RF EXPOSURE LAB, LLC

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CERTIFICATE OF COMPLIANCE
SAR EVALUATION

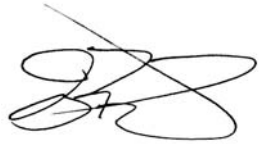
Huawei Corp. 1700 Alma Drive, Suite 100 Plano, TX 75075	Dates of Test: Sept. 17-23, Oct. 30, Nov. 21, 2008 Test Report Number: SAR.20080907 Revision F

FCC ID:	QISE181
Model(s):	UMG181
Test Sample:	Production Unit
Serial No.:	GA2AA1089300027
Equipment Type:	Wireless Modem
Classification:	Portable Transmitter Next to Body
TX Frequency Range:	824.2 – 848.8 MHz, 826.4 – 846.6 MHz, 1712.4 – 1752.6 MHz, 1850.2 – 1909.8 MHz, 1852.4 – 1907.6 MHz
Frequency Tolerance:	± 25 ppm
Maximum RF Output:	835 MHz (GSM) – 32.86 dBm, 835 MHz (GPRS) – 30.78 dBm, 835 MHz (EDGE) – 27.13 dBm, 835 MHz (WCDMA) – 22.31 dBm, 1700 MHz (WCDMA) – 22.02 dBm, 1900 MHz (WCDMA) – 21.52 dBm, 1900 MHz (GSM) – 29.96 dBm, 1900 MHz (GPRS) – 27.63 dBm, 1900 MHz (EDGE) – 24.65 dBm Conducted
Signal Modulation:	GSM, WCDMA
Antenna Type (Length):	Internal
Application Type:	Certification
FCC Rule Parts:	Part 22, 24, 27

This wireless mobile and/or portable device has been shown to be compliant for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE Std. C95.1-1999 and had been tested in accordance with the measurement procedures specified in IEEE Std 1528-2003, OET Bulletin 65 Supp. C, RSS-102 and Safety Code 6 (See test report).

I attest to the accuracy of the data. All measurements were performed by myself 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.

RF Exposure Lab, LLC certifies that no party to this application has been denied FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 853(a).



Jay M. Moulton
Vice President

ACCREDITED
Certificate # 2387.01

Table of Contents

1. Introduction

This measurement report shows compliance of the Huawei Corp. Model E181 FCC ID: QISE181 with FCC Part 2, 1093, ET Docket 93-62 Rules for mobile and portable devices. The FCC have adopted the guidelines for evaluating the environmental effects of radio frequency radiation in ET Docket 93-62 on August 6, 1996 to protect the public and workers from the potential hazards of RF emissions due to FCC regulated portable devices. [1], [6]

The test procedures, as described in IEEE Std C95.3-2002/ANSI C95.3 – 2002 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields [3], FCC OET Bulletin 65 Supp. C – 2001 [4], and IEEE Std.1528 – 2003 Recommended Practice [5].

UMG181 HSUPA/HSDPA/UMTS/EDGE/GPRS/GSM dual mode 8 BAND USB Stick is subscriber equipment in the UMTS/GSM system. The WCDMA frequency is Band I, Band II, Band IV and Band V. The GSM/GPRS/EDGE frequency bands include GSM850, EGSM900, DCS1800 and PCS1900, but only GSM850MHz & 1900MHz & WCDMA Band II, Band IV and Band V test data is included in this report. Externally it provides USB interface (to connect to the notebook etc.), USIM card interface, Micro SD card interface and antenna interface. The device was tested in accordance with KDB 447498, KDB 941225, OET Bulletin 65 Supp. C, and IEEE 1528.

This report contains testing which was conducted originally using a probe calibrated at 1800 MHz, 1800 MHz tissue parameters and an 1800 MHz calibrated dipole for the 1730 MHz HSPA band. These results are on page 27 of this report. The verification for these results is on page 17-18 dated September 23, 2008. It was determined that the calibrations at 1800 MHz were not sufficient to demonstrate compliance. Therefore, a reduced set of SAR measurements were conducted using a 1800 MHz calibration on the probe and 1730 MHz tissue. It was determined that the subset of tests would be all measurements originally measured above 1.4 W/kg. These results are listed on page 30 of this report. The verification for this set of testing is listed on page 17-18 dated October 30, 2008. It was determined that the probe must be calibrated at 1730 MHz to validate the results. Therefore, the subset of tests was conducted again with the probe calibrated at 1730 MHz and the dipole calibrated at 1800 MHz. The results are documented on page 31 of this report. The verification was for this testing is listed on page 19 of this report. The dipole was tested to acquire a target value at 1730 MHz. This was conducted per FCC KDB 450824. The final subset of data for the 1730 MHz band was conducted with a probe calibrated at 1730 MHz with 1730 MHz tissue in the flat phantom.

SAR Definition [5]

Specific Absorption Rate is defined as the time derivative (rate) of the incremental energy (*dW*) absorbed by (dissipated in) an incremental mass (*dm*) contained in a volume element (*dV*) of a given density (ρ).

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

SAR is expressed in units of watts per kilogram (W/kg). *SAR* can be related to the electric field at a point by

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

where:

σ = conductivity of the tissue (S/m)

ρ = mass density of the tissue (kg/m^3)

E = rms electric field strength (V/m)

2. SAR Measurement Setup

Robotic System

The measurements are conducted utilizing the ALSAS-10-U automated dosimetric assessment system. The ALSAS-10-U is designed and manufactured by Aprel Laboratories in Nepean, Ontario, Canada. The system utilizes a Robcomm 3 robot manufactured by ThermoCRS located in Michigan USA.

System Hardware

The system consists of a six axis articulated arm, controller for precise probe positioning (0.05 mm repeatability), a power supply, a teach pendent for teaching area scans, near field probe, an IBM Pentium 4™ 2.66 GHz PC with Windows XP Pro™, and custom software developed to enable communications between the robot controller software and the host operating system.

An amplifier is located on the articulated arm, which is isolated from the custom designed end effector and robot arm. The end effector provides the mechanical touch detection functionality and probe connection interface. The amplifier is functionally validated within the manufacturer's site and calibrated at NCL Calibration Laboratories. A Data Acquisition Card (DAC) is used to collect the signal as detected by the isotropic e-field probe. The DAC manufacturer calibrates the DAC to NIST standards. A formal validation is executed using all mechanical and electronic components to prove conformity of the measurement platform as a whole.

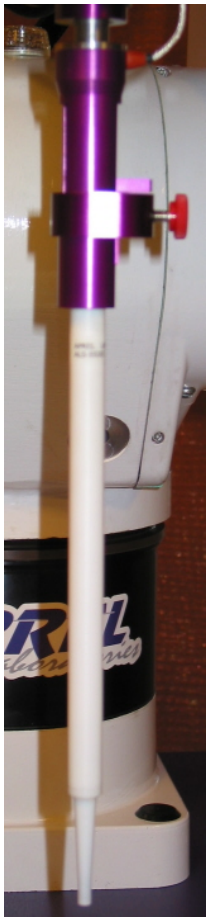
System Description

The ALSAS-10-U has been designed to measure devices within the compliance environment to meet all recognized standards. The system also conforms to standards, which are currently being developed by the scientific and manufacturing community.

The coarse scan resolution is defined by the operator and reflects the requirements of the standard to which the device is being tested. Precise measurements are made within the predefined course scan area and the values are logged.

The user predefines the sample rate for which the measurements are made so as to ensure that the full duty-cycle of a pulse modulation device is covered during the sample. The following algorithm is an example of the function used by the system for linearization of the output for the probe.

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



The Aprel E-Field probe is evaluated to establish the diode compression point.

A complex algorithm is then used to calculate the values within the measured points down to a resolution of 1mm. The data from this process is then used to provide the co-ordinates from which the cube scan is created for the determination of the 1 g and 10 g averages.

Cube scan averaging consists of a number of complex algorithms, which are used to calculate the one, and ten gram averages. The basis for the cube scan process is centered on the location where the maximum measured SAR value was found. When a secondary peak value is found which is within 60% of the initial peak value, the system will report this back to the operator who can then assess the need for further analysis of both the peak values prior to the one and ten-gram cube scan averaging process. The algorithm consists of 3D cubic Spline, and Lagrange extrapolation to the surface, which form the matrix for calculating the measurement output for the one and ten gram average values. The resolution for the physical scan integral is user defined with a final calculated resolution down to 1mm.

In-depth analysis for the differential of the physical scanning resolution for the cube scan analysis has been carried out, to identify the optimum setting for the probe positioning steps, and this has been determined at 8mm increments on the X, & Y planes. The reduction of the physical step increment increased the time taken for analysis but did not provide a better uncertainty or return on measured values.

The final output from the system provides data for the area scan measurements, physical and splined (1mm resolution) cube scan with physical and calculated values (1mm resolution).

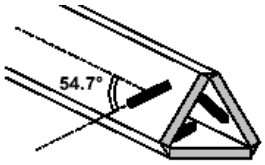
The overall uncertainty for the methodology and algorithms the ALSAS-10-U used during the SAR calculation was evaluated using the data from IEEE 1528 f3 algorithm:

$$f_3(x,y,z) = A\frac{a^2}{\frac{a^2}{4}+x'^2+y'^2}\left(e^{-\frac{2z}{a}}+\frac{a^2}{2(a+2z)^2}\right)$$

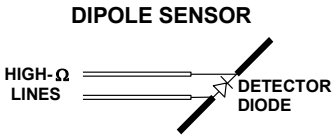
The probe used during the measurement process has been assessed to provide values for diode compression. These values are calculated during the probe calibration exercise and are used in the mathematical calculations for the assessment of SAR.

E-Field Probe

The E-field probe used by RF Exposure Lab, LLC, has been fully calibrated and assessed for isotropic, and boundary effect. The probe utilizes a triangular sensor arrangement as detailed in the diagram below right.



Δ-BEAM



The SAR is assessed with the probe which moves at a default height according to the height described below from the center of the diode, which is mounted to the sensor, to the phantom surface (Z height). The diagram above right shows how the center of the sensor is defined with the location of the diode placed at the center of the dipole. The distance listed below in the Z axis is the optimum height for assessing SAR where the boundary effect is at its least, with the probe located closest to the phantom surface (boundary).

The manufacturer specified precision of the robot is ± 0.05 mm and the precision of the APREL bottom detection device is ± 0.1 mm. These precisions are calibrated and tested in the manufacturing process of the bottom detection device. A constant distance is maintained because the surface of the phantom is dynamically detected for each point. The surface detection algorithm corrects the position of the robot so that the probe rests on the surface of the phantom. The probe is then moved to the measurement location 2.44 mm above the phantom surface resulting in the probe center location to be at 4.0 mm above the phantom surface which is the sum of the position (2.44 mm) and the sensor offset (1.56 mm). Therefore, the probe sensor will be at 4.0 mm above the phantom surface ± 0.1 mm for each SAR location for frequencies below 3 GHz. For frequencies above 3 GHz, the probe is moved to the measurement location 1.44 mm above the phantom surface resulting in the probe center location to be at 2.0 mm above the phantom surface which is the sum of the probe position (1.44 mm) and the probe offset (0.56 mm). Therefore, the probe sensor will be at 2.0 mm above the phantom surface ± 0.1 mm for each SAR location for frequencies above 3 GHz.

The probe boundary effect compensation cannot be disabled in the ALSAS-10U testing system. The probe tip will always be at least half a probe tip diameter from the phantom surface. For frequencies up to 3 GHz, the probe diameter is 5 mm. With the sensor offset set at 1.56 mm (default setting) and the probe position set at 2.44 mm (default setting), the sensor to phantom gap will be 4.0 mm which is greater than half the probe tip diameter of 5.0 mm. For frequencies greater than 3 GHz, the probe diameter is 3 mm. With the sensor offset set at 0.56 mm (default setting) and the probe position set at 1.44 mm (default setting), the sensor to phantom gap will be 2.0 mm which is greater than half the probe tip diameter of 2.0 mm.

The separation of the first 2 measurement points in the zoom scan is specified in the test setup software. For frequencies below 3 GHz, the user must specify a zoom scan resolution of less than 6 mm in the z-axis to have the first two measurements within 1 cm of the surface. The z-axis is set to 4 mm as shown on each of the data sheets in Appendix B. For frequencies above 3 GHz, the user must specify a zoom scan resolution of less than 3 mm in the z-axis to have the first two measurements within 5 mm of the surface. The z-axis is set to 2 mm as shown on each of the data sheets in Appendix B.

The zoom scan volume for devices ≤3 GHz with a cube scan of 5x5x8 yields a volume of 32x32x28 mm^3. For devices >3 GHz and <4.5 GHz, the cube scan of 9x9x9 yields a volume of 32x32x24 mm^3. For devices ≥4.5 GHz, the cube scan of 7x7x12 yields a volume of 24x24x22 mm^3.

3. Robot Specifications

Specifications

Positioner:	ThermoCRS, Robot Model: Robocomm 3
Repeatability:	0.05 mm
No. of axis:	6

Data Acquisition Card (DAC) System

Cell Controller

Processor:	Pentium 4™
Clock Speed:	2.66 GHz
Operating System:	Windows XP Pro™

Data Converter

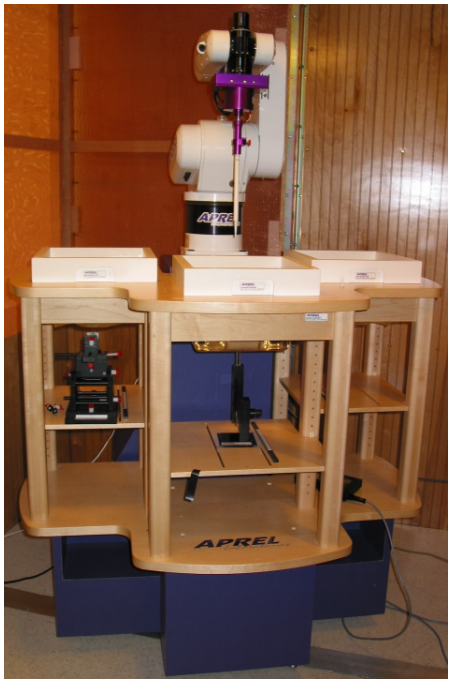
Features:	Signal Amplifier, End Effector, DAC
Software:	ALSAS 10-U Software

E-Field Probe

Model:	Various See Probe Calibration Sheet
Serial Number:	Various See Probe Calibration Sheet
Construction:	Triangular Core Touch Detection System
Frequency:	10MHz to 6GHz

Phantom

Phantom:	Uniphantom, Right Phantom, Left Phantom



4. Probe and Dipole Calibration

See Appendix D and E.

5. Phantom & Simulating Tissue Specifications

SAM Phantom

The Aprel system utilizes three separate phantoms. Each phantom for SAR assessment testing is a low loss dielectric shell, with shape and dimensions derived from the anthropomorphic data of the 90th percentile adult male head dimensions as tabulated by the US Army. The SAM phantom shell is bisected along the mid sagittai plane into right and left halves. The perimeter sidewalls of each phantom half is extended to allow filling with liquid to a depth of 15 cm that is sufficient to minimize reflections from the upper surface [5]. The Uni-Phantom is used to conduct body measurements and held to face measurements. The depth of the phantom allows for 15 cm of tissue material to be filled within the phantom. See photos in Appendix C.

Brain & Muscle Simulating Mixture Characterization

The brain and muscle mixtures consist of the material based on the table listed below. The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the desired tissue. Body tissue parameters that have not been specified in P1528 are derived from the issue dielectric parameters computed from the 4-Cole-Cole equations.

Table 5.1 Typical Composition of Ingredients for Tissue

Ingredients		Simulating Tissue		
		835 MHz Muscle	1900 MHz Muscle	1730 MHz Muscle
Mixing Percentage				
Water		52.40	69.91	69.73
Sugar		45.00	0.00	0.00
Salt		1.40	0.13	0.12
HEC		1.00	0.00	0.00
Bactericide		0.10	0.00	0.00
DGBE		0.00	29.96	30.15
Dielectric Constant	Target	55.20	53.30	53.48
Conductivity (S/m)	Target	0.97	1.52	1.48

Device Holder

In combination with the SAM phantom, the mounting device enables the rotation of the mounted transmitter in spherical coordinates whereby the rotation point is the ear opening. The devices can easily, accurately, and repeatably be positioned according to the FCC specifications. The device holder can be locked at different phantom locations (left head, right head, and uni-phantom).

6. Definition of Reference Points

Ear Reference Point

Figure 6.2 shows the front, back and side views of the SAM Phantom. The point "M" is the reference point for the center of the mouth, "LE" is the left ear reference point (ERP), and "RE" is the right ERP. The ERPs are 15mm posterior to the entrance to the ear canal (EEC) along the B-M line (Back-Mouth), as shown in Figure 6.1. The plane passing through the two ear canals and M is defined as the Reference Plane. The line N-F (Neck-Front) is perpendicular to the reference plane and passing through the RE (or LE) is called the Reference Pivoting Line (see Figure 6.1). Line B-M is perpendicular to the N-F line. Both N-F and B-M lines are marked on the external phantom shell to facilitate handset positioning [5].

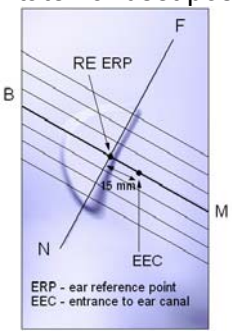


Figure 6.1 Close-up side view of ERP's

Figure 6.2 Front, back and side view of SAM

Device Reference Points

Two imaginary lines on the device need to be established: the vertical centerline and the horizontal line. The test device is placed 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" (See Fig. 6.3). The "test device reference point" is than located at the same level as the center of the ear reference point. The test device is positioned so that the "vertical centerline" is bisecting the front surface of the device at it's top and bottom edges, positioning the "ear reference point" on the outer surface of both the left and right head phantoms on the ear reference point [5].

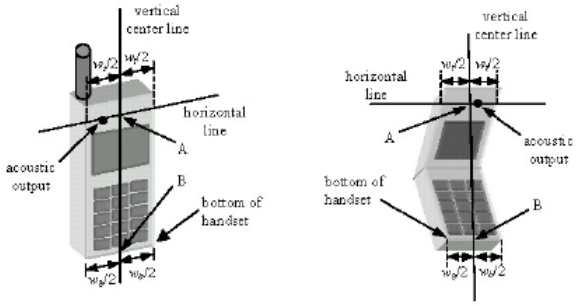


Figure 6.3 Handset Vertical Center & Horizontal Line Reference Points

7. Test Configuration Positions

Positioning for Cheek/Touch [5]

1. Position the device close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 7.1), such that the plane defined by the vertical center line and the horizontal line of the device is approximately parallel to the sagittal plane of the phantom.

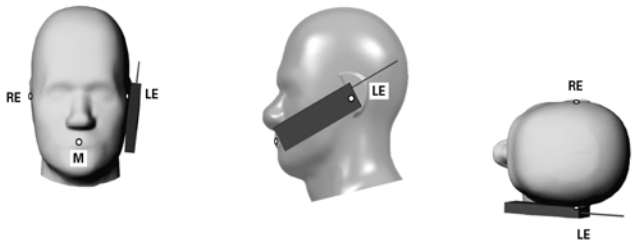


Figure 7.1 Front, Side and Top View of Cheek/Touch Position

2. Translate the device towards the phantom along the line passing through RE and LE until the device touches the ear.

3. While maintaining the device in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to MB-NF including the line MB (called the reference plane).

4. Rotate the device around the vertical centerline until the device (horizontal line) is symmetrical with respect to the line NF.

5. While maintaining the vertical centerline in the reference plane, keeping point A on the line passing through RE and LE and maintaining the device contact with the ear, rotate the device about the line NF until any point on the device is in contact with a phantom point below the ear (cheek). See Figure 7.2.

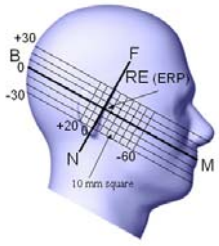


Figure 7.2 Side view w/ relevant markings

Positioning for Ear / 15˚ Tilt [5]

With the test device aligned in the Cheek/Touch Position":

1. While maintaining the orientation of the device, retracted the device parallel to the reference plane far enough to enable a rotation of the device by 15 degrees.

2. Rotate the device around the horizontal line by 15 degrees.

3. While maintaining the orientation of the device, move the device parallel to the reference plane until any part of the device touches the head. (In this position, point A is located on the line RE-LE). The tilted position is obtained when the contact is on the pinna. If the contact is at any location other than the pinna, the angle of the device shall be reduced. The tilted position is obtained when any part of the device is in contact with the ear as well as a second part of the device is in contact with the head (see Figure 7.3).

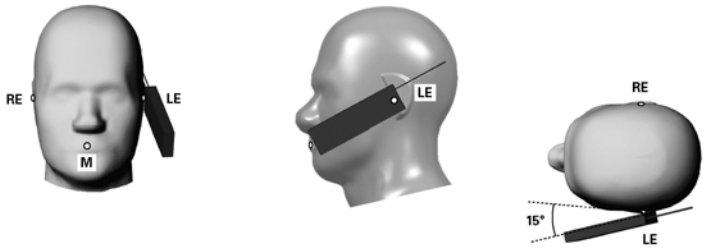


Figure 7.3 Front, Side and Top View of Ear/15˚ Tilt Position

Body Worn Configurations

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

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

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

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

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

In order for users to be aware of the body-worn operating requirements for meeting RF exposure compliance, operating instructions and cautions statements are included in the user's manual.

8. ANSI/IEEE C95.1 – 1999 RF Exposure Limits [2]

Uncontrolled Environment

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

Controlled Environment

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Table 8.1 Human Exposure Limits

	UNCONTROLLED ENVIRONMENT General Population (W/kg) or (mW/g)	CONTROLLED ENVIROMENT Professional Population (W/kg) or (mW/g)
SPATIAL PEAK SAR[1] Brain	1.60	8.00
SPATIAL AVERAGE SAR[2] Whole Body	0.08	0.40
SPATIAL PEAK SAR[3] Hands, Feet, Ankles, Wrists	4.00	20.00

[1] The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
[2] The Spatial Average value of the SAR averaged over the whole body.
[3] The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

9. Measurement Uncertainty

Exposure Assessment Measurement Uncertainty

Source of Uncertainty	Tolerance Value	Probability Distribution	Divisor	c_i^1 (1-g)	c_i^1 (10-g)	Standard Uncertainty (1-g) %	Standard Uncertainty (10-g) %
Measurement System							
Probe Calibration	3.5	normal	1	1	1	3.5	3.5
Axial Isotropy	3.7	rectangular	•3	$(1\text{-cp})^{1/2}$	$(1\text{-cp})^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	•3	•cp	•cp	4.4	4.4
Boundary Effect	1.0	rectangular	•3	1	1	0.6	0.6
Linearity	4.7	rectangular	•3	1	1	2.7	2.7
Detection Limit	1.0	rectangular	•3	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	•3	1	1	0.5	0.5
Integration Time	1.7	rectangular	•3	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	•3	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	•3	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	•3	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	•3	1	1	2.1	2.1
Test Sample Positioning	4.0	normal	1	1	1	4.0	4.0
Device Holder Uncertainty	2.0	normal	1	1	1	2.0	2.0
Drift of Output Power	4.2	rectangular	•3	1	1	2.4	2.4
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	•3	1	1	2.0	2.0
Liquid Conductivity(target)	5.0	rectangular	•3	0.7	0.5	2.0	1.4
Liquid Conductivity(meas.)	0.5	normal	1	0.7	0.5	0.4	0.3
Liquid Permittivity(target)	5.0	rectangular	•3	0.6	0.5	1.7	1.4
Liquid Permittivity(meas.)	1.0	normal	1	0.6	0.5	0.6	0.5
Combined Uncertainty		RSS				9.6	9.4
Combined Uncertainty (coverage factor=2)		Normal(k=2)				19.1	18.8

10. System Validation

Tissue Verification

Table 10.1 Measured Tissue Parameters

		1900 MHz Body		1900 MHz Body		1900 MHz Body	
Date(s)		Sept. 17, 2008		Sept. 18, 2008		Sept. 19, 2008	
Liquid Temperature (˚C)	20.0	Target	Measured	Target	Measured	Target	Measured
Dielectric Constant: ε		53.30	52.69	53.30	53.04	53.30	53.13
Conductivity: σ		1.52	1.52	1.52	1.54	1.52	1.51
		835 MHz Body		1800 MHz Body		1730 MHz Body	
Date(s)		Sept. 20, 2008		Sept. 23, 2008		Oct. 30, 2008	
Liquid Temperature (˚C)	20.0	Target	Measured	Target	Measured	Target	Measured
Dielectric Constant: ε		55.20	55.10	53.30	53.91	53.48	51.04
Conductivity: σ		0.97	0.96	1.52	1.51	1.48	1.53
		835 MHz Body		1900 MHz Body			
Date(s)		Nov. 21, 2008		Nov. 21, 2008			
Liquid Temperature (˚C)	20.0	Target	Measured	Target	Measured		
Dielectric Constant: ε		55.20	56.47	53.30	54.46		
Conductivity: σ		0.97	0.98	1.52	1.53		

See Appendix A for data printout.

Test System Verification

Prior to assessment, the system is verified to the ±10% of the specifications at the test frequency by using the system kit. Power is extrapolated to 1 watt. (Graphic Plots Attached)

Table 10.2 System Dipole Validation Target & Measured

	Test Frequency	Targeted SAR_{1g} (W/kg)	Measure SAR_{1g} (W/kg)	Deviation (%)
17-Sep-2008	1900 MHz	40.99	40.27	- 1.76
18-Sep-2008	1900 MHz	40.99	40.24	- 1.83
19-Sep-2008	1900 MHz	40.99	41.46	+ 1.15
20-Sep-2008	835 MHz	9.75	9.54	- 2.15
23-Sep-2008	1800 MHz	38.91	37.86	- 2.70
30-Oct-2008	1800 MHz w/1730 Tissue	38.91	41.78	+ 7.38
21-Nov-2008	835 MHz	9.75	9.42	- 3.38
21-Nov-2008	1900 MHz	40.99	40.12	- 2.12

See Appendix A for data plots.

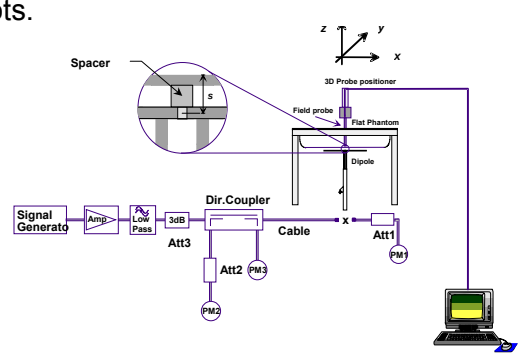


Figure 10.1 Dipole Validation Test Setup

Tissue Verification – November 21, 2008

Per FCC Application Note - SAR Probe Calibration and Systems Verification (1/2007)

Table 10.1 Measured Tissue Parameters

		1730 MHz Body			1800 MHz Body	
Date(s)		Nov. 21, 2007				
Liquid Temperature (˚C)	20.0	Target	Measured	Deviation	Target	Deviation From 548 MHz
Dielectric Constant: ε		53.48	51.35	- 3.98	53.30	- 3.66
Conductivity: σ		1.48	1.51	+ 2.03	1.52	+ 0.66

See Appendix A for data printout.

Test System Verification

Prior to assessment, the system is verified to the ±10% of the specifications at the test frequency by using the system kit. Power is extrapolated to 1 watt. (Graphic Plots Attached)

Table 10.2 System Dipole Validation Target & Measured

	Test Frequency	Tissue Frequency	Targeted SAR_{1g} (W/kg)	Measure SAR_{1g} (W/kg)	Deviation (%)
21-Nov-2008	1800 MHz	1730 MHz	38.910	39.190	+ 0.72

Test Frequency	Tissue Frequency	Targeted SAR_{1g} (W/kg)	1730 MHz Average SAR	Deviation (%)
1800 MHz	1800 MHz	38.910	39.784	+ 2.25

See Appendix A for data plots.

Table 10.3
Standard Deviation Measurements 1730 MHz

Number of Measurement	Measured SAR	Deviation (%)
#1	39.330	- 1.14
#2	40.070	+ 0.72
#3	39.430	- 0.89
#4	40.070	+ 0.72
#5	40.020	+ 0.59

Table 10.4
Coefficient of Variance Summary

Average SAR	Standard Deviation	CoV (%)	Spec
39.784	0.371	0.93	< 3.0%

11. SAR Test Data Summary

See Measurement Result Data Pages

See Appendix B for SAR Test Data Plots.
See Appendix C for SAR Test Setup Photos.

Procedures Used To Establish Test Signal

The device was placed into simulated transmit mode using the manufacturer's test codes. Such test signals offer a consistent means for testing SAR and are recommended for evaluating SAR. When test modes are not available or inappropriate for testing a device, the actual transmission is activated through a base station simulator or similar equipment. See data pages for actual procedure used in measurement.

Device Test Condition

The testing was conducted on all four sides of the modem. The bottom side testing was conducted with the modem installed in a side USB port on an HP Model Pavilion dv8000. The left side testing was conducted with the modem installed in a side USB port on a IBM/Lenovo Model Thinkpad T61. The top and right side testing was conducted with the modem installed on a 12 inch USB extension cable. The extension cable was installed in a side USB port on a IBM/Lenovo Model Thinkpad T61. The gap was measured to be 13 mm from the phantom for all sides.

This device is capable of operating in 850/1900 GSM/GPRS/EDGE frequency bands. In GSM/GPRS mode, the device is in Class 4 for 850 MHz and Class 1 for 1900 MHz. In EDGE mode, the device is in Class E2 for 850/1900 MHz. The GSM/GPRS testing was conducted in the GPRS mode. The GPRS mode has 2-slot and 4-slot configurations. The power measured is peak power. The average power in GSM is 1 to 1½ dB lower than the average power in GPRS 2-slot which is 1½ to 2 dB higher than 4-slot . The EDGE mode is 3 dB lower than its equivalent slot configuration for GPRS. Therefore, the device was only tested the highest power configuration which was 2-slot GPRS.

The WCDMA testing was conducted using 12.2 kbps RMC configured in Test Loop Mode 1. The HSPA testing was conducted with HS-DPCCH, E-DPCCH and E-DPDCH all enabled and a 12.2 kbps RMC. FRC was configured according to HS-DPCCH Sub-Test 1 using H-set 1 and QPSK.

12. Conducted Power Measurement Procedures

Power measurements were performed using a base station simulator under average power.

12.1 Procedures Used to Establish RF Signal for SAR

The device was placed into a simulated call using a base station simulator in a screen room. Such test signals offer a consistent means for testing SAR and is recommended for evaluating SAR. SAR measurements were taken with a fully charged battery. The SAR measurement software calculates a reference point at the start and end of the test to check for power drifts. If the SAR drift or conducted power deviations of more than 5% occurred, the tests were repeated.

12.2 SAR Measurement Conditions for WCDMA/HSDPA/HSUPA

Configure the call box 8960 to support all WCDMA tests in respect to the 3GPP 34.121 (listed in Table below). Measure the power at Ch4132, 4182 and 4233 for US cell; Ch9262, 9400 and 9538 for US PCS band.

For Rel99

- Set a Test Mode 1 loop back with a 12.2kbps Reference Measurement Channel (RMC).
- Set and send continuously Up power control commands to the UNDP-1
- Measure the power at the UNDP-1 antenna connector using the power meter with average detector.

For HSDPA Rel 6

- Establish a Test Mode 1 look back with both 1 12.2kbps RMC channel and a H-Set1 Fixed Reference Channel (FRC). With the 8820 this is accomplished by setting the signal Channel Coding to “Fixed Reference Channel” and configuring for HSET-1 QKSP.
- Set beta values and HSDPA settings for HSDPA Subtest1 according to Table below.
- Send continuously Up power control commands to the UNDP-1
- Measure the power at the UNDP-1 antenna connector using the power meter with modulated average detector.
- Repeat the measurement for the HSDPA Subtest2, 3 and 4 as given in Table below.

For HSUPA Rel 6

- Use UL RMC 12.2kbps and FRC H-Set1 QPSK, Test Mode 1 loop back. With the 8960 this is accomplished by setting the signal Channel Coding to “E-DCH Test Channel” and configuring the equipment category to Cat5_10ms.
- Set the Absolute Grant for HSUPA Subtest1 according to Table below.
- Set the UNDP power to be at least 5dB lower than the Maximum output power
- Send power control bits to give one TPC_cmd = +1 command to the UNDP. If UNDP doesn’t send any E-DPCH data with decreased E-TFCI within 500ms, then repeat this process until the decreased E-TFCI is reported.
- Confirm that the E-TFCI transmitted by the UNDP is equal to the target E-TFCI in Table below. If the E-TFCI transmitted by the UNDP is not equal to the target E-TFCI, then send power control bits to give one TPC_cmd = -1 command to the UE. If UE sends any E-DPCH data with decreased E-TFCI within 500 ms, send new

power control bits to give one TPC_cmd = -1 command to the UE. Then confirm that the E-TFCI transmitted by the UE is equal to the target E-TFCI in Table below.
- Measure the power using the power meter with modulated average detector.
- Repeat the measurement for the HSUPA Subtest2, 3, 4 and 5 as given in Table below.

12.3 SAR Measurement Conditions for GSM/GPRS/EDGE

Configure the 8960 box to support GMSK and 8PSK call respectively, and set one timeslot transmission for GMSK GSM/GPRS and 8PSK EDGE. Measure peak value and record power outputs for both modulations. Repeat measurements for 2-slot and 4-slot.

GSM		
Band	**Channel**	**Power**
Cellular	128	32.86
	190	32.85
	251	32.86
PCS	512	29.95
	661	29.96
	810	29.95

GPRS/2-Slot		
Band	**Channel**	**Power**
Cellular	128	30.77
	190	30.78
	251	30.78
PCS	512	27.62
	661	27.63
	810	27.63

EDGE/2-Slot		
Band	**Channel**	**Power**
Cellular	128	27.11
	190	27.13
	251	27.12
PCS	512	24.64
	661	24.65
	810	24.65

GPRS/4-Slot		
Band	**Channel**	**Power**
Cellular	128	25.4
	190	25.4
	251	25.2
PCS	512	22.6
	661	22.7
	810	22.7

EDGE/4-Slot		
Band	**Channel**	**Power**
Cellular	128	19.6
	190	19.6
	251	19.5
PCS	512	18.7
	661	18.8
	810	18.7

All Measurements are peak values.

3GPP Release Version	Mode	Cellular Band [dBm]			Sub-Test (See Table Below)	MPR
		4132	5183	4233		
99	WCDMA	22.31	22.29	22.22	-	-
6	HSDPA	22.16	22.03	22.00	1	0
6		22.24	22.19	22.12	2	0
6		21.72	21.66	21.60	3	0.5
6		21.74	21.67	21.62	4	0.5
6	HSUPA	22.23	22.19	22.18	1	0
6		20.21	20.16	20.12	2	2
6		21.19	21.12	21.15	3	1
6		20.21	20.14	20.13	4	2
6		22.19	22.17	22.15	5	0

3GPP Release Version	Mode	PCS Band [dBm]			Sub-Test (See Table Below)	MPR
		9262	9400	9538		
99	WCDMA	21.52	21.51	21.48	-	-
6	HSDPA	21.49	21.46	21.42	1	0
6		21.48	21.47	21.46	2	0
6		20.98	20.95	20.91	3	0.5
6		20.94	20.95	20.90	4	0.5
6	HSUPA	21.50	21.46	21.41	1	0
6		19.48	19.40	19.39	2	2
6		20.46	20.42	20.40	3	1
6		19.42	19.44	19.41	4	2
6		21.48	21.42	21.39	5	0

3GPP Release Version	Mode	1700 MHz Band [dBm]			Sub-Test (See Table Below)	MPR
		1312	1413	1513		
99	WCDMA	22.02	22.01	21.98	-	-
6	HSDPA	21.99	21.97	21.92	1	0
6		22.01	21.99	21.95	2	0
6		21.46	21.43	21.40	3	0.5
6		21.48	21.47	21.41	4	0.5
6	HSUPA	22.02	22.00	21.96	1	0
6		20.01	19.97	19.92	2	2
6		20.99	20.98	20.95	3	1
6		20.02	19.97	19.93	4	2
6		21.99	21.97	21.94	5	0

All measurements are average values.

