



# RF EXPOSURE LAB, LLC

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## CERTIFICATE OF COMPLIANCE SAR EVALUATION

Xplore Technologies  
14000 Summit Drive, Suite 900  
Austin, TX 78728

Dates of Test: July 19 - 23, 2008  
Test Report Number: SAR.20080702  
Revision A

FCC ID:	Q2GIX104-152
IC Certificate:	4596A-IX104WBG
Model(s):	iX104C4
Option WWAN:	Model: GX0301 FCC ID: NCMOGX0301
Intel WLAN:	Model: 4965AGN MM1 FCC ID: PD94965AGN
Test Sample:	Engineering Unit Same as Production
Serial No.:	914H601003G82500061M000
Equipment Type:	Wireless Computer
Classification:	Portable Transmitter Next to Body
TX Frequency Range:	2412 – 2462 MHz, 5180 – 5320 MHz, 5745 – 5825 MHz, 824.2 – 848.8 MHz, 1850.2 – 1909.8 MHz
Frequency Tolerance:	± 25 ppm
Maximum RF Output:	850 MHz (GSM) – 31.7 dBm, 850 MHz (EDGE) – 26.8 dBm, 850 MHz (WCDMA) – 25.5 dBm, 1900 MHz (GSM) – 28.2 dBm, 1900 MHz (EDGE) – 26.3 dBm, 1900 MHz (WCDMA) – 24.9 dBm, 2450 Mhz (b) – 20.1 dBm, 2450 MHz (g) – 23.9 dBm, 2450 MHz (n) – 23.6 dBm 5200 MHz (a) – 16.8 dBm, 5200 MHz (n20) – 17.0 dBm, 5200 MHz (n40) – 16.5 dBm, 5300 MHz (a) – 18.7 dBm, 5300 MHz (n20) – 18.9 dBm, 5800 MHz (a) – 20.0 dBm, 5800 MHz (n20) – 21.0 dBm, 5800 MHz (n40) – 18.6 dBm Conducted
Signal Modulation:	DSSS, OFDM, WCDMA
Antenna Type (Length):	Main Antenna Manufacturer: Auden: Part Number: 220093-00 Diversity Antenna Manufacturer: Auden: Part Number: 220093-00
Battery:	Dyna-WJ Part Number: BTP-87W3
Application Type:	Certification
FCC Rule Parts:	Part 15, 22, 24
Industry Canada:	RSS-102

This wireless mobile and/or portable device has been shown to be compliant for localized specific absorption rate (SAR) for uncontrolled environment/general exposure limits specified in ANSI/IEEE Std. C95.1-1999 and had been tested in accordance with the measurement procedures specified in IEEE 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



Certificate # 2387.01

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## 1. Introduction

This measurement report shows compliance of the Xplore Technologies Model iX104C4 FCC ID: Q2GIX104-152 with FCC Part 2, 1093, ET Docket 93-62 Rules for mobile and portable devices and IC Certificate: 4596A-IX104WBG with RSS102 & Safety Code 6. 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 ANSI C95.1 – 1999 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz [2], ANSI C95.3 – 2002 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields [3], FCC OET Bulletin 65 Supp. C – 2001 [4], IEEE Std.1528 – 2003 Recommended Practice [5], and Industry Canada Safety Code 6 Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3kHz to 300 GHz were employed.

### 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 ( $\rho$ ).

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

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

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

where:

$\sigma$  = conductivity of the tissue (S/m)

$\rho$  = mass density of the tissue (kg/m<sup>3</sup>)

$E$  = 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 pendant 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.

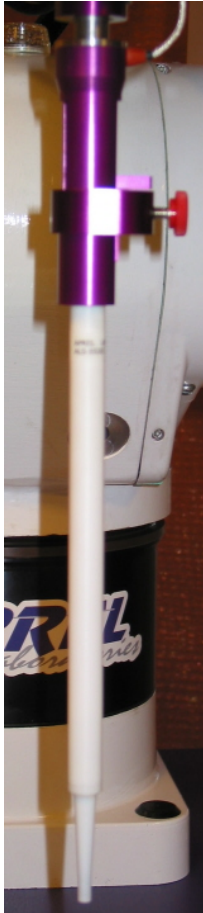
### System Description

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 course 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 April 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).

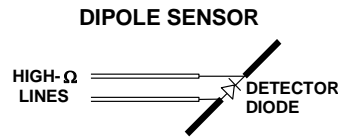
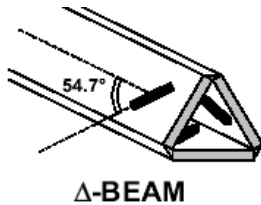
The overall uncertainty for the methodology and algorithms the ALSAS-10-U used during the SAR calculation was evaluated using the data from IEEE 1528 f3 algorithm:

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

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.



The SAR is assessed with the probe which moves at a default height of 5mm 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 5mm default 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  $\pm 0.05$  mm and the precision of the APREL bottom detection device is  $\pm 0.1$  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. Therefore, the probe sensor will be at 4.0 mm above the phantom surface  $\pm 0.1$  mm for each SAR location for frequencies below 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. Therefore, the probe sensor will be at 2.0 mm above the phantom surface  $\pm 0.1$  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 1.54 mm (default setting), the sensor to phantom gap will be 4.0 mm which is greater than half the probe tip diameter. For frequencies greater than 3 GHz, the probe diameter is 3 mm. With the sensor offset set at 0.56 mm (default setting), the sensor to phantom gap will be 3.0 mm which is greater than half the probe tip diameter.

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  $\leq 3$  GHz with a cube scan of 5x5x8 yields a volume of 32x32x28 mm<sup>3</sup>. For devices  $>3$  GHz and  $<4.5$  GHz, the cube scan of 9x9x9 yields a volume of 32x32x24 mm<sup>3</sup>. For devices  $\geq 4.5$  GHz, the cube scan of 7x7x12 yields a volume of 24x24x22 mm<sup>3</sup>.



### 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 90<sup>th</sup> percentile adult male head dimensions as tabulated by the US Army. The SAM phantom shell is bisected along the mid sagittal 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]. See photos in Appendix C.

### Brain & Muscle Simulating Mixture Characterization

The brain and muscle mixtures consist of a glycol based chemical and saline solution. The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the desired tissue. The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 have been incorporated in the following tables. Other head and 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	2450 MHz Muscle	5200 MHz Muscle	5800 MHz Muscle
Mixing Percentage						
Water		52.40	69.91	73.20	70.00	76.50
Sugar		0.00	29.96	0.00	0.00	0.00
Salt		45.00	0.00	0.04	1.50	1.50
HEC		1.40	0.13	0.00	0.00	0.00
Bactericide		0.10	0.00	0.00	0.00	0.00
DGBE		1.00	0.00	26.70	28.50	22.00
Dielectric Constant	Target	55.20	53.30	52.70	48.96	48.25
Conductivity (S/m)	Target	0.97	1.52	1.95	5.35	5.96

### Device Holder

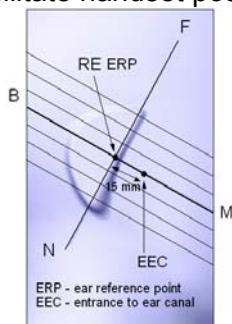


In combination with the SAM phantom, the mounting device enables the rotation of the mounted transmitter in spherical coordinates whereby the rotation point is the ear opening. The devices can easily, accurately, and repeatably be positioned according to the FCC specifications. The device holder can 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].



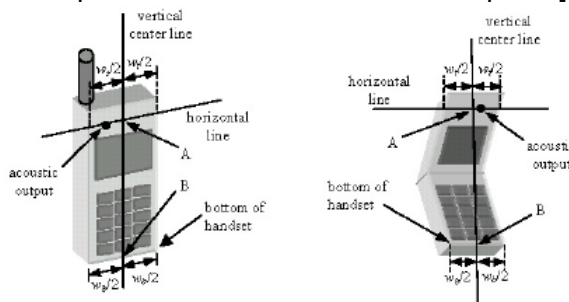
**Figure 6.1 Close-up side view of ERP's**



**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 then 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].

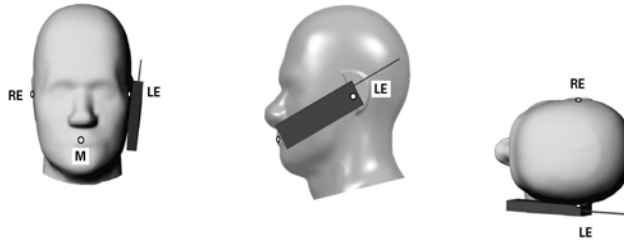


**Figure 6.3 Handset Vertical Center & Horizontal Line Reference Points**

## 7. Test Configuration Positions

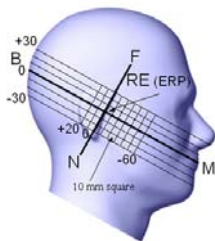
### Positioning for Cheek/Touch [5]

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.

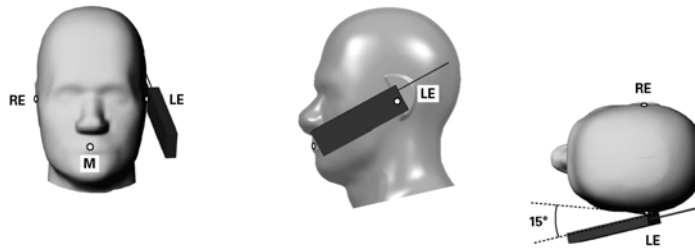


**Figure 7.2 Side view w/ relevant markings**

## 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 <sup>1</sup> Brain	1.60	8.00
SPATIAL AVERAGE SAR <sup>2</sup> Whole Body	0.08	0.40
SPATIAL PEAK SAR <sup>3</sup> Hands, Feet, Ankles, Wrists	4.00	20.00

<sup>1</sup> 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.

<sup>2</sup> The Spatial Average value of the SAR averaged over the whole body.

<sup>3</sup> 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	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	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**

		835 MHz Body		835 MHz Body		1900 MHz Body	
Date(s)		July 19, 2008		July 20, 2008		July 20, 2008	
Liquid Temperature (°C)	20.0	Target	Measured	Target	Measured	Target	Measured
Dielectric Constant: $\epsilon$		55.20	56.37	55.20	53.81	53.27	52.44
Conductivity: $\sigma$		0.96	0.99	0.96	0.98	1.50	1.51
		2450 MHz Body		5250 MHz Body		5785 MHz Body	
Date(s)		July 21, 2008		July 22, 2008		July 23, 2008	
Liquid Temperature (°C)	20.0	Target	Measured	Target	Measured	Target	Measured
Dielectric Constant: $\epsilon$		52.59	51.86	49.19	48.68	48.53	46.60
Conductivity: $\sigma$		1.92	1.94	5.40	5.48	5.95	5.75

See Appendix A for data printout.

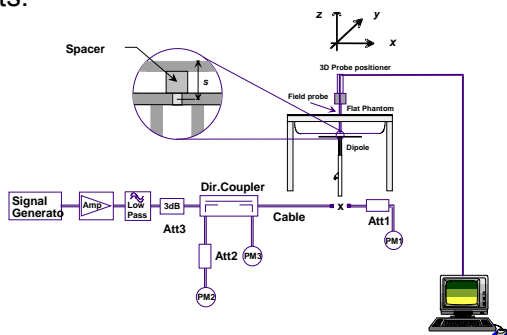
### Test System Verification

Prior to assessment, the system is verified to the  $\pm 10\%$  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 <sub>1g</sub> (W/kg)	Measure SAR <sub>1g</sub> (W/kg)	Deviation (%)
19-Jul-2008	835 MHz	9.75	9.92	+ 1.74
20-Jul-2008	835 MHz	9.75	9.07	- 6.97
20-Jul-2008	1900 MHz	40.99	39.11	- 4.59
21-Jul-2008	2450 MHz	53.55	53.06	- 0.92
22-Jul-2008	5250 MHz	62.98	65.21	+ 3.54
23-Jul-2008	5785 MHz	58.92	54.02	- 8.32

See Appendix A for data plots.



**Figure 10.1 Dipole Validation Test Setup**

## **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 device is battery operated. Each SAR measurement was taken with a fully charged battery. Due to the issue of the device needing to be disassembled to conduct power measurements, all measurements were conducted prior to the start of all testing only. If a conducted power deviation of more than 5% occurred, the test was repeated.

The testing was conducted on the front (12 mm from user) and back (23 mm from user) sides of the unit. The unit does not have a landscape position which would move the antenna closer to the user; therefore, the end on the antenna was not tested. The side of the device to the antenna was 9 cm; therefore, the side was not tested.

For simultaneous transmission, the WWAN and BT may transmit simultaneously and the WLAN and BT may transmit simultaneously. The BT power level is  $<60/f_{\text{GHz}}$  indicating that SAR is not required. Per the requirements of KDB447498, the two simultaneous transmitting antennas are  $>5$  cm separation and the BT antenna does not require SAR evaluation, therefore simultaneous transmission evaluation is not required for this device.

## 12. FCC 3G Measurement Procedures – March 2008

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 are 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 conducted power deviations of more than 5% occurred, the tests were repeated.

### 12.2 SAR Measurement Conditions for UMTS

#### 12.2.1 Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the general descriptions in section 5.2 of 3GPP TS 34.121 (Release 5), using the appropriate FRC and RMC with TPC (transmit power control) set to all "1's". Results for all applicable physical channel configurations (DPCCH, DPDCH<sub>n</sub> and spreading codes HS\_DPCCH) should be tabulated in the test report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations should be clearly identified.

#### 12.2.2 Body SAR Measurements

SAR for body exposure configurations is measured using the 12.2 kbps RMC with TCP bits configured to all "1's". SAR for other spreading codes and multiple DPDCH<sub>n</sub>, when supported by the DUT, are not required when the maximum average outputs of each RF channel, for each spreading code and DPDCH<sub>n</sub> configuration, are less than ¼ Db higher than those measured in 12.2 RMC. Otherwise, SAR is measured on the maximum output channel with an applicable RMS configuration that results in the highest SAR with 12.2 RMC. When more than 2 DPDCH<sub>n</sub> are supported by the DUT, it may be necessary to configure additional DPDCH<sub>n</sub> for a DUT using FTM (Factory Test Mode) with parameters similar to those used in 384 kbps and 768 kbps RMC. In addition, body SAR is also measured in HSDPA with an FRC, together with a 12.2 kbps RMC configured in Test Loop Mode 1, using the highest body SAR configuration in 12.2 kbps RMC without HSDPA.

The H-set used in FRC for HSDPA should be configured according to the UE category of a test device. The number of HS-DSCH/HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the applicable H-set. To maintain a consistent test configuration and stable transmission conditions, QPSK is used in the FRC for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 2 ms to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors of  $\beta_c = 9$  and  $\beta_d = 15$ , and power offset parameters of  $\Delta_{ACK} = \Delta_{NACK} = 5$  and  $\Delta_{CQI} = 2$  should be used. The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the FRC.

		HSUPA Inactive		HSUPA Active	
	Channel	12.2 kbps RMC [dBm]	12.2 kbps AMR [dBm]	12.2 kbps RMC [dBm]	12.2 kbps AMR [dBm]
Cellular	4132	25.51	25.50	25.36	25.32
	4183	25.02	25.00	25.32	25.30
	4233	25.42	24.39	25.38	25.34
PCS	9262	24.92	24.90	25.23	25.20
	9400	24.53	24.50	24.80	24.79
	9538	24.32	24.30	24.31	24.30

### UMTS Power Measurements

		GSM	EDGE
	Channel		
850	128	31.51	26.62
	190	31.73	26.84
	251	31.45	26.81
1900	512	28.05	26.02
	661	28.13	26.25
	810	28.24	26.23

### GSM Power Measurements

802.11b					802.11a 5.8 GHz				
Freq	Channel	Data Rate	Antenna	Power	Freq	Channel	Data Rate	Antenna	Power
2412	1	1	Main	19.10	5.745	149	6	Main	19.64
2437	6	1	Main	19.28	5.765	153	6	Main	19.70
2462	11	1	Main	20.05	5.785	157	6	Main	19.76
					5.805	161	6	Main	19.81
					5.825	165	6	Main	19.95
802.11g					802.11n 5.8 GHz 20 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power	Freq	Channel	Data Rate	Antenna	Power
2412	1	6	Main	23.84	5.745	149	6	Main	20.13
2437	6	6	Main	23.86	5.765	153	6	Main	20.24
2462	11	6	Main	23.50	5.785	157	6	Main	20.95
802.11n 2.4 GHz 20 MHz Wide					5.805	161	6	Main	20.72
Freq	Channel	Data Rate	Antenna	Power	5.825	165	6	Main	20.43
2412	1	6	Main	23.58					
2437	6	6	Main	23.40	802.11n 5.8 GHz 40 MHz Wide				
2462	11	6	Main	23.30	Freq	Channel	Data Rate	Antenna	Power
802.11 a 5.2 GHz					5.760	152	6	Main	18.56
Freq	Channel	Data Rate	Antenna	Power	5.800	160	6	Main	18.14
5.18	36	6	Main	16.63					
5.20	40	6	Main	16.69					
5.22	44	6	Main	16.74					
5.24	48	6	Main	16.82					
5.26	52	6	Main	18.65					
5.28	56	6	Main	18.60					
5.30	60	6	Main	18.56					
5.32	64	6	Main	18.43					
802.11n 5.2 GHz 20 MHz Wide									
5.18	36	6	Main	16.95					
5.20	40	6	Main	16.97					
5.22	44	6	Main	16.99					
5.24	48	6	Main	17.01					
5.26	52	6	Main	18.85					
5.28	56	6	Main	18.76					
5.30	60	6	Main	18.62					
5.32	64	6	Main	18.43					
802.11n 5.2 GHz 40 MHz Wide									
5.21	42	6	Main	15.43					
5.25	50	6	Main	16.52					
5.29	58	6	Main	15.41					

### Conduct Power Measurements

## SAR Data Summary – 850 MHz Body

MEASUREMENT RESULTS							
Position	Side	Frequency		Modulation	End Power (dBm)	Battery	SAR (W/kg)
		MHz	Ch.				
Touch	Top	824.2	128	8-PSK	31.51	Standard	0.678
		836.6	190	8-PSK	31.73	Standard	0.854
		848.8	251	8-PSK	31.45	Standard	0.760
	Bottom	836.6	190	8-PSK	31.73	Standard	0.598
	Top	826.4	4132	WCDMA	25.51	Standard	1.328
		836.6	4183	WCDMA	25.02	Standard	1.436
		846.6	4233	WCDMA	25.42	Standard	1.402
	Bottom	836.6	4183	WCDMA	25.02	Standard	0.941

**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




\_\_\_\_\_  
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 Vice President

**SAR Data Summary – 1900 MHz Body**

MEASUREMENT RESULTS							
Position	Side	Frequency		Modulation	End Power (dBm)	Battery	SAR (W/kg)
		MHz	Ch.				
Touch	Top	1850.2	512	8-PSK	28.05	Standard	0.741
		1880.0	661	8-PSK	28.13	Standard	0.867
		1909.8	810	8-PSK	28.24	Standard	0.784
	Bottom	1880.0	661	8-PSK	28.13	Standard	0.590
	Top	1852.4	9262	WCDMA	24.92	Standard	1.293
		1880.0	9400	WCDMA	24.53	Standard	1.425
		1907.6	9538	WCDMA	24.32	Standard	1.379
	Bottom	1880.0	9400	WCDMA	24.53	Standard	1.117

**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




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Jay M. Moulton  
 Vice President




**SAR Data Summary – 2450 MHz Body**

MEASUREMENT RESULTS								
Position	Band	Side	Frequency		Modulation	End Power (dBm)	Battery	SAR (W/kg)
			MHz	Ch.				
Touch	b	Top	2462	11	DSSS	20.05	Standard	0.170
		Bottom	2462	11	DSSS	20.05	Standard	0.127
	g	Top	2437	6	OFDM	23.86	Standard	0.159
		Bottom	2437	6	OFDM	23.86	Standard	0.115
	n	Top	2412	1	OFDM	23.58	Standard	0.163
		Bottom	2412	1	OFDM	23.58	Standard	0.128

**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 – 5200 MHz Body**

MEASUREMENT RESULTS								
Position	Band	Side	Frequency		Modulation	End Power (dBm)	Battery	SAR (W/kg)
			MHz	Ch.				
Touch	a1	Top	5240	48	OFDM	16.82	Standard	0.207
		Bottom	5240	48	OFDM	16.82	Standard	0.184
	a2	Top	5260	52	OFDM	16.65	Standard	0.232
		Bottom	5260	52	OFDM	18.65	Standard	0.177
	n1 20	Top	5240	48	OFDM	17.01	Standard	0.217
		Bottom	5240	48	OFDM	17.01	Standard	0.196
	n2 20	Top	5260	52	OFDM	18.85	Standard	0.234
		Bottom	5260	52	OFDM	18.85	Standard	0.197
	n 40	Top	5250	50	OFDM	16.52	Standard	0.222
		Bottom	5250	50	OFDM	16.52	Standard	0.199

**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



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 Vice President

## SAR Data Summary – 5800 MHz Body

MEASUREMENT RESULTS								
Position	Band	Side	Frequency		Modulation	End Power (dBm)	Battery	SAR (W/kg)
			MHz	Ch.				
Touch	a	Top	5825	165	OFDM	19.95	Standard	0.131
		Bottom	5825	165	OFDM	19.95	Standard	0.109
	n 20	Top	5785	157	OFDM	20.95	Standard	0.143
		Bottom	5785	157	OFDM	20.95	Standard	0.117
	n 40	Top	5760	152	OFDM	18.56	Standard	0.154
		Bottom	5760	152	OFDM	18.56	Standard	0.124

**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

## 12.1 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
Apriel E-Field Probe ALS-E020	12/03/2008	RFE-217
Apriel E-Field Probe ALS-E030	04/30/2008	AL-E3P1
Apriel Dummy Probe	N/A	023
Apriel Left Phantom	N/A	RFE-267
Apriel Right Phantom	N/A	RFE-268
Apriel UniPhantom	N/A	RFE-273
Apriel Validation Dipole ALS-D-450-S-2	04/30/2009	RFE-362
Apriel Validation Dipole ALS-D-835-S-2	02/22/2010	RFE-274
Apriel Validation Dipole ALS-D-1900-S-2	02/21/2010	RFE-277
Apriel Validation Dipole ALS-D-2450-S-2	02/20/2010	RFE-278
Apriel 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.	07/09/2010	GB46200378
Apriel 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

