Agilent N9360A
Multi UE Tester

Quick Reference Guide

Agilent Technologies

Notices

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WARNING

A WARNING notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a WARNING notice until the indicated conditions are fully understood and met.

Preface

Thank-you for purchasing the Agilent N9360A mobile communciations tester.

- Before using the tester, the user is advised to read this manual carefully to ensure correct usage and also to fully utilize the tester capability.

- This manual is a reference document and the user is advised to keep it carefully for future reference.

- The manual includes the the tester operation, test procedures and screen references.

- Refer to the N9360A Multi UE Tester Installation Guide for information regarding installation and details of the tester. Refer also to the N9360A W-CDMA Option User Manual and N9360A cdma2000 Option User Manual for information about the test functions of the Wideband Code Division Multiple Access (W-CDMA), and Code Division Multiple Access (cdma2000).

Notation

The following notations are used in this manual:

- **Softkey**: indicates a softkey;

- [Screen Name]: indicates a screen name;

- Tester/tester : indicates the N9360A Multi UE Tester.

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Service And Support

Any adjustment, maintenance, or repair of this product must be performed by qualified personnel. Contact your customer engineer through your local Agilent Technologies Service Center.

Agilent On The Web

You can find information about technical and professional services, product support, and equipment repair and service on the Web: **http://www.agilent.com/**

Double-click the link to **Test & Measurement**. Select your country from the drop-down menus. The Web page that appears next has contact information specific for your country

Agilent By Phone

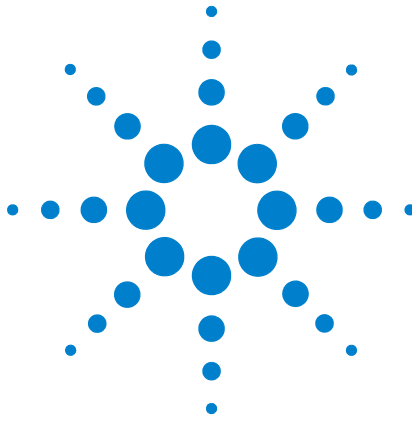If you do not have access to the Internet, call one of the numbers in **Table 1-1**.

Table 1-1 Agilent Call Centers and Regional Headquarters

United States and Canada:	Test and Measurement Call Center (800) 452 4844 (toll-free in US)
Europe:	(41 22) 780 8111
Japan:	Measurement Assistance Center (81) 0426 56 7832
Latin America:	305 269 7548
Asia-Pacific:	(85 22) 599 7777

Manufacturing Address

Agilent Technologies Microwave Products (Malaysia) Sdn. Bhd.

Bayan Lepas Free Industrial Zone,

11900 Penang,

Malaysia.

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2
Caution and Safety Requirements

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2-1

Safety Information

Safety Summary

The following general safety precautions must be observed during all phases of operation of this instrument. Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture, and intended use of the instrument. Agilent Technologies, Inc. assumes no liability for the customer's failure to comply with these requirements.

Safety Notices

| **CAUTION** | A **CAUTION** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like, that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a **CAUTION** notice until the indicated conditions are fully understood and met. |

| **WARNING** | **A WARNING notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a WARNING notice until the indicated conditions are fully understood and met.** |

Warning Label

A warning label is stuck on the front panel of the Tester.

Do not remove, damage or modify the warning label.

General

<table>
<tr>
<td>**WARNING**</td>
<td>**The protection provided by the N9360A tester may be impaired if the tester is used in a manner not specified by Agilent or the instructions on the display are not followed.**</td>
</tr>
</table>

<table>
<tr>
<td>**WARNING**</td>
<td>**DO NOT INSTRUMENT COVERS. Operating personnel must not remove any instrument covers. Component replacement and internal adjustments must be made only by qualified service personnel. Products that appear damaged or defective should be made inoperative and secured against unintended operation until they can be repaired by a qualified service personnel.**</td>
</tr>
</table>

When Operating The Tester

<table>
<tr>
<td>**CAUTION**</td>
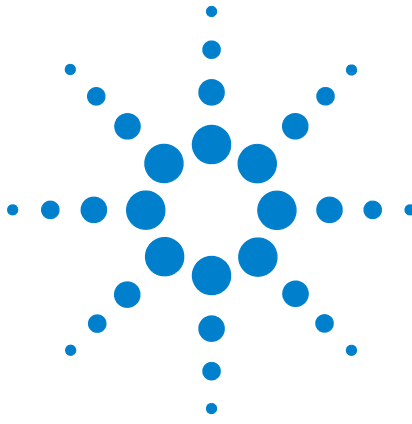<td>Make sure that the input signal level does not exceed the maximum level allowed. Tester failure may result otherwise.</td>
</tr>
</table>

<table>
<tr>
<td>**CAUTION**</td>
<td>Do not turn off the Line switch on the rear panel of the Tester while the LINE LED on the front panel of the Tester is lit in green. Otherwise, Tester failure may occur.</td>
</tr>
</table>

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3

General Operation

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Using a USB memory device

A USB memory device can be used to save and recall the test procedures, to update the firmware of the Tester, and to save screen images as image files.

Saving and Recalling Test Procedures:

All settings for Automatic Test, Manual Test, TX Analyzer, Signal Generator, and Configuration can be saved into a test procedure file.

To save a test procedure or to recall a pre-defined test procedure, go to the [Configuration] screen, then the [File Management] screen.

Updating the Firmware:

To update firmware of the Tester, press the **FW Update** softkey to go to the [Firmware Update] screen on the [Configuration] screen obtained from the [Top Menu] screen. Refer to the "Firmware Update Screen" in the *User's Guide* for details.

Saving a Screen Image:

To enable this function, it is required to set the "Printer" input field on the [Configuration] screen to `USB Memory`. Then, to save a screen image into a USB memory device, press the **Print Screen** softkey. The file format is PNG (Portable Network Graphics).