Sub-Test Setup for Release 6 HSDPA

Sub-Test	β_c	β_d	B_c/β_d	β_{hs}
1	2/15	15/15	2/15	4/15
2	12/15	15/15	15/15	24/15
3	15/15	8/15	15/8	30/15
4	15/15	4/15	15/4	30/15
Δ_{ack}, Δ_{nack} and Δ_{cqi} = 8				

Sub-Test Setup for Release 6 HSUPA

Sub-Test	β_c	β_d	B_c/β_d	β_{hs}	B_{ec}	B_{ed}	MPR	AG Index	E-TFCI
1	11/15	15/15	11/15	22/15	209/225	1039/225	0.0	20	75
2	6/15	15/15	6/15	12/15	12/15	94/75	2.0	12	67
3	15/15	9/15	15/9	30/15	30/15	47/15	1.0	15	92
4	2/15	15/15	2/15	4/15	2/15	56/15	2.0	17	71
5	15/15	15/15	15/15	30/15	24/15	134/15	0.0	21	81
Δ_{ack}, Δ_{nack} and Δ_{cqi} = 8									

SAR Data Summary – 835 MHz Body – WCDMA

MEASUREMENT RESULTS									
Gap	**Side**	**Frequency**		**Configuration**	**Begin/End Power**		**RMC**	**Test Set Up**	**SAR (W/kg)**
		MHz	**Ch.**		**(dBm)**	**(dBm)**			
13 mm	Top	836.6	4183	WCDMA	22.29	22.28	12.2 kbps	Test Loop 1	0.637
		836.6	4183	HSPA	22.19	22.16	12.2 kbps	All Enabled	0.630
	Bottom	836.6	4183	WCDMA	22.28	22.23	12.2 kbps	Test Loop 1	0.507
		836.6	4183	HSPA	22.17	22.15	12.2 kbps	All Enabled	0.503
	Right Side	836.6	4183	WCDMA	22.29	22.26	12.2 kbps	Test Loop 1	0.169
		836.6	4183	HSPA	22.16	22.14	12.2 kbps	All Enabled	0.171
	Left Side	836.6	4183	WCDMA	22.25	22.24	12.2 kbps	Test Loop 1	0.333
		836.6	4183	HSPA	22.18	22.17	12.2 kbps	All Enabled	0.340

Muscle
1.6 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP

2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Uniphantom ☐Right Head
   SAR Configuration ☐Head ☒Body

3. Test Signal Call Mode ☐Test Code ☒Base Station Simulator

4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A

Jay M. Moulton
Vice President

SAR Data Summary – 835 MHz Body – GPRS/2-Slot

MEASUREMENT RESULTS									
Gap	**Side**	**Frequency**		**Modulation**	**Begin/End Power**		**TX Level**	**Multislot Configuration**	**SAR (W/kg)**
		MHz	**Ch.**		**(dBm)**	**(dBm)**			
13 mm	Top	836.6	190	GMSK	30.78	30.77	0	2-Slot	0.671
	Bottom	836.6	190	GMSK	30.76	30.76	0	2-Slot	0.594
	Right Side	836.6	190	GMSK	30.77	30.76	0	2-Slot	0.304
	Left Side	836.6	190	GMSK	30.78	30.77	0	2-Slot	0.389
								Muscle 1.6 W/kg (mW/g) averaged over 1 gram	

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP

2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Uniphantom ☐Right Head
   SAR Configuration ☐Head ☒Body

3. Test Signal Call Mode ☐Test Code ☒Base Station Simulator

4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A

Jay M. Moulton
Vice President

SAR Data Summary – 1700 MHz Body – WCDMA

MEASUREMENT RESULTS									
Gap	Side	Frequency		Configuration	Begin/End Power		RMC	Test Setup	SAR (W/kg)
		MHz	Ch.		(dBm)	(dBm)			
13 mm	Top	1712.4	1312	WCDMA	22.02	22.00	12.2 kbps	Test Loop 1	1.493
		1732.6	1413		22.01	21.98	12.2 kbps	Test Loop 1	1.041
		1752.6	1513		21.98	21.96	12.2 kbps	Test Loop 1	1.199
		1712.4	1312	HSPA	22.02	22.01	12.2 kbps	All Enabled	1.518
		1732.6	1413		22.00	21.97	12.2 kbps	All Enabled	1.174
		1752.6	1513		21.96	21.95	12.2 kbps	All Enabled	1.195
	Bottom	1712.4	1312	WCDMA	22.01	21.99	12.2 kbps	Test Loop 1	1.374
		1732.6	1413		22.01	22.00	12.2 kbps	Test Loop 1	1.242
		1752.6	1513		21.96	21.94	12.2 kbps	Test Loop 1	1.413
		1712.4	1312	HSPA	22.00	21.98	12.2 kbps	All Enabled	1.463
		1732.6	1413		21.98	21.95	12.2 kbps	All Enabled	1.157
		1752.6	1513		21.94	21.92	12.2 kbps	All Enabled	1.330
	Right Side	1712.4	1312	WCDMA	21.99	21.98	12.2 kbps	Test Loop 1	1.518
		1732.6	1413		21.97	21.95	12.2 kbps	Test Loop 1	1.240
		1752.6	1513		21.96	21.92	12.2 kbps	Test Loop 1	1.388
		1712.4	1312	HSPA	21.99	21.97	12.2 kbps	All Enabled	1.507
		1732.6	1413		21.97	21.94	12.2 kbps	All Enabled	1.206
		1752.6	1513		21.95	21.93	12.2 kbps	All Enabled	1.398
	Left Side	1712.4	1312	WCDMA	22.01	21.98	12.2 kbps	Test Loop 1	1.476
		1732.6	1413		22.00	21.96	12.2 kbps	Test Loop 1	1.174
		1752.6	1513		21.98	21.95	12.2 kbps	Test Loop 1	1.324
		1712.4	1312	HSPA	22.02	22.00	12.2 kbps	All Enabled	1.438
		1732.6	1413		21.98	21.93	12.2 kbps	All Enabled	1.160
		1752.6	1513		21.96	21.91	12.2 kbps	All Enabled	1.304

Muscle
1.6 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP
2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Uniphantom ☐Right Head
   SAR Configuration ☐Head ☒Body
3. Test Signal Call Mode ☐Test Code ☒Base Station Simulator
4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A

Jay M. Moulton
Vice President

SAR Data Summary – 1900 MHz Body – WCDMA

MEASUREMENT RESULTS

Gap	Side	Frequency		Configuration	Begin/End Power		RMC	Test Setup	SAR (W/kg)
		MHz	Ch.		(dBm)	(dBm)			
13 mm	Top	1852.4	9262	WCDMA	21.52	21.50	12.2 kbps	Test Loop 1	1.446
		1880.0	9400		21.51	21.49	12.2 kbps	Test Loop 1	1.041
		1907.6	9538		21.48	21.45	12.2 kbps	Test Loop 1	1.085
		1852.4	9262	HSPA	21.50	21.47	12.2 kbps	All Enabled	1.481
		1880.0	9400		21.48	21.43	12.2 kbps	All Enabled	1.076
		1907.6	9538		21.47	21.45	12.2 kbps	All Enabled	1.080
	Bottom	1852.4	9262	WCDMA	21.51	21.47	12.2 kbps	Test Loop 1	1.516
		1880.0	9400		21.51	21.48	12.2 kbps	Test Loop 1	1.449
		1907.6	9538		21.47	21.45	12.2 kbps	Test Loop 1	1.457
		1852.4	9262	HSPA	21.49	21.48	12.2 kbps	All Enabled	1.514
		1880.0	9400		21.48	21.42	12.2 kbps	All Enabled	1.277
		1907.6	9538		21.45	21.43	12.2 kbps	All Enabled	1.283
	Right Side	1852.4	9262	WCDMA	21.49	21.46	12.2 kbps	Test Loop 1	1.378
		1880.0	9400		21.48	21.41	12.2 kbps	Test Loop 1	1.133
		1907.6	9538		21.46	21.43	12.2 kbps	Test Loop 1	1.327
		1852.4	9262	HSPA	21.47	21.42	12.2 kbps	All Enabled	1.432
		1880.0	9400		21.42	21.39	12.2 kbps	All Enabled	1.211
		1907.6	9538		21.43	21.40	12.2 kbps	All Enabled	1.424
	Left Side	1852.4	9262	WCDMA	21.50	21.46	12.2 kbps	Test Loop 1	1.012
		1880.0	9400		21.49	21.48	12.2 kbps	Test Loop 1	0.882
		1907.6	9538		21.45	21.44	12.2 kbps	Test Loop 1	1.008
		1852.4	9262	HSPA	21.47	21.42	12.2 kbps	All Enabled	1.030
		1880.0	9400		21.44	21.40	12.2 kbps	All Enabled	0.898
		1907.6	9538		21.42	21.38	12.2 kbps	All Enabled	1.075

Muscle
1.6 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP
2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Uniphantom ☐Right Head
   SAR Configuration ☐Head ☒Body
3. Test Signal Call Mode ☐Test Code ☒Base Station Simulator
4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A

Jay M. Moulton
Vice President

SAR Data Summary – 1900 MHz Body – GPRS/2-Slot

MEASUREMENT RESULTS									
Gap	**Side**	**Frequency**		**Modulation**	**Begin/End Power**		**TX Level**	**Multislot Configuration**	**SAR (W/kg)**
		MHz	**Ch.**		**(dBm)**	**(dBm)**			
13 mm	Top	1880.0	661	GMSK	27.63	27.62	0	2-Slot	0.784
	Bottom	1880.0	661	GMSK	27.62	27.61	0	2-Slot	0.595
	Right Side	1880.0	661	GMSK	27.62	27.61	0	2-Slot	0.561
	Left Side	1880.0	661	GMSK	27.63	27.62	0	2-Slot	0.379
					Muscle 1.6 W/kg (mW/g) averaged over 1 gram				

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP

2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Uniphantom ☐Right Head
   SAR Configuration ☐Head ☒Body

3. Test Signal Call Mode ☐Test Code ☒Base Station Simulator

4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A

Jay M. Moulton
Vice President

SAR Data Summary – 1700 MHz Body – WCDMA

MEASUREMENT RESULTS									
Gap	**Side**	**Frequency**		**Configuration**	**Begin/End Power**		**RMC**	**Test Setup**	**SAR (W/kg)**
		MHz	**Ch.**		**(dBm)**	**(dBm)**			
13 mm	Top	1712.4	1312	WCDMA	22.01	21.99	12.2 kbps	Test Loop 1	1.356
		1712.4	1312	HSPA	22.00	21.98	12.2 kbps	All Enabled	1.372
	Bottom	1752.6	1513	WCDMA	21.97	21.95	12.2 kbps	Test Loop 1	1.349
		1712.4	1312	HSPA	21.98	21.96	12.2 kbps	All Enabled	1.372
	Right Side	1712.4	1312	WCDMA	21.99	21.98	12.2 kbps	Test Loop 1	1.392
		1712.4	1312	HSPA	21.96	21.93	12.2 kbps	All Enabled	1.394
	Left Side	1712.4	1312	WCDMA	22.00	21.97	12.2 kbps	Test Loop 1	1.370
		1712.4	1312	HSPA	21.99	21.95	12.2 kbps	All Enabled	1.349

Muscle
1.6 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP

2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Uniphantom ☐Right Head
   SAR Configuration ☐Head ☒Body

3. Test Signal Call Mode ☐Test Code ☒Base Station Simulator

4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A

Jay M. Moulton
Vice President

SAR Data Summary – 1700 MHz Body – WCDMA

MEASUREMENT RESULTS									
Gap	**Side**	**Frequency**		**Configuration**	**Begin/End Power**		**RMC**	**Test Setup**	**SAR (W/kg)**
		MHz	**Ch.**		**(dBm)**	**(dBm)**			
13 mm	Top	1712.4	1312	WCDMA	22.06	22.04	12.2 kbps	Test Loop 1	1.404
		1712.4	1312	HSPA	22.03	22.01	12.2 kbps	All Enabled	1.370
	Bottom	1752.6	1513	WCDMA	22.00	21.97	12.2 kbps	Test Loop 1	1.321
		1712.4	1312	HSPA	21.99	21.96	12.2 kbps	All Enabled	1.422
	Right Side	1712.4	1312	WCDMA	22.01	21.99	12.2 kbps	Test Loop 1	1.393
		1712.4	1312	HSPA	21.97	21.94	12.2 kbps	All Enabled	1.454
	Left Side	1712.4	1312	WCDMA	22.00	21.98	12.2 kbps	Test Loop 1	1.288
		1712.4	1312	HSPA	21.99	21.96	12.2 kbps	All Enabled	1.295
					Muscle 1.6 W/kg (mW/g) averaged over 1 gram				

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP

2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Uniphantom ☐Right Head
   SAR Configuration ☐Head ☒Body

3. Test Signal Call Mode ☐Test Code ☒Base Station Simulator

4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A

Jay M. Moulton
Vice President

SAR Data Summary – Device With MicroSD Card

MEASUREMENT RESULTS									
Gap	**Side**	**Frequency**		**Configuration**	**Begin/End Power**		**RMC/ TX Level**	**Test Setup/ Multislot Configuration**	**SAR (W/kg)**
		MHz	**Ch.**		**(dBm)**	**(dBm)**			
13 mm	Top	836.6	4183	WCDMA	22.29	22.27	12.2 kbps	Test Loop 1	0.643
	Top	836.6	190	GPRS	30.76	30.76	0	2-Slot	0719
	Bottom	1880.0	9400	WCDMA	21.49	21.45	12.2 kbps	Test Loop 1	1.521
	Top	1880.0	661	GPRS	27.61	27.60	0	2-Slot	0.867
	Right	1712.4	1312	HSPA	22.01	21.99	12.2 kbps	All Enabled	1.422
					Muscle 1.6 W/kg (mW/g) averaged over 1 gram				

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP

2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Uniphantom ☐Right Head
   SAR Configuration ☐Head ☒Body

3. Test Signal Call Mode ☐Test Code ☒Base Station Simulator

4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A

Jay M. Moulton
Vice President

13. Test Equipment List

Table 12.1 Equipment Specifications

Type	Calibration Due Date	Serial Number
ThermoCRS Robot	N/A	RAF0338198
ThermoCRS Controller	N/A	RCF0338224
ThermoCRS Teach Pendant (Joystick)	N/A	STP0334405
IBM Computer, 2.66 MHz P4	N/A	8189D8U KCPR08N
Aprel E-Field Probe ALS-E020	12/03/2008	RFE-217
Aprel E-Field Probe ALS-E030	04/30/2008	AL-E3P1
Aprel Dummy Probe	N/A	023
Aprel Left Phantom	N/A	RFE-267
Aprel Right Phantom	N/A	RFE-268
Aprel UniPhantom	N/A	RFE-273
Aprel Validation Dipole ALS-D-450-S-2	04/30/2009	RFE-362
Aprel Validation Dipole ALS-D-835-S-2	02/22/2010	RFE-274
Aprel Validation Dipole ALS-D-1900-S-2	02/21/2010	RFE-277
Aprel Validation Dipole ALS-D-2450-S-2	02/20/2010	RFE-278
Aprel Validation Dipole ALS-D-BB-S-2	05/23/2009	5258-235-00801
Agilent (HP) 437B Power Meter	12/03/2008	3125U08837
Agilent (HP) 8481B Power Sensor	12/03/2008	3318A05384
Advantest R3261A Spectrum Analyzer	12/03/2008	31720068
Agilent (HP) 8350B Signal Generator	01/28/2009	2749A10226
Agilent (HP) 83525A RF Plug-In	01/28/2009	2647A01172
Agilent (HP) 8753C Vector Network Analyzer	01/28/2009	3135A01724
Agilent (HP) 85047A S-Parameter Test Set	01/28/2009	2904A00595
Agilent (HP) E55125C Base Station Sim.	03/08/2009	GB41450395
Aprel Dielectric Probe Assembly	N/A	0011
Brain Equivalent Matter (450 MHz)	N/A	N/A
Brain Equivalent Matter (835 MHz)	N/A	N/A
Brain Equivalent Matter (1900 MHz)	N/A	N/A
Brain Equivalent Matter (2450 MHz)	N/A	N/A
Muscle Equivalent Matter (450 MHz)	N/A	N/A
Muscle Equivalent Matter (835 MHz)	N/A	N/A
Muscle Equivalent Matter (1900 MHz)	N/A	N/A
Muscle Equivalent Matter (2450 MHz)	N/A	N/A
Muscle Equivalent Matter (5200 MHz)	N/A	N/A
Muscle Equivalent Matter (5800 MHz)	N/A	N/A

14. Conclusion

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the FCC. These measurements are taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The tested device complies with the requirements in respect to all parameters subject to the test. The test results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body is a very complex phenomena that depends on the mass, shape, and size of the body; the orientation of the body with respect to the field vectors; and, the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because innumerable factors may interact to determine the specific biological outcome of an exposure to electromagnetic fields, any protection guide shall consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables. [3]

15. References

[1] Federal Communications Commission, ET Docket 93-62, Guidelines for Evaluating the Environmental Effects of Radio Frequency Radiation, August 1996

[2] ANSI/IEEE C95.1 – 1999, American National Standard Safety Levels with respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300kHz to 100GHz, New York: IEEE, 1992.

[3] ANSI/IEEE C95.3 – 2002, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave, New York: IEEE, 1992.

[4] Federal Communications Commission, OET Bulletin 65 (Edition 97-01), Supplement C (Edition 01-01), Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields, July 2001.

[5] IEEE Standard 1528 – 2003, IEEE Recommended Practice for Determining the Peak-Spatial Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communication Devices: Measurement Techniques, October 2003.

[6] Industry Canada, RSS – 102e, Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands), November 2005.

[7] Industry Canada, Safety Code 6, Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3kHz to 300 GHz, 1999.

Appendix A – System Validation Plots and Data

```
**********************************************************
Test Result for UIM Dielectric Parameter
Wed 17/Sep/2008 08:31:19
Freq  Frequency(GHz)
FCC_eH      FCC Bulletin 65 Supplement C ( June 2001) Limits for Head Epsilon
FCC_sH      FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB      FCC Limits for Body Epsilon
FCC_sB      FCC Limits for Body Sigma
Test_e      Epsilon  of  UIM
Test_s      Sigma of UIM
**********************************************************
Freq        FCC_eB      FCC_sB      Test_e      Test_s
1.8700      53.30       1.52        52.90       1.57
1.8800      53.30       1.52        52.82       1.55
1.8900      53.30       1.52        52.76       1.54
1.9000      53.30       1.52        52.69       1.52
1.9100      53.30       1.52        52.58       1.50
1.9200      53.30       1.52        52.43       1.47
1.9300      53.30       1.52        52.39       1.45
```

```
**********************************************************
Test Result for UIM Dielectric Parameter
Thu 18/Sep/2008 08:41:38
Freq  Frequency(GHz)
FCC_eH      FCC Bulletin 65 Supplement C ( June 2001) Limits for Head Epsilon
FCC_sH      FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB      FCC Limits for Body Epsilon
FCC_sB      FCC Limits for Body Sigma
Test_e      Epsilon  of  UIM
Test_s      Sigma of UIM
**********************************************************
Freq        FCC_eB      FCC_sB      Test_e      Test_s
1.8700      53.30       1.52        53.28       1.58
1.8800      53.30       1.52        53.19       1.56
1.8900      53.30       1.52        53.11       1.55
1.9000      53.30       1.52        53.05       1.54
1.9100      53.30       1.52        52.93       1.52
1.9200      53.30       1.52        52.84       1.51
1.9300      53.30       1.52        52.76       1.49
```

```
**********************************************************
Test Result for UIM Dielectric Parameter
Fri 19/Sep/2008 06:42:51
Freq  Frequency(GHz)
FCC_eH      FCC Bulletin 65 Supplement C ( June 2001) Limits for Head Epsilon
FCC_sH      FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB      FCC Limits for Body Epsilon
FCC_sB      FCC Limits for Body Sigma
Test_e      Epsilon  of  UIM
Test_s      Sigma of UIM
**********************************************************
```

Freq	FCC_eB	FCC_sB	Test_e	Test_s
1.8700	53.30	1.52	53.37	1.56
1.8800	53.30	1.52	53.29	1.54
1.8900	53.30	1.52	53.21	1.53
1.9000	53.30	1.52	53.13	1.51
1.9100	53.30	1.52	53.05	1.50
1.9200	53.30	1.52	52.96	1.49
1.9300	53.30	1.52	52.83	1.47

```
**********************************************************
Test Result for UIM Dielectric Parameter
Sat 20/Sep/2008 06:24:34
Freq  Frequency(GHz)
FCC_eH      FCC Bulletin 65 Supplement C ( June 2001) Limits for Head Epsilon
FCC_sH      FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB      FCC Limits for Body Epsilon
FCC_sB      FCC Limits for Body Sigma
Test_e      Epsilon  of  UIM
Test_s      Sigma of UIM
**********************************************************
```

Freq	FCC_eB	FCC_sB	Test_e	Test_s
0.8050	55.32	0.97	55.31	0.91
0.8150	55.28	0.97	55.26	0.93
0.8250	55.24	0.97	55.19	0.94
0.8350	55.20	0.97	55.10	0.96
0.8450	55.17	0.98	55.04	0.97
0.8550	55.14	0.99	54.97	0.99
0.8650	55.11	1.01	54.91	1.00

```
**********************************************************
Test Result for UIM Dielectric Parameter
Tue 23/Sep/2008 06:38:21
Freq  Frequency(GHz)
FCC_eH      FCC Bulletin 65 Supplement C ( June 2001) Limits for Head Epsilon
FCC_sH      FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB      FCC Limits for Body Epsilon
FCC_sB      FCC Limits for Body Sigma
Test_e      Epsilon  of  UIM
Test_s      Sigma of UIM
**********************************************************
```

Freq	FCC_eB	FCC_sB	Test_e	Test_s
1.7700	53.38	1.50	54.16	1.48
1.7800	53.35	1.51	54.08	1.50
1.7900	53.33	1.51	53.98	1.51
1.8000	53.30	1.52	53.91	1.51
1.8100	53.30	1.52	53.84	1.51
1.8200	53.30	1.52	53.75	1.52
1.8300	53.30	1.52	53.69	1.52

```
**********************************************************
Test Result for UIM Dielectric Parameter
Thu 30/Oct/2008 11:30:11
Freq  Frequency(GHz)
FCC_eH      FCC Bulletin 65 Supplement C ( June 2001) Limits for Head Epsilon
FCC_sH      FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB      FCC Limits for Body Epsilon
FCC_sB      FCC Limits for Body Sigma
Test_e      Epsilon  of  UIM
Test_s      Sigma of UIM
**********************************************************
```

Freq	FCC_eB	FCC_sB	Test_e	Test_s
1.7000	53.56	1.46	51.31	1.49
1.7100	53.54	1.46	51.25	1.50
1.7200	53.51	1.47	51.12	1.51
1.7300	53.48	1.48	51.04	1.53
1.7400	53.46	1.48	50.96	1.54
1.7500	53.43	1.49	50.89	1.56
1.7600	53.41	1.49	52.85	1.58

```
**********************************************************
Test Result for UIM Dielectric Parameter
Fri 21/Nov/2008 07:21:46
Freq  Frequency(GHz)
FCC_eH      FCC Bulletin 65 Supplement C ( June 2001) Limits for Head Epsilon
FCC_sH      FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB      FCC Limits for Body Epsilon
FCC_sB      FCC Limits for Body Sigma
Test_e      Epsilon  of  UIM
Test_s      Sigma of UIM
**********************************************************
```

Freq	FCC_eB	FCC_sB	Test_e	Test_s
1.7000	53.56	1.46	51.67	1.47
1.7100	53.54	1.46	51.53	1.48
1.7200	53.51	1.47	51.41	1.49
1.7300	53.48	1.48	51.35	1.51
1.7400	53.46	1.48	51.21	1.52
1.7500	53.43	1.49	51.12	1.54
1.7600	53.41	1.49	51.01	1.56

```
**********************************************************
Test Result for UIM Dielectric Parameter
Fri 21/Nov/2008 02:51:40
Freq  Frequency(GHz)
FCC_eH      FCC Bulletin 65 Supplement C ( June 2001) Limits for Head Epsilon
FCC_sH      FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB      FCC Limits for Body Epsilon
FCC_sB      FCC Limits for Body Sigma
Test_e      Epsilon  of  UIM
Test_s      Sigma of UIM
**********************************************************
```

Freq	FCC_eB	FCC_sB	Test_e	Test_s
0.8050	55.32	0.97	56.63	0.94
0.8150	55.28	0.97	56.55	0.94
0.8250	55.24	0.97	56.53	0.96
0.8350	55.20	0.97	56.47	0.98
0.8450	55.17	0.98	56.39	0.99
0.8550	55.14	0.99	56.36	0.99
0.8650	55.11	1.01	56.33	1.01

```
**********************************************************
Test Result for UIM Dielectric Parameter
Fri 21/Nov/2008 01:16:11
Freq  Frequency(GHz)
FCC_eH      FCC Bulletin 65 Supplement C ( June 2001) Limits for Head Epsilon
FCC_sH      FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB      FCC Limits for Body Epsilon
FCC_sB      FCC Limits for Body Sigma
Test_e      Epsilon  of  UIM
Test_s      Sigma of UIM
**********************************************************
```

Freq	FCC_eB	FCC_sB	Test_e	Test_s
1.8700	53.30	1.52	54.59	1.48
1.8800	53.30	1.52	54.52	1.50
1.8900	53.30	1.52	54.50	1.51
1.9000	53.30	1.52	54.46	1.53
1.9100	53.30	1.52	54.41	1.54
1.9200	53.30	1.52	54.39	1.54
1.9300	53.30	1.52	54.38	1.57

SAR Test Report

By Operator : Jay
Measurement Date : 17-Sep-2008
Starting Time : 17-Sep-2008 08:42:42 AM
End Time : 17-Sep-2008 08:54:59 AM
Scanning Time : 737 secs

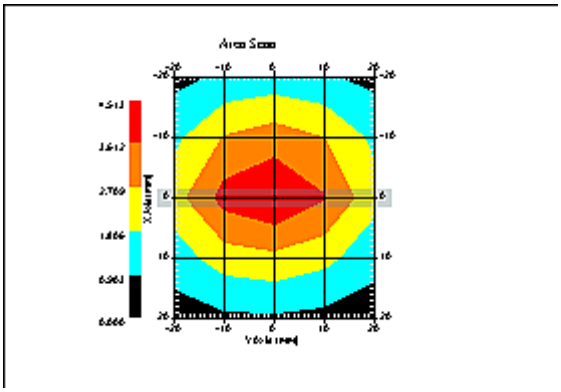
Product Data
Device Name : Validation
Serial No. : 1900
Type : Dipole
Model : ALS-D-1900-S-2
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 68 mm
Width : 3.6 mm
Depth : 39.5 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 4.542 W/kg
Power Drift-Finish: 4.455 W/kg
Power Drift (%) : -1.925

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

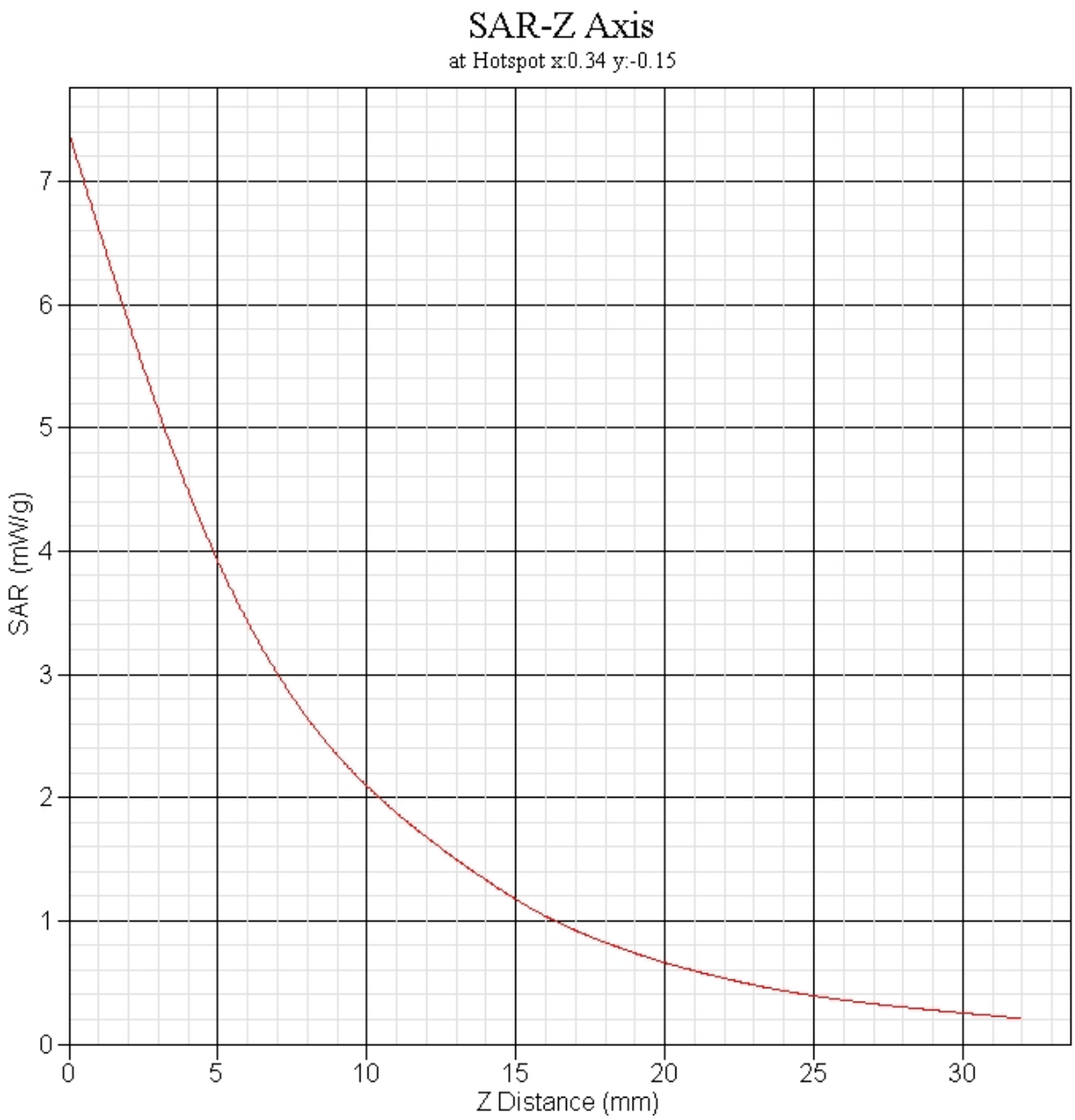
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 17-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 52.69 F/m
Sigma : 1.52 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 17-Sep-2008
Set-up Time       : 8:21:16 AM
Area Scan         : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 0
Channel           : Mid
```



```
1 gram SAR value    : 4.027 W/kg
10 gram SAR value   : 2.079 W/kg
Area Scan Peak SAR  : 4.513 W/kg
Zoom Scan Peak SAR  : 7.396 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 18-Sep-2008
Starting Time : 18-Sep-2008 08:56:52 AM
End Time : 18-Sep-2008 09:08:57 AM
Scanning Time : 725 secs

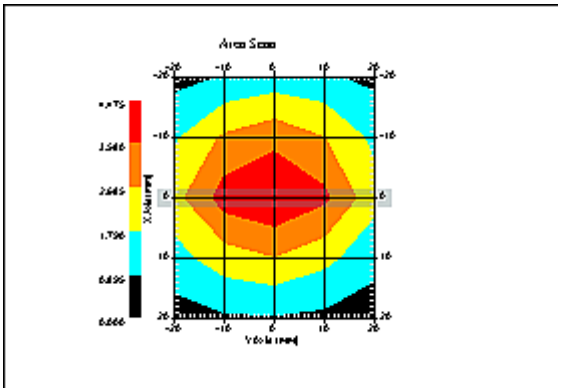
Product Data
Device Name : Validation
Serial No. : 1900
Type : Dipole
Model : ALS-D-1900-S-2
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 68 mm
Width : 3.6 mm
Depth : 39.5 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 4.575 W/kg
Power Drift-Finish: 4.414 W/kg
Power Drift (%) : -3.513

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

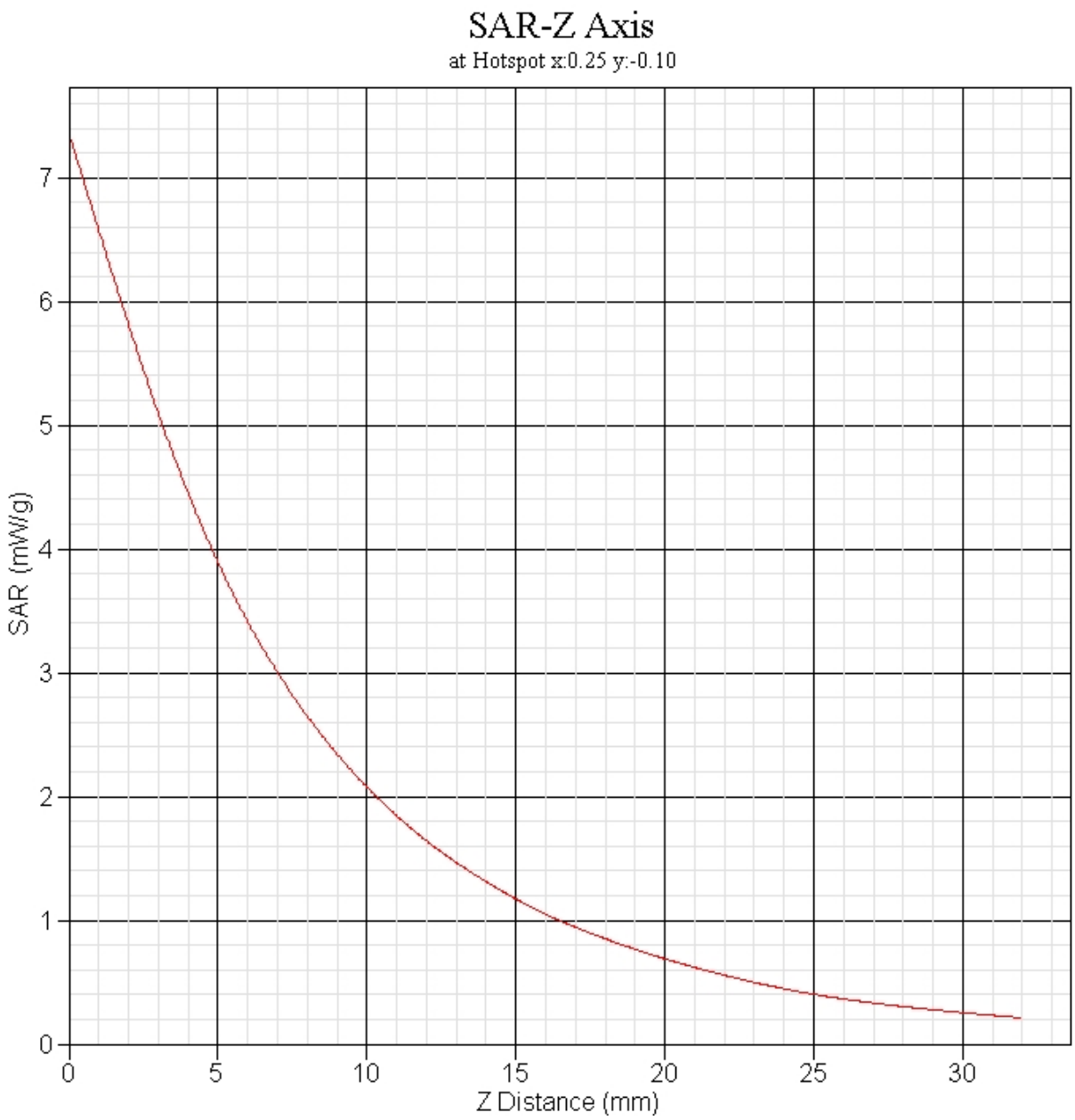
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 18-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.05 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 18-Sep-2008
Set-up Time       : 8:21:16 AM
Area Scan         : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 0
Channel           : Mid
```



```
1 gram SAR value    : 4.024 W/kg
10 gram SAR value   : 2.081 W/kg
Area Scan Peak SAR  : 4.475 W/kg
Zoom Scan Peak SAR  : 7.366 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 06:58:35 AM
End Time : 19-Sep-2008 07:10:46 AM
Scanning Time : 731 secs