## 13.1 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]

## 14.1 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
Sat 19/Jul/2008 07:52:12
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	56.45	0.94
0.8150	55.28	0.97	56.41	0.94
0.8250	55.24	0.97	56.38	0.97
0.8350	55.20	0.97	56.37	0.99
0.8450	55.17	0.98	56.28	1.01
0.8550	55.14	0.99	56.26	1.02
0.8650	55.11	1.01	56.23	1.03

```

*****
Test Result for UIM Dielectric Parameter
Sun 20/Jul/2008 06:49:21
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
0.8050	55.32	0.97	53.89	0.94
0.8150	55.28	0.97	53.85	0.94
0.8250	55.24	0.97	53.83	0.95
0.8350	55.20	0.97	53.81	0.98
0.8450	55.17	0.98	53.77	0.99
0.8550	55.14	0.99	53.75	1.01
0.8650	55.11	1.01	53.76	1.02



\*\*\*\*\*

Test Result for UIM Dielectric Parameter

Sun 20/Jul/2008 09:28:03

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	52.52	1.49
1.8800	53.30	1.52	52.49	1.50
1.8900	53.30	1.52	52.47	1.50
1.9000	53.30	1.52	52.44	1.51
1.9100	53.30	1.52	52.41	1.51
1.9200	53.30	1.52	52.39	1.52
1.9300	53.30	1.52	52.38	1.52

\*\*\*\*\*

Test Result for UIM Dielectric Parameter

Mon 21/Jul/2008 07:26:24

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
2.4200	52.74	1.92	51.99	1.91
2.4300	52.73	1.93	51.95	1.93
2.4400	52.71	1.94	51.93	1.94
2.4500	52.70	1.95	51.86	1.94
2.4600	52.69	1.96	51.80	1.95
2.4700	52.67	1.98	51.73	1.96
2.4800	52.66	1.99	51.68	1.98

\*\*\*\*\*

Test Result for UIM Dielectric Parameter

Tue 22/Jul/2008 07:04:34

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
5.2200	48.99	5.32	48.76	5.42
5.2300	48.97	5.33	48.73	5.45
5.2400	48.96	5.35	48.70	5.46
5.2500	48.95	5.36	48.68	5.48
5.2600	48.93	5.37	48.61	5.48
5.2700	48.92	5.38	48.59	5.50
5.2800	48.91	5.39	48.55	5.51

\*\*\*\*\*

Test Result for UIM Dielectric Parameter

Wed 23/Jul/2008 01:09:53

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
5.7550	48.26	5.95	46.69	5.70
5.7650	48.25	5.96	46.64	5.72
5.7750	48.23	5.97	46.62	5.73
5.7850	48.22	5.98	46.60	5.75
5.7950	48.21	5.99	46.58	5.77
5.8050	48.19	6.01	46.54	5.77
5.8150	48.18	6.02	46.51	5.79

## SAR Test Report

By Operator : Jay  
Measurement Date : 19-Jul-2008  
Starting Time : 19-Jul-2008 07:57:14 AM  
End Time : 19-Jul-2008 08:12:33 AM  
Scanning Time : 919 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 : 1.084 W/kg  
Power Drift-Finish: 1.073 W/kg  
Power Drift (%) : -1.005

### 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 : 19-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 49.00 RH%  
Epsilon : 56.37 F/m  
Sigma : 0.99 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

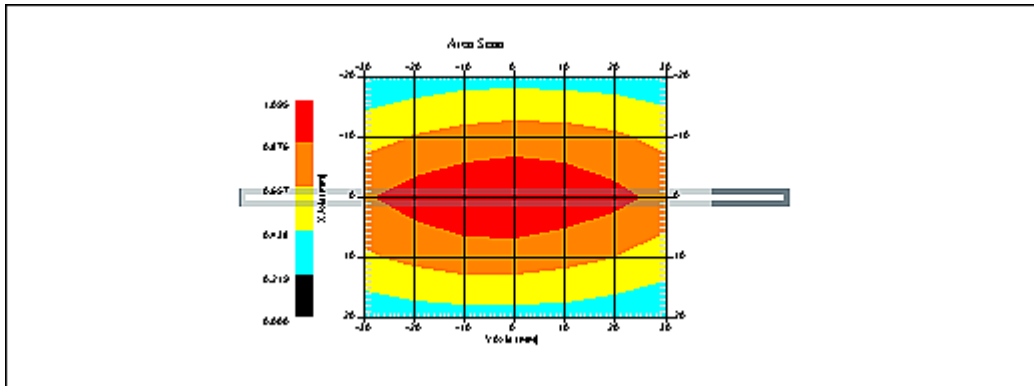
Name : Probe 217 - RFEL  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 835.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 6.1  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 25.00 °C  
Set-up Date : 19-Jul-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

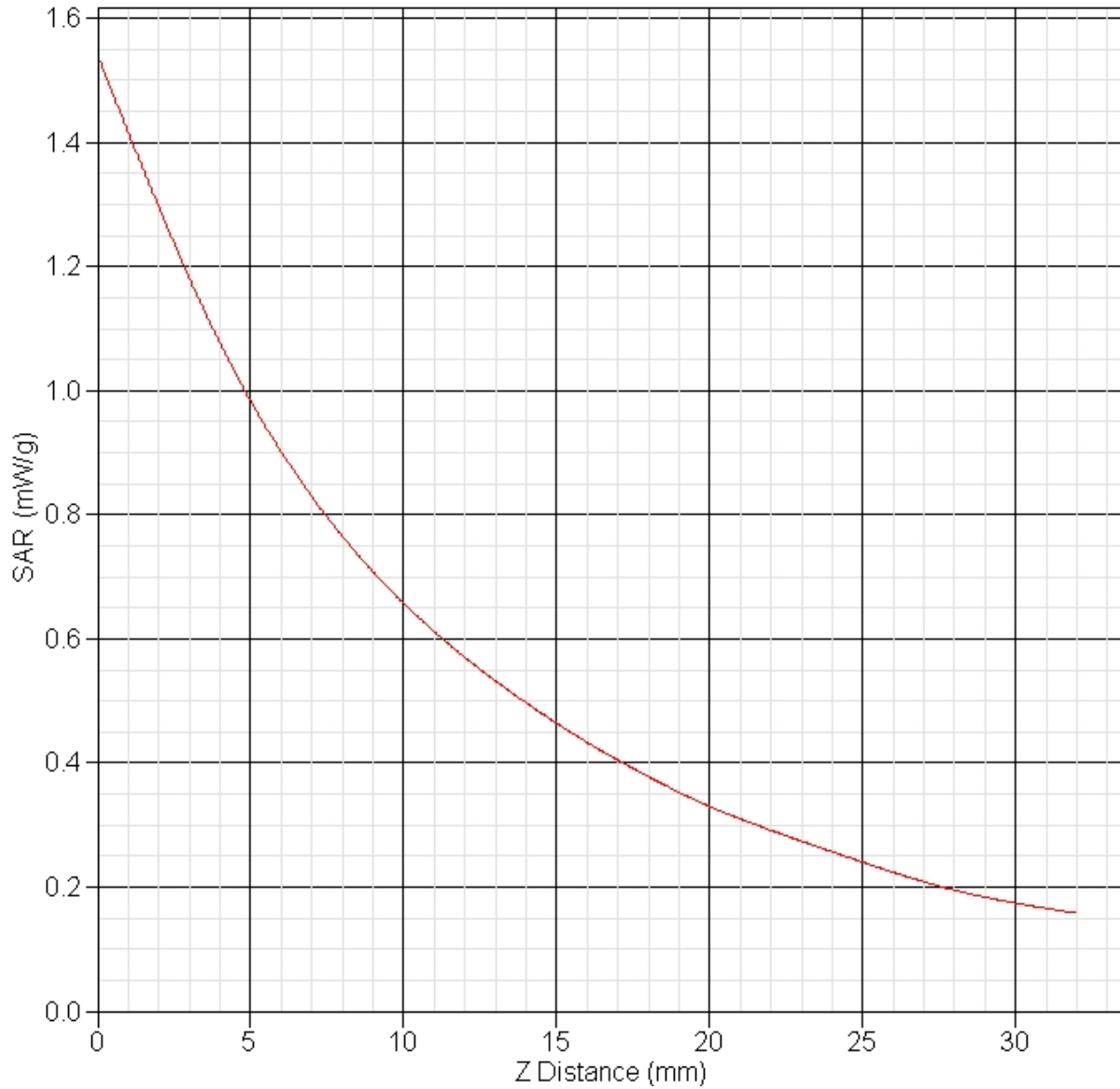
Other Data

DUT Position : Touch  
Separation : 15  
Channel : Mid



1 gram SAR value : 0.992 W/kg  
10 gram SAR value : 0.626 W/kg  
Area Scan Peak SAR : 1.094 W/kg  
Zoom Scan Peak SAR : 1.541 W/kg

**SAR-Z Axis**  
at Hotspot x:0.23 y:-0.13



## SAR Test Report

By Operator : Jay  
Measurement Date : 20-Jul-2008  
Starting Time : 20-Jul-2008 07:30:41 AM  
End Time : 20-Jul-2008 07:45:49 AM  
Scanning Time : 908 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 : 0.999 W/kg  
Power Drift-Finish: 0.972 W/kg  
Power Drift (%) : -2.646

### 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-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 49.00 RH%  
Epsilon : 53.81 F/m  
Sigma : 0.98 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

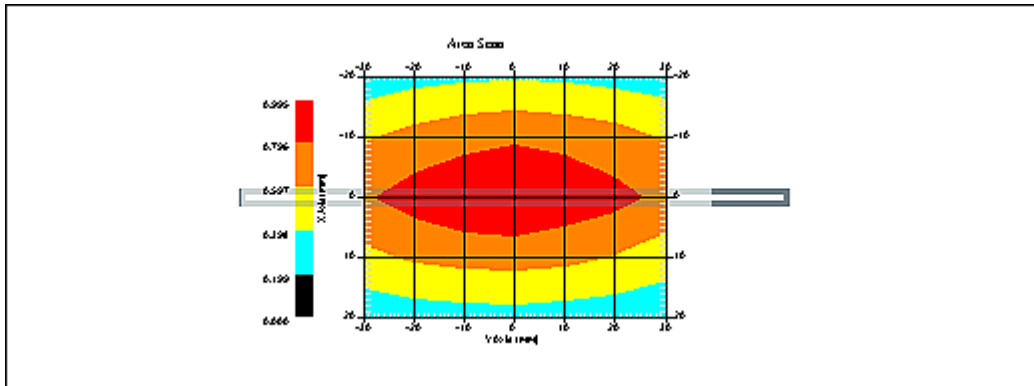
Name : Probe 217 - RFEL  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 835.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 6.1  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 25.00 °C  
Set-up Date : 20-Jul-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

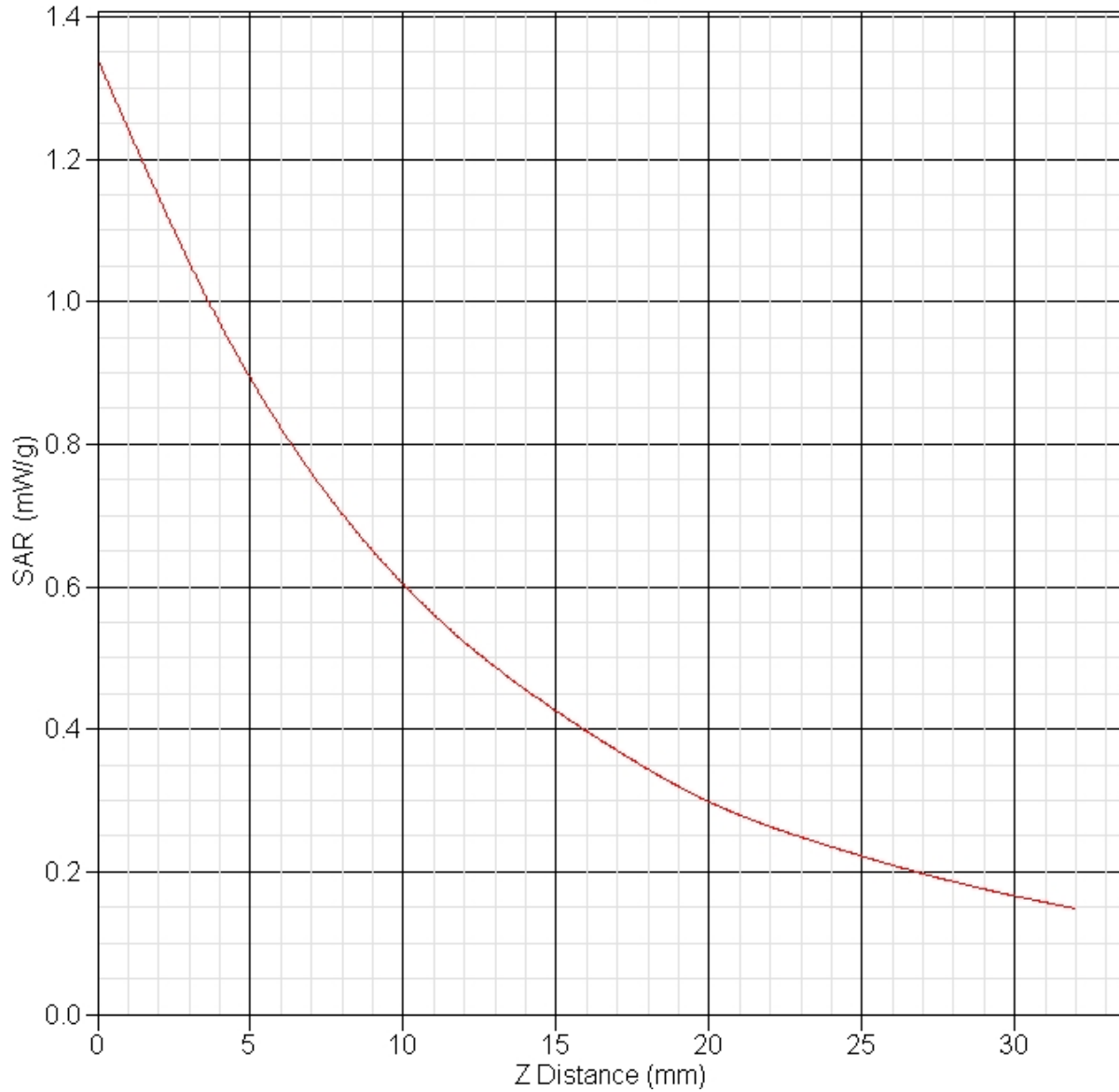
DUT Position : Touch  
Separation : 15  
Channel : Mid



1 gram SAR value : 0.907 W/kg  
10 gram SAR value : 0.570 W/kg  
Area Scan Peak SAR : 0.994 W/kg  
Zoom Scan Peak SAR : 1.341 W/kg



**SAR-Z Axis**  
at Hotspot x:0.22 y:-0.17



## SAR Test Report

By Operator : Jay  
Measurement Date : 20-Jul-2008  
Starting Time : 20-Jul-2008 09:58:10 AM  
End Time : 20-Jul-2008 10:11:14 AM  
Scanning Time : 784 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 : 4.422 W/kg  
Power Drift-Finish: 4.547 W/kg  
Power Drift (%) : 2.820

### 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 : 20-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 49.00 RH%  
Epsilon : 52.44 F/m  
Sigma : 1.51 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

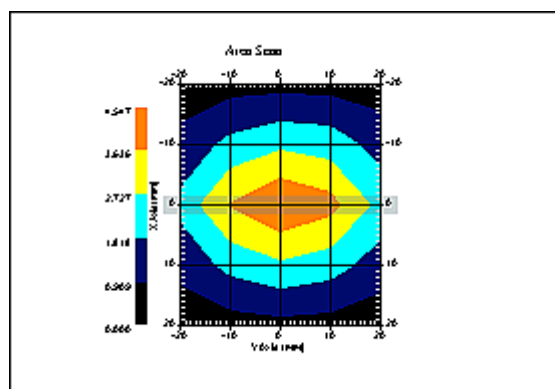
Name : Probe 217 - RFEL  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 1900.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 4.85  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset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

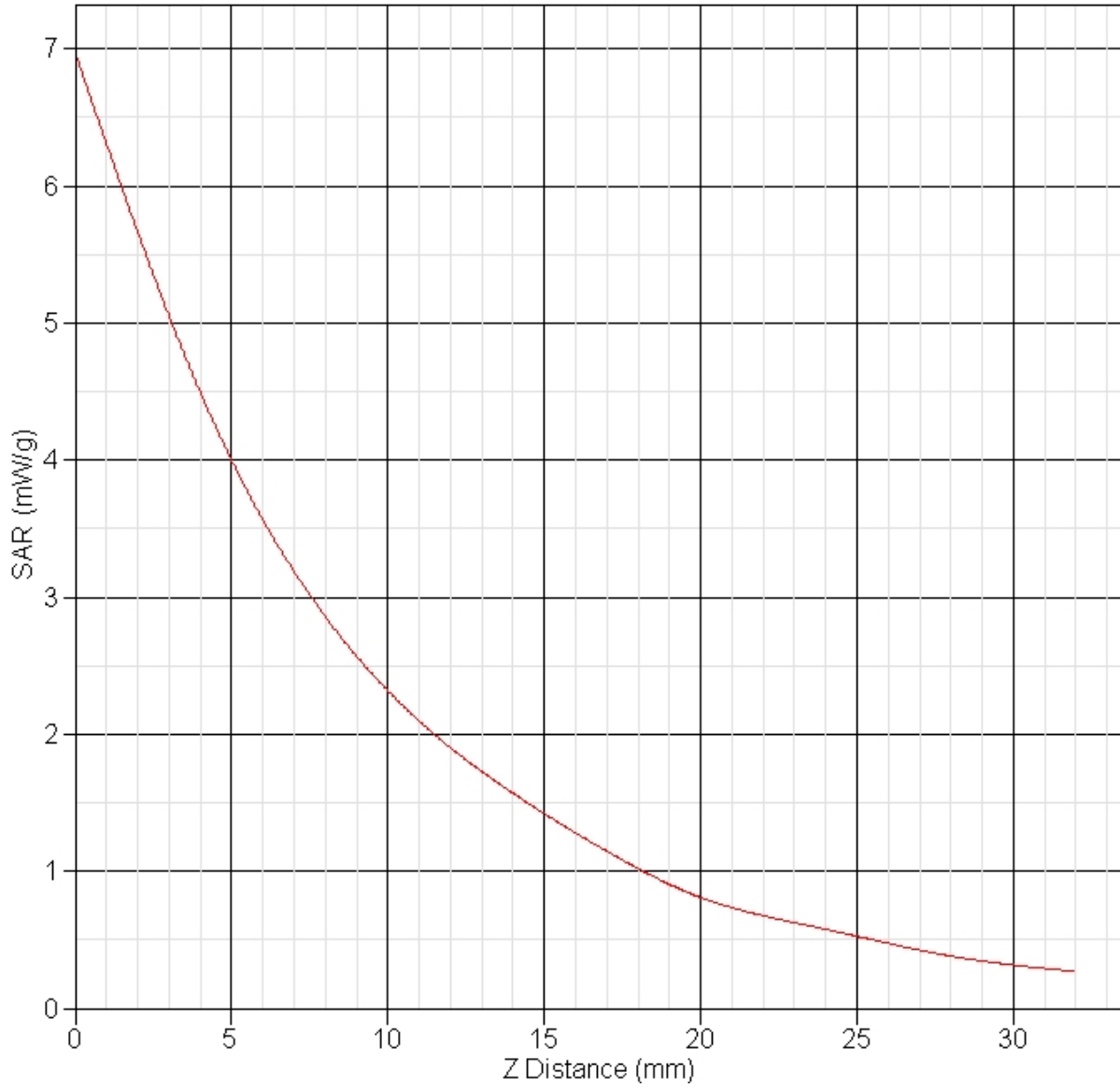
Other Data

DUT Position : Touch  
Separation : 10  
Channel : Mid



1 gram SAR value : 3.911 W/kg  
10 gram SAR value : 2.049 W/kg  
Area Scan Peak SAR : 4.547 W/kg  
Zoom Scan Peak SAR : 6.976 W/kg

### SAR-Z Axis at Hotspot x:0.28 y:-0.15



## SAR Test Report

By Operator : Jay  
Measurement Date : 21-Jul-2008  
Starting Time : 21-Jul-2008 07:40:41 AM  
End Time : 21-Jul-2008 07:53:33 AM  
Scanning Time : 772 secs

### Product Data

Device Name : Validation  
Serial No. : 2450  
Type : Dipole  
Model : ALS-D-2450-S-2  
Frequency : 2450.00 MHz  
Max. Transmit Pwr : 0.1 W  
Drift Time : 0 min(s)  
Length : 51.5 mm  
Width : 3.6 mm  
Depth : 30.4 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 6.206 W/kg  
Power Drift-Finish: 6.250 W/kg  
Power Drift (%) : 0.717

### 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. : 2450  
Frequency : 2450.00 MHz  
Last Calib. Date : 21-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 45.00 RH%  
Epsilon : 51.86 F/m  
Sigma : 1.94 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

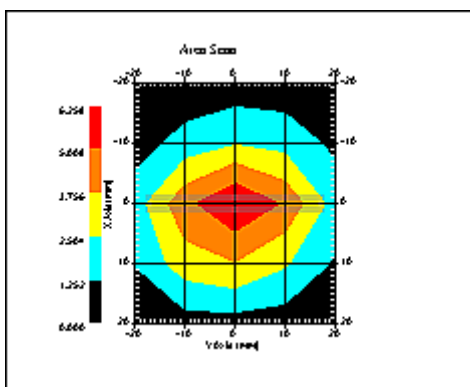
Name : Probe 217 - RFEL  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 2450.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 3.61  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 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-Jul-2008  
Set-up Time : 7:40:13 AM  
Area Scan : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm  
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

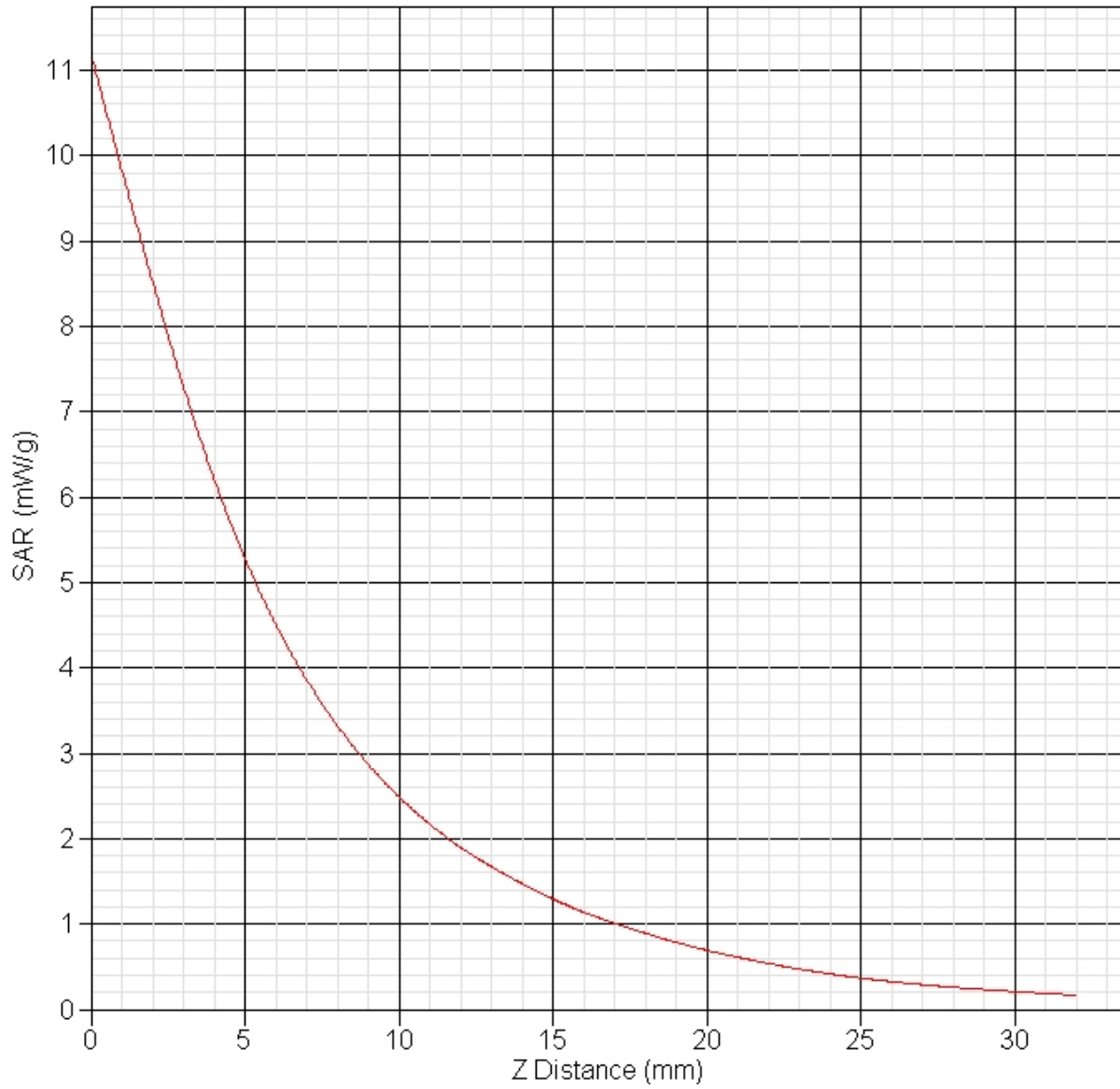
Other Data

DUT Position : Touch  
Separation : 10  
Channel : Mid



1 gram SAR value : 5.306 W/kg  
10 gram SAR value : 2.404 W/kg  
Area Scan Peak SAR : 6.258 W/kg  
Zoom Scan Peak SAR : 11.190 W/kg

### SAR-Z Axis at Hotspot x:0.22 y:-0.15



## SAR Test Report

By Operator : Jay  
Measurement Date : 22-Jul-2008  
Starting Time : 22-Jul-2008 07:16:39 AM  
End Time : 22-Jul-2008 07:39:44 AM  
Scanning Time : 1385 secs

### Product Data

Device Name : Validation  
Serial No. : 5200  
Type : Dipole  
Model : ALS-D-BB-S-2  
Frequency : 5200.00 MHz  
Max. Transmit Pwr : 0.1 W  
Drift Time : 0 min(s)  
Length : 23.1 mm  
Width : 3.6 mm  
Depth : 20.7 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 8.980 W/kg  
Power Drift-Finish: 8.903 W/kg  
Power Drift (%) : -0.855

### 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. : 5200  
Frequency : 5200.00 MHz  
