

Reference No	Function	Part No
MOBILE STATION MODEM		
IC211	MOBILE STATION MODEM	MSM3100A280FBGA-TR
POWER & CHARGER CIRCUIT		
IC221	Power & Chrager	BH6030KN
IC222	ANOLOG SWITCH	TC7S66FU or SN74AHC1G66H
Q2203	SWITCHING	2SA1774
Q2204	SWITCHING	2SC4617
Q2202	SWITCHING	HAT1043M
SPEAKER AMP		
IC231	SPEAKER AMP	LM4864IMM
Q2301	SWITCHING	DTC124XE
EARPHONE JACK SWITCH		
IC212	Schmitt INVERTER	TC7S14FU or SN74AHC1G14H or NC7S14
REAL TIME CLOCK		
IC281	REAL TIME CLOCK	RTC-8564NB
MEMORY		
IC241	64M FALSH/8M SRAM	M6MG3D641S8TP
Q2401	SWITCHING	DTC114YE
INTERFACE CIRCUIT		
Q2701	SWITCHING	DTC124XM
Q2702	SWITCHING	DTC124XM
Q2703	SWITCHING	DTC124XM
Q2704	SWITCHING	DTC124XM
Q2705	SWITCHING	DTC124XM
LCD MODULE		
LCD01	MAIN LCD Driver	HD66750

DESCRIPTIVE INFORMATION

Parts List

<u>Reference No.</u>	<u>Function</u>	<u>Part No.</u>
<u>PLL Synthesizer</u>		
IC 141	PLL IC	LMX2339L
IC 142	Low Current Amplifier	uPG8128TB
X 1402	VCO	ENFVK192S15
XF 141	Divider	LDD15A030D0967
<u>Transmitter</u>		
IC 131	Power Amplifier	PA3100
IC 133	Regulator(2.8V)	R1140Q281D
IC 135	AND GATE	TC7SH08FU
D 1301,1302	Diode	HSC88
XF 111	Duplexer	EFSD836MB2Z1
XF 131	Isolator	CE053R836DCB
XF 132	Couper	LDC10B200J0836
XF 133	RF SAW Filter	TSM836AW3B
<u>Receiver</u>		
IC 121	LNA	GN01096B
IC 122	Mixer	GN02037B
XF 121	RF SAW Filter	SRF881NJC31
XF 122	IF SAW Filter	TMXM300
<u>IF AGC Circuit</u>		
IC 132	TX AGC+Mixer IC	RFT3100
IC 123	RX AGC IC	IFR3000
D 1201,1202,1303,1304	Diode	HVC306A
<u>TCXO Circuit</u>		
X 1401	TCXO	KT18-ECV30A-19.680M
Q 1401	Transistor	2SC4649

CDMA-Mode RF Block/Parts List

MODEL NO. SCP-600

FCC USE ONLY

Ref NO.	Description	Ref NO.	Description	Ref NO.	Description	Ref NO.	Description	Ref NO.	Description
C1104	18P	C1326	390P	C1503	1U	C2398	33P		
C1114	2P	C1327	0.01U			C2399	33P		
C1200	3.5P	C1328	0.01U			C2660	22P		
C1201	18P	C1329	33P			C2674	22P		
C1203	1000P	C1331	33P			C2675	22P		
C1204	0.01U	C1332	7P			C2676	1U		
C1205	1000P	C1334	1000P			C2677	1U		
C1206	1P	C1335	390P			C2678	1U		
C1207	1000P	C1336	0.015U			C2679	1U		
C1208	100P	C1337	560P			C2681	1U		
C1209	100P	C1339	0.01U			C2682	1U		
C1211	22P	C1341	1000P			C2683	0.47U		
C1212	1.5P	C1342	0.01U			C2684	0.47U		
C1214	11P	C1343	1000P			C2685	0.22U		
C1216	1000P	C1344	100P			C2686	0.22U		
C1217	1000P	C1345	100P			C2687	0.22U		
C1219	6P	C1346	0.1U			C2688	0.22U		
C1221	2P	C1347	0.1U			C2689	0.22U		
C1222	6P	C1348	100P			C2691	0.22U		
C1223	6P	C1349	0.01U			C2692	0.47U		
C1224	0.01U	C1351	1U			C2693	0.47U		
C1225	4700P	C1352	100P			C2694	0.47U		
C1226	0.01U	C1353	100P			C2696	0.1U		
C1228	1000P	C1354	10U			C2697	0.1U		
C1229	0.01U	C1362	0.01U			C2698	0.1U		
C1230	0.1U	C1363	0.01U			C2699	0.1U		
C1231	0.1U	C1370	1U						
C1232	1000P	C1371	1U						
C1233	1000P	C1372	1U						
C1234	0.01U	C1373	1U						
C1235	33P	C1401	1000P						
C1236	4P	C1402	1000P						
C1237	33P	C1403	470P						
C1238	0.01U	C1404	0.047U						
C1239	0.01U	C1405	2700P						
C1241	0.01U	C1406	0.01U						
C1242	120P	C1407	10U						
C1251	0.01U	C1408	0.01U						
C1252	0.01U	C1409	0.01U						
C1260	4.7U	C1410	0.01U						
C1301	12P	C1411	1200P						
C1303	100P	C1412	0.033U						
C1305	1U	C1413	1000P						
C1306	0.1U	C1414	1000P						
C1308	100P	C1415	10U						
C1309	1000P	C1416	1000P						
C1311	4P	C1417	100P						
C1312	100P	C1418	100P						
C1313	1000P	C1419	100P						
C1314	0.01U	C1420	0.01U						
C1315	0.1U	C1421	1000P						
C1316	4700P	C1422	1000P						
C1317	0.01U	C1423	0.75P						
C1318	0.01U	C1424	1U						
C1321	22P	C1425	100P						
C1323	390P	C1426	0.01U						
C1324	390P	C1430	1000P						
C1325	390P	C1431	18P						

