RF EXPOSURE LAB, LLC

2867 Progress Place, Suite 4D • Escondido, CA 92029 • U.S.A.
TEL (760) 737-3131 • FAX (760) 737-9131
http://www.rfexposurelab.com

CERTIFICATE OF COMPLIANCE
SAR EVALUATION

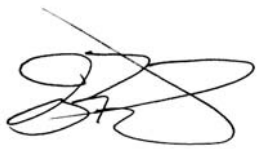
Novatel Wireless		Dates of Test:	July 19 - 23, 2008
9645 Scranton Road, Suite 205		Test Report Number:	SAR.20080703
San Diego, CA 92121			

FCC ID:	PKRNVWE725
IC Certificate:	3229B-E725
Model(s):	E725 in Dell Latitude 4200
Intel WLAN Module:	Model: 533AN_HMW FCCID: E2K533ANH
Broadcom WLAN Modules:	Model: BCM94312HMG FCCID: QDS-BRCM1030 Model: BCM94332HMBL FCCID: QDS-BCRM1031
Test Sample:	Engineering Unit Same as Production
Serial No.:	275
Equipment Type:	Wireless Computer
Classification:	Portable Transmitter Next to Body
TX Frequency Range:	2412 – 2462 MHz, 5180 – 5240 MHz, 5260 – 5320 MHz, 5745 – 5805 MHz, 824.7 – 848.5 MHz, 1851.25 – 1908.75 MHz
Frequency Tolerance:	± 25 ppm
Maximum RF Output:	835 MHz – 24.7 dBm, 1900 MHz – 24.7 dBm, 2450 MHz (b) – 22.3 dBm, 2450 MHz (g) – 23.8 dBm, 2450 (n20) – 23.9 dBm, 2450 MHz (n40) – 23.0 dBm, 5200 MHz (a) – 16.5 dBm, 5200 MHz (n20) – 16.5 dBm, 5200 MHz (n40) – 16.7 dBm, 5300 MHz (a) – 18.1 dBm, 5300 MHz (n20) – 16.6 dBm, 5600 MHz (a) – 17.7 dBm, 5600 MHz (n20) – 16.5 dBm, 5600 MHz (n40) – 17.8 dBm, 5800 MHz (a) – 24.5 dBm, 5800 MHz (n20) – 24.7 dBm, 5800 MHz (n40) – 24.9 dBm Conducted
Signal Modulation:	DSSS, OFDM, CDMA
Antenna Type (Length):	WWAN – Internal Right Side LCD 9.935 cm from User WLAN – Internal Right (Main) Left (Aux) Side LCD 6.575 cm from User
Battery:	Laptop Supplied
Application Type:	Class II Permissive Change
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

ACCREDITED
Certificate # 2387.01

Table of Contents

1. Introduction

This measurement report shows compliance of the Novatel Wireless Model E725 in Dell Latitude 4200 FCC ID: PKRNVWE725 with FCC Part 2, 1093, ET Docket 93-62 Rules for mobile and portable devices and IC Certificate: 3229B-E725 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 (ρ).

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

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

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

where:

σ = conductivity of the tissue (S/m)

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

E = rms electric field strength (V/m)

2. SAR Measurement Setup

Robotic System

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

System Hardware

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

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

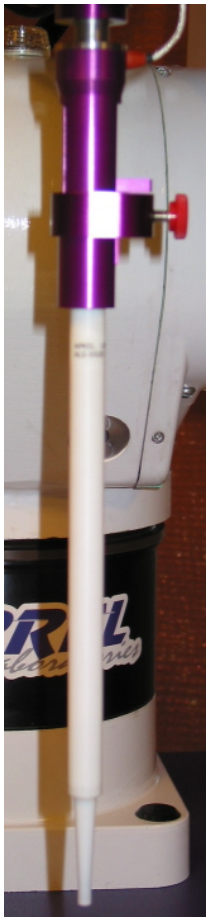
System Description

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

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

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

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

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

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

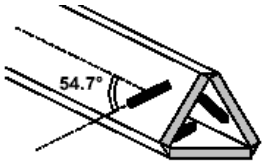
The overall uncertainty for the methodology and algorithms the ALSAS-10-U used during the SAR calculation was evaluated using the data from IEEE 1528 f3 algorithm:

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

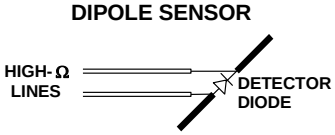
The probe used during the measurement process has been assessed to provide values for diode compression. These values are calculated during the probe calibration exercise and are used in the mathematical calculations for the assessment of SAR.

E-Field Probe

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



Δ-BEAM



The SAR is assessed with the probe which moves at a default height 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 ± 0.05 mm and the precision of the APREL bottom detection device is ± 0.1 mm. These precisions are calibrated and tested in the manufacturing process of the bottom detection device. A constant distance is maintained because the surface of the phantom is dynamically detected for each point. The surface detection algorithm corrects the position of the robot so that the probe rests on the surface of the phantom. The probe is then moved to the measurement location 2.44 mm above the phantom surface resulting in the probe center location to be at 4.0 mm above the phantom surface. Therefore, the probe sensor will be at 4.0 mm above the phantom surface ± 0.1 mm for each SAR location for frequencies below 3 GHz. 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 ± 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 ≤3 GHz with a cube scan of 5x5x8 yields a volume of 32x32x28 mm^3. For devices >3 GHz and <4.5 GHz, the cube scan of 9x9x9 yields a volume of 32x32x24 mm^3. For devices ≥4.5 GHz, the cube scan of 7x7x12 yields a volume of 24x24x22 mm^3.

3. Robot Specifications

Specifications

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

Data Acquisition Card (DAC) System

Cell Controller

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

Data Converter

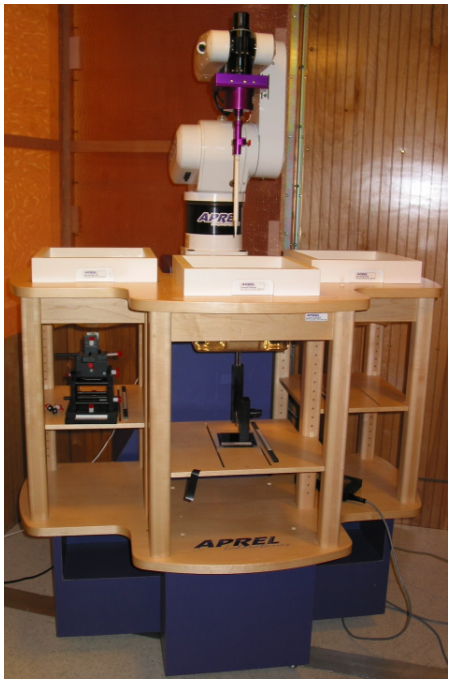
Features:	Signal Amplifier, End Effector, DAC
Software:	ALSAS 10-U Software

E-Field Probe

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

Phantom

Phantom:	Uniphantom, Right Phantom, Left Phantom



4. Probe and Dipole Calibration

See Appendix D and E.

5. Phantom & Simulating Tissue Specifications

SAM Phantom

The Aprel system utilizes three separate phantoms. Each phantom for SAR assessment testing is a low loss dielectric shell, with shape and dimensions derived from the anthropomorphic data of the 90th percentile adult male head dimensions as tabulated by the US Army. The SAM phantom shell is bisected along the mid sagittai plane into right and left halves. The perimeter sidewalls of each phantom half is extended to allow filling with liquid to a depth of 15 cm that is sufficient to minimize reflections from the upper surface [5]. 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].

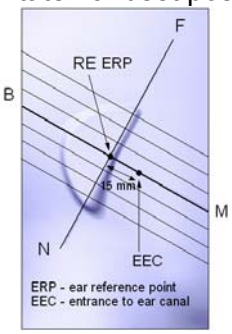


Figure 6.1 Close-up side view of ERP's

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 than located at the same level as the center of the ear reference point. The test device is positioned so that the "vertical centerline" is bisecting the front surface of the device at it's top and bottom edges, positioning the "ear reference point" on the outer surface of both the left and right head phantoms on the ear reference point [5].

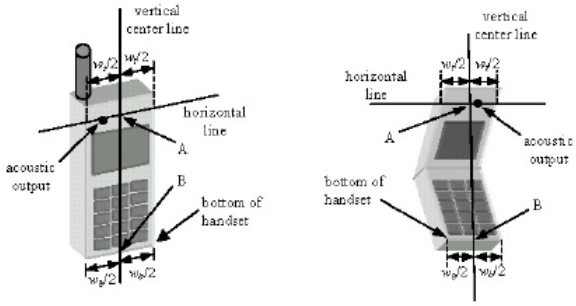


Figure 6.3 Handset Vertical Center & Horizontal Line Reference Points

7. Test Configuration Positions

Positioning for Cheek/Touch [5]

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

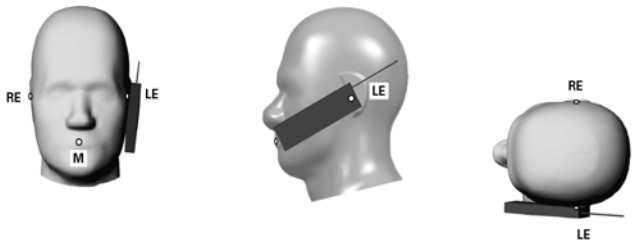


Figure 7.1 Front, Side and Top View of Cheek/Touch Position

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

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

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

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

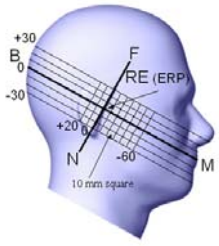


Figure 7.2 Side view w/ relevant markings

Positioning for Ear / 15° Tilt [5]

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

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

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

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

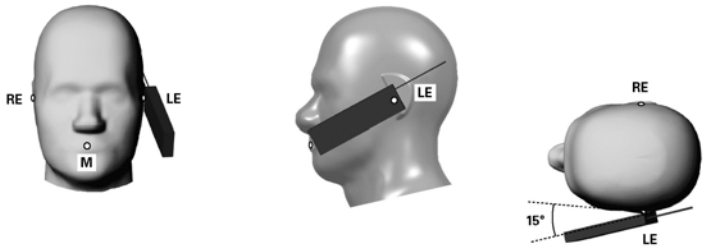


Figure 7.3 Front, Side and Top View of Ear/15° Tilt Position

Body Worn Configurations

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

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

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

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

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

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

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

Uncontrolled Environment

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

Controlled Environment

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

Table 8.1 Human Exposure Limits

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

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

9. Measurement Uncertainty

Exposure Assessment Measurement Uncertainty

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

10. System Validation

Tissue Verification

Table 10.1 Measured Tissue Parameters

		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: ε		55.20	56.37	55.20	53.81	53.27	52.44
Conductivity: σ		0.96	0.99	0.96	0.98	1.50	1.51

		2450 MHz Body		5250 MHz Body		5250 MHz Body	
Date(s)		July 21, 2008		July 21, 2008		July 22, 2008	
Liquid Temperature (˚C)	20.0	Target	Measured	Target	Measured	Target	Measured
Dielectric Constant: ε		52.59	51.86	49.19	47.27	49.19	48.68
Conductivity: σ		1.92	1.94	5.40	5.38	5.40	5.48

		5600 MHz Body		5785 MHz Body	
Date(s)		July 23, 2008		July 23, 2008	
Liquid Temperature (˚C)	20.0	Target	Measured	Target	Measured
Dielectric Constant: ε		48.22	48.84	48.53	46.60
Conductivity: σ		5.68	5.89	5.95	5.75

See Appendix A for data printout.

Test System Verification

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

Table 10.2 System Dipole Validation Target & Measured

	Test Frequency	Targeted SAR_{1g} (W/kg)	Measure SAR_{1g} (W/kg)	Deviation (%)
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
21-Jul-2008	5250 MHz	62.98	63.63	+ 1.03
22-Jul-2008	5250 MHz	62.98	65.21	+ 3.54
23-Jul-2008	5600 MHz	59.92	62.24	+ 3.87
23-Jul-2008	5785 MHz	58.92	54.02	- 8.32

See Appendix A for data plots.

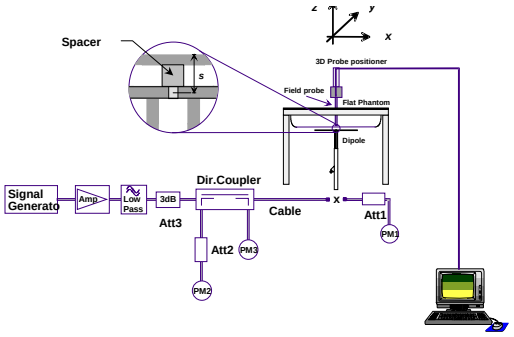


Figure 10.1 Dipole Validation Test Setup

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. In order to verify that the device was tested at full power, conducted output power measurements were performed before and after each SAR measurement to confirm the output power unless otherwise noted. If a conducted power deviation of more than 5% occurred, the test was repeated.

The testing was conducted in the normal use position. The main and auxiliary antennas for WLAN were both 6.575 cm from the user. Using the calculation in KDB 616217, the antennas must be at least 7 cm from the user to reduce the testing. Therefore, both antennas were measured in this report. The antenna to user distance of the WWAN is 9.935 cm. Due to the power of the WWAN, the distance required to reduce testing per KDB 616217 is 7 cm for 835 MHz and 10 cm for 1900 MHz. Therefore, only the 1900 MHz band would require testing. However, the WWAN and main WLAN antenna are 8.6 mm apart. The two antennas require simultaneous transmission which required the testing of the all bands in WWAN. The SAR for the simultaneous transmission was determined by added the highest SAR in WWAN with the highest SAR in WLAN. The total was below the limit to meet SAR requirements; therefore, the device was considered to pass.

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 re 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 Ev-Do

Maximum output power is verified on the High, Middle, and Low channels according to the procedures in section 3.1.2.3.4 of 3GPP2 C.S0033-0/TIA-866 for Rev. 0 and section 4.3.4 of 3GPP2 C.S0033-1 for Rev. A. For Rev. A, maximum output power for both Subtype 0/1 and Subtype 2 Physical Layer configurations should be measured. The device operating configurations under TAP/ETAP shall be documented in the test report; including power control, code channel and RF channel output power levels. The measurement results should be tabulated in the SAR report with any measurement difficulties and equipment limitations clearly identified.

12.2.2 Body SAR Measurements

SAR is measured using FTAP/RTAP and FETAP/RETAP respectively for Rev. 0 and Rev. A devices. The AT is tested with a Reverse Data Channel rate of 153.6 kbps in Subtype 0/1 Physical Layer configurations; and a Reverse Data Channel payload size of 4096 bits and Termination Target of 16 slots in Subtype 2 Physical Layer configurations. Both FTAP and FETAP are configured with a Forward Traffic Channel data rate corresponding to the 2-slot version of 307.2 kbps with the ACK Channel transmitting in all slots. AT power control should be in All Bits Up conditions for TAP/ETAP modes.

Body SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0. SAR for Subtype 2 Physical Layer configurations is not require for Rev. A when the maximum average output of each RF channel is less than that measured in Subtype 0/1 Physical Layer configurations. Otherwise, SAR is measured on the maximum output channel for Rev. A using the exposure configurations that results in the highest SAR for that RF channel in Rev. 0.

1x RTT Support
For Ev-Do devices that also support 1x RTT voice and/or data operations, SAR is not required for 1x RTT when the maximum average output of each channel is less than ¼ dB higher than that measured in Subtype 0/1 Physical Layer configurations for Rev. 0. Otherwise, the 'Body SAR Measurements' procedures in the 'CDMA-2000 1x Handsets" section should be applied.

12.2.3 Output Power Verification 1x RTT

Maximum output power is verified on the High, Middle, and Low channels according to procedures in section 4.4.5.2 of 3 GPP2 C.S0011/TIA-98-E. Results for at least steps 3, 4 and 10 of the power measurement procedures should be tabulated in the SAR report. Steps 3 and 4 should be measured using SO55 with power control bits in "All Up" condition. TDSO / SO32 may be used instead of SO55 for

step 4. Step 10 should be measured using TDSO / SO32 with power control bits in the "Bits Hold" condition (i.e. alternative Up/Down Bits). All power measurements defined in C.S0011/TIA-98-E that are inapplicable to the DUT or cannot be measured due to technical or equipment limitations should be clearly identified in the test report.

		IS-2000			1XEv-Do Rev. 0 Subtype 0/1		1XEv-Do Rev. A Subtype 0/1		1XEv-Do Rev. A Subtype 2	
	Channel	SO55 RC1	SO55 RC3	TDSO SO32 RC3	FTAP [dBm]	RTAP [dBm]	FTAP [dBm]	RTAP [dBm]	FETAP [dBm]	RETAP [dBm]
Cellular	1013	24.51	24.48	24.49	24.58	24.59	24.65	24.58	24.62	24.57
	384	24.46	24.56	24.47	24.56	24.66	24.57	24.62	24.54	24.60
	777	24.59	24.37	24.52	24.36	24.35	24.59	24.40	24.57	24.55
PCS	25	24.56	24.59	24.50	24.61	24.48	24.72	24.62	24.70	24.60
	600	24.41	24.48	24.46	24.48	24.46	24.63	24.49	24.62	24.46
	1175	24.52	24.43	24.41	24.42	24.65	24.59	24.60	24.57	24.58

CDMA Power Measurements

802.11b				
Freq	Channel	Data Rate	Antenna	Power
2412	1	1	Main	22.32
2437	6	1	Main	22.26
2462	11	1	Main	22.18
2412	1	1	Aux	22.30
2437	6	1	Aux	22.23
2462	11	1	Aux	22.14
802.11g				
Freq	Channel	Data Rate	Antenna	Power
2417	2	6	Main	23.01
2437	6	6	Main	23.09
2457	10	6	Main	23.06
2417	2	6	Aux	22.98
2437	6	6	Aux	23.04
2457	10	6	Aux	23.01

Broadcom 1030 Conduct Power Measurements

802.11b				
Freq	Channel	Data Rate	Antenna	Power
2412	1	1	Main	22.05
2437	6	1	Main	21.97
2462	11	1	Main	21.64
2412	1	1	Aux	22.01
2437	6	1	Aux	21.95
2462	11	1	Aux	21.60

802.11g				
Freq	Channel	Data Rate	Antenna	Power
2412	1	1	Main	18.97
2437	6	1	Main	18.86
2462	11	1	Main	16.84
2412	1	1	Aux	18.92
2437	6	1	Aux	18.85
2462	11	1	Aux	16.81

802.11n 2.4 GHz 20 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
2412	1	1	Main	14.23
2437	6	1	Main	18.97
2462	11	1	Main	13.95
2412	1	1	Aux	13.86
2437	6	1	Aux	18.62
2462	11	1	Aux	13.35

802.11n 2.4 GHz 40 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
2437	6	1	Main	13.65
2437	6	1	Aux	13.98

802.11 a 5.8 GHz				
Freq	Channel	Data Rate	Antenna	Power
5.745	149	6	Main	16.68
5.765	153	6	Main	16.69
5.785	157	6	Main	16.71
5.805	161	6	Main	16.73
5.825	165	6	Main	16.75
5.745	149	6	Aux	16.65
5.765	153	6	Aux	16.67
5.785	157	6	Aux	16.69
5.805	161	6	Aux	16.70
5.825	165	6	Aux	16.72

802.11a 5.2 GHz				
Freq	Channel	Data Rate	Antenna	Power
5.18	36	6	Main	14.56
5.20	40	6	Main	14.76
5.22	44	6	Main	14.59
5.24	48	6	Main	14.38
5.26	52	6	Main	17.76
5.28	56	6	Main	17.89
5.30	60	6	Main	18.09
5.32	64	6	Main	16.30
5.18	36	6	Aux	14.53
5.20	40	6	Aux	14.70
5.22	44	6	Aux	14.52
5.24	48	6	Aux	14.30
5.26	52	6	Aux	17.71
5.28	56	6	Aux	17.85
5.30	60	6	Aux	18.05
5.32	64	6	Aux	16.29

802.11n 5.2 GHz 20 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
5.18	36	6	Main	8.71
5.20	40	6	Main	8.69
5.22	44	6	Main	8.73
5.24	48	6	Main	8.87
5.26	52	6	Main	15.86
5.28	56	6	Main	15.79
5.30	60	6	Main	15.82
5.32	64	6	Main	13.85
5.18	36	6	Aux	8.65
5.20	40	6	Aux	8.66
5.22	44	6	Aux	8.70
5.24	48	6	Aux	8.76
5.26	52	6	Aux	15.80
5.28	56	6	Aux	15.76
5.30	60	6	Aux	15.79
5.32	64	6	Aux	13.86

802.11n 5.2 GHz 40 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
5.21	42	6	Main	10.82
5.25	50	6	Main	16.70
5.29	58	6	Main	13.71
5.21	42	6	Aux	10.80
5.25	50	6	Aux	16.65
5.29	58	6	Aux	13.70

Broadcom 1031 Conduct Power Measurements

802.11a 5.6 GHz				
Freq	Channel	Data Rate	Antenna	Power
5.50	100	6	Main	17.68
5.52	104	6	Main	17.66
5.54	108	6	Main	17.61
5.56	112	6	Main	17.63
5.58	116	6	Main	17.62
5.60	120	6	Main	17.65
5.62	124	6	Main	17.67
5.64	128	6	Main	17.69
5.66	132	6	Main	17.70
5.68	136	6	Main	17.66
5.70	140	6	Main	17.71
5.50	100	6	Aux	17.60
5.52	104	6	Aux	17.59
5.54	108	6	Aux	17.62
5.56	112	6	Aux	17.64
5.58	116	6	Aux	17.57
5.60	120	6	Aux	17.59
5.62	124	6	Aux	17.62
5.64	128	6	Aux	17.66
5.66	132	6	Aux	17.63
5.68	136	6	Aux	17.64
5.70	140	6	Aux	17.62

802.11n 5.6 GHz 20 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
5.50	100	6	Main	5.26
5.52	104	6	Main	5.36
5.54	108	6	Main	5.42
5.56	112	6	Main	5.61
5.58	116	6	Main	5.83
5.60	120	6	Main	5.99
5.62	124	6	Main	5.86
5.64	128	6	Main	5.81
5.66	132	6	Main	5.78
5.68	136	6	Main	5.72
5.70	140	6	Main	5.72
5.50	100	6	Aux	5.11
5.52	104	6	Aux	5.16
5.54	108	6	Aux	5.20
5.56	112	6	Aux	5.29
5.58	116	6	Aux	5.34
5.60	120	6	Aux	5.42
5.62	124	6	Aux	5.39
5.64	128	6	Aux	5.31
5.66	132	6	Aux	5.28
5.68	136	6	Aux	5.26
5.70	140	6	Aux	5.22

802.11n 5.6 GHz 40 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
5.53	106	6	Main	16.15
5.57	114	6	Main	16.59
5.61	122	6	Main	17.79
5.63	130	6	Main	17.16
5.69	138	6	Main	16.52
5.53	106	6	Aux	16.10
5.57	114	6	Aux	16.49
5.61	122	6	Aux	17.71
5.63	130	6	Aux	17.09
5.69	138	6	Aux	16.50

802.11n 5.8 GHz 20 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
5.745	149	6	Main	16.85
5.765	153	6	Main	16.79
5.785	157	6	Main	16.12
5.805	161	6	Main	16.32
5.825	165	6	Main	16.46
5.745	149	6	Aux	16.87
5.765	153	6	Aux	16.84
5.785	157	6	Aux	16.89
5.805	161	6	Aux	16.81
5.825	165	6	Aux	16.77

802.11n 5.8 GHz 40 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
5.76	152	6	Main	16.71
5.80	160	6	Main	16.50
5.76	152	6	Aux	17.23
5.80	160	6	Aux	16.97

Broadcom 1031 Conduct Power Measurements

802.11b				
Freq	Channel	Data Rate	Antenna	Power
2412	1	1	Main	19.72
2437	6	1	Main	19.18
2462	11	1	Main	19.26
2412	1	1	Aux	19.62
2437	6	1	Aux	19.53
2462	11	1	Aux	19.38

802.11g				
Freq	Channel	Data Rate	Antenna	Power
2412	1	1	Main	21.49
2437	6	1	Main	23.81
2462	11	1	Main	21.39
2412	1	1	Aux	21.28
2437	6	1	Aux	23.82
2462	11	1	Aux	21.16

802.11n 2.4 GHz 20 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
2412	1	1	Main	21.09
2437	6	1	Main	23.91
2462	11	1	Main	20.99
2412	1	1	Aux	20.97
2437	6	1	Aux	23.62
2462	11	1	Aux	21.09

802.11n 2.4 GHz 40 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
2437	6	1	Main	22.69
2437	6	1	Aux	22.97

802.11 a 5.8 GHz				
Freq	Channel	Data Rate	Antenna	Power
5.745	149	6	Main	24.08
5.765	153	6	Main	24.10
5.785	157	6	Main	24.11
5.805	161	6	Main	24.05
5.825	165	6	Main	23.97
5.745	149	6	Aux	24.38
5.765	153	6	Aux	24.36
5.785	157	6	Aux	24.40
5.805	161	6	Aux	24.46
5.825	165	6	Aux	24.51

802.11a 5.2 GHz				
Freq	Channel	Data Rate	Antenna	Power
5.18	36	6	Main	16.09
5.20	40	6	Main	16.35
5.22	44	6	Main	16.32
5.24	48	6	Main	16.31
5.26	52	6	Main	16.39
5.28	56	6	Main	16.42
5.30	60	6	Main	16.45
5.32	64	6	Main	16.48
5.18	36	6	Aux	16.38
5.20	40	6	Aux	16.24
5.22	44	6	Aux	16.38
5.24	48	6	Aux	16.49
5.26	52	6	Aux	16.35
5.28	56	6	Aux	16.30
5.30	60	6	Aux	16.42
5.32	64	6	Aux	16.58

802.11n 5.2 GHz 20 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
5.18	36	6	Main	16.09
5.20	40	6	Main	16.31
5.22	44	6	Main	16.29
5.24	48	6	Main	16.26
5.26	52	6	Main	16.36
5.28	56	6	Main	16.25
5.30	60	6	Main	16.15
5.32	64	6	Main	16.08
5.18	36	6	Aux	16.09
5.20	40	6	Aux	16.46
5.22	44	6	Aux	16.32
5.24	48	6	Aux	16.20
5.26	52	6	Aux	16.58
5.28	56	6	Aux	16.47
5.30	60	6	Aux	16.41
5.32	64	6	Aux	16.36

802.11n 5.2 GHz 40 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
5.21	42	6	Main	16.62
5.25	50	6	Main	16.66
5.29	58	6	Main	16.39
5.21	42	6	Aux	16.68
5.25	50	6	Aux	16.52
5.29	58	6	Aux	16.68

Intel 533 Conduct Power Measurements

802.11a 5.6 GHz				
Freq	Channel	Data Rate	Antenna	Power
5.50	100	6	Main	16.11
5.52	104	6	Main	16.18
5.54	108	6	Main	16.24
5.56	112	6	Main	16.29
5.58	116	6	Main	16.35
5.60	120	6	Main	16.38
5.62	124	6	Main	16.31
5.64	128	6	Main	16.26
5.66	132	6	Main	16.19
5.68	136	6	Main	16.12
5.70	140	6	Main	16.07
5.50	100	6	Aux	16.42
5.52	104	6	Aux	16.45
5.54	108	6	Aux	16.48
5.56	112	6	Aux	16.42
5.58	116	6	Aux	16.49
5.60	120	6	Aux	16.51
5.62	124	6	Aux	16.48
5.64	128	6	Aux	16.42
5.66	132	6	Aux	16.46
5.68	136	6	Aux	16.45
5.70	140	6	Aux	16.44

802.11n 5.6 GHz 20 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
5.50	100	6	Main	16.12
5.52	104	6	Main	16.15
5.54	108	6	Main	16.18
5.56	112	6	Main	16.21
5.58	116	6	Main	16.22
5.60	120	6	Main	16.23
5.62	124	6	Main	16.28
5.64	128	6	Main	16.31
5.66	132	6	Main	16.35
5.68	136	6	Main	16.38
5.70	140	6	Main	16.45
5.50	100	6	Aux	16.09
5.52	104	6	Aux	16.12
5.54	108	6	Aux	16.17
5.56	112	6	Aux	16.20
5.58	116	6	Aux	16.24
5.60	120	6	Aux	16.28
5.62	124	6	Aux	16.27
5.64	128	6	Aux	16.25
5.66	132	6	Aux	16.23
5.68	136	6	Aux	16.20
5.70	140	6	Aux	16.19

802.11n 5.6 GHz 40 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
5.53	106	6	Main	16.68
5.57	114	6	Main	16.65
5.61	122	6	Main	16.61
5.63	130	6	Main	16.49
5.69	138	6	Main	16.37
5.53	106	6	Aux	16.35
5.57	114	6	Aux	16.47
5.61	122	6	Aux	16.65
5.63	130	6	Aux	16.61
5.69	138	6	Aux	16.58

802.11n 5.8 GHz 20 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
5.745	149	6	Main	23.98
5.765	153	6	Main	24.01
5.785	157	6	Main	24.05
5.805	161	6	Main	24.02
5.825	165	6	Main	23.99
5.745	149	6	Aux	24.57
5.765	153	6	Aux	24.61
5.785	157	6	Aux	24.66
5.805	161	6	Aux	24.57
5.825	165	6	Aux	24.48

802.11n 5.8 GHz 40 MHz Wide				
Freq	Channel	Data Rate	Antenna	Power
5.76	152	6	Main	24.16
5.80	160	6	Main	24.23
5.76	152	6	Aux	24.85
5.80	160	6	Aux	24.71

Intel 533 Conduct Power Measurements

SAR Data Summary – 835 MHz Body

MEASUREMENT RESULTS							
Position	**Mode**	**Frequency**		**Modulation**	**End Power**	**Battery**	**SAR (W/kg)**
		MHz	**Ch.**		**(dBm)**		
Touch	IS2000	836.6	384	CDMA	24.56	Standard	0.614
	Rev 0	836.6	384	CDMA	24.66	Standard	0.450
	Rev A	836.6	384	CDMA	24.62	Standard	0.604
					Muscle 1.6 W/kg (mW/g) averaged over 1 gram		

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

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

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

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

Jay M. Moulton
Vice President

SAR Data Summary – 1900 MHz Body

MEASUREMENT RESULTS							
Position	**Mode**	**Frequency**		**Modulation**	**End Power**	**Battery**	**SAR (W/kg)**
		MHz	**Ch.**		**(dBm)**		
Touch	IS2000	1851.25	25	CDMA	24.59	Standard	0.785
		1880.00	600	CDMA	24.48	Standard	0.825
		1908.75	1175	CDMA	24.52	Standard	0.861
	Rev 0	1851.25	25	CDMA	24.61	Standard	0.802
		1880.00	600	CDMA	24.48	Standard	0.785
		1908.75	1175	CDMA	24.65	Standard	0.840
	Rev A	1851.25	25	CDMA	24.72	Standard	0.777
		1880.00	600	CDMA	24.63	Standard	0.747
		1908.75	1175	CDMA	24.60	Standard	0.839

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 – 2450 MHz Body

MEASUREMENT RESULTS									
Position	**Band**	**Module**	**Antenna**	**Frequency**		**Modulation**	**End Power**	**Battery**	**SAR (W/kg)**
				MHz	**Ch.**		**(dBm)**		
Touch	b	533	Main	2412	1	DSSS	19.72	Standard	0.219
			Aux	2412	1	DSSS	19.62	Standard	0.199
		1030	Main	2412	1	DSSS	22.32	Standard	0.317
			Aux	2412	1	DSSS	22.30	Standard	0.261
		1031	Main	2412	1	DSSS	22.05	Standard	0.277
			Aux	2412	1	DSSS	22.01	Standard	0.234
	g	533	Main	2437	6	OFDM	23.81	Standard	0.188
			Aux	2437	6	OFDM	23.82	Standard	0.219
		1030	Main	2437	6	OFDM	23.09	Standard	0.347
			Aux	2437	6	OFDM	23.04	Standard	0.272
		1031	Main	2412	1	OFDM	18.97	Standard	0.263
			Aux	2412	1	OFDM	18.92	Standard	0.223
	n20	533	Main	2437	6	OFDM	23.91	Standard	0.217
			Aux	2437	6	OFDM	23.62	Standard	0.231
		1031	Main	2437	6	OFDM	18.97	Standard	0.243
			Aux	2437	6	OFDM	18.62	Standard	0.226
	n40	533	Main	2437	6	OFDM	22.69	Standard	0.238
			Aux	2437	6	OFDM	22.97	Standard	0.236
		1031	Main	2437	6	OFDM	13.65	Standard	0.228
			Aux	2437	6	OFDM	13.98	Standard	0.239

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	Module	Antenna	Frequency		Modulation	End Power	Battery	SAR (W/kg)
				MHz	Ch.		(dBm)		
Touch	a	533	Main	5220	44	OFDM	16.32	Standard	0.185
			Aux	5220	44	OFDM	16.38	Standard	0.175
			Main	5320	64	OFDM	16.48	Standard	0.182
			Aux	5320	64	OFDM	16.58	Standard	0.171
		1031	Main	5200	40	OFDM	14.76	Standard	0.200
			Aux	5200	40	OFDM	14.70	Standard	0.181
			Main	5300	60	OFDM	18.09	Standard	0.198
			Aux	5300	60	OFDM	18.05	Standard	0.182
	n20	533	Main	5200	40	OFDM	16.31	Standard	0.245
			Aux	5200	40	OFDM	16.46	Standard	0.237
			Main	5260	52	OFDM	16.36	Standard	0.249
			Aux	5260	52	OFDM	16.58	Standard	0.234
		1031	Main	5220	44	OFDM	8.69	Standard	0.235
			Aux	5220	44	OFDM	8.66	Standard	0.237
			Main	5260	52	OFDM	15.86	Standard	0.237
			Aux	5260	52	OFDM	15.80	Standard	0.232
	n40	533	Main	5250	50	OFDM	16.66	Standard	0.202
			Aux	5250	50	OFDM	16.52	Standard	0.193
		1031	Main	5250	50	OFDM	16.70	Standard	0.234
			Aux	5250	50	OFDM	16.65	Standard	0.232

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 – 5600 MHz Body

MEASUREMENT RESULTS									
Position	**Band**	**Module**	**Antenna**	**Frequency**		**Modulation**	**End Power**	**Battery**	**SAR (W/kg)**
				MHz	**Ch.**		**(dBm)**		
Touch	a	533	Main	5600	120	OFDM	16.38	Standard	0.133
			Aux	5600	120	OFDM	16.51	Standard	0.145
		1031	Main	5700	140	OFDM	17.71	Standard	0.154
			Aux	5700	140	OFDM	17.62	Standard	0.167
	n20	533	Main	5700	140	OFDM	16.45	Standard	0.174
			Aux	5700	140	OFDM	16.19	Standard	0.150
		1031	Main	5600	120	OFDM	5.99	Standard	0.168
			Aux	5600	120	OFDM	5.42	Standard	0.163
	n40	533	Main	5530	106	OFDM	16.68	Standard	0.170
			Aux	5530	106	OFDM	16.35	Standard	0.159
		1031	Main	5610	122	OFDM	17.79	Standard	0.196
			Aux	5610	122	OFDM	17.71	Standard	0.173

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 – 5800 MHz Body

MEASUREMENT RESULTS									
Position	**Band**	**Module**	**Antenna**	**Frequency**		**Modulation**	**End Power**	**Battery**	**SAR (W/kg)**
				MHz	**Ch.**		**(dBm)**		
Touch	a	533	Main	5825	165	OFDM	23.97	Standard	0.131
			Aux	5825	165	OFDM	24.51	Standard	0.112
		1031	Main	5825	165	OFDM	16.75	Standard	0.089
			Aux	5825	165	OFDM	16.72	Standard	0.087
	n20	533	Main	5785	157	OFDM	24.05	Standard	0.142
			Aux	5785	157	OFDM	24.66	Standard	0.120
		1031	Main	5785	157	OFDM	16.12	Standard	0.093
			Aux	5785	157	OFDM	16.89	Standard	0.088
	n40	533	Main	5800	160	OFDM	24.23	Standard	0.151
			Aux	5800	160	OFDM	24.71	Standard	0.127
		1031	Main	5760	152	OFDM	16.12	Standard	0.100
			Aux	5760	152	OFDM	16.89	Standard	0.093

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
Aprel E-Field Probe ALS-E020	12/03/2008	RFE-217
Aprel E-Field Probe ALS-E030	04/30/2008	AL-E3P1
Aprel Dummy Probe	N/A	023
Aprel Left Phantom	N/A	RFE-267
Aprel Right Phantom	N/A	RFE-268
Aprel UniPhantom	N/A	RFE-273
Aprel Validation Dipole ALS-D-450-S-2	04/30/2009	RFE-362
Aprel Validation Dipole ALS-D-835-S-2	02/22/2010	RFE-274
Aprel Validation Dipole ALS-D-1900-S-2	02/21/2010	RFE-277
Aprel Validation Dipole ALS-D-2450-S-2	02/20/2010	RFE-278
Aprel Validation Dipole ALS-D-BB-S-2	05/23/2009	5258-235-00801
Agilent (HP) 437B Power Meter	12/03/2008	3125U08837
Agilent (HP) 8481B Power Sensor	12/03/2008	3318A05384
Advantest R3261A Spectrum Analyzer	12/03/2008	31720068
Agilent (HP) 8350B Signal Generator	01/28/2009	2749A10226
Agilent (HP) 83525A RF Plug-In	01/28/2009	2647A01172
Agilent (HP) 8753C Vector Network Analyzer	01/28/2009	3135A01724
Agilent (HP) 85047A S-Parameter Test Set	01/28/2009	2904A00595
Agilent (HP) E55125C Base Station Sim.	07/09/2010	GB46200378
Aprel Dielectric Probe Assembly	N/A	0011
Brain Equivalent Matter (450 MHz)	N/A	N/A
Brain Equivalent Matter (835 MHz)	N/A	N/A
Brain Equivalent Matter (1900 MHz)	N/A	N/A
Brain Equivalent Matter (2450 MHz)	N/A	N/A
Muscle Equivalent Matter (450 MHz)	N/A	N/A
Muscle Equivalent Matter (835 MHz)	N/A	N/A
Muscle Equivalent Matter (1900 MHz)	N/A	N/A
Muscle Equivalent Matter (2450 MHz)	N/A	N/A
Muscle Equivalent Matter (5200 MHz)	N/A	N/A
Muscle Equivalent Matter (5800 MHz)	N/A	N/A

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
Mon 21/Jul/2008 04:33:22
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	47.37	5.31
5.2300	48.97	5.33	47.36	5.34
5.2400	48.96	5.35	47.31	5.36
5.2500	48.95	5.36	47.27	5.38
5.2600	48.93	5.37	47.25	5.39
5.2700	48.92	5.38	47.24	5.40
5.2800	48.91	5.39	47.20	5.41

```
************************************************************
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 07:05:47
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
5.5700	48.51	5.73	48.89	5.82
5.5800	48.50	5.74	48.87	5.86
5.5900	48.48	5.75	48.87	5.87
5.6000	48.47	5.77	48.84	5.89
5.6100	48.46	5.78	48.83	5.90
5.6200	48.44	5.79	48.82	5.92
5.6300	48.43	5.80	48.79	5.92

```
**********************************************************
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

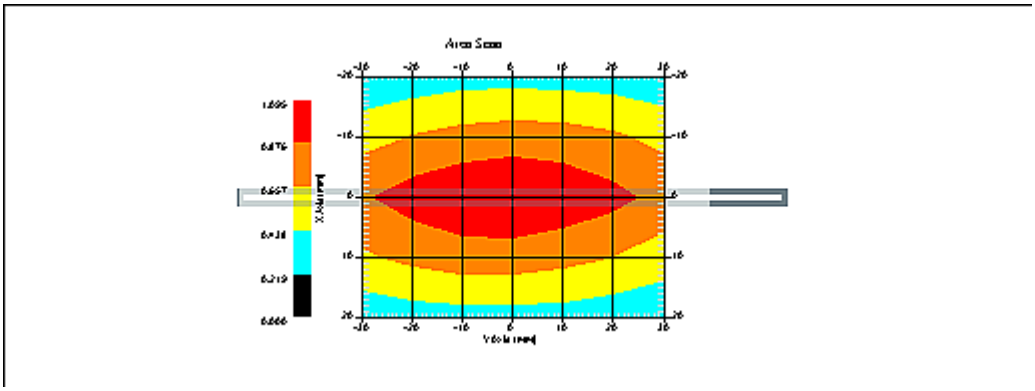
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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

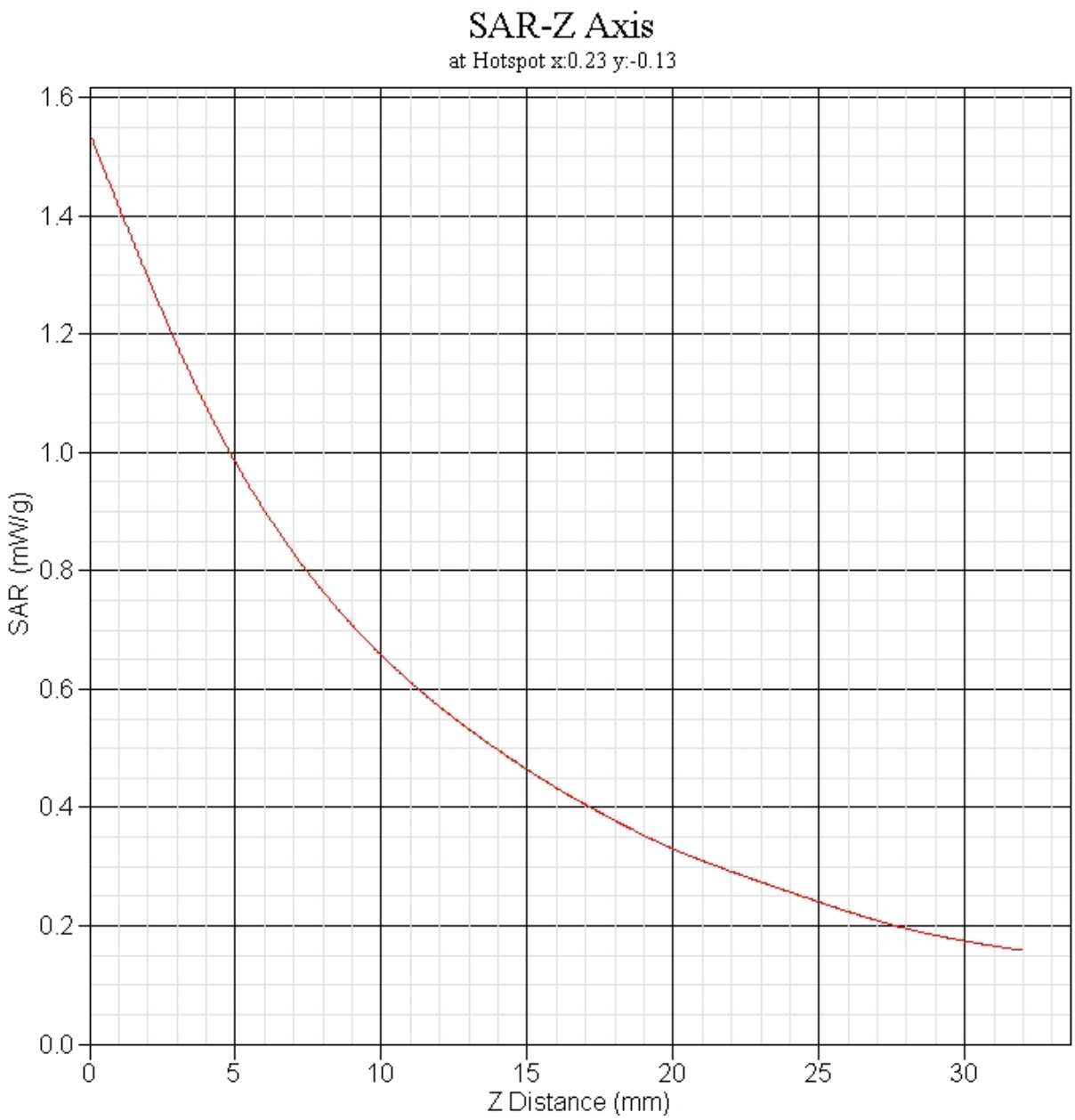
Probe Data
Name : Probe 217 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 25.00 °C
Set-up Date       : 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 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

