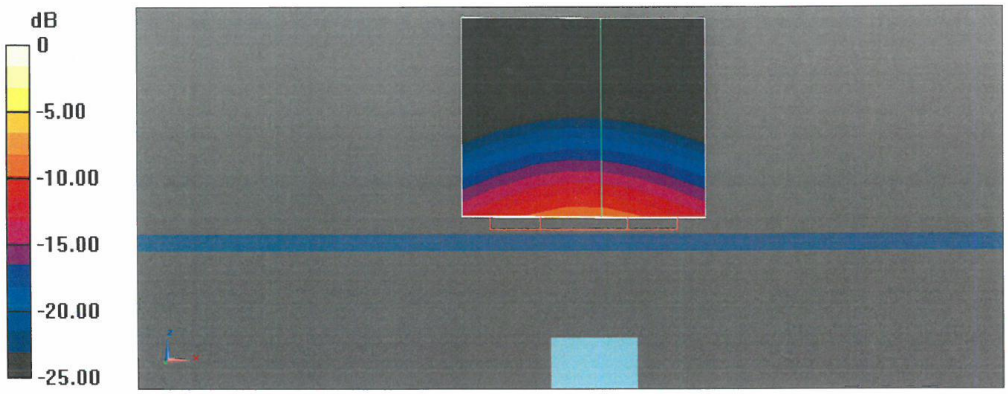
Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5300 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 80.15 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 28.9 W/kg
SAR(1 g) = 8.25 W/kg; SAR(10 g) = 2.35 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 69.1%
Maximum value of SAR (measured) = 19.1 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5500 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 80.07 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 33.6 W/kg
SAR(1 g) = 8.80 W/kg; SAR(10 g) = 2.47 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 66.4%
Maximum value of SAR (measured) = 20.9 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 80.82 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 30.8 W/kg
SAR(1 g) = 8.45 W/kg; SAR(10 g) = 2.40 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 67.5%
Maximum value of SAR (measured) = 19.9 W/kg

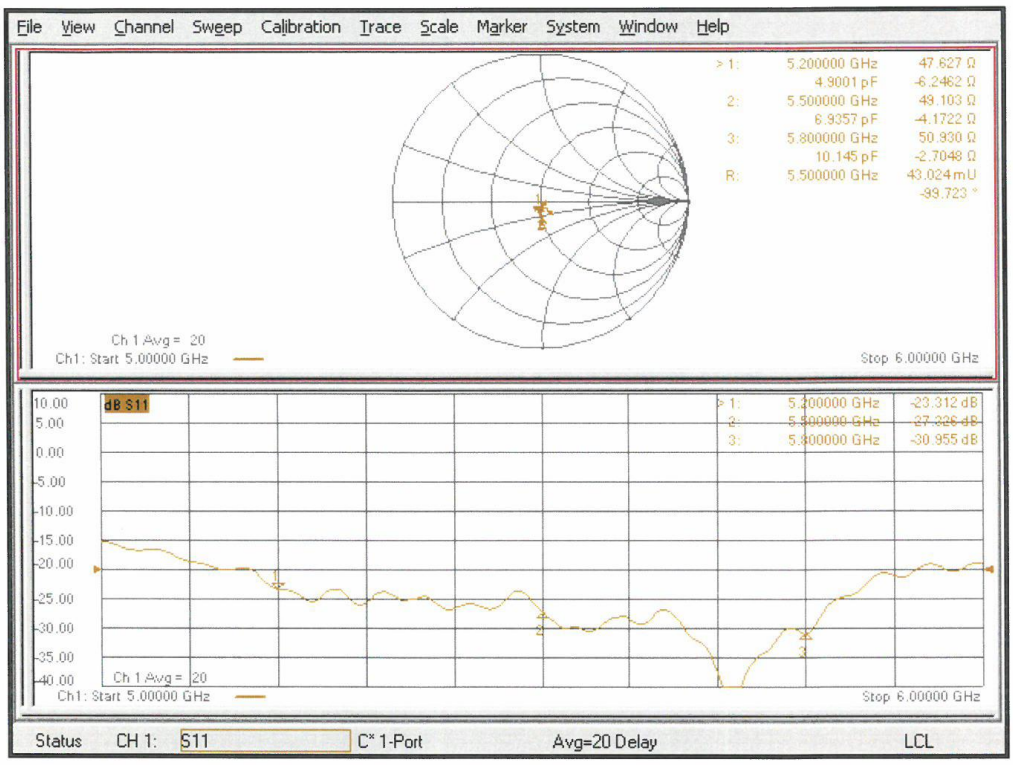
Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 78.22 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 31.8 W/kg
SAR(1 g) = 8.18 W/kg; SAR(10 g) = 2.30 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 65.8%
Maximum value of SAR (measured) = 19.5 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 77.53 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 31.9 W/kg
SAR(1 g) = 8.19 W/kg; SAR(10 g) = 2.31 W/kg
Smallest distance from peaks to all points 3 dB below = 7.4 mm
Ratio of SAR at M2 to SAR at M1 = 65.4%
Maximum value of SAR (measured) = 19.2 W/kg

