SAR TEST REPORT

REPORT NO.: SA980511H07

MODEL NO.: PXU1900

RECEIVED: May 11, 2009

TESTED: Sep. 22 ~ Sep. 23, 2009

ISSUED: Sep. 25, 2009

APPLICANT: Ubee Interactive Corp.

ADDRESS: 6F-9, No.38, Taiyuan St. Jhubei City Hsinchu County 302, Taiwan.

ISSUED BY: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

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1. CERTIFICATION

PRODUCT:	4G Mobile USB
MODEL:	PXU1900
BRAND:	Ubee
APPLICANT:	Ubee Interactive Corp.
TESTED:	Sep. 22 ~ Sep. 23, 2009
TEST SAMPLE:	ENGINEERING SAMPLE
STANDARDS:	**FCC Part 2 (Section 2.1093)** **FCC OET Bulletin 65, Supplement C (01-01)** **RSS-102**

The above equipment (model: PXU1900) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch,** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Andrea Hsia , **DATE:** Sep. 25, 2009
Andrea Hsia / Specialist

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Responsible for RF James Fan / Senior Engineer

APPROVED BY : Gary Chang , **DATE:** Sep. 25, 2009
Gary Chang / Assistant Manager

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	4G Mobile USB
MODEL NO.	PXU1900
FCC ID	XCNPXU1900
POWER SUPPLY	5.0Vdc from host equipment
MODULATION	Up-Link：QPSK-1/2 & -3/4, 16QAM-1/2 & -3/4 Down-Link：QPSK-1/2 & -3/4, 16QAM-1/2 & -3/4, 64QAM-1/2, -2/3, -3/4 & -5/6
MODULATION TECHNOLOGY	OFDMA
DUPLEX METHOD	TDD
FREQUENCY RANGE	2499MHz ~ 2686.75MHz
CHANNEL BANDWIDTH	5MHz, 10MHz
CONDUCTED OUTPUT POWER	Refer to Note 6
AVERAGE SAR (1g)	1.133W/kg
ANTENNA TYPE	Please see note 1
DATA CABLE	NA
INTERFACE	USB port
ASSOCIATED DEVICES	Right Angle Connector (Rotary USB Adapter)

NOTE:

1. There is one dual feed antenna in the EUT and please refer to the following table for specification:

Brand	Model No.	Gain (dBi)	Antenna Type	Connector	Frequency range (MHz)	Cable Loss (dB)	Cable Length
Skycross	iMAT-1115	3	dual feed, combined monopole	NA	2496 ~ 2690	NA	NA

2. For the EUT modulation type and coding rate..

Up Link		Down Link	
Modulation	**Coding rate**	**Modulation**	**Coding rate**
QPSK	1/2	QPSK	1/2
	3/4		3/4
16QAM	1/2	16QAM	1/2
	3/4		3/4
		64QAM	1/2
			2/3
			3/4
			5/6

3. The EUT supports MIMO in the Downlink and SIMO in the Uplink. The EUT has two antennas, two receivers and one transmitter. During the downlink portion of the WiMAX frame the two antennas are connected to two receivers in the modem. The transmitter output is connected via a switch to both antennas. This allows the modem to use either antenna 1 or antenna 2 during the uplink portion of the WiMAX frame.
4. There EUT runs embedded WiMAX software. The EUT is plugged into a notebook computer. An application running on the notebook computer is used to set the transmit power.
5. The EUT supports a range of DL/UL ratio. The maximum DL:UL ratio will be set to 29:18 for 5MHz and 10MHz by software. This ratio was chosen because it is the agreed upon ratio used by carriers in the US. The max. UL consists of 18 symbols. The first 3 symbols are allocated for control symbols.
6. The measured conducted output powers are listed below.

Conducted power of Ant 1 (dBm)				**Conducted power of Ant 2 (dBm)**			
QPSK 1/2				**QPSK 1/2**			
Frequency (MHz)	**BW :5MHz**	**Frequency (MHz)**	**BW:10MHz**	**Frequency (MHz)**	**BW :5MHz**	**Frequency (MHz)**	**BW:10MHz**
2499.00	23.22	2508.50	22.54	2499.00	23.20	2508.50	22.50
2600.00	23.13	2600.00	23.09	2600.00	23.11	2600.00	23.05
2686.75	23.24	2683.50	23.07	2686.75	23.20	2683.50	23.00
QPSK 3/4				QPSK 3/4			
Frequency (MHz)	**BW :5MHz**	**Frequency (MHz)**	**BW:10MHz**	**Frequency (MHz)**	**BW :5MHz**	**Frequency (MHz)**	**BW:10MHz**
2499.00	23.12	2508.50	22.65	2499.00	23.11	2508.50	22.63
2600.00	23.20	2600.00	23.43	2600.00	23.18	2600.00	23.28
2686.75	23.34	2683.50	22.90	2686.75	23.31	2683.50	22.81
16QAM 1/2				**16QAM 1/2**			
Frequency (MHz)	**BW :5MHz**	**Frequency (MHz)**	**BW:10MHz**	**Frequency (MHz)**	**BW :5MHz**	**Frequency (MHz)**	**BW:10MHz**
2499.00	23.16	2508.50	22.82	2499.00	23.13	2508.50	22.69
2600.00	23.14	2600.00	23.19	2600.00	23.11	2600.00	23.17
2686.75	23.15	2683.50	23.18	2686.75	23.14	2683.50	23.13
16QAM 3/4				**16QAM 3/4**			
Frequency (MHz)	**BW :5MHz**	**Frequency (MHz)**	**BW:10MHz**	**Frequency (MHz)**	**BW :5MHz**	**Frequency (MHz)**	**BW:10MHz**
2499.00	23.02	2508.50	23.07	2499.00	23.00	2508.50	22.47
2600.00	23.33	2600.00	23.19	2600.00	23.18	2600.00	23.11
2686.75	23.33	2683.50	23.11	2686.75	23.30	2683.50	23.07

7. The above EUT information was declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or User's Manual.

2.2 GENERAL DESCRIPTION OF APPLIED STANDARDS

According to the specifications of the manufacturer, this product must comply with the requirements of the following standards:

FCC Part 2 (2.1093)

FCC OET Bulletin 65, Supplement C (01- 01)

RSS-102

IEEE 1528-2003

All test items have been performed and recorded as per the above standards.

2.3 GENERAL INOFRMATION OF THE SAR SYSTEM

DASY4 **(software 4.7 Build 80)** consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY4 software defined. The DASY4 software can define the area that is detected by the probe. The robot is connected to controlled box. Controlled measurement server is connected to the controlled robot box. The DAE includes amplifier, signal multiplexing, AD converter, offset measurement and surface detection. It is connected to the Electro-optical coupler (ECO). The ECO performs the conversion form the optical into digital electric signal of the DAE and transfers data to the PC.

EX3DV3 ISOTROPIC E-FIELD PROBE

CONSTRUCTION	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
FREQUENCY	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
DIRECTIVITY	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
DYNAMIC RANGE	10 μW/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μW/g)
DIMENSIONS	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
APPLICATION	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.

NOTE

1. The Probe parameters have been calibrated by the SPEAG. Please reference “APPENDIX D” for the Calibration Certification Report.
2. For frequencies above 800MHz, calibration in a rectangular wave-guide is used, because wave-guide size is manageable.
3. For frequencies below 800MHz, temperature transfer calibration is used because the wave-guide size becomes relatively large.

TWIN SAM V4.0

CONSTRUCTION	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528-2003, EN 62209-1 and IEC 62209. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points with the robot.
SHELL THICKNESS	2 ± 0.2mm
FILLING VOLUME	Approx. 25liters
DIMENSIONS	Height: 810mm; Length: 1000mm; Width: 500mm

SYSTEM VALIDATION KITS:

CONSTRUCTION	Symmetrical dipole with I/4 balun enables measurement of feedpoint impedance with NWA matched for use near flat phantoms filled with brain simulating solutions. Includes distance holder and tripod adaptor
CALIBRATION	Calibrated SAR value for specified position and input power at the flat phantom in brain simulating solutions
FREQUENCY	2600MHz
RETURN LOSS	> 20dB at specified validation position
POWER CAPABILITY	> 100W (f < 1GHz); > 40W (f > 1GHz)
OPTIONS	Dipoles for other frequencies or solutions and other calibration conditions upon request

DEVICE HOLDER FOR SAM TWIN PHANTOM

CONSTRUCTION

The device holder for the mobile phone device is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation centers for both scales is the ear reference point (ERP). Thus the device needs no repositioning when changing the angles. The holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity ε =3 and loss tangent δ =0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered. The device holder for the portable device makes up of the polyethylene foam. The dielectric parameters of material close to the dielectric parameters of the air.

DATA ACQUISITION ELECTRONICS

CONSTRUCTION

The data acquisition electronics (DAE3) consists of a highly sensitive electrometer grade preamplifier with auto-zeroing, a channel and gain-switching multiplex, a fast 16 bit AD converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock. The mechanical probe is mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection. The input impedance of the DAE3 box is 200MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

2.4 GENERAL DESCRIPTION OF THE SPATIAL PEAK SAR EVALUATION

The DASY4 post-processing software (SEMCAD) automatically executes the following procedures to calculate the field units from the micro-volt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software:

Probe parameters:	- Sensitivity	$Norm_i$, a_{i0}, a_{i1}, a_{i2}
	- Conversion factor	$ConvF_i$
	- Diode compression point	dcp_i
Device parameters:	- Frequency	F
	- Crest factor	Cf
Media parameters:	- Conductivity	σ
	- Density	ρ

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

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

V_i	=compensated signal of channel i	(i = x, y, z)
U_i	=input signal of channel I	(i = x, y, z)
Cf	=crest factor of exciting field	(DASY parameter)
dcp_i	=diode compression point	(DASY parameter)

From the compensated input signals the primary field data for each channel can be evaluated:

$$\text{E-fieldprobes: } E_i = \sqrt{\frac{V_1}{Norm_i \cdot ConvF}}$$

$$\text{H-fieldprobes: } H_i = \sqrt{V_i} \cdot \frac{a_{i0} + a_{i1} f + a_{i2} f^2}{f}$$

V_i	=compensated signal of channel I	(i = x, y, z)
$Norm_i$	=sensor sensitivity of channel i μV/(V/m)2 for E-field Probes	(i = x, y, z)
ConvF	= sensitivity enhancement in solution	
a_{ij}	= sensor sensitivity factors for H-field probes	
F	= carrier frequency [GHz]	
E_i	= electric field strength of channel i in V/m	
H_i	= magnetic field strength of channel i in A/m	

The RSS value of the field components gives the total field strength (Hermitian magnitude):

$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$

The primary field data are used to calculate the derived field units.

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1'000}$$

SAR	= local specific absorption rate in mW/g
E_{tot}	= total field strength in V/m
σ	= conductivity in [mho/m] or [Siemens/m]
ρ	= equivalent tissue density in g/cm3

Note that the density is set to 1, to account for actual head tissue density rather than the density of the tissue simulating liquid. The entire evaluation of the spatial peak values is performed within the Post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

1. The extraction of the measured data (grid and values) from the Zoom Scan
2. The calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
3. The generation of a high-resolution mesh within the measured volume
4. The interpolation of all measured values from the measurement grid to the high-resolution grid
5. The extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
6. The calculation of the averaged SAR within masses of 1g and 10g.

The probe is calibrated at the center of the dipole sensors that is located 1 to 2.7mm away from the probe tip. During measurements, the probe stops shortly above the phantom surface, depending on the probe and the surface detecting system. Both distances are included as parameters in the probe configuration file. The software always knows exactly how far away the measured point is from the surface. As the probe cannot directly measure at the surface, the values between the deepest measured point and the surface must be extrapolated. The angle between the probe axis and the surface normal line is less than 30 degree.

The maximum search is automatically performed after each area scan measurement. It is based on splines in two or three dimensions. The procedure can find the maximum for most SAR distributions even with relatively large grid spacing. After the area scanning measurement, the probe is automatically moved to a position at the interpolated maximum. The following scan can directly use this position for reference, e.g., for a finer resolution grid or the cube evaluations. The 1g and 10g peak evaluations are only available for the predefined cube 7 x 7 x 7 scans. The routines are verified and optimized for the grid dimensions used in these cube measurements. The measured volume of 30 x 30 x 30mm contains about 30g of tissue. The first procedure is an extrapolation (incl. boundary correction) to get the points between the lowest measured plane and the surface. The next step uses 3D interpolation to get all points within the measured volume in a 1mm grid (42875 points). In the last step, a 1g cube is placed numerically into the volume and its averaged SAR is

calculated. This cube is the moved around until the highest averaged SAR is found. If the highest SAR is found at the edge of the measured volume, the system will issue a warning: higher SAR values might be found outside of the measured volume. In that case the cube measurement can be repeated, using the new interpolated maximum as the center.

3. DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

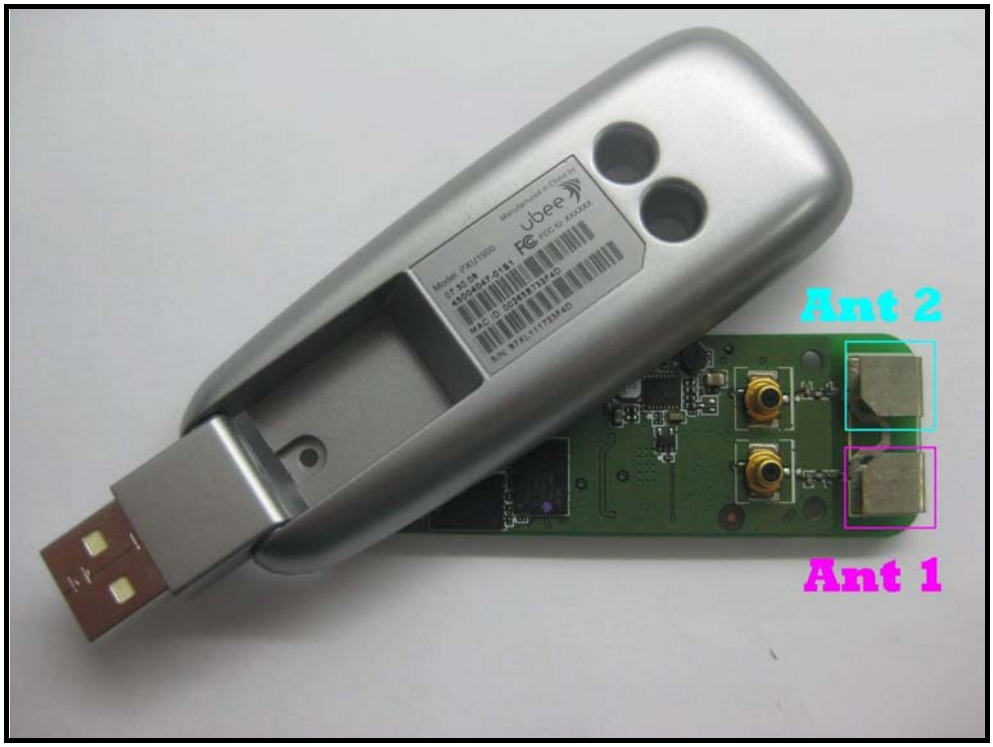
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	DELL	D820	21498926752	FCC Doc Approved

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA

NOTE 1: All power cords of the above support units are non shielded (1.8m).
NOTE 2: The length of USB cable is 11.6 inch. USB cable does not affect device radiating characteristics and output power

4. DESCRIPTION OF TEST MODES AND CONFIGURATIONS

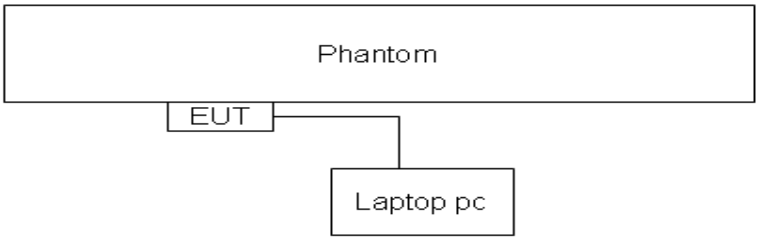
4.1. DESCRIPTION OF ANTENNA LOCATION

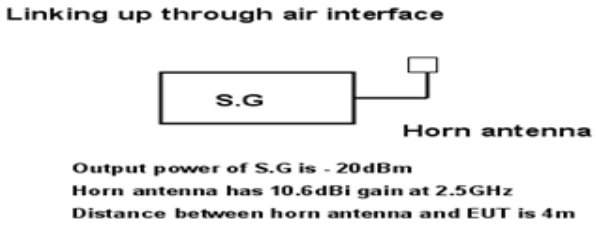


4.2. CHECK FOR LINEARITY RESPONSE / WORST CASE / SCAN RESOLUTION

Linearity response check:

Test setup is as below





The front of EUT contact phantom directly. Control EUT to transmit at various average power level and do zoom scan to get 1g SAR value. The reported power is RMS average measured during burst-on period by trigger and gating.

Test condition

Modulation	5M QPSK1/2
Waveform	29U18
Position	Front 0mm
Frequency	2499MHz

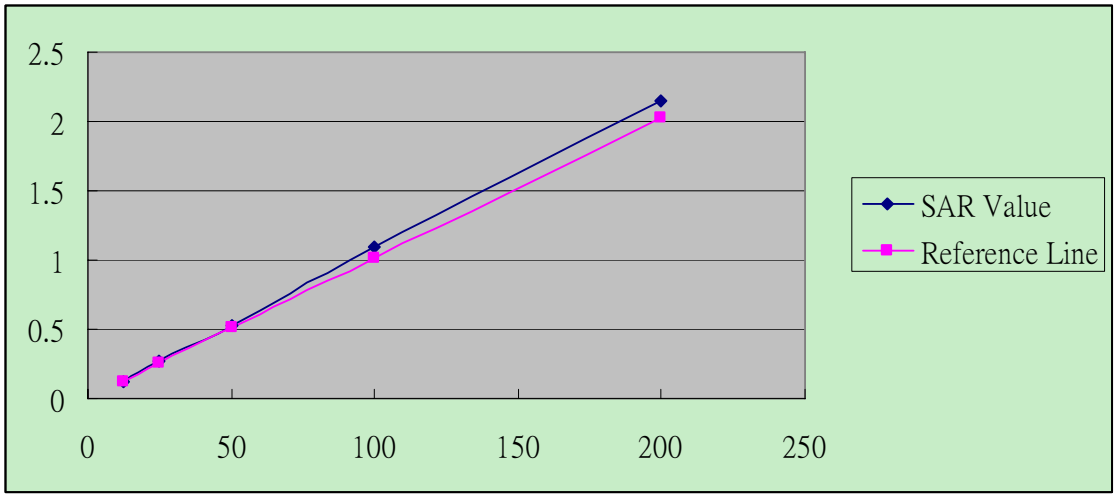
Test instrument for output power

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
High Speed Peak Power Meter	ML2495A	0824012	Aug. 10, 2009	Aug. 09, 2010
Power Sensor	MA2411B	0738138	Aug. 10, 2009	Aug. 09, 2010

NOTE:
The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

SAR value for various output power

WiMAX Peak RMS output power (mW)	12.5	25	50	100	200
SAR (mW /g)	0.127	0.268	0.531	1.1	2.15



Conclusion:

From the above evaluation, it suggests that the SAR result is about 5.81% over estimated. Accordingly we believe that the final SAR result is conservative.

Worst case determination

Choosing max output power channel of EMC report to pretest under 4 modulation types to determine worst case.

Pretest data as below:

CHANNEL BANDWIDTH	5MHz				10MHz			
TEST CHANNEL	High				Middle			
TX ANTENNA	Ant 1				Ant 1			
MODULATION	QPSK 1/2	QPSK 3/4	16QAM 1/2	16QAM 3/4	QPSK 1/2	QPSK 3/4	16QAM 1/2	16QAM 3/4
SAR VALUE	0.986	0.979	0.957	0.974	0.944	0.931	0.891	0.927

**Conclusion: Worst case is QPSK 1/2.

Compare with different scan resolution

With EUT hold on the worst case configuration (5MHz bandwidth / Low channel) with no any change in position or setting, 2 scans with different resolutions are preformed to evaluate the impact on the SAR value.

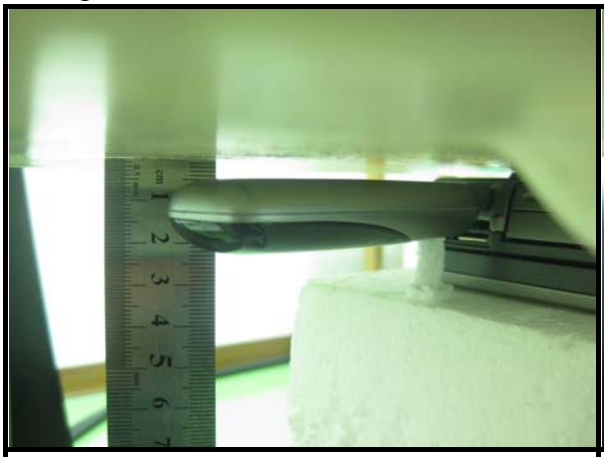
Test data as below:

High channel of 5MHz at bottom position	
Scan resolution (mm)	SAR VALUE (W/kg)
2.5	1.07
5	1.05

Conclusion: No meaningful change detected.

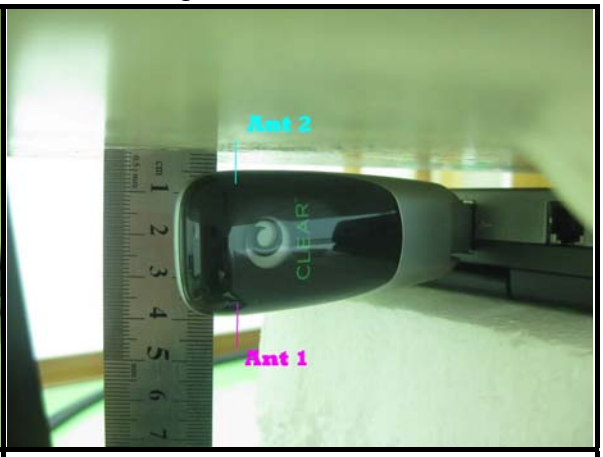
4.3. DESCRIPTION OF ASSESSMENT POSITION

The following test configurations are worst case setup for each applicable configuration as concluded above and was used during the final evaluation



A

The bottom of the EUT face to the phantom with 5mm-separation distance.

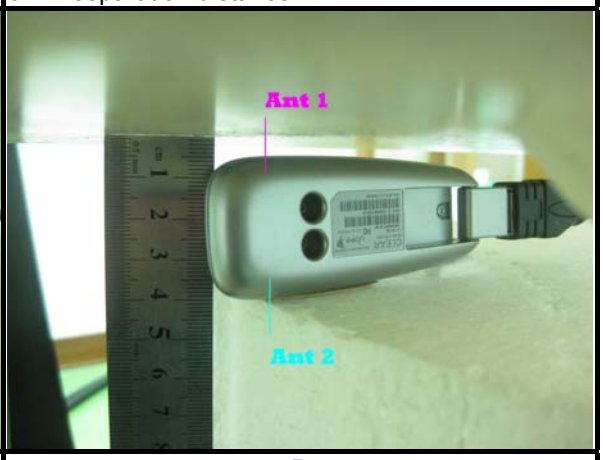


B

The right edge of the EUT face to the phantom with 5mm-separation distance.

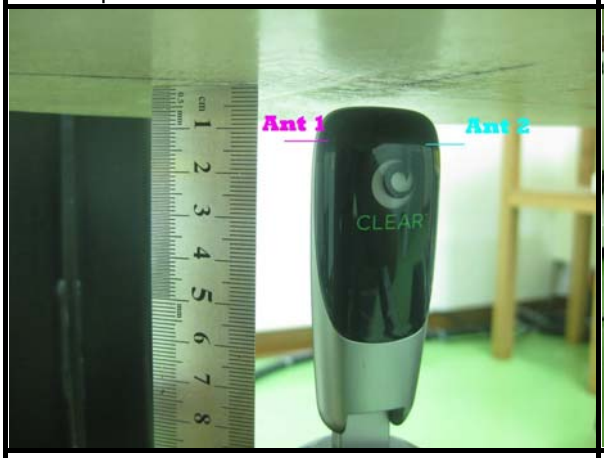
C

The front of the EUT face to the phantom with 5mm-separation distance.



D

The left edge of the EUT face to the phantom with 5mm-separation distance.



E

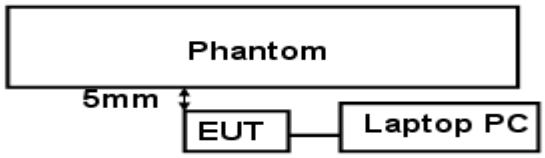
The Tip of the EUT face to the phantom with 5mm-separation distance.

4.4. DESCRIPTION OF TEST MODE

ANTENNA 1				
TEST MODE	COMMUNICATION	MODULATION TYPE	ASSESSMENT POSTITION	TESTED CHANNEL
1	WiMAX – 5M	5M QPSK1/2	A	L, M, H
2	WiMAX – 10M	10M QPSK1/2	A	L, M, H
3	WiMAX – 5M	5M QPSK1/2	B	L, M, H
4	WiMAX – 10M	10M QPSK1/2	B	L, M, H
5	WiMAX – 5M	5M QPSK1/2	C	L, M, H
6	WiMAX – 5M	5M QPSK3/4	C	L, M, H
7	WiMAX – 5M	5M 16Q1/2	C	L, M, H
8	WiMAX – 5M	5M 16Q3/4	C	L, M, H
9	WiMAX – 10M	10M QPSK1/2	C	L, M, H
10	WiMAX – 10M	10M QPSK3/4	C	L, M, H
11	WiMAX – 10M	10M 16Q1/2	C	L, M, H
12	WiMAX – 10M	10M 16Q3/4	C	L, M, H
13	WiMAX – 5M	5M QPSK1/2	D	L, M, H
14	WiMAX – 10M	10M QPSK1/2	D	L, M, H
15	WiMAX – 5M	5M QPSK1/2	E	L, M, H
16	WiMAX – 10M	10M QPSK1/2	E	L, M, H
ANTENNA 2				
TEST MODE	COMMUNICATION	MODULATION TYPE	ASSESSMENT POSTITION	TESTED CHANNEL
17	WiMAX – 5M	5M QPSK1/2	C	L,M,H
18	WiMAX – 10M	10M QPSK1/2	C	L,M,H
19	WiMAX – 5M	5M QPSK1/2	A	L,M,H
20	WiMAX – 10M	10M QPSK1/2	A	L,M,H
21	WiMAX – 5M	5M QPSK1/2	B	L,M,H
22	WiMAX – 5M	10M QPSK1/2	B	L,M,H
23	WiMAX – 5M	5M QPSK1/2	D	L,M,H
24	WiMAX – 5M	10M QPSK1/2	D	L,M,H
25	WiMAX – 10M	5M QPSK1/2	E	L,M,H
26	WiMAX – 10M	10M QPSK1/2	E	L,M,H

4.5. TEST SETUP AND TEST SIGNAL DETAIL

The test set-up is shown in the below picture. The USB Adapter (EUT) is plugged into the notebook computer and configured exactly as it would be in the field on a normal network.



Linking up through air interface

Output power of S.G is - 20dBm
Horn antenna has 10.6dBi gain at 2.5GHz
Distance between horn antenna and EUT is 4m

The Beceem test tool is used on the laptop.
Beceem test tool is used to instruct the USB dongle to go to full power. Under normal operating conditions the BS would be responsible for controlling the MS Tx power. When working with a BS, the MS cannot Tx at a power greater than the max power requested by Beceem test tool.

Note : Beceem test tool is a specific tool provided by client. This tool can control EUT to transmit at specific channel, power , channel bandwidth.

On the network side, there is a vector signal generator as below:

Agilent E4438C ESG with below options:
N7613A: Signal Studio for 802.16-2004 WiMAX
N7615B: Signal studio for 802.16 WiMAX

Software is loaded into the E4438C ESG that produces an output signal that looks like a 29:18 WiMAX frame, the EUT detects the “network” and begins to transmit based on the commands from the ESG signal and the measurements are then taken on the EUT.

The PXU1900 device is 2.5 GHz WiMAX transceiver in a USB dongle configuration using Beceem chipset which supports 1xTx and 2xRx for this device. Its uplink is capable of both 10 MHz and 5 MHz bandwidths. Its uplink is capable of both 10 MHz and 5 MHz bandwidths. For the 10 MHz bandwidth, it has 35 sub-channels structured from 1024 subcarriers; 184 are used as spare/safeguard subcarriers, leaving 840 available for transmission. From this, 560 subcarriers for data transmission with 280 subcarriers intended for pilot use. For the 5 MHz bandwidth, it contains 17 sub-channels using 512 subcarriers; 104 subcarriers as spare/safeguard subcarriers, 272 for data transmission, and 136 for pilot. The up-link sub-frame is triggered by an Allocation Start Time contained in the information of UL-MAP. This information specifies the starting times of the Uplink and Downlink frames. In any UL sub-frame, the duty factor and bandwidth information is used to ensure optimal system operation.. In the real usage, the data burst power will be adjusted according to the signal strength of the communication. In this way, by using the test mode arrangement we are transmitting at a worst case RF level.

The signal generator produces a downlink DL burst every 5 milliseconds which simulates the transmission of a base-station operating under normal mode. This DL burst instructs the mobile station MS to transmit for 15 symbols in the UL data zone. This UL transmission is repeated every 5 milliseconds. The TX power of the mobile station is set to maximum power. The ESG and MS use same frequency. The ESG power is much less than the MS Tx power (Approximately 80dB less than the MS power) and so does not affect the SAR readings. Since both the signal generator (BS simulator) and MS are working in TDD mode, co-operation under same frequency is not an issue.

The ESG is loaded with a BS (Base Station) downlink signal which contains the 29:18 information. The mobile station (MS) (DUT) synchronizes to the signal from the ESG in frequency and time and then demodulates two maps contained in the ESG DL frame. The first map, called the DL map, specifies the number of DL symbols (29). The second map, called the UL map, specifies the number of UL symbols (18). The UL map also tells the MS to transmit a burst which occupies all data symbols and all sub-channels. No control channel transmissions are requested by the ESG. Measurements were taken in this configuration with the MS transmitting using the 29:18 ratio, but since there was no energy in the control symbols, the effective power is only across 15 symbols.

As mentioned above the DL:UL frame is specified in the DL and UL maps respectively. There is no ranging present when there is data traffic. The other types of control traffic are HARQ ACK/NACK, CQICH (CINR reporting) and bandwidth BW requests. BW requests are piggy-backed onto the data symbols when traffic is present. Since the BW requests are shared across the Control Symbols (traffic versus non-traffic modes) the control traffic that is relevant to the SAR calculation is CQICH and HARQ ACK/NACK. The maximum power for this control traffic is 63.46mW(5/35 of 215.77mW) for 10MHz and 31.47mW(5/17 of 220.29 mW) for 5MHz.

In the test mode the UL operates in PUSC with all data sub-channels (All 35 sub-channels for 10MHz) occupied with data. During normal operation the MS will transmit on all sub-channels when maximum UL throughput is required. It is possible for the mobile-station to transmit with fewer sub-channels. The sub-channels consist of tones that are distributed over the entire signal BW and a jump every three symbols so that the spectral density and hence SAR for the fractional sub-channel case will be similar to the full sub-channel case that is tested. (Note: In the WiMAX standard a sub-channel consists of tones that are spread across the occupied bandwidth. After every three symbols, the tones that make up the sub-channel switch to a new set of frequencies spread across the band. This “jumping” is called sub-channel rotation and helps to give the sub-channel frequency diversity.)

The testing was done at 29:18 ratio as this is the max achievable ratio for the product (Please refer to manufacture declaration latter). The 29 indicates the number of downlink (from the base station) symbols, and the 18 indicates the number of uplink (transmitted from the MS) symbols. Inside the uplink, 15 of the symbols are used for data, and three of the symbols are used for sending control information to the network. During the testing, the control symbols contained no information, so did not contribute to the total energy transmitted. To compensate for the maximum energy which may presented in the 3 control symbols, following scheme is used for the up scaling:

Max output power of 5MHz is 23.34dBm =215.77mW (Reference power table of P5)

The maximum power in 5M control traffic is 63.46mW (5/17 of 215.77 mW)

Scaled factor for 5MHz bandwidth =

(63.46mW x 3 + 15 x 215.77mW)/(15*215.77mW)=1.059

Max output power of 10MHz is 23.43dBm =220.29mW(Reference power table of P5)

The maximum power in 10M control traffic is 31.47 mW (5/35 of 220.29 mW)

Scaled factor for 10MHz bandwidth =

(31.47mW x 3 + 15 x 220.29mW)/(15*220.29mW)=1.029

4.6. SUMMARY OF TEST RESULTS

Measurement & Scaling SAR value:

ANTENNA 1							
Chan.	**Freq. (MHz)**	**MODULATION**	**TEST MODE**	**MEASURED 1g SAR (W/kg)**	**SCALING FACTOR**	**SCALING SAR**	**DEVICE TEST POSITION**
2	2499.00	5M QPSK1/2	1	0.624	1.059	0.661	A
406	2600.00	5M QPSK1/2	1	0.743	1.059	0.787	A
753	2686.75	5M QPSK1/2	1	0.637	1.059	0.675	A
30	2508.50	10M QPSK1/2	2	0.655	1.029	0.674	A
396	2600.00	10M QPSK1/2	2	0.666	1.029	0.685	A
730	2683.5	10M QPSK1/2	2	0.642	1.029	0.661	A
2	2499.00	5M QPSK1/2	3	0.679	1.059	0.719	B
406	260000	5M QPSK1/2	3	0.634	1.059	0.671	B
753	2686.75	5M QPSK1/2	3	0.437	1.059	0.463	B
30	2508.50	10M QPSK1/2	4	0.611	1.029	0.629	B
396	2600.00	10M QPSK1/2	4	0.597	1.029	0.614	B
730	2683.50	10M QPSK1/2	4	0.415	1.029	0.427	B
2	2499.00	5M QPSK1/2	5	1.070	1.059	**1.133**	C
406	2600.00	5M QPSK1/2	5	0.995	1.059	1.054	C
753	2686.75	5M QPSK1/2	5	0.986	1.059	1.044	C
2	2499.00	5M QPSK3/4	6	1.050	1.059	1.112	C
406	2600.00	5M QPSK3/4	6	0.983	1.059	1.041	C
753	2686.75	5M QPSK3/4	6	0.979	1.059	1.037	C
2	2499.00	5M 16Q1/2	7	1.020	1.059	1.080	C
406	2600.00	5M 16Q1/2	7	0.982	1.059	1.040	C
753	2686.75	5M 16Q1/2	7	0.957	1.059	1.013	C
2	2499.00	5M 16Q3/4	8	1.000	1.059	1.059	C
406	2600.00	5M 16Q3/4	8	0.951	1.059	1.007	C
753	2686.75	5M 16Q3/4	8	0.974	1.059	1.031	C

ANTENNA 1							
Chan.	Freq. (MHz)	MODULATION	TEST MODE	MEASURED 1g SAR (W/kg)	SCALING FACTOR	SCALING SAR	DEVICE TEST POSITION
30	2508.50	10M QPSK1/2	9	0.99	1.029	1.019	C
396	2600.00	10M QPSK1/2	9	0.944	1.029	0.971	C
730	2683.50	10M QPSK1/2	9	0.903	1.029	0.929	C
30	2508.50	10M QPSK3/4	10	0.959	1.029	0.987	C
396	2600.00	10M QPSK3/4	10	0.931	1.029	0.958	C
730	2683.50	10M QPSK3/4	10	0.912	1.029	0.938	C
30	2508.50	10M 16Q1/2	11	0.960	1.029	0.988	C
396	2600.00	10M 16Q1/2	11	0.891	1.029	0.917	C
730	2683.50	10M 16Q1/2	11	0.923	1.029	0.950	C
30	2508.50	10M 16Q3/4	12	0.943	1.029	0.970	C
396	2600.00	10M 16Q3/4	12	0.927	1.029	0.954	C
730	2683.50	10M 16Q3/4	12	0.891	1.029	0.917	C
2	2499.00	5M QPSK1/2	13	0.393	1.059	0.416	D
406	2600.00	5M QPSK1/2	13	0.486	1.059	0.515	D
753	2686.75	5M QPSK1/2	13	0.557	1.059	0.590	D
30	2508.50	10M QPSK1/2	14	0.370	1.029	0.381	D
396	2600.00	10M QPSK1/2	14	0.446	1.029	0.459	D
730	2683.50	10M QPSK1/2	14	0.518	1.029	0.533	D
2	2499.00	5M QPSK1/2	15	0.792	1.059	0.839	E
406	2600.00	5M QPSK1/2	15	0.637	1.059	0.675	E
753	2686.75	5M QPSK1/2	15	0.545	1.059	0.577	E
30	2508.50	10M QPSK1/2	16	0.748	1.029	0.770	E
396	2600.00	10M QPSK1/2	16	0.615	1.029	0.633	E
730	2683.50	10M QPSK1/2	16	0.514	1.029	0.529	E

ANTENNA 2							
Chan.	Freq. (MHz)	MODULATION	TEST MODE	MEASURED 1g SAR (W/kg)	SCALING FACTOR	SCALING SAR	DEVICE TEST POSITION
2	2499.00	5M QPSK1/2	17	0.867	1.059	0.918	C
406	2600.00	5M QPSK1/2	17	1.020	1.059	1.080	C
753	2686.75	5M QPSK1/2	17	1.040	1.059	1.101	C
30	2508.50	10M QPSK1/2	18	0.821	1.029	0.845	C
396	2600.00	10M QPSK1/2	18	0.965	1.029	0.993	C
730	2683.50	10M QPSK1/2	18	0.986	1.029	1.015	C
2	2499.00	5M QPSK1/2	19	0.547	1.059	0.579	A
406	2600.00	5M QPSK1/2	19	0.598	1.059	0.633	A
753	2686.75	5M QPSK1/2	19	0.551	1.059	0.584	A
30	2508.50	10M QPSK1/2	20	0.558	1.029	0.574	A
396	2600.00	10M QPSK1/2	20	0.625	1.029	0.643	A
730	2683.50	10M QPSK1/2	20	0.571	1.029	0.588	A
2	2499.00	5M QPSK1/2	21	0.272	1.059	0.288	B
406	2600.00	5M QPSK1/2	21	0.531	1.059	0.562	B
753	2686.75	5M QPSK1/2	21	0.600	1.059	0.635	B
30	2508.50	10M QPSK1/2	22	0.228	1.029	0.235	B
396	2600.00	10M QPSK1/2	22	0.477	1.029	0.491	B
730	2683.50	10M QPSK1/2	22	0.665	1.029	0.684	B
2	2499.00	5M QPSK1/2	23	0.511	1.059	0.541	D
406	2600.00	5M QPSK1/2	23	0.452	1.059	0.479	D
753	2686.75	5M QPSK1/2	23	0.399	1.059	0.423	D
30	2508.50	10M QPSK1/2	24	0.499	1.029	0.513	D
396	2600.00	10M QPSK1/2	24	0.464	1.029	0.477	D
730	2683.50	10M QPSK1/2	24	0.410	1.029	0.422	D
2	2499.00	5M QPSK1/2	25	0.785	1.059	0.831	E
406	2600.00	5M QPSK1/2	25	0.643	1.059	0.681	E
753	2686.75	5M QPSK1/2	25	0.479	1.059	0.507	E
30	2508.50	10M QPSK1/2	26	0.746	1.029	0.768	E
396	2600.00	10M QPSK1/2	26	0.662	1.029	0.681	E
730	2683.50	10M QPSK1/2	26	0.494	1.029	0.508	E

5. TEST RESULTS

5.1 TEST PROCEDURES

Use the software to control the EUT channel and transmission power. Then record the conducted power before the testing. Place the EUT to the specific test location. After the testing, must writing down the conducted power of the EUT into the report. The SAR value was calculated via the 3D spline interpolation algorithm that has been implemented in the software of DASY4 SAR measurement system manufactured and calibrated by SPEAG. According to the IEEE 1528 standards, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- Power reference measurement
- Verification of the power reference measurement
- Area scan
- Zoom scan
- Power reference measurement

The area scan was performed for the highest spatial SAR location. The zoom scan with 30mm x 30mm x 30mm volume was performed for SAR value averaged over 1g and 10g spatial volumes.

