

In reply to your recent questions:

1. FCC ID: The FCC Id of the device may not contain “wild cards”, such as XX, that stand for other alphanumeric characters. Please advise the applicant and let us know how they wish to proceed. Thanks.

The XX in the FCC ID is NOT intended to be ‘wild cards’. The ‘wild cards’ comment in the Cover Letter was referring to the different models which will be introduced (if any) in the future pertaining to this filing.

2. LABEL LOCATION: Devices with non-routine label proposals - that is when placing a label inside the battery compartment:  
Applications for this type of label proposal must address the following items and must be provided in a cover letter (exhibit "label Location");
  - a. Provide justification such as limited space (e.g. the available label area on the device is limited because it is relatively small and has many contoured surfaces, keypads, LCD displays, charge contacts and/or other connectors....).
  - b. How the FCC identifier or label will be readily viewable per FCC Rule 2.925 (d) (e.g. the batteries are designed for easy removal and the label will be visible whenever the batteries are removed for charging or replacement....).
  - c. How the FCC identifier or label will be readily viewable at the time of the purchase to comply with Part 2.925 (d) (e.g. the label will be readily visible at the time of purchase because the device will be marketed without the battery installed).

NOTE: Devices utilizing a conventional battery and battery compartment not made for easy removal for charging or replacement may not have the label placed under the battery, and inside the battery compartment because this location is not visible from the outside of the equipment enclosure as required by Part 2.925 (d).

[See ID Label Location exhibit for justification.](#)

3. Please provide a block diagram, parts list, and schematics for the Wavecom module.

[Wavecom has been contacted by applicant to submit the required exhibits to Timco.](#)

4. Confidentiality: Please confirm whether this file “NBS55XXTXXX-B\_OpDes\_Wavecom.pdf” is to be held confidential. If so, please update the confidentiality request letter.

[This exhibit was obtained from the certified Wavecom Module \(FCC ID: O9EQ2438F-M; Date of Grant: 06/06/2005\) filing via FCC website. So, this exhibit is public and not confidential.](#)

5. Test report “NBS55XXTXXX-B\_TestRpt\_EMN\_NBS.pdf”: Section 6.7.5. The FCC allows the use of a RBW  $\geq 1\%$  of the 26dB emission bandwidth (10kHz is  $< 26\text{dB EBW}$ ). Please revise plots or use a correction factor to integrate the power at the band-edges over the full bandwidth.

[See revised test report.](#)

6. SAR: Please explain whether this device is CDMA2000. If so please provide the following information per FCC 3G policy:

[Yes, the device has a CDMA200 RTT1 capability. See the reply and the additional test result below.](#)

7. SAR report section 11 test results: Please provide additional information per FCC' s 3G and HSPA interim SAR procedures, as follows:

a) CDMA MS Protocol Revision number.

b) Applicability of test codes to simulate the required test conditions, as defined in 3GPP2, TIA, and other standards.

c) Base station simulator and test device configuration info and procedures used to maximize output in all applicable modes, including code domain channels, power & relative gain levels.

d) Identify CDMA Radio Configurations, Service Options, multiplex options, voice/data, code channel combinations and options used for the SAR tests.

e) Because of the different RC's, SO's, data rates, channel combinations and modulations, filing should include justifications on the selection of applicable configurations to establish and maintain maximum output to demonstrate SAR compliance for other configurations that are not tested.

In the test report, R&S CMD 80 was used to simulate CDMAOne (IS-95A and JSTD-008) network with the following parameters and all SAR measurements were performed under this network.

- MS P\_Rev=1 for JSTD-008 & P\_Rev=3 for IS-95A.
- Test mode 1 - RC1/1, SO2, Traffic Channel @ 9600 bps.
- All power bits were set all up for maximum output power.

Since the device has CDMA2000 RTT1 capability, additional measurements have been performed as described below.

