

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

OQO Dates of Test: June 23-28, Sept. 23-24, 2007
583 Shotwell Street Test Report Number: SAR.20070912
San Francisco, CA 94110 Revision A

FCC ID: SHD-A9YWFS IC Certificate: 6026A-A9YWFS

Model(s): 02

Test Sample: Pre-Production Unit same as Production

Serial No.: 0052729909 Equipment Type: Wireless Computer

Classification: Portable Transmitter Next to Body

TX Frequency Range: 2412 – 2462 MHz, 5180 – 5320 MHz, 5745 – 5825 MHz,

824.2 – 848.8 MHz, 1850.2 – 1909.8 MHz

Frequency Tolerance: ± 25 ppm

Maximum RF Output: 835 MHz – 24.48 dBm, 1900 MHz – 24.47 dBm,

2450 Mhz (b) – 20.3 dBm, 2450 MHz (g) – 15.7 dBm,

5250 MHz - 16.8 dBm, 5800 MHz - 17.6 dBm Conducted

Signal Modulation: DSSS, OFDM, CDMA

Antenna Type (Length): Internal(OQO P/N FPC-0065)

Battery: Standard (OQO P/N FAS-FAS-0081), Extended (OQO P/N

FAS-FAS-0082) Battery Pack

Accessories Tested: Extended Battery, Steel Case, Holster with Belt Clip, Leather

Case with Magnetic Latch, DeskDock

Application Type: Certification FCC Rule Parts: Part 15E 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



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1. Introduction

This measurement report shows compliance of the OQO Model 02 FCC ID: SHD-A9YWFS with FCC Part 2, 1093, ET Docket 93-62 Rules for mobile and portable devices and IC Certificate: 6026A-A9YWFS 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/m³)

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^{TM} 2.66 GHz PC with Windows XP Pro^{TM} , 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:

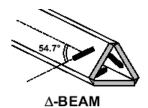
$$f_3(x,y,z) = A \frac{a^2}{\frac{a^2}{4} + x'^2 + y'^2} \left(e^{-\frac{2z}{a}} + \frac{a^2}{2(a+2z)^2} \right)$$

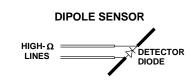
The probe used during the measurement process has been assessed to provide values for diode compression. These values are calculated during the probe calibration exercise and are used in the mathematical calculations for the assessment of SAR.

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.







The SAR is assessed with the probe which moves at a default height of 5mm from the center of the diode, which is mounted to the sensor, to the phantom surface (Z height). The diagram above right shows how the center of the sensor is defined with the location of the diode placed at the center of the dipole. The 5mm default in the Z axis is the optimum height for assessing SAR where the boundary effect is at its least, with the probe located closest to the phantom surface (boundary).

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

The probe boundary effect compensation cannot be disabled in the ALSAS-10U testing system. The probe tip will always be at least half a probe tip diameter from the phantom surface. For frequencies up to 3 GHz, the probe diameter is 5 mm. With the sensor offset set at 1.54 mm (default setting), the sensor to phantom gap will be 4.0 mm which is greater than half the probe tip diameter. For frequencies greater than 3 GHz, the probe diameter is 3 mm. With the sensor offset set at 0.56 mm (default setting), the sensor to phantom gap will be 3.0 mm which is greater than half the probe tip diameter.

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

The zoom scan volume for devices ≤ 3 GHz with a cube scan of 5x5x8 yields a volume of 32x32x28 mm³. For devices > 3 GHz and < 4.5 GHz, the cube scan of 9x9x9 yields a volume of 32x32x24 mm³. For devices ≥ 4.5 GHz, the cube scan of 7x7x12 yields a volume of 24x24x22 mm³.





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

Simulating Tissue

		5	Simulating Tissu	ıe	
Ingredients	835 MHz Muscle	1900 MHz Muscle	2450 MHz Muscle	5250 MHz Muscle	5785 MHz Muscle
Mixing Percentage					
Water	52.40	69.91	73.20	58.85	59.00
Sugar	0.00	29.96	0.00	41.00	40.60
Salt	45.00	0.00	0.04	0.00	0.00
HEC	1.40	0.13	0.00	0.10	0.30
Bactericide	0.10	0.00	0.00	0.05	0.10
DGBE	1.00	0.00	26.70	0.00	0.00
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].

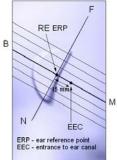


Figure 6.1 Close-up side view of ERP's



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].

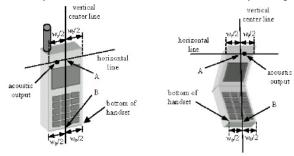


Figure 6.3 Handset Vertical Center & Horizontal Line Reference Points



7. Test Configuration Positions

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. 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.

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	CONTROLLED ENVIROMENT Professional Population
	(W/kg) or (mW/g)	(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

		sessment M			01100	rtainty	
Source of Uncertainty	Tolerance Value	Probability Distribution	Divisor	c _i (1- g)	c _i † (10- g)	Standard Uncertainty (1-g) %	Standard Uncertainty (10-g) %
							_
Measurement System	-						
Measurement System	-						
Probe Calibration	3.5	normal	1	1	1	3.5	3.5
Axial Isotropy	3.7	rectangular	•3	(1-	(1-	1.5	1.5
Axiai isocropy	3.7	receangular		cp) 1/2	cp) 1/2	1.5	1.5
Hemispherical	10.9	rectangular	•3	•cp	•cp	4.4	4.4
Isotropy	10.3	recearing	3	op .	op .	1.1	1.1
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	0.4	rectangular	•3	1	1	0.2	0.2
Mech.		_					
Restriction							
Probe Positioning	2.9	rectangular	•3	1	1	1.7	1.7
with respect to							
Phantom Shell							
Extrapolation and	3.7	rectangular	•3	1	1	2.1	2.1
Integration		_					
Test Sample	4.0	normal	1	1	1	4.0	4.0
Positioning	0 0	7	-	-	-	0 0	0 0
Device Holder	2.0	normal	1	1	1	2.0	2.0
Uncertainty	4 2		• 2	1	1	2 4	2 4
Drift of Output Power	4.2	rectangular	•3	1	1	2.4	2.4
FOWEI	 						
Phantom and Setup							
Phantom	3.4	rectangular	•3	1	1	2.0	2.0
Uncertainty(shape &	3.4	receangular		_	_	2.0	2.0
thickness tolerance)							
Liquid	5.0	rectangular	•3	0.7	0.5	2.0	1.4
Conductivity(target)			_				=
Liquid	0.5	normal	1	0.7	0.5	0.4	0.3
Conductivity (meas.)							
Liquid	5.0	rectangular	•3	0.6	0.5	1.7	1.4
Permittivity(target)							
Liquid	1.0	normal	1	0.6	0.5	0.6	0.5
Permittivity(meas.)							
Combined Uncertainty		RSS				9.6	9.4
Combined Uncertainty		Normal(k=2)				19.1	18.8
(coverage factor=2)	<u> </u>						



10. System Validation

Tissue Verification

Table 10.1 Measured Tissue Parameters

rabio for moadarda ficodo i arametero								
		2450	MHz Body	5250 MHz Body		5745 MHz Body		
Date(s)		Jun.	23, 2007	Sep. 2	Sep. 24, 2007		23, 2007	
Liquid Temperature (°C)	20.0	Target	Measured	Target	Measured	Target	Measured	
Dielectric Constant: ε	51.09	51.76	49.19	48.83	48.53	46.60		
Conductivity: σ	Conductivity: σ			5.40	5.31	5.95	5.75	
		835 N	/IHz Body	1900 MHz Body				
Date(s)		Jun.	27, 2007	Jun. 27, 2007				
Liquid Temperature (°C)	20.0	Target	Measured	Target	Measured			
Dielectric Constant: ε		54.03	55.31	52.91	52.30			
Conductivity: σ		0.96	0.99	1.49	1.53			

See Appendix A for data printout.

Test System Verification

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

Table 10.2 System Dipole Validation Target & Measured

	Test Frequency	Targeted SAR _{1g} (W/kg)	Measure SAR _{1g} (W/kg)	Deviation (%)
23-Jun-2007	2450 MHz	54.23	54.56	+ 0.61
24-Sep-2007	5250 MHz	62.98	64.46	+ 2.35
23-Sep-2007	5785 MHz	58.92	55.02	- 6.62
27-Jun-2007	835 MHz	9.072	9.61	+ 5.93
27-Jun-2007	1900 MHz	41.336	38.55	- 6.74

See Appendix A for data plots.

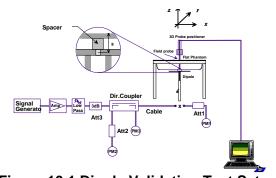


Figure 10.1 Dipole Validation Test Setup



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 unit was required to be disassembled to measure the conducted power. To insure that the integrity of the device was not compromised, the power measurements were conducted at the completion of all testing.

The testing was conducted in the normal use position of the device on the back side. Testing was conduct on both diversity antennas with that antenna transmitting at full power during the test. In each band, the highest SAR value for the band was then tested with each of the accessories. The final test for each band was to take the highest SAR value position and test it with the Bluetooth transmitter operating at full power on the mid channel. All bands were tested in this configuration.

The DeskDock accessory was was not tested due to the accessory moving the antenna 22 mm away from the phantom. With the low values when the device is at 0 mm from the phantom, it was determined that the DeskDock would be in the noise floor.



12. FCC 3G Measurement Procedures – June 2006

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

12.1 Procedures Used to Establish RF Signal for SAR

The handset 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

Maximum output power is verified on the High, Middle and Low channels according to procedures in section 3.1.2.3.4 of 3GPP@ C.S0033-0/TIA-866 for Rev. 0 and section 4.3.4 of 3GPP2 C.S0033-A for Rev. A. The equivalent test configurations should be established under FTM when air link and/or call processing is not supported by the communication test set. For Rev. A, maximum output power for both Subtype 0/1 and Subtype 2 Physical Layer configurations should be measured. The device operating configuration under TAP/ETAP and FTM should be documented in the test report; including power control, code channel and RF channel output power levels.

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 the 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. These same test configurations should be used in FTM when call processing is not supported by the communication test set. AT power control should be All Bits Up conditions for both TAP/ETAP and FTM modes.

Body SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0. SAR for Subtype 2 Physical layer configurations is not required 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 configuration that results in the highest SAR for that RF channel in Rev. 0.

12.2.3 Devices with IS-2000

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.



		IS-2000	Re	v. 0	Rev	/. A
	Channel	TDSO SO32 RC3	FTAP [dBm]	RTAP [dBm]	FETAP [dBm]	RETAP [dBm]
	1013	24.66	24.67	24.62	24.58	24.54
Cellular	384	24.69	24.68	24.65	24.60	24.56
	777	24.65	24.63	24.59	24.57	24.52
	25	24.77	24.75	24.68	24.66	24.60
PCS	600	24.79	24.77	24.71	24.69	24.66
	1175	24.74	24.70	24.65	24.63	24.59

IS-2000 and EvDo Power Measurements

		802.11b			802.11a 5.2 GHz				
Freq	Channel	Data Rate	Antenna	Power	Freq	Channel	Data Rate	Antenna	Power
2412	1	1	Main	20.35	5.18	36	6	Main	16.08
2437	6	1	Main	20.21	5.20	40	6	Main	16.39
2462	11	1	Main	20.36	5.22	44	6	Main	16.72
2412	1	1	Aux	20.39	5.24	48	6	Main	16.83
2437	6	1	Aux	20.25	5.18	36	6	Aux	16.04
2462	11	1	Aux	20.32	5.20	40	6	Aux	16.32
2412	1	2	Aux	19.99	5.22	44	6	Aux	16.74
2412	1	5.5	Aux	19.90	5.24	48	6	Aux	16.85
2412	1	11	Aux	19.76	5.24	48	9	Main	16.71
					5.24	48	12	Main	16.33
		802.11g			5.24	48	18	Main	16.11
Freq	Channel	Data Rate	Antenna	Power	5.24	48	24	Main	16.96
2412	1	6	Main	15.31	5.24	48	36	Main	16.82
2437	6	6	Main	15.78	5.24	48	48	Main	16.74
2462	11	6	Main	15.36	5.24	48	54	Main	16.68
2412	1	6	Aux	15.27					
2437	6	6	Aux	15.76					
2462	11	6	Aux	15.39					
2437	6	9	Main	15.65					
2437	6	12	Main	15.49					
2437	6	18	Main	15.37					

