



SAR TEST REPORT

HYUNDAI CALIBRATION & CERTIFICATION TECH. CO., LTD.

EUT Type:	Dual-Band CDMA/ EVDO USB Modem		
FCC ID:	PP4PX-600		
Model:	PX-600	Trade Name	PANTECH&CURITEL
Date of Issue:	Jun.19, 2007		
Test report No.:	HCT-SAR07-0607		
Test Laboratory:	HYUNDAI CALIBRATION & CERTIFICATION SAN 136-1, AMI-RI, BUBAL-EUP, ICHEON-SI, KYOUNGKI-DO, 467-701, KOREA TEL: +82 31 639 8518 FAX: +82 31 639 8525		
Applicant :	PANTECH&CURITEL COMMUNICATIONS, INC. 110-1, ONGJEONG-RI, TONGJIN-EUP, GIMPO-SI, GYOUNGGI-DO, 415-865, KOREA Tel: +82-31-999-8801 Fax: +82-31-984-9771 E-Mail: leekiyeoul@pantech.com		
Testing has been carried out in accordance with:	47CFR §2.1093 FCC OET Bulletin 65(Edition 97-01), Supplement C (Edition 01-01) ANSI/ IEEE C95.1 – 2005 IEEE 1528-2003		
Test result:	The tested device complies with the requirements in respect of all parameters subject to the test. The test results and statements relate only to the items tested. The test report shall not be reproduced except in full, without written approval of the laboratory.		
Signature	 Report prepared by: Ki-Soo Kim Manager of Product Compliance Team		

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1. INTRODUCTION

The FCC has adopted the guidelines for evaluating the environmental effects of radio frequency radiation in ET Docket 93-62 on Aug. 6, 1996 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices. [1]

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-2005 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. (c) 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017.[2] The measurement procedure described in IEEE/ANSI C95.3-1992 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave[3] is used for guidance in measuring SAR due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields," NCRP Report No. 86 (c) NCRP, 1986, Bethesda, MD 20814.[4] SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative (rate) of the incremental energy (dU) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body.

$$SAR = \frac{d}{dt} \left(\frac{dU}{dm} \right) = \frac{d}{dt} \left(\frac{dU}{\rho dV} \right)$$

Figure 2. SAR Mathematical Equation

SAR is expressed in units of Watts per Kilogram (W/kg).

$$SAR = \sigma E^2 / \rho$$

where:

σ	=	conductivity of the tissue-simulant material (S/m)
ρ	=	mass density of the tissue-simulant material (kg/m ³)
E	=	Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relations to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.[4]

2. DESCRIPTION OF DEVICE

Environmental evaluation measurements of specific absorption rate (SAR) distributions in emulated human head and body tissues exposed to radio frequency (RF) radiation from wireless portable devices for compliance with the rules and regulations of the U.S. Federal Communications Commission (FCC).

EUT Type	Dual-Band CDMA/ EVDO USB Modem
FCC ID	PP4PX-600
Model(s)	PX-600
Trade Name	PANTECH&CURITEL
Serial Number(s)	PP4PX-600 #1
Application Type	Certification
Modulation(s)	CDMA835/PCS1900
Tx Frequency	824.70 - 848.31 MHz (CDMA) 1851.25 - 1908.75 MHz (PCS CDMA)
Rx Frequency	869.70 - 893.31 MHz (CDMA) 1931.25 - 1988.75 MHz (PCS CDMA)
FCC Classification	PCS Licensed Transmitter (PCB)
Production Unit or Identical Prototype	Prototype
Max SAR	1.19 W/kg CDMA835 Body SAR (EVDO) 0.854 W/kg PCS1900 Body SAR (EVDO)
Date(s) of Tests	Jun. 13, 2007 ~ Jun. 15, 2007
Antenna Type	Retractable

3. DESCRIPTION OF TEST EQUIPMENT

3.1 SAR MEASUREMENT SETUP

These measurements are performed using the DASY4 automated dosimetric assessment system. It is made by Schmid & Partner Engineering AG (SPEAG) in Zurich, Switzerland. It consists of high precision robotics system (Staubli), robot controller, Pentium III computer, near-field probe, probe alignment sensor, and the generic twin phantom containing the brain equivalent material. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF) (see Fig.3.1).

A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The PC consists of the HP Pentium 4 3.0GHz computer with Windows XP system and SAR Measurement Software DASY4, A/D interface card, monitor, mouse, and keyboard. The Staubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC plug-in card.

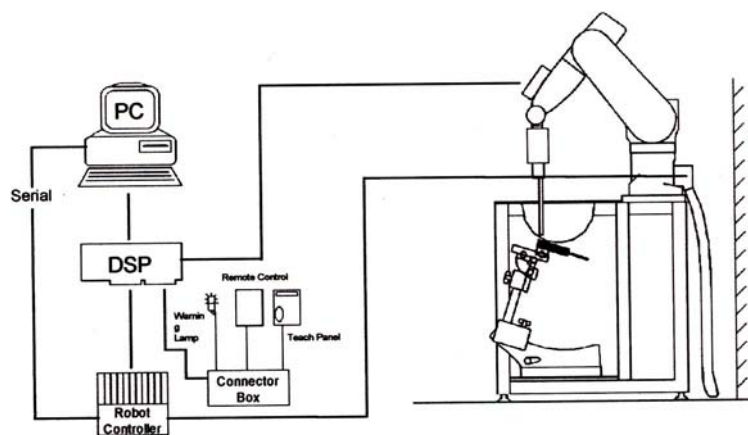


Figure 3.1 HCT SAR Lab. Test Measurement Set-up

The DAE3 consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer. The system is described in detail in [5].

3.2 DASY E-FIELD PROBE SYSTEM

3.2.1 ET3DV6 Probe Specification

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection System Built-in shielding against static charges
Calibration	In air from 10 MHz to 2.5 GHz In brain and muscle simulating tissue at Frequencies of 450 MHz, 900 MHz and 1.8 GHz (accuracy :8%)
Frequency	10 MHz to > 6 GHz; Linearity: . 0.2 dB (30 MHz to 3 GHz)
Directivity	0.2 dB in brain tissue (rotation around probe axis) 0.4 dB in brain tissue (rotation normal probe axis)
Dynamic	5 uW/g to > 100 mW/g;
Range Linearity:	0.2 dB
Surface	0.2 mm repeatability in air and clear liquids
Detection	over diffuse reflecting surfaces.
Dimensions	Overall length: 330 mm Tip length: 16 mm Body diameter: 12 mm Tip diameter: 6.8 mm Distance from probe tip to dipole centers: 2.7 mm
Application	General dissymmetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms



Figure 3.2 Photograph of the probe and the Phantom



Figure 3.3 ET3DV6 E-field Probe

The SAR measurements were conducted with the dosimetric probe ET3DV6, designed in the classical triangular configuration [5] and optimized for dosimetric evaluation. The probe is constructed using the thick film technique; with printed resistive lines on ceramic substrates. The probe is equipped with an optical mortifier line ending at the front of the probe tip. It is connected to the EOC box on the robot arm and provides an automatic detection of the phantom surface. Half of the fibers are connected to a pulsed infrared transmitter, the other half to a synchronized receiver. As the probe approaches the surface, the reflection from the surface produces a coupling from the transmitting to the receiving fibers. This reflection increases first during the approach, reaches a maximum and then decreases. If the probe is flatly touching the surface, the coupling is zero. The distance of the coupling maximum to the surface is independent of the surface reflectivity and largely independent of the surface to probe angle. The DASY4 software reads the reflection during a software approach and looks for the maximum using a 2nd order fitting. The approach is stopped at reaching the maximum.

3.3 PROBE CALIBRATION PROCESS

3.3.1 E-Probe Calibration

Each probe is calibrated according to a dosimetric assessment procedure described in [6] with an accuracy better than +/- 10%. The spherical isotropy was evaluated with the procedure described in [7] and found to be better than +/-0.25dB. The sensitivity parameters (NormX, NormY, NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe is tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies below 1 GHz, and in a waveguide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$SAR = C \frac{\Delta T}{\Delta t}$$

where:

Δt = exposure time (30 seconds),

C = heat capacity of tissue (brain or muscle),

ΔT = temperature increase due to RF exposure.

SAR is proportional to $\Delta T / \Delta t$, the initial rate of tissue heating, before thermal diffusion takes place. Now it's possible to quantify the electric field in the simulated tissue by equating the thermally derived SAR to the E- field;

$$SAR = \frac{|E|^2 \cdot \sigma}{\rho}$$

where:

σ = simulated tissue conductivity,

ρ = Tissue density (1.25 g/cm³ for brain tissue)

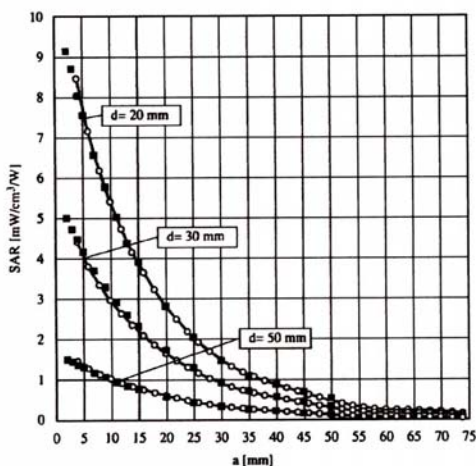


Figure 3.4 E-Field and Temperature measurements at 900MHz[5]

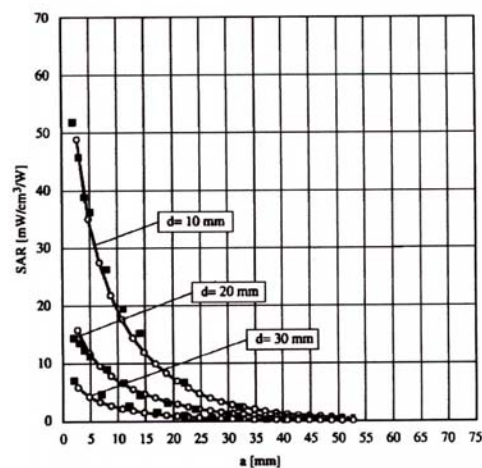


Figure 3.5 E-Field and temperature measurements at 1.8GHz [5]

3.3.2 Data Extrapolation

The DASY4 software automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as [8]:

$$V_i = U_i + U_i^2 \cdot \frac{cf}{dcp_i}$$

with V_i = compensated signal of channel i (i=x,y,z)
 U_i = input signal of channel i (i=x,y,z)
 cf = crest factor of exciting field (DASY parameter)
 dcp_i = diode compression point (DASY parameter)

From the compensated input signals the primary field data for each channel can be evaluated:

E-field probes:

$$E_i = \sqrt{\frac{V_i}{Norm_i \cdot ConvF}}$$

with V_i = compensated signal of channel i (i = x,y,z)
 $Norm_i$ = sensor sensitivity of channel i (i = x,y,z)
 $\mu V/(V/m)^2$ for E-field probes
 $ConvF$ = sensitivity of enhancement in solution
 E_i = electric field strength of channel i in V/m

The RSS value of the field components gives the total field strength (Hermetian magnitude):

$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$

The primary field data are used to calculate the derived field units.

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1000}$$

with SAR = local specific absorption rate in W/g
 E_{tot} = total field strength in V/m
 σ = conductivity in [mho/m] or [Siemens/m]
 ρ = equivalent tissue density in g/cm³

The power flow density is calculated assuming the excitation field to be a free space field.

$$P_{pwe} = \frac{E_{tot}^2}{3770}$$

with P_{pwe} = equivalent power density of a plane wave in W/cm²
 E_{tot} = total electric field strength in V/m

3.4 SAM Phantom

The SAM Phantom is constructed of a fiberglass shell integrated in a wooden table. The shape of the shell is based on data from an anatomical study designed to determine the maximum exposure in at least 90% of all users [9][10]. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents the evaporation of the liquid. Reference markings on the Phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points in the robot.

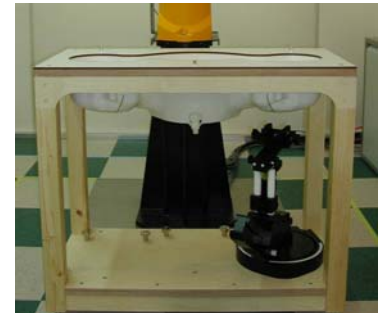


Figure 3.6 SAM Phantom

Shell Thickness	2.0 mm
Filling Volume	Volume Approx. 30 liters
Dimensions	810 x 1000 x 500 mm (H x L x W)

3.5 Device Holder for Transmitters

In combination with the SAM Phantom V4.0, the Mounting Device (POM) enables the rotation of the mounted transmitter in spherical coordinates whereby the rotation points is the ear opening. The devices can be easily, accurately, and repeatably positioned according to the FCC and CENELEC specifications. The device holder can be locked at different phantom locations (left head, right head, flat phantom).

Note: A simulating human hand is not used due to the complex anatomical and geometrical structure of the hand that may produce an infinite number of configurations [10]. To produce the Worst-case condition (the hand absorbs antenna output power), the hand is omitted during the tests.



Fig. 3.7 Device Holder

3.6 Brain & Muscle Simulating Mixture Characterization

The brain and muscle mixtures consist of a viscous gel using hydrox-ethyl cellulose (HEC) gelling agent and saline solution (see Table 3.1). Preservation with a bactericide is added and visual inspection is made to make sure air bubbles are not trapped during the mixing process. The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the desired tissue. The mixture characterizations used for the brain and muscle tissue simulating liquids are according to the data by C. Gabriel and G. Hartsgrrove [11].

Ingredients (%by weight)	Frequency (MHz)									
	450		835		915		1900		2450	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	38.56	51.16	41.45	52.4	41.05	56.0	54.9	40.4	62.7	73.2
Salt (NaCl)	3.95	1.49	1.45	1.4	1.35	0.76	0.18	0.5	0.5	0.04
Sugar	56.32	46.78	56.0	45.0	56.5	41.76	0.0	58.0	0.0	0.0
HEC	0.98	0.52	1.0	1.0	1.0	1.21	0.0	1.0	0.0	0.0
Bactericide	0.19	0.05	0.1	0.1	0.1	0.27	0.0	0.1	0.0	0.0
Triton X-100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	0.0
DGBE	0.0	0.0	0.0	0.0	0.0	0.0	44.92	0.0	0.0	26.7

Salt:	99%Pure Sodium Chloride	Sugar:	98%Pure Sucrose
Water:	De-ionized, 16M resistivity	HEC:	Hydroxyethyl Cellulose
DGBE:	99% Di(ethylene glycol) butyl ether,[2-(2-butoxyethoxy)ethanol]		
Triton X-100(ultra pure):	Polyethylene glycol mono[4-(1,1,3,3-tetramethylbutyl)phenyl] ether		

Table 3.1 Composition of the Tissue Equivalent Matter

3.7 SAR TEST EQUIPMENT

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	SAM Phantom	-	N/A	N/A	N/A
Staubli	Robot RX90L	F01/5K09A1/A/01	N/A	N/A	N/A
Staubli	Robot ControllerCS7MB	F99/5A82A1/C/01	N/A	N/A	N/A
HP	Pavilion t000_puffer	KRJ51201TV	N/A	N/A	N/A
SPEAG	Light Alignment Sensor	265	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	D221340.01	N/A	N/A	N/A
SPEAG	DAE4V1	447	Mar.06, 2007	Annual	Mar.06, 2008
SPEAG	DAE3V1	466	Jan.25, 2007	Annual	Jan.25, 2008
SPEAG	DAE3V1	446	Nov.15, 2006	Annual	Nov.15, 2007
SPEAG	E-Field Probe ET3DV6	1798	Aug.25, 2006	Annual	Aug.25, 2007
SPEAG	E-Field Probe ET3DV6	1607	Feb.21, 2007	Annual	Feb.21, 2008
SPEAG	Validation Dipole D450V2	1007	Mar.15, 2007	Annual	Mar.15, 2008
SPEAG	Validation Dipole D835V2	441	Aug.14, 2006	Annual	Aug.14, 2007
SPEAG	Validation Dipole D900V2	121	Feb.19, 2007	Annual	Feb.19, 2008
SPEAG	Validation Dipole D1800V2	2d007	Aug.16, 2006	Annual	Aug.16, 2007
SPEAG	Validation Dipole D1900V2	5d032	Feb.20, 2007	Annual	Feb.20, 2008
SPEAG	Validation Dipole D2450V2	743	Jan.17, 2007	Annual	Jan.17, 2008
Agilent	Power Meter(F) E4419B	MY40330223	Nov.08, 2006	Annual	Nov.08, 2007
Agilent	Power Sensor(G) 8481	MY41090870	Nov.21, 2006	Annual	Nov.21, 2007
HP	Dielectric Probe Kit 85070C	00721521	N/A	N/A	N/A
HP	Dual Directional Coupler	16072	Nov.09, 2006	Annual	Nov.09, 2007
R&S	Base Station CMU200	838207/050	Nov.14, 2006	Annual	Nov.14, 2007
Tescom	Bluetooth TC-3000	3000A490112	Jan.22, 2007	Annual	Jan.22, 2008
Agilent	Base Station E5515C	GB44400269	Feb.11, 2007	Annual	Feb.11, 2008
HP	Signal Generator E4438C	MY45092381	Feb.07, 2007	Annual	Feb.07, 2008
HP	Network Analyzer 8753ES	JP39240221	Apr.11, 2007	Annual	Apr.11, 2008
EM POWER	Power Amp BBS3Q7ELU	1013-D/C-0127	Apr.17, 2007	Annual	Apr.17, 2008

NOTE:

The E-field probe was calibrated by SPEAG, by the waveguide technique procedure. Dipole Validation measurement is performed by HCT Lab. before each test. The brain simulating material is calibrated by HCT using the dielectric probe system and network analyzer to determine the conductivity and permittivity (dielectric constant) of the brain-equivalent material.