In the zoom scan, the distance between the measurement point at the probe sensor location (geometric center behind the probe tip) and the phantom surface is 3mm and maintained at a constant distance of ±0.5mm during a zoom scan to determine peak SAR locations. The distance is 3mm between the first measurement point and the bottom surface of the phantom. The secondary measurement point to the bottom surface of the phantom is with 8mm separation distance. The cube size is 7 x 7 x 7 points consists of 343 points and the grid space is 5mm.

The measurement time is 0.5s at each point of the zoom scan. The probe boundary effect compensation shall be applied during the SAR test. Because of the tip of the probe to the Phantom surface separated distances are longer than half a tip probe diameter.

In the area scan, the separation distance is 3mm between the each measurement point and the phantom surface. The scan size shall be included the transmission portion of the EUT. The measurement time is the same as the zoom scan. At last the reference power drift shall be less than ±5%.

5.2 MEASURED SAR RESULTS

ANTENNA 1					
ENVIRONMENTAL CONDITION	Air Temperature：23.3℃, Liquid Temperature：22.5℃ Humidity：62%RH				
TESTED BY	Sam Onn		**DATE**	Sep. 22, 2009	

FREQ. (MHz)	MODULATION Type	CONDUCTED POWER (dB m) BEGIN TEST	POWER DRIFT (dB)	DEVICE TEST MODE	MEASURED 1g SAR (W/kg)
2499.00 (Low)	5M QPSK 1/2	23.22	-0.104	1	0.624
2600.00 (Mid.)	5M QPSK 1/2	23.13	0.110	1	0.743
2686.75 (High)	5M QPSK 1/2	23.24	-0.019	1	0.637
2508.50 (Low)	10M QPSK 1/2	22.54	-0.081	2	0.655
2600.00 (Mid.)	10M QPSK 1/2	23.09	0.058	2	0.666
2683.5 (High)	10M QPSK 1/2	23.07	-0.098	2	0.642
2499.00 (Low)	5M QPSK 1/2	23.22	-0.057	3	0.679
2600.00 (Mid.)	5M QPSK 1/2	23.13	-0.158	3	0.634
2686.75 (High)	5M QPSK 1/2	23.24	-0.18	3	0.437
2508.50 (Low)	10M QPSK 1/2	22.54	-0.095	4	0.611
2600.00 (Mid.)	10M QPSK 1/2	23.09	-0.126	4	0.597
2683.5 (High)	10M QPSK 1/2	23.07	-0.143	4	0.415

NOTE:

1. Test configuration of each mode is described in section 4.3.
2. In this testing, the limit for General Population Spatial Peak averaged over 1g, **1.6 W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

ANTENNA 1					
ENVIRONMENTAL CONDITION	Air Temperature：23.3°C, Liquid Temperature：22.5°C Humidity：62%RH				
TESTED BY	Sam Onn		**DATE**	Sep. 22, 2009	

FREQ. (MHz)	MODULATION Type	CONDUCTED POWER (dB m)	POWER DRIFT (dB)	DEVICE TEST MODE	MEASURED 1g SAR (W/kg)
		BEGIN TEST			
2499.00 (Low)	5M QPSK 1/2	23.22	0.037	5	**1.070**
2600.00 (Mid.)	5M QPSK 1/2	23.13	-0.109	5	0.995
2686.75 (High)	5M QPSK 1/2	23.24	-0.035	5	0.986
2499.00 (Low)	5M QPSK 3/4	23.12	-0.086	6	1.050
2600.00 (Mid.)	5M QPSK 3/4	23.2	-0.025	6	0.983
2686.75 (High)	5M QPSK 3/4	23.34	-0.001	6	0.979
2499.00 (Low)	5M 16QAM 1/2	23.16	0.088	7	1.020
2600.00 (Mid.)	5M 16QAM 1/2	23.14	0.190	7	0.982
2686.75 (High)	5M 16QAM 1/2	23.15	-0.032	7	0.957
2499.00 (Low)	5M 16QAM 3/4	23.02	0.031	8	1.000
2600.00 (Mid.)	5M 16QAM 3/4	23.33	-0.053	8	0.951
2686.75 (High)	5M 16QAM 3/4	23.33	-0.043	8	0.974

NOTE:

1. Test configuration of each mode is described in section 4.3.
2. In this testing, the limit for General Population Spatial Peak averaged over 1g, **1.6 W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

ANTENNA 1					
ENVIRONMENTAL CONDITION	Air Temperature：23.3˚C, Liquid Temperature：22.5˚C Humidity：62%RH				
TESTED BY	Sam Onn		**DATE**	Sep. 22, 2009	
FREQ. (MHz)	**MODULATION Type**	**CONDUCTED POWER (dB m)** **BEGIN TEST**	**POWER DRIFT (dB)**	**DEVICE TEST MODE**	**MEASURED 1g SAR (W/kg)**
2508.50 (Low)	**10M QPSK 1/2**	22.54	-0.063	9	0.990
2600.00 (Mid.)	**10M QPSK 1/2**	23.09	-0.025	9	0.944
2683.5 (High)	**10M QPSK 1/2**	23.07	-0.094	9	0.903
2508.50 (Low)	**10M QPSK 3/4**	22.65	-0.124	10	0.959
2600.00 (Mid.)	**10M QPSK 3/4**	23.43	0.091	10	0.931
2683.5 (High)	**10M QPSK 3/4**	22.9	-0.196	10	0.912

NOTE:

1. Test configuration of each mode is described in section 4.3.
2. In this testing, the limit for General Population Spatial Peak averaged over 1g, **1.6 W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

ANTENNA 1					
ENVIRONMENTAL CONDITION	Air Temperature：23.3℃, Liquid Temperature：22.5℃ Humidity：62%RH				
TESTED BY	Sam Onn		**DATE**	Sep. 22, 2009	

FREQ. (MHz)	MODULATION Type	CONDUCTED POWER (dB m)	POWER DRIFT (dB)	DEVICE TEST MODE	MEASURED 1g SAR (W/kg)
		BEGIN TEST			
2508.50 (Low)	10M 16QAM 1/2	22.82	-0.121	11	0.960
2600.00 (Mid.)	10M 16QAM 1/2	23.19	-0.075	11	0.891
2683.50 (High)	10M 16QAM 1/2	23.18	-0.065	11	0.923
2508.50 (Low)	10M 16QAM 3/4	23.07	-0.053	12	0.943
2600.00 (Mid.)	10M 16QAM 3/4	23.19	0.179	12	0.927
2683.50 (High)	10M 16QAM 3/4	23.11	0.129	12	0.891
2499.00 (Low)	5M QPSK 1/2	23.22	-0.020	13	0.393
2600.00 (Mid.)	5M QPSK 1/2	23.13	-0.002	13	0.486
2686.75 (High)	5M QPSK 1/2	23.24	0.011	13	0.557

NOTE:

1. Test configuration of each mode is described in section 4.3.
2. In this testing, the limit for General Population Spatial Peak averaged over 1g, **1.6 W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

ANTENNA 1					
ENVIRONMENTAL CONDITION	Air Temperature：23.1˚C, Liquid Temperature：22.3˚C Humidity：62%RH				
TESTED BY	Sam Onn		**DATE**	Sep. 23, 2009	
FREQ. (MHz)	**MODULATION Type**	**CONDUCTED POWER (dB m)** **BEGIN TEST**	**POWER DRIFT (dB)**	**DEVICE TEST MODE**	**MEASURED 1g SAR (W/kg)**
2508.50 (Low)	**10M QPSK 1/2**	22.54	-0.062	14	0.37
2600.00 (Mid.)	**10M QPSK 1/2**	23.09	-0.111	14	0.446
2683.50 (High)	**10M QPSK 1/2**	23.07	-0.085	14	0.518
2499.00 (Low)	**5M QPSK 1/2**	23.22	-0.112	15	0.792
2600.00 (Mid.)	**5M QPSK 1/2**	23.13	-0.100	15	0.637
2686.75 (High)	**5M QPSK 1/2**	23.24	-0.186	15	0.545
2508.50 (Low)	**10M QPSK 1/2**	22.54	-0.133	16	0.748
2600.00 (Mid.)	**10M QPSK 1/2**	23.09	-0.171	16	0.615
2683.50 (High)	**10M QPSK 1/2**	23.07	-0.117	16	0.514

NOTE:

1. Test configuration of each mode is described in section 4.3.
2. In this testing, the limit for General Population Spatial Peak averaged over 1g, **1.6 W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

ANTENNA 2					
ENVIRONMENTAL CONDITION	Air Temperature：23.1˚C, Liquid Temperature：22.3˚C Humidity：62%RH				
TESTED BY	Sam Onn		**DATE**	Sep. 23, 2009	
FREQ. (MHz)	**MODULATION Type**	**CONDUCTED POWER (dB m)** **BEGIN TEST**	**POWER DRIFT (dB)**	**DEVICE TEST MODE**	**MEASURED 1g SAR (W/kg)**
2499.00 (Low)	**5M QPSK 1/2**	23.20	0.140	17	0.867
2600.00 (Mid.)	**5M QPSK 1/2**	23.11	0.117	17	1.02
2686.75 (High)	**5M QPSK 1/2**	23.20	-0.072	17	1.04
2508.50 (Low)	**10M QPSK 1/2**	22.50	-0.043	18	0.821
2600.00 (Mid.)	**10M QPSK 1/2**	23.05	0.022	18	0.965
2683.50 (High)	**10M QPSK 1/2**	23.00	-0.037	18	0.986
2499.00 (Low)	**5M QPSK 1/2**	23.20	-0.099	19	0.547
2600.00 (Mid.)	**5M QPSK 1/2**	23.11	-0.053	19	0.598
2686.75 (High)	**5M QPSK 1/2**	23.20	-0.026	19	0.551
2508.50 (Low)	**10M QPSK 1/2**	22.50	-0.087	20	0.558
2600.00 (Mid.)	**10M QPSK 1/2**	23.05	-0.120	20	0.625
2683.50 (High)	**10M QPSK 1/2**	23.00	-0.055	20	0.571

NOTE:

1. Test configuration of each mode is described in section 4.3.
2. In this testing, the limit for General Population Spatial Peak averaged over 1g, **1.6 W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

ANTENNA 2					
ENVIRONMENTAL CONDITION	Air Temperature：23.1℃, Liquid Temperature：22.3℃ Humidity：62%RH				
TESTED BY	Sam Onn		**DATE**	Sep. 23, 2009	

FREQ. (MHz)	MODULATION Type	CONDUCTED POWER (dB m)	POWER DRIFT (dB)	DEVICE TEST MODE	MEASURED 1g SAR (W/kg)
		BEGIN TEST			
2499.00 (Low)	5M QPSK 1/2	23.20	-0.112	21	0.272
2600.00 (Mid.)	5M QPSK 1/2	23.11	-0.044	21	0.531
2686.75 (High)	5M QPSK 1/2	23.20	-0.160	21	0.600
2508.50 (Low)	10M QPSK 1/2	22.50	0.074	22	0.228
2600.00 (Mid.)	10M QPSK 1/2	23.05	-0.117	22	0.477
2683.50 (High)	10M QPSK 1/2	23.00	-0.027	22	0.665
2499.00 (Low)	5M QPSK 1/2	23.20	-0.018	23	0.511
2600.00 (Mid.)	5M QPSK 1/2	23.11	-0.056	23	0.452
2686.75 (High)	5M QPSK 1/2	23.20	0.038	23	0.399
2508.50 (Low)	10M QPSK 1/2	22.50	-0.036	24	0.499
2600.00 (Mid.)	10M QPSK 1/2	23.05	-0.138	24	0.464
2683.50 (High)	10M QPSK 1/2	23.00	0.146	24	0.410

NOTE:

1. Test configuration of each mode is described in section 4.3.
2. In this testing, the limit for General Population Spatial Peak averaged over 1g, **1.6 W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

ANTENNA 2					
ENVIRONMENTAL CONDITION	Air Temperature：23.1℃, Liquid Temperature：22.3℃ Humidity：62%RH				
TESTED BY	Sam Onn		**DATE**	Sep. 23, 2009	

FREQ. (MHz)	MODULATION Type	CONDUCTED POWER (dB m)	POWER DRIFT (dB)	DEVICE TEST MODE	MEASURED 1g SAR (W/kg)
		BEGIN TEST			
2499.00 (Low)	5M QPSK 1/2	23.20	-0.083	25	0.785
2600.00 (Mid.)	5M QPSK 1/2	23.11	-0.133	25	0.643
2686.75 (High)	5M QPSK 1/2	23.20	-0.026	25	0.479
2508.50 (Low)	10M QPSK 1/2	22.50	-0.064	26	0.746
2600.00 (Mid.)	10M QPSK 1/2	23.05	-0.126	26	0.662
2683.50 (High)	10M QPSK 1/2	23.00	-0.031	26	0.494

NOTE:

1. Test configuration of each mode is described in section 4.3.
2. In this testing, the limit for General Population Spatial Peak averaged over 1g, **1.6 W/kg**, is applied.
3. Please see the Appendix A for the data.
4. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.

5.3 SAR LIMITS

HUMAN EXPOSURE	SAR (W/kg)	
	(GENERAL POPULATION / UNCONTROLLED EXPOSURE ENVIRONMENT)	(OCCUPATIONAL / CONTROLLED EXPOSURE ENVIRONMENT)
Spatial Average (whole body)	0.08	0.4
Spatial Peak (averaged over 1 g)	**1.6**	8.0
Spatial Peak (hands / wrists / feet / ankles averaged over 10 g)	4.0	20.0

NOTE:

1. This limits accord to 47 CFR 2.1093 – Safety Limit.
2. The EUT property been complied with the partial body exposure limit under the general population environment.

5.4 RECIPES FOR TISSUE SIMULATING LIQUIDS

For the measurement of the field distribution inside the SAM phantom, the phantom must be filled with 25 litters of tissue simulation liquid.

The following ingredients are used：

- **WATER-** Deionized water (pure H20), resistivity _16 M - as basis for the liquid
- **SUGAR-** Refined sugar in crystals, as available in food shops - to reduce relative permittivity
- **SALT-** Pure NaCl - to increase conductivity
- **CELLULOSE-** Hydroxyethyl-cellulose, medium viscosity (75-125mPa.s, 2% in water, 20_C),
  CAS # 54290 - to increase viscosity and to keep sugar in solution
- **PRESERVATIVE-** Preventol D-7 Bayer AG, D-51368 Leverkusen, CAS # 55965-84-9 - to prevent the spread of bacteria and molds
- **DGMBE-** Diethylenglycol-monobuthyl ether (DGMBE), Fluka Chemie GmbH, CAS # 112-34-5 - to reduce relative permittivity

THE RECIPES FOR 2600MHz SIMULATING LIQUID TABLE

Ingredient	Muscle Simulating Liquid 2600MHz (MSL-2600)
Water	69.83%
DGMBE	30.17%
Salt	NA
Dielectric Parameters at 22℃	f= 2600MHz ε= 52.5 ± 5% σ= 2.16 ± 5% S/m

Testing the liquids using the Agilent Network Analyzer E8358A and Agilent Dielectric Probe Kit 85070D.The testing procedure is following as

1. Turn Network Analyzer on and allow at least 30min. warm up.
2. Mount dielectric probe kit so that interconnecting cable to Network Analyzer will not be moved during measurements or calibration.
3. Pour de-ionized water and measure water temperature (±1°).
4. Set water temperature in Agilent-Software (Calibration Setup).
5. Perform calibration.
6. Validate calibration with dielectric material of known properties (e.g. polished ceramic slab with >8mm thickness ε'=10.0, ε''=0.0). If measured parameters do not fit within tolerance, repeat calibration (±0.2 for ε': ±0.1 for ε'').
7. Conductivity can be calculated from ε'' by $\sigma = \omega \varepsilon_0 \varepsilon'' = \varepsilon''$ f [GHz] / 18.
8. Measure liquid shortly after calibration. Repeat calibration every hour.
9. Stir the liquid to be measured. Take a sample (~ 50ml) with a syringe from the center of the liquid container.
10. Pour the liquid into a small glass flask. Hold the syringe at the bottom of the flask to avoid air bubbles.
11. Put the dielectric probe in the glass flask. Check that there are no air bubbles in front of the opening in the dielectric probe kit.
12. Perform measurements.
13. Adjust medium parameters in DASY4 for the frequencies necessary for the measurements (‘Setup Config’, select medium (e.g. Brain 900MHz) and press ‘Option’-button.
14. Select the current medium for the frequency of the validation (e.g. Setup Medium Brain 900MHz).

FOR WIMAX BAND SIMULATING LIQUID

LIQUID TYPE		MSL-2600		
SIMULATING LIQUID TEMP.		22.5		
TEST DATE		Sep. 22, 2009		
TESTED BY		Sam Onn		
FREQ. (MHz)	**LIQUID PARAMETER**	**STANDARD VALUE**	**MEASUREMENT VALUE**	**ERROR PERCENTAGE**
2499.00	Permitivity (ε)	52.60	53.40	1.52
2508.50		52.60	53.40	1.52
2600.00		52.50	53.10	1.14
2683.50		52.40	52.70	0.57
2686.75		52.40	52.70	0.57
2499.00	Conductivity (σ) S/m	2.02	2.06	1.98
2508.50		2.03	2.07	1.97
2600.00		2.16	2.19	1.39
2683.50		2.28	2.25	-1.32
2686.75		2.29	2.25	-1.75
Dielectric Parameters Required at 22℃		**f= 2600MHz ε= 52.5 ± 5% σ= 2.16 ± 5% S/m**		

LIQUID TYPE		MSL-2600		
SIMULATING LIQUID TEMP.		22.3		
TEST DATE		Sep. 23, 2009		
TESTED BY		Sam Onn		
FREQ. (MHz)	**LIQUID PARAMETER**	**STANDARD VALUE**	**MEASUREMENT VALUE**	**ERROR PERCENTAGE**
2499.00	Permitivity (ε)	52.60	53.90	2.47
2508.50		52.60	53.90	2.47
2600.00		52.50	53.60	2.10
2683.50		52.40	53.20	1.53
2686.75		52.40	53.20	1.53
2499.00	Conductivity (σ) S/m	2.02	2.07	2.48
2508.50		2.03	2.08	2.46
2600.00		2.16	2.21	2.31
2683.50		2.28	2.27	-0.44
2686.75		2.29	2.27	-0.87
Dielectric Parameters Required at 22℃		**f= 2600MHz ε= 52.5 ± 5% σ= 2.16 ± 5% S/m**		

5.5 TEST EQUIPMENT FOR TISSUE PROPERTY

ITEM	NAME	BRAND	TYPE	SERIES NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
1	Network Analyzer	Agilent	E5071C	MY46104190	Nov. 28, 2008	Nov. 27, 2009
2	Dielectric Probe	Agilent	85070D	US01440176	NA	NA

NOTE:

1. Before starting, all test equipment shall be warmed up for 30min.
2. The tolerance (k=1) specified by Agilent for general dielectric measurements, deriving from inaccuracies in the calibration data, analyzer drift, and random errors, are usually ±2.5% and ±5% for measured permittivity and conductivity, respectively. However, the tolerances for the conductivity is smaller for material with large loss tangents, i.e., less than ±2.5% (k=1). It can be substantially smaller if more accurate methods are applied.

6. SYSTEM VALIDATION

The system validation was performed in the flat phantom with equipment listed in the following table. Since the SAR value is calculated from the measured electric field, dielectric constant and conductivity of the body tissue and the SAR is proportional to the square of the electric field. So, the SAR value will be also proportional to the RF power input to the system validation dipole under the same test environment. In our system validation test, 250mW RF input power was used.

6.1 TEST EQUIPMENT

ITEM	NAME	BRAND	TYPE	SERIES NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
1	SAM Phantom	S & P	QD000 P40 CA	TP-1150	NA	NA
2	Signal Generator	Anritsu	E8257C	MY43320668	Dec. 31, 2008	Dec. 30, 2009
3			E4438C	MY45092849	Nov. 19, 2008	Nov. 18, 2009
4	E-Field Probe	S & P	EX3DV3	3504	Jan. 21, 2009	Jan. 20, 2010
5	DAE	S & P	DAE	510	Jan. 21, 2009	Jan. 20, 2010
6	Robot Positioner	Staubli Unimation	NA	NA	NA	NA
7	Validation Dipole	S & P	D2600V2	1020	Jan. 14, 2009	Jan. 23, 2010

NOTE: Before starting the measurement, all test equipment shall be warmed up for 30min.

6.2 TEST PROCEDURE

Before the system performance check, we need only to tell the system which components (probe, medium, and device) are used for the system performance check; the system will take care of all parameters. The dipole must be placed beneath the flat section of the SAM Twin Phantom with the correct distance holder in place. The distance holder should touch the phantom surface with a light pressure at the reference marking (little cross) and be oriented parallel to the long side of the phantom. Accurate positioning is not necessary, since the system will search for the peak SAR location, except that the dipole arms should be parallel to the surface. The device holder for mobile phones can be left in place but should be rotated away from the dipole.

1. The ”Power Reference Measurement” and ”Power Drift Measurement” jobs are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the amplifier output power. If it is too high (above ±0.1 dB), the system performance check should be repeated; some amplifiers have very high drift during warm-up. A stable amplifier gives drift results in the DASY system below ±0.02dB.

2. The ”Surface Check” job tests the optical surface detection system of the DASY system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above ±0.1mm). In that case it is better to abort the system performance check and stir the liquid.

3. The ”Area Scan” job measures the SAR above the dipole on a plane parallel to the surface. It is used to locate the approximate location of the peak SAR. The proposed scan uses large grid spacing for faster measurement; due to the symmetric field, the peak detection is reliable. If a finer graphic is desired, the grid spacing can be reduced. Grid spacing and orientation have no influence on the SAR result.

4. The ”Zoom Scan” job measures the field in a volume around the peak SAR value assessed in the previous ”Area Scan” job (for more information see the application note on SAR evaluation).

About the validation dipole positioning uncertainty, the constant and low loss dielectric spacer is used to establish the correct distance between the top surface of the dipole and the bottom surface of the phantom, the error component introduced by the uncertainty of the distance between the liquid (i.e., phantom shell) and the validation dipole in the DASY4 system is less than ±0.1mm.

$$SAR_{tolerance}[\%] = 100 \times (\frac{(a+d)^2}{a^2} - 1)$$

As the closest distance is 10mm, the resulting tolerance $SAR_{tolerance}$[%] is <2%.

6.3 VALIDATION RESULTS

SYSTEM VALIDATION TEST OF SIMULATING LIQUID					
FREQUENCY (MHz)	**REQUIRED SAR (mW/g)**	**MEASURED SAR (mW/g)**	**DEVIATION (%)**	**SEPARATION DISTANCE**	**TESTED DATE**
MSL2600	14.20 (1g)	13.20	-7.04	10mm	Sep. 22, 2009
MSL2600	14.20 (1g)	13.10	-7.75	10mm	Sep. 23, 2009
TESTED BY	Sam Onn				

NOTE: Please see Appendix for the photo of system validation test.

6.4 SYSTEM VALIDATION UNCERTAINTIES

In the table below, the system validation uncertainty with respect to the analytically assessed SAR value of a dipole source as given in the IEEE 1528 standard is given. This uncertainty is smaller than the expected uncertainty for mobile phone measurements due to the simplified setup and the symmetric field distribution.

Error Description	Tolerance (±%)	Probability Distribution	Divisor	(C_i)		Standard Uncertainty (±%)		(v_i)
				(1g)	(10g)	(1g)	(10g)	
Measurement System								
Probe Calibration	5.50	Normal	1	1	1	5.50	5.50	∞
Axial Isotropy	4.70	Rectangular	√3	0.7	0.7	1.90	1.90	∞
Hemispherical Isotropy	9.60	Rectangular	√3	0.7	0.7	3.88	3.88	∞
Boundary effects	1.00	Rectangular	√3	1	1	0.58	0.58	∞
Linearity	4.70	Rectangular	√3	1	1	2.71	2.71	∞
System Detection Limits	1.00	Rectangular	√3	1	1	0.58	0.58	∞
Readout Electronics	0.30	Normal	1	1	1	0.30	0.30	∞
Response Time	0.80	Rectangular	√3	1	1	0.46	0.46	∞
Integration Time	2.60	Rectangular	√3	1	1	1.50	1.50	∞
RF Ambient Noise	3.00	Rectangular	√3	1	1	1.73	1.73	∞
RF Ambient Reflections	3.00	Rectangular	√3	1	1	1.73	1.73	∞
Probe Positioner	0.40	Rectangular	√3	1	1	0.23	0.23	∞
Probe Positioning	2.90	Rectangular	√3	1	1	1.67	1.67	∞
Max. SAR Eval.	1.00	Rectangular	√3	1	1	0.58	0.58	∞
Dipole Related								
Dipole Axis to Liquid Distance	2.00	Rectangular	√3	1	1	1.15	1.15	145
Input Power Drift	5.00	Rectangular	√3	1	1	2.89	2.89	∞
Phantom and Tissue parameters								
Phantom Uncertainty	4.00	Rectangular	√3	1	1	2.31	2.31	∞
Liquid Conductivity (target)	5.00	Rectangular	√3	0.64	0.43	1.85	1.24	∞
Liquid Conductivity (measurement)	3.20	Normal	1	0.64	0.43	2.05	1.38	∞
Liquid Permittivity (target)	5.00	Rectangular	√3	0.6	0.49	1.73	1.41	∞
Liquid Permittivity (measurement)	3.19	Normal	1	0.6	0.49	1.91	1.56	∞
Combined Standard Uncertainty						**9.90**	**9.57**	
Coverage Factor for 95%						**Kp=2**		
Expanded Uncertainty (K=2)						**19.79**	**19.14**	

NOTE: About the system validation uncertainty assessment, please reference the section 7.

7. MEASUREMENT SAR PROCEDURE UNCERTAINTIES

The assessment of spatial peak SAR of the hand handheld devices is according to IEEE 1528 / EN 62209-1. All testing situation shall be met below these requirements.

- The system is used by an experienced engineer who follows the manual and the guidelines taught during the training provided by SPEAG.
- The probe has been calibrated within the requested period and the stated uncertainty for the relevant frequency bands does not exceed 4.8% (k=1).
- The validation dipole has been calibrated within the requested period and the system performance check has been successful.
- The DAE unit has been calibrated within the within the requested period.
- The minimum distance between the probe sensor and inner phantom shell is selected to be between 4 and 5mm.
- The operational mode of the DUT is CW, CDMA, FDMA or TDMA (GSM, DCS, PCS, IS136 and PDC) and the measurement/integration time per point is >500 ms.
- The dielectric parameters of the liquid have been assessed using Agilent 85070D dielectric probe kit or a more accurate method.
- The dielectric parameters are within 5% of the target values.
- The DUT has been positioned as described in section 3.

7.1. PROBE CALIBRATION UNCERTAINTY

SPEAG conducts the probe calibration in compliance with international and national standards (e.g. IEEE 1528, EN 62209-1, IEC 62209, etc.) under ISO17025. The uncertainties are stated on the calibration certificate. For the most relevant frequency bands, these values do not exceed 4.8% (k=1). If evaluations of other bands are performed for which the uncertainty exceeds these values, the uncertainty tables given in the summary have to be revised accordingly.

7.2. ISOTROPY UNCERTAINTY

The axial isotropy tolerance accounts for probe rotation around its axis while the hemispherical isotropy error includes all probe orientations and field polarizations. These parameters are assessed by SPEAG during initial calibration. In 2001, SPEAG further tightened its quality controls and warrants that the maximal deviation from axial isotropy is ±0.20dB, while the maximum deviation of hemispherical isotropy is ±0.40dB, corresponding to ±4.7% and ±9.6%, respectively. A weighting factor of cp equal to 0.5 can be applied, since the axis of the probe deviates less than 30 degrees from the normal surface orientation.

7.3. BOUNDARY EFFECT UNCERTAINTY

The effect can be estimated according to the following error approximation formula

$$SAR_{tolerance}[\%] = SAR_{be}[\%] \times \frac{(d_{be} + d_{step})^2}{2d_{step}} \frac{e^{-\frac{d_{be}}{\delta/2}}}{\delta/2}$$

$$d_{be} + d_{step} < 10mm$$

The parameter d_{be} is the distance in mm between the surface and the closest measurement point used in the averaging process; d_{step} is the separation distance in mm between the first and second measurement points; δ is the minimum penetration depth in mm within the head tissue equivalent liquids (i.e., δ= 13.95mm at 3GHz); SAR_{be} is the deviation between the measured SAR value at the distance d_{be} from the boundary and the wave-guide analytical value SAR_{ref}.DASY4 applies a boundary effect compensation algorithm according to IEEE 1528, which is possible since the axis of the probe never deviates more than 30 degrees from the normal surface orientation. SAR_{be}[%] is assessed during the calibration process and SPEAG warrants that the uncertainty at distances larger than 4mm is always less than 1%.In summary, the worst case boundary effect SAR tolerance[%] for scanning distances larger than 4mm is < ± 0.8%.

7.4. PROBE LINEARITY UNCERTAINTY

Field probe linearity uncertainty includes errors from the assessment and compensation of the diode compression effects for CW and pulsed signals with known duty cycles. This error is assessed using the procedure described in IEEE 1528 / EN 62209-1. For SPEAG field probes, the measured difference between CW and pulsed signals, with pulse frequencies between 10Hz and 1kHz and duty cycles between 1 and 100, is < ±0.20dB (< ±4.7%).

7.5. READOUT ELECTRONICS UNCERTAINTY

All uncertainties related to the probe readout electronics (DAE unit), including the gain and linearity of the instrumentation amplifier, its loading effect on the probe, and accuracy of the signal conversion algorithm, have been assessed accordingly to IEEE 1528 / EN 62209-1.The combination (root-sum-square RSS method) of these components results in an overall maximum error of ±1.0%.

7.6. RESPONSE TIME UNCERTAINTY

The time response of the field probes is assessed by exposing the probe to a well-controlled electric field producing SAR larger than 2.0W/kg at the tissue medium surface. The signal response time is evaluated as the time required by the system to reach 90% of the expected final value after an on/of switch of the power source. Analytically, it can be expressed as:

$$SAR_{tolerance}[\%] = 100 \times \left(\frac{T_m}{T_m + \tau e^{-T_m/\tau} - \tau} - 1\right)$$

where Tm is 500 ms, i.e., the time between measurement samples, and $_T$ the time constant. The response time $_T$ of SPEAG's probes is <5ms. In the current implementation, DASY4 waits longer than 100 ms after having reached the grid point before starting a measurement, i.e., the response time uncertainty is negligible.

7.7. INTEGRATION TIME UNCERTAINTY

If the device under test does not emit a CW signal, the integration time applied to measure the electric field at a specific point may introduce additional uncertainties due to the discretization and can be assessed as follows

$$SAR_{tolerance}[\%] = 100 \times \sum_{allsub-frames} \frac{t_{frame}}{t_{integration}} \frac{slot_{idle}}{slot_{total}}$$

The tolerances for the different systems are given in Table 7.1, whereby the worst-case $SAR_{tolerance}$ is 2.6%.

System	$SAR_{tolerance}$ %
CW	0
CDMA*	0
WCDMA*	0
FDMA	0
IS-136	2.6
PDC	2.6
GSM/DCS/PCS	1.7
DECT	1.9
Worst-Case	2.6

TABLE 7.1

7.8. PROBE POSITIONER MECHANICAL TOLERANCE

The mechanical tolerance of the field probe positioner can introduce probe positioning uncertainties. The resulting SAR uncertainty is assessed by comparing the SAR obtained according to the specifications of the probe positioner with respect to the actual position defined by the geometric enter of the probe sensors. The tolerance is determined as:

$$SAR_{tolerance}[\%] = 100 \times \frac{d_{ph}}{\delta/2}$$

The specified repeatability of the RX robot family used in DASY4 systems is ±25µm. The absolute accuracy for short distance movements is better than ±0.1mm, i.e., the $SAR_{tolerance}$[%] is better than 1.5% (rectangular).

7.9. PROBE POSITIONING

The probe positioning procedures affect the tolerance of the separation distance between the probe tip and the phantom surface as:

$$SAR_{tolerance}[\%] = 100 \times \frac{d_{ph}}{\delta/2}$$

where d_{ph} is the maximum deviation of the distance between the probe tip and the phantom surface. The optical surface detection has a precision of better than 0.2mm, resulting in an $SAR_{tolerance}$[%] of <2.9% (rectangular distribution). Since the mechanical detection provides better accuracy, 2.9% is a worst-case figure for DASY4 system.

7.10. PHANTOM UNCERTAINTY

The SAR measurement uncertainty due to SPEAG phantom shell production tolerances has been evaluated using

$$SAR_{tolerance}[\%] \cong 100 \times \frac{2d}{a}, \qquad d << a$$

For a maximum deviation d of the inner and outer shell of the phantom from that specified in the CAD file of ±0.2mm, and a 10mm spacing a between source and tissue liquid, the calculated phantom uncertainty is ±4.0%.

