

Head TSL parameters at 5750 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.4	5.22 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	33.9 ± 6 %	5.10 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5750 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.18 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	81.0 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.30 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	22.7 W/kg ± 19.5 % (k=2)

Head TSL parameters at 5800 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.3	5.27 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	33.8 ± 6 %	5.15 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5800 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.19 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	81.1 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.31 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	22.8 W/kg ± 19.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL at 5200 MHz

Impedance, transformed to feed point	47.6 Ω - 6.2 j Ω
Return Loss	- 23.3 dB

Antenna Parameters with Head TSL at 5250 MHz

Impedance, transformed to feed point	46.9 Ω - 4.8 j Ω
Return Loss	- 24.5 dB

Antenna Parameters with Head TSL at 5300 MHz

Impedance, transformed to feed point	46.2 Ω - 3.3 j Ω
Return Loss	- 25.6 dB

Antenna Parameters with Head TSL at 5500 MHz

Impedance, transformed to feed point	49.1 Ω - 4.2 j Ω
Return Loss	- 27.3 dB

Antenna Parameters with Head TSL at 5600 MHz

Impedance, transformed to feed point	53.9 Ω + 0.4 j Ω
Return Loss	- 28.4 dB

Antenna Parameters with Head TSL at 5750 MHz

Impedance, transformed to feed point	51.8 Ω - 0.8 j Ω
Return Loss	- 34.3 dB

Antenna Parameters with Head TSL at 5800 MHz

Impedance, transformed to feed point	50.9 Ω - 2.7 j Ω
Return Loss	- 31.0 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.201 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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DASY5 Validation Report for Head TSL

Date: 22.06.2021

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1060

Communication System: UID 0 - CW; Frequency: 5200 MHz, Frequency: 5250 MHz, Frequency: 5300 MHz, Frequency: 5500 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz, Frequency: 5800 MHz

Medium parameters used: $f = 5200$ MHz; $\sigma = 4.54$ S/m; $\epsilon_r = 34.7$; $\rho = 1000$ kg/m³,

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.59$ S/m; $\epsilon_r = 34.6$; $\rho = 1000$ kg/m³,

Medium parameters used: $f = 5300$ MHz; $\sigma = 4.64$ S/m; $\epsilon_r = 34.6$; $\rho = 1000$ kg/m³,

Medium parameters used: $f = 5500$ MHz; $\sigma = 4.85$ S/m; $\epsilon_r = 34.3$; $\rho = 1000$ kg/m³,

Medium parameters used: $f = 5600$ MHz; $\sigma = 4.95$ S/m; $\epsilon_r = 34.1$; $\rho = 1000$ kg/m³,

Medium parameters used: $f = 5750$ MHz; $\sigma = 5.1$ S/m; $\epsilon_r = 33.9$; $\rho = 1000$ kg/m³,

Medium parameters used: $f = 5800$ MHz; $\sigma = 5.15$ S/m; $\epsilon_r = 33.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.8, 5.8, 5.8) @ 5200 MHz, ConvF(5.5, 5.5, 5.5) @ 5250 MHz, ConvF(5.49, 5.49, 5.49) @ 5300 MHz, ConvF(5.25, 5.25, 5.25) @ 5500 MHz, ConvF(5.1, 5.1, 5.1) @ 5600 MHz, ConvF(5.08, 5.08, 5.08) @ 5750 MHz, ConvF(5.01, 5.01, 5.01) @ 5800 MHz; Calibrated: 30.12.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 02.11.2020
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5200 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 78.84 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 28.2 W/kg

SAR(1 g) = 8.04 W/kg; SAR(10 g) = 2.29 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) = 18.5 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 80.04 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 27.2 W/kg

SAR(1 g) = 8.01 W/kg; SAR(10 g) = 2.29 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 70.3%

Maximum value of SAR (measured) = 18.2 W/kg

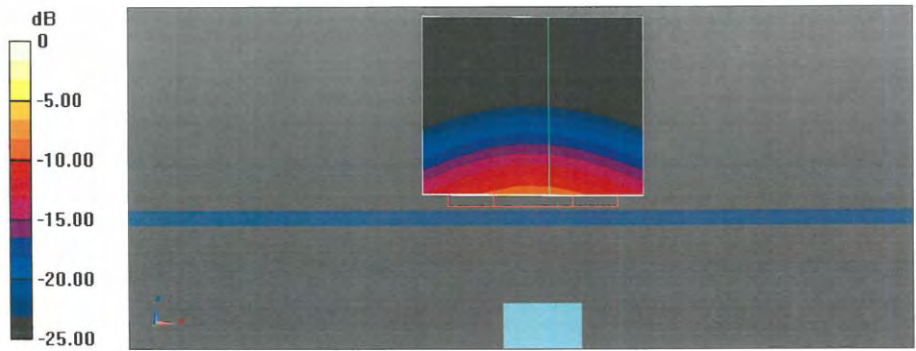
Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5300 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 80.15 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 28.9 W/kg
SAR(1 g) = 8.25 W/kg; SAR(10 g) = 2.35 W/kg
Smallest distance from 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

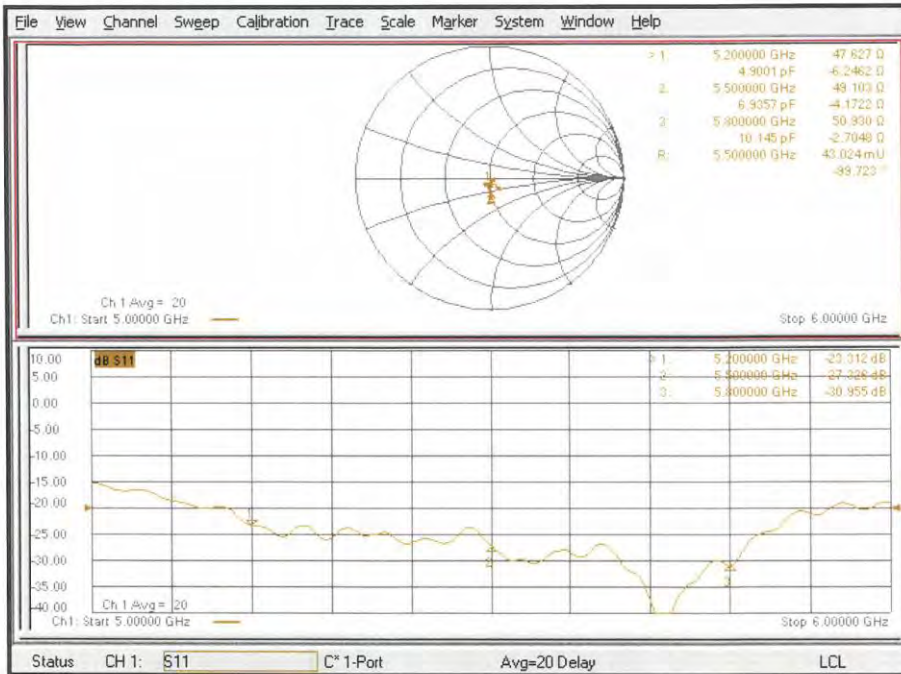
Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 78.22 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 31.8 W/kg
SAR(1 g) = 8.18 W/kg; SAR(10 g) = 2.30 W/kg
Smallest distance from 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

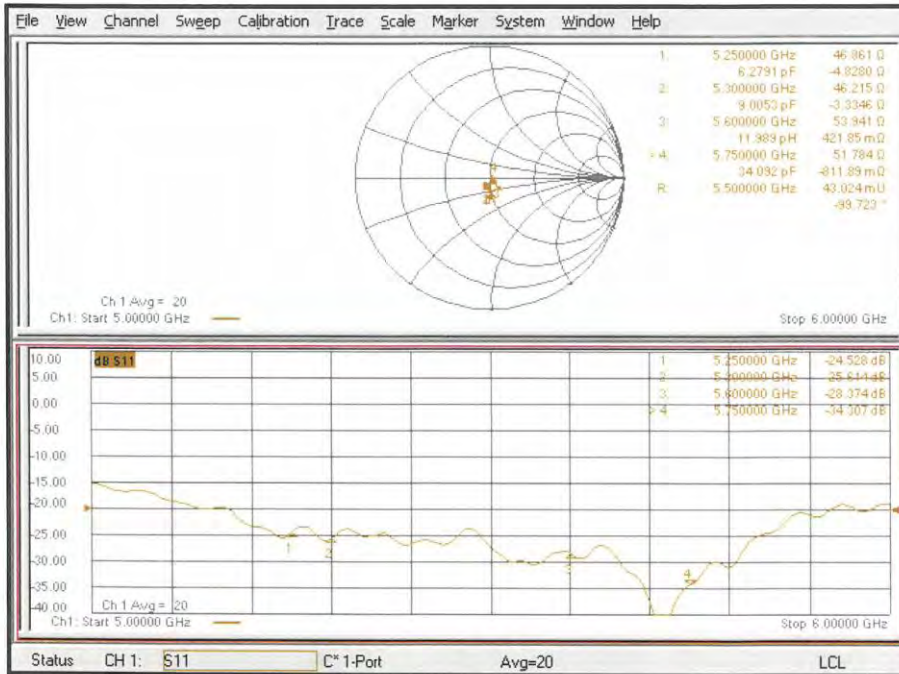


0 dB = 20.9 W/kg = 13.20 dBW/kg

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

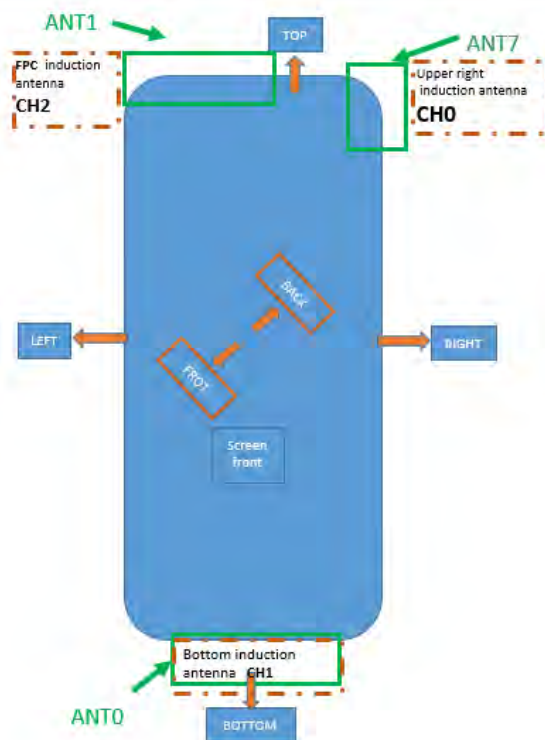
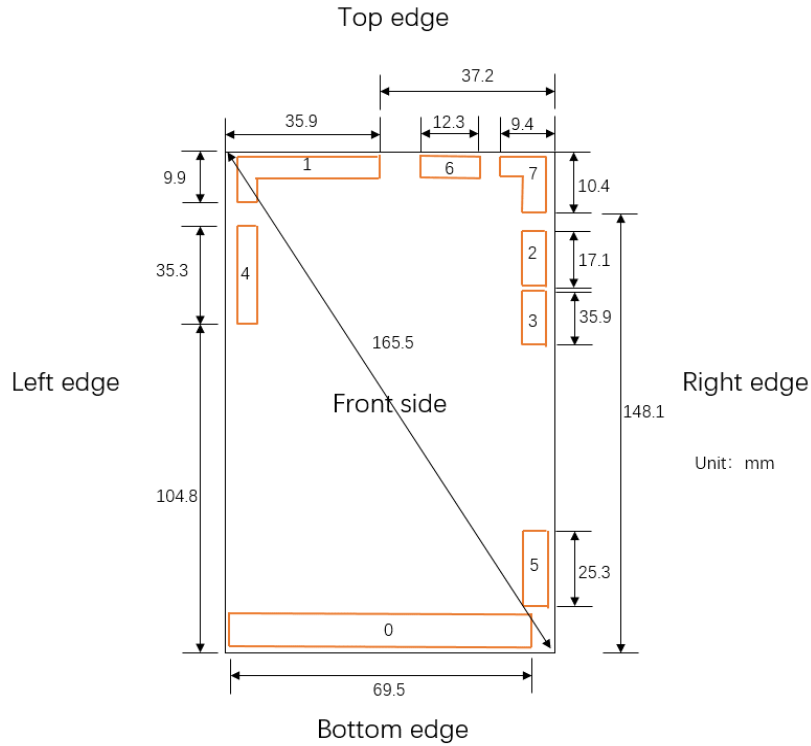


Impedance Measurement Plot for Head TSL (5250, 5300, 5600, 5750 MHz)



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.



Antenna	Trigger description
ANT0	CH1 Close back, away from not back
ANT1/7	CH0/2 If there is one approach, it will fall back (falling back is the sensing distance)

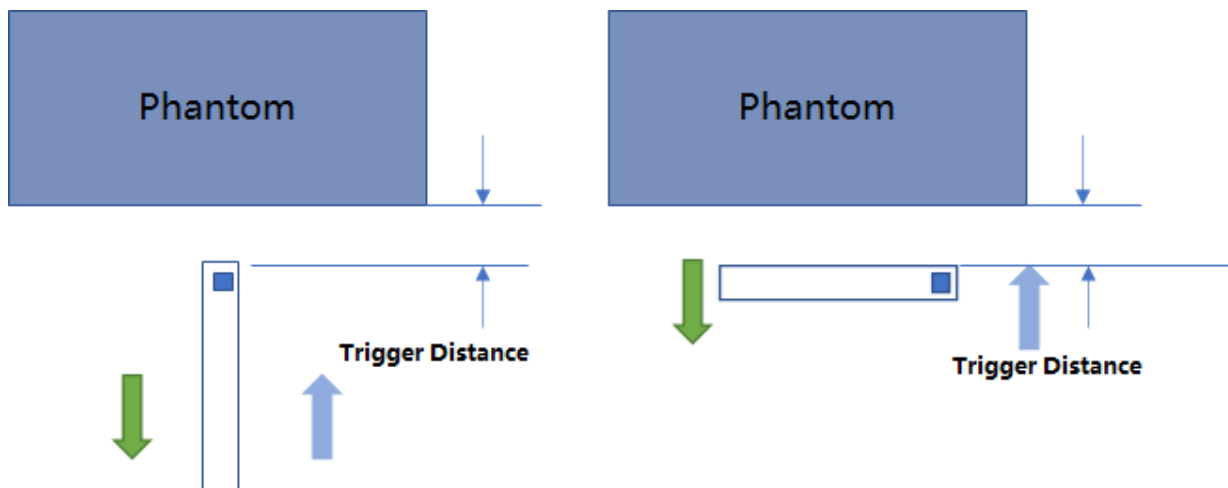
Antenna number	Sensing surface	Trigger distance N
ANT1	Front	5mm
	Back	14mm
	Top	11mm
	bottom	\
	right	\
	left	5mm

Antenna number	Sensing surface	Trigger distance N
ANT0	Front	8mm
	Back	13mm
	Top	\
	bottom	11mm
	right	\
	left	5mm

Antenna number	Sensing surface	Trigger distance N
ANT7	Front	5mm
	Back	10mm
	Top	9mm
	bottom	\
	right	13mm
	left	\

Rear, Front, Bottom, Left, Right 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.

