

DECLARATION OF COMPLIANCE SAR EVALUATION

Test Lab

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Applicant Information

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FCC Rule Part(s):	47 CFR §2.1093
FCC Test Procedure(s):	OET Bulletin 65, Supplement C (01-01)
FCC ID:	ABLSP20
Model(s):	SH-P300 (#10)
Equipment Type:	Single-Mode PCS CDMA Phone
Classification:	Part 24 Licensed Portable Transmitter Held to Ear (PCE)
Modulation:	PCS CDMA
Tx Frequency Range:	1851.25 - 1908.75 MHz
Rx Frequency Range:	1931.25 - 1988.75 MHz
Conducted Power Tested:	22.7 dBm (1851.25MHz)
	22.3 dBm (1880.00MHz)
	22.5 dBm (1908.75MHz)
Antenna Type:	Retractable
Battery Type:	3.7V Lithium-Ion (1000mAh)
Max. SAR Measured:	1.60 W/kg (Head) / 0.861 W/kg (Body)

Celltech Research Inc. declares under its sole responsibility that this device was found to be in compliance with the Specific Absorption Rate (SAR) RF exposure requirements specified in FCC §2.1093. The device was tested in accordance with the measurement standards and procedures specified in FCC OET Bulletin 65, Supplement C, Edition 01-01 (General Population / Uncontrolled Exposure).

I attest to the accuracy of data. All measurements were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

This test report shall not be reproduced partially, or in full, without the prior written approval of Celltech Research Inc. The results and statements contained in this report pertain only to the device(s) evaluated.



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Senior Compliance Technologist
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1.0 INTRODUCTION

This measurement report shows that the HITACHI LTD. Model: SH-P300 Single-Mode PCS CDMA Phone FCC ID: ABLSP20 complies with FCC 47 CFR §2.1093 (see reference [1]) (General Population / Uncontrolled Exposure environment). The test procedures described in FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [2]) were employed. A description of the product and operating configuration, detailed summary of the test results, methodology and procedures used in the evaluation, equipment used, and the various provisions of the rules are included within this test report.

2.0 DESCRIPTION of Equipment Under Test (EUT)

EUT Type	Single-Mode PCS CDMA Phone	FCC Rule Part(s)	47 CFR §2.1093
Equipment Class	Licensed Portable Transmitter Held to Ear (PCE)	Test Procedure(s)	FCC OET Bulletin 65 Supplement C (01-01)
Tx Frequency Range	1851.25 - 1908.75 MHz	FCC ID	ABLSP20
Rx Frequency Range	1931.25 - 1988.75 MHz	Model No.(s)	SH-P300 (#10)
Modulation	PCS CDMA	Battery Type(s)	3.7V Lithium-Ion (1000mAh)
Measured RF Conducted Power	22.7 dBm (1851.25MHz) 22.3 dBm (1880.00MHz) 22.5 dBm (1908.75MHz)	Antenna Type	Retractable

3.0 SAR MEASUREMENT SYSTEM

Celltech Research SAR measurement facility utilizes the Dosimetric Assessment System (DASY™) manufactured by Schmid & Partner Engineering AG (SPEAG™) of Zurich, Switzerland. The DASY system is comprised of the robot controller, computer, near-field probe, probe alignment sensor, specific anthropomorphic mannequin (SAM) phantom, and various planar phantoms for brain and/or body SAR evaluations. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF). A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. 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. The DAE3 utilizes 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.



DASY3 SAR Measurement System with SAM phantom

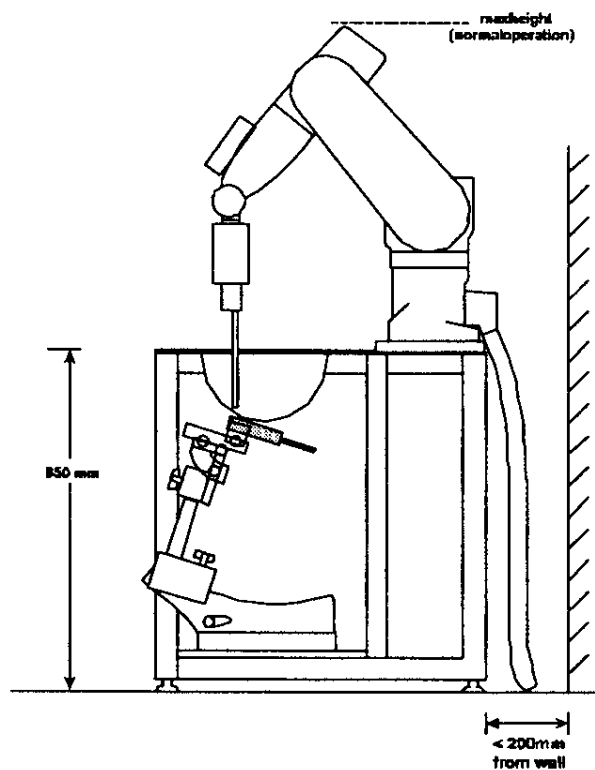


Figure 1. DASY3 Compact Version - Side View

4.0 MEASUREMENT SUMMARY

The measurement results were obtained with the EUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the EUT are reported in Appendix A.

HEAD SAR MEASUREMENT RESULTS									
Freq. (MHz)	Channel	Mode	Battery Type	Conducted Power (dBm)		Antenna Position	Phantom Section	Test Position	Measured SAR 1g (w/kg)
				Before	After				
1880.00	600	PCS CDMA	Standard	22.3	22.3	Retracted	Left Ear	Cheek/Touch	1.17
1880.00	600	PCS CDMA	Standard	22.3	22.2	Extended	Left Ear	Cheek/Touch	0.990
1880.00	600	PCS CDMA	Standard	22.3	22.2	Retracted	Left Ear	Ear/Tilt (15°)	1.60
1880.00	600	PCS CDMA	Standard	22.3	22.2	Extended	Left Ear	Ear/Tilt (15°)	1.56
1851.25	25	PCS CDMA	Standard	22.7	22.7	Retracted	Left Ear	Cheek/Touch	1.00
1851.25	25	PCS CDMA	Standard	22.7	22.6	Extended	Left Ear	Cheek/Touch	0.934
1908.75	1175	PCS CDMA	Standard	22.5	22.4	Retracted	Left Ear	Cheek/Touch	0.947
1908.75	1175	PCS CDMA	Standard	22.5	22.5	Extended	Left Ear	Cheek/Touch	0.864
1851.25	25	PCS CDMA	Standard	22.7	22.6	Retracted	Left Ear	Ear/Tilt (15°)	1.46
1851.25	25	PCS CDMA	Standard	22.7	22.5	Extended	Left Ear	Ear/Tilt (15°)	1.51
1908.75	1175	PCS CDMA	Standard	22.5	22.5	Retracted	Left Ear	Ear/Tilt (15°)	1.53
1908.75	1175	PCS CDMA	Standard	22.5	22.4	Extended	Left Ear	Ear/Tilt (15°)	1.47
1880.00	600	PCS CDMA	Standard	22.3	22.2	Retracted	Right Ear	Cheek/Touch	1.04
1880.00	600	PCS CDMA	Standard	22.3	22.2	Extended	Right Ear	Cheek/Touch	0.873
1880.00	600	PCS CDMA	Standard	22.3	22.3	Retracted	Right Ear	Ear/Tilt (15°)	1.40
1880.00	600	PCS CDMA	Standard	22.3	22.3	Extended	Right Ear	Ear/Tilt (15°)	1.37
1851.25	25	PCS CDMA	Standard	22.7	22.6	Retracted	Right Ear	Cheek/Touch	0.860
1851.25	25	PCS CDMA	Standard	22.7	22.7	Extended	Right Ear	Cheek/Touch	0.879
1908.75	1175	PCS CDMA	Standard	22.5	22.5	Retracted	Right Ear	Cheek/Touch	0.860
1908.75	1175	PCS CDMA	Standard	22.5	22.5	Extended	Right Ear	Cheek/Touch	0.804
1851.25	25	PCS CDMA	Standard	22.7	22.7	Retracted	Right Ear	Ear/Tilt (15°)	1.28
1851.25	25	PCS CDMA	Standard	22.7	22.7	Extended	Right Ear	Ear/Tilt (15°)	1.29
1908.75	1175	PCS CDMA	Standard	22.5	22.5	Retracted	Right Ear	Ear/Tilt (15°)	1.33
1908.75	1175	PCS CDMA	Standard	22.5	22.3	Extended	Right Ear	Ear/Tilt (15°)	1.15
ANSI / IEEE C95.1 1992 - SAFETY LIMIT BRAIN: 1.6 W/kg (averaged over 1 gram) Spatial Peak - Uncontrolled Exposure / General Population									
Test Date(s)		10/12/02		Relative Humidity		48 %			
Measured Mixture Type		1900MHz Brain		Atmospheric Pressure		103.9 kPa			
Dielectric Constant ϵ_r		Target	Measured	Ambient Temperature		22.5 °C			
		40.0 ±5%	38.5	Fluid Temperature		23.1 °C			
Conductivity σ (mho/m)		Target	Measured	Fluid Depth		≥ 15 cm			
		1.40 ±5%	1.39	ρ (Kg/m ³)		1000			

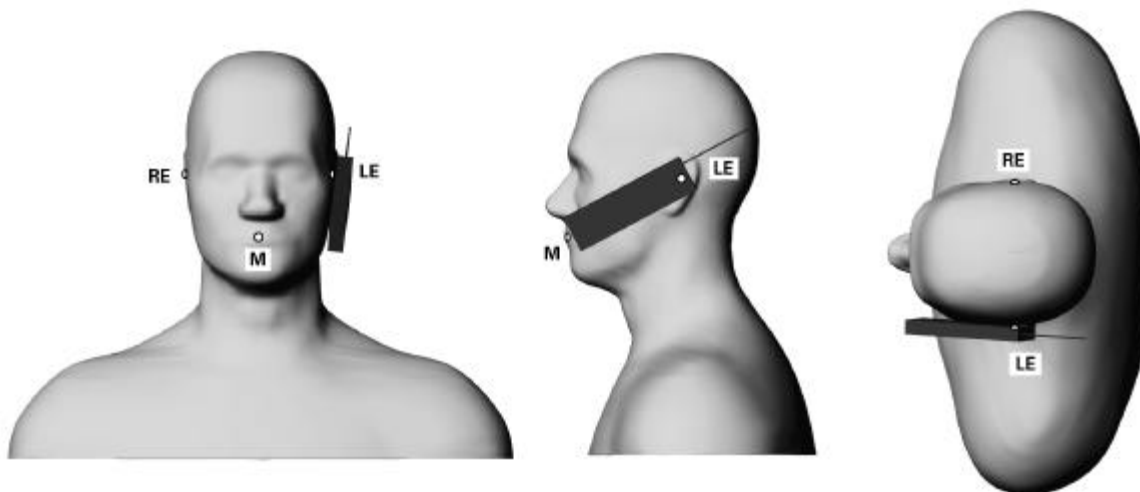
MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR MEASUREMENT RESULTS											
Freq. (MHz)	Chan.	Mode	Battery Type	Conducted Power (dBm)		EUT Position	Antenna Position	Access.	Phantom Section	Separation Distance to Planar Phantom	Measured SAR 1g (w/kg)
				Before	After						
1880.00	600	PCS CDMA	Standard	22.3	22.3	Front	Retracted	Headset	Planar	1.0 cm	0.457
1880.00	600	PCS CDMA	Standard	22.3	22.3	Front	Extended	Headset	Planar	1.0 cm	0.439
1880.00	600	PCS CDMA	Standard	22.3	22.2	Back	Retracted	Headset	Planar	1.0 cm	0.772
1880.00	600	PCS CDMA	Standard	22.3	22.3	Back	Extended	Headset	Planar	1.0 cm	0.861
ANSI / IEEE C95.1 1992 - SAFETY LIMIT BODY: 1.6 W/kg (averaged over 1 gram) Spatial Peak - Uncontrolled Exposure / General Population											
Test Date(s)			10/16/02			Relative Humidity			63 %		
Mixture Type			1900MHz Body			Atmospheric Pressure			102.5 kPa		
Dielectric Constant ϵ_r			Target	Measured		Ambient Temperature			23.3 °C		
			53.3 ±5%	53.6		Fluid Temperature			22.5 °C		
Conductivity σ (mho/m)			Target	Measured		Fluid Depth			≥ 15 cm		
			1.52 ±5%	1.56		ρ (Kg/m ³)			1000		

5.0 DETAILS OF SAR EVALUATION

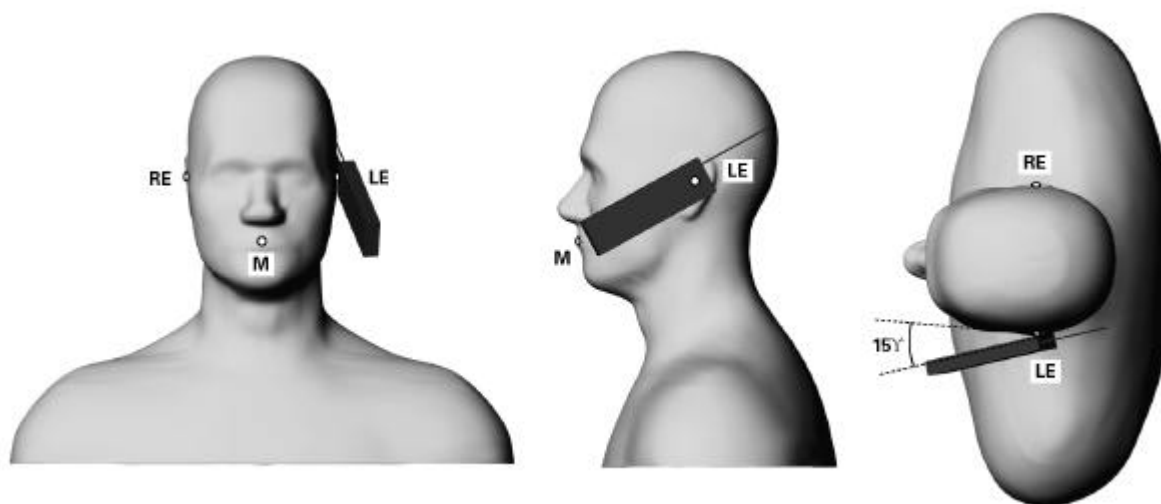
The HITACHI LTD. Model: SH-P300 Single-Mode PCS CDMA Phone FCC ID: ABLSP20 was found to be compliant for localized Specific Absorption Rate (SAR) based on the test provisions and conditions described below. The detailed test setup photographs are shown in Appendix G.

