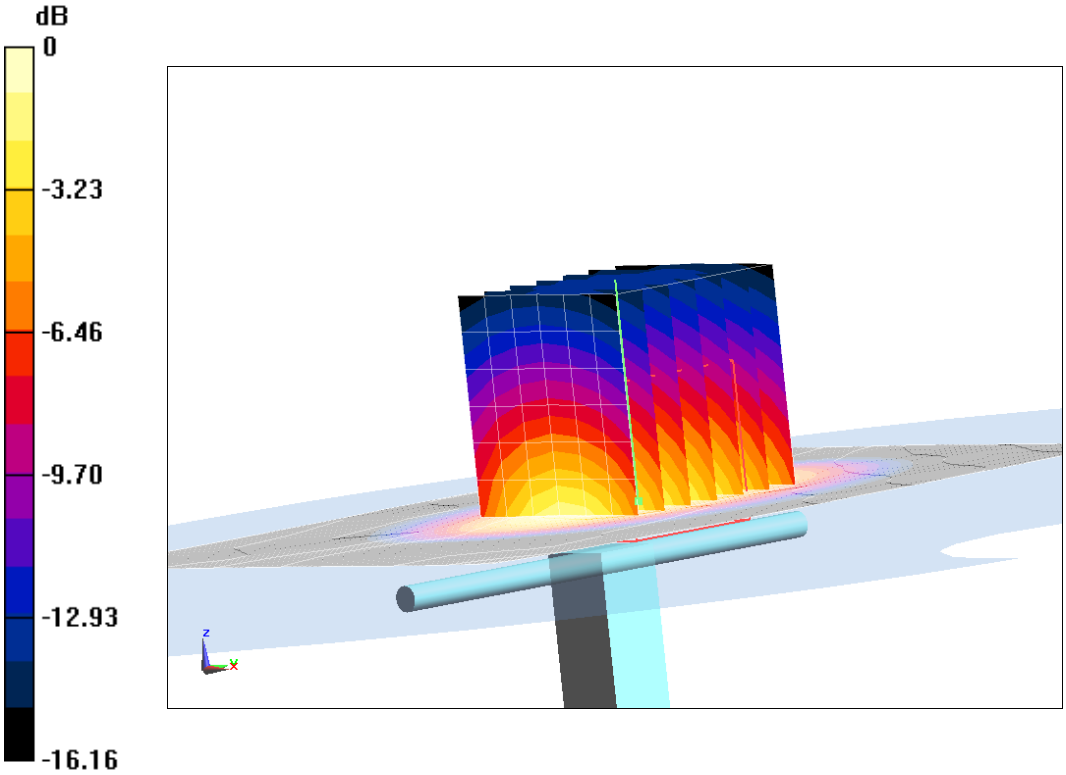
1750 MHz

Date: 3/16/2021
Electronics: DAE4 Sn536
Medium: Head 1750 MHz
Medium parameters used: f = 1750 MHz; σ =1.377 mho/m; ε_r = 40.82; ρ = 1000 kg/m^3
Ambient Temperature: 22.5ºC Liquid Temperature: 22.3ºC
Communication System: CW Frequency: 1750 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.64,8.64,8.64)

System Validation /Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 107.9 V/m; Power Drift = -0.03
Fast SAR: SAR(1 g) = 9.31 W/kg; SAR(10 g) = 4.69 W/kg
Maximum value of SAR (interpolated) = 14.15 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =107.9 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 16.79 W/kg
SAR(1 g) = 9.14 W/kg; SAR(10 g) = 4.78 W/kg
Maximum value of SAR (measured) = 14.3 W/kg



