

Measurement Report for SM-F946U, EDGE LEFT, GSM 850, GPRS-FDD (TDMA, GMSK, TN 0-1), Channel 190 (836.6 MHz)

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, HSL	EDGE LEFT, 10.00	GSM 850	GSM, 10024-DAC	836.6, 190	10.0	0.917	40.5

Hardware Setup

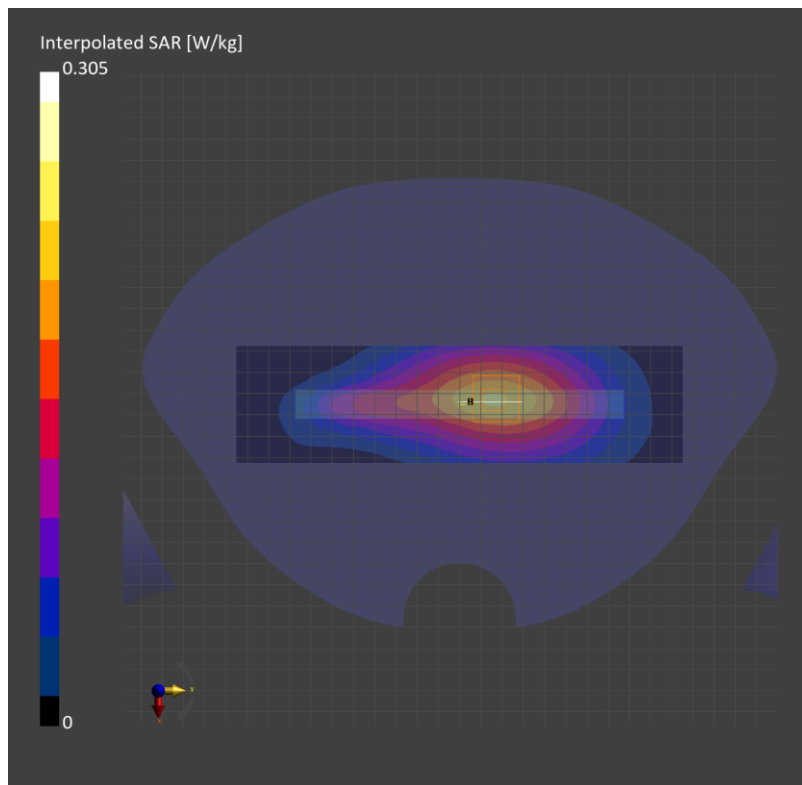
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-28	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.203	0.208
psSAR10g [W/Kg]	0.138	0.145
Power Drift [dB]		0.03
M2/M1 [%]		87.8
Dist 3dB Peak [mm]		> 15.0



Measurement Report for SM-F946U, LEFT TOUCH, GSM 850, GPRS-FDD (TDMA, GMSK, TN 0-1), Channel 190 (836.6 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Left Head, HSL	LEFT TOUCH, 0.00	GSM 850	GSM, 10024-DAC	836.6, 190	10.0	0.926	41.2

Hardware Setup

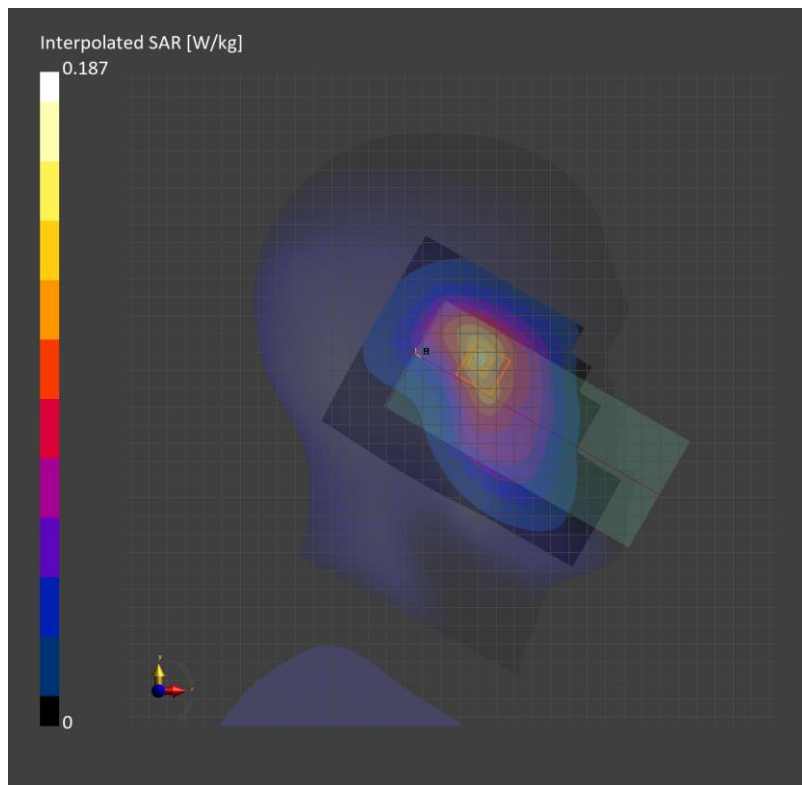
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-22	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.123	0.122
psSAR10g [W/Kg]	0.081	0.086
Power Drift [dB]		-0.04
M2/M1 [%]		86.9
Dist 3dB Peak [mm]		15.0



Measurement Report for SM-F946U, REAR, GSM 850, GPRS-FDD (TDMA, GMSK, TN 0-1), Channel 190 (836.6 MHz)

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, HSL	REAR, 10.00	GSM 850	GSM, 10024-DAC	836.6, 190	10.0	0.926	41.2

Hardware Setup

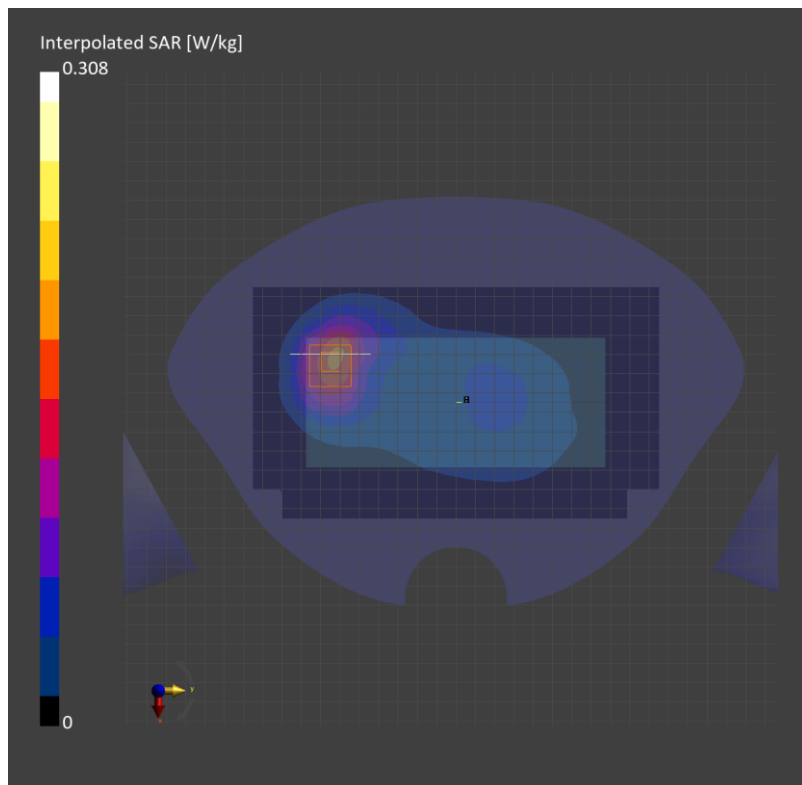
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-22	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.163	0.168
psSAR10g [W/Kg]	0.105	0.099
Power Drift [dB]		-0.02
M2/M1 [%]		81.6
Dist 3dB Peak [mm]		11.4



Measurement Report for SM-F946U, RIGHT TOUCH, GSM 1900, GPRS-FDD (TDMA, GMSK, TN 0-1-2), Channel 661 (1880.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TOUCH, 0.00	GSM 1900	GSM, 10027-DAC	1880.0, 661	8.51	1.41	39.2

Hardware Setup

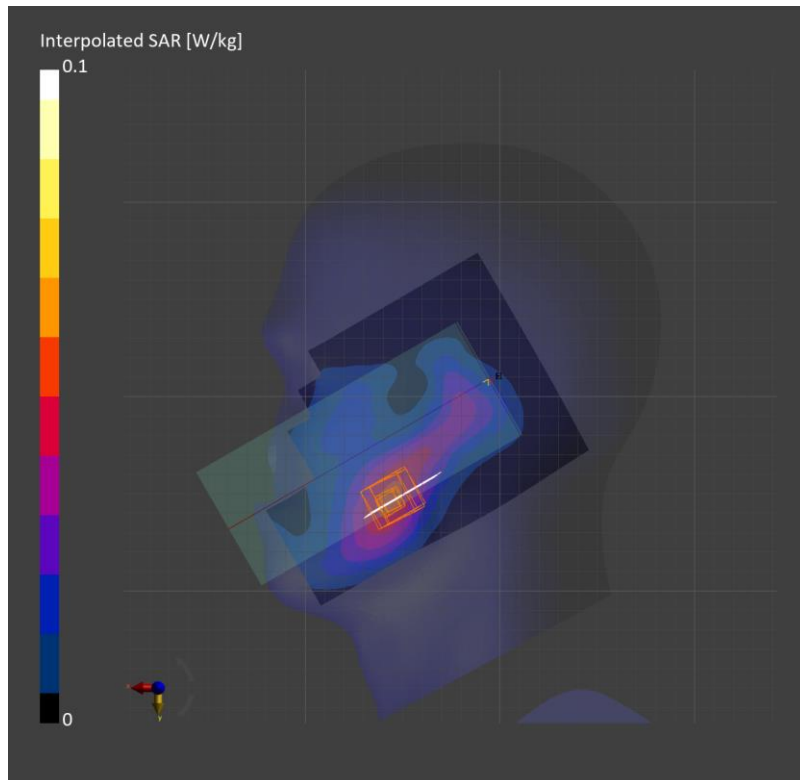
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2037	HBBL-600-10000, 2023-Mar-27	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1468, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.045	0.049
psSAR10g [W/Kg]	0.027	0.030
Power Drift [dB]		-0.01
M2/M1 [%]		84.7
Dist 3dB Peak [mm]		13.2



Measurement Report for SM-F946U, EDGE BOTTOM, GSM 1900, GPRS-FDD (TDMA, GMSK, TN 0-1-2-3), Channel 661 (1880.0 MHz)

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, HSL	EDGE BOTTOM, 10.00	GSM 1900	GSM, 10028-DAC	1880.0, 661	8.51	1.38	41.4

Hardware Setup

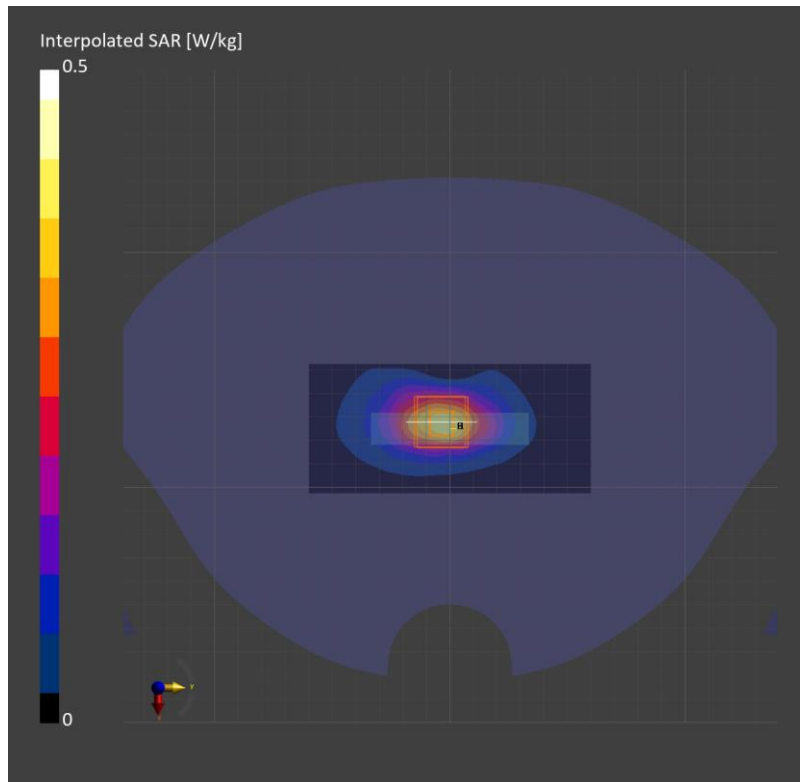
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2042	HBBL-600-10000, 2023-Mar-22	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1468, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.332	0.333
psSAR10g [W/Kg]	0.175	0.181
Power Drift [dB]		-0.04
M2/M1 [%]		88.5
Dist 3dB Peak [mm]		10.9



Measurement Report for SM-F946U, RIGHT TOUCH, Band 2, UMTS-FDD (WCDMA), Channel 9400 (1880.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TOUCH, 0.00	Band 2	WCDMA, 10011-CAC	1880.0, 9400	8.51	1.41	39.2

Hardware Setup

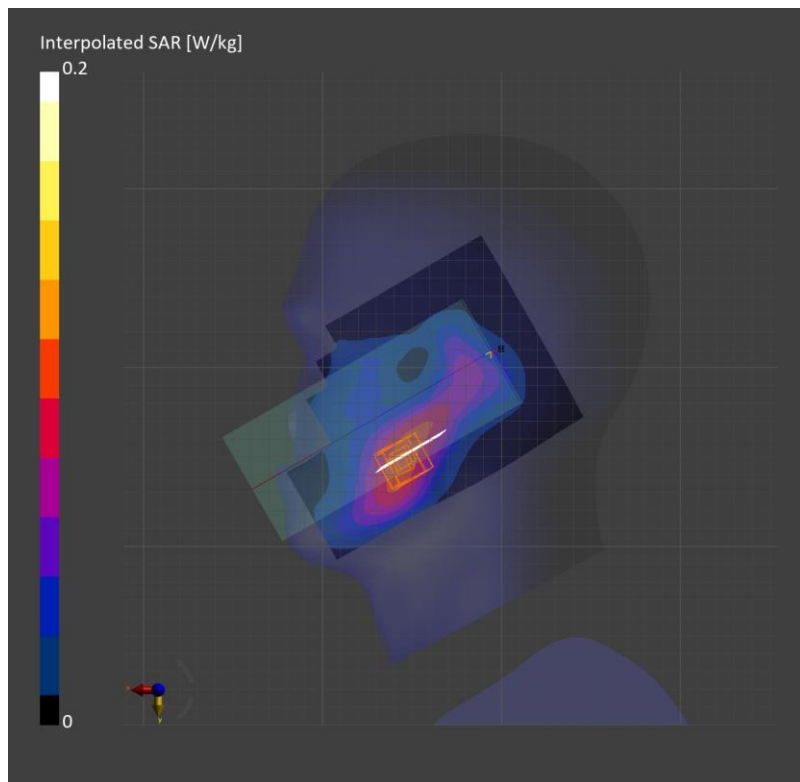
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2037	HBBL-600-10000, 2023-Mar-27	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1468, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.097	0.101
psSAR10g [W/Kg]	0.058	0.066
Power Drift [dB]	0.05	
M2/M1 [%]	89.0	
Dist 3dB Peak [mm]	15.5	



Measurement Report for SM-F946U, EDGE BOTTOM, Band 2, UMTS-FDD (WCDMA), Channel 9400 (1880.0 MHz)

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, HSL	EDGE BOTTOM, 10.00	Band 2	WCDMA, 10011-CAC	1880.0, 9400	8.51	1.38	41.4

Hardware Setup

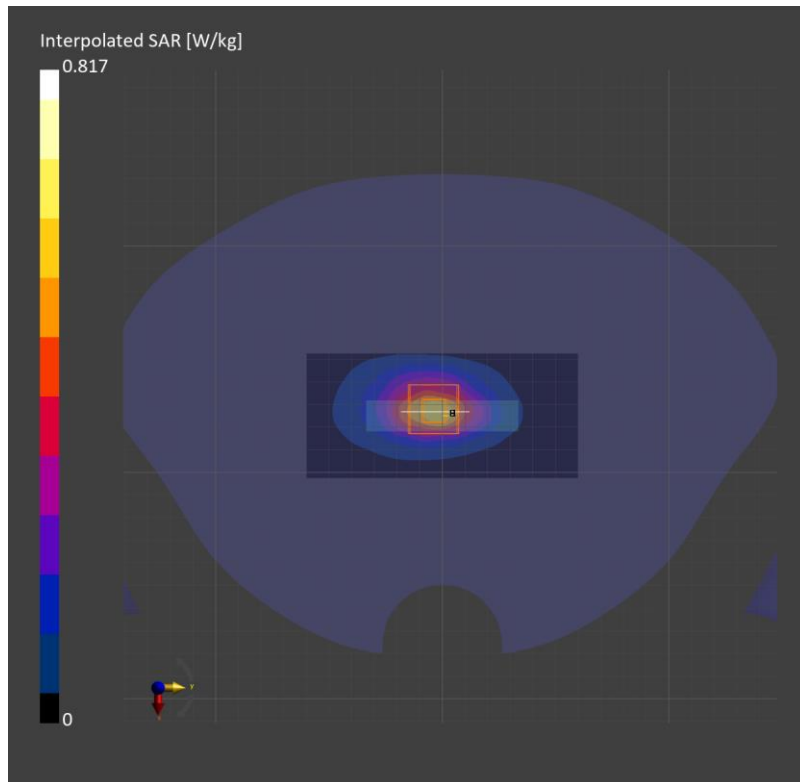
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2042	HBBL-600-10000, 2023-Mar-22	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1468, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.488	0.499
psSAR10g [W/Kg]	0.258	0.271
Power Drift [dB]	0.02	
M2/M1 [%]	87.9	
Dist 3dB Peak [mm]	10.9	



## WCDMA Band IV

Frequency: 1732.6 MHz; Communication System Channel Number: 1413; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 1732.6$  MHz;  $\sigma = 1.344$  S/m;  $\epsilon_r = 40.104$ ;  $\rho = 1000$  kg/m<sup>3</sup>

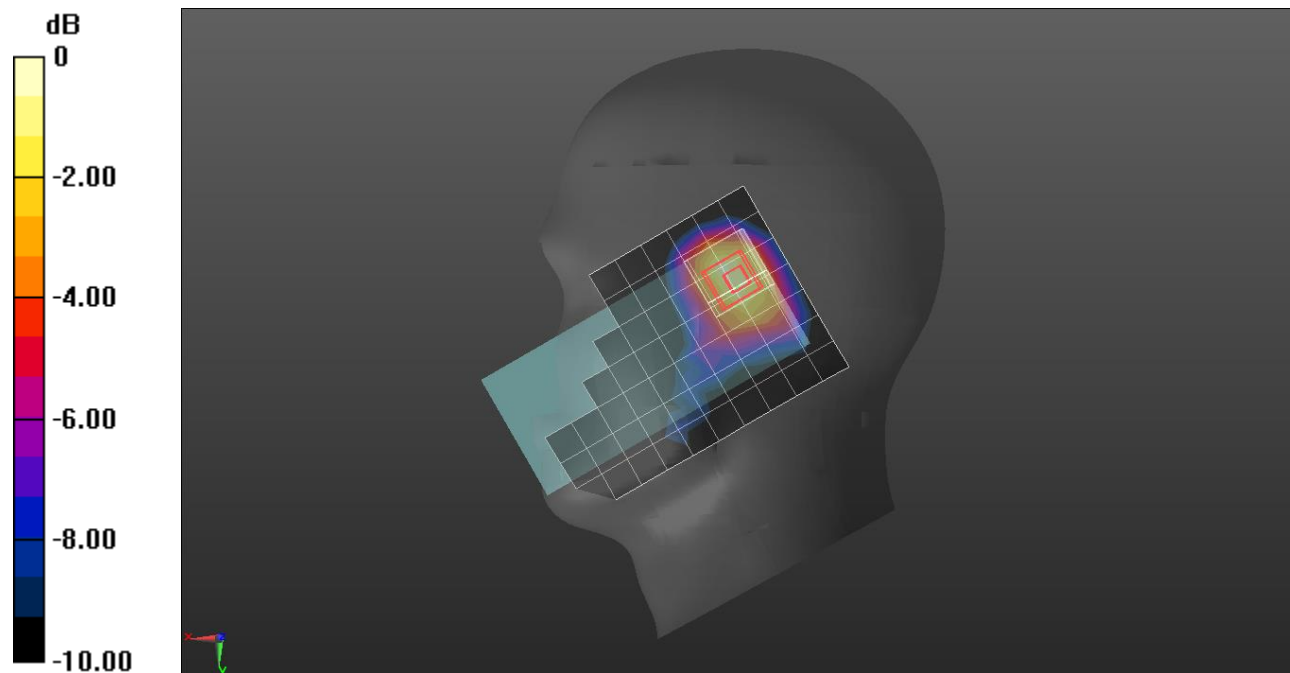
### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1667; Calibrated: 2022-04-27
- Probe: EX3DV4 - SN3871; ConvF(8.58, 8.58, 8.58) @ 1732.6 MHz; Calibrated: 2022-09-26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Right Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**RHS/Tilt Rel.99 ch.1413/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.116 W/kg

**RHS/Tilt Rel.99 ch.1413/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.345 V/m; Power Drift = 0.08 dB  
 Peak SAR (extrapolated) = 0.147 W/kg  
**SAR(1 g) = 0.099 W/kg; SAR(10 g) = 0.063 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 12.8 mm  
 Ratio of SAR at M2 to SAR at M1 = 77%  
 Maximum value of SAR (measured) = 0.126 W/kg



0 dB = 0.126 W/kg = -9.00 dBW/kg



Measurement Report for SM-F946U, EDGE BOTTOM, Band 4, UMTS-FDD (WCDMA), Channel 1413 (1732.6 MHz)

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, HSL	EDGE BOTTOM, 10.00	Band 4	WCDMA, 10011-CAC	1732.6, 1413	8.66	1.31	41.5

Hardware Setup

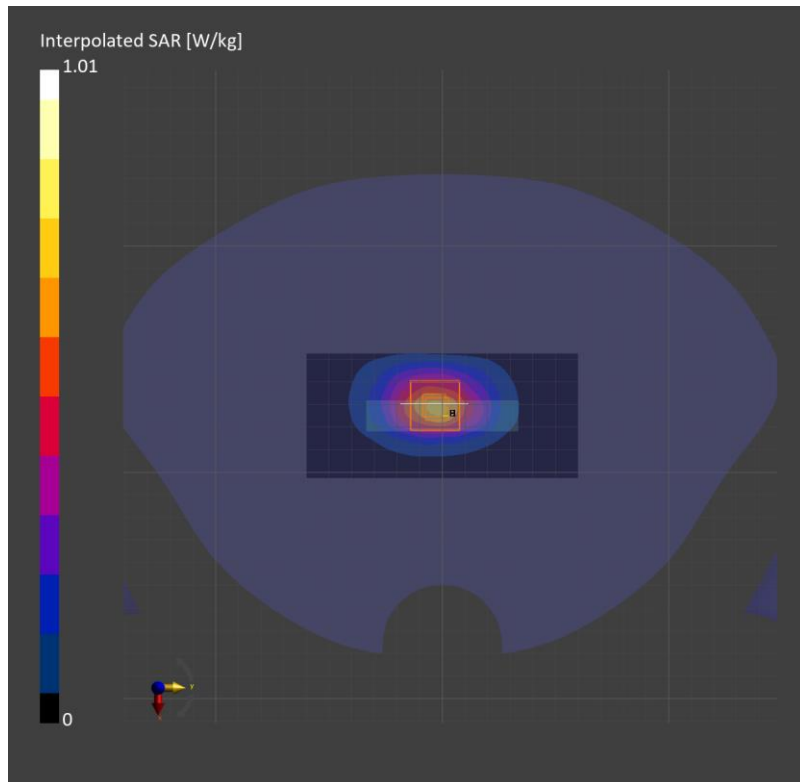
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2042	HBBL-600-10000, 2023-Mar-22	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1468, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.571	0.622
psSAR10g [W/Kg]	0.317	0.343
Power Drift [dB]	0.02	
M2/M1 [%]	87.8	
Dist 3dB Peak [mm]	10.9	



