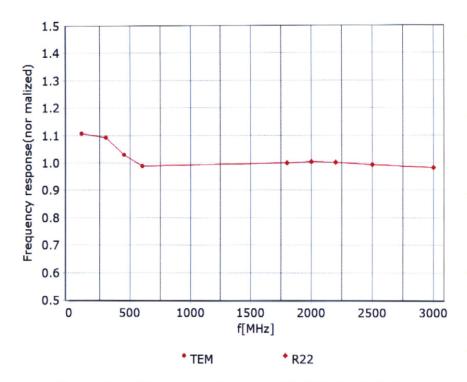




# Frequency Response of E-Field (TEM-Cell: ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field: ±7.4% (k=2)

Certificate No:Z21-60001

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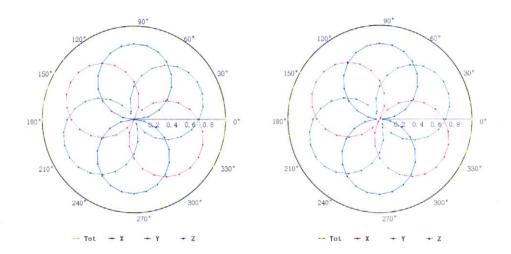


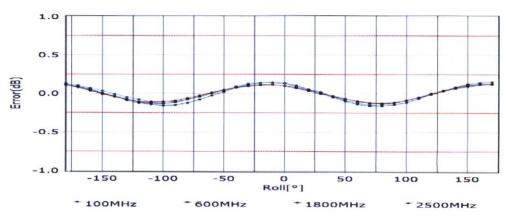


## Receiving Pattern (Φ), θ=0°

## f=600 MHz, TEM

## f=1800 MHz, R22





Uncertainty of Axial Isotropy Assessment: ±1.2% (k=2)

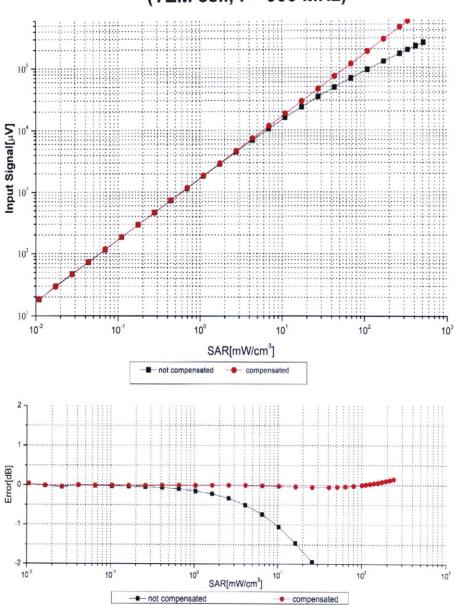
Certificate No:Z21-60001

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## Dynamic Range f(SAR<sub>head</sub>) (TEM cell, f = 900 MHz)



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

Certificate No:Z21-60001

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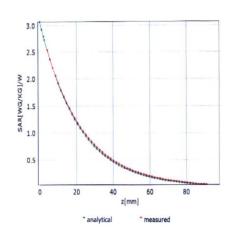


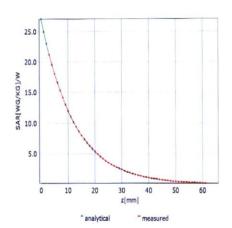


## **Conversion Factor Assessment**

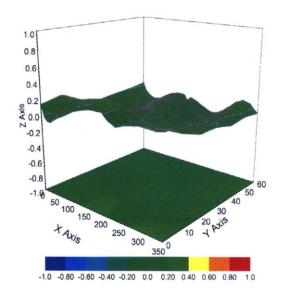
## f=750 MHz,WGLS R9(H\_convF)

f=1750 MHz,WGLS R22(H\_convF)





## **Deviation from Isotropy in Liquid**



Uncertainty of Spherical Isotropy Assessment: ±3.2% (k=2)

