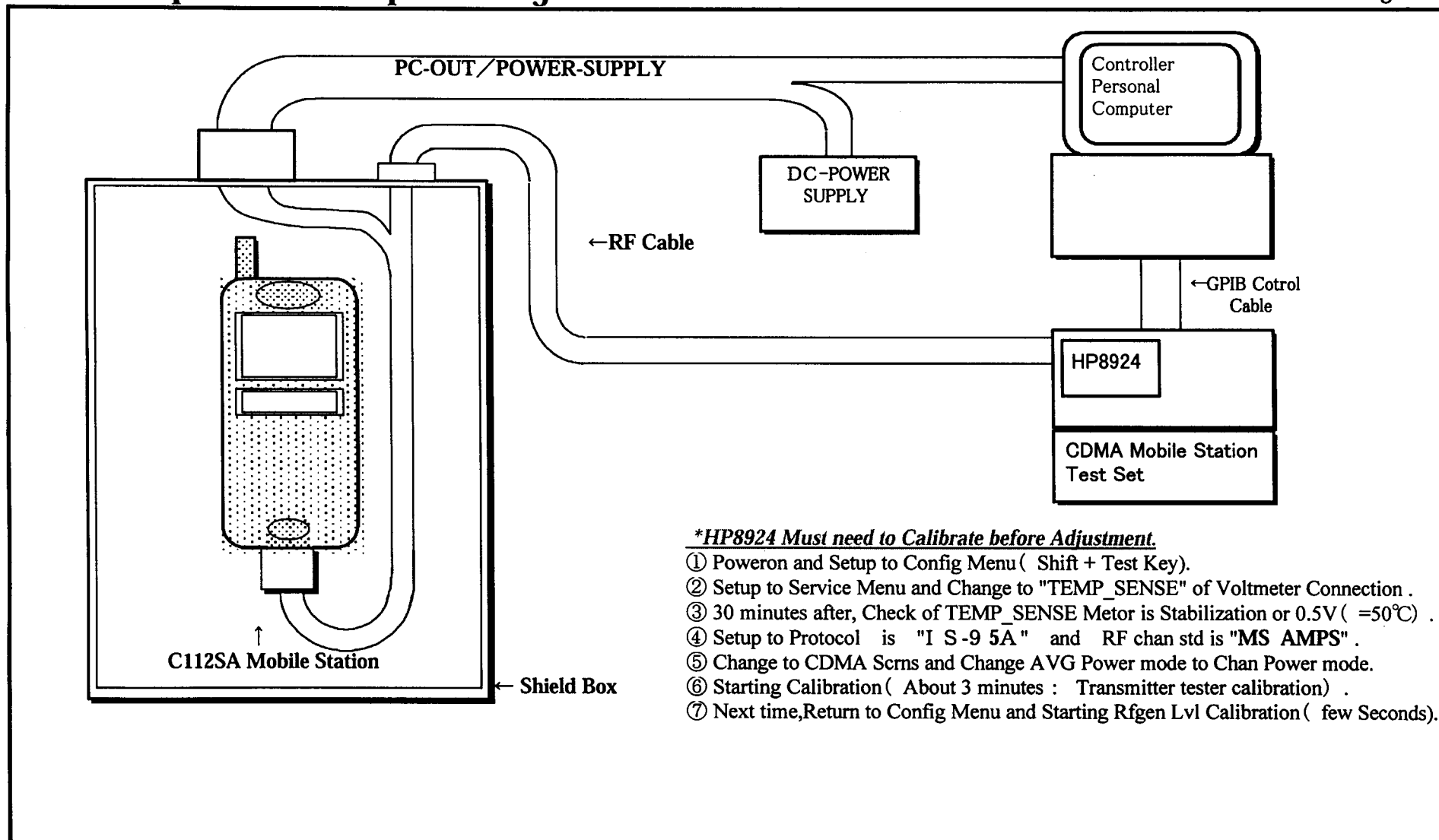


1 . Set-Up for Tune-Up and Adjustment of Transmitter

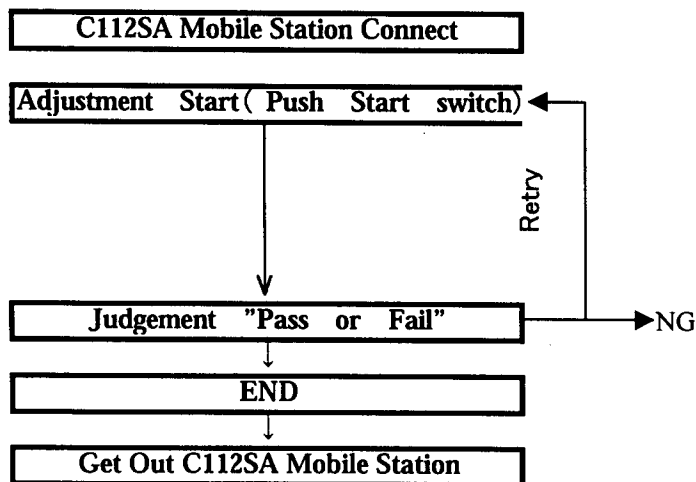
Page 1



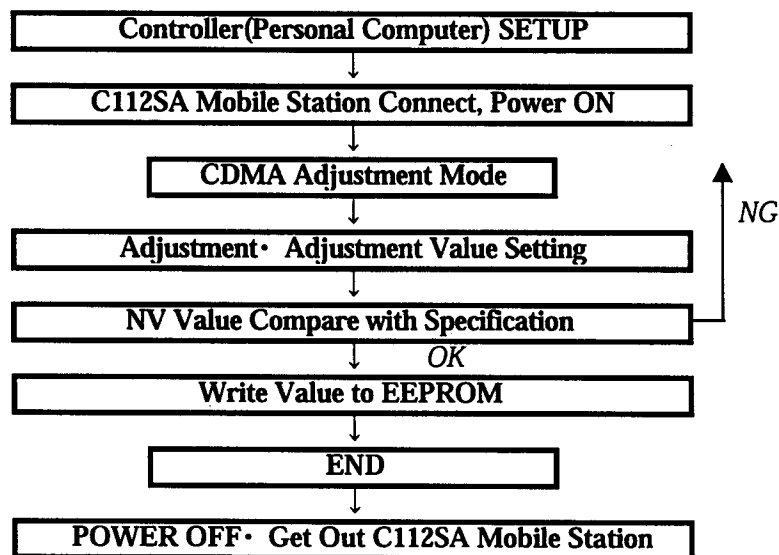
2 . Alignment Procedure

(1) Adjustment Procedure

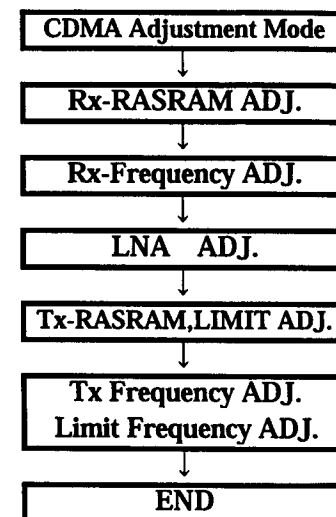
<Adjustment Mass Production Line>



<Adjustment Process>

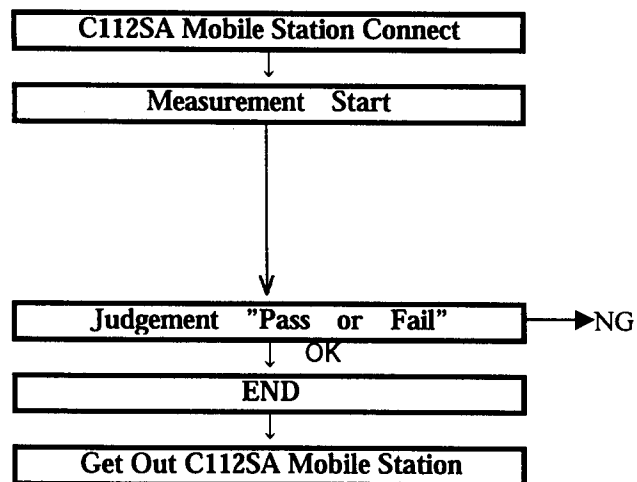


<Adjustment Item>

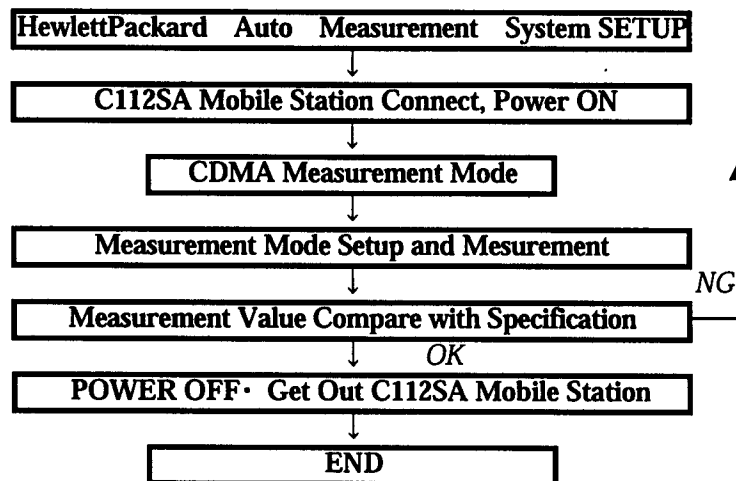


(2) Measurement Procedure

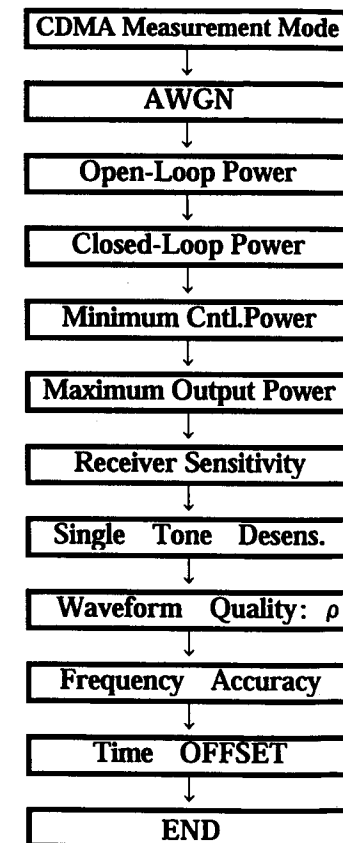
<Measurement Mass Production Line>



<Measurement Process>



<Measurement Item>



3. Adjustment Value

1. CDMA RX Adjustment