Using the Knob on the Front Panel

1. Rotate the knob to place the cursor next to the input field where you want to change.

3. Rotate the knob to change the value in the field.

2. Push the knob to select the field where you placed the cursor.

4. Push the knob to set the value.
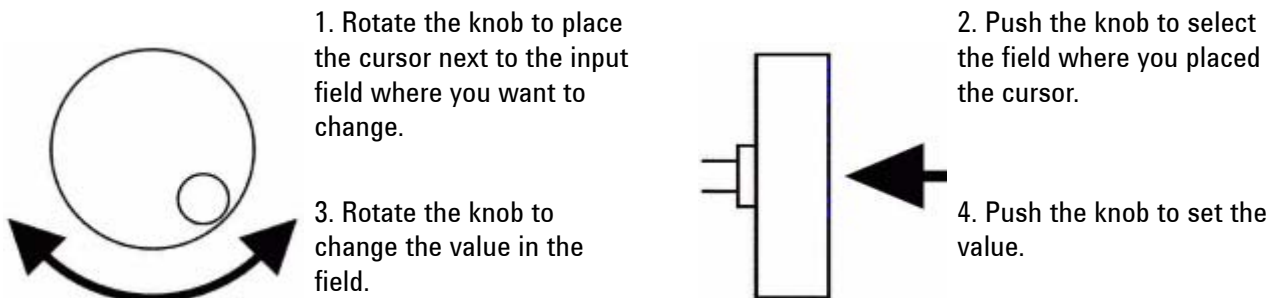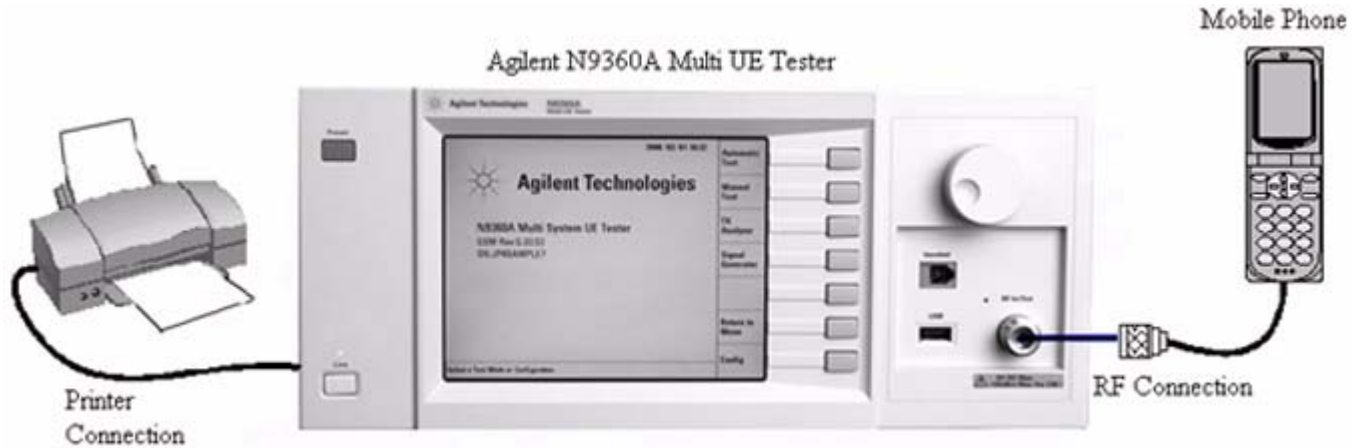
Preparation for Tests

Figure 3-1 Typical Test Setup

Connecting RF Signal:

1 Connect the mobile phone to the Tester using the user-supplied RF Cable, optional Antenna Coupler, or optional Shield Case.

2 On the [Loss] screen obtained from the [Initial], [Configuration] and [Configuration: Test Condition] screens, set the "Loss" field to On and enter the appropriate loss values for each Radio System or Band in the "RF In" and "RF Out" fields depending on the RF connection.

Connecting a Printer:

• Connect a printer to print a hardcopy of the test results if required.

Inserting the TEST SIM for GSM mobile phone or TEST USIM for a W-CDMA mobile phone:

• Insert the Test SIM (Subscriber Identity Module) supplied by Agilent into the GSM mobile phone or the test USIM (Universal Subscriber Identity Module) supplied by Agilent into the W-CDMA mobile phone before performing any test.

• GSM/W-CDMA/cdma2000 Mobile Phone Repair Process

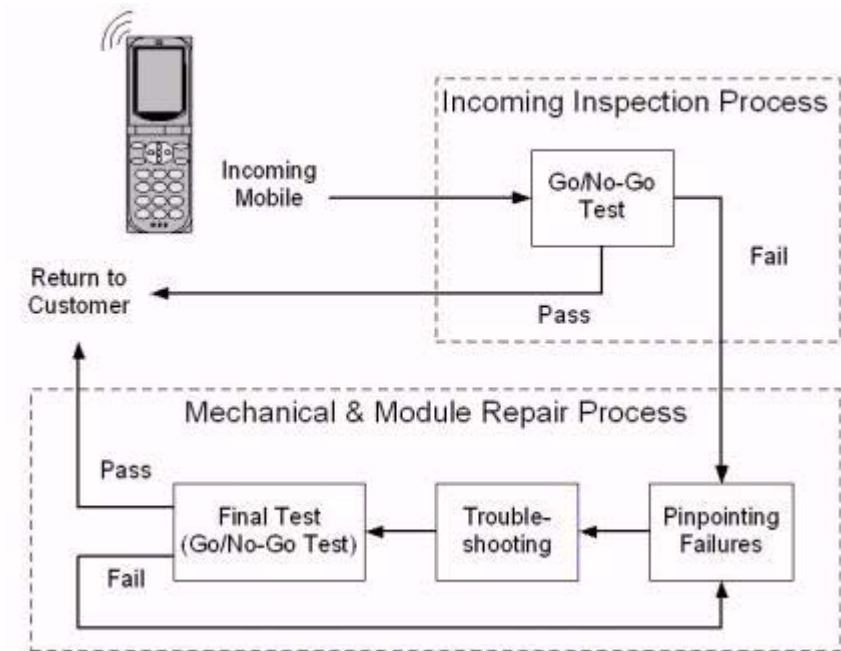## GSM/W-CDMA/cdma2000 Mobile Phone Repair Process

Figure 3-2 Mobile Phone Repair Process

A typical GSM, W-CDMA and cdma2000 mobile phone repair process at service centers is basically divided into two processes, Incoming Inspection and Mechanical & Module Repair. In each process, you can perform the following tests with the Agilent N9360A Multi UE Tester.