- 1) The EUT was tested in a ear-held configuration on both the left and right sections of the at the middle channel of the operating band. If the SAR value of the middle channel for each test configuration (left ear, right ear, cheek/touch, ear/tilt, antenna extended & retracted) was at least 3dB below the SAR limit, measurements at the low and high channels were optional for those test configurations (including head and body SAR).
- a) The handset was placed in the device holder in a normal operating position with the test device reference point located along the vertical centerline on the front of the device aligned to the ear reference point, with the center of the earpiece touching the center of the ear spacer of the SAM phantom.
- b) With the handset positioned parallel to the cheek, the test device reference point was aligned to the ear reference point on the head phantom, and the vertical centerline was aligned to the phantom reference plane (initial ear position).
- c) While maintaining the three alignments, the body of the handset was gradually adjusted to each of the following test positions:
 - Cheek/Touch Position: The handset was brought toward the mouth of the head phantom by pivoting against the ear reference point until any point of the mouthpiece or keypad touched the phantom.



Phone position 1, “cheek” or “touch” position. The reference points for the right ear (RE), left ear (LE) and mouth (M), which define the reference plane for phone positioning, are indicated (Shoulders are shown for illustration only).

- **Ear/Tilt Position:** With the phone aligned in the Cheek/Touch position, the handset was tilted away from the mouth with respect to the test device reference point by 15 degrees.



Phone position 2, “tilted position.” The reference points for the right ear (RE), left ear (LE) and mouth (M), which define the reference plane for phone positioning, are indicated (Shoulders are shown for illustration only).

- 2) The EUT was tested in a body-worn configuration with the front of the device placed parallel to the outer surface of the planar phantom at a separation distance of 1.0 cm, and a headset accessory connected to the handset.
- 3) The EUT was tested in a body-worn configuration with the back of the device placed parallel to the outer surface of the planar phantom at a separation distance of 1.0 cm, and a headset accessory connected to the handset.
- 4) The EUT was placed into test mode using the Agilent 8285A base station simulator at a full data rate in the “always up” power control mode.
- 5) Head and body SAR measurements were evaluated at maximum power and the unit was operated for an appropriate period prior to the evaluation in order to minimize drift.
- 6) The conducted power levels were measured before and after each test according to the procedures described in FCC §2.1046. If the conducted power level deviated more than 5% of the initial power level, then the EUT was retested. Any unusual anomalies over the course of the test also warranted a re-evaluation.
- 7) The location of the maximum spatial SAR distribution (Hot Spot) was determined relative to the handset and its antenna.
- 8) The EUT was tested with a fully charged battery.

6.0 EVALUATION PROCEDURES

a. (i) The evaluation was performed in the applicable area of the phantom depending on the type of device being tested. For devices held to the ear during normal operation both the left and right ear positions were evaluated with the device antenna in both the extended and extracted positions as applicable. The positioning of the ear-held device relative to the phantom was performed in accordance with FCC OET Bulletin 65, Supplement C (Edition 01-01) using the SAM phantom.

(ii) For face-held and body-worn devices a planar phantom was used.

b. The SAR was determined by a pre-defined procedure within the DASY3 software. Upon completion of a reference and optical surface check, the exposed region of the phantom was scanned near the inner surface using a uniform grid spacing.

c. A 5x5x7 matrix was performed around the greatest spatial SAR distribution found during the area scan of the applicable exposed region. SAR values were then calculated using a 3-D spline interpolation algorithm and averaged over spatial volumes of 1 and 10 grams.

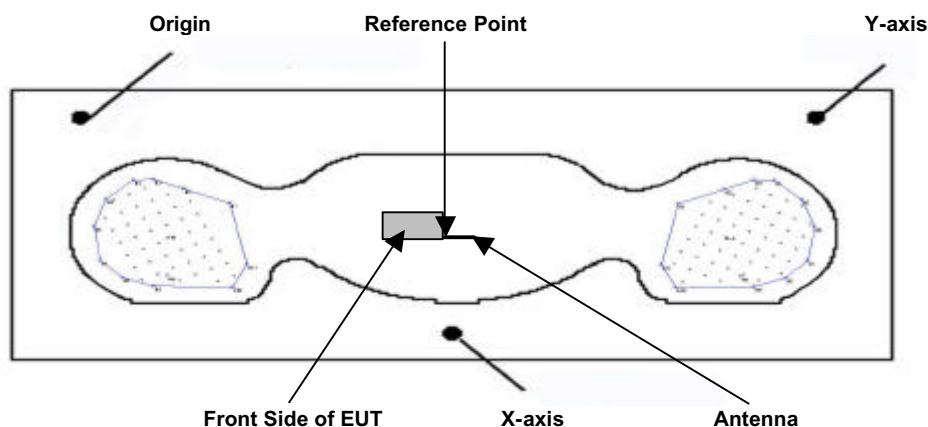


Figure 2. Device Positioning & Reference Point (Body-worn SAR - Front Side)

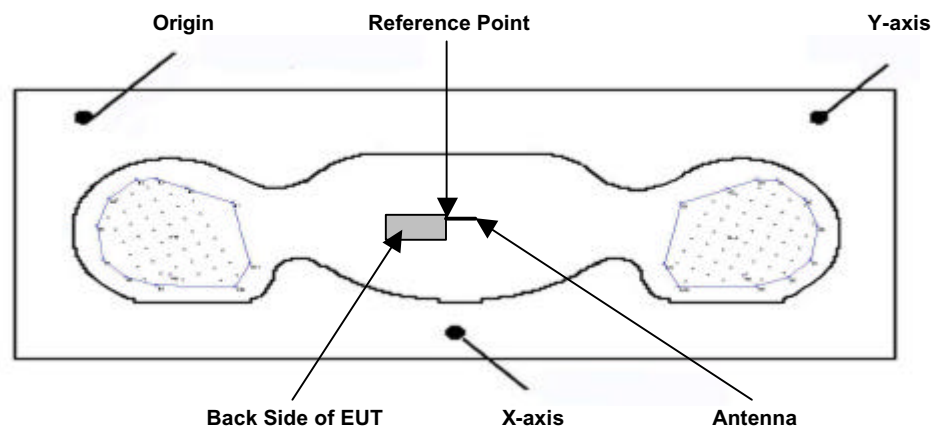


Figure 3. Device Positioning & Reference Point (Body-worn SAR - Back Side)

EVALUATION PROCEDURES (Cont.)

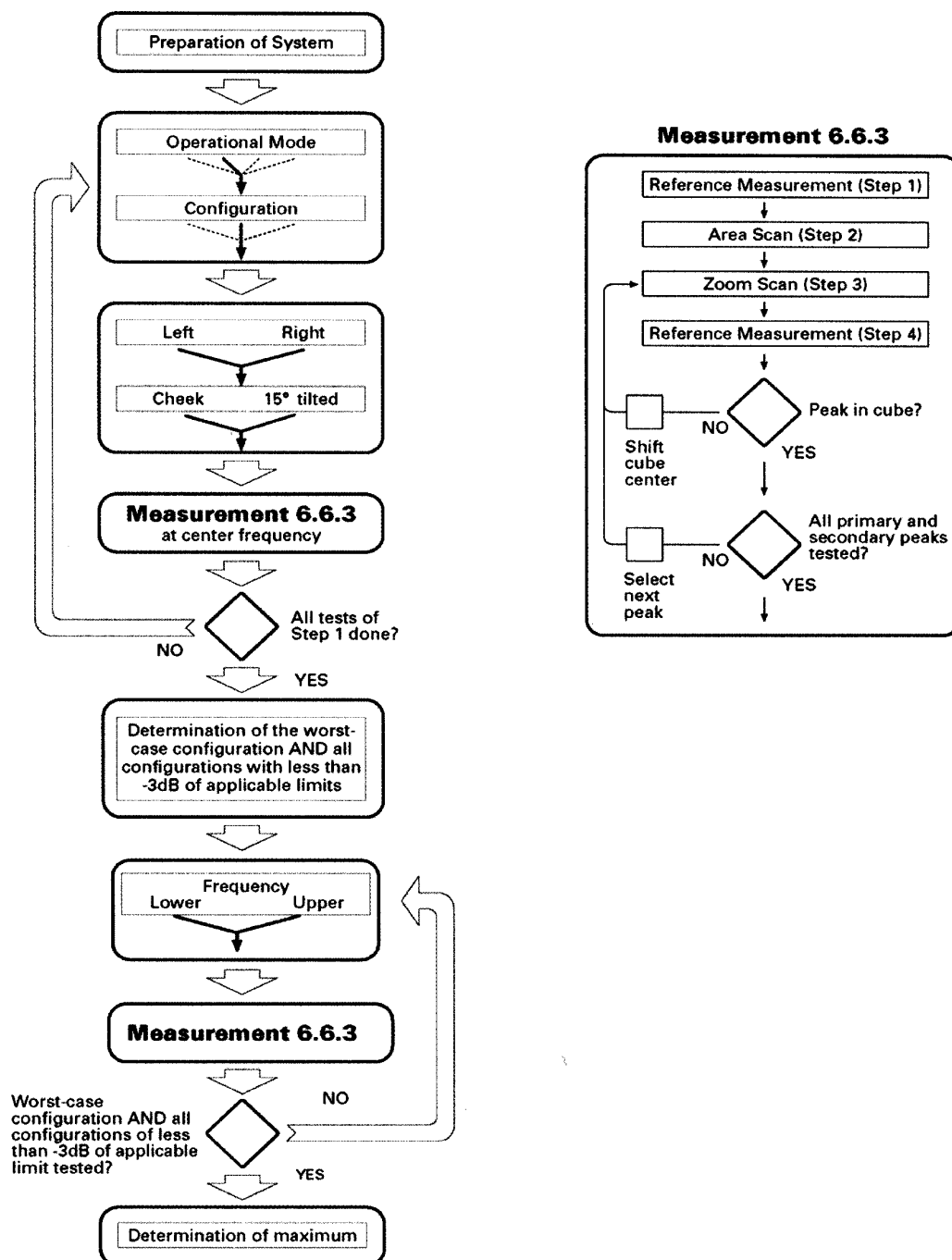


Figure 4. Flow Chart of the recommended practices and procedures per IEEE Std 1528 (Draft) [see reference 3]

7.0 SYSTEM VALIDATION

Prior to the SAR evaluation the system was verified in the planar section of the SAM phantom with an 1800MHz dipole (see Appendix C for detailed dipole calibration procedures). The fluids were verified using an 85070C Dielectric Probe Kit and an 8753E Network Analyzer (see Appendix E for printout of measured fluid dielectric parameters). A forward power of 250 mW was applied to the dipole and the system was verified to a tolerance of $\pm 10\%$ (see Appendix B for system validation test plots).

Test Date	Equiv. Tissue	Target SAR 1g (w/kg)	Measured SAR 1g (w/kg)	Dielectric Constant ϵ_r		Conductivity σ (mho/m)		ρ (Kg/m ³)	Ambient Temp.	Fluid Temp.	Fluid Depth
				Target	Measured	Target	Measured				
10/12/02	1800MHz (Brain)	9.66	10.3	40.0 $\pm 5\%$	39.9	1.40 $\pm 5\%$	1.38	1000	22.5 °C	23.1 °C	≥ 15 cm
10/16/02			10.3		39.9		1.39		23.3 °C	22.5 °C	

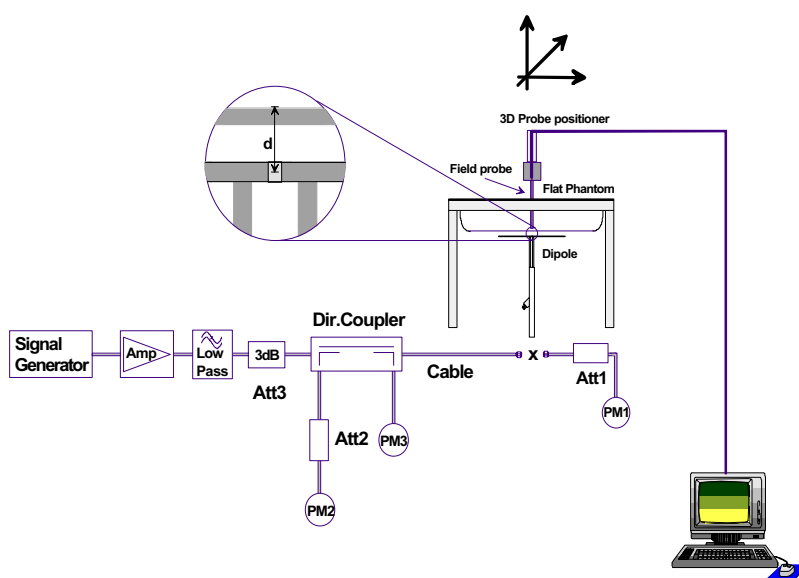


Figure 5. System Validation Setup Diagram



1800MHz Dipole Validation Setup

8.0 EQUIVALENT TISSUES

The 1800-2000MHz brain and body mixtures consist of Glycol-monobutyl, water, and salt. The fluid was prepared according to standardized procedures and measured for dielectric parameters (permittivity and conductivity).