I T E M	Sub-ITEM	Handset Setup(Internal Setup)	HP8924 Setup	Adj. Value	Accuracy of NV-Value
Rx-RASRAM Adjustment	Table 1	Normal Mode	cdma Ch=358 : SG LV=-106.0dBm	-106.0dBm	
	Table 2	OFF Line Mode	SG LV=-100.6dBm	-100.6dBm	
	Table 3		SG LV=-95.3dBm	-95.3dBm	
	Table 4		SG LV=-90.0dBm	-90.0dBm	
	Table 5		SG LV=-84.7dBm	-84.7dBm	
	Table 6		SG LV=-79.4dBm	-79.4dBm	
	Table 7		SG LV=-74.1dBm	-74.1dBm	
	Table 8		SG LV=-68.8dBm	-68.8dBm	
	Table 9		SG LV=-63.5dBm	-63.5dBm	
	Table 10		SG LV=-58.1dBm	-58.1dBm	
	Table 11		SG LV=-52.8dBm	-52.8dBm	
	Table 12		SG LV=-47.5dBm	-47.5dBm	
	Table 13		SG LV=-42.2dBm	-42.2dBm	
	Table 14		SG LV=-36.9dBm	-36.9dBm	
	Table 15		SG LV=-31.6dBm	-31.6dBm	
	Table 16		SG LV=-26.3dBm	-26.3dBm	
	Table 17		SG LV=-21.0dBm	-21.0dBm	
RX AGC Frequency Adjustment	Bk 0=1017ch	Normal Mode	RF INPUT(SG) LV=-63.5dBm	AGC DIFF.	
	Bk 1=46ch	Reference ch : 358ch	Change to Channel 16 Time.	AGC DIFF.	
	Bk 2=98ch	Deference of Center ch AGCsym.		AGC DIFF.	
	Bk 3=150ch	Change to Channel 16 Time.		AGC DIFF.	
	Bk 4=202ch	OFF Line Mode		AGC DIFF.	
	Bk 5=254ch			AGC DIFF.	
	Bk 6=306ch			AGC DIFF.	
	Bk 7=358ch			Center CH	
	Bk 8=410ch			AGC DIFF.	
	Bk 9=462ch			AGC DIFF.	
	Bk10=514ch			AGC DIFF.	
	Bk11=566ch			AGC DIFF.	
	Bk12=618ch			AGC DIFF.	
	Bk13=670ch			AGC DIFF.	
	Bk14=722ch			AGC DIFF.	
	Bk15=774ch			AGC DIFF.	