MODEL NO. SCP-600

[illegible]

MODEL NO. SCP-600

[illegible]

SCP-600/H.HK Adjustment Discription for Mass production.

Model Code NO.	1-163-298-00
Model NO.	SCP-600/H.HK

Engineering Section	SANYO Telecommunications Corp. Over Sea Products Department Design Engineering Section 1
	SANYO Telecommunications Corp. Technical Engineering Department RF Section.
Name	M.Ichi

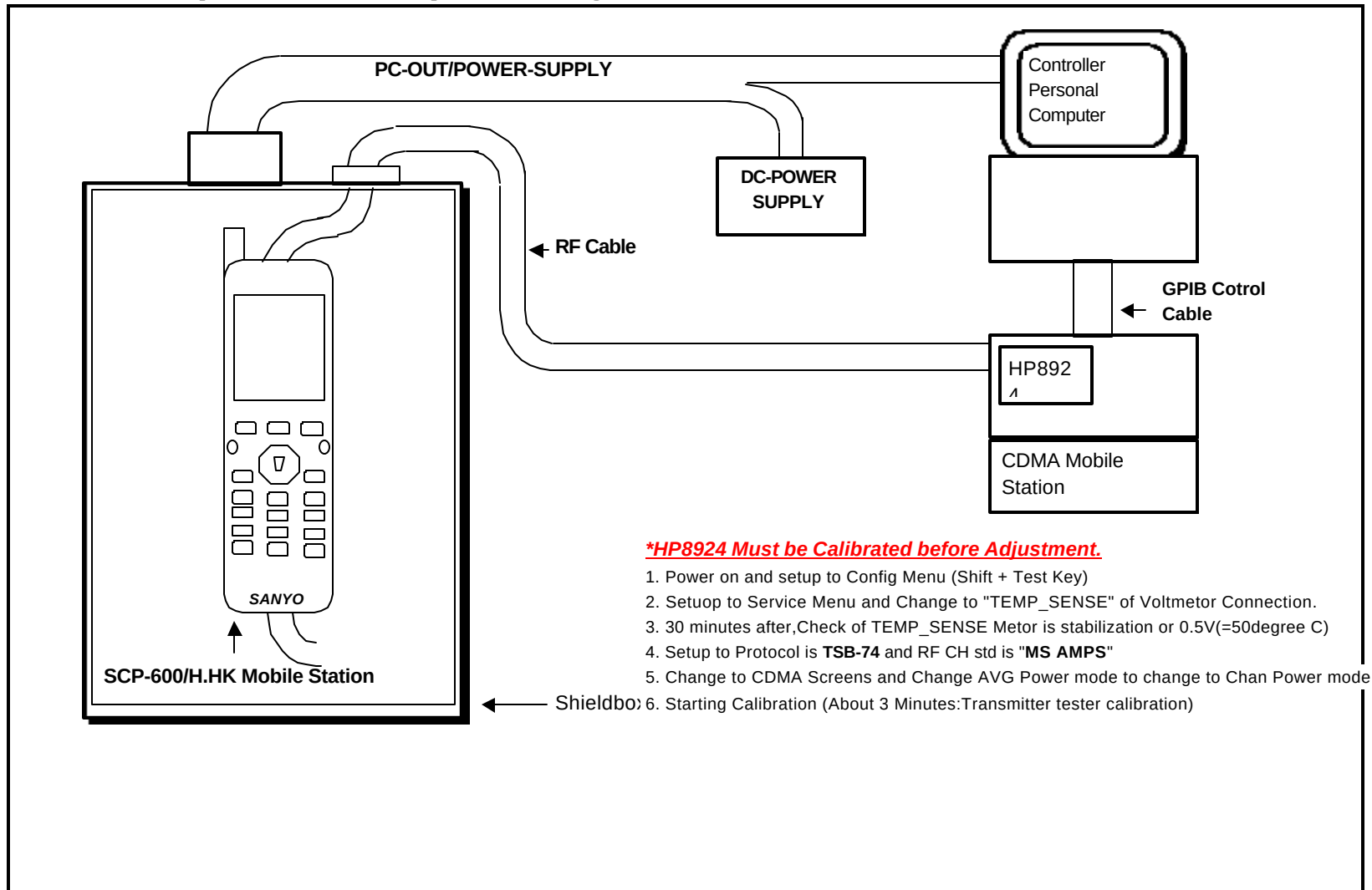
No.	Contents
1.	Set-Up for Tune-Up and Adjustment of Mobile Station
2.	Alignment Procedure
3.	Adjustment Value
4.	Measurement Specification of Adjustment