Table 3-1 Mobile Phone Repair Function

Process	Test	Agilent N9360A Multi UE Tester Function
Incoming Inspection	Go/No-Go Test	Automatic Test
Module Repair	Pinpointing Failures	Automatic Test
	Troubleshooting	Manual Test
	Adjustment	TX Analyzer, Signal Generator
	Final Test (Go/No-Go Test)	Automatic Test

4

GSM System

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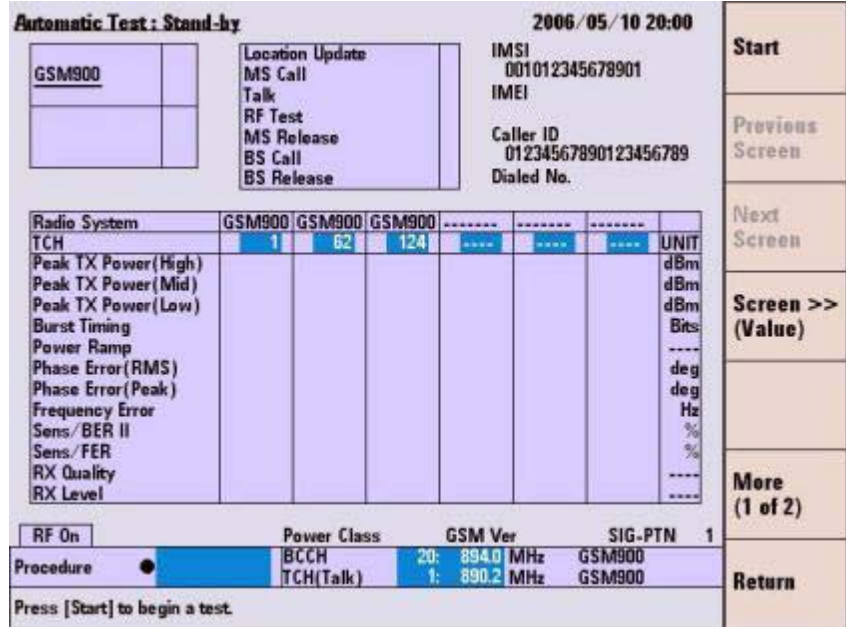
For Go/No-Go Testing

Figure 4-1 [Automatic Test: Stand-by] Screen

1   Press the **Automatic Test** softkey on the [Initial] screen in GSM system.

2   Move the cursor to the "Procedure" field, and select a pre-defined test procedure.

3   Press the **Start** softkey.

4   Turn the mobile phone on. Wait for the completion of Location Update.

5   Operate the mobile phone as instructed in the table below. Each test flow step is highlighted as it runs.

6   After completing the test, check the results on the screen.

7   To print the test results or to save them into a USB memory device, press the **More (1 of 2)** softkey and then the **Print Screen** softkey.

Table 4-2 GSM Automatic test sequence

Step	Action needed
Location Update	Wait until the Location Update is complete.
MS Call	Dial an arbitrary number and press the Off Hook key on the mobile phone.
Talk	Talk to the mobile phone to judge its loop back sound quality and press the **Pass** or **Fail** softkey.
RF Test	Wait until the RF test is complete.
MS Release	Finish the call from the mobile phone.
BS Call	Respond to the call on the mobile phone.
BS Release	Wait until the call is finished from the Tester.

For Pinpointing Failures

Figure 4-2 [Automatic Test: Stand-by] Screen

1 Perform the steps described in "For Go/No-Go Testing."

2 Press the **Screen>>** softkey to set screen mode to Detail or Value.

3   Rotate the knob to place the cursor in one of the Pass/Fail cells on the detail screen or test result cells on the value screen. Then, press the knob.

4   One of the following measurement result screens is displayed according to your selection in step 3.

- To print the measurement results or to save them into a USB memory device, press the **Print Screen** softkey.

- In the graphical display, you can use the marker function to read data points by rotating the knob.