TISSUE MIXTURES (1 Liter Yields)			
INGREDIENT	1800MHz Brain (System Validation)	1900MHz Brain (EUT Evaluation)	1900MHz Body (EUT Evaluation)
Water	548.0 g	552.40 g	716.60 g
Glycol Monobutyl	448.5 g	444.52 g	300.70 g
Salt	3.20 g	3.06 g	3.10 g

9.0 SAR SAFETY LIMITS

EXPOSURE LIMITS	SAR (W/Kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average (averaged over the whole body)	0.08	0.4
Spatial Peak (averaged over any 1 g of tissue)	1.60	8.0
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)	4.0	20.0

Notes:

1. Uncontrolled environments are defined as locations where there is potential exposure of individuals who have no knowledge or control of their potential exposure.
2. Controlled environments are defined as locations where there is potential exposure of individuals who have knowledge of their potential exposure and can exercise control over their exposure.

10.0 ROBOT SYSTEM SPECIFICATIONS

Specifications

POSITIONER: Stäubli Unimation Corp. Robot Model: RX60L
Repeatability: 0.02 mm
No. of axis: 6

Data Acquisition Electronic (DAE) System

Cell Controller

Processor: Pentium III
Clock Speed: 450 MHz
Operating System: Windows NT
Data Card: DASY3 PC-Board

Data Converter

Features: Signal Amplifier, multiplexer, A/D converter, and control logic
Software: DASY3 software
Connecting Lines: Optical downlink for data and status info.
Optical uplink for commands and clock

PC Interface Card

Function: 24 bit (64 MHz) DSP for real time processing
Link to DAE3
16-bit A/D converter for surface detection system
serial link to robot
direct emergency stop output for robot

E-Field Probe

Model: ET3DV6
Serial No.: 1387
Construction: Triangular core fiber optic detection system
Frequency: 10 MHz to 6 GHz
Linearity: ± 0.2 dB (30 MHz to 3 GHz)

Phantom

Type: SAM V4.0C
Shell Material: Fiberglass
Thickness: 2.0 ± 0.1 mm
Volume: Approx. 20 liters

11.0 SAM PHANTOM V4.0C

The SAM phantom V4.0C is a fiberglass shell phantom with a 2.0 mm shell thickness for left and right head and flat planar area integrated in a wooden table. The shape of the fiberglass shell corresponds to the phantom defined by SCC34-SC2. The device holder positions are adjusted to the standard measurement positions in the three sections.



SAM Phantom V4.0C

12.0 DEVICE HOLDER

The DASY3 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65°. The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections.



Device Holder

13.0 PROBE SPECIFICATION (ET3DV6)

Construction: Symmetrical design with triangular core
Built-in shielding against static charges
PEEK enclosure material (resistant to organic solvents, e.g. glycol)

Calibration: In air from 10 MHz to 2.5 GHz
In brain simulating tissue at frequencies of 900 MHz and 1.8 GHz (accuracy $\pm 8\%$)

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 to probe axis)

Dynam. Rnge: 5 μ W/g to >100 mW/g; Linearity: ± 0.2 dB

Srfce. Detect. ± 0.2 mm repeatability in air and clear liquids 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 dosimetry up to 3 GHz
Compliance tests of mobile phone



ET3DV6 E-Field Probe

14.0 TEST EQUIPMENT LIST

SAR MEASUREMENT SYSTEM		
EQUIPMENT	SERIAL NO.	CALIBRATION DATE
DASY3 System -Robot -ET3DV6 E-Field Probe -300MHz Validation Dipole -450MHz Validation Dipole -900MHz Validation Dipole -1800MHz Validation Dipole -2450MHz Validation Dipole -SAM Phantom V4.0C -Small Planar Phantom -Medium Planar Phantom -Large Planar Phantom	599396-01 1387 135 136 054 247 150 N/A N/A N/A N/A	N/A Feb 2002 Oct 2002 Oct 2002 June 2001 June 2001 Oct 2002 N/A N/A N/A N/A
85070C Dielectric Probe Kit	N/A	N/A
Gigatronics 8652A Power Meter -Power Sensor 80701A -Power Sensor 80701A	1835272 1833535 1833542	Feb 2002 Feb 2002 Mar 2002
Agilent E8285A CDMA Base Station Simulator	US40332926	Feb 2002
E4408B Spectrum Analyzer	US39240170	Nov 2001
8594E Spectrum Analyzer	3543A02721	Feb 2002
8753E Network Analyzer	US38433013	Feb 2002
8648D Signal Generator	3847A00611	Feb 2002
5S1G4 Amplifier Research Power Amplifier	26235	N/A

15.0 MEASUREMENT UNCERTAINTIES

Error Description	Uncertainty Value $\pm\%$	Probability Distribution	Divisor	C_i 1g	Standard Uncertainty $\pm\%$ (1g)	v_i or v_{eff}
Measurement System						
Probe calibration	± 4.8	Normal	1	1	± 4.8	∞
Axial isotropy of the probe	± 4.7	Rectangular	$\sqrt{3}$	(1- c_p)	± 1.9	∞
Spherical isotropy of the probe	± 9.6	Rectangular	$\sqrt{3}$	(c_p)	± 3.9	∞
Spatial resolution	± 0.0	Rectangular	$\sqrt{3}$	1	± 0.0	∞
Boundary effects	± 5.5	Rectangular	$\sqrt{3}$	1	± 3.2	∞
Probe linearity	± 4.7	Rectangular	$\sqrt{3}$	1	± 2.7	∞
Detection limit	± 1.0	Rectangular	$\sqrt{3}$	1	± 0.6	∞
Readout electronics	± 1.0	Normal	1	1	± 1.0	∞
Response time	± 0.8	Rectangular	$\sqrt{3}$	1	± 0.5	∞
Integration time	± 1.4	Rectangular	$\sqrt{3}$	1	± 0.8	∞
RF ambient conditions	± 3.0	Rectangular	$\sqrt{3}$	1	± 1.7	∞
Mech. constraints of robot	± 0.4	Rectangular	$\sqrt{3}$	1	± 0.2	∞
Probe positioning	± 2.9	Rectangular	$\sqrt{3}$	1	± 1.7	∞
Extrapolation & integration	± 3.9	Rectangular	$\sqrt{3}$	1	± 2.3	∞
Test Sample Related						
Device positioning	± 6.0	Normal	$\sqrt{3}$	1	± 6.7	12
Device holder uncertainty	± 5.0	Normal	$\sqrt{3}$	1	± 5.9	8
Power drift	± 5.0	Rectangular	$\sqrt{3}$		± 2.9	∞
Phantom and Setup						
Phantom uncertainty	± 4.0	Rectangular	$\sqrt{3}$	1	± 2.3	∞
Liquid conductivity (target)	± 5.0	Rectangular	$\sqrt{3}$	0.6	± 1.7	∞
Liquid conductivity (measured)	± 10.0	Rectangular	$\sqrt{3}$	0.6	± 3.5	∞
Liquid permittivity (target)	± 5.0	Rectangular	$\sqrt{3}$	0.6	± 1.7	∞
Liquid permittivity (measured)	± 5.0	Rectangular	$\sqrt{3}$	0.6	± 1.7	∞
Combined Standard Uncertainty					± 13.7	
Expanded Uncertainty (k=2)					± 27.5	

Measurement Uncertainty Table in accordance with IEEE Std 1528 (Draft - see reference [3])

16.0 REFERENCES

- [1] Federal Communications Commission, "Radiofrequency radiation exposure evaluation: portable devices", Rule Part 47 CFR §2.1093: 1999.
- [2] Federal Communications Commission, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields", OET Bulletin 65, Supplement C (Edition 01-01), FCC, Washington, D.C.: June 2001.
- [3] IEEE Standards Coordinating Committee 34, Std 1528-200X, "DRAFT Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques".

APPENDIX A - SAR MEASUREMENT DATA

Hitachi Ltd. FCC ID: ABLSP20

SAM Phantom; Left Head Section; Position: (107°, 65°)

Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0

1900 MHz Brain: $\sigma = 1.39 \text{ mho/m}$ $\epsilon_r = 38.5$ $\rho = 1.00 \text{ g/cm}^3$

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Cube 5x5x7; Powderdrift: -0.01 dB

SAR (1g): 1.17 mW/g, SAR (10g): 0.629 mW/g

Head SAR - Left Ear - Cheek/Touch Position

Antenna Retracted

SH-P300 PCS CDMA Handset

3.7V Lithium-ion Battery (1000mAh)

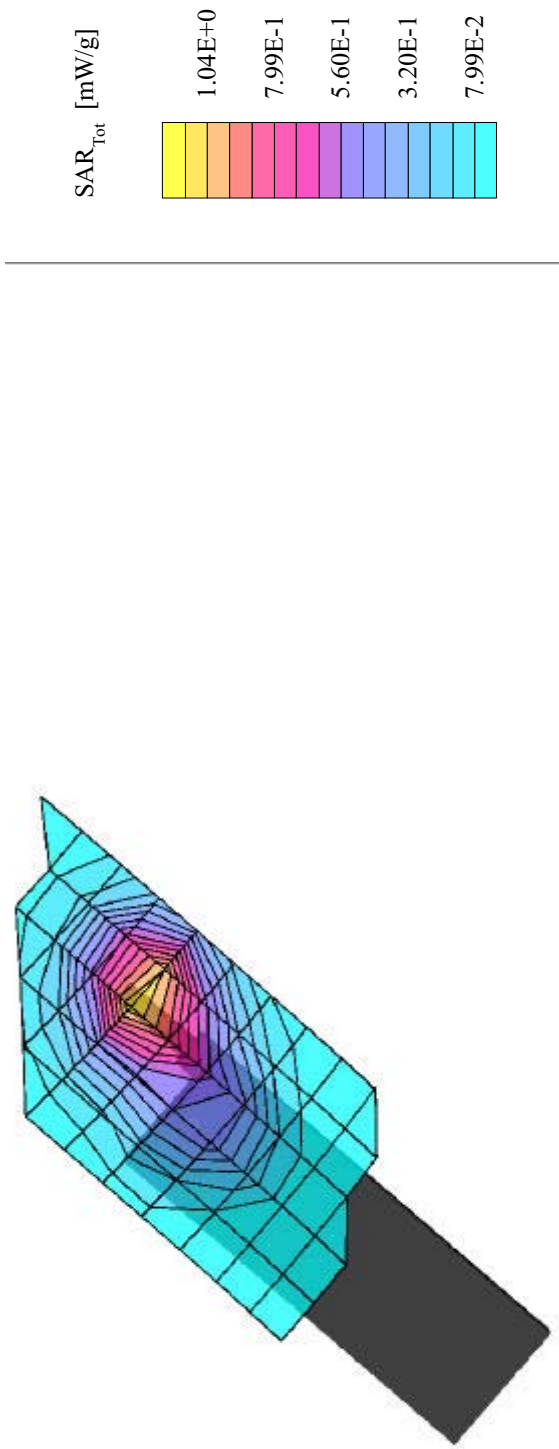
PCS CDMA Mode

Channel 0600 [1880.00 MHz]

Conducted Power: 22.3 dBm

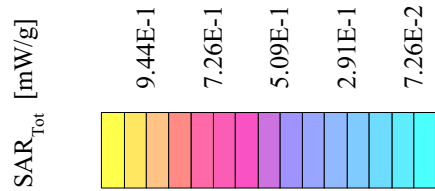
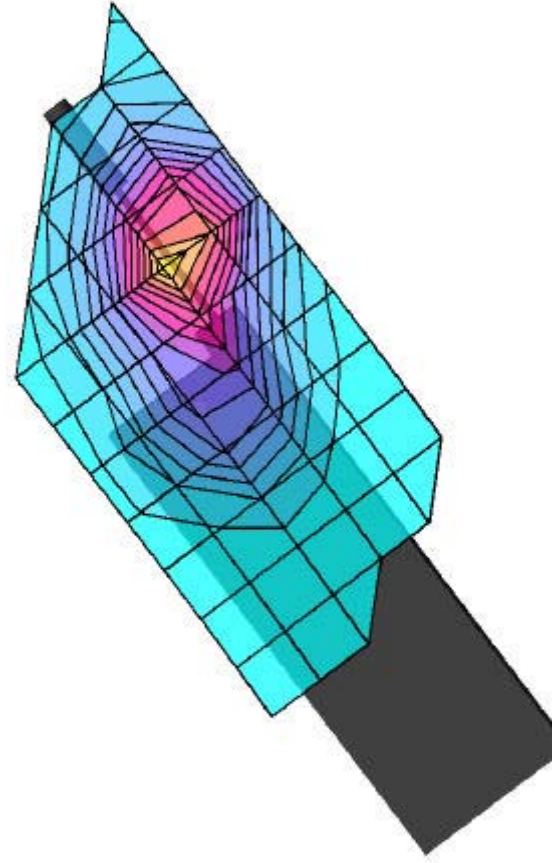
Ambient Temp. 22.5°C; Fluid Temp 23.1°C

Date Tested: October 12, 2002



Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Left Head Section; Position: (92°,65°)
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39$ mho/m $\epsilon_r = 38.5$ $\rho = 1.00$ g/cm³
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.12 dB
SAR (1g): 0.990 mW/g, SAR (10g): 0.553 mW/g

Head SAR - Left Ear - Cheek/Touch Position
Antenna Extended
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 0600 [1880.00 MHz]
Conducted Power: 22.3 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



Hitachi Ltd. FCC ID: ABLSP20

SAM Phantom; Left Head Section; Position: (107°,65°)

Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0

1900 MHz Brain: $\sigma = 1.39$ mho/m $\epsilon_r = 38.5$ $\rho = 1.00$ g/cm³

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Cube 5x5x7; Powerdrift: -0.11 dB

SAR (1g): 1.60 mW/g, SAR (10g): 0.856 mW/g

Head SAR - Left Ear - Ear/Tilt Position

Antenna Retracted

SH-P300 PCS CDMA Handset

3.7V Lithium-ion Battery (1000mAh)