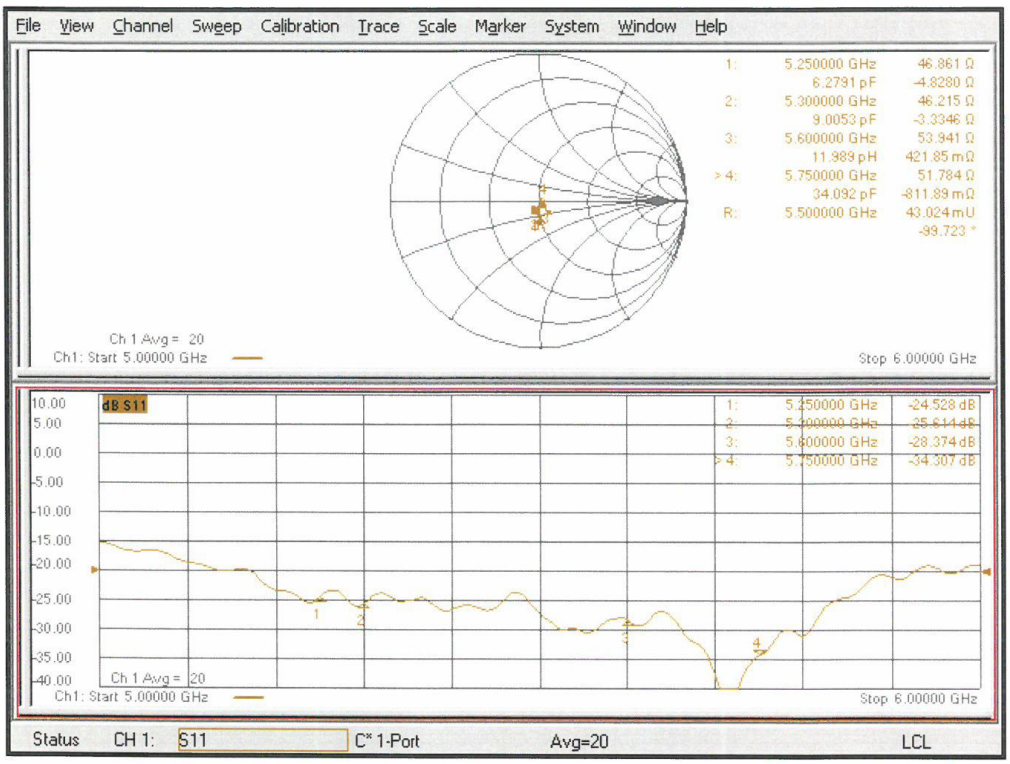


0 dB = 20.9 W/kg = 13.20 dBW/kg

Impedance Measurement Plot for Head TSL (5200, 5500, 5800 MHz)

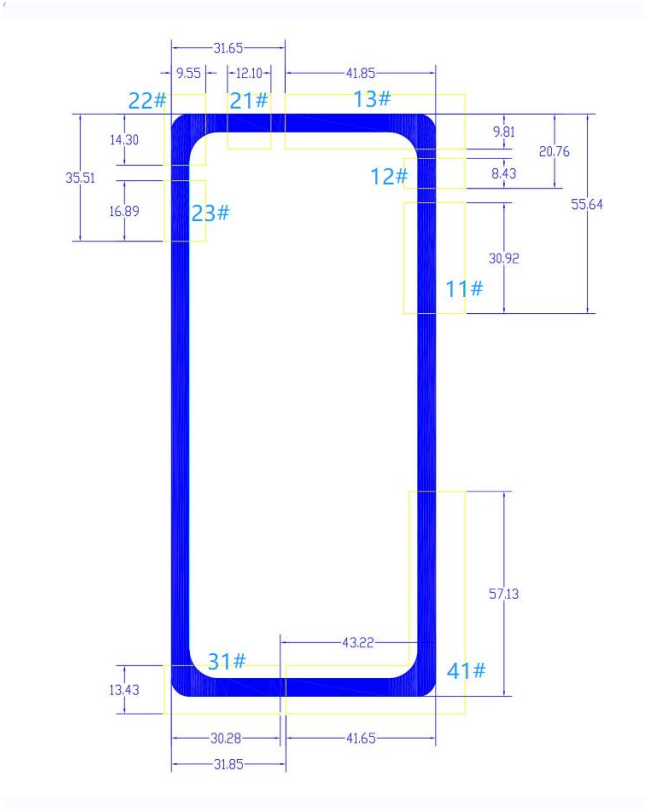


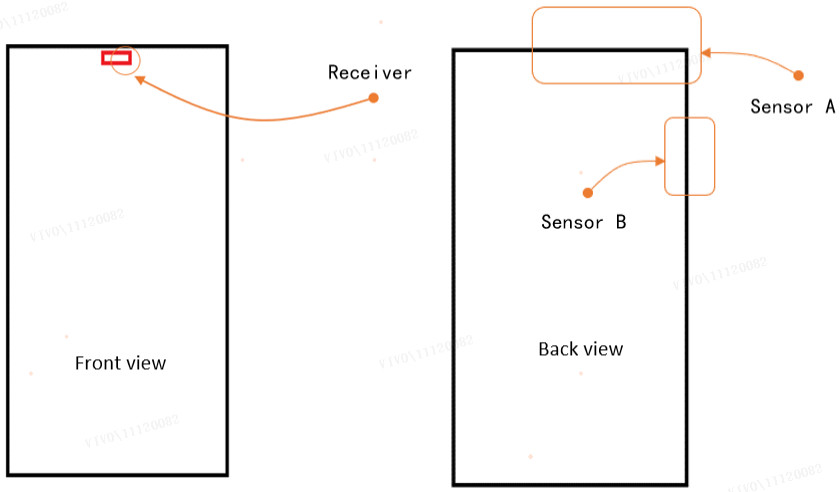
Impedance Measurement Plot for Head TSL (5250, 5300, 5600, 5750 MHz)



ANNEX I Sensor Triggering Data Summary

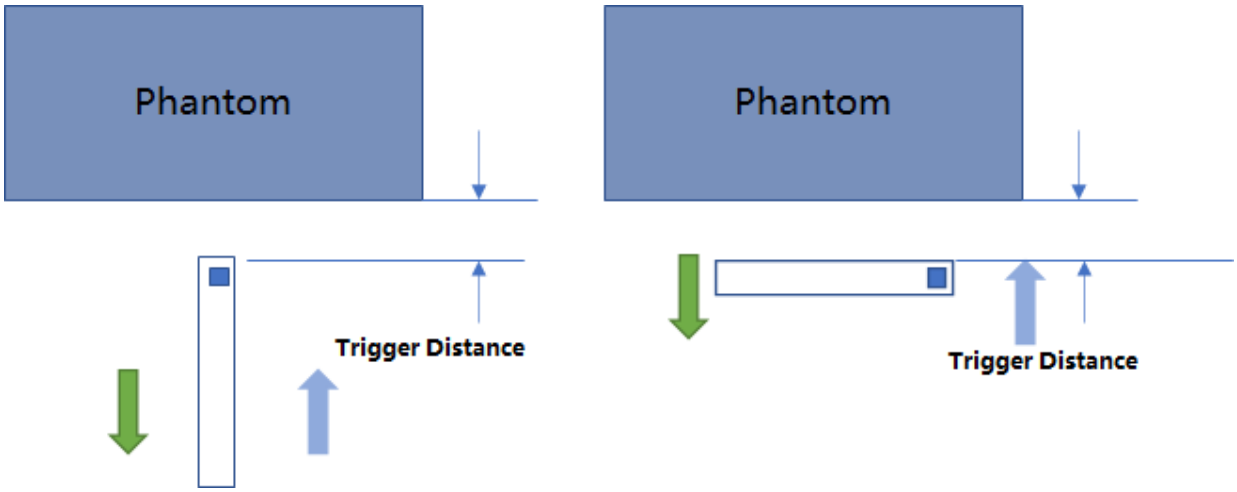
The DUT has the proximity sensors to reduce the output power. The position of the sensor and antenna are as shown in the graphic.





