Face Held for GSM1900, Front towards Phantom 1909.8MHz

Communication System: PTT 1900; Frequency: 1909.8 MHz;Duty Cycle:1:8

Medium parameters used (interpolated): f = 1910.0 MHz; σ = 1.43 S/m; ε_r = 40.00; ρ = 1000 kg/m^3

Phantom section: Flat Section

Probe: ES3DV3 - SN3221; ConvF(5.20, 5.20, 5.20); Calibrated: 1/31/2015;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn876; Calibrated: 03/09/2015

Phantom: ELI4; Type: Triple Modular;

Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Area Scan (51x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

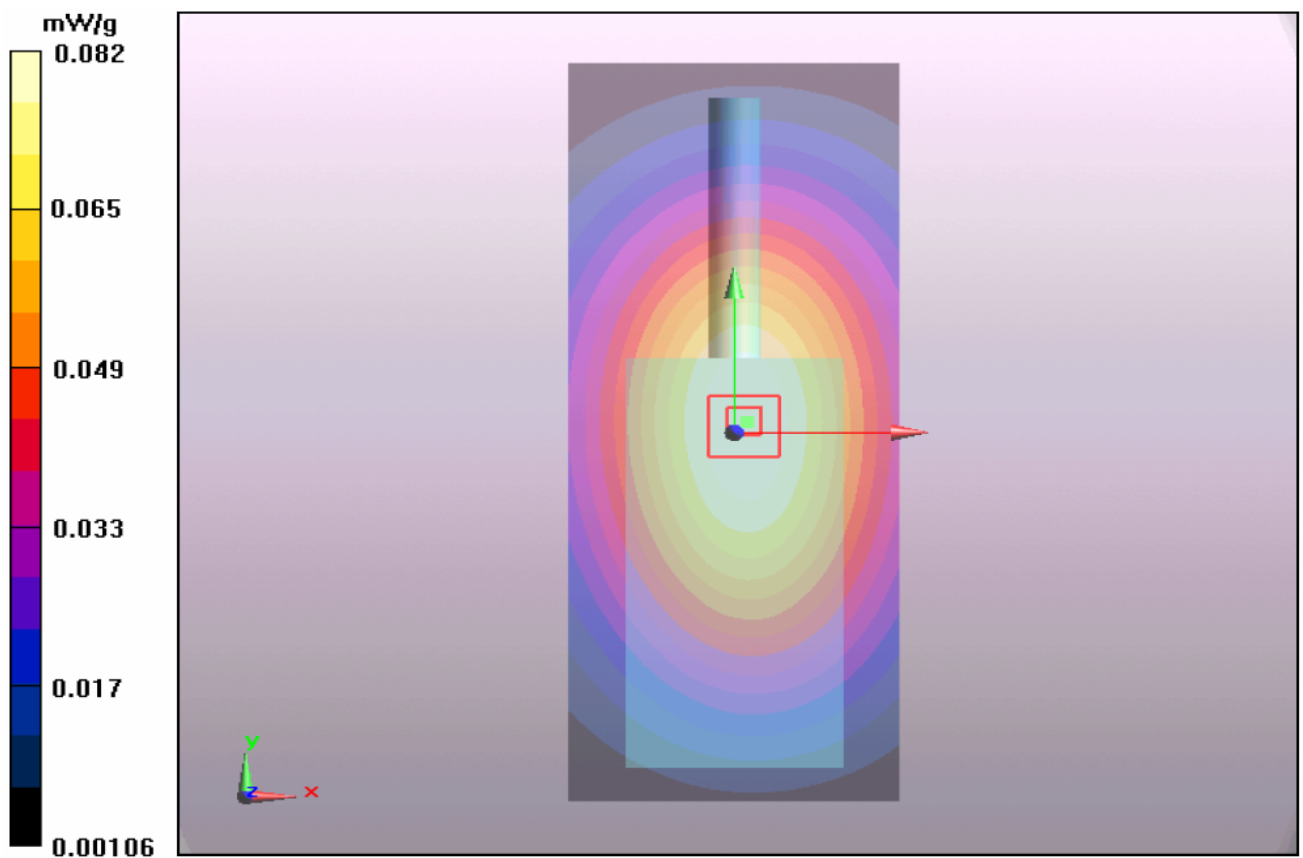Maximum value of SAR (interpolated) = 0.0.655 W/Kg

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

Reference Value = 5.422 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.122 W/Kg

SAR(1 g) = 0.0730 W/Kg; SAR(10 g) = 0.040 W/Kg

Maximum value of SAR (measured) = 0.0816 W/Kg

Date/Time: 01/18/2016 6:06:54 AM

Figure 9: Face held for GSM1900 Front towards Phantom 1909.8 MHz

Body- Worn GSM1900 With A1, B1, Front towards Ground 1850.2 MHz

Communication System: PTT1900; Frequency: 1850.2 MHz;Duty Cycle:1:8

Medium parameters used (interpolated): f = 1850.0 MHz; σ = 1.53 S/m; ε_r = 53.50; ρ = 1000 kg/m^3