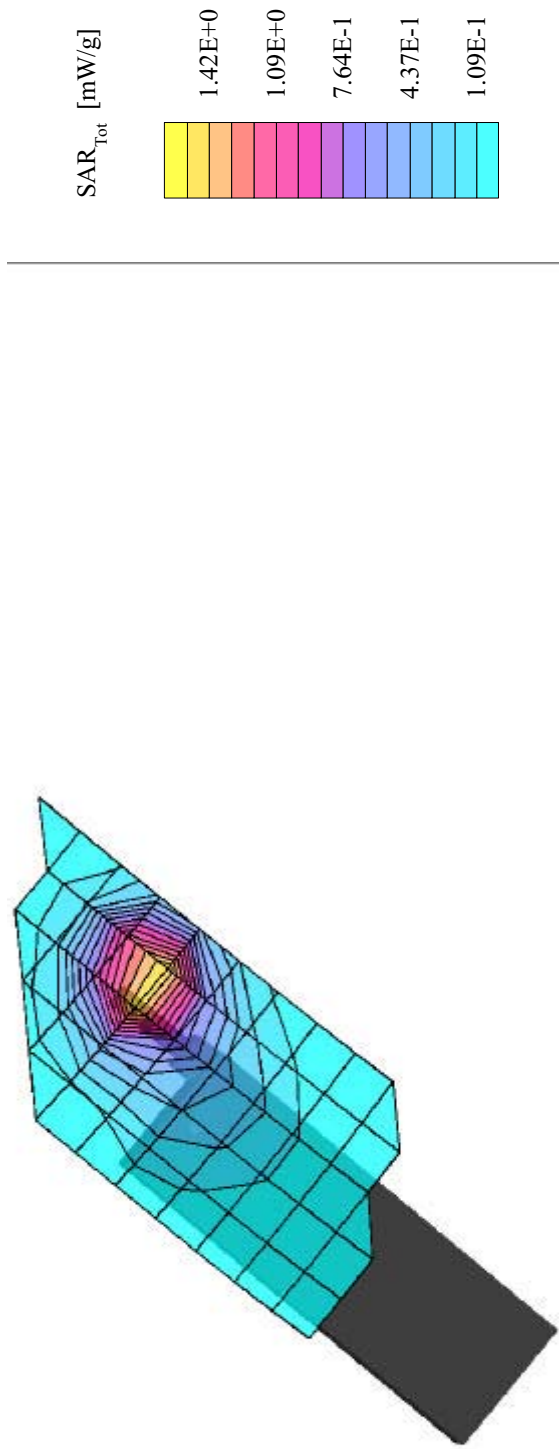
PCS CDMA Mode

Channel 0600 [1880.00 MHz]

Conducted Power: 22.3 dBm

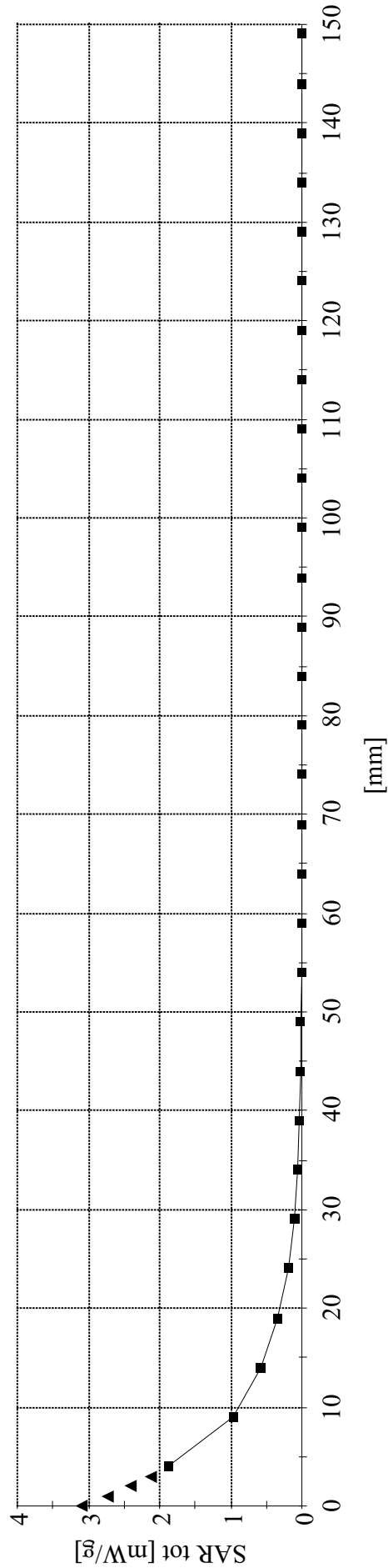
Ambient Temp. 22.5°C; Fluid Temp 23.1°C

Date Tested: October 12, 2002



Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Left Head Section
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39$ mho/m $\epsilon_r = 38.5$ $\rho = 1.00$ g/cm³

Z-Axis Extrapolation at Peak SAR Location
Head SAR - Left Ear - Ear/Tilt Position
Antenna Retracted
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 0600 [1880.00 MHz]
Conducted Power: 22.3 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



Hitachi Ltd. FCC ID: ABLSP20

SAM Phantom; Left Head Section; Position: (107°, 65°)

Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0

1900 MHz Brain: $\sigma = 1.39 \text{ mho/m}$ $\epsilon_r = 38.5$ $\rho = 1.00 \text{ g/cm}^3$

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Cube 5x5x7; Powerdrift: -0.09 dB

SAR (1g): 1.56 mW/g, SAR (10g): 0.858 mW/g

Head SAR - Left Ear - Ear/Tilt Position

Antenna Extended

SH-P300 PCS CDMA Handset

3.7V Lithium-ion Battery (1000mAh)

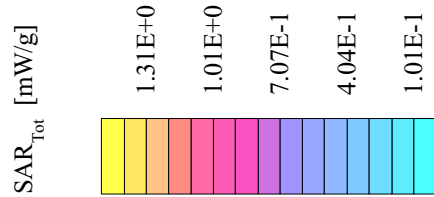
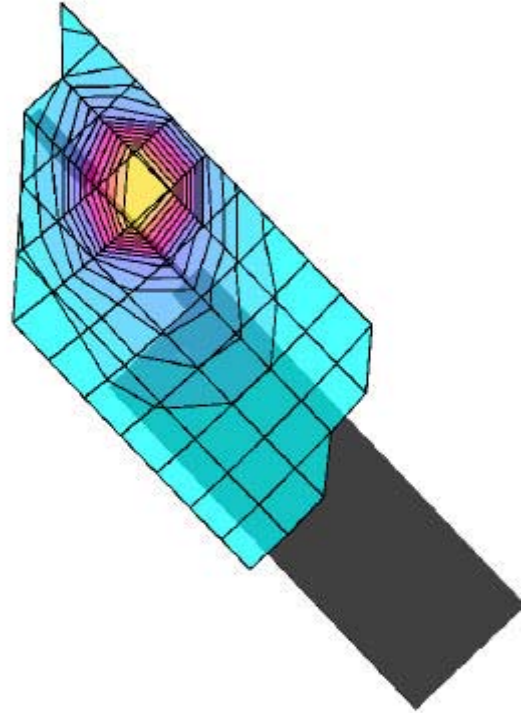
PCS CDMA Mode

Channel 0600 [1880.00 MHz]

Conducted Power: 22.3 dBm

Ambient Temp. 22.5°C; Fluid Temp 23.1°C

Date Tested: October 12, 2002



Hitachi Ltd. FCC ID: ABLSP20

SAM Phantom; Left Head Section; Position: (107°,65°)

Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0

1900 MHz Brain: $\sigma = 1.39$ mho/m $\epsilon_r = 38.5$ $\rho = 1.00$ g/cm³

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Cube 5x5x7; Powerdrift: -0.03 dB

SAR (1g): 1.00 mW/g, SAR (10g): 0.555 mW/g

Head SAR - Left Ear - Cheek/Touch Position

Antenna Retracted

SH-P300 PCS CDMA Handset

3.7V Lithium-ion Battery (1000mAh)

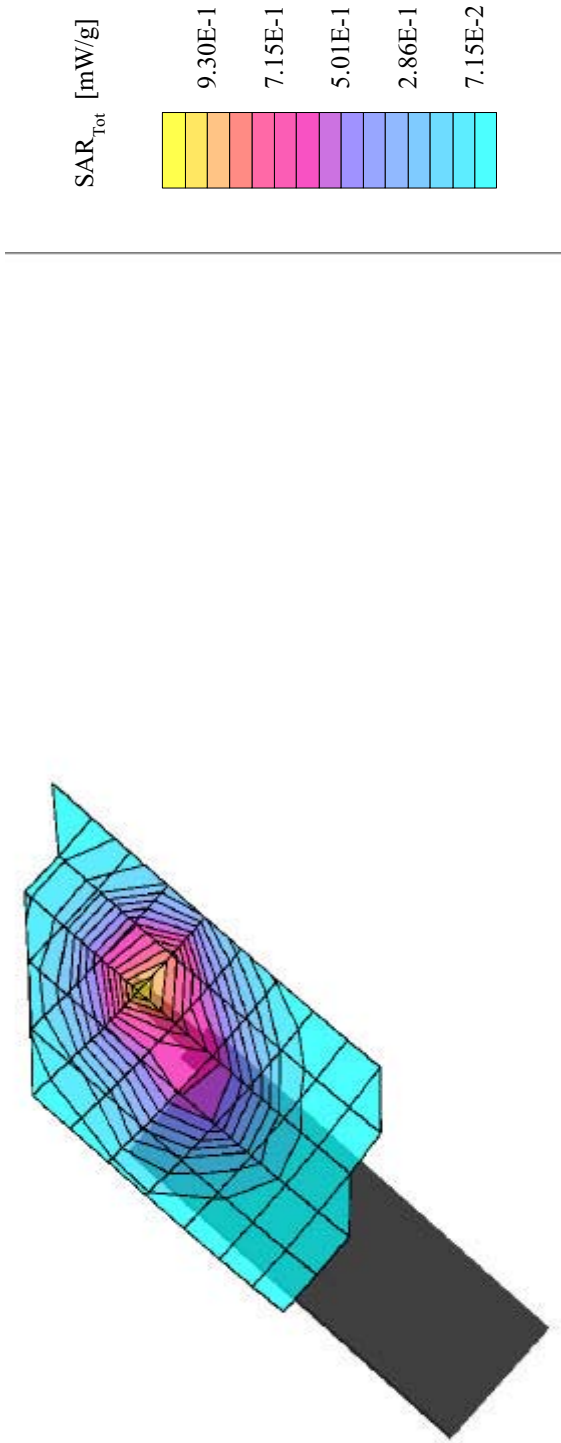
PCS CDMA Mode

Channel 0025 [1851.25 MHz]

Conducted Power: 22.7 dBm

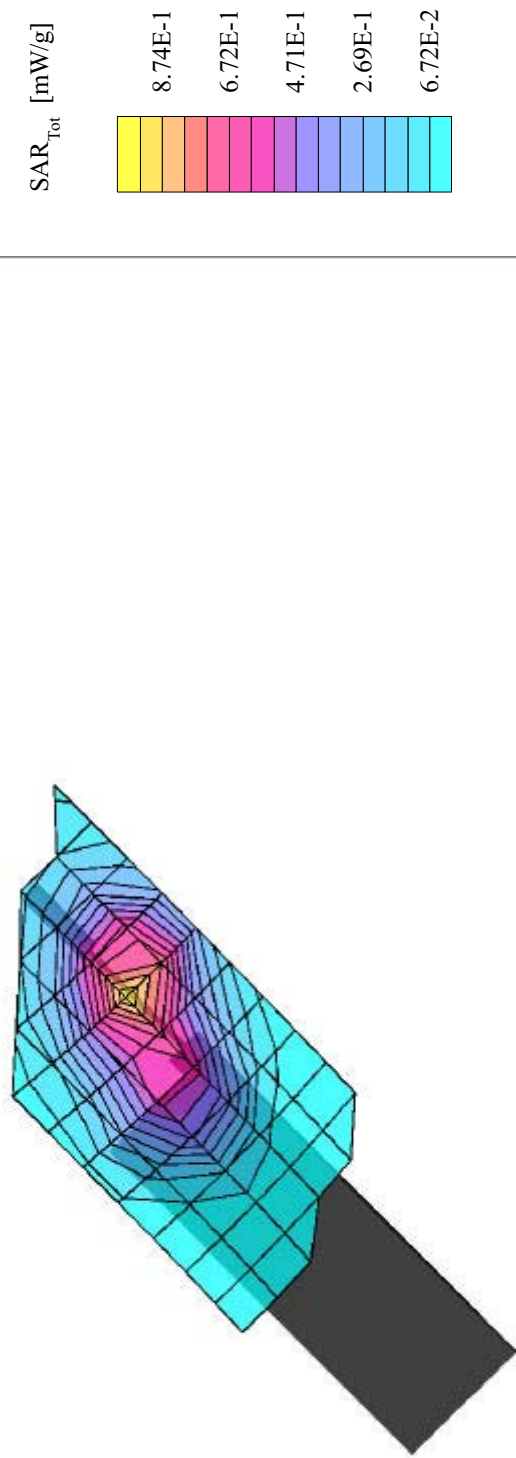
Ambient Temp. 22.5°C; Fluid Temp 23.1°C

Date Tested: October 12, 2002



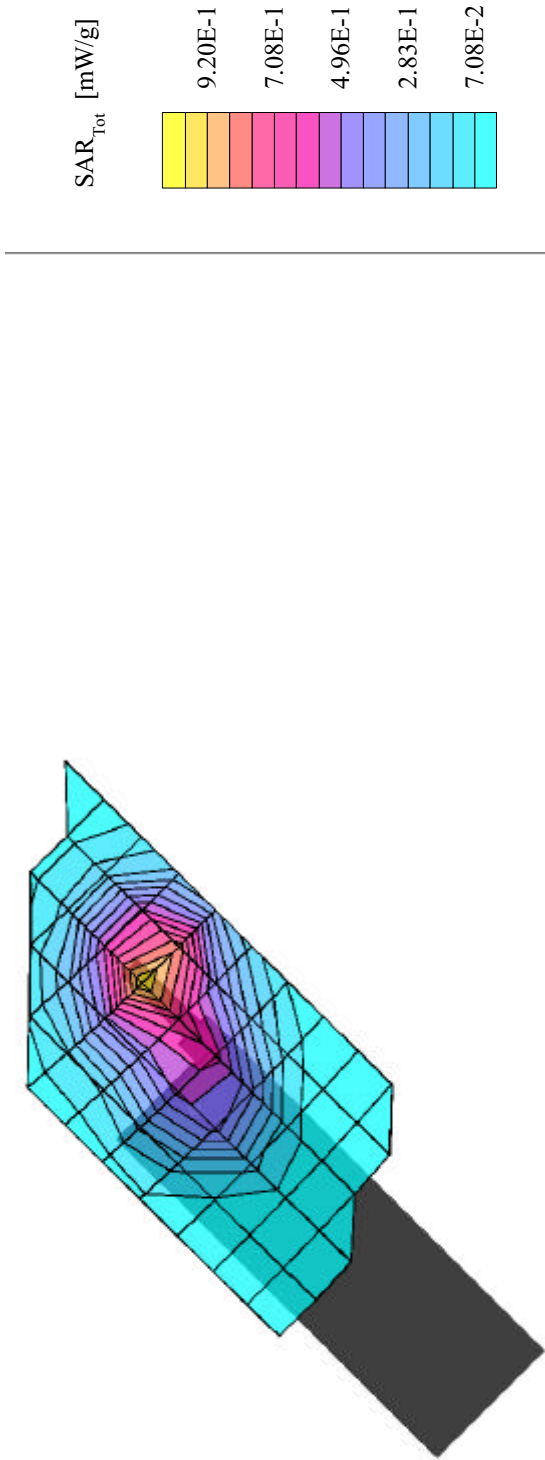
Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Left Head Section; Position: (107°, 65°)
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39 \text{ mho/m}$ $\epsilon_r = 38.5$ $\rho = 1.00 \text{ g/cm}^3$
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.12 dB
SAR (1g): 0.934 mW/g, SAR (10g): 0.518 mW/g

