



SAR TEST REPORT (CO-LOCATED)

REPORT NO.: SA970711L09-2

MODEL NO.: SEDN100

RECEIVED: Jul. 11, 2008

TESTED: Jul. 25 ~ Aug. 01, 2008

ISSUED: Aug. 13, 2008

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1. CERTIFICATION

PRODUCT: Pocket PC Phone

MODEL: SEDN100

APPLICANT: HTC Corporation

TESTED: Jul. 25 ~ Aug. 01, 2008

TEST SAMPLE: ENGINEERING SAMPLE

STANDARDS: FCC Part 2 (Section 2.1093)

FCC OET Bulletin 65, Supplement C (01-01)

RSS-102

IEEE 1528-2003

The above equipment (model: SEDN100) have been tested by **Advance Data Technology Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

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2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Pocket PC Phone	
MODEL NO.	SEDN100	
FCC ID	NM8SEDN100	
POWER SUPPLY	3.7Vdc from rechargeable lithium battery 5.0Vdc from power adapter 5.0Vdc from host equipment	
CLASSIFICATION	Portable device, production unit	
MODULATION TYPE	Mobile phone: GMSK / 8PSK / BPSK Wireless LAN: CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM Bluetooth: GFSK, $\pi/4$ -DQPSK, 8DPSK	
FREQUENCY RANGE	Mobile phone: Tx Frequency: 824.2MHz ~ 848.8MHz (GSM band) 1850.2MHz ~ 1909.8MHz (WCDMA band) Rx Frequency: 869.2MHz ~ 893.8MHz (GSM band) 1930.2MHz ~ 1989.8MHz (WCDMA band) Wireless LAN: 2400 ~ 2483.5MHz Bluetooth: 2402 ~ 2480MHz	
CHANNEL FREQUENCIES UNDER TEST AND ITS CONDUCTED OUTPUT POWER	GSM850	1.959W / 836.6MHz for channel 128 1.972W / 836.6MHz for channel 190 1.968W / 836.6MHz for channel 251
	WCDMA850 band:	0.207W / 826.4MHz for channel 4132 0.217W / 836.4MHz for channel 4182 0.218W / 846.6MHz for channel 4233
	PCS1900 band:	0.916W / 1850.2MHz for channel 512 0.897W / 1880.0MHz for channel 661 0.841W / 1909.8MHz for channel 810
	WCDMA1900 band:	0.225W / 1852.4MHz for channel 9262 0.213W / 1880.0MHz for channel 9400 0.215W / 1907.6MHz for channel 9538
	Wireless LAN	802.11b: 57.943mW / Ch6: 2437MHz 802.11g: 113.240mW / Ch6: 2437MHz
	Bluetooth	0.933mW / Ch78: 2480MHz
MAX. AVERAGE SAR (1g)	Head:	0.684W/kg (GSM850) 0.393W/kg (WCDMA850) 0.713W/kg (GSM1900) 1.470W/kg (WCDMA1900) 0.014W/kg (Wireless LAN & Bluetooth)
	Body:	1.300W/kg (GSM850) 0.265W/kg (WCDMA850) 0.490W/kg (GSM1900) 0.194W/kg (WCDMA1900) 0.012W/kg (Wireless LAN & Bluetooth)

ANTENNA TYPE(S)	Mobile: Monopole antenna Wireless LAN: PIFA antenna Bluetooth: PIFA antenna	
MAX. ANTENNA GAIN	850MHz: 0dBi	1900MHz: 0dBi
	2.4GHz: 1dBi	Bluetooth: 1dBi
DATA CABLE	1.28m shielded USB cable without core	
I/O PORTS	Refer to user's manual	
ACCESSORY DEVICES	Adapter, Battery, earphone (1.50m non-shielded cable without core)	

NOTE:

1. The EUT is an Pocket PC Phone. The functions of EUT listed as below:

	REFERENCE REPORT
WLAN + Bluetooth	SA970711L09-1
GSM850 / WCDMA850	SA970711L09
PCS1900 / WCDMA1900	
Mobile + WLAN + Bluetooth (Co-located)	SA970711L09-2

2. The communicated functions of EUT listed as below:

		GSM 850MHz	PCS 1900MHz	WCDMA 850MHz	WCDMA 1900MHz	With 802.11b/g WLAN + Bluetooth 2.0 w EDR
2G	GSM	√	√			
	GPRS	√	√			
	EDGE	√	√			
3G	WCDMA			√	√	
	Release 5 HSDPA			√	√	

3. The EUT has lithium batteries listed as below:

BATTERY :	
BRAND:	HTC
MODEL:	TRIN160
RATING:	3.7Vdc, 1500mAh

4. The EUT were operated with following power adapters:

ADAPTER A :	
BRAND:	PHIHONG
MODEL:	PSAA05A-050
INPUT:	100-240Vac, 200mA, 50-60Hz, 13-20VA
OUTPUT:	5Vdc, 1A
POWER LINE:	1.8m non-shielded cable without core

ADAPTER B :	
BRAND:	DELTA ELECTRONICS. INC.
MODEL:	ADP-5FH B
INPUT:	100-240Vac, 0.2A, 50-60Hz
OUTPUT:	5Vdc, 1A
POWER LINE:	1.8m non-shielded cable without core

5. IMEI Code: 35604001*****
6. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.
7. Bluetooth/WLAN will not transmit at the same time, time division is defined by software.

2.2 SAR MEASUREMENT CONDITIONS FOR WCDMA

The following procedures were followed according to FCC “SAR Measurement Procedure for 3G Devices”, October 2007.

➤ **Output Power Verification**

Maximum output power is verified on the High, Middle and Low channels according to the procedures described in section 5.2 of 3GPP TS 34.121, using the appropriate RMC or AMR with TPC (transmit power control) set to all “1” s” for WCDMA/HSDPA or applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HSDPA, HSPA) should be tabulated in the SAR report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations should be clearly identified.

➤ **Head SAR Measurement**

SAR for head exposure configurations in voice mode is measured using a 12.2 kbps RMC with TPC bits configured to all “1” s” . SAR in AMR configurations is not required when the maximum average output of each RF channel for 12.2 kbps AMR is less than ¼ dB higher than that measured in 12.2 kbps RMC. Otherwise, SAR is measured on the maximum output channel in 12.2 kbps AMR with a 3.4 kbps SRB (signaling radio bearer) using the exposure configuration that results in the highest SAR in 12.2 kbps RMC for that RF channel.

➤ **Body SAR Measurements**

SAR for body exposure configurations in voice and data modes is measured using a 12.2 kbps RMC with TPC bits configured to all “1” s” . SAR for other spreading codes and multiple DPDCHn, when supported by the DUT, are not required when the maximum average output of each RF channel, for each spreading code and DPDCHn configuration, are less than ¼ dB higher than those measured in 12.2 kbps RMC. Otherwise, SAR is measured on the maximum output channel with an applicable RMC configuration for the corresponding spreading code or DPDCHn using the exposure configuration that results in the highest SAR with 12.2 kbps RMC. When more than 2 DPDCHn are supported by the DUT, it may be necessary to configure additional DPDCHn for a DUT using FTM (Factory Test Mode) or other chipset based test approaches with parameters similar to those used in 384 kbps and 768 kbps RMC.

➤ **Handsets with Release 5 HSDPA**

Body SAR is not required for handsets with HSDPA capabilities when the maximum average output of each RF channel with HSDPA active is less than ¼ dB higher than that measured without HSDPA using 12.2 kbps RMC and the maximum SAR for 12.2 kbps RMC is $\leq 75\%$ of the SAR limit. Otherwise, SAR is measured for HSDPA, using the additional body SAR procedures in the “Release 5 HSDPA Data Devices” section of this document, on the maximum output channel with the body exposure configuration that results in the highest SAR in 12.2 kbps RMC for that RF channel. Handsets with both HSDPA and HSUPA should be tested according to Release 6 HSPA test procedures.



2.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

According to the specifications of the manufacturer, this product must comply with the requirements of the following standards:

RSS-102

FCC 47 CFR Part 2 (2.1093)

FCC OET Bulletin 65, Supplement C (01- 01)

IEEE 1528-2003

All test items have been performed and recorded as per the above standards.



2.4 GENERAL INFORMATION OF THE SAR SYSTEM

DASY4 (software 4.7 Build 53) consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY4 software defined. The DASY4 software can define the area that is detected by the probe. The robot is connected to controlled box. Controlled measurement server is connected to the controlled robot box. The DAE includes amplifier, signal multiplexing, AD converter, offset measurement and surface detection. It is connected to the Electro-optical coupler (ECO). The ECO performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC.

ET3DV6 ISOTROPIC E-FIELD PROBE

CONSTRUCTION	Symmetrical design with triangular core. Built-in optical fiber for surface detection system. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., glycoether).
FREQUENCY	10MHz to 3GHz; Linearity: ± 0.2 dB (30MHz to 3GHz)
DYNAMIC RANGE	5 μ W/g to > 100mW/g; Linearity: ± 0.2 dB
OPTICAL SURFACE DETECTION	± 0.2 mm repeatability in air and clear liquids over diffuse reflecting surfaces
DIMENSIONS	Overall length: 330mm (Tip Length: 16mm) Tip diameter: 6.8mm (Body diameter: 12mm) Distance from probe tip to dipole centers: 2.7mm
APPLICATION	General dosimetric measurements up to 3GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms (ET3DV6)

NOTE

1. The Probe parameters have been calibrated by the SPEAG. Please reference "APPENDIX D" for the Calibration Certification Report.
2. For frequencies above 800MHz, calibration in a rectangular wave-guide is used, because wave-guide size is manageable.
3. For frequencies below 800MHz, temperature transfer calibration is used because the wave-guide size becomes relatively large.



TWIN SAM V4.0

CONSTRUCTION The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528-2003, EN 62209-1 and IEC 62209. 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 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 with the robot.

SHELL THICKNESS 2 ± 0.2 mm

FILLING VOLUME Approx. 25 liters

DIMENSIONS Height: 810 mm; Length: 1000 mm; Width: 500 mm

SYSTEM VALIDATION KITS:

CONSTRUCTION	Symmetrical dipole with 1/4 balun Enables measurement of feedpoint impedance with NWA Matched for use near flat phantoms filled with brain simulating solutions Includes distance holder and tripod adaptor
CALIBRATION	Calibrated SAR value for specified position and input power at the flat phantom in brain simulating solutions
FREQUENCY	835, 1900, 2450MHz
RETURN LOSS	> 20 dB at specified validation position
POWER CAPABILITY	> 100 W ($f < 1\text{GHz}$); > 40 W ($f > 1\text{GHz}$)
OPTIONS	Dipoles for other frequencies or solutions and other calibration conditions upon request

DEVICE HOLDER FOR SAM TWIN PHANTOM

CONSTRUCTION

The device holder for the GSM900/DCS1800/PCS1900 GSM/GPRS/CDMA Mobile Phone device is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation centers for both scales is the ear reference point (ERP). Thus the device needs no repositioning when changing the angles. The holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity $\epsilon = 3$ and loss tangent $\delta = 0.02$. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered. The device holder for the portable device makes up of the polyethylene foam. The dielectric parameters of material close to the dielectric parameters of the air.

