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Appendix

1. Photographs of Test Setup



Fig.1 Photograph of the SAR measurement System

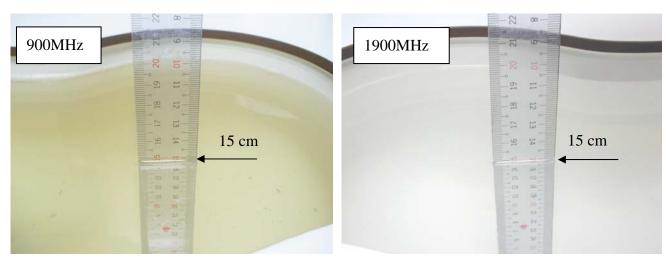


Fig.2.1 Photograph of the Tissue Simulant Fluid liquid depth 15cm for Left-head Side

Fig.2.2 Photograph of the Tissue Simulant Fluid liquid depth 15cm for Right-head Side

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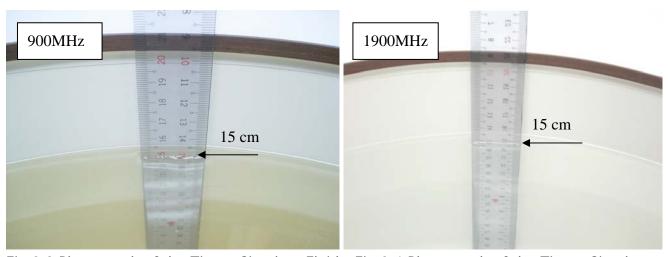
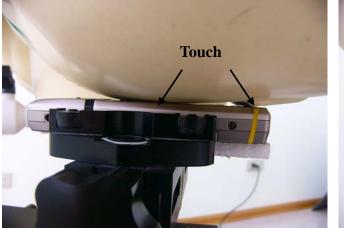


Fig.2.3 Photograph of the Tissue Simulant Fluid Fig.2.4 Photograph of the Tissue Simulant liquid depth 15cm for Flat (Body) Fluid liquid depth 15cm for Flat (Body)



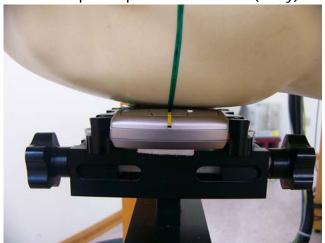


Fig.3 Right Head Section / Cheek-Touch Position

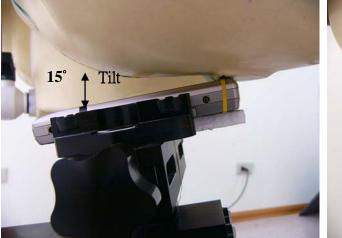
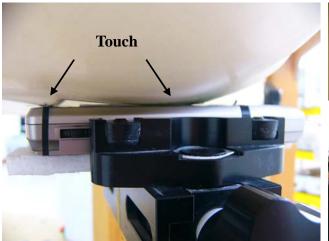




Fig.4 Right Head Section / Ear-Tilt Position(15°)

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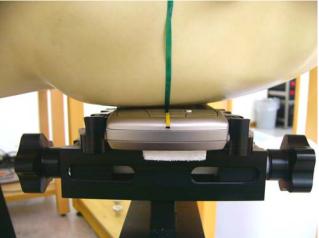


Fig.5 Left Head Section / Cheek-Touch Position

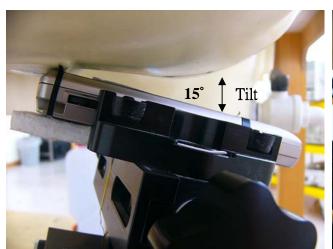




Fig.6 Left Head Section / Ear-Tilt Position(15°)



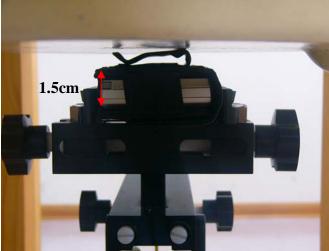


Fig. 7 Body worn- EUT front to flat phantom (testing in GPRS Mode)

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Fig.8 Body worn- EUT back to flat phantom (testing in GPRS Mode)

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2. Photographs of the EUT



Fig.9 Front view of device



Fig.10 Back view of device

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Fig.11 Left view of device



Fig.12 Right view of device

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3. Photographs of the Accessories of EUT