Wireless LAN Power Measurements

15.24

15.10

14.97

14.88

6

6

6

6

24

36

48

54

2437

2437

2437

2437

Main

Main

Main

Main



\A/:		2,11a 5.3 GH	z	1-	
Freq	Channel A	Data Rate	Antenna	episwer .	
5.26	52	6	Main	17.06	
5.28	56	6	Main	17.41	
5.30	60	6	Main	17.68	
5.32	64	6	Main	17.84	
5.26	52	6	Aux	17.08	
5.28	56	6	Aux	17.37	
5.30	60	6	Aux	17.61	
5.32	64	6	Aux	17.85	
5.32	64	9	Aux	17.79	
5.32	64	12	Aux	17.70	
5.32	64	18	Aux	17.54	
5.32	64	24	Aux	17.40	
5.32	64	36	Aux	17.11	
5.32	64	48	Aux	16.87	
5.32	64	54	Aux	16.29	
	80	2.11a 5.8 GF	lz		
Freq	Channel	Data Rate	Antenna	Power	
5.745	149	6	Main	17.68	
5.765	153	6	Main	17.60	
5.785	157	6	Main	17.57	
5.805	161	6	Main	17.52	
5.825	165	6	Main	17.45	
5.745	149	6	Aux	17.69	
5.765	153	6	Aux	17.57	
5.785	157	6	Aux	17.53	
5.805	161	6	Aux	17.49	
5.825	165	6	Aux	17.44	
5.745	149	9	Aux	17.50	
5.745	149	12	Aux	17.37	
5.745	149	18	Aux	17.12	
5.745	149	24	Aux	17.00	
5.745	149	36	Aux	16.92	
-					
5.745 5.745	149	48 54	Aux	17.89 17.75	



SAR Data Summary – 2450 MHz Body

MEASUREMENT RESULTS									
Position	Antenna	Open/	Accessory	Frequ	iency	Modulation	Begir	n Power	SAR
. comon	7 ti itorii ia	Closed	7100000019	MHz	Ch.	modulation	(dBm)	Battery	(W/kg)
	Main	Closed	N/A	2412	1	DSSS	20.35	Standard	0.625
	IVIAIII	Open	N/A	2412	1	DSSS	20.35	Standard	0.520
	Aux	Closed	N/A	2412	1	DSSS	20.39	Standard	0.252
		Open	N/A	2412	1	DSSS	20.39	Standard	0.206
Touch			Ext. Battery	2412	1	DSSS	20.35	Extend	0.212
			Steel Case	2412	1	DSSS	20.35	Standard	0.130
	Main	Closed	Holster	2412	1	DSSS	20.35	Standard	0.088
			Leather Cs.	2412	1	DSSS	20.35	Standard	0.329
			w/BT	2412	1	DSSS	20.35	Standard	0.610

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

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

Jay M. Moulton Vice President

Note: When the conducted power channel has a peak SAR \leq 1.6 W/kg and the average SAR is \leq 0.8 W/kg, the remaining channels are optional.



SAR Data Summary - 5250 MHz Body

MEASUREMENT RESULTS										
Position	Antenna	Antenna	Open/	Accessory	Frequ	iency	Modulation	Begir	n Power	SAR
1 03111011	7 1111011110	Closed	71000001	MHz	Ch.	moddianon	(dBm)	Battery	(W/kg)	
	Main	Closed	N/A	5240	48	OFDM	17.83	Standard	0.248	
	IVIAIII	Open	N/A	5240	48	OFDM	17.83	Standard	0.229	
	Aux	Closed	N/A	5240	48	OFDM	17.85	Standard	0.290	
		Open	N/A	5240	48	OFDM	17.85	Standard	0.227	
	Main	Closed	N/A	5320	64	OFDM	17.84	Standard	0.237	
		Open	N/A	5320	64	OFDM	17.84	Standard	0.138	
Touch	Aux	Closed	N/A	5320	64	OFDM	17.85	Standard	0.237	
	Aux	Open	N/A	5320	64	OFDM	17.85	Standard	0.184	
			Ext. Battery	5240	48	OFDM	17.85	Extend	0.131	
			Steel Case	5240	48	OFDM	17.85	Standard	0.100	
	Aux	Aux Closed	Holster	5240	48	OFDM	17.85	Standard	0.183	
				Leather Cs.	5240	48	OFDM	17.85	Standard	0.195
			w/BT	5240	48	OFDM	17.85	Standard	0.274	

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

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

Jay M. Moulton Vice President

Note: When the conducted power channel has a peak SAR \leq 1.6 W/kg and the average SAR is \leq 0.8 W/kg, the remaining channels are optional.



SAR Data Summary – 5785 MHz Body

MEASUREMENT RESULTS									
Position	Antenna	Open/	Accessory	Frequ	iency	Modulation	Begir	Power	SAR (W/kg) 0.179
	, unionna	Closed	7100000019	MHz	Ch.	modulation	(dBm)	Battery (W/kg)	
	Main	Closed	N/A	5745	149	OFDM	17.68	Standard	0.179
	IVIAIII	Open	N/A	5745	149	OFDM	17.68	Standard	0.146
	Aux	Closed	N/A	5745	149	OFDM	17.69	Standard	0.137
	Aux	Open	N/A	5745	149	OFDM	17.69	Standard	0.102
Touch			Ext. Battery	5745	149	OFDM	17.68	Extend	0.108
			Steel Case	5745	149	OFDM	17.68	Standard	0.095
	Main	Closed	Holster	5745	149	OFDM	17.68	Standard	0.118
			Leather Cs.	5745	149	OFDM	17.68	Standard	0.114
			w/BT	5745	149	OFDM	17.68	Standard	0.216

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

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

Jay M. Moulton Vice President

Note: When the conducted power channel has a peak SAR \leq 1.6 W/kg and the average SAR is \leq 0.8 W/kg, the remaining channels are optional.





SAR Data Summary – 835 MHz Body EvDo Rev. 0 FTAP

MEASUREMENT RESULTS									
Position	Antenna	Open/	Accessory	Freque	ncy	Modulation	Begir	n Power	Rattery (W/kg) Randard 0.185 Randard 0.147 Randard 0.360 Extend 0.218 Randard 0.228 Randard 0.330 Randard 0.290
1 00111011	Position	Closed	7.0000001	MHz	Ch.	Modulation	(dBm)	Battery	
	Out 90°	Closed	N/A	836.52	384	CDMA	24.68	Standard	0.185
	Out 60°	Closed	N/A	836.52	384	CDMA	24.68	Standard	0.147
	Out 120°	Closed	N/A	836.52	384	CDMA	24.68	Standard	0.360
Touch	Out 120°	Closed	Ext. Battery	836.52	384	CDMA	24.68	Extend	0.218
Touch	Out 120°	Closed	Steel Case	836.52	384	CDMA	24.68	Standard	0.228
	Out 120°	Closed	Holster	836.52	384	CDMA	24.68	Standard	0.330
	Out 120°	Closed	Leather Cs.	836.52	384	CDMA	24.68	Standard	0.290
	Out 120°	Closed	w/BT	836.52	384	CDMA	24.68	Standard	0.342

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

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

Jay M. Moulton Vice President

Note: When the mid channel is 3 dB or more below the limit the low and high channel are optional.



SAR Data Summary – 1900 MHz Body EvDo Rev. 0 FTAP

MEASUREMENT RESULTS									
Position	Antenna	Open/	Accessory	Freque	ency	Modulation	Begir	n Power	SAR
1 00111011	Position	Closed	710000001	MHz	Ch.	Modulation	(dBm)	Battery	SAR (W/kg) 0.315 0.291 0.608 0.371 0.524 0.363 0.538 0.588
	Out 90°	Closed	N/A	1880	600	CDMA	24.79	Standard	0.315
	Out 60°	Closed	N/A	1880	600	CDMA	24.79	Standard	0.291
	Out 120°	Closed	N/A	1880	600	CDMA	24.79	Standard	0.608
Touch	Out 120°	Closed	Ext. Battery	1880	600	CDMA	24.79	Extend	0.371
Touch	Out 120°	Closed	Steel Case	1880	600	CDMA	24.79	Standard	0.524
	Out 120°	Closed	Holster	1880	600	CDMA	24.79	Standard	0.363
	Out 120°	Closed	Leather Cs.	1880	600	CDMA	24.79	Standard	0.538
	Out 120°	Closed	w/BT	1880	600	CDMA	24.79	Standard	0.588

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

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

Jay M. Moulton Vice President

Note: When the mid channel is 3 dB or more below the limit the low and high channel are optional.



12.1 Test Equipment List

Table 12.1 Equipment Specifications

Туре	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	02/14/2008	RFE-215
Aprel E-Field Probe ALS-E030	04/09/2008	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	02/16/2008	RFE-274
Aprel Validation Dipole ALS-D-1900-S-2	02/15/2008	RFE-277
Aprel Validation Dipole ALS-D-2450-S-2	02/17/2008	RFE-278
Aprel Validation Dipole ALS-D-BB-S-2	05/23/2009	5258-235-00801
Agilent (HP) 437B Power Meter	12/04/2007	3125U08837
Agilent (HP) 8481B Power Sensor	12/04/2007	3318A05384
Advantest R3261A Spectrum Analyzer	12/04/2007	31720068
Agilent (HP) 8350B Signal Generator	01/30/2008	2749A10226
Agilent (HP) 83525A RF Plug-In	01/30/2008	2647A01172
Agilent (HP) 8753C Vector Network Analyzer	01/30/2008	3135A01724
Agilent (HP) 85047A S-Parameter Test Set	01/30/2008	2904A00595
Agilent AT/E5515C;Z	01/30/2009	GB42361377
Aprel Dielectric Probe Assembly	N/A	0011
Microwave Power Devices 510-10E Amplifier	03/09/2008	6063-001
Microwave Power Devices 1020-9E Amplifier	03/09/2008	5618-1
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 23/Jun/2007 09:44:14
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 51.82 1.92
2.4300 52.73 1.93 51.80 1.94
2.4400 52.71 1.94 51.77 1.95
2.4500 52.70 1.95 51.76 1.96
2.4600 52.69 1.96 51.74 1.98
                               51.77 1.95
51.76 1.96
51.74
2.4700
                        1.98
           52.67
                                                  1.99
                                      51.73
                        1.99
2.4800
           52.66
                                     51.71
                                                  2.01
****************
Test Result for UIM Dielectric Parameter
Mon 24/Sep/2007 06:12:00
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
*****************
           FCC_eB
Freq
                        FCC sB Test e
                                                  Test s
           48.99
                                     48.94
5.2200
                       5.32
                                                  5.26
5.2300
           48.97
                        5.33
                                     48.88
                                                  5.28
                                    48.87
                        5.35
5.2400
        48.96
                                                   5.30
5.2500 48.95 5.36
                               48.83
                                               5.31
5.2600 48.93 5.37 48.81 5.31

      5.2700
      48.92
      5.38

      5.2800
      48.91
      5.39

                                     48.79
                                                  5.33
                                    48.77
                                                  5.35
```





```
Test Result for UIM Dielectric Parameter
Sun 23/Sep/2007 05:59:53
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 5.7550 48.26 5.95 5.7650 48.25 5.96
                             Test_e Test_s
46.69 5.70
                               46.64
                                           5.72
                              46.62
                                          5.73
5.7750 48.23 5.97
5.7850 48.22 5.98 46.60
                  5.99
                              46.58
         48.21
5.7950
                                           5.77
5.8050
         48.19
                     6.01
                                46.54
                                           5.77
5.8150
          48.18
                     6.02
                                           5.79
                                46.51
```