Last Calib. Date : 22-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 48.68 F/m  
Sigma : 5.48 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

Name : Probe E030-001 - RFEL  
Model : E-030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5200.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 8.6  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

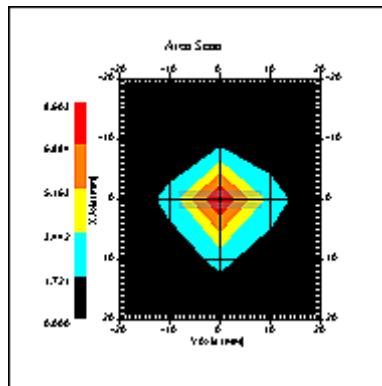


Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 22-Jul-2008  
Set-up Time : 9:00:47 AM  
Area Scan : 5x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

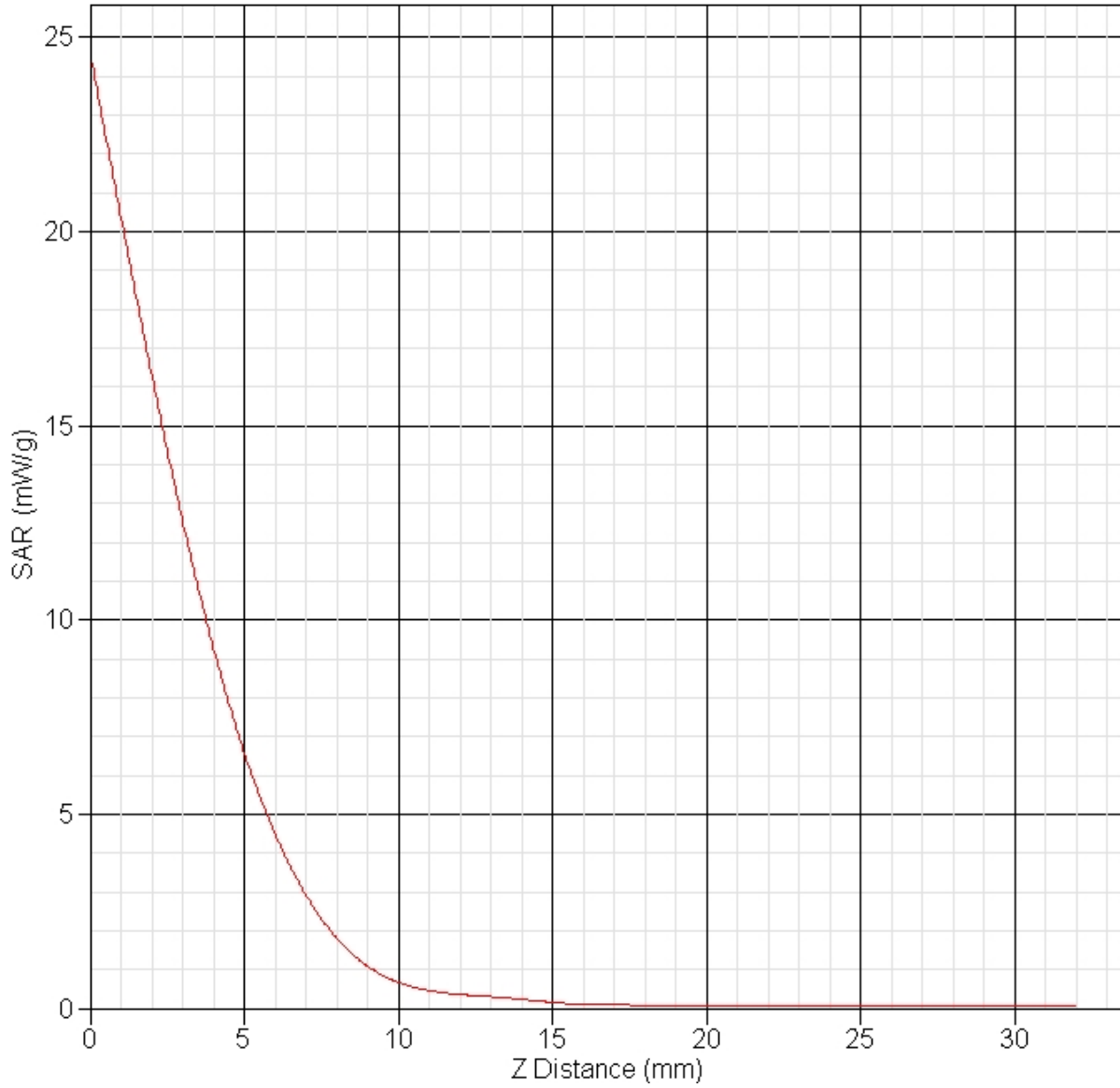
Other Data

DUT Position : Touch  
Separation : 10  
Channel : Mid



1 gram SAR value : 6.521 W/kg  
10 gram SAR value : 1.643 W/kg  
Area Scan Peak SAR : 8.603 W/kg  
Zoom Scan Peak SAR : 24.619 W/kg

**SAR-Z Axis**  
at Hotspot x:0.31 y:-0.10



## SAR Test Report

By Operator : Jay  
Measurement Date : 23-Jul-2008  
Starting Time : 23-Jul-2008 01:12:53 PM  
End Time : 23-Jul-2008 01:35:59 PM  
Scanning Time : 1386 secs

### Product Data

Device Name : Validation  
Serial No. : 5800  
Type : Dipole  
Model : ALS-D-BB-S-2  
Frequency : 5800.00 MHz  
Max. Transmit Pwr : 0.1 W  
Drift Time : 0 min(s)  
Length : 23.1 mm  
Width : 3.6 mm  
Depth : 20.7 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 6.882 W/kg  
Power Drift-Finish: 7.084 W/kg  
Power Drift (%) : 2.940

### 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. : 5800  
Frequency : 5800.00 MHz  
Last Calib. Date : 23-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 46.60 F/m  
Sigma : 5.75 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

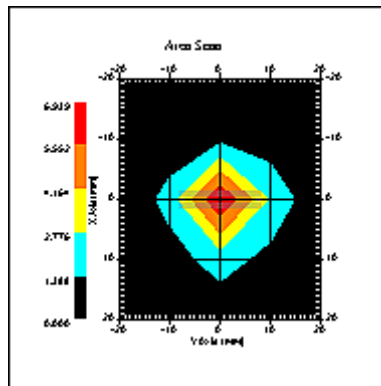
Name : Probe E030-001 - RFEL  
Model : E-030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5800.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 12  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 23-Jul-2008  
Set-up Time : 4:10:18 PM  
Area Scan : 5x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

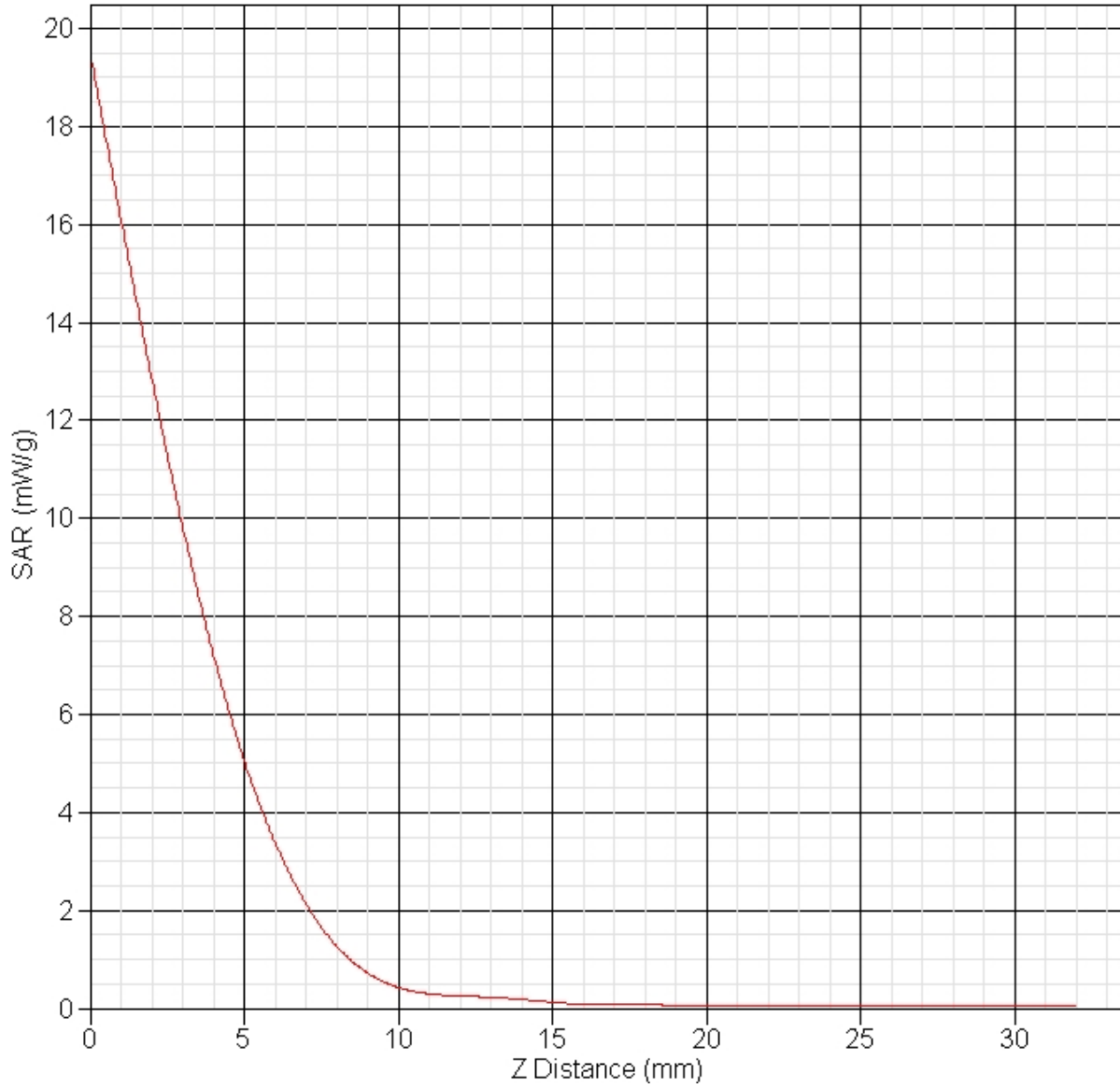
Other Data

DUT Position : Touch  
Separation : 10  
Channel : Mid



1 gram SAR value : 5.402 W/kg  
10 gram SAR value : 1.479 W/kg  
Area Scan Peak SAR : 6.939 W/kg  
Zoom Scan Peak SAR : 19.515 W/kg

### SAR-Z Axis at Hotspot x:0.34 y:-0.21



## Appendix B – SAR Test Data Plots

## SAR Test Report

By Operator : Jay  
Measurement Date : 19-Jul-2008  
Starting Time : 19-Jul-2008 06:47:17 PM  
End Time : 19-Jul-2008 07:01:06 PM  
Scanning Time : 829 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 850.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.702 W/kg  
Power Drift-Finish: 0.712 W/kg  
Power Drift (%) : 1.407

### 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 : 19-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 24.00 °C  
Humidity : 40.00 RH%  
Epsilon : 56.37 F/m  
Sigma : 0.99 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

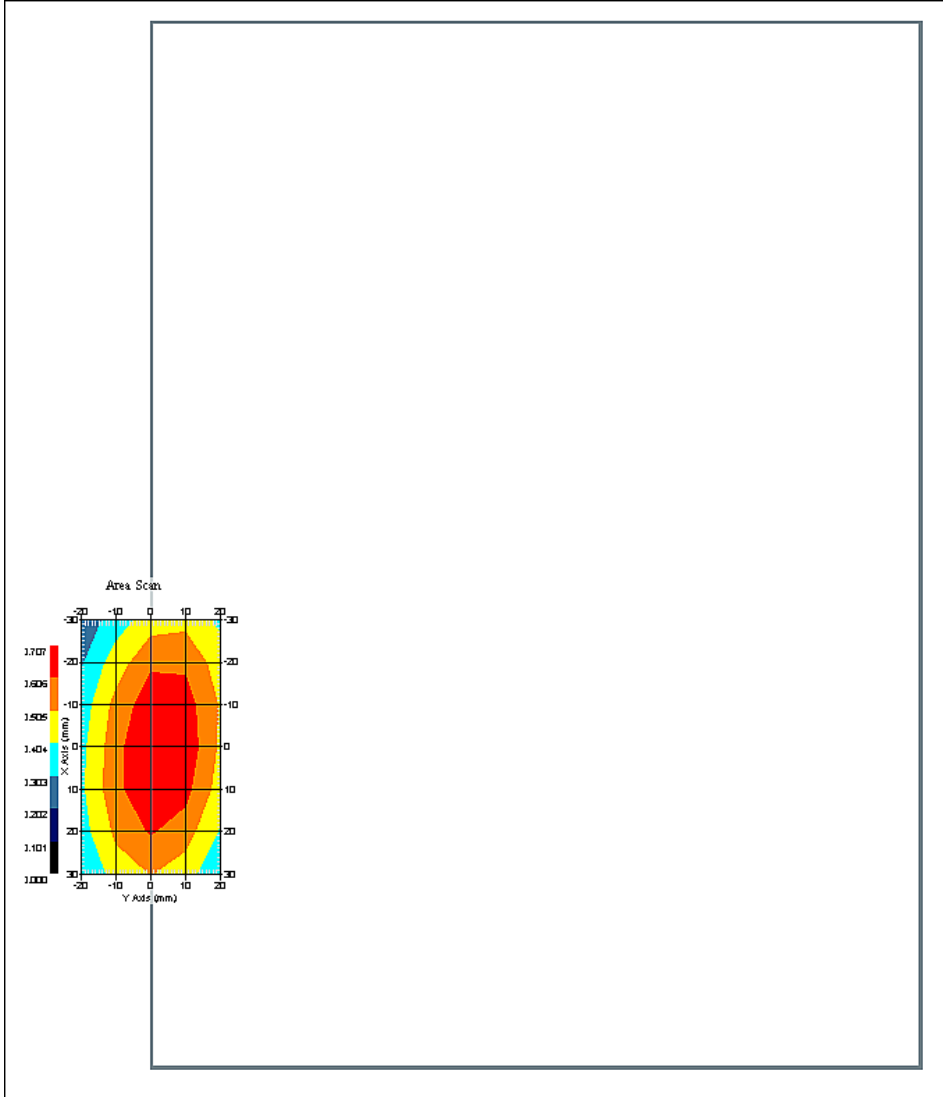
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 835.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 6.1  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 24.00 °C  
Set-up Date : 19-Jul-2008  
Set-up Time : 5:37:34 PM  
Area Scan : 7x5x1 : 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 : Low



1 gram SAR value : 0.678 W/kg  
10 gram SAR value : 0.474 W/kg  
Area Scan Peak SAR : 0.707 W/kg  
Zoom Scan Peak SAR : 0.930 W/kg



## SAR Test Report

By Operator : Jay  
Measurement Date : 19-Jul-2008  
Starting Time : 19-Jul-2008 06:29:50 PM  
End Time : 19-Jul-2008 06:43:36 PM  
Scanning Time : 826 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 850.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.873 W/kg  
Power Drift-Finish: 0.896 W/kg  
Power Drift (%) : 2.585

### 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 : 19-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 24.00 °C  
Humidity : 40.00 RH%  
Epsilon : 56.37 F/m  
Sigma : 0.99 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

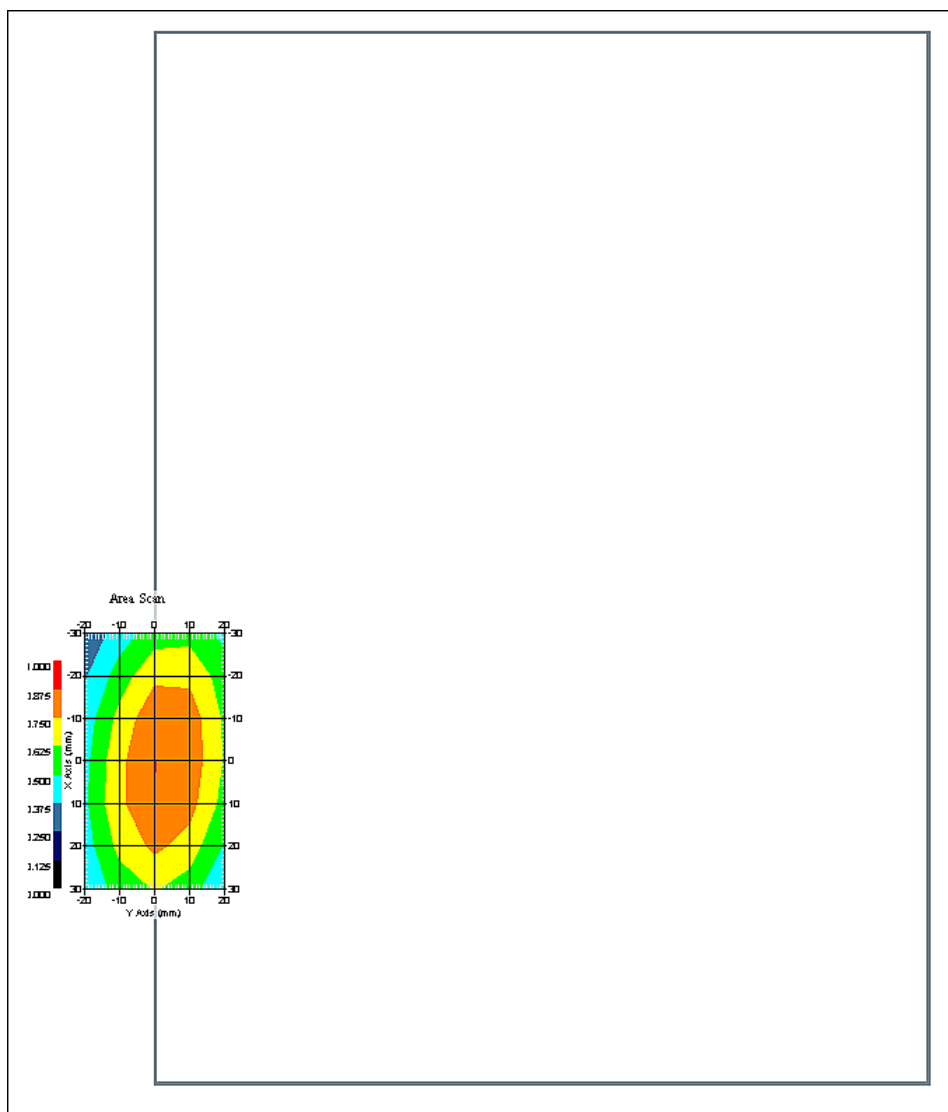
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 835.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 6.1  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 24.00 °C  
Set-up Date : 19-Jul-2008  
Set-up Time : 5:37:34 PM  
Area Scan : 7x5x1 : 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 : 0.854 W/kg  
10 gram SAR value : 0.594 W/kg  
Area Scan Peak SAR : 0.877 W/kg  
Zoom Scan Peak SAR : 1.181 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 19-Jul-2008  
Starting Time : 19-Jul-2008 07:03:18 PM  
End Time : 19-Jul-2008 07:17:01 PM  
Scanning Time : 823 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 850.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.796 W/kg  
Power Drift-Finish: 0.795 W/kg  
Power Drift (%) : -0.085

### 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 : 19-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 24.00 °C  
Humidity : 40.00 RH%  
Epsilon : 56.37 F/m  
Sigma : 0.99 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

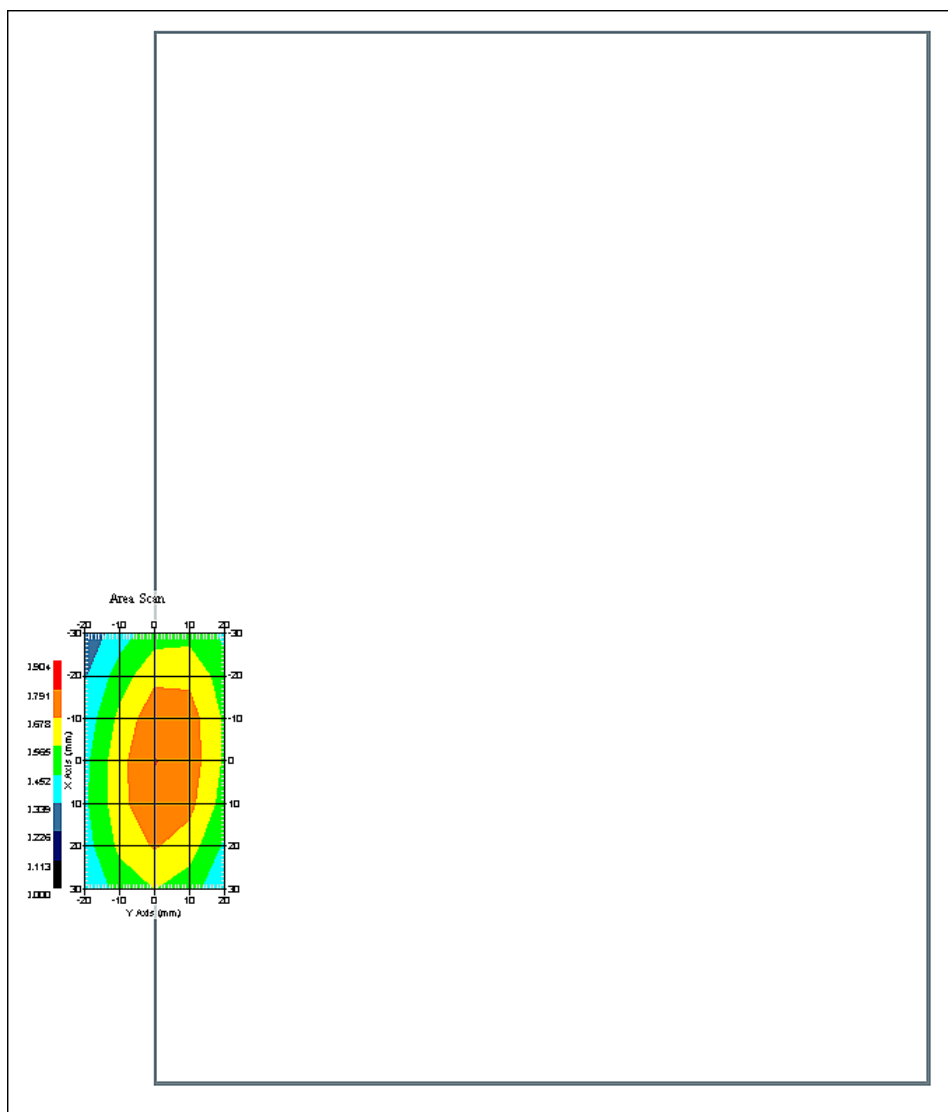
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 835.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 6.1  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 24.00 °C  
Set-up Date : 19-Jul-2008  
Set-up Time : 5:37:34 PM  
Area Scan : 7x5x1 : 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 : High



1 gram SAR value : 0.760 W/kg  
10 gram SAR value : 0.529 W/kg  
Area Scan Peak SAR : 0.794 W/kg  
Zoom Scan Peak SAR : 1.040 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 19-Jul-2008  
Starting Time : 19-Jul-2008 07:20:43 PM  
End Time : 19-Jul-2008 07:34:38 PM  
Scanning Time : 835 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 850.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.631 W/kg  
Power Drift-Finish: 0.632 W/kg  
Power Drift (%) : 0.162

### 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 : 19-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 24.00 °C  
Humidity : 40.00 RH%  
Epsilon : 56.37 F/m  
Sigma : 0.99 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

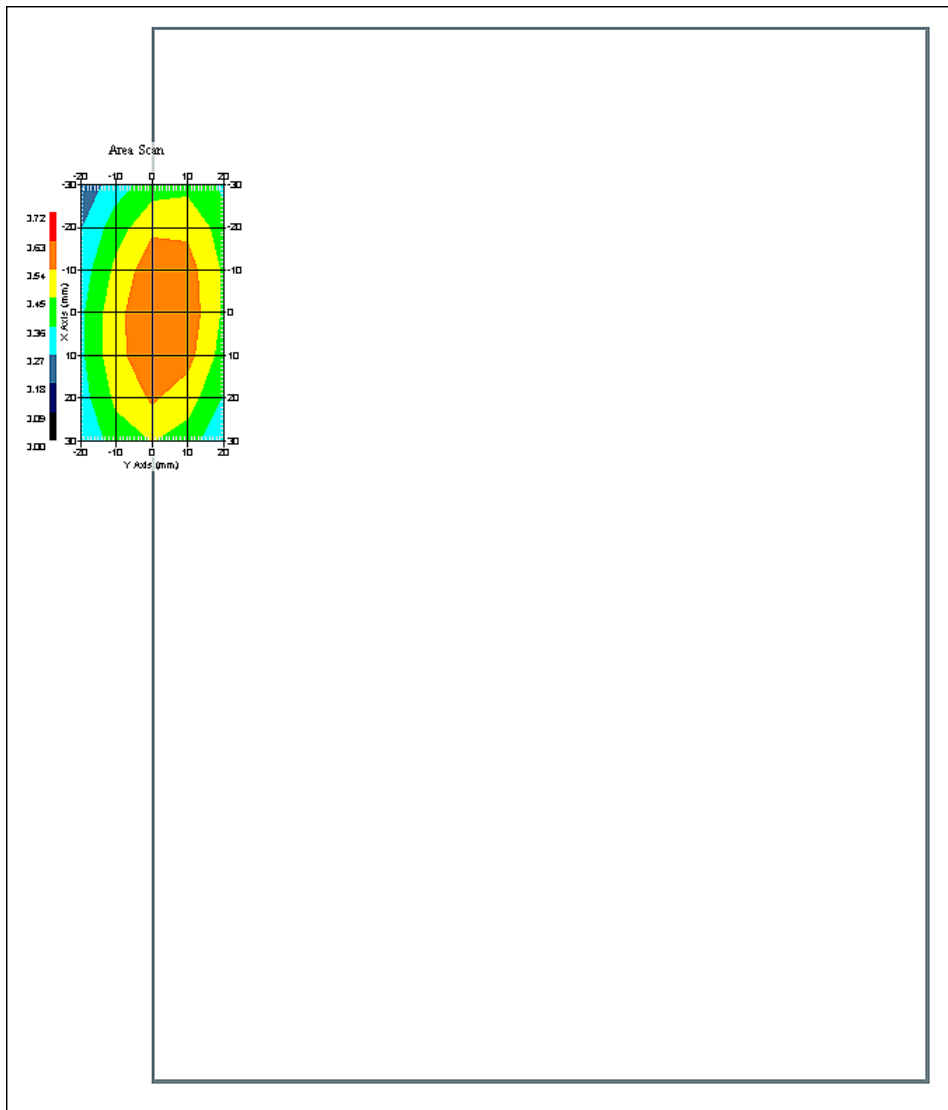
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 835.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 6.1  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 24.00 °C  
Set-up Date : 19-Jul-2008  
Set-up Time : 5:37:34 PM  
Area Scan : 7x5x1 : 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 : 0.598 W/kg  
10 gram SAR value : 0.414 W/kg  
Area Scan Peak SAR : 0.631 W/kg  
Zoom Scan Peak SAR : 0.820 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 19-Jul-2008  
Starting Time : 19-Jul-2008 05:57:20 PM  
End Time : 19-Jul-2008 06:11:04 PM  
Scanning Time : 824 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 850.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 1.404 W/kg  
Power Drift-Finish: 1.396 W/kg  
Power Drift (%) : -0.536

### 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 : 19-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 24.00 °C  
Humidity : 40.00 RH%  
Epsilon : 56.37 F/m  
Sigma : 0.99 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

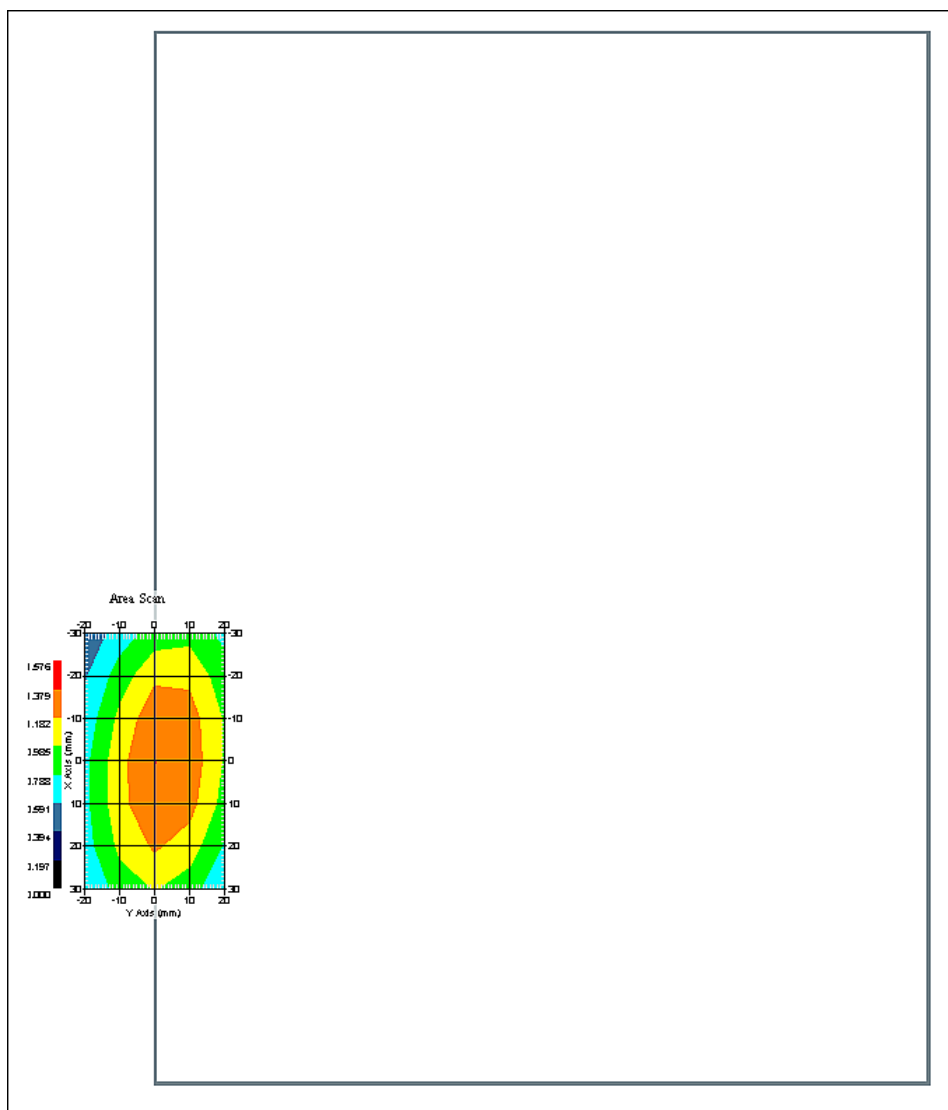
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 835.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 6.1  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 24.00 °C  
Set-up Date : 19-Jul-2008  
Set-up Time : 5:37:34 PM  