Measurement Report for SM-F946U, REAR, Band 5, UMTS-FDD (WCDMA), Channel 4183 (836.6 MHz)

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, HSL	REAR, 10.00	Band 5	WCDMA, 10011-CAC	836.6, 4183	10.0	0.917	40.5

Hardware Setup

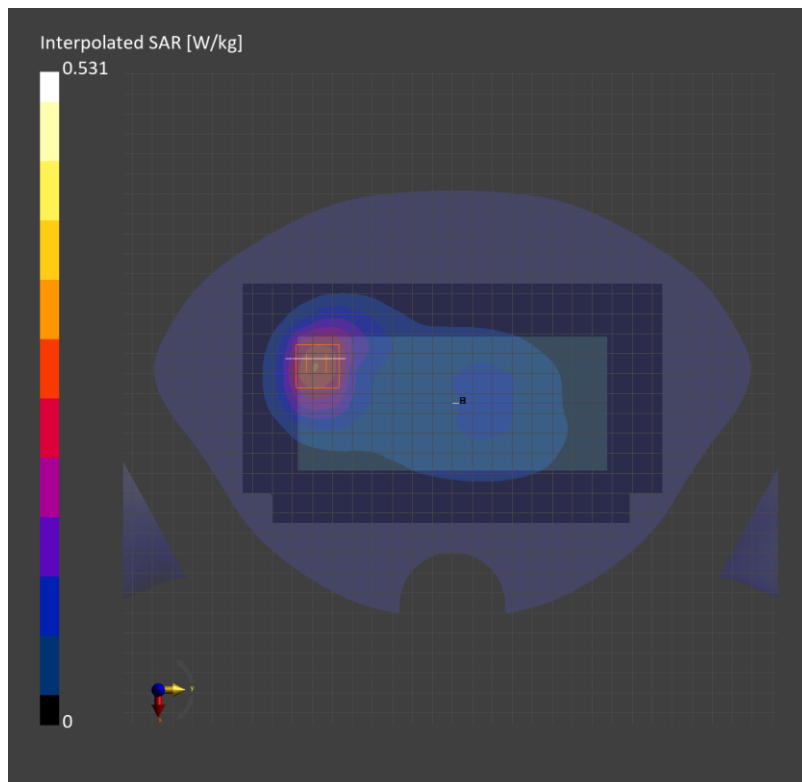
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-28	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.272	0.290
psSAR10g [W/Kg]	0.178	0.171
Power Drift [dB]	0.00	
M2/M1 [%]	83.1	
Dist 3dB Peak [mm]	12.3	



Measurement Report for SM-F946U, RIGHT TOUCH, Band 5, UMS-FDD (WCDMA), Channel 4183 (836.6 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TOUCH, 0.00	Band 5	WCDMA, 10011-CAC	836.6, 4183	10.0	0.926	41.2

Hardware Setup

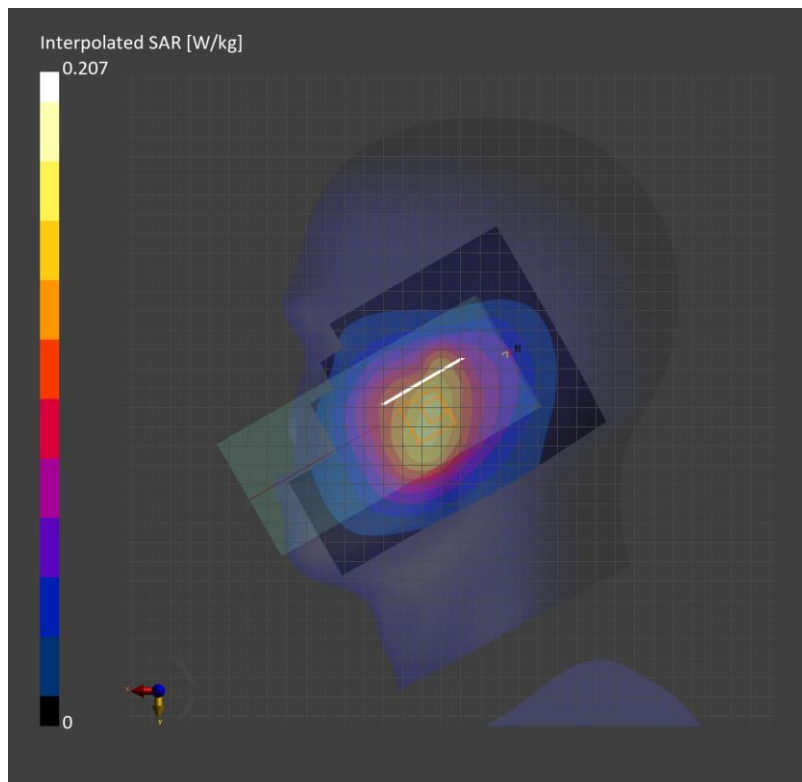
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-22	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.141	0.147
psSAR10g [W/Kg]	0.098	0.121
Power Drift [dB]		-0.04
M2/M1 [%]		89.1
Dist 3dB Peak [mm]		15.8



Measurement Report for SM-F946U, REAR, Band 5, UMTS-FDD (WCDMA), Channel 4183 (836.6 MHz)

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, HSL	REAR, 10.00	Band 5	WCDMA, 10011-CAC	836.6, 4183	10.0	0.926	41.2

Hardware Setup

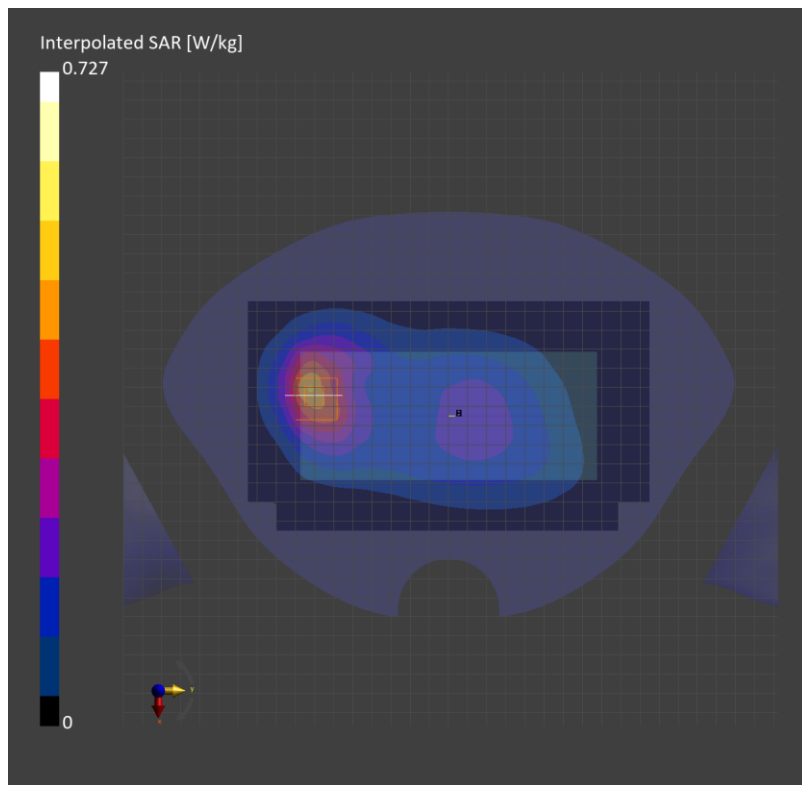
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-22	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.413	0.423
psSAR10g [W/Kg]	0.267	0.253
Power Drift [dB]		-0.01
M2/M1 [%]		84.3
Dist 3dB Peak [mm]		13.7



Measurement Report for SM-F946U, CHEEK, Band 7, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 20850 (2510.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	CHEEK, 0.00	Band 7	LTE-FDD, 10169-CAF	2510.0, 20850	7.74	1.91	38.6

Hardware Setup

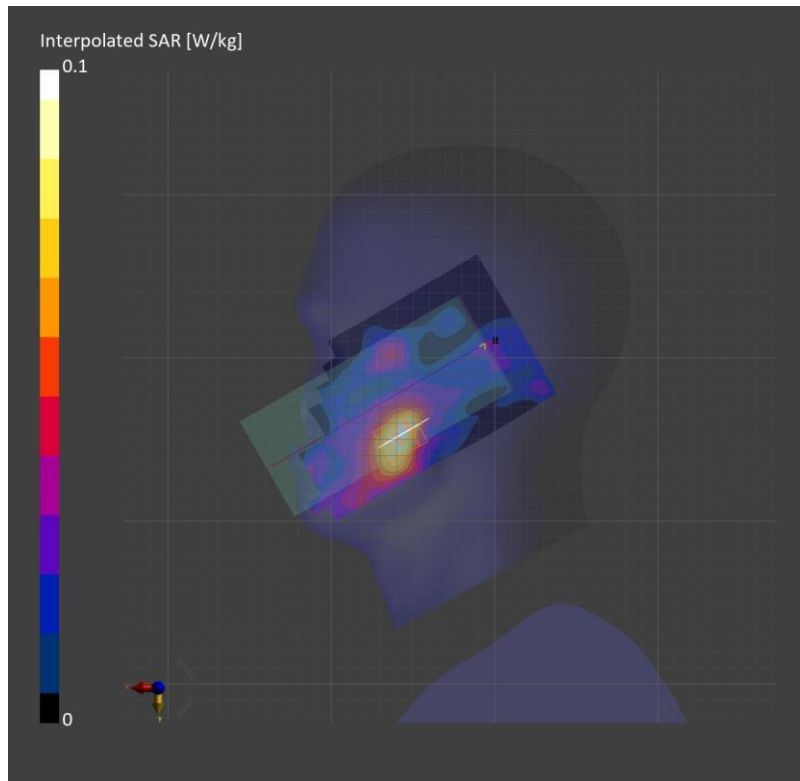
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Mar-27	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1670, 2022-06-07

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.075	0.073
psSAR10g [W/Kg]	0.040	0.039
Power Drift [dB]	-0.10	
M2/M1 [%]	95.1	
Dist 3dB Peak [mm]	10.9	



Measurement Report for SM-F946U, EDGE BOTTOM, Band 7, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK), Channel 20850 (2510.0 MHz)

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, HSL	EDGE BOTTOM, 10.00	Band 7	LTE-FDD, 10169-CAF	2510.0, 20850	7.74	1.86	38.2

Hardware Setup

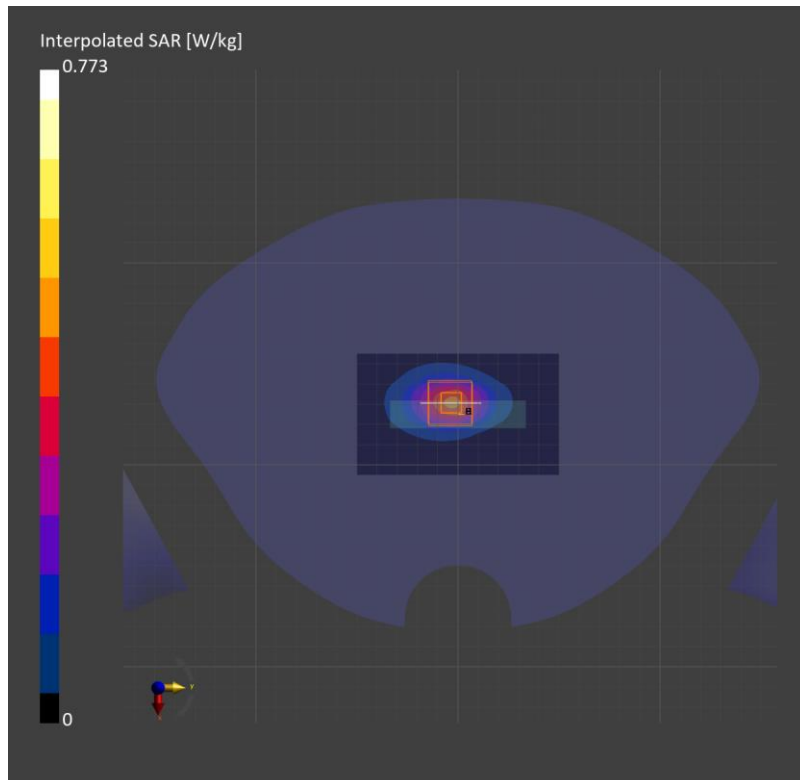
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Mar-22	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1670, 2022-06-07

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 100.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.374	0.382
psSAR10g [W/Kg]	0.179	0.174
Power Drift [dB]	0.00	
M2/M1 [%]	80.7	
Dist 3dB Peak [mm]	9.9	



Measurement Report for SM-F946U, TILT, Band 7, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) RBPosition:High AntennaCfg:SISO, Channel 21350 (2560.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
LeftHead, HSL	TILT, 0.00	Band 7	LTE-FDD, 10169-CAF	2560.0, 21350	7.74	1.95	38.5

Hardware Setup

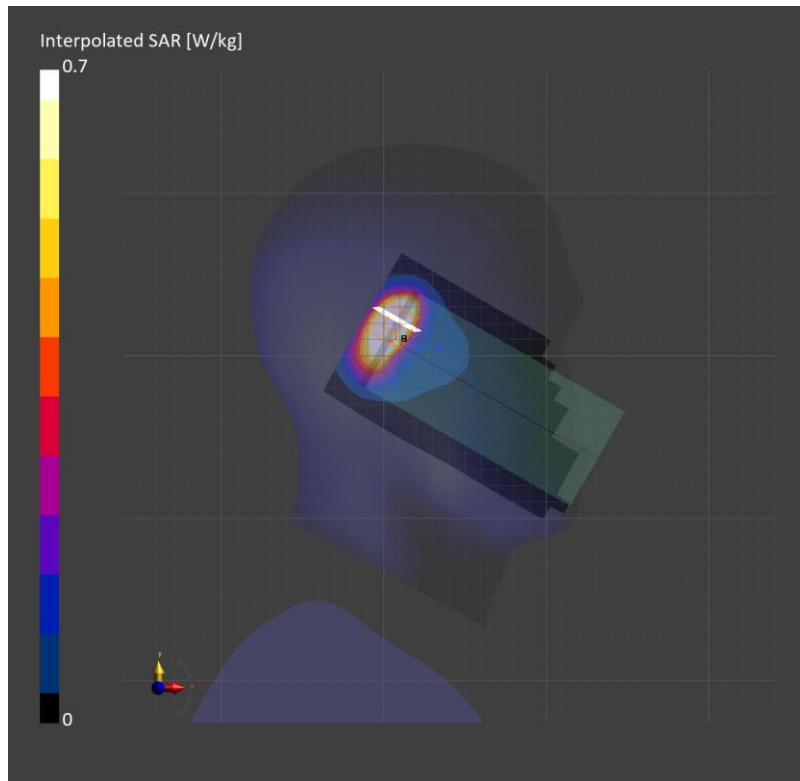
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Mar-30	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1670, 2022-06-07

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.945	0.974
psSAR10g [W/Kg]	0.444	0.457
Power Drift [dB]	0.01	
M2/M1 [%]	82.7	
Dist 3dB Peak [mm]	8.3	



**Measurement Report for SM-F946U, BACK, Band 7, LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK) RBPosition:High AntennaCfg:SISO, Channel 21350 (2560.0 MHz)**

**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, HSL	BACK, 10.00	Band 7	LTE-FDD, 10297-AAE	2560.0, 21350	7.74	1.95	38.5

**Hardware Setup**

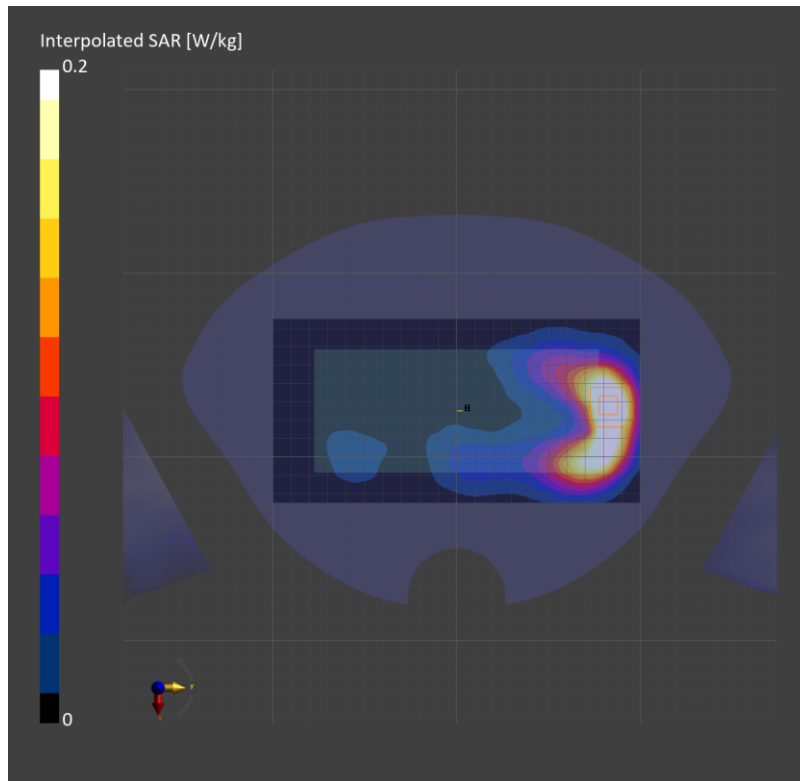
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Mar-27	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1670, 2022-06-07

**Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	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

**Measurement Results**

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.224	0.227
psSAR10g [W/Kg]	0.110	0.110
Power Drift [dB]	-0.05	
M2/M1 [%]	82.2	
Dist 3dB Peak [mm]	9.9	





Measurement Report for SM-F946U, EDGE TOP, Band 7, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK), Channel 21350 (2560.0 MHz)

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, HSL	EDGE TOP, 10.00	Band 7	LTE-FDD, 10169-CAF	2560.0, 21350	7.74	1.95	38.5

Hardware Setup

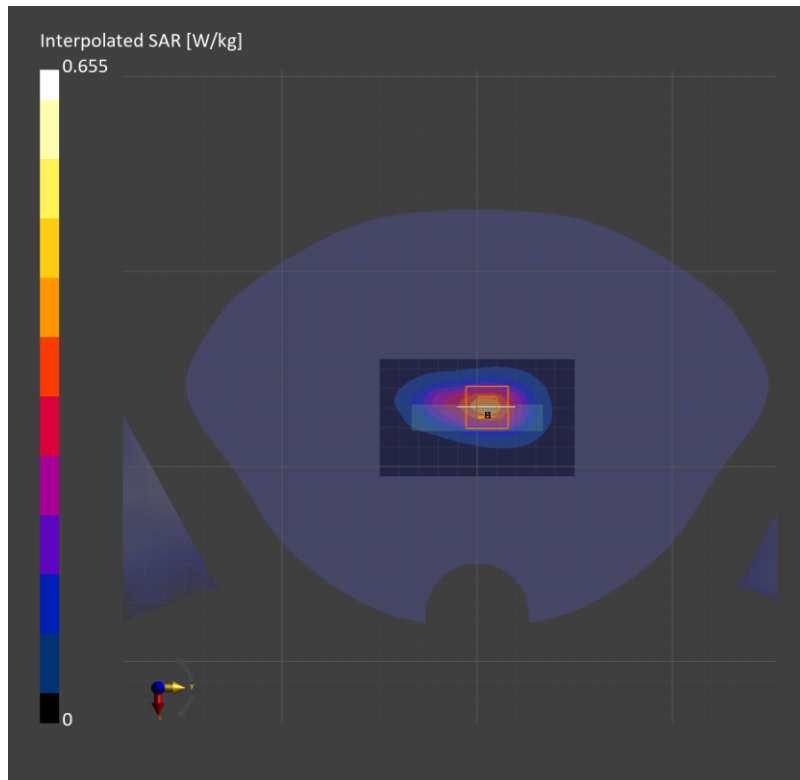
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Mar-27	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1670, 2022-06-07

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 100.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.334	0.347
psSAR10g [W/Kg]	0.166	0.168
Power Drift [dB]	-0.04	
M2/M1 [%]	82.6	
Dist 3dB Peak [mm]	10.0	



Measurement Report for SM-F946U, LEFT TOUCH, Band 12, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK), Channel 23095 (707.5 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
LeftHead, HSL	LEFT TOUCH, 0.00	Band 12	LTE-FDD, 10175-CAH	707.5, 23095	10.23	0.867	40.8

Hardware Setup

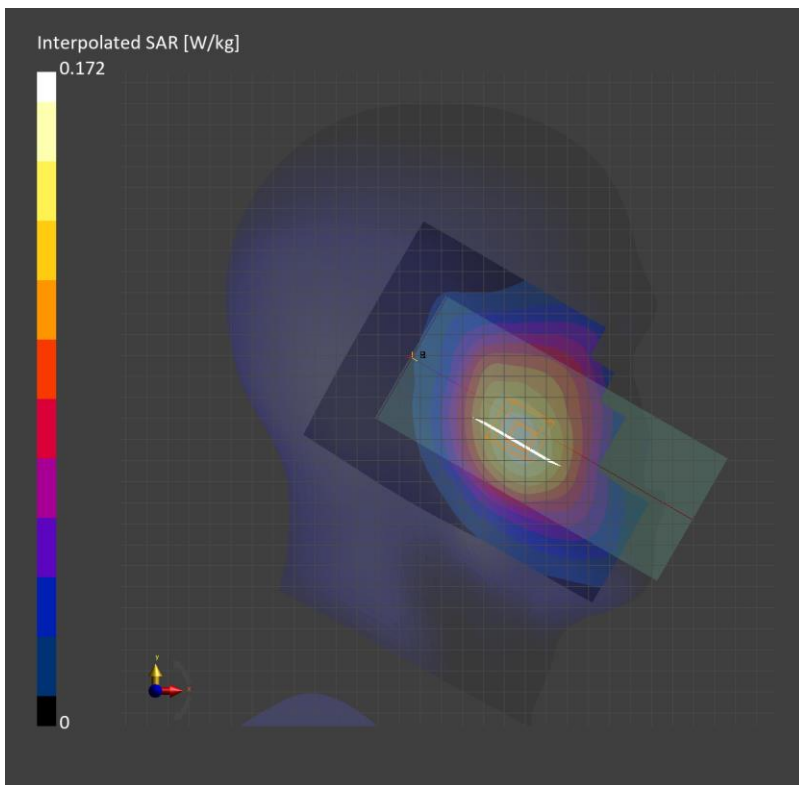
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-28	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.135	0.142
psSAR10g [W/Kg]	0.095	0.114
Power Drift [dB]		-0.04
M2/M1 [%]		95.3
Dist 3dB Peak [mm]		24.7



Measurement Report for SM-F946U, EDGE LEFT, Band 12, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK), Channel 23095 (707.5 MHz)

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, HSL	EDGE LEFT, 10.00	Band 12	LTE-FDD, 10175-CAH	707.5, 23095	10.23	0.867	40.8

