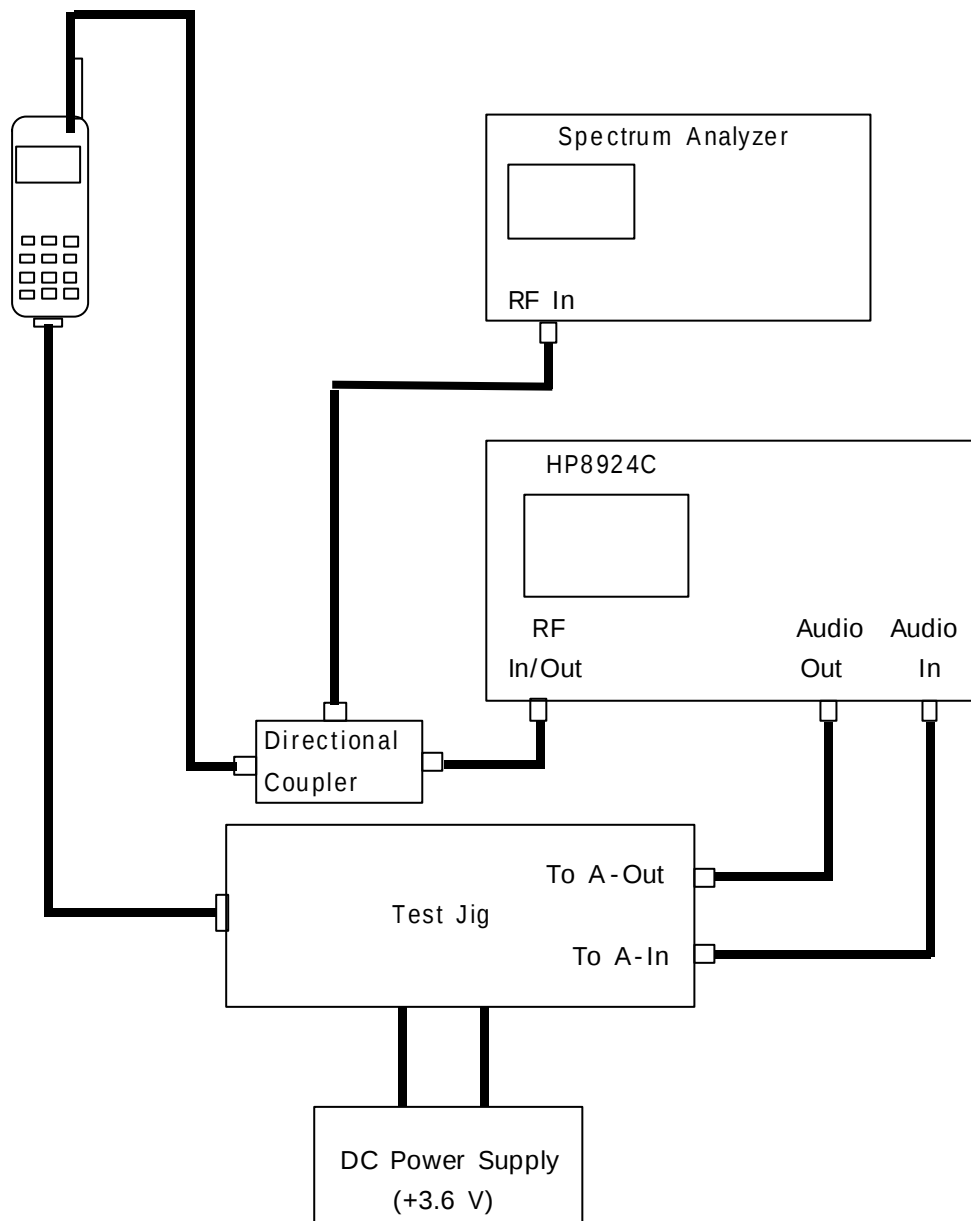


List of Equipment

- DC Power Supply
- Test Jig
- Test Cable
- CDMA Mobile Station Test Set HP8924C, HP83236A, CMD-80, etc
- Spectrum Analyzer(include CDMA test mode) HP8596E

Configuration of Test



Change to Test Mode

A. To change the phone from Normal Mode to test Mode, You should enter the following keys.

" 4 7 * 8 6 9 # 1 2 3 5 "

B. The command '0 1'(Suspend) is entered to start test.

C. To finish the Test Mode, You should enter the command "0 2".

Channel Selection and Tx Power Output level Control

A. You should change the phone from Normal Mode to PCS Test mode

" 0 1 , 2 0 3 0 6 0 0 , 0 2 "

B. The command '0 1'(Suspend) is entered to start test.

C. You should enter the following keys.

" 0 9 X X X X # , 0 7 , 3 4 , 5 5 , 7 1 X X X # "

- If you enter the command "0 9", You can select the channel

ex) 0 9 0 3 6 3 (under-bar means channel number)

- The command "0 7" means Carrier On (Carrier Off : "0 8 ")

- If you enter the command "3 4", You can spread the carrier.

