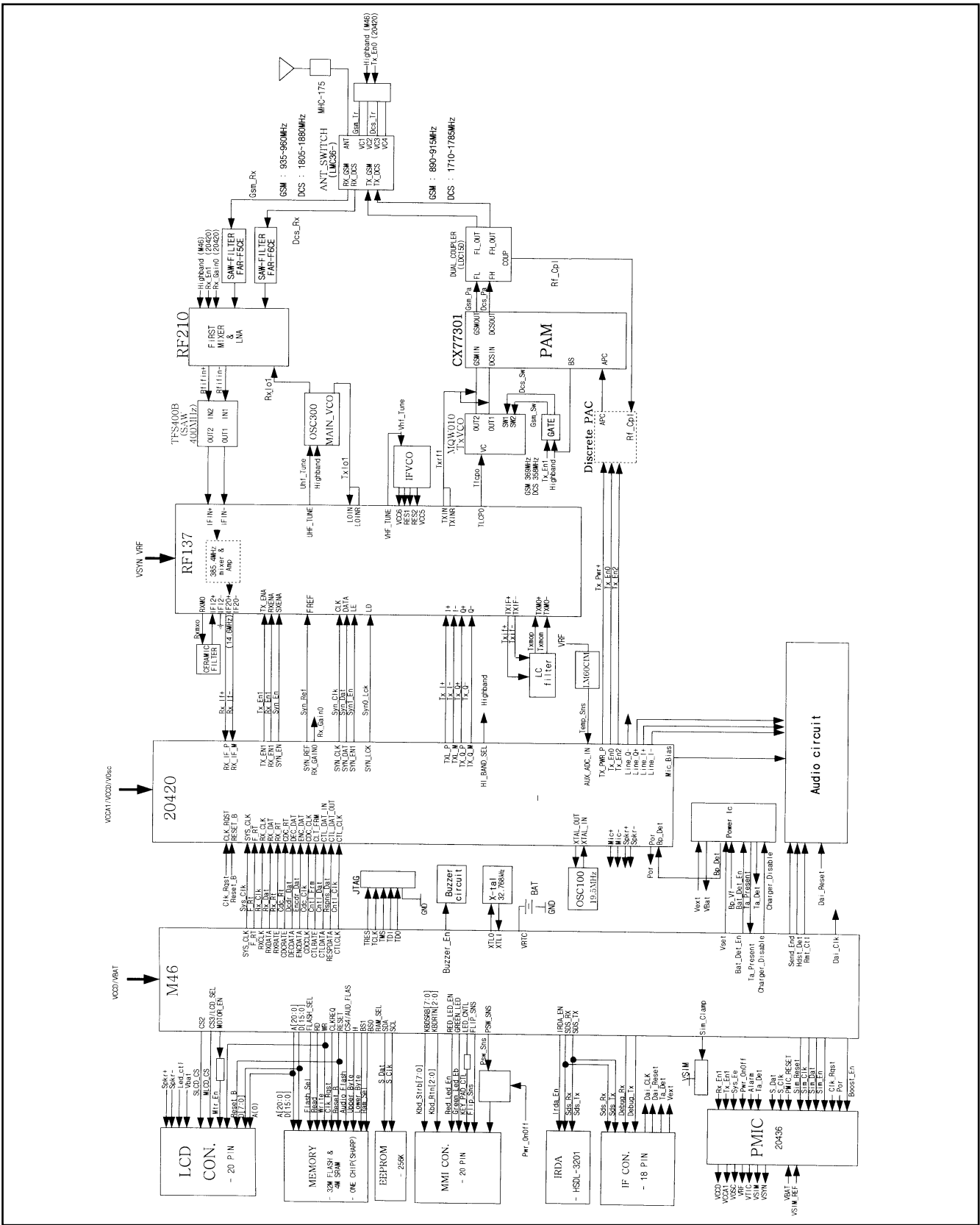
Level	SEC CODE	REFERENCE	DESCRIPTIONS	Remark
1	2007-000172	R318	R-CHIP 10 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-007771	R403	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-000162	R404	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000143	R407	R-CHIP 4.7 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000143	R409	R-CHIP 4.7 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000138	R410	R-CHIP 100 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-007156	R411	R-CHIP 1 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-000138	R412	R-CHIP 100 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-000141	R413	R-CHIP 2.2 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000157	R414	R-CHIP 47 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000140	R500	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000140	R502	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000148	R503	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000148	R505	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-001298	R506	R-CHIP 51 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-007193	R507	R-CHIP 5.1 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-001298	R508	R-CHIP 51 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-007193	R509	R-CHIP 5.1 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-000148	R510	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000137	R511	R-CHIP 2 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-007142	R512	R-CHIP 10 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-007312	R513	R-CHIP 20 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-001308	R514	R-CHIP 200 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-007142	R515	R-CHIP 10 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-007142	R516	R-CHIP 10 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-007142	R517	R-CHIP 10 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-001305	R518	R-CHIP 120 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-007142	R519	R-CHIP 10 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-007142	R520	R-CHIP 10 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-007142	R521	R-CHIP 10 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-000137	R522	R-CHIP 2 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-001306	R523	R-CHIP 150 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-001308	R524	R-CHIP 200 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-000170	R525	R-CHIP 1 Mohm, 5 %, 1/16 W, DA, TP,	
1	2007-007771	R526	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-007095	R527	R-CHIP 390 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-000139	R528	R-CHIP 220 ohm, 5 %, 1/16 W, DA, TP,	

Level	SEC CODE	REFERENCE	DESCRIPTIONS	Remark
1	2007-000140	R529	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000148	R530	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000145	R531	R-CHIP 6.2 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-008117	R532	R-CHIP 2.7 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-000162	R533	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000140	R601	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-001301	R604	R-CHIP 68 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-000242	R605	R-CHIP 1.5 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000165	R607	R-CHIP 200 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000162	R609	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000148	R610	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000142	R611	R-CHIP 2.7 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000162	R612	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000140	R613	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000140	R616	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000154	R619	R-CHIP 24 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-001119	R620	R-CHIP 680 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-001339	R621	R-CHIP 180 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-001306	R635	R-CHIP 150 ohm, 5 %, 1/16 W, DA, TP,	
1	2007-007316	R637	R-CHIP 3.3 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-000140	R638	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000140	R639	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000140	R640	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000162	R641	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000140	R642	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-007592	R643	R-CHIP 270 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-007875	R644	R-CHIP 160 kohm, 1 %, 1/16 W, DA, TP,	
1	2007-000152	R646	R-CHIP 20 kohm, 5 %, 1/16 W, DA, TP,	
1	2007-000148	R648	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP,	
1	1205-001708	U100	IC-CODEC 20420, BGA, 100P, -, PLASTIC, 2.7V, -, -	
1	0902-001231	U201	IC-MICROPROCESSOR 46, 16BIT, BGA, 180P, -,	
1	1203-001592	U202	IC-VOLTAGE REGULATOR 1015, SOT-23A-5, 5P,	
1	1205-001647	U300	IC-TRANSCIEVER RF137, TQFP, 48P, 275MIL,	
1	0801-002641	U330	IC-CMOS LOGIC 7WZ08, 2-INPUT AND GATE, US8,	
1	1203-001703	U400	IC-VOLTAGE REGULATOR 20436, TQFP, 48P, 275MIL,	
1	1203-002099	U401	IC-VOLTAGE REGULATOR 5245, SOT-23-5, 5P, 64MIL,	
1	0504-001042	U500	TR-DIGITAL BCR10PN, NPN/PNP, 250 mW, 10K/10K,	

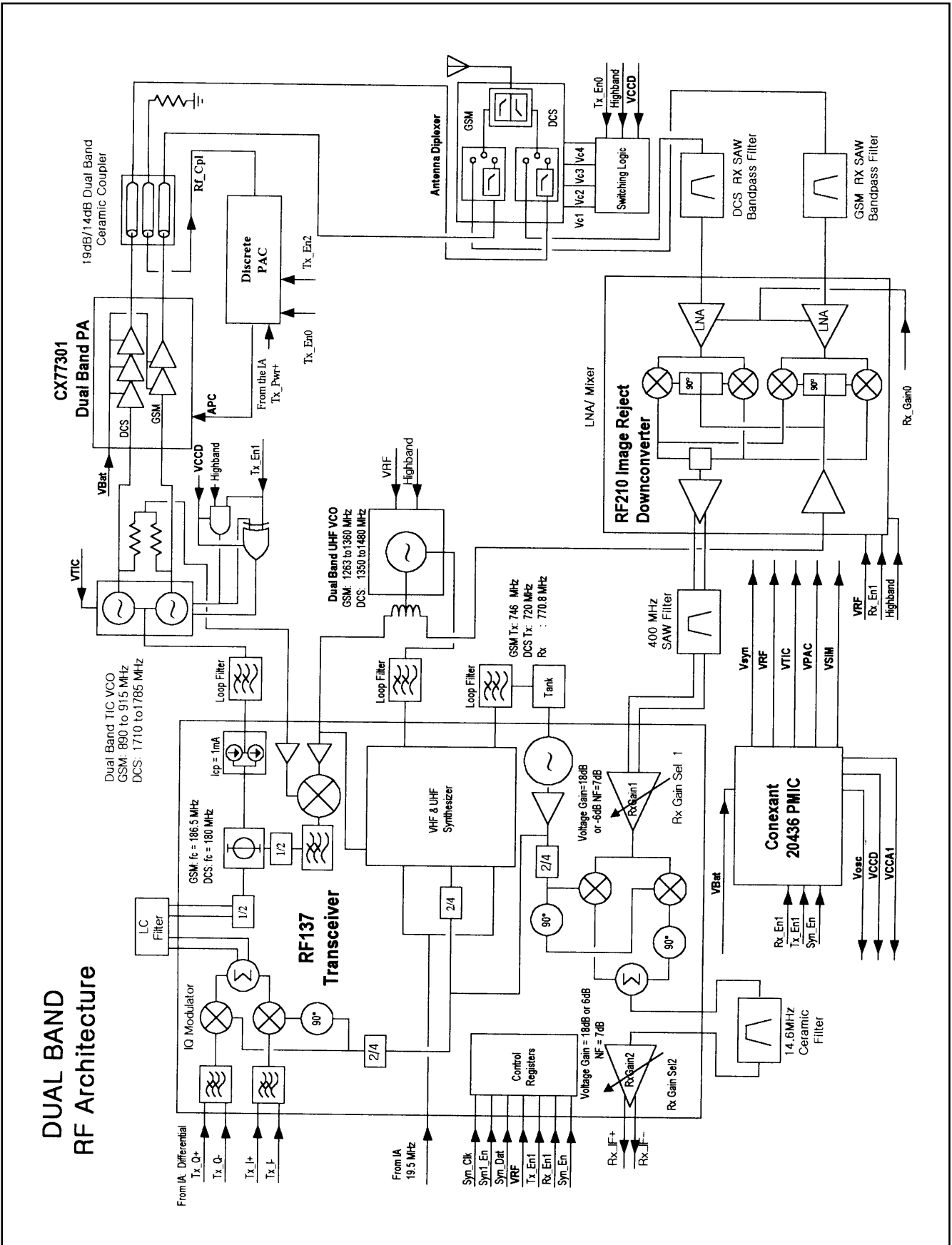
Level	SEC CODE	REFERENCE	DESCRIPTIONS	Remark
1	0504-001042	U501	TR-DIGITAL BCR10PN, NPN/PNP, 250 mW, 10K/10K,	
1	0504-001042	U502	TR-DIGITAL BCR10PN, NPN/PNP, 250m W, 10K/10K,	
1	0504-001012	U503	TR-DIGITAL DTC114YE, NPN, 150 mW, 10K/47K,	
1	2909-001152	U505	FILTER-DUPLEXER 942.5MHZ, 897.5MHZ, 1/1.2DB,	
1	2007-000137	U506	R-CHIP 2 kohm, 5 %, 1/16 W, DA, TP,	
1	1201-001697	U507	IC-IF/RF AMP RF210-51, TSSOP, 20P, 173MIL, -, -,	
1	0504-001042	U509	TR-DIGITAL BCR10PN, NPN/PNP, 250m W, 10K/10K,	
1	1201-001754	U510	IC-POWER AMP -, MCM, 16P, -, -, -, PLASTIC, 7V, -, -	
1	1209-001219	U511	IC-SENSOR LM60C, SOT-23, 3P, 115MIL, PLASTIC	
1	0801-002640	U512	IC-CMOS LOGIC 7WZ00, 2-INPUT NAND GATE, US8,	
1	2806-001192	U513	OSCILLATOR-VCO 902.5/1747.5MHZ, -, -, TP, 2.7 V,	
1	1106-001301	U514	IC-SRAM 1337, 262Kx16Bit, CSP, 72P, -, 85nS, 3V, -,	
1	1103-001147	U515	IC-EEPROM 24256, 256KBIT, SOP, 8P, 150MIL, -,	
1	0506-001052	U600	TR-ARRAY UMH9N, NPN, 2, 150 mW, SC-88, TP, 68-	
1	1201-001800	U602	IC-AUDIO AMP LM4900, MSOP, 8P, 118MIL, SINGLE, -,	
1	0504-001071	U603	TR-DIGITAL UMD9N, NPN/PNP, 150 mW, 4.7, UMT6, TP	
1	1201-001753	U605	IC-OP AMP -, MSOP, TP, 8P, 118MIL, DUAL, -,	
1	0506-001052	U8021	TR-ARRAY UMH9N, NPN, 2, 150 mW, SC-88, TP, 68-	
1	0406-001104	U8022	DIODE-TVS ESDA6V1-5W6, 6.1/-/7.2 V, 100 W,	
1	3711-004916	U8024	CONNECTOR-HEADER -, 3P, -, 2.5MM, SMD-A, -,	
1	2203-005509	U8028	C-CERAMIC, CHIP 330 nF, +80-20 %, 10 V, Y5 V, TP,	
1	1203-002127	U8031	IC-BATTERY 1734, SOT-23, 6P, 150MIL, PLASTIC,	
1	1405-001087	V600	VARISTOR 5.6 V, 20 A, 1x0.5x0.55mm, TP	
1	1405-001087	V601	VARISTOR 5.6 V, 20 A, 1x0.5x0.55mm, TP	
1	1405-001087	V605	VARISTOR 5.6 V, 20 A, 1x0.5x0.55mm, TP	
1	1405-001087	V615	VARISTOR 5.6 V, 20 A, 1x0.5x0.55mm, TP	
1	1405-001087	V616	VARISTOR 5.6 V, 20 A, 1x0.5x0.55mm, TP	
1	1405-001087	V618	VARISTOR 5.6 V, 20 A, 1x0.5x0.55mm, TP	
1	1405-001087	V619	VARISTOR 5.6 V, 20 A, 1x0.5x0.55mm, TP	
1	1405-001087	V620	VARISTOR 5.6 V, 20 A, 1x0.5x0.55mm, TP	
1	0404-001044	ZD400	DIODE-SCHOTTKY UPS5817, 20 V, 1 A, SMD, TP	
1	0404-000108	ZD401	DIODE-SCHOTTKY RB705D, 20 V, 30 mA, SOT-23, TP	
1	0404-000108	ZD402	DIODE-SCHOTTKY RB705D, 20 V, 30 mA, SOT-23, TP	
1	0406-001104	ZD602	DIODE-TVS ESDA6V1-5W6, 6.1/-/7.2 V, 100 W,	
1	0406-001104	ZD604	DIODE-TVS ESDA6V1-5W6, 6.1/-/7.2 V, 100 W,	
1	0406-001104	ZD605	DIODE-TVS ESDA6V1-5W6, 6.1/-/7.2 V, 100 W,	
1	GH41-00184A		PCB-SGHA400 SGH-A400, FR-4, 6L, -, 0.8T,	