```
Test Result for UIM Dielectric Parameter
Wed 27/Jun/2007 08:12:38
Freq Frequency(GHz)
FCC_eH FCC Bulletin 65 Supplement C ( June 2001) Limits for Head Epsilon
FCC sH
         FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
       FCC Limits for Body Epsilon
FCC Limits for Body Sigma
Epsilon of UIM
Sigma of UIM
FCC eB
FCC_sB
Test_e
Test s
*****************
      FCC_eB FCC_sB 55.32 0.97
                               Test_e
0.8050
                               55.41
                                           0.98
0.8150
         55.28
                    0.97
                               55.38
                                          0.98
                   0.97
         55.24
0.8250
                                55.35
                                           0.99
      55.20
                              55.31
                 0.97
0.8350
0.8450
          55.17
                     0.98
                                55.28
                                           1.00
0.8550
         55.14
                    0.99
                               55.24
                                          1.02
0.8650
         55.11
                    1.01
                                          1.03
```

55.20





1.9200

1.9300

***************** Test Result for UIM Dielectric Parameter Wed 27/Jun/2007 07:42:21 Freq Frequency(GHz) FCC_eH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon FCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsil FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma FCC Limits for Body Epsilon FCC Limits for Body Sigma Epsilon of UIM Sigma of UIM FCC_sH FCC_eB FCC_sB Test_e Test_s *************** Freq FCC_eB FCC_sB Test_e Test_s 53.30 1.52 52.25 1.8700 1.52 1.8800 53.30 1.52 52.29 1.52 53.30 1.52 1.8900 52.29 1.52 1.9000 53.30 1.52 52.30 1.53 1.9100 53.30 1.52 52.33 1.53

52.34

52.39

1.54

1.55

1.52

1.52

53.30

53.30





SAR Test Report

By Operator : Jay

Measurement Date : 23-Jun-2007

Starting Time : 23-Jun-2007 10:36:08 AM End Time : 23-Jun-2007 10:49:20 AM Scanning Time : 792 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: 3.615 W/kg Power Drift-Finish: 3.583 W/kg Power Drift (%) : -0.705

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: 23-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 45.00 RH%

Epsilon : 51.76 F/m

Sigma : 1.96 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 2450.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 4.5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV

: 1.56 mm Offset





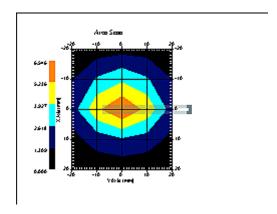
Measurement Data Crest Factor : 1

Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Jun-2007
Set-up Time : 7:40:13 AM

Set-up Date : 23-Jun-2007
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

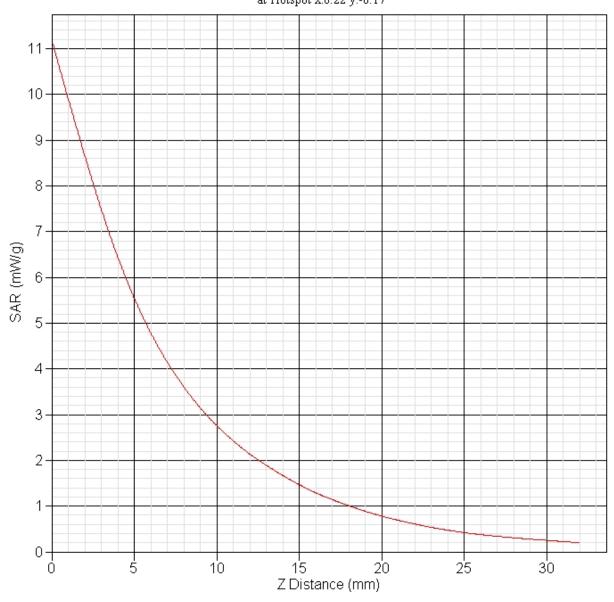
DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 5.456 W/kg 10 gram SAR value : 2.508 W/kg Area Scan Peak SAR : 6.546 W/kg Zoom Scan Peak SAR : 11.190 W/kg



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







SAR Test Report

By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 06:17:52 AM End Time : 24-Sep-2007 06:43:57 AM Scanning Time : 1565 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: 8.835 W/kg Power Drift-Finish: 8.723 W/kg Power Drift (%) : -1.265

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: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data

Name : Probe AL-E3P1 - AL

Model : E-030

Type : E-Field Triangle

Serial No. : AL-E3P1

Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV

: 0.56 mm Offset





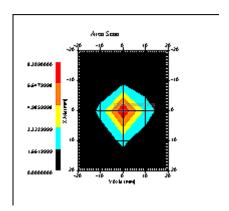
Measurement Data Crest Factor : 1

Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 9:00:47 AM

Set-up Time : 9:00:47 AM
Area Scan : 5x5x1 : Measurement x=10mm, y=10mm, z=2mm
Zoom Scan : 7x7x16 : Measurement x=4mm, y=4mm, z=2mm

Other Data

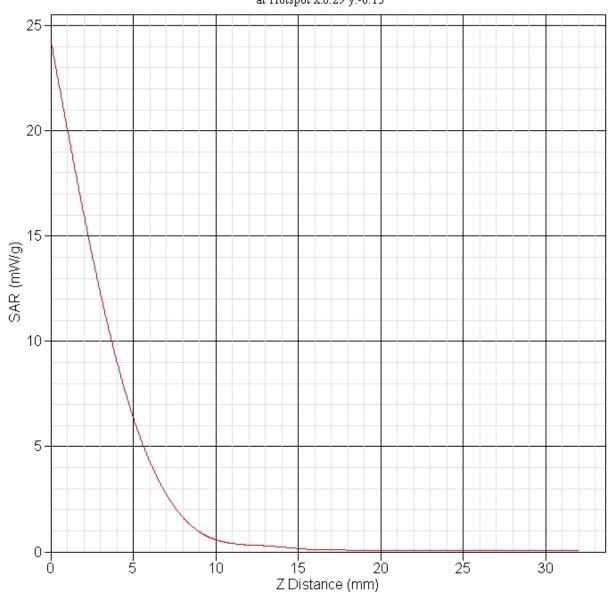
DUT Position : Touch Separation : 10 Channel : Mid



1 gram SAR value : 6.446 W/kg 10 gram SAR value : 1.635 W/kg Area Scan Peak SAR : 8.309 W/kg Zoom Scan Peak SAR : 24.319 W/kg



SAR-Z Axis at Hotspot x:0.29 y:-0.13







SAR Test Report

By Operator : Jay

Measurement Date : 23-Sep-2007

Starting Time : 23-Sep-2007 06:12:53 AM End Time : 23-Sep-2007 06:38:40 AM Scanning Time : 1547 secs

Product Data

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-Sep-2007 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 AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1

Last Calib. Date : 30-Apr-2007 Frequency : 5800.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 14

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV

: 0.56 mm Offset



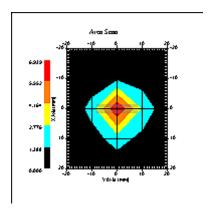


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2007
Set-up Time : 4:10:18 PM

Set-up Time : 4:10:18 PM Area Scan : 5x5x1 : Measurement x=10mm, y=10mm, z=2mm Zoom Scan : 7x7x16 : Measurement x=4mm, y=4mm, z=2mm

Other Data

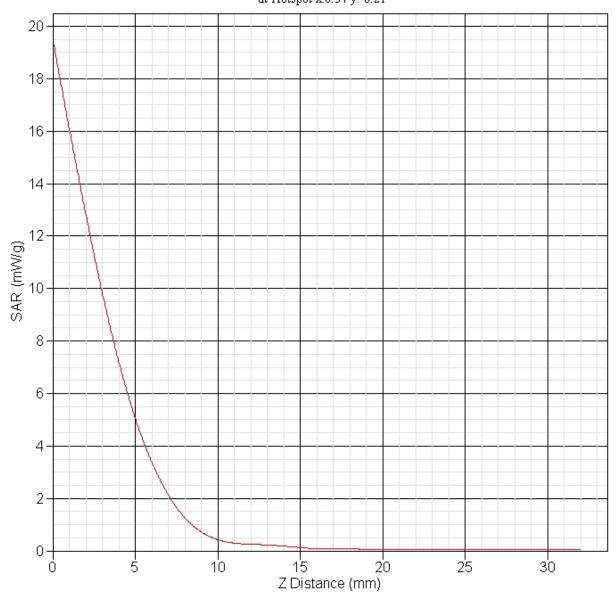
DUT Position : Touch Separation : 10 Channel : Mid



1 gram SAR value : 5.502 W/kg 10 gram SAR value : 1.479 W/kg Area Scan Peak SAR : 6.939 W/kg Zoom Scan Peak SAR : 19.515 W/kg



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







By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 08:35:35 AM End Time : 27-Jun-2007 08:50:57 AM Scanning Time : 922 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: 0.773 W/kg

Power Drift-Finish: 0.806 W/kg

Power Drift (%) : 4.217

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: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 55.31 F/m

Sigma : 0.99 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 835.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 6.3

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



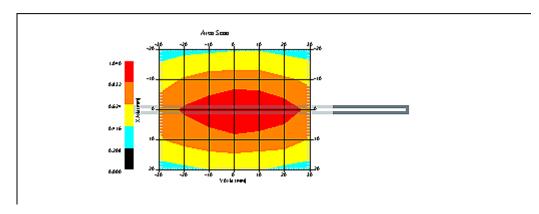


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 9:21:48 AM

Set-up Time : 9:21:48 AM Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

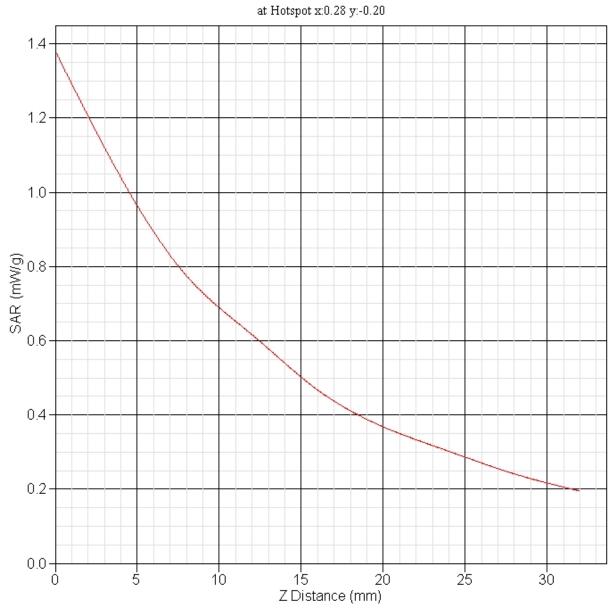
DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 0.961 W/kg 10 gram SAR value : 0.641 W/kg Area Scan Peak SAR : 1.039 W/kg Zoom Scan Peak SAR : 1.381 W/kg



SAR-Z Axis







By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 08:04:12 AM End Time : 27-Jun-2007 08:17:36 AM Scanning Time : 804 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: 2.124 W/kg Power Drift-Finish: 2.222 W/kg Power Drift (%) : 4.624

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: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 52.30 F/m

Sigma : 1.53 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 1900.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



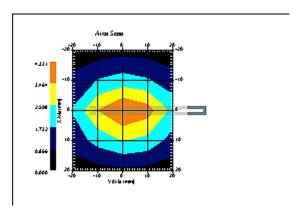


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 8:39:41 AM

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

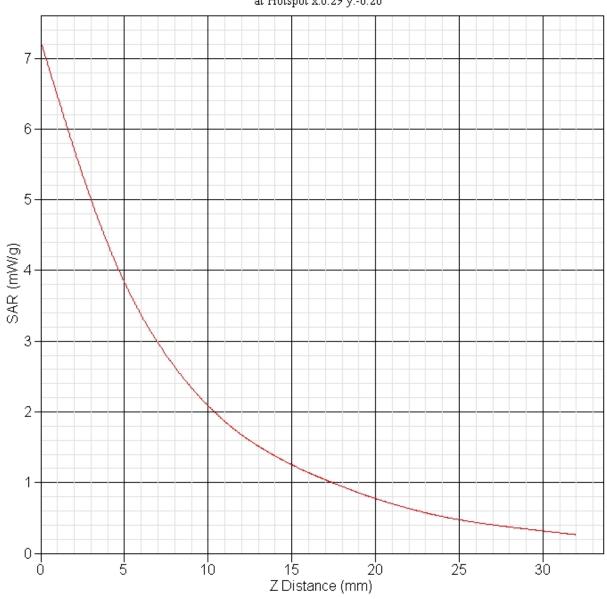
DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 3.855 W/kg 10 gram SAR value : 1.961 W/kg Area Scan Peak SAR : 4.331 W/kg Zoom Scan Peak SAR : 7.246 W/kg



SAR-Z Axis at Hotspot x:0.29 y:-0.20





Appendix B – SAR Test Data Plots





By Operator : Jay

Measurement Date : 23-Jun-2007

Starting Time : 23-Jun-2007 12:01:51 PM End Time : 23-Jun-2007 12:16:28 PM Scanning Time : 877 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 2450.00 MHz Max. Transmit Pwr : 0.1 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch

Power Drift-Start: 0.192 W/kg Power Drift-Finish: 0.198 W/kg

Power Drift (%) : 3.126

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: 23-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 45.00 RH%

Epsilon : 51.76 F/m

Sigma : 1.96 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 2450.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 4.5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



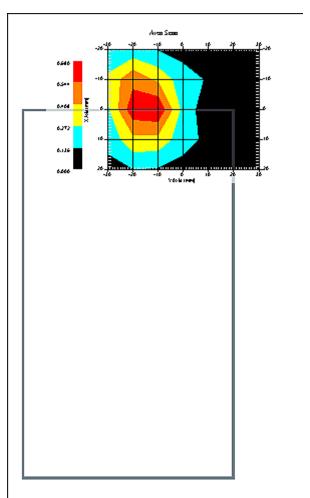


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Jun-2007
Set-up Time : 11:33:43 AM
Area Scan

Set-up Time : 11:33:43 AM Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

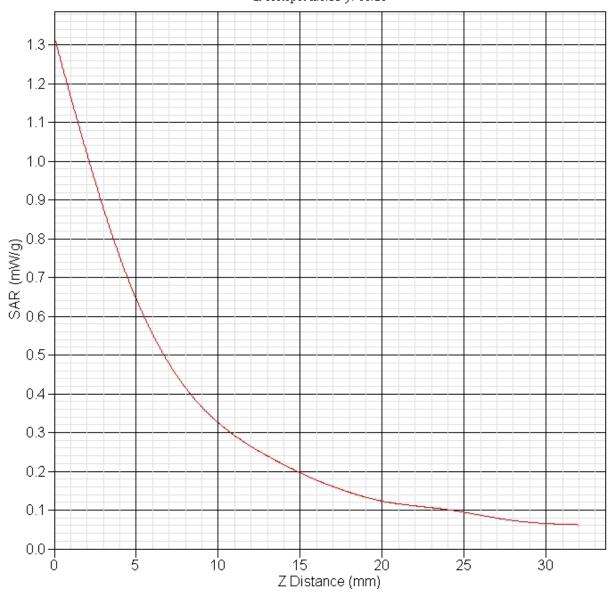
DUT Position : Touch Separation : 0 Channel : Low



1 gram SAR value : 0.625 W/kg 10 gram SAR value : 0.297 W/kg Area Scan Peak SAR : 0.678 W/kg Zoom Scan Peak SAR : 1.321 W/kg



SAR-Z Axis at Hotspot x:0.33 y:-18.21







By Operator : Jay

Measurement Date : 23-Jun-2007

Starting Time : 23-Jun-2007 11:33:48 AM End Time : 23-Jun-2007 11:48:10 AM Scanning Time : 862 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 2450.00 MHz Max. Transmit Pwr : 0.1 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch

Power Drift-Start: 0.275 W/kg Power Drift-Finish: 0.268 W/kg

Power Drift (%) : -2.544

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: 23-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 45.00 RH%

Epsilon : 51.76 F/m

Sigma : 1.96 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 2450.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 4.5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



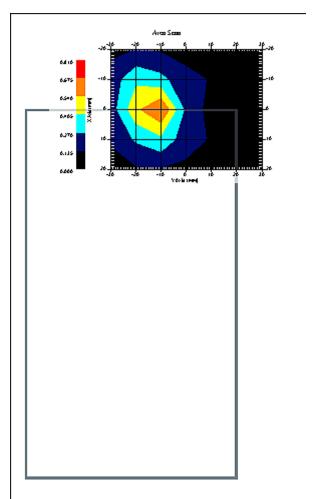


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Jun-2007