DATA ACQUISITION ELECTRONICS

CONSTRUCTION

The data acquisition electronics (DAE3) consists of a highly sensitive electrometer grade preamplifier with auto-zeroing, a channel and gain-switching multiplex, a fast 16 bit AD converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock. The mechanical probe is mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection. The input impedance of the DAE3 box is 200M Ω ; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

2.5 GENERAL DESCRIPTION OF THE SPATIAL PEAK SAR EVALUATION

The DASY4 post-processing software (SEMCAD) automatically executes the following procedures to calculate the field units from the micro-volt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software:

Probe parameters:	- Sensitivity	Norm _i , a _{i0} , a _{i1} , a _{i2}
	- Conversion factor	ConvF _i
	- Diode compression point	dcp _i
Device parameters:	- Frequency	F
	- Crest factor	Cf
Media parameters:	- Conductivity	σ
	- Density	ρ

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:

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

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:

$$\text{E-field probes: } E_i = \sqrt{\frac{V_i}{\text{Norm}_i \cdot \text{Conv}F}}$$

$$\text{H-field probes: } H_i = \sqrt{V_i} \cdot \frac{a_{i0} + a_{i1}f + a_{i2}f^2}{f}$$

- V_i = compensated signal of channel i ($i = x, y, z$)
 Norm_i = sensor sensitivity of channel i $\mu\text{V}/(\text{V/m})^2$ for ($i = x, y, z$)
 E-field Probes
 $\text{Conv}F$ = sensitivity enhancement in solution
 a_{ij} = sensor sensitivity factors for H-field probes
 F = carrier frequency [GHz]
 E_i = electric field strength of channel i in V/m
 H_i = magnetic field strength of channel i in A/m

The RSS value of the field components gives the total field strength (Hermitian 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.

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1'000}$$

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

Note that the density is set to 1, to account for actual head tissue density rather than the density of the tissue simulating liquid. The entire evaluation of the spatial peak values is performed within the Post-processing engine (SEMCAD). The system always gives the maximum values for the 1 g and 10 g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

1. The extraction of the measured data (grid and values) from the Zoom Scan
2. The calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
3. The generation of a high-resolution mesh within the measured volume
4. The interpolation of all measured values from the measurement grid to the high-resolution grid
5. The extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
6. The calculation of the averaged SAR within masses of 1 g and 10 g.

The probe is calibrated at the center of the dipole sensors that is located 1 to 2.7mm away from the probe tip. During measurements, the probe stops shortly above the phantom surface, depending on the probe and the surface detecting system. Both distances are included as parameters in the probe configuration file. The software always knows exactly how far away the measured point is from the surface. As the probe cannot directly measure at the surface, the values between the deepest measured point and the surface must be extrapolated. The angle between the probe axis and the surface normal line is less than 30 degree.

In the Area Scan, the gradient of the interpolation function is evaluated to find all the extreme of the SAR distribution. The uncertainty on the locations of the extreme is less than 1/20 of the grid size. Only local maximum within -2 dB of the global maximum are searched and passed for the Cube Scan measurement. In the Cube Scan, the interpolation function is used to extrapolate the Peak SAR from the lowest measurement points to the inner phantom surface (the extrapolation distance). The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5mm.

The maximum search is automatically performed after each area scan measurement. It is based on splines in two or three dimensions. The procedure can find the maximum for most SAR distributions even with relatively large grid spacing. After the area scanning measurement, the probe is automatically moved to a position at the interpolated maximum. The following scan can directly use this position for reference, e.g., for a finer resolution grid or the cube evaluations. The 1g and 10g peak evaluations are only available for the predefined cube 7 x 7 x 7 scans. The routines are verified and optimized for the grid dimensions used in these cube measurements. The measured volume of 30 x 30 x 30mm contains about 30g of tissue. The first procedure is an extrapolation (incl. boundary correction) to get the points between the lowest measured plane and the surface. The next step uses 3D interpolation to get all points within the measured volume in a 1mm grid (42875 points). In the last step, a 1g cube is placed numerically into the volume and its averaged SAR is calculated. This cube is then moved around until the highest averaged SAR is found. If the highest SAR is found at the edge of the measured volume, the system will issue a warning: higher SAR values might be found outside of the measured volume. In that case the cube measurement can be repeated, using the new interpolated maximum as the center.

3. DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit.

4. DESCRIPTION OF TEST POSITION

4.1 DESCRIPTION OF TEST POSITION

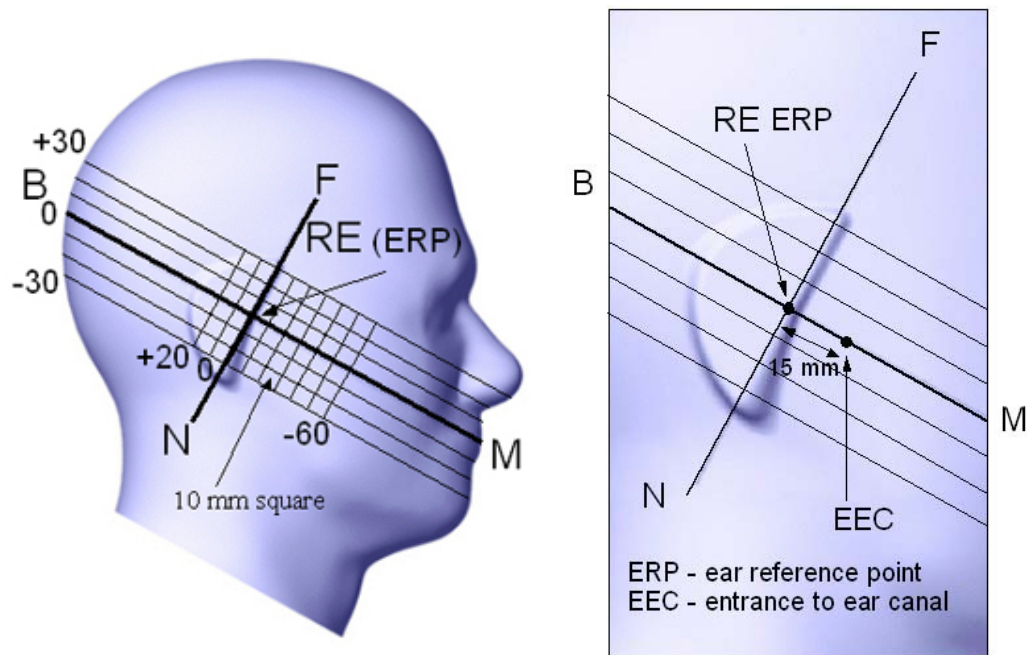


FIGURE 3.1

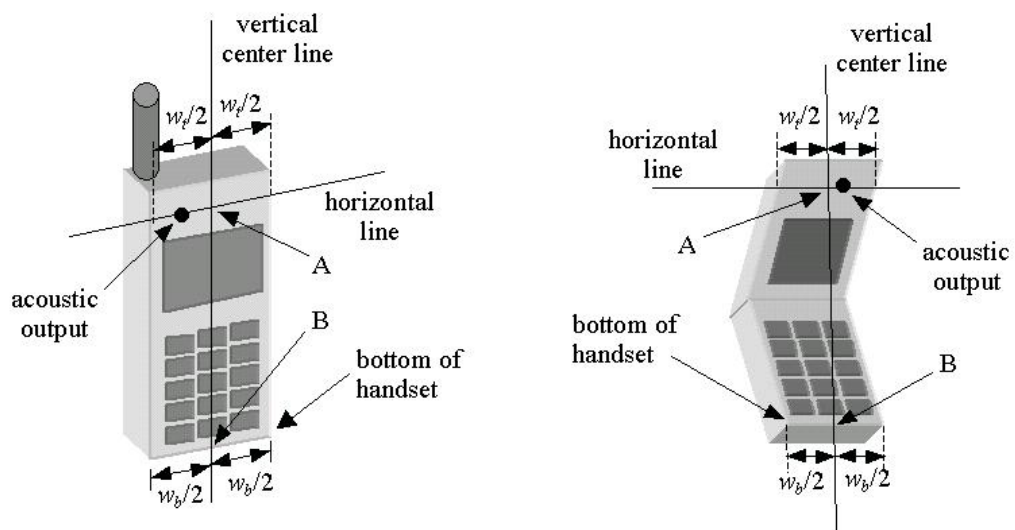
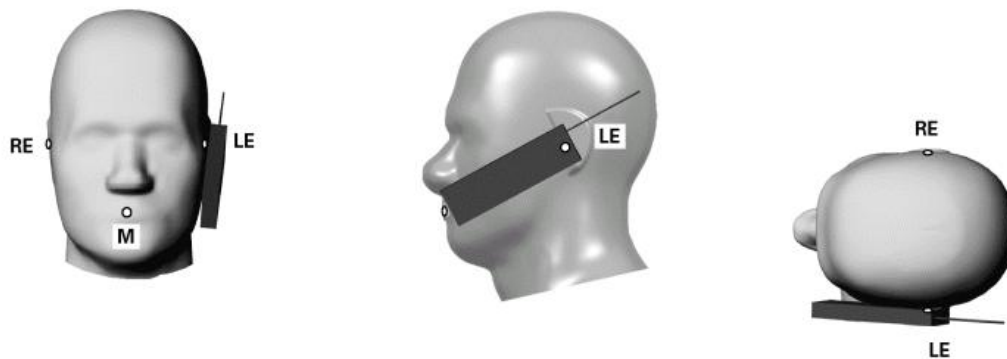


FIGURE 3.1a

FIGURE 3.1b

4.2.1 TOUCH/CHEEK TEST POSITION

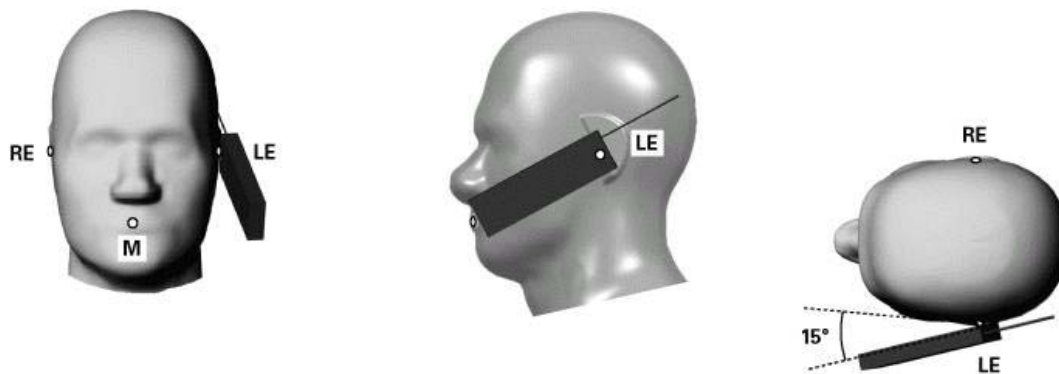
The head position in Figure 3.1, the ear reference points ERP are 15mm above entrance to ear canal along the B-M line. The line N-F (Neck-Front) is perpendicular to the B-M (Back Mouth) line. The handset device in Figure 3.1a and 3.1b, The vertical centerline pass through two points on the front side of handset: the midpoint of the width w_t of the handset at the level of the acoustic output (point A) and the midpoint of the width w_b of the bottom of the handset (point B). The vertical centerline is perpendicular to the horizontal line and pass through the center of the acoustic output. The point A touches the ERP and the vertical centerline of the handset is parallel to the B-M line. While maintaining the point A contact with the ear(ERP), rotate the handset about the line NF until any point on handset is in contact with the cheek of the phantom



TOUCH/CHEEK POSITION FIGURE

4.2.2 TILT TEST POSITION

Adjust the device in the cheek position. While maintaining a point of the handset contact in the ear, move the bottom of the handset away from the mouth by an angle of 15 degrees.