- If you enter the command "8 4", You can select high power mode.

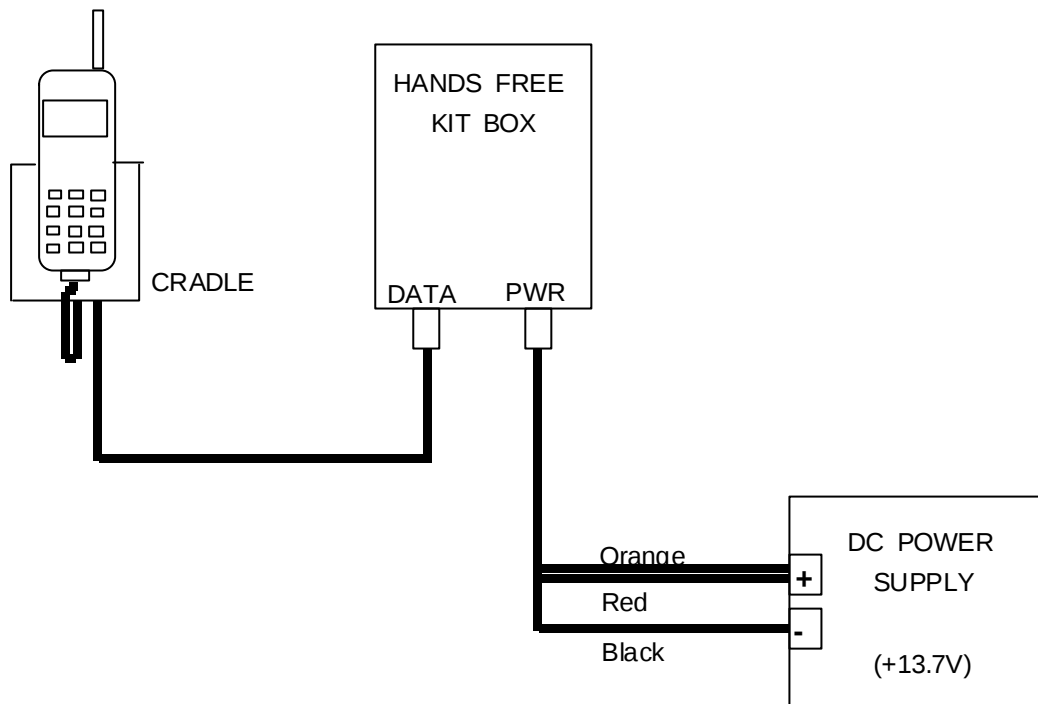
- If you enter the command "7 1", You can control the power output level.

Following under-bar means AGC code. And you can control the power output level using [SEND] or [END] Keys.

ex) 7 1 4 7 5

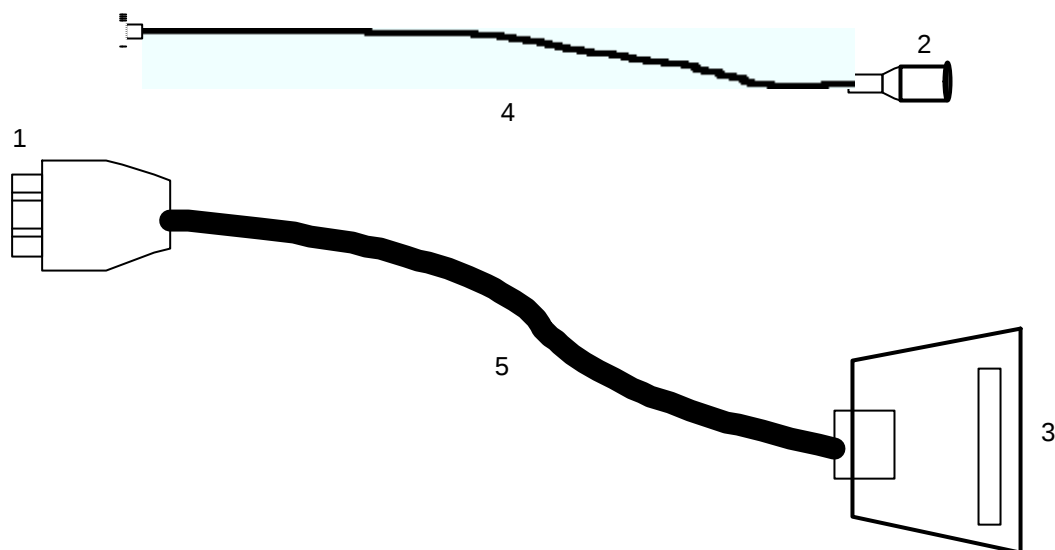
D. After enter the command "9 3" and control the Tx Power Output Level to be each power level step (TX RAS) using [SEND] or [END] key , press "OK" key to store Data in EEPROM.

