

SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	52.0 Ω - 2.0 j Ω
Return Loss	- 31.1 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	46.5 Ω - 4.5 j Ω
Return Loss	- 24.6 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.388 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. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

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	November 27, 2006

SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808- SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

DASY5 Validation Report for Head TSL

Date: 21.02.2014

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d061

Communication System: UID 0 - CW; Frequency: 835 MHz

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.93 \text{ S/m}$; $\epsilon_r = 40.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.22, 6.22, 6.22); Calibrated: 30.12.2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 25.04.2013
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

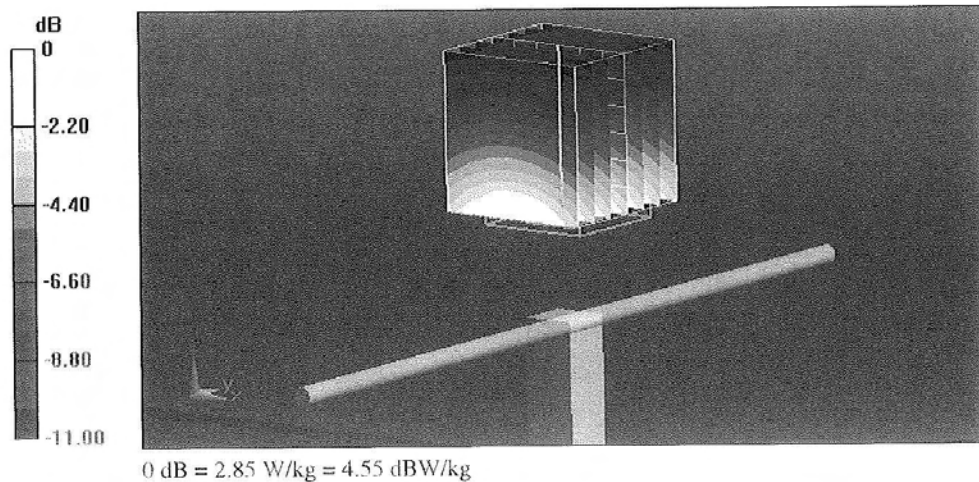
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.079 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 3.66 W/kg

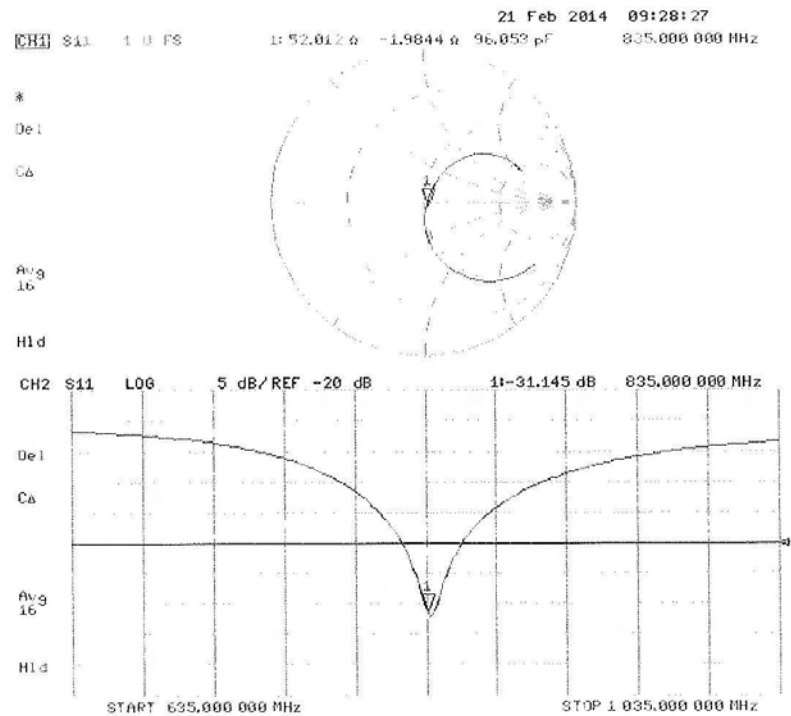
SAR(1 g) = 2.43 W/kg; SAR(10 g) = 1.57 W/kg