4. SAR MEASUREMENT PROCEDURE

The evaluation was performed with the following procedure:

1. The SAR value at a fixed location above the ear point was measured and was used as a reference value for assessing the power drop.
2. The SAR distribution at the exposed side of the head was measured at a distance of 3.9mm from the inner surface of the shell. The area covered the entire dimension of the head and the horizontal grid spacing was 20mm x 20mm. Based on this data, the area of the maximum absorption was determined by spline interpolation.
3. Around this point, a volume of 32mm x 32mm x 34mm was assessed by measuring 5 x 5 x 7 points. On this basis of this data set, the spatial peak SAR value was evaluated with the following procedure:
 - a. The data at the surface were extrapolated, since the center of the dipoles is 2.7mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.2mm. The extrapolation was based on a least square algorithm [13]. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.
 - b. The maximum interpolated value was searched with a straight-forward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1g or 10g) were computed using the 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x,y, and z directions) [13][14]. The volume was integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.
 - c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
4. The SAR value, at the same location as procedure #1, was re-measured. If the value changed by more than 5%, the evaluation is repeated.

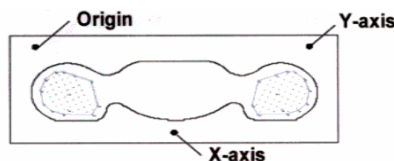


Fig. 4.1 SAR Measurement Point in Area Scan

5. DESCRIPTION OF TEST POSITION

5.1 HEAD POSITION

The device was placed in a normal operating position with the Point A on the device, as illustrated in following drawing, aligned with the location of the RE(ERP) on the phantom. With the ear-piece pressed against the head, the vertical center line of the body of the handset was aligned with an imaginary plane consisting of the RE, LE and M. While maintaining these alignments, the body of the handset was gradually moved towards the cheek until any point on the mouth-piece or keypad contacted the cheek. This is a cheek/touch position. For ear/tilt position, while maintain the device aligned with the BM and FN lines, the device was pivot against ERP back for 15° or until the device antenna touch the phantom. Please refer to IEEE SC-2 P1528 illustration below.

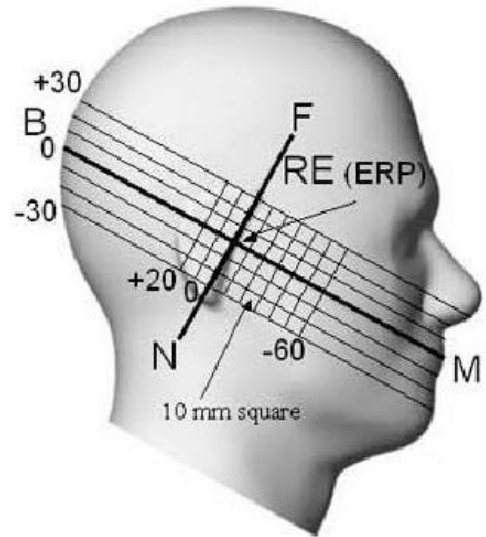


Figure 5.1 Side view of the phantom

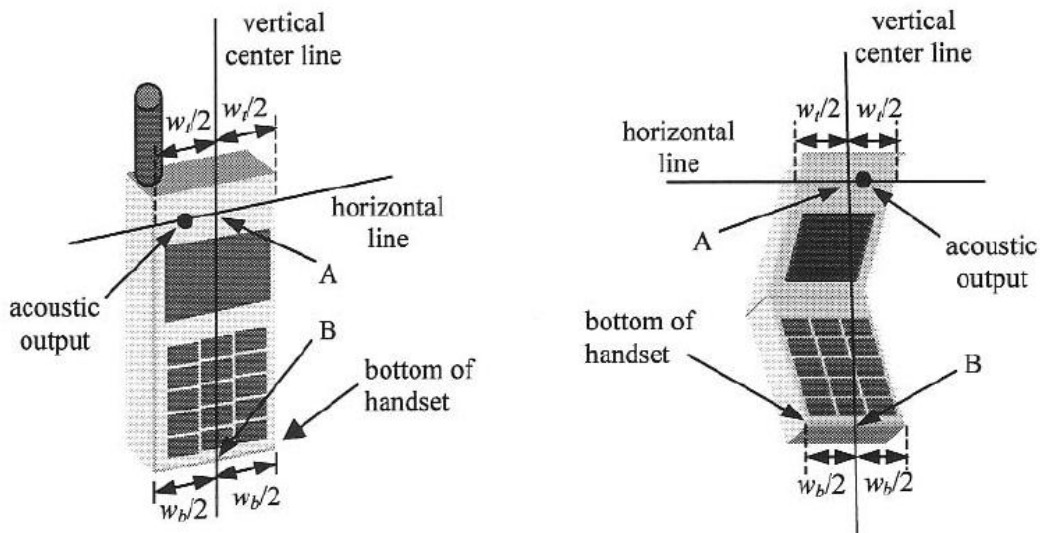


Figure 5.2 Handset vertical and horizontal reference lines

5.2 Body Holster/Belt Clip Configurations

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration. A device with a headset output is tested with a headset connected to the device. Body dielectric parameters are used.

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with each accessory. If multiple accessory share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

Body-worn accessories may not always be supplied or available as options for some Devices intended to be authorized for body-worn use. In this case, a test configuration with a separation distance between the back of the device and the flat phantom is used.

Since this EUT does not supply any body worn accessory to the end user a distance of 2.0 cm from the EUT back surface to the liquid interface is configured for the generic test.

"See the Test SET-UP Photo"

Transmitters that are designed to operate in front of a person's face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessory(ies), including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.

In all cases SAR measurements are performed to investigate the worst-case positioning. Worstcase positioning is then documented and used to perform Body SAR testing.

6. MEASUREMENT UNCERTAINTY

Measurement uncertainties in SAR measurements are difficult to quantify due to several variables including biological, physiological, and environmental. However, we estimate the measurement uncertainties in SAR to be less than 15-25 % [16].

According to ANSI/IEEE C95.3, the overall uncertainties are difficult to assess and will vary with the type of meter and usage situation. However, accuracy's of 1 to ± 3 dB can be expected in practice, with greater uncertainties in near-field situations and at higher frequencies (shorter wavelengths), or areas where large reflecting objects are present. Under optimum measurement conditions, SAR measurement uncertainties of at least ± 2 dB can be expected.[3]

According to CENELEC [17], typical worst-case uncertainty of field measurements is 5 dB. For well-defined modulation characteristics the uncertainty can be reduced to ± 3 dB.

Error Description	Uncertainty value [%]	Probability Distribution	Divisor	ci	ci ²	Standard Uncertainty [%]	Stand Uncert ²	(Stand Uncert ²) X (ci ²)	Vi & Ver#
1. Measurement System									
Probe Calibration	5.5	Normal	1.00	1	1	5.50	30.25	30.25	∞
Axial Isotropy	4.7	Rectangular	1.73	0.7	0.49	2.71	7.36	3.61	∞
Hemispherical Isotropy	9.6	Rectangular	1.73	0.7	0.49	5.54	30.72	15.05	∞
Linearity	4.7	Rectangular	1.73	1	1	2.71	7.36	7.36	∞
System Detection limits	1.0	Rectangular	1.73	1	1	0.58	0.33	0.33	∞
Boundary effect	1.0	Rectangular	1.73	1	1	0.58	0.33	0.33	∞
Response time	0.8	Rectangular	1.73	1	1	0.46	0.21	0.21	∞
RF Ambient conditions	3.0	Rectangular	1.73	1	1	1.73	3.00	3.00	∞
Readout Electronics	0.3	Normal	1.00	1	1	0.30	0.09	0.09	∞
Integration time	2.6	Rectangular	1.73	1	1	1.50	2.25	2.25	∞
Probe positioner	0.4	Rectangular	1.73	1	1	0.23	0.05	0.05	∞
Probe positioning	2.9	Rectangular	1.73	1	1	1.67	2.80	2.80	∞
Maximum SAR evaluation	1.0	Rectangular	1.73	1	1	0.58	0.33	0.33	∞
Sub Total								65.69	
2. Test Sample Related									
Device Positioning	1.8	Normal	1.00	1	1	1.77	3.13	3.13	9
Device Holder	3.6	Normal	1.00	1	1	3.60	12.96	12.96	∞
Power Drift	5.0	Rectangular	1.73	1	1	2.89	8.33	8.33	∞
Sub Total								24.43	
3. Phantom and Setup									
Phantom Uncertainty	4.0	Rectangular	1.73	1	1	2.31	5.33	5.33	∞
Liquid conductivity (target)	5.0	Rectangular	1.73	0.5	0.25	2.89	8.33	2.08	∞
Liquid conductivity (measurement error)	2.5	Normal	1.00	0.5	0.25	2.50	6.25	1.56	∞
Liquid permittivity (target)	5.0	Rectangular	1.73	0.5	0.25	2.89	8.33	2.08	∞
Liquid permittivity (measurement error)	2.5	Normal	1.00	0.5	0.25	2.50	6.25	1.56	∞
Sub Total								12.63	
Combined standard uncertainty [%]						10.14		102.74	-
Expanded uncertainty [k = 2, confidence 95 %]						± 20.3 %			

Table 6.1 Breakdown of Errors

7. ANSI/ IEEE C95.1 - 2005 RF EXPOSURE LIMITS

HUMAN EXPOSURE	UNCONTROLLED ENVIRONMENT General Population (W/kg) or (mW/g)	CONTROLLED ENVIRONMENT Occupational (W/kg) or (mW/g)
SPATIAL PEAK SAR * (Brain)	1.60	8.00
SPATIAL AVERAGE SAR ** (Whole Body)	0.08	0.40
SPATIAL PEAK SAR *** (Hands / Feet / Ankle / Wrist)	4.00	20.00

Table 7.1 Safety Limits for Partial Body Exposure

NOTES:

* The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

** The Spatial Average value of the SAR averaged over the whole-body.

*** The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e.as a result of employment or occupation).

8. SYSTEM VERIFICATION

8.1 TOSHIBA

Tissue Verification

Freq. [MHz]	Date	Liquid	Liquid Temp[°C]	Parameters	Target Value	Measured Value	Deviation [%]	Limit [%]
835	Jun.13, 2007	Head	22.7	ϵ_r	41.5	39.8	- 4.10	± 5
				σ	0.90	0.876	- 2.67	± 5
835	Jun.13, 2007	Body	22.7	ϵ_r	55.2	54.8	- 0.72	± 5
				σ	0.97	0.98	+ 1.03	± 5
1900	Jun.13, 2007	Head	22.7	ϵ_r	40.0	38.7	- 3.25	± 5
				σ	1.40	1.44	+ 2.86	± 5
1900	Jun.13, 2007	Body	22.7	ϵ_r	53.3	52.0	- 2.44	± 5
				σ	1.52	1.56	+ 2.63	± 5

System Validation

Prior to assessment, the system is verified to the $\pm 10\%$ of the specifications at 835 MHz/1900 MHz by using the system validation kit. (Graphic Plots Attached)

Freq. [MHz]	Date	Liquid	Liquid Temp [°C]	SAR Average	Target Value (SPEAG) (mW/g)	Measured Value (mW/g)	Deviation [%]	Limit [%]
835 MHz	Jun.13, 2007	Head	22.7	1 g	9.4	9.50	+ 1.06	± 10
1900 MHz	Jun.13, 2007	Head	22.7	1 g	38.2	38.40	+ 0.52	± 10

* Input Power: 1 W

8.2 HP

Tissue Verification

Freq. [MHz]	Date	Liquid	Liquid Temp[°C]	Parameters	Target Value	Measured Value	Deviation [%]	Limit [%]
835	Jun.14, 2007	Head	22.5	ϵ_r	41.5	39.8	- 4.10	± 5
				σ	0.90	0.874	- 2.89	± 5
835	Jun.14, 2007	Body	22.5	ϵ_r	55.2	54.8	- 0.72	± 5
				σ	0.97	0.98	+ 1.03	± 5
1900	Jun.14, 2007	Head	22.5	ϵ_r	40.0	39.1	- 2.25	± 5
				σ	1.40	1.44	+ 2.86	± 5
1900	Jun.14, 2007	Body	22.5	ϵ_r	53.3	52.0	- 2.44	± 5
				σ	1.52	1.56	+ 2.63	± 5

System Validation

Prior to assessment, the system is verified to the $\pm 10\%$ of the specifications at 835 MHz/1900 MHz by using the system validation kit. (Graphic Plots Attached)

Freq. [MHz]	Date	Liquid	Liquid Temp [°C]	SAR Average	Target Value (SPEAG) (mW/g)	Measured Value (mW/g)	Deviation [%]	Limit [%]
835 MHz	Jun.14, 2007	Head	22.5	1 g	9.4	9.50	+ 1.06	± 10
1900 MHz	Jun.14, 2007	Head	22.5	1 g	38.2	38.60	+ 1.05	± 10

* Input Power: 1 W

8.3 COMPAQ

Tissue Verification

Freq. [MHz]	Date	Liquid	Liquid Temp[°C]	Parameters	Target Value	Measured Value	Deviation [%]	Limit [%]
835	Jun.15, 2007	Head	22.5	ϵ_r	41.5	39.9	- 3.86	± 5
				σ	0.90	0.875	- 2.78	± 5
835	Jun.15, 2007	Body	22.5	ϵ_r	55.2	54.9	- 0.54	± 5
				σ	0.97	0.98	+ 1.03	± 5
1900	Jun.15, 2007	Head	22.5	ϵ_r	40.0	39.1	- 2.25	± 5
				σ	1.40	1.44	+ 2.86	± 5
1900	Jun.15, 2007	Body	22.5	ϵ_r	53.3	52.0	- 2.44	± 5
				σ	1.52	1.56	+ 2.63	± 5

System Validation

Prior to assessment, the system is verified to the $\pm 10\%$ of the specifications at 835 MHz / 1900 MHz by using the system validation kit. (Graphic Plots Attached)

Freq. [MHz]	Date	Liquid	Liquid Temp [°C]	SAR Average	Target Value (SPEAG) (mW/g)	Measured Value (mW/g)	Deviation [%]	Limit [%]
835 MHz	Jun.15, 2007	Head	22.5	1 g	9.4	9.48	+ 0.85	± 10
1900 MHz	Jun.15, 2007	Head	22.5	1 g	38.2	38.20	0.00	± 10

* Input Power: 1 W

9. 3G MEASUREMENT PROCEDURES

9.1 Procedures Used To Establish Test Signal

The handset was placed into a simulated call using a base station simulator in a shielded chamber. Such test signals offer a consistent means for testing SAR and are recommended for evaluating SAR. SAR measurements were taken with a fully charged battery. In order to verify that the device was tested and maintained at full power, this was configured with the base station simulator. The SAR measurement software calculates a reference point at the start and end of the test to check for power drifts. If conducted power deviations of more than 5% occurred, the tests were repeated.