- The zoom function is available on the power ramp graph display by pressing the **Zoom Off/On** softkey.
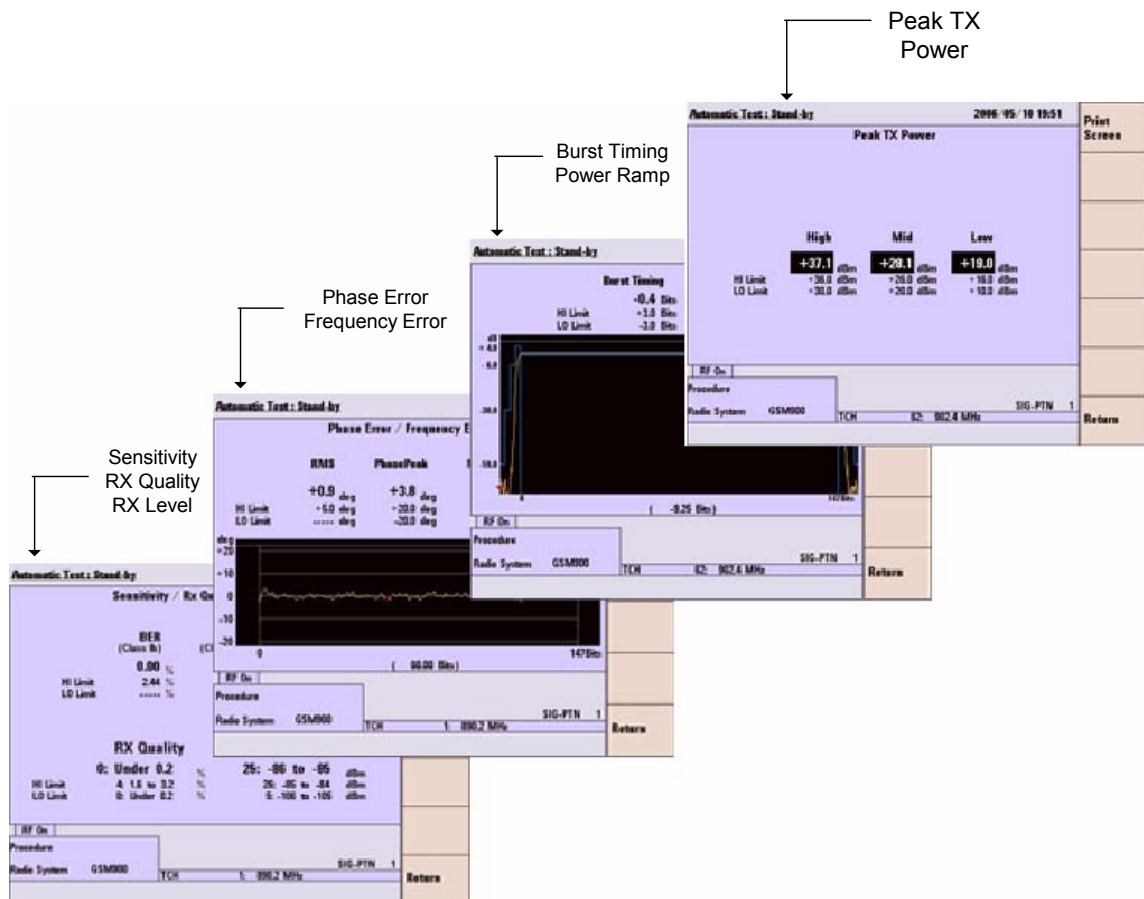

Peak TX Power

Burst Timing Power Ramp

Phase Error Frequency Error

Sensitivity RX Quality RX Level

Figure 4-3 Various [Automatic Test: Stand-by] Screens

5   To display other measurement result screens or to finish analysis, press the **Return** softkey to display the previous screen.

For Troubleshooting

Figure 4-4 [Manual Test (GSM): Stand-by] Screen

1 Press the **Manual Test** softkey on the [Initial] screen.

2 Move the cursor to the "Procedure" field and select a pre-defined test procedure.

3 Turn the mobile phone on.

4 Wait for the completion of Location Update.

5 Press the **BS Call** softkey and respond to the call on the mobile phone when it is called. Or, dial an arbitrary number and press the Off Hook key on the mobile phone to start the MS Call.

6 To start measurement while the left screen is displayed, refer to step 7. For detailed measurement at each measurement item, refer to step 8.
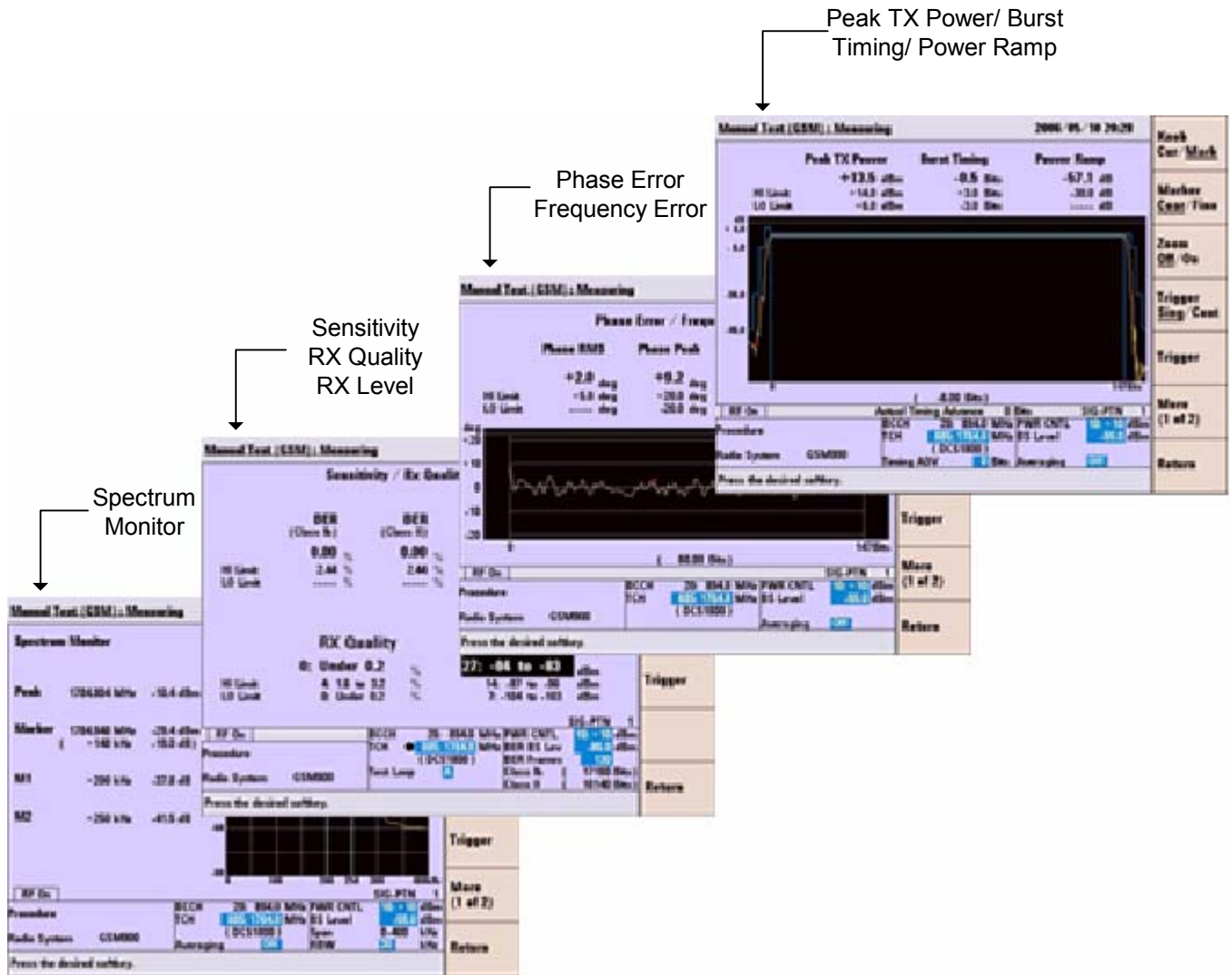
Peak TX Power/ Burst
Timing/ Power Ramp

