

SAR EVALUATION REPORT

For

ShenZhen Hipad Telecommunication Technology Co., LTD.

Rm 502, Unit 3, Bldg. C, Kexing Science Park, Keyuan Rd.,
NanShan Dist., Shenzhen, China

FCC ID: 2ABOU7705

Report Type: Original Report	Product Type: mobile phone
Test Engineer: Wilson Chen	<i>Wilson Chen</i>
Report Number: R1DG131230001-20	
Report Date: 2014-02-14	
Reviewed By: Sandy Wang SAR Engineer	<i>Sandy Wang</i>
Prepared By: Bay Area Compliance Laboratories Corp. (Shenzhen) 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008 www.baclcorp.com.cn	

Note: This test report is prepared for the customer shown above and for the equipment described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp.

Attestation of Test Results		
EUT Information	Company Name	ShenZhen Hipad Telecommunication Technology Co., LTD.
	EUT Description	mobile phone
	FCC ID	2ABOU7705
	Model Number	AHS7705CA
	Test Date	2014-02-08 to 2014-02-10
Frequency	Max. SAR Level(s) Reported	Limit(W/Kg)
GSM 850	0.508 W/kg 1g Head SAR 1.054 W/kg 1g Body SAR	1.6
PCS 1900	0.283 W/kg 1g Head SAR 0.575 W/kg 1g Body SAR	
WCDMA850	0.852 W/kg 1g Head SAR 0.762 W/kg 1g Body SAR	
WCDMA1900	0.778 W/kg 1g Head SAR 0.494 W/kg 1g Body SAR	
WiFi(802.11b)	0.148 W/kg 1g Head SAR 0.064 W/kg 1g Body SAR	
Simultaneous	0.927 W/kg 1g Head SAR 1.321 W/kg 1g Body SAR	
Applicable Standards	ANSI/IEEE C95.1: 2005 IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fileds,3 kHz to 300 GHz.	
	ANSI/IEEE C95.3: 2002 IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields With Respect to Human Exposure to SuchFields,100 kHz—300 GHz.	
	IEEE1528: 2003 IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques	
	KDB procedures KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies. KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets KDB 865664 D01 SAR Measurement Requirements for 100 MHz to 6 GHz KDB 941225 D01 SAR Measurement Procedures for 3G Devices-CDMA 2000/EV-Do WCDMA/HSDPA/HSUPA KDB 941225 D06 SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities.	
Note: This wireless device has been shown to be capable of compliance for localized specific absorption rate (SAR) for General Population/Uncontrolled Exposure limits specified in ANSI/IEEE Standards and has been tested in accordance with the measurement procedures specified in IEEE 1528-2003 and RF exposure KDB procedures. The results and statements contained in this report pertain only to the device(s) evaluated.		

TABLE OF CONTENTS

DOCUMENT REVISION HISTORY	5
EUT DESCRIPTION	6
TECHNICAL SPECIFICATION	6
REFERENCE, STANDARDS, AND GUIDELINES	7
SAR LIMITS	8
FACILITIES.....	9
DESCRIPTION OF TEST SYSTEM	10
EQUIPMENT LIST AND CALIBRATION	17
EQUIPMENTS LIST & CALIBRATION INFORMATION	17
SAR MEASUREMENT SYSTEM VERIFICATION	18
LIQUID VERIFICATION	18
SYSTEM ACCURACY VERIFICATION	23
SAR SYSTEM VALIDATION DATA	24
EUT TEST STRATEGY AND METHODOLOGY	36
TEST POSITIONS FOR DEVICE OPERATING NEXT TO A PERSON'S EAR.....	36
CHEEK/TOUCH POSITION	37
EAR/TILT POSITION	37
TEST POSITIONS FOR BODY-WORN AND OTHER CONFIGURATIONS	38
SAR EVALUATION PROCEDURE.....	39
CONDUCTED OUTPUT POWER MEASUREMENT	40
PROVISION APPLICABLE	40
TEST PROCEDURE	40
MAXIMUM OUTPUT POWER AMONG PRODUCTION UNITS	40
TEST RESULTS:	41
SAR MEASUREMENT RESULTS	48
SAR TEST DATA.....	48
SAR SIMULTANEOUS TRANSMISSION DESCRIPTION	56
EUT SCAN RESULTS	61
APPENDIX A MEASUREMENT UNCERTAINTY	123
APPENDIX B – PROBE CALIBRATION CERTIFICATES	124
APPENDIX C DIPOLE CALIBRATION CERTIFICATES	134
APPENDIX D EUT TEST POSITION PHOTOS	164
LIQUID DEPTH $\geq 15\text{CM}$	164
BODY-WORN FRONT SETUP PHOTO (10MM)	164
BODY-WORN BACK SETUP PHOTO (10MM)	165
BODY-WORN LEFT SETUP PHOTO (10MM)	165
BODY-WORN RIGHT SETUP PHOTO (10MM)	166
BODY-WORN BOTTOM SETUP PHOTO (10MM)	166
BODY-WORN TOP SETUP PHOTO (10MM).....	167
LEFT HEAD TOUCH SETUP PHOTO	167
LEFT HEAD TILT SETUP PHOTO	168
RIGHT HEAD TOUCH SETUP PHOTO	168
RIGHT HEAD TILT SETUP PHOTO	169
APPENDIX E EUT PHOTOS.....	170
EUT – FRONT VIEW.....	170

EUT – BACK VIEW	170
EUT – LEFT SIDE VIEW	171
EUT – RIGHT SIDE VIEW	171
EUT – TOP VIEW	172
EUT – BOTTOM VIEW.....	172
EUT – BATTERY OFF VIEW.....	173
APPENDIX F INFORMATIVE REFERENCES	174

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	R1DG131230001-20	Original Report	2014-02-14

EUT DESCRIPTION

This report has been prepared on behalf of ShenZhen Hipad Telecommunication Technology Co., LTD. and their product, FCC ID: 2ABOU7705, Model: AHS7705CA or the EUT (Equipment under Test) as referred to in the rest of this report. The EUT is a mobile phone.

Technical Specification

Product Type	Portable
Exposure Category:	Population / Uncontrolled
Antenna Type(s):	Internal Antenna
Body-Worn Accessories:	Headset
Face-Head Accessories:	None
Multi-slot Class:	Class 12
Operation Mode :	GSM Voice, GPRS Data, EGPRS Data, WCDMA, Wi-Fi and Bluetooth
Frequency Band:	GSM850 : 824-849 MHz (TX); 869-894 MHz (RX) PCS1900: 1850-1910 MHz (TX); 1930-1990 MHz (RX) WCDMA850: 824-849 MHz (TX); 869-894 MHz (RX) WCDMA1900: 1850-1910 MHz (TX); 1930-1990 MHz (RX) Wi-Fi: 2412-2462 MHz Bluetooth: 2402-2480 MHz
Conducted RF Power:	GSM850: 31.89 dBm PCS1900: 28.90 dBm WCDMA850: 23.78 dBm WCDMA1900: 24.05 dBm Wi-Fi: 14.90 dBm Bluetooth: 0.49 dBm
Dimensions (L*W*H):	114 mm (L) × 62 mm (W) × 12 mm (H)
Power Source:	3.7 V _{DC} Rechargeable Battery
Normal Operation:	Head and Body-worn

REFERENCE, STANDARDS, AND GUIDELINES

FCC:

The Report and Order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including portable telephones. For consumer products, the applicable limit is 1.6 mW/g as recommended by the ANSI/IEEE standard C95.1-1992 [6] for an uncontrolled environment (Paragraph 65). According to the Supplement C of OET Bulletin 65 "Evaluating Compliance with FCC Guide-lines for Human Exposure to Radio frequency Electromagnetic Fields", released on Jun 29, 2001 by the FCC, the device should be evaluated at maximum output power (radiated from the antenna) under "worst-case" conditions for normal or intended use, incorporating normal antenna operating positions, device peak performance frequencies and positions for maximum RF energy coupling.

This report describes the methodology and results of experiments performed on wireless data terminal. The objective was to determine if there is RF radiation and if radiation is found, what is the extent of radiation with respect to safety limits. SAR (Specific Absorption Rate) is the measure of RF exposure determined by the amount of RF energy absorbed by human body (or its parts) – to determine how the RF energy couples to the body or head which is a primary health concern for body worn devices. The limit below which the exposure to RF is considered safe by regulatory bodies in North America is 1.6 mW/g average over 1 gram of tissue mass.

CE:

The order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including portable telephones. For consumer products, the applicable limit is 2 mW/g as recommended by EN62209-1 for an uncontrolled environment. According to the Standard, the device should be evaluated at maximum output power (radiated from the antenna) under "worst-case" conditions for normal or intended use, incorporating normal antenna operating positions, device peak performance frequencies and positions for maximum RF energy coupling.

This report describes the methodology and results of experiments performed on wireless data terminal. The objective was to determine if there is RF radiation and if radiation is found, what is the extent of radiation with respect to safety limits. SAR (Specific Absorption Rate) is the measure of RF exposure determined by the amount of RF energy absorbed by human body (or its parts) – to determine how the RF energy couples to the body or head which is a primary health concern for body worn devices. The limit below which the exposure to RF is considered safe by regulatory bodies in Europe is 2 mW/g average over 10 gram of tissue mass.

The test configurations were laid out on a specially designed test fixture to ensure the reproducibility of measurements. Each configuration was scanned for SAR. Analysis of each scan was carried out to characterize the above effects in the device.

SAR Limits**FCC Limit (1g Tissue)**

EXPOSURE LIMITS	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average (averaged over the whole body)	0.08	0.4
Spatial Peak (averaged over any 1 g of tissue)	1.60	8.0
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)	4.0	20.0

CE Limit (10g Tissue)

EXPOSURE LIMITS	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average (averaged over the whole body)	0.08	0.4
Spatial Peak (averaged over any 10 g of tissue)	2.0	10
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)	4.0	20.0

Population/Uncontrolled Environments are defined as locations where there is the exposure of individual who have no knowledge or control of their exposure.

Occupational/Controlled Environments are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure (i.e. as a result of employment or occupation).

General Population/Uncontrolled environments Spatial Peak limit 1.6W/kg (FCC) & 2 W/kg (CE) applied to the EUT.

FACILITIES

The test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect data is located at 6/F, the 3rd Phase of WanLi Industrial Building, Shi Hua Road, Fu Tian Free Trade Zone, Shenzhen, Guangdong, P.R. of China

DESCRIPTION OF TEST SYSTEM

These measurements were performed with ALSAS 10 Universal Integrated SAR Measurement system from APREL Laboratories.

ALSAS-10U System Description

ALSAS-10-U is fully compliant with the technical and scientific requirements of IEEE 1528, IEC 62209, CENELEC, ARIB, ACA, and the Federal Communications Commission. The system comprises of a six axes articulated robot which utilizes a dedicated controller. ALSAS-10U uses the latest methodologies. And FDTD modeling to provide a platform which is repeatable with minimum uncertainty.

Applications

Predefined measurement procedures compliant with the guidelines of CENELEC, IEEE, IEC, FCC, etc are utilized during the assessment for the device. Automatic detection for all SAR maxima are embedded within the core architecture for the system, ensuring that peak locations used for centering the zoom scan are within a 1mm resolution and a 0.05mm repeatable position. System operation range currently available up-to 6 GHz in simulated tissue.

Area Scans

Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for FCC applications utilize a 10mm² step integral, with 1mm interpolation used to locate the peak SAR area used for zoom scan assessments.

Where the system identifies multiple SAR peaks (which are within 25% of peak value) the system will provide the user with the option of assessing each peak location individually for zoom scan averaging.

Zoom Scan (Cube Scan Averaging)

The averaging zoom scan volume utilized in the ALSAS-10U software is in the shape of a cube and the side dimension of a 1 g or 10 g mass is dependent on the density of the liquid representing the simulated tissue. A density of 1000 kg/m³ is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1 g cube is 10mm, with the side length of the 10 g cube 21,5mm.

When the cube intersects with the surface of the phantom, it is oriented so that 3 vertices touch the surface of the shell or the center of a face is tangent to the surface. The face of the cube closest to the surface is modified in order to conform to the tangent surface.

The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications (including FCC) utilize a physical step of 5x5x8 (8mmx8mmx5mm) providing a volume of 32mm in the X & Y axis, and 35mm in the Z axis.



ALSAS-10U Interpolation and Extrapolation Uncertainty

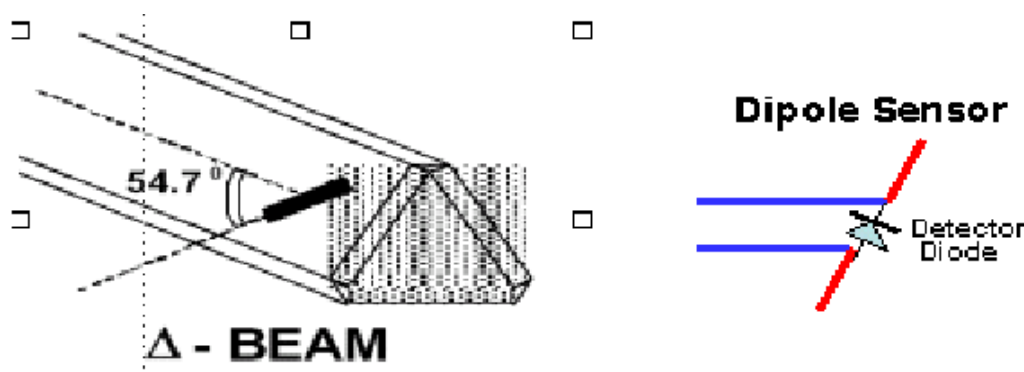
The overall uncertainty for the methodology and algorithms the used during the SAR calculation was evaluated using the data from IEEE 1528 based on the example f3 algorithm:

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

Isotropic E-Field Probe

The isotropic E-Field probe has been fully calibrated and assessed for isotropicity, and boundary effect within a controlled environment. Depending on the frequency for which the probe is calibrated the method utilized for calibration will change.

The E-Field probe utilizes a triangular sensor arrangement as detailed in the diagram below:



SAR is assessed with a calibrated 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 (in the Z Axis). The 5mm offset height has been selected so as to minimize any resultant boundary effect due to the probe being in close proximity to the phantom surface.

The following algorithm is an example of the function used by the system for linearization of the output from the probe when measuring complex modulation schemes.

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

Isotropic E-Field Probe Specification

Calibration Method	Frequency Dependent Below 1 GHz Calibration in air performed in a TEM Cell Above 1 GHz Calibration in air performed in waveguide
Sensitivity	$0.70 \mu\text{V}/(\text{V}/\text{m})^2$ to $0.85 \mu\text{V}/(\text{V}/\text{m})^2$
Dynamic Range	0.0005 W/kg to 100 W/kg
Isotropic Response	Better than 0.1 dB
Diode Compression Point (DCP)	Calibration for Specific Frequency
Probe Tip Diameter	< 2.9 mm
Sensor Offset	1.56 (+/- 0.02 mm)
Probe Length	289 mm
Video Bandwidth	@ 500 Hz: 1 dB @ 1.02 kHz: 3 dB
Boundary Effect	Less than 2.1% for distance greater than 0.58 mm
Spatial Resolution	The spatial resolution uncertainty is less than 1.5% for 4.9mm diameter probe. The spatial resolution uncertainty is less than 1.0% for 2.5mm diameter probe

Boundary Detection Unit and Probe Mounting Device

ALSAS-10U incorporates a boundary detection unit with a sensitivity of 0.05mm for detecting all types of surfaces. The robust design allows for detection during probe tilt (probe normalize) exercises, and utilizes a second stage emergency stop. The signal electronics are fed directly into the robot controller for high accuracy surface detection in lateral and axial detection modes (X, Y, & Z).

The probe is mounted directly onto the Boundary Detection unit for accurate tooling and displacement calculations controlled by the robot kinematics. The probe is connect to an isolated probe interconnect where the output stage of the probe is fed directly into the amplifier stage of the Daq-Paq.

Daq-Paq (Analog to Digital Electronics)

ALSAS-10U incorporates a fully calibrated Daq-Paq (analog to digital conversion system) which has a 4 channel input stage, sent via a 2 stage auto-set amplifier module. The input signal is amplified accordingly so as to offer a dynamic range from 5 μV to 800mV. Integration of the fields measured is carried out at board level utilizing a Co-Processor which then sends the measured fields down into the main computational module in digitized form via an RS232 communications port. Probe linearity and duty cycle compensation is carried out within the main Daq-Paq module.

ADC	12 Bit
Amplifier Range	20 mV to 200 mV and 150 mV to 800 mV
Field Integration	Local Co-Processor utilizing proprietary integration algorithms
Number of Input Channels	4 in total 3 dedicated and 1 spare
Communication	Packet data via RS232

Axis Articulated Robot

ALSAS-10U utilizes a six axis articulated robot, which is controlled using a Pentium based real-time movement controller. The movement kinematics engine utilizes proprietary (Thermo CRS) interpolation and extrapolation algorithms, which allow full freedom of movement for each of the six joints within the working envelope. Utilization of joint 6 allows for full probe rotation with a tolerance better than 0.05mm around the central axis.



Robot/Controller Manufacturer	Thermo CRS
Number of Axis	Six independently controlled axis
Positioning Repeatability	0.05 mm
Controller Type	Single phase Pentium based C500C
Robot Reach	710 mm
Communication	RS232 and LAN compatible

ALSAS Universal Workstation

ALSAS Universal workstation allows for repeatability and fast adaptability. It allows users to do calibration, testing and measurements using different types of phantoms with one set up, which significantly speeds up the measurement process.

Universal Device Positioner

The universal device positioner allows complete freedom of movement of the EUT. Developed to hold a EUT in a free-space scenario any additional loading attributable to the material used in the construction of the positioner has been eliminated. Repeatability has been enhanced through the linear scales which form the design used to indicate positioning for any given test scenario in all major axes. A 15° tilt indicator is included for the of aid cheek to tilt movements for head SAR analysis. Overall uncertainty for measurements have been reduced due to the design of the Universal device positioner, which allows positioning of a device in as near to a free-space scenario as possible, and by providing the means for complete repeatability.

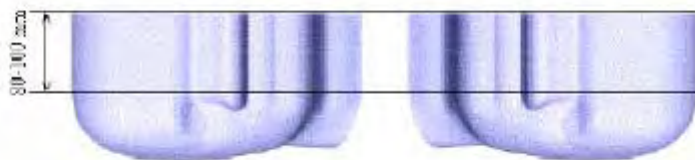


Phantom Types

The ALSAS-10U allows the integration of multiple phantom types. SAM Phantoms fully compliant with IEEE 1528, Universal Phantom, and Universal Flat.

APREL SAM Phantoms

The SAM phantoms developed using the IEEE SAM CAD file. They are fully compliant with the requirements for both IEEE 1528 and FCC Supplement C. Both the left and right SAM phantoms are interchangeable, transparent and include the IEEE 1528 grid with visible NF and MB lines.



APREL Laboratories Universal Phantom

The Universal Phantom is used on the ALSAS-10U as a system validation phantom. The Universal Phantom has been fully validated both experimentally from 800MHz to 6GHz and numerically using XFDTD numerical software.

The shell thickness is 2mm overall, with a 4mm spacer located at the NF/MB intersection providing an overall thickness of 6mm in line with the requirements of IEEE-1528.

The design allows for fast and accurate measurements, of handsets, by allowing the conservative SAR to be evaluated at on frequency for both left and right head experiments in one measurement.



Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in P1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in P1528.

Ingredients (% by weight)	Frequency (MHz)									
	450		835		915		1900		2450	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	38.56	51.16	41.45	52.4	41.05	56.0	54.9	40.4	62.7	73.2
Salt (NaCl)	3.95	1.49	1.45	1.4	1.35	0.76	0.18	0.5	0.5	0.04
Sugar	56.32	46.78	56.0	45.0	56.5	41.76	0.0	58.0	0.0	0.0
HEC	0.98	0.52	1.0	1.0	1.0	1.21	0.0	1.0	0.0	0.0
Bactericide	0.19	0.05	0.1	0.1	0.1	0.27	0.0	0.1	0.0	0.0
Triton x-100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	0.0
DGBE	0.0	0.0	0.0	0.0	0.0	0.0	44.92	0.0	0.0	26.7
Dielectric Constant	43.42	58.0	42.54	56.1	42.0	56.8	39.9	54.0	39.8	52.5
Conductivity (s/m)	0.85	0.83	0.91	0.95	1.0	1.07	1.42	1.45	1.88	1.78

Recommended Tissue Dielectric Parameters for Head and Body

Frequency (MHz)	Head Tissue		Body Tissue	
	ϵ_r	σ (S/m)	ϵ_r	σ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800-2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5800	35.3	5.27	48.2	6.00

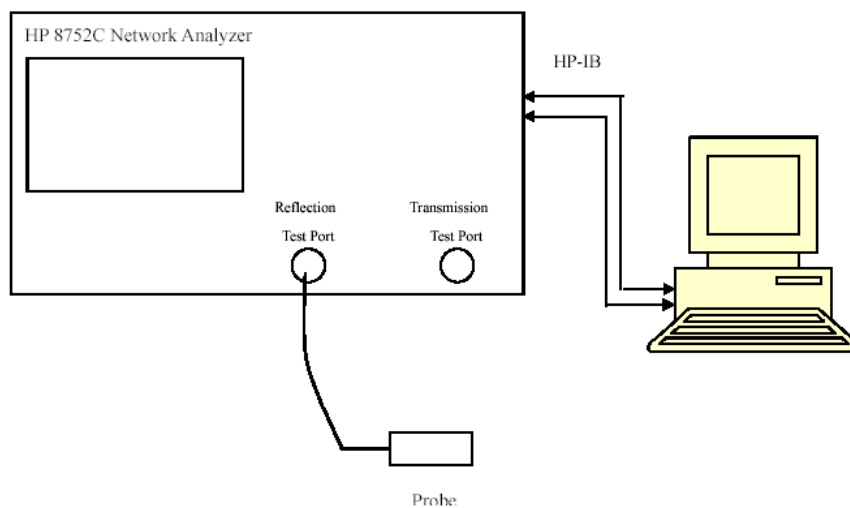
EQUIPMENT LIST AND CALIBRATION

Equipments List & Calibration Information

Equipment	Model	Calibration Date	S/N
CRS F3 robot	ALS-F3	N/A	RAF0805352
CRS F3 Software	ALS-F3-SW	N/A	N/A
CRS C500C controller	ALS-C500	N/A	RCF0805379
Probe mounting device & Boundary Detection Sensor System	ALS-PMDPS-3	N/A	120-00270
Universal Work Station	ALS-UWS	N/A	100-00157
Data Acquisition Package	ALS-DAQ-PAQ-3	2013-10-08	110-00212
Miniature E-Field Probe	ALS-E-020	2013-10-08	500-00283
Dipole, 835MHz	ALS-D-835-S-2	2011-08-25	180-00558
Dipole, 1900MHz	ALS-D-1900-S-2	2011-08-25	210-00710
Dipole, 2450MHz	ALS-D-2450-S-2	2011-08-25	220-00758
Dipole Spacer	ALS-DS-U	N/A	250-00907
Device holder/Positioner	ALS-H-E-SET-2	N/A	170-00510
Left ear SAM phantom	ALS-P-SAM-L	N/A	130-00311
Right ear SAM phantom	ALS-P-SAM-R	N/A	140-00359
UniPhantom	ALS-P-UP-1	N/A	150-00413
Simulated Tissue 835 MHz Head	ALS-TS-835-H	Each Time	270-01002
Simulated Tissue 835 MHz Body	ALS-TS-835-B	Each Time	270-02101
Simulated Tissue 1900 MHz Head	ALS-TS-1900-H	Each Time	295-01103
Simulated Tissue 1900 MHz Body	ALS-TS-1900-B	Each Time	295-02102
Simulated Tissue 2450 MHz Head	ALS-TS-2450-H	Each Time	296-01001
Simulated Tissue 2450 MHz Body	ALS-TS-2450-B	Each Time	290-01109
Power Amplifier	5S1G4	N/A	71377
Synthesized Sweeper	HP 8341B	2013-05-09	2624A00116
UNIVERSAL RADIO COMMUNICATION TESTER	CMU200	2013-11-23	106891
EMI Test Receiver	ESCI	2013-11-12	101120

SAR MEASUREMENT SYSTEM VERIFICATION

Liquid Verification



Liquid Verification Setup Block Diagram

Liquid Verification Results

Frequency	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		ϵ_r	O (S/m)	ϵ_r	O (S/m)	$\Delta\epsilon_r$	ΔO (S/m)	
824.2	Head	41.18	0.91	41.50	0.90	-2.460	0.667	± 5
	Body	55.23	0.94	55.20	0.97	0.327	-2.634	± 5
826.4	Head	41.07	0.91	41.50	0.90	-2.151	0.987	± 5
	Body	55.25	0.95	55.20	0.97	0.679	-2.101	± 5
836.6	Head	41.14	0.91	41.50	0.90	-0.904	0.720	± 5
	Body	55.30	0.96	55.20	0.97	2.089	-1.207	± 5
846.6	Head	40.99	0.92	41.50	0.90	0.423	2.066	± 5
	Body	55.37	0.98	55.20	0.97	3.503	1.033	± 5
848.8	Head	40.91	0.92	41.50	0.90	0.741	2.390	± 5
	Body	55.39	0.98	55.20	0.97	3.857	1.514	± 5
1850.2	Head	39.99	1.41	40.00	1.40	-0.013	0.825	± 5
	Body	53.93	1.50	53.30	1.52	1.185	-1.332	± 5
1852.4	Head	40.04	1.41	40.00	1.40	0.093	0.495	± 5
	Body	53.88	1.50	53.30	1.52	1.092	-1.485	± 5
1880.0	Head	40.04	1.39	40.00	1.40	0.107	-0.650	± 5
	Body	53.68	1.54	53.30	1.52	0.721	1.289	± 5
1907.6	Head	40.05	1.41	40.00	1.40	0.121	0.451	± 5
	Body	53.65	1.56	53.30	1.52	0.657	2.759	± 5
1909.8	Head	40.05	1.41	40.00	1.40	0.123	0.503	± 5
	Body	53.76	1.55	53.30	1.52	0.865	2.183	± 5
2412	Head	39.58	1.81	39.20	1.80	0.963	0.524	± 5
	Body	52.15	1.94	52.70	1.95	-1.039	-0.271	± 5
2437	Head	39.64	1.83	39.20	1.80	1.114	1.604	± 5
	Body	51.96	1.96	52.70	1.95	-1.406	0.603	± 5
2462	Head	39.74	1.85	39.20	1.80	1.390	2.683	± 5
	Body	51.79	2.00	52.70	1.95	-1.725	2.393	± 5

*Liquid Verification was performed on 2014-02-08.

Please refer to the following tables.