Rear, Front, Bottom and Top of the DUT was placed directly below the flat phantom. The DUT was moved toward the phantom in accordance with the steps outlined in KDB 616217 to determine the trigger distance for enabling power reduction. The DUT was moved away from the phantom to determine the trigger distance for resuming full power.

The DUT featured a visual indicator on its display that showed the status of the proximity sensor (Triggered or not triggered). This was used to determine the status of the sensor during the proximity sensor assessment as monitoring the output power directly was not practical without affecting the measurement. It was confirmed separately that the output power according to locking the proximity sensor status.



Blue arrow : Direction of DUT travel for determination of power reduction triggering point.

Green arrow: Direction of DUT travel for determination of normal power triggering point

When the visual indicator display is “CS0 turn green”, indicates that the status of the proximity sensor B is triggered, when the visual indicator display is “CS4 turn green”, indicates that the status of the proximity sensor A is triggered (see the figure below)

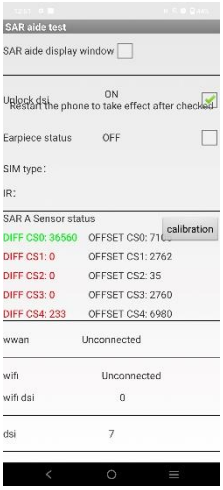


Fig1.sensor B is triggered

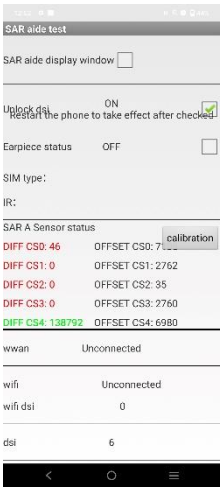


Fig2.Sensor A is triggered

When the visual indicator display is “CS0 and CS4 tune red”, indicates that the status of the proximity sensor B and sensor A is not triggered

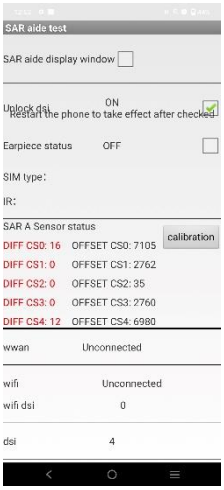


Fig3. sensor B and sensor A is not triggered

ANT 11

Rear Edge

Moving device toward the phantom:

sensor triggered (YES or NO)											
Distance [mm]	**19**	**18**	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**9**
ANT11	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES

Moving device away from the phantom:

sensor triggered (YES or NO)											
Distance [mm]	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**
ANT11	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO

Back right Edge

Moving device toward the phantom:

sensor triggered (YES or NO)											
Distance [mm]	**22**	**21**	**20**	**19**	**18**	**17**	**16**	**15**	**14**	**13**	**12**
ANT11	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES

Moving device away from the phantom:

sensor triggered (YES or NO)											
Distance [mm]	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
ANT11	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO

ANT 13

Front Edge

Moving device toward the phantom:

sensor triggered (YES or NO)											
Distance [mm]	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**	**7**	**6**	**5**
ANT13	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES

Moving device away from the phantom:

sensor triggered (YES or NO)											
Distance [mm]	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
ANT13	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO

Rear Edge

Moving device toward the phantom:

sensor triggered (YES or NO)											
Distance [mm]	**19**	**18**	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**9**
ANT13	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES

Moving device away from the phantom:

sensor triggered (YES or NO)											
Distance [mm]	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**
ANT13	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO

Top Edge

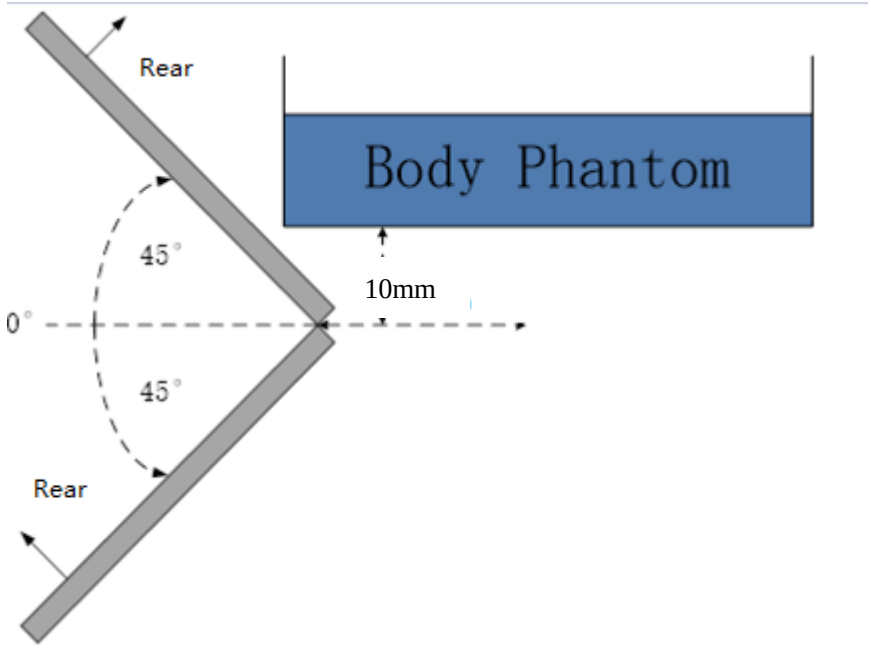
Moving device toward the phantom:

sensor triggered (YES or NO)											
Distance [mm]	**25**	**24**	**23**	**22**	**21**	**20**	**19**	**18**	**17**	**16**	**15**
ANT13	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES

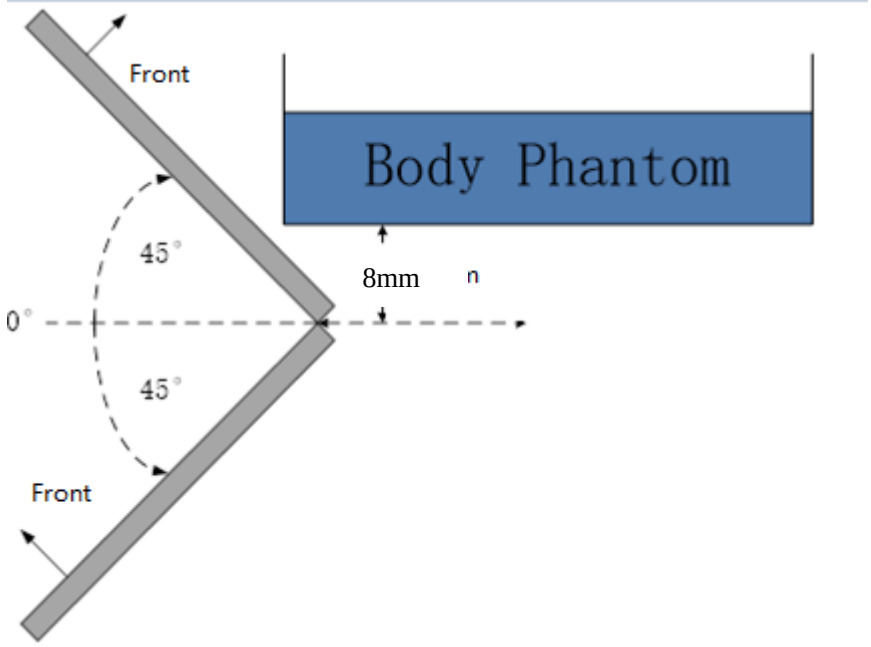
Moving device away from the phantom:

sensor triggered (YES or NO)											
Distance [mm]	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**
2	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO

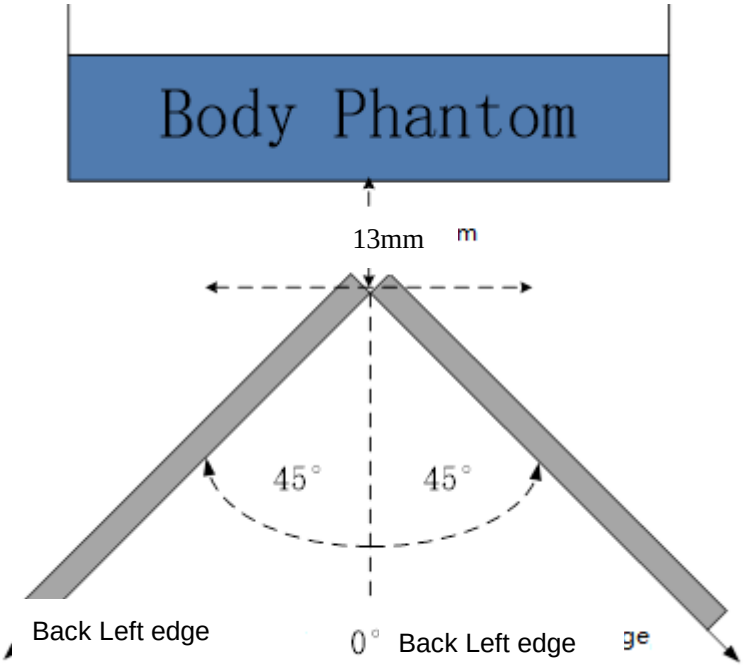
Per FCC KDB Publication 616217 D04v01r02, the influence of table tilt angles to proximity sensor triggering is determined by positioning each edge that contains a transmitting antenna, perpendicular to the flat phantom, at the smallest sensor triggering test distanceby rotating the device around the edge next to the phantom in ≤ 10° increments until the tablet is ±45° or more from the vertical position at 0°.



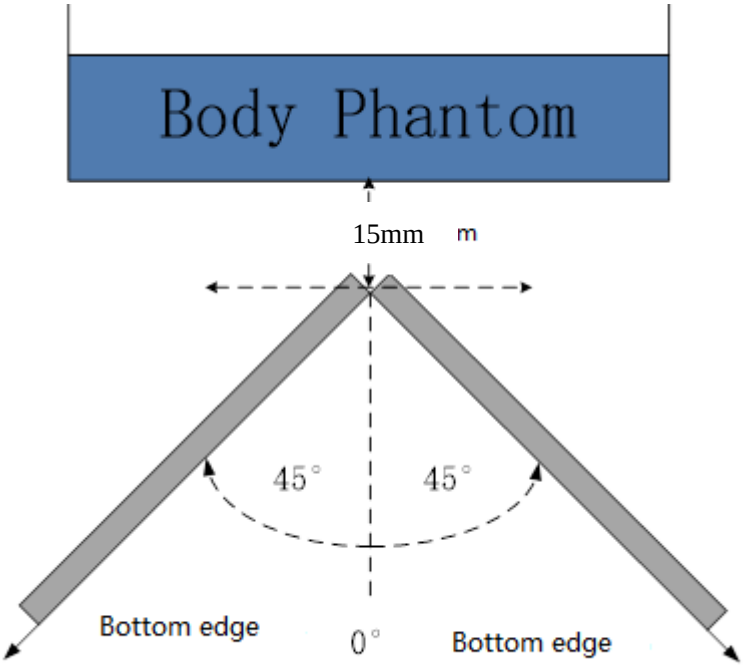
The Rear evaluation



The Front edge evaluation



The Back Right edge evaluation



The Top edge evaluation

Based on the above evaluation, we come to the conclusion that the sensor triggering is not released and normal maximum output power is not restored within the ±45° range at the smallest sensor triggering test distance declared by manufacturer.

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 (%)
2022-5-10	Head	1900MHz	41.42	3.55	1.527	9.07

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
2022-5-10	1900MHz	20.9	40.1	20.4	39.1	-2.20%	-2.44%

J.2 SAR test result for spot check

ANT	DSI	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Reported SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Reported SAR 10g (W/kg)	Power Drift
13	10	Body	GSM1900	810	1909.8	GPRS(2TX)	Top	10mm	24.72	25.5	0.550	0.66	0.275	**0.33**	0.16
13	2	Head	WCDMA1900	9400	1880	RMC	Tilt Right	0mm	14.43	15.5	0.659	0.84	0.296	**0.38**	0.15

J.3 Reported SAR Comparison

Table J.3-1: Highest Reported SAR (10g)

Mode		Antenna	Reported SAR 1g (W/Kg): original			Reported SAR 1g (W/Kg): spot check		
			Head SAR	Body-worn SAR	Hotspot SAR	Head SAR	Body-worn SAR	Hotspot SAR
GSM	GSM 850	13	0.23	0.31	0.31	/	/	/
	GSM 850	41	0.27	0.47	0.47	/	/	/
	PCS 1900	13	0.55	0.45	0.71	/	/	0.66
	PCS 1900	31	0.12	0.22	0.45	/	/	/
WCDMA	UMTS FDD 2	13	0.84	0.69	0.53	0.84	/	/
	UMTS FDD 2	31	0.23	0.40	0.44	/	/	/
	UMTS FDD 4	13	0.76	0.64	0.51	/	/	/
	UMTS FDD 4	31	0.25	0.32	0.53	/	/	/
	UMTS FDD 5	13	0.22	0.24	0.24	/	/	/
	UMTS FDD 5	41	0.25	0.40	0.40	/	/	/
LTE	LTE Band 2	13	0.72	0.49	0.51	/	/	/
	LTE Band 2	31	0.21	0.28	0.50	/	/	/
	LTE Band 4	13	0.58	0.30	0.34	/	/	/
	LTE Band 4	31	0.33	0.28	0.49	/	/	/
	LTE Band 5	13	0.25	0.24	0.24	/	/	/