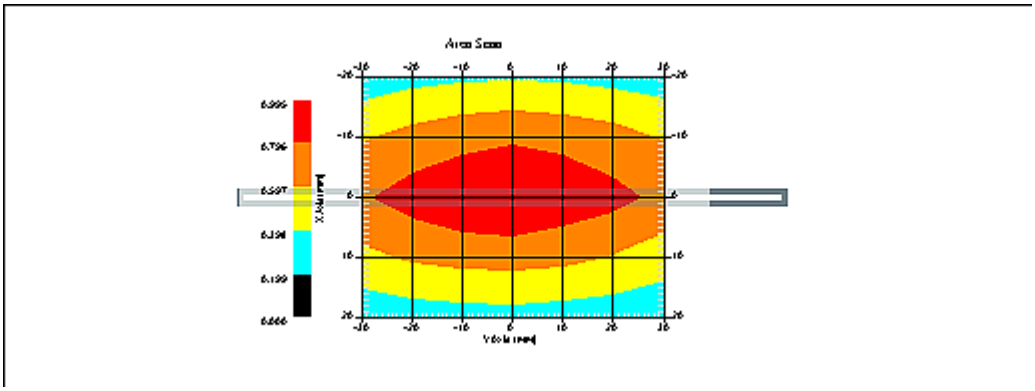
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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

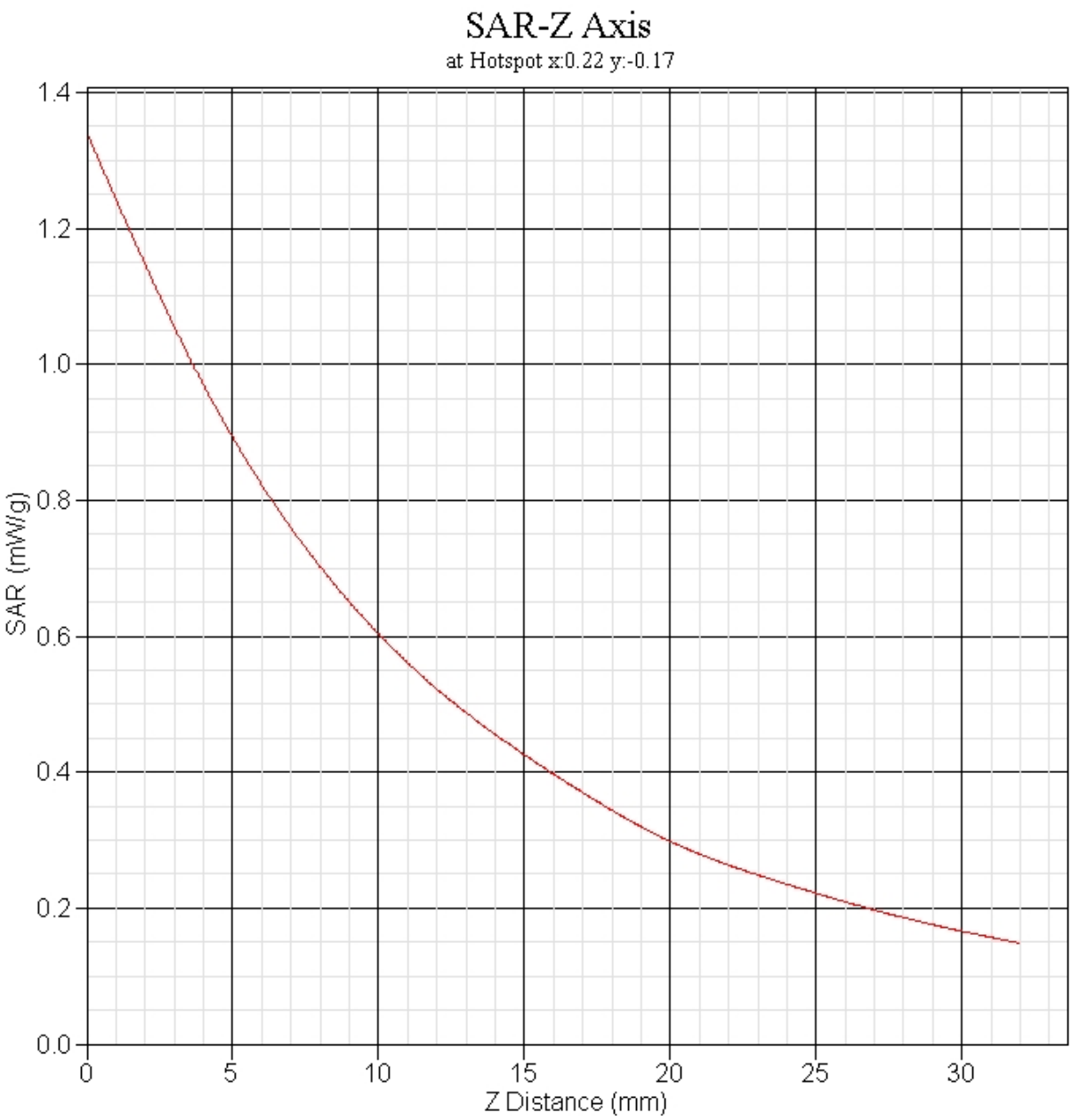
Probe Data
Name : Probe 217 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 25.00 °C
Set-up Date       : 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 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

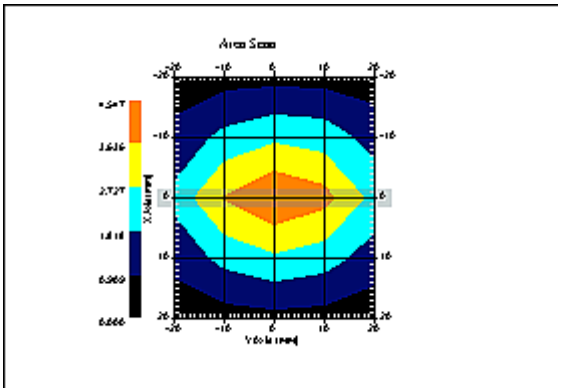
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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

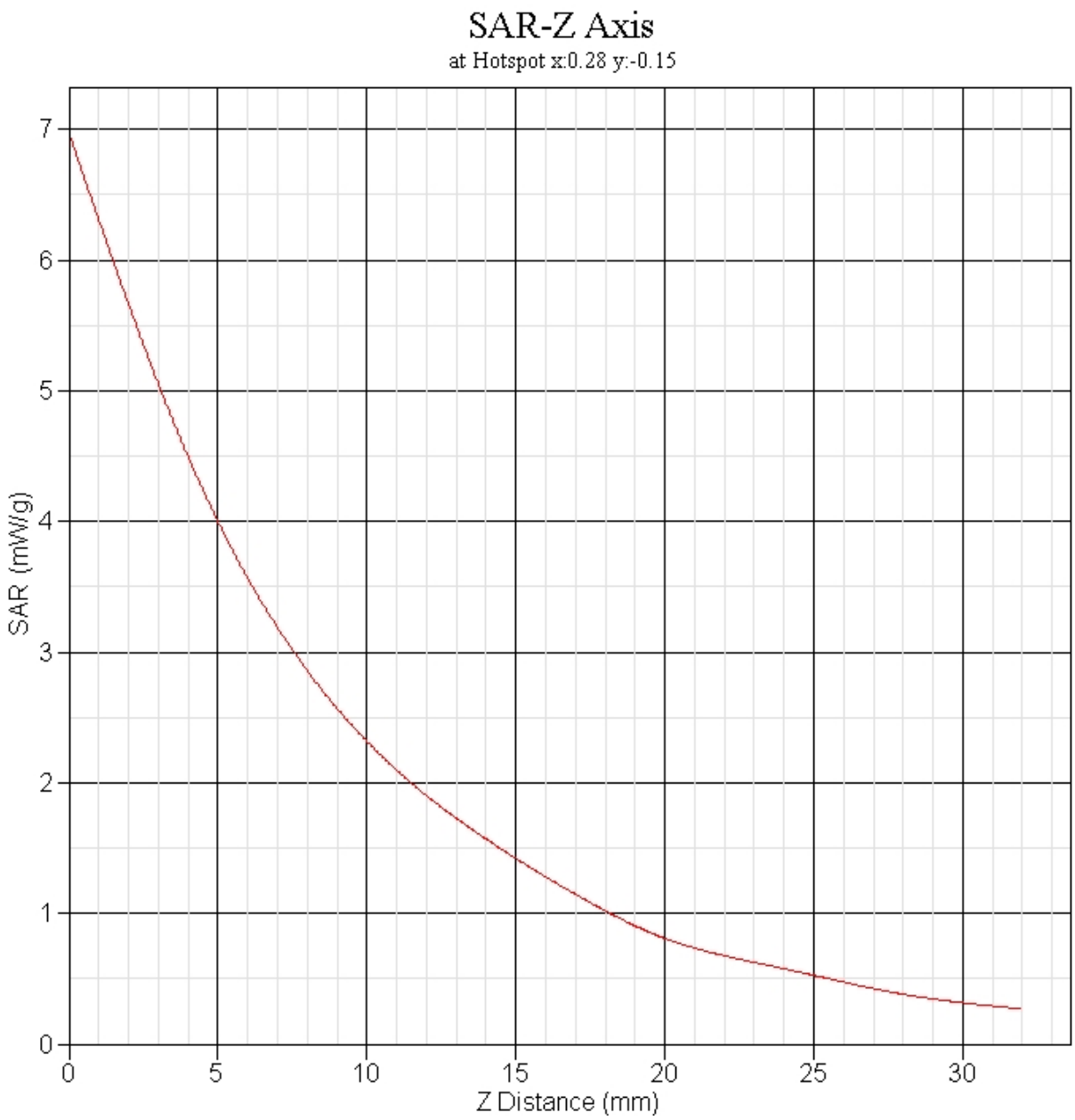
Probe Data
Name : Probe 217 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-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 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

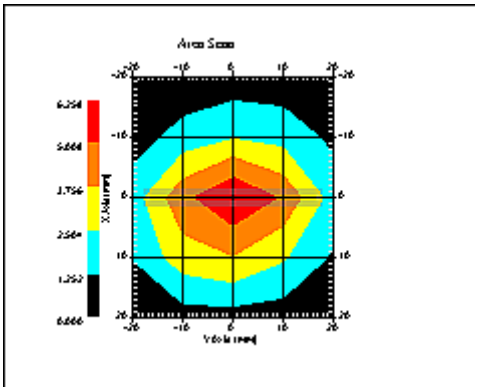
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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

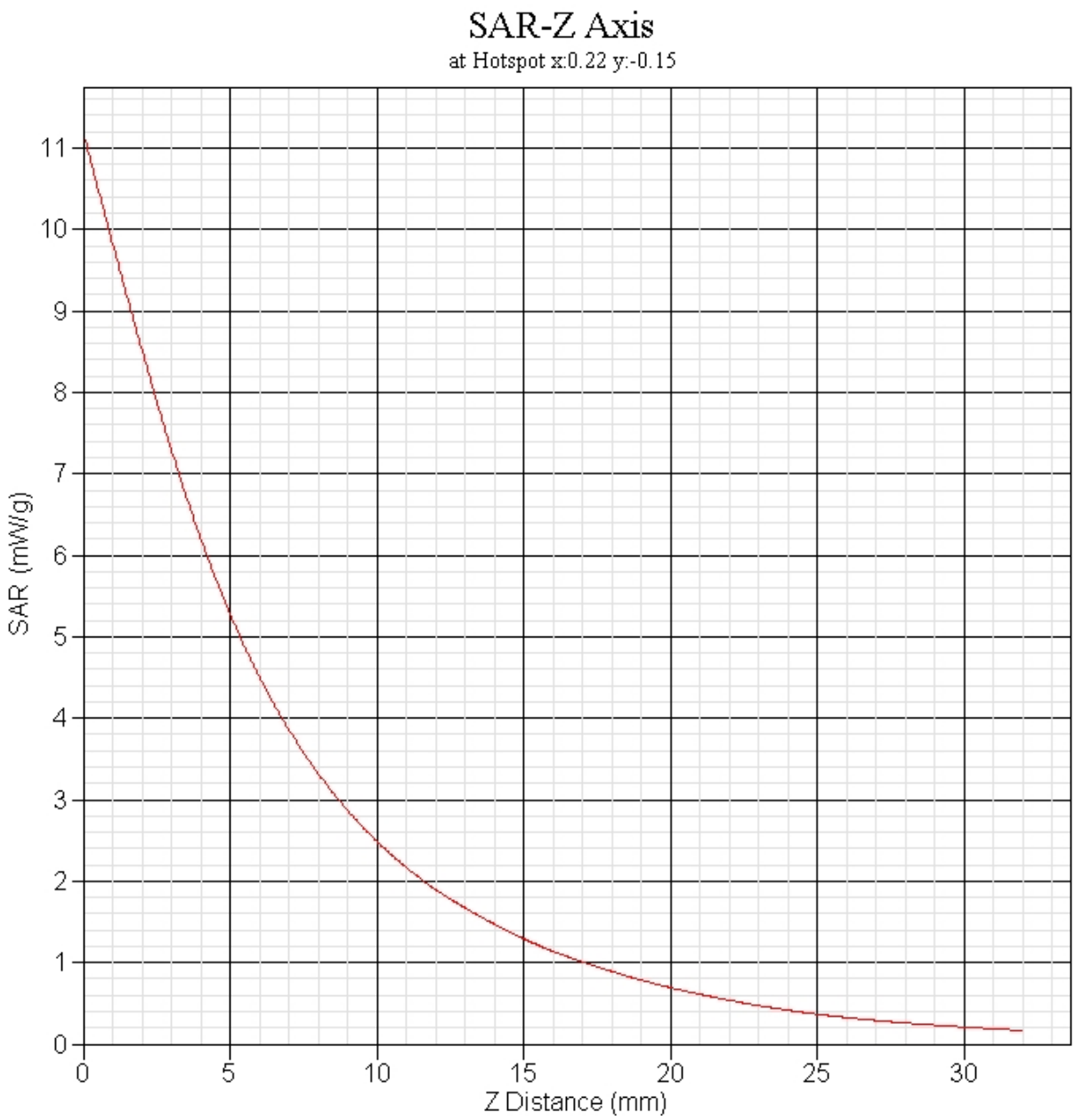
Probe Data
Name : Probe 217 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 3.61
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-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 Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 05:42:00 PM
End Time : 21-Jul-2008 06:05:06 PM
Scanning Time : 1386 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 : 8.831 W/kg
Power Drift-Finish: 8.803 W/kg
Power Drift (%) : -0.317

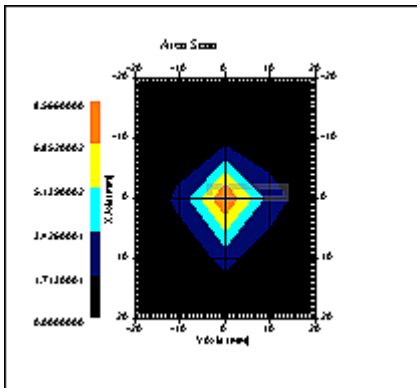
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5200
Frequency : 5200.00 MHz
Last Calib. Date : 21-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 47.27 F/m
Sigma : 5.38 S/m
Density : 1000.00 kg/cu. m

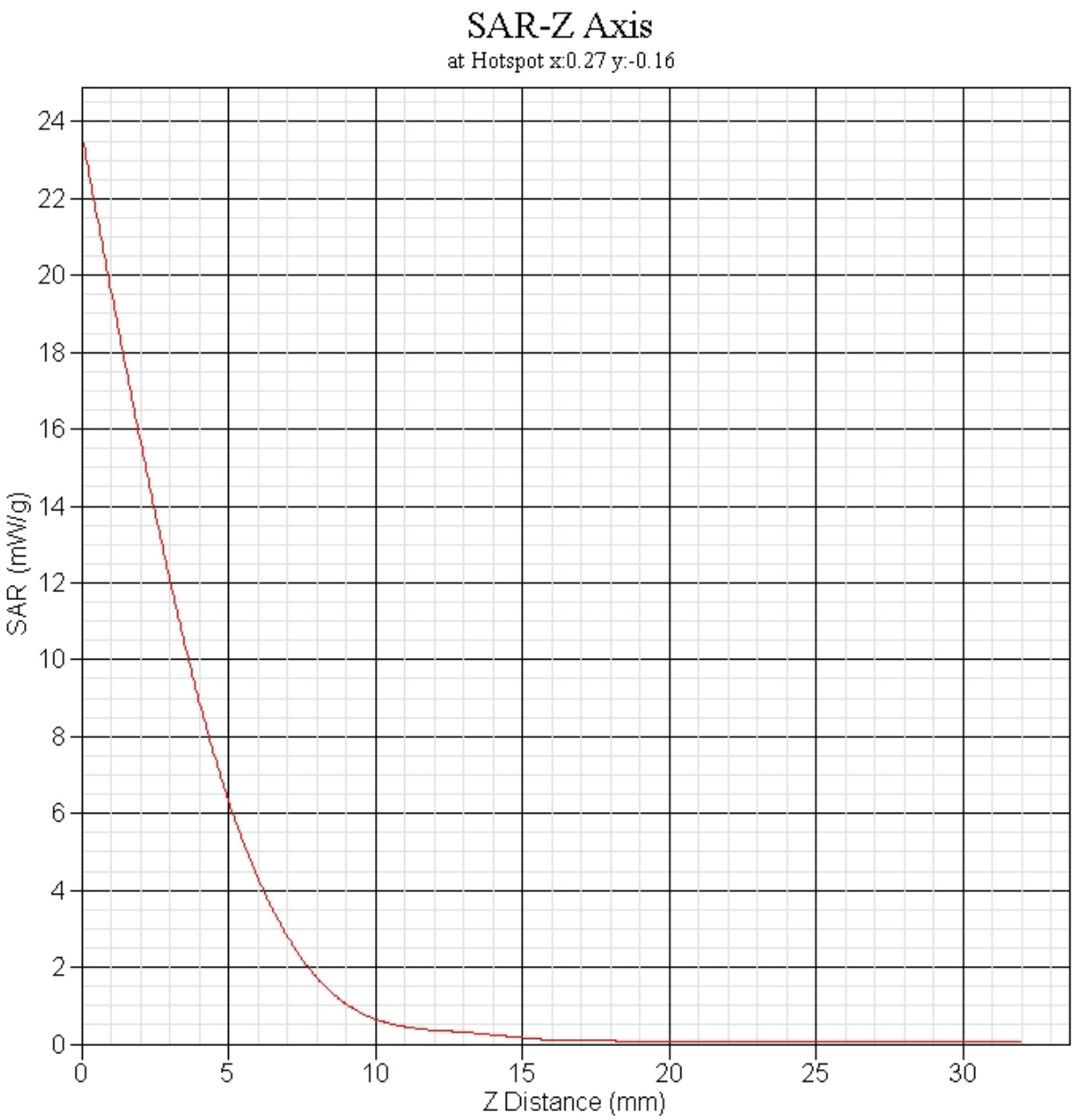
Probe Data
Name : Probe E030-001 - RFEL
Model : E-030
Type : E-Field Triangle
Serial No. : E030-001
Last Calib. Date : 14-Apr-2008
Frequency : 5200.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 8.6
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-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    : 6.363 W/kg
10 gram SAR value   : 1.620 W/kg
Area Scan Peak SAR  : 8.566 W/kg
Zoom Scan Peak SAR  : 23.719 W/kg
```



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

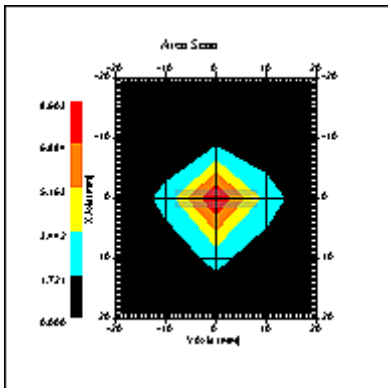
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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

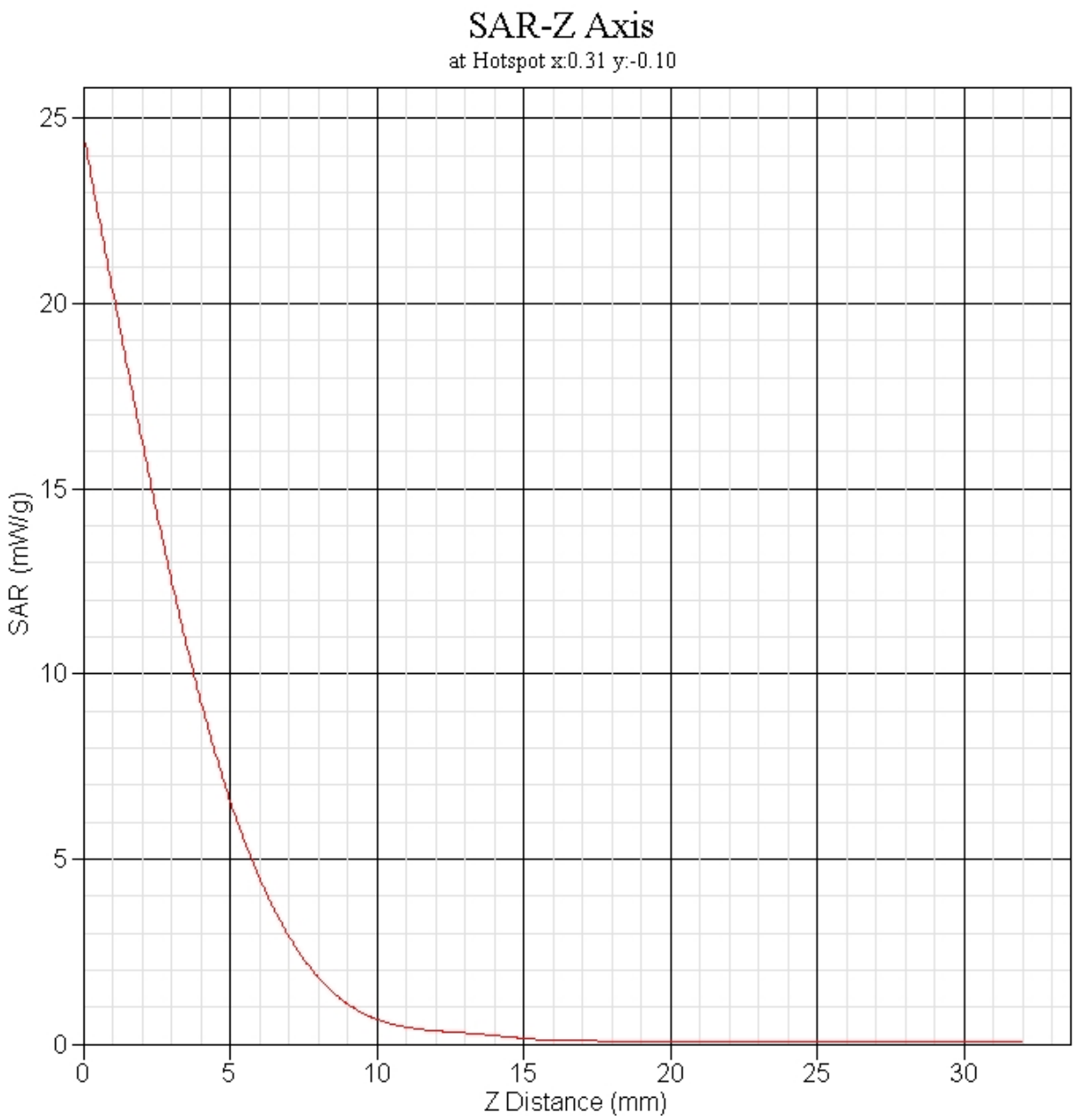
Probe Data
Name : Probe E030-001 - RFEL
Model : E-030
Type : E-Field Triangle
Serial No. : E030-001
Last Calib. Date : 14-Apr-2008
Frequency : 5200.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 8.6
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 mm

```
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 Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 07:17:42 AM
End Time : 23-Jul-2008 07:40:47 AM
Scanning Time : 1385 secs

Product Data
Device Name : Validation
Serial No. : 5600
Type : Dipole
Model : ALS-D-BB-S-2
Frequency : 5600.00 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 : 8.199 W/kg
Power Drift-Finish: 8.257 W/kg
Power Drift (%) : 0.714

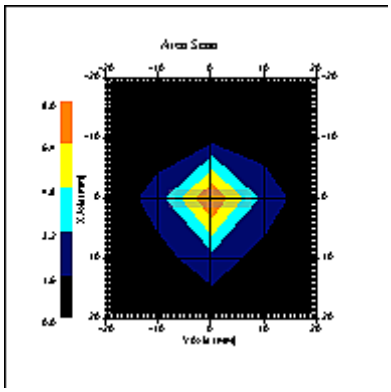
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5600
Frequency : 5600.00 MHz
Last Calib. Date : 23-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 48.84 F/m
Sigma : 5.89 S/m
Density : 1000.00 kg/cu. m

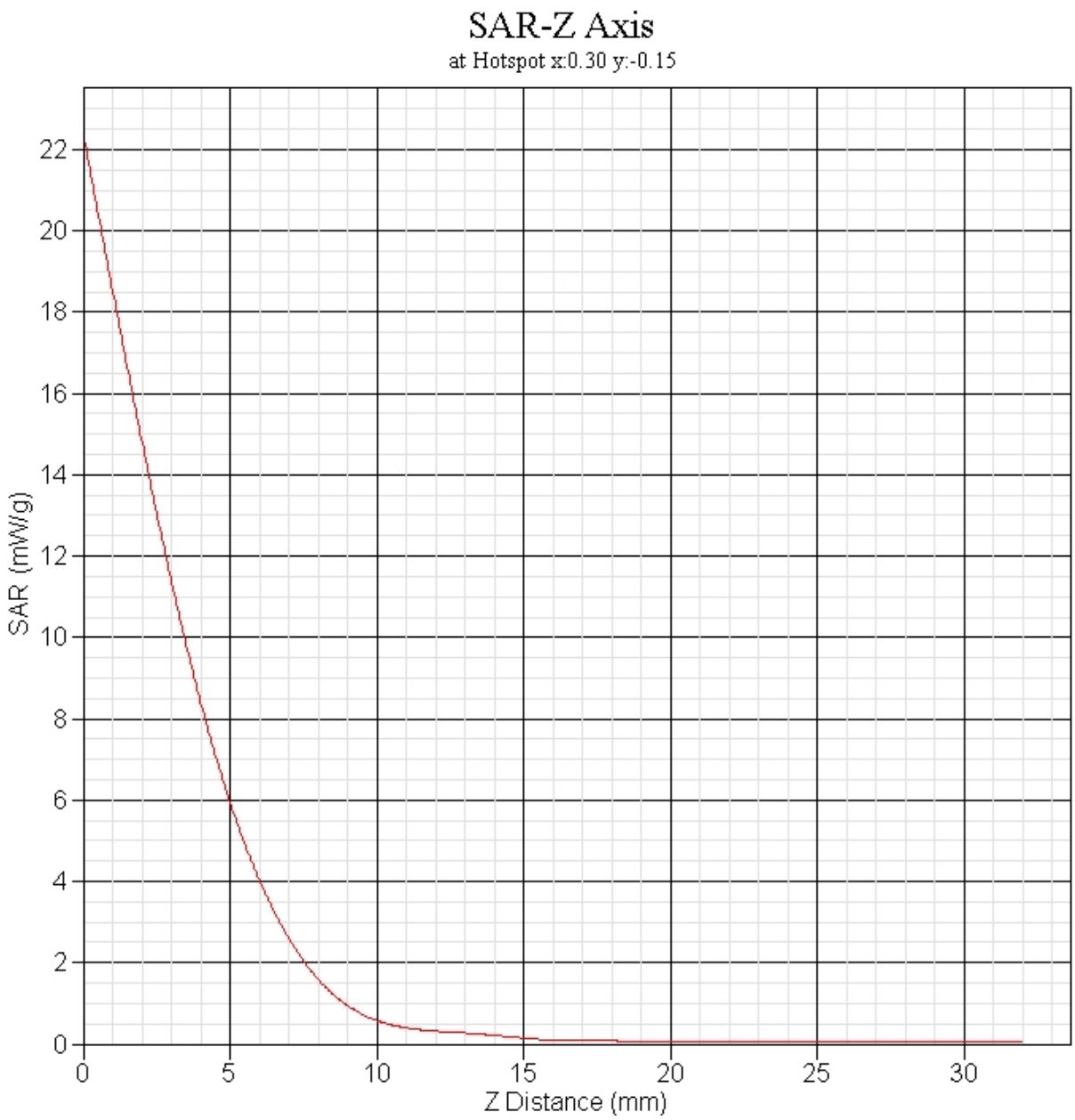
Probe Data
Name : Probe E030-001 - RFEL
Model : E-030
Type : E-Field Triangle
Serial No. : E030-001
Last Calib. Date : 14-Apr-2008
Frequency : 5600.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 mm

```
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       : 8:54:57 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    : 6.224 W/kg
10 gram SAR value   : 1.698 W/kg
Area Scan Peak SAR  : 8.002 W/kg
Zoom Scan Peak SAR  : 22.417 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 01:42:53 PM
End Time : 23-Jul-2008 02:05:40 PM
Scanning Time : 767 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

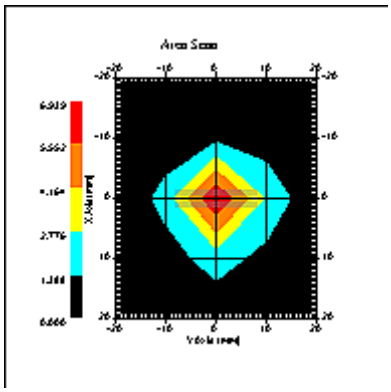
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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

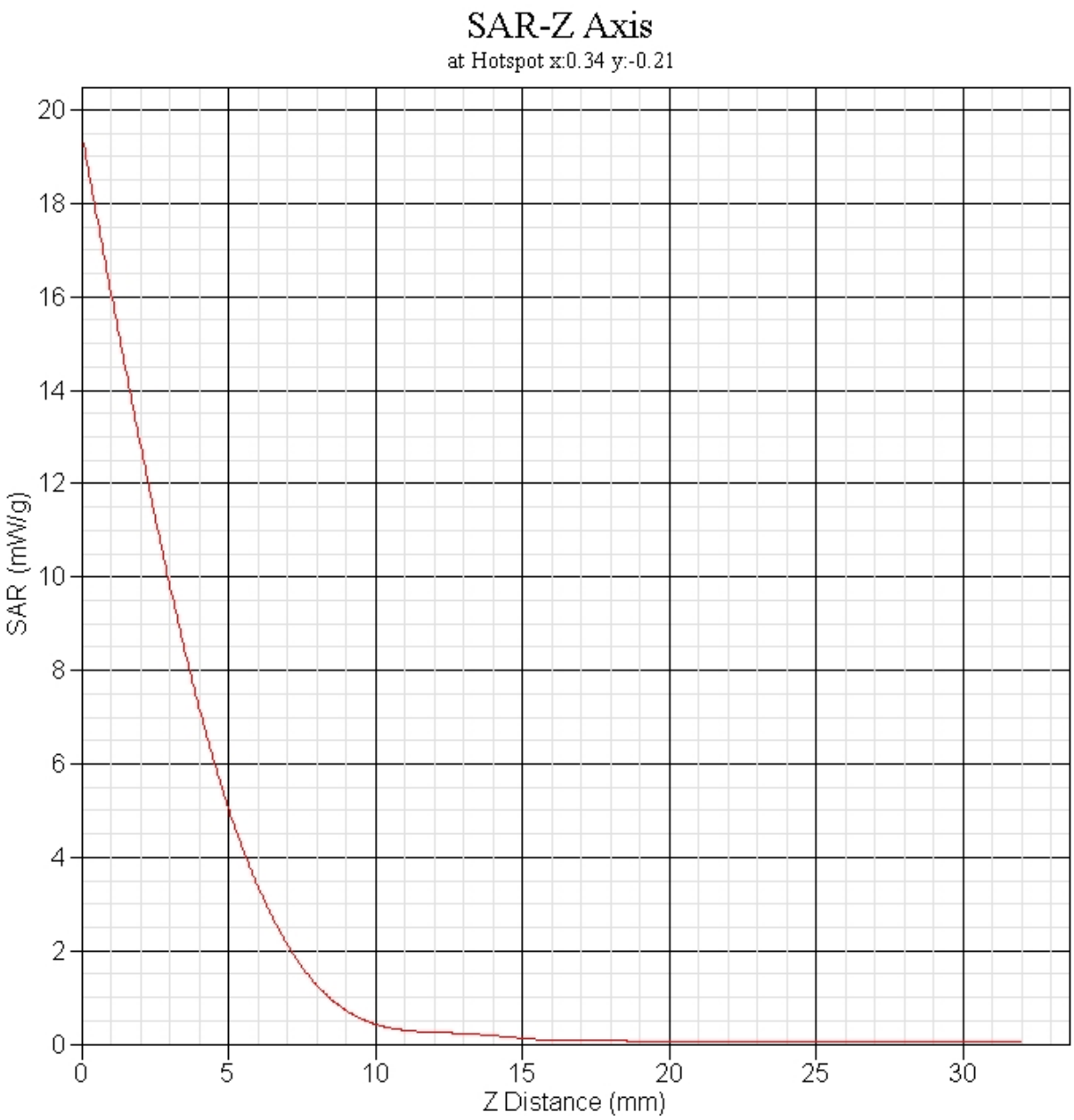
Probe Data
Name : Probe E030-001 - RFEL
Model : E030
Type : E-Field Triangle
Serial No. : E030-001
Last Calib. Date : 14-Apr-2008
Frequency : 5800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 12
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 mm