835 MHz Head				835 MHz Body		
Frequency (MHz)	e'	e''		Frequency (MHz)	e'	e''
824.0	41.1848	19.7756		824.0	55.2318	20.6146
824.5	41.1538	19.7761		824.5	55.2350	20.5141
825.0	41.1371	19.7767		825.0	55.2381	20.5266
825.5	41.0320	19.7772		825.5	55.2412	20.5391
826.0	41.0503	19.7778		826.0	55.2444	20.6741
826.5	41.0722	19.7783		826.5	55.2475	20.7379
827.0	41.0487	19.7789		827.0	55.2507	20.6524
827.5	41.0960	19.7794		827.5	55.2538	20.5305
828.0	41.1156	19.7800		828.0	55.2569	20.5651
828.5	41.1221	19.7805		828.5	55.2601	20.5225
829.0	41.1730	19.7811		829.0	55.2632	20.6266
829.5	41.1215	19.7817		829.5	55.2664	20.5695
830.0	41.1578	19.7822		830.0	55.2695	20.4474
830.5	41.1179	19.7828		830.5	55.2726	20.5118
831.0	41.0909	19.7833		831.0	55.2758	20.4969
831.5	41.1104	19.7839		831.5	55.2789	20.7043
832.0	41.0722	19.7844		832.0	55.2820	20.6820
832.5	41.0471	19.7850		832.5	55.2852	20.4587
833.0	41.0876	19.7855		833.0	55.2883	20.3921
833.5	41.1190	19.7861		833.5	55.2915	20.5035
834.0	41.1164	19.7866		834.0	55.2946	20.6554
834.5	41.1150	19.7872		834.5	55.2977	20.5484
835.0	41.1399	19.7377		835.0	55.3009	20.4918
835.5	41.1409	19.5886		835.5	55.3040	20.7395
836.0	41.1445	19.4895		836.0	55.3071	20.7465
836.5	41.1395	19.4903		836.5	55.3103	20.6043
837.0	41.1163	19.4912		837.0	55.3134	20.4313
837.5	41.1105	19.4920		837.5	55.3166	20.4676
838.0	41.1337	19.4929		838.0	55.3197	20.7519
838.5	41.0922	19.4937		838.5	55.3228	20.7671
839.0	41.0821	19.4946		839.0	55.3260	20.6891
839.5	41.0846	19.4954		839.5	55.3291	20.6241
840.0	41.0957	19.4963		840.0	55.3322	20.6912
840.5	41.0850	19.4972		840.5	55.3354	20.7366
841.0	41.0683	19.4980		841.0	55.3385	20.6917
841.5	41.0977	19.4989		841.5	55.3417	20.6284
842.0	41.0994	19.4997		842.0	55.3448	20.8043
842.5	41.1031	19.5006		842.5	55.3479	20.7728
843.0	41.0972	19.4914		843.0	55.3511	20.7332
843.5	41.0209	19.4922		843.5	55.3542	20.6887
844.0	41.0972	19.4931		844.0	55.3574	20.7064
844.5	41.0515	19.4940		844.5	55.3605	20.7323
845.0	40.9775	19.4948		845.0	55.3636	20.6417
845.5	40.9928	19.4957		845.5	55.3668	20.5881
846.0	40.9474	19.5166		846.0	55.3699	20.7611
846.5	40.9883	19.5175		846.5	55.3730	20.8225
847.0	40.9686	19.5183		847.0	55.3762	20.7713
847.5	40.9718	19.5192		847.5	55.3793	20.6916
848.0	40.9454	19.5200		848.0	55.3825	20.7818
848.5	40.9500	19.5209		848.5	55.3856	20.8599
849.0	40.9102	19.5217		849.0	55.3887	20.8601

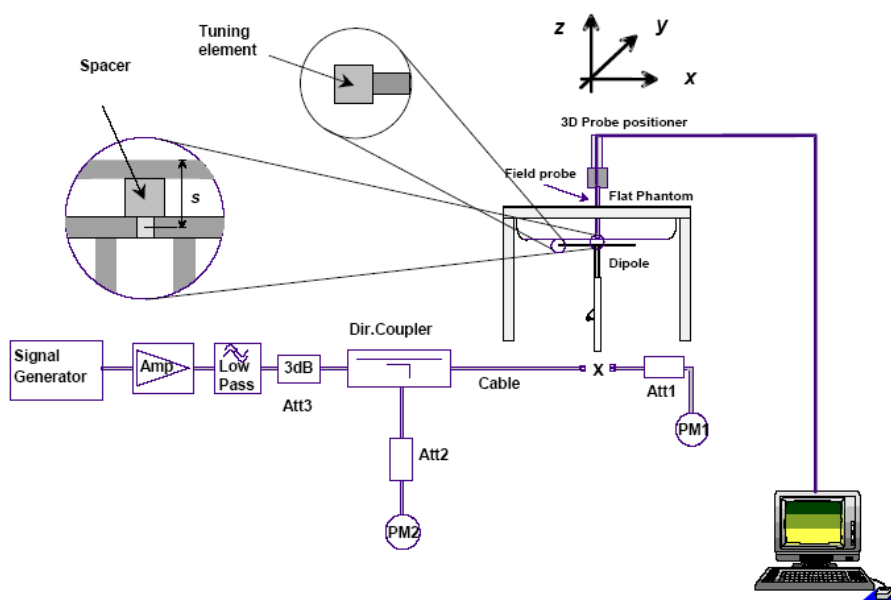
1900 MHz Head				1900 MHz Body		
Frequency (MHz)	e'	e''		Frequency (MHz)	e'	e''
1850.0	39.9946	13.7231		1850.0	53.9315	14.5805
1851.2	40.0369	13.6931		1851.2	53.8634	14.5379
1852.4	40.0371	13.6604		1852.4	53.8823	14.5390
1853.6	40.0374	13.6837		1853.6	53.8588	14.5153
1854.8	40.0376	13.6777		1854.8	53.7617	14.5347
1856.0	40.0379	13.6018		1856.0	53.8647	14.5712
1857.2	40.0381	13.7417		1857.2	53.8579	14.5972
1858.4	40.0384	13.6379		1858.4	53.8399	14.5184
1859.6	40.0386	13.6918		1859.6	53.8216	14.5127
1860.8	40.0389	13.6931		1860.8	53.7173	14.5655
1862.0	40.0391	13.3097		1862.0	53.7450	14.3927
1863.2	40.0394	13.3321		1863.2	53.6910	14.4055
1864.4	40.0396	13.3671		1864.4	53.7258	14.4226
1865.6	40.0399	13.3617		1865.6	53.7322	14.3936
1866.8	40.0401	13.3505		1866.8	53.8072	14.3842
1868.0	40.0404	13.3690		1868.0	53.8757	14.4003
1869.2	40.0406	13.4297		1869.2	53.8847	14.4227
1870.4	40.0409	13.4225		1870.4	53.7982	14.4742
1871.6	40.0411	13.3964		1871.6	53.7406	14.4749
1872.8	40.0414	13.4265		1872.8	53.7791	14.5039
1874.0	40.0416	13.3691		1874.0	53.7055	14.5122
1875.2	40.0419	13.4032		1875.2	53.7687	14.5754
1876.4	40.0421	13.4011		1876.4	53.6718	14.4982
1877.6	40.0423	13.4656		1877.6	53.7741	14.5782
1878.8	40.0426	13.3613		1878.8	53.8019	14.7101
1880.0	40.0428	13.3065		1880.0	53.6842	14.7290
1881.2	40.0431	13.3552		1881.2	53.6424	14.7261
1882.4	40.0433	13.3778		1882.4	53.7380	14.6974
1883.6	40.0436	13.3466		1883.6	53.7035	14.6535
1884.8	40.0438	13.3472		1884.8	53.7284	14.6762
1886.0	40.0441	13.3465		1886.0	53.7636	14.6084
1887.2	40.0443	13.3416		1887.2	53.7444	14.5846
1888.4	40.0446	13.3367		1888.4	53.8341	14.6189
1889.6	40.0448	13.3319		1889.6	53.7646	14.6235
1890.8	40.0451	13.3271		1890.8	53.8103	14.6803
1892.0	40.0453	13.3222		1892.0	53.7983	14.4765
1893.2	40.0456	13.3174		1893.2	53.7707	14.4374
1894.4	40.0458	13.3126		1894.4	53.7434	14.4865
1895.6	40.0461	13.3077		1895.6	53.7362	14.8203
1896.8	40.0463	13.3029		1896.8	53.7261	14.8184
1898.0	40.0466	13.2980		1898.0	53.7264	14.7990
1899.2	40.0468	13.2932		1899.2	53.8034	14.7994
1900.4	40.0471	13.2883		1900.4	53.7683	14.6981
1901.6	40.0473	13.2835		1901.6	53.7718	14.7874
1902.8	40.0476	13.2786		1902.8	53.7409	14.7474
1904.0	40.0478	13.2738		1904.0	53.8226	14.7163
1905.2	40.0481	13.2689		1905.2	53.7344	14.6848
1906.4	40.0483	13.2641		1906.4	53.7243	14.6097
1907.6	40.0486	13.2592		1907.6	53.6500	14.7265
1908.8	40.0488	13.2544		1908.8	53.7343	14.6619
1910.0	40.0491	13.2495		1910.0	53.7608	14.6256

2450 MHz Head				2450 MHz Body		
Frequency (MHz)	e'	e''		Frequency (MHz)	e'	e''
2410	39.5807	13.4921		2410	52.1705	14.4892
2411	39.5797	13.4923		2411	52.1614	14.4962
2412	39.5777	13.4925		2412	52.1524	14.5012
2413	39.5757	13.4927		2413	52.1434	14.5062
2414	39.5767	13.4929		2414	52.1344	14.5112
2415	39.5777	13.4931		2415	52.1254	14.5162
2416	39.5787	13.4933		2416	52.1164	14.5212
2417	39.5797	13.4935		2417	52.1074	14.5262
2418	39.5807	13.4937		2418	52.0984	14.5312
2419	39.5847	13.4939		2419	52.0894	14.5362
2420	39.5886	13.4941		2420	52.0804	14.5412
2421	39.5926	13.4943		2421	52.0713	14.5662
2422	39.5966	13.4945		2422	52.0643	14.5732
2423	39.6006	13.4947		2423	52.0573	14.5802
2424	39.6046	13.4949		2424	52.0503	14.5872
2425	39.6086	13.4951		2425	52.0433	14.5942
2426	39.6126	13.4953		2426	52.0363	14.6012
2427	39.6166	13.4954		2427	52.0293	14.6082
2428	39.6206	13.4956		2428	52.0223	14.6152
2429	39.6246	13.4958		2429	52.0153	14.6222
2430	39.6256	13.4960		2430	52.0083	14.6292
2431	39.6266	13.4962		2431	52.0012	14.6362
2432	39.6276	13.4964		2432	51.9942	14.6432
2433	39.6286	13.4966		2433	51.9872	14.6502
2434	39.6296	13.4968		2434	51.9802	14.6572
2435	39.6306	13.4970		2435	51.9732	14.6642
2436	39.6336	13.4972		2436	51.9662	14.6712
2437	39.6366	13.4974		2437	51.9592	14.6782
2438	39.6396	13.4976		2438	51.9522	14.6852
2440	39.6426	13.4978		2440	51.9452	14.6922
2441	39.6456	13.4980		2441	51.9382	14.6992
2442	39.6486	13.4982		2442	51.9312	14.7062
2443	39.6536	13.4984		2443	51.9242	14.7102
2444	39.6586	13.4986		2444	51.9172	14.7142
2445	39.6636	13.4988		2445	51.9101	14.7182
2446	39.6686	13.4990		2446	51.9031	14.7222
2447	39.6736	13.4992		2447	51.8961	14.7262
2448	39.6786	13.4994		2448	51.8891	14.7302
2449	39.6836	13.4996		2449	51.8821	14.7342
2450	39.6885	13.4998		2450	51.8751	14.7382
2451	39.6935	13.5000		2451	51.8681	14.7422
2452	39.6985	13.5002		2452	51.8611	14.7462
2453	39.7035	13.5004		2453	51.8541	14.7502
2454	39.7085	13.5006		2454	51.8471	14.7542
2455	39.7125	13.5008		2455	51.8401	14.7582
2456	39.7165	13.5010		2456	51.8331	14.7622
2457	39.7205	13.5012		2457	51.8261	14.7662
2458	39.7245	13.5014		2458	51.8190	14.7702
2459	39.7285	13.5016		2459	51.8120	14.7742
2460	39.7325	13.5018		2460	51.8050	14.7782
2461	39.7365	13.5020		2461	51.7980	14.7822
2462	39.7407	13.5022		2462	51.7910	14.7862

System Accuracy Verification

Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of $\pm 10\%$. The validation results are tabulated below. And also the corresponding SAR plot is attached as well in the SAR plots files.

System Verification Setup Block Diagram



Probe and dipole antenna List and Detail

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
APREL	Probe	ALS-E-020	500-00283	2013-10-08	2014-10-07
APREL	Dipole antenna(850MHz)	ALS-D-835-S-2	180-00558	2011-08-25	2014-08-24
APREL	Dipole antenna(1900MHz)	ALS-D-1900-S-2	210-00710	2011-08-25	2014-08-24
APREL	Dipole antenna(2450MHz)	ALS-D-2450-S-2	220-00758	2011-08-25	2014-08-24

System Accuracy Check Results

Date	Frequency Band	Liquid Type	Measured SAR (W/Kg)		Target Value (W/Kg)	Delta (%)	Tolerance (%)
2014-02-08	835	Head	1g	9.648	9.590	0.605	± 10
		Body	1g	9.779	9.684	0.981	± 10
	1900	Head	1g	39.758	39.648	0.277	± 10
		Body	1g	39.815	39.769	0.116	± 10
	2450	Head	1g	53.208	52.667	1.027	± 10
		Body	1g	52.989	52.561	0.814	± 10

*All SAR values are normalized to 1 Watt forward power.

SAR SYSTEM VALIDATION DATA**Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)****System Performance Check 835 MHz Head Liquid****Dipole 835 MHz; Type: ALS-D-835-S-2; S/N: 180-00558****Product Data**

Device Name : Dipole 835 MHz
Serial No. : 180-00558
Type : Dipole
Model : ALS-D-835-S-2
Frequency Band : 835
Max. Transmit Pwr : 1 W
Drift Time : 3 min(s)
Power Drift-Start : 9.859 W/kg
Power Drift-Finish : 9.958 W/kg
Power Drift (%) : 1.108

Phantom Data

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

Tissue Data

Type : Head
Serial No. : 270-01002
Frequency : 835.0 MHz
Last Calib. Date : 8-Feb-2014
Temperature : 20.00 °C
Ambient Temp. : 21.00 °C
Humidity : 56.00 RH%
Epsilon : 41.14 F/m
Sigma : 0.92 S/m
Density : 1000.00 kg/cu. m

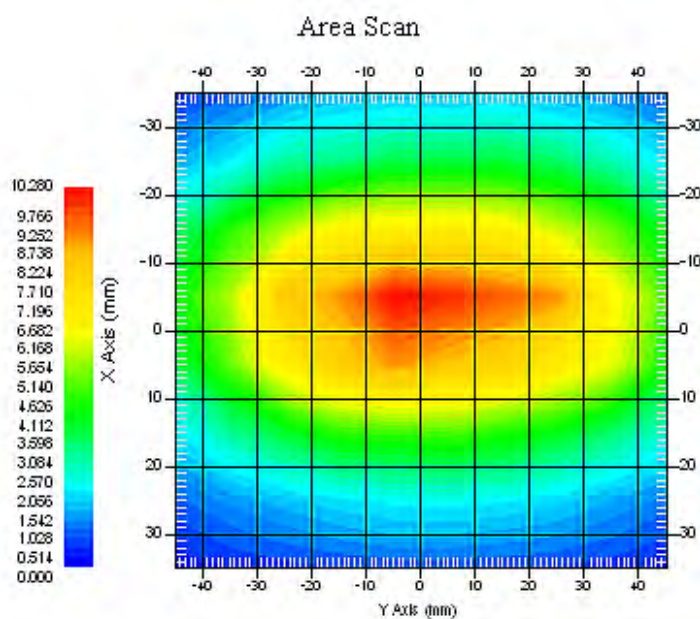
Probe Data

Name : E-Field
Model : E-020
Type : E-Field Triangle
Serial No. : 500-00283
Last Calib. Date : 08-Oct-2013
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

Measurement Data

Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 21.00 °C
Ambient Temp. : 21.00 °C
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

1 gram SAR value : 9.648 W/kg
10 gram SAR value : 6.502 W/kg
Area Scan Peak SAR : 10.277 W/kg
Zoom Scan Peak SAR : 14.985 W/kg



835 MHz System Validation with Head Tissue

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**System Performance Check 835 MHz Body Liquid****Dipole 835 MHz; Type: ALS-D-835-S-2; S/N: 180-00558**

Product Data

Device Name : Dipole 835 MHz
Serial No. : 180-00558
Type : Dipole
Model : ALS-D-835-S-2
Frequency Band : 835
Max. Transmit Pwr : 1 W
Drift Time : 3 min(s)
Power Drift-Start : 10.582 W/kg
Power Drift-Finish : 10.405 W/kg
Power Drift (%) : -1.785

Phantom Data

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

Tissue Data

Type : Body
Serial No. : 270-02101
Frequency : 835.0 MHz
Last Calib. Date : 8-Feb-2014
Temperature : 20.00 °C
Ambient Temp. : 21.00 °C
Humidity : 56.00 RH%
Epsilon : 55.30 F/m
Sigma : 0.95 S/m
Density : 1000.00 kg/cu. m

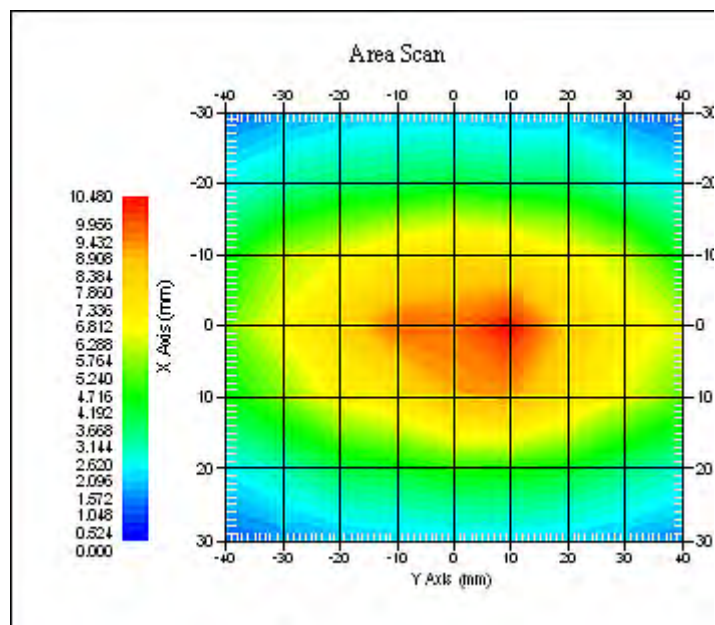
Probe Data

Name : E-Field
Model : E-020
Type : E-Field Triangle
Serial No. : 500-00283
Last Calib. Date : 08-Oct-2013
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

Measurement Data

Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 21.00 °C
Ambient Temp. : 21.00 °C
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

1 gram SAR value : 9.779 W/kg
10 gram SAR value : 6.537 W/kg
Area Scan Peak SAR : 10.479 W/kg
Zoom Scan Peak SAR : 15.107 W/kg



835 MHz System Validation with Body Tissue

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**System Performance Check 1900 MHz Head Liquid****Dipole 1900 MHz; Type: ALS-D-1900-S-2; S/N: 210-00710****Product Data**

Device Name : Dipole 1900MHz
Serial No. : 210-00710
Type : Dipole
Model : ALS-D-1900-S-2
Frequency Band : 1900
Max. Transmit Pwr : 1 W
Drift Time : 3 min(s)
Power Drift-Start : 40.102 W/kg
Power Drift-Finish : 40.523 W/kg
Power Drift (%) : 1.073

Phantom Data

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

Tissue Data

Type : Head
Serial No. : 295-01103
Frequency : 1900.00 MHz
Last Calib. Date : 8-Feb-2014
Temperature : 20.00 °C
Ambient Temp. : 21.00 °C
Humidity : 56.00 RH%
Epsilon : 40.05 F/m
Sigma : 1.40 S/m
Density : 1000.00 kg/cu. M

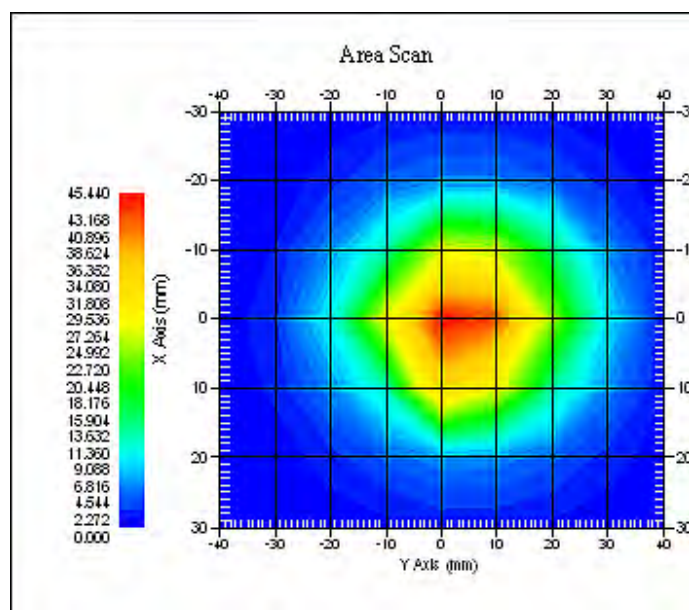
Probe Data

Name : E-Field
Model : E-020
Type : E-Field Triangle
Serial No. : 500-00283
Last Calib. Date : 08-Oct-2013
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 5.2
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

Measurement Data

Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 20.00 °C
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

1 gram SAR value : 39.758 W/kg
10 gram SAR value : 20.596 W/kg
Area Scan Peak SAR : 45.439 W/kg
Zoom Scan Peak SAR : 85.968 W/kg



1900 MHz System Validation with Head Tissue

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**System Performance Check 1900 MHz Body Liquid****Dipole 1900 MHz; Type: ALS-D-1900-S-2; S/N: 210-00710****Product Data**

Device Name : Dipole 1900MHz
Serial No. : 210-00710
Type : Dipole
Model : ALS-D-1900-S-2
Frequency Band : 1900
Max. Transmit Pwr : 1 W
Drift Time : 3 min(s)
Power Drift-Start : 40.022 W/kg
Power Drift-Finish : 39.601 W/kg
Power Drift (%) : -1.035

Phantom Data

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

Tissue Data

Type : Body
Serial No. : 295-02102
Frequency : 1900.00 MHz
Last Calib. Date : 8-Feb-2014
Temperature : 20.00 °C
Ambient Temp. : 21.00 °C
Humidity : 56.00 RH%
Epsilon : 53.77 F/m
Sigma : 1.55 S/m
Density : 1000.00 kg/cu. m

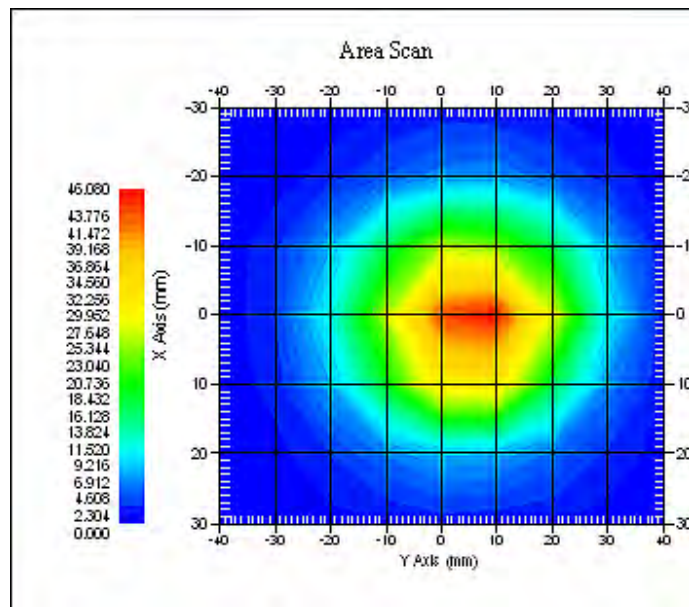
Probe Data

Name : E-Field
Model : E-020
Type : E-Field Triangle
Serial No. : 500-00283
Last Calib. Date : 08-Oct-2013
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 5.0
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

Measurement Data

Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 21.00 °C
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

1 gram SAR value : 39.815 W/kg
10 gram SAR value : 20.963 W/kg
Area Scan Peak SAR : 46.079 W/kg
Zoom Scan Peak SAR : 90.114 W/kg



1900 MHz System Validation with Body Tissue

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**System Performance Check 2450 MHz Head Liquid****Dipole 2450 MHz; Type: ALS-D-2450-S-2; S/N: 220-00758****Product Data**

Device Name : Dipole 2450MHz
Serial No. : 220-00758
Type : Dipole
Model : ALS-D-2450-S-2
Frequency : 2450 MHz
Max. Transmit Pwr : 1 W
Drift Time : 3 min(s)
Power Drift-Start : 51.201 W/kg
Power Drift-Finish : 51.752 W/kg
Power Drift (%) : 1.217

Phantom Data

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

Tissue Data

Type : Head
Serial No. : 290-01109
Frequency : 2450 MHz
Last Calib. Date : 8-Feb-2014
Temperature : 20.00 °C
Ambient Temp. : 21.00 °C
Humidity : 50.00 RH%
Epsilon : 39.69 F/m
Sigma : 1.84 S/m
Density : 1000.00 kg/cu. M

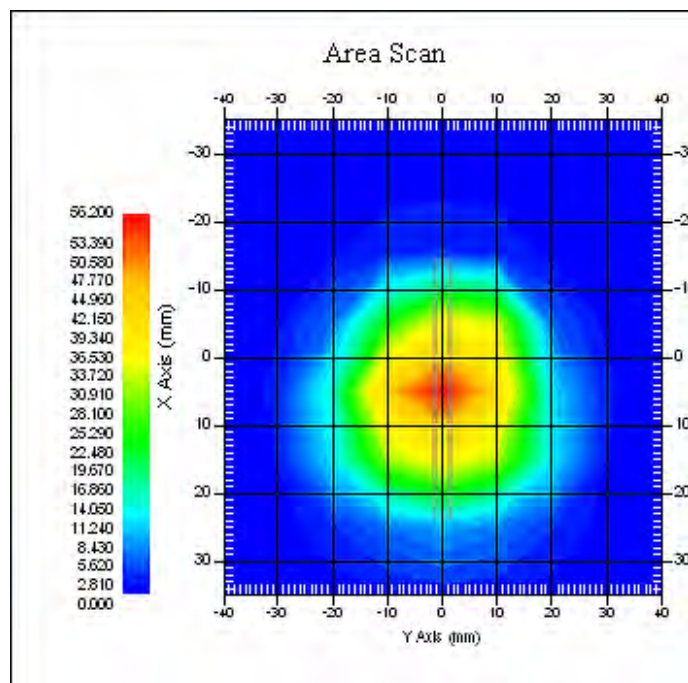
Probe Data

Name : E-Field
Model : E-020
Type : E-Field Triangle
Serial No. : 500-00283
Last Calib. Date : 08-Oct-2013
Frequency : 2450 MHz
Duty Cycle Factor : 1
Conversion Factor : 4.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

Measurement Data

Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 20.00 °C
Area Scan : 7x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

1 gram SAR value : 53.208 W/kg
10 gram SAR value : 23.331 W/kg
Area Scan Peak SAR : 56.198 W/kg
Zoom Scan Peak SAR : 108.630 W/kg



2450 MHz System Validation

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**System Performance Check 2450 MHz Body Liquid****Dipole 2450 MHz; Type: ALS-D-2450-S-2; S/N: 220-00758****Product Data**

Device Name : Dipole 2450MHz
Serial No. : 220-00758
Type : Dipole
Model : ALS-D-2450-S-2
Frequency : 2450 MHz
Max. Transmit Pwr : 1 W
Drift Time : 3 min(s)
Power Drift-Start : 49.050 W/kg
Power Drift-Finish : 48.307 W/kg
Power Drift (%) : -1.629

Phantom Data

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

Tissue Data

Type : BODY
Serial No. : 290-01109
Frequency : 2450 MHz
Last Calib. Date : 8-Feb-2014
Temperature : 20.00 °C
Ambient Temp. : 21.00 °C
Humidity : 50.00 RH%
Epsilon : 51.87 F/m
Sigma : 1.98 S/m
Density : 1000.00 kg/cu. M

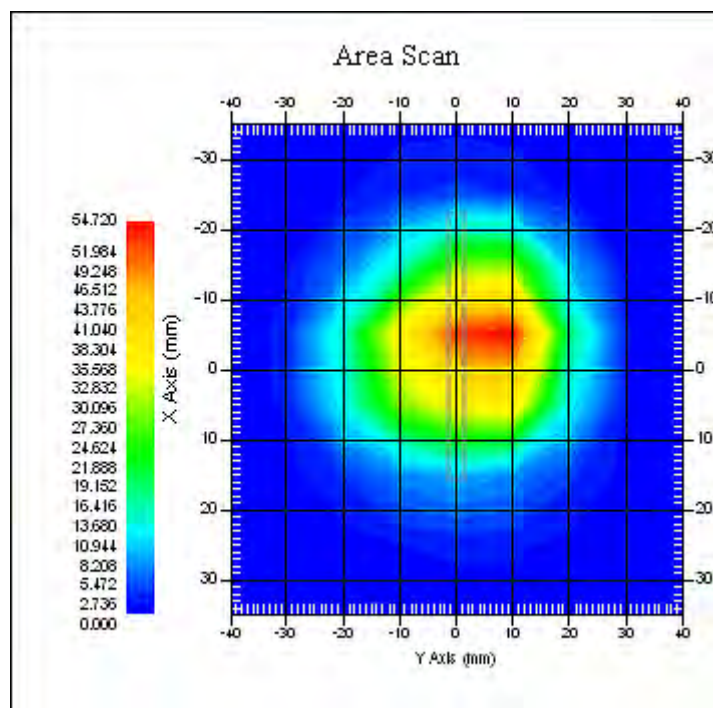
Probe Data

Name : E-Field
Model : E-020
Type : E-Field Triangle
Serial No. : 500-00283
Last Calib. Date : 08-Oct-2013
Frequency : 2450 MHz
Duty Cycle Factor : 1
Conversion Factor : 4.3
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

Measurement Data

Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 20.00 °C
Area Scan : 7x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

1 gram SAR value : 52.989 W/kg
10 gram SAR value : 24.185 W/kg
Area Scan Peak SAR : 54.718 W/kg
Zoom Scan Peak SAR : 97.522 W/kg



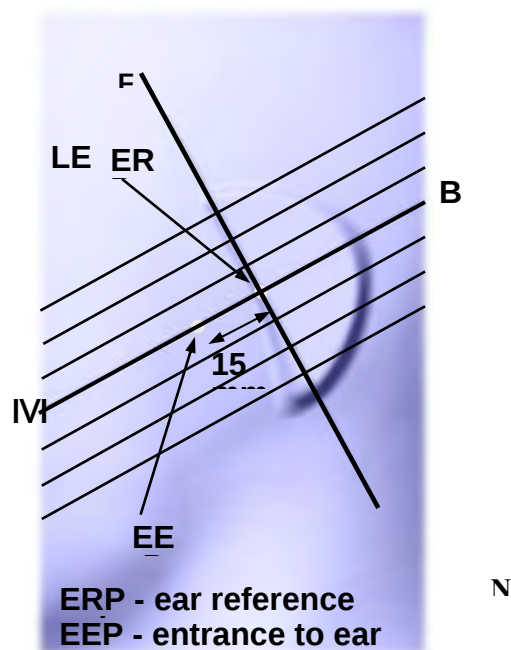
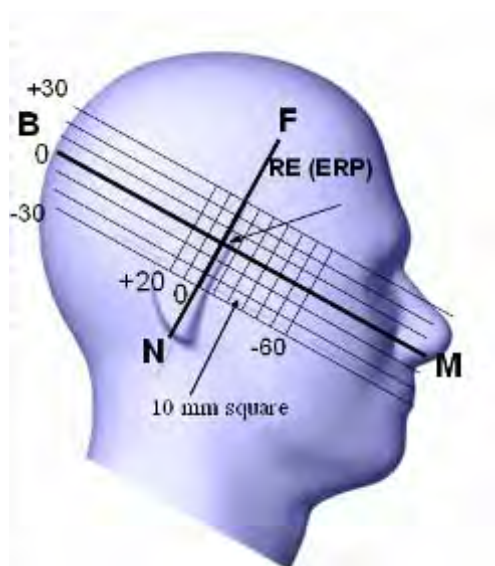
2450 MHz System Validation

EUT TEST STRATEGY AND METHODOLOGY

Test Positions for Device Operating Next to a Person's Ear

This category includes most wireless handsets with fixed, retractable or internal antennas located toward the top half of the device, with or without a foldout, sliding or similar keypad cover. The handset should have its earpiece located within the upper $\frac{1}{4}$ of the device, either along the centerline or off-centered, as perceived by its users. This type of handset should be positioned 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". The "test device reference point" should be located at the same level as the center of the earpiece region. The "vertical centerline" should bisect the front surface of the handset at its top and bottom edges. A "ear reference point" is located on the outer surface of the head phantom on each ear spacer. It is located 1.5 cm above the center of the ear canal entrance in the "phantom reference plane" defined by the three lines joining the center of each "ear reference point" (left and right) and the tip of the mouth.