Phase Error
Frequency Error

Sensitivity
RX Quality
RX Level

Spectrum
Monitor

Figure 4-5 Various [Manual Test (GSM): Stand-by] Screens

7   While "Connection" is highlighted in the test flow, press the **Trigger** softkey to start single measurement or the **Trigger Sing/Cont** softkey to start continuous measurement. Press the **Trigger Sing/Cont** softkey again to terminate the continuous measurement.

8   Place the cursor at one of the groups of the test items and press the knob or press the **Spectrum Monitor** softkey to display a measurement result screen according to your selection. Then, press the **Trigger** softkey to start single measurement or **Trigger Sing/Cont** softkey to start continuous measurement.

Press the **Trigger Sing/Cont** softkey again to terminate the continuous measurement.

9 In the graphical display, the marker function is available to read the data points by rotating the knob. On the power ramp graph display, the zoom function is also available.

10 To display other measurement result screens, press the **Return** softkey to display the previous screen. To end the entire test, press the **Release** softkey to start the BS Release, or press the On Hook key on the mobile phone to finish the MS Release.

RF Channels

Table 4-3 GSM RF channel frequencies and channel number

	GSM850	GSM900	DCS1800	PCS1900
Uplink	824.2 to 848.8 MHz	890.2 to 914.8 MHz 876.2 to 889.8 MHz	1710.2 to 1784.8 MHz	1850.2 to 1909.8 MHz
Downlink	869.2 to 893.8 MHz	935.2 to 959.8 MHz 921.2 to 934.8 MHz	1805.2 to 1879.8 MHz	1930.2 to 1989.8 MHz
ARFCN	128 to 251	0 to 124 955 to 1023	512 to 885	512 to 810

NOTE	GSM900 includes P-GSM, E-GSM, and R-GSM Bands.

MS Power Control / Power Class

Table 4-4 GSM Power Control levels

GSM 850 / 900		DCS1800		PCS1900	
Power Control Level	Nominal Power (dBm)	Power Control Level	Nominal Power (dBm)	Power Control Level	Nominal Power (dBm)
0	39	29	36	30	33
3	37	30	34	31	32
4	35	31	32	0	30
5	33	0	30	1	28
6	31	1	28	2	26

Table 4-4 GSM Power Control levels

GSM 850 / 900		DCS1800		PCS1900	
Power Control Level	Nominal Power (dBm)	Power Control Level	Nominal Power (dBm)	Power Control Level	Nominal Power (dBm)
7	29	2	26	3	24
8	27	3	24	4	22
9	25	4	22	5	20
10	23	5	20	6	18
11	21	6	18	7	16
12	19	7	16	8	14
13	17	8	14	9	12
14	15	9	12	10	10
15	13	10	10	11	8
16	11	11	8	12	6
17	9	12	6	13	4
18	7	13	4	14	2
19	5	14	2	15	0
		15	0		

GSM 850 / 900		DCS1800		PCS1900	
Power Class	Max Power Control Level	Power Class	Max Power Control Level	Power Class	Max Power Control Level
1	N/A	1	0	1	0
2	2	2	3	2	3
3	3	3	29	3	30
4	5				
5	7				

RX Level

Table 4-5 RX levels

#	RX Level	#	RX Level	#	RX Level
0	≤−110 dBm	22	−89 to −88 dBm	44	−67 to −66 dBm
1	−110 to −109 dBm	23	−88 to −87 dBm	45	−66 to −65 dBm
2	−109 to −108 dBm	24	−87 to −86 dBm	46	−65 to −64 dBm
3	−108 to −107 dBm	25	−86 to −85 dBm	47	−64 to −63 dBm
4	−107 to −106 dBm	26	−85 to −84 dBm	48	−63 to −62 dBm
5	−106 to −105 dBm	27	−84 to −83 dBm	49	−62 to −61 dBm
6	−105 to −104 dBm	28	−83 to −82 dBm	50	−61 to −60 dBm
7	−104 to −103 dBm	29	−82 to −81 dBm	51	−60 to −59 dBm
8	−103 to −102 dBm	30	−81 to −80 dBm	52	−59 to −58 dBm
9	−102 to −101 dBm	31	−80 to −79 dBm	53	−58 to −57 dBm
10	−101 to −100 dBm	32	−79 to −78 dBm	54	−57 to −56 dBm
11	−100 to −99 dBm	33	−78 to −77 dBm	55	−56 to −55 dBm
12	−99 to −98 dBm	34	−77 to −76 dBm	56	−55 to −54 dBm
13	−98 to −97 dBm	35	−76 to −75 dBm	57	−54 to −53 dBm
14	−97 to −96 dBm	36	−75 to −74 dBm	58	−53 to −52 dBm
15	−96 to −95 dBm	37	−74 to −73 dBm	59	−52 to −51 dBm
16	−95 to −94 dBm	38	−73 to −72 dBm	60	−51 to −50 dBm
17	−94 to −93 dBm	39	−72 to −71 dBm	61	−50 to −49 dBm
18	−93 to −92 dBm	40	−71 to −70 dBm	62	−49 to −48 dBm
19	−92 to −91 dBm	41	−70 to −69 dBm	63	≥−48 dBm
20	−91 to −90 dBm	42	−69 to −68 dBm		
21	−90 to −89 dBm	43	−68 to −67 dBm		