Area Scan : 7x5x1 : 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 : Low



1 gram SAR value : 1.328 W/kg  
10 gram SAR value : 0.920 W/kg  
Area Scan Peak SAR : 1.381 W/kg  
Zoom Scan Peak SAR : 1.841 W/kg



## SAR Test Report

By Operator : Jay  
Measurement Date : 19-Jul-2008  
Starting Time : 19-Jul-2008 05:42:07 PM  
End Time : 19-Jul-2008 05:56:05 PM  
Scanning Time : 838 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 850.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 1.055 W/kg  
Power Drift-Finish: 1.104 W/kg  
Power Drift (%) : 4.630

### 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 : 19-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 24.00 °C  
Humidity : 40.00 RH%  
Epsilon : 56.37 F/m  
Sigma : 0.99 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

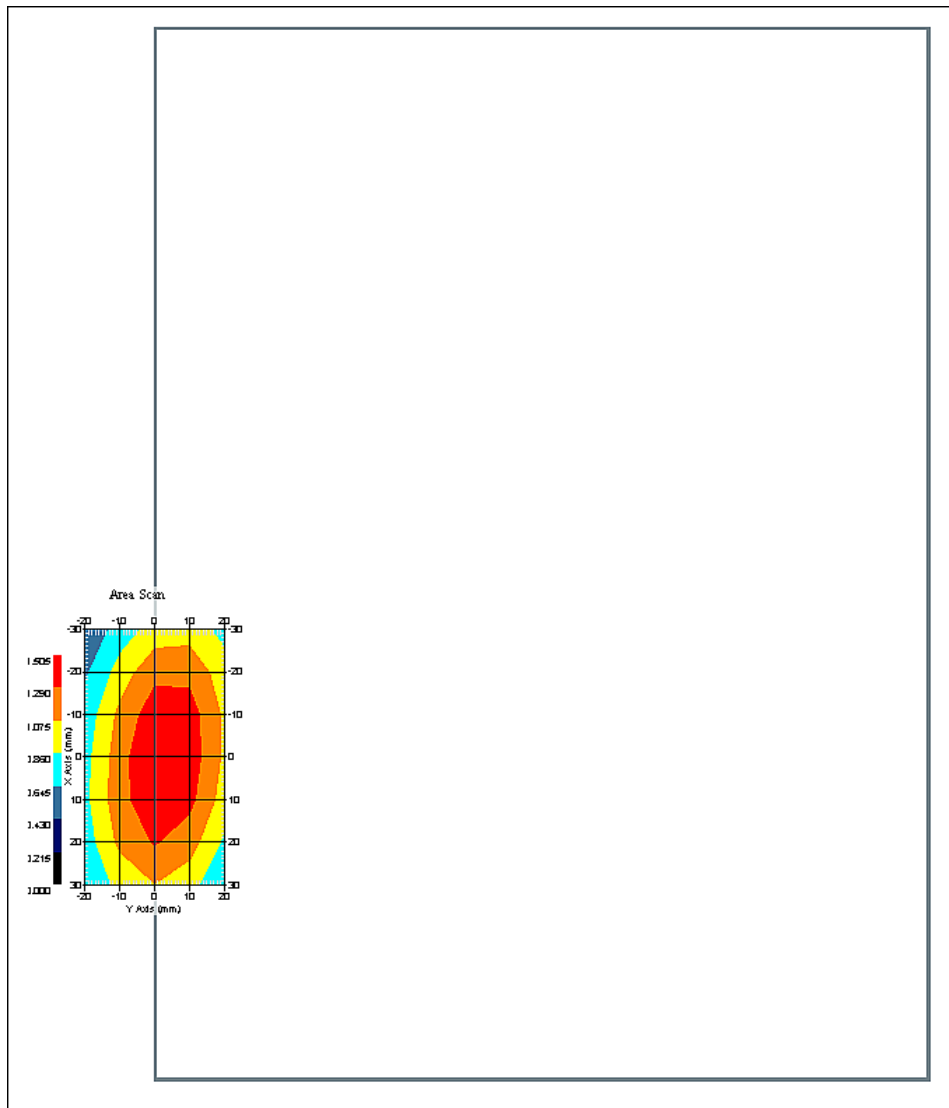
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 835.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 6.1  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 24.00 °C  
Set-up Date : 19-Jul-2008  
Set-up Time : 5:37:34 PM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm  
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

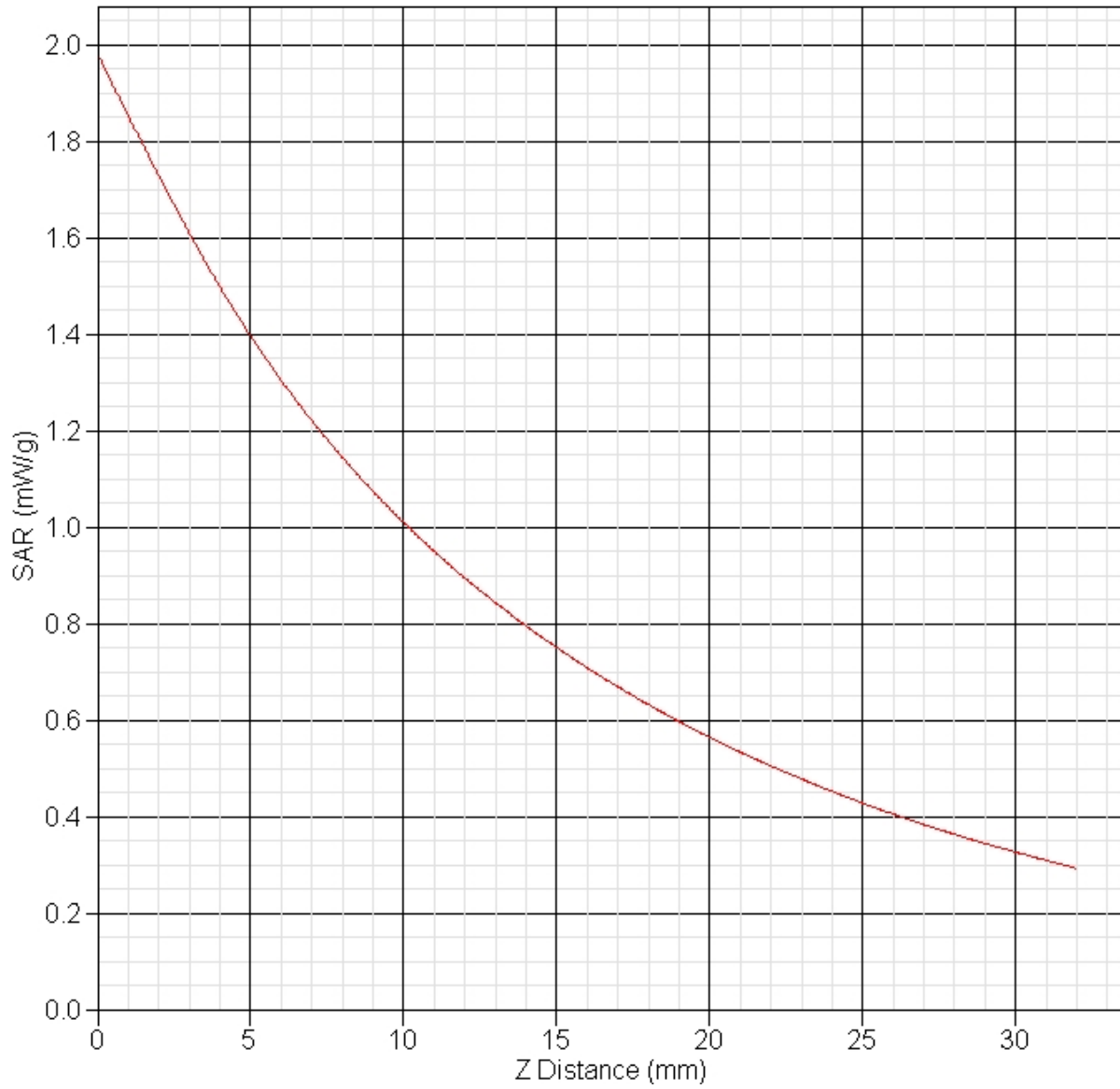
Other Data

DUT Position : Touch  
Separation : 0  
Channel : Mid



1 gram SAR value : 1.436 W/kg  
10 gram SAR value : 0.996 W/kg  
Area Scan Peak SAR : 1.503 W/kg  
Zoom Scan Peak SAR : 1.981 W/kg

### SAR-Z Axis at Hotspot x:0.28 y:-0.15



## SAR Test Report

By Operator : Jay  
Measurement Date : 19-Jul-2008  
Starting Time : 19-Jul-2008 06:13:34 PM  
End Time : 19-Jul-2008 06:27:16 PM  
Scanning Time : 822 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 850.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 1.467 W/kg  
Power Drift-Finish: 1.477 W/kg  
Power Drift (%) : 0.723

### 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 : 19-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 24.00 °C  
Humidity : 40.00 RH%  
Epsilon : 56.37 F/m  
Sigma : 0.99 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

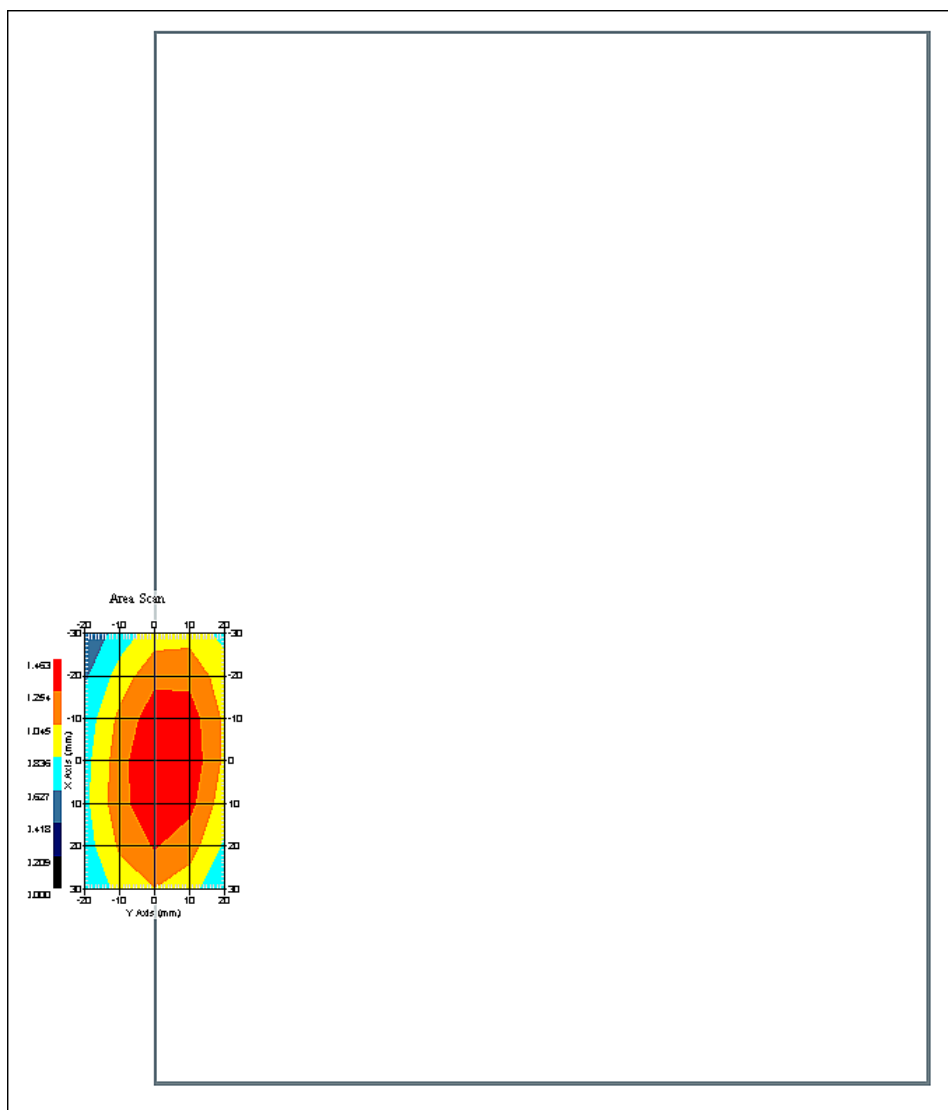
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 835.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 6.1  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 24.00 °C  
Set-up Date : 19-Jul-2008  
Set-up Time : 5:37:34 PM  
Area Scan : 7x5x1 : 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 : High



1 gram SAR value : 1.402 W/kg  
10 gram SAR value : 0.972 W/kg  
Area Scan Peak SAR : 1.463 W/kg  
Zoom Scan Peak SAR : 1.941 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 20-Jul-2008  
Starting Time : 20-Jul-2008 08:18:42 AM  
End Time : 20-Jul-2008 08:34:31 AM  
Scanning Time : 949 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 850.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.931 W/kg  
Power Drift-Finish: 0.956 W/kg  
Power Drift (%) : 2.689

### 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-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 24.00 °C  
Humidity : 40.00 RH%  
Epsilon : 53.81 F/m  
Sigma : 0.98 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

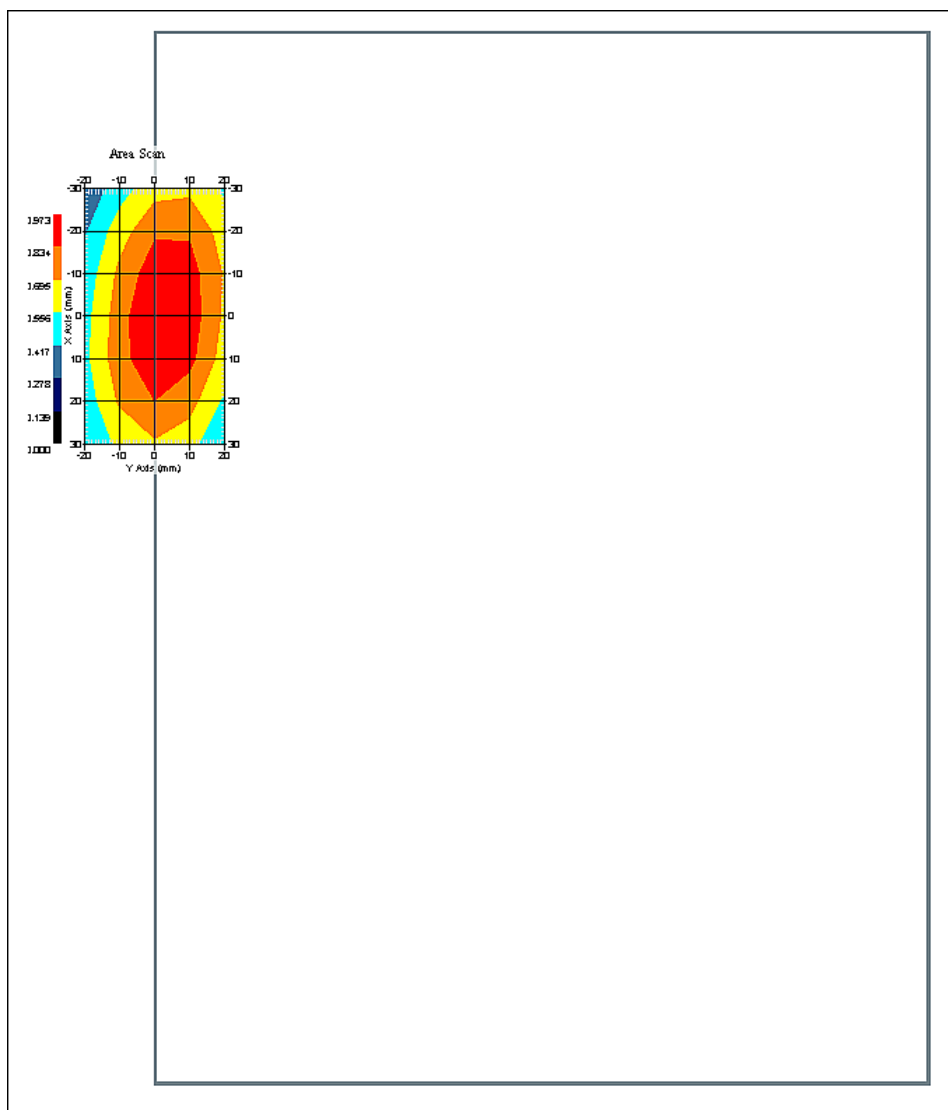
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 835.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 6.1  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 24.00 °C  
Set-up Date : 20-Jul-2008  
Set-up Time : 8:09:25 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 : Touch  
Separation : 0  
Channel : Mid



1 gram SAR value : 0.941 W/kg  
10 gram SAR value : 0.656 W/kg  
Area Scan Peak SAR : 0.971 W/kg  
Zoom Scan Peak SAR : 1.291 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 20-Jul-2008  
Starting Time : 20-Jul-2008 02:03:31 PM  
End Time : 20-Jul-2008 02:18:14 PM  
Scanning Time : 883 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 1900.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.849 W/kg  
Power Drift-Finish: 0.847 W/kg  
Power Drift (%) : -0.167

### 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 : 20-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 52.00 RH%  
Epsilon : 52.44 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  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56 mm

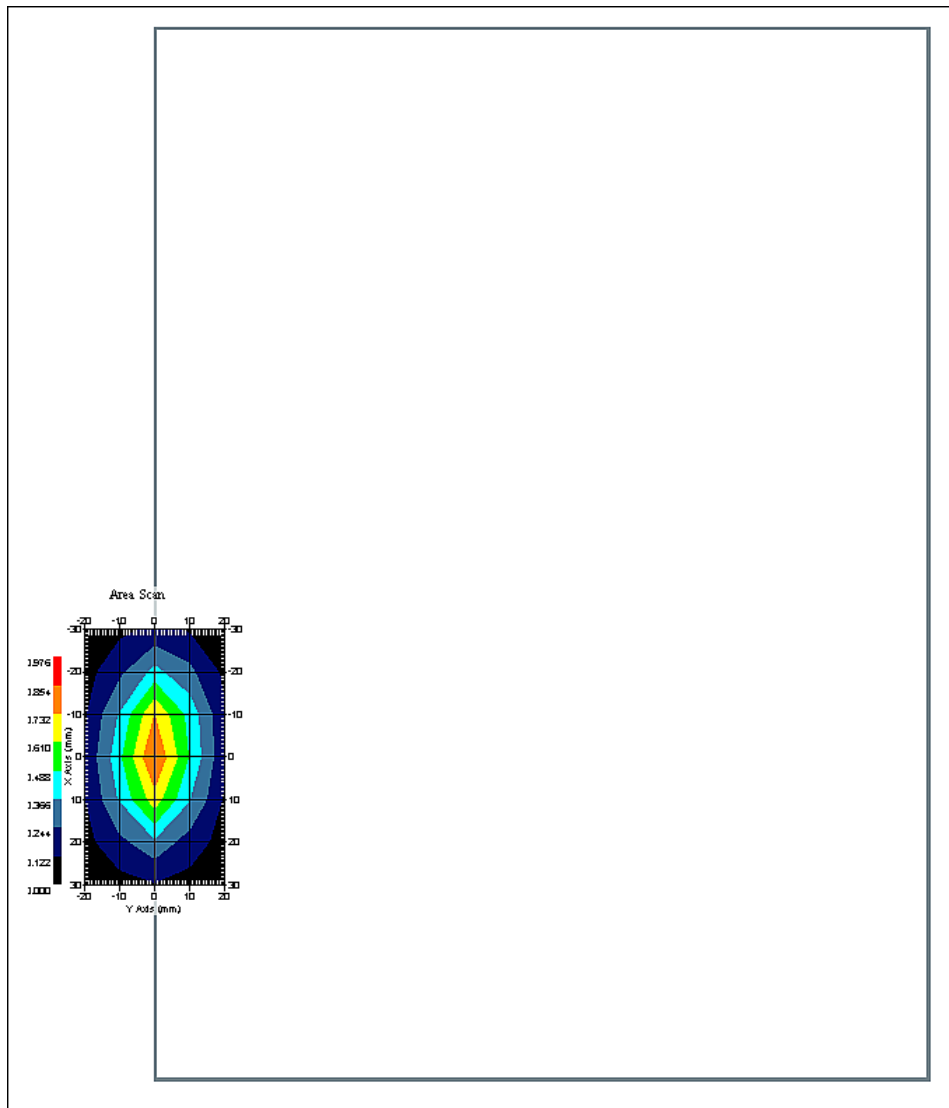


Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 20-Jul-2008  
Set-up Time : 10:07:07 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 : Touch  
Separation : 0  
Channel : Low



1 gram SAR value : 0.741 W/kg  
10 gram SAR value : 0.384 W/kg  
Area Scan Peak SAR : 0.857 W/kg  
Zoom Scan Peak SAR : 1.401 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 20-Jul-2008  
Starting Time : 20-Jul-2008 01:46:57 PM  
End Time : 20-Jul-2008 02:01:44 PM  
Scanning Time : 887 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 1900.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.995 W/kg  
Power Drift-Finish: 1.001 W/kg  
Power Drift (%) : 0.581

### 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 : 20-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 52.00 RH%  
Epsilon : 52.44 F/m  
Sigma : 1.51 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

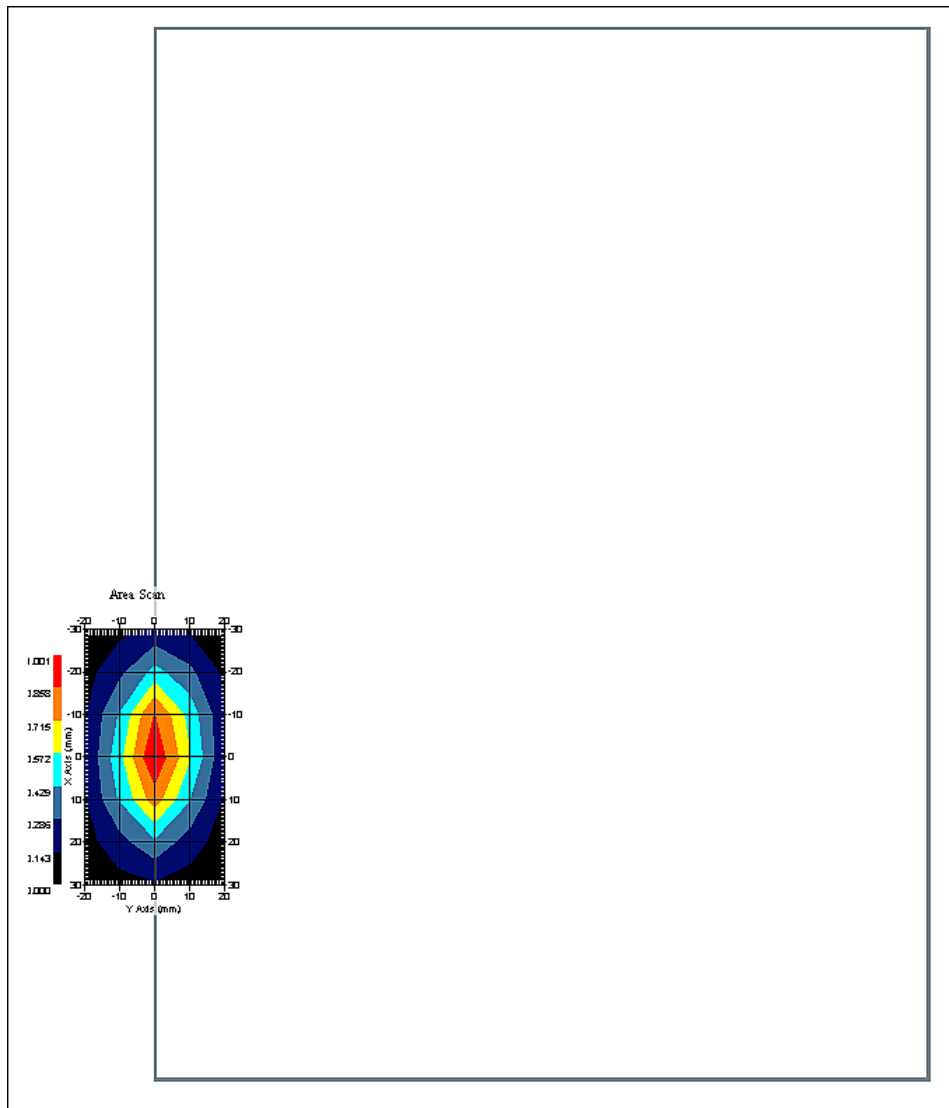
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 1900.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 4.85  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 20-Jul-2008  
Set-up Time : 10:07:07 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 : Touch  
Separation : 0  
Channel : Mid



1 gram SAR value : 0.867 W/kg  
10 gram SAR value : 0.449 W/kg  
Area Scan Peak SAR : 1.000 W/kg  
Zoom Scan Peak SAR : 1.621 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 20-Jul-2008  
Starting Time : 20-Jul-2008 02:19:43 PM  
End Time : 20-Jul-2008 02:34:32 PM  
Scanning Time : 889 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 1900.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.902 W/kg  
Power Drift-Finish: 0.908 W/kg  
Power Drift (%) : 0.650

### 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 : 20-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 52.00 RH%  
Epsilon : 52.44 F/m  
Sigma : 1.51 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

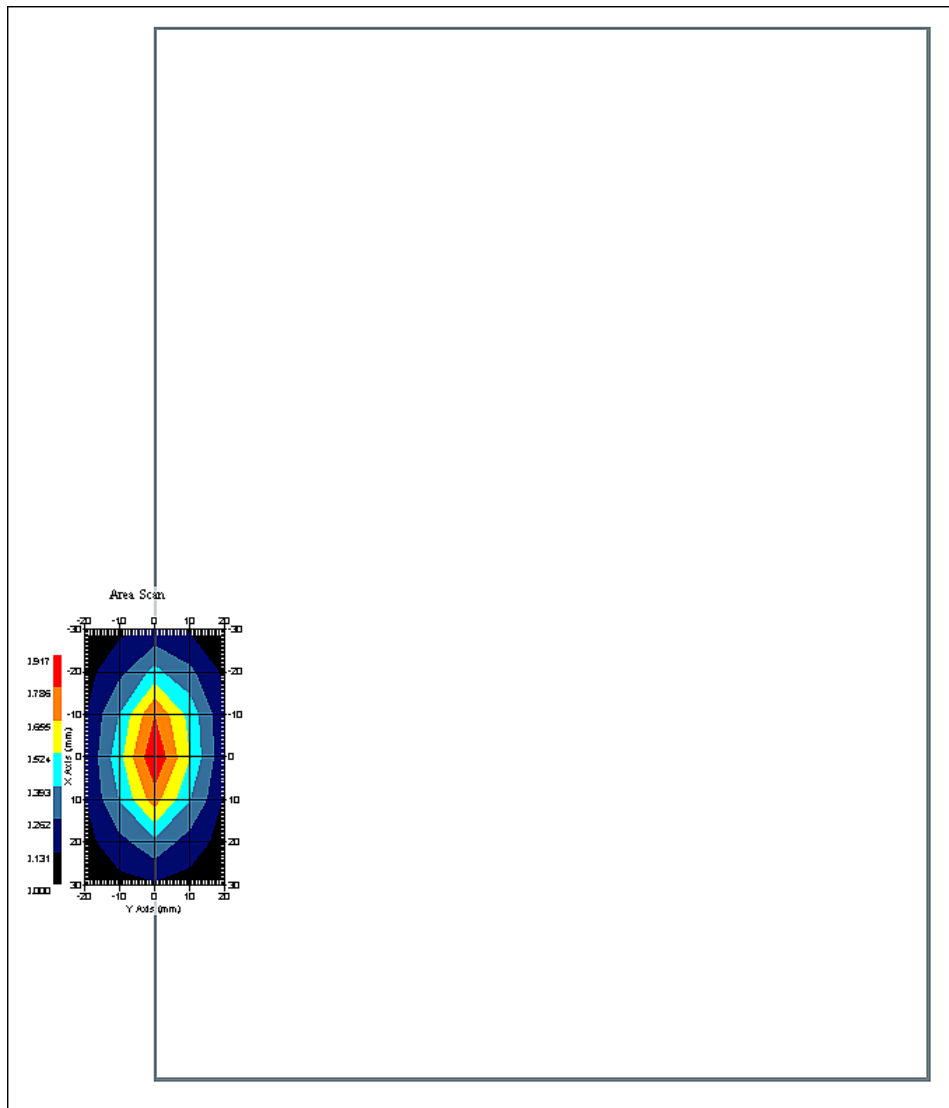
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 1900.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 4.85  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 20-Jul-2008  
Set-up Time : 10:07:07 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 : Touch  
Separation : 0  
Channel : High



1 gram SAR value : 0.784 W/kg  
10 gram SAR value : 0.408 W/kg  
Area Scan Peak SAR : 0.915 W/kg  
Zoom Scan Peak SAR : 1.461 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 20-Jul-2008  
Starting Time : 20-Jul-2008 02:36:39 PM  
End Time : 20-Jul-2008 02:51:27 PM  
Scanning Time : 888 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 1900.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.681 W/kg  
Power Drift-Finish: 0.687 W/kg  
Power Drift (%) : 0.780

### 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. : 1900  
Frequency : 1900.00 MHz  
Last Calib. Date : 20-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 52.00 RH%  
Epsilon : 52.44 F/m  
Sigma : 1.51 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

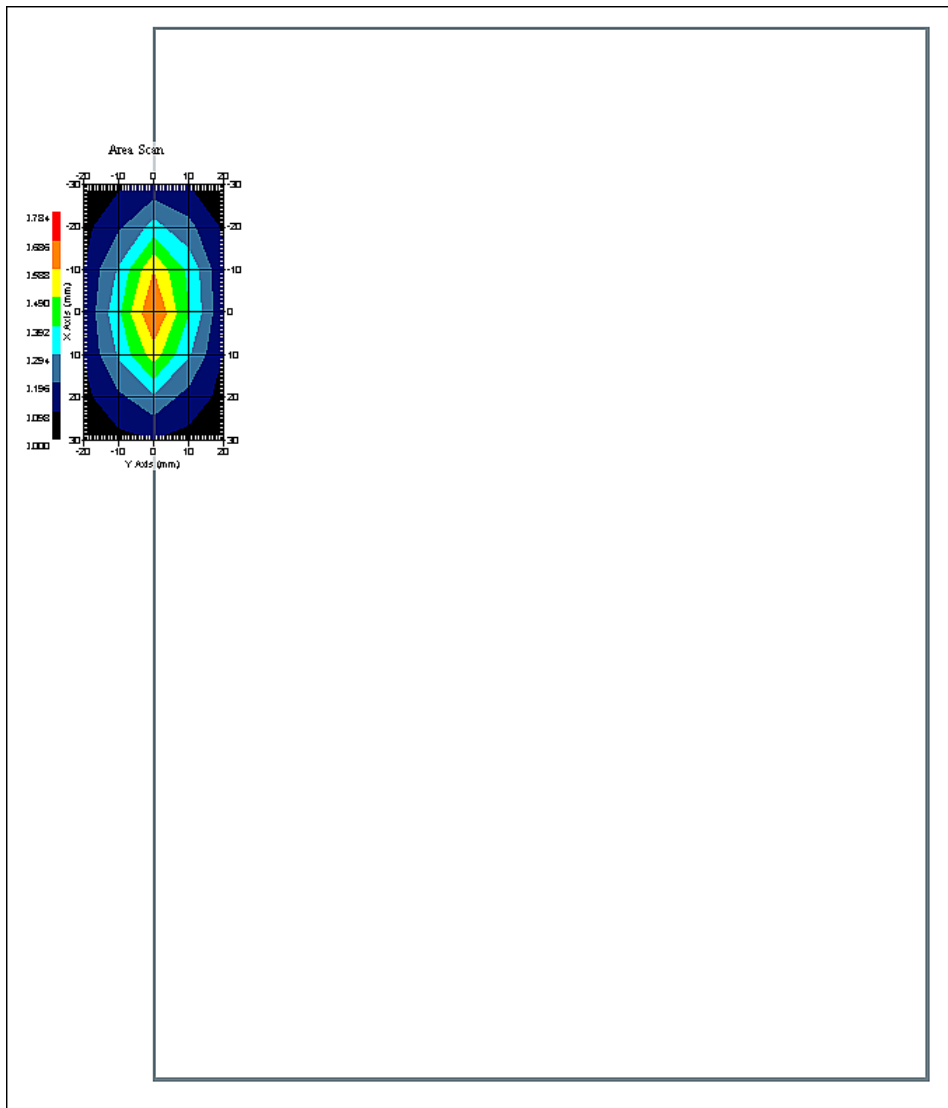
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 1900.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 4.85  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 20-Jul-2008  
Set-up Time : 10:07:07 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 : Touch  