Maximum value of SAR (measured) = 2.85 W/kg



SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

Impedance Measurement Plot for Head TSL



SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

DASY5 Validation Report for Body TSL

Date: 20.02.2014

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d061

Communication System: UID 0 - CW; Frequency: 835 MHz

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 1 \text{ S/m}$; $\epsilon_r = 54$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.09, 6.09, 6.09); Calibrated: 30.12.2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 25.04.2013
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Dipole Calibration for Body Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

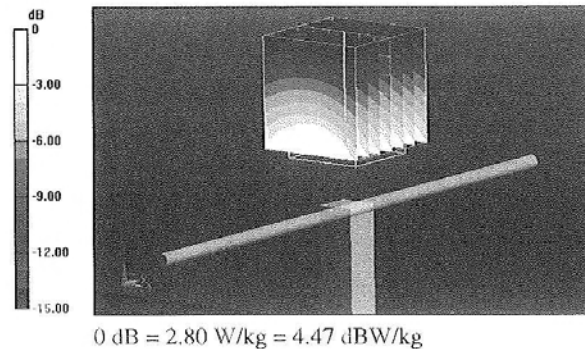
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 54.667 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 3.56 W/kg

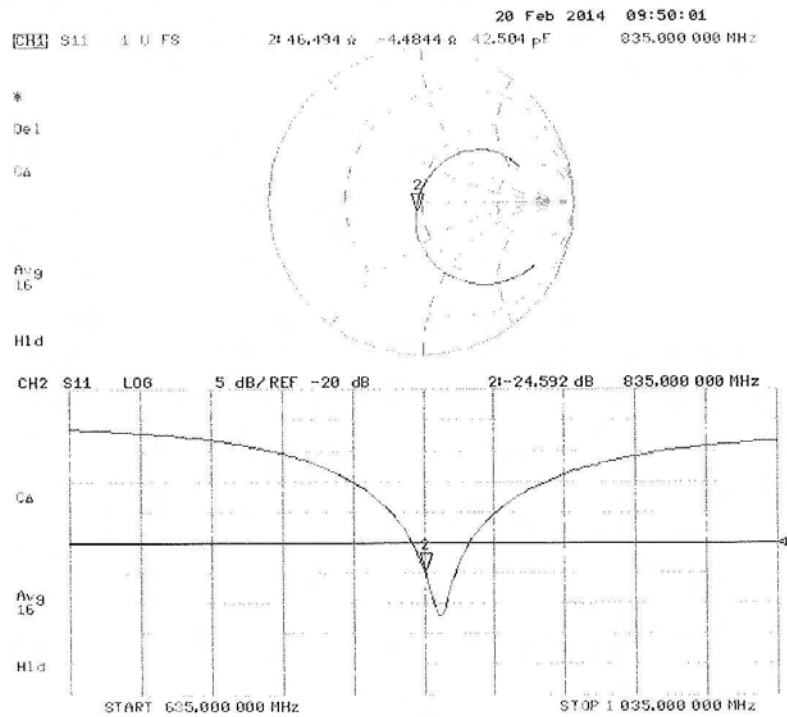
SAR(1 g) = 2.39 W/kg; SAR(10 g) = 1.56 W/kg

Maximum value of SAR (measured) = 2.80 W/kg



	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

Impedance Measurement Plot for Body TSL



SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

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 Sony Mobile Factory (PTT)

Certificate No: D750V3-1055_Feb14

CALIBRATION CERTIFICATE

Object D750V3 - SN: 1055

Calibration procedure(s) QA CAL-05.v9
Calibration procedure for dipole validation kits above 700 MHz