0 dB = 14.3 W/kg = 11.55 dB W/kg

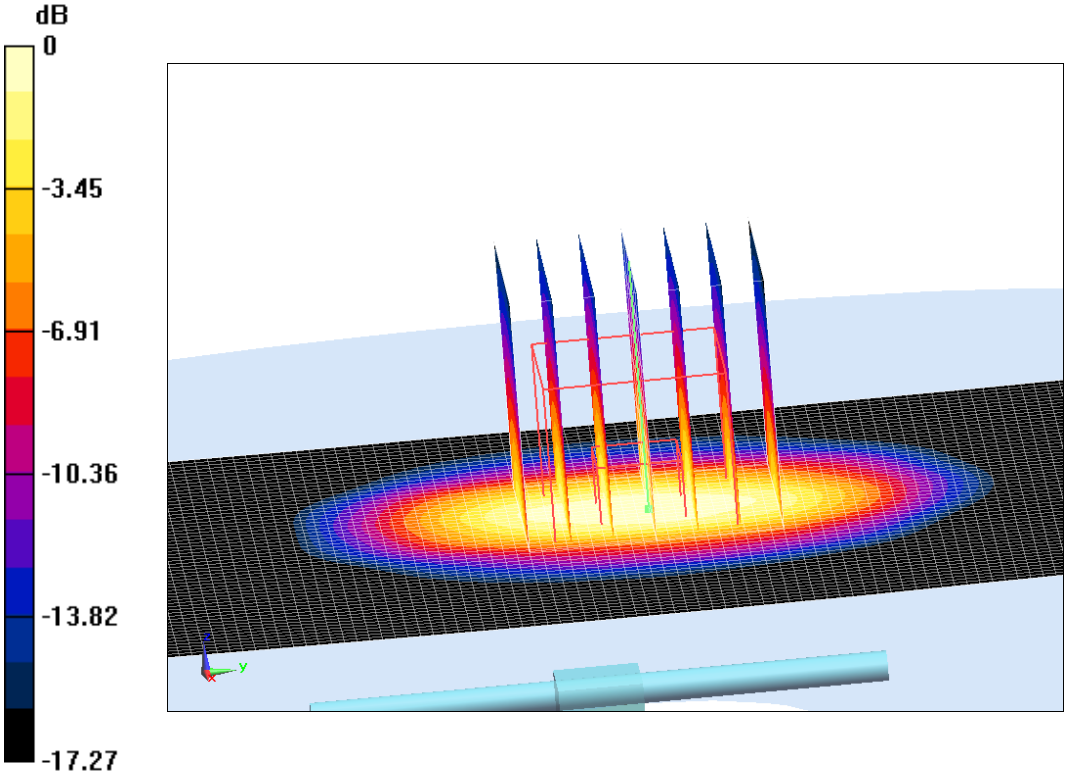
Fig.B.3 validation 1750 MHz 250mW

1900 MHz

Date: 3/17/2021
Electronics: DAE4 Sn536
Medium: Head 1900 MHz
Medium parameters used: f = 1900 MHz; σ =1.428 mho/m; ε_r = 39.99; ρ = 1000 kg/m^3
Ambient Temperature: 22.5ºC Liquid Temperature: 22.3ºC
Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.33,8.33,8.33)

System Validation /Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 109.75 V/m; Power Drift = -0.02
Fast SAR: SAR(1 g) = 9.87 W/kg; SAR(10 g) = 5.09 W/kg
Maximum value of SAR (interpolated) = 14.95 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =109.75 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 18.43 W/kg
SAR(1 g) = 9.9 W/kg; SAR(10 g) = 5.23 W/kg
Maximum value of SAR (measured) = 15.08 W/kg



0 dB = 15.08 W/kg = 11.78 dB W/kg

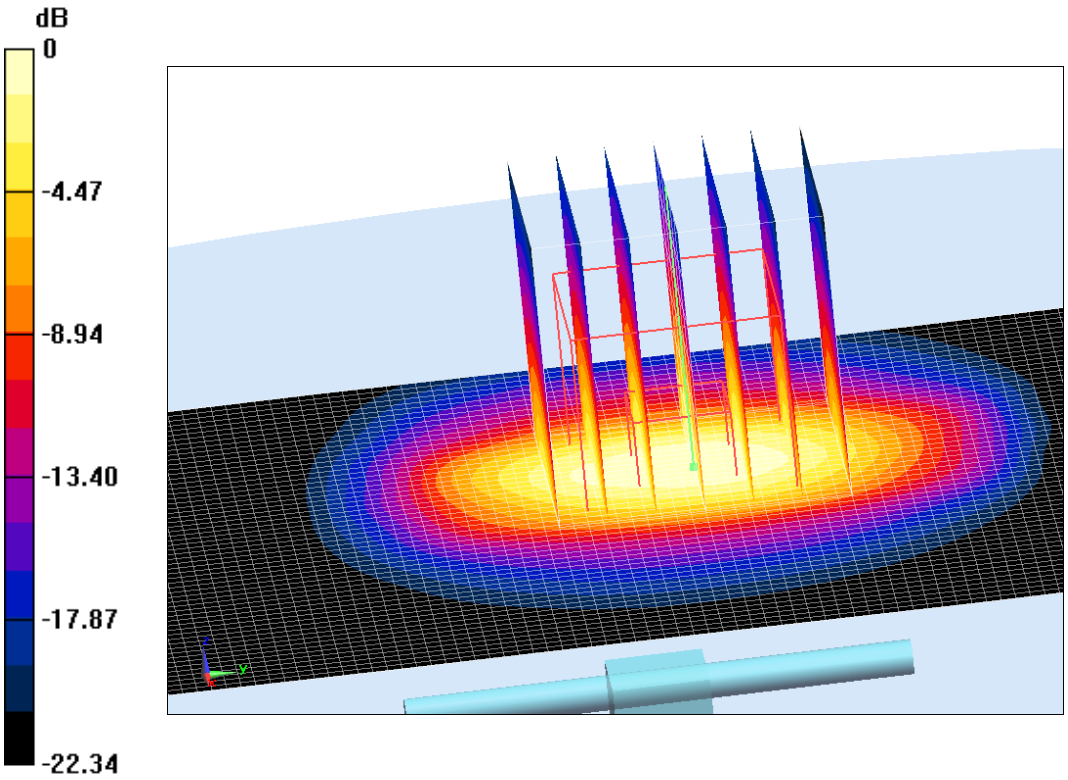
Fig.B.4 validation 1900 MHz 250mW

2450 MHz

Date: 3/18/2021
Electronics: DAE4 Sn536
Medium: Head 2450 MHz
Medium parameters used: f = 2450 MHz; σ =1.78 mho/m; ε_r = 38.99; ρ = 1000 kg/m^3
Ambient Temperature: 22.5ºC Liquid Temperature: 22.3ºC
Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.77,7.77,7.77)

System Validation /Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 118.1 V/m; Power Drift = 0.04
Fast SAR: SAR(1 g) = 12.95 W/kg; SAR(10 g) = 6.05 W/kg
Maximum value of SAR (interpolated) = 21.38 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =118.1 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 26.32 W/kg
SAR(1 g) = 12.9 W/kg; SAR(10 g) = 6.2 W/kg
Maximum value of SAR (measured) = 21.77 W/kg