Separation : 0  
Channel : Mid



1 gram SAR value : 0.590 W/kg  
10 gram SAR value : 0.312 W/kg  
Area Scan Peak SAR : 0.689 W/kg  
Zoom Scan Peak SAR : 1.080 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 20-Jul-2008  
Starting Time : 20-Jul-2008 11:47:34 AM  
End Time : 20-Jul-2008 12:02:17 PM  
Scanning Time : 883 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 1900.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 1.493 W/kg  
Power Drift-Finish: 1.492 W/kg  
Power Drift (%) : -0.094

### 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 : 20-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 52.00 RH%  
Epsilon : 52.44 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  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56 mm

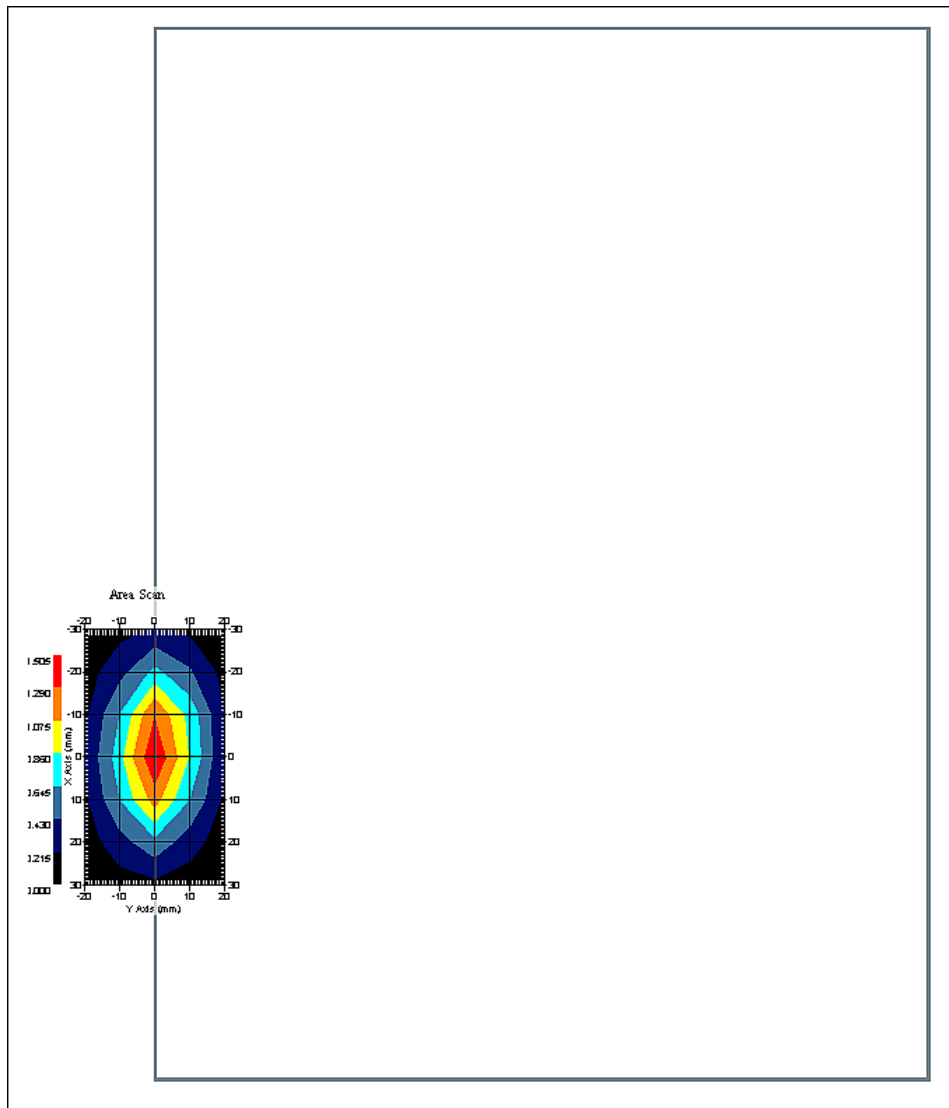


Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 20-Jul-2008  
Set-up Time : 10:07:07 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 : Touch  
Separation : 0  
Channel : Low



1 gram SAR value : 1.293 W/kg  
10 gram SAR value : 0.658 W/kg  
Area Scan Peak SAR : 1.503 W/kg  
Zoom Scan Peak SAR : 2.442 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 20-Jul-2008  
Starting Time : 20-Jul-2008 11:31:15 AM  
End Time : 20-Jul-2008 11:46:01 AM  
Scanning Time : 886 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 1900.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 1.645 W/kg  
Power Drift-Finish: 1.684 W/kg  
Power Drift (%) : 2.386

### 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 : 20-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 52.00 RH%  
Epsilon : 52.44 F/m  
Sigma : 1.51 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

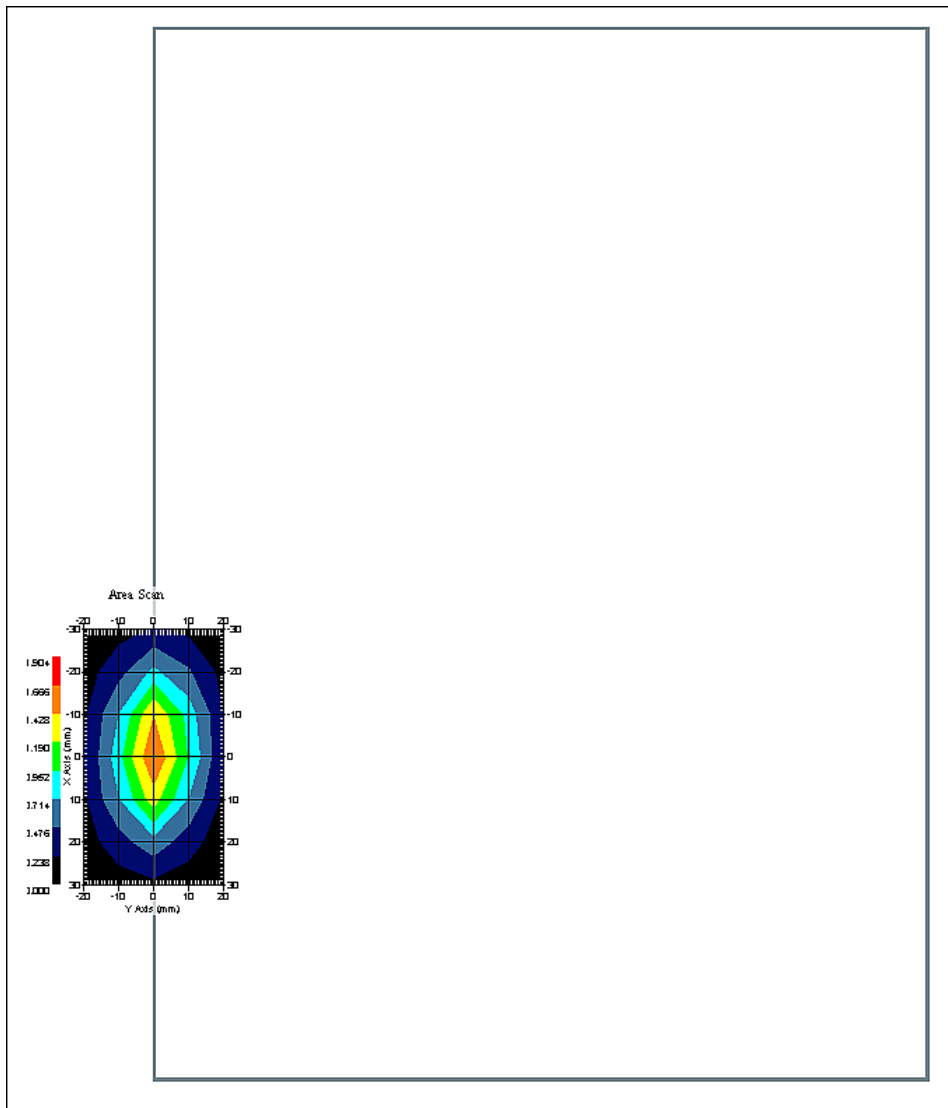
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 1900.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 4.85  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 20-Jul-2008  
Set-up Time : 10:07:07 AM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm  
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

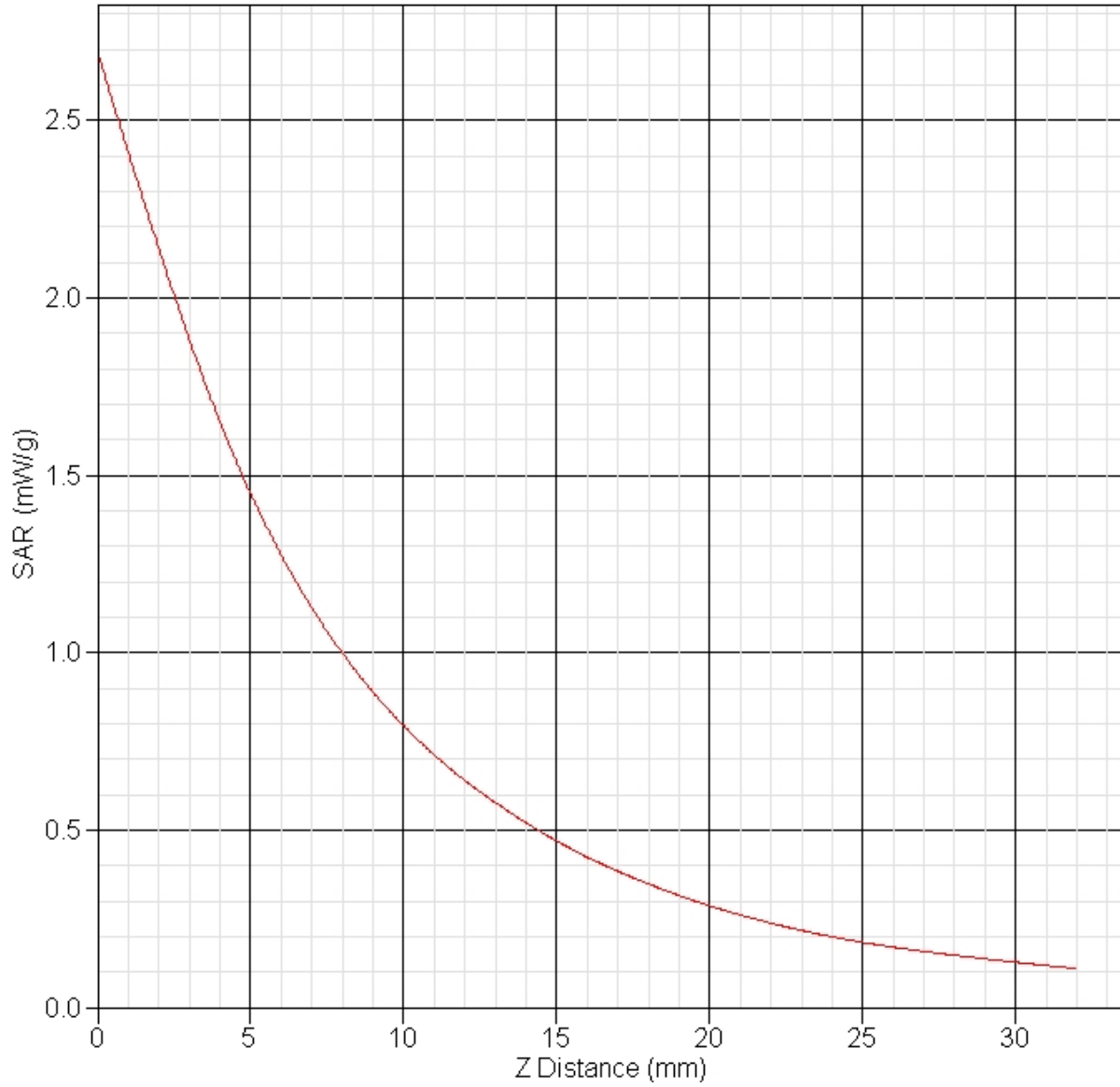
Other Data

DUT Position : Touch  
Separation : 0  
Channel : Mid



1 gram SAR value : 1.425 W/kg  
10 gram SAR value : 0.726 W/kg  
Area Scan Peak SAR : 1.667 W/kg  
Zoom Scan Peak SAR : 2.692 W/kg

**SAR-Z Axis**  
at Hotspot x:0.25 y:-0.10



## SAR Test Report

By Operator : Jay  
Measurement Date : 20-Jul-2008  
Starting Time : 20-Jul-2008 12:04:44 PM  
End Time : 20-Jul-2008 12:19:33 PM  
Scanning Time : 889 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 1900.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 1.579 W/kg  
Power Drift-Finish: 1.610 W/kg  
Power Drift (%) : 1.909

### 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 : 20-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 52.00 RH%  
Epsilon : 52.44 F/m  
Sigma : 1.51 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

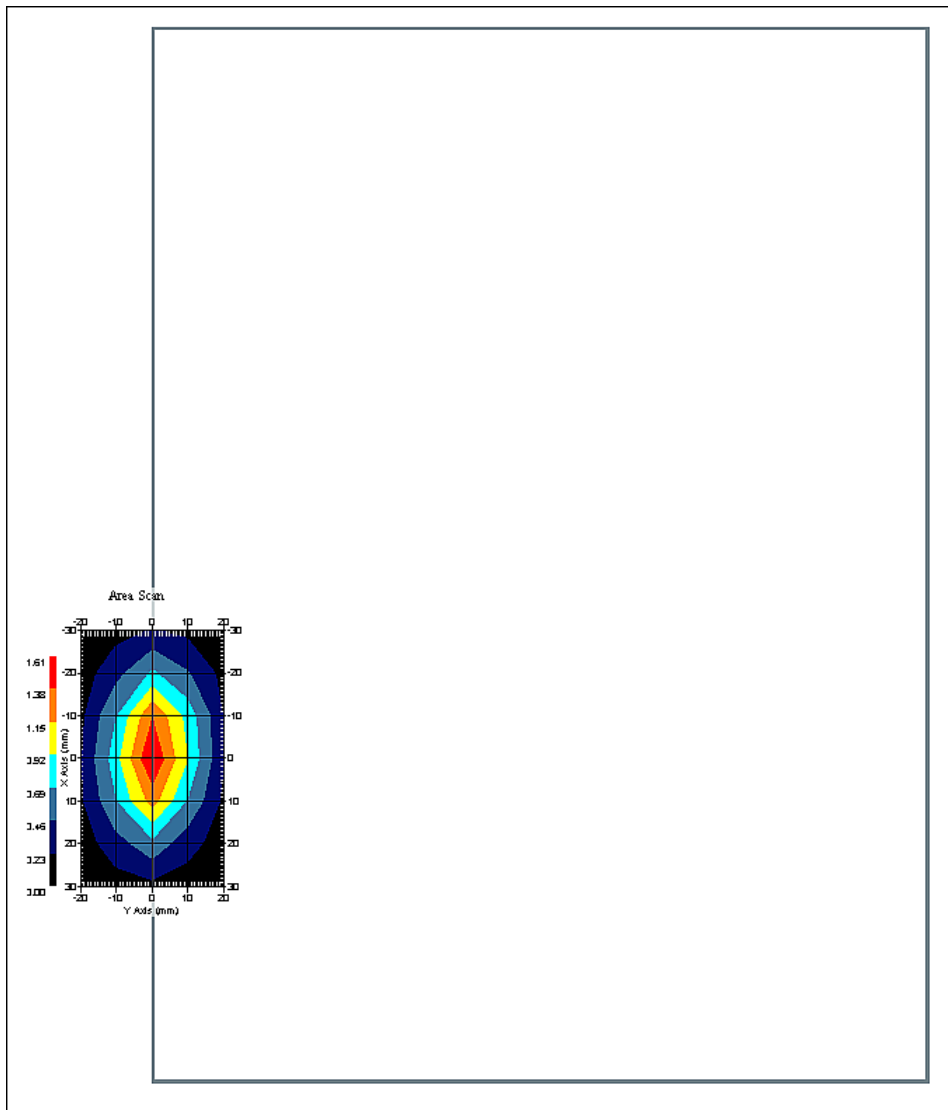
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 1900.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 4.85  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 20-Jul-2008  
Set-up Time : 10:07:07 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 : Touch  
Separation : 0  
Channel : High



1 gram SAR value : 1.379 W/kg  
10 gram SAR value : 0.701 W/kg  
Area Scan Peak SAR : 1.607 W/kg  
Zoom Scan Peak SAR : 2.622 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 20-Jul-2008  
Starting Time : 20-Jul-2008 12:24:01 PM  
End Time : 20-Jul-2008 12:38:52 PM  
Scanning Time : 891 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 1900.00 MHz  
Max. Transmit Pwr : 0.25 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 1.274 W/kg  
Power Drift-Finish: 1.306 W/kg  
Power Drift (%) : 2.526

### 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 : 20-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 52.00 RH%  
Epsilon : 52.44 F/m  
Sigma : 1.51 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

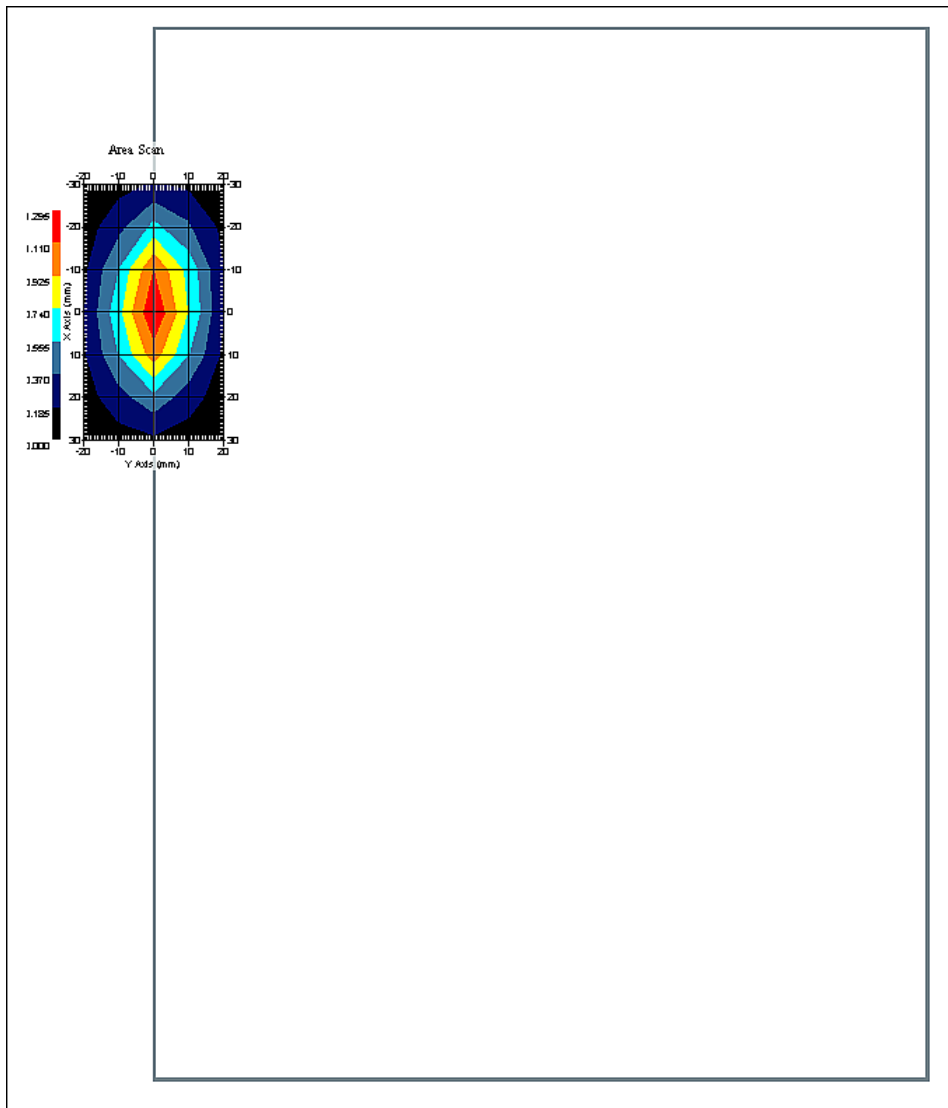
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 1900.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 4.85  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56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

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 20-Jul-2008  
Set-up Time : 10:07:07 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 : Touch  
Separation : 0  
Channel : Mid



1 gram SAR value : 1.117 W/kg  
10 gram SAR value : 0.571 W/kg  
Area Scan Peak SAR : 1.292 W/kg  
Zoom Scan Peak SAR : 2.101 W/kg



## SAR Test Report

By Operator : Jay  
Measurement Date : 21-Jul-2008  
Starting Time : 21-Jul-2008 01:53:06 PM  
End Time : 21-Jul-2008 02:07:56 PM  
Scanning Time : 890 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 2450.00 MHz  
Max. Transmit Pwr : 0.1 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.185 W/kg  
Power Drift-Finish: 0.180 W/kg  
Power Drift (%) : -2.751

### 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. : 2450  
Frequency : 2450.00 MHz  
Last Calib. Date : 21-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 41.00 RH%  
Epsilon : 51.86 F/m  
Sigma : 1.94 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

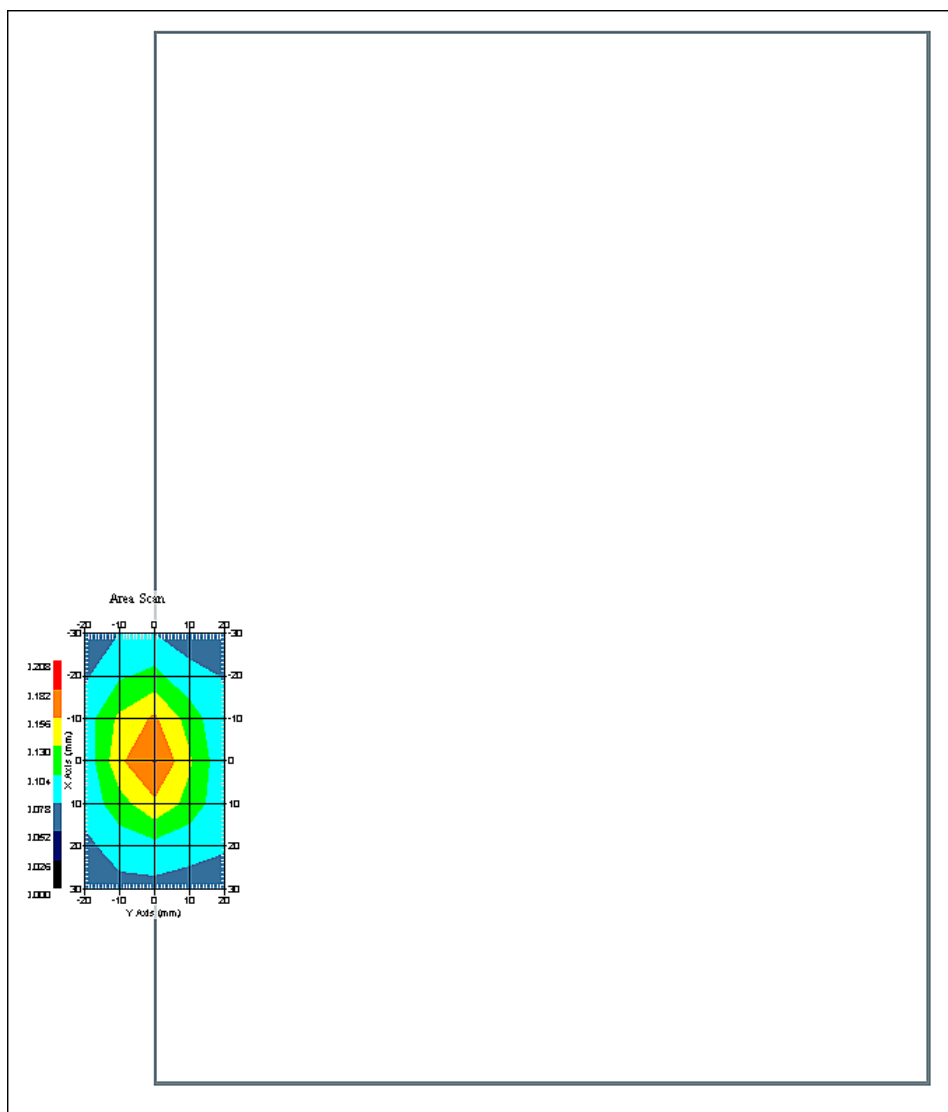
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 2450.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 3.61  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 21-Jul-2008  
Set-up Time : 1:52:57 PM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm  
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

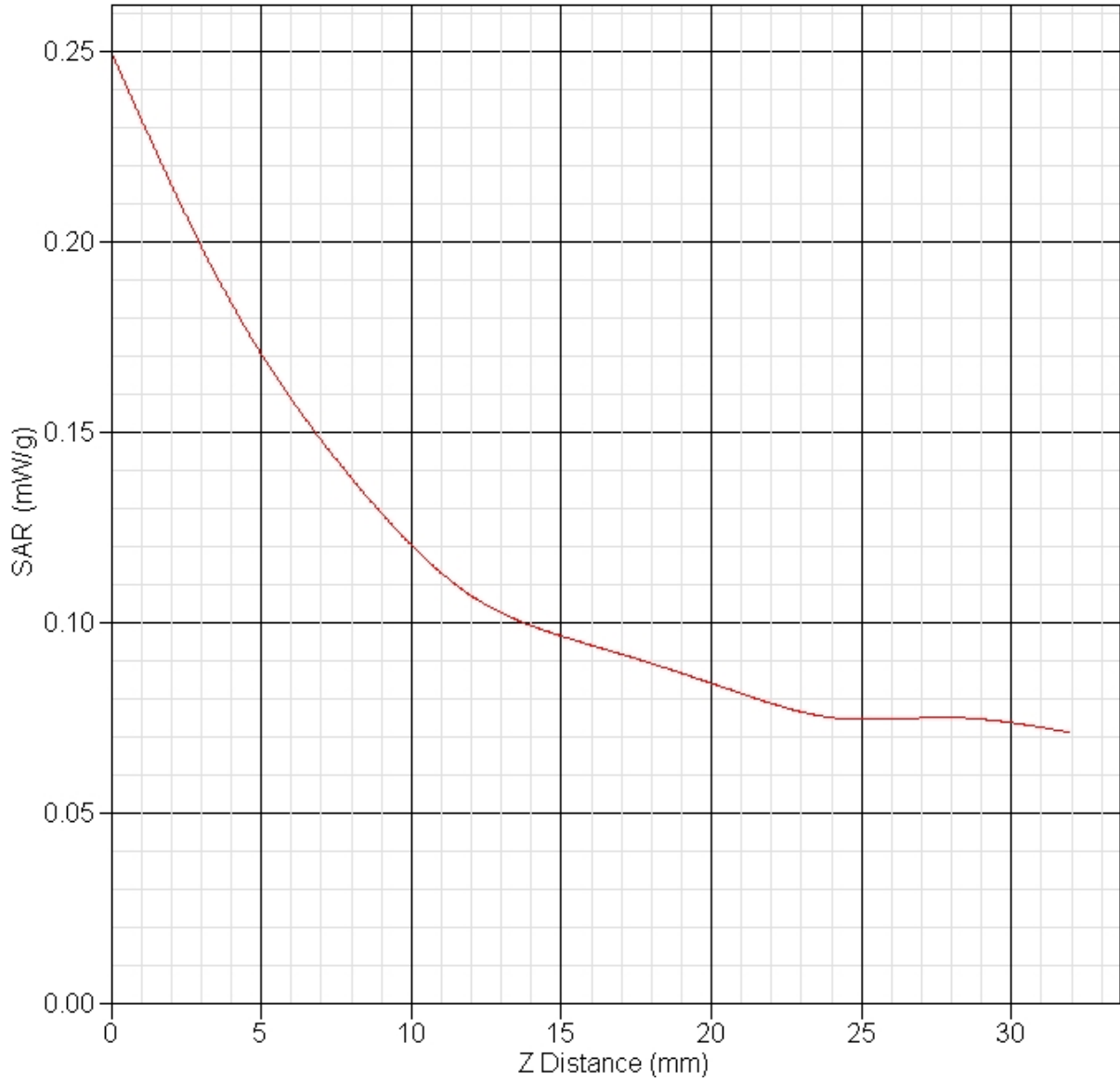
Other Data

DUT Position : Touch  
Separation : 0  
Channel : High



1 gram SAR value : 0.170 W/kg  
10 gram SAR value : 0.116 W/kg  
Area Scan Peak SAR : 0.184 W/kg  
Zoom Scan Peak SAR : 0.250 W/kg

**SAR-Z Axis**  
at Hotspot x:0.22 y:-0.15



## SAR Test Report

By Operator : Jay  
Measurement Date : 21-Jul-2008  
Starting Time : 21-Jul-2008 03:28:19 PM  
End Time : 21-Jul-2008 03:43:03 PM  
Scanning Time : 884 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 2450.00 MHz  
Max. Transmit Pwr : 0.1 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.134 W/kg  
Power Drift-Finish: 0.136 W/kg  
Power Drift (%) : 1.570

### 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. : 2450  
Frequency : 2450.00 MHz  
Last Calib. Date : 21-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 41.00 RH%  
Epsilon : 51.86 F/m  
Sigma : 1.94 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

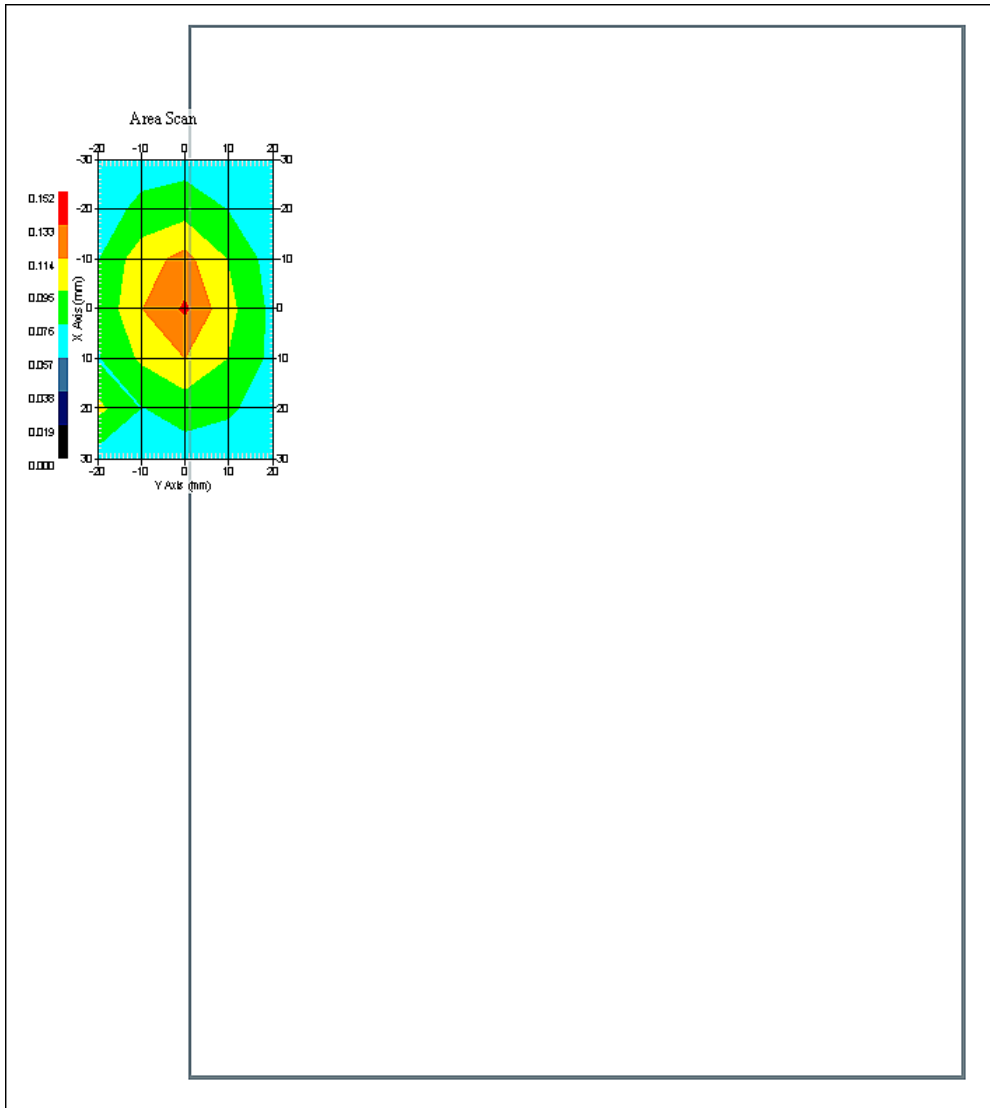
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 2450.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 3.61  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 21-Jul-2008  
Set-up Time : 1:52:57 PM  
Area Scan : 7x5x1 : 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 : High



1 gram SAR value : 0.127 W/kg  
10 gram SAR value : 0.095 W/kg  
Area Scan Peak SAR : 0.136 W/kg  
Zoom Scan Peak SAR : 0.170 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 21-Jul-2008  
Starting Time : 21-Jul-2008 02:11:33 PM  
End Time : 21-Jul-2008 02:26:11 PM  
Scanning Time : 878 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 2450.00 MHz  
Max. Transmit Pwr : 0.1 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.174 W/kg  
Power Drift-Finish: 0.173 W/kg  
Power Drift (%) : -0.506

### 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. : 2450  
Frequency : 2450.00 MHz  