TILT POSITION FIGURE

4.2.3 BODY-WORN CONFIGURATION

The handset device attached the belt clip or the holster. The keypad face of the handset is against with the bottom of the flat phantom face and the bottom of the keypad face contact to the bottom of the flat phantom.

When multiple accessories that do not contain metallic components are supplied with the device, the device may be tested with only the accessory that dictates the closest spacing to the body. When multiple accessories that contain metallic components are supplied with the device, the device must be tested with each accessory that contains a unique metallic component. If multiple accessories share an identical metallic component (e.g., the same metallic belt-clip used with different holsters with no other metallic components), only accessory that dictates the closest spacing to the body must be tested.

4.2 DESCRIPTION OF TEST MODE

TEST MODE	COMMUNICATION MODE	MODULATION TYPE	ASSESSMENT POSITION	TESTED CHANNEL
1	GSM850+802.11b	NOTE 1	A / Cheek	NOTE 1
2	GSM850+ Bluetooth	NOTE 1	A / Cheek	NOTE 1
3	PCS1900+802.11b	NOTE 1	A / Cheek	NOTE 1
4	PCS1900+ Bluetooth	NOTE 1	A / Cheek	NOTE 1
5	WCDMA850+802.11b	NOTE 1	A / Cheek	NOTE 1
6	WCDMA850+ Bluetooth	NOTE 1	A / Cheek	NOTE 1
7	WCDMA1900+802.11b	NOTE 1	A / Cheek	NOTE 1
8	WCDMA1900+ Bluetooth	NOTE 1	A / Cheek	NOTE 1
9	GPRS850 TS4+802.11b	NOTE 1	C : Body / Bottom	NOTE 1
10	GPRS850 TS4+ Bluetooth	NOTE 1	C : Body / Bottom	NOTE 1
11	GPRS1900 TS4+802.11b	NOTE 1	C : Body / Bottom	NOTE 1
12	GPRS1900 TS4+ Bluetooth	NOTE 1	C : Body / Bottom	NOTE 1
13	WCDMA850+802.11b	NOTE 1	C : Body / Bottom	NOTE 1
14	WCDMA850+ Bluetooth	NOTE 1	C : Body / Bottom	NOTE 1
15	WCDMA1900+802.11b	NOTE 1	C : Body / Bottom	NOTE 1
16	WCDMA1900+ Bluetooth	NOTE 1	C : Body / Bottom	NOTE 1

NOTE: 1. The combination is from the worst situation of each communication mode.
 2. Assessment position A: Right head position, B: Left head position, C: Body position, please refer to appendix E for the photo.

4.3 SUMMARY OF TEST RESULTS

The worst situation has been chosen from the above table, and make up following combinations for the test of co-location listed as below.

TEST MODE	DESCRIPTION	MEASURED VALUE OF 1g SAR (W/kg)
1	GSM850+802.11b	0.684
2	GSM850+ Bluetooth	0.684
3	PCS1900+802.11b	0.713
4	PCS1900+ Bluetooth	0.713
5	WCDMA850+802.11b	0.393
6	WCDMA850+ Bluetooth	0.393
7	WCDMA1900+802.11b	1.470
8	WCDMA1900+ Bluetooth	1.470
9	GPRS850 TS4+802.11b	1.300
10	GPRS850 TS4+ Bluetooth	1.300
11	GPRS1900 TS4+802.11b	0.490
12	GPRS1900 TS4+ Bluetooth	0.490
13	WCDMA850+802.11b	0.265
14	WCDMA850+ Bluetooth	0.265
15	WCDMA1900+802.11b	0.194
16	WCDMA1900+ Bluetooth	0.194

5. TEST RESULTS

5.1 TEST PROCEDURES

For Mobile Phone:

The EUT (Pocket PC Phone) makes a phone call to the communication simulator station. Establish the simulation communication configuration rather the actual communication. Then the EUT could continuous the transmission mode. Adjust the PCL of the base station could controlled the EUT to transmitted the maximum output power. The base station also could control the transmission channel. The SAR value was calculated via the 3D spline interpolation algorithm that has been implemented in the software of DASY4 SAR measurement system manufactured and calibrated by SPEAG. According to the IEEE 1528 / EN 62209-1, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

For WLAN & Bluetooth:

The EUT (Pocket PC Phone) use the software to control the EUT channel and transmission power. Then record the conducted power before the testing. Place the EUT to the specific test location. After the testing, must writing down the conducted power of the EUT into the report. The SAR value was calculated via the 3D spline interpolation algorithm that has been implemented in the software of DASY4 SAR measurement system manufactured and calibrated by SPEAG. According to the IEEE P1528 / EN 62209-1 standards, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- Power reference measurement
- Verification of the power reference measurement
- Area scan
- Zoom scan
- Power reference measurement

The area scan with 15mm x 15mm grid was performed for the highest spatial SAR location. Consist of 11 x 13 points while the scan size is the 150mm x 180mm. The zoom scan with 30mm x 30mm x 30mm volume was performed for SAR value averaged over 1g and 10g spatial volumes.



In the zoom scan, the distance between the measurement point at the probe sensor location (geometric center behind the probe tip) and the phantom surface is 4.0 mm and maintained at a constant distance of ± 1.0 mm during a zoom scan to determine peak SAR locations. The distance is 4mm between the first measurement point and the bottom surface of the phantom. The secondary measurement point to the bottom surface of the phantom is with 9mm separation distance. The cube size is 7 x 7 x 7 points consist of 343 points and the grid space is 5mm.

The measurement time is 0.5 s at each point of the zoom scan. The probe boundary effect compensation shall be applied during the SAR test. Because of the tip of the probe to the Phantom surface separated distances are longer than half a tip probe diameter.

In the area scan, the separation distance is 4mm between the each measurement point and the phantom surface. The scan size shall be included the transmission portion of the EUT. The measurement time is the same as the zoom scan. At last the reference power drift shall be less than $\pm 5\%$.

5.2 MEASURED SAR RESULTS

GSM850+WLAN (802.11b) BAND RIGHT / CHEEK HEAD POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.4°C, Liquid Temperature : 22.2°C Humidity : 59%RH					
TESTED BY		Sam Ong			DATE		Aug. 01, 2008
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
190	836.6 (Mid.)	GMSK	1.972W	1.957W	-0.76	1	0.684
6	2437 (Mid.)	802.11b	57.943mW	57.580mW	-0.63		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

GSM850+ BLUETOOTH BAND RIGHT / CHEEK HEAD POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.4°C, Liquid Temperature : 22.2°C Humidity : 59%RH					
TESTED BY		Sam Ong			DATE		Aug. 01, 2008
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
190	836.6 (Mid.)	GMSK	1.972W	1.957W	-0.76	2	0.684
78	2480 (High)	Bluetooth	0.933mW	0.918mW	-1.61		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

PCS1900+ WLAN (802.11b) BAND RIGHT / CHEEK HEAD POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.4°C, Liquid Temperature : 22.2°C Humidity : 59%RH					
TESTED BY		Sam Onn			DATE		Aug. 01, 2008
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
661	1880.0 (Mid.)	GMSK	0.897W	0.887W	-1.11	3	0.713
6	2437 (Mid.)	802.11b	57.943mW	57.580mW	-0.63		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

PCS1900+ BLUETOOTH BAND RIGHT / CHEEK HEAD POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.4°C, Liquid Temperature : 22.2°C Humidity : 59%RH					
TESTED BY		Sam Onn			DATE		Aug. 01, 2008
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
661	1880.0 (Mid.)	GMSK	0.897W	0.887W	-1.11	4	0.713
78	2480 (High)	Bluetooth	0.933mW	0.918mW	-1.61		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

WCDMA850+WLAN (802.11b) BAND RIGHT / CHEEK HEAD POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.4°C, Liquid Temperature : 22.2°C Humidity : 59%RH					
TESTED BY		Sam Onn			DATE		Aug. 01, 2008
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
4182	836.4 (Mid.)	BPSK	0.217W	0.215W	-0.92	5	0.393
6	2437 (Mid.)	802.11b	57.943mW	57.580mW	-0.63		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

WCDMA 850+ BLUETOOTH BAND RIGHT / CHEEK HEAD POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.4°C, Liquid Temperature : 22.2°C Humidity : 59%RH					
TESTED BY		Sam Onn			DATE		Aug. 01, 2008
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
4182	836.4 (Mid.)	BPSK	0.217W	0.215W	-0.92	6	0.393
78	2480 (High)	Bluetooth	0.933mW	0.918mW	-1.61		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

WCDMA 1900+ WLAN (802.11b) BAND RIGHT / CHEEK HEAD POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.4°C, Liquid Temperature : 22.2°C Humidity : 59%RH					
TESTED BY		Sam Onn			DATE		Aug. 01, 2008
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
9262	1852.4 (Low)	BPSK	0.225W	0.223W	-0.89	7	1.470
6	2437 (Mid.)	802.11b	57.943mW	57.580mW	-0.63		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

WCDMA 1900+ BLUETOOTH BAND RIGHT / CHEEK HEAD POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.4°C, Liquid Temperature : 22.2°C Humidity : 59%RH					
TESTED BY		Sam Onn			DATE		Aug. 01, 2008
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
9262	1852.4 (Low)	BPSK	0.225W	0.223W	-0.89	8	1.470
78	2480 (High)	Bluetooth	0.933mW	0.918mW	-1.61		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

GSM850+WLAN (802.11b) BAND BODY POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.1°C, Liquid Temperature : 22.0°C Humidity : 61%RH					
TESTED BY		Sam Onn			DATE	Aug. 01, 2008	
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
251	848.8 (High)	GPRS	1.884W	1.861W	-1.22	9	1.300
6	2437 (Mid.)	802.11b	57.943mW	57.352mW	-1.02		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

GSM850+ BLUETOOTH BAND BODY POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.1°C, Liquid Temperature : 22.0°C Humidity : 61%RH					
TESTED BY		Sam Onn			DATE	Aug. 01, 2008	
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
251	848.8 (High)	GPRS	1.884W	1.861W	-1.22	10	1.300
78	2480 (High)	Bluetooth	0.933mW	0.914mW	-2.04		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

GPRS1900+WLAN (802.11b) BAND BODY POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.1°C, Liquid Temperature : 22.0°C Humidity : 61%RH					
TESTED BY		Sam Ong			DATE	Aug. 01, 2008	
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
661	1880.0 (Mid.)	GPRS	0.875W	0.867W	-0.91	11	0.490
6	2437 (Mid.)	802.11b	57.943mW	57.352mW	-1.02		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