RX Quality

Table 4-6 RX Quality

#	RX Quality		#	RX Quality
0	<0.2 %		4	1.6 to 3.2 %
1	0.2 to 0.4 %		5	3.2 to 6.4 %
2	0.4 to 0.8 %		6	6.4 to 12.8 %
3	0.8 to 1.6 %		7	>12.8 %

5
W-CDMA System
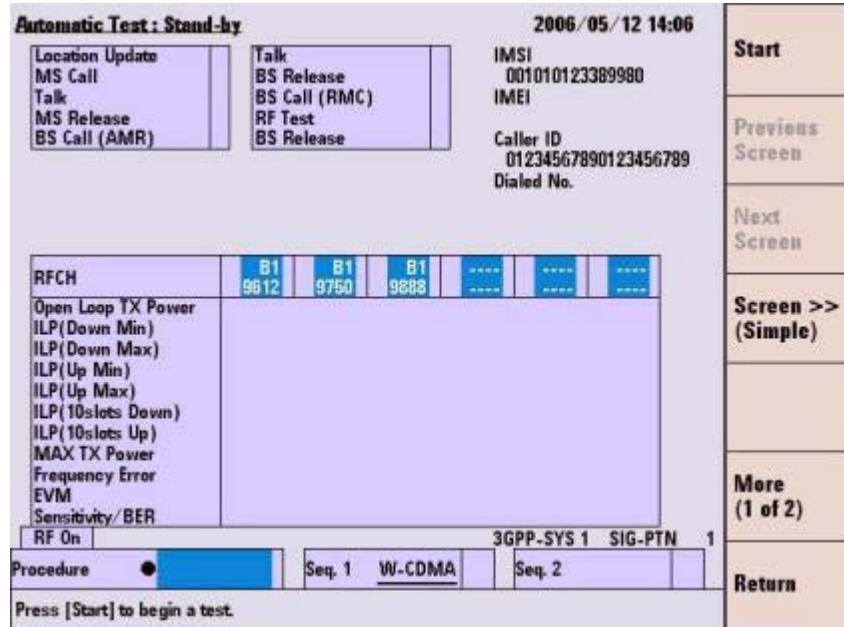
Agilent Technologies

5-1

For Go/No-Go Testing

Figure 5-1 [Automatic Test: Stand-by] Screen

1 Press the **Automatic Test** softkey on the [Initial] screen for W-CDMA system.

2 Move the cursor to the "Procedure" field, and select a pre-defined test procedure.

3 Press the **Start** softkey.

4 Turn the mobile phone on. Wait for completion of Location Update.

5 Operate the mobile phone as instructed in the table below. Each test flow step is highlighted as it runs.

6 After completing the test, check the results on the screen.

7 To print the measurement results or to save them into a USB memory device, press the **More (1 of 2)** softkey and then the **Print Screen** softkey.

Table 5-1 W-CDMA Automatic Test Sequence

Step	Action needed
Location Update	Wait until the Location Update is completed.
MS Call	Dial an arbitrary number and press the Off Hook key on the mobile phone.
Talk	Talk to the mobile phone to judge its loop back sound quality and press the **Pass** or **Fail** softkey.
MS Release	Finish the call from the mobile phone.
BS Call (AMR)	Respond to the call on the mobile phone.
BS Call (RMC)	The mobile phone automatically responds to the call.
RF Test	Wait until the RF test is completed.
BS Release	Wait until the call is finished from the Tester.

For Pinpointing Failures

Figure 5-2 [Automatic Test: Stand-by] Screen

1 Perform the steps described in "For Go/No-Go Testing."

2 Press the **Screen>>** softkey to set screen mode to Value.

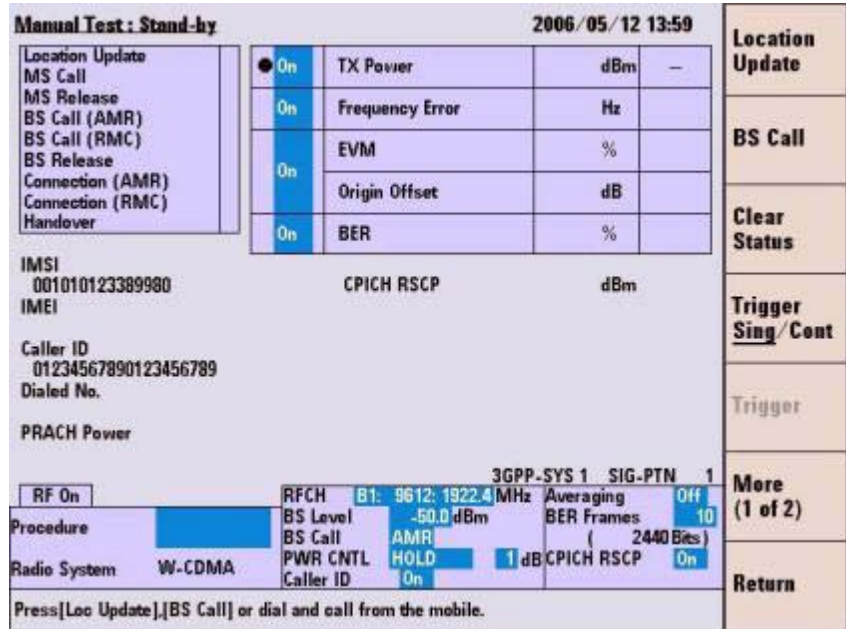**3** Check the values of the measurement results.