Head SAR - Left Ear - Cheek/Touch Position
Antenna Extended
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 0025 [1851.25 MHz]
Conducted Power: 22.7 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Left Head Section; Position: (107°, 65°)
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39 \text{ mho/m}$ $\epsilon_r = 38.5$ $\rho = 1.00 \text{ g/cm}^3$
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.07 dB
SAR (1g): 0.947 mW/g, SAR (10g): 0.520 mW/g

Head SAR - Left Ear - Cheek/Touch Position
Antenna Retracted
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 1175 [1908.75 MHz]
Conducted Power: 22.5 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



Hitachi Ltd. FCC ID: ABLSP20

SAM Phantom; Left Head Section; Position: (107°,65°)

Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0

1900 MHz Brain: $\sigma = 1.39 \text{ mho/m}$ $\epsilon_r = 38.5$ $\rho = 1.00 \text{ g/cm}^3$

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Cube 5x5x7; Powerdrift: -0.05 dB

SAR (1g): 0.864 mW/g, SAR (10g): 0.479 mW/g

Head SAR - Left Ear - Cheek/Touch Position

Antenna Extended

SH-P300 PCS CDMA Handset

3.7V Lithium-ion Battery (1000mAh)

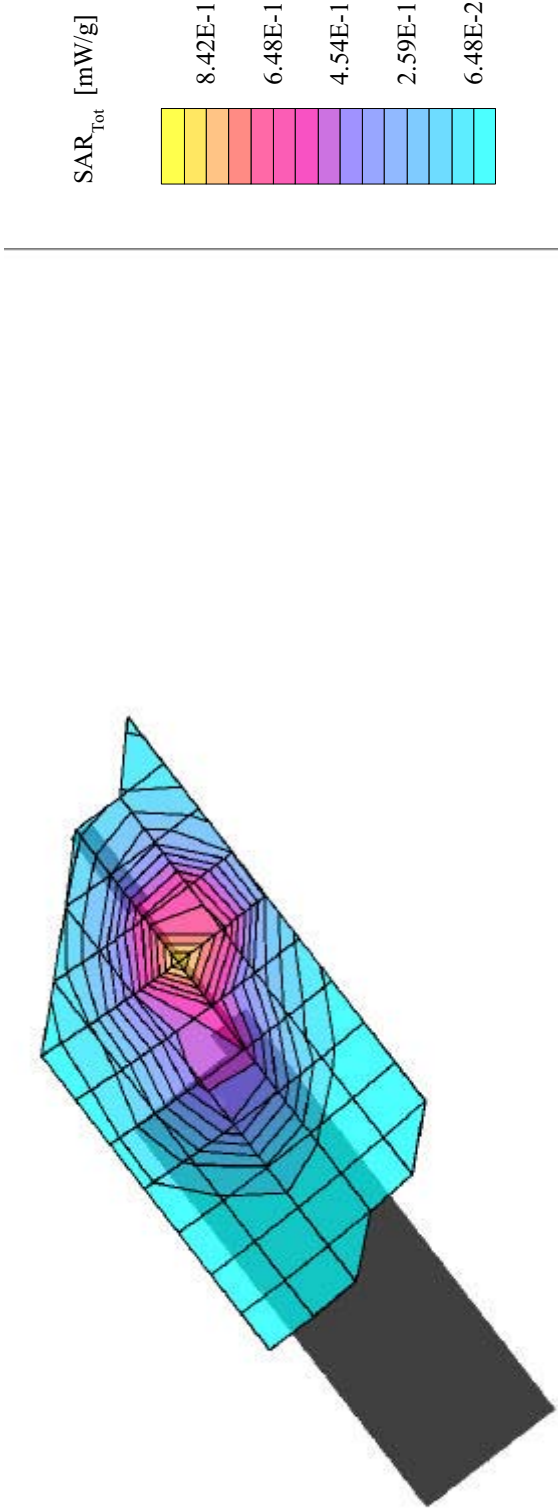
PCS CDMA Mode

Channel 1175 [1908.75 MHz]

Conducted Power: 22.5 dBm

Ambient Temp. 22.5°C; Fluid Temp 23.1°C

Date Tested: October 12, 2002



Hitachi Ltd. FCC ID: ABLSP20

SAM Phantom; Left Head Section; Position: (107°, 65°)

Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0

1900 MHz Brain: $\sigma = 1.39 \text{ mho/m}$ $\epsilon_r = 38.5$ $\rho = 1.00 \text{ g/cm}^3$

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Cube 5x5x7; Powerdrift: -0.09 dB

SAR (1g): 1.46 mW/g, SAR (10g): 0.786 mW/g

Head SAR - Left Ear - Ear/Tilt Position

Antenna Retracted

SH-P300 PCS CDMA Handset

3.7V Lithium-ion Battery (1000mAh)

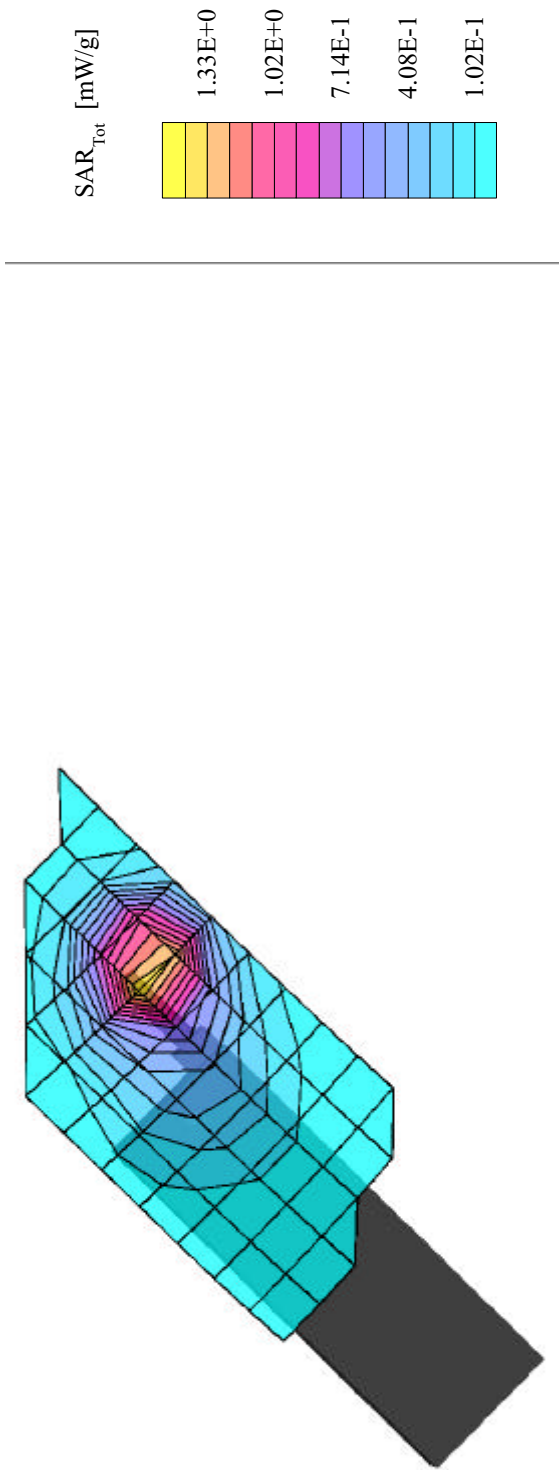
PCS CDMA Mode

Channel 0025 [1851.25 MHz]

Conducted Power: 22.7 dBm

Ambient Temp. 22.5°C; Fluid Temp 23.1°C

Date Tested: October 12, 2002



Hitachi Ltd. FCC ID: ABLSP20

SAM Phantom; Left Head Section; Position: (107°, 65°)

Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0

1900 MHz Brain: $\sigma = 1.39 \text{ mho/m}$ $\epsilon_r = 38.5$ $\rho = 1.00 \text{ g/cm}^3$

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Cube 5x5x7; Powerdrift: -0.16 dB

SAR (1g): 1.51 mW/g, SAR (10g): 0.826 mW/g

Head SAR - Left Ear - Ear/Tilt Position

Antenna Extended

SH-P300 PCS CDMA Handset

3.7V Lithium-ion Battery (1000mAh)

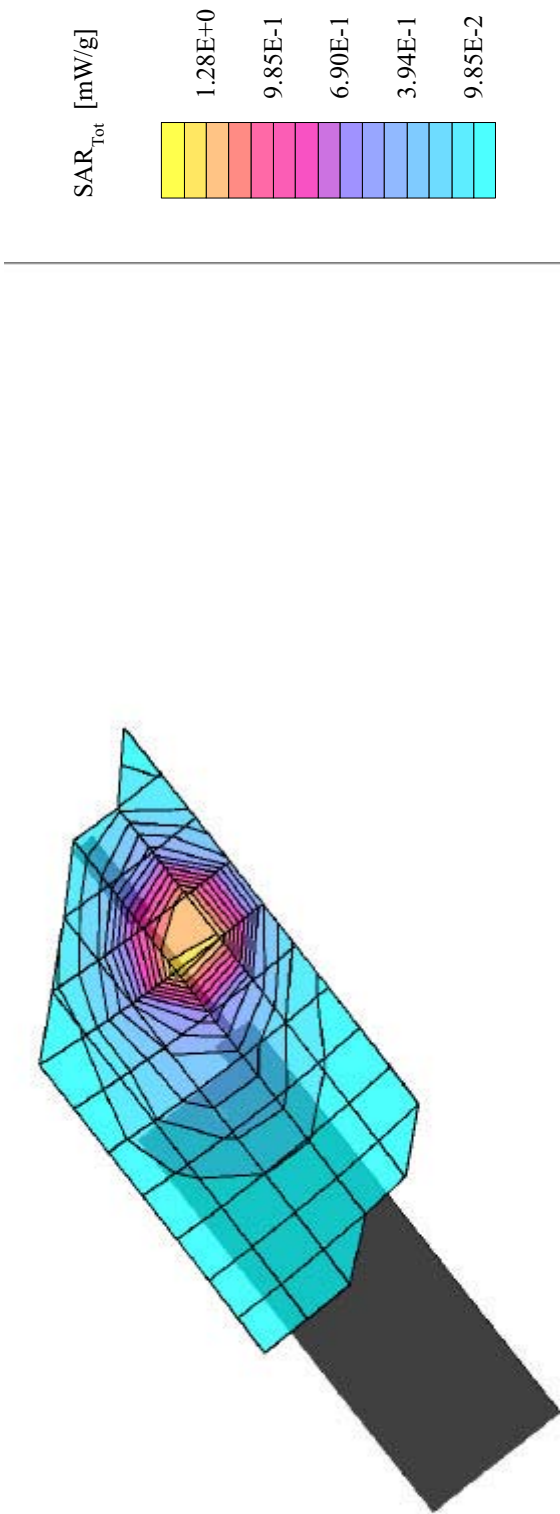
PCS CDMA Mode

Channel 0025 [1851.25 MHz]

Conducted Power: 22.7 dBm

Ambient Temp. 22.5°C; Fluid Temp 23.1°C

Date Tested: October 12, 2002



Hitachi Ltd. FCC ID: ABLSP20

SAM Phantom; Left Head Section; Position: (107°, 65°)

Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0

1900 MHz Brain: $\sigma = 1.39 \text{ mho/m}$ $\epsilon_r = 38.5$ $\rho = 1.00 \text{ g/cm}^3$

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Cube 5x5x7; Powerdrift: -0.04 dB

SAR (1g): 1.53 mW/g, SAR (10g): 0.812 mW/g

Head SAR - Left Ear - Ear/Tilt Position

Antenna Retracted

SH-P300 PCS CDMA Handset

3.7V Lithium-ion Battery (1000mAh)