9.2 SAR Measurement Conditions for CDMA2000 1x

These procedures were followed according to FCC "SAR Measurement Procedures for 3G Devices", May 2006.

9.2.1 Output Power Verification

See 3GPP2 C.S0011/TIA-98-E as recommended by "SAR Measurement Procedures for 3G Devices", May 2006. Maximum output power is verified on the High, Middle and Low channels according to procedures defined in section 4.4.5.2 of 3GPP2 C.S0011/TIA-98-E. SO55 tests were measured with power control bits in "All Up" condition.

1. If the mobile station supports Reverse TCH RC 1 and Forward TCH RC 1, set up a call using Fundamental Channel Test Mode 1 (RC=1/1) with 9600 bps data rate only.
2. Under RC1, C.S0011 Table 4.4.5.2-1 (Table 4) parameters were applied.
3. If the MS supports the RC 3 Reverse FCH, RC3 Reverse SCH0 and demodulation of RC 3, 4, or 5, set up a call using Supplemental Channel Test Mode 3 (RC 3/3) with 9600 bps Fundamental Channel and 9600 bps SCH0 data rate Channel and 9600 bps SCH0 data rate.
4. Under RC3, C.S0011 Table 4.4.5.2-2 (Table 5) was applied.
5. FCHs were configured at full rate for maximum SAR with "All Up" power control bits.

Parameters for Max. Power for RC1

Parameter	Units	Value
$\bar{I}_{or}$	dBm/1.23 MHz	-104
$\frac{Pilot E_c}{I_{or}}$	dB	-7
$\frac{Traffic E_c}{I_{or}}$	dB	-7.4

Table. 9.1

Parameters for Max. Power for RC3

Parameter	Units	Value
$\bar{I}_{or}$	dBm/1.23 MHz	-86
$\frac{Pilot E_c}{I_{or}}$	dB	-7
$\frac{Traffic E_c}{I_{or}}$	dB	-7.4

Table. 9.2

9.2.2 Head SAR Measurement

SAR for head exposure configurations is measured in RC3 with the DUT configured to transmit at full rate using Loopback Service Option SO55. SAR for RC1 is not required when the maximum average output of each channel is less than ¼ dB higher than that measured in RC3. Otherwise, SAR is measured on the maximum output channel in RC1 using the exposure configuration that results in the highest SAR for that channel in RC3.

9.2.3 Body SAR Measurement

SAR for body exposure configurations is measured in RC3 with the DUT configured to transmit at full rate on FCH with all other code channels disabled using TDSO / SO32. SAR for multiple code channels (FCH + SCHn) is not required when the maximum average output of each RF channel is less than ¼ dB higher than that measured with FCH only. Otherwise, SAR is measured on the maximum output channel (FCH + SCHn) with FCH at full rate and SCH0 enabled at 9600 bps using the exposure configuration that results in the highest SAR for that channel with FCH only. When multiple code channels are enabled, the DUT output may shift by more than 0.5 dB and lead to higher SAR drifts and SCH dropouts.

Body SAR in RC1 is not required when the maximum average output of each channel is less than ¼ dB higher than that measured in RC3. Otherwise, SAR is measured on the maximum output channel in RC1; with Loopback Service Option SO55, at full rate, using the body exposure configuration that results in the highest SAR for that channel in RC3.

9.2.4 Handsets with EV-DO

For handsets with Ev-Do capabilities, when the maximum average output of each channel in Rev. 0 is less than ¼ dB higher than that measured in RC3 (1x RTT), body SAR for Ev-Do is not required. Otherwise, SAR for Rev. 0 is measured on the maximum output channel at 153.6 kbps using the body exposure configuration that results in the highest SAR for that channel in RC3. SAR for Rev. A is not required when the maximum average output of each channel is less than that measured in Rev. 0 or less than ¼ dB higher than that measured in RC3. Otherwise, SAR is measured on the maximum output channel for Rev. A using a Reverse Data Channel payload size of 4096 bits and a Termination Target of 16 slots defined for Subtype 2 Physical Layer configurations. A Forward Traffic Channel data rate corresponding to the 2-slot version of 307.2 kbps with the ACK Channel transmitting in all slots should be configured in the downlink for both Rev. 0 and Rev. A.

Average Output Power Measurement for FCC ID: PP4PX-600

Band	Channel	SO2	SO2	SO55	SO55	TDSO	1xEvDO	1xEvDO	1xEvDO	1xEvDO
		RC1/1	RC3/3	RC1/1	RC3/3	SO32	Rev.0	Rev.0	Rev. A	Rev. A
						RC3/3	(FTAP)	(RTAP)	(FETAP)	(RETAP)
CDMA	1013	25.04	25.09	25.04	25.11	25.13	25.21	25.28	25.23	25.33
	384	25.03	25.02	24.97	25.00	25.01	25.12	25.22	25.10	25.26
	777	25.00	25.03	25.01	25.08	25.09	25.13	25.24	25.12	25.27
PCS	25	24.94	24.98	24.99	25.00	25.03	25.17	25.22	25.14	25.28
	600	25.07	25.06	25.03	25.13	25.07	25.15	25.26	25.13	25.31
	1175	24.98	25.01	24.99	25.00	25.07	25.16	25.23	25.10	25.21

10. SAR TEST DATA SUMMARY

10.1 Measurement Results (CDMA Body SAR in PC #1-Front)

Frequency		Modulation	Conducted Power (dBm)		Phantom Position	Ant. Position	SAR(mW/g)
MHz	Channel.		Begin	End			
824.70	1013 (Low)	EVDO	25.21	25.20	BODY (TOSHIBA)	In	0.659
836.52	384 (Mid)	EVDO	25.12	25.13		In	0.654
848.31	777 (High)	EVDO	25.13	25.13		In	0.555
824.70	1013 (Low)	EVDO	25.21	25.21		Out	0.735
836.52	384 (Mid)	EVDO	25.12	25.13		Out	0.860
848.31	777 (High)	EVDO	25.13	25.13		Out	1.19
848.31	777 (High)	CDMA	25.10	25.11		Out	* 0.869
ANSI/ IEEE C95.1 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram	

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- All modes of operation were investigated and the worst-case are reported.
- Measured Depth of Simulating Tissue is 15.0 ± 0.2 cm.
- Tissue parameters and temperatures are listed on the SAR plot.
- Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- Both sides of the phone were tested, and worst-case is reported.
- * Highest SAR value measurement in this band repeated with CDMA mode RC3/ SO32.
- SAR Configuration ☐ Head ☒ Body ☐ Hand
- Body SAR was tested under RTAP /1xEvDO Rev.0 mode.
- PC#1 Manufacturer / Model(s): TOSHIBA / Satellite M70
PC#2 Manufacturer / Model(s): H.P / HP Pavilion ze2000
PC#3 Manufacturer / Model(s): COMPAQ / Presario R3000

10.2 Measurement Results (CDMA Body SAR in PC #1-Bottom)

Frequency		Modulation	Conducted Power (dBm)		Phantom Position	Ant. Position	SAR(mW/g)
MHz	Channel.		Begin	End			
824.70	1013 (Low)	EVDO	25.23	25.24	BODY (TOSHIBA)	In	0.318
836.52	384 (Mid)	EVDO	25.14	25.16		In	0.401
848.31	777 (High)	EVDO	25.13	25.20		In	0.529
824.70	1013 (Low)	EVDO	25.21	25.23		Out	0.341
836.52	384 (Mid)	EVDO	25.12	25.13		Out	0.484
848.31	777 (High)	EVDO	25.14	25.12		Out	0.778
ANSI/ IEEE C95.1 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram	

NOTES:

- 1 The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- 2 All modes of operation were investigated and the worst-case are reported.
- 3 Measured Depth of Simulating Tissue is 15.0 ± 0.2cm.
- 4 Tissue parameters and temperatures are listed on the SAR plot.
- 5 Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- 6 Both sides of the phone were tested, and worst-case is reported.
- 7 SAR Configuration ☐ Head ☒ Body ☐ Hand
- 8 Body SAR was tested under RTAP/1xEvDO Rev.0.
- 9 PC#1 Manufacturer / Model(s): TOSHIBA / Satellite M70
PC#2 Manufacturer / Model(s): H.P / HP Pavilion ze2000
PC#3 Manufacturer / Model(s): COMPAQ / Presario R3000

10.3 Measurement Results (PCS Body SAR in PC #1-Front)

Frequency		Modulation	Conducted Power (dBm)		Phantom Position	Ant. Position	SAR(mW/g)
MHz	Channel.		Begin	End			
1851.25	25 (Low)	EVDO	25.17	25.00	BODY (TOSHIBA)	In	0.568
1880.00	600 (Mid)	EVDO	25.15	25.14		In	0.601
1908.75	1175 (High)	EVDO	25.17	25.17		In	0.482
1851.25	25 (Low)	EVDO	25.18	25.17		Out	0.854
1880.00	600 (Mid)	EVDO	25.15	25.15		Out	0.554
1908.75	1175 (High)	EVDO	25.17	25.16		Out	0.366
1851.25	25 (Low)	PCS	25.03	25.04		Out	* 0.710
ANSI/ IEEE C95.1 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram	

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- All modes of operation were investigated and the worst-case are reported.
- Measured Depth of Simulating Tissue is 15.0 ± 0.2cm.
- Tissue parameters and temperatures are listed on the SAR plot.
- Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- Both sides of the phone were tested, and worst-case is reported.
- * Highest SAR value measurement in this band repeated with PCS CDMA mode RC3/ SO32.
- SAR Configuration ☐ Head ☒ Body ☐ Hand
- Body SAR was tested under RTAP /1xEvDO Rev.0 mode.
- PC#1 Manufacturer / Model(s): TOSHIBA / Satellite M70
PC#2 Manufacturer / Model(s): H.P / HP Pavilion ze2000
PC#3 Manufacturer / Model(s): COMPAQ / Presario R3000

10.4 Measurement Results (PCS Body SAR in PC #1-Bottom)

Frequency		Modulation	Conducted Power (dBm)		Phantom Position	Ant. Position	SAR(mW/g)
MHz	Channel.		Begin	End			
1851.25	25 (Low)	EVDO	25.17	25.18	BODY (TOSHIBA)	In	0.369
1880.00	600 (Mid)	EVDO	25.15	25.15		In	0.395
1908.75	1175 (High)	EVDO	25.17	25.18		In	0.282
1851.25	25 (Low)	EVDO	25.17	25.17		Out	0.084
1880.00	600 (Mid)	EVDO	25.16	25.15		Out	0.030
1908.75	1175 (High)	EVDO	25.17	25.16		Out	0.048
ANSI/ IEEE C95.1 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram	

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- All modes of operation were investigated and the worst-case are reported.
- Measured Depth of Simulating Tissue is 15.0 ± 0.2 cm.
- Tissue parameters and temperatures are listed on the SAR plot.
- Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- Both sides of the phone were tested, and worst-case is reported.
- SAR Configuration ☐ Head ☒ Body ☐ Hand
- Body SAR was tested under RTAP/1xEvDO Rev.0.
- PC#1 Manufacturer / Model(s): TOSHIBA / Satellite M70
PC#2 Manufacturer / Model(s): H.P / HP Pavilion ze2000
PC#3 Manufacturer / Model(s): COMPAQ / Presario R3000

10.5 Measurement Results (CDMA Body SAR in PC #2-Front)

Frequency		Modulation	Conducted Power (dBm)		Phantom Position	Ant. Position	SAR(mW/g)
MHz	Channel.		Begin	End			
824.70	1013 (Low)	EVDO	25.21	25.20	BODY (HP)	In	0.518
836.52	384 (Mid)	EVDO	25.13	25.13		In	0.598
848.31	777 (High)	EVDO	25.13	25.13		In	0.558
824.70	1013 (Low)	EVDO	25.22	25.22		Out	0.624
836.52	384 (Mid)	EVDO	25.12	25.11		Out	0.721
848.31	777 (High)	EVDO	25.13	25.13		Out	0.991
848.31	777 (High)	CDMA	25.10	25.11		Out	* 0.801
ANSI/ IEEE C95.1 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram	

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- All modes of operation were investigated and the worst-case are reported.
- Measured Depth of Simulating Tissue is 15.0 ± 0.2cm.
- Tissue parameters and temperatures are listed on the SAR plot.
- Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- Both sides of the phone were tested, and worst-case is reported.
- * Highest SAR value measurement in this band repeated with CDMA mode RC3/ SO32.
- SAR Configuration ☐ Head ☒ Body ☐ Hand
- Body SAR was tested under RTAP /1xEvDO Rev.0 mode.
- PC#1 Manufacturer / Model(s): TOSHIBA / Satellite M70
PC#2 Manufacturer / Model(s): H.P / HP Pavilion ze2000
PC#3 Manufacturer / Model(s): COMPAQ / Presario R3000

10.6 Measurement Results (CDMA Body SAR in PC #2-Bottom)

Frequency		Modulation	Conducted Power (dBm)		Phantom Position	Ant. Position	SAR(mW/g)
MHz	Channel.		Begin	End			
824.70	1013 (Low)	EVDO	25.21	25.21	BODY (HP)	In	0.207
836.52	384 (Mid)	EVDO	25.13	25.12		In	0.201
848.31	777 (High)	EVDO	25.13	25.13		In	0.194
824.70	1013 (Low)	EVDO	25.24	25.23		Out	0.140
836.52	384 (Mid)	EVDO	25.13	25.15		Out	0.172
848.31	777 (High)	EVDO	25.13	25.13		Out	0.191
ANSI/ IEEE C95.1 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram	

NOTES:

- 1 The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- 2 All modes of operation were investigated and the worst-case are reported.
- 3 Measured Depth of Simulating Tissue is 15.0 ± 0.2 cm.
- 4 Tissue parameters and temperatures are listed on the SAR plot.
- 5 Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- 6 Both sides of the phone were tested, and worst-case is reported.
- 7 SAR Configuration ☐ Head ☒ Body ☐ Hand
- 8 Body SAR was tested under RTAP/1xEvDO Rev.0.
- 9 PC#1 Manufacturer / Model(s): TOSHIBA / Satellite M70
PC#2 Manufacturer / Model(s): H.P / HP Pavilion ze2000
PC#3 Manufacturer / Model(s): COMPAQ / Presario R3000

10.7 Measurement Results (PCS Body SAR in PC #2-Front)

Frequency		Modulation	Conducted Power (dBm)		Phantom Position	Ant. Position	SAR(mW/g)
MHz	Channel.		Begin	End			
1851.25	25 (Low)	EVDO	25.17	25.16	BODY (HP)	In	0.513
1880.00	600 (Mid)	EVDO	25.17	25.15		In	0.528
1908.75	1175 (High)	EVDO	25.16	25.16		In	0.430
1851.25	25 (Low)	EVDO	25.18	25.16		Out	0.581
1880.00	600 (Mid)	EVDO	25.16	25.15		Out	0.373
1908.75	1175 (High)	EVDO	25.16	25.16		Out	0.256
1851.25	25 (Low)	PCS	25.04	25.03		Out	* 0.367
ANSI/ IEEE C95.1 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram	

NOTES:

- 1 The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- 2 All modes of operation were investigated and the worst-case are reported.
- 3 Measured Depth of Simulating Tissue is 15.0 ± 0.2cm.
- 4 Tissue parameters and temperatures are listed on the SAR plot.
- 5 Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- 6 Both sides of the phone were tested, and worst-case is reported.
- 7 * Highest SAR value measurement in this band repeated with PCS CDMA mode RC3/ SO32.
- 8 SAR Configuration ☐ Head ☒ Body ☐ Hand
- 9 Body SAR was tested under RTAP /1xEvDO Rev.0 mode.
- 10 . PC#1 Manufacturer / Model(s): TOSHIBA / Satellite M70
PC#2 Manufacturer / Model(s): H.P / HP Pavilion ze2000
PC#3 Manufacturer / Model(s): COMPAQ / Presario R3000

10.8 Measurement Results (PCS Body SAR in PC #2-Bottom)

Frequency		Modulation	Conducted Power (dBm)		Phantom Position	Ant. Position	SAR(mW/g)
MHz	Channel.		Begin	End			
1851.25	25 (Low)	EVDO	25.19	25.17	BODY (HP)	In	0.125
1880.00	600 (Mid)	EVDO	25.15	25.15		In	0.085
1908.75	1175 (High)	EVDO	25.16	25.16		In	0.060
1851.25	25 (Low)	EVDO	25.17	25.16		Out	0.024
1880.00	600 (Mid)	EVDO	25.16	25.15		Out	0.014
1908.75	1175 (High)	EVDO	25.16	25.15		Out	0.017
ANSI/ IEEE C95.1 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram	

NOTES:

- 1 The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- 2 All modes of operation were investigated and the worst-case are reported.
- 3 Measured Depth of Simulating Tissue is 15.0 ± 0.2cm.
- 4 Tissue parameters and temperatures are listed on the SAR plot.
- 5 Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- 6 Both sides of the phone were tested, and worst-case is reported.
- 7 SAR Configuration ☐ Head ☒ Body ☐ Hand
- 8 Body SAR was tested under RTAP/1xEvDO Rev.0.
- 9 PC#1 Manufacturer / Model(s): TOSHIBA / Satellite M70
PC#2 Manufacturer / Model(s): H.P / HP Pavilion ze2000
PC#3 Manufacturer / Model(s): COMPAQ / Presario R3000

10.9 Measurement Results (CDMA Body SAR in PC #3-Front)

Frequency		Modulation	Conducted Power (dBm)		Phantom Position	Ant. Position	SAR(mW/g)
MHz	Channel.		Begin	End			
824.70	1013 (Low)	EVDO	25.21	25.21	BODY (COMPAQ)	In	0.678
836.52	384 (Mid)	EVDO	25.13	25.13		In	0.608
848.31	777 (High)	EVDO	25.13	25.13		In	0.600
824.70	1013 (Low)	EVDO	25.22	25.21		Out	0.493
836.52	384 (Mid)	EVDO	25.12	25.12		Out	0.579
848.31	777 (High)	EVDO	25.14	25.14		Out	0.996
848.31	777 (High)	CDMA	25.09	25.08		Out	* 0.828
ANSI/ IEEE C95.1 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram	

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- All modes of operation were investigated and the worst-case are reported.
- Measured Depth of Simulating Tissue is 15.0 ± 0.2cm.
- Tissue parameters and temperatures are listed on the SAR plot.
- Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- Both sides of the phone were tested, and worst-case is reported.
- * Highest SAR value measurement in this band repeated with CDMA mode RC3/ SO32.
- SAR Configuration ☐ Head ☒ Body ☐ Hand
- Body SAR was tested under RTAP /1xEvDO Rev.0 mode.
- PC#1 Manufacturer / Model(s): TOSHIBA / Satellite M70
PC#2 Manufacturer / Model(s): H.P / HP Pavilion ze2000
PC#3 Manufacturer / Model(s): COMPAQ / Presario R3000

10.10 Measurement Results (CDMA Body SAR in PC #3-Bottom)

Frequency		Modulation	Conducted Power (dBm)		Phantom Position	Ant. Position	SAR(mW/g)
MHz	Channel.		Begin	End			
824.70	1013 (Low)	EVDO	25.21	25.21	BODY (COMPAQ)	In	0.171
836.52	384 (Mid)	EVDO	25.12	25.13		In	0.169
848.31	777 (High)	EVDO	25.15	25.15		In	0.163
824.70	1013 (Low)	EVDO	25.21	25.22		Out	0.127
836.52	384 (Mid)	EVDO	25.13	25.13		Out	0.178
848.31	777 (High)	EVDO	25.13	25.14		Out	0.193
ANSI/ IEEE C95.1 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram	

NOTES:

- 1 The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- 2 All modes of operation were investigated and the worst-case are reported.
- 3 Measured Depth of Simulating Tissue is 15.0 ± 0.2cm.
- 4 Tissue parameters and temperatures are listed on the SAR plot.
- 5 Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- 6 Both sides of the phone were tested, and worst-case is reported.
- 7 SAR Configuration ☐ Head ☒ Body ☐ Hand
- 8 Body SAR was tested under RTAP/1xEvDO Rev.0.
- 9 PC#1 Manufacturer / Model(s): TOSHIBA / Satellite M70
PC#2 Manufacturer / Model(s): H.P / HP Pavilion ze2000
PC#3 Manufacturer / Model(s): COMPAQ / Presario R3000

10.11 Measurement Results (PCS Body SAR in PC #3-Front)

Frequency		Modulation	Conducted Power (dBm)		Phantom Position	Ant. Position	SAR(mW/g)
MHz	Channel.		Begin	End			
1851.25	25 (Low)	EVDO	25.17	25.18	BODY (COMPAQ)	In	0.444
1880.00	600 (Mid)	EVDO	25.15	25.15		In	0.455
1908.75	1175 (High)	EVDO	25.17	25.17		In	0.382
1851.25	25 (Low)	EVDO	25.17	25.16		Out	0.610
1880.00	600 (Mid)	EVDO	25.16	25.16		Out	0.445
1908.75	1175 (High)	EVDO	25.17	25.18		Out	0.254
1851.25	25 (Low)	PCS	25.03	25.02		Out	* 0.548
ANSI/ IEEE C95.1 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram	

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- All modes of operation were investigated and the worst-case are reported.
- Measured Depth of Simulating Tissue is 15.0 ± 0.2cm.
- Tissue parameters and temperatures are listed on the SAR plot.
- Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- Both sides of the phone were tested, and worst-case is reported.
- * Highest SAR value measurement in this band repeated with PCS CDMA mode RC3/ SO32.
- SAR Configuration ☐ Head ☒ Body ☐ Hand
- Body SAR was tested under RTAP /1xEvDO Rev.0 mode.
- PC#1 Manufacturer / Model(s): TOSHIBA / Satellite M70
PC#2 Manufacturer / Model(s): H.P / HP Pavilion ze2000
PC#3 Manufacturer / Model(s): COMPAQ / Presario R3000

10.12 Measurement Results (PCS Body SAR in PC #3-Bottom)

Frequency		Modulation	Conducted Power (dBm)		Phantom Position	Ant. Position	SAR(mW/g)
MHz	Channel.		Begin	End			
1851.25	25 (Low)	EVDO	25.17	25.18	BODY (COMPAQ)	In	0.120
1880.00	600 (Mid)	EVDO	25.16	25.16		In	0.095
1908.75	1175 (High)	EVDO	25.16	25.17		In	0.066
1851.25	25 (Low)	EVDO	25.17	25.17		Out	0.039
1880.00	600 (Mid)	EVDO	25.16	25.16		Out	0.021
1908.75	1175 (High)	EVDO	25.17	25.16		Out	0.022
ANSI/ IEEE C95.1 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram	

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- All modes of operation were investigated and the worst-case are reported.
- Measured Depth of Simulating Tissue is 15.0 ± 0.2cm.
- Tissue parameters and temperatures are listed on the SAR plot.
- Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- Both sides of the phone were tested, and worst-case is reported.
- SAR Configuration ☐ Head ☒ Body ☐ Hand
- Body SAR was tested under RTAP/1xEvDO Rev.0.
- PC#1 Manufacturer / Model(s): TOSHIBA / Satellite M70
PC#2 Manufacturer / Model(s): H.P / HP Pavilion ze2000
PC#3 Manufacturer / Model(s): COMPAQ / Presario R3000

11. CONCLUSION

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the ANSI/IEEE C95.1 2005.

These measurements are taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests.

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Attachment 1. – SAR Test Plots

● **PC#1 Manufacturer / Model(s): TOSHIBA (Page 39 ~ 66)**

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (front)

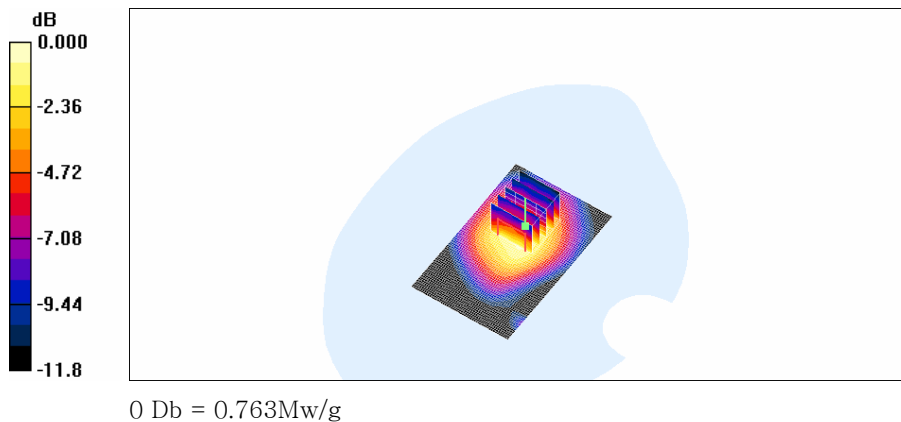
Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 825 \text{ MHz}$; $\sigma = 0.966 \text{ mho/m}$; $\epsilon_r = 55$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 1013/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.702 Mw/g

CDMA BODY 1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 25.0 V/m; Power Drift = -0.078 Db
Peak SAR (extrapolated) = 0.953 W/kg
SAR(1 g) = 0.659 Mw/g; SAR(10 g) = 0.427 Mw/g
Maximum value of SAR (measured) = 0.763 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 836.52 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 - SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 384/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.653 mW/g

CDMA BODY 384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

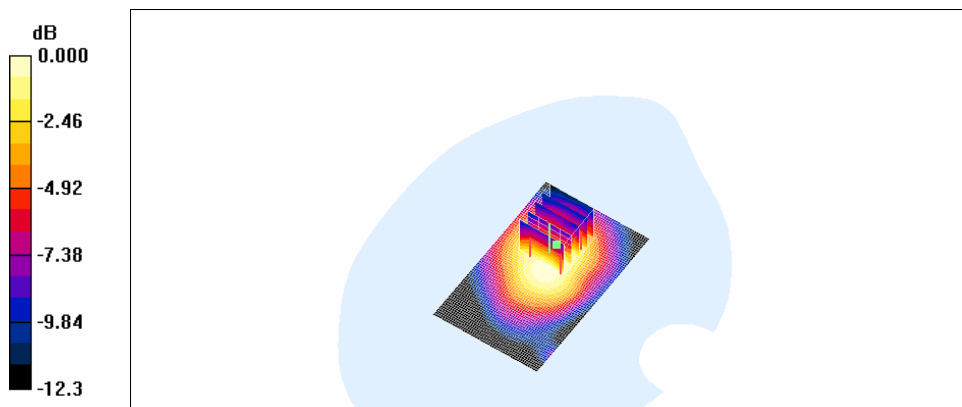
Reference Value = 25.1 V/m; Power Drift = -0.049 dB

Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.654 mW/g; SAR(10 g) = 0.430 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.692 mW/g



0 dB = 0.692mW/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.995 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 777/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.709 Mw/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

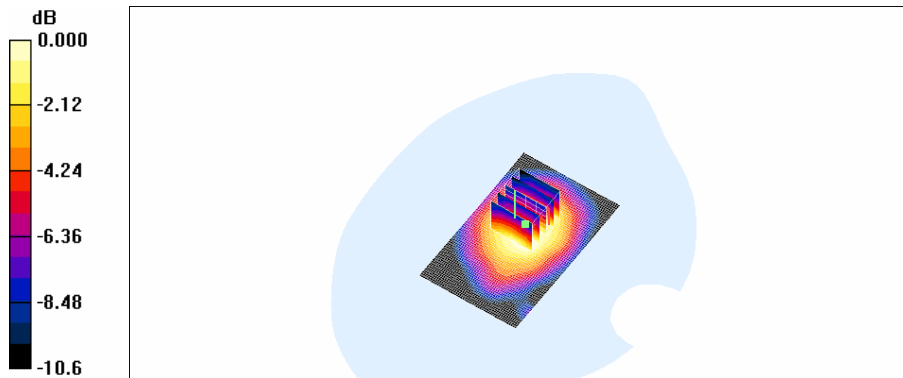
Reference Value = 27.3 V/m; Power Drift = 0.032 Db

Peak SAR (extrapolated) = 0.804 W/kg

SAR(1 g) = 0.555 Mw/g; SAR(10 g) = 0.393 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.617 Mw/g



0 Db = 0.617Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front)

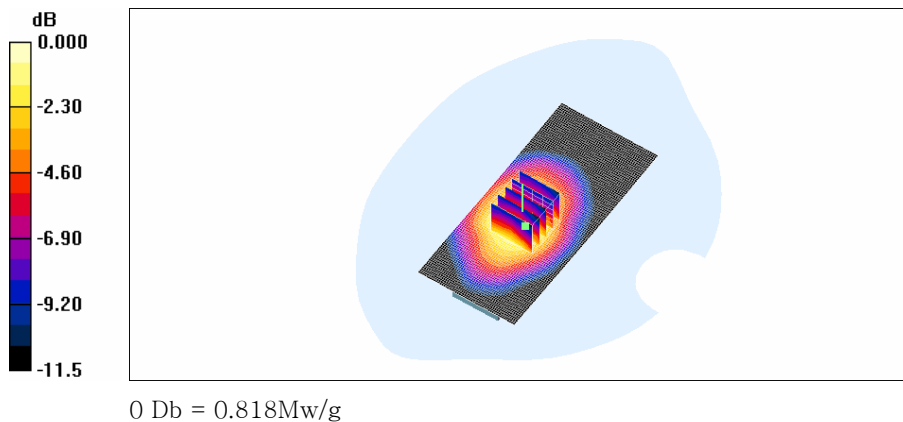
Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 825 \text{ MHz}$; $\sigma = 0.966 \text{ mho/m}$; $\epsilon_r = 55$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 1013/Area Scan (51x111x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.745 Mw/g

CDMA BODY 1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 24.3 V/m; Power Drift = -0.085 Db
Peak SAR (extrapolated) = 1.04 W/kg
SAR(1 g) = 0.735 Mw/g; SAR(10 g) = 0.491 Mw/g
Maximum value of SAR (measured) = 0.818 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 836.52 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 384/Area Scan (51x111x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.918 Mw/g

CDMA BODY 384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

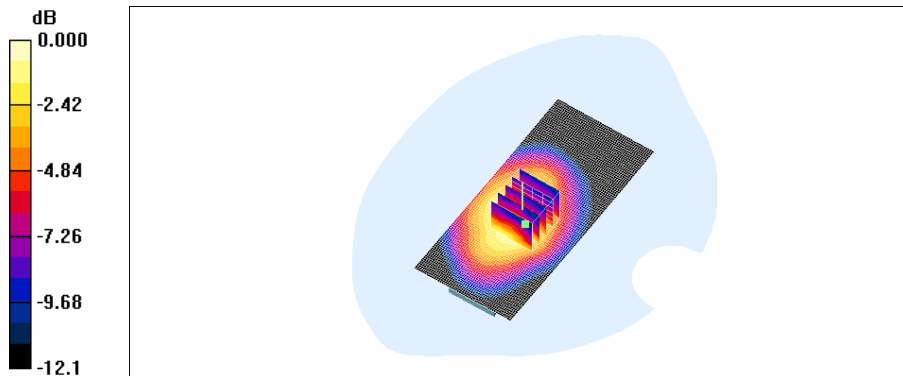
Reference Value = 27.4 V/m; Power Drift = -0.076 Db