A handset should be initially positioned with the earpiece region pressed against the ear spacer of a head phantom. For the SCC-34/SC-2 head phantom, the device should be positioned parallel to the "N-F" line defined along the base of the ear spacer that contains the "ear reference point". For interim head phantoms, the device should be positioned parallel to the cheek for maximum RF energy coupling. The "test device reference point" is aligned to the "ear reference point" on the head phantom and the "vertical centerline" is aligned to the "phantom reference plane". This is called the "initial ear position". While maintaining these three alignments, the body of the handset is gradually adjusted to each of the following positions for evaluating SAR:



Cheek/Touch Position

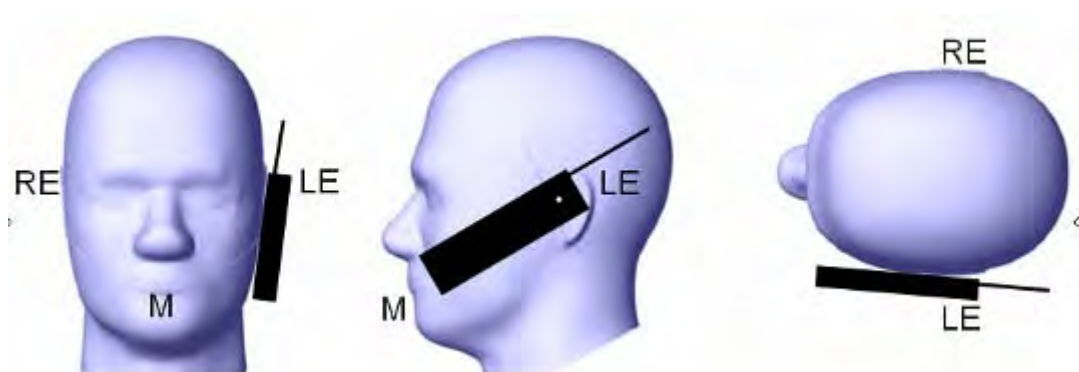
The device is brought toward the mouth of the head phantom by pivoting against the “ear reference point” or along the “N-F” line for the SCC-34/SC-2 head phantom.

This test position is established:

- o When any point on the display, keypad or mouthpiece portions of the handset is in contact with the phantom.
- o (or) When any portion of a foldout, sliding or similar keypad cover opened to its intended self-adjusting normal use position is in contact with the cheek or mouth of the phantom.

For existing head phantoms – when the handset loses contact with the phantom at the pivoting point, rotation should continue until the device touches the cheek of the phantom or breaks its last contact from the ear spacer.

Cheek /Touch Position



Ear/Tilt Position

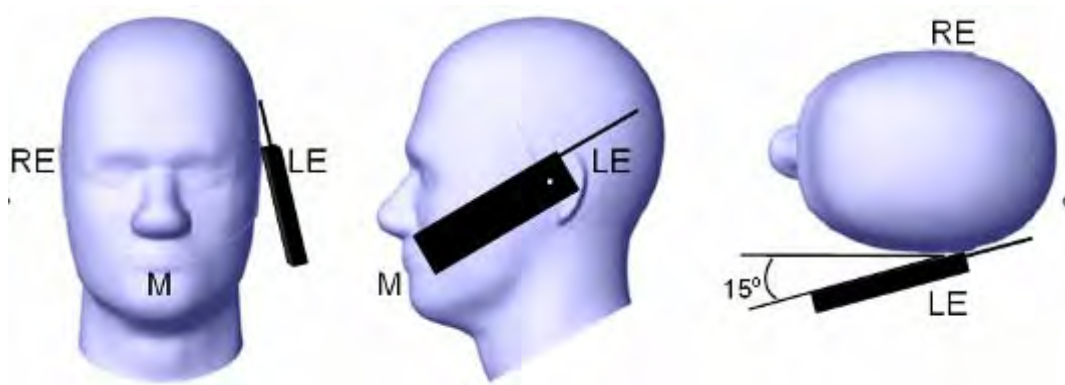
With the handset aligned in the “Cheek/Touch Position”:

1) If the earpiece of the handset is not in full contact with the phantom’s ear spacer (in the “Cheek/Touch position”) and the peak SAR location for the “Cheek/Touch” position is located at the ear spacer region or corresponds to the earpiece region of the handset, the device should be returned to the “initial ear position” by rotating it away from the mouth until the earpiece is in full contact with the ear spacer.

2) (otherwise) The handset should be moved (translated) away from the cheek perpendicular to the line passes through both “ear reference points” (note: one of these ear reference points may not physically exist on a split head model) for approximate 2-3 cm. While it is in this position, the device handset is tilted away from the mouth with respect to the “test device reference point” until the inside angle between the vertical centerline on the front surface of the phone and the horizontal line passing through the ear reference point is by 15 80°. After the tilt, it is then moved (translated) back toward the head perpendicular to the line passes through both “ear reference points” until the device touches the phantom or the ear spacer. If the antenna touches the head first, the positioning process should be repeated with a tilt angle less than 15° so that the device and its antenna would touch the phantom simultaneously. This test position may require a device holder or positioner to achieve the translation and tilting with acceptable positioning repeatability.

If a device is also designed to transmit with its keypad cover closed for operating in the head position, such positions should also be considered in the SAR evaluation. The device should be tested on the left and right side of the head phantom in the “Cheek/Touch” and “Ear/Tilt” positions. When applicable, each configuration should be tested with the antenna in its fully extended and fully retracted positions. These test configurations should be tested at the high, middle and low frequency channels of each operating mode; for example, AMPS, CDMA, and TDMA. If the SAR measured at the middle channel for each test configuration (left, right, Cheek/Touch, Tile/Ear, extended and retracted) is at least 2.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s). If the transmission band of the test device is less than 10 MHz, testing at the high and low frequency channels is optional.

Ear /Tilt 15° Position



Test positions for body-worn and other configurations

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations. Devices with a headset output should be tested with a headset connected to the device. When multiple accessories that do not contain metallic components are supplied with the device, the device may be tested with only the accessory that dictates the closest spacing to the body. When multiple accessories that contain metallic components are supplied with the device, the device must be tested with each accessory that contains a unique metallic component. If multiple accessories share an identical metallic component (e.g., the same metallic belt-clip used with different holsters with no other metallic components), only the accessory that dictates the closest spacing to the body must be tested.

Body-worn accessories may not always be supplied or available as options for some devices that are intended to be authorized for body-worn use. A separation distance of 1.5 cm between the back of the device and a flat phantom is recommended for testing body-worn SAR compliance under such circumstances. Other separation distances may be used, but they should not exceed 2.5 cm. In these cases, the device may use body-worn accessories that provide a separation distance greater than that tested for the device provided however that the accessory contains no metallic components.

SAR Evaluation Procedure

The evaluation was performed with the following procedure:

Step 1: Measurement of the SAR value at a fixed location above the ear point or central position was used as a reference value for assessing the power drop. The SAR at this point is measured at the start of the test and then again at the end of the testing.

Step 2: The SAR distribution at the exposed side of the head was measured at a distance of 4 mm from the inner surface of the shell. The area covered the entire dimension of the head or EUT and the horizontal grid spacing was 10 mm x 10 mm. Based on these data, the area of the maximum absorption was determined by spline interpolation. The first Area Scan covers the entire dimension of the EUT to ensure that the hotspot was correctly identified.

Step 3: Around this point, a volume of 35 mm x 35 mm x 35 mm was assessed by measuring 7x 7 x 7 points. On the basis of this data set, the spatial peak SAR value was evaluated under the following procedure:

- 1) The data at the surface were extrapolated, since the center of the dipoles is 1.2 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.3 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.
- 2) The maximum interpolated value was searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed by the 3D-Spline interpolation algorithm. The 3D-Spline is composed of three one dimensional splines with the "Not a knot"-condition (in x, y and z-directions). The volume was integrated with the trapezoidal-algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the averages.

All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

Step 4: Re-measurement of the SAR value at the same location as in Step 1. If the value changed by more than 5%, the evaluation was repeated.

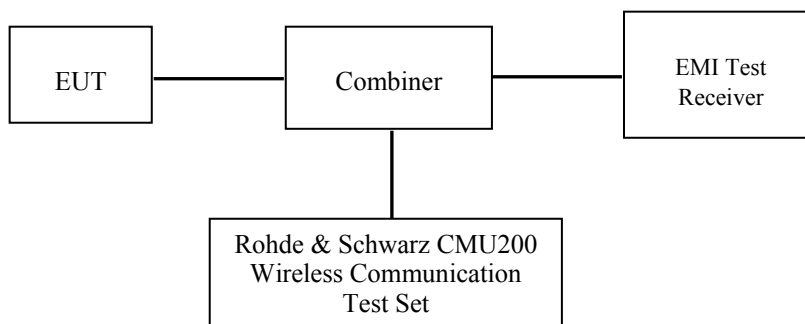
CONDUCTED OUTPUT POWER MEASUREMENT

Provision Applicable

The measured peak output power should be greater and within 5% than EMI measurement.

Test Procedure

The RF output of the transmitter was connected to the input of the EMI Test Receiver through sufficient attenuation.



GSM&3G

Maximum Output Power among production units

Max Target Power for Production Unit (dBm)			
Mode/Band	Channel		
	Low	Middle	High
GSM 850	32.00	32.00	32.00
GPRS 1 slot	32.00	32.00	32.00
GPRS 2 slot	30.50	30.50	30.50
GPRS 3 slot	29.00	29.00	29.00
GPRS 4 slot	26.50	26.50	26.50
PCS 1900	29.00	29.00	29.00
GPRS 1 slot	29.50	29.50	29.50
GPRS 2 slot	27.00	27.00	27.00
GPRS 3 slot	26.00	26.00	26.00
GPRS 4 slot	23.50	23.50	23.50
WCDMA850	24.00	24.00	24.00
WCDMA1900	24.00	24.00	24.00
WiFi 802.11b	15.00	15.00	15.00
WiFi 802.11g	13.00	13.00	13.00
WiFi 802.11n-HT20	11.00	11.00	11.00
Bluetooth	0.50	0.50	0.50

Test Results:**GSM**

Band	Frequency (MHz)	Conducted Output Power	
		Meas. Power (dBm)	Meas. Power (W)
GSM 850	824.2	31.45	1.396
	836.6	31.49	1.409
	848.8	31.89	1.545
PCS 1900	1850.2	28.90	0.776
	1880.0	28.77	0.753
	1909.8	28.60	0.724

GPRS

Band	Channel No.	Frequency (MHz)	RF Output Power (dBm)			
			1 slot	2 slot	3 slots	4 slots
GSM 850	128	824.2	31.45	30.10	28.53	26.28
	190	836.6	31.46	30.12	28.55	26.30
	251	848.8	31.85	30.06	28.55	26.29
PCS 1900	512	1850.2	29.06	26.92	25.53	23.36
	661	1880.0	28.88	26.72	25.33	23.16
	810	1909.8	28.66	26.56	25.12	23.01

EGPRS

Band	Channel No.	Frequency (MHz)	RF Output Power (dBm)			
			1 slot	2 slot	3 slots	4 slots
GSM 850	128	824.2	25.24	25.06	23.97	21.93
	190	836.6	25.46	25.27	24.13	22.11
	251	848.8	25.35	25.25	24.00	22.07
PCS 1900	512	1850.2	24.60	24.39	22.79	20.56
	661	1880.0	24.50	24.36	22.66	20.30
	810	1909.8	24.18	24.06	22.26	19.90

For SAR, the time based average power is relevant, the difference in between depends on the duty cycle of the TDMA signal.

Number of Time slot	1	2	3	4
Duty Cycle	1:8	1:4	1:2.66	1:2
Time based Ave. power compared to slotted Ave. power	-9 dB	-6 dB	-4.25 dB	-3 dB
Crest Factor	8	4	2.66	2

The time based average power for GPRS

Band	Channel No.	Frequency (MHz)	Time based average Power (dBm)			
			1 slot	2 slot	3 slots	4 slots
GSM 850	128	824.2	22.45	24.10	24.28	23.28
	190	836.6	22.46	24.12	24.30	23.30
	251	848.8	22.85	24.06	24.30	23.29
PCS 1900	512	1850.2	20.06	20.92	21.28	20.36
	661	1880.0	19.88	20.72	21.08	20.16
	810	1909.8	19.66	20.56	20.87	20.01

The time based average power for EGPRS

Band	Channel No.	Frequency (MHz)	Time based average Power (dBm)			
			1 slot	2 slot	3 slots	4 slots
GSM 850	128	824.2	16.24	19.06	19.72	18.93
	190	836.6	16.46	19.27	19.88	19.11
	251	848.8	16.35	19.25	19.75	19.07
PCS 1900	512	1850.2	15.60	18.39	18.54	17.56
	661	1880.0	15.50	18.36	18.41	17.30
	810	1909.8	15.18	18.06	18.01	16.90

Note:

1. Rohde & Schwarz Radio Communication Tester (CMU200) was used for the measurement of GSM peak and average output power for active timeslots.
2. For GSM voice, 1 timeslot has been activated with power level 5 (850 MHz band) and 0 (1900 MHz band).
3. For GPRS, 1, 3 timeslots has been activated separately with power level 5(850 MHz band) and 0(1900 MHz band).
4. For E-GPRS, 1, 2, 3 and 4 timeslots has been activated separately with power control level 8(850 MHz band) and 2(1900 MHz band).
5. The max average output power of the GPRS mode is more than 2 dB higher than the EGPRS measured in the same frequency band, according to IEEE1528, the SAR of EGPRS mode is not required.

WCDMA-Release 99:

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification. The EUT has a nominal maximum output power of 24dBm (+1.7/-3.7).

WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2 kbps RMC
	Power Control Algorithm	Algorithm2
	β_c / β_d	8/15

Results (12.2kbps RMC)

Band	Frequency (MHz)	Channel NO.	Conducted Output Power	
			(dBm)	(Watt)
WCDMA 850	826.4	4132	23.63	0.231
	836.6	4183	23.65	0.232
	846.6	4233	23.62	0.230
WCDMA 1900	1852.4	9262	23.81	0.240
	1880.0	9400	23.91	0.246
	1907.6	9538	23.77	0.238

WCDMA HSDPA

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subset	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2 kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm2			
	β_c	2/15	12/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	β_d (SF)	64			
	β_c / β_d	2/15	12/15	15/8	15/4
	β_{hs}	4/15	24/15	30/15	30/15
	MPR(dB)	0	0	0.5	0.5
HSDPA Specific Settings	D_{ACK}	8			
	D_{NAK}	8			
	D_{CQI}	8			
	Ack-Nack repetition factor	3			
	CQI Feedback	4ms			
	CQI Repetition Factor	2			
	$A_{hs} = \beta_{hs} / \beta_c$	30/15			

Results (HSDPA)

Band	Frequency (MHz)	Channel NO.	Conducted Output Power (dBm)			
			Subset 1	Subset 2	Subset 3	Subset 4
WCDMA 850	826.4	4132	23.76	23.73	23.77	23.68
	836.6	4183	23.71	23.71	23.70	23.75
	846.6	4233	23.62	23.73	23.75	23.69
WCDMA 1900	1852.4	9262	23.94	23.87	23.91	23.90
	1880.0	9400	24.01	24.03	24.00	24.05
	1907.6	9538	23.83	23.89	23.91	23.90

WCDMA HSUPA

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

	Mode	HSUPA	HSUPA	HSUPA	HSUPA	HSUPA
	Subset	1	2	3	4	5
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2 kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	β_c	11/15	6/15	15/15	2/15	15/15
	β_d	15/15	15/15	9/15	15/15	0
	β_{ec}	209/225	12/15	30/15	2/15	5/15
	β_c / β_d	11/15	6/15	15/9	2/15	-
	β_{hs}	22/15	12/15	30/15	4/15	5/15
	CM(dB)	1.0	3.0	2.0	3.0	1.0
	MPR(dB)	0	2	1	2	0
HSDPA Specific Settings	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback	4ms				
	CQI Repetition Factor	2				
	$A_{hs} = \beta_{hs} / \beta_c$	30/15				
HSUPA Specific Settings	DE-DPCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	ETFCI	75	67	92	71	81
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9
	Reference E_FCI	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27		E-TFCI 11 E-TFCI PO4 E-TFCI 92 E-TFCI PO 18	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27	

Results (HSUPA)

Band	Frequency (MHz)	Channel NO.	Conducted Output Power (dBm)				
			Subset 1	Subset 2	Subset 3	Subset 4	Subset 5
WCDMA 850	826.4	4132	23.71	23.69	23.75	23.73	23.74
	836.6	4183	23.71	23.78	23.71	23.72	23.76
	846.6	4233	23.73	23.72	23.76	23.73	23.75
WCDMA 1900	1852.4	9262	23.89	23.89	23.88	23.86	23.93
	1880.0	9400	23.98	24.00	24.01	24.01	24.00
	1907.6	9538	23.83	23.89	23.91	23.90	23.88

Note:

1. The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model 1.
2. KDB 941225 D01-Body SAR is not required for HSDPA when the maximum average output of each RF channel with HSDPA active is less than ¼ dB higher than measured without HSDPA using 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.
3. KDB 941225 D01-Body SAR is not required for HSUPA when the maximum average output of each RF channel with HSUPA active is less than ¼ dB higher than measured without HSUPA using 12.2kbps RMC and the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.

Bluetooth

Mode	Channel frequency (MHz)	Reading power (dBm)	Power output (mw)
BDR(GFSK)	(Low)2402	0.14	1.033
	(Middle)2441	-0.02	0.995
	(High)2480	0.49	1.119
EDR(4-DQPSK)	(Low)2402	-0.07	0.984
	(Middle)2441	-0.25	0.944
	(High)2480	0.39	1.094

WiFi

Band	Frequency (MHz)	Conducted Output Power	
		(dBm)	(mw)
802.11b	2412	14.90	30.903
	2437	14.57	28.642
	2462	14.56	28.576
802.11g	2412	12.90	19.498
	2437	12.77	18.923
	2462	12.83	19.187
802.11n-HT20	2412	10.66	11.641
	2437	10.16	10.375
	2462	10.53	11.298

Note:

1. The output power was tested under data rate 1 Mbps for 802.11b, 6 Mbps for 802.11g, 6.5 Mbps for 802.11n-HT20.

SAR MEASUREMENT RESULTS

This page summarizes the results of the performed dosimetric evaluation.

SAR Test Data

Environmental Conditions

Temperature:	21-24 °C
Relative Humidity:	50-53 %
ATM Pressure:	1001-1002 mbar

Testing was performed by Wilson Chen from 2014-2-8 to 2014-02-10.

GSM 850:

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Left Head Cheek	128(Low)	824.2	GSM	/	/	/	/	/	/
	190(Middle)	836.6	GSM	-0.841	31.49	32.00	1.124	0.440	0.495
	251(High)	848.8	GSM	/	/	/	/	/	/
Left Head Tilt	128(Low)	824.2	GSM	/	/	/	/	/	/
	190(Middle)	836.6	GSM	1.205	31.49	32.00	1.124	0.213	0.239
	251(High)	848.8	GSM	/	/	/	/	/	/
Right Head Cheek	128(Low)	824.2	GSM	-1.125	31.45	32.00	1.136	0.377	0.428
	190(Middle)	836.6	GSM	0.946	31.49	32.00	1.124	0.451	0.507
	251(High)	848.8	GSM	-1.748	31.89	32.00	1.052	0.483	0.508
Right Head Tilt	128(Low)	824.2	GSM	/	/	/	/	/	/
	190(Middle)	836.6	GSM	0.633	31.49	32.00	1.124	0.302	0.339
	251(High)	848.8	GSM	/	/	/	/	/	/
Body-Front-Headset (10mm)	128(Low)	824.2	GSM	/	/	/	/	/	/
	190(Middle)	836.6	GSM	1.598	31.49	32.00	1.124	0.375	0.422
	251(High)	848.8	GSM	/	/	/	/	/	/
Body-Back-Headset (10mm)	128(Low)	824.2	GSM	/	/	/	/	/	/
	190(Middle)	836.6	GSM	1.009	31.49	32.00	1.124	0.437	0.491
	251(High)	848.8	GSM	/	/	/	/	/	/

PCS Band:

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Left Head Cheek	512(Low)	1850.2	GSM	/	/	/	/	/	/
	661(Middle)	1880.0	GSM	-0.946	28.77	29.00	1.030	0.235	0.242
	810(High)	1909.8	GSM	/	/	/	/	/	/
Left Head Tilt	512(Low)	1850.2	GSM	/	/	/	/	/	/
	661(Middle)	1880.0	GSM	1.417	28.77	29.00	1.030	0.042	0.043
	810(High)	1909.8	GSM	/	/	/	/	/	/
Right Head Cheek	512(Low)	1850.2	GSM	-1.633	28.90	29.00	1.023	0.182	0.186
	661(Middle)	1880.0	GSM	-0.753	28.77	29.00	1.030	0.245	0.252
	810(High)	1909.8	GSM	1.092	28.60	29.00	1.096	0.258	0.283
Right Head Tilt	512(Low)	1850.2	GSM	/	/	/	/	/	/
	661(Middle)	1880.0	GSM	-2.108	28.77	29.00	1.030	0.041	0.042
	810(High)	1909.8	GSM	/	/	/	/	/	/
Body-Front-Headset (10mm)	512(Low)	1850.2	GSM	/	/	/	/	/	/
	661(Middle)	1880.0	GSM	2.601	28.77	29.00	1.030	0.223	0.230
	810(High)	1909.8	GSM	/	/	/	/	/	/
Body-Back-Headset (10mm)	512(Low)	1850.2	GSM	/	/	/	/	/	/
	661(Middle)	1880.0	GSM	-1.869	28.77	29.00	1.030	0.256	0.264
	810(High)	1909.8	GSM	/	/	/	/	/	/

Note:

1. When the 1-g SAR is $\leq 0.8\text{W/Kg}$, testing for other channels are optional.
2. The EUT transmit and receive through the same GSM antenna while testing SAR.
3. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

WCDMA 850

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Left Head Cheek	4132	826.4	WCDMA 850	/	/	/	/	/	/
	4183	836.6	WCDMA 850	2.041	23.65	24.00	1.084	0.749	0.812
	4233	846.6	WCDMA 850	/	/	/	/	/	/
Left Head Tilt	4132	826.4	WCDMA 850	/	/	/	/	/	/
	4183	836.6	WCDMA 850	-0.844	23.65	24.00	1.084	0.352	0.382
	4233	846.6	WCDMA 850	/	/	/	/	/	/
Right Head Cheek	4132	826.4	WCDMA 850	-2.647	23.63	24.00	1.089	0.735	0.800
	4183	836.6	WCDMA 850	1.184	23.65	24.00	1.084	0.786	0.852
	4233	846.6	WCDMA 850	-0.528	23.62	24.00	1.091	0.706	0.770
Right Head Tilt	4132	826.4	WCDMA 850	/	/	/	/	/	/
	4183	836.6	WCDMA 850	0.368	23.65	24.00	1.084	0.341	0.370
	4233	846.6	WCDMA 850	/	/	/	/	/	/

WCDMA1900

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Left Head Cheek	9262	1852.4	WCDMA1900	-1.027	23.81	24.00	1.045	0.520	0.543
	9400	1880.0	WCDMA1900	0.515	23.91	24.00	1.021	0.762	0.778
	9538	1907.6	WCDMA1900	-0.901	23.77	24.00	1.054	0.571	0.602
Left Head Tilt	9262	1852.4	WCDMA1900	/	/	/	/	/	/
	9400	1880.0	WCDMA1900	-1.859	23.91	24.00	1.021	0.139	0.142
	9538	1907.6	WCDMA1900	/	/	/	/	/	/
Right Head Cheek	9262	1852.4	WCDMA1900	/	/	/	/	/	/
	9400	1880.0	WCDMA1900	2.227	23.91	24.00	1.021	0.755	0.771
	9538	1907.6	WCDMA1900	/	/	/	/	/	/
Right Head Tilt	9262	1852.4	WCDMA1900	/	/	/	/	/	/
	9400	1880.0	WCDMA1900	-2.185	23.91	24.00	1.021	0.153	0.156
	9538	1907.6	WCDMA1900	/	/	/	/	/	/

Note:

1. When the 1-g SAR is $\leq 0.8\text{W/Kg}$, testing for other channels are optional.
2. The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model.
3. KDB 941225 D01-Body SAR is not required for HSDPA when the maximum average output of each RF channel with HSDPA active is less than $\frac{1}{4}$ dB higher than measured without HSDPA using 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is $< 75\%$ of SAR limit.