0 dB = 21.77 W/kg = 13.38 dB W/kg

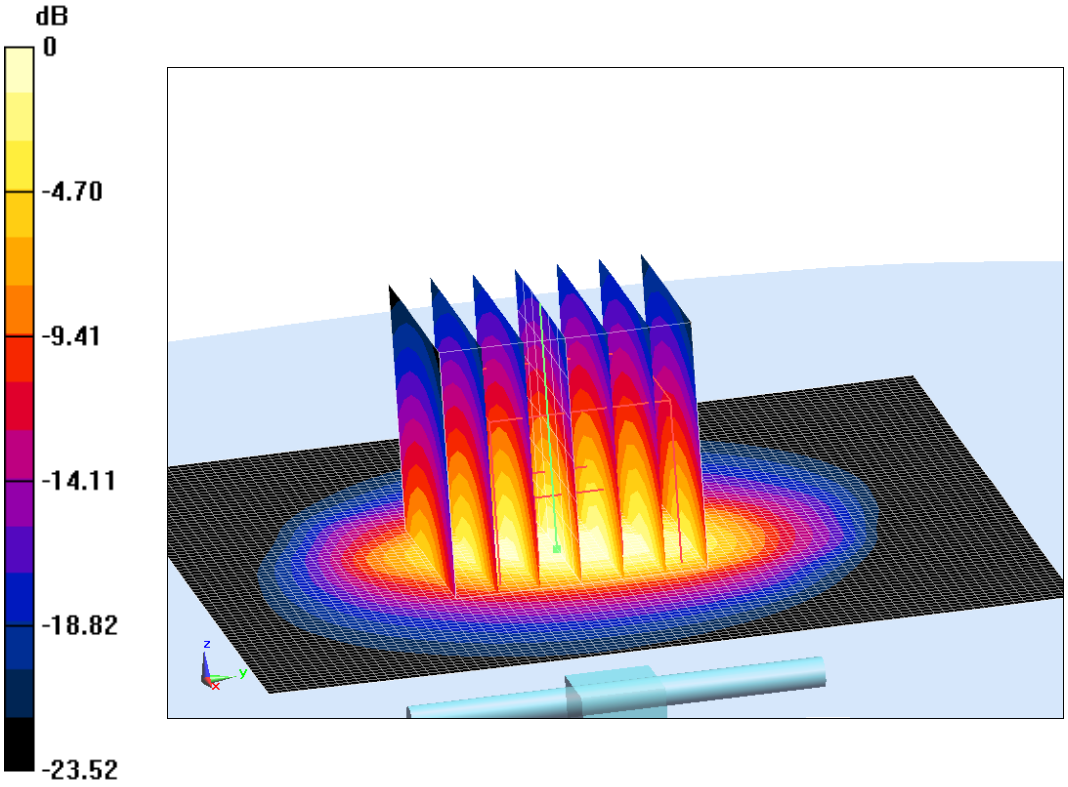
Fig.B.5 validation 2450 MHz 250mW

2600 MHz

Date: 3/19/2021
Electronics: DAE4 Sn536
Medium: Head 2600 MHz
Medium parameters used: f = 2600 MHz; σ =1.925 mho/m; ε_r = 39.06; ρ = 1000 kg/m^3
Ambient Temperature: 22.5ºC Liquid Temperature: 22.3ºC
Communication System: CW Frequency: 2600 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.61,7.61,7.61)

System Validation /Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 119.83 V/m; Power Drift = 0.05
Fast SAR: SAR(1 g) = 14.39 W/kg; SAR(10 g) = 6.36 W/kg
Maximum value of SAR (interpolated) = 24.5 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =119.83 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 29.18 W/kg
SAR(1 g) = 13.97 W/kg; SAR(10 g) = 6.3 W/kg
Maximum value of SAR (measured) = 24.87 W/kg



0 dB = 24.87 W/kg = 13.96 dB W/kg

Fig.B.6 validation 2600 MHz 250mW

ANNEX J Spot check

J.1 Dielectric Performance and System Validation

Table J.1-1: Dielectric Performance of Tissue Simulating Liquid

Measurement Date (yyyy-mm-dd)	Type	Frequency	Permittivity ε	Drift (%)	Conductivity σ (S/m)	Drift (%)
2023/11/3	Head	835 MHz	44.26	6.65	0.891	-1.00
2023/11/5	Head	1900 MHz	41.73	4.32	1.42	1.43

Table J.1-2: System Validation of Head

Measurement Date (yyyy-mm-dd)	Frequency	Target value (W/kg)		Measured value(W/kg)		Deviation	
		10 g Average	1 g Average	10 g Average	1 g Average	10 g Average	1 g Average
2023/11/3	835 MHz	6.32	9.55	6.48	9.32	2.53%	-2.41%
2023/11/5	1900 MHz	21.0	40.4	20.9	41.6	-0.57%	2.97%

J.2 Measurement result

Frequency Band	Channel Number	Frequency (MHz)	Test setup	Tune up (dBm)	EUT Measured Power (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
LTE Band5	20600	844	1RB-Middle	23.50	23.24	0.504	**0.54**	0.337	**0.36**	0.01
LTE Band2	18700	1860	1RB-Middle close Rear 15mm	23.50	23.21	0.889	**0.95**	0.529	**0.57**	0.16

J.3 Reported SAR Comparison

Table J.3.1: Highest Reported SAR (1g)

Exposure Configuration	Technology Band	Highest Reported SAR 1g(W/kg)
Head (Separation Distance 0mm)	GSM 850	0.54
	PCS 1900	0.29
	UMTS FDD 2	0.64
	UMTS FDD 4	0.61
	UMTS FDD 5	0.78
	LTE Band 2	0.72
	LTE Band 5	0.83
	LTE Band 7	0.70
	LTE Band 12	0.61
	LTE Band 13	0.43
	LTE Band 66	0.44
	WLAN 2.4 GHz	0.64
Hotspot (Separation Distance 10mm)	GSM 850	0.75
	PCS 1900	1.24
	UMTS FDD 2	1.13
	UMTS FDD 4	1.23
	UMTS FDD 5	0.97
	LTE Band 2	1.18
	LTE Band 5	1.18

	LTE Band 7	0.65
	LTE Band 12	0.77
	LTE Band 13	1.26
	LTE Band 66	1.13
	WLAN 2.4 GHz	0.23
Body-worn (Separation Distance 15mm)	UMTS FDD 2	1.25
	UMTS FDD 4	**1.27**
	LTE Band 2	**1.27**
	LTE Band 7	0.72
	LTE Band 66	1.07