Phantom section : Flat Section

Probe: ES3DV3 - SN3221; ConvF(4.79, 4.79, 4.79); Calibrated: 1/31/2015;;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn876; Calibrated: 03/09/2015

Phantom: ELI4; Type: Triple Modular;

Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Area Scan (51x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
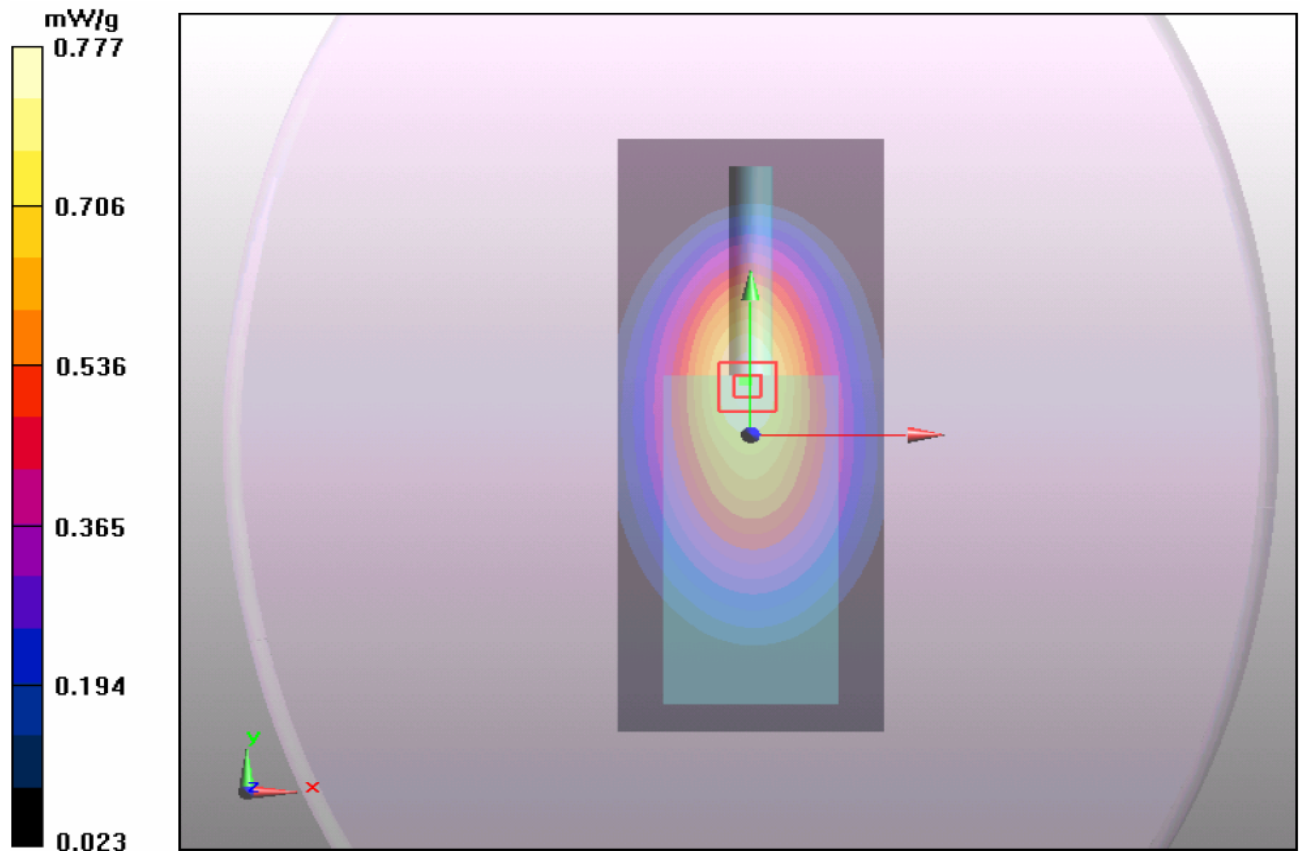
Maximum value of SAR (interpolated) = 0.7620 W/Kg

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

Reference Value = 12.00 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.192 W/Kg

SAR(1 g) = 0.7240 W/Kg; SAR(10 g) = 0.413 W/Kg

Maximum value of SAR (measured) = 0.777 W/Kg

Date/Time: 01/19/2016 12:51:40 AM

Plot 10: Body-worn for GSM1900 With A1, B1; Front towards Ground 1850.2 MHz

Body- Worn GSM1900 With A1, B1, Front towards Ground 1880.0 MHz

Communication System: PTT1900; Frequency: 1880.0 MHz;Duty Cycle:1:8

Medium parameters used (interpolated): f = 1880.0 MHz; σ = 1.55 S/m; $ε_r$ = 53.30; ρ = 1000 kg/m³

Phantom section : Flat Section

Probe: ES3DV3 - SN3221; ConvF(4.79, 4.79, 4.79); Calibrated: 1/31/2015;;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn876; Calibrated: 03/09/2015

Phantom: ELI4; Type: Triple Modular;

Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Area Scan (51x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
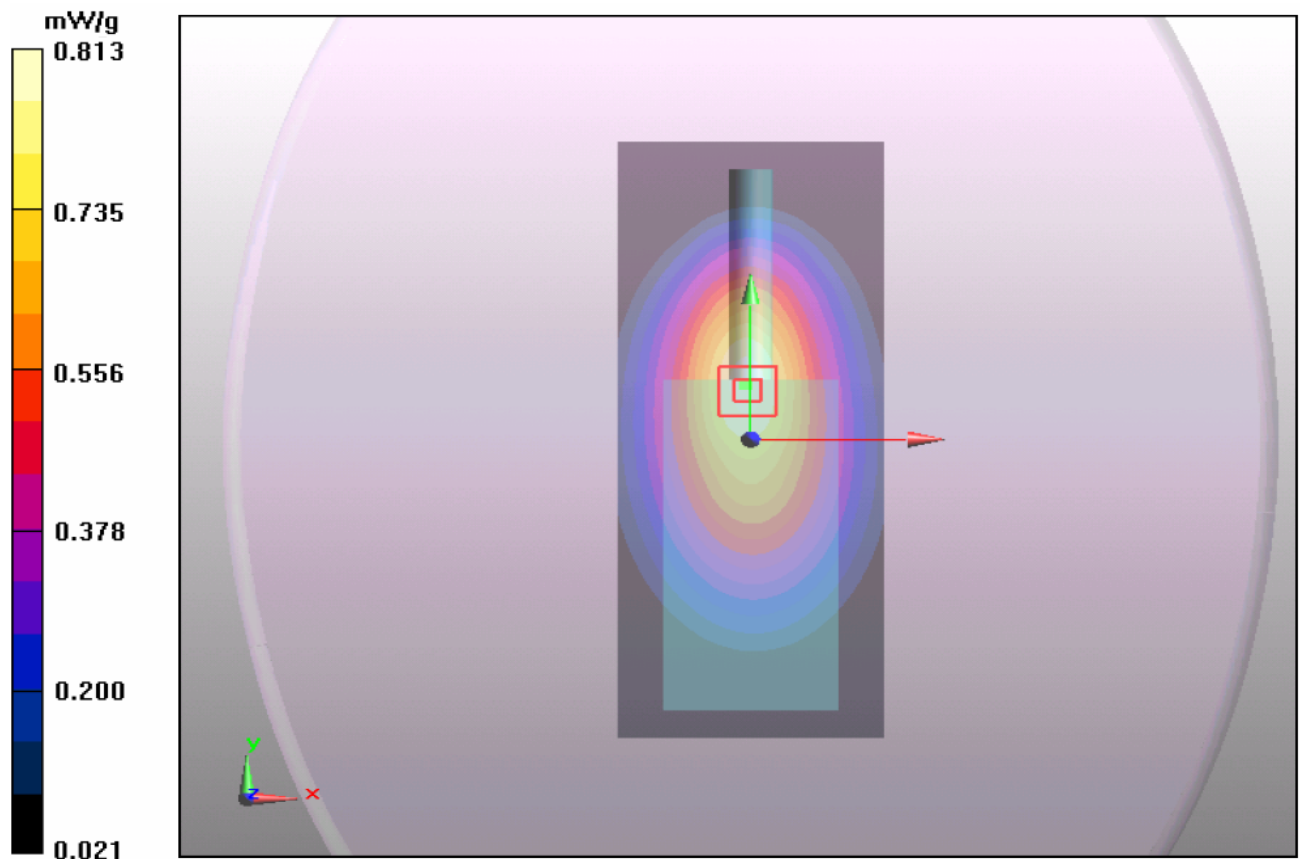
Maximum value of SAR (interpolated) = 0.8870 W/Kg

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

Reference Value = 12.412 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.212 W/Kg

SAR(1 g) = 0.7920 W/Kg; SAR(10 g) = 0.466 W/Kg

Maximum value of SAR (measured) = 0.813 W/Kg

Date/Time: 01/19/2016 13:19:06 AM

Plot 11: Body-worn for GSM1900 With A1, B1; Front towards Ground 1880.0 MHz

Body- Worn GSM1900 With A1, B1, Front towards Ground 1909.8 MHz

Communication System: PTT1900; Frequency: 1909.8 MHz;Duty Cycle:1:8

Medium parameters used (interpolated): f = 1910.0 MHz; σ = 1.56 S/m; ε_r = 53.20; ρ = 1000 kg/m^3

Phantom section : Flat Section

Probe: ES3DV3 - SN3221; ConvF(4.79, 4.79, 4.79); Calibrated: 1/31/2015;;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn876; Calibrated: 03/09/2015

Phantom: ELI4; Type: Triple Modular;

Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Area Scan (51x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.830 W/Kg
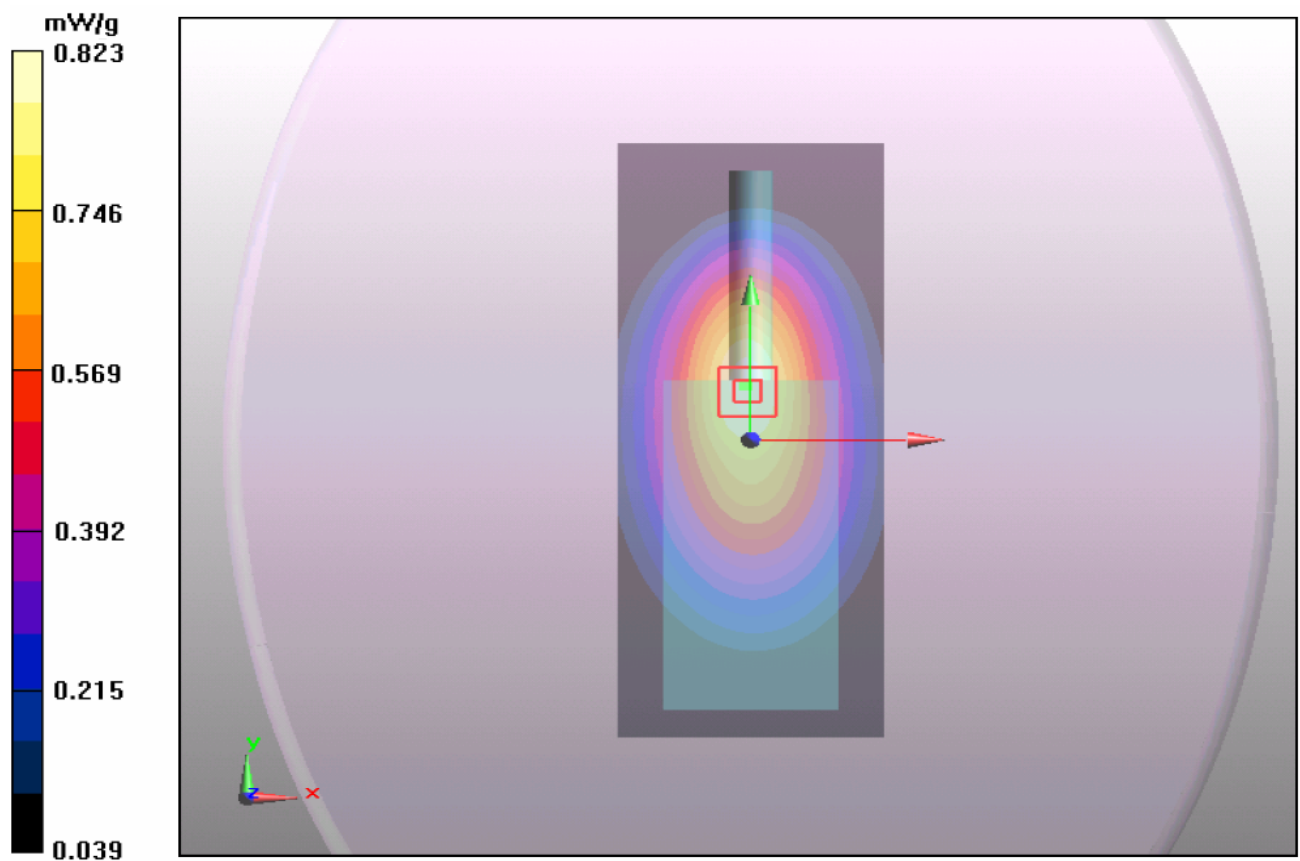
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.399 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.203 W/Kg

SAR(1 g) = 0.7680 W/Kg; SAR(10 g) = 0.5150 W/Kg

Maximum value of SAR (measured) = 0.823 W/Kg

Date/Time: 01/19/2016 13:38:52 AM

Plot 12: Body-worn for GSM1900 With A1, B1; Front towards Ground 1909.8 MHz

6. <u>Calibration Certificate</u>

6.1. Probe Calibration Ceriticate

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CALIBRATION
No. L0570

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Client	GCCT		Certificate No: Z15-97014

CALIBRATION CERTIFICATE

Object	ES3DV3 - SN:3221
Calibration Procedure(s)	FD-Z11-2-004-01 Calibration Procedures for Dosimetric E-field Probes
Calibration date:	January 31, 2015

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)℃ and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards		ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter	NRP2	101919	01-Jul-14 (CTTL, No.J14X02146)	Jun-15
Power sensor	NRP-Z91	101547	01-Jul-14 (CTTL, No.J14X02146)	Jun-15
Power sensor	NRP-Z91	101548	01-Jul-14 (CTTL, No.J14X02146)	Jun-15
Reference10dBAttenuator		18N50W-10dB	13-Mar-14(TMC,No.JZ14-1103)	Mar-16
Reference20dBAttenuator		18N50W-20dB	13-Mar-14(TMC,No.JZ14-1104)	Mar-16
Reference Probe EX3DV4		SN 3617	28-Aug-14(SPEAG,No.EX3-3617_Aug14)	Aug-15
DAE4		SN 777	17-Sep-14 (SPEAG, DAE4-777_Sep14)	Sep -15
Secondary Standards		ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
SignalGeneratorMG3700A		6201052605	01-Jul-14 (CTTL, No.J14X02145)	Jun-15
Network Analyzer E5071C		MY46110673	15-Feb-14 (TMC, No.JZ14-781)	Feb-15

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

Issued: February 02, 2015

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

Certificate No: Z15-97014   Page 1 of 11

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Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A,B,C,D	modulation dependent linearization parameters
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 θ=0 is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

a) 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

b) 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

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z*: Assessed for E-field polarization θ=0 (f≤900MHz in TEM-cell; f>1800MHz: waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the E^2-field uncertainty inside TSL (see below ConvF).