Fig.13 Front view of Battery



Fig.14 Back view of Battery

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Fig.15 EUT Connected Charger



Fig.16 EUT Connected Headset

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Fig.17 Front view of holster & belt clip



Fig.18 Back view of holster & belt clip

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4. DAE & Probe Calibration certificate

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





S Schweizerischer Kalibrierdienst Service suisse d'étalonnage

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

Accredited by the Swiss Federal Office of Metrology and Accreditation The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Client

SGS (Auden)

Certificate No: DAE4-547_Mar07

Accreditation No.: SCS 108

Dbject	DAE4 - SD 000 D	04 BA - SN: 547	
Calibration procedure(s)	QA CAL-06.v12 Calibration proced	dure for the data acquisition electro	onics (DAE)
Calibration date:	March 5, 2007		
Condition of the calibrated item	In Tolerance		
		obability are given on the following pages and a refacility: environment temperature $(22 \pm 3)^{\circ}$ C and	
Calibration Equipment used (M&TE	critical for calibration)		
Primary Standards	ID#	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Primary Standards Fluke Process Calibrator Type 702	ID# SN: 6295803	13-Oct-06 (Elcal AG, No: 5492)	Oct-07
Primary Standards Fluke Process Calibrator Type 702	ID#		
Primary Standards Fluke Process Calibrator Type 702 Keithley Multimeter Type 2001 Secondary Standards	ID# SN: 6295803 SN: 0810278	13-Oct-06 (Elcal AG, No: 5492) 03-Oct-06 (Elcal AG, No: 5478) Check Date (in house)	Oct-07 Oct-07 Scheduled Check
Calibration Equipment used (M&TE Primary Standards Fluke Process Calibrator Type 702 Keithley Multimeter Type 2001 Secondary Standards Calibrator Box V1.1	ID# SN: 6295803 SN: 0810278	13-Oct-06 (Elcal AG, No: 5492) 03-Oct-06 (Elcal AG, No: 5478)	Oct-07 Oct-07
Primary Standards Fluke Process Calibrator Type 702 Keithley Multimeter Type 2001 Secondary Standards	ID# SN: 6295803 SN: 0810278	13-Oct-06 (Elcal AG, No: 5492) 03-Oct-06 (Elcal AG, No: 5478) Check Date (in house)	Oct-07 Oct-07 Scheduled Check
Primary Standards Fluke Process Calibrator Type 702 Keithley Multimeter Type 2001 Secondary Standards	ID# SN: 6295803 SN: 0810278 ID# SE UMS 006 AB 1002	13-Oct-06 (Elcal AG, No: 5492) 03-Oct-06 (Elcal AG, No: 5478) Check Date (in house) 15-Jun-06 (SPEAG, in house check)	Oct-07 Oct-07 Scheduled Check In house check Jun-07
Primary Standards Fluke Process Calibrator Type 702 Keithley Multimeter Type 2001 Secondary Standards Calibrator Box V1.1	ID# SN: 6295803 SN: 0810278 ID# SE UMS 006 AB 1002	13-Oct-06 (Elcal AG, No: 5492) 03-Oct-06 (Elcal AG, No: 5478) Check Date (in house) 15-Jun-06 (SPEAG, in house check) Function Technician	Oct-07 Oct-07 Scheduled Check In house check Jun-07

Certificate No: DAE4-547_Mar07

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





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

Accredited by the Swiss Federal Office of Metrology and Accreditation The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