Table J.3.2: Spotcheck Reported SAR (1g)

Exposure Configuration	Technology Band	Highest Reported SAR 1g(W/kg)
Head (Separation Distance 0mm)	GSM 850	\
	PCS 1900	\
	UMTS FDD 2	\
	UMTS FDD 4	\
	UMTS FDD 5	0.54
	LTE Band 2	\
	LTE Band 5	\
	LTE Band 7	\
	LTE Band 12	\
	LTE Band 13	\
	LTE Band 66	\
	WLAN 2.4 GHz	\
Hotspot (Separation Distance 10mm)	GSM 850	\
	PCS 1900	\
	UMTS FDD 2	\
	UMTS FDD 4	\
	UMTS FDD 5	\
	LTE Band 2	\
	LTE Band 5	\
	LTE Band 7	\
	LTE Band 12	\
	LTE Band 13	\
	LTE Band 66	\
	WLAN 2.4 GHz	\
Body-worn (Separation Distance 15mm)	UMTS FDD 2	0.95
	UMTS FDD 4	\
	LTE Band 2	\
	LTE Band 7	\
	LTE Band 66	\

Note: All the spot check results are less than the original result. So it shares all the original results.

J.4 Main Test Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	E5071C	MY46110673	January 10, 2023	One year
02	Power sensor	NRP110T	101139	January 13, 2023	One year
03	Power sensor	NRP110T	101159	January 13, 2023	One year
04	Signal Generator	E4438C	MY49071430	January 19, 2023	One year
05	Amplifier	60S1G4	0331848	No Calibration Requested	
06	BTS	CMW500	159890	January 12, 2023	One year
07	E-field Probe	SPEAG EX3DV4	7673	July 24, 2023	One year
08	DAE	SPEAG DAE4	1525	September 15, 2022	One year
09	Dipole Validation Kit	SPEAG D835V2	4d260	May 23,2023	One year
10	Dipole Validation Kit	SPEAG D1900V2	5d234	May 22,2023	One year

J.5 Graph Results

LTEBand 5 Head

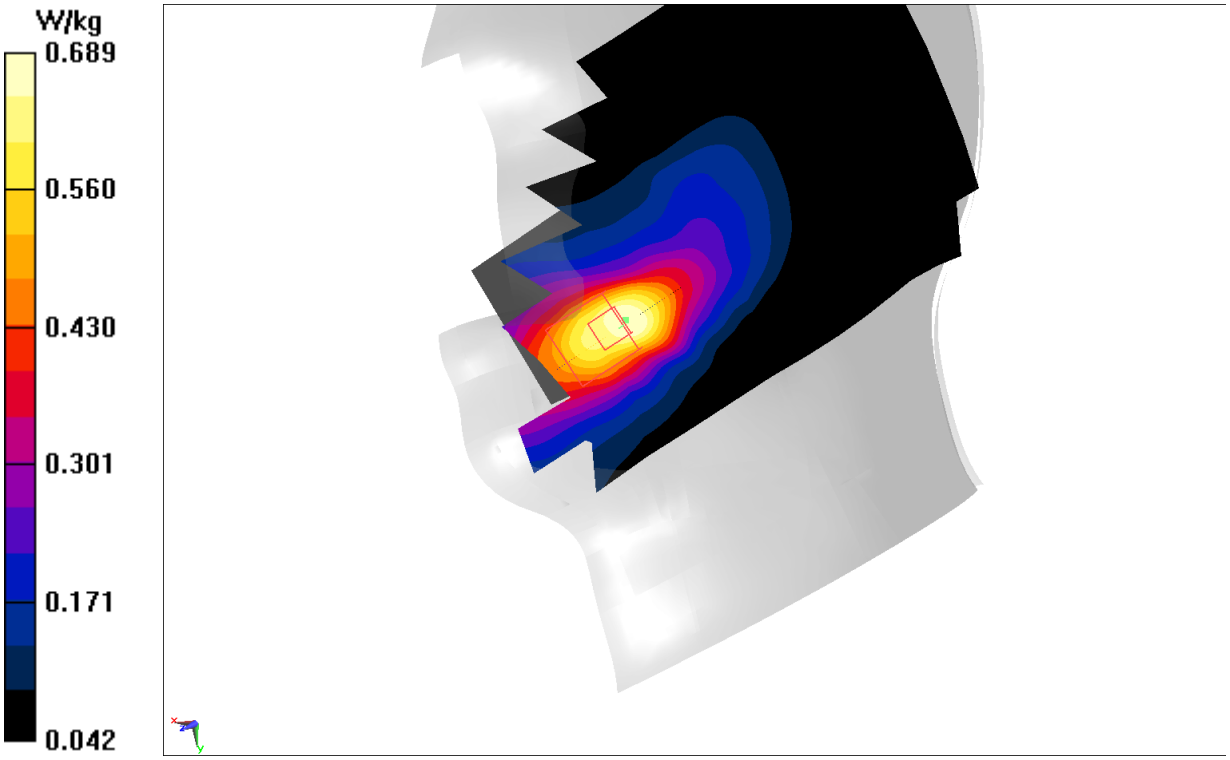
Date/Time: 11/3/2023
Electronics: DAE4 Sn1525
Medium: H700-6000M
Medium parameters used (interpolated): f = 844 MHz; σ = 0.927 S/m; εr = 45.43; ρ = 1000 kg/m3
Ambient Temperature:23.3oC Liquid Temperature: 22.5oC
Communication System: UID 0, LTE Band5 (0) Frequency: 844 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7673 ConvF(10.5, 10.5, 10.5)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.728 W/kg

Zoom Scan (5x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.744 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.806 W/kg
SAR(1 g) = 0.504 W/kg; SAR(10 g) = 0.337 W/kg
Maximum value of SAR (measured) = 0.689 W/kg