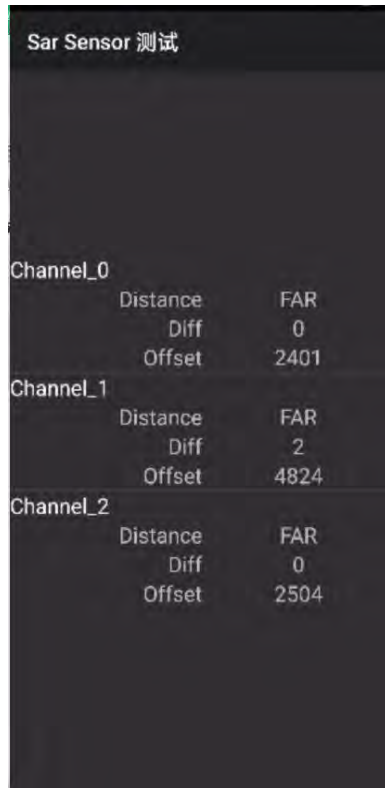
Green arrow: Direction of DUT travel for determination of normal power triggering point

When the visual indicator display is “Channel_1 NEAR”, indicates that the status of the proximity sensor ANT0 is triggered, when the visual indicator display is “Channel_2 NEAR”, indicates that the status of the proximity sensor ANT1 is triggered, when the visual indicator display is “Channel_0 NEAR”, indicates that the status of the proximity sensor ANT7 is triggered (see the figure below),



Fig1.sensor is triggered

When the visual indicator display is “Channel_0, Channel_1 and Channel_2 FAR ”, indicates that the status of the proximity sensor ANT0 and sensor ANT1 is not triggered



Sar Sensor 测试

Channel_0		
Distance		FAR
Diff		0
Offset		2401
Channel_1		
Distance		FAR
Diff		2
Offset		4824
Channel_2		
Distance		FAR
Diff		0
Offset		2504

Fig2. sensor ANT0 and sensor ANT1 is not triggered

ANT 1

Front Edge

Moving device toward the phantom:

sensor triggered (YES or NO)											
Distance [mm]	10	9	8	7	6	5	4	3	2	1	0
ANT1	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES

Moving device away from the phantom:

sensor triggered (YES or NO)											
Distance [mm]	0	1	2	3	4	5	6	7	8	9	10
ANT1	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
ANT1	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
ANT1	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]	18	17	16	15	14	13	12	11	10	9	8
ANT1	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES

Moving device away from the phantom:

sensor triggered (YES or NO)											
Distance [mm]	8	9	10	11	12	13	14	15	16	17	18
ANT1	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO

Left Edge

Moving device toward the phantom:

sensor triggered (YES or NO)											
Distance [mm]	10	9	8	7	6	5	4	3	2	1	0
ANT1	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES

Moving device away from the phantom:

sensor triggered (YES or NO)											
Distance [mm]	0	1	2	3	4	5	6	7	8	9	10
ANT1	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO

ANT 0

Front Edge

Moving device toward the phantom:

sensor triggered (YES or NO)											
Distance [mm]	14	13	12	11	10	9	8	7	6	5	4
ANT0	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES

Moving device away from the phantom:

sensor triggered (YES or NO)											
Distance [mm]	4	5	6	7	8	9	10	11	12	13	14
ANT0	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
ANT0	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
ANT0	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO

Bottom Edge

Moving device toward the phantom:

sensor triggered (YES or NO)											
Distance [mm]	18	17	16	15	14	13	12	11	10	9	8
ANT0	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES

Moving device away from the phantom:

sensor triggered (YES or NO)											
Distance [mm]	8	9	10	11	12	13	14	15	16	17	18
ANT0	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO

Left Edge

Moving device toward the phantom:

sensor triggered (YES or NO)											
Distance [mm]	10	9	8	7	6	5	4	3	2	1	0
ANT0	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES

Moving device away from the phantom:

sensor triggered (YES or NO)											
Distance [mm]	0	1	2	3	4	5	6	7	8	9	10
ANT0	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO

ANT 7

Front Edge

Moving device toward the phantom:

sensor triggered (YES or NO)											
Distance [mm]	10	9	8	7	6	5	4	3	2	1	0
ANT1	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES

Moving device away from the phantom:

sensor triggered (YES or NO)											
Distance [mm]	0	1	2	3	4	5	6	7	8	9	10
ANT1	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]	15	14	13	12	11	10	9	8	7	6	5
ANT1	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
ANT1	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]	14	13	12	11	10	9	8	7	6	5	4
ANT1	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES

Moving device away from the phantom:

sensor triggered (YES or NO)											
Distance [mm]	4	5	6	7	8	9	10	11	12	13	14
ANT1	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO

Right Edge

Moving device toward the phantom:

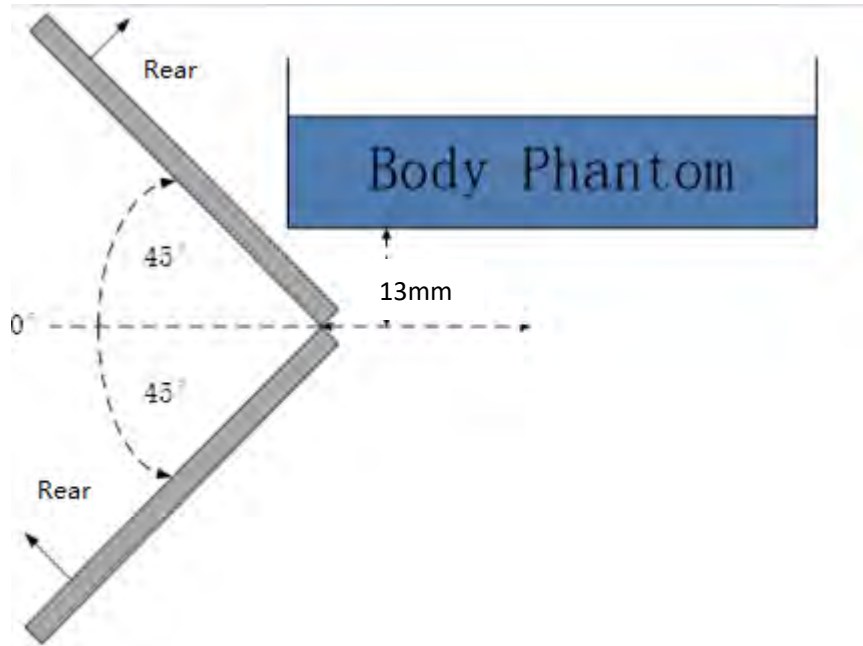
sensor triggered (YES or NO)											
Distance [mm]	18	17	16	15	14	13	12	11	10	9	8
ANT1	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES

Moving device away from the phantom:

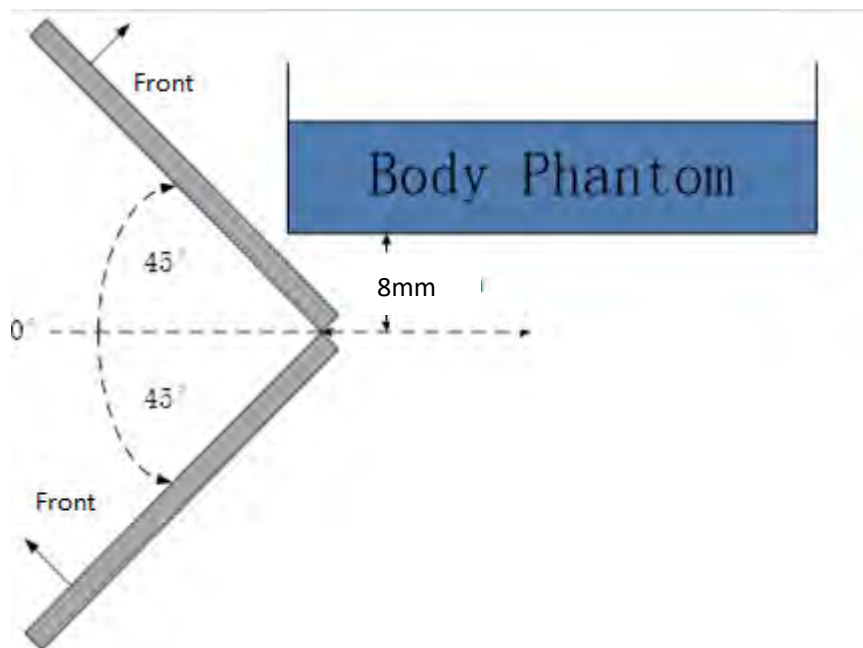
sensor triggered (YES or NO)											
Distance [mm]	8	9	10	11	12	13	14	15	16	17	18
ANT1	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO

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 distance by rotating the device around the edge next to the phantom in $\leq 10^\circ$ increments until the tablet is $\pm 45^\circ$ or more from the vertical position at 0° .