Last Calib. Date : 21-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 41.00 RH%  
Epsilon : 51.86 F/m  
Sigma : 1.94 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

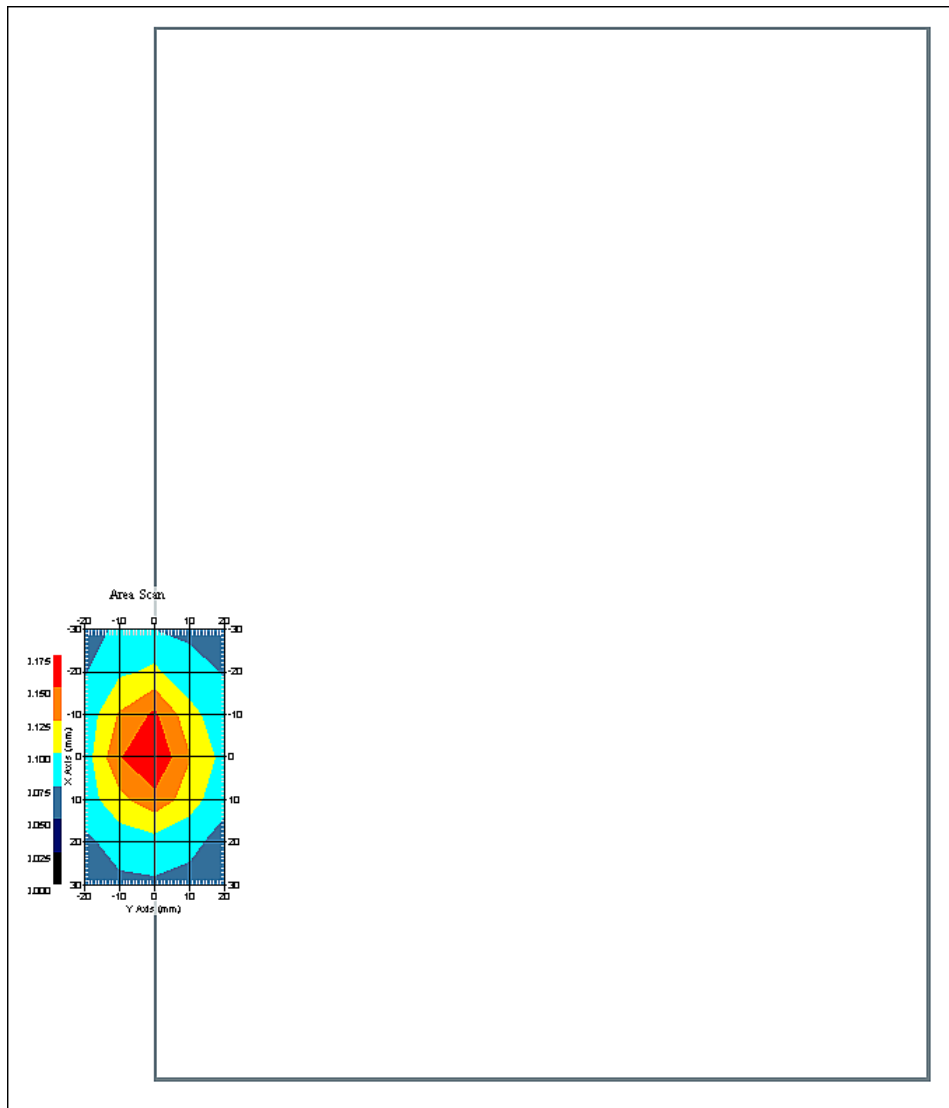
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 2450.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 3.61  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 21-Jul-2008  
Set-up Time : 1:52:57 PM  
Area Scan : 7x5x1 : 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 : 0.159 W/kg  
10 gram SAR value : 0.112 W/kg  
Area Scan Peak SAR : 0.173 W/kg  
Zoom Scan Peak SAR : 0.230 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 21-Jul-2008  
Starting Time : 21-Jul-2008 04:00:52 PM  
End Time : 21-Jul-2008 04:15:39 PM  
Scanning Time : 887 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 2450.00 MHz  
Max. Transmit Pwr : 0.1 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.131 W/kg  
Power Drift-Finish: 0.132 W/kg  
Power Drift (%) : 0.668

### 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. : 2450  
Frequency : 2450.00 MHz  
Last Calib. Date : 21-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 41.00 RH%  
Epsilon : 51.86 F/m  
Sigma : 1.94 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 : 2450.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 3.61  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56 mm

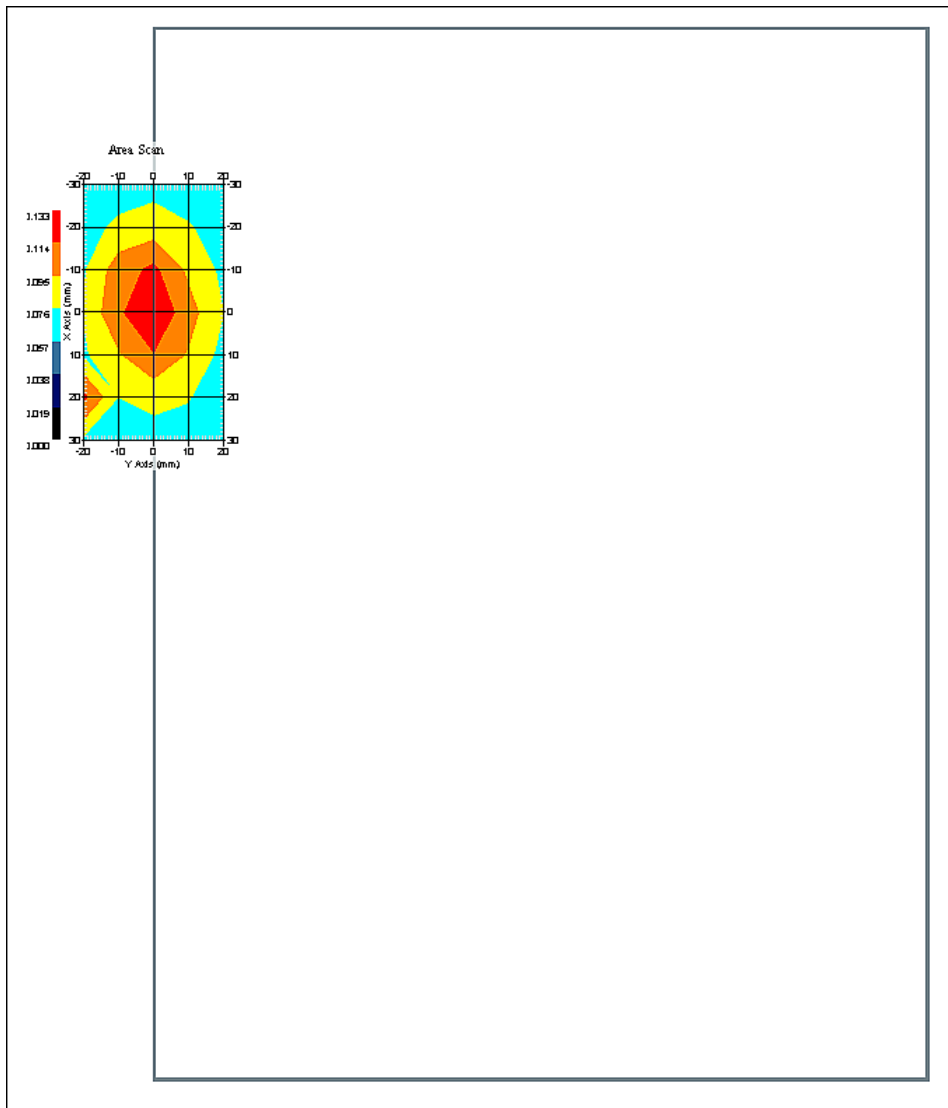


Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 21-Jul-2008  
Set-up Time : 1:52:57 PM  
Area Scan : 7x5x1 : 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 : 0.115 W/kg  
10 gram SAR value : 0.088 W/kg  
Area Scan Peak SAR : 0.133 W/kg  
Zoom Scan Peak SAR : 0.170 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 21-Jul-2008  
Starting Time : 21-Jul-2008 02:37:57 PM  
End Time : 21-Jul-2008 02:52:36 PM  
Scanning Time : 879 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 2450.00 MHz  
Max. Transmit Pwr : 0.1 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.175 W/kg  
Power Drift-Finish: 0.178 W/kg  
Power Drift (%) : 1.402

### 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. : 2450  
Frequency : 2450.00 MHz  
Last Calib. Date : 21-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 41.00 RH%  
Epsilon : 51.86 F/m  
Sigma : 1.94 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

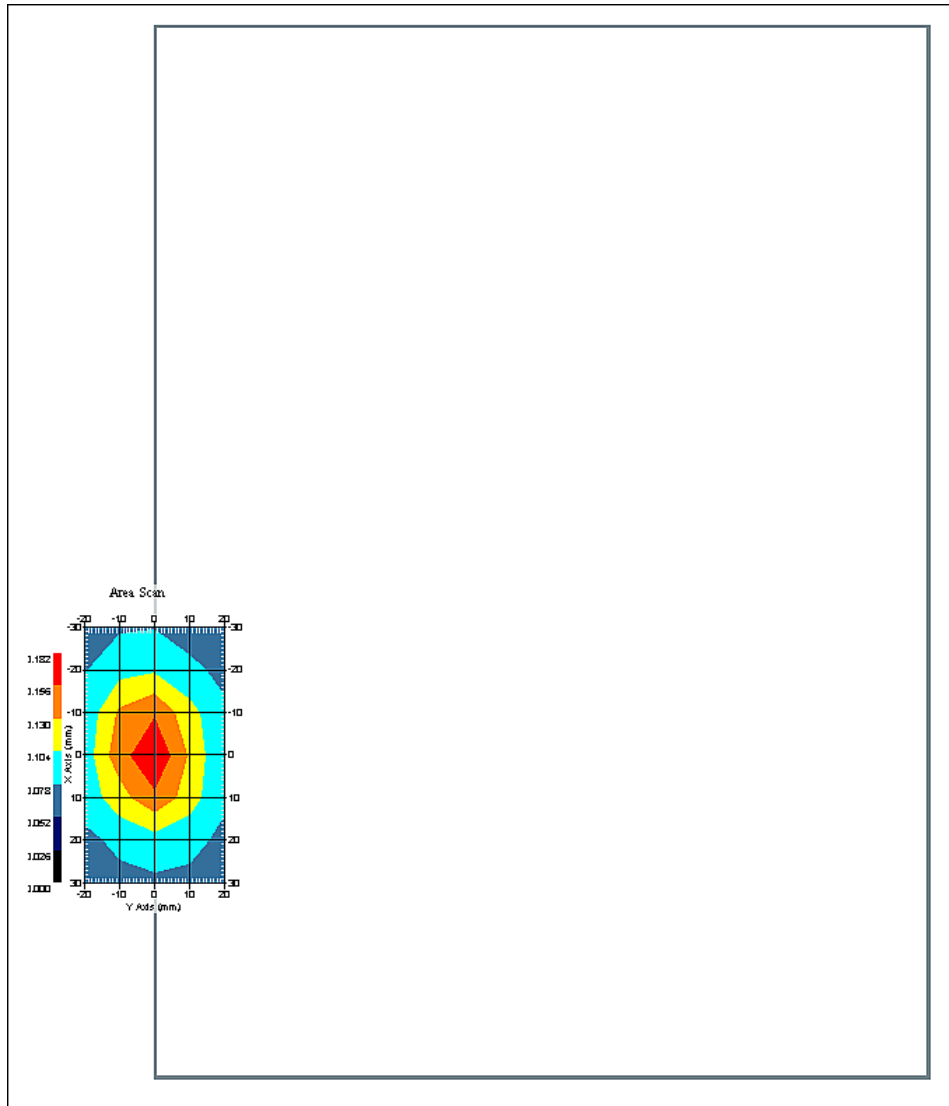
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 2450.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 3.61  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 21-Jul-2008  
Set-up Time : 1:52:57 PM  
Area Scan : 7x5x1 : 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 : Low



1 gram SAR value : 0.163 W/kg  
10 gram SAR value : 0.113 W/kg  
Area Scan Peak SAR : 0.179 W/kg  
Zoom Scan Peak SAR : 0.240 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 21-Jul-2008  
Starting Time : 21-Jul-2008 03:44:34 PM  
End Time : 21-Jul-2008 03:59:18 PM  
Scanning Time : 884 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 2450.00 MHz  
Max. Transmit Pwr : 0.1 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.137 W/kg  
Power Drift-Finish: 0.142 W/kg  
Power Drift (%) : 3.730

### 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. : 2450  
Frequency : 2450.00 MHz  
Last Calib. Date : 21-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 41.00 RH%  
Epsilon : 51.86 F/m  
Sigma : 1.94 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

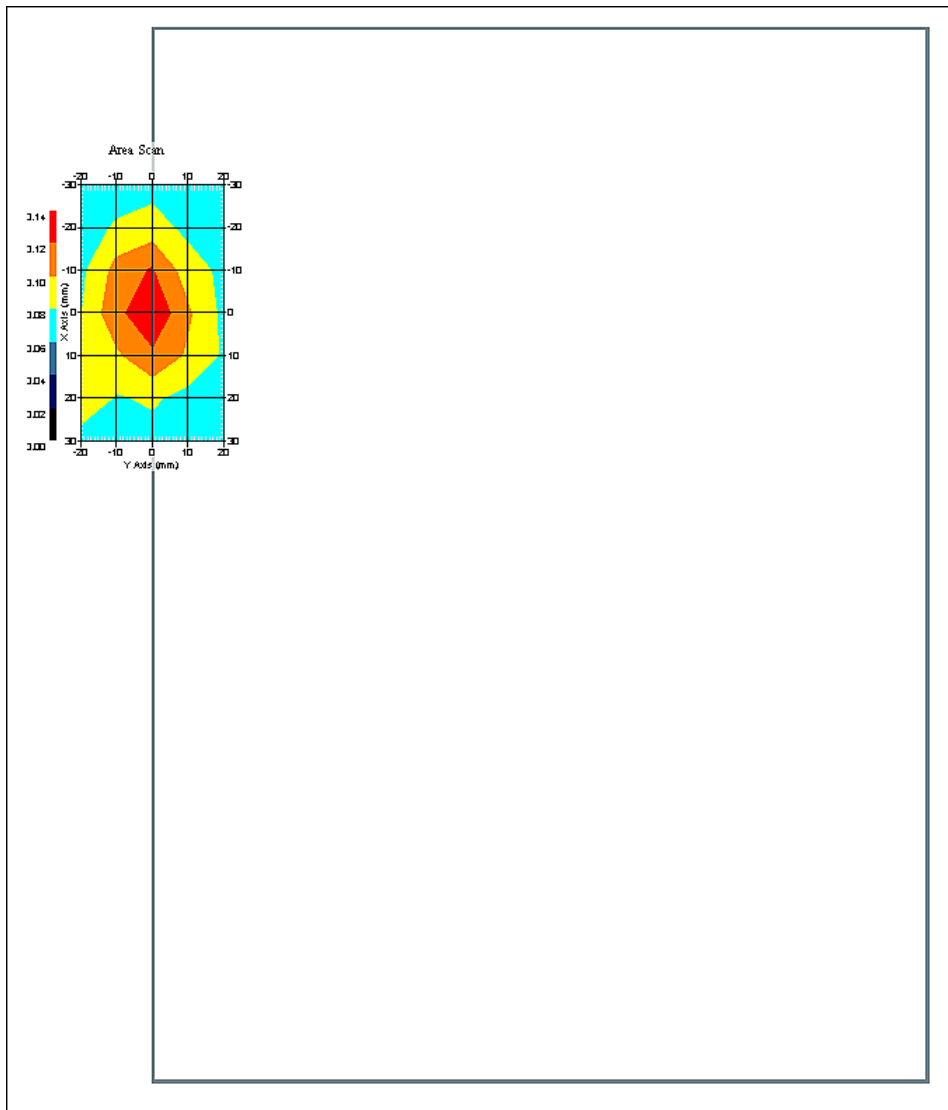
Name : RFEL 217  
Model : E020  
Type : E-Field Triangle  
Serial No. : 217  
Last Calib. Date : 03-Dec-2007  
Frequency : 2450.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 3.61  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 21-Jul-2008  
Set-up Time : 1:52:57 PM  
Area Scan : 7x5x1 : 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 : Low



1 gram SAR value : 0.128 W/kg  
10 gram SAR value : 0.096 W/kg  
Area Scan Peak SAR : 0.137 W/kg  
Zoom Scan Peak SAR : 0.180 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 22-Jul-2008  
Starting Time : 22-Jul-2008 01:50:06 PM  
End Time : 22-Jul-2008 02:15:01 PM  
Scanning Time : 1495 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5200.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.159 W/kg  
Power Drift-Finish: 0.160 W/kg  
Power Drift (%) : 0.786

### 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. : 5200  
Frequency : 5200.00 MHz  
Last Calib. Date : 22-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 48.68 F/m  
Sigma : 5.48 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

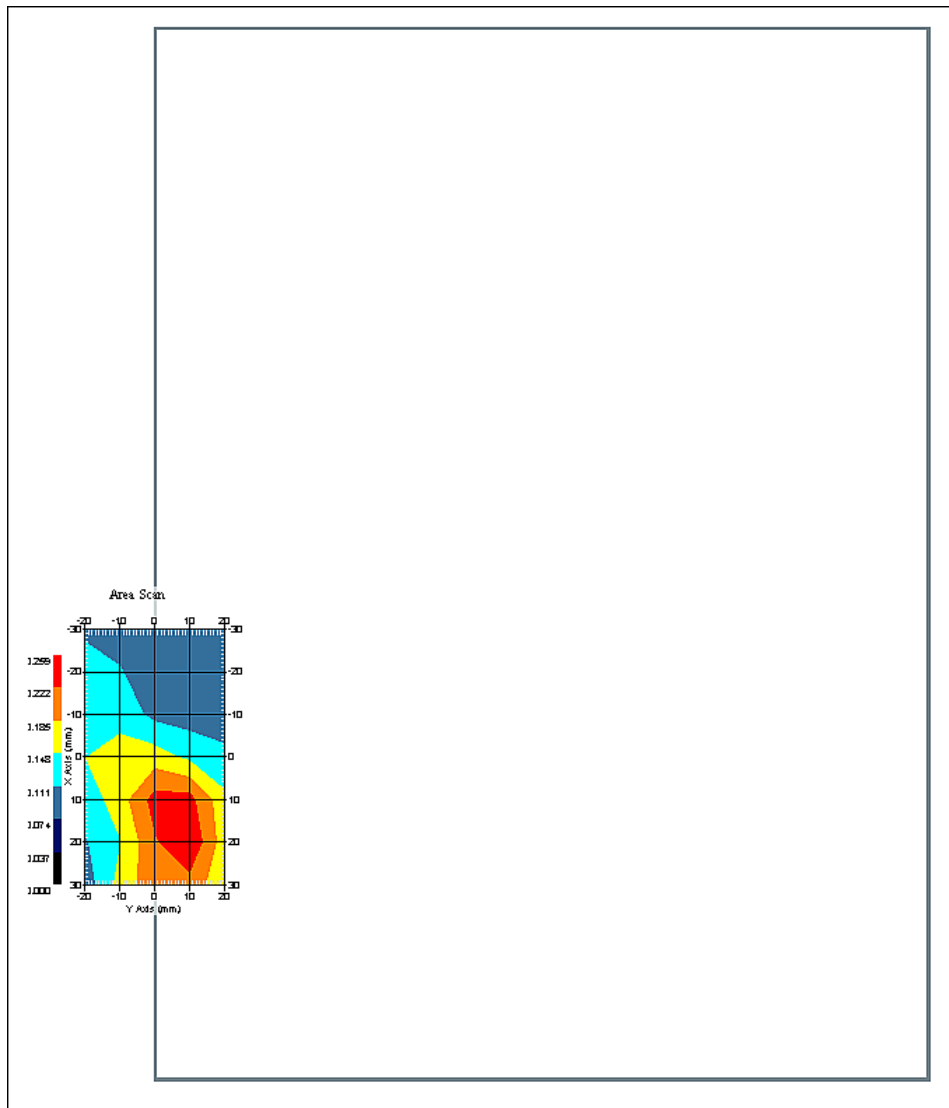
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5200.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 8.6  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 22-Jul-2008  
Set-up Time : 11:24:04 AM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch  
Separation : 0  
Channel : High



1 gram SAR value : 0.207 W/kg  
10 gram SAR value : 0.140 W/kg  
Area Scan Peak SAR : 0.259 W/kg  
Zoom Scan Peak SAR : 0.320 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 22-Jul-2008  
Starting Time : 22-Jul-2008 04:09:50 PM  
End Time : 22-Jul-2008 04:34:25 PM  
Scanning Time : 1475 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5200.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.181 W/kg  
Power Drift-Finish: 0.190 W/kg  
Power Drift (%) : 4.599

### 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. : 5200  
Frequency : 5200.00 MHz  
Last Calib. Date : 22-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 48.68 F/m  
Sigma : 5.48 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5200.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 8.6  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

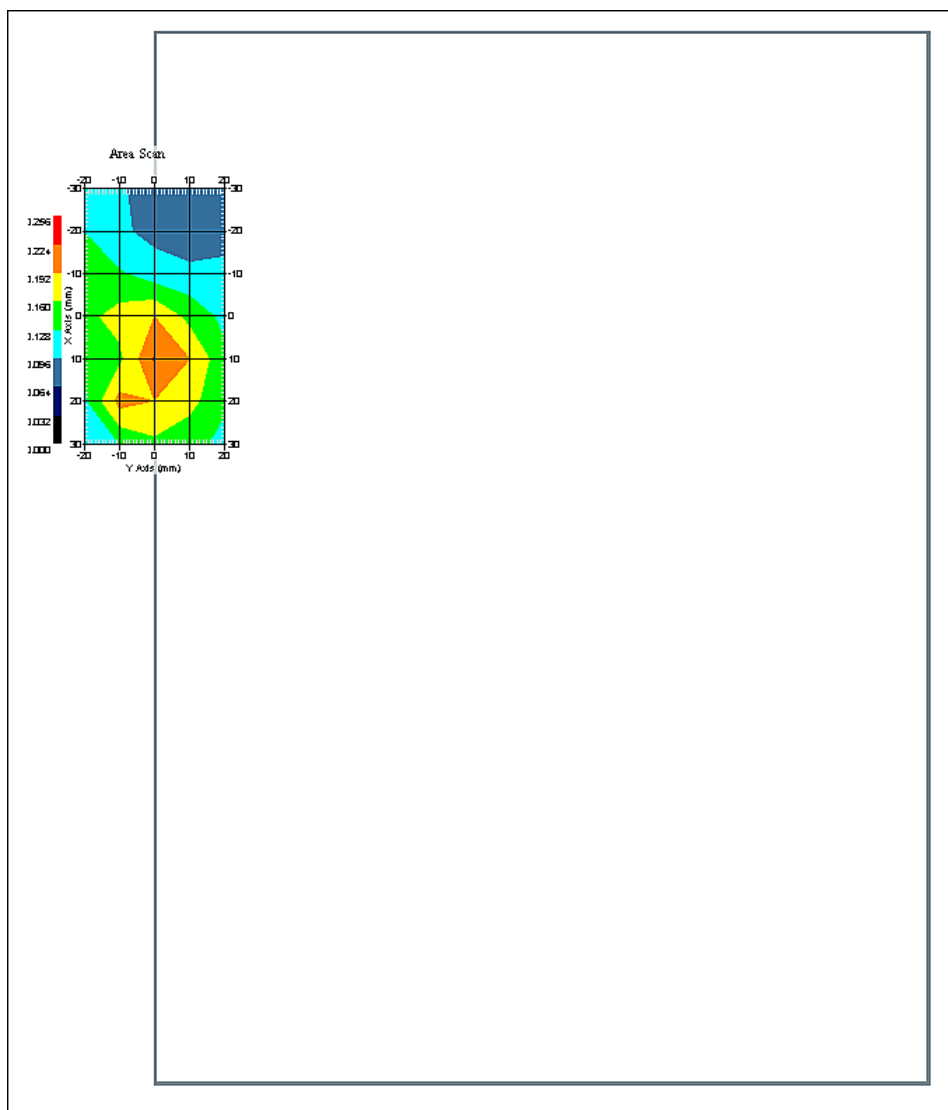


Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 22-Jul-2008  
Set-up Time : 11:24:04 AM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch  
Separation : 0  
Channel : High



1 gram SAR value : 0.184 W/kg  
10 gram SAR value : 0.128 W/kg  
Area Scan Peak SAR : 0.226 W/kg  
Zoom Scan Peak SAR : 0.280 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 22-Jul-2008  
Starting Time : 22-Jul-2008 02:17:07 PM  
End Time : 22-Jul-2008 02:47:20 PM  
Scanning Time : 1813 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5200.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.160 W/kg  
Power Drift-Finish: 0.165 W/kg  
Power Drift (%) : 3.117

### 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. : 5200  
Frequency : 5200.00 MHz  
Last Calib. Date : 22-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 48.68 F/m  
Sigma : 5.48 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

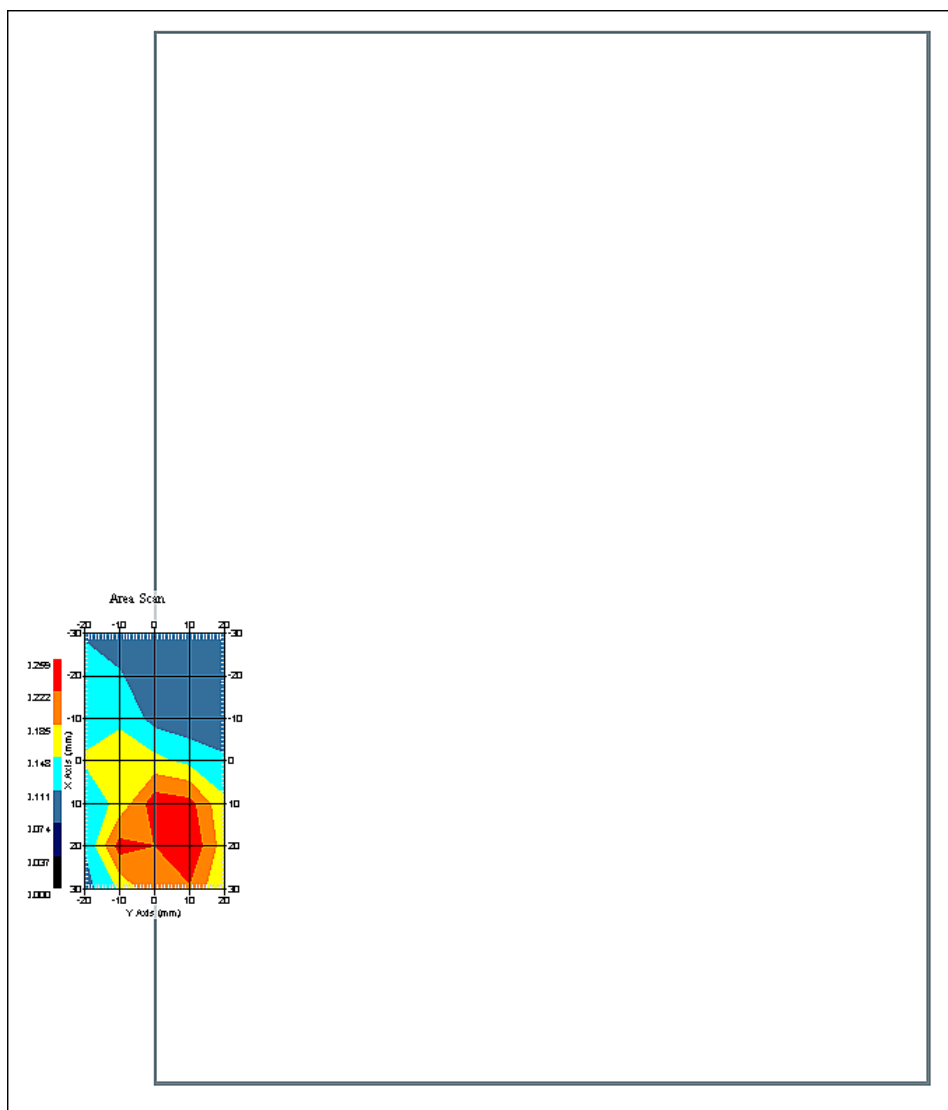
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5200.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 8.6  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 22-Jul-2008  
Set-up Time : 11:24:04 AM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch  
Separation : 0  
Channel : Low



1 gram SAR value : 0.232 W/kg  
10 gram SAR value : 0.161 W/kg  
Area Scan Peak SAR : 0.259 W/kg  
Zoom Scan Peak SAR : 0.350 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 22-Jul-2008  
Starting Time : 22-Jul-2008 04:35:55 PM  
End Time : 22-Jul-2008 05:00:53 PM  
Scanning Time : 1498 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5200.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.186 W/kg  
Power Drift-Finish: 0.188 W/kg  
