

B.5.7 Simultaneous Transmission SAR Evaluation

According to FCC OET KDB 447498 D01, when the sum of 1g SAR for all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit, SAR test exclusion applies to that simultaneous transmission configuration.

All the values stated in the table below are the worst case found for standalone measurement with disregard of the transmission mode or channel where the worst case was found.

Antenna	Position	Highest Reported SAR (1g) (W/kg)			
		WWAN	**WLAN 2.4GHz	**WLAN 5/6GHz	**Bluetooth
Ant.5 WWAN	Back Face	1.30			
	Laptop	1.19			
	Left Edge	0.64			
	Right Edge	0.40*			
	Top Edge	0.37			
Ant.8 WWAN	Back Face	0.06			
	Left Edge	0.40*			
	Right Edge	0.40*			
	Top Edge	1.12			
Main WLAN	Back Face		0.12	0.05	
	Left Edge		0.40*	0.40*	
	Right Edge		0.40*	0.40*	
	Top Edge		0.98	0.43	
Aux WLAN	Back Face		0.01	0.07	0.01
	Left Edge		0.40*	0.40*	0.40*
	Right Edge		0.25	0.34	0.10
	Top Edge		0.22	0.48	0.16

*According to FCC OET KDB 447498 D01, when standalone test exclusion is applied to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated to 0.4 W/Kg for 1-g SAR when the test separation is > 50mm in order to determine simultaneous transmission test exclusion.

**Refer to these test reports for WLAN 2.4GHz, and 5/6 GHz.

- 211216-01.TR05_FCC_IC_WLAN_SAR_HP TPN W155_AX211NGW
- 211216-01.TR06_SAR_PD_WiFi_6E_TPN_W155_AX211NGW -Rev01

Position	Simultaneous Tx Antenna Combination					Σ SAR 1g (W/Kg)	Limit (W/kg)
	#	WWAN Ant5	WWAN Ant8	Main Antenna	Aux Antenna		
Back Face	1	Cellular	Cellular	WLAN 5/6GHz	WLAN 5/6GHz	1.48	1.6
	2	Cellular	Cellular	WLAN 5/6GHz	WLAN 5/6GHz+ BT	1.49	
	3	Cellular	Cellular	WLAN 5/6GHz	BT	1.42	
	4	Cellular	Cellular	WLAN 2.4GHz	WLAN 2.4GHz	1.43	
	5	Cellular	Cellular	WLAN 2.4GHz	BT	1.49	
Left Edge	1	Cellular	Cellular	WLAN 5/6GHz	WLAN 5/6GHz	1.84	
	2	Cellular	Cellular	WLAN 5/6GHz	WLAN 5/6GHz+ BT	2.24	
	3	Cellular	Cellular	WLAN 5/6GHz	BT	1.84	
	4	Cellular	Cellular	WLAN 2.4GHz	WLAN 2.4GHz	1.84	
	5	Cellular	Cellular	WLAN 2.4GHz	BT	1.84	
Right Edge	1	Cellular	Cellular	WLAN 5/6GHz	WLAN 5/6GHz	1.54	
	2	Cellular	Cellular	WLAN 5/6GHz	WLAN 5/6GHz+ BT	1.64	
	3	Cellular	Cellular	WLAN 5/6GHz	BT	1.30	
	4	Cellular	Cellular	WLAN 2.4GHz	WLAN 2.4GHz	1.45	
	5	Cellular	Cellular	WLAN 2.4GHz	BT	1.30	
Top Edge	1	Cellular	Cellular	WLAN 5/6GHz	WLAN 5/6GHz	2.40	
	2	Cellular	Cellular	WLAN 5/6GHz	WLAN 5/6GHz+ BT	2.56	
	3	Cellular	Cellular	WLAN 5/6GHz	BT	2.08	
	4	Cellular	Cellular	WLAN 2.4GHz	WLAN 2.4GHz	2.69	
	5	Cellular	Cellular	WLAN 2.4GHz	BT	2.63	

In case the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR to peak location separation ratio (SPLSR). According to the last table possible simultaneous transmission combinations are identified for each position from 1 to 5, each combination will be analyzed by antenna pairs. Antenna pairs considered in one configuration won't be performed again in case they are repeated on the next simultaneous configuration:

Position	Ant. Pair case	Antenna	Reported SAR 1g (W/kg)	Σ SAR 1g (W/Kg)	Peak Location (mm) (x,y,z)	SAR to peak location separation ratio	Limit
Back Face	1a	WWAN (Ant5)	1.30	1.36			0.04
		WWAN (Ant8)	0.06				
	1b	WWAN (Ant5)	1.30	1.35			
		Main WLAN 5/6GHz	0.05				
	1c	WWAN (Ant5)	1.30	1.37			
		Aux WLAN 5/6GHz	0.07				
	1d	WWAN (Ant8)	0.06	0.11			
		Main WLAN 5/6GHz	0.05				
	1e	WWAN (Ant8)	0.06	0.13			
		Aux WLAN 5/6GHz	0.07				
	1f	Main WLAN 5GHz	0.05	0.12			
		Aux WLAN 5/6GHz	0.07				
	2a	WWAN (Ant5)	1.30	1.31			
		Aux BT	0.01				
	2b	WWAN (Ant8)	0.06	0.07			
		Aux BT	0.01				
	4a	WWAN (Ant5)	1.30	1.42			
		Main WLAN 2.4GHz	0.12				
	4b	WWAN (Ant5)	1.30	1.37			
		Aux WLAN 2.4GHz	0.07				
	4c	WWAN (Ant8)	0.06	0.18			
		Main WLAN 2.4GHz	0.12				
	4d	WWAN (Ant8)	0.06	0.07			
		Aux WLAN 2.4GHz	0.01				
	4e	Main WLAN 2.4GHz	0.12	0.13			
		Aux WLAN1 2.4GHz	0.01				

Position	Ant. Pair case	Antenna	Reported SAR 1g (W/kg)	Σ SAR 1g (W/Kg)	Peak Location (mm) (x,y,z)	SAR to peak location separation ratio	Limit
Left Edge	1a	WWAN (Ant5)	0.64	1.04			0.04
		WWAN (Ant8)	0.40				
	1b	WWAN (Ant5)	0.64	1.04			
		Main WLAN 5/6GHz	0.40				
	1c	WWAN (Ant5)	0.64	1.04			
		Aux WLAN 5/6GHz	0.40				
	1d	WWAN (Ant8)	0.40	0.80			
		Main WLAN 5/6GHz	0.40				
	1e	WWAN (Ant8)	0.40	0.80			
		Aux WLAN 5/6GHz	0.40				
	1f	Main WLAN 5GHz	0.40	0.80			
		Aux WLAN 5/6GHz	0.40				
	2a	WWAN (Ant5)	0.64	1.04			
		Aux BT	0.40				
	2b	WWAN (Ant8)	0.40	0.80			
		Aux BT	0.40				
	4a	WWAN (Ant5)	0.64	1.04			
		Main WLAN 2.4GHz	0.40				
	4b	WWAN (Ant5)	0.64	1.04			
		Aux WLAN 2.4GHz	0.40				
	4c	WWAN (Ant8)	0.40	0.80			
		Main WLAN 2.4GHz	0.40				
	4d	WWAN (Ant8)	0.40	0.80			
		Aux WLAN 2.4GHz	0.40				
	4e	Main WLAN 2.4GHz	0.40	0.80			
		Aux WLAN1 2.4GHz	0.40				

Position	Ant. Pair case	Antenna	Reported SAR 1g (W/kg)	Σ SAR 1g (W/Kg)	Peak Location (mm) (x,y,z)	SAR to peak location separation ratio	Limit
Right Edge	1a	WWAN (Ant5)	0.40	0.80			0.04
		WWAN (Ant8)	0.40				
	1b	WWAN (Ant5)	0.40	0.80			
		Main WLAN 5/6GHz	0.40				
	1c	WWAN (Ant5)	0.40	0.80			
		Aux WLAN 5/6GHz	0.40				
	1d	WWAN (Ant8)	0.40	0.80			
		Main WLAN 5/6GHz	0.40				
	1e	WWAN (Ant8)	0.40	0.74			
		Aux WLAN 5/6GHz	0.34				
	1f	Main WLAN 5GHz	0.40	0.74			
		Aux WLAN 5/6GHz	0.34				
	2a	WWAN (Ant5)	0.40	0.50			
		Aux WLAN BT	0.10				
	2b	WWAN (Ant8)	0.40	0.50			
		Aux WLAN1 BT	0.10				
	4a	WWAN (Ant5)	0.40	0.80			
		Main WLAN 2.4GHz	0.40				
	4b	WWAN (Ant5)	0.40	0.65			
		Aux WLAN 2.4GHz	0.25				
	4c	WWAN (Ant8)	0.40	0.80			
		Main WLAN 2.4GHz	0.40				
	4d	WWAN (Ant8)	0.40	0.65			
		Aux WLAN 2.4GHz	0.25				
	4e	Main WLAN 2.4GHz	0.40	0.65			
		Aux WLAN1 2.4GHz	0.25				

Position	Ant. Pair case	Antenna	Reported SAR 1g (W/kg)	Σ SAR 1g (W/Kg)	Peak Location (mm) (x,y,z)	SAR to peak location separation ratio	Limit
Top Edge	1a	WWAN (Ant5)	0.37	1.49			0.04
		WWAN (Ant8)	1.12				
	1b	WWAN (Ant5)	0.37	0.80			
		Main WLAN 5/6GHz	0.43				
	1c	WWAN (Ant5)	0.37	0.85			
		Aux WLAN 5/6GHz	0.48				
	1d	WWAN (Ant8)	1.12	1.55			
		Main WLAN 5/6GHz	0.43				
	1e	WWAN (Ant8)	1.12	1.60	(-1.9,-43.6,-177)	0.01	
		Aux WLAN 5/6GHz	0.48		(-1.2,122.5,-177)		
	1f	Main WLAN 5GHz	0.43	0.91			
		Aux WLAN 5/6GHz	0.48				
	2a	WWAN (Ant5)	0.37	0.53			
		Aux WLAN BT	0.16				
	2b	WWAN (Ant8)	1.12	1.28			
		Aux WLAN1 BT	0.16				
	4a	WWAN (Ant5)	0.37	1.35			
		Main WLAN 2.4GHz	0.98				
	4b	WWAN (Ant5)	0.37	0.59			
		Aux WLAN 2.4GHz	0.22				
	4c	WWAN (Ant8)	1.12	2.10	(-1.9,-43.6,-177)	0.03	
		Main WLAN 2.4GHz	0.98		(-2,66.5,-177)		
	4d	WWAN (Ant8)	1.12	1.34			
		Aux WLAN 2.4GHz	0.22				
	4e	Main WLAN 2.4GHz	0.98	1.20			
		Aux WLAN1 2.4GHz	0.22				

Considering the results described above and according to the simultaneous transmission evaluation exclusions described in FCC OET KDB 447498 D01, no SPLSR nor enlarged zoom scan measurements are required.

Annex C. Test System Plots

1. WCDMA II, RMC 12.2kbps, 5MHz, CH9400, HighTek Ant 5, Back face	136
2. WCDMA IV, RMC 12.2kbps, 5MHz, CH1413, HighTek Ant 5, Back face.....	137
3. WCDMA V, RMC 12.2kbps, 5MHz, CH4132, HighTek Ant 5, Back face.....	138
4. LTE Band 7, QPSK - 20MHz, CH21100, Inpaq Ant 5, Back face	139
5. LTE Band 12, QPSK - 10MHz, CH23095, HighTek Ant 5, Laptop	140
6. LTE Band 13, QPSK - 10MHz, CH23230, HighTek Ant 5, Laptop	141
7. LTE Band 14, QPSK - 10MHz, CH23330, HighTek Ant 5, Back face.....	142
8. LTE Band 25, QPSK - 20MHz, CH26365, HighTek Ant 5, Laptop	143
9. LTE Band 26, QPSK - 15MHz, CH26775, HighTek Ant 5, Laptop	144
10. LTE Band 30 - 10MHz, CH27710, Inpaq Ant 5, Back face	145
11. LTE Band 41, QPSK - 20MHz, CH40620, HighTek Ant 5, Left edge	146
12. LTE Band 48, QPSK - 20MHz, CH55340, HighTek Ant 8, Top edge.....	147
13. LTE Band 66, QPSK - 20MHz, CH132072, HighTek Ant 5, Laptop.....	148
14. LTE Band 71, QPSK - 20MHz, CH133297, HighTek Ant 5, Laptop.....	149
15. 5G NR FR1 Band 2, QPSK - 20MHz, CH376000, HighTek Ant 8, Top Edge	150
16. 5G NR FR1 Band 5, QPSK - 20MHz, CH167300, HighTek Ant 5, Back Face	151
17. 5G NR FR1 Band 7, QPSK - 20MHz, CH514000, HighTek Ant 5, Laptop.....	152
18. 5G NR FR1 Band 25, QPSK - 20MHz, CH376500, HighTek Ant 5, Laptop.....	153
19. 5G NR FR1 Band 30, QPSK - 10MHz, CH462000, HighTek Ant 5, Laptop.....	154
20. 5G NR FR1 Band 41, QPSK - 100MHz, CH518601, HighTek, Ant5, Laptop.....	155
21. 5G NR FR1 Band 66, QPSK - 40MHz, CH349000, INPAQ Ant 5, Laptop.....	156
22. 5G NR FR1 Band 71, QPSK - 20MHz, CH136100, HighTek Ant 5, Backface	157
23. 5G NR FR1 Band 77, QPSK - 100MHz, CH650000, INPAQ, Ant 5, Back Face.....	158
24. System Check Body Liquid 750MHz – 2022-06-09 – System2	159
25. System Check Body Liquid 750MHz – 2022-05-24 – System2	160
26. System Check Body Liquid 750MHz – 2022-06-10 – System4	161
27. System Check Body Liquid 835MHz – 2022-05-25 – System2	162
28. System Check Body Liquid 835MHz – 2022-06-02 – System2	163
29. System Check Body Liquid 835MHz – 2022-06-04 – System4	164
30. System Check Body Liquid 1750MHz – 2022-05-25 – System2	165
31. System Check Body Liquid 1750MHz – 2022-06-02 – System2	166
32. System Check Body Liquid 1750MHz – 2022-05-24 – System4	167
33. System Check Body Liquid 1900MHz – 2022-05-25 - System2.....	168
34. System Check Body Liquid 1900MHz – 2022-06-02 - System2.....	169
35. System Check Body Liquid 1900MHz – 2022-06-02 – System4	170
36. System Check Body Liquid 1900MHz – 2022-05-31 – System4	171
37. System Check Body Liquid 2300MHz - System2	172
38. System Check Body Liquid 2300MHz – 2022-06-02 – System 4.....	173
39. System Check Body Liquid 2600MHz – 2022-06-02 - System2.....	174

40. System Check Body Liquid 2600MHz – 2022-06-04 - System2..... 175

41. System Check Body Liquid 2600MHz – 2022-06-03 – System 4..... 176

42. System Check Body Liquid 3700MHz – 2022-06-06 - System2..... 177

43. System Check Body Liquid 3700MHz – 2022-06-08 - System4..... 178

1. WCDMA II, RMC 12.2kbps, 5MHz, CH9400, HighTek Ant 5, Back face

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004T	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	EDGE LEFT, 0.00	Band2, UTRA/FDD	WCDMA, 10011-CAB	1880.0, 9400	8.62	1.50	56.1

Hardware Setup

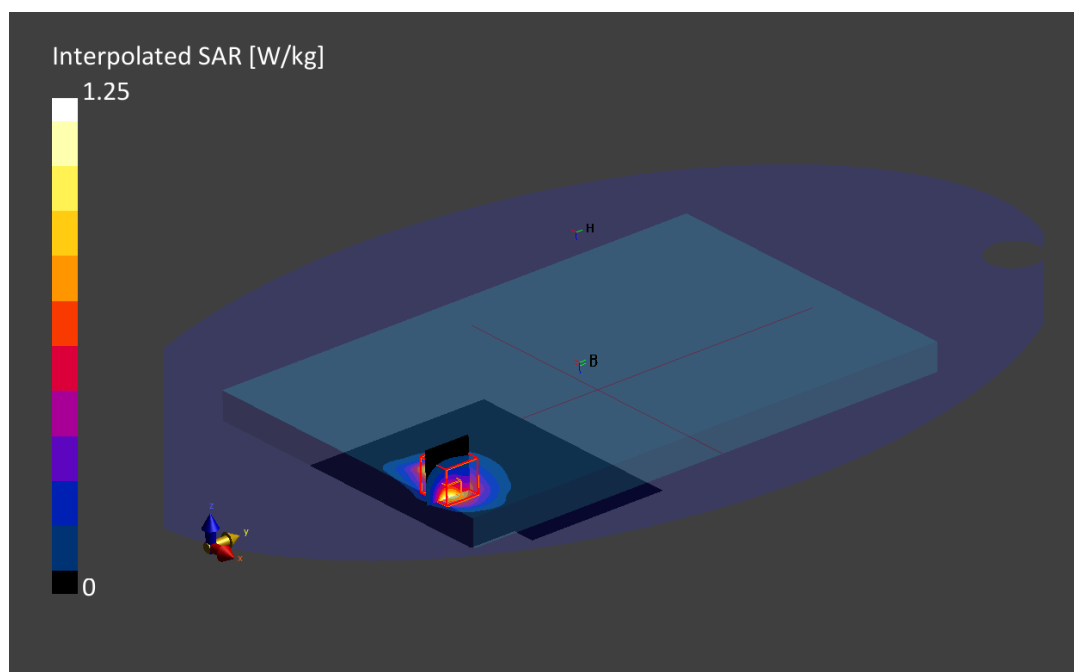
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-02	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	150.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-02, 11:08	2022-06-02, 11:14
psSAR1g [W/kg]	0.657	0.699
psSAR10g [W/kg]	0.345	0.362
Power Drift [dB]	-0.00	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		84.5
Dist 3dB Peak [mm]		7.3



2. WCDMA IV, RMC 12.2kbps, 5MHz, CH1413, HighTek Ant 5, Back face

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004T	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	BACK, 0.00	Band 4, UTRA/FDD	WCDMA, 10011-CAB	1732.6, 1413	9.02	1.39	56.4

Hardware Setup

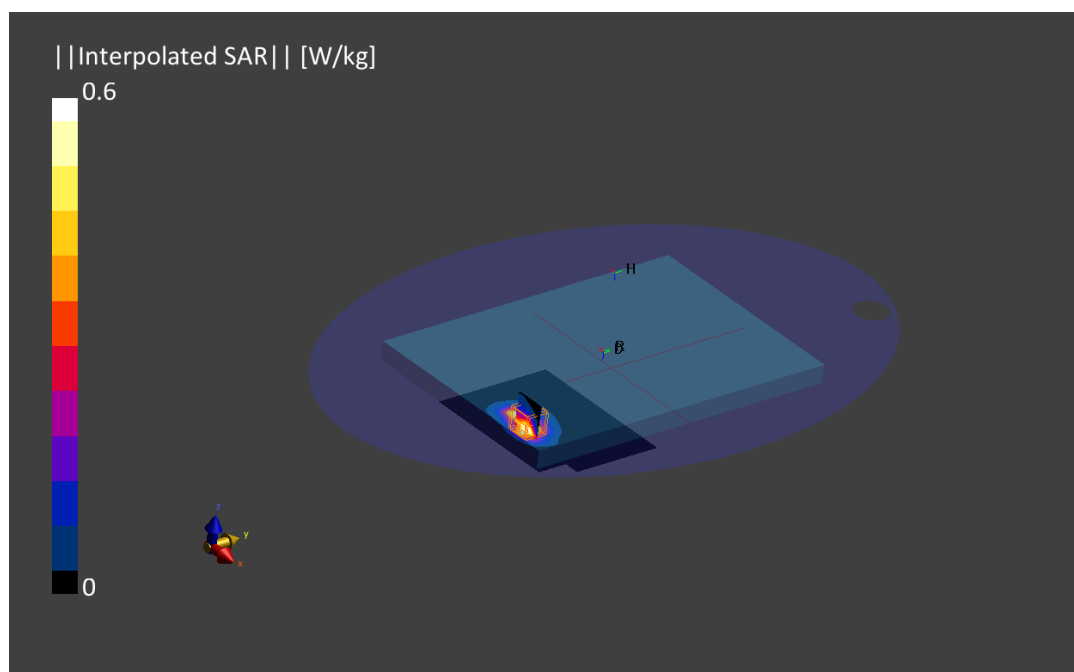
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-02	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	150.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-02, 10:44	2022-06-02, 10:51
psSAR1g [W/kg]	0.461	0.566
psSAR10g [W/kg]	0.252	0.283
Power Drift [dB]	-0.01	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		81.5
Dist 3dB Peak [mm]		7.3