Certificate No:Z21-60001

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7517

#### **Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle (°)	17.9
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	10mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm

Certificate No:Z21-60001

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### No.I21Z70098-SEM01



Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504 E-mail: cttl@chinattl.com Http://www.chinattl.cn



Client

CTTL

Certificate No: Z20-60201

## **CALIBRATION CERTIFICATE**

Object

EX3DV4 - SN: 7548

Calibration Procedure(s)

FF-Z11-004-01

Calibration Procedures for Dosimetric E-field Probes

Calibration date:

June 16, 2020

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(Calibrated by, Certificate No.	.) Scheduled Calibration
Power Meter NRP2	101919	18-Jun-19(CTTL, No.J19X05125)	Jun-20
Power sensor NRP-Z91	101547	18-Jun-19(CTTL, No.J19X05125)	Jun-20
Power sensor NRP-Z91	101548	18-Jun-19(CTTL, No.J19X05125)	Jun-20
Reference 10dBAttenuator	18N50W-10dB	10-Feb-20(CTTL, No.J20X00525)	Feb-22
Reference 20dBAttenuator	18N50W-20dB	10-Feb-20(CTTL, No.J20X00526)	Feb-22
Reference Probe EX3DV4	SN 3617	30-Jan-20(SPEAG, No.EX3-3617_Jan	
DAE4	SN 1556	4-Feb-20(SPEAG, No.DAE4-1556_Fe	
0			
Secondary Standards	ID#	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
SignalGenerator MG3700A	6201052605	18-Jun-19(CTTL, No.J19X05127)	Jun-20
Network Analyzer E5071C	MY46110673	10-Feb-20(CTTL, No.J20X00515)	Feb-21
	ame	Function	Signature
Calibrated by:	u Zongying	SAR Test Engineer	1 th
Reviewed by:	in Hao	SAR Test Engineer	- AND SHA
Approved by:			THE AT USA
Approved by.	i Dianyuan	SAR Project Leader	30102

Issued: June 18, 2020

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

Certificate No: Z20-60201

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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 θ θ rotation around an axis that is in the plane normal to probe axis (at measurement center), i

 $\theta$ =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, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

#### 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 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.
- 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:Z20-60201

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### DASY/EASY - Parameters of Probe: EX3DV4 - SN:7548

#### **Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
$Norm(\mu V/(V/m)^2)^A$	0.60	0.69	0.62	±10.0%
DCP(mV) <sup>B</sup>	100.0	100.5	101.7	

#### **Modulation Calibration Parameters**

UID	Communication		Α	В	С	D	VR	Unc <sup>E</sup>
	System Name		dB	dBõV		dB	mV	( <i>k</i> =2)
0	CW	X	0.0	0.0	1.0	0.00	202.1	±2.7%
		Y	0.0	0.0	1.0		212.7	
		Z	0.0	0.0	1.0		205.3	

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 E2-field uncertainty inside TSL (see Page 4).

<sup>&</sup>lt;sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>&</sup>lt;sup>E</sup> Uncertainly is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.







## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7548

#### Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz] <sup>C</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unct. (k=2)
750	41.9	0.89	10.17	10.17	10.17	0.40	0.75	±12.1%
900	41.5	0.97	9.73	9.73	9.73	0.17	1.29	±12.1%
1450	40.5	1.20	8.60	8.60	8.60	0.22	1.00	±12.1%
1750	40.1	1.37	8.24	8.24	8.24	0.25	1.06	±12.1%
1900	40.0	1.40	7.85	7.85	7.85	0.29	0.99	±12.1%
2000	40.0	1.40	8.00	8.00	8.00	0.23	1.14	±12.1%
2300	39.5	1.67	7.61	7.61	7.61	0.62	0.67	±12.1%
2450	39.2	1.80	7.40	7.40	7.40	0.55	0.72	±12.1%
2600	39.0	1.96	7.17	7.17	7.17	0.61	0.68	±12.1%
3300	38.2	2.71	6.80	6.80	6.80	0.41	0.96	±13.3%
3500	37.9	2.91	6.75	6.75	6.75	0.45	0.90	±13.3%
3700	37.7	3.12	6.50	6.50	6.50	0.44	0.97	±13.3%
3900	37.5	3.32	6.40	6.40	6.40	0.40	1.15	±13.3%
4100	37.2	3.53	6.32	6.32	6.32	0.35	1.30	±13.3%
4200	37.1	3.63	6.25	6.25	6.25	0.35	1.25	±13.3%
4400	36.9	3.84	6.11	6.11	6.11	0.35	1.23	±13.3%
4600	36.7	4.04	5.99	5.99	5.99	0.40	1.30	±13.3%
4800	36.4	4.25	5.94	5.94	5.94	0.40	1.35	±13.3%
4950	36.3	4.40	5.81	5.81	5.81	0.40	1.35	±13.3%
5250	35.9	4.71	5.08	5.08	5.08	0.45	1.30	±13.3%
5600	35.5	5.07	4.70	4.70	4.70	0.45	1.42	±13.3%
5750	35.4	5.22	4.77	4.77	4.77	0.45	1.40	±13.3%

<sup>&</sup>lt;sup>c</sup> Frequency validity above 300 MHz 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. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

Certificate No:Z20-60201

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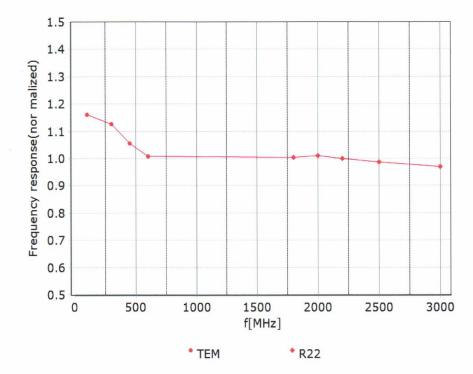
F At frequency below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to  $\pm 10\%$  if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to  $\pm 5\%$ . The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>&</sup>lt;sup>G</sup> 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.





## Frequency Response of E-Field (TEM-Cell: ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field: ±7.4% (k=2)

Certificate No:Z20-60201

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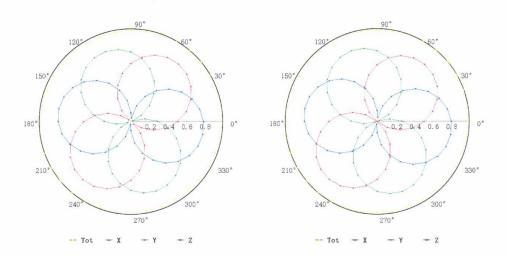


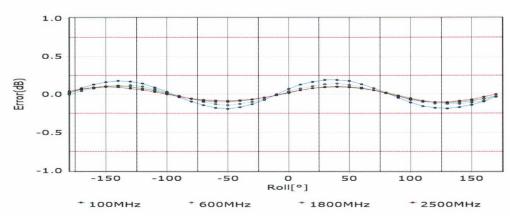


## Receiving Pattern ( $\Phi$ ), $\theta$ =0°

## f=600 MHz, TEM

## f=1800 MHz, R22





Uncertainty of Axial Isotropy Assessment:  $\pm 1.2\%$  (k=2)

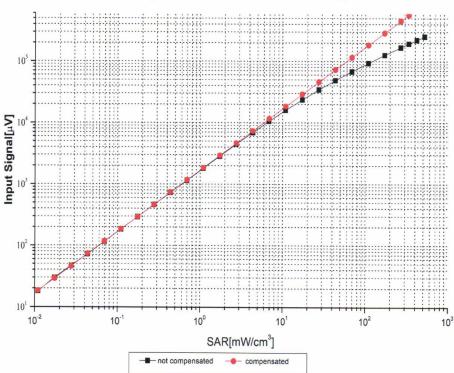
Certificate No:Z20-60201

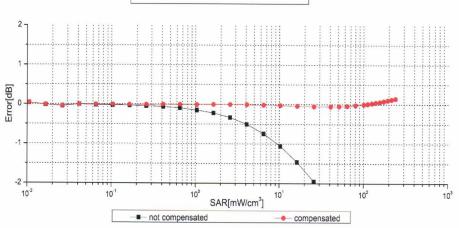
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## Dynamic Range f(SAR<sub>head</sub>) (TEM cell, f = 900 MHz)