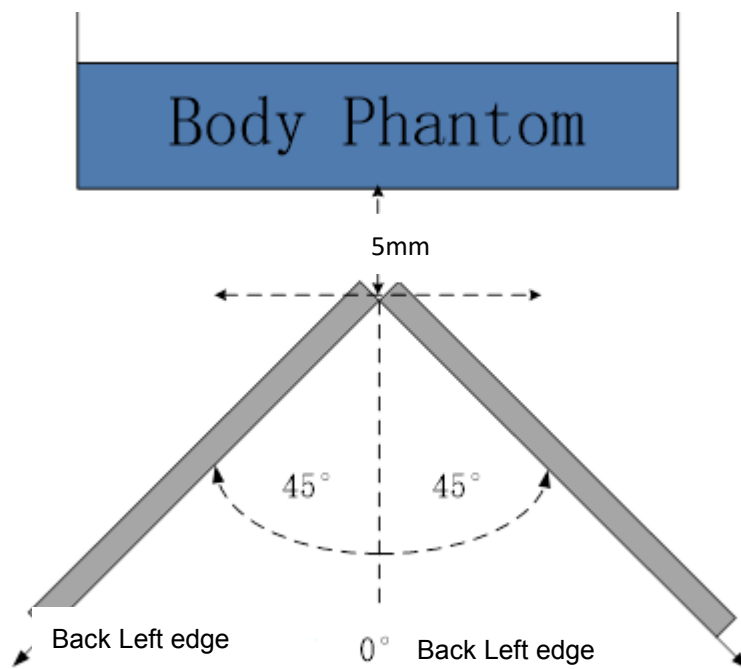
ANT0



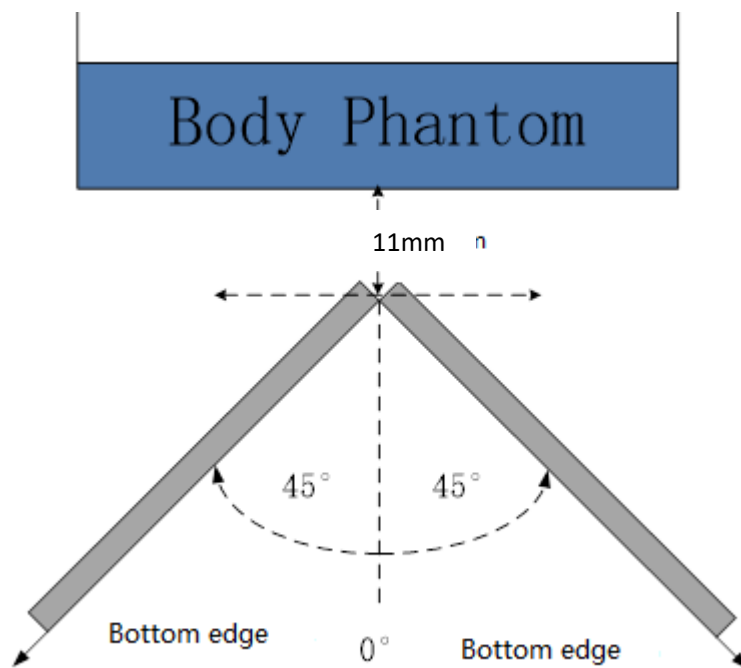
The Rear evaluation



The Front edge evaluation

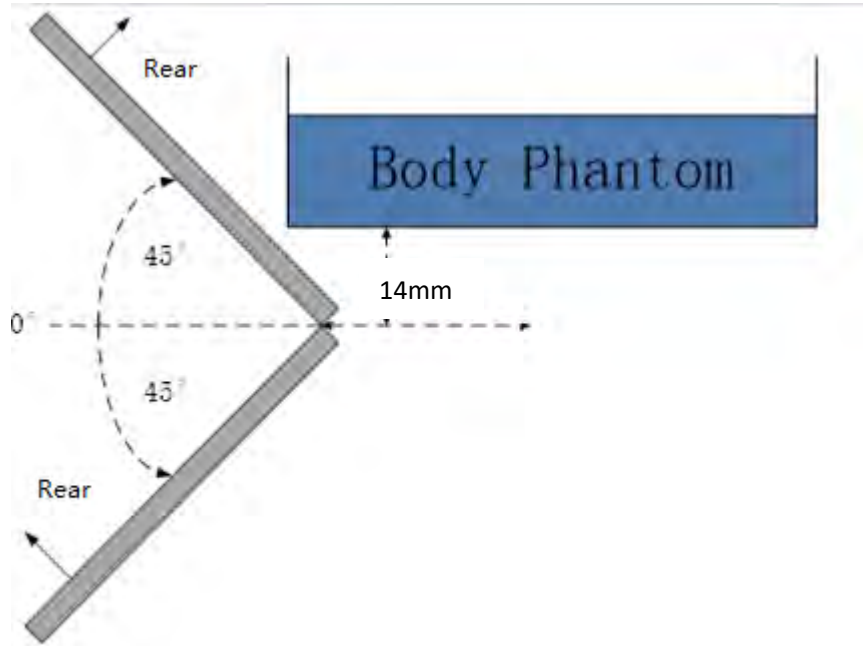


The Left edge evaluation

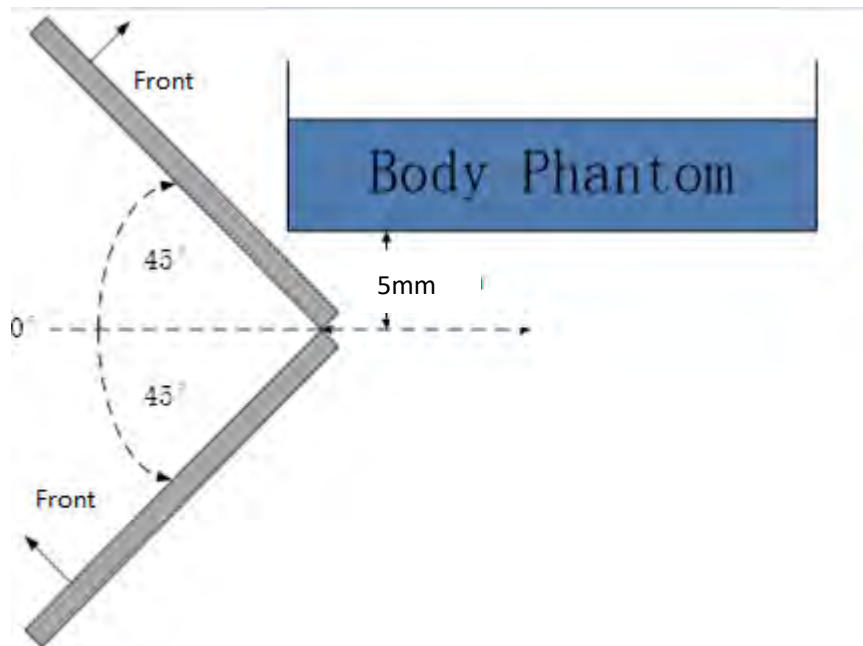


The Bottom edge evaluation

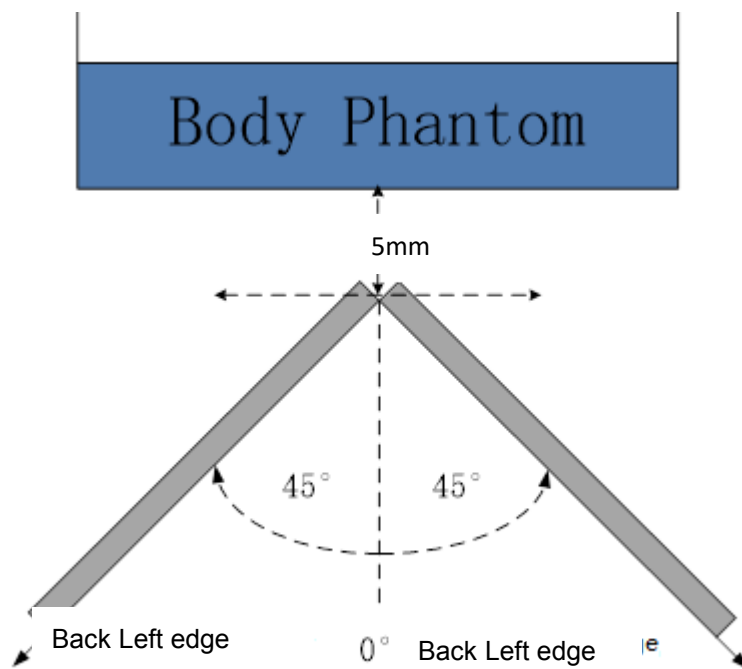
ANT1



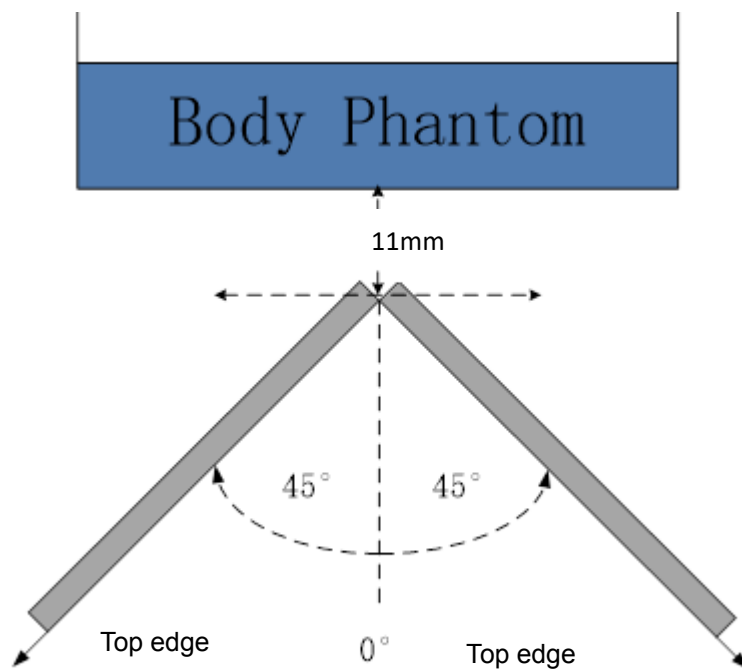
The Rear evaluation



The Front edge evaluation

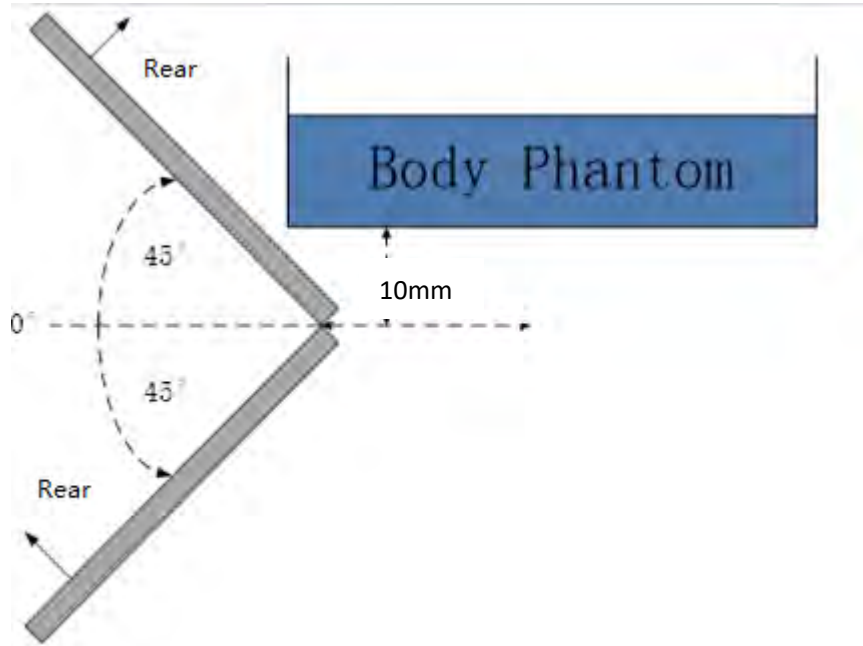


The Left edge evaluation

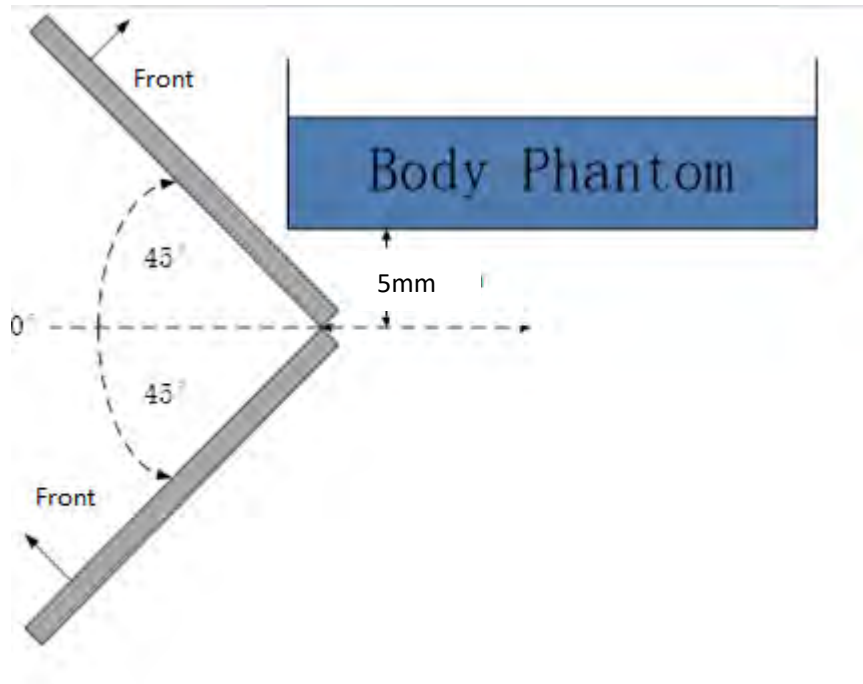


The Top edge evaluation

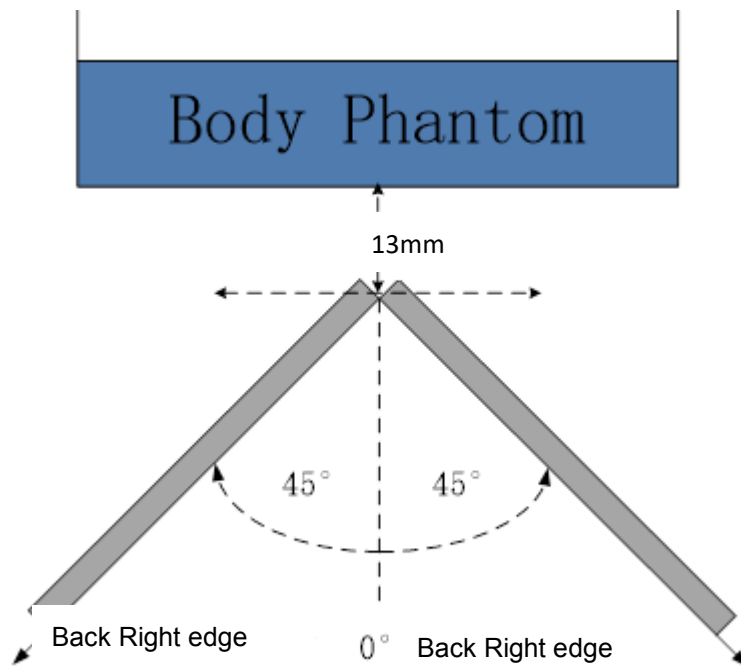
ANT7



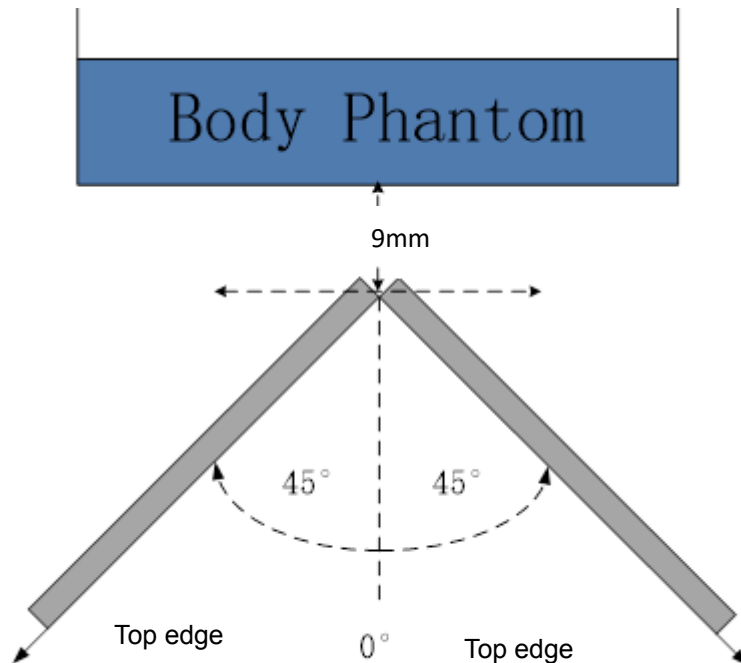
The Rear evaluation



The Front edge evaluation



The 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 $\pm 45^\circ$ range at the smallest sensor triggering test distance declared by manufacturer.

ANNEX J SAR Test Result for new bands

J.1 Tissue and Verification

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

Measurement Date yyyy/mm/dd	Frequency	Type	Permittivity ϵ	Drift (%)	Conductivity σ (S/m)	Drift (%)
2022/2/15	2600 MHz	Head	40.16	2.95	1.96	0.00

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
2022/2/15	2600 MHz	25.5	57.1	24.4	55.2	-4.47%	-3.33%

J.2 Conducted Power Result

Head receiver on	Body worn receiver off	Head receiver on (WWAN+WLAN/BT)	Body worn receiver off (WWAN+WLAN/BT)	Hostpot	Full Power
Plimit					Pmax
DSI 5	DSI 4	DSI 10	DSI 9	DSI 19	

Sensor on ANT1	Sensor on ANT1 (WWAN+WLAN/BT)	Sensor on ANT0	Sensor on ANT0 (WWAN+WLAN/BT)	Full Power
Plimit				Pmax
DSI 1	DSI 6	DSI 2	DSI 7	

LTE Band41 PC3 (ANT0 DSI 0)

5MHz	1RB-High (24)	2687.5 (41565)	24.53	23.79	22.51	
		2640.3(41093)	24.48	23.98	22.41	
		2593 (40620)	24.40	23.63	22.29	
		2545.8(40148)	24.40	23.79	22.18	
		2498.5 (39675)	23.99	23.50	21.79	
	1RB-Middle (12)	2687.5 (41565)	24.51	23.82	22.35	
		2640.3(41093)	24.39	23.94	22.22	
		2593 (40620)	24.26	23.57	22.16	
		2545.8(40148)	24.35	23.74	22.08	
		2498.5 (39675)	24.03	23.49	21.67	
	1RB-Low (0)	2687.5 (41565)	24.46	23.70	22.42	
		2640.3(41093)	24.42	23.91	22.32	
		2593 (40620)	24.29	23.57	22.27	
		2545.8(40148)	24.31	23.71	22.17	
		2498.5 (39675)	23.99	23.49	21.83	
	12RB-High (13)	2687.5 (41565)	23.62	22.66	21.37	
		2640.3(41093)	23.55	22.78	21.27	
		2593 (40620)	23.53	22.60	21.19	
		2545.8(40148)	23.46	22.56	21.19	
		2498.5 (39675)	23.11	22.37	20.83	
	12RB-Middle (6)	2687.5 (41565)	23.71	22.80	21.38	
		2640.3(41093)	23.70	22.82	21.33	
		2593 (40620)	23.55	22.67	21.24	
		2545.8(40148)	23.48	22.61	21.22	
		2498.5 (39675)	23.12	22.37	20.77	
	12RB-Low (0)	2687.5 (41565)	23.62	22.76	21.38	
		2640.3(41093)	23.60	22.76	21.32	
		2593 (40620)	23.55	22.64	21.25	
		2545.8(40148)	23.43	22.47	21.20	
		2498.5 (39675)	23.12	22.31	20.80	
	25RB (0)	2687.5 (41565)	23.64	22.73	21.29	
		2640.3(41093)	23.63	22.72	21.22	
		2593 (40620)	23.49	22.57	21.17	
		2545.8(40148)	23.46	22.52	21.17	
		2498.5 (39675)	23.10	22.26	20.75	
	10MHz	1RB-High (49)	2685 (41540)	24.42	23.95	22.37
			2639(41080)	24.58	23.94	22.28
			2593 (40620)	24.30	23.87	22.17
			2547(40160)	24.36	23.86	22.16
			2501 (39700)	24.08	23.58	21.80
		1RB-Middle (24)	2685 (41540)	24.45	23.97	22.40
			2639(41080)	24.32	23.90	22.28
			2593 (40620)	24.49	23.56	22.24
			2547(40160)	24.33	23.86	22.18
			2501 (39700)	24.03	23.57	21.76
		1RB-Low (0)	2685 (41540)	24.49	23.88	22.42
			2639(41080)	24.45	23.92	22.34
			2593 (40620)	24.26	23.66	22.27
2547(40160)			24.36	23.85	22.27	
2501 (39700)			23.96	23.52	21.79	
25RB-High (25)		2685 (41540)	23.72	22.75	21.36	
		2639(41080)	23.66	22.79	21.31	
		2593 (40620)	23.52	22.63	21.17	
		2547(40160)	22.91	22.56	21.22	
		2501 (39700)	23.18	22.28	20.74	
25RB-Middle (12)		2685 (41540)	23.64	22.69	21.30	
		2639(41080)	23.55	22.65	21.25	
		2593 (40620)	23.54	22.66	21.25	
		2547(40160)	23.48	22.56	21.20	
		2501 (39700)	23.15	22.22	20.76	
25RB-Low (0)		2685 (41540)	23.59	22.64	21.28	
		2639(41080)	23.56	22.65	21.19	
		2593 (40620)	23.44	22.54	21.11	
		2547(40160)	22.83	22.55	21.17	
		2501 (39700)	23.16	22.21	20.73	
50RB (0)		2685 (41540)	23.61	22.68	21.26	
		2639(41080)	23.54	22.69	21.21	
		2593 (40620)	23.53	22.62	21.20	
		2547(40160)	22.83	22.58	21.16	
		2501 (39700)	23.13	22.25	20.75	

15MHz	1RB-High (74)	2682.5 (41515)	24.37	23.51	22.13
		2637.8(41068)	24.24	23.44	22.03
		2593 (40620)	24.24	23.36	22.08
		2548.3(40173)	24.21	23.44	22.02
		2503.5 (39725)	24.12	23.27	21.80
	1RB-Middle (37)	2682.5 (41515)	24.38	23.46	22.13
		2637.8(41068)	24.26	23.39	21.98
		2593 (40620)	24.23	23.36	22.03
		2548.3(40173)	24.18	23.31	21.89
		2503.5 (39725)	24.04	23.27	21.69
	1RB-Low (0)	2682.5 (41515)	24.38	23.55	22.24
		2637.8(41068)	24.32	23.51	22.07
		2593 (40620)	24.33	23.49	22.18
		2548.3(40173)	24.27	23.41	22.04
		2503.5 (39725)	24.08	23.26	21.76
	36RB-High (38)	2682.5 (41515)	23.49	22.42	21.43
		2637.8(41068)	23.36	22.35	21.36
		2593 (40620)	23.35	22.33	21.32
		2548.3(40173)	23.32	22.28	21.28
		2503.5 (39725)	23.22	22.19	20.14
36RB-Middle (19)	2682.5 (41515)	23.47	22.40	21.50	
	2637.8(41068)	23.36	22.37	21.39	
	2593 (40620)	23.35	22.31	21.33	
	2548.3(40173)	23.33	22.26	21.29	
	2503.5 (39725)	23.26	22.22	20.21	
36RB-Low (0)	2682.5 (41515)	23.44	22.41	21.44	
	2637.8(41068)	23.33	22.30	21.34	
	2593 (40620)	23.29	22.30	21.32	
	2548.3(40173)	23.29	22.29	21.36	
	2503.5 (39725)	23.09	22.10	20.17	
75RB (0)	2682.5 (41515)	23.41	22.45	21.40	
	2637.8(41068)	23.40	22.45	21.40	
	2593 (40620)	23.39	22.38	21.37	
	2548.3(40173)	23.31	22.37	20.35	
	2503.5 (39725)	23.24	22.28	20.27	

20MHz	1RB-High (99)	2680 (41490)	24.35	23.44	21.98
		2636.5(41055)	24.23	23.42	21.95
		2593 (40620)	24.18	23.37	21.87
		2549.5(40185)	24.06	23.25	21.72
		2506 (39750)	24.08	23.26	21.79
	1RB-Middle (50)	2680 (41490)	24.27	23.42	21.92
		2636.5(41055)	24.18	23.31	21.78
		2593 (40620)	24.19	23.27	21.83
		2549.5(40185)	24.08	23.21	21.78
		2506 (39750)	24.02	23.22	21.75
	1RB-Low (0)	2680 (41490)	24.43	23.58	22.02
		2636.5(41055)	24.36	23.52	21.94
		2593 (40620)	24.34	23.46	21.93
		2549.5(40185)	24.07	23.23	21.76
		2506 (39750)	24.04	23.21	21.71
	50RB-High (50)	2680 (41490)	23.43	22.46	21.46
		2636.5(41055)	23.31	22.35	21.36
		2593 (40620)	23.30	22.31	21.31
		2549.5(40185)	23.26	22.27	21.29
		2506 (39750)	23.21	22.23	21.24
50RB-Middle (25)	2680 (41490)	23.36	22.40	21.41	
	2636.5(41055)	23.28	22.30	21.34	
	2593 (40620)	23.36	22.34	21.37	
	2549.5(40185)	23.28	22.34	21.38	
	2506 (39750)	23.19	22.25	21.26	
50RB-Low (0)	2680 (41490)	23.38	22.44	21.45	
	2636.5(41055)	23.33	22.38	21.36	
	2593 (40620)	23.27	22.33	21.31	
	2549.5(40185)	23.29	22.28	21.31	
	2506 (39750)	23.14	22.18	21.15	
100RB (0)	2680 (41490)	23.42	22.45	21.42	
	2636.5(41055)	23.31	22.31	21.32	
	2593 (40620)	23.33	22.34	21.30	
	2549.5(40185)	23.26	22.33	21.28	
	2506 (39750)	23.25	22.25	21.26	