4. KDB 941225 D01-Body SAR is not required for HSUPA when the maximum average output of each RF channel with HSUPA active is less than ¼ dB higher than measured without HSUPA using 12.2kbps RMC and the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.
5. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

WiFi

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Left Head Cheek	1	2412	802.11b						
	6	2437	802.11b	1.195	14.57	15.00	1.105	0.104	0.115
	11	2462	802.11b						
Left Head Tilt	1	2412	802.11b						
	6	2437	802.11b	2.825	14.57	15.00	1.105	0.037	0.041
	11	2462	802.11b						
Right Head Cheek	1	2412	802.11b	-1.221	14.90	15.00	1.003	0.129	0.129
	6	2437	802.11b	-1.102	14.57	15.00	1.105	0.125	0.138
	11	2462	802.11b	1.859	14.56	15.00	1.107	0.134	0.148
Right Head Tilt	1	2412	802.11b						
	6	2437	802.11b	0.958	14.57	15.00	1.105	0.107	0.118
	11	2462	802.11b	/	/	/	/	/	/

Note

1. When the 1-g SAR is $\leq 0.8\text{W/Kg}$, testing for other channels are optional.
2. KDB447498D01-When the maximum output power variation across the required test channels is $> \frac{1}{2}$ dB, instead of the middle channel, the highest output power channel must be used.
3. KDB 248227- SAR is not required for 802.11g channels when the maximum average output power is less than ¼ dB higher than that measured on the corresponding 802.11b channels.
4. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

Mobile Hot-Spot Test Result

The DUT is capable of functioning as a WiFi to Cellular Mobile hotspot. Additional SAR testing was performed according to KDB 941225 D06. Testing was performed with a separation of 1cm between the DUT and the flat phantom. The DUT was positioned for SAR tests with the front and back surfaces facing the phantom, and also with the edges facing the phantom in which the transmitting antenna is <2.5 cm from the edge. Each transmit band was utilized for SAR testing. The tested mode has been selected within each band that exhibits the highest time average output power.

Hot spot-GPRS (Frequency Band: 835)

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Body-Front (10mm)	128(Low)	824.2	GPRS	/	/	/	/	/	/
	190(Middle)	836.6	GPRS	-2.102	28.55	29.00	1.109	0.729	0.808
	251(High)	848.8	GPRS	/	/	/	/	/	/
Body-Back (10mm)	128(Low)	824.2	GPRS	-1.563	28.53	29.00	1.114	0.780	0.869
	190(Middle)	836.6	GPRS	1.311	28.55	29.00	1.109	0.950	1.054
	251(High)	848.8	GPRS	-1.929	28.55	29.00	1.109	0.742	0.823
Body-Left (10mm)	128(Low)	824.2	GPRS	/	/	/	/	/	/
	190(Middle)	836.6	GPRS	-0.942	28.55	29.00	1.109	0.422	0.468
	251(High)	848.8	GPRS	/	/	/	/	/	/
Body-Right (10mm)	128(Low)	824.2	GPRS	/	/	/	/	/	/
	190(Middle)	836.6	GPRS	1.586	28.55	29.00	1.109	0.383	0.425
	251(High)	848.8	GPRS	/	/	/	/	/	/
Body-Bottom (10mm)	128(Low)	824.2	GPRS	/	/	/	/	/	/
	190(Middle)	836.6	GPRS	-1.968	28.55	29.00	1.109	0.071	0.079
	251(High)	848.8	GPRS	/	/	/	/	/	/

Note:

1. When the 1-g SAR is $\leq 0.8\text{W/Kg}$, testing for other channels are optional.
2. The EUT is a Capability Class B mobile phone which can be attached to both GPRS and GSM services.
3. The Multi-slot Classes of EUT is Class 12 which has maximum 4 Downlink slots and 4 Uplink slots, the maximum active slots is 5, when perform the multiple slots scan, 2DL+3UL is the worst case.
4. The EUT transmit and receive through the same GSM antenna while testing SAR.
5. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

Hot spot-GPRS (Frequency Band: 1900)

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Body-Front (10mm)	512(Low)	1850.2	GPRS	/	/	/	/	/	/
	661(Middle)	1880.0	GPRS	1.305	25.33	26.00	1.167	0.440	0.513
	810(High)	1909.8	GPRS	/	/	/	/	/	/
Body-Back (10mm)	512(Low)	1850.2	GPRS	/	/	/	/	/	/
	661(Middle)	1880.0	GPRS	-1.789	25.33	26.00	1.167	0.493	0.575
	810(High)	1909.8	GPRS	/	/	/	/	/	/
Body-Left (10mm)	512(Low)	1850.2	GPRS	/	/	/	/	/	/
	661(Middle)	1880.0	GPRS	-1.629	25.33	26.00	1.167	0.176	0.205
	810(High)	1909.8	GPRS	/	/	/	/	/	/
Body-Right (10mm)	512(Low)	1850.2	GPRS	/	/	/	/	/	/
	661(Middle)	1880.0	GPRS	1.235	25.33	26.00	1.167	0.095	0.111
	810(High)	1909.8	GPRS	/	/	/	/	/	/
Body-Bottom (10mm)	512(Low)	1850.2	GPRS	-1.129	25.53	26.00	1.114	1.017	1.133
	661(Middle)	1880.0	GPRS	1.339	25.33	26.00	1.167	1.132	1.321
	810(High)	1909.8	GPRS	1.301	25.12	26.00	1.225	1.057	1.295

Note:

1. When the 1-g SAR is $\leq 0.8\text{W/Kg}$, testing for other channels are optional.
2. The EUT is a Capability Class B mobile phone which can be attached to both GPRS and GSM services.
3. The Multi-slot Classes of EUT is Class12 which has maximum 4 Downlink slots and 4 Uplink slots, the maximum active slots is 5, when perform the multiple slots scan, 2DL+3UL is the worst case.
4. The EUT transmit and receive through the same GSM antenna while testing SAR.
5. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

Hot Spot-WCDMA850

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Body-Front (10mm)	4132	826.4	WCDMA850	/	/	/	/	/	/
	4183	836.6	WCDMA850	-0.804	23.65	24.00	1.084	0.600	0.650
	4233	846.6	WCDMA850	/	/	/	/	/	/
Body-Back (10mm)	4132	826.4	WCDMA850	/	/	/	/	/	/
	4183	836.6	WCDMA850	1.629	23.65	24.00	1.084	0.703	0.762
	4233	846.6	WCDMA850	/	/	/	/	/	/
Body-Left (10mm)	4132	826.4	WCDMA850	/	/	/	/	/	/
	4183	836.6	WCDMA850	-1.785	23.65	24.00	1.084	0.372	0.403
	4233	846.6	WCDMA850	/	/	/	/	/	/
Body-Right (10mm)	4132	826.4	WCDMA850	/	/	/	/	/	/
	4183	836.6	WCDMA850	-1.055	23.65	24.00	1.084	0.437	0.474
	4233	846.6	WCDMA850	/	/	/	/	/	/
Body-Bottom (10mm)	4132	826.4	WCDMA850	/	/	/	/	/	/
	4183	836.6	WCDMA850	-0.158	23.65	24.00	1.084	0.036	0.039
	4233	846.6	WCDMA850	/	/	/	/	/	/

Hot Spot-WCDMA1900

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Body-Front (10mm)	9262	1852.4	WCDMA1900	/	/	/	/	/	/
	9400	1880.0	WCDMA1900	-1.305	23.91	24.00	1.021	0.330	0.337
	9538	1907.6	WCDMA1900	/	/	/	/	/	/
Body-Back (10mm)	9262	1852.4	WCDMA1900	/	/	/	/	/	/
	9400	1880.0	WCDMA1900	1.485	23.91	24.00	1.021	0.484	0.494
	9538	1907.6	WCDMA1900	/	/	/	/	/	/
Body-Left (10mm)	9262	1852.4	WCDMA1900	/	/	/	/	/	/
	9400	1880.0	WCDMA1900	-1.705	23.91	24.00	1.021	0.019	0.019
	9538	1907.6	WCDMA1900	/	/	/	/	/	/
Body-Right (10mm)	9262	1852.4	WCDMA1900	/	/	/	/	/	/
	9400	1880.0	WCDMA1900	0.807	23.91	24.00	1.021	0.001	0.001
	9538	1907.6	WCDMA1900	/	/	/	/	/	/
Body-Bottom (10mm)	9262	1852.4	WCDMA1900	/	/	/	/	/	/
	9400	1880.0	WCDMA1900	-1.878	23.91	24.00	1.021	0.469	0.479
	9538	1907.6	WCDMA1900	/	/	/	/	/	/

Note:

1. When the 1-g SAR is $\leq 0.8\text{W/Kg}$, testing for other channels are optional.
2. The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model.
3. KDB 941225 D01-Body SAR is not required for HSDPA when the maximum average output of each RF channel with HSDPA active is less than $\frac{1}{4}$ dB higher than measured without HSDPA using 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is $< 75\%$ of SAR limit.
4. KDB 941225 D01-Body SAR is not required for HSUPA when the maximum average output of each RF channel with HSUPA active is less than $\frac{1}{4}$ dB higher than measured without HSUPA using 12.2kbps RMC and the maximum SAR for 12.2kbps RMC is $< 75\%$ of SAR limit.

Hot Spot-WiFi(802.11b)

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Body-Front (10mm)	1	2412	802.11b	/	/	/	/	/	/
	6	2437	802.11b	-0.429	14.90	15.00	1.023	0.002	0.002
	11	2462	802.11b	/	/	/	/	/	/
Body-Back (10mm)	1	2412	802.11b	/	/	/	/	/	/
	6	2437	802.11b	-1.334	14.90	15.00	1.023	0.063	0.064
	11	2462	802.11b	/	/	/	/	/	/
Body-Left (10mm)	1	2412	802.11b	/	/	/	/	/	/
	6	2437	802.11b	2.354	14.90	15.00	1.023	0.001	0.001
	11	2462	802.11b	/	/	/	/	/	/
Body-Top (10mm)	1	2412	802.11b	/	/	/	/	/	/
	6	2437	802.11b	-1.007	14.90	15.00	1.023	0.036	0.037
	11	2462	802.11b	/	/	/	/	/	/

Note:

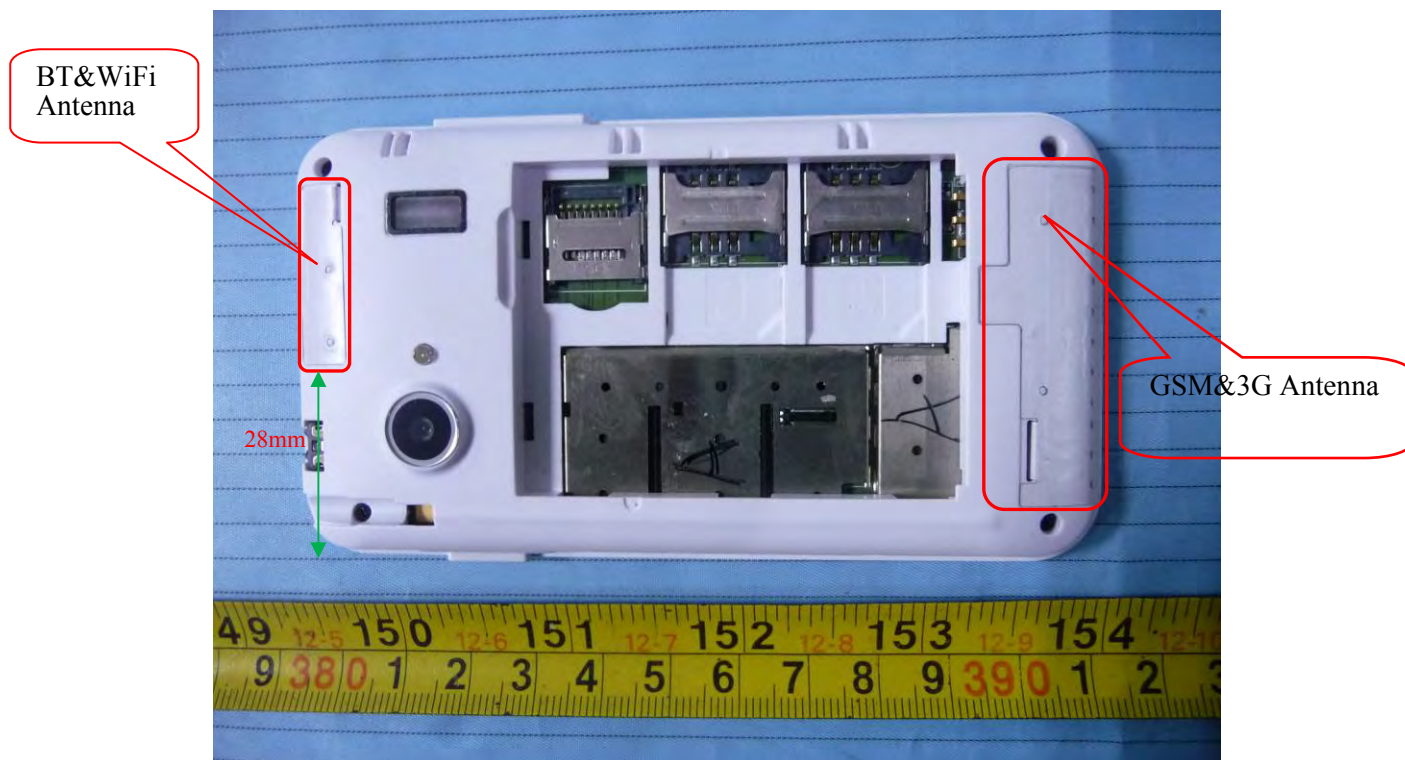
1. When the 1-g SAR is $\leq 0.8\text{W/Kg}$, testing for other channels are optional.
2. KDB447498D01-When the maximum output power variation across the required test channels is $> \frac{1}{2}$ dB, instead of the middle channel, the highest output power channel must be used.
3. KDB 248227- SAR is not required for 802.11g channels when the maximum average output power is less than $\frac{1}{4}$ dB higher than that measured on the corresponding 802.11b channels.
4. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

SAR SIMULTANEOUS TRANSMISSION DESCRIPTION

KDB 447498D01 General RF Exposure Guidance v05r02

Stand-alone and simultaneous SAR evaluation for a cell phone with multiple transmitters is based on the antennas distance of each radio.

BT, WiFi, GSM and 3G Antenna Location:



Antenna Information:

Description of Simultaneous Transmit Capabilities			Antennas Distance (mm)
Transmitter Combination	Simultaneous?	Hotspot?	
GSM + GPRS	×	×	0
GSM + WCDMA	×	×	0
GSM + Bluetooth	√	×	95
GSM + WiFi	√	√	95
GPRS + WCDMA	×	×	0
GPRS + Bluetooth	√	×	95
GPRS + WiFi	√	√	95
WCDMA + Bluetooth	√	×	95
WCDMA + WiFi	√	√	95

Standalone SAR test exclusion considerations

Head Position:

Mode	Frequency (MHz)	P _{avg} (dBm)	P _{avg} (mW)	Distance (mm)	Calculated value	Threshold (1-g)	SAR Test Exclusion
GSM850	850	22.89	194.536	0	35.9	3.0	No
PCS1900	1900	19.90	97.724	0	26.9	3.0	No
WCDMA850	850	23.65	231.739	0	42.7	3.0	No
WCDMA1900	1900	23.91	246.037	0	67.8	3.0	No
Bluetooth	2450	0.49	1.119	0	0.4	3.0	Yes
WiFi	2450	14.90	30.903	0	9.7	3.0	No

Body Position:

Mode	Frequency (MHz)	P _{avg} (dBm)	P _{avg} (mW)	Distance (mm)	Calculated value	Threshold (1-g)	SAR Test Exclusion
GSM850	850	24.30	269.153	10	24.8	3.0	No
PCS1900	1900	21.28	134.276	10	18.5	3.0	No
WCDMA850	850	23.65	231.739	10	21.4	3.0	No
WCDMA1900	1900	23.91	246.037	10	33.9	3.0	No
Bluetooth	2450	0.49	1.119	10	0.2	3.0	Yes
WiFi	2450	14.90	30.903	10	4.8	3.0	No

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot$

$[\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

1. $f(\text{GHz})$ is the RF channel transmit frequency in GHz.
2. Power and distance are rounded to the nearest mW and mm before calculation.
3. The result is rounded to one decimal place for comparison.
4. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.

Simultaneous SAR test exclusion considerations:

Mode	Frequency (GHz)	Distance (mm)	P _{avg} (dBm)	P _{avg} (mW)	Estimated I-g (W/kg)
Bluetooth Head	2.45	0	0.50	1.122	0.047
Bluetooth Body	2.45	10	0.50	1.122	0.024

GSM with BT:

Mode	Position	Reported SAR (W/kg)		ΣSAR
		GSM	BT	(W/kg)
GSM850	Left Head Cheek	0.495	0.047	0.542
	Left Head Tile	0.239	0.047	0.286
	Right Head Cheek	0.508	0.047	0.555
	Right Head Tilt	0.339	0.047	0.386
	Body–Headset-Front	0.422	0.047	0.469
	Body–Headset-Back	0.491	0.047	0.538
PCS1900	Left Head Cheek	0.242	0.047	0.289
	Left Head Tile	0.043	0.047	0.09
	Right Head Cheek	0.283	0.047	0.33
	Right Head Tilt	0.042	0.047	0.089
	Body–Headset-Front	0.230	0.024	0.254
	Body–Headset-Back	0.264	0.024	0.288

WCDMA with BT:

Mode	Position	Reported SAR (W/kg)		ΣSAR
		WCDMA	BT	(W/kg)
WCDMA 850	Left Head Cheek	0.812	0.047	0.859
	Left Head Tile	0.382	0.047	0.429
	Right Head Cheek	0.852	0.047	0.899
	Right Head Tilt	0.370	0.047	0.417
	Body–Headset-Front	0.650	0.024	0.674
	Body–Headset-Back	0.762	0.024	0.786
WCDMA 1900	Left Head Cheek	0.778	0.047	0.825
	Left Head Tile	0.142	0.047	0.189
	Right Head Cheek	0.771	0.047	0.818
	Right Head Tilt	0.156	0.047	0.203
	Body–Headset-Front	0.337	0.024	0.361
	Body–Headset-Back	0.494	0.024	0.518

GSM with WiFi:

Mode	Position	Reported SAR (W/kg)		ΣSAR
		GSM	WiFi	(W/kg)
GSM850	Left Head Cheek	0.495	0.115	0.610
	Left Head Tile	0.239	0.041	0.280
	Right Head Cheek	0.508	0.148	0.656
	Right Head Tilt	0.339	0.118	0.457
	Body–Headset-Front	0.422	0.002	0.424
	Body–Headset-Back	0.491	0.064	0.555
PCS1900	Left Head Cheek	0.242	0.115	0.357
	Left Head Tile	0.043	0.041	0.084
	Right Head Cheek	0.283	0.148	0.431
	Right Head Tilt	0.042	0.118	0.160
	Body–Headset-Front	0.230	0.002	0.232
	Body–Headset-Back	0.264	0.064	0.328

WCDMA with WiFi:

Mode	Position	Reported SAR (W/kg)		ΣSAR
		WCDMA	WiFi	(W/kg)
WCDMA 850	Left Head Cheek	0.812	0.115	0.927
	Left Head Tile	0.382	0.041	0.423
	Right Head Cheek	0.852	0.148	1.000
	Right Head Tilt	0.370	0.118	0.488
	Body–Headset-Front	0.650	0.002	0.652
	Body–Headset-Back	0.762	0.064	0.826
WCDMA 1900	Left Head Cheek	0.778	0.115	0.893
	Left Head Tile	0.142	0.041	0.183
	Right Head Cheek	0.771	0.148	0.919
	Right Head Tilt	0.156	0.118	0.274
	Body–Headset-Front	0.337	0.002	0.339
	Body–Headset-Back	0.494	0.064	0.558

Note:

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}/x]$$

W/kg for test separation distances ≤ 50 mm;

where $x = 7.5$ for 1-g SAR.

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion

Conclusion:

$\Sigma\text{SAR} < 1.6 \text{ W/kg}$ therefore simultaneous transmission SAR with Volume Scans is **not** required.

Hotspot:

Evaluations for Simultaneous SAR, Mobile Hot Spot Positions						
Test Position	Body-Front (1.0cm)	Body-Back (1.0cm)	Body-Left (1.0cm)	Body-Right (1.0cm)	Body-Bottom (1.0cm)	Body-Top (1.0cm)
Mode	Stand Alone 1-g SAR (W/Kg)					
GSM 850	0.808	1.054	0.468	0.425	0.079	/
PCS 1900	0.513	0.575	0.205	0.111	1.321	/
WCDMA850	0.650	0.762	0.403	0.474	0.039	/
WCDMA 1900	0.337	0.494	0.019	0.090	0.479	/
WiFi	0.002	0.064	0.001	/	/	0.037
	Σ 1-g SAR (W/Kg)					
GSM850 + WiFi	0.810	1.118	0.469	/	/	/
PCS 1900 + WiFi	0.515	0.639	0.206	/	/	/
WCDMA850 + WiFi	0.652	0.826	0.404	/	/	/
WCDMA 1900 + WiFi	0.339	0.558	0.020	/	/	/

Note:

If the sum of the 1g SAR measured for the simultaneously transmitting antennas is less than the SAR limit, SAR measurement for simultaneous transmission is not required.

EUT SCAN RESULTS

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Left Head Cheek (836.6 MHz Middle Channel)

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : -0.841

Tissue Data

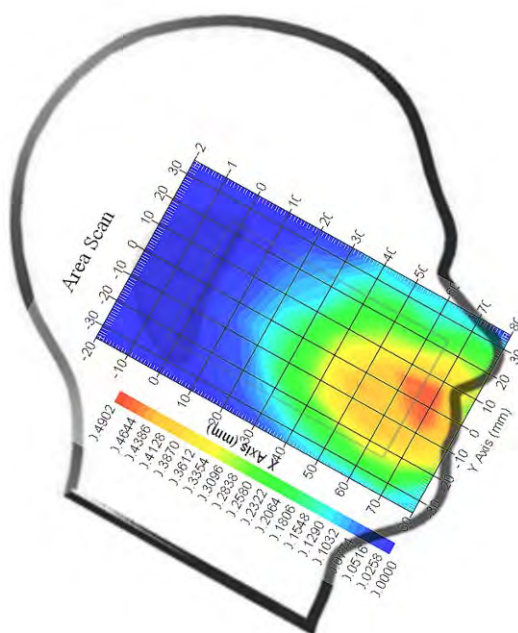
Type : Head
Frequency : 836.6 MHz
Epsilon : 41.14 F/m
Sigma : 0.91 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 8
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.440 W/kg
10 gram SAR value : 0.325 W/kg
Area Scan Peak SAR : 0.478 W/kg
Zoom Scan Peak SAR : 0.650 W/kg

Plot 1#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Left Head Tilt (836.6 MHz Middle Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : 1.205

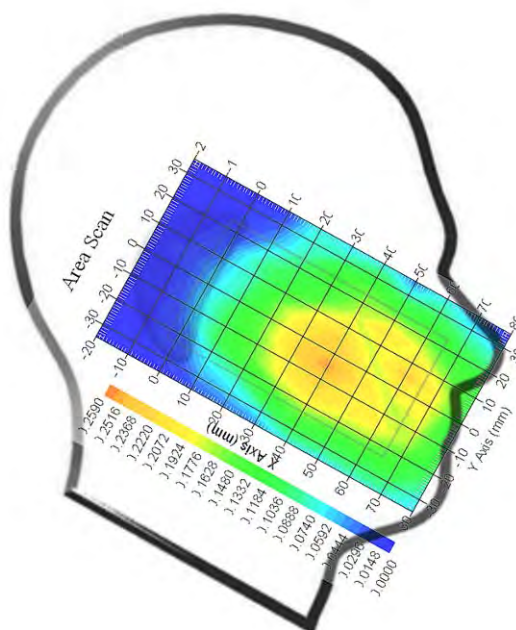
Tissue Data

Type : Head
Frequency : 836.6 MHz
Epsilon : 41.14 F/m
Sigma : 0.91 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 8
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.213 W/kg
10 gram SAR value : 0.160 W/kg
Area Scan Peak SAR : 0.254 W/kg
Zoom Scan Peak SAR : 0.410 W/kg

Plot 2#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Right Head Cheek (824.2 MHz Low Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.002 W/kg
Power Drift-Finish : 0.002 W/kg
Power Drift (%) : -1.125

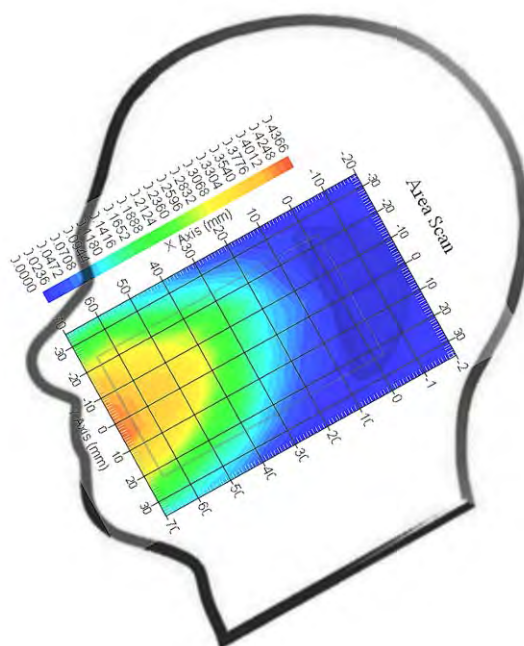
Tissue Data

Type : Head
Frequency : 824.2 MHz
Epsilon : 41.18 F/m
Sigma : 0.91 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 8
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.377 W/kg
10 gram SAR value : 0.266 W/kg
Area Scan Peak SAR : 0.430 W/kg
Zoom Scan Peak SAR : 0.750 W/kg

Plot 3#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Right Head Cheek (836.6 MHz Middle Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : 0.946

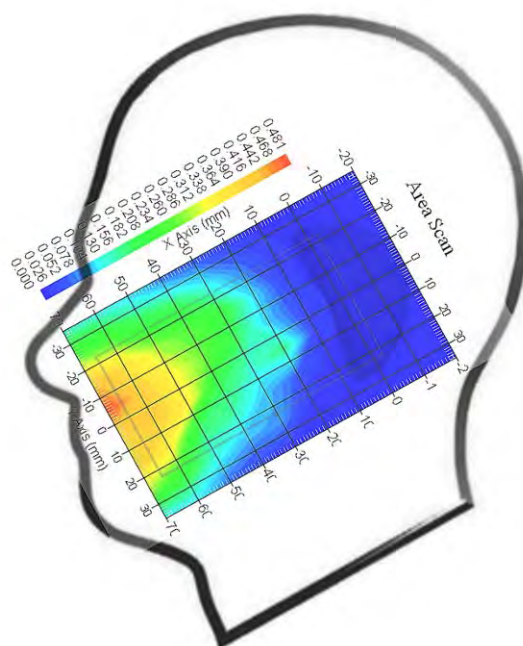
Tissue Data

Type : Head
Frequency : 836.6 MHz
Epsilon : 41.14 F/m
Sigma : 0.91 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 8
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.451 W/kg
10 gram SAR value : 0.311 W/kg
Area Scan Peak SAR : 0.480 W/kg
Zoom Scan Peak SAR : 0.680 W/kg

Plot 4#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Right Head Cheek (848.8 MHz High Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : -1.748

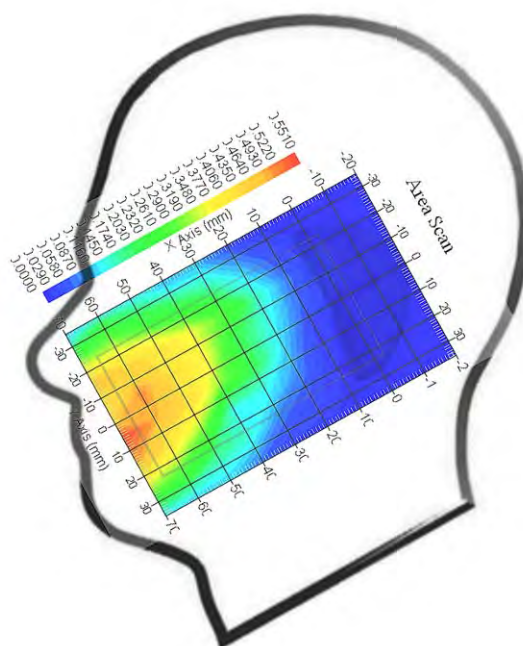
Tissue Data

Type : Head
Frequency : 848.8 MHz
Epsilon : 40.91 F/m
Sigma : 0.92 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 8
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.483 W/kg
10 gram SAR value : 0.345 W/kg
Area Scan Peak SAR : 0.541 W/kg
Zoom Scan Peak SAR : 0.680 W/kg

Plot 5#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Right Head Tilt (836.6 MHz Middle Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : 0.633