# 3. SGH-A400 Block Diagrams

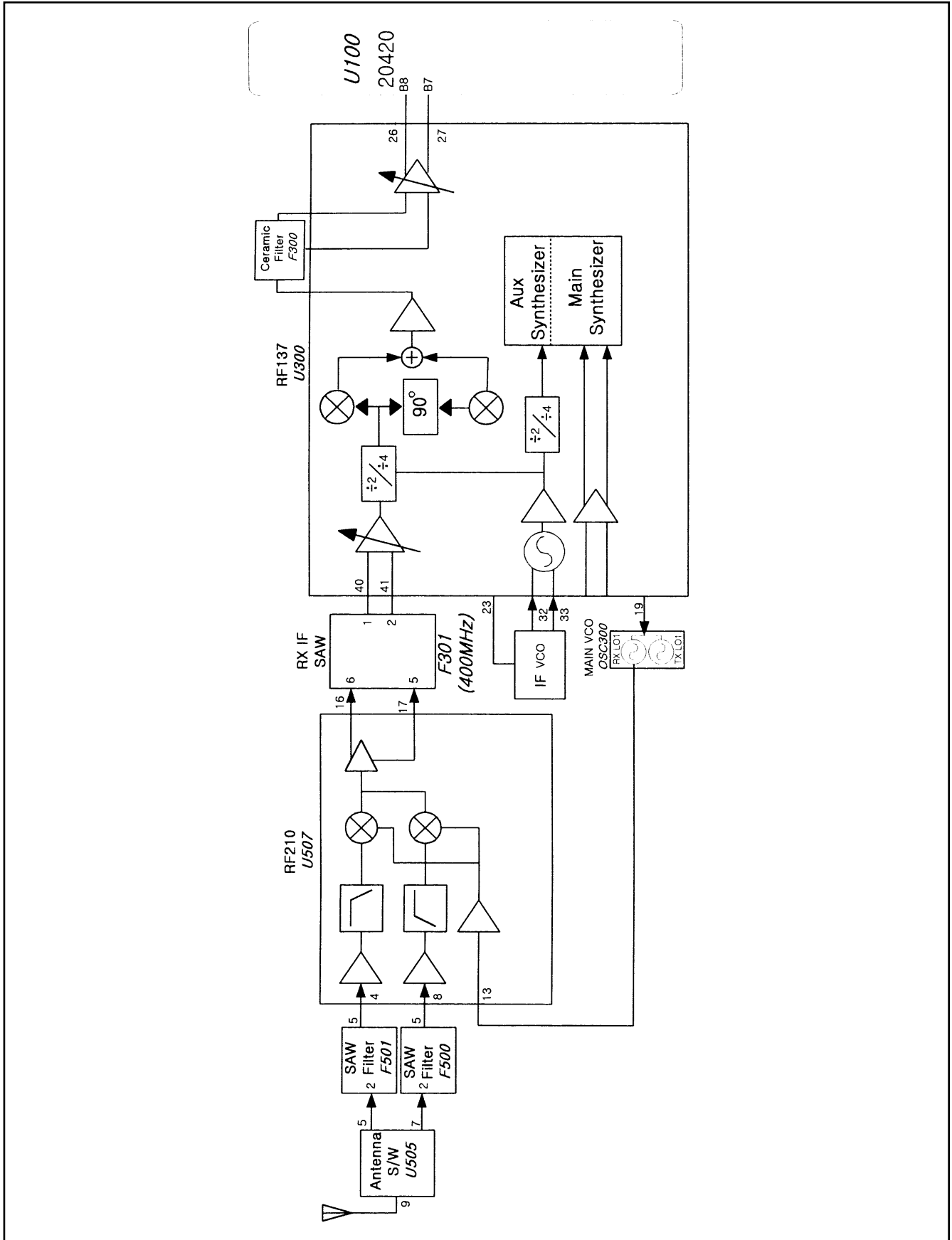
## 3-1 SGH-A400 Main Block Diagram



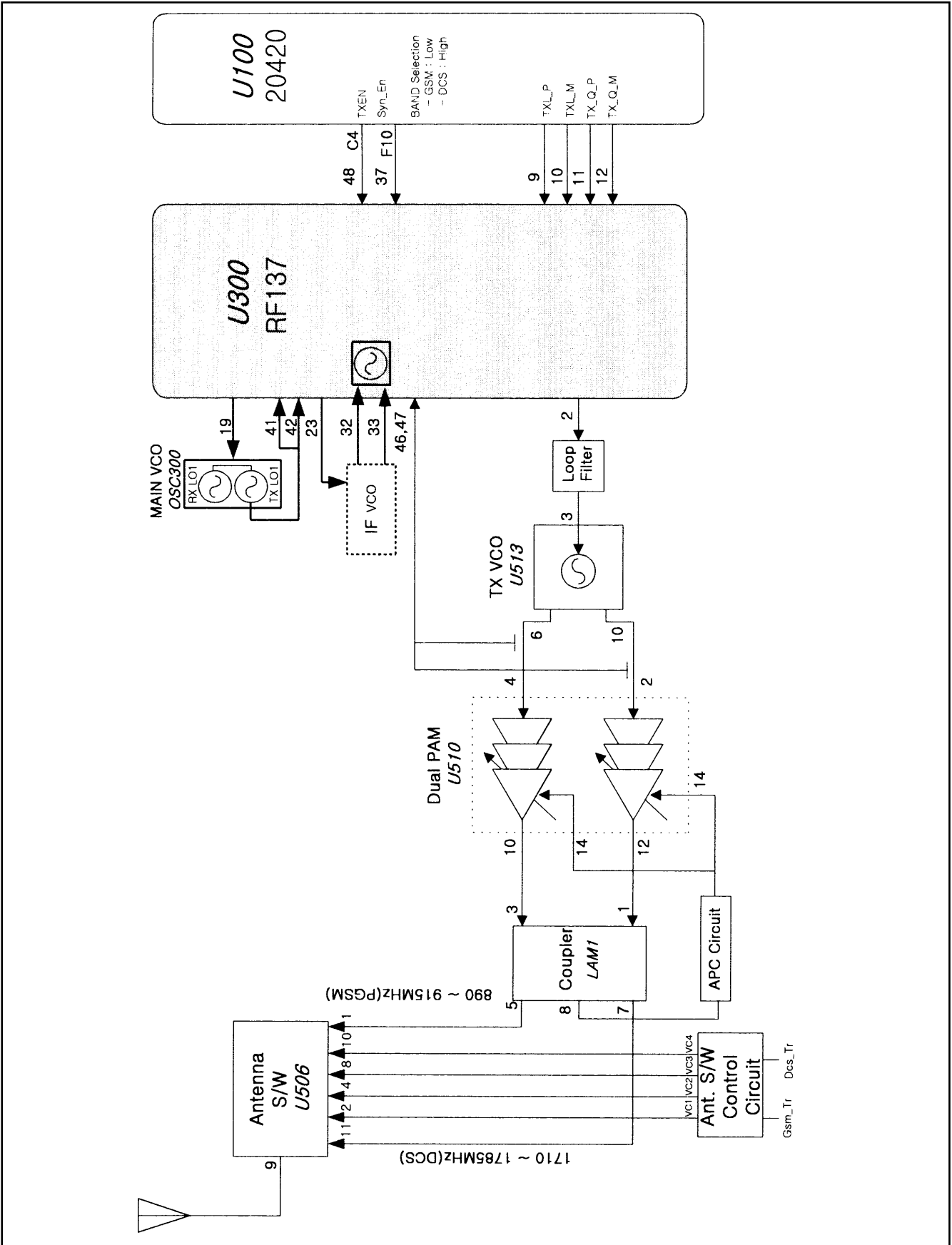
### 3-2 SGH-A400 Main RF Block Diagram



### 3-2-1 SGH-A400 RF Receive Part Block Diagram



### 3-2-2 SGH-A400 RF Transmit Part Block Diagram



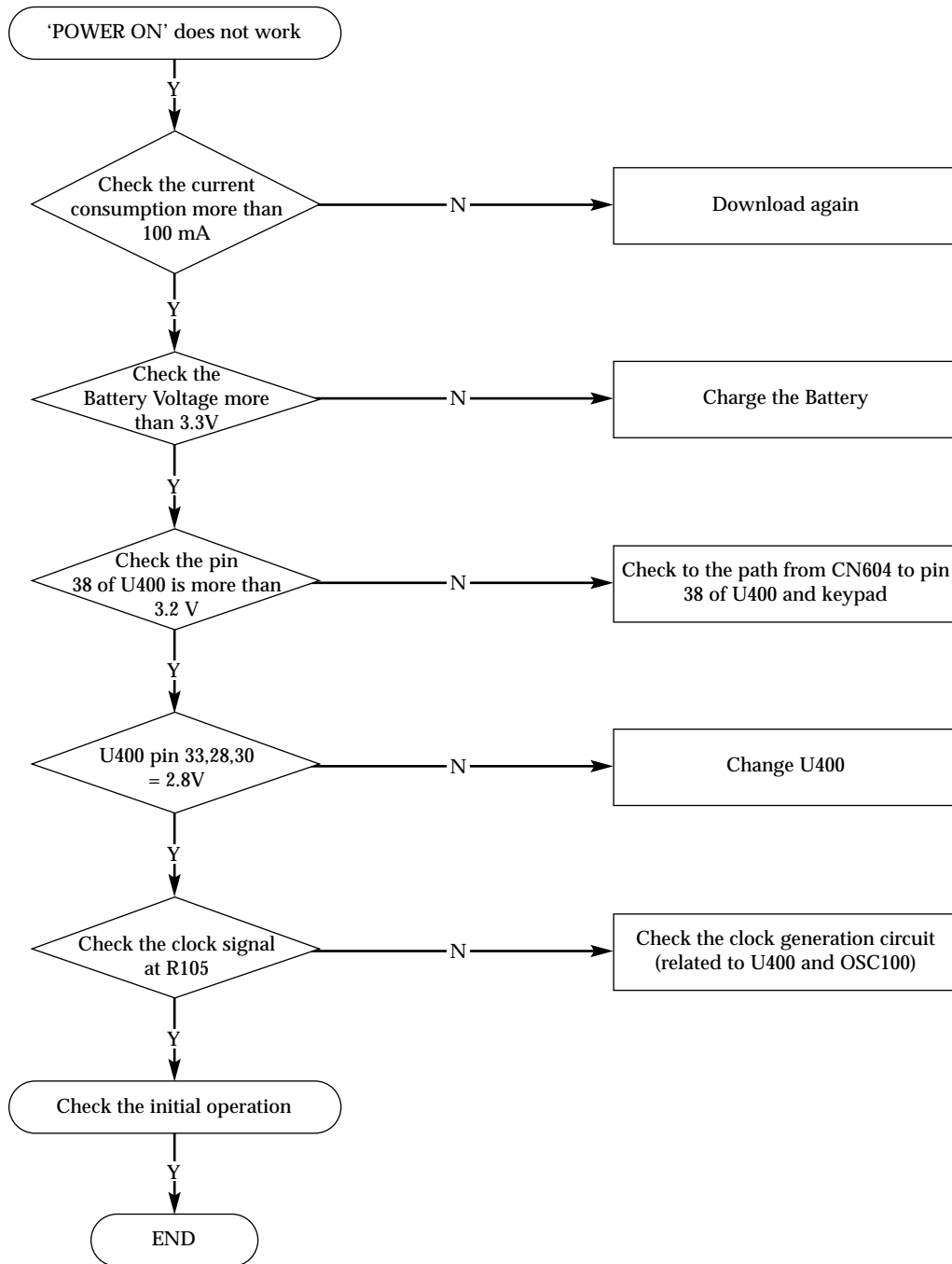




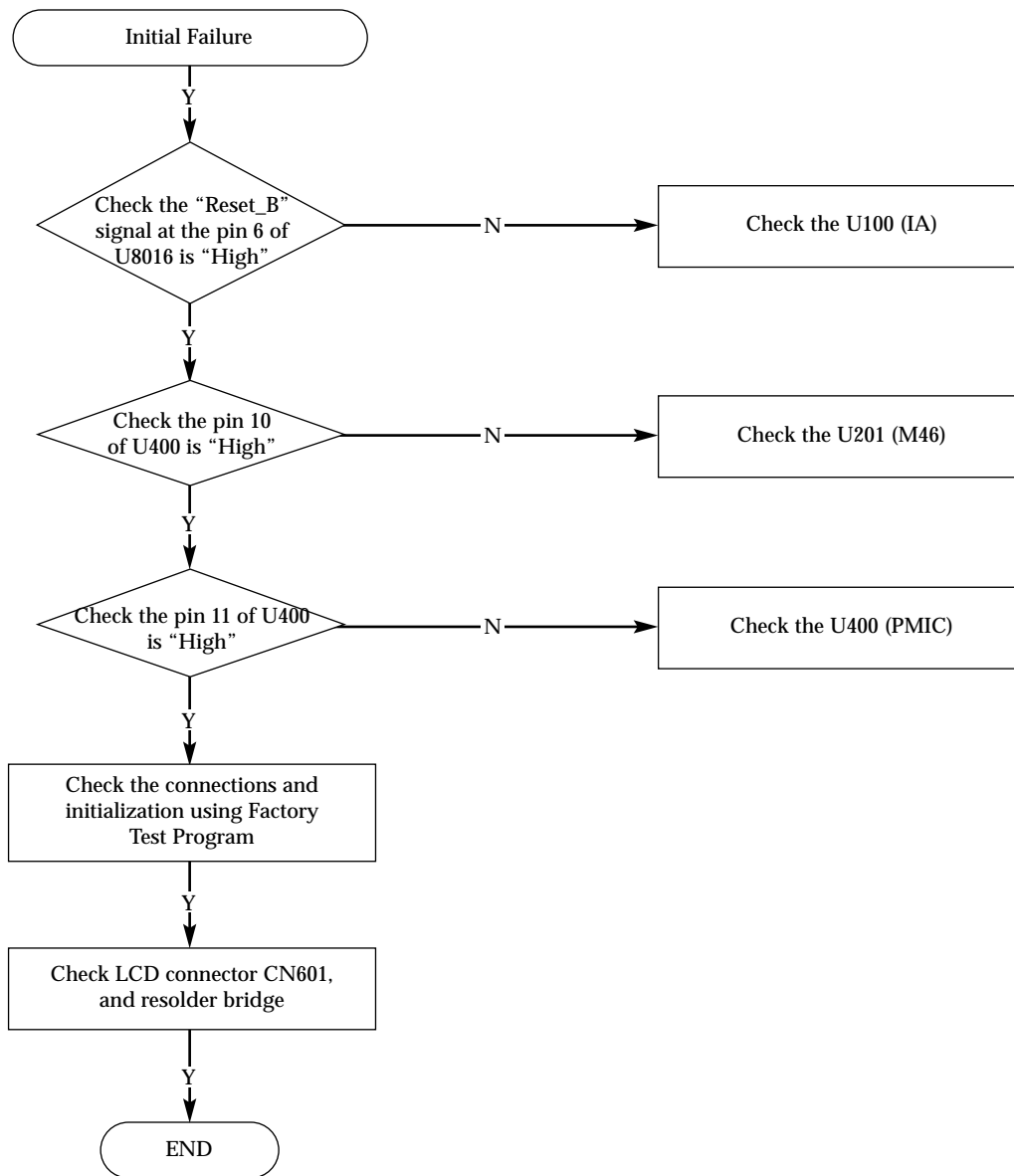


# 5. Flow Chart of Troubleshooting and Circuit Diagram

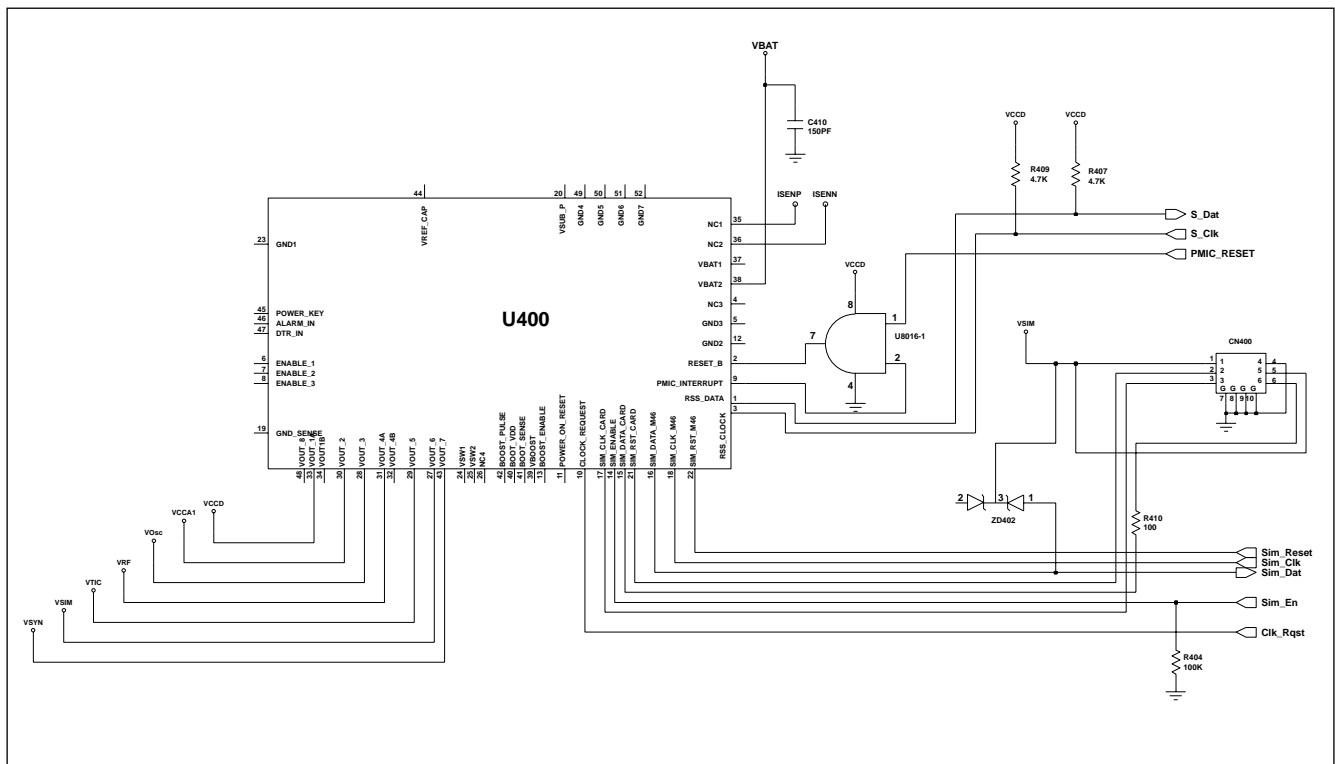
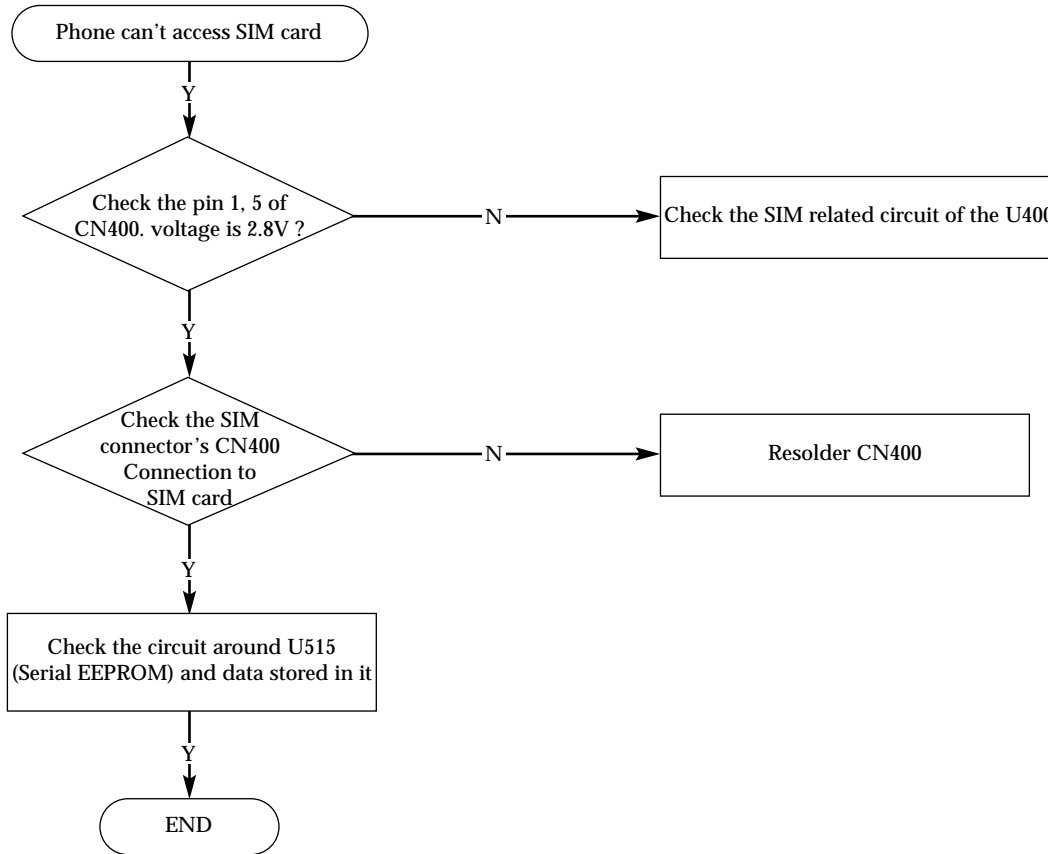
## 5-1 SGH-A400 Power ON