	LTE Band 5	41	0.24	0.32	0.32	/	/	/
	LTE Band 7	13	0.52	0.64	0.58	/	/	/
	LTE Band 7	31	0.34	0.16	0.27	/	/	/
	LTE Band 12	13	0.22	0.07	0.07	/	/	/
	LTE Band 12	41	0.24	0.24	0.24	/	/	/
	LTE Band 13	13	0.20	0.12	0.12	/	/	/
	LTE Band 13	41	0.11	0.15	0.15	/	/	/
	LTE Band 38	13	0.27	0.23	0.47	/	/	/
	LTE Band 38	31	0.16	0.28	0.28	/	/	/
	LTE Band 41	13	0.20	0.19	0.42	/	/	/
	LTE Band 41	31	0.14	0.32	0.32	/	/	/
	LTE Band 66	13	0.41	0.43	0.41	/	/	/
	LTE Band 66	31	0.23	0.24	0.46	/	/	/
NR SA/NSA	N7	11	0.31	0.33	0.39	/	/	/
	N7	13	0.55	0.63	0.45	/	/	/
	N66	11	0.10	0.05	0.08	/	/	/
	N66	13	0.51	0.25	0.28	/	/	/
	N77	11	0.27	0.43	0.42	/	/	/
	N77	12	0.48	0.24	0.44	/	/	/
	N77	11	0.39	0.49	0.58	/	/	/
	N77	12	0.29	0.09	0.13	/	/	/
	N78	11	0.50	0.26	0.44	/	/	/
	N78	12	0.33	0.08	0.16	/	/	/
WLAN 2.4 GHz		22	0.16	0.12	0.12		/	/
WLAN 5 GHz		22	0.34	0.67	0.35		/	/
BT		22	0.08	0.03	/		/	/

Note: All the spot check results are less than the original results.

J.4 Graph Results

GSM1900 Body ANT13

Date: 5/10/2022

Electronics: DAE4 Sn1331

Medium: H1900

Medium parameters used: f = 1910 MHz; σ = 1.533 S/m; εr = 41.39; ρ = 1000 kg/m3

Ambient Temperature:23.3oC Liquid Temperature: 22.5oC

Communication System: UID 0, GSM1900 2TX (0) Frequency: 1909.8 MHz Duty Cycle: 1:4.00037

Probe: EX3DV4 - SN7548 ConvF(7.88, 7.88, 7.88)

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

Maximum value of SAR (interpolated) = 0.839 W/kg

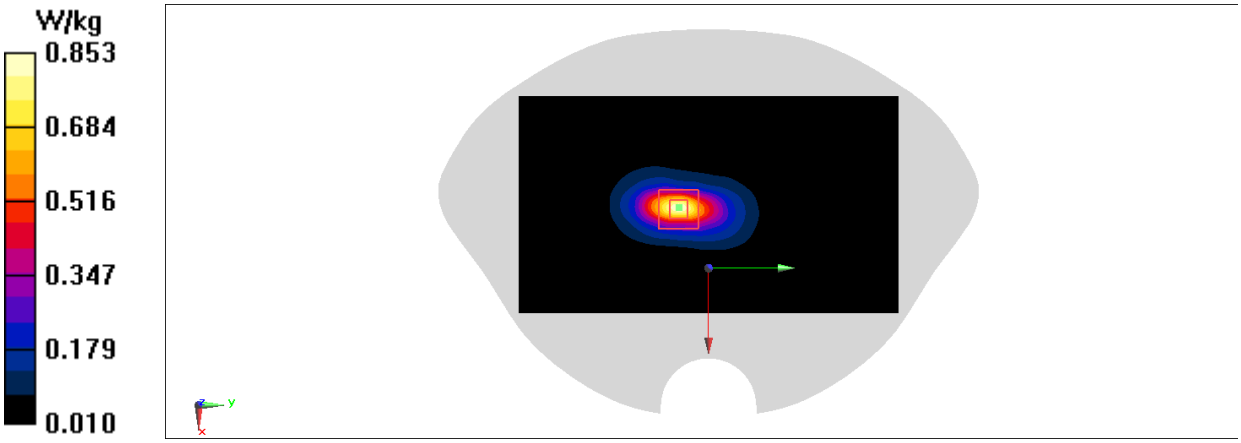
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.06 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 1.01 W/kg

SAR(1 g) = 0.550 W/kg; SAR(10 g) = 0.275 W/kg

Maximum value of SAR (measured) = 0.853 W/kg



WCDMA1900 Head ANT13

Date: 5/10/2022

Electronics: DAE4 Sn1331

Medium: H1900

Medium parameters used: f = 1880 MHz; σ = 1.515 S/m; εr = 41.46; ρ = 1000 kg/m3

Ambient Temperature:23.3oC Liquid Temperature: 22.5oC

Communication System: UID 0, WCDMA1900(B2) (0) Frequency: 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7548 ConvF(7.88, 7.88, 7.88)