3. WCDMA V, RMC 12.2kbps, 5MHz, CH4132, HighTek Ant 5, Back face

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004T	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	BACK, 0.00	Band 5, UTRA/FDD	WCDMA, 10011-CAB	826.4, 4132	10.82	0.92	57.6

Hardware Setup

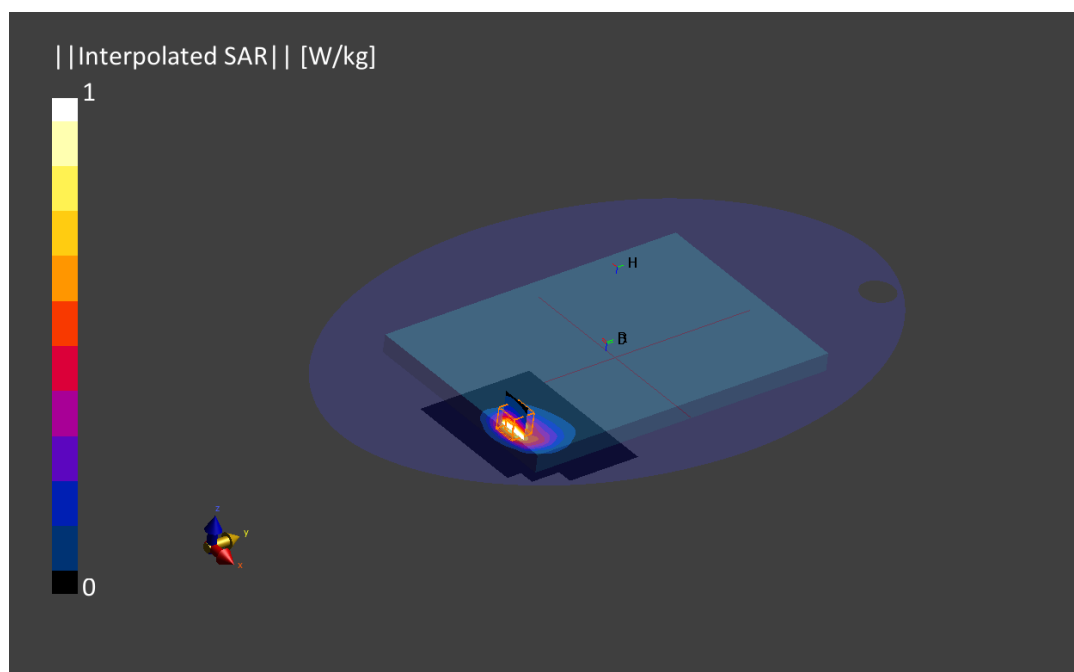
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-02	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	150.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-02, 09:47	2022-06-02, 09:54
psSAR1g [W/kg]	0.753	0.926
psSAR10g [W/kg]	0.480	0.485
Power Drift [dB]	0.00	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		69.3
Dist 3dB Peak [mm]		6.0



4. LTE Band 7, QPSK - 20MHz, CH21100, Inpaq Ant 5, Back face

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC20100YV	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	BACK, 0.00	Band 7, E-UTRA/FDD	LTE-FDD, 10169-CAE	2535.0, 21100	8.1	2.05	55.3

Hardware Setup

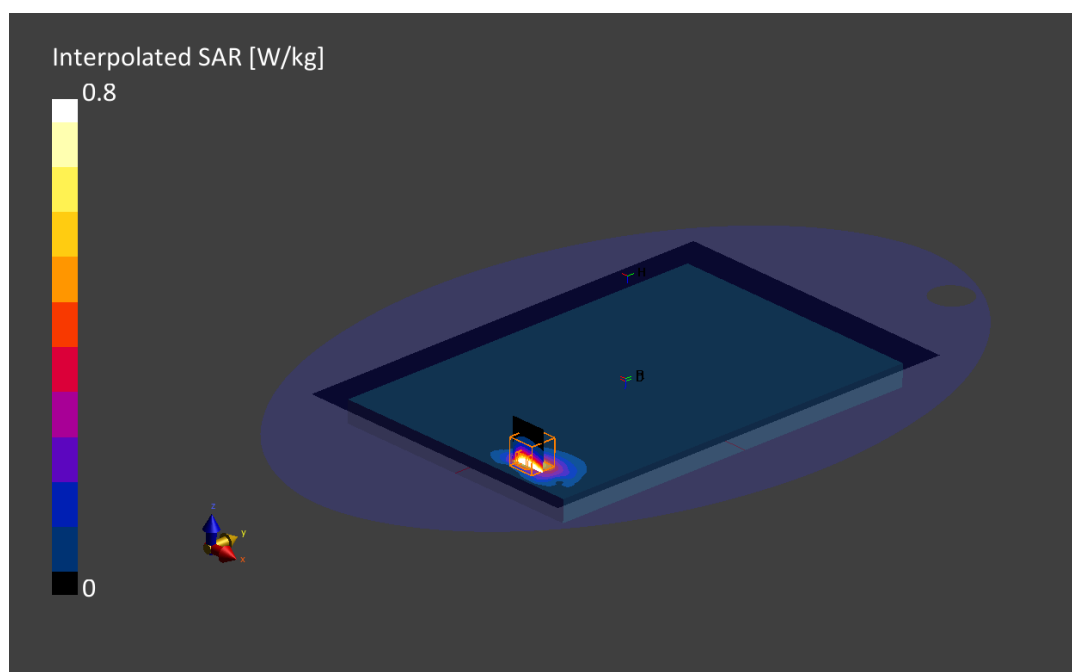
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-02	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	240.0 x 360.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-04, 04:55	2022-06-04, 05:03
psSAR1g [W/kg]	0.600	0.661
psSAR10g [W/kg]	0.284	0.285
Power Drift [dB]	-0.01	0.04
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		70.9
Dist 3dB Peak [mm]		7.0



5. LTE Band 12, QPSK - 10MHz, CH23095, HighTek Ant 5, Laptop

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004T	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	Laptop, 0.00	Band 12, E-UTRA/FDD	LTE-FDD, 10175-CAG	707.5, 23095	9.93	0.90	54.2

Hardware Setup

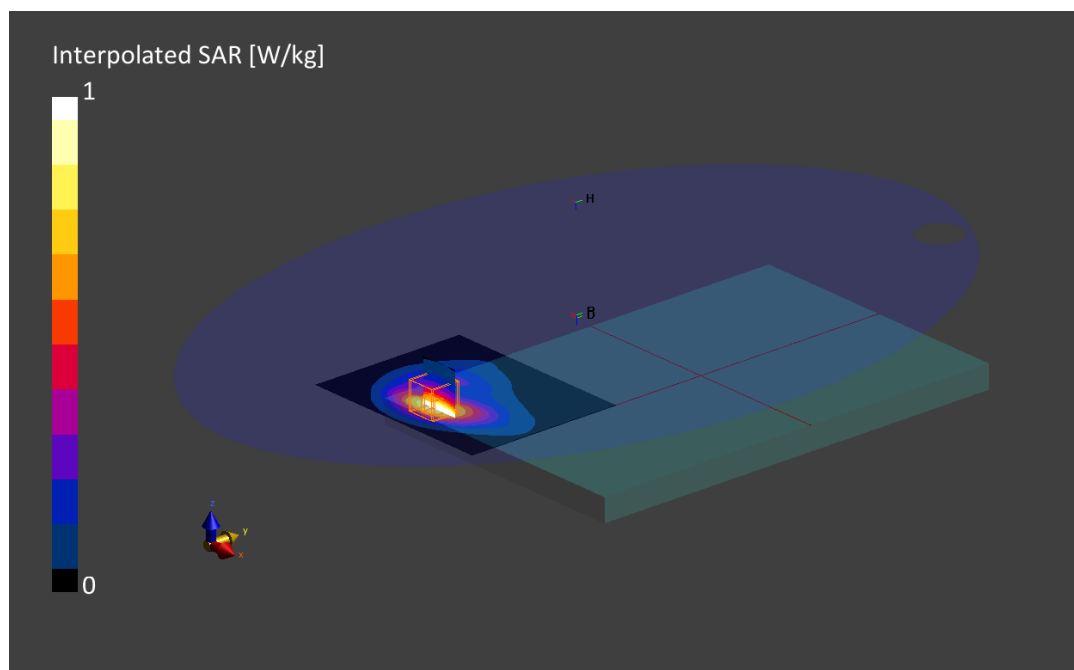
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-May-23	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	150.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-05-24, 17:42	2022-05-24, 17:48
psSAR1g [W/kg]	0.766	0.828
psSAR10g [W/kg]	0.483	0.492
Power Drift [dB]	-0.01	0.03
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		80.0
Dist 3dB Peak [mm]		10.8



6. LTE Band 13, QPSK - 10MHz, CH23230, HighTek Ant 5, Laptop

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004T	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	Laptop, 0.00	Band 13, E- UTRA/FDD	LTE-FDD, 10175-CAG	782.0, 23230	9.93	0.92	54.1

Hardware Setup

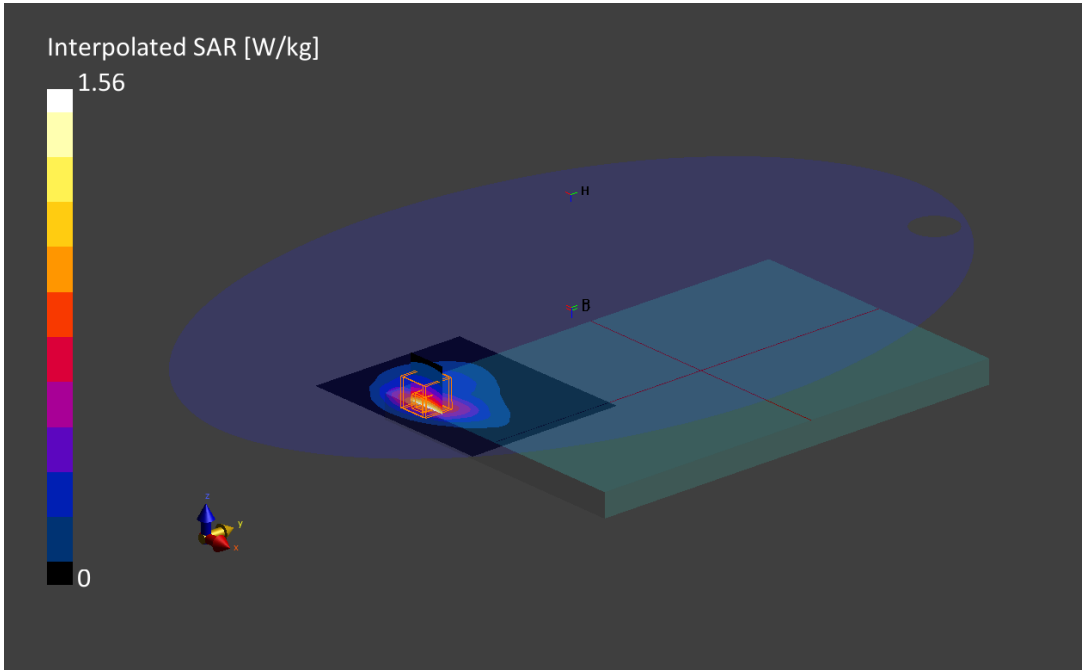
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-May-23	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	150.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-05-24, 19:36	2022-05-24, 19:49
psSAR1g [W/kg]	0.842	0.910
psSAR10g [W/kg]	0.532	0.546
Power Drift [dB]	-0.02	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		82.9
Dist 3dB Peak [mm]		14.4



7. LTE Band 14, QPSK - 10MHz, CH23330, HighTek Ant 5, Back face

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004T	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	BACK, 0.00	Band 14, E- UTRA/FDD	LTE-FDD, 10175-CAG	793.0, 23330	9.69	0.93	54.1

Hardware Setup

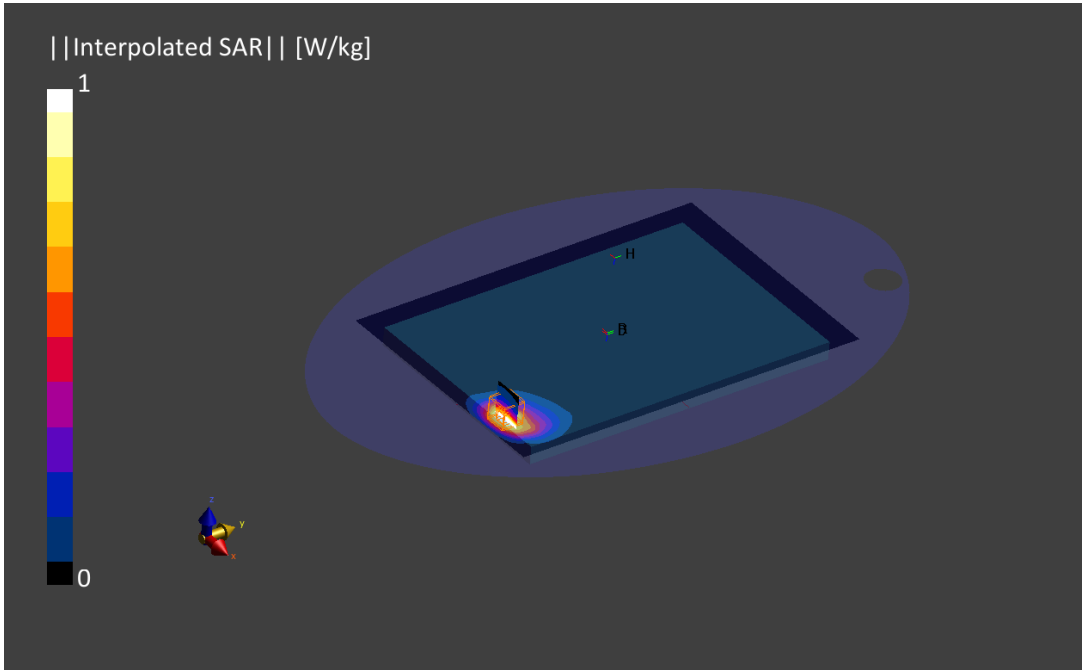
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-May-23	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	240.0 x 360.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-05-24, 20:35	2022-05-24, 20:41
psSAR1g [W/kg]	0.657	0.838
psSAR10g [W/kg]	0.425	0.437
Power Drift [dB]	-0.01	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		76.1
Dist 3dB Peak [mm]		7.6



8. LTE Band 25, QPSK - 20MHz, CH26365, HighTek Ant 5, Laptop

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004T	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	Laptop, 0.00	Band 25, E-UTRA/FDD	LTE-FDD, 10169-CAE	1882.5, 26365	7.93	1.51	52.4

Hardware Setup

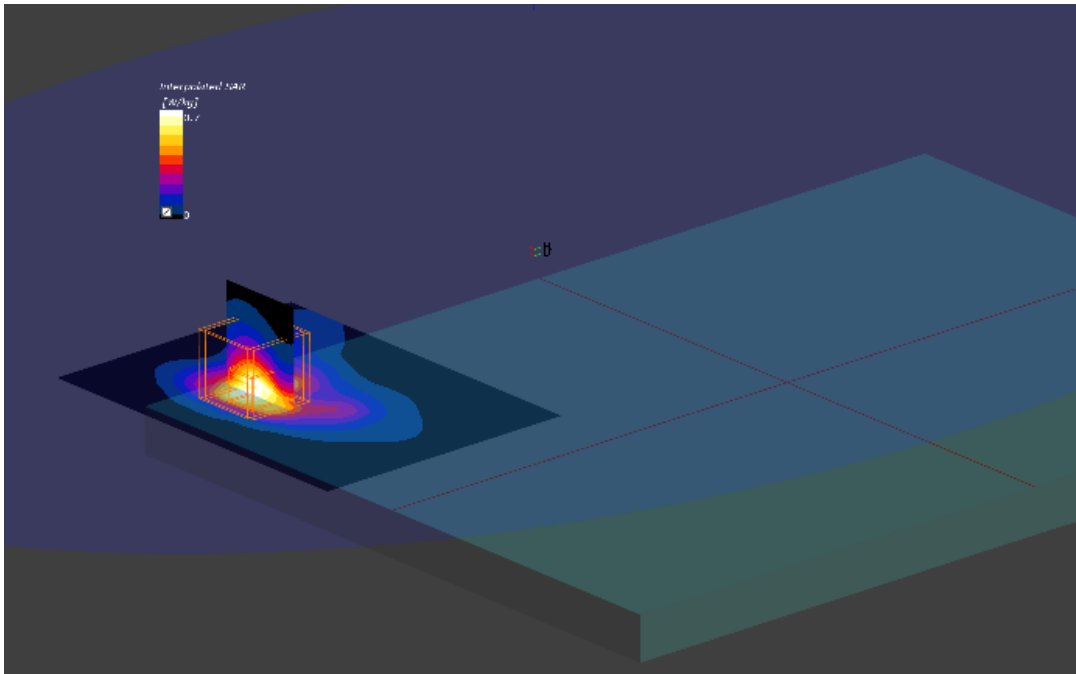
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-May-23	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	150.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-05-25, 02:42	2022-05-25, 02:55
psSAR1g [W/kg]	0.557	0.576
psSAR10g [W/kg]	0.329	0.357
Power Drift [dB]	-0.02	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		82.1
Dist 3dB Peak [mm]		7.7



9. LTE Band 26, QPSK - 15MHz, CH26775, HighTek Ant 5, Laptop

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004T	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	Laptop, 0.00	Band 26, E- UTRA/FDD	LTE-FDD, 10169-CAE	821.5, 26765	9.64	0.94	54.0

Hardware Setup

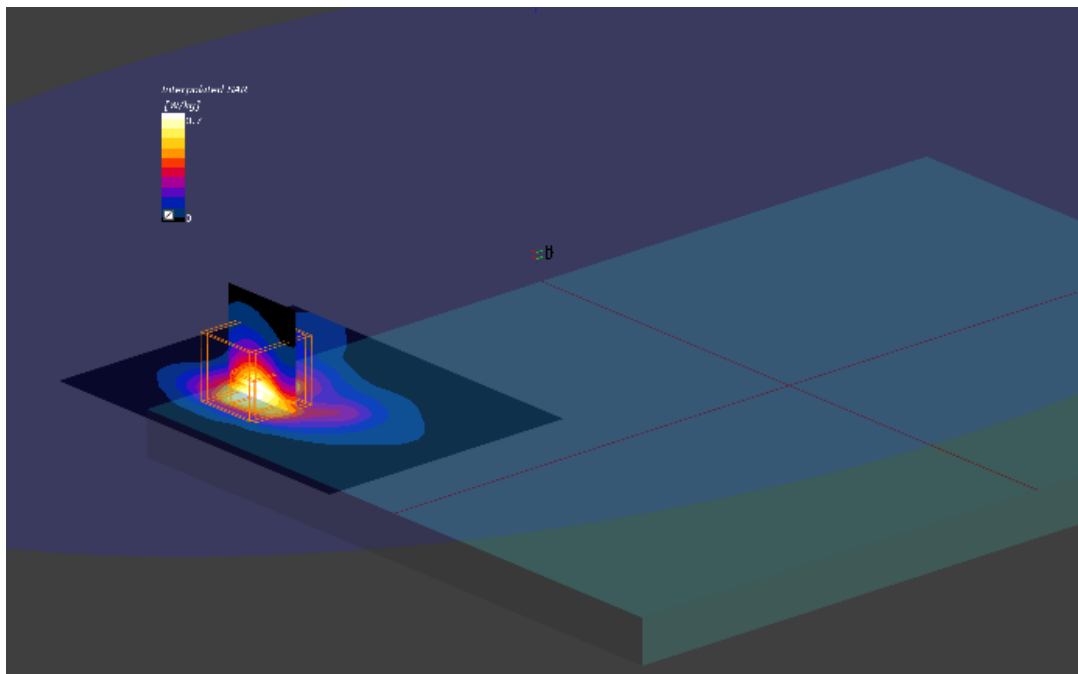
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-May-23	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	150.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-05-25, 10:20	2022-05-25, 10:33
psSAR1g [W/kg]	0.758	0.839
psSAR10g [W/kg]	0.489	0.511
Power Drift [dB]	0.01	0.00
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		85.7
Dist 3dB Peak [mm]		11.3