- *NORM(f)x,y,z = NORMx,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.

- *DCPx,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.

- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics.

- *Ax,y,z; Bx,y,z; Cx,y,z;VRx,y,z*:A,B,C are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.

- *ConvF and Boundary Effect Parameters*: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f≤800MHz) and inside waveguide using analytical field distributions based on power measurements for f >800MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty valued are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,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±50MHz to±100MHz.

- *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.

- *Connector Angle*: The angle is assessed using the information gained by determining the *NORMx* (no uncertainty required).

Certificate No: Z15-97014   Page 2 of 11

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Probe ES3DV3

SN: 3221

Calibrated: January 31, 2015

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

Certificate No: Z15-97014   Page 3 of 11

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DASY/EASY – Parameters of Probe: ES3DV3 - SN: 3221

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm($\mu V/(V/m)^2$) [A]	1.08	1.39	1.06	±10.8%
DCP(mV) [B]	103.1	100.5	103.7	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√µV	C	D dB	VR mV	Unc [E] (k=2)
0	CW	X	0.0	0.0	1.0	0.00	261.1	±2.6%
		Y	0.0	0.0	1.0		292.6	
		Z	0.0	0.0	1.0		262.2	

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 Norm X, Y, Z do not affect the E^2-field uncertainty inside TSL (see Page 5 and Page 6).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainly is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

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DASY/EASY – Parameters of Probe: ES3DV3 - SN: 3221

Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz]^C	Relative Permittivity ^{F}	Conductivity (S/m) ^{F}	ConvF X	ConvF Y	ConvF Z	Alpha^G	Depth^G (mm)	Unct. (k=2)
750	41.9	0.89	6.36	6.36	6.36	0.41	1.42	±12%
835	41.5	0.90	6.25	6.25	6.25	0.41	1.47	±12%
900	41.5	0.97	6.13	6.13	6.13	0.35	1.63	±12%
1750	40.1	1.37	5.33	5.33	5.33	0.46	1.55	±12%
1900	40.0	1.40	5.20	5.20	5.20	0.71	1.25	±12%
2000	40.0	1.40	5.12	5.12	5.12	0.70	1.25	±12%
2300	39.5	1.67	4.77	4.77	4.77	0.59	1.45	±12%
2450	39.2	1.80	4.50	4.50	4.50	0.85	1.16	±12%
2600	39.0	1.96	4.35	4.35	4.35	0.76	1.26	±12%

^{C} Frequency validity of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
^{F} At frequency below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ±5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.
^{G} Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for the frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

Certificate No: Z15-97014　　　　　　Page 5 of 11

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DASY/EASY – Parameters of Probe: ES3DV3 - SN: 3221

Calibration Parameter Determined in Body Tissue Simulating Media

f [MHz]^C	Relative Permittivity ^{F}	Conductivity (S/m) ^{F}	ConvF X	ConvF Y	ConvF Z	Alpha^G	Depth^G (mm)	Unct. (k=2)
750	55.5	0.96	6.28	6.28	6.28	0.38	1.63	±12%
835	55.2	0.97	6.29	6.29	6.29	0.44	1.54	±12%
900	55.0	1.05	6.16	6.16	6.16	0.49	1.45	±12%
1750	53.4	1.49	5.00	5.00	5.00	0.61	1.34	±12%
1900	53.3	1.52	4.79	4.79	4.79	0.61	1.36	±12%
2000	53.3	1.52	4.75	4.75	4.75	0.48	1.62	±12%
2300	52.9	1.81	4.65	4.65	4.65	0.63	1.48	±12%
2450	52.7	1.95	4.49	4.49	4.49	0.88	1.16	±12%
2600	52.5	2.16	4.37	4.37	4.37	0.71	1.32	±12%