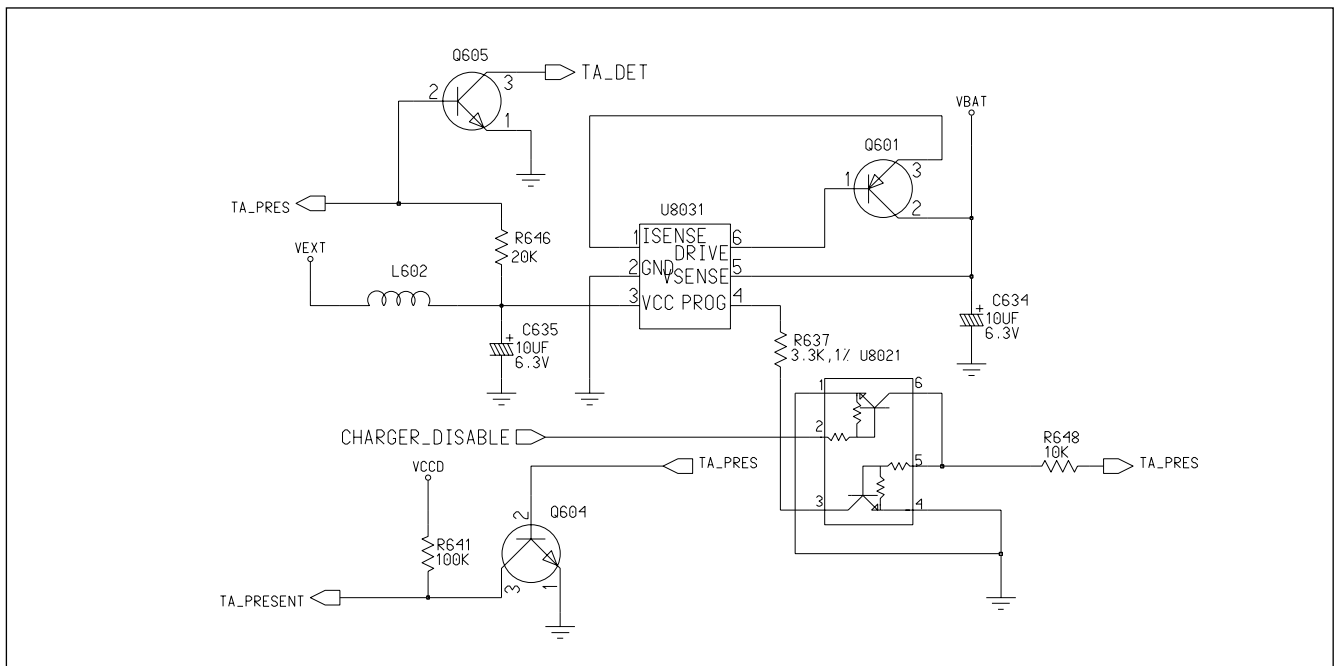
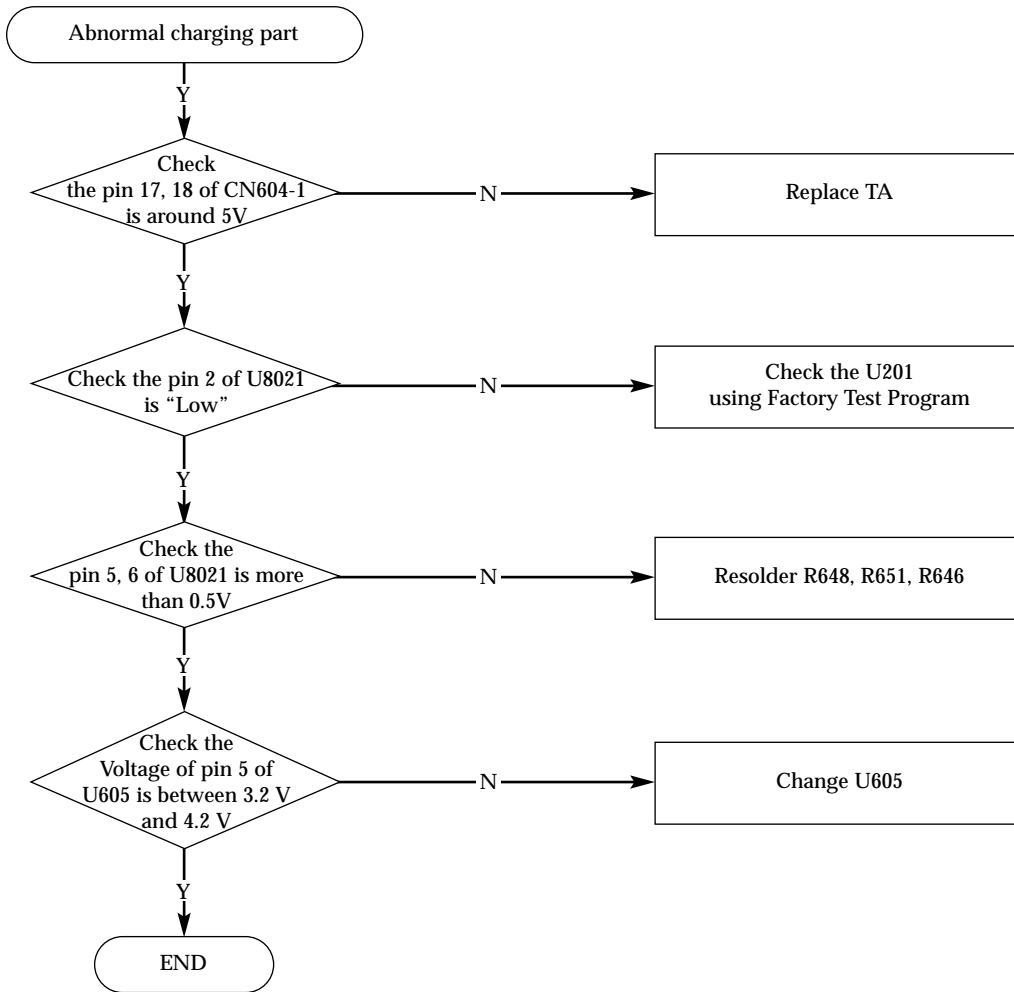
## 5-2 SGH-A400 Initial



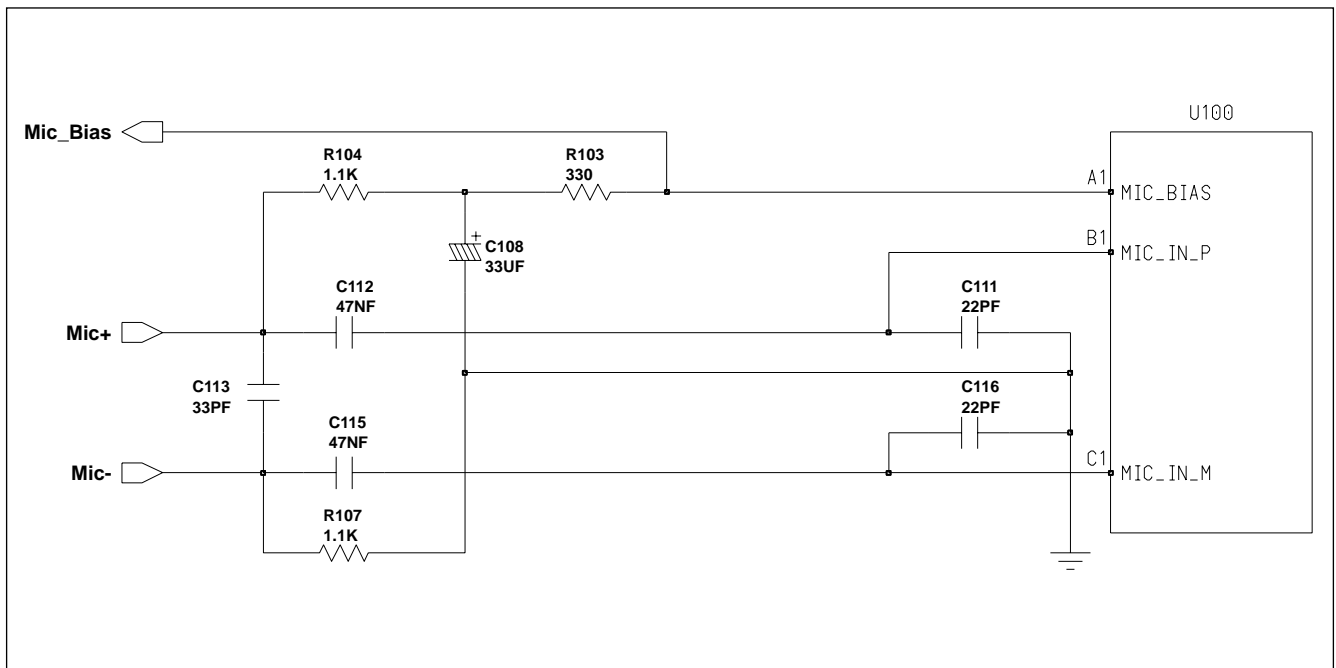
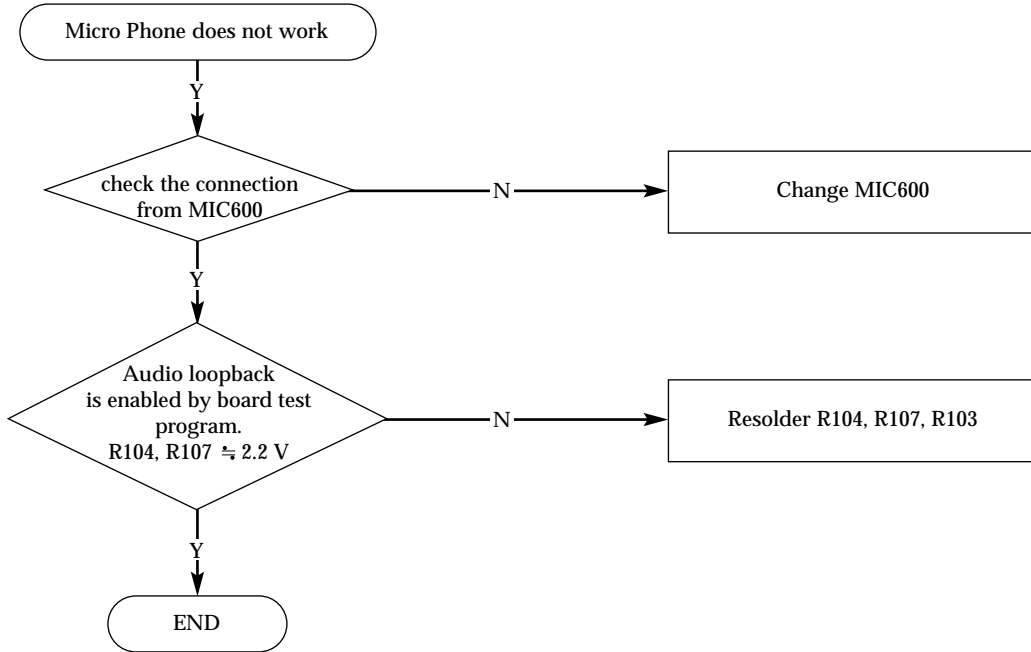
### 5-3 SGH-A400 Sim Part