Hardware Setup

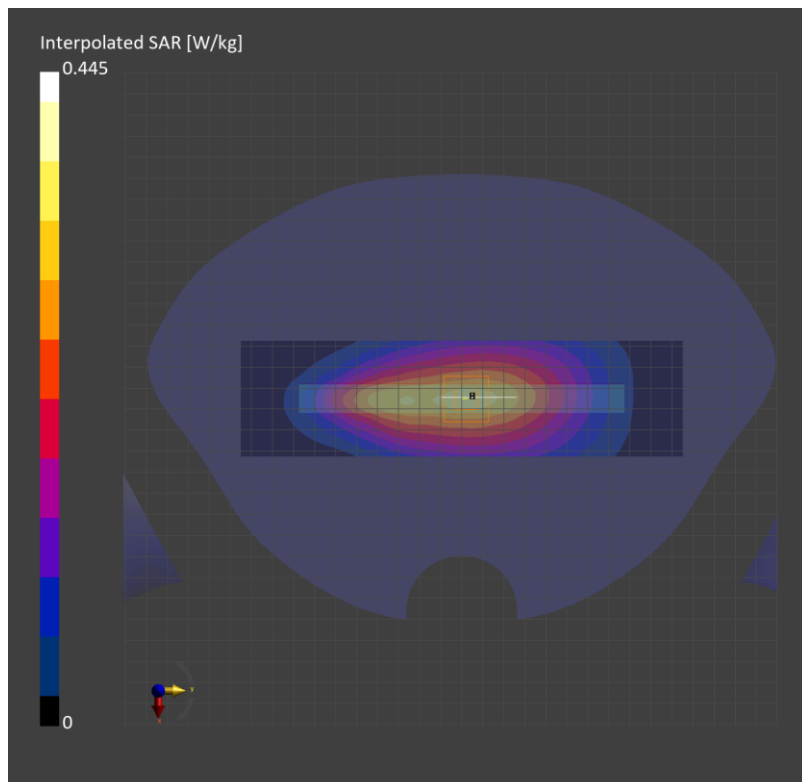
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-28	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.307	0.315
psSAR10g [W/Kg]	0.210	0.223
Power Drift [dB]		0.13
M2/M1 [%]		89.7
Dist 3dB Peak [mm]		> 15.0



Measurement Report for SM-F946U, EDGE LEFT, Band 12, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK), Channel 23095 (707.5 MHz)

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, HSL	EDGE LEFT, 10.00	Band 12	LTE-FDD, 10175-CAH	707.5, 23095	10.23	0.897	41.8

Hardware Setup

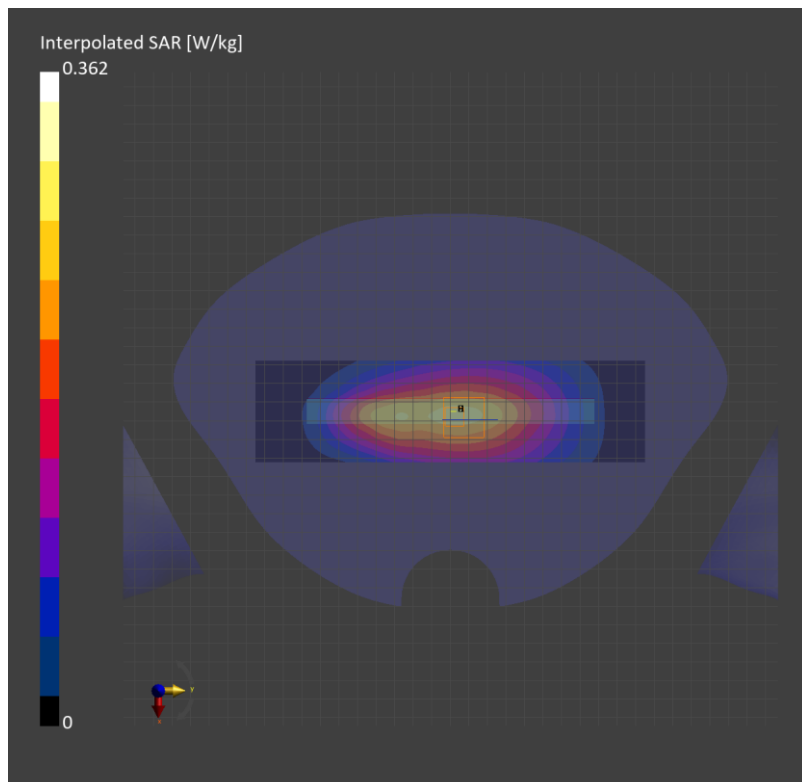
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-24	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.250	0.253
psSAR10g [W/Kg]	0.172	0.178
Power Drift [dB]	0.01	
M2/M1 [%]	88.3	
Dist 3dB Peak [mm]	> 15.0	



Measurement Report for SM-F946U, EDGE LEFT, Band 13, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK, Channel 23230 (782.0 MHz))

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, HSL	EDGE LEFT, 10.00	Band 13	LTE-FDD, 10175-CAH	782.0, 23230	10.23	0.905	40.9

Hardware Setup

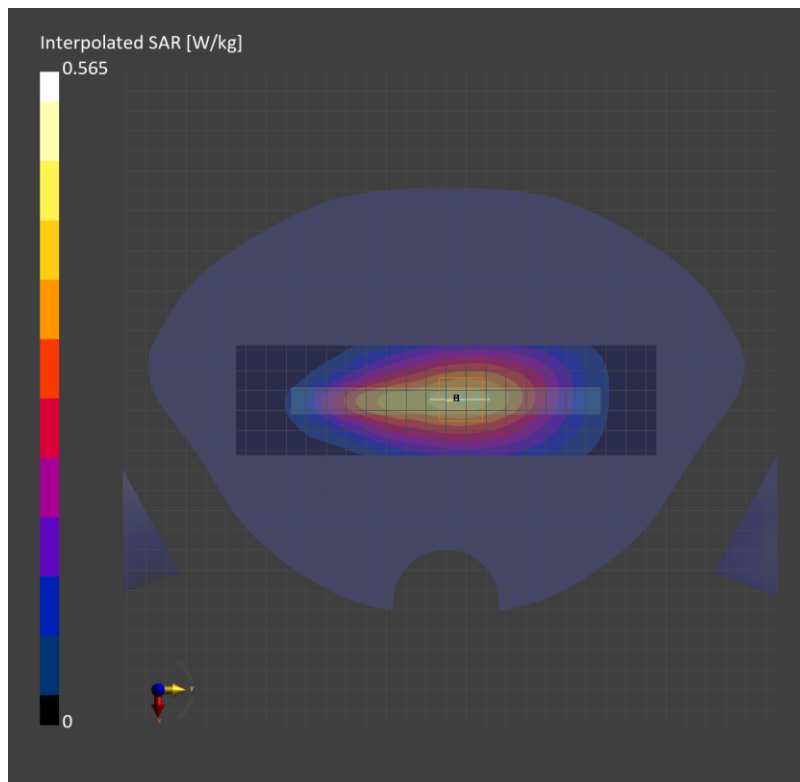
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-28	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.396	0.400
psSAR10g [W/Kg]	0.268	0.281
Power Drift [dB]		0.02
M2/M1 [%]		89.9
Dist 3dB Peak [mm]		> 15.0



Measurement Report for SM-F946U, RIGHT TOUCH, Band 13, LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 23230 (782.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TOUCH, 0.00	Band 13	LTE-FDD, 10154-CAH	782.0, 23230	10.23	0.907	41.5

Hardware Setup

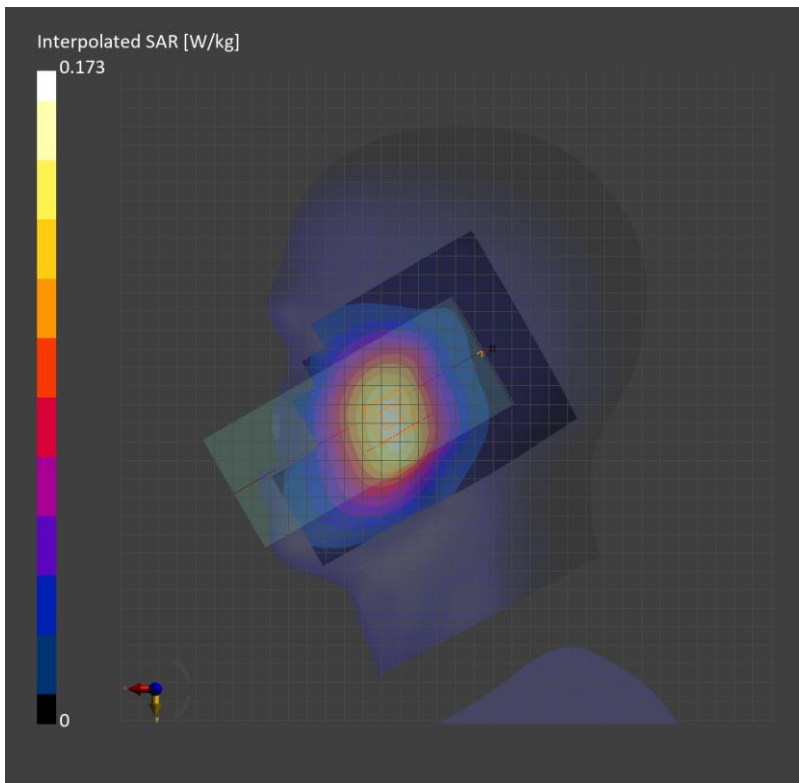
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-22	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.133	0.138
psSAR10g [W/Kg]	0.093	0.110
Power Drift [dB]	0.01	
M2/M1 [%]	94.9	
Dist 3dB Peak [mm]	27.5	



Measurement Report for SM-F946U, EDGE LEFT, Band 13, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK), Channel 23230 (782.0 MHz)

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, HSL	EDGE LEFT, 10.00	Band 13	LTE-FDD, 10175-CAH	782.0, 23230	10.23	0.921	41.7

Hardware Setup

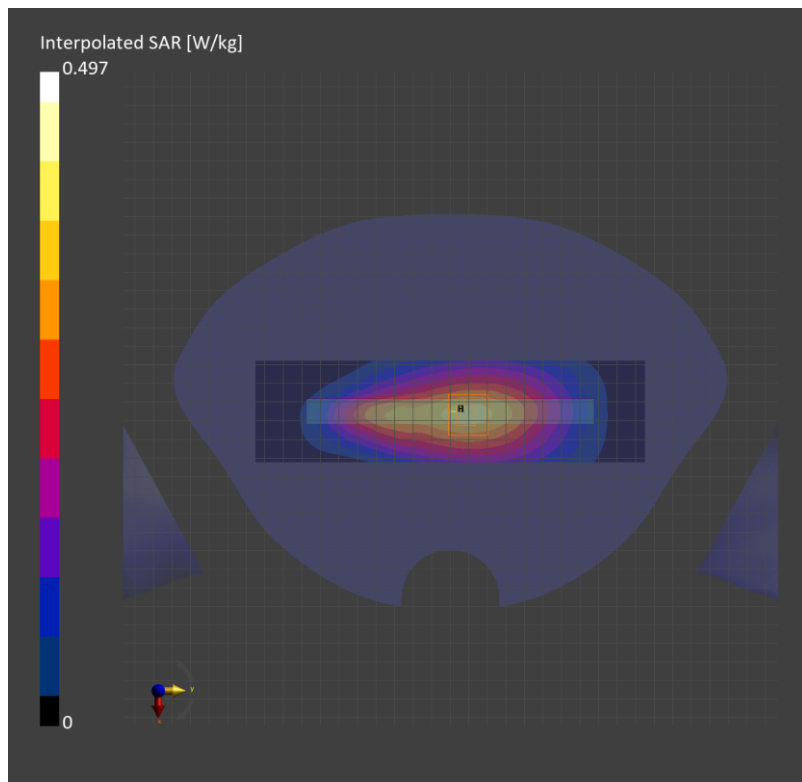
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-24	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.344	0.347
psSAR10g [W/Kg]	0.234	0.243
Power Drift [dB]		-0.05
M2/M1 [%]		89.4
Dist 3dB Peak [mm]		> 15.0



Measurement Report for SM-F946U, RIGHT TOUCH, Band 14, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK), Channel 23330 (793.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TOUCH, 0.00	Band 14	LTE-FDD, 10175-CAH	793.0, 23330	10.23	0.906	40.8

Hardware Setup

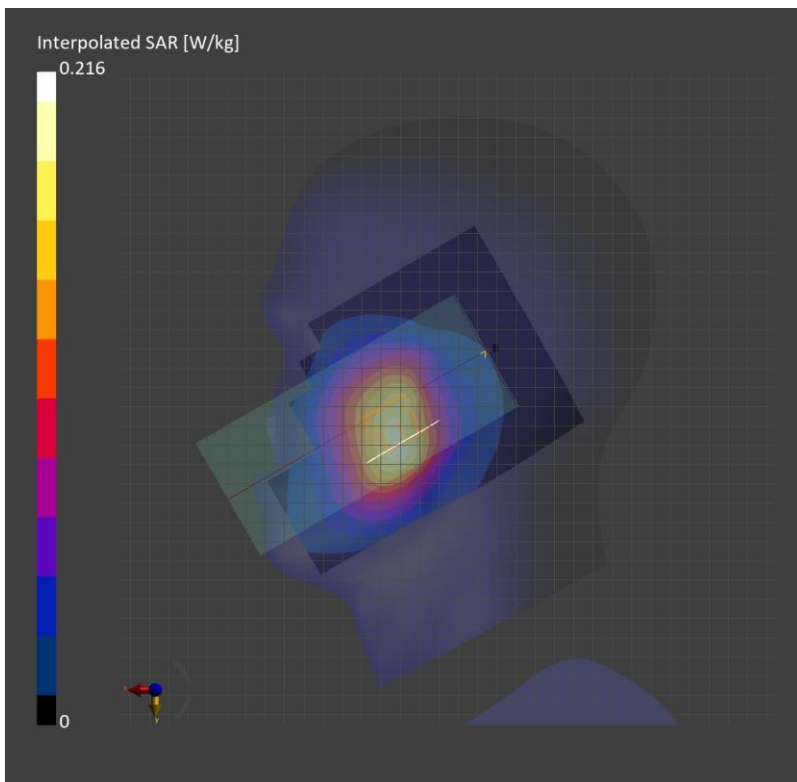
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-28	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.166	0.169
psSAR10g [W/Kg]	0.114	0.131
Power Drift [dB]		0.02
M2/M1 [%]		93.6
Dist 3dB Peak [mm]		18.2





Measurement Report for SM-F946U, EDGE LEFT, Band 14, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) Channel 23330 (793.0 MHz)

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, HSL	EDGE LEFT, 10.00	Band 14	LTE-FDD, 10175-CAH	793.0, 23330	10.23	0.906	40.8

Hardware Setup

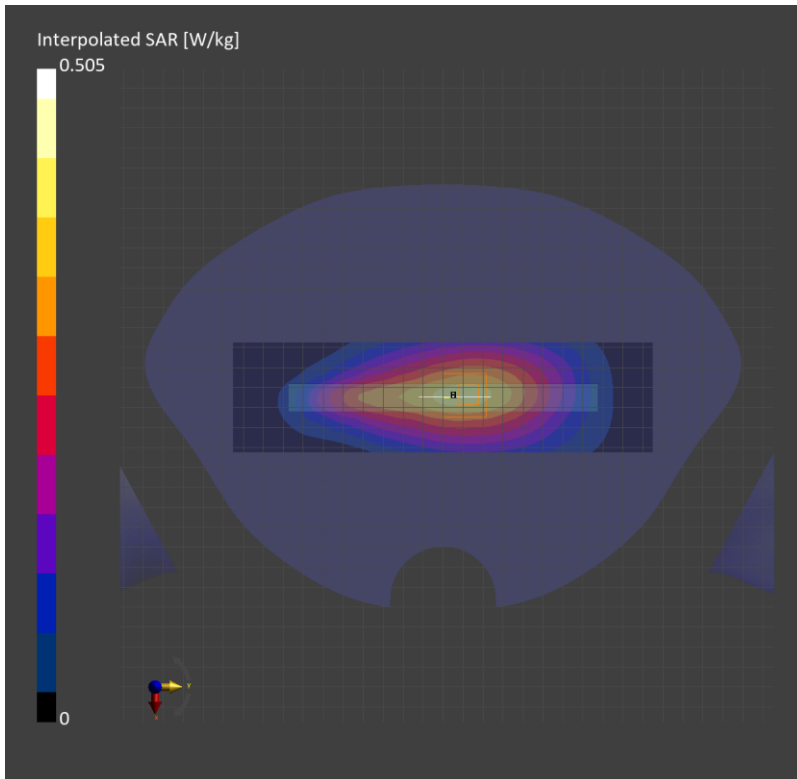
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-28	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.351	0.355
psSAR10g [W/Kg]	0.238	0.250
Power Drift [dB]		-0.01
M2/M1 [%]		90.8
Dist 3dB Peak [mm]		> 15.0



Measurement Report for SM-F946U, EDGE LEFT, Band 14, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK), Channel 23330 (793.0 MHz)

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, HSL	EDGE LEFT, 10.00	Band 14	LTE-FDD, 10175-CAH	793.0, 23330	10.23	0.919	41.6

Hardware Setup

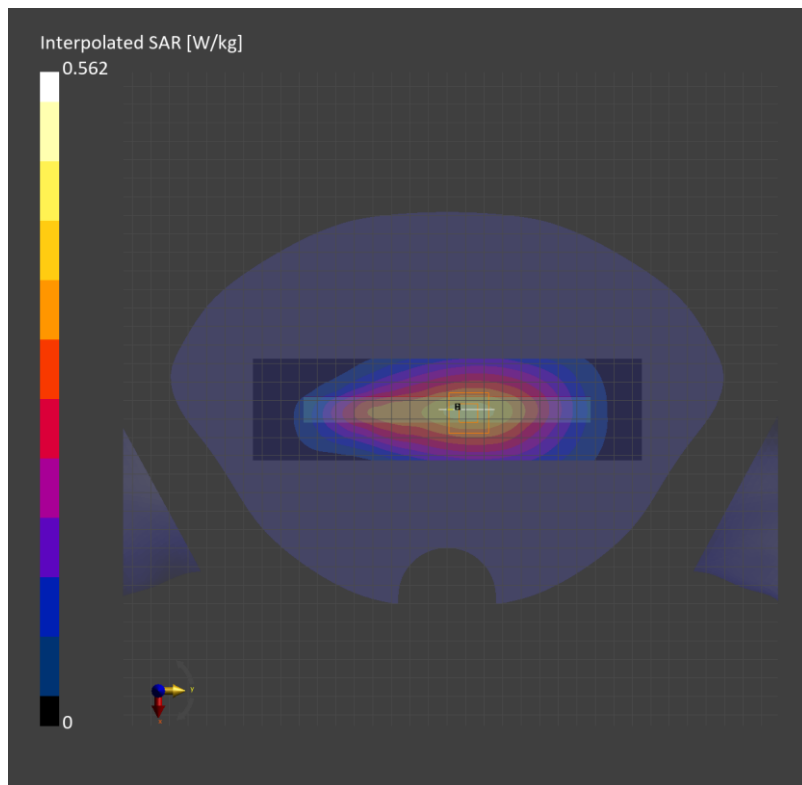
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-24	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.387	0.393
psSAR10g [W/Kg]	0.262	0.276
Power Drift [dB]		-0.01
M2/M1 [%]		87.8
Dist 3dB Peak [mm]		> 15.0



Measurement Report for SM-F946U, EDGE BOTTOM, Band 25, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK), Channel 26140 (1860.0 MHz)

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, HSL	EDGE BOTTOM, 10.00	Band 25	LTE-FDD, 10169-CAF	1860.0, 26140	8.51	1.37	41.4

Hardware Setup

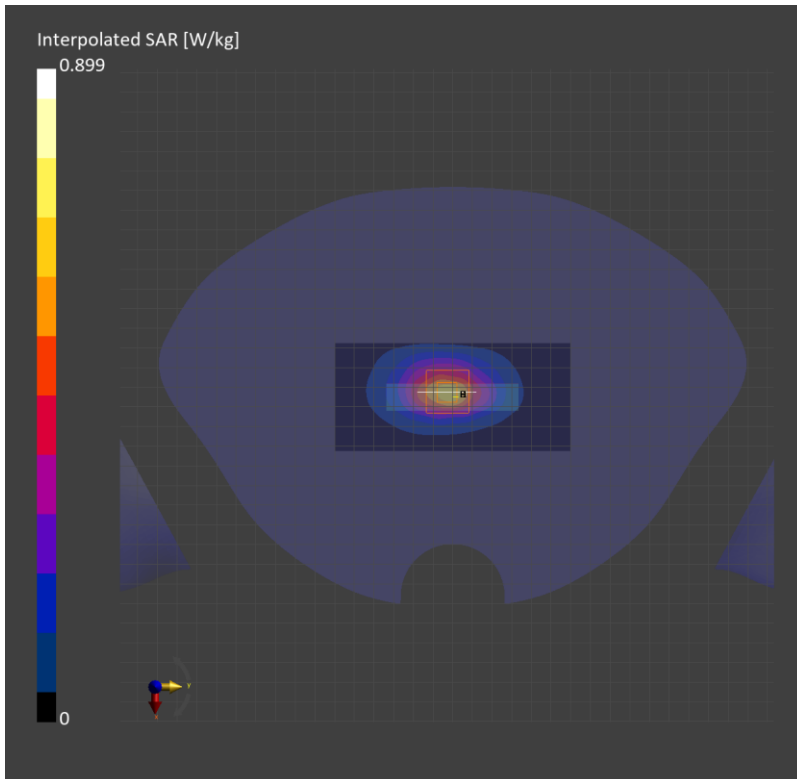
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2042	HBBL-600-10000, 2023-Mar-22	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1468, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.527	0.547
psSAR10g [W/Kg]	0.281	0.298
Power Drift [dB]		-0.01
M2/M1 [%]		88.6
Dist 3dB Peak [mm]		10.9



Measurement Report for SM-F946U, RIGHT TILT, Band 25, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK), Channel 26140 (1860.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TILT, 0.00	Band 25	LTE-FDD, 10169-CAF	1860.0, 26140	8.51	1.40	39.2

Hardware Setup

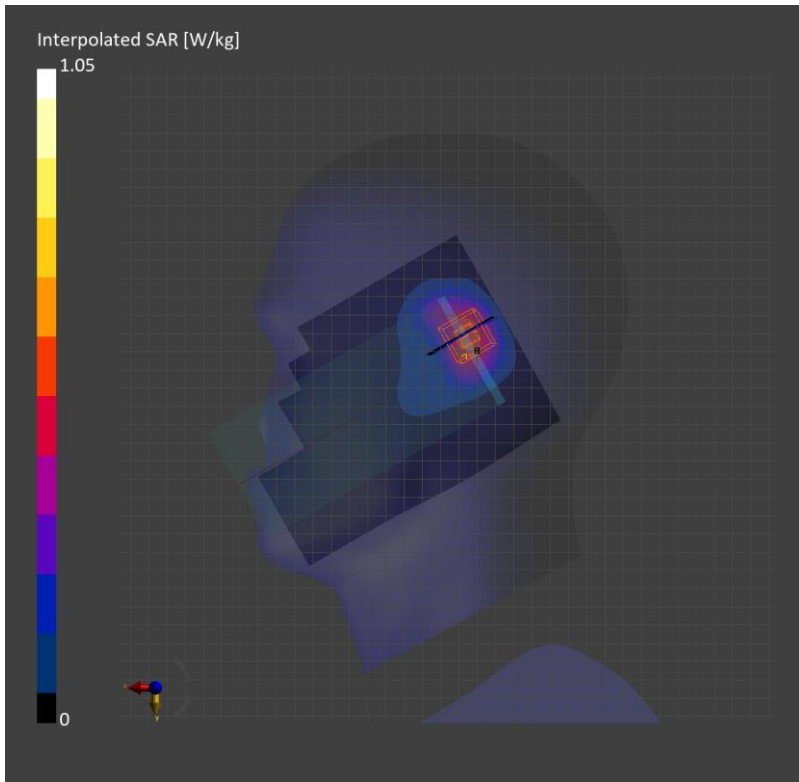
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2037	HBBL-600-10000, 2023-Mar-30	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1468, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.496	0.622
psSAR10g [W/Kg]	0.289	0.332
Power Drift [dB]		-0.06
M2/M1 [%]		88.8
Dist 3dB Peak [mm]		8.1



Measurement Report for SM-F946U, EDGE TOP, Band 25, LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK), Channel 26140 (1860.0 MHz)

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, HSL	EDGE TOP, 10.00	Band 25	LTE-FDD, 10297-AAE	1860.0, 26140	8.51	1.40	39.2