GPRS1900+ BLUETOOTH BAND BODY POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.1°C, Liquid Temperature : 22.0°C Humidity : 61%RH					
TESTED BY		Sam Ong			DATE	Aug. 01, 2008	
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
661	1880.0 (Mid.)	GPRS	0.875W	0.867W	-0.91	12	0.490
78	2480 (High)	Bluetooth	0.933mW	0.914mW	-2.04		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

WCDMA850+WLAN (802.11b) BAND BODY POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.1°C, Liquid Temperature : 22.0°C Humidity : 61%RH					
TESTED BY		Sam Onn			DATE	Aug. 01, 2008	
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
4182	836.4 (Mid.)	BPSK	0.217W	0.216W	-0.46	13	0.265
6	2437 (Mid.)	802.11b	57.943mW	57.352mW	-1.02		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

WCDMA850+ BLUETOOTH BAND BODY POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.1°C, Liquid Temperature : 22.0°C Humidity : 61%RH					
TESTED BY		Sam Onn			DATE	Aug. 01, 2008	
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
4182	836.4 (Mid.)	BPSK	0.217W	0.216W	-0.46	14	0.265
78	2480 (High)	Bluetooth	0.933mW	0.914mW	-2.04		

NOTE:

5. Test configuration of each mode is described in section 3.
6. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
7. Please see the Appendix A for the data.
8. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

WCDMA 1900+WLAN (802.11b) BAND BODY POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.1°C, Liquid Temperature : 22.0°C Humidity : 61%RH					
TESTED BY		Sam Onn			DATE	Aug. 01, 2008	
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
9400	1880.0 (Mid.)	BPSK	0.213W	0.211W	-0.94	15	0.194
6	2437 (Mid.)	802.11b	57.943mW	57.352mW	-1.02		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

WCDMA1900+ BLUETOOTH BAND BODY POSITION

ENVIRONMENTAL CONDITION		Air Temperature : 23.1°C, Liquid Temperature : 22.0°C Humidity : 61%RH					
TESTED BY		Sam Onn			DATE	Aug. 01, 2008	
CHAN.	FREQ. (MHz)	MODULATION TYPE	CONDUCTED POWER		POWER DRIFT (%)	DEVICE TEST POSITION MODE	MEASURED 1g SAR (W/kg)
			BEGIN TEST	AFTER TEST			
9400	1880.0 (Mid.)	BPSK	0.213W	0.211W	-0.94	16	0.194
78	2480 (High)	Bluetooth	0.933mW	0.914mW	-2.04		

NOTE:

1. Test configuration of each mode is described in section 3.
2. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.



6. INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	FCC, UL
GERMANY	TUV Rheinland
JAPAN	VCCI
NORWAY	NEMKO
CANADA	INDUSTRY CANADA , CSA
R.O.C.	TAF, BSMI, NCC
NETHERLANDS	Telefication
SINGAPORE	GOST-ASIA (MOU)
RUSSIA	CERTIS (MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site:

www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety/Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3185050

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

---END---

Test Laboratory: Advance Data Technology

M01-Right Head-Cheek-GSM850 Ch190+11b Ch6**DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 836.6 MHz Frequency: 2437 MHz**

Communication System: PCS 850 Communication System: 802.11b ; Frequency: 836.6 MHz Frequency: 2437 MHz ; Duty Cycle: 1:8.3 Duty Cycle: 1:1

Medium: HSL835 Medium: HSL2450 Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2437$ MHz; $\sigma = 1.83$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³ ;
Liquid level: 150 mm

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: GMSK

Antenna type : monopole Antenna ; Air temp. : 23.2 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(6.65, 6.65, 6.65)ConvF(4.74, 4.74, 4.74) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch position - Mid Channel 190/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.759 mW/g

Touch position - Mid Channel 190/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.7 V/m

Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.684 mW/g; SAR(10 g) = 0.404 mW/g

Maximum value of SAR (measured) = 0.753 mW/g

Touch position - Mid Channel 6/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

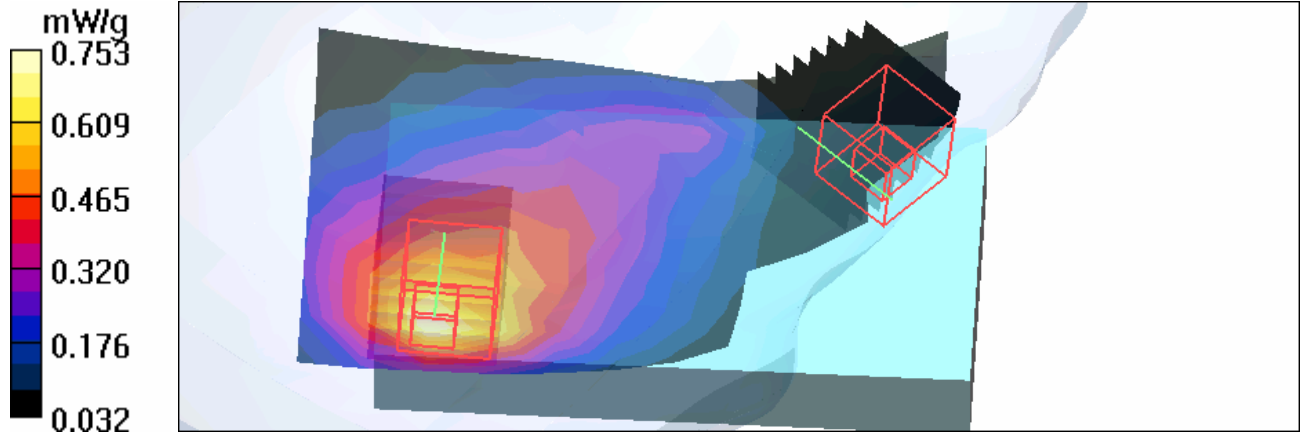
dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.920 V/m

Peak SAR (extrapolated) = 0.081 W/kg

SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00404 mW/g

Maximum value of SAR (measured) = 0.033 mW/g



Test Laboratory: Advance Data Technology

M02-Right Head-Cheek-GSM850 Ch190+BT Ch78

DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 836.6 MHz Frequency: 2480 MHz

Communication System: PCS 850 Communication System: Bluetooth ; Frequency: 836.6 MHz

Frequency: 2480 MHz ; Duty Cycle: 1:8.3 Duty Cycle: 1:1

Medium: HSL835 Medium: HSL2450 Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2480$ MHz; $\sigma = 1.87$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³ ; Liquid level: 150 mm

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: GMSK

Antenna type : monopole Antenna ; Air temp. : 23.2 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(6.65, 6.65, 6.65)ConvF(4.74, 4.74, 4.74) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch position - Mid Channel 190/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.759 mW/g

Touch position - Mid Channel 190/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.7 V/m

Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.684 mW/g; SAR(10 g) = 0.404 mW/g

Maximum value of SAR (measured) = 0.753 mW/g

Touch position - High Channel 78/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

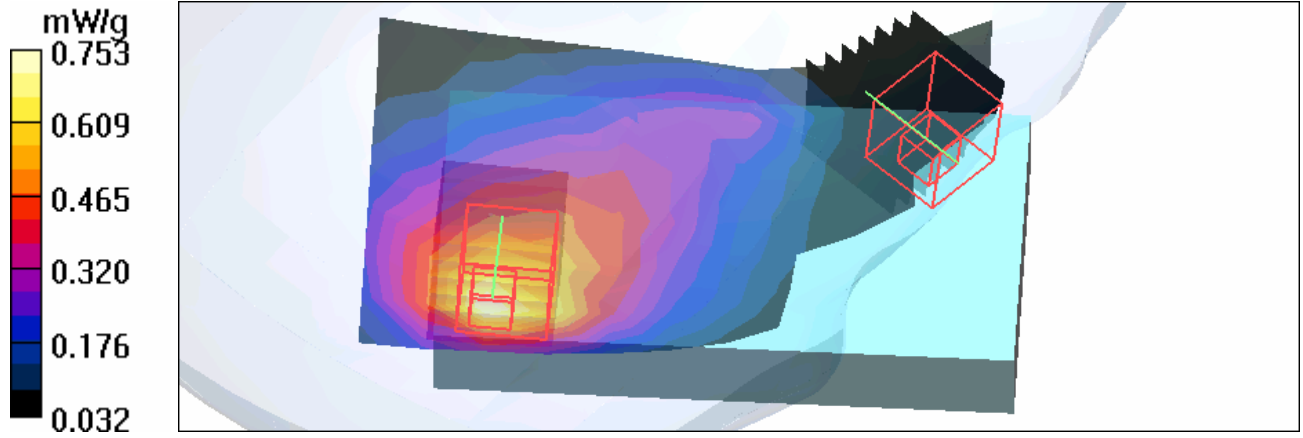
dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.901 V/m

Peak SAR (extrapolated) = 0.198 W/kg

SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00303 mW/g

Maximum value of SAR (measured) = 0.035 mW/g



Test Laboratory: Advance Data Technology

M03-Right Head-Cheek-PCS1900 Ch661+11b Ch6

DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 1880 MHz Frequency: 2437 MHz

Communication System: PCS 1900 Communication System: 802.11b ; Frequency: 1880 MHz Frequency: 2437 MHz ; Duty Cycle: 1:8.3 Duty Cycle: 1:1

Medium: HSL1900 Medium: HSL2450 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.41$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2437$ MHz; $\sigma = 1.83$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³ ;
Liquid level: 152 mm

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: GMSK

Antenna type : monopole Antenna ; Air temp. : 23.6 degrees ; Liquid temp. : 22.3 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(5.1, 5.1, 5.1)ConvF(4.74, 4.74, 4.74) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch position - Mid Channel 661/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.810 mW/g

Touch position - Mid Channel 661/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.1 V/m

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 0.713 mW/g; SAR(10 g) = 0.359 mW/g

Maximum value of SAR (measured) = 0.797 mW/g

Touch position - Mid Channel 6/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

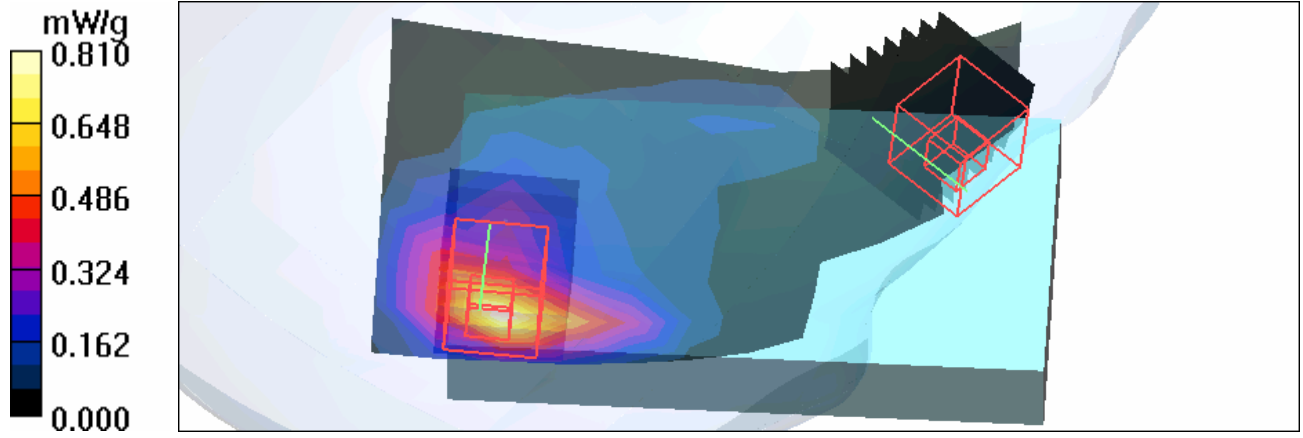
dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.920 V/m