SGS (Auden)	CERTIFICAT		X3-3526_Aug06
Object	EX3DV3 - SN:3		
Calibration procedure(s)		and QA CAL-14.v3 edure for dosimetric E-field probes	
Calibration date:	August 25, 2006	5	
Condition of the calibrated item	In Tolerance		
Calibration Equipment used (M& Primary Standards	ID#	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	5-Apr-06 (METAS, No. 251-00557)	Apr-07
Power sensor E4412A	MY41495277	5-Apr-06 (METAS, No. 251-00557)	Apr-07
Power sensor E4412A	MY41498087	5-Apr-06 (METAS, No. 251-00557)	Apr-07
Reference 3 dB Attenuator	SN: S5054 (3c)	10-Aug-06 (METAS, No. 217-00592)	Aug-07
Reference 20 dB Attenuator Reference 30 dB Attenuator	SN: S5086 (20b)	4-Apr-06 (METAS, No. 251-00558)	Apr-07
Reference Probe ES3DV2	SN: S5129 (30b) SN: 3013	10-Aug-06 (METAS, No. 217-00593)	Aug-07 Jan-07
DAE4	SN: 654	2-Jan-06 (SPEAG, No. ES3-3013_Jan06) 21-Jun-06 (SPEAG, No. DAE4-654_Jun06)	Jun-07
-Water			27/1756/7754
Secondary Standards	ID#	Check Date (in house)	Scheduled Check
	US3642U01700	4-Aug-99 (SPEAG, in house check Nov-05)	In house check: Nov-07
RF generator HP 8648C		40.0 - 404.40054.0 - - - - - - - - - - - - -	
RF generator HP 8648C	US37390585	18-Oct-01 (SPEAG, in house check Nov-05)	In house check: Nov 06
RF generator HP 8648C Network Analyzer HP 8753E	US37390585 Name	18-Oct-01 (SPEAG, in house check Nov-05) Function	Signature
RF generator HP 8648C	Promoving the second		
RF generator HP 8648C Network Analyzer HP 8753E	Name	Function	

Certificate No: EX3-3526_Aug06

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





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

Accreditation No.: SCS 108

Accredited by the Swiss Federal Office of Metrology and Accreditation
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Glossary:

TSL tissue simulating liquid
NORMx,y,z sensitivity in free space
ConF sensitivity in TSL / NORMx,y,z
DCP diode compression point
Polarization φ rotation around probe axis

Polarization 9 9 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:

 a) 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

 b) 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

Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization θ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the E²-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.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 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 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 ± 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.

Certificate No: EX3-3526_Aug06 Page 2 of 9

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EX3DV3 SN:3526

August 25, 2006

Probe EX3DV3

SN:3526

Manufactured:

March 19, 2004

Last calibrated:

May 24, 2004

Recalibrated:

August 25, 2006

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

Certificate No: ET3-3526_Aug06

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EX3DV3 SN:3526

August 25, 2006

DASY - Parameters of Probe: EX3DV3 SN:3526

Sensitivity in Free Space ^A			Diode C	ompression ^B
NormX	0.92 ± 10.1%	$\mu V/(V/m)^2$	DCP X	95 mV
NormY	0.87 ± 10.1%	$\mu V/(V/m)^2$	DCP Y	92 mV
NormZ	0.85 ± 10.1%	$\mu V/(V/m)^2$	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 mi	m

Sensor Cente	er to Phantom Surface Distance	3.7 mm	4.7 mm
SAR _{be} [%]	Without Correction Algorithm	2.1	0.9
SAR _{be} [%]	With Correction Algorithm	0.1	0.1

TSL 1810 MHz Typical SAR gradient: 10 % per mm

Sensor Center	to Phantom Surface Distance	3.7 mm	4.7 mm
SAR _{be} [%]	Without Correction Algorithm	1.5	8.0
SAR _{be} [%]	With Correction Algorithm	0.1	0.6

Sensor Offset

Probe Tip to Sensor Center 1 n	nm
--------------------------------	----

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.

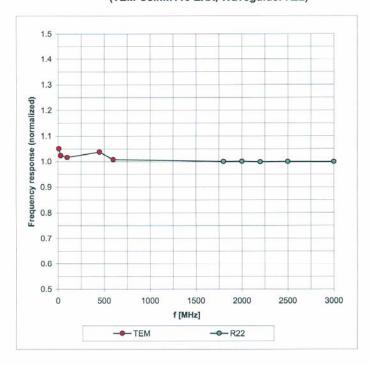
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EX3DV3 SN:3526

August 25, 2006

Frequency Response of E-Field

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



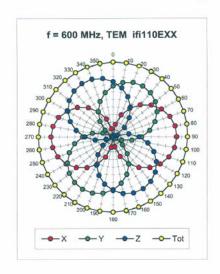
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

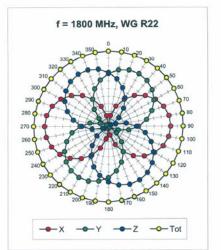
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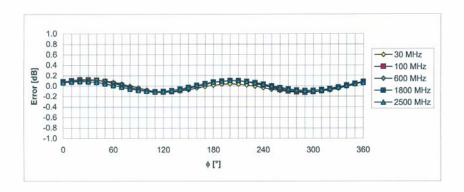
EX3DV3 SN:3526