Set-up Time : 11:33:43 AM
Area Scan

Set-up Time : 11:33:43 AM Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 Channel : Low



1 gram SAR value : 0.520 W/kg 10 gram SAR value : 0.250 W/kg Area Scan Peak SAR : 0.676 W/kg Zoom Scan Peak SAR : 1.100 W/kg





By Operator : Jay

Measurement Date : 23-Jun-2007

Starting Time : 23-Jun-2007 12:19:52 PM End Time : 23-Jun-2007 12:34:17 PM Scanning Time : 865 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 2450.00 MHz Max. Transmit Pwr : 0.1 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch

Power Drift-Start: 0.074 W/kg Power Drift-Finish: 0.071 W/kg

Power Drift (%) : -4.054

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: 23-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 45.00 RH%

Epsilon : 51.76 F/m

Sigma : 1.96 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 2450.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 4.5

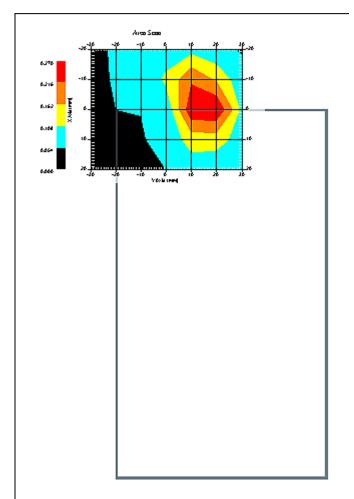
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV





Crest Factor
Scan Type
: Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 24.00 °C
Set-up Date : 23-Jun-2007
Set-up Time : 12:19:38 PM
Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Separation : 0 : Low Channel



1 gram SAR value : 0.252 W/kg 10 gram SAR value : 0.129 W/kg Area Scan Peak SAR : 0.268 W/kg Zoom Scan Peak SAR: 0.520 W/kg





By Operator : Jay

Measurement Date : 23-Jun-2007

Starting Time : 23-Jun-2007 12:37:26 PM End Time : 23-Jun-2007 12:51:52 PM Scanning Time : 866 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 2450.00 MHz Max. Transmit Pwr : 0.1 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch

Power Drift-Start: 0.071 W/kg Power Drift-Finish: 0.069 W/kg

Power Drift (%) : -2.817

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: 23-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 45.00 RH%

Epsilon : 51.76 F/m

Sigma : 1.96 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 2450.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 4.5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV

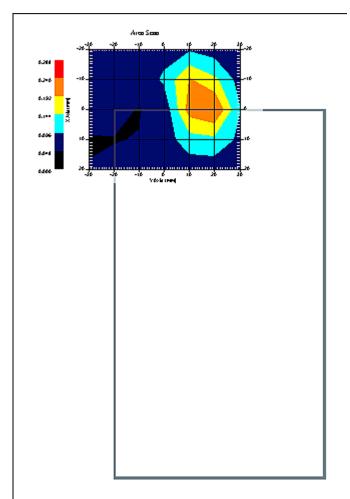




Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 24.00 °C
Set-up Date : 23-Jun-2007
Set-up Time : 12:19:38 PM
Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm Scan Type : Complete

Other Data

DUT Position : Touch Separation : 0 : Low Channel



1 gram SAR value : 0.206 W/kg 10 gram SAR value : 0.114 W/kg Area Scan Peak SAR : 0.241 W/kg Zoom Scan Peak SAR: 0.390 W/kg





By Operator : Jay

Measurement Date : 23-Jun-2007

Starting Time : 23-Jun-2007 02:29:51 PM End Time : 23-Jun-2007 02:44:12 PM Scanning Time : 861 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 2450.00 MHz Max. Transmit Pwr : 0.1 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch

Power Drift-Start: 0.118 W/kg Power Drift-Finish: 0.116 W/kg

Power Drift (%) : -1.331

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: 23-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 45.00 RH%

Epsilon : 51.76 F/m

Sigma : 1.96 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 2450.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 4.5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



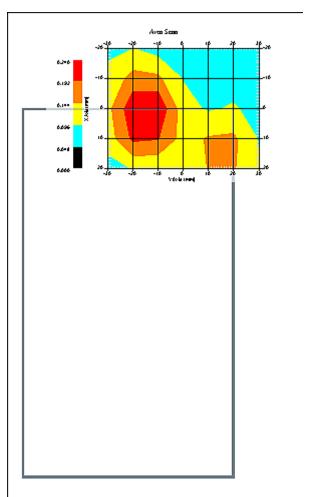


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Jun-2007
Set-up Time : 11:33:43 AM
Area Scan

Set-up Time : 11:33:43 AM Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 Channel : Low



1 gram SAR value : 0.212 W/kg 10 gram SAR value : 0.120 W/kg Area Scan Peak SAR : 0.238 W/kg Zoom Scan Peak SAR : 0.380 W/kg





By Operator : Jay

Measurement Date : 23-Jun-2007

Starting Time : 23-Jun-2007 01:30:32 PM End Time : 23-Jun-2007 01:44:46 PM Scanning Time : 854 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 2450.00 MHz Max. Transmit Pwr : 0.1 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch

Power Drift-Start: 0.121 W/kg Power Drift-Finish: 0.124 W/kg

Power Drift (%) : 3.189

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: 23-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 45.00 RH%

Epsilon : 51.76 F/m

Sigma : 1.96 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 2450.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 4.5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



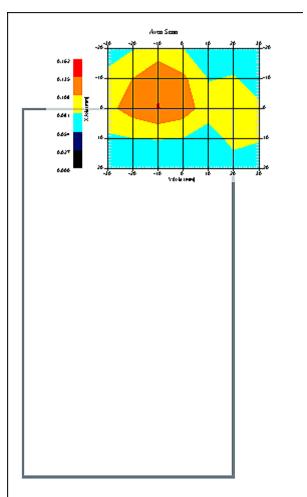


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Jun-2007
Set-up Time : 11:33:43 AM

Set-up Time : 11:33:43 AM Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 Channel : Low



1 gram SAR value : 0.130 W/kg 10 gram SAR value : 0.082 W/kg Area Scan Peak SAR : 0.136 W/kg Zoom Scan Peak SAR : 0.210 W/kg





By Operator : Jay

Measurement Date : 23-Jun-2007

Starting Time : 23-Jun-2007 12:54:50 PM End Time : 23-Jun-2007 01:09:27 PM Scanning Time : 877 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 2450.00 MHz Max. Transmit Pwr : 0.1 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch

Power Drift-Start: 0.095 W/kg Power Drift-Finish: 0.092 W/kg Power Drift (%) : -3.158

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: 23-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 45.00 RH%

Epsilon : 51.76 F/m

Sigma : 1.96 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 2450.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 4.5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



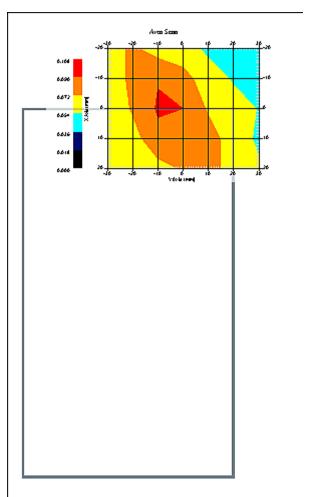


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Jun-2007
Set-up Time : 11:33:43 AM

Set-up Time : 11:33:43 AM
Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 Channel : Low



1 gram SAR value : 0.088 W/kg 10 gram SAR value : 0.064 W/kg Area Scan Peak SAR : 0.092 W/kg Zoom Scan Peak SAR : 0.130 W/kg





By Operator : Jay

Measurement Date : 23-Jun-2007

Starting Time : 23-Jun-2007 01:50:10 PM End Time : 23-Jun-2007 02:04:23 PM Scanning Time : 853 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 2450.00 MHz Max. Transmit Pwr : 0.1 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch

Power Drift-Start: 0.247 W/kg Power Drift-Finish: 0.235 W/kg

Power Drift (%) : -4.858

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: 23-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 45.00 RH%

Epsilon : 51.76 F/m

Sigma : 1.96 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 2450.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 4.5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



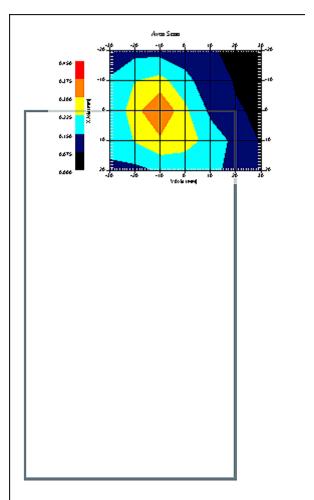


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Jun-2007
Set-up Time : 11:33:43 AM
Area Scan

Set-up Time : 11:33:43 AM Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 Channel : Low



1 gram SAR value : 0.329 W/kg 10 gram SAR value : 0.181 W/kg Area Scan Peak SAR : 0.377 W/kg Zoom Scan Peak SAR : 0.610 W/kg





By Operator : Jay

Measurement Date : 28-Jun-2007

Starting Time : 28-Jun-2007 07:53:50 AM End Time : 28-Jun-2007 08:09:13 AM Scanning Time : 923 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 2450.00 MHz Max. Transmit Pwr : 0.1 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch

Power Drift-Start: 0.625 W/kg Power Drift-Finish: 0.632 W/kg

Power Drift (%) : 1.087

Phantom Data

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

Tissue Data
Type : BODY
Serial No. : 2450
Frequency : 2450.00 MHz

Last Calib. Date: 28-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 45.00 RH%

Epsilon : 51.85 F/m

Sigma : 1.93 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 2450.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 4.5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV





Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 28-Jun-2007
Set-up Time : 11:33:43 AM

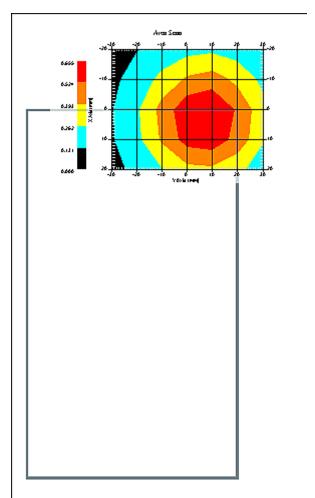
Set-up Time : 11:33:43 AM

Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm

Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 Channel : Low



1 gram SAR value : 0.610 W/kg 10 gram SAR value : 0.329 W/kg Area Scan Peak SAR : 0.655 W/kg Zoom Scan Peak SAR : 1.080 W/kg





By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 04:51:49 PM End Time : 24-Sep-2007 05:13:53 PM Scanning Time : 1324 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5250.00 MHz Max. Transmit Pwr : 0.05 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.298 W/kg Power Drift-Finish: 0.298 W/kg

Phantom Data

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

Power Drift (%) : -0.268

Tissue Data
Type : BODY
Serial No. : 5200
Frequency : 5200.00 MHz

Last Calib. Date: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV

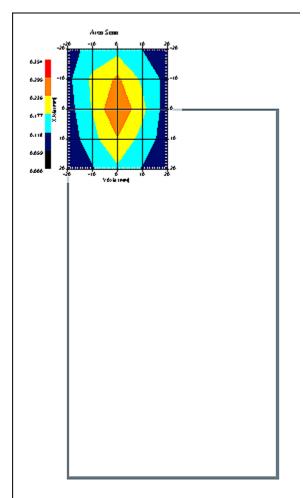




Scan Type : Complete Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 1:32:52 PM
Area Scan : 5x5x1 : Measurement x=10mm, y=10mm, z=2mm
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch Separation : 0 : Low Channel



1 gram SAR value : 0.248 W/kg 10 gram SAR value : 0.135 W/kg Area Scan Peak SAR : 0.296 W/kg Zoom Scan Peak SAR: 0.490 W/kg





By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 04:28:29 PM End Time : 24-Sep-2007 04:50:47 PM Scanning Time : 1338 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5250.00 MHz Max. Transmit Pwr : 0.05 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.247 W/kg Power Drift-Finish: 0.247 W/kg