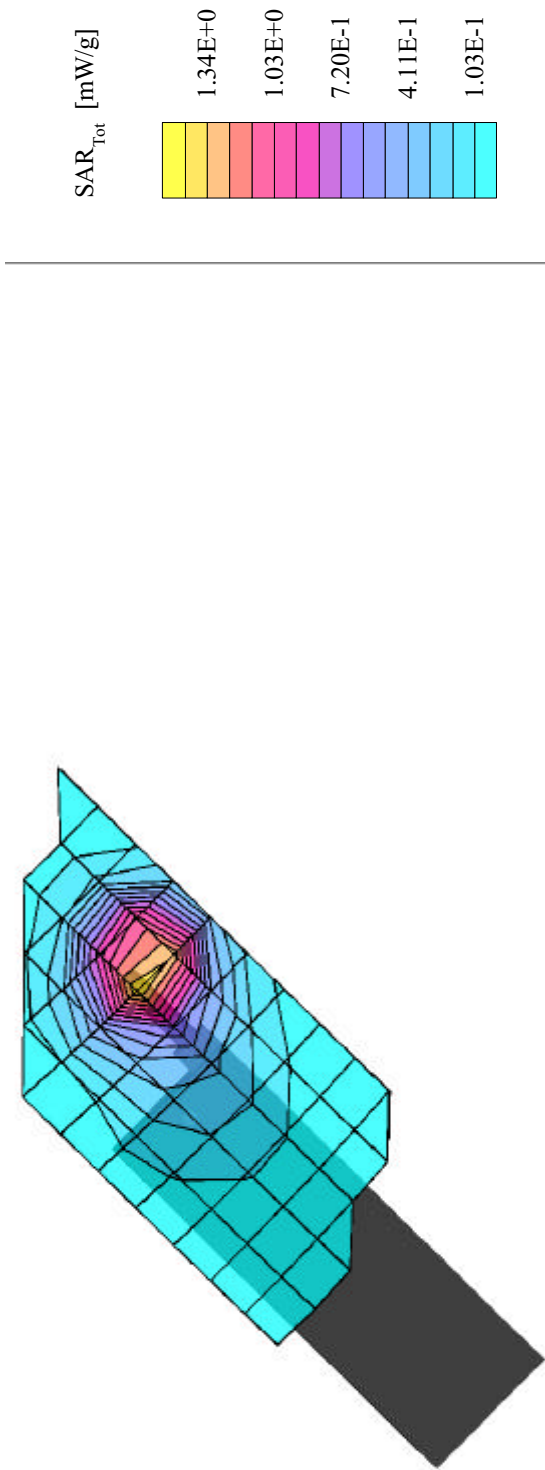
PCS CDMA Mode

Channel 1175 [1908.75 MHz]

Conducted Power: 22.5 dBm

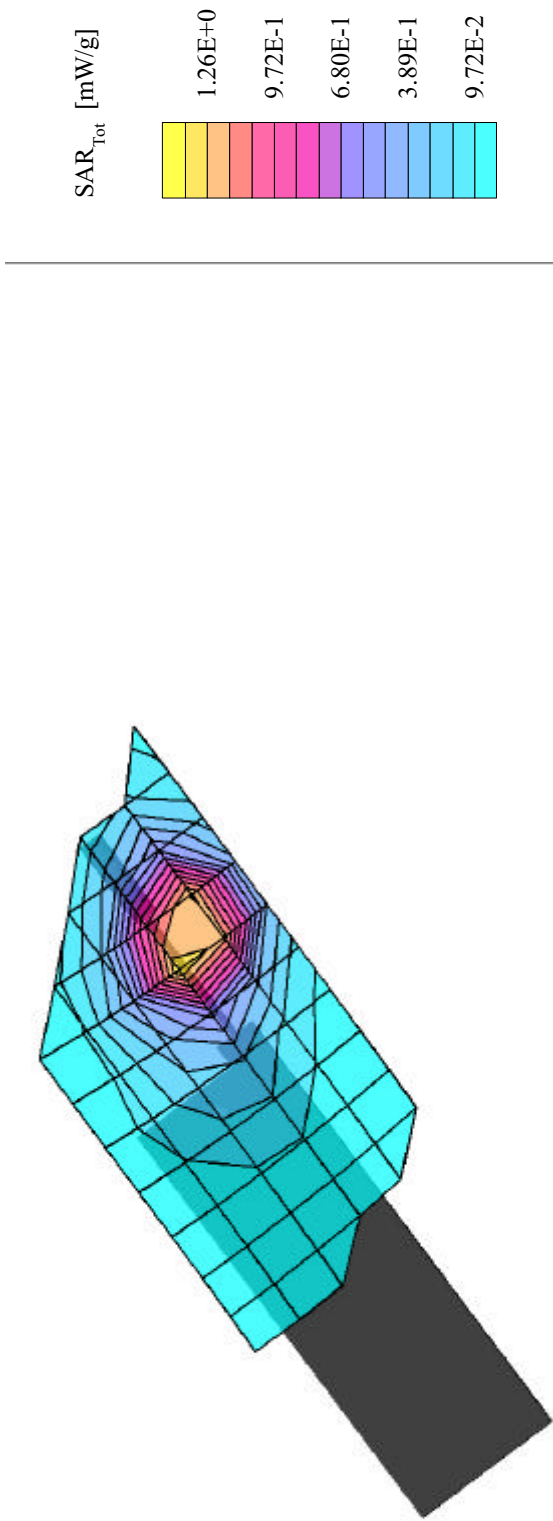
Ambient Temp. 22.5°C; Fluid Temp 23.1°C

Date Tested: October 12, 2002



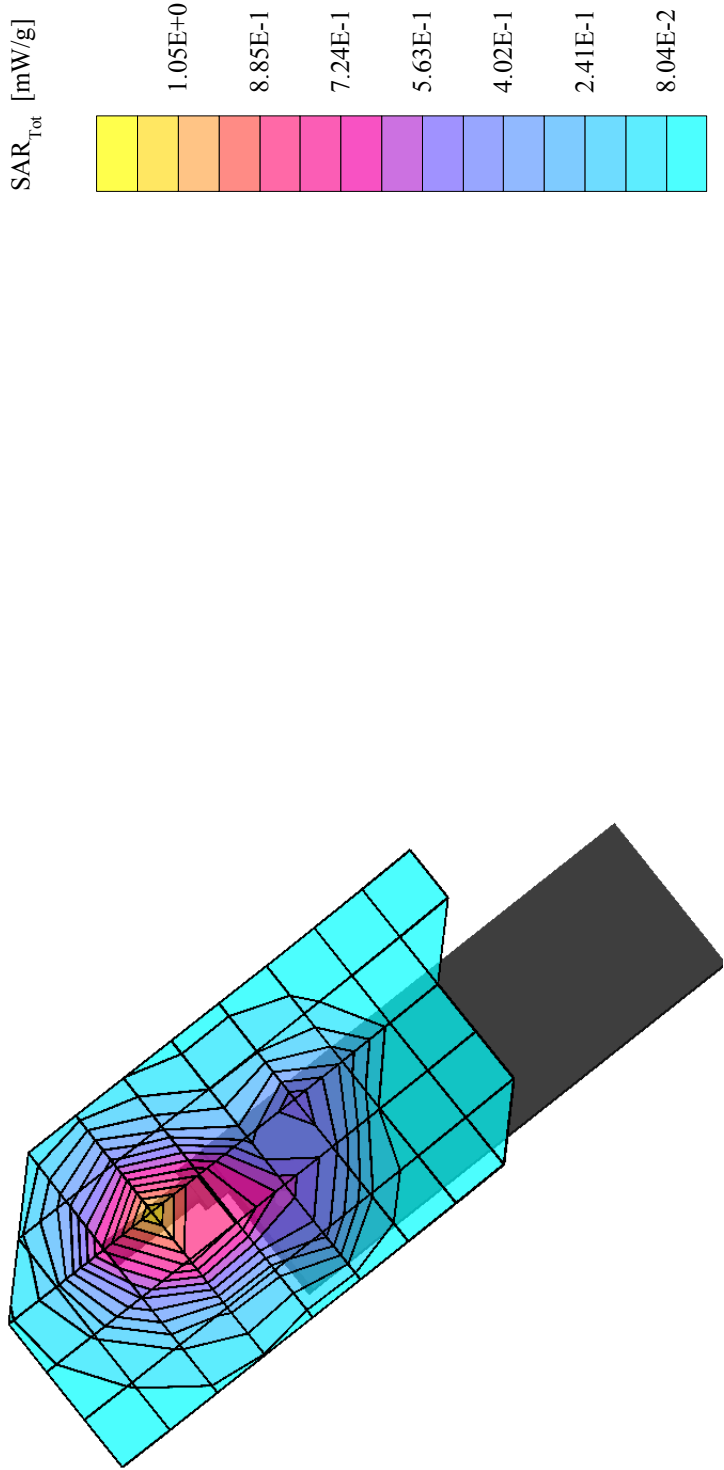
Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Left Head Section; Position: (107°,65°)
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39$ mho/m $\epsilon_r = 38.5$ $\rho = 1.00$ g/cm³
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.11 dB
SAR (1g): 1.47 mW/g, SAR (10g): 0.800 mW/g

Head SAR - Left Ear - Ear/Tilt Position
Antenna Extended
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 1175 [1908.75 MHz]
Conducted Power: 22.5 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



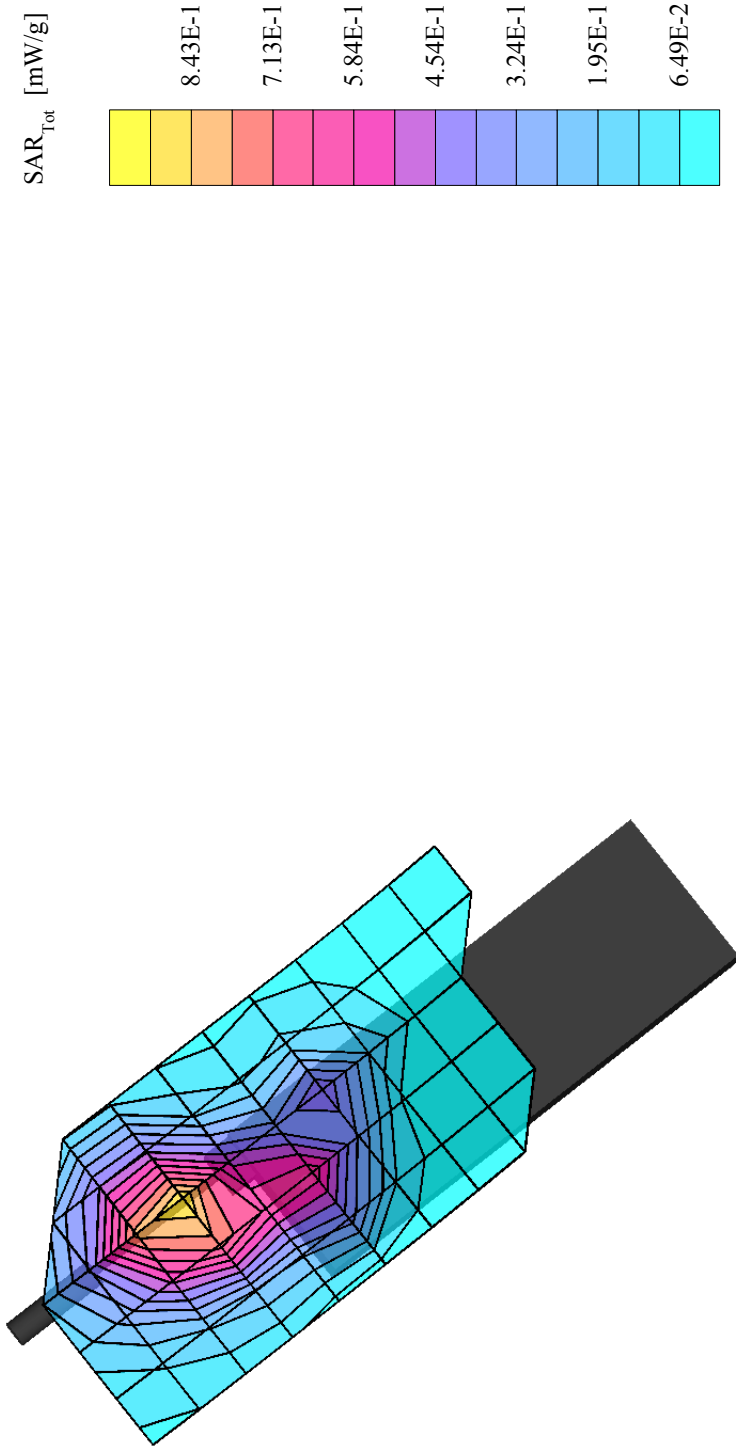
Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Right Head Section; Position: (93°,295°)
Probe: ET3DV6 - SNI387; ConvF(5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39 \text{ mho/m}$ $\epsilon_r = 38.5$ $\rho = 1.00 \text{ g/cm}^3$
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.14 dB
SAR (1g): 1.04 mW/g, SAR (10g): 0.585 mW/g

Head SAR - Right Ear - Cheek/Touch Position
Antenna Retracted
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 0600 [1880.00 MHz]
Conducted Power: 22.3 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



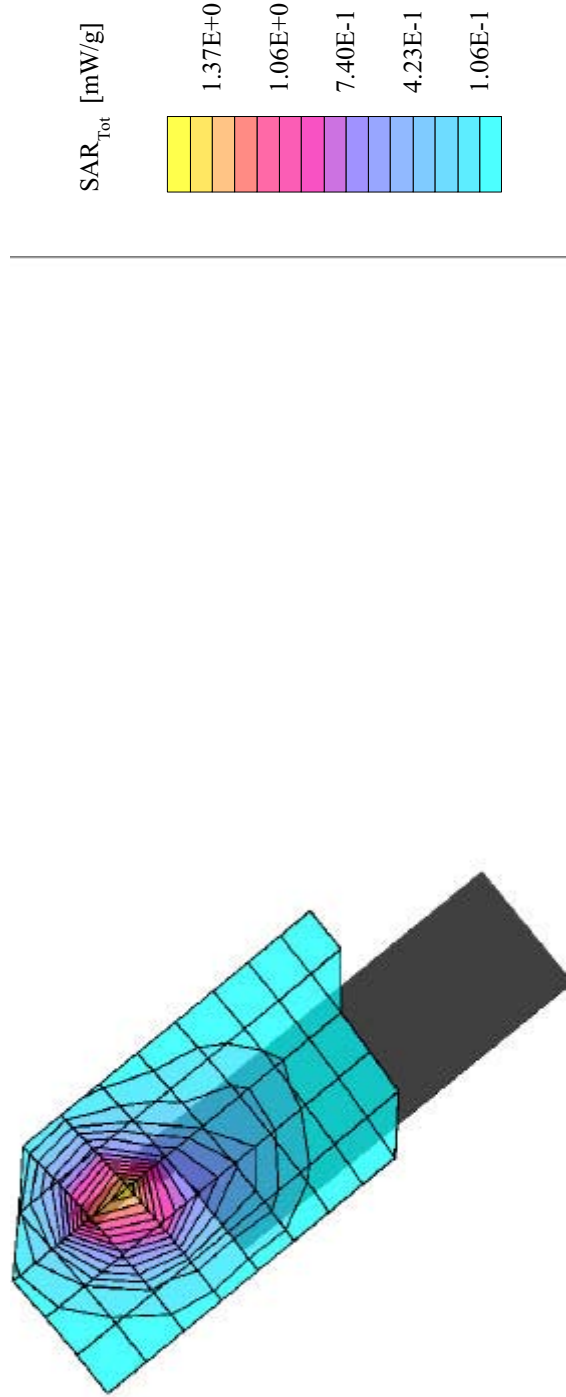
Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Right Head Section; Position: (93°,295°)
Probe: ET3DV6 - SNI387; ConvF(5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39 \text{ mho/m}$ $\epsilon_r = 38.5$ $\rho = 1.00 \text{ g/cm}^3$
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.15 dB
SAR (1g): 0.873 mW/g, SAR (10g): 0.491 mW/g

