



**Appendix F. FCC CDMA2000 SAR Measurement Procedures**

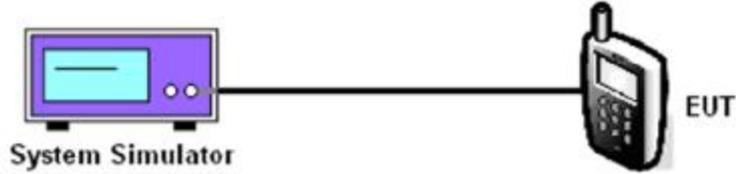
**Conducted Output Power:**

The EUT was tested according to the requirements of the FCC 3G procedures and the 3.1.2.3.4.

A detailed analysis of the output power verification is provided as the table below:

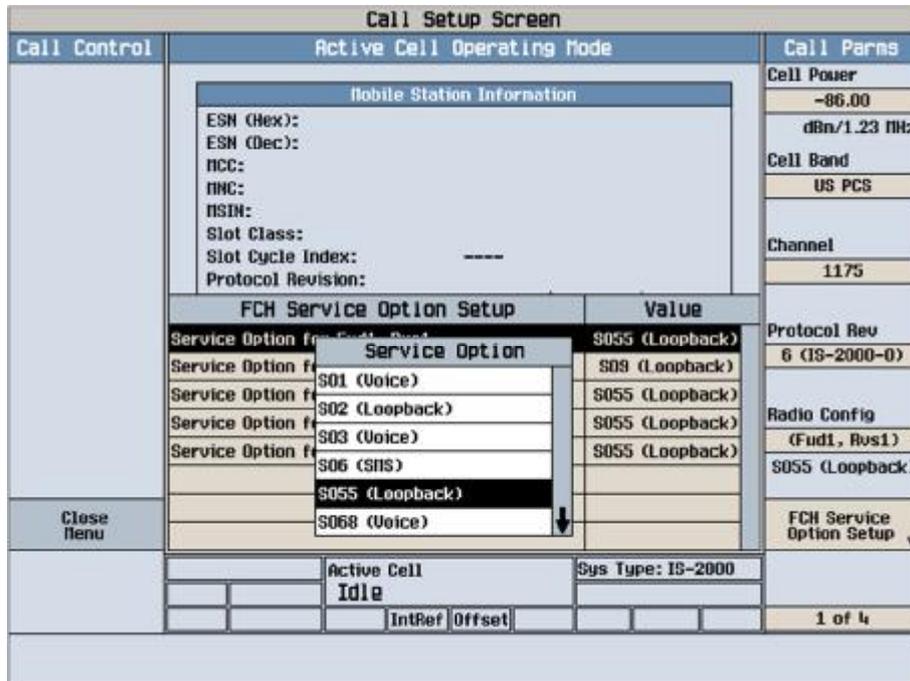
Function Type	Reverse Traffic Channel	Test Mode	Radio Configuration		Service Option	Data Rates (kbps)	Power Control	Low Ch	Mid. Ch	High Ch
			Forward Traffic Channel (Fwd)	Reverse Traffic Channel (Rvs)				1013	384	777
CDMA2000 Cellular	FCH	1	1	1	55	Full	All Up	24.31	23.87	24.11
		3	3	3	55	Full	All Up	24.34	23.76	24.00
	F-SCH	3	3	3	32	FCH:Full,SCH 9.6	All Up	24.30	23.75	24.00
	SCH	3	3	3	32	FCH:Full,SCH 9.6	All Up	24.35	23.77	24.02
	EVDO Rev.0*	Subtype:0				RTAP 153.6	All Up	24.36	23.95	24.12
	EVDO Rev.A*	Subtype:0				RETAP 4096	All Up	24.33	23.92	24.10

**CDMA2000 Setup Configuration:**



**Setup Configuration**

1. The EUT was connected to System Simulator, Agilent 8960. Refer to the drawing of Setup Configuration.
2. The RF path losses were compensated into the measurements.
3. A call was established between EUT and System Simulator with following setting:
  - a. For 1xRTT, set the Radio Configuration and the Service Option
  - b. For 1xEV-DO, set the Protocol Release and Data Rate
  - c. Set the Power Control to All Up Bits
4. The transmitted maximum output power was recorded.