Power Drift (%) : 1.456

### 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. : 5200  
Frequency : 5200.00 MHz  
Last Calib. Date : 22-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 48.68 F/m  
Sigma : 5.48 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

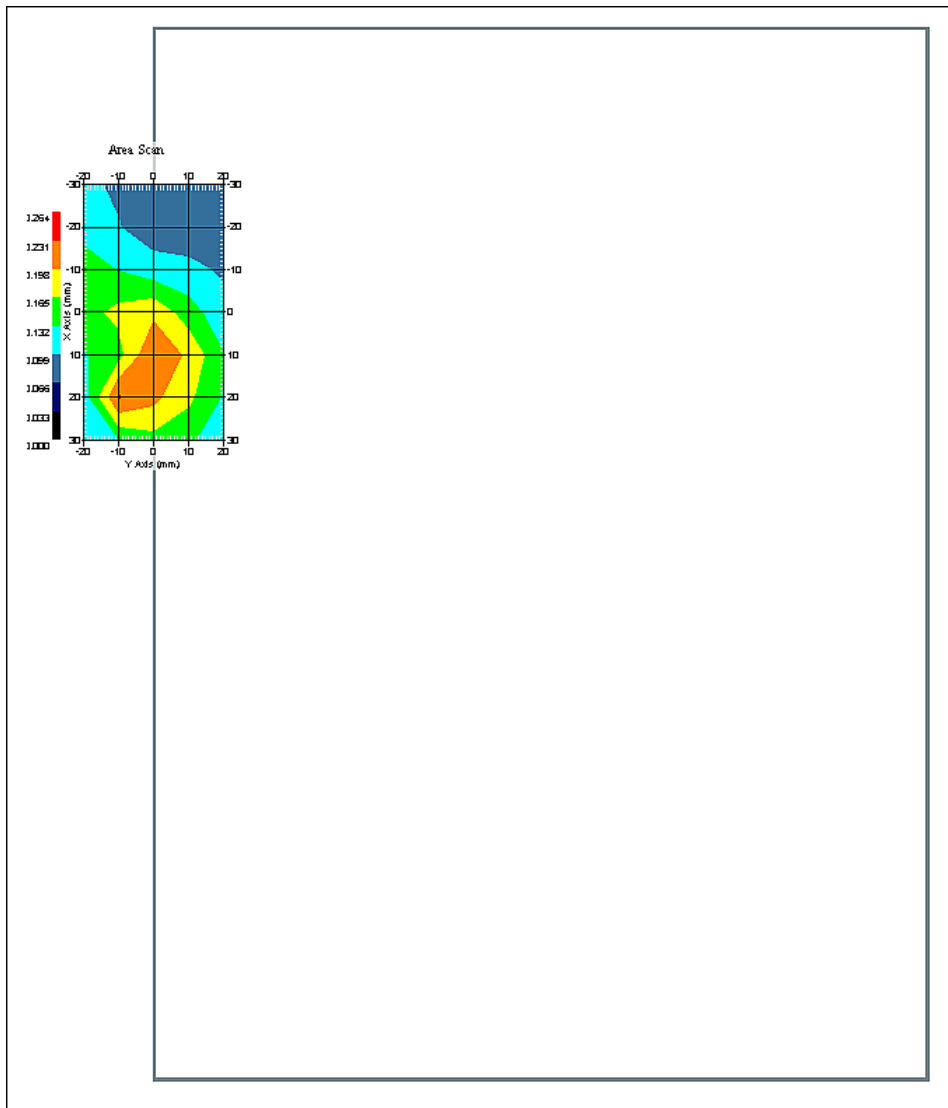
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5200.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 8.6  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 22-Jul-2008  
Set-up Time : 11:24:04 AM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch  
Separation : 0  
Channel : Low



1 gram SAR value : 0.177 W/kg  
10 gram SAR value : 0.151 W/kg  
Area Scan Peak SAR : 0.234 W/kg  
Zoom Scan Peak SAR : 0.280 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 22-Jul-2008  
Starting Time : 22-Jul-2008 02:48:09 PM  
End Time : 22-Jul-2008 03:12:43 PM  
Scanning Time : 1474 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5200.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.238 W/kg  
Power Drift-Finish: 0.240 W/kg  
Power Drift (%) : 0.523

### 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. : 5200  
Frequency : 5200.00 MHz  
Last Calib. Date : 22-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 48.68 F/m  
Sigma : 5.48 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

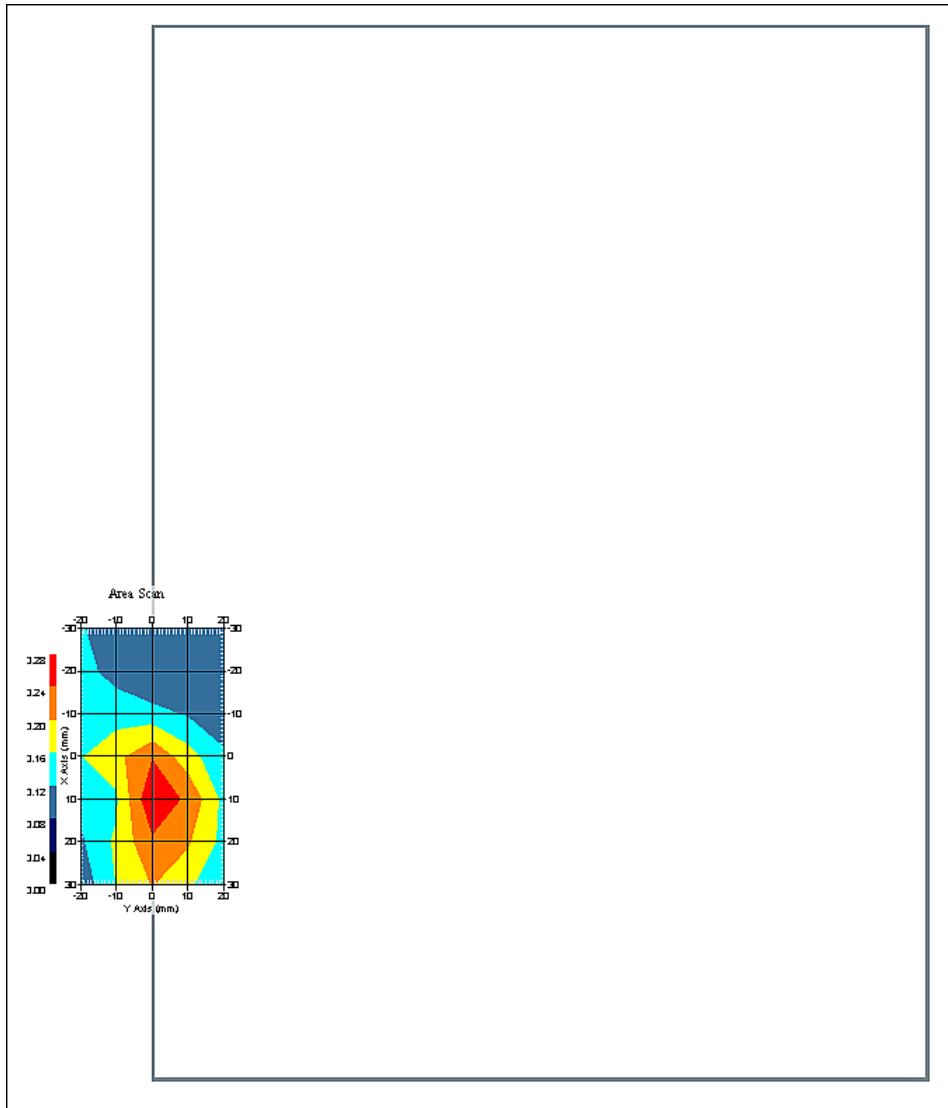
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5200.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 8.6  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 22-Jul-2008  
Set-up Time : 11:24:04 AM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch  
Separation : 0  
Channel : High



1 gram SAR value : 0.217 W/kg  
10 gram SAR value : 0.143 W/kg  
Area Scan Peak SAR : 0.278 W/kg  
Zoom Scan Peak SAR : 0.340 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 22-Jul-2008  
Starting Time : 22-Jul-2008 05:01:57 PM  
End Time : 22-Jul-2008 05:26:41 PM  
Scanning Time : 1484 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5200.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.184 W/kg  
Power Drift-Finish: 0.190 W/kg  
Power Drift (%) : 3.247

### 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. : 5200  
Frequency : 5200.00 MHz  
Last Calib. Date : 22-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 48.68 F/m  
Sigma : 5.48 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5200.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 8.6  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

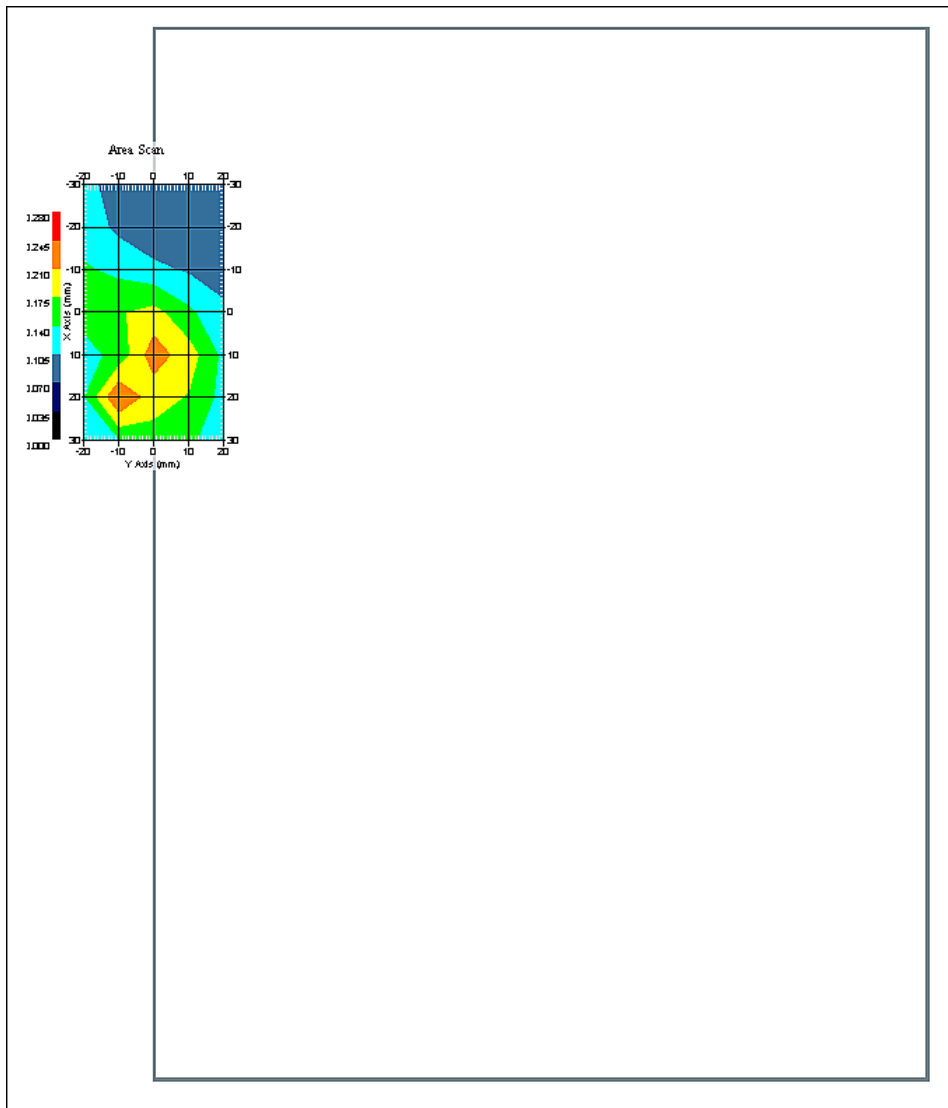


Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 22-Jul-2008  
Set-up Time : 11:24:04 AM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch  
Separation : 0  
Channel : High



1 gram SAR value : 0.196 W/kg  
10 gram SAR value : 0.139 W/kg  
Area Scan Peak SAR : 0.246 W/kg  
Zoom Scan Peak SAR : 0.290 W/kg

**SAR Test Report**

By Operator : Jay  
Measurement Date : 22-Jul-2008  
Starting Time : 22-Jul-2008 03:15:20 PM  
End Time : 22-Jul-2008 03:40:02 PM  
Scanning Time : 1482 secs

## Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5200.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.233 W/kg  
Power Drift-Finish: 0.241 W/kg  
Power Drift (%) : 3.481

## PhantomData

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. : 5200  
Frequency : 5200.00 MHz  
Last Calib. Date : 22-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 48.68 F/m  
Sigma : 5.48 S/m  
Density : 1000.00 kg/cu. m

## Probe Data

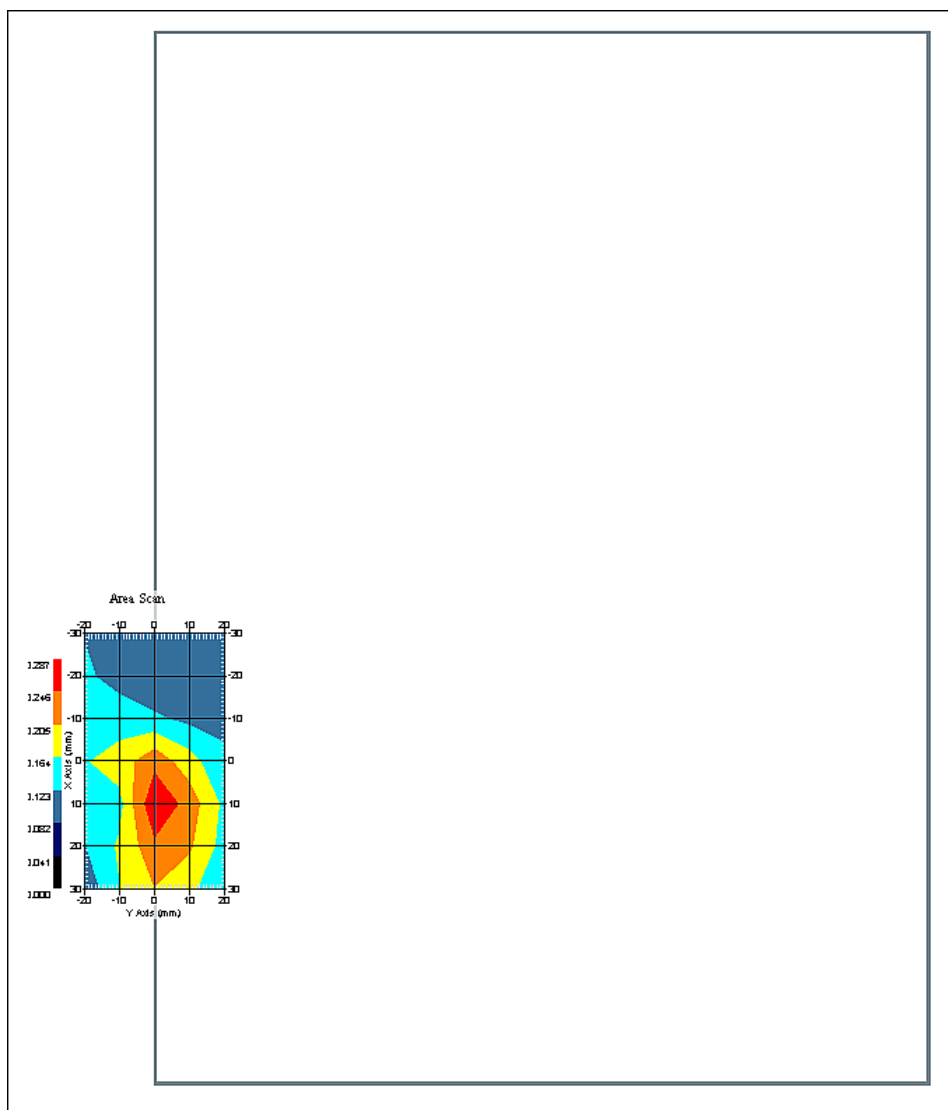
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5200.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 8.6  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 22-Jul-2008  
Set-up Time : 11:24:04 AM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

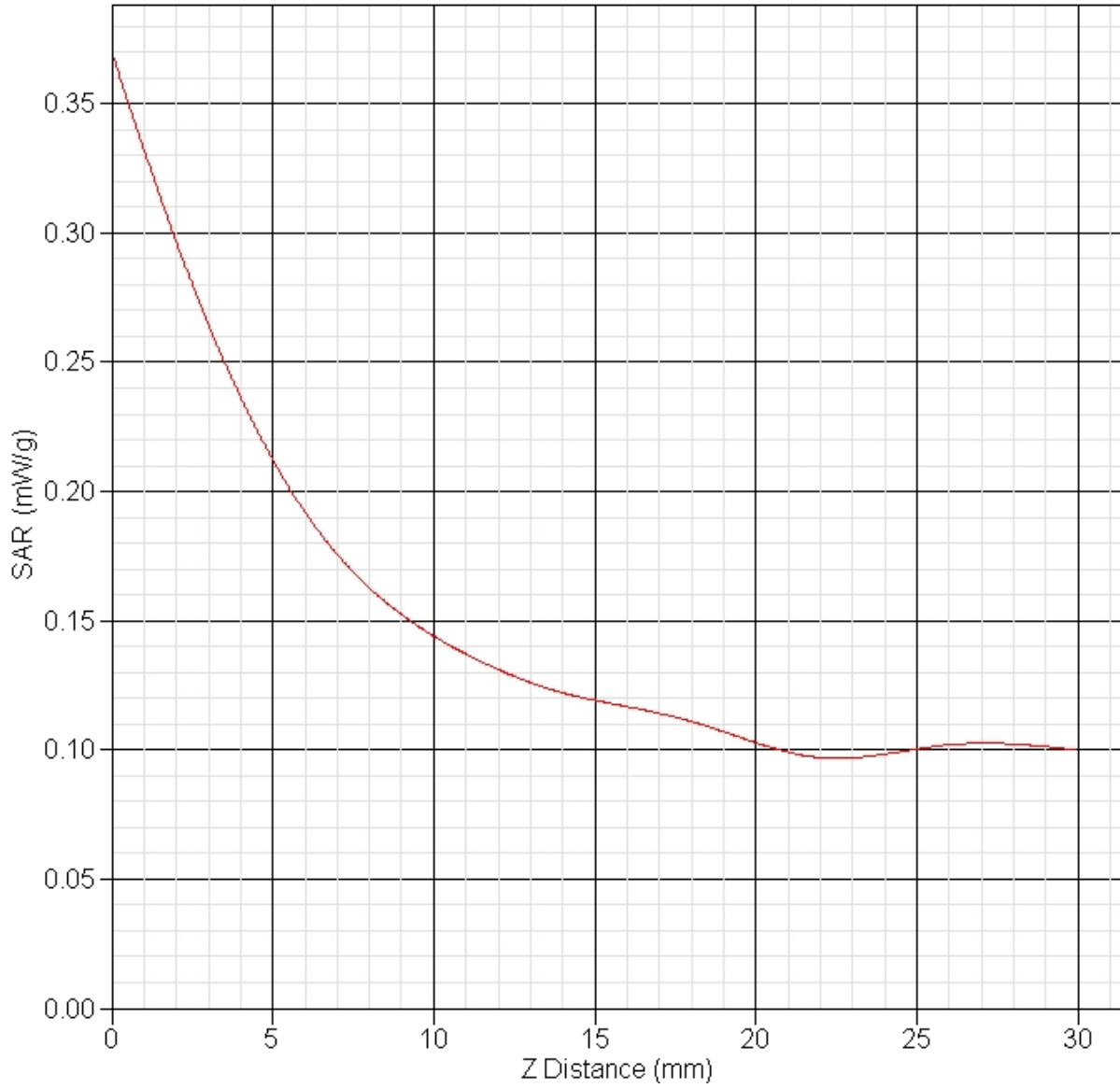
Other Data

DUT Position : Touch  
Separation : 0  
Channel : Low



1 gram SAR value : 0.234 W/kg  
10 gram SAR value : 0.155 W/kg  
Area Scan Peak SAR : 0.284 W/kg  
Zoom Scan Peak SAR : 0.370 W/kg

### SAR-Z Axis at Hotspot x:10.23 y:-0.15



## SAR Test Report

By Operator : Jay  
Measurement Date : 22-Jul-2008  
Starting Time : 22-Jul-2008 05:28:10 PM  
End Time : 22-Jul-2008 05:52:56 PM  
Scanning Time : 1486 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5200.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.197 W/kg  
Power Drift-Finish: 0.205 W/kg  
Power Drift (%) : 3.698

### 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. : 5200  
Frequency : 5200.00 MHz  
Last Calib. Date : 22-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 48.68 F/m  
Sigma : 5.48 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

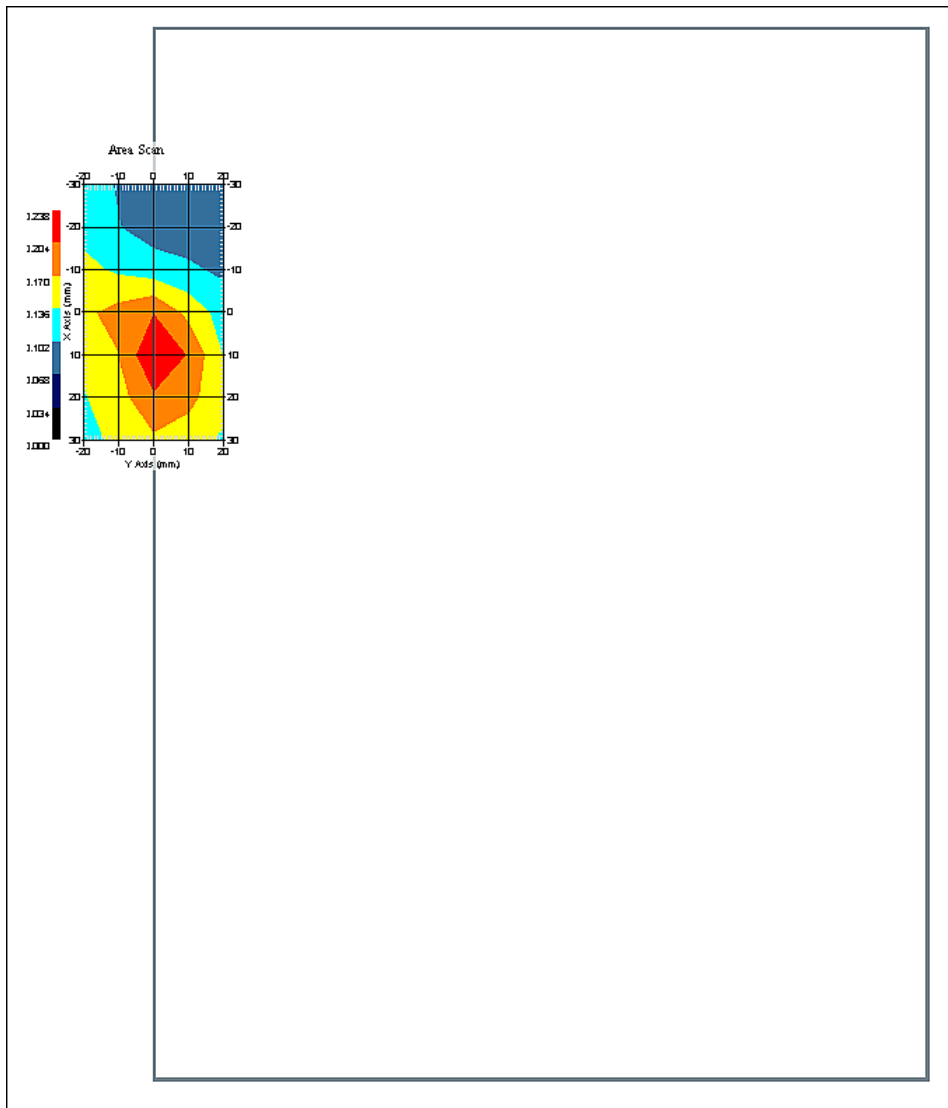
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5200.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 8.6  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 22-Jul-2008  
Set-up Time : 11:24:04 AM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch  
Separation : 0  
Channel : Low



1 gram SAR value : 0.197 W/kg  
10 gram SAR value : 0.140 W/kg  
Area Scan Peak SAR : 0.235 W/kg  
Zoom Scan Peak SAR : 0.300 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 22-Jul-2008  
Starting Time : 22-Jul-2008 03:42:27 PM  
End Time : 22-Jul-2008 04:07:08 PM  
Scanning Time : 1481 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5200.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.253 W/kg  
Power Drift-Finish: 0.246 W/kg  
Power Drift (%) : -2.714

### 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. : 5200  
Frequency : 5200.00 MHz  
Last Calib. Date : 22-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 48.68 F/m  
Sigma : 5.48 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

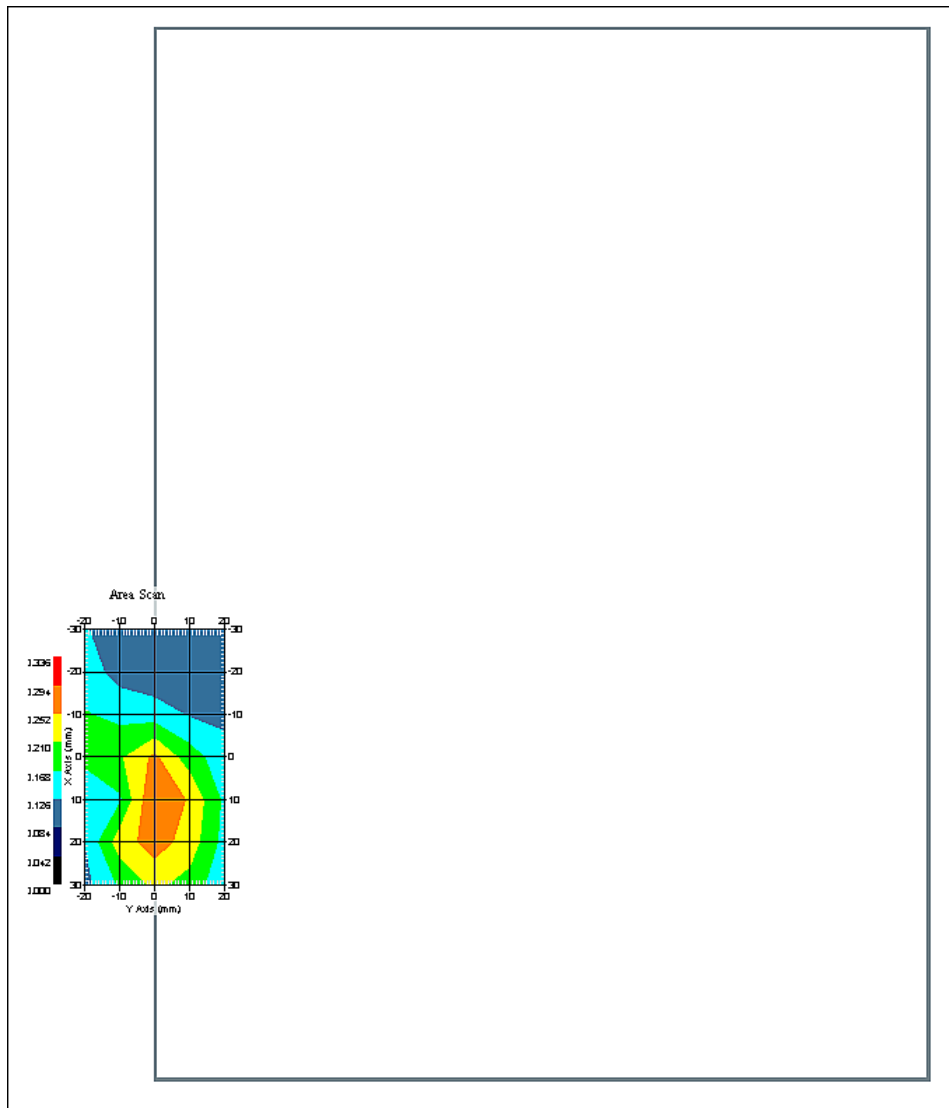
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5200.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 8.6  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 22-Jul-2008  
Set-up Time : 11:24:04 AM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch  
Separation : 0  
Channel : Mid



1 gram SAR value : 0.222 W/kg  
10 gram SAR value : 0.145 W/kg  
Area Scan Peak SAR : 0.295 W/kg  
Zoom Scan Peak SAR : 0.350 W/kg



## SAR Test Report

By Operator : Jay  
Measurement Date : 22-Jul-2008  
Starting Time : 22-Jul-2008 06:04:24 PM  
End Time : 22-Jul-2008 06:29:04 PM  
Scanning Time : 1480 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5200.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.191 W/kg  
Power Drift-Finish: 0.197 W/kg  
Power Drift (%) : 3.141

### 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. : 5200  
Frequency : 5200.00 MHz  
Last Calib. Date : 22-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 48.68 F/m  
Sigma : 5.48 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

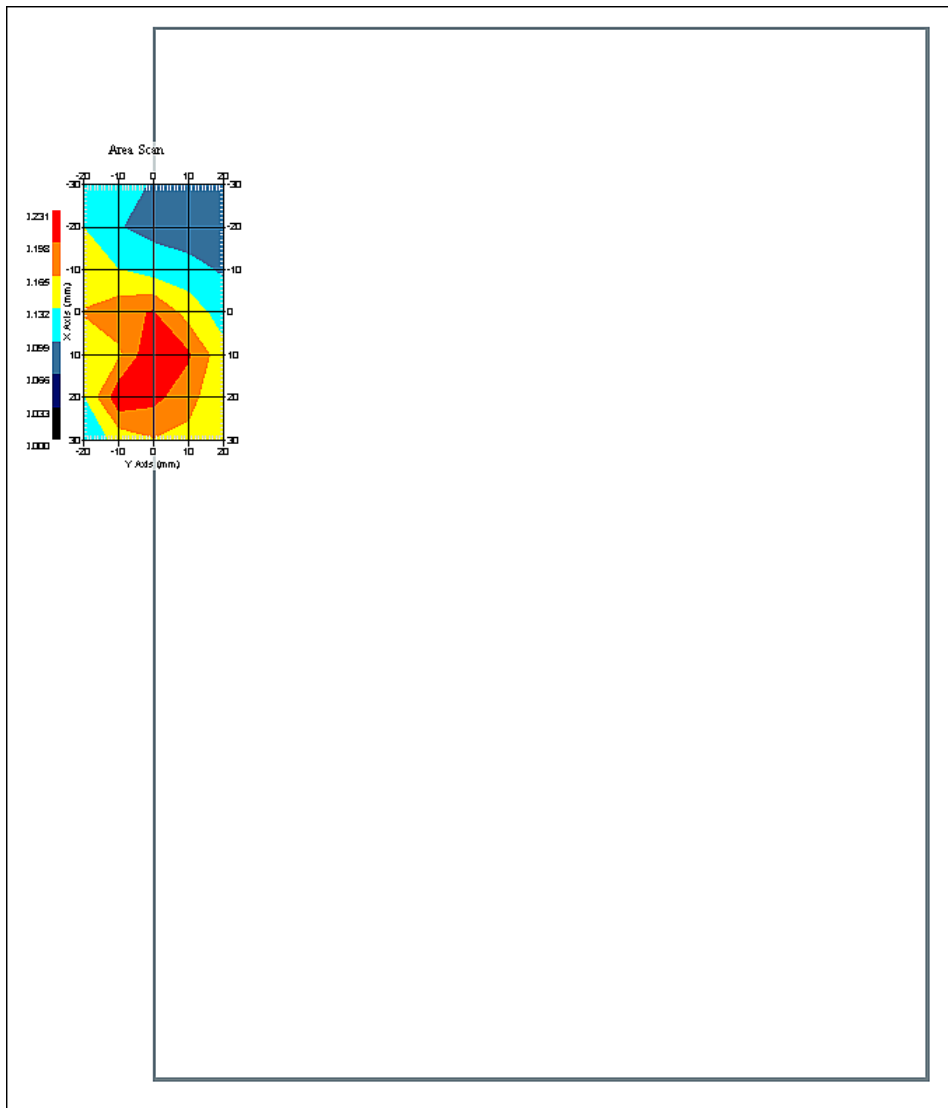
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5200.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 8.6  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 22-Jul-2008  
Set-up Time : 11:24:04 AM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch  
Separation : 0  
Channel : Mid



1 gram SAR value : 0.199 W/kg  
10 gram SAR value : 0.140 W/kg  
Area Scan Peak SAR : 0.230 W/kg  
Zoom Scan Peak SAR : 0.300 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 23-Jul-2008  
Starting Time : 23-Jul-2008 04:50:02 PM  
End Time : 23-Jul-2008 05:14:33 PM  
Scanning Time : 1471 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5800.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.178 W/kg  