Hardware Setup

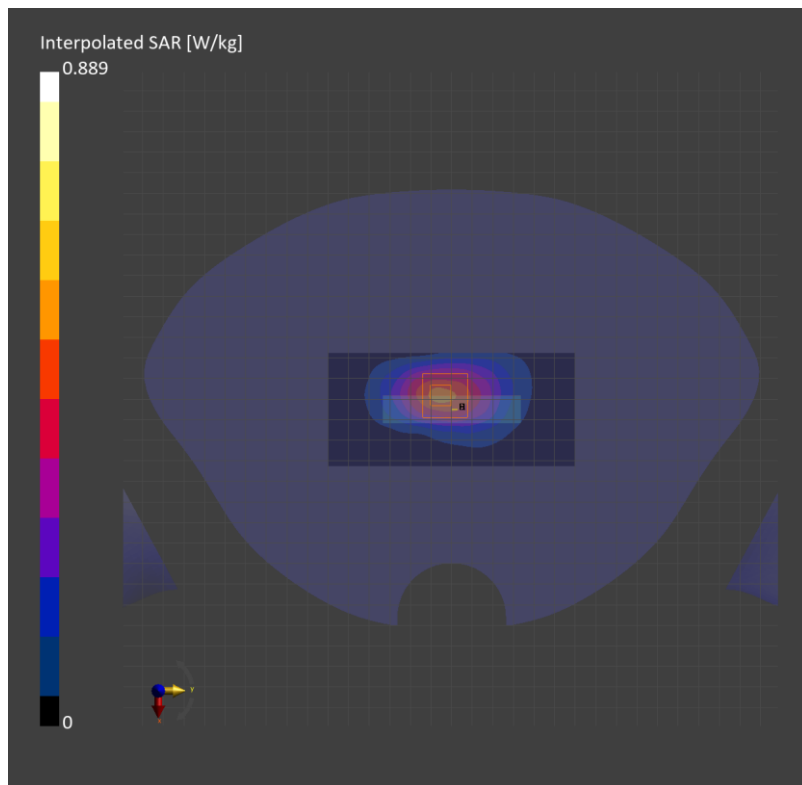
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2037	HBBL-600-10000, 2023-Mar-30	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1468, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.447	0.523
psSAR10g [W/Kg]	0.256	0.282
Power Drift [dB]		-0.01
M2/M1 [%]		86.3
Dist 3dB Peak [mm]		9.7



Measurement Report for SM-F946U, EDGE LEFT, Band 26, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK), Channel 26865 (831.5 MHz)

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, HSL	EDGE LEFT, 10.00	Band 26	LTE-FDD, 10181-CAF	831.5, 26865	10.0	0.915	40.5

Hardware Setup

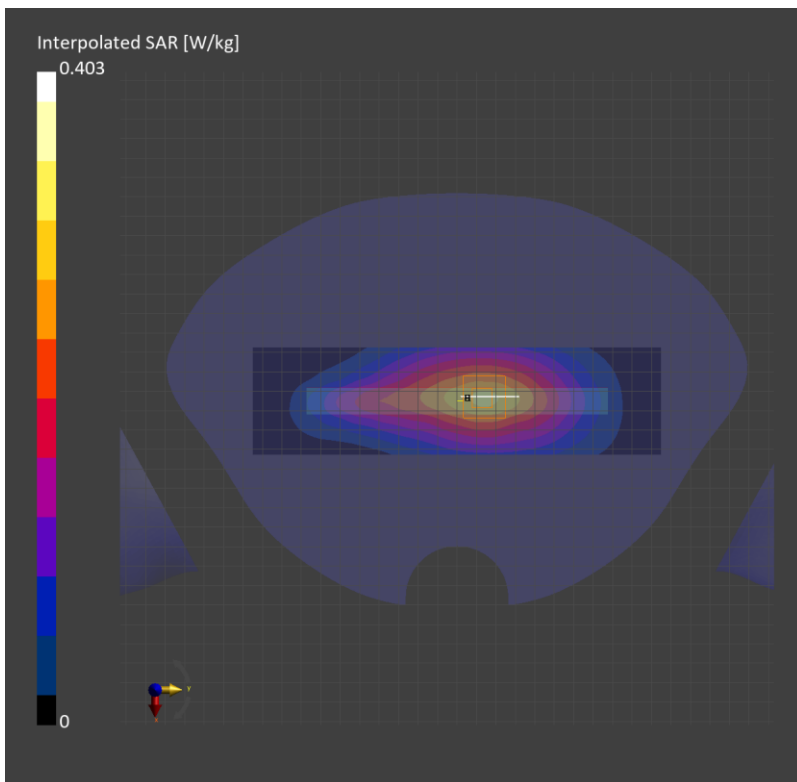
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-28	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.271	0.272
psSAR10g [W/Kg]	0.182	0.190
Power Drift [dB]		0.06
M2/M1 [%]		86.2
Dist 3dB Peak [mm]		> 15.0



# UL CA 5B

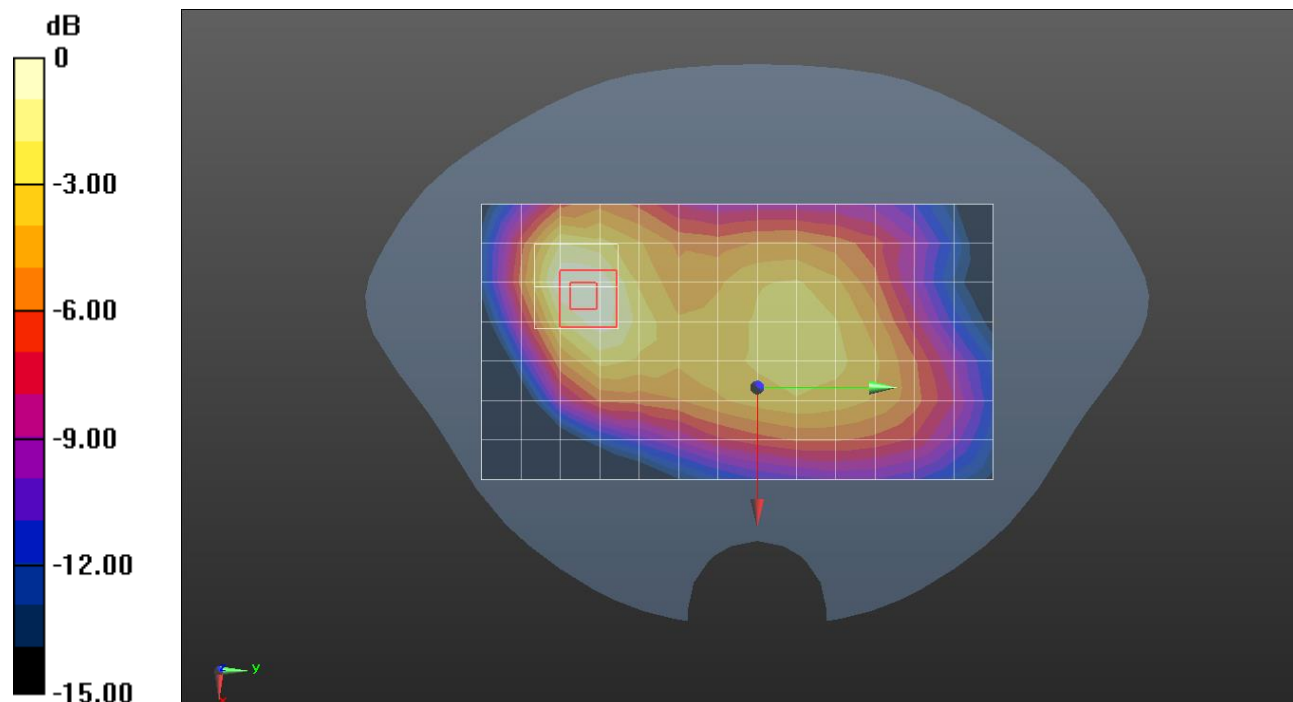
Frequency: 836.5 MHz; Communication System Channel Number: 20525; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 836.5$  MHz;  $\sigma = 0.925$  S/m;  $\epsilon_r = 42.087$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE3 Sn479; Calibrated: 10/6/2022
- Probe: EX3DV4 - SN7545; ConvF(9.8, 9.8, 9.8) @ 836.5 MHz; Calibrated: 8/19/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: SAM (20deg probe tilt) with CRP v5.0(Right); Phantom section: Flat Section ; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Rear/QPSK RB 1/0 ch.20525/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.367 W/kg

**Rear/QPSK RB 1/0 ch.20525/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 18.85 V/m; Power Drift = -0.16 dB  
 Peak SAR (extrapolated) = 0.507 W/kg  
**SAR(1 g) = 0.297 W/kg; SAR(10 g) = 0.175 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 14.3 mm  
 Ratio of SAR at M2 to SAR at M1 = 59.6%  
 Maximum value of SAR (measured) = 0.424 W/kg



0 dB = 0.424 W/kg = -4.35 dBW/kg

Measurement Report for SM-F946U, RIGHT TOUCH, Band 26, LTE-FDD (SC-FDMA, 50 RB, 15 MHz, QPSK), Channel 26865 (831.5 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Right Head, HSL	RIGHT TOUCH, 0.00	Band 26	LTE-FDD, 10181-CAF	831.5, 26865	10.0	0.924	41.2

Hardware Setup

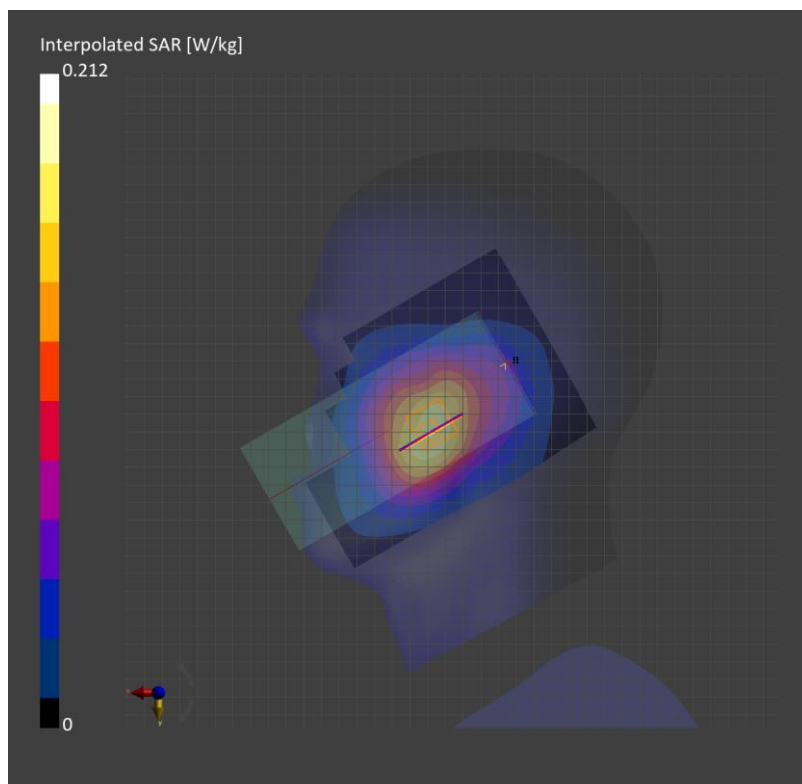
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-22	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.153	0.160
psSAR10g [W/Kg]	0.106	0.127
Power Drift [dB]		-0.03
M2/M1 [%]		90.0
Dist 3dB Peak [mm]		25.0





Measurement Report for SM-F946U, REAR, Band 26, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK), Channel 26865 (831.5 MHz)

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, HSL	REAR, 10.00	Band 26	LTE-FDD, 10181-CAF	831.5, 26865	10.0	0.924	41.2

Hardware Setup

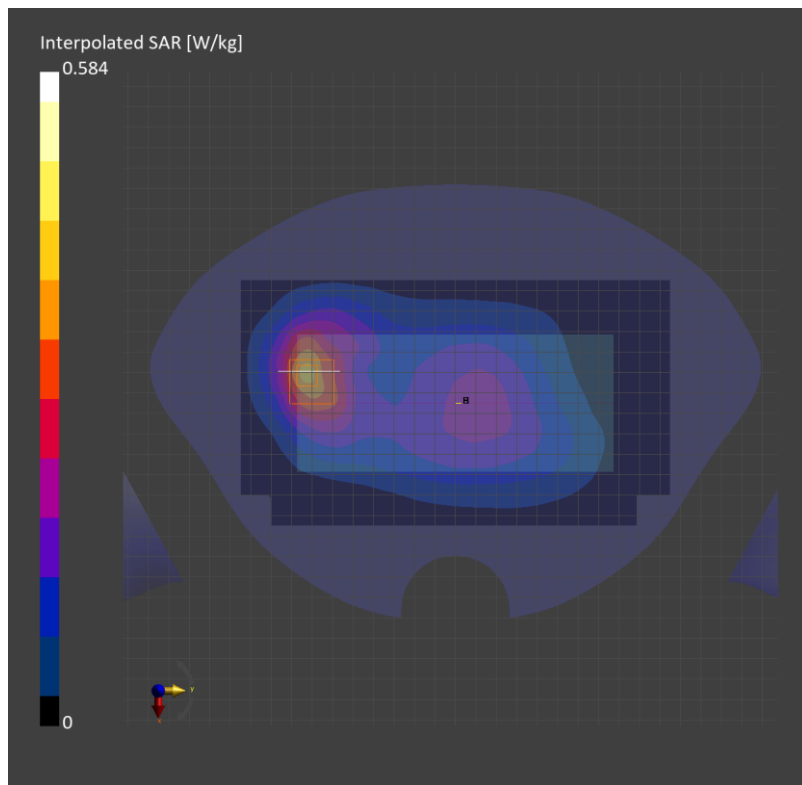
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-21	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.346	0.341
psSAR10g [W/Kg]	0.223	0.210
Power Drift [dB]		-0.03
M2/M1 [%]		84.3
Dist 3dB Peak [mm]		13.7



### UL CA 5B

Frequency: 836.5 MHz; Communication System Channel Number: 20525; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 836.5$  MHz;  $\sigma = 0.904$  S/m;  $\epsilon_r = 43.168$ ;  $\rho = 1000$  kg/m<sup>3</sup>

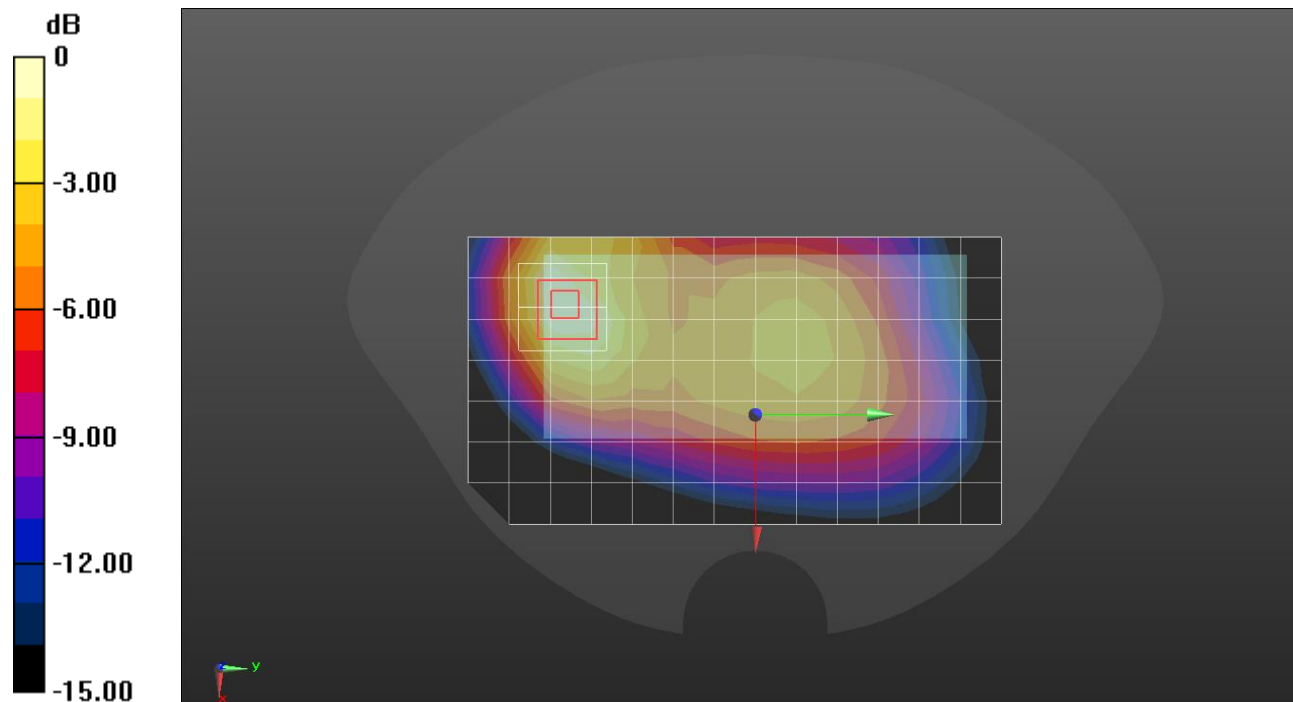
DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1447; Calibrated: 3/22/2023
- Probe: EX3DV4 - SN7314; ConvF(9.42, 9.42, 9.42) @ 836.5 MHz; Calibrated: 5/31/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Rear/QPSK RB 1/0 ch.20525/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.494 W/kg

**Rear/QPSK RB 1/0 ch.20525/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.80 V/m; Power Drift = -0.06 dB  
 Peak SAR (extrapolated) = 0.680 W/kg  
**SAR(1 g) = 0.388 W/kg; SAR(10 g) = 0.235 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 13.7 mm  
 Ratio of SAR at M2 to SAR at M1 = 57.2%  
 Maximum value of SAR (measured) = 0.569 W/kg



0 dB = 0.569 W/kg = -3.06 dBW/kg

Measurement Report for SM-F946U, EDGE BOTTOM, Band 30, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK, Channel 27710 (2310.0 MHz))

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, HSL	EDGE BOTTOM, 10.00	Band 30	LTE-FDD, 10175-CAH	2310.0, 27710	8.3	1.73	38.5

Hardware Setup

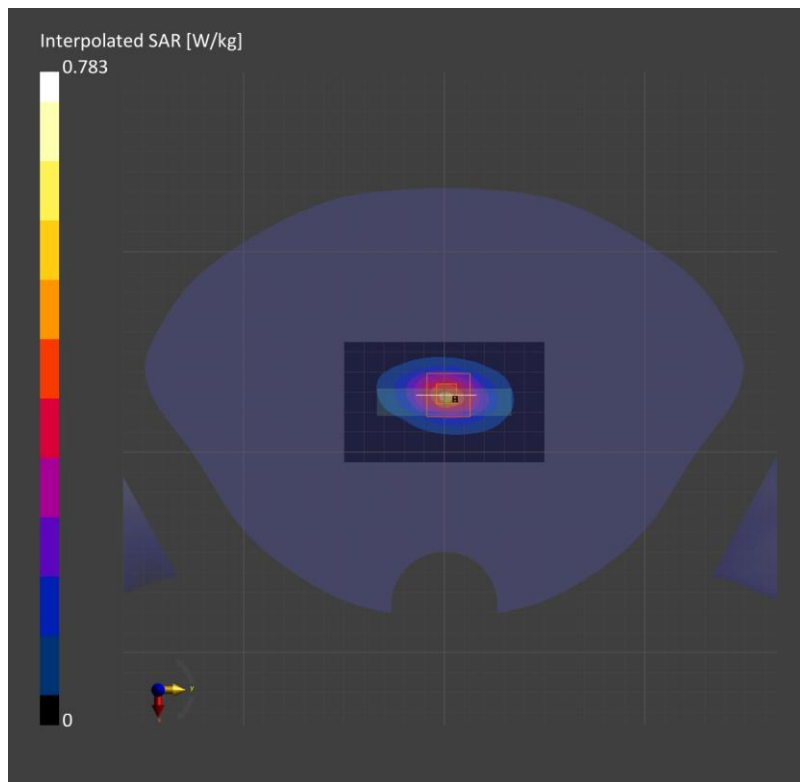
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Mar-21	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1670, 2022-06-07

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 100.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.375	0.390
psSAR10g [W/Kg]	0.185	0.186
Power Drift [dB]		-0.06
M2/M1 [%]		80.5
Dist 3dB Peak [mm]		9.8



Measurement Report for SM-F946U, LEFT TILT, Band 30, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK), Channel 27710 (2310.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
LeftHead, HSL	LEFT TILT, 0.00	Band 30	LTE-FDD, 10175-CAH	2310.0, 27710	8.3	1.75	39.0

Hardware Setup

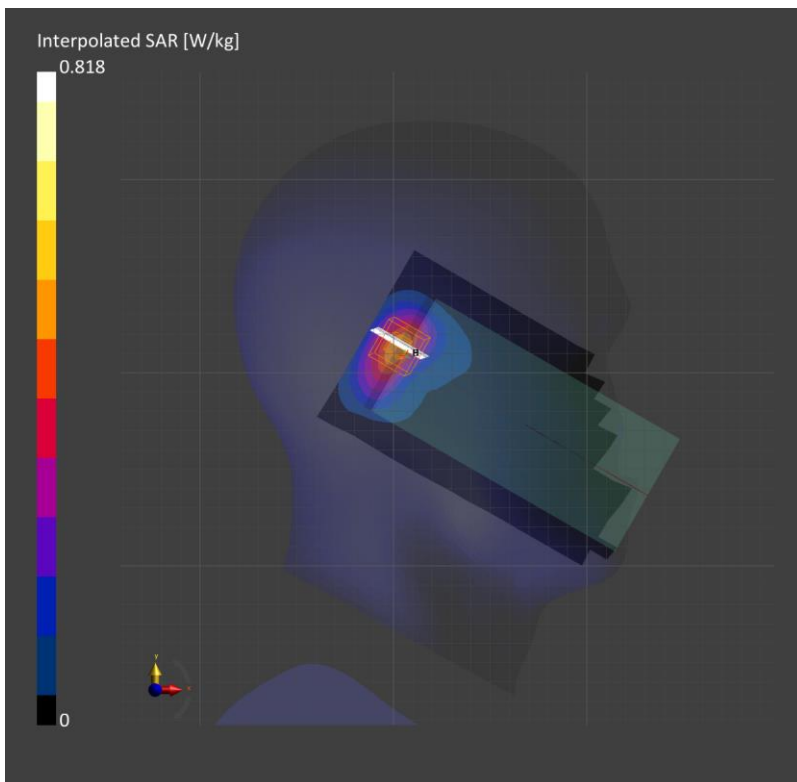
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Mar-27	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1670, 2022-06-07

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.429	0.438
psSAR10g [W/Kg]	0.223	0.228
Power Drift [dB]		-0.04
M2/M1 [%]		82.4
Dist 3dB Peak [mm]		9.8



Measurement Report for SM-F946U, EDGE TOP, Band 30, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK), Channel 27710 (2310.0 MHz)

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, HSL	EDGE TOP, 10.00	Band 30	LTE-FDD, 10175-CAH	2310.0, 27710	8.3	1.75	39.0

Hardware Setup

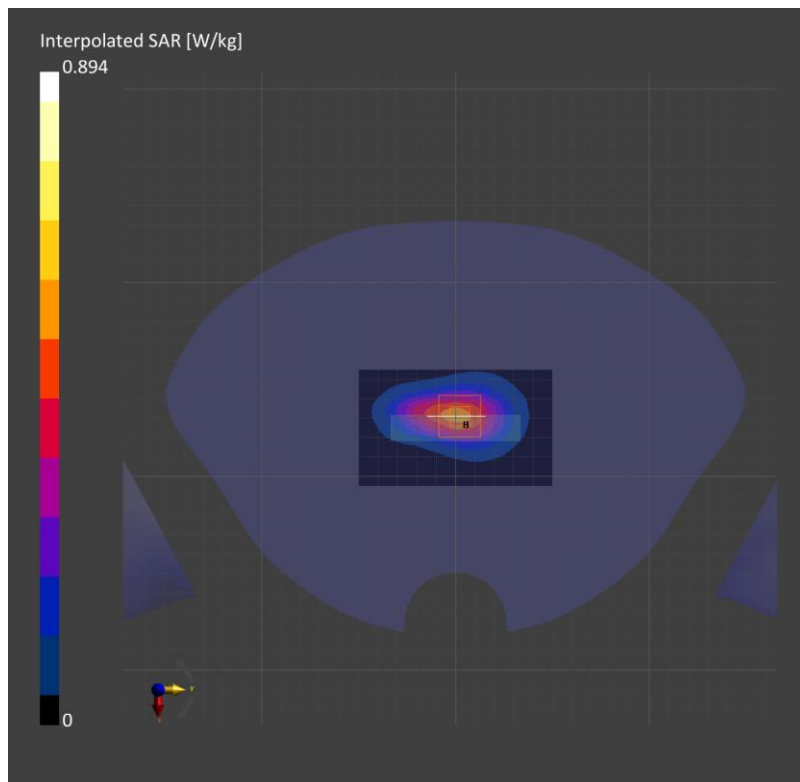
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Mar-27	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1670, 2022-06-07