```
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
```



Appendix B – SAR Test Data Plots

SAR Test Report

By Operator : Jay
Measurement Date : 19-Jul-2008
Starting Time : 19-Jul-2008 04:19:58 PM
End Time : 19-Jul-2008 04:37:44 PM
Scanning Time : 1066 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 835.00 MHz
Max. Transmit Pwr : 0.28 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.612 W/kg
Power Drift-Finish: 0.622 W/kg
Power Drift (%) : 1.746

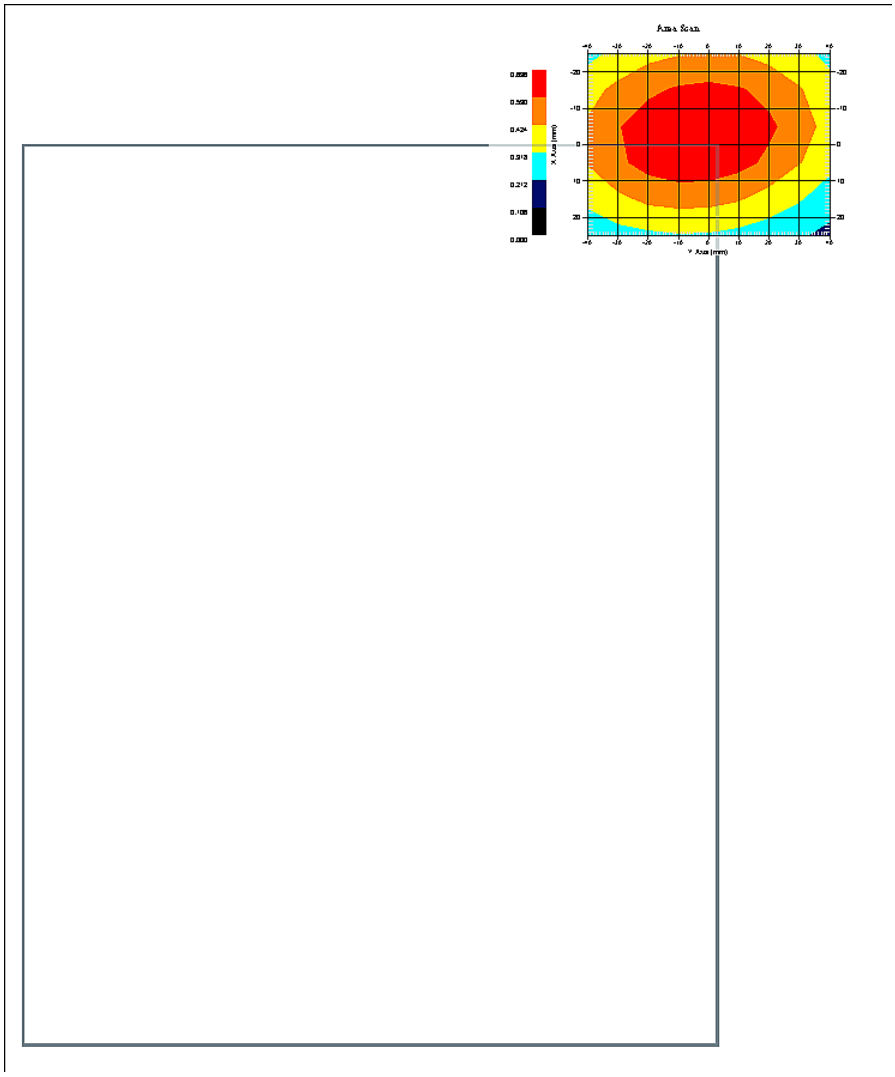
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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

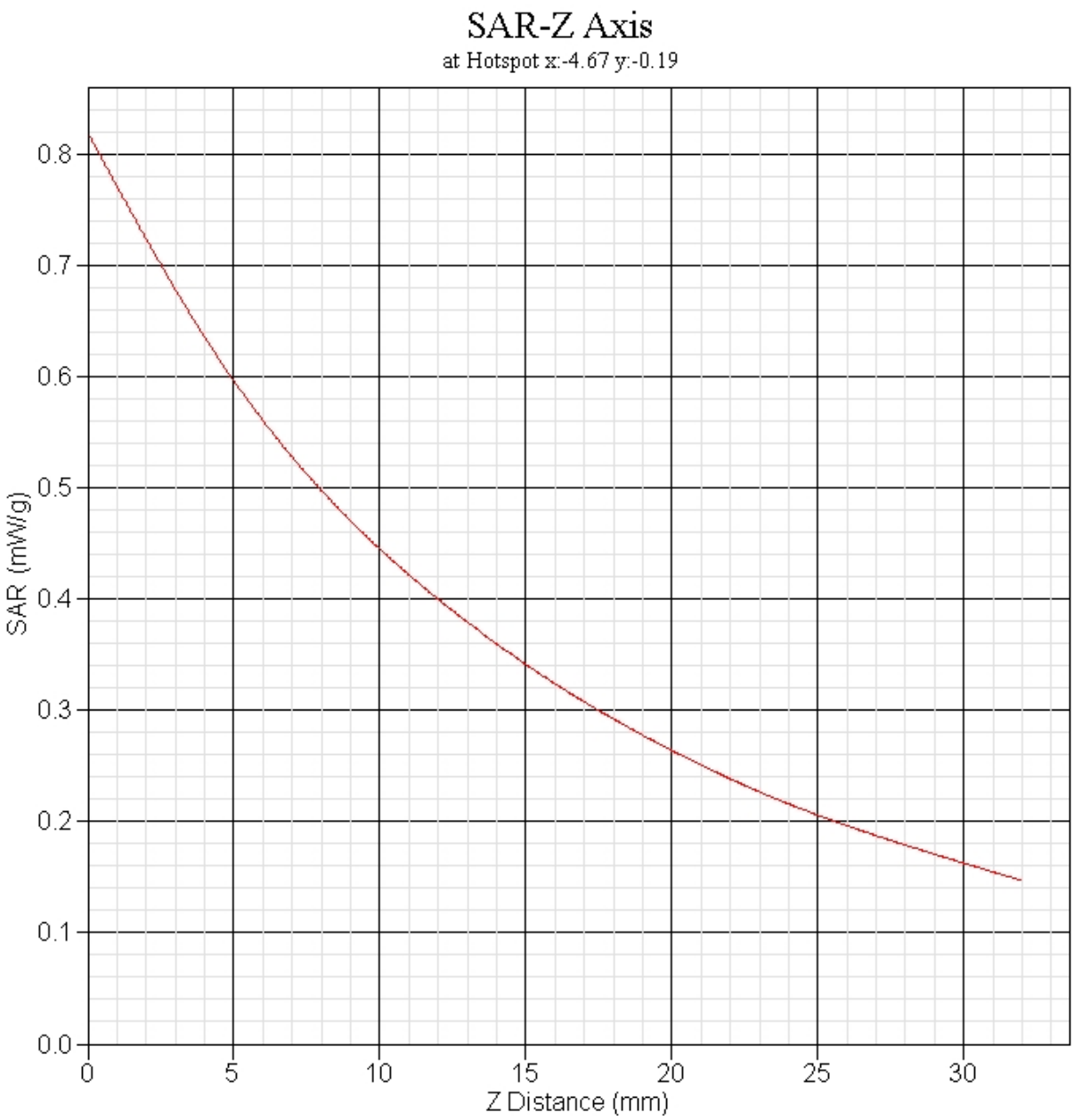
Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 835.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 24.00 °C
Set-up Date       : 19-Jul-2008
Set-up Time       : 2:16:28 PM
Area Scan         : 6x9x1 : 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    : 0.614 W/kg
10 gram SAR value   : 0.442 W/kg
Area Scan Peak SAR  : 0.633 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 04:57:12 PM
End Time : 19-Jul-2008 05:14:50 PM
Scanning Time : 1058 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 835.00 MHz
Max. Transmit Pwr : 0.28 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.457 W/kg
Power Drift-Finish: 0.463 W/kg
Power Drift (%) : 1.360

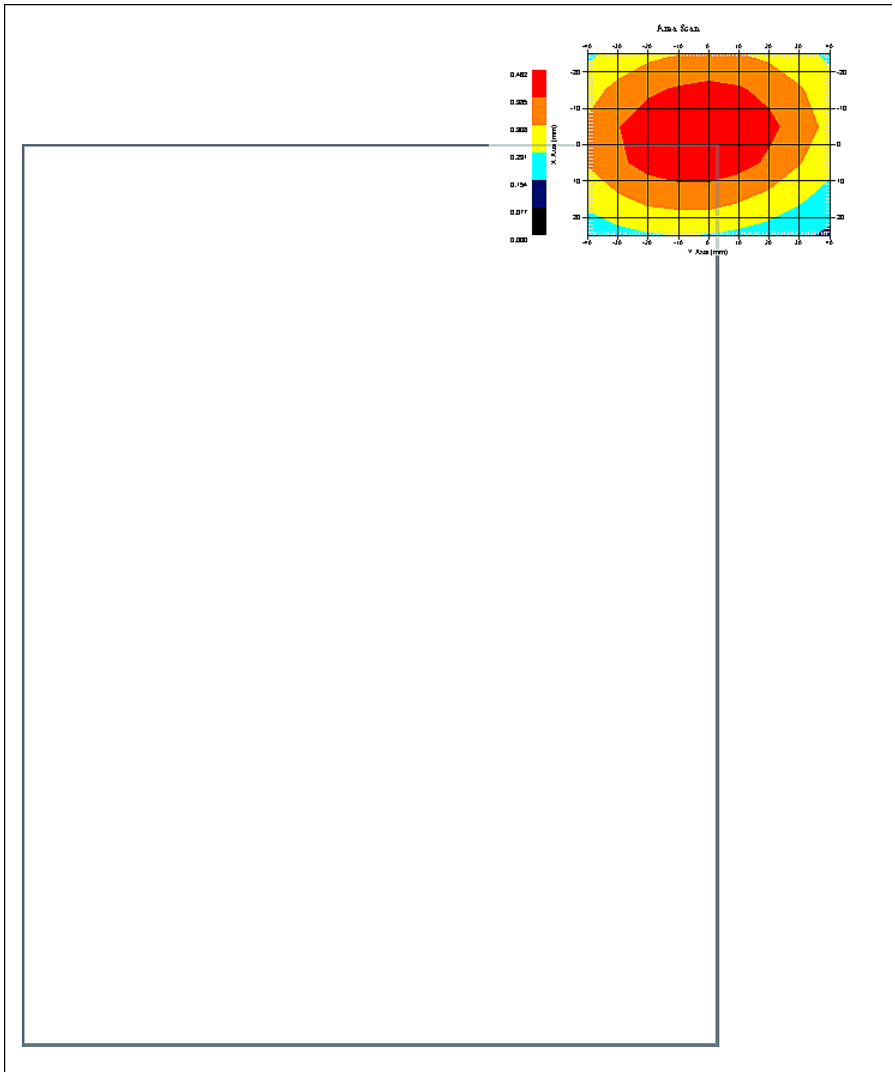
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 24.00 °C
Set-up Date       : 19-Jul-2008
Set-up Time       : 4:57:08 PM
Area Scan         : 6x9x1 : 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    : 0.450 W/kg
10 gram SAR value   : 0.326 W/kg
Area Scan Peak SAR  : 0.461 W/kg
Zoom Scan Peak SAR  : 0.600 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 19-Jul-2008
Starting Time : 19-Jul-2008 05:15:52 PM
End Time : 19-Jul-2008 05:33:04 PM
Scanning Time : 1032 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 835.00 MHz
Max. Transmit Pwr : 0.28 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.618 W/kg
Power Drift-Finish: 0.611 W/kg
Power Drift (%) : -1.103

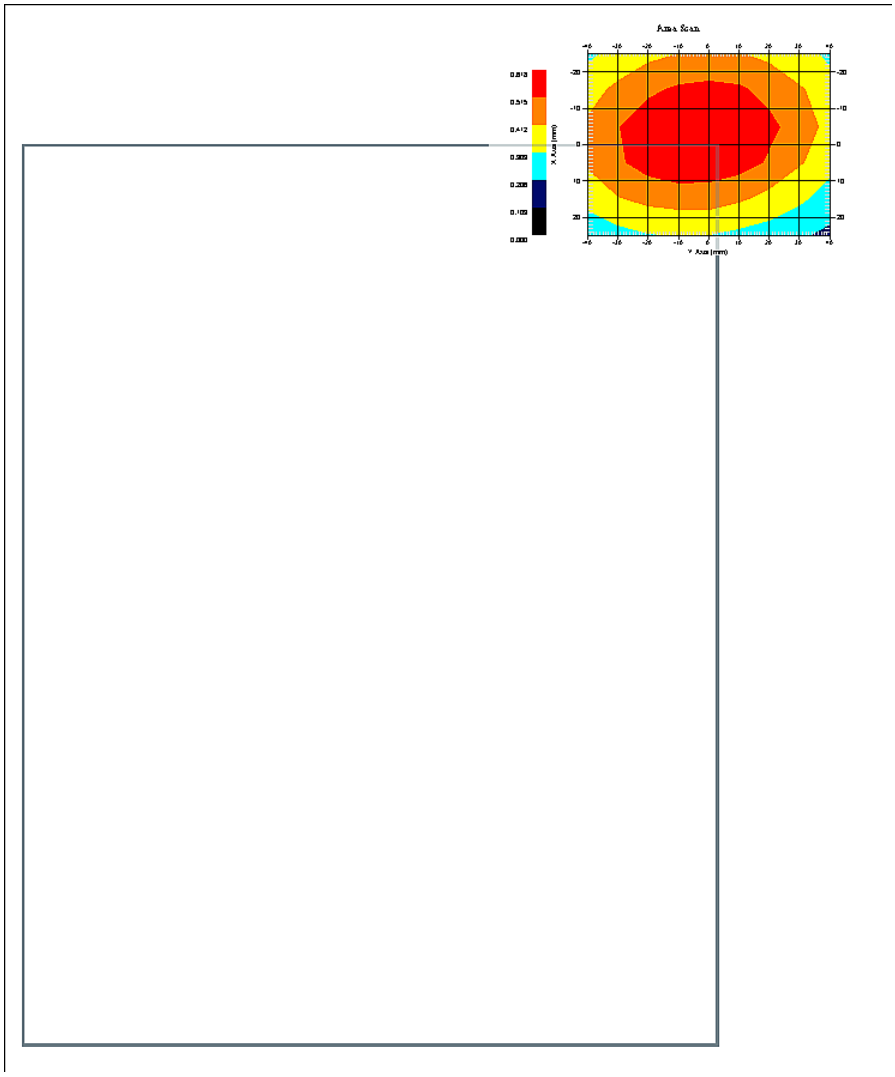
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 24.00 °C
Set-up Date       : 19-Jul-2008
Set-up Time       : 4:57:08 PM
Area Scan         : 6x9x1 : 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    : 0.604 W/kg
10 gram SAR value   : 0.435 W/kg
Area Scan Peak SAR  : 0.618 W/kg
Zoom Scan Peak SAR  : 0.800 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 20-Jul-2008
Starting Time : 20-Jul-2008 03:30:52 PM
End Time : 20-Jul-2008 03:45:37 PM
Scanning Time : 885 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.28 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.895 W/kg
Power Drift-Finish: 0.904 W/kg
Power Drift (%) : 0.962

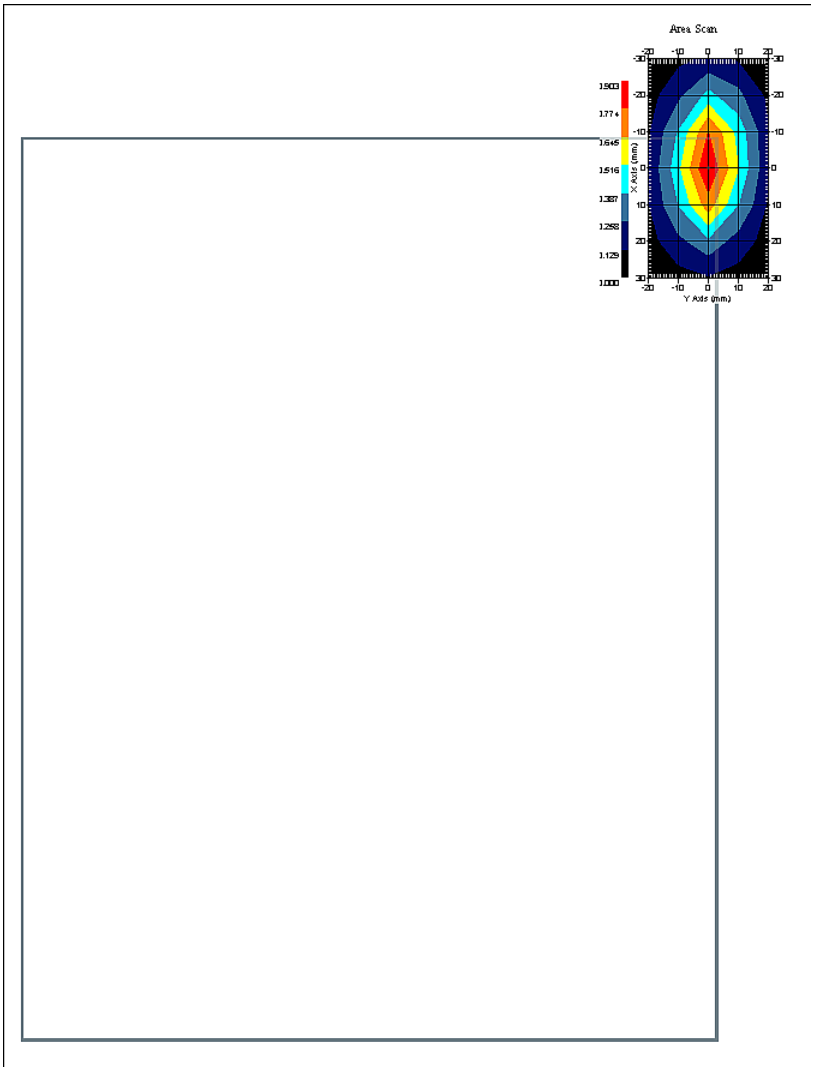
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Jul-2008
Set-up Time       : 3:13:09 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    : 0.785 W/kg
10 gram SAR value   : 0.407 W/kg
Area Scan Peak SAR  : 0.902 W/kg
Zoom Scan Peak SAR  : 1.471 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 20-Jul-2008
Starting Time : 20-Jul-2008 03:14:21 PM
End Time : 20-Jul-2008 03:29:05 PM
Scanning Time : 884 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.28 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.936 W/kg
Power Drift-Finish: 0.962 W/kg
Power Drift (%) : 2.740

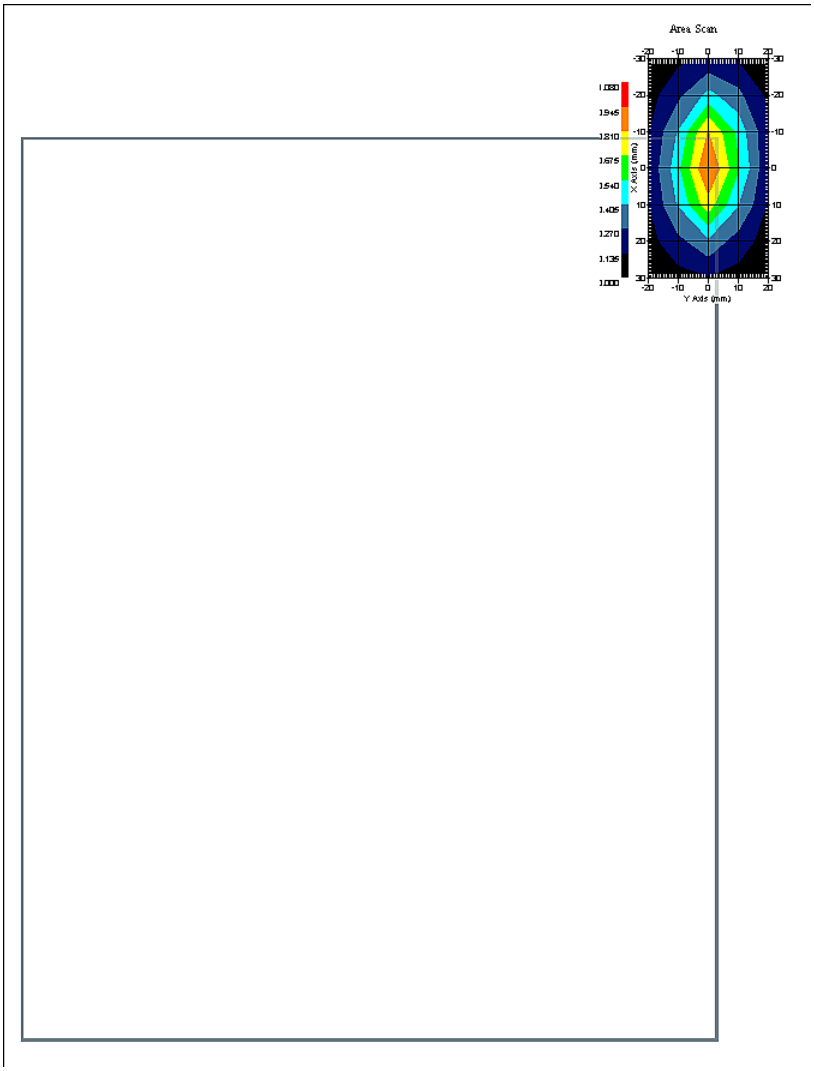
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Jul-2008
Set-up Time       : 3:13:09 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    : 0.825 W/kg
10 gram SAR value   : 0.427 W/kg
Area Scan Peak SAR  : 0.948 W/kg
Zoom Scan Peak SAR  : 1.551 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 20-Jul-2008
Starting Time : 20-Jul-2008 03:47:29 PM
End Time : 20-Jul-2008 04:02:17 PM
Scanning Time : 888 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.28 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.997 W/kg
Power Drift-Finish: 1.009 W/kg
Power Drift (%) : 1.117

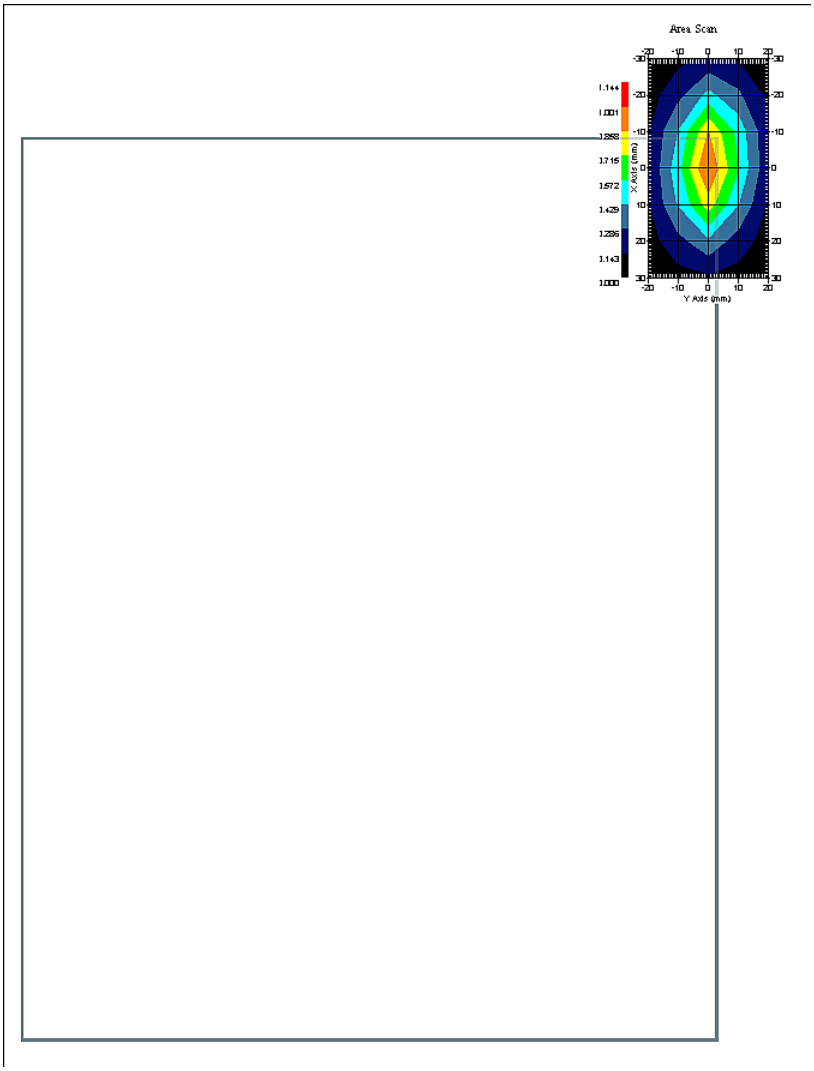
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 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

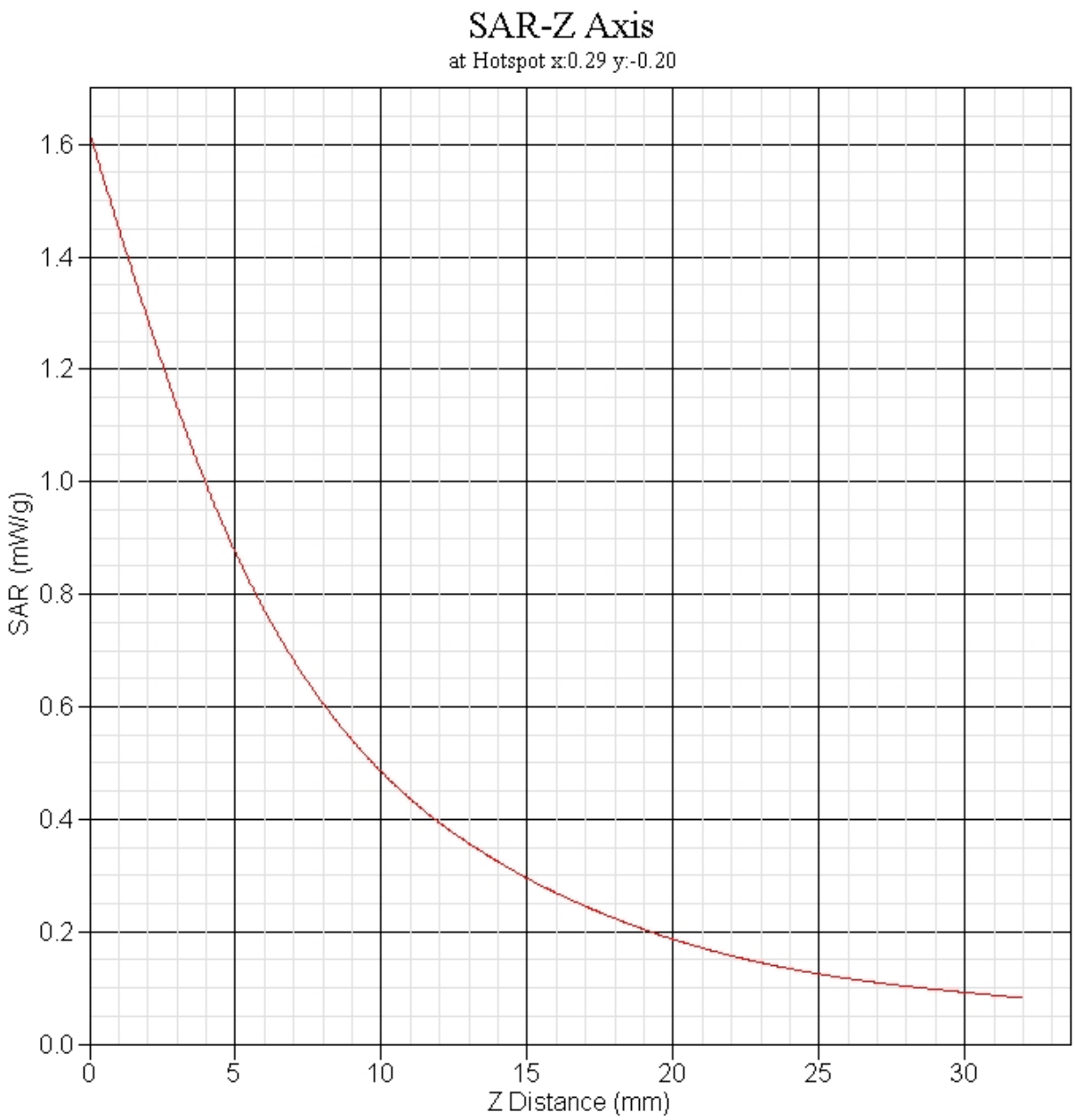
Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 1900.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.85
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Jul-2008
Set-up Time       : 3:13:09 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    : 0.861 W/kg
10 gram SAR value   : 0.445 W/kg
Area Scan Peak SAR  : 1.004 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 04:38:15 PM
End Time : 20-Jul-2008 04:53:01 PM
Scanning Time : 886 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.28 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.927 W/kg
Power Drift-Finish: 0.932 W/kg
Power Drift (%) : 0.534

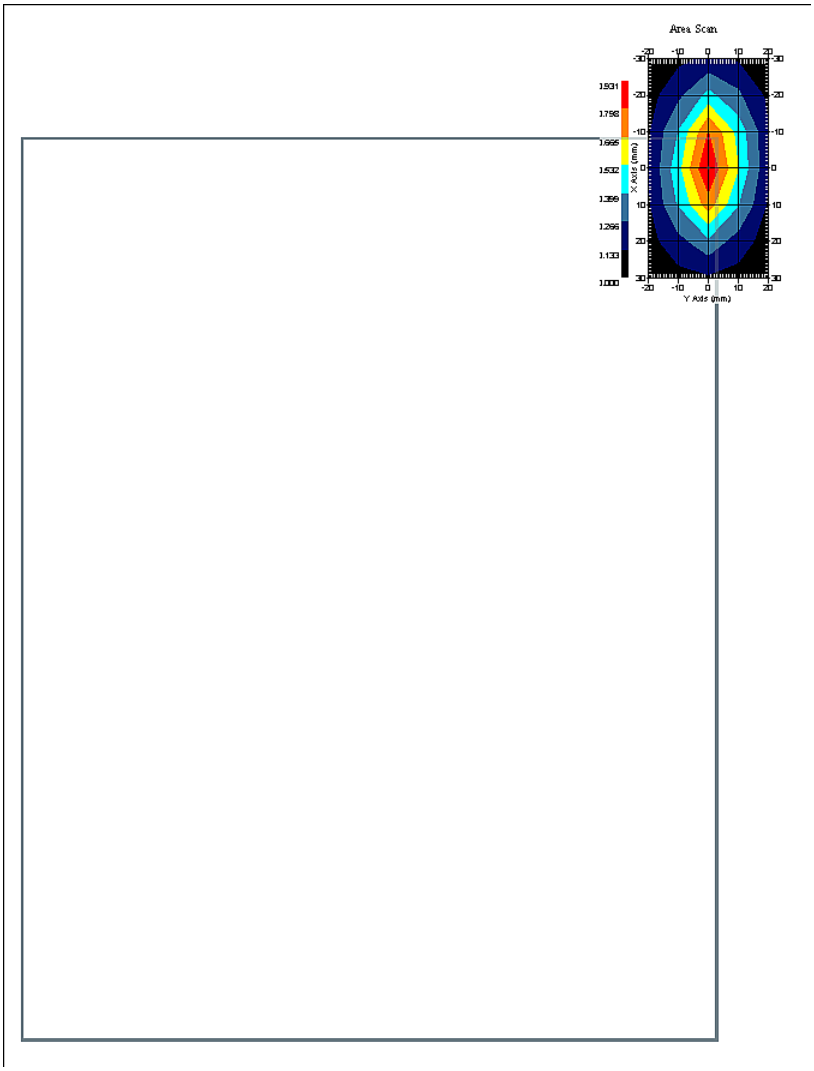
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Jul-2008
Set-up Time       : 3:13:09 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    : 0.802 W/kg
10 gram SAR value   : 0.416 W/kg
Area Scan Peak SAR  : 0.929 W/kg
Zoom Scan Peak SAR  : 1.501 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 20-Jul-2008
Starting Time : 20-Jul-2008 04:21:54 PM
End Time : 20-Jul-2008 04:36:46 PM
Scanning Time : 892 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.28 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.900 W/kg
Power Drift-Finish: 0.914 W/kg
Power Drift (%) : 1.600

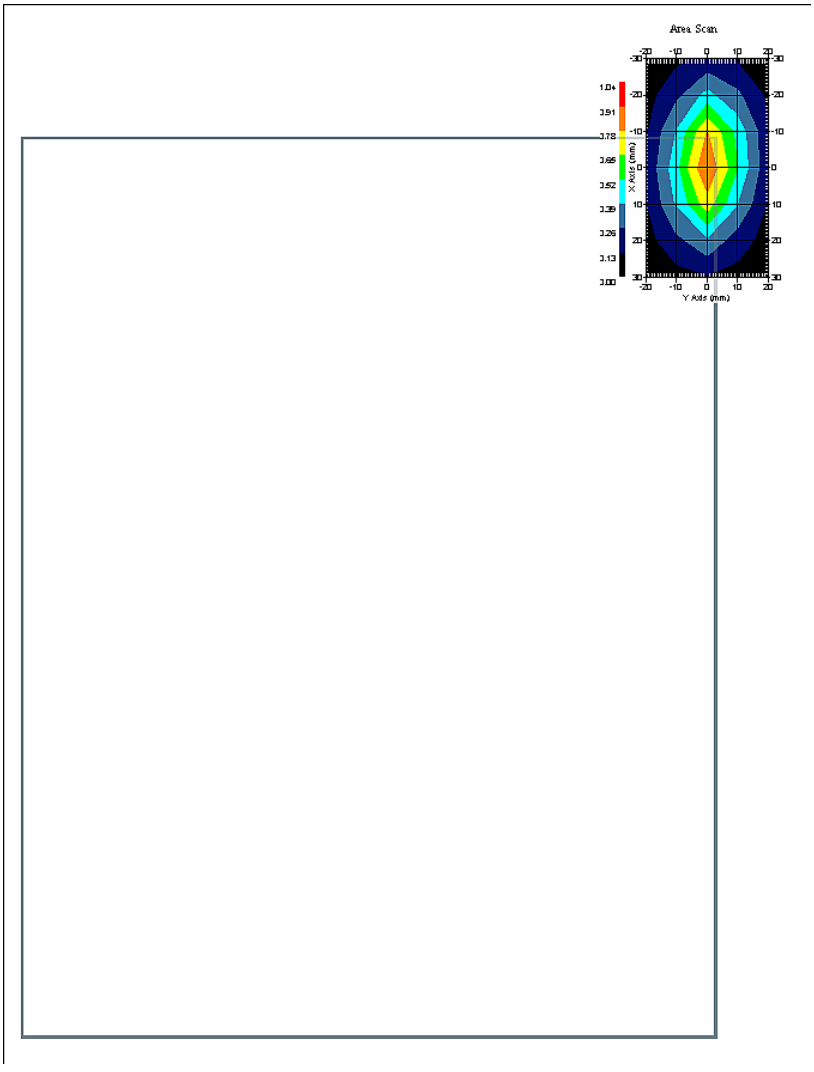
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Jul-2008
Set-up Time       : 3:13:09 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    : 0.785 W/kg
10 gram SAR value   : 0.408 W/kg
Area Scan Peak SAR  : 0.912 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 04:04:20 PM
End Time : 20-Jul-2008 04:19:09 PM
Scanning Time : 889 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.28 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.959 W/kg
Power Drift-Finish: 0.979 W/kg
Power Drift (%) : 2.008

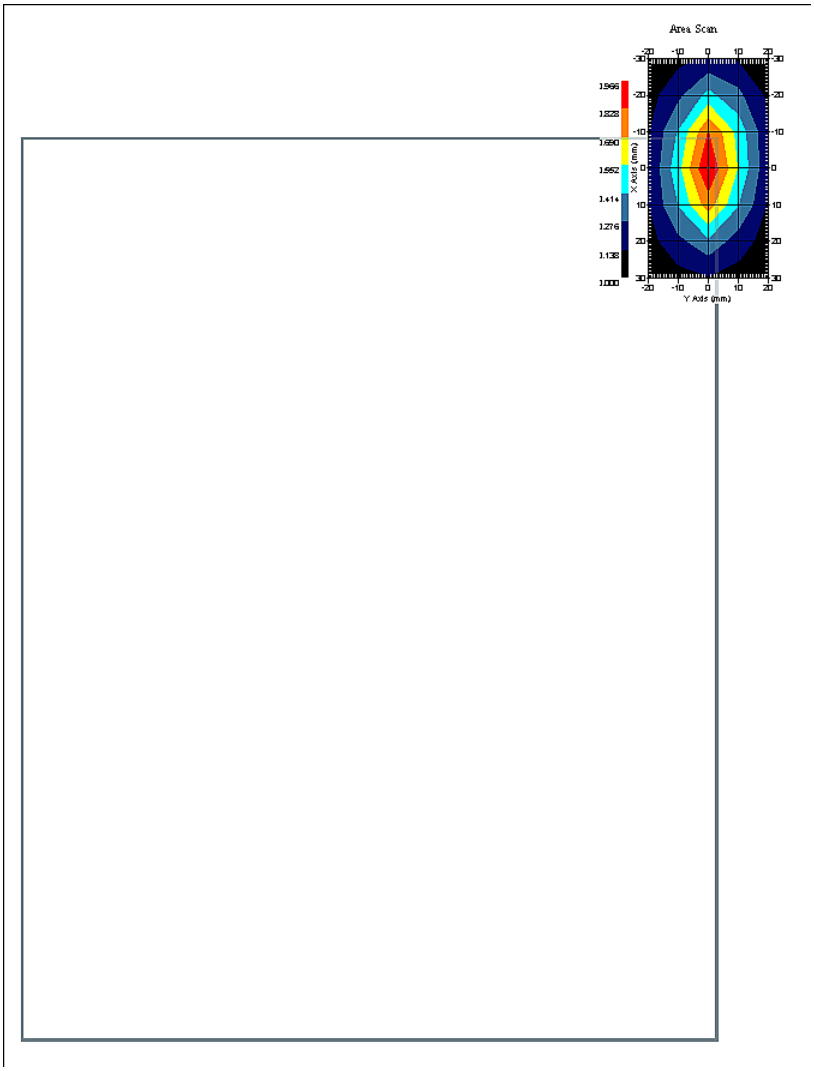
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Jul-2008
Set-up Time       : 3:13:09 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    : 0.840 W/kg
10 gram SAR value   : 0.434 W/kg
Area Scan Peak SAR  : 0.965 W/kg
Zoom Scan Peak SAR  : 1.581 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 20-Jul-2008
Starting Time : 20-Jul-2008 05:27:53 PM
End Time : 20-Jul-2008 05:42:41 PM
Scanning Time : 888 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.28 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.890 W/kg
Power Drift-Finish: 0.911 W/kg
Power Drift (%) : 2.445

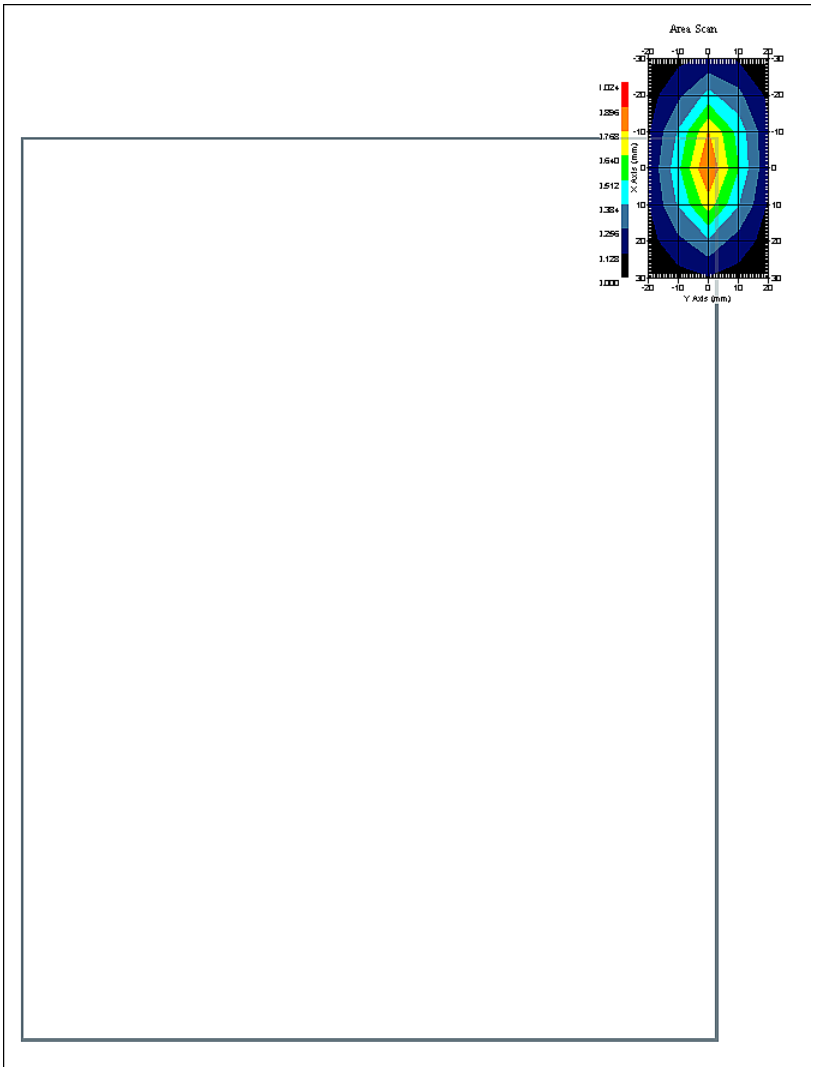
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Jul-2008
Set-up Time       : 3:13:09 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    : 0.777 W/kg
10 gram SAR value   : 0.403 W/kg
Area Scan Peak SAR  : 0.898 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 05:11:23 PM
End Time : 20-Jul-2008 05:26:02 PM
Scanning Time : 879 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.28 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.854 W/kg
Power Drift-Finish: 0.871 W/kg
Power Drift (%) : 1.990

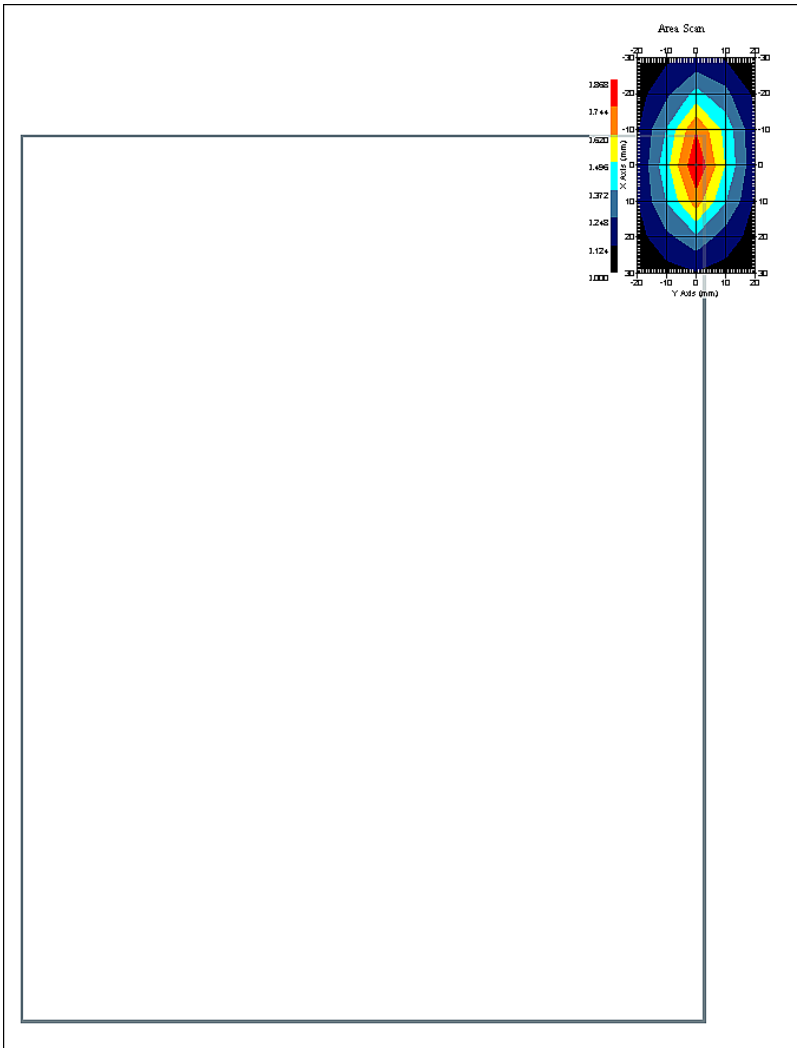
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Jul-2008
Set-up Time       : 3:13:09 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    : 0.747 W/kg
10 gram SAR value   : 0.387 W/kg
Area Scan Peak SAR  : 0.866 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 04:54:38 PM
End Time : 20-Jul-2008 05:09:29 PM
Scanning Time : 891 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 1900.00 MHz
Max. Transmit Pwr : 0.28 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.956 W/kg
Power Drift-Finish: 0.968 W/kg
Power Drift (%) : 1.222

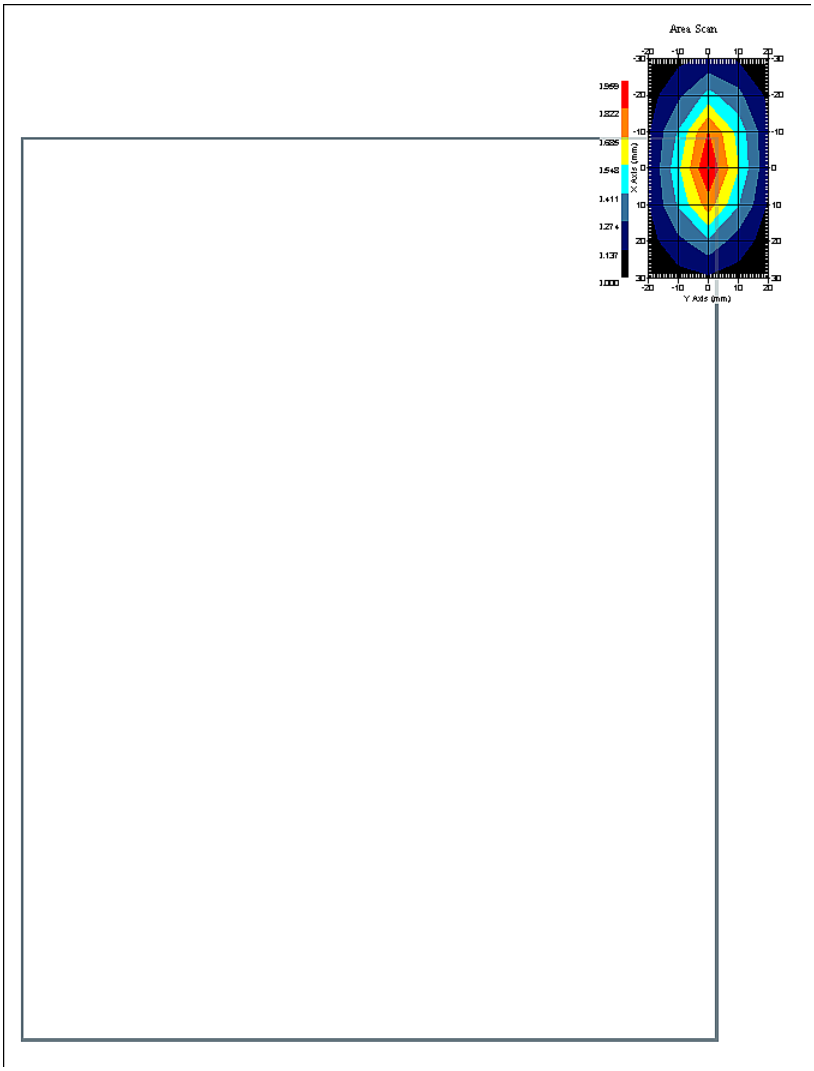
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 20-Jul-2008
Set-up Time       : 3:13:09 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    : 0.839 W/kg
10 gram SAR value   : 0.432 W/kg
Area Scan Peak SAR  : 0.958 W/kg
Zoom Scan Peak SAR  : 1.591 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 11:32:26 AM
End Time : 21-Jul-2008 11:47:05 AM
Scanning Time : 879 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.229 W/kg
Power Drift-Finish: 0.237 W/kg
Power Drift (%) : 3.367

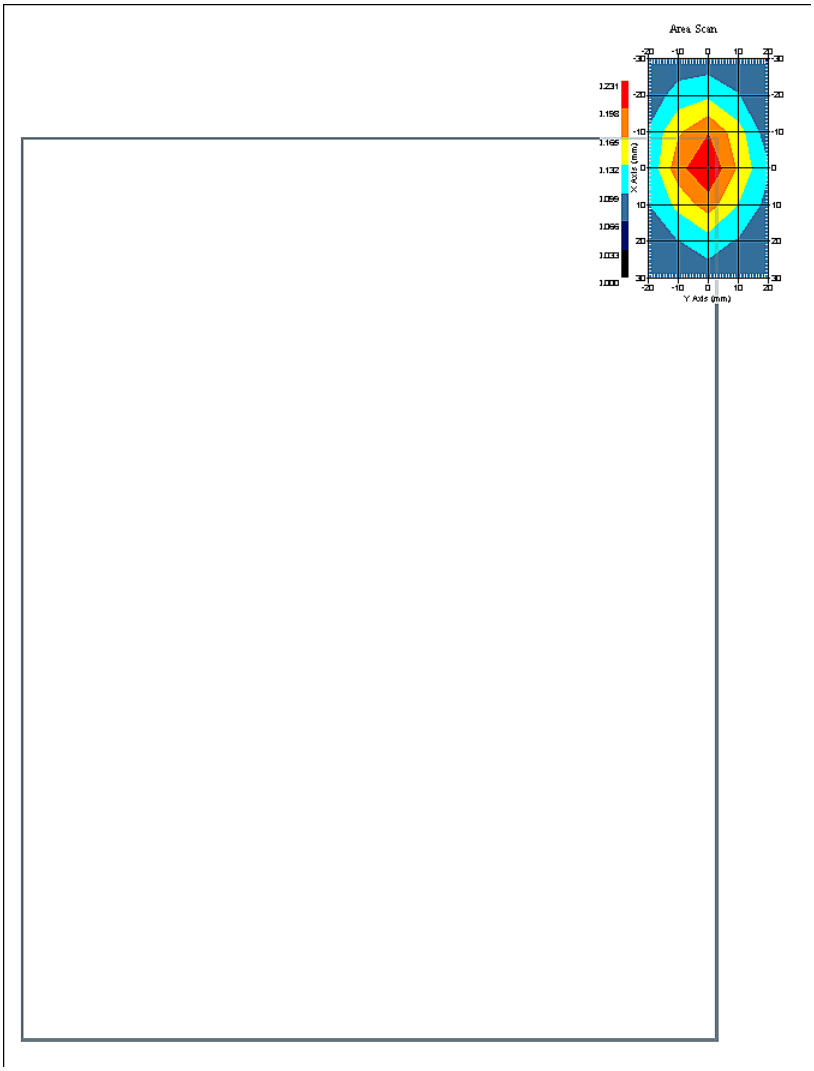
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.219 W/kg
10 gram SAR value   : 0.137 W/kg
Area Scan Peak SAR  : 0.230 W/kg
Zoom Scan Peak SAR  : 0.370 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 11:49:00 AM