**1xRTT setting for Radio Configuration 1 with Service Option 55**



Call Setup Screen																				
Call Control	Active Cell Operating Mode	Call Params																		
Close Menu	<b>Mobile Station Information</b> ESN (Hex): ESN (Dec): MCC: MNC: MSIN: Slot Class: Slot Cycle Index: ---- Protocol Revision:																			
	<b>FCH Service Option Setup</b>																			
	<table border="1"> <thead> <tr> <th>Service Option</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>S055 (Loopback)</td> <td>S055 (Loopback)</td> </tr> <tr> <td>S09 (Loopback)</td> <td>S09 (Loopback)</td> </tr> <tr> <td>S01 (Voice)</td> <td>S055 (Loopback)</td> </tr> <tr> <td>S02 (Loopback)</td> <td>S055 (Loopback)</td> </tr> <tr> <td>S03 (Voice)</td> <td>S055 (Loopback)</td> </tr> <tr> <td>S06 (SRS)</td> <td>S055 (Loopback)</td> </tr> <tr> <td>S055 (Loopback)</td> <td></td> </tr> <tr> <td>S032 (+ F-SCH)</td> <td></td> </tr> </tbody> </table>		Service Option	Value	S055 (Loopback)	S055 (Loopback)	S09 (Loopback)	S09 (Loopback)	S01 (Voice)	S055 (Loopback)	S02 (Loopback)	S055 (Loopback)	S03 (Voice)	S055 (Loopback)	S06 (SRS)	S055 (Loopback)	S055 (Loopback)		S032 (+ F-SCH)	
	Service Option	Value																		
	S055 (Loopback)	S055 (Loopback)																		
	S09 (Loopback)	S09 (Loopback)																		
	S01 (Voice)	S055 (Loopback)																		
	S02 (Loopback)	S055 (Loopback)																		
	S03 (Voice)	S055 (Loopback)																		
	S06 (SRS)	S055 (Loopback)																		
S055 (Loopback)																				
S032 (+ F-SCH)																				
Active Cell: Idle Sys Type: IS-2000																				
IntRef Offset																				
1 of 4																				
<b>Call Params</b> Cell Power: -86.00 dBm/1.23 MHz Cell Band: US PCS Channel: 1175 Protocol Rev: 6 (IS-2000-0) Radio Config: (Fud3, Rvs3) S055 (Loopback) FCH Service Option Setup																				

1xRTT setting for Radio Configuration 3 with Service Option 55

Call Setup Screen																				
Call Control	Active Cell Operating Mode	Call Params																		
Close Menu	<b>Mobile Station Information</b> ESN (Hex): ESN (Dec): MCC: MNC: MSIN: Slot Class: Slot Cycle Index: ---- Protocol Revision:																			
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IntRef Offset																				
1 of 4																				
<b>Call Params</b> Cell Power: -86.00 dBm/1.23 MHz Cell Band: US PCS Channel: 1175 Protocol Rev: 6 (IS-2000-0) Radio Config: (Fud3, Rvs3) S032 (+ SCH) FCH Service Option Setup																				

1xRTT setting for Radio Configuration 3 with Service Option 32



Call Setup Screen																				
Call Control	Active Cell Operating Mode	Call Params																		
Operating Mode	<div style="border: 1px solid black; padding: 5px;"> <p><b>Access Terminal Information (AT Reported)</b></p> <p>Session Seed:            Hardware ID Type (Hex):            Hardware ID (Hex):            Hardware ID (Decimal):</p> <p><b>Access Terminal Information (AN Assigned)</b></p> <p>UATI 024: ----            UATI Color Code: ----            MAC Index: ----</p> <p><b>Protocol Release</b></p> <table border="1"> <tr><td>Session App</td><td>0 (1xEV-DO)</td><td>Application</td></tr> <tr><td>Test Applica</td><td>A (1xEV-DO-A)</td><td></td></tr> <tr><td>Limited TAP:</td><td>B (1xEV-DO-B)</td><td></td></tr> <tr><td>AT Directed</td><td></td><td></td></tr> <tr><td>DRC Value Fi</td><td></td><td></td></tr> <tr><td>ACK Channel</td><td></td><td></td></tr> </table> </div>	Session App	0 (1xEV-DO)	Application	Test Applica	A (1xEV-DO-A)		Limited TAP:	B (1xEV-DO-B)		AT Directed			DRC Value Fi			ACK Channel			Rus Power Ctrl
Session App		0 (1xEV-DO)	Application																	
Test Applica		A (1xEV-DO-A)																		
Limited TAP:		B (1xEV-DO-B)																		
AT Directed																				
DRC Value Fi																				
ACK Channel																				
Active Cell		Active bits																		
Start Data Connection		Pur Ctrl Step																		
Close Session		1.0 dB																		
Handoff Setup	Call Drop Timer																			
AT Max Power	On																			
23 dBm/1.23MHz	Call Limit Mode																			
	Off																			
	Protocol Rel																			
	0 (1xEV-DO)																			
1 of 3	Active Cell Idle	2 of 3																		
	IntRef Offset	PLSub0 RTAP																		
	Sys Type: IS-856																			

1xEV-DO setting for Protocol Release (Rev.0 or Rev.A)