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5MHz	1RB-High (24)	2687.5 (41565)	23.93	23.07	21.78	
		2640.3(41093)	24.03	23.22	21.87	
		2593 (40620)	23.91	23.09	21.80	
		2545.8(40148)	24.09	23.26	21.98	
		2498.5 (39675)	23.84	23.00	21.76	
	1RB-Middle (12)	2687.5 (41565)	23.85	23.03	21.77	
		2640.3(41093)	23.95	23.17	21.91	
		2593 (40620)	24.18	23.13	21.58	
		2545.8(40148)	23.97	23.24	21.95	
		2498.5 (39675)	23.82	23.03	21.55	
	1RB-Low (0)	2687.5 (41565)	23.88	23.01	21.66	
		2640.3(41093)	23.92	23.12	21.78	
		2593 (40620)	23.87	23.00	21.68	
		2545.8(40148)	24.01	23.21	21.88	
		2498.5 (39675)	23.85	23.01	21.75	
	12RB-High (13)	2687.5 (41565)	23.01	21.92	21.03	
		2640.3(41093)	23.07	22.08	21.07	
		2593 (40620)	22.98	21.88	20.86	
		2545.8(40148)	23.16	22.07	21.11	
		2498.5 (39675)	22.94	21.84	20.93	
	12RB-Middle (6)	2687.5 (41565)	23.07	21.97	21.05	
		2640.3(41093)	23.09	22.06	21.08	
		2593 (40620)	22.98	21.94	20.91	
		2545.8(40148)	23.17	22.14	21.17	
		2498.5 (39675)	22.92	21.90	20.95	
	12RB-Low (0)	2687.5 (41565)	23.01	21.98	21.04	
		2640.3(41093)	23.03	21.98	21.02	
		2593 (40620)	22.92	21.95	21.00	
		2545.8(40148)	23.13	22.12	21.14	
		2498.5 (39675)	22.94	21.89	20.84	
	25RB (0)	2687.5 (41565)	22.97	21.99	20.97	
		2640.3(41093)	22.99	22.00	20.96	
		2593 (40620)	22.95	21.96	20.90	
		2545.8(40148)	23.14	22.15	21.07	
		2498.5 (39675)	22.93	21.92	20.86	
	10MHz	1RB-High (49)	2685 (41540)	23.82	23.04	21.74
			2639(41080)	23.99	23.17	21.79
			2593 (40620)	23.84	22.98	21.68
			2547(40160)	23.98	23.16	21.78
			2501 (39700)	23.85	23.04	21.61
1RB-Middle (24)		2685 (41540)	23.96	23.02	21.85	
		2639(41080)	23.91	23.14	21.99	
		2593 (40620)	23.86	23.02	21.70	
		2547(40160)	24.02	23.17	21.80	
		2501 (39700)	23.91	23.02	21.55	
1RB-Low (0)		2685 (41540)	23.95	23.07	21.74	
		2639(41080)	24.05	23.26	21.89	
		2593 (40620)	23.93	23.11	21.83	
		2547(40160)	24.09	23.24	21.80	
		2501 (39700)	23.86	23.03	21.62	
25RB-High (25)		2685 (41540)	23.04	22.04	20.93	
		2639(41080)	23.11	22.15	21.04	
		2593 (40620)	22.97	22.00	20.95	
		2547(40160)	23.15	22.14	20.21	
		2501 (39700)	22.94	21.98	20.02	
25RB-Middle (12)		2685 (41540)	22.95	21.99	20.97	
		2639(41080)	23.02	22.04	21.06	
		2593 (40620)	23.04	22.03	21.00	
		2547(40160)	23.19	22.17	20.27	
		2501 (39700)	22.97	21.97	20.04	
25RB-Low (0)		2685 (41540)	22.96	22.01	20.88	
		2639(41080)	23.08	22.05	20.93	
		2593 (40620)	22.96	21.94	20.86	
		2547(40160)	23.19	22.14	20.25	
		2501 (39700)	22.95	21.95	20.00	
50RB (0)		2685 (41540)	22.98	22.01	20.93	
		2639(41080)	23.06	22.08	21.02	
		2593 (40620)	22.98	22.06	20.93	
		2547(40160)	23.15	22.26	20.19	
		2501 (39700)	22.97	22.02	20.36	

15MHz	1RB-High (74)	2682.5 (41515)	23.73	22.90	21.45
		2637.8(41068)	23.82	23.05	21.59
		2593 (40620)	23.72	22.92	21.45
		2548.3(40173)	23.92	23.09	21.65
		2503.5 (39725)	23.74	22.89	21.50
	1RB-Middle (37)	2682.5 (41515)	23.70	22.86	21.50
		2637.8(41068)	23.80	22.98	21.61
		2593 (40620)	23.70	22.87	21.53
		2548.3(40173)	23.84	23.04	21.70
		2503.5 (39725)	23.70	22.83	21.45
	1RB-Low (0)	2682.5 (41515)	23.80	22.98	21.63
		2637.8(41068)	23.92	23.13	21.75
		2593 (40620)	23.83	22.99	21.65
		2548.3(40173)	23.99	23.21	21.78
		2503.5 (39725)	23.62	22.88	21.44
	36RB-High (38)	2682.5 (41515)	22.85	21.82	20.84
		2637.8(41068)	23.00	21.96	20.98
		2593 (40620)	22.84	21.76	20.85
		2548.3(40173)	22.98	21.96	21.01
		2503.5 (39725)	22.87	21.82	20.88
	36RB-Middle (19)	2682.5 (41515)	22.84	21.82	20.88
		2637.8(41068)	22.94	21.91	20.99
		2593 (40620)	22.88	21.84	20.81
		2548.3(40173)	23.04	21.97	21.03
		2503.5 (39725)	22.82	21.81	20.83
	36RB-Low (0)	2682.5 (41515)	22.79	21.79	20.81
		2637.8(41068)	22.91	21.89	20.95
		2593 (40620)	22.79	21.78	20.81
2548.3(40173)		23.03	22.02	21.03	
2503.5 (39725)		22.68	21.67	20.72	
75RB (0)	2682.5 (41515)	22.80	21.78	20.81	
	2637.8(41068)	22.98	22.00	20.98	
	2593 (40620)	22.85	21.88	20.87	
	2548.3(40173)	23.04	22.06	21.04	
	2503.5 (39725)	22.83	21.86	20.88	
20MHz	1RB-High (99)	2680 (41490)	23.74	22.91	21.56
		2636.5(41055)	23.82	23.02	21.65
		2593 (40620)	23.75	22.93	21.54
		2549.5(40185)	23.80	22.98	21.61
		2506 (39750)	23.84	22.99	21.59
	1RB-Middle (50)	2680 (41490)	23.72	22.87	21.50
		2636.5(41055)	23.84	22.98	21.58
		2593 (40620)	23.72	22.85	21.50
		2549.5(40185)	23.90	23.02	21.67
		2506 (39750)	23.74	22.82	21.49
	1RB-Low (0)	2680 (41490)	23.81	23.04	21.59
		2636.5(41055)	23.99	23.14	21.74
		2593 (40620)	23.90	23.04	21.63
		2549.5(40185)	23.98	23.07	21.66
		2506 (39750)	23.66	22.80	21.45
	50RB-High (50)	2680 (41490)	22.86	21.87	20.81
		2636.5(41055)	22.96	22.00	20.95
		2593 (40620)	22.83	21.89	20.85
		2549.5(40185)	22.96	21.99	20.96
		2506 (39750)	22.89	21.98	20.87
	50RB-Middle (25)	2680 (41490)	22.80	21.83	20.80
		2636.5(41055)	22.93	21.97	20.86
		2593 (40620)	22.89	21.90	20.84
		2549.5(40185)	23.03	22.08	21.02
		2506 (39750)	22.89	21.91	20.85
	50RB-Low (0)	2680 (41490)	22.82	21.88	20.82
		2636.5(41055)	22.98	22.00	20.97
		2593 (40620)	22.85	21.87	20.81
2549.5(40185)		23.06	22.07	21.03	
2506 (39750)		22.73	21.80	20.76	
100RB (0)	2680 (41490)	22.80	21.87	20.89	
	2636.5(41055)	22.95	21.95	21.03	
	2593 (40620)	22.90	21.93	20.97	
	2549.5(40185)	23.02	22.07	21.11	
	2506 (39750)	22.90	21.94	20.94	

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5MHz	1RB-High (24)	2687.5 (41565)	14.83	15.05	14.93	
		2640.3(41093)	15.13	15.11	15.12	
		2593 (40620)	15.10	15.06	14.95	
		2545.8(40148)	15.18	15.14	15.15	
			2498.5 (39675)	15.06	15.08	14.71
	1RB-Middle (12)	2687.5 (41565)	14.72	15.10	14.81	
		2640.3(41093)	15.16	15.17	14.92	
		2593 (40620)	15.02	14.97	14.77	
		2545.8(40148)	15.14	15.18	14.95	
			2498.5 (39675)	14.93	14.97	14.76
	1RB-Low (0)	2687.5 (41565)	14.79	15.05	14.94	
		2640.3(41093)	15.11	15.13	15.01	
		2593 (40620)	15.04	14.91	14.94	
		2545.8(40148)	15.16	15.12	15.05	
			2498.5 (39675)	15.01	15.05	14.74
	12RB-High (13)	2687.5 (41565)	14.77	14.92	14.98	
		2640.3(41093)	15.06	14.99	15.12	
		2593 (40620)	15.05	14.92	14.98	
		2545.8(40148)	15.11	15.08	15.15	
			2498.5 (39675)	15.06	14.93	14.94
	12RB-Middle (6)	2687.5 (41565)	14.79	14.95	15.05	
		2640.3(41093)	15.11	15.09	15.17	
		2593 (40620)	15.05	14.92	15.01	
		2545.8(40148)	15.16	15.14	15.11	
			2498.5 (39675)	15.10	14.95	14.97
	12RB-Low (0)	2687.5 (41565)	14.78	14.93	15.02	
		2640.3(41093)	15.09	14.97	15.06	
		2593 (40620)	15.00	14.97	15.01	
2545.8(40148)		15.15	15.12	15.19		
		2498.5 (39675)	15.06	14.89	14.91	
25RB (0)	2687.5 (41565)	14.78	14.99	15.00		
	2640.3(41093)	15.07	15.01	15.04		
	2593 (40620)	15.03	15.01	14.90		
	2545.8(40148)	15.14	15.18	15.13		
		2498.5 (39675)	15.04	14.95	14.90	
10MHz	1RB-High (49)	2685 (41540)	14.76	14.95	14.93	
		2639(41080)	15.05	15.07	15.00	
		2593 (40620)	14.98	14.97	14.87	
		2547(40160)	15.13	15.10	15.00	
		2501 (39700)	14.97	15.04	14.78	
	1RB-Middle (24)	2685 (41540)	14.80	15.01	14.94	
		2639(41080)	15.11	15.11	15.07	
		2593 (40620)	15.06	15.00	14.93	
		2547(40160)	15.13	15.18	15.07	
		2501 (39700)	14.94	14.95	14.74	
	1RB-Low (0)	2685 (41540)	14.88	15.07	15.03	
		2639(41080)	15.17	15.19	15.09	
		2593 (40620)	15.04	15.04	14.97	
		2547(40160)	15.18	15.18	15.08	
		2501 (39700)	15.01	15.01	14.80	
	25RB-High (25)	2685 (41540)	14.78	15.03	15.01	
		2639(41080)	15.08	15.15	15.10	
		2593 (40620)	15.03	14.99	14.97	
		2547(40160)	15.13	15.16	15.13	
		2501 (39700)	15.08	15.01	14.95	
	25RB-Middle (12)	2685 (41540)	14.81	14.98	14.97	
		2639(41080)	15.11	15.09	15.08	
		2593 (40620)	15.06	15.03	15.01	
		2547(40160)	15.15	15.20	15.18	
		2501 (39700)	15.07	15.01	14.94	
	25RB-Low (0)	2685 (41540)	14.83	14.98	14.94	
		2639(41080)	15.03	15.03	15.03	
		2593 (40620)	15.02	14.95	14.88	
2547(40160)		15.19	15.17	15.14		
2501 (39700)		15.05	14.93	14.97		
50RB (0)	2685 (41540)	14.79	15.00	14.96		
	2639(41080)	15.03	15.14	15.03		
	2593 (40620)	15.04	15.04	14.97		
	2547(40160)	15.18	15.17	15.12		
	2501 (39700)	15.08	15.02	14.97		

15MHz	1RB-High (74)	2682.5 (41515)	14.60	14.88	14.82
		2637.8(41068)	14.85	14.99	14.81
		2593 (40620)	14.82	14.88	14.72
		2548.3(40173)	14.97	15.01	14.85
		2503.5 (39725)	14.83	14.92	14.58
	1RB-Middle (37)	2682.5 (41515)	14.53	14.85	14.70
		2637.8(41068)	14.85	15.00	14.83
		2593 (40620)	14.80	14.85	14.71
		2548.3(40173)	14.96	14.99	14.88
		2503.5 (39725)	14.70	14.77	14.52
	1RB-Low (0)	2682.5 (41515)	14.72	14.97	14.90
		2637.8(41068)	14.96	15.10	14.95
		2593 (40620)	14.89	14.98	14.88
		2548.3(40173)	15.03	15.15	14.98
		2503.5 (39725)	14.73	14.78	14.52
	36RB-High (38)	2682.5 (41515)	14.68	14.85	14.88
		2637.8(41068)	14.96	14.95	14.97
		2593 (40620)	14.89	14.83	14.87
		2548.3(40173)	15.07	15.01	14.97
		2503.5 (39725)	14.92	14.80	14.82
	36RB-Middle (19)	2682.5 (41515)	14.66	14.89	14.87
		2637.8(41068)	14.90	14.95	14.99
		2593 (40620)	14.87	14.88	14.88
		2548.3(40173)	15.09	15.00	14.98
		2503.5 (39725)	14.93	14.81	14.80
	36RB-Low (0)	2682.5 (41515)	14.74	14.82	14.84
		2637.8(41068)	14.89	14.93	14.96
		2593 (40620)	14.84	14.82	14.79
2548.3(40173)		15.12	15.04	15.07	
2503.5 (39725)		14.85	14.73	14.77	
75RB (0)	2682.5 (41515)	14.68	14.86	14.84	
	2637.8(41068)	14.89	15.03	15.01	
	2593 (40620)	14.88	14.87	14.87	
	2548.3(40173)	15.09	15.09	15.03	
	2503.5 (39725)	14.92	14.85	14.82	
20MHz	1RB-High (99)	2680 (41490)	14.66	14.97	14.85
		2636.5(41055)	14.91	15.09	14.88
		2593 (40620)	14.88	14.99	14.80
		2549.5(40185)	14.98	15.03	14.88
		2506 (39750)	14.95	15.03	14.68
		2680 (41490)	14.63	14.97	14.76
	1RB-Middle (50)	2636.5(41055)	14.91	15.04	14.94
		2593 (40620)	14.81	14.93	14.80
		2549.5(40185)	15.04	15.09	14.99
		2506 (39750)	14.77	14.91	14.65
		2680 (41490)	14.84	15.10	14.99
		2636.5(41055)	15.09	15.20	15.09
	1RB-Low (0)	2593 (40620)	14.94	15.09	14.93
		2549.5(40185)	15.10	15.15	15.00
		2506 (39750)	14.78	14.87	14.55
		2680 (41490)	14.73	14.95	14.92
		2636.5(41055)	14.98	15.08	15.04
		2593 (40620)	14.90	14.93	14.89
	50RB-High (50)	2549.5(40185)	15.13	15.12	15.05
		2506 (39750)	15.05	14.99	14.99
		2680 (41490)	14.76	14.91	14.84
		2636.5(41055)	15.00	15.07	14.99
		2593 (40620)	14.98	14.98	14.93
		2549.5(40185)	15.15	15.13	15.13
	50RB-Middle (25)	2506 (39750)	15.03	14.98	14.92
		2680 (41490)	14.74	14.96	14.94
		2636.5(41055)	15.03	15.04	15.04
		2593 (40620)	14.94	14.95	14.91
		2549.5(40185)	15.20	15.20	15.12
		2506 (39750)	14.93	14.88	14.85
	50RB-Low (0)	2680 (41490)	14.69	14.92	14.95
		2636.5(41055)	14.97	15.04	15.03
		2593 (40620)	14.99	14.98	15.02
		2549.5(40185)	15.14	15.12	15.15
		2506 (39750)	15.03	14.96	14.98
		2680 (41490)	14.69	14.92	14.95
	100RB (0)	2636.5(41055)	14.97	15.04	15.03
		2593 (40620)	14.99	14.98	15.02
		2549.5(40185)	15.14	15.12	15.15
		2506 (39750)	15.03	14.96	14.98
		2680 (41490)	14.69	14.92	14.95
		2636.5(41055)	14.97	15.04	15.03