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

Power Drift (%) : 0.057

Last Calib. Date: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV

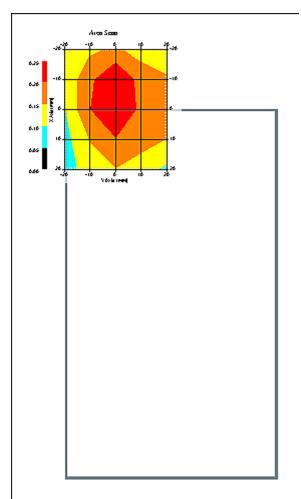




Scan Type : Complete Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 1:32:52 PM
Area Scan : 5x5x1 : Measurement x=10mm, y=10mm, z=2mm
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch Separation : 0 : Low Channel



1 gram SAR value : 0.229 W/kg 10 gram SAR value : 0.132 W/kg Area Scan Peak SAR : 0.249 W/kg Zoom Scan Peak SAR: 0.430 W/kg





By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 03:39:56 PM End Time : 24-Sep-2007 04:02:09 PM Scanning Time : 1333 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5250.00 MHz Max. Transmit Pwr : 0.05 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.379 W/kg

Power Drift-Finish: 0.369 W/kg Power Drift (%) : -2.544

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: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV





Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 1:32:52 PM
Area Scan

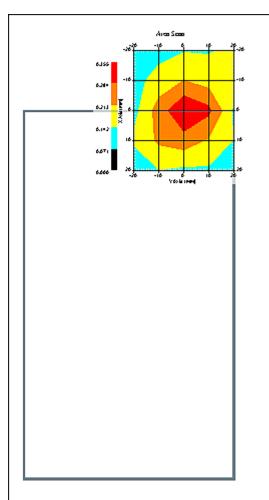
Set-up Time : 1:32:52 PM

Area Scan : 5x5x1 : Measurement x=10mm, y=10mm, z=2mm

Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

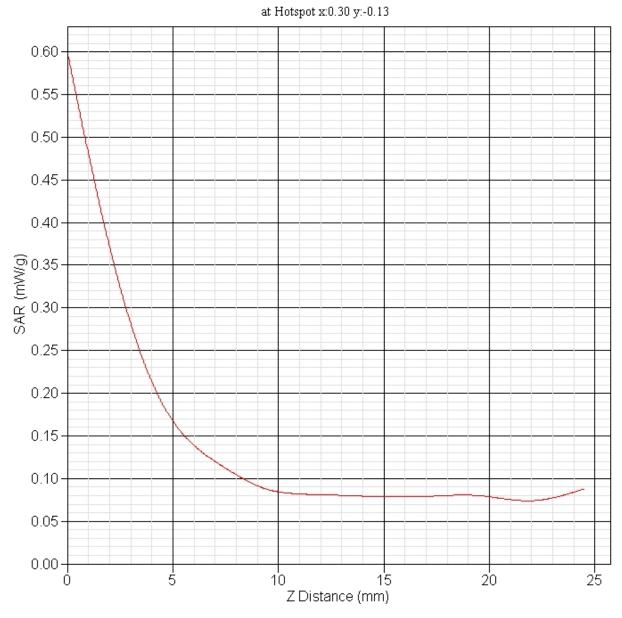
DUT Position : Touch Separation : 0 Channel : Low



1 gram SAR value : 0.290 W/kg 10 gram SAR value : 0.152 W/kg Area Scan Peak SAR : 0.354 W/kg Zoom Scan Peak SAR : 0.600 W/kg



SAR-Z Axis







By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 03:16:28 PM End Time : 24-Sep-2007 03:38:50 PM Scanning Time : 1342 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5250.00 MHz Max. Transmit Pwr : 0.05 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.260 W/kg

Power Drift-Finish: 0.251 W/kg Power Drift (%) : -3.018

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: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV





Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 1:32:52 PM
Area Scan

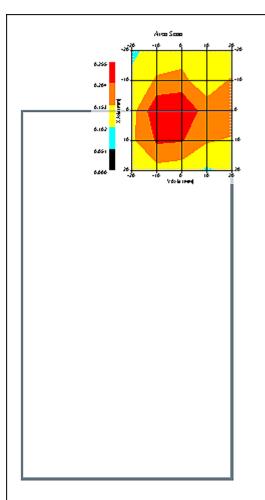
Set-up Time : 1:32:52 PM

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 : 0 Channel : Low



1 gram SAR value : 0.227 W/kg 10 gram SAR value : 0.129 W/kg Area Scan Peak SAR : 0.255 W/kg Zoom Scan Peak SAR : 0.410 W/kg





By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 01:38:20 PM End Time : 24-Sep-2007 02:00:36 PM Scanning Time : 1336 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5250.00 MHz Max. Transmit Pwr : 0.05 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.299 W/kg

Phantom Data

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

Power Drift-Finish: 0.295 W/kg Power Drift (%) : -1.278

Tissue Data
Type : BODY
Serial No. : 5200
Frequency : 5200.00 MHz

Last Calib. Date: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



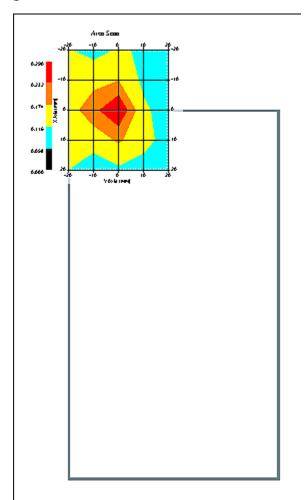


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 1:32:52 PM
Area Scan

Set-up Time : 1:32:52 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 : 0 Channel : High



1 gram SAR value : 0.237 W/kg 10 gram SAR value : 0.121 W/kg Area Scan Peak SAR : 0.290 W/kg Zoom Scan Peak SAR : 0.480 W/kg





By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 02:05:12 PM End Time : 24-Sep-2007 02:27:20 PM Scanning Time : 1328 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5250.00 MHz Max. Transmit Pwr : 0.05 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.142 W/kg

Phantom Data

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

Power Drift-Finish: 0.148 W/kg Power Drift (%) : 4.145

Tissue Data
Type : BODY
Serial No. : 5200
Frequency : 5200.00 MHz

Last Calib. Date: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



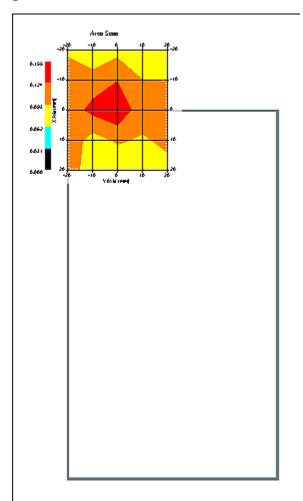


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 1:32:52 PM

Set-up Time : 1:32:52 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 : 0 Channel : High



1 gram SAR value : 0.138 W/kg 10 gram SAR value : 0.089 W/kg Area Scan Peak SAR : 0.153 W/kg Zoom Scan Peak SAR : 0.250 W/kg





By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 02:28:42 PM End Time : 24-Sep-2007 02:51:13 PM Scanning Time : 1351 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5250.00 MHz Max. Transmit Pwr : 0.05 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.301 W/kg

Power Drift-Finish: 0.287 W/kg

Power Drift (%) : -4.162

Phantom Data

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

Tissue Data
Type : BODY
Serial No. : 5200
Frequency : 5200.00 MHz

Last Calib. Date: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



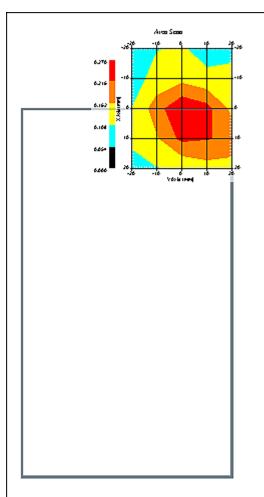


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 1:32:52 PM
Area Scan

Set-up Time : 1:32:52 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 : 0 Channel : High



1 gram SAR value : 0.237 W/kg 10 gram SAR value : 0.129 W/kg Area Scan Peak SAR : 0.269 W/kg Zoom Scan Peak SAR : 0.480 W/kg





By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 02:52:32 PM End Time : 24-Sep-2007 03:14:45 PM Scanning Time : 1333 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5250.00 MHz Max. Transmit Pwr : 0.05 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.203 W/kg

Phantom Data

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

Power Drift-Finish: 0.194 W/kg Power Drift (%) : -4.657

Tissue Data
Type : BODY
Serial No. : 5200
Frequency : 5200.00 MHz

Last Calib. Date: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



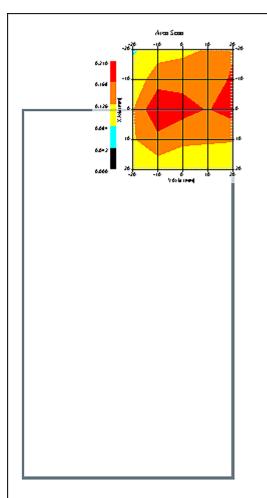


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 1:32:52 PM
Area Scan

Set-up Time : 1:32:52 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 : 0 Channel : High



1 gram SAR value : 0.184 W/kg 10 gram SAR value : 0.114 W/kg Area Scan Peak SAR : 0.209 W/kg Zoom Scan Peak SAR : 0.360 W/kg





By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 05:18:51 PM End Time : 24-Sep-2007 05:41:18 PM Scanning Time : 1347 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5250.00 MHz Max. Transmit Pwr : 0.05 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.139 W/kg

Power Drift-Finish: 0.134 W/kg Power Drift (%) : -3.371

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: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV



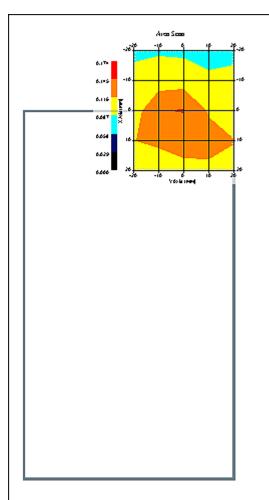


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 1:32:52 PM

Set-up Time : 1:32:52 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 : 0 Channel : Low



1 gram SAR value : 0.131 W/kg 10 gram SAR value : 0.097 W/kg Area Scan Peak SAR : 0.146 W/kg Zoom Scan Peak SAR : 0.220 W/kg





By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 05:42:47 PM End Time : 24-Sep-2007 06:05:00 PM Scanning Time : 1333 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5250.00 MHz Max. Transmit Pwr : 0.05 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.112 W/kg

Power Drift-Finish: 0.108 W/kg

Power Drift (%) : -3.918

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: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV



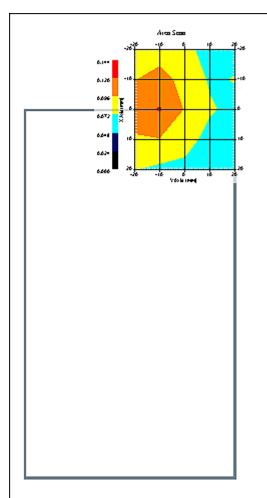


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 1:32:52 PM

Set-up Time : 1:32:52 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 : 0 Channel : Low



1 gram SAR value : 0.100 W/kg 10 gram SAR value : 0.073 W/kg Area Scan Peak SAR : 0.122 W/kg Zoom Scan Peak SAR : 0.170 W/kg





By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 06:06:32 PM End Time : 24-Sep-2007 06:28:50 PM Scanning Time : 1338 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5250.00 MHz Max. Transmit Pwr : 0.05 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.214 W/kg

Phantom Data

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

Power Drift-Finish: 0.207 W/kg Power Drift (%) : -3.056

Tissue Data
Type : BODY
Serial No. : 5200
Frequency : 5200.00 MHz

Last Calib. Date: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV



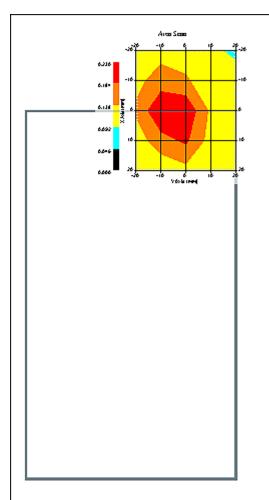


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 1:32:52 PM
Area Scan

Set-up Time : 1:32:52 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 : 0 Channel : Low



1 gram SAR value : 0.183 W/kg 10 gram SAR value : 0.118 W/kg Area Scan Peak SAR : 0.228 W/kg Zoom Scan Peak SAR : 0.310 W/kg





By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 06:30:10 PM End Time : 24-Sep-2007 06:52:16 PM Scanning Time : 1326 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5250.00 MHz Max. Transmit Pwr : 0.05 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.184 W/kg

Power Drift-Finish: 0.176 W/kg

Power Drift (%) : -4.647

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: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV



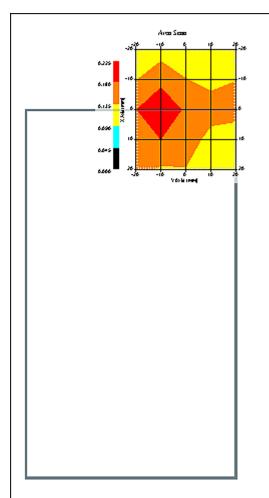


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 1:32:52 PM
Area Scan

Set-up Time : 1:32:52 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 : 0 Channel : Low