Configuration of Test (Hands-Free)



TEST CABLE DESCRIPTION FOR SPH-A200

1. TEST CABLE

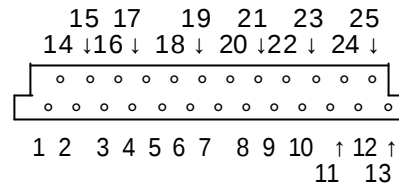


2. TEST CABLE CONNECTIONS

1	PLUG CONNECT TO SPH-A200
2	BNC CONNECTOR (RF)
3	Dsub 25PIN CONNECTOR (DATA)
4	RF CABLE
5	DATA CABLE

3. Dsub 25 PIN CONNECTOR PIN DESCRIPTION (TEST CABLE 1, BACK SIDE)

DATA DESCRIPTION	Dsub CONN. PIN NO.
Vcc	4, 5, 6
GND	13, 23, 24, 25
PW ON/OFF	7
TX AUDIO	10
TX DATA	22
RX AUDIO	12
RX DATA	21
RSSI	8



4. CONVERSION TABLE OF FREQUENCY vs CHANNEL

TYPE	CHANNEL	CONVERSION EQUATION	REMARK
TX FREQUENCY	$0 \leq N \leq 1199$	$F = 0.05 \times N + 1850.00$	N ; CH NUMBER F ; FREQUENCY
RX FREQUENCY	$0 \leq N \leq 1199$	$F = 0.05 \times N + 1930.00$	

TEST MODE

TEST ITEM	STEP	PROCEDURE
1. PREPARE	a b c d	Connect the test equipment Enter the test mode: press [4 7 * 8 6 9 # 1 2 3 5] Select AMPS mode: Press in test mode [2 0 <u>3</u> <u>0</u> <u>6</u> <u>0</u> <u>0</u>] If you press a wrong key, press [#] key and then enter new command. To exit the test mode at any time : press [0 2]
2. FREQUENCY ACCURACY	a b c d e	Set the channel 600 : press [0 9 0 6 0 0] Turn the carrier on and set the power level. : press [07, 84, 71×××] Measure the frequency accuracy (spec: ±150Hz) To adjust the Frequency Accuracy : press [89] and use [SEND] or [END] key. Store the Frequency Accuracy in EEPROM: Press [OK]
3. OCCUPIED CDMA BAND WIDTH	a b c	Set the channel 600: press [0 9 0 6 0 0] Turn the carrier on and set the power level. : press [0 7, 3 4, 84, 7 1 X X X] Measure the Band Width. (spec: 1.32MHz)
4. LIMITATIONS ON EMISSIONS	a b c	Set the channel 600: press [0 9 0 6 0 0] Turn the carrier on and set the power level. : press [0 7, 3 4, 8 4, 7 1 X X X] Measure the spurious at $F_c \pm 900\text{kHz}$, $F_c \pm 1.98\text{MHz}$, $2F_c$, $3F_c$, $1/2F_c$ spec: $F_c \pm 900\text{kHz}$ below 42dBc/30kHz $F_c \pm 1.98\text{MHz}$ below 54dBc/30kHz Outside Receive Band $43 + 10\log(PY)$ PY: Mean output power in watts
5. GATED POWER & TIME	a b c d e	Set the Service option: 2 Set the Data Rate: Eighth (1200bps) Registering: HHP --> HP8924C Call : HP8924C --> HHP Measure the Gated Power & Time spec: Gated Power at least 20dB Gated Time - Rising Time: below 7us Falling Time: below 7us Burst Time: below 1.247ms

10. PARTS LIST

11. FUNCTIONS OF ACTIVE DEVICES

NO	NAME	VENDOR CODE	DESCRIPTION
1	U320	STW5093CYLT	CODEC
2	U307	MSM 3000C176FBGA	Mobile Station Modem
3	F101	HPMD - 1703(F - BAR)	DUPLEXER
4	OSC100	PO1241NA	VCO+PLL MODULE
5	OSC101	KT16 - DCV30L - 19.680M - T	VCTCXO
6	U105	S1M8657X	IFT
7	U103	S1M8656A	IFR
8	U219	MD59 - 0022TR	UP CONVERTER
9	U101	MD59 - 0049	DOWN CONVERTER
10	U100	RI23110K	POWER AMP