Calibration date: February 21, 2014

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	09-Oct-13 (No. 217-01827)	Oct-14
Power sensor HP 8481A	US37292783	09-Oct-13 (No. 217-01827)	Oct-14
Power sensor HP 8481A	MY41092317	09-Oct-13 (No. 217-01828)	Oct-14
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-13 (No. 217-01736)	Apr-14
Type-N mismatch combination	SN: 5047.3 / 06327	04-Apr-13 (No. 217-01739)	Apr-14
Reference Probe ES3DV3	SN: 3205	30-Dec-13 (No. ES3-3205_Dec13)	Dec-14
DAE4	SN: 601	25-Apr-13 (No. DAE4-601_Apr13)	Apr-14
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator R&S SMT-06	100005	04-Aug-99 (in house check Oct-13)	In house check: Oct-16
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-13)	In house check: Oct-14

Calibrated by: Name Lelf Klynsner Function Laboratory Technician

Approved by: Katja Pokovic Technical Manager

Signature

Issued: February 21, 2014

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

Certificate No: D750V3-1055_Feb14

Page 1 of 8

SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808- SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

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**

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 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- 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
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

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.

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%.

SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
		PY7PM-0808 SAR FCC Test Report	Edition 2 Revision 0

Measurement Conditions

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

DASY Version	DASY5	V52.8.7
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	750 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.9	0.89 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	40.7 $\pm$ 6 %	0.90 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.12 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	8.35 W/kg $\pm$ 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.38 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	5.46 W/kg $\pm$ 16.5 % (k=2)

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	55.5	0.96 mho/m
Measured Body TSL parameters	(22.0 $\pm$ 0.2) °C	54.2 $\pm$ 6 %	0.98 mho/m $\pm$ 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.19 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	8.58 W/kg $\pm$ 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	1.43 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	5.63 W/kg $\pm$ 16.5 % (k=2)

SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	54.3 Ω - 1.1 j Ω
Return Loss	- 27.3 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	49.1 Ω - 3.6 j Ω
Return Loss	- 28.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.032 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. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

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	November 08, 2011

SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

DASY5 Validation Report for Head TSL

Date: 21.02.2014

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN: 1055

Communication System: UID 0 - CW; Frequency: 750 MHz

Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.9 \text{ S/m}$; $\epsilon_r = 40.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.37, 6.37, 6.37); Calibrated: 30.12.2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 25.04.2013
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

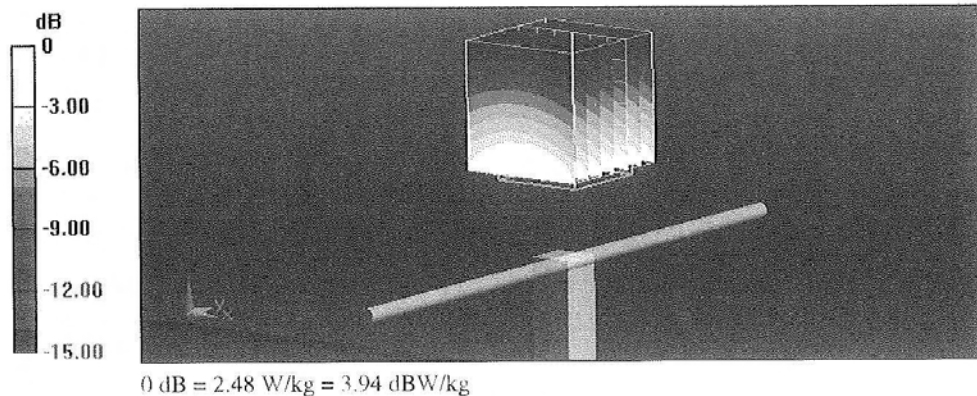
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.010 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 3.20 W/kg

