

TEST REPORT FROM RFI GLOBAL SERVICES LTD


Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

Test Report Serial No:
RFI/SAR2/RP77768JD11A

Supersedes Test Report Serial No:
RFI/SAR1/RP77768JD11A

This Test Report Is Issued Under The Authority
Of Scott D'Adamo, Operations Manager Global
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Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

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Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

Table of Contents

1. Customer Information	4
2. Equipment Under Test (EUT)	5
3. Test Specification, Methods and Procedures	9
4. Deviations from the Test Specification	10
5. Operation and Configuration of the EUT during Testing	11
6. Summary of Test Results.....	14
7. Measurements, Examinations and Derived Results.....	15
8. Measurement Uncertainty.....	24
Appendix 1. Test Equipment Used.....	28
Appendix 2. Measurement Methods	31
Appendix 3. SAR Distribution Scans	33
Appendix 4. Photographs	69
Appendix 5. Validation of System	115
Appendix 6. Simulated Tissues.....	117
Appendix 7. DASY4 System Details	118

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

1. Customer Information

Company Name:	Panasonic Mobile Comms Dev of Europe Ltd
Address:	Panasonic House Willoughby Road Bracknell Berkshire RG12 8FP United Kingdom

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

2. Equipment Under Test (EUT)

2.1. Identification of Equipment Under Test (EUT)

Description:	Dual mode Cellular Mobile Telephone with <i>Bluetooth</i> , WLAN and RFID
Brand Name:	SoftBank
Model Name or Number:	942P (Project: S01SW1)
Serial Number:	None Stated
IMEI Number:	004401220967141
Hardware Version Number:	Rev C
Software Version Number:	942PVA15
Hardware Revision of GSM Module:	Not Applicable
Software Revision of GSM Module:	Not Applicable
FCC ID Number:	UCE210030A
Country of Manufacture:	None Stated
Date of Receipt:	21 May 2010

2.2. Description of EUT

The equipment under test was a dual mode mobile handset operating in the PCS1900 band, WiFi 2450 band, RFID and *Bluetooth* bands. The EUT has GPRS class 10 and 802.11b/g capabilities.

2.3. Modifications Incorporated in the EUT

There were no modifications incorporated in the EUT.

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

2.4. Accessories

The following accessories were supplied with the EUT during testing:

Description:	Battery
Brand Name:	SoftBank
Model Name or Number:	PMBAY1
Serial Number:	None Stated
Cable Length and Type:	Not Applicable
Country of Manufacture:	None Stated
Connected to Port	3 Pin Unique to Manufacturer

Description:	Micro-SD Memory Card
Brand Name:	None Stated
Model Name or Number:	None Stated
Serial Number:	None Stated
Cable Length and Type:	Not applicable
Country of Manufacture:	None Stated
Connected to Port	Micro-SD card port

Description:	Personal Hands-Free
Brand Name:	SoftBank
Model Name or Number:	ZTCK01
Serial Number:	None Stated
Cable Length and Type:	~1.5m
Country of Manufacture:	None Stated
Connected to Port	AV Out Port Unique to Manufacturer

Description:	Personal Hands-free Converter
Brand Name:	SoftBank
Model Name or Number:	PMLAJ1
Serial Number:	None Stated
Cable Length and Type:	~ 0.1 m
Country of Manufacture:	None Stated
Connected to Port	AV Out Port Unique to Manufacturer

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

2.5. Support Equipment

The following support equipment was used to exercise the EUT during testing:

Description:	Wireless Communication Test Set
Brand Name:	Agilent
Model Name or Number:	8960 Series 10
Serial Number:	GB46311280
Cable Length and Type:	~2.0 m Utiflex RF cable
Connected to Port:	RF (Input/Output) Air Link

Description:	GSM Communication Test Set
Brand Name:	Will'tek
Model Name or Number:	4202S
Serial Number:	513018
Cable Length and Type:	~2.0 m Utiflex RF cable
Connected to Port:	RF (Input/Output) Air Link

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

2.6. Additional Information Related to Testing

Equipment Category	PCS1900/GPRS1900 / <i>Bluetooth</i> / WiFi802.11b/g /RFID		
Type of Unit	Portable Transceiver		
Intended Operating Environment:	Within GSM and WiFi Coverage		
Transmitter Maximum Output Power Characteristics:	PCS1900	GSM Communication Test Set was configured to allow the EUT to transmit at a maximum power of up to 30dBm.	
	WiFi 802.11b/g	EUT setup in test mode to allow the EUT to transmit at a maximum power of up to 15dBm.	
	<i>Bluetooth</i>	2dBm	
Transmitter Frequency Range:	PCS1900	(1850 to 1910) MHz	
	WiFi 802.11b/g	(2410 to 2462) MHz	
	<i>Bluetooth</i>	(2402-2480) MHz	
	RFID	13.56 MHz	
Transmitter Frequency Allocation of EUT When Under Test:	Channel Number	Channel Description	Frequency (MHz)
	512	Low	1850.2
	660	Middle	1879.8
	810	High	1909.8
	1	Low	2412.0
	6	Middle	2437.0
	11	High	2462.0
Modulation(s):	GMSK: 217 Hz WiFi: 0Hz		
Modulation Scheme (Crest Factor):	GMSK(GSM): 8.3 GMSK(GPRS):4 DBPSK, CCK, 64-QAM(WiFi): 1		
Antenna Type:	Internal		
Antenna Length:	Unknown		
Number of Antenna Positions:	2 fixed (GSM and Wi-Fi)		
Power Supply Requirement:	3.7V		
Battery Type(s):	Li-ion		

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

3. Test Specification, Methods and Procedures

3.1. Test Specification

Reference:	OET Bulletin 65 Supplement C: (2001-01)
Title:	Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
Purpose of Test:	To determine whether the equipment met the basic restrictions as defined in OET Bulletin 65 Supplement C: (2001-01) using the SAR averaging method as described in the test specification above.

3.2. Methods and Procedures Reference Documentation

The methods and procedures used were as detailed in:

Federal Communications Commission, "Evaluating compliance with FCC Guidelines for human exposure to radio frequency electromagnetic fields", OET Bulletin 65 Supplement C, FCC, Washington, D.C, 20554, 2001.

Thomas Schmid, Oliver Egger and Neils Kuster, "Automated E-field scanning system for dosimetric assessments", IEEE Transaction on microwave theory and techniques, Vol. 44, pp. 105-113, January 1996.

Neils Kuster, Ralph Kastle and Thomas Schmid, "Dosimetric evaluation of mobile communications equipment with know precision", IEICE Transactions of communications, Vol. E80-B, No.5, pp. 645-652, May 1997.

KDB 447498 D01 Mobile Portable RF Exposure v04

KDB 648474 D01 SAR Handsets Multi Xmitter and Ant v01r05

KDB 248227 D01 SAR measurement Procedure for 802 11 a/b/g Transmitters v01r02

3.3. Definition of Measurement Equipment

The measurement equipment used complied with the requirements of the standards referenced in the methods & procedures section above. Appendix 1 contains a list of the test equipment used.

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

4. Deviations from the Test Specification

Test was performed as per "KDB 447498 D01 Mobile Portable RF Exposure v04", "KDB 648474 D01 SAR Handsets Multi Xmitter and Ant v01r05", according to the handset procedures in IEEE Std 1528-2003, OET Bulletin 65 Supplement C 01-01 and the specific FCC test procedures.

SAR test was performed in the middle channel only for WWAN as the measured levels were < 50% of the SAR limit as stated in the FCC Public Notice DA 02-1438 by the SCC-34/SC-2.

SAR test was performed in the highest output channel for WLAN as the measured SAR levels were < 0.4 W/kg, where the transmission band corresponding to all channels were ≤ 200 MHz. Testing for the other channels were not required as stated in KDB 447498 D01.

The Touch Right position was evaluated on the 'SAM' phantom flat section as per KDB 648474 D01 SAR Handsets Multi Xmitter and Ant v01r05, for point that that could not be fully evaluated, as the zoom scan was unable to fully enclose the peak SAR location as required by IEEE 1528 and OET Bulletin 65 Supplement C.

Simultaneous transmission was not evaluated as the sum of the individual SAR for WWAN and WLAN was < 0.8 W/kg and the antenna-to-antenna distance was greater than 5 cm.

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

5. Operation and Configuration of the EUT during Testing

5.1. Operating Modes

The EUT was tested in the following operating mode(s) unless otherwise stated:

- PCS1900 Call allocated mode with Communication Test Set configured to allow the EUT to transmit at a maximum power of up to 30 dBm.
 - GPRS1900 Data allocated mode with Communication Test Set configured to allow the EUT to transmit at a maximum power of up to 30 dBm.
 - WiFi802.11 b/g Data allocated test mode using manufacturer customised software "OMTN2 Ver 1.0.6". It was setup in test mode to allow the EUT to transmit at a maximum power of up to 15dBm.
 - SAR test was performed on the middle channel as the measured values were < 50% of the SAR limit as stated in the FCC Public Notice DA 02-1438 by the SCC-34/SC-2. The overall worst case on the middle channel using 1 Mbps for 802.11b and 6 Mbps for 802.11g were also test using highest output channel to prove the worst case was fully evaluated.
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Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

5.2. Configuration and Peripherals

The EUT was tested in the following configuration(s) unless otherwise stated:

- Standalone Battery Powered
- EUT tested in Head and Body-worn configuration. The applied configurations for body-worn orientations where the corresponding edge(s) is closest to the user with the most conservative exposure condition
- Some point in this position could not be fully evaluated in the 'Right Touch' configuration therefore the zoom scan was unable to fully enclose the peak SAR location as required by IEEE 1528 and OET Bulletin 65 Supplement C. This was overcome by the scan being repeated in the Mouth / Jaw configuration on the flat section.
- For the 'Touch Right' configuration the phone was positioned with the hinge against a smooth edge of the flat phantom where the upper half of the phone was unfolded and extended beyond the phantom side wall. The lower half of the phone was secured in the test device holder at a fixed distance below the flat phantom determined by the minimum separation along the lower edge of the phone in the 'Touch Right' position using the SAM head region.

Head Configuration

- a) The EUT was placed in a normal operating position with the centre of the ear-piece aligned with the ear canal on the phantom.
 - b) With the ear-piece touching the phantom the centre line of the EUT was aligned with an imaginary plane (X and Y axis) consisting of three lines connecting both ears and the mouth.
 - c) For the cheek position the EUT was gradually moved towards the cheek until any point of the mouth-piece or keypad touched the cheek.
 - d) For the tilted position the EUT was positioned as for the cheek position, and then the horizontal angle was increased by fifteen degrees (the phone keypad was moved away from the cheek by fifteen degrees).
 - e) SAR measurements were evaluated at maximum power and the unit was operated for an appropriate period prior to the evaluation in order to minimise the drift.
 - f) The device was keyed to operate continuously in the transmit mode for the duration of the test.
 - g) The location of the maximum spatial SAR distribution (hot spot) was determined relative to the EUT and its antenna.
 - h) The EUT was transmitting at full power throughout the duration of the test powered by a fully charge battery.
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Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

Configuration and Peripherals (continued)

Body Configuration

- a) The EUT was placed in a normal operating position where the centre of EUT was aligned with the centre reference point on the flat section of the 'SAM' phantom.
 - b) With the EUT touching the phantom at an imaginary centre line. The EUT was aligned with a marked plane (X and Y axis) consisting of two lines.
 - c) For the touch-safe position the EUT was gradually moved towards the flat section of the 'SAM' phantom until any point of the EUT touched the phantom.
 - d) For position(s) greater than 0mm separation the EUT was positioned as per the touch-safe position, and then the vertical height was decreased/adjusted as required.
 - e) SAR measurements were evaluated at maximum power and the unit was operated for an appropriate period prior to the evaluation in order to minimise the drift.
 - f) The device was keyed to operate continuously in the transmit mode for the duration of the test.
 - g) The location of the maximum spatial SAR distribution (hot spot) was determined relative to the EUT and its antenna.
 - h) The EUT was transmitting at full power throughout the duration of the test powered by a fully charge battery.
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Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

6. Summary of Test Results

Test Name	Specification Reference	Result
Specific Absorption Rate-PCS1900 Head Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-GPRS1900 Body Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-PCS1900 Body Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-Wi-Fi802.11b/g Body Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied

SAR Individual Transmitter Evaluation

device, mode	Frequency, (MHz)	P_x (mW)	P_{REF} (mW)	single SAR, W/kg	Remarks
WWAN, GSM	1900	724	-	0.582	Routine Evaluation
WLAN, Wi-Fi802.11b/g	2450	38	12	0.054	Routine Evaluation
BT, <i>Bluetooth</i>	2410	2	12	≈ 0	$\{P_{BT} \leq 2P_{REF}\} \{d_{WWAN, BT} > 5cm\}$

SAR Simultaneous Transmitter Evaluation

(x,y)	D(x,y) cm	L(x,y) cm	SPLSR _{xy}	Sim-Tx SAR	Remarks
(WWAN _{GSM} , BT)	<5	n/a	n/a	n/a	{no stand-alone SAR for BT}
(WWAN _{GSM} , Wi-Fi)	>5	n/a	n/a	n/a	$\{D(x,y) > 5\} \& \{\Sigma_{WWAN, WLAN} < 1.6 \text{ W/kg}\}$

6.1. Location of Tests

All the measurements described in this report were performed at the premises of RFI Global Services Ltd, Pavilion A, Ashwood Park, Ashwood Way, Basingstoke, Hampshire, RG23 8BG United Kingdom

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

7. Measurements, Examinations and Derived Results

7.1. General Comments

This section contains test results only.

Measurement uncertainties are evaluated in accordance with current best practice. Our reported expanded uncertainties are based on standard uncertainties, which are multiplied by an appropriate coverage factor to provide a statistical confidence level of approximately 95%. Please refer to section 8 for details of measurement uncertainties.

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

7.2. Test Results**7.2.1. Specific Absorption Rate - PCS1900 Head Configuration 1g****Test Summary:**

Tissue Volume:	1g
Maximum Level (W/kg):	0.582

Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
Temperature Variation in Liquid (°C):	23.0 to 23.0

Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Touch With Antenna Retracted	Left	660	0.548	1.600	1.052	1	Complied
Touch With Antenna Extended	Left	660	0.582	1.600	1.018	1	Complied
Tilt With Antenna Retracted	Left	660	0.071	1.600	1.529	1	Complied
Tilt With Antenna Extended	Left	660	0.092	1.600	1.508	1	Complied
Mouth / Jaw With Antenna Retracted*	Flat (SAM)	660	0.237	1.600	1.363	1, 2	Complied
Mouth / Jaw With Antenna Extended*	Flat (SAM)	660	0.228	1.600	1.372	1, 2	Complied
Tilt With Antenna Retracted	Right	660	0.075	1.600	1.525	1	Complied
Tilt With Antenna Extended	Right	660	0.111	1.600	1.489	1	Complied

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

Specific Absorption Rate - PCS1900 Head Configuration 1g (continued)

Note(s):

1. SAR test was performed in the middle channel only as the measured levels were < 50% of the SAR limit as stated in the FCC Public Notice DA 02-1438 by the SCC-34/SC-2.
2. The phone was positioned with the hinge against a smooth edge of the flat phantom where the upper half of the phone was unfolded and extended beyond the phantom side wall. The lower half of the phone was secured in the test device holder at a fixed distance.

*Some points in the 'Right Touch' position could not be fully evaluated therefore the zoom scan was unable to fully enclose the peak SAR location as required by IEEE 1528 and OET Bulletin 65 Supplement C. This scan is repeated in the Mouth / Jaw configuration on the flat section of the 'SAM' phantom.

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

7.2.2.Specific Absorption Rate - GPRS1900 Body Configuration 1g**Test Summary:**

Tissue Volume:	1g
Maximum Level (W/kg):	0.286

Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
Temperature Variation in Liquid (°C):	24.0 to 24.0

Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Front of EUT Facing Phantom with Antenna Retracted	Flat (SAM)	660	0.149	1.600	1.451	1, 2	Complied
Front of EUT Facing Phantom with Antenna Extended	Flat (SAM)	660	0.160	1.600	1.440	1, 2	Complied
Rear of EUT Facing Phantom with Antenna Retracted	Flat (SAM)	660	0.286	1.600	1.314	1, 2	Complied
Rear of EUT Facing Phantom with Antenna Extended	Flat (SAM)	660	0.279	1.600	1.321	1, 2	Complied

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

Specific Absorption Rate – GPRS1900 Body Configuration 1g (continued)

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
EUT Screen Swivel Closed & Display Facing Phantom with Antenna Retracted	Flat (SAM)	660	0.260	1.600	1.340	1, 2	Complied
EUT Screen Swivel Closed & Display Facing Phantom with Antenna Extended	Flat (SAM)	660	0.223	1.600	1.377	1, 2	Complied
EUT Screen Swivel Closed & Rear Facing Phantom with Antenna Retracted	Flat (SAM)	660	0.223	1.600	1.377	1, 2	Complied
EUT Screen Swivel Closed & Rear Facing Phantom with Antenna Extended	Flat (SAM)	660	0.210	1.600	1.390	1, 2	Complied
Rear of EUT Facing Phantom with Antenna Retracted With PHF	Flat (SAM)	660	0.255	1.600	1.345	1, 2	Complied

Note(s):

1. SAR test was performed in the middle channel only as the measured levels were < 50% of the SAR limit as stated in the FCC Public Notice DA 02-1438 by the SCC-34/SC-2.
2. SAR measurements were performed with the EUT at a separation distance of 15mm from the 'SAM' phantom flat section.

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

7.2.3. Specific Absorption Rate - PCS1900 Body Configuration 1g**Test Summary:**

Tissue Volume:	1g
Maximum Level (W/kg):	0.224

Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
Temperature Variation in Liquid (°C):	24.0 to 24.0

Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Rear of EUT Facing Phantom with Antenna Retracted	Flat (SAM)	660	0.224	1.600	1.376	1, 2	Complied

Note(s):

1. SAR test was performed in the middle channel only as the measured levels were < 50% of the SAR limit as stated in the FCC Public Notice DA 02-1438 by the SCC-34/SC-2.
2. SAR measurements were performed with the EUT at a separation distance of 15mm from the 'SAM' phantom flat section.

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

7.2.4. Specific Absorption Rate – WiFi802.11b/g Body Configuration 1g**Test Summary:**

Tissue Volume:	1g
Maximum Level (W/kg):	0.054

Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
Temperature Variation in Liquid (°C):	23.2 to 23.2

Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Front of EUT Facing Phantom with Antenna Retracted	Flat (SAM)	6	0.036	1.600	1.564	1, 2, 3	Complied
Front of EUT Facing Phantom with Antenna Extended	Flat (SAM)	6	0.030	1.600	1.570	1, 2, 3	Complied
Rear of EUT Facing Phantom with Antenna Retracted	Flat (SAM)	6	0.054	1.600	1.546	1, 2, 3	Complied
Rear of EUT Facing Phantom with Antenna Extended	Flat (SAM)	6	0.054	1.600	1.546	1, 2, 3	Complied
EUT Screen Swivel Closed & Display Facing Phantom with Antenna Retracted	Flat (SAM)	6	0.034	1.600	1.566	1, 2, 3	Complied
EUT Screen Swivel Closed & Display Facing Phantom with Antenna Extended	Flat (SAM)	6	0.035	1.600	1.565	1, 2, 3	Complied

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

Specific Absorption Rate - WiFi802.11b/g Body Configuration 1g (continued)

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
EUT Screen Swivel Closed & Rear Facing Phantom with Antenna Retracted	Flat (SAM)	6	0.013	1.600	1.587	1, 2, 3	Complied
EUT Screen Swivel Closed & Rear Facing Phantom with Antenna Extended	Flat (SAM)	6	0.014	1.600	1.586	1, 2, 3	Complied
Rear of EUT Facing Phantom with Antenna Retracted With PHF	Flat (SAM)	6	0.042	1.600	1.559	1, 2, 3	Complied
Rear of EUT Facing Phantom with Antenna Retracted	Flat (SAM)	6	0.041	1.600	1.559	1, 2, 4	Complied
Rear of EUT Facing Phantom with Antenna Retracted	Flat (SAM)	11	0.052	1.600	1.548	1, 2, 5	Complied
Rear of EUT Facing Phantom with Antenna Retracted	Flat (SAM)	11	0.040	1.600	1.560	1, 2, 6	Complied

Note(s):

1. SAR test was performed in the middle channel only as the measured levels were < 50% of the SAR limit as stated in the FCC Public Notice DA 02-1438 by the SCC-34/SC-2.
2. SAR measurements were performed with the EUT at a separation distance of 15mm from the 'SAM' phantom flat section.
3. 802.11b at 1 Mbps
4. 802.11g at 6 Mbps
5. 802.11b at 11 Mbps (The overall worst case on the middle channel using 1 Mbps for 802.11b was also test using highest output channel to prove the worst case was fully evaluated)
6. 802.11g at 54 Mbps (The overall worst case on the middle channel using 6 Mbps for 802.11b was also test using highest output channel to prove the worst case was fully evaluated)

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

7.2.5. Average Conducted Power Measurement and Average EIRP Measurements**PCS1900 / GPRS1900 Average Conducted Power:**

Channel Number	Frequency (MHZ)	GSM – Average TX Power (dBm)	GPRS – Average TX Power (dBm)	Note
512	1850.2	28.2	26.2	Conducted
660	1879.8	28.5	26.4	Conducted
810	1909.8	28.6	26.7	Conducted

WiFi802.11b/g Average EIRP Power:

Channel Number	Frequency (MHZ)	Average TX Power (dBm)	Note
1	2412.0	12.6	2.4GHz 802.11b (1Mbps) (EIPR)
6	2437.0	11.6	
11	2462.0	13.5	
1	2412.0	13.4	2.4GHz 802.11b (11Mbps) (EIPR)
6	2437.0	12.0	
11	2462.0	14.8	
1	2412.0	13.5	2.4GHz 802.11g (6Mbps) (EIPR)
6	2437.0	12.0	
11	2462.0	15.3	
1	2412.0	14.2	2.4GHz 802.11g (54Mbps) (EIPR)
6	2437.0	12.4	
11	2462.0	15.8	

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

8. Measurement Uncertainty

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently, the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement of the uncertainty of the approximation.

The expression of uncertainty of a measurement result allows realistic comparison of results with reference values and limits given in specifications and standards.

The uncertainty of the result may need to be taken into account when interpreting the measurement results.

The reported expanded uncertainties below are based on a standard uncertainty multiplied by an appropriate coverage factor, such that a confidence level of approximately 95% is maintained. For the purposes of this document “approximately” is interpreted as meaning “effectively” or “for most practical purposes”.

Test Name	Confidence Level	Calculated Uncertainty
Specific Absorption Rate- PCS1900 Head Configuration 1g	95%	20.18%
Specific Absorption Rate- PCS / GPRS1900 Body Configuration 1g	95%	19.44%
Specific Absorption Rate- WiFi802.11b/g 2450 MHz Body Configuration 1g	95%	19.34%

The methods used to calculate the above uncertainties are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty, the published guidance of the appropriate accreditation body is followed.

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

Measurement Uncertainty (continued)**8.1. Specific Absorption Rate Uncertainty at 1900 MHz Head 1g, PCS Modulation Scheme calculated in accordance with IEC 62209 & IEEE 1528**

Type	Source of uncertainty	+ Value	- Value	Probability Distribution	Divisor	C _i (10g)	Standard Uncertainty		v _i or v _{eff}
							+ u (%)	- u (%)	
B	Probe calibration	11.000	11.000	normal (k=2)	2.0000	1.0000	5.500	5.500	∞
B	Axial Isotropy	0.500	0.500	normal (k=2)	2.0000	1.0000	0.250	0.250	∞
B	Hemispherical Isotropy	2.600	2.600	normal (k=2)	2.0000	1.0000	1.300	1.300	∞
B	Spatial Resolution	0.500	0.500	Rectangular	1.7321	1.0000	0.289	0.289	∞
B	Boundary Effect	0.769	0.769	Rectangular	1.7321	1.0000	0.444	0.444	∞
B	Linearity	0.600	0.600	Rectangular	1.7321	1.0000	0.346	0.346	∞
B	Detection Limits	0.200	0.200	Rectangular	1.7321	1.0000	0.115	0.115	∞
B	Readout Electronics	0.320	0.320	normal (k=2)	2.0000	1.0000	0.160	0.160	∞
B	Response Time	0.000	0.000	Rectangular	1.7321	1.0000	0.000	0.000	∞
B	Integration Time	1.730	1.730	Rectangular	1.7321	1.0000	0.999	0.999	∞
B	RF Ambient conditions	3.000	3.000	Rectangular	1.7321	1.0000	1.732	1.732	∞
B	Probe Positioner Mechanical Restrictions	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Probe Positioning with regard to Phantom Shell	2.850	2.850	Rectangular	1.7321	1.0000	1.645	1.645	∞
B	Extrapolation and integration/ Maximum SAR evaluation	5.080	5.080	Rectangular	1.7321	1.0000	2.933	2.933	∞
A	Test Sample Positioning	3.800	3.800	normal (k=1)	1.0000	1.0000	3.800	3.800	10
A	Device Holder uncertainty	0.154	0.154	normal (k=1)	1.0000	1.0000	0.154	0.154	10
B	Phantom Uncertainty	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Drift of output power	5.000	5.000	Rectangular	1.7321	1.0000	2.887	2.887	∞
B	Liquid Conductivity (target value)	5.000	5.000	Rectangular	1.7321	0.6400	1.848	1.848	∞
A	Liquid Conductivity (measured value)	4.900	4.900	normal (k=1)	1.0000	0.6400	3.136	3.136	5
B	Liquid Permittivity (target value)	5.000	5.000	Rectangular	1.7321	0.6000	1.732	1.732	∞
A	Liquid Permittivity (measured value)	4.880	4.880	normal (k=1)	1.0000	0.6000	2.928	2.928	5
	Combined standard uncertainty			t-distribution			10.30	10.30	>200
	Expanded uncertainty			k = 1.96			20.18	20.18	>200

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

8.2. Specific Absorption Rate Uncertainty at 1900 MHz Body 1g, PCS / GPRS Modulation Scheme calculated in accordance with IEC 62209 & IEEE 1528

Type	Source of uncertainty	+ Value	- Value	Probability Distribution	Divisor	C _i (10g)	Standard Uncertainty		v _i or v _{eff}
							+ u (%)	- u (%)	
B	Probe calibration	11.000	11.000	normal (k=2)	2.0000	1.0000	5.500	5.500	∞
B	Axial Isotropy	0.500	0.500	normal (k=2)	2.0000	1.0000	0.250	0.250	∞
B	Hemispherical Isotropy	2.600	2.600	normal (k=2)	2.0000	1.0000	1.300	1.300	∞
B	Spatial Resolution	0.500	0.500	Rectangular	1.7321	1.0000	0.289	0.289	∞
B	Boundary Effect	0.769	0.769	Rectangular	1.7321	1.0000	0.444	0.444	∞
B	Linearity	0.600	0.600	Rectangular	1.7321	1.0000	0.346	0.346	∞
B	Detection Limits	0.200	0.200	Rectangular	1.7321	1.0000	0.115	0.115	∞
B	Readout Electronics	0.320	0.320	normal (k=2)	2.0000	1.0000	0.160	0.160	∞
B	Response Time	0.000	0.000	Rectangular	1.7321	1.0000	0.000	0.000	∞
B	Integration Time	1.730	1.730	Rectangular	1.7321	1.0000	0.999	0.999	∞
B	RF Ambient conditions	3.000	3.000	Rectangular	1.7321	1.0000	1.732	1.732	∞
B	Probe Positioner Mechanical Restrictions	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Probe Positioning with regard to Phantom Shell	2.850	2.850	Rectangular	1.7321	1.0000	1.645	1.645	∞
B	Extrapolation and integration/ Maximum SAR evaluation	5.080	5.080	Rectangular	1.7321	1.0000	2.933	2.933	∞
A	Test Sample Positioning	2.500	2.500	normal (k=1)	1.0000	1.0000	2.500	2.500	10
A	Device Holder uncertainty	0.154	0.154	normal (k=1)	1.0000	1.0000	0.154	0.154	10
B	Phantom Uncertainty	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Drift of output power	5.000	5.000	Rectangular	1.7321	1.0000	2.887	2.887	∞
B	Liquid Conductivity (target value)	5.000	5.000	Rectangular	1.7321	0.6400	1.848	1.848	∞
A	Liquid Conductivity (measured value)	4.940	4.940	normal (k=1)	1.0000	0.6400	3.162	3.162	5
B	Liquid Permittivity (target value)	5.000	5.000	Rectangular	1.7321	0.6000	1.732	1.732	∞
A	Liquid Permittivity (measured value)	4.980	4.980	normal (k=1)	1.0000	0.6000	2.988	2.988	5
	Combined standard uncertainty			t-distribution			9.92	9.92	>200
	Expanded uncertainty			k = 1.96			19.44	19.44	>200