7.11. DASY4 UNCERTAINTY BUDGET

Error Description	Tolerance (±%)	Probability Distribution	Divisor	(C_i)		Standard Uncertainty (±%)		(v_i)
				(1g)	(10g)	(1g)	(10g)	
Measurement Equipment								
Probe Calibration	5.50	Normal	1	1	1	5.50	5.50	∞
Axial Isotropy	4.70	Rectangular	√3	0.7	0.7	1.90	1.90	∞
Hemispherical Isotropy	9.60	Rectangular	√3	0.7	0.7	3.88	3.88	∞
Boundary effects	1.00	Rectangular	√3	1	1	0.58	0.58	∞
Linearity	4.70	Rectangular	√3	1	1	2.71	2.71	∞
System Detection Limits	1.00	Rectangular	√3	1	1	0.58	0.58	∞
Readout Electronics	0.30	Normal	1	1	1	0.30	0.30	∞
Response Time	0.80	Rectangular	√3	1	1	0.46	0.46	∞
Integration Time	2.60	Rectangular	√3	1	1	1.50	1.50	∞
RF Ambient Noise	3.00	Rectangular	√3	1	1	1.73	1.73	∞
RF Ambient Reflections	3.00	Rectangular	√3	1	1	1.73	1.73	∞
Probe Positioner	0.40	Rectangular	√3	1	1	0.23	0.23	∞
Probe Positioning	2.90	Rectangular	√3	1	1	1.67	1.67	∞
Max. SAR Eval.	1.00	Rectangular	√3	1	1	0.58	0.58	∞
Test Sample Related								
Device Positioning	0.69	Normal	1	1	1	0.69	0.69	10
Device Holder	3.60	Normal	1	1	1	3.60	3.60	5
Power Drift	5.00	Rectangular	√3	1	1	2.89	2.89	∞
Phantom and Tissue parameters								
Phantom Uncertainty	4.00	Rectangular	√3	1	1	2.31	2.31	∞
Liquid Conductivity (target)	5.00	Rectangular	√3	0.64	0.43	1.85	1.24	∞
Liquid Conductivity (measurement)	3.20	Normal	1	0.64	0.43	2.05	1.38	∞
Liquid Permittivity (target)	5.00	Rectangular	√3	0.6	0.49	1.73	1.41	∞
Liquid Permittivity (measurement)	3.19	Normal	1	0.6	0.49	1.91	1.56	∞
Combined Standard Uncertainty						**10.49**	**10.18**	
Coverage Factor for 95%						**Kp=2**		
Expanded Uncertainty (K=2)						**20.98**	**20.36**	

TABLE 7.2

The table 7.2: Worst-Case uncertainty budget for DASY4 assessed according to IEEE 1528. The budget is valid for the frequency range 300MHz ~ 3GHz and represents a worst-case analysis. For specific tests and configurations, the uncertainty could be considerable smaller.

8. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	FCC, NVLAP
GERMANY	TUV Rheinland
JAPAN	VCCI
NORWAY	NEMKO
CANADA	INDUSTRY CANADA, CSA
R.O.C.	TAF, BSMI, NCC
NETHERLANDS	Telefication
SINGAPORE	GOST-ASIA (MOU)
RUSSIA	CERTIS (MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety/Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3185050

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

---END---

APPENDIX A: TEST DATA(For Antenna 1)

Liquid Level Photo

Tissue MSL2600MHz D=150mm

Date/Time: 2009/9/22 01:48:50

Test Laboratory: Bureau Veritas ADT

M01-5M-QPSK1_2-Ch2
DUT: 4G Mobile Modem ; Type: PXU1900

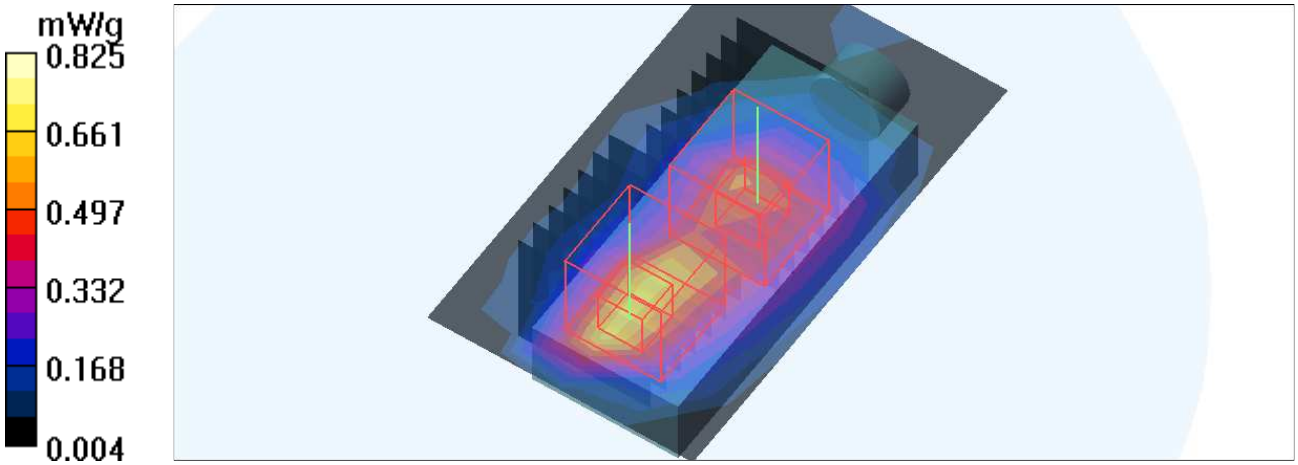
Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.06 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The back side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.658 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.8 V/m; Power Drift = -0.104 dB
Peak SAR (extrapolated) = 1.32 W/kg
SAR(1 g) = 0.624 mW/g; SAR(10 g) = 0.286 mW/g
Maximum value of SAR (measured) = 0.825 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.8 V/m; Power Drift = -0.104 dB
Peak SAR (extrapolated) = 0.822 W/kg
SAR(1 g) = 0.458 mW/g; SAR(10 g) = 0.245 mW/g
Maximum value of SAR (measured) = 0.567 mW/g



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Test Laboratory: Bureau Veritas ADT

M01-5M-QPSK1_2-Ch406

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The back side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 406/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.929 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.6 V/m; Power Drift = 0.110 dB

Peak SAR (extrapolated) = 1.66 W/kg

SAR(1 g) = 0.743 mW/g; SAR(10 g) = 0.325 mW/g

Maximum value of SAR (measured) = 0.992 mW/g

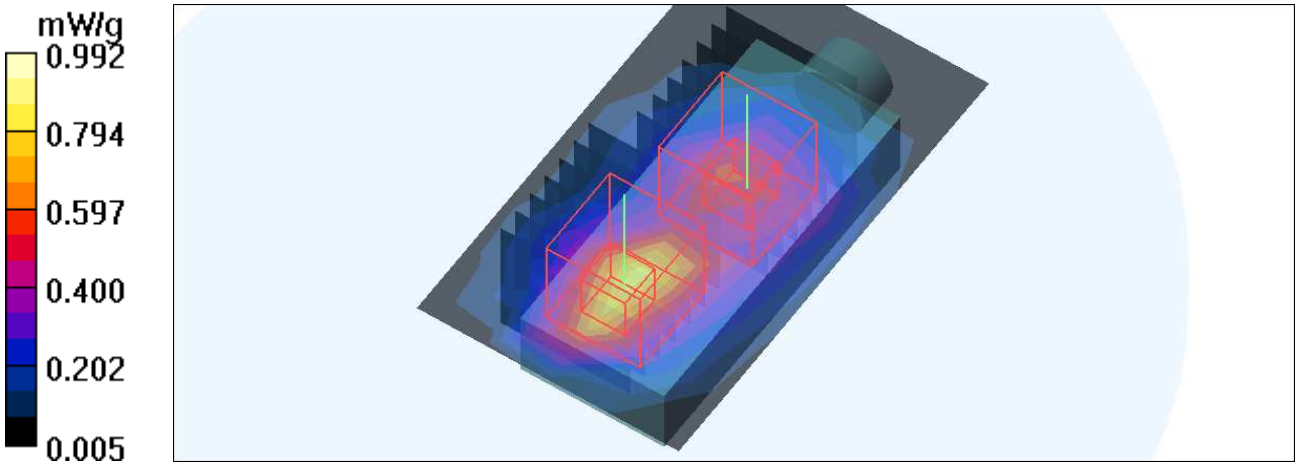
Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.6 V/m; Power Drift = 0.110 dB

Peak SAR (extrapolated) = 1.66 W/kg

SAR(1 g) = 0.485 mW/g; SAR(10 g) = 0.262 mW/g

Maximum value of SAR (measured) = 0.618 mW/g



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Test Laboratory: Bureau Veritas ADT

M01-5M-QPSK1_2-Ch753

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2686.75 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2686.75 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3

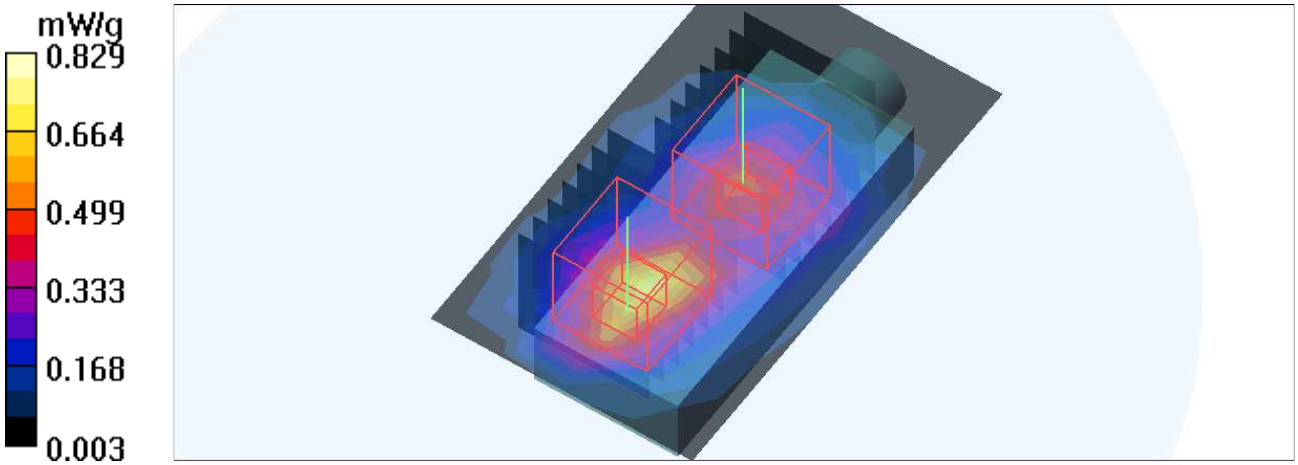
Phantom section: Flat Section ; Separation distance : 5 mm (The back side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 753/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.734 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.2 V/m; Power Drift = -0.019 dB
Peak SAR (extrapolated) = 1.42 W/kg
SAR(1 g) = 0.637 mW/g; SAR(10 g) = 0.280 mW/g
Maximum value of SAR (measured) = 0.829 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.2 V/m; Power Drift = -0.019 dB
Peak SAR (extrapolated) = 0.767 W/kg
SAR(1 g) = 0.407 mW/g; SAR(10 g) = 0.210 mW/g
Maximum value of SAR (measured) = 0.508 mW/g



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Test Laboratory: Bureau Veritas ADT

M02-10M-QPSK1_2-Ch30

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2508.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2508.5 MHz; σ = 2.07 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The back side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 30/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.798 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.0 V/m; Power Drift = -0.081 dB

Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 0.655 mW/g; SAR(10 g) = 0.294 mW/g

Maximum value of SAR (measured) = 0.864 mW/g

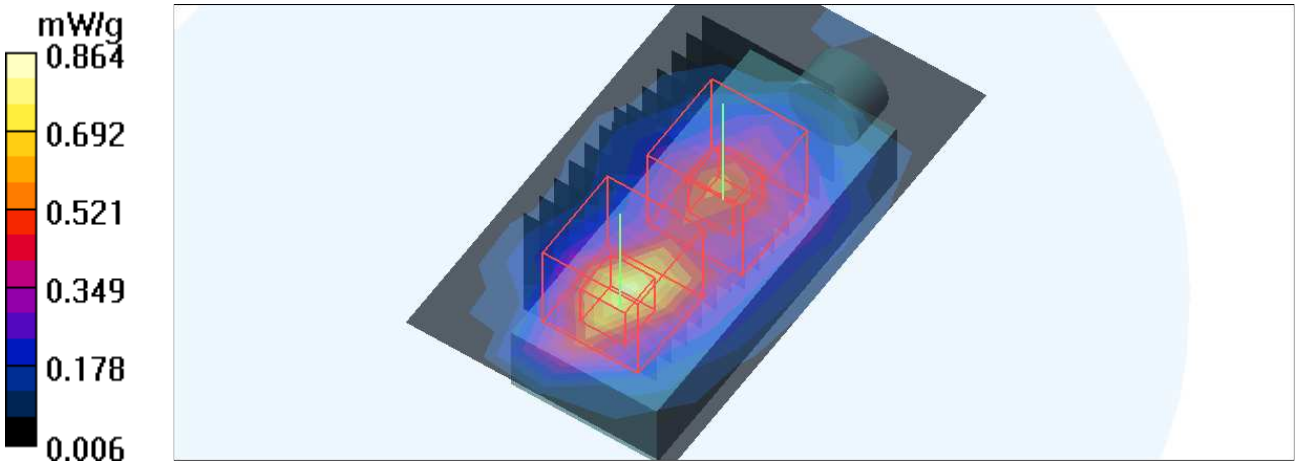
Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.0 V/m; Power Drift = -0.081 dB

Peak SAR (extrapolated) = 0.818 W/kg

SAR(1 g) = 0.447 mW/g; SAR(10 g) = 0.236 mW/g

Maximum value of SAR (measured) = 0.557 mW/g



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Test Laboratory: Bureau Veritas ADT

M02-10M-QPSK1_2-Ch396

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The back side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 396/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.842 mW/g

Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.5 V/m; Power Drift = 0.058 dB

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 0.666 mW/g; SAR(10 g) = 0.302 mW/g

Maximum value of SAR (measured) = 0.882 mW/g

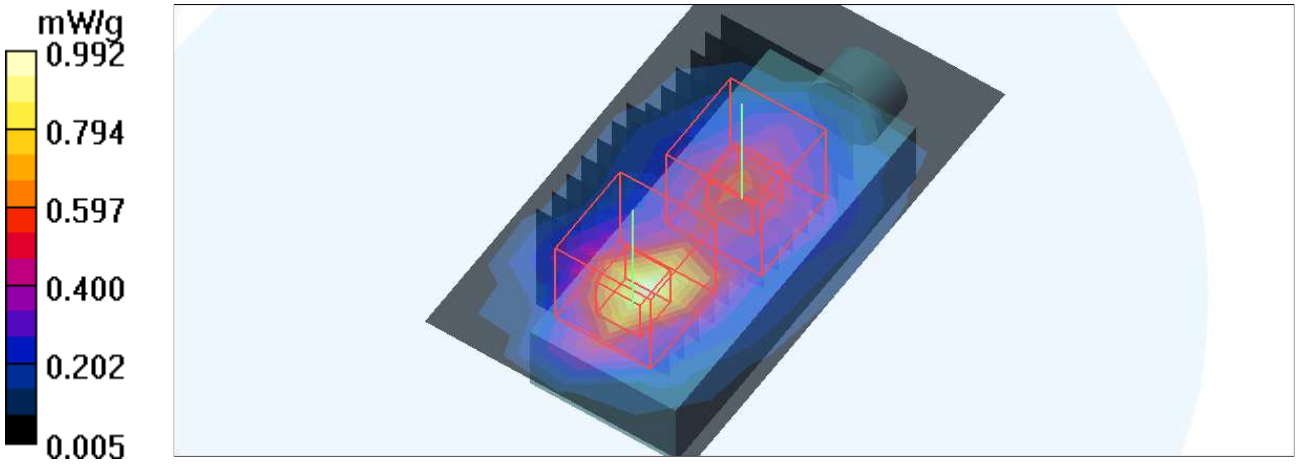
Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.5 V/m; Power Drift = 0.058 dB

Peak SAR (extrapolated) = 0.796 W/kg

SAR(1 g) = 0.432 mW/g; SAR(10 g) = 0.228 mW/g

Maximum value of SAR (measured) = 0.540 mW/g



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Test Laboratory: Bureau Veritas ADT

M02-10M-QPSK1_2-Ch730

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2683.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2683.5 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3

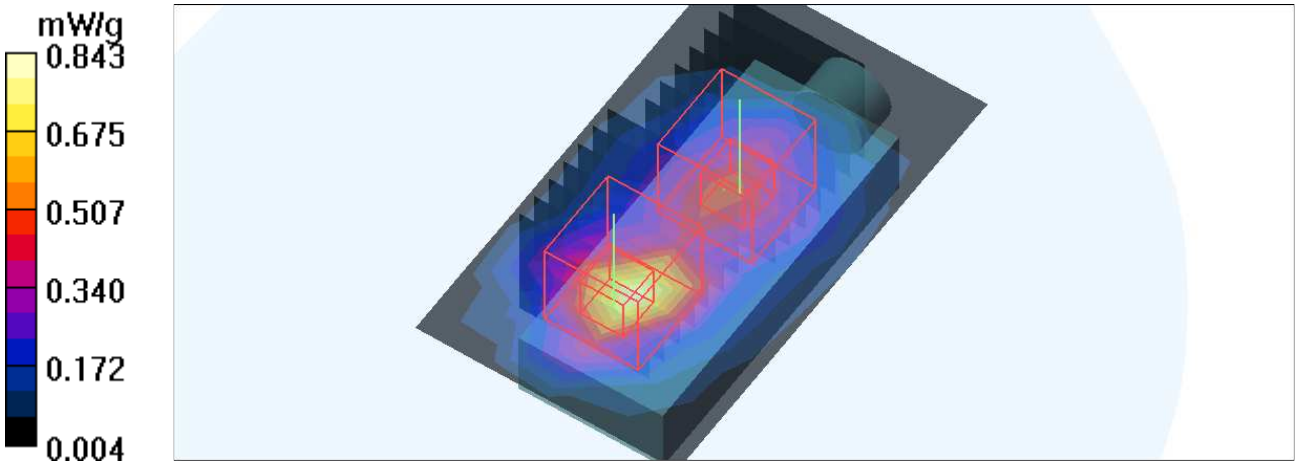
Phantom section: Flat Section ; Separation distance : 5 mm (The back side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 730/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.834 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.1 V/m; Power Drift = -0.098 dB
Peak SAR (extrapolated) = 1.45 W/kg
SAR(1 g) = 0.642 mW/g; SAR(10 g) = 0.279 mW/g
Maximum value of SAR (measured) = 0.843 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.1 V/m; Power Drift = -0.098 dB
Peak SAR (extrapolated) = 0.780 W/kg
SAR(1 g) = 0.407 mW/g; SAR(10 g) = 0.208 mW/g
Maximum value of SAR (measured) = 0.517 mW/g



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Test Laboratory: Bureau Veritas ADT

M03-5M-QPSK1_2-Ch2

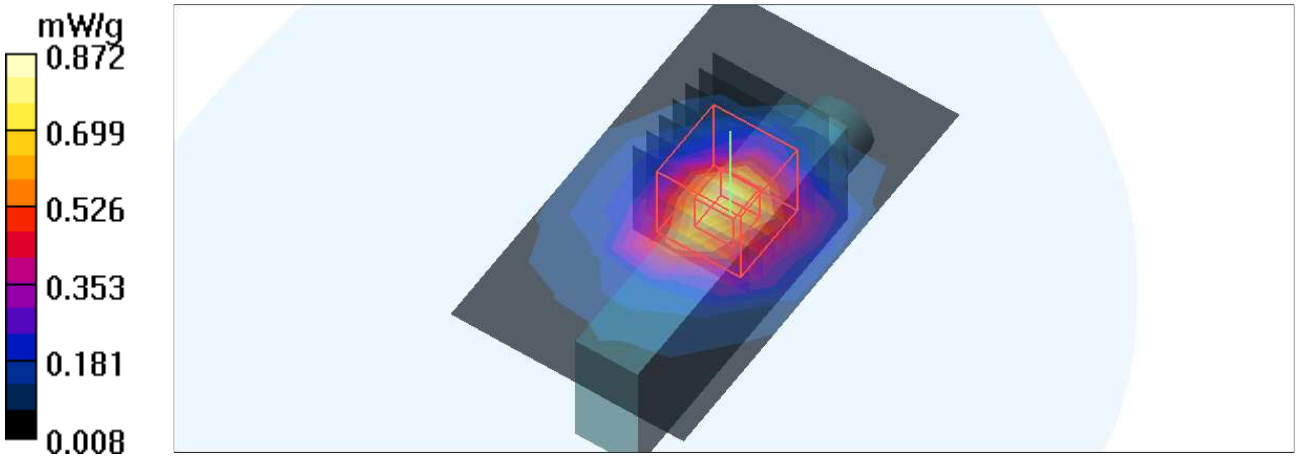
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.06 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The right edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.814 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.9 V/m; Power Drift = -0.057 dB
Peak SAR (extrapolated) = 1.29 W/kg
SAR(1 g) = 0.679 mW/g; SAR(10 g) = 0.343 mW/g
Maximum value of SAR (measured) = 0.872 mW/g



Date/Time: 2009/9/22 07:56:30

Test Laboratory: Bureau Veritas ADT

M03-5M-QPSK1_2-Ch406

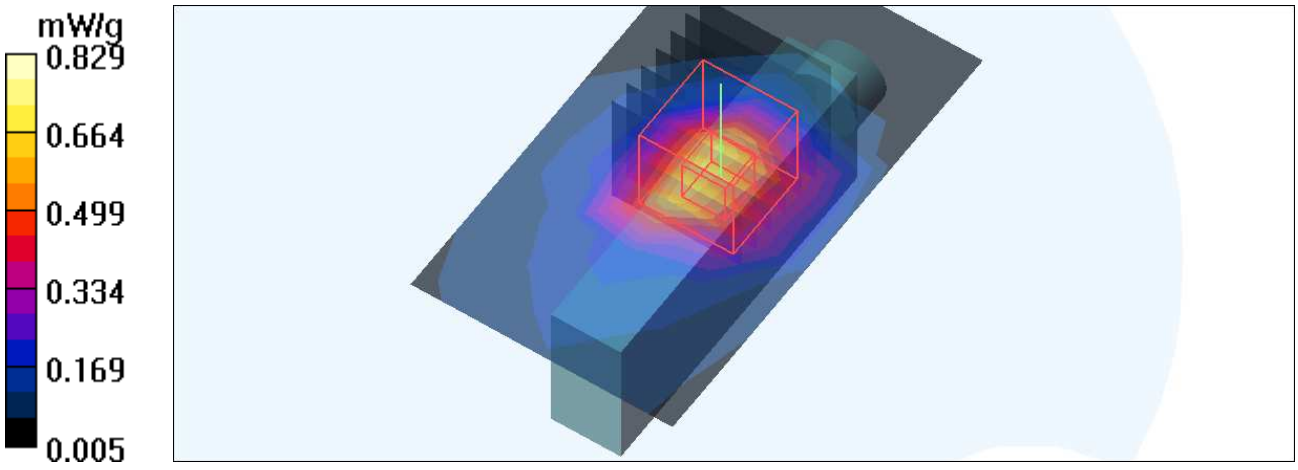
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The right edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 406/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.688 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.7 V/m; Power Drift = -0.158 dB
Peak SAR (extrapolated) = 1.28 W/kg
SAR(1 g) = 0.634 mW/g; SAR(10 g) = 0.304 mW/g
Maximum value of SAR (measured) = 0.829 mW/g



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Test Laboratory: Bureau Veritas ADT

M03-5M-QPSK1_2-Ch753

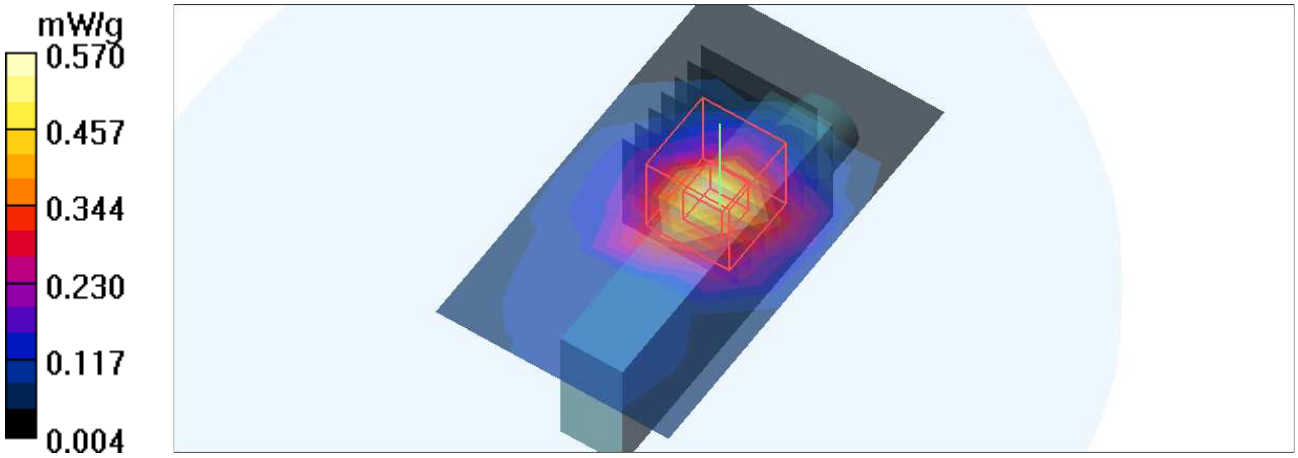
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2686.75 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2686.75 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The right edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 753/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.547 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.4 V/m; Power Drift = -0.180 dB
Peak SAR (extrapolated) = 0.880 W/kg
SAR(1 g) = 0.437 mW/g; SAR(10 g) = 0.211 mW/g
Maximum value of SAR (measured) = 0.570 mW/g



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Test Laboratory: Bureau Veritas ADT

M04-10M-QPSK1_2-Ch30

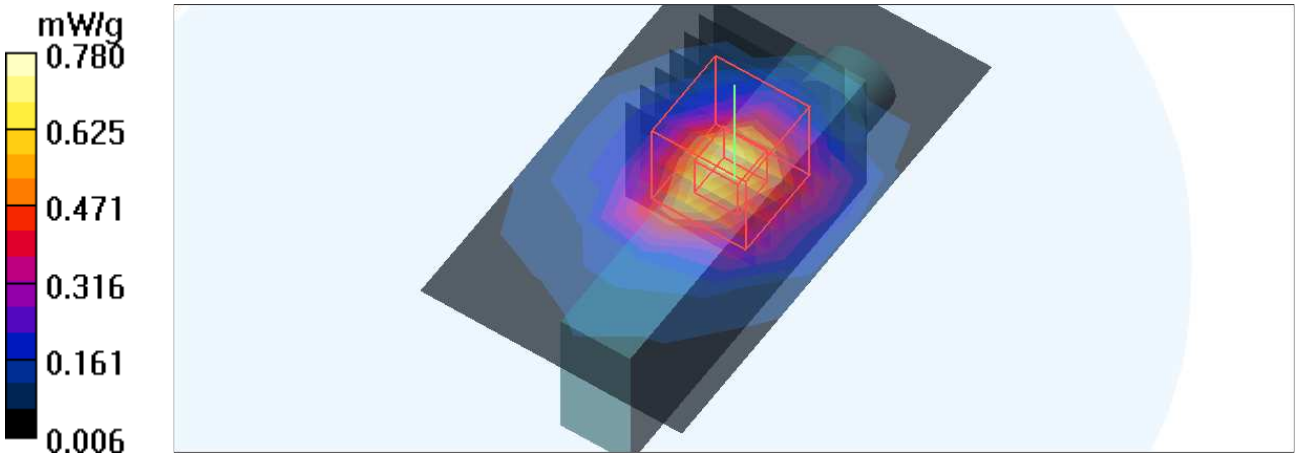
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2508.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2508.5 MHz; σ = 2.07 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The right edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 30/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.700 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.5 V/m; Power Drift = -0.095 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.611 mW/g; SAR(10 g) = 0.306 mW/g
Maximum value of SAR (measured) = 0.780 mW/g



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Test Laboratory: Bureau Veritas ADT

M04-10M-QPSK1_2-Ch396

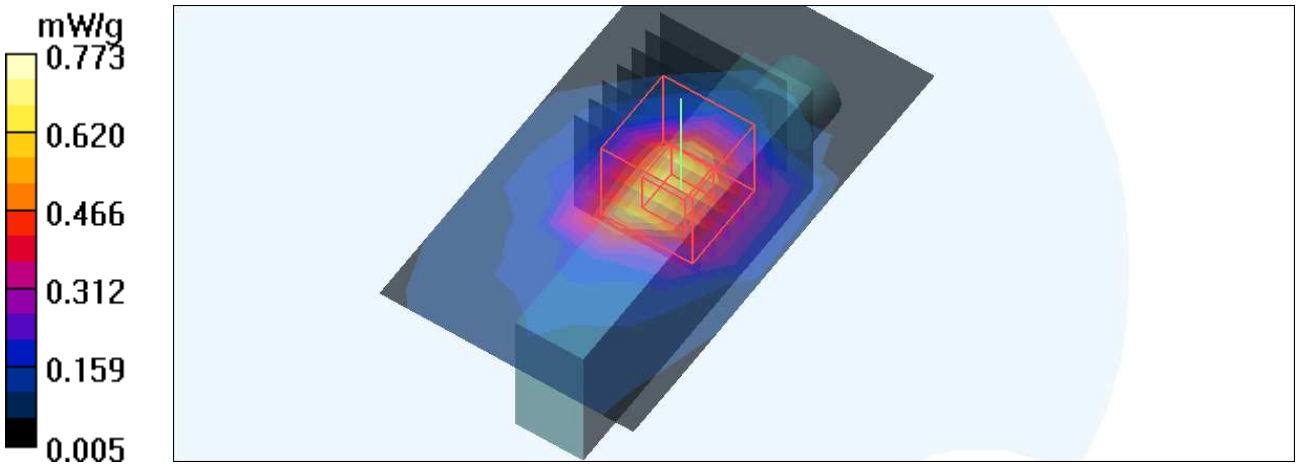
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The right edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 396/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.639 mW/g

Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.9 V/m; Power Drift = -0.126 dB
Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.597 mW/g; SAR(10 g) = 0.287 mW/g
Maximum value of SAR (measured) = 0.773 mW/g



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Test Laboratory: Bureau Veritas ADT

M04-10M-QPSK1_2-Ch730

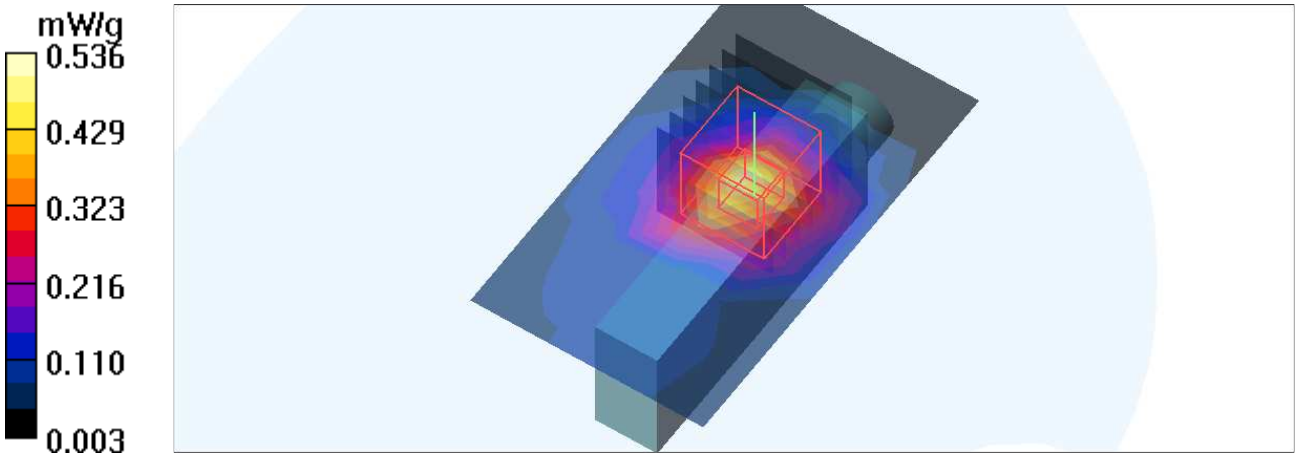
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2683.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2683.5 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The right edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 730/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.495 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.1 V/m; Power Drift = -0.143 dB
Peak SAR (extrapolated) = 0.832 W/kg
SAR(1 g) = 0.415 mW/g; SAR(10 g) = 0.202 mW/g
Maximum value of SAR (measured) = 0.536 mW/g



Date/Time: 2009/9/22 09:39:57

Test Laboratory: Bureau Veritas ADT

M05-5M-QPSK1_2-Ch2

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.06 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.30 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.5 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 1.98 W/kg

SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.527 mW/g

Maximum value of SAR (measured) = 1.35 mW/g

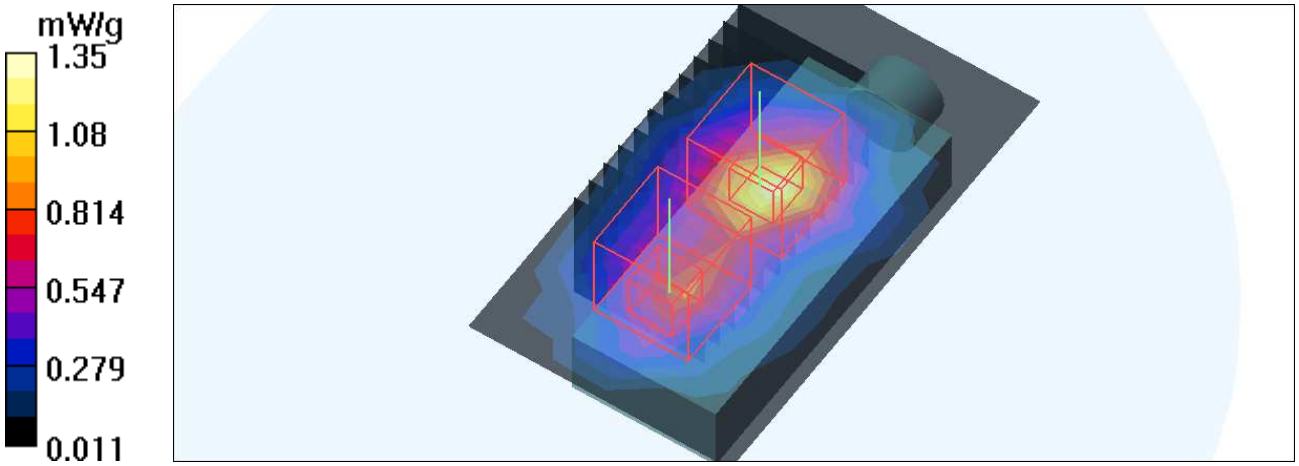
Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