LTEBand 2 Body

Date/Time: 11/5/2023

Electronics: DAE4 Sn1525

Medium: H700-6000M

Medium parameters used: f = 1860 MHz; σ = 1.47 S/m; εr = 43.157; ρ = 1000 kg/m3

Ambient Temperature:23.3oC Liquid Temperature: 22.5oC

Communication System: UID 0, LTE Band2(20MB) (0) Frequency: 1860 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7673 ConvF(8.2, 8.2, 8.2)

Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.20 W/kg

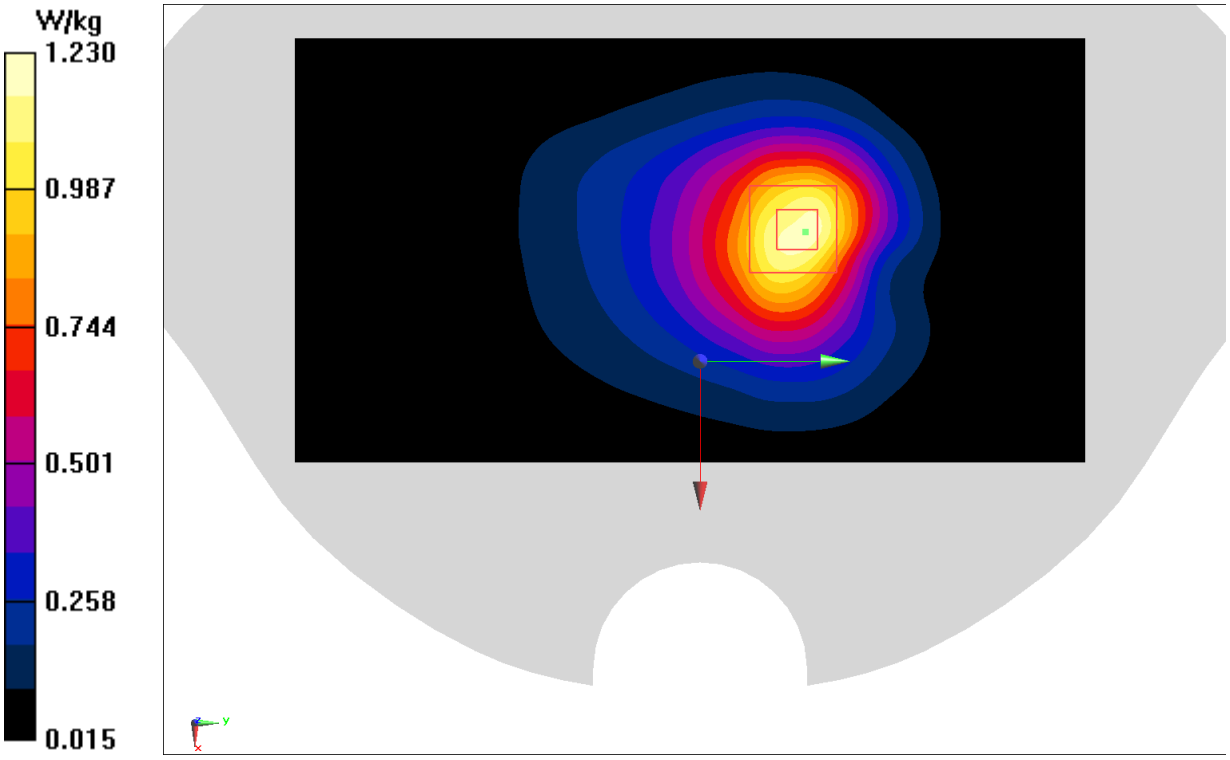
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.40 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 1.46 W/kg

SAR(1 g) = 0.889 W/kg; SAR(10 g) = 0.529 W/kg

Maximum value of SAR (measured) = 1.23 W/kg



J.6 System Validation Results

835 MHz

Date: 2023/11/3

Electronics: DAE4 Sn1525

Medium: H700-6000M

Medium parameters used: f = 835 MHz; σ =0.891 mho/m; εr = 44.26; ρ = 1000 kg/m3

Ambient Temperature: 22.5oC Liquid Temperature: 22.3oC

Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7673 ConvF(10.5,10.5,10.5)

Area Scan (81x191x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 3.2 W/kg

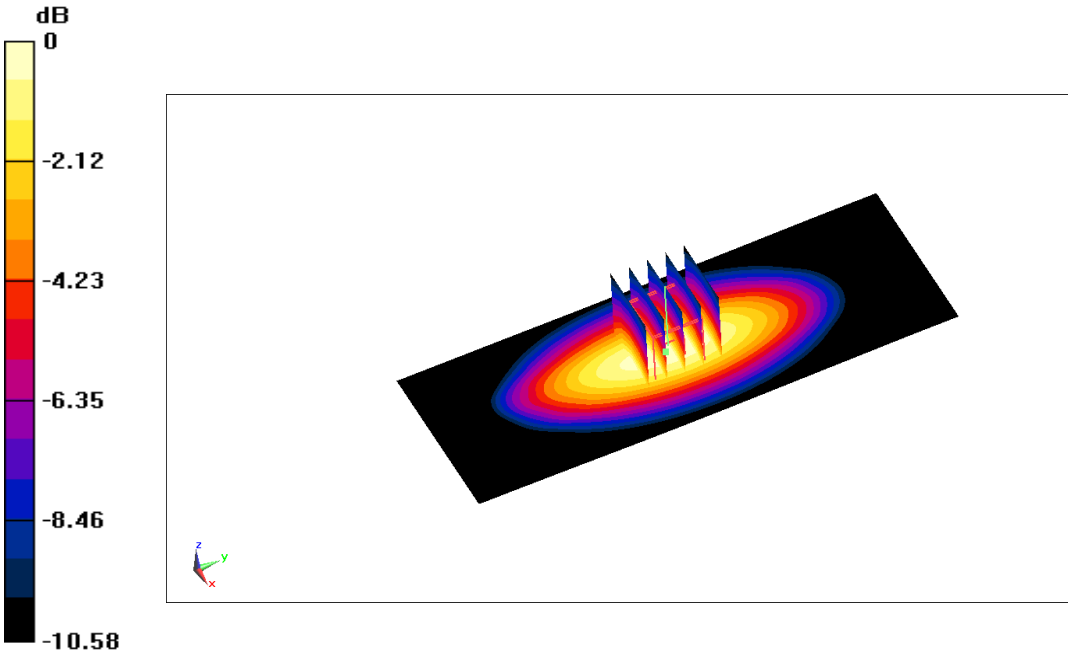
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value =63.45 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 3.7 W/kg