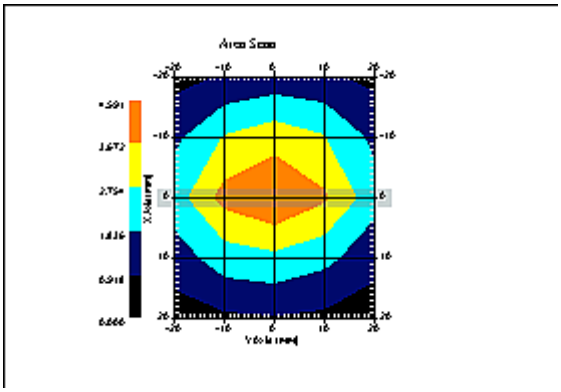
Product Data
Device Name : Validation
Serial No. : 1900
Type : Dipole
Model : ALS-D-1900-S-2
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 68 mm
Width : 3.6 mm
Depth : 39.5 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 4.644 W/kg
Power Drift-Finish: 4.610 W/kg
Power Drift (%) : -0.741

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

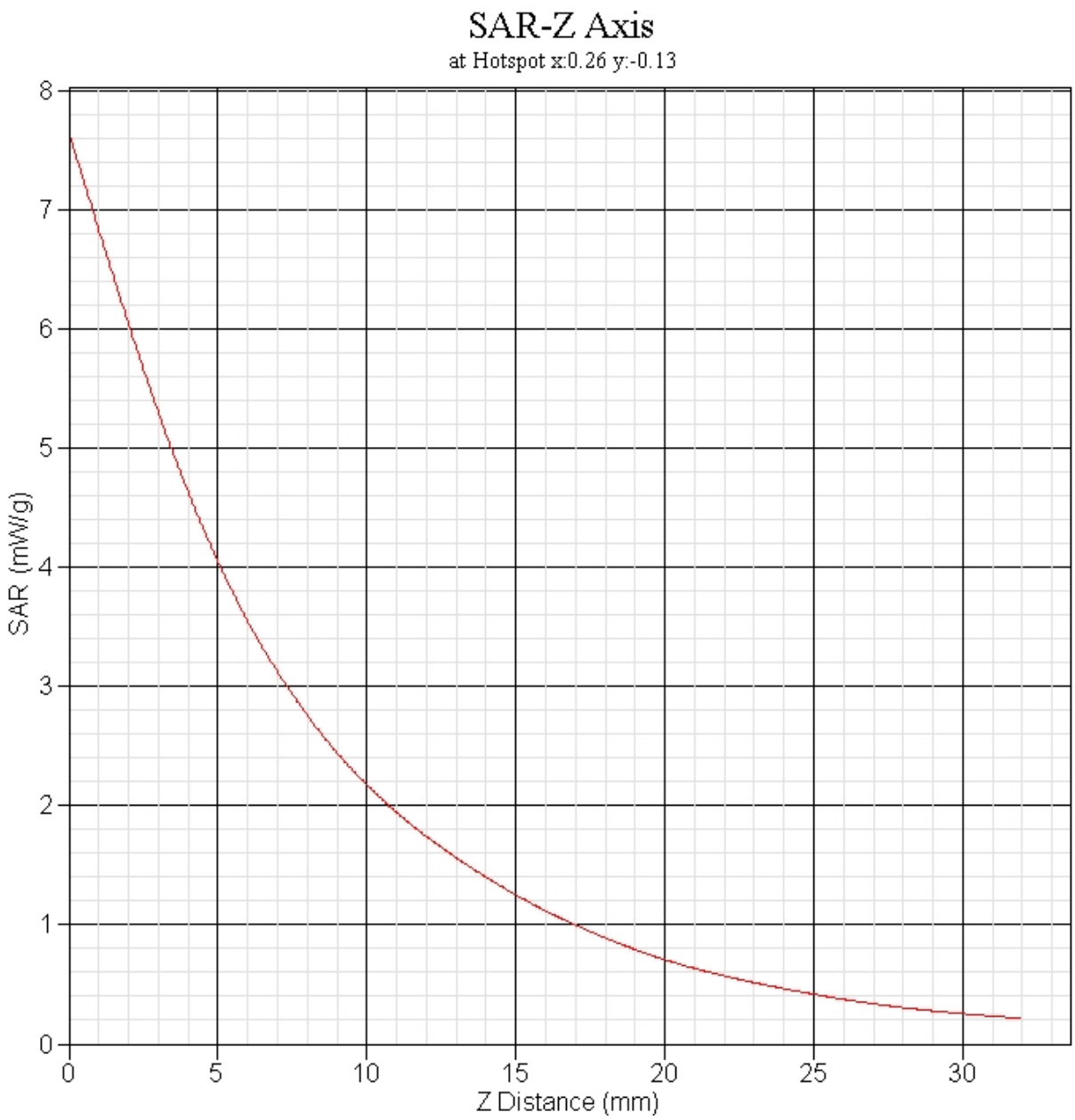
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 19-Sep-2008
Set-up Time       : 8:21:16 AM
Area Scan         : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 0
Channel           : Mid
```



```
1 gram SAR value    : 4.146 W/kg
10 gram SAR value   : 2.134 W/kg
Area Scan Peak SAR  : 4.591 W/kg
Zoom Scan Peak SAR  : 7.656 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 20-Sep-2008
Starting Time : 20-Sep-2008 06:32:09 AM
End Time : 20-Sep-2008 06:47:07 AM
Scanning Time : 898 secs

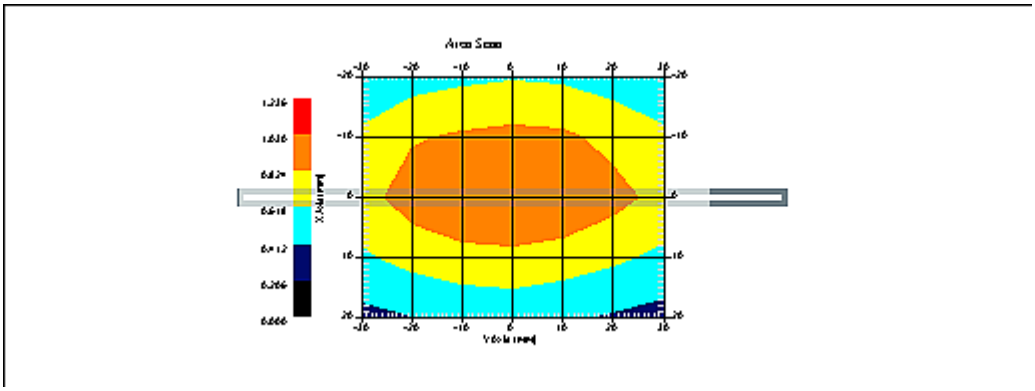
Product Data
Device Name : Validation
Serial No. : 835
Type : Dipole
Model : ALS-D-835-S-2
Frequency : 835.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 161 mm
Width : 3.6 mm
Depth : 89.8 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 1.013 W/kg
Power Drift-Finish: 1.049 W/kg
Power Drift (%) : 3.556

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

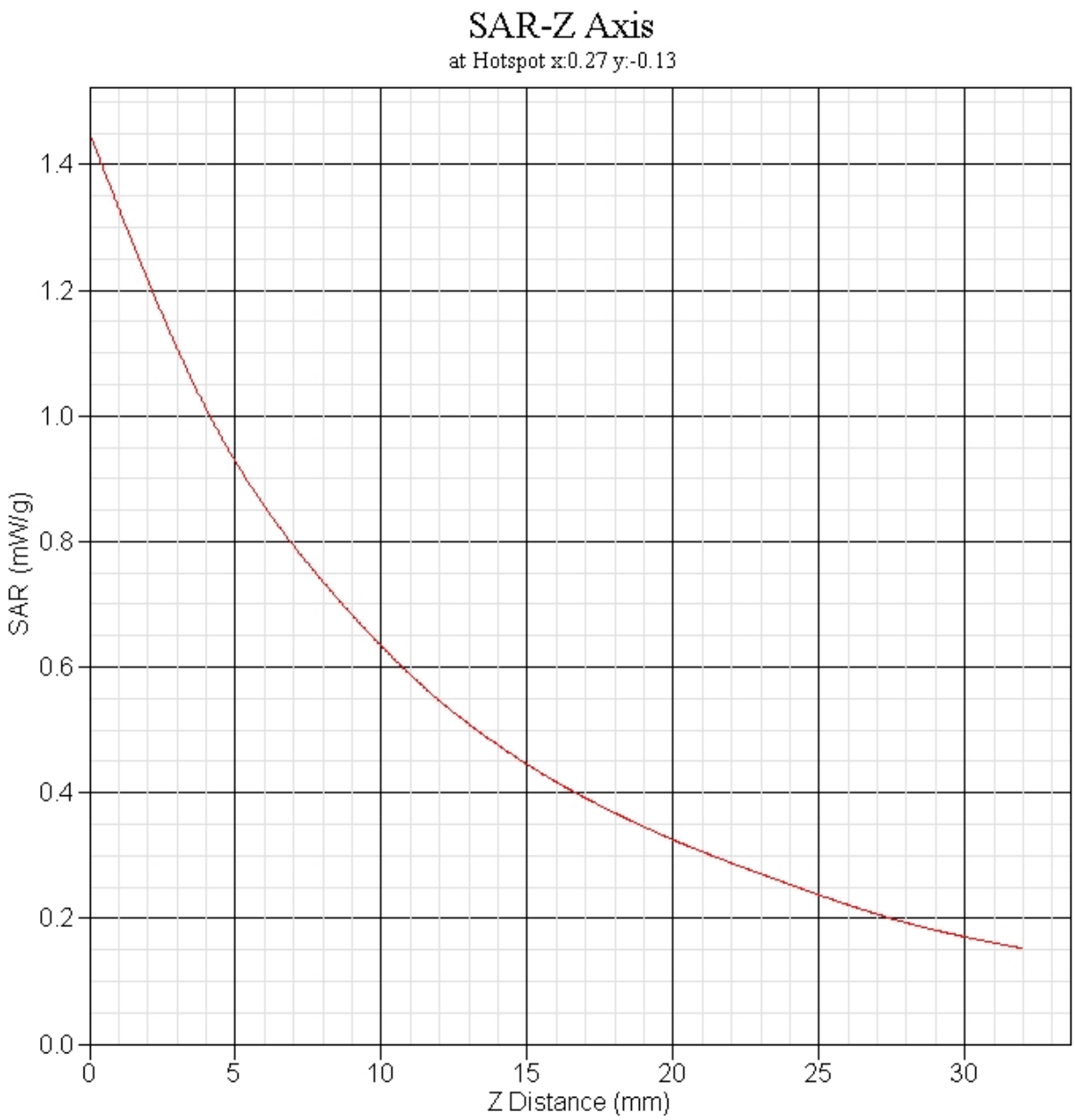
Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 20-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 55.10 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 24.00 °C
Set-up Date       : 20-Sep-2008
Set-up Time       : 9:21:48 AM
Area Scan         : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 0
Channel           : Mid
```



```
1 gram SAR value    : 0.954 W/kg
10 gram SAR value   : 0.620 W/kg
Area Scan Peak SAR  : 1.031 W/kg
Zoom Scan Peak SAR  : 1.451 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 07:07:44 AM
End Time : 23-Sep-2008 07:19:59 AM
Scanning Time : 735 secs

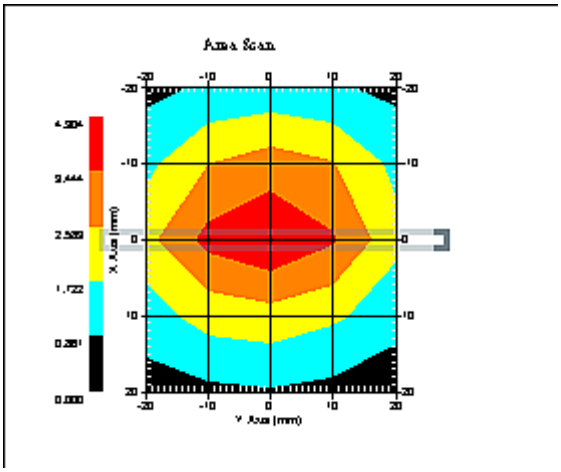
Product Data
Device Name : Validation
Serial No. : 1800
Type : Dipole
Model : ALS-D-1800-S-2
Frequency : 1800.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 72 mm
Width : 3.6 mm
Depth : 41.7 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 4.358 W/kg
Power Drift-Finish: 4.140 W/kg
Power Drift (%) : -4.997

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

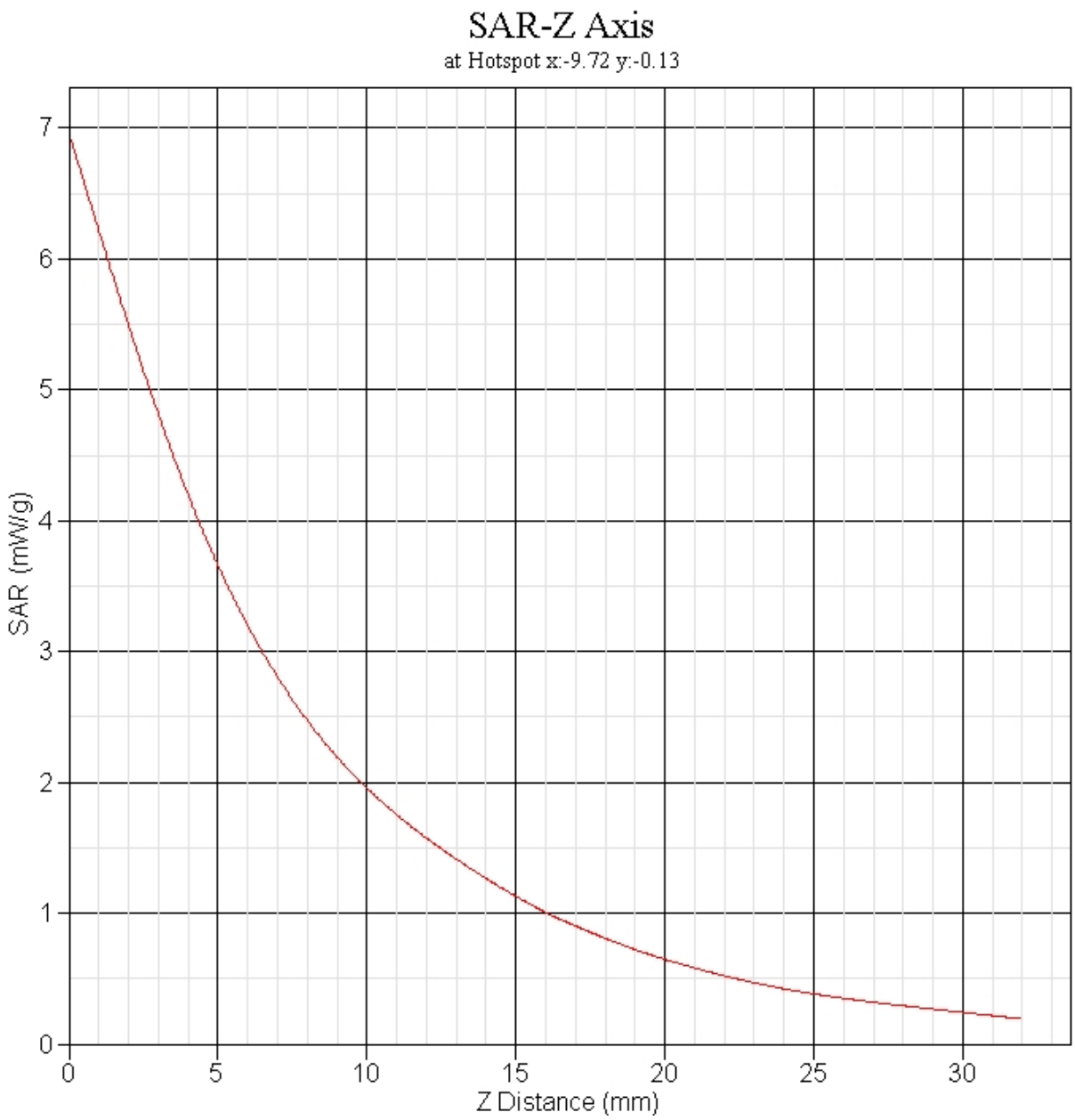
Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 8:21:16 AM
Area Scan         : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 0
Channel           : Mid
```




```
1 gram SAR value    : 3.786 W/kg
10 gram SAR value   : 1.967 W/kg
Area Scan Peak SAR  : 4.304 W/kg
Zoom Scan Peak SAR  : 6.966 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 30-Oct-2008
Starting Time : 30-Oct-2008 12:34:08 PM
End Time : 30-Oct-2008 12:47:00 PM
Scanning Time : 772 secs

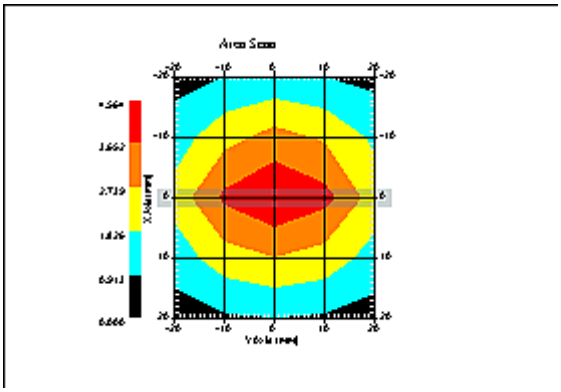
Product Data
Device Name : Validation
Serial No. : 1800
Type : Dipole
Model : ALS-D-1800-S-2
Frequency : 1800.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 72 mm
Width : 3.6 mm
Depth : 41.7 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 4.342 W/kg
Power Drift-Finish: 4.317 W/kg
Power Drift (%) : -0.582

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

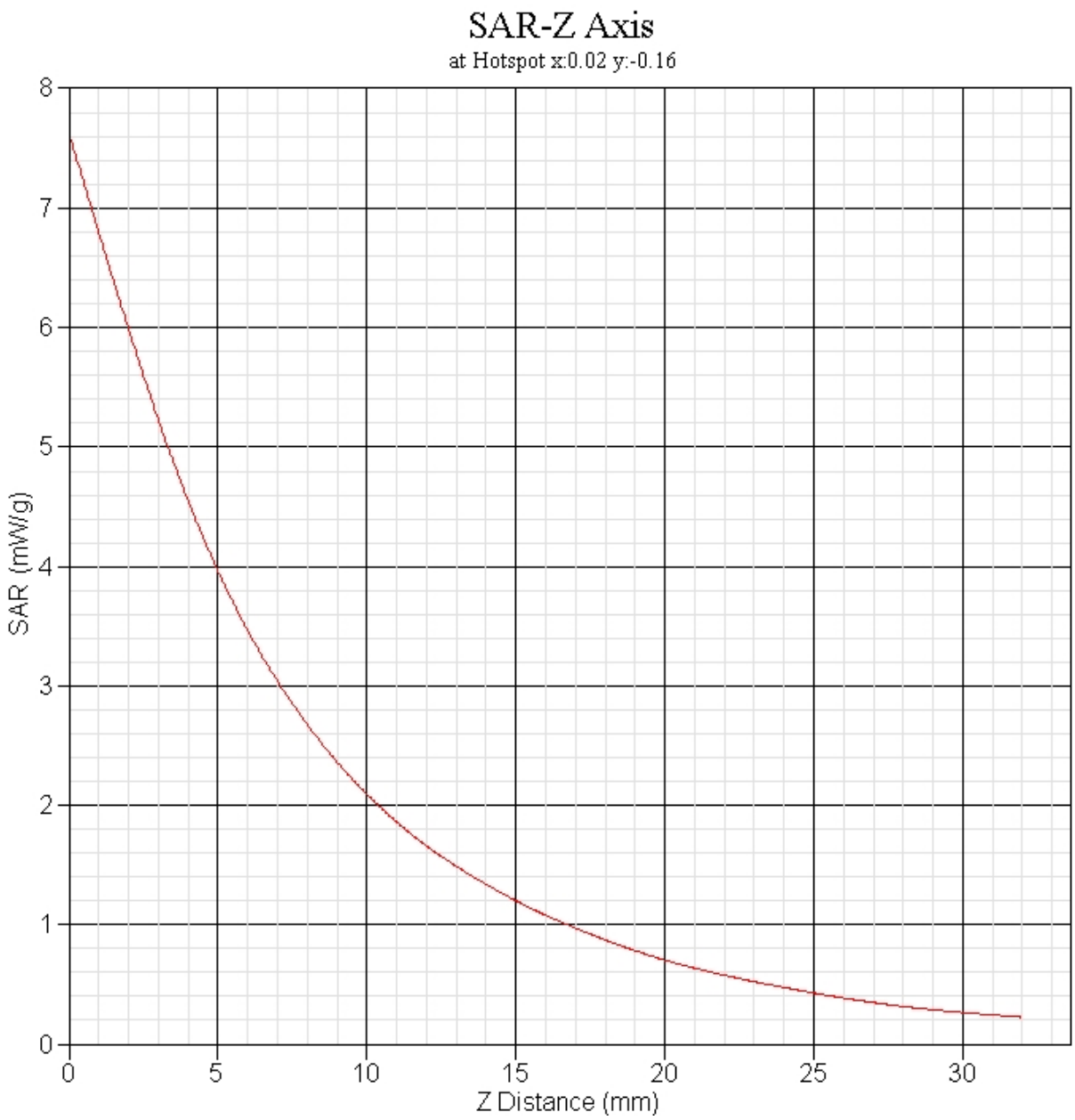
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 30-Oct-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.04 F/m
Sigma : 1.53 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 30-Oct-2008
Set-up Time       : 10:31:47 AM
Area Scan         : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 10 mm
Channel           : Mid
```



```
1 gram SAR value    : 4.178 W/kg
10 gram SAR value   : 2.198 W/kg
Area Scan Peak SAR  : 4.664 W/kg
Zoom Scan Peak SAR  : 7.636 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 07:29:27 AM
End Time : 21-Nov-2008 07:42:24 AM
Scanning Time : 777 secs

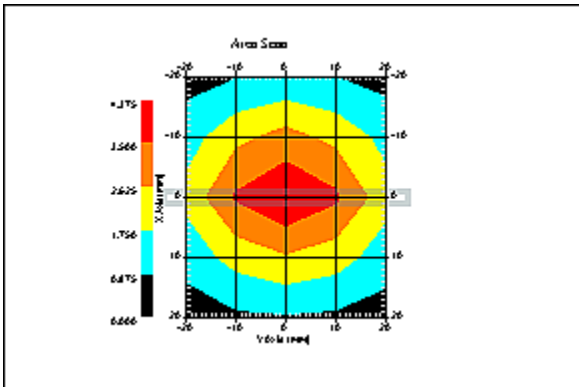
Product Data
Device Name : Validation
Serial No. : 1800
Type : Dipole
Model : ALS-D-1800-S-2
Frequency : 1800.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 72 mm
Width : 3.6 mm
Depth : 41.7 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 4.761 W/kg
Power Drift-Finish: 4.742 W/kg
Power Drift (%) : -0.997

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

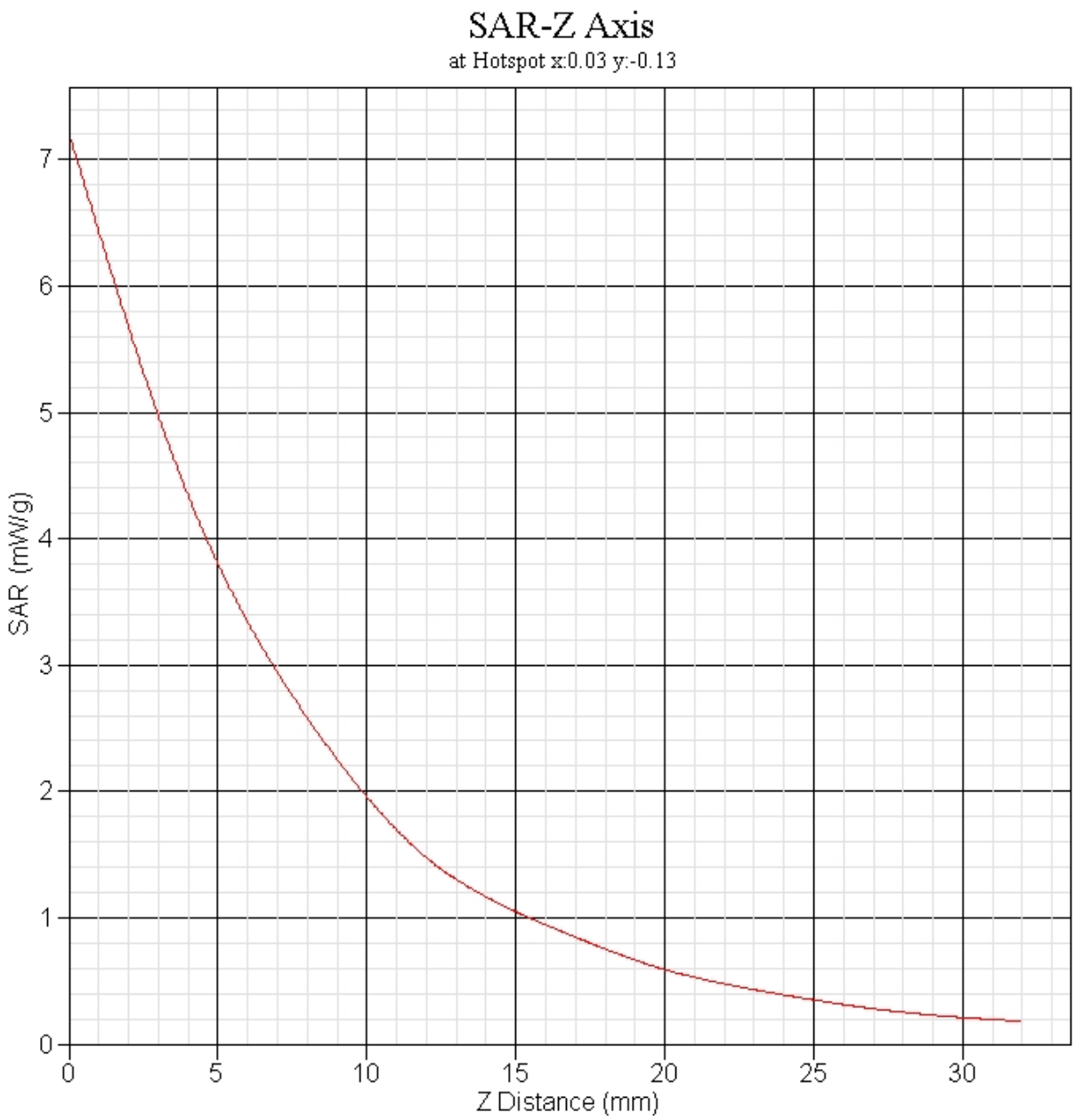
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 10:31:47 AM
Area Scan         : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 10 mm
Channel           : Mid
```



```
1 gram SAR value    : 3.919 W/kg
10 gram SAR value   : 1.985 W/kg
Area Scan Peak SAR  : 4.375 W/kg
Zoom Scan Peak SAR  : 7.216 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 07:57:55 AM
End Time : 21-Nov-2008 08:10:47 AM
Scanning Time : 772 secs

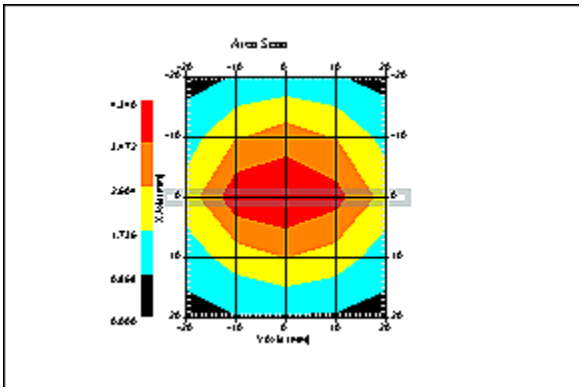
Product Data
Device Name : Validation
Serial No. : 1800
Type : Dipole
Model : ALS-D-1800-S-2
Frequency : 1800.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 72 mm
Width : 3.6 mm
Depth : 41.7 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 4.727 W/kg
Power Drift-Finish: 4.653 W/kg
Power Drift (%) : -1.561

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

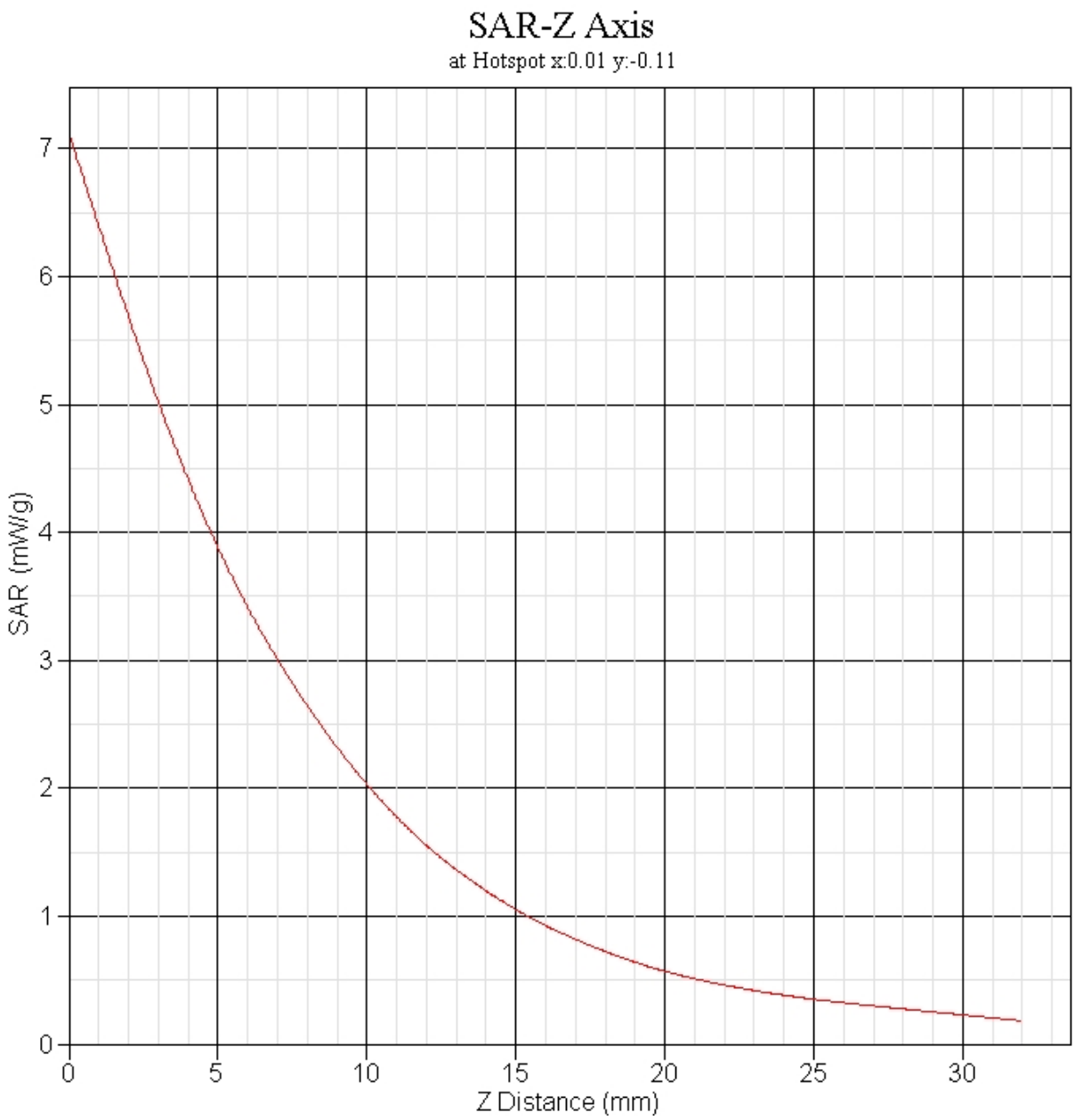
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 10:31:47 AM
Area Scan         : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 10 mm
Channel           : Mid
```



```
1 gram SAR value    : 3.933 W/kg
10 gram SAR value   : 2.001 W/kg
Area Scan Peak SAR  : 4.340 W/kg
Zoom Scan Peak SAR  : 7.126 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 08:23:55 AM
End Time : 21-Nov-2008 08:36:47 AM
Scanning Time : 772 secs

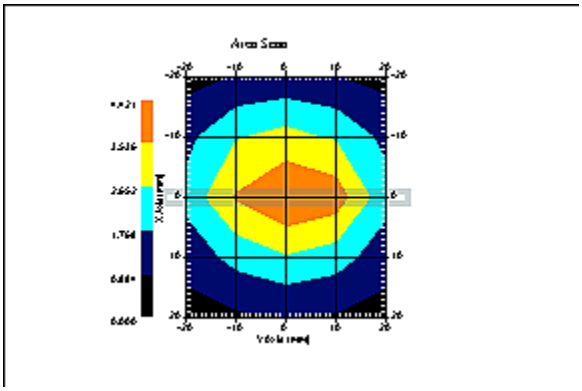
Product Data
Device Name : Validation
Serial No. : 1800
Type : Dipole
Model : ALS-D-1800-S-2
Frequency : 1800.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 72 mm
Width : 3.6 mm
Depth : 41.7 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 4.613 W/kg
Power Drift-Finish: 4.580 W/kg
Power Drift (%) : -0.714

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

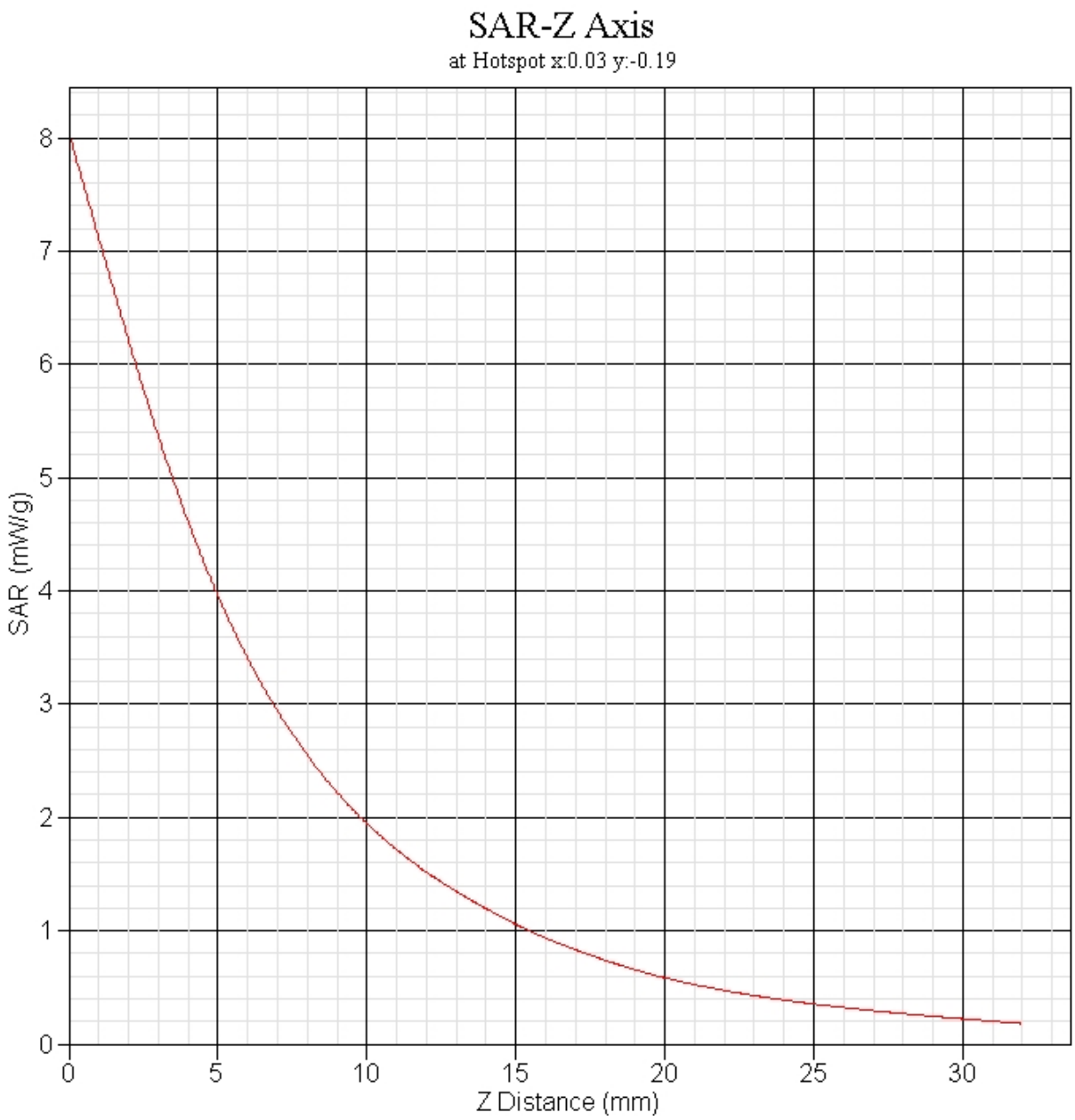
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 10:31:47 AM
Area Scan         : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 10 mm
Channel           : Mid
```