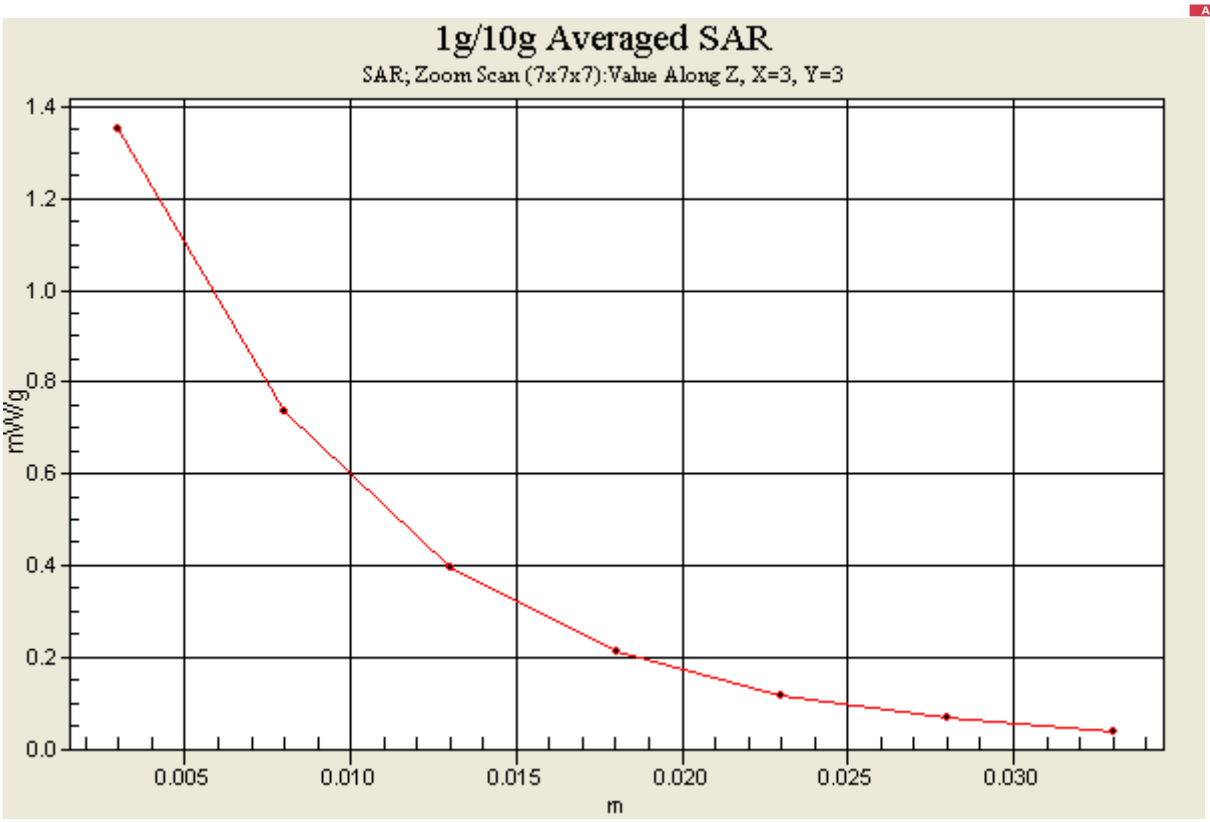
Reference Value = 24.5 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 1.58 W/kg

SAR(1 g) = 0.732 mW/g; SAR(10 g) = 0.342 mW/g

Maximum value of SAR (measured) = 0.958 mW/g




1g/10g Averaged SAR
SAR; Zoom Scan (7x7x7):Value Along Z, X=3, Y=3
mW/g
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.005
0.010
0.015
0.020
0.025
0.030
m

Date/Time: 2009/9/22 10:11:33

Test Laboratory: Bureau Veritas ADT

M05-5M-QPSK1_2-Ch406

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 406/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.20 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.9 V/m; Power Drift = -0.109 dB

Peak SAR (extrapolated) = 2.25 W/kg

SAR(1 g) = 0.995 mW/g; SAR(10 g) = 0.440 mW/g

Maximum value of SAR (measured) = 1.31 mW/g

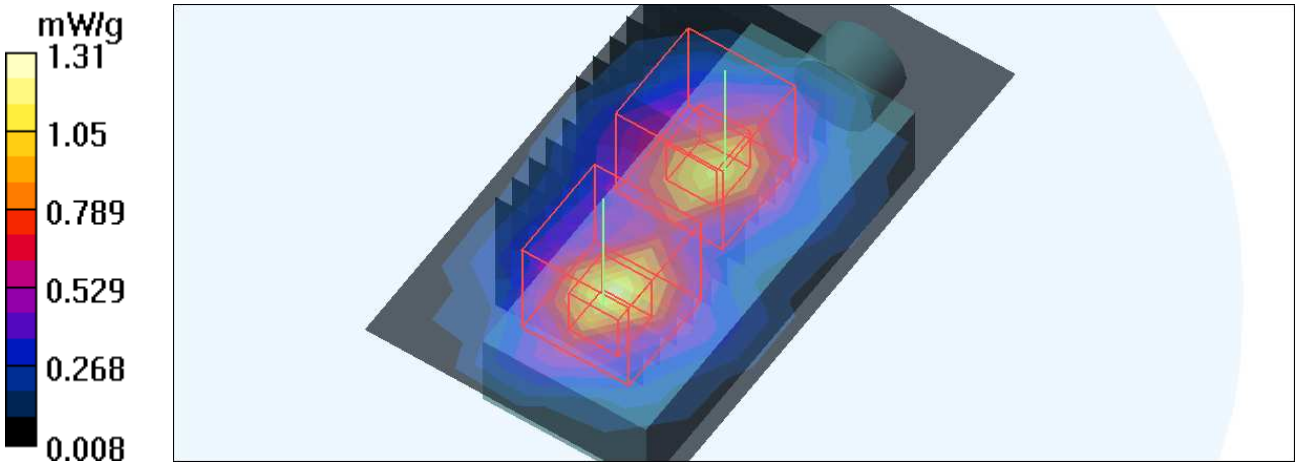
Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.9 V/m; Power Drift = -0.109 dB

Peak SAR (extrapolated) = 1.72 W/kg

SAR(1 g) = 0.892 mW/g; SAR(10 g) = 0.433 mW/g

Maximum value of SAR (measured) = 1.15 mW/g



Date/Time: 2009/9/22 10:45:03

Test Laboratory: Bureau Veritas ADT

M05-5M-QPSK1_2-Ch753

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2686.75 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2686.75 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3

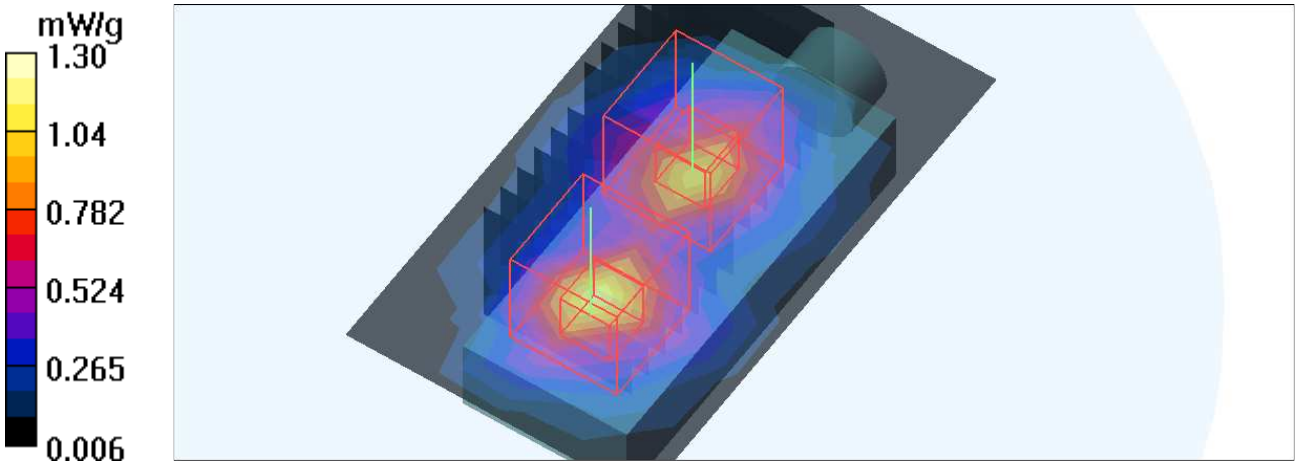
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 753/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.17 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.7 V/m; Power Drift = -0.035 dB
Peak SAR (extrapolated) = 2.27 W/kg
SAR(1 g) = 0.986 mW/g; SAR(10 g) = 0.418 mW/g
Maximum value of SAR (measured) = 1.30 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.7 V/m; Power Drift = -0.035 dB
Peak SAR (extrapolated) = 1.62 W/kg
SAR(1 g) = 0.824 mW/g; SAR(10 g) = 0.395 mW/g
Maximum value of SAR (measured) = 1.07 mW/g



Date/Time: 2009/9/22 11:16:09

Test Laboratory: Bureau Veritas ADT

M06-5M-QPSK3_4-Ch2

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.06 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.32 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.4 V/m; Power Drift = -0.086 dB

Peak SAR (extrapolated) = 1.96 W/kg

SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.521 mW/g

Maximum value of SAR (measured) = 1.33 mW/g

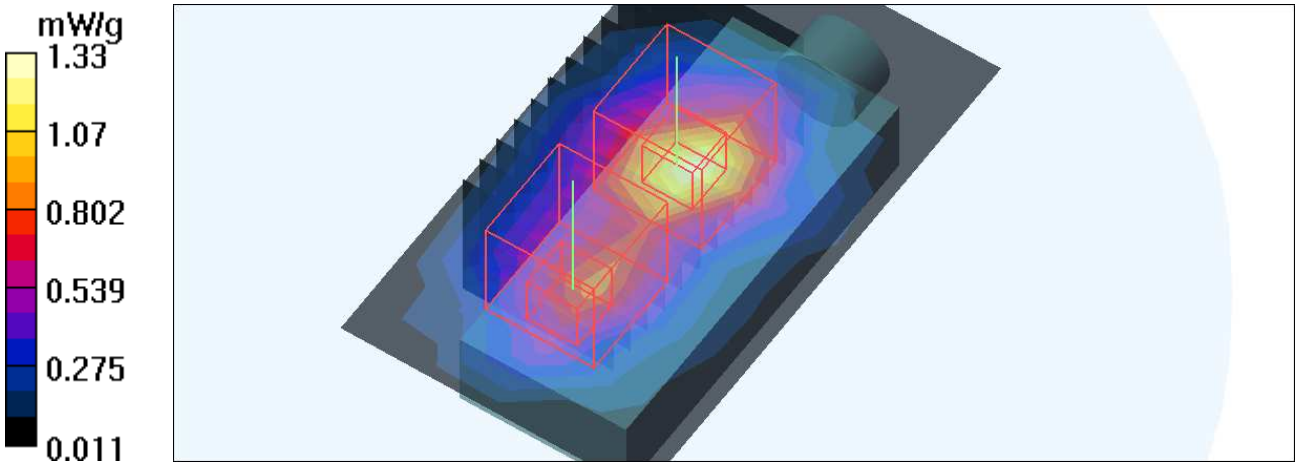
Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.4 V/m; Power Drift = -0.086 dB

Peak SAR (extrapolated) = 1.63 W/kg

SAR(1 g) = 0.746 mW/g; SAR(10 g) = 0.346 mW/g

Maximum value of SAR (measured) = 0.975 mW/g



Date/Time: 2009/9/22 11:45:42

Test Laboratory: Bureau Veritas ADT

M06-5M-QPSK3_4-Ch406

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 406/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.23 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.8 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 2.21 W/kg

SAR(1 g) = 0.983 mW/g; SAR(10 g) = 0.436 mW/g

Maximum value of SAR (measured) = 1.29 mW/g

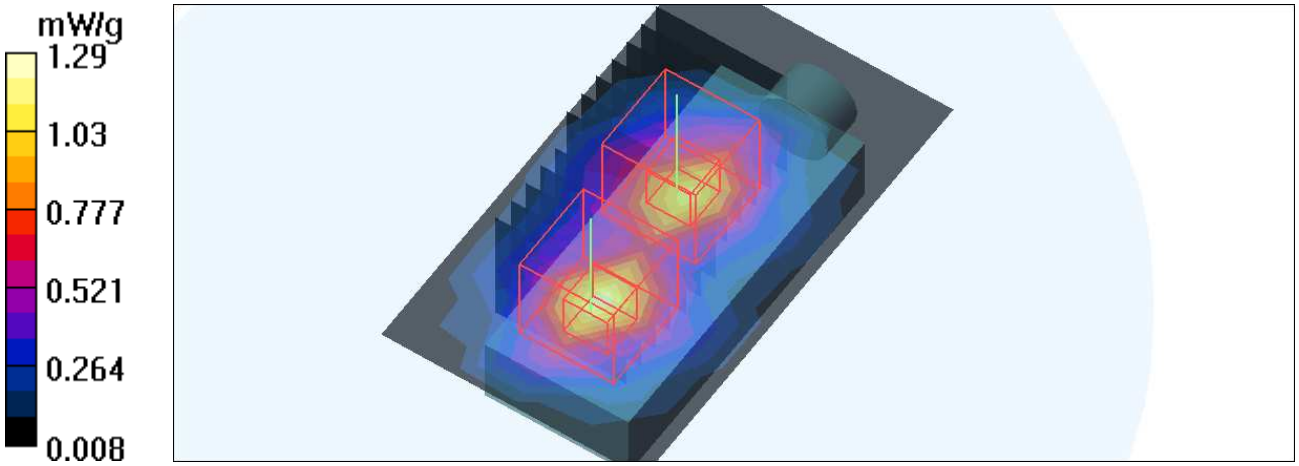
Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.8 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 1.70 W/kg

SAR(1 g) = 0.892 mW/g; SAR(10 g) = 0.404 mW/g

Maximum value of SAR (measured) = 1.14 mW/g



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Test Laboratory: Bureau Veritas ADT

M06-5M-QPSK3_4-Ch753

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2686.75 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2686.75 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3

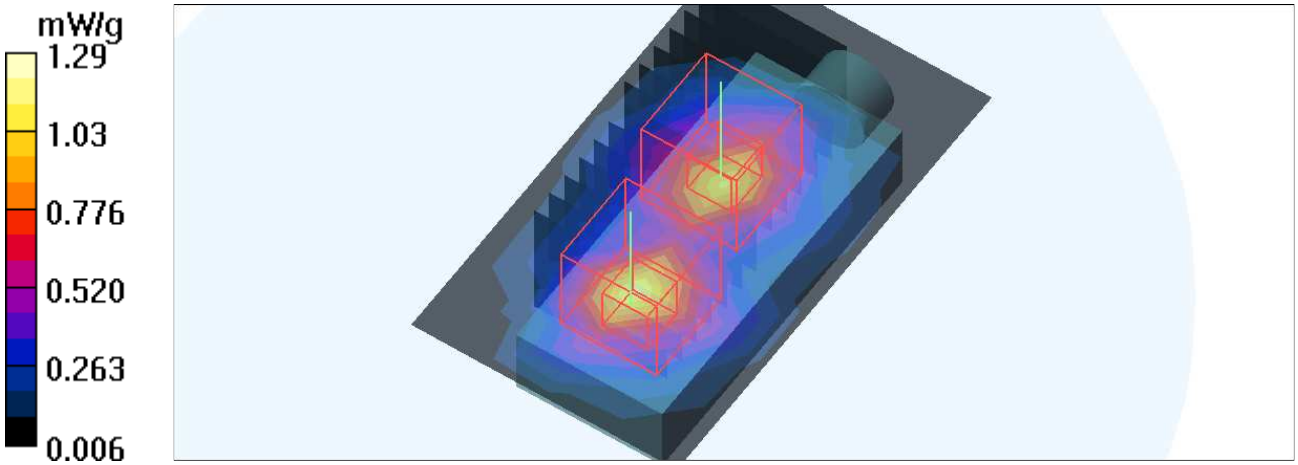
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 753/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.18 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.8 V/m; Power Drift = -0.001 dB
Peak SAR (extrapolated) = 2.26 W/kg
SAR(1 g) = 0.979 mW/g; SAR(10 g) = 0.417 mW/g
Maximum value of SAR (measured) = 1.29 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.8 V/m; Power Drift = -0.001 dB
Peak SAR (extrapolated) = 1.63 W/kg
SAR(1 g) = 0.836 mW/g; SAR(10 g) = 0.401 mW/g
Maximum value of SAR (measured) = 1.07 mW/g



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Test Laboratory: Bureau Veritas ADT

M07-5M-16Q1_2-Ch2

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.06 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.29 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.3 V/m; Power Drift = 0.088 dB

Peak SAR (extrapolated) = 1.89 W/kg

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.514 mW/g

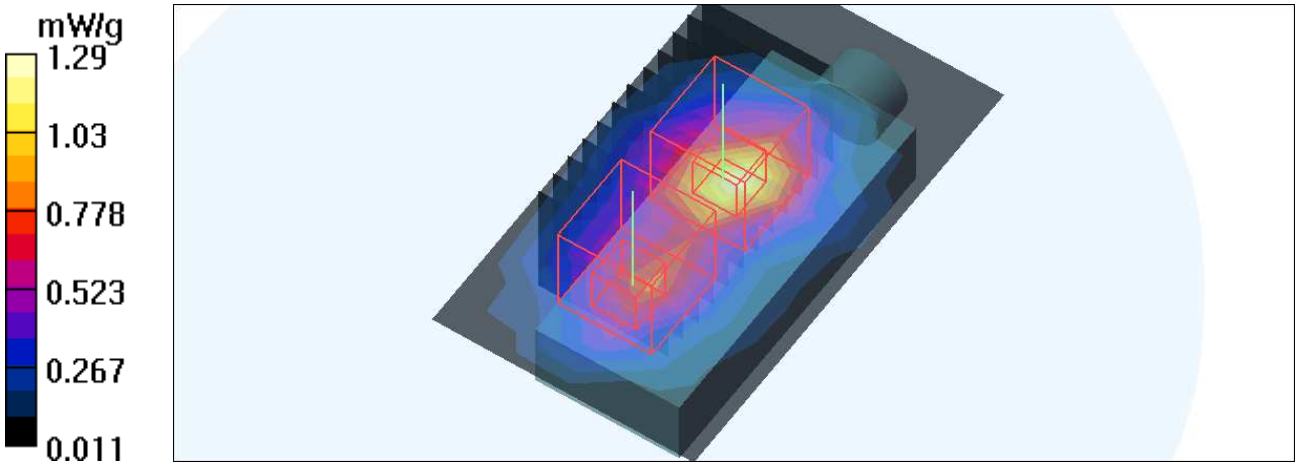
Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.3 V/m; Power Drift = 0.088 dB

Peak SAR (extrapolated) = 1.62 W/kg

SAR(1 g) = 0.742 mW/g; SAR(10 g) = 0.344 mW/g

Maximum value of SAR (measured) = 0.972 mW/g



Date/Time: 2009/9/22 13:19:02

Test Laboratory: Bureau Veritas ADT

M07-5M-16Q1_2-Ch406

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 406/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.21 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.9 V/m; Power Drift = 0.190 dB

Peak SAR (extrapolated) = 2.22 W/kg

SAR(1 g) = 0.982 mW/g; SAR(10 g) = 0.415 mW/g

Maximum value of SAR (measured) = 1.29 mW/g

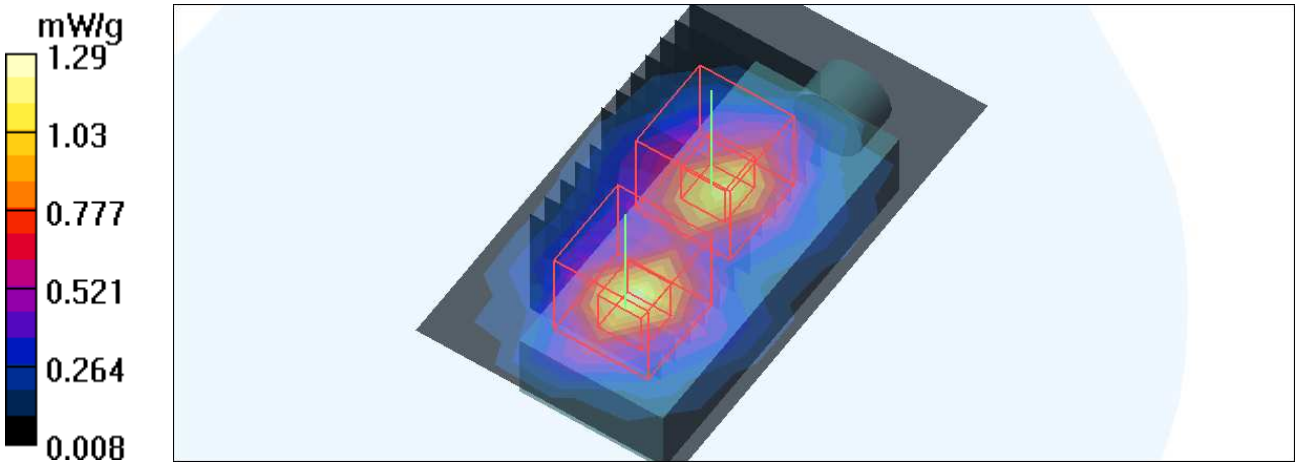
Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.9 V/m; Power Drift = 0.190 dB

Peak SAR (extrapolated) = 1.72 W/kg

SAR(1 g) = 0.927 mW/g; SAR(10 g) = 0.406 mW/g

Maximum value of SAR (measured) = 1.11 mW/g



Date/Time: 2009/9/22 13:51:06

Test Laboratory: Bureau Veritas ADT

M07-5M-16Q1_2-Ch753

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2686.75 MHz ; Duty Cycle: 1:3.24 ; Modulation type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2686.75 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3

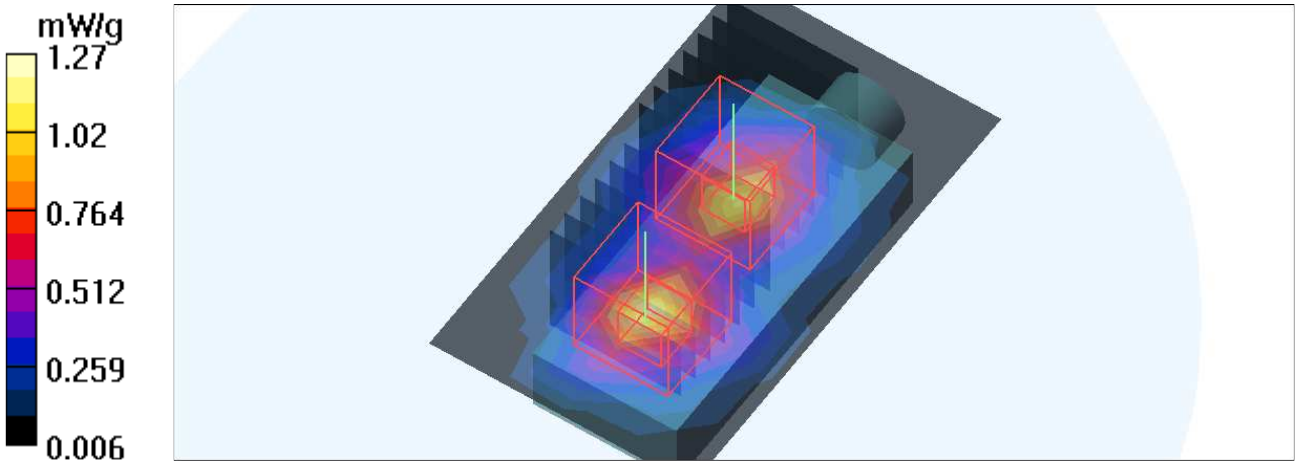
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 753/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.17 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.2 V/m; Power Drift = -0.032 dB
Peak SAR (extrapolated) = 2.22 W/kg
SAR(1 g) = 0.957 mW/g; SAR(10 g) = 0.412 mW/g
Maximum value of SAR (measured) = 1.27 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.2 V/m; Power Drift = -0.032 dB
Peak SAR (extrapolated) = 1.64 W/kg
SAR(1 g) = 0.868 mW/g; SAR(10 g) = 0.398 mW/g
Maximum value of SAR (measured) = 1.05 mW/g



Date/Time: 2009/9/22 14:25:01

Test Laboratory: Bureau Veritas ADT

M08-5M-16Q3_4-Ch2

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.06 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.25 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.8 V/m; Power Drift = 0.031 dB

Peak SAR (extrapolated) = 1.86 W/kg

SAR(1 g) = 1 mW/g; SAR(10 g) = 0.495 mW/g

Maximum value of SAR (measured) = 1.27 mW/g

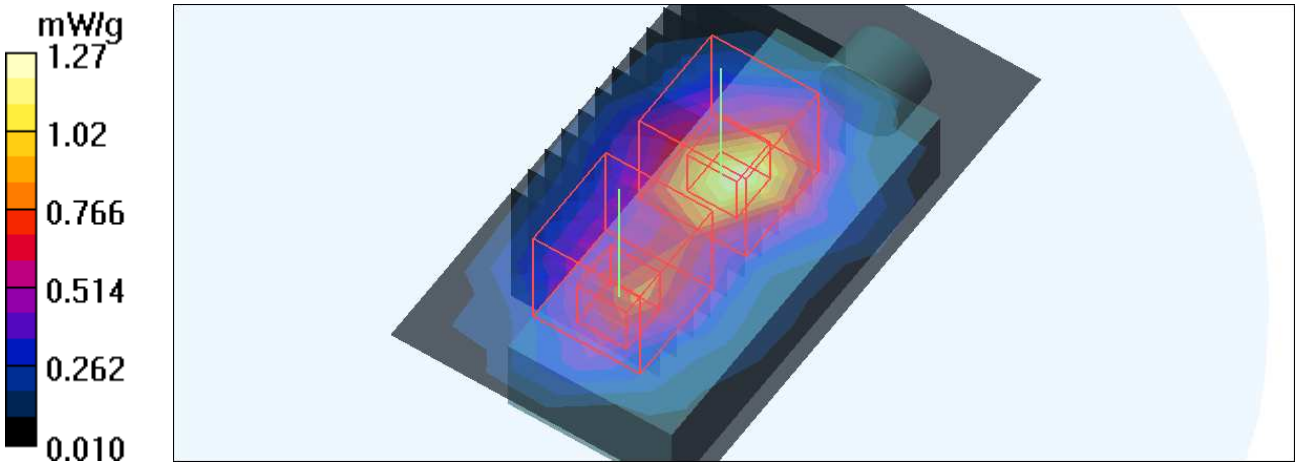
Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.8 V/m; Power Drift = 0.031 dB

Peak SAR (extrapolated) = 1.53 W/kg

SAR(1 g) = 0.702 mW/g; SAR(10 g) = 0.326 mW/g

Maximum value of SAR (measured) = 0.919 mW/g



Date/Time: 2009/9/22 14:54:11

Test Laboratory: Bureau Veritas ADT

M08-5M-16Q3_4-Ch406

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 406/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.17 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.9 V/m; Power Drift = -0.053 dB

Peak SAR (extrapolated) = 2.13 W/kg

SAR(1 g) = 0.951 mW/g; SAR(10 g) = 0.421 mW/g

Maximum value of SAR (measured) = 1.24 mW/g

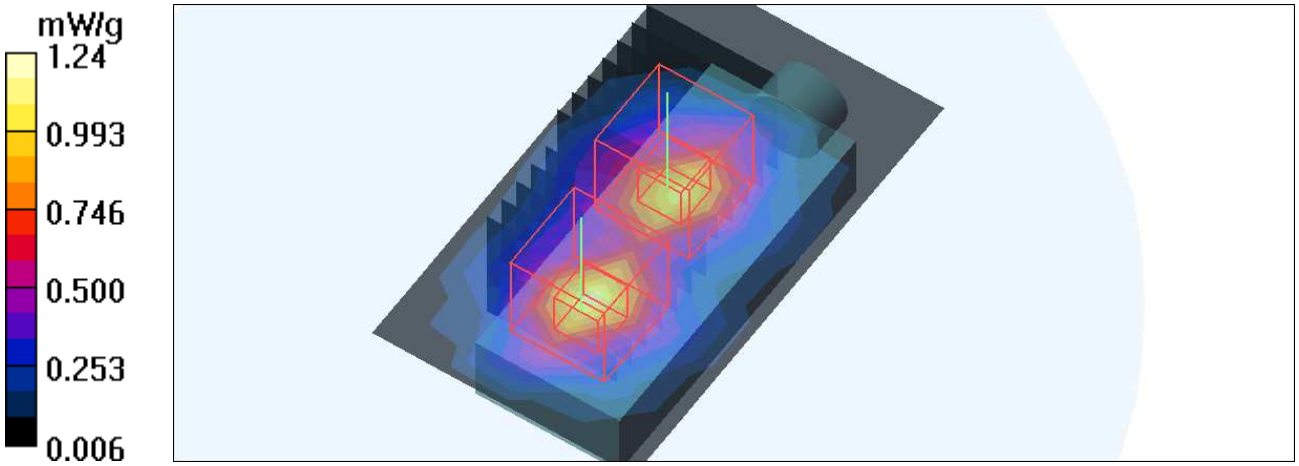
Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.9 V/m; Power Drift = -0.053 dB

Peak SAR (extrapolated) = 1.65 W/kg

SAR(1 g) = 0.858 mW/g; SAR(10 g) = 0.414 mW/g

Maximum value of SAR (measured) = 1.10 mW/g



Date/Time: 2009/9/22 15:25:27

Test Laboratory: Bureau Veritas ADT

M08-5M-16Q3_4-Ch753

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2686.75 MHz ; Duty Cycle: 1:3.24 ; Modulation type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2686.75 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3

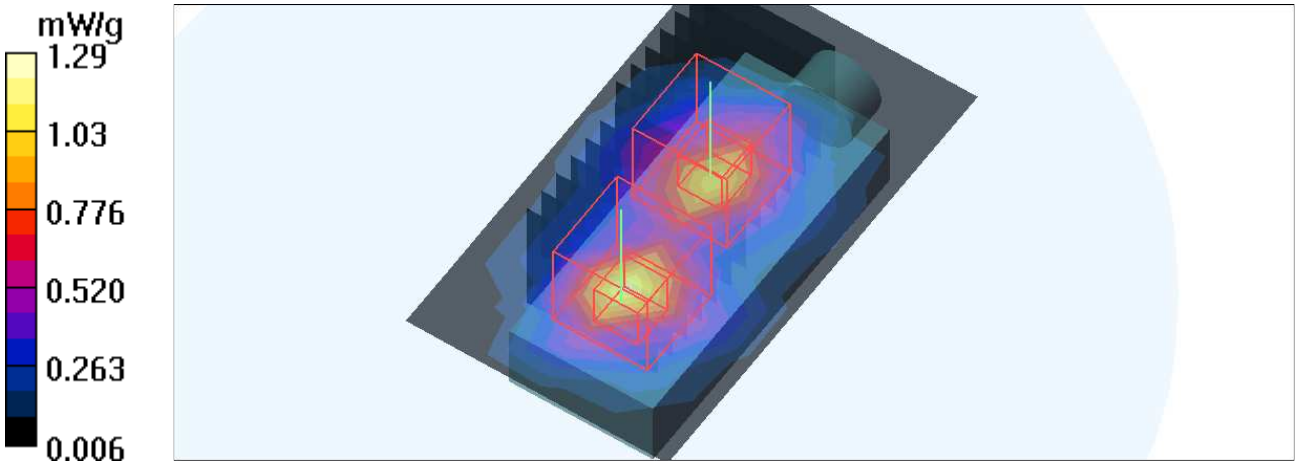
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 753/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.19 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.1 V/m; Power Drift = -0.043 dB
Peak SAR (extrapolated) = 2.25 W/kg
SAR(1 g) = 0.974 mW/g; SAR(10 g) = 0.412 mW/g
Maximum value of SAR (measured) = 1.29 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.1 V/m; Power Drift = -0.043 dB
Peak SAR (extrapolated) = 1.66 W/kg
SAR(1 g) = 0.837 mW/g; SAR(10 g) = 0.399 mW/g
Maximum value of SAR (measured) = 1.09 mW/g



Date/Time: 2009/9/22 15:58:32

Test Laboratory: Bureau Veritas ADT

M09-10M-QPSK1_2-Ch30

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2508.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2508.5 MHz; σ = 2.07 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 30/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.24 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.9 V/m; Power Drift = -0.063 dB

Peak SAR (extrapolated) = 1.87 W/kg

SAR(1 g) = 0.990 mW/g; SAR(10 g) = 0.487 mW/g

Maximum value of SAR (measured) = 1.23 mW/g

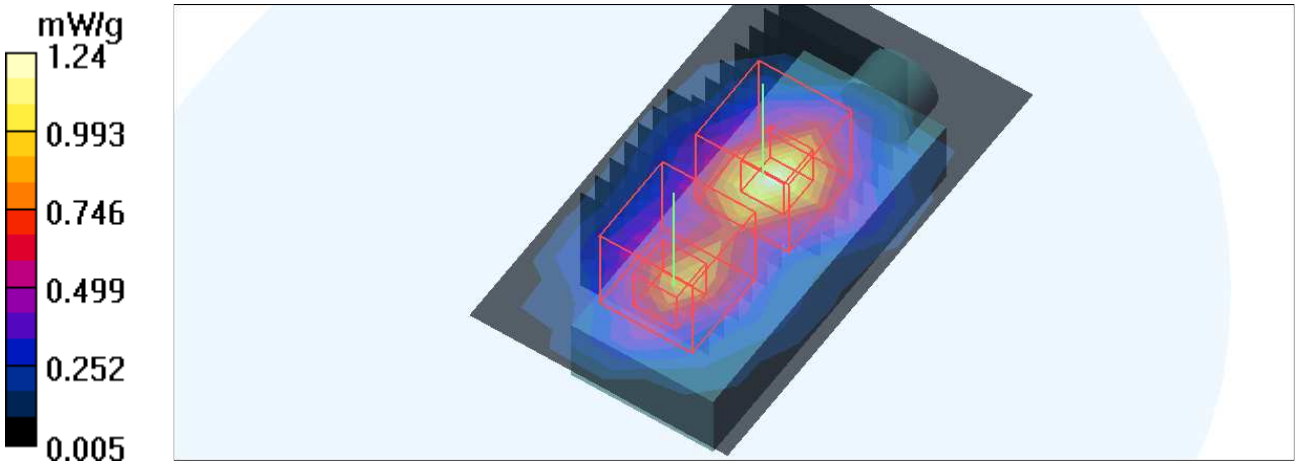
Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.9 V/m; Power Drift = -0.063 dB

Peak SAR (extrapolated) = 1.70 W/kg

SAR(1 g) = 0.771 mW/g; SAR(10 g) = 0.354 mW/g

Maximum value of SAR (measured) = 1.02 mW/g



Date/Time: 2009/9/22 16:31:46

Test Laboratory: Bureau Veritas ADT

M09-10M-QPSK1_2-Ch396

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 396/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.15 mW/g

Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.5 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 2.17 W/kg

SAR(1 g) = 0.944 mW/g; SAR(10 g) = 0.413 mW/g

Maximum value of SAR (measured) = 1.28 mW/g

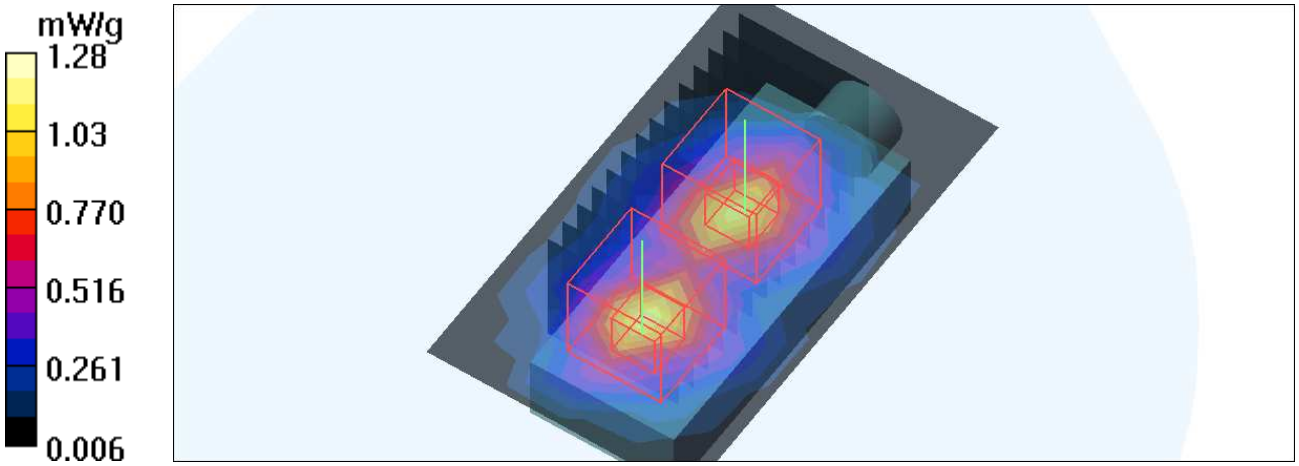
Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.5 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 1.64 W/kg

SAR(1 g) = 0.850 mW/g; SAR(10 g) = 0.412 mW/g

Maximum value of SAR (measured) = 1.08 mW/g



Date/Time: 2009/9/22 17:03:52

Test Laboratory: Bureau Veritas ADT

M09-10M-QPSK1_2-Ch730

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2683.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2683.5 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3