#### Test equipment

R&S Universal Radio Communication Tester  
(M/N: CMU200 1100.00008K02 S/N: 101911)

#### Network Parameters

MS P\_Rev=6

All power bits up

#1: Test Mode 1, RC1/1, SO55, MO1, Traffic Channel @ 9600 bps

#2: Test Mode 3, RC3/3, SO55, MO1, FCH @ 9600 bps

#3: Test Mode 3, RC3/3, SO32, MO1, FCH @ 9600 bps

#4: Test Mode 3, RC3/3, SO32, MO1, FCH + SCH<sub>0</sub> @ 9600 bps

**- RF output power measurement result from the test report -**

**Cellular Band: 824 – 849 MHz**

Transmitter Channel Output	Fundamental Frequency (MHz)	Measured Peak Conducted Power (dBm)	* Calculated ERP (dBm)	ERP Limit (dBm)
Lowest	824.70	28.31	27.76	38.45
Middle	836.52	28.10	27.55	38.45
Highest	848.31	27.78	27.23	38.45

**PCS Band: 1850 – 1910 MHz**

Transmitter Channel Output	Fundamental Frequency (MHz)	Measured Peak Conducted Power (dBm)	*Calculated e.i.r.p. (dBm)	e.i.r.p. Limit
Lowest	1851.25	27.42	29.62	33.0
Middle	1880.00	27.92	30.12	33.0
Highest	1908.75	27.00	29.20	33.0

**- Additional RF output power measurement result for CDMA2000 -**

**CDMA2000 Cellular**

	Test Mode	Radio Configuration	Channel	Frequency (MHz)	Conducted Peak Power (dBm)
#1	1	RC1/1, SO55	1013	824.70	27.59
			0384	836.52	27.50
			0777	848.31	27.27
#2	3	RC3/3, SO55, FCH @9600 bps	1013	824.70	27.56
			0384	836.52	27.41
			0777	848.31	27.24
#3		RC3/3, SO32, FCH @9600 bps	1013	824.70	27.53
			0384	836.52	27.40
			0777	848.31	27.24
#4	RC3/3, SO32, FCH + SCH <sub>0</sub> @9600 bps	1013	824.70	27.53	
		0384	836.52	27.39	
		0777	848.31	27.24	

**CDMA2000 PCS**

	Test Mode	Radio Configuration	Channel	Frequency (MHz)	Conducted Peak Power (dBm)
#1	1	RC1/1, SO55	0025	1851.25	26.96
			0600	1880.00	27.57
			1175	1908.75	26.35
#2	3	RC3/3, SO55, FCH @9600 bps	0025	1851.25	26.97
			0600	1880.00	27.59
			1175	1908.75	26.44
#3		RC3/3, SO32, FCH @9600 bps	0025	1851.25	26.91
			0600	1880.00	27.51
			1175	1908.75	26.36
#4	RC3/3, SO32, FCH + SCH <sub>0</sub> @9600 bps	0025	1851.25	26.89	
		0600	1880.00	27.54	
		1175	1908.75	26.36	

As shown above, the RF output power measurement results between CDMAOne and CDMA2000 network were found to be very close each other.

Also the measured power differences among four test modes in the CDMA2000 were found to be less than ¼ dB each other.

In order to verify whether or not SAR results in the test report are conservative, an additional SAR measurement for the worst case configuration found in the test report was repeated for both CDMAOne and CDMA2000 respectively as described below.

**SAR Setup #1 – CDMAOne; Right side of DUT in parallel to the phantom with spacing of 10 mm, 1880 MHz**

MS P\_Rev=1 (JSTD-008)

All power bits up

RC1/1, SO2, Traffic channel @ 9600 bps

<b>Parameter</b>	<b>Units</b>	<b>Value</b>
$\hat{I}_{or}$	dBm/1.23 MHz	-104
$\frac{Pilot E_C}{I_{or}}$	dB	-7
$\frac{Traffic E_C}{I_{or}}$	dB	-7.4