SAR(1 g) = 2.33 W/kg; SAR(10 g) = 1.62 W/kg

Maximum value of SAR (measured) = 3.21 W/kg



0 dB = 3.21 W/kg = 5.07 dB W/kg

1900 MHz

Date: 2023/11/5

Electronics: DAE4 Sn1525

Medium: H700-6000M

Medium parameters used: f = 1900 MHz; σ =1.42 mho/m; εr = 41.73; ρ = 1000 kg/m3

Ambient Temperature: 22.5oC Liquid Temperature: 22.3oC

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

Probe: EX3DV4 – SN7673 ConvF(8.2,8.2,8.2)

Area Scan (81x191x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 15.41 W/kg

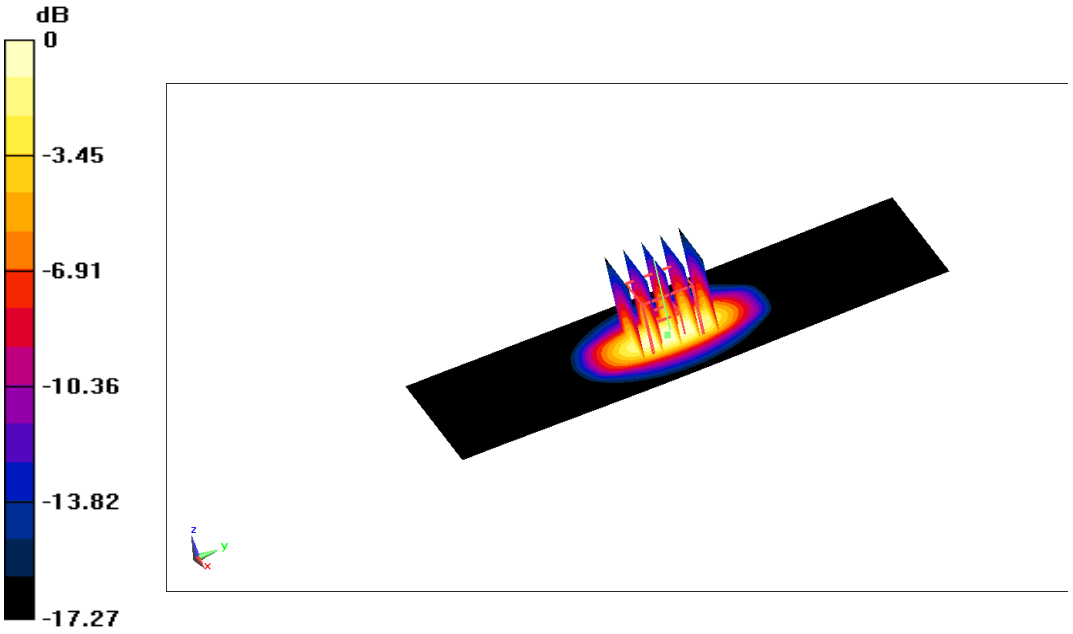
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value =110.67 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 18.05 W/kg