LTE Band41 PC3 (ANT1 DSI 9)

5MHz	1RB-High (24)	2687.5 (41565)	19.15	19.28	18.97	
		2640.3(41093)	19.26	19.43	19.11	
		2593 (40620)	19.16	19.25	18.92	
		2545.8(40148)	19.30	19.42	19.21	
			2498.5 (39675)	19.09	19.22	18.97
	1RB-Middle (12)	2687.5 (41565)	19.39	19.28	18.82	
		2640.3(41093)	19.17	19.41	19.12	
		2593 (40620)	19.08	19.20	18.80	
		2545.8(40148)	19.21	19.39	18.96	
			2498.5 (39675)	19.04	19.20	18.96
	1RB-Low (0)	2687.5 (41565)	19.08	19.24	18.95	
		2640.3(41093)	19.17	19.35	19.01	
		2593 (40620)	19.01	19.15	18.88	
		2545.8(40148)	19.23	19.32	19.14	
			2498.5 (39675)	19.05	19.18	18.94
	12RB-High (13)	2687.5 (41565)	19.18	19.11	19.21	
		2640.3(41093)	19.30	19.28	19.30	
		2593 (40620)	19.14	19.10	19.17	
		2545.8(40148)	19.30	19.27	19.34	
			2498.5 (39675)	19.16	19.11	19.16
	12RB-Middle (6)	2687.5 (41565)	19.25	19.17	19.21	
		2640.3(41093)	19.31	19.26	19.34	
		2593 (40620)	19.19	19.15	19.21	
		2545.8(40148)	19.40	19.30	19.42	
			2498.5 (39675)	19.13	19.10	19.14
	12RB-Low (0)	2687.5 (41565)	19.20	19.16	19.24	
		2640.3(41093)	19.21	19.15	19.19	
		2593 (40620)	19.18	19.13	19.17	
		2545.8(40148)	19.29	19.31	19.34	
			2498.5 (39675)	19.14	19.11	19.10
	25RB (0)	2687.5 (41565)	19.19	19.20	19.13	
		2640.3(41093)	19.22	19.18	19.15	
		2593 (40620)	19.17	19.17	19.12	
		2545.8(40148)	19.29	19.31	19.28	
			2498.5 (39675)	19.12	19.10	19.09
	10MHz	1RB-High (49)	2685 (41540)	19.02	19.15	18.92
2639(41080)			19.14	19.22	19.09	
2593 (40620)			19.06	19.15	18.92	
2547(40160)			19.20	19.33	19.18	
			2501 (39700)	19.07	19.25	18.94
1RB-Middle (24)		2685 (41540)	18.99	19.26	19.07	
		2639(41080)	19.26	19.37	19.08	
		2593 (40620)	19.00	19.17	18.90	
		2547(40160)	19.20	19.38	19.13	
			2501 (39700)	18.98	19.17	18.96
1RB-Low (0)		2685 (41540)	19.15	19.30	19.03	
		2639(41080)	19.23	19.42	19.13	
		2593 (40620)	19.08	19.25	19.04	
		2547(40160)	19.27	19.45	19.17	
			2501 (39700)	19.08	19.25	18.96
25RB-High (25)		2685 (41540)	19.22	19.21	19.23	
		2639(41080)	19.28	19.28	19.30	
		2593 (40620)	19.16	19.17	19.18	
		2547(40160)	19.33	19.31	19.31	
			2501 (39700)	19.13	19.17	19.14
25RB-Middle (12)		2685 (41540)	19.15	19.17	19.14	
		2639(41080)	19.26	19.26	19.26	
		2593 (40620)	19.21	19.22	19.17	
		2547(40160)	19.36	19.40	19.37	
			2501 (39700)	19.13	19.17	19.15
25RB-Low (0)		2685 (41540)	19.15	19.16	19.10	
		2639(41080)	19.22	19.30	19.21	
		2593 (40620)	19.07	19.14	19.05	
		2547(40160)	19.31	19.35	19.33	
			2501 (39700)	19.13	19.11	19.09
50RB (0)		2685 (41540)	19.14	19.21	19.14	
		2639(41080)	19.24	19.30	19.21	
		2593 (40620)	19.17	19.24	19.13	
		2547(40160)	19.34	19.38	19.33	
			2501 (39700)	19.13	19.18	19.13

15MHz	1RB-High (74)	2682.5 (41515)	19.04	19.25	18.83
		2637.8(41068)	19.20	19.39	18.85
		2593 (40620)	19.11	19.26	18.79
		2548.3(40173)	19.23	19.43	18.94
		2503.5 (39725)	19.12	19.28	18.76
	1RB-Middle (37)	2682.5 (41515)	19.07	19.26	18.79
		2637.8(41068)	19.21	19.37	18.90
		2593 (40620)	19.03	19.20	18.74
		2548.3(40173)	19.22	19.38	18.94
		2503.5 (39725)	18.98	19.14	18.63
	1RB-Low (0)	2682.5 (41515)	19.17	19.33	18.81
		2637.8(41068)	19.23	19.47	18.97
		2593 (40620)	19.16	19.33	18.82
		2548.3(40173)	19.33	19.50	18.94
		2503.5 (39725)	18.99	19.14	18.65
	36RB-High (38)	2682.5 (41515)	19.20	19.19	19.22
		2637.8(41068)	19.35	19.30	19.34
		2593 (40620)	19.19	19.21	19.20
		2548.3(40173)	19.36	19.34	19.37
		2503.5 (39725)	19.19	19.20	19.19
	36RB-Middle (19)	2682.5 (41515)	19.22	19.18	19.25
		2637.8(41068)	19.35	19.31	19.36
		2593 (40620)	19.18	19.17	19.23
		2548.3(40173)	19.36	19.35	19.36
		2503.5 (39725)	19.17	19.17	19.22
	36RB-Low (0)	2682.5 (41515)	19.18	19.18	19.22
		2637.8(41068)	19.27	19.30	19.32
		2593 (40620)	19.17	19.14	19.20
2548.3(40173)		19.39	19.40	19.47	
2503.5 (39725)		19.07	19.08	19.07	
75RB (0)	2682.5 (41515)	19.12	19.21	19.23	
	2637.8(41068)	19.33	19.37	19.38	
	2593 (40620)	19.21	19.25	19.27	
	2548.3(40173)	19.37	19.42	19.42	
	2503.5 (39725)	19.21	19.23	19.23	

20MHz	1RB-High (99)	2680 (41490)	19.08	19.26	18.95
		2636.5(41055)	19.18	19.40	19.05
		2593 (40620)	19.09	19.25	18.89
		2549.5(40185)	19.18	19.31	18.75
		2506 (39750)	19.14	19.36	18.81
	1RB-Middle (50)	2680 (41490)	19.05	19.22	18.87
		2636.5(41055)	19.21	19.34	19.02
		2593 (40620)	19.09	19.19	18.89
		2549.5(40185)	19.19	19.34	18.91
		2506 (39750)	19.05	19.18	18.73
	1RB-Low (0)	2680 (41490)	19.18	19.42	19.04
		2636.5(41055)	19.39	19.50	19.12
		2593 (40620)	19.17	19.38	19.07
		2549.5(40185)	19.28	19.42	18.94
		2506 (39750)	18.99	19.12	18.66
	50RB-High (50)	2680 (41490)	19.19	19.27	19.20
		2636.5(41055)	19.33	19.35	19.31
		2593 (40620)	19.23	19.23	19.25
		2549.5(40185)	19.32	19.37	19.35
		2506 (39750)	19.22	19.29	19.32
	50RB-Middle (25)	2680 (41490)	19.18	19.20	19.15
		2636.5(41055)	19.27	19.32	19.28
		2593 (40620)	19.22	19.30	19.31
		2549.5(40185)	19.39	19.41	19.46
		2506 (39750)	19.23	19.27	19.32
	50RB-Low (0)	2680 (41490)	19.22	19.25	19.19
		2636.5(41055)	19.33	19.41	19.34
		2593 (40620)	19.17	19.22	19.27
		2549.5(40185)	19.42	19.47	19.45
		2506 (39750)	19.13	19.12	19.16
	100RB (0)	2680 (41490)	19.19	19.21	19.26
		2636.5(41055)	19.27	19.32	19.39
2593 (40620)		19.27	19.27	19.28	
2549.5(40185)		19.38	19.45	19.44	
2506 (39750)		19.23	19.26	19.27	

LTE Band41 PC3 (ANT1 DSI 10)

5MHz	1RB-High (24)	2687.5 (41565)	12.91	13.02	12.81
		2640.3(41093)	13.21	13.23	13.13
		2593 (40620)	13.19	13.24	13.08
		2545.8(40148)	13.35	13.46	13.35
		2498.5 (39675)	13.15	13.25	12.87
	1RB-Middle (12)	2687.5 (41565)	12.96	12.84	12.71
		2640.3(41093)	13.18	13.20	13.02
		2593 (40620)	13.20	13.21	12.97
		2545.8(40148)	13.48	13.48	13.13
		2498.5 (39675)	13.13	13.20	12.89
	1RB-Low (0)	2687.5 (41565)	12.84	12.80	12.75
		2640.3(41093)	13.16	13.24	13.11
		2593 (40620)	13.13	13.15	13.08
		2545.8(40148)	13.34	13.36	13.28
		2498.5 (39675)	13.12	13.26	12.85
	12RB-High (13)	2687.5 (41565)	12.77	12.75	12.86
		2640.3(41093)	13.17	13.09	13.17
		2593 (40620)	13.14	13.11	13.19
		2545.8(40148)	13.38	13.34	13.41
		2498.5 (39675)	13.20	13.14	13.25
	12RB-Middle (6)	2687.5 (41565)	12.84	12.81	12.90
		2640.3(41093)	13.22	13.11	13.23
		2593 (40620)	13.18	13.14	13.22
		2545.8(40148)	13.34	13.37	13.44
		2498.5 (39675)	13.18	13.19	13.25
	12RB-Low (0)	2687.5 (41565)	12.79	12.72	12.88
		2640.3(41093)	13.15	13.15	13.23
		2593 (40620)	13.19	13.11	13.18
2545.8(40148)		13.33	13.30	13.38	
2498.5 (39675)		13.16	13.13	13.23	
25RB (0)	2687.5 (41565)	12.79	12.83	12.81	
	2640.3(41093)	13.14	13.17	13.15	
	2593 (40620)	13.14	13.18	13.13	
	2545.8(40148)	13.34	13.39	13.44	
	2498.5 (39675)	13.15	13.19	13.19	
10MHz	1RB-High (49)	2685 (41540)	12.77	12.80	12.76
		2639(41080)	13.05	13.14	13.06
		2593 (40620)	13.16	13.16	13.05
		2547(40160)	13.30	13.34	13.10
		2501 (39700)	13.12	13.22	13.04
	1RB-Middle (24)	2685 (41540)	12.75	12.82	12.68
		2639(41080)	13.11	13.18	13.02
		2593 (40620)	13.12	13.20	13.09
		2547(40160)	13.27	13.39	13.26
		2501 (39700)	13.12	13.16	12.92
	1RB-Low (0)	2685 (41540)	12.87	12.95	12.82
		2639(41080)	13.21	13.26	13.18
		2593 (40620)	13.19	13.27	13.16
		2547(40160)	13.40	13.49	13.35
		2501 (39700)	13.13	13.26	13.04
	25RB-High (25)	2685 (41540)	12.82	12.87	12.82
		2639(41080)	13.15	13.20	13.11
		2593 (40620)	13.18	13.21	13.15
		2547(40160)	13.37	13.45	13.34
		2501 (39700)	13.23	13.24	13.17
	25RB-Middle (12)	2685 (41540)	12.84	12.92	12.87
		2639(41080)	13.18	13.24	13.21
		2593 (40620)	13.14	13.22	13.18
		2547(40160)	13.38	13.44	13.40
		2501 (39700)	13.22	13.21	13.16
	25RB-Low (0)	2685 (41540)	12.84	12.91	12.84
		2639(41080)	13.08	13.18	13.12
		2593 (40620)	13.14	13.18	13.19
2547(40160)		13.38	13.44	13.37	
2501 (39700)		13.18	13.19	13.14	
50RB (0)	2685 (41540)	12.85	12.91	12.85	
	2639(41080)	13.07	13.17	13.08	
	2593 (40620)	13.17	13.27	13.20	
	2547(40160)	13.35	13.46	13.35	
	2501 (39700)	13.20	13.25	13.13	

15MHz	1RB-High (74)	2682.5 (41515)	12.75	12.96	12.84
		2637.8(41068)	13.12	13.26	13.10
		2593 (40620)	13.16	13.31	13.16
		2548.3(40173)	13.32	13.47	13.37
		2503.5 (39725)	13.18	13.38	13.05
	1RB-Middle (37)	2682.5 (41515)	12.78	12.95	12.81
		2637.8(41068)	13.12	13.28	13.19
		2593 (40620)	13.12	13.23	13.14
		2548.3(40173)	13.32	13.46	13.29
		2503.5 (39725)	13.03	13.23	12.97
	1RB-Low (0)	2682.5 (41515)	12.93	13.13	13.02
		2637.8(41068)	13.26	13.39	13.31
		2593 (40620)	13.24	13.39	13.28
		2548.3(40173)	13.42	13.46	13.39
		2503.5 (39725)	13.05	13.21	12.96
	36RB-High (38)	2682.5 (41515)	12.90	12.95	12.91
		2637.8(41068)	13.19	13.24	13.20
		2593 (40620)	13.23	13.24	13.23
		2548.3(40173)	13.39	13.43	13.43
		2503.5 (39725)	13.28	13.28	13.30
36RB-Middle (19)	2682.5 (41515)	12.91	12.92	12.93	
	2637.8(41068)	13.16	13.19	13.20	
	2593 (40620)	13.26	13.26	13.24	
	2548.3(40173)	13.43	13.46	13.45	
	2503.5 (39725)	13.26	13.27	13.22	
36RB-Low (0)	2682.5 (41515)	12.94	12.99	12.98	
	2637.8(41068)	13.20	13.22	13.28	
	2593 (40620)	13.18	13.24	13.24	
	2548.3(40173)	13.47	13.48	13.50	
	2503.5 (39725)	13.17	13.15	13.17	
75RB (0)	2682.5 (41515)	12.90	12.97	12.94	
	2637.8(41068)	13.18	13.23	13.20	
	2593 (40620)	13.24	13.34	13.30	
	2548.3(40173)	13.42	13.48	13.46	
	2503.5 (39725)	13.25	13.29	13.27	

20MHz	1RB-High (99)	2680 (41490)	12.84	12.97	12.88
		2636.5(41055)	13.09	13.24	13.10
		2593 (40620)	13.13	13.31	13.16
		2549.5(40185)	13.21	13.37	13.31
		2506 (39750)	13.25	13.38	13.16
	1RB-Middle (50)	2680 (41490)	12.81	12.95	12.86
		2636.5(41055)	13.15	13.27	13.12
		2593 (40620)	13.08	13.25	13.08
		2549.5(40185)	13.27	13.47	13.32
		2506 (39750)	13.09	13.21	13.02
	1RB-Low (0)	2680 (41490)	13.00	13.16	12.95
		2636.5(41055)	13.32	13.43	13.37
		2593 (40620)	13.23	13.42	13.33
		2549.5(40185)	13.36	13.42	13.35
		2506 (39750)	13.08	13.25	12.96
	50RB-High (50)	2680 (41490)	12.90	12.92	12.90
		2636.5(41055)	13.19	13.21	13.18
		2593 (40620)	13.19	13.24	13.23
		2549.5(40185)	13.41	13.44	13.39
		2506 (39750)	13.34	13.34	13.33
50RB-Middle (25)	2680 (41490)	12.92	12.98	12.97	
	2636.5(41055)	13.19	13.22	13.19	
	2593 (40620)	13.22	13.30	13.27	
	2549.5(40185)	13.41	13.49	13.45	
	2506 (39750)	13.29	13.34	13.29	
50RB-Low (0)	2680 (41490)	12.90	12.95	12.94	
	2636.5(41055)	13.25	13.30	13.24	
	2593 (40620)	13.20	13.29	13.25	
	2549.5(40185)	13.45	13.48	13.41	
	2506 (39750)	13.19	13.25	13.20	
100RB (0)	2680 (41490)	12.89	12.90	12.95	
	2636.5(41055)	13.19	13.22	13.24	
	2593 (40620)	13.23	13.28	13.34	
	2549.5(40185)	13.41	13.49	13.43	
	2506 (39750)	13.30	13.31	13.38	