Minor Change Version

NO.	Draw/Change History	Draw/Change Contents

1.-1 Set-Up for Tune-Up and Adjustment of Transmitter

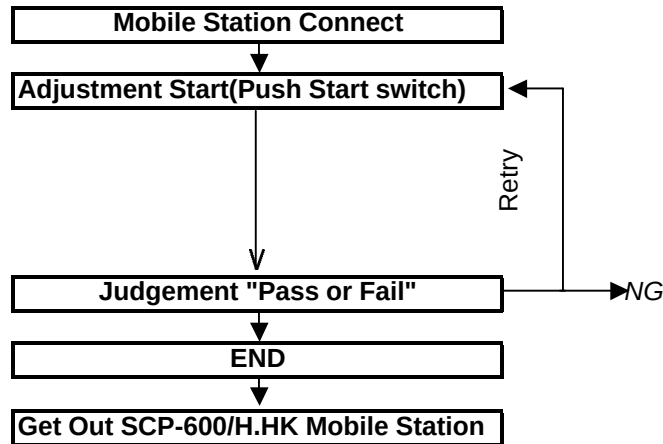
Page 2



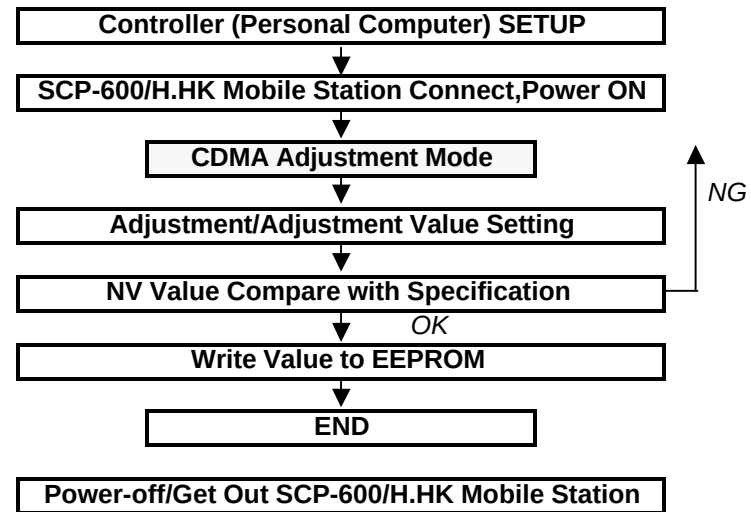
2. Alignment Procedure

(1) Adjustment Procedure

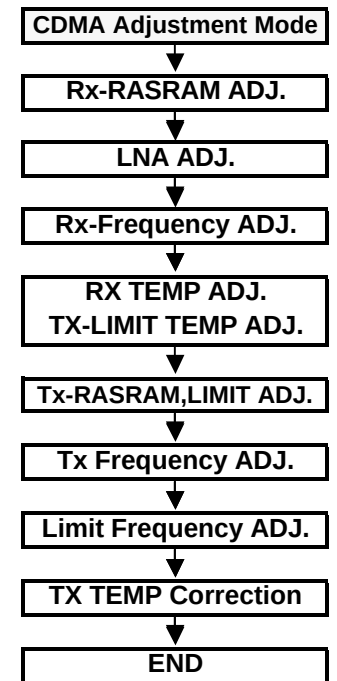