Peak SAR (extrapolated) = 0.081 W/kg

SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00404 mW/g

Maximum value of SAR (measured) = 0.033 mW/g



Test Laboratory: Advance Data Technology

M04-Right Head-Cheek-PCS1900 Ch661+BT Ch78

DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 1880 MHz Frequency: 2480 MHz

Communication System: PCS 1900 Communication System: Bluetooth ; Frequency: 1880 MHz

Frequency: 2480 MHz ; Duty Cycle: 1:8.3 Duty Cycle: 1:1

Medium: HSL1900 Medium: HSL2450 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.41$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2480$ MHz; $\sigma = 1.87$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³ ; Liquid level: 152 mm

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: GMSK

Antenna type : monopole Antenna ; Air temp. : 23.6 degrees ; Liquid temp. : 22.3 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(5.1, 5.1, 5.1)ConvF(4.74, 4.74, 4.74) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch position - Mid Channel 661/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.810 mW/g

Touch position - Mid Channel 661/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.1 V/m

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 0.713 mW/g; SAR(10 g) = 0.359 mW/g

Maximum value of SAR (measured) = 0.797 mW/g

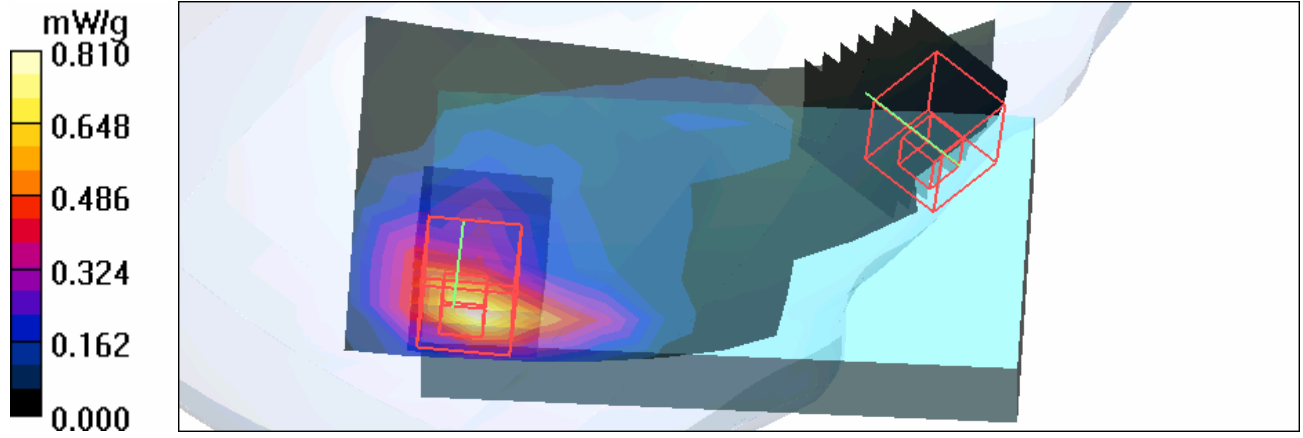
Touch position - High Channel 78/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.901 V/m

Peak SAR (extrapolated) = 0.198 W/kg

SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00303 mW/g

Maximum value of SAR (measured) = 0.035 mW/g



Test Laboratory: Advance Data Technology

M05-Right Head-Cheek-WCDMA850 Ch4182+11b Ch6

DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 836.4 MHz Frequency: 2437 MHz

Communication System: WCDMA Communication System: 802.11b ; Frequency: 836.4 MHz Frequency: 2437 MHz ; Duty Cycle: 1:1

Medium: HSL835 Medium: HSL2450 Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2437$ MHz; $\sigma = 1.83$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³ ; Liquid level: 150 mm

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: BPSK

Antenna type : monopole Antenna ; Air temp. : 23.2 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(6.65, 6.65, 6.65)ConvF(4.74, 4.74, 4.74) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch position - Mid Channel 4182/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.415 mW/g

Touch position - Mid Channel 4182/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.5 V/m

Peak SAR (extrapolated) = 0.704 W/kg

SAR(1 g) = 0.393 mW/g; SAR(10 g) = 0.231 mW/g

Maximum value of SAR (measured) = 0.436 mW/g

Touch position - Mid Channel 6/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

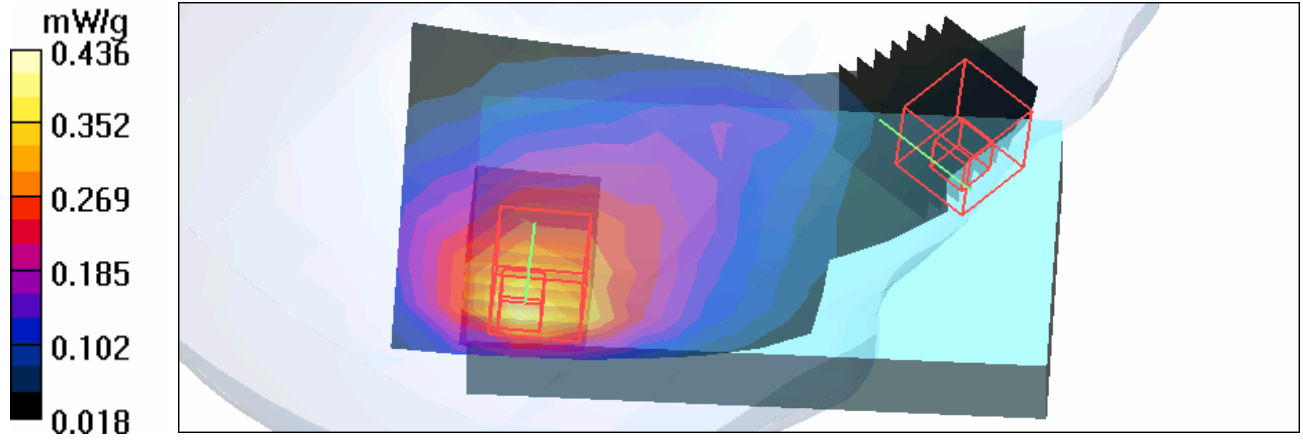
dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.920 V/m

Peak SAR (extrapolated) = 0.081 W/kg

SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00404 mW/g

Maximum value of SAR (measured) = 0.033 mW/g



Test Laboratory: Advance Data Technology

M06-Right Head-Cheek-WCDMA850 Ch4182+BT Ch78

DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 836.4 MHz Frequency: 2480 MHz

Communication System: WCDMA Communication System: Bluetooth ; Frequency: 836.4 MHz

Frequency: 2480 MHz ; Duty Cycle: 1:1

Medium: HSL835 Medium: HSL2450 Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2480$ MHz; $\sigma = 1.87$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³ ; Liquid level: 150 mm

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: BPSK

Antenna type : monopole Antenna ; Air temp. : 23.2 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(6.65, 6.65, 6.65)ConvF(4.74, 4.74, 4.74) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch position - Mid Channel 4182/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.415 mW/g

Touch position - Mid Channel 4182/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.5 V/m

Peak SAR (extrapolated) = 0.704 W/kg

SAR(1 g) = 0.393 mW/g; SAR(10 g) = 0.231 mW/g

Maximum value of SAR (measured) = 0.436 mW/g

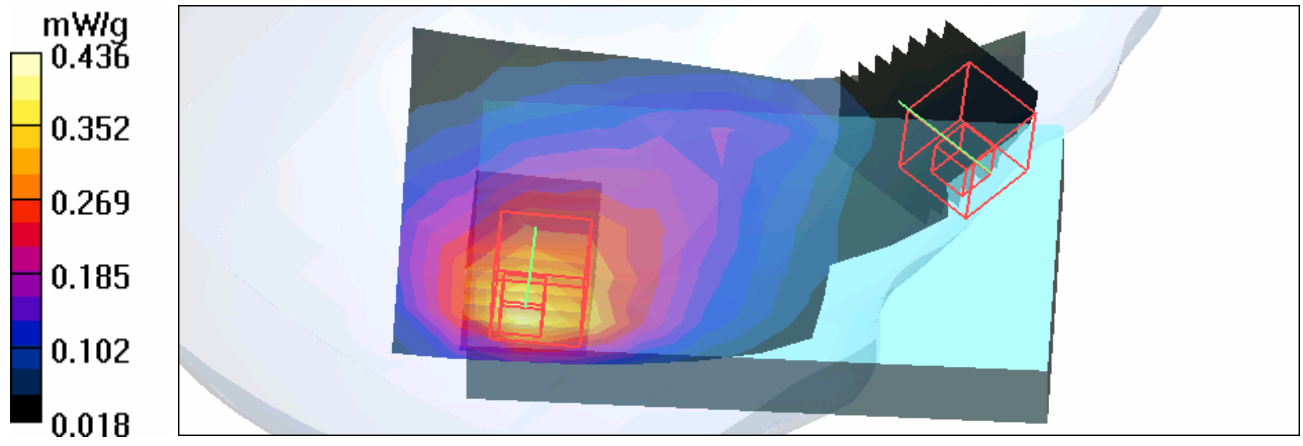
Touch position - High Channel 78/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.901 V/m

Peak SAR (extrapolated) = 0.198 W/kg

SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00303 mW/g

Maximum value of SAR (measured) = 0.035 mW/g



Test Laboratory: Advance Data Technology

M07-Right Head-Cheek-WCDMA1900 Ch9262+11b Ch6

DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 1852.4 MHz Frequency: 2437 MHz

Communication System: WCDMA1900 Communication System: 802.11b ; Frequency: 1852.4 MHz

Frequency: 2437 MHz ; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used: $f = 1852.4$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2437$ MHz; $\sigma = 1.83$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³ ;

Liquid level: 152 mm

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: BPSK

Antenna type : monopole Antenna ; Air temp. : 23.6 degrees ; Liquid temp. : 22.3 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(5.1, 5.1, 5.1)ConvF(4.74, 4.74, 4.74) ; Calibrated: 2007/11/20

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch position - Low Channel 9262/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.50 mW/g

Touch position - Low Channel 9262/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.3 V/m

Peak SAR (extrapolated) = 2.83 W/kg

SAR(1 g) = 1.47 mW/g; SAR(10 g) = 0.762 mW/g

Maximum value of SAR (measured) = 1.67 mW/g

Touch position - Mid Channel 6/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