10.LTE Band 30 - 10MHz, CH27710, Inpaq Ant 5, Back face

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC20100YV	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	BACK, 0.00	Band 30, E-UTRA/FDD	LTE-FDD, 10175-CAG	2310.0, 27710	8.33	1.84	55.6

Hardware Setup

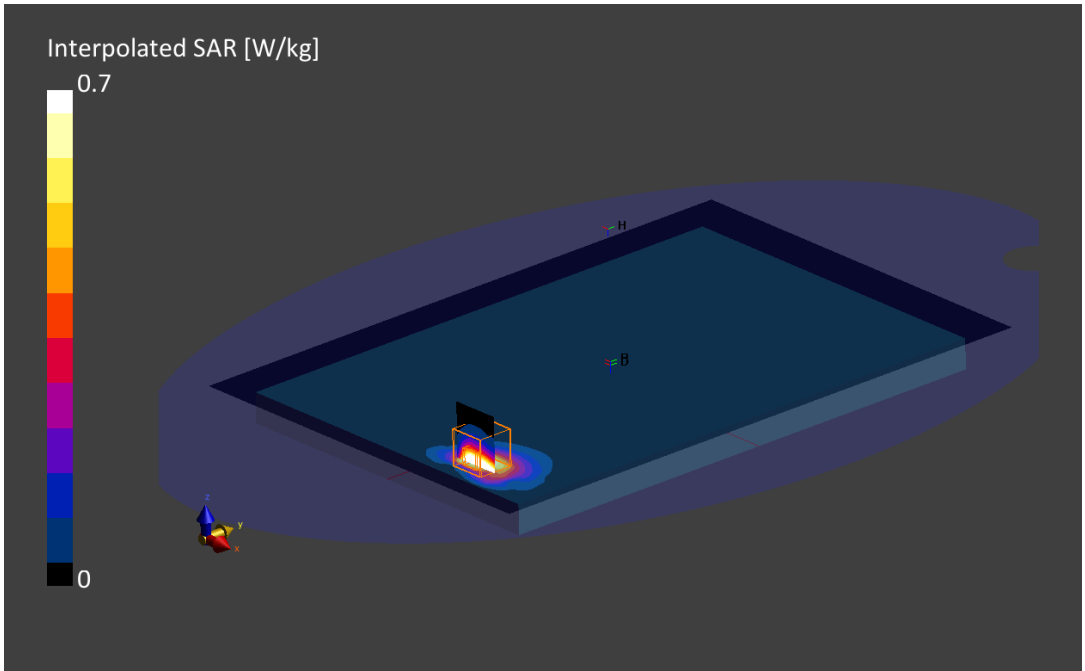
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000 , 2022-Jun-02	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	240.0 x 360.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-04, 03:55	2022-06-04, 04:03
psSAR1g [W/kg]	0.609	0.649
psSAR10g [W/kg]	0.300	0.299
Power Drift [dB]	0.02	0.00
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		74.2
Dist 3dB Peak [mm]		8.0



11. LTE Band 41, QPSK - 20MHz, CH40620, HighTek Ant 5, Left edge

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004T	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	EDGE LEFT, 0.00	Band 41, E-UTRA/TDD	LTE-TDD, 10435-AAF	2593.0, 40620	8.1	2.11	55.2

Hardware Setup

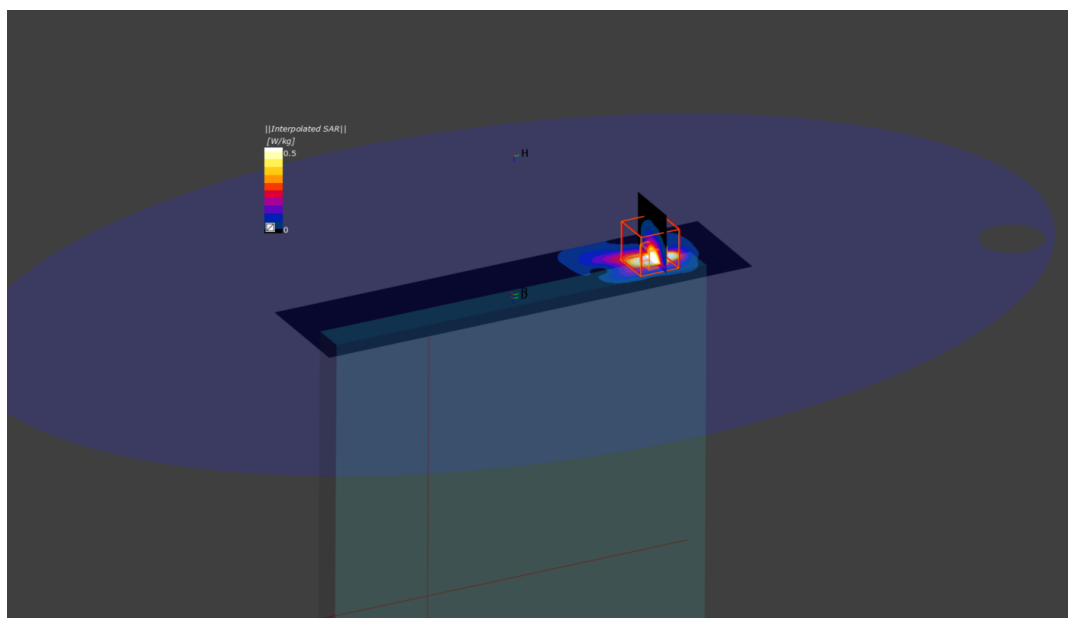
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-02	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 240.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	4.5 x 4.5 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-02, 15:12	2022-06-02, 15:24
psSAR1g [W/kg]	0.453	0.482
psSAR10g [W/kg]	0.184	0.187
Power Drift [dB]	0.01	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		73.1
Dist 3dB Peak [mm]		4.6



12.LTE Band 48, QPSK - 20MHz, CH55340, HighTek Ant 8, Top edge

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC20204T	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	Laptop, 0.00	Band 48, E-UTRA/TDD	LTE-TDD, 10435-AAF	3560.0, 55340	6.07	3.3	49.2

Hardware Setup

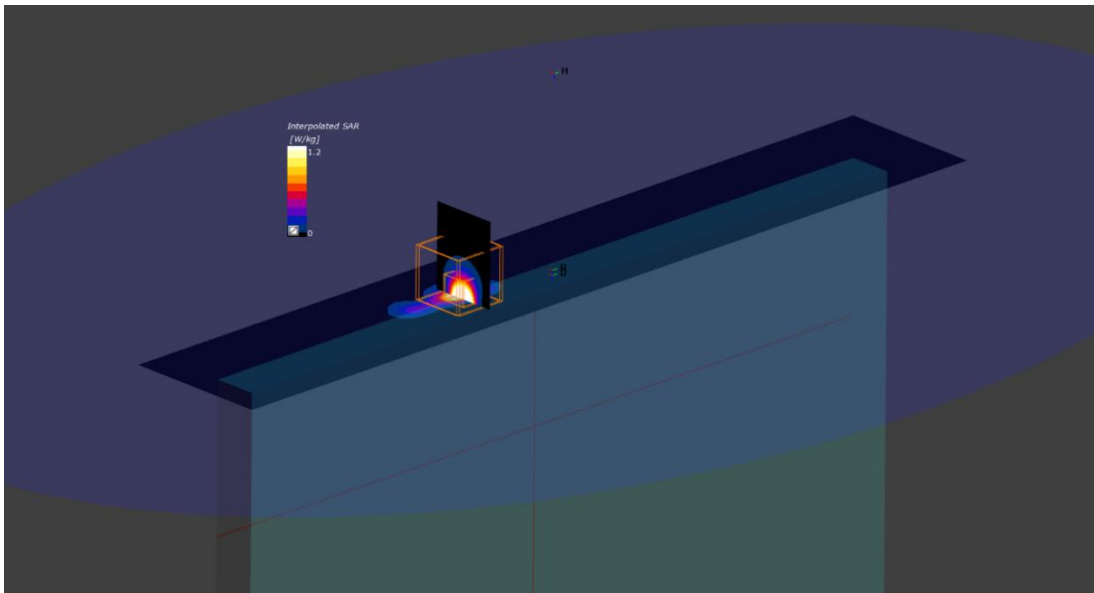
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-06	EX3DV4 - SN7455, 2022-03-21	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 120.0	28.0 x 28.0 x 28.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-06, 13:24	2022-06-06, 13:32
psSAR1g [W/kg]	0.864	1.01
psSAR10g [W/kg]	0.242	0.259
Power Drift [dB]	-0.03	0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		77.4
Dist 3dB Peak [mm]		8.1



13. LTE Band 66, QPSK - 20MHz, CH132072, HighTek Ant 5, Laptop

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004T	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	Laptop, 0.00	Band 66, E-UTRA/FDD	LTE-FDD, 10169-CAE	1770.0, 132572	8.25	1.43	52.5

Hardware Setup

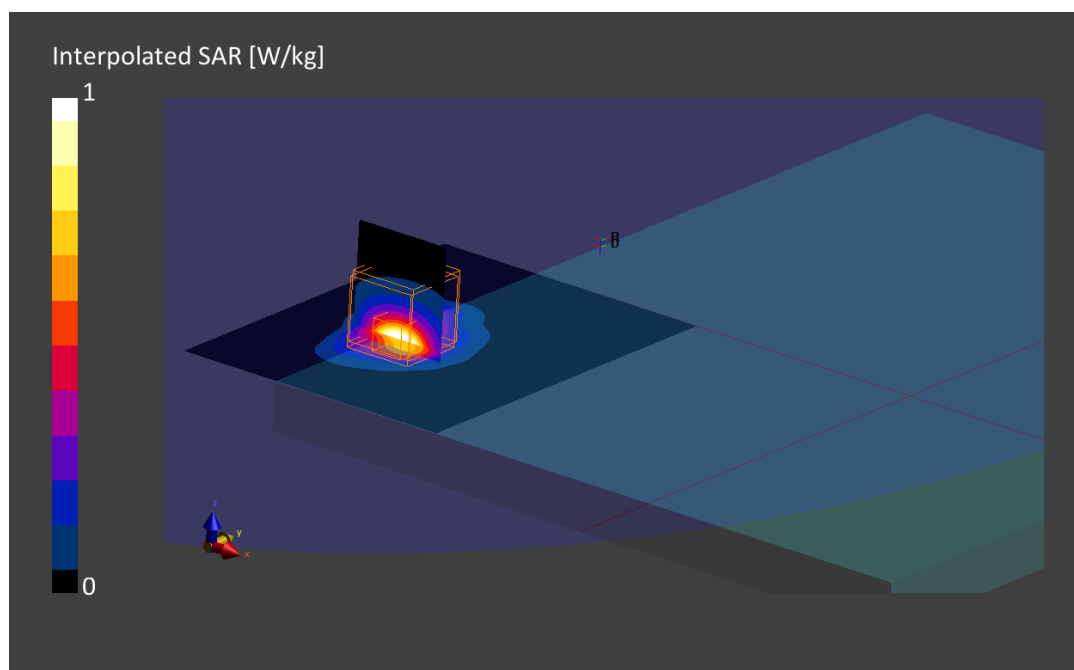
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-May-23	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	150.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-05-25, 00:12	2022-05-25, 00:25
psSAR1g [W/kg]	0.858	0.896
psSAR10g [W/kg]	0.493	0.540
Power Drift [dB]	-0.01	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		84.0
Dist 3dB Peak [mm]		14.5



14. LTE Band 71, QPSK - 20MHz, CH133297, HighTek Ant 5, Laptop

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004T	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	Laptop, 0.00	Band 71, E-UTRA	LTE-FDD, 10169-CAE	680.5, 133297	8.25	0.90	54.4

Hardware Setup

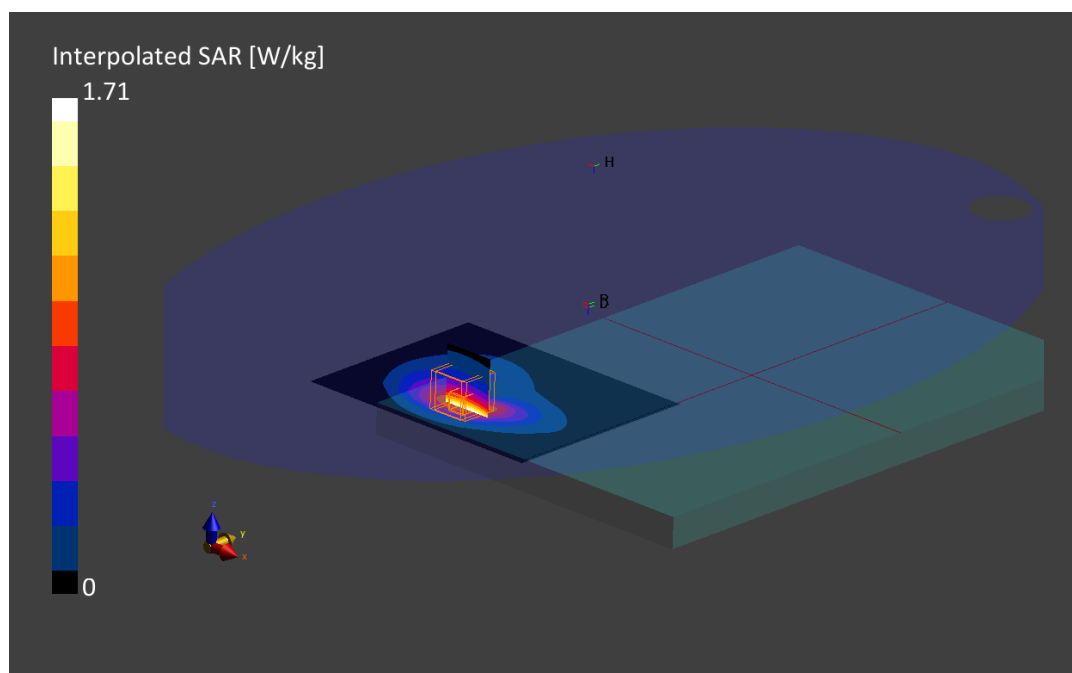
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-09	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	150.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-09, 13:08	2022-06-09, 13:18
psSAR1g [W/kg]	0.885	0.997
psSAR10g [W/kg]	0.587	0.601
Power Drift [dB]	-0.01	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		85.0
Dist 3dB Peak [mm]		10.9



15. 5G NR FR1 Band 2, QPSK - 20MHz, CH376000, HighTek Ant 8, Top Edge

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	8CG1404PSK	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat MSL	EDGE TOP 0.00	Band n2	5G NR FR1 FDD10931AAB	1880.0 376000	8.62	1.53	52.9

Hardware Setup

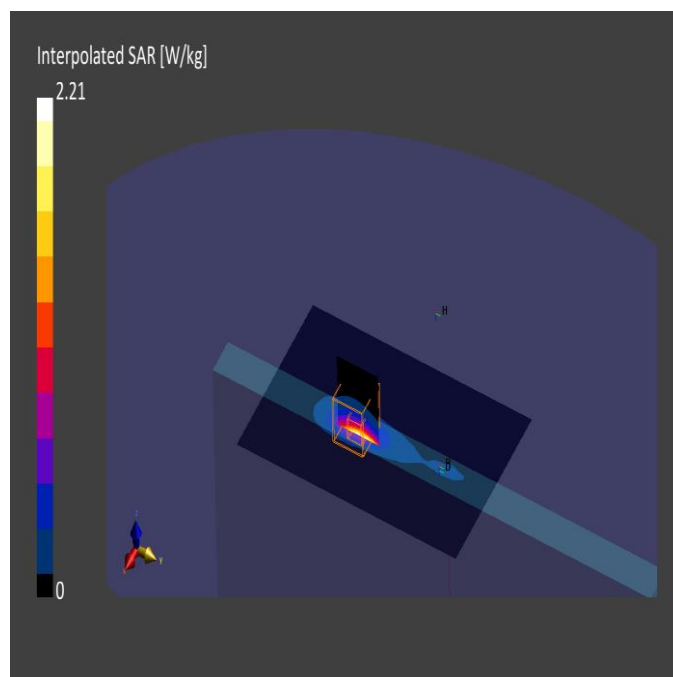
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000 , 2022-May-30	EX3DV4 - SN7604, 2021-08-16	DAE4ip Sn1704, 2022-04-29

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 160.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	Yes	Yes
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-05-31, 15:21	2022-05-31, 15:32
SAR1g [W/Kg]	0.770	0.858
SAR10g [W/Kg]	0.369	0.360
Power Drift [dB]	0.02	0.02
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only



16. 5G NR FR1 Band 5, QPSK - 20MHz, CH167300, HighTek Ant 5, Back Face

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	8CG1404PSK	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat MSL	BACK 0.00	Band n5	5G NR FR1 FDD10939AAB	836.5 167300	9.34	0.97	53.8

Hardware Setup

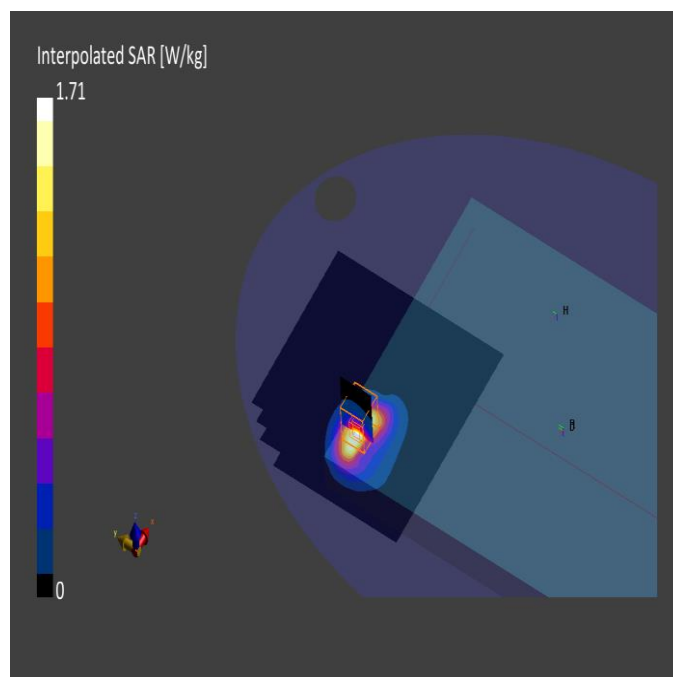
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000, 2022-Jun-03	EX3DV4 - SN7455, 2022-03-21	DAE4ip Sn1704, 2022-04-29

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	160.0 x 160.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	Yes	Yes
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-04	2022-06-04
SAR1g [W/Kg]	0.774	0.790
SAR10g [W/Kg]	0.470	0.413
Power Drift [dB]	-0.01	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only



17. 5G NR FR1 Band 7, QPSK - 20MHz, CH514000, HighTek Ant 5, Laptop

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004S	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat MSL	FRONT 0.00	Band n7	5G NR FR1 FDD10939AAB	2560.0 514000	7.3	2.10	52.0

Hardware Setup

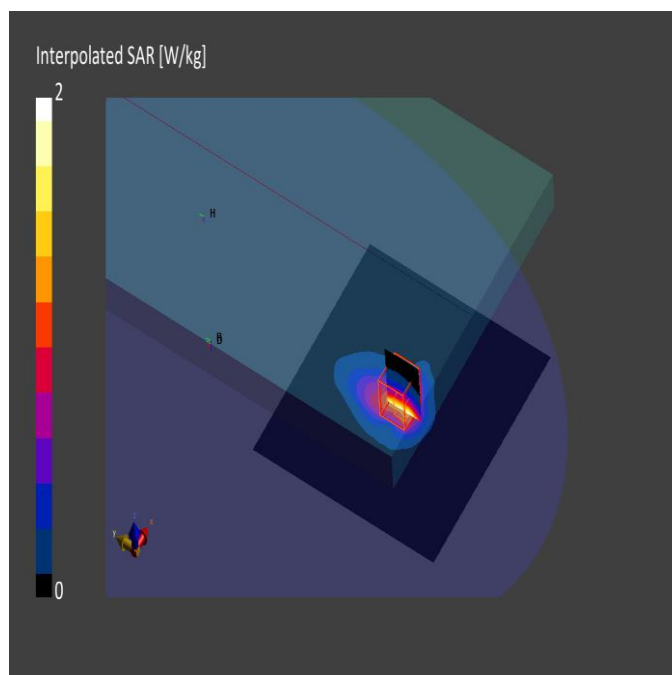
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000 , 2022-May-30	EX3DV4 - SN7455, 2022-03-21	DAE4ip Sn1704, 2022-04-29