Peak SAR (extrapolated) = 1.15 W/kg

SAR(1 g) = 0.860 Mw/g; SAR(10 g) = 0.591 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.985 Mw/g



0 Db = 0.985Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.995 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 777/Area Scan (51x111x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.10 Mw/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.9 V/m; Power Drift = -0.003 Db

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 1.05 Mw/g; SAR(10 g) = 0.687 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.19 Mw/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

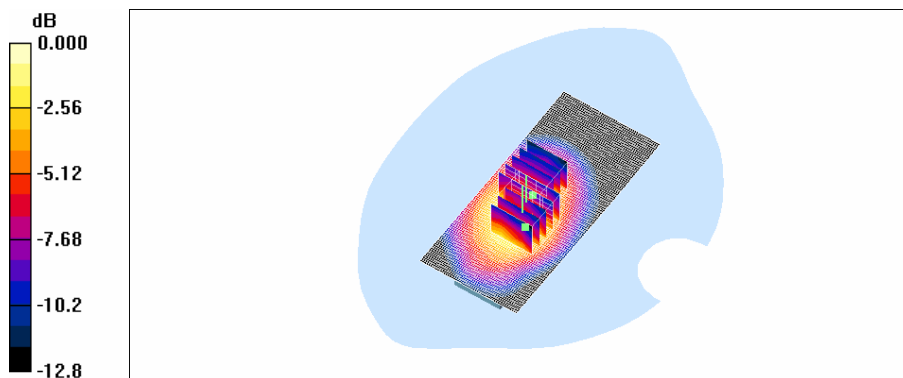
Reference Value = 27.9 V/m; Power Drift = -0.003 Db

Peak SAR (extrapolated) = 2.09 W/kg

SAR(1 g) = 1.19 Mw/g; SAR(10 g) = 0.743 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.27 Mw/g



0 Db = 1.27Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option: CDMA

DUT: PX-600; Type: USB Modem (front)

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.995 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 777/Area Scan (51x111x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.927 Mw/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

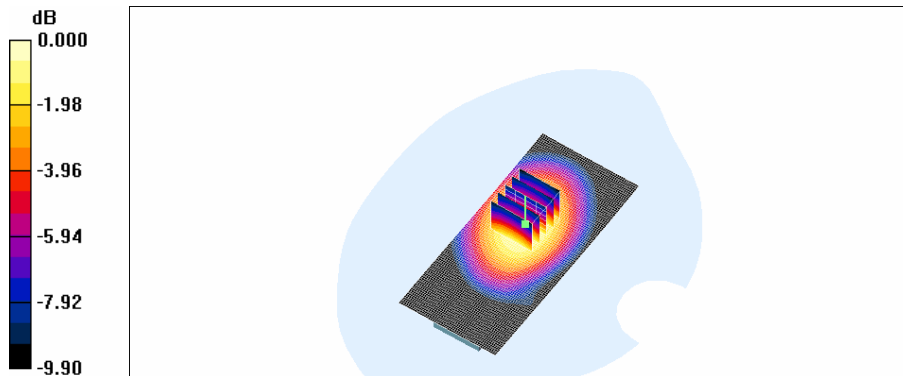
Reference Value = 30.6 V/m; Power Drift = -0.144 Db

Peak SAR (extrapolated) = 1.18 W/kg

SAR(1 g) = 0.869 Mw/g; SAR(10 g) = 0.600 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.938 Mw/g



0 Db = 0.938Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom)

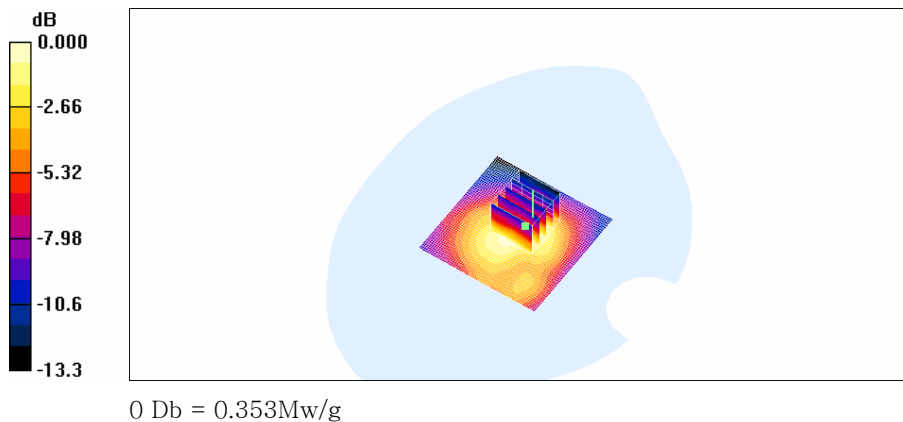
Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 825$ MHz; $\sigma = 0.966$ mho/m; $\epsilon_r = 55$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 1013/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.446 Mw/g

CDMA BODY 1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.5 V/m; Power Drift = 0.141 Db
Peak SAR (extrapolated) = 0.554 W/kg
SAR(1 g) = 0.318 Mw/g; SAR(10 g) = 0.204 Mw/g
Maximum value of SAR (measured) = 0.353 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom)

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 836.52 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 384/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.467 Mw/g

CDMA BODY 384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

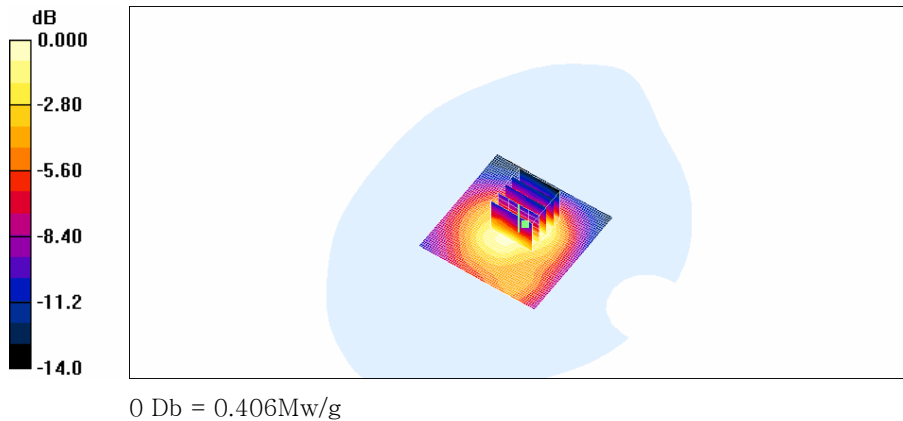
Reference Value = 20.3 V/m; Power Drift = 0.044 Db

Peak SAR (extrapolated) = 0.803 W/kg

SAR(1 g) = 0.401 Mw/g; SAR(10 g) = 0.241 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.406 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom)

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.995 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 777/Area Scan (61x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.614 Mw/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

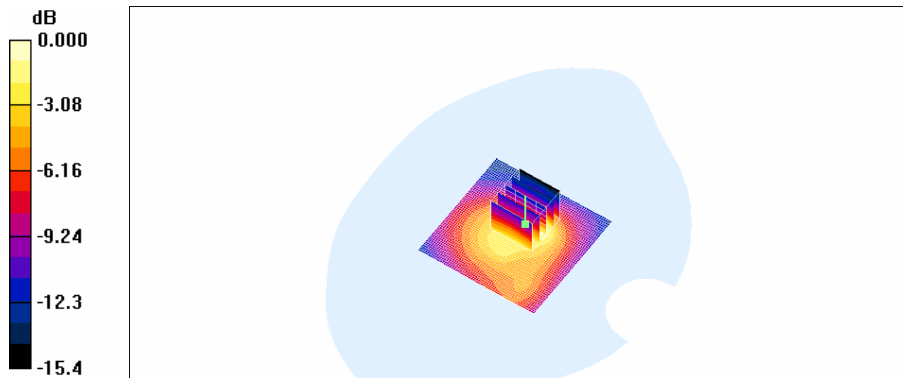
Reference Value = 19.4 V/m; Power Drift = 0.073 Db

Peak SAR (extrapolated) = 1.35 W/kg

SAR(1 g) = 0.529 Mw/g; SAR(10 g) = 0.277 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.524 Mw/g



0 Db = 0.524Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (bottom)

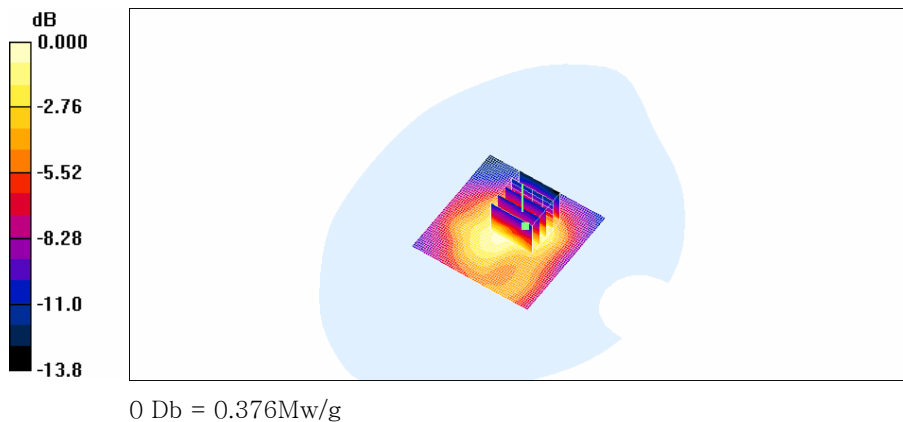
Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 825$ MHz; $\sigma = 0.966$ mho/m; $\epsilon_r = 55$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 1013/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.417 Mw/g

CDMA BODY 1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.1 V/m; Power Drift = 0.184 Db
Peak SAR (extrapolated) = 0.673 W/kg
SAR(1 g) = 0.341 Mw/g; SAR(10 g) = 0.209 Mw/g
Maximum value of SAR (measured) = 0.376 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom)

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 836.52 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 384/Area Scan (61x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.579 Mw/g

CDMA BODY 384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

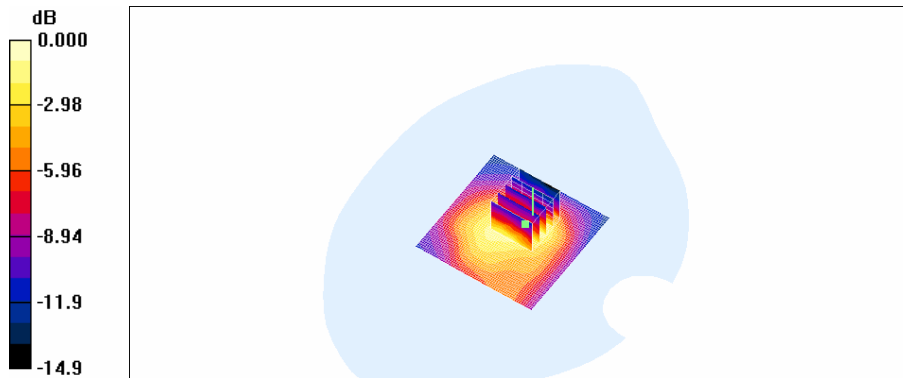
Reference Value = 21.5 V/m; Power Drift = 0.206 Db

Peak SAR (extrapolated) = 1.04 W/kg

SAR(1 g) = 0.484 Mw/g; SAR(10 g) = 0.291 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.556 Mw/g



0 Db = 0.556Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (bottom)

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.995 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 777/Area Scan (61x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.791 Mw/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

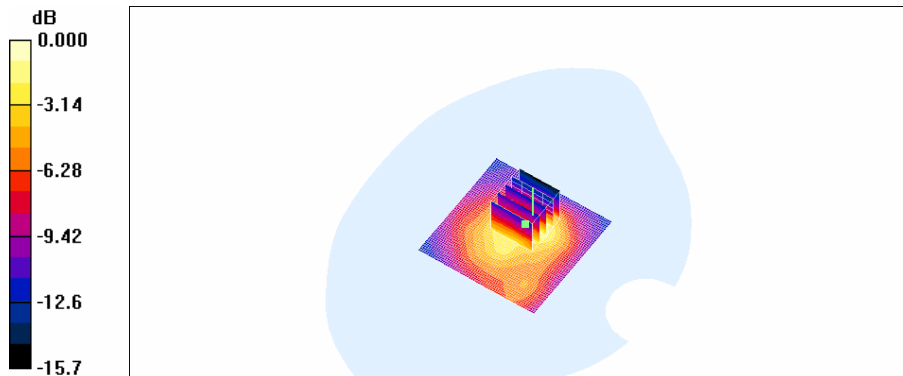
Reference Value = 21.5 V/m; Power Drift = -0.080 Db

Peak SAR (extrapolated) = 2.05 W/kg

SAR(1 g) = 0.778 Mw/g; SAR(10 g) = 0.392 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.799 Mw/g



0 Db = 0.799Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1851.25 \text{ MHz}$; $\sigma = 1.51 \text{ mho/m}$; $\epsilon_r = 52.2$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 25/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.628 Mw/g

PCS BODY 25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

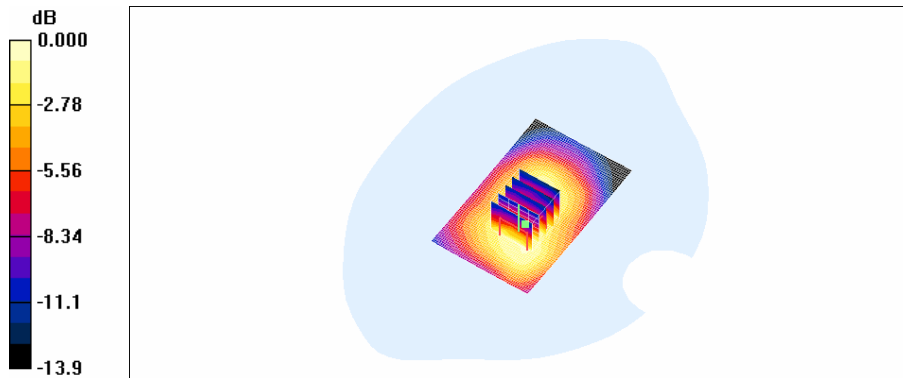
Reference Value = 19.8 V/m; Power Drift = -0.203 Db

Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.568 Mw/g; SAR(10 g) = 0.345 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.636 Mw/g



0 Db = 0.636Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (front)

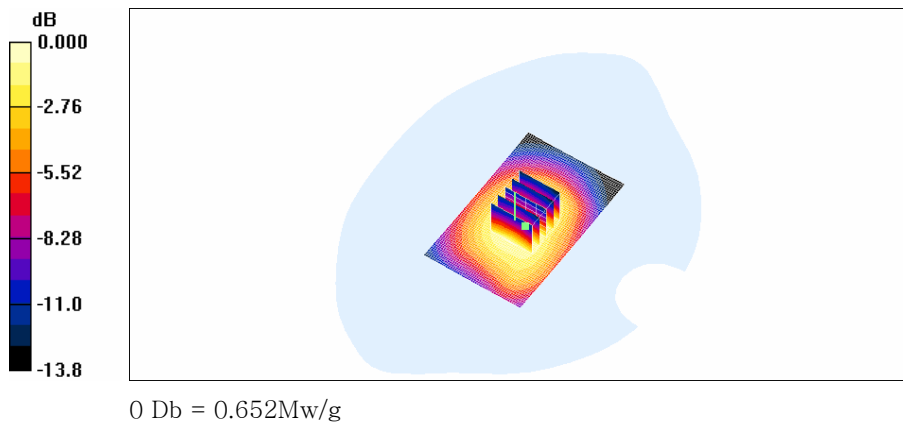
Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 600/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.615 Mw/g