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

8.3. Specific Absorption Rate Uncertainty at 2450 MHz Body 1g, calculated in accordance with IEC 62209 & IEEE 1528

Type	Source of uncertainty	+ Value	- Value	Probability Distribution	Divisor	C _i (10g)	Standard Uncertainty		v _i or v _{eff}
							+ u (%)	- u (%)	
B	Probe calibration	11.000	11.000	normal (k=2)	2.0000	1.0000	5.500	5.500	∞
B	Axial Isotropy	0.500	0.500	normal (k=2)	2.0000	1.0000	0.250	0.250	∞
B	Hemispherical Isotropy	2.600	2.600	normal (k=2)	2.0000	1.0000	1.300	1.300	∞
B	Spatial Resolution	0.500	0.500	Rectangular	1.7321	1.0000	0.289	0.289	∞
B	Boundary Effect	0.769	0.769	Rectangular	1.7321	1.0000	0.444	0.444	∞
B	Linearity	0.600	0.600	Rectangular	1.7321	1.0000	0.346	0.346	∞
B	Detection Limits	0.200	0.200	Rectangular	1.7321	1.0000	0.115	0.115	∞
B	Readout Electronics	0.320	0.320	normal (k=2)	2.0000	1.0000	0.160	0.160	∞
B	Response Time	0.000	0.000	Rectangular	1.7321	1.0000	0.000	0.000	∞
B	Integration Time	0.000	0.000	Rectangular	1.7321	1.0000	0.000	0.000	∞
B	RF Ambient conditions	3.000	3.000	Rectangular	1.7321	1.0000	1.732	1.732	∞
B	Probe Positioner Mechanical Restrictions	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Probe Positioning with regard to Phantom Shell	2.850	2.850	Rectangular	1.7321	1.0000	1.645	1.645	∞
B	Extrapolation and integration/ Maximum SAR evaluation	5.080	5.080	Rectangular	1.7321	1.0000	2.933	2.933	∞
A	Test Sample Positioning	2.570	2.570	normal (k=1)	1.0000	1.0000	2.570	2.570	10
A	Device Holder uncertainty	0.154	0.154	normal (k=1)	1.0000	1.0000	0.154	0.154	10
B	Phantom Uncertainty	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Drift of output power	5.000	5.000	Rectangular	1.7321	1.0000	2.887	2.887	∞
B	Liquid Conductivity (target value)	5.000	5.000	Rectangular	1.7321	0.6400	1.848	1.848	∞
A	Liquid Conductivity (measured value)	4.900	4.900	normal (k=1)	1.0000	0.6400	3.136	3.136	5
B	Liquid Permittivity (target value)	5.000	5.000	Rectangular	1.7321	0.6000	1.732	1.732	∞
A	Liquid Permittivity (measured value)	4.920	4.920	normal (k=1)	1.0000	0.6000	2.952	2.952	5
	Combined standard uncertainty			t-distribution			9.87	9.87	>200
	Expanded uncertainty			k = 1.96			19.34	19.34	>200

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

Appendix 1. Test Equipment Used

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Last Calibrated	Cal. Interval (Months)
A034	Narda 20W Termination	Narda	374BNM	8706	Calibrated as part of system	-
A1097	SMA Directional Coupler	MiDISCO	MDC6223-30	None	Calibrated as part of system	-
A1137	3dB Attenuator	Narda	779	04690	Calibrated as part of system	-
A1174	Dielectric Probe Kit	Agilent Technologies	85070C	Us99360072	Calibrated before use	-
A1328	Handset Positioner	Schmid & Partner Engineering AG	Modification	SD 000 H01 DA	-	-
A1182	Handset Positioner	Schmid & Partner Engineering AG	V3.0	None	-	-
A1184	Data Acquisition Electronics	Schmid & Partner Engineering AG	DAE3	394	09 April 2010	12
A1378	Probe	Schmid & Partner Engineering AG	EX3 DV3	3508	26 June 2009	12
A1566	SAM Phantom	Schmid & Partner Engineering AG	SAM a	002	Calibrated before use	-
A1237	1900 MHz Dipole Kit	Schmid & Partner Engineering AG	D1900V2	540	26 June 2009	24
A1322	2450 MHz Dipole Kit	Schmid & Partner Engineering AG	D2450V2	725	08 Jan 2009	24
A1474	Amplifier	Mini-Circuits	ZVE-8G	638700305	Calibrated as part of system	-
A1990	Digital Camera	Samsung	E515	A23WC908A 05431K		
A215	20 dB Attenuator	Narda	766-20	9402	Calibrated as part of system	-
A1531	Antenna	AARONIA AG	7025	02458	-	-
C1144	Cable	Rosenberger MICRO-COAX	FA147AF00 1503030	41842-1	Calibrated as part of system	-
C1145	Cable	Rosenberger MICRO-COAX	FA147AF00 3003030	41843-1	Calibrated as part of system	-
C1146	Cable	Rosenberger MICRO-COAX	FA147AF03 0003030	41752-1	Calibrated as part of system	-

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Last Calibrated	Cal. Interval (Months)
G0528	Robot Power Supply	Schmid & Partner Engineering AG	DASY	None	Calibrated before use	-
G087	PSU	Thurlby Thandar	CPX200	100701	Calibrated before use	-
M1015	Network Analyser	Agilent Technologies	8753ES	US39172406	15 Sept 2009	12
M1047	Robot Arm	Staubli	RX908 L	F00/SD89A1/A/01	Calibrated before use	-
M1159	Signal Generator	Agilent Technologies	E8241A	US42110332	Internal Checked 05 April 2010	4
M1071	Spectrum Analyzer	Agilent	HP8590E	3647U00514	(Monitoring use only)	-
M1123	RF Power Meter	Boonton	4531	138201	05 Nov 2009	12
M1270	Temperature/ Humidity/ Pressure Meter	RS Components	None	None	Internal Checked 31 March 2010	12
S256	SAR Lab	RFI	Site 56	N/A	Calibrated before use	-

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

A.1.1. Calibration Certificates

This section contains the calibration certificates and data for the Probe(s) and Dipole(s) used, which are not included in the total number of pages for this report.



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 108**

The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates

Client **RFI**

Certificate No: **EX3-3508_Jun09**

CALIBRATION CERTIFICATE

Object **EX3DV3 - SN:3508**

Calibration procedure(s) **QA CAL-01.v6, QA CAL-12.v5 and QA CAL-23.v3**
Calibration procedure for dosimetric E-field probes

Calibration date: **June 26, 2009**

Condition of the calibrated item **In Tolerance**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature $(22 \pm 3)^\circ\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	1-Apr-09 (No. 217-01030)	Apr-10
Power sensor E4412A	MY41495277	1-Apr-09 (No. 217-01030)	Apr-10
Power sensor E4412A	MY41498087	1-Apr-09 (No. 217-01030)	Apr-10
Reference 3 dB Attenuator	SN: S5054 (3c)	31-Mar-09 (No. 217-01026)	Mar-10
Reference 20 dB Attenuator	SN: S5086 (20b)	31-Mar-09 (No. 217-01028)	Mar-10
Reference 30 dB Attenuator	SN: S5129 (30b)	31-Mar-09 (No. 217-01027)	Mar-10
Reference Probe ES3DV2	SN: 3013	2-Jan-09 (No. ES3-3013_Jan09)	Jan-10
DAE4	SN: 660	9-Sep-08 (No. DAE4-660_Sep08)	Sep-09
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-08)	In house check: Oct-09
Calibrated by:	Name Jeton Kastrati	Function Laboratory Technician	Signature
Approved by:	Name Katja Pokovic	Technical Manager	

Issued: June 26, 2009

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
Polarization ϕ	ϕ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}**: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not effect the E²-field uncertainty inside TSL (see below *ConvF*).
- NORM(f)_{x,y,z}** = NORM_{x,y,z} * *frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- DCP_{x,y,z}**: DCP are numerical linearization parameters assessed based on the data of power sweep (no uncertainty required). DCP does not depend on frequency nor media.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * *ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

Probe EX3DV3

SN:3508

Manufactured:	December 19, 2003
Last calibrated:	June 24, 2008
Recalibrated:	June 26, 2009

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

DASY - Parameters of Probe: EX3DV3 SN:3508

Sensitivity in Free Space^A

Diode Compression^B

NormX	0.76 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP X	95 mV
NormY	0.63 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Y	97 mV
NormZ	0.66 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Z	94 mV

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Please see Page 8.

Boundary Effect

TSL **900 MHz** **Typical SAR gradient: 5 % per mm**

Sensor Center to Phantom Surface Distance		2.0 mm	3.0 mm
SAR _{be} [%]	Without Correction Algorithm	7.8	4.6
SAR _{be} [%]	With Correction Algorithm	0.5	0.3

TSL **1750 MHz** **Typical SAR gradient: 10 % per mm**

Sensor Center to Phantom Surface Distance		2.0 mm	3.0 mm
SAR _{be} [%]	Without Correction Algorithm	5.8	2.7
SAR _{be} [%]	With Correction Algorithm	0.7	0.5

Sensor Offset

Probe Tip to Sensor Center **1.0 mm**

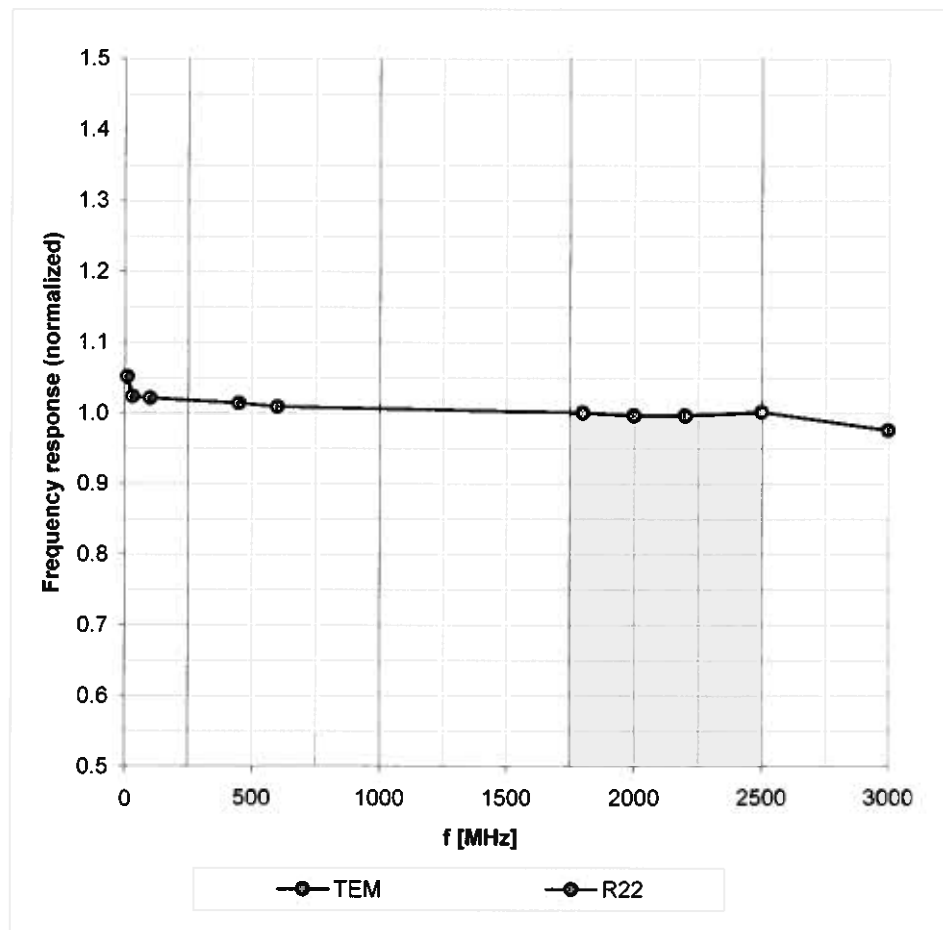
The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of NormX,Y,Z do not affect the E²-field uncertainty inside TSL (see Page 8).

^B Numerical linearization parameter: uncertainty not required.

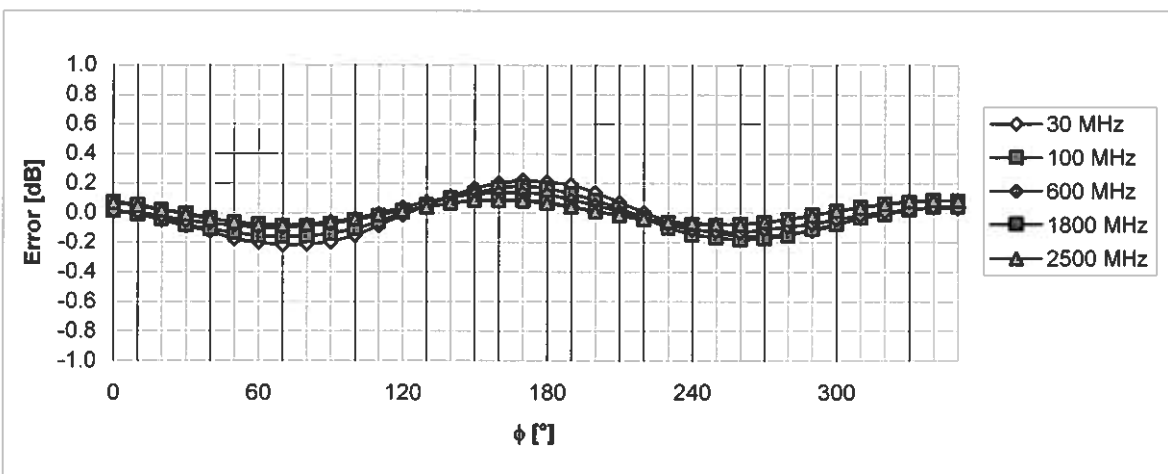
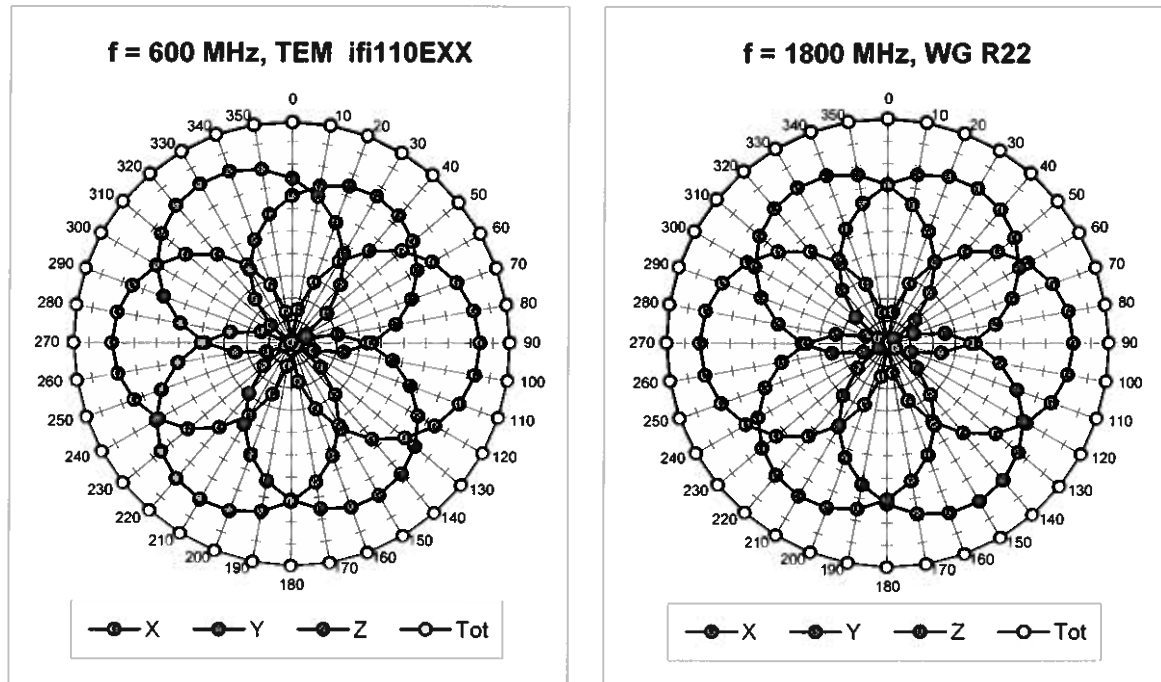
Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide: R22)



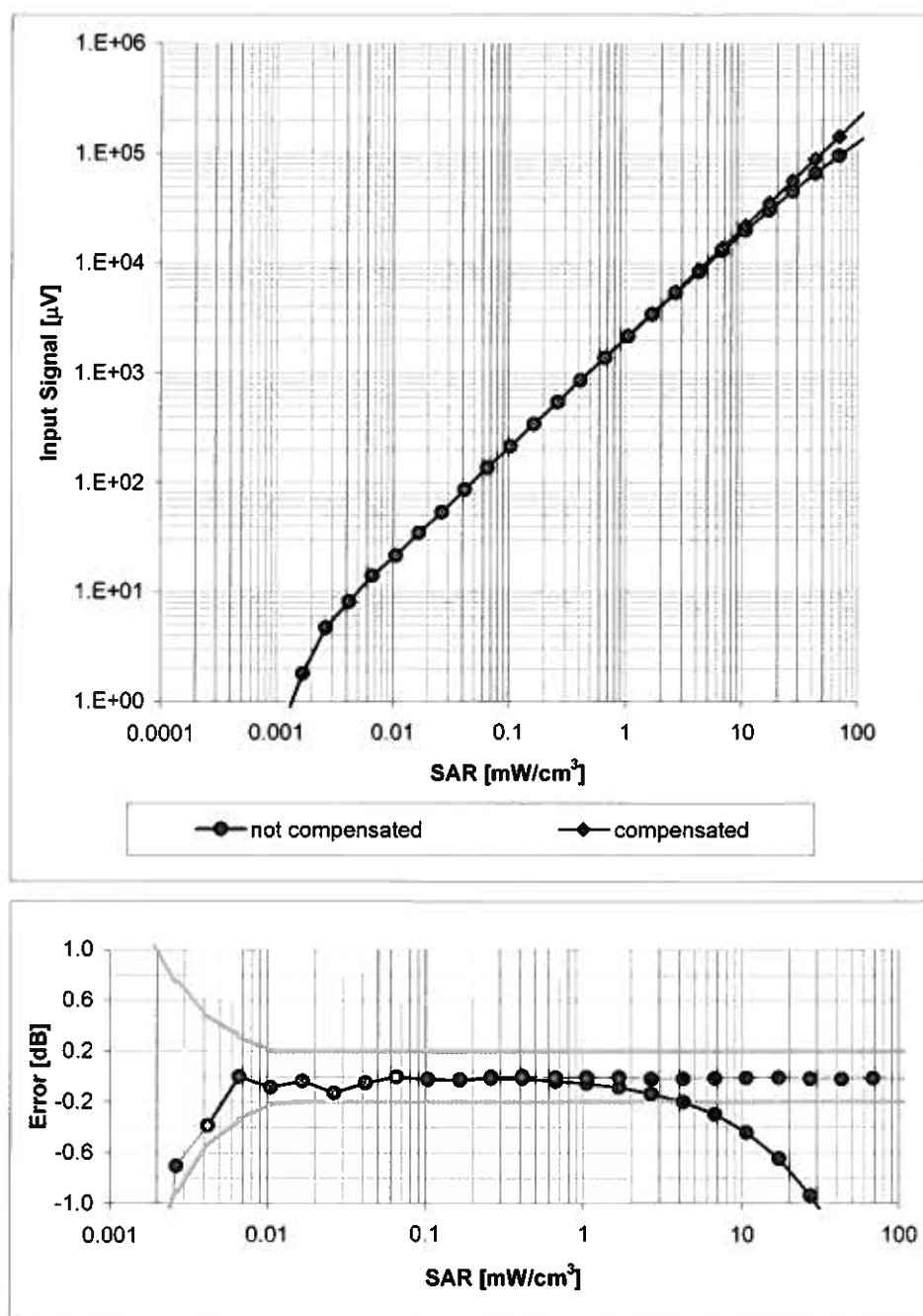
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

Receiving Pattern (ϕ), $\vartheta = 0^\circ$



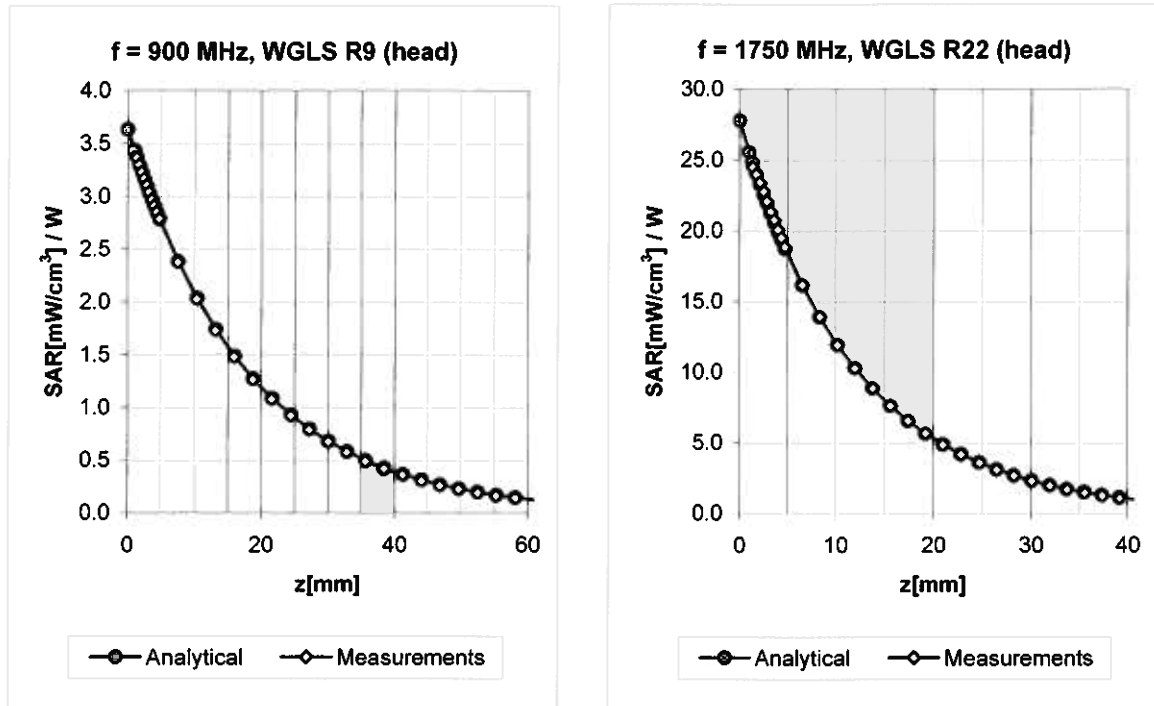
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

Dynamic Range $f(\text{SAR}_{\text{head}})$ (Waveguide R22, $f = 1800 \text{ MHz}$)



Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

Conversion Factor Assessment

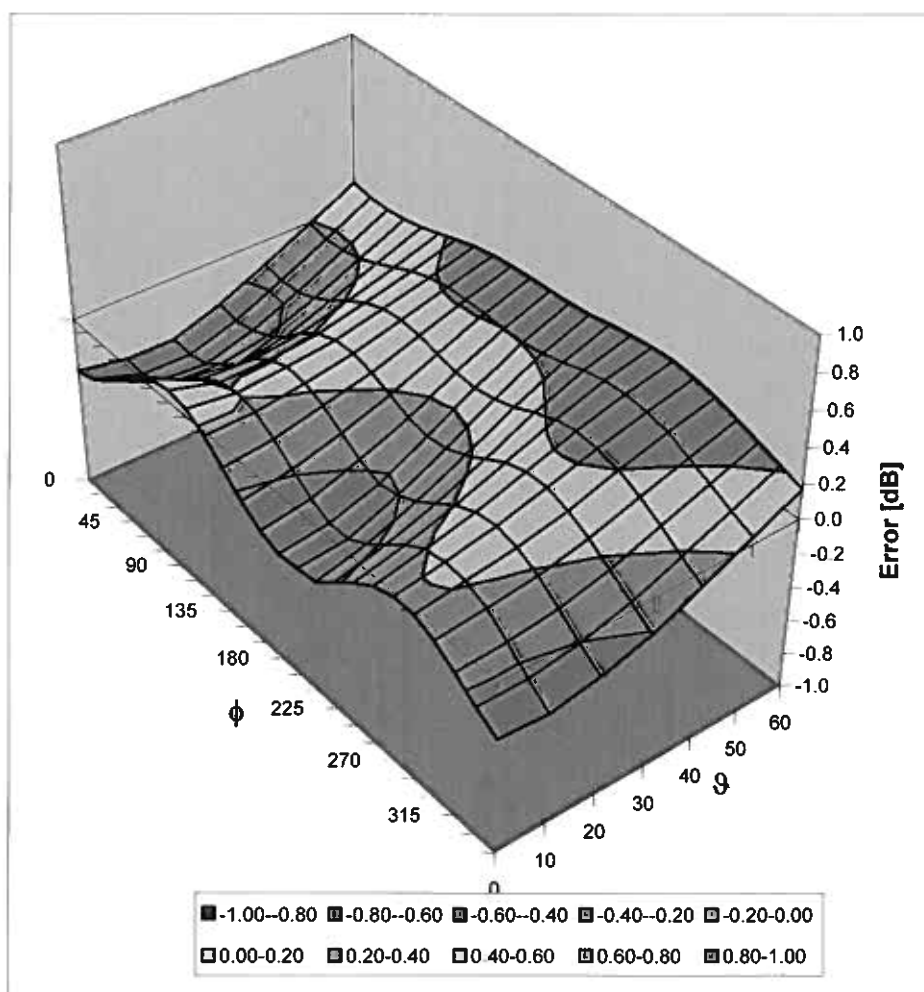


f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
450	± 50 / ± 100	Head	43.5 ± 5%	0.87 ± 5%	0.23	1.00	10.49 ± 13.3% (k=2)
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.48	0.72	9.76 ± 11.0% (k=2)
1750	± 50 / ± 100	Head	40.1 ± 5%	1.37 ± 5%	0.57	0.63	8.82 ± 11.0% (k=2)
1900	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.53	0.65	8.58 ± 11.0% (k=2)
2150	± 50 / ± 101	Head	39.7 ± 5%	1.53 ± 5%	0.36	0.69	8.33 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.36	0.75	7.77 ± 11.0% (k=2)
450	± 50 / ± 100	Body	56.7 ± 5%	0.94 ± 5%	0.30	0.51	11.32 ± 13.3% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.45	0.75	9.99 ± 11.0% (k=2)
1750	± 50 / ± 100	Body	53.4 ± 5%	1.49 ± 5%	0.55	0.63	8.59 ± 11.0% (k=2)
1900	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.48	0.68	8.23 ± 11.0% (k=2)
2150	± 50 / ± 100	Body	53.0 ± 5%	1.75 ± 5%	0.30	0.92	8.27 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.25	1.02	8.06 ± 11.0% (k=2)

^c The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

Deviation from Isotropy in HSL

Error (ϕ , θ), $f = 900$ MHz



Uncertainty of Spherical Isotropy Assessment: $\pm 2.6\%$ ($k=2$)

**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client

RFI

Certificate No: **D2450V2-725_Jan09**

CALIBRATION CERTIFICATE

Object

D2450V2 - SN: 725

Calibration procedure(s)

**QA CAL-05.v7
Calibration procedure for dipole validation kits**

Calibration date:

January 08, 2009

Condition of the calibrated item

In Tolerance

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	08-Oct-08 (No. 217-00898)	Oct-09
Power sensor HP 8481A	US37292783	08-Oct-08 (No. 217-00898)	Oct-09
Reference 20 dB Attenuator	SN: S5086 (20g)	01-Jul-08 (No. 217-00864)	Jul-09
Type-N mismatch combination	SN: 5047.2 / 06327	01-Jul-08 (No. 217-00867)	Jul-09
Reference Probe ES3DV2	SN: 3025	28-Apr-08 (No. ES3-3025_Apr08)	Apr-09
DAE4	SN: 601	14-Mar-08 (No. DAE4-601_Mar08)	Mar-09
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-07)	In house check: Oct-09
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-08)	In house check: Oct-09

	Name	Function	Signature
Calibrated by:	Jeton Kasrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: January 12, 2009

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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V5.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2450 MHz \pm 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 \pm 0.2) °C	38.3 \pm 6 %	1.83 mho/m \pm 6 %
Head TSL temperature during test	(21.5 \pm 0.2) °C	—	—

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.2 mW / g
SAR normalized	normalized to 1W	52.8 mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	52.1 mW / g \pm 17.0 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.12 mW / g
SAR normalized	normalized to 1W	24.5 mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	24.3 mW / g \pm 16.5 % (k=2)

¹ Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.7	1.95 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	53.8 ± 6 %	2.01 mho/m ± 6 %
Body TSL temperature during test	(21.0 ± 0.2) °C	—	—

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	13.2 mW / g
SAR normalized	normalized to 1W	52.8 mW / g
SAR for nominal Body TSL parameters ²	normalized to 1W	52.2 mW / g ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	6.19 mW / g
SAR normalized	normalized to 1W	24.8 mW / g
SAR for nominal Body TSL parameters ²	normalized to 1W	24.7 mW / g ± 16.5 % (k=2)

² Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	$54.4 \Omega + 5.3 j\Omega$
Return Loss	- 23.7 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	$49.0 \Omega + 6.7 j\Omega$
Return Loss	- 23.4 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.153 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	October 16, 2002

DASY5 Validation Report for Head TSL

Date/Time: 08.01.2009 10:04:18

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN725

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL U10 BB

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.83$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV2 - SN3025; ConvF(4.4, 4.4, 4.4); Calibrated: 28.04.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.4 Build 45