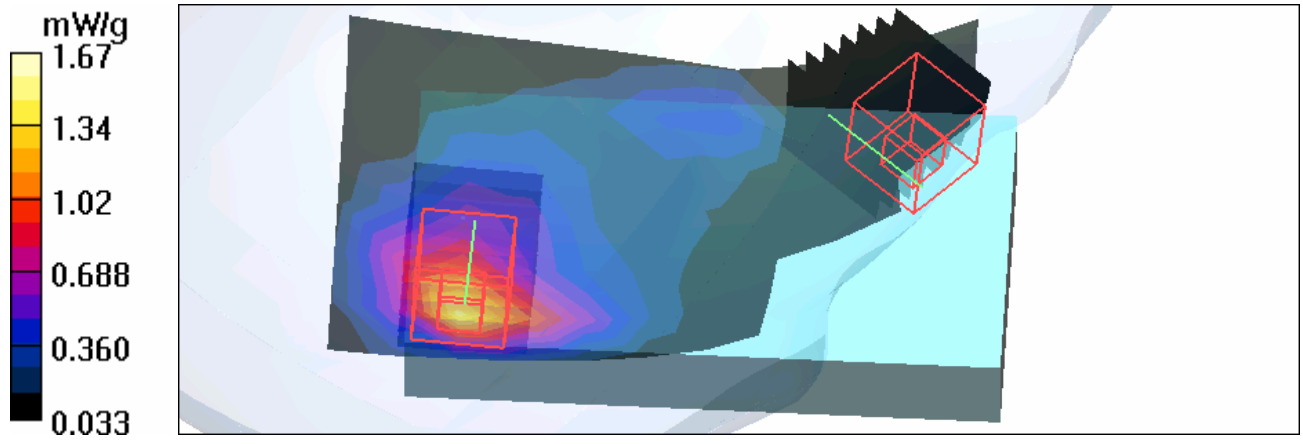
dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.920 V/m

Peak SAR (extrapolated) = 0.081 W/kg

SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00404 mW/g

Maximum value of SAR (measured) = 0.033 mW/g



Test Laboratory: Advance Data Technology

M08-Right Head-Cheek-WCDMA1900 Ch9262+BT Ch78

DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 1852.4 MHz Frequency: 2480 MHz

Communication System: WCDMA1900 Communication System: Bluetooth ; Frequency: 1852.4 MHz
Frequency: 2480 MHz ; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used: $f = 1852.4$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³
Medium: HSL2450 Medium parameters used: $f = 2480$ MHz; $\sigma = 1.87$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³ ; Liquid level: 152 mm

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: BPSK

Antenna type : monopole Antenna ; Air temp. : 23.6 degrees ; Liquid temp. : 22.3 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(5.1, 5.1, 5.1)ConvF(4.74, 4.74, 4.74) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch position - Low Channel 9262/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.50 mW/g

Touch position - Low Channel 9262/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.3 V/m

Peak SAR (extrapolated) = 2.83 W/kg

SAR(1 g) = 1.47 mW/g; SAR(10 g) = 0.762 mW/g

Maximum value of SAR (measured) = 1.67 mW/g

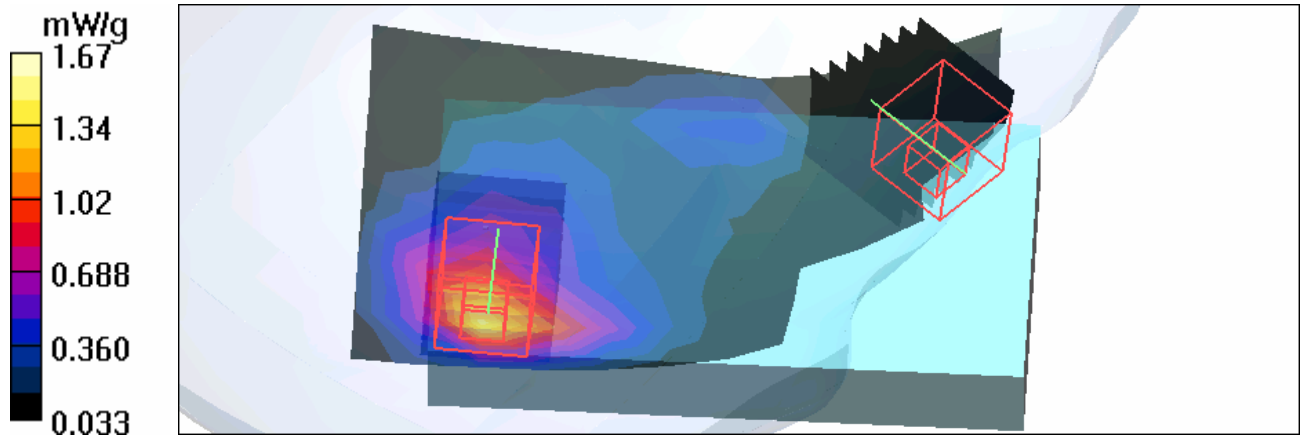
Touch position - High Channel 78/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.901 V/m

Peak SAR (extrapolated) = 0.198 W/kg

SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00303 mW/g

Maximum value of SAR (measured) = 0.035 mW/g



Test Laboratory: Advance Data Technology

M09-Body-GPRS850 TS4 Ch251+11b Ch6

DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 848.8 MHz Frequency: 2437 MHz

Communication System: PCS 850 Communication System: 802.11b ; Frequency: 848.8 MHz Frequency: 2437 MHz ; Duty Cycle: 1:2 Duty Cycle: 1:1

Medium: MSL835 Medium: MSL2450 Medium parameters used: $f = 848.8$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 57.1$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2437$ MHz; $\sigma = 1.92$ mho/m; $\epsilon_r = 54.3$; $\rho = 1000$ kg/m³ ; Liquid Level : 152 mm

Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: GMSK / UL 4 time slots Separation Distance : 15 mm (The bottom side of the EUT to the Phantom)

Antenna Type : monopole Antenna ; Air Temp. : 23.6 degrees ; Liquid Temp. : 22.6 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(6.15, 6.15, 6.15)ConvF(4.16, 4.16, 4.16) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2007/8/29
- Phantom: SAM 12 ; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53 ; Postprocessing SW: SEMCAD, V1.8 Build 172

High Channel 251/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.25 mW/g

High Channel 251/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 37.7 V/m

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 1.3 mW/g; SAR(10 g) = 0.959 mW/g

Maximum value of SAR (measured) = 1.38 mW/g

High Channel 251/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 37.7 V/m

Peak SAR (extrapolated) = 1.57 W/kg

SAR(1 g) = 0.962 mW/g; SAR(10 g) = 0.553 mW/g

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

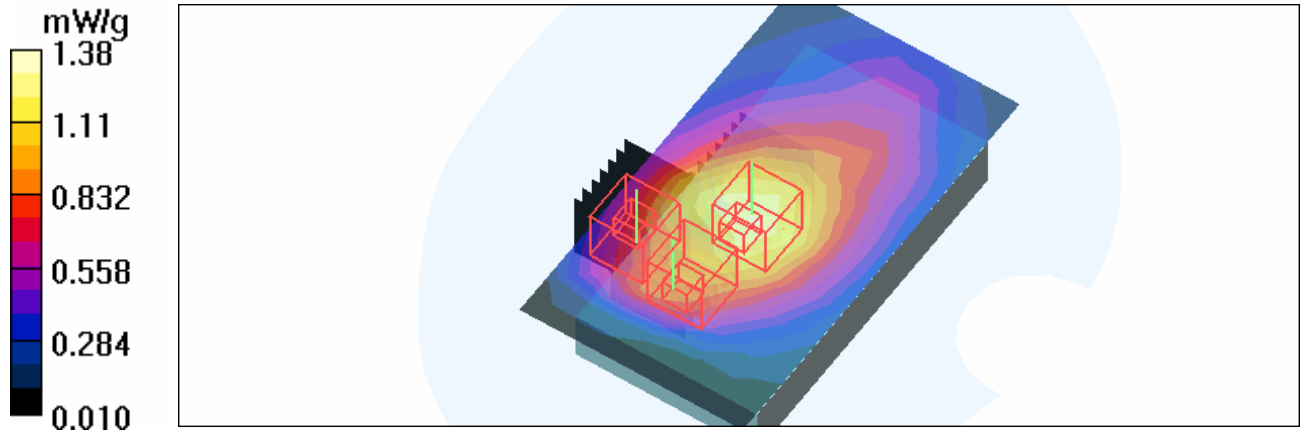
Mid Channel 6/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.23 V/m

Peak SAR (extrapolated) = 0.054 W/kg

SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00462 mW/g

Maximum value of SAR (measured) = 0.011 mW/g



Test Laboratory: Advance Data Technology

M10-Body-GPRS850 TS4 Ch251+BT Ch78**DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 848.8 MHz Frequency: 2480 MHz**

Communication System: PCS 850 Communication System: Bluetooth ; Frequency: 848.8 MHz

Frequency: 2480 MHz ; Duty Cycle: 1:2 Duty Cycle: 1:1

Medium: MSL835 Medium: MSL2450 Medium parameters used: $f = 848.8$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 57.1$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2480$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 54.1$; $\rho = 1000$ kg/m³ ; Liquid Level : 152 mmPhantom section: Flat Section ; DUT test position : Body ; Modulation Type: GMSK / UL 4 time slots
Separation Distance : 15 mm (The bottom side of the EUT to the Phantom)

Antenna Type : monopole Antenna ; Air Temp. : 23.6 degrees ; Liquid Temp. : 22.6 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(6.15, 6.15, 6.15)ConvF(4.16, 4.16, 4.16) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2007/8/29
- Phantom: SAM 12 ; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53 ; Postprocessing SW: SEMCAD, V1.8 Build 172

High Channel 251/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.25 mW/g

High Channel 251/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 37.7 V/m

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 1.3 mW/g; SAR(10 g) = 0.959 mW/g

Maximum value of SAR (measured) = 1.38 mW/g

High Channel 251/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 37.7 V/m

Peak SAR (extrapolated) = 1.57 W/kg

SAR(1 g) = 0.962 mW/g; SAR(10 g) = 0.553 mW/g

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

High Channel 78/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.695 V/m

Peak SAR (extrapolated) = 0.011 W/kg

SAR(1 g) = 0.00279 mW/g; SAR(10 g) = 0.00116 mW/g

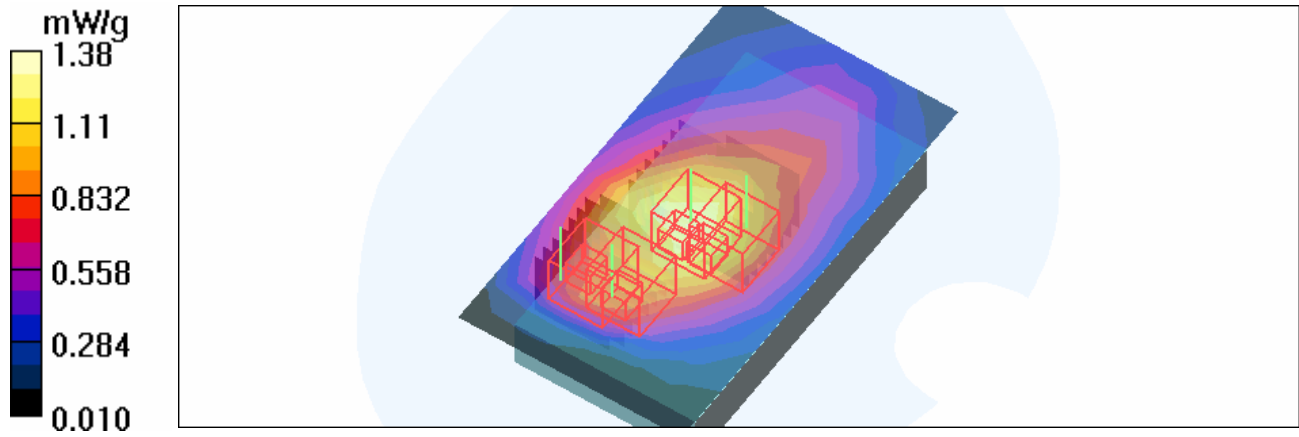
Maximum value of SAR (measured) = 0.003 mW/g