PCS BODY 600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 21.6 V/m; Power Drift = -0.081 Db
Peak SAR (extrapolated) = 0.982 W/kg
SAR(1 g) = 0.601 Mw/g; SAR(10 g) = 0.379 Mw/g
Maximum value of SAR (measured) = 0.652 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1908.75 \text{ MHz}$; $\sigma = 1.57 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 1175/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.531 Mw/g

PCS BODY 1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

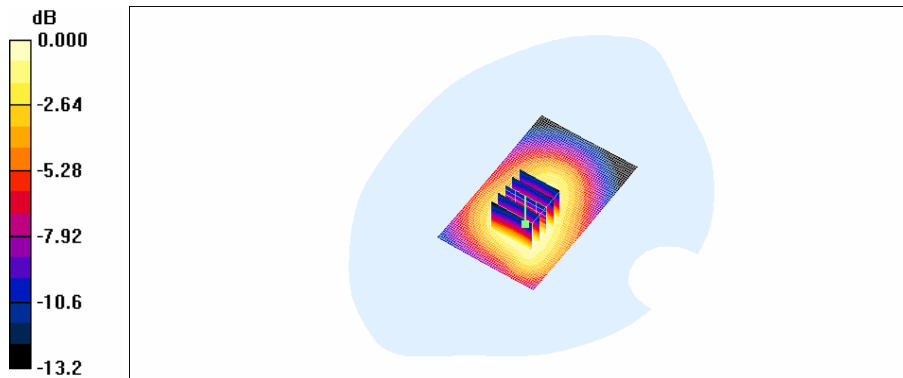
Reference Value = 18.2 V/m; Power Drift = 0.043 Db

Peak SAR (extrapolated) = 0.687 W/kg

SAR(1 g) = 0.482 Mw/g; SAR(10 g) = 0.310 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.521 Mw/g



0 Db = 0.521Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1851.25 \text{ MHz}$; $\sigma = 1.51 \text{ mho/m}$; $\epsilon_r = 52.2$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

CDMA BODY 25/Area Scan (51x111x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.957 Mw/g

CDMA BODY 25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

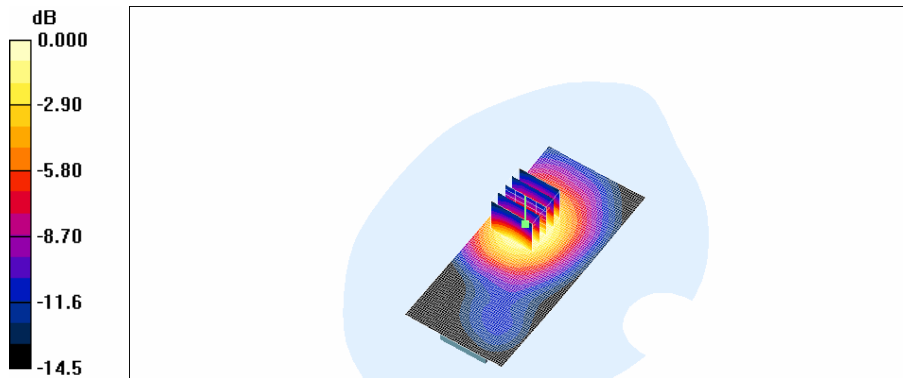
Reference Value = 19.3 V/m; Power Drift = -0.166 Db

Peak SAR (extrapolated) = 1.36 W/kg

SAR(1 g) = 0.854 Mw/g; SAR(10 g) = 0.528 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.942 Mw/g



0 Db = 0.942Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front)

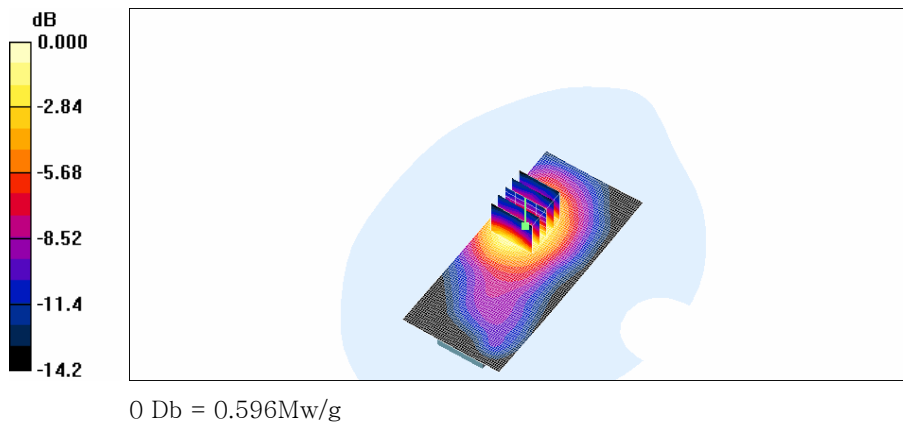
Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

CDMA BODY 600/Area Scan (51x111x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.571 Mw/g

CDMA BODY 600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 12.9 V/m; Power Drift = 0.419 Db
Peak SAR (extrapolated) = 0.915 W/kg
SAR(1 g) = 0.554 Mw/g; SAR(10 g) = 0.332 Mw/g
Maximum value of SAR (measured) = 0.596 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1908.75 \text{ MHz}$; $\sigma = 1.57 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

CDMA BODY 1175/Area Scan (51x111x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.385 Mw/g

CDMA BODY 1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

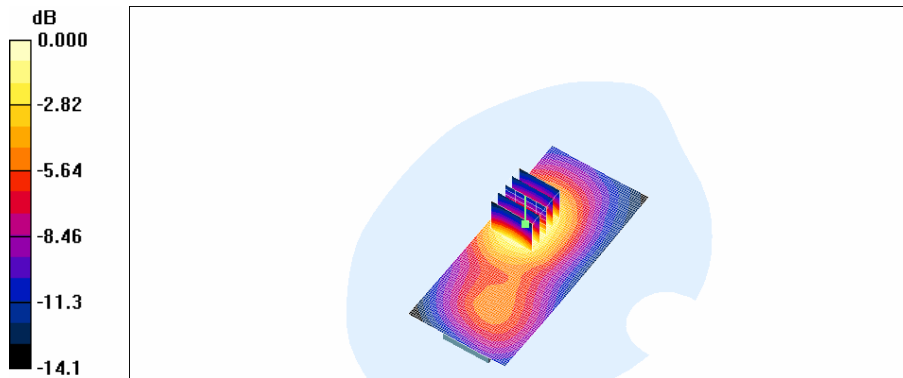
Reference Value = 12.5 V/m; Power Drift = -0.069 Db

Peak SAR (extrapolated) = 0.589 W/kg

SAR(1 g) = 0.366 Mw/g; SAR(10 g) = 0.224 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.397 Mw/g



0 Db = 0.397Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option PCS

DUT: PX-600; Type: USB Modem (front)

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1851.25 \text{ MHz}$; $\sigma = 1.51 \text{ mho/m}$; $\epsilon_r = 52.2$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 25/Area Scan (51x111x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.776 Mw/g

PCS BODY 25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

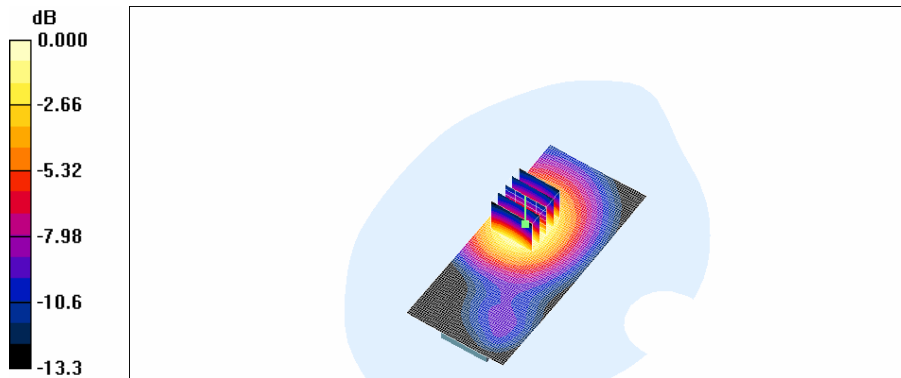
Reference Value = 18.3 V/m; Power Drift = 0.007 Db

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.710 Mw/g; SAR(10 g) = 0.452 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.770 Mw/g



0 Db = 0.770Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom)

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1851.25 \text{ MHz}$; $\sigma = 1.51 \text{ mho/m}$; $\epsilon_r = 52.2$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 25/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.487 Mw/g

PCS BODY 25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

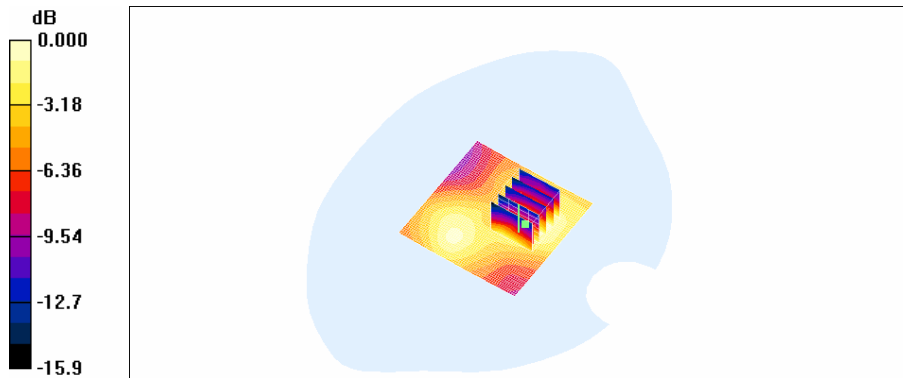
Reference Value = 11.2 V/m; Power Drift = 0.176 Db

Peak SAR (extrapolated) = 0.619 W/kg

SAR(1 g) = 0.369 Mw/g; SAR(10 g) = 0.233 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.398 Mw/g



0 Db = 0.398Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom)

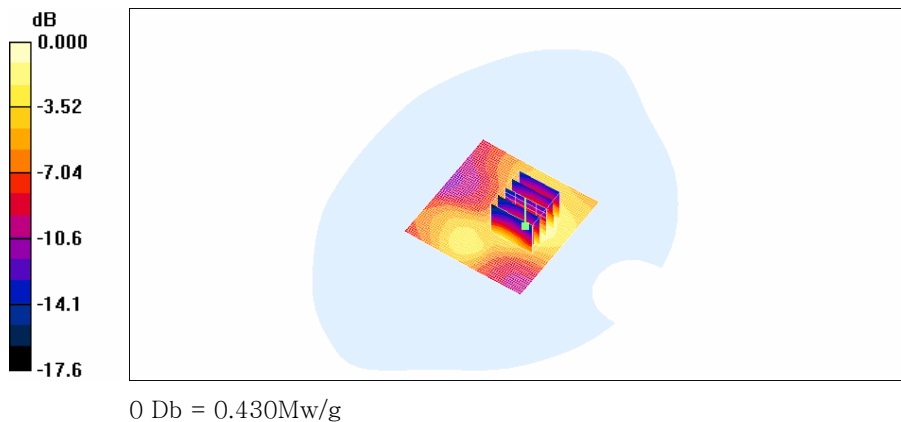
Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 600/Area Scan (61x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.440 Mw/g

PCS BODY 600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 12.1 V/m; Power Drift = -0.064 Db
Peak SAR (extrapolated) = 0.664 W/kg
SAR(1 g) = 0.395 Mw/g; SAR(10 g) = 0.219 Mw/g
Maximum value of SAR (measured) = 0.430 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom)

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1908.75 \text{ MHz}$; $\sigma = 1.57 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 1175/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.334 Mw/g

PCS BODY 1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

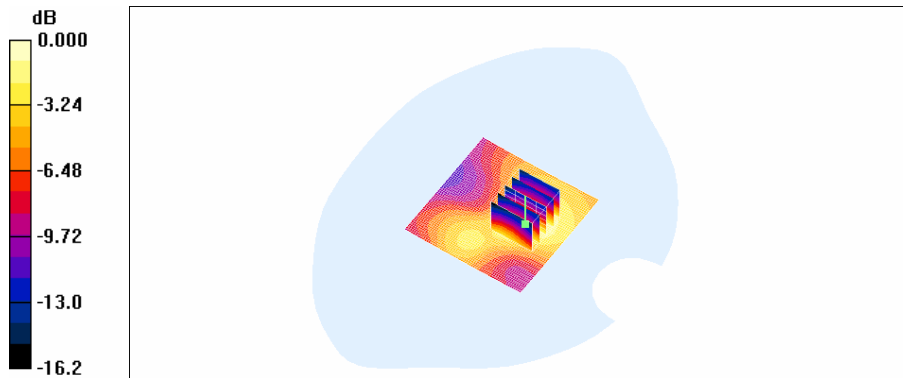
Reference Value = 11.4 V/m; Power Drift = 0.150 Db

Peak SAR (extrapolated) = 0.441 W/kg

SAR(1 g) = 0.282 Mw/g; SAR(10 g) = 0.161 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.310 Mw/g



0 Db = 0.310Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom)

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1851.25 \text{ MHz}$; $\sigma = 1.51 \text{ mho/m}$; $\epsilon_r = 52.2$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 25/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.097 Mw/g

PCS BODY 25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

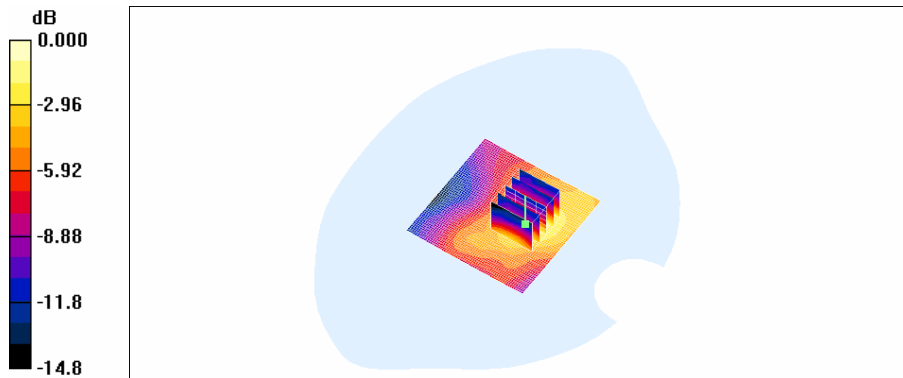
Reference Value = 6.12 V/m; Power Drift = 0.079 Db

Peak SAR (extrapolated) = 0.134 W/kg

SAR(1 g) = 0.084 Mw/g; SAR(10 g) = 0.049 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.092 Mw/g



0 Db = 0.092Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (bottom)

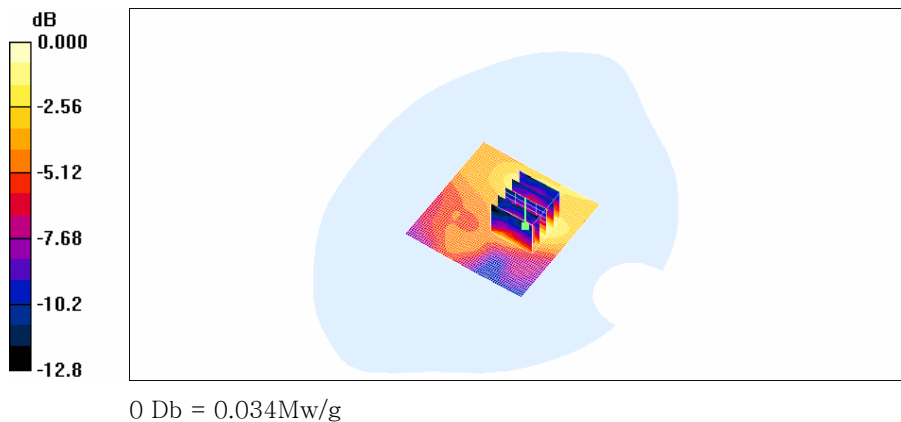
Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 600/Area Scan (61x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.035 Mw/g