**SAR Setup #2 - CDMA2000; Right side of DUT in parallel to the phantom with spacing of 10 mm, 1880 MHz**

MS P\_Rev=6

All power bits up

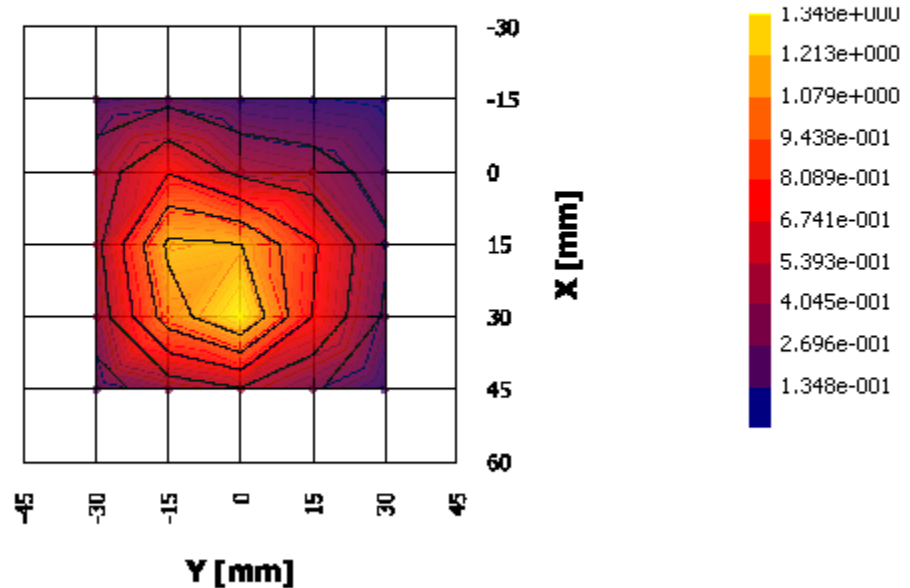
Test Mode 3, RC3/3, SO32, MO1, FCH @ 9600 bps

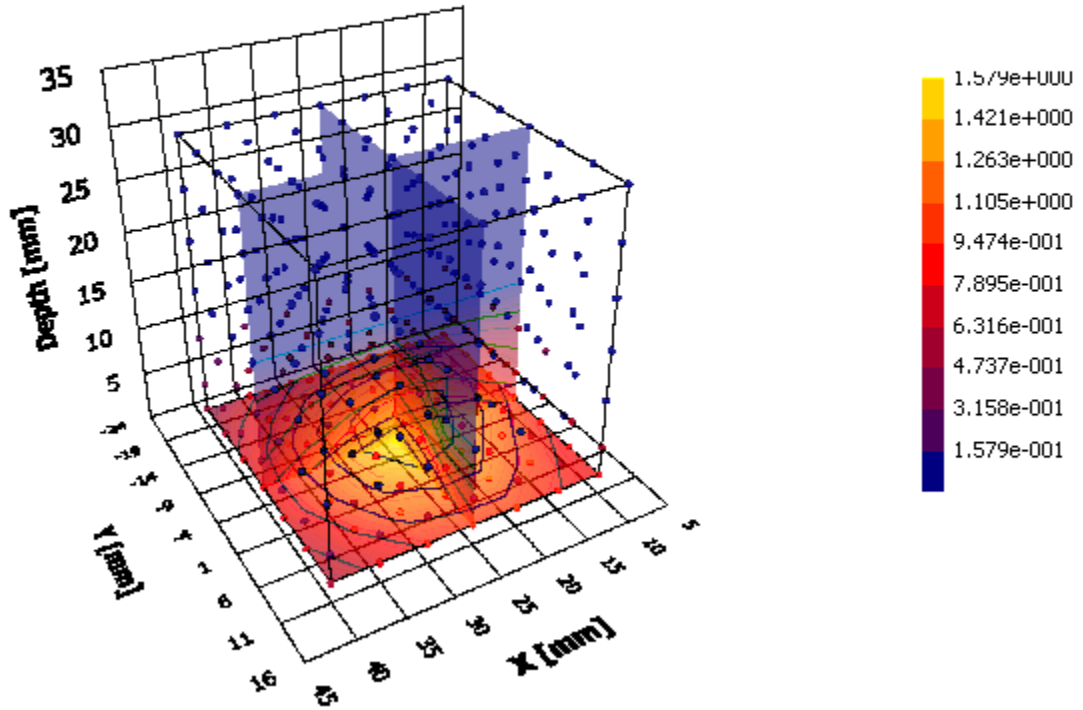
<b>Parameter</b>	<b>Units</b>	<b>Value</b>
$\hat{I}_{or}$	dBm/1.23 MHz	-104
$\frac{Pilot E_C}{I_{or}}$	dB	-7
$\frac{Traffic E_C}{I_{or}}$	dB	-7.4