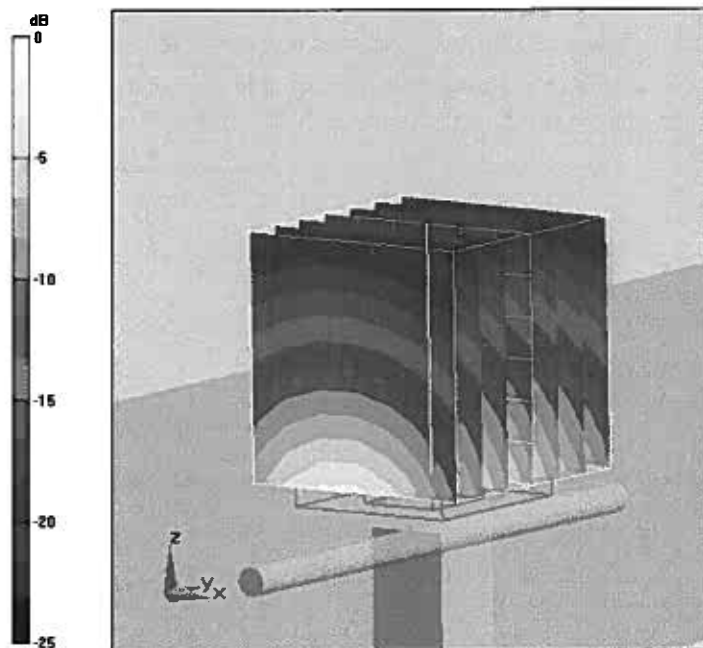
Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 95.8 V/m; Power Drift = 0.035 dB

Peak SAR (extrapolated) = 27.7 W/kg

SAR(1 g) = 13.2 mW/g; SAR(10 g) = 6.12 mW/g

Maximum value of SAR (measured) = 15.9 mW/g



0 dB = 15.9mW/g

Impedance Measurement Plot for Head TSL

8 Jan 2009 09:18:44

CH1 S11 1 U FS

1: 54.352 Ω 5.2852 Ω 343.33 μH

2 450.000 000 MHz

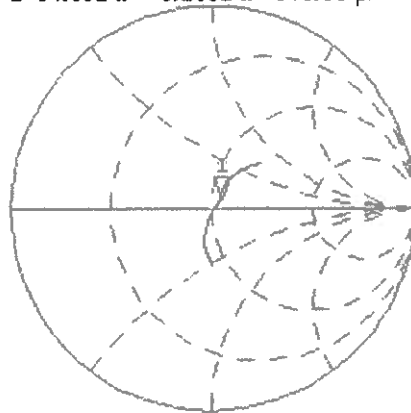
*

Del

Cor

Avg

16



CH2 S11

LOG

5 dB/REF -20 dB

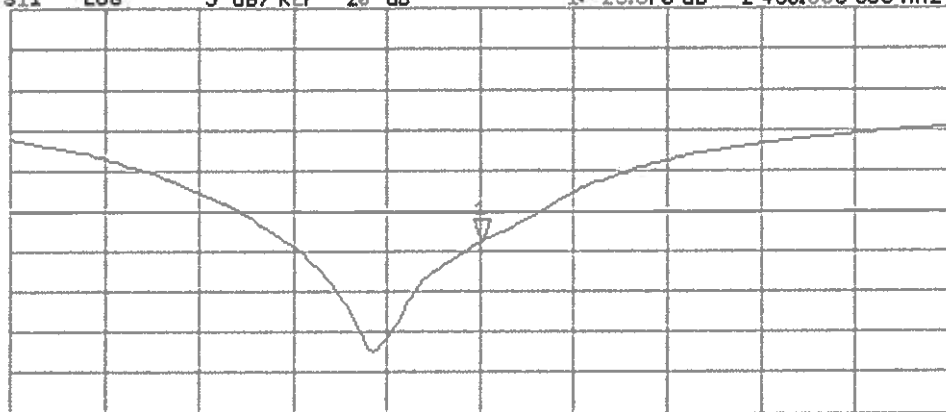
1: -23.670 dB

2 450.000 000 MHz

Cor

Avg

16



START 2 250.000 000 MHz

STOP 2 650.000 000 MHz

DASY5 Validation Report for Body TSL

Date/Time: 08.01.2009 12:28:21

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:725

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: MSL U10 BB

Medium parameters used: $f = 2450$ MHz; $\sigma = 2.02$ mho/m; $\epsilon_r = 53.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV2 - SN3025; ConvF(4.07, 4.07, 4.07); Calibrated: 28.04.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.4 Build 45

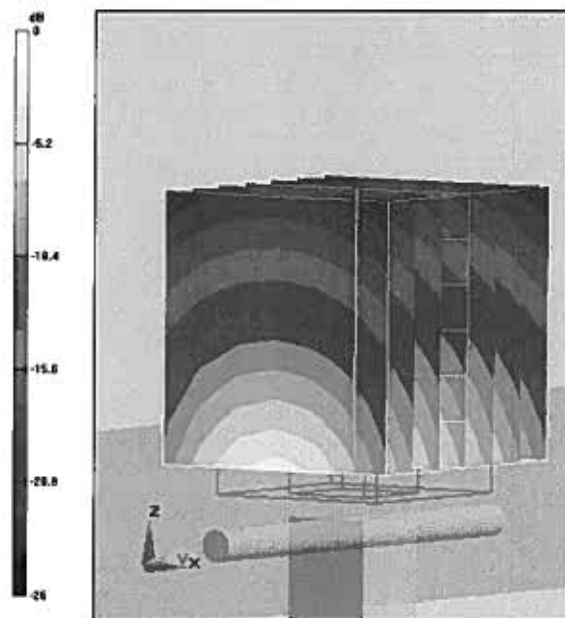
Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 93.1 V/m; Power Drift = 0.00372 dB

Peak SAR (extrapolated) = 26.6 W/kg

SAR(1 g) = 13.2 mW/g; SAR(10 g) = 6.19 mW/g

Maximum value of SAR (measured) = 16.5 mW/g



0 dB = 16.5mW/g

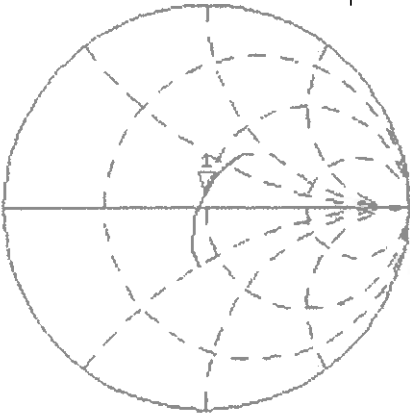
Impedance Measurement Plot for Body TSL

8 Jan 2009 09:24:58
[CH1] S11 1 U FS 1: 49.033 Ω 6.6719 Ω 433.41 pF 2 450.000 000 MHz

*
Del
Cor

Avg
16

↑

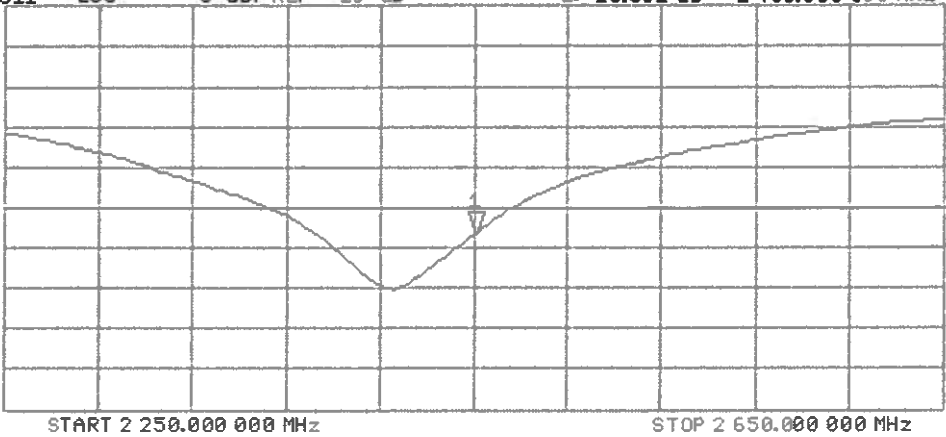


CH2 S11 LOG 5 dB/REF -20 dB 1: -23.362 dB 2 450.000 000 MHz

Cor

Avg
16

↑





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Accreditation No.: **SCS 108**

Client **RFI**

Certificate No: **D1900V2-540-Jun09**

CALIBRATION CERTIFICATE

Object **D1900V2 - SN: 540**

Calibration procedure(s) **QA CAL-05.v7
Calibration procedure for dipole validation kits**

Calibration date: **June 26, 2009**

Condition of the calibrated item **In Tolerance**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature $(22 \pm 3)^\circ\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	08-Oct-08 (No. 217-00898)	Oct-09
Power sensor HP 8481A	US37292783	08-Oct-08 (No. 217-00898)	Oct-09
Reference 20 dB Attenuator	SN: 5086 (20g)	31-Mar-09 (No. 217-01025)	Mar-10
Type-N mismatch combination	SN: 5047.2 / 06327	31-Mar-09 (No. 217-01029)	Mar-10
Reference Probe ES3DV2	SN: 3025	30-Apr-09 (No. ES3-3025_Apr09)	Apr-10
DAE4	SN: 601	07-Mar-09 (No. DAE4-601_Mar09)	Mar-10
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-07)	In house check: Oct-09
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-08)	In house check: Oct-09

Calibrated by: **Jeton Kastrati** **Laboratory Technician** *[Signature]*

Approved by: **Katja Pokovic** **Technical Manager** *[Signature]*

Issued: June 29, 2009

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Accreditation No.: **SCS 108**

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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- CENELEC EN 50361, "Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz), July 2001
- Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V5.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz \pm 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 \pm 0.2) °C	41.0 \pm 6 %	1.42 mho/m \pm 6 %
Head TSL temperature during test	(22.0 \pm 0.2) °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	condition	
SAR measured	250 mW input power	10.1 mW / g
SAR normalized	normalized to 1W	40.4 mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	40.3 mW / g \pm 17.0 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	5.29 mW / g
SAR normalized	normalized to 1W	21.2 mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	21.1 mW / g \pm 16.5 % (k=2)

¹ Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	53.3	1.52 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	53.9 ± 6 %	1.55 mho/m ± 6 %
Body TSL temperature during test	(21.2 ± 0.2) °C	---	---

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	10.3 mW / g
SAR normalized	normalized to 1W	41.2 mW / g
SAR for nominal Body TSL parameters ²	normalized to 1W	40.9 mW / g ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.40 mW / g
SAR normalized	normalized to 1W	21.6 mW / g
SAR for nominal Body TSL parameters ²	normalized to 1W	21.5 mW / g ± 16.5 % (k=2)

² Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	$48.5 \Omega + 2.7 j\Omega$
Return Loss	- 30.0 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	$44.9 \Omega + 2.8 j\Omega$
Return Loss	- 24.3 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.198 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	July 26, 2001

DASY5 Validation Report for Head TSL

Date/Time: 26.06.2009 12:43:03

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:540

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL U11 BB

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV2 - SN3025; ConvF(4.88, 4.88, 4.88); Calibrated: 30.04.2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 07.03.2009
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.4 Build 45

Pin = 250 mW; dip = 10 mm/Zoom Scan (dist=3.0 mm, probe 0deg) (7x7x7)/Cube 0:

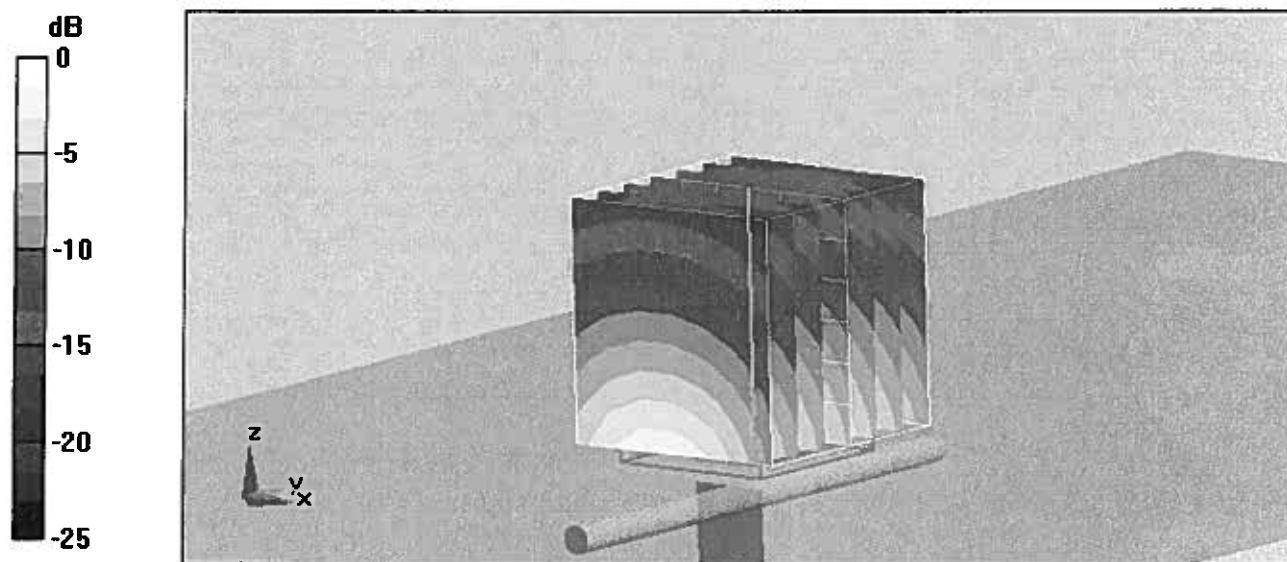
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 96.9 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 18.4 W/kg

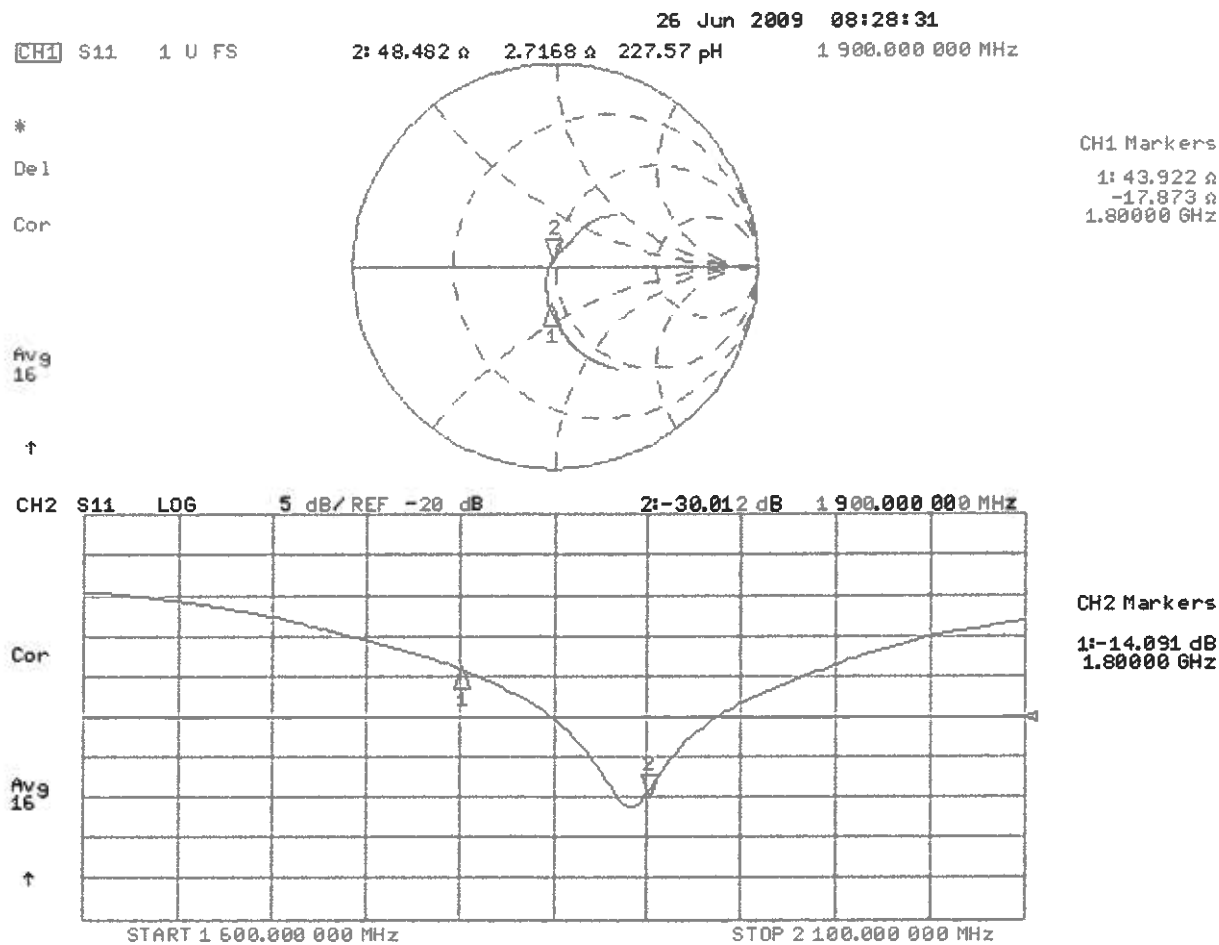
SAR(1 g) = 10.1 mW/g; SAR(10 g) = 5.29 mW/g

Maximum value of SAR (measured) = 12.5 mW/g



0 dB = 12.5mW/g

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date/Time: 26.06.2009 14:10:45

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:540

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: MSL U10 BB

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV2 - SN3025; ConvF(4.46, 4.46, 4.46); Calibrated: 30.04.2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 07.03.2009
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.4 Build 45

Pin = 250 mW; dip = 10 mm/Zoom Scan (dist=3.0mm, probe 0deg) (7x7x7)/Cube 0:

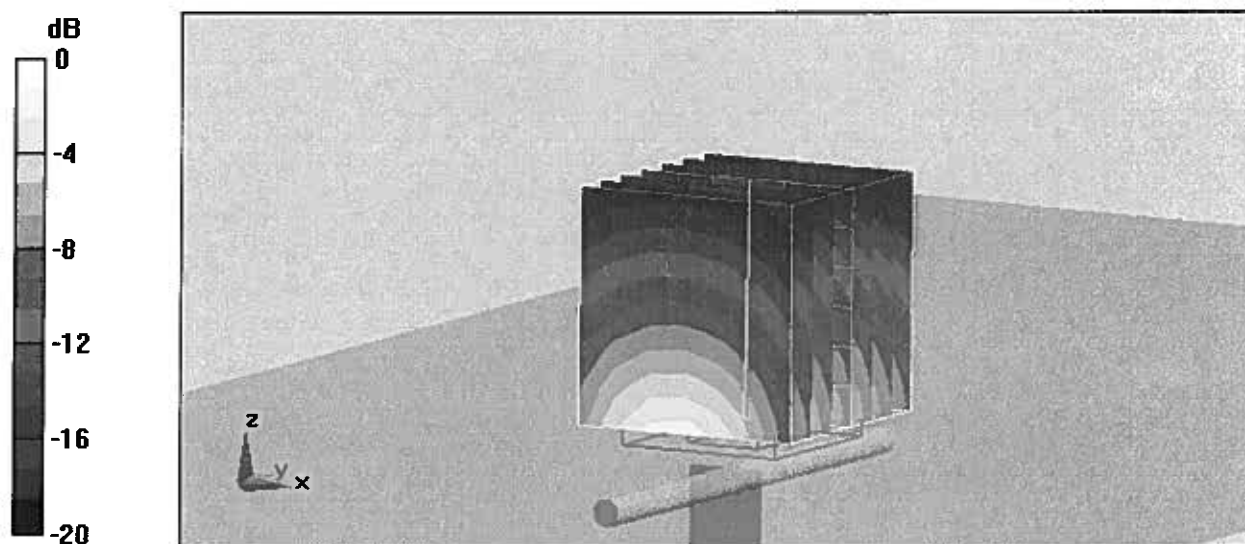
Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 95.1 V/m; Power Drift = 0.011 dB

Peak SAR (extrapolated) = 18.1 W/kg

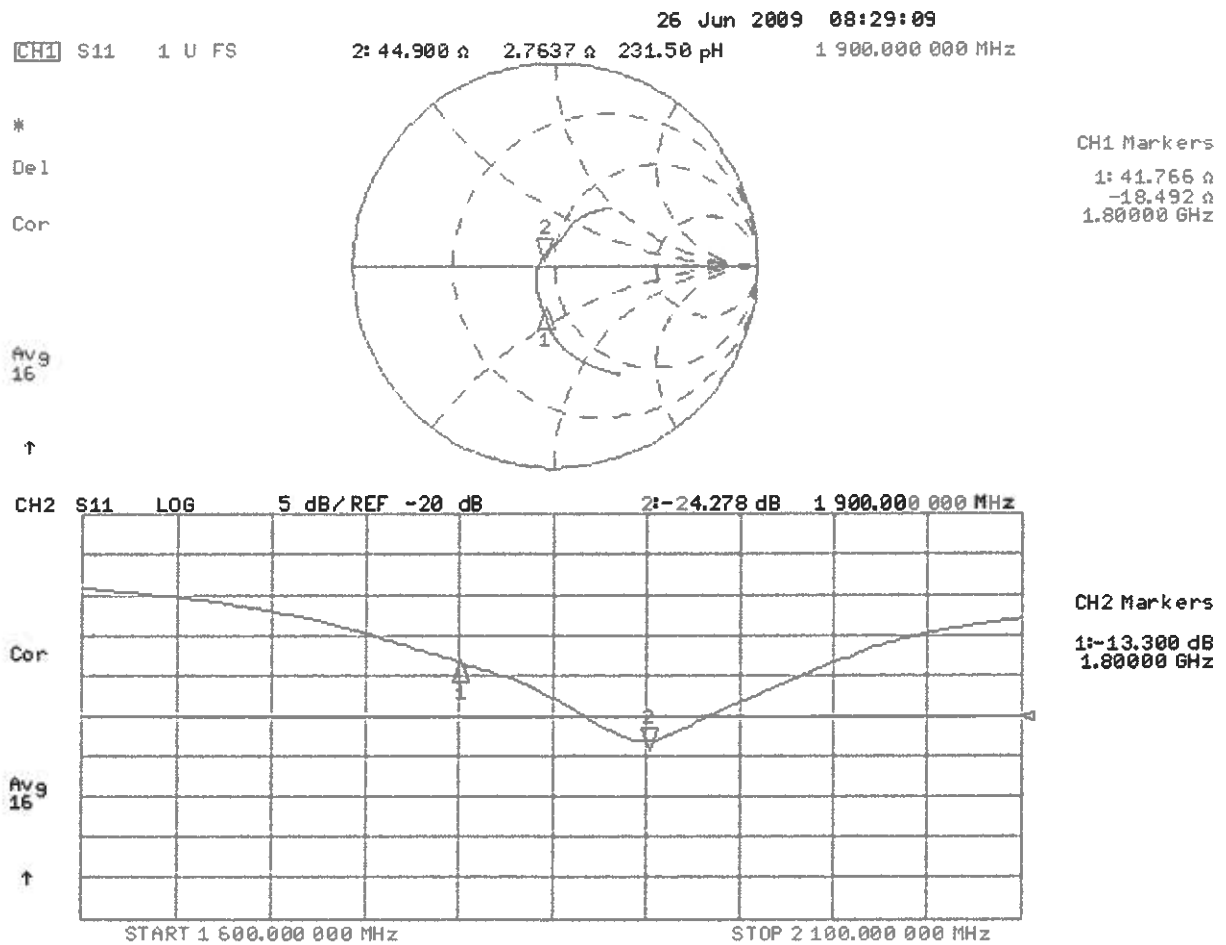
SAR(1 g) = 10.3 mW/g; SAR(10 g) = 5.4 mW/g

Maximum value of SAR (measured) = 12.9 mW/g



0 dB = 12.9mW/g

Impedance Measurement Plot for Body TSL



Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

Appendix 2. Measurement Methods

A.2.1. Evaluation Procedure

The Specific Absorption Rate (SAR) evaluation was performed in the following manner:

- a) (i) The evaluation was performed in an applicable area of the phantom depending on the type of device being tested. For devices worn about the ear during normal operation, both the left and right ear positions were evaluated at the centre frequency of the band at maximum power. The side, which produced the greatest SAR, determined which side of the phantom would be used for the entire evaluation. The positioning of the head worn device relative to the phantom was dictated by the test specification identified in section 3.1 of this report.

(ii) For body worn devices or devices which can be operated within 20 cm of the body, the flat section of the SAM phantom was used where the size of the device(s) is normal. For bigger devices and base station the 2mm Oval phantom is used for evaluation. The type of device being evaluated dictated the distance of the EUT to the outer surface of the phantom flat section.
 - b) The SAR was determined by a pre-defined procedure within the DASY4 software. The exposed region of the phantom was scanned near the inner surface with a grid spacing of 20mm x 20mm or appropriate resolution.
 - c) A 5x5x7 matrix was performed around the greatest spatial SAR distribution found during the area scan of the applicable exposed region. SAR values were then calculated using a 3-D spline interpolation algorithm and averaged over spatial volumes of 1 and 10 grams.
 - d) If the EUT had any appreciable drift over the course of the evaluation, then the EUT was re-evaluated. Any unusual anomalies over the course of the test also warranted a re-evaluation.
-

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

A.2.2. Specific Absorption Rate (SAR) Measurements to OET Bulletin 65 Supplement C: (2001-01)

Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields

SAR measurements were performed in accordance with Appendix D of the standard FCC OET Bulletin 65 Supplement C: 2001, against appropriate limits for each measurement position in accordance with the standard.

The test was performed in a shielded enclosure with the temperature controlled to remain between +18.0°C and +25.0°C. The tissue equivalent material fluid temperature was controlled to give a maximum variation of $\pm 2.0^\circ\text{C}$

Prior to any SAR measurements on the EUT, system validation and material dielectric property measurements were conducted. In the absence of a detailed procedure within the specification, system validation and material dielectric property measurements were performed in accordance with Appendix C and Appendix D of FCC OET Bulletin 65 Supplement C: 2001.

Following the successful system validation and material dielectric property measurements, a SAR versus time sweep shall be performed within 10 mm of the phantom inner surface. If the EUT power output is stable after three minutes then the measurement probe will perform a coarse surface level scan at each test position in order to ascertain the location of the maximum local SAR level. Once this area had been established, a 5x5x7 cube of 343 points (5 mm spacing in each axis $\approx 27\text{g}$) will be centred at the area of concern. Extrapolation and interpolation will then be carried out on the 27g of tissue and the highest averaged SAR over a 10g cube determined.

Once the maximum interpolated SAR measurement is complete; the coarse scan is visually assessed to check for secondary peaks within 50% of the maximum SAR level. If there are any further SAR measurements required, extra 5x5x7 cubes shall be centred on each of these extra local SAR maxima.

At the end of each position test case a second time sweep shall be performed to check whether the EUT has remained stable throughout the test.

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

Appendix 3. SAR Distribution Scans

This appendix contains SAR distribution scans which are not included in the total number of pages for this report.