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 100.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.451	0.470
psSAR10g [W/Kg]	0.235	0.242
Power Drift [dB]		-0.04
M2/M1 [%]		80.9
Dist 3dB Peak [mm]		10.8



Measurement Report for SM-F946U, EDGE BOTTOM, Band 41, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, Channel 41 055 (2636.5 MHz))

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, HSL	EDGE BOTTOM, 10.00	Band 41	LTE-TDD, 10172-CAH	2636.5, 41055	7.74	1.94	38.1

Hardware Setup

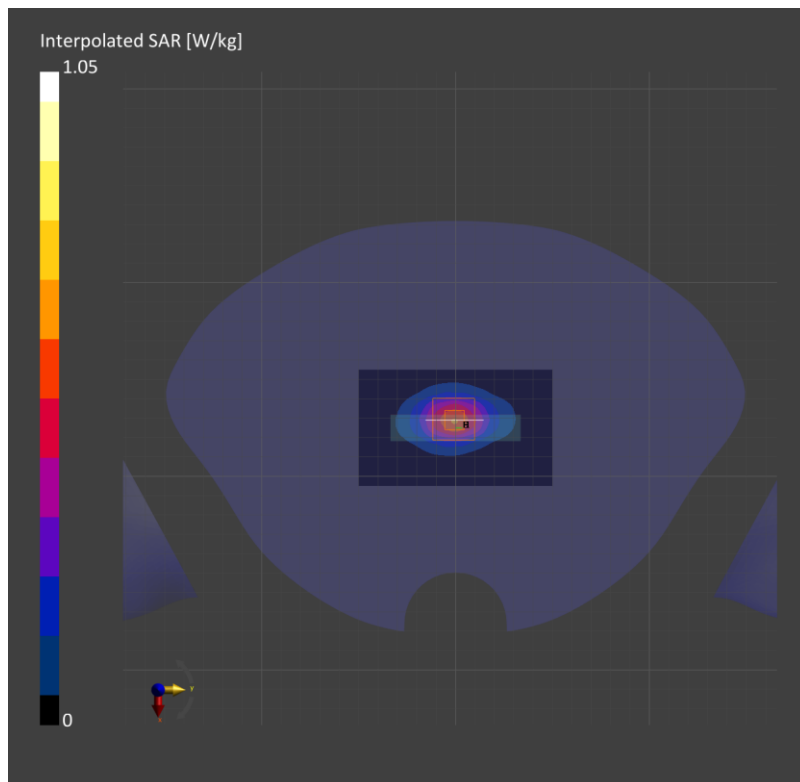
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Mar-22	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1670, 2022-06-07

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 100.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.484	0.502
psSAR10g [W/Kg]	0.228	0.224
Power Drift [dB]		-0.05
M2/M1 [%]		79.7
Dist 3dB Peak [mm]		9.2



Measurement Report for SM-F946U, EDGE TOP, Band 41, LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9), Channel 40620 (2593.0 MHz)

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, HSL	EDGE TOP, 10.00	Band 41	LTE-TDD, 10494-AAG	2593.0, 40620	7.74	1.98	38.4

Hardware Setup

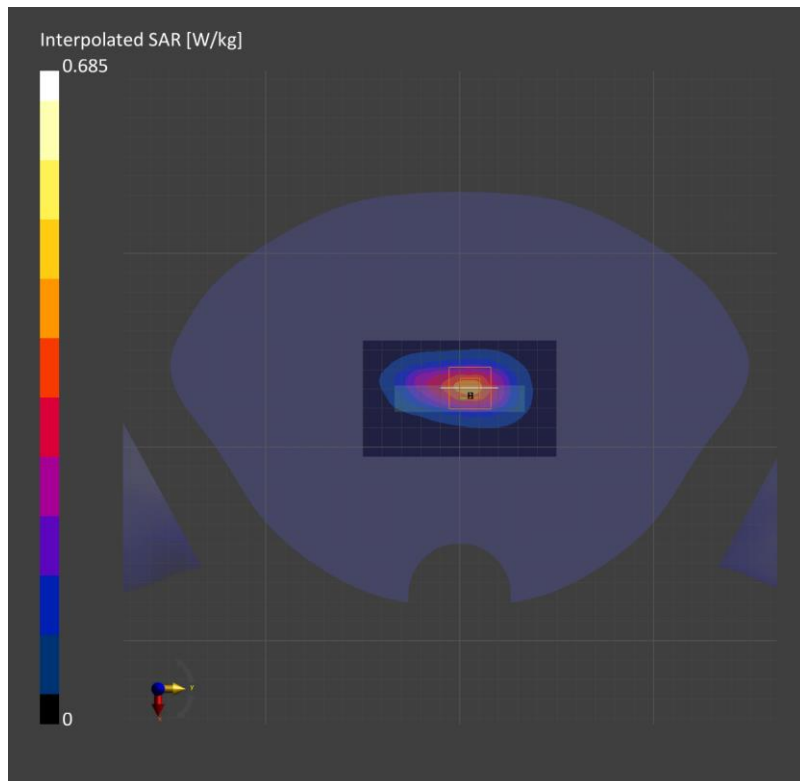
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Mar-27	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1670, 2022-06-07

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 100.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.345	0.360
psSAR10g [W/Kg]	0.170	0.174
Power Drift [dB]		-0.02
M2/M1 [%]		82.5
Dist 3dB Peak [mm]		10.0



Measurement Report for SM-F946U, LEFT TILT, Band 41, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK), Channel 40620 (2593.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
LeftHead, HSL	LEFT TILT, 0.00	Band 41	LTE-TDD, 10172-CAH	2593.0, 40620	7.74	1.98	38.4

Hardware Setup

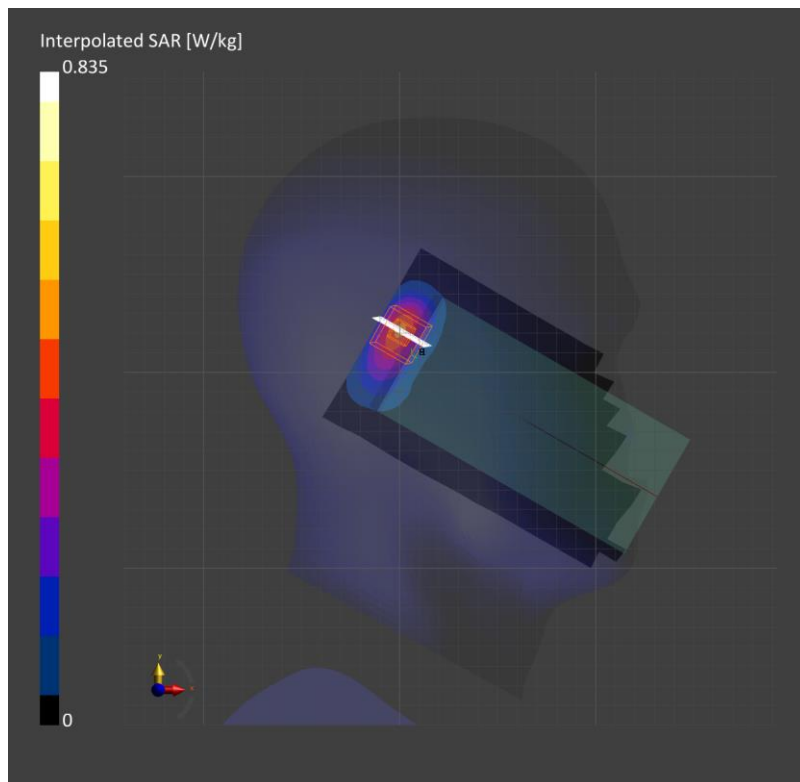
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Mar-27	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1670, 2022-06-07

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.389	0.418
psSAR10g [W/Kg]	0.190	0.195
Power Drift [dB]		0.03
M2/M1 [%]		82.4
Dist 3dB Peak [mm]		8.1





# LTE Band 41

Frequency: 2636.5 MHz; Communication System Channel Number: 41055; Duty Cycle: 1:1.59956  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 2636.5$  MHz;  $\sigma = 1.947$  S/m;  $\epsilon_r = 39.761$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn912; Calibrated: 2022-11-16
- Probe: EX3DV4 - SN7645; ConvF(6.73, 6.73, 6.73) @ 2636.5 MHz; Calibrated: 2022-11-15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Bottom/QPSK RB 1/0 ch.41055/Area Scan (10x6x1):** Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 0.818 W/kg

**Bottom/QPSK RB 1/0 ch.41055/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.08 V/m; Power Drift = 0.11 dB

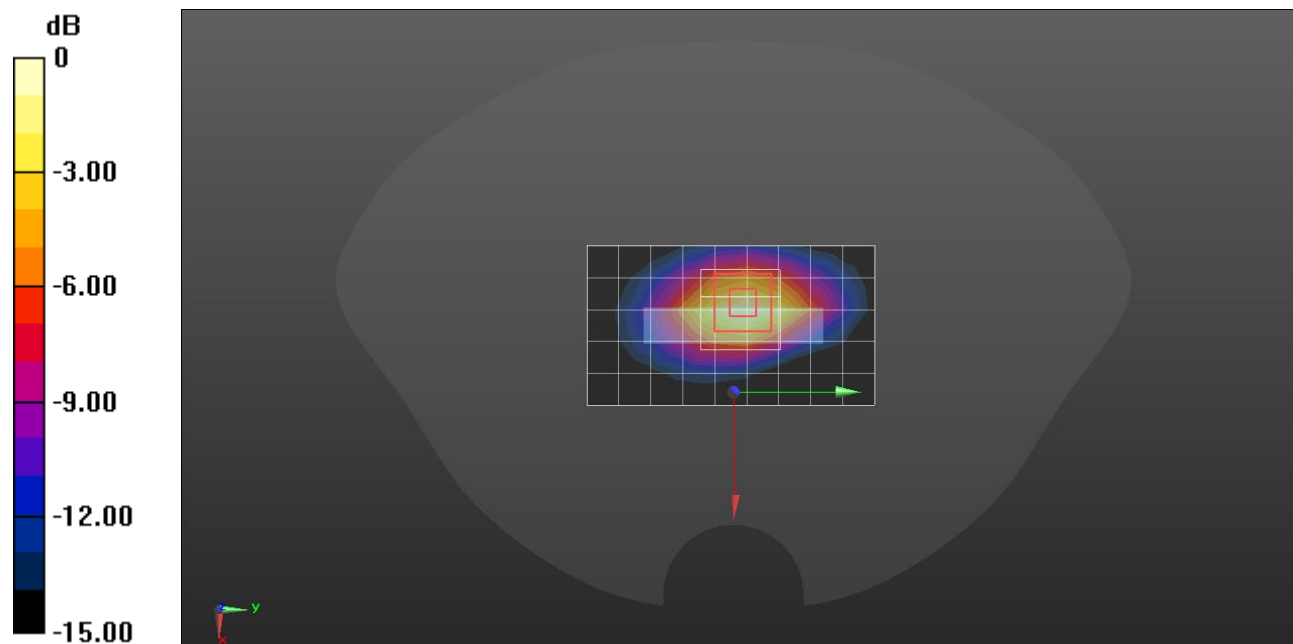
Peak SAR (extrapolated) = 0.959 W/kg

**SAR(1 g) = 0.476 W/kg; SAR(10 g) = 0.227 W/kg**

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 52%

Maximum value of SAR (measured) = 0.750 W/kg



0 dB = 0.750 W/kg = -1.25 dBW/kg

## LTE Band 41

Frequency: 2593 MHz; Communication System Channel Number: 40620; Duty Cycle: 1:1.59956  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 2593$  MHz;  $\sigma = 1.902$  S/m;  $\epsilon_r = 39.822$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn912; Calibrated: 2022-11-16
- Probe: EX3DV4 - SN7645; ConvF(6.73, 6.73, 6.73) @ 2593 MHz; Calibrated: 2022-11-15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Phantom section: Left Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Left Tilt/QPSK RB 1/0 ch.40620/Area Scan (9x17x1):** Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 0.680 W/kg

**Left Tilt/QPSK RB 1/0 ch.40620/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.60 V/m; Power Drift = -0.18 dB

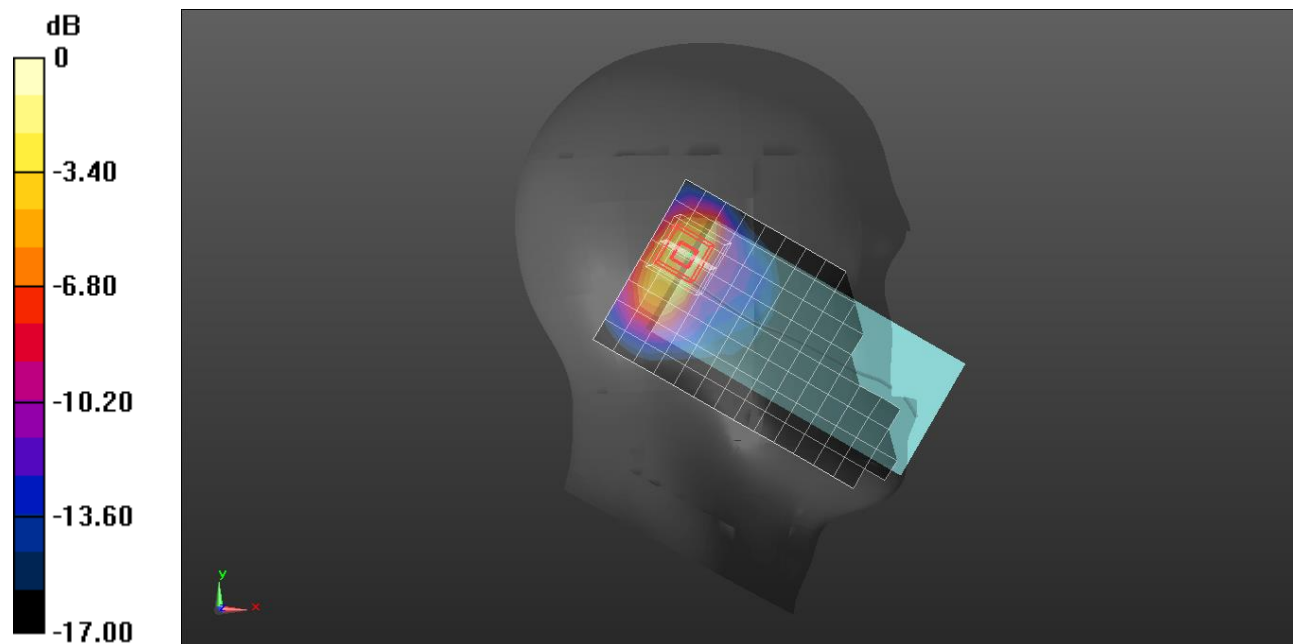
Peak SAR (extrapolated) = 1.16 W/kg

**SAR(1 g) = 0.562 W/kg; SAR(10 g) = 0.264 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.1 mm

Ratio of SAR at M2 to SAR at M1 = 51.1%

Maximum value of SAR (measured) = 0.928 W/kg



0 dB = 0.928 W/kg = -0.32 dBW/kg

Measurement Report for SM-F946U, RIGHT TILT, Band 48, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK), Channel 55340 (3560.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TILT, 0.00	Band 48	LTE-TDD, 10172-CAH	3560.0, 55340	7.37	2.98	37.9

Hardware Setup

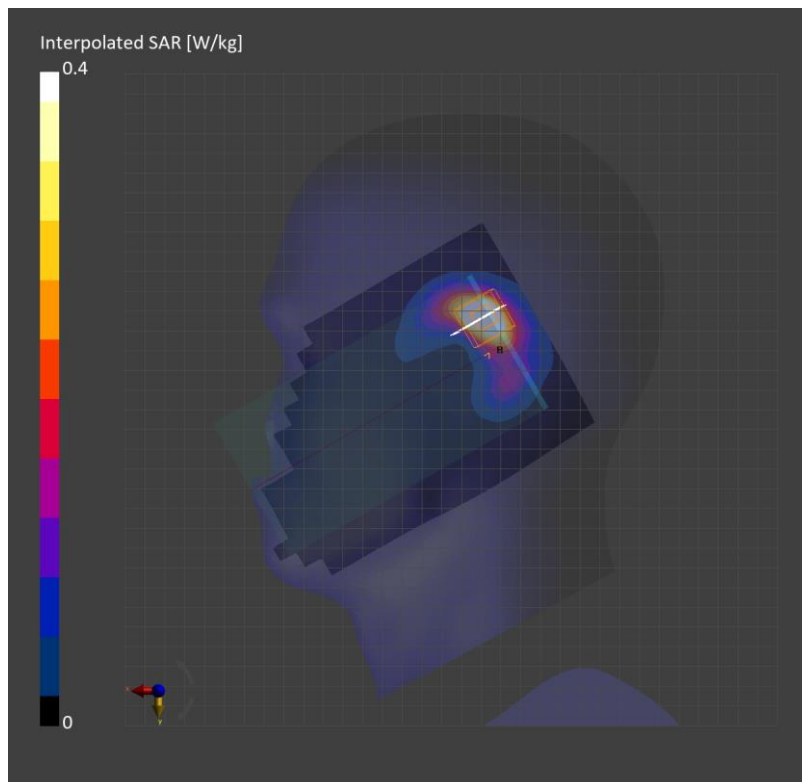
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-May-02	EX3DV4 - SN7646, 2023-03-23	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 200.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.395	0.416
psSAR10g [W/Kg]	0.163	0.157
Power Drift [dB]		-0.14
M2/M1 [%]		74.5
Dist 3dB Peak [mm]		7.7



Measurement Report for SM-F946U, EDGE TOP, Band 48, LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK), Channel 55340 (3560.0 MHz)

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, HSL	EDGE TOP, 10.00	Band 48	LTE-TDD, 10151-CAH	3560.0, 55340	7.37	2.98	37.9

Hardware Setup

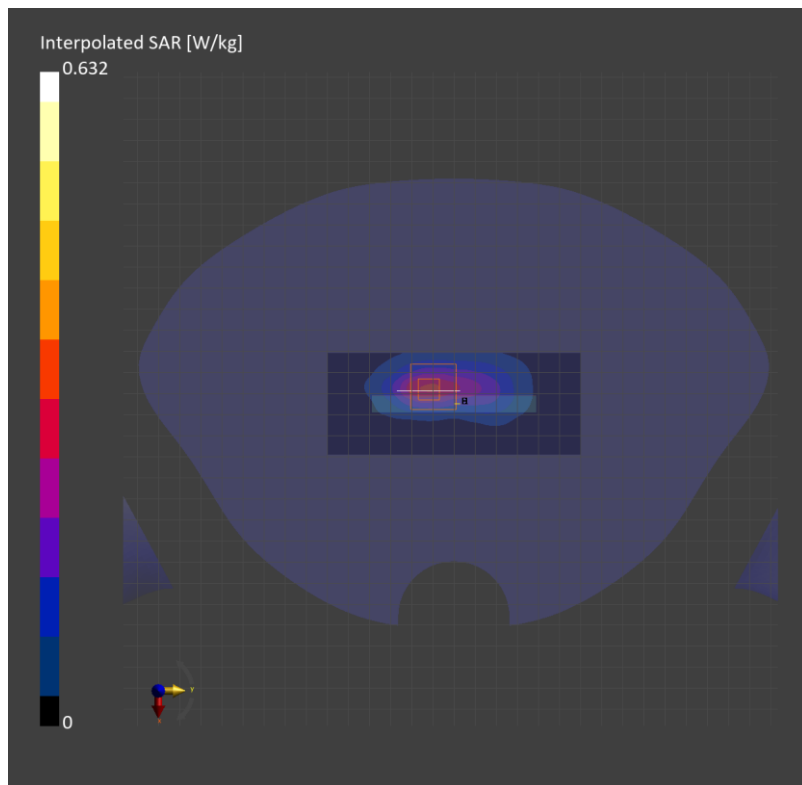
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-May-02	EX3DV4 - SN7646, 2023-03-23	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	48.0 x 120.0	28.0 x 28.0 x 28.0
Grid Steps [mm]	8.0 x 10.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.237	0.249
psSAR10g [W/Kg]	0.100	0.102
Power Drift [dB]		0.09
M2/M1 [%]		73.8
Dist 3dB Peak [mm]		8.0



Measurement Report for SM-F946U, RIGHT TILT, Band 48, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK), Channel 55340 (3560.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TILT, 0.00	Band 48	LTE-TDD, 10172-CAH	3560.0, 55340	6.0	3.02	38.1

Hardware Setup

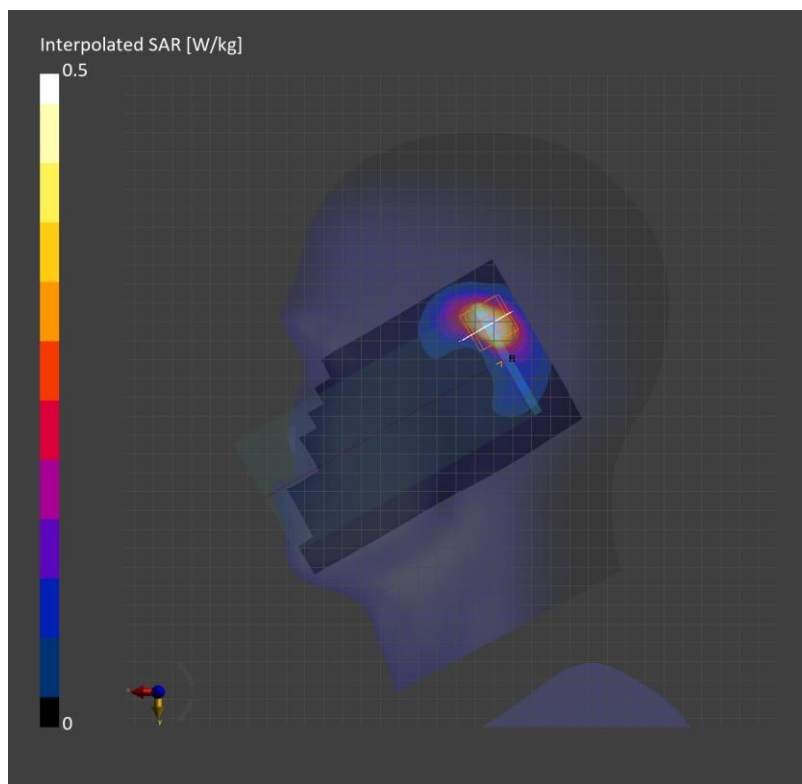
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-May-09	EX3DV4 - SN7645, 2022-11-15	DAE3 Sn479, 2022-10-06

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.441	0.431
psSAR10g [W/Kg]	0.170	0.159
Power Drift [dB]	0.02	
M2/M1 [%]	72.6	
Dist 3dB Peak [mm]	7.1	