## - Additional SAR measurement results -

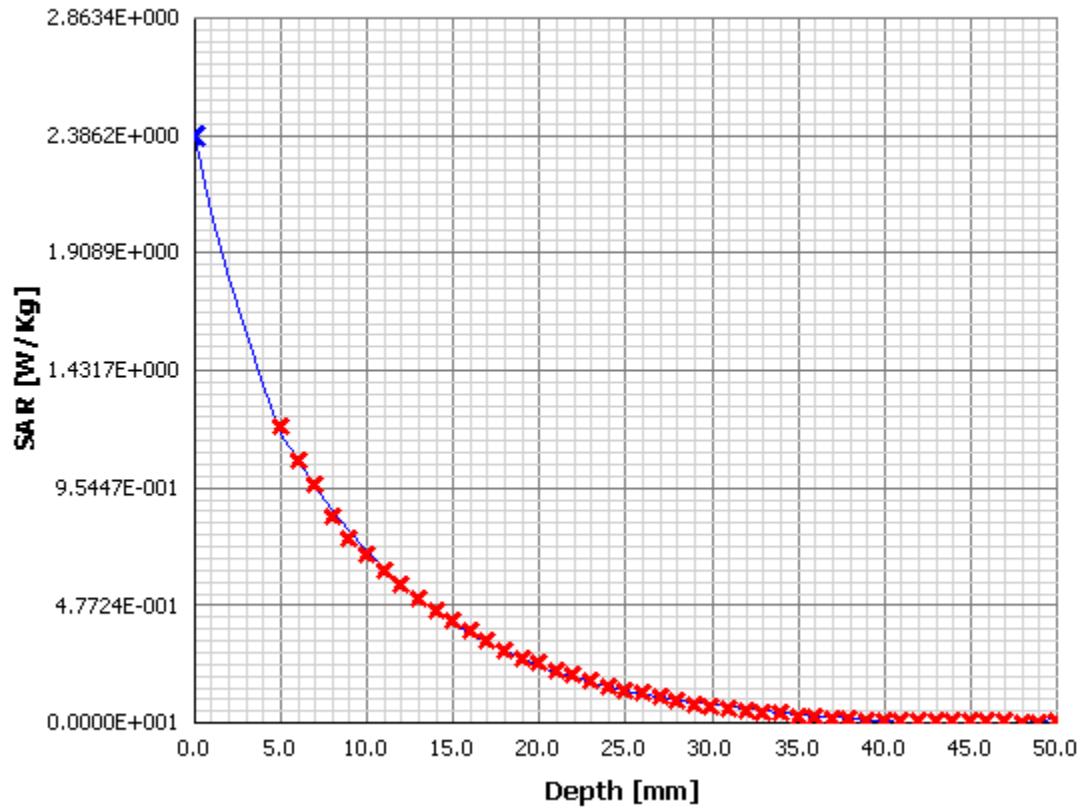
### SAR Setup #1 – CDMAOne; Right side of DUT in parallel to the phantom with spacing of 10 mm, 1880 MHz

Test date [MM/DD/YYYY]	08/30/2007
Test by	JaeWook Choi
Room temperature [°C]	21
Room humidity [%]	40
Simulated tissue temperature [°C]	21
Separation distance, d [mm]	10
Test frequency [MHz]	1880.00
E-field Probe	M/N: ET20, S/N:03JUN-0028, Sensor Offset: 2.0 mm
Sensor Factor ( $\eta_{pa}$ ) [mV/(mW/cm <sup>2</sup> )]	10.8
Amplifier Settings (AS <sub>1</sub> , AS <sub>2</sub> , AS <sub>3</sub> )	0.0057893530, 0.0057857996, 0.0052242456
Tissue Type	Muscle
Measured conductivity [S/m]	1.53 (+0.5 %)
Measured dielectric constant	51.6 (-3.2 %)
Conversion Factor ( )	3.598
Sensitivity ( ) [W/Kg/mV]	1.484E-01
Source-(or Usage-)Based Time-Average Factor	1.0
Measurement Area Specification (X × Y)	60 mm × 60 mm; Resolution: 15 mm × 15 mm
Measurement Volume Specification (X × Y × Z)	7 pts × 7 pts × 7 pts; 30 mm × 30 mm × 30 mm; Resolution: 5 mm × 5 mm × 5 mm
SAR <sub>g</sub> [W/Kg]	0.95