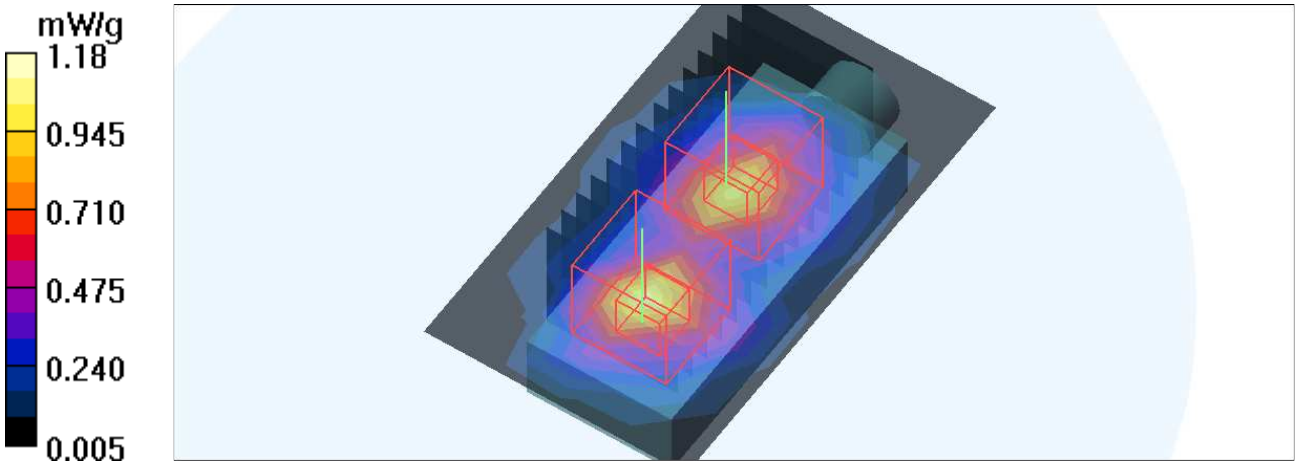
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 730/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.10 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.2 V/m; Power Drift = -0.094 dB
Peak SAR (extrapolated) = 2.10 W/kg
SAR(1 g) = 0.903 mW/g; SAR(10 g) = 0.379 mW/g
Maximum value of SAR (measured) = 1.18 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.2 V/m; Power Drift = -0.094 dB
Peak SAR (extrapolated) = 1.54 W/kg
SAR(1 g) = 0.775 mW/g; SAR(10 g) = 0.339 mW/g
Maximum value of SAR (measured) = 0.986 mW/g



Date/Time: 2009/9/22 17:33:55

Test Laboratory: Bureau Veritas ADT

M10-10M-QPSK3_4-Ch30

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2508.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2508.5 MHz; σ = 2.07 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 30/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.24 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.5 V/m; Power Drift = -0.124 dB

Peak SAR (extrapolated) = 1.80 W/kg

SAR(1 g) = 0.959 mW/g; SAR(10 g) = 0.473 mW/g

Maximum value of SAR (measured) = 1.21 mW/g

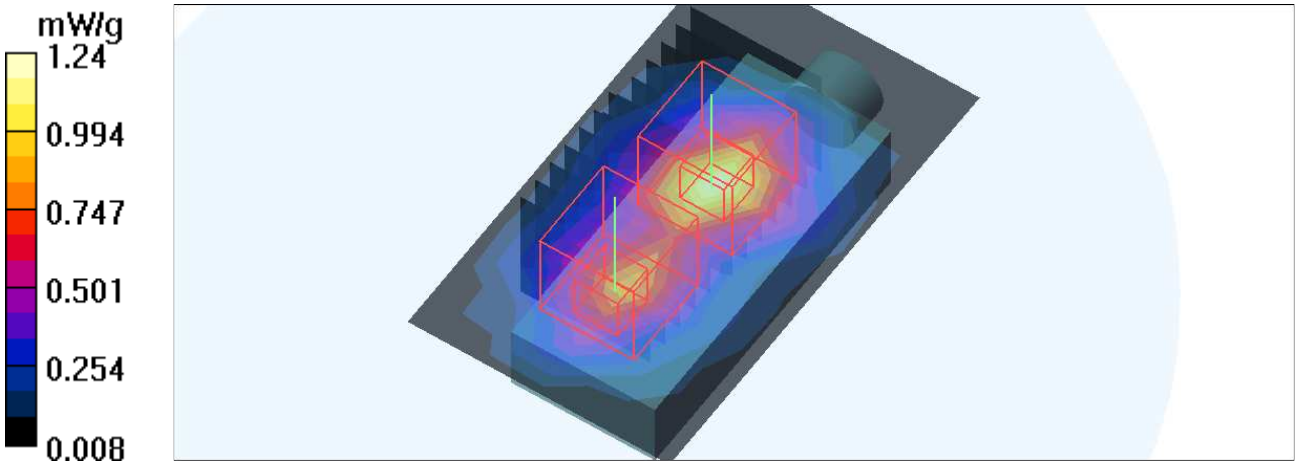
Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.5 V/m; Power Drift = -0.124 dB

Peak SAR (extrapolated) = 1.64 W/kg

SAR(1 g) = 0.747 mW/g; SAR(10 g) = 0.343 mW/g

Maximum value of SAR (measured) = 0.981 mW/g



Date/Time: 2009/9/22 18:02:29

Test Laboratory: Bureau Veritas ADT

M10-10M-QPSK3_4-Ch396

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 396/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.18 mW/g

Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.2 V/m; Power Drift = 0.091 dB

Peak SAR (extrapolated) = 2.11 W/kg

SAR(1 g) = 0.931 mW/g; SAR(10 g) = 0.410 mW/g

Maximum value of SAR (measured) = 1.24 mW/g

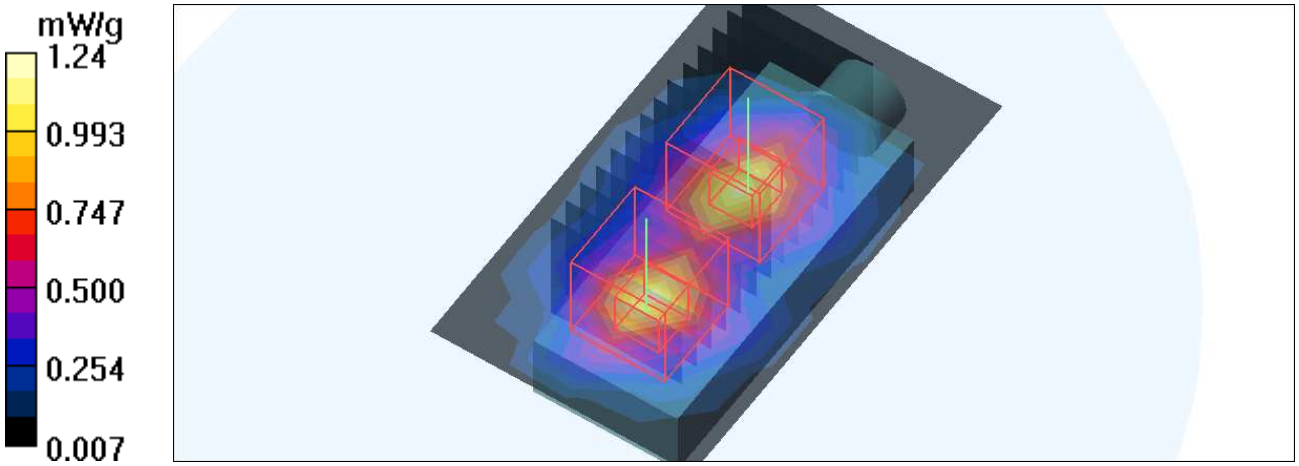
Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.2 V/m; Power Drift = 0.091 dB

Peak SAR (extrapolated) = 1.63 W/kg

SAR(1 g) = 0.856 mW/g; SAR(10 g) = 0.418 mW/g

Maximum value of SAR (measured) = 1.09 mW/g



Date/Time: 2009/9/22 18:37:33

Test Laboratory: Bureau Veritas ADT

M10-10M-QPSK3_4-Ch730

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2683.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2683.5 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3

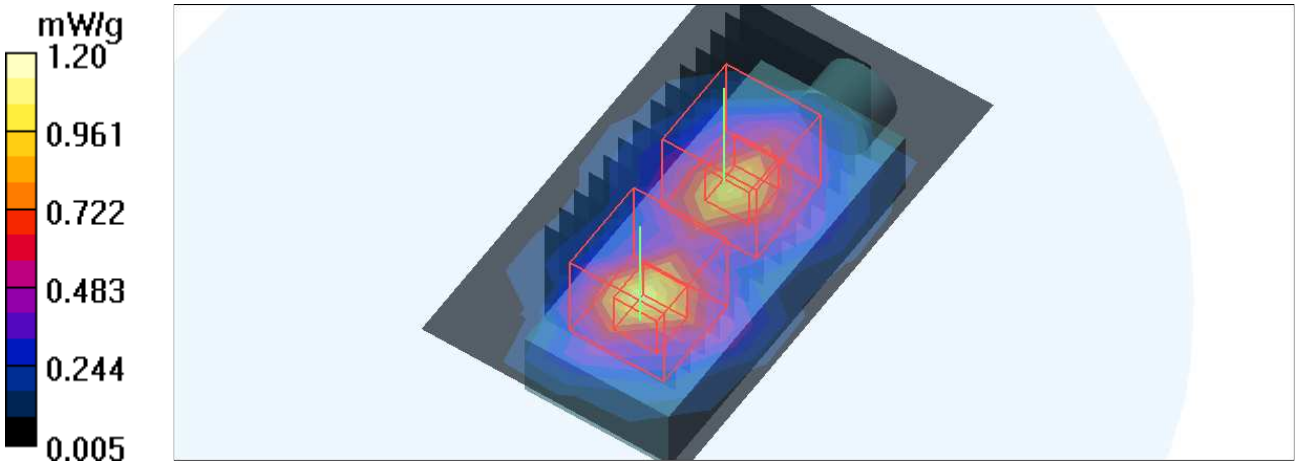
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 730/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.08 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.3 V/m; Power Drift = -0.196 dB
Peak SAR (extrapolated) = 2.11 W/kg
SAR(1 g) = 0.912 mW/g; SAR(10 g) = 0.383 mW/g
Maximum value of SAR (measured) = 1.20 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.3 V/m; Power Drift = -0.196 dB
Peak SAR (extrapolated) = 1.51 W/kg
SAR(1 g) = 0.772 mW/g; SAR(10 g) = 0.370 mW/g
Maximum value of SAR (measured) = 0.960 mW/g



Date/Time: 2009/9/22 19:08:00

Test Laboratory: Bureau Veritas ADT

M11-10M-16Q1_2-Ch30

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2508.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2508.5 MHz; σ = 2.07 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3

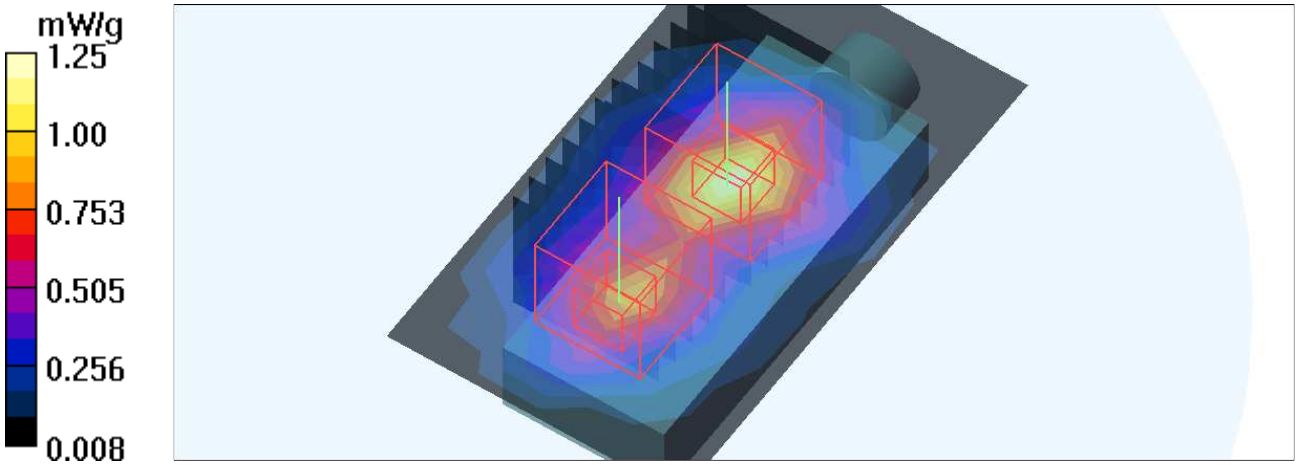
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 30/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.25 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.6 V/m; Power Drift = -0.121 dB
Peak SAR (extrapolated) = 1.79 W/kg
SAR(1 g) = 0.960 mW/g; SAR(10 g) = 0.475 mW/g
Maximum value of SAR (measured) = 1.21 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.6 V/m; Power Drift = -0.121 dB
Peak SAR (extrapolated) = 1.63 W/kg
SAR(1 g) = 0.743 mW/g; SAR(10 g) = 0.340 mW/g
Maximum value of SAR (measured) = 0.981 mW/g



Date/Time: 2009/9/22 19:40:56

Test Laboratory: Bureau Veritas ADT

M11-10M-16Q1_2-Ch396

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 396/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.10 mW/g

Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.0 V/m; Power Drift = -0.075 dB

Peak SAR (extrapolated) = 2.02 W/kg

SAR(1 g) = 0.891 mW/g; SAR(10 g) = 0.396 mW/g

Maximum value of SAR (measured) = 1.19 mW/g

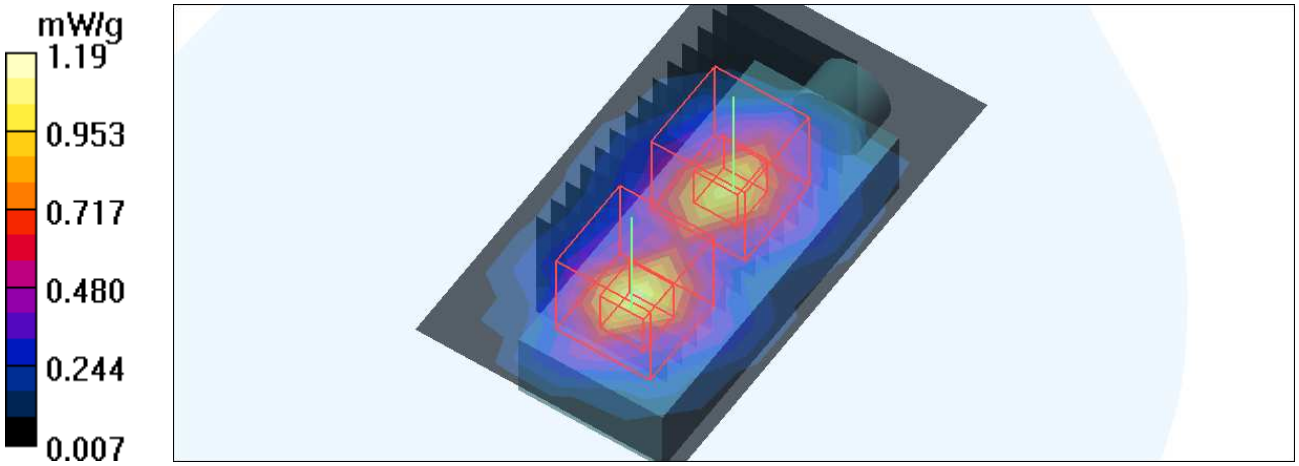
Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.0 V/m; Power Drift = -0.075 dB

Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 0.815 mW/g; SAR(10 g) = 0.392 mW/g

Maximum value of SAR (measured) = 1.04 mW/g



Date/Time: 2009/9/22 20:08:41

Test Laboratory: Bureau Veritas ADT

M11-10M-16Q1_2-Ch730

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2683.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2683.5 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3

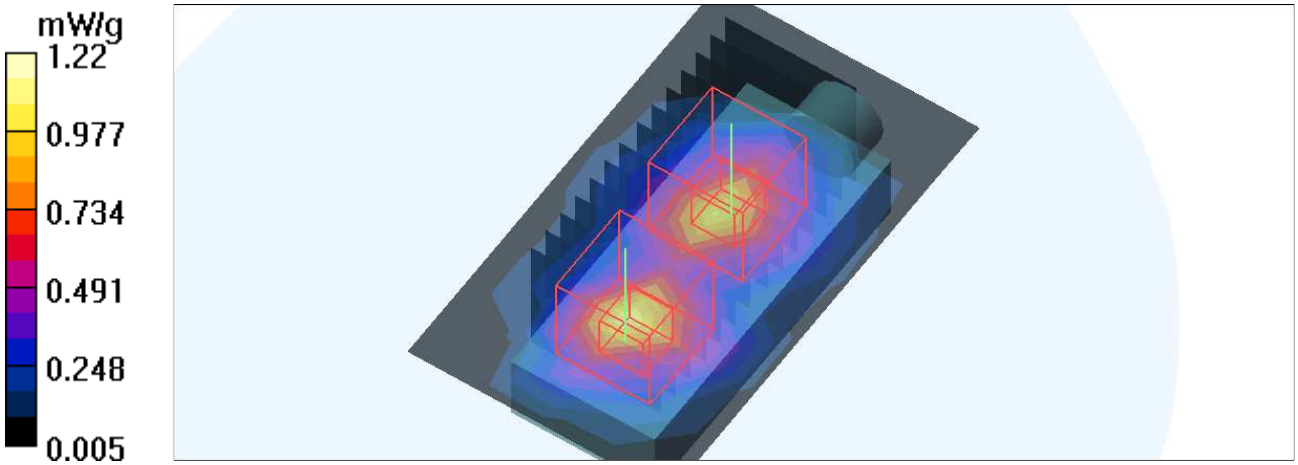
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 730/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.09 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.2 V/m; Power Drift = -0.065 dB
Peak SAR (extrapolated) = 2.13 W/kg
SAR(1 g) = 0.923 mW/g; SAR(10 g) = 0.388 mW/g
Maximum value of SAR (measured) = 1.22 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.2 V/m; Power Drift = -0.065 dB
Peak SAR (extrapolated) = 1.53 W/kg
SAR(1 g) = 0.785 mW/g; SAR(10 g) = 0.325 mW/g
Maximum value of SAR (measured) = 0.985 mW/g



Date/Time: 2009/9/22 20:37:22

Test Laboratory: Bureau Veritas ADT

M12-10M-16Q3_4-Ch30

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2508.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2508.5 MHz; σ = 2.07 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 30/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.21 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.3 V/m; Power Drift = -0.053 dB

Peak SAR (extrapolated) = 1.76 W/kg

SAR(1 g) = 0.943 mW/g; SAR(10 g) = 0.466 mW/g

Maximum value of SAR (measured) = 1.19 mW/g

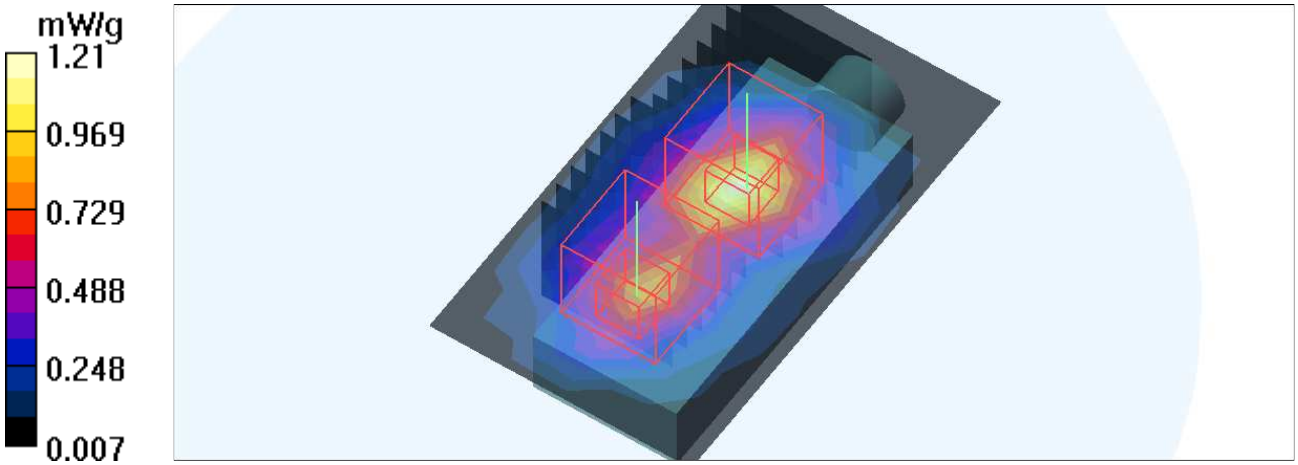
Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.3 V/m; Power Drift = -0.053 dB

Peak SAR (extrapolated) = 1.60 W/kg

SAR(1 g) = 0.731 mW/g; SAR(10 g) = 0.337 mW/g

Maximum value of SAR (measured) = 0.956 mW/g



Date/Time: 2009/9/22 21:13:33

Test Laboratory: Bureau Veritas ADT

M12-10M-16Q3_4-Ch396

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 396/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.13 mW/g

Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.1 V/m; Power Drift = 0.179 dB

Peak SAR (extrapolated) = 2.10 W/kg

SAR(1 g) = 0.927 mW/g; SAR(10 g) = 0.407 mW/g

Maximum value of SAR (measured) = 1.23 mW/g

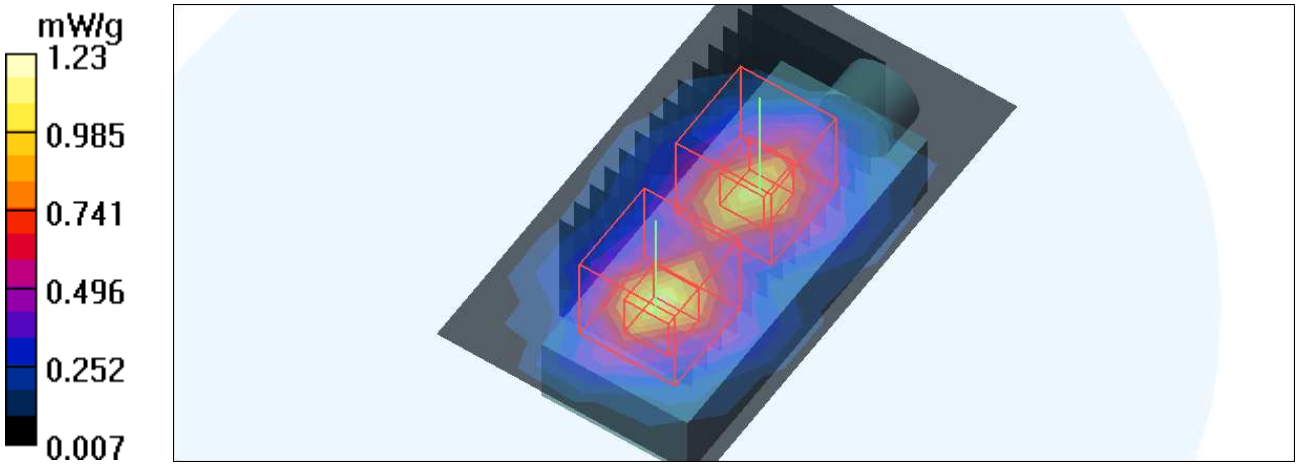
Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.1 V/m; Power Drift = 0.179 dB

Peak SAR (extrapolated) = 1.67 W/kg

SAR(1 g) = 0.876 mW/g; SAR(10 g) = 0.365 mW/g

Maximum value of SAR (measured) = 1.05 mW/g



Date/Time: 2009/9/22 21:44:19

Test Laboratory: Bureau Veritas ADT

M12-10M-16Q3_4-Ch730

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2683.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2683.5 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3

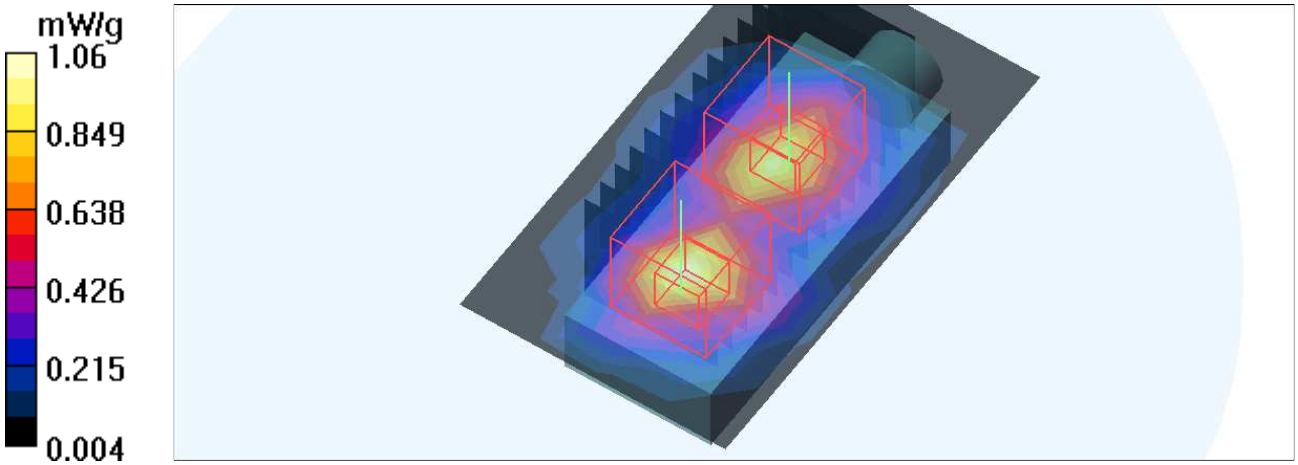
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 730/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.06 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.6 V/m; Power Drift = 0.129 dB
Peak SAR (extrapolated) = 2.05 W/kg
SAR(1 g) = 0.891 mW/g; SAR(10 g) = 0.375 mW/g
Maximum value of SAR (measured) = 1.17 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.6 V/m; Power Drift = 0.129 dB
Peak SAR (extrapolated) = 1.53 W/kg
SAR(1 g) = 0.782 mW/g; SAR(10 g) = 0.341 mW/g
Maximum value of SAR (measured) = 0.972 mW/g



Date/Time: 2009/9/22 22:01:21

Test Laboratory: Bureau Veritas ADT

M13-5M-QPSK1_2-Ch2

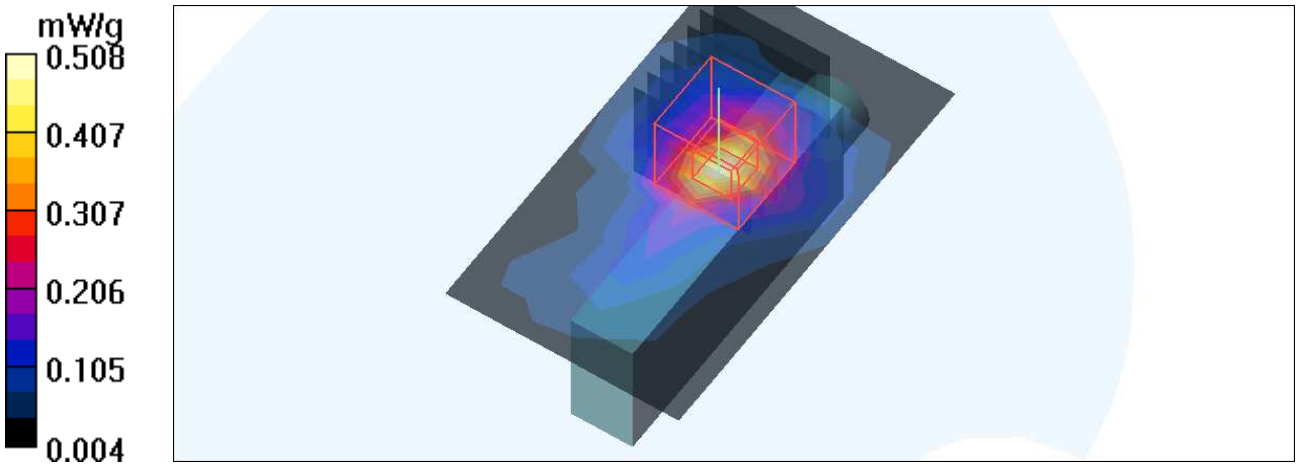
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.06 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The left edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.507 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.8 V/m; Power Drift = -0.020 dB
Peak SAR (extrapolated) = 0.765 W/kg
SAR(1 g) = 0.393 mW/g; SAR(10 g) = 0.187 mW/g
Maximum value of SAR (measured) = 0.508 mW/g



Date/Time: 2009/9/22 22:31:20

Test Laboratory: Bureau Veritas ADT

M13-5M-QPSK1_2-Ch406

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

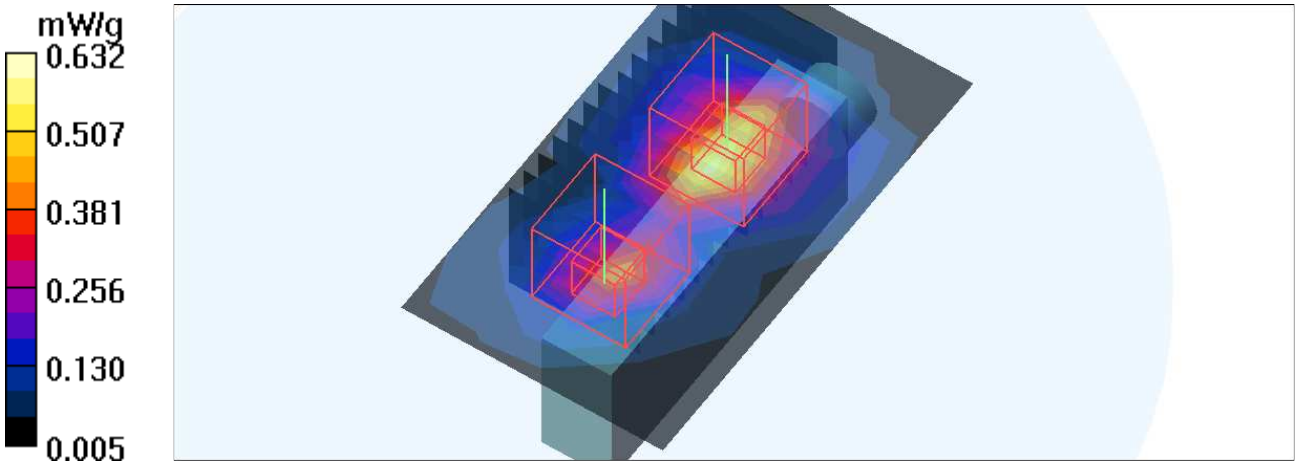
Phantom section: Flat Section ; Separation distance : 5 mm (The left edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 406/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.579 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.4 V/m; Power Drift = -0.002 dB
Peak SAR (extrapolated) = 0.961 W/kg
SAR(1 g) = 0.486 mW/g; SAR(10 g) = 0.232 mW/g
Maximum value of SAR (measured) = 0.632 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.4 V/m; Power Drift = -0.002 dB
Peak SAR (extrapolated) = 0.719 W/kg
SAR(1 g) = 0.327 mW/g; SAR(10 g) = 0.137 mW/g
Maximum value of SAR (measured) = 0.445 mW/g



Date/Time: 2009/9/22 23:02:08

Test Laboratory: Bureau Veritas ADT

M13-5M-QPSK1_2-Ch753

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2686.75 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2686.75 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The left edge side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 753/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.680 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.2 V/m; Power Drift = 0.011 dB

Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.557 mW/g; SAR(10 g) = 0.261 mW/g

Maximum value of SAR (measured) = 0.717 mW/g

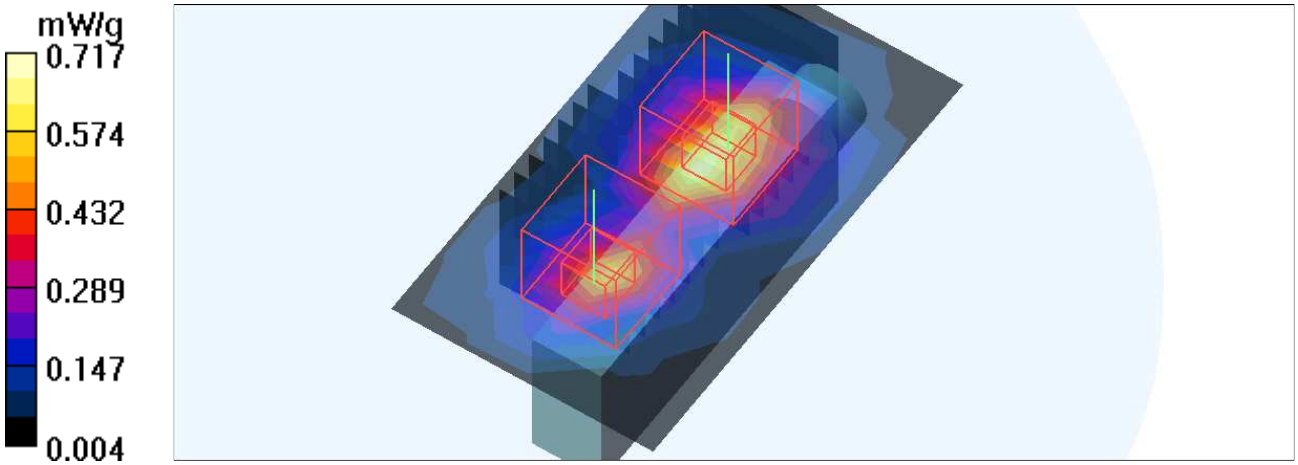
High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.2 V/m; Power Drift = 0.011 dB

Peak SAR (extrapolated) = 0.945 W/kg

SAR(1 g) = 0.426 mW/g; SAR(10 g) = 0.177 mW/g

Maximum value of SAR (measured) = 0.583 mW/g



Date/Time: 2009/9/22 23:17:23

Test Laboratory: Bureau Veritas ADT

M14-10M-QPSK1_2-Ch30

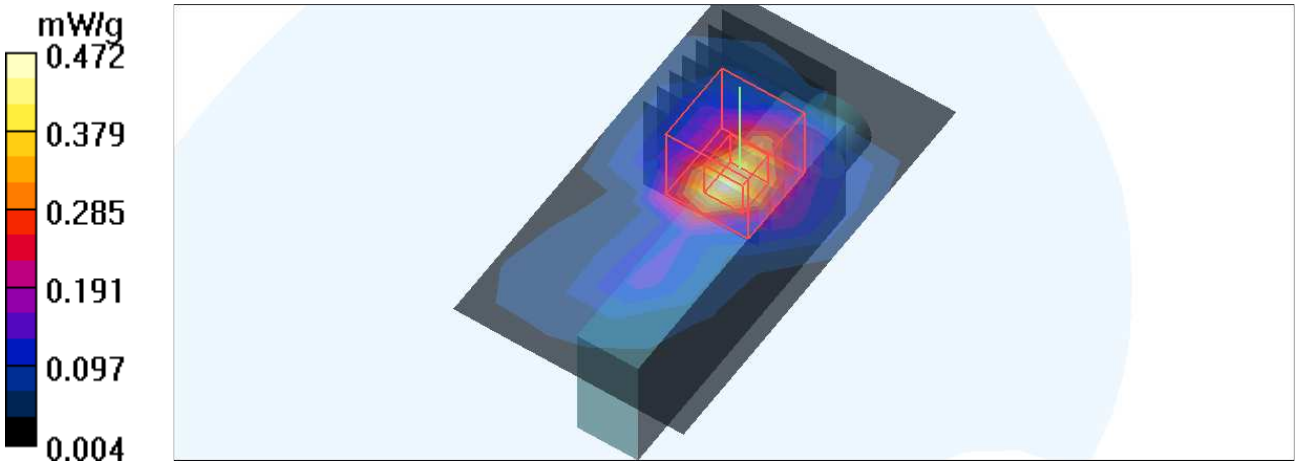
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2508.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2508.5 MHz; σ = 2.07 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The left edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 30/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.467 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.0 V/m; Power Drift = -0.062 dB
Peak SAR (extrapolated) = 0.715 W/kg
SAR(1 g) = 0.370 mW/g; SAR(10 g) = 0.177 mW/g
Maximum value of SAR (measured) = 0.472 mW/g



Date/Time: 2009/9/22 23:46:06

Test Laboratory: Bureau Veritas ADT

M14-10M-QPSK1_2-Ch396

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The left edge side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 396/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.535 mW/g

Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.6 V/m; Power Drift = -0.111 dB