## LTE Band 66

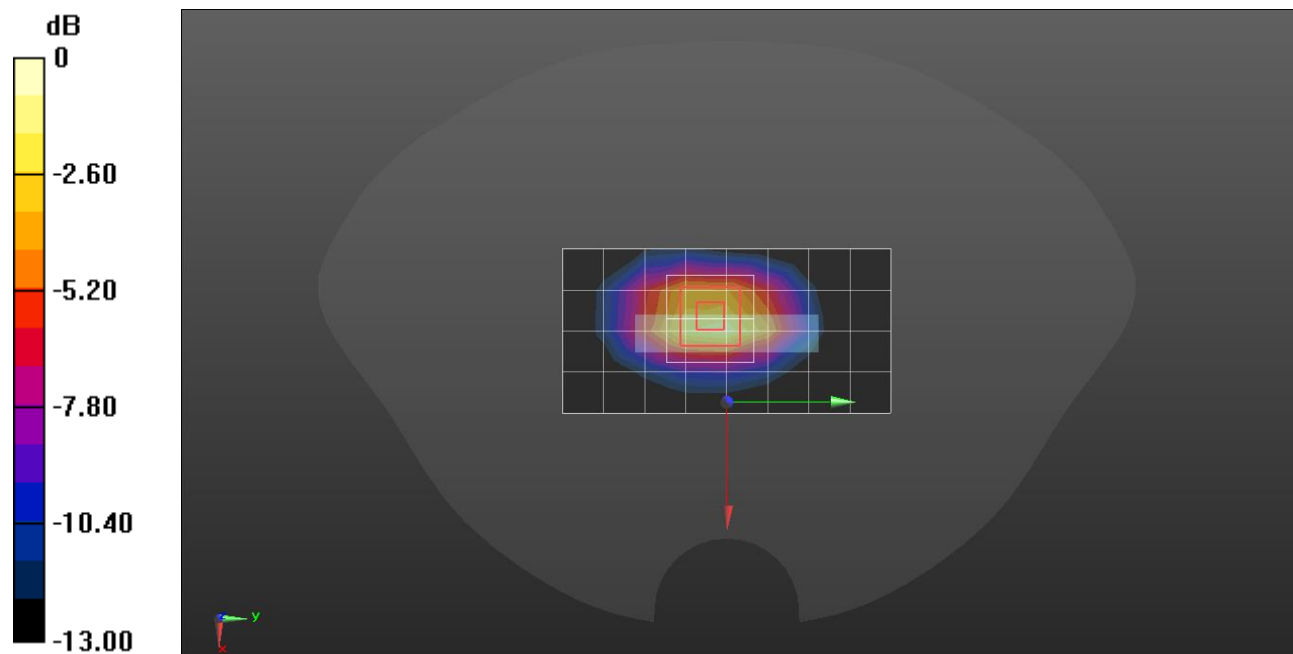
Frequency: 1720 MHz; Communication System Channel Number: 132072; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used:  $f = 1720$  MHz;  $\sigma = 1.336$  S/m;  $\epsilon_r = 40.582$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1667; Calibrated: 2022-04-27
- Probe: EX3DV4 - SN7314; ConvF(8.39, 8.39, 8.39) @ 1720 MHz; Calibrated: 2022-05-31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Bottom/QPSK RB 1/99 ch.132072/Area Scan (9x5x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.691 W/kg

**Bottom/QPSK RB 1/99 ch.132072/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 21.63 V/m; Power Drift = -0.17 dB  
 Peak SAR (extrapolated) = 1.04 W/kg  
**SAR(1 g) = 0.629 W/kg; SAR(10 g) = 0.351 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 9.6 mm  
 Ratio of SAR at M2 to SAR at M1 = 62.7%  
 Maximum value of SAR (measured) = 0.897 W/kg



0 dB = 0.897 W/kg = -0.47 dBW/kg

## LTE Band 66

Frequency: 1717.5 MHz; Communication System Channel Number: 132047; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 1717.5$  MHz;  $\sigma = 1.314$  S/m;  $\epsilon_r = 40.295$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1591; Calibrated: 2023-03-22
- Probe: EX3DV4 - SN3871; ConvF(8.58, 8.58, 8.58) @ 1717.5 MHz; Calibrated: 2022-09-26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Bottom/QPSK RB 1/0 ch.132047/Area Scan (9x5x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.695 W/kg

**Bottom/QPSK RB 1/0 ch.132047/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.58 V/m; Power Drift = -0.04 dB

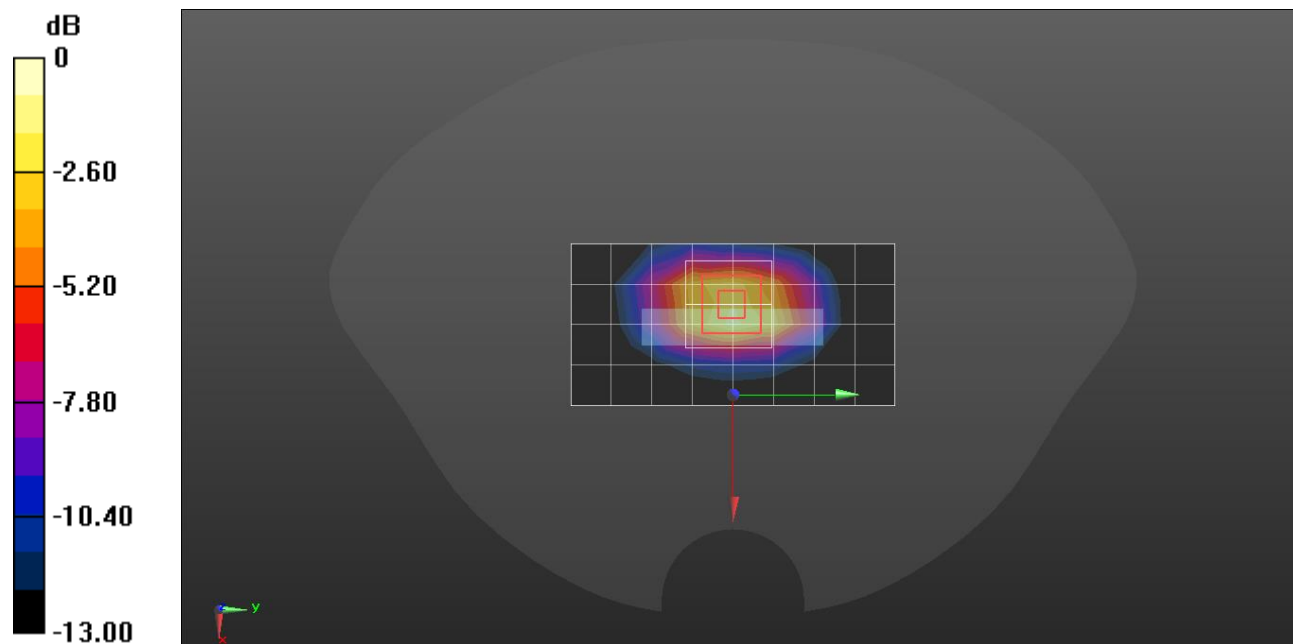
Peak SAR (extrapolated) = 1.09 W/kg

**SAR(1 g) = 0.664 W/kg; SAR(10 g) = 0.369 W/kg**

Smallest distance from peaks to all points 3 dB below = 10.7 mm

Ratio of SAR at M2 to SAR at M1 = 62.8%

Maximum value of SAR (measured) = 0.950 W/kg



0 dB = 0.950 W/kg = -0.22 dBW/kg

## LTE Band 66

Frequency: 1720 MHz; Communication System Channel Number: 132072; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used:  $f = 1720$  MHz;  $\sigma = 1.315$  S/m;  $\epsilon_r = 40.29$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1591; Calibrated: 2023-03-22
- Probe: EX3DV4 - SN3871; ConvF(8.58, 8.58, 8.58) @ 1720 MHz; Calibrated: 2022-09-26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Bottom/QPSK RB 1/0 ch.132072/Area Scan (9x5x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.691 W/kg

**Bottom/QPSK RB 1/0 ch.132072/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.40 V/m; Power Drift = 1.16 dB

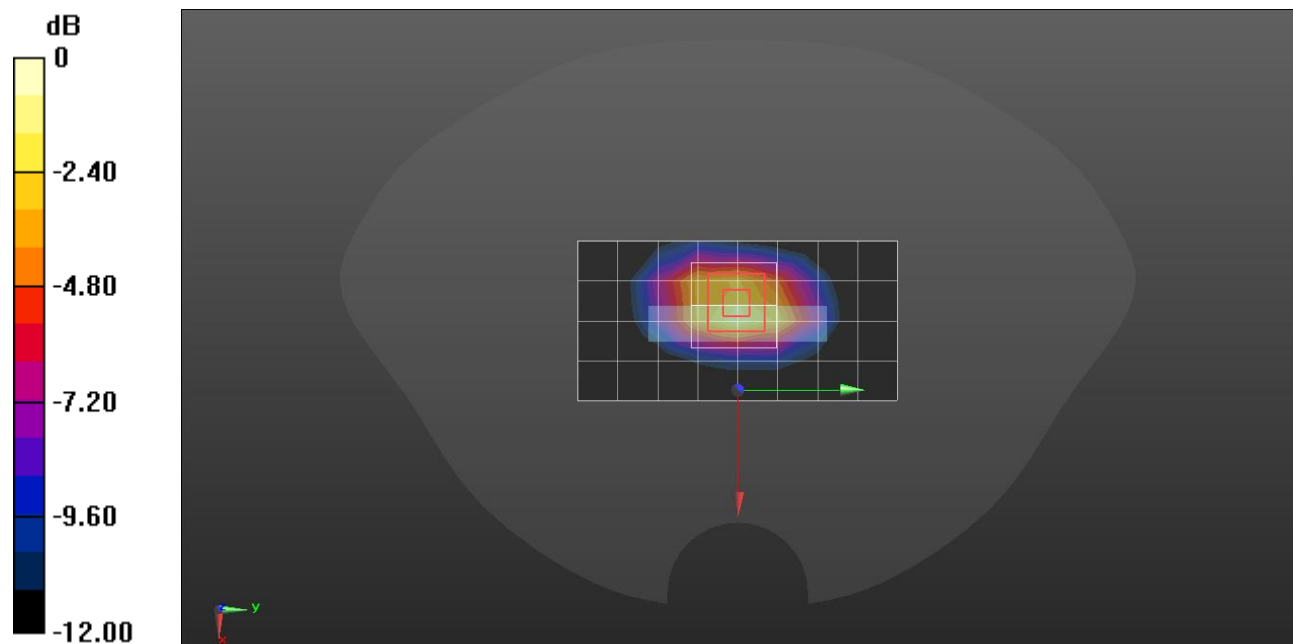
Peak SAR (extrapolated) = 0.998 W/kg

**SAR(1 g) = 0.609 W/kg; SAR(10 g) = 0.341 W/kg**

Smallest distance from peaks to all points 3 dB below = 9.7 mm

Ratio of SAR at M2 to SAR at M1 = 62.6%

Maximum value of SAR (measured) = 0.867 W/kg



0 dB = 0.867 W/kg = -0.62 dBW/kg



Measurement Report for SM-F946U, LEFT TILT, Band 66, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK), Channel 132072 (1720.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
LeftHead, HSL	LEFT TILT, 0.00	Band 66	LTE-FDD, 10169-CAF	1720.0, 132072	8.66	1.32	39.5

Hardware Setup

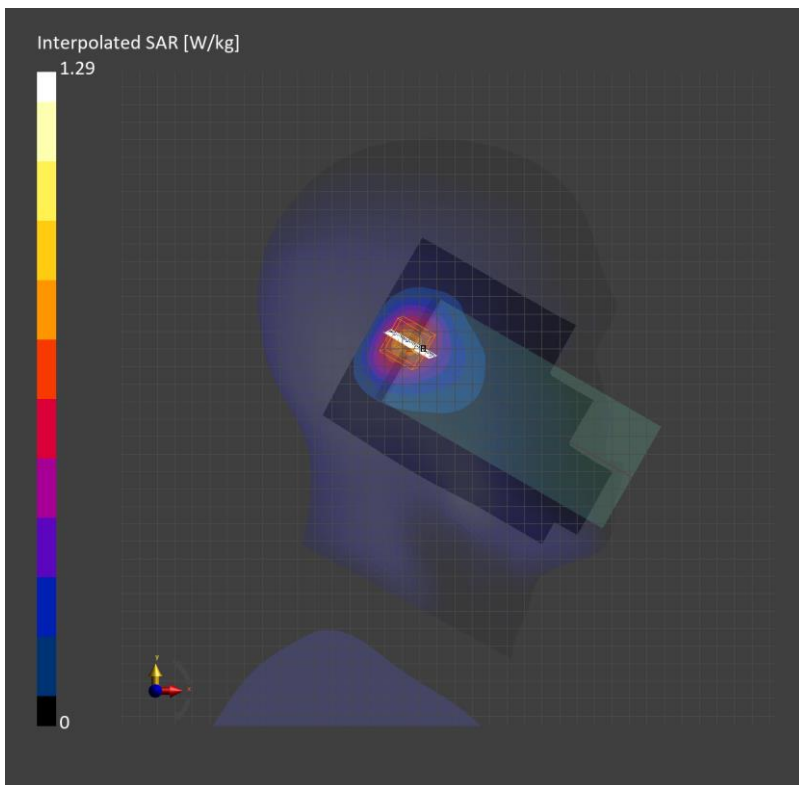
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2037	HBBL-600-10000, 2023-Mar-30	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1468, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.701	0.814
psSAR10g [W/Kg]	0.418	0.467
Power Drift [dB]		-0.07
M2/M1 [%]		88.1
Dist 3dB Peak [mm]		12.3



Measurement Report for SM-F946U, EDGE TOP, Band 66, LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK) RBPosition:High AntennaCfg:SISO, Channel 132572 (1770.0 MHz)

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, HSL	EDGE TOP, 10.00	Band 66	LTE-FDD, 10297-AAE	1770.0, 132572	8.66	1.34	38.6

Hardware Setup

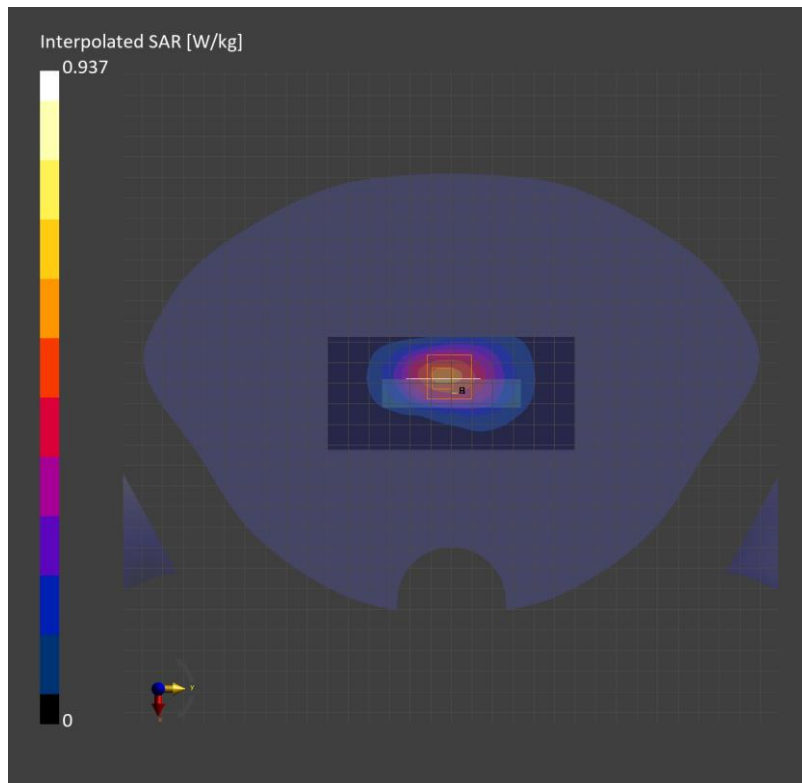
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2037	HBBL-600-10000, 2023-Apr-03	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1468, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.477	0.546
psSAR10g [W/Kg]	0.277	0.303
Power Drift [dB]		0.01
M2/M1 [%]		85.5
Dist 3dB Peak [mm]		10.3



## LTE Band 66

Frequency: 1717.5 MHz; Communication System Channel Number: 132047; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 1717.5$  MHz;  $\sigma = 1.314$  S/m;  $\epsilon_r = 40.295$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1591; Calibrated: 2023-03-22
- Probe: EX3DV4 - SN3871; ConvF(8.58, 8.58, 8.58) @ 1717.5 MHz; Calibrated: 2022-09-26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Left Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LHS/Tilt QPSK RB 1/74 ch.132047/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 1.05 W/kg

**LHS/Tilt QPSK RB 1/74 ch.132047/Zoom Scan (5x7x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.10 V/m; Power Drift = -0.01 dB

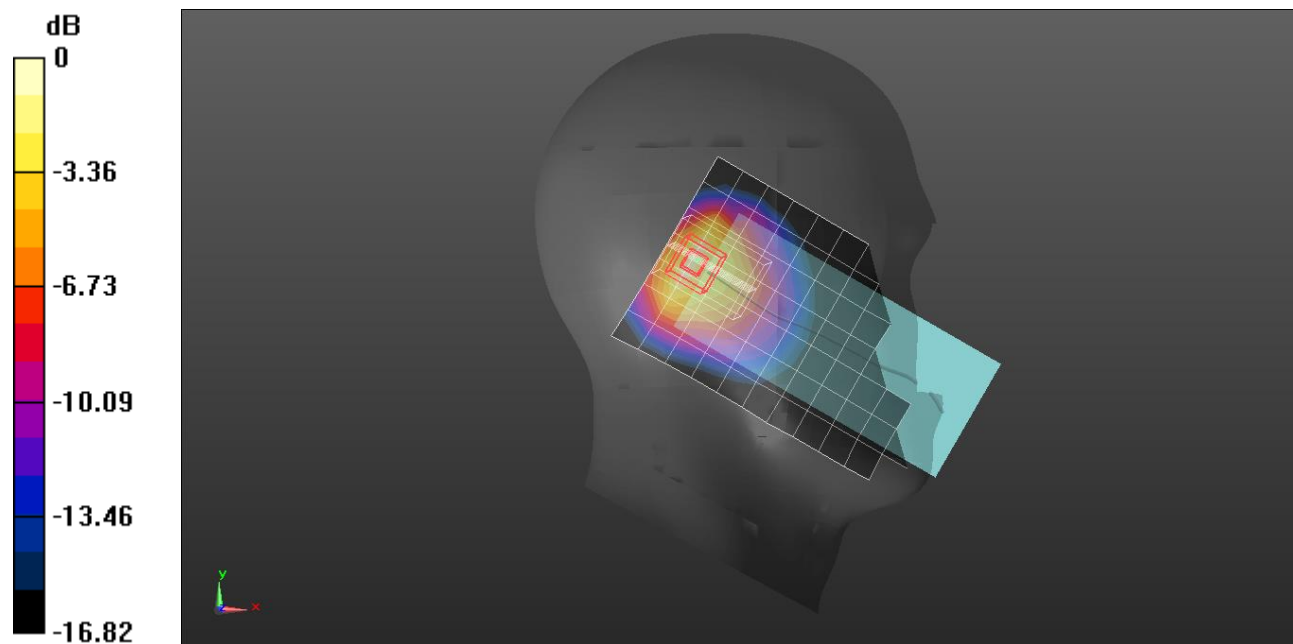
Peak SAR (extrapolated) = 1.27 W/kg

**SAR(1 g) = 0.807 W/kg; SAR(10 g) = 0.473 W/kg**

Smallest distance from peaks to all points 3 dB below = 11.7 mm

Ratio of SAR at M2 to SAR at M1 = 65.7%

Maximum value of SAR (measured) = 1.12 W/kg



0 dB = 1.12 W/kg = 0.49 dBW/kg

## LTE Band 66

Frequency: 1720 MHz; Communication System Channel Number: 132072; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used:  $f = 1720 \text{ MHz}$ ;  $\sigma = 1.315 \text{ S/m}$ ;  $\epsilon_r = 40.29$ ;  $\rho = 1000 \text{ kg/m}^3$

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1591; Calibrated: 2023-03-22
- Probe: EX3DV4 - SN3871; ConvF(8.58, 8.58, 8.58) @ 1720 MHz; Calibrated: 2022-09-26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Left Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LHS/Tilt QPSK RB 1/99 ch.132072/Area Scan (8x15x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (measured) = 0.718 W/kg

**LHS/Tilt QPSK RB 1/99 ch.132072/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 26.63 V/m; Power Drift = 0.05 dB

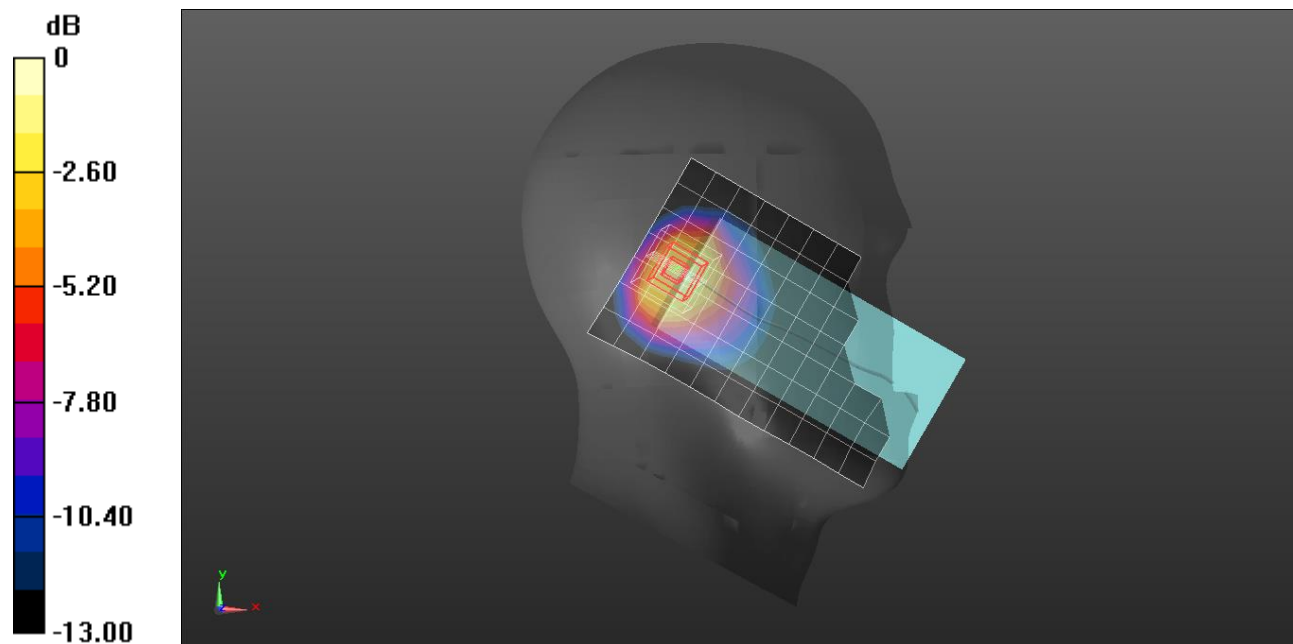
Peak SAR (extrapolated) = 1.14 W/kg

**SAR(1 g) = 0.718 W/kg; SAR(10 g) = 0.423 W/kg**

Smallest distance from peaks to all points 3 dB below = 11.2 mm

Ratio of SAR at M2 to SAR at M1 = 65.9%

Maximum value of SAR (measured) = 0.991 W/kg



0 dB = 0.991 W/kg = -0.04 dBW/kg

Measurement Report for SM-F946U, RIGHT TOUCH, Band 71, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 133297 (680.5 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TOUCH, 0.00	Band 71	LTE-FDD, 10169-CAF	680.5, 133297	10.23	0.845	40.8