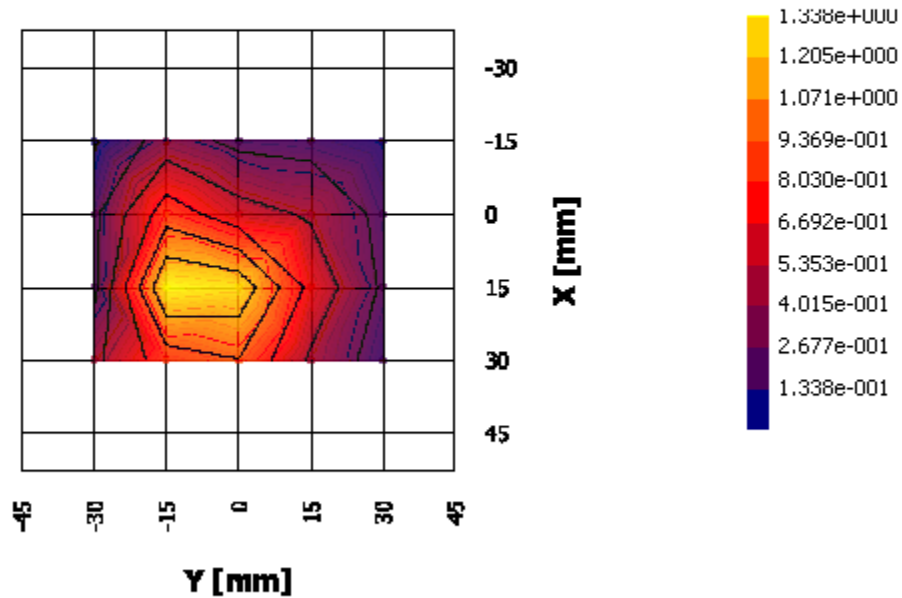


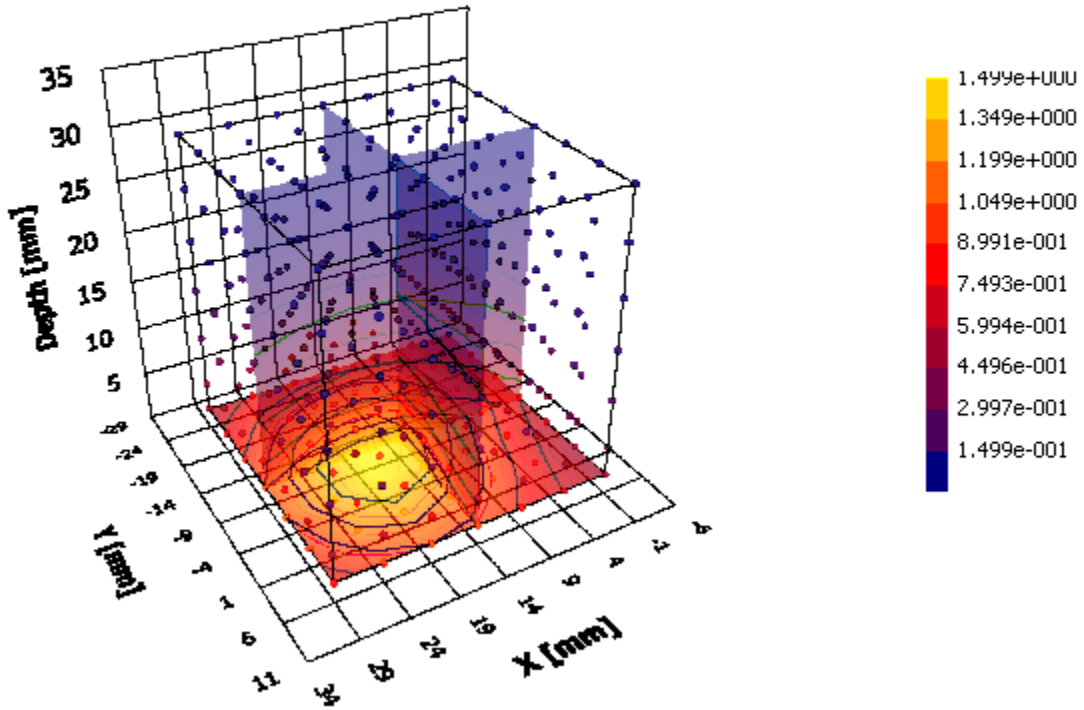
✕ Measured     
 — Expected     
 ✕ (2.3862e+000)