End Time : 21-Jul-2008 12:03:47 PM
Scanning Time : 887 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.219 W/kg
Power Drift-Finish: 0.214 W/kg
Power Drift (%) : -1.847

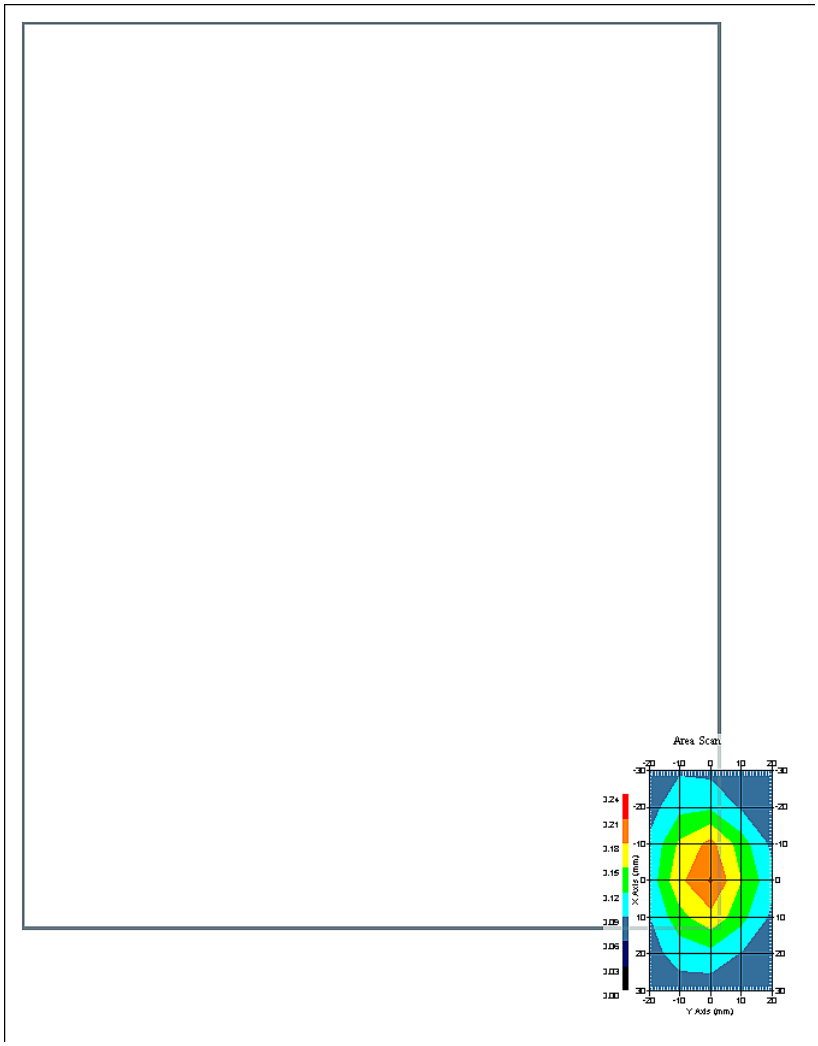
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.199 W/kg
10 gram SAR value   : 0.129 W/kg
Area Scan Peak SAR  : 0.213 W/kg
Zoom Scan Peak SAR  : 0.320 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 08:08:21 AM
End Time : 21-Jul-2008 08:24:38 AM
Scanning Time : 977 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.370 W/kg
Power Drift-Finish: 0.376 W/kg
Power Drift (%) : 1.862

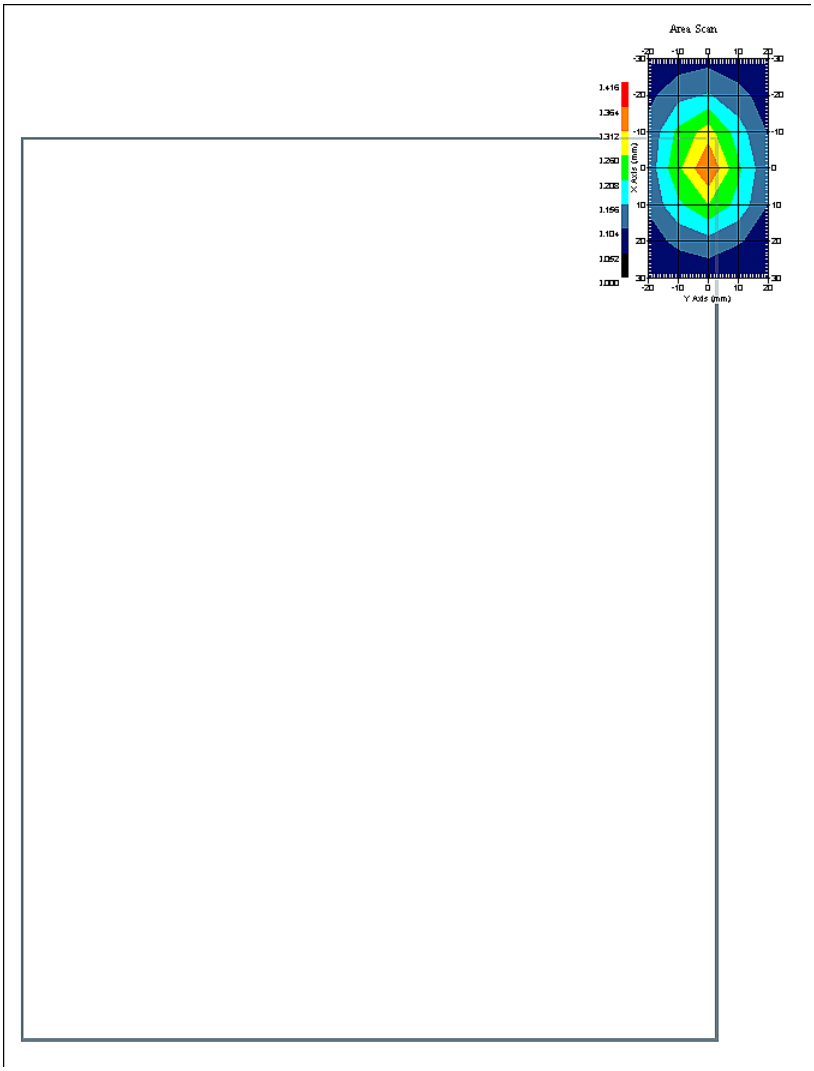
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.317 W/kg
10 gram SAR value   : 0.187 W/kg
Area Scan Peak SAR  : 0.365 W/kg
Zoom Scan Peak SAR  : 0.540 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 08:59:16 AM
End Time : 21-Jul-2008 09:14:00 AM
Scanning Time : 884 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.293 W/kg
Power Drift-Finish: 0.295 W/kg
Power Drift (%) : 0.543

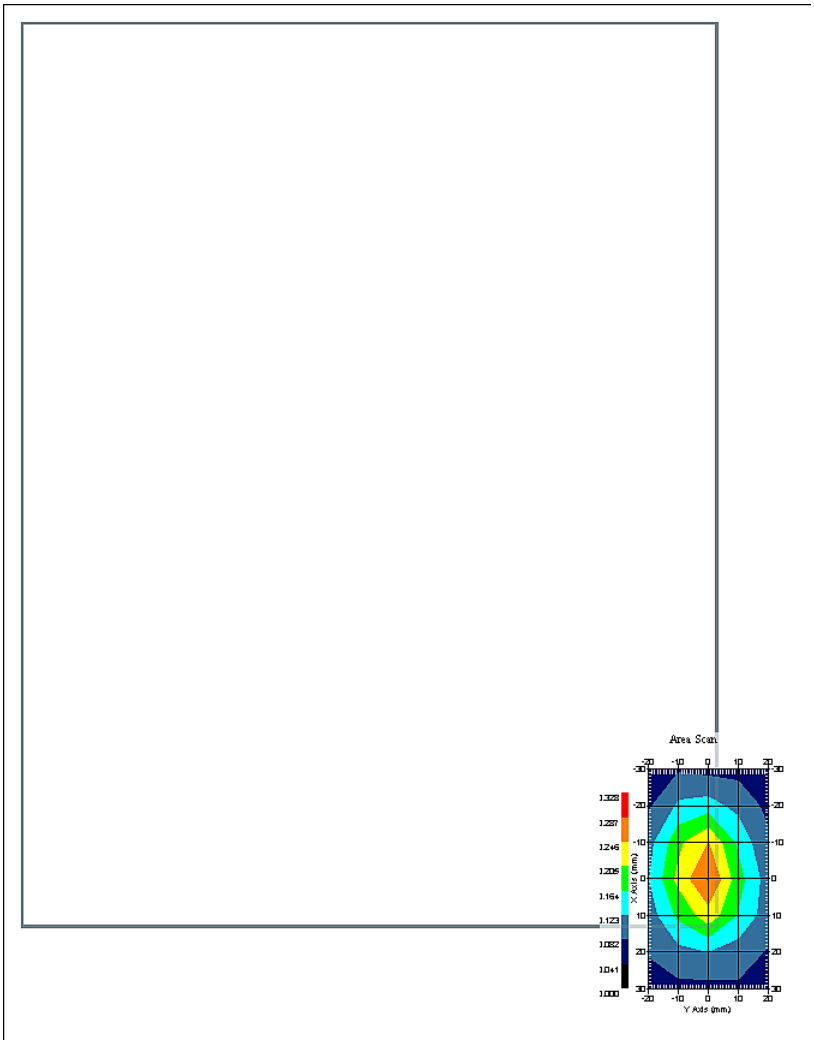
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.261 W/kg
10 gram SAR value   : 0.157 W/kg
Area Scan Peak SAR  : 0.289 W/kg
Zoom Scan Peak SAR  : 0.460 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 09:16:00 AM
End Time : 21-Jul-2008 09:30:43 AM
Scanning Time : 883 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.306 W/kg
Power Drift-Finish: 0.310 W/kg
Power Drift (%) : 1.209

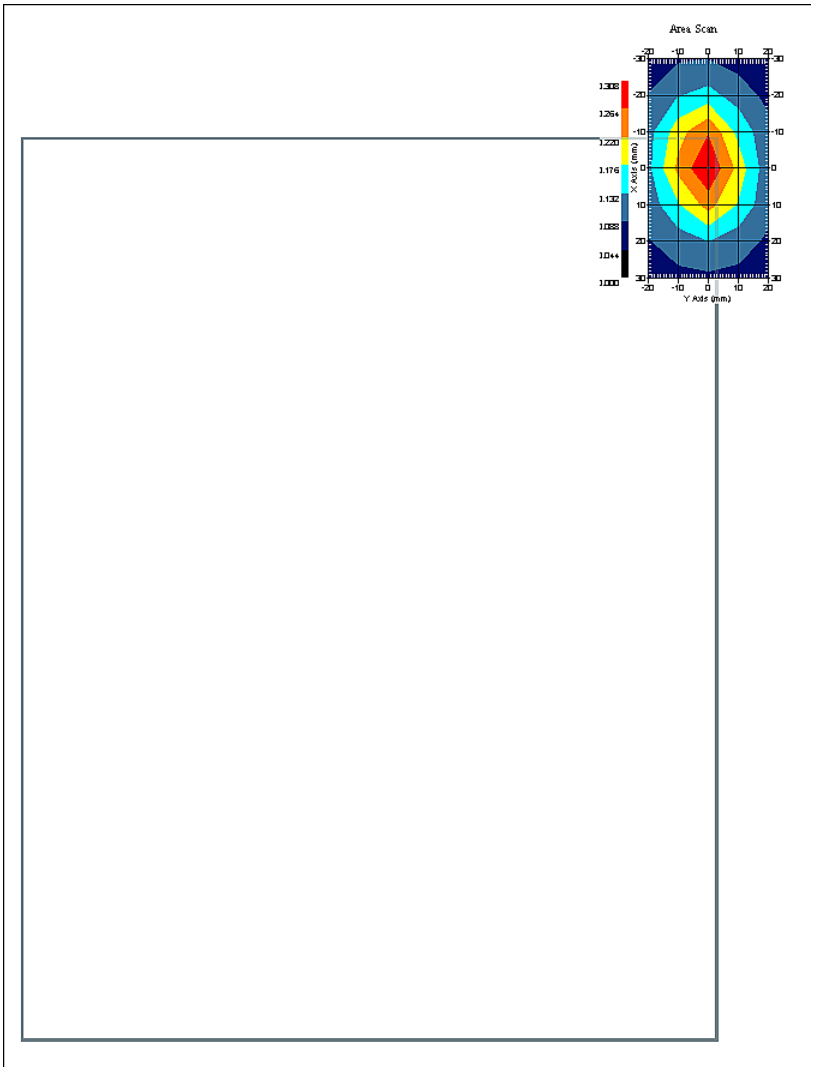
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.277 W/kg
10 gram SAR value   : 0.166 W/kg
Area Scan Peak SAR  : 0.307 W/kg
Zoom Scan Peak SAR  : 0.470 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 09:52:05 AM
End Time : 21-Jul-2008 10:06:49 AM
Scanning Time : 884 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.253 W/kg
Power Drift-Finish: 0.258 W/kg
Power Drift (%) : 1.943

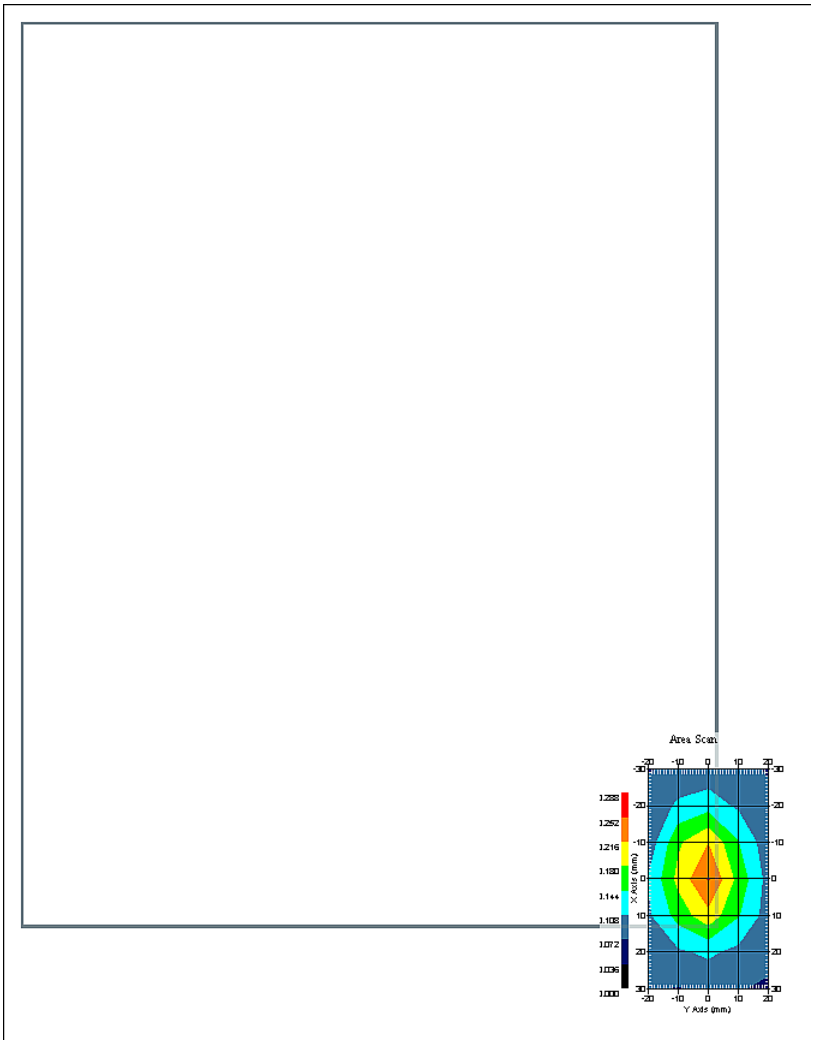
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.234 W/kg
10 gram SAR value   : 0.143 W/kg
Area Scan Peak SAR  : 0.254 W/kg
Zoom Scan Peak SAR  : 0.410 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 12:05:45 PM
End Time : 21-Jul-2008 12:20:31 PM
Scanning Time : 886 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.219 W/kg
Power Drift-Finish: 0.223 W/kg
Power Drift (%) : 1.683

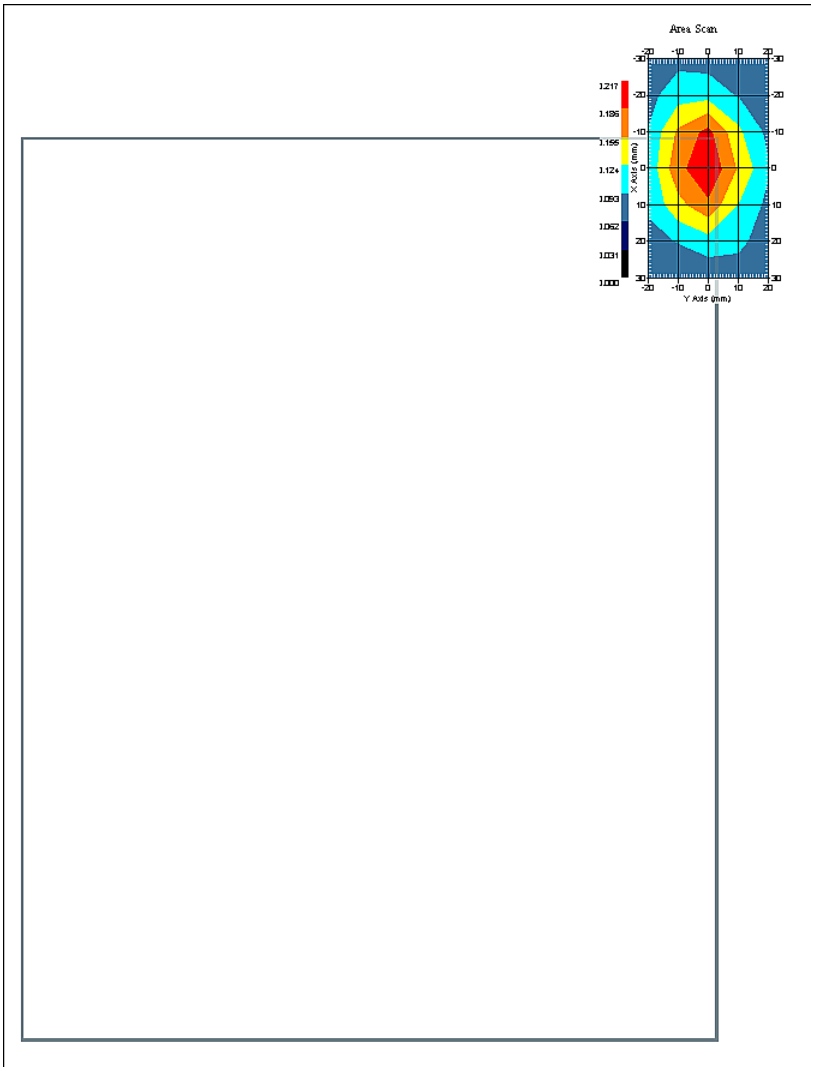
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.188 W/kg
10 gram SAR value   : 0.125 W/kg
Area Scan Peak SAR  : 0.216 W/kg
Zoom Scan Peak SAR  : 0.330 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 12:22:18 PM
End Time : 21-Jul-2008 12:37:00 PM
Scanning Time : 882 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.237 W/kg
Power Drift-Finish: 0.240 W/kg
Power Drift (%) : 1.337

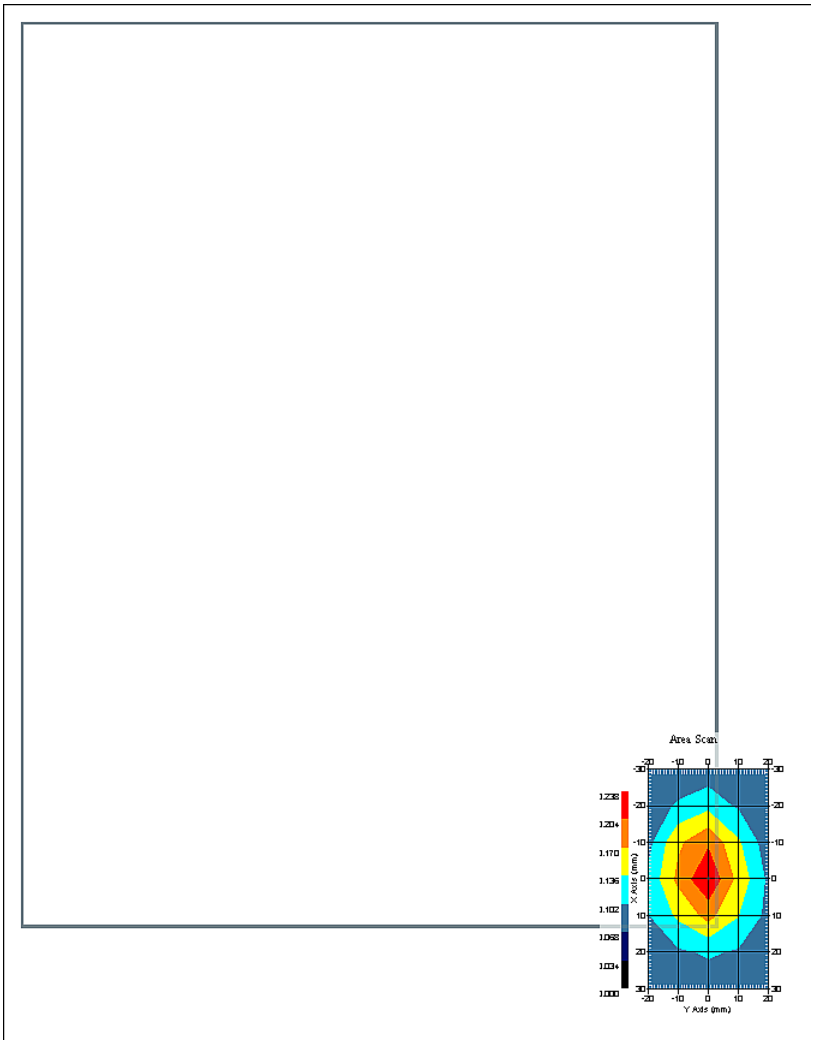
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.219 W/kg
10 gram SAR value   : 0.139 W/kg
Area Scan Peak SAR  : 0.235 W/kg
Zoom Scan Peak SAR  : 0.370 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 08:26:48 AM
End Time : 21-Jul-2008 08:41:29 AM
Scanning Time : 881 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.387 W/kg
Power Drift-Finish: 0.378 W/kg
Power Drift (%) : -2.380

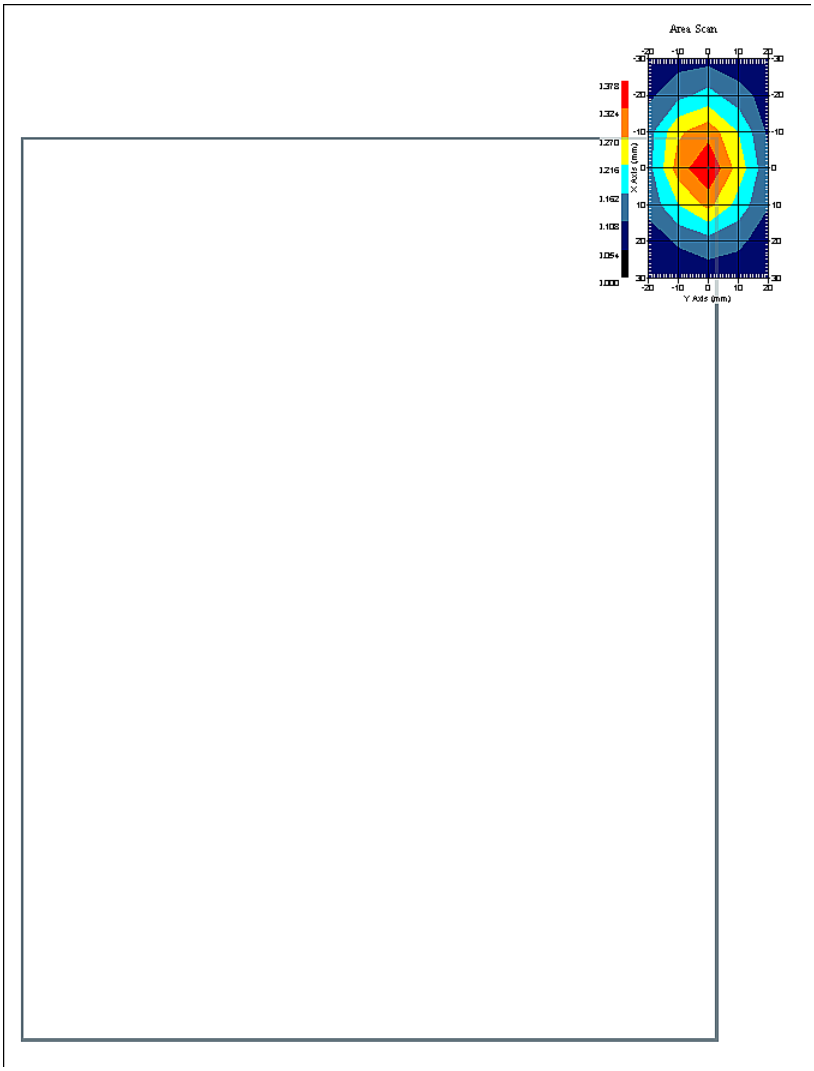
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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

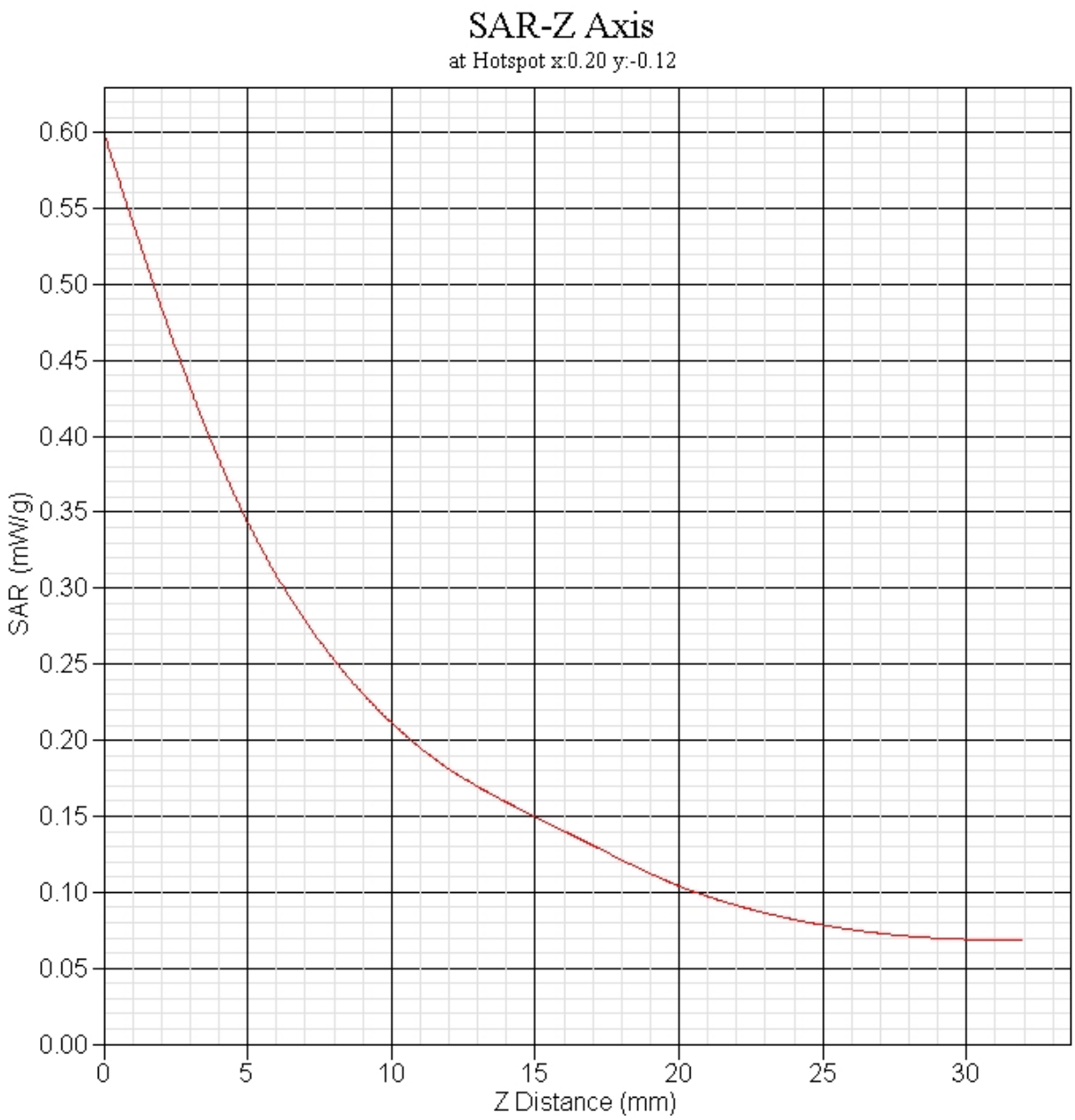
Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217
Last Calib. Date : 03-Dec-2007
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 3.61
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.347 W/kg
10 gram SAR value   : 0.198 W/kg
Area Scan Peak SAR  : 0.378 W/kg
Zoom Scan Peak SAR  : 0.600 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 08:43:31 AM
End Time : 21-Jul-2008 08:58:08 AM
Scanning Time : 877 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.307 W/kg
Power Drift-Finish: 0.308 W/kg
Power Drift (%) : 0.400

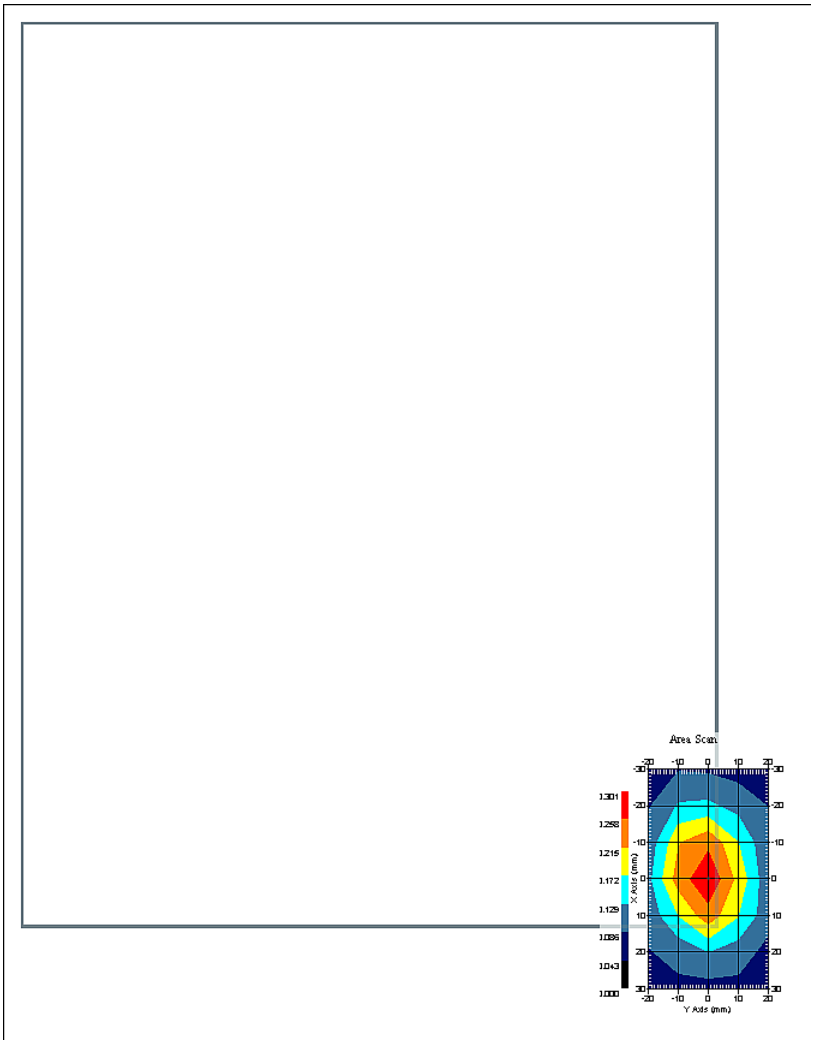
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.272 W/kg
10 gram SAR value   : 0.159 W/kg
Area Scan Peak SAR  : 0.298 W/kg
Zoom Scan Peak SAR  : 0.470 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 09:33:19 AM
End Time : 21-Jul-2008 09:48:02 AM
Scanning Time : 883 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.295 W/kg
Power Drift-Finish: 0.297 W/kg
Power Drift (%) : 0.774

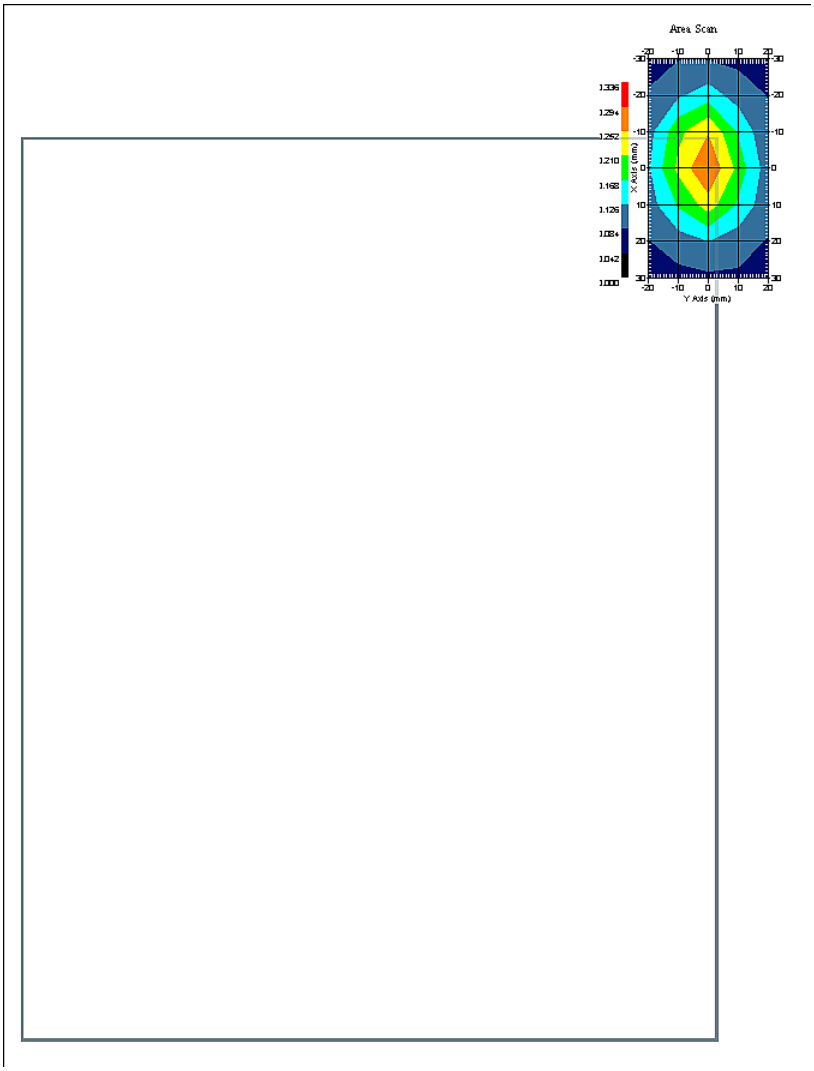
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.263 W/kg
10 gram SAR value   : 0.158 W/kg
Area Scan Peak SAR  : 0.295 W/kg
Zoom Scan Peak SAR  : 0.470 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 10:08:23 AM
End Time : 21-Jul-2008 10:23:06 AM
Scanning Time : 883 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.246 W/kg
Power Drift-Finish: 0.247 W/kg
Power Drift (%) : 0.428

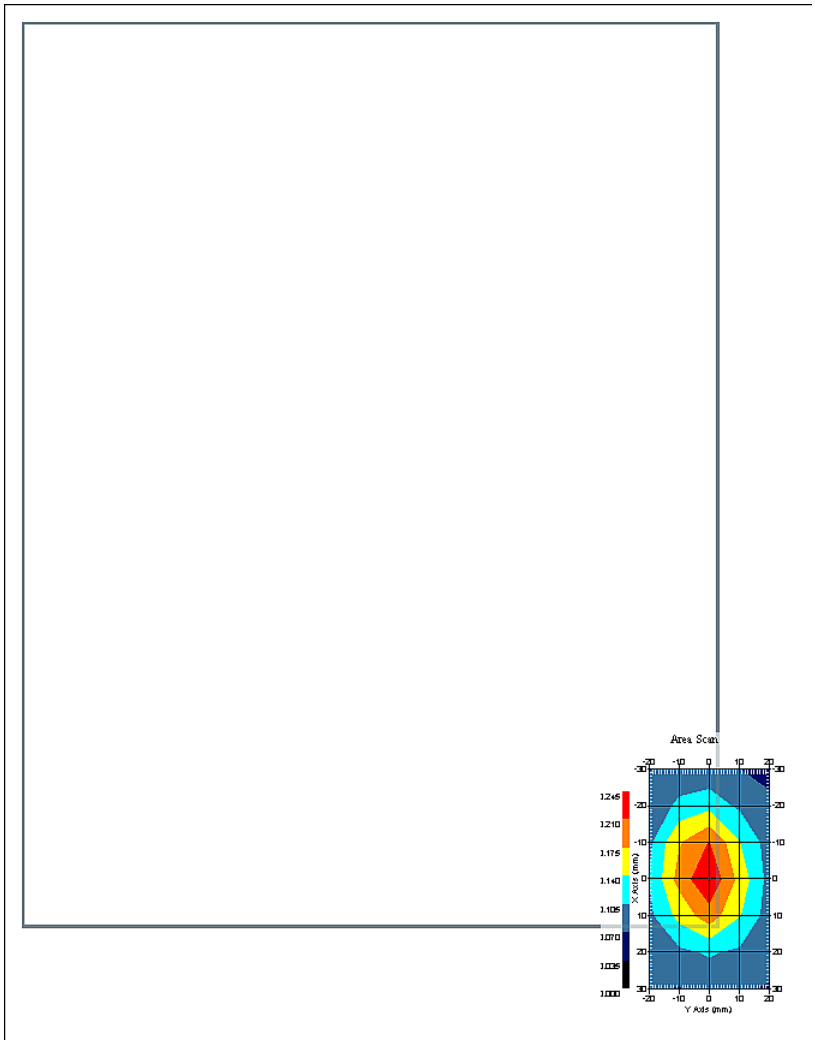
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.223 W/kg
10 gram SAR value   : 0.138 W/kg
Area Scan Peak SAR  : 0.243 W/kg
Zoom Scan Peak SAR  : 0.380 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 12:38:35 PM
End Time : 21-Jul-2008 12:53:14 PM
Scanning Time : 879 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.244 W/kg
Power Drift-Finish: 0.249 W/kg
Power Drift (%) : 1.870

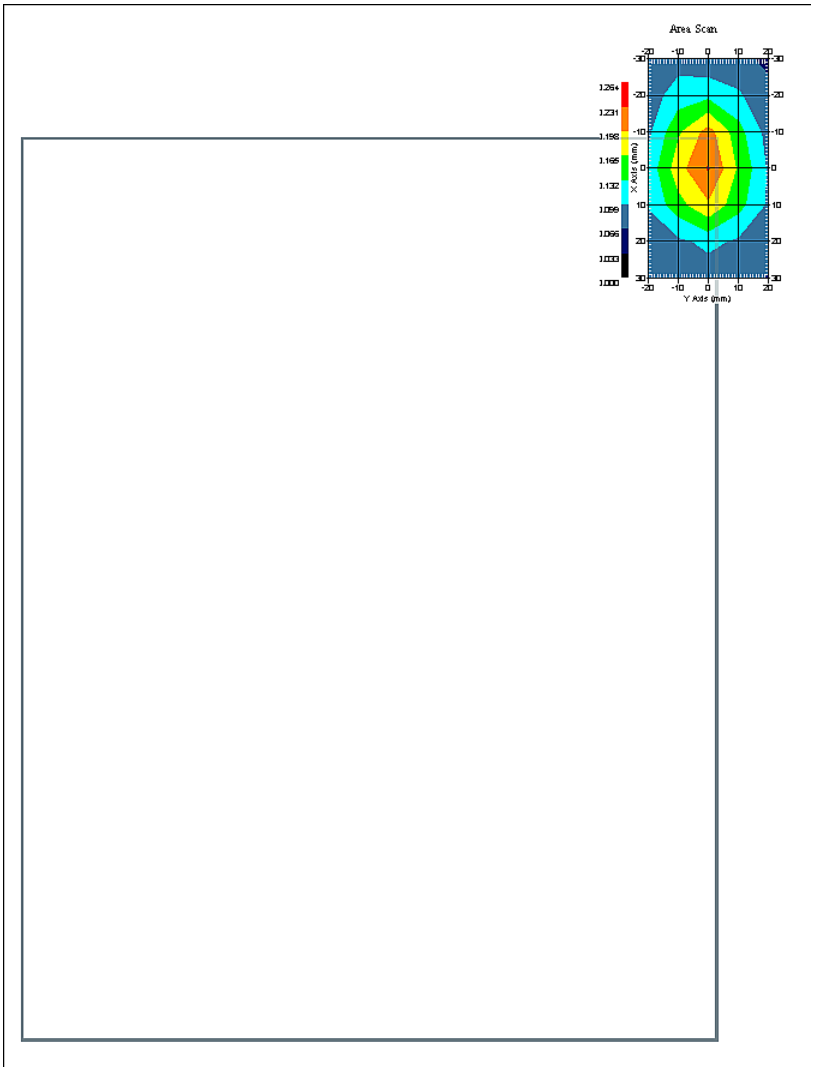
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.217 W/kg
10 gram SAR value   : 0.138 W/kg
Area Scan Peak SAR  : 0.234 W/kg
Zoom Scan Peak SAR  : 0.340 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 12:55:23 PM
End Time : 21-Jul-2008 01:10:09 PM
Scanning Time : 886 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.255 W/kg
Power Drift-Finish: 0.264 W/kg
Power Drift (%) : 3.454

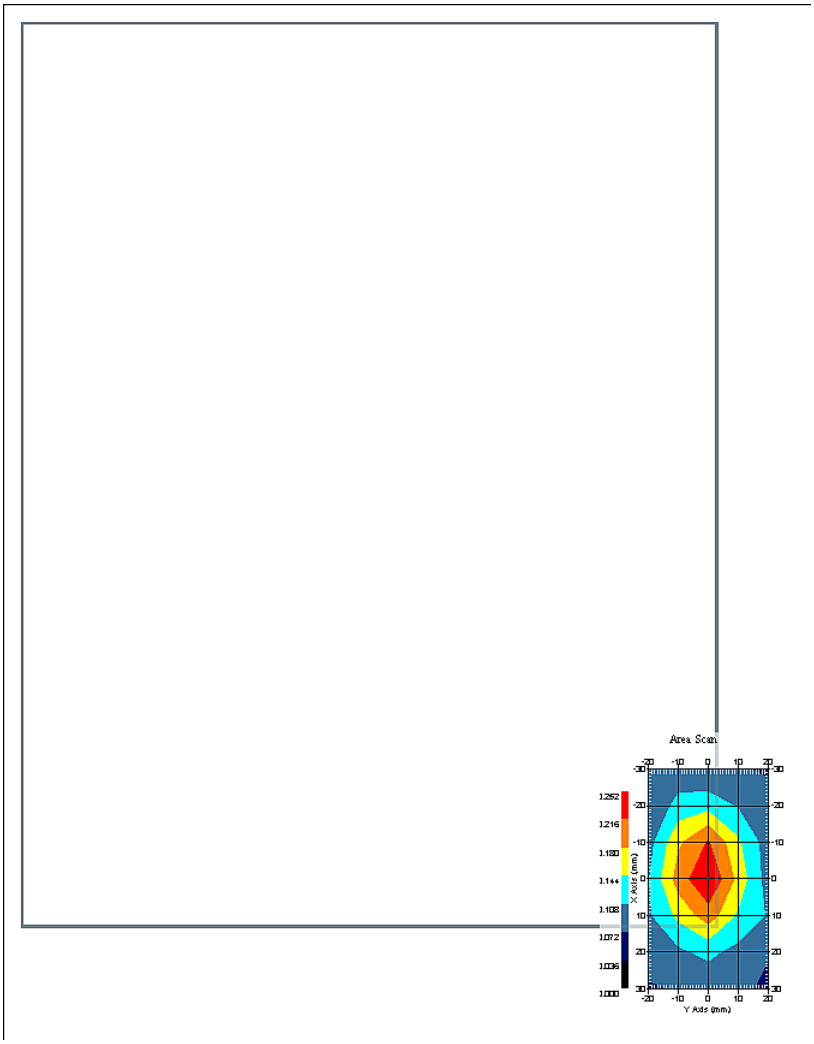
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.231 W/kg
10 gram SAR value   : 0.146 W/kg
Area Scan Peak SAR  : 0.252 W/kg
Zoom Scan Peak SAR  : 0.370 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 10:26:11 AM
End Time : 21-Jul-2008 10:40:55 AM
Scanning Time : 884 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.267 W/kg
Power Drift-Finish: 0.267 W/kg
Power Drift (%) : -0.202

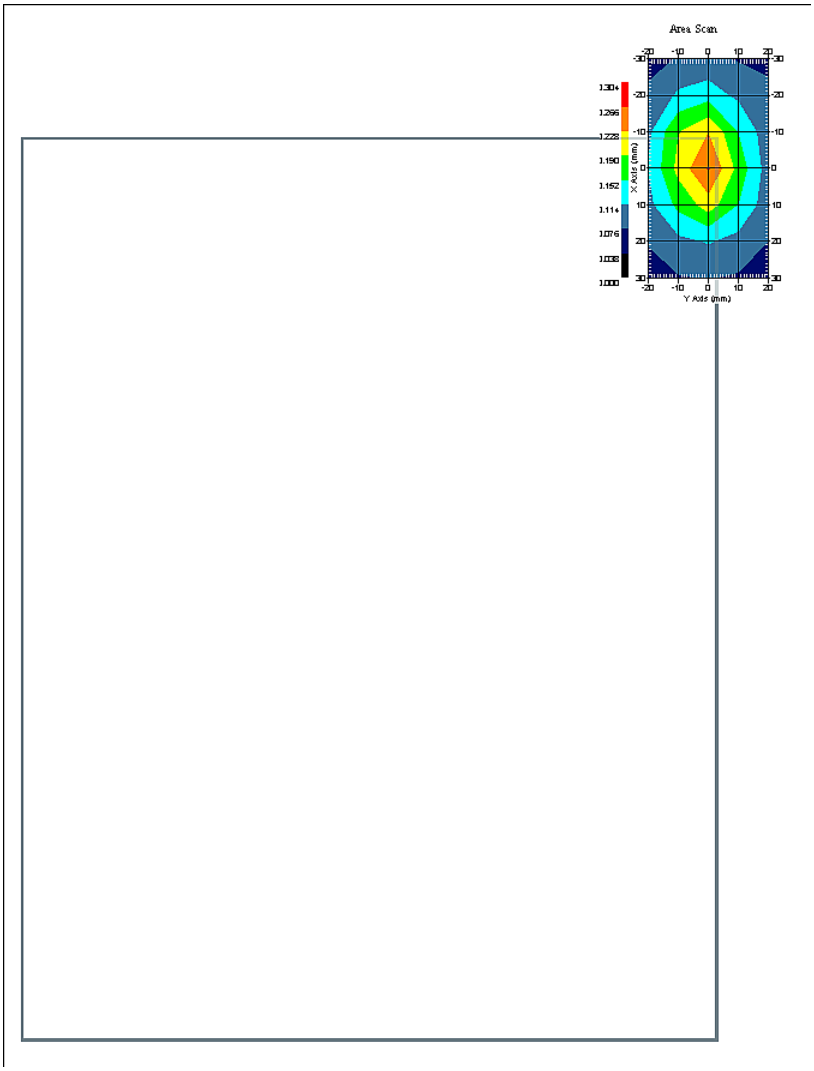
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.243 W/kg
10 gram SAR value   : 0.149 W/kg
Area Scan Peak SAR  : 0.269 W/kg
Zoom Scan Peak SAR  : 0.400 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 10:43:01 AM
End Time : 21-Jul-2008 10:57:36 AM
Scanning Time : 875 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.251 W/kg
Power Drift-Finish: 0.254 W/kg
Power Drift (%) : 1.114

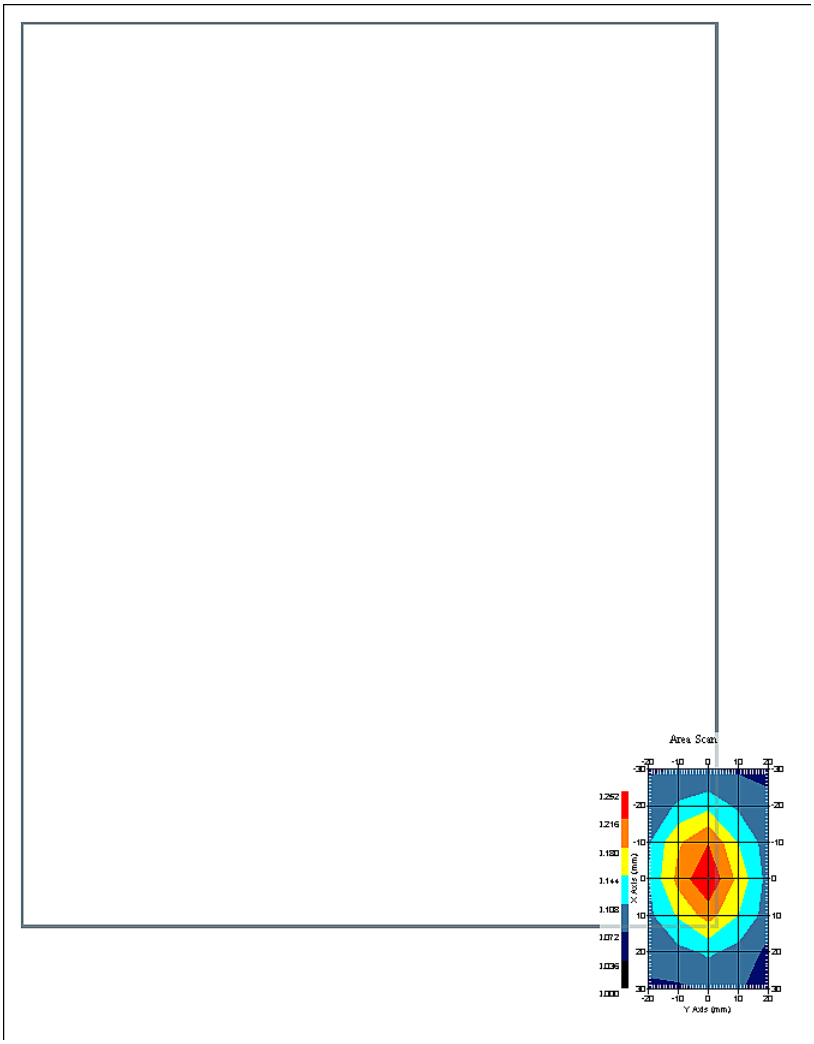
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.226 W/kg
10 gram SAR value   : 0.141 W/kg
Area Scan Peak SAR  : 0.251 W/kg
Zoom Scan Peak SAR  : 0.360 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 01:30:29 PM
End Time : 21-Jul-2008 01:45:09 PM
Scanning Time : 880 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.251 W/kg
Power Drift-Finish: 0.254 W/kg
Power Drift (%) : 1.198

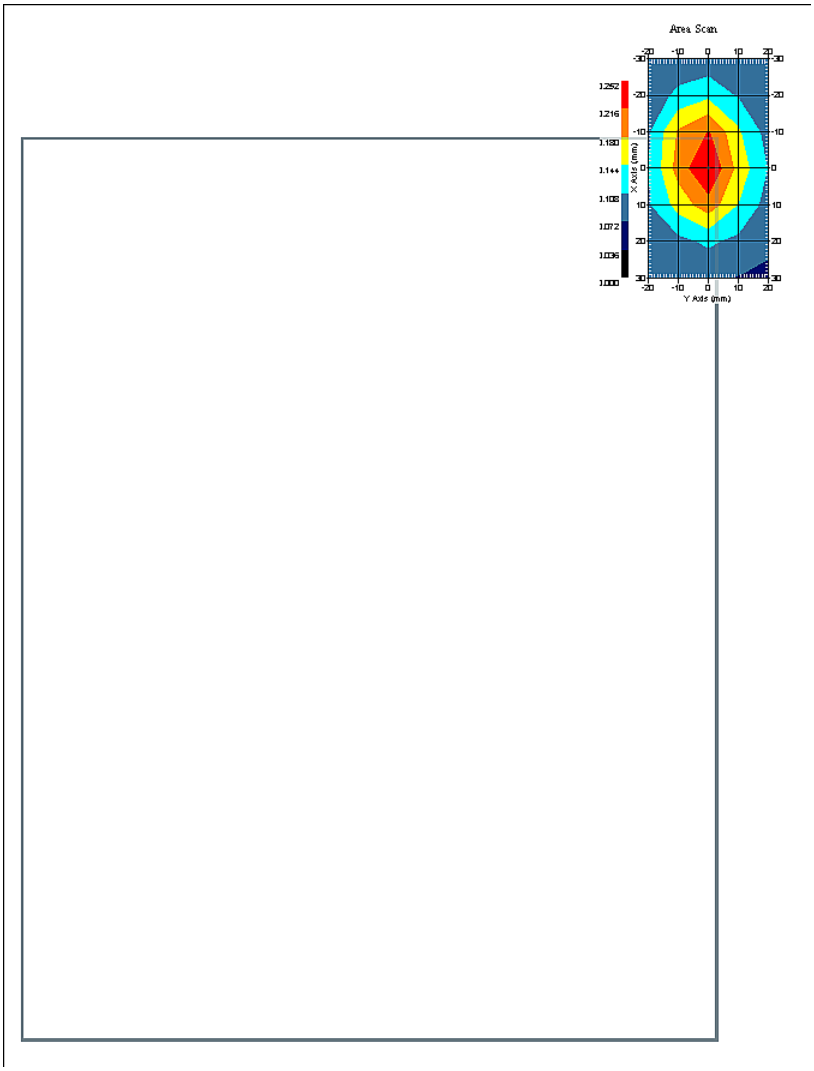
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.238 W/kg
10 gram SAR value   : 0.150 W/kg
Area Scan Peak SAR  : 0.252 W/kg
Zoom Scan Peak SAR  : 0.390 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 01:12:17 PM
End Time : 21-Jul-2008 01:27:00 PM
Scanning Time : 883 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.265 W/kg
Power Drift-Finish: 0.264 W/kg
Power Drift (%) : -0.397

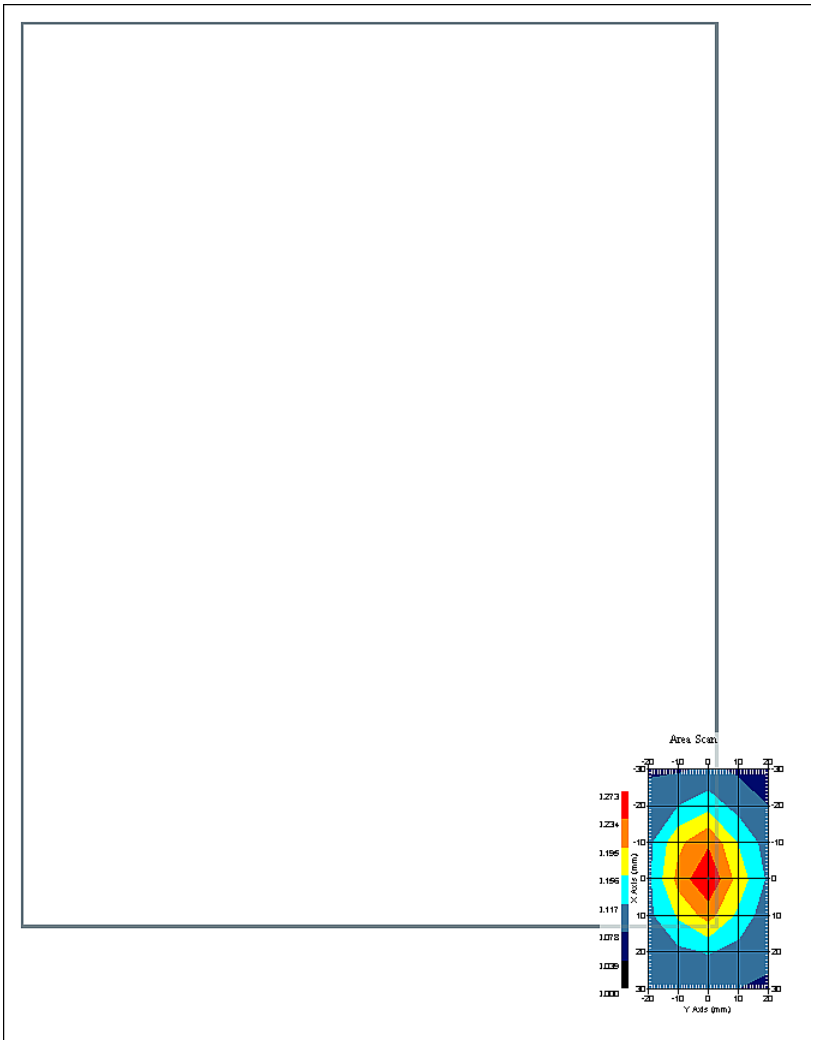
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 21-Jul-2008
Set-up Time : 7:56:23 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 : 0.236 W/kg
10 gram SAR value : 0.149 W/kg
Area Scan Peak SAR : 0.271 W/kg
Zoom Scan Peak SAR : 0.370 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 10:59:28 AM
End Time : 21-Jul-2008 11:14:19 AM
Scanning Time : 891 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.275 W/kg
Power Drift-Finish: 0.278 W/kg
Power Drift (%) : 1.154

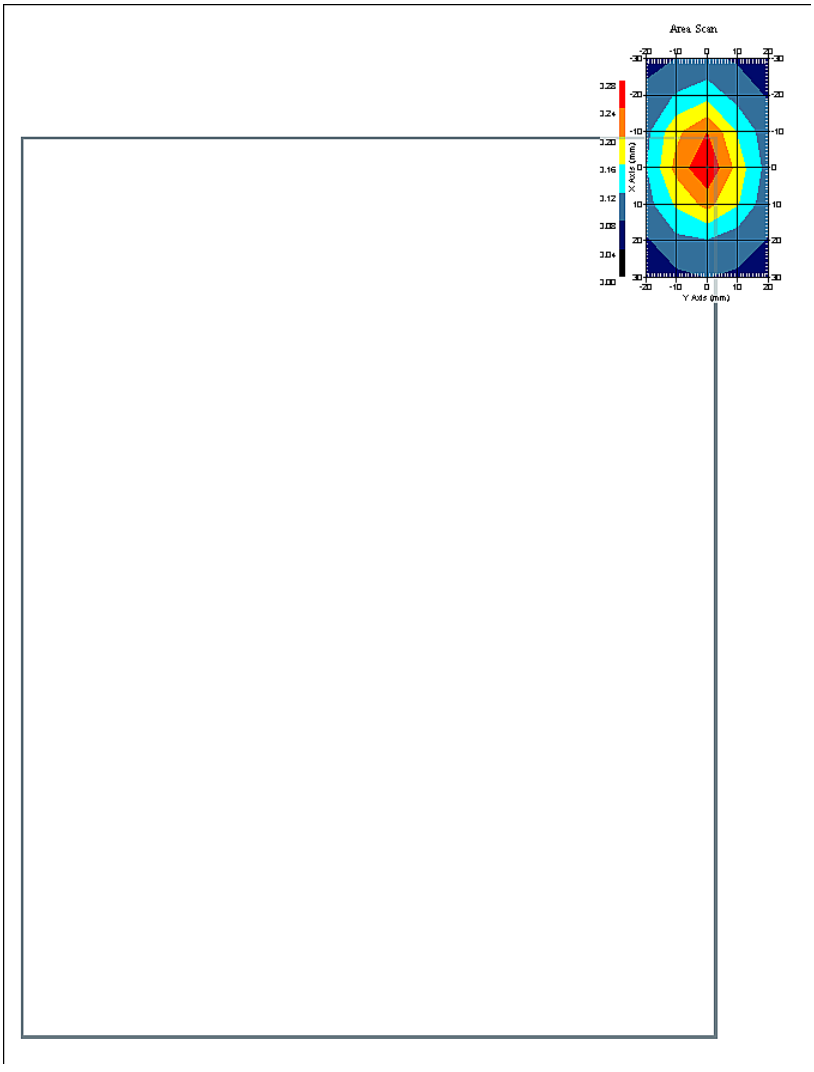
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.228 W/kg
10 gram SAR value   : 0.142 W/kg
Area Scan Peak SAR  : 0.278 W/kg
Zoom Scan Peak SAR  : 0.390 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 11:16:00 AM
End Time : 21-Jul-2008 11:30:47 AM
Scanning Time : 887 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.1 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.263 W/kg
Power Drift-Finish: 0.269 W/kg
Power Drift (%) : 2.278

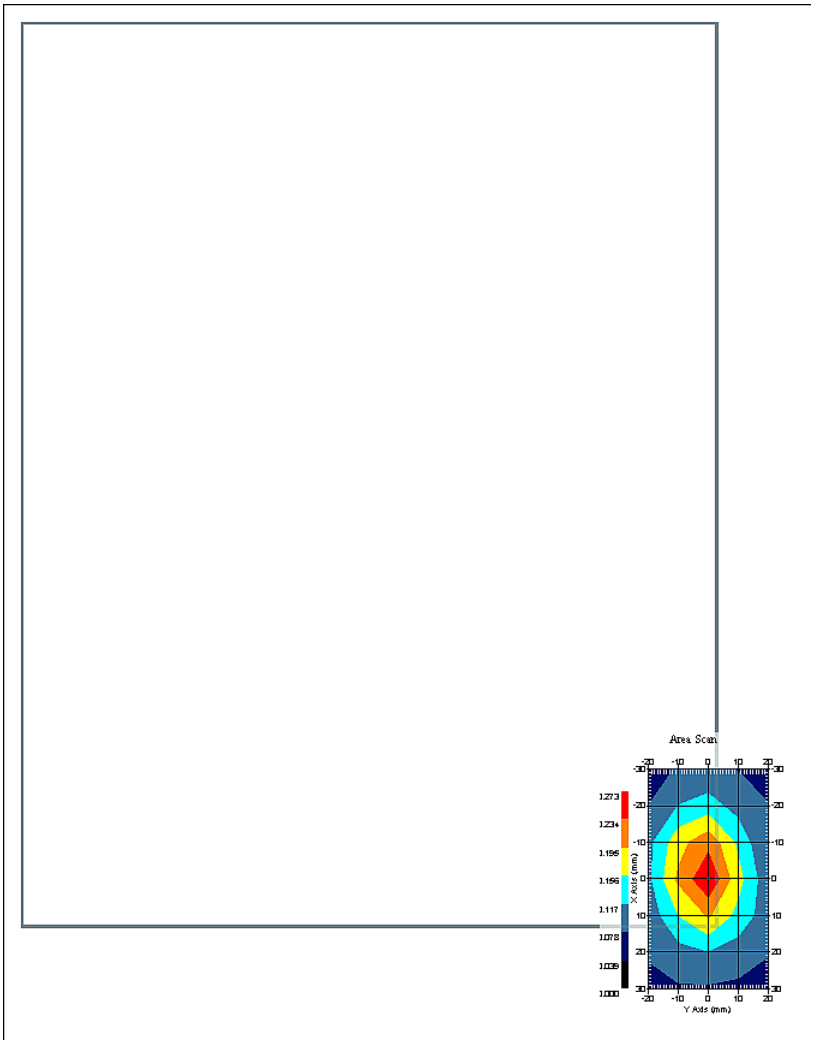
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