Scan Reference Number	Title
SCN/77768JD11/001	Touch Left With Antenna Retracted PCS CH660
SCN/77768JD11/002	Touch Left With Antenna Extended PCS CH660
SCN/77768JD11/003	Tilt Left With Antenna Retracted PCS CH660
SCN/77768JD11/004	Tilt Left With Antenna Extended PCS CH660
SCN/77768JD11/005	Touch Right Using Flat Section With Antenna Retracted PCS CH660
SCN/77768JD11/006	Touch Right Using Flat Section With Antenna Extended PCS CH660
SCN/77768JD11/007	Tilt Right With Antenna Retracted PCS CH660
SCN/77768JD11/008	Tilt Right With Antenna Extended PCS CH660
SCN/77768JD11/009	Front of EUT Facing Phantom With Antenna Retracted GPRS CH660
SCN/77768JD11/010	Front of EUT Facing Phantom With Antenna Extended GPRS CH660
SCN/77768JD11/011	Rear of EUT Facing Phantom With Antenna Retracted GPRS CH660
SCN/77768JD11/012	Rear of EUT Facing Phantom With Antenna Extended GPRS CH660
SCN/77768JD11/013	EUT Screen Swivel Closed & Display Facing Phantom With Antenna Retracted GPRS CH660
SCN/77768JD11/014	EUT Screen Swivel Closed & Display Facing Phantom With Antenna Extended GPRS CH660
SCN/77768JD11/015	EUT Screen Swivel Closed & Rear Facing Phantom With Antenna Retracted GPRS CH660
SCN/77768JD11/016	EUT Screen Swivel Closed & Rear Facing Phantom With Antenna Extended GPRS CH660
SCN/77768JD11/017	Rear of EUT Facing Phantom With Antenna Retracted With PHF GPRS CH660
SCN/77768JD11/018	Rear of EUT Facing Phantom With Antenna Retracted PCS CH660
SCN/77768JD11/019	Front of EUT Facing Phantom With Antenna Retracted WiFi802.11b CH6 1Mbps
SCN/77768JD11/020	Front of EUT Facing Phantom With Antenna Extended WiFi802.11b CH6 1Mbps
SCN/77768JD11/021	Rear of EUT Facing Phantom With Antenna Retracted WiFi802.11b CH6 1Mbps
SCN/77768JD11/022	Rear of EUT Facing Phantom With Antenna Extended WiFi802.11b CH6 1Mbps
SCN/77768JD11/023	EUT Screen Swivel Closed & Display Facing Phantom With Antenna Retracted WiFi802.11b CH6 1 Mbps
SCN/77768JD11/024	EUT Screen Swivel Closed & Display Facing Phantom With Antenna Extended WiFi802.11b CH6 1 Mbps
SCN/77768JD11/025	EUT Screen Swivel Closed & Rear Facing Phantom With Antenna Retracted WiFi802.11b CH6 1 Mbps

Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

Scan Reference Number	Title
SCN/77768JD11/026	EUT Screen Swivel Closed & Rear Facing Phantom With Antenna Extended WiFi802.11b CH6 1 Mbps
SCN/77768JD11/027	Rear of EUT Facing Phantom With Antenna Retracted With PHF WiFi802.11b CH6 1Mbps
SCN/77768JD11/028	Rear of EUT Facing Phantom With Antenna Retracted WiFi802.11g CH6 6Mbps
SCN/77768JD11/029	Rear of EUT Facing Phantom With Antenna Retracted WiFi802.11b CH11 11Mbps
SCN/77768JD11/030	Rear of EUT Facing Phantom With Antenna Retracted WiFi802.11g CH11 54Mbps
SCN/77768JD11/031	System Performance Check 1900MHz Head 24 05 10
SCN/77768JD11/032	System Performance Check 1900MHz Body 25 05 10
SCN/77768JD11/033	System Performance Check 2450MHz Body 26 05 10
SCN/77768JD11/034	System Performance Check 2450MHz Body 27 05 10

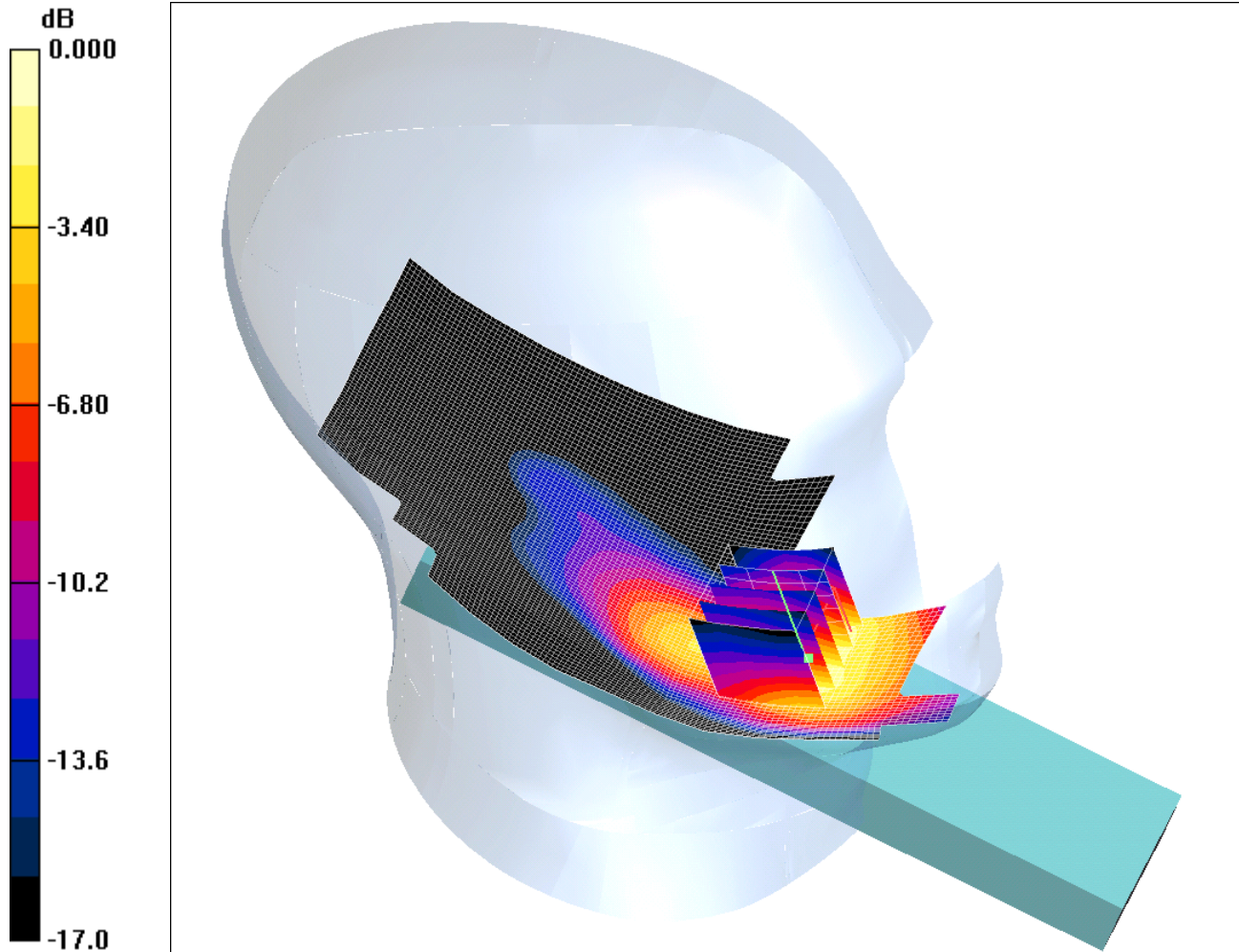
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/001: Touch Left With Antenna Retracted PCS CH660

Date 24/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.618mW/g

Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.58, 8.58, 8.58); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Touch Left - Middle/Area Scan (81x181x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.677 mW/g

Touch Left - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.72 V/m; Power Drift = -0.143 dB

Peak SAR (extrapolated) = 0.903 W/kg

SAR(1 g) = 0.548 mW/g; SAR(10 g) = 0.305 mW/g

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

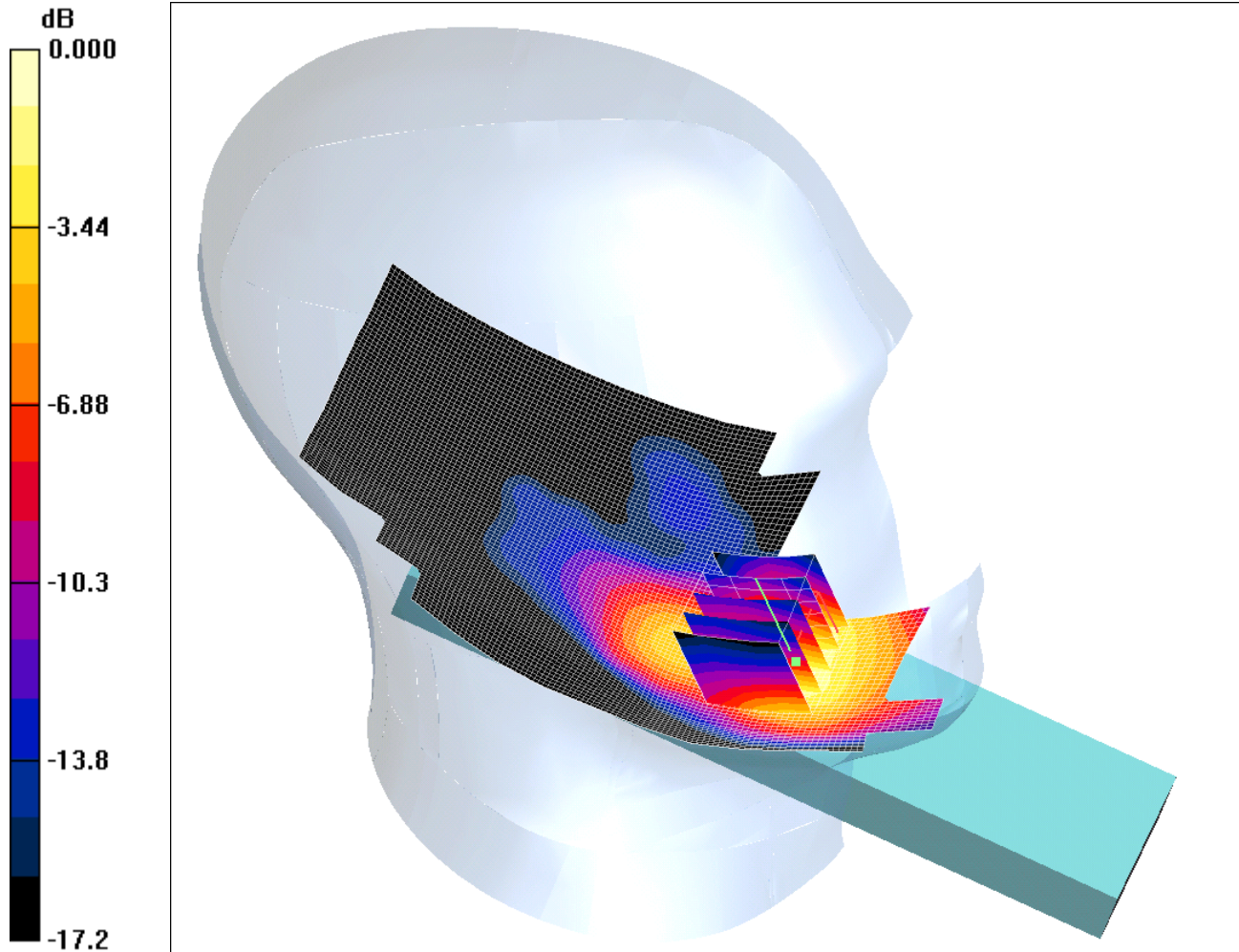
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/002: Touch Left With Antenna Extended PCS CH660

Date 24/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.650mW/g

Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.58, 8.58, 8.58); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Touch Left - Middle/Area Scan (81x181x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.716 mW/g

Touch Left - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.09 V/m; Power Drift = 0.330 dB

Peak SAR (extrapolated) = 0.995 W/kg

SAR(1 g) = 0.582 mW/g; SAR(10 g) = 0.321 mW/g

Maximum value of SAR (measured) = 0.650 mW/g

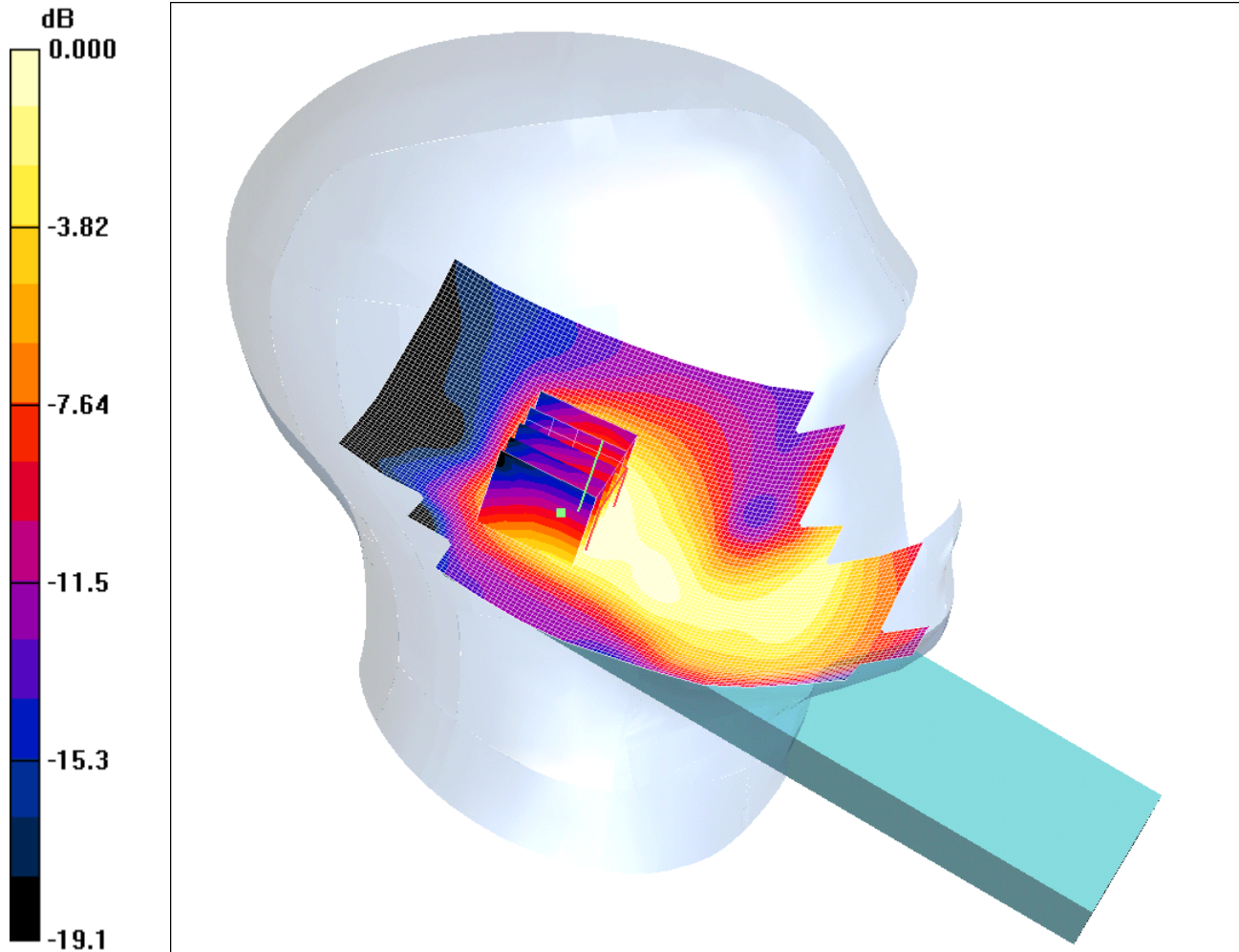
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/003: Tilt Left With Antenna Retracted PCS CH660

Date 24/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.075mW/g

Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.58, 8.58, 8.58); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt Left - Middle/Area Scan (81x181x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.076 mW/g

Tilt Left - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.47 V/m; Power Drift = 0.092 dB

Peak SAR (extrapolated) = 0.115 W/kg

SAR(1 g) = 0.071 mW/g; SAR(10 g) = 0.044 mW/g

Maximum value of SAR (measured) = 0.075 mW/g

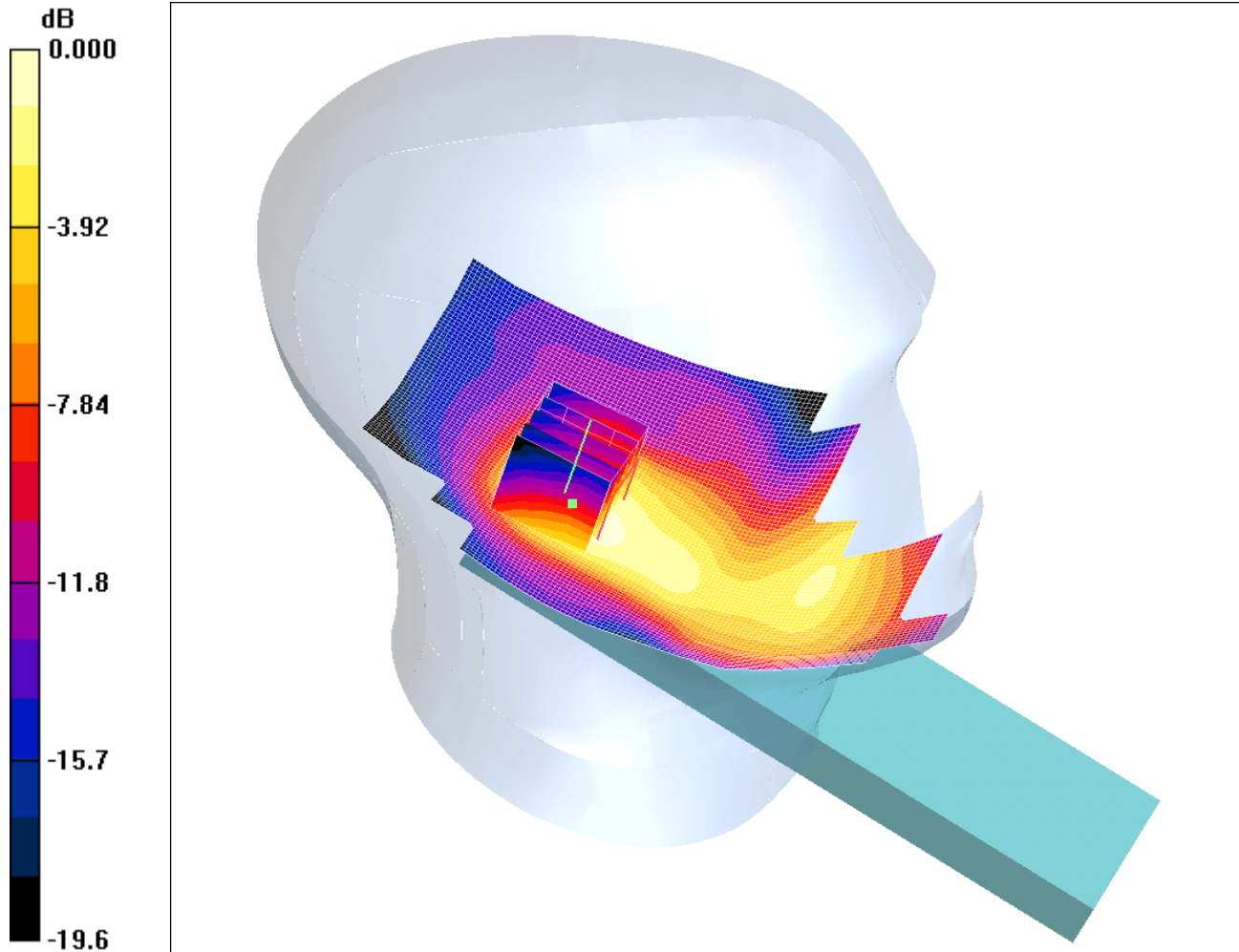
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/004: Tilt Left With Antenna Extended PCS CH660

Date 24/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.097mW/g

Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.58, 8.58, 8.58); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt Left - Middle/Area Scan (81x181x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.101 mW/g

Tilt Left - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.42 V/m; Power Drift = 0.153 dB

Peak SAR (extrapolated) = 0.148 W/kg

SAR(1 g) = 0.092 mW/g; SAR(10 g) = 0.054 mW/g

Maximum value of SAR (measured) = 0.097 mW/g

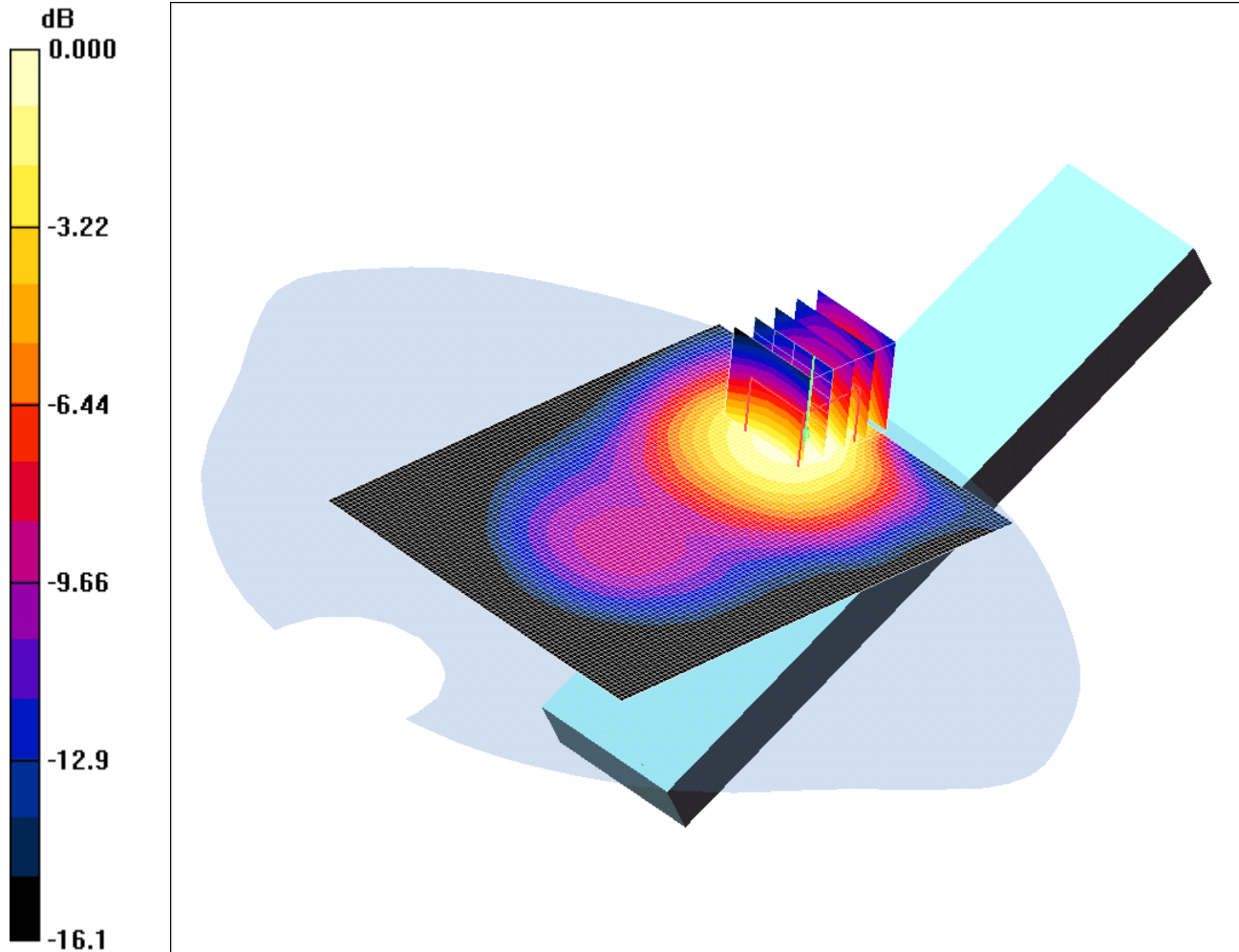
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/005: Touch Right Using Flat Section With Antenna Retracted PCS CH660

Date 24/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.248mW/g

Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.58, 8.58, 8.58); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Touch Right Using Flat Section - Middle/Area Scan (81x131x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.265 mW/g

Touch Right Using Flat Section - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.56 V/m; Power Drift = 0.262 dB

Peak SAR (extrapolated) = 0.386 W/kg

SAR(1 g) = 0.237 mW/g; SAR(10 g) = 0.140 mW/g

Maximum value of SAR (measured) = 0.248 mW/g

Note: Some points in the 'Right Touch' position could not be fully evaluated therefore the zoom scan was unable to fully enclose the peak SAR location as required by IEEE 1528 and OET Bulletin 65 Supplement C. This scan is repeated in the Mouth / Jaw configuration on the SAM phantom flat section as per KDB 648474 D01.

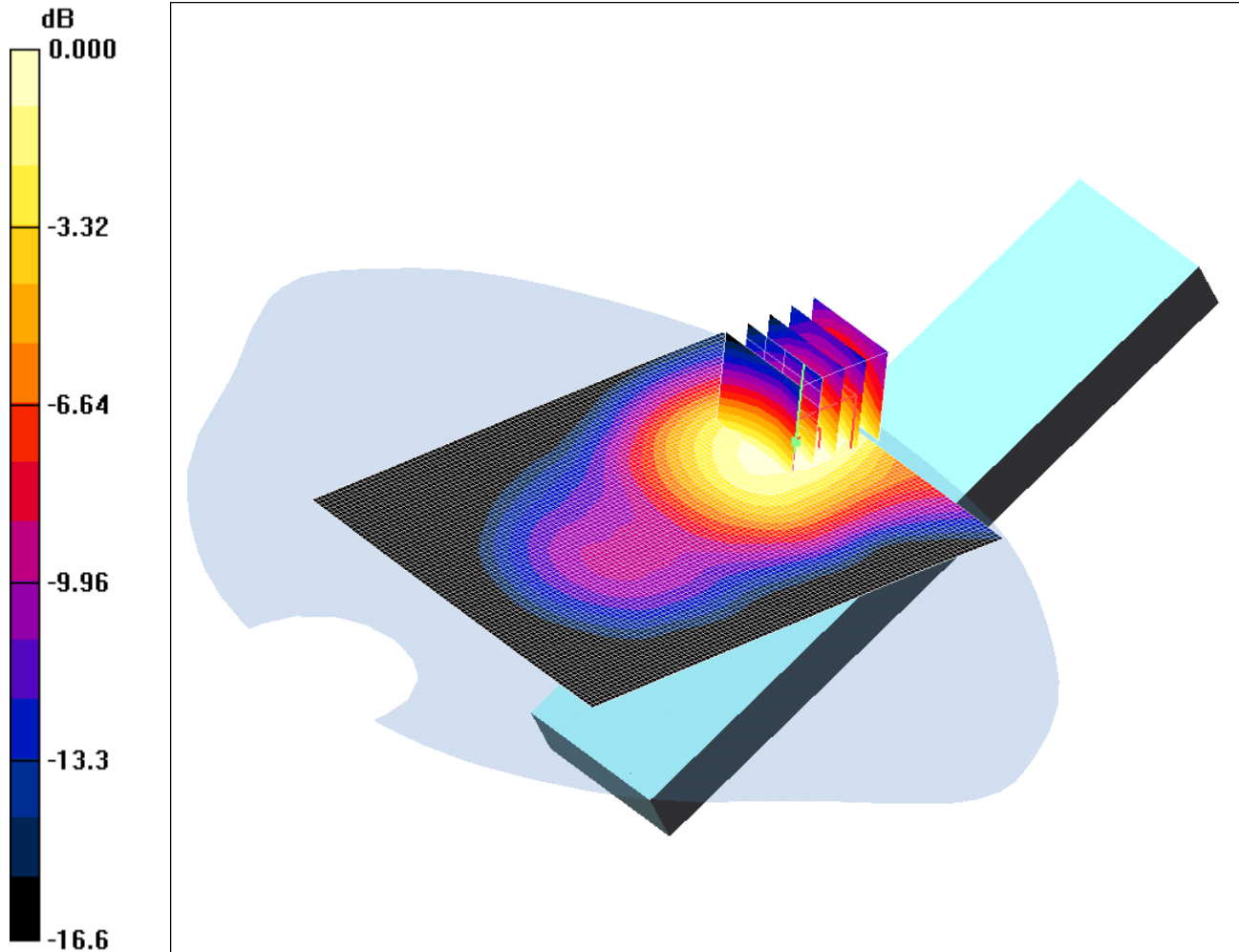
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/006: Touch Right Using Flat Section With Antenna Extended PCS CH660

Date 24/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.241mW/g

Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.58, 8.58, 8.58); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Touch Right Using Flat Section - Middle/Area Scan (81x131x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.246 mW/g

Touch Right Using Flat Section - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.22 V/m; Power Drift = 0.044 dB

Peak SAR (extrapolated) = 0.367 W/kg

SAR(1 g) = 0.228 mW/g; SAR(10 g) = 0.137 mW/g

Maximum value of SAR (measured) = 0.241 mW/g

Note: Some points in the 'Right Touch' position could not be fully evaluated therefore the zoom scan was unable to fully enclose the peak SAR location as required by IEEE 1528 and OET Bulletin 65 Supplement C. This scan is repeated in the Mouth / Jaw configuration on the SAM phantom flat section as per KDB 648474 D01.