Head SAR - Right Ear - Cheek/Touch Position
Antenna Extended
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 0600 [1880.00 MHz]
Conducted Power: 22.3 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



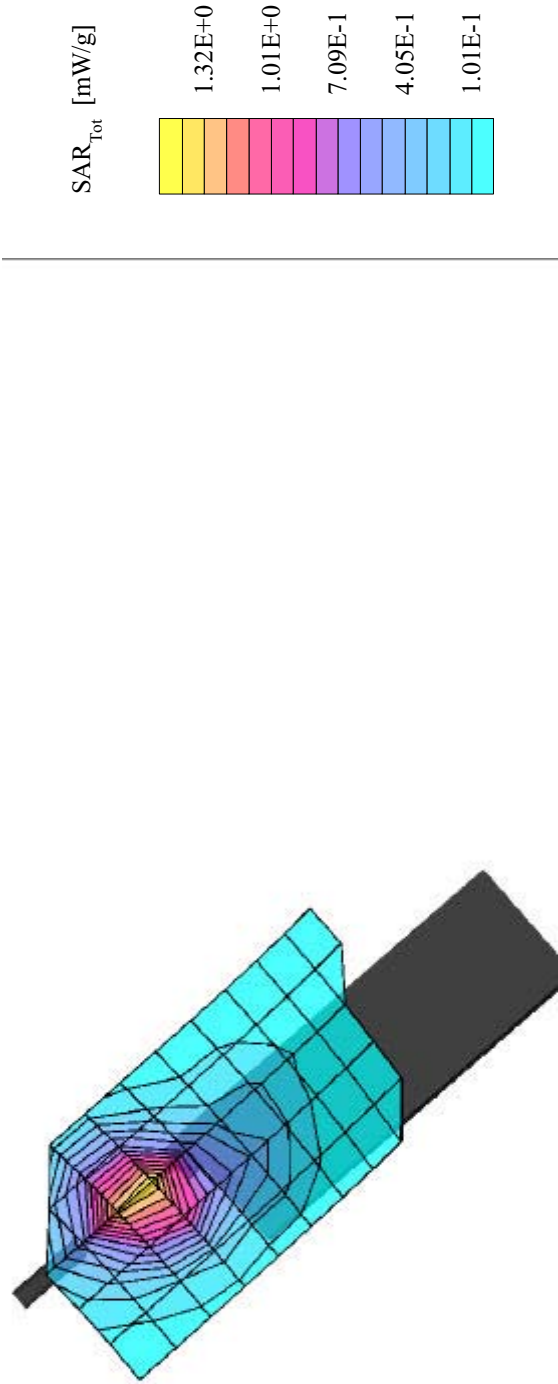
Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Right Head Section; Position: (108°,295°)
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39$ mho/m $\epsilon_r = 38.5$ $\rho = 1.00$ g/cm³
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.04 dB
SAR (1g): 1.40 mW/g, SAR (10g): 0.755 mW/g

Head SAR - Right Ear - Ear/Tilt Position
Antenna Retracted
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 0600 [1880.00 MHz]
Conducted Power: 22.3 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



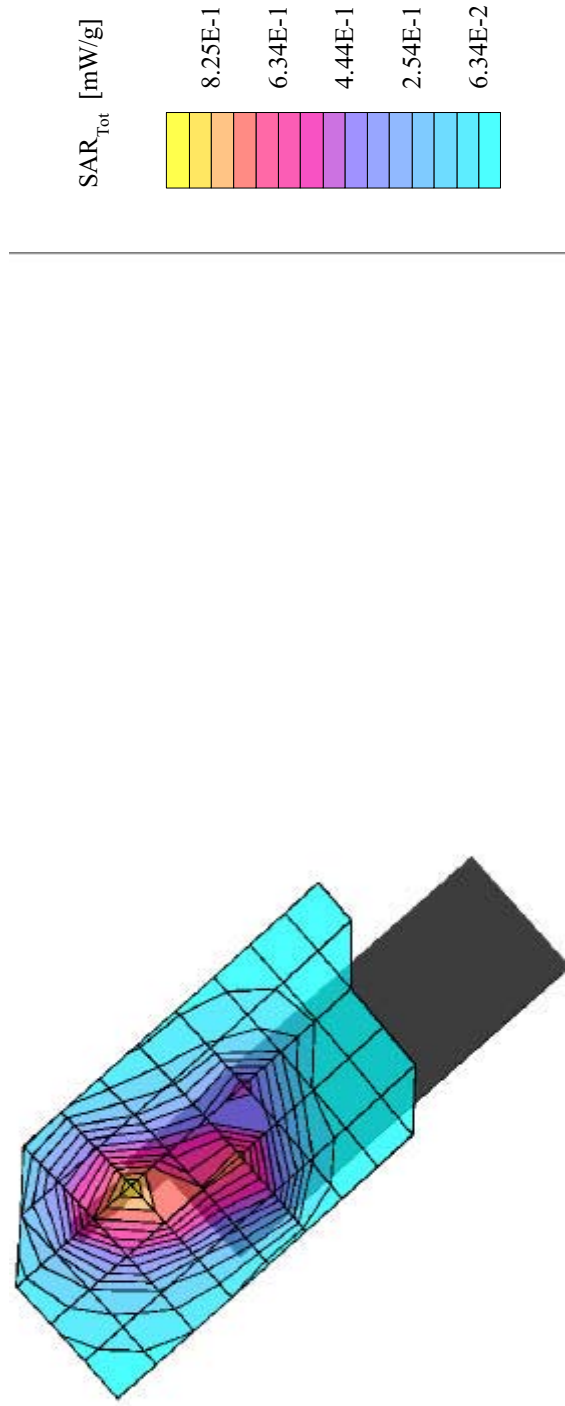
Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Right Head Section; Position: (108°,295°)
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39$ mho/m $\epsilon_r = 38.5$ $\rho = 1.00$ g/cm³
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.03 dB
SAR (1g): 1.37 mW/g, SAR (10g): 0.768 mW/g

Head SAR - Right Ear - Ear/Tilt Position
Antenna Extended
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 0600 [1880.00 MHz]
Conducted Power: 22.3 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



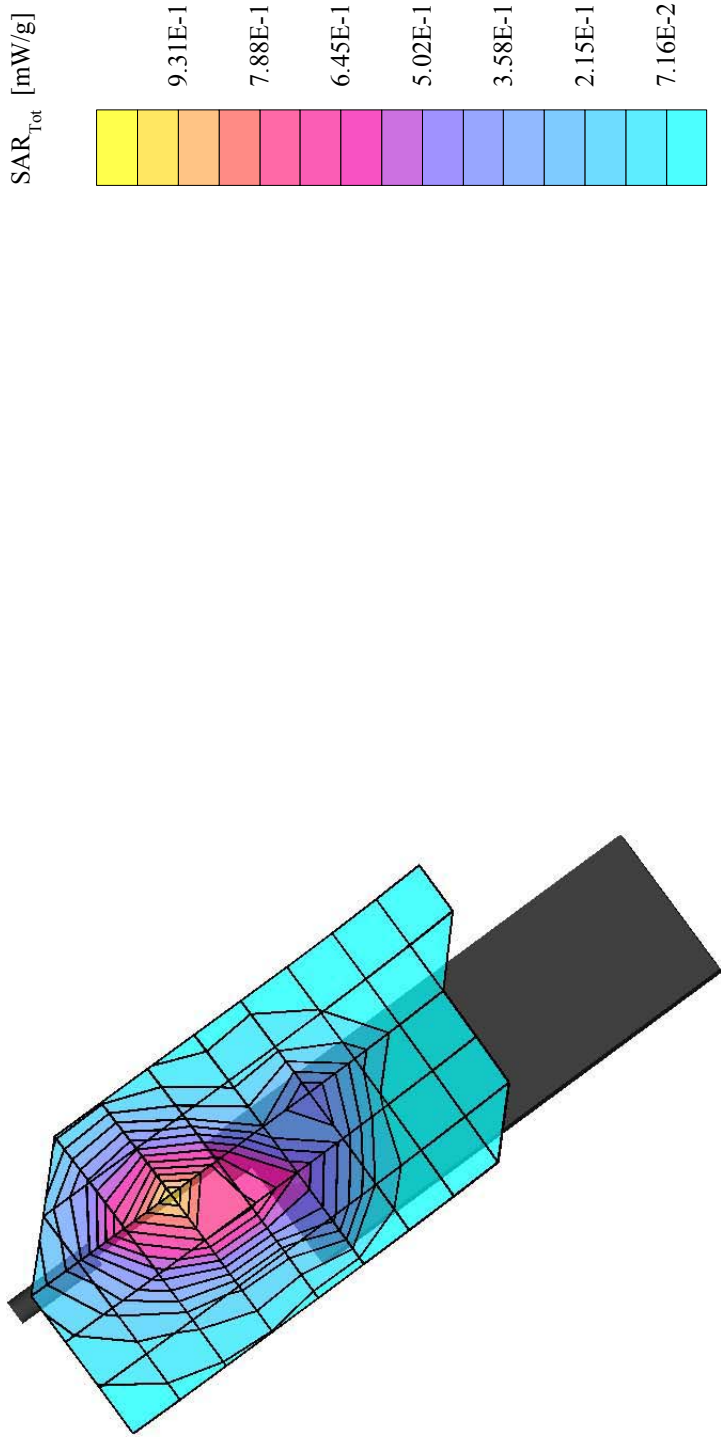
Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Right Head Section; Position: (108°,295°)
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39$ mho/m $\epsilon_r = 38.5$ $\rho = 1.00$ g/cm³
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.08 dB
SAR (1g): 0.860 mW/g, SAR (10g): 0.489 mW/g

Head SAR - Right Ear - Cheek/Touch Position
Antenna Retracted
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 0025 [1851.25 MHz]
Conducted Power: 22.7 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



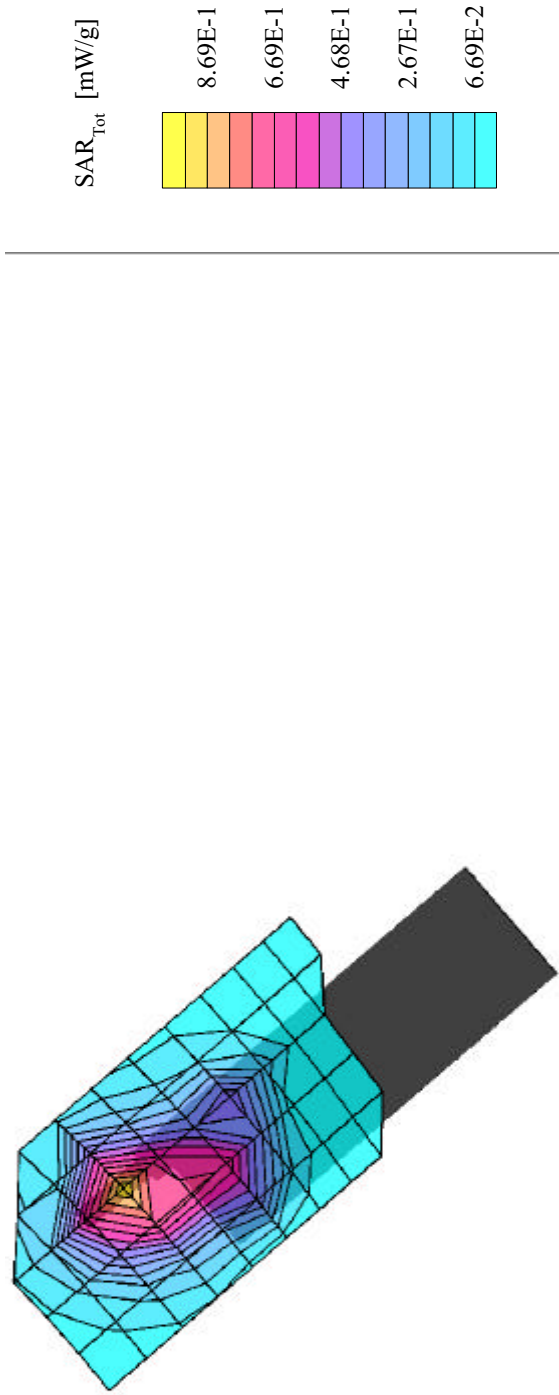
Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Right Head Section; Position: (93°,295°)
Probe: ET3DV6 - SNI387; ConvF(5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39 \text{ mho/m}$ $\epsilon_r = 38.5$ $\rho = 1.00 \text{ g/cm}^3$
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.03 dB
SAR (1g): 0.879 mW/g, SAR (10g): 0.503 mW/g

Head SAR - Right Ear - Cheek/Touch Position
Antenna Extended
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 0025 [1851.25 MHz]
Conducted Power: 22.7 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