SAR(1 g) = 5.22 W/kg; SAR(10 g) = 10.4 W/kg

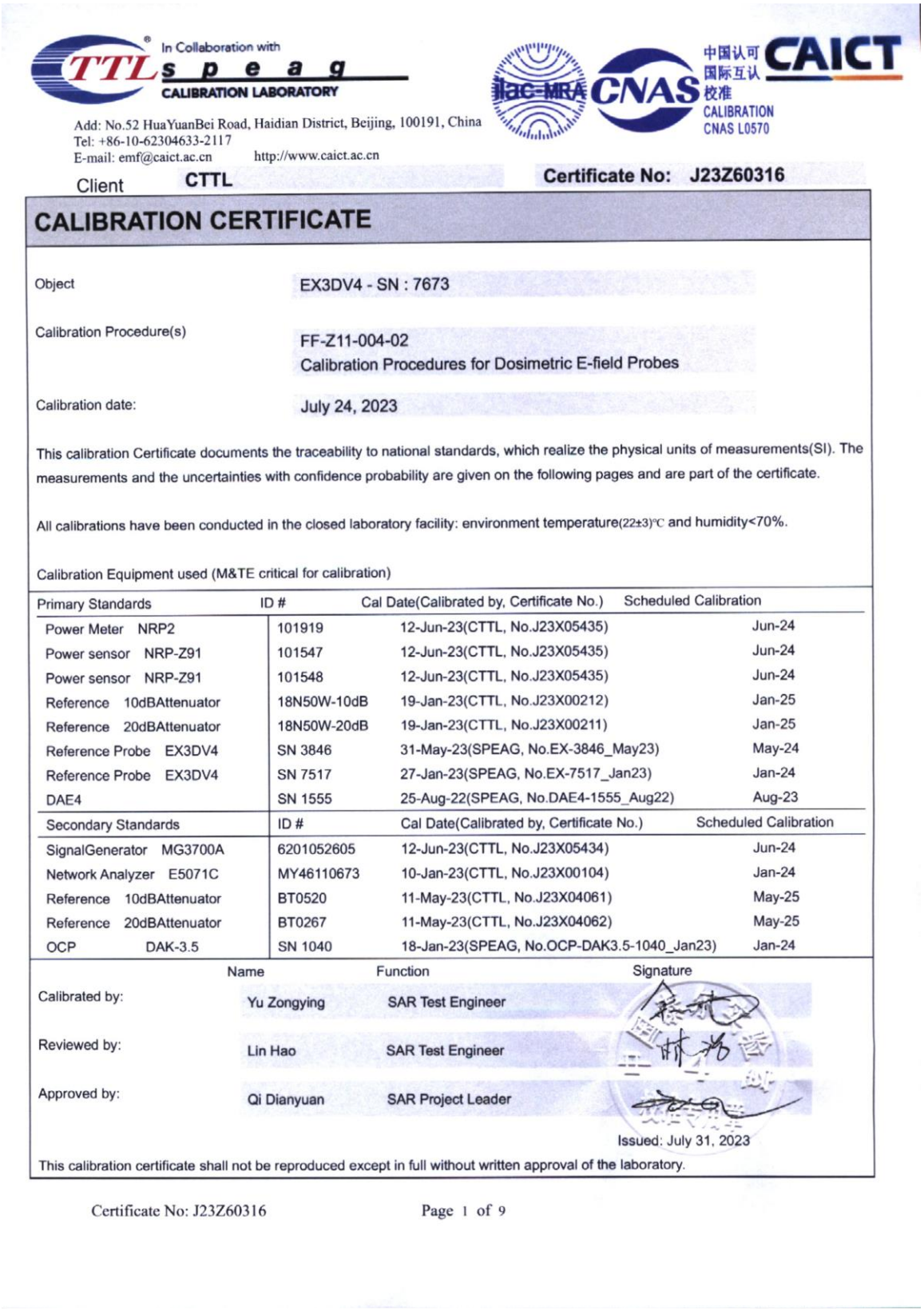
Maximum value of SAR (measured) = 14.91 W/kg



0 dB = 14.91 W/kg = 11.73 dB W/kg

J.7 Probe Calibration Certificate

Probe 7673 Calibration Certificate



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CNAS CALIBRATION CNAS L0570

Client CTTL Certificate No: J23Z60316

CALIBRATION CERTIFICATE

Object EX3DV4 - SN : 7673

Calibration Procedure(s) FF-Z11-004-02
Calibration Procedures for Dosimetric E-field Probes

Calibration date: July 24, 2023

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	12-Jun-23(CTTL, No.J23X05435)	Jun-24
Power sensor NRP-Z91	101547	12-Jun-23(CTTL, No.J23X05435)	Jun-24
Power sensor NRP-Z91	101548	12-Jun-23(CTTL, No.J23X05435)	Jun-24
Reference 10dBAttenuator	18N50W-10dB	19-Jan-23(CTTL, No.J23X00212)	Jan-25
Reference 20dBAttenuator	18N50W-20dB	19-Jan-23(CTTL, No.J23X00211)	Jan-25
Reference Probe EX3DV4	SN 3846	31-May-23(SPEAG, No.EX-3846_May23)	May-24
Reference Probe EX3DV4	SN 7517	27-Jan-23(SPEAG, No.EX-7517_Jan23)	Jan-24
DAE4	SN 1555	25-Aug-22(SPEAG, No.DAE4-1555_Aug22)	Aug-23
Secondary Standards	**ID #**	**Cal Date(Calibrated by, Certificate No.)**	**Scheduled Calibration**
SignalGenerator MG3700A	6201052605	12-Jun-23(CTTL, No.J23X05434)	Jun-24
Network Analyzer E5071C	MY46110673	10-Jan-23(CTTL, No.J23X00104)	Jan-24
Reference 10dBAttenuator	BT0520	11-May-23(CTTL, No.J23X04061)	May-25
Reference 20dBAttenuator	BT0267	11-May-23(CTTL, No.J23X04062)	May-25
OCP DAK-3.5	SN 1040	18-Jan-23(SPEAG, No.OCP-DAK3.5-1040_Jan23)	Jan-24

	Name	Function	Signature
Calibrated by:	Yu Zongying	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: July 31, 2023

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

Certificate No: J23Z60316 Page 1 of 9

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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, "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 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).

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DASY/EASY – Parameters of Probe: EX3DV4 – SN:7673

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (*k*=2)
Norm(μV/(V/m)²)[A]	0.62	0.63	0.60	±10.0%
DCP(mV)[B]	111.4	112.4	110.2	

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	214.3	±2.2%
		Y	0.0	0.0	1.0		219.2	
		Z	0.0	0.0	1.0		207.3	

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).
[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: EX3DV4 – SN:7673

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	10.50	10.50	10.50	0.18	1.24	±12.7%
900	41.5	0.97	10.12	10.12	10.12	0.17	1.34	±12.7%
1750	40.1	1.37	8.46	8.46	8.46	0.30	0.92	±12.7%
1900	40.0	1.40	8.20	8.20	8.20	0.30	0.90	±12.7%
2100	39.8	1.49	8.15	8.15	8.15	0.24	1.06	±12.7%
2300	39.5	1.67	7.90	7.90	7.90	0.60	0.68	±12.7%
2450	39.2	1.80	7.65	7.65	7.65	0.66	0.68	±12.7%
2600	39.0	1.96	7.45	7.45	7.45	0.65	0.68	±12.7%
3300	38.2	2.71	6.98	6.98	6.98	0.44	0.92	±13.9%
3500	37.9	2.91	6.78	6.78	6.78	0.41	1.04	±13.9%
3700	37.7	3.12	6.63	6.63	6.63	0.39	1.04	±13.9%
3900	37.5	3.32	6.51	6.51	6.51	0.30	1.52	±13.9%
4100	37.2	3.53	6.45	6.45	6.45	0.30	1.40	±13.9%
4200	37.1	3.63	6.35	6.35	6.35	0.30	1.52	±13.9%
4400	36.9	3.84	6.25	6.25	6.25	0.30	1.52	±13.9%
4600	36.7	4.04	6.14	6.14	6.14	0.35	1.42	±13.9%
4800	36.4	4.25	6.05	6.05	6.05	0.35	1.52	±13.9%
4950	36.3	4.40	5.71	5.71	5.71	0.35	1.55	±13.9%
5250	35.9	4.71	5.19	5.19	5.19	0.35	1.55	±13.9%
5600	35.5	5.07	4.69	4.69	4.69	0.40	1.52	±13.9%
5750	35.4	5.22	4.79	4.79	4.79	0.40	1.52	±13.9%