High Channel 78/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.695 V/m

Peak SAR (extrapolated) = 0.005 W/kg

SAR(1 g) = 4.86e-005 mW/g; SAR(10 g) = 9.32e-006 mW/g



Test Laboratory: Advance Data Technology

M11-Body-GPRS1900 TS4 Ch661+11b Ch6**DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 1880 MHz Frequency: 2437 MHz**

Communication System: PCS 1900 Communication System: 802.11b ; Frequency: 1880 MHz Frequency: 2437 MHz ; Duty Cycle: 1:2Duty Cycle: 1:1

Medium: MSL1900Medium: MSL2450 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 54.8$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2437$ MHz; $\sigma = 1.92$ mho/m; $\epsilon_r = 54.3$; $\rho = 1000$ kg/m³ ; Liquid Level : 155 mm

Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: GMSK / UL 4 time slots Separation Distance : 15 mm (The bottom side of the EUT to the Phantom)

Antenna Type : monopole Antenna ; Air Temp. : 23.5 degrees ; Liquid Temp. : 22.7 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.58, 4.58, 4.58)ConvF(4.16, 4.16, 4.16) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2007/8/29
- Phantom: SAM 12 ; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53 ; Postprocessing SW: SEMCAD, V1.8 Build 172

Mid Channel 661/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.549 mW/g

Mid Channel 661/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.5 V/

Peak SAR (extrapolated) = 0.831 W/kg

SAR(1 g) = 0.490 mW/g; SAR(10 g) = 0.286 mW/g

Maximum value of SAR (measured) = 0.537 mW/g

Mid Channel 661/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.5 V/m

Peak SAR (extrapolated) = 0.603 W/kg

SAR(1 g) = 0.403 mW/g; SAR(10 g) = 0.271 mW/g

Maximum value of SAR (measured) = 0.428 mW/g

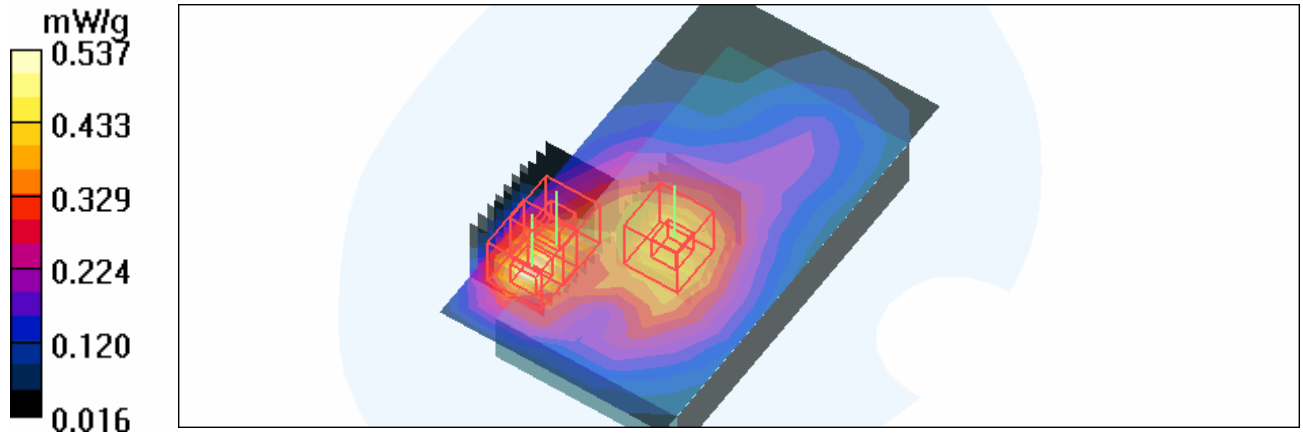
Mid Channel 6/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.23 V/m

Peak SAR (extrapolated) = 0.054 W/kg

SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00462 mW/g

Maximum value of SAR (measured) = 0.011 mW/g



Test Laboratory: Advance Data Technology

M12-Body-GPRS1900 TS4 Ch661+BT Ch78

DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 1880 MHz Frequency: 2480 MHz

Communication System: PCS 1900 Communication System: Bluetooth ; Frequency: 1880 MHz

Frequency: 2480 MHz ; Duty Cycle: 1:2Duty Cycle: 1:1

Medium: MSL1900Medium: MSL2450 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 54.8$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2480$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 54.1$; $\rho = 1000$ kg/m³ ; Liquid Level : 155 mm

Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: GMSK / UL 4 time slots
Separation Distance : 15 mm (The bottom side of the EUT to the Phantom)

Antenna Type : monopole Antenna ; Air Temp. : 23.5 degrees ; Liquid Temp. : 22.7 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.58, 4.58, 4.58)ConvF(4.16, 4.16, 4.16) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2007/8/29
- Phantom: SAM 12 ; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53 ; Postprocessing SW: SEMCAD, V1.8 Build 172

Mid Channel 661/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.549 mW/g

Mid Channel 661/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.5 V/

Peak SAR (extrapolated) = 0.831 W/kg

SAR(1 g) = 0.490 mW/g; SAR(10 g) = 0.286 mW/g

Maximum value of SAR (measured) = 0.537 mW/g

Mid Channel 661/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.5 V/m

Peak SAR (extrapolated) = 0.603 W/kg

SAR(1 g) = 0.403 mW/g; SAR(10 g) = 0.271 mW/g

Maximum value of SAR (measured) = 0.428 mW/g

High Channel 78/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.695 V/m

Peak SAR (extrapolated) = 0.011 W/kg

SAR(1 g) = 0.00279 mW/g; SAR(10 g) = 0.00116 mW/g

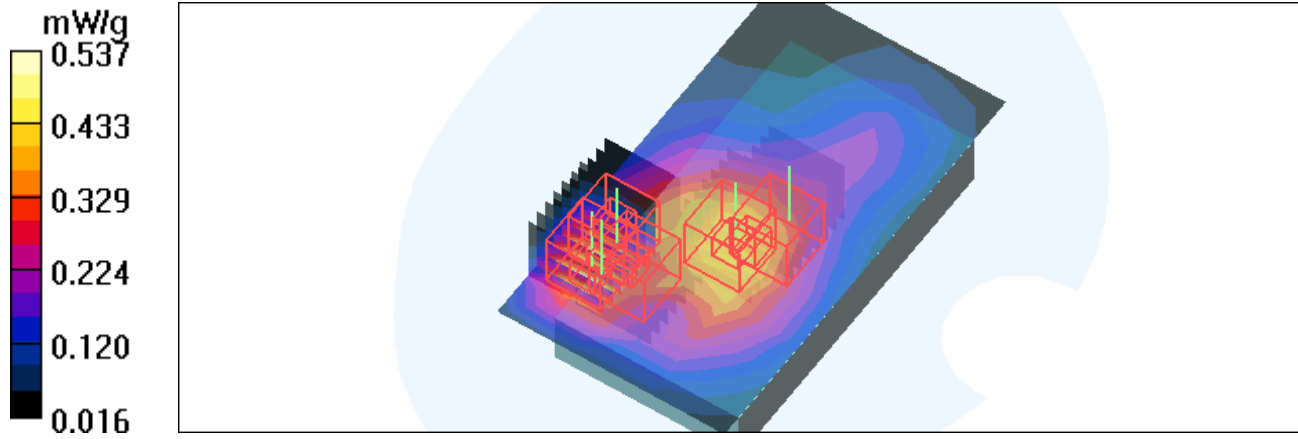
Maximum value of SAR (measured) = 0.003 mW/g

High Channel 78/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.695 V/m

Peak SAR (extrapolated) = 0.005 W/kg

SAR(1 g) = 4.86e-005 mW/g; SAR(10 g) = 9.32e-006 mW/g



Test Laboratory: Advance Data Technology

M13-Body-WCDMA850 Ch4182+11b Ch6

DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 836.4 MHz Frequency: 2437 MHz

Communication System: WCDMA Communication System: 802.11b ; Frequency: 836.4 MHz Frequency: 2437 MHz ; Duty Cycle: 1:1

Medium: MSL835 Medium: MSL2450 Medium parameters used: $f = 836.4$ MHz; $\sigma = 1$ mho/m; $\epsilon_r = 57.2$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2437$ MHz; $\sigma = 1.92$ mho/m; $\epsilon_r = 54.3$; $\rho = 1000$ kg/m³ ; Liquid Level : 152 mm

Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: BPSK

Separation Distance : 15 mm (The bottom side of the EUT to the Phantom)

Antenna Type : monopole Antenna ; Air Temp. : 23.6 degrees ; Liquid Temp. : 22.6 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(6.15, 6.15, 6.15)ConvF(4.16, 4.16, 4.16) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2007/8/29
- Phantom: SAM 12 ; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53 ; Postprocessing SW: SEMCAD, V1.8 Build 172

Mid Channel 4182/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.281 mW/g

Mid Channel 4182/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.9 V/m

Peak SAR (extrapolated) = 0.324 W/kg

SAR(1 g) = 0.265 mW/g; SAR(10 g) = 0.196 mW/g

Maximum value of SAR (measured) = 0.280 mW/g

Mid Channel 4182/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.9 V/m

Peak SAR (extrapolated) = 0.274 W/kg

SAR(1 g) = 0.181 mW/g; SAR(10 g) = 0.122 mW/g

Maximum value of SAR (measured) = 0.197 mW/g

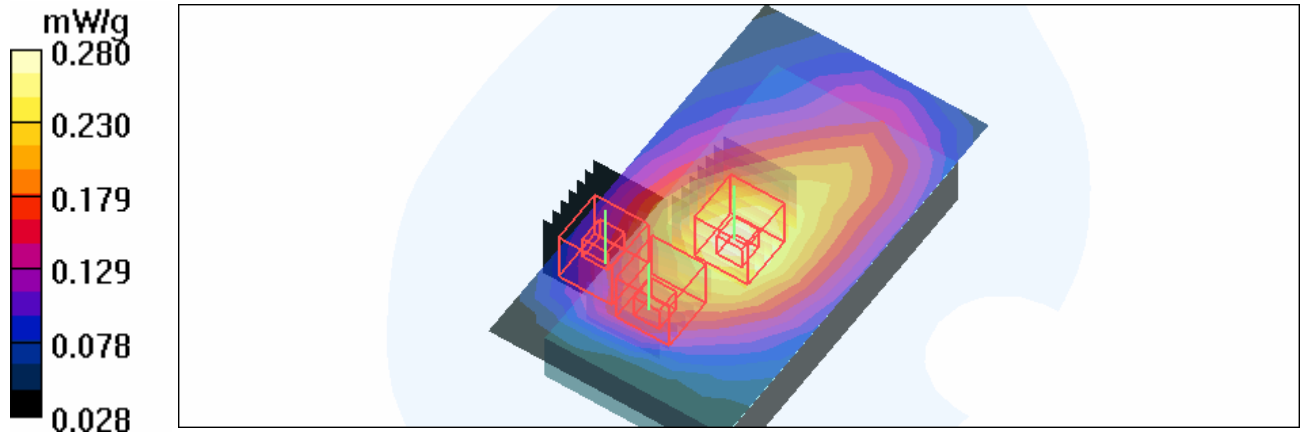
Mid Channel 6/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.23 V/m