```
Measurement Data
Crest Factor      : 1
Scan Type         : Complete
Tissue Temp.      : 20.00 °C
Ambient Temp.     : 23.00 °C
Set-up Date       : 21-Jul-2008
Set-up Time       : 7:56:23 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    : 0.239 W/kg
10 gram SAR value   : 0.149 W/kg
Area Scan Peak SAR  : 0.270 W/kg
Zoom Scan Peak SAR  : 0.380 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 07:46:29 AM
End Time : 22-Jul-2008 08:11:52 AM
Scanning Time : 1523 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.208 W/kg
Power Drift-Finish: 0.217 W/kg
Power Drift (%) : 4.328

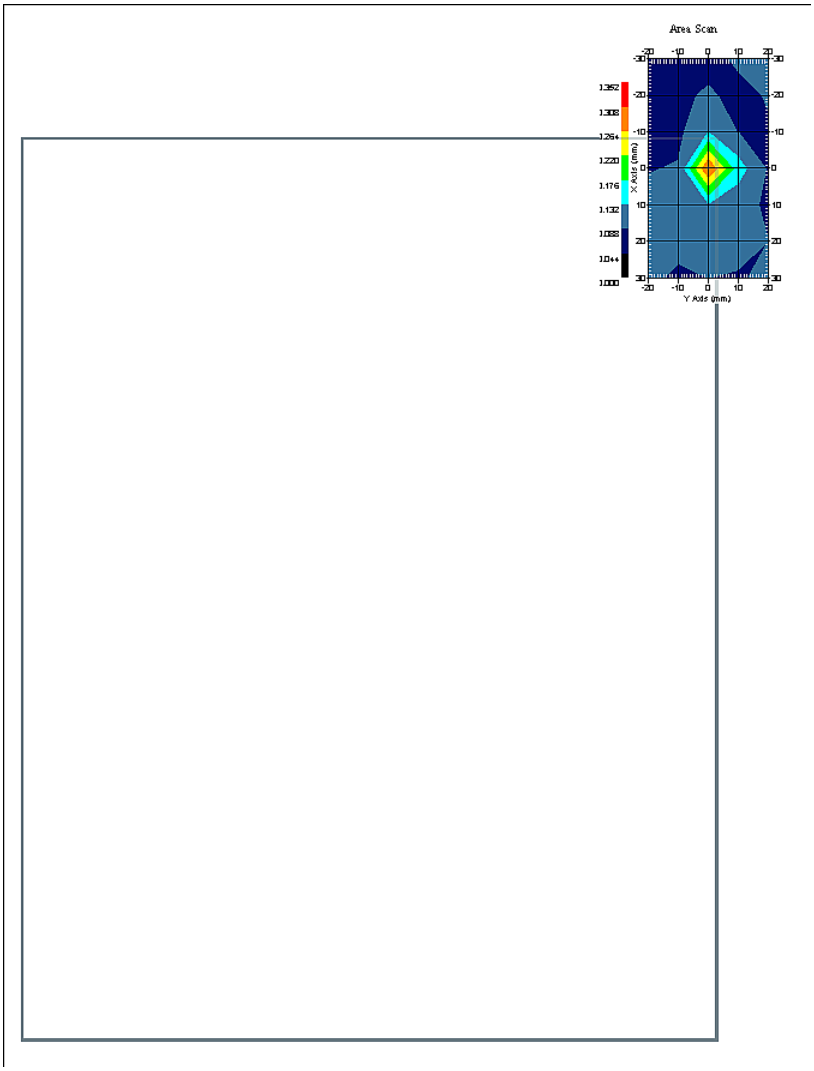
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 7:44:00 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    : 0.185 W/kg
10 gram SAR value   : 0.111 W/kg
Area Scan Peak SAR  : 0.309 W/kg
Zoom Scan Peak SAR  : 0.390 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 06:14:15 PM
End Time : 21-Jul-2008 06:38:54 PM
Scanning Time : 1479 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.266 W/kg
Power Drift-Finish: 0.264 W/kg
Power Drift (%) : -0.774

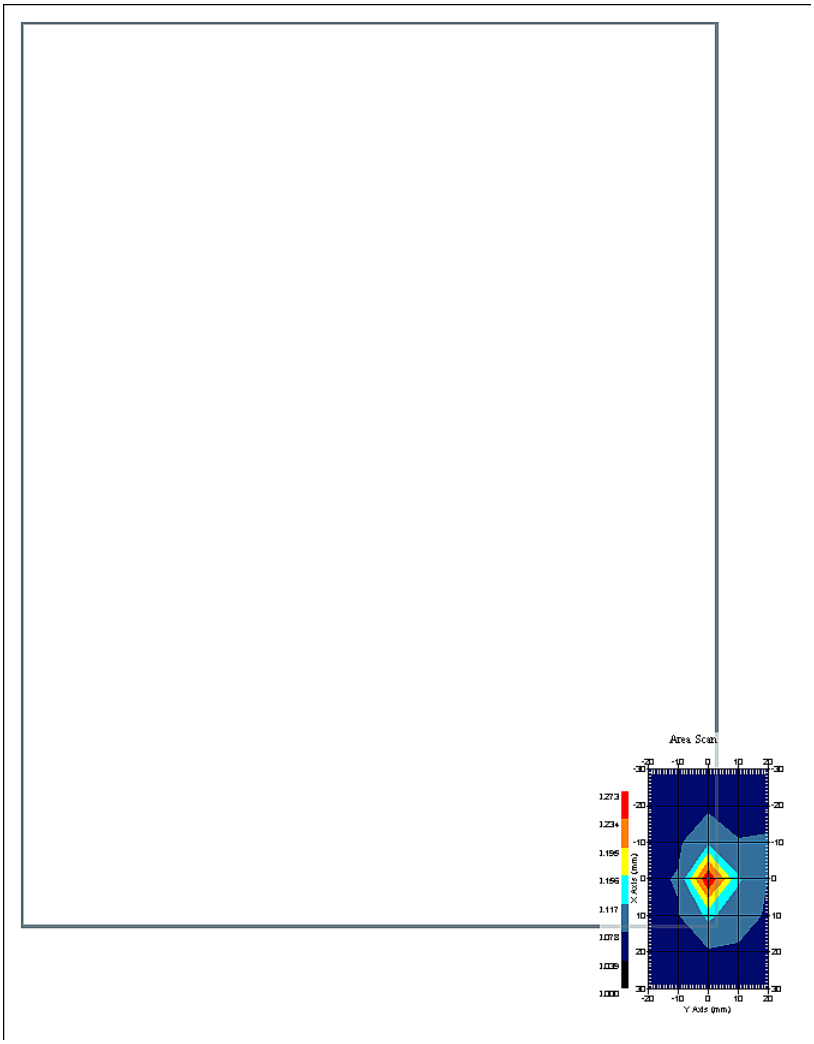
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5200
Frequency : 5200.00 MHz
Last Calib. Date : 21-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 47.27 F/m
Sigma : 5.38 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 $\mu V/(V/m)^2$
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       : 21-Jul-2008
Set-up Time       : 4:54:07 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    : 0.175 W/kg
10 gram SAR value   : 0.099 W/kg
Area Scan Peak SAR  : 0.273 W/kg
Zoom Scan Peak SAR  : 0.390 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 10:08:42 AM
End Time : 22-Jul-2008 10:33:16 AM
Scanning Time : 1474 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.312 W/kg
Power Drift-Finish: 0.308 W/kg
Power Drift (%) : -1.274

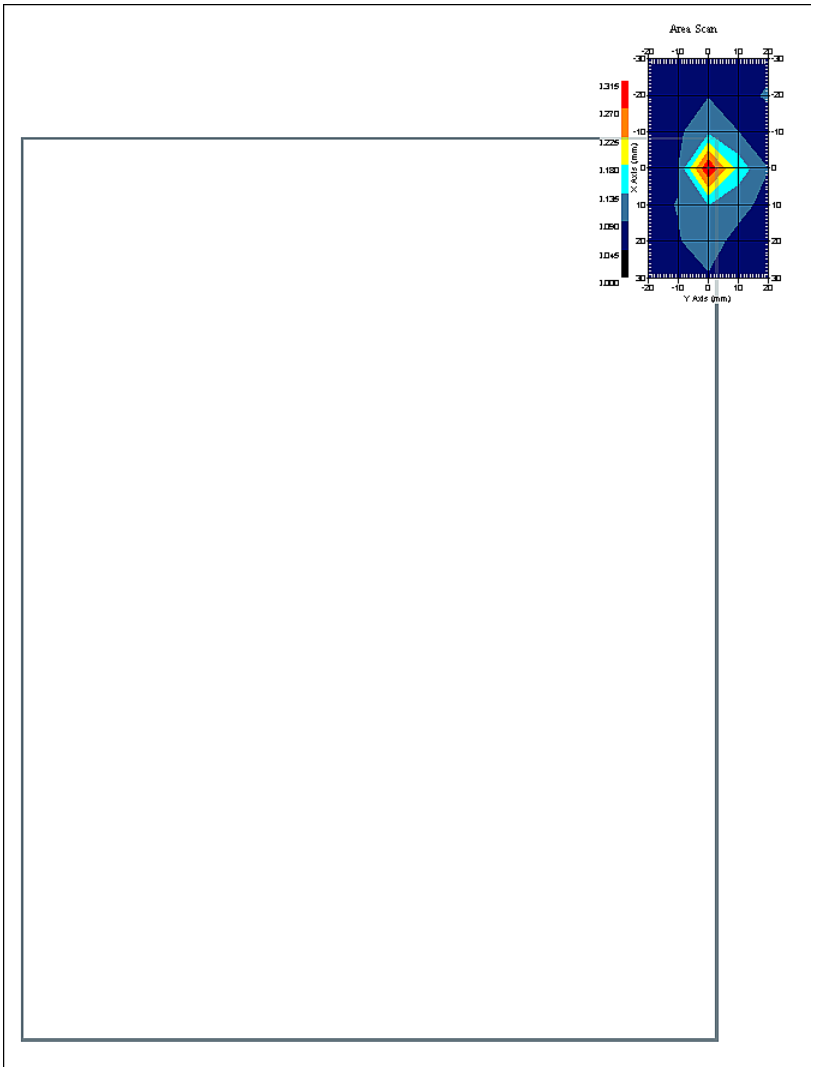
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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 : 7:44:00 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 : 0.200 W/kg
10 gram SAR value : 0.114 W/kg
Area Scan Peak SAR : 0.315 W/kg
Zoom Scan Peak SAR : 0.440 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 12:31:16 PM
End Time : 22-Jul-2008 12:55:51 PM
Scanning Time : 1475 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.279 W/kg
Power Drift-Finish: 0.279 W/kg
Power Drift (%) : 0.219

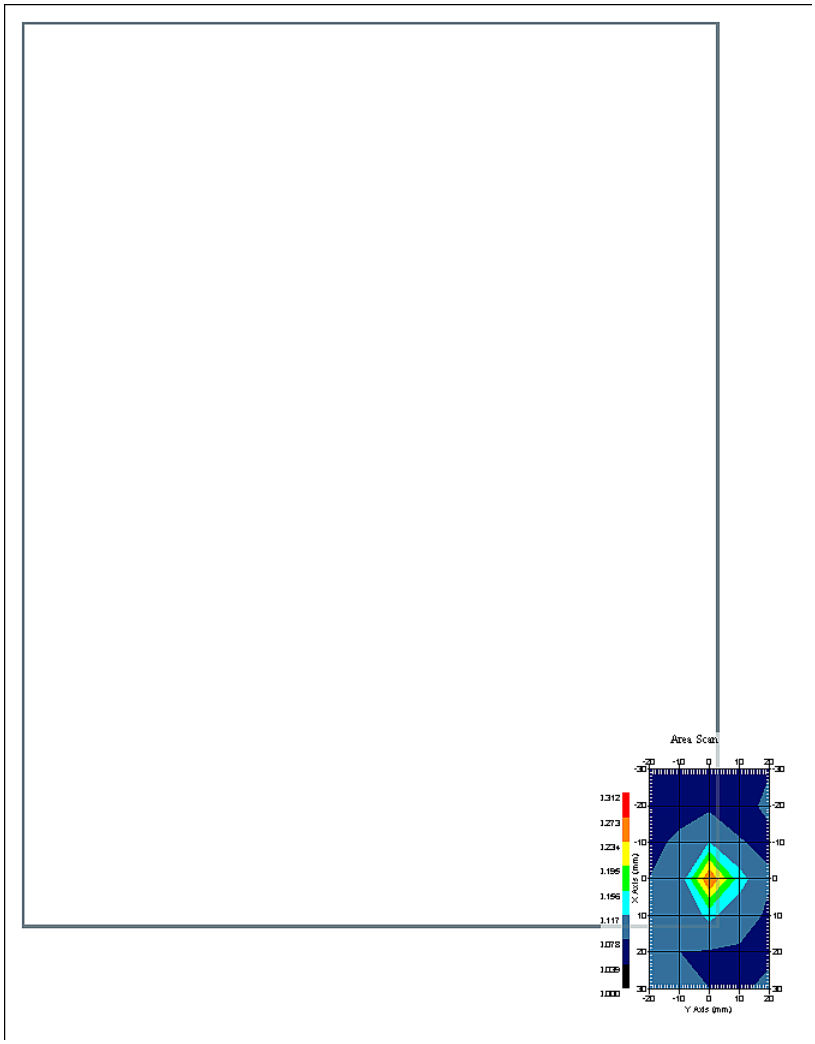
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 7:44:00 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    : 0.181 W/kg
10 gram SAR value   : 0.104 W/kg
Area Scan Peak SAR  : 0.274 W/kg
Zoom Scan Peak SAR  : 0.390 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 08:14:12 AM
End Time : 22-Jul-2008 08:39:29 AM
Scanning Time : 1517 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.277 W/kg
Power Drift-Finish: 0.264 W/kg
Power Drift (%) : -4.673

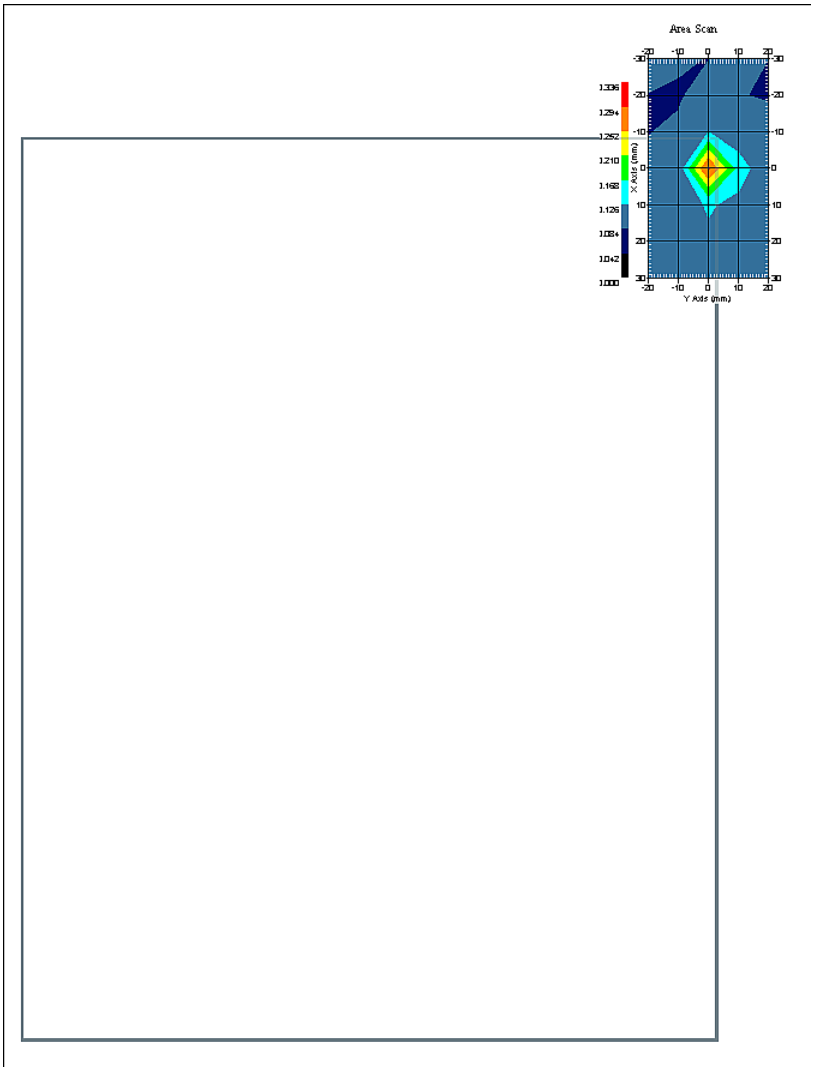
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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 : 7:44:00 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 : 0.182 W/kg
10 gram SAR value : 0.109 W/kg
Area Scan Peak SAR : 0.297 W/kg
Zoom Scan Peak SAR : 0.390 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 06:20:33 PM
End Time : 21-Jul-2008 06:45:18 PM
Scanning Time : 1485 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.257 W/kg
Power Drift-Finish: 0.263 W/kg
Power Drift (%) : 2.019

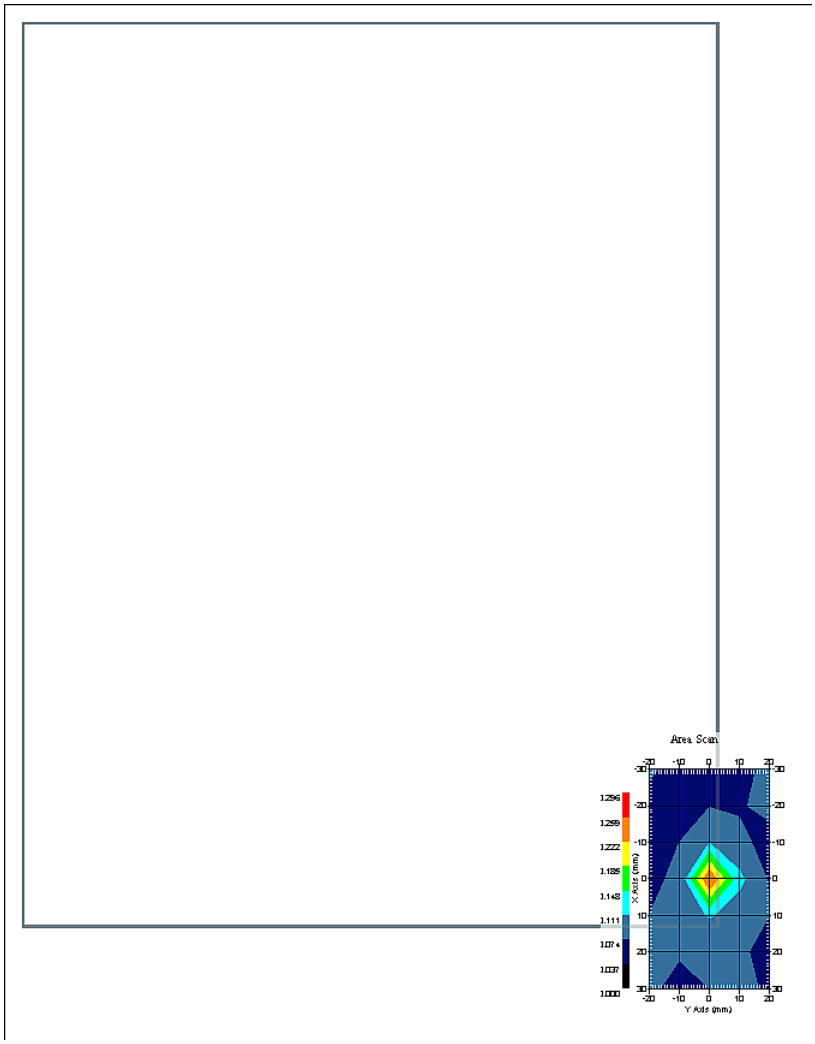
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5200
Frequency : 5200.00 MHz
Last Calib. Date : 21-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 47.27 F/m
Sigma : 5.38 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 $\mu V/(V/m)^2$
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       : 21-Jul-2008
Set-up Time       : 7:44:00 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    : 0.171 W/kg
10 gram SAR value   : 0.098 W/kg
Area Scan Peak SAR  : 0.260 W/kg
Zoom Scan Peak SAR  : 0.380 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 10:37:09 AM
End Time : 22-Jul-2008 11:01:47 AM
Scanning Time : 1478 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.291 W/kg
Power Drift-Finish: 0.284 W/kg
Power Drift (%) : -2.402

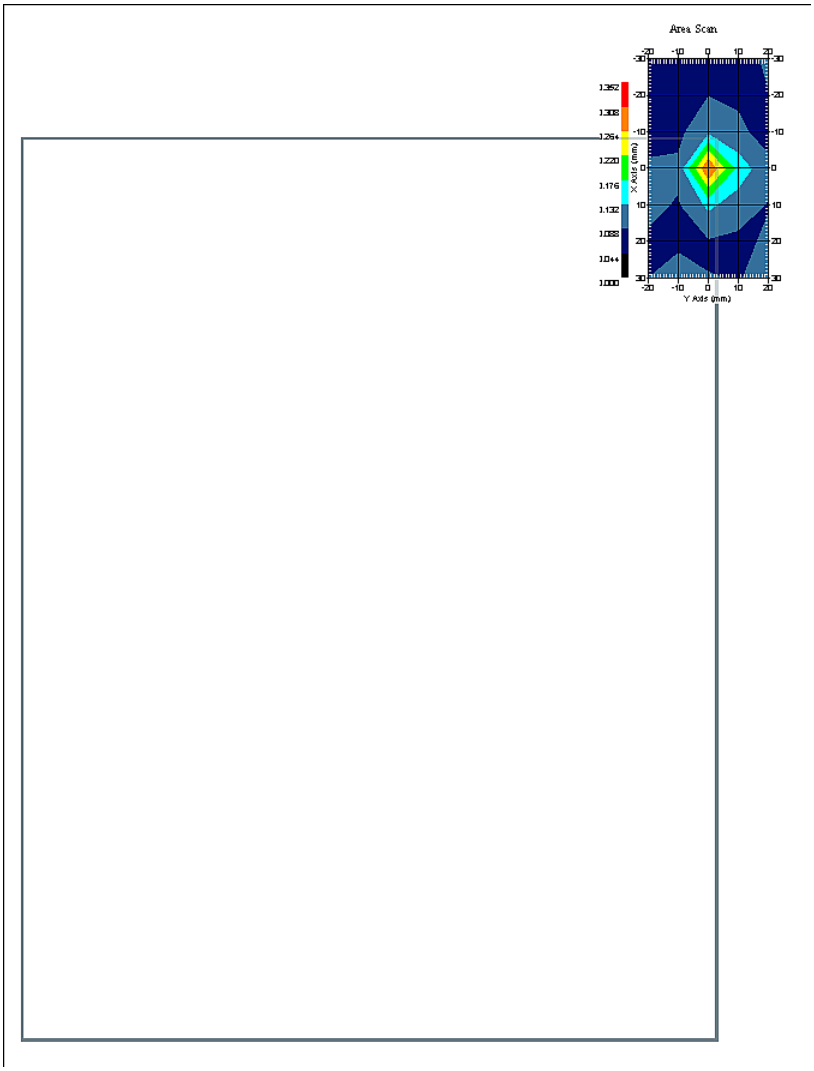
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 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 $\mu V/(V/m)^2$
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       : 7:44:00 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    : 0.198 W/kg
10 gram SAR value   : 0.114 W/kg
Area Scan Peak SAR  : 0.309 W/kg
Zoom Scan Peak SAR  : 0.440 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 12:59:05 PM
End Time : 22-Jul-2008 01:23:47 PM
Scanning Time : 1482 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.281 W/kg
Power Drift-Finish: 0.275 W/kg
Power Drift (%) : -2.232

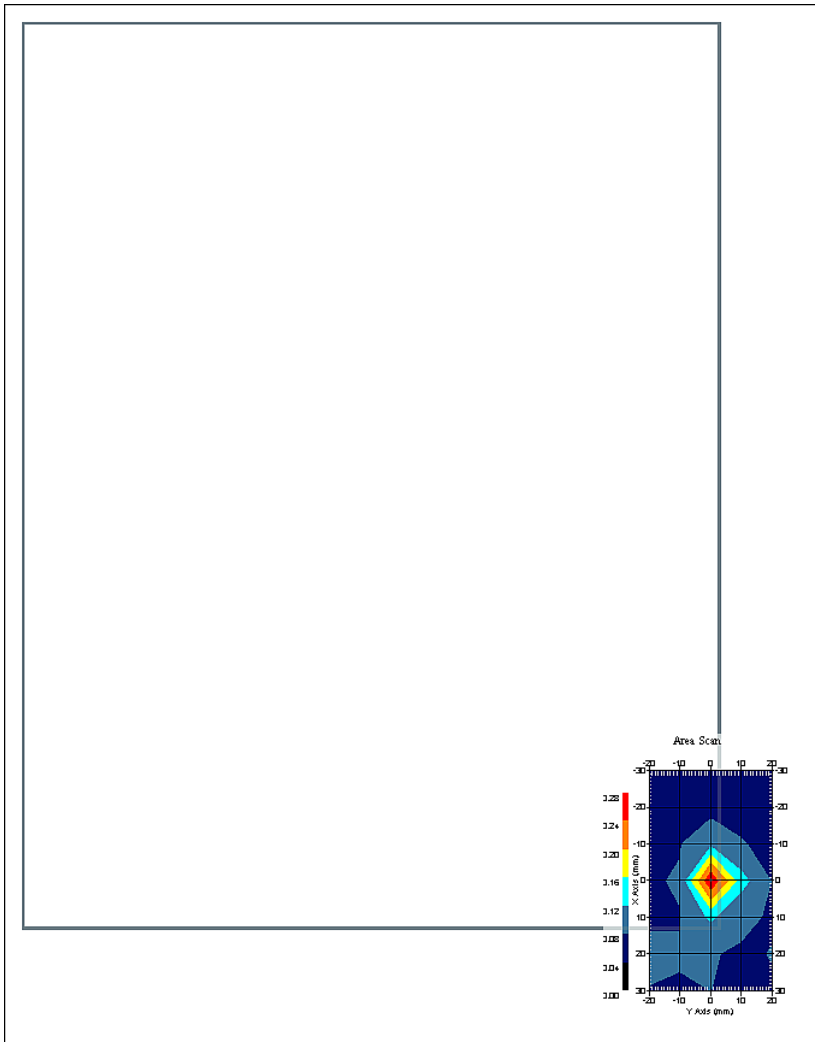
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 7:44:00 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    : 0.182 W/kg
10 gram SAR value   : 0.103 W/kg
Area Scan Peak SAR  : 0.277 W/kg
Zoom Scan Peak SAR  : 0.410 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 08:42:28 AM
End Time : 22-Jul-2008 09:07:10 AM
Scanning Time : 1482 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.181 W/kg
Power Drift-Finish: 0.187 W/kg
Power Drift (%) : 3.319