[C] 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.

[F] At frequency up to 6 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. 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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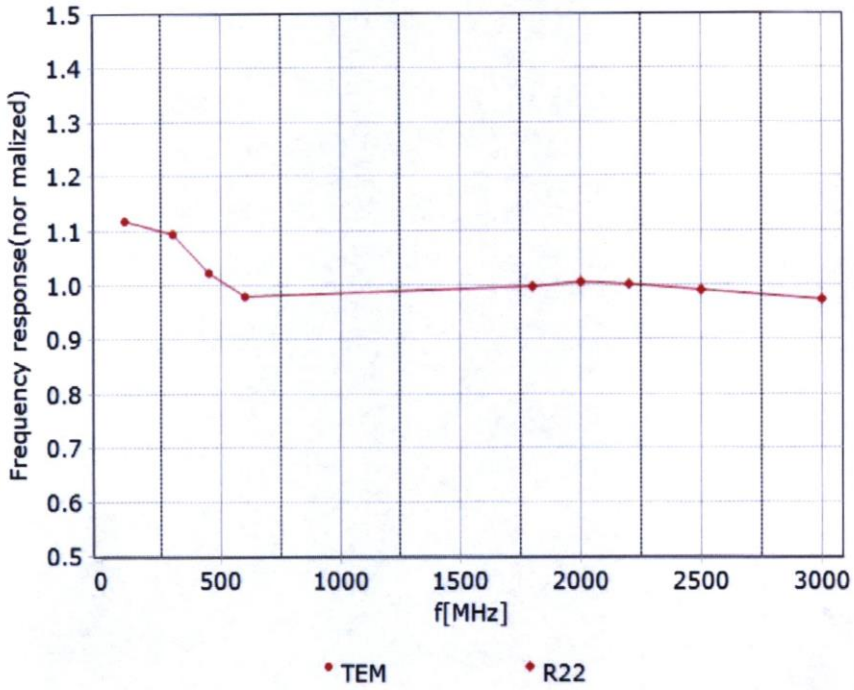
Frequency Response of E-Field
(TEM-Cell: ifi110 EXX, Waveguide: R22)



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

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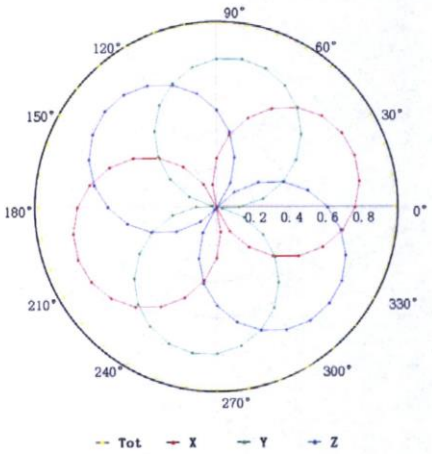
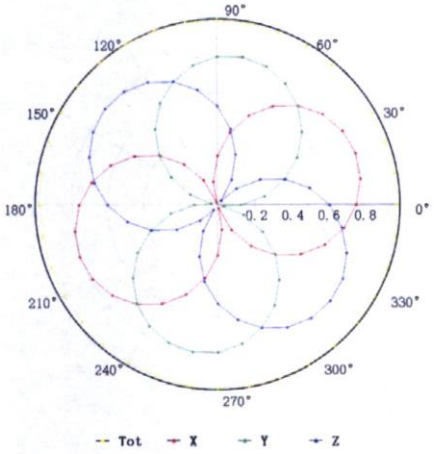
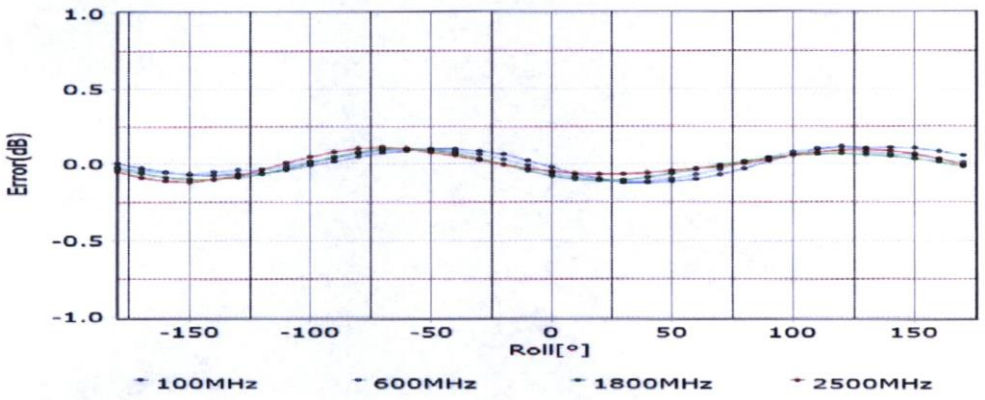
Receiving Pattern (Φ), θ=0°

f=600 MHz, TEM



f=1800 MHz, R22





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