For Troubleshooting

Figure 5-3 [Manual Test: Stand-by] Screen

1   Press the **Manual Test** softkey on the [Initial] screen.

2   Move the cursor to the "Procedure" field and select a pre-defined test procedure.

3   Turn the mobile phone on.

4   Wait for the completion of Location Update.

5   Select "RMC" for BS Call at the "BS Call" input field.

6   Press the **BS Call** softkey.

7   While "Connection (RMC)" is highlighted in the test flow, press the **Trigger** softkey to start single measurement or the **Trigger** <u>Sing</u>**/Cont** softkey to start continuous measurement. Press the **Trigger Sing/**<u>Cont</u> softkey again to terminate continuous measurement.

8   Press the **Release** softkey to finish the Test.
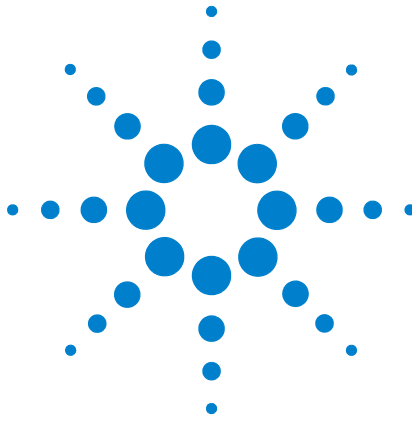
UARFCN

Table 5-2 W-CDMA Frequency Band

Band	Uplink ; mobile phone transmit		Downlink ; mobile phone receive	
	General	Additional	General	Additional
I	9612 to 9888	—	10562 to 10838	—
II	9262 to 9538	12, 37, 62, 87, 112, 137, 62, 187, 212, 237, 262, 287	9662 to 9938	412, 437, 462, 487, 512, 537, 562, 587, 612, 637, 662, 687
III	8562 to 8913	—	9037 to 9388	—
IV	8562 to 8763	1162, 1187, 1212, 1237,1262, 1287, 1312, 1337, 1362	10562 to 10763	1462, 1487, 1512, 1537, 1562, 1587, 1612, 1637, 1662
V	4132 to 4233	782, 787, 807, 812, 837, 862	4357 to 4458	1007, 1012, 1032, 1037, 1062, 1087
VI	4162 to 4188	812, 837	4387 to 4413	1037, 1062
VIII	2700 to 2875	—	2925 to 3100	—
IX	8750 to 8924	—	9225 to 9399	—

Mobile Phone Maximum Output Power

Table 5-3 UE Maximum Output Power

Operating Band	Power Class 1		Power Class 2		Power Class 3		Power Class 4	
	Power (dBm)	Tol. (dB)	Power (dBm)	Tol. (dB)	Power (dBm)	Tol. (dB)	Power (dBm)	Tol. (dB)
Band I	+33	+1/−3	+27	+1/−3	+24	+1/−3	+21	+2/−2
Band II					+24	+1/−3	+21	+2/−2
Band III					+24	+1/−3	+21	+2/−2
Band IV					+24	+1/−3	—	—
Band V					+24	+1/−3	23	+2/−2
Band VI					+24	+1/−3	+23	+2/−2
Band VIII					+24	+1/−3	—	—

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6
cdma2000 System

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6-1

When "CDMA Mode" is set to MC-1x mode

For Go/No-Go Testing

Figure 6-1 [Auto Test (MC-1x): Stand-by] Screen

1 Press the **Automatic Test** softkey on the [Initial] screen in cdma2000 system

2 Move the cursor to the "Procedure" field, and select a pre-defined test procedure.

3 Press the **Start** softkey.

4 Turn the mobile phone on. Wait for the completion of Location Update.

5 Operate the mobile phone as instructed in the table below. Each test flow step is highlighted as it runs.

6 After completing the test, check the results on the screen.

7 To print the test results or to save them into a USB memory device, press the **More(1 of 2)** softkey and then the **Print Screen** softkey.

Table 6-1 cdma2000 Automatic Test Sequence

Step	Action Needed
Location Update	Wait until the Location Update is complete.
MS Call (Talk)	Dial an arbitrary number and press the Off Hook key on the mobile phone.
Talk	Talk to the mobile phone to judge its loop back sound quality and press the Pass or Fail softkey.
MS Release	Finish the call from the mobile phone.
BS Call (Talk)	Respond to the call on the mobile phone.
BS Call (RF Test)	The mobile phone automatically responds to the call.
RF Test	Wait until the RF test is completed.
Softer Handoff	Wait until the Softer Handoff is completed.
BS Release	Wait until the call is finished from the Tester.

For Pinpointing Failures

Figure 6-2 [Auto Test (MC-1x): Stand-by] Screen

1 Perform the steps described in "For Go/No-Go Testing."

2 Press the **Screen>>** softkey to set screen mode to Value.

3 Check the values of the measurement results.

For Troubleshooting

Figure 6-3 [Manual Test (MC-1x): Stand-by] Screen

1 Press the **Manual Test** softkey on the [Initial] screen.

2 Move the cursor to the "Procedure" field and select a pre-defined test procedure.

3 Set the Service Option field to 32.

4 Turn the mobile phone on.

5 Wait for the completion of Location Update.

6 Press the **BS Call** softkey.

7 While "Connection" is highlighted in the test flow, press the **Trigger** softkey to start single measurement or the **Trigger Sing/Cont** softkey to start continuous measurement. Press the **Trigger Sing/Cont** softkey again to terminate continuous measurement.