PCS BODY 600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 3.43 V/m; Power Drift = -0.146 Db
Peak SAR (extrapolated) = 0.045 W/kg
SAR(1 g) = 0.030 Mw/g; SAR(10 g) = 0.018 Mw/g
Maximum value of SAR (measured) = 0.034 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position Out
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom)

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1908.75 \text{ MHz}$; $\sigma = 1.57 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 1175/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.057 Mw/g

PCS BODY 1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

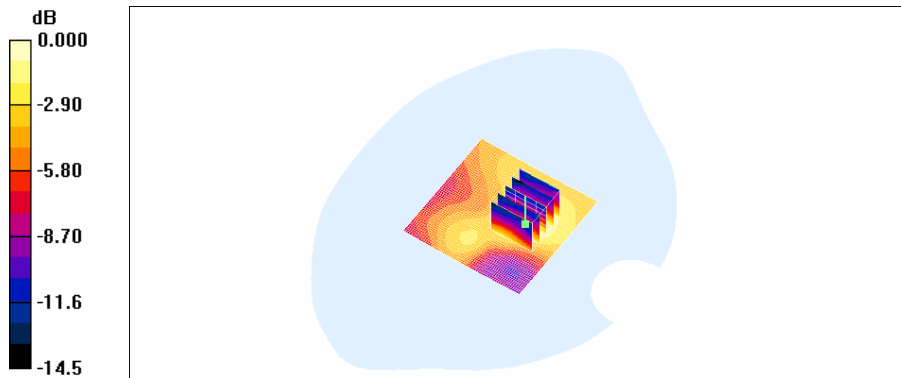
Reference Value = 4.67 V/m; Power Drift = -0.137 Db

Peak SAR (extrapolated) = 0.077 W/kg

SAR(1 g) = 0.048 Mw/g; SAR(10 g) = 0.028 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.053 Mw/g



0 Db = 0.053Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.995 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 777/Area Scan (51x111x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.10 Mw/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 27.9 V/m; Power Drift = -0.003 Db

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 1.05 Mw/g; SAR(10 g) = 0.687 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.19 Mw/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

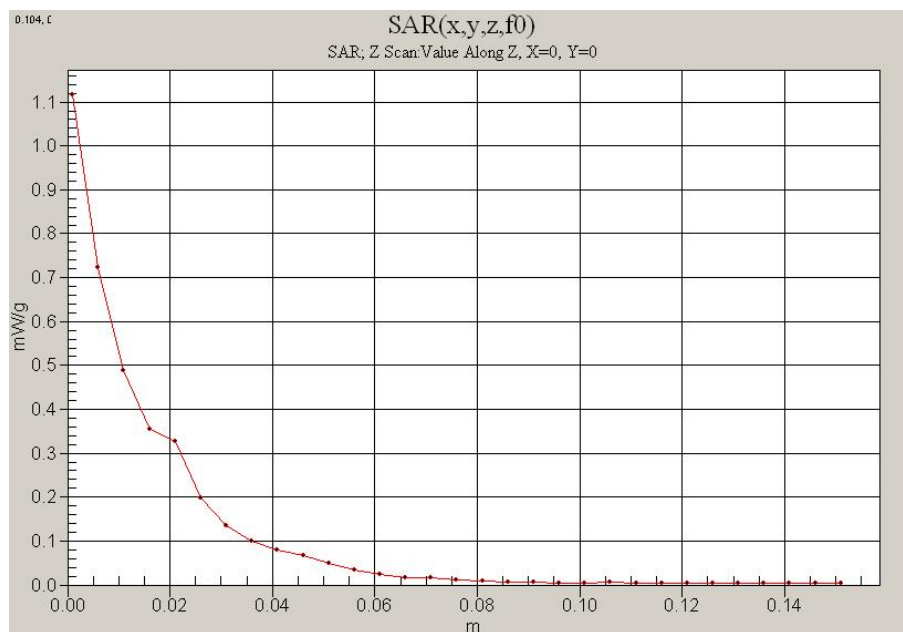
Reference Value = 27.9 V/m; Power Drift = -0.003 Db

Peak SAR (extrapolated) = 2.09 W/kg

SAR(1 g) = 1.19 Mw/g; SAR(10 g) = 0.743 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.27 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Liquid Temperature: 22.7 °C
Ambient Temperature: 22.9 °C
Test Date: Jun.13, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1851.25$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

CDMA BODY 25/Area Scan (51x111x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.957 Mw/g

CDMA BODY 25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

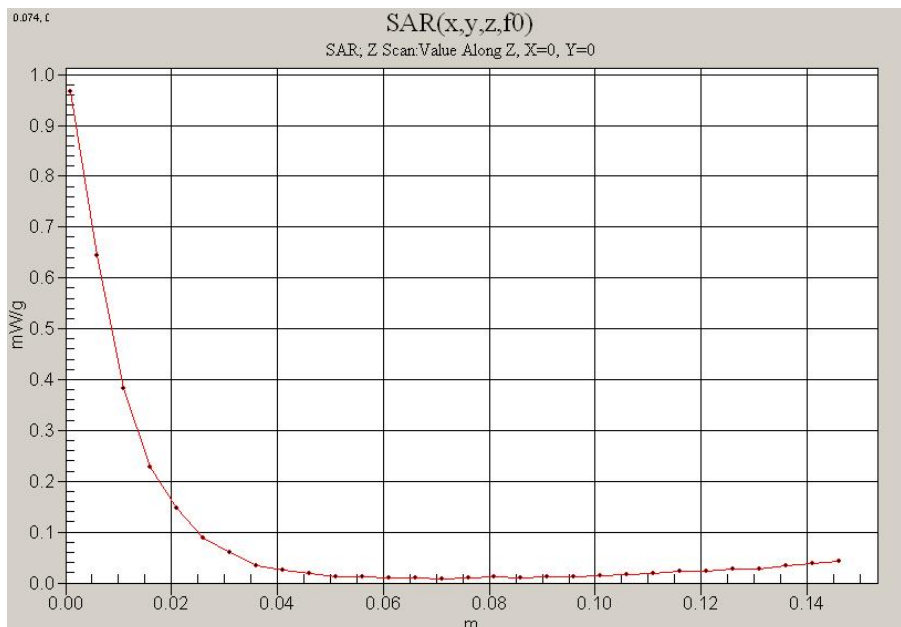
Reference Value = 19.3 V/m; Power Drift = -0.166 Db

Peak SAR (extrapolated) = 1.36 W/kg

SAR(1 g) = 0.854 Mw/g; SAR(10 g) = 0.528 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.942 Mw/g



● PC#2 Manufacturer / Model(s): HP (Page 68 ~ 95)

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (front)

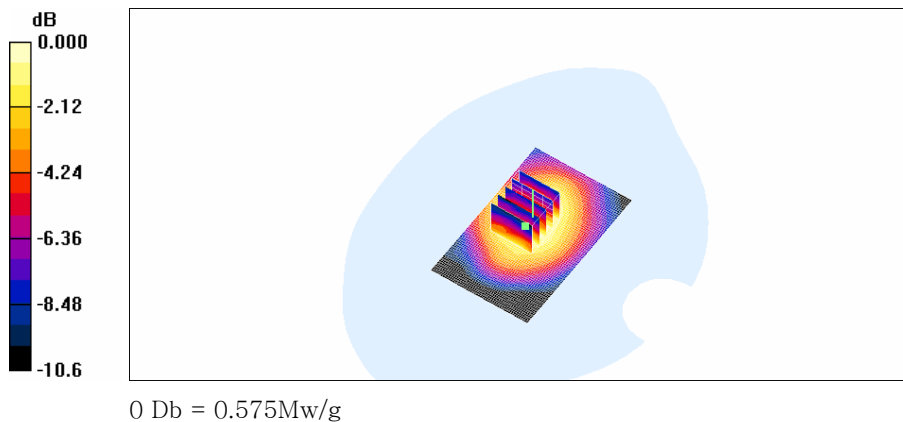
Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 825$ MHz; $\sigma = 0.966$ mho/m; $\epsilon_r = 55$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 - SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 1013/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.637 Mw/g

CDMA BODY 1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.9 V/m; Power Drift = -0.060 Db
Peak SAR (extrapolated) = 0.710 W/kg
SAR(1 g) = 0.518 Mw/g; SAR(10 g) = 0.363 Mw/g
Maximum value of SAR (measured) = 0.575 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 836.52 \text{ MHz}$; $\sigma = 0.981 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 384/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.678 Mw/g

CDMA BODY 384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

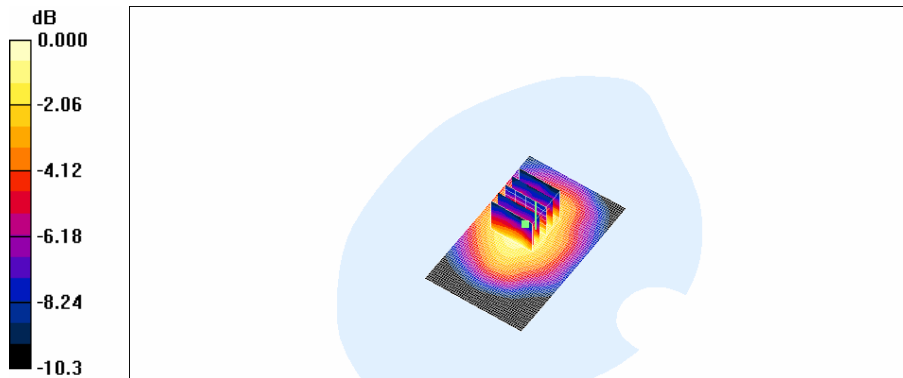
Reference Value = 23.7 V/m; Power Drift = 0.000 Db

Peak SAR (extrapolated) = 0.887 W/kg

SAR(1 g) = 0.598 Mw/g; SAR(10 g) = 0.406 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.679 Mw/g



0 Db = 0.679Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.994 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 777/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.661 Mw/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

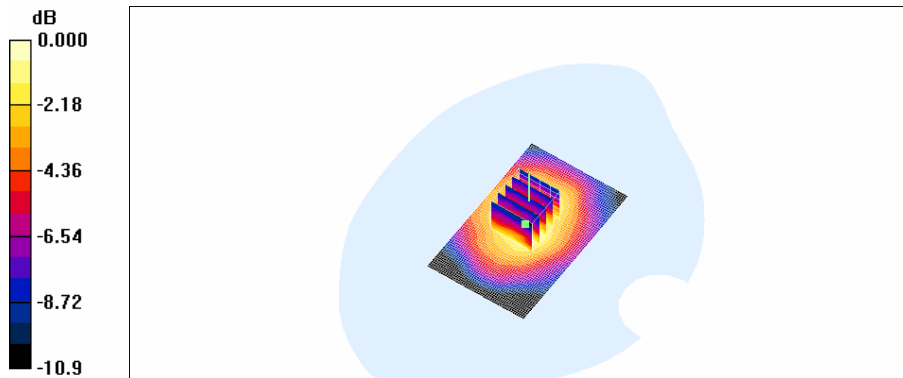
Reference Value = 23.0 V/m; Power Drift = -0.100 Db

Peak SAR (extrapolated) = 0.904 W/kg

SAR(1 g) = 0.558 Mw/g; SAR(10 g) = 0.386 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.620 Mw/g



0 Db = 0.620Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front)

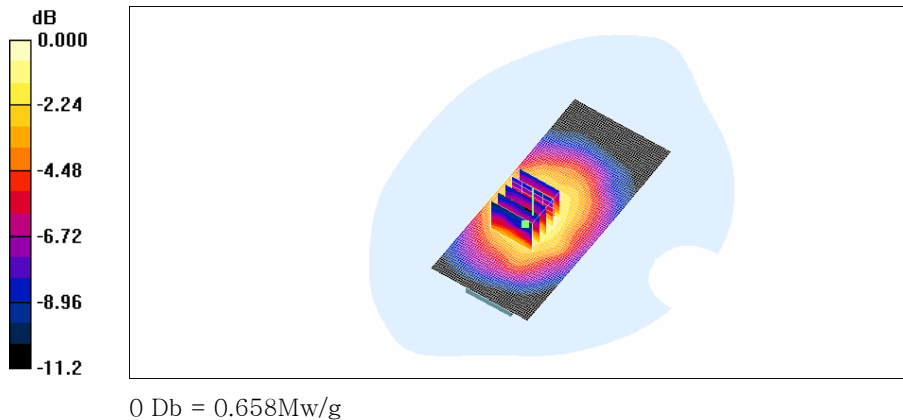
Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 825 \text{ MHz}$; $\sigma = 0.966 \text{ mho/m}$; $\epsilon_r = 55$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 1013/Area Scan (51x111x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.573 Mw/g

CDMA BODY 1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 23.4 V/m; Power Drift = 0.136 Db
Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.624 Mw/g; SAR(10 g) = 0.390 Mw/g
Maximum value of SAR (measured) = 0.658 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 836.52 \text{ MHz}$; $\sigma = 0.981 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 384/Area Scan (51x111x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.779 Mw/g

CDMA BODY 384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

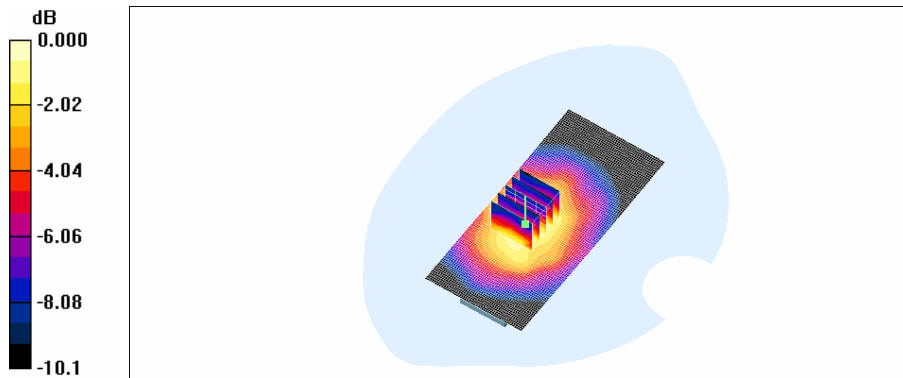
Reference Value = 26.7 V/m; Power Drift = -0.186 Db

Peak SAR (extrapolated) = 0.962 W/kg

SAR(1 g) = 0.721 Mw/g; SAR(10 g) = 0.490 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.799 Mw/g



0 Db = 0.799Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.994 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 777/Area Scan (51x111x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.03 Mw/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

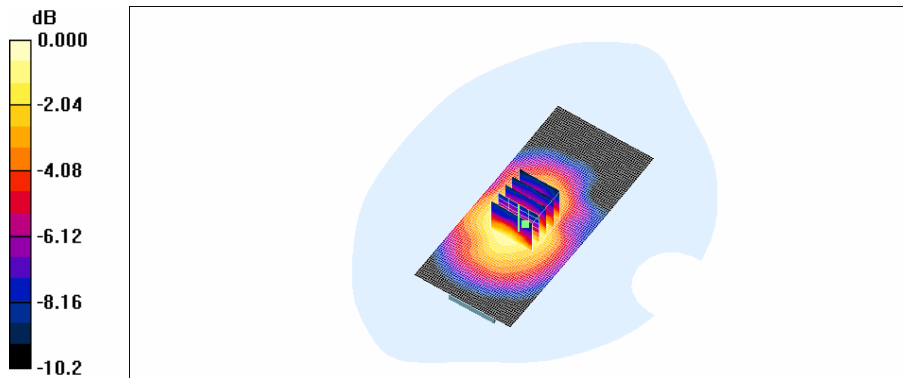
Reference Value = 30.3 V/m; Power Drift = 0.020 Db

Peak SAR (extrapolated) = 1.54 W/kg

SAR(1 g) = 0.991 Mw/g; SAR(10 g) = 0.671 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.08 Mw/g



0 Db = 1.08Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position Out
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option CDMA

DUT: PX-600; Type: USB Modem (front)

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.994 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 777/Area Scan (51x111x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.869 Mw/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