^{C} Frequency validity of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
^{F} At frequency below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ±5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.
^{G} Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for the frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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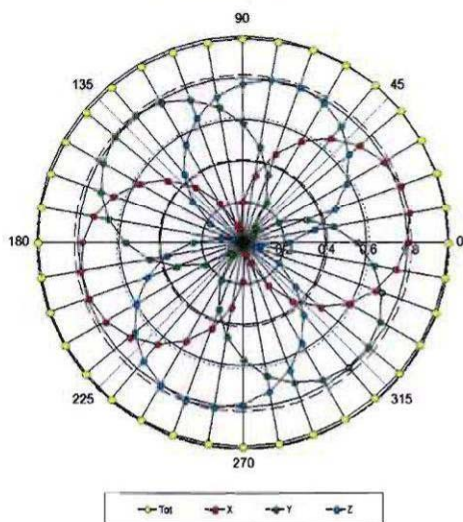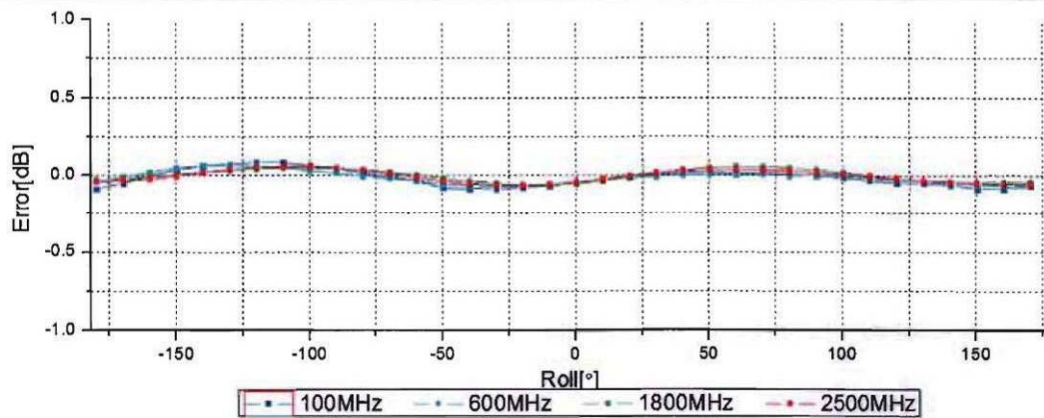# Frequency Response of E-Field
(TEM-Cell: ifi110 EXX, Waveguide: R22)
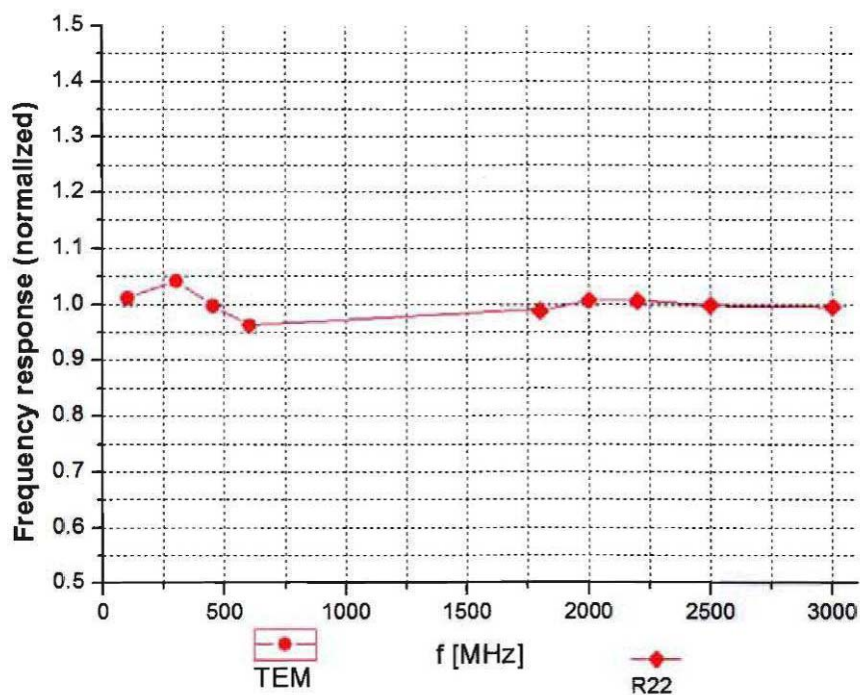
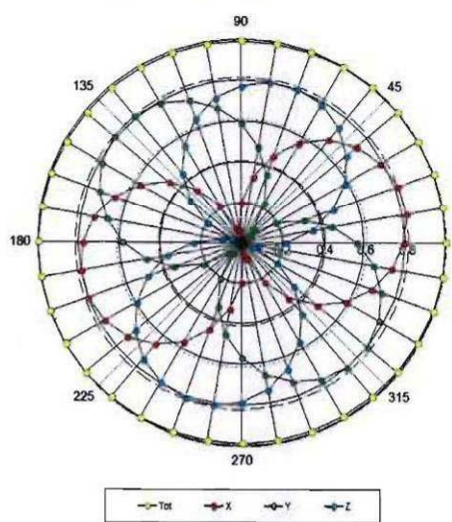**Uncertainty of Frequency Response of E-field: ±7.5% (k=2)**

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Receiving Pattern (Φ), θ=0°

f=600 MHz, TEM

f=1800 MHz, R22

Uncertainty of Axial Isotropy Assessment: ±0.9% (k=2)