LTE Band41 PC3 (ANT1 DSI 19)

5MHz	1RB-High (24)	2687.5 (41565)	17.66	17.86	17.59	
		2640.3(41093)	17.76	17.85	17.68	
		2593 (40620)	17.61	17.73	17.27	
		2545.8(40148)	17.79	17.88	17.49	
		2498.5 (39675)	17.57	17.70	17.35	
	1RB-Middle (12)	2687.5 (41565)	17.57	17.74	17.51	
		2640.3(41093)	17.96	17.85	17.59	
		2593 (40620)	17.84	17.68	17.37	
		2545.8(40148)	17.73	17.84	17.53	
	1RB-Low (0)	2498.5 (39675)	17.53	17.69	17.33	
		2687.5 (41565)	17.55	17.69	17.56	
		2640.3(41093)	17.65	17.83	17.49	
		2593 (40620)	17.55	17.68	17.27	
	12RB-High (13)	2545.8(40148)	17.74	17.82	17.47	
		2498.5 (39675)	17.60	17.67	17.30	
		2687.5 (41565)	17.67	17.66	17.65	
		2640.3(41093)	17.82	17.73	17.80	
	12RB-Middle (6)	2593 (40620)	17.67	17.62	17.73	
		2545.8(40148)	17.86	17.81	17.88	
		2498.5 (39675)	17.66	17.61	17.73	
		2687.5 (41565)	17.70	17.66	17.73	
	12RB-Low (0)	2640.3(41093)	17.79	17.76	17.85	
		2593 (40620)	17.66	17.63	17.72	
		2545.8(40148)	17.87	17.78	17.89	
		2498.5 (39675)	17.66	17.63	17.70	
	25RB (0)	2687.5 (41565)	17.66	17.63	17.69	
		2640.3(41093)	17.74	17.64	17.77	
		2593 (40620)	17.69	17.63	17.70	
		2545.8(40148)	17.84	17.76	17.87	
	10MHz	1RB-High (49)	2498.5 (39675)	17.69	17.60	17.70
			2687.5 (41565)	17.63	17.67	17.65
			2640.3(41093)	17.67	17.72	17.70
			2593 (40620)	17.64	17.64	17.77
			2545.8(40148)	17.84	17.79	17.95
		1RB-Middle (24)	2498.5 (39675)	17.60	17.62	17.67
			2687.5 (41565)	17.63	17.67	17.65
			2640.3(41093)	17.67	17.72	17.70
			2593 (40620)	17.64	17.64	17.77
		1RB-Low (0)	2545.8(40148)	17.84	17.76	17.87
			2501 (39700)	17.56	17.75	17.43
2547(40160)			17.78	17.94	17.68	
2639(41080)			17.74	17.90	17.63	
25RB-High (25)		2685 (41540)	17.64	17.77	17.56	
		2639(41080)	17.74	17.90	17.63	
		2593 (40620)	17.59	17.76	17.54	
		2547(40160)	17.78	17.94	17.68	
25RB-Middle (12)		2685 (41540)	17.69	17.71	17.71	
		2639(41080)	17.79	17.81	17.75	
		2593 (40620)	17.68	17.69	17.56	
		2547(40160)	17.84	17.83	17.80	
25RB-Low (0)		2501 (39700)	17.69	17.66	17.61	
		2685 (41540)	17.61	17.66	17.61	
		2639(41080)	17.72	17.74	17.71	
		2593 (40620)	17.72	17.71	17.68	
50RB (0)		2547(40160)	17.85	17.87	17.82	
		2501 (39700)	17.73	17.70	17.58	
		2685 (41540)	17.60	17.67	17.60	
		2639(41080)	17.74	17.76	17.68	
		1RB-High (49)	2685 (41540)	17.62	17.69	17.63
			2639(41080)	17.74	17.77	17.71
			2593 (40620)	17.67	17.72	17.64
			2547(40160)	17.84	17.93	17.80
		1RB-Middle (24)	2501 (39700)	17.66	17.69	17.59
			2685 (41540)	17.62	17.69	17.63
			2639(41080)	17.74	17.77	17.71
			2593 (40620)	17.67	17.72	17.64
		1RB-Low (0)	2547(40160)	17.84	17.93	17.80
			2501 (39700)	17.66	17.69	17.59
			2685 (41540)	17.62	17.69	17.63
	2639(41080)		17.74	17.77	17.71	
25RB-High (25)	2593 (40620)	17.67	17.72	17.64		
	2547(40160)	17.84	17.93	17.80		
	2501 (39700)	17.66	17.69	17.59		
	2685 (41540)	17.62	17.69	17.63		
25RB-Middle (12)	2639(41080)	17.74	17.77	17.71		
	2593 (40620)	17.67	17.72	17.64		
	2547(40160)	17.84	17.93	17.80		
	2501 (39700)	17.66	17.69	17.59		
25RB-Low (0)	2685 (41540)	17.62	17.69	17.63		
	2639(41080)	17.74	17.77	17.71		
	2593 (40620)	17.67	17.72	17.64		
	2547(40160)	17.84	17.93	17.80		
50RB (0)	2501 (39700)	17.66	17.69	17.59		
	2685 (41540)	17.62	17.69	17.63		
	2639(41080)	17.74	17.77	17.71		
	2593 (40620)	17.67	17.72	17.64		

15MHz	1RB-High (74)	2682.5 (41515)	17.60	17.74	17.47	
		2637.8(41068)	17.76	17.89	17.51	
		2593 (40620)	17.67	17.77	17.48	
		2548.3(40173)	17.80	17.91	17.63	
		2503.5 (39725)	17.66	17.76	17.39	
	1RB-Middle (37)	2682.5 (41515)	17.57	17.74	17.48	
		2637.8(41068)	17.73	17.87	17.56	
		2593 (40620)	17.60	17.69	17.45	
		2548.3(40173)	17.75	17.86	17.61	
		2503.5 (39725)	17.53	17.69	17.35	
	1RB-Low (0)	2682.5 (41515)	17.75	17.84	17.57	
		2637.8(41068)	17.89	17.99	17.68	
		2593 (40620)	17.71	17.84	17.55	
		2548.3(40173)	17.86	18.00	17.73	
		2503.5 (39725)	17.58	17.66	17.35	
	36RB-High (38)	2682.5 (41515)	17.71	17.70	17.68	
		2637.8(41068)	17.85	17.79	17.86	
		2593 (40620)	17.79	17.69	17.73	
		2548.3(40173)	17.86	17.84	17.84	
		2503.5 (39725)	17.79	17.72	17.73	
	36RB-Middle (19)	2682.5 (41515)	17.74	17.70	17.77	
		2637.8(41068)	17.88	17.84	17.82	
		2593 (40620)	17.75	17.71	17.72	
		2548.3(40173)	17.86	17.87	17.90	
		2503.5 (39725)	17.75	17.66	17.66	
	36RB-Low (0)	2682.5 (41515)	17.72	17.65	17.71	
		2637.8(41068)	17.83	17.77	17.84	
		2593 (40620)	17.68	17.64	17.67	
		2548.3(40173)	17.88	17.92	17.94	
		2503.5 (39725)	17.68	17.61	17.60	
	75RB (0)	2682.5 (41515)	17.68	17.72	17.71	
		2637.8(41068)	17.92	17.89	17.87	
		2593 (40620)	17.79	17.78	17.77	
		2548.3(40173)	17.88	17.91	17.91	
		2503.5 (39725)	17.74	17.74	17.73	
	20MHz	1RB-High (99)	2680 (41490)	17.55	17.78	17.49
			2636.5(41055)	17.75	17.86	17.58
			2593 (40620)	17.68	17.76	17.48
			2549.5(40185)	17.57	17.80	17.52
			2506 (39750)	17.68	17.85	17.48
1RB-Middle (50)		2680 (41490)	17.64	17.74	17.45	
		2636.5(41055)	17.78	17.85	17.55	
		2593 (40620)	17.62	17.68	17.43	
		2549.5(40185)	17.71	17.88	17.59	
		2506 (39750)	17.59	17.67	17.38	
1RB-Low (0)		2680 (41490)	17.76	17.93	17.57	
		2636.5(41055)	17.92	17.94	17.69	
		2593 (40620)	17.77	17.90	17.57	
		2549.5(40185)	17.81	17.93	17.59	
		2506 (39750)	17.57	17.70	17.32	
50RB-High (50)		2680 (41490)	17.76	17.76	17.72	
		2636.5(41055)	17.87	17.85	17.82	
		2593 (40620)	17.75	17.72	17.71	
		2549.5(40185)	17.87	17.88	17.85	
		2506 (39750)	17.79	17.80	17.77	
50RB-Middle (25)		2680 (41490)	17.68	17.71	17.66	
		2636.5(41055)	17.91	17.83	17.81	
		2593 (40620)	17.77	17.75	17.74	
		2549.5(40185)	17.90	17.94	17.89	
		2506 (39750)	17.80	17.80	17.76	
50RB-Low (0)		2680 (41490)	17.73	17.73	17.71	
		2636.5(41055)	17.86	17.90	17.84	
		2593 (40620)	17.73	17.75	17.68	
		2549.5(40185)	17.87	17.98	17.91	
		2506 (39750)	17.66	17.67	17.61	
100RB (0)		2680 (41490)	17.70	17.71	17.74	
		2636.5(41055)	17.82	17.82	17.86	
		2593 (40620)	17.79	17.76	17.84	
		2549.5(40185)	17.88	17.94	17.97	
		2506 (39750)	17.80	17.76	17.78	

J.3 SAR Test Result

ANT1

ANT	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test setup	Distance	Figure No.	Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
1	Head	LTE Band41	40185	2549.5	1RB-Low	Cheek Left	0mm	\	Note1	15.1	15.2	0.063	0.06	0.024	0.02	0.18
1	Head	LTE Band41	40185	2549.5	1RB-Low	Tilt Left	0mm	\	Note1	15.1	15.2	0.095	0.10	0.036	0.04	0.06
1	Head	LTE Band41	40185	2549.5	1RB-Low	Cheek Right	0mm	\	Note1	15.1	15.2	0.181	0.19	0.072	0.07	0.04
1	Head	LTE Band41	40185	2549.5	1RB-Low	Tilt Right	0mm	\	Note1	15.1	15.2	0.253	0.26	0.093	0.10	0.07
1	Head	LTE Band41	40185	2549.5	50RB-Low	Cheek Left	0mm	\	Note1	15.2	15.2	0.067	0.07	0.026	0.03	-0.06
1	Head	LTE Band41	40185	2549.5	50RB-Low	Tilt Left	0mm	\	Note1	15.2	15.2	0.094	0.09	0.036	0.04	0.11
1	Head	LTE Band41	40185	2549.5	50RB-Low	Cheek Right	0mm	\	Note1	15.2	15.2	0.181	0.18	0.073	0.07	0.08
1	Head	LTE Band41	40185	2549.5	50RB-Low	Tilt Right	0mm	FIG J.3.1	Note1	15.2	15.2	0.258	0.26	0.095	0.10	0.06
							0mm									
1	Head	LTE Band41	40185	2549.5	1RB-Low	Cheek Left	0mm	\	Note2	13.36	13.5	0.045	0.05	0.017	0.02	-0.02
1	Head	LTE Band41	40185	2549.5	1RB-Low	Tilt Left	0mm	\	Note2	13.36	13.5	0.062	0.06	0.022	0.02	-0.17
1	Head	LTE Band41	40185	2549.5	1RB-Low	Cheek Right	0mm	\	Note2	13.36	13.5	0.118	0.12	0.045	0.05	0.06
1	Head	LTE Band41	40185	2549.5	1RB-Low	Tilt Right	0mm	\	Note2	13.36	13.5	0.165	0.17	0.058	0.06	0.19
1	Head	LTE Band41	40185	2549.5	50RB-Low	Cheek Left	0mm	\	Note2	13.45	13.5	0.046	0.05	0.017	0.02	-0.15
1	Head	LTE Band41	40185	2549.5	50RB-Low	Tilt Left	0mm	\	Note2	13.45	13.5	0.061	0.06	0.022	0.02	0.07
1	Head	LTE Band41	40185	2549.5	50RB-Low	Cheek Right	0mm	\	Note2	13.45	13.5	0.118	0.12	0.044	0.04	-0.03
1	Head	LTE Band41	40185	2549.5	50RB-Low	Tilt Right	0mm	\	Note2	13.45	13.5	0.167	0.17	0.059	0.06	-0.07
1	Body	LTE Band41	41055	2636.5	1RB-Low	Front	10mm	\	\	17.92	18	0.057	0.06	0.025	0.03	-0.18
1	Body	LTE Band41	41055	2636.5	1RB-Low	Rear	10mm	\	\	17.92	18	0.066	0.07	0.029	0.03	-0.18
1	Body	LTE Band41	41055	2636.5	1RB-Low	Left	10mm	\	\	17.92	18	0.054	0.06	0.025	0.03	-0.05
1	Body	LTE Band41	41055	2636.5	1RB-Low	Top	10mm	\	\	17.92	18	0.053	0.05	0.02	0.02	0.17
1	Body	LTE Band41	41055	2636.5	50RB-Middle	Front	10mm	\	\	17.91	18	0.056	0.06	0.027	0.03	0.03
1	Body	LTE Band41	41055	2636.5	50RB-Middle	Rear	10mm	FIG J.3.2	\	17.91	18	0.072	0.07	0.032	0.03	0.03
1	Body	LTE Band41	41055	2636.5	50RB-Middle	Left	10mm	\	\	17.91	18	0.055	0.06	0.025	0.03	0.08
1	Body	LTE Band41	41055	2636.5	50RB-Middle	Top	10mm	\	\	17.91	18	0.052	0.05	0.019	0.02	-0.14
1	Body	LTE Band41	41055	2636.5	1RB-Low	Front	15mm	\	Note1	23.99	25	0.114	0.14	0.068	0.09	-0.18
1	Body	LTE Band41	41055	2636.5	1RB-Low	Rear	15mm	\	Note1	23.99	25	0.143	0.18	0.083	0.10	0.15
1	Body	LTE Band41	40185	2549.5	50RB-Low	Front	15mm	\	Note1	23.06	24	0.133	0.17	0.072	0.09	-0.18
1	Body	LTE Band41	40185	2549.5	50RB-Low	Rear	15mm	FIG J.3.3	Note1	23.06	24	0.173	0.21	0.092	0.11	0.16
1	Body	LTE Band41	41055	2636.5	1RB-Low	Front	15mm	\	Note2	19.39	19.5	0.053	0.05	0.026	0.03	-0.10
1	Body	LTE Band41	41055	2636.5	1RB-Low	Rear	15mm	\	Note2	19.39	19.5	0.063	0.06	0.031	0.03	-0.04
1	Body	LTE Band41	40185	2549.5	50RB-Low	Front	15mm	\	Note2	19.42	19.5	0.066	0.07	0.031	0.03	-0.05
1	Body	LTE Band41	40185	2549.5	50RB-Low	Rear	15mm	\	Note2	19.42	19.5	0.085	0.09	0.04	0.04	0.09

ANT0

ANT	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test setup	Distance	Figure No.	Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
0	Head	LTE Band41	41490	2680	1RB-Low	Cheek Left	0mm	\		24.43	25.00	0.095	0.11	0.05	0.06	-0.03
0	Head	LTE Band41	41490	2680	1RB-Low	Tilt Left	0mm	\		24.43	25.00	0.118	0.13	0.058	0.07	0.08
0	Head	LTE Band41	41490	2680	1RB-Low	Cheek Right	0mm	FIG J.3.4		24.43	25.00	0.162	0.18	0.084	0.10	0.04
0	Head	LTE Band41	41490	2680	1RB-Low	Tilt Right	0mm	\		24.43	25.00	0.064	0.07	0.032	0.04	-0.10
0	Head	LTE Band41	41490	2680	50RB-High	Cheek Left	0mm	\		23.43	24.00	0.079	0.09	0.041	0.05	0.11
0	Head	LTE Band41	41490	2680	50RB-High	Tilt Left	0mm	\		23.43	24.00	0.089	0.10	0.044	0.05	-0.04
0	Head	LTE Band41	41490	2680	50RB-High	Cheek Right	0mm	\		23.43	24.00	0.131	0.15	0.068	0.08	-0.09
0	Head	LTE Band41	41490	2680	50RB-High	Tilt Right	0mm	\		23.43	24.00	0.052	0.06	0.027	0.03	-0.14
0	Body	LTE Band41	41490	2680	1RB-Low	Front	10mm	\		24.43	25.00	0.288	0.33	0.147	0.17	0.15
0	Body	LTE Band41	41490	2680	1RB-Low	Rear	10mm	\		24.43	25.00	0.481	0.55	0.216	0.25	0.02
0	Body	LTE Band41	41490	2680	1RB-Low	Left	10mm	\		24.43	25.00	0.156	0.18	0.08	0.09	-0.15
0	Body	LTE Band41	41490	2680	1RB-Low	Right	10mm	\		24.43	25.00	0.112	0.13	0.057	0.06	0.03
0	Body	LTE Band41	41490	2680	1RB-Low	Bottom	10mm	FIG J.3.5		24.43	25.00	0.499	0.57	0.225	0.26	0.12
0	Body	LTE Band41	41490	2680	50RB-High	Front	10mm	\		23.43	24.00	0.235	0.27	0.122	0.14	0.13
0	Body	LTE Band41	41490	2680	50RB-High	Rear	10mm	\		23.43	24.00	0.352	0.40	0.158	0.18	0.15
0	Body	LTE Band41	41490	2680	50RB-High	Left	10mm	\		23.43	24.00	0.116	0.13	0.06	0.07	-0.02
0	Body	LTE Band41	41490	2680	50RB-High	Right	10mm	\		23.43	24.00	0.092	0.10	0.045	0.05	0.12
0	Body	LTE Band41	41490	2680	50RB-High	Bottom	10mm	\		23.43	24.00	0.382	0.44	0.173	0.20	0.01

