



Appendix D. – CDMA2000 1xRTT and 1xEVDO Test Modes

Test Summary:

The EUT supports IS95 2G networks, CDMA2000 1xRTT, and 1xEVDO Rev. 0 for Cellular band and PCS band. The maximum output power is chosen for EMC and SAR testing for worst case scenario. A full EMC measurement in this report is done in CDMA2000 1xRTT mode with FCH+SCH RC3 and 1xEVDO mode with the uplink data rate 153.6kbps for Cellular band, and CDMA2000 1xRTT mode with FCH+SCH RC3 and 1xEVDO mode with the uplink data rate 9.6kbps for PCS band.

Based on all the uplink channels using the same modulation type, BPSK, and those maximum output power are very closer, above test modes could reflect compliance under all operational modes.

Maximum output power list:

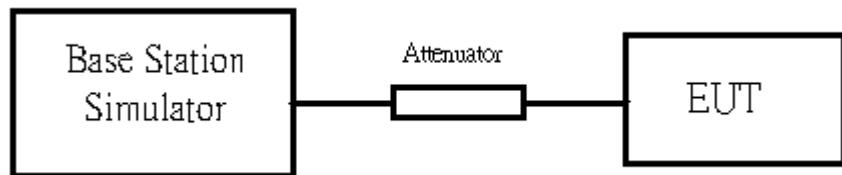
Bands	Test Mode	Test Status	Modulation Type	Channel	Frequency (MHz)	Conducted Power (dBm)
CDMA2000 Cellular	1xRTT	FCH _RC1	BPSK	1013	824.70 (Low)	24.27
			BPSK	384	836.52 (Mid)	23.93
			BPSK	777	848.31 (High)	23.93
		FCH_RC3	BPSK	1013	824.70 (Low)	24.19
			BPSK	384	836.52 (Mid)	23.99
			BPSK	777	848.31 (High)	24.16
		FCH+SCH_RC3	BPSK	1013	824.70 (Low)	24.27
			BPSK	384	836.52 (Mid)	23.89
			BPSK	777	848.31 (High)	24.06
	1xEVDO	EVDO-UL: 9.6Kbps	BPSK	1013	824.70 (Low)	23.64
			BPSK	384	836.52 (Mid)	23.88
			BPSK	777	848.31 (High)	23.66
		EVDO-UL: 38.4Kbps	BPSK	1013	824.70 (Low)	23.98
			BPSK	384	836.52 (Mid)	23.85
			BPSK	777	848.31 (High)	23.78
		EVDO-UL: 153.6Kbps	BPSK	1013	824.70 (Low)	24.02
			BPSK	384	836.52 (Mid)	23.87
			BPSK	777	848.31 (High)	24.07



Bands	Test Mode	Test Status	Modulation Type	Channel	Frequency (MHz)	Conducted Power (dBm)
CDMA2000 PCS	1xRTT	FCH_RC1	BPSK	25	1851.25 (Low)	23.78
			BPSK	600	1880.00 (Mid)	23.17
			BPSK	1177	1908.75 (High)	23.20
		FCH_RC3	BPSK	25	1851.25 (Low)	23.66
			BPSK	600	1880.00 (Mid)	23.29
			BPSK	1177	1908.75 (High)	23.05
		FCH+SCH_RC3	BPSK	25	1851.25 (Low)	23.84
			BPSK	600	1880.00 (Mid)	23.39
			BPSK	1177	1908.75 (High)	23.11
	1xEVDO	EVDO-UL: 9.6Kbps	BPSK	25	1851.25 (Low)	23.84
			BPSK	600	1880.00 (Mid)	23.22
			BPSK	1177	1908.75 (High)	22.95
		EVDO-UL: 38.4Kbps	BPSK	25	1851.25 (Low)	23.78
			BPSK	600	1880.00 (Mid)	23.11
			BPSK	1177	1908.75 (High)	22.63
		EVDO-UL: 153.6Kbps	BPSK	25	1851.25 (Low)	23.78
			BPSK	600	1880.00 (Mid)	23.03
			BPSK	1177	1908.75 (High)	23.40



Setup Configuration



1. The EUT was connected to Base Station, Agilent 8960.
Refer to the drawing of Setup Configuration.
2. The RF path losses was compensated into the measurements.
3. A call was established between EUT and Base Station for each modes with following settings:
 - a. Set the Power control All Up for FCH_RC3 and FCH_RC1 with Service Option 55.
 - b. Set the Power control All Up for FCH+SCH with Service Option 32.
 - c. Set the Power control All Up for different rates on CDMA2000 1xEVDO.
4. The transmitted maximum output power was recorded.

Call Setup Screen		
Call Control	Active Cell Operating Mode	
Mobile Station Information		CallParms
ESN (Hex): 0x6C32D3AE		Cell Power
ESN (Dec): 108-03330990		-86.00
MCC:		dBm/1.23 MHz
MNC:		Cell Band
MSIN: 3163712588		US PCS
Slot Class: Slotted		Channel
Slot Cycle Index: 2		1175
FCH Service Option Setup		Protocol Rev
Service Option for Fud1, Rus1		6 (IS-2000)
Service Option for Fud2, Rus2		009 (Loopback)
Service Option for Fud3, Rus3		0032 (+ SCH)
Service Option for Fud4, Rus3		0055 (Loopback)
Service Option for Fud5, Rus4		0055 (Loopback)
		Protocol Rev
		6 (IS-2000)
		Radio Config
		(Fud1, Rus1)
		0055 (Loopback)
		FCH Service Option Setup
		1 of 3
Close	Background	Active Cell
		Idle
	IntRef	Offset

1xRTT in Radio Configuration 1 (FCH)



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1xRTT in Radio Configuration 3 (FCH+SCH)

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1xEVDO Setting with RTAP 153.6kbps

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