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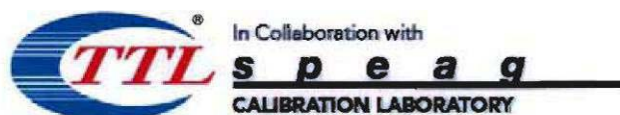# Dynamic Range f(SAR$_{head}$)
(TEM cell, f = 900 MHz)
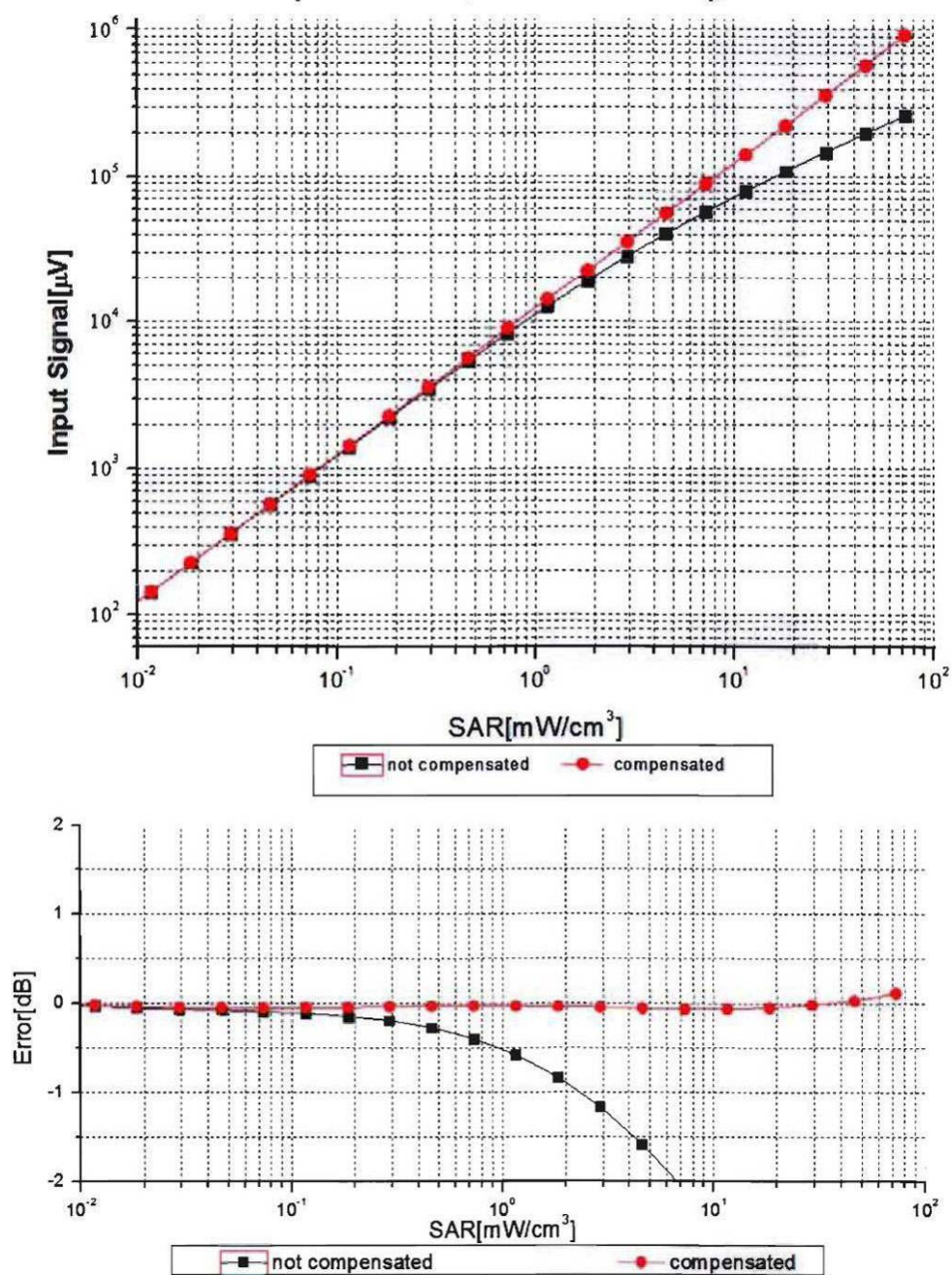
Uncertainty of Linearity Assessment: ±0.9% (k=2)

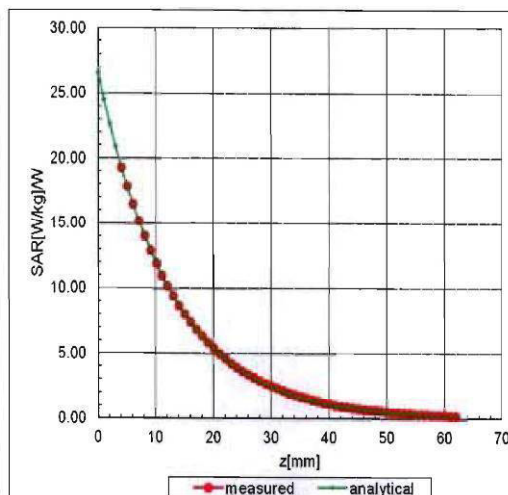![TTL logo] **In Collaboration with** **speag** **CALIBRATION LABORATORY**
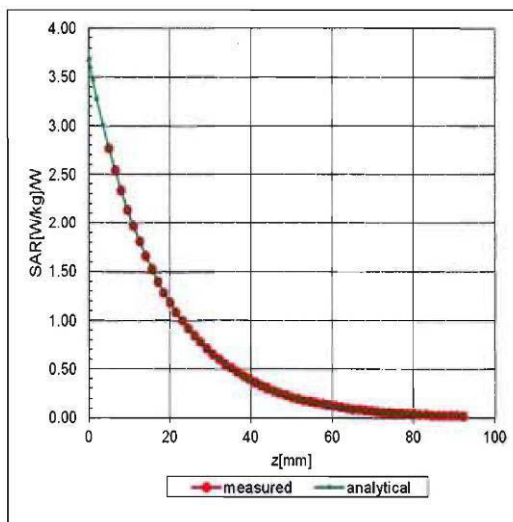
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Conversion Factor Assessment

f=900 MHz, WGLS R9(H_convF)   f=1750 MHz, WGLS R22(H_convF)