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	160.0 x 160.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	Yes	Yes
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-02, 19:10	2022-06-02, 19:21
SAR1g [W/Kg]	1.06	1.12
SAR10g [W/Kg]	0.557	0.599
Power Drift [dB]	0.03	0.05
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only



18. 5G NR FR1 Band 25, QPSK - 20MHz, CH376500, HighTek Ant 5, Laptop

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004S	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat MSL	FRONT 0.00	Band n25	5G NR FR1 FDD10947AAB	1882.5 376500	7.59	1.52	52.9

Hardware Setup

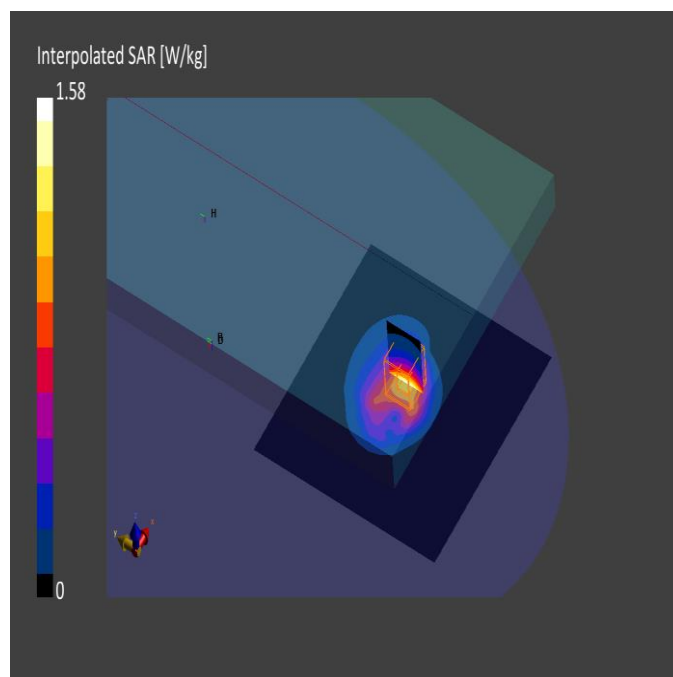
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000 , 2022-May-30	EX3DV4 - SN7455, 2022-03-21	DAE4ip Sn1704, 2022-04-29

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	160.0 x 160.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	Yes	Yes
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-02, 19:43	2022-06-02, 19:52
SAR1g [W/Kg]	0.963	1.01
SAR10g [W/Kg]	0.562	0.619
Power Drift [dB]	0.01	0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only



19. 5G NR FR1 Band 30, QPSK - 10MHz, CH462000, HighTek Ant 5, Laptop

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004S	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat MSL	FRONT 0.00	Band n30	5G NR FR1 FDD10929AAB	2310.0 462000	7.51	1.87	52.3

Hardware Setup

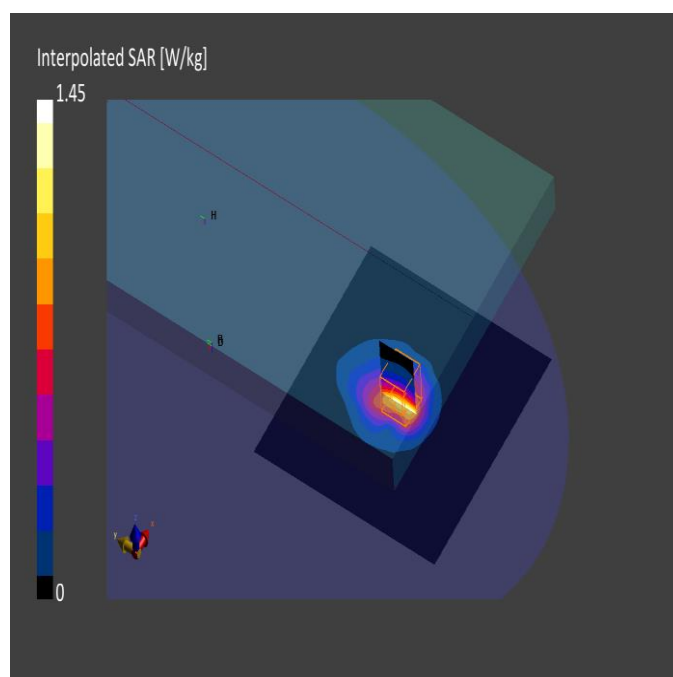
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000 , 2022-May-30	EX3DV4 - SN7455, 2022-03-21	DAE4ip Sn1704, 2022-04-29

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	160.0 x 160.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	Yes	Yes
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-02, 13:00	2022-06-02, 13:10
SAR1g [W/Kg]	0.839	0.879
SAR10g [W/Kg]	0.469	0.508
Power Drift [dB]	0.02	0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only



20. 5G NR FR1 Band 41, QPSK - 100MHz, CH518601, HighTek, Ant5, Laptop

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004S	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	FRONT	Band n41	5G NR FR1 TDD	2593.0 518601	7.3	2.07	56.2

Hardware Setup

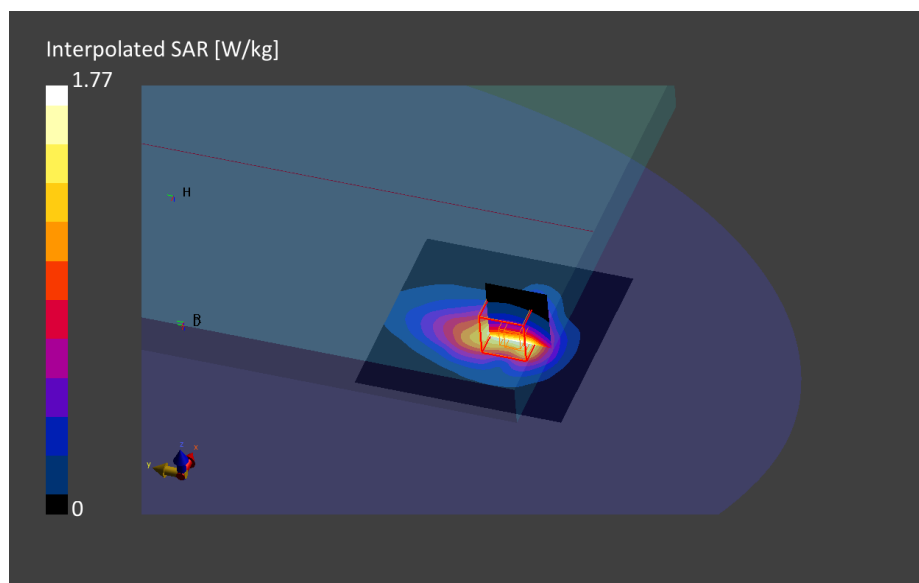
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)2124	MBBL-600-6000 2022-Jun-03	EX3DV4 - SN7455	DAE4ip Sn1704

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0	30.030.030.0
Grid Steps [mm]	10.0	5.05.01.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	Yes	Yes
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-03, 12:30	2022-06-03, 12:40
psSAR1g [W/kg]	0.914	0.965
psSAR10g [W/kg]	0.474	0.515
Power Drift [dB]	-0.01	0.06
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		82.8
Dist 3dB Peak [mm]		11.3



21. 5G NR FR1 Band 66, QPSK - 40MHz, CH349000, INPAQ Ant 5, Laptop

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	8CG1404P5L	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat MSL	FRONT 0.00	Band n66	5G NR FR1 FDD10942AAB	1745.0 349000	7.91	1.50	55.8

Hardware Setup

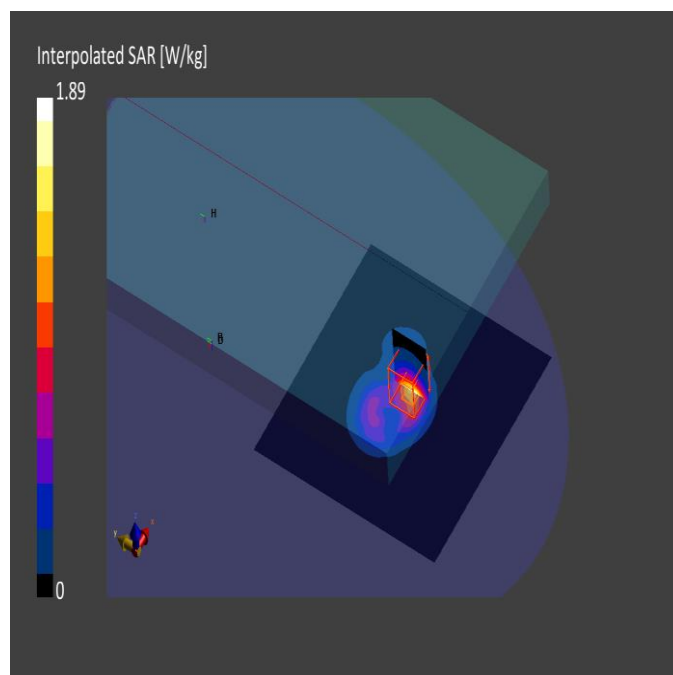
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000 , 2022-May-23	EX3DV4 - SN7455, 2022-03-21	DAE4 Sn1517, 2021-03-11

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	160.0 x 160.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	Yes	Yes
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-05-25, 01:40	2022-05-25, 01:49
SAR1g [W/Kg]	1.02	1.07
SAR10g [W/Kg]	0.559	0.597
Power Drift [dB]	0.07	0.12
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only



22. 5G NR FR1 Band 71, QPSK - 20MHz, CH136100, HighTek Ant 5, Backface**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	ABC202004S	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	BACK, 0.00	Band n71	5G NR FR1 FDD, 10939-AAB	680.5, 136100	9.69	0.95	54.0

Hardware Setup

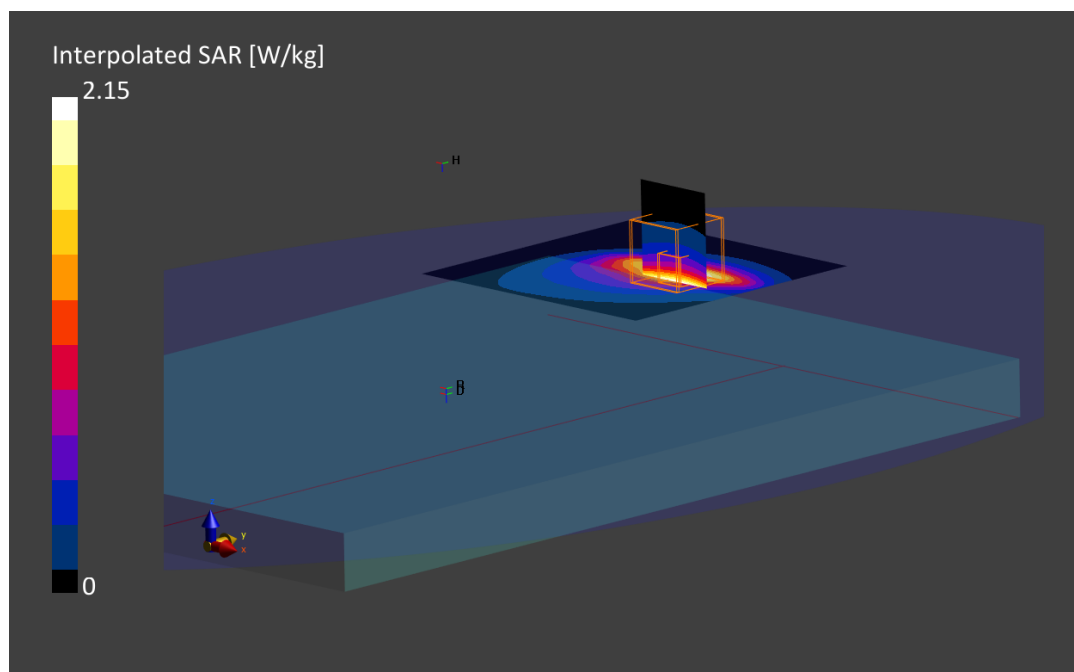
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000, 2022-Jun-10	EX3DV4 - SN7455, 2022-03-21	DAE4ip Sn1704, 2022-04-29

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 100.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-10, 18:48	2022-06-10, 18:56
psSAR1g [W/Kg]	0.964	0.977
psSAR10g [W/Kg]	0.594	0.512
Power Drift [dB]	0.04	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		74.4
Dist 3dB Peak [mm]		10.8



23. 5G NR FR1 Band 77, QPSK - 100MHz, CH650000, INPAQ, Ant 5, Back Face

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
TPN-W155	320.0 x 210.0 x 18.0	8CG1404P5L	Convertible PC

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	BACK	Band n77	5G NR FR1 TDD	3750.0 650000	6.13	3.27	54.3

Hardware Setup

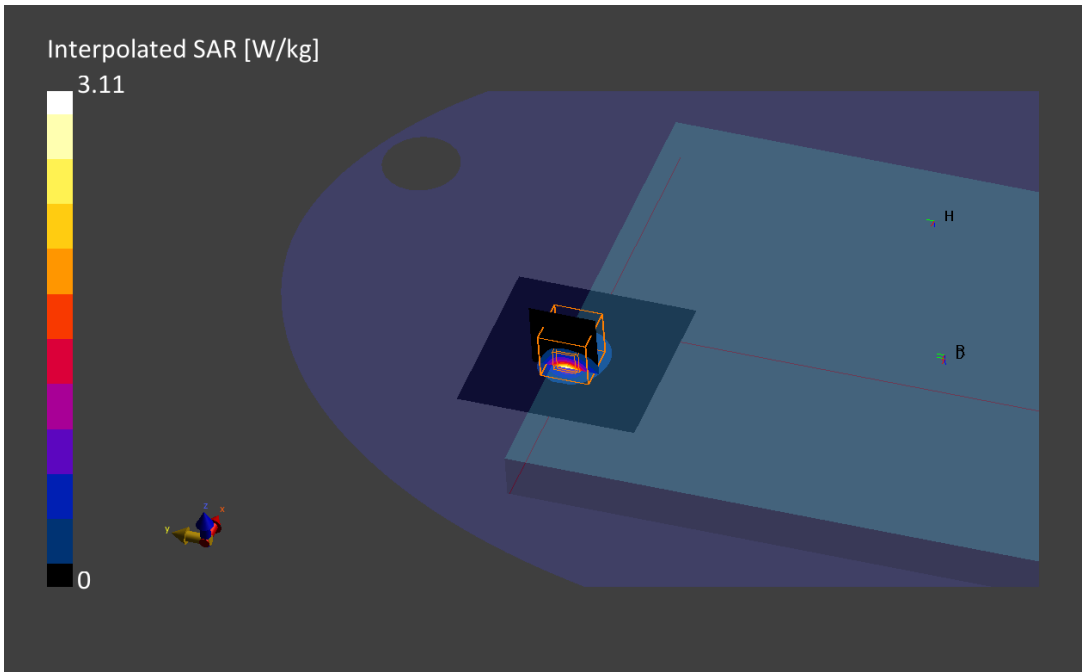
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)2124	MBBL-600-6000 2022-Jun-07	EX3DV4 - SN7455	DAE4ip Sn1704

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0	28.028.028.0
Grid Steps [mm]	10.0	5.05.01.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	Yes	Yes
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-07, 18:37	2022-06-07, 18:47
psSAR1g [W/kg]	0.873	1.03
psSAR10g [W/kg]	0.334	0.354
Power Drift [dB]	-0.02	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		72.1
Dist 3dB Peak [mm]		5.8



24. System Check Body Liquid 750MHz – 2022-06-09 – System2

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
Dipole 750MHz, SPEAG	50.0 x 10.0 x 8.0	1136	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	,		, 0--	750.0, 0	9.63	0.93	54.3

Hardware Setup

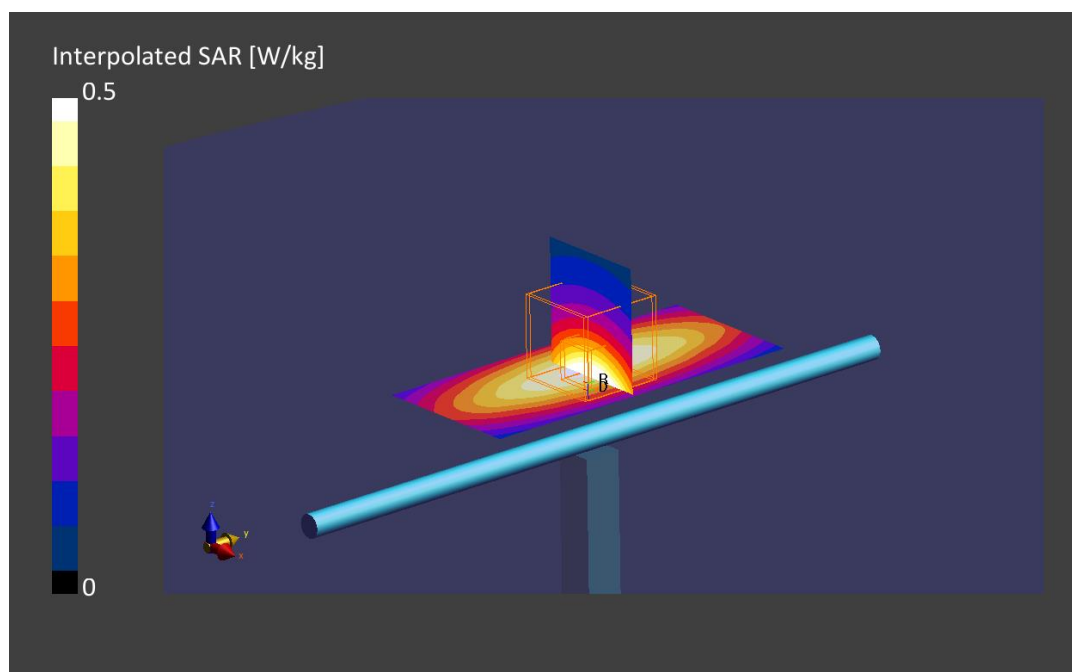
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-09	EX3DV4 - SN7604, 2021-08-16	DAE4ip Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-09, 12:25	2022-06-09, 12:30
psSAR1g [W/kg]	0.413	0.413
psSAR10g [W/kg]	0.276	0.277
Power Drift [dB]	0.01	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		87.7
Dist 3dB Peak [mm]		23.1



25. System Check Body Liquid 750MHz – 2022-05-24 – System2

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
Dipole 750MHz, SPEAG	50.0 x 10.0 x 8.0	1136	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	,		, 0--	750.0, 0	9.63	0.91	54.2