Call Setup Screen																				
Call Control	Active Cell Operating Mode	Call Params																		
Operating Mode	<div style="border: 1px solid black; padding: 5px;"> <p><b>Access Terminal Information (AT Reported)</b></p> <p>Session Seed:            Hardware ID Type (Hex):            Hardware ID (Hex):            Hardware ID (Decimal):</p> <p><b>Access Terminal Information (AN Assigned)</b></p> <p>UATI 024: ----            UATI Color Code: ----            MAC Index: ----</p> <p><b>RTAP Rate</b></p> <table border="1"> <tr><td>Session App</td><td>9.6 kbps</td><td>Application</td></tr> <tr><td>Test Applica</td><td>19.2 kbps</td><td></td></tr> <tr><td>Limited TAP:</td><td>38.4 kbps</td><td></td></tr> <tr><td>AT Directed</td><td>76.8 kbps</td><td></td></tr> <tr><td>DRC Value Fi</td><td>153.6 kbps</td><td></td></tr> <tr><td>ACK Channel</td><td></td><td></td></tr> </table> </div>	Session App	9.6 kbps	Application	Test Applica	19.2 kbps		Limited TAP:	38.4 kbps		AT Directed	76.8 kbps		DRC Value Fi	153.6 kbps		ACK Channel			Cell Power
Session App		9.6 kbps	Application																	
Test Applica		19.2 kbps																		
Limited TAP:		38.4 kbps																		
AT Directed		76.8 kbps																		
DRC Value Fi		153.6 kbps																		
ACK Channel																				
Active Cell		-86.00																		
Start Data Connection		dBm/1.23 MHz																		
Close Session		Cell Band																		
Handoff Setup	US PCS																			
AT Max Power	Channel																			
23 dBm/1.23MHz	1175																			
	Application Config																			
	FTAP Rate																			
	307.2 kbps																			
	(2 Slot, QPSK)																			
	RTAP Rate																			
	9.6 kbps																			
1 of 3	Active Cell Idle	1 of 3																		
	IntRef Offset	PLSub0 RTAP																		
	Sys Type: IS-856																			

1xEV-DO setting for RTAP data rate (153.6 kbps)



Call Setup Screen																							
Call Control	Active Cell Operating Mode	Call Params																					
Operating Mode	<b>Access Terminal Information (AT Reported)</b> Session Seed: Hardware ID Type (Hex): Hardware ID (Hex): Hardware ID (Decimal):	Cell Power																					
Active Cell		-86.00																					
	<b>Access Terminal Information (AN Assigned)</b> UATI 024: ---- UATI Color Code: ---- MAC Index: ----	dBm/1.23 MHz																					
Start Data Connection		Cell Band																					
	<b>Application Configuration</b> <table border="1"> <thead> <tr> <th>Session App</th> <th>R-Data Packet Size</th> <th>Application</th> </tr> </thead> <tbody> <tr> <td>Enhanced Te</td> <td>128</td> <td>MP</td> </tr> <tr> <td>AT Directed</td> <td>256</td> <td>Z</td> </tr> <tr> <td>DRC Value F</td> <td>512</td> <td></td> </tr> <tr> <td>ACK Channel</td> <td>768</td> <td></td> </tr> <tr> <td>Reverse Data</td> <td>1024</td> <td>Capacity</td> </tr> <tr> <td>Expected En</td> <td>1536</td> <td>kbps</td> </tr> </tbody> </table>	Session App	R-Data Packet Size	Application	Enhanced Te	128	MP	AT Directed	256	Z	DRC Value F	512		ACK Channel	768		Reverse Data	1024	Capacity	Expected En	1536	kbps	US PCS
Session App		R-Data Packet Size	Application																				
Enhanced Te		128	MP																				
AT Directed	256	Z																					
DRC Value F	512																						
ACK Channel	768																						
Reverse Data	1024	Capacity																					
Expected En	1536	kbps																					
Close Session	Channel	1175																					
Handoff Setup	Application Config	F-Traffic Format																					
AT Max Power	Active Cell	4 (1024,2,128)																					
23 dBm/1.23MHz	Idle	(307.2k, QPSK)																					
	Sys Type: IS-856	R-Data Pkt Size																					
		128																					
		bits																					
1 of 3	IntRef Offset	PLSub0 RETAP																					
		1 of 3																					

1xEV-DO setting for RETAP data rate (4096 kbps)



**Reference:**

- [1] SAR Measurement Procedures for 3G Devices CDMA 2000/Ev-Do/WCDMA/HSDPA, June 2006  
Laboratory Division Office of Engineering and Technology Federal Communications Commission
- [2] 3.1.2.3.4 Maximum RF Output Power 3GPP2 C.S0033-0 Version 2.0, Date: 12 December 2003  
Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access  
Terminal