

Appendix F. FCC 3G SAR Measurement Procedures

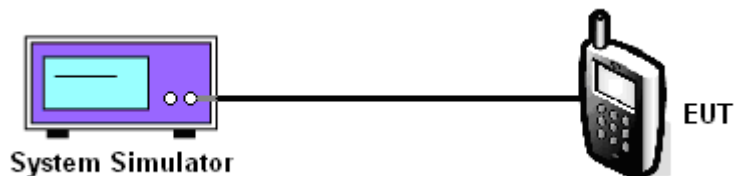
Conducted Output Power:

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	24.04	23.86	23.95
		3	3	3	55	Full	All Up	23.93	23.68	23.82
	FCH+SCH	3	3	3	32	FCH:Full,SCH 9.6	All Up	23.92	23.74	23.99

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.

Call Setup Screen									
Call Control		Active Cell Operating Mode					Call Parm		
Close Menu		Mobile Station Information ESN (Hex): ESN (Dec): NCC: INC: NSIN: Slot Class: Slot Cycle Index: ---- Protocol Revision:					Cell Power -86.00 dBm/1.23 MHz Cell Band US PCS Channel 1175		
		FCH Service Option Setup Service Option Service Option f Service Option f Service Option f Service Option f Service Option f Service Option f Service Option f Service Option f					Value S055 (Loopback) S09 (Loopback) S055 (Loopback) S055 (Loopback) S055 (Loopback) S055 (Loopback) S055 (Loopback) S055 (Loopback) S055 (Loopback)		
		S01 (Voice) S02 (Loopback) S03 (Voice) S06 (SMS) S055 (Loopback) S068 (Voice)					Protocol Rev 6 (IS-2000-0) Radio Config (Fud1, Rvs1) S055 (Loopback)		
		Active Cell Idle IntRef Offset					Sys Type: IS-2000 1 of 4		

1xRTT setting for Radio Configuration 1 with Service Option 55

Call Setup Screen									
Call Control		Active Cell Operating Mode						Call Params	
Close Menu		Mobile Station Information ESN (Hex): ESN (Dec): MCC: MNC: MSIN: Slot Class: Slot Cycle Index: ---- Protocol Revision:						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									
S055 (Loopback)									
S032 (+ F-SCH)									
Active Cell		Sys Type: IS-2000							
Idle									
IntRef		Offset							
		1 of 4							

1xRTT setting for Radio Configuration 3 with Service Option 55

Call Setup Screen									
Call Control		Active Cell Operating Mode						Call Params	
Close Menu		Mobile Station Information ESN (Hex): ESN (Dec): MCC: MNC: MSIN: Slot Class: Slot Cycle Index: ---- Protocol Revision:						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)									
S032 (+ SCH)									
FCH Service Option Setup									
S055 (Loopback)									
S032 (+ SCH)									
Active Cell		Sys Type: IS-2000							
Idle									
IntRef		Offset							
		1 of 4							

1xRTT setting for Radio Configuration 3 with Service Option 32

Call Setup Screen											
Call Control		Active Cell Operating Mode					Call Params				
Operating Mode		Access Terminal Information (AT Reported) Session Seed: Hardware ID Type (Hex): Hardware ID (Hex): Hardware ID (Decimal):					Rvs Power Ctrl				
Active Cell							Active bits				
Start Data Connection		Access Terminal Information (AN Assigned) UATI 024: ---- UATI Color Code: ---- NAC Index: ----					Pur Ctrl Step				
							1.0 dB				
Close Session		Protocol Release Session App: 0 (1xEV-DO) Test Applica: A (1xEV-DO-A) Limited TAP: B (1xEV-DO-B) AT Directed: DRC Value Fi: ACK Channel:					Call Drop Timer				
							On				
Handoff Setup							Call Limit Mode				
							Off				
AT Max Power							Protocol Rel				
							0 (1xEV-DO)				
		Active Cell					Sys Type: IS-856				
		Idle									
1 of 3							IntRef	Offset	PLSub0	RTAP	2 of 3

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

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

1xEV-DO setting for RTAP data rate (9.6 or 38.4 or 153.6 kbps)



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

1xEV-DO setting for RETAP data rate (128 or 2048 or 12288 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