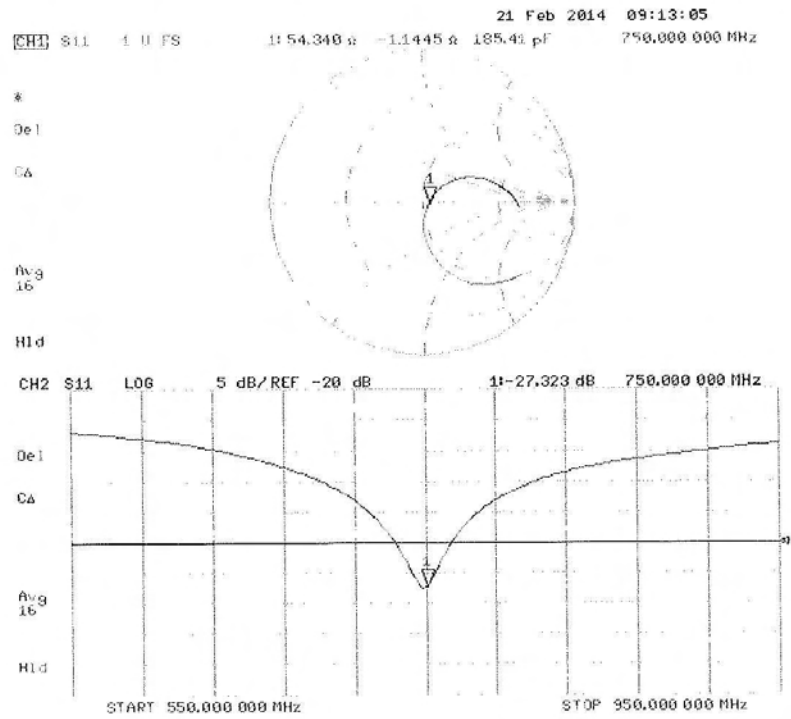
SAR(1 g) = 2.12 W/kg; SAR(10 g) = 1.38 W/kg

Maximum value of SAR (measured) = 2.48 W/kg



SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

Impedance Measurement Plot for Head TSL



SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

DASY5 Validation Report for Body TSL

Date: 20.02.2014

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN: 1055

Communication System: UID 0 - CW; Frequency: 750 MHz

Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.98 \text{ S/m}$; $\epsilon_r = 54.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.13, 6.13, 6.13); Calibrated: 30.12.2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 25.04.2013
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Dipole Calibration for Body Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

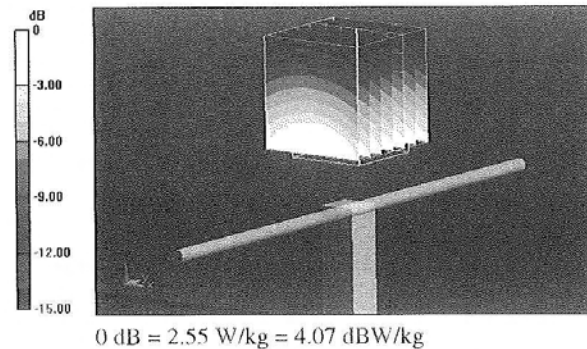
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.087 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 3.22 W/kg

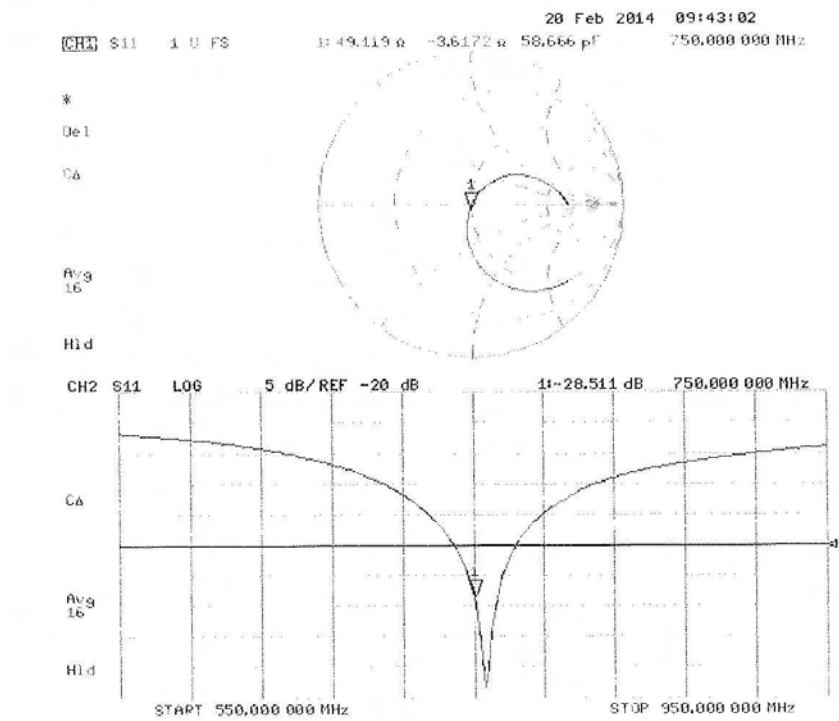
SAR(1 g) = 2.19 W/kg; SAR(10 g) = 1.43 W/kg