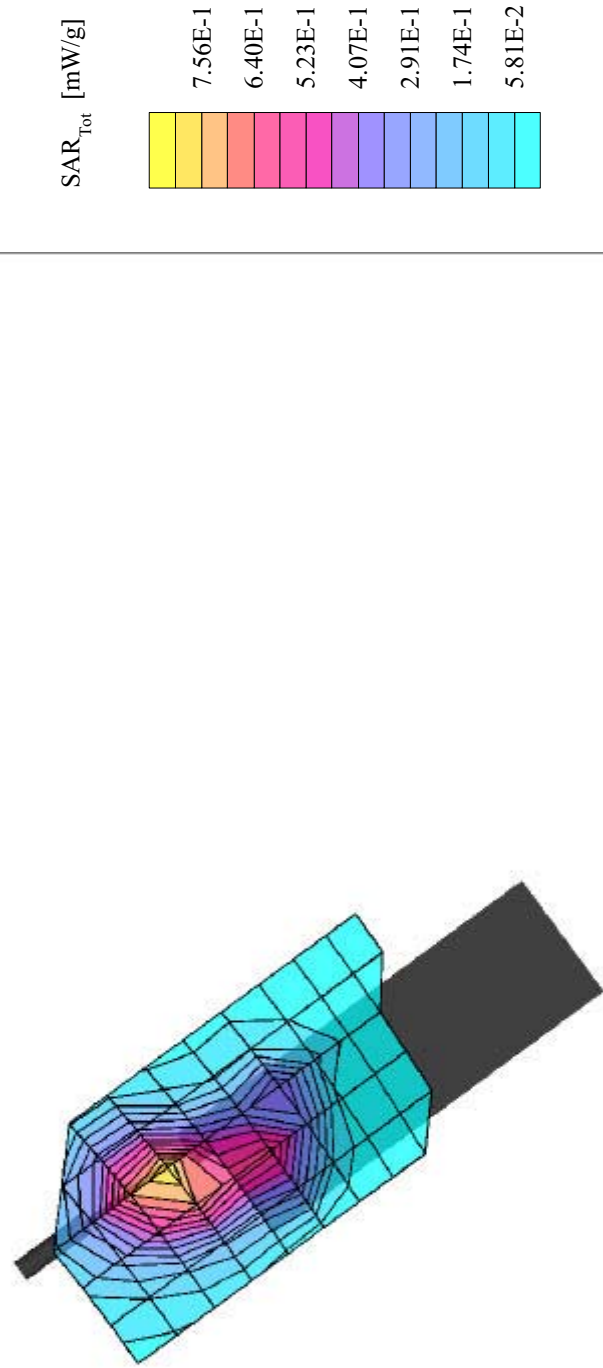
Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Right Head Section; Position: (108°,295°)
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39$ mho/m $\epsilon_r = 38.5$ $\rho = 1.00$ g/cm³
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.04 dB
SAR (1g): 0.860 mW/g, SAR (10g): 0.483 mW/g

Head SAR - Right Ear - Cheek/Touch Position
Antenna Retracted
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 1175 [1908.75 MHz]
Conducted Power: 22.5 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



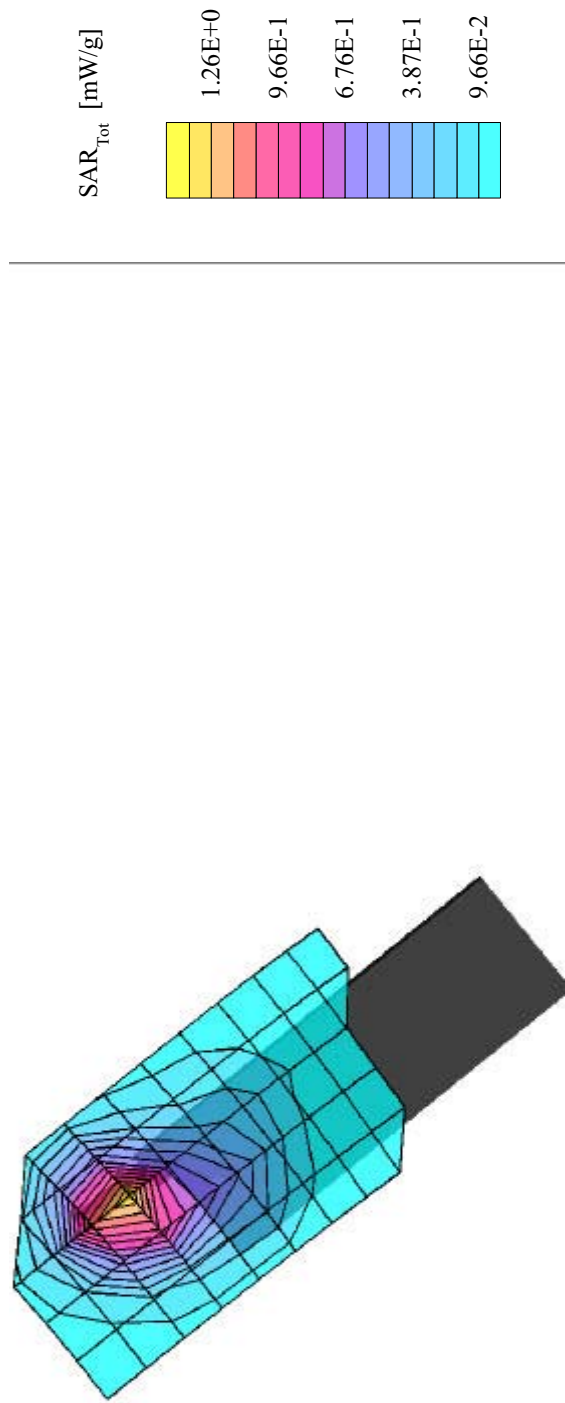
Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Right Head Section; Position: (108°,295°)
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39 \text{ mho/m}$ $\epsilon_r = 38.5$ $\rho = 1.00 \text{ g/cm}^3$
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.02 dB
SAR (1g): 0.804 mW/g, SAR (10g): 0.448 mW/g

Head SAR - Right Ear - Cheek/Touch Position
Antenna Extended
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 1175 [1908.75 MHz]
Conducted Power: 22.5 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



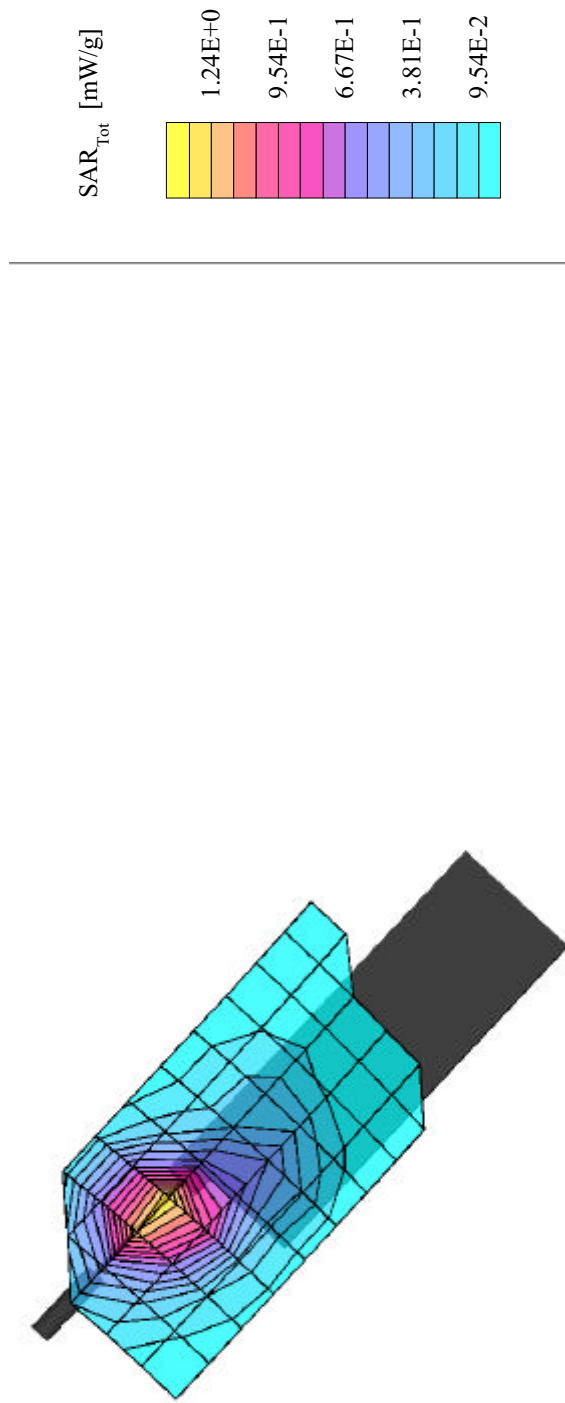
Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Right Head Section; Position: (108°,295°)
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39 \text{ mho/m}$ $\epsilon_r = 38.5$ $\rho = 1.00 \text{ g/cm}^3$
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.02 dB
SAR (1g): 1.28 mW/g, SAR (10g): 0.696 mW/g

Head SAR - Right Ear - Ear/Tilt Position
Antenna Retracted
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 0025 [1851.25 MHz]
Conducted Power: 22.7 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



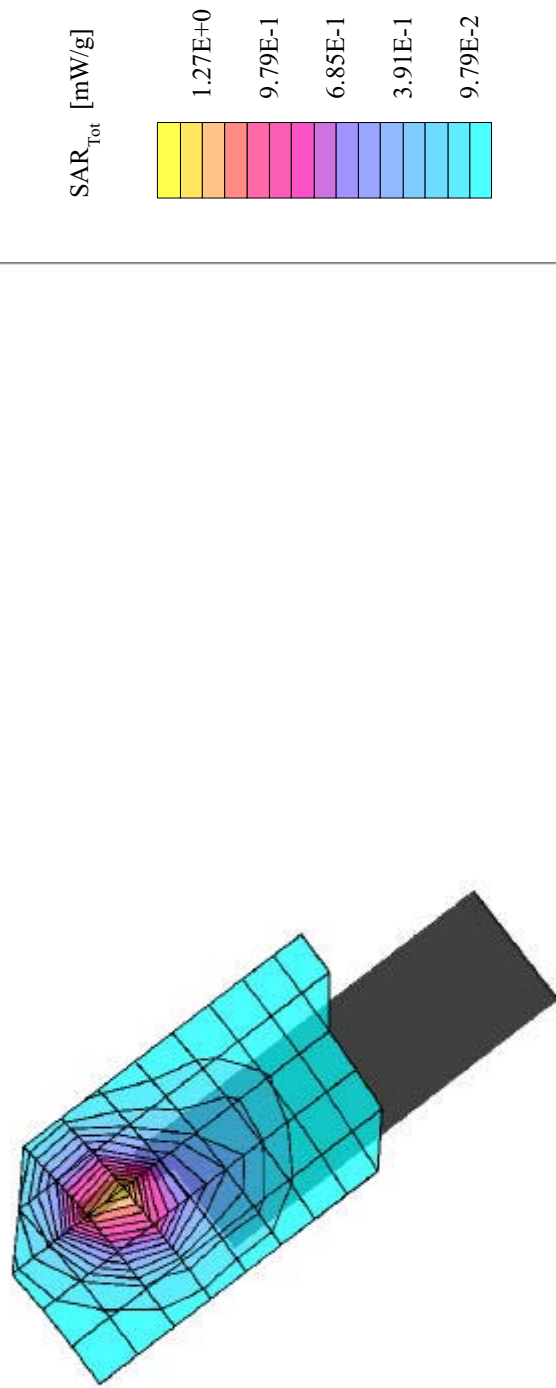
Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Right Head Section; Position: (108°,295°)
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39$ mho/m $\epsilon_r = 38.5$ $\rho = 1.00$ g/cm³
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.01 dB
SAR (1g): 1.29 mW/g, SAR (10g): 0.726 mW/g

Head SAR - Right Ear - Ear/Tilt Position
Antenna Extended
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 0025 [1851.25 MHz]
Conducted Power: 22.7 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Right Head Section; Position: (108°,295°)
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39$ mho/m $\epsilon_r = 38.5$ $\rho = 1.00$ g/cm³
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.05 dB
SAR (1g): 1.33 mW/g, SAR (10g): 0.710 mW/g

Head SAR - Right Ear - Ear/Tilt Position
Antenna Retracted
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 1175 [1908.75 MHz]
Conducted Power: 22.5 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Right Head Section; Position: (108°,295°)
Probe: ET3DV6 - SN1387; ConvF(5.40,5.40,5.40); Crest factor: 1.0
1900 MHz Brain: $\sigma = 1.39$ mho/m $\epsilon_r = 38.5$ $\rho = 1.00$ g/cm³
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.16 dB
SAR (1g): 1.15 mW/g, SAR (10g): 0.633 mW/g

Head SAR - Right Ear - Ear/Tilt Position
Antenna Extended
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 1175 [1908.75 MHz]
Conducted Power: 22.5 dBm
Ambient Temp. 22.5°C; Fluid Temp 23.1°C
Date Tested: October 12, 2002



Hitachi Ltd. FCC ID: ABLSP20
SAM Phantom; Flat Section; Position: (90°,90°)
Probe: ET3DV6 - SN1387; ConvF(5.00,5.00,5.00); Crest factor: 1.0
1900 MHz Muscle: $\sigma = 1.56 \text{ mho/m}$ $\epsilon_r = 53.6$ $\rho = 1.00 \text{ g/cm}^3$
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Cube 5x5x7; Powerdrift: -0.03 dB
SAR (1g): 0.457 mW/g, SAR (10g): 0.281 mW/g

Body SAR - Front Side - 1.0 cm Separation Distance
Antenna Retracted
SH-P300 PCS CDMA Handset
3.7V Lithium-ion Battery (1000mAh)
PCS CDMA Mode
Channel 0600 [1880.00 MHz]
Conducted Power: 22.3 dBm
Ambient Temp. 23.3°C; Fluid Temp 22.5°C
Date Tested: October 16, 2002