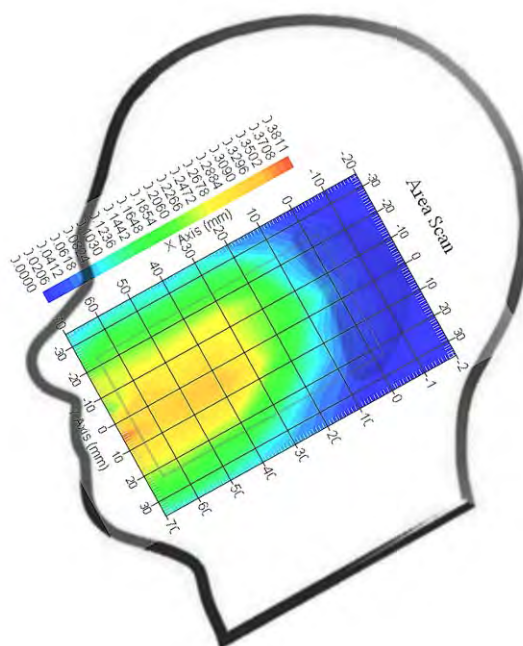
Tissue Data

Type : Head
Frequency : 836.6 MHz
Epsilon : 41.14 F/m
Sigma : 0.91 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 8
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.302 W/kg
10 gram SAR value : 0.188 W/kg
Area Scan Peak SAR : 0.371 W/kg
Zoom Scan Peak SAR : 0.620 W/kg

Plot 6#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn Front-Headset (836.6 MHz Middle Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.329 W/kg
Power Drift-Finish : 0.334 W/kg
Power Drift (%) : 1.598

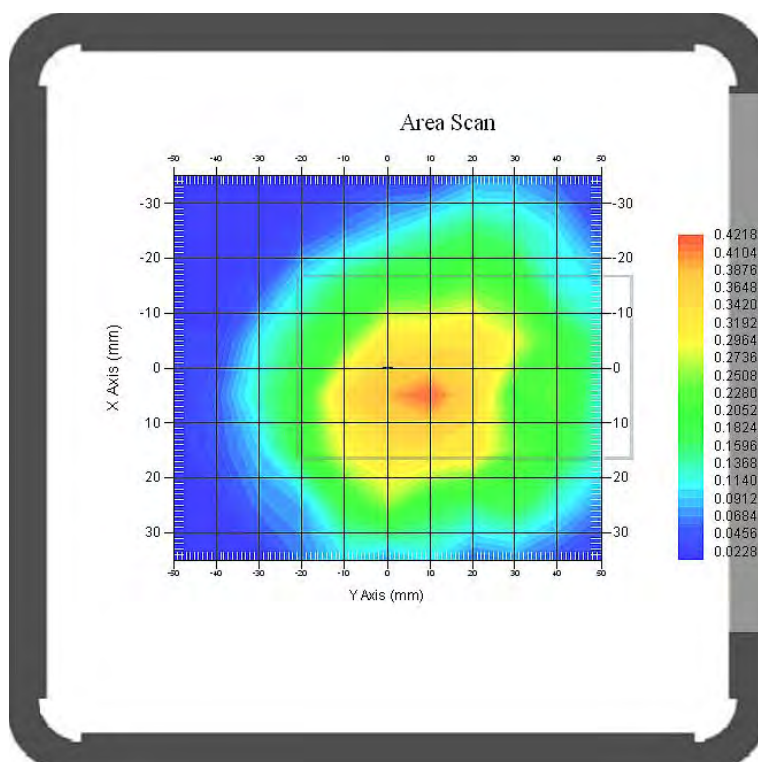
Tissue Data

Type : Body
Frequency : 836.6 MHz
Epsilon : 55.30 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 8
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.375 W/kg
10 gram SAR value : 0.261 W/kg
Area Scan Peak SAR : 0.414 W/kg
Zoom Scan Peak SAR : 0.460 W/kg

Plot 7#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn Back-Headset (836.6 MHz Middle Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.396 W/kg
Power Drift-Finish : 0.400 W/kg
Power Drift (%) : 1.009

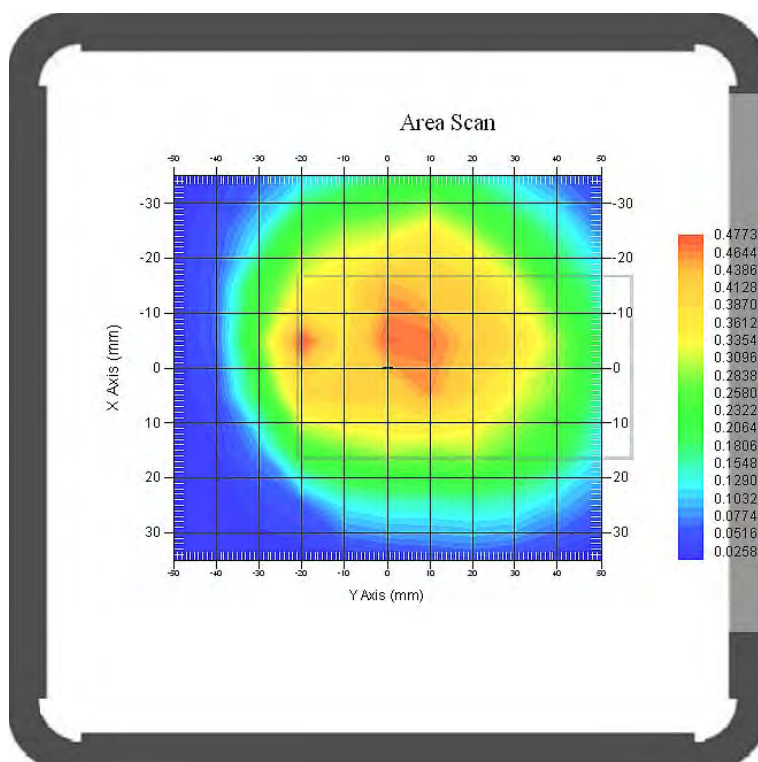
Tissue Data

Type : Body
Frequency : 836.6 MHz
Epsilon : 55.30 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 8
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.437 W/kg
10 gram SAR value : 0.318 W/kg
Area Scan Peak SAR : 0.474 W/kg
Zoom Scan Peak SAR : 0.650 W/kg

Plot 8#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Left Head Cheek (1880.0 MHz Middle Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : -0.946

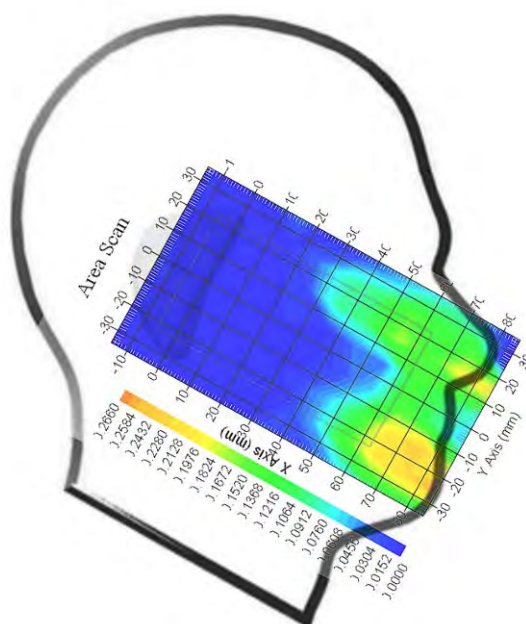
Tissue Data

Type : Head
Frequency : 1880.0 MHz
Epsilon : 40.04 F/m
Sigma : 1.39 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 8
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.235 W/kg
10 gram SAR value : 0.135 W/kg
Area Scan Peak SAR : 0.263 W/kg
Zoom Scan Peak SAR : 0.480 W/kg

Plot 9#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Left Head Tilt (1880 MHz Middle Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.002 W/kg
Power Drift-Finish : 0.002 W/kg
Power Drift (%) : 1.417

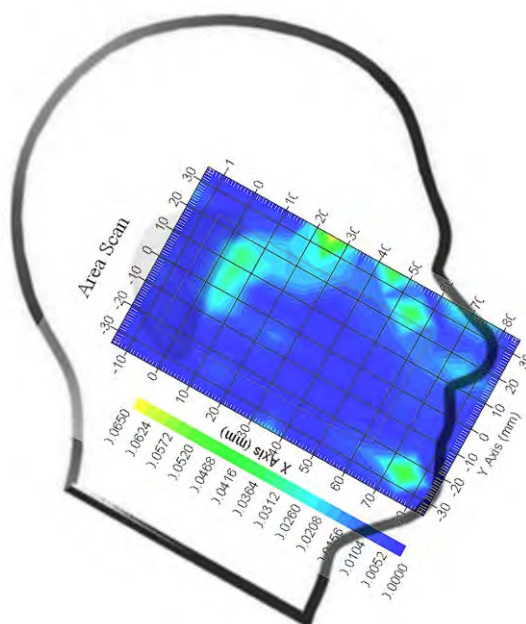
Tissue Data

Type : Head
Frequency : 1880 MHz
Epsilon : 40.04 F/m
Sigma : 1.39 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 8
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.042 W/kg
10 gram SAR value : 0.019 W/kg
Area Scan Peak SAR : 0.065 W/kg
Zoom Scan Peak SAR : 0.200 W/kg

Plot 10#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Right Head Cheek (1850.2 MHz Low Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : -1.633

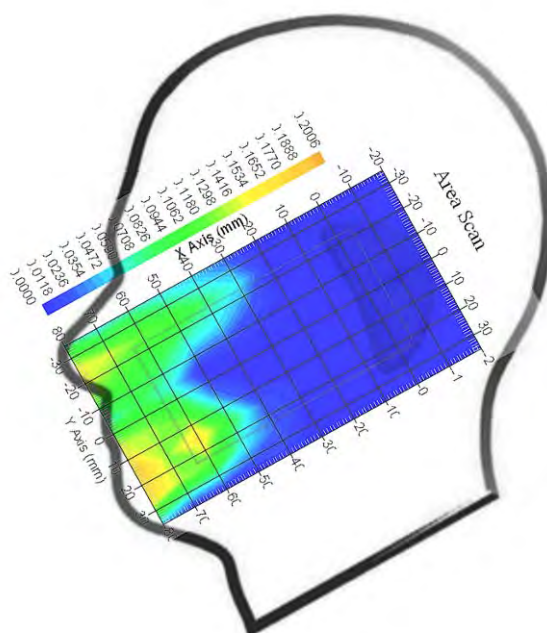
Tissue Data

Type : Head
Frequency : 1850.2 MHz
Epsilon : 39.99 F/m
Sigma : 1.41 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 8
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.182 W/kg
10 gram SAR value : 0.105 W/kg
Area Scan Peak SAR : 0.195 W/kg
Zoom Scan Peak SAR : 0.450 W/kg

Plot 11#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Right Head Cheek (1880 MHz Middle Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : -0.753

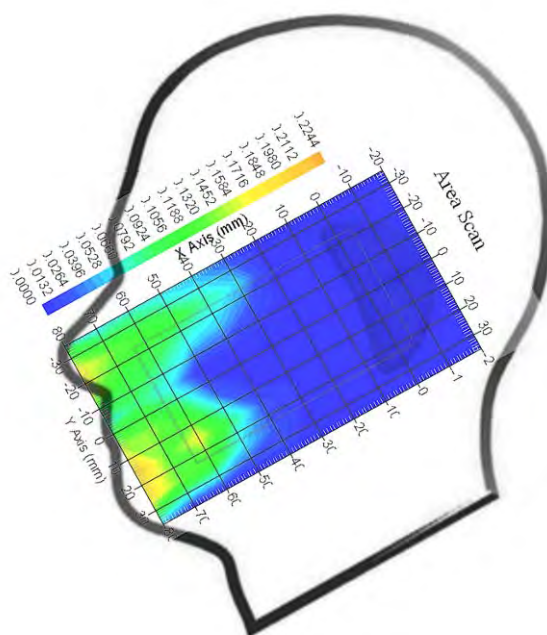
Tissue Data

Type : Head
Frequency : 1880 MHz
Epsilon : 40.04 F/m
Sigma : 1.39 S/m
Density : 1000.00 kg/cu. M

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 8
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.245 W/kg
10 gram SAR value : 0.122 W/kg
Area Scan Peak SAR : 0.223 W/kg
Zoom Scan Peak SAR : 0.480 W/kg

Plot 12#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Right Head Cheek (1909.8 MHz High Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : 1.092

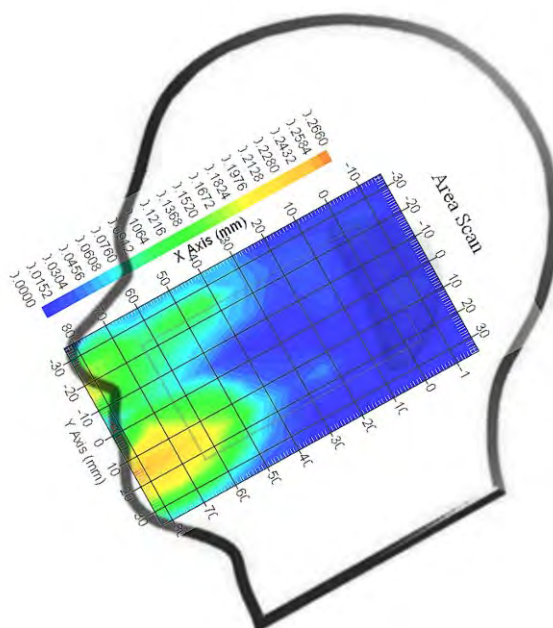
Tissue Data

Type : Head
Frequency : 1909.8 MHz
Epsilon : 40.05 F/m
Sigma : 1.41 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 8
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.258 W/kg
10 gram SAR value : 0.134 W/kg
Area Scan Peak SAR : 0.265 W/kg
Zoom Scan Peak SAR : 0.260 W/kg

Plot 13#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Right Head Tilt (1880 MHz Middle Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.021 W/kg
Power Drift-Finish : 0.021 W/kg
Power Drift (%) : -2.108

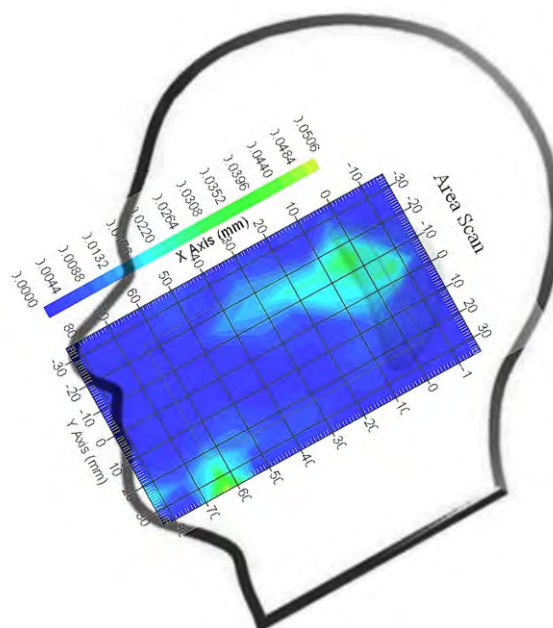
Tissue Data

Type : Head
Frequency : 1880 MHz
Epsilon : 40.04 F/m
Sigma : 1.39 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 8
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.041 W/kg
10 gram SAR value : 0.020 W/kg
Area Scan Peak SAR : 0.050 W/kg
Zoom Scan Peak SAR : 0.090 W/kg

Plot 14#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn Front-Headset (1880 MHz Middle Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.195 W/kg
Power Drift-Finish : 0.200 W/kg
Power Drift (%) : 2.601

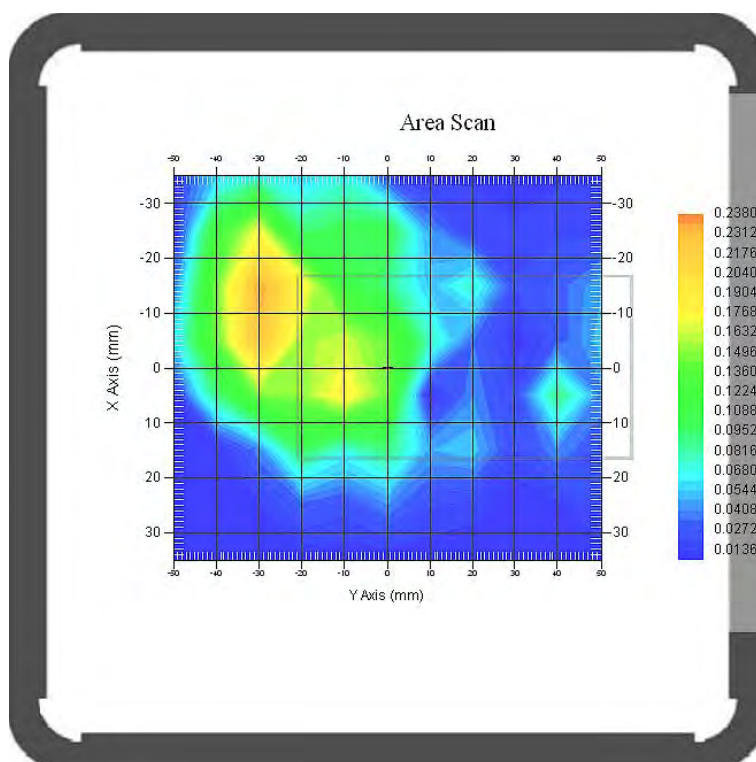
Tissue Data

Type : Body
Frequency : 1880 MHz
Epsilon : 53.68 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 8
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.223 W/kg
10 gram SAR value : 0.133 W/kg
Area Scan Peak SAR : 0.232 W/kg
Zoom Scan Peak SAR : 0.500 W/kg

Plot 15#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn Back- Headset (1880 MHz Middle Channel)**

Measurement Data

Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.215 W/kg
Power Drift-Finish : 0.211 W/kg
Power Drift (%) : -1.869

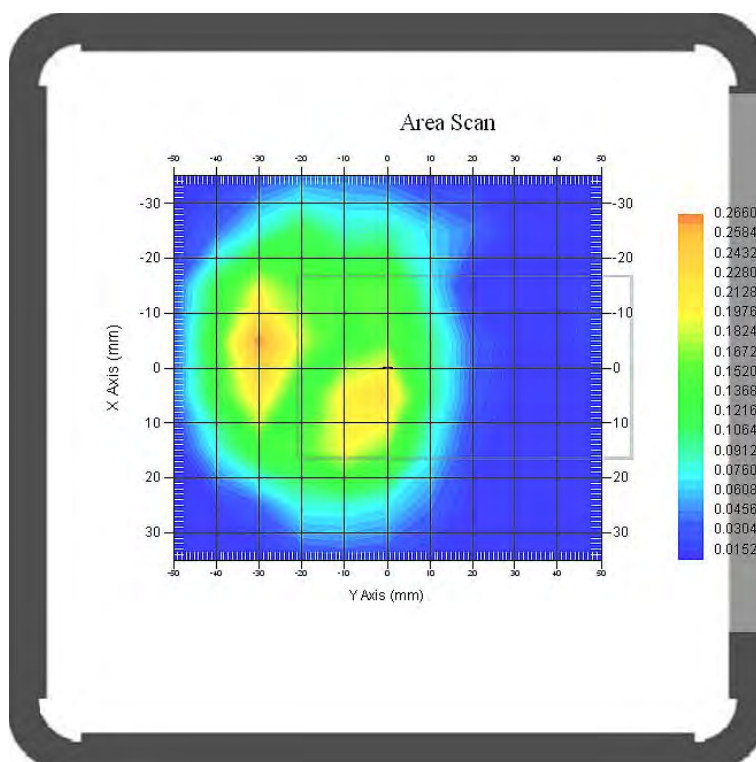
Tissue Data

Type : Body
Frequency : 1880 MHz
Epsilon : 53.68 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 8
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.256 W/kg
10 gram SAR value : 0.138 W/kg
Area Scan Peak SAR : 0.266 W/kg
Zoom Scan Peak SAR : 0.440 W/kg

Plot 16#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA850; Left Head Cheek (836.6 MHz Middle Channel)****Measurement Data**

Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : 2.041

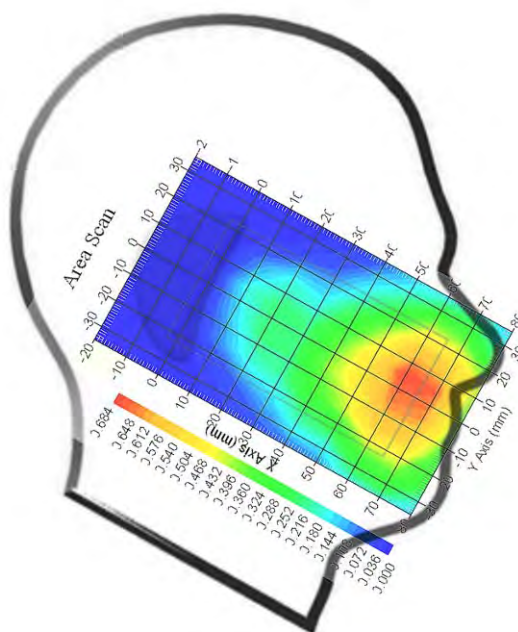
Tissue Data

Type : Head
Frequency : 836.6 MHz
Epsilon : 41.14 F/m
Sigma : 0.91 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.749 W/kg
10 gram SAR value : 0.528 W/kg
Area Scan Peak SAR : 0.712 W/kg
Zoom Scan Peak SAR : 0.970 W/kg

Plot 17#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA850; Left Head Tilt (836.6 MHz Middle Channel)****Measurement Data**

Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.005 W/kg
Power Drift-Finish : 0.005 W/kg
Power Drift (%) : -0.844

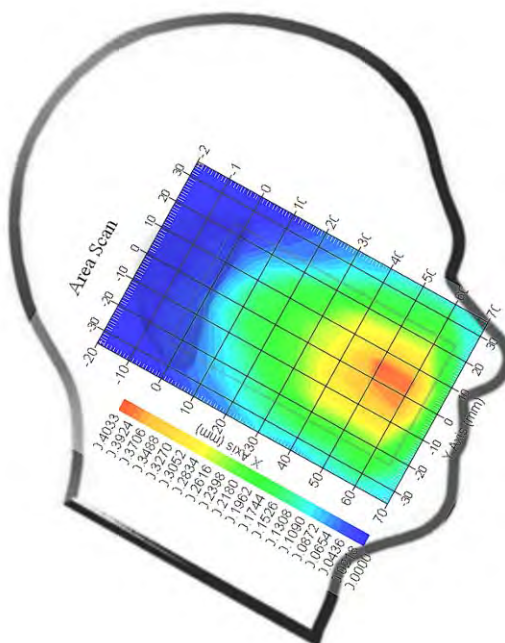
Tissue Data

Type : Head
Frequency : 836.6 MHz
Epsilon : 41.14 F/m
Sigma : 0.91 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.352 W/kg
10 gram SAR value : 0.158 W/kg
Area Scan Peak SAR : 0.371 W/kg
Zoom Scan Peak SAR : 0.600 W/kg

Plot 18#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA850; Right Head Cheek (826.4 MHz Low Channel)****Measurement Data**

Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.006 W/kg
Power Drift-Finish : 0.006 W/kg
Power Drift (%) : -2.647

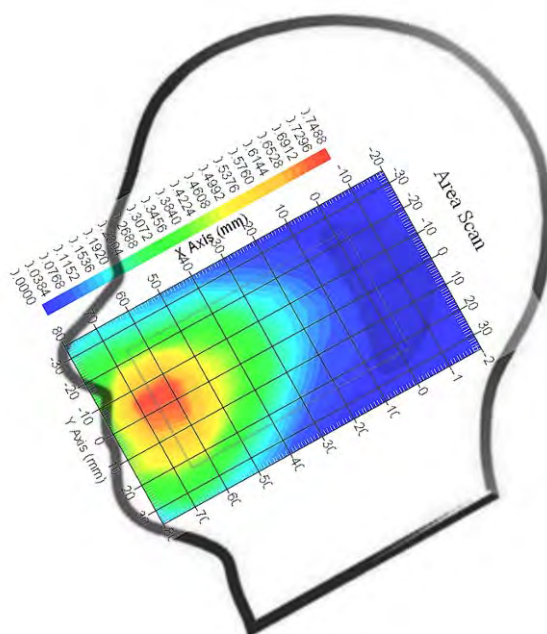
Tissue Data

Type : Head
Frequency : 826.4 MHz
Epsilon : 41.07 F/m
Sigma : 0.91 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.735 W/kg
10 gram SAR value : 0.495 W/kg
Area Scan Peak SAR : 0.748 W/kg
Zoom Scan Peak SAR : 1.025 W/kg

Plot 19#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA850; Right Head Cheek (836.6 MHz Middle Channel)**

Measurement Data

Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.002 W/kg
Power Drift-Finish : 0.002 W/kg
Power Drift (%) : 1.184

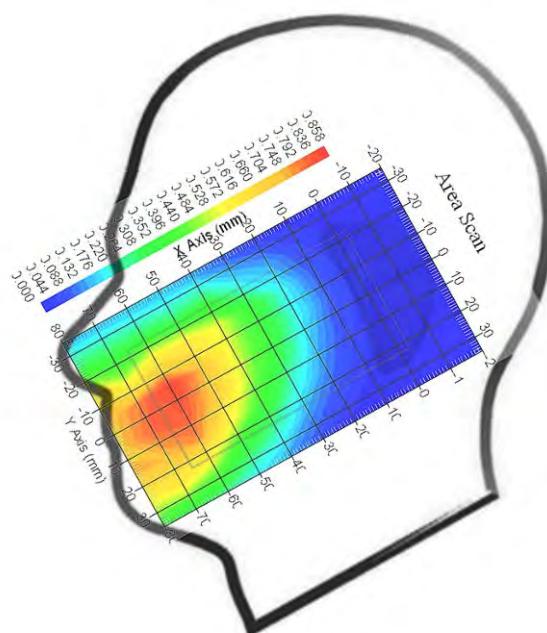
Tissue Data

Type : Head
Frequency : 836.6 MHz
Epsilon : 41.14 F/m
Sigma : 0.91 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.786 W/kg
10 gram SAR value : 0.555 W/kg
Area Scan Peak SAR : 0.851 W/kg
Zoom Scan Peak SAR : 1.221 W/kg

Plot 20#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA850; Right Head Cheek (846.6 MHz High Channel)****Measurement Data**

Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.004 W/kg
Power Drift-Finish : 0.004 W/kg
Power Drift (%) : -0.528

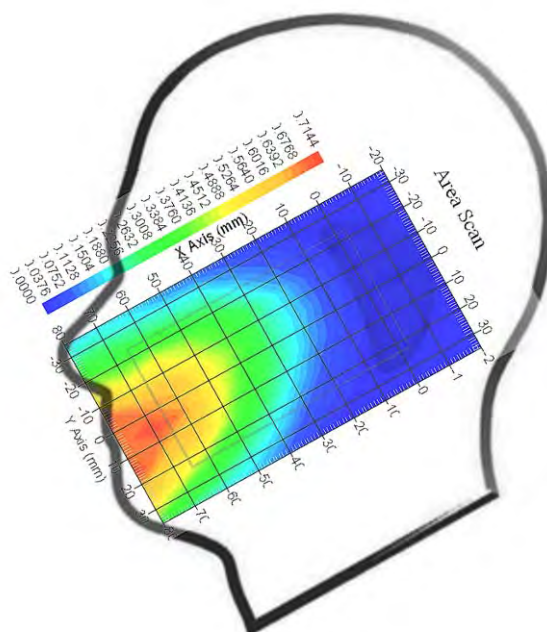
Tissue Data

Type : Head
Frequency : 846.6 MHz
Epsilon : 40.99 F/m
Sigma : 0.92 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.706 W/kg
10 gram SAR value : 0.488 W/kg
Area Scan Peak SAR : 0.714 W/kg
Zoom Scan Peak SAR : 1.205 W/kg

Plot 21#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA850; Right Head Tilt (836.6 MHz Middle Channel)****Measurement Data**

Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : 0.368

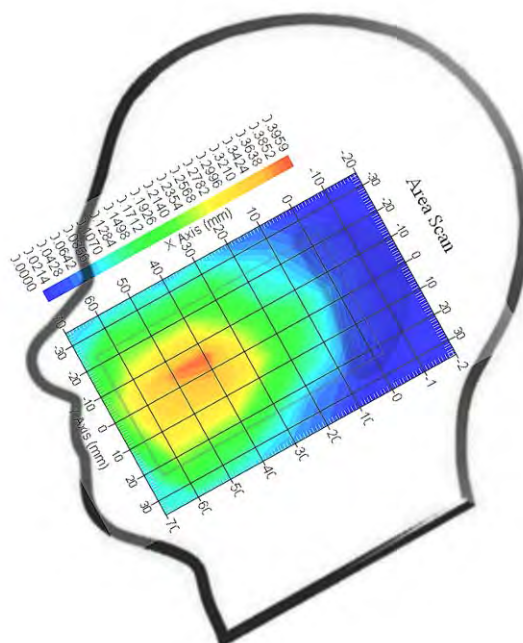
Tissue Data

Type : Head
Frequency : 836.6 MHz
Epsilon : 41.14 F/m
Sigma : 0.91 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.341 W/kg
10 gram SAR value : 0.176 W/kg
Area Scan Peak SAR : 0.396 W/kg
Zoom Scan Peak SAR : 0.502 W/kg

Plot 22#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA1900; Left Head Cheek (1852.4 MHz Low Channel)****Measurement Data**

Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.002 W/kg
Power Drift-Finish : 0.002 W/kg
Power Drift (%) : -1.027

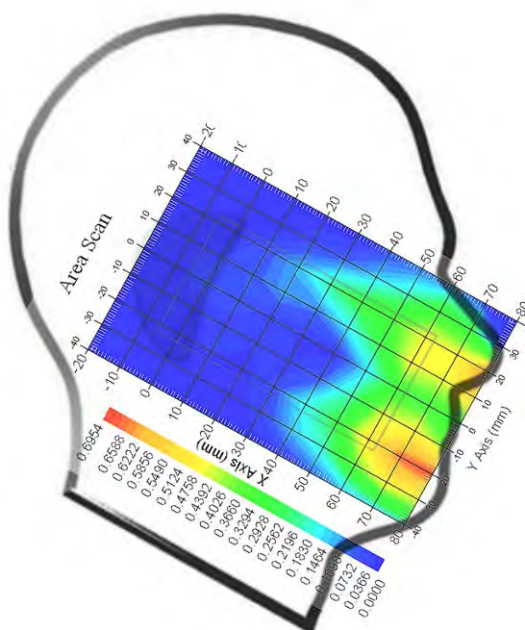
Tissue Data

Type : Head
Frequency : 1852.4 MHz
Epsilon : 40.04 F/m
Sigma : 1.41 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.520 W/kg
10 gram SAR value : 0.251 W/kg
Area Scan Peak SAR : 0.691 W/kg
Zoom Scan Peak SAR : 0.970 W/kg

Plot 23#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA1900; Left Head Cheek (1880 MHz Middle Channel)****Measurement Data**

Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.005 W/kg
Power Drift-Finish : 0.005 W/kg
Power Drift (%) : 0.515

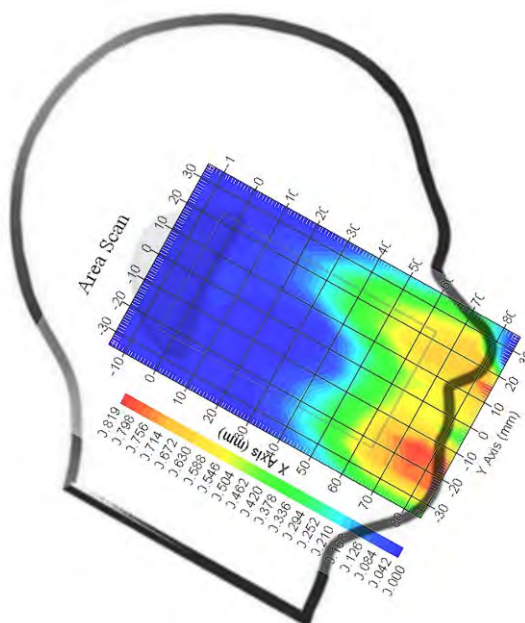
Tissue Data

Type : Head
Frequency : 1880 MHz
Epsilon : 40.04 F/m
Sigma : 1.39 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.762 W/kg
10 gram SAR value : 0.420 W/kg
Area Scan Peak SAR : 0.809 W/kg
Zoom Scan Peak SAR : 1.291 W/kg

Plot 24#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA1900; Left Head Cheek (1907.6 MHz High Channel)****Measurement Data**

Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.007 W/kg
Power Drift-Finish : 0.007 W/kg
Power Drift (%) : -0.901

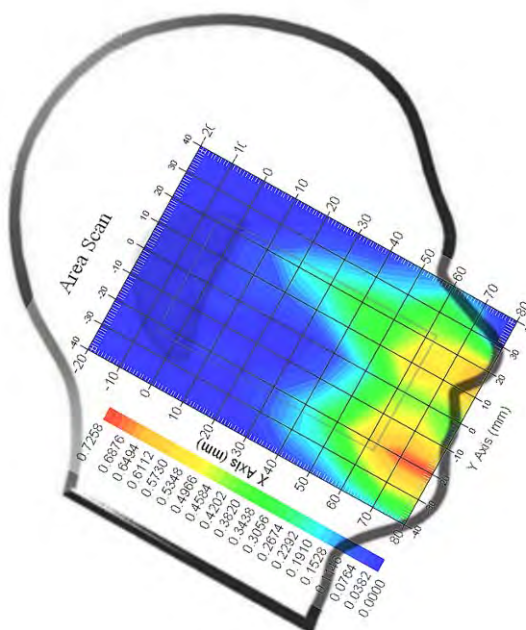
Tissue Data

Type : Head
Frequency : 1907.6 MHz
Epsilon : 40.05 F/m
Sigma : 1.41 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.571 W/kg
10 gram SAR value : 0.283 W/kg
Area Scan Peak SAR : 0.724 W/kg
Zoom Scan Peak SAR : 1.010 W/kg

Plot 25#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA1900; Left Head Tilt (1880 MHz Middle Channel)****Measurement Data**

Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.122W/kg
Power Drift-Finish : 0.119 W/kg
Power Drift (%) : -1.859

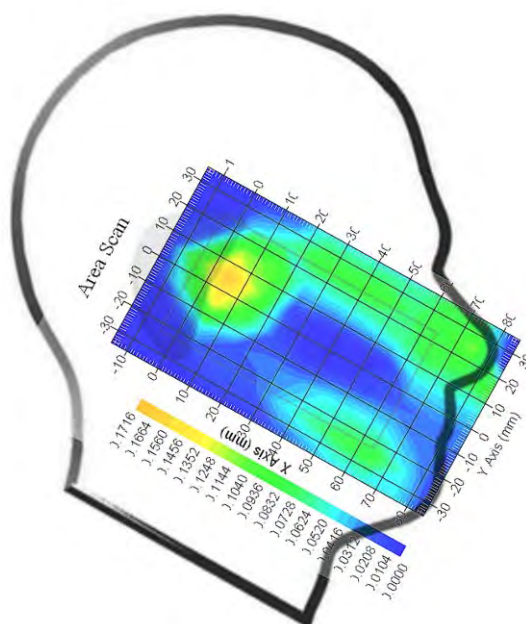
Tissue Data

Type : Head
Frequency : 1880 MHz
Epsilon : 40.04 F/m
Sigma : 1.39 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.139 W/kg
10 gram SAR value : 0.056 W/kg
Area Scan Peak SAR : 0.168 W/kg
Zoom Scan Peak SAR : 0.330 W/kg

Plot 26#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA1900; Right Head Cheek (1880 MHz Middle Channel)**

Measurement Data

Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : 2.227

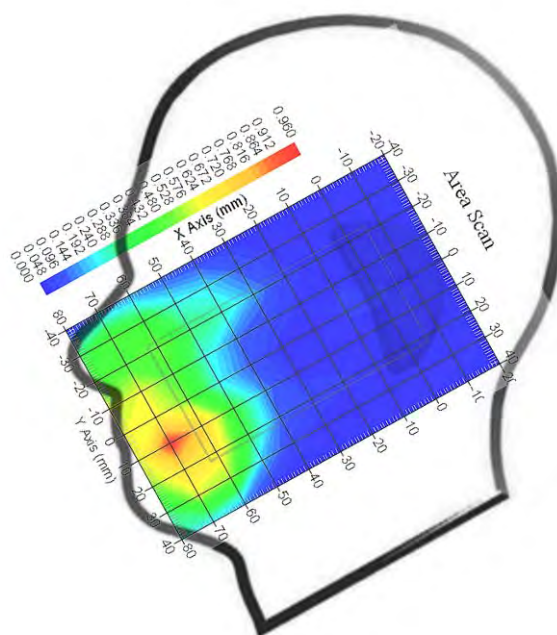
Tissue Data

Type : Head
Frequency : 1880 MHz
Epsilon : 40.04 F/m
Sigma : 1.39 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.755 W/kg
10 gram SAR value : 0.457 W/kg
Area Scan Peak SAR : 0.959 W/kg
Zoom Scan Peak SAR : 1.422 W/kg

Plot 27#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA1900; Right Head Tilt (1880 MHz Middle Channel)****Measurement Data**

Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.101 W/kg
Power Drift-Finish : 0.099 W/kg
Power Drift (%) : -2.185

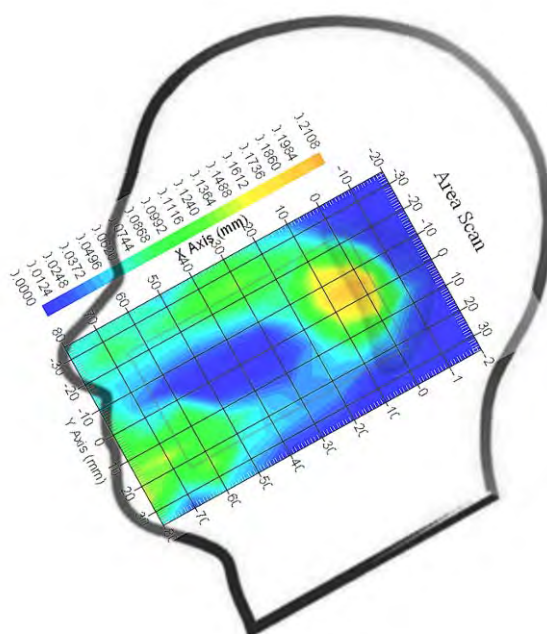
Tissue Data

Type : Head
Frequency : 1880 MHz
Epsilon : 40.04 F/m
Sigma : 1.39 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.153 W/kg
10 gram SAR value : 0.122 W/kg
Area Scan Peak SAR : 0.207 W/kg
Zoom Scan Peak SAR : 0.570 W/kg

Plot 28#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**802.11b; Left Head Cheek (2437 MHz Channel 6)**

Measurement Data

Crest Factor : 1
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.085 W/kg
Power Drift-Finish : 0.086 W/kg
Power Drift (%) : 1.195

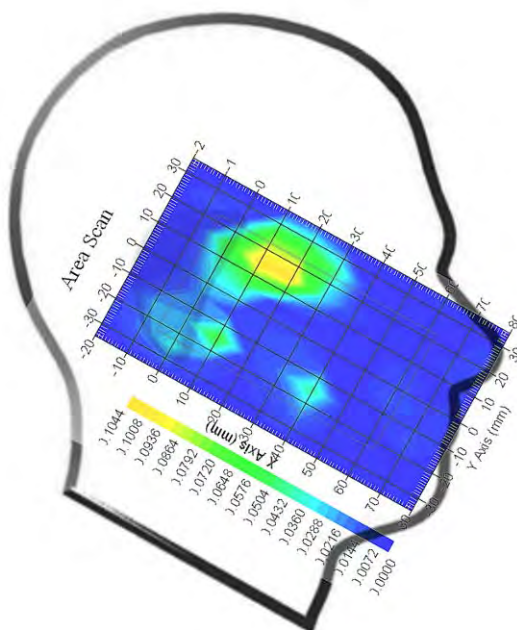
Tissue Data

Type : Head
Frequency : 2437 MHz
Epsilon : 39.64 F/m
Sigma : 1.83 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 2450 MHz
Duty Cycle Factor : 1
Conversion Factor : 4.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.104 W/kg
10 gram SAR value : 0.039 W/kg
Area Scan Peak SAR : 0.103 W/kg
Zoom Scan Peak SAR : 0.260 W/kg

Plot 29#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**802.11b; Left Head Tilt (2437 MHz Channel 6)****Measurement Data**

Crest Factor : 1
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.036 W/kg
Power Drift-Finish : 0.037 W/kg
Power Drift (%) : 2.825

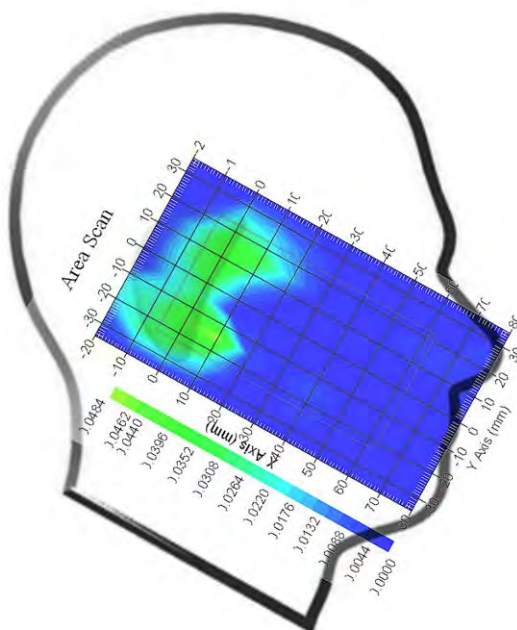
Tissue Data

Type : Head
Frequency : 2437 MHz
Epsilon : 39.64 F/m
Sigma : 1.83 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 2450 MHz
Duty Cycle Factor : 1
Conversion Factor : 4.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.037 W/kg
10 gram SAR value : 0.016 W/kg
Area Scan Peak SAR : 0.047 W/kg
Zoom Scan Peak SAR : 0.070 W/kg

Plot 30#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**802.11b; Right Head Cheek (2412 MHz Channel 1)**

Measurement Data

Crest Factor : 1
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.095 W/kg
Power Drift-Finish : 0.094 W/kg
Power Drift (%) : -1.221

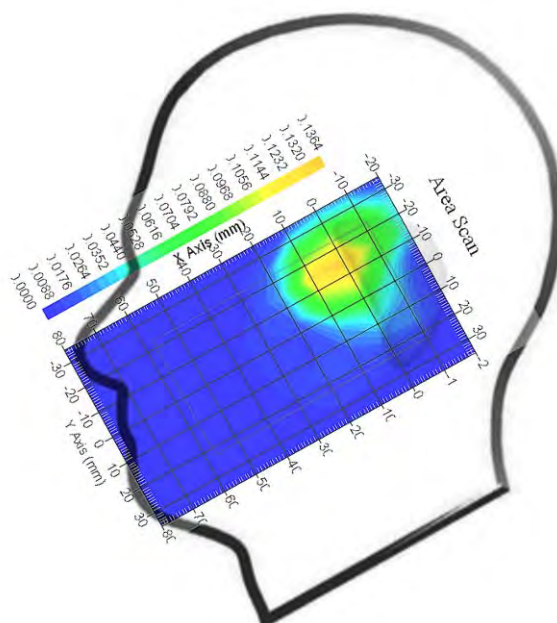
Tissue Data

Type : Head
Frequency : 2412 MHz
Epsilon : 39.58 F/m
Sigma : 1.81 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 2450 MHz
Duty Cycle Factor : 1
Conversion Factor : 4.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.129 W/kg
10 gram SAR value : 0.052 W/kg
Area Scan Peak SAR : 0.136 W/kg
Zoom Scan Peak SAR : 0.175 W/kg

Plot 31#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**802.11b; Right Head Cheek (2437 MHz Channel 6)****Measurement Data**

Crest Factor : 1
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.100 W/kg
Power Drift-Finish : 0.099 W/kg
Power Drift (%) : -1.102

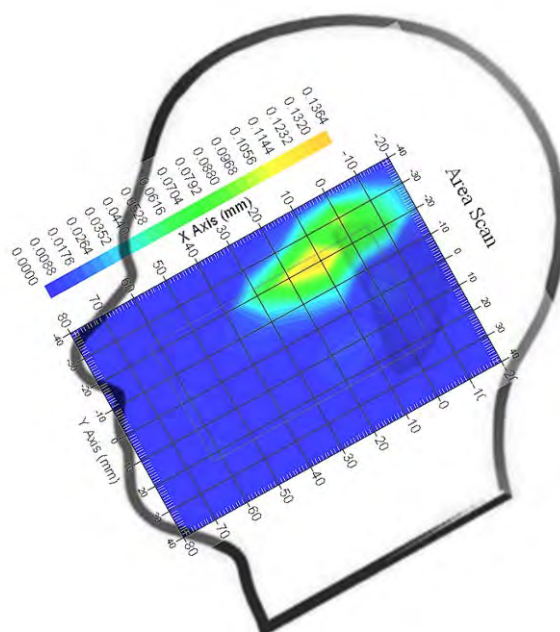
Tissue Data

Type : Head
Frequency : 2437 MHz
Epsilon : 39.64 F/m
Sigma : 1.83 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 2450 MHz
Duty Cycle Factor : 1
Conversion Factor : 4.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.125 W/kg
10 gram SAR value : 0.045 W/kg
Area Scan Peak SAR : 0.132 W/kg
Zoom Scan Peak SAR : 0.201 W/kg

Plot 32#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**802.11b; Right Head Cheek (2462 MHz Channel 11)****Measurement Data**

Crest Factor : 1
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.102 W/kg
Power Drift-Finish : 0.104 W/kg
Power Drift (%) : 1.859

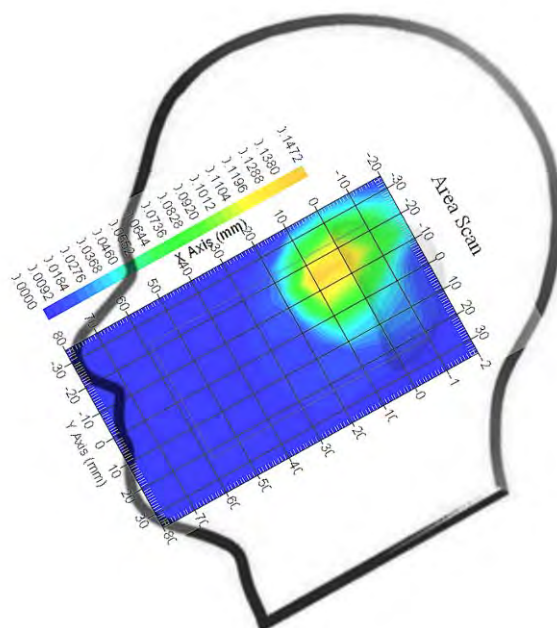
Tissue Data

Type : Head
Frequency : 2462 MHz
Epsilon : 39.74 F/m
Sigma : 1.83 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 2450 MHz
Duty Cycle Factor : 1
Conversion Factor : 4.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.134 W/kg
10 gram SAR value : 0.051 W/kg
Area Scan Peak SAR : 0.147 W/kg
Zoom Scan Peak SAR : 0.201 W/kg

Plot 33#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**802.11b; Right Head Tilt (2437 MHz Channel 6)**

Measurement Data

Crest Factor : 1
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.100 W/kg
Power Drift-Finish : 0.101 W/kg
Power Drift (%) : 0.958

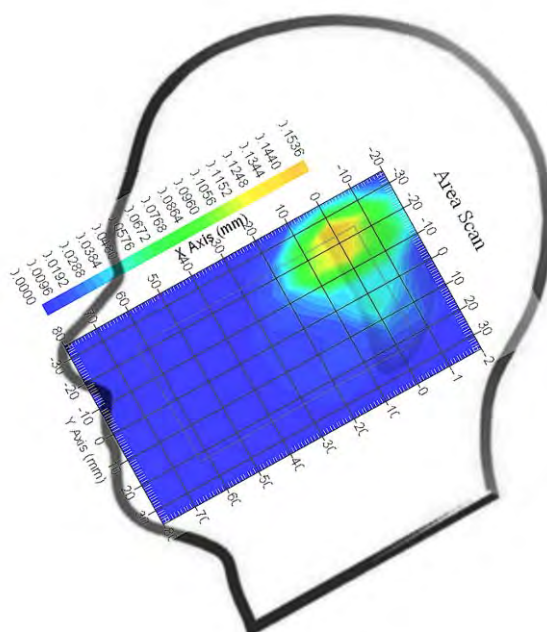
Tissue Data

Type : Head
Frequency : 2437 MHz
Epsilon : 39.64 F/m
Sigma : 1.83 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 2450 MHz
Duty Cycle Factor : 1
Conversion Factor : 4.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.107 W/kg
10 gram SAR value : 0.042 W/kg
Area Scan Peak SAR : 0.153 W/kg
Zoom Scan Peak SAR : 0.250 W/kg

Plot 34#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Front (836.6 MHz Middle Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.630 W/kg
Power Drift-Finish : 0.617 W/kg
Power Drift (%) : -2.102

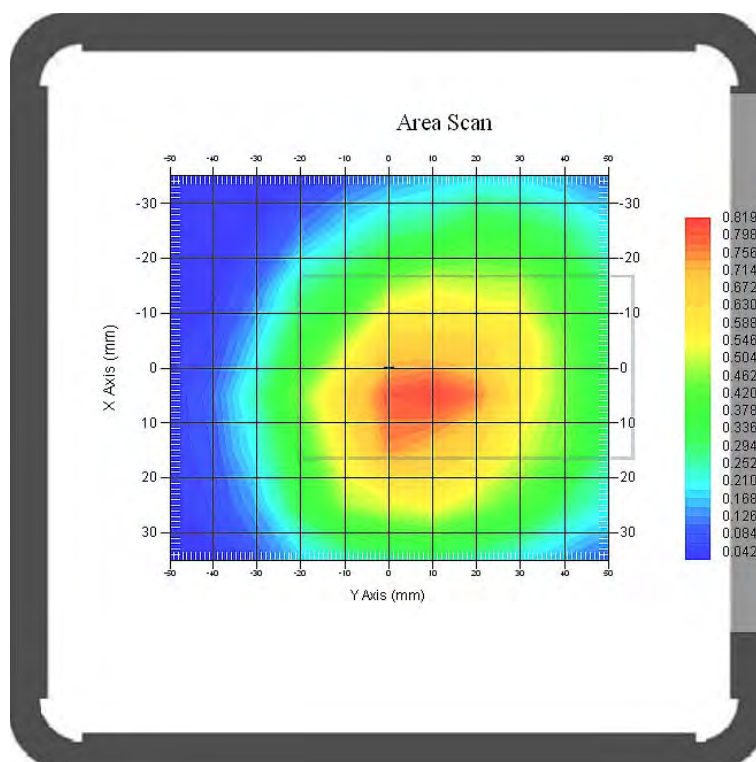
Tissue Data

Type : Body
Frequency : 836.6 MHz
Epsilon : 55.30 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 2.66
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.729 W/kg
10 gram SAR value : 0.513 W/kg
Area Scan Peak SAR : 0.810 W/kg
Zoom Scan Peak SAR : 1.081 W/kg

Plot 35#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Back (824.2 MHz Low Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.675 W/kg
Power Drift-Finish : 0.665 W/kg
Power Drift (%) : -1.563

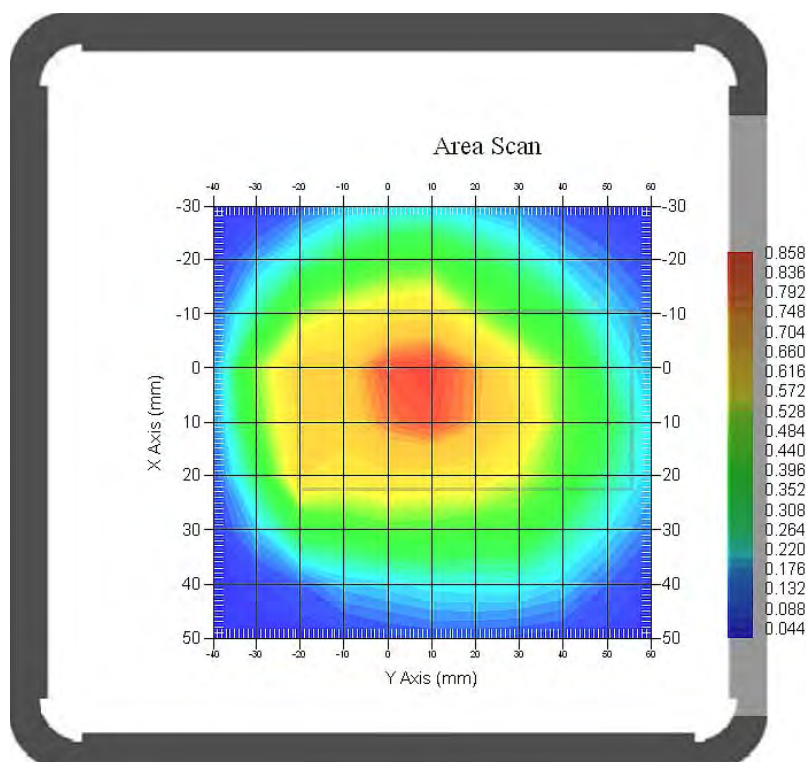
Tissue Data

Type : Body
Frequency : 824.2 MHz
Epsilon : 55.23 F/m
Sigma : 0.94 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 2.66
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.780 W/kg
10 gram SAR value : 0.523 W/kg
Area Scan Peak SAR : 0.850 W/kg
Zoom Scan Peak SAR : 1.191 W/kg

Plot 36#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Back (836.6 MHz Middle Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.910 W/kg
Power Drift-Finish : 0.922 W/kg
Power Drift (%) : 1.311

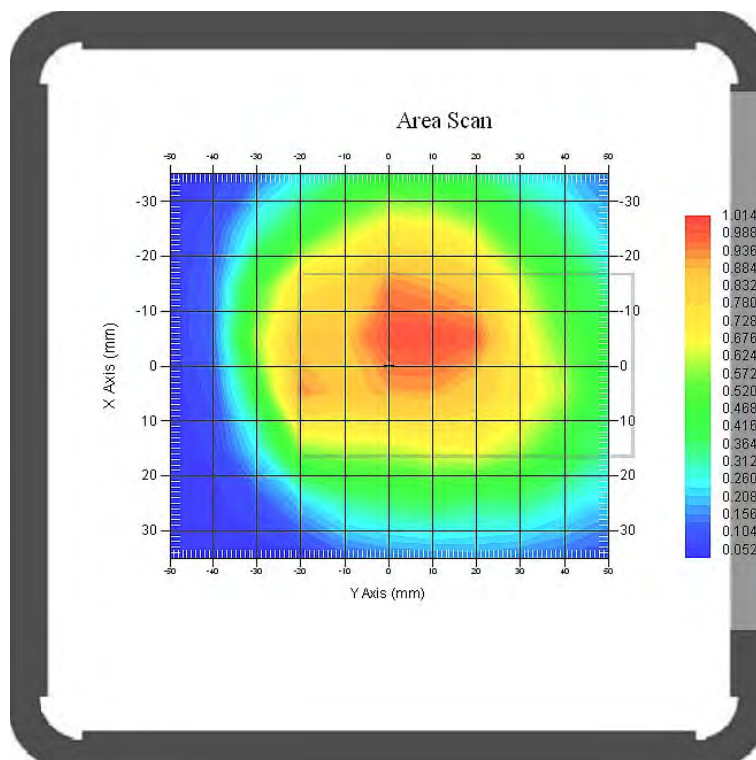
Tissue Data

Type : Body
Frequency : 836.6 MHz
Epsilon : 55.30 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 2.66
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.950 W/kg
10 gram SAR value : 0.628 W/kg
Area Scan Peak SAR : 0.990 W/kg
Zoom Scan Peak SAR : 1.401 W/kg

Plot 37#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Back (848.8 MHz High Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.653 W/kg
Power Drift-Finish : 0.640 W/kg
Power Drift (%) : -1.929