```
1 gram SAR value    : 4.007 W/kg
10 gram SAR value   : 2.002 W/kg
Area Scan Peak SAR  : 4.421 W/kg
Zoom Scan Peak SAR  : 8.047 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 08:55:16 AM
End Time : 21-Nov-2008 09:08:19 AM
Scanning Time : 783 secs

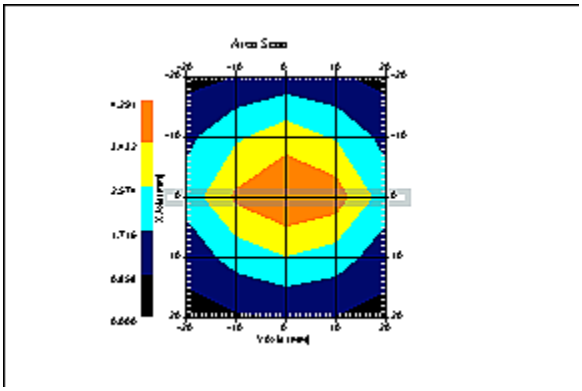
Product Data
Device Name : Validation
Serial No. : 1800
Type : Dipole
Model : ALS-D-1800-S-2
Frequency : 1800.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 72 mm
Width : 3.6 mm
Depth : 41.7 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 4.595 W/kg
Power Drift-Finish: 4.512 W/kg
Power Drift (%) : -1.803

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

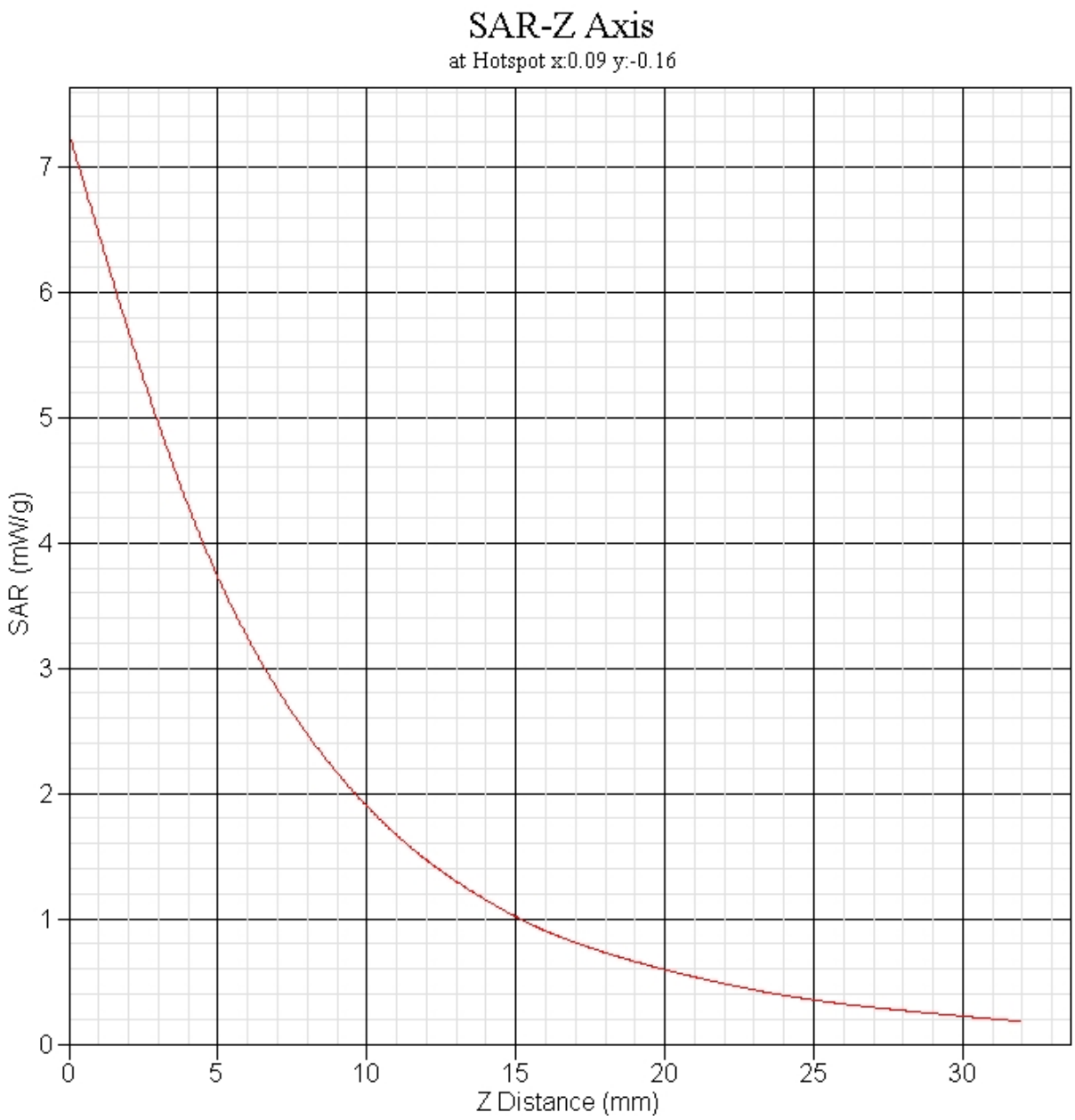
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 10:31:47 AM
Area Scan         : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 10 mm
Channel           : Mid
```



```
1 gram SAR value    : 3.943 W/kg
10 gram SAR value   : 2.011 W/kg
Area Scan Peak SAR  : 4.291 W/kg
Zoom Scan Peak SAR  : 7.276 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 09:30:06 AM
End Time : 21-Nov-2008 09:43:07 AM
Scanning Time : 781 secs

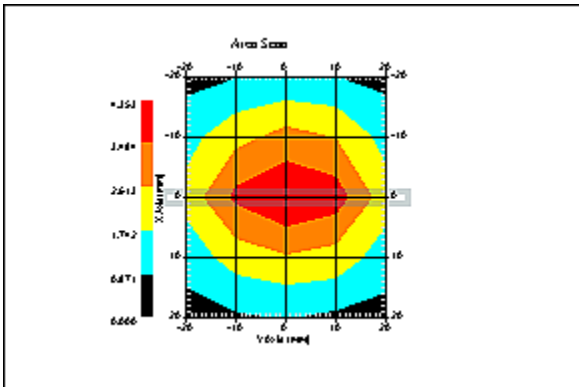
Product Data
Device Name : Validation
Serial No. : 1800
Type : Dipole
Model : ALS-D-1800-S-2
Frequency : 1800.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 72 mm
Width : 3.6 mm
Depth : 41.7 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 4.581 W/kg
Power Drift-Finish: 4.642 W/kg
Power Drift (%) : 1.340

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

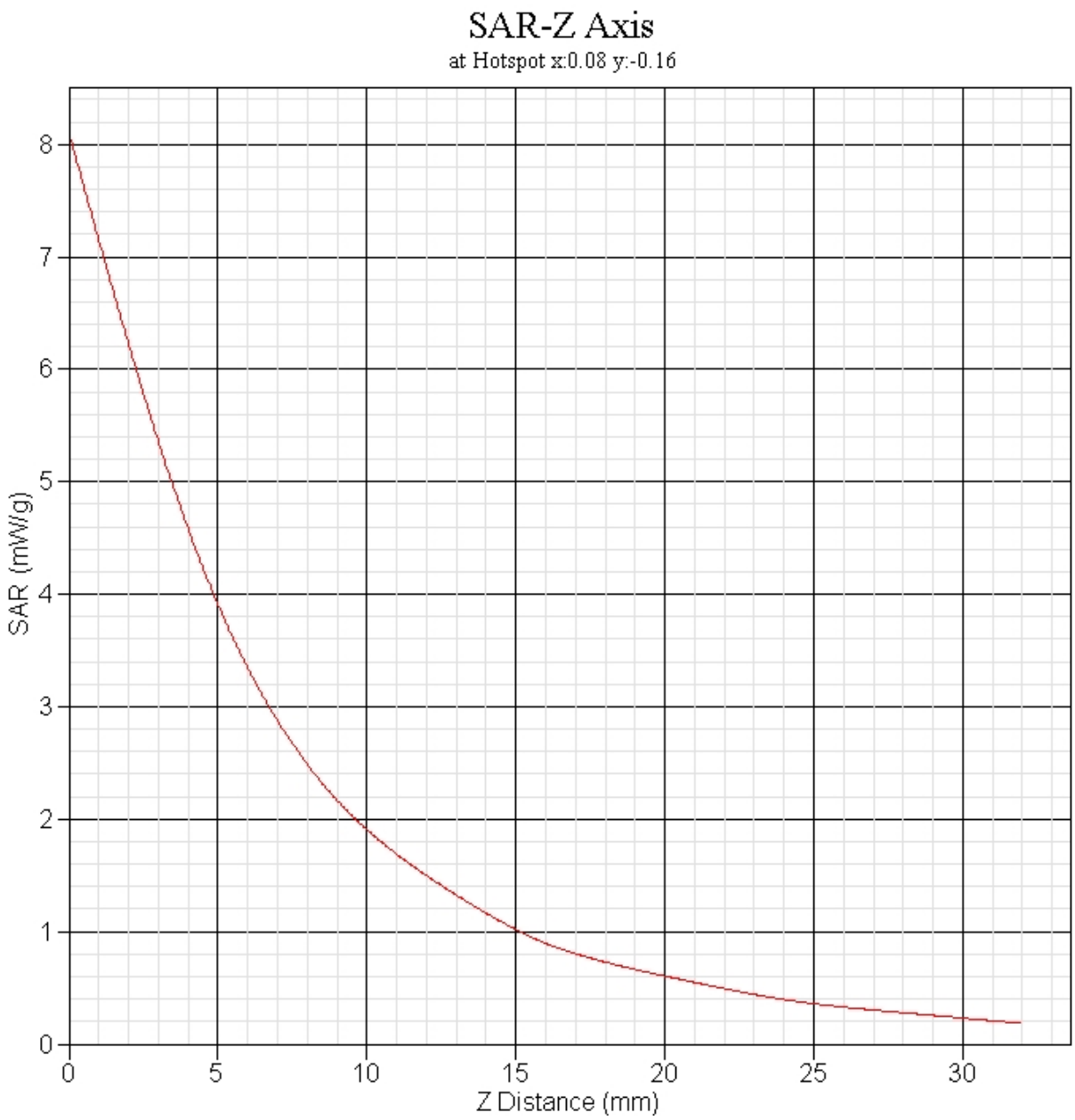
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 10:31:47 AM
Area Scan         : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 10 mm
Channel           : Mid
```



```
1 gram SAR value    : 4.007 W/kg
10 gram SAR value   : 2.025 W/kg
Area Scan Peak SAR  : 4.353 W/kg
Zoom Scan Peak SAR  : 8.107 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 10:05:52 AM
End Time : 21-Nov-2008 10:18:54 AM
Scanning Time : 782 secs

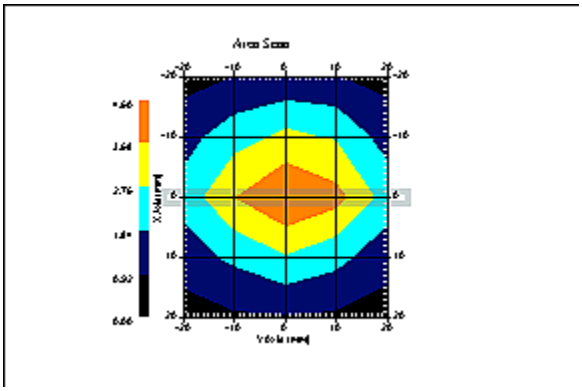
Product Data
Device Name : Validation
Serial No. : 1800
Type : Dipole
Model : ALS-D-1800-S-2
Frequency : 1800.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 72 mm
Width : 3.6 mm
Depth : 41.7 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 4.648 W/kg
Power Drift-Finish: 4.617 W/kg
Power Drift (%) : -0.657

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

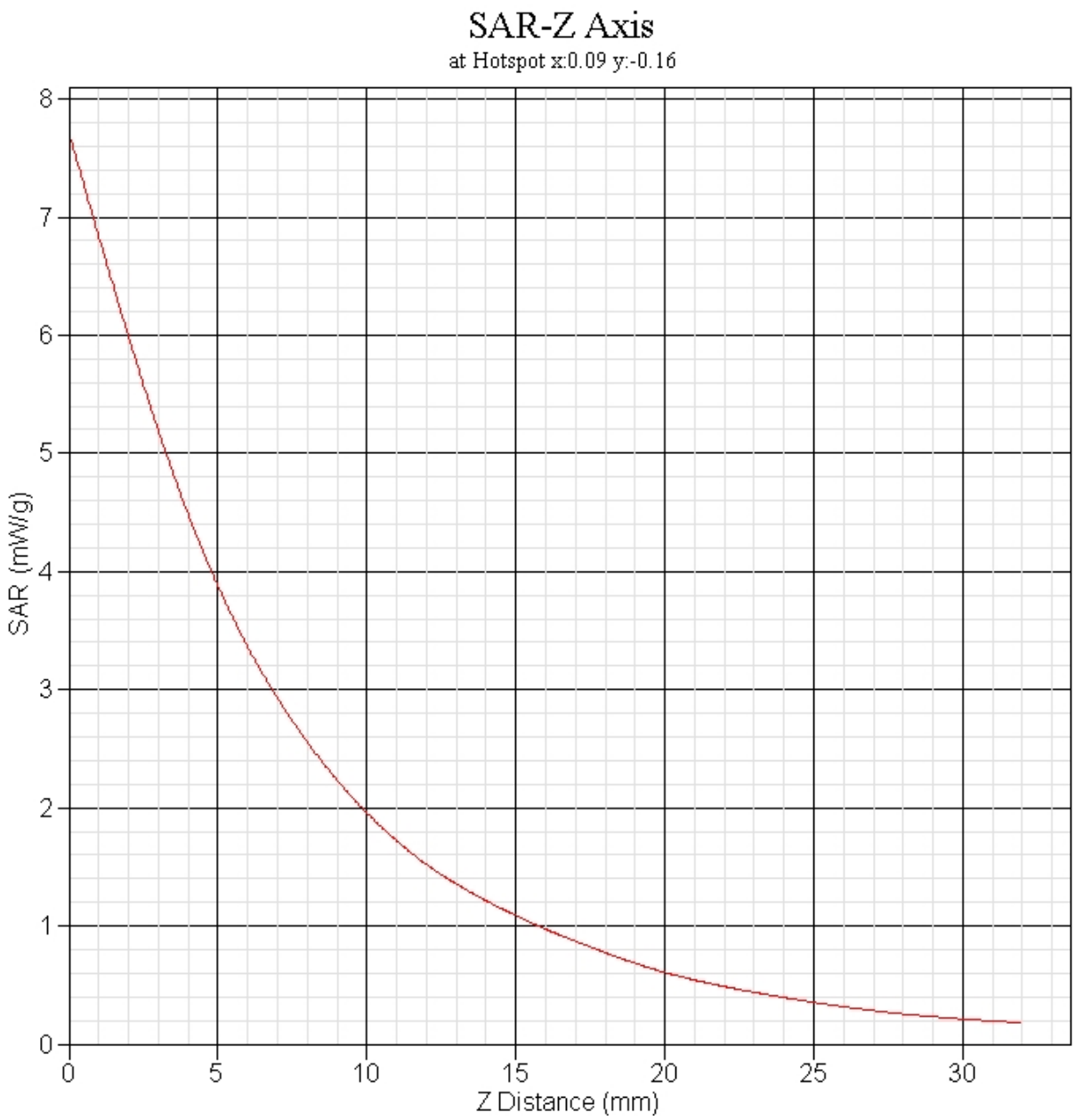
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 10:31:47 AM
Area Scan         : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 10 mm
Channel           : Mid
```



```
1 gram SAR value    : 4.002 W/kg
10 gram SAR value   : 2.019 W/kg
Area Scan Peak SAR  : 4.601 W/kg
Zoom Scan Peak SAR  : 7.716 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 03:36:49 PM
End Time : 21-Nov-2008 03:52:03 PM
Scanning Time : 914 secs

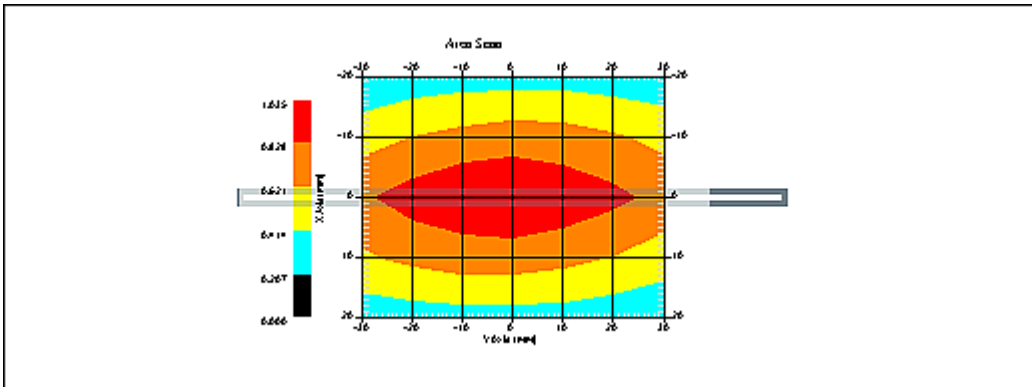
Product Data
Device Name : Validation
Serial No. : 835
Type : Dipole
Model : ALS-D-835-S-2
Frequency : 835.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 161 mm
Width : 3.6 mm
Depth : 89.8 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 1.029 W/kg
Power Drift-Finish: 1.034 W/kg
Power Drift (%) : 0.487

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

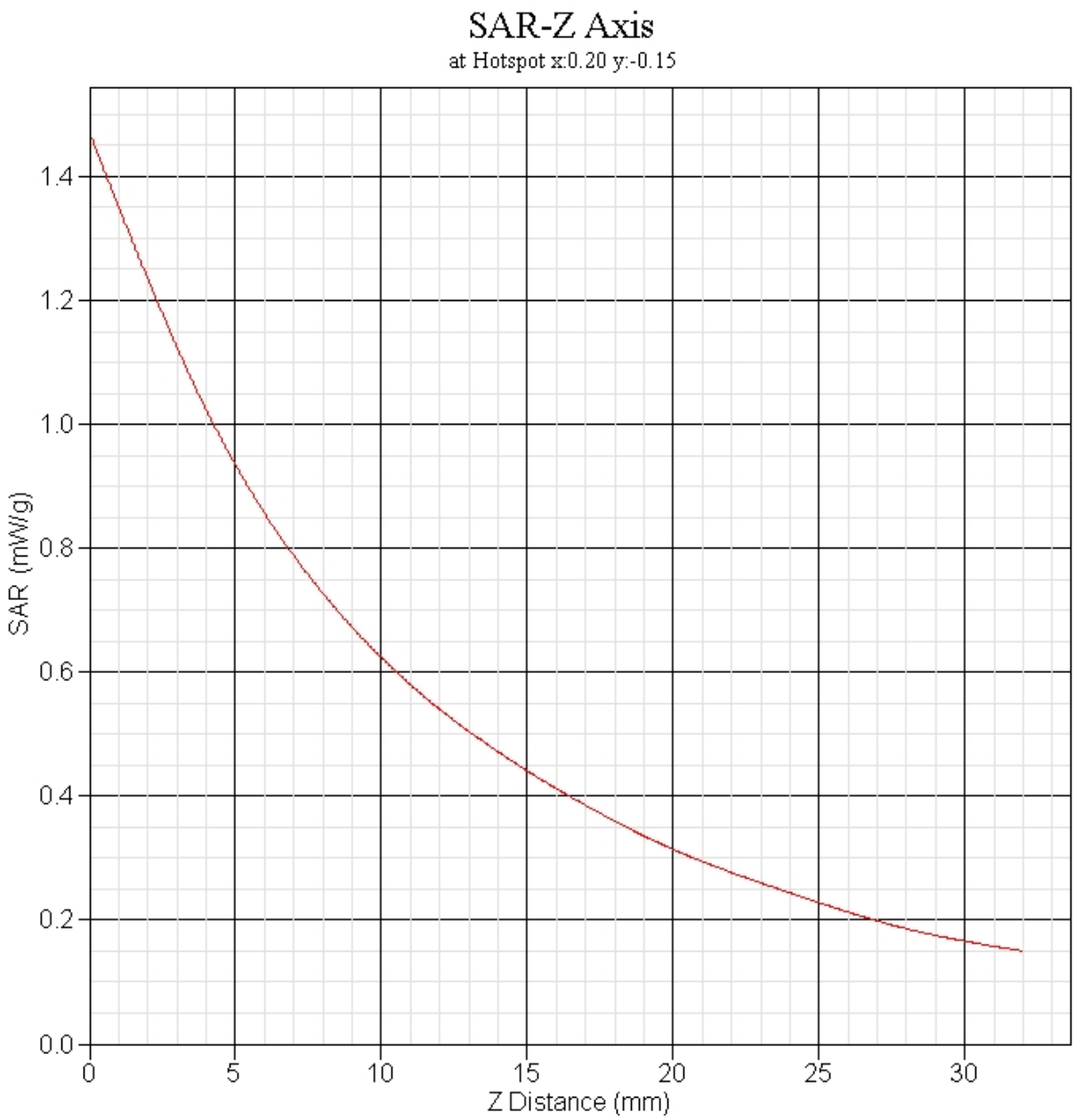
Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 56.47 F/m
Sigma : 0.98 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 217 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 25.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 9:21:48 AM
Area Scan         : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 15
Channel           : Mid
```



```
1 gram SAR value    : 0.942 W/kg
10 gram SAR value   : 0.595 W/kg
Area Scan Peak SAR  : 1.035 W/kg
Zoom Scan Peak SAR  : 1.471 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 01:52:15 PM
End Time : 21-Nov-2008 02:05:18 PM
Scanning Time : 783 secs

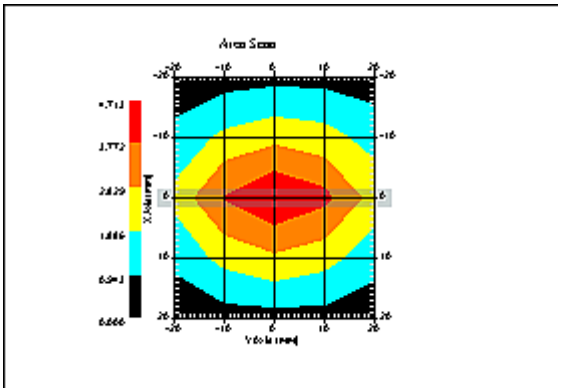
Product Data
Device Name : Validation
Serial No. : 1900
Type : Dipole
Model : ALS-D-1900-S-2
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 68 mm
Width : 3.6 mm
Depth : 39.5 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 4.658 W/kg
Power Drift-Finish: 4.657 W/kg
Power Drift (%) : -0.024

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

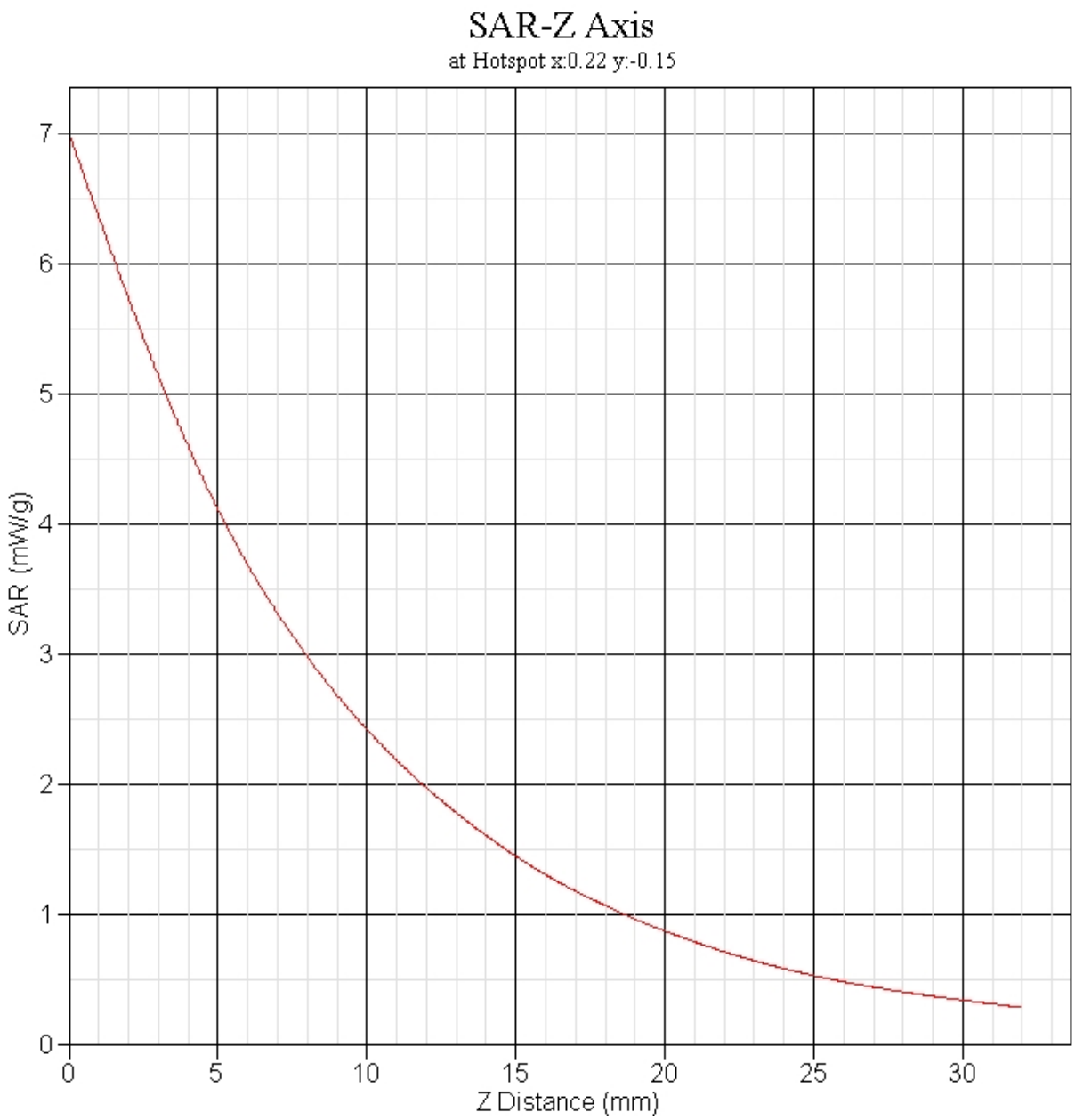
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 54.46 F/m
Sigma : 1.53 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 217 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 8:39:41 AM
Area Scan         : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Touch
Separation        : 10
Channel           : Mid
```



```
1 gram SAR value    : 4.012 W/kg
10 gram SAR value   : 2.091 W/kg
Area Scan Peak SAR  : 4.713 W/kg
Zoom Scan Peak SAR  : 7.006 W/kg
```



Appendix B – SAR Test Data Plots

SAR Test Report

By Operator : Jay
Measurement Date : 20-Sep-2008
Starting Time : 20-Sep-2008 07:03:56 AM
End Time : 20-Sep-2008 07:24:23 AM
Scanning Time : 1227 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 0.658 W/kg
Power Drift-Finish: 0.642 W/kg
Power Drift (%) : -2.435

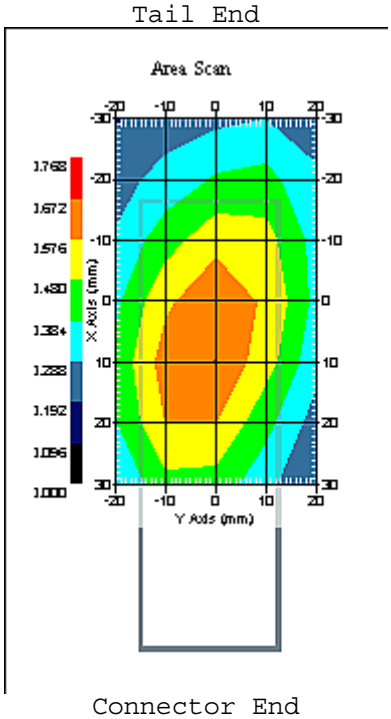
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 20-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 55.10 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

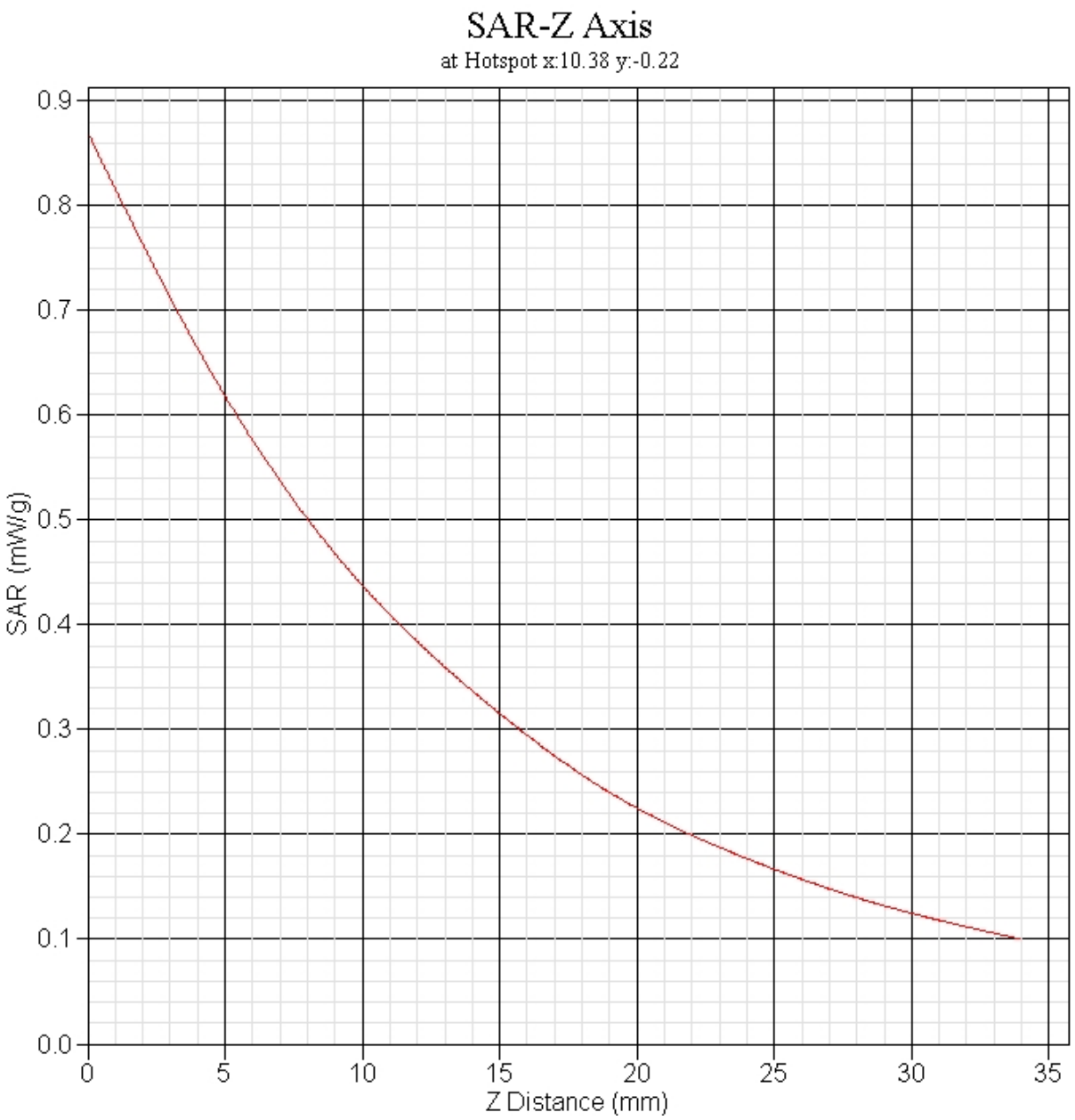
```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Sep-2008
Set-up Time       : 7:01:06 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.637 W/kg
10 gram SAR value   : 0.420 W/kg
Area Scan Peak SAR  : 0.674 W/kg
Zoom Scan Peak SAR  : 0.870 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 20-Sep-2008
Starting Time : 20-Sep-2008 07:46:39 AM
End Time : 20-Sep-2008 08:06:25 AM
Scanning Time : 1186 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 0.632 W/kg
Power Drift-Finish: 0.632 W/kg
Power Drift (%) : -0.105

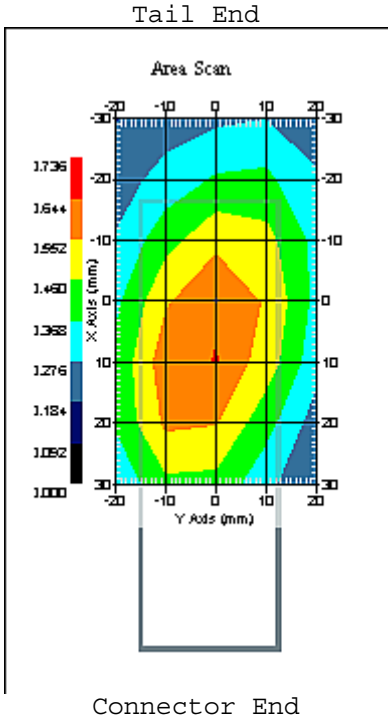
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 20-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 55.10 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Sep-2008
Set-up Time       : 7:01:06 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.630 W/kg
10 gram SAR value   : 0.411 W/kg
Area Scan Peak SAR  : 0.647 W/kg
Zoom Scan Peak SAR  : 0.910 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 20-Sep-2008
Starting Time : 20-Sep-2008 08:54:14 AM
End Time : 20-Sep-2008 09:14:24 AM
Scanning Time : 1210 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Installed In HP Laptop
Power Drift-Start : 0.538 W/kg
Power Drift-Finish: 0.520 W/kg
Power Drift (%) : -3.174

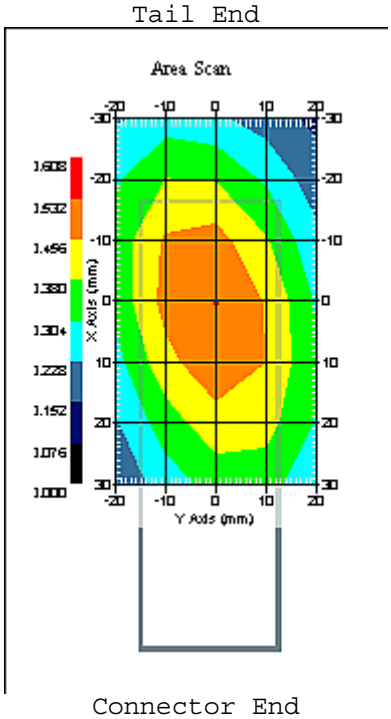
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 20-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 55.10 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Sep-2008
Set-up Time       : 8:54:02 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Installed In HP Laptop
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.507 W/kg
10 gram SAR value   : 0.341 W/kg
Area Scan Peak SAR  : 0.535 W/kg
Zoom Scan Peak SAR  : 0.700 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 20-Sep-2008
Starting Time : 20-Sep-2008 08:08:08 AM
End Time : 20-Sep-2008 08:27:44 AM
Scanning Time : 1176 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Installed In HP Laptop
Power Drift-Start : 0.516 W/kg
Power Drift-Finish: 0.531 W/kg
Power Drift (%) : 2.952

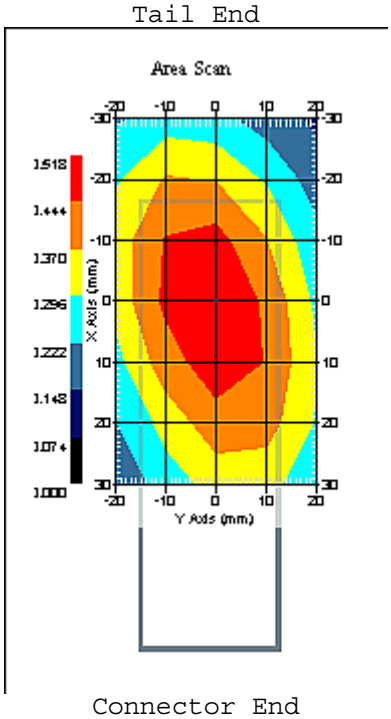
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 20-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 55.10 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Sep-2008
Set-up Time       : 7:01:06 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Installed In HP Laptop
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.503 W/kg
10 gram SAR value   : 0.337 W/kg
Area Scan Peak SAR  : 0.516 W/kg
Zoom Scan Peak SAR  : 0.700 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 20-Sep-2008
Starting Time : 20-Sep-2008 09:16:55 AM
End Time : 20-Sep-2008 09:36:32 AM
Scanning Time : 1177 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 0.176 W/kg
Power Drift-Finish: 0.176 W/kg
Power Drift (%) : 0.339