Deviation from Isotropy in Liquid

Uncertainty of Spherical Isotropy Assessment: ±2.8% (K=2)

DASY/EASY – Parameters of Probe: ES3DV3 - SN: 3221

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	36.5
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	10mm
Tip Diameter	4mm
Probe Tip to Sensor X Calibration Point	2mm
Probe Tip to Sensor Y Calibration Point	2mm
Probe Tip to Sensor Z Calibration Point	2mm
Recommended Measurement Distance from Surface	3mm

6.2. D835V2 Dipole Calibration Certificate

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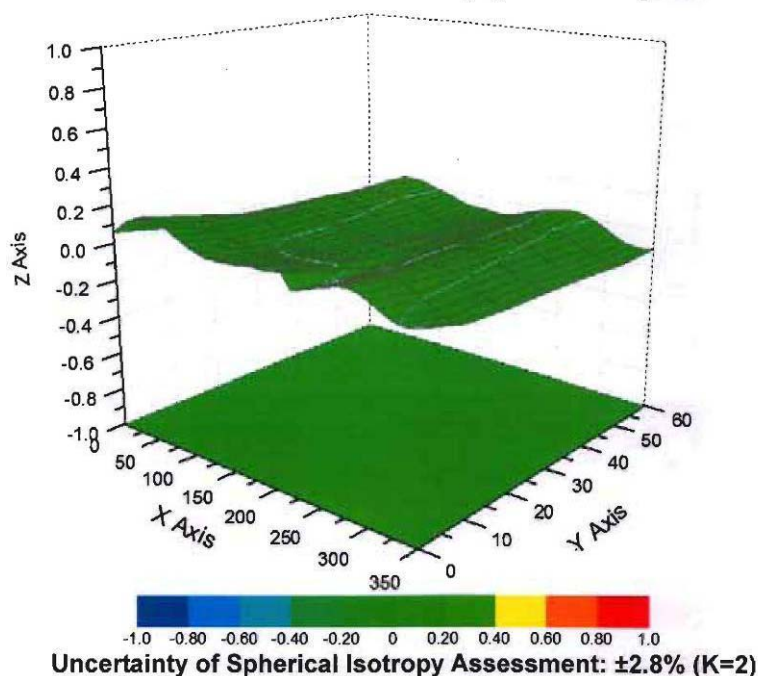E-mail: cttl@chinattl.com   Http://www.chinattl.cn

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CALIBRATION
No. L0570

Client	SMQ		Certificate No:	Z15-97116

CALIBRATION CERTIFICATE

Object	D835V2 - SN: 4d141
Calibration Procedure(s)	FD-Z11-2-003-01 Calibration Procedures for dipole validation kits
Calibration date:	September 24, 2015

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)℃ and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	101919	01-Jul-15 (CTTL, No.J15X04256)	Jun-16
Power sensor NRP-Z91	101547	01-Jul-15 (CTTL, No.J15X04256)	Jun-16
Reference Probe EX3DV4	SN 3846	24-Sep-14(SPEAG,No.EX3-3846_Sep14)	Sep-15
DAE4	SN 910	16-Jun-15(SPEAG,No.DAE4-910_Jun15)	Jun-16

Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	02-Feb-15 (CTTL, No.J15X00729)	Feb-16
Network Analyzer E5071C	MY46110673	03-Feb-15 (CTTL, No.J15X00728)	Feb-16

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

Issued: September 29, 2015

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Glossary:

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

Calibration is Performed According to the Following Standards:
a) 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
b) 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
c) KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:
d) 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%.

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Measurement Conditions

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

DASY Version	DASY52	52.8.8.1222
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	42.0 ± 6 %	0.89 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.33 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	9.45 mW /g ± 20.8 % (k=2)
SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	1.51 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	6.11 mW /g ± 20.4 % (k=2)

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	55.2	0.97 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	56.0 ± 6 %	0.98 mho/m ± 6 %
Body TSL temperature change during test	<1.0 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm^3 (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.39 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	9.51 mW /g ± 20.8 % (k=2)
SAR averaged over 10 cm^3 (10 g) of Body TSL	Condition	
SAR measured	250 mW input power	1.57 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	6.25 mW /g ± 20.4 % (k=2)

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Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	$48.2\Omega - 4.66j\Omega$
Return Loss	-25.9dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	$45.7\Omega - 5.94j\Omega$
Return Loss	-22.3dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.441 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