1 gram SAR value : 0.195 W/kg 10 gram SAR value : 0.120 W/kg Area Scan Peak SAR : 0.225 W/kg Zoom Scan Peak SAR : 0.360 W/kg





By Operator : Jay

Measurement Date : 24-Sep-2007

Starting Time : 24-Sep-2007 06:56:02 PM End Time : 24-Sep-2007 07:18:38 PM Scanning Time : 1356 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5250.00 MHz Max. Transmit Pwr : 0.05 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.316 W/kg

Power Drift-Finish: 0.309 W/kg

Power Drift (%) : -2.083

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: 24-Sep-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.83 F/m

Sigma : 5.31 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5200.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 13

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV



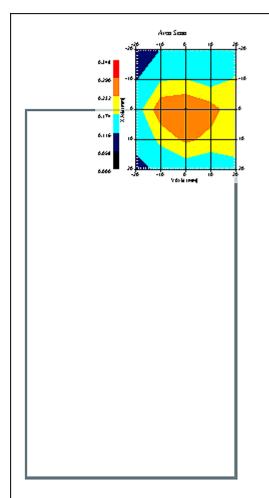


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 24-Sep-2007
Set-up Time : 1:32:52 PM
Area Scan

Set-up Time : 1:32:52 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 : 0 Channel : Low



1 gram SAR value : 0.274 W/kg 10 gram SAR value : 0.155 W/kg Area Scan Peak SAR : 0.292 W/kg Zoom Scan Peak SAR : 0.580 W/kg





By Operator : Jay

Measurement Date : 23-Sep-2007

Starting Time : 23-Sep-2007 04:59:14 PM End Time : 23-Sep-2007 05:21:45 PM Scanning Time : 1351 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5800.00 MHz Max. Transmit Pwr : 0.06 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.177 W/kg

Power Drift-Finish: 0.169 W/kg

Power Drift (%) : -4.087

Phantom Data

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

Tissue Data
Type : BODY
Serial No. : 5800
Frequency : 5800.00 MHz

Last Calib. Date: 23-Sep-2007 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 AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5800.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 14

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV

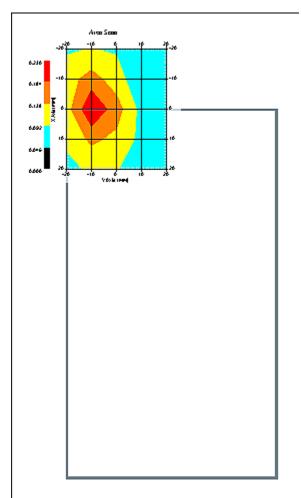




Scan Type : Complete Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2007
Set-up Time : 4:20:51 PM
Area Scan : 5x5x1 : Measurement x=10mm, y=10mm, z=2mm
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

DUT Position : Touch Separation : 0 : Low Channel



1 gram SAR value : 0.179 W/kg 10 gram SAR value : 0.108 W/kg Area Scan Peak SAR : 0.229 W/kg Zoom Scan Peak SAR: 0.340 W/kg





By Operator : Jay

Measurement Date : 23-Sep-2007

Starting Time : 23-Sep-2007 05:23:02 PM End Time : 23-Sep-2007 05:45:19 PM Scanning Time : 1337 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5800.00 MHz Max. Transmit Pwr : 0.06 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.195 W/kg

Power Drift-Finish: 0.186 W/kg

Power Drift (%) : -4.476

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-Sep-2007 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 AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5800.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 14

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



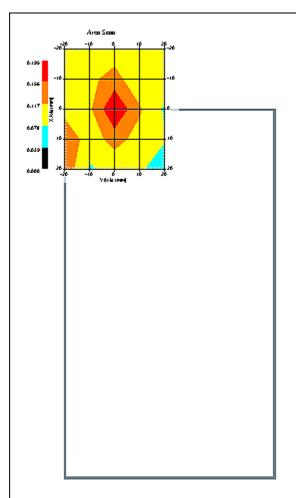


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2007
Set-up Time : 4:20:51 PM
Area Scan

Set-up Time : 4:20:51 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 : 0 Channel : Low



1 gram SAR value : 0.146 W/kg 10 gram SAR value : 0.095 W/kg Area Scan Peak SAR : 0.194 W/kg Zoom Scan Peak SAR : 0.270 W/kg





By Operator : Jay

Measurement Date : 23-Sep-2007

Starting Time : 23-Sep-2007 06:38:50 PM End Time : 23-Sep-2007 07:01:12 PM Scanning Time : 1342 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5800.00 MHz Max. Transmit Pwr : 0.06 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.141 W/kg

Power Drift-Finish: 0.135 W/kg

Power Drift (%) : -4.508

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-Sep-2007 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 AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5800.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 14

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV





Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2007
Set-up Time : 4:20:51 PM
Area Scan

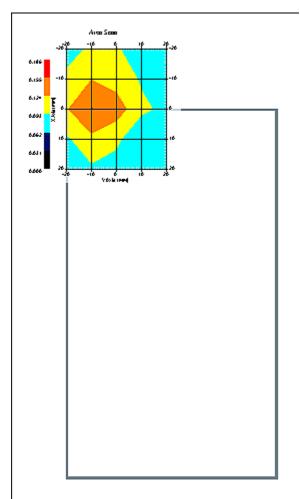
Set-up Time : 4:20:51 PM

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 : 0 Channel : 149



1 gram SAR value : 0.137 W/kg 10 gram SAR value : 0.098 W/kg Area Scan Peak SAR : 0.156 W/kg Zoom Scan Peak SAR : 0.220 W/kg





By Operator : Jay

Measurement Date : 23-Sep-2007

Starting Time : 23-Sep-2007 05:50:58 PM End Time : 23-Sep-2007 06:13:14 PM Scanning Time : 1336 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5800.00 MHz Max. Transmit Pwr : 0.06 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.107 W/kg Power Drift-Finish: 0.102 W/kg

Phantom Data

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

Power Drift (%) : -4.882

Tissue Data
Type : BODY
Serial No. : 5800
Frequency : 5800.00 MHz

Last Calib. Date: 23-Sep-2007 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 AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5800.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 14

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



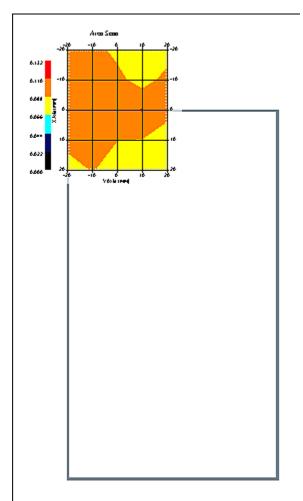


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2007
Set-up Time : 4:20:51 PM
Area Scan

Set-up Time : 4:20:51 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 : 0 Channel : Mid



1 gram SAR value : 0.102 W/kg 10 gram SAR value : 0.090 W/kg Area Scan Peak SAR : 0.111 W/kg Zoom Scan Peak SAR : 0.160 W/kg





By Operator : Jay

Measurement Date : 23-Sep-2007

Starting Time : 23-Sep-2007 07:02:46 PM End Time : 23-Sep-2007 07:25:08 PM Scanning Time : 1342 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5800.00 MHz Max. Transmit Pwr : 0.06 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.119 W/kg Power Drift-Finish: 0.113 W/kg

Phantom Data

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

Power Drift (%) : -4.416

Tissue Data
Type : BODY
Serial No. : 5800
Frequency : 5800.00 MHz

Last Calib. Date: 23-Sep-2007 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 AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5800.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 14

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV



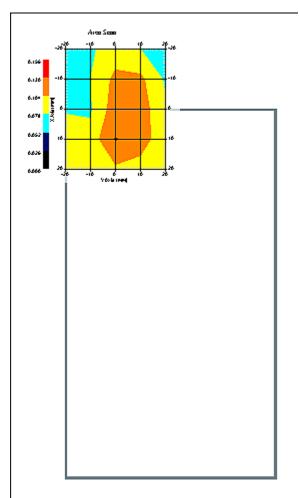


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2007
Set-up Time : 4:20:51 PM
Area Scan

Set-up Time : 4:20:51 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 : 0 Channel : Low



1 gram SAR value : 0.108 W/kg 10 gram SAR value : 0.087 W/kg Area Scan Peak SAR : 0.131 W/kg Zoom Scan Peak SAR : 0.180 W/kg





By Operator : Jay

Measurement Date : 23-Sep-2007

Starting Time : 23-Sep-2007 07:27:44 PM End Time : 23-Sep-2007 07:50:15 PM Scanning Time : 1351 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5800.00 MHz Max. Transmit Pwr : 0.06 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.104 W/kg

Phantom Data

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

Power Drift-Finish: 0.103 W/kg Power Drift (%) : -1.198

Tissue Data
Type : BODY
Serial No. : 5800
Frequency : 5800.00 MHz

Last Calib. Date: 23-Sep-2007 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 AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1

Last Calib. Date : 30-Apr-2007 Frequency : 5800.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 14

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



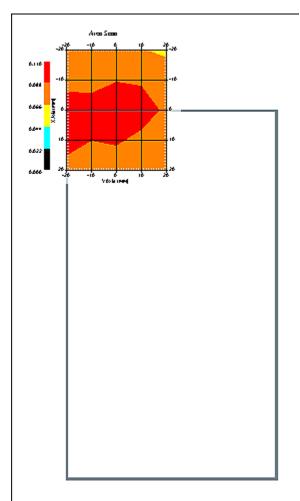


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2007
Set-up Time : 4:20:51 PM
Area Scan

Set-up Time : 4:20:51 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 : 0 Channel : Low



1 gram SAR value : 0.095 W/kg 10 gram SAR value : 0.086 W/kg Area Scan Peak SAR : 0.108 W/kg Zoom Scan Peak SAR : 0.140 W/kg





By Operator : Jay

Measurement Date : 23-Sep-2007

Starting Time : 23-Sep-2007 07:52:28 PM End Time : 23-Sep-2007 08:15:01 PM Scanning Time : 1353 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5800.00 MHz Max. Transmit Pwr : 0.06 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.131 W/kg

Power Drift-Finish: 0.125 W/kg

Power Drift (%) : -3.917

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-Sep-2007 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 AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5800.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 14

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV



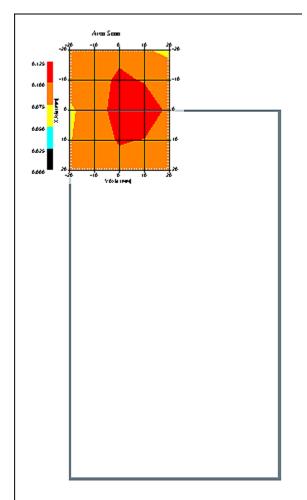


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2007
Set-up Time : 4:20:51 PM
Area Scan

Set-up Time : 4:20:51 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 : 0 Channel : Low



1 gram SAR value : 0.118 W/kg 10 gram SAR value : 0.094 W/kg Area Scan Peak SAR : 0.123 W/kg Zoom Scan Peak SAR : 0.170 W/kg





By Operator : Jay

Measurement Date : 23-Sep-2007

Starting Time : 23-Sep-2007 08:16:34 PM End Time : 23-Sep-2007 08:39:08 PM Scanning Time : 1354 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5800.00 MHz Max. Transmit Pwr : 0.06 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.148 W/kg

Power Drift-Finish: 0.151 W/kg Power Drift (%) : 2.169