August 25, 2006

Receiving Pattern (ϕ), θ = 0°







Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

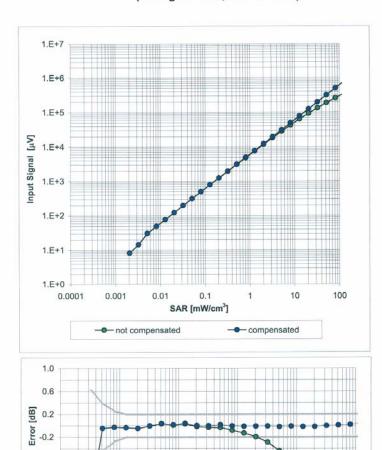
Report No. : ES/2007/60012 Page : 18 of 25

EX3DV3 SN:3526

August 25, 2006

Dynamic Range f(SAR_{head})

(Waveguide R22, f = 1800 MHz)



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

10

100

-0.6 -1.0

0.001

0.01

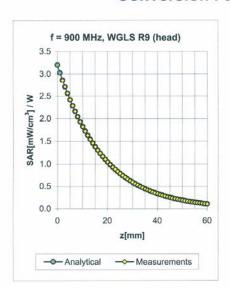
SAR [mW/cm³]

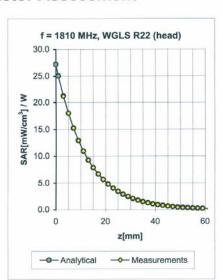
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EX3DV3 SN:3526

August 25, 2006

Conversion Factor Assessment





f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.21	0.90	11.72 ± 11.0% (k=2)
1810	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.11	1.33	9.61 ± 11.0% (k=2)
1950	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.11	1.33	9.32 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.42	0.80	8.29 ± 11.8% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.21	0.89	11.63 ± 11.0% (k=2)
1810	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.19	1.32	9.64 ± 11.0% (k=2)
1950	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.15	1.55	9.26 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.40	0.52	8.30 ± 11.8% (k=2)
5200	± 50 / ± 100	Body	49.0 ± 5%	$5.30 \pm 5\%$	0.45	1.85	3.17 ± 13.1% (k=2)
5800	± 50 / ± 100	Body	48.2 ± 5%	6.00 ± 5%	0.25	1.85	2.66 ± 13.1% (k=2)

 $^{^{\}mathrm{c}}$ The validity of \pm 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.

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 $\pm 20.6\,\%$

 $\pm 20.1\,\%$

5. Uncertainty Analysis

Expanded STD Uncertainty

DASY4 Uncertainty Budget According to IEEE P1528 [1]								
	Uncertainty	Prob.	Div.	(c_i)	(c_i)	Std. Unc.	Std. Unc.	(v_i)
Error Description	value	Dist.		1g	10g	(1g)	(10g)	v_{eff}
Measurement System	1.400	27	-	-	-	1100	1100	
Probe Calibration	±4.8 %	N	1	1	1	±4.8 %	±4.8 %	∞
Axial Isotropy	±4.7 %	R	$\sqrt{3}$	0.7	0.7	±1.9 %	±1.9 %	∞
Hemispherical Isotropy	±9.6 %	R	$\sqrt{3}$	0.7	0.7	±3.9 %	±3.9 %	∞
Boundary Effects	$\pm 1.0 \%$	R	$\sqrt{3}$	1	1	$\pm 0.6 \%$	$\pm 0.6 \%$	∞
Linearity	$\pm 4.7\%$	R	$\sqrt{3}$	1	1	$\pm 2.7 \%$	±2.7 %	∞
System Detection Limits	$\pm 1.0 \%$	R	$\sqrt{3}$	1	1	$\pm 0.6 \%$	±0.6 %	∞
Readout Electronics	±1.0 %	N	1	1	1	±1.0%	±1.0 %	∞
Response Time	±0.8 %	R	$\sqrt{3}$	1	1	±0.5%	±0.5 %	∞
Integration Time	$\pm 2.6\%$	R	$\sqrt{3}$	1	1	$\pm 1.5 \%$	$\pm 1.5 \%$	∞
RF Ambient Conditions	$\pm 3.0 \%$	R	$\sqrt{3}$	1	1	$\pm 1.7 \%$	$\pm 1.7 \%$	∞
Probe Positioner	$\pm 0.4 \%$	R	$\sqrt{3}$	1	1	$\pm 0.2 \%$	±0.2 %	∞
Probe Positioning	$\pm 2.9 \%$	R	$\sqrt{3}$	1	1	$\pm 1.7 \%$	±1.7 %	∞
Max. SAR Eval.	$\pm 1.0 \%$	R	$\sqrt{3}$	1	1	$\pm 0.6 \%$	±0.6 %	∞
Test Sample Related							70	
Device Positioning	$\pm 2.9 \%$	N	1	1	1	$\pm 2.9 \%$	$\pm 2.9 \%$	875
Device Holder	$\pm 3.6\%$	N	1	1	1	$\pm 3.6 \%$	$\pm 3.6 \%$	5
Power Drift	±5.0 %	R	$\sqrt{3}$	1	1	$\pm 2.9 \%$	$\pm 2.9 \%$	∞
Phantom and Setup								
Phantom Uncertainty	$\pm 4.0\%$	R	$\sqrt{3}$	1	1	$\pm 2.3 \%$	$\pm 2.3 \%$	∞
Liquid Conductivity (target)	±5.0 %	R	$\sqrt{3}$	0.64	0.43	±1.8 %	$\pm 1.2 \%$	∞
Liquid Conductivity (meas.)	$\pm 2.5 \%$	N	1	0.64	0.43	$\pm 1.6 \%$	±1.1 %	∞
Liquid Permittivity (target)	±5.0 %	R	$\sqrt{3}$	0.6	0.49	±1.7%	±1.4%	∞
Liquid Permittivity (meas.)	$\pm 2.5 \%$	N	1	0.6	0.49	±1.5 %	$\pm 1.2 \%$	∞
Combined Std. Uncertainty	•					$\pm 10.3 \%$	±10.0 %	331