Peak SAR (extrapolated) = 0.884 W/kg

SAR(1 g) = 0.446 mW/g; SAR(10 g) = 0.211 mW/g

Maximum value of SAR (measured) = 0.575 mW/g

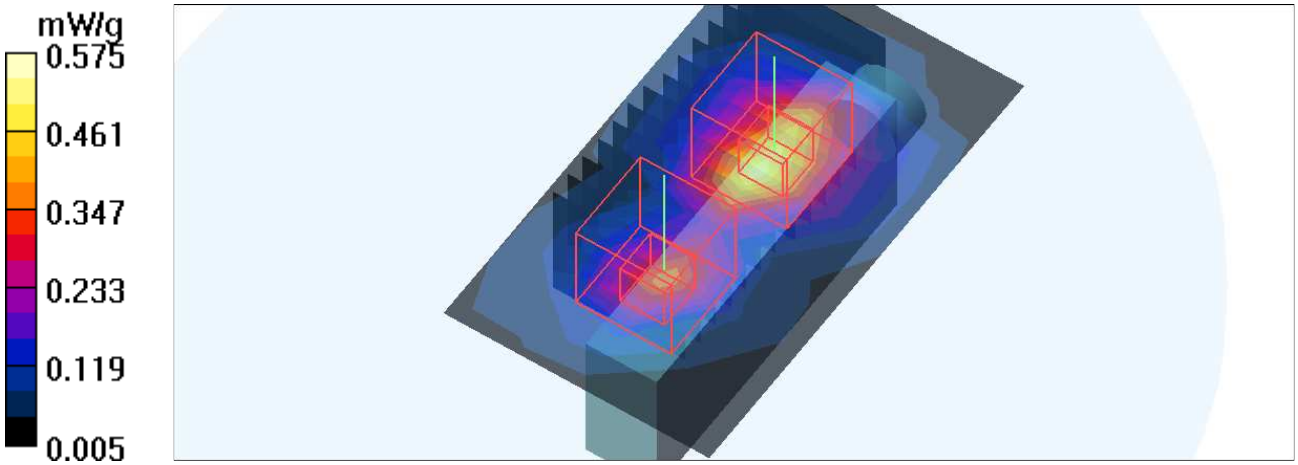
Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.6 V/m; Power Drift = -0.111 dB

Peak SAR (extrapolated) = 0.630 W/kg

SAR(1 g) = 0.289 mW/g; SAR(10 g) = 0.121 mW/g

Maximum value of SAR (measured) = 0.390 mW/g



Date/Time: 2009/9/23 00:17:05

Test Laboratory: Bureau Veritas ADT

M14-10M-QPSK1_2-Ch730

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2683.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2683.5 MHz; σ = 2.25 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3

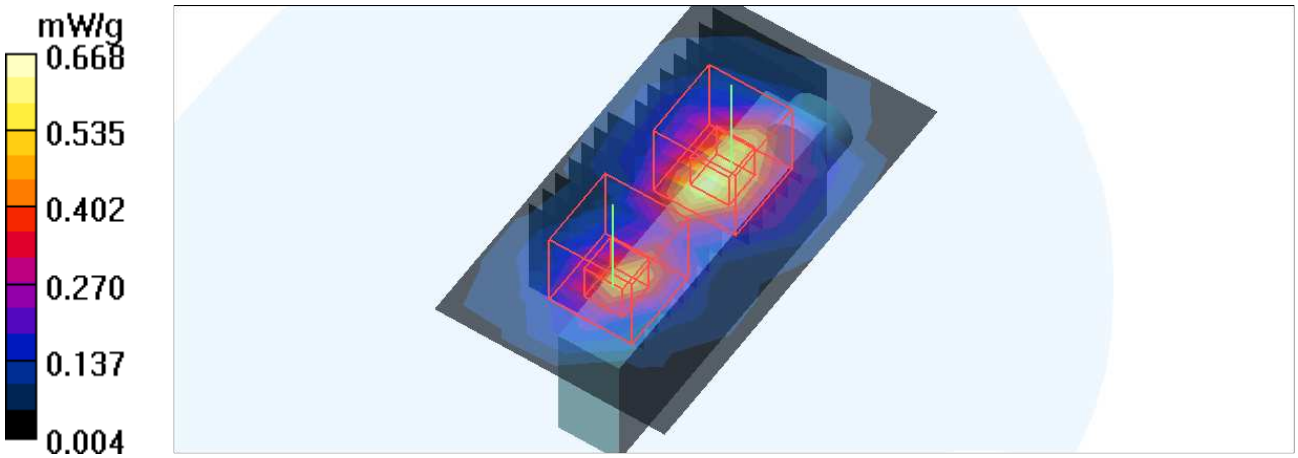
Phantom section: Flat Section ; Separation distance : 5 mm (The left edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 730/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.622 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.8 V/m; Power Drift = -0.085 dB
Peak SAR (extrapolated) = 1.05 W/kg
SAR(1 g) = 0.518 mW/g; SAR(10 g) = 0.243 mW/g
Maximum value of SAR (measured) = 0.668 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.8 V/m; Power Drift = -0.085 dB
Peak SAR (extrapolated) = 0.883 W/kg
SAR(1 g) = 0.394 mW/g; SAR(10 g) = 0.164 mW/g
Maximum value of SAR (measured) = 0.538 mW/g



Date/Time: 2009/9/23 01:38:33

Test Laboratory: Bureau Veritas ADT

M15-5M-QPSK1_2-Ch2

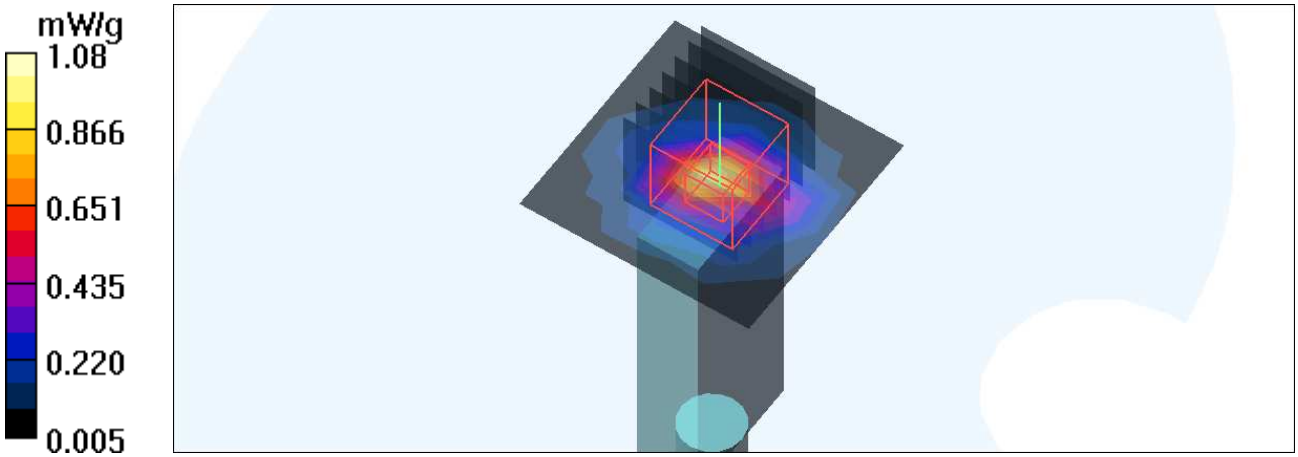
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.07 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The tip side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.01 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.2 V/m; Power Drift = -0.112 dB
Peak SAR (extrapolated) = 1.76 W/kg
SAR(1 g) = 0.792 mW/g; SAR(10 g) = 0.329 mW/g
Maximum value of SAR (measured) = 1.08 mW/g



Date/Time: 2009/9/23 01:53:23

Test Laboratory: Bureau Veritas ADT

M15-5M-QPSK1_2-Ch406

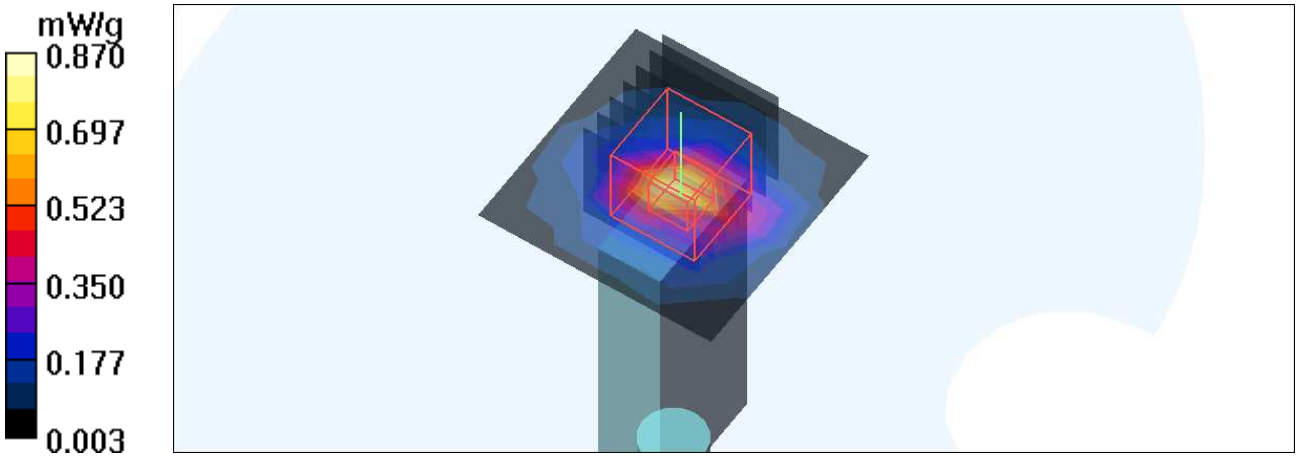
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The tip side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 406/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.819 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.6 V/m; Power Drift = -0.100 dB
Peak SAR (extrapolated) = 1.45 W/kg
SAR(1 g) = 0.637 mW/g; SAR(10 g) = 0.268 mW/g
Maximum value of SAR (measured) = 0.870 mW/g



Date/Time: 2009/9/23 02:07:45

Test Laboratory: Bureau Veritas ADT

M15-5M-QPSK1_2-Ch753

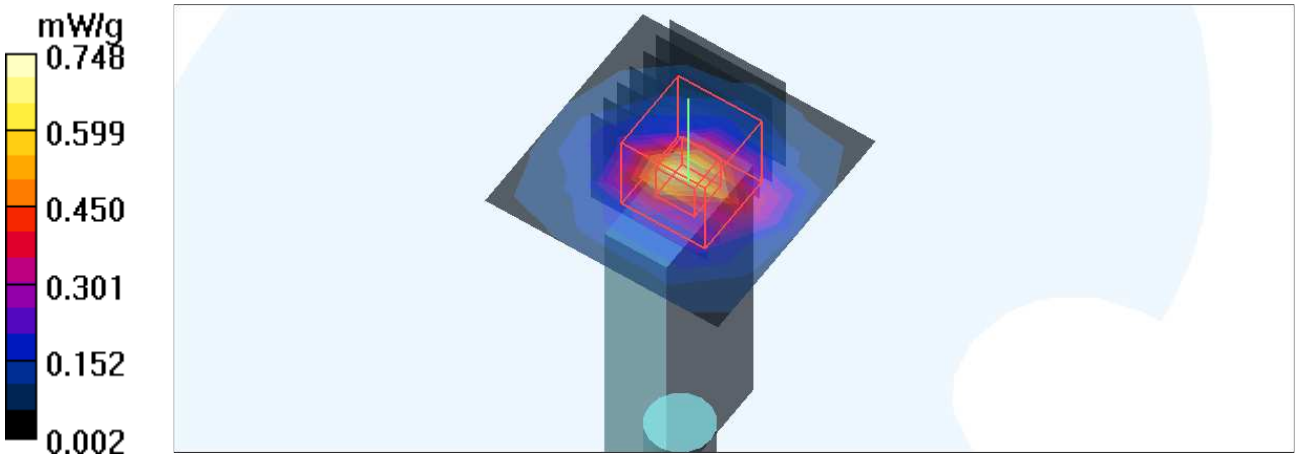
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2686.75 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2686.75 MHz; σ = 2.27 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The tip side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 753/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.690 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.7 V/m; Power Drift = -0.186 dB
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.545 mW/g; SAR(10 g) = 0.230 mW/g
Maximum value of SAR (measured) = 0.748 mW/g



Date/Time: 2009/9/23 02:44:00

Test Laboratory: Bureau Veritas ADT

M16-10M-QPSK1_2-Ch30

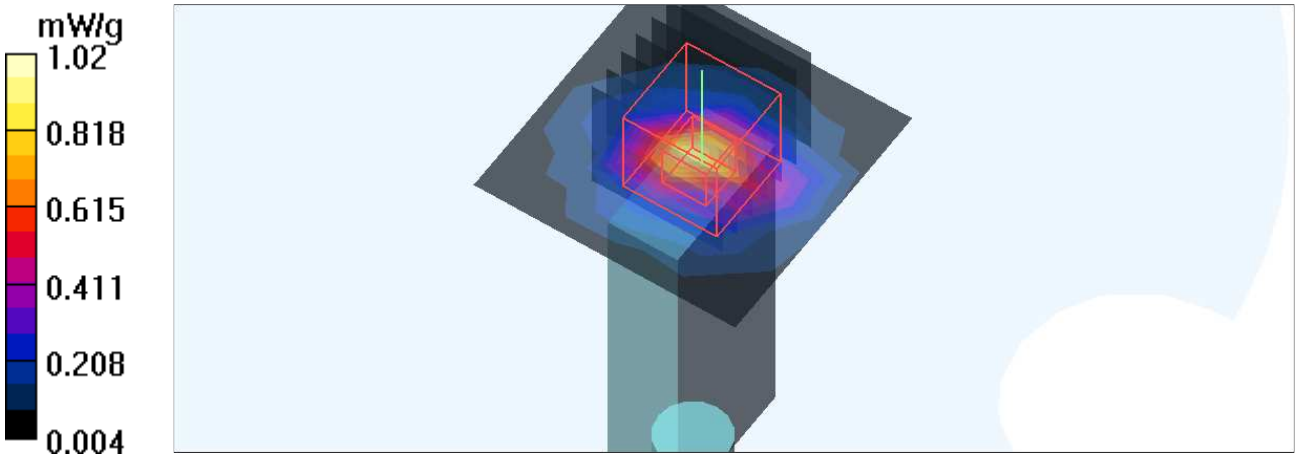
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2508.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2508.5 MHz; σ = 2.08 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The tip side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 30/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.938 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.3 V/m; Power Drift = -0.133 dB
Peak SAR (extrapolated) = 1.65 W/kg
SAR(1 g) = 0.748 mW/g; SAR(10 g) = 0.313 mW/g
Maximum value of SAR (measured) = 1.02 mW/g



Date/Time: 2009/9/23 02:58:05

Test Laboratory: Bureau Veritas ADT

M16-10M-QPSK1_2-Ch396

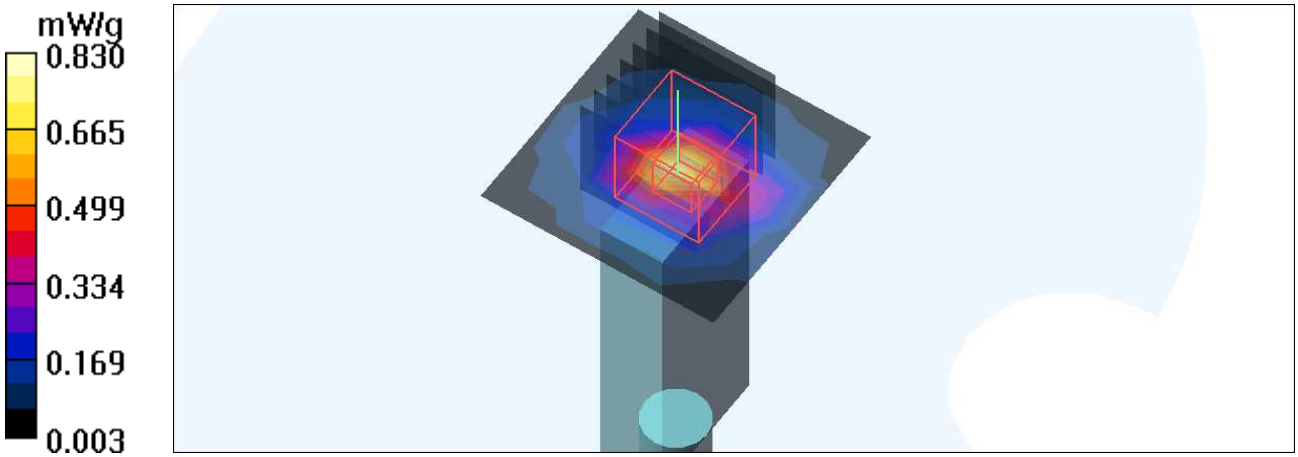
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The tip side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 396/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.785 mW/g

Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.1 V/m; Power Drift = -0.171 dB
Peak SAR (extrapolated) = 1.39 W/kg
SAR(1 g) = 0.615 mW/g; SAR(10 g) = 0.259 mW/g
Maximum value of SAR (measured) = 0.830 mW/g



Date/Time: 2009/9/23 03:15:04

Test Laboratory: Bureau Veritas ADT

M16-10M-QPSK1_2-Ch730

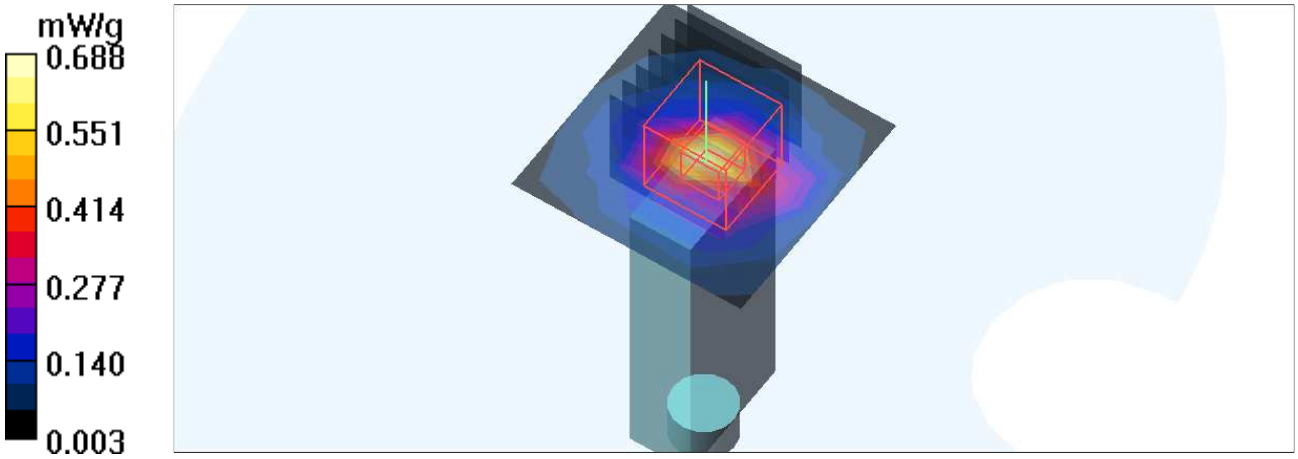
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2683.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2683.5 MHz; σ = 2.27 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The tip side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 730/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.660 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.2 V/m; Power Drift = -0.117 dB
Peak SAR (extrapolated) = 1.17 W/kg
SAR(1 g) = 0.514 mW/g; SAR(10 g) = 0.219 mW/g
Maximum value of SAR (measured) = 0.688 mW/g



Date/Time: 2009/9/23 05:17:09

Test Laboratory: Bureau Veritas ADT

5M-QPSK1_2-Ch2 / step size set minimum

DUT: 4G Mobile Modem ; Type: PXU1900

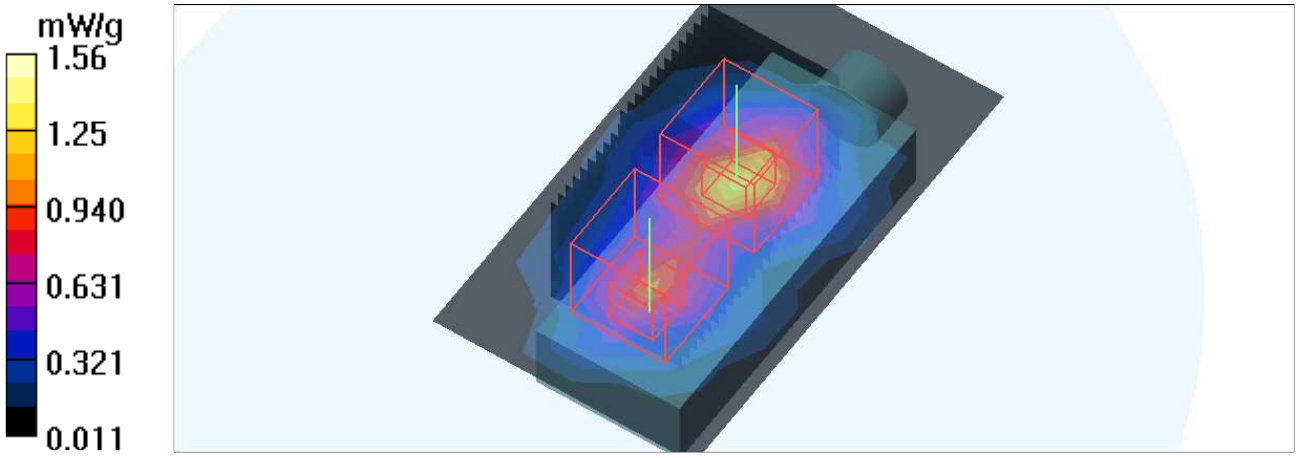
Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.07 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.36 mW/g

Low Channel 2/Zoom Scan (7x7x7) (13x13x13)/Cube 0: Measurement grid: dx=2.5mm, dy=2.5mm, dz=2.5mm
Reference Value = 25.5 V/m; Power Drift = -0.068 dB
Peak SAR (extrapolated) = 1.99 W/kg
SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.523 mW/g
Maximum value of SAR (measured) = 1.56 mW/g

Low Channel 2/Zoom Scan (7x7x7) (13x13x13)/Cube 1: Measurement grid: dx=2.5mm, dy=2.5mm, dz=2.5mm
Reference Value = 25.5 V/m; Power Drift = -0.068 dB
Peak SAR (extrapolated) = 1.59 W/kg
SAR(1 g) = 0.726 mW/g; SAR(10 g) = 0.338 mW/g
Maximum value of SAR (measured) = 1.19 mW/g



Date/Time: 2009/9/22 01:09:56

Test Laboratory: Bureau Veritas ADT

System Validation Check-MSL 2600MHz

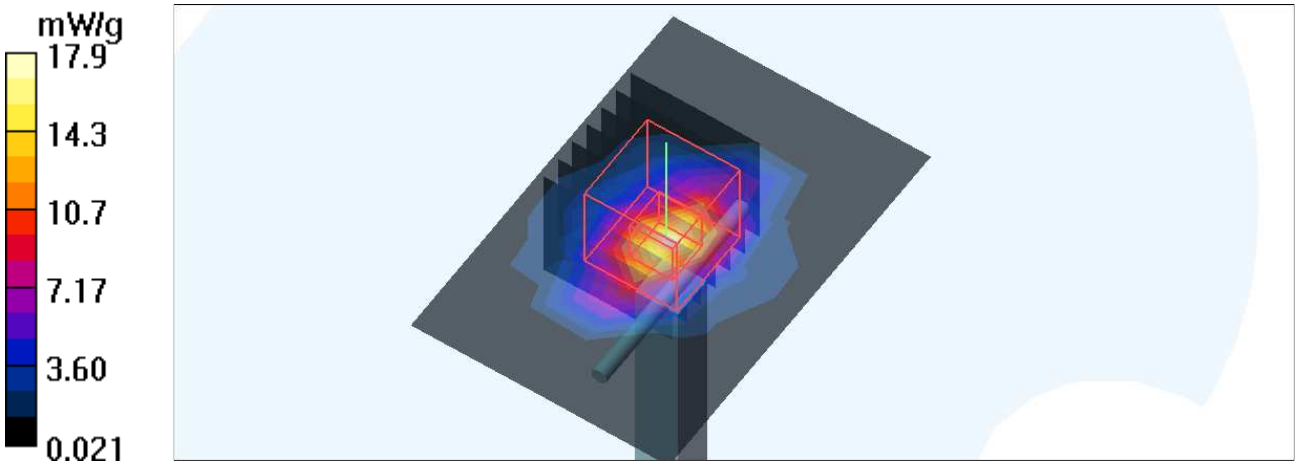
DUT: Dipole 2600 MHz ; Type: D2600V2 ; Serial: 1020 ; Test Frequency: 2600 MHz

Communication System: CW ; Frequency: 2600 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: MSL2600;Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3 ; Liquid level : 150 mm
Phantom section: Flat Section ; Separation distance : 10 mm (The feetpoint of the dipole to the Phantom)Air temp. : 23.3 degrees ; Liquid temp. : 22.5 degrees

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2009/1/21
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=10mm, Pin=250mW/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 17.9 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 89.9 V/m; Power Drift = -0.023 dB
Peak SAR (extrapolated) = 28.8 W/kg
SAR(1 g) = 13.2 mW/g; SAR(10 g) = 5.88 mW/g
Maximum value of SAR (measured) = 17.7 mW/g



Date/Time: 2009/9/23 01:16:24

Test Laboratory: Bureau Veritas ADT

System Validation Check-MSL 2600MHz

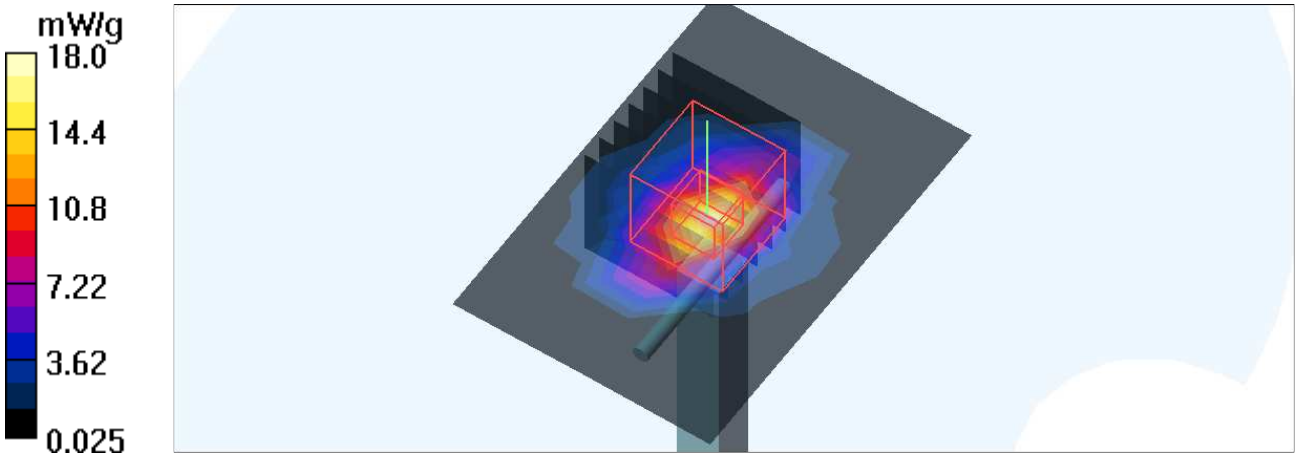
DUT: Dipole 2600 MHz ; Type: D2600V2 ; Serial: 1020 ; Test Frequency: 2600 MHz

Communication System: CW ; Frequency: 2600 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: MSL2600;Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3 ; Liquid level : 150 mm
Phantom section: Flat Section ; Separation distance : 10 mm (The feetpoint of the dipole to the Phantom)Air temp. : 23.1 degrees ; Liquid temp. : 22.3 degrees

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2009/1/21
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=10mm, Pin=250mW/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 18.0 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 91.0 V/m; Power Drift = -0.071 dB
Peak SAR (extrapolated) = 28.2 W/kg
SAR(1 g) = 13.1 mW/g; SAR(10 g) = 5.89 mW/g
Maximum value of SAR (measured) = 17.6 mW/g



APPENDIX A: TEST DATA (For Antenna 2)

Liquid Level Photo

Tissue MSL2600MHz D=150mm

Date/Time: 2009/9/23 06:30:57

Test Laboratory: Bureau Veritas ADT

M17-5M-QPSK1_2-Ch2
DUT: 4G Mobile Modem ; Type: PXU1900

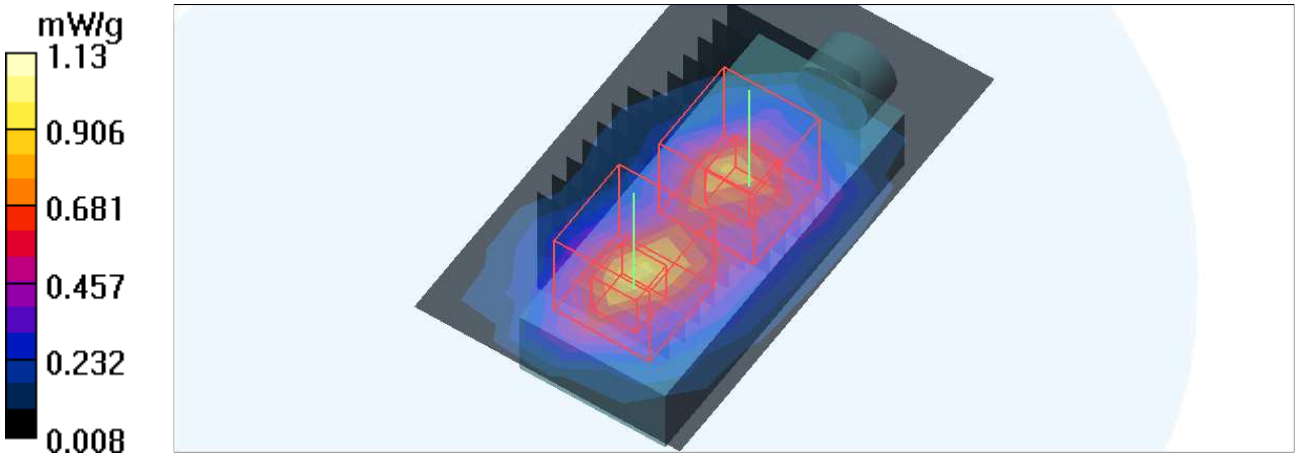
Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.07 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.897 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.7 V/m; Power Drift = 0.140 dB
Peak SAR (extrapolated) = 1.47 W/kg
SAR(1 g) = 0.793 mW/g; SAR(10 g) = 0.398 mW/g
Maximum value of SAR (measured) = 1.00 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.7 V/m; Power Drift = 0.140 dB
Peak SAR (extrapolated) = 1.84 W/kg
SAR(1 g) = 0.867 mW/g; SAR(10 g) = 0.406 mW/g
Maximum value of SAR (measured) = 1.13 mW/g



Date/Time: 2009/9/23 07:05:35

Test Laboratory: Bureau Veritas ADT

M17-5M-QPSK1_2-Ch406

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 406/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.01 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.0 V/m; Power Drift = 0.117 dB

Peak SAR (extrapolated) = 1.92 W/kg

SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.456 mW/g

Maximum value of SAR (measured) = 1.28 mW/g

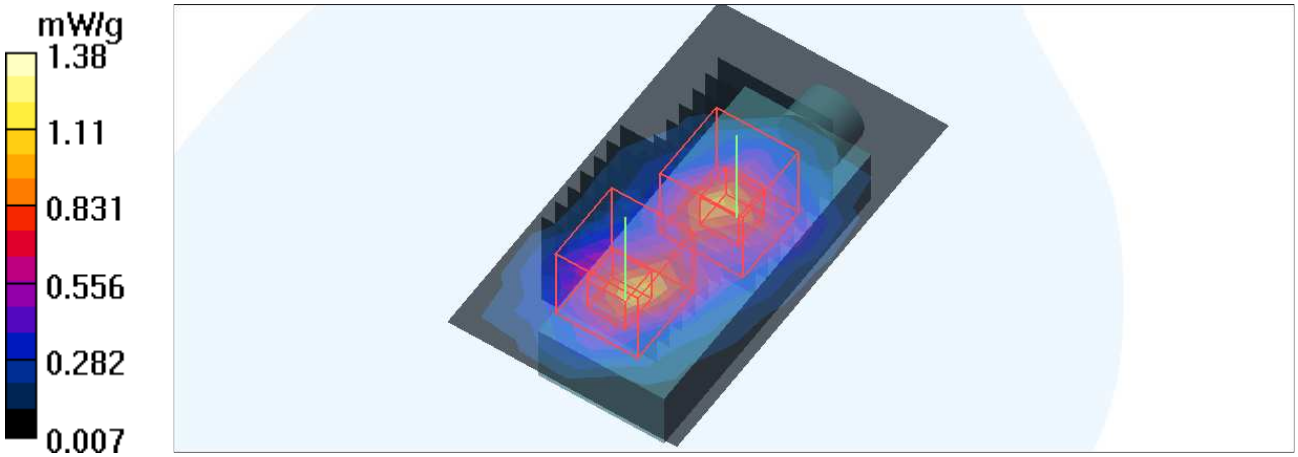
Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.0 V/m; Power Drift = 0.117 dB

Peak SAR (extrapolated) = 2.37 W/kg

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.493 mW/g

Maximum value of SAR (measured) = 1.38 mW/g



Date/Time: 2009/9/23 07:33:30

Test Laboratory: Bureau Veritas ADT

M17-5M-QPSK1_2-Ch753

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2686.75 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2686.75 MHz; σ = 2.27 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3

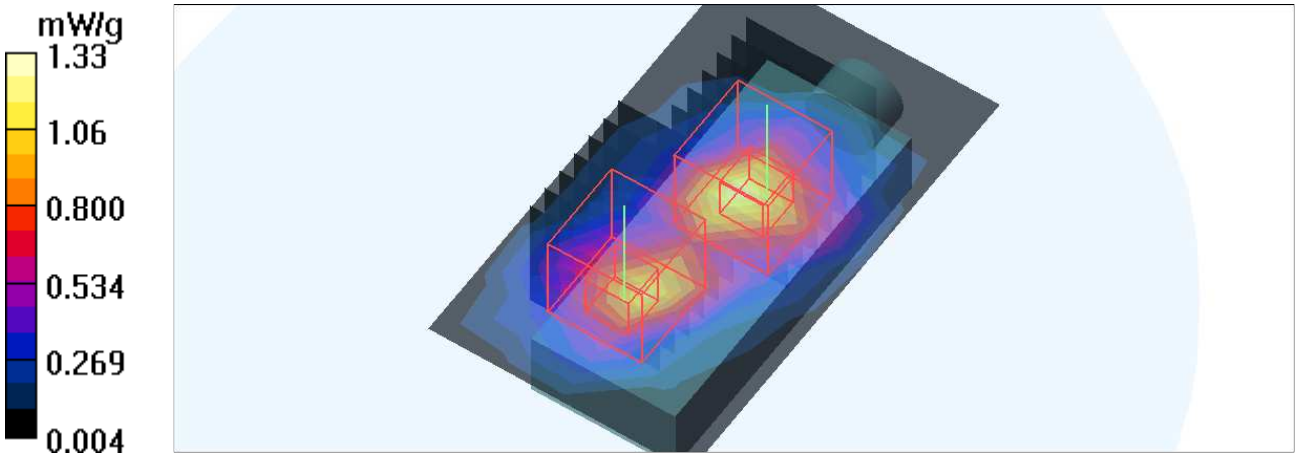
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 753/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.25 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.7 V/m; Power Drift = -0.072 dB
Peak SAR (extrapolated) = 2.05 W/kg
SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.503 mW/g
Maximum value of SAR (measured) = 1.33 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.7 V/m; Power Drift = -0.072 dB
Peak SAR (extrapolated) = 2.23 W/kg
SAR(1 g) = 0.952 mW/g; SAR(10 g) = 0.407 mW/g
Maximum value of SAR (measured) = 1.29 mW/g



Date/Time: 2009/9/23 09:32:26

Test Laboratory: Bureau Veritas ADT

M18-10M-QPSK1_2-Ch30

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2508.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2508.5 MHz; σ = 2.08 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3