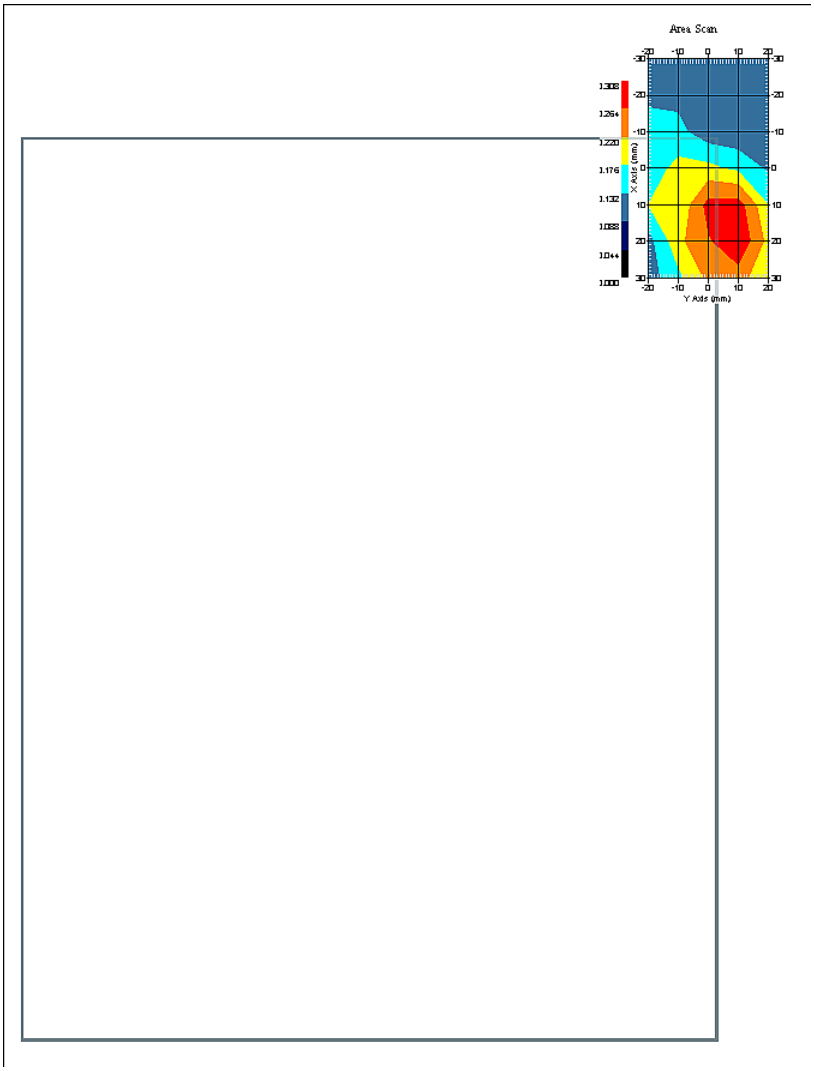
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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