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

Certificate No:Z20-60201

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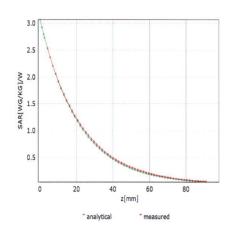


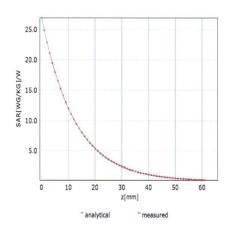


## **Conversion Factor Assessment**

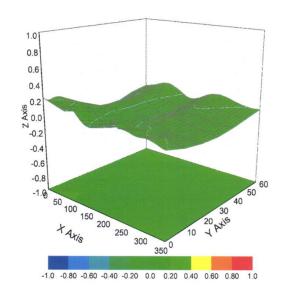
## f=750 MHz,WGLS R9(H\_convF)

## f=1750 MHz,WGLS R22(H\_convF)





## **Deviation from Isotropy in Liquid**



Uncertainty of Spherical Isotropy Assessment:  $\pm 3.2\%$  (k=2)

Certificate No:Z20-60201

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7548

#### **Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle (°)	150.8
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	10mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm

Certificate No:Z20-60201





## **ANNEX H** Dipole Calibration Certificate

### 750 MHz Dipole Calibration Certificate

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 0108

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

Client

CTTL-BJ (Auden)