I T E M	Sub-ITEM	Handset Setup(Internal Setup)	HP8924 Setup	Adj. Value	Accuracy of NV-Value
LNA Adjustment	①LNAOffset	LNA Gain Active Point Setting	Reference ch : 358ch		
	②LNASlope	LNA Gain Slope Setting			
	③LNAMIN	LNA vs RFin Active Point			
	④LNAMAX	LNA Active SPAN Setting			

ITEM	Sub-ITEM	Handset Setup (Internal Setup)	HP8924 Setup	Adj. Value	Accuracy of NV-Value	
Tx-RASRAM → Adjustment		Normal Test Mode	CDMA Ch=358ch	+24.0dBm		
	1-1. Set AGC Register=195 /Store measurement of Tx-Power.	SG LEVEL according to the transmission LEVEL of MS.	-50.0dBm			
	1-2. Set AGC Register=195-30stp (-165,-135,...)					
	1-3. Store measurement of Tx-Power					
	Repeat 1-2,1-3 until the value exceeds +6dBm.					
	2-1. Set AGC Register=195 /Store measurement of Tx-Power.					
	2-2. Set AGC Register=195+30stp (225,255,...)					
	2-3. Store measurement of Tx-Power.					
	2-4. Repeat 2-2,2-3 until the above value is <-50 dBm or the Register value is 345.					
	2-5. When the value is <-50 dBm or Register = >345,					
	2-6. Set AGC Register=+15stp					
	2-7. Store measurement of Tx-Power.					
	2-8. Draw the approximate curve by the setting value of AGC Register and measurement of Tx-Power					
	Tx-Limit → Adjustment	Table 1	According to the above approximate	CDMA Ch=358ch	+11.75dBm	
		Table 2	curve, each AGC register value		+13.1dBm	
Table 3		corresponded to Tx-limit levels are		+14.4dBm		
Table 4		registered.		+15.7dBm		
Table 5				+17.1dBm		
Table 6				+18.4dBm		
Table 7				+19.7dBm		
Table 8				+21.1dBm		
Table 9				+22.4dBm		
Table 10				+23.7dBm		
Table 11				+25.1dBm		
Table 12				+26.4dBm		
Table 13				+27.7dBm		
Table 14				+29.0dBm		
Table 15				+30.4dBm		
Table 16				+31.7dBm		
OFFSET		Offset : 18.4dB (Table 6)		+19.7dBm		
SPN		Spn : 26.4dBm (Table 12)		+29.0dBm		