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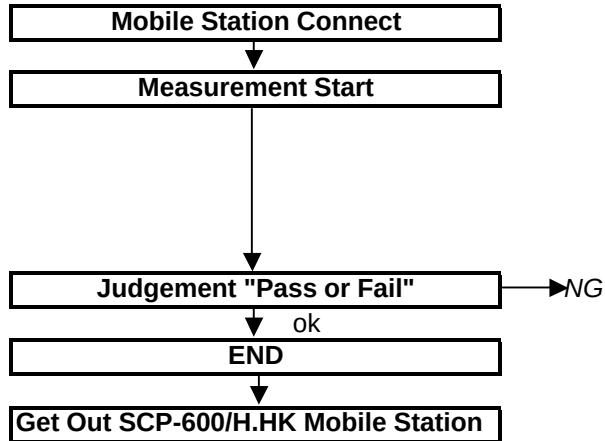


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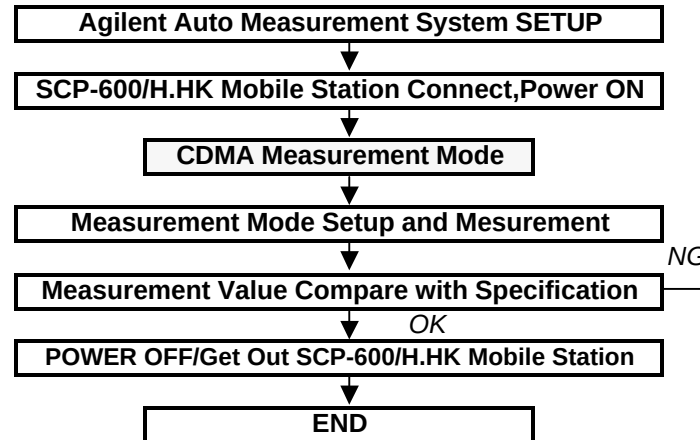


(2) Measurement Procedure

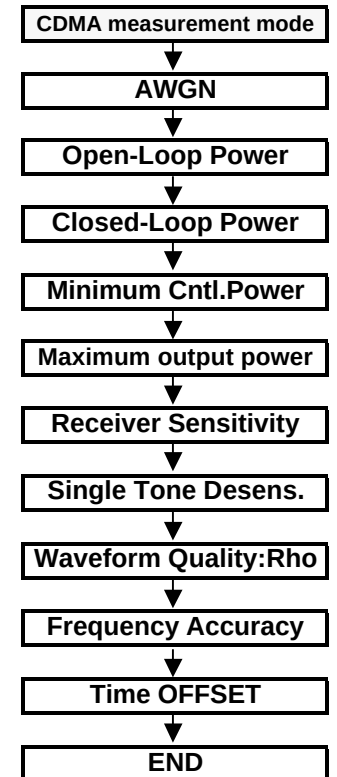
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<Measurement Process>