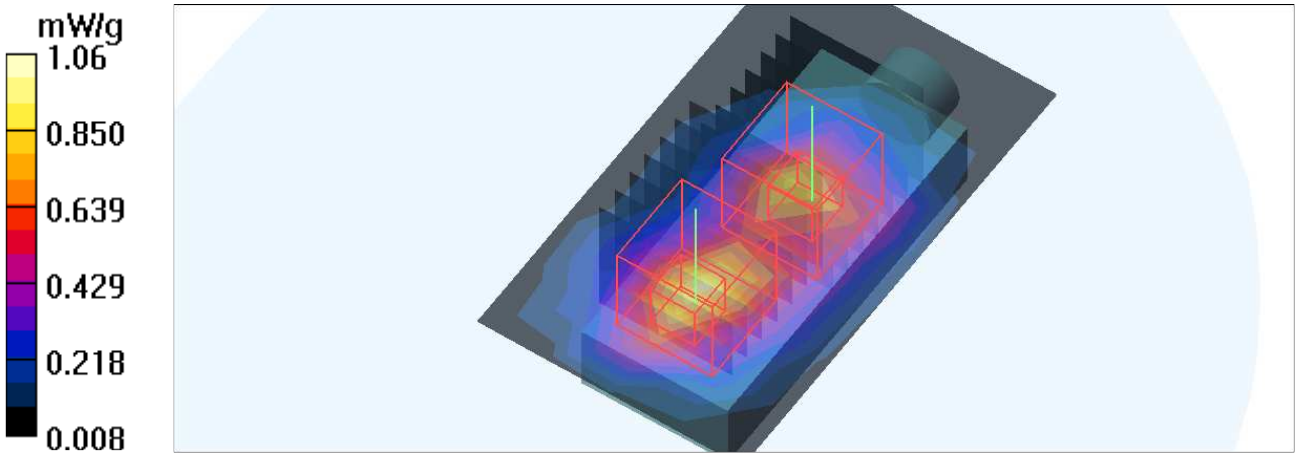
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 30/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.969 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.5 V/m; Power Drift = -0.043 dB
Peak SAR (extrapolated) = 1.76 W/kg
SAR(1 g) = 0.821 mW/g; SAR(10 g) = 0.385 mW/g
Maximum value of SAR (measured) = 1.06 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.5 V/m; Power Drift = -0.043 dB
Peak SAR (extrapolated) = 1.39 W/kg
SAR(1 g) = 0.726 mW/g; SAR(10 g) = 0.365 mW/g
Maximum value of SAR (measured) = 0.919 mW/g



Date/Time: 2009/9/23 10:04:32

Test Laboratory: Bureau Veritas ADT

M18-10M-QPSK1_2-Ch396

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 396/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.15 mW/g

Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.2 V/m; Power Drift = 0.022 dB

Peak SAR (extrapolated) = 1.86 W/kg

SAR(1 g) = 0.965 mW/g; SAR(10 g) = 0.471 mW/g

Maximum value of SAR (measured) = 1.24 mW/g

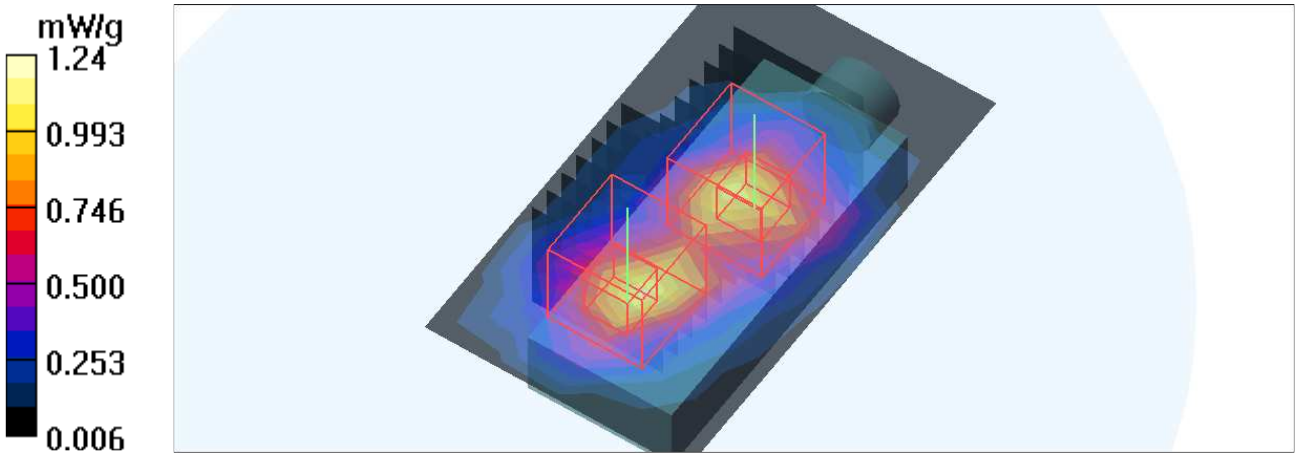
Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.2 V/m; Power Drift = 0.022 dB

Peak SAR (extrapolated) = 1.64 W/kg

SAR(1 g) = 0.922 mW/g; SAR(10 g) = 0.409 mW/g

Maximum value of SAR (measured) = 1.12 mW/g



Date/Time: 2009/9/23 10:37:00

Test Laboratory: Bureau Veritas ADT

M18-10M-QPSK1_2-Ch730

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2683.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2683.5 MHz; σ = 2.27 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3

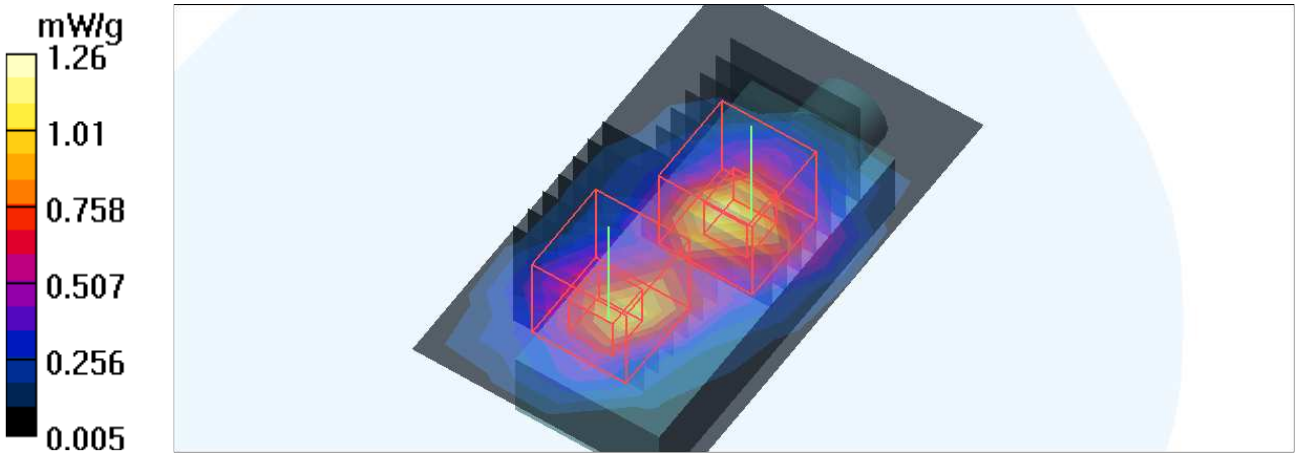
Phantom section: Flat Section ; Separation distance : 5 mm (The front side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 730/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.14 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.9 V/m; Power Drift = -0.037 dB
Peak SAR (extrapolated) = 1.92 W/kg
SAR(1 g) = 0.986 mW/g; SAR(10 g) = 0.474 mW/g
Maximum value of SAR (measured) = 1.26 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.9 V/m; Power Drift = -0.037 dB
Peak SAR (extrapolated) = 1.61 W/kg
SAR(1 g) = 0.885 mW/g; SAR(10 g) = 0.377 mW/g
Maximum value of SAR (measured) = 1.19 mW/g



Date/Time: 2009/9/23 12:36:46

Test Laboratory: Bureau Veritas ADT

M19-5M-QPSK1_2-Ch2

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.07 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The back side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.712 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.4 V/m; Power Drift = -0.099 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.547 mW/g; SAR(10 g) = 0.253 mW/g

Maximum value of SAR (measured) = 0.727 mW/g

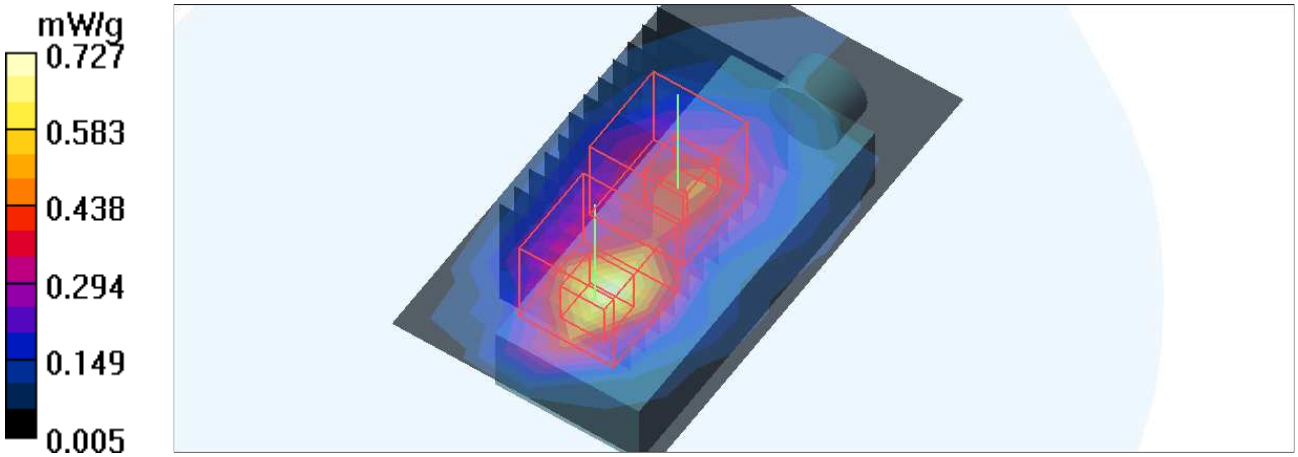
Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.4 V/m; Power Drift = -0.099 dB

Peak SAR (extrapolated) = 0.649 W/kg

SAR(1 g) = 0.361 mW/g; SAR(10 g) = 0.196 mW/g

Maximum value of SAR (measured) = 0.448 mW/g



Date/Time: 2009/9/23 13:07:19

Test Laboratory: Bureau Veritas ADT

M19-5M-QPSK1_2-Ch406

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The back side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 406/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.759 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.8 V/m; Power Drift = -0.053 dB

Peak SAR (extrapolated) = 1.30 W/kg

SAR(1 g) = 0.598 mW/g; SAR(10 g) = 0.270 mW/g

Maximum value of SAR (measured) = 0.790 mW/g

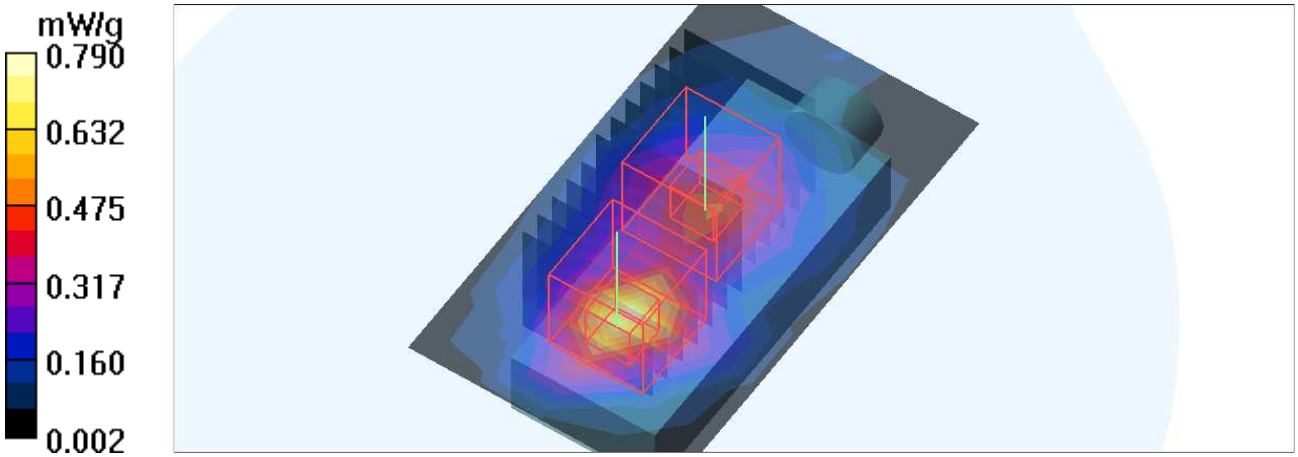
Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.8 V/m; Power Drift = -0.053 dB

Peak SAR (extrapolated) = 0.751 W/kg

SAR(1 g) = 0.404 mW/g; SAR(10 g) = 0.211 mW/g

Maximum value of SAR (measured) = 0.504 mW/g



Date/Time: 2009/9/23 13:38:21

Test Laboratory: Bureau Veritas ADT

M19-5M-QPSK1_2-Ch753

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2686.75 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2686.75 MHz; σ = 2.27 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3

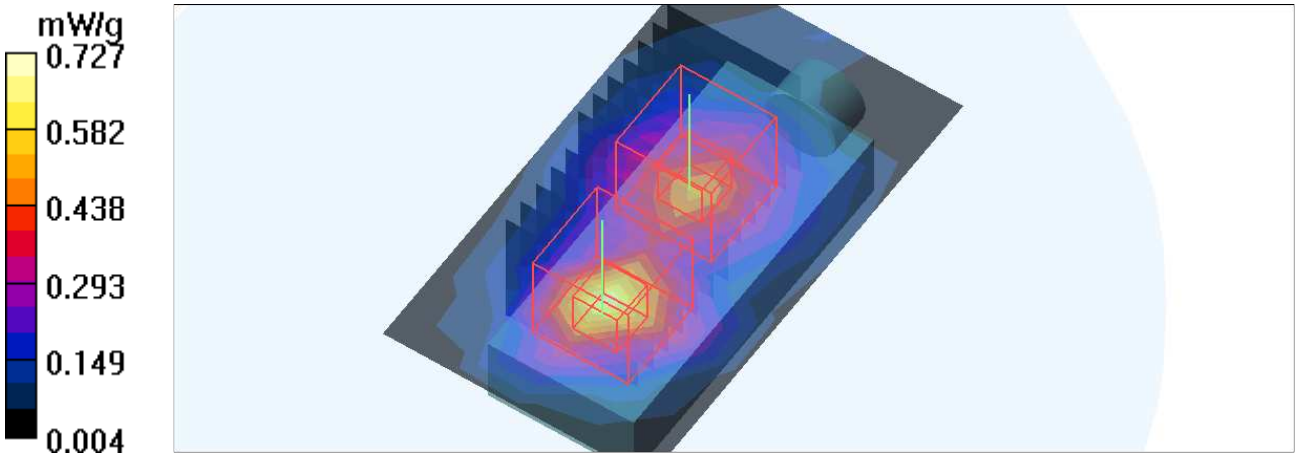
Phantom section: Flat Section ; Separation distance : 5 mm (The back side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 753/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.687 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.6 V/m; Power Drift = -0.026 dB
Peak SAR (extrapolated) = 1.21 W/kg
SAR(1 g) = 0.551 mW/g; SAR(10 g) = 0.245 mW/g
Maximum value of SAR (measured) = 0.727 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.6 V/m; Power Drift = -0.026 dB
Peak SAR (extrapolated) = 0.787 W/kg
SAR(1 g) = 0.412 mW/g; SAR(10 g) = 0.210 mW/g
Maximum value of SAR (measured) = 0.515 mW/g



Date/Time: 2009/9/23 14:10:02

Test Laboratory: Bureau Veritas ADT

M20-10M-QPSK1_2-Ch30

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2508.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2508.5 MHz; σ = 2.08 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3

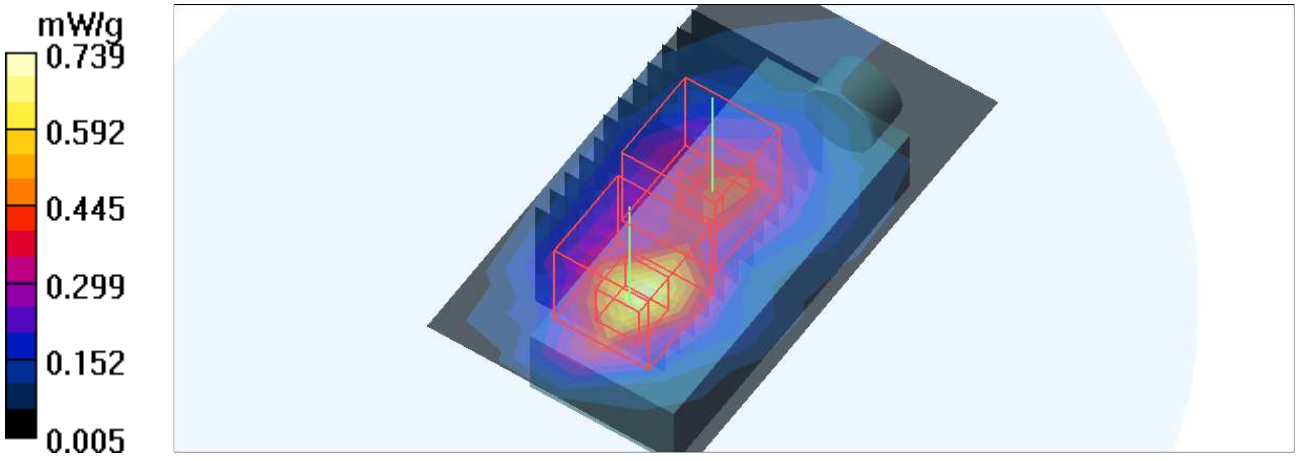
Phantom section: Flat Section ; Separation distance : 5 mm (The back side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 30/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.706 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.5 V/m; Power Drift = -0.087 dB
Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.558 mW/g; SAR(10 g) = 0.256 mW/g
Maximum value of SAR (measured) = 0.739 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.5 V/m; Power Drift = -0.087 dB
Peak SAR (extrapolated) = 0.635 W/kg
SAR(1 g) = 0.350 mW/g; SAR(10 g) = 0.190 mW/g
Maximum value of SAR (measured) = 0.435 mW/g



Date/Time: 2009/9/23 14:41:58

Test Laboratory: Bureau Veritas ADT

M20-10M-QPSK1_2-Ch396

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3

Phantom section: Flat Section ; Separation distance : 5 mm (The back side of the EUT to the Phantom)

DASY4 Configuration:

- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 396/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.789 mW/g

Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.1 V/m; Power Drift = -0.120 dB

Peak SAR (extrapolated) = 1.36 W/kg

SAR(1 g) = 0.625 mW/g; SAR(10 g) = 0.281 mW/g

Maximum value of SAR (measured) = 0.826 mW/g

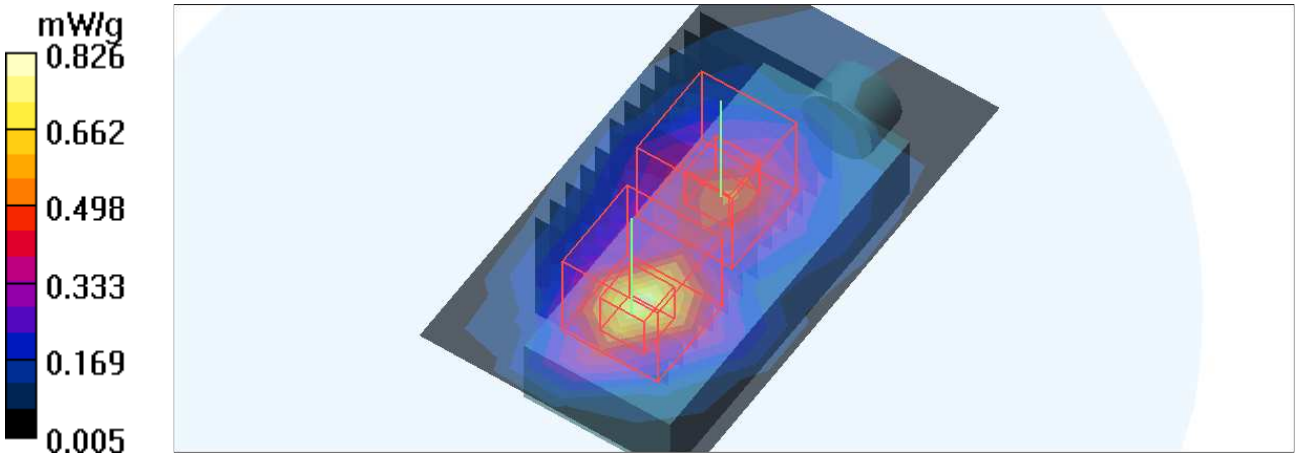
Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.1 V/m; Power Drift = -0.120 dB

Peak SAR (extrapolated) = 0.749 W/kg

SAR(1 g) = 0.402 mW/g; SAR(10 g) = 0.210 mW/g

Maximum value of SAR (measured) = 0.499 mW/g



Date/Time: 2009/9/23 15:10:31

Test Laboratory: Bureau Veritas ADT

M20-10M-QPSK1_2-Ch730

DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2683.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2683.5 MHz; σ = 2.27 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3

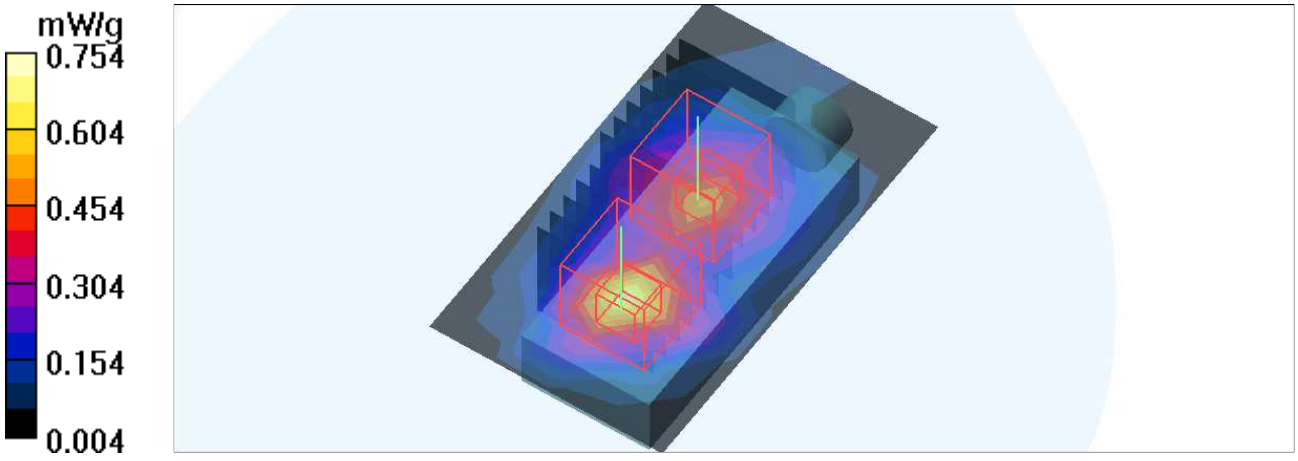
Phantom section: Flat Section ; Separation distance : 5 mm (The back side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 730/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.710 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.9 V/m; Power Drift = -0.055 dB
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.571 mW/g; SAR(10 g) = 0.253 mW/g
Maximum value of SAR (measured) = 0.754 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.9 V/m; Power Drift = -0.055 dB
Peak SAR (extrapolated) = 0.814 W/kg
SAR(1 g) = 0.426 mW/g; SAR(10 g) = 0.216 mW/g
Maximum value of SAR (measured) = 0.535 mW/g



Date/Time: 2009/9/23 15:32:09

Test Laboratory: Bureau Veritas ADT

M21-5M-QPSK1_2-Ch2

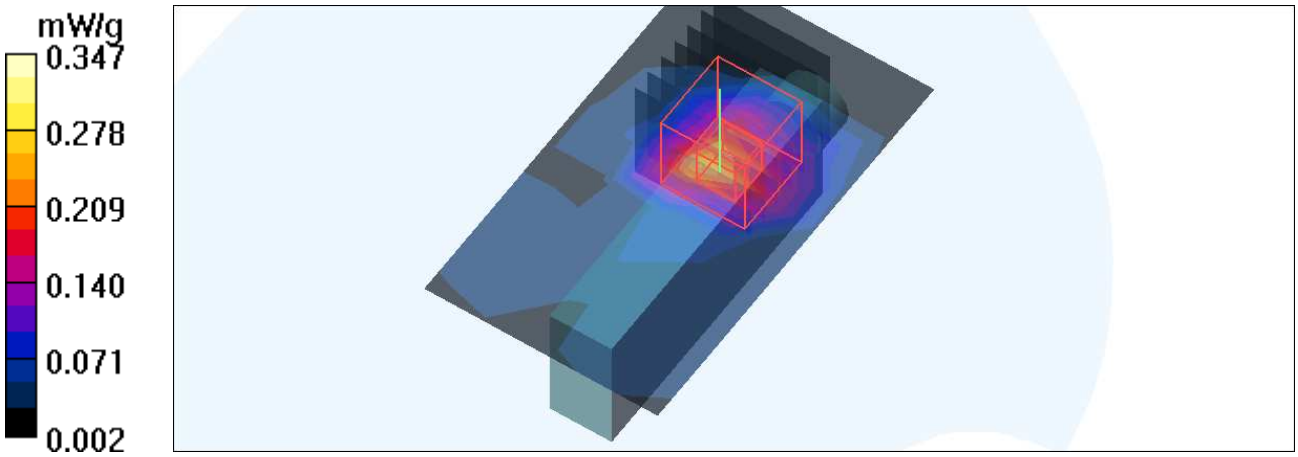
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.07 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The right edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.260 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.0 V/m; Power Drift = -0.112 dB
Peak SAR (extrapolated) = 0.531 W/kg
SAR(1 g) = 0.272 mW/g; SAR(10 g) = 0.129 mW/g
Maximum value of SAR (measured) = 0.347 mW/g



Date/Time: 2009/9/23 15:48:50

Test Laboratory: Bureau Veritas ADT

M21-5M-QPSK1_2-Ch406

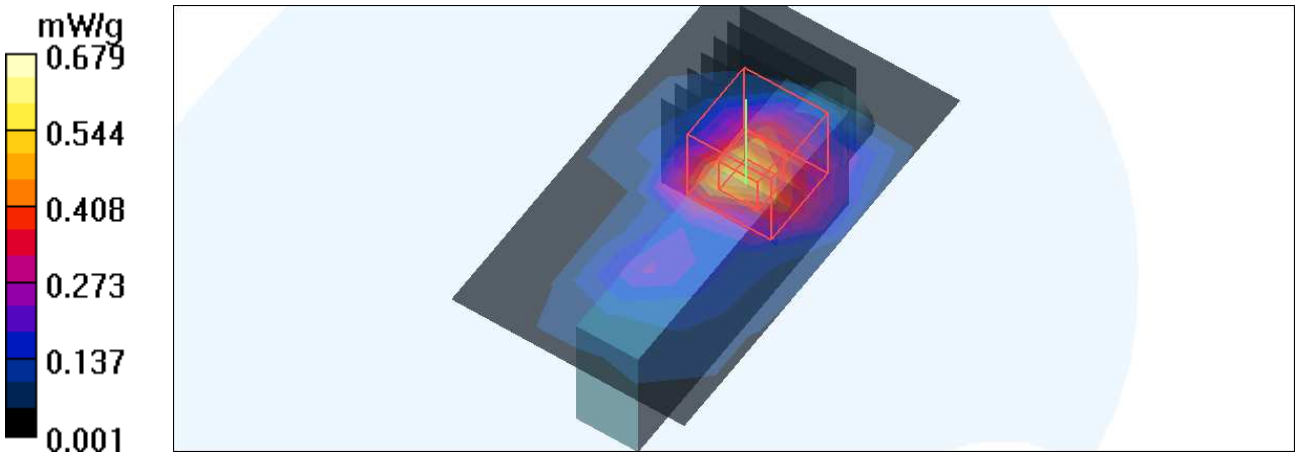
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The right edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 406/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.563 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.3 V/m; Power Drift = -0.044 dB
Peak SAR (extrapolated) = 1.05 W/kg
SAR(1 g) = 0.531 mW/g; SAR(10 g) = 0.251 mW/g
Maximum value of SAR (measured) = 0.679 mW/g



Date/Time: 2009/9/23 16:05:00

Test Laboratory: Bureau Veritas ADT

M21-5M-QPSK1_2-Ch753

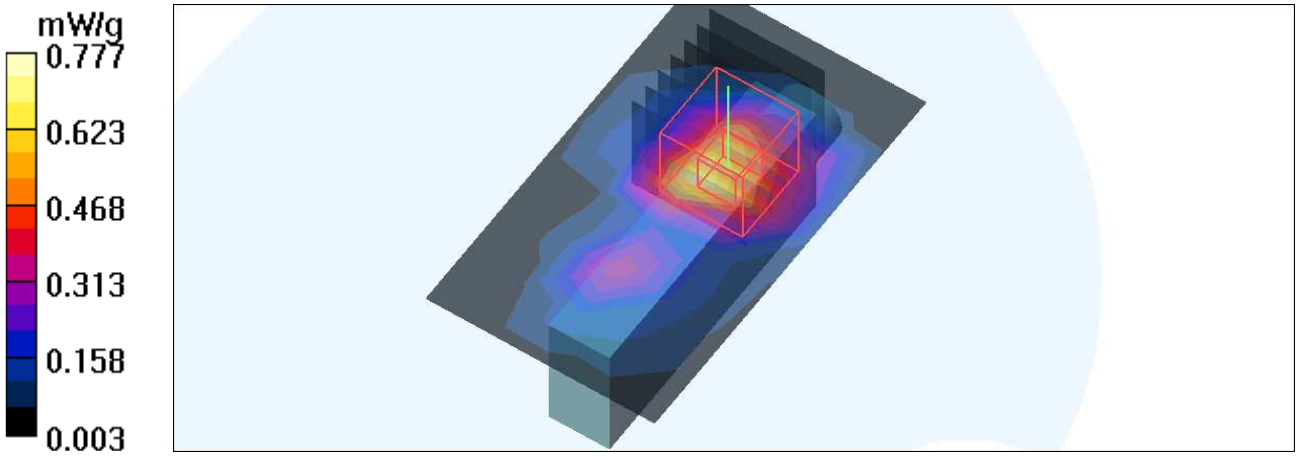
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2686.75 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2686.75 MHz; σ = 2.27 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The right edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 753/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.700 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.8 V/m; Power Drift = -0.160 dB
Peak SAR (extrapolated) = 1.22 W/kg
SAR(1 g) = 0.600 mW/g; SAR(10 g) = 0.280 mW/g
Maximum value of SAR (measured) = 0.777 mW/g



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Test Laboratory: Bureau Veritas ADT

M22-10M-QPSK1_2-Ch30

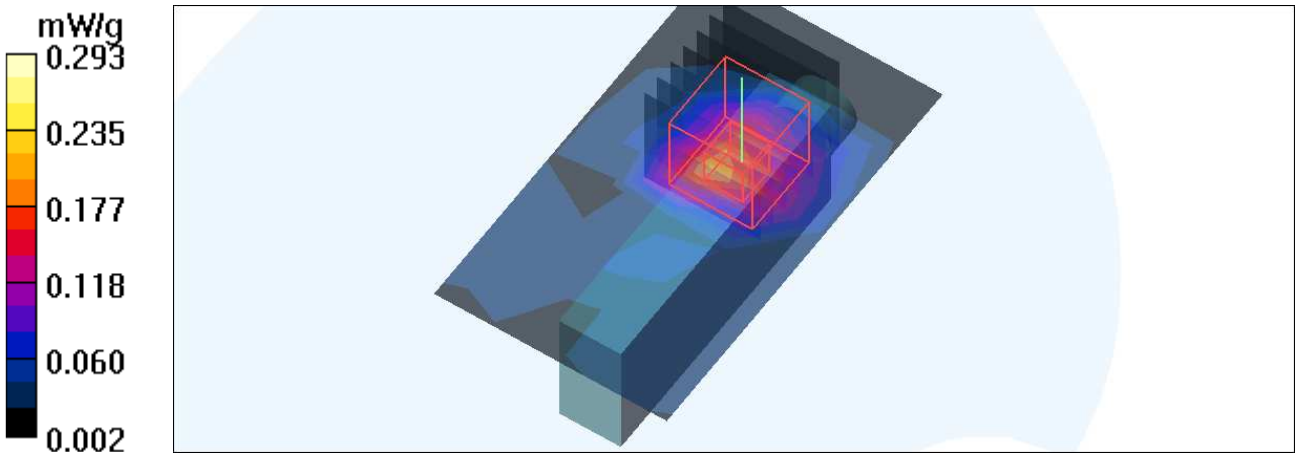
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2508.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2508.5 MHz; σ = 2.08 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The right edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 30/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.204 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.6 V/m; Power Drift = 0.074 dB
Peak SAR (extrapolated) = 0.442 W/kg
SAR(1 g) = 0.228 mW/g; SAR(10 g) = 0.110 mW/g
Maximum value of SAR (measured) = 0.293 mW/g



Date/Time: 2009/9/23 16:37:51

Test Laboratory: Bureau Veritas ADT

M22-10M-QPSK1_2-Ch396

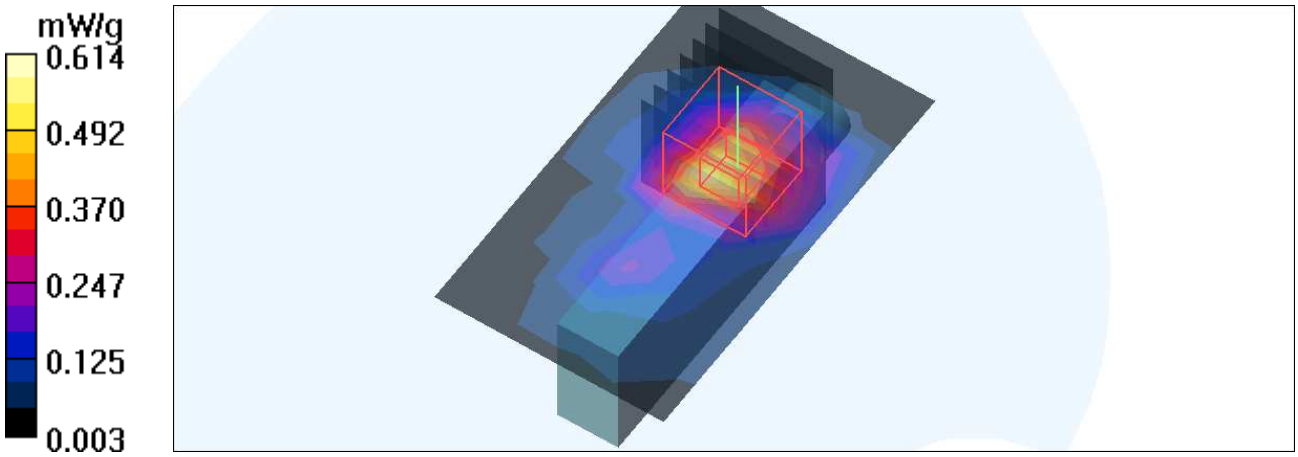
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The right edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 396/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.536 mW/g

Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.9 V/m; Power Drift = -0.117 dB
Peak SAR (extrapolated) = 0.934 W/kg
SAR(1 g) = 0.477 mW/g; SAR(10 g) = 0.228 mW/g
Maximum value of SAR (measured) = 0.614 mW/g