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-Sep-2007 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 AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5800.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 14

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV





Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2007
Set-up Time : 4:20:51 PM
Area Scan

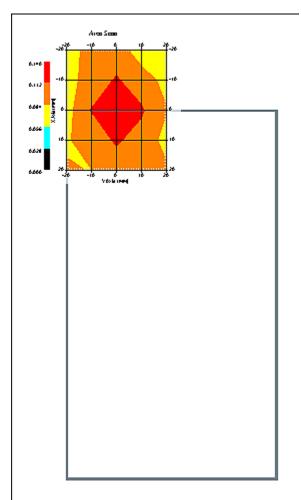
Set-up Time : 4:20:51 PM

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 : 0 Channel : Low



1 gram SAR value : 0.114 W/kg 10 gram SAR value : 0.084 W/kg Area Scan Peak SAR : 0.138 W/kg Zoom Scan Peak SAR : 0.210 W/kg





By Operator : Jay

Measurement Date : 23-Sep-2007

Starting Time : 23-Sep-2007 08:41:35 PM End Time : 23-Sep-2007 09:03:59 PM Scanning Time : 1344 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 5800.00 MHz Max. Transmit Pwr : 0.06 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.238 W/kg Power Drift-Finish: 0.235 W/kg

Phantom Data

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

Power Drift (%) : -0.920

Tissue Data
Type : BODY
Serial No. : 5800
Frequency : 5800.00 MHz

Last Calib. Date: 23-Sep-2007 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 AL-E3P1 - AL
Model : E-030
Type : E-Field Triangle
Serial No. : AL-E3P1 Last Calib. Date : 30-Apr-2007 Frequency : 5800.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 14

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV

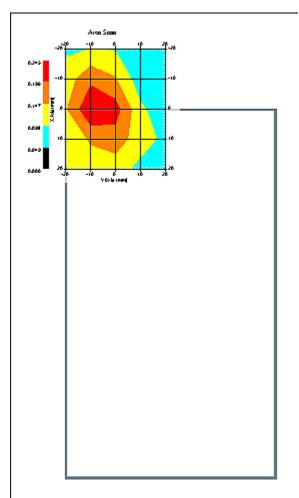




Scan Type : Complete Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 23-Sep-2007
Set-up Time : 7:40:44 AM
Area Scan : 5x5x1 : Measurement x=10mm, y=10mm, z=2mm
Zoom Scan : 7x7x10 : Measurement x=4mm, y=4mm, z=2.5mm

Other Data

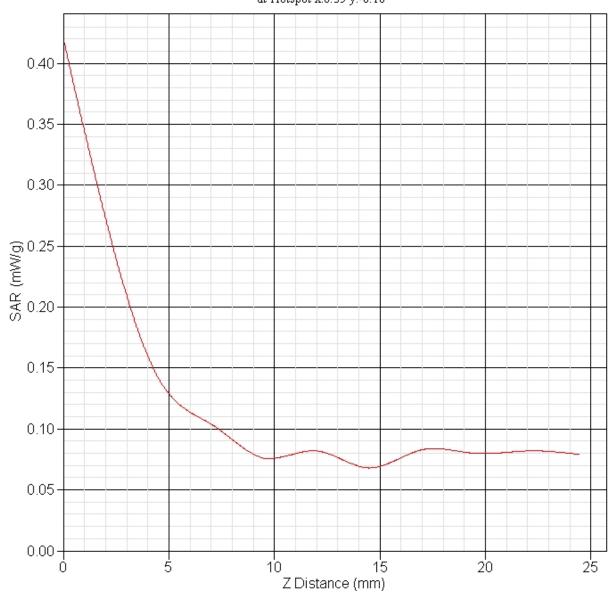
DUT Position : Touch Separation : 0 : Low Channel



1 gram SAR value : 0.216 W/kg 10 gram SAR value : 0.129 W/kg Area Scan Peak SAR : 0.245 W/kg Zoom Scan Peak SAR: 0.420 W/kg



SAR-Z Axis at Hotspot x:0.35 y:-6.18







By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 10:14:52 AM End Time : 27-Jun-2007 10:29:56 AM Scanning Time : 904 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 835.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.156 W/kg Power Drift-Finish: 0.149 W/kg

Phantom Data

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

Power Drift (%) : -4.344

Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz

Last Calib. Date: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 55.31 F/m

Sigma : 0.99 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 835.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 6.3

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



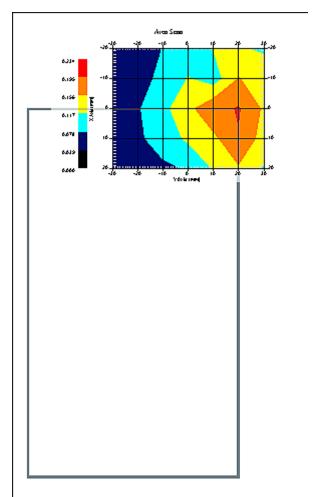


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 8:05:04 AM

Set-up Time : 8:05:04 AM Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 0.185 W/kg 10 gram SAR value : 0.113 W/kg Area Scan Peak SAR : 0.197 W/kg Zoom Scan Peak SAR : 0.310 W/kg





By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 10:30:35 AM End Time : 27-Jun-2007 10:45:11 AM Scanning Time : 876 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 835.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.128 W/kg Power Drift-Finish: 0.133 W/kg

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

Power Drift (%) : 3.906

Last Calib. Date: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 55.31 F/m

Sigma : 0.99 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007

Frequency : 835.00 MHz Duty Cycle Factor: 1 Conversion Factor: 6.3

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



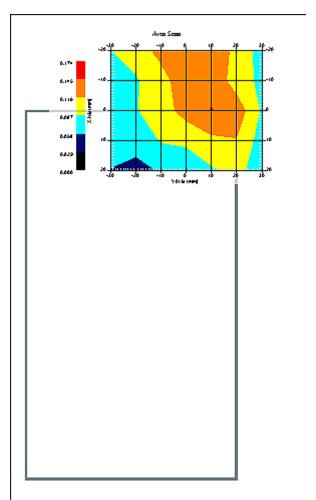


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 8:05:04 AM

Set-up Time : 8:05:04 AM Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 0.147 W/kg 10 gram SAR value : 0.095 W/kg Area Scan Peak SAR : 0.146 W/kg Zoom Scan Peak SAR : 0.230 W/kg





By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 11:17:47 AM End Time : 27-Jun-2007 11:32:24 AM Scanning Time : 877 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 835.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.340 W/kg Power Drift-Finish: 0.334 W/kg

Phantom Data

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

Power Drift (%) : -1.952

Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz

Last Calib. Date: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 55.31 F/m

Sigma : 0.99 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 835.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 6.3

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



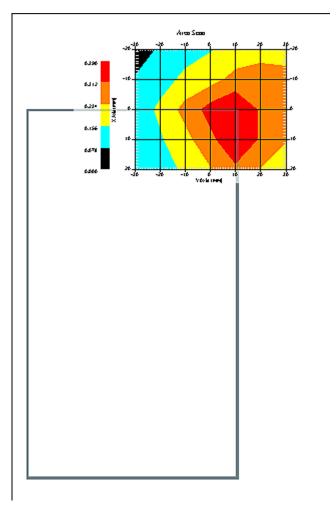


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 8:05:04 AM
Area Scan

Set-up Time : 8:05:04 AM Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

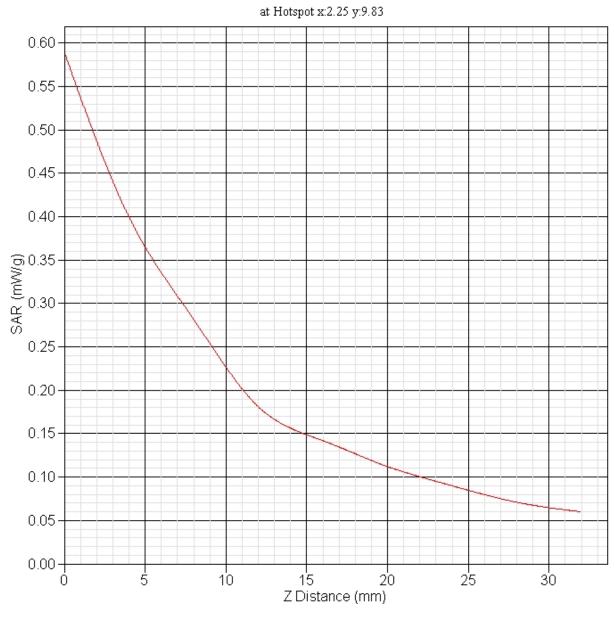
DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 0.360 W/kg 10 gram SAR value : 0.221 W/kg Area Scan Peak SAR : 0.390 W/kg Zoom Scan Peak SAR : 0.590 W/kg



SAR-Z Axis







By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 03:33:30 PM End Time : 27-Jun-2007 03:48:08 PM Scanning Time : 878 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 835.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.220 W/kg Power Drift-Finish: 0.222 W/kg

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

Power Drift (%) : 1.140

Last Calib. Date: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 55.31 F/m

Sigma : 0.99 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 835.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 6.3

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV

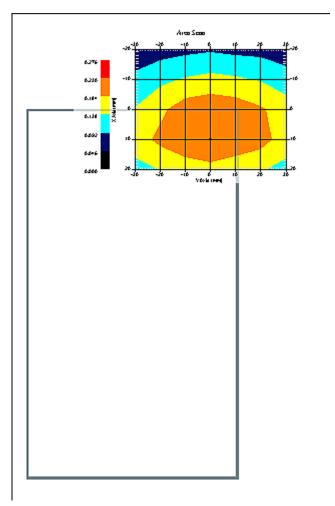




Scan Type : Complete Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 8:05:04 AM
Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 : Mid Channel



1 gram SAR value : 0.213 W/kg 10 gram SAR value : 0.148 W/kg Area Scan Peak SAR : 0.231 W/kg Zoom Scan Peak SAR: 0.300 W/kg





By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 11:58:58 AM End Time : 27-Jun-2007 12:20:43 PM Scanning Time : 1305 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 835.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.236 W/kg Power Drift-Finish: 0.243 W/kg

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

Power Drift (%) : 3.257

Last Calib. Date: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 55.31 F/m

Sigma : 0.99 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 835.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 6.3

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV





Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 8:05:04 AM

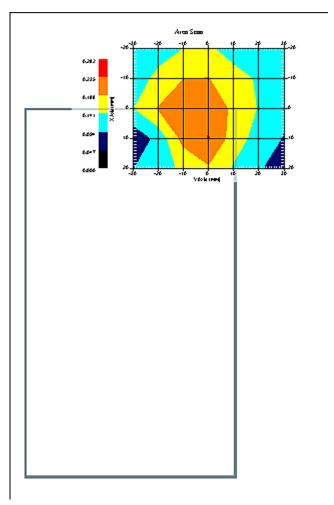
Set-up Time : 8:05:04 AM

Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm

Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 0.228 W/kg 10 gram SAR value : 0.148 W/kg Area Scan Peak SAR : 0.237 W/kg Zoom Scan Peak SAR : 0.350 W/kg





By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 02:16:37 PM End Time : 27-Jun-2007 02:31:09 PM Scanning Time : 872 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 835.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.281 W/kg Power Drift-Finish: 0.273 W/kg

Phantom Data

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

Power Drift (%) : -2.847

Tissue Data
Type : BODY
Serial No. : 835
Frequency : 835.00 MHz

Last Calib. Date: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 55.31 F/m

Sigma : 0.99 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 835.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 6.3

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



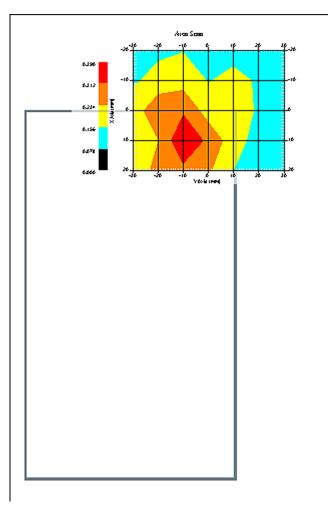


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 8:05:04 AM
Area Scan

Set-up Time : 8:05:04 AM Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 0.330 W/kg 10 gram SAR value : 0.199 W/kg Area Scan Peak SAR : 0.390 W/kg Zoom Scan Peak SAR : 0.630 W/kg





By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 01:06:03 PM End Time : 27-Jun-2007 01:28:10 PM Scanning Time : 1327 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 835.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.261 W/kg Power Drift-Finish: 0.273 W/kg

Power Drift (%) : 4.598

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: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 55.31 F/m

Sigma : 0.99 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 835.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 6.3

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



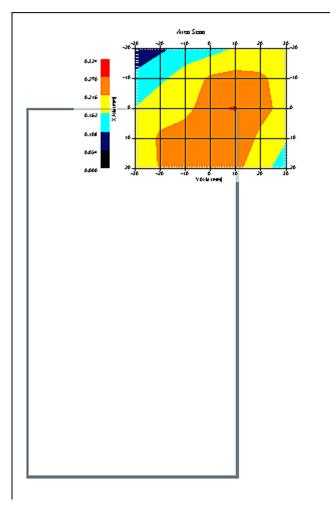


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 8:05:04 AM

Set-up Time : 8:05:04 AM Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 0.290 W/kg 10 gram SAR value : 0.211 W/kg Area Scan Peak SAR : 0.272 W/kg Zoom Scan Peak SAR : 0.360 W/kg





By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 03:49:33 PM End Time : 27-Jun-2007 04:04:06 PM Scanning Time : 873 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 835.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.343 W/kg Power Drift-Finish: 0.343 W/kg