Note:

Note1: The data is used for stand-alone

Note2: The data is used for WWAN+WIFI /BT simultaneous transmission

J.4 MAIN TEST INSTRUMENTS

Table J.4-1: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	N5239a	MY55491241	May 31, 2021	One year
02	Power meter	NRP2	106276	May 11, 2021	One year
03	Power sensor	NRP6A	101369		
04	Signal Generator	E4438C	MY49070393	May 14, 2021	One Year
05	Amplifier	60S1G4	0331848	No Calibration Requested	
06	DAE	SPEAG DAE4	549	January 07, 2022	One year
07	E-field Probe	SPEAG EX3DV4	7600	December 29, 2022	One year
08	Dipole Validation Kit	SPEAG D2600V2	1012	July 26,2021	One year

J.5 GRAPH RESULTS

LTE B41 PC3 Head ANT1

Date: 2/15/2022

Electronics: DAE4 Sn549

Medium: H2600

Medium parameters used: $f = 2550$ MHz; $\sigma = 1.919$ S/m; $\epsilon_r = 40.273$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3oC Liquid Temperature: 22.5oC

Communication System: LTE Band41 Frequency: 2549.5 MHz Duty Cycle: 1:1.5787

Probe: EX3DV4 - SN7600 ConvF(7.82, 7.82, 7.82)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.463 W/kg

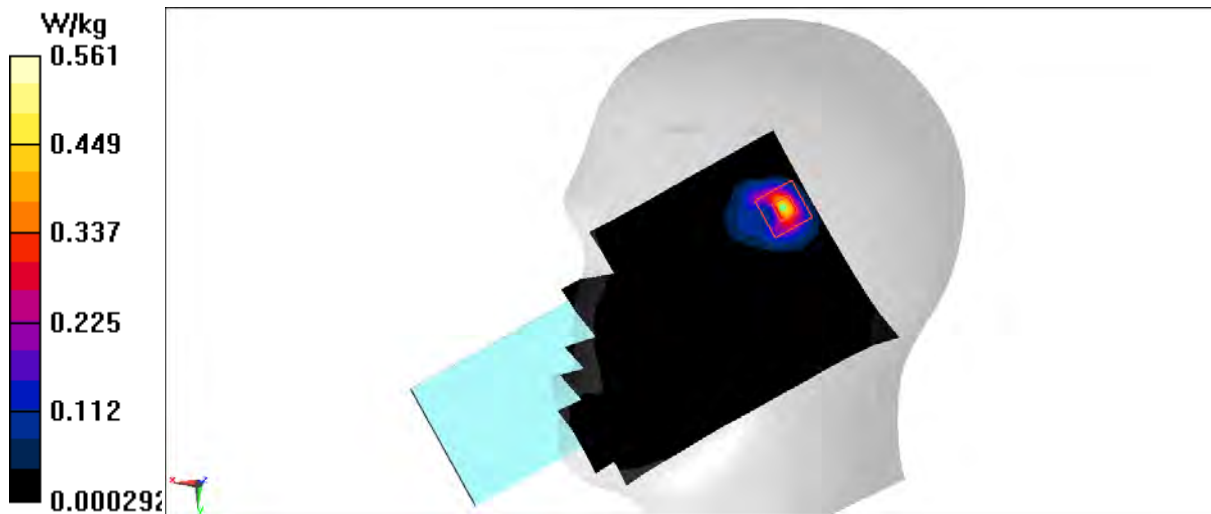
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.590 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.763 W/kg

SAR(1 g) = 0.258 W/kg; SAR(10 g) = 0.095 W/kg

Maximum value of SAR (measured) = 0.561 W/kg



LTE B41 PC3 Body ANT1

Date: 2/15/2022

Electronics: DAE4 Sn549

Medium: H2600

Medium parameters used (interpolated): $f = 2636.5$ MHz; $\sigma = 2.065$ S/m; $\epsilon_r = 40.023$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3oC Liquid Temperature: 22.5oC

Communication System: LTE Band41 Frequency: 2636.5 MHz Duty Cycle: 1:1.5787

Probe: EX3DV4 - SN7600 ConvF(7.62, 7.62, 7.62)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.131 W/kg

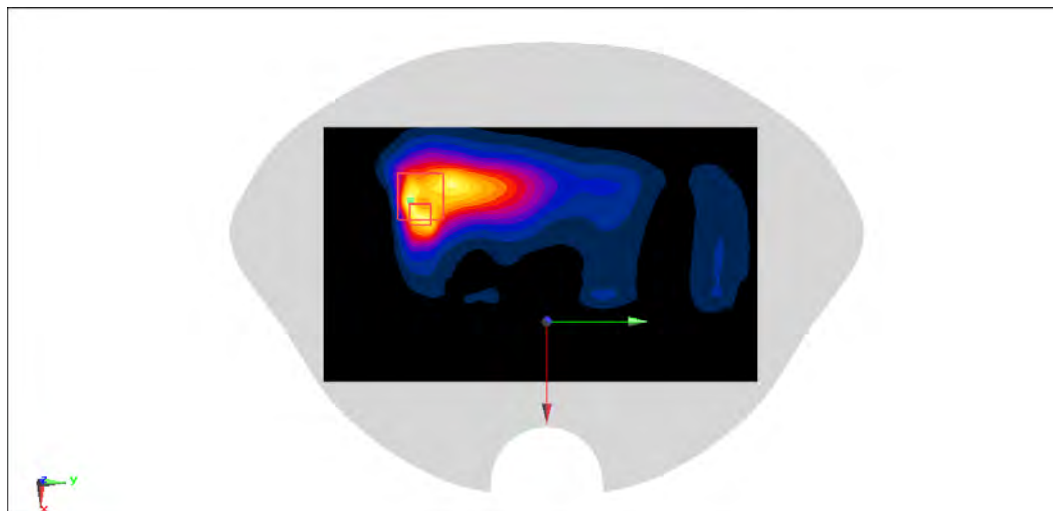
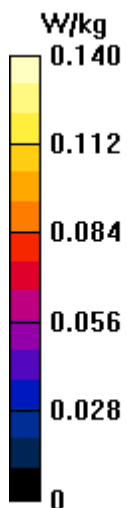
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.7340 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.189 W/kg

SAR(1 g) = 0.072 W/kg; SAR(10 g) = 0.032 W/kg

Maximum value of SAR (measured) = 0.140 W/kg



LTE B41 PC3 Body ANT1

Date: 2/15/2022

Electronics: DAE4 Sn549

Medium: H2600

Medium parameters used: $f = 2550$ MHz; $\sigma = 1.919$ S/m; $\epsilon_r = 40.273$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3oC Liquid Temperature: 22.5oC

Communication System: LTE Band41 Frequency: 2549.5 MHz Duty Cycle: 1:1.5787

Probe: EX3DV4 - SN7600 ConvF(7.82, 7.82, 7.82)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.273 W/kg

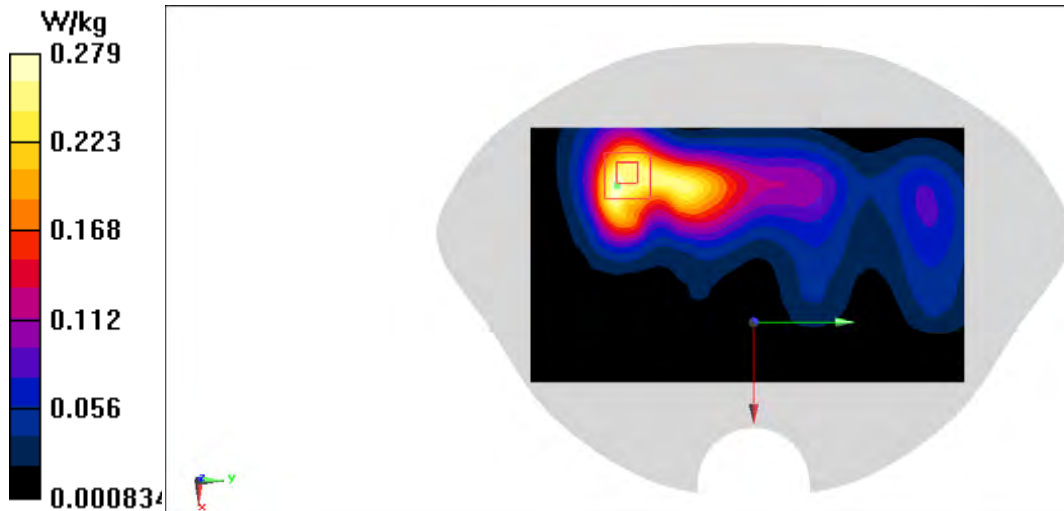
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.815 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.354 W/kg

SAR(1 g) = 0.173 W/kg; SAR(10 g) = 0.092 W/kg

Maximum value of SAR (measured) = 0.279 W/kg



LTE B41 PC3 Head ANT0

Date: 2/15/2022

Electronics: DAE4 Sn549

Medium: H2600

Medium parameters used: $f = 2680$ MHz; $\sigma = 2.099$ S/m; $\epsilon_r = 39.982$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C Liquid Temperature: 22.5°C

Communication System: LTE Band41 Frequency: 2680 MHz Duty Cycle: 1:1.5787

Probe: EX3DV4 - SN7600 ConvF(7.62, 7.62, 7.62)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.278 W/kg

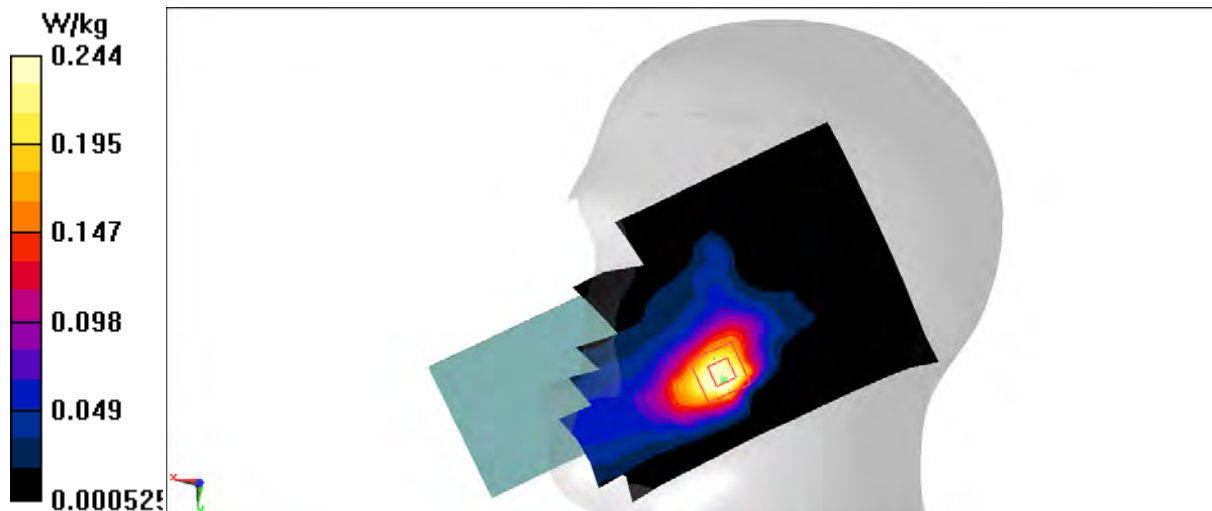
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.080 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.306 W/kg

SAR(1 g) = 0.162 W/kg; SAR(10 g) = 0.084 W/kg

Maximum value of SAR (measured) = 0.244 W/kg



LTE B41 PC3 Body ANT0

Date: 2/15/2022

Electronics: DAE4 Sn549

Medium: H2600

Medium parameters used: $f = 2680$ MHz; $\sigma = 2.099$ S/m; $\epsilon_r = 39.982$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3oC Liquid Temperature: 22.5oC

Communication System: LTE Band41 Frequency: 2680 MHz Duty Cycle: 1:1.5787

Probe: EX3DV4 - SN7600 ConvF(7.62, 7.62, 7.62)

Area Scan (71x151x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.824 W/kg

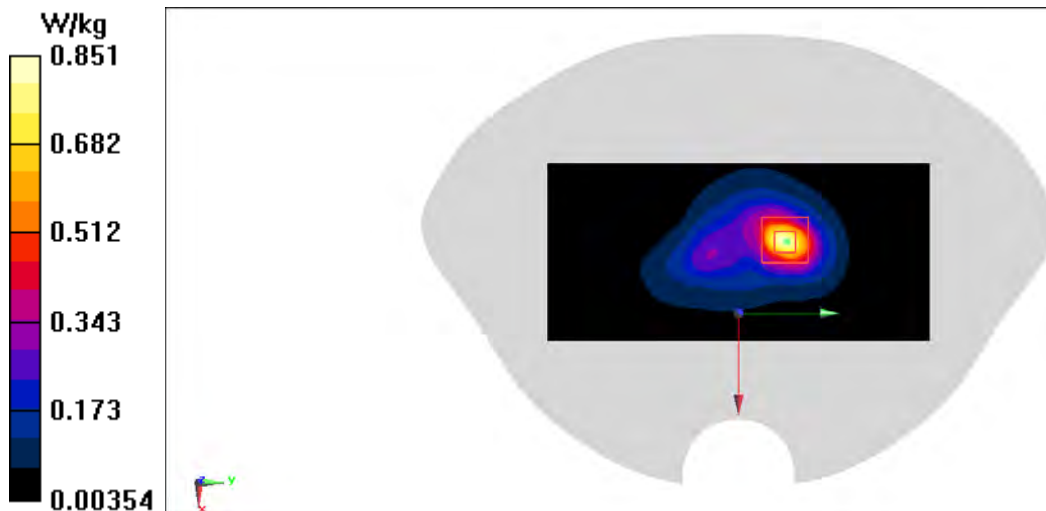
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.366 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.499 W/kg; SAR(10 g) = 0.225 W/kg

Maximum value of SAR (measured) = 0.851 W/kg



J.6 System Verification Results

Date: 2/15/2022

Electronics: DAE4 Sn549

Medium: H2600

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.96$ S/m; $\epsilon_r = 40.162$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3oC

Liquid Temperature: 22.5oC

Communication System: CW Frequency: 2600 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7600 ConvF(7.62, 7.62, 7.62)

Area Scan 3 (61x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Reference Value = 105.5 V/m; Power Drift = 0.12 dB

Fast SAR: SAR(1 g) = 14.1 W/kg; SAR(10 g) = 6.18 W/kg

Maximum value of SAR (interpolated) = 24.5 W/kg

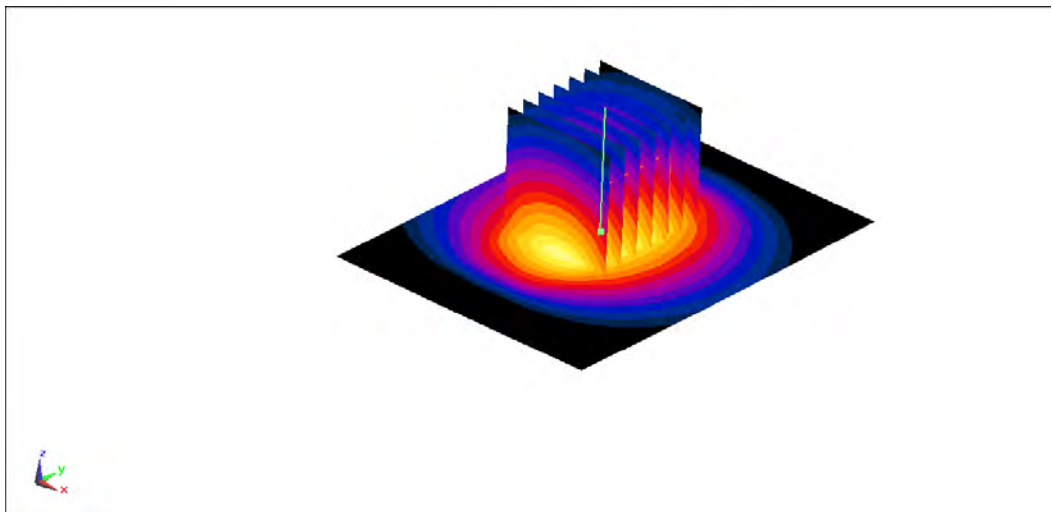
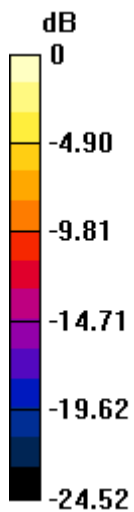
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 105.5 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 30.1 W/kg

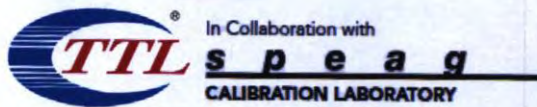
SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.09 W/kg

Maximum value of SAR (measured) = 23.2 W/kg



$$0 \text{ dB} = 23.2 \text{ W/kg} = 13.65 \text{ dBW/kg}$$

J.7 Probe Calibration Certificate
Probe 7600 Calibration Certificate



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 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](http://www.chinattl.cn)



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 国际互认
 校准
 CALIBRATION
 CNAS L0570

Client **CTTL**

Certificate No: **Z21-60455**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN : 7600**

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

Calibration date: **December 29, 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)°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	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 1555	20-Aug-21(SPEAG, No.DAE4-1555_Aug21/2)	Aug-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	14-Jan-21 (CTTL, No.J21X00232)	Jan -22

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



Issued: December 31, 2021

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



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Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504
E-mail: ctl@chinatl.com [Http://www.chinatl.cn](http://www.chinatl.cn)

Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,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), $\theta=0$ 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:

- 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
- 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
- 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
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}**: Assessed for E-field polarization $\theta=0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not effect the E^2 -field uncertainty inside TSL (see below ConvF).
- NORM(f)_{x,y,z} = NORM_{x,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.
- DCP_{x,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.
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; VR_{x,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 $f \leq 800$ 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 valued are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,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.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM_x (no uncertainty required).