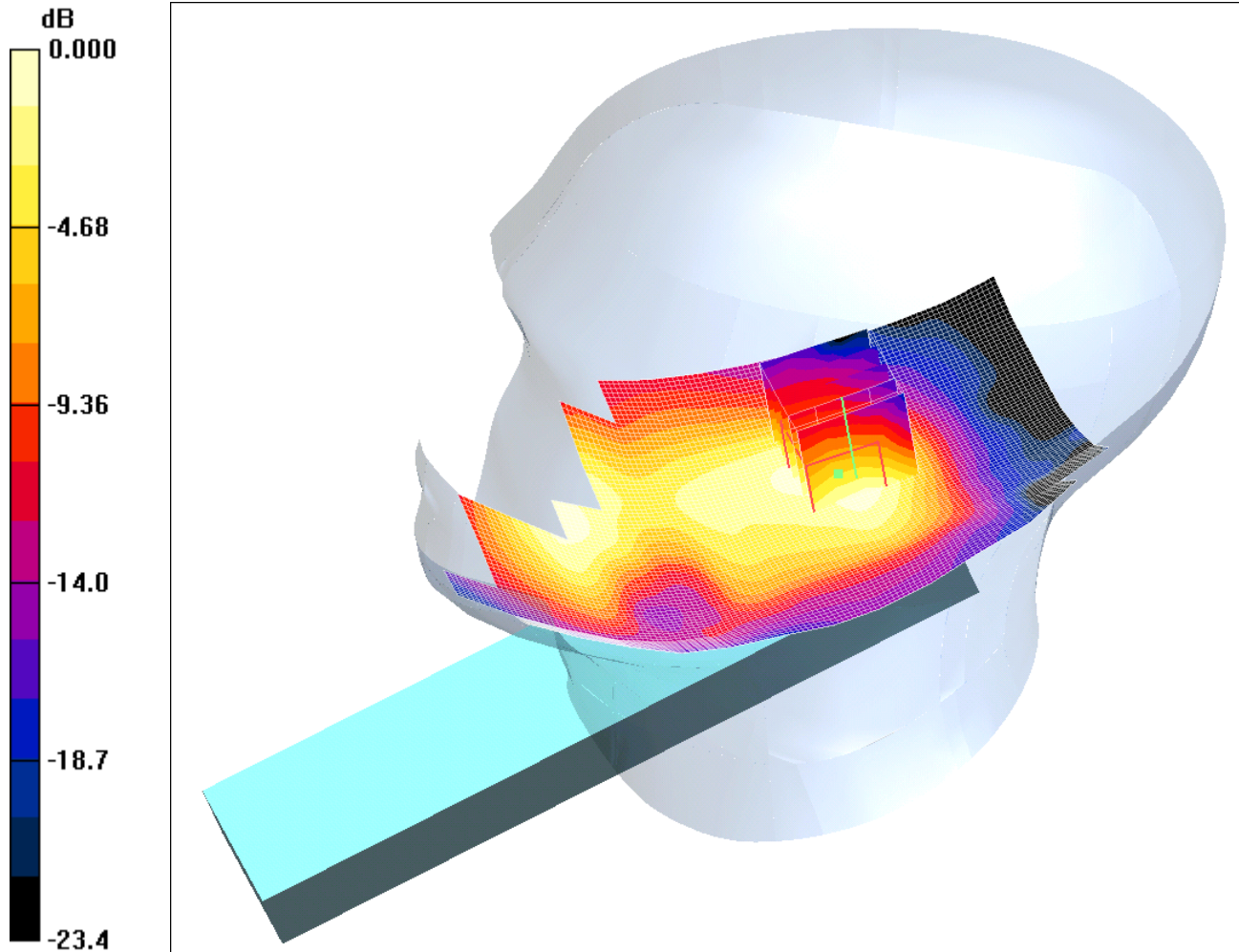
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/007: Tilt Right With Antenna Retracted PCS CH660

Date 24/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.082mW/g

Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.58, 8.58, 8.58); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt Right - Middle/Area Scan (81x181x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.082 mW/g

Tilt Right - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.48 V/m; Power Drift = 0.342 dB

Peak SAR (extrapolated) = 0.121 W/kg

SAR(1 g) = 0.075 mW/g; SAR(10 g) = 0.044 mW/g

Maximum value of SAR (measured) = 0.082 mW/g

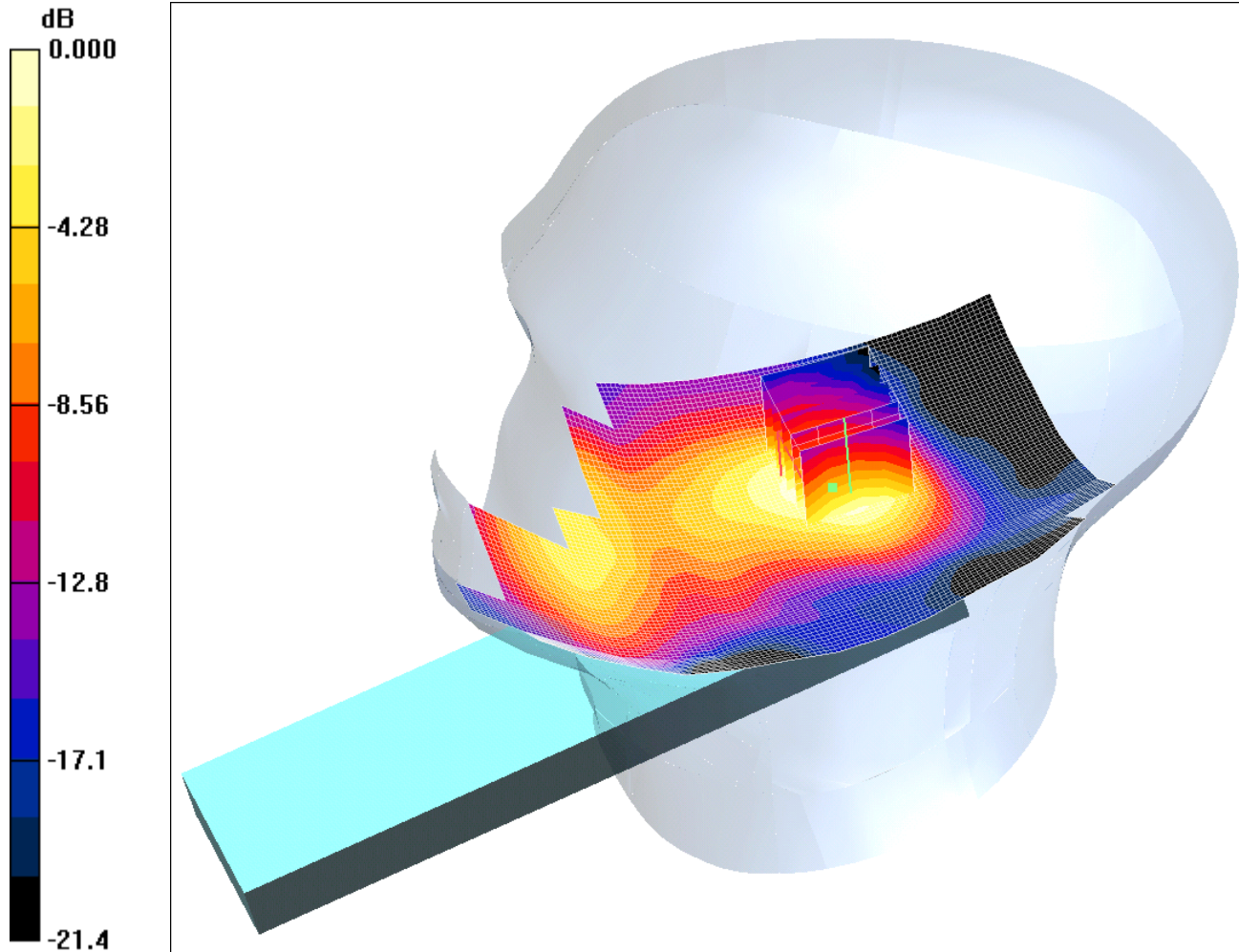
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/008: Tilt Right With Antenna Extended PCS CH660

Date 24/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.121mW/g

Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.58, 8.58, 8.58); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt Right - Middle/Area Scan (81x181x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.125 mW/g

Tilt Right - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.61 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 0.177 W/kg

SAR(1 g) = 0.111 mW/g; SAR(10 g) = 0.064 mW/g

Maximum value of SAR (measured) = 0.121 mW/g

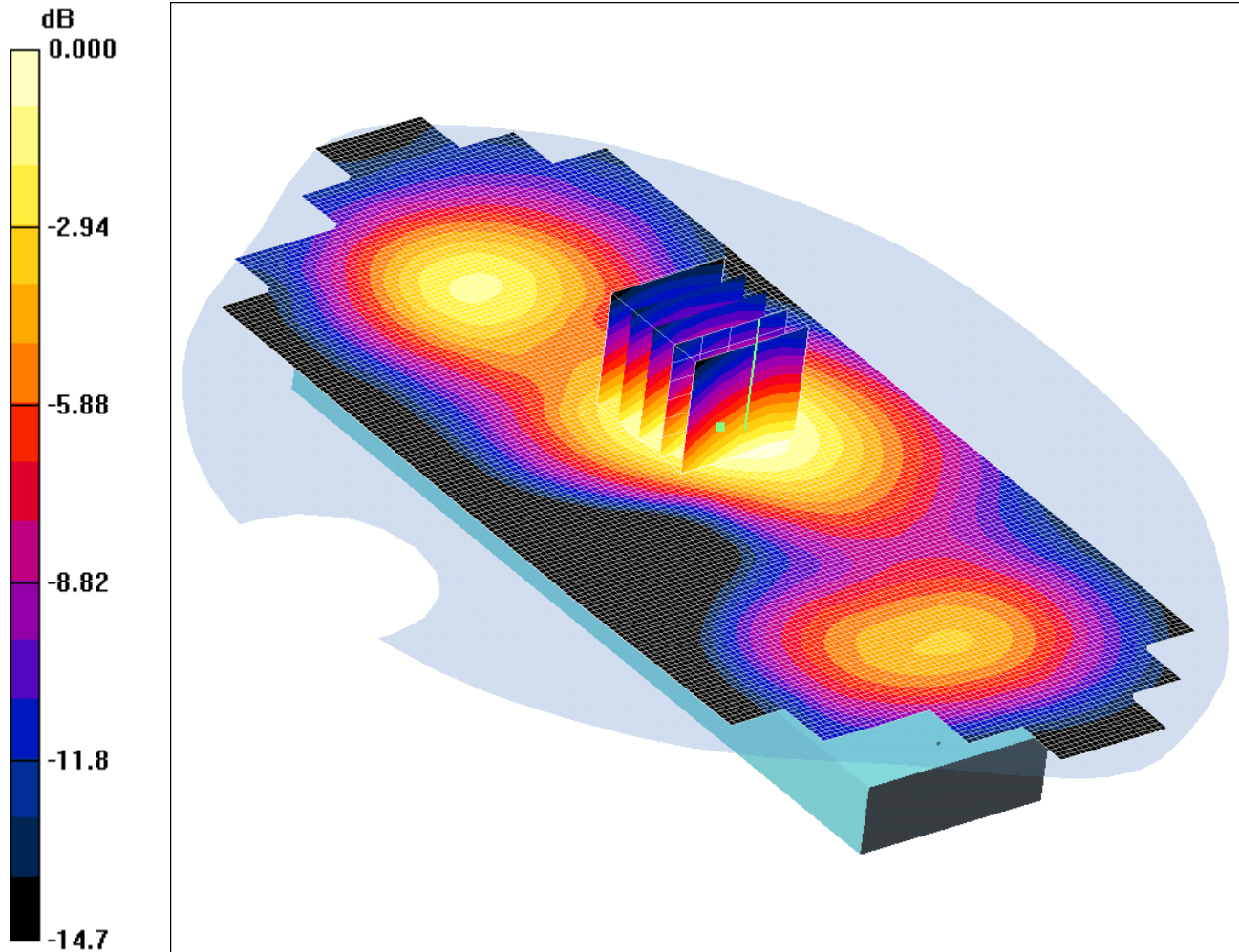
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/009: Front of EUT Facing Phantom With Antenna Retracted GPRS CH660

Date 25/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.158mW/g

Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.23, 8.23, 8.23); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Front of EUT Facing Phantom - Middle/Area Scan (81x191x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.162 mW/g

Front of EUT Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.56 V/m; Power Drift = 0.113 dB

Peak SAR (extrapolated) = 0.231 W/kg

SAR(1 g) = 0.149 mW/g; SAR(10 g) = 0.094 mW/g

Maximum value of SAR (measured) = 0.158 mW/g

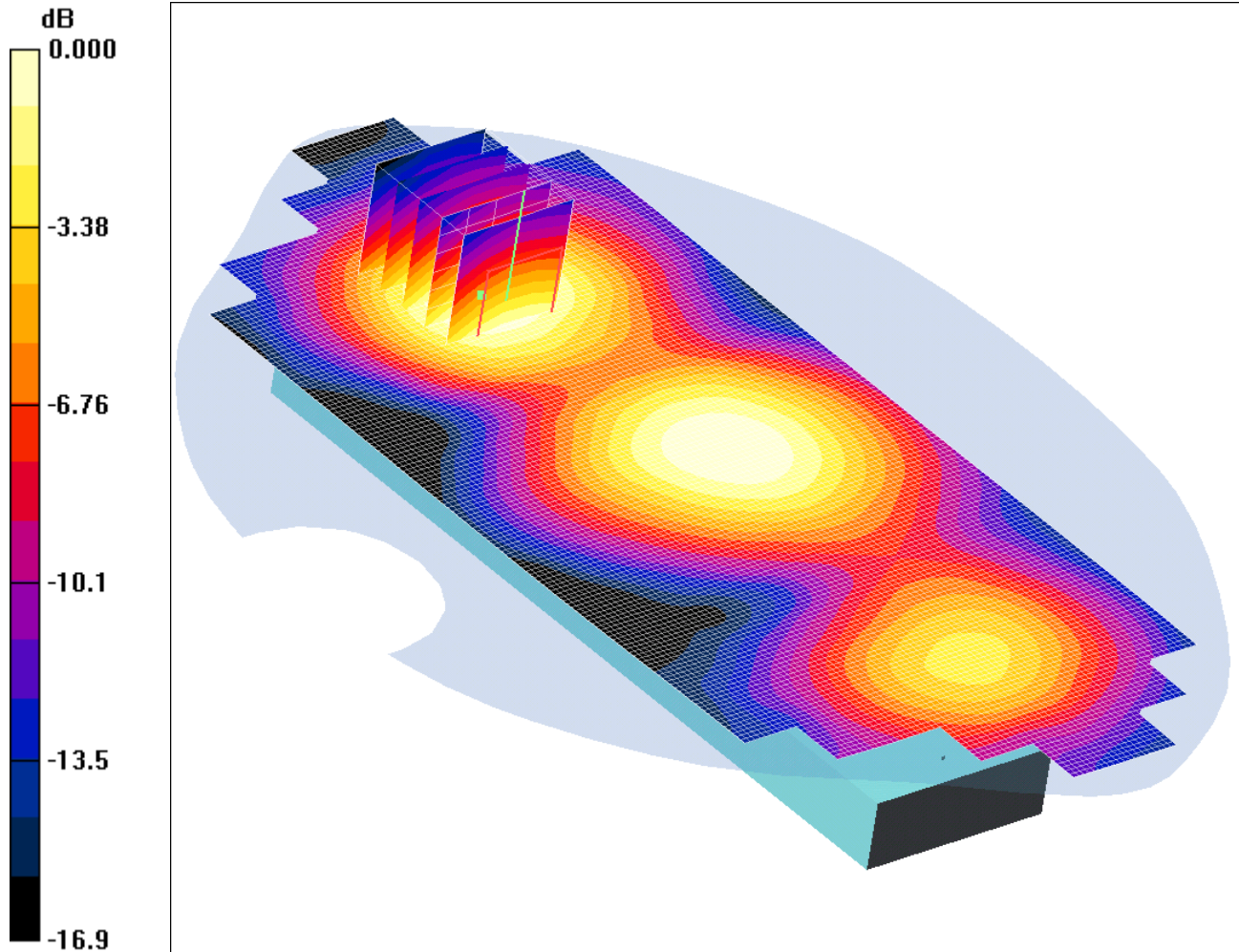
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/010: Front of EUT Facing Phantom With Antenna Extended GPRS CH660

Date 25/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.167mW/g

Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.23, 8.23, 8.23); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Front of EUT Facing Phantom - Middle/Area Scan (81x191x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.177 mW/g

Front of EUT Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.34 V/m; Power Drift = 0.063 dB

Peak SAR (extrapolated) = 0.243 W/kg

SAR(1 g) = 0.160 mW/g; SAR(10 g) = 0.100 mW/g

Maximum value of SAR (measured) = 0.167 mW/g

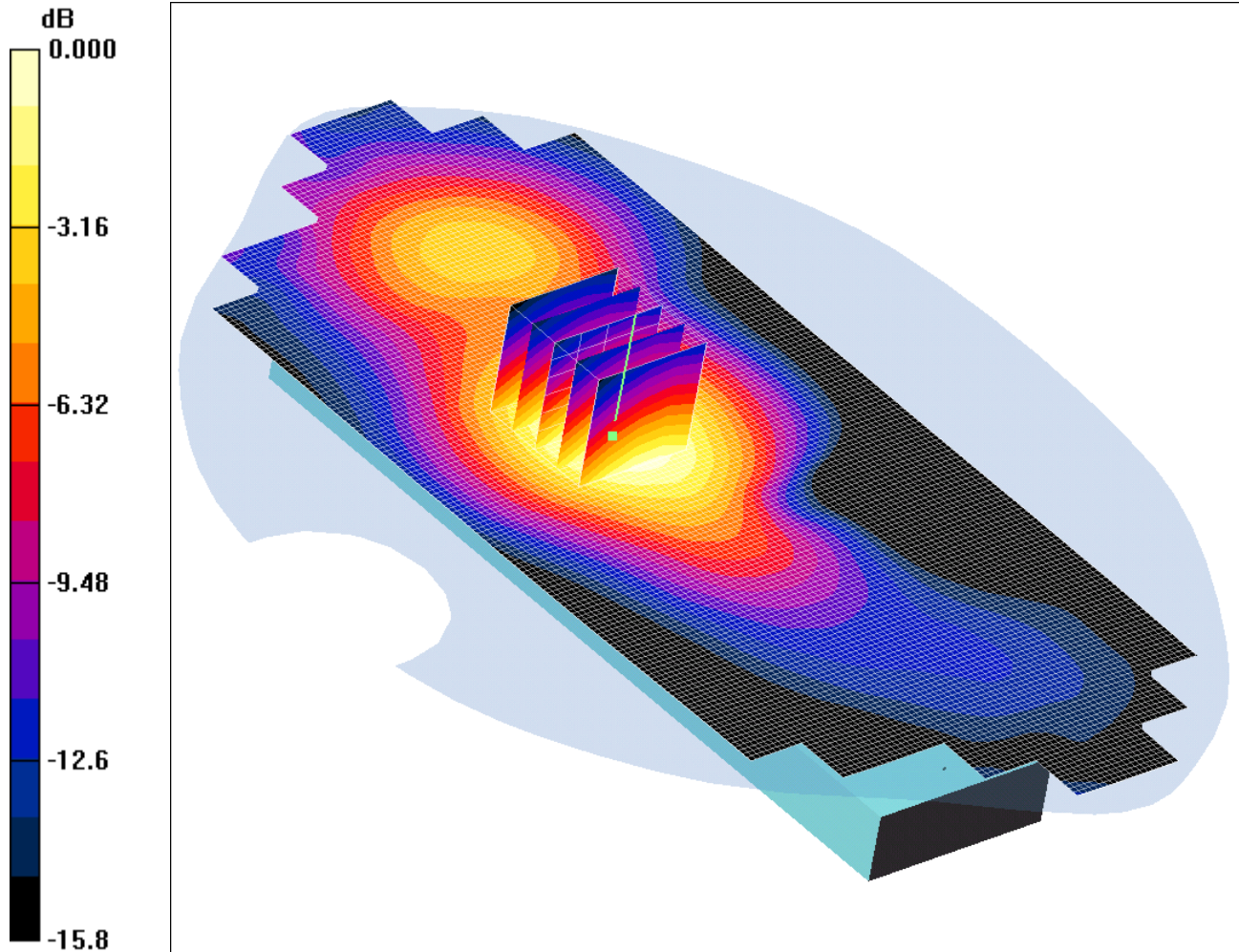
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/011: Rear of EUT Facing Phantom With Antenna Retracted GPRS CH660

Date 25/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.300mW/g

Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.23, 8.23, 8.23); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Rear of EUT Facing Phantom - Middle/Area Scan (81x191x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.311 mW/g

Rear of EUT Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.7 V/m; Power Drift = -0.055 dB

Peak SAR (extrapolated) = 0.457 W/kg

SAR(1 g) = 0.286 mW/g; SAR(10 g) = 0.176 mW/g

Maximum value of SAR (measured) = 0.300 mW/g

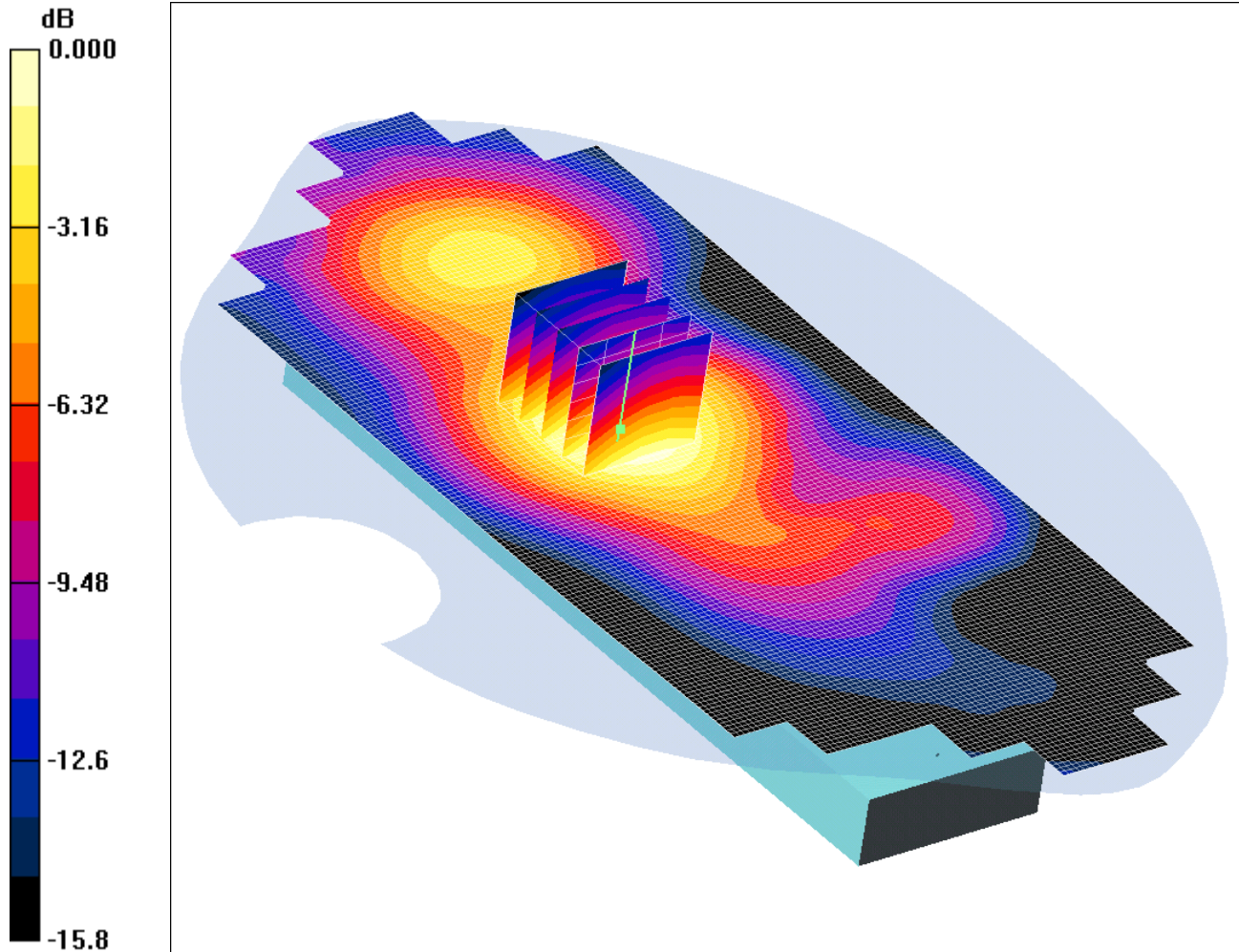
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/012: Rear of EUT Facing Phantom With Antenna Extended GPRS CH660

Date 25/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.290mW/g

Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.23, 8.23, 8.23); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Rear of EUT Facing Phantom - Middle/Area Scan (81x191x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.305 mW/g

Rear of EUT Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.4 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 0.434 W/kg

SAR(1 g) = 0.279 mW/g; SAR(10 g) = 0.172 mW/g

Maximum value of SAR (measured) = 0.290 mW/g

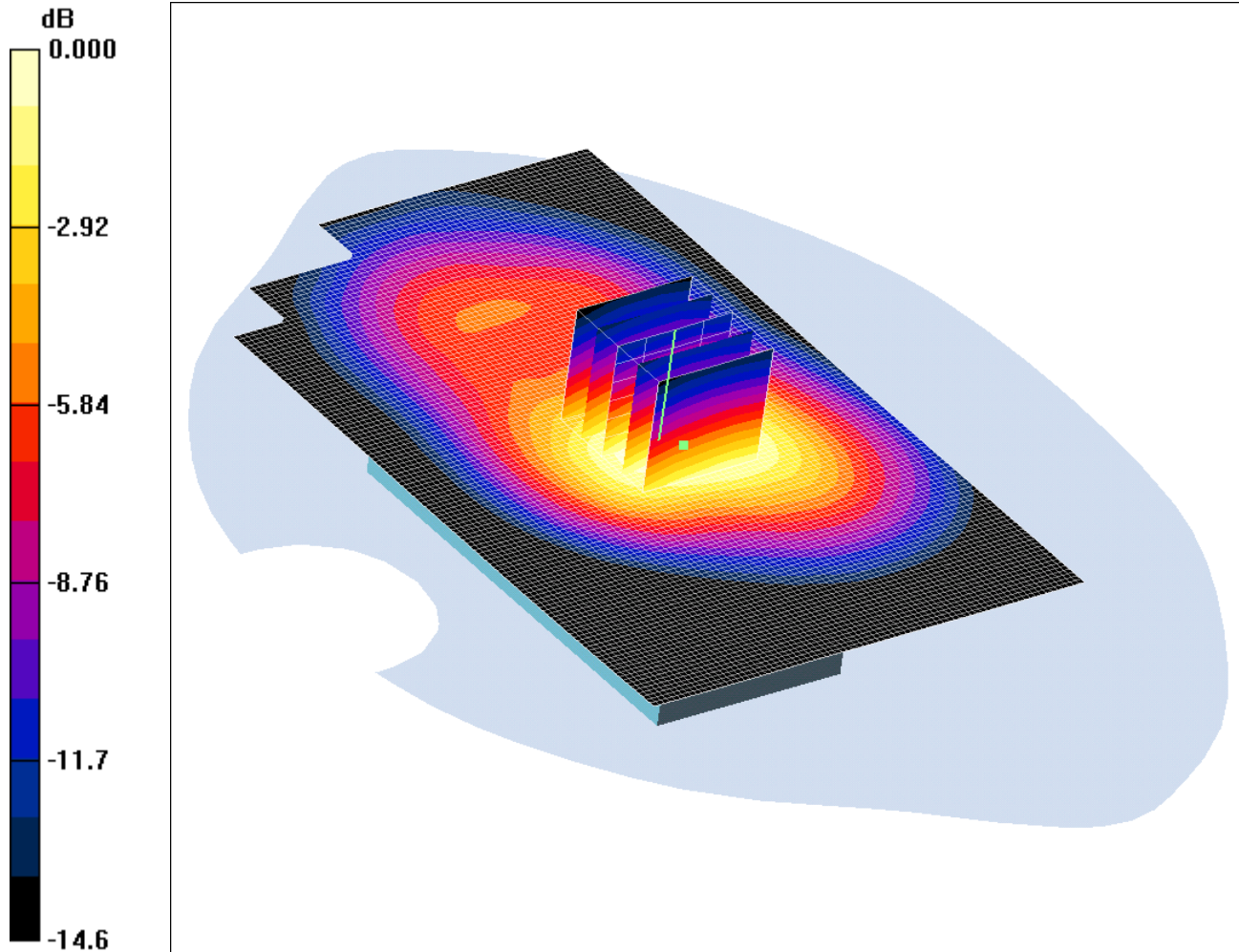
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/013: EUT Screen Swivel Closed & Display Facing Phantom With Antenna Retracted GPRS CH660

Date 25/05/2010

DUT: Panasonic 942P; Type: 942p (Sample C6); Serial: 004401220967141



0 dB = 0.273mW/g

Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.23, 8.23, 8.23); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

EUT Screen Swivel Closed & Display Facing Phantom - Middle/Area Scan (81x131x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.280 mW/g

EUT Screen Swivel Closed & Display Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.1 V/m; Power Drift = 0.058 dB

Peak SAR (extrapolated) = 0.410 W/kg

SAR(1 g) = 0.260 mW/g; SAR(10 g) = 0.159 mW/g

Maximum value of SAR (measured) = 0.273 mW/g

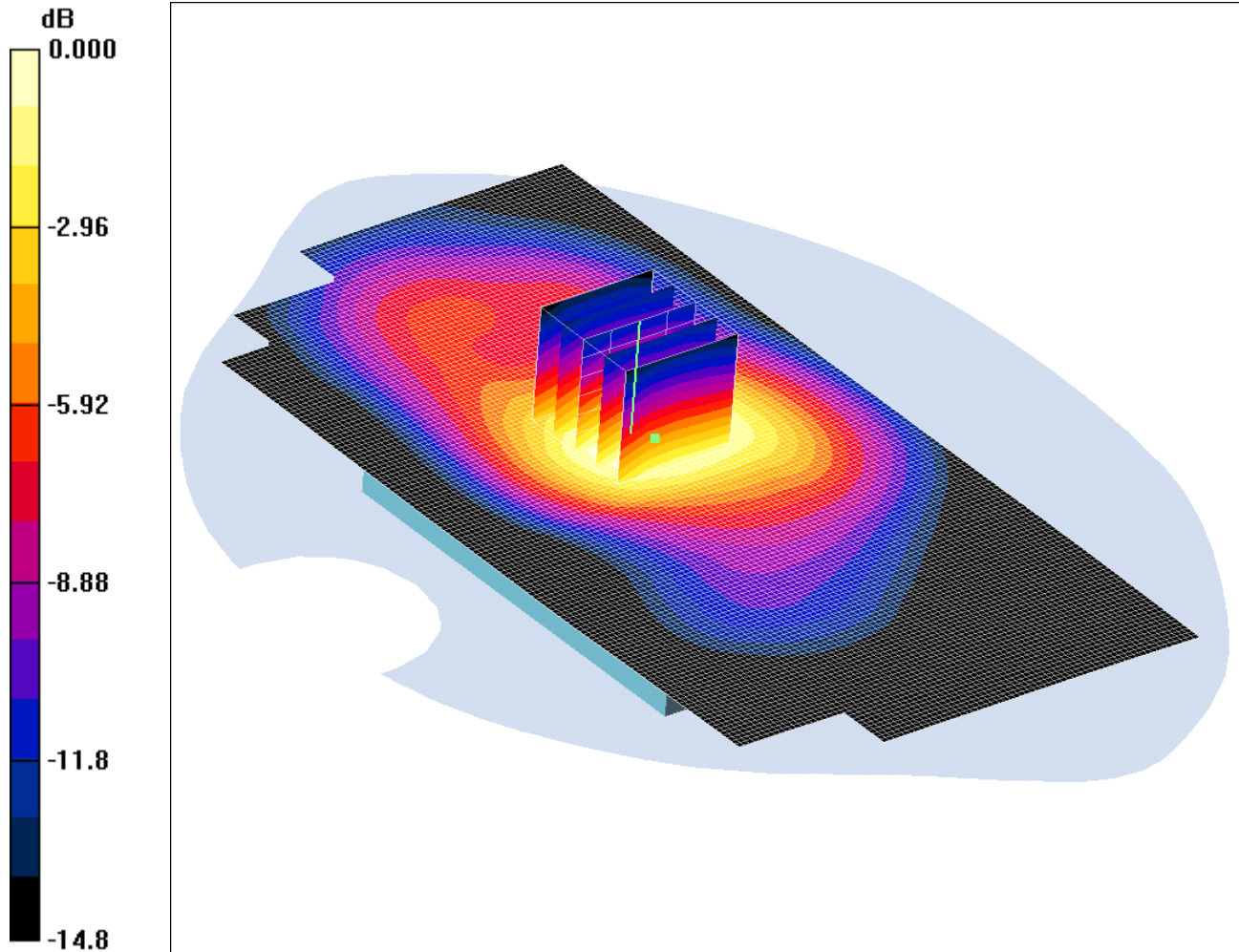
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/014: EUT Screen Swivel Closed & Display Facing Phantom With Antenna Extended GPRS CH660