Hardware Setup

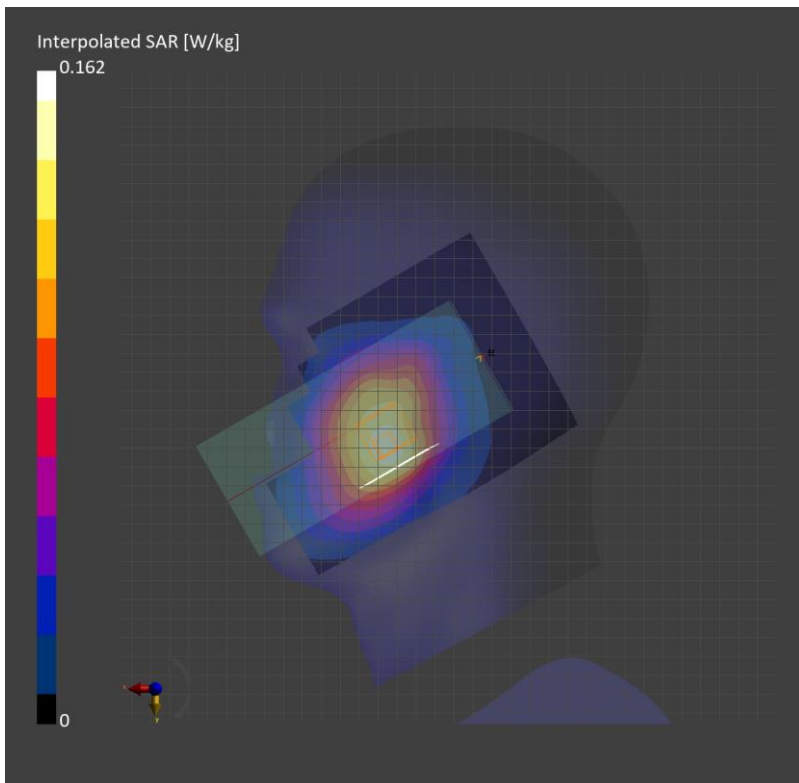
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-28	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.126	0.129
psSAR10g [W/Kg]	0.089	0.105
Power Drift [dB]		-0.02
M2/M1 [%]		98.5
Dist 3dB Peak [mm]		23.5



**Measurement Report for SM-F946U, EDGE LEFT, Band 71, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 133297 (680.5 MHz)**

**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, HSL	EDGE LEFT, 10.00	Band 71	LTE-FDD, 10169-CAF	680.5, 133297	10.23	0.845	40.8

**Hardware Setup**

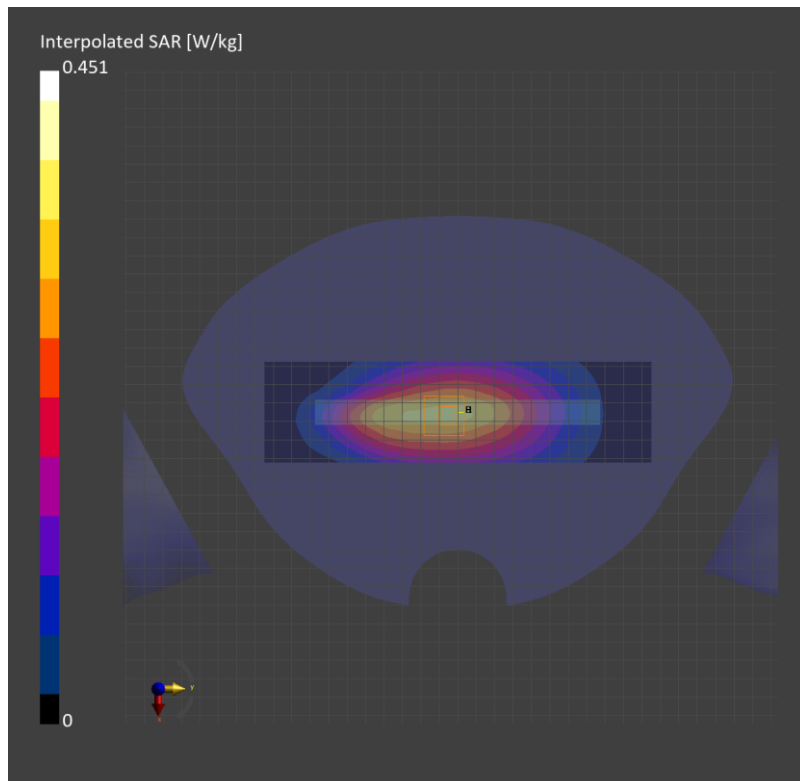
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-28	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

**Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

**Measurement Results**

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.311	0.316
psSAR10g [W/Kg]	0.216	0.226
Power Drift [dB]		0.01
M2/M1 [%]		89.4
Dist 3dB Peak [mm]		> 15.0



Measurement Report for SM-F946U, EDGE LEFT, Band 71, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 133297 (680.5 MHz)

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, HSL	EDGE LEFT, 10.00	Band 71	LTE-FDD, 10169-CAF	680.5, 133297	10.23	0.880	42.0

Hardware Setup

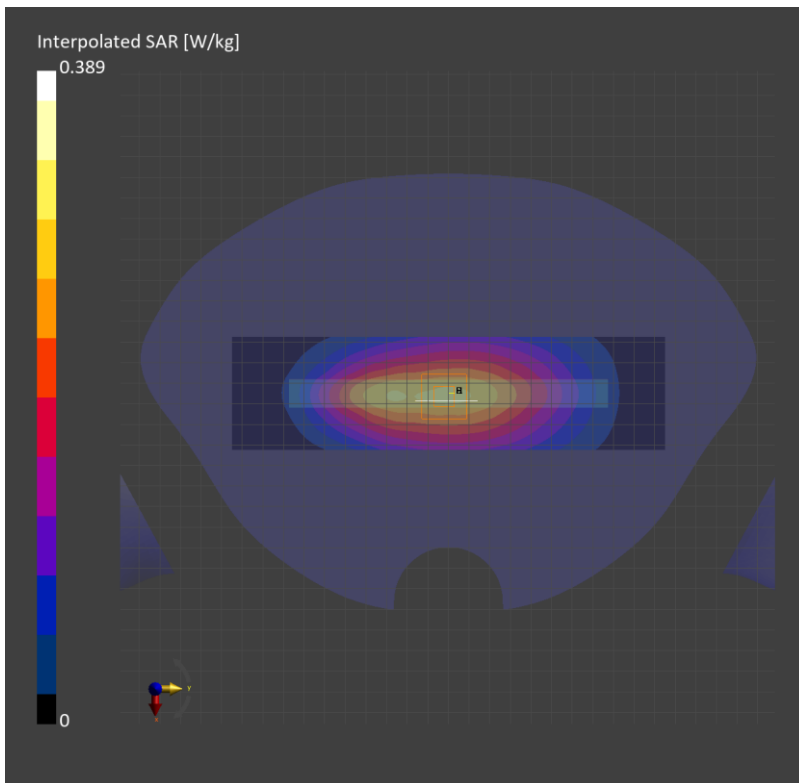
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Mar-24	EX3DV4 - SN7651, 2022-05-30	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	55.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	13.76 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.264	0.270
psSAR10g [W/Kg]	0.182	0.192
Power Drift [dB]		-0.01
M2/M1 [%]		87.6
Dist 3dB Peak [mm]		> 15.0



## NR Band n7

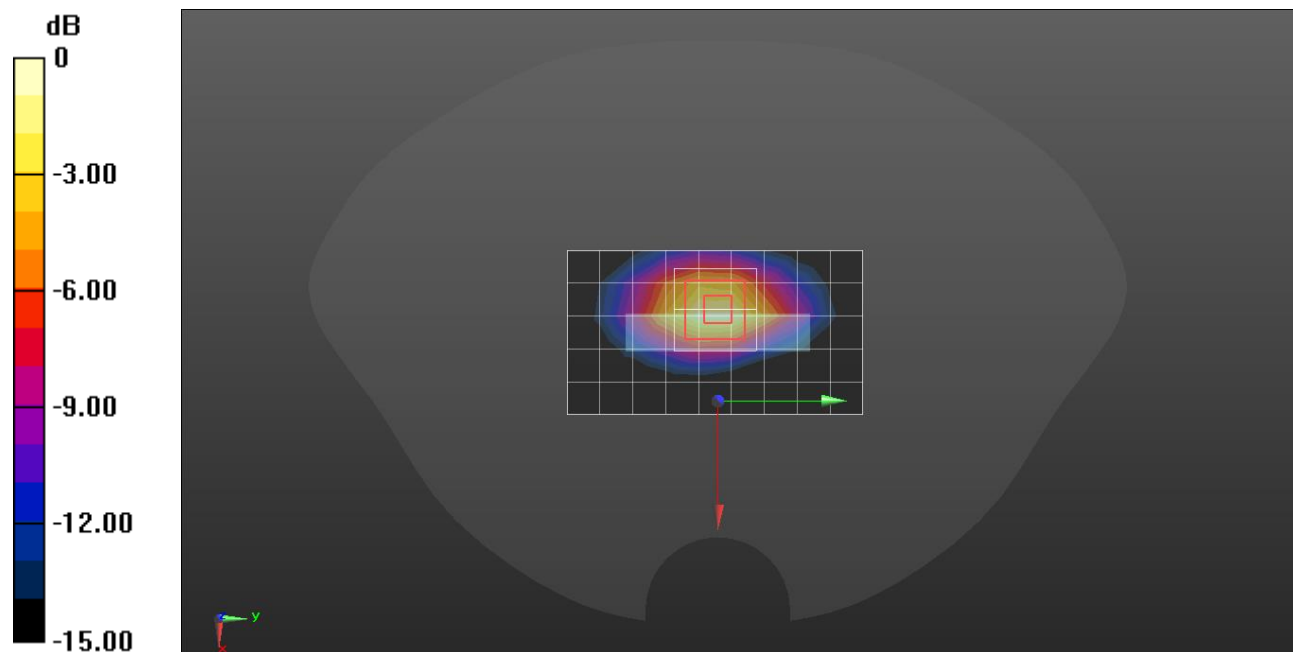
Frequency: 2535 MHz; Communication System Channel Number: 507000; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used:  $f = 2535$  MHz;  $\sigma = 1.855$  S/m;  $\epsilon_r = 38.392$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn912; Calibrated: 2022-11-16
- Probe: EX3DV4 - SN7645; ConvF(6.73, 6.73, 6.73) @ 2535 MHz; Calibrated: 2022-11-15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Bottom/QPSK RB 1/214 ch.507000/Area Scan (10x6x1):** Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 0.829 W/kg

**Bottom/QPSK RB 1/214 ch.507000/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Reference Value = 20.82 V/m; Power Drift = -0.03 dB  
 Peak SAR (extrapolated) = 1.15 W/kg  
**SAR(1 g) = 0.579 W/kg; SAR(10 g) = 0.273 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 9 mm  
 Ratio of SAR at M2 to SAR at M1 = 52.2%  
 Maximum value of SAR (measured) = 0.939 W/kg



0 dB = 0.939 W/kg = -0.27 dBW/kg



## NR Band n7

Frequency: 2535 MHz; Communication System Channel Number: 507000; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used:  $f = 2535$  MHz;  $\sigma = 1.855$  S/m;  $\epsilon_r = 38.392$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn912; Calibrated: 2022-11-16
- Probe: EX3DV4 - SN7645; ConvF(6.73, 6.73, 6.73) @ 2535 MHz; Calibrated: 2022-11-15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Phantom section: Left Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

### LHS/Tilt QPSK RB 1/214 ch.507000/Area Scan (9x16x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.891 W/kg

### LHS/Tilt QPSK RB 1/214 ch.507000/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.96 V/m; Power Drift = 0.06 dB

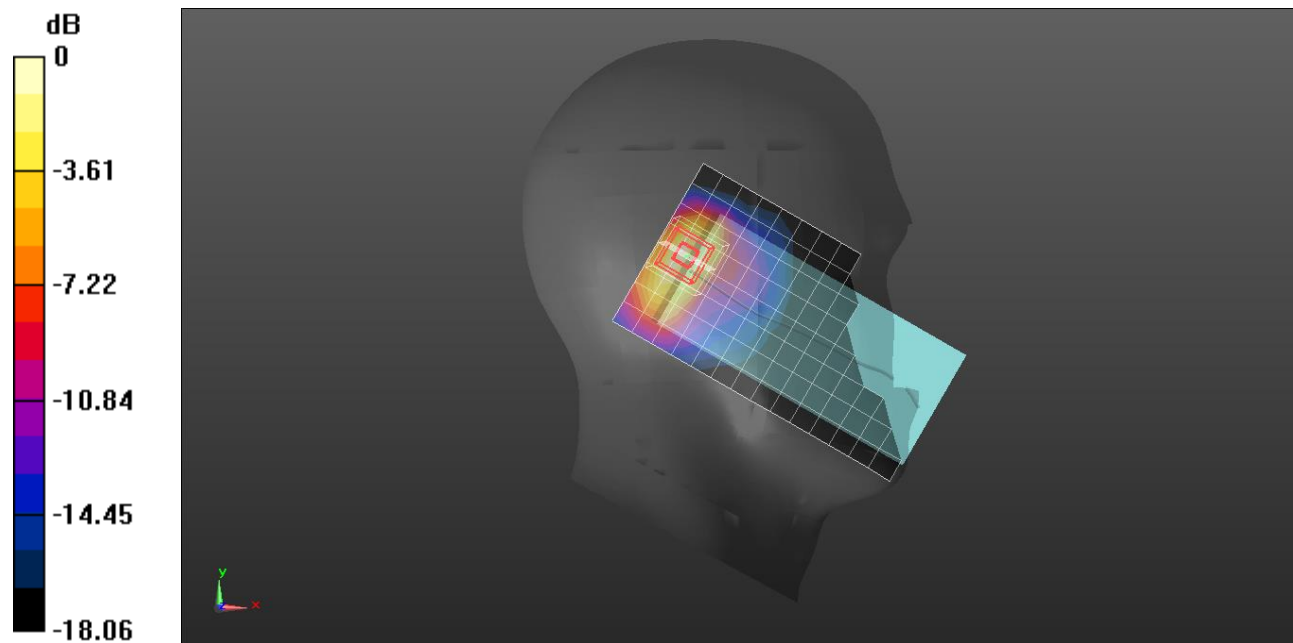
Peak SAR (extrapolated) = 1.14 W/kg

**SAR(1 g) = 0.580 W/kg; SAR(10 g) = 0.292 W/kg**

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 54.8%

Maximum value of SAR (measured) = 0.905 W/kg



0 dB = 0.905 W/kg = -0.43 dBW/kg

## NR Band n7

Frequency: 2535 MHz; Communication System Channel Number: 507000; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used:  $f = 2535$  MHz;  $\sigma = 1.855$  S/m;  $\epsilon_r = 38.392$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn912; Calibrated: 2022-11-16
- Probe: EX3DV4 - SN7645; ConvF(6.73, 6.73, 6.73) @ 2535 MHz; Calibrated: 2022-11-15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Top/QPSK RB 1/214 ch.507000/Area Scan (10x6x1):** Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 0.407 W/kg

**Top/QPSK RB 1/214 ch.507000/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.52 V/m; Power Drift = -0.10 dB

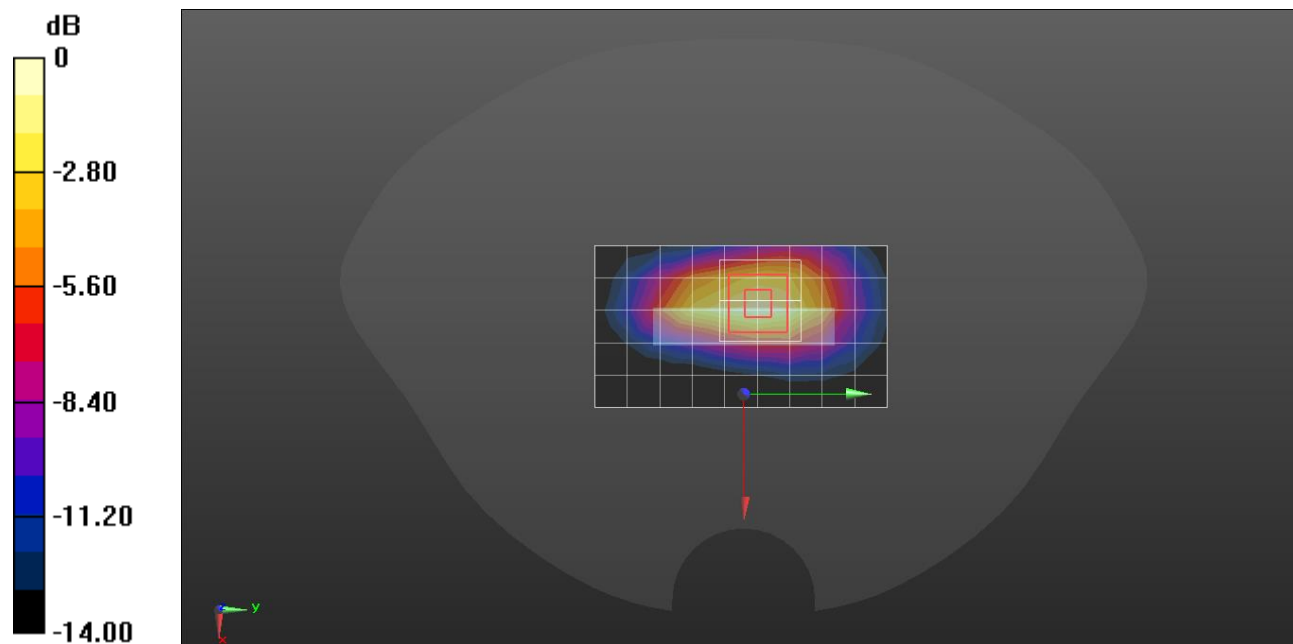
Peak SAR (extrapolated) = 0.523 W/kg

**SAR(1 g) = 0.264 W/kg; SAR(10 g) = 0.127 W/kg**

Smallest distance from peaks to all points 3 dB below = 9.5 mm

Ratio of SAR at M2 to SAR at M1 = 51.8%

Maximum value of SAR (measured) = 0.425 W/kg



0 dB = 0.425 W/kg = -3.72 dBW/kg

## NR Band n12

Frequency: 707.5 MHz; Communication System Channel Number: 141500; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 707.5$  MHz;  $\sigma = 0.914$  S/m;  $\epsilon_r = 42.384$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE3 Sn479; Calibrated: 2022-10-06
- Probe: EX3DV4 - SN7545; ConvF(10.14, 10.14, 10.14) @ 707.5 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: SAM (20deg probe tilt) with CRP v5.0(Right); Phantom section: Left Section ; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

### LHS/Touch QPSK RB 1/1 ch.141500/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.133 W/kg

### LHS/Touch QPSK RB 1/1 ch.141500/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.23 V/m; Power Drift = -0.06 dB

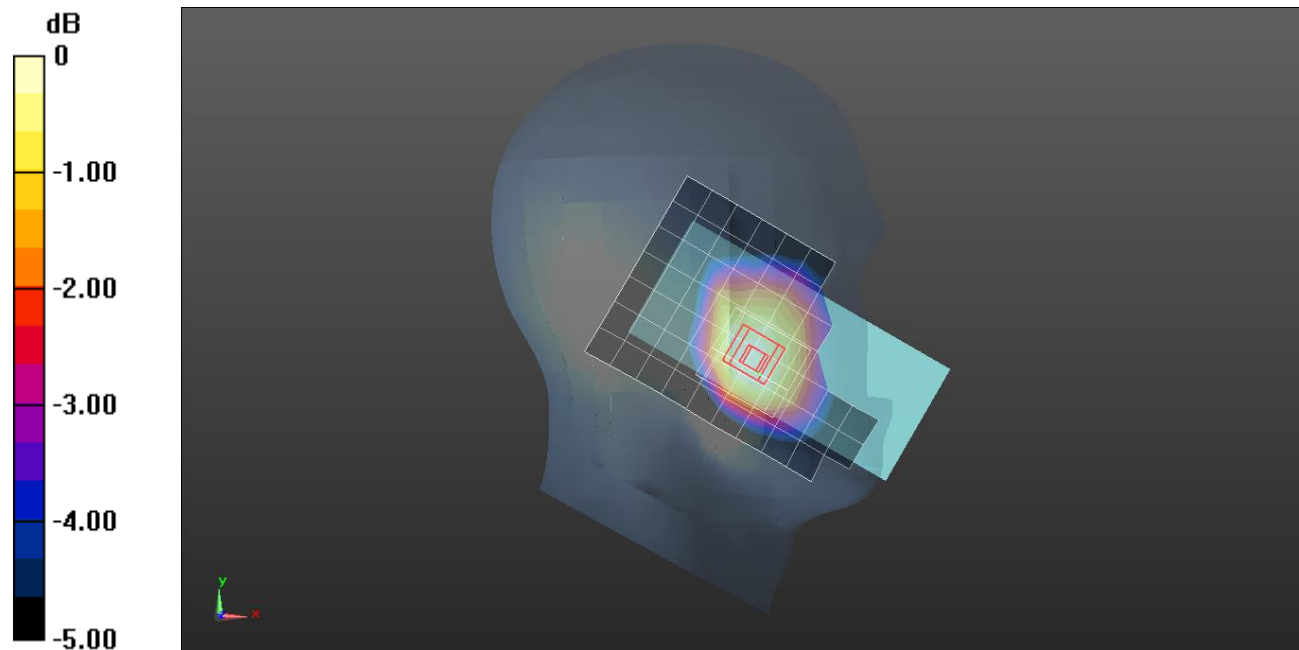
Peak SAR (extrapolated) = 0.147 W/kg

**SAR(1 g) = 0.120 W/kg; SAR(10 g) = 0.096 W/kg**

Smallest distance from peaks to all points 3 dB below = 25.7 mm

Ratio of SAR at M2 to SAR at M1 = 80.7%

Maximum value of SAR (measured) = 0.136 W/kg



0 dB = 0.136 W/kg = -8.66 dBW/kg

## NR Band n12

Frequency: 707.5 MHz; Communication System Channel Number: 141500; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 707.5$  MHz;  $\sigma = 0.914$  S/m;  $\epsilon_r = 42.384$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE3 Sn479; Calibrated: 2022-10-06
- Probe: EX3DV4 - SN7545; ConvF(10.14, 10.14, 10.14) @ 707.5 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: SAM (20deg probe tilt) with CRP v5.0(Right); Phantom section: Flat Section ; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Left/QPSK RB 36/22 ch.141500/Area Scan (14x5x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.455 W/kg

**Left/QPSK RB 36/22 ch.141500/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.33 V/m; Power Drift = 0.03 dB

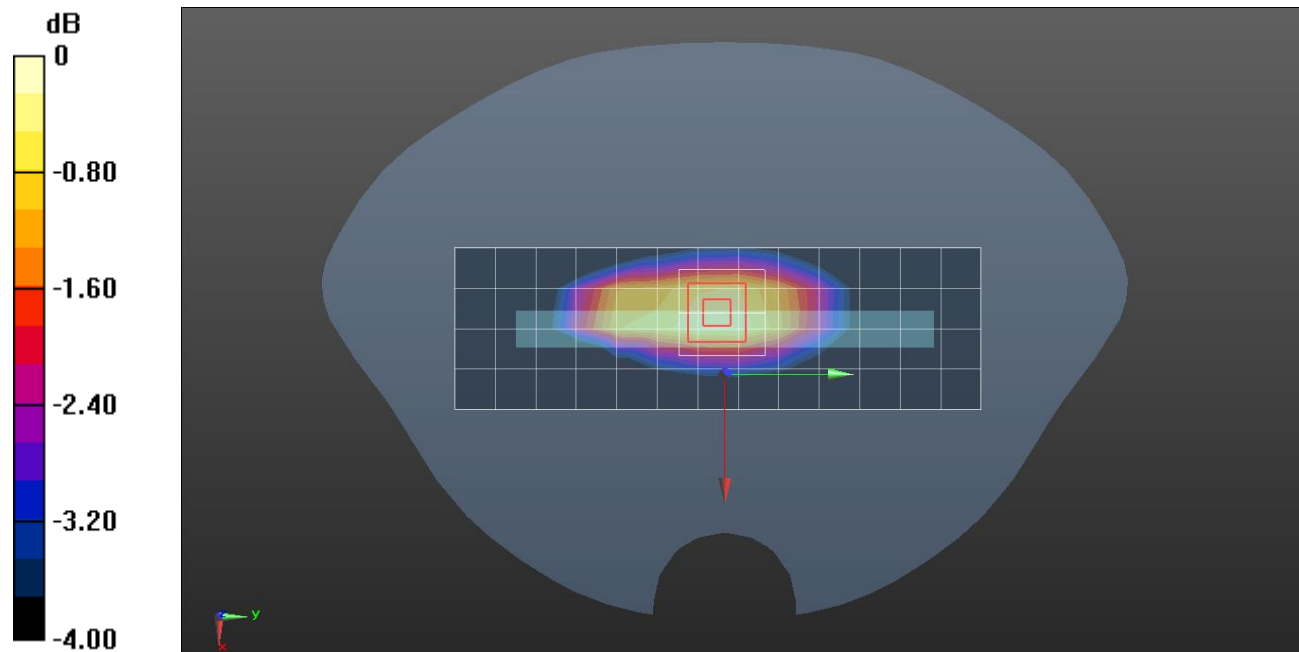
Peak SAR (extrapolated) = 0.550 W/kg

**SAR(1 g) = 0.377 W/kg; SAR(10 g) = 0.264 W/kg**

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)