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

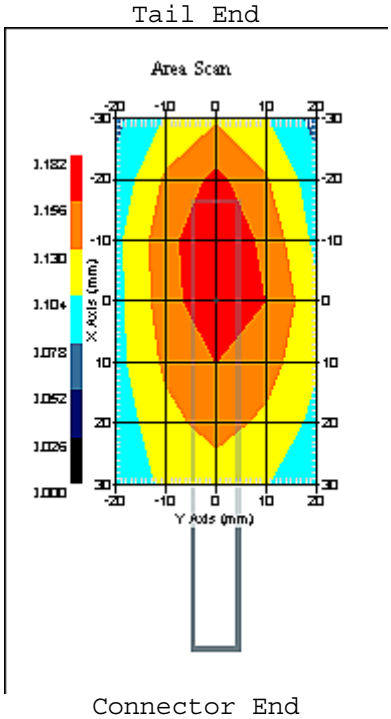
Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 20-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 55.10 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 20-Sep-2008
Set-up Time : 8:54:02 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Right Side Installed In IBM Laptop
Separation : 13 mm
Channel : Mid

Tail End



Connector End

1 gram SAR value : 0.169 W/kg
10 gram SAR value : 0.109 W/kg
Area Scan Peak SAR : 0.181 W/kg
Zoom Scan Peak SAR : 0.250 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 20-Sep-2008
Starting Time : 20-Sep-2008 09:58:07 AM
End Time : 20-Sep-2008 10:17:48 AM
Scanning Time : 1181 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 0.173 W/kg
Power Drift-Finish: 0.177 W/kg
Power Drift (%) : 2.085

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

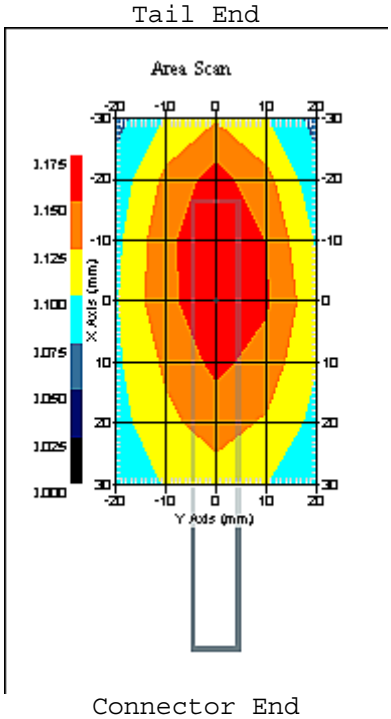
Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 20-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 55.10 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 20-Sep-2008
Set-up Time : 8:54:02 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Right Side Installed In IBM Laptop
Separation : 13 mm
Channel : Mid

Tail End



Connector End

1 gram SAR value : 0.171 W/kg
10 gram SAR value : 0.114 W/kg
Area Scan Peak SAR : 0.175 W/kg
Zoom Scan Peak SAR : 0.240 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 20-Sep-2008
Starting Time : 20-Sep-2008 10:59:37 AM
End Time : 20-Sep-2008 11:19:18 AM
Scanning Time : 1181 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 0.344 W/kg
Power Drift-Finish: 0.346 W/kg
Power Drift (%) : 0.616

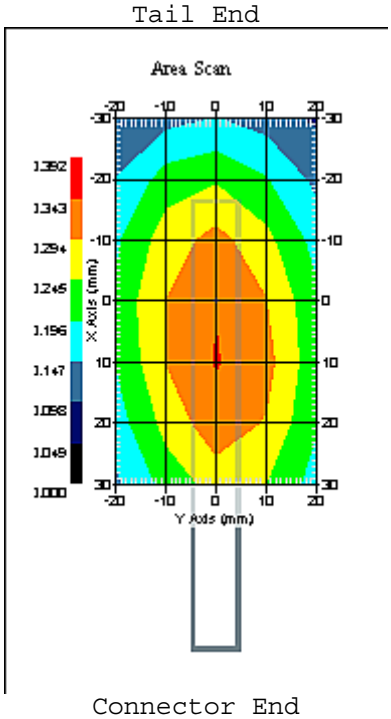
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 20-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 55.10 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Sep-2008
Set-up Time       : 8:54:02 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Left Side With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.333 W/kg
10 gram SAR value   : 0.228 W/kg
Area Scan Peak SAR  : 0.346 W/kg
Zoom Scan Peak SAR  : 0.460 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 20-Sep-2008
Starting Time : 20-Sep-2008 10:19:00 AM
End Time : 20-Sep-2008 10:38:36 AM
Scanning Time : 1176 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 0.333 W/kg
Power Drift-Finish: 0.339 W/kg
Power Drift (%) : 1.898

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

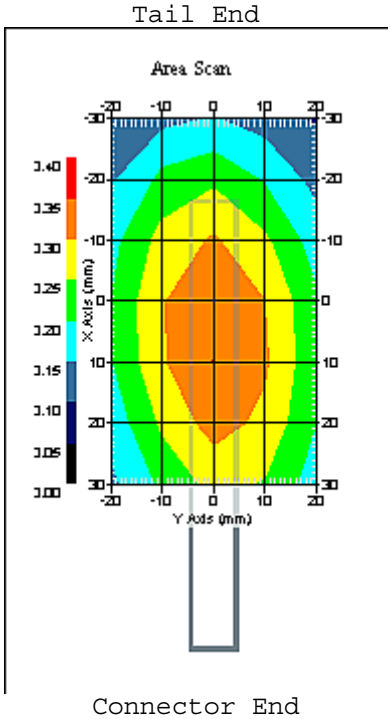
Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 20-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 55.10 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 20-Sep-2008
Set-up Time : 8:54:02 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Left Side With USB Cable
Separation : 13 mm
Channel : Mid

Tail End



Connector End

1 gram SAR value : 0.340 W/kg
10 gram SAR value : 0.234 W/kg
Area Scan Peak SAR : 0.351 W/kg
Zoom Scan Peak SAR : 0.470 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 20-Sep-2008
Starting Time : 20-Sep-2008 12:43:37 PM
End Time : 20-Sep-2008 01:03:22 PM
Scanning Time : 1185 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : GPRS
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 0.698 W/kg
Power Drift-Finish: 0.693 W/kg
Power Drift (%) : -0.738

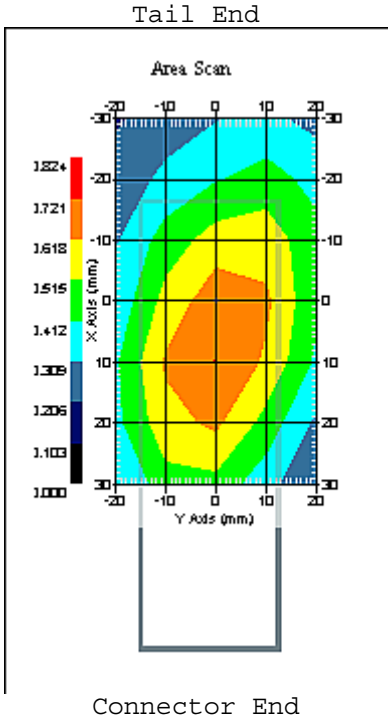
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 20-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 55.10 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

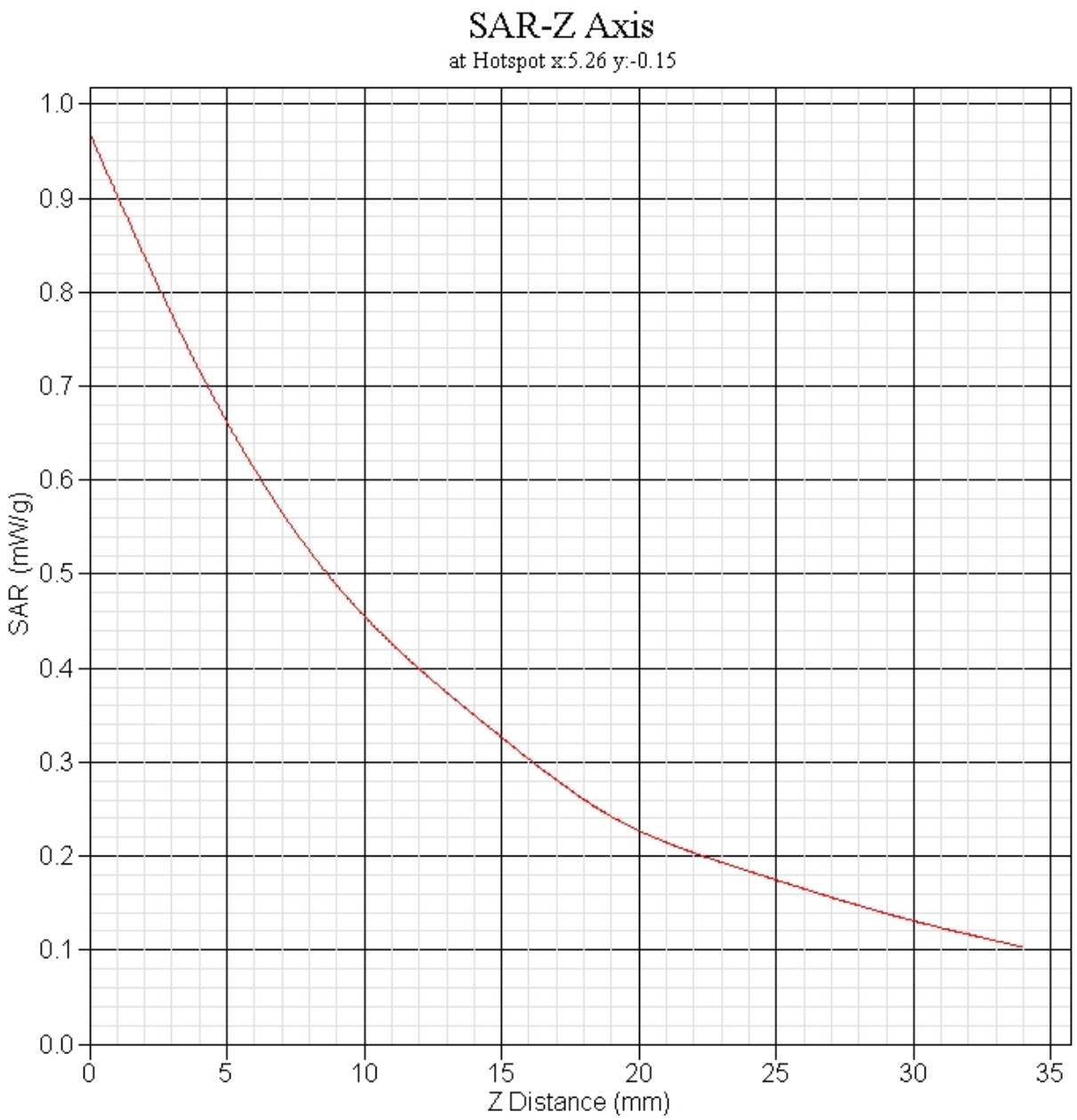
```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Sep-2008
Set-up Time       : 8:54:02 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.671 W/kg
10 gram SAR value   : 0.427 W/kg
Area Scan Peak SAR  : 0.723 W/kg
Zoom Scan Peak SAR  : 0.970 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 20-Sep-2008
Starting Time : 20-Sep-2008 12:20:48 PM
End Time : 20-Sep-2008 12:40:26 PM
Scanning Time : 1178 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : GPRS
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Installed In HP Laptop
Power Drift-Start : 0.639 W/kg
Power Drift-Finish: 0.618 W/kg
Power Drift (%) : -3.300

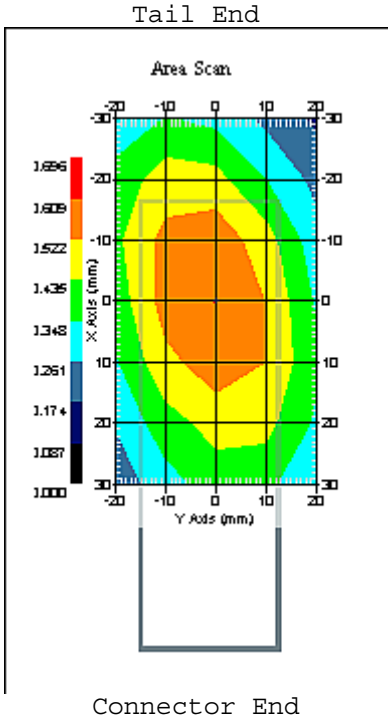
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 20-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 55.10 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Sep-2008
Set-up Time       : 8:54:02 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Installed In HP Laptop
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.594 W/kg
10 gram SAR value   : 0.395 W/kg
Area Scan Peak SAR  : 0.610 W/kg
Zoom Scan Peak SAR  : 0.850 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 20-Sep-2008
Starting Time : 20-Sep-2008 11:58:23 AM
End Time : 20-Sep-2008 12:17:57 PM
Scanning Time : 1174 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : GPRS
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 0.320 W/kg
Power Drift-Finish: 0.312 W/kg
Power Drift (%) : -2.505

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

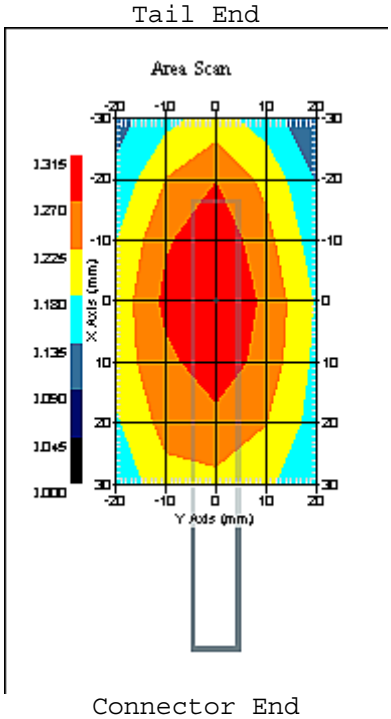
Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 20-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 55.10 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 20-Sep-2008
Set-up Time : 8:54:02 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Right Side Installed In IBM Laptop
Separation : 13 mm
Channel : Mid

Tail End



Connector End

1 gram SAR value : 0.304 W/kg
10 gram SAR value : 0.202 W/kg
Area Scan Peak SAR : 0.315 W/kg
Zoom Scan Peak SAR : 0.450 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 20-Sep-2008
Starting Time : 20-Sep-2008 11:37:16 AM
End Time : 20-Sep-2008 11:56:51 AM
Scanning Time : 1175 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : GPRS
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 0.414 W/kg
Power Drift-Finish: 0.399 W/kg
Power Drift (%) : -3.567

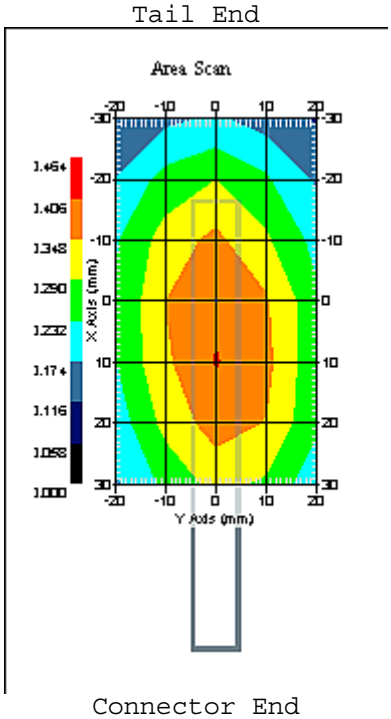
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 20-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 55.10 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Sep-2008
Set-up Time       : 8:54:02 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Left Side With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.389 W/kg
10 gram SAR value   : 0.270 W/kg
Area Scan Peak SAR  : 0.409 W/kg
Zoom Scan Peak SAR  : 0.530 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 07:29:01 AM
End Time : 23-Sep-2008 07:50:12 AM
Scanning Time : 1271 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 1.284 W/kg
Power Drift-Finish: 1.285 W/kg
Power Drift (%) : 0.077

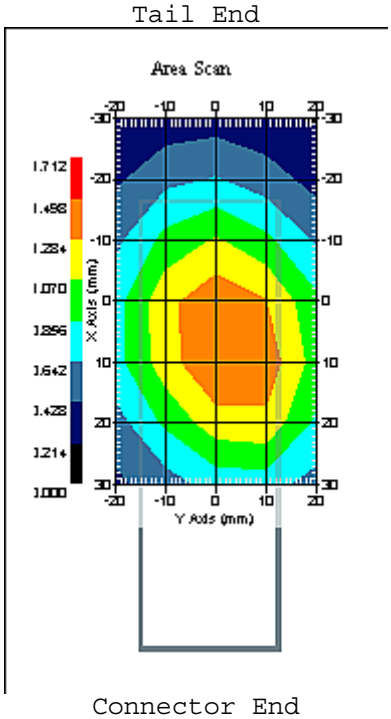
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.493 W/kg
10 gram SAR value   : 0.871 W/kg
Area Scan Peak SAR  : 1.499 W/kg
Zoom Scan Peak SAR  : 2.382 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 07:51:27 AM
End Time : 23-Sep-2008 08:11:27 AM
Scanning Time : 1200 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 1.007 W/kg
Power Drift-Finish: 0.996 W/kg
Power Drift (%) : -4.075

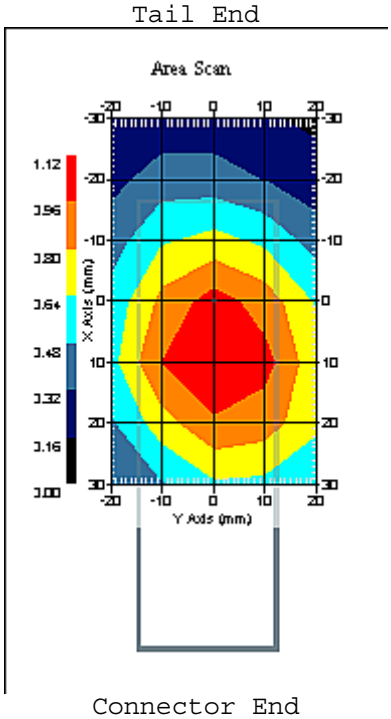
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 1.041 W/kg
10 gram SAR value   : 0.604 W/kg
Area Scan Peak SAR  : 1.118 W/kg
Zoom Scan Peak SAR  : 1.801 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 08:12:10 AM
End Time : 23-Sep-2008 08:32:08 AM
Scanning Time : 1198 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 1.150 W/kg
Power Drift-Finish: 1.112 W/kg
Power Drift (%) : -3.259

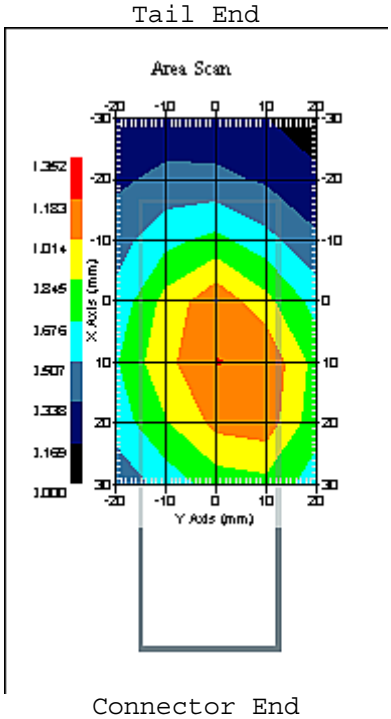
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : High
```

Tail End



Connector End

```
1 gram SAR value    : 1.199 W/kg
10 gram SAR value   : 0.688 W/kg
Area Scan Peak SAR : 1.185 W/kg
Zoom Scan Peak SAR : 2.081 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 08:57:30 AM
End Time : 23-Sep-2008 09:17:22 AM
Scanning Time : 1192 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 1.515 W/kg
Power Drift-Finish: 1.480 W/kg
Power Drift (%) : -2.312

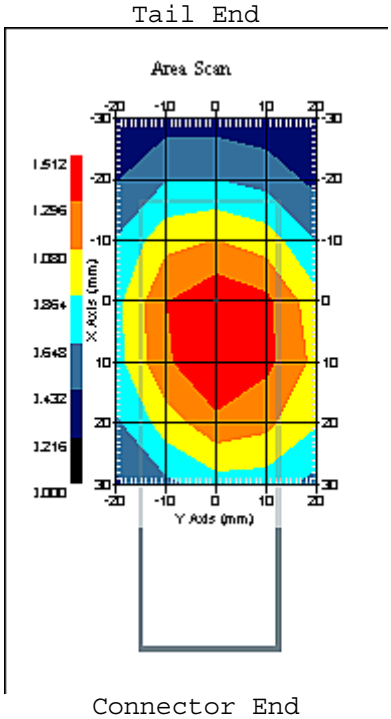
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.518 W/kg
10 gram SAR value   : 0.885 W/kg
Area Scan Peak SAR  : 1.512 W/kg
Zoom Scan Peak SAR  : 2.442 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 08:34:50 AM
End Time : 23-Sep-2008 08:55:48 AM
Scanning Time : 1198 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 1.050 W/kg
Power Drift-Finish: 1.062 W/kg
Power Drift (%) : 1.115

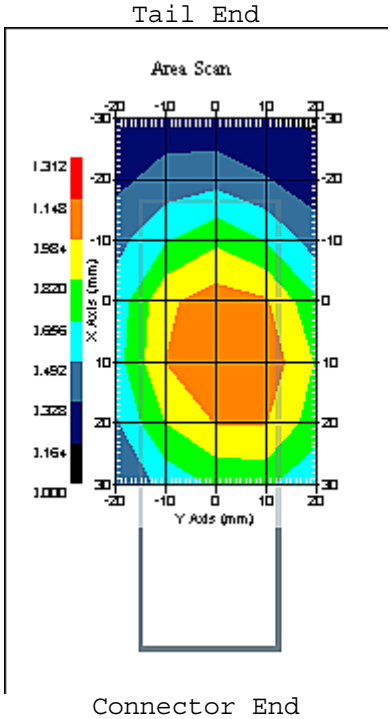
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 1.174 W/kg
10 gram SAR value   : 0.676 W/kg
Area Scan Peak SAR  : 1.149 W/kg
Zoom Scan Peak SAR  : 1.991 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 08:33:50 AM
End Time : 23-Sep-2008 08:53:51 AM
Scanning Time : 1201 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 1.052 W/kg
Power Drift-Finish: 1.078 W/kg
Power Drift (%) : 2.479

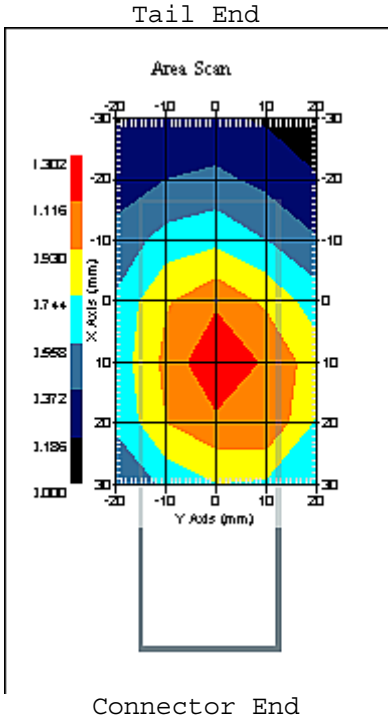
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : High
```

Tail End



Connector End

```
1 gram SAR value    : 1.195 W/kg
10 gram SAR value   : 0.681 W/kg
Area Scan Peak SAR : 1.301 W/kg
Zoom Scan Peak SAR : 2.161 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 09:20:26 AM
End Time : 23-Sep-2008 09:40:26 AM
Scanning Time : 1200 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Install In HP Laptop
Power Drift-Start : 1.562 W/kg
Power Drift-Finish: 1.495 W/kg
Power Drift (%) : -4.285

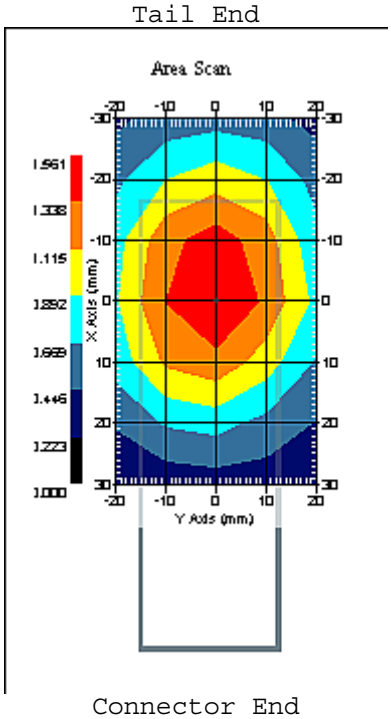
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Install In HP Laptop
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.374 W/kg
10 gram SAR value   : 0.795 W/kg
Area Scan Peak SAR  : 1.560 W/kg
Zoom Scan Peak SAR  : 2.262 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 09:24:50 AM
End Time : 23-Sep-2008 09:44:52 AM
Scanning Time : 1202 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Install In HP Laptop
Power Drift-Start : 1.253 W/kg
Power Drift-Finish: 1.230 W/kg
Power Drift (%) : -1.833

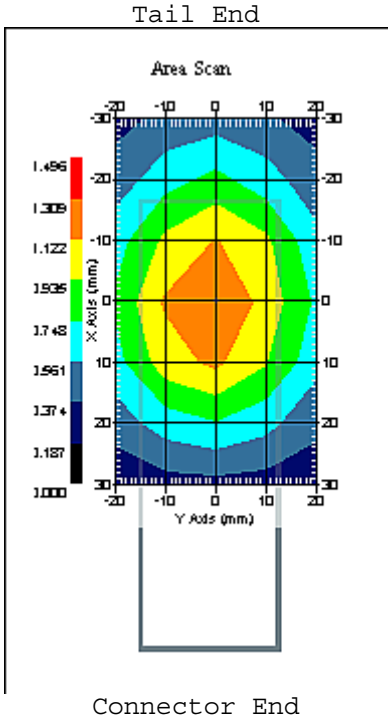
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Install In HP Laptop
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 1.242 W/kg
10 gram SAR value   : 0.708 W/kg
Area Scan Peak SAR  : 1.312 W/kg
Zoom Scan Peak SAR  : 2.121 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 09:48:00 AM
End Time : 23-Sep-2008 10:08:01 AM
Scanning Time : 1201 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Install In HP Laptop
Power Drift-Start : 1.472 W/kg
Power Drift-Finish: 1.429 W/kg
Power Drift (%) : -2.897

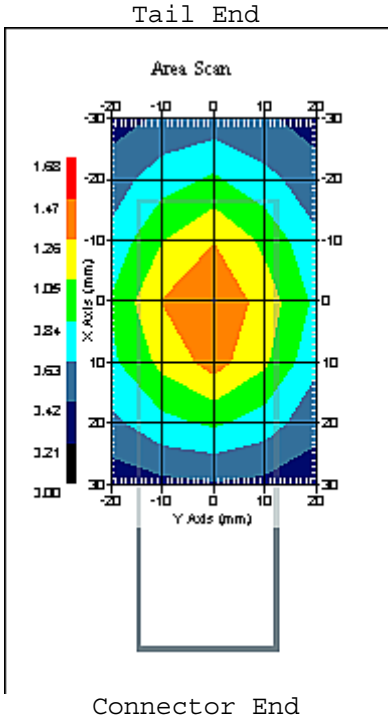
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Install In HP Laptop
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 1.413 W/kg
10 gram SAR value   : 0.804 W/kg
Area Scan Peak SAR  : 1.471 W/kg
Zoom Scan Peak SAR  : 2.392 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 11:00:48 AM
End Time : 23-Sep-2008 11:20:39 AM
Scanning Time : 1191 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Install In HP Laptop
Power Drift-Start : 1.456 W/kg
Power Drift-Finish: 1.456 W/kg
Power Drift (%) : 0.051

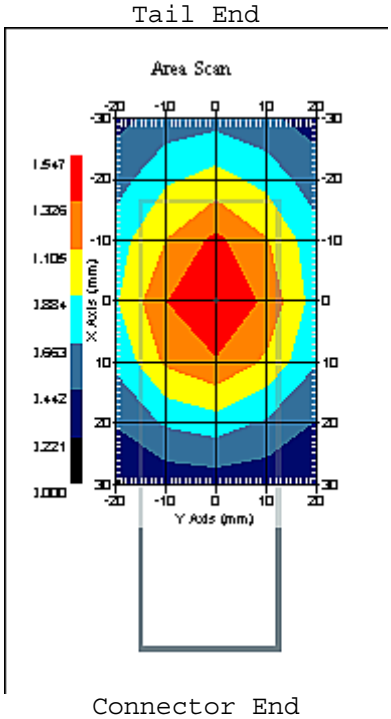
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Install In HP Laptop
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.463 W/kg
10 gram SAR value   : 0.838 W/kg
Area Scan Peak SAR  : 1.546 W/kg
Zoom Scan Peak SAR  : 2.402 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 10:36:20 AM
End Time : 23-Sep-2008 10:56:12 AM
Scanning Time : 1192 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Install In HP Laptop
Power Drift-Start : 1.239 W/kg
Power Drift-Finish: 1.194 W/kg
Power Drift (%) : -3.600

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

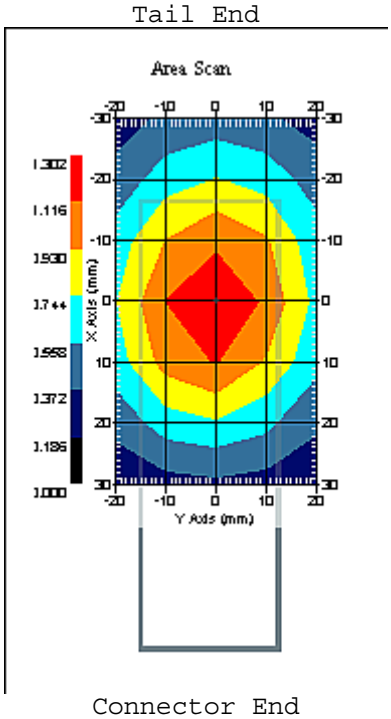
Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2008
Set-up Time : 7:24:00 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Bottom Install In HP Laptop
Separation : 13 mm
Channel : Mid

Tail End



Connector End

1 gram SAR value : 1.157 W/kg
10 gram SAR value : 0.679 W/kg
Area Scan Peak SAR : 1.299 W/kg
Zoom Scan Peak SAR : 1.891 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 10:12:04 AM
End Time : 23-Sep-2008 10:32:05 AM
Scanning Time : 1201 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Install In HP Laptop
Power Drift-Start : 1.433 W/kg
Power Drift-Finish: 1.478 W/kg
Power Drift (%) : 3.144

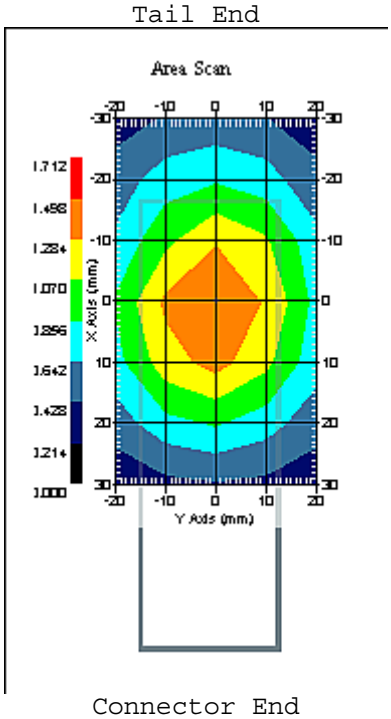
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Install In HP Laptop
Separation        : 13 mm
Channel           : High
```

Tail End



Connector End

```
1 gram SAR value    : 1.330 W/kg
10 gram SAR value   : 0.769 W/kg
Area Scan Peak SAR  : 1.499 W/kg
Zoom Scan Peak SAR  : 2.221 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 11:23:38 AM
End Time : 23-Sep-2008 11:43:27 AM
Scanning Time : 1189 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 1.635 W/kg
Power Drift-Finish: 1.553 W/kg
Power Drift (%) : -4.998

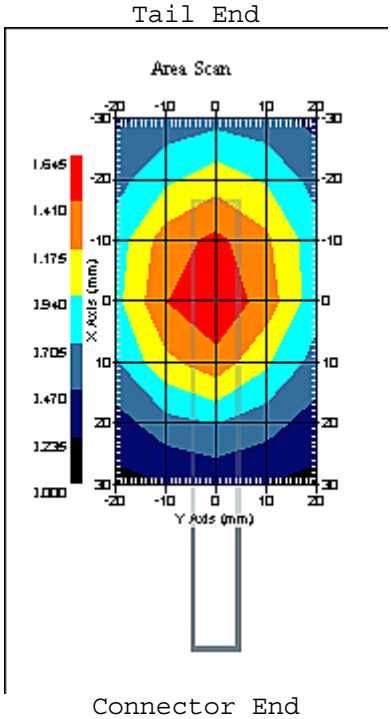
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

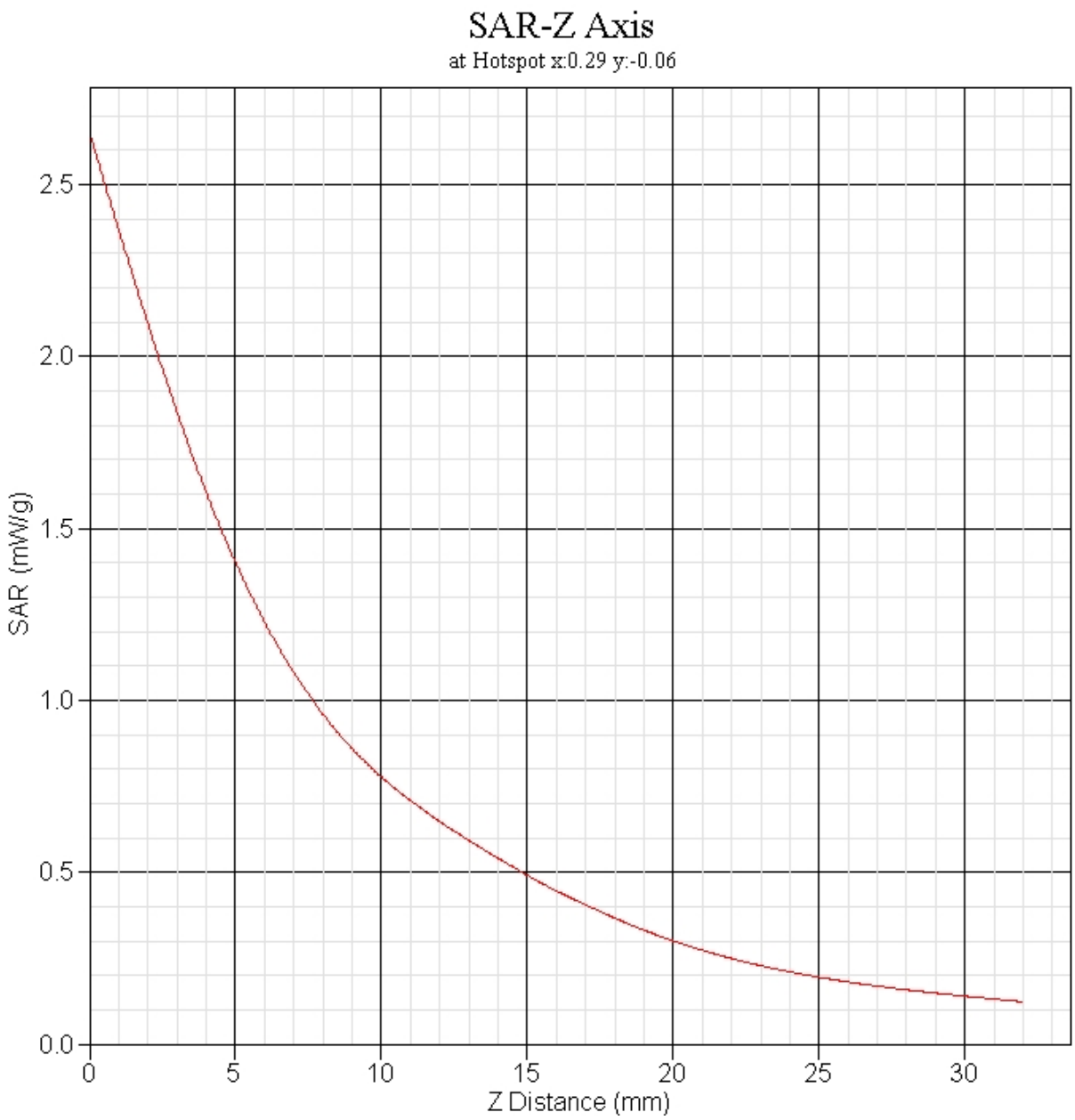
```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Right Side Installed In IBM Laptop
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.518 W/kg
10 gram SAR value   : 0.853 W/kg
Area Scan Peak SAR  : 1.644 W/kg
Zoom Scan Peak SAR  : 2.652 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 11:47:03 AM
End Time : 23-Sep-2008 12:07:01 PM
Scanning Time : 1198 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 1.230 W/kg
Power Drift-Finish: 1.227 W/kg
Power Drift (%) : -0.248