8 Press the **Release** softkey to finish the test.

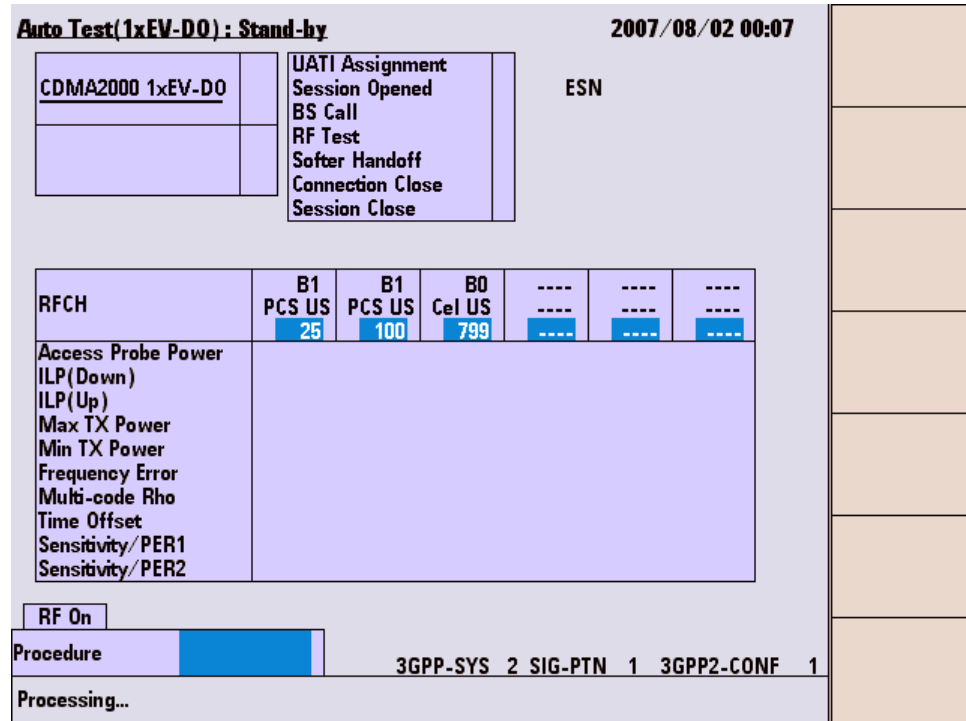## When "CDMA Mode" is set to 1xEV-DO mode

For Go/No-Go Testing

Figure 6-4 [Auto Test (1xEV-DO): Stand-by] Screen

1 Press the **Automatic Test** softkey on the [Initial] screen in cdma2000 system

2 Move the cursor to the "Procedure" field, and select a pre-defined test procedure.

3 Press the **Start** softkey.

4 Turn the mobile phone on. Wait for the completion of UATI Assinment.

5 Each test flow step is highlighted as it runs.

6 After completing the test, check the results on the screen.

7 To print the test results or to save them into a USB memory device, press the **More(1 of 2)** softkey and then the **Print Screen** softkey.

Table 6-2 1xEVDO Automatic Test Sequence

Step	Action Needed
UATI Assignment	Wait until the UATI Assignment is completed.
BS Call	The mobile phone automatically responds to the call.
RF Test	Wait until the RF test is completed.
Softer Handoff	Wait until the Softer Handoff is completed.
Connection Close	Wait until the connection is closed.
Session Close	Wait until the session is closed.

For Pinpointing Failures

Figure 6-5 [Auto Test (1xEV-DO): Stand-by] Screen

1 Perform the steps described in "For Go/No-Go" Testing".

2 Press the **Screen>>** softkey to set screen mode to Value.

3 Check the values of the measurement results.

For Troubleshooting

Manual Test (1xEV-DO) : Stand-by   **2007/08/02 00 34**

				UATI Assign
UATI Assignment Session Opened BS Call Connection Close Session Close Connection Softer Handoff Channel Change Band Change	On	TX Power	dBm —	
	On	Frequency Error	Hz	BS Call
	On	Multi-code Rho		
		Origin Offset	dBc	Clear Status
	On	Time Offset	usec	
ESN	On	PER Err Cnt / Pkt Cnt	%	Trigger Sing/Cont
		Max TX Power Min TX Power	dBm dBm	
		Access Probe Power	dBm	Trigger

Pilot Strength
        dB   3GPP-SYS 2 SIG-PTN   1 3GPP2-CONF 1

RF On
                        RFCH ● B1 : PCS US PWR CNTL HOLD   More (1 of 3)
Procedure   25: 1851.25 MHz   (☐ 1 dB)
                        BS Level   -75.0 dBm Max Packets   225
Radio System   CDMA2000 PER BS Level -75.0 dBm Confidence 95%
                        PER FT Rate   307.2 kbps Averaging   Off   Return

Press [UATI Assign].

Figure 6-6 [Manual Test (1xEV-DO): Stand-by] Screen

1 Press the **Manual Test** softkey on the [Initial] screen.

2 Move the cursor to the "Procedure" field and select a
      pre-defined test procedure.

3 Press the **UATI Assign** softkey.

4 Turn the mobile phone on, and wait for the completion of
      UATI Assignment.

5 Press the **BS Call** softkey.

6 While "Connection" is highlighted in the test flow, press the
      Trigger softkey to start single measurement or the **Trigger
      Sing/Cont** softkey to start continuous measurement. Press the
      Trigger Sing/Cont softkey again to terminate continuous
      measurement.

7 Press the **Release** softkey to finish the test.

RF Channel

Table 6-3 cdma2000 Frequency Band

Radio System	Channel Number
BAND0: CEL US	1024 ~ 1323
	991 ~ 1023
	1 ~ 799
BAND1: PCS US	1024 ~ 1323
	991 ~ 1023
	1 ~ 799
BAND3: Cel JP	1041 ~ 1199
	1201 ~ 1600
	801 ~ 1039
	1 ~ 799
BAND4: PCS KR	601 ~ 1300
	1 ~ 600
BAND6: IMT-2K	0 ~ 1199

† The BAND15: AWS is available only when the Option C03 is installed in the Tester.

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