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6. Phantom Description

Schmid & Partner Engineering AG

e a S

Zeughausstrasse 43, 8004 Zurich, Switzerland Phone +41 1 245 9700, Fax +41 1 245 9779 info@speag.com, http://www.speag.com

Certificate of Conformity / First Article Inspection

Item	SAM Twin Phantom V4.0
Type No	QD 000 P40 C
Series No	TP-1150 and higher
Manufacturer	SPEAG Zeughausstrasse 43 CH-8004 Zürich Switzerland

Tests
The series production process used allows the limitation to test of first articles.
Complete tests were made on the pre-series Type No. QD 000 P40 AA, Serial No. TP-1001 and on the series first article Type No. QD 000 P40 BA, Serial No. TP-1006. Certain parameters have been retested using further series items (called samples) or are tested at each item.

Test	Requirement	Details	Units tested
Dimensions	Compliant with the geometry according to the CAD model.	IT'IS CAD File (*)	First article, Samples
Material thickness of shell	Compliant with the requirements according to the standards	2mm +/- 0.2mm in flat and specific areas of head section	First article, Samples, TP-1314 ff.
Material thickness at ERP	Compliant with the requirements according to the standards	6mm +/- 0.2mm at ERP	First article, All items
Material parameters	Dielectric parameters for required frequencies	300 MHz – 6 GHz: Relative permittivity < 5, Loss tangent < 0.05	Material samples
Material resistivity	The material has been tested to be compatible with the liquids defined in the standards if handled and cleaned according to the instructions. Observe technical Note for material compatibility.	DEGMBE based simulating liquids	Pre-series, First article, Material samples
Sagging	Compliant with the requirements according to the standards. Sagging of the flat section when filled with tissue simulating liquid.	< 1% typical < 0.8% if filled with 155mm of HSL900 and without DUT below	Prototypes, Sample testing

- Standards
 [1] CENELEC EN 50361
 [2] IEEE Std 1528-2003
 [3] IEC 62209 Part I
 [4] FCC OET Bulletin 65, Supplement C, Edition 01-01
 (*) The IT'IS CAD file is derived from [2] and is also within the tolerance requirements of the shapes of the other decuments. the other documents.

Conformity
Based on the sample tests above, we certify that this item is in compliance with the uncertainty requirements of SAR measurements specified in standards [1] to [4].