Hardware Setup

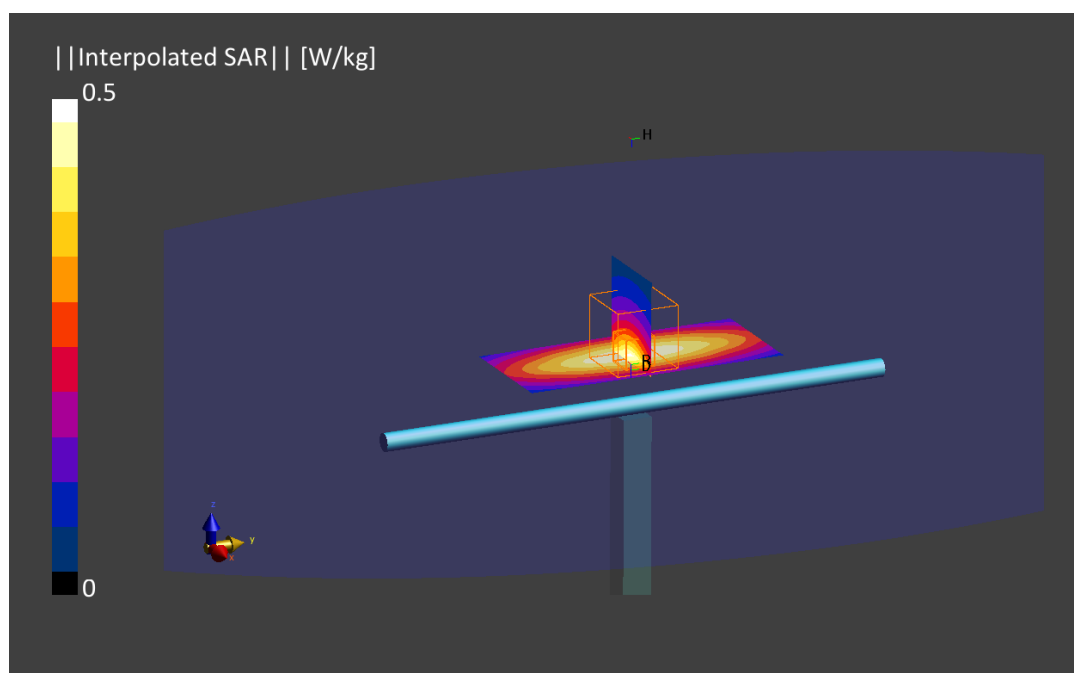
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-May-23	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-05-24, 17:04	2022-05-24, 17:09
psSAR1g [W/kg]	0.399	0.399
psSAR10g [W/kg]	0.264	0.264
Power Drift [dB]	-0.00	0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		87.5
Dist 3dB Peak [mm]		22.9



26. System Check Body Liquid 750MHz – 2022-06-10 – System4

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Dipole 750MHz, SPEAG	50.0 x 10.0 x 8.0	1136	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	,		, 0--	750.0, 0	9.69	0.97	53.8

Hardware Setup

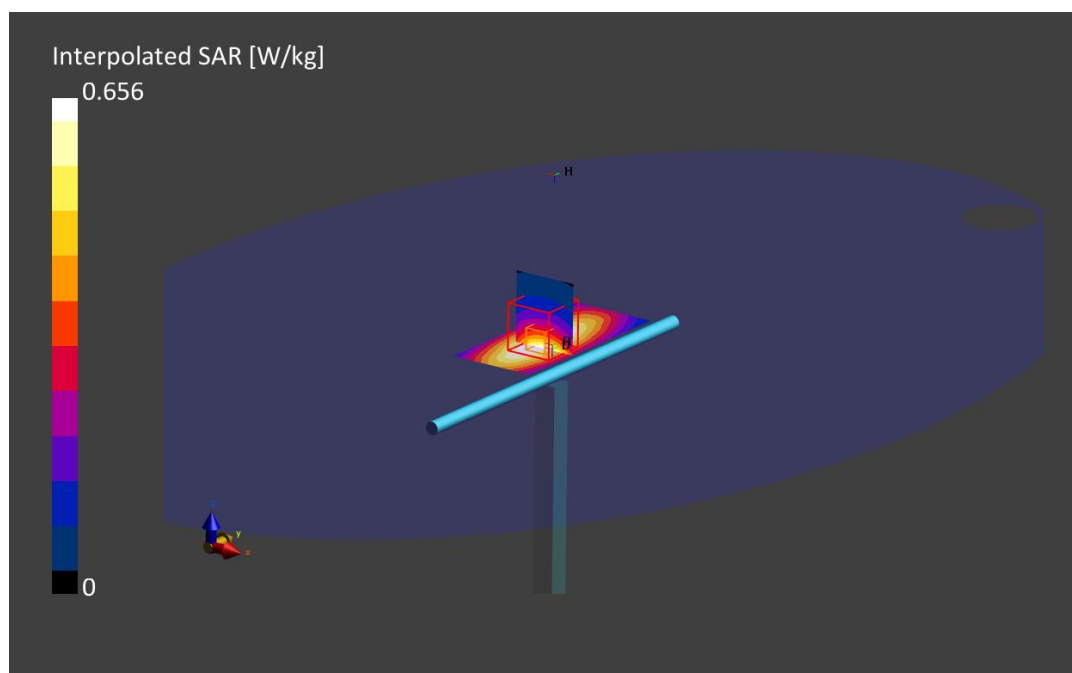
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000, 2022-Jun-10	EX3DV4 - SN7455, 2022-03-21	DAE4ip Sn1704, 2022-04-29

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-10, 07:40	2022-06-10, 07:46
psSAR1g [W/Kg]	0.415	0.414
psSAR10g [W/Kg]	0.276	0.271
Power Drift [dB]	0.00	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		85.9
Dist 3dB Peak [mm]		17.7



27. System Check Body Liquid 835MHz – 2022-05-25 – System2

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
Dipole 835MHz, SPEAG	50.0 x 10.0 x 8.0	4d192	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	,		, 0--	835.0,	9.34	0.94	54.0

Hardware Setup

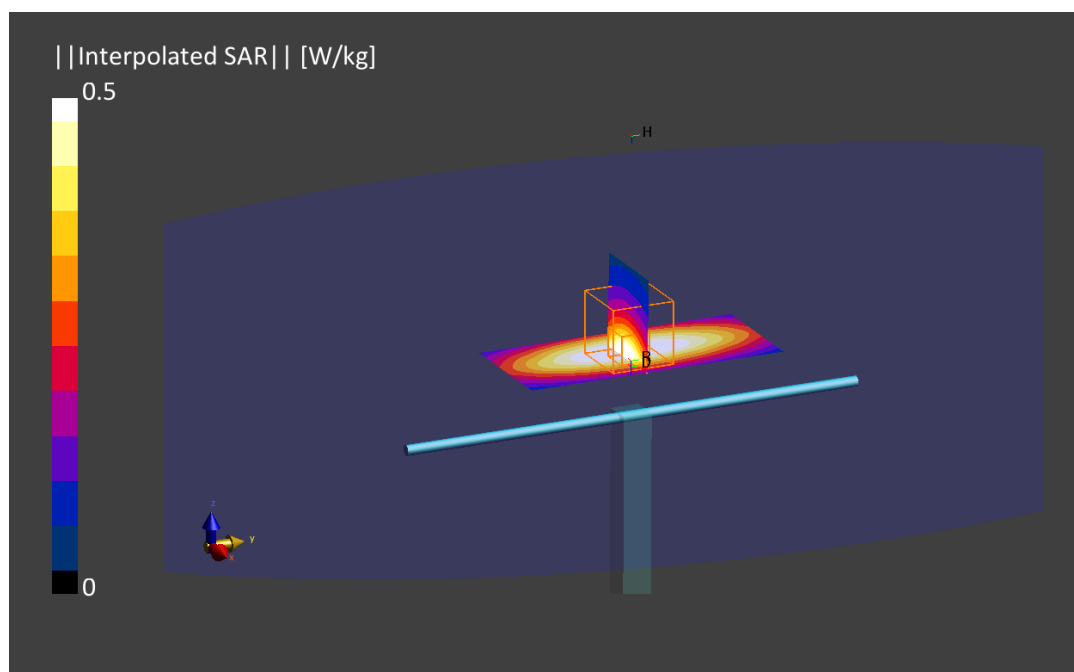
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000 , 2022-May-23	EX3DV4 - SN7455, 2022-03-21	DAE4ip Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-05-25, 09:30	2022-05-25, 09:35
psSAR1g [W/kg]	0.467	0.472
psSAR10g [W/kg]	0.307	0.311
Power Drift [dB]	0.00	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		86.1
Dist 3dB Peak [mm]		16.8



28. System Check Body Liquid 835MHz – 2022-06-02 – System2

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
Dipole 835MHz, SPEAG	50.0 x 10.0 x 8.0	4d192	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	,		, 0--	835.0, 0	9.79	0.92	57.6

Hardware Setup

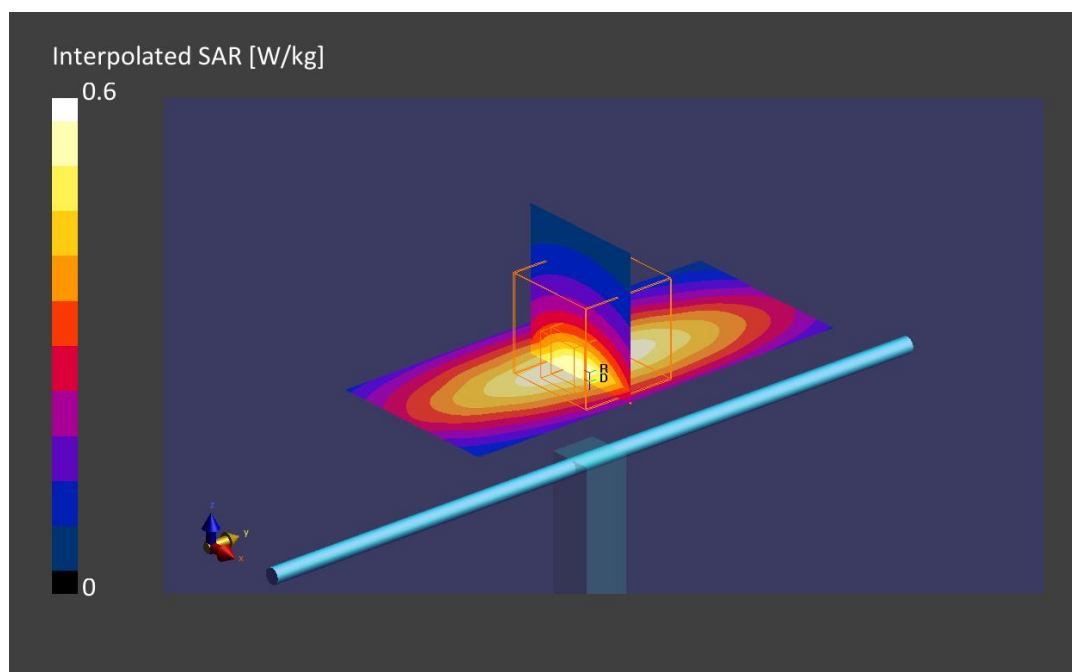
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-02	EX3DV4 - SN7455, 2022-03-21	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-02, 15:54	2022-06-02, 16:00
psSAR1g [W/kg]	0.479	0.482
psSAR10g [W/kg]	0.314	0.318
Power Drift [dB]	0.01	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		84.6
Dist 3dB Peak [mm]		15.6



29. System Check Body Liquid 835MHz – 2022-06-04 – System4

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
Dipole 835MHz, SPEAG	50.0 x 10.0 x 8.0	4d192	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat MSL			,	835.0	9.34	0.98	53.8

Hardware Setup

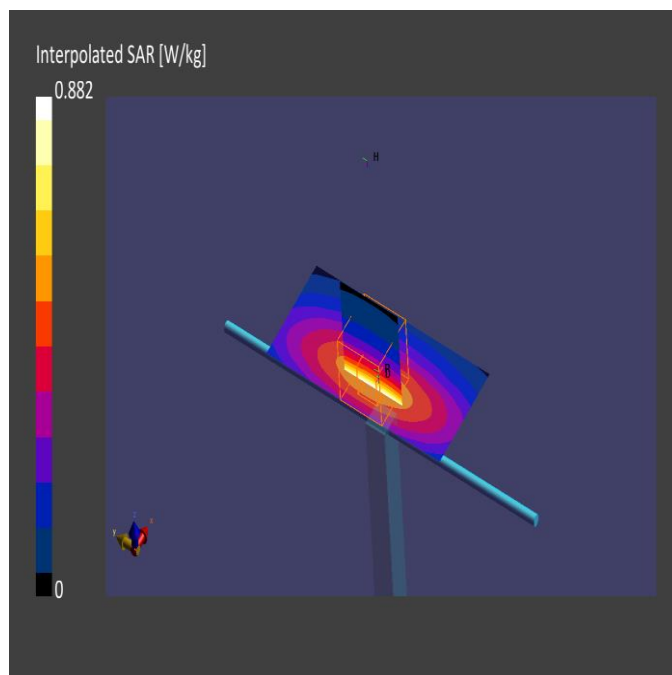
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000 , 2022-Jun-03	EX3DV4 - SN7455, 2022-03-21	DAE4ip Sn1704, 2022-04-29

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	Yes	Yes
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-04, 10:26	2022-06-04, 10:32
psSAR1g [W/Kg]	0.506	0.513
psSAR10g [W/Kg]	0.333	0.324
Power Drift [dB]	0.01	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only



30. System Check Body Liquid 1750MHz – 2022-05-25 – System2

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
Dipole 1750MHz, SPEAG	50.0 x 10.0 x 8.0	1133	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat MSL			,	1750.0, 0	8.26	1.42	52.6

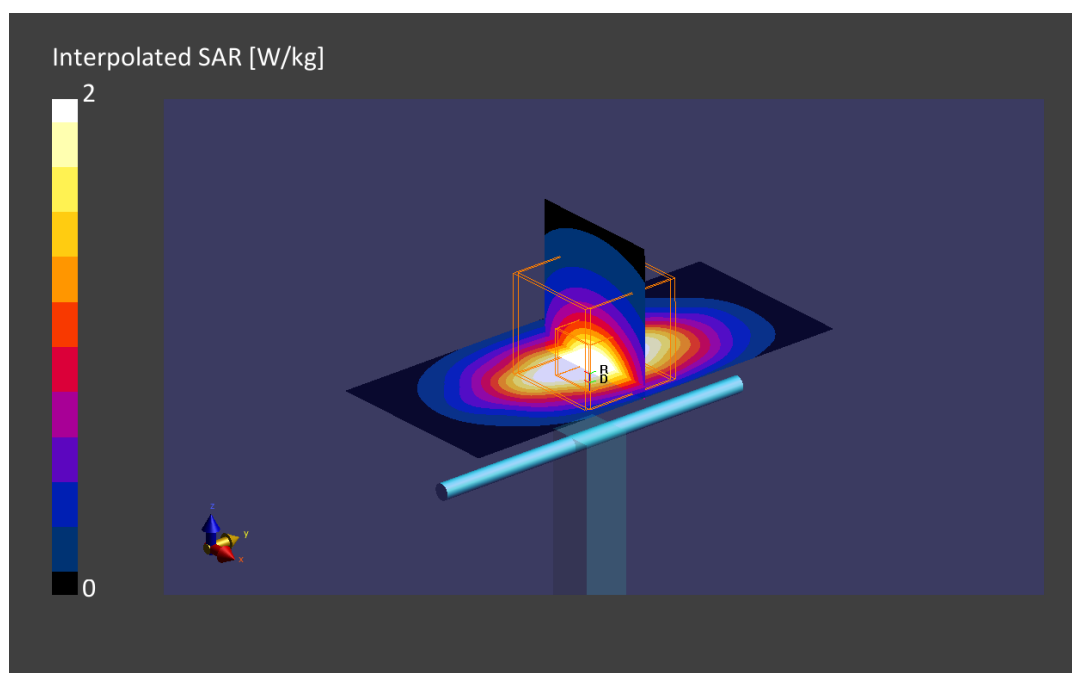
Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000, 2022-May-23	EX3DV4 - SN7465, 2021-07-23	DAE4 Sn1628, 2021-08-06

Scan Setup

Measurement Results

	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0	Date	2022-05-25, 10:26	2022-05-25, 10:31
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5	psSAR1g [W/Kg]	1.91	1.91
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/Kg]	0.999	1.00
Graded Grid	Yes	Yes	Power Drift [dB]	-0.02	0.01
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	Confirmed by MAIA	Confirmed by MAIA	Scaling Factor [dB]		
Surface Detection	Yes	Yes	TSL Correction	Positive Only	Positive Only
Scan Method	Measured	Measured			



31. System Check Body Liquid 1750MHz – 2022-06-02 – System2

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
Dipole 1750MHz, SPEAG	50.0 x 10.0 x 8.0	1133	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	,		, 0--	1750.0, 0	8.37	1.40	56.3

Hardware Setup

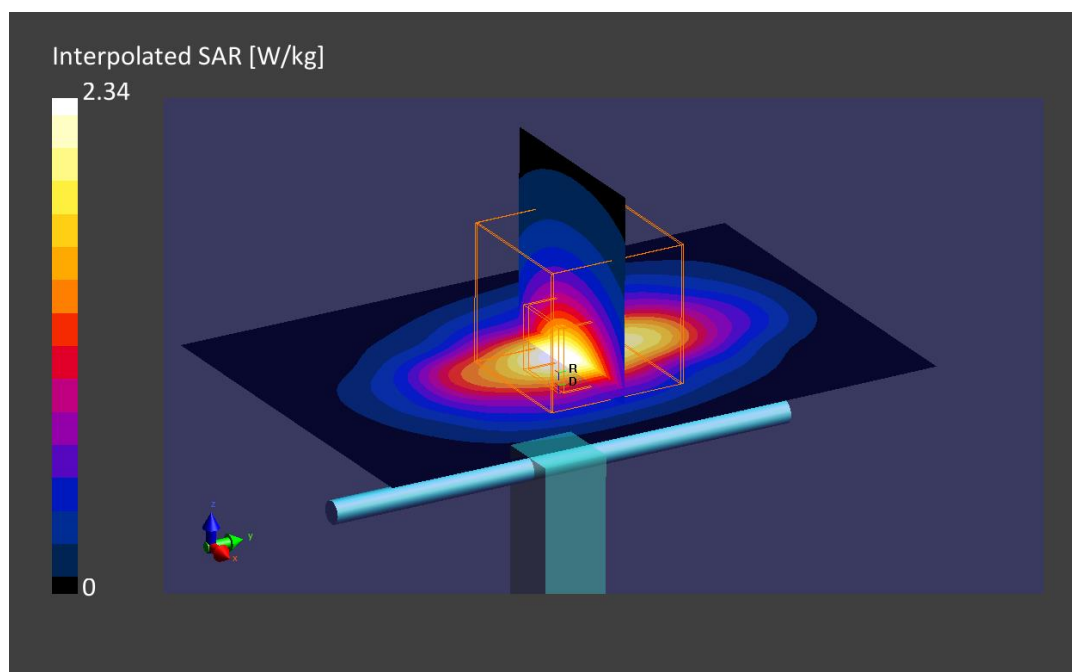
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-02	EX3DV4 - SN7455, 2022-03-21	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-02, 14:54	2022-06-02, 15:04
psSAR1g [W/kg]	1.82	1.80
psSAR10g [W/kg]	0.953	0.973
Power Drift [dB]	-0.01	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		81.9
Dist 3dB Peak [mm]		9.9



32. System Check Body Liquid 1750MHz – 2022-05-24 – System4

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
Dipole 1750MHz, SPEAG	50.0 x 10.0 x 20.0	1133	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat MSL			,	1750.0	7.91	1.50	55.8

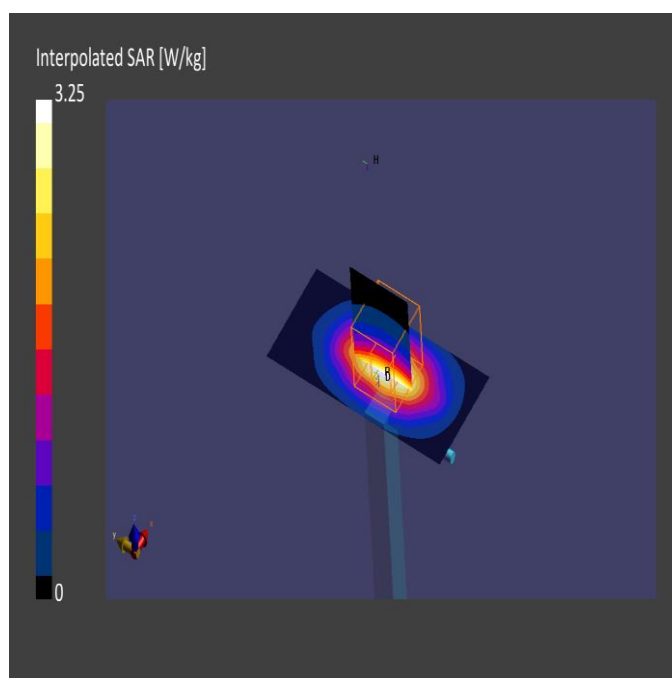
Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000 , 2022-May-23	EX3DV4 - SN7455, 2022-03-21	DAE4 Sn1517, 2021-03-11