Certificate No: D750V3-1017\_Jul20

	ERTIFICATI				
Object	D750V3 - SN:1017				
Calibration procedure(s)	QA CAL-05.v11 Calibration Proce	edure for SAR Validation Source	s between 0.7-3 GHz		
Calibration date:	July 24, 2020				
This calibration certificate docume	ants the traceability to not	ional standardakiak a.a.liaa da atau i			
The measurements and the uncer	tainties with confidence p	ional standards, which realize the physical ur probability are given on the following pages ar	nits of measurements (SI).  Indicate are part of the certificate.		
All calibrations have been conduct	ed in the closed laborato	ry facility: environment temperature (22 ± 3)°	C and humidity < 70%		
Calibration Equipment used (M&T)		, , , , , , , , , , , , , , , , , , , ,	o and harmony ( 70%.		
Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration		
Power meter NRP	SN: 104778	01-Apr-20 (No. 217-03100/03101)	Apr-21		
Power sensor NRP-Z91	SN: 103244	01-Apr-20 (No. 217-03100)	Apr-21		
ower sensor NRP-Z91	SN: 103245	01-Apr-20 (No. 217-03101)	Apr-21		
Reference 20 dB Attenuator	SN: BH9394 (20k)	31-Mar-20 (No. 217-03106)	Apr-21		
Comp NI malamantah anadahan ka	SN: 310982 / 06327	31-Mar-20 (No. 217-03104)	Apr-21		
Type-N mismatch combination	SN: 7349	29-Jun-20 (No. EX3-7349_Jun20)	Jun-21		
Reference Probe EX3DV4 DAE4	SN: 601	27-Dec-19 (No. DAE4-601_Dec19)	Dec-20		
Reference Probe EX3DV4 DAE4 Secondary Standards	ID#	27-Dec-19 (No. DAE4-601_Dec19)  Check Date (in house)			
Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B	ID # SN: GB39512475		Dec-20 Scheduled Check		
Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A	ID # SN: GB39512475 SN: US37292783	Check Date (in house)	Dec-20  Scheduled Check In house check: Oct-20		
Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A	ID # SN: GB39512475 SN: US37292783 SN: MY41092317	Check Date (in house) 30-Oct-14 (in house check Feb-19)	Dec-20  Scheduled Check In house check: Oct-20		
Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Reference Probe EX3DV4 Re	ID #  SN: GB39512475 SN: US37292783 SN: MY41092317 SN: 100972	Check Date (in house) 30-Oct-14 (in house check Feb-19) 07-Oct-15 (in house check Oct-18)	Dec-20  Scheduled Check  In house check: Oct-20 In house check: Oct-20		
Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06	ID # SN: GB39512475 SN: US37292783 SN: MY41092317	Check Date (in house)  30-Oct-14 (in house check Feb-19)  07-Oct-15 (in house check Oct-18)  07-Oct-15 (in house check Oct-18)	Scheduled Check In house check: Oct-20 In house check: Oct-20 In house check: Oct-20		
Reference Probe EX3DV4 DAE4  Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06 Network Analyzer Agilent E8358A	ID # SN: GB39512475 SN: US37292783 SN: MY41092317 SN: 100972 SN: US41080477 Name	Check Date (in house) 30-Oct-14 (in house check Feb-19) 07-Oct-15 (in house check Oct-18) 07-Oct-15 (in house check Oct-18) 15-Jun-15 (in house check Oct-18)	Dec-20  Scheduled Check  In house check: Oct-20 In house check: Oct-20 In house check: Oct-20 In house check: Oct-20		
Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06	ID # SN: GB39512475 SN: US37292783 SN: MY41092317 SN: 100972 SN: US41080477	Check Date (in house) 30-Oct-14 (in house check Feb-19) 07-Oct-15 (in house check Oct-18) 07-Oct-15 (in house check Oct-18) 15-Jun-15 (in house check Oct-18) 31-Mar-14 (in house check Oct-19)	Scheduled Check In house check: Oct-20 Signature		
Reference Probe EX3DV4 DAE4  Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06 Network Analyzer Agilent E8358A	ID # SN: GB39512475 SN: US37292783 SN: MY41092317 SN: 100972 SN: US41080477 Name	Check Date (in house)  30-Oct-14 (in house check Feb-19)  07-Oct-15 (in house check Oct-18)  07-Oct-15 (in house check Oct-18)  15-Jun-15 (in house check Oct-18)  31-Mar-14 (in house check Oct-19)  Function	Scheduled Check In house check: Oct-20 Signature		
Reference Probe EX3DV4 DAE4  Secondary Standards  Power meter E4419B  Power sensor HP 8481A  Power sensor HP 8481A  RF generator R&S SMT-06  Network Analyzer Agilent E8358A  Calibrated by:	ID # SN: GB39512475 SN: US37292783 SN: MY41092317 SN: 100972 SN: US41080477 Name Michael Weber	Check Date (in house) 30-Oct-14 (in house check Feb-19) 07-Oct-15 (in house check Oct-18) 07-Oct-15 (in house check Oct-18) 15-Jun-15 (in house check Oct-18) 31-Mar-14 (in house check Oct-19)  Function Laboratory Technician	Dec-20  Scheduled Check In house check: Oct-20		

Certificate No: D750V3-1017\_Jul20

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Calibration Laboratory of Schmid & Partner

Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





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

Swiss Calibration Service

Accreditation No.: SCS 0108

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

#### Glossary:

TSI 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:

- 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, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

#### **Additional Documentation:**

e) 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
- 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%.

Certificate No: D750V3-1017 Jul20	Page 2 of 8	





## **Measurement Conditions**

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

DASY Version	DASY5	V52.10.4
Extrapolation	Advanced Extrapolation	V32.10.4
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, $dy$ , $dz = 5 mm$	with Spacer
Frequency	750 MHz ± 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 ± 0.2) °C	42.3 ± 6 %	0.91 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

## SAR result with Head TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.15 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	8.47 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.40 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	5.53 W/kg ± 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 ± 0.2) °C	55.5 ± 6 %	0.97 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

## SAR result with Body TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.23 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	8.85 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL	condition	
SAR measured	250 mW input power	1.47 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	5.84 W/kg ± 16.5 % (k=2)

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