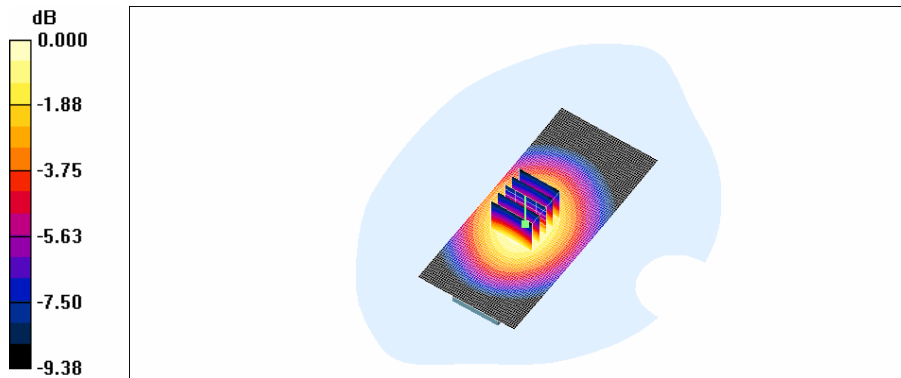
Reference Value = 28.5 V/m; Power Drift = -0.106 Db

Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.801 Mw/g; SAR(10 g) = 0.563 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.855 Mw/g



0 Db = 0.855Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom)

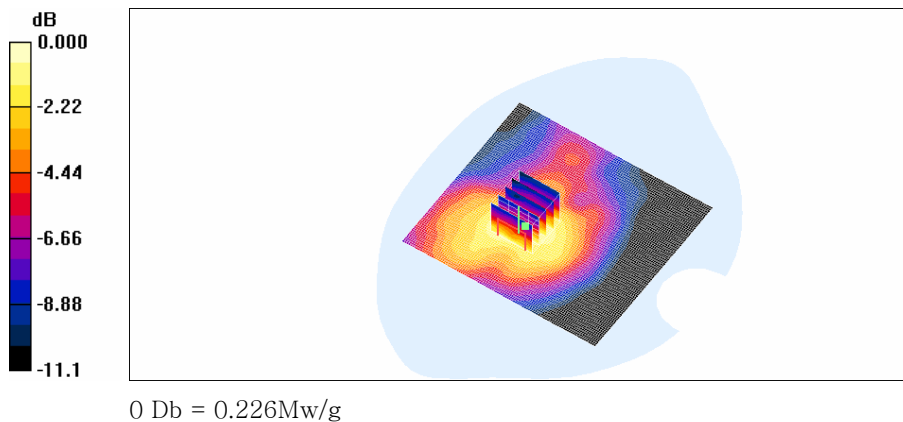
Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 825$ MHz; $\sigma = 0.966$ mho/m; $\epsilon_r = 55$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 1013/Area Scan (101x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.234 Mw/g

CDMA BODY 1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.4 V/m; Power Drift = 0.060 Db
Peak SAR (extrapolated) = 0.347 W/kg
SAR(1 g) = 0.207 Mw/g; SAR(10 g) = 0.138 Mw/g
Maximum value of SAR (measured) = 0.226 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom)

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 836.52 \text{ MHz}$; $\sigma = 0.981 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 384/Area Scan (101x91x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.219 Mw/g

CDMA BODY 384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

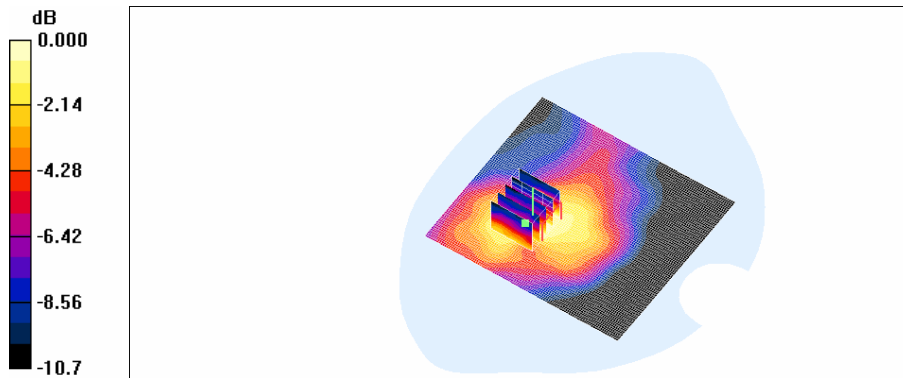
Reference Value = 12.7 V/m; Power Drift = -0.057 Db

Peak SAR (extrapolated) = 0.339 W/kg

SAR(1 g) = 0.201 Mw/g; SAR(10 g) = 0.133 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.230 Mw/g



0 Db = 0.230Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom)

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.994 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 777/Area Scan (101x91x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.171 Mw/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

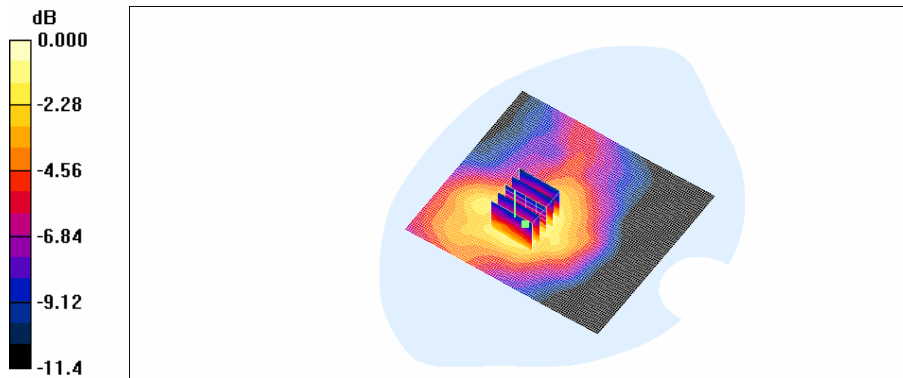
Reference Value = 12.1 V/m; Power Drift = -0.070 Db

Peak SAR (extrapolated) = 0.335 W/kg

SAR(1 g) = 0.194 Mw/g; SAR(10 g) = 0.122 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.213 Mw/g



0 Db = 0.213Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (bottom)

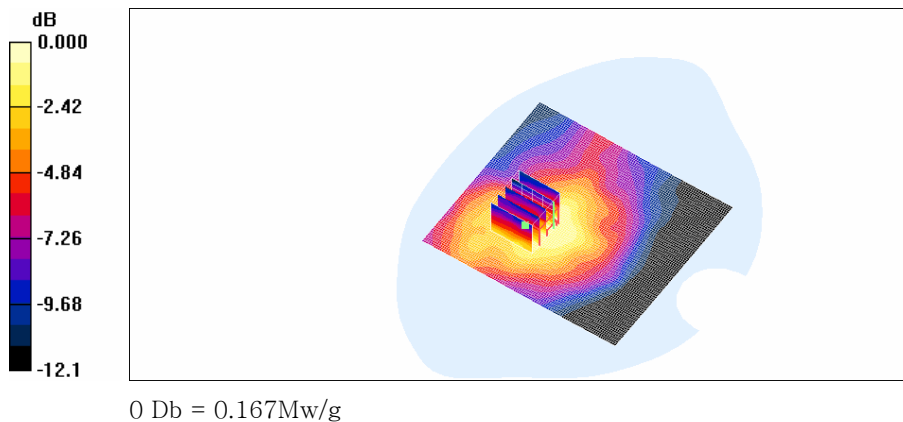
Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 825$ MHz; $\sigma = 0.966$ mho/m; $\epsilon_r = 55$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 1013/Area Scan (101x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.146 Mw/g

CDMA BODY 1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.56 V/m; Power Drift = 0.139 Db
Peak SAR (extrapolated) = 0.239 W/kg
SAR(1 g) = 0.140 Mw/g; SAR(10 g) = 0.097 Mw/g
Maximum value of SAR (measured) = 0.167 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position Out
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom)

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 836.52 \text{ MHz}$; $\sigma = 0.981 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 384/Area Scan (101x91x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.172 Mw/g

CDMA BODY 384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

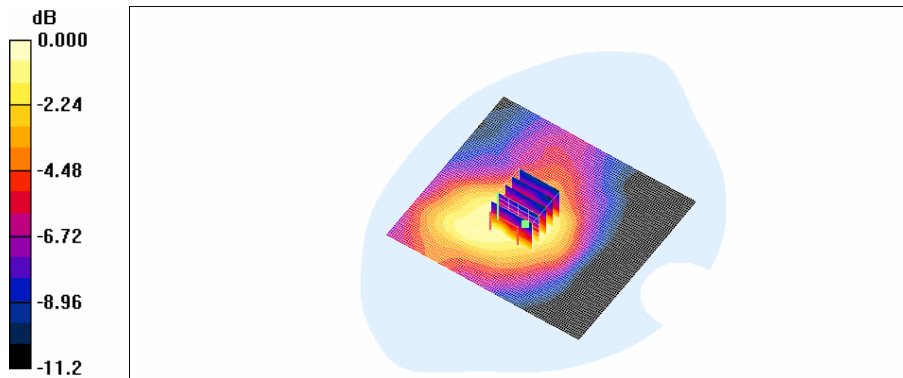
Reference Value = 10.8 V/m; Power Drift = -0.084 Db

Peak SAR (extrapolated) = 0.233 W/kg

SAR(1 g) = 0.172 Mw/g; SAR(10 g) = 0.115 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.185 Mw/g



0 Db = 0.185Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (bottom)

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.994 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(6.58, 6.58, 6.58); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 777/Area Scan (101x91x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.223 Mw/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

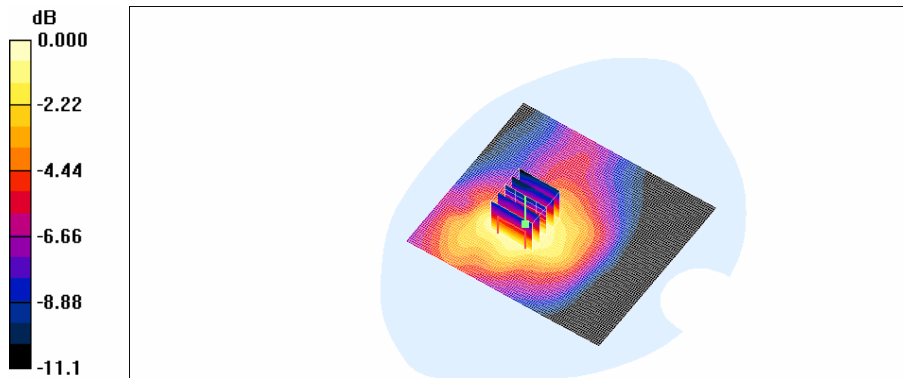
Reference Value = 10.7 V/m; Power Drift = -0.051 Db

Peak SAR (extrapolated) = 0.312 W/kg

SAR(1 g) = 0.191 Mw/g; SAR(10 g) = 0.128 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.217 Mw/g



0 Db = 0.217Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1851.25$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 - SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 25/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.519 Mw/g

PCS BODY 25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

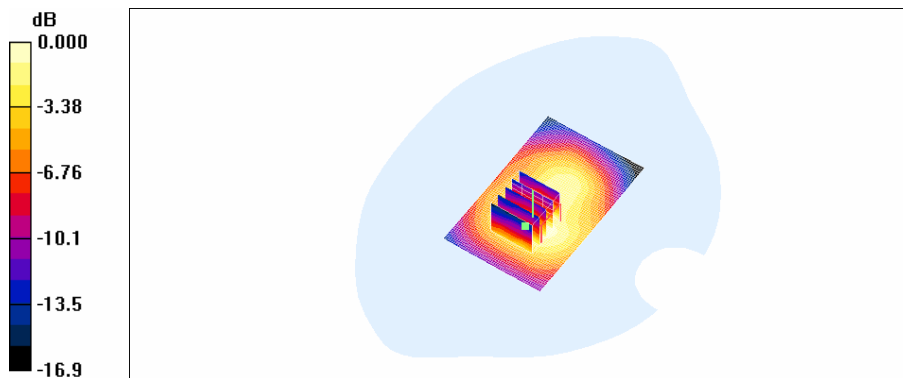
Reference Value = 19.0 V/m; Power Drift = -0.010 Db

Peak SAR (extrapolated) = 0.904 W/kg

SAR(1 g) = 0.513 Mw/g; SAR(10 g) = 0.309 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.590 Mw/g



0 Db = 0.590Mw/g

Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (front)

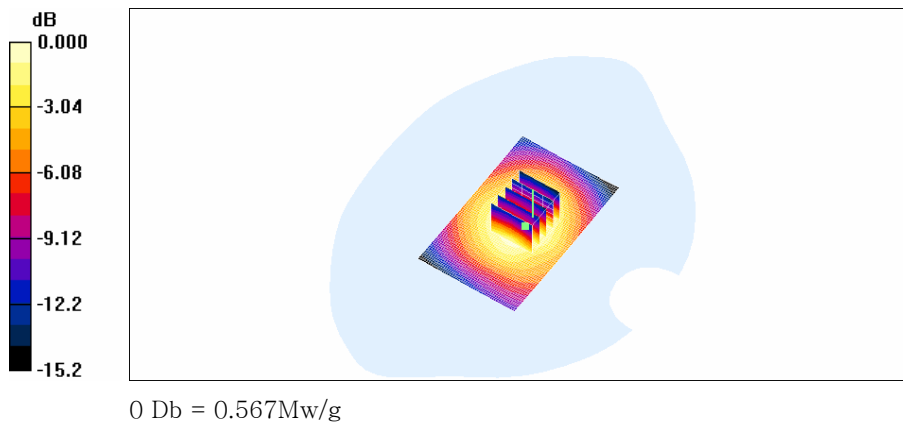
Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 600/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.627 Mw/g

PCS BODY 600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 20.8 V/m; Power Drift = -0.018 Db
Peak SAR (extrapolated) = 0.851 W/kg
SAR(1 g) = 0.528 Mw/g; SAR(10 g) = 0.336 Mw/g
Maximum value of SAR (measured) = 0.567 Mw/g



Test Laboratory: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD
EUT Type: Dual-Band CDMA/ EVDO USB Modem
Antenna Position In
Liquid Temperature: 22.5 °C
Ambient Temperature: 22.7 °C
Test Date: Jun.14, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (front)

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1908.75 \text{ MHz}$; $\sigma = 1.57 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration:

- Probe: ET3DV6 – SN1607; ConvF(4.61, 4.61, 4.61); Calibrated: 2007-02-21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 1175/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.482 Mw/g

PCS BODY 1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

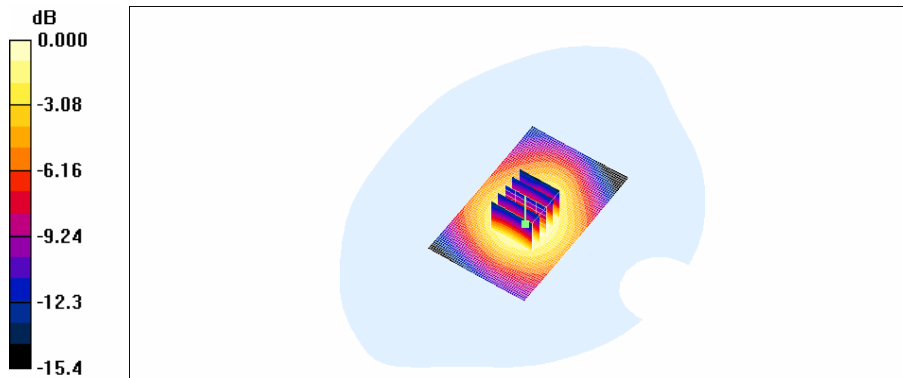
Reference Value = 18.4 V/m; Power Drift = -0.047 Db

Peak SAR (extrapolated) = 0.760 W/kg

SAR(1 g) = 0.430 Mw/g; SAR(10 g) = 0.268 Mw/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.460 Mw/g



0 Db = 0.460Mw/g