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

Maximum value of SAR (interpolated) = 1.14 W/kg

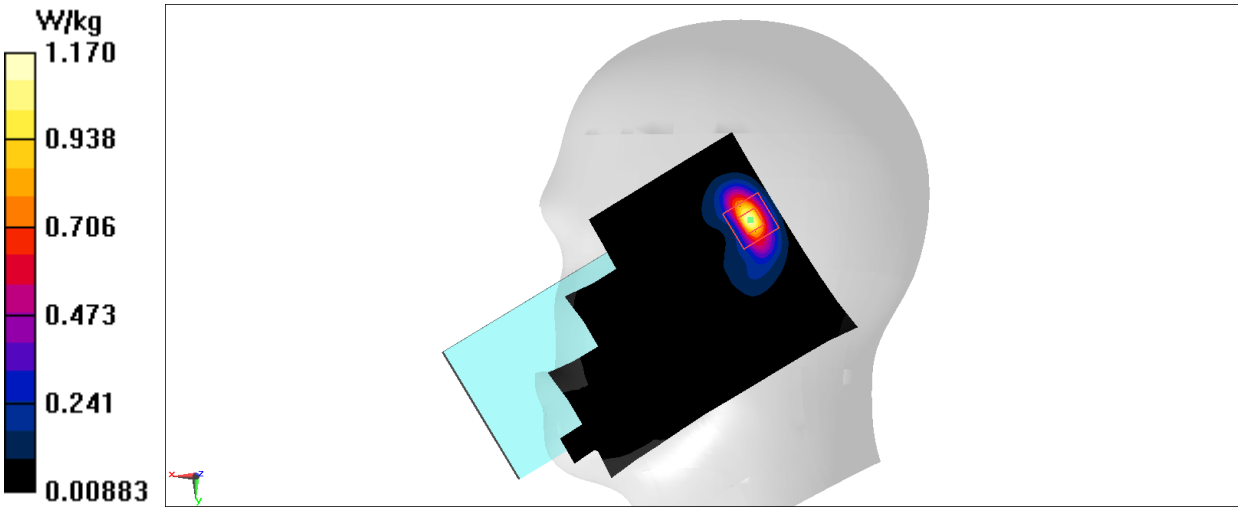
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.34 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 1.40 W/kg

SAR(1 g) = 0.659 W/kg; SAR(10 g) = 0.296 W/kg

Maximum value of SAR (measured) = 1.17 W/kg



J.5 System Validation Results

1900 MHz

Date: 5/10/2022

Electronics: DAE4 Sn1331

Medium: H1900

Medium parameters used: f = 1900 MHz; σ = 1.527 S/m; εr = 41.42; ρ = 1000 kg/m3

Ambient Temperature:23.3oC Liquid Temperature: 22.5oC

Communication System: UID 0, CW (0) Frequency: 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7548 ConvF(7.88, 7.88, 7.88)

Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 15.6 W/kg

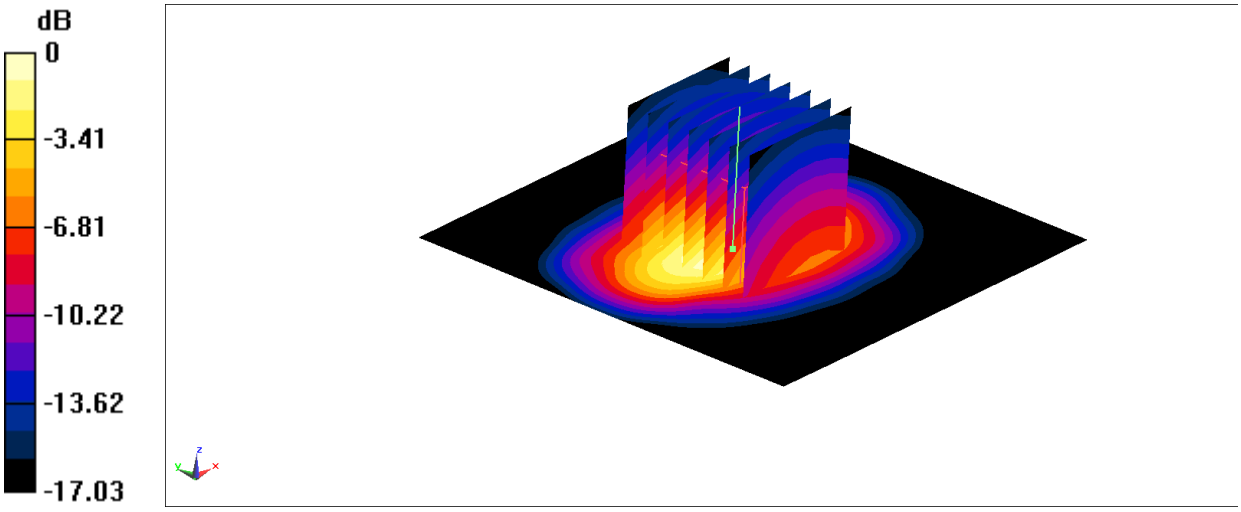
Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 102.0 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 18.0 W/kg

SAR(1 g) = 9.78 W/kg; SAR(10 g) = 5.11 W/kg

Maximum value of SAR (measured) = 15.1 W/kg



0 dB = 15.1 W/kg = 11.79 dBW/kg

J.6 Probe Calibration Certificate

In Collaboration with speag CALIBRATION LABORATORY
Add: No.52 HuaYuanBei 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

CNAS 中国认可 国际互认 校准 CALIBRATION CNAS L0570

Client CTTL Certificate No: Z21-60231

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN : 7548
Calibration Procedure(s)	FF-Z11-004-02 Calibration Procedures for Dosimetric E-field Probes
Calibration date:	June 25, 2021

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	15-Jun-21(CTTL, No.J21X04466)	Jun-22
Power sensor NRP-Z91	101547	15-Jun-21(CTTL, No.J21X04466)	Jun-22
Power sensor NRP-Z91	101548	15-Jun-21(CTTL, No.J21X04466)	Jun-22
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	27-Jan-21(SPEAG, No.EX3-3617_Jan21)	Jan-22
DAE4	SN 1556	15-Jan-21(SPEAG, No.DAE4-1556_Jan21)	Jan-22
Secondary Standards	**ID #**	**Cal Date(Calibrated by, Certificate No.)**	**Scheduled Calibration**
SignalGenerator MG3700A	6201052605	16-Jun-21(CTTL, No.J21X04467)	Jun-22
Network Analyzer E5071C	MY46110673	21-Jan-21(CTTL, No.J20X00515)	Jan-22

	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: June 27, 2021

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

Certificate No: Z21-60231 Page 1 of 9

In Collaboration with
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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:7548

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (*k*=2)
Norm(μV/(V/m)²)[A]	0.61	0.69	0.62	±10.0%
DCP(mV)[B]	100.7	101.3	102.5	

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	212.9	±2.0%
		Y	0.0	0.0	1.0		221.6	
		Z	0.0	0.0	1.0		208.4	