Power Drift-Finish: 0.186 W/kg  
Power Drift (%) : 4.404

### 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. : 5800  
Frequency : 5800.00 MHz  
Last Calib. Date : 23-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 46.60 F/m  
Sigma : 5.75 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

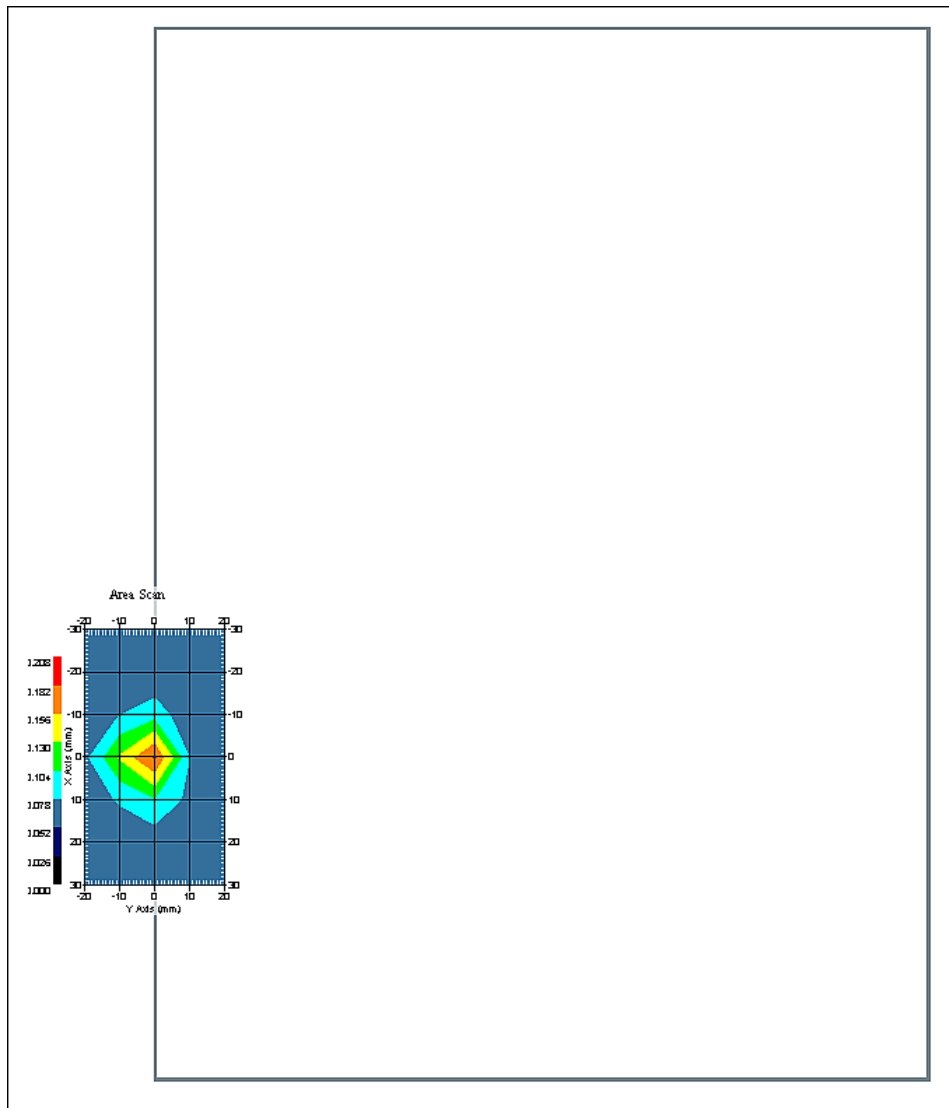
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5800.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 12  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 23-Jul-2008  
Set-up Time : 4:49:49 PM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch  
Separation : 0  
Channel : High



1 gram SAR value : 0.131 W/kg  
10 gram SAR value : 0.079 W/kg  
Area Scan Peak SAR : 0.185 W/kg  
Zoom Scan Peak SAR : 0.270 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 23-Jul-2008  
Starting Time : 23-Jul-2008 06:08:45 PM  
End Time : 23-Jul-2008 06:33:20 PM  
Scanning Time : 1475 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5800.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.143 W/kg  
Power Drift-Finish: 0.148 W/kg  
Power Drift (%) : 3.422

### 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. : 5800  
Frequency : 5800.00 MHz  
Last Calib. Date : 23-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 46.60 F/m  
Sigma : 5.75 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

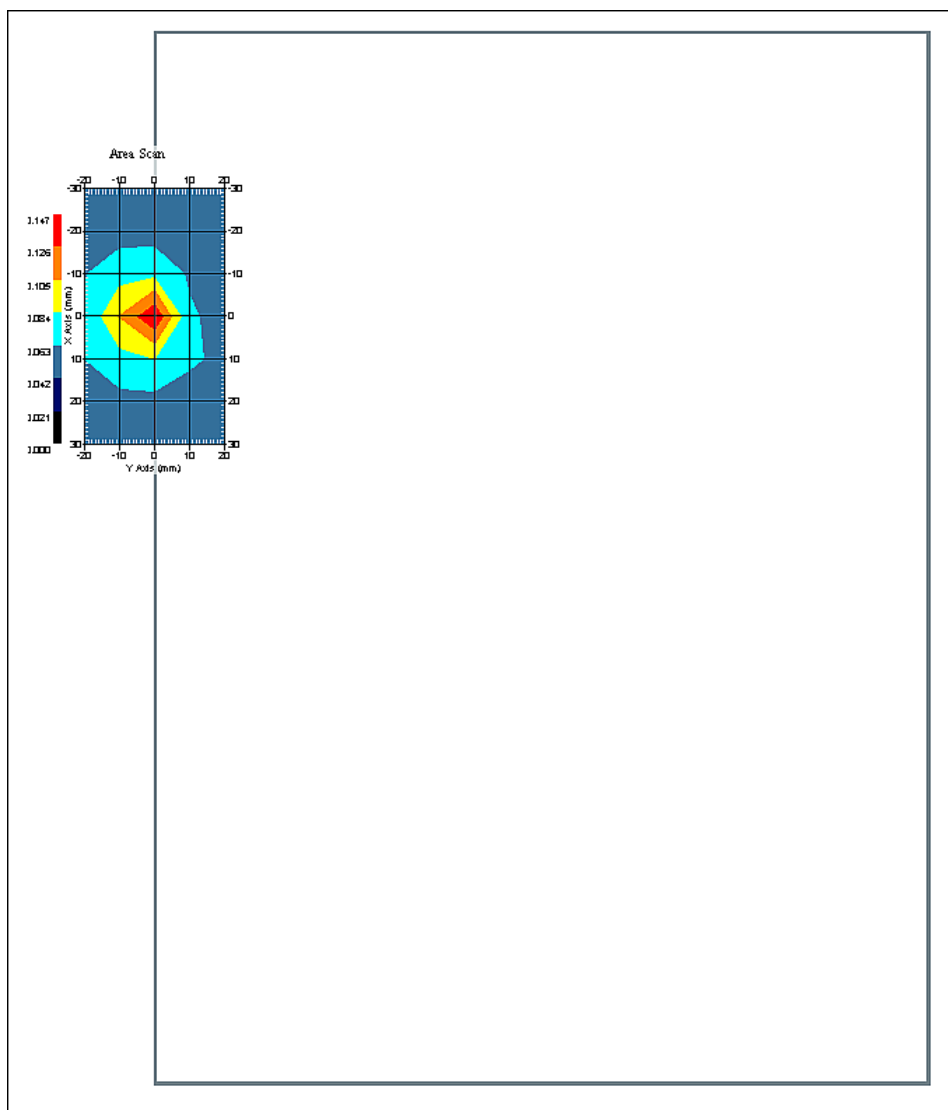
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5800.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 12  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 23-Jul-2008  
Set-up Time : 4:49:49 PM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch  
Separation : 0  
Channel : High



1 gram SAR value : 0.109 W/kg  
10 gram SAR value : 0.072 W/kg  
Area Scan Peak SAR : 0.144 W/kg  
Zoom Scan Peak SAR : 0.210 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 23-Jul-2008  
Starting Time : 23-Jul-2008 05:16:16 PM  
End Time : 23-Jul-2008 05:40:47 PM  
Scanning Time : 1471 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5800.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.195 W/kg  
Power Drift-Finish: 0.199 W/kg  
Power Drift (%) : 2.084

### 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. : 5800  
Frequency : 5800.00 MHz  
Last Calib. Date : 23-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 46.60 F/m  
Sigma : 5.75 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

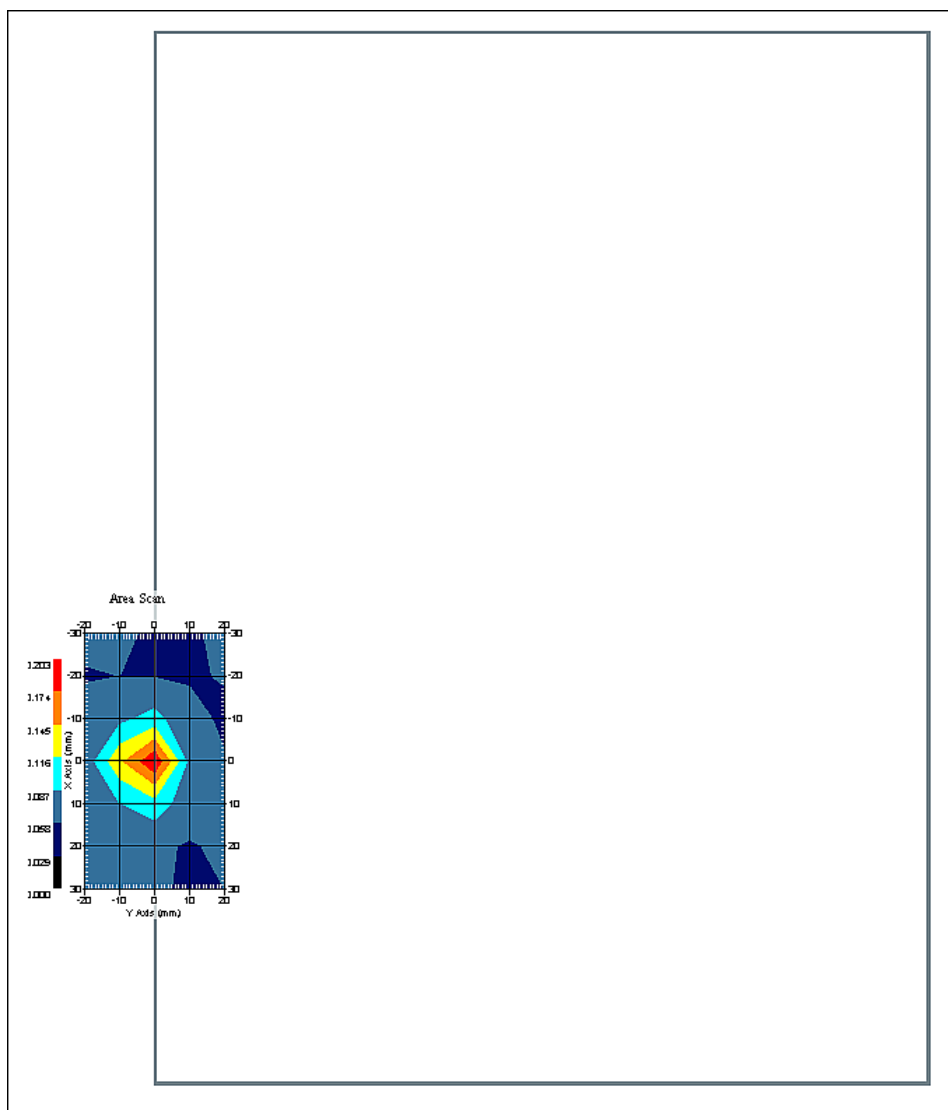
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5800.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 12  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 23-Jul-2008  
Set-up Time : 4:49:49 PM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch  
Separation : 0  
Channel : Mid



1 gram SAR value : 0.143 W/kg  
10 gram SAR value : 0.082 W/kg  
Area Scan Peak SAR : 0.200 W/kg  
Zoom Scan Peak SAR : 0.310 W/kg



## SAR Test Report

By Operator : Jay  
Measurement Date : 23-Jul-2008  
Starting Time : 23-Jul-2008 06:44:14 PM  
End Time : 23-Jul-2008 07:08:51 PM  
Scanning Time : 1477 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5800.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.159 W/kg  
Power Drift-Finish: 0.165 W/kg  
Power Drift (%) : 3.450

### 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. : 5800  
Frequency : 5800.00 MHz  
Last Calib. Date : 23-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 46.60 F/m  
Sigma : 5.75 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

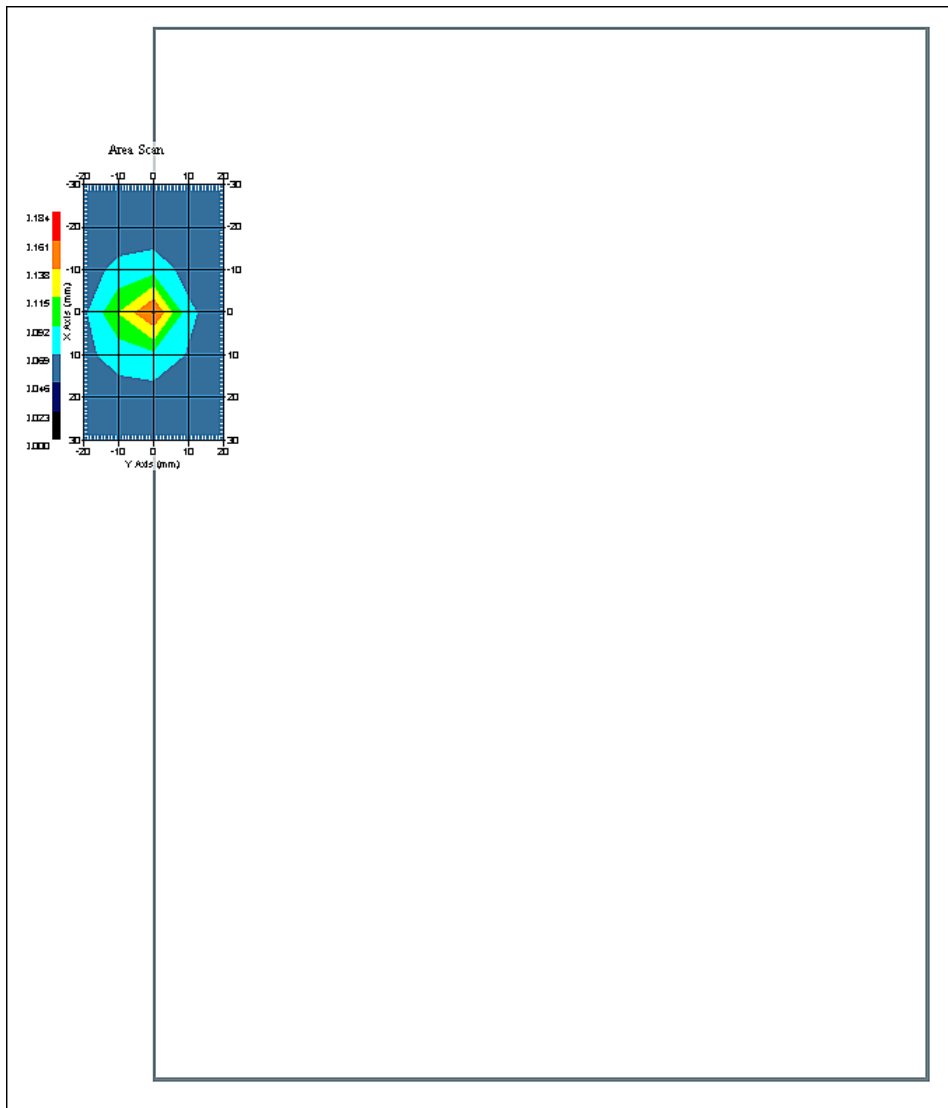
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5800.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 12  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 23-Jul-2008  
Set-up Time : 4:49:49 PM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch  
Separation : 0  
Channel : Mid



1 gram SAR value : 0.117 W/kg  
10 gram SAR value : 0.074 W/kg  
Area Scan Peak SAR : 0.163 W/kg  
Zoom Scan Peak SAR : 0.230 W/kg

## SAR Test Report

By Operator : Jay  
Measurement Date : 23-Jul-2008  
Starting Time : 23-Jul-2008 05:42:26 PM  
End Time : 23-Jul-2008 06:06:57 PM  
Scanning Time : 1471 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5800.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.218 W/kg  
Power Drift-Finish: 0.222 W/kg  
Power Drift (%) : 1.839

### 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. : 5800  
Frequency : 5800.00 MHz  
Last Calib. Date : 23-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 46.60 F/m  
Sigma : 5.75 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

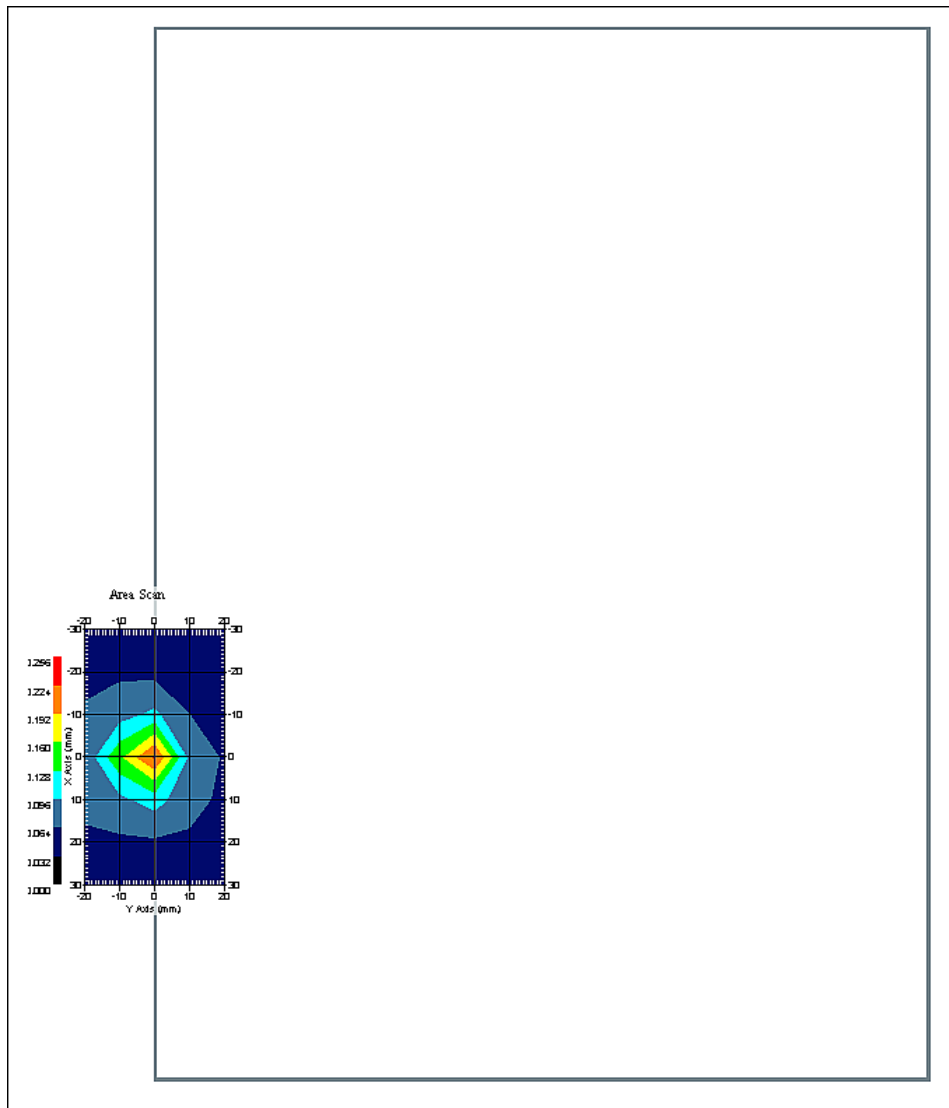
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5800.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 12  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 23-Jul-2008  
Set-up Time : 4:49:49 PM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

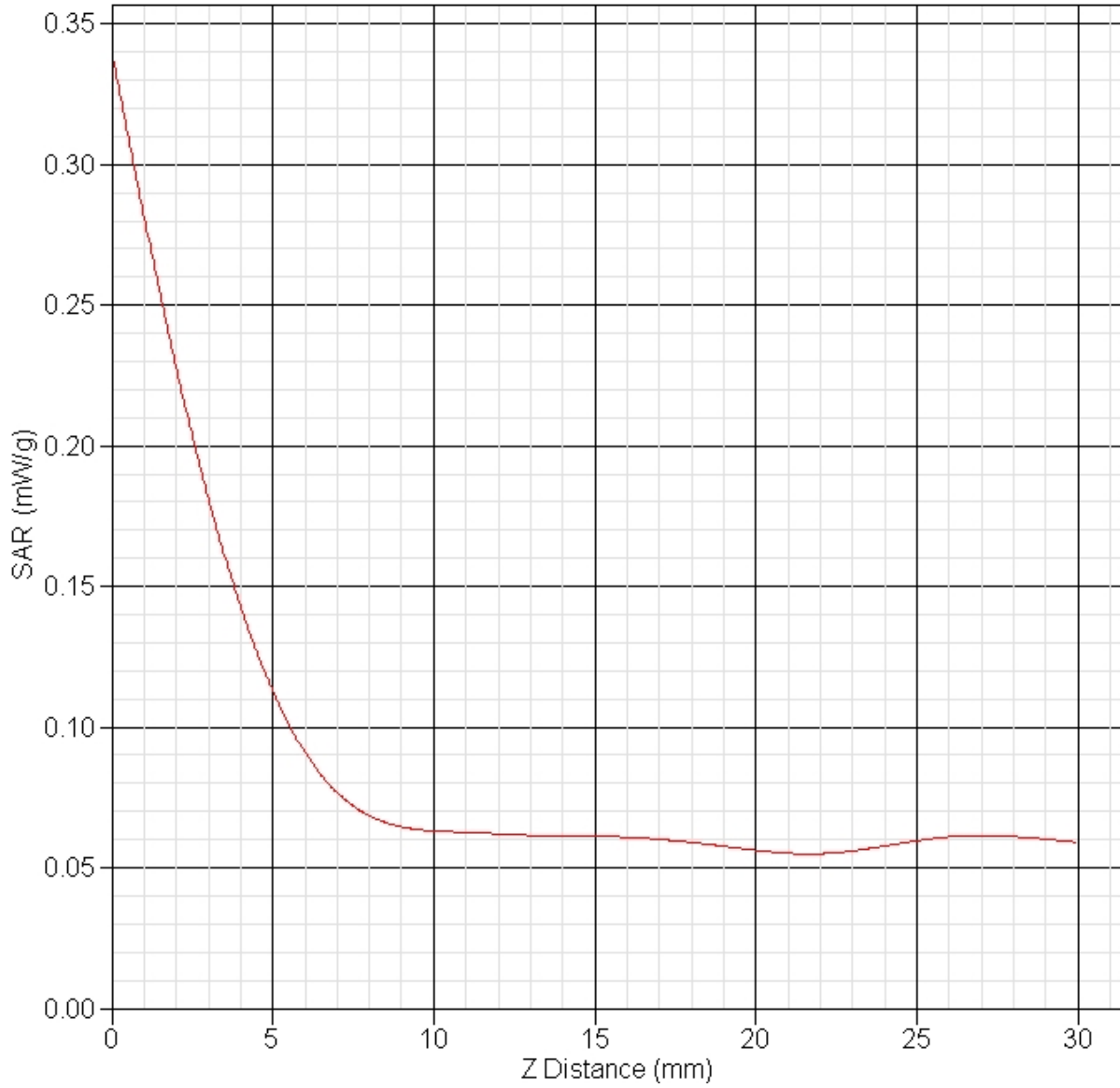
Other Data

DUT Position : Touch  
Separation : 0  
Channel : Low



1 gram SAR value : 0.154 W/kg  
10 gram SAR value : 0.085 W/kg  
Area Scan Peak SAR : 0.226 W/kg  
Zoom Scan Peak SAR : 0.340 W/kg

### SAR-Z Axis at Hotspot x:0.25 y:-0.13



## SAR Test Report

By Operator : Jay  
Measurement Date : 23-Jul-2008  
Starting Time : 23-Jul-2008 07:10:42 PM  
End Time : 23-Jul-2008 07:35:13 PM  
Scanning Time : 1471 secs

### Product Data

Device Name : Xplore Technologies  
Serial No. : 914H601003G82500061M000  
Type : Other  
Model : iX104-C4  
Frequency : 5800.00 MHz  
Max. Transmit Pwr : 0.05 W  
Drift Time : 0 min(s)  
Length : 290 mm  
Width : 215 mm  
Depth : 55 mm  
Antenna Type : Internal  
Orientation : Touch  
Power Drift-Start : 0.174 W/kg  
Power Drift-Finish: 0.176 W/kg  
Power Drift (%) : 1.353

### 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. : 5800  
Frequency : 5800.00 MHz  
Last Calib. Date : 23-Jul-2008  
Temperature : 20.00 °C  
Ambient Temp. : 23.00 °C  
Humidity : 50.00 RH%  
Epsilon : 46.60 F/m  
Sigma : 5.75 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

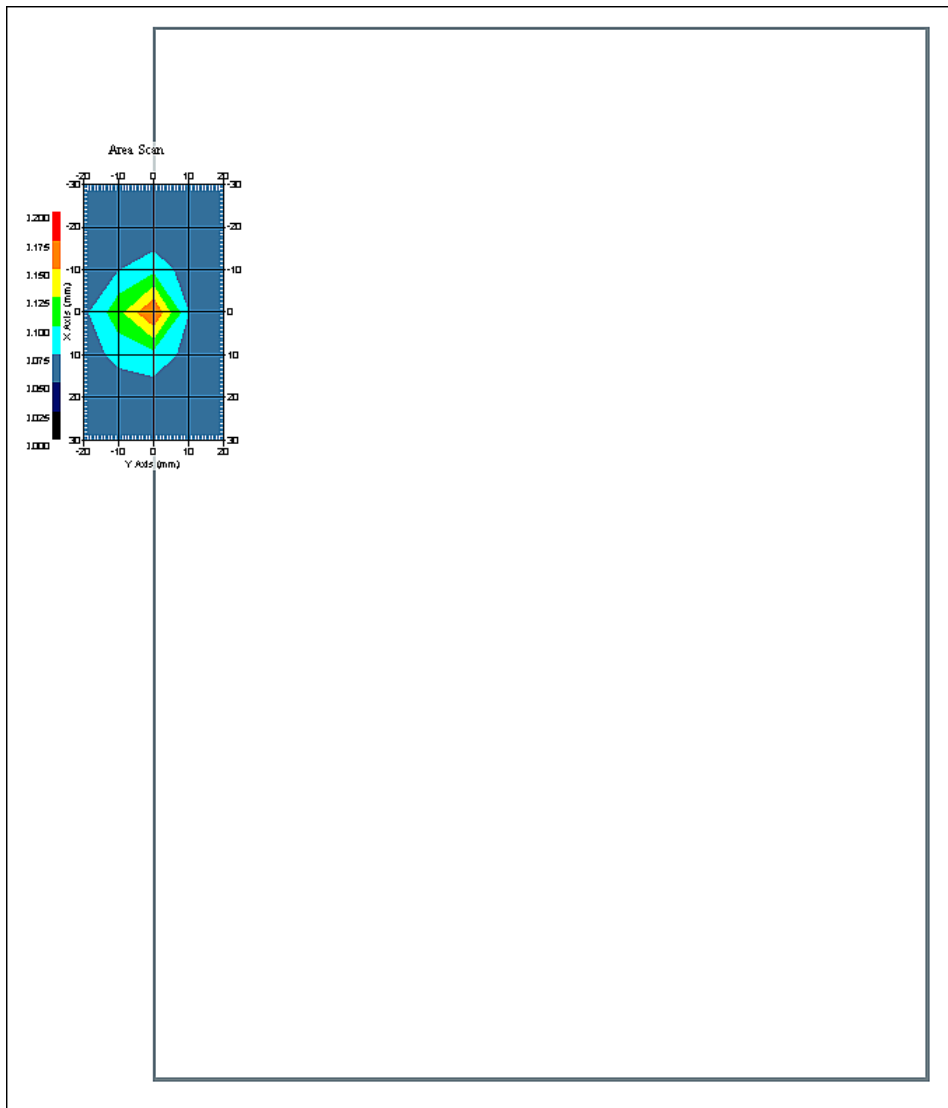
Name : Probe E030-001 - RFEL  
Model : E030  
Type : E-Field Triangle  
Serial No. : E030-001  
Last Calib. Date : 14-Apr-2008  
Frequency : 5800.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 12  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.06 mm

Measurement Data

Crest Factor : 1  
Scan Type : Complete  
Tissue Temp. : 20.00 °C  
Ambient Temp. : 23.00 °C  
Set-up Date : 23-Jul-2008  
Set-up Time : 4:49:49 PM  
Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm  
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

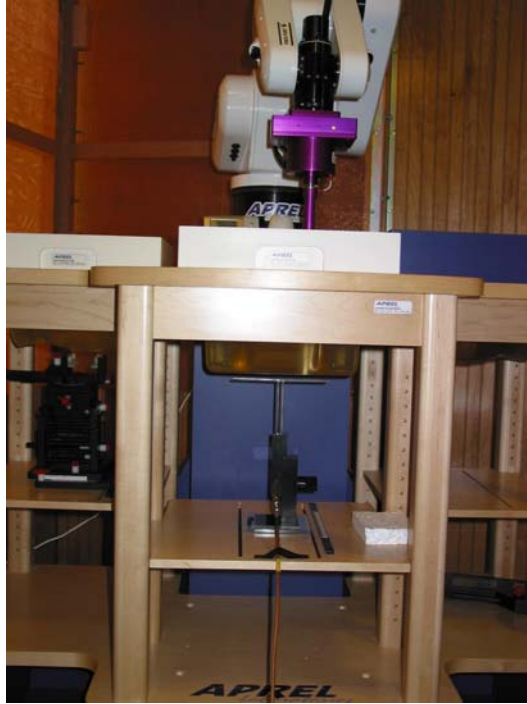
Other Data

DUT Position : Touch  
Separation : 0  
Channel : Low

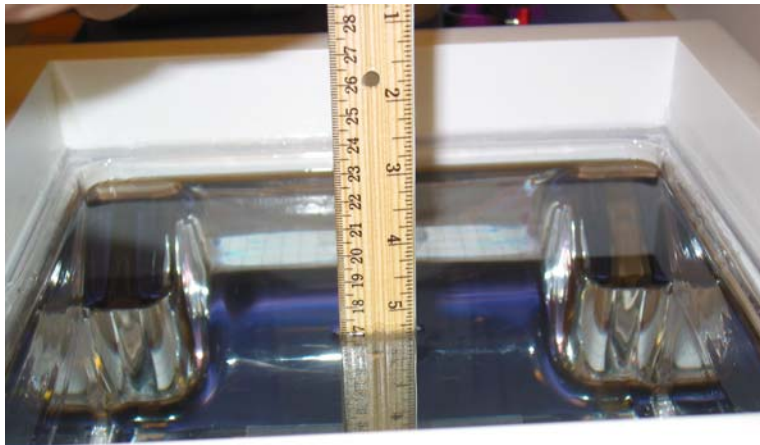


1 gram SAR value : 0.124 W/kg  
10 gram SAR value : 0.077 W/kg  
Area Scan Peak SAR : 0.176 W/kg  
Zoom Scan Peak SAR : 0.240 W/kg

## Appendix C – SAR Test Setup Photos



**System Body Configuration**



**Body Tissue Depth**





**Top Of Unit Configuration**



**Bottom Of Unit Configuration**



**Front of Device**



**Back of Device**

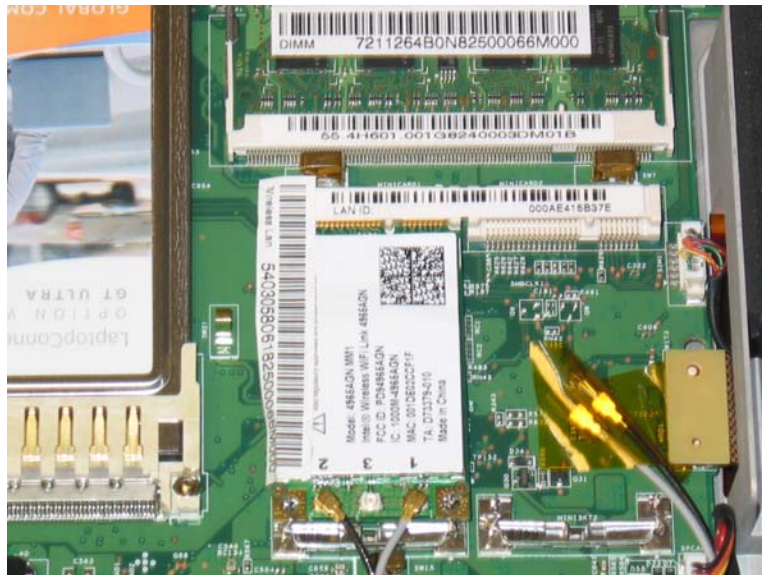


**Back of Device with Battery Removed**



**Back of Device with Cover Removed**





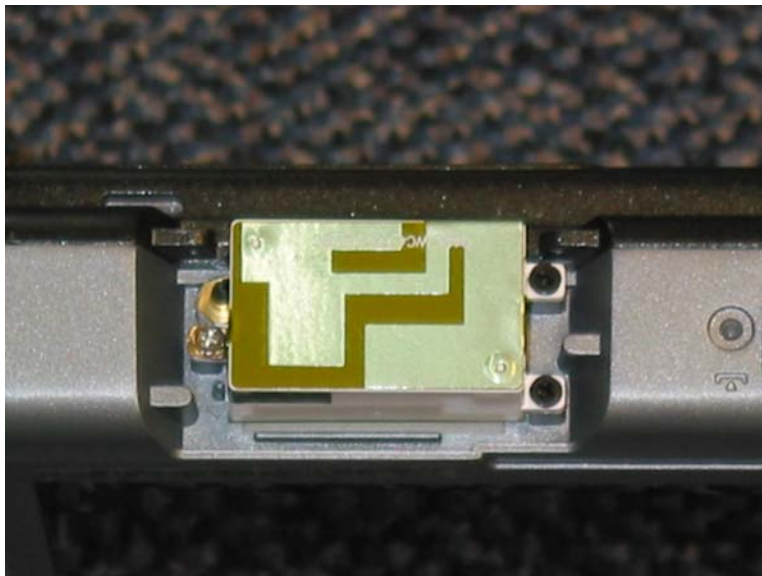
**WLAN Module Installed**



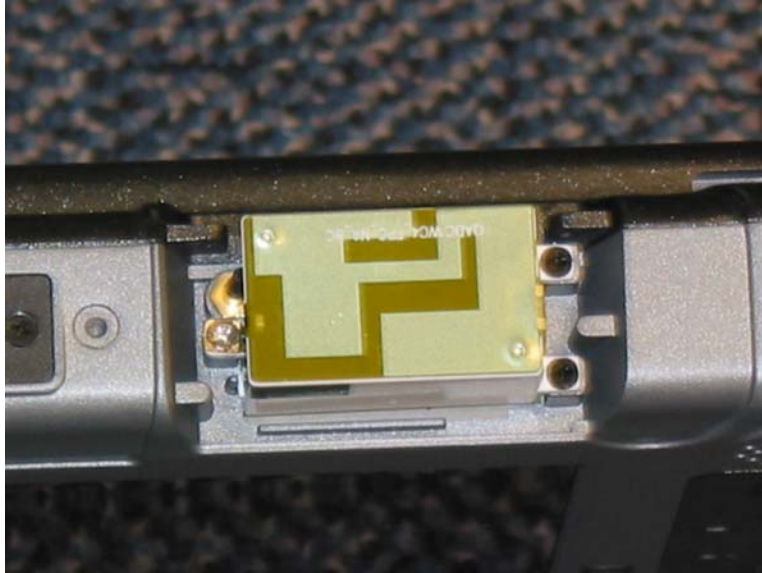
**WWAN Module Installed**



**View of Both Antennas**



**Main Antenna**



**Receive Diversity Antenna**



**Back of Battery**