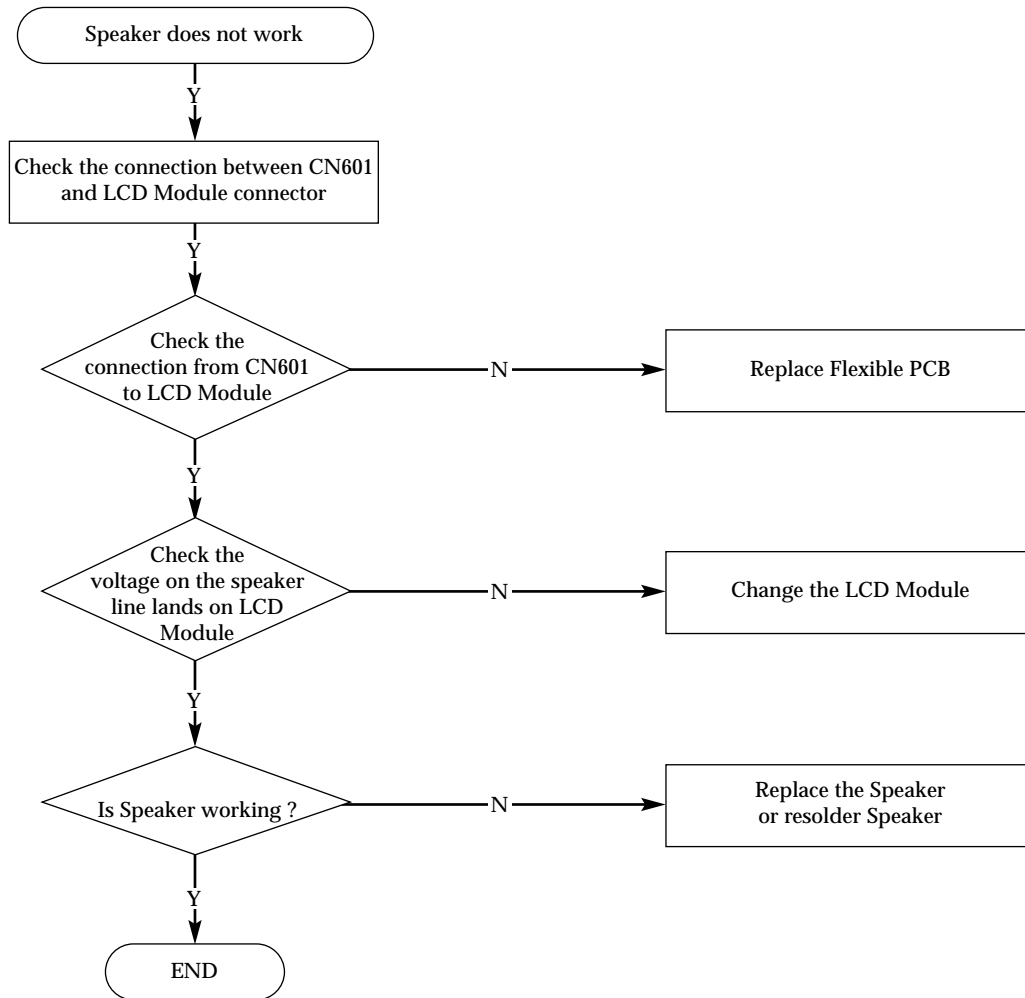
### 5-4 SGH-A400 Charging Part



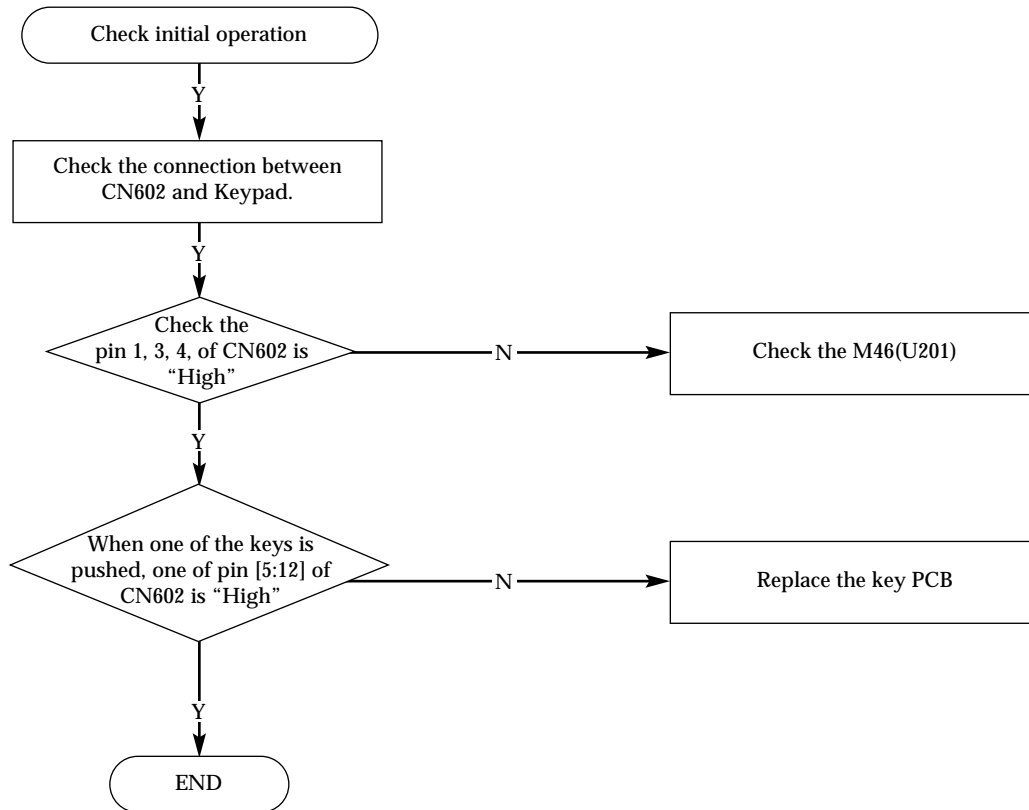
### 5-5 SGH-A400 Microphone Part



## 5-6 SGH-A400 Speaker Part

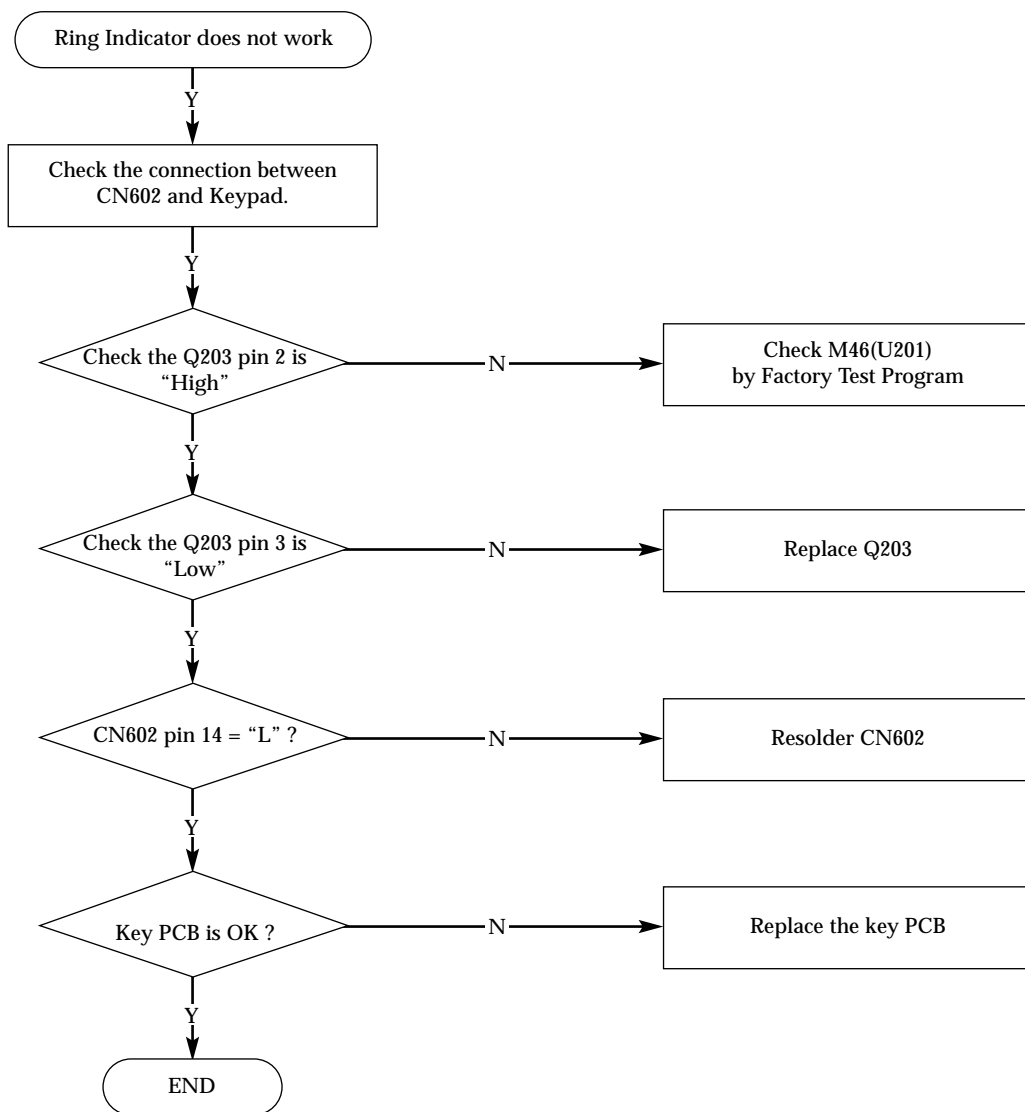


## 5-7 SGH-A400 Key Data Input

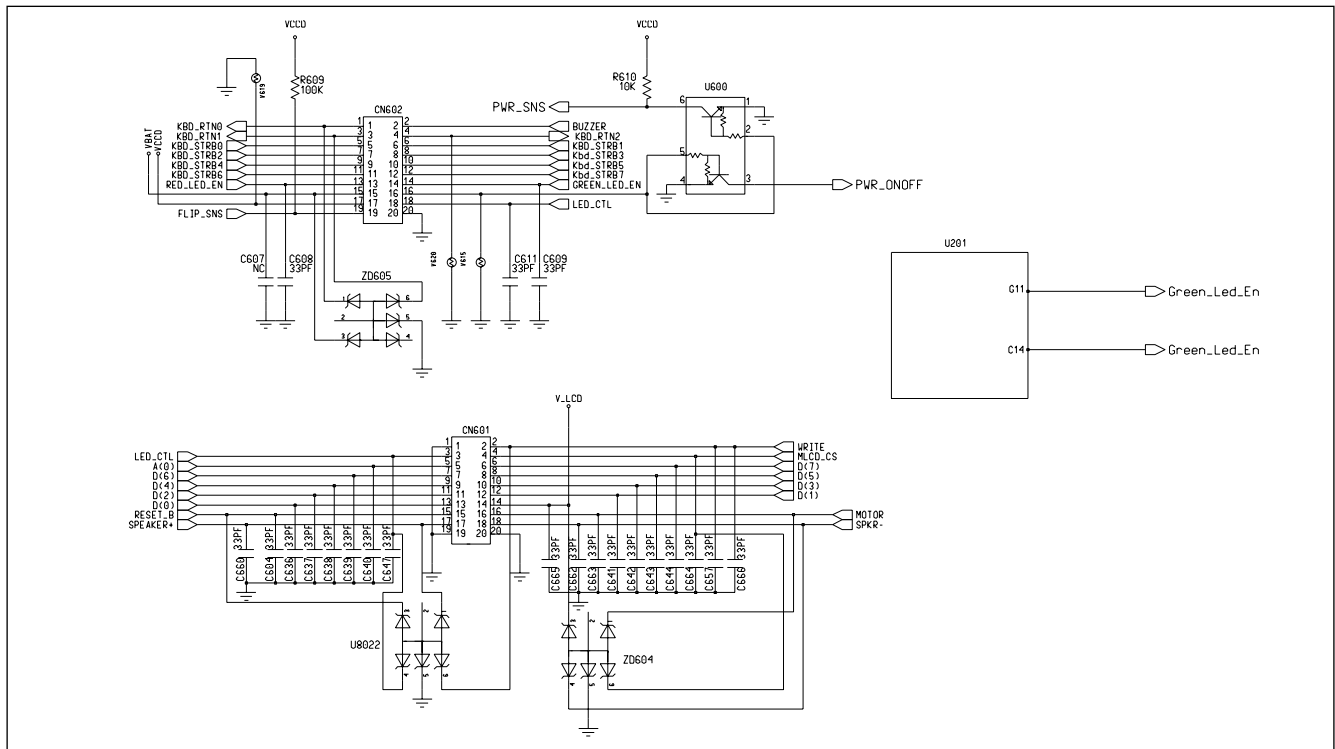
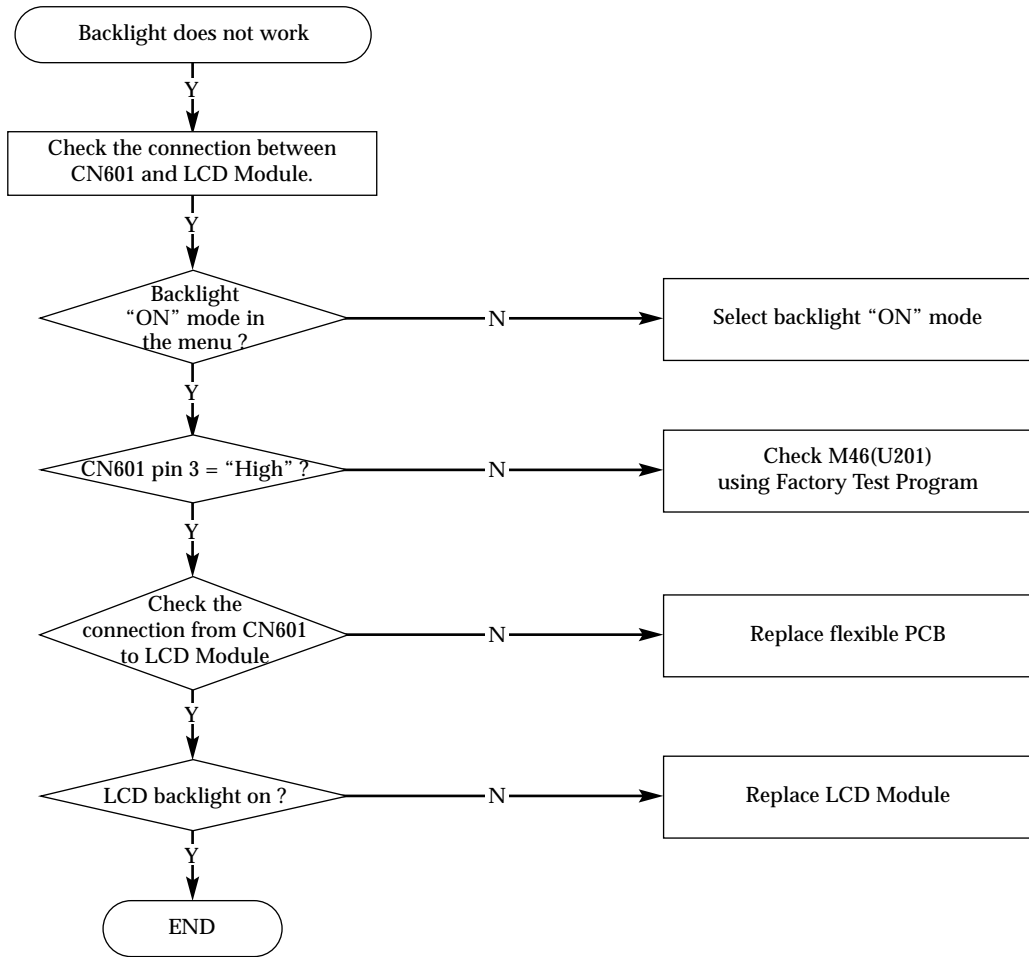




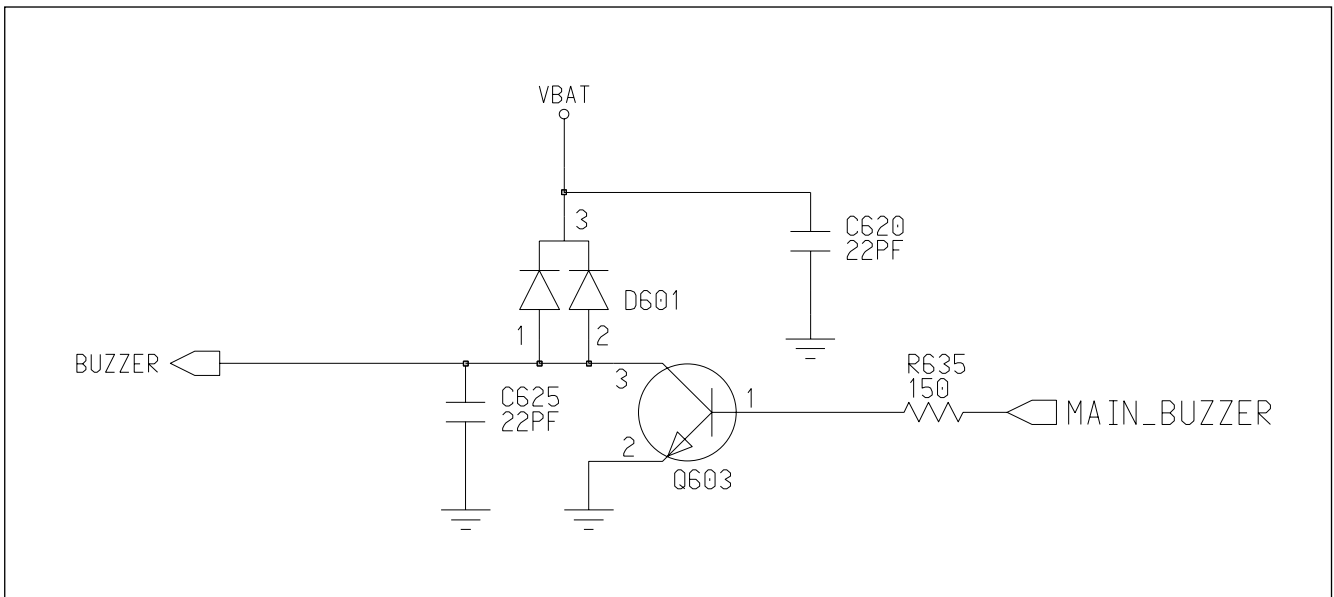
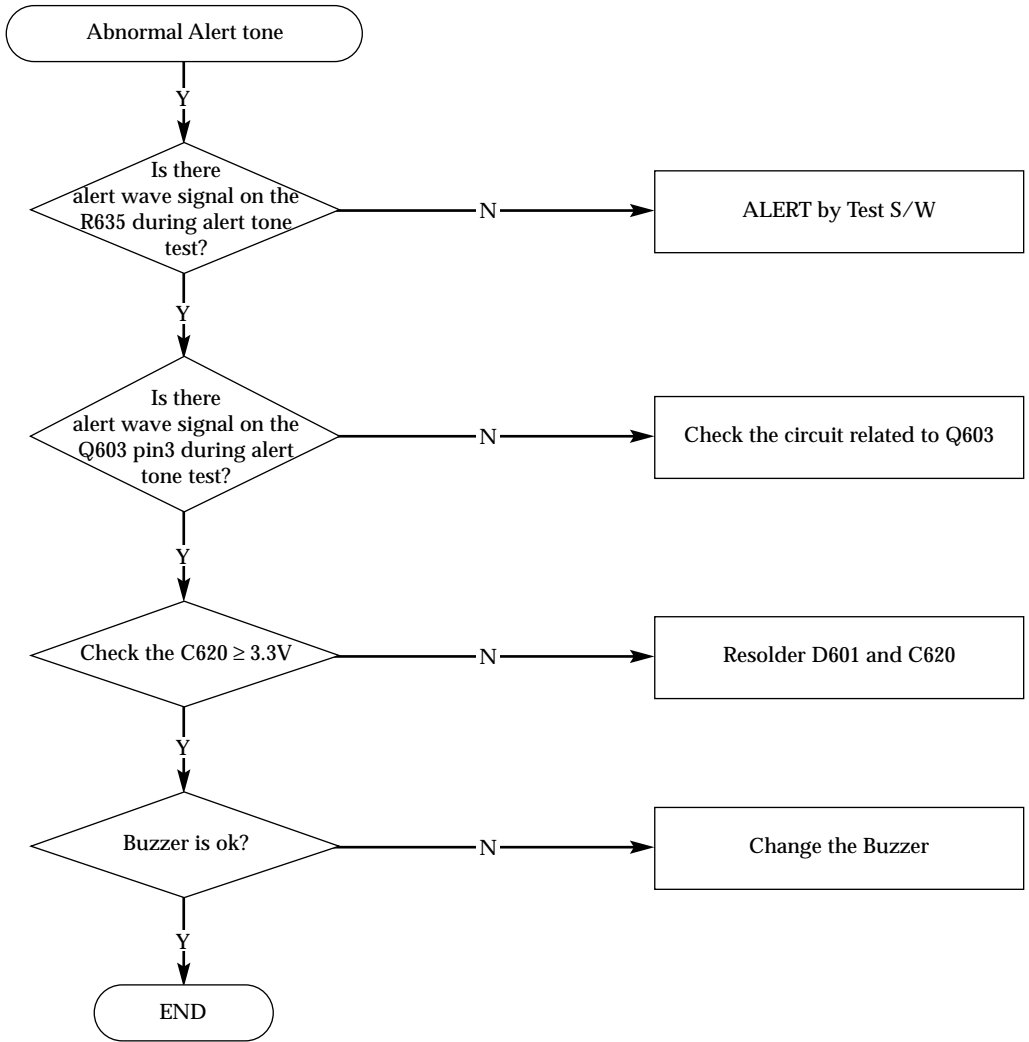
### 5-8 SGH-A400 Ring Indicator



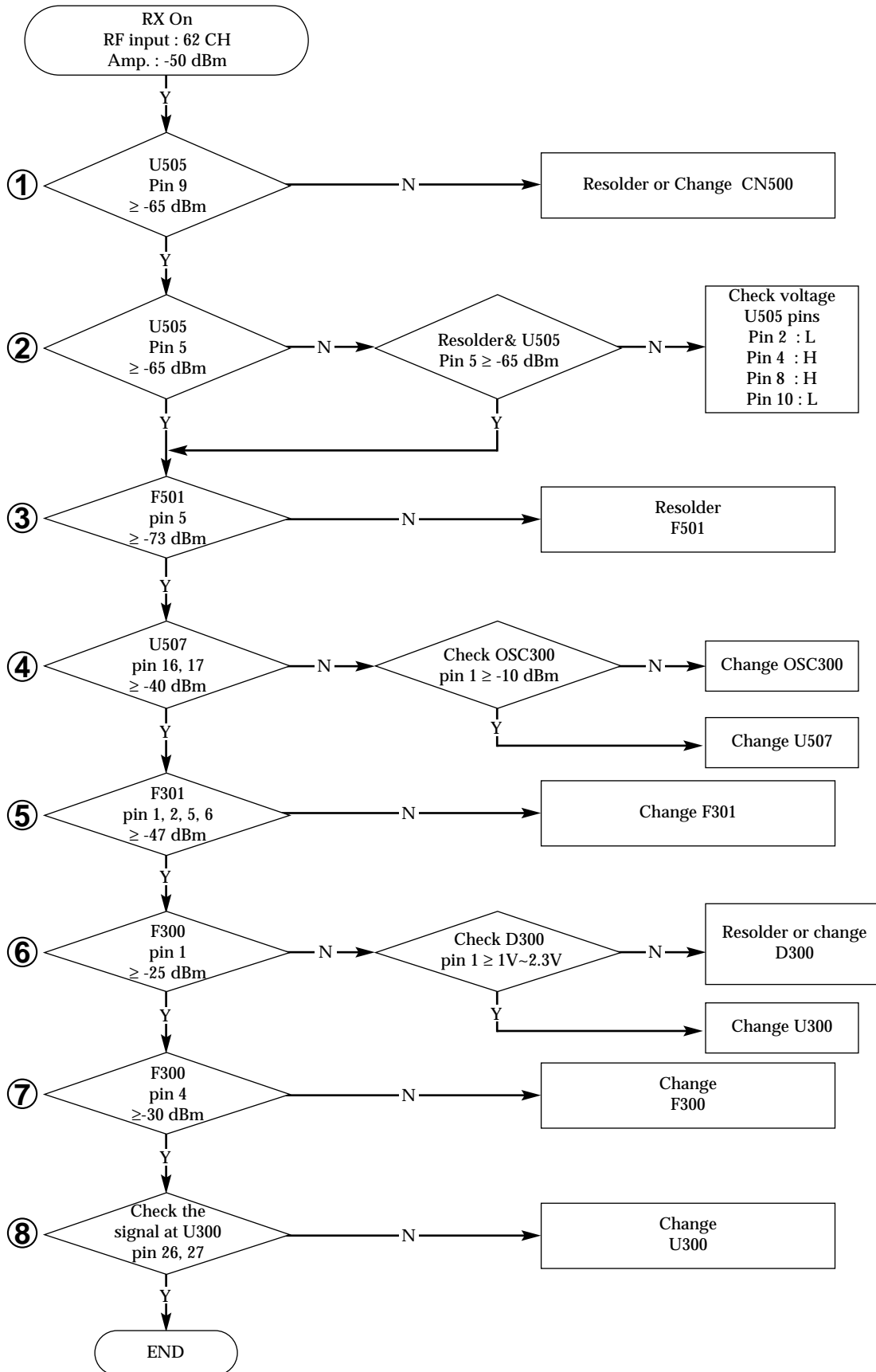
### 5-9 SGH-A400 Back Light



### 5-10 SGH-A400 Alert Tone



### 5-11 SGH-A400 GSM Receiver



### Test Condition of RF Bench Test

RF Bench Test

File Graph\_Control DSP\_control Synthesizer Misc\_Param

**Synth Channels**

Rx/Tx	Mon
Rx	5
Freq	Mx 936.0
LO	947.4 902.4 1336.0
	1347.4 1271.4
	Rx IF = 400 MHz
	Tx IF = 369 MHz

**XO Adjust**

Coarse Fine

0

**IQ DC Offset**

I Q

0

**IQ Balance**

0

**Burst Store data**

Ones 1010... 0011...  
 Arbitrary  Random  
 Insert Midamble  Invert  
 MidAmble Position 59

RequestWriteIIRsync 0x1c14  
 0x3333 0x3330 0x27F0 0x8D9E  
 0x1E48 0x6C24 0xB844 0xBED2  
 0xF7A8 0x888D 0x27R4 0x3333

**Ramp Profile**

Linear  Andrew  
 Raised Cosine  
 RampLo980  
 RampHi980  
 Use values in box

Profile Actual

0, 2	0, 2
-384, 20	-384, 20
-253, 10	-253, 10
-109, 7	-109, 7
0, 6	0, 6
12, 5	12, 5
0, 4	0, 4
-8, 2	-8, 2
-24, 2	-24, 2
-68, 2	-68, 2
-78, 2	-78, 2
-116, 2	-116, 2
-118, 2	-118, 2
-154, 2	-154, 2
-194, 2	-194, 2

**MEW enables**

Rx enable  
 Tx enable  
 Mon enable

**IFS Sequences**

Normal  
 Cont. Rx  
 Cont. Tx

**RxAGC Setting**

Rx0	Rx1	Rx2	Max	Mid High
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IA Gain 0 dB	IA Gain 0 dB
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IA Gain +6 dB	IA Gain +6 dB
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IA Gain +12 dB	IA Gain +12 dB
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IA Gain +18 dB	IA Gain +18 dB
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	IA Gain +24 dB	IA Gain +24 dB

**MonAGC Setting**

Rx0  
 Rx1  
 Rx2

IA Gain 0 dB  
 IA Gain +6 dB  
 IA Gain +12 dB  
 IA Gain +18 dB  
 IA Gain +24 dB