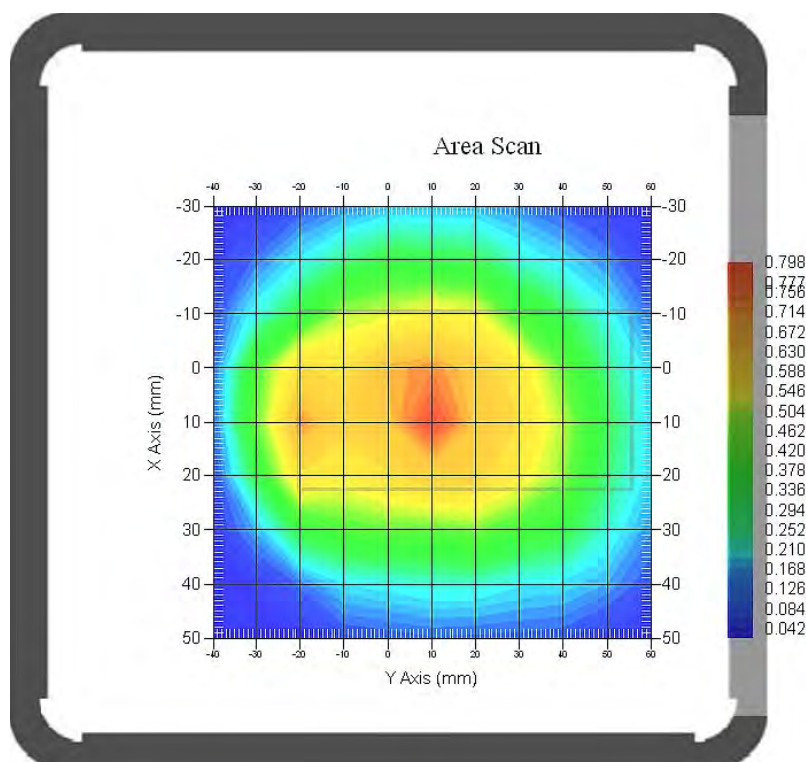
Tissue Data

Type : Body
Frequency : 848.8 MHz
Epsilon : 55.39 F/m
Sigma : 0.98 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 2.66
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.742 W/kg
10 gram SAR value : 0.482 W/kg
Area Scan Peak SAR : 0.794 W/kg
Zoom Scan Peak SAR : 1.121 W/kg

Plot 38#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Left (836.6 MHz Middle Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.365 W/kg
Power Drift-Finish : 0.362 W/kg
Power Drift (%) : -0.942

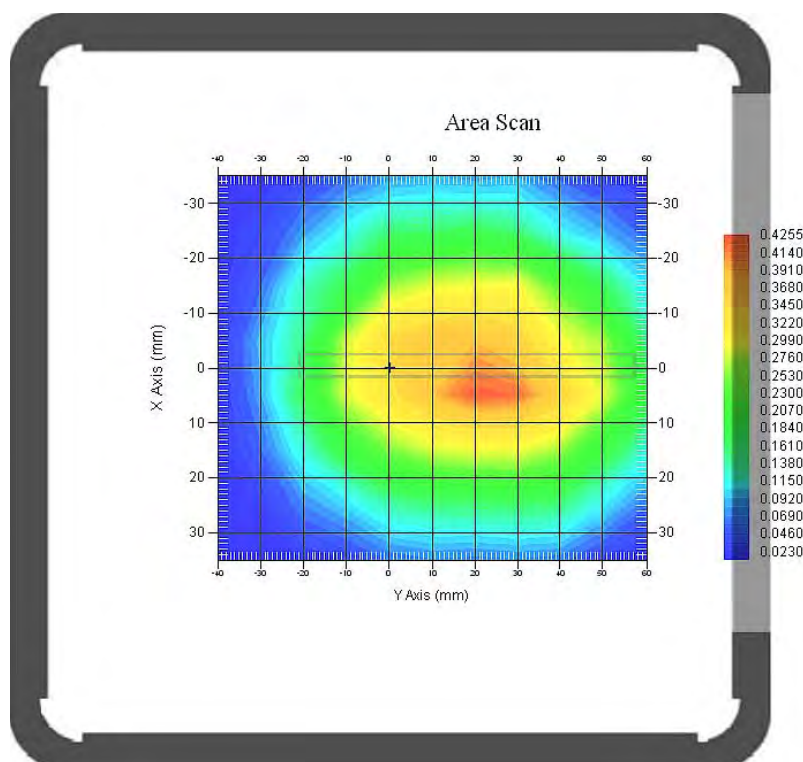
Tissue Data

Type : Body
Frequency : 836.6 MHz
Epsilon : 55.30 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 2.66
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.422 W/kg
10 gram SAR value : 0.265 W/kg
Area Scan Peak SAR : 0.421 W/kg
Zoom Scan Peak SAR : 0.690 W/kg

Plot 39#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Right (836.6 MHz Middle Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.349 W/kg
Power Drift-Finish : 0.354 W/kg
Power Drift (%) : 1.586

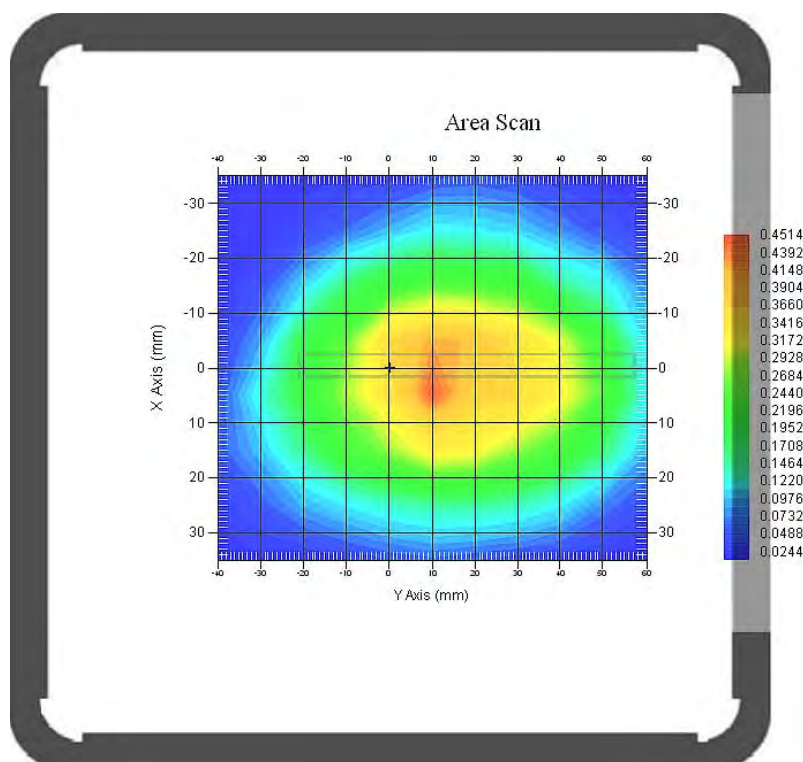
Tissue Data

Type : Body
Frequency : 836.6 MHz
Epsilon : 55.30 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 2.66
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.383 W/kg
10 gram SAR value : 0.236 W/kg
Area Scan Peak SAR : 0.447 W/kg
Zoom Scan Peak SAR : 0.570 W/kg

Plot 40#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Bottom (836.6 MHz Middle Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.052 W/kg
Power Drift-Finish : 0.051 W/kg
Power Drift (%) : -1.968

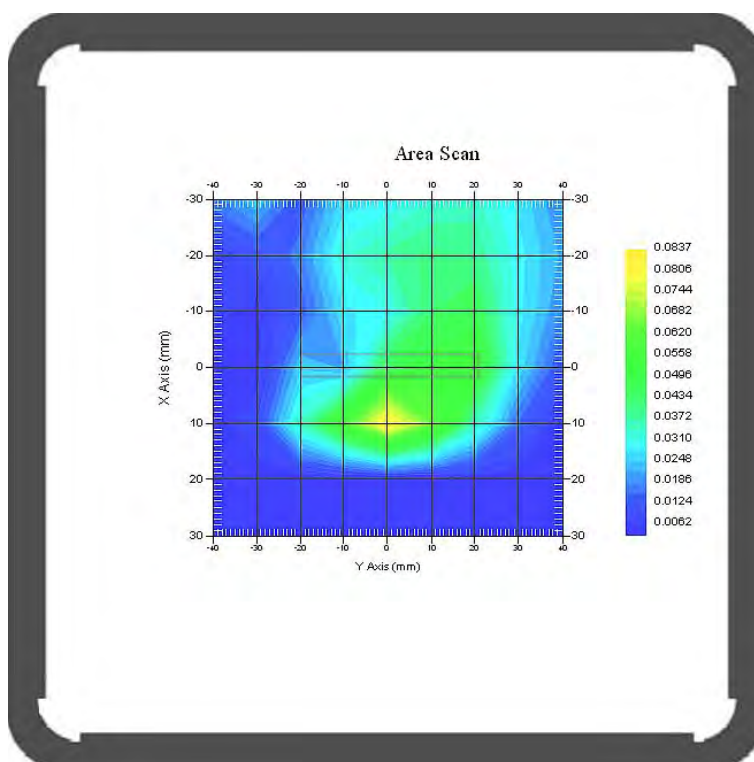
Tissue Data

Type : Body
Frequency : 836.6 MHz
Epsilon : 55.30 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 2.66
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.071 W/kg
10 gram SAR value : 0.032 W/kg
Area Scan Peak SAR : 0.082 W/kg
Zoom Scan Peak SAR : 0.130 W/kg

Plot 41#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Front (1880 MHz Middle Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.356 W/kg
Power Drift-Finish : 0.360 W/kg
Power Drift (%) : 1.305

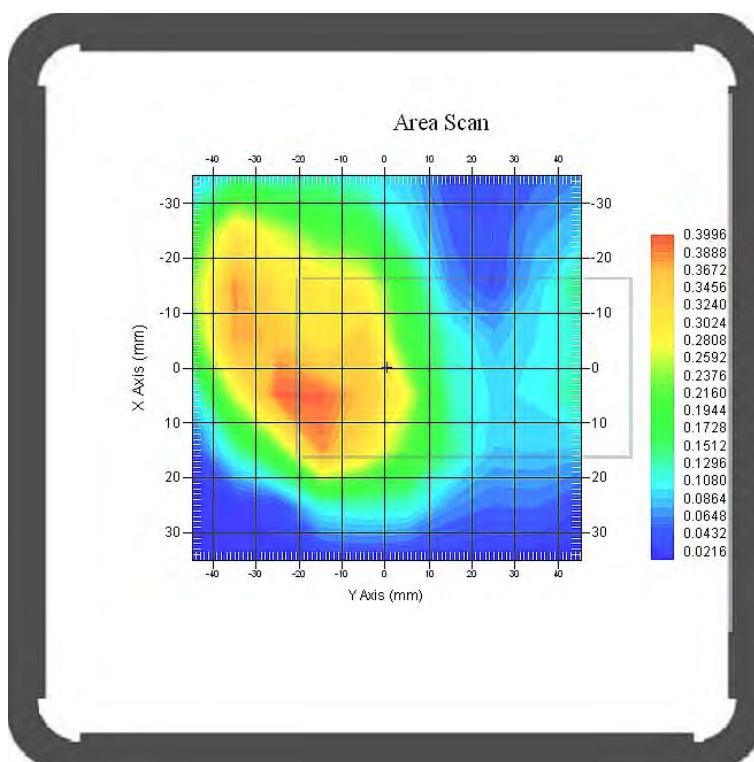
Tissue Data

Type : Body
Frequency : 1880 MHz
Epsilon : 53.68 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 2.66
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.440 W/kg
10 gram SAR value : 0.207 W/kg
Area Scan Peak SAR : 0.393 W/kg
Zoom Scan Peak SAR : 1.000 W/kg

Plot 42#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Back (1880 MHz Middle Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.425 W/kg
Power Drift-Finish : 0.417 W/kg
Power Drift (%) : -1.789

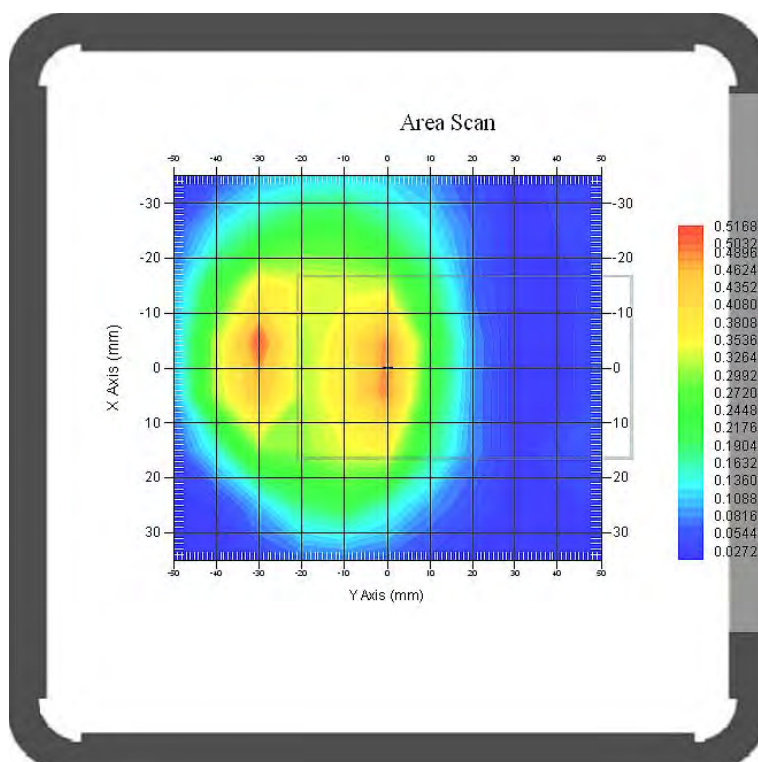
Tissue Data

Type : Body
Frequency : 1880 MHz
Epsilon : 53.68 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 2.66
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.493 W/kg
10 gram SAR value : 0.295 W/kg
Area Scan Peak SAR : 0.505 W/kg
Zoom Scan Peak SAR : 0.700 W/kg

Plot 43#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Left (1880 MHz Middle Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.130 W/kg
Power Drift-Finish : 0.128 W/kg
Power Drift (%) : -1.629

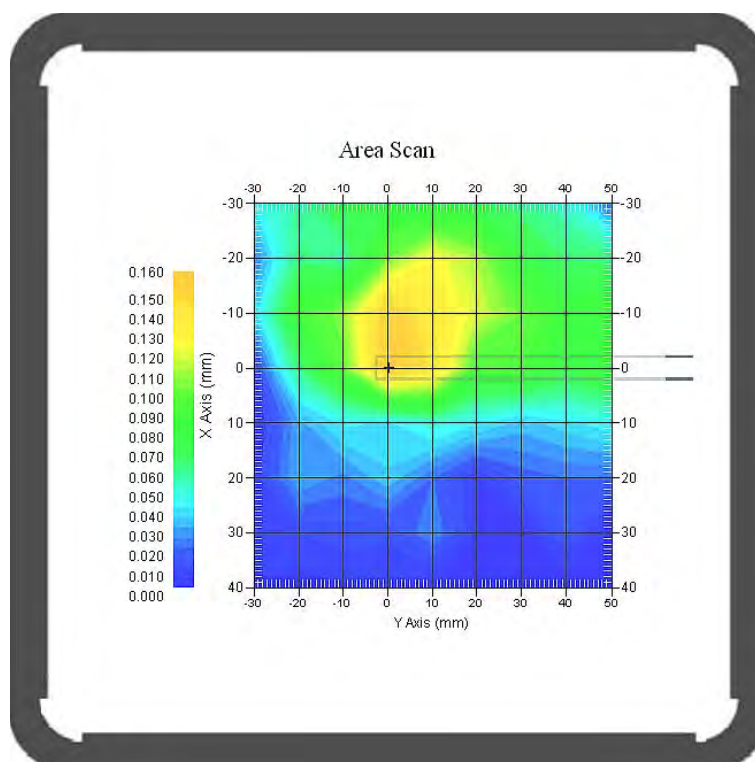
Tissue Data

Type : Body
Frequency : 1880 MHz
Epsilon : 53.68 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 2.66
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.176 W/kg
10 gram SAR value : 0.079 W/kg
Area Scan Peak SAR : 0.158 W/kg
Zoom Scan Peak SAR : 0.420 W/kg

Plot 44#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Right (1880 MHz Middle Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.085 W/kg
Power Drift-Finish : 0.086 W/kg
Power Drift (%) : 1.235

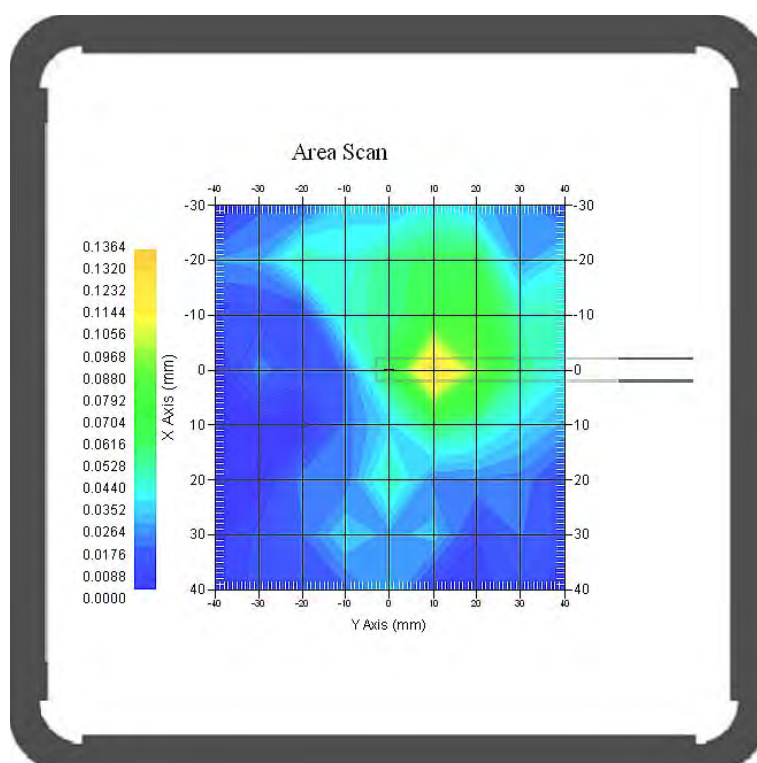
Tissue Data

Type : Body
Frequency : 1880 MHz
Epsilon : 53.68 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 2.66
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.095 W/kg
10 gram SAR value : 0.042 W/kg
Area Scan Peak SAR : 0.138 W/kg
Zoom Scan Peak SAR : 0.220 W/kg

Plot 45#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Bottom (1850.2 MHz Low Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 1.205 W/kg
Power Drift-Finish : 1.190 W/kg
Power Drift (%) : -1.129

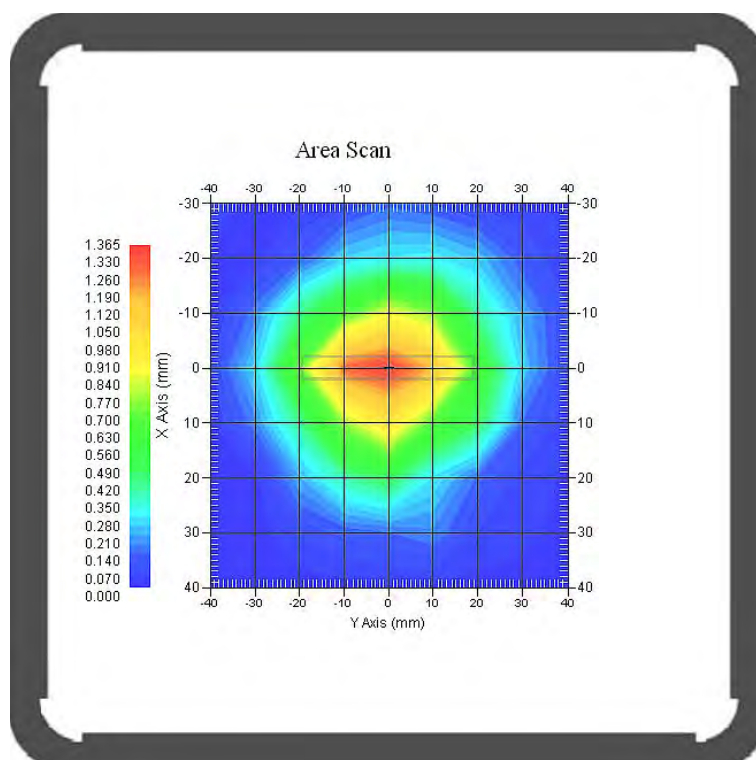
Tissue Data

Type : Body
Frequency : 1850.2 MHz
Epsilon : 53.93 F/m
Sigma : 1.50 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 2.66
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 1.017 W/kg
10 gram SAR value : 0.682 W/kg
Area Scan Peak SAR : 1.351 W/kg
Zoom Scan Peak SAR : 1.993 W/kg

Plot 46#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Bottom (1880 MHz Middle Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.985 W/kg
Power Drift-Finish : 0.996 W/kg
Power Drift (%) : 1.339

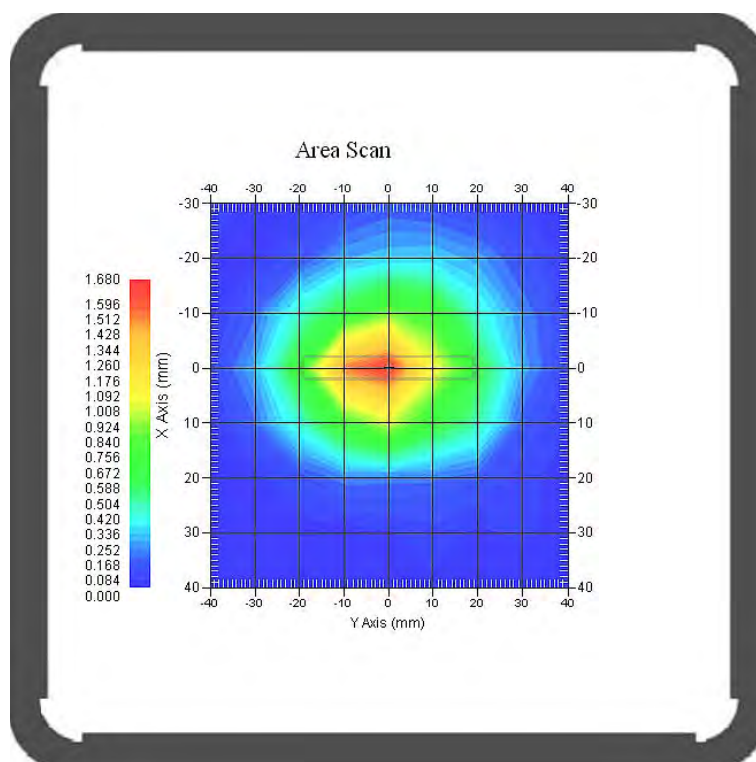
Tissue Data

Type : Body
Frequency : 1880 MHz
Epsilon : 53.68 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 2.66
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 1.132 W/kg
10 gram SAR value : 0.659 W/kg
Area Scan Peak SAR : 1.553 W/kg
Zoom Scan Peak SAR : 2.552 W/kg

Plot 47#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**Body-worn-Bottom (1909.8 MHz High Channel)**

Measurement Data

Test mode : GPRS
Crest Factor : 2.66
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 1.125 W/kg
Power Drift-Finish : 1.139 W/kg
Power Drift (%) : 1.301

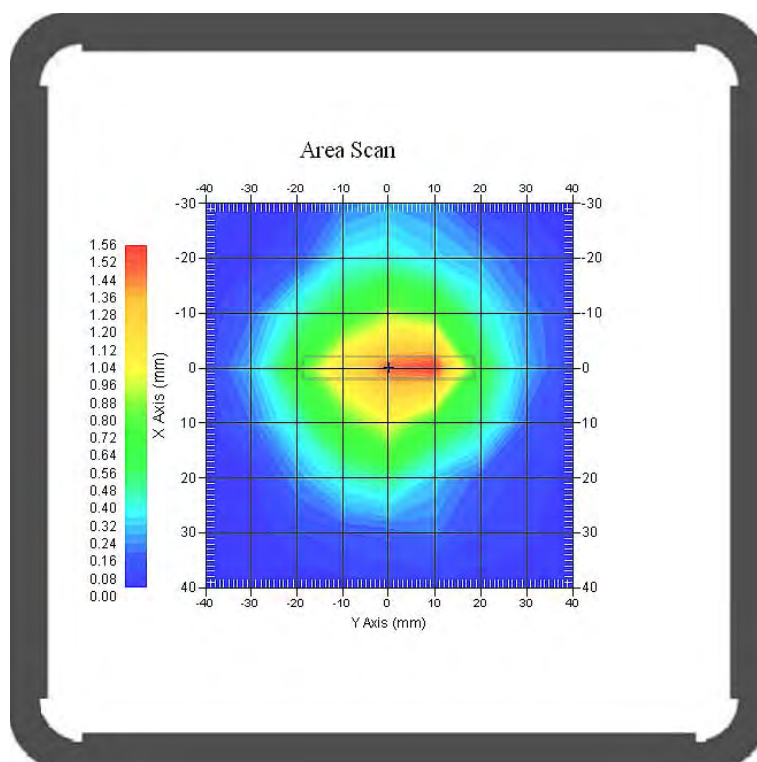
Tissue Data

Type : Body
Frequency : 1909.8 MHz
Epsilon : 53.76 F/m
Sigma : 1.55 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 2.66
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 1.057 W/kg
10 gram SAR value : 0.702 W/kg
Area Scan Peak SAR : 1.528 W/kg
Zoom Scan Peak SAR : 2.198 W/kg

Plot 48#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA850; Body-Worn-Front (836.6 MHz Middle Channel)**

Measurement Data

Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.592 W/kg
Power Drift-Finish : 0.588 W/kg
Power Drift (%) : -0.804

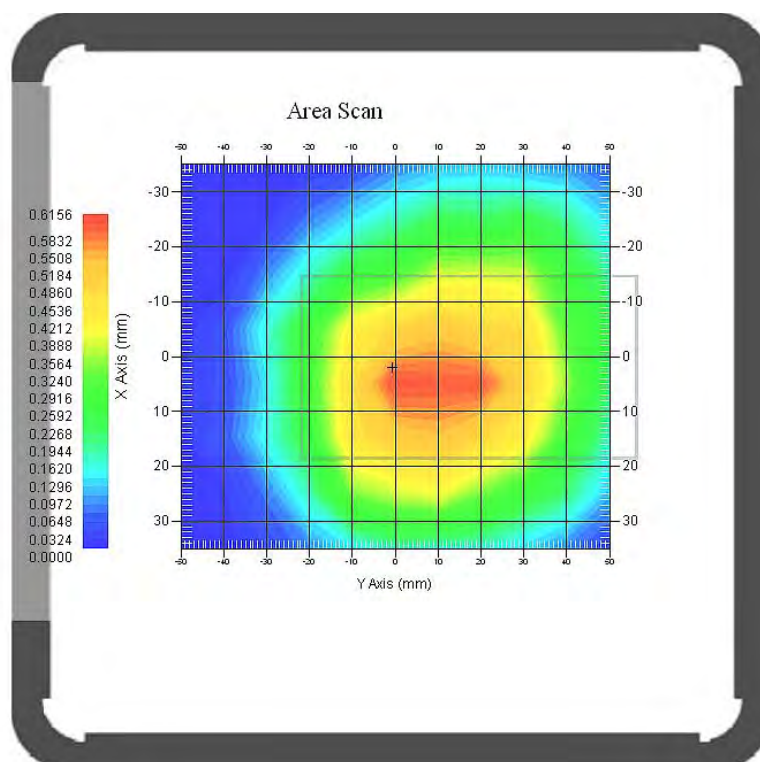
Tissue Data

Type : Body
Frequency : 836.6 MHz
Epsilon : 55.30 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.600 W/kg
10 gram SAR value : 0.382 W/kg
Area Scan Peak SAR : 0.609 W/kg
Zoom Scan Peak SAR : 0.980 W/kg

Plot 49#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA850; Body-Worn-Back (836.6 MHz Middle Channel)**

Measurement Data

Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.701 W/kg
Power Drift-Finish : 0.713 W/kg
Power Drift (%) : 1.629