Scan Setup

Measurement Results

	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0	Date	2022-05-24, 17:53	2022-05-24, 17:59
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5	psSAR1g [W/Kg]	1.72	1.75
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/Kg]	0.912	0.923
Graded Grid	Yes	Yes	Power Drift [dB]	-0.04	0.04
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	Confirmed by MAIA	Confirmed by MAIA	Scaling Factor		
Surface Detection	Yes	Yes	[dB]		
Scan Method	Measured	Measured	TSL Correction	Positive Only	Positive Only



33. System Check Body Liquid 1900MHz – 2022-05-25 - System2

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
Dipole 1900MHz, SPEAG	50.0 x 10.0 x 8.0	5d197	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	,		, 0--	1900.0, 0	7.59	1.50	55.8

Hardware Setup

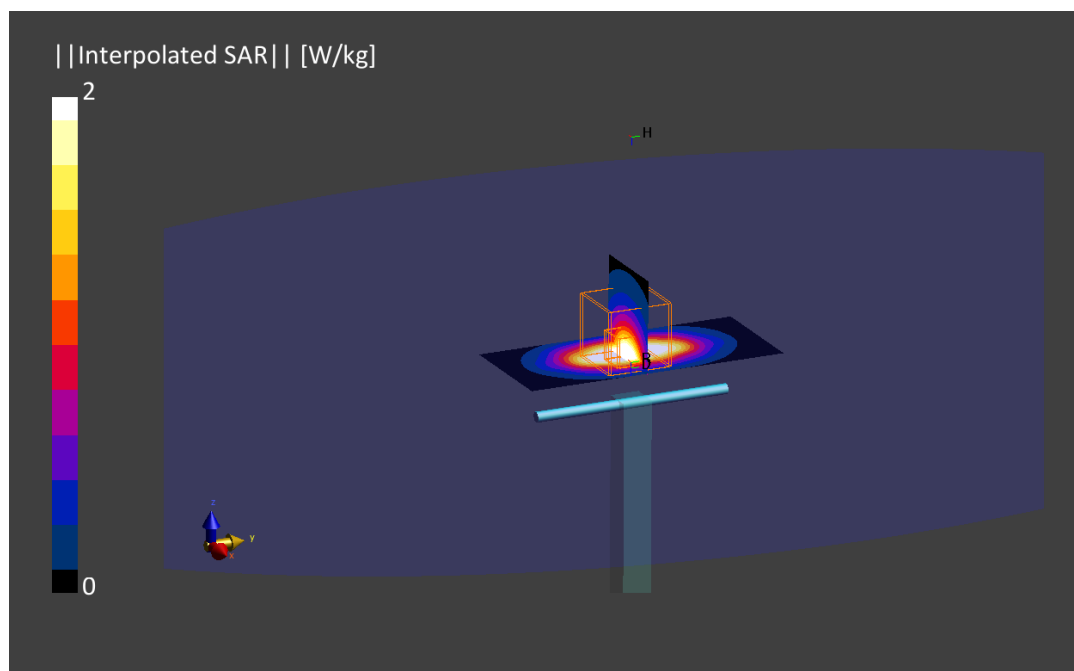
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-May-23	EX3DV4 - SN7455, 2022-03-21	DAE4ip Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-05-25, 09:41	2022-05-25, 09:46
psSAR1g [W/kg]	2.02	2.01
psSAR10g [W/kg]	1.03	1.06
Power Drift [dB]	-0.03	-0.09
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		83.7
Dist 3dB Peak [mm]		9.6



34. System Check Body Liquid 1900MHz – 2022-06-02 - System2

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	S/N	DUT Type
Dipole 1900MHz, SPEAG	50.0 x 10.0 x 8.0	5d197	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	,		, 0--	1900.0, 0	8.62	1.51	56.1

Hardware Setup

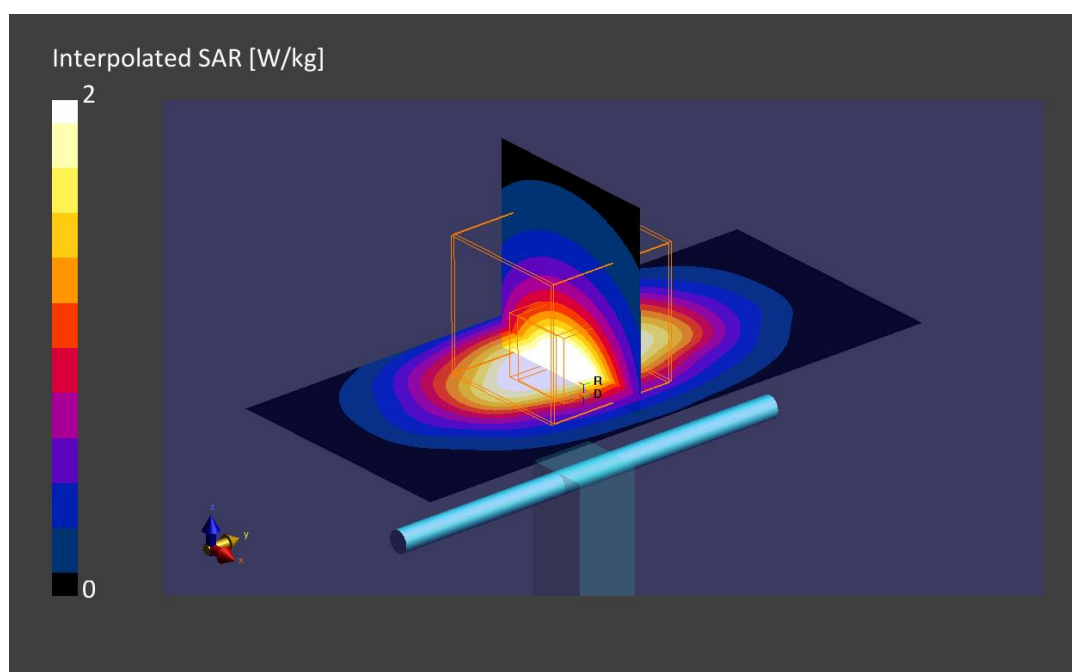
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-02	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-02, 10:12	2022-06-02, 10:17
psSAR1g [W/kg]	2.03	2.02
psSAR10g [W/kg]	1.04	1.07
Power Drift [dB]	-0.01	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		84.7
Dist 3dB Peak [mm]		9.6



35. System Check Body Liquid 1900MHz – 2022-06-02 – System4

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
Dipole 1900MHz, SPEAG	50.0 x 10.0 x 20.0	5d197	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat MSL			,	1900.0	7.59	1.50	52.8

Hardware Setup

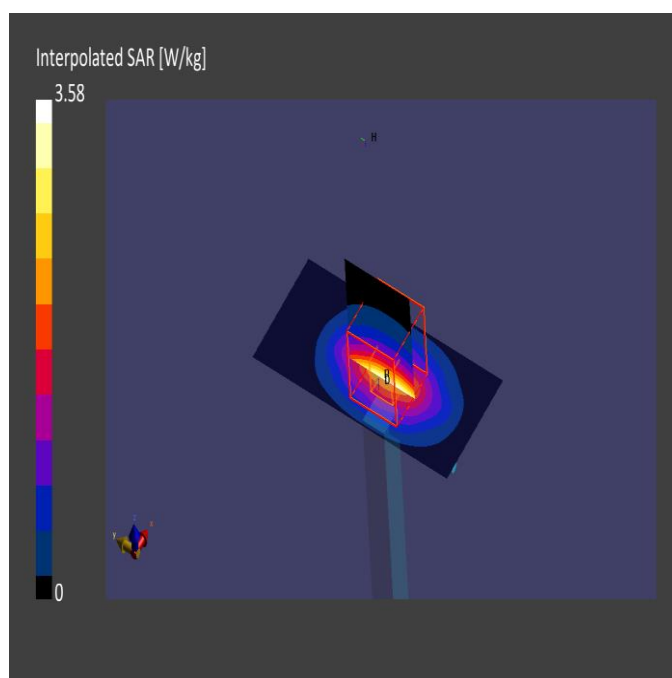
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000 , 2022-May-30	EX3DV4 - SN7455, 2022-03-21	DAE4ip Sn1704, 2022-04-29

Scan Setup

Measurement Results

Area Scan			Zoom Scan		
Grid Extents [mm]	40.0 x 90.0		30.0 x 30.0 x 30.0		
Grid Steps [mm]	10.0 x 15.0		6.0 x 6.0 x 1.5		
Sensor Surface [mm]	3.0		1.4		
Graded Grid	Yes		Yes		
Grading Ratio	1.5		1.5		
MAIA	Confirmed by MAIA		Confirmed by MAIA		
Surface Detection	Yes		Yes		
Scan Method	Measured		Measured		

Area Scan			Zoom Scan		
Date	2022-06-02, 10:32		2022-06-02, 10:38		
psSAR1g [W/Kg]	1.94		1.93		
psSAR10g [W/Kg]	0.992		1.00		
Power Drift [dB]	-0.04		-0.02		
Power Scaling	Disabled		Disabled		
Scaling Factor					
TSL Correction	Positive Only		Positive Only		



36. System Check Body Liquid 1900MHz – 2022-05-31 – System4

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
Dipole 1900MHz, SPEAG	50.0 x 10.0 x 20.0	5d197	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat MSL			,	1900.0	8.62	1.55	52.8

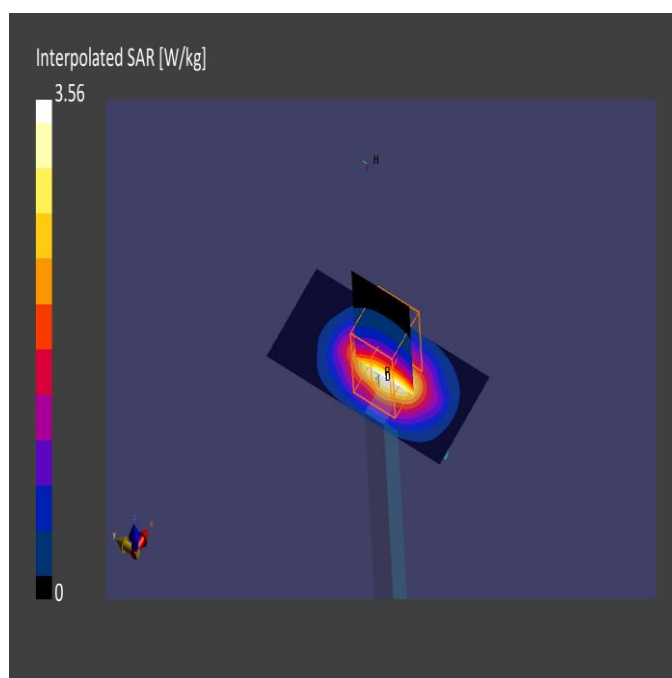
Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000 , 2022-May-30	EX3DV4 - SN7604, 2021-08-16	DAE4ip Sn1704, 2022-04-29

Scan Setup

Measurement Results

	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0	Date	2022-05-31, 10:26	2022-05-31, 10:32
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5	psSAR1g [W/Kg]	1.97	1.96
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/Kg]	1.01	1.02
Graded Grid	Yes	Yes	Power Drift [dB]	0.00	0.03
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	Confirmed by MAIA	Confirmed by MAIA	Scaling Factor		
Surface Detection	Yes	Yes	[dB]		
Scan Method	Measured	Measured	TSL Correction	Positive Only	Positive Only



37. System Check Body Liquid 2300MHz - System2

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D2300MHz, SPEAG	50.0 x 10.0 x 8.0	1046	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	,		, 0--	2300.0, 0	8.33	1.83	55.6

Hardware Setup

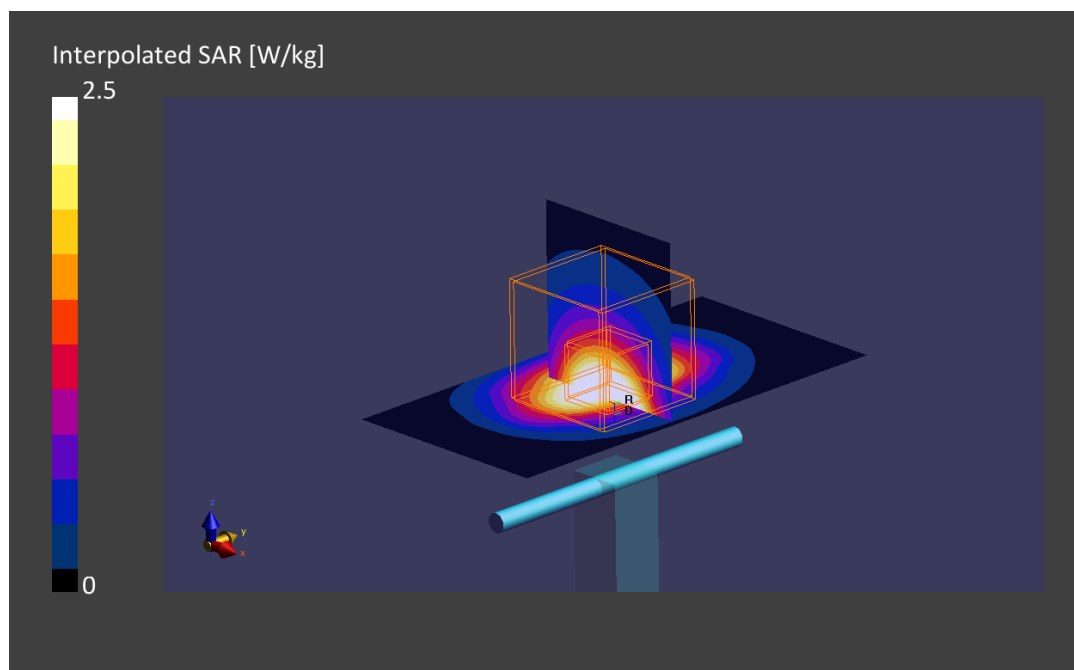
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-02	EX3DV4 - SN7604, 2021-08-16	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-04, 09:56	2022-06-04, 10:03
psSAR1g [W/kg]	2.31	2.37
psSAR10g [W/kg]	1.11	1.14
Power Drift [dB]	0.00	0.04
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		82.7
Dist 3dB Peak [mm]		9.0



38. System Check Body Liquid 2300MHz – 2022-06-02 – System 4

Device under Test Properties

Name, Manufacturer		Dimensions [mm]		Serial Number		DUT Type	
D2300MHZ, SPEAG		50.0 x 10.0 x 8.0		1046		Validation Dipole	
Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat MSL			,	2300.0	7.51	1.85	52.3

Hardware Setup

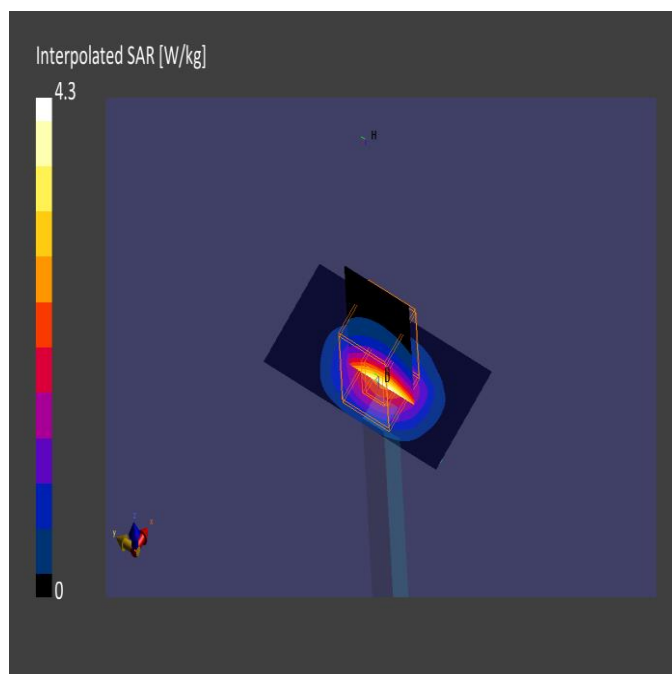
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000 , 2022-May-30	EX3DV4 - SN7455, 2022-03-21	DAE4ip Sn1704, 2022-04-29

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	Yes	Yes
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-02, 10:44	2022-06-02, 10:51
psSAR1g [W/Kg]	2.14	2.19
psSAR10g [W/Kg]	1.04	1.05
Power Drift [dB]	-0.02	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only



39. System Check Body Liquid 2600MHz – 2022-06-02 - System2

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D2600MHz, SPEAG	50.0 x 10.0 x 8.0	1100	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	,		, 0--	2600.0, 0	7.24	2.12	55.2

Hardware Setup

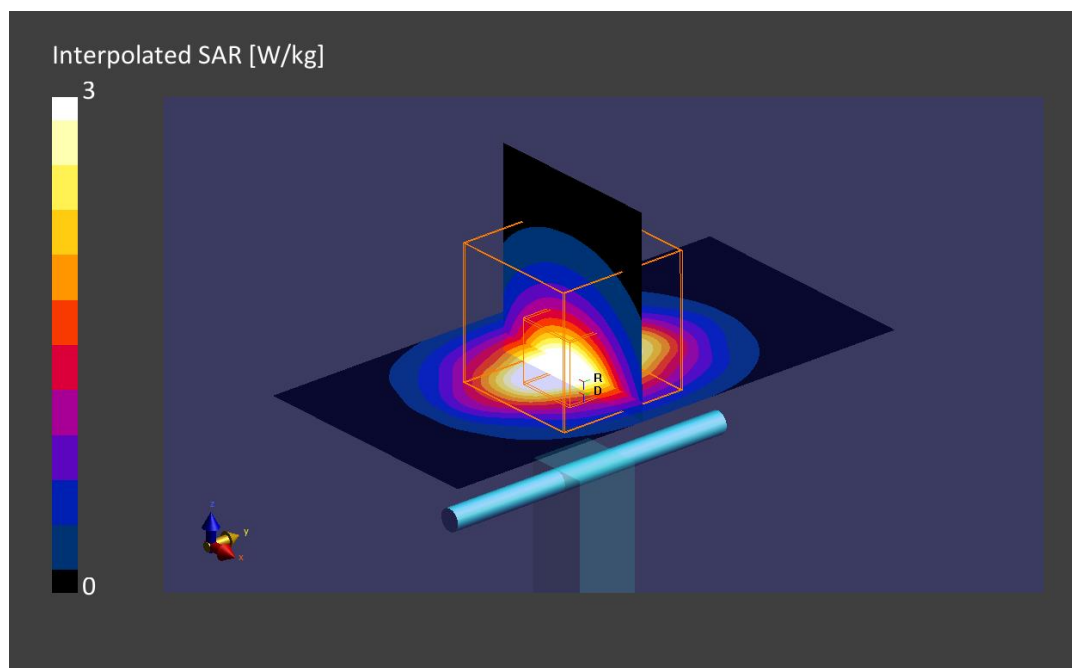
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-02	EX3DV4 - SN3978, 2021-05-21	DAE4 Sn1429, 2021-05-11

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-02, 13:51	2022-06-02, 13:58
psSAR1g [W/kg]	2.69	2.63
psSAR10g [W/kg]	1.17	1.19
Power Drift [dB]	0.02	0.03
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction [dB]	Positive Only	Positive Only
M2/M1 [%]		81.0
Dist 3dB Peak [mm]		8.2



40. System Check Body Liquid 2600MHz – 2022-06-04 - System2

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D2600MHz, SPEAG	50.0 x 10.0 x 8.0	1100	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	,		, 0--	2600.0, 0	8.1	2.12	55.2