**Graph Options**

Freeze Graph  
 Auto Update  
 TestMode

Max Value -30  
 Min Value -130

**Cheaters Haven**

Radio type

900 Only  
 900/1800  
 900/1900  
 All Three

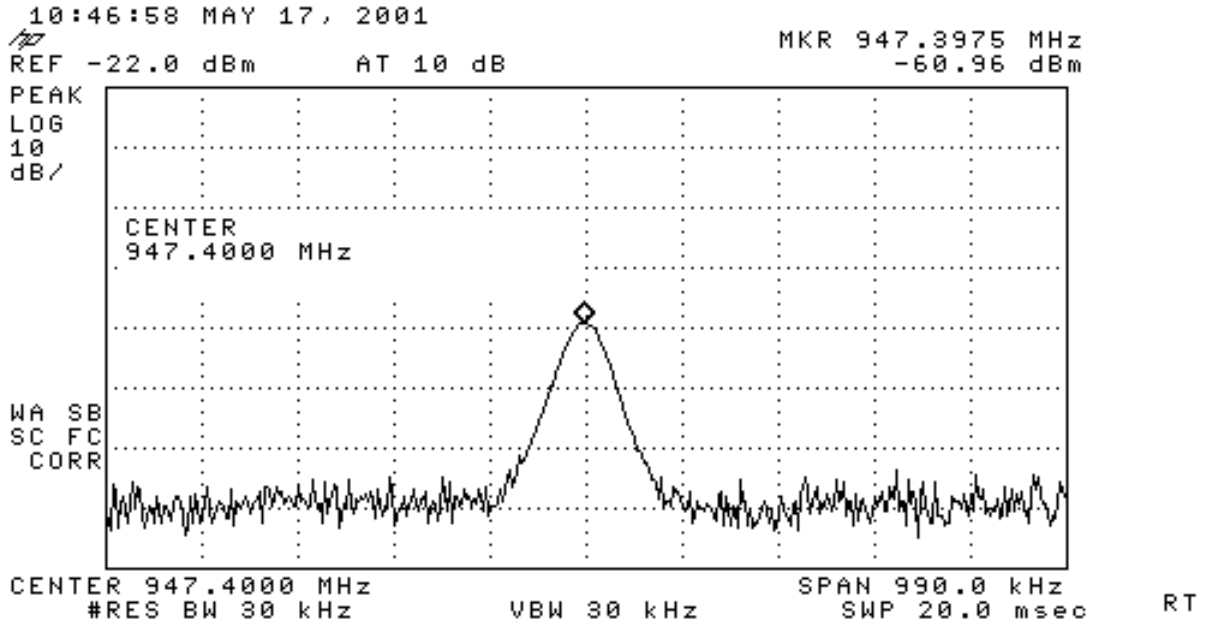
2300

**Tx Powerlevel**

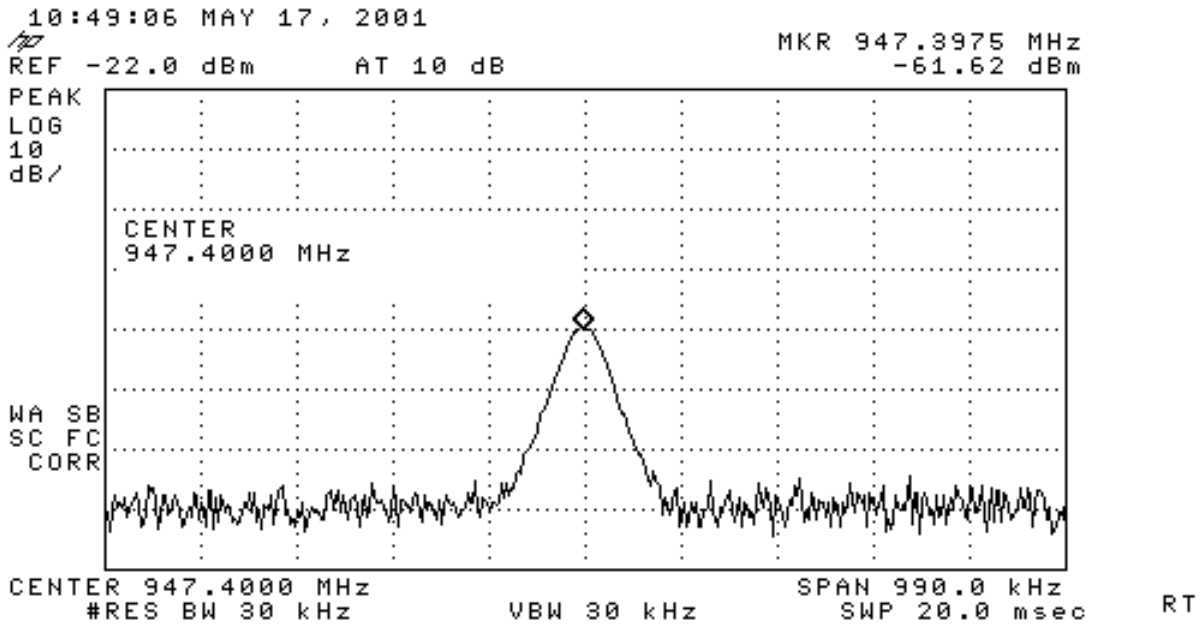
0 -20 dB  
 bf80 Ricke

Version 1999.02.24  
 (Dual Band Tolerant)  
 Former Rockwell Internal Use Only

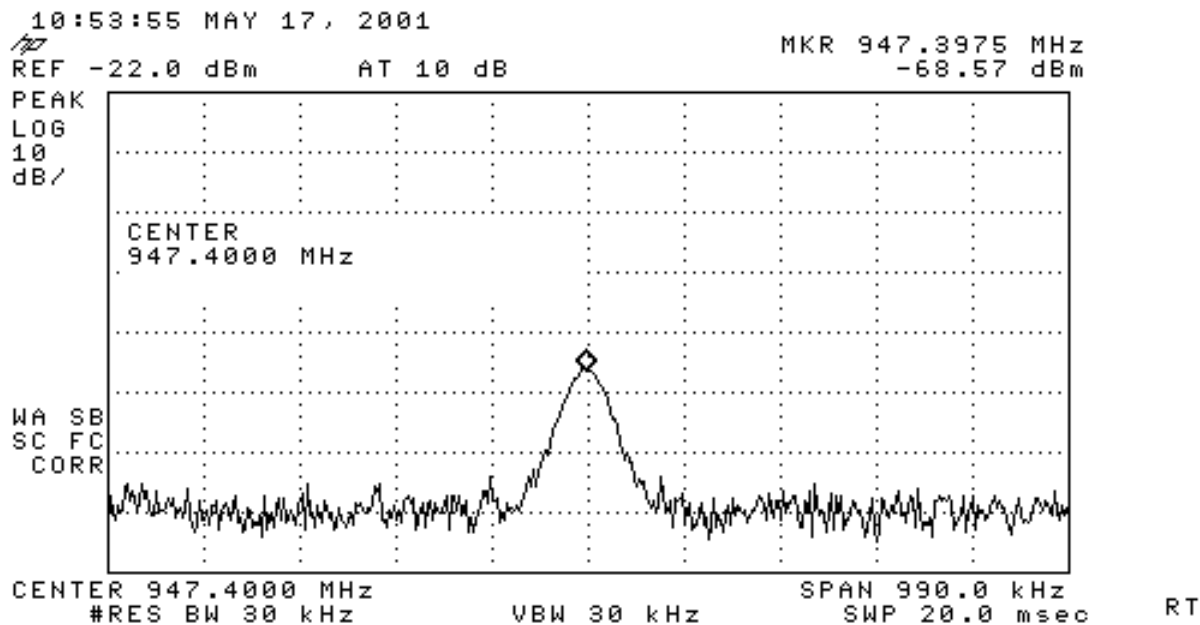
① RX\_62\_U505 PIN9



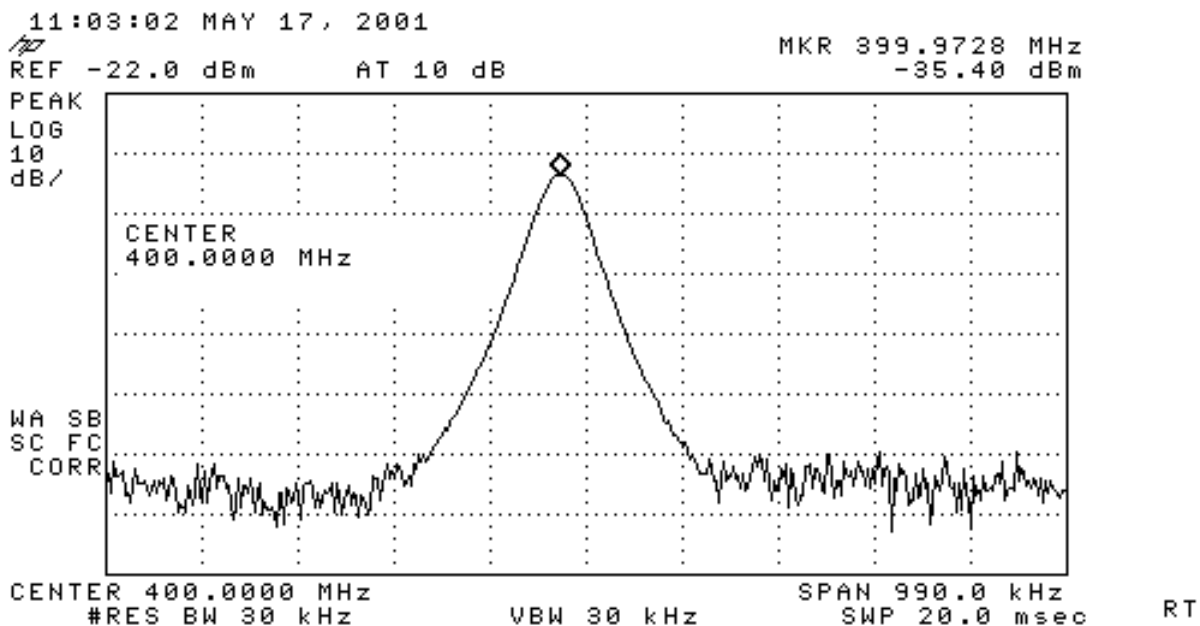
② RX\_62\_U505 PIN5



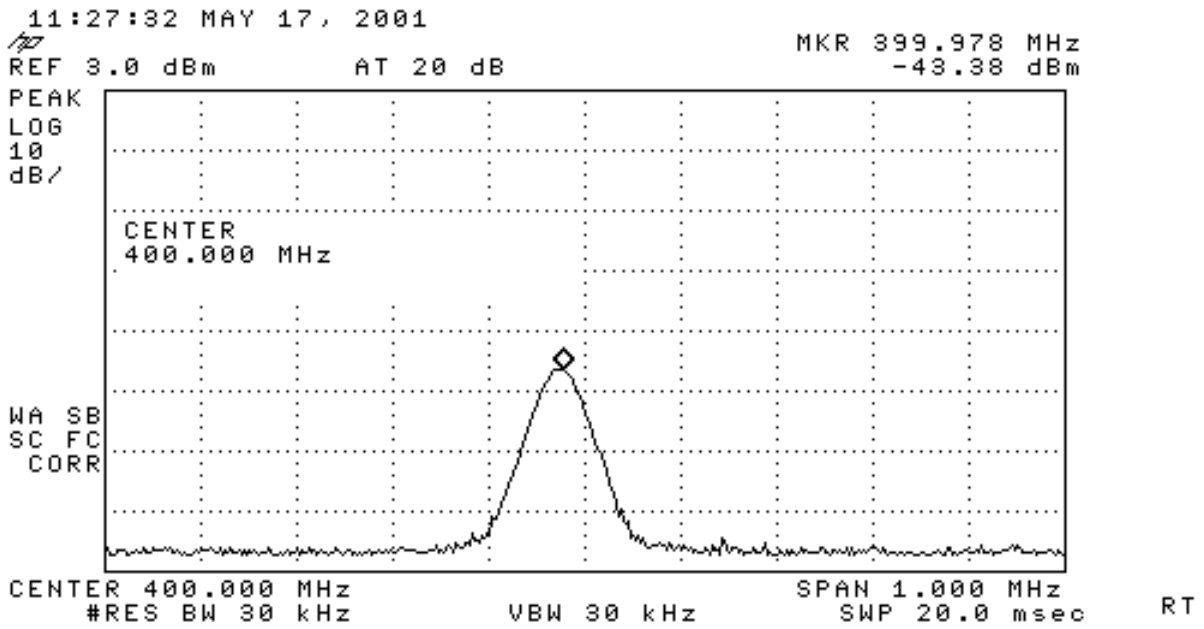
### ③ RX\_62\_F501 PIN5



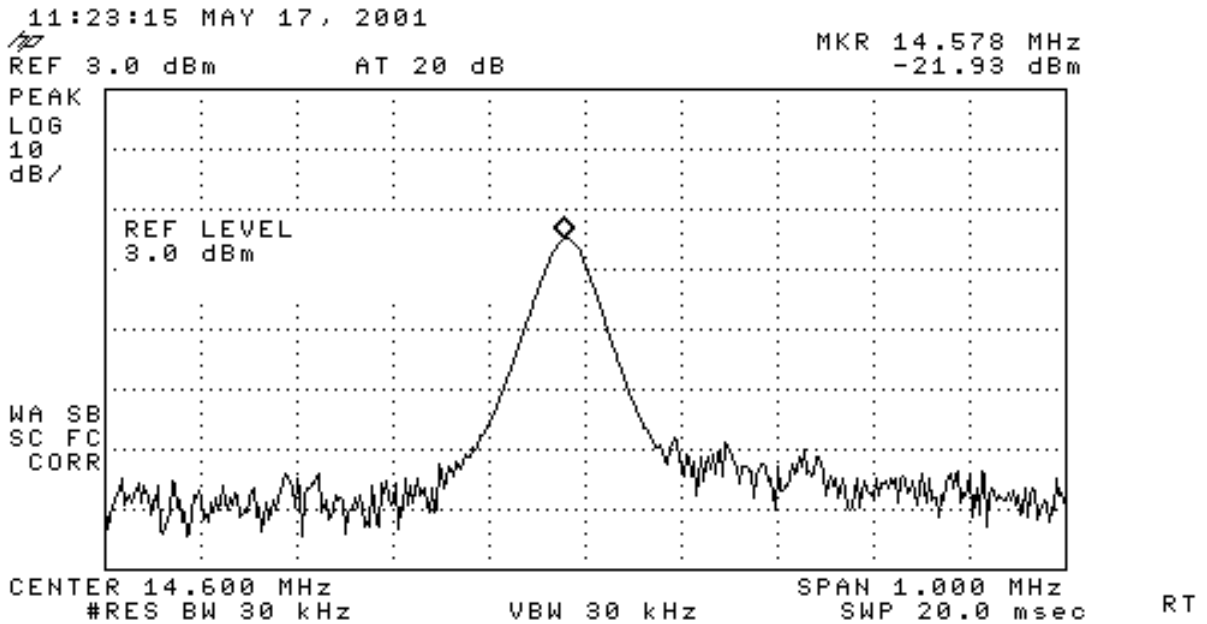
### ④ RX\_62\_U507 PIN16



⑤ RX\_62\_F301 PIN1

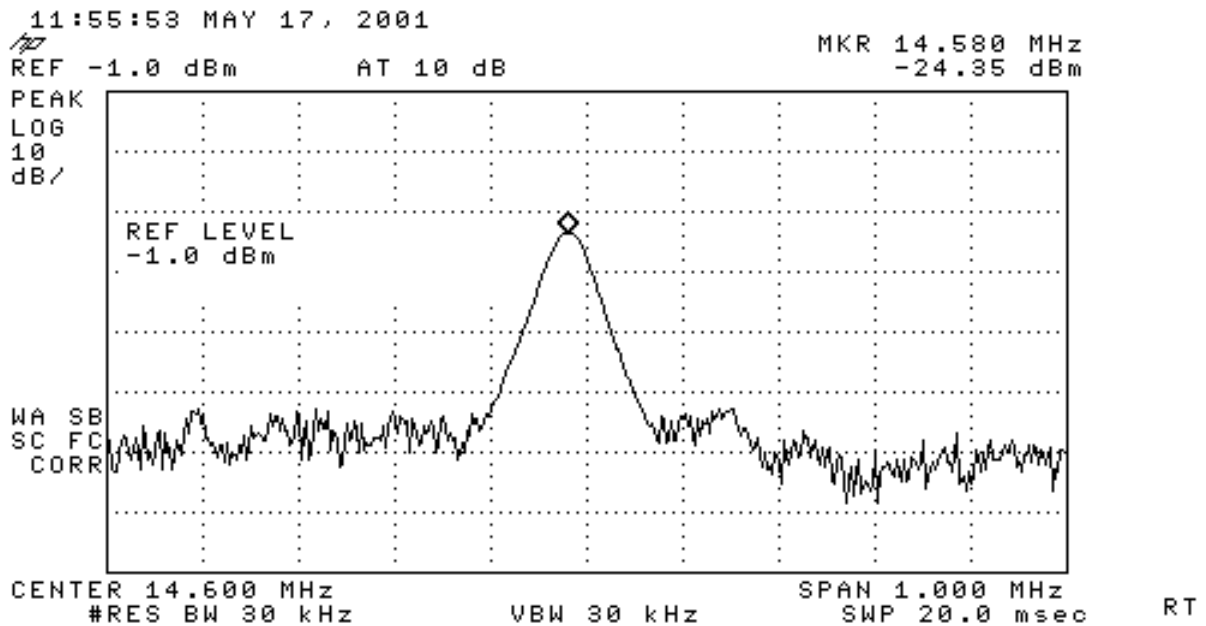


⑥ RX\_62\_F300 PIN1

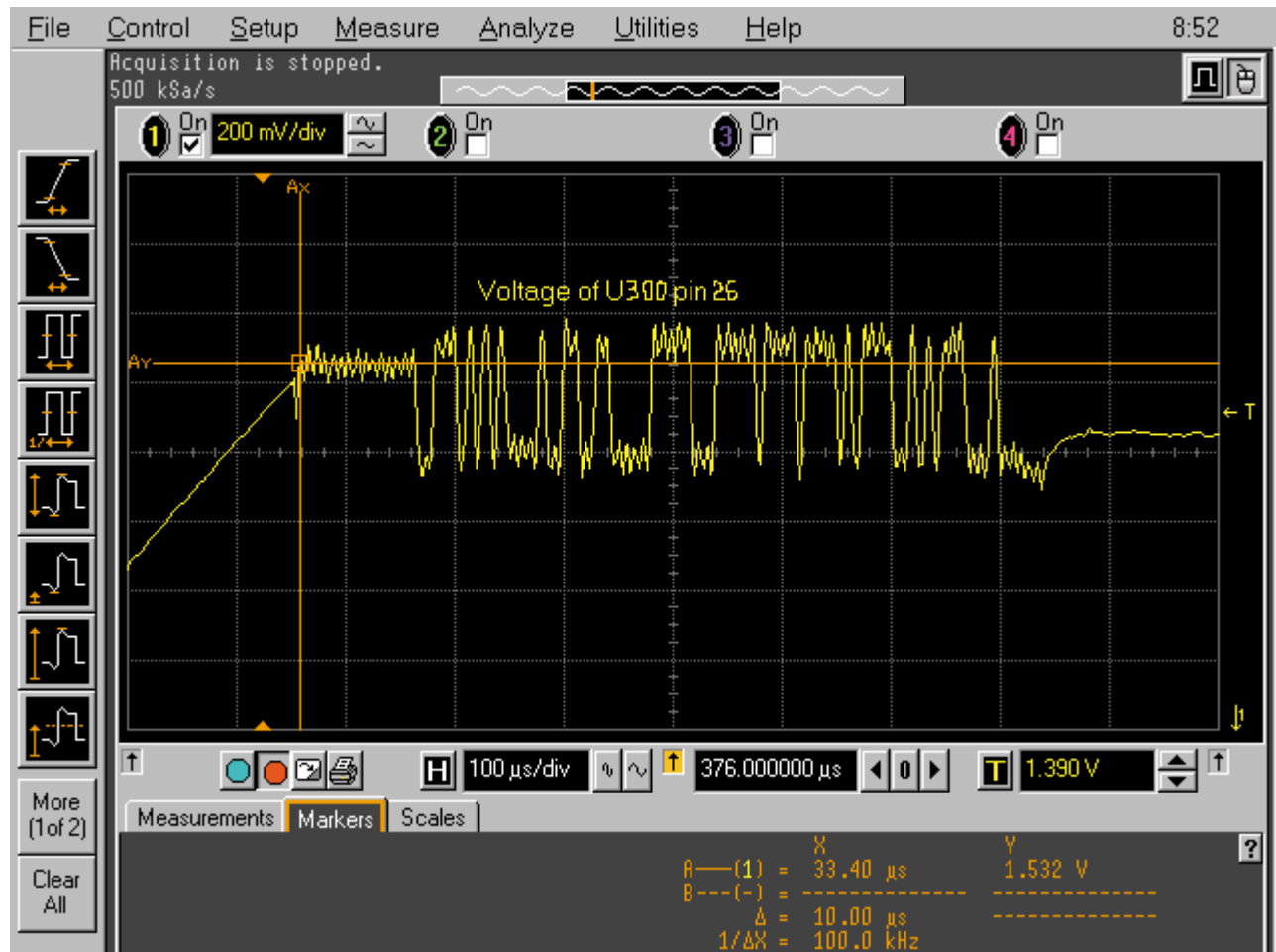




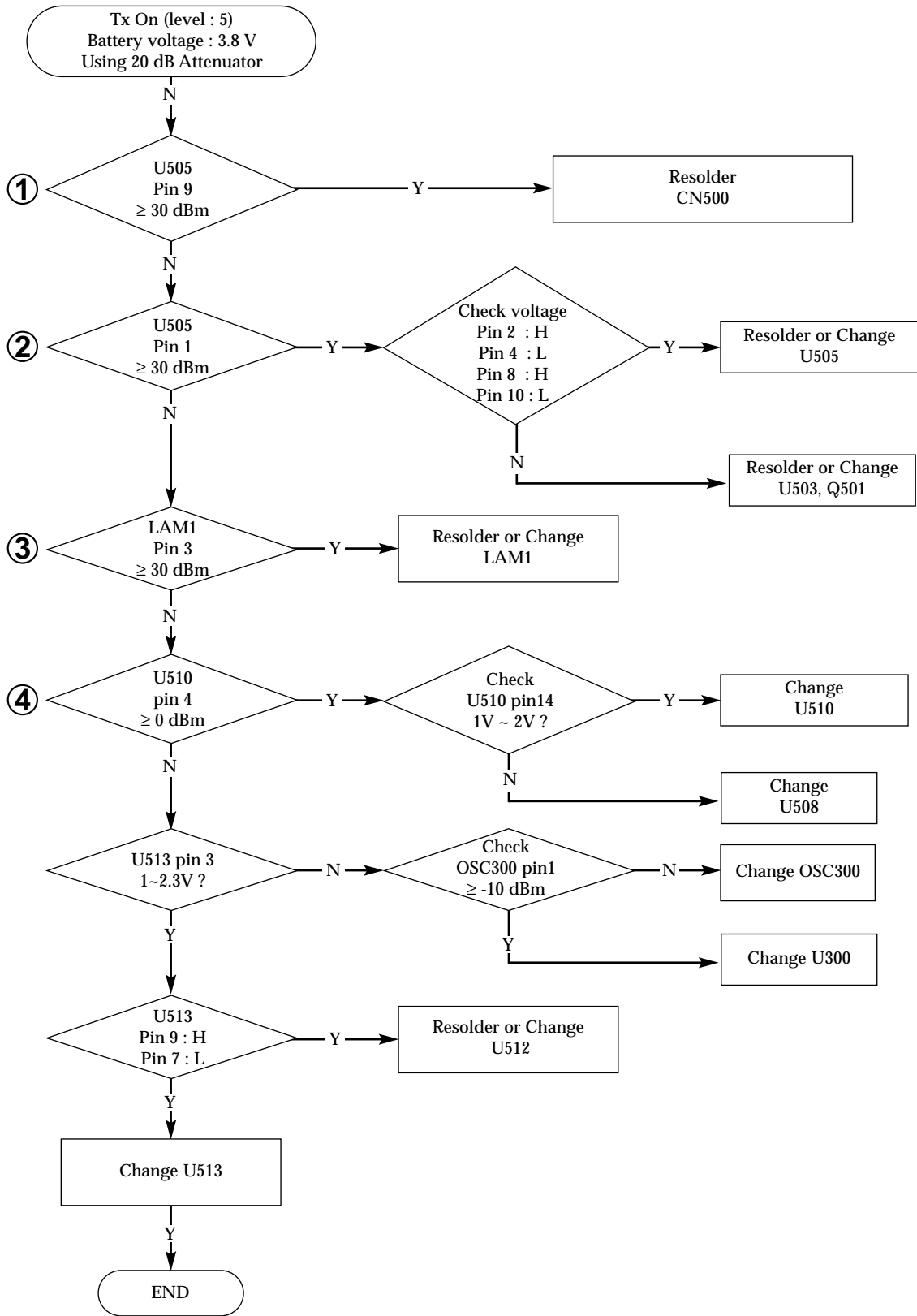
⑦ RX\_62\_F300 PIN4



⑧ U300\_PIN26



### 5-12 SGH-A400 GSM Transmit



## Test Condition of RF Bench Test

**RF Bench Test**  
 File Graph\_Control DSP\_control Synthesizer Misc\_Param

**Synth Channels**

Rx/Tx: [62] Mon: [5]

Rx: 947.4 902.4 936.0 Mx

LO: 1347.4 1271.4 1336.0

Rx IF = 400 MHz

Tx IF = 369 MHz

**MEW enables**

Rx enable

Tx enable

Mon enable

**IFS Sequences**

Normal

Cont. Rx

Cont. Tx

**XO Adjust**

Coarse: [0] Fine: [0]

**-IQ DC Offset**

I: [0] Q: [0]

**-IQ Balance**

[0]

**Burst Store data**

Ones  1010...  0011...

Arbitrary  Random

Insert Midamble  Invert

MidAmble Position: [59]

RequestWriteIMAsync: 0x1c14

0x3333 0x3330 0x1740 0x9BC5

0xE31D 0x80E4 0xB844 0xBCFE

0xECA8 0x1DAD 0x15CA 0x3333

**Ramp Profile**

Linear  Andrew