3. Tx AGC Frequency Adjustment and Tx Limit Frequency Adjustment.

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TX AGC Frequency Adjustment	Bk 0=1017c	Nomal Test Mode	RF INPUT(SG) LV=-95.4dBm	Tx-Pow diff.	
	Bk 1=46ch	Reference ch : 358ch	Change to Channel 16 Time.	Tx-Pow diff.	
	Bk 2=98ch	Difference of Center ch AGCsym.		Tx-Pow diff.	
	Bk 3=150ch	Change to Channel 16 Time.		Tx-Pow diff.	
	Bk 4=202ch			Tx-Pow diff.	
	Bk 5=254ch			Tx-Pow diff.	
	Bk 6=306ch			Tx-Pow diff.	
	Bk 7=358ch			Tx-Pow diff.	
	Bk 8=410ch			Tx-Pow diff.	
	Bk 9=462ch			Tx-Pow diff.	
	Bk10=514ch			Tx-Pow diff.	
	Bk11=566ch			Tx-Pow diff.	
	Bk12=618ch			Tx-Pow diff.	
	Bk13=670ch			Tx-Pow diff.	
	Bk14=722ch			Tx-Pow diff.	
	Bk15=774ch			REF. CH	
& TX Limit Frequency Adjustment	Bk 0=1017c	Nomal Test Mode	RF INPUT(SG) LV=-95.4dBm	*	
	Bk 1=46ch	Reference ch : 358ch	Change to Channel 16 Time.	*	
	Bk 2=98ch	Difference of Center ch AGCsym.		*	
	Bk 3=150ch	Change to Channel 16 Time.		*	
	Bk 4=202ch			*	
	Bk 5=254ch			*	
	Bk 6=306ch			*	
	Bk 7=358ch			*	
	Bk 8=410ch			*	
	Bk 9=462ch			*	
	Bk10=514ch			*	
	Bk11=566ch			*	
	Bk12=618ch			*	
	Bk13=670ch			*	
	Bk14=722ch			*	
	Bk15=774ch			REF. CH	

*TX-Power Differential + ADC Differential×Limit Table Value

4. Measurement Specification of Adjustment

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CDMA Measurement Specification

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 Test12(Eb/Nt=2.9)	IS98A:9.3.3	1%(0.010) 1%(0.010)	1%(0.010) 1%(0.010)	Rate1 1200(TEST6) Rate2 1800(TEST12)	383ch 383ch	
Waveform Quality RHO Frequency Err Rate Time Offset	IS98A:10.3.2	>0.944 ±300Hz ±1 μ S	>0.944 ±300Hz ±1 μ S	Rateset2 SVC opt9 14400bps Traffic Ec/Io -12.3dB	1013ch,383ch,777ch 1013ch,383ch,777ch 1013ch,383ch,777ch	
TTC Range of Openloop Openloop Power Test1 Openloop Power Test2 Openloop Power Test3	IS98A:10.4.1	dBm -48±9.5(CLASSⅢ) -8±9.5(CLASSⅢ) 18~30(CLASSⅢ)	dBm -48±9.5(CLASSⅢ) -8±9.5(CLASSⅢ) 18~30(CLASSⅢ)	Rateset2 SVC opt9 14400bps	1013ch,383ch,777ch 1013ch,383ch,777ch 1013ch,383ch,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	1013ch,383ch,777ch 1013ch,383ch,777ch 1013ch,383ch,777ch	
TTC Min.Controlled Pow Minimum Controlled Pow	IS98A:10.4.6	-50dBm/1.23MHz	-50dBm/1.23MHz	Rateset2 SVC opt9 14400bps	1013ch,383ch,777ch	
RTC Receiver Sensitivity Receiver Sensitivity FER	IS98A:9.4.1	0.5%(Confidence95%)	0.5%(Confidence95%)	Rate1 Full -104.0dBm	1013ch,383ch,777ch	
Single Tone Desens. Sensitivity FER	IS98A: 9.4.2	1.0%(Confidence95%)	1.0%(Confidence95%)	Tone Offset ±900kHz	1013ch,383ch,777ch	
TTC Max RF Output Pow Max Power Output Max Power Spurious(Ch) Max Pow.Spurious Freqoff	IS98A:10.4.5	> 0.2W < -42dBc —	22.0dBm~24.0dBm < -42dBc —		1013ch,383ch,777ch 1013ch,383ch,777ch 1013ch,383ch,777ch	
TTC Conducted Spurious Spur Inband Power(30kHz) Spur Inband Freq(30kHz) Spur Inband Pow.(-42dBc)	IS98A:10.5.1	Measurement Level Measurement Freq. < -42dBc	Measurement Level Measurement Freq. < -42dBc	SVC Opt9(14400) -13dBm/1.23MHz	383ch 383ch 383ch	