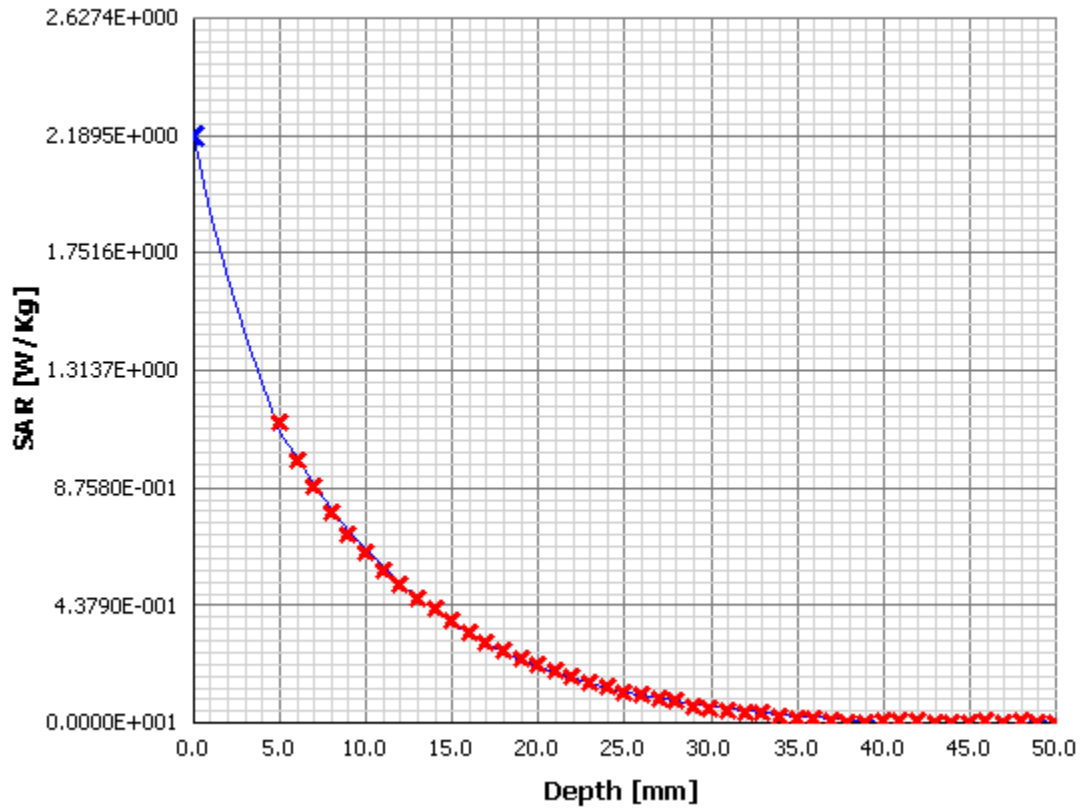
**SAR Setup #2 - CDMA2000; Right side of DUT in parallel to the phantom with spacing of 10 mm, 1880 MHz**

Test date [MM/DD/YYYY]	08/30/2007
Test by	JaeWook Choi
Room temperature [°C]	21
Room humidity [%]	40
Simulated tissue temperature [°C]	21
Separation distance, d [mm]	10
Test frequency [MHz]	1880.00
E-field Probe	M/N: ET20, S/N:03JUN-0028, Sensor Offset: 2.0 mm
Sensor Factor ( $\eta_{pa}$ ) [ $mV/(mW/cm^2)$ ]	10.8
Amplifier Settings (AS <sub>1</sub> , AS <sub>2</sub> , AS <sub>3</sub> )	0.0057893530, 0.0057857996, 0.0052242456
Tissue Type	Muscle
Measured conductivity [S/m]	1.53 (+0.5 %)
Measured dielectric constant	51.6 (-3.2 %)
Conversion Factor ( )	3.598
Sensitivity ( ) [ $W/Kg/mV$ ]	1.484E-01
Source-(or Usage-)Based Time-Average Factor	1.0
Measurement Area Specification (X × Y)	60 mm × 45 mm, Resolution: 15 mm × 15 mm
Measurement Volume Specification (X × Y × Z)	7 pts × 7 pts × 7 pts, 30 mm × 30 mm × 30 mm, Resolution: 5 mm × 5 mm × 5 mm
SAR <sub>lg</sub> [W/Kg]	0.91





x Measured     
 — Expected     
 x (2.1895e+000)





SAR measurement result between CDMAOne and CDMA2000 were found to be very close each other under the same test configuration as it was suggested in RF conducted power measurement.

From the additional RF conducted power measurement and the repeated worst case SAR measurement, it exhibits that SAR measurement results of the test report are conservative and the device is still in compliant with FCC RF exposure routine evaluation requirement.