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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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	10.36	10.36	10.36	0.40	0.70	±12.1%
900	41.5	0.97	9.74	9.74	9.74	0.16	1.28	±12.1%
1450	40.5	1.20	8.55	8.55	8.55	0.41	0.73	±12.1%
1750	40.1	1.37	8.14	8.14	8.14	0.31	0.93	±12.1%
1900	40.0	1.40	7.88	7.88	7.88	0.29	0.99	±12.1%
2000	40.0	1.40	7.95	7.95	7.95	0.21	1.17	±12.1%
2300	39.5	1.67	7.60	7.60	7.60	0.64	0.67	±12.1%
2450	39.2	1.80	7.35	7.35	7.35	0.64	0.68	±12.1%
2600	39.0	1.96	7.11	7.11	7.11	0.49	0.81	±12.1%
3300	38.2	2.71	6.79	6.79	6.79	0.47	0.89	±13.3%
3500	37.9	2.91	6.64	6.64	6.64	0.40	1.05	±13.3%
3700	37.7	3.12	6.42	6.42	6.42	0.42	1.03	±13.3%
3900	37.5	3.32	6.27	6.27	6.27	0.35	1.40	±13.3%
4100	37.2	3.53	6.30	6.30	6.30	0.40	1.15	±13.3%
4200	37.1	3.63	6.15	6.15	6.15	0.35	1.35	±13.3%
4400	36.9	3.84	6.05	6.05	6.05	0.35	1.35	±13.3%
4600	36.7	4.04	5.98	5.98	5.98	0.40	1.30	±13.3%
4800	36.4	4.25	5.93	5.93	5.93	0.40	1.30	±13.3%
4950	36.3	4.40	5.74	5.74	5.74	0.40	1.35	±13.3%
5250	35.9	4.71	5.05	5.05	5.05	0.45	1.30	±13.3%
5600	35.5	5.07	4.68	4.68	4.68	0.45	1.40	±13.3%
5750	35.4	5.22	4.73	4.73	4.73	0.50	1.35	±13.3%

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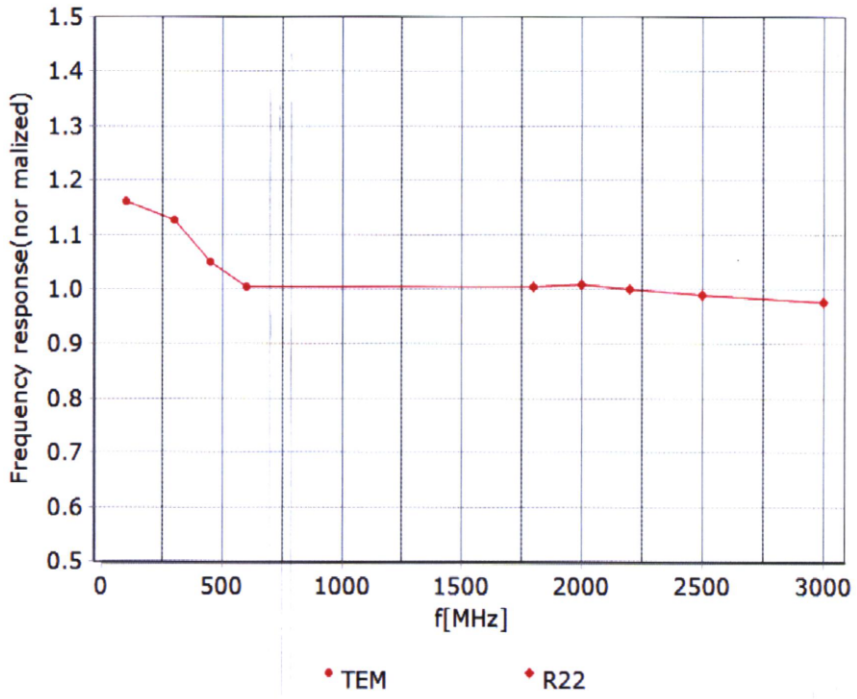
Frequency Response of E-Field
(TEM-Cell: ifi110 EXX, Waveguide: R22)



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

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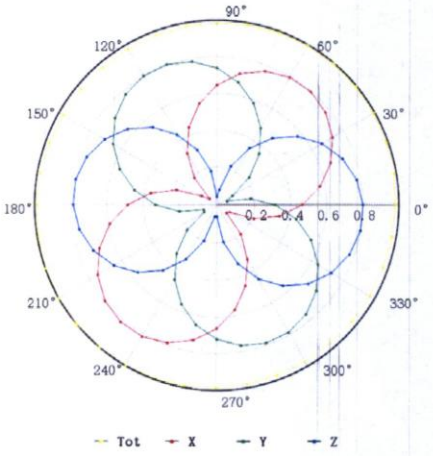
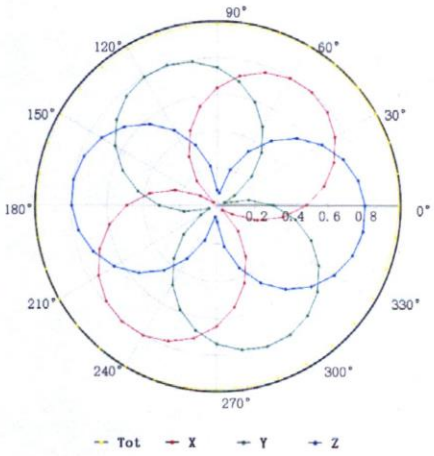
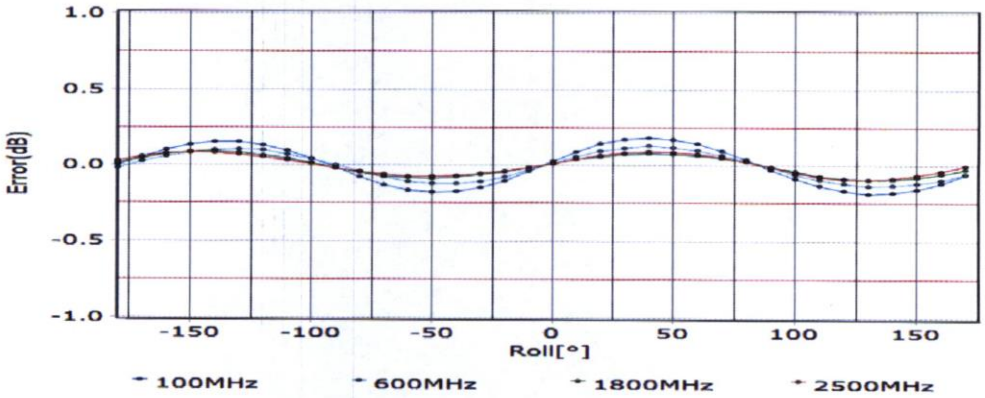
Receiving Pattern (Φ), θ=0°