Hardware Setup

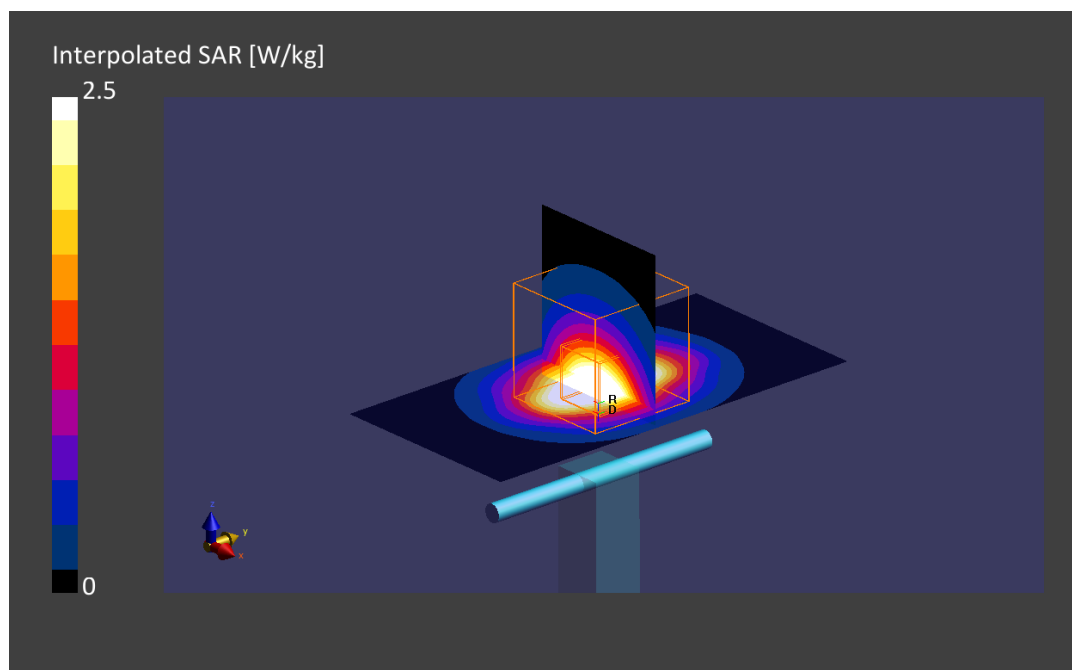
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt)	MBBL-600-6000, 2022-Jun-02	EX3DV4 - SN7604, 2021-08-16	DAE4ip Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-04, 09:42	2022-06-04, 09:48
psSAR1g [W/kg]	2.60	2.62
psSAR10g [W/kg]	1.15	1.19
Power Drift [dB]	-0.01	0.03
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction [dB]	Positive Only	Positive Only
M2/M1 [%]		80.3
Dist 3dB Peak [mm]		8.9



41. System Check Body Liquid 2600MHz – 2022-06-03 – System 4

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
Dipole 2600MHz, SPEAG	50.0 x 10.0 x 20.0	1100	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat MSL			,	2600.0	7.3	2.08	56.2

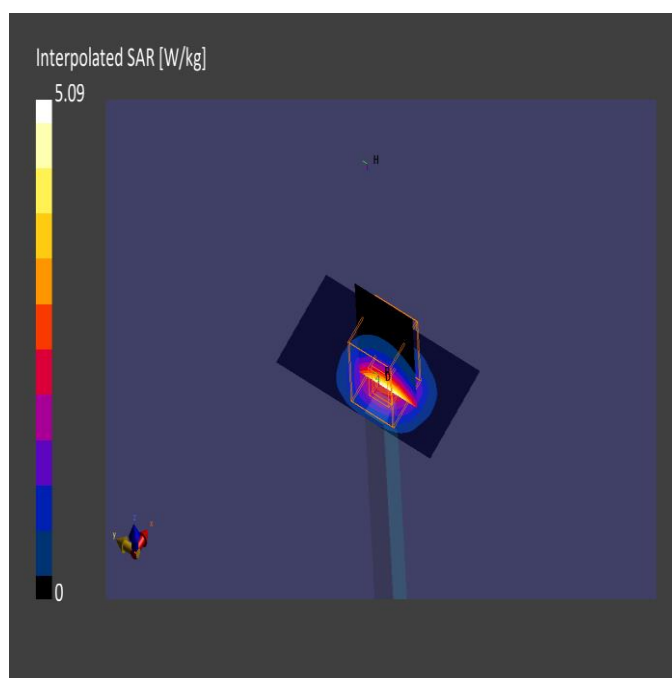
Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000 , 2022-Jun-03	EX3DV4 - SN7455, 2022-03-21	DAE4ip Sn1704, 2022-04-29

Scan Setup

Measurement Results

	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	30.0 x 30.0 x 30.0	Date	2022-06-03, 11:33	2022-06-03, 11:41
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5	psSAR1g [W/Kg]	2.36	2.41
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/Kg]	1.08	1.08
Graded Grid	Yes	Yes	Power Drift [dB]	-0.03	0.02
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	Confirmed by MAIA	Confirmed by MAIA	Scaling Factor		
Surface Detection	Yes	Yes	[dB]		
Scan Method	Measured	Measured	TSL Correction	Positive Only	Positive Only



42. System Check Body Liquid 3700MHz – 2022-06-06 - System2

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
Dipole 3700MHz, SPEAG	50.0 x 10.0 x 17.0	1093	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	,		, 0--	3700.0, 0	6.07	3.27	54.3

Hardware Setup

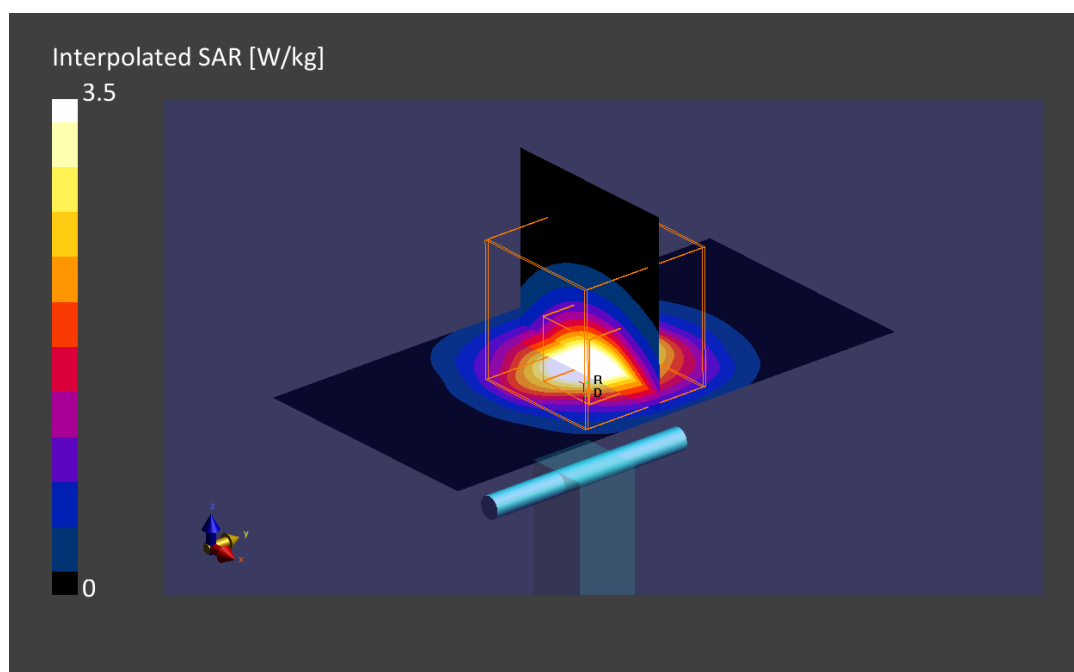
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	MBBL-600-6000, 2022-Jun-07	EX3DV4 - SN7455, 2022-03-21	DAE Sn1703, 2022-04-28

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	28.0 x 28.0 x 28.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Confirmed by MAIA	Confirmed by MAIA
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-06-07, 11:18	2022-06-07, 11:25
psSAR1g [W/kg]	3.07	2.98
psSAR10g [W/kg]	1.14	1.14
Power Drift [dB]	-0.01	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction [dB]	Positive Only	Positive Only
M2/M1 [%]		76.6
Dist 3dB Peak [mm]		8.5



43. System Check Body Liquid 3700MHz – 2022-06-08 - System4

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
Dipole 3700MHz, SPEAG	50.0 x 10.0 x 20.0	1093	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, MSL	,		, 0--	3700.0, 0	6.13	3.21	54.4

Hardware Setup

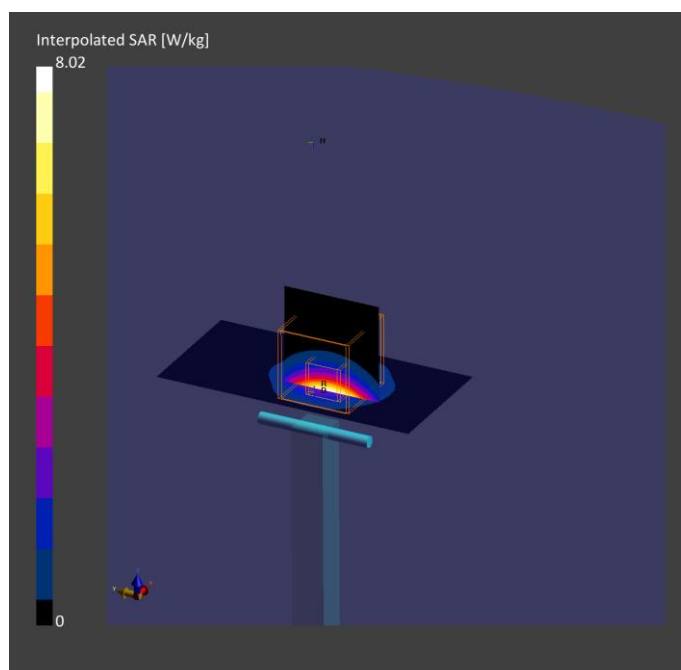
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2124	MBBL-600-6000, 2022-Jun-07	EX3DV4 - SN7455, 2022-03-21	DAE4ip Sn1704, 2022-04-29

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	28.0 x 28.0 x 28.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

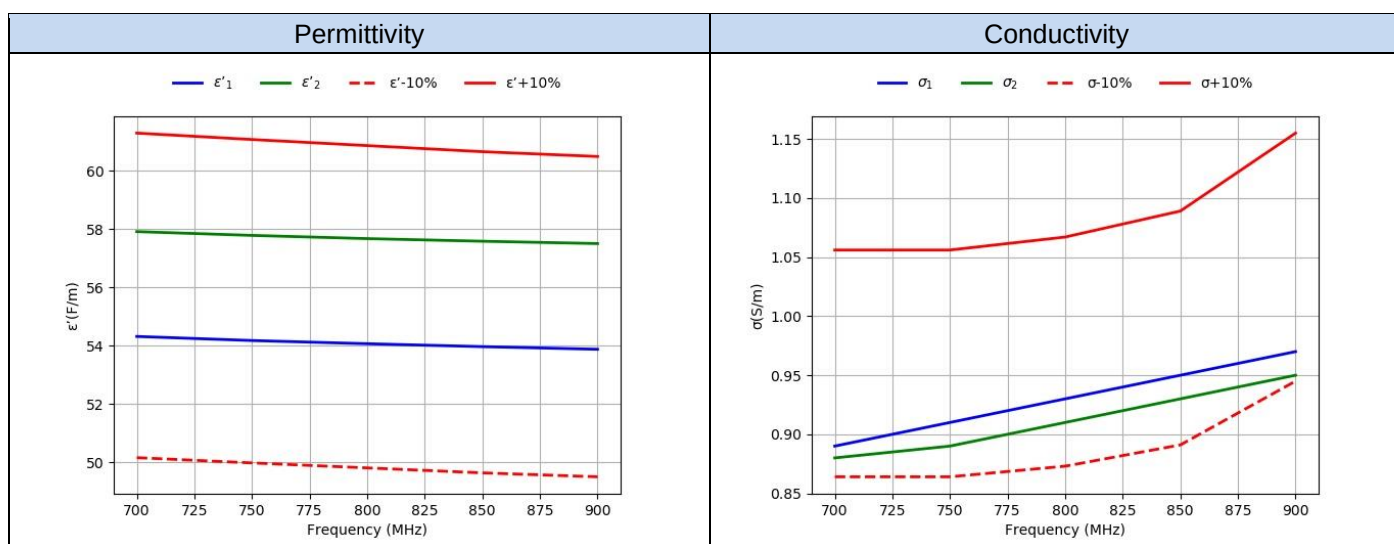
	Area Scan	Zoom Scan
Date	2022-06-08, 07:57	2022-06-08, 08:05
psSAR1g [W/kg]	3.17	3.10
psSAR10g [W/kg]	1.16	1.15
Power Drift [dB]	-0.20	-0.16
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive Only	Positive Only
M2/M1 [%]		76.8
Dist 3dB Peak [mm]		8.0



Annex D. TSL Dielectric Parameters

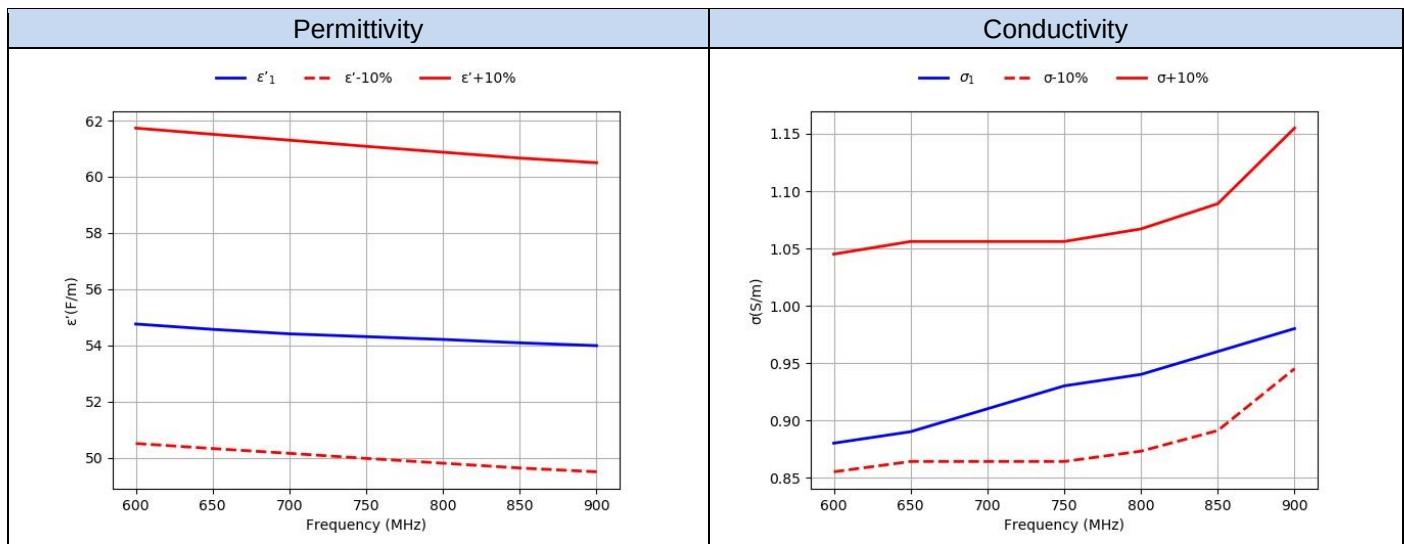
D.1 Body 700MHz-950MHz SAR System 2

			2022-05-23		2022-06-02	
Freq. (MHz)	Target		Measured			
	ϵ' (F/m)	σ (S/m)	ϵ'_1 (F/m)	σ_1 (S/m)	ϵ'_2 (F/m)	σ_2 (S/m)
700.0	55.73	0.96	54.32	0.89	57.92	0.88
750.0	55.53	0.96	54.18	0.91	57.79	0.89
800.0	55.34	0.97	54.07	0.93	57.68	0.91
850.0	55.15	0.99	53.97	0.95	57.59	0.93
900.0	55.0	1.05	53.88	0.97	57.51	0.95



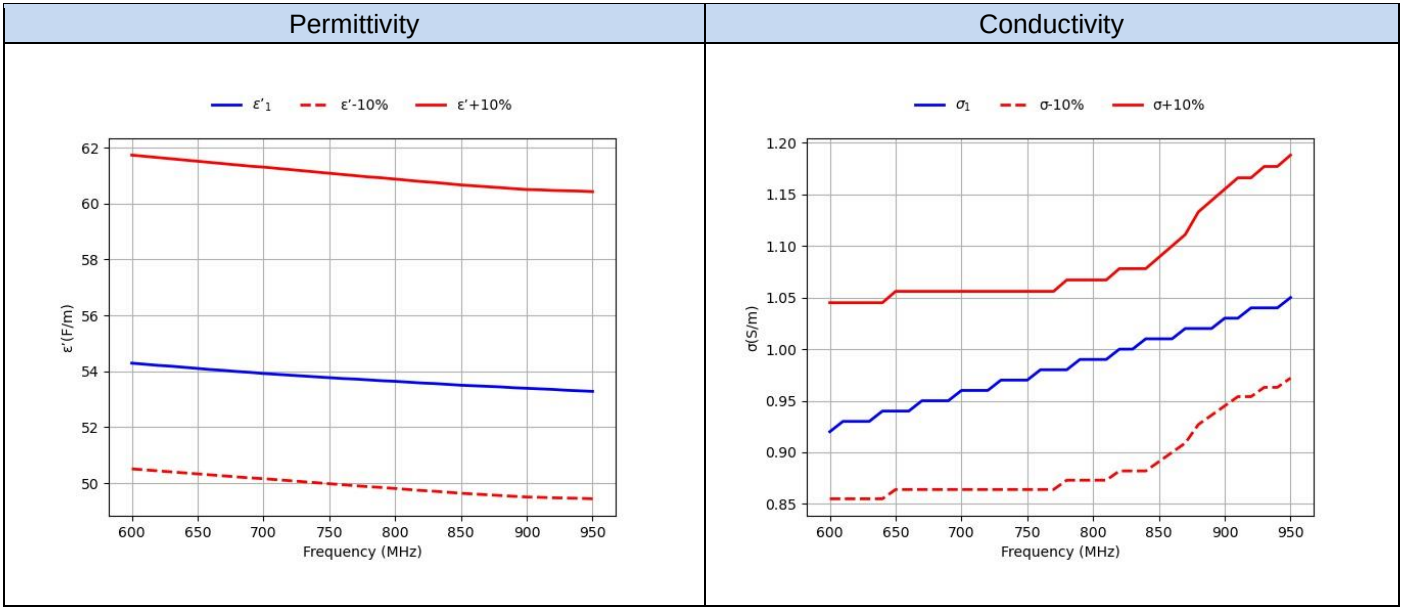
D.2 Body 600MHz-950MHz SAR System 2

		2022-06-09		
Freq. (MHz)	Target		Measured	
	ϵ' (F/m)	σ (S/m)	ϵ'_1 (F/m)	σ_1 (S/m)
600.0	56.12	0.95	54.76	0.88
650.0	55.92	0.96	54.57	0.89
700.0	55.73	0.96	54.41	0.91
750.0	55.53	0.96	54.31	0.93
800.0	55.34	0.97	54.21	0.94
850.0	55.15	0.99	54.09	0.96
900.0	55.0	1.05	53.99	0.98



