

Appendix G. FCC 3G SAR Measurement Procedures for CDMA2000

Conducted Output Power:

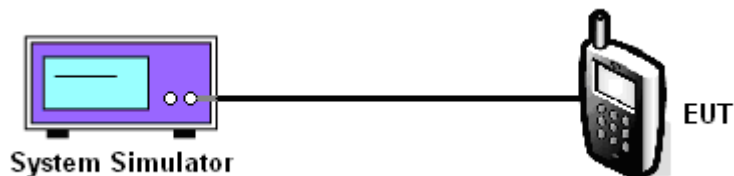
The EUT was tested according to the requirements of the FCC 3G procedures and the 3.1.2.3.4.

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	23.75	23.92	23.79
		3	3	3	55	Full	All Up	23.76	23.85	23.75
		3	3	3	32	Full	All Up	23.74	23.73	23.73
	FCH+SCH	3	3	3	32	FCH:Full,SCH 9.6	All Up	23.75	23.78	23.72
	EVDO Rev.0	Subtype:0				RTAP 153.6	All Up	23.73	23.80	23.76
	EVDO Rev.A	Subtype:0				RETAP 4096	All Up	23.79	23.95	23.82

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)				25	600	1175
CDMA2000 PCS	FCH	1	1	1	55	Full	All Up	23.97	23.83	23.67
		3	3	3	55	Full	All Up	23.98	23.85	23.65
		3	3	3	32	Full	All Up	23.93	23.83	23.64
	FCH+SCH	3	3	3	32	FCH:Full,SCH 9.6	All Up	23.96	23.84	23.63
	EVDO Rev.0	Subtype:0				RTAP 153.6	All Up	23.95	23.89	23.66
	EVDO Rev.A	Subtype:0				RETAP 4096	All Up	23.96	23.95	23.78

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 Parms	
Mobile Station Information ESN (Hex): ESN (Dec): NCC: NMC: 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	
						(Fud1, Rvs1)			
						S055 (Loopback)			
Close Menu		FCH Service Option Setup				Value		FCH Service Option Setup	
		Service Option for Fud1 Rvs1 Service Option S01 (Voice) S02 (Loopback) S03 (Voice) S06 (SMS) S055 (Loopback) S068 (Voice)				S055 (Loopback) S09 (Loopback) S055 (Loopback) S055 (Loopback) S055 (Loopback)			
		Active Cell				Sys Type: IS-2000			
		Idle							
		IntRef Offset						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): Access Terminal Information (AN Assigned) UATI 024: ---- UATI Color Code: ---- NAC Index: ---- Protocol Release 0 (1xEV-DO) Application A (1xEV-DO-A) B (1xEV-DO-B) AT Directed DRC Value Fi ACK Channel						Rvs Power Ctrl	
Active Cell								Active bits	
		Pur Ctrl Step							
		1.0 dB							
Start Data Connection		Call Drop Timer							
		On							
Close Session		Call Limit Mode							
		Off							
Handoff Setup		Protocol Rel							
		0 (1xEV-DO)							
AT Max Power		Active Cell Idle Sys Type: IS-856							
23 dBm/1.23MHz									
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): Access Terminal Information (AN Assigned) UATI 024: ---- UATI Color Code: ---- NAC Index: ---- RTAP Rate 9.6 kbps Application 19.2 kbps 38.4 kbps 76.8 kbps 153.6 kbps ACK Channel						Cell Power	
Active Cell								-86.00	
		dBm/1.23 MHz							
Start Data Connection		Cell Band							
		US PCS							
Close Session		Channel							
		1175							
Handoff Setup		Application Config							
AT Max Power		FTAP Rate							
23 dBm/1.23MHz		307.2 kbps							
		(2 Slot, QPSK)							
		RTAP Rate							
		9.6 kbps							
		Active Cell Idle Sys Type: IS-856							
1 of 3			IntRef	Offset		PLSub0	RTAP	1 of 3	

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



Call Setup Screen									
Call Control		Active Cell Operating Mode					Call Params		
Operating Mode	Active Cell	Access Terminal Information (AT Reported)					Cell Power		
		Session Seed:					-86.00		
		Hardware ID Type (Hex):					dBm/1.23 MHz		
		Hardware ID (Hex):					Cell Band		
		Hardware ID (Decimal):					US PCS		
		Access Terminal Information (AN Assigned)					Channel		
Start Data Connection		UATI 024: ----					1175		
		UATI Color Code: ----							
		MAC Index: ----							
		Application Configuration					Application Config		
		Session App: R-Data Packet Size					Application		
		Enhanced Te: 128					AP		
		AT Directed: 256					Z		
		DRC Value Fi: 512							
Handoff Setup		ACK Channel: 768							
		ACK Channel: 768							
		Reverse Data: 1024					Capacity		
AT Max Power		Expected En: 1536					kbps		
23 dBm/1.23MHz							bits		
		Active Cell					Sys Type: IS-856		
		Idle							
1 of 3									1 of 3

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



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