Maximum value of SAR (measured) = 2.55 W/kg



SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

Impedance Measurement Plot for Body TSL



SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808- SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

工业和信息化部通信计量中心
Telecommunication Metrology Center of MIIT

Add: No.52 Huayuanbei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: Info@emcite.com Http://www.emcite.com



Client **TA Technology (Shanghai)** Certificate No: J13-2-0241

CALIBRATION CERTIFICATE

Object **D2600V2 - SN: 1025**

Calibration Procedure(s) **TMC-XZ-03-028**
Calibration Specification for SAR and HAC Test System

Calibration date: **Jan 31, 2013**

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)

Power Meter NRP2	101919	01-Jul-12 (TMC, No.JW12-044)	Jul-13
Power sensor NRP-Z91	101548	01-Jul-12 (TMC, No.JW12-044)	Jul-13
Power sensor NRP-Z91	101547	01-Jul-12 (TMC, No.JW12-044)	Jul-13
Reference Probe EX3DV4	SN 3846	20- Dec-12 (speag, No.EX3-3846_Dec12)	Dec-13
DAE4	SN 1331	23-Mar-12 (speag, DAE4-1331_Mar12)	Mar-13
RF generator MG3700A	6201052605	01-Jul-12 (TMC, No.JW12-045)	Jul-13
Network Analyzer E8363B	MY43030928	06-May-12 (NIM, No. XDwb0212-0511)	May-13

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
-------------------	------	--	-----------------------

	Name	Function	Signature
Calibrated by:	Lin Hao	SAR Test Engineer	
Reviewed by:	Qi Dianyuan	SAR Project Leader	
Approved by:	Lu Bingsong	Deputy Director of the laboratory	

Issued: Jan 31, 2013

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

Certificate No: J13-2-0241

Page 1 of 9

SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

工业和信息化部通信计量中心
Telecommunication Metrology Center of MIIT



Add: No.52 Huayuanbei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: Info@emcite.com [Http://www.emcite.com](http://www.emcite.com)

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 300MHz to 3GHz)", 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:

- DASY 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.

SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

工业和信息化部通信计量中心
Telecommunication Metrology Center of MIIT



Add: No.52 Huayuanbei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: Info@emcite.com [Http://www.emcite.com](http://www.emcite.com)

Measurement Conditions

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

DASY Version	DASY52	V52.8.1
Extrapolation	Advanced Extrapolation	
Phantom	2mm Oval Phantom ELI4	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2600 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.0	1.96 mho/m
Measured Head TSL parameters	(22.2 $\pm$ 0.2) °C	38.6 $\pm$ 6 %	2.03mho/m $\pm$ 6 %
Head TSL temperature during test	(22.3 $\pm$ 0.2) °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.9 mW / g
SAR normalized	normalized to 1W	55.6 mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	54.5 mW /g $\pm$ 20.8 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	6.16 mW / g
SAR normalized	normalized to 1W	24.64 mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	24.45 mW /g $\pm$ 20.4 % (k=2)

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

	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808-SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

工业和信息化部通信计量中心
Telecommunication Metrology Center of MIIT

Add: No.52 Huayuanbei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: Info@emcite.com [Http://www.emcite.com](http://www.emcite.com)