<Measurement Item>



3.Adjustment Value

1.CDMA RX Adjustment

ITEM	Sub-ITEM	Handset Setup(Internal Setup)	HP8924 Setup	Adj. Value	Accuracy of NV-Value
Rx-RASRAM Adjustment	Table 1	<u>Normal Mode</u>	cdma Ch=358: SG LV=-106.0dBm	-106.0dBm	RX_LIN_OFF : >5
	Table2	OFF Line Mode	SG LV=-100.6dBm	-100.6dBm	RX_LIN_SLP : 0-1F
	Table3		SG LV=-95.3dBm	-95.3dBm	RX_LIN_SLP : 0-1F
	Table4		SG LV=-90.0dBm	-90.0dBm	RX_LIN_SLP : 2-1F
	Table5		SG LV=-84.7dBm	-84.7dBm	RX_LIN_SLP : 2-1F
	Table6		SG LV=-79.4dBm	-79.4dBm	RX_LIN_SLP : 2-1F
	Table7		SG LV=-74.1dBm	-74.1dBm	RX_LIN_SLP : 2-1F
	Table8		SG LV=-68.8dBm	-68.8dBm	RX_LIN_SLP : 2-1F
	Table9		SG LV=-63.5dBm	-63.5dBm	RX_LIN_SLP : 2-1F
	Table10		SG LV=-58.1dBm	-58.1dBm	RX_LIN_SLP : 2-1F
	Table11		SG LV=-52.8dBm	-52.8dBm	RX_LIN_SLP : 2-1F
	Table12		SG LV=-47.5dBm	-47.5dBm	RX_LIN_SLP : 2-1F
	Table13		SG LV=-42.2dBm	-42.2dBm	RX_LIN_SLP : 2-1F
	Table14		SG LV=-36.9dBm	-36.9dBm	RX_LIN_SLP : 2-1F
	Table15		SG LV=-31.6dBm	-31.6dBm	RX_LIN_SLP : 2-1F
	Table16		SG LV=-26.3dBm	-26.3dBm	RX_LIN_SLP : 0-1F
	Table17		SG LV=-21.0dBm	-21.0dBm	RX_LIN_SLP : 0-1F
RX AGC Frequency Adjustment	Bk 0=1017c	<u>Normal Mode</u>	<u>RF INPUT (SG) LV=-63.5dBm</u>	AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk 1=46ch	Reference ch : 358ch	Change the Channels 16 Times.	AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk 2=98ch	Deference of Center ch AGCsym.		AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk 3=150ch	Change the Channels 16 Times.		AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk 4=202ch	OFF Line Mode		AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk 5=254ch			AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk 6=306ch			AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk 7=358ch			Center CH	RXCOMP_VS_FREQ : 0
	Bk 8=410ch			AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk 9=462ch			AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk10=514ch			AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk11=566ch			AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk12=618ch			AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk13=670ch			AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk14=722ch			AGC DIFF.	RXCOMP_VS_FREQ : E7-14
	Bk15=774ch			AGC DIFF.	RXCOMP_VS_FREQ : E7-14

Continued

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ITEM	Sub-ITEM	Handset Setup(Internal Setup)	HP8924 Setup	Adj. Value	Accuracy of NV-Value
LNA Adjustment	1.LNAOffset	LNA Gain Active Point Setting	Reference ch: 358ch		LNA_GAIN_OFF : 90,98,A0
		Measurement Agcvalue : Cntl=A	at LNA_GAIN=0xC0 AGC_Value.		
		Measurement Agcvalue : Cntl=B	AGC_Value < 5 = 0xA0		
		Compare Gain,A0 with B0	5< agc <17 = 0x98		
		LNAOffset = 90 or 98 or A0	agc < 17 = 0x90		
	2. NASlope	LNA Gain Slope Setting			
		Measurement Agcvalue : Cntl=C0			
		Measurement Agcvalue : Cntl=D0			
		Measurement Agcvalue : Cntl=E0			
		Measurement Agcvalue : Cntl=F0			
		Measurement Agcvalue : Cntl=FF			
	3. LNA MIN	LNA vs Rfin Active Point			LNA_GAIN_MIN : =9d
					ADJUSTMENT
	4. LNA MAX	LNA Active SPAN			
		Compare Gain,Cntl = FF			
		Gain>=C8 -> 0x39			Lna_Gain_Pwr_Max : 39,3C,40
		Gain>=C4 -> 0x3C			
		Gain<C4 -> 0x40			

3.CDMA TX & TX-LIMIT Adjustment

ITEM	Sub-ITEM	Handset Setup (Internal Setup)	HP8924 Setup	Adj. Value	Accuracy of NV-Value
Tx-RASRAM → Adjustment		Nomal Test Mode	CDMA Ch=358ch	+24.6dBm	
		1.Agc<255->+6.0dBm 30stp	SG LEVEL according to the transmission	-50.0dBm	
		Measurement Tx-Power.	LEVEL of MS		
		+6.0 over, agc set 15stp to 24.6dBm			
		2.Agc>255 -40dBm 30stp			
		Measurement Tx-Power.			
		under -40,agc set 15stp			
		TOTAL: 36 Parametor			
		HIGH POWER MODE			
		LOW POWER MODE			
		2TIMES ADJUSTMENT			
	& Tx-Limit -> Adjustment	Table1		CDMA Ch=358ch	+11.75dBm
Table2		According to the above approximate		+13.1dBm	
Table3		curve,each AGC register value		+14.4dBm	
Table4		corresponded to Tx-limit levels are		+15.7dBm	
Table5		registered.		+17.1dBm	
Table6				+18.4dBm	
Table7		HIGH POWER MODE		+19.7dBm	
Table8		LOW POWER MODE		+21.1dBm	
Table9		2TIMES ADJUSTMENT		+22.4dBm	
Table10				+23.7dBm	
Table11				+24.6dBm	
Table12					
Table13					
Table14					
Table15					
Table16					
	OFFSET	Offset : 18.4dB(Table 6)		+19.7dBm	
	SPN	Spn : 24.6dBm(Table 12)			