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

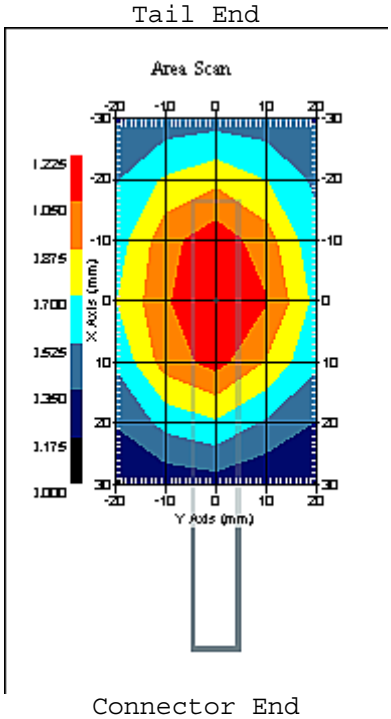
Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2008
Set-up Time : 7:24:00 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Right Side Installed In IBM Laptop
Separation : 13 mm
Channel : Mid

Tail End



Connector End

1 gram SAR value : 1.240 W/kg
10 gram SAR value : 0.705 W/kg
Area Scan Peak SAR : 1.224 W/kg
Zoom Scan Peak SAR : 2.101 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 12:11:46 PM
End Time : 23-Sep-2008 12:31:39 PM
Scanning Time : 1193 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 1.480 W/kg
Power Drift-Finish: 1.429 W/kg
Power Drift (%) : -3.443

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

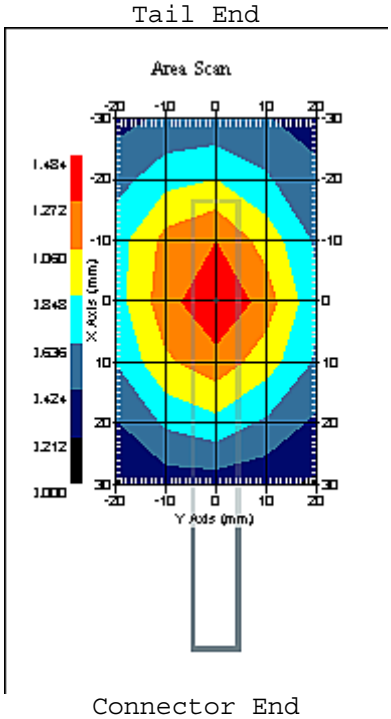
Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2008
Set-up Time : 7:24:00 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Right Side Installed In IBM Laptop
Separation : 13 mm
Channel : High

Tail End



Connector End

1 gram SAR value : 1.388 W/kg
10 gram SAR value : 0.777 W/kg
Area Scan Peak SAR : 1.483 W/kg
Zoom Scan Peak SAR : 2.372 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 01:24:35 PM
End Time : 23-Sep-2008 01:44:27 PM
Scanning Time : 1192 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 1.563 W/kg
Power Drift-Finish: 1.513 W/kg
Power Drift (%) : -3.206

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

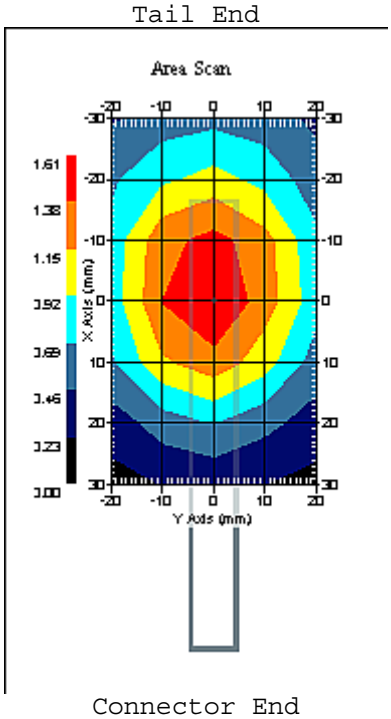
Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2008
Set-up Time : 7:24:00 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Right Side Installed In IBM Laptop
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.507 W/kg
10 gram SAR value : 0.850 W/kg
Area Scan Peak SAR : 1.608 W/kg
Zoom Scan Peak SAR : 2.642 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 01:00:25 PM
End Time : 23-Sep-2008 01:20:29 PM
Scanning Time : 1204 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 1.232 W/kg
Power Drift-Finish: 1.215 W/kg
Power Drift (%) : -1.375

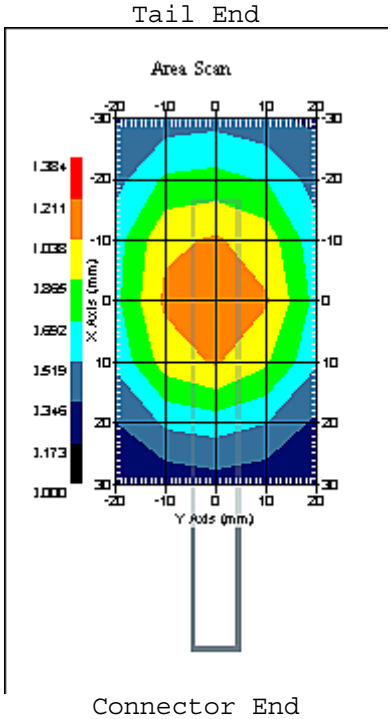
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Right Side Installed In IBM Laptop
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 1.206 W/kg
10 gram SAR value   : 0.677 W/kg
Area Scan Peak SAR  : 1.213 W/kg
Zoom Scan Peak SAR  : 2.101 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 12:36:22 PM
End Time : 23-Sep-2008 12:56:13 PM
Scanning Time : 1191 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 1.500 W/kg
Power Drift-Finish: 1.471 W/kg
Power Drift (%) : -1.940

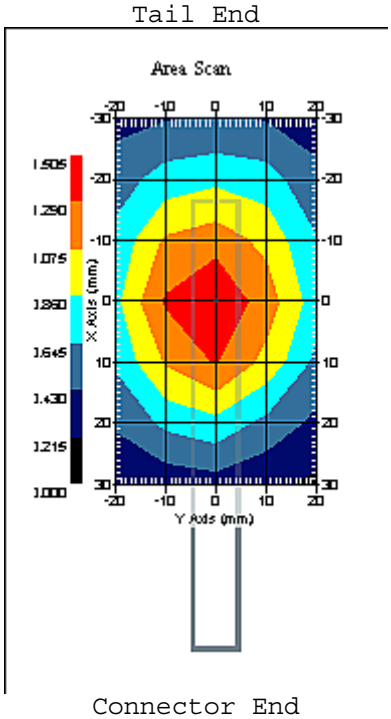
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Right Side Installed In IBM Laptop
Separation        : 13 mm
Channel           : High
```

Tail End



Connector End

```
1 gram SAR value    : 1.398 W/kg
10 gram SAR value   : 0.795 W/kg
Area Scan Peak SAR  : 1.504 W/kg
Zoom Scan Peak SAR  : 2.362 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 01:48:03 PM
End Time : 23-Sep-2008 02:08:09 PM
Scanning Time : 1206 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.285 W/kg
Power Drift-Finish: 1.302 W/kg
Power Drift (%) : 1.320

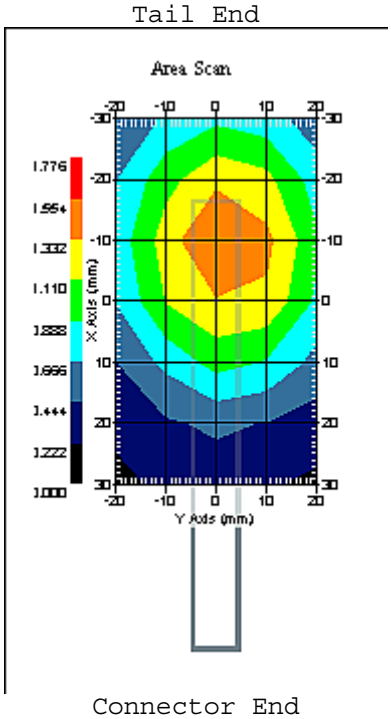
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Left Side With USB Cable
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.476 W/kg
10 gram SAR value   : 0.829 W/kg
Area Scan Peak SAR  : 1.557 W/kg
Zoom Scan Peak SAR  : 2.482 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 02:12:21 PM
End Time : 23-Sep-2008 02:32:16 PM
Scanning Time : 1195 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.147 W/kg
Power Drift-Finish: 1.097 W/kg
Power Drift (%) : -4.356

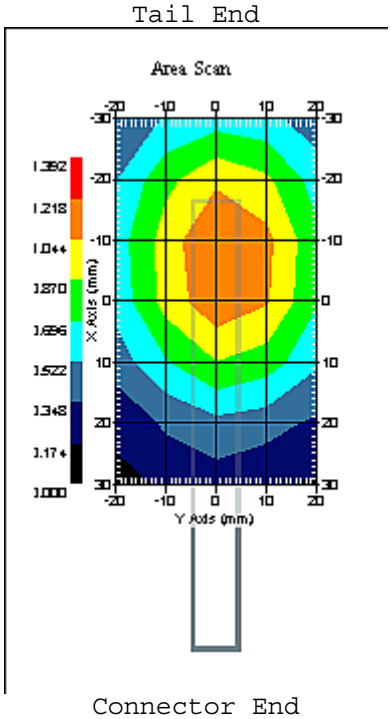
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Left Side With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 1.174 W/kg
10 gram SAR value   : 0.671 W/kg
Area Scan Peak SAR  : 1.221 W/kg
Zoom Scan Peak SAR  : 1.991 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 02:37:36 PM
End Time : 23-Sep-2008 02:57:42 PM
Scanning Time : 1206 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.358 W/kg
Power Drift-Finish: 1.364 W/kg
Power Drift (%) : 0.444

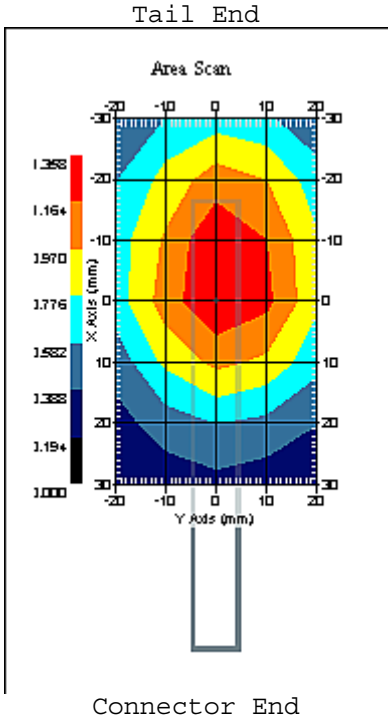
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Left Side With USB Cable
Separation        : 13 mm
Channel           : High
```

Tail End



Connector End

```
1 gram SAR value    : 1.324 W/kg
10 gram SAR value   : 0.759 W/kg
Area Scan Peak SAR  : 1.355 W/kg
Zoom Scan Peak SAR  : 2.231 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 03:52:19 PM
End Time : 23-Sep-2008 04:12:14 PM
Scanning Time : 1195 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.339 W/kg
Power Drift-Finish: 1.362 W/kg
Power Drift (%) : 1.734

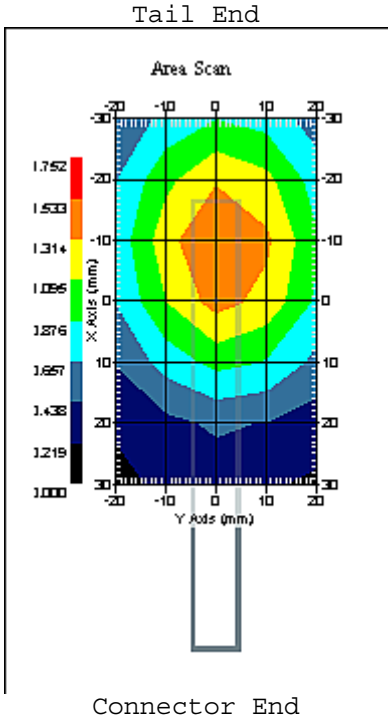
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Left Side With USB Cable
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.438 W/kg
10 gram SAR value   : 0.826 W/kg
Area Scan Peak SAR  : 1.536 W/kg
Zoom Scan Peak SAR  : 2.352 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 03:27:18 PM
End Time : 23-Sep-2008 03:47:15 PM
Scanning Time : 1197 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.157 W/kg
Power Drift-Finish: 1.186 W/kg
Power Drift (%) : 2.554

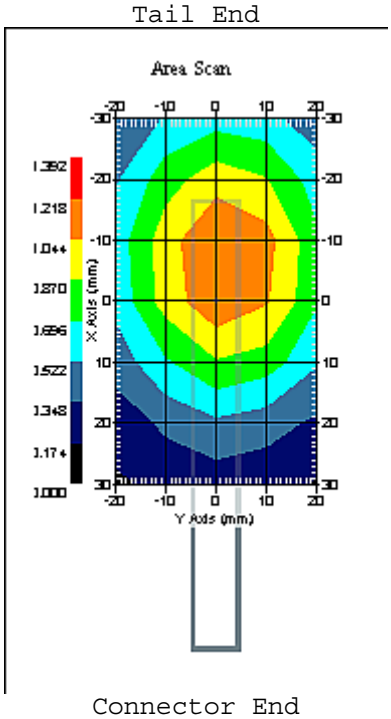
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Left Side With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 1.160 W/kg
10 gram SAR value   : 0.674 W/kg
Area Scan Peak SAR  : 1.219 W/kg
Zoom Scan Peak SAR  : 1.961 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Sep-2008
Starting Time : 23-Sep-2008 03:02:30 PM
End Time : 23-Sep-2008 03:22:26 PM
Scanning Time : 1196 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.331 W/kg
Power Drift-Finish: 1.355 W/kg
Power Drift (%) : 1.815

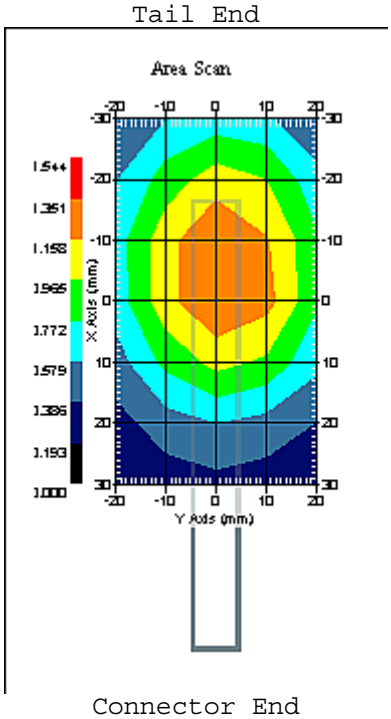
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1800
Frequency : 1800.00 MHz
Last Calib. Date : 23-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 49.00 RH%
Epsilon : 53.91 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 23-Sep-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Left Side With USB Cable
Separation        : 13 mm
Channel           : High
```

Tail End



Connector End

```
1 gram SAR value    : 1.304 W/kg
10 gram SAR value   : 0.731 W/kg
Area Scan Peak SAR  : 1.352 W/kg
Zoom Scan Peak SAR  : 2.181 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 17-Sep-2008
Starting Time : 17-Sep-2008 06:17:48 PM
End Time : 17-Sep-2008 06:37:24 PM
Scanning Time : 1176 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 1.426 W/kg
Power Drift-Finish: 1.391 W/kg
Power Drift (%) : -2.481

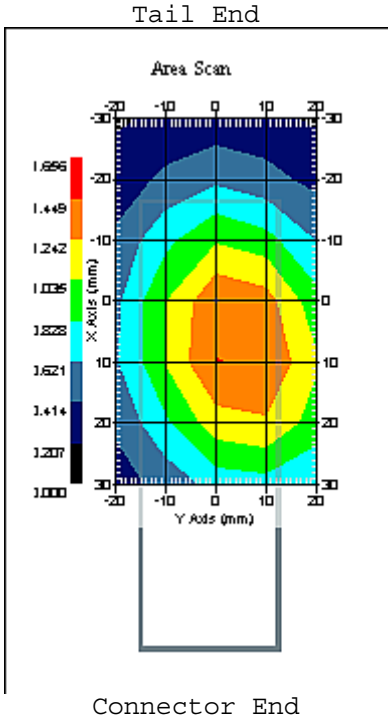
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 17-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 52.69 F/m
Sigma : 1.52 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 17-Sep-2008
Set-up Time       : 7:57:54 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.446 W/kg
10 gram SAR value   : 0.852 W/kg
Area Scan Peak SAR  : 1.451 W/kg
Zoom Scan Peak SAR  : 2.302 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 17-Sep-2008
Starting Time : 17-Sep-2008 06:38:13 PM
End Time : 17-Sep-2008 06:58:06 PM
Scanning Time : 1193 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 0.985 W/kg
Power Drift-Finish: 0.989 W/kg
Power Drift (%) : 0.459

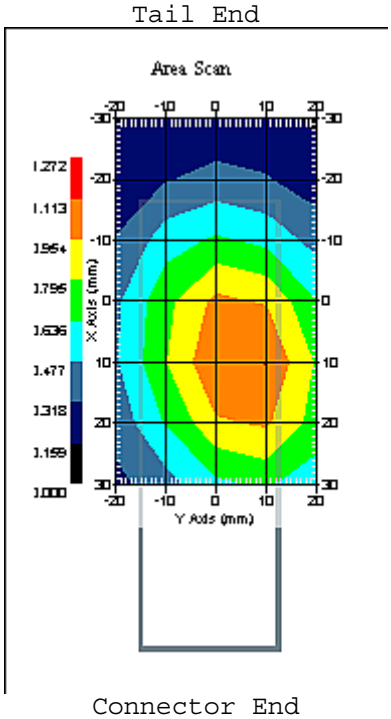
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 17-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 52.69 F/m
Sigma : 1.52 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 17-Sep-2008
Set-up Time       : 7:57:54 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 1.041 W/kg
10 gram SAR value   : 0.618 W/kg
Area Scan Peak SAR  : 1.116 W/kg
Zoom Scan Peak SAR  : 1.591 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 17-Sep-2008
Starting Time : 17-Sep-2008 06:58:50 PM
End Time : 17-Sep-2008 07:18:30 PM
Scanning Time : 1180 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 0.994 W/kg
Power Drift-Finish: 0.999 W/kg
Power Drift (%) : 0.497

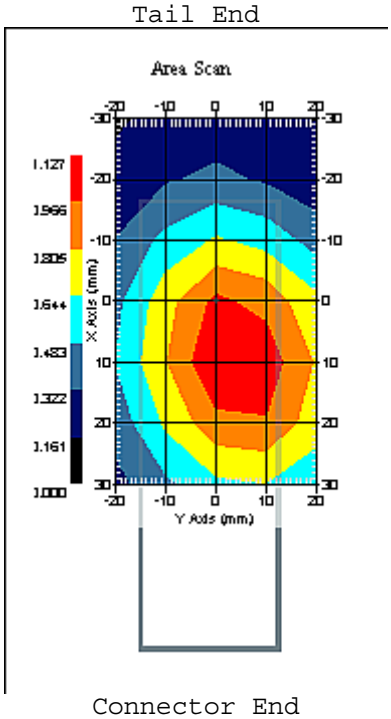
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 17-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 52.69 F/m
Sigma : 1.52 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 17-Sep-2008
Set-up Time       : 7:57:54 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : High
```

Tail End



Connector End

```
1 gram SAR value    : 1.085 W/kg
10 gram SAR value   : 0.639 W/kg
Area Scan Peak SAR  : 1.127 W/kg
Zoom Scan Peak SAR  : 1.711 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 18-Sep-2008
Starting Time : 18-Sep-2008 10:59:41 AM
End Time : 18-Sep-2008 11:19:19 AM
Scanning Time : 1178 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 1.431 W/kg
Power Drift-Finish: 1.415 W/kg
Power Drift (%) : -1.151

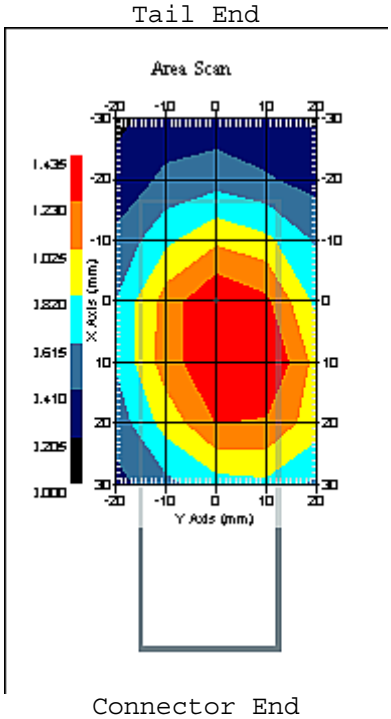
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 18-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.05 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 18-Sep-2008
Set-up Time       : 8:24:52 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.481 W/kg
10 gram SAR value   : 0.856 W/kg
Area Scan Peak SAR : 1.435 W/kg
Zoom Scan Peak SAR : 2.432 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 18-Sep-2008
Starting Time : 18-Sep-2008 10:39:22 AM
End Time : 18-Sep-2008 10:58:49 AM
Scanning Time : 1167 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 0.971 W/kg
Power Drift-Finish: 0.961 W/kg
Power Drift (%) : -0.956

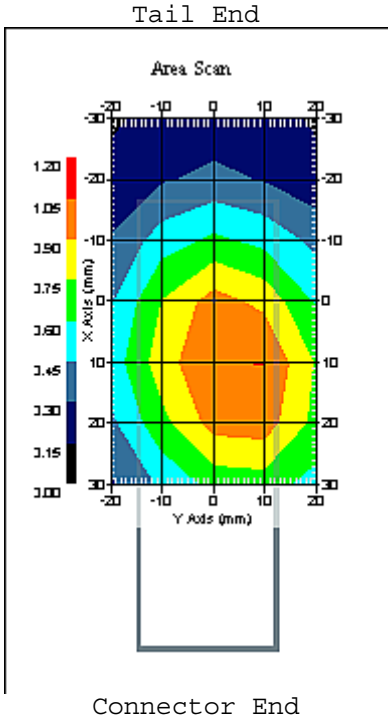
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 18-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.05 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 18-Sep-2008
Set-up Time       : 8:24:52 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 1.076 W/kg
10 gram SAR value   : 0.633 W/kg
Area Scan Peak SAR  : 1.053 W/kg
Zoom Scan Peak SAR  : 1.811 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 18-Sep-2008
Starting Time : 18-Sep-2008 10:18:55 AM
End Time : 18-Sep-2008 10:38:32 AM
Scanning Time : 1177 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 0.909 W/kg
Power Drift-Finish: 0.888 W/kg
Power Drift (%) : -2.316

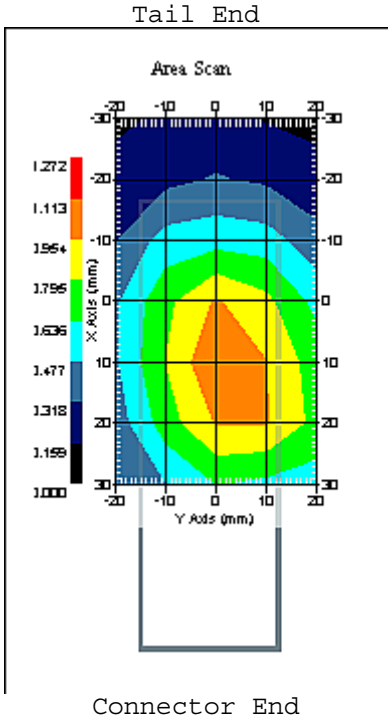
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 18-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.05 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 18-Sep-2008
Set-up Time       : 8:24:52 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : High
```

Tail End



Connector End

```
1 gram SAR value    : 1.080 W/kg
10 gram SAR value   : 0.632 W/kg
Area Scan Peak SAR  : 1.115 W/kg
Zoom Scan Peak SAR  : 1.831 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 17-Sep-2008
Starting Time : 17-Sep-2008 02:17:49 PM
End Time : 17-Sep-2008 02:37:21 PM
Scanning Time : 1172 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Installed In HP Laptop
Power Drift-Start : 1.723 W/kg
Power Drift-Finish: 1.671 W/kg
Power Drift (%) : -3.034

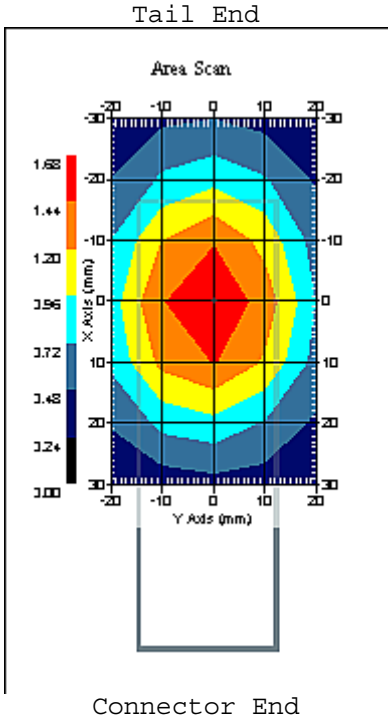
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 17-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 52.69 F/m
Sigma : 1.52 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

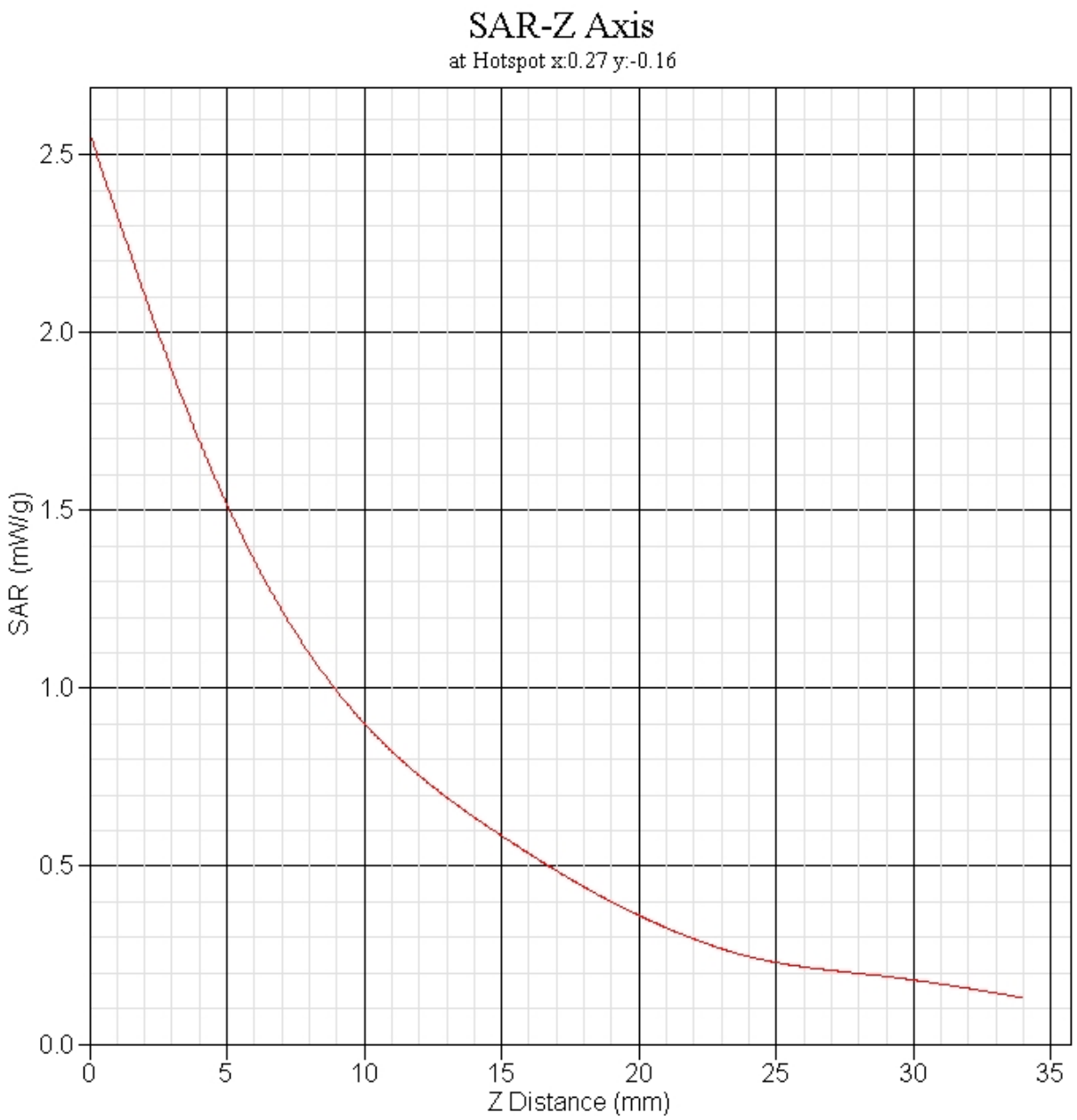
```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 17-Sep-2008
Set-up Time       : 7:57:54 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Installed In HP Laptop
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.516 W/kg
10 gram SAR value   : 0.872 W/kg
Area Scan Peak SAR  : 1.680 W/kg
Zoom Scan Peak SAR  : 2.562 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 17-Sep-2008
Starting Time : 17-Sep-2008 01:36:00 PM
End Time : 17-Sep-2008 01:55:42 PM
Scanning Time : 1182 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Installed In HP Laptop
Power Drift-Start : 1.466 W/kg
Power Drift-Finish: 1.531 W/kg
Power Drift (%) : 4.431

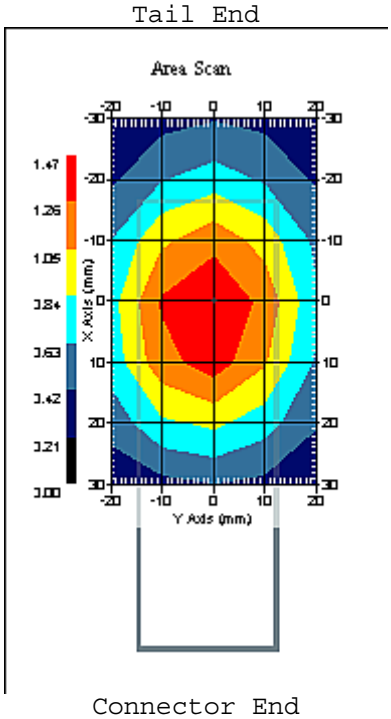
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 17-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 52.69 F/m
Sigma : 1.52 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 17-Sep-2008
Set-up Time       : 7:57:54 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Installed In HP Laptop
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 1.449 W/kg
10 gram SAR value   : 0.824 W/kg
Area Scan Peak SAR  : 1.467 W/kg
Zoom Scan Peak SAR  : 2.232 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 17-Sep-2008
Starting Time : 17-Sep-2008 01:57:23 PM
End Time : 17-Sep-2008 02:17:02 PM
Scanning Time : 1179 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Installed In HP Laptop
Power Drift-Start : 1.521 W/kg
Power Drift-Finish: 1.529 W/kg
Power Drift (%) : 0.519

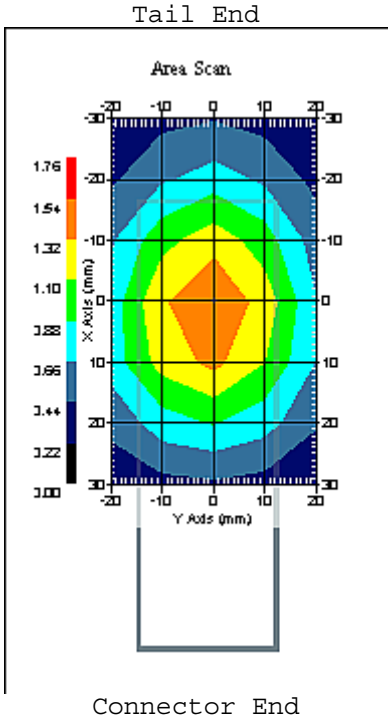
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 17-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 52.69 F/m
Sigma : 1.52 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 17-Sep-2008
Set-up Time       : 7:57:54 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Installed In HP Laptop
Separation        : 13 mm
Channel           : High
```

Tail End



Connector End

```
1 gram SAR value    : 1.457 W/kg
10 gram SAR value   : 0.840 W/kg
Area Scan Peak SAR  : 1.541 W/kg
Zoom Scan Peak SAR  : 2.292 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 17-Sep-2008
Starting Time : 17-Sep-2008 04:54:26 PM
End Time : 17-Sep-2008 05:14:00 PM
Scanning Time : 1174 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Installed In HP Laptop
Power Drift-Start : 1.635 W/kg
Power Drift-Finish: 1.658 W/kg
Power Drift (%) : 1.444

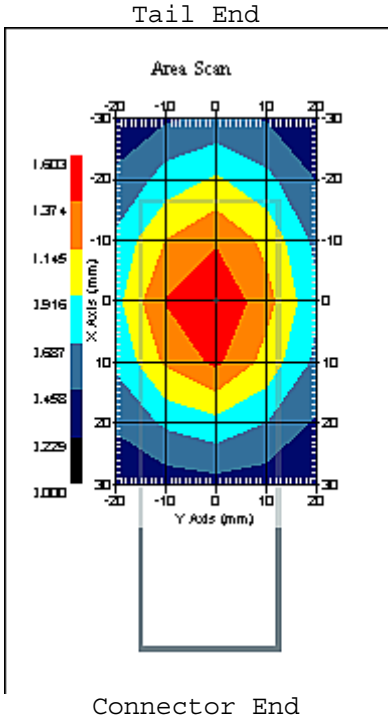
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 17-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 52.69 F/m
Sigma : 1.52 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 17-Sep-2008
Set-up Time       : 7:57:54 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Installed In HP Laptop
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.514 W/kg
10 gram SAR value   : 0.883 W/kg
Area Scan Peak SAR  : 1.601 W/kg
Zoom Scan Peak SAR  : 2.382 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 17-Sep-2008
Starting Time : 17-Sep-2008 03:19:27 PM
End Time : 17-Sep-2008 03:39:06 PM
Scanning Time : 1179 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Installed In HP Laptop
Power Drift-Start : 1.328 W/kg
Power Drift-Finish: 1.356 W/kg
Power Drift (%) : 2.071

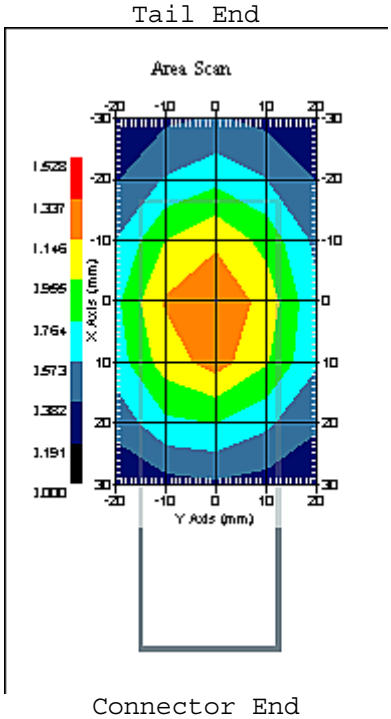
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 17-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 52.69 F/m
Sigma : 1.52 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 17-Sep-2008
Set-up Time       : 7:57:54 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Installed In HP Laptop
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 1.277 W/kg
10 gram SAR value   : 0.747 W/kg
Area Scan Peak SAR  : 1.340 W/kg
Zoom Scan Peak SAR  : 2.071 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 17-Sep-2008
Starting Time : 17-Sep-2008 03:39:51 PM
End Time : 17-Sep-2008 03:59:32 PM
Scanning Time : 1181 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Installed In HP Laptop
Power Drift-Start : 1.334 W/kg
Power Drift-Finish: 1.335 W/kg
Power Drift (%) : 0.109

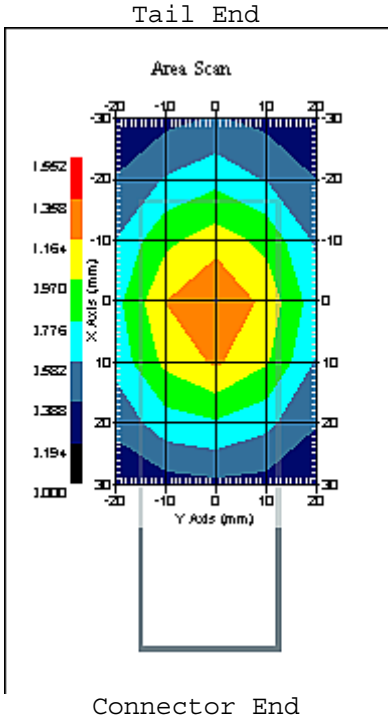
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 17-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 52.69 F/m
Sigma : 1.52 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 17-Sep-2008
Set-up Time       : 7:57:54 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Installed In HP Laptop
Separation        : 13 mm
Channel           : High
```