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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](http://www.chinattl.cn)

DASY/EASY – Parameters of Probe: EX3DV4 – SN:7600

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.69	0.66	0.68	±10.0%
DCP(mV) ^B	109.3	109.7	110.7	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB μV	C	D dB	VR mV	Unc ^E (k=2)
0	CW	X	0.0	0.0	1.0	0.00	212.0	±2.1%
		Y	0.0	0.0	1.0		204.3	
		Z	0.0	0.0	1.0		208.9	

The reported uncertainty of measurement is stated as the standard uncertainty of Measurement multiplied by the coverage factor $k=2$, which for a normal distribution Corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X, Y, Z do not affect the E^2 -field uncertainty inside TSL (see Page 4).

^B Numerical linearization parameter: uncertainty not required.

^E Uncertainty 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:7600

Calibration Parameter Determined in Head Tissue Simulating Media

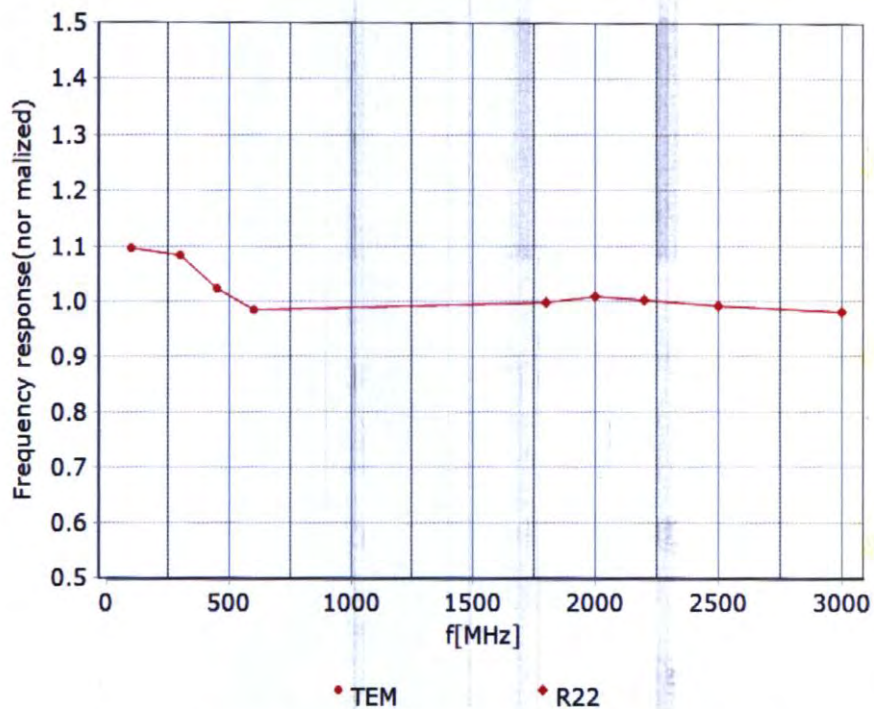
f [MHz] ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unct. (k=2)
750	41.9	0.89	10.74	10.74	10.74	0.16	1.27	± 12.1%
900	41.5	0.97	10.27	10.27	10.27	0.15	1.43	± 12.1%
1450	40.5	1.20	9.18	9.18	9.18	0.18	1.09	± 12.1%
1750	40.1	1.37	8.93	8.93	8.93	0.20	0.95	± 12.1%
1900	40.0	1.40	8.54	8.54	8.54	0.25	1.06	± 12.1%
2100	39.8	1.49	8.44	8.44	8.44	0.22	1.18	± 12.1%
2300	39.5	1.67	8.14	8.14	8.14	0.59	0.72	± 12.1%
2450	39.2	1.80	7.82	7.82	7.82	0.47	0.82	± 12.1%
2600	39.0	1.96	7.62	7.62	7.62	0.50	0.81	± 12.1%
3300	38.2	2.71	7.34	7.34	7.34	0.37	1.04	± 13.3%
3500	37.9	2.91	7.05	7.05	7.05	0.39	1.00	± 13.3%
3700	37.7	3.12	6.78	6.78	6.78	0.40	1.00	± 13.3%
3900	37.5	3.32	6.68	6.68	6.68	0.40	1.25	± 13.3%
4100	37.2	3.53	6.71	6.71	6.71	0.40	1.15	± 13.3%
4200	37.1	3.63	6.61	6.61	6.61	0.35	1.35	± 13.3%
4400	36.9	3.84	6.50	6.50	6.50	0.35	1.35	± 13.3%
4600	36.7	4.04	6.40	6.40	6.40	0.40	1.30	± 13.3%
4800	36.4	4.25	6.33	6.33	6.33	0.40	1.30	± 13.3%
4950	36.3	4.40	6.09	6.09	6.09	0.40	1.35	± 13.3%
5250	35.9	4.71	5.59	5.59	5.59	0.40	1.47	± 13.3%
5600	35.5	5.07	5.13	5.13	5.13	0.50	1.25	± 13.3%
5750	35.4	5.22	5.16	5.16	5.16	0.55	1.15	± 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.

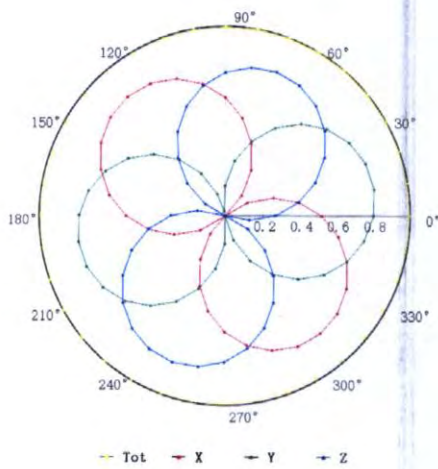
Frequency Response of E-Field (TEM-Cell: ifi110 EXX, Waveguide: R22)



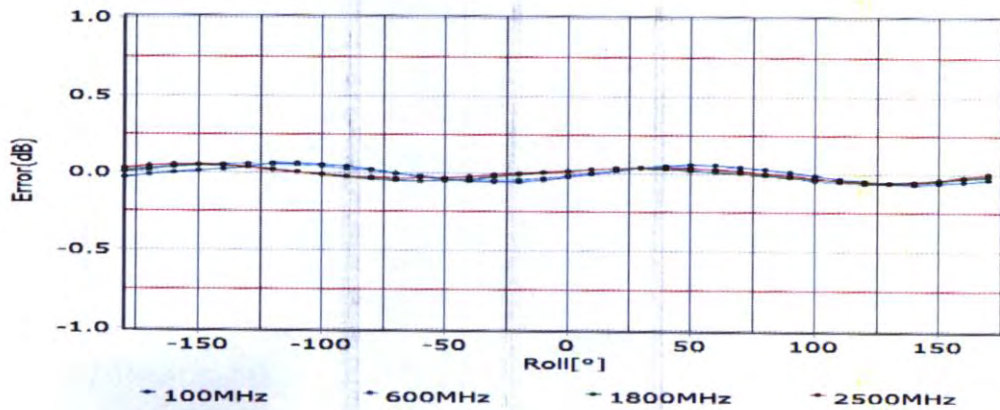
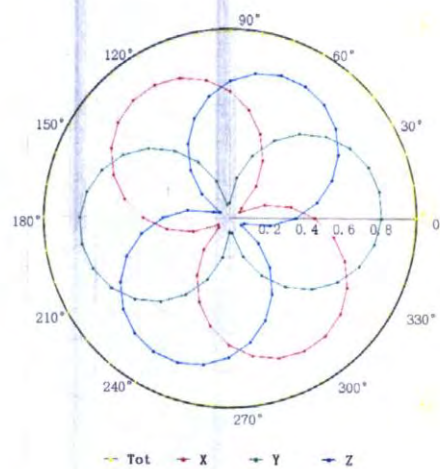
Uncertainty of Frequency Response of E-field: $\pm 7.4\%$ ($k=2$)

Receiving Pattern (Φ), $\theta=0^\circ$

f=600 MHz, TEM

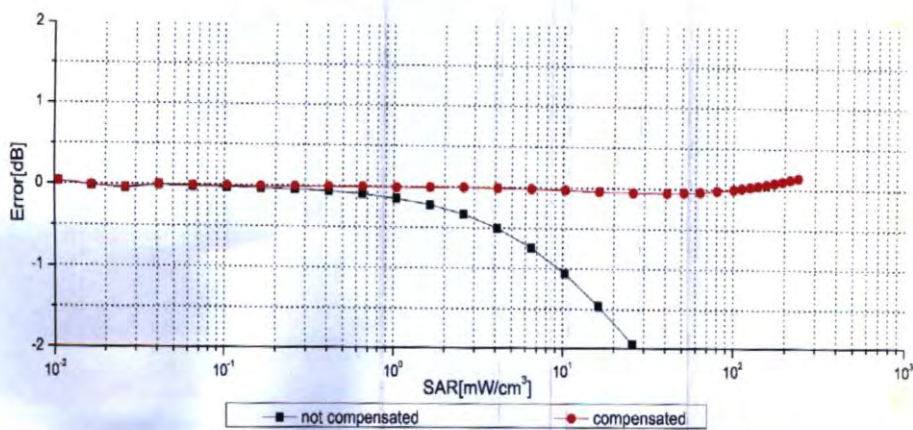
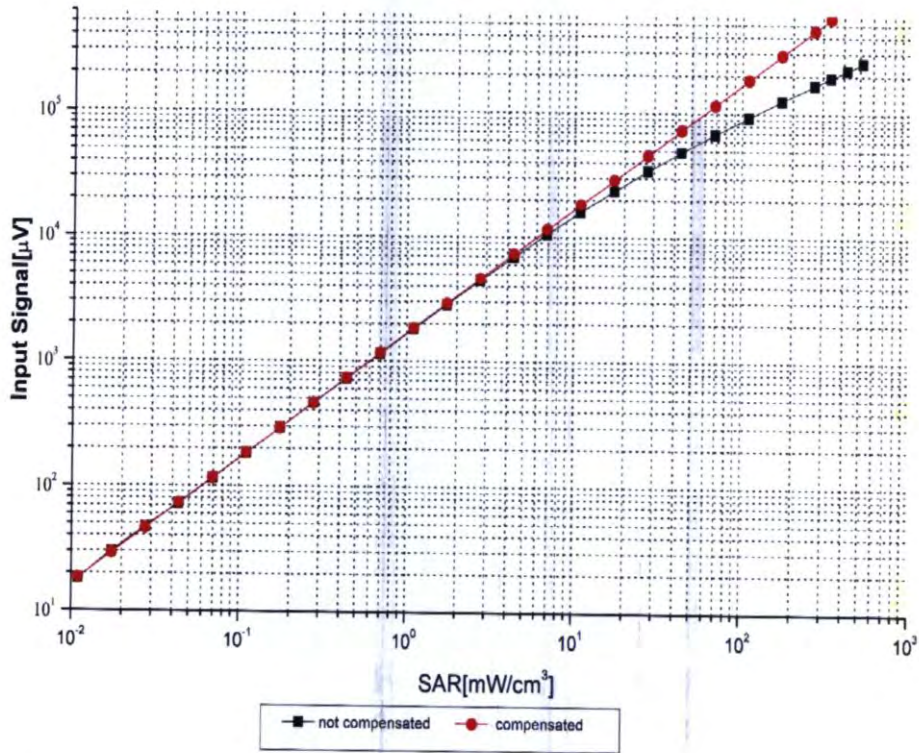


f=1800 MHz, R22



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

Dynamic Range f(SAR_{head}) (TEM cell, f = 900 MHz)



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



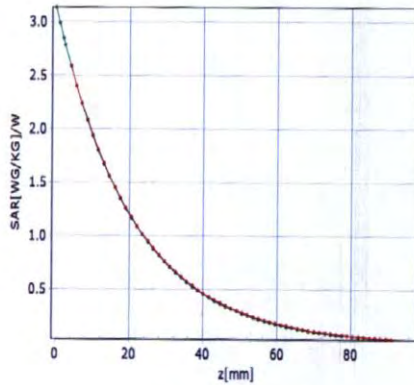
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Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504
E-mail: ctrl@chinattl.com [Http://www.chinattl.cn](http://www.chinattl.cn)

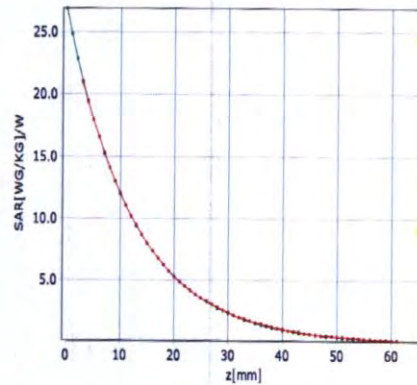
Conversion Factor Assessment

f=750 MHz,WGLS R9(H_convF)

f=1750 MHz,WGLS R22(H_convF)

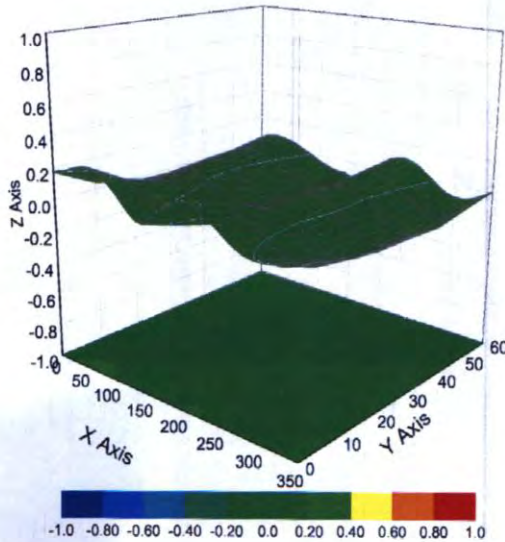


* analytical * measured



* analytical * measured

Deviation from Isotropy in Liquid



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



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Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504
E-mail: ctl@chinatl.com [Http://www.chinatl.cn](http://www.chinatl.cn)

DASY/EASY – Parameters of Probe: EX3DV4 – SN:7600

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	40.7
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

ANNEX J 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

Telecommunication Technology Labs, CAICT

Beijing
China

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

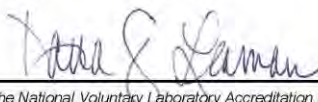
Electromagnetic Compatibility & Telecommunications

*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 Communiqué dated January 2009).*

2021-09-29 through 2022-09-30

Effective Dates




For the National Voluntary Laboratory Accreditation Program