4.Tx AGC Frequency Adjustment and Tx Limit Frequency Adjustment.

TX AGC Frequency Adjustment <
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***TX-Power Diffrencial + ADC Diffrencial ×Limit Table Value**

Measurement Item	Standard Item	IS98A Standard Spec	Measurement Spec	Measurement Condition	Measurement Channel	Others
RTC Demod. of FW.ch AWGN Test6(Eb/Nt=4.6) AWGN Test10(Eb/Nt=4.0)	IS98A:9.3.3	1%(0.010) 1%(0.010)	1%(0.010) 1%(0.010)	Rate1 1200(TEST6) Rate2 7200(TEST10)	383ch 383ch	
Waveform Quality RHO/Frequency Err/Time Offset	IS98A:10.3.2	>0.944 ±300Hz ±1uS	>0.944 ±300Hz ±1uS	Rateset2 SVC opt9 14400bps Traffic Ec/Io -12.3dB	1013ch,383ch,777ch	
TTC Range of Openloop Test1 (-25dBm) Test1A (-40dBm) Test2 (-65dBm) Test2A (-80dBm) Test3 (-104dBm) Test2-Test1A Test2A-Test2	IS98A:10.4.1	dBm -48±9.5(CLASS3) -33±8.0(CLASS3) -8±9.5(CLASS3) 7±8.0(CLASS3) 18-30(CLASS3) 24±6 15±4	dBm -48±9.5(CLASS3) -33±8.0(CLASS3) -8±9.5(CLASS3) 7±8.0(CLASS3) 18-30(CLASS3) 24±6 15±4	Rateset2 SVC opt9 14400bps	383ch 1013ch,777ch	
TTC Range of Closedloop Closedloop Full Power Closedloop Max Power Closedloop Min Power	IS98A:10.4.4	RF Output = -15dBm >+24dB <-24dB	-16±3dBm >+24dB <-24dB	Rateset2 SVC opt9 14400bps	383ch 1013ch,777ch	
TTC Min.Controlled Power	IS98A:10.4.6	-50dBm/1.23Mhz	-50dBm/1.23MHz	Rateset2 SVC opt9 14400bps	1013ch,383ch 777ch	
RTC Receiver Sensitivity	IS98A:9.4.1	0.5%(Confidence95%)	0.5%(Confidence95%)	Rate1 Full -104.5dBm	1013ch,777ch 383ch	
Single Tone Desens.	IS98A:9.4.2	1.0%(Confidence95%)	1.0%(Confidence95%)	Tone Offset ±900KHz	1013ch,383ch,777ch	
TTC Max RF Output Pow Max Power Output/Spurious (a)Spur Inband Power/Freq delta f>885KHz <-42dBc/30KHz delta f>1.98MHz <-54dBc/30KHz	IS98A:10.4.5	>0.2W (a) <-42dBc/30KHz	24.1 +0.5/-1.0 dBm 24.1 +0.5/-1.0 dBm 24.1 +0.5/-1.0 dBm (a) <-42dBc/30KHz		1013ch,383ch,777ch 1013ch,383ch,777ch 1013ch,383ch,777ch 1013ch,383ch,777ch	
TTC Conducted Spurious (a)Spur Inband Power/Freq delta f>885KHz <-42dBc/30KHz delta f>1.98MHz <-54dBc/30KHz (b)Spur Inband Power/Freq <-60dBm/30KHz (c)Spur Inband Power/Freq <-54dBm/1.23MHz	IS98A:10.5.1	Mesurement Level/Freq (a) <-42dBc/30KHz (b)<-60dBm/30kHz (c)<-54dBm/1.23MHz	(a) <-42dBc/30KHz (b)<-60dBm/30kHz (c)<-54dBm/1.23MHz	SVC Opt9(14400) -13dBm/1.23MHz	1013ch, 777ch 383ch	