Tail End



Connector End

```
1 gram SAR value    : 1.283 W/kg
10 gram SAR value   : 0.745 W/kg
Area Scan Peak SAR  : 1.361 W/kg
Zoom Scan Peak SAR  : 2.101 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 07:24:07 AM
End Time : 19-Sep-2008 07:44:56 AM
Scanning Time : 1249 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In HP Laptop
Power Drift-Start : 1.480 W/kg
Power Drift-Finish: 1.415 W/kg
Power Drift (%) : -4.395

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

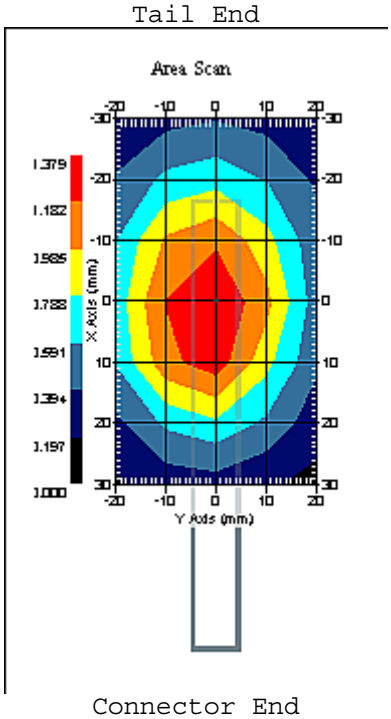
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 19-Sep-2008
Set-up Time : 7:11:33 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Right Side Installed In HP Laptop
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.378 W/kg
10 gram SAR value : 0.753 W/kg
Area Scan Peak SAR : 1.379 W/kg
Zoom Scan Peak SAR : 2.161 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 07:45:46 AM
End Time : 19-Sep-2008 08:05:21 AM
Scanning Time : 1175 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In HP Laptop
Power Drift-Start : 1.193 W/kg
Power Drift-Finish: 1.190 W/kg
Power Drift (%) : -0.288

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

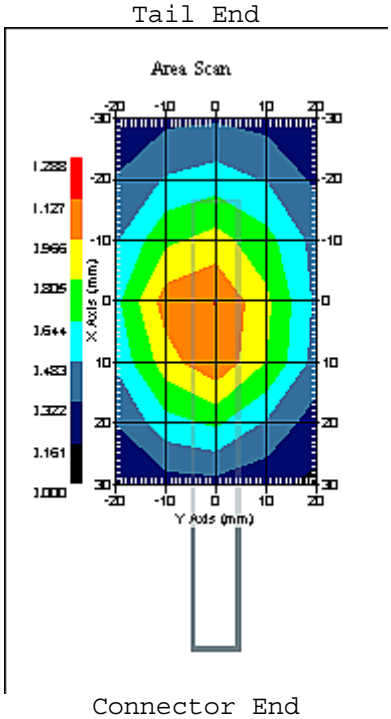
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 19-Sep-2008
Set-up Time : 7:11:33 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Right Side Installed In HP Laptop
Separation : 13 mm
Channel : Mid

Tail End



Connector End

1 gram SAR value : 1.133 W/kg
10 gram SAR value : 0.630 W/kg
Area Scan Peak SAR : 1.130 W/kg
Zoom Scan Peak SAR : 1.971 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 08:06:31 AM
End Time : 19-Sep-2008 08:26:30 AM
Scanning Time : 1199 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In HP Laptop
Power Drift-Start : 1.469 W/kg
Power Drift-Finish: 1.423 W/kg
Power Drift (%) : -3.115

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

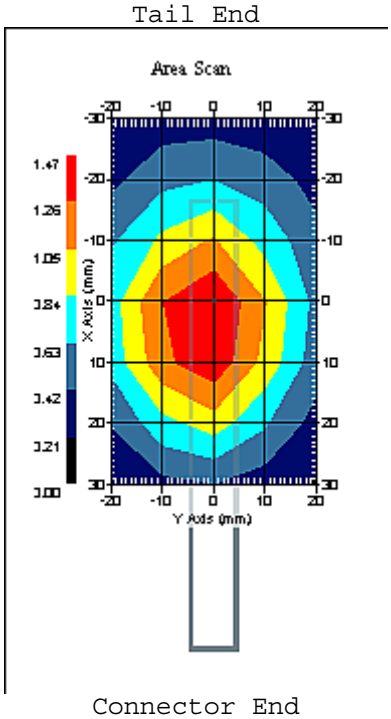
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 19-Sep-2008
Set-up Time : 7:11:33 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Right Side Installed In HP Laptop
Separation : 13 mm
Channel : High

Tail End



Connector End

1 gram SAR value : 1.327 W/kg
10 gram SAR value : 0.745 W/kg
Area Scan Peak SAR : 1.467 W/kg
Zoom Scan Peak SAR : 2.131 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 18-Sep-2008
Starting Time : 18-Sep-2008 06:03:22 PM
End Time : 18-Sep-2008 06:22:48 PM
Scanning Time : 1166 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In HP Laptop
Power Drift-Start : 1.526 W/kg
Power Drift-Finish: 1.522 W/kg
Power Drift (%) : -0.246

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

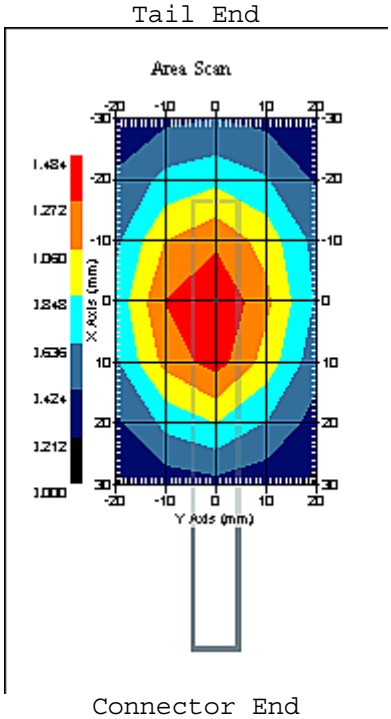
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 18-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.05 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 18-Sep-2008
Set-up Time : 11:43:32 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Right Side Installed In HP Laptop
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.432 W/kg
10 gram SAR value : 0.804 W/kg
Area Scan Peak SAR : 1.481 W/kg
Zoom Scan Peak SAR : 2.252 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 18-Sep-2008
Starting Time : 18-Sep-2008 07:29:33 PM
End Time : 18-Sep-2008 07:49:01 PM
Scanning Time : 1168 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In HP Laptop
Power Drift-Start : 1.268 W/kg
Power Drift-Finish: 1.270 W/kg
Power Drift (%) : 0.105

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

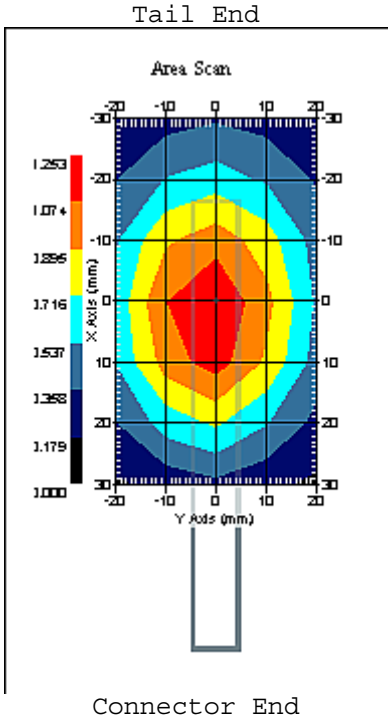
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 18-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.05 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 18-Sep-2008
Set-up Time : 11:43:32 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Right Side Installed In HP Laptop
Separation : 13 mm
Channel : Mid

Tail End



Connector End

1 gram SAR value : 1.211 W/kg
10 gram SAR value : 0.670 W/kg
Area Scan Peak SAR : 1.252 W/kg
Zoom Scan Peak SAR : 2.001 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 18-Sep-2008
Starting Time : 18-Sep-2008 06:48:22 PM
End Time : 18-Sep-2008 07:07:51 PM
Scanning Time : 1169 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In HP Laptop
Power Drift-Start : 1.480 W/kg
Power Drift-Finish: 1.481 W/kg
Power Drift (%) : 0.076

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

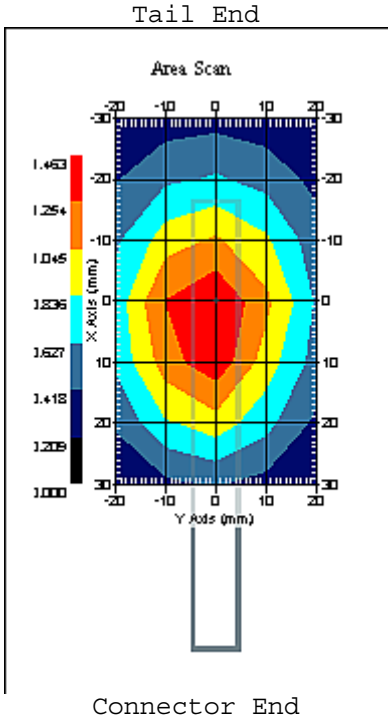
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 18-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.05 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 18-Sep-2008
Set-up Time : 11:43:32 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Right Side Installed In HP Laptop
Separation : 13 mm
Channel : High

Tail End



Connector End

1 gram SAR value : 1.424 W/kg
10 gram SAR value : 0.781 W/kg
Area Scan Peak SAR : 1.462 W/kg
Zoom Scan Peak SAR : 2.292 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 09:32:23 AM
End Time : 19-Sep-2008 09:51:56 AM
Scanning Time : 1173 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.094 W/kg
Power Drift-Finish: 1.052 W/kg
Power Drift (%) : -3.814

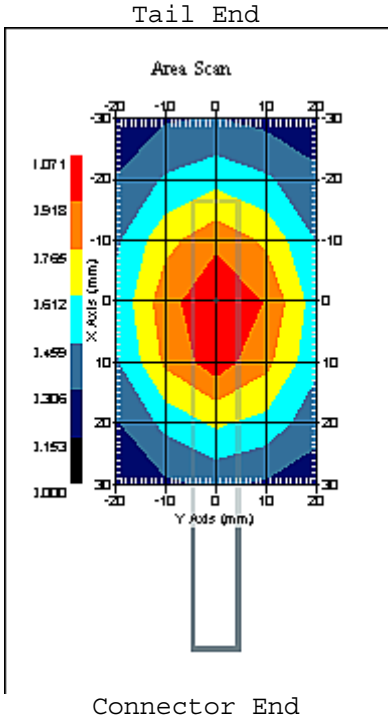
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 19-Sep-2008
Set-up Time       : 7:11:33 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Left Side With USB Cable
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.012 W/kg
10 gram SAR value   : 0.571 W/kg
Area Scan Peak SAR  : 1.069 W/kg
Zoom Scan Peak SAR  : 1.841 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 09:11:55 AM
End Time : 19-Sep-2008 09:31:36 AM
Scanning Time : 1181 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 0.889 W/kg
Power Drift-Finish: 0.908 W/kg
Power Drift (%) : 2.130

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

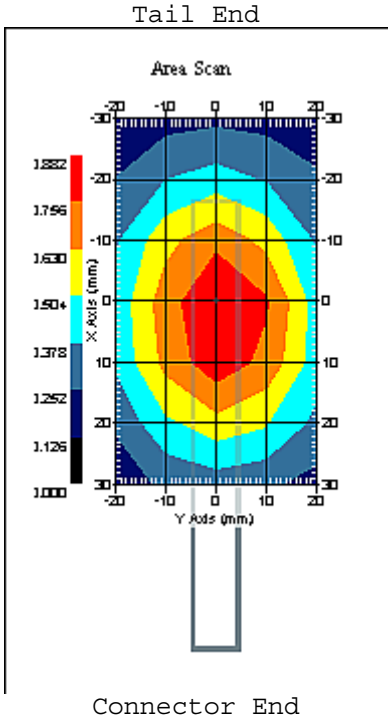
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 19-Sep-2008
Set-up Time : 7:11:33 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Left Side With USB Cable
Separation : 13 mm
Channel : Mid

Tail End



Connector End

1 gram SAR value : 0.822 W/kg
10 gram SAR value : 0.468 W/kg
Area Scan Peak SAR : 0.882 W/kg
Zoom Scan Peak SAR : 1.381 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 08:51:23 AM
End Time : 19-Sep-2008 09:11:07 AM
Scanning Time : 1184 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.064 W/kg
Power Drift-Finish: 1.034 W/kg
Power Drift (%) : -2.818

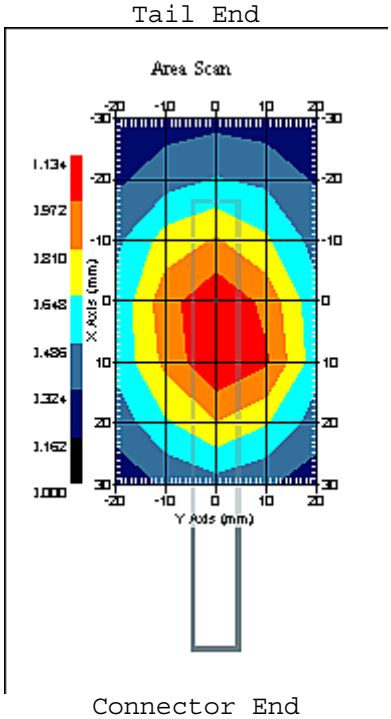
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 19-Sep-2008
Set-up Time       : 7:11:33 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Left Side With USB Cable
Separation        : 13 mm
Channel           : High
```

Tail End



Connector End

```
1 gram SAR value    : 1.008 W/kg
10 gram SAR value   : 0.562 W/kg
Area Scan Peak SAR  : 1.132 W/kg
Zoom Scan Peak SAR  : 1.731 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 11:34:28 AM
End Time : 19-Sep-2008 11:54:10 AM
Scanning Time : 1182 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.107 W/kg
Power Drift-Finish: 1.081 W/kg
Power Drift (%) : -2.341

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

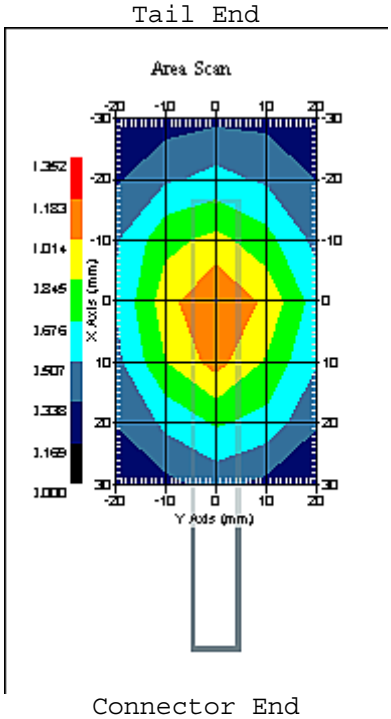
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 19-Sep-2008
Set-up Time : 7:11:33 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Left Side With USB Cable
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.030 W/kg
10 gram SAR value : 0.587 W/kg
Area Scan Peak SAR : 1.185 W/kg
Zoom Scan Peak SAR : 1.681 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 11:14:05 AM
End Time : 19-Sep-2008 11:33:38 AM
Scanning Time : 1173 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 0.874 W/kg
Power Drift-Finish: 0.877 W/kg
Power Drift (%) : 0.302

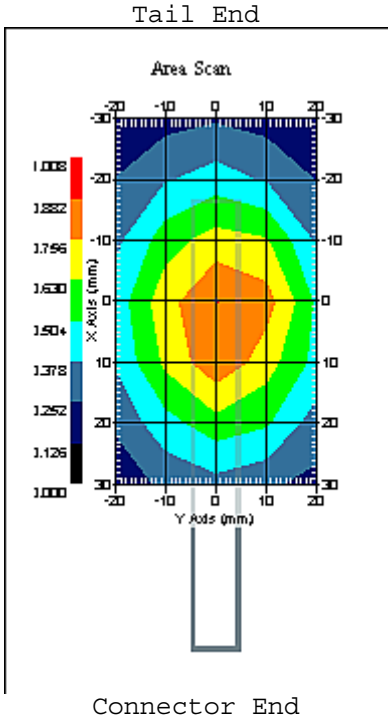
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 19-Sep-2008
Set-up Time       : 7:11:33 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Left Side With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.898 W/kg
10 gram SAR value   : 0.505 W/kg
Area Scan Peak SAR  : 0.884 W/kg
Zoom Scan Peak SAR  : 1.591 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 10:53:20 AM
End Time : 19-Sep-2008 11:12:47 AM
Scanning Time : 1167 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.054 W/kg
Power Drift-Finish: 1.035 W/kg
Power Drift (%) : -1.809

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

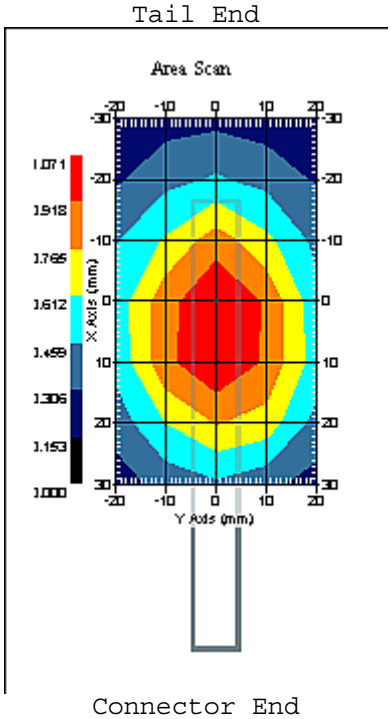
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 19-Sep-2008
Set-up Time : 7:11:33 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Left Side With USB Cable
Separation : 13 mm
Channel : High

Tail End



Connector End

1 gram SAR value : 1.075 W/kg
10 gram SAR value : 0.605 W/kg
Area Scan Peak SAR : 1.068 W/kg
Zoom Scan Peak SAR : 1.791 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 04:50:15 PM
End Time : 19-Sep-2008 05:09:42 PM
Scanning Time : 1167 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : GPRS
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 0.809 W/kg
Power Drift-Finish: 0.794 W/kg
Power Drift (%) : -1.852

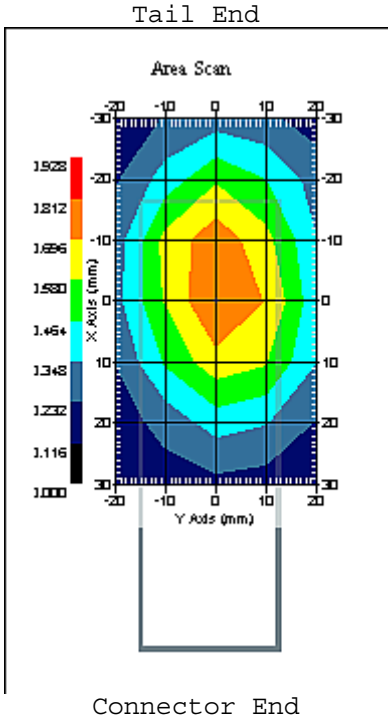
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

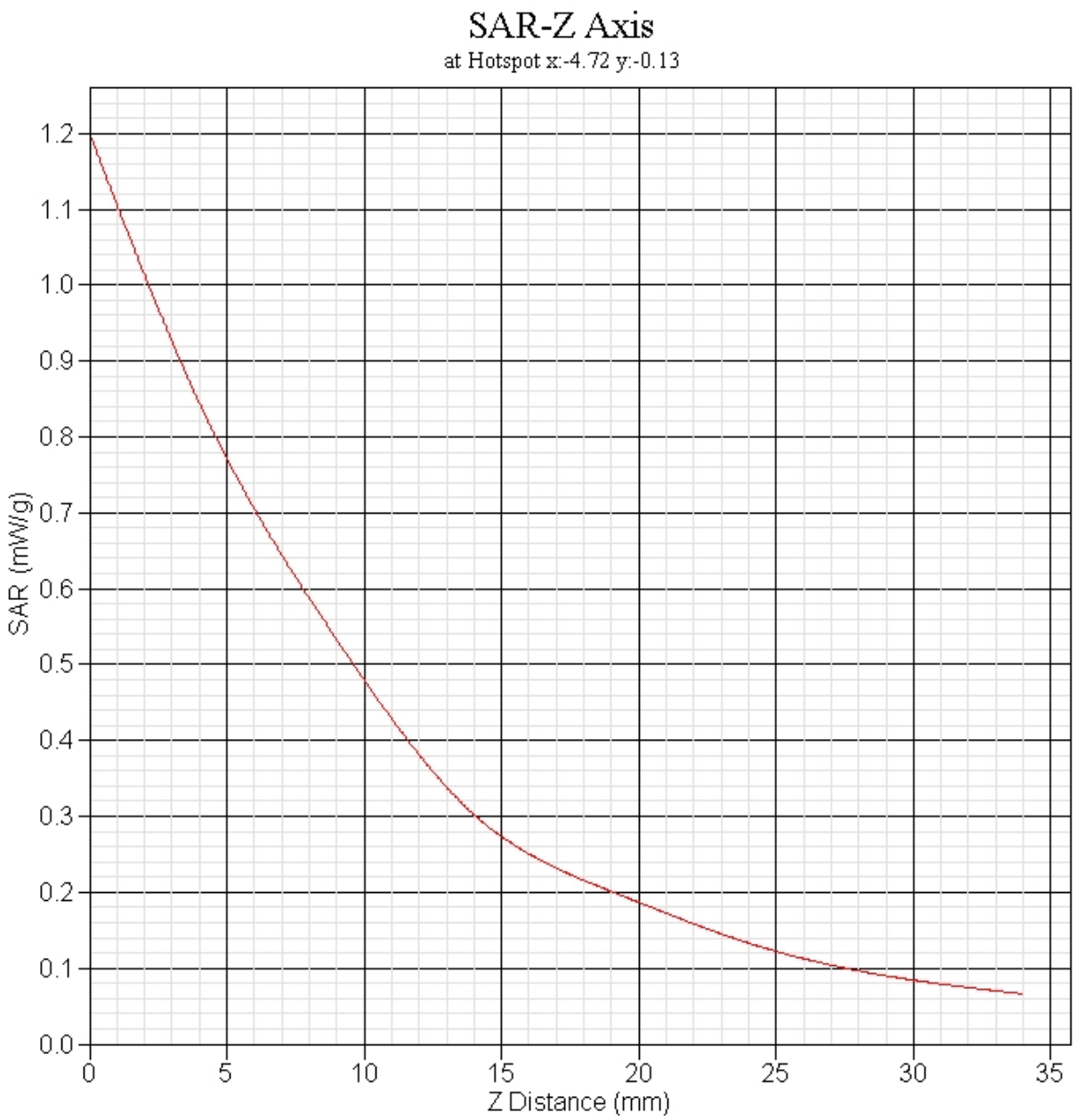
```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 19-Sep-2008
Set-up Time       : 7:11:33 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.784 W/kg
10 gram SAR value   : 0.452 W/kg
Area Scan Peak SAR  : 0.813 W/kg
Zoom Scan Peak SAR  : 1.201 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 04:29:04 PM
End Time : 19-Sep-2008 04:48:33 PM
Scanning Time : 1169 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : GRPS
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Install In HP Laptop
Power Drift-Start : 0.627 W/kg
Power Drift-Finish: 0.600 W/kg
Power Drift (%) : -4.308

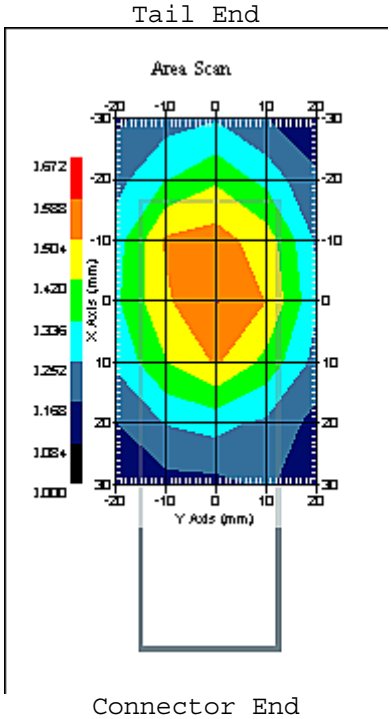
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 19-Sep-2008
Set-up Time       : 7:11:33 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Bottom Install In HP Laptop
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.595 W/kg
10 gram SAR value   : 0.346 W/kg
Area Scan Peak SAR  : 0.590 W/kg
Zoom Scan Peak SAR  : 0.980 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 04:06:10 PM
End Time : 19-Sep-2008 04:25:45 PM
Scanning Time : 1175 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : GPRS
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 0.581 W/kg
Power Drift-Finish: 0.569 W/kg
Power Drift (%) : -2.063

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

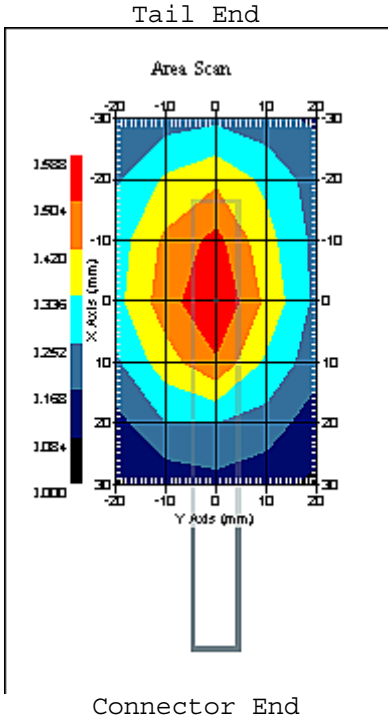
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 19-Sep-2008
Set-up Time : 7:11:33 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position : Vertical - Right Side Installed In IBM Laptop
Separation : 13 mm
Channel : Mid

Tail End



Connector End

1 gram SAR value : 0.561 W/kg
10 gram SAR value : 0.320 W/kg
Area Scan Peak SAR : 0.587 W/kg
Zoom Scan Peak SAR : 0.870 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 19-Sep-2008
Starting Time : 19-Sep-2008 03:24:52 PM
End Time : 19-Sep-2008 03:44:28 PM
Scanning Time : 1176 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : GPRS
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 0.376 W/kg
Power Drift-Finish: 0.365 W/kg
Power Drift (%) : -2.925

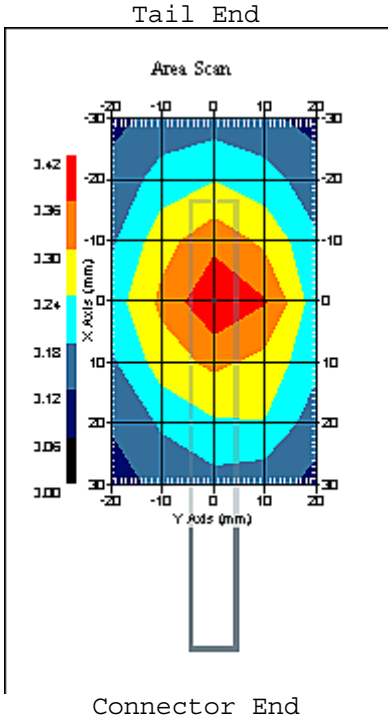
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 19-Sep-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 52.00 RH%
Epsilon : 53.13 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 19-Sep-2008
Set-up Time       : 7:11:33 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

Other Data
DUT Position      : Vertical - Left Side With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.379 W/kg
10 gram SAR value   : 0.224 W/kg
Area Scan Peak SAR  : 0.417 W/kg
Zoom Scan Peak SAR  : 0.650 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 30-Oct-2008
Starting Time : 30-Oct-2008 12:19:37 PM
End Time : 30-Oct-2008 12:34:38 PM
Scanning Time : 901 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 1.483 W/kg
Power Drift-Finish: 1.489 W/kg
Power Drift (%) : 0.451

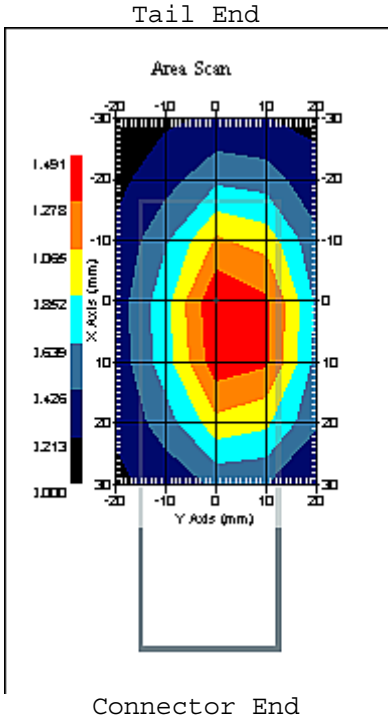
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 30-Oct-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.04 F/m
Sigma : 1.53 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 30-Oct-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.356 W/kg
10 gram SAR value   : 0.731 W/kg
Area Scan Peak SAR  : 1.489 W/kg
Zoom Scan Peak SAR  : 2.392 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 30-Oct-2008
Starting Time : 30-Oct-2008 12:02:57 PM
End Time : 30-Oct-2008 12:18:04 PM
Scanning Time : 907 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 1.519 W/kg
Power Drift-Finish: 1.486 W/kg
Power Drift (%) : -2.209

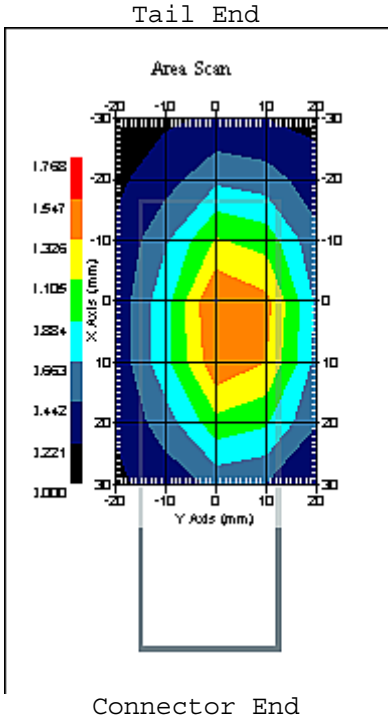
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 30-Oct-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.04 F/m
Sigma : 1.53 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 30-Oct-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 1.372 W/kg
10 gram SAR value   : 0.700 W/kg
Area Scan Peak SAR  : 1.550 W/kg
Zoom Scan Peak SAR  : 2.402 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 30-Oct-2008
Starting Time : 30-Oct-2008 12:39:14 PM
End Time : 30-Oct-2008 12:54:12 PM
Scanning Time : 898 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Install In HP Laptop
Power Drift-Start : 1.366 W/kg
Power Drift-Finish: 1.368 W/kg
Power Drift (%) : 0.152

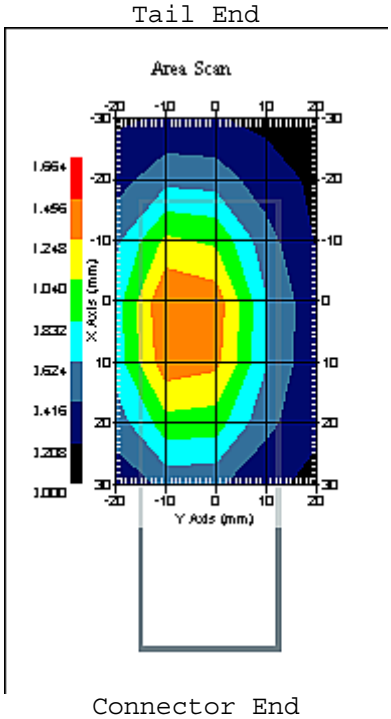
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 30-Oct-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.04 F/m
Sigma : 1.53 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 30-Oct-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Bottom Install In HP Laptop
Separation        : 13 mm
Channel           : High
```

Tail End



Connector End

```
1 gram SAR value    : 1.349 W/kg
10 gram SAR value   : 0.716 W/kg
Area Scan Peak SAR  : 1.457 W/kg
Zoom Scan Peak SAR  : 2.382 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 30-Oct-2008
Starting Time : 30-Oct-2008 12:55:34 PM
End Time : 30-Oct-2008 01:10:39 PM
Scanning Time : 905 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Install In HP Laptop
Power Drift-Start : 1.356 W/kg
Power Drift-Finish: 1.361 W/kg
Power Drift (%) : 0.378

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

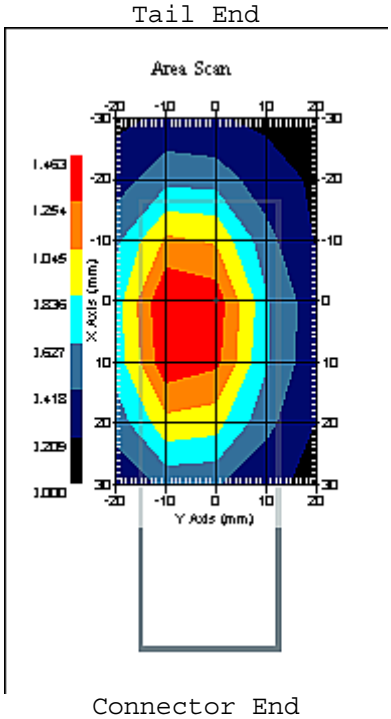
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 30-Oct-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.04 F/m
Sigma : 1.53 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 30-Oct-2008
Set-up Time : 7:24:00 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Bottom Install In HP Laptop
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.372 W/kg
10 gram SAR value : 0.706 W/kg
Area Scan Peak SAR : 1.462 W/kg
Zoom Scan Peak SAR : 2.432 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 30-Oct-2008
Starting Time : 30-Oct-2008 02:45:21 PM
End Time : 30-Oct-2008 03:00:29 PM
Scanning Time : 908 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 1.580 W/kg
Power Drift-Finish: 1.592 W/kg
Power Drift (%) : 0.755

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

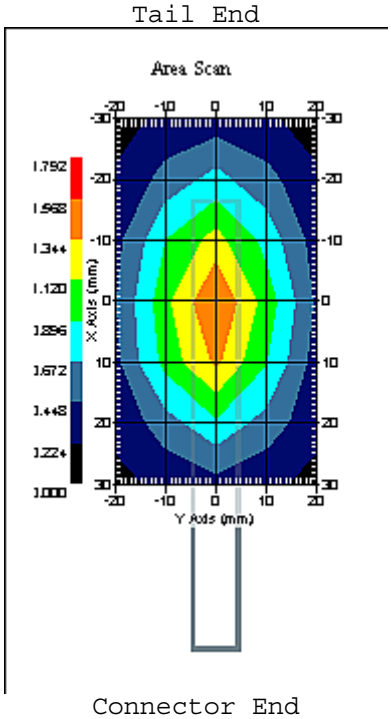
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 30-Oct-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.04 F/m
Sigma : 1.53 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 30-Oct-2008
Set-up Time : 7:24:00 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Vertical - Right Side Installed In IBM Laptop
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.392 W/kg
10 gram SAR value : 0.759 W/kg
Area Scan Peak SAR : 1.570 W/kg
Zoom Scan Peak SAR : 2.452 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 30-Oct-2008
Starting Time : 30-Oct-2008 03:02:57 PM
End Time : 30-Oct-2008 03:18:02 PM
Scanning Time : 905 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 1.571 W/kg
Power Drift-Finish: 1.557 W/kg
Power Drift (%) : -0.904