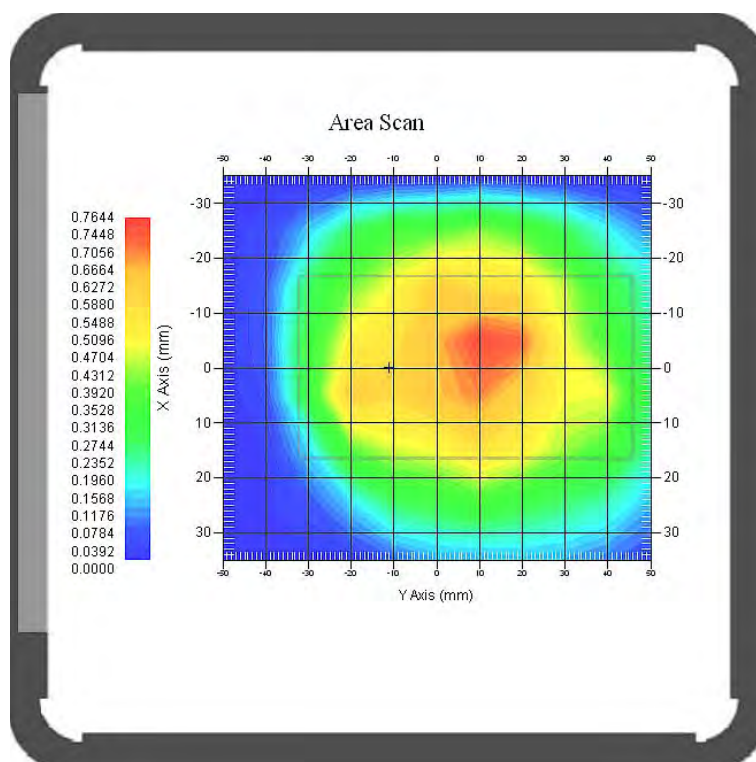
Tissue Data

Type : Body
Frequency : 836.6 MHz
Epsilon : 55.30 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.703 W/kg
10 gram SAR value : 0.454 W/kg
Area Scan Peak SAR : 0.746 W/kg
Zoom Scan Peak SAR : 1.121 W/kg

Plot 50#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA850; Body-Worn-Left (836.6 MHz Middle Channel)**

Measurement Data

Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.402 W/kg
Power Drift-Finish : 0.395 W/kg
Power Drift (%) : -1.785

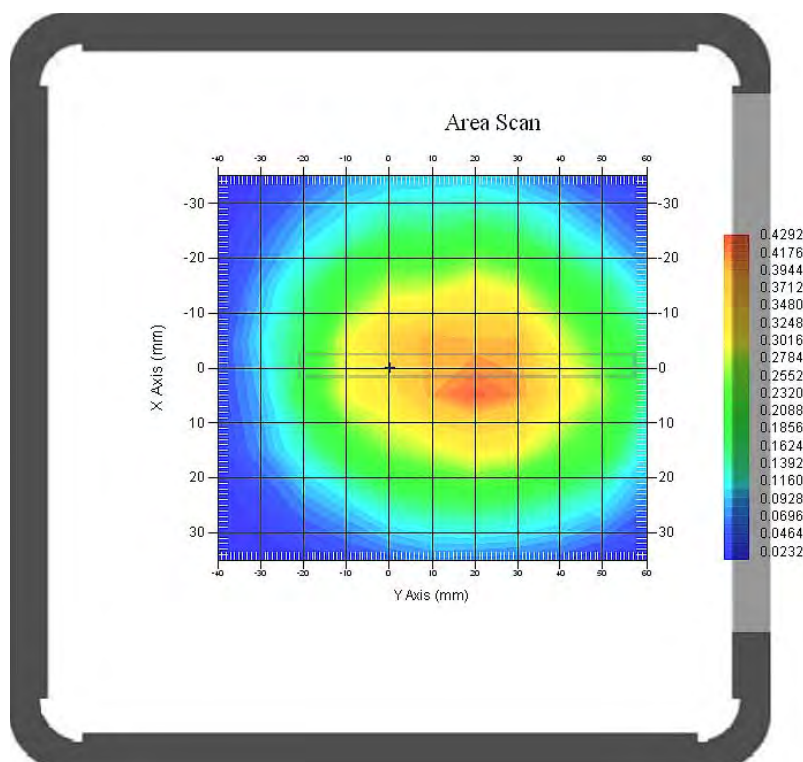
Tissue Data

Type : Body
Frequency : 836.6 MHz
Epsilon : 55.30 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.372 W/kg
10 gram SAR value : 0.233 W/kg
Area Scan Peak SAR : 0.424 W/kg
Zoom Scan Peak SAR : 0.530 W/kg

Plot 51#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA850; Body-Worn-Right (836.6 MHz Middle Channel)****Measurement Data**

Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.392 W/kg
Power Drift-Finish : 0.388 W/kg
Power Drift (%) : -1.055

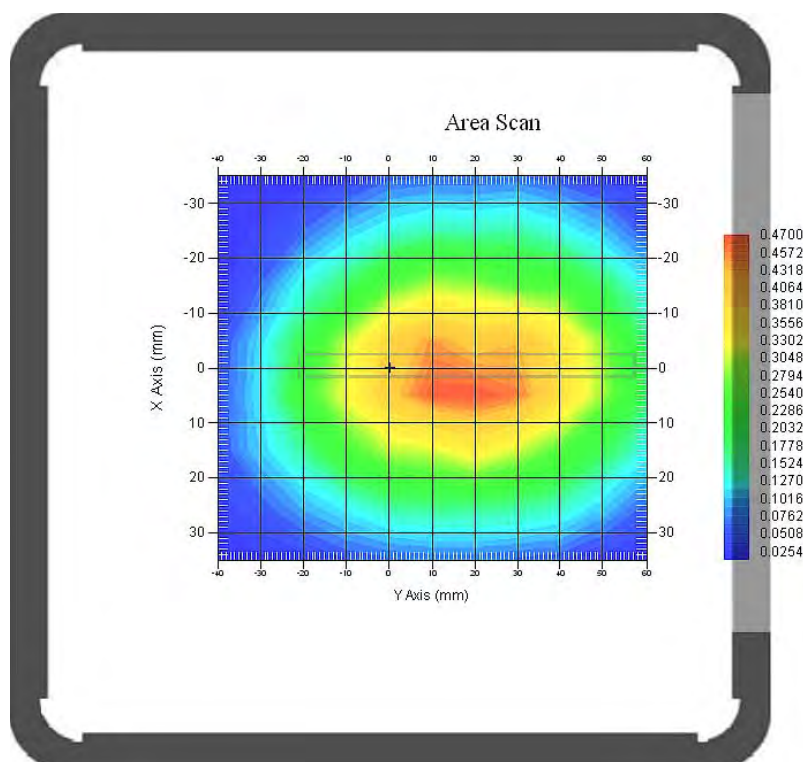
Tissue Data

Type : Body
Frequency : 836.6 MHz
Epsilon : 55.30 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.437 W/kg
10 gram SAR value : 0.265 W/kg
Area Scan Peak SAR : 0.470 W/kg
Zoom Scan Peak SAR : 0.650 W/kg

Plot 52#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA850; Body-Worn- Bottom(836.6 MHz Middle Channel)****Measurement Data**

Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.022 W/kg
Power Drift-Finish : 0.022 W/kg
Power Drift (%) : -0.158

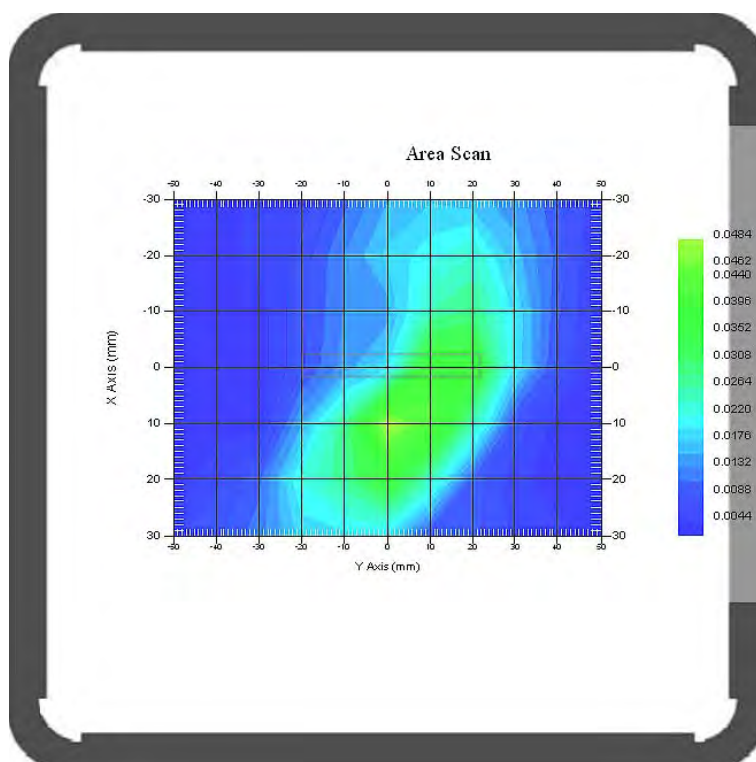
Tissue Data

Type : Body
Frequency : 836.6 MHz
Epsilon : 55.30 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.036 W/kg
10 gram SAR value : 0.016 W/kg
Area Scan Peak SAR : 0.048 W/kg
Zoom Scan Peak SAR : 0.070 W/kg

Plot 53#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA1900; Body-Worn-Front (1880 MHz Middle Channel)****Measurement Data**

Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.305 W/kg
Power Drift-Finish : 0.301 W/kg
Power Drift (%) : -1.305

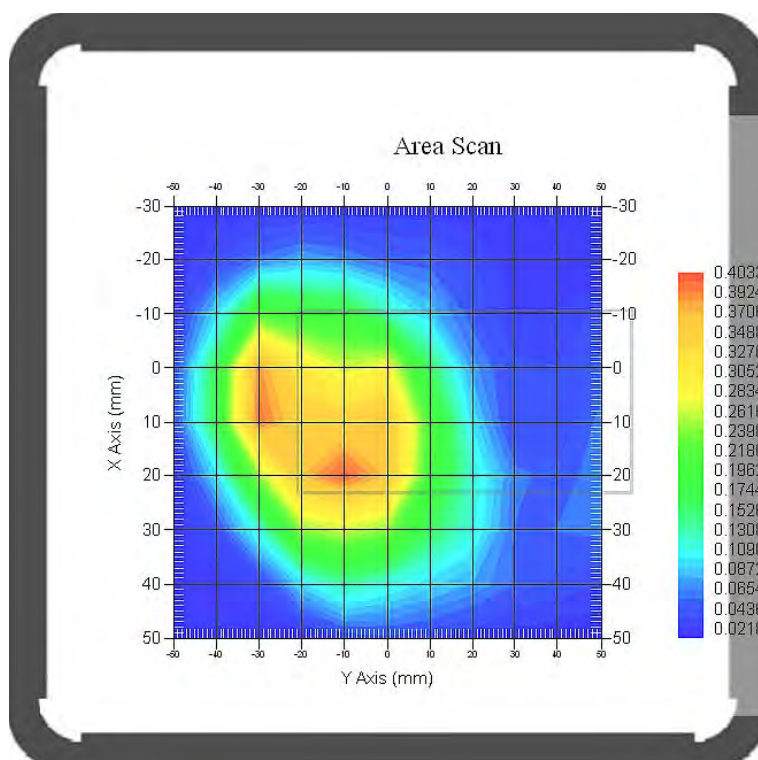
Tissue Data

Type : Head
Frequency : 1880 MHz
Epsilon : 53.68F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.330 W/kg
10 gram SAR value : 0.167 W/kg
Area Scan Peak SAR : 0.398 W/kg
Zoom Scan Peak SAR : 0.620 W/kg

Plot 54#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA1900; Body-Worn-Back (1880 MHz Middle Channel)****Measurement Data**

Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.362 W/kg
Power Drift-Finish : 0.367 W/kg
Power Drift (%) : 1.485

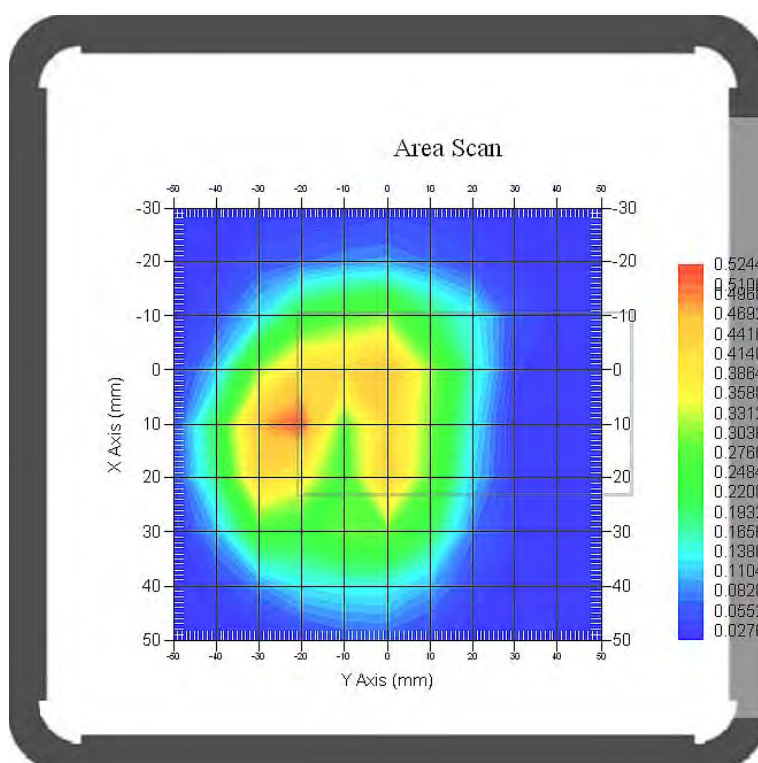
Tissue Data

Type : Head
Frequency : 1880 MHz
Epsilon : 53.68F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.484 W/kg
10 gram SAR value : 0.246 W/kg
Area Scan Peak SAR : 0.511 W/kg
Zoom Scan Peak SAR : 0.950 W/kg

Plot 55#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA1900; Body-Worn-Left (1880 MHz Middle Channel)****Measurement Data**

Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.012 W/kg
Power Drift-Finish : 0.012 W/kg
Power Drift (%) : -1.705

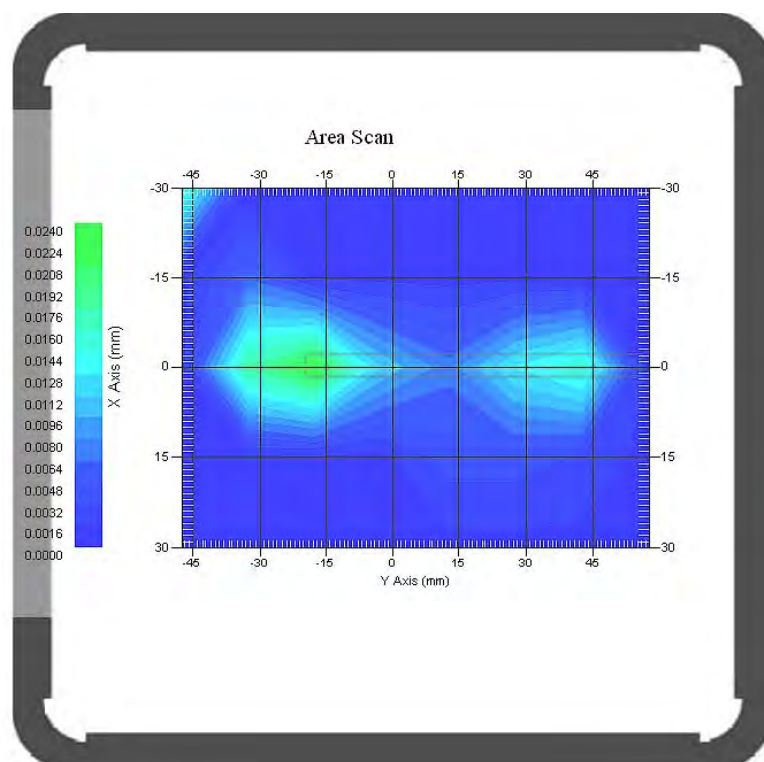
Tissue Data

Type : Head
Frequency : 1880 MHz
Epsilon : 53.68F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.019 W/kg
10 gram SAR value : 0.008 W/kg
Area Scan Peak SAR : 0.023 W/kg
Zoom Scan Peak SAR : 0.050 W/kg

Plot 56#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA1900; Body-Worn-Right (1880 MHz Middle Channel)****Measurement Data**

Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : 0.807

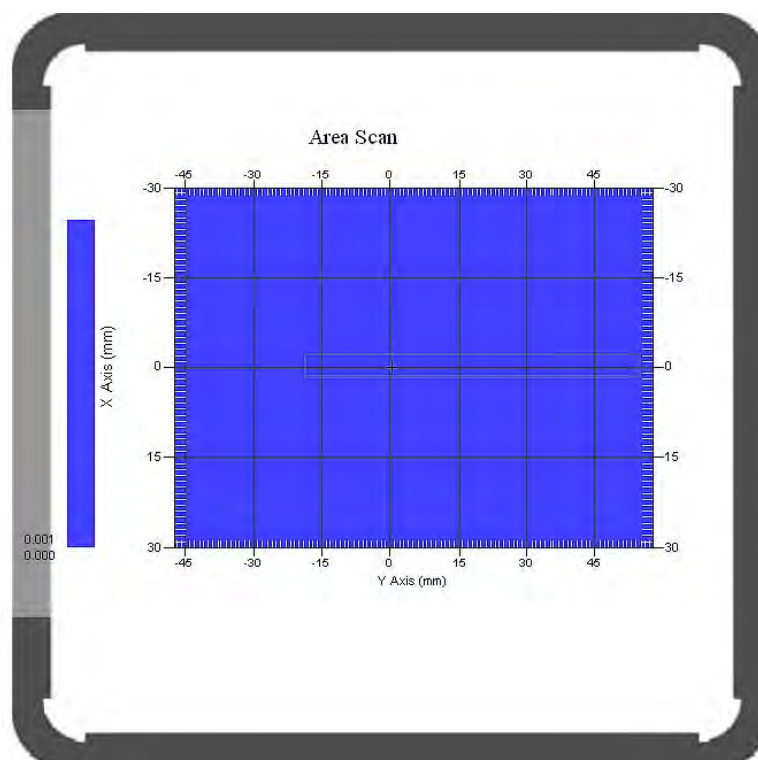
Tissue Data

Type : Head
Frequency : 1880 MHz
Epsilon : 53.68F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.001 W/kg
10 gram SAR value : 0.001 W/kg
Area Scan Peak SAR : 0.001 W/kg
Zoom Scan Peak SAR : 0.009 W/kg

Plot 57#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**WCDMA1900; Body-Worn-Bottom (1880 MHz Middle Channel)**

Measurement Data

Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.498 W/kg
Power Drift-Finish : 0.489 W/kg
Power Drift (%) : -1.878

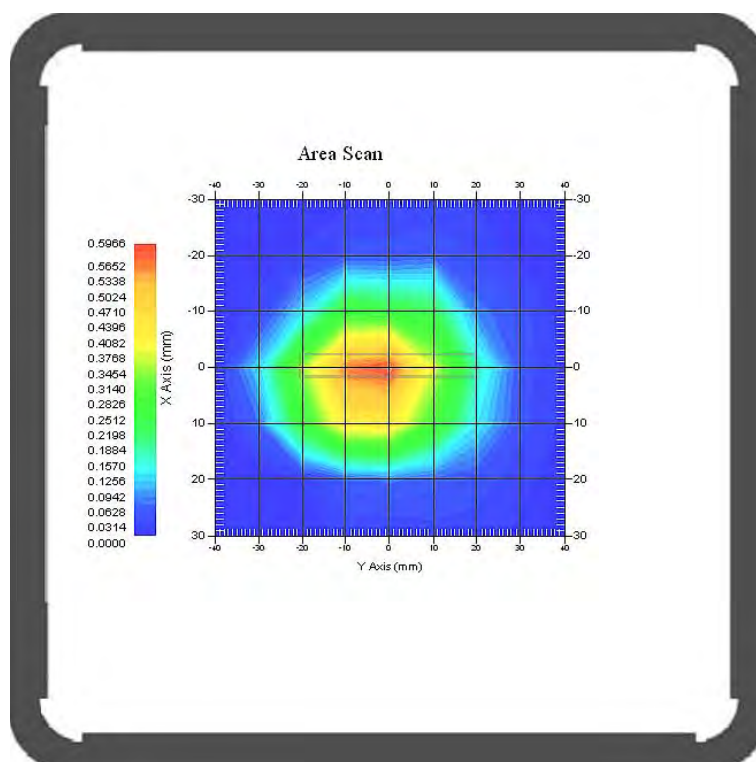
Tissue Data

Type : Head
Frequency : 1880 MHz
Epsilon : 53.68F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.469 W/kg
10 gram SAR value : 0.209 W/kg
Area Scan Peak SAR : 0.589 W/kg
Zoom Scan Peak SAR : 0.930 W/kg

Plot 58#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**802.11b; Body-Worn-Front (2437 MHz Channel 6)**

Measurement Data

Crest Factor : 1
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : -0.429

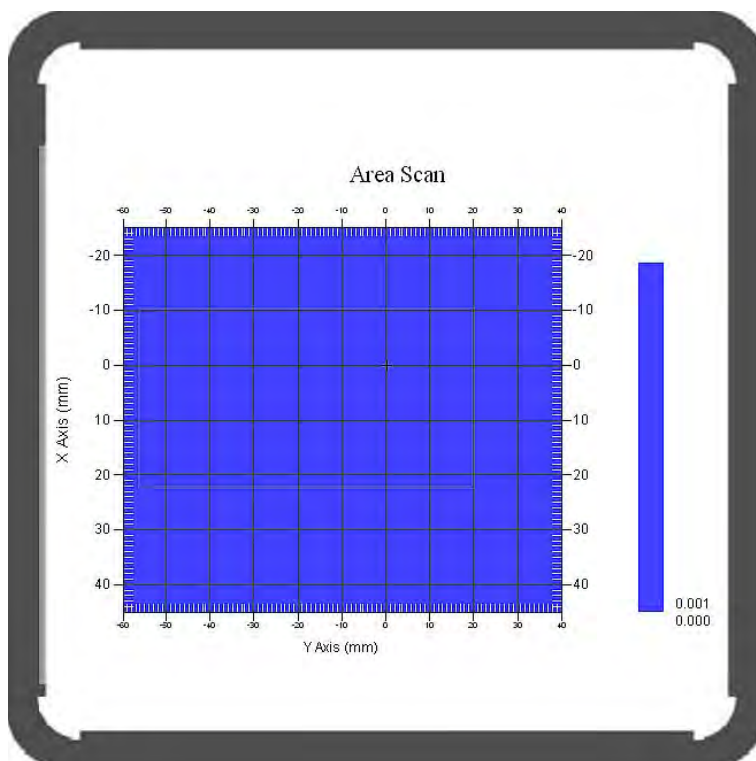
Tissue Data

Type : Body
Frequency : 2437.0 MHz
Epsilon : 51.96 F/m
Sigma : 1.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 2450 MHz
Duty Cycle Factor : 1
Conversion Factor : 4.3
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.002 W/kg
10 gram SAR value : 0.001 W/kg
Area Scan Peak SAR : 0.001 W/kg
Zoom Scan Peak SAR : 0.006 W/kg

Plot 59#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**802.11b; Body-Worn-Back (2437 MHz Channel 6)**

Measurement Data

Crest Factor : 1
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.026 W/kg
Power Drift-Finish : 0.026 W/kg
Power Drift (%) : -1.334

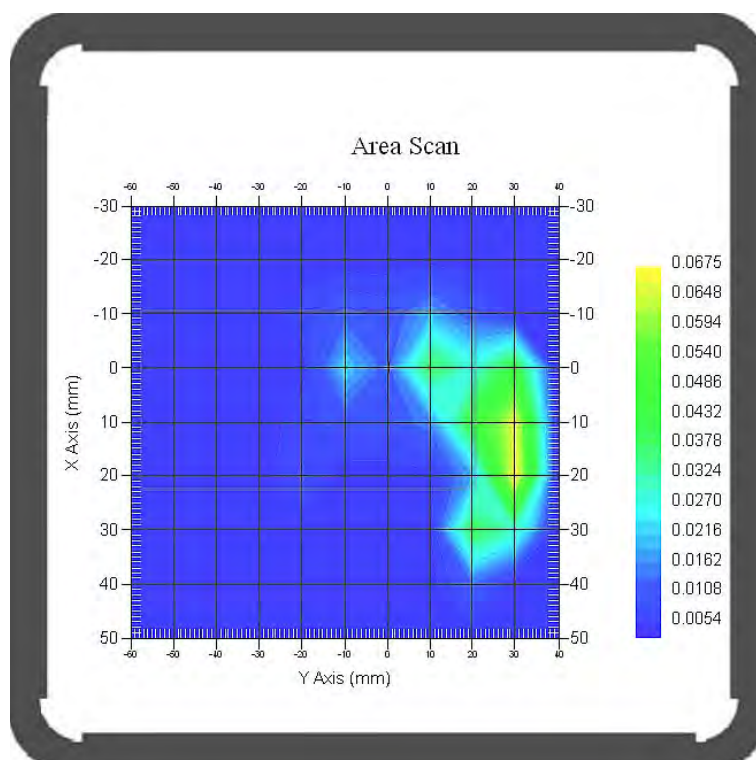
Tissue Data

Type : Body
Frequency : 2437.0 MHz
Epsilon : 51.96 F/m
Sigma : 1.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 2450 MHz
Duty Cycle Factor : 1
Conversion Factor : 4.3
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.063 W/kg
10 gram SAR value : 0.020 W/kg
Area Scan Peak SAR : 0.067 W/kg
Zoom Scan Peak SAR : 0.220 W/kg

Plot 60#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**802.11b; Body-Worn- Left (2437 MHz Channel 6)**

Measurement Data

Crest Factor : 1
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.001 W/kg
Power Drift-Finish : 0.001 W/kg
Power Drift (%) : 2.354

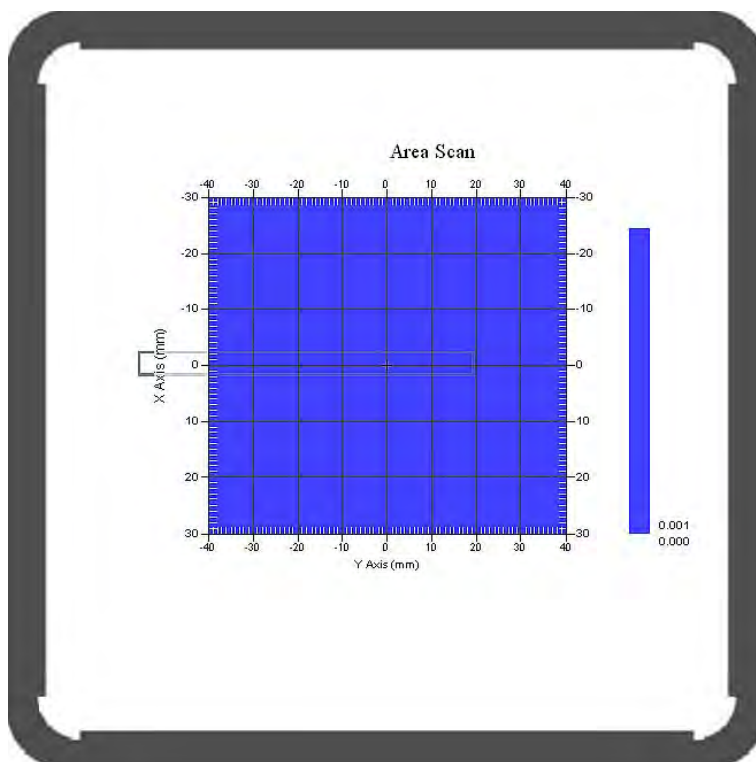
Tissue Data

Type : Body
Frequency : 2437.0 MHz
Epsilon : 51.96 F/m
Sigma : 1.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 2450 MHz
Duty Cycle Factor : 1
Conversion Factor : 4.3
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.001 W/kg
10 gram SAR value : 0.001 W/kg
Area Scan Peak SAR : 0.001 W/kg
Zoom Scan Peak SAR : 0.003 W/kg

Plot 61#

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)**802.11b; Body-Worn- Top (2437 MHz Channel 6)**

Measurement Data

Crest Factor : 1
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.031 W/kg
Power Drift-Finish : 0.031 W/kg
Power Drift (%) : -1.007

Tissue Data

Type : Body
Frequency : 2437.0 MHz
Epsilon : 51.96 F/m
Sigma : 1.96 S/m
Density : 1000.00 kg/cu. m

Probe Data

Serial No. : 500-00283
Frequency Band : 2450 MHz
Duty Cycle Factor : 1
Conversion Factor : 4.3
Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.036 W/kg
10 gram SAR value : 0.015 W/kg
Area Scan Peak SAR : 0.042 W/kg
Zoom Scan Peak SAR : 0.066 W/kg

Plot 62#