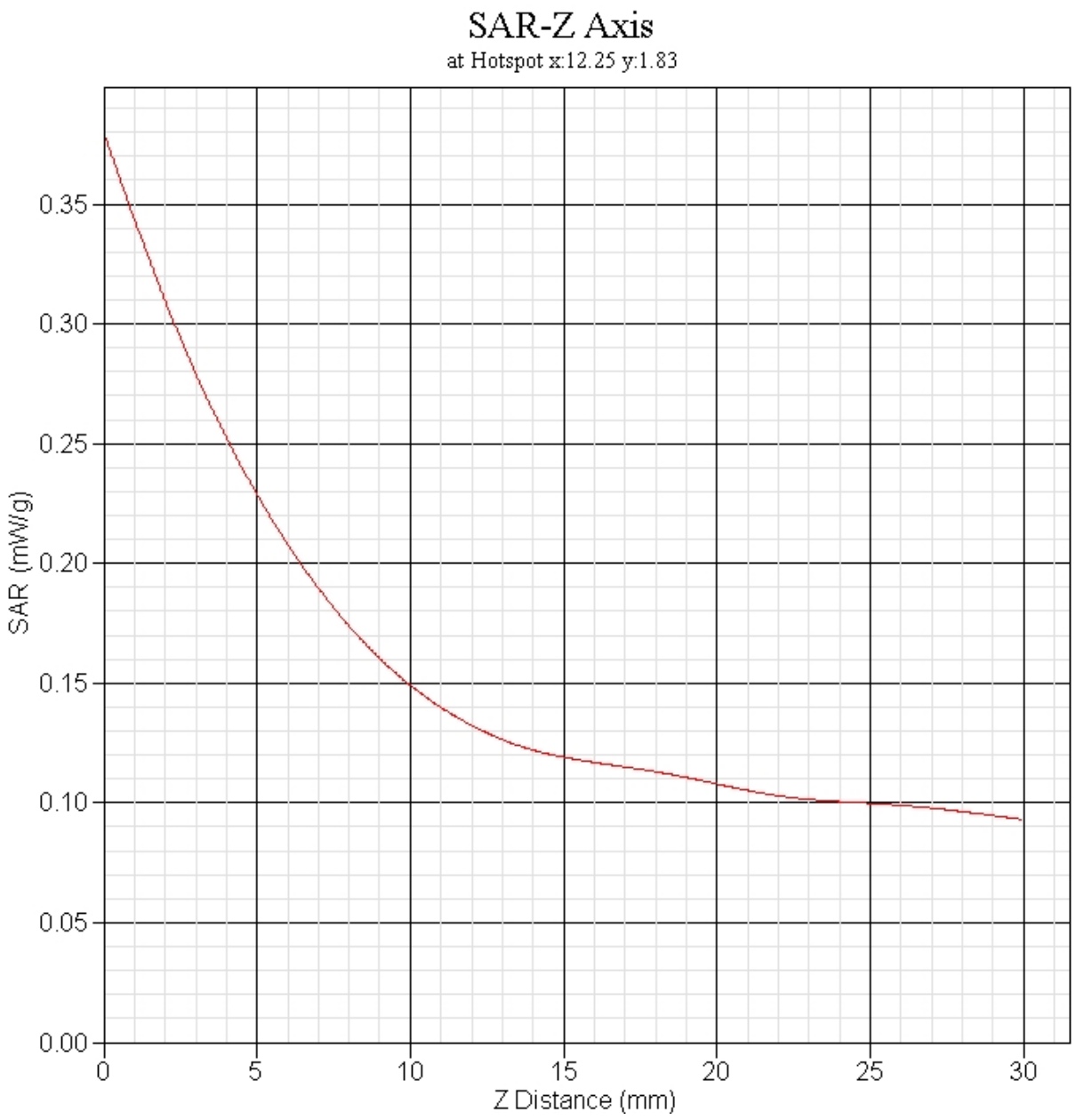
Probe Data
Name : Probe E030-001 - RFEL
Model : E030
Type : E-Field Triangle
Serial No. : E030-001
Last Calib. Date : 14-Apr-2008
Frequency : 5200.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 8.6
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 mm

```
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       : 7:44:00 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    : 0.245 W/kg
10 gram SAR value   : 0.165 W/kg
Area Scan Peak SAR  : 0.306 W/kg
Zoom Scan Peak SAR  : 0.380 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 06:49:45 PM
End Time : 21-Jul-2008 07:14:33 PM
Scanning Time : 1488 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.181 W/kg
Power Drift-Finish: 0.184 W/kg
Power Drift (%) : 1.652

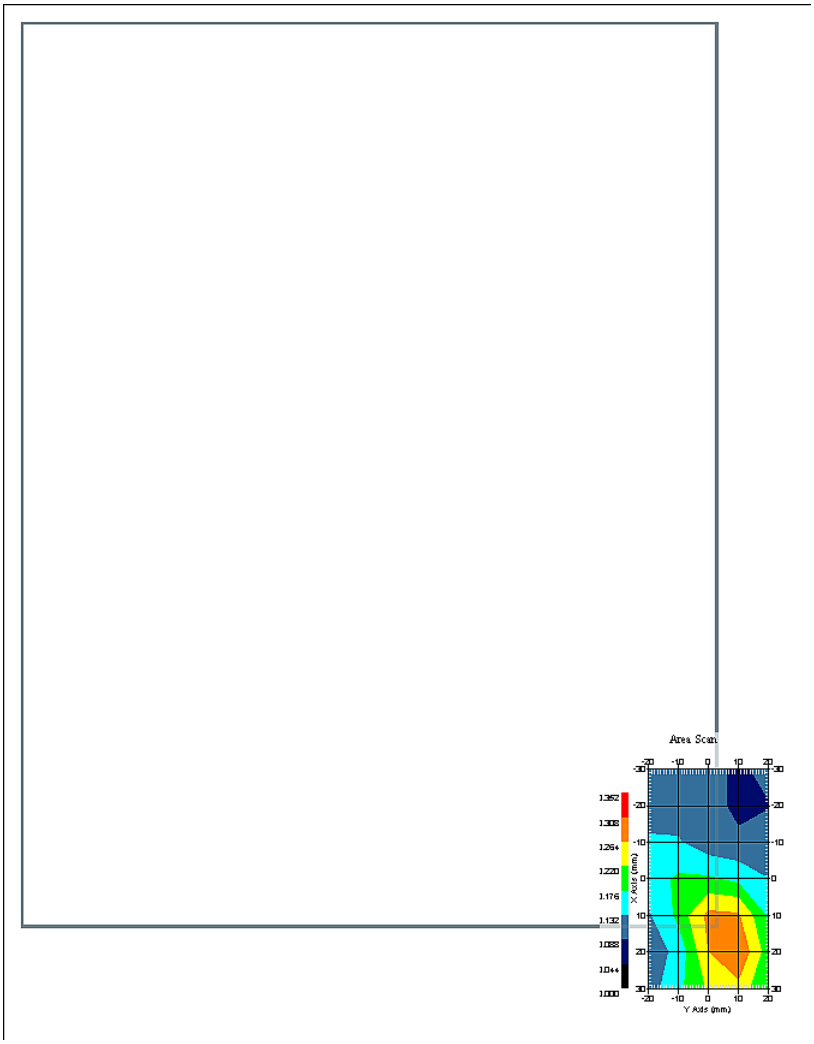
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 : 47.27 F/m
Sigma : 5.38 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 $\mu V/(V/m)^2$
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       : 21-Jul-2008
Set-up Time       : 7:44:00 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    : 0.237 W/kg
10 gram SAR value   : 0.161 W/kg
Area Scan Peak SAR  : 0.310 W/kg
Zoom Scan Peak SAR  : 0.380 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 11:05:00 AM
End Time : 22-Jul-2008 11:29:33 AM
Scanning Time : 1473 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.170 W/kg
Power Drift-Finish: 0.175 W/kg
Power Drift (%) : 2.937

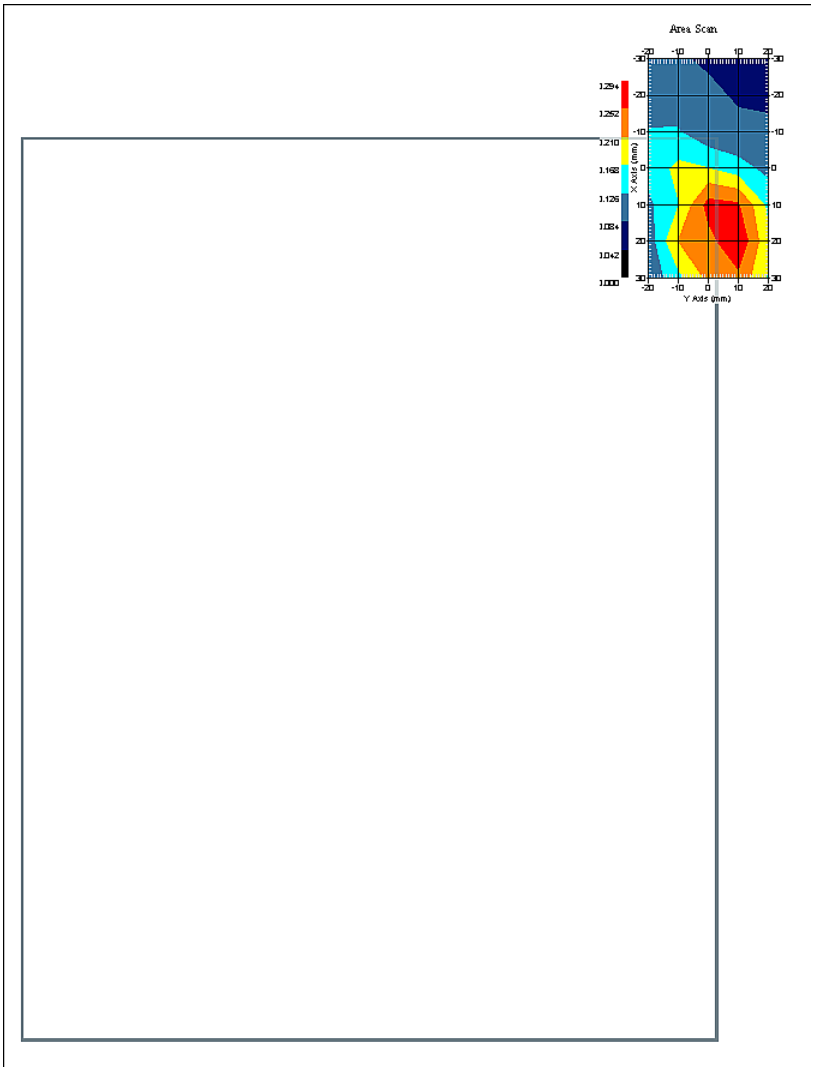
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 7:44:00 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    : 0.235 W/kg
10 gram SAR value   : 0.152 W/kg
Area Scan Peak SAR  : 0.291 W/kg
Zoom Scan Peak SAR  : 0.380 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 01:27:05 PM
End Time : 22-Jul-2008 01:51:46 PM
Scanning Time : 1481 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.173 W/kg
Power Drift-Finish: 0.176 W/kg
Power Drift (%) : 1.802

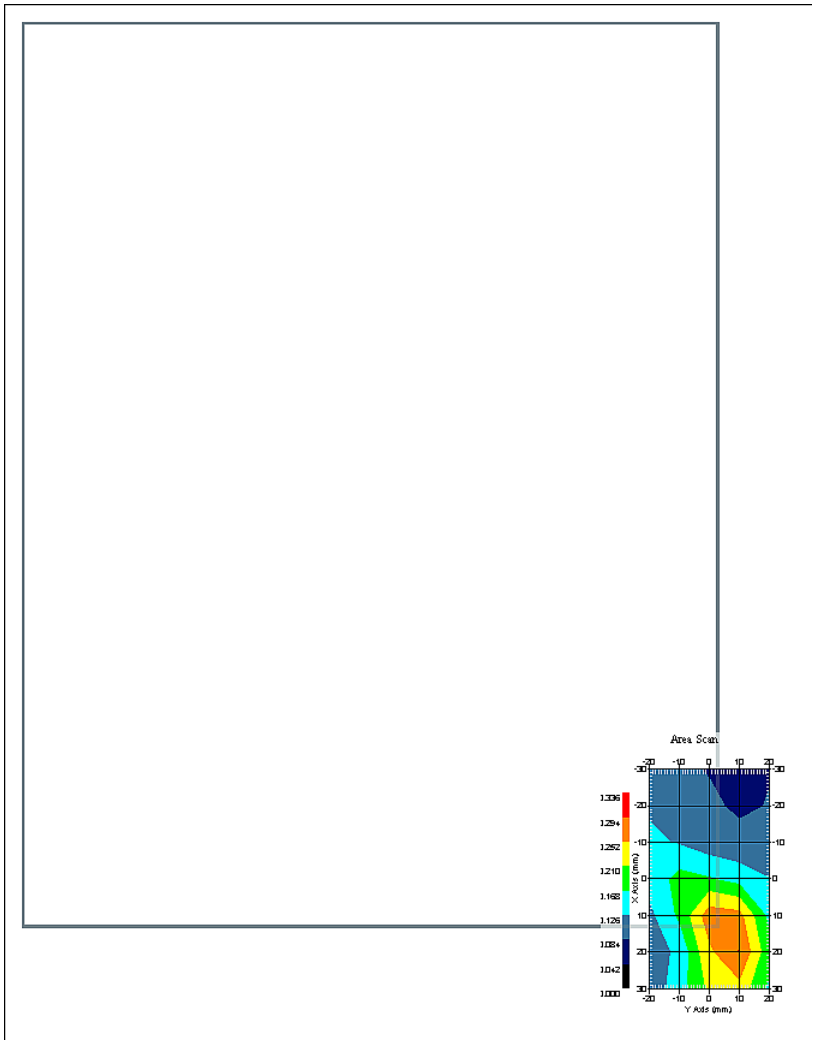
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 7:44:00 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    : 0.237 W/kg
10 gram SAR value   : 0.151 W/kg
Area Scan Peak SAR  : 0.296 W/kg
Zoom Scan Peak SAR  : 0.380 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 09:11:59 AM
End Time : 22-Jul-2008 09:36:39 AM
Scanning Time : 1480 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.183 W/kg
Power Drift-Finish: 0.183 W/kg
Power Drift (%) : 0.001

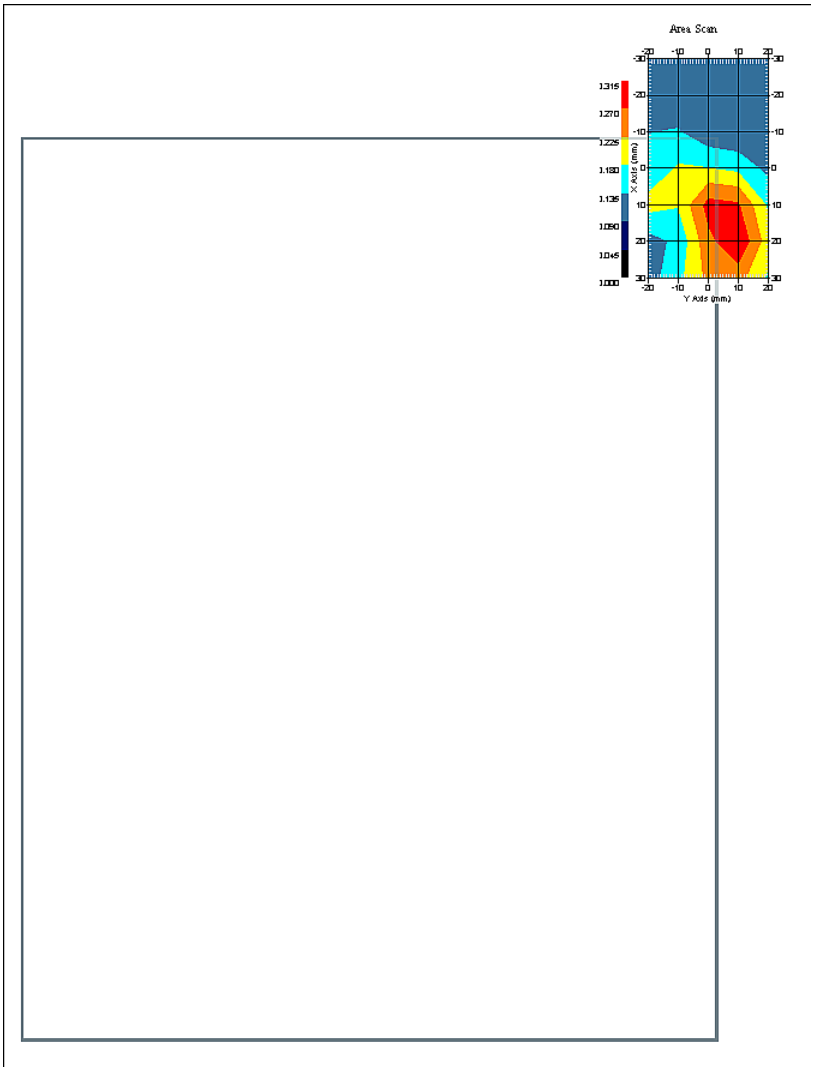
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 7:44:00 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    : 0.249 W/kg
10 gram SAR value   : 0.166 W/kg
Area Scan Peak SAR  : 0.312 W/kg
Zoom Scan Peak SAR  : 0.390 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 07:18:20 PM
End Time : 21-Jul-2008 07:43:02 PM
Scanning Time : 1482 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.180 W/kg
Power Drift-Finish: 0.174 W/kg
Power Drift (%) : -2.900

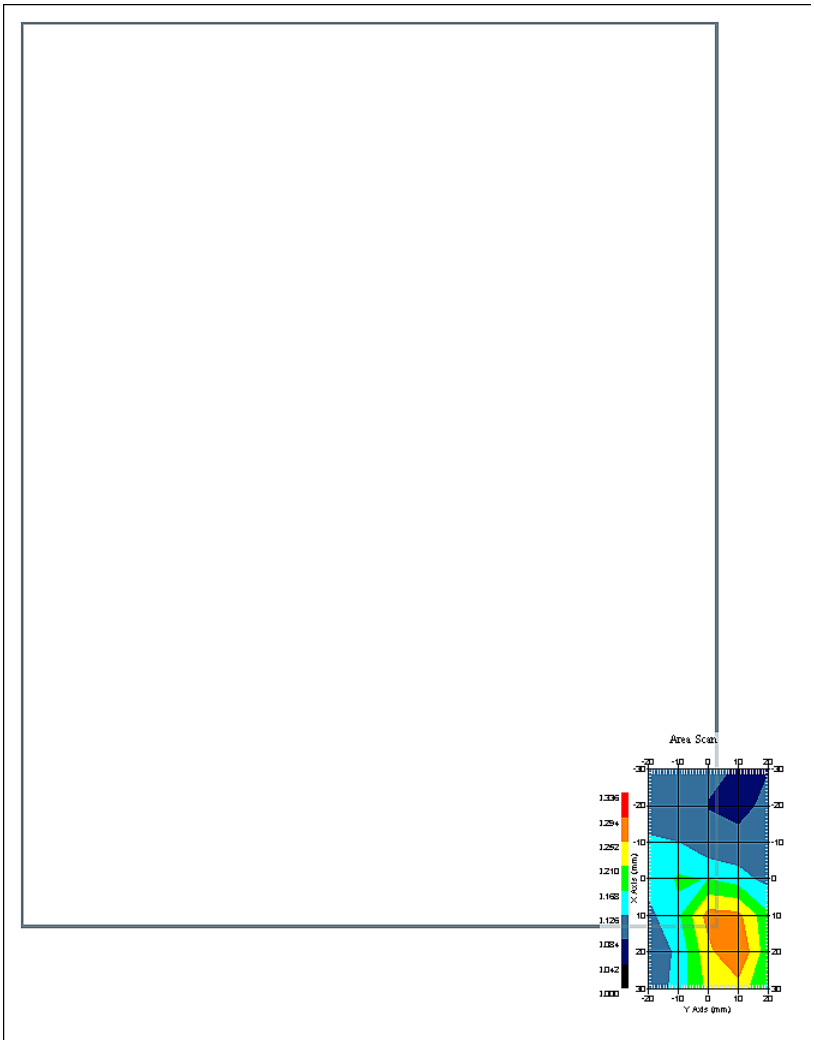
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5200
Frequency : 5200.00 MHz
Last Calib. Date : 21-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 47.27 F/m
Sigma : 5.38 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 $\mu V/(V/m)^2$
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       : 21-Jul-2008
Set-up Time       : 7:44:00 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   : 0.147 W/kg
Area Scan Peak SAR  : 0.296 W/kg
Zoom Scan Peak SAR  : 0.390 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 11:33:35 AM
End Time : 22-Jul-2008 11:58:04 AM
Scanning Time : 1469 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.170 W/kg
Power Drift-Finish: 0.174 W/kg
Power Drift (%) : 1.958

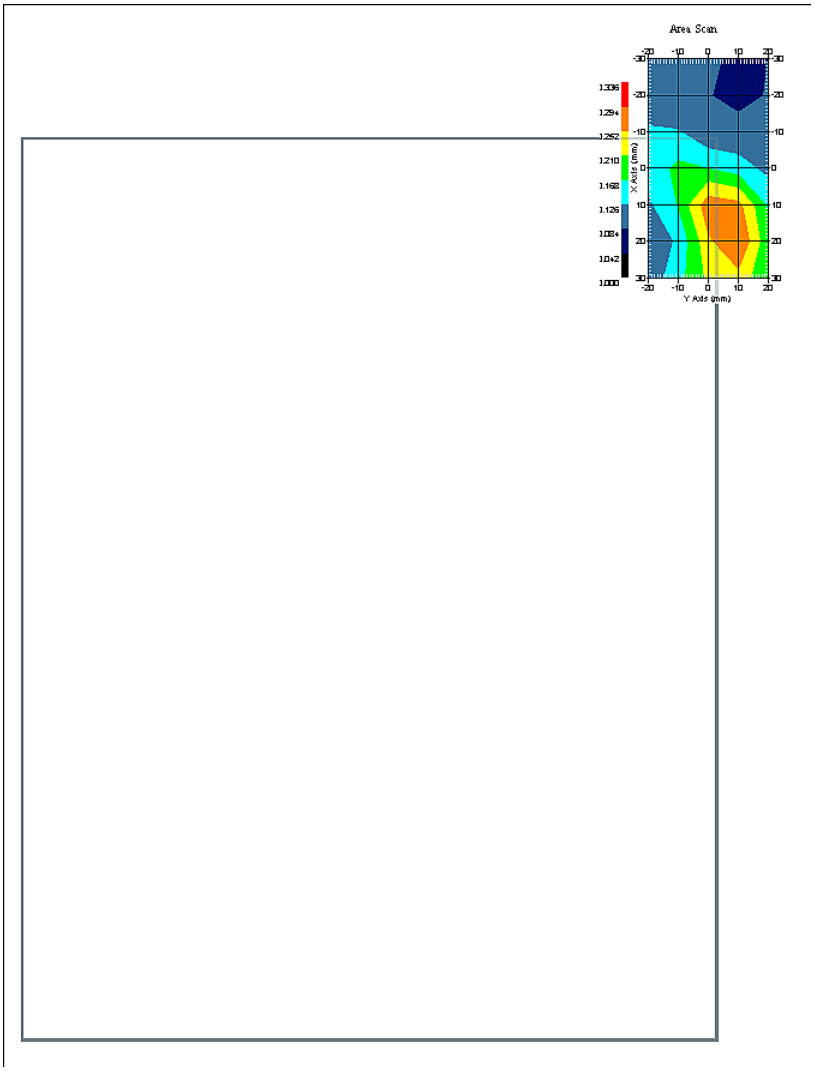
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 7:44:00 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    : 0.237 W/kg
10 gram SAR value   : 0.153 W/kg
Area Scan Peak SAR  : 0.296 W/kg
Zoom Scan Peak SAR  : 0.380 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 01:55:30 PM
End Time : 22-Jul-2008 02:20:26 PM
Scanning Time : 1496 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.170 W/kg
Power Drift-Finish: 0.177 W/kg
Power Drift (%) : 4.178

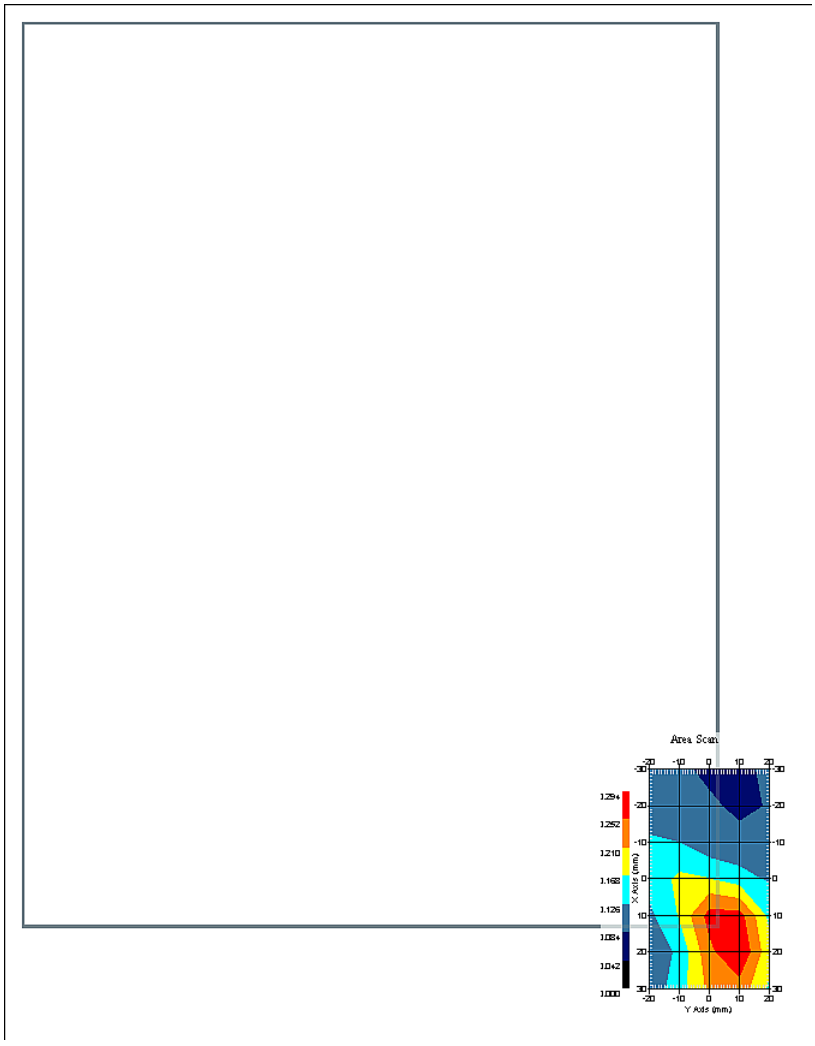
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 7:44:00 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   : 0.147 W/kg
Area Scan Peak SAR  : 0.294 W/kg
Zoom Scan Peak SAR  : 0.380 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 09:40:09 AM
End Time : 22-Jul-2008 10:04:59 AM
Scanning Time : 1490 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.171 W/kg
Power Drift-Finish: 0.174 W/kg
Power Drift (%) : 1.754

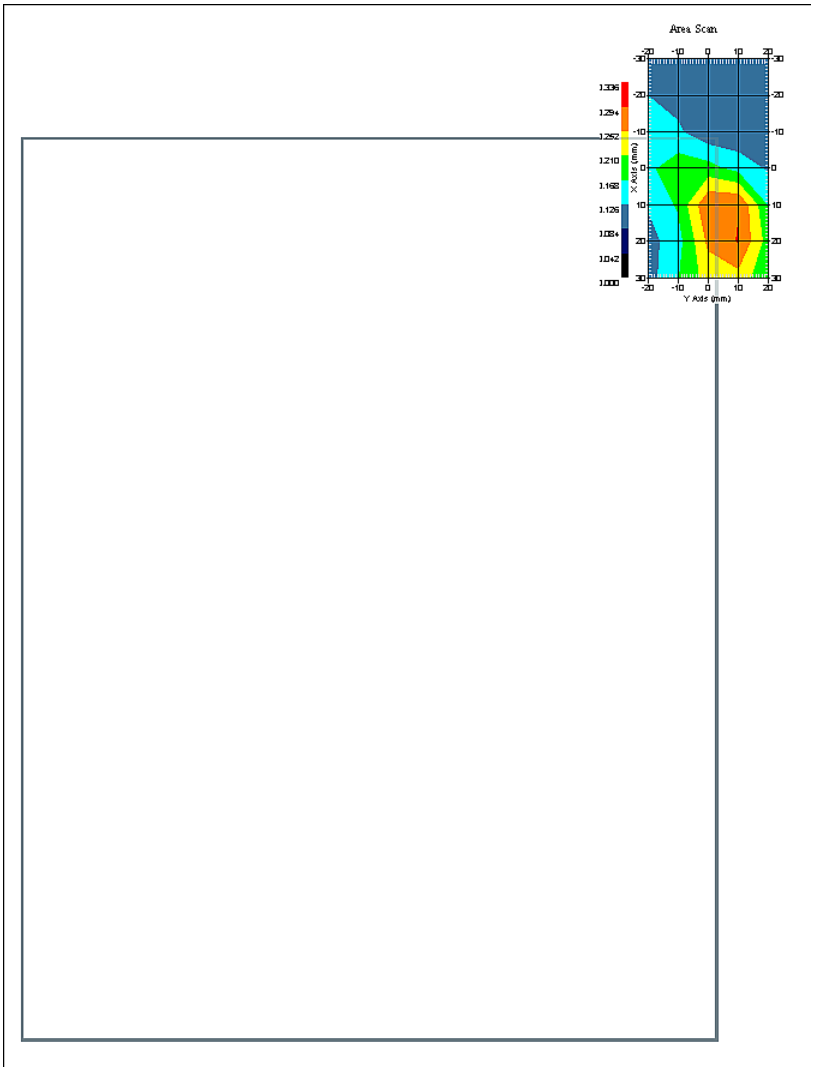
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 7:44:00 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    : 0.202 W/kg
10 gram SAR value   : 0.132 W/kg
Area Scan Peak SAR  : 0.297 W/kg
Zoom Scan Peak SAR  : 0.380 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 21-Jul-2008
Starting Time : 21-Jul-2008 07:47:51 PM
End Time : 21-Jul-2008 08:12:41 PM
Scanning Time : 1490 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.166 W/kg
Power Drift-Finish: 0.171 W/kg
Power Drift (%) : 3.010

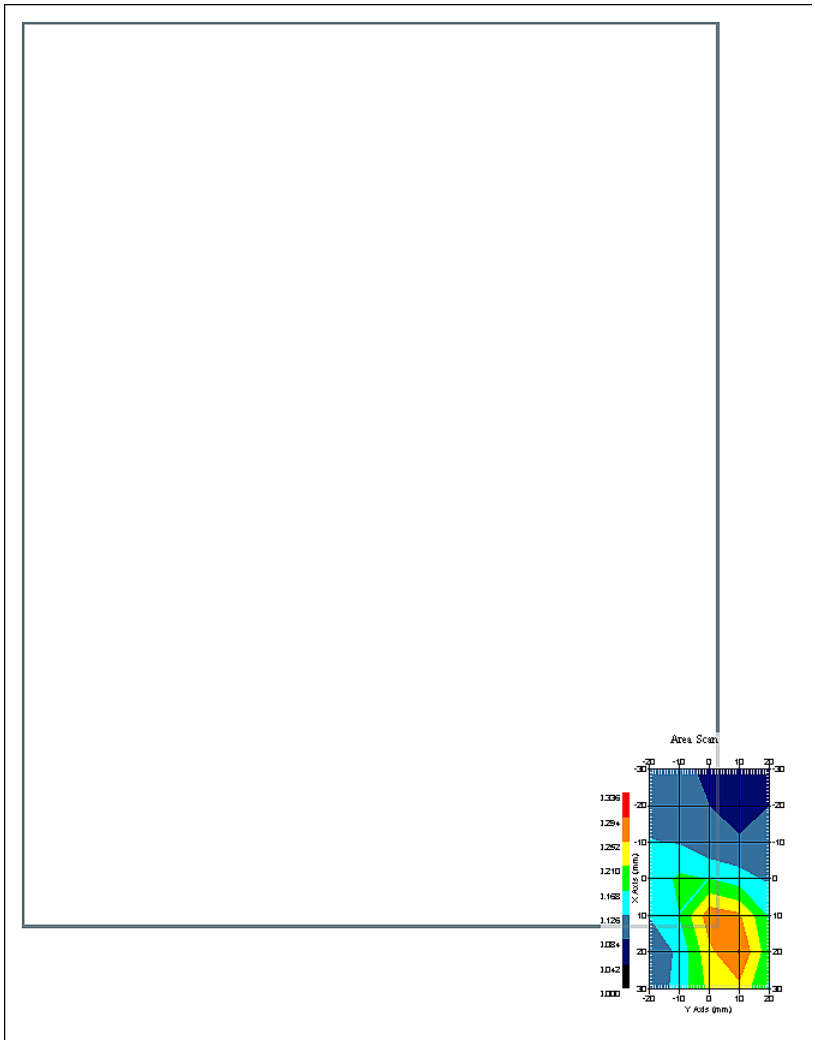
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5200
Frequency : 5200.00 MHz
Last Calib. Date : 21-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 47.27 F/m
Sigma : 5.38 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 $\mu V/(V/m)^2$
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       : 21-Jul-2008
Set-up Time       : 7:44:00 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    : 0.193 W/kg
10 gram SAR value   : 0.122 W/kg
Area Scan Peak SAR  : 0.297 W/kg
Zoom Scan Peak SAR  : 0.380 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 12:02:38 PM
End Time : 22-Jul-2008 12:27:31 PM
Scanning Time : 1493 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.167 W/kg
Power Drift-Finish: 0.175 W/kg
Power Drift (%) : 4.492

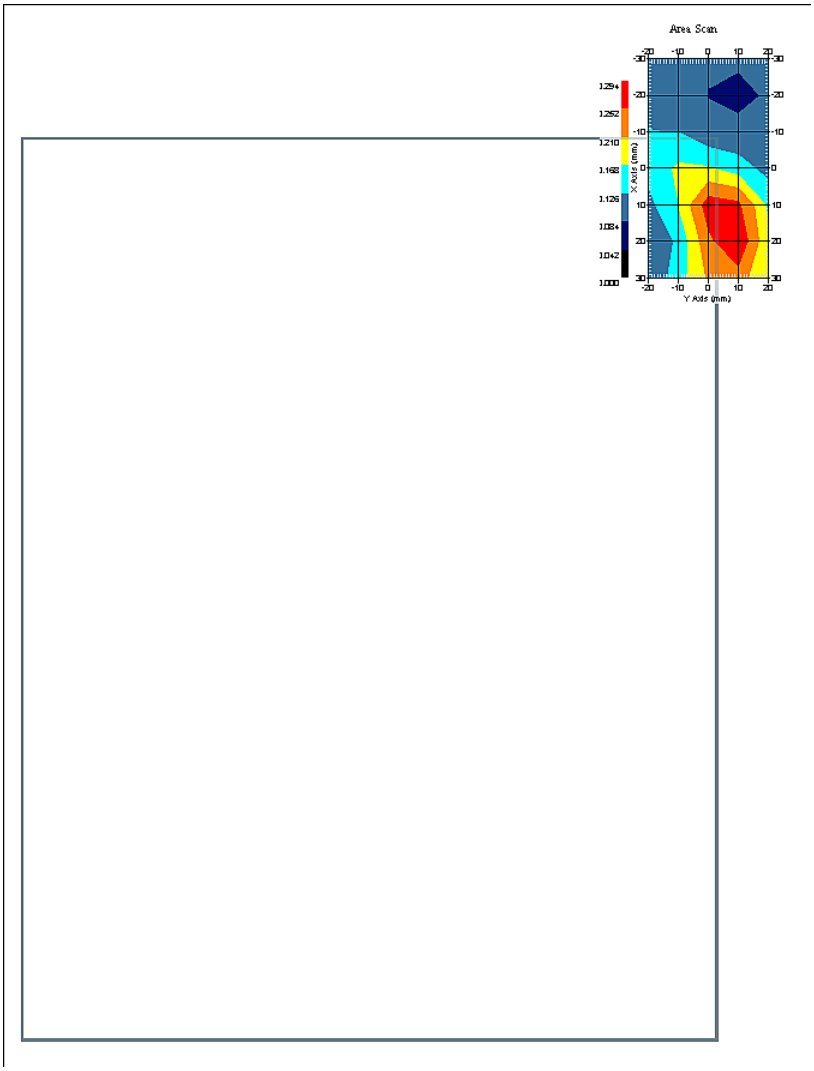
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 7:44:00 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    : 0.234 W/kg
10 gram SAR value   : 0.148 W/kg
Area Scan Peak SAR  : 0.294 W/kg
Zoom Scan Peak SAR  : 0.380 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 22-Jul-2008
Starting Time : 22-Jul-2008 02:24:40 PM
End Time : 22-Jul-2008 02:49:24 PM
Scanning Time : 1484 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5200.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.167 W/kg
Power Drift-Finish: 0.171 W/kg
Power Drift (%) : 2.499

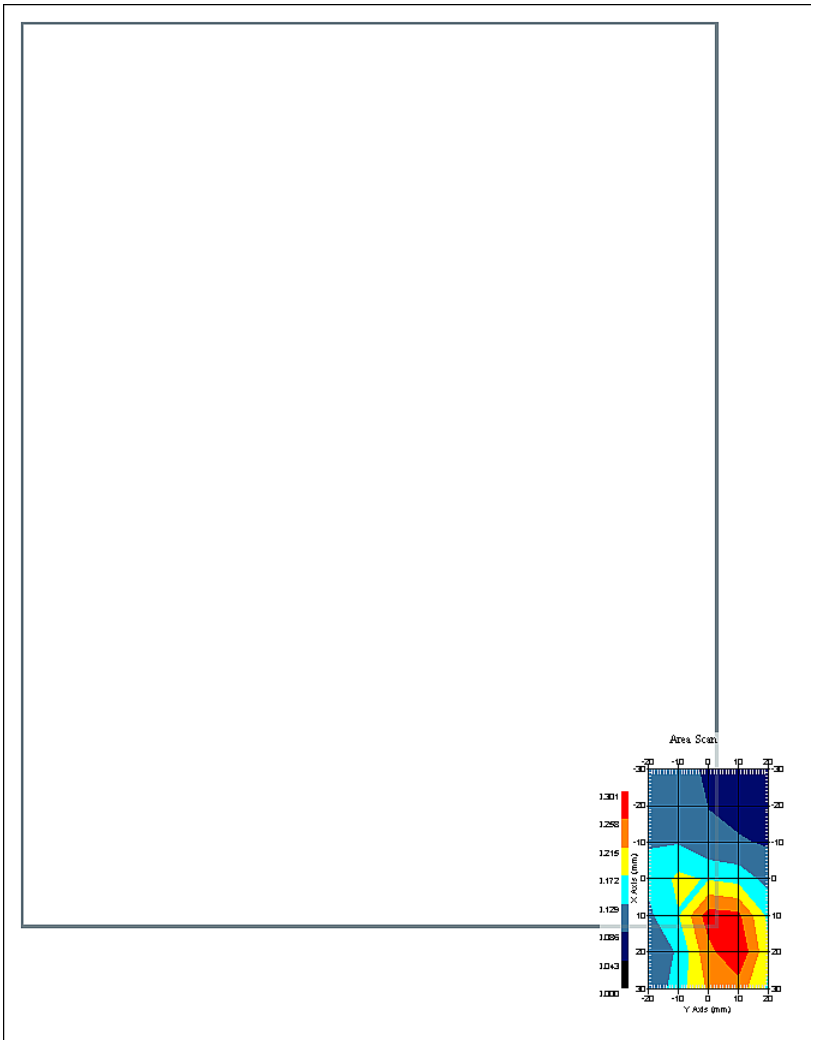
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 7:44:00 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    : 0.232 W/kg
10 gram SAR value   : 0.146 W/kg
Area Scan Peak SAR  : 0.300 W/kg
Zoom Scan Peak SAR  : 0.390 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 07:50:57 AM
End Time : 23-Jul-2008 08:16:27 AM
Scanning Time : 1530 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5600.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.163 W/kg
Power Drift-Finish: 0.164 W/kg
Power Drift (%) : 1.161

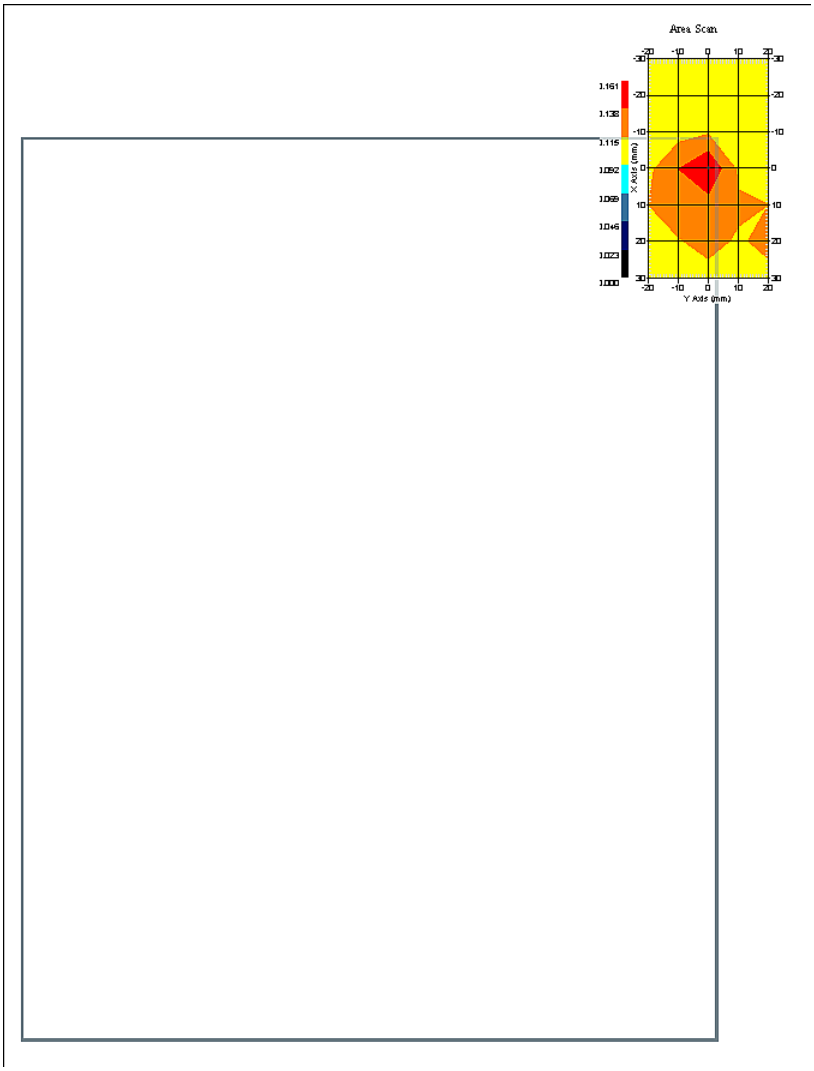
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5600
Frequency : 5600.00 MHz
Last Calib. Date : 23-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 48.84 F/m
Sigma : 5.89 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 : 5600.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 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       : 8:08:52 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    : 0.133 W/kg
10 gram SAR value   : 0.118 W/kg
Area Scan Peak SAR  : 0.160 W/kg
Zoom Scan Peak SAR  : 0.130 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 09:17:21 AM
End Time : 23-Jul-2008 09:42:02 AM
Scanning Time : 1481 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5600.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.159 W/kg
Power Drift-Finish: 0.161 W/kg
Power Drift (%) : 1.587

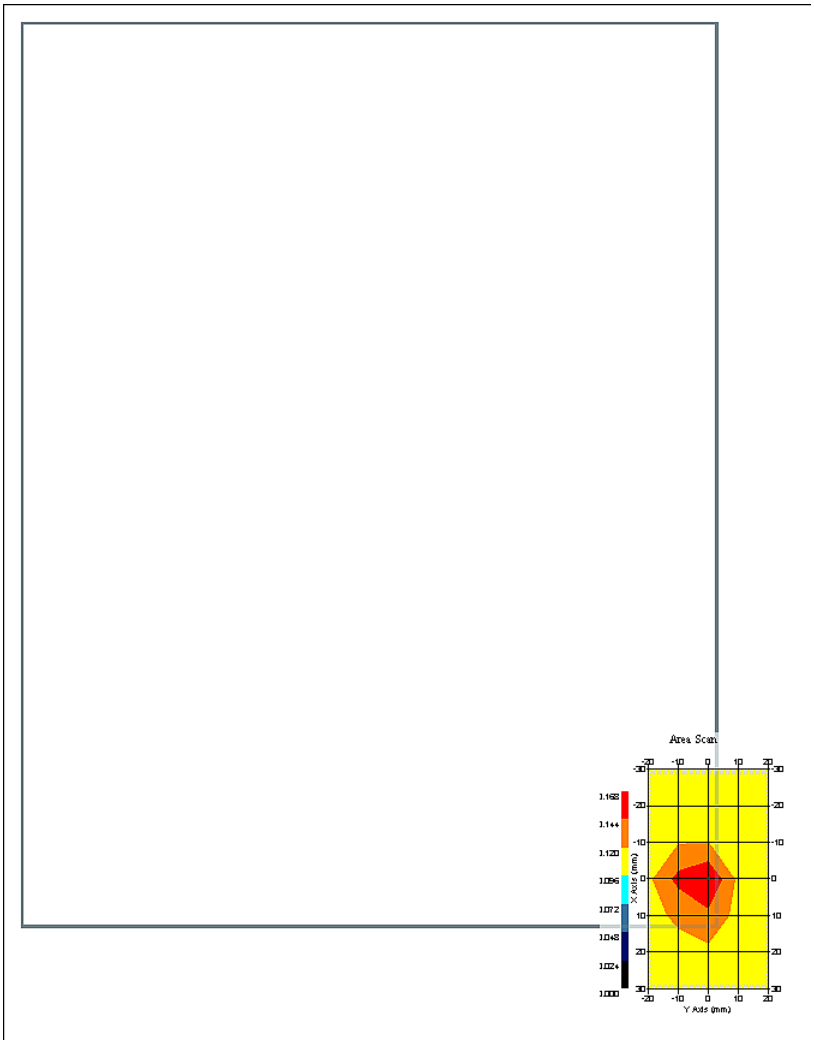
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5600
Frequency : 5600.00 MHz
Last Calib. Date : 23-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 48.84 F/m
Sigma : 5.89 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 : 5600.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 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       : 8:08:52 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    : 0.145 W/kg
10 gram SAR value   : 0.123 W/kg
Area Scan Peak SAR  : 0.168 W/kg
Zoom Scan Peak SAR  : 0.140 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 12:08:16 PM
End Time : 23-Jul-2008 12:32:52 PM
Scanning Time : 1476 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5600.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.182 W/kg
Power Drift-Finish: 0.188 W/kg
Power Drift (%) : 3.298

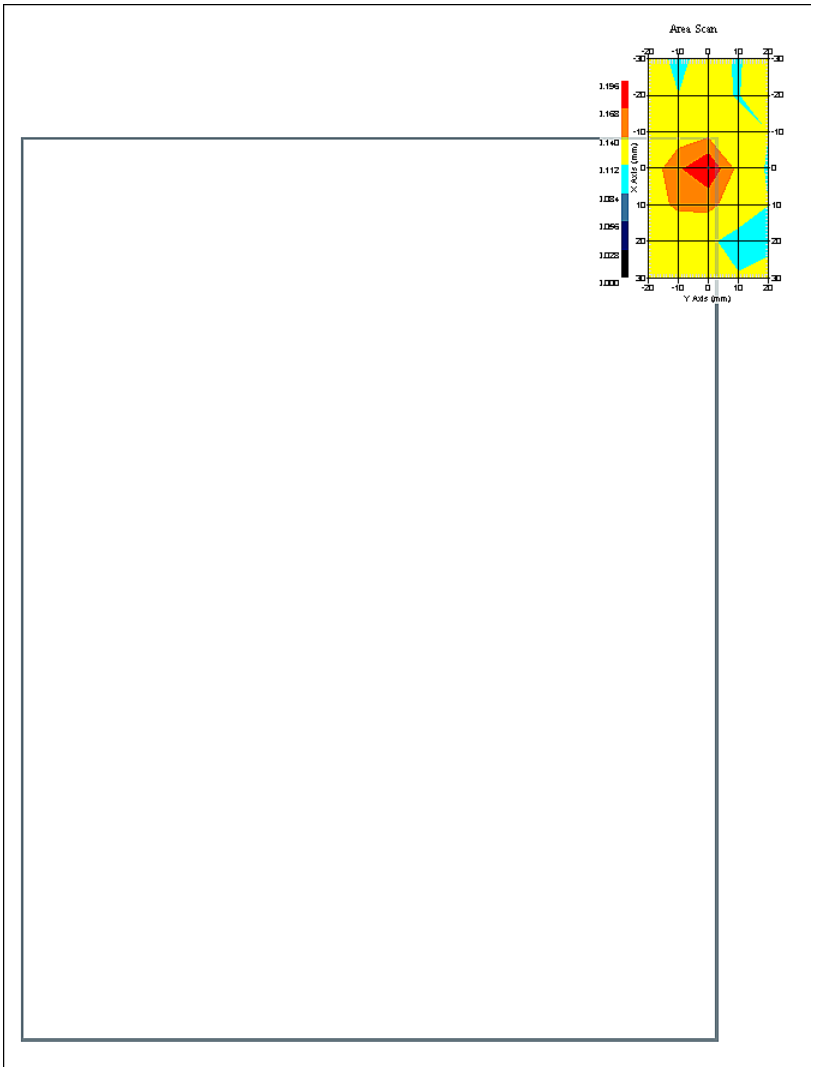
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5600
Frequency : 5600.00 MHz
Last Calib. Date : 23-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 48.84 F/m
Sigma : 5.89 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 : 5600.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 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       : 8:08:52 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    : 0.154 W/kg
10 gram SAR value   : 0.125 W/kg
Area Scan Peak SAR  : 0.195 W/kg
Zoom Scan Peak SAR  : 0.090 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 10:43:07 AM
End Time : 23-Jul-2008 11:07:42 AM
Scanning Time : 1475 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5600.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.202 W/kg
Power Drift-Finish: 0.193 W/kg
Power Drift (%) : -4.220

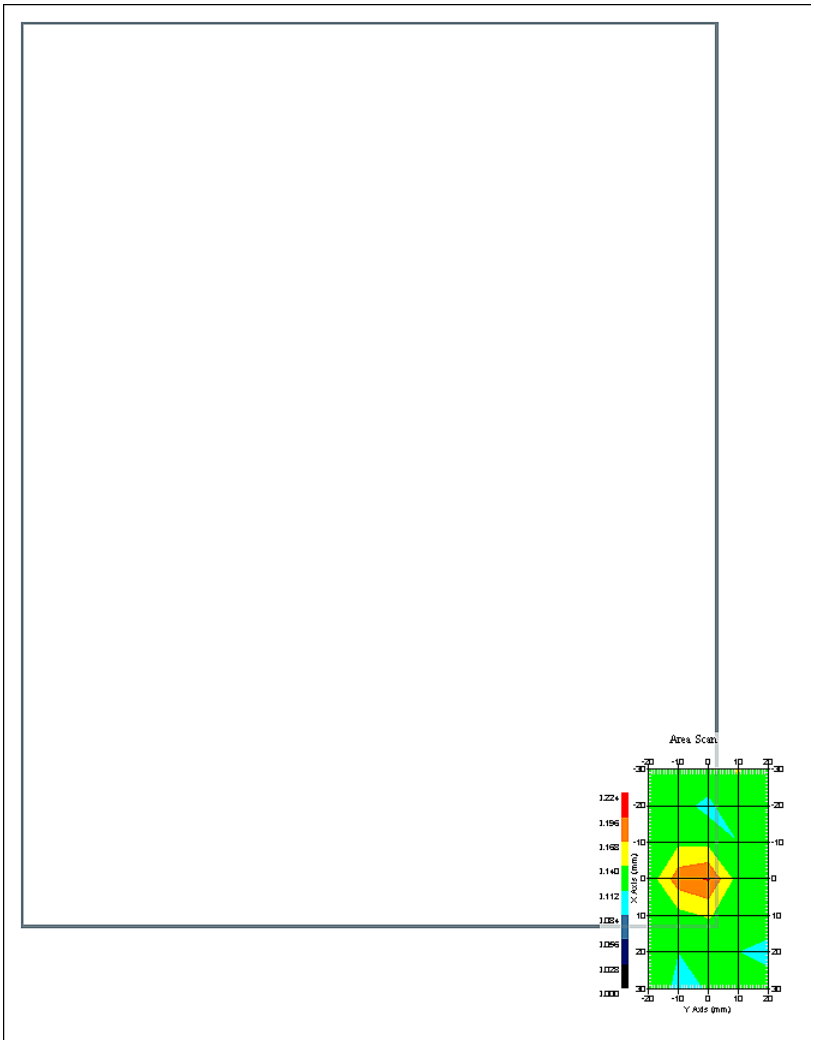
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5600
Frequency : 5600.00 MHz
Last Calib. Date : 23-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 48.84 F/m
Sigma : 5.89 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 : 5600.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 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       : 8:08:52 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    : 0.167 W/kg
10 gram SAR value   : 0.132 W/kg
Area Scan Peak SAR  : 0.198 W/kg
Zoom Scan Peak SAR  : 0.160 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 08:20:10 AM
End Time : 23-Jul-2008 08:44:48 AM
Scanning Time : 1478 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5600.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.173 W/kg
Power Drift-Finish: 0.179 W/kg
Power Drift (%) : 3.466

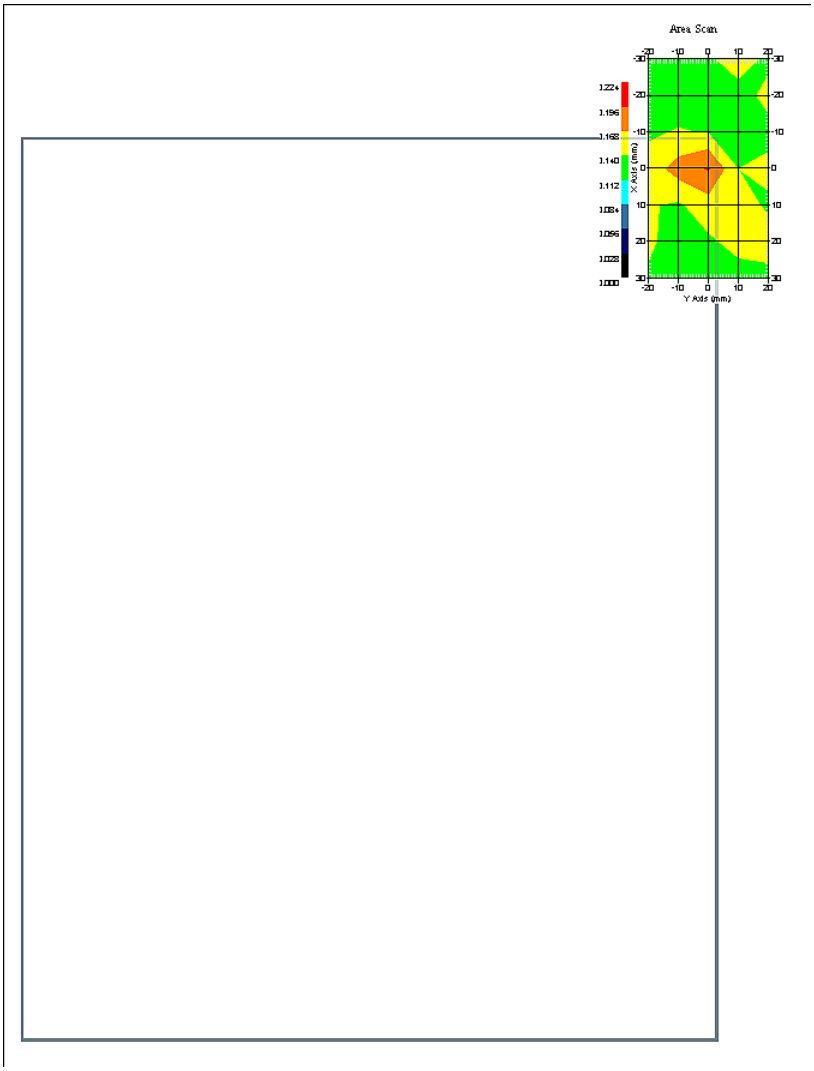
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5600
Frequency : 5600.00 MHz
Last Calib. Date : 23-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 48.84 F/m
Sigma : 5.89 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 : 5600.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 mm

easurement 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 : 8:08:52 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 : 0.174 W/kg
10 gram SAR value : 0.148 W/kg
Area Scan Peak SAR : 0.198 W/kg
Zoom Scan Peak SAR : 0.080 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 09:46:28 AM
End Time : 23-Jul-2008 10:11:04 AM
Scanning Time : 1476 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5600.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.165 W/kg
Power Drift-Finish: 0.173 W/kg
Power Drift (%) : 4.842

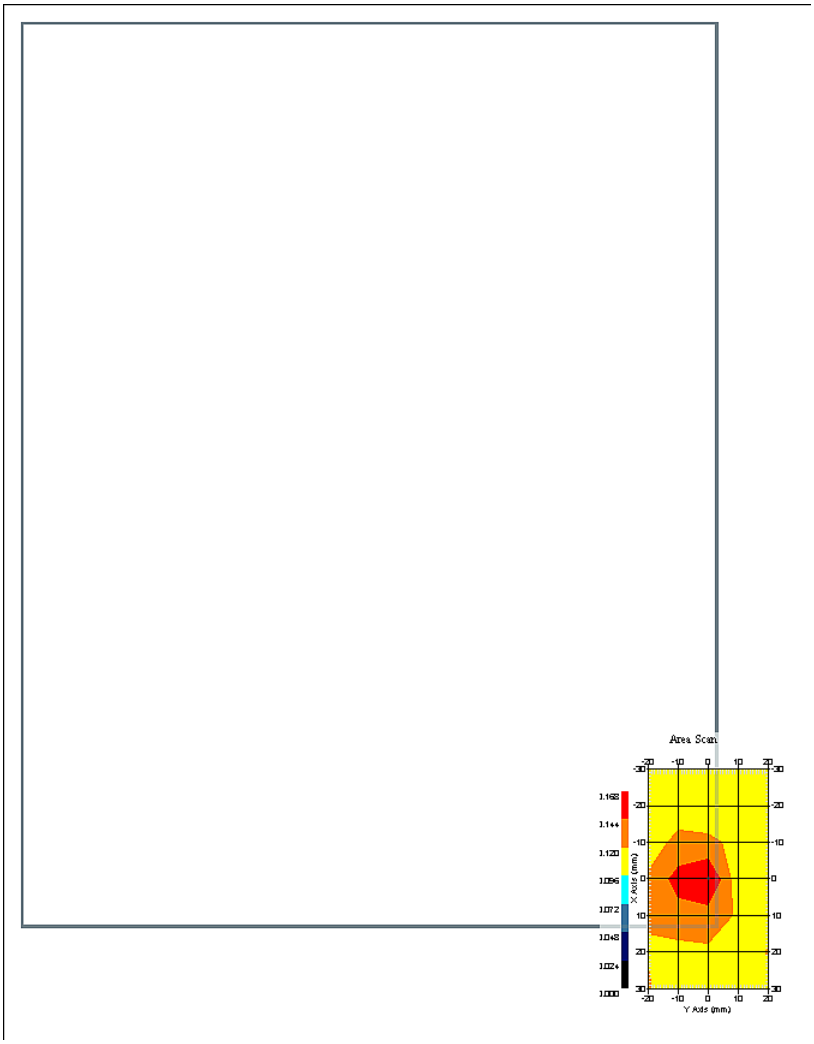
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5600
Frequency : 5600.00 MHz
Last Calib. Date : 23-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 48.84 F/m
Sigma : 5.89 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 : 5600.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 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       : 8:08:52 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    : 0.150 W/kg
10 gram SAR value   : 0.123 W/kg
Area Scan Peak SAR  : 0.168 W/kg
Zoom Scan Peak SAR  : 0.110 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 12:36:31 PM
End Time : 23-Jul-2008 01:01:16 PM
Scanning Time : 1485 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5600.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.187 W/kg
Power Drift-Finish: 0.193 W/kg
Power Drift (%) : 3.200

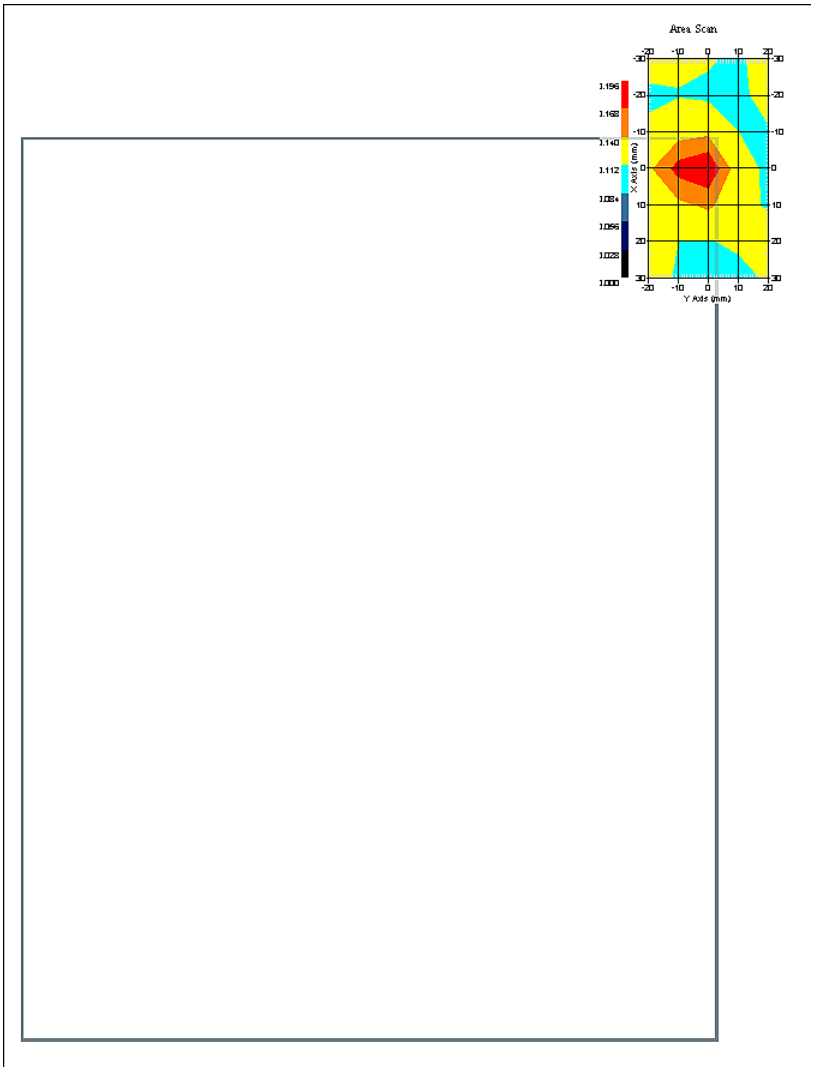
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5600
Frequency : 5600.00 MHz
Last Calib. Date : 23-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 48.84 F/m
Sigma : 5.89 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 : 5600.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 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       : 8:08:52 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    : 0.168 W/kg
10 gram SAR value   : 0.132 W/kg
Area Scan Peak SAR  : 0.196 W/kg
Zoom Scan Peak SAR  : 0.260 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 11:11:23 AM
End Time : 23-Jul-2008 11:35:54 AM
Scanning Time : 1471 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5600.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.199 W/kg
Power Drift-Finish: 0.209 W/kg
Power Drift (%) : 4.916

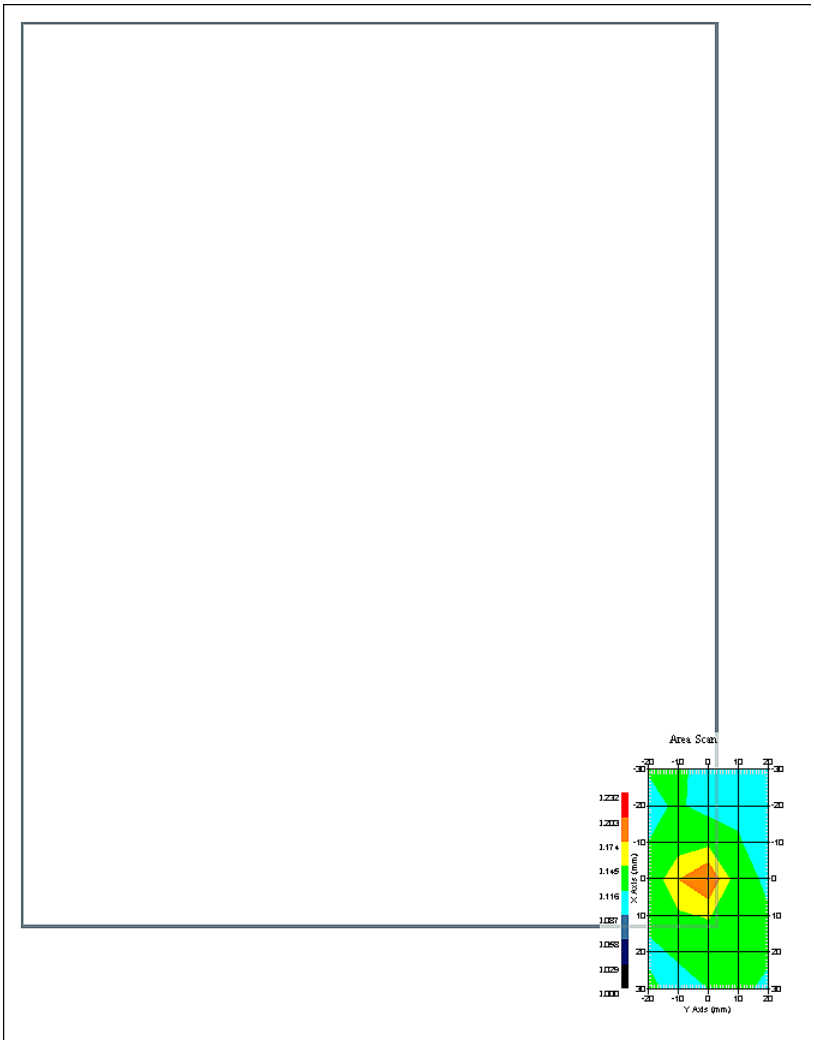
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5600
Frequency : 5600.00 MHz
Last Calib. Date : 23-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 48.84 F/m
Sigma : 5.89 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 : 5600.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 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       : 8:08:52 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    : 0.163 W/kg
10 gram SAR value   : 0.127 W/kg
Area Scan Peak SAR  : 0.204 W/kg
Zoom Scan Peak SAR  : 0.250 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 08:48:37 AM
End Time : 23-Jul-2008 09:13:16 AM
Scanning Time : 1479 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5600.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.172 W/kg
Power Drift-Finish: 0.180 W/kg
Power Drift (%) : 4.652

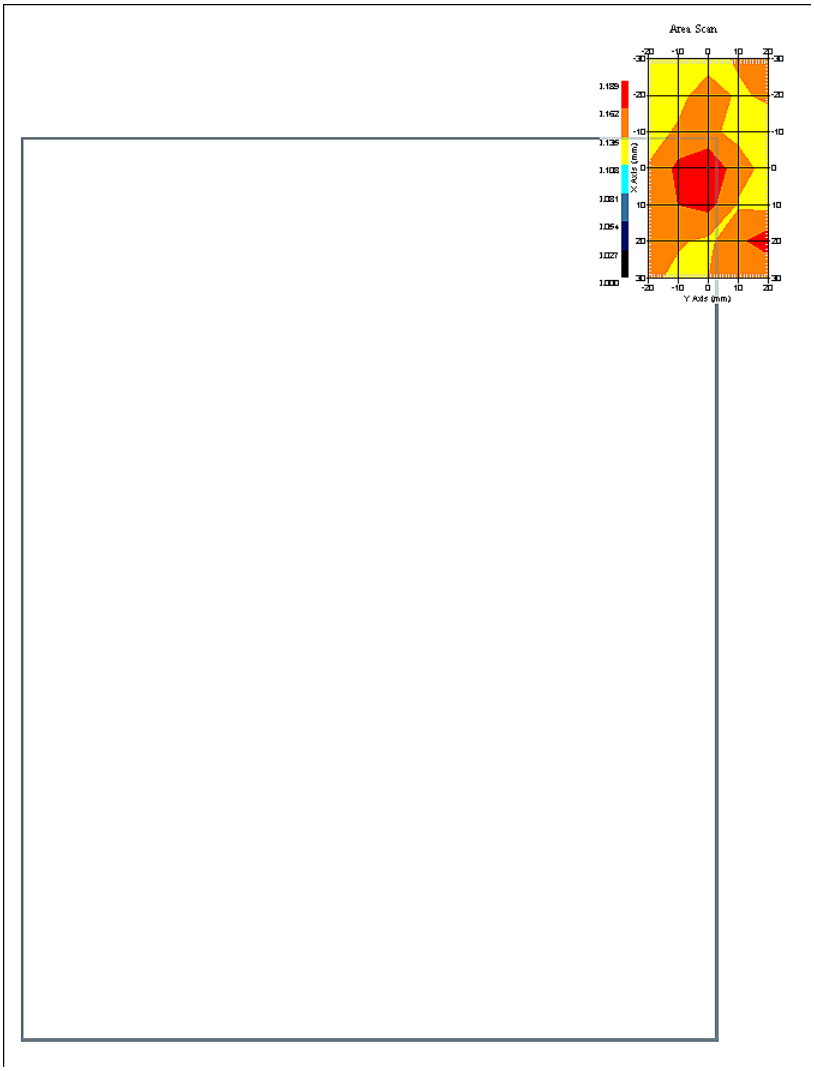
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5600
Frequency : 5600.00 MHz
Last Calib. Date : 23-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 48.84 F/m
Sigma : 5.89 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 : 5600.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 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       : 8:08:52 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    : 0.170 W/kg
10 gram SAR value   : 0.144 W/kg
Area Scan Peak SAR  : 0.188 W/kg
Zoom Scan Peak SAR  : 0.250 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 10:14:38 AM
End Time : 23-Jul-2008 10:39:14 AM
Scanning Time : 1476 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5600.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.167 W/kg
Power Drift-Finish: 0.174 W/kg
Power Drift (%) : 4.199

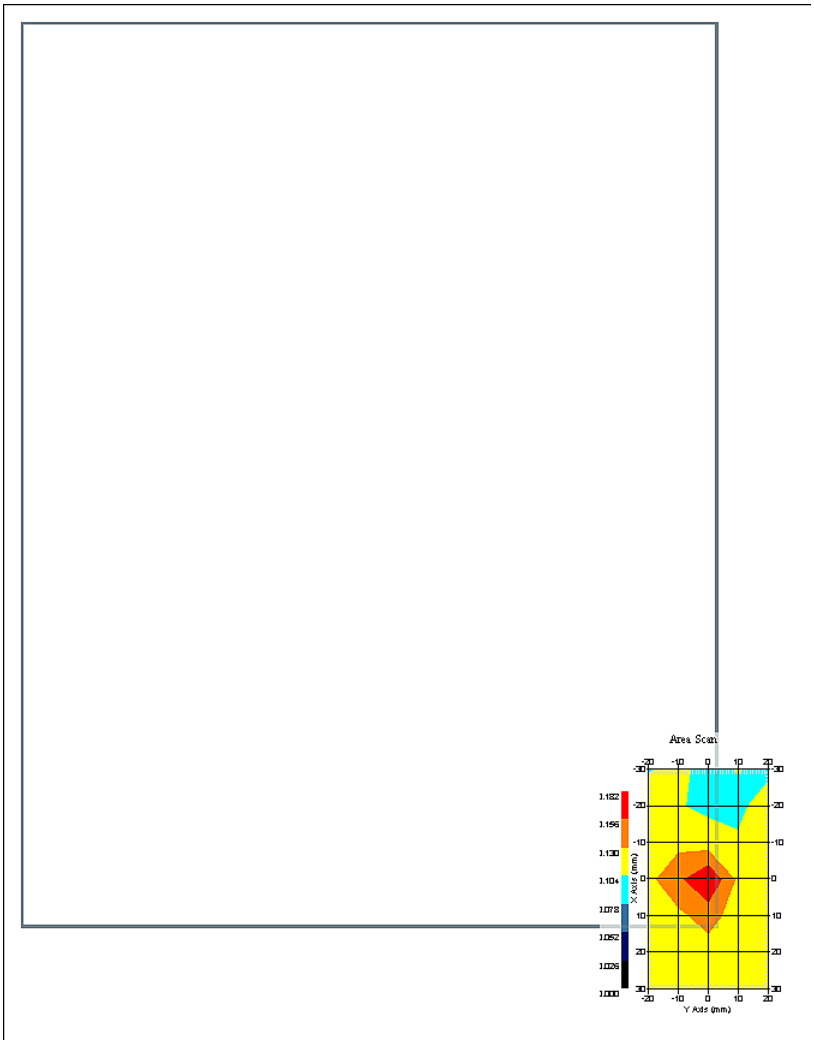
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5600
Frequency : 5600.00 MHz
Last Calib. Date : 23-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 48.84 F/m
Sigma : 5.89 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 : 5600.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 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       : 8:08:52 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    : 0.159 W/kg
10 gram SAR value   : 0.127 W/kg
Area Scan Peak SAR  : 0.182 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 01:05:40 PM
End Time : 23-Jul-2008 01:30:14 PM
Scanning Time : 1474 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5600.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.227 W/kg
Power Drift-Finish: 0.235 W/kg
Power Drift (%) : 3.525

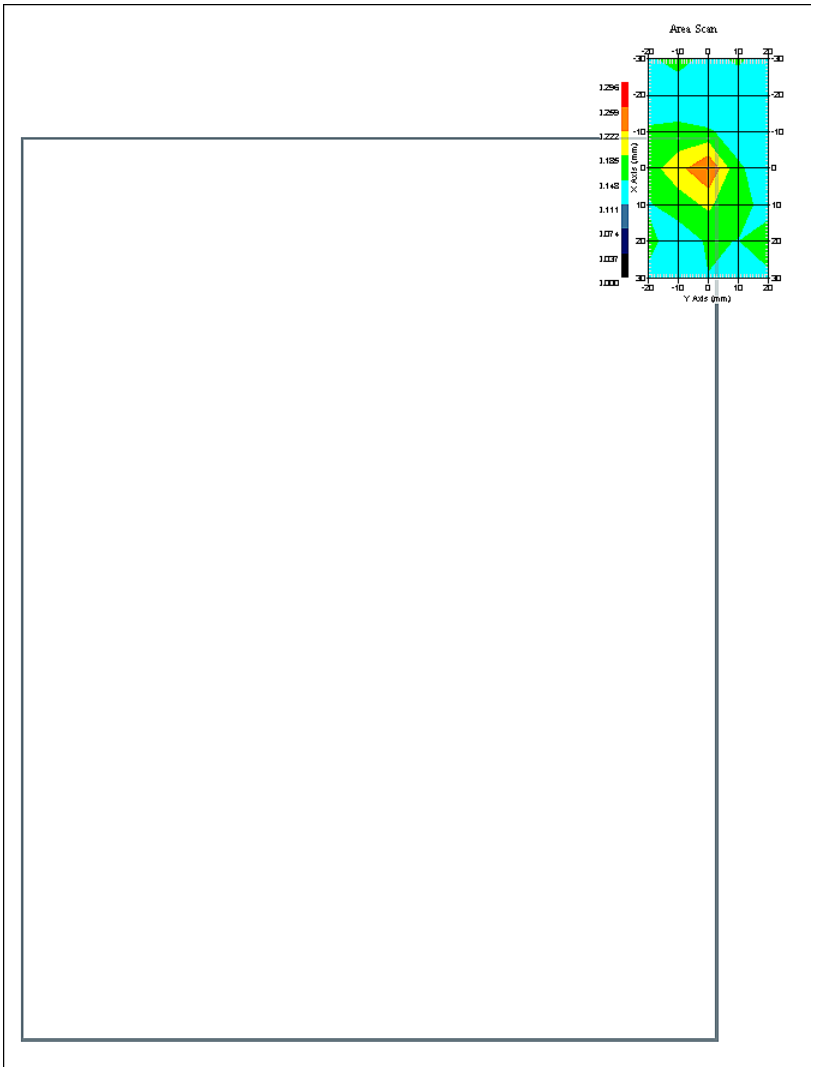
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5600
Frequency : 5600.00 MHz
Last Calib. Date : 23-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 48.84 F/m
Sigma : 5.89 S/m
Density : 1000.00 kg/cu. m

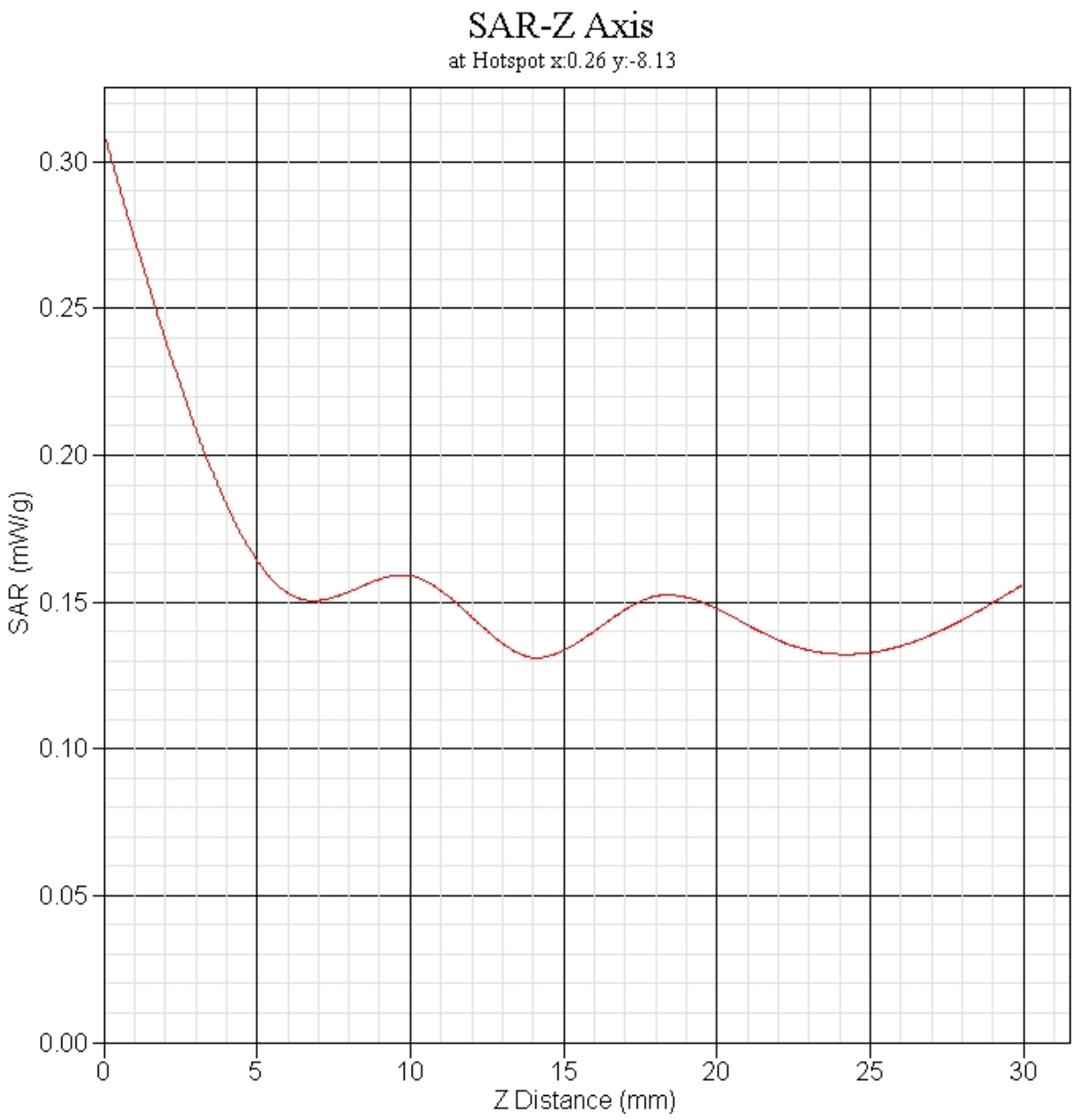
Probe Data
Name : Probe E030-001 - RFEL
Model : E030
Type : E-Field Triangle
Serial No. : E030-001
Last Calib. Date : 14-Apr-2008
Frequency : 5600.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 mm

```
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       : 8:08:52 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    : 0.196 W/kg
10 gram SAR value   : 0.152 W/kg
Area Scan Peak SAR  : 0.261 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 11:39:26 AM
End Time : 23-Jul-2008 12:04:00 PM
Scanning Time : 1474 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5600.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.213 W/kg
Power Drift-Finish: 0.205 W/kg
Power Drift (%) : -3.754

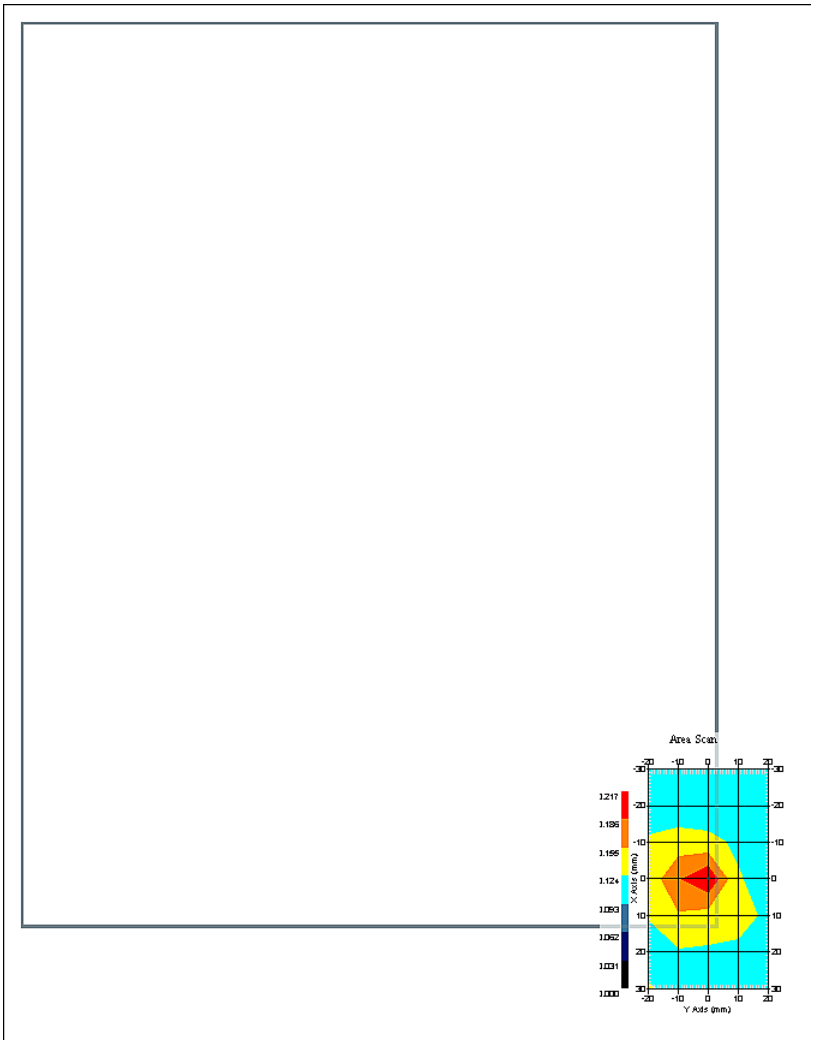
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 5600
Frequency : 5600.00 MHz
Last Calib. Date : 23-Jul-2008
Temperature : 20.00 °C
Ambient Temp. : 23.00 °C
Humidity : 50.00 RH%
Epsilon : 48.84 F/m
Sigma : 5.89 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 : 5600.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 6.1
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 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       : 8:08:52 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    : 0.173 W/kg
10 gram SAR value   : 0.131 W/kg
Area Scan Peak SAR  : 0.214 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 06:28:41 PM
End Time : 23-Jul-2008 06:53:21 PM
Scanning Time : 1480 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5800.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.185 W/kg
Power Drift-Finish: 0.192 W/kg
Power Drift (%) : 3.992