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

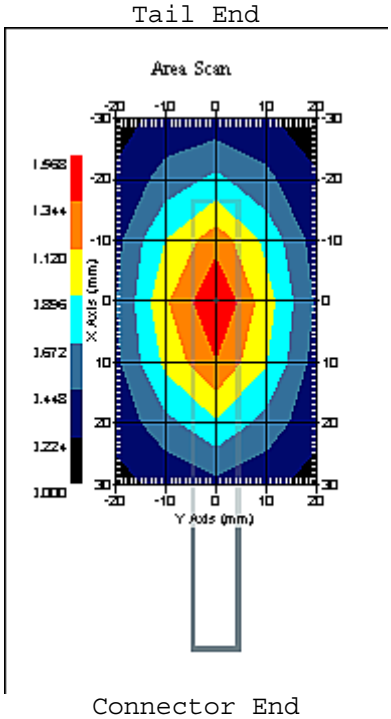
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 30-Oct-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.04 F/m
Sigma : 1.53 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 30-Oct-2008
Set-up Time : 7:24:00 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

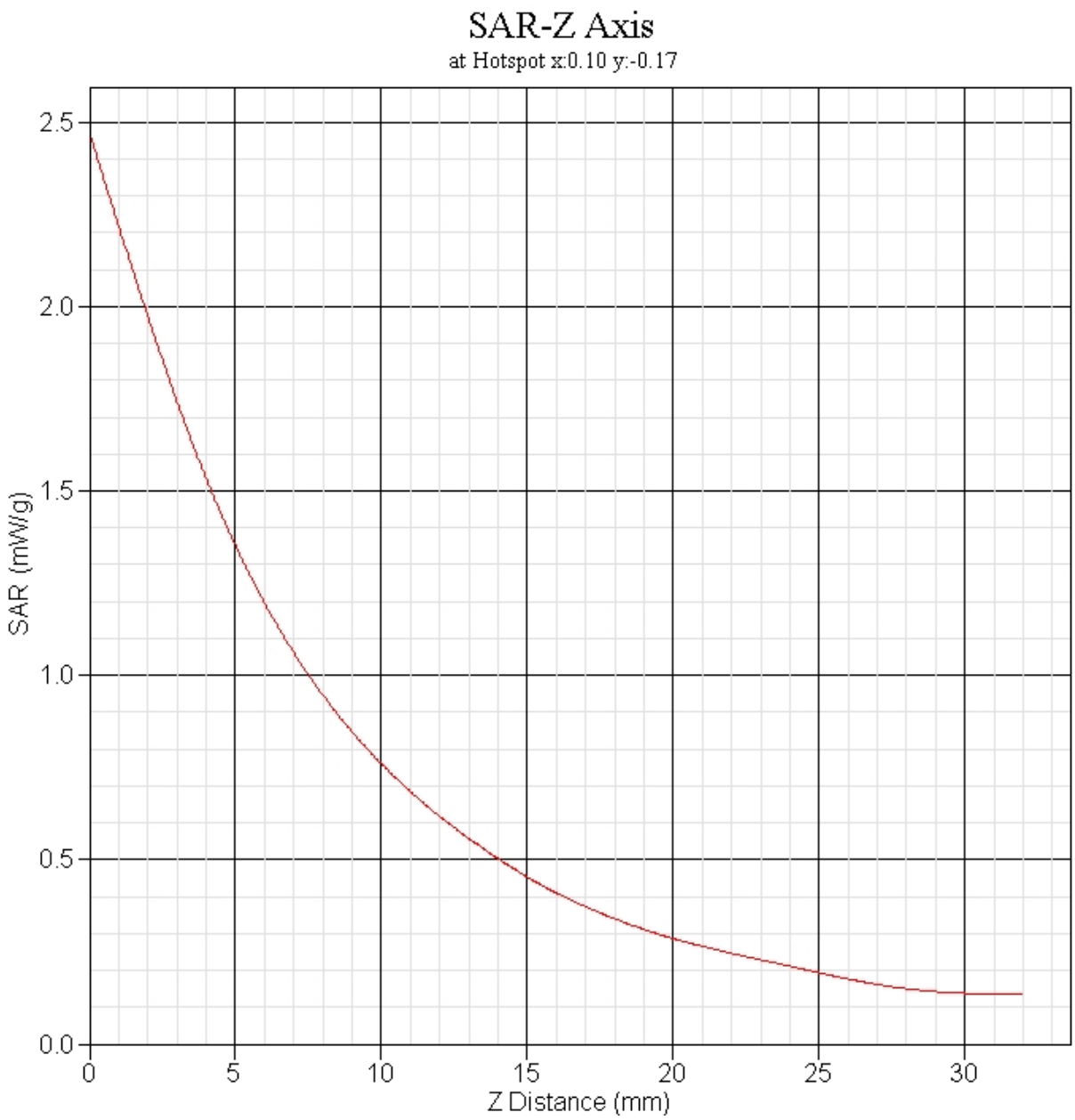
Other Data
DUT Position : Vertical - Right Side Installed In IBM Laptop
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.394 W/kg
10 gram SAR value : 0.756 W/kg
Area Scan Peak SAR : 1.567 W/kg
Zoom Scan Peak SAR : 2.472 W/kg



SAR Test Report

By Operator : Jay
Measurement Date : 30-Oct-2008
Starting Time : 30-Oct-2008 02:28:45 PM
End Time : 30-Oct-2008 02:43:36 PM
Scanning Time : 891 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.524 W/kg
Power Drift-Finish: 1.511 W/kg
Power Drift (%) : -0.859

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

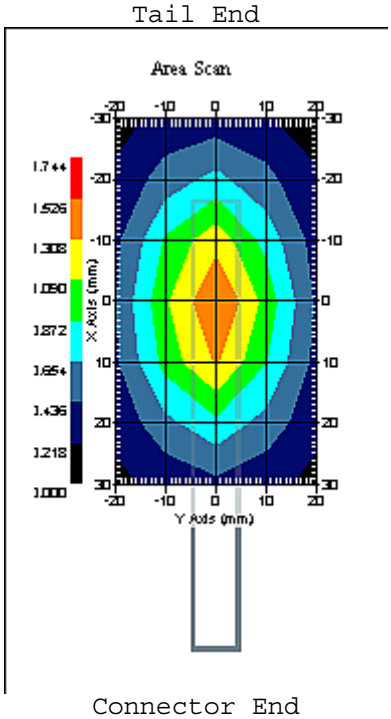
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 30-Oct-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.04 F/m
Sigma : 1.53 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 30-Oct-2008
Set-up Time : 7:24:00 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Vertical - Left Side With USB Cable
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.370 W/kg
10 gram SAR value : 0.746 W/kg
Area Scan Peak SAR : 1.527 W/kg
Zoom Scan Peak SAR : 2.422 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 30-Oct-2008
Starting Time : 30-Oct-2008 02:04:01 PM
End Time : 30-Oct-2008 02:19:05 PM
Scanning Time : 904 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.466 W/kg
Power Drift-Finish: 1.521 W/kg
Power Drift (%) : 3.710

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

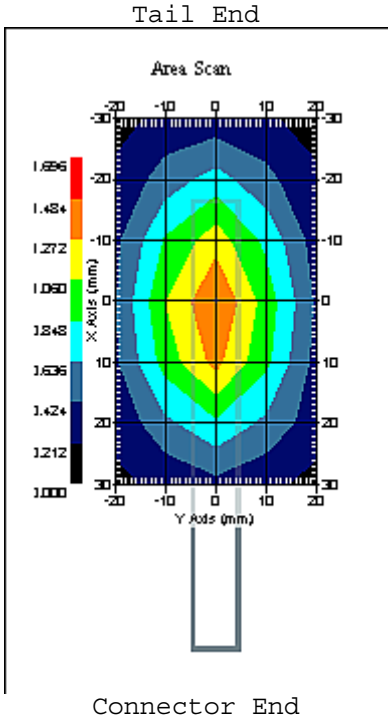
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 30-Oct-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.04 F/m
Sigma : 1.53 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Aprel 206
Model : E-020
Type : E-Field Triangle
Serial No. : 206
Last Calib. Date : 18-Sep-2009
Frequency : 1800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.29
Probe Sensitivity: 0.79 0.79 0.79 $\mu V/(V/m)^2$
Compression Point: 101.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 30-Oct-2008
Set-up Time : 7:24:00 AM
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Vertical - Left Side With USB Cable
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.349 W/kg
10 gram SAR value : 0.734 W/kg
Area Scan Peak SAR : 1.486 W/kg
Zoom Scan Peak SAR : 2.402 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 11:34:23 AM
End Time : 21-Nov-2008 11:51:15 AM
Scanning Time : 1012 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 1.494 W/kg
Power Drift-Finish: 1.521 W/kg
Power Drift (%) : 1.806

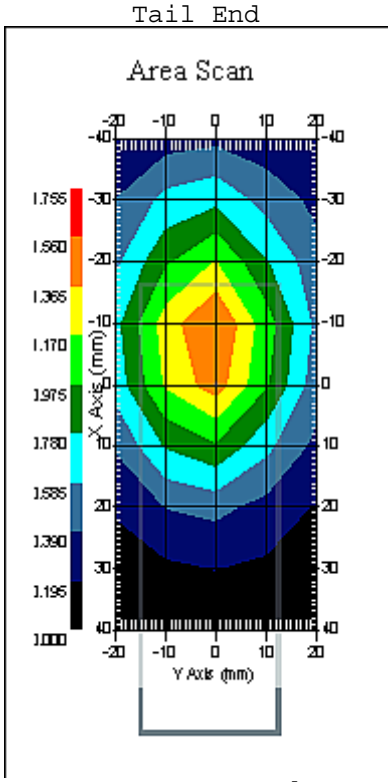
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 9x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.404 W/kg
10 gram SAR value   : 0.768 W/kg
Area Scan Peak SAR : 1.563 W/kg
Zoom Scan Peak SAR : 2.402 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 12:02:14 PM
End Time : 21-Nov-2008 12:19:22 PM
Scanning Time : 1028 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 1.552 W/kg
Power Drift-Finish: 1.547 W/kg
Power Drift (%) : -0.289

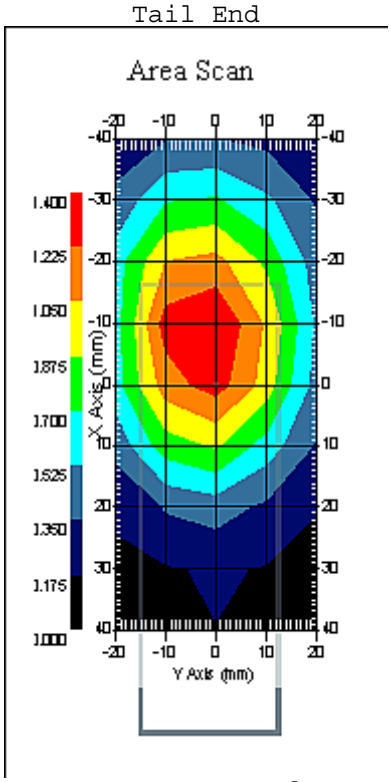
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 9x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.370 W/kg
10 gram SAR value   : 0.740 W/kg
Area Scan Peak SAR  : 1.399 W/kg
Zoom Scan Peak SAR  : 2.342 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 01:01:04 PM
End Time : 21-Nov-2008 01:17:58 PM
Scanning Time : 1014 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Install In HP Laptop
Power Drift-Start : 1.476 W/kg
Power Drift-Finish: 1.460 W/kg
Power Drift (%) : -1.087

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

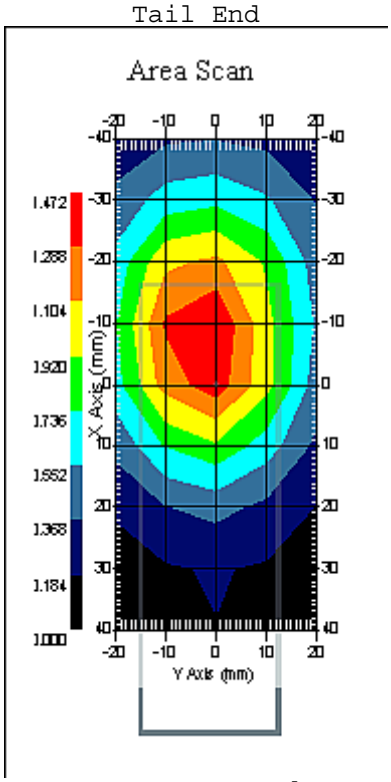
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 21-Nov-2008
Set-up Time : 7:24:00 AM
Area Scan : 9x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Bottom Install In HP Laptop
Separation : 13 mm
Channel : High

Tail End



Connector End

1 gram SAR value : 1.321 W/kg
10 gram SAR value : 0.724 W/kg
Area Scan Peak SAR : 1.469 W/kg
Zoom Scan Peak SAR : 2.342 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 12:30:17 PM
End Time : 21-Nov-2008 12:47:13 PM
Scanning Time : 1016 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Install In HP Laptop
Power Drift-Start : 1.538 W/kg
Power Drift-Finish: 1.530 W/kg
Power Drift (%) : -0.513

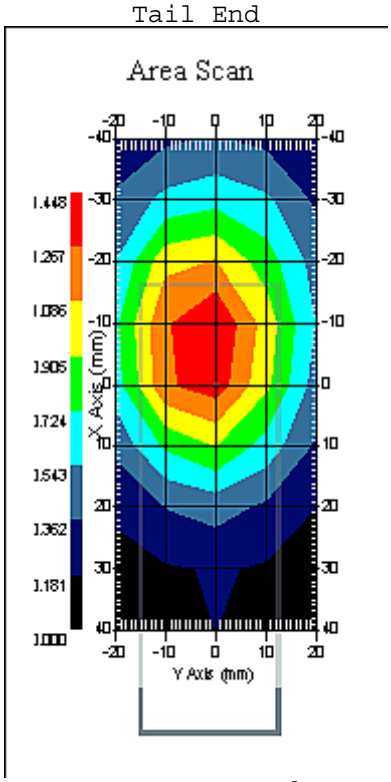
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 9x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Bottom Install In HP Laptop
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.422 W/kg
10 gram SAR value   : 0.778 W/kg
Area Scan Peak SAR  : 1.446 W/kg
Zoom Scan Peak SAR  : 2.482 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 10:30:49 AM
End Time : 21-Nov-2008 10:47:49 AM
Scanning Time : 1020 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 1.590 W/kg
Power Drift-Finish: 1.575 W/kg
Power Drift (%) : -0.941

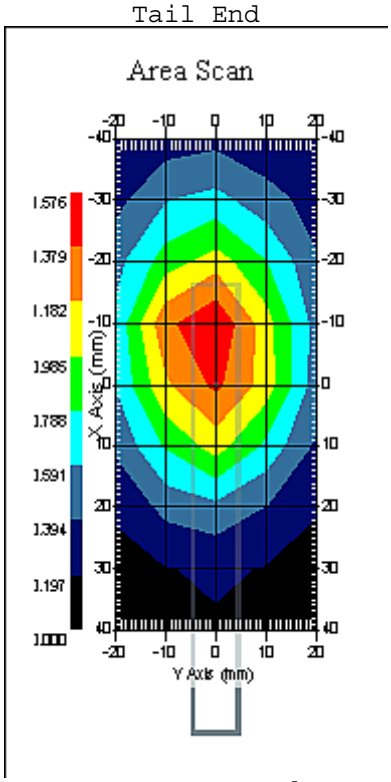
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 7:24:00 AM
Area Scan         : 9x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Vertical - Right Side Installed In IBM Laptop
Separation        : 13 mm
Channel           : Low
```

Tail End



Connector End

```
1 gram SAR value    : 1.393 W/kg
10 gram SAR value   : 0.755 W/kg
Area Scan Peak SAR : 1.575 W/kg
Zoom Scan Peak SAR : 2.512 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 10:24:02 AM
End Time : 21-Nov-2008 10:40:59 AM
Scanning Time : 1017 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 1.502 W/kg
Power Drift-Finish: 1.487 W/kg
Power Drift (%) : -0.996

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

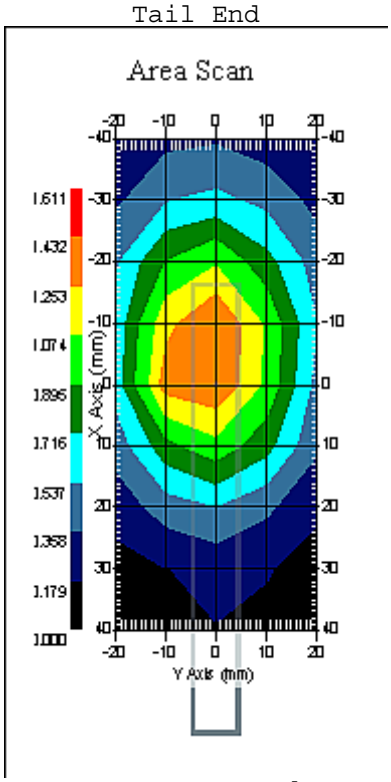
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 21-Nov-2008
Set-up Time : 7:24:00 AM
Area Scan : 9x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

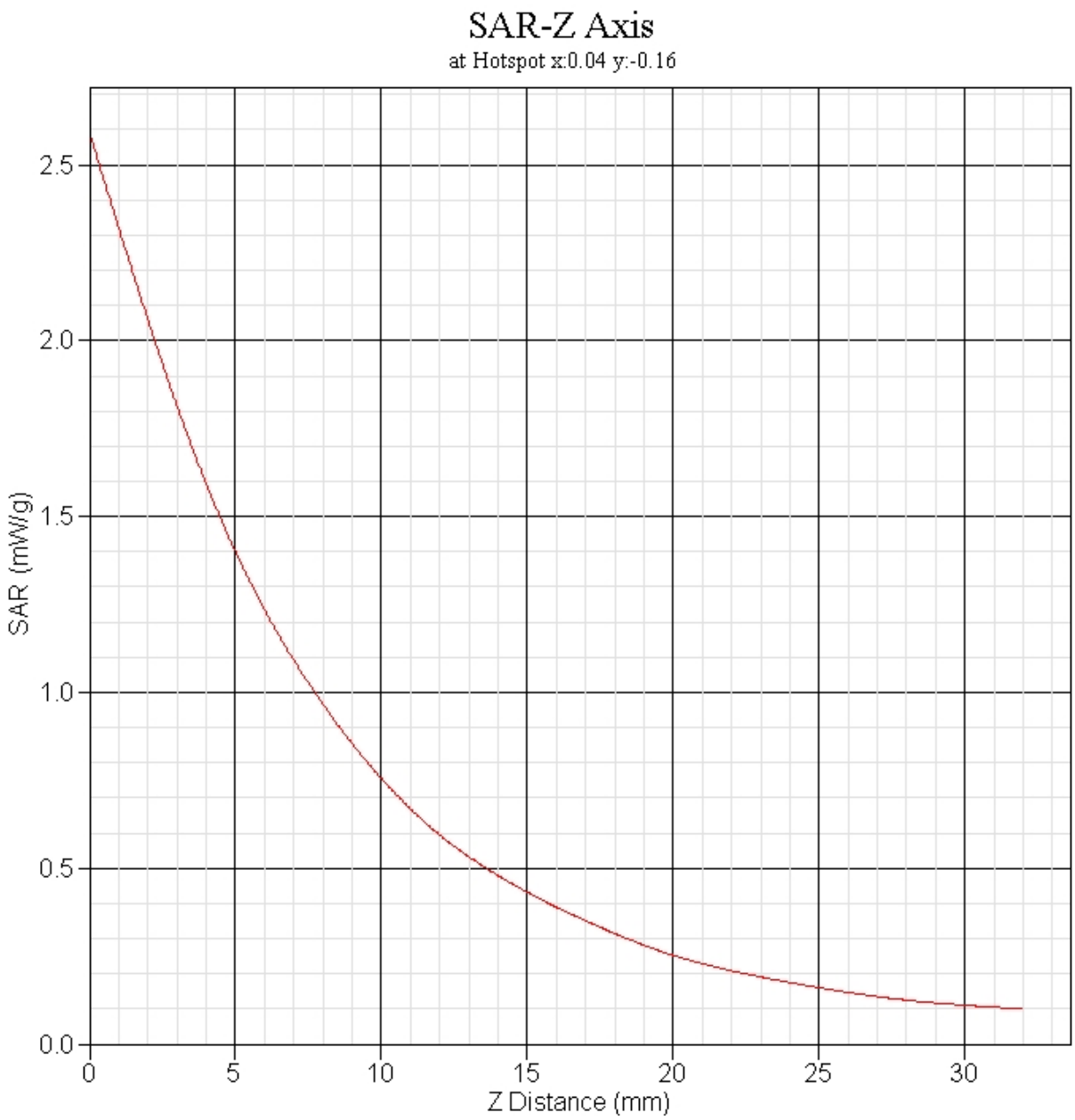
Other Data
DUT Position : Vertical - Right Side Installed In IBM Laptop
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.454 W/kg
10 gram SAR value : 0.784 W/kg
Area Scan Peak SAR : 1.436 W/kg
Zoom Scan Peak SAR : 2.592 W/kg



SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 11:09:25 AM
End Time : 21-Nov-2008 11:26:33 AM
Scanning Time : 1028 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.447 W/kg
Power Drift-Finish: 1.427 W/kg
Power Drift (%) : -1.385

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

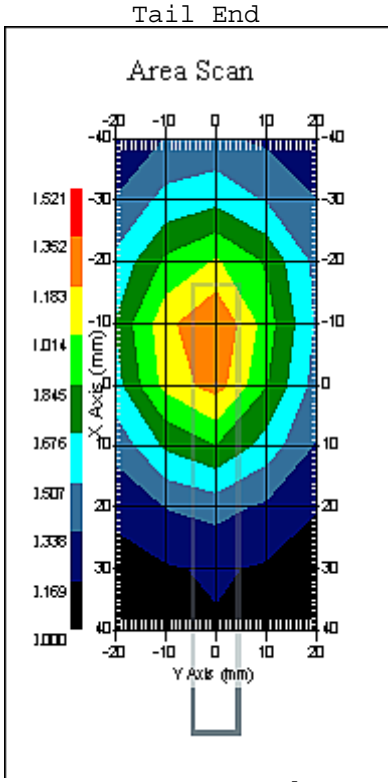
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 21-Nov-2008
Set-up Time : 7:24:00 AM
Area Scan : 9x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Vertical - Left Side With USB Cable
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.288 W/kg
10 gram SAR value : 0.721 W/kg
Area Scan Peak SAR : 1.356 W/kg
Zoom Scan Peak SAR : 2.221 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 10:47:34 AM
End Time : 21-Nov-2008 11:04:40 AM
Scanning Time : 1026 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : HSPA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Left Side With USB Cable
Power Drift-Start : 1.347 W/kg
Power Drift-Finish: 1.323 W/kg
Power Drift (%) : -1.780

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

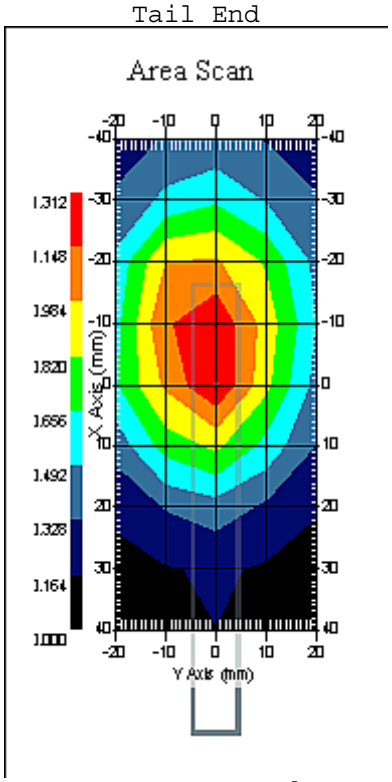
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 21-Nov-2008
Set-up Time : 7:24:00 AM
Area Scan : 9x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Vertical - Left Side With USB Cable
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.295 W/kg
10 gram SAR value : 0.712 W/kg
Area Scan Peak SAR : 1.309 W/kg
Zoom Scan Peak SAR : 2.272 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 04:02:03 PM
End Time : 21-Nov-2008 04:19:37 PM
Scanning Time : 1054 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 0.658 W/kg
Power Drift-Finish: 0.634 W/kg
Power Drift (%) : -3.665

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

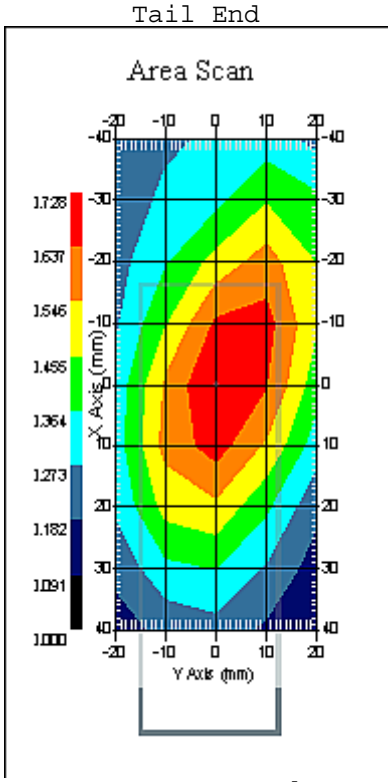
Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 56.47 F/m
Sigma : 0.98 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 21-Nov-2008
Set-up Time : 2:17:47 PM
Area Scan : 9x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Top With USB Cable
Separation : 13 mm
Channel : Mid

Tail End



Connector End

1 gram SAR value : 0.643 W/kg
10 gram SAR value : 0.418 W/kg
Area Scan Peak SAR : 0.726 W/kg
Zoom Scan Peak SAR : 0.890 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 04:35:50 PM
End Time : 21-Nov-2008 04:52:46 PM
Scanning Time : 1016 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : GPRS
Model : E181
Frequency : 850.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 0.689 W/kg
Power Drift-Finish: 0.688 W/kg
Power Drift (%) : -0.230

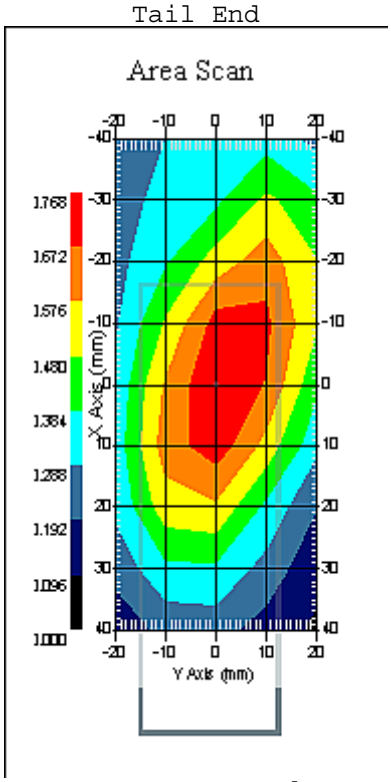
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 24.00 °C
Humidity : 40.00 RH%
Epsilon : 56.47 F/m
Sigma : 0.98 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 2:17:47 PM
Area Scan         : 9x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.719 W/kg
10 gram SAR value   : 0.485 W/kg
Area Scan Peak SAR  : 0.765 W/kg
Zoom Scan Peak SAR  : 1.010 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 02:12:05 PM
End Time : 21-Nov-2008 02:28:56 PM
Scanning Time : 1011 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Bottom Installed In HP Laptop
Power Drift-Start : 1.010 W/kg
Power Drift-Finish: 1.001 W/kg
Power Drift (%) : -0.823

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

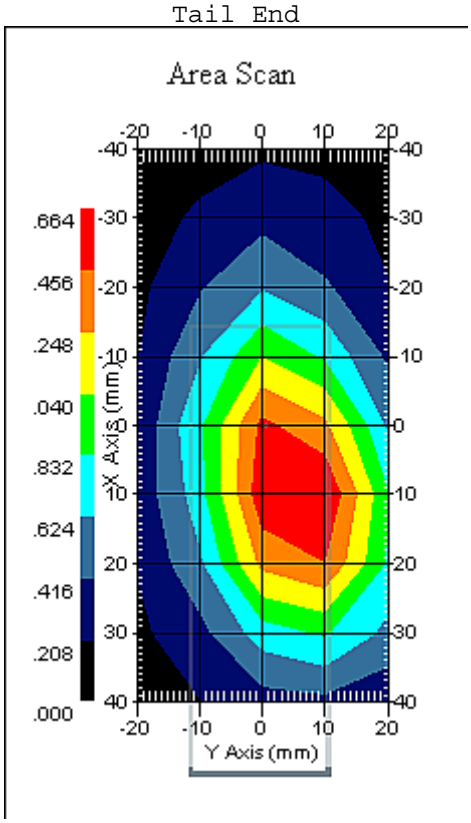
Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 43.00 RH%
Epsilon : 54.46 F/m
Sigma : 1.53 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 21-Nov-2008
Set-up Time : 3:01:35 PM
Area Scan : 9x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

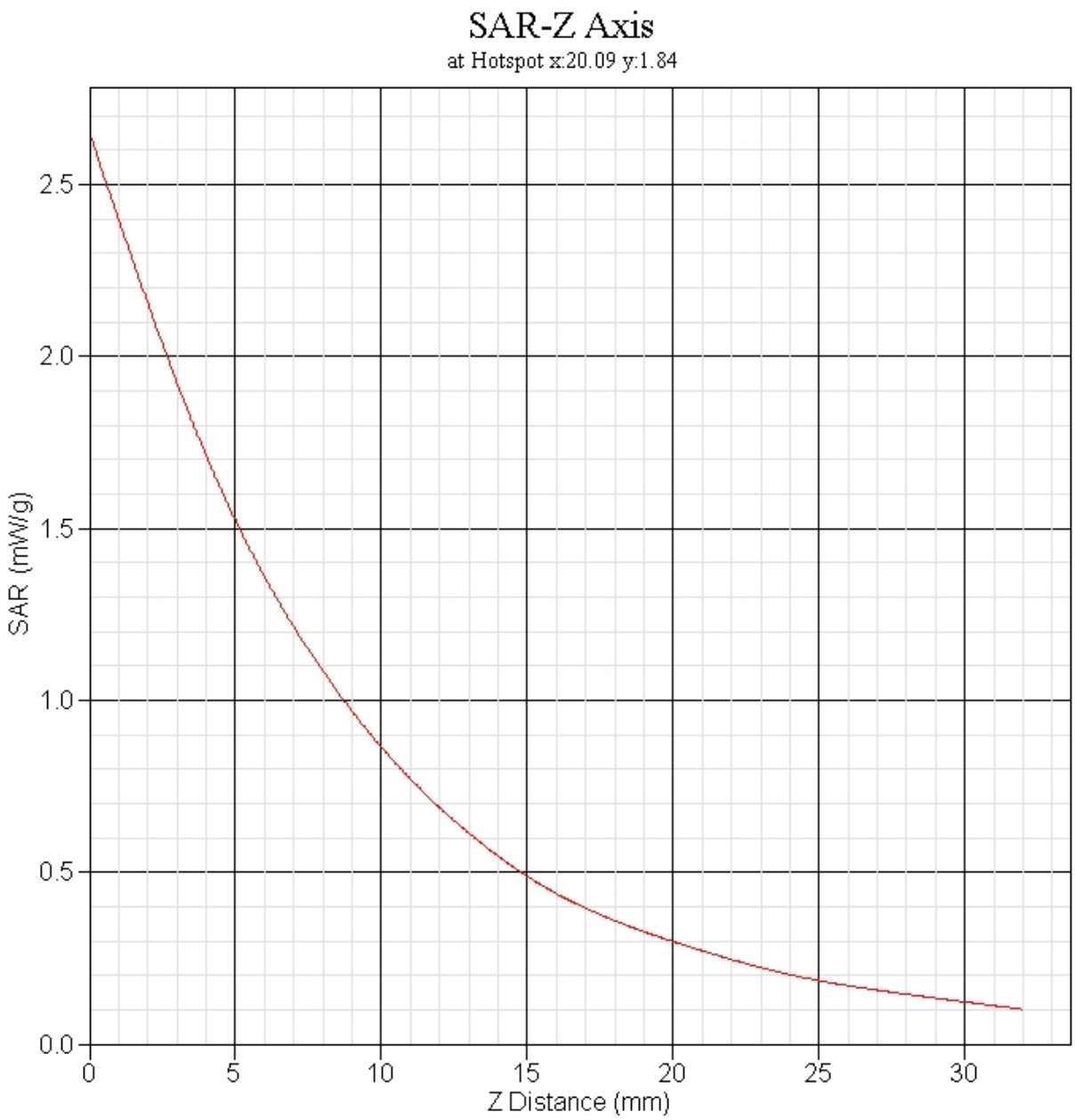
Other Data
DUT Position : Bottom Installed In HP Laptop
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.521 W/kg
10 gram SAR value : 0.813 W/kg
Area Scan Peak SAR : 1.661 W/kg
Zoom Scan Peak SAR : 2.652 W/kg



SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 02:42:43 PM
End Time : 21-Nov-2008 02:59:51 PM
Scanning Time : 1028 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : GPRS
Model : E181
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 29 mm
Depth : 11 mm
Antenna Type : Internal
Orientation : Top With USB Cable
Power Drift-Start : 0.577 W/kg
Power Drift-Finish: 0.566 W/kg
Power Drift (%) : -1.945

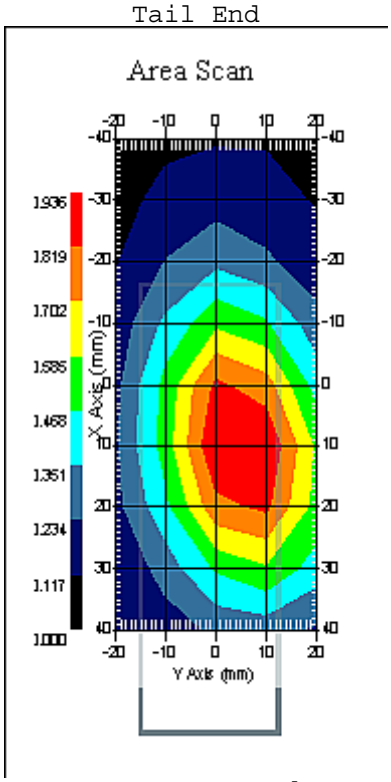
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 43.00 RH%
Epsilon : 54.46 F/m
Sigma : 1.53 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Nov-2008
Set-up Time       : 3:01:35 PM
Area Scan         : 9x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan         : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position      : Top With USB Cable
Separation        : 13 mm
Channel           : Mid
```

Tail End



Connector End

```
1 gram SAR value    : 0.867 W/kg
10 gram SAR value   : 0.452 W/kg
Area Scan Peak SAR  : 0.933 W/kg
Zoom Scan Peak SAR  : 1.471 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Nov-2008
Starting Time : 21-Nov-2008 01:02:45 PM
End Time : 21-Nov-2008 01:19:35 PM
Scanning Time : 1010 secs

Product Data
Device Name : Huawei Corp.
Serial No. : GA2AA1089300027
Mode : WCDMA
Model : E181
Frequency : 1700.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 88 mm
Width : 11 mm
Depth : 29 mm
Antenna Type : Internal
Orientation : Vertical - Right Side Installed In IBM Laptop
Power Drift-Start : 1.030 W/kg
Power Drift-Finish: 1.039 W/kg
Power Drift (%) : 0.911

Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

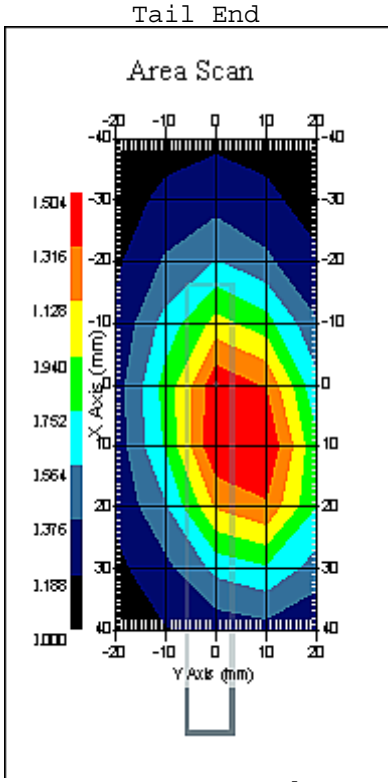
Tissue Data
Type : BODY
Serial No. : 1730
Frequency : 1730.00 MHz
Last Calib. Date : 21-Nov-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 30.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215
Last Calib. Date : 17-Nov-2008
Frequency : 1735.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.25
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 21-Nov-2008
Set-up Time : 7:24:00 AM
Area Scan : 9x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Vertical - Right Side Installed In IBM Laptop
Separation : 13 mm
Channel : Low

Tail End



Connector End

1 gram SAR value : 1.422 W/kg
10 gram SAR value : 0.773 W/kg
Area Scan Peak SAR : 1.500 W/kg
Zoom Scan Peak SAR : 2.512 W/kg