Date 25/05/2010

DUT: Panasonic 942P; Type: 942p (Sample C6); Serial: 004401220967141



0 dB = 0.234mW/g

Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.23, 8.23, 8.23); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

EUT Screen Swivel Closed & Display Facing Phantom - Middle/Area Scan (81x161x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.245 mW/g

EUT Screen Swivel Closed & Display Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.89 V/m; Power Drift = -0.031 dB

Peak SAR (extrapolated) = 0.355 W/kg

SAR(1 g) = 0.223 mW/g; SAR(10 g) = 0.137 mW/g

Maximum value of SAR (measured) = 0.234 mW/g

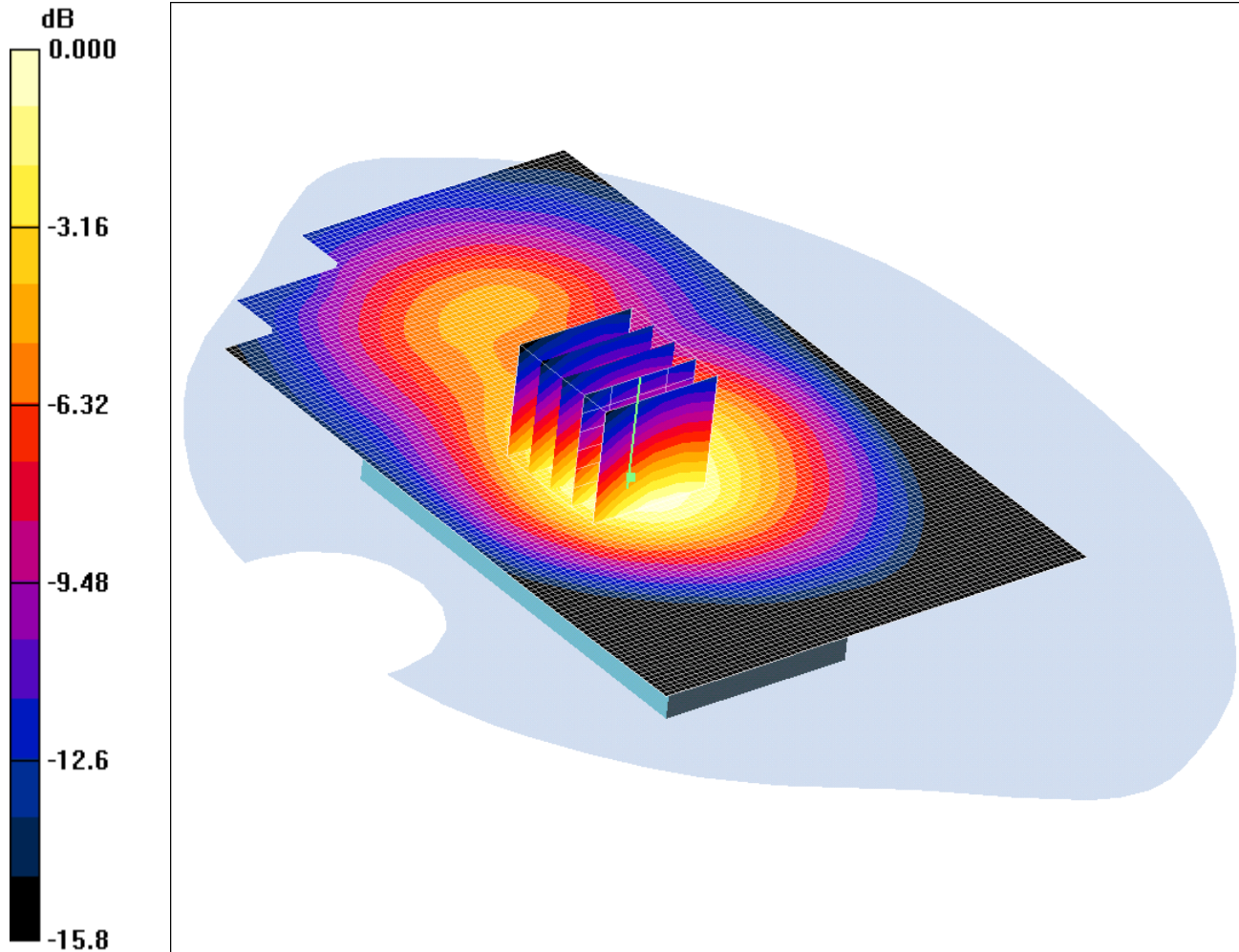
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/015: EUT Screen Swivel Closed & Rear Facing Phantom With Antenna Retracted GPRS CH660

Date 25/05/2010

DUT: Panasonic 942P; Type: 942p (Sample C6); Serial: 004401220967141



0 dB = 0.234mW/g

Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.23, 8.23, 8.23); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

EUT Screen Swivel Closed & Rear Facing Phantom - Middle/Area Scan (81x131x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.247 mW/g

EUT Screen Swivel Closed & Rear Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.0 V/m; Power Drift = 0.021 dB

Peak SAR (extrapolated) = 0.356 W/kg

SAR(1 g) = 0.223 mW/g; SAR(10 g) = 0.137 mW/g

Maximum value of SAR (measured) = 0.234 mW/g

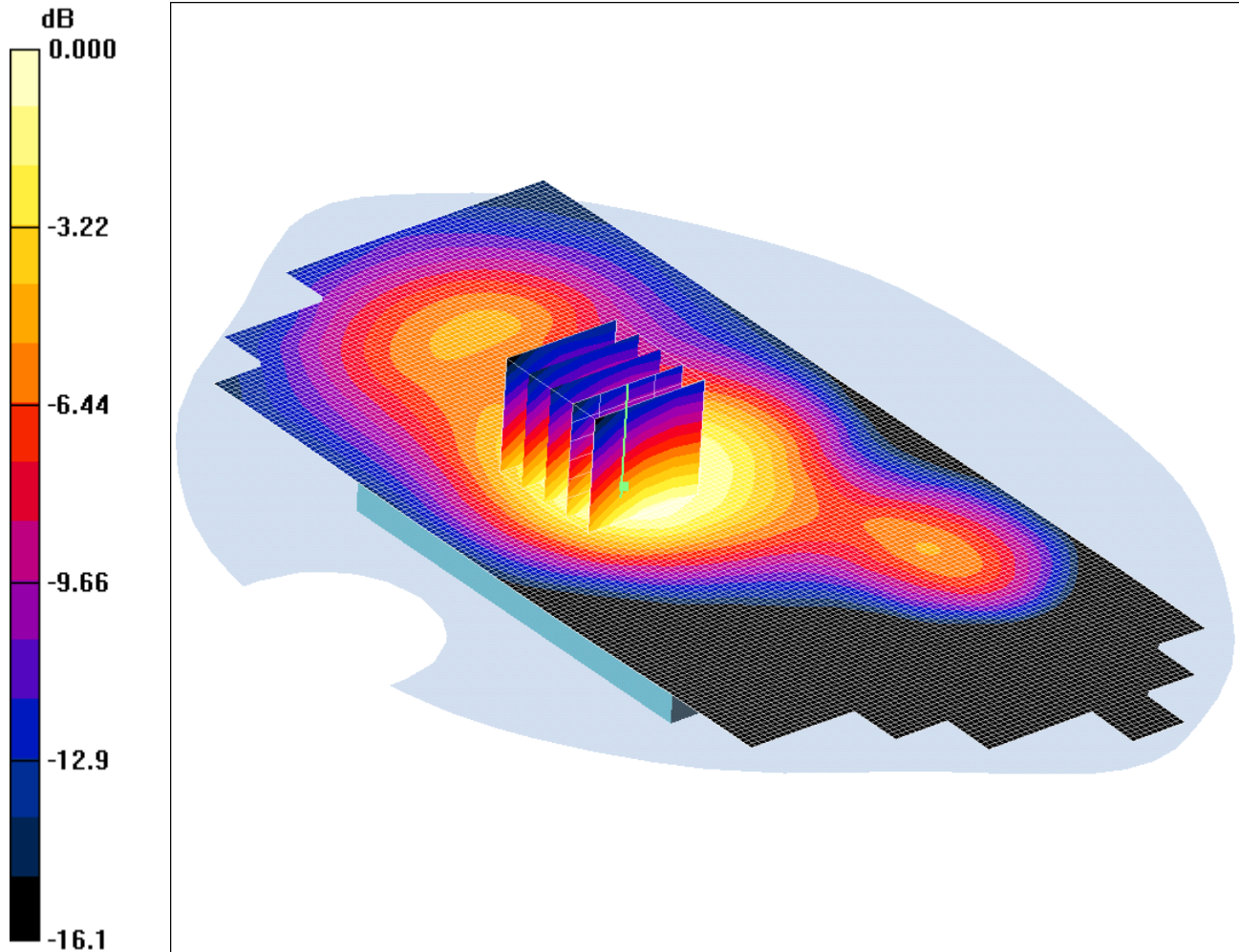
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/016: EUT Screen Swivel Closed & Rear Facing Phantom With Antenna Extended GPRS CH660

Date 25/05/2010

DUT: Panasonic 942P; Type: 942p (Sample C6); Serial: 004401220967141



0 dB = 0.220mW/g

Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.23, 8.23, 8.23); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

EUT Screen Swivel Closed & Rear Facing Phantom - Middle/Area Scan (81x181x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.235 mW/g

EUT Screen Swivel Closed & Rear Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.0 V/m; Power Drift = -0.032 dB

Peak SAR (extrapolated) = 0.340 W/kg

SAR(1 g) = 0.210 mW/g; SAR(10 g) = 0.130 mW/g

Maximum value of SAR (measured) = 0.220 mW/g

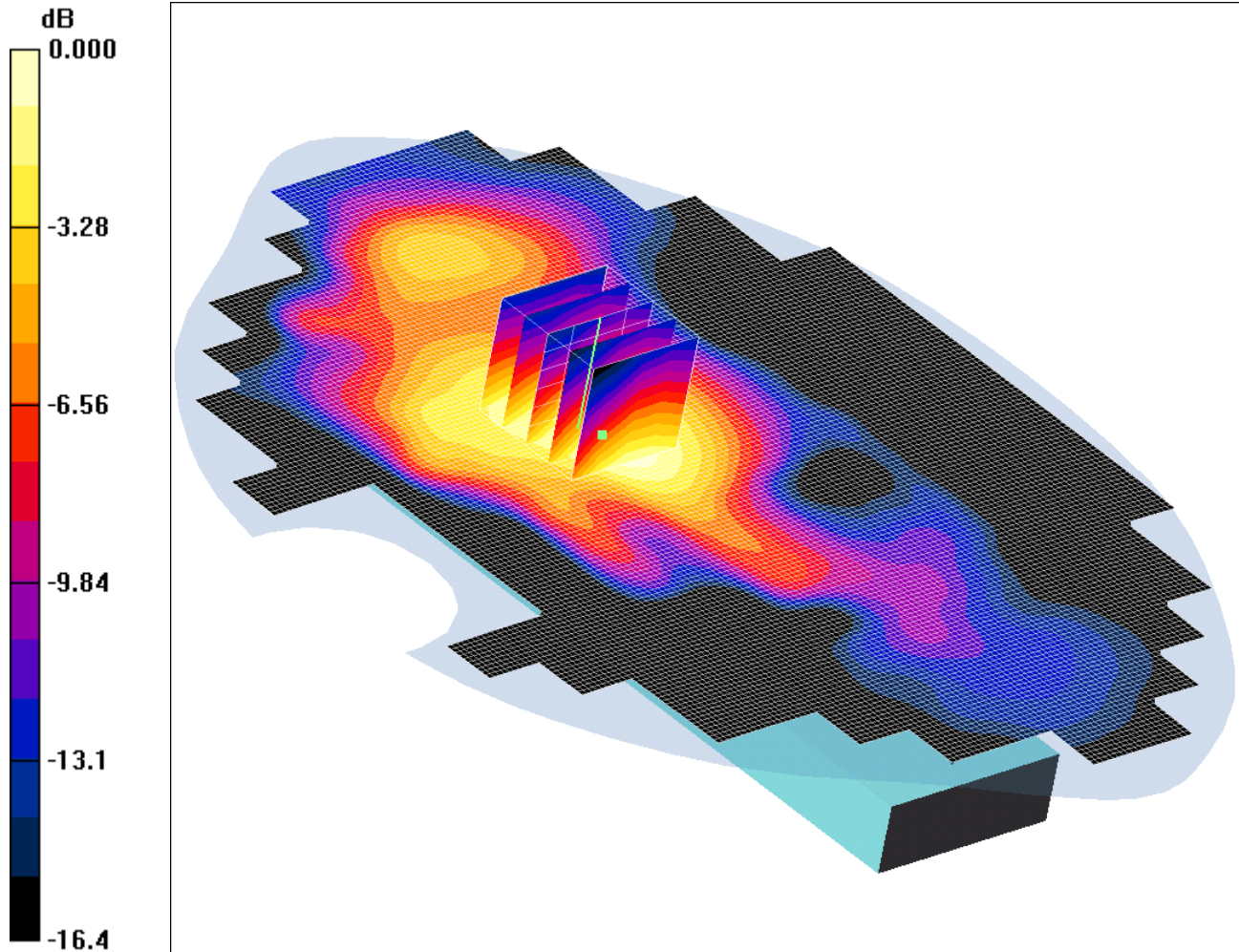
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/017: Rear of EUT Facing Phantom With Antenna Retracted With PHF GPRS CH660

Date 25/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.270mW/g

Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.23, 8.23, 8.23); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Rear of EUT Facing Phantom - Middle/Area Scan (141x201x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.284 mW/g

Rear of EUT Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.2 V/m; Power Drift = -0.371 dB

Peak SAR (extrapolated) = 0.404 W/kg

SAR(1 g) = 0.255 mW/g; SAR(10 g) = 0.157 mW/g

Maximum value of SAR (measured) = 0.270 mW/g

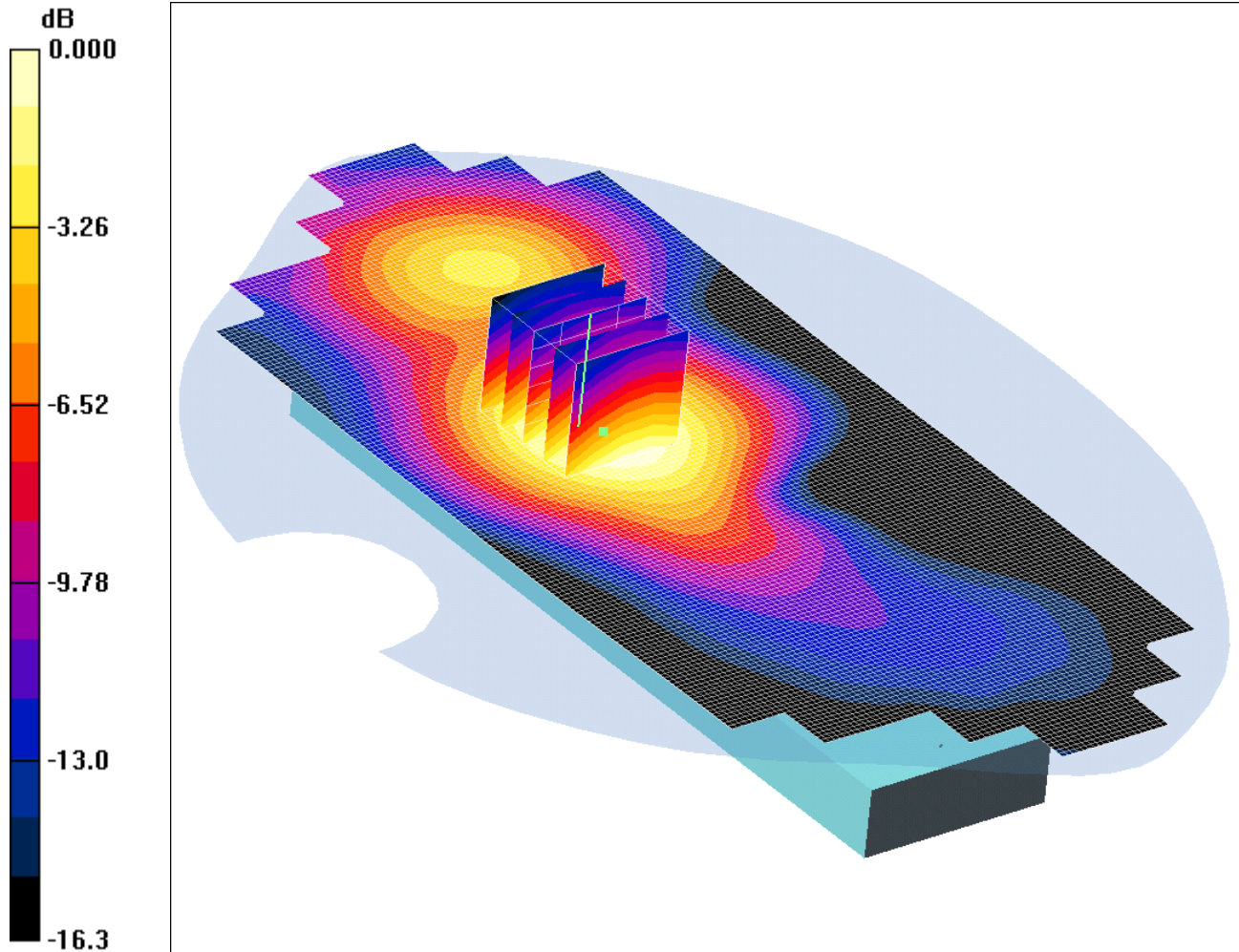
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/018: Rear of EUT Facing Phantom With Antenna Retracted PCS CH660

Date 25/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.234mW/g

Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.23, 8.23, 8.23); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Rear of EUT Facing Phantom - Middle/Area Scan (81x191x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.244 mW/g

Rear of EUT Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.56 V/m; Power Drift = 0.007 dB

Peak SAR (extrapolated) = 0.353 W/kg

SAR(1 g) = 0.224 mW/g; SAR(10 g) = 0.138 mW/g

Maximum value of SAR (measured) = 0.234 mW/g

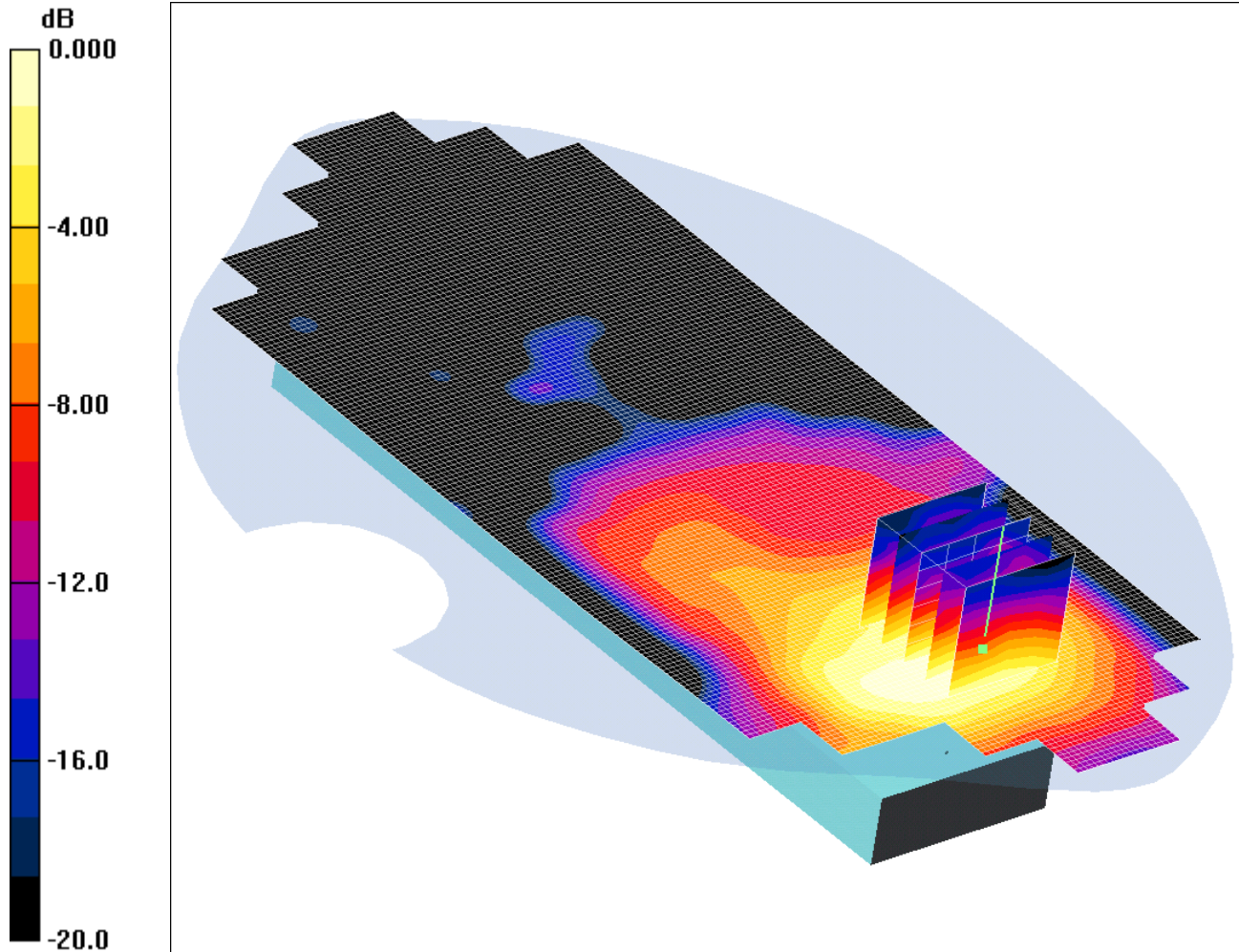
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/019: Front of EUT Facing Phantom With Antenna Retracted WiFi802.11b CH6 1Mbps

Date 26/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.039mW/g

Communication System: WLAN; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 2$ mho/m; $\epsilon_r = 50.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Front of EUT Facing Phantom - Middle 1Mbps /Area Scan (81x191x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.039 mW/g

Front of EUT Facing Phantom - Middle 1Mbps /Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.11 V/m; Power Drift = -0.295 dB

Peak SAR (extrapolated) = 0.065 W/kg

SAR(1 g) = 0.036 mW/g; SAR(10 g) = 0.020 mW/g

Maximum value of SAR (measured) = 0.039 mW/g

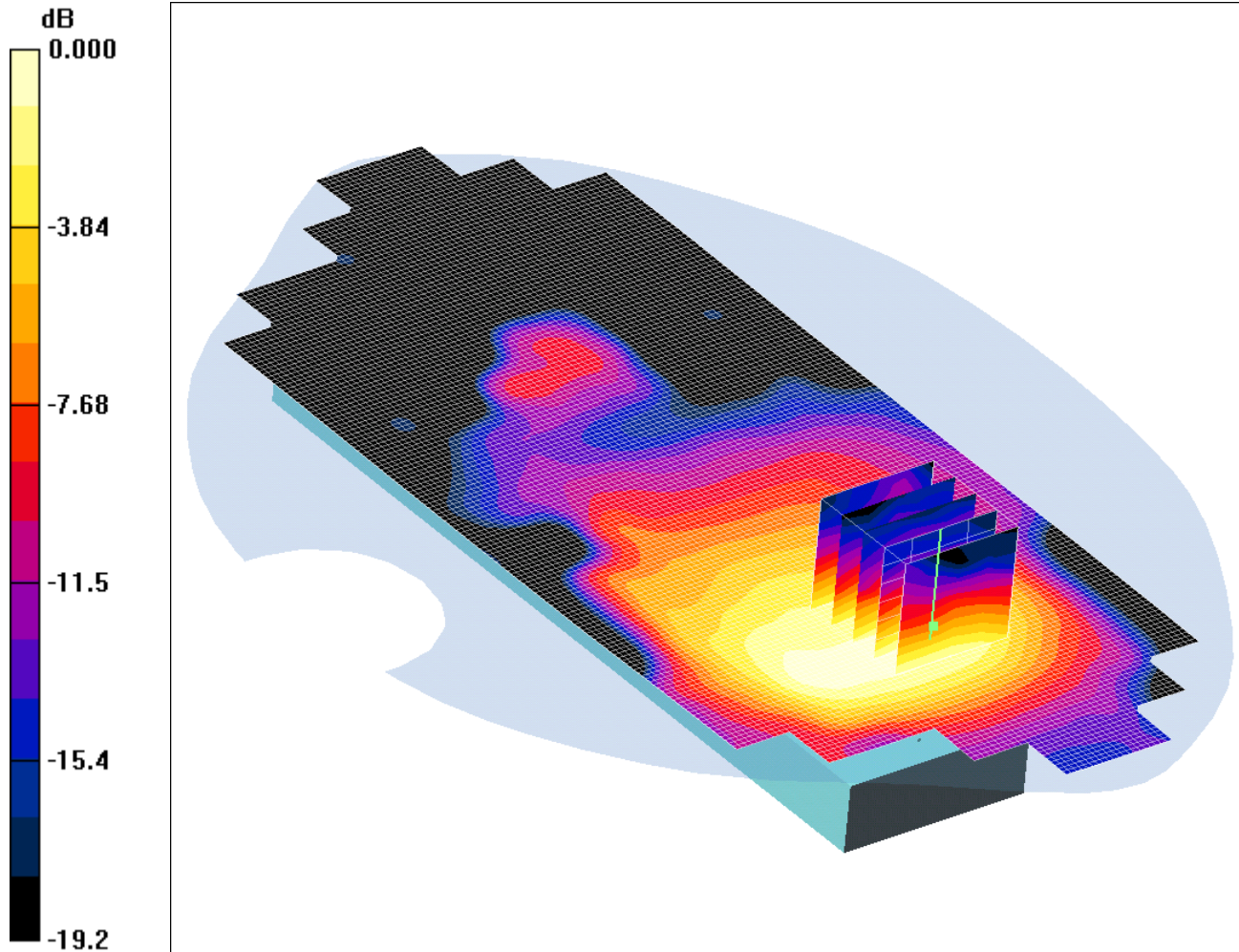
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/020: Front of EUT Facing Phantom With Antenna Extended WiFi802.11b CH6 1Mbps

Date 26/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.032mW/g

Communication System: WLAN; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 2$ mho/m; $\epsilon_r = 50.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Front of EUT Facing Phantom - Middle 1Mbps/Area Scan (81x191x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.032 mW/g

Front of EUT Facing Phantom - Middle 1Mbps/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.26 V/m; Power Drift = -0.164 dB

Peak SAR (extrapolated) = 0.053 W/kg

SAR(1 g) = 0.030 mW/g; SAR(10 g) = 0.016 mW/g

Maximum value of SAR (measured) = 0.032 mW/g

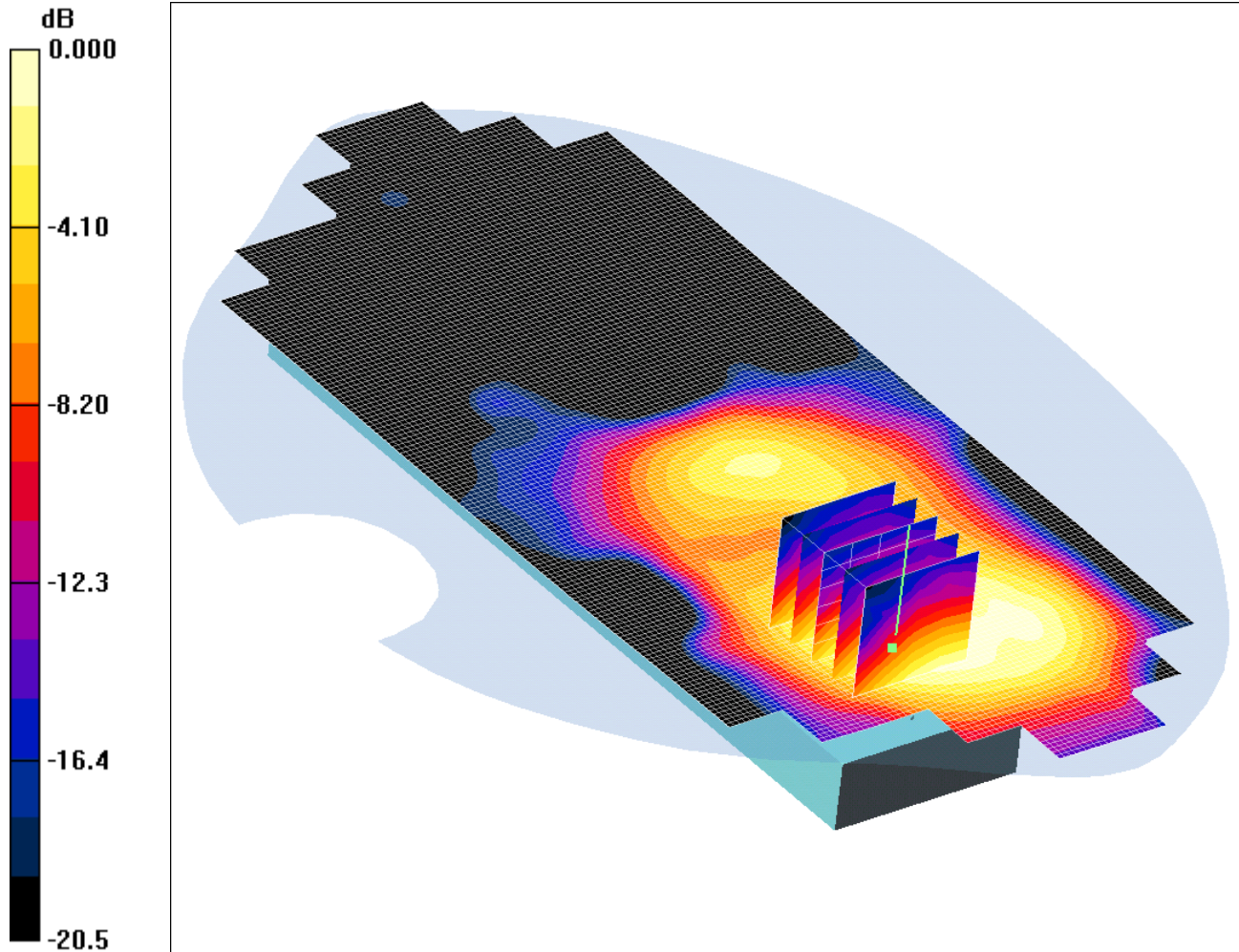
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/021: Rear of EUT Facing Phantom With Antenna Retracted WiFi802.11b CH6 1Mbps