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

Power Drift (%) : 0.211

Last Calib. Date: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 55.31 F/m

Sigma : 0.99 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 835.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 6.3

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV



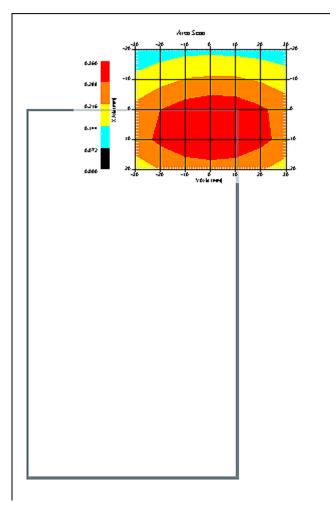


Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 8:05:04 AM

Set-up Time : 8:05:04 AM Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 0.342 W/kg 10 gram SAR value : 0.233 W/kg Area Scan Peak SAR : 0.360 W/kg Zoom Scan Peak SAR : 0.480 W/kg





By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 05:13:23 PM End Time : 27-Jun-2007 05:28:04 PM Scanning Time : 881 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 1900.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.312 W/kg

Power Drift-Finish: 0.317 W/kg

Power Drift (%) : 1.549

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: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 52.30 F/m

Sigma : 1.53 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 1900.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV

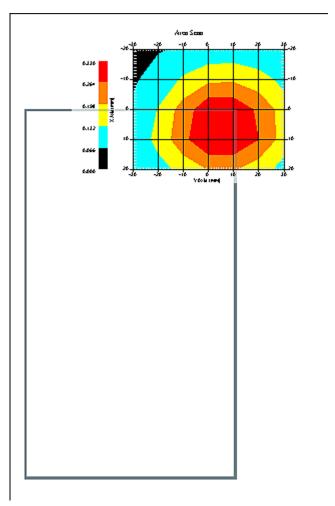




Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 4:45:20 PM
Area Scan

Other Data

DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 0.315 W/kg 10 gram SAR value : 0.192 W/kg Area Scan Peak SAR : 0.329 W/kg Zoom Scan Peak SAR : 0.500 W/kg





By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 05:29:40 PM End Time : 27-Jun-2007 05:51:51 PM Scanning Time : 1331 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 1900.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.287 W/kg Power Drift-Finish: 0.283 W/kg

Phantom Data

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

Power Drift (%) : -1.513

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz

Last Calib. Date: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 52.30 F/m

Sigma : 1.53 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 1900.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV

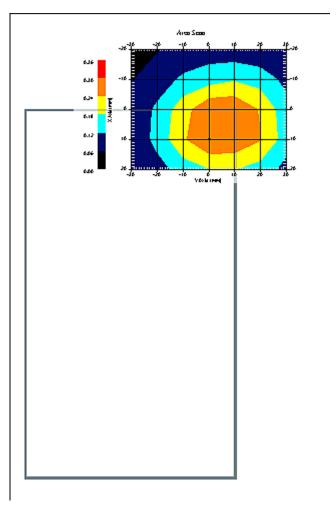




Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 4:45:20 PM
Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm Scan Type : Complete

Other Data

DUT Position : Touch Separation : 0 : Mid Channel



1 gram SAR value : 0.291 W/kg 10 gram SAR value : 0.173 W/kg Area Scan Peak SAR : 0.301 W/kg Zoom Scan Peak SAR: 0.450 W/kg





By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 04:55:22 PM End Time : 27-Jun-2007 05:09:53 PM Scanning Time : 871 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 1900.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch

Power Drift-Start: 0.609 W/kg Power Drift-Finish: 0.633 W/kg

Power Drift (%) : 3.941

Phantom Data

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

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz

Last Calib. Date: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 52.30 F/m

Sigma : 1.53 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 1900.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV

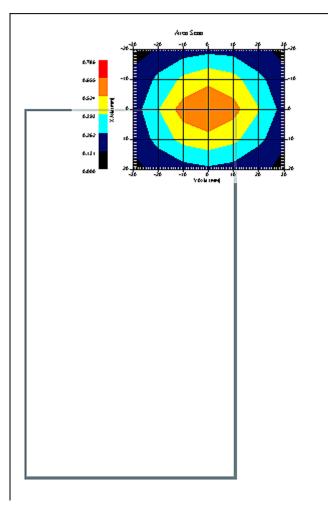




Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 4:45:20 PM
Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm Scan Type : Complete

Other Data

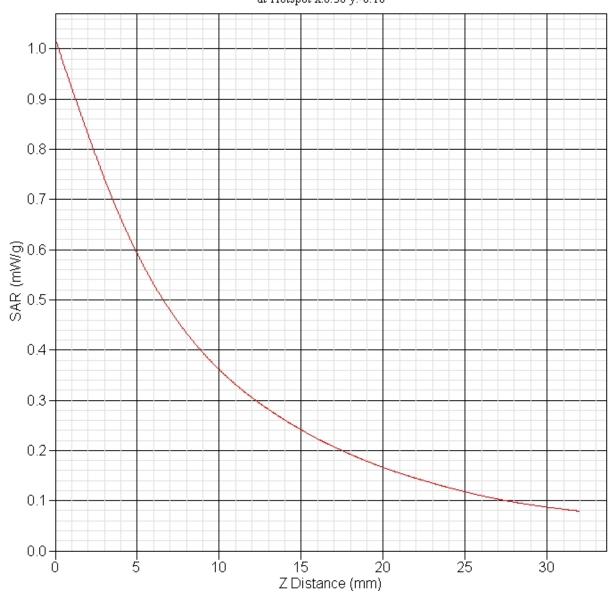
DUT Position : Touch Separation : 0 : Mid Channel



1 gram SAR value : 0.608 W/kg 10 gram SAR value : 0.356 W/kg Area Scan Peak SAR : 0.656 W/kg Zoom Scan Peak SAR: 1.020 W/kg



SAR-Z Axis at Hotspot x:0.30 y:-0.18







By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 05:53:26 PM End Time : 27-Jun-2007 06:08:03 PM Scanning Time : 877 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 1900.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.366 W/kg

Power Drift-Finish: 0.358 W/kg

Power Drift (%) : -2.097

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: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 52.30 F/m

Sigma : 1.53 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 1900.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV

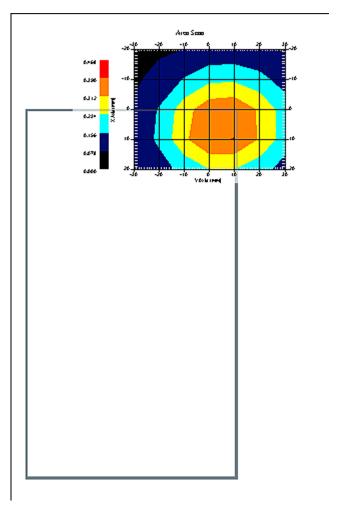




Scan Type : Complete Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 4:45:20 PM
Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 : Mid Channel



1 gram SAR value : 0.371 W/kg 10 gram SAR value : 0.224 W/kg Area Scan Peak SAR : 0.391 W/kg Zoom Scan Peak SAR: 0.560 W/kg





By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 06:11:54 PM End Time : 27-Jun-2007 06:26:19 PM Scanning Time : 865 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 1900.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.517 W/kg

Power Drift-Finish: 0.519 W/kg Power Drift (%) : 0.333

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: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 52.30 F/m

Sigma : 1.53 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 1900.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV

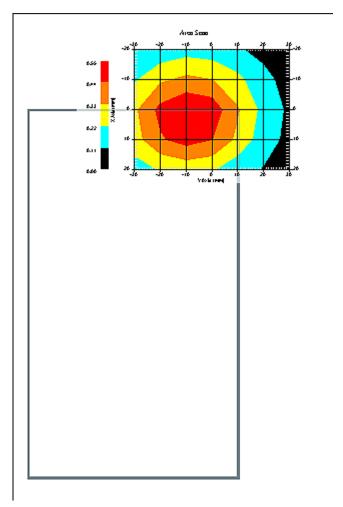




Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 4:45:20 PM

Other Data

DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 0.524 W/kg 10 gram SAR value : 0.311 W/kg Area Scan Peak SAR : 0.548 W/kg Zoom Scan Peak SAR : 0.830 W/kg





By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 06:27:33 PM End Time : 27-Jun-2007 06:42:01 PM Scanning Time : 868 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 1900.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.361 W/kg

Power Drift-Finish: 0.367 W/kg Power Drift (%) : 1.623

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: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 52.30 F/m

Sigma : 1.53 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 1900.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV

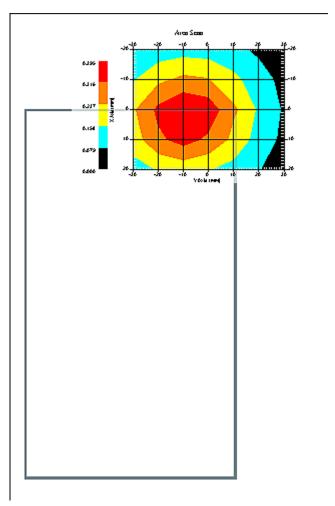




Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 4:45:20 PM

Other Data

DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 0.363 W/kg 10 gram SAR value : 0.220 W/kg Area Scan Peak SAR : 0.394 W/kg Zoom Scan Peak SAR : 0.590 W/kg





By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 06:44:15 PM End Time : 27-Jun-2007 06:58:40 PM Scanning Time : 865 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 1900.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.536 W/kg

Power Drift-Finish: 0.534 W/kg Power Drift (%) : -0.536

Phantom Data

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

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz

Last Calib. Date: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 52.30 F/m

Sigma : 1.53 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 1900.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV

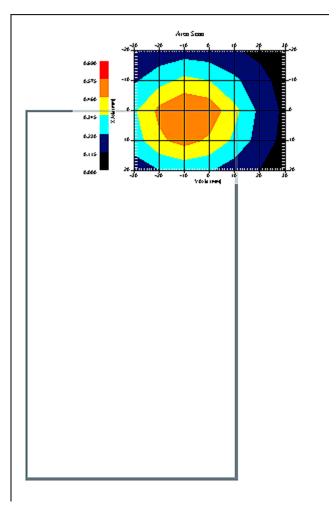




Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 4:45:20 PM
Area Scan

Other Data

DUT Position : Touch Separation : 0 Channel : Mid



1 gram SAR value : 0.538 W/kg 10 gram SAR value : 0.317 W/kg Area Scan Peak SAR : 0.577 W/kg Zoom Scan Peak SAR : 0.890 W/kg





By Operator : Jay

Measurement Date : 27-Jun-2007

Starting Time : 27-Jun-2007 07:17:05 PM End Time : 27-Jun-2007 07:31:46 PM Scanning Time : 881 secs

Product Data

Device Name : OQO
Serial No. : 0052729909
Type : Other
Model : 02:Computer
Frequency : 1900.00 MHz Max. Transmit Pwr : 0.282 W Drift Time : 0 min(s) Length : 143 mm
Width : 83 mm
Depth : 26 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.582 W/kg

Power Drift-Finish: 0.576 W/kg

Power Drift (%) : -1.144

Phantom Data

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

Tissue Data
Type : BODY
Serial No. : 1900
Frequency : 1900.00 MHz

Last Calib. Date: 27-Jun-2007 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 49.00 RH%

Epsilon : 52.30 F/m

Sigma : 1.53 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 215 - RFEL
Model : E020
Type : E-Field Triangle
Serial No. : 215

Last Calib. Date : 14-Feb-2007 Frequency : 1900.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 5

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^{2}$ Compression Point: 95.00 mV

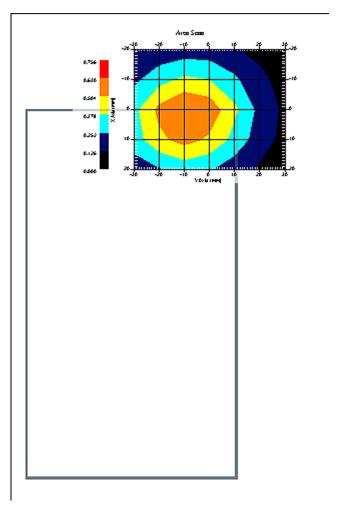




Scan Type : Complete Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 27-Jun-2007
Set-up Time : 4:45:20 PM
Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch Separation : 0 : Mid Channel



1 gram SAR value : 0.588 W/kg 10 gram SAR value : 0.344 W/kg Area Scan Peak SAR : 0.632 W/kg Zoom Scan Peak SAR: 0.980 W/kg



Appendix C – SAR Test Setup Photos



System Body Configuration



Body Tissue Depth





WLAN Main Antenna Position



WLAN Aux Antenna Position





WLAN Main Antenna with Extended Battery



Steel Case Test Position





Holster Test Position



Leather Case Test Position



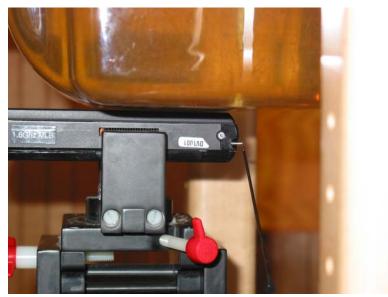


WWAN Antenna 90°



WWAN Antenna 60°





WWAN Antenna 120°



Front View





Front Open View



Back View without Battery





Standard Battery



Extended Battery





WWAN Module



WLAN Module





Steel Case



Holster





Leather Case



DeskDock