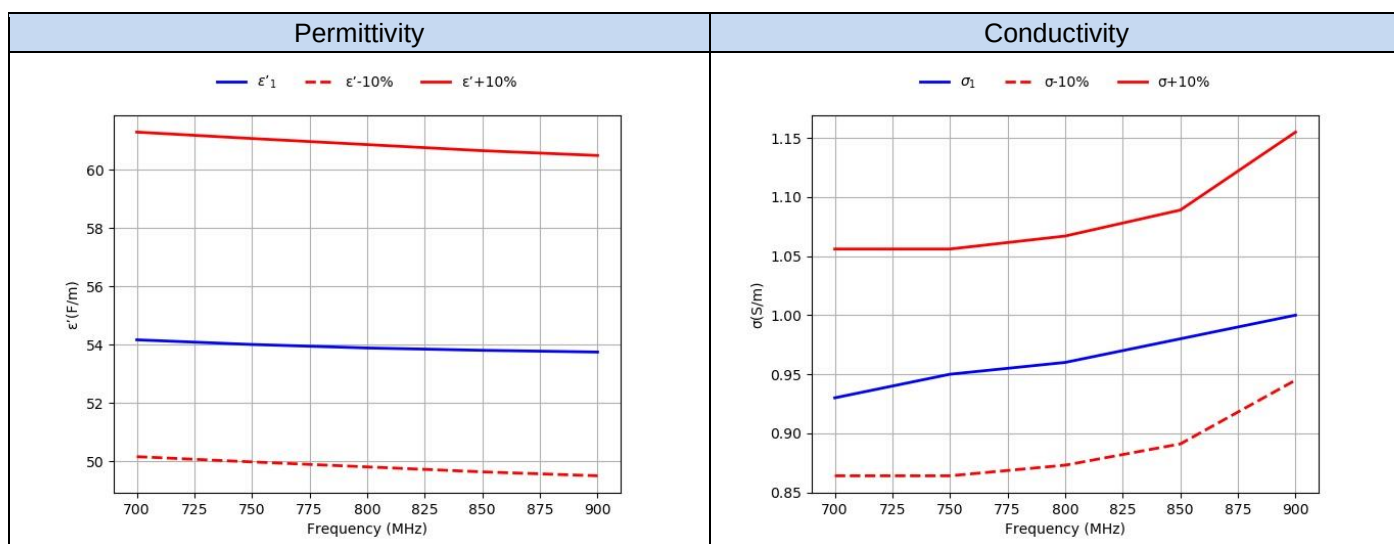
D.3 Body 600MHz-950MHz SAR System 4

Freq.(MHz)	Target		Measured 2022-06-10	
	ϵ' (F/m)	σ (S/m)	$\epsilon'1$ (F/m)	$\sigma1$ (S/m)
600	56.12	0.95	54.29	0.92
610	56.08	0.95	54.25	0.93
620	56.04	0.95	54.21	0.93
630	56.00	0.95	54.18	0.93
640	55.96	0.95	54.14	0.94
650	55.92	0.96	54.10	0.94
660	55.88	0.96	54.06	0.94
670	55.84	0.96	54.03	0.95
680	55.80	0.96	53.99	0.95
690	55.76	0.96	53.96	0.95
700	55.73	0.96	53.92	0.96
710	55.69	0.96	53.89	0.96
720	55.65	0.96	53.86	0.96
730	55.61	0.96	53.83	0.97
740	55.57	0.96	53.80	0.97
750	55.53	0.96	53.77	0.97
760	55.49	0.96	53.74	0.98
770	55.45	0.96	53.72	0.98
780	55.41	0.97	53.69	0.98
790	55.38	0.97	53.66	0.99
800	55.34	0.97	53.64	0.99
810	55.30	0.97	53.61	0.99
820	55.26	0.98	53.58	1.00
830	55.23	0.98	53.56	1.00
840	55.19	0.98	53.53	1.01
850	55.15	0.99	53.50	1.01
860	55.12	1.00	53.48	1.01
870	55.09	1.01	53.46	1.02
880	55.06	1.03	53.44	1.02
890	55.03	1.04	53.41	1.02
900	55.00	1.05	53.39	1.03
910	54.99	1.06	53.37	1.03
920	54.97	1.06	53.35	1.04
930	54.96	1.07	53.32	1.04
940	54.95	1.07	53.30	1.04
950	54.93	1.08	53.28	1.05



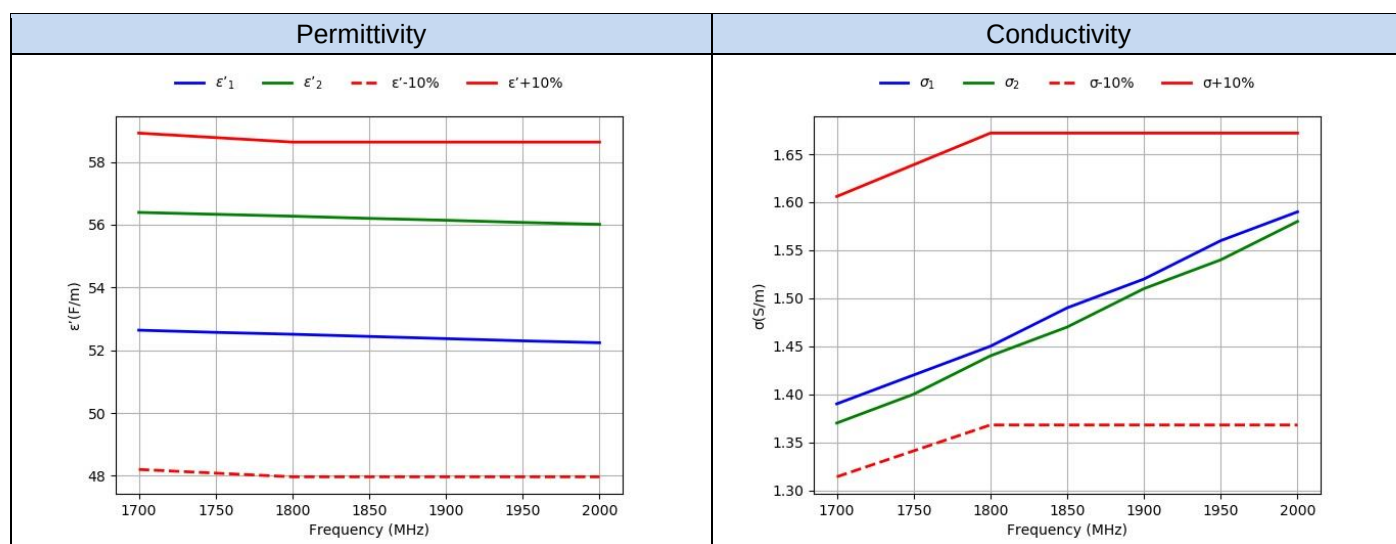
D.4 Body 700MHz-900MHz SAR System 4

Target			2022-06-03	
			Measured	
Freq.(MHz)	ϵ' (F/m)	σ (S/m)	$\epsilon'1$ (F/m)	$\sigma1$ (S/m)
700.0	55.73	0.96	54.17	0.93
750.0	55.53	0.96	54.01	0.95
800.0	55.34	0.97	53.89	0.96
850.0	55.15	0.99	53.81	0.98
900.0	55.0	1.05	53.75	1.00



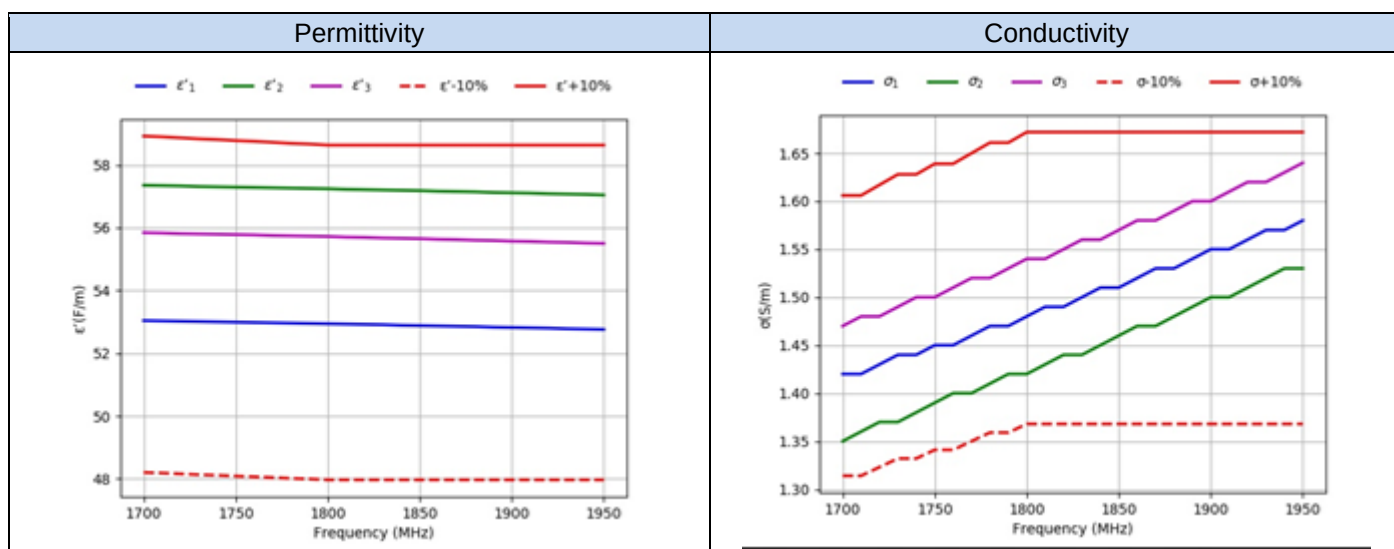
D.5 Body 1700MHz-2000MHz SAR System 2

			2022-05-23		2022-06-02	
Freq. (MHz)	Target		Measured			
	ϵ' (F/m)	σ (S/m)	ϵ'_1 (F/m)	σ_1 (S/m)	ϵ'_2 (F/m)	σ_2 (S/m)
1700.0	53.56	1.46	52.64	1.39	56.39	1.37
1750.0	53.43	1.49	52.57	1.42	56.33	1.4
1800.0	53.3	1.52	52.51	1.45	56.27	1.44
1850.0	53.3	1.52	52.44	1.49	56.2	1.47
1900.0	53.3	1.52	52.37	1.52	56.14	1.51
1950.0	53.3	1.52	52.3	1.56	56.07	1.54
2000.0	53.3	1.52	52.24	1.59	56.01	1.58



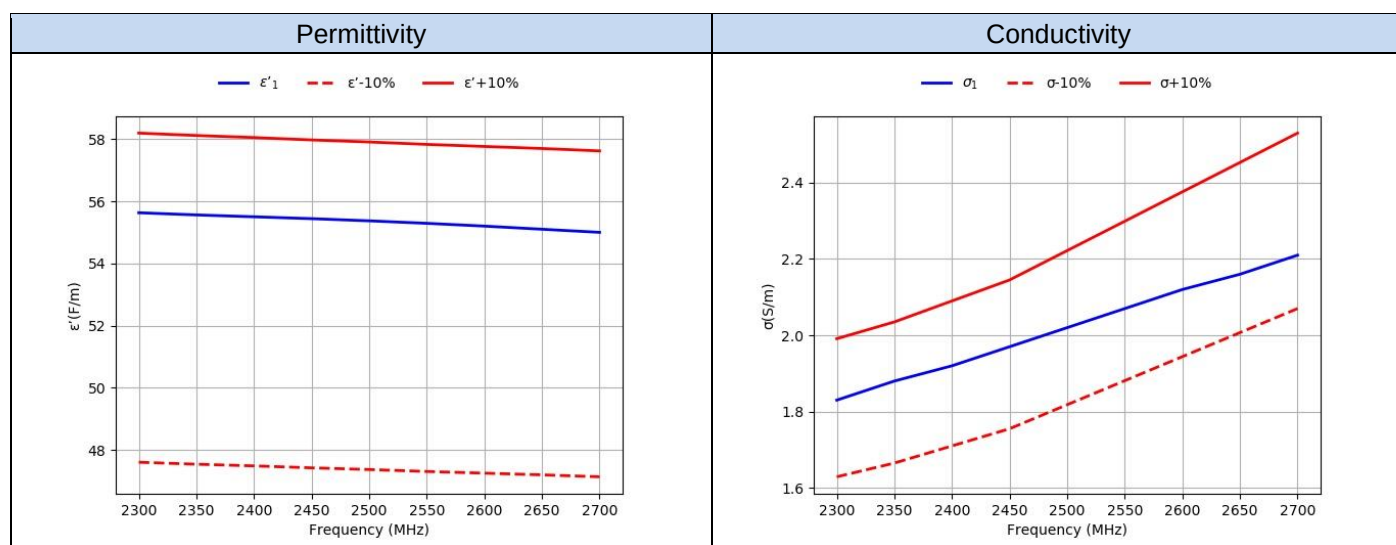
D.6 Body 1700MHz-1950MHz SAR System 4

Target			2022-05-23		2022-05-30		2022-06-03	
			Measured					
Freq.(MHz)	ϵ' (F/m)	σ (S/m)	$\epsilon'1$ (F/m)	$\sigma1$ (S/m)	$\epsilon'2$ (F/m)	$\sigma2$ (S/m)	$\epsilon'3$ (F/m)	$\sigma3$ (S/m)
1700.0	53.56	1.46	55.84	1.47	53.04	1.42	57.35	1.35
1750.0	53.43	1.49	55.78	1.5	52.99	1.45	57.29	1.39
1800.0	53.3	1.52	55.72	1.54	52.94	1.48	57.24	1.42
1850.0	53.3	1.52	55.65	1.57	52.88	1.51	57.18	1.46
1900.0	53.3	1.52	55.57	1.6	52.82	1.55	57.11	1.50
1950.0	53.3	1.52	55.5	1.64	52.76	1.58	57.04	1.53



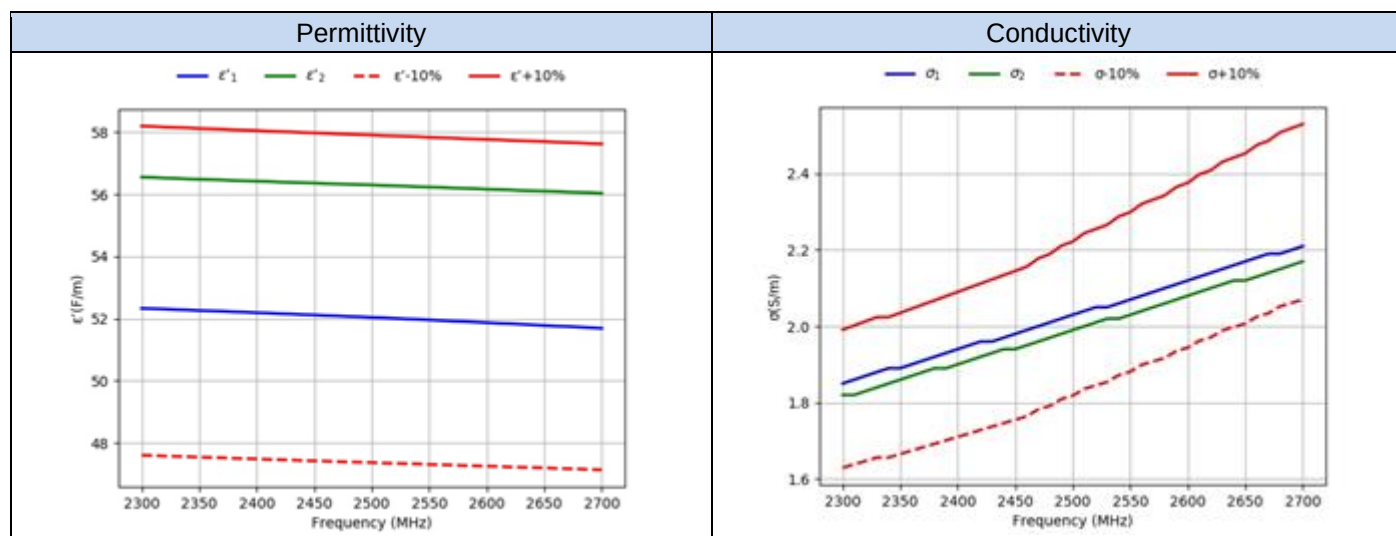
D.7 Body 2300MHz-2700MHz SAR System 2

			2022-06-02	
Freq. (MHz)	Target		Measured	
	ϵ' (F/m)	σ (S/m)	ϵ'_1 (F/m)	σ_1 (S/m)
2300.0	52.9	1.81	55.63	1.83
2350.0	52.83	1.85	55.56	1.88
2400.0	52.77	1.9	55.5	1.92
2450.0	52.7	1.95	55.44	1.97
2500.0	52.64	2.02	55.37	2.02
2550.0	52.57	2.09	55.29	2.07
2600.0	52.51	2.16	55.2	2.12
2650.0	52.45	2.23	55.1	2.16
2700.0	52.38	2.3	55.0	2.21



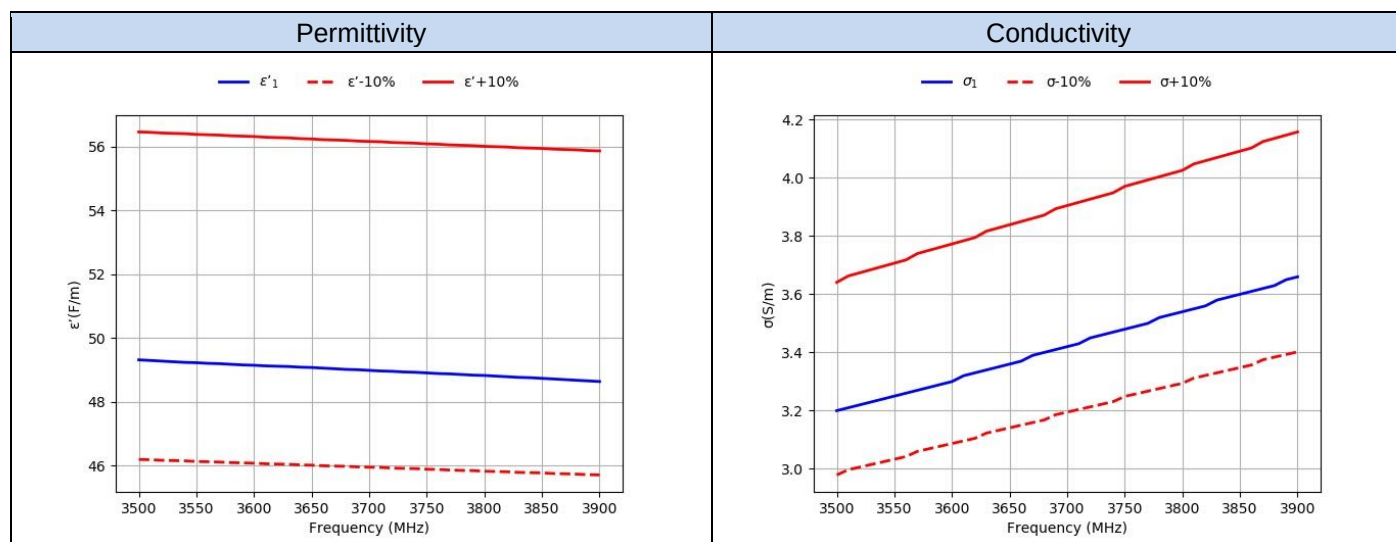
D.8 Body 2300MHz-2700MHz SAR System 4

Freq.(MHz)	Target		2022-05-30		2022-06-03	
			Measured			
	ϵ' (F/m)	σ (S/m)	$\epsilon'1$ (F/m)	$\sigma1$ (S/m)	$\epsilon'2$ (F/m)	$\sigma2$ (S/m)
2300.0	52.9	1.81	52.33	1.85	56.55	1.82
2350.0	52.83	1.85	52.26	1.89	56.48	1.86
2400.0	52.77	1.9	52.19	1.94	56.42	1.90
2450.0	52.7	1.95	52.12	1.98	56.36	1.94
2500.0	52.64	2.02	52.04	2.03	56.30	1.99
2550.0	52.57	2.09	51.96	2.07	56.23	2.03
2600.0	52.51	2.16	51.87	2.12	56.16	2.08
2650.0	52.45	2.23	51.78	2.17	56.10	2.12
2700.0	52.38	2.3	51.69	2.21	56.03	2.17



D.9 Body 3500MHz-3900MHz SAR System 2

			2022-06-06	
Target			Measured	
Freq.(MHz)	ϵ' (F/m)	s (S/m)	$\epsilon'1$ (F/m)	s1 (S/m)
3500.0	51.32	3.31	49.31	3.2
3600.0	51.19	3.43	49.14	3.3
3650.0	51.12	3.49	49.07	3.36
3700.0	51.05	3.55	48.98	3.42
3750.0	50.98	3.61	48.9	3.48
3800.0	50.91	3.66	48.82	3.54
3850.0	50.85	3.72	48.73	3.6
3900.0	50.78	3.78	48.63	3.66



D.10 Body 3500MHz-3900MHz SAR System 4

			2022-06-07	
Target			Measured	
Freq.(MHz)	ϵ' (F/m)	s (S/m)	$\epsilon'1$ (F/m)	s1 (S/m)
3500.0	51.32	3.31	54.68	2.99
3550.0	51.25	3.37	54.6	3.04
3600.0	51.19	3.43	54.53	3.09
3650.0	51.12	3.49	54.45	3.15
3700.0	51.05	3.55	54.37	3.21
3750.0	50.98	3.61	54.29	3.27
3800.0	50.91	3.66	54.23	3.32
3850.0	50.85	3.72	54.16	3.38
3900.0	50.78	3.78	54.1	3.44