Date 26/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.057mW/g

Communication System: WLAN; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 2$ mho/m; $\epsilon_r = 50.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Rear of EUT Facing Phantom - Middle 1Mbps /Area Scan (81x191x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.056 mW/g

Rear of EUT Facing Phantom - Middle 1Mbps /Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.05 V/m; Power Drift = -0.117 dB

Peak SAR (extrapolated) = 0.099 W/kg

SAR(1 g) = 0.054 mW/g; SAR(10 g) = 0.030 mW/g

Maximum value of SAR (measured) = 0.057 mW/g

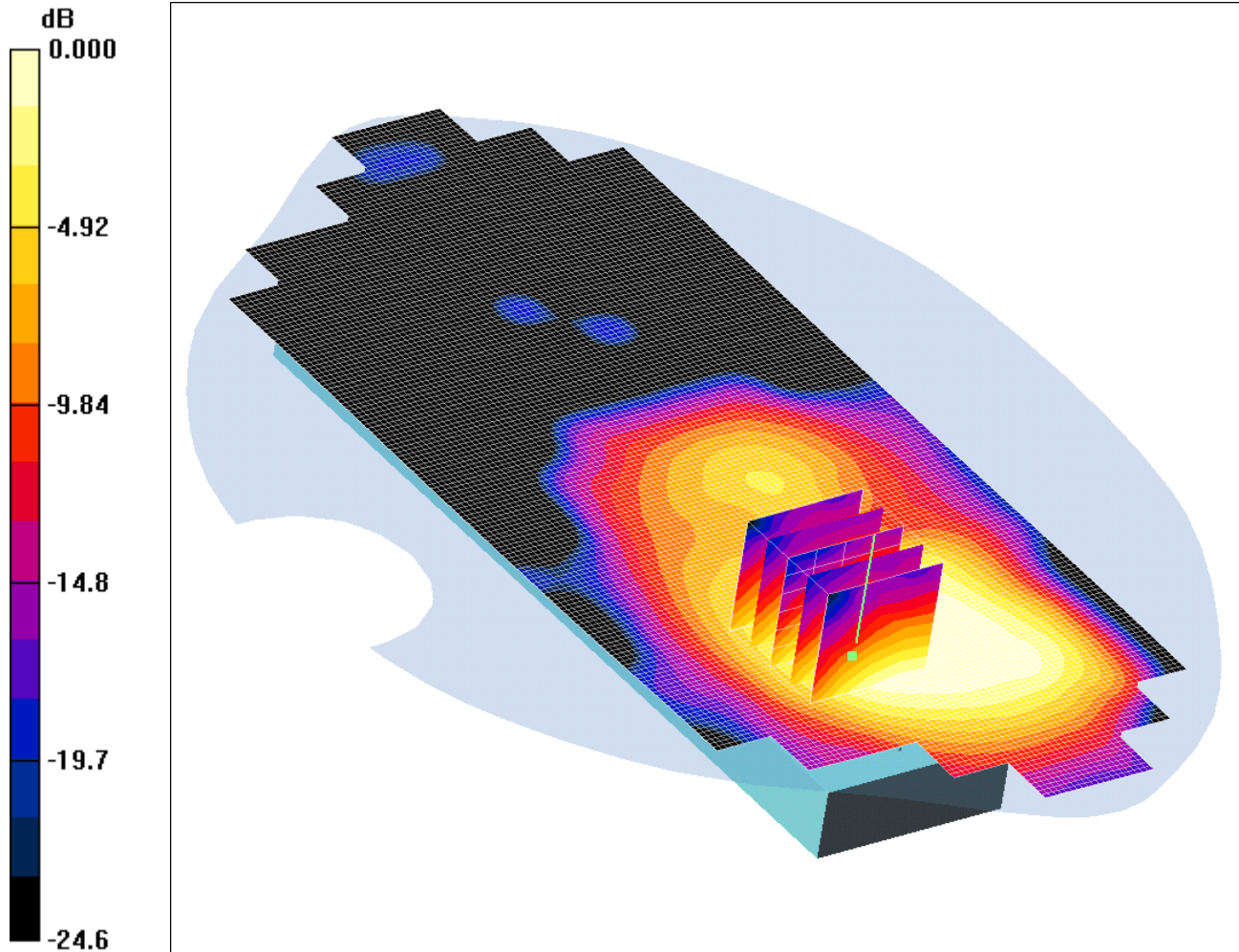
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/022: Rear of EUT Facing Phantom With Antenna Extended WiFi802.11b CH6 1Mbps

Date 26/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.058mW/g

Communication System: WLAN; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 2$ mho/m; $\epsilon_r = 50.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Rear of EUT Facing Phantom - Middle 1Mbps /Area Scan (81x191x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.057 mW/g

Rear of EUT Facing Phantom - Middle 1Mbps /Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.39 V/m; Power Drift = 0.331 dB

Peak SAR (extrapolated) = 0.097 W/kg

SAR(1 g) = 0.054 mW/g; SAR(10 g) = 0.030 mW/g

Maximum value of SAR (measured) = 0.058 mW/g

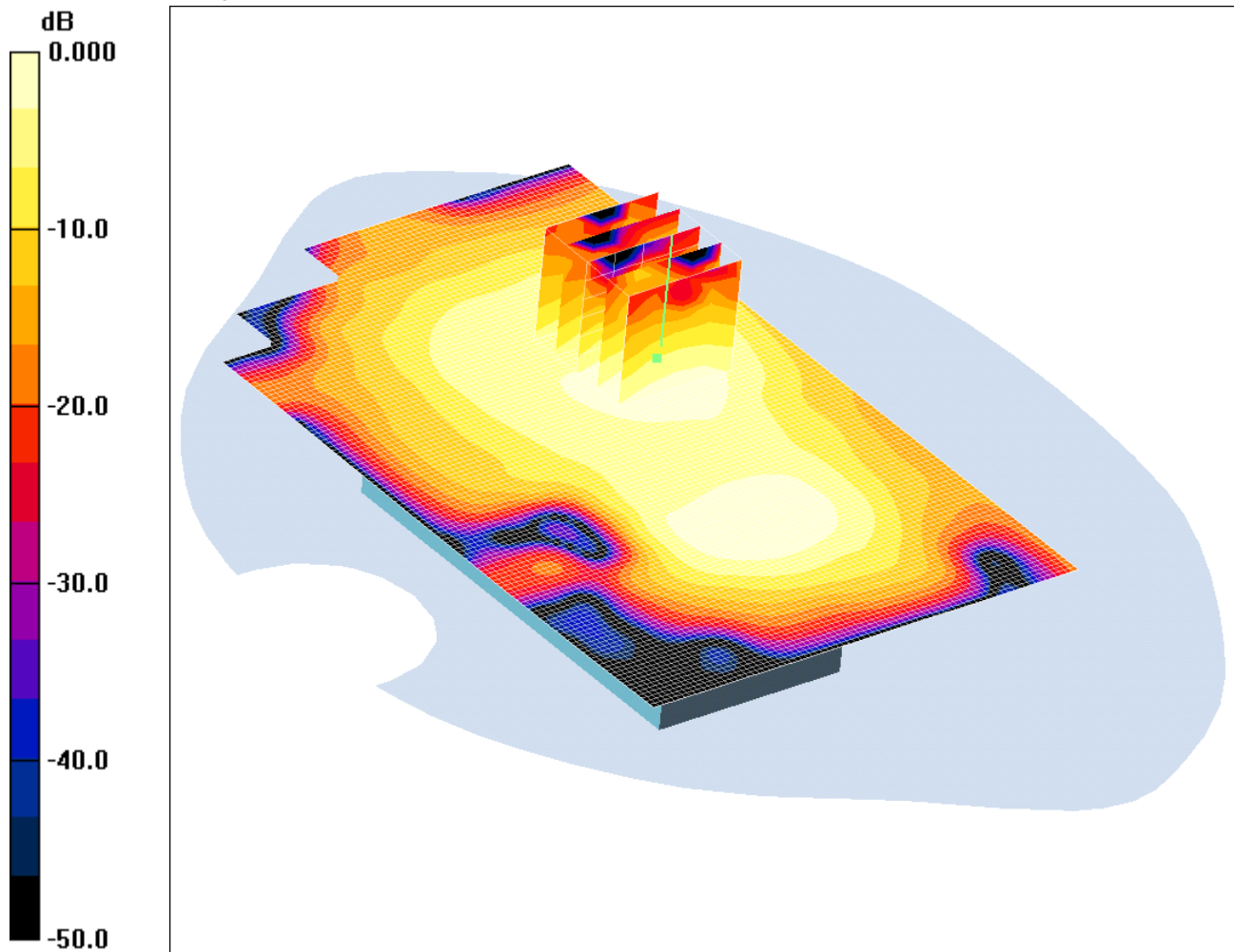
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/023: EUT Screen Swivel Closed & Display Facing Phantom With Antenna Retracted WiFi802.11b CH6 1 Mbps

Date 26/05/2010

DUT: Panasonic 942P; Type: 942p (Sample C6); Serial: 004401220967141



0 dB = 0.037mW/g

Communication System: WLAN; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 2$ mho/m; $\epsilon_r = 50.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

EUT Screen Swivel Closed & Display Facing Phantom - Middle/Area Scan (81x131x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.037 mW/g

EUT Screen Swivel Closed & Display Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.50 V/m; Power Drift = 0.446 dB

Peak SAR (extrapolated) = 0.059 W/kg

SAR(1 g) = 0.034 mW/g; SAR(10 g) = 0.018 mW/g

Maximum value of SAR (measured) = 0.037 mW/g

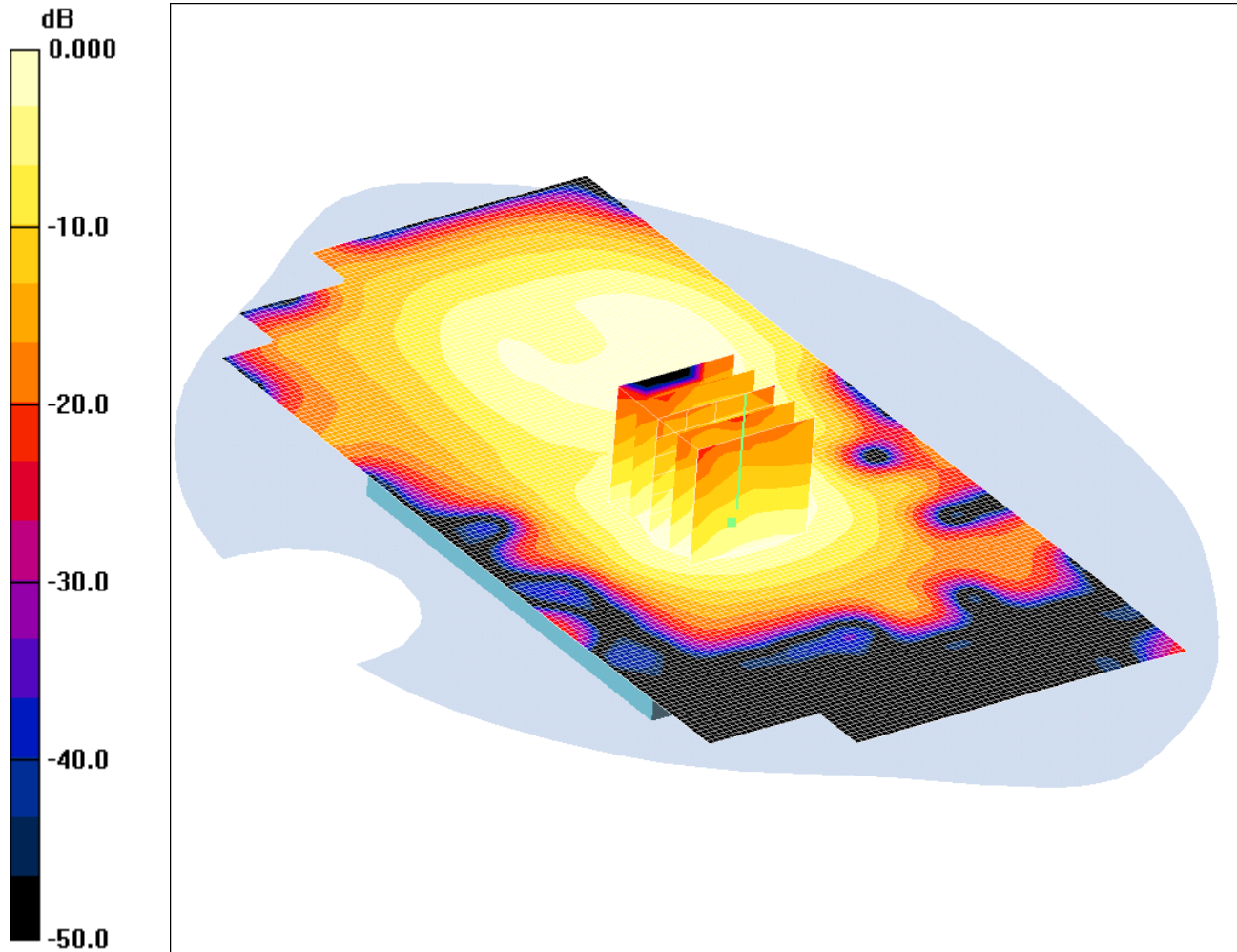
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/024: EUT Screen Swivel Closed & Display Facing Phantom With Antenna Extended WiFi802.11b CH6 1 Mbps

Date 26/05/2010

DUT: Panasonic 942P; Type: 942p (Sample C6); Serial: 004401220967141



0 dB = 0.037mW/g

Communication System: WLAN; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 2$ mho/m; $\epsilon_r = 50.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

EUT Screen Swivel Closed & Display Facing Phantom - Middle/Area Scan (81x161x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.039 mW/g

EUT Screen Swivel Closed & Display Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.94 V/m; Power Drift = 0.139 dB

Peak SAR (extrapolated) = 0.064 W/kg

SAR(1 g) = 0.035 mW/g; SAR(10 g) = 0.019 mW/g

Maximum value of SAR (measured) = 0.037 mW/g

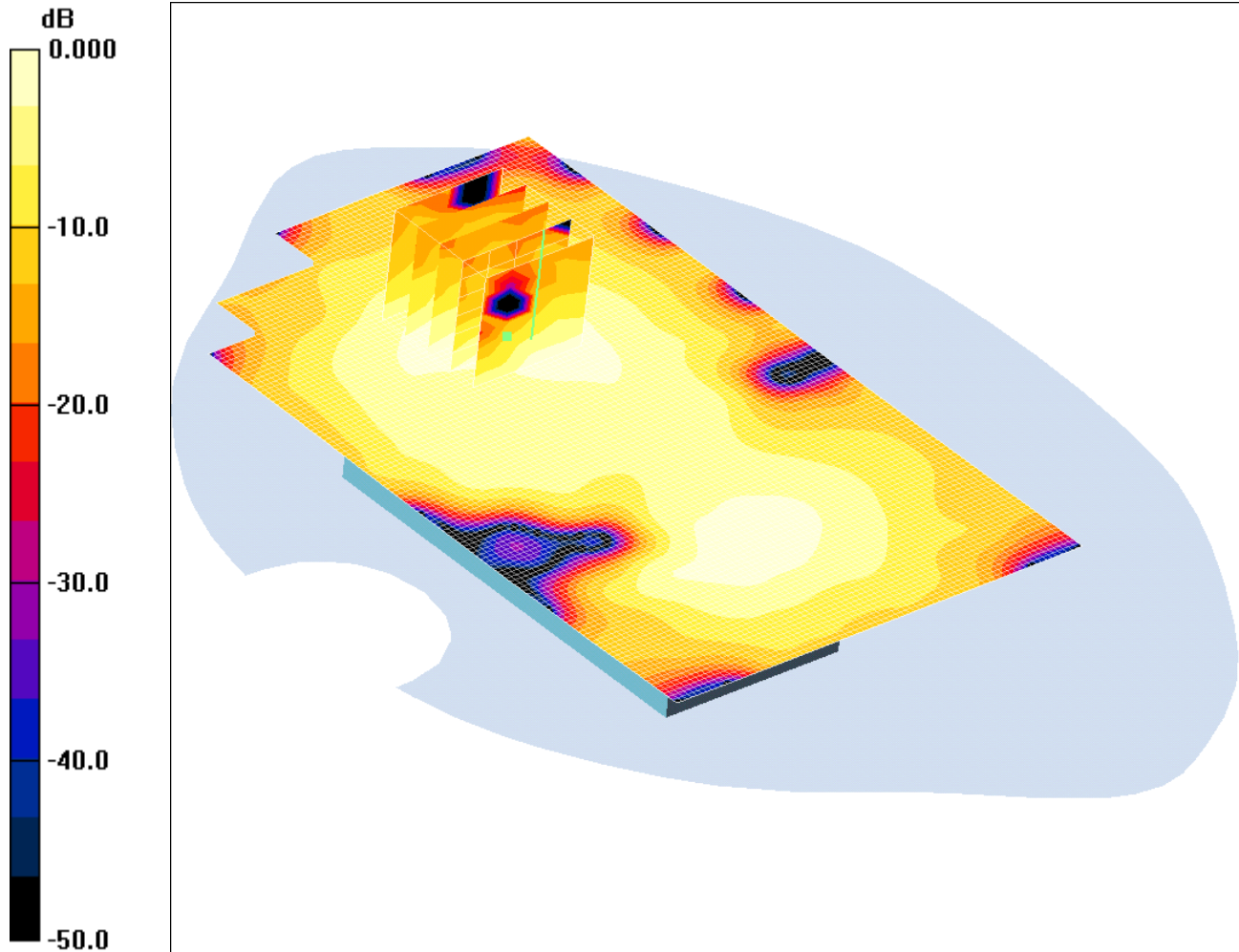
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/025: EUT Screen Swivel Closed & Rear Facing Phantom With Antenna Retracted WiFi802.11b CH6 1 Mbps

Date: 27/05/2010

DUT: Panasonic 942P; Type: 942p (Sample C6); Serial: 004401220967141



0 dB = 0.015mW/g

Communication System: WLAN; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 2$ mho/m; $\epsilon_r = 50.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

EUT Screen Swivel Closed & Rear Facing Phantom - Middle/Area Scan (81x131x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.015 mW/g

EUT Screen Swivel Closed & Rear Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.38 V/m; Power Drift = 0.232 dB

Peak SAR (extrapolated) = 0.023 W/kg

SAR(1 g) = 0.013 mW/g; SAR(10 g) = 0.00727 mW/g

Maximum value of SAR (measured) = 0.015 mW/g

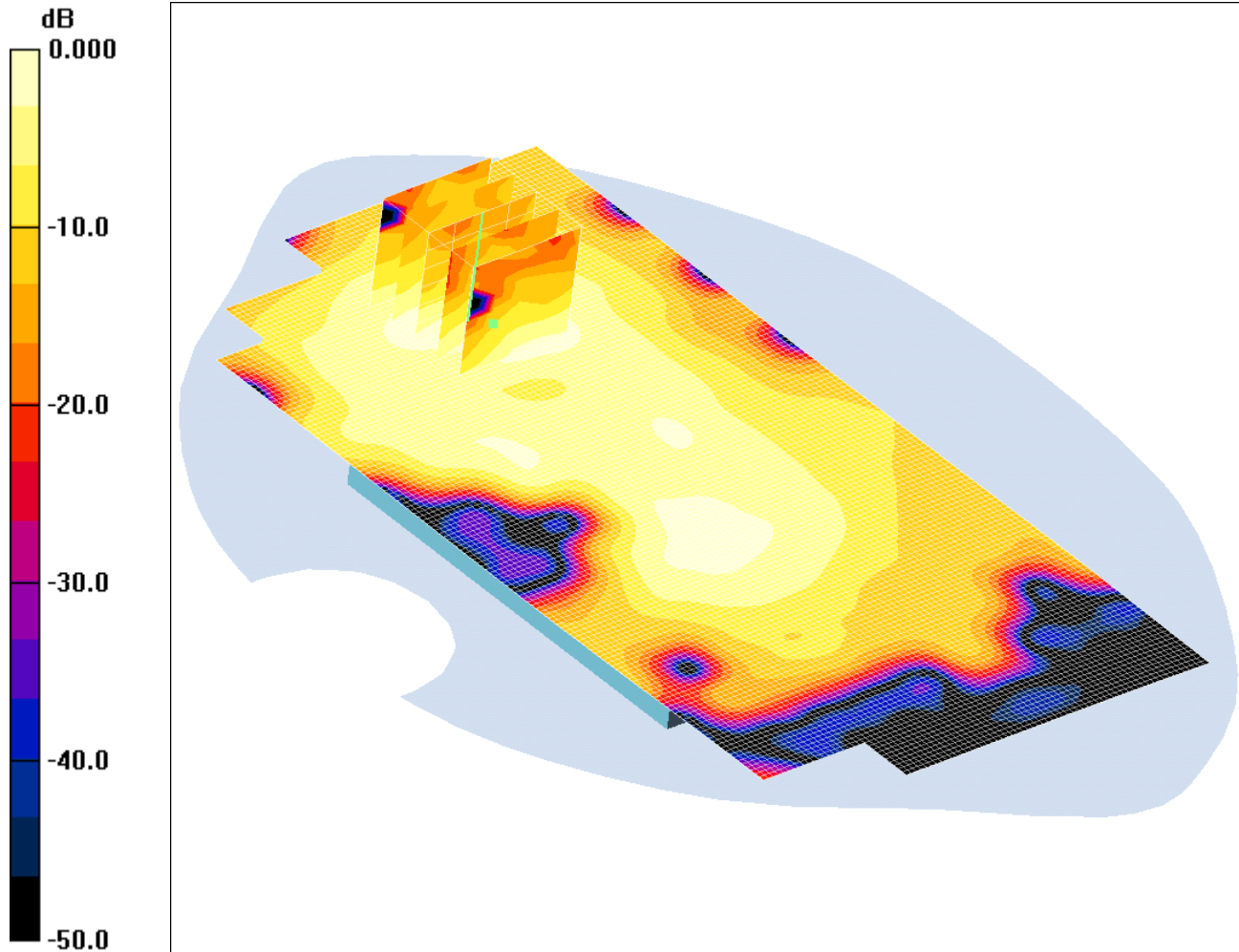
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/026: EUT Screen Swivel Closed & Rear Facing Phantom With Antenna Extended WiFi802.11b CH6 1 Mbps

Date: 27/05/2010

DUT: Panasonic 942P; Type: 942p (Sample C6); Serial: 004401220967141



0 dB = 0.015mW/g

Communication System: WLAN; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 2$ mho/m; $\epsilon_r = 50.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

EUT Screen Swivel Closed & Rear Facing Phantom - Middle/Area Scan (81x161x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.014 mW/g

EUT Screen Swivel Closed & Rear Facing Phantom - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.99 V/m; Power Drift = -0.232 dB

Peak SAR (extrapolated) = 0.027 W/kg

SAR(1 g) = 0.014 mW/g; SAR(10 g) = 0.00728 mW/g

Maximum value of SAR (measured) = 0.015 mW/g

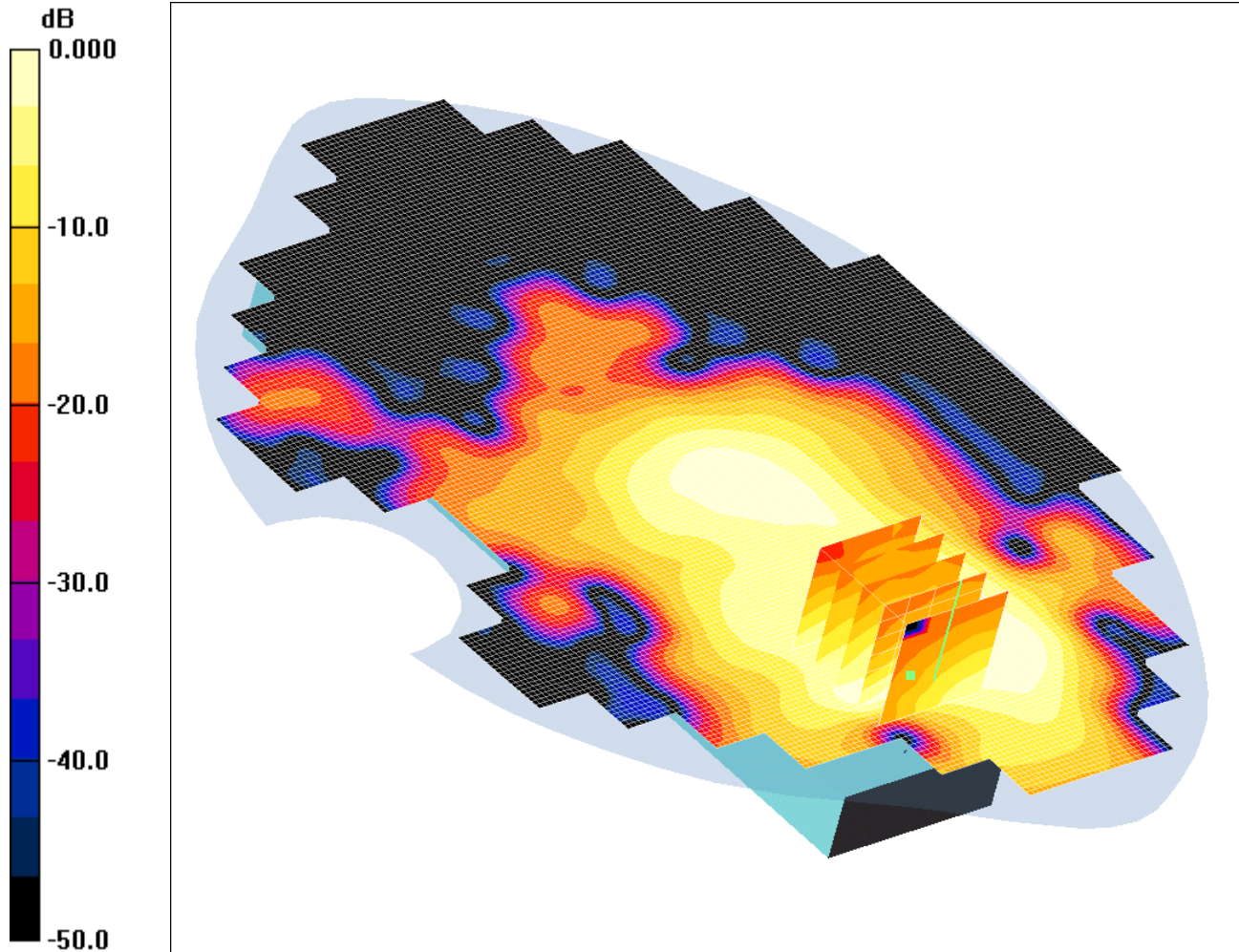
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/027: Rear of EUT Facing Phantom With Antenna Retracted With PHF WiFi802.11b CH6 1Mbps

Date 27/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.055mW/g

Communication System: WLAN; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 2$ mho/m; $\epsilon_r = 50.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Rear of EUT Facing Phantom - Middle 1Mbps/Area Scan (161x201x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.069 mW/g

Rear of EUT Facing Phantom - Middle 1Mbps/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.91 V/m; Power Drift = -0.207 dB