f=600 MHz, TEM



f=1800 MHz, R22





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

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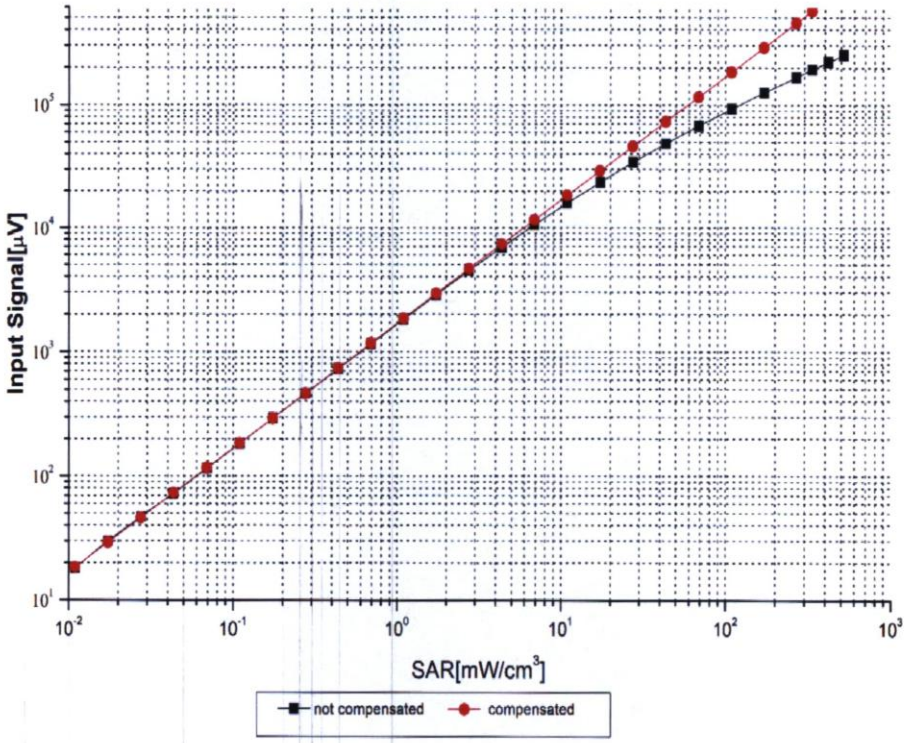
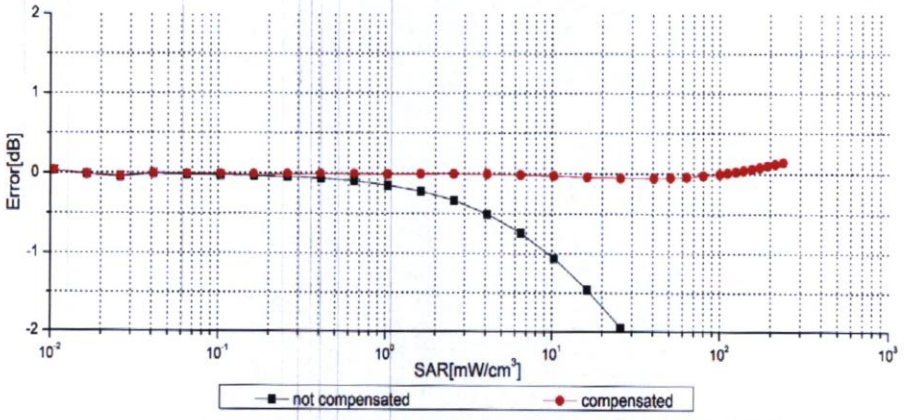
Dynamic Range f(SAR$_{head}$)
(TEM cell, f = 900 MHz)





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

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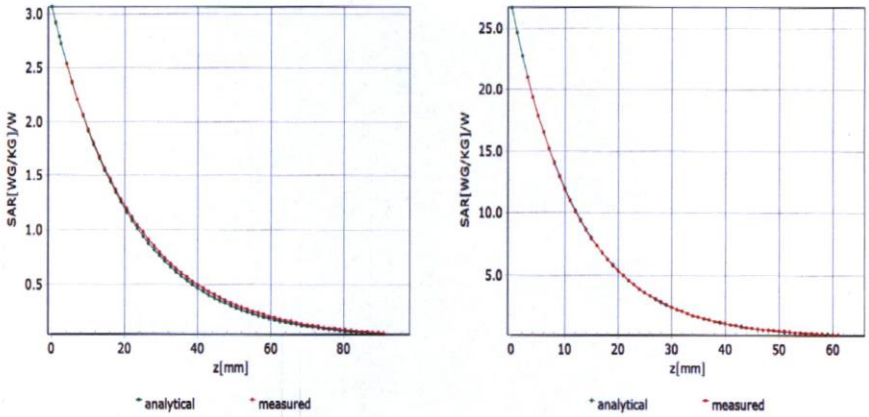
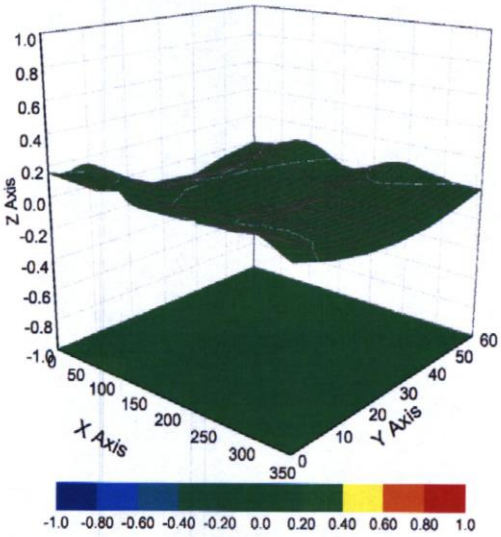
Conversion Factor Assessment

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)

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DASY/EASY – Parameters of Probe: EX3DV4 – SN:7548

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	152.2
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	9mm
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

J.7 Main Test Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	N5239A	MY55491241	May 31, 2021	One year
02	Power meter	NRP110T	101139	January 13, 2022	One year
03	Power sensor	NRP110T	101159		
04	Signal Generator	E4438C	MY49071430	January 13, 2022	One Year
05	Amplifier	60S1G4	0331848	No Calibration Requested	
06	BTS	CMW500	166370	June 25, 2021	One year
07	E-field Probe	SPEAG EX3DV4	7548	June 25, 2021	One year
08	DAE	SPEAG DAE4	1331	September 1, 2021	One year
09	Dipole Validation Kit	SPEAG D1900V2	5d101	July 15,2021	One year

ANNEX K Accreditation Certificate

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 600118-0

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Beijing
China

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2021-09-29 through 2022-09-30
Effective Dates

For the National Voluntary Laboratory Accreditation Program