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.5	2.16 mho/m
Measured Body TSL parameters	(22.2 ± 0.2) °C	50.9 ± 6%	2.21mho/m ± 6 %
Body TSL temperature during test	(21.9 ± 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	13.77 mW / g
SAR normalized	normalized to 1W	55.08 mW / g
SAR for nominal Body TSL parameters ²	normalized to 1W	53.63 mW /g ± 20.8 % (k=2)

SAR averaged over 10 cm^3 (10 g) of Body TSL	Condition	
SAR measured	250 mW input power	5.91 mW / g
SAR normalized	normalized to 1W	23.64 mW / g
SAR for nominal Body TSL parameters ²	normalized to 1W	23.3 mW /g ± 20.4 % (k=2)

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

SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808- SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

工业和信息化部通信计量中心
Telecommunication Metrology Center of MIIT



Add: No.52 Huayuanbei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: Info@emcite.com [Http://www.emcite.com](http://www.emcite.com)

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	50.6Ω - 5.9 jΩ
Return Loss	- 24.8dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	47.3Ω - 5.6 jΩ
Return Loss	- 23.9dB

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.

SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808- SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

工业和信息化部通信计量中心
Telecommunication Metrology Center of MIIT



Add: No.52 Huayuanbei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: Info@emcrite.com [Http://www.emcrite.com](http://www.emcrite.com)

DASY5 Validation Report for Head TSL
Test Laboratory: TMC, Beijing, China

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: SN: 1025

Communication System: CW Frequency: 2600 MHz Duty Cycle: 1:1

Medium: Head 2600MHz

Medium parameters used: $f = 2600 \text{ MHz}$; $\sigma = 2.03 \text{ mho/m}$; $\epsilon_r = 38.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3846; ConvF(7.00, 7.00, 7.00)
- Electronics: DAE4 Sn1331;
- Phantom: ELI 4.0; Type: QDOVA001BA;
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Pin=250mW; d=10mm/Zoom Scan (7x7x7)/Cube 0:

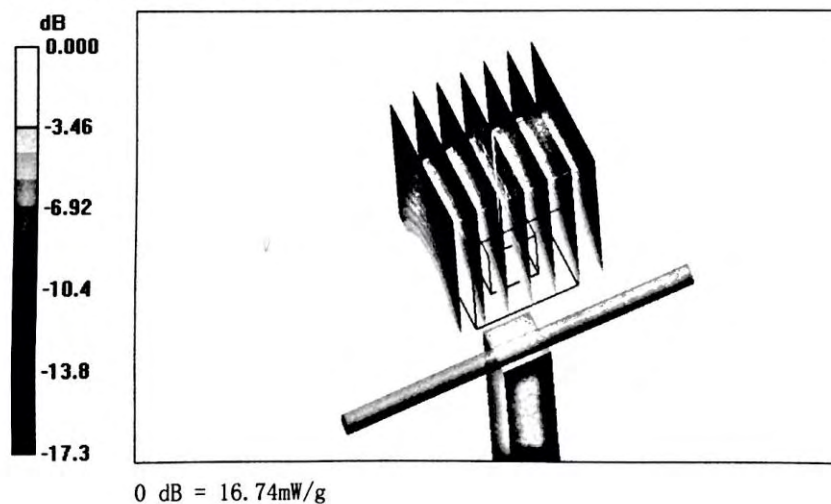
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 96.9 V/m; Power Drift = -0.072 dB