Date/Time: 2009/9/23 16:51:06

Test Laboratory: Bureau Veritas ADT

M22-10M-QPSK1_2-Ch730

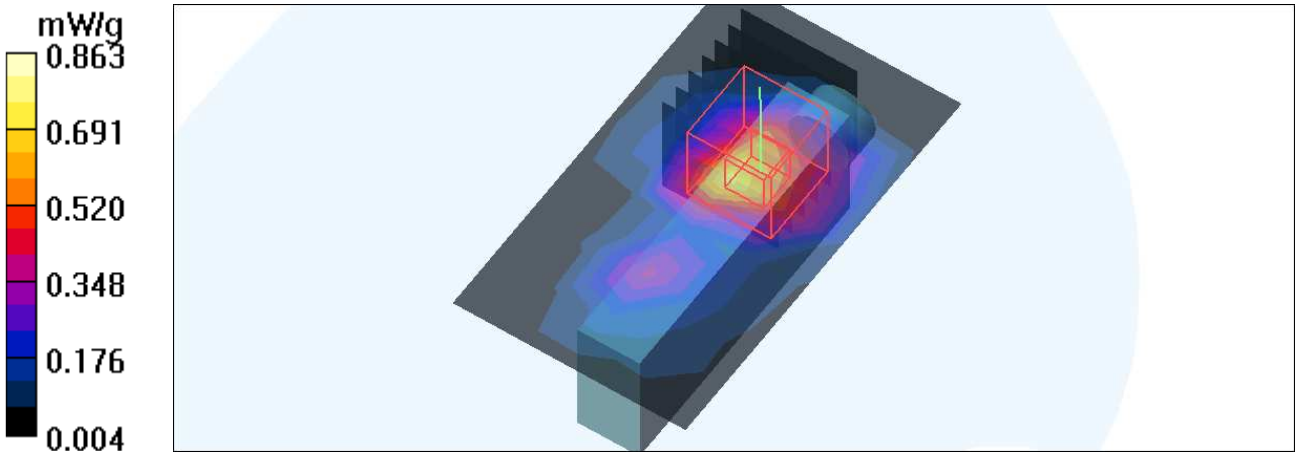
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2683.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2683.5 MHz; σ = 2.27 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The right edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 730/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.728 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.8 V/m; Power Drift = -0.027 dB
Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.665 mW/g; SAR(10 g) = 0.311 mW/g
Maximum value of SAR (measured) = 0.863 mW/g



Date/Time: 2009/9/23 17:12:39

Test Laboratory: Bureau Veritas ADT

M23-5M-QPSK1_2-Ch2

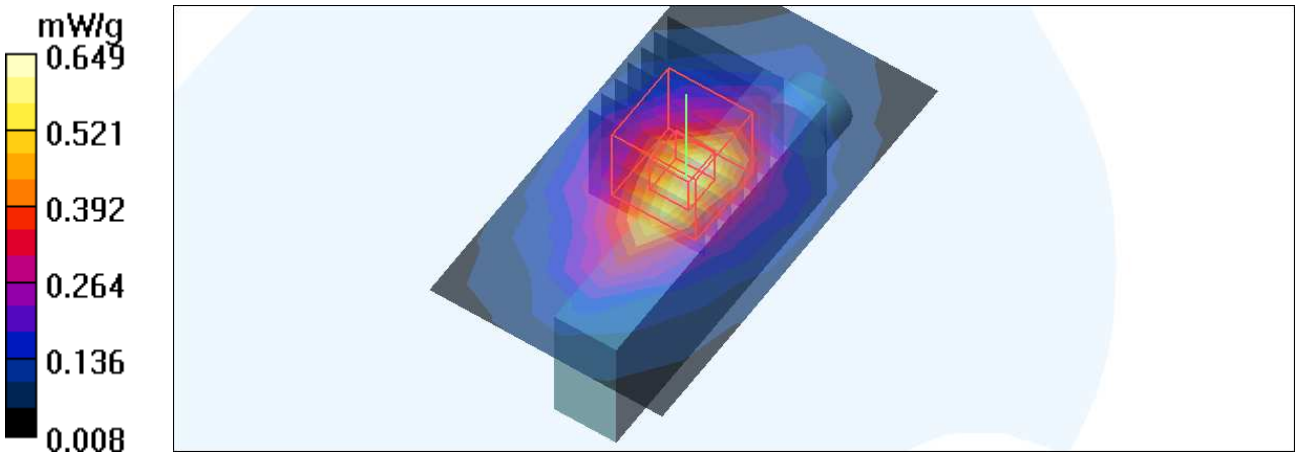
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.07 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The left edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.620 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.4 V/m; Power Drift = -0.018 dB
Peak SAR (extrapolated) = 0.956 W/kg
SAR(1 g) = 0.511 mW/g; SAR(10 g) = 0.263 mW/g
Maximum value of SAR (measured) = 0.649 mW/g



Date/Time: 2009/9/23 17:38:35

Test Laboratory: Bureau Veritas ADT

M23-5M-QPSK1_2-Ch406

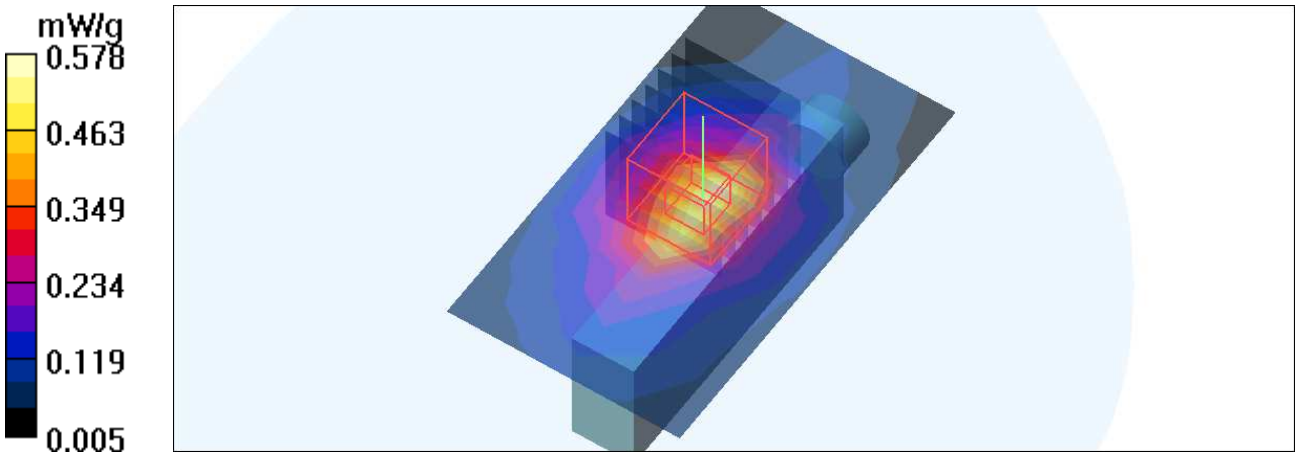
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The left edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 406/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.546 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.9 V/m; Power Drift = -0.056 dB
Peak SAR (extrapolated) = 0.876 W/kg
SAR(1 g) = 0.452 mW/g; SAR(10 g) = 0.226 mW/g
Maximum value of SAR (measured) = 0.578 mW/g



Date/Time: 2009/9/23 17:54:18

Test Laboratory: Bureau Veritas ADT

M23-5M-QPSK1_2-Ch753

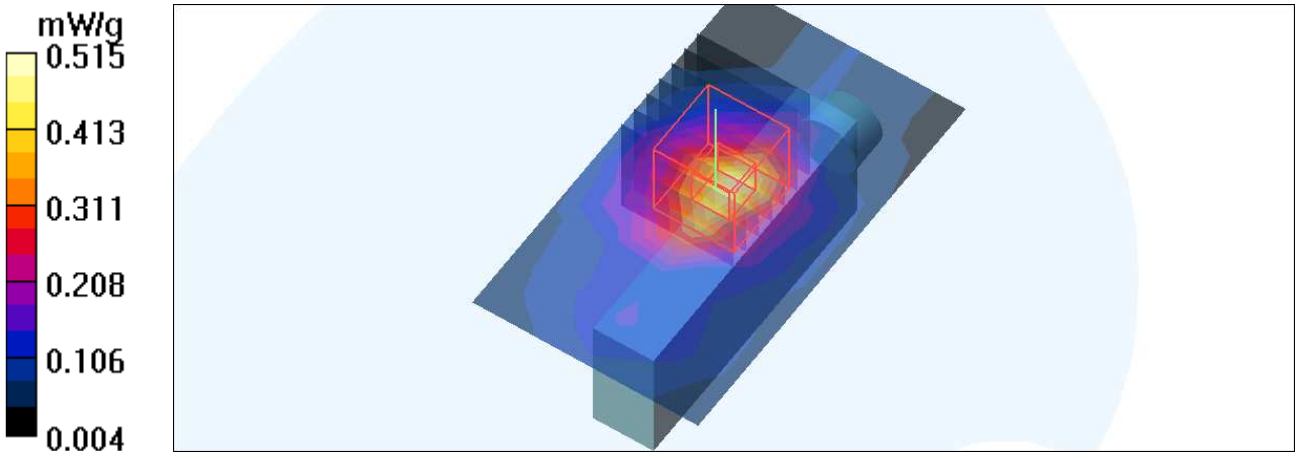
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2686.75 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2686.75 MHz; σ = 2.27 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The left edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 753/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.487 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.7 V/m; Power Drift = 0.038 dB
Peak SAR (extrapolated) = 0.802 W/kg
SAR(1 g) = 0.399 mW/g; SAR(10 g) = 0.194 mW/g
Maximum value of SAR (measured) = 0.515 mW/g



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Test Laboratory: Bureau Veritas ADT

M24-10M-QPSK1_2-Ch30

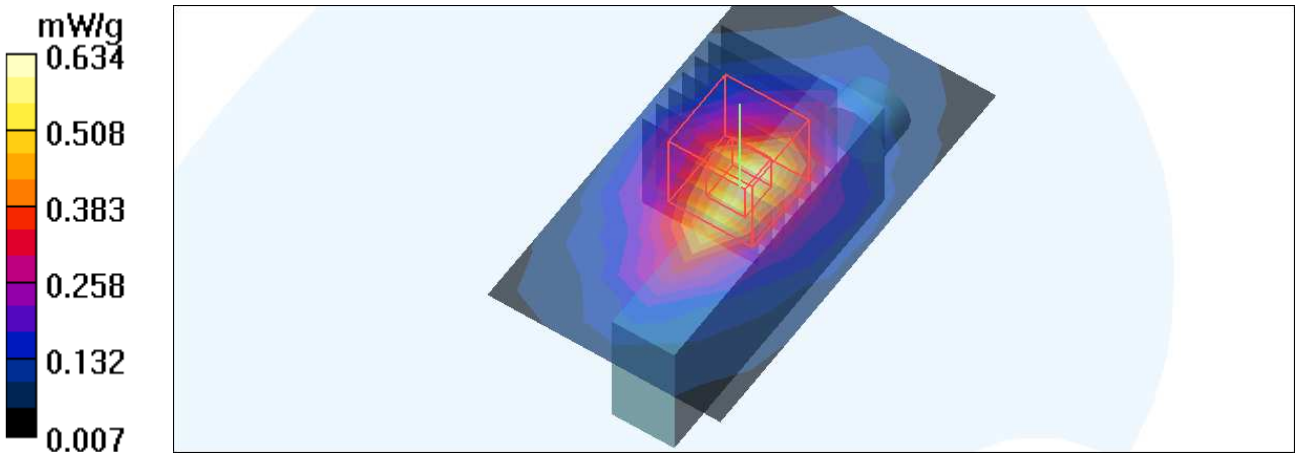
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2508.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2508.5 MHz; σ = 2.08 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The left edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 30/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.600 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.9 V/m; Power Drift = -0.036 dB
Peak SAR (extrapolated) = 0.947 W/kg
SAR(1 g) = 0.499 mW/g; SAR(10 g) = 0.255 mW/g
Maximum value of SAR (measured) = 0.634 mW/g



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Test Laboratory: Bureau Veritas ADT

M24-10M-QPSK1_2-Ch396

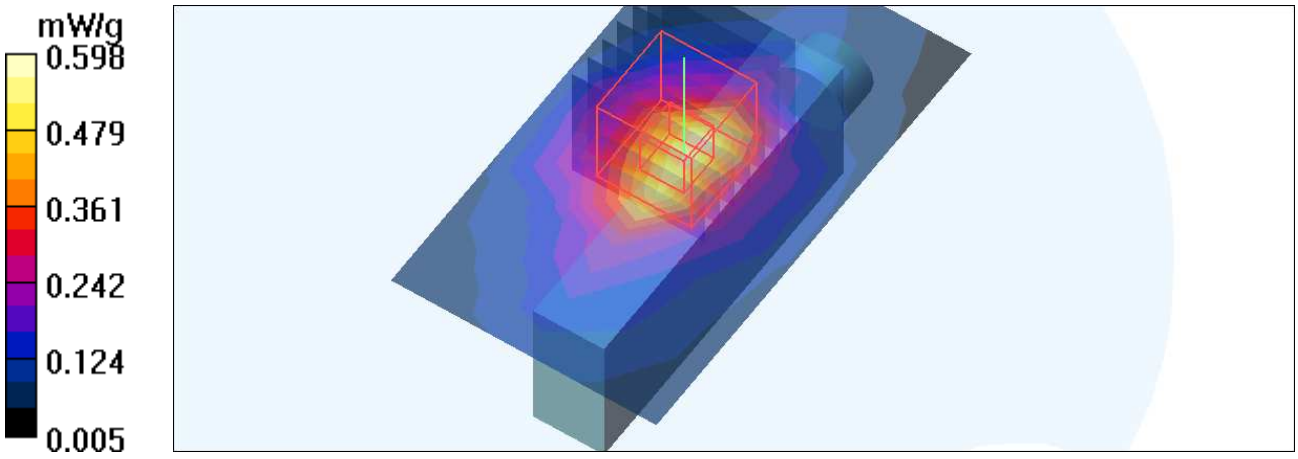
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The left edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 396/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.569 mW/g

Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.2 V/m; Power Drift = -0.138 dB
Peak SAR (extrapolated) = 0.910 W/kg
SAR(1 g) = 0.464 mW/g; SAR(10 g) = 0.231 mW/g
Maximum value of SAR (measured) = 0.598 mW/g



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Test Laboratory: Bureau Veritas ADT

M24-10M-QPSK1_2-Ch730

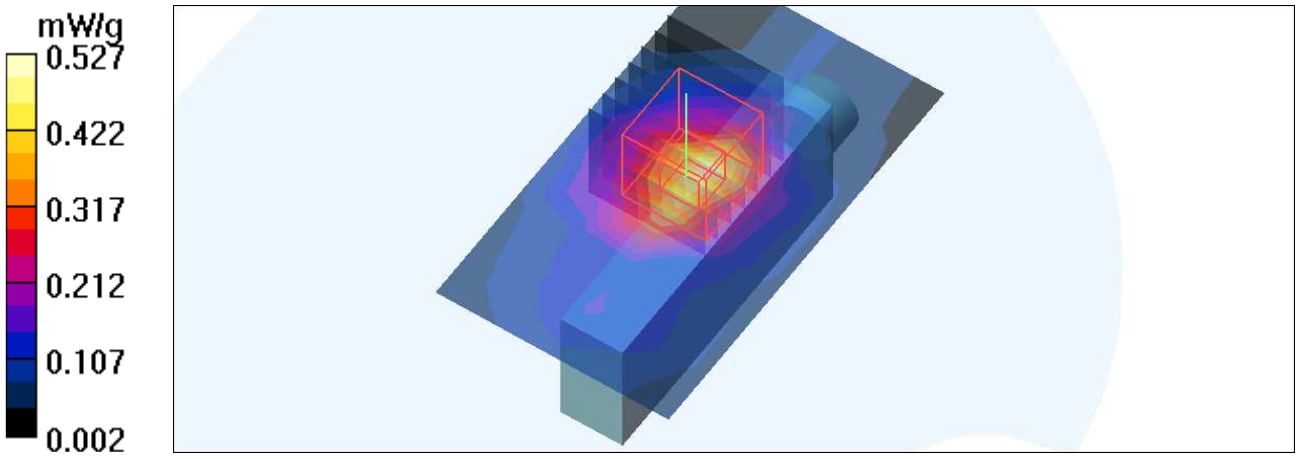
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2683.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2683.5 MHz; σ = 2.27 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The left edge side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 730/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.501 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.8 V/m; Power Drift = 0.146 dB
Peak SAR (extrapolated) = 0.821 W/kg
SAR(1 g) = 0.410 mW/g; SAR(10 g) = 0.199 mW/g
Maximum value of SAR (measured) = 0.527 mW/g



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Test Laboratory: Bureau Veritas ADT

M25-5M-QPSK1_2-Ch2

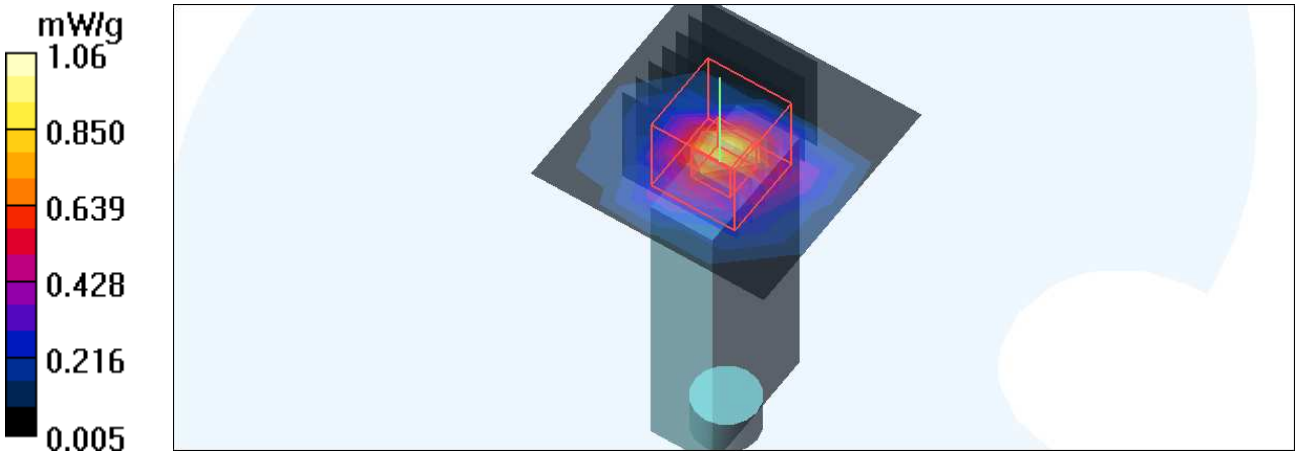
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2499 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2499 MHz; σ = 2.07 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The tip side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.53, 7.53, 7.53) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 2/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.922 mW/g

Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.1 V/m; Power Drift = -0.083 dB
Peak SAR (extrapolated) = 1.69 W/kg
SAR(1 g) = 0.785 mW/g; SAR(10 g) = 0.336 mW/g
Maximum value of SAR (measured) = 1.06 mW/g



Date/Time: 2009/9/23 19:19:38

Test Laboratory: Bureau Veritas ADT

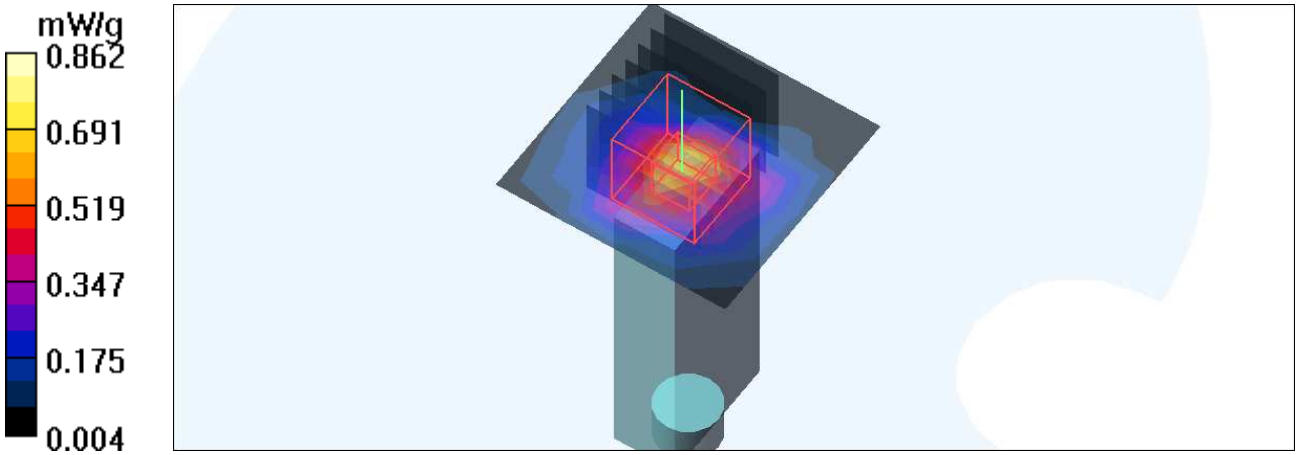
M25-5M-QPSK1_2-Ch406

DUT: 4G Mobile Modem ; Type: PXU1900
Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The tip side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 406/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.706 mW/g

Mid Channel 406/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.1 V/m; Power Drift = -0.133 dB
Peak SAR (extrapolated) = 1.41 W/kg
SAR(1 g) = 0.643 mW/g; SAR(10 g) = 0.281 mW/g
Maximum value of SAR (measured) = 0.862 mW/g



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Test Laboratory: Bureau Veritas ADT

M25-5M-QPSK1_2-Ch753

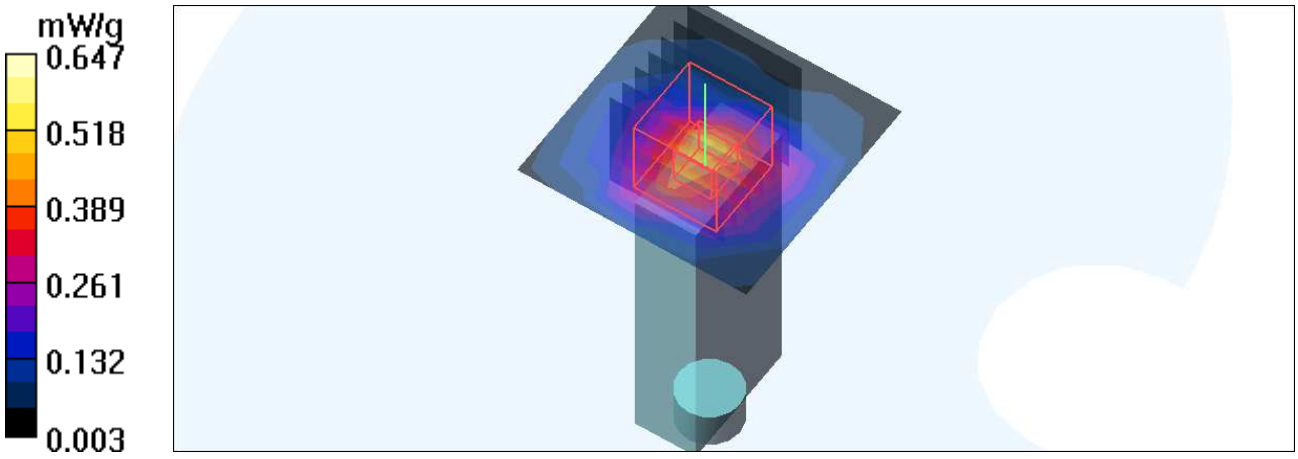
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2686.75 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2686.75 MHz; σ = 2.27 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The tip side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 753/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.492 mW/g

High Channel 753/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.8 V/m; Power Drift = -0.026 dB
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.479 mW/g; SAR(10 g) = 0.213 mW/g
Maximum value of SAR (measured) = 0.647 mW/g



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Test Laboratory: Bureau Veritas ADT

M26-10M-QPSK1_2-Ch30

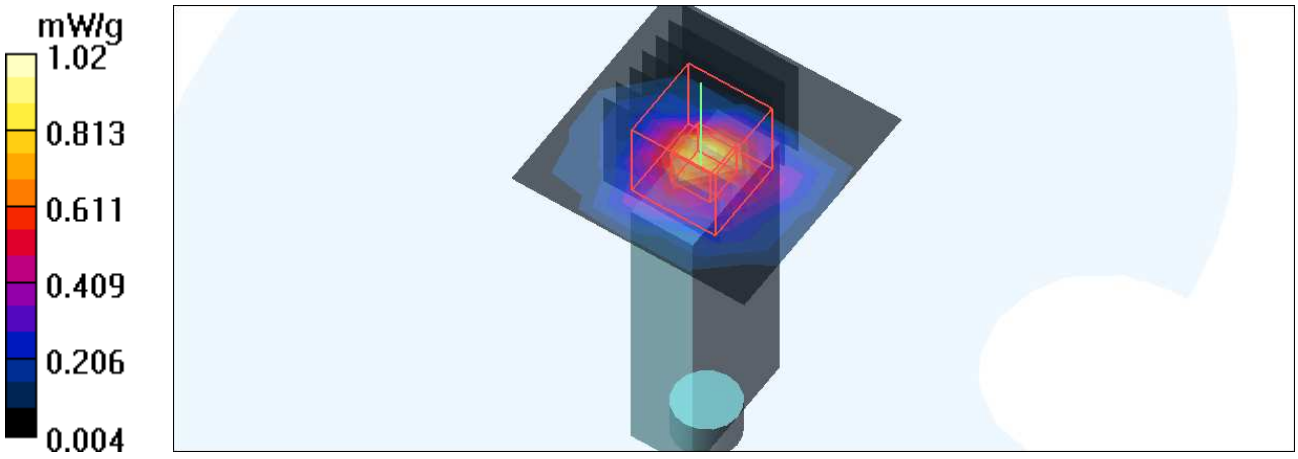
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2508.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2508.5 MHz; σ = 2.08 mho/m; ε_r = 53.9; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The tip side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Low Channel 30/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.898 mW/g

Low Channel 30/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.0 V/m; Power Drift = -0.064 dB
Peak SAR (extrapolated) = 1.63 W/kg
SAR(1 g) = 0.746 mW/g; SAR(10 g) = 0.318 mW/g
Maximum value of SAR (measured) = 1.02 mW/g



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Test Laboratory: Bureau Veritas ADT

M26-10M-QPSK1_2-Ch396

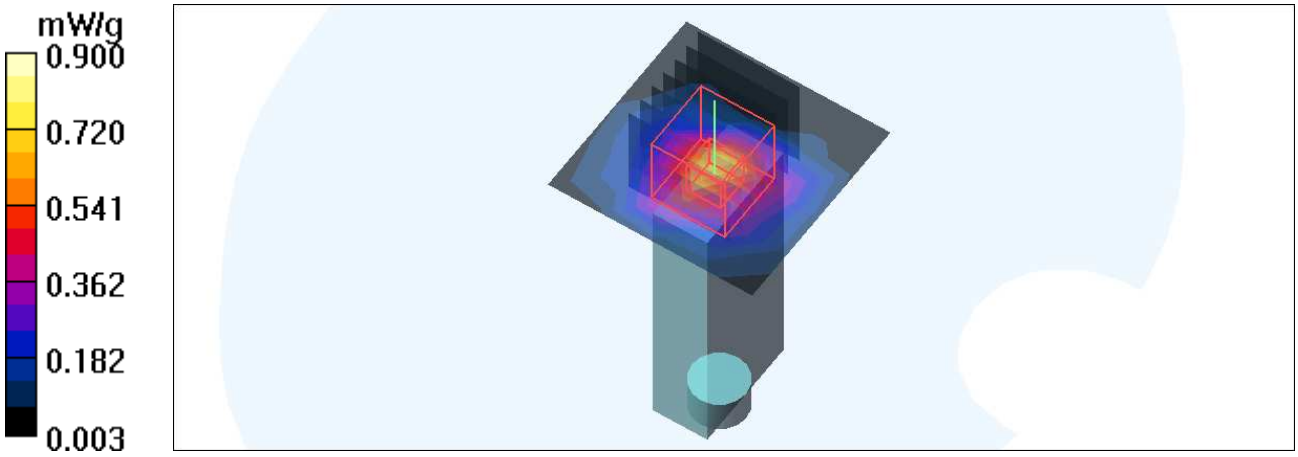
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2600 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The tip side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

Mid Channel 396/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.728 mW/g

Mid Channel 396/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.3 V/m; Power Drift = -0.126 dB
Peak SAR (extrapolated) = 1.46 W/kg
SAR(1 g) = 0.662 mW/g; SAR(10 g) = 0.287 mW/g
Maximum value of SAR (measured) = 0.900 mW/g



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Test Laboratory: Bureau Veritas ADT

M26-10M-QPSK1_2-Ch730

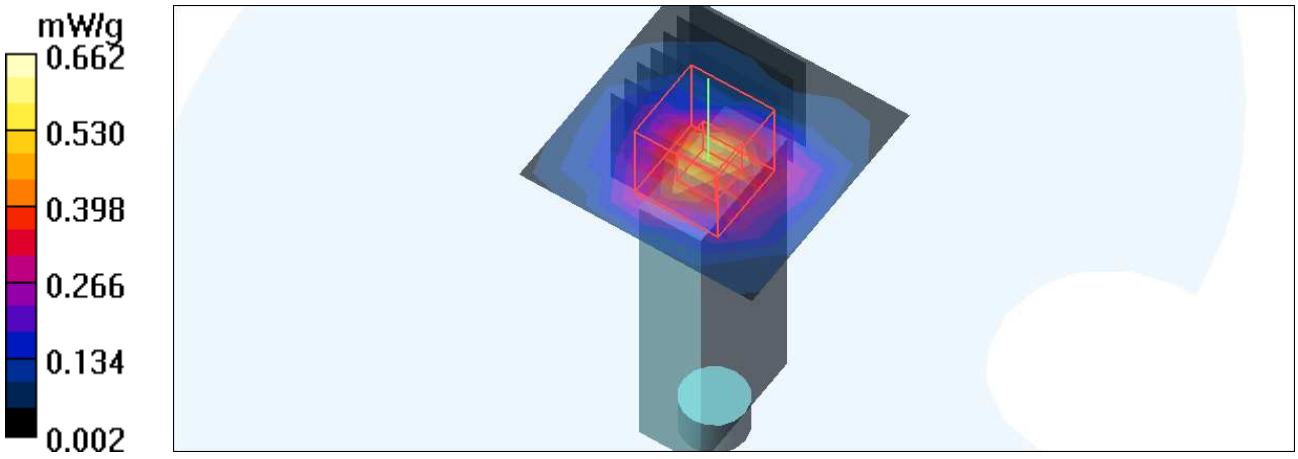
DUT: 4G Mobile Modem ; Type: PXU1900

Communication System: FCC Wimax ; Frequency: 2683.5 MHz ; Duty Cycle: 1:3.24 ; Modulation type: QPSK
Medium: MSL2600 Medium parameters used: f = 2683.5 MHz; σ = 2.27 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Phantom section: Flat Section ; Separation distance : 5 mm (The tip side of the EUT to the Phantom)

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2009/1/21
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80 ; Postprocessing SW: SEMCAD, V1.8 Build 186

High Channel 730/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.524 mW/g

High Channel 730/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.1 V/m; Power Drift = -0.031 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.494 mW/g; SAR(10 g) = 0.219 mW/g
Maximum value of SAR (measured) = 0.662 mW/g



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Test Laboratory: Bureau Veritas ADT

System Validation Check-MSL 2600MHz

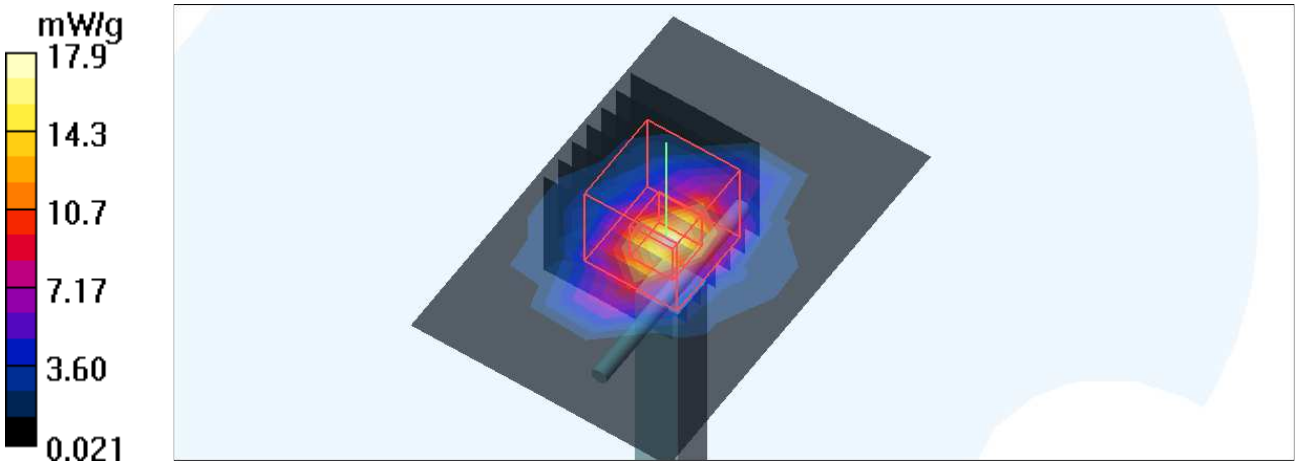
DUT: Dipole 2600 MHz ; Type: D2600V2 ; Serial: 1020 ; Test Frequency: 2600 MHz

Communication System: CW ; Frequency: 2600 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: MSL2600;Medium parameters used: f = 2600 MHz; σ = 2.19 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3 ; Liquid level : 150 mm
Phantom section: Flat Section ; Separation distance : 10 mm (The feetpoint of the dipole to the Phantom)Air temp. : 23.3 degrees ; Liquid temp. : 22.5 degrees

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2009/1/21
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=10mm, Pin=250mW/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 17.9 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 89.9 V/m; Power Drift = -0.023 dB
Peak SAR (extrapolated) = 28.8 W/kg
SAR(1 g) = 13.2 mW/g; SAR(10 g) = 5.88 mW/g
Maximum value of SAR (measured) = 17.7 mW/g



Date/Time: 2009/9/23 01:16:24

Test Laboratory: Bureau Veritas ADT

System Validation Check-MSL 2600MHz

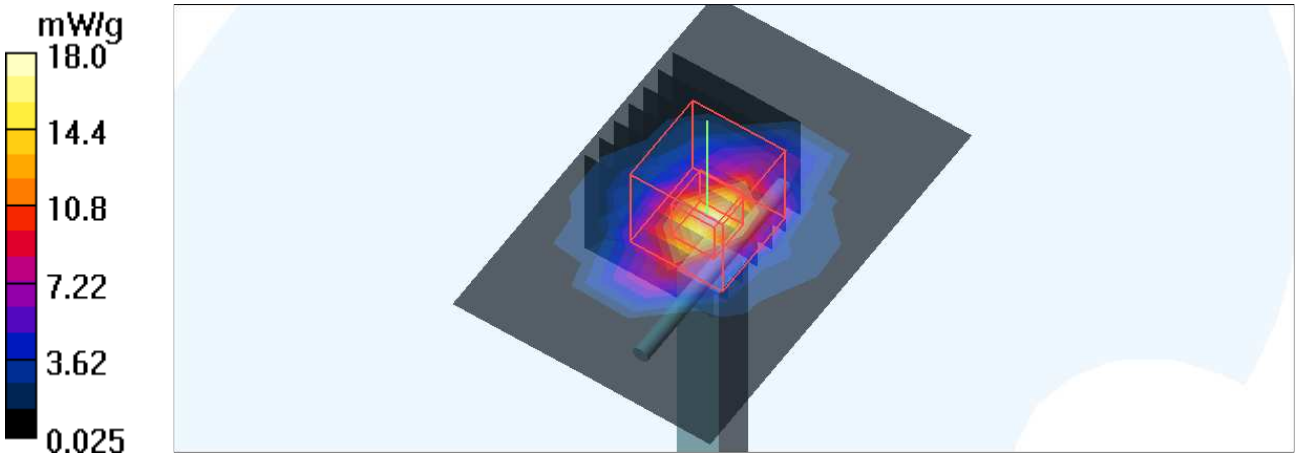
DUT: Dipole 2600 MHz ; Type: D2600V2 ; Serial: 1020 ; Test Frequency: 2600 MHz

Communication System: CW ; Frequency: 2600 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: MSL2600;Medium parameters used: f = 2600 MHz; σ = 2.21 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3 ; Liquid level : 150 mm
Phantom section: Flat Section ; Separation distance : 10 mm (The feetpoint of the dipole to the Phantom)Air temp. : 23.1 degrees ; Liquid temp. : 22.3 degrees

DASY4 Configuration:
- Probe: EX3DV3 - SN3504 ; ConvF(7.33, 7.33, 7.33) ; Calibrated: 2009/1/21
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2009/1/21
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=10mm, Pin=250mW/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 18.0 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 91.0 V/m; Power Drift = -0.071 dB
Peak SAR (extrapolated) = 28.2 W/kg
SAR(1 g) = 13.1 mW/g; SAR(10 g) = 5.89 mW/g
Maximum value of SAR (measured) = 17.6 mW/g



APPENDIX B: ADT SAR MEASUREMENT SYSTEM

APPENDIX C: PHOTOGRAPHS OF SYSTEM VALIDATION