Raised Cosine

RampLo980

RampHi980

Use values in box

GUI ramp...

**Profile**

-100, 2

-484, 20

-353, 10

-209, 7

-100, 6

-88, 5

-100, 4

-108, 2

-124, 2

-168, 2

-178, 2

-216, 2

-218, 2

-254, 2

-294, 2

**Actual**

-100, 2

-484, 20

-353, 10

-209, 7

-100, 6

-88, 5

-100, 4

-108, 2

-124, 2

-168, 2

-178, 2

-216, 2

-218, 2

-254, 2

-294, 2

**Graph Options**

Freeze Graph

Auto Update

TestMode

Max Value: [-30]

Min Value: [-130]

**Cheaters Haven**

Radio type:  900 Only  900/1900

900/1800  All Three

[2300]

**Tx Powerlevel**

-100 DAC

-46 dB

a680 Ricke

**RxAGC Setting**

Rx0

Rx1

Rx2

IA Gain 0 dB

IA Gain +6 dB

IA Gain +12 dB

IA Gain +18 dB

IA Gain +24 dB

**MonAGC Setting**

Rx0

Rx1

Rx2

IA Gain 0 dB

IA Gain +6 dB

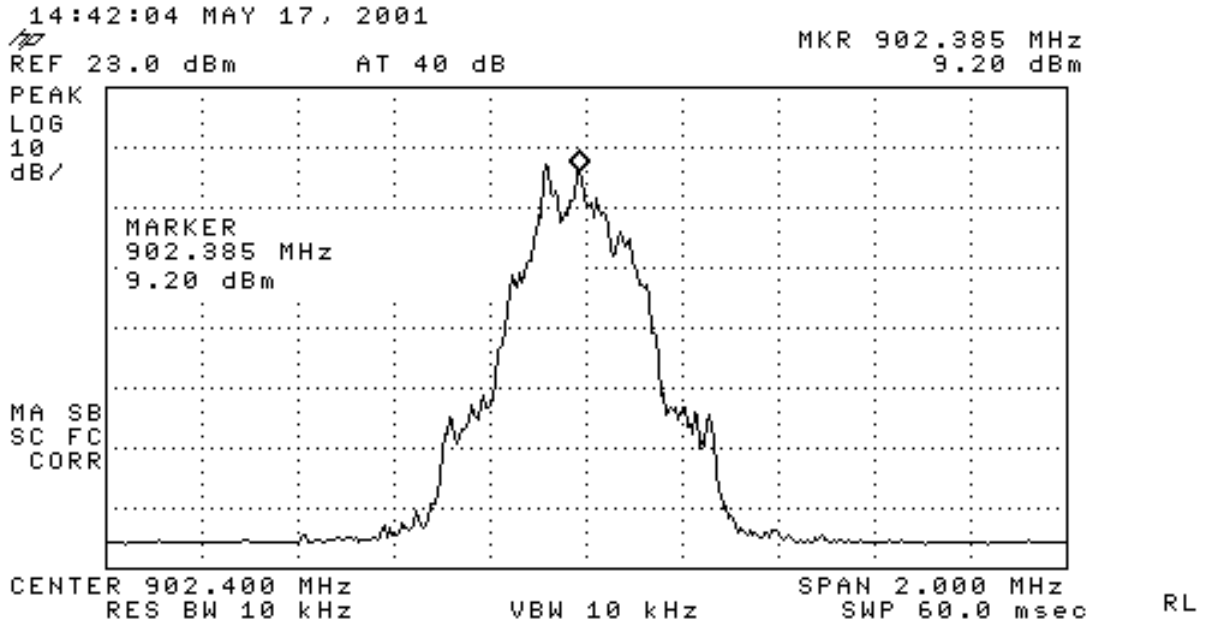
IA Gain +12 dB

IA Gain +18 dB

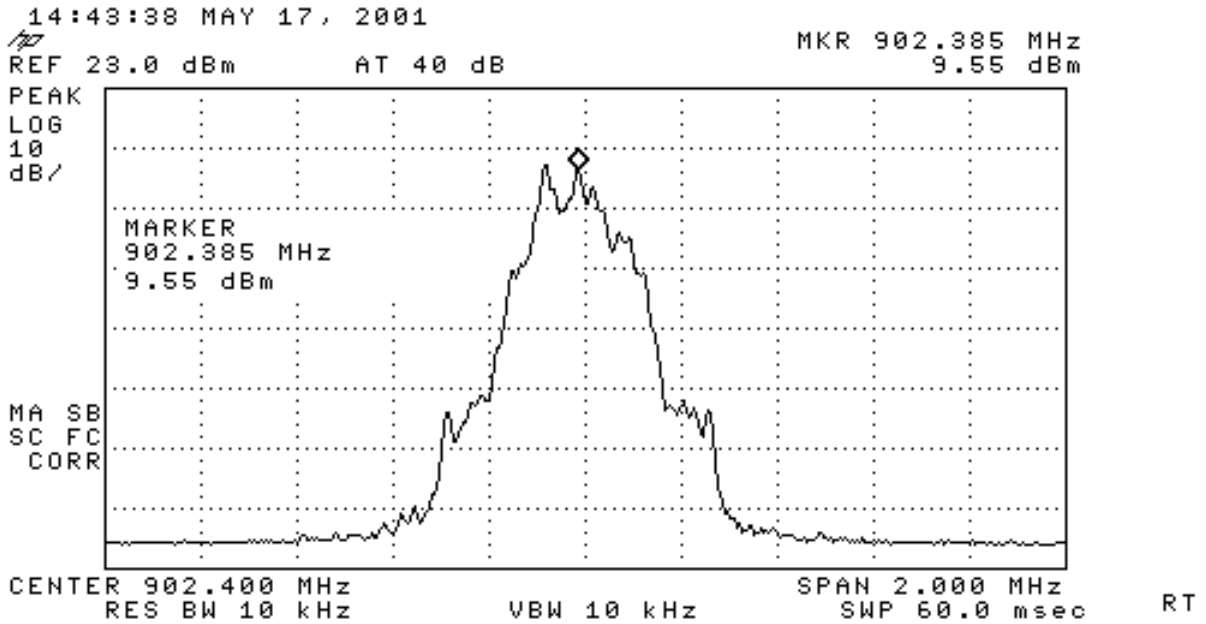
IA Gain +24 dB

Version 1999.02.24  
 (Dual Band Tolerant)  
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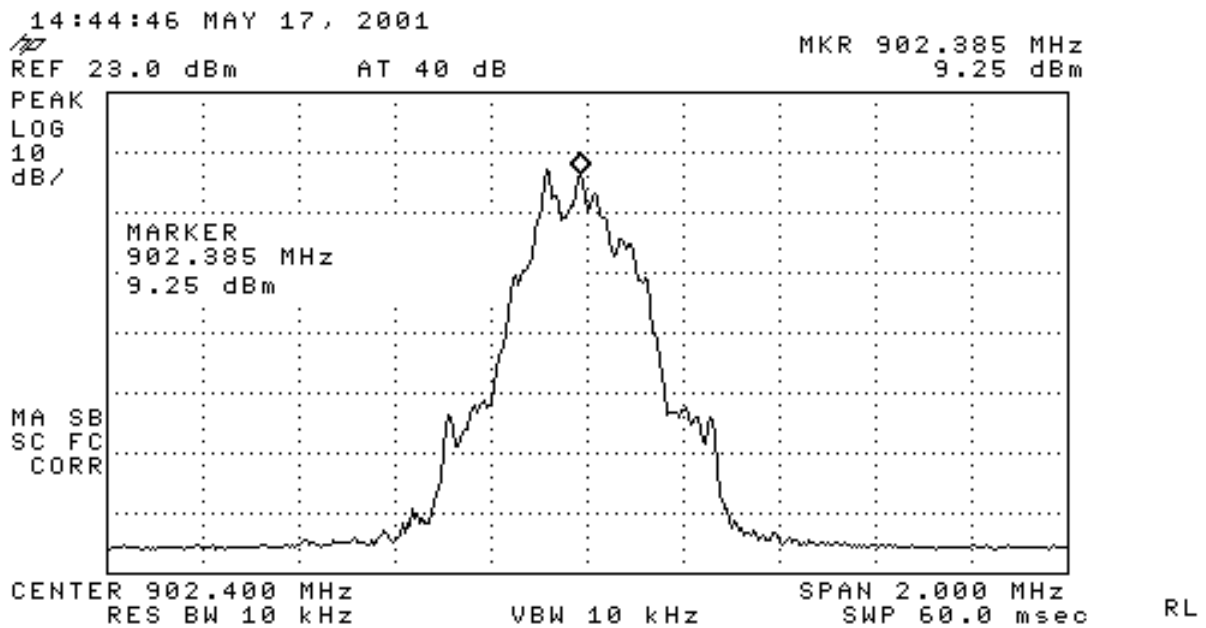
① TX\_62\_U505 PIN9



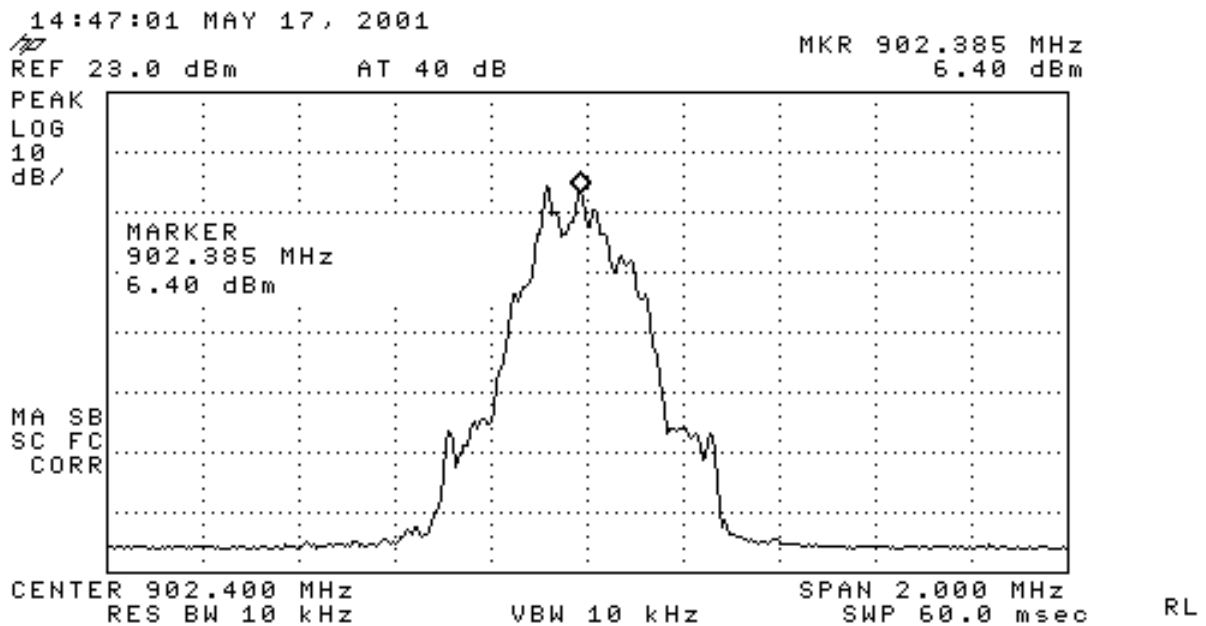
② TX\_62\_U505 PIN1



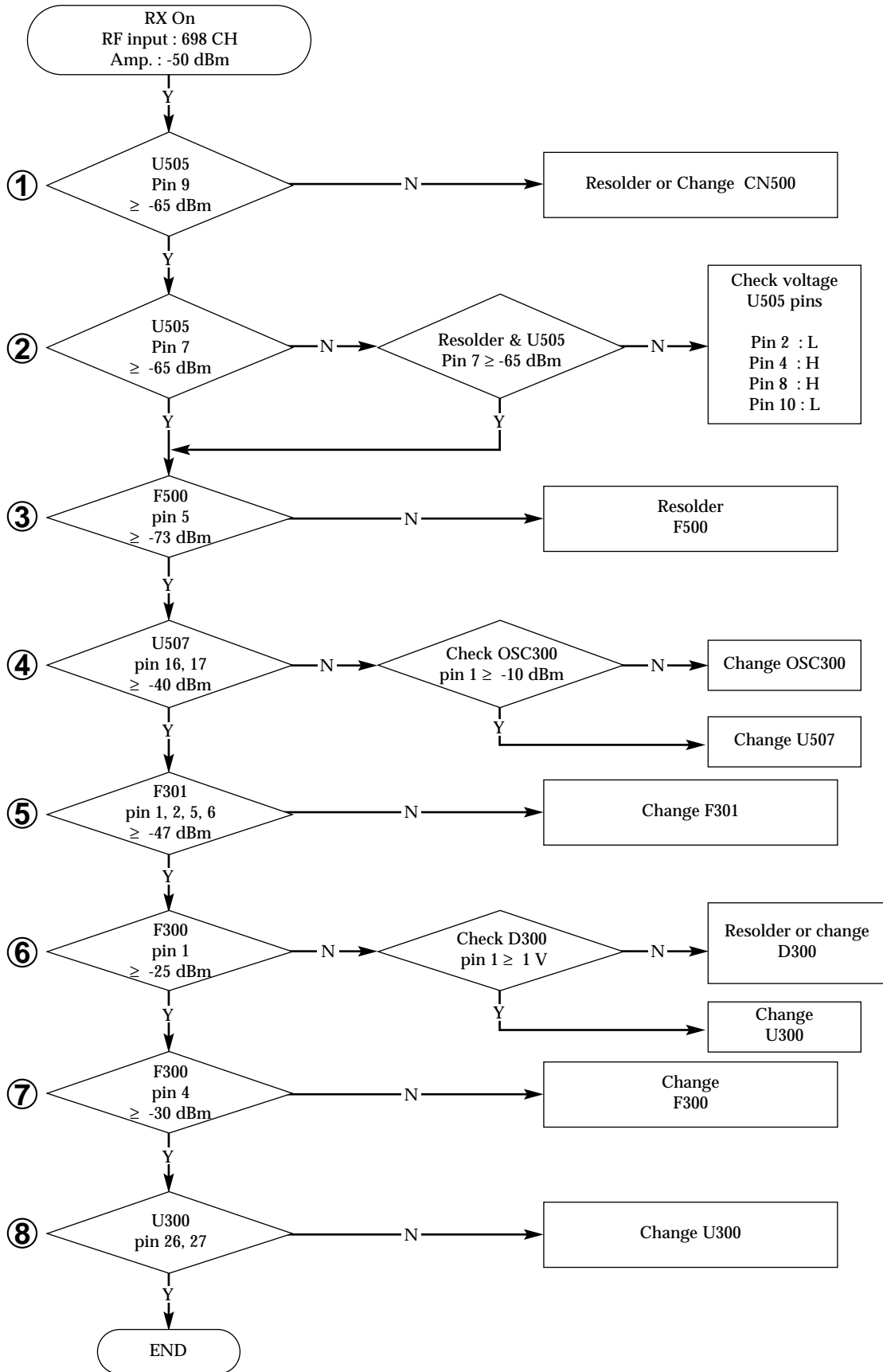
### ③ TX\_62\_Iam1 PIN3



### ④ TX\_62\_U510 PIN4



### 5-13 SGH-A400 DCS Receiver



### Test Condition of RF Bench Test

RF Bench Test

File Graph\_Control DSP\_control Synthesizer Misc\_Param

**Synth Channels**

<b>Rx/Tx</b>	<b>Mon</b>	
<input type="text" value="698"/>	<input type="text" value="5"/>	
<b>Rx</b>	<b>Tx</b>	<b>Mx</b>
1842.4	1747.4	936.0
LO 1442.4	1389.4	1336.0
Rx IF = -400 MHz		
Tx IF = -358 MHz		