Peak SAR (extrapolated) = 27.7 W/kg

SAR(1 g) = 13.9 mW/g; SAR(10 g) = 6.16 mW/g

Maximum value of SAR (measured) = 16.74 mW/g



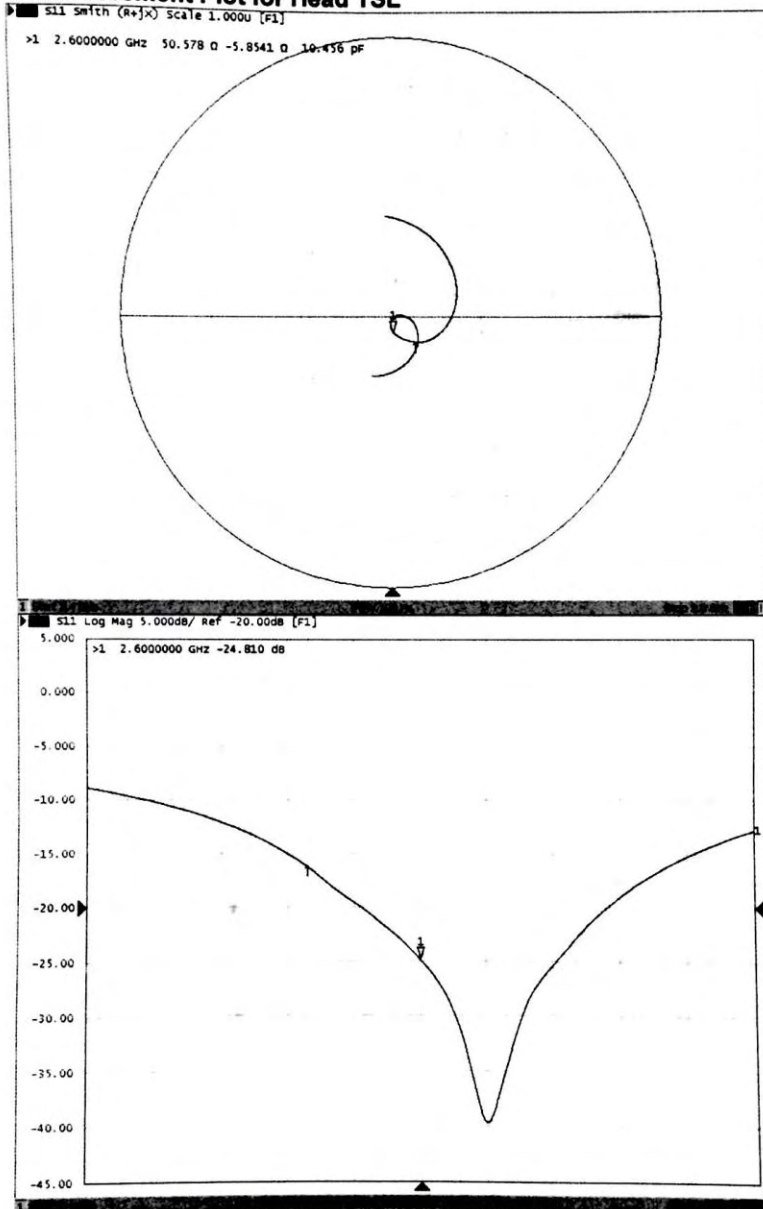
SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808- SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

工业和信息化部通信计量中心
Telecommunication Metrology Center of MIIT



Add: No.52 Huayuanbei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: Info@emcite.com [Http://www.emcite.com](http://www.emcite.com)

Impedance Measurement Plot for Head TSL



Certificate No: J13-2-0241

Page 7 of 9

SONY	Sony Mobile Communications (China) Co., Ltd. Test Laboratory	Report No.: TARC-PY7PM-0808- SAR-FCC-01	
PY7PM-0808 SAR FCC Test Report		Edition 2	Revision 0

工业和信息化部通信计量中心
Telecommunication Metrology Center of MIIT



Add: No.52 Huayuanbei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: Info@emcite.com [Http://www.emcite.com](http://www.emcite.com)

DASY5 Validation Report for Body TSL
Test Laboratory: TMC, Beijing, China

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: SN: 1025

Communication System: CW Frequency: 2600 MHz Duty Cycle: 1:1

Medium: Body 2600MHz

Medium parameters used: $f = 2600$ MHz; $\sigma = 2.21$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3846; ConvF(6.72, 6.72, 6.72)
- Electronics: DAE4 Sn1331;
- Phantom: ELI 4.0; Type: QDOVA001BA;
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Pin=250mW; d=10mm/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 93.85 V/m; Power Drift = -0.033 dB

Peak SAR (extrapolated) = 27.2 W/kg

SAR(1 g) = 13.77 mW/g; SAR(10 g) = 5.91 mW/g

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