07.07.2005

Signature / Stamp

Schmitt & Partner Engineering AG
Zeyunausstesse 43, 8004 Zurief, Switzerland
Phone 1111 245 9700/76x 441 245 9779
Info@speag.com, http://www.speag.com

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7. System Validation from Original equipment supplier

DASY4 Validation Report for Head TSL

Date/Time: 19.02.2007 15:07:05

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:178

Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1

Medium: HSL 900 MHz;

Medium parameters used: f = 900 MHz; σ = 0.95 mho/m; ϵ_{r} = 39.3; ρ = 1000 kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 SN1507 (HF); ConvF(6.01, 6.01, 6.01); Calibrated: 19.10.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.01.2007
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA;;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

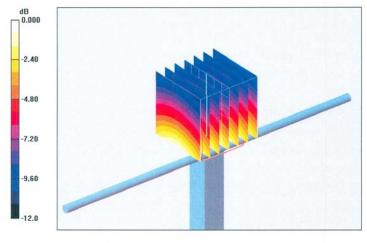
Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 57.3 V/m; Power Drift = 0.044 dB

Peak SAR (extrapolated) = 3.93 W/kg

SAR(1 g) = 2.66 mW/g; SAR(10 g) = 1.71 mW/g Maximum value of SAR (measured) = 2.89 mW/g



0 dB = 2.89 mW/g

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DASY4 Validation Report for Body TSL

Date/Time: 12.02.2007 14:24:23

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:178

Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1

Medium: MSL900;

Medium parameters used: f = 900 MHz; σ = 1.04 mho/m; ϵ_r = 52.4; ρ = 1000 kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

Probe: ET3DV6 - SN1507 (HF); ConvF(5.8, 5.8, 5.8); Calibrated: 19.10.2006

Sensor-Surface: 4mm (Mechanical Surface Detection)

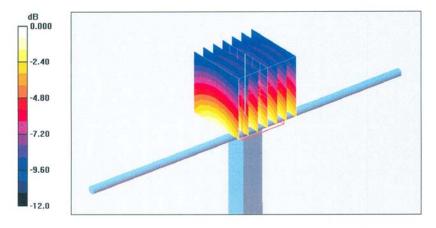
- Electronics: DAE4 Sn601; Calibrated: 30.01.2007
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA;;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Pin=250mW/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 55.9 V/m; Power Drift = 0.018 dB

Peak SAR (extrapolated) = 3.80 W/kg

SAR(1 g) = 2.69 mW/g; SAR(10 g) = 1.76 mW/g Maximum value of SAR (measured) = 2.92 mW/g



0 dB = 2.92 mW/g

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DASY4 Validation Report for Head TSL

Date/Time: 20.03.2007 14:05:03

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d027

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

Medium: HSL U10 BB;

Medium parameters used: f = 1900 MHz; $\sigma = 1.47$ mho/m; $\varepsilon_r = 39.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

Probe: ET3DV6 - SN1507 (HF); ConvF(4.97, 4.97, 4.97); Calibrated: 19.10.2006

Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn601; Calibrated: 30.01.2007
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA;;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

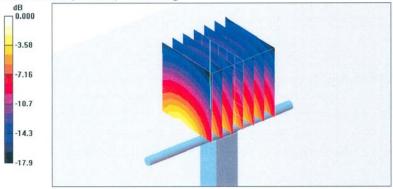
Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 87.7 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 16.0 W/kg

SAR(1 g) = 9.28 mW/g; SAR(10 g) = 4.9 mW/g Maximum value of SAR (measured) = 10.4 mW/g



0 dB = 10.4 mW/g

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DASY4 Validation Report for Body TSL

Date/Time: 20.03.2007 15:34:07

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d027

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

Medium: MSL U10 BB;

Medium parameters used: f = 1900 MHz; $\sigma = 1.58$ mho/m; $\varepsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

Probe: ET3DV6 - SN1507 (HF); ConvF(4.43, 4.43, 4.43); Calibrated: 19.10.2006

- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.01.2007
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA;;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

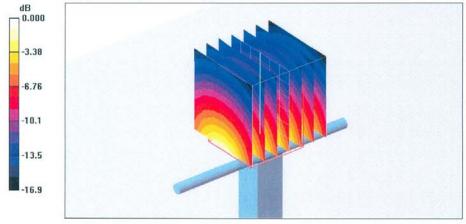
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 90.5 V/m; Power Drift = -0.010 dB

Peak SAR (extrapolated) = 16.2 W/kg

SAR(1 g) = 9.67 mW/g; SAR(10 g) = 5.16 mW/g

Maximum value of SAR (measured) = 10.9 mW/g



0 dB = 10.9 mW/g