**MEW enables**

<input checked="" type="checkbox"/> Rx enable	<input type="checkbox"/> Normal
<input type="checkbox"/> Tx enable	<input checked="" type="checkbox"/> Cont. Rx
<input type="checkbox"/> Mon enable	<input type="checkbox"/> Cont. Tx

**RxAGC Setting**

<input checked="" type="checkbox"/> Rx0	<input type="checkbox"/> Max	<input type="checkbox"/> Mid High
<input checked="" type="checkbox"/> Rx1		
<input checked="" type="checkbox"/> Rx2		
<input type="checkbox"/> IA Gain 0 dB	<input type="checkbox"/> IA Gain +6 dB	<input type="checkbox"/> IA Gain +12 dB
<input type="checkbox"/> IA Gain +6 dB	<input type="checkbox"/> IA Gain +12 dB	<input type="checkbox"/> IA Gain +18 dB
<input type="checkbox"/> IA Gain +12 dB	<input type="checkbox"/> IA Gain +18 dB	<input checked="" type="checkbox"/> IA Gain +24 dB
<input type="checkbox"/> IA Gain +18 dB	<input type="checkbox"/> IA Gain +24 dB	

**MonAGC Setting**

<input checked="" type="checkbox"/> Rx0	<input type="checkbox"/> IA Gain 0 dB
<input checked="" type="checkbox"/> Rx1	<input type="checkbox"/> IA Gain +6 dB
<input type="checkbox"/> Rx2	<input type="checkbox"/> IA Gain +12 dB
	<input type="checkbox"/> IA Gain +18 dB
	<input checked="" type="checkbox"/> IA Gain +24 dB

**XO Adjust**

Coarse	Fine	<input type="text" value="0"/>
--------	------	--------------------------------

**IQ DC Offset**

I	Q	<input type="text" value="0"/>
---	---	--------------------------------

**IQ Balance**

<input type="text" value="0"/>
--------------------------------

**Burst Store data**

Ones  1010...  0011...  
 Arbitrary  Random  
 Insert Midamble  Invert  
 MidAmble Position

RequestWriteIRRSync

**Ramp Profile**

Linear  Andrew  
 Raised Cosine  
 RampLo980  
 RampHi980  
 Use values in box

Profile

<input type="text" value="0, 2"/>	<input type="text" value="0, 2"/>
<input type="text" value="-384, 20"/>	<input type="text" value="-384, 20"/>
<input type="text" value="-253, 10"/>	<input type="text" value="-253, 10"/>
<input type="text" value="-109, 7"/>	<input type="text" value="-109, 7"/>
<input type="text" value="0, 6"/>	<input type="text" value="0, 6"/>
<input type="text" value="12, 5"/>	<input type="text" value="12, 5"/>
<input type="text" value="0, 4"/>	<input type="text" value="0, 4"/>
<input type="text" value="-8, 2"/>	<input type="text" value="-8, 2"/>
<input type="text" value="-24, 2"/>	<input type="text" value="-24, 2"/>
<input type="text" value="-68, 2"/>	<input type="text" value="-68, 2"/>
<input type="text" value="-78, 2"/>	<input type="text" value="-78, 2"/>
<input type="text" value="-116, 2"/>	<input type="text" value="-116, 2"/>
<input type="text" value="-118, 2"/>	<input type="text" value="-118, 2"/>
<input type="text" value="-154, 2"/>	<input type="text" value="-154, 2"/>
<input type="text" value="-194, 2"/>	<input type="text" value="-194, 2"/>

Actual

**Graph Options**

<input type="checkbox"/> Freeze Graph	<input type="text" value="-30"/>
<input checked="" type="checkbox"/> Auto Update	<input type="text" value="-130"/>
<input type="checkbox"/> TestMode	
Max Value	
Min Value	

Cheaters Haven

Radio type

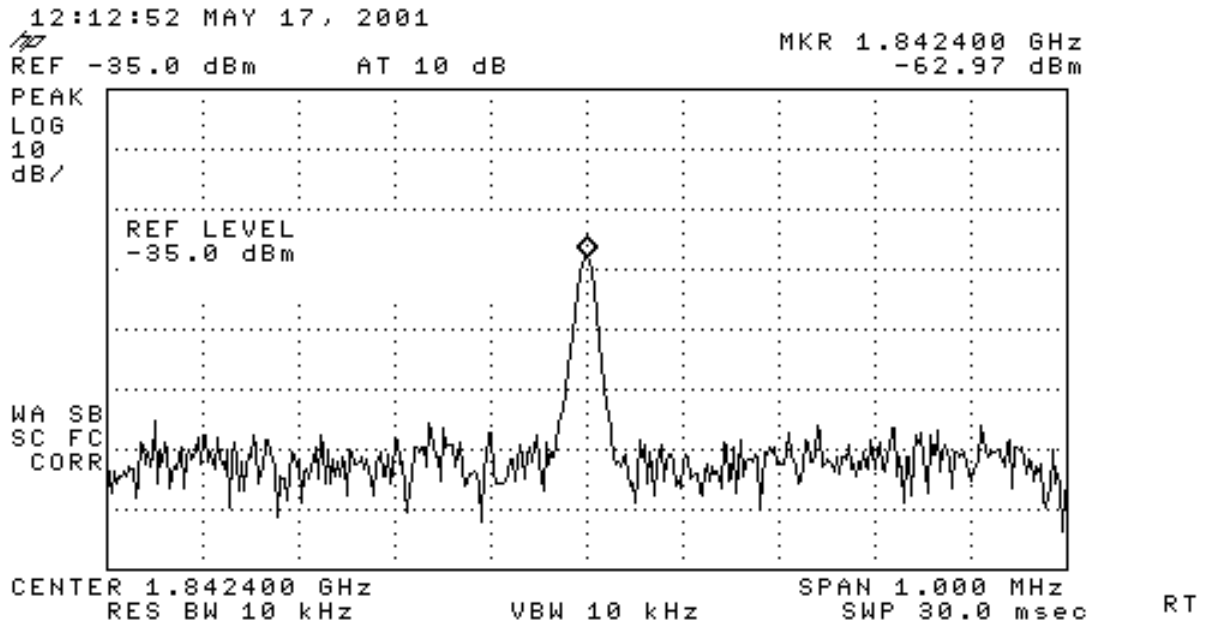
900 Only  900/1900  
 900/1800  All Three

**Tx Powerlevel**

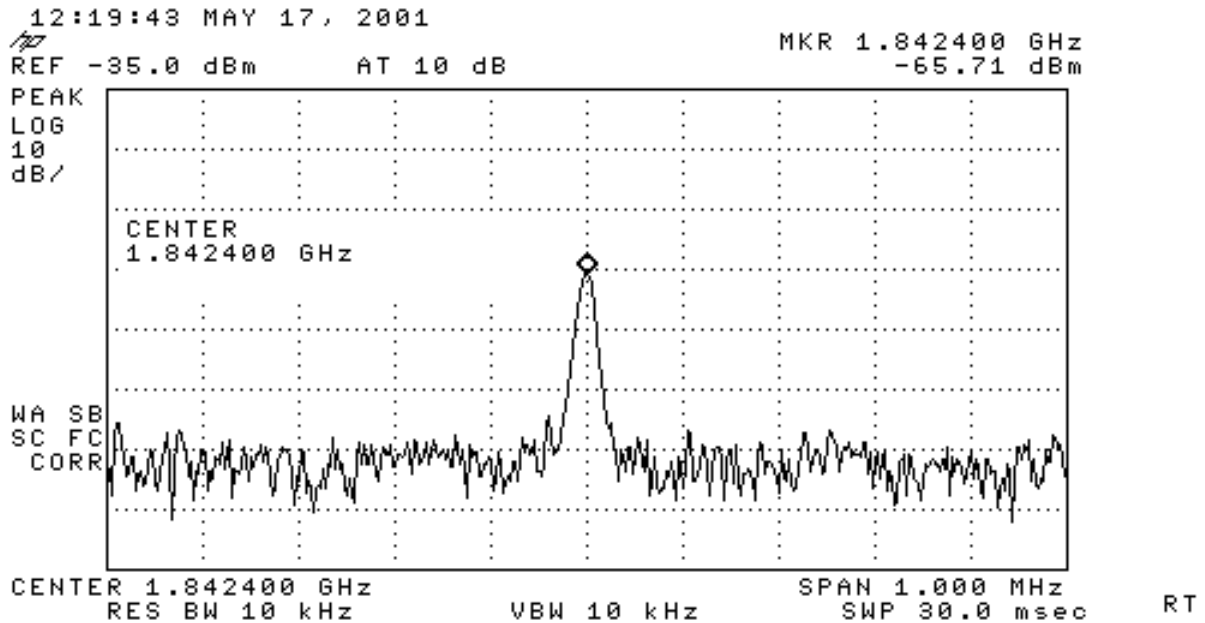
<input type="text" value="0"/>	DAC
<input type="text" value="-20"/>	dB
<input type="text" value="bf80"/>	Ricke