Peak SAR (extrapolated) = 0.054 W/kg

SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00462 mW/g

Maximum value of SAR (measured) = 0.011 mW/g



Test Laboratory: Advance Data Technology

M14-Body-WCDMA850 Ch4182+BT Ch78

DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 836.4 MHz Frequency: 2480 MHz

Communication System: WCDMA Communication System: Bluetooth ; Frequency: 836.4 MHz

Frequency: 2480 MHz ; Duty Cycle: 1:1

Medium: MSL835 Medium: MSL2450 Medium parameters used: $f = 836.4$ MHz; $\sigma = 1$ mho/m; $\epsilon_r = 57.2$;

$\rho = 1000$ kg/m³ Medium parameters used: $f = 2480$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 54.1$; $\rho = 1000$

kg/m³ ; Liquid Level : 152 mm

Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: BPSK

Separation Distance : 15 mm (The bottom side of the EUT to the Phantom)

Antenna Type : monopole Antenna ; Air Temp. : 23.6 degrees ; Liquid Temp. : 22.6 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(6.15, 6.15, 6.15)ConvF(4.16, 4.16, 4.16) ; Calibrated: 2007/11/20

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn510 ; Calibrated: 2007/8/29

- Phantom: SAM 12 ; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53 ; Postprocessing SW: SEMCAD, V1.8 Build 172

Mid Channel 4182/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.281 mW/g

Mid Channel 4182/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.9 V/m

Peak SAR (extrapolated) = 0.324 W/kg

SAR(1 g) = 0.265 mW/g; SAR(10 g) = 0.196 mW/g

Maximum value of SAR (measured) = 0.280 mW/g

Mid Channel 4182/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.9 V/m

Peak SAR (extrapolated) = 0.274 W/kg

SAR(1 g) = 0.181 mW/g; SAR(10 g) = 0.122 mW/g

Maximum value of SAR (measured) = 0.197 mW/g

High Channel 78/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.695 V/m

Peak SAR (extrapolated) = 0.011 W/kg

SAR(1 g) = 0.00279 mW/g; SAR(10 g) = 0.00116 mW/g

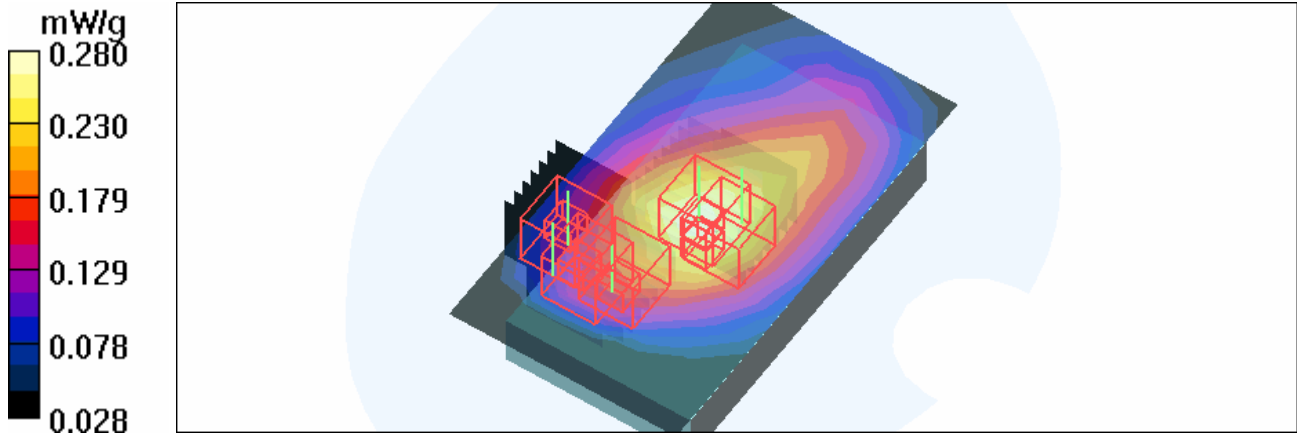
Maximum value of SAR (measured) = 0.003 mW/g

High Channel 78/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.695 V/m

Peak SAR (extrapolated) = 0.005 W/kg

SAR(1 g) = 4.86e-005 mW/g; SAR(10 g) = 9.32e-006 mW/g



Test Laboratory: Advance Data Technology

M15-Body-WCDMA1900 Ch9400+11b Ch6

DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 1880 MHz Frequency: 2437 MHz

Communication System: WCDMA1900 Communication System: 802.11b ; Frequency: 1880 MHz
Frequency: 2437 MHz ; Duty Cycle: 1:1

Medium: MSL1900 Medium: MSL2450 Medium parameters used : $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 54.8$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2437$ MHz; $\sigma = 1.92$ mho/m; $\epsilon_r = 54.3$; $\rho = 1000$ kg/m³ ; Liquid Level : 155 mm

Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: BPSK

Separation Distance : 15 mm (The bottom side of the EUT to the Phantom)

Antenna Type : monopole Antenna ; Air Temp. : 23.5 degrees ; Liquid Temp. : 22.7 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.58, 4.58, 4.58)ConvF(4.16, 4.16, 4.16) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2007/8/29
- Phantom: SAM 12 ; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53 ; Postprocessing SW: SEMCAD, V1.8 Build 172

Mid Channel 9400/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.204 mW/g

Mid Channel 9400/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.1 V/m

Peak SAR (extrapolated) = 0.324 W/kg

SAR(1 g) = 0.194 mW/g; SAR(10 g) = 0.114 mW/g

Maximum value of SAR (measured) = 0.210 mW/g

Mid Channel 9400/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.1 V/m

Peak SAR (extrapolated) = 0.286 W/kg

SAR(1 g) = 0.194 mW/g; SAR(10 g) = 0.129 mW/g

Maximum value of SAR (measured) = 0.206 mW/g

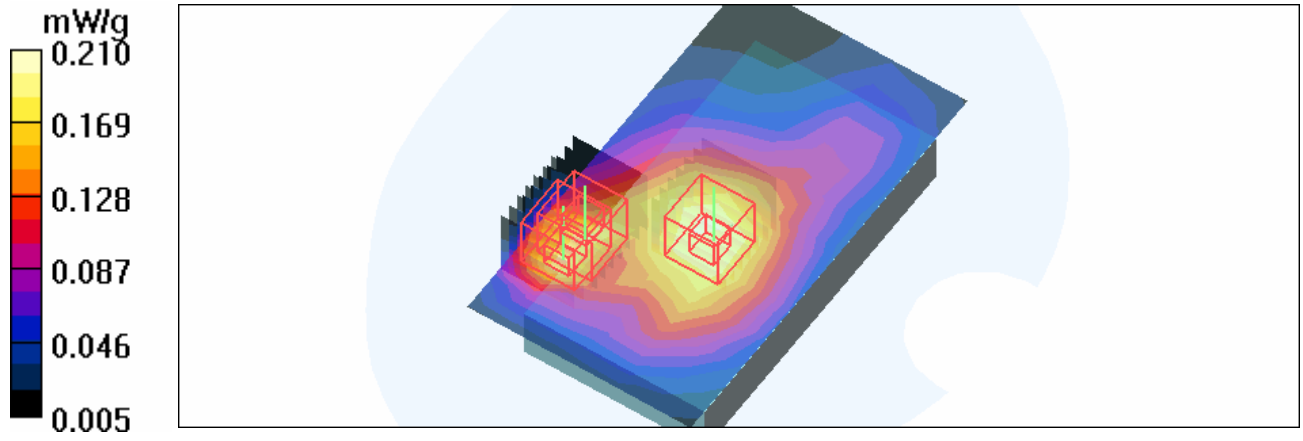
Mid Channel 6/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.23 V/m

Peak SAR (extrapolated) = 0.054 W/kg

SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00462 mW/g

Maximum value of SAR (measured) = 0.011 mW/g



Test Laboratory: Advance Data Technology

M16-Body-WCDMA1900 Ch9400+BT Ch78

DUT: Pocket PC Phone ; Type: SEDN100 ; Test Frequency: 1880 MHz Frequency: 2480 MHz

Communication System: WCDMA1900 Communication System: Bluetooth ; Frequency: 1880 MHz
Frequency: 2480 MHz ; Duty Cycle: 1:1

Medium: MSL1900 Medium: MSL2450 Medium parameters used : $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 54.8$; $\rho = 1000$ kg/m³ Medium parameters used: $f = 2480$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 54.1$; $\rho = 1000$ kg/m³ ; Liquid Level : 155 mm

Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: BPSK

Separation Distance : 15 mm (The bottom side of the EUT to the Phantom)

Antenna Type : monopole Antenna ; Air Temp. : 23.5 degrees ; Liquid Temp. : 22.7 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.58, 4.58, 4.58)ConvF(4.16, 4.16, 4.16) ; Calibrated: 2007/11/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2007/8/29
- Phantom: SAM 12 ; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53 ; Postprocessing SW: SEMCAD, V1.8 Build 172

Mid Channel 9400/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.204 mW/g

Mid Channel 9400/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.1 V/m

Peak SAR (extrapolated) = 0.324 W/kg

SAR(1 g) = 0.194 mW/g; SAR(10 g) = 0.114 mW/g

Maximum value of SAR (measured) = 0.210 mW/g

Mid Channel 9400/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.1 V/m

Peak SAR (extrapolated) = 0.286 W/kg

SAR(1 g) = 0.194 mW/g; SAR(10 g) = 0.129 mW/g

Maximum value of SAR (measured) = 0.206 mW/g

High Channel 78/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.695 V/m

Peak SAR (extrapolated) = 0.011 W/kg

SAR(1 g) = 0.00279 mW/g; SAR(10 g) = 0.00116 mW/g

Maximum value of SAR (measured) = 0.003 mW/g

High Channel 78/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm,

dz=5mm

Reference Value = 0.695 V/m

Peak SAR (extrapolated) = 0.005 W/kg

SAR(1 g) = 4.86e-005 mW/g; SAR(10 g) = 9.32e-006 mW/g