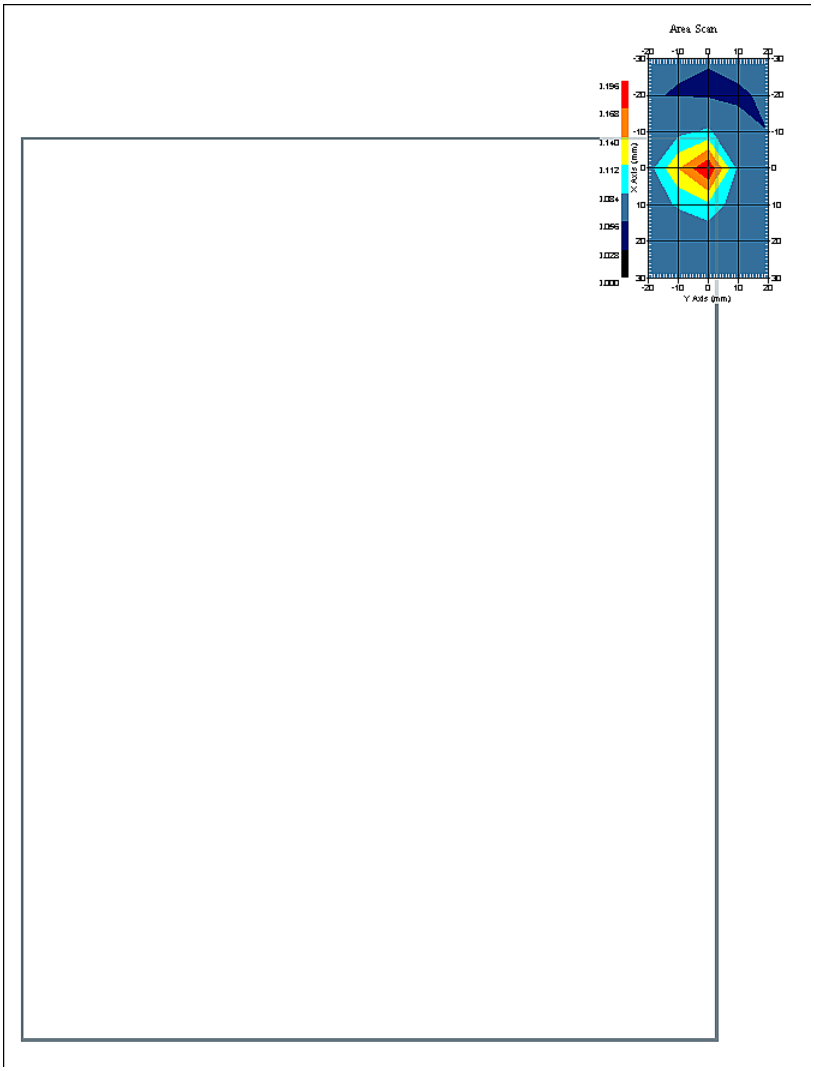
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 1:30:25 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  : 0.195 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 05:01:37 PM
End Time : 23-Jul-2008 05:26:17 PM
Scanning Time : 1480 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5800.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.154 W/kg
Power Drift-Finish: 0.160 W/kg
Power Drift (%) : 3.899

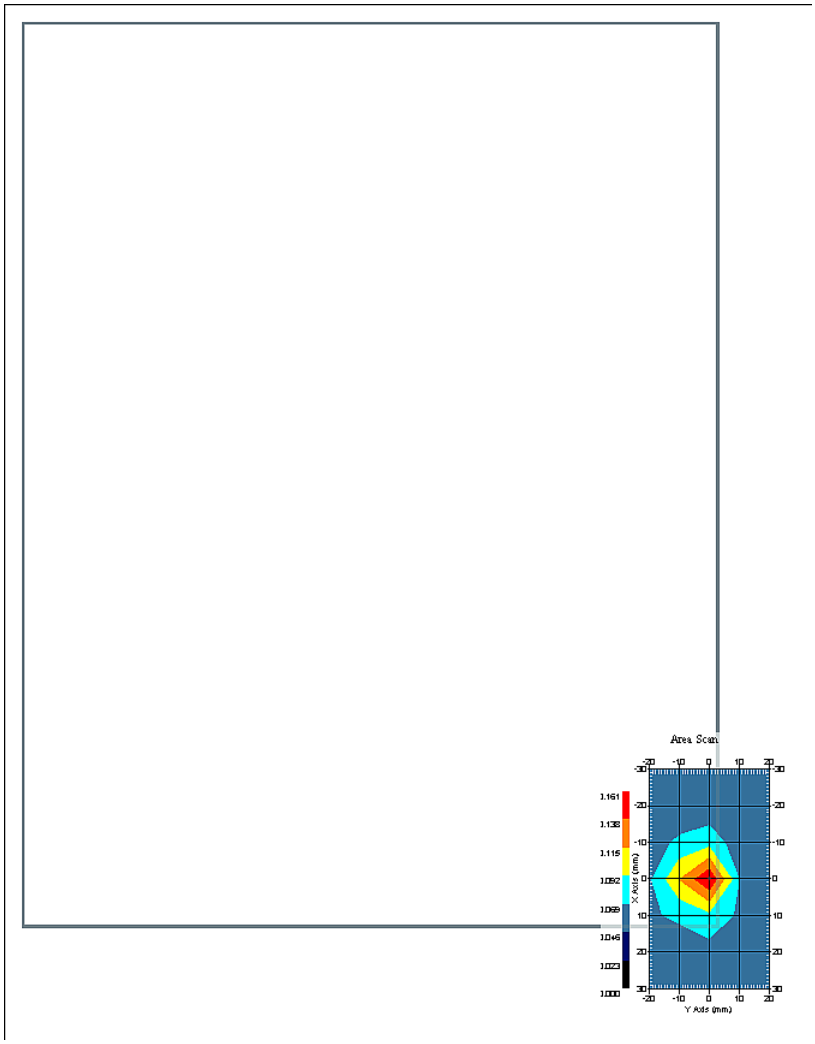
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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 : 1:30:25 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 : 0.112 W/kg
10 gram SAR value : 0.072 W/kg
Area Scan Peak SAR : 0.160 W/kg
Zoom Scan Peak SAR : 0.220 W/kg

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 02:10:15 PM
End Time : 23-Jul-2008 02:34:52 PM
Scanning Time : 1477 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5800.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.114 W/kg
Power Drift-Finish: 0.115 W/kg
Power Drift (%) : 0.959

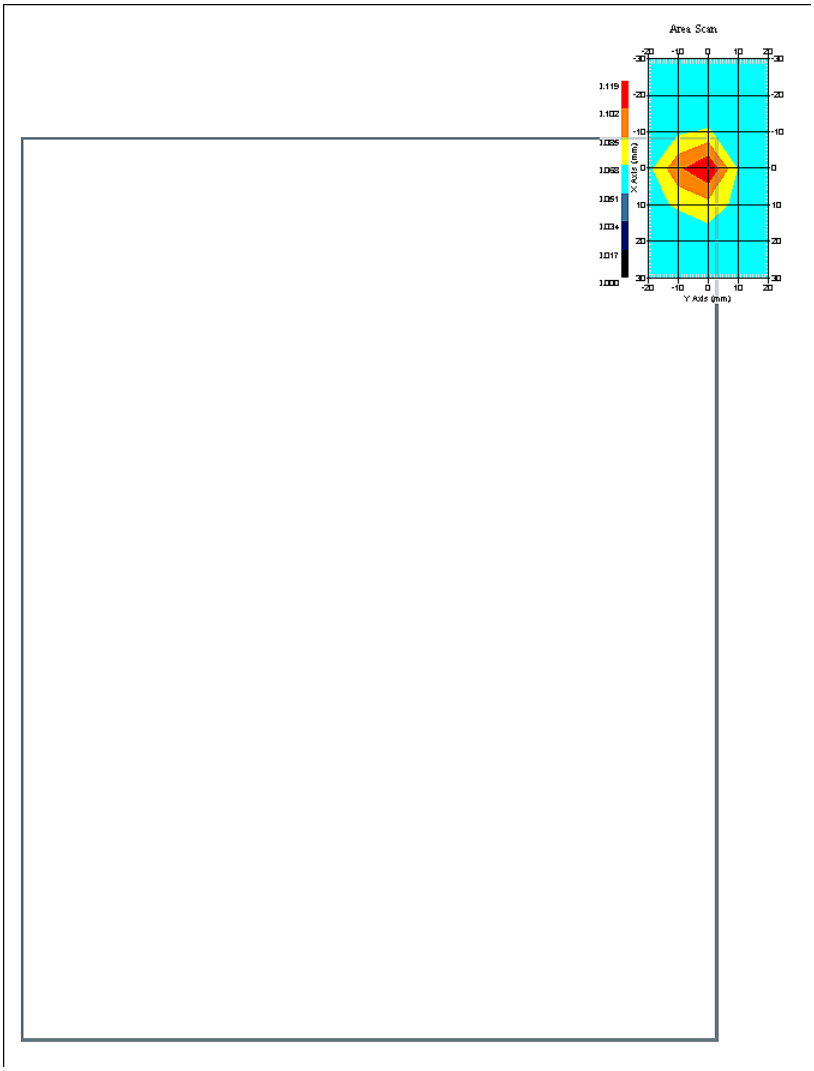
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 1:30:25 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    : 0.089 W/kg
10 gram SAR value   : 0.066 W/kg
Area Scan Peak SAR  : 0.118 W/kg
Zoom Scan Peak SAR  : 0.150 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 03:35:37 PM
End Time : 23-Jul-2008 04:00:12 PM
Scanning Time : 1475 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5800.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.105 W/kg
Power Drift-Finish: 0.106 W/kg
Power Drift (%) : 1.049

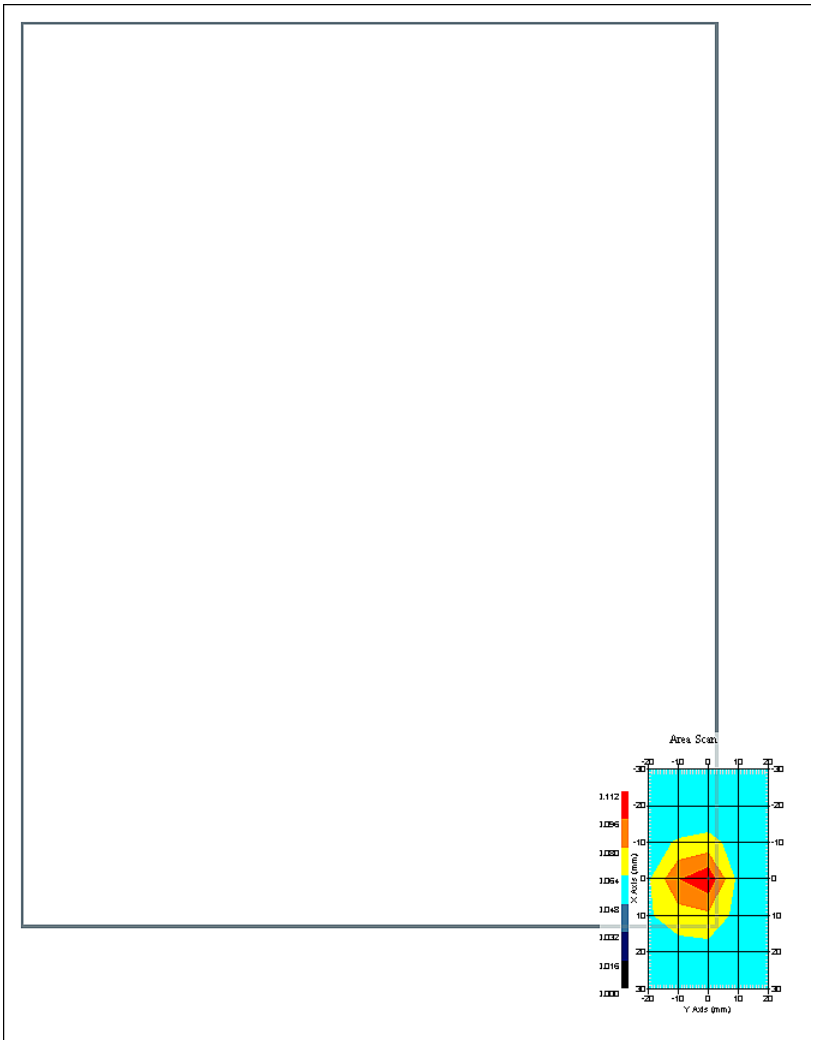
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 1:30:25 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    : 0.087 W/kg
10 gram SAR value   : 0.065 W/kg
Area Scan Peak SAR  : 0.109 W/kg
Zoom Scan Peak SAR  : 0.140 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 06:57:10 PM
End Time : 23-Jul-2008 07:21:46 PM
Scanning Time : 1476 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5800.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.195 W/kg
Power Drift-Finish: 0.201 W/kg
Power Drift (%) : 3.074

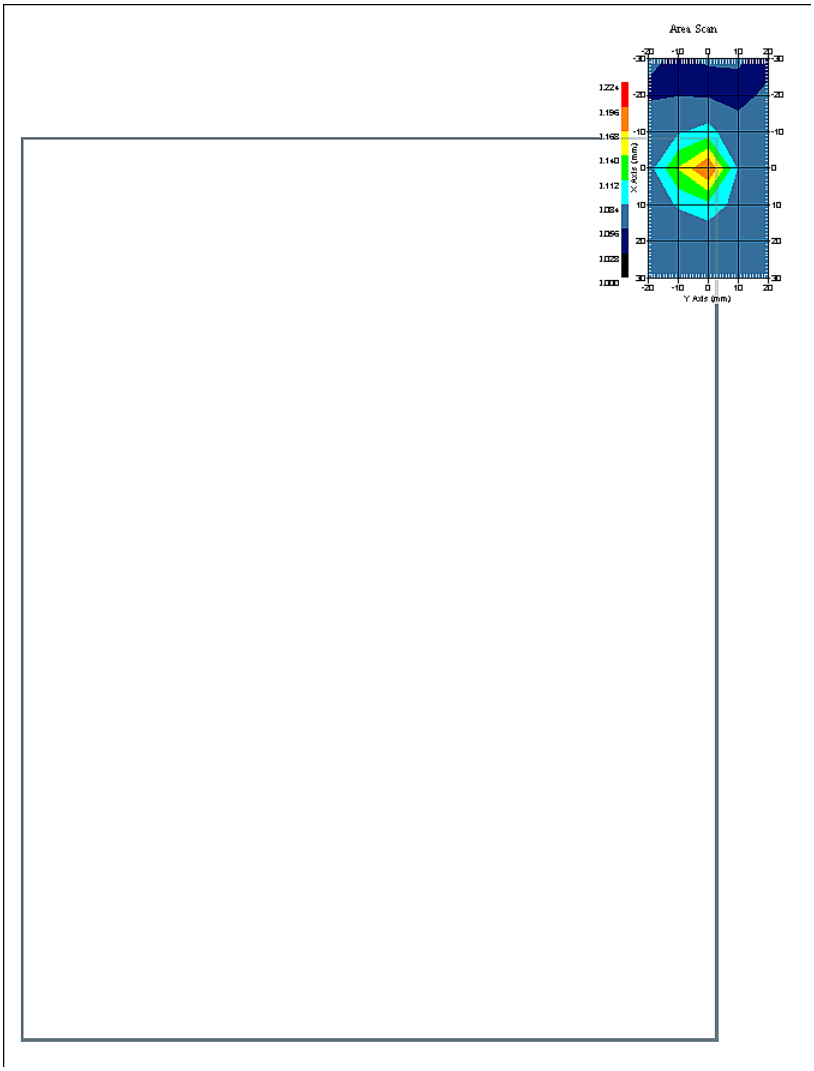
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 1:30:25 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    : 0.142 W/kg
10 gram SAR value   : 0.081 W/kg
Area Scan Peak SAR  : 0.197 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 05:30:47 PM
End Time : 23-Jul-2008 05:55:20 PM
Scanning Time : 1473 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5800.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.165 W/kg
Power Drift-Finish: 0.172 W/kg
Power Drift (%) : 4.671

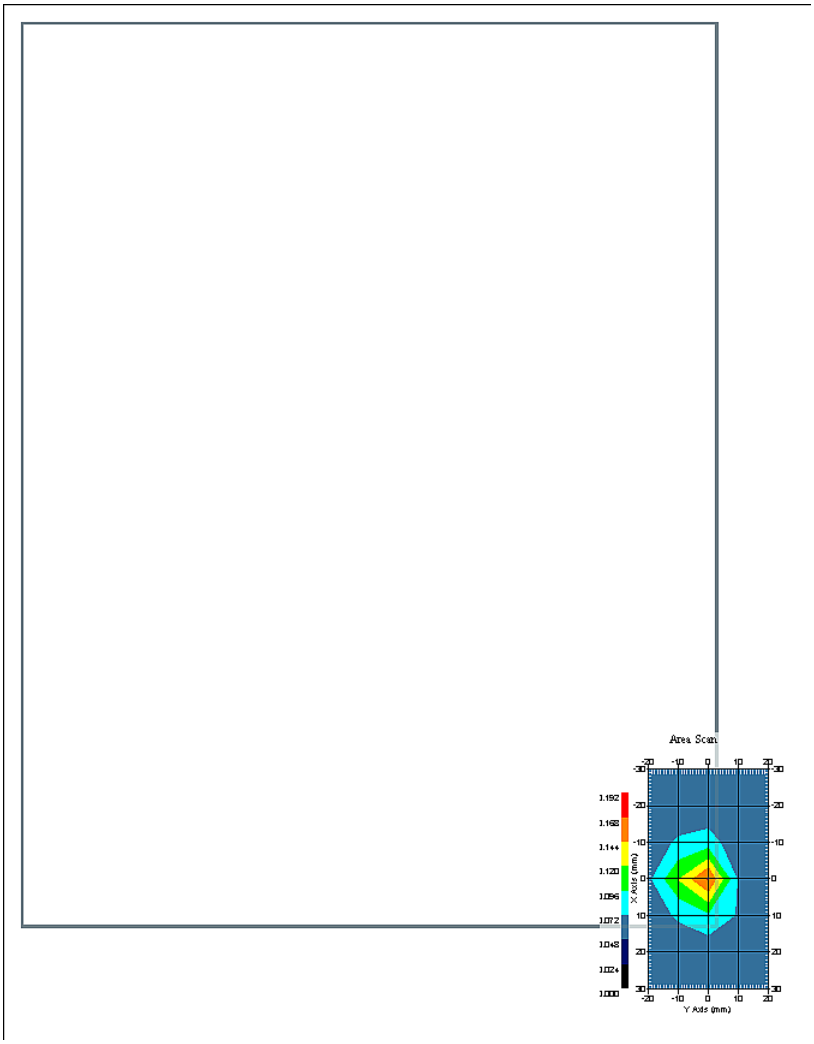
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 1:30:25 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    : 0.120 W/kg
10 gram SAR value   : 0.076 W/kg
Area Scan Peak SAR  : 0.170 W/kg
Zoom Scan Peak SAR  : 0.240 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 02:38:58 PM
End Time : 23-Jul-2008 03:03:43 PM
Scanning Time : 1485 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5800.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.119 W/kg
Power Drift-Finish: 0.121 W/kg
Power Drift (%) : 1.581

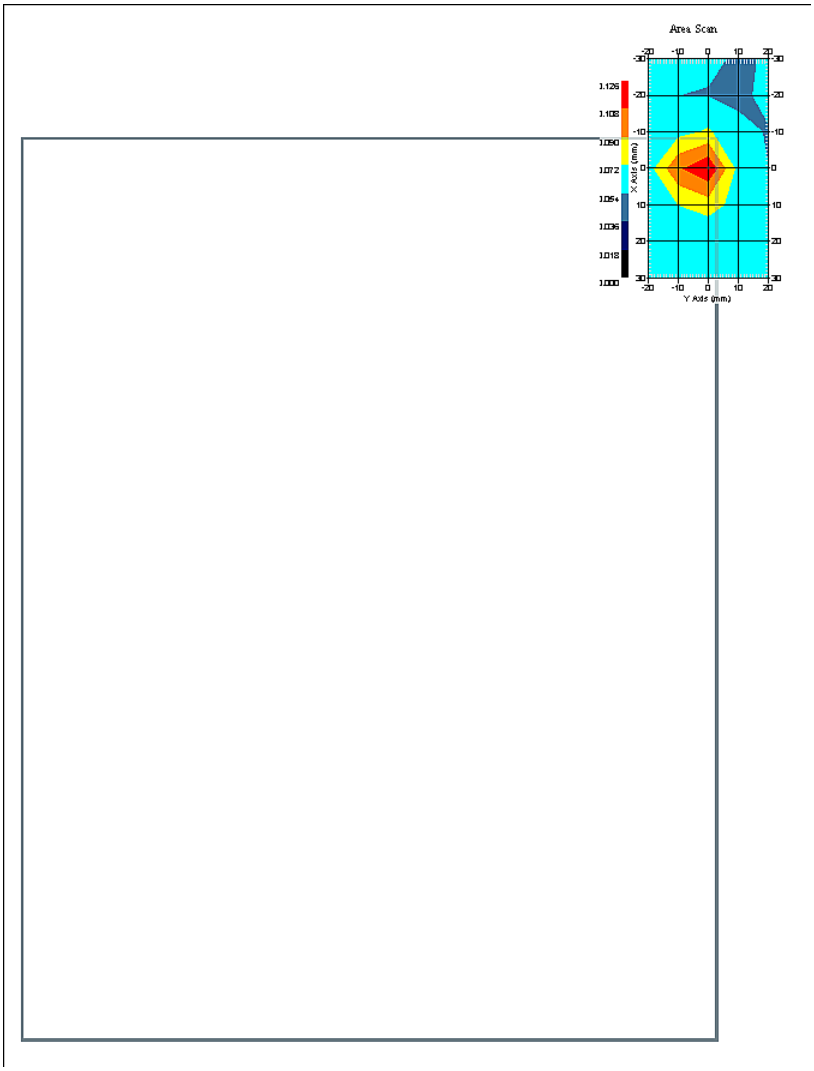
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 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 $\mu V/(V/m)^2$
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       : 1:30:25 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    : 0.093 W/kg
10 gram SAR value   : 0.067 W/kg
Area Scan Peak SAR  : 0.124 W/kg
Zoom Scan Peak SAR  : 0.160 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 04:04:49 PM
End Time : 23-Jul-2008 04:29:29 PM
Scanning Time : 1480 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5800.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.107 W/kg
Power Drift-Finish: 0.110 W/kg
Power Drift (%) : 2.809

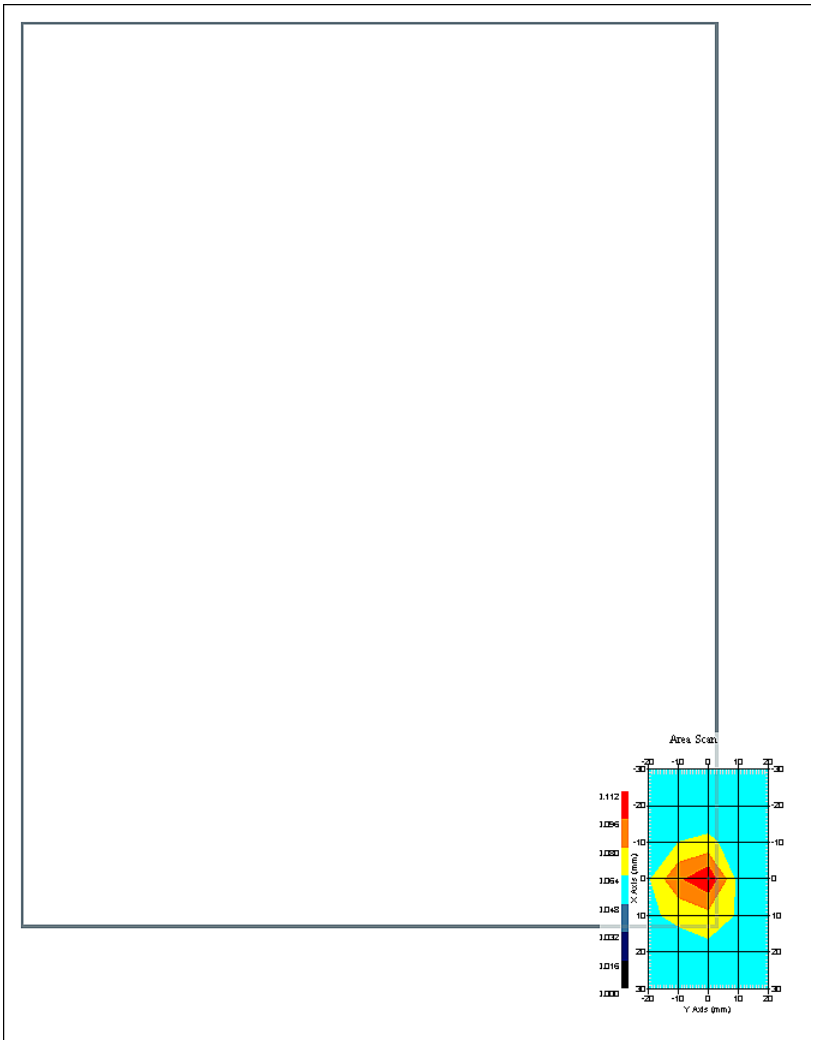
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 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 $\mu V/(V/m)^2$
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       : 1:30:25 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    : 0.088 W/kg
10 gram SAR value   : 0.066 W/kg
Area Scan Peak SAR  : 0.110 W/kg
Zoom Scan Peak SAR  : 0.140 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 07:25:11 PM
End Time : 23-Jul-2008 07:49:42 PM
Scanning Time : 1471 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5800.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.215 W/kg
Power Drift-Finish: 0.225 W/kg
Power Drift (%) : 4.384

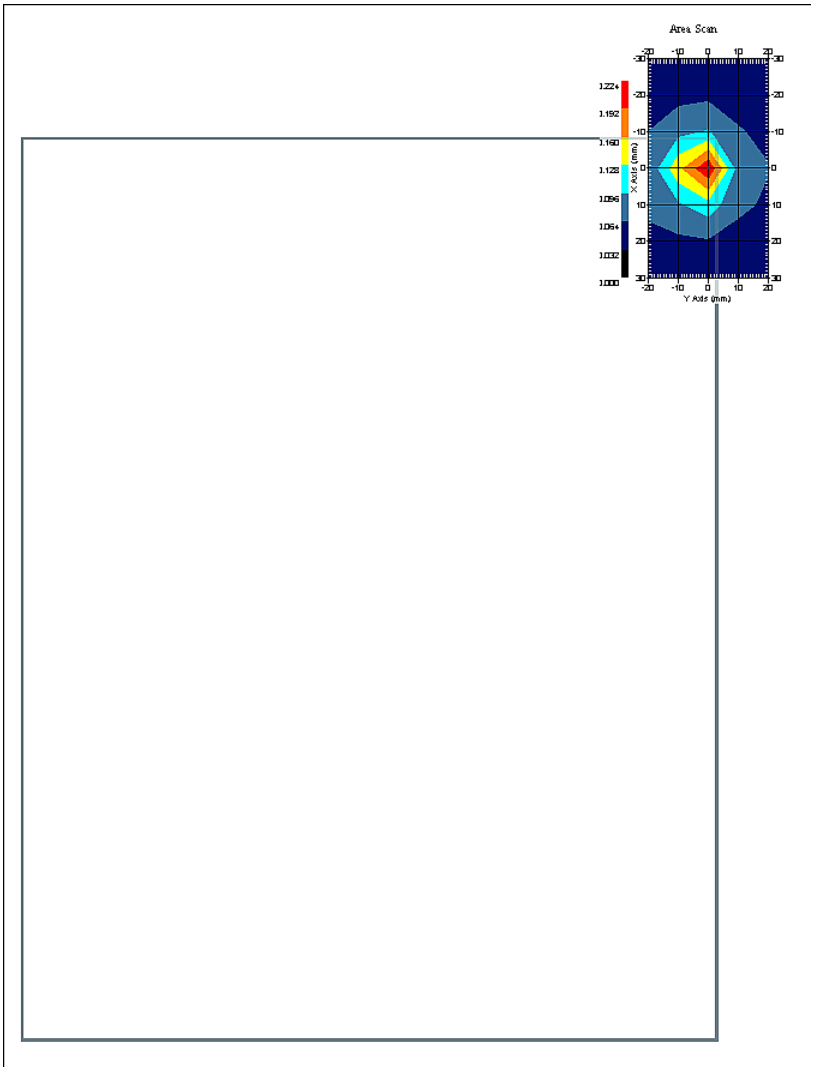
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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

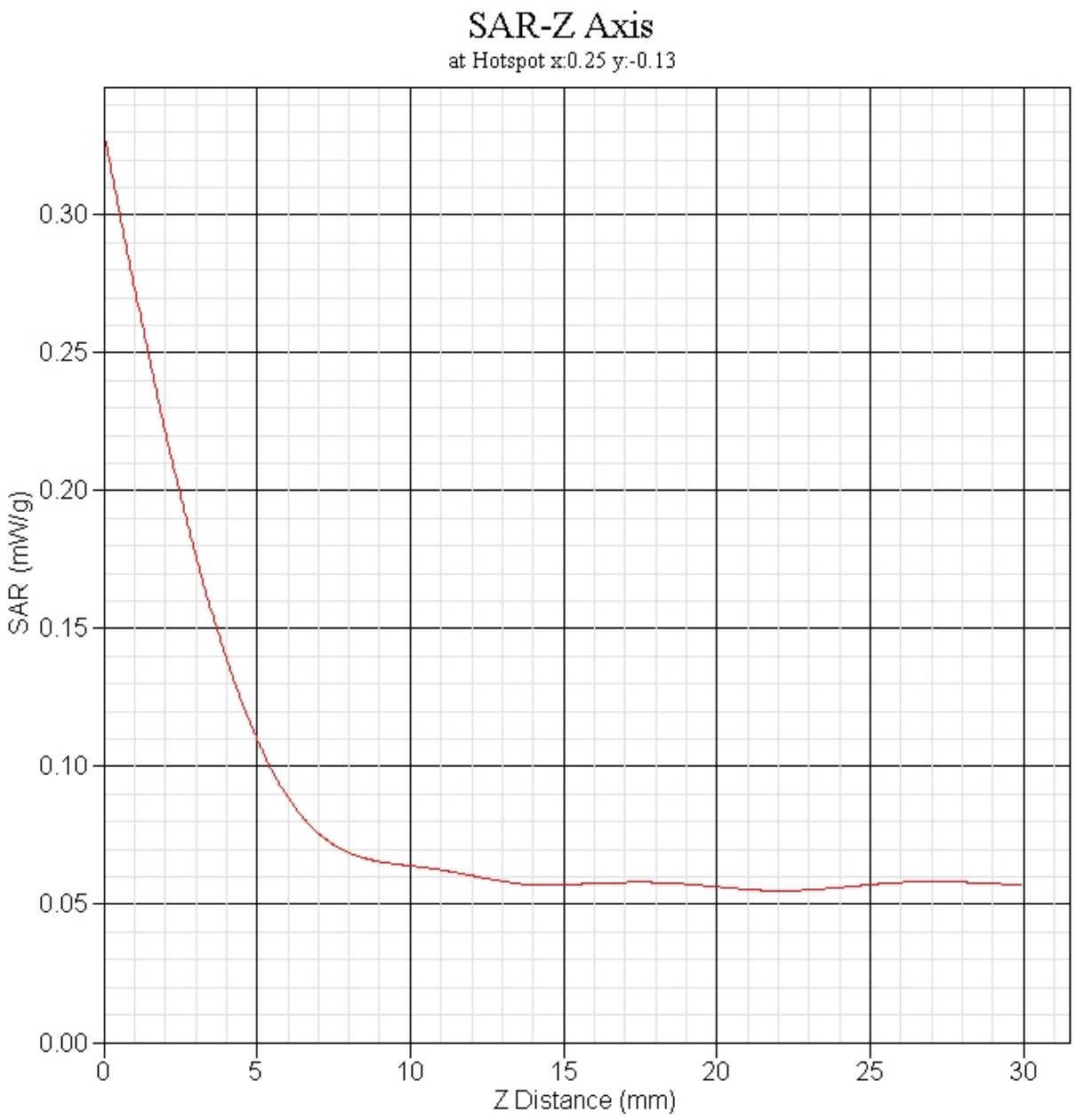
Probe Data
Name : Probe E030-001 - RFEL
Model : E030
Type : E-Field Triangle
Serial No. : E030-001
Last Calib. Date : 14-Apr-2008
Frequency : 5800.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 12
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.06 mm

```
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       : 1:30:25 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    : 0.151 W/kg
10 gram SAR value   : 0.084 W/kg
Area Scan Peak SAR  : 0.221 W/kg
Zoom Scan Peak SAR  : 0.330 W/kg
```



SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 05:59:54 PM
End Time : 23-Jul-2008 06:24:31 PM
Scanning Time : 1477 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5800.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.179 W/kg
Power Drift-Finish: 0.182 W/kg
Power Drift (%) : 1.407

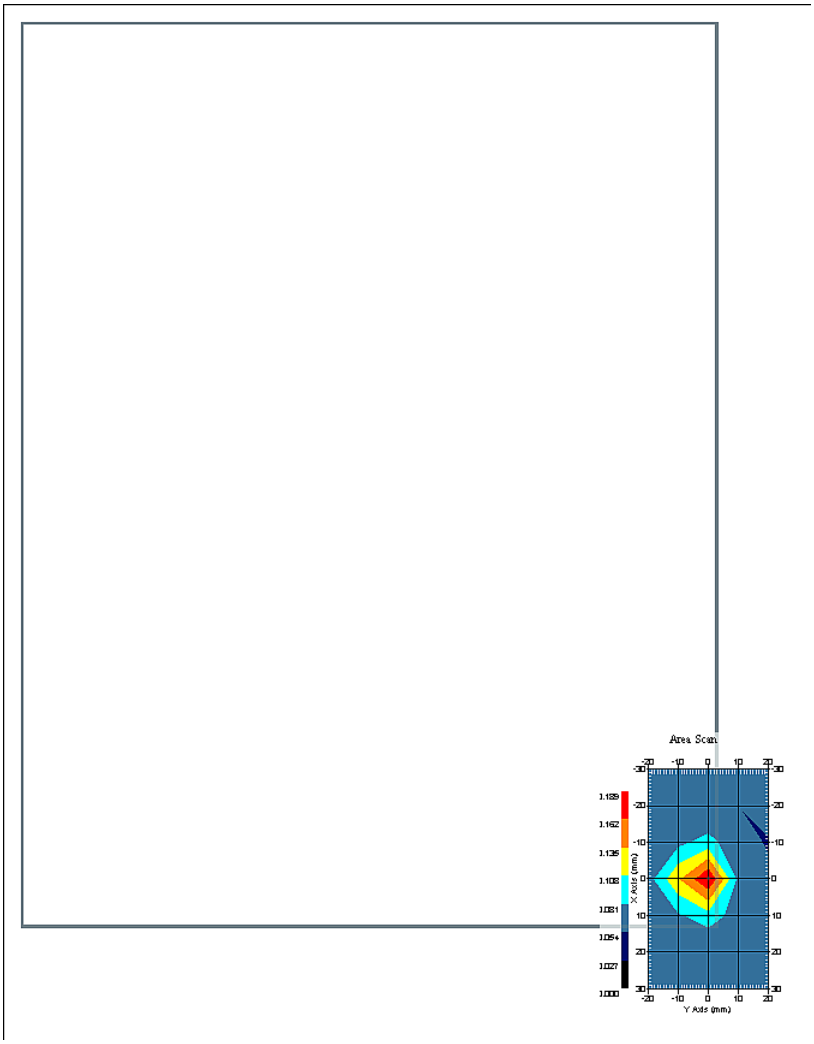
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

Tissue Data
Type : BODY
Serial No. : 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 $\mu V/(V/m)^2$
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       : 1:30:25 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    : 0.127 W/kg
10 gram SAR value   : 0.077 W/kg
Area Scan Peak SAR  : 0.188 W/kg
Zoom Scan Peak SAR  : 0.260 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 03:07:06 PM
End Time : 23-Jul-2008 03:31:43 PM
Scanning Time : 1477 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5800.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.134 W/kg
Power Drift-Finish: 0.138 W/kg
Power Drift (%) : 2.982

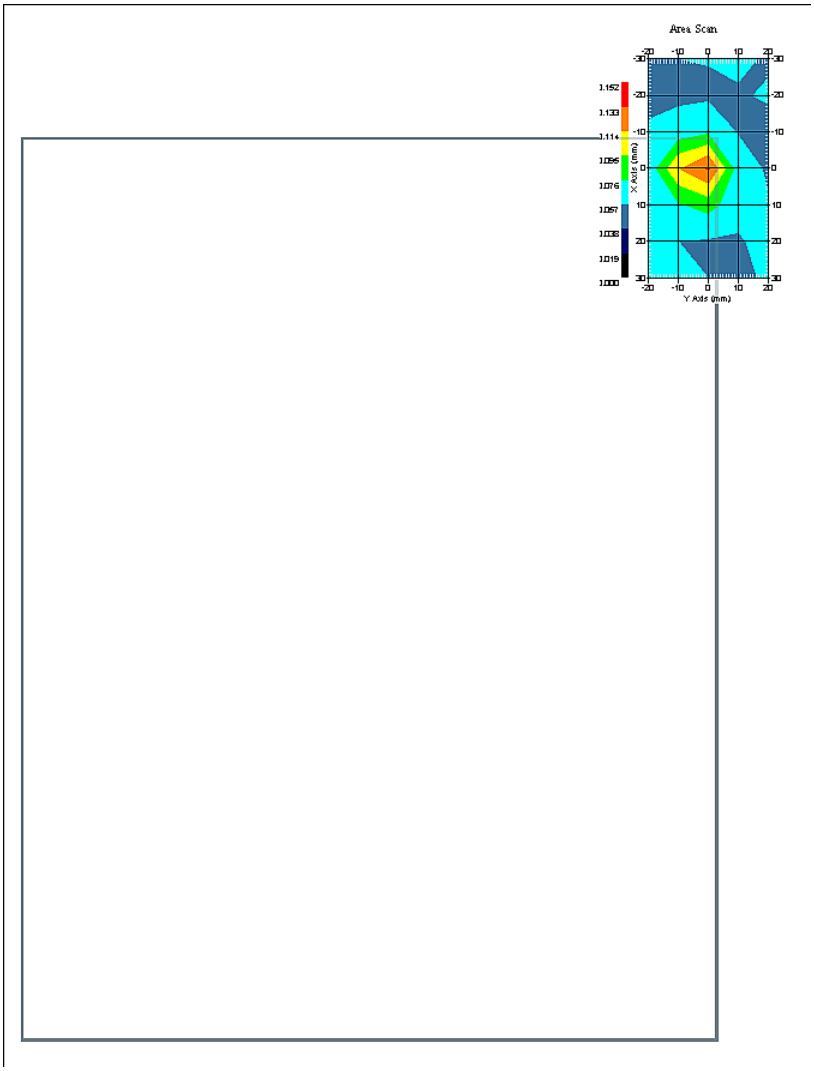
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 1:30:25 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    : 0.100 W/kg
10 gram SAR value   : 0.069 W/kg
Area Scan Peak SAR  : 0.135 W/kg
Zoom Scan Peak SAR  : 0.180 W/kg
```

SAR Test Report

By Operator : Jay
Measurement Date : 23-Jul-2008
Starting Time : 23-Jul-2008 04:33:23 PM
End Time : 23-Jul-2008 04:57:51 PM
Scanning Time : 1468 secs

Product Data
Device Name : Novatel Wireless
Serial No. : 275
Type : Other
Model : Minicooper
Frequency : 5800.00 MHz
Max. Transmit Pwr : 0.05 W
Drift Time : 0 min(s)
Length : 290 mm
Width : 225 mm
Depth : 24 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.120 W/kg
Power Drift-Finish: 0.121 W/kg
Power Drift (%) : 0.917

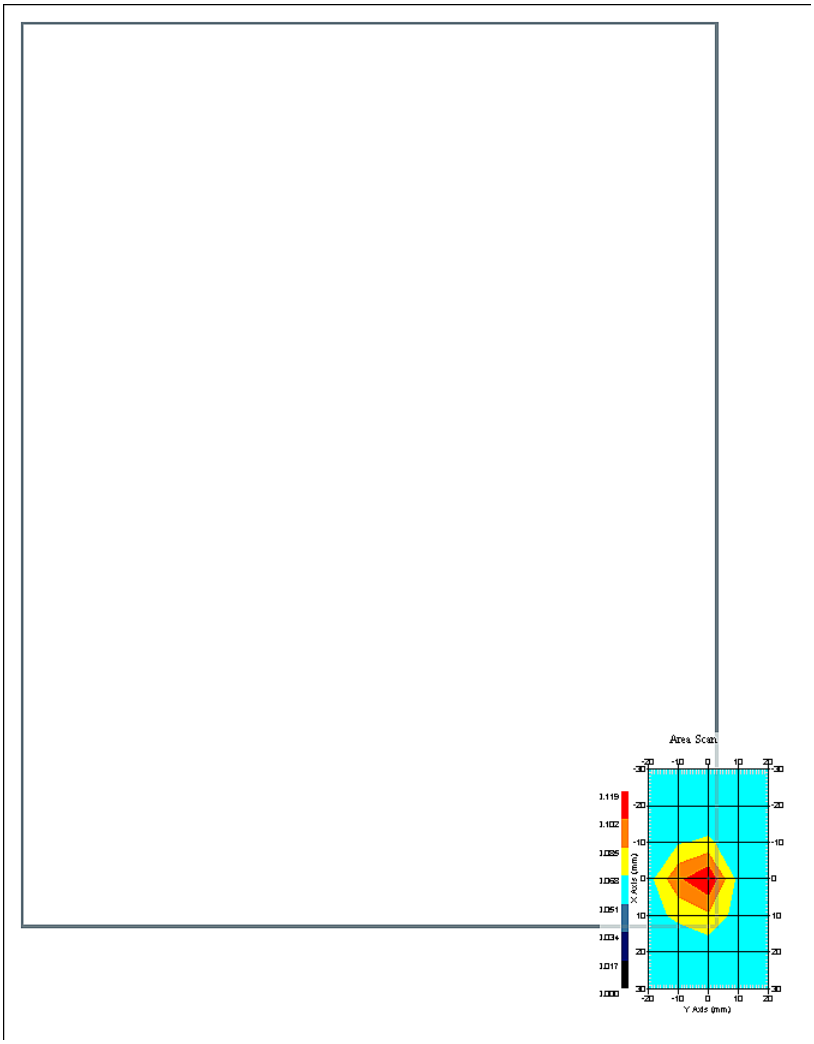
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Uni-Phantom

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 $\mu V/(V/m)^2$
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       : 1:30:25 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    : 0.093 W/kg
10 gram SAR value   : 0.068 W/kg
Area Scan Peak SAR  : 0.119 W/kg
Zoom Scan Peak SAR  : 0.150 W/kg
```