Version 1999.02.24  
 (Dual Band Tolerant)  
 Former Rockwell Internal Use Only

① RX\_698\_U505 PIN9

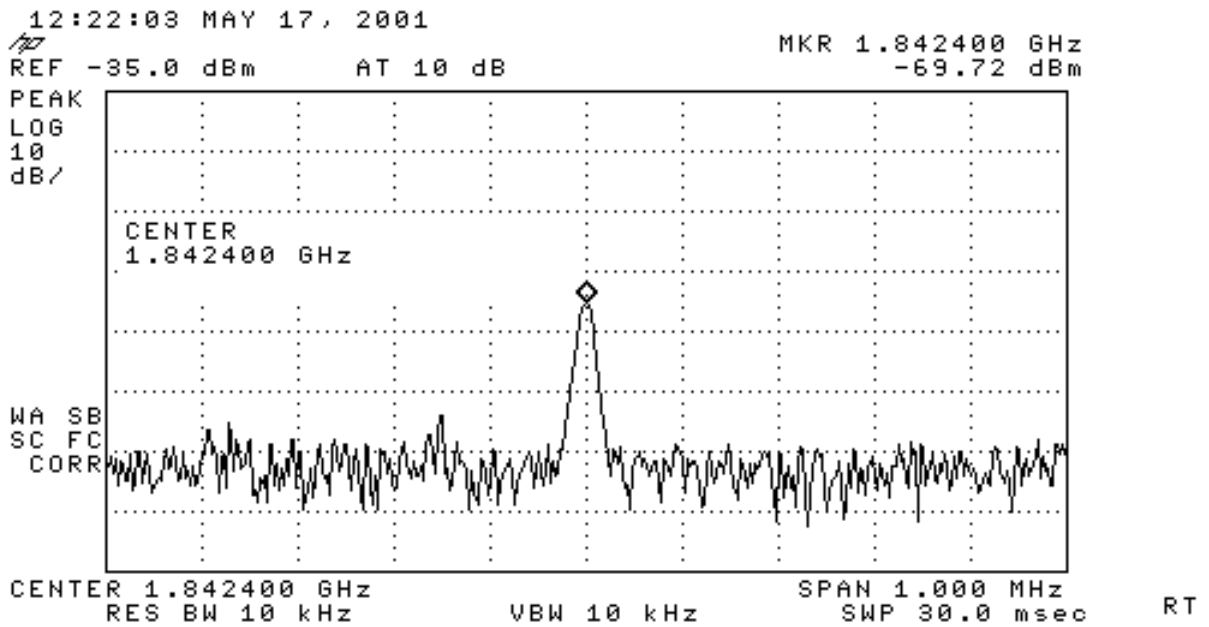


② RX\_698\_U505 PIN7

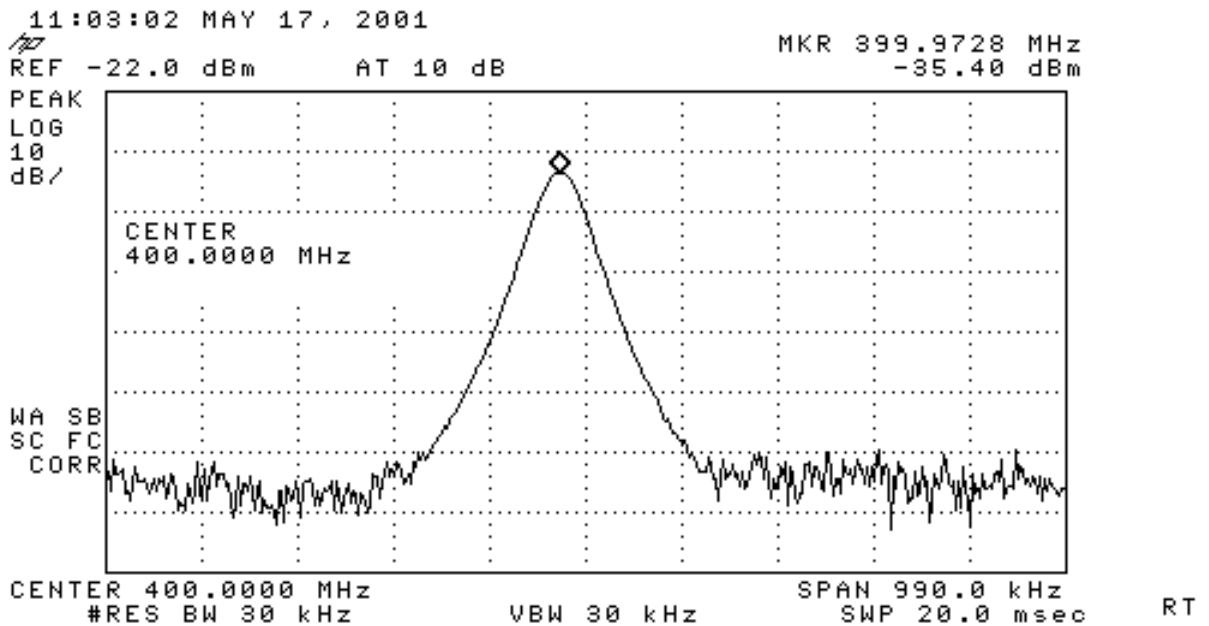




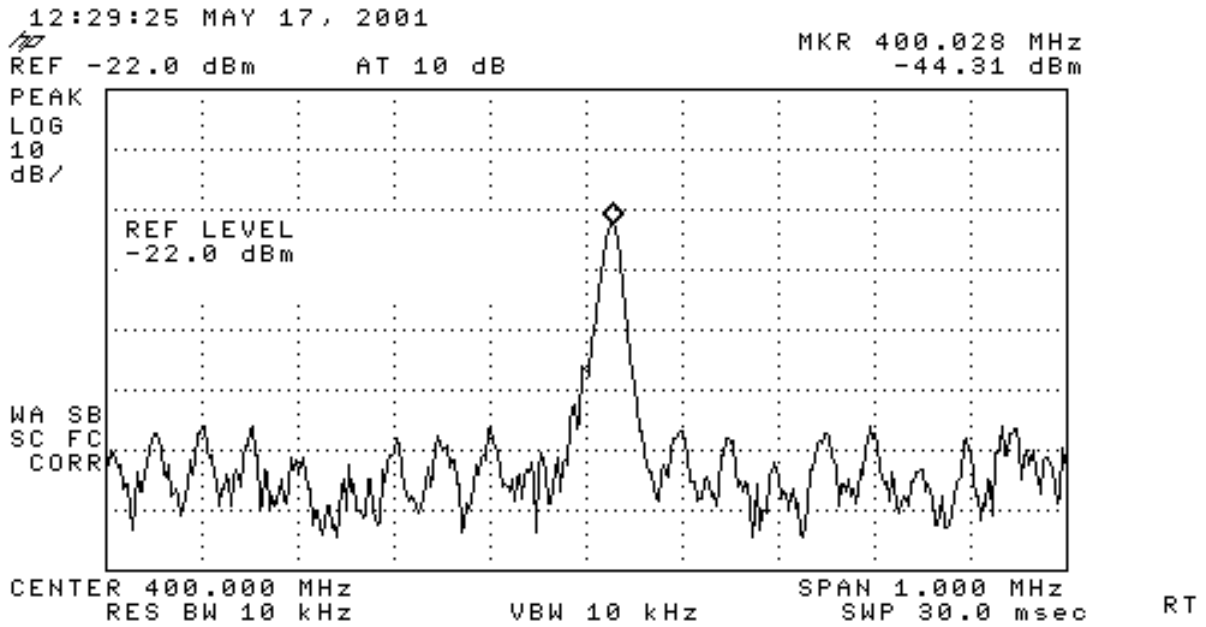
③ RX\_698\_F500 PIN5



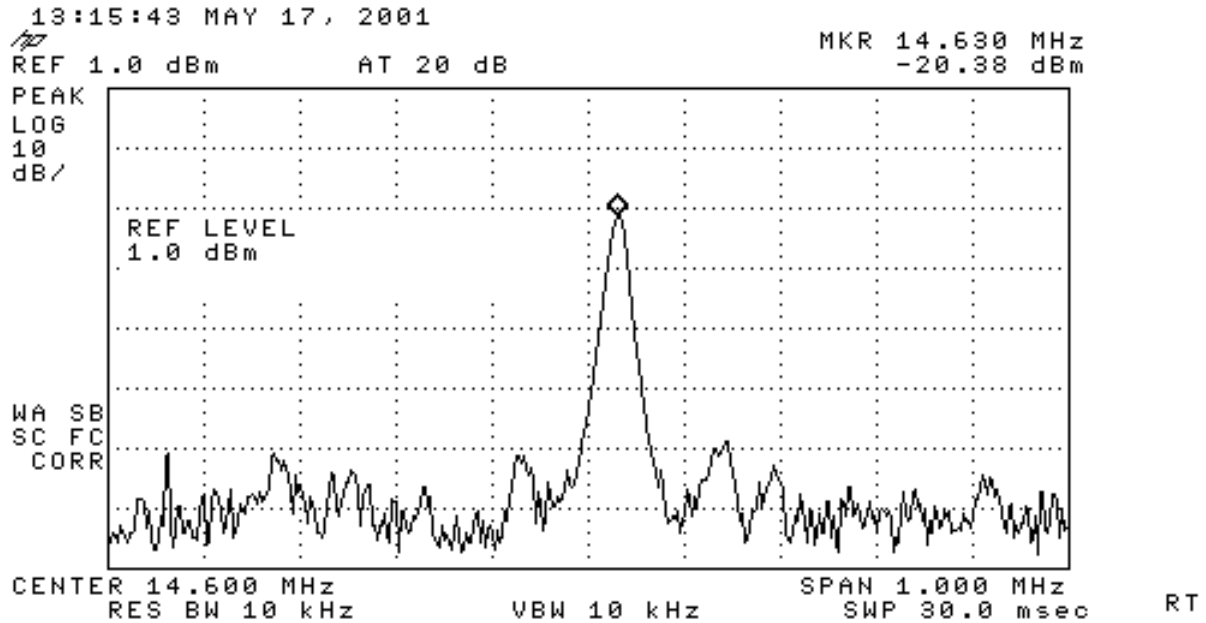
④ RX\_698\_U507 PIN16



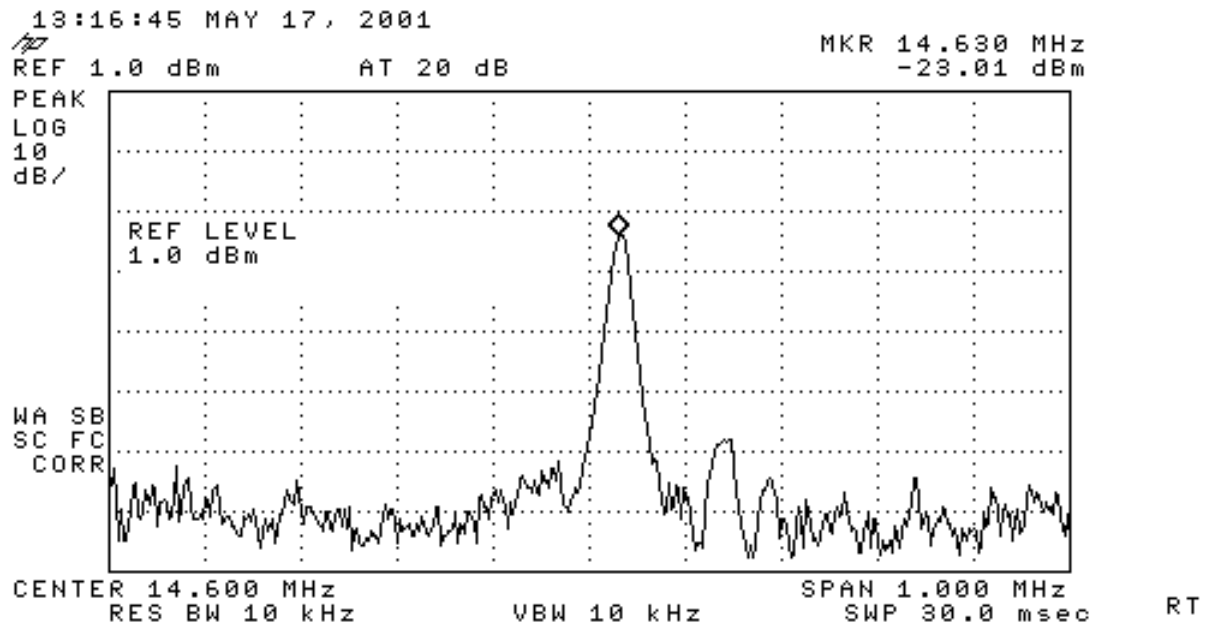
⑤ RX\_698\_F301 PIN1



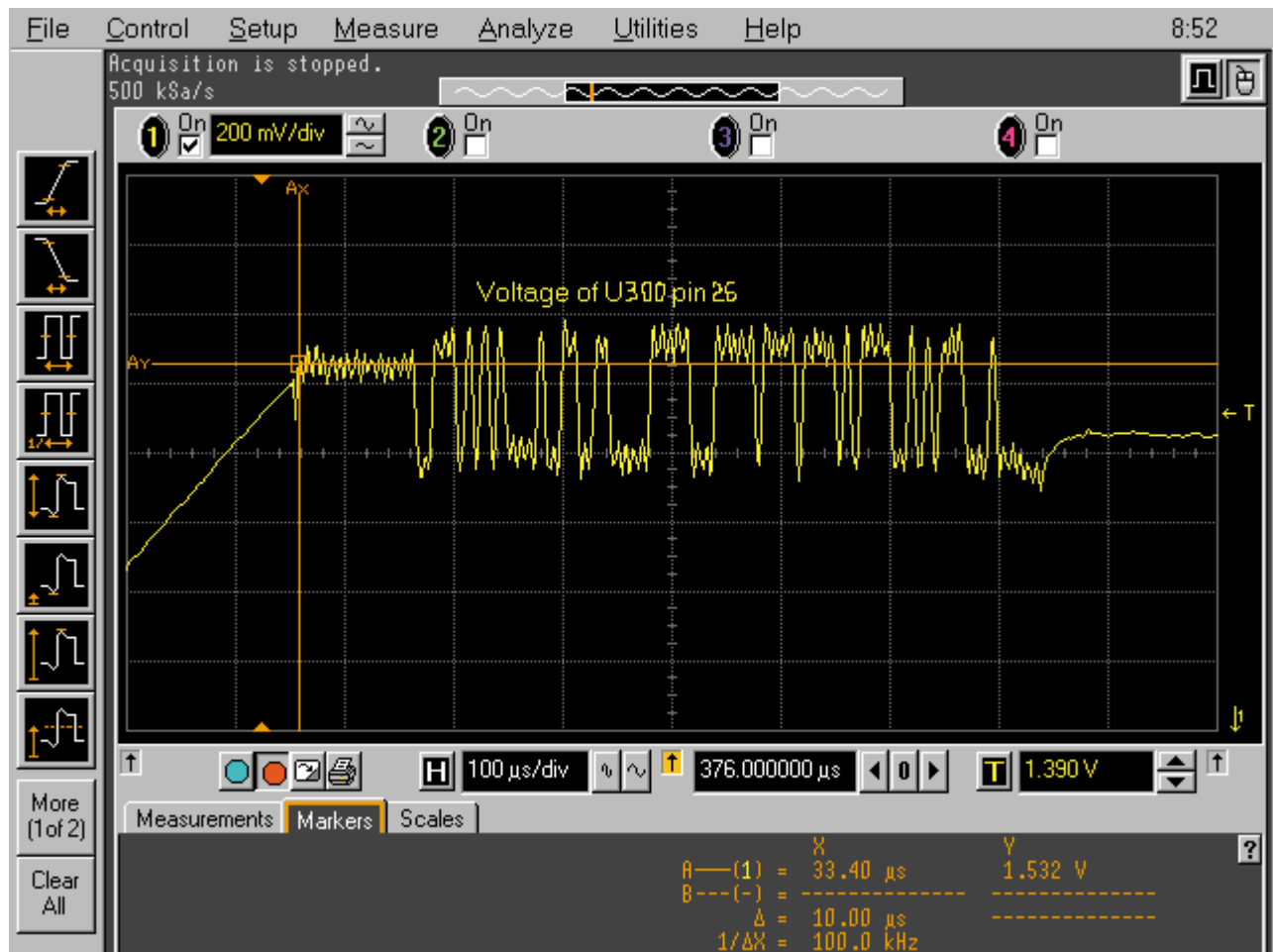
⑥ RX\_698\_F300 PIN1



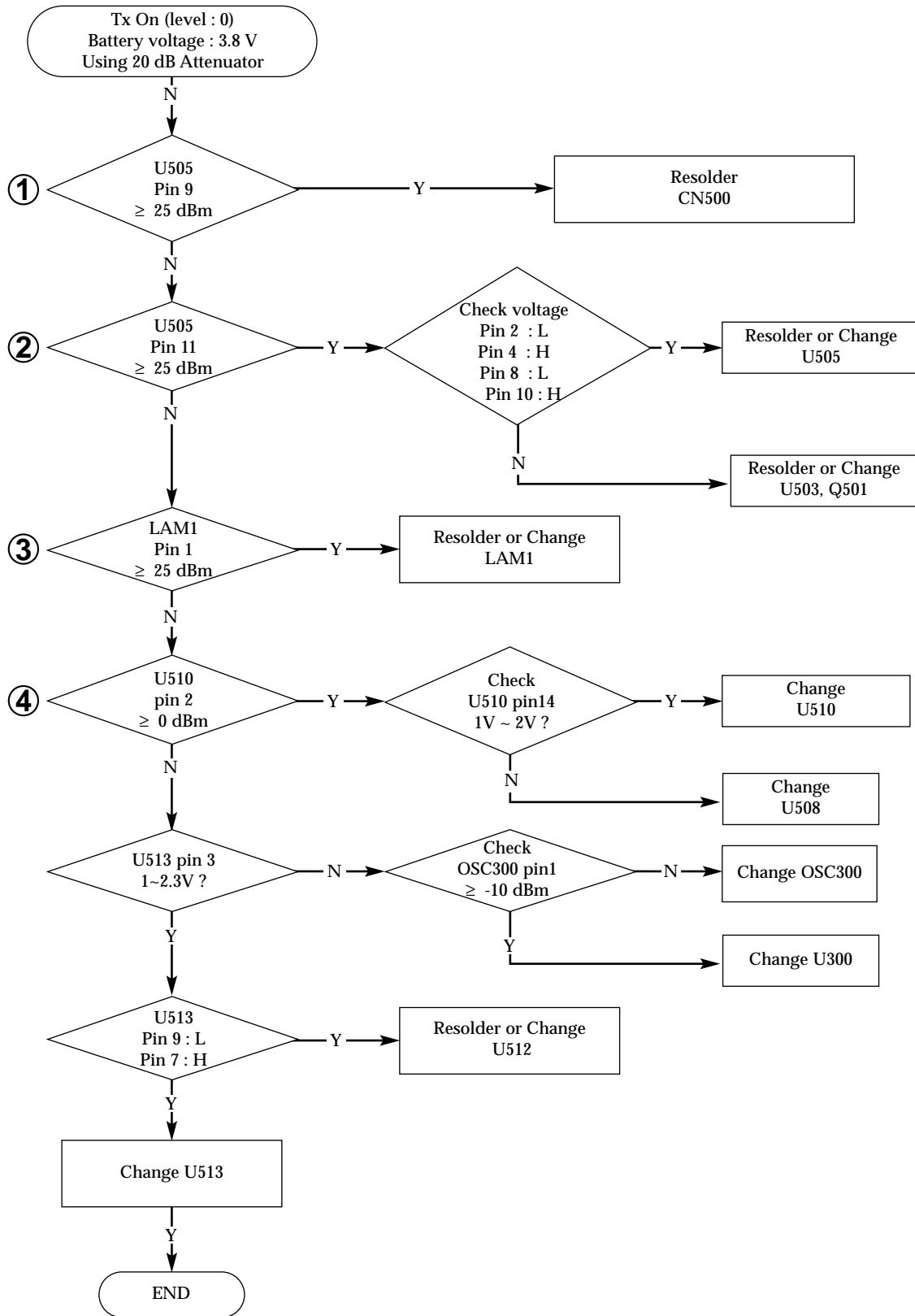
⑦ RX\_698\_F300 PIN4



⑧ U300\_PIN26



### 5-14 SGH-A400 DCS Transmit



### Test Condition of RF Bench Test

**RF Bench Test**  
 File Graph\_Control DSP\_control Synthesizer Misc\_Param

**Synth Channels**

Rx/Tx	Mon
698	5
Rx	Mx
1842.4	936.0
1747.4	
1442.4	1389.4
1389.4	1336.0

Rx IF = -400 MHz  
 Tx IF = -358 MHz

**MEW enables**

Rx enable  
 Tx enable  
 Mon enable

**IFS Sequences**

Normal  
 Cont. Rx  
 Cont. Tx

**XO Adjust**

Coarse Fine

**-IQ DC Offset**

I Q

**-IQ Balance**

**Burst Store data**

Ones  1010...  0011...  
 Arbitrary  Random  
 Insert Midamble  Invert

MidAmble Position 59

RequestWriteRAMsync 0x1c14  
 0x3333 0x3330 0x1663 0xCC0D  
 0xE4EA 0x0844 0xB844 0xBA18  
 0xB476 0x3B21 0x1410 0x3333

**Ramp Profile**

Linear  Andrew  
 Raised Cosine  
 RampLo980  
 RampHi980  
 Use values in box

GUI ramp...

**Profile**

-100, 2	-100, 2
-484, 20	-484, 20
-353, 10	-353, 10
-209, 7	-209, 7
-100, 6	-100, 6
-88, 5	-88, 5
-100, 4	-100, 4
-108, 2	-108, 2
-124, 2	-124, 2
-168, 2	-168, 2
-178, 2	-178, 2
-216, 2	-216, 2
-218, 2	-218, 2
-254, 2	-254, 2
-294, 2	-294, 2

**Graph Options**

Freeze Graph  
 Auto Update  
 TestMode

Max Value -30  
 Min Value -130

Cheaters Haven  
 Radio type  
 900 Only  900/1900  
 900/1800  All Three  
 2300

**Tx Powerlevel**

DAC  
 dB  
 a680 Ricke

**RxAGC Setting**

<input checked="" type="checkbox"/> Rx0	<input type="checkbox"/> Rx0
<input checked="" type="checkbox"/> Rx1	<input type="checkbox"/> Rx1
<input checked="" type="checkbox"/> Rx2	<input type="checkbox"/> Rx2

IA Gain 0 dB  
 IA Gain +6 dB  
 IA Gain +12 dB  
 IA Gain +18 dB  
 IA Gain +24 dB

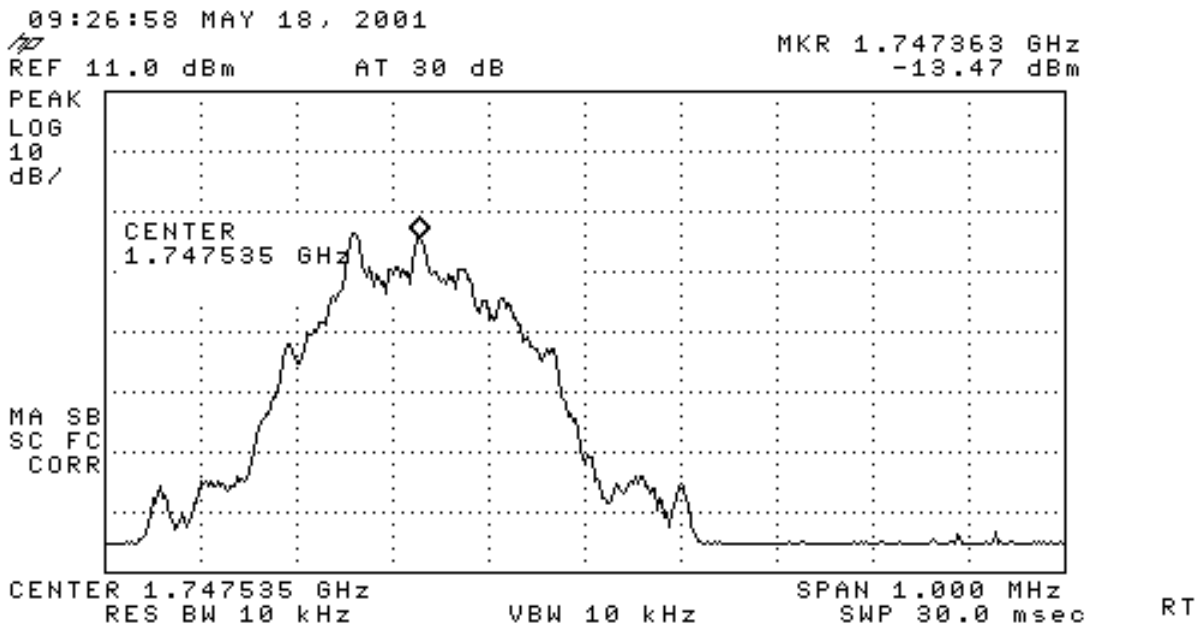
**MonAGC Setting**

Rx0  
 Rx1  
 Rx2

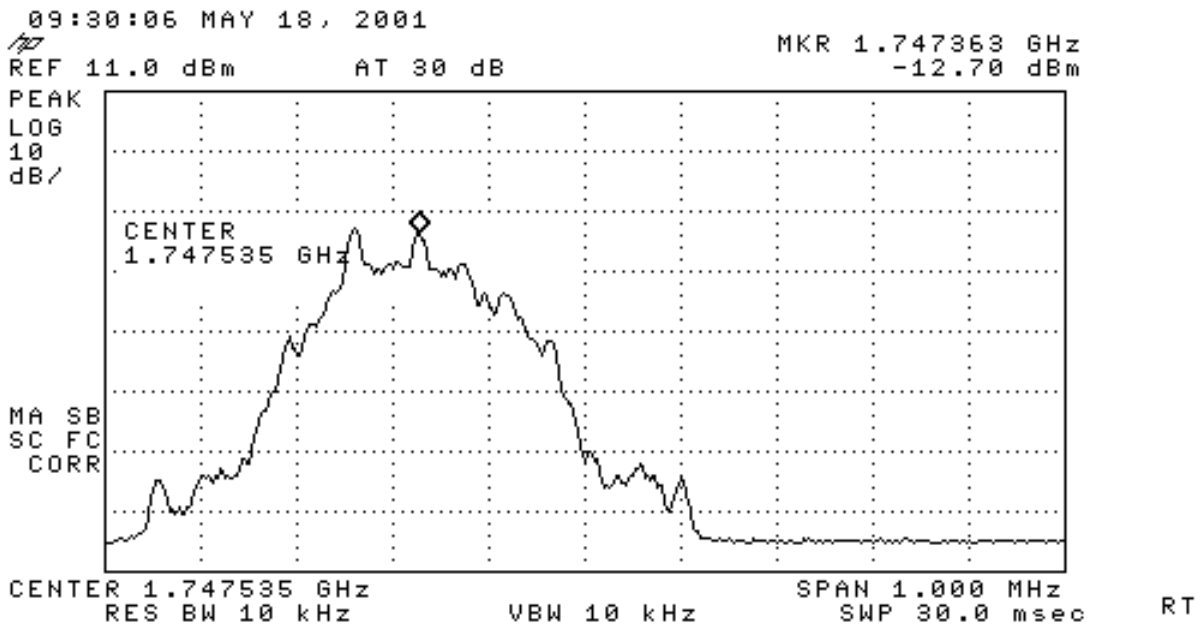
IA Gain 0 dB  
 IA Gain +6 dB  
 IA Gain +12 dB  
 IA Gain +18 dB  
 IA Gain +24 dB

Version 1999.02.24  
 (Dual Band Tolerant)  
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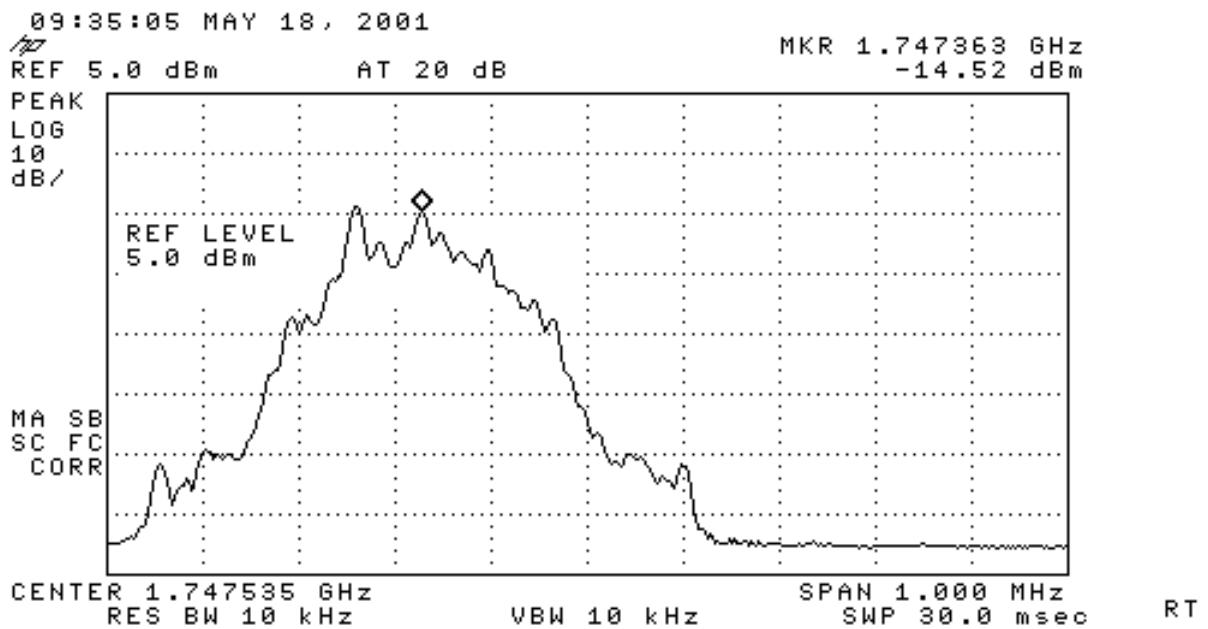
① TX\_698\_U505 PIN9



② TX\_698\_U505 PIN11



③ TX\_698\_lam1 PIN1



④ TX\_698\_U510 PIN2