Peak SAR (extrapolated) = 0.088 W/kg

SAR(1 g) = 0.041 mW/g; SAR(10 g) = 0.019 mW/g

Maximum value of SAR (measured) = 0.055 mW/g

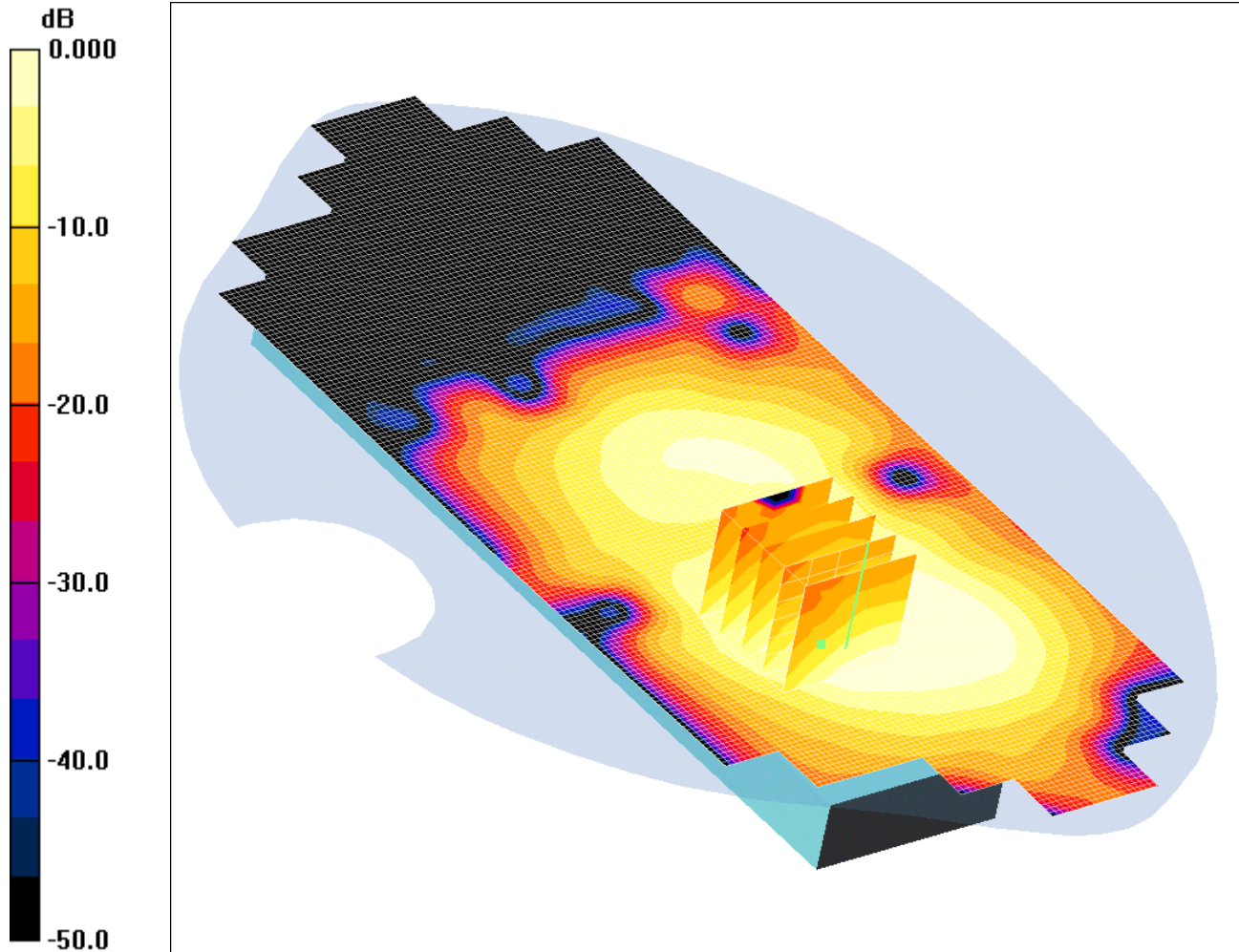
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/028: Rear of EUT Facing Phantom With Antenna Retracted WiFi802.11g CH6 6Mbps

Date 27/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.045mW/g

Communication System: WLAN; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 2$ mho/m; $\epsilon_r = 50.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Rear of EUT Facing Phantom - Middle 6 Mbps/Area Scan (81x191x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.045 mW/g

Rear of EUT Facing Phantom - Middle 6 Mbps/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.21 V/m; Power Drift = 0.046 dB

Peak SAR (extrapolated) = 0.073 W/kg

SAR(1 g) = 0.041 mW/g; SAR(10 g) = 0.023 mW/g

Maximum value of SAR (measured) = 0.045 mW/g

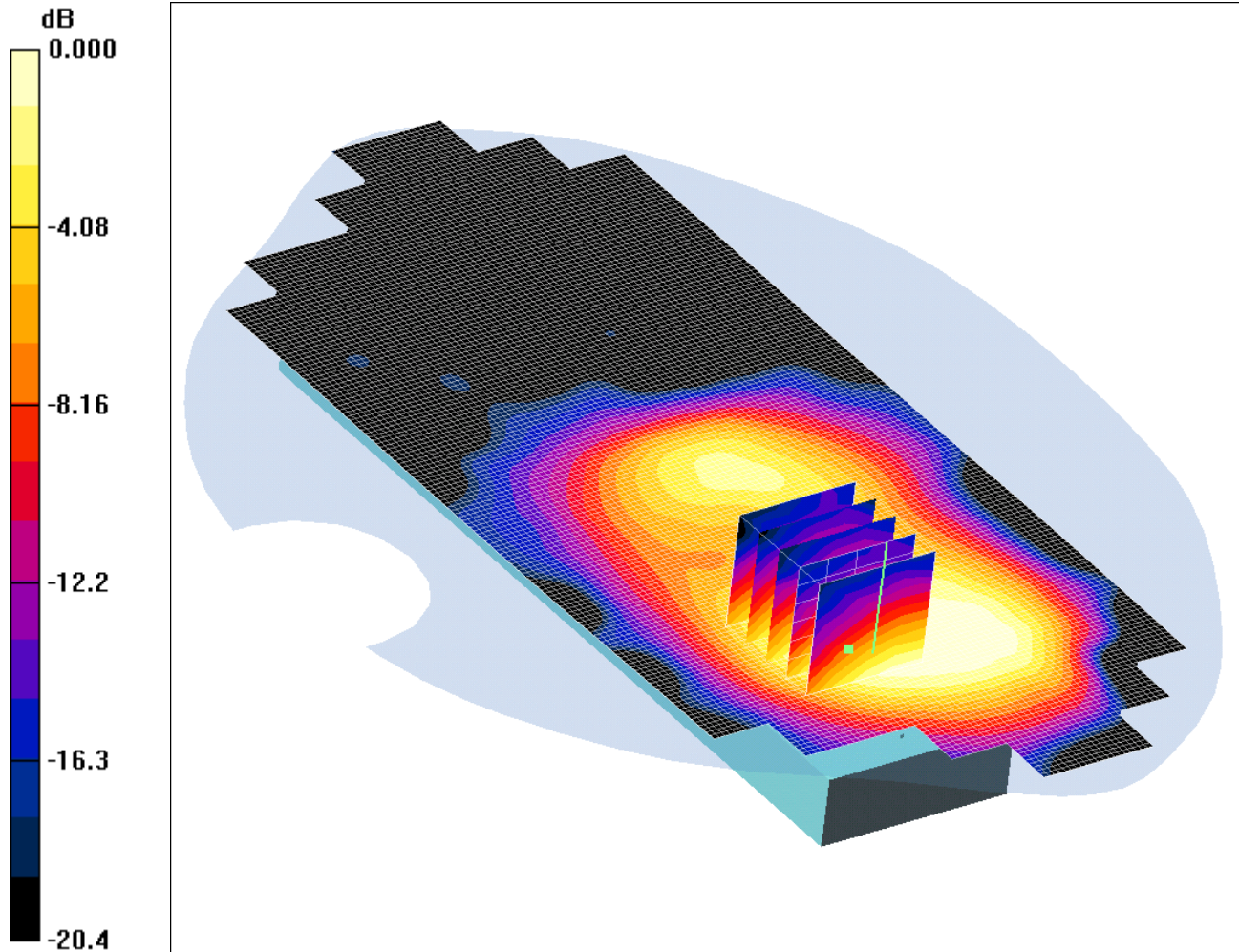
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/029: Rear of EUT Facing Phantom With Antenna Retracted WiFi802.11b CH11 11Mbps

Date 27/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.056mW/g

Communication System: WLAN; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 2.03$ mho/m; $\epsilon_r = 50.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Rear of EUT Facing Phantom - High 11 Mbps/Area Scan (81x191x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.059 mW/g

Rear of EUT Facing Phantom - High 11 Mbps/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.80 V/m; Power Drift = 0.027 dB

Peak SAR (extrapolated) = 0.092 W/kg

SAR(1 g) = 0.052 mW/g; SAR(10 g) = 0.029 mW/g

Maximum value of SAR (measured) = 0.056 mW/g

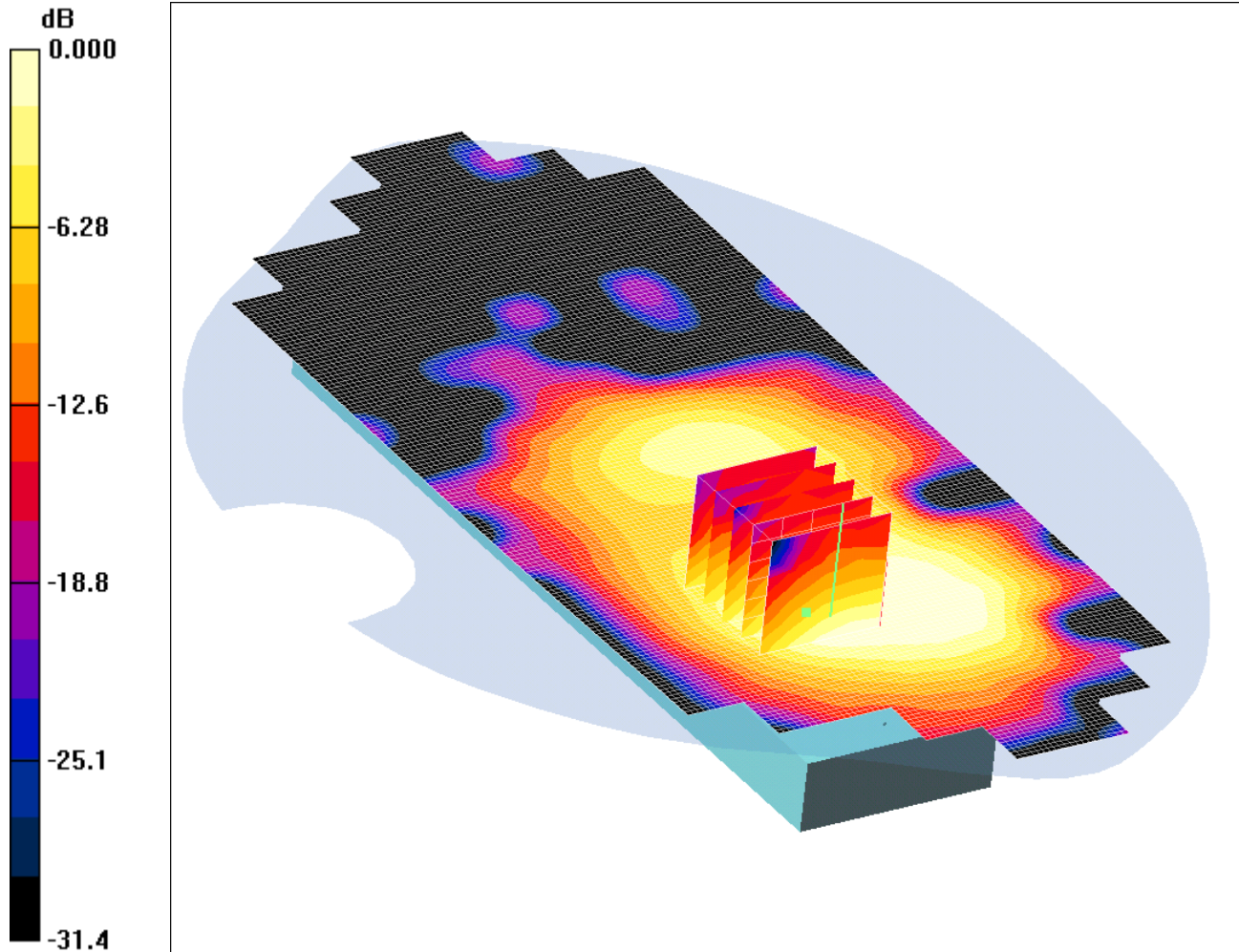
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/030: Rear of EUT Facing Phantom With Antenna Retracted WiFi802.11g CH11 54Mbps

Date 27/05/2010

DUT: Panasonic 942P; Type: 942P (Sample C6); Serial: 004401220967141



0 dB = 0.043mW/g

Communication System: WLAN; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 2.03$ mho/m; $\epsilon_r = 50.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Rear of EUT Facing Phantom - High 54 Mbps/Area Scan (81x191x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.043 mW/g

Rear of EUT Facing Phantom - High 54 Mbps/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.38 V/m; Power Drift = -0.103 dB

Peak SAR (extrapolated) = 0.070 W/kg

SAR(1 g) = 0.040 mW/g; SAR(10 g) = 0.022 mW/g

Maximum value of SAR (measured) = 0.043 mW/g

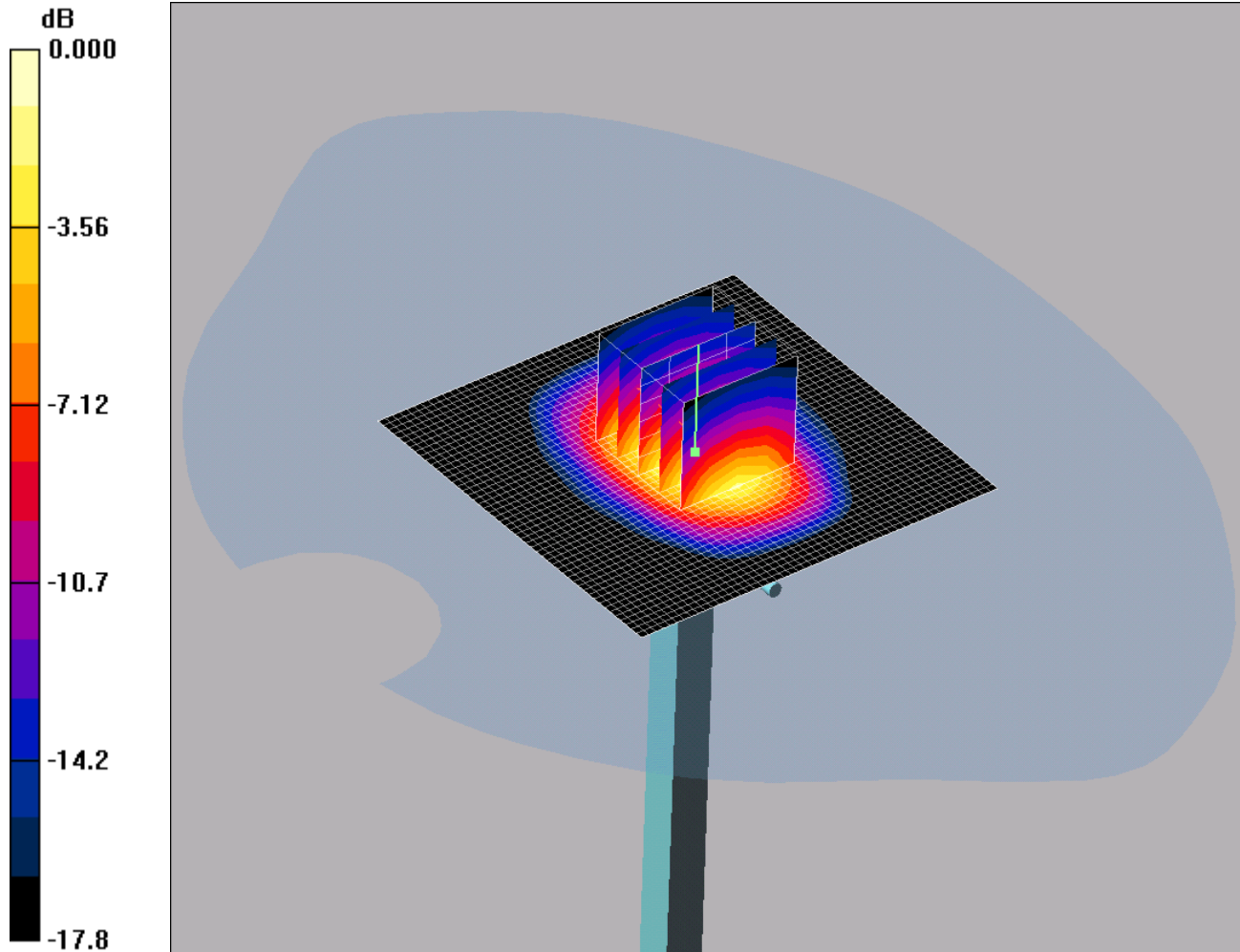
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/031: System Performance Check 1900MHz Head 24 05 10

Date 24/05/2010

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: SN540



0 dB = 11.6mW/g

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 MHz HSL Medium parameters used: $f = 1900$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.58, 8.58, 8.58); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

d=10mm, Pin=250mW/Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 15.8 mW/g

d=10mm, Pin=250mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 87.2 V/m; Power Drift = 0.051 dB

Peak SAR (extrapolated) = 19.5 W/kg

SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.35 mW/g

Maximum value of SAR (measured) = 11.6 mW/g

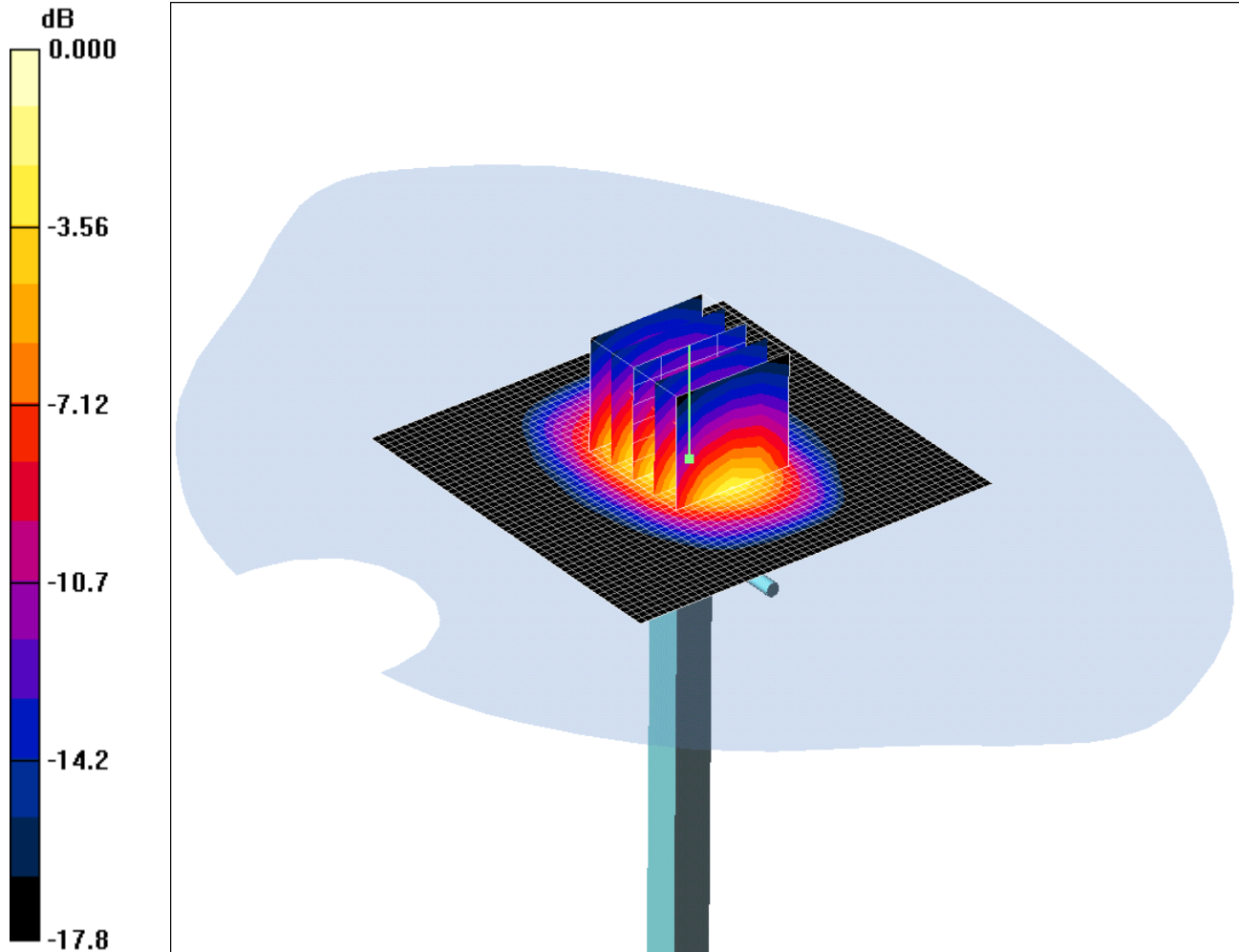
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/032: System Performance Check 1900MHz Body 25 05 10

Date 25/05/2010

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: SN540



0 dB = 11.8mW/g

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 MHz MSL Medium parameters used: $f = 1900$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 51.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.23, 8.23, 8.23); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

d=10mm, Pin=250mW/Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 15.4 mW/g

d=10mm, Pin=250mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 85.5 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 19.5 W/kg

SAR(1 g) = 10.5 mW/g; SAR(10 g) = 5.43 mW/g

Maximum value of SAR (measured) = 11.8 mW/g

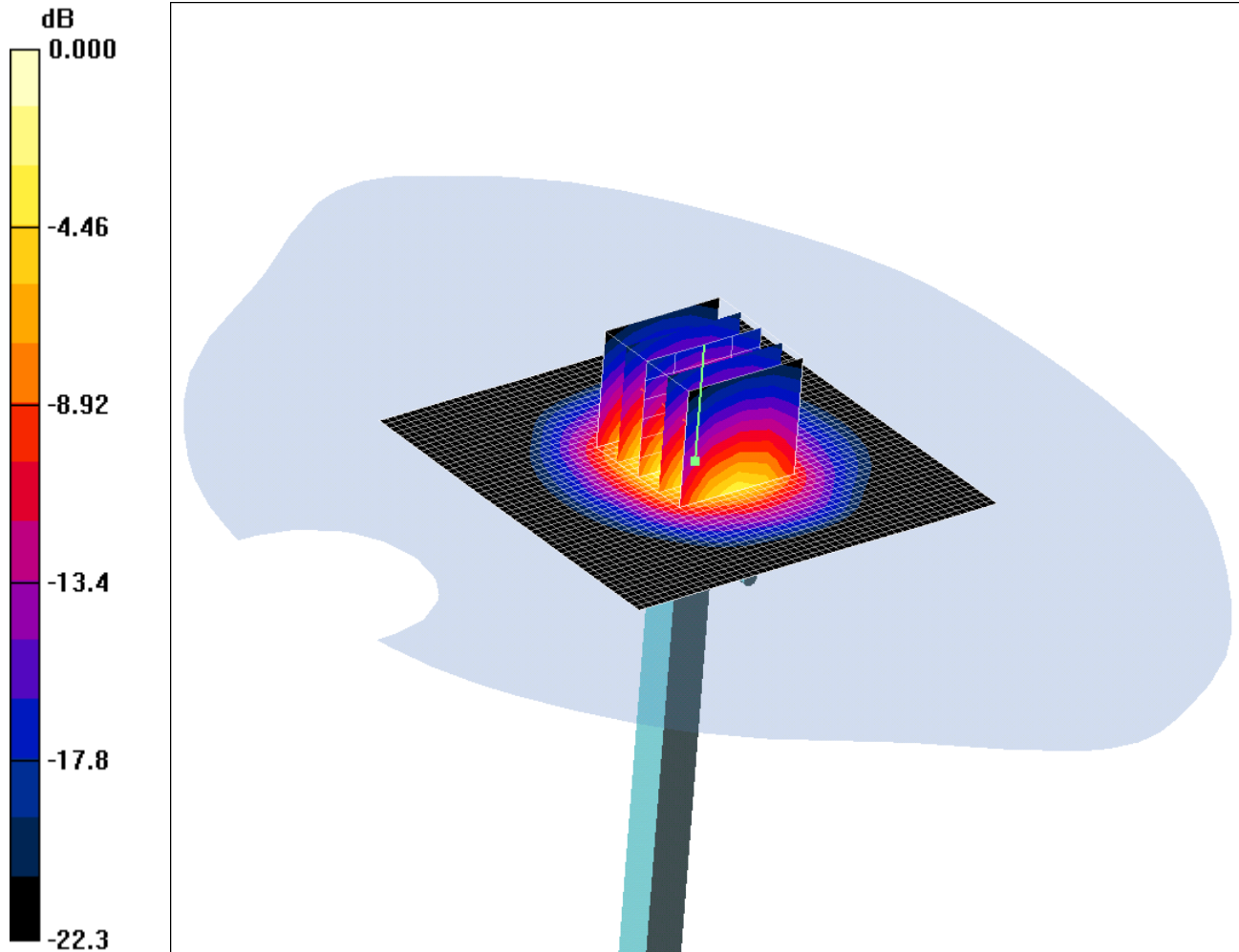
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/033: System Performance Check 2450MHz Body 26 05 10

Date 26/05/2010

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:725



0 dB = 15.5mW/g

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used: $f = 2450$ MHz; $\sigma = 2.02$ mho/m; $\epsilon_r = 50.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

d=10mm, Pin=250mW/Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 19.5 mW/g

d=10mm, Pin=250mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 85.4 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 28.3 W/kg

SAR(1 g) = 13.6 mW/g; SAR(10 g) = 6.2 mW/g

Maximum value of SAR (measured) = 15.5 mW/g

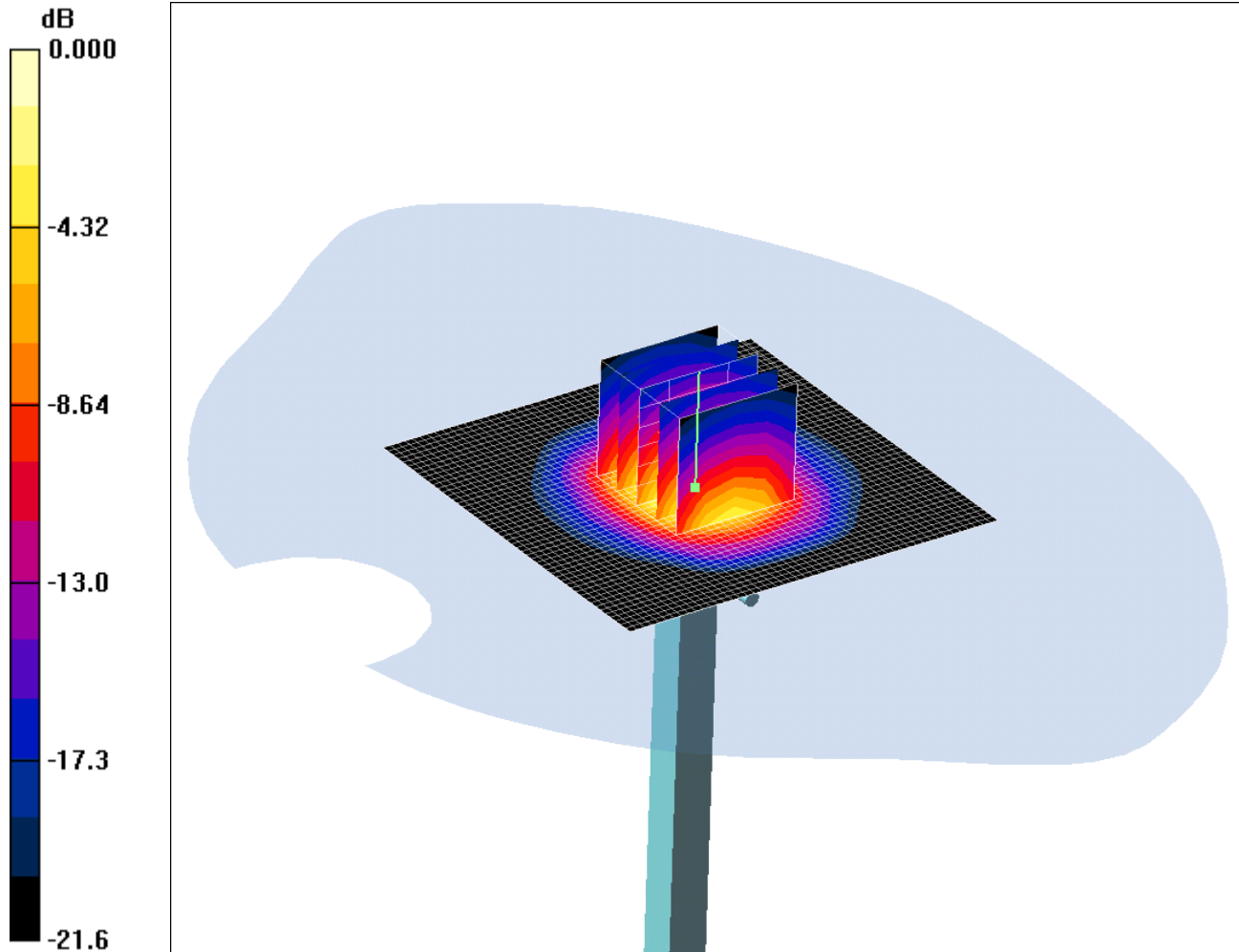
Test of: SoftBank 942P

To: OET Bulletin 65 Supplement C: (2001-01)

SCN/77768JD11/034: System Performance Check 2450MHz Body 27 05 10

Date 27/05/2010

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:725



0 dB = 15.3mW/g

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: 2450 MHz MSL Medium parameters used: $f = 2450$ MHz; $\sigma = 2.02$ mho/m; $\epsilon_r = 50.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV3 - SN3508; ConvF(8.06, 8.06, 8.06); Calibrated: 26/06/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn394; Calibrated: 19/04/2010

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193

- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

d=10mm, Pin=250mW/Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 19.7 mW/g

d=10mm, Pin=250mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 87.0 V/m; Power Drift = 0.001 dB

Peak SAR (extrapolated) = 27.3 W/kg

SAR(1 g) = 13.5 mW/g; SAR(10 g) = 6.3 mW/g

Maximum value of SAR (measured) = 15.3 mW/g