Ratio of SAR at M2 to SAR at M1 = 68.4%

Maximum value of SAR (measured) = 0.489 W/kg



0 dB = 0.489 W/kg = -3.11 dBW/kg

## NR Band n12

Frequency: 707.5 MHz; Communication System Channel Number: 141500; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 707.5$  MHz;  $\sigma = 0.893$  S/m;  $\epsilon_r = 41.545$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE3 Sn479; Calibrated: 2022-10-06
- Probe: EX3DV4 - SN7545; ConvF(10.14, 10.14, 10.14) @ 707.5 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: SAM (20deg probe tilt) with CRP v5.0(Right); Phantom section: Flat Section ; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Left/QPSK RB 36/22 ch.141500/Area Scan (6x14x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.374 W/kg

**Left/QPSK RB 36/22 ch.141500/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.67 V/m; Power Drift = -0.02 dB

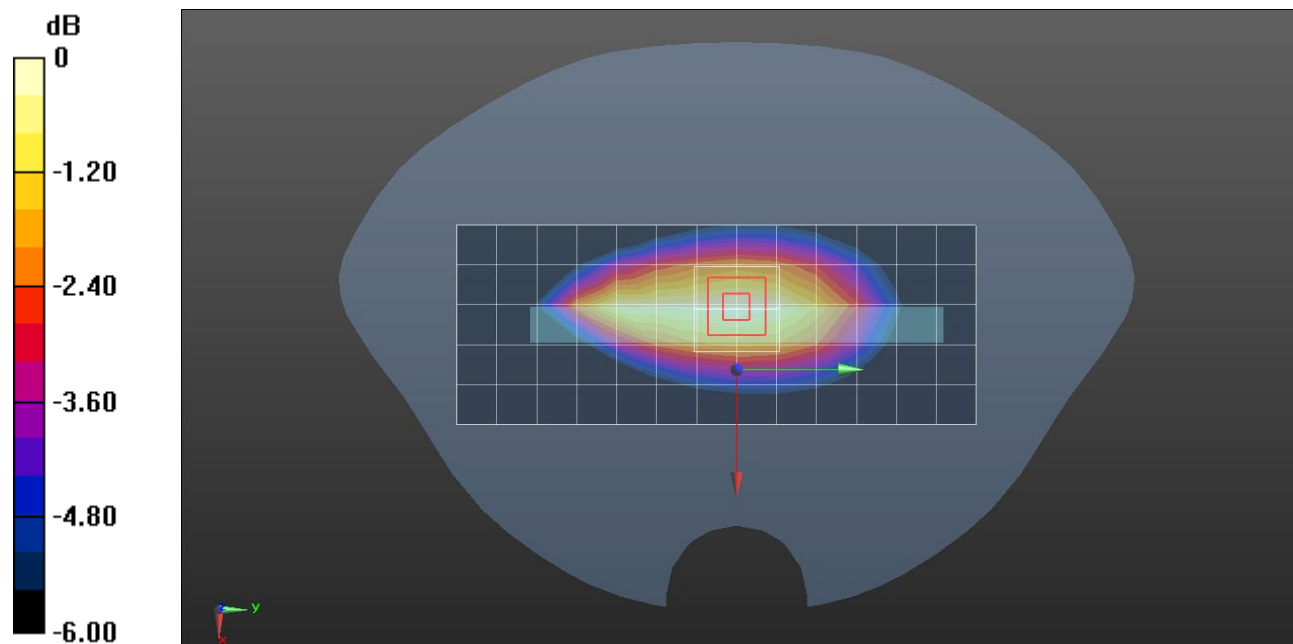
Peak SAR (extrapolated) = 0.418 W/kg

**SAR(1 g) = 0.288 W/kg; SAR(10 g) = 0.202 W/kg**

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)

Ratio of SAR at M2 to SAR at M1 = 69%

Maximum value of SAR (measured) = 0.372 W/kg



0 dB = 0.372 W/kg = -4.29 dBW/kg

## NR Band n25

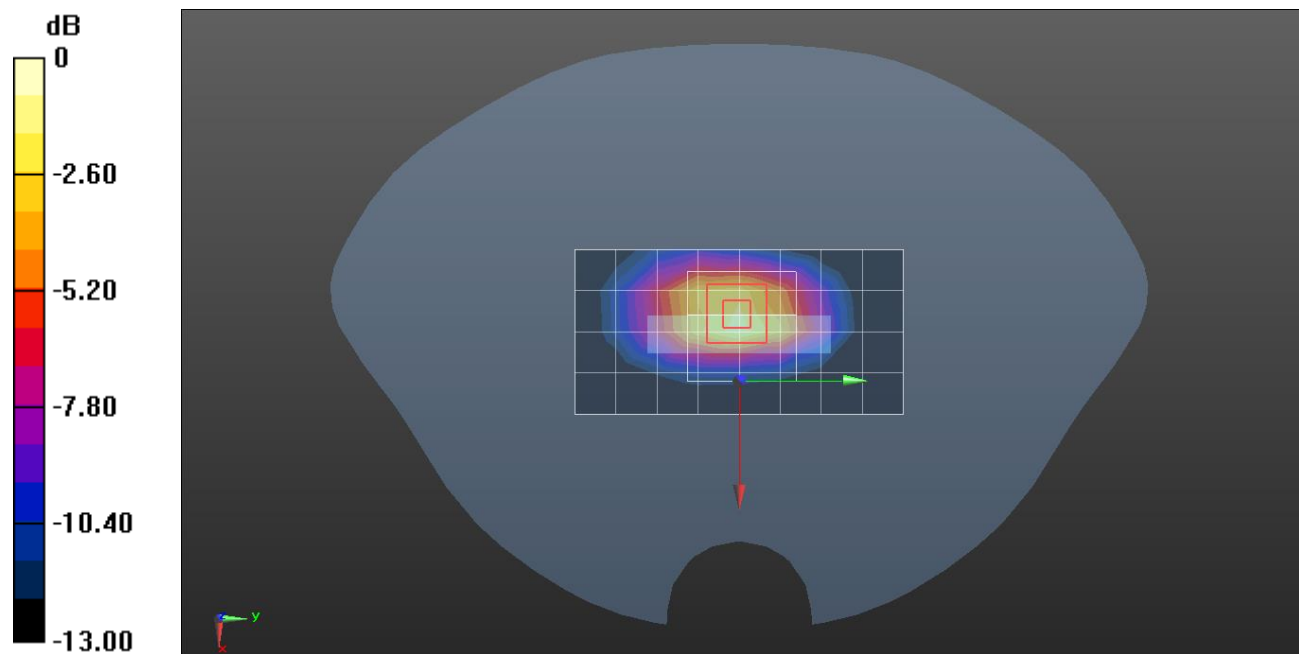
Frequency: 1882.5 MHz; Communication System Channel Number: 376500; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 1882.5$  MHz;  $\sigma = 1.417$  S/m;  $\epsilon_r = 41.315$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE3 Sn479; Calibrated: 2022-10-06
- Probe: EX3DV4 - SN7545; ConvF(8.02, 8.02, 8.02) @ 1882.5 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: SAM (20deg probe tilt) with CRP v5.0(Right); Phantom section: Flat Section ; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Bottom/QPSK RB 1/1 ch.376500/Area Scan (9x5x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.610 W/kg

**Bottom/QPSK RB 1/1 ch.376500/Zoom Scan (6x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 19.34 V/m; Power Drift = 0.15 dB  
 Peak SAR (extrapolated) = 0.978 W/kg  
**SAR(1 g) = 0.540 W/kg; SAR(10 g) = 0.285 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 10.1 mm  
 Ratio of SAR at M2 to SAR at M1 = 57.1%  
 Maximum value of SAR (measured) = 0.797 W/kg



0 dB = 0.797 W/kg = -0.99 dBW/kg

## NR Band n25

Frequency: 1882.5 MHz; Communication System Channel Number: 376500; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 1882.5$  MHz;  $\sigma = 1.418$  S/m;  $\epsilon_r = 40.324$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1667; Calibrated: 2022-04-27
- Probe: EX3DV4 - SN7314; ConvF(8.08, 8.08, 8.08) @ 1882.5 MHz; Calibrated: 2022-05-31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Right Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**RHS/Tilt QPSK RB 1/108 ch.376500 2/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.674 W/kg

**RHS/Tilt QPSK RB 1/108 ch.376500 2/Zoom Scan (6x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.27 V/m; Power Drift = 0.04 dB

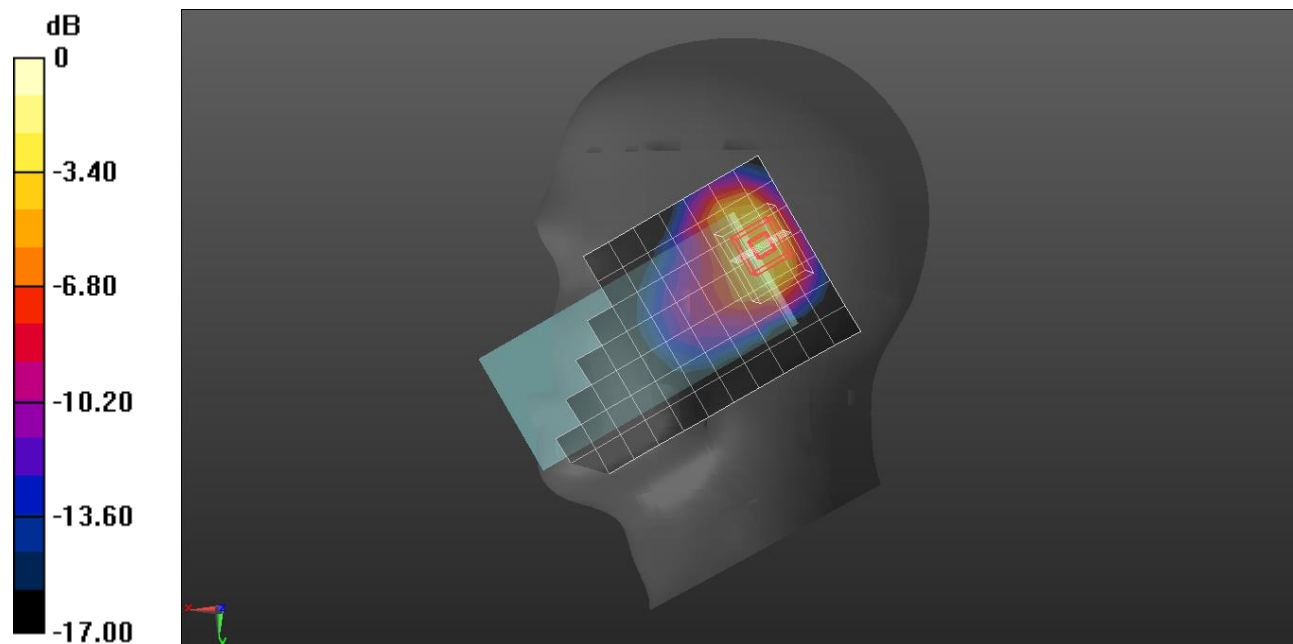
Peak SAR (extrapolated) = 1.22 W/kg

**SAR(1 g) = 0.684 W/kg; SAR(10 g) = 0.363 W/kg**

Smallest distance from peaks to all points 3 dB below = 9.4 mm

Ratio of SAR at M2 to SAR at M1 = 59.1%

Maximum value of SAR (measured) = 1.03 W/kg



0 dB = 1.03 W/kg = 0.13 dBW/kg

## NR Band n25

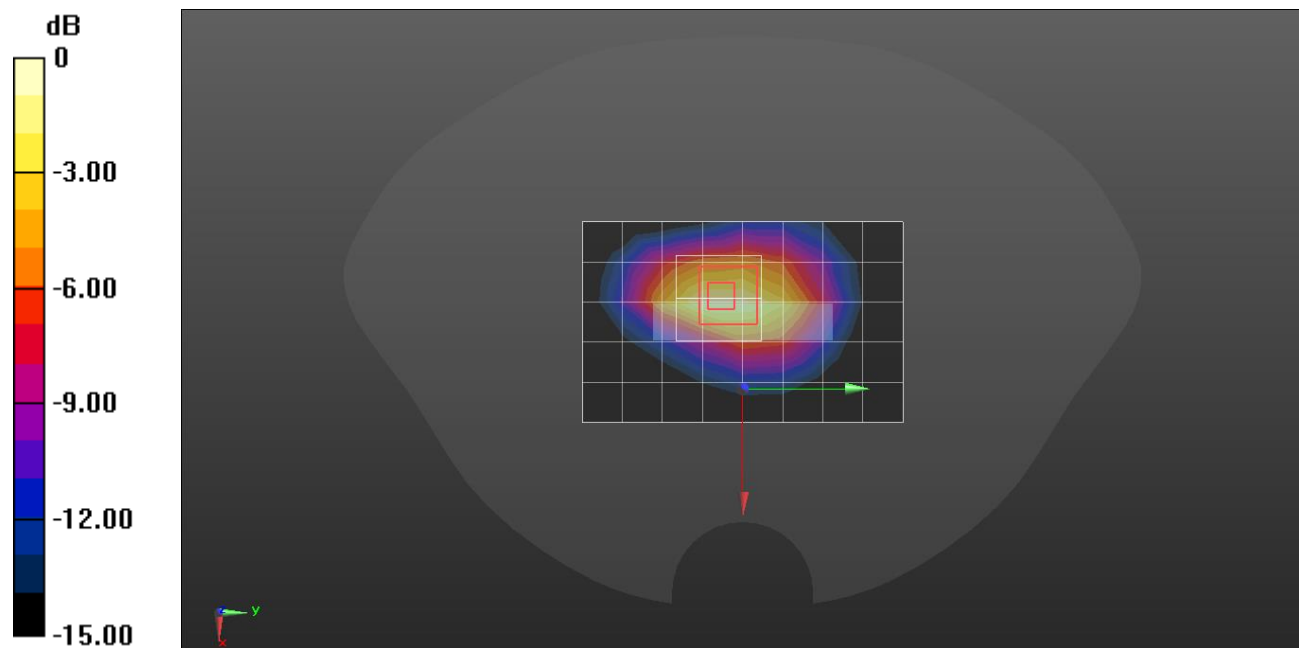
Frequency: 1882.5 MHz; Communication System Channel Number: 376500; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 1882.5$  MHz;  $\sigma = 1.418$  S/m;  $\epsilon_r = 40.324$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1667; Calibrated: 2022-04-27
- Probe: EX3DV4 - SN7314; ConvF(8.08, 8.08, 8.08) @ 1882.5 MHz; Calibrated: 2022-05-31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Flat Section; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Top/QPSK RB 1/108 ch.376500/Area Scan (6x9x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.795 W/kg

**Top/QPSK RB 1/108 ch.376500/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 22.40 V/m; Power Drift = 0.02 dB  
 Peak SAR (extrapolated) = 1.09 W/kg  
**SAR(1 g) = 0.591 W/kg; SAR(10 g) = 0.313 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 9.6 mm  
 Ratio of SAR at M2 to SAR at M1 = 55.5%  
 Maximum value of SAR (measured) = 0.903 W/kg



0 dB = 0.903 W/kg = -0.44 dBW/kg



## NR Band n26

Frequency: 831.5 MHz; Communication System Channel Number: 166300; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 831.5$  MHz;  $\sigma = 0.938$  S/m;  $\epsilon_r = 41.92$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE3 Sn479; Calibrated: 2022-10-06
- Probe: EX3DV4 - SN7545; ConvF(9.8, 9.8, 9.8) @ 831.5 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: SAM (20deg probe tilt) with CRP v5.0(Right); Phantom section: Flat Section ; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Rear/QPSK RB 50/28 ch.166300/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.347 W/kg

**Rear/QPSK RB 50/28 ch.166300/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.19 V/m; Power Drift = 0.03 dB

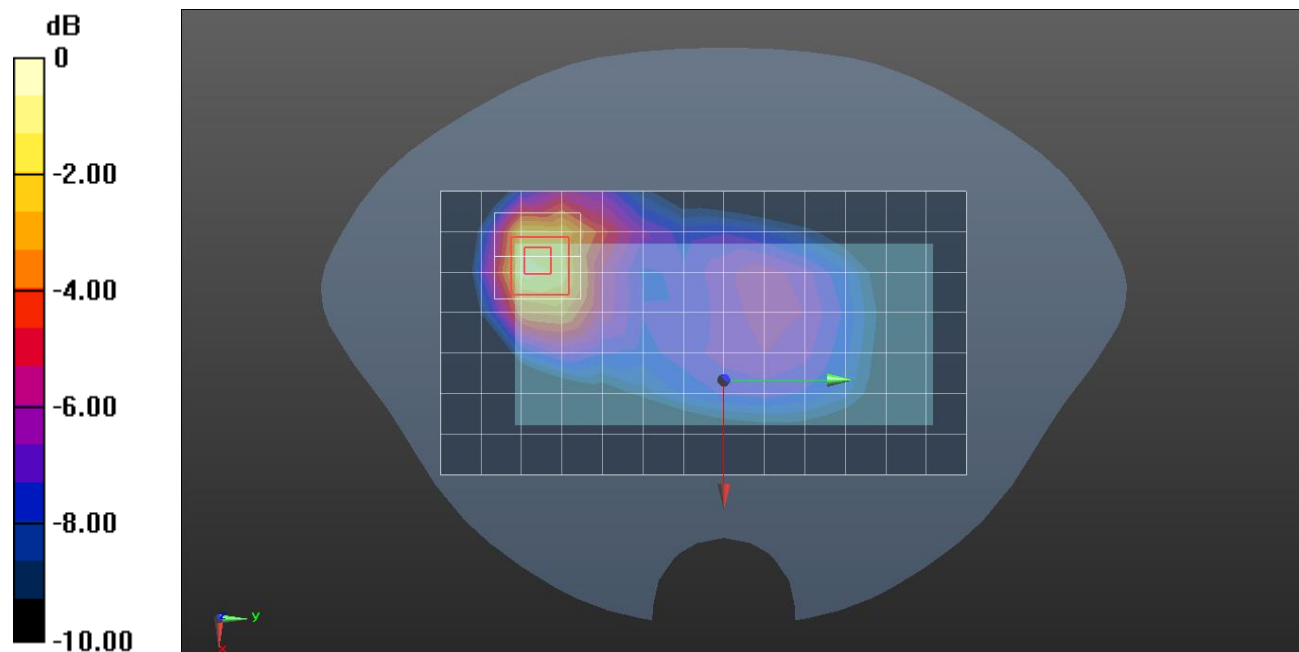
Peak SAR (extrapolated) = 0.520 W/kg

**SAR(1 g) = 0.287 W/kg; SAR(10 g) = 0.168 W/kg**

Smallest distance from peaks to all points 3 dB below = 12.8 mm

Ratio of SAR at M2 to SAR at M1 = 55.1%

Maximum value of SAR (measured) = 0.433 W/kg



0 dB = 0.433 W/kg = -3.64 dBW/kg

## NR Band n26

Frequency: 831.5 MHz; Communication System Channel Number: 166300; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 831.5$  MHz;  $\sigma = 0.925$  S/m;  $\epsilon_r = 42.016$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE3 Sn479; Calibrated: 2022-10-06
- Probe: EX3DV4 - SN7545; ConvF(9.8, 9.8, 9.8) @ 831.5 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: SAM (20deg probe tilt) with CRP v5.0(Right); Phantom section: Right Section ; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**RHS/Touch QPSK RB 1/53 ch.166300/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.164 W/kg

**RHS/Touch QPSK RB 1/53 ch.166300/Zoom Scan (6x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.46 V/m; Power Drift = 0.04 dB

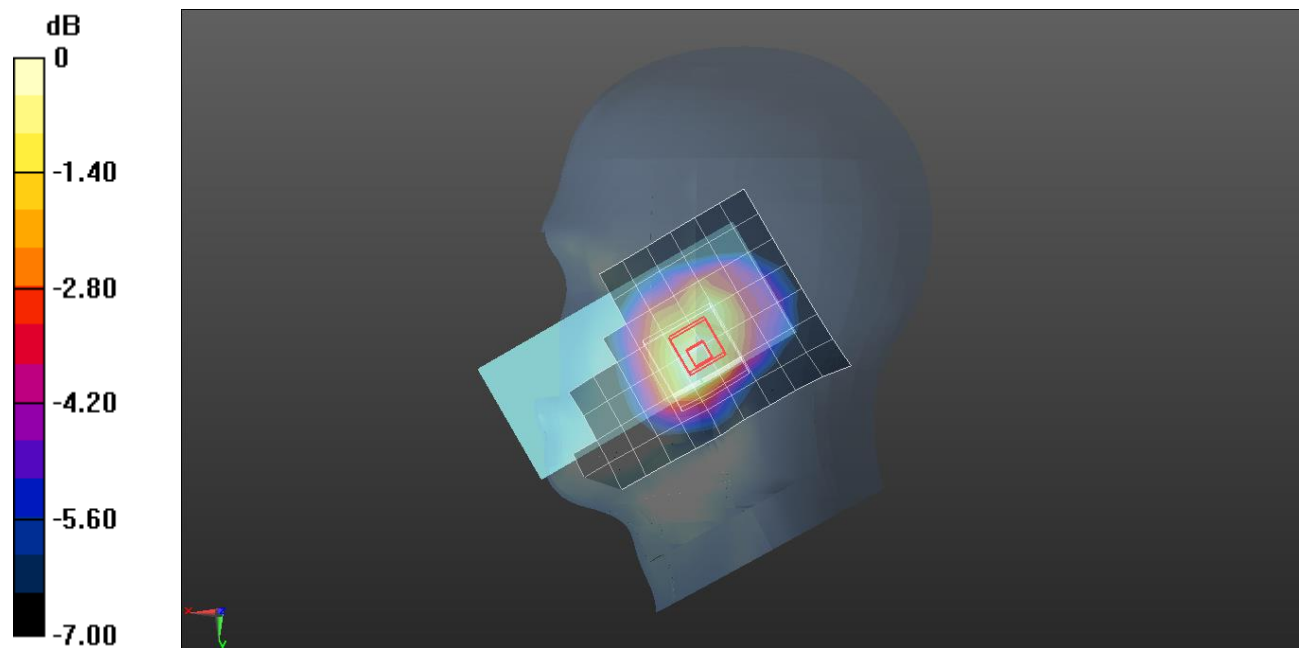
Peak SAR (extrapolated) = 0.194 W/kg

**SAR(1 g) = 0.135 W/kg; SAR(10 g) = 0.106 W/kg**

Smallest distance from peaks to all points 3 dB below = 12 mm

Ratio of SAR at M2 to SAR at M1 = 67%

Maximum value of SAR (measured) = 0.168 W/kg



0 dB = 0.168 W/kg = -7.75 dBW/kg

## NR Band n26

Frequency: 831.5 MHz; Communication System Channel Number: 166300; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 831.5$  MHz;  $\sigma = 0.925$  S/m;  $\epsilon_r = 42.016$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE3 Sn479; Calibrated: 2022-10-06
- Probe: EX3DV4 - SN7545; ConvF(9.8, 9.8, 9.8) @ 831.5 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: SAM (20deg probe tilt) with CRP v5.0(Right); Phantom section: Flat Section ; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Rear/QPSK RB 50/28 ch.166300/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.583 W/kg

**Rear/QPSK RB 50/28 ch.166300/Zoom Scan (6x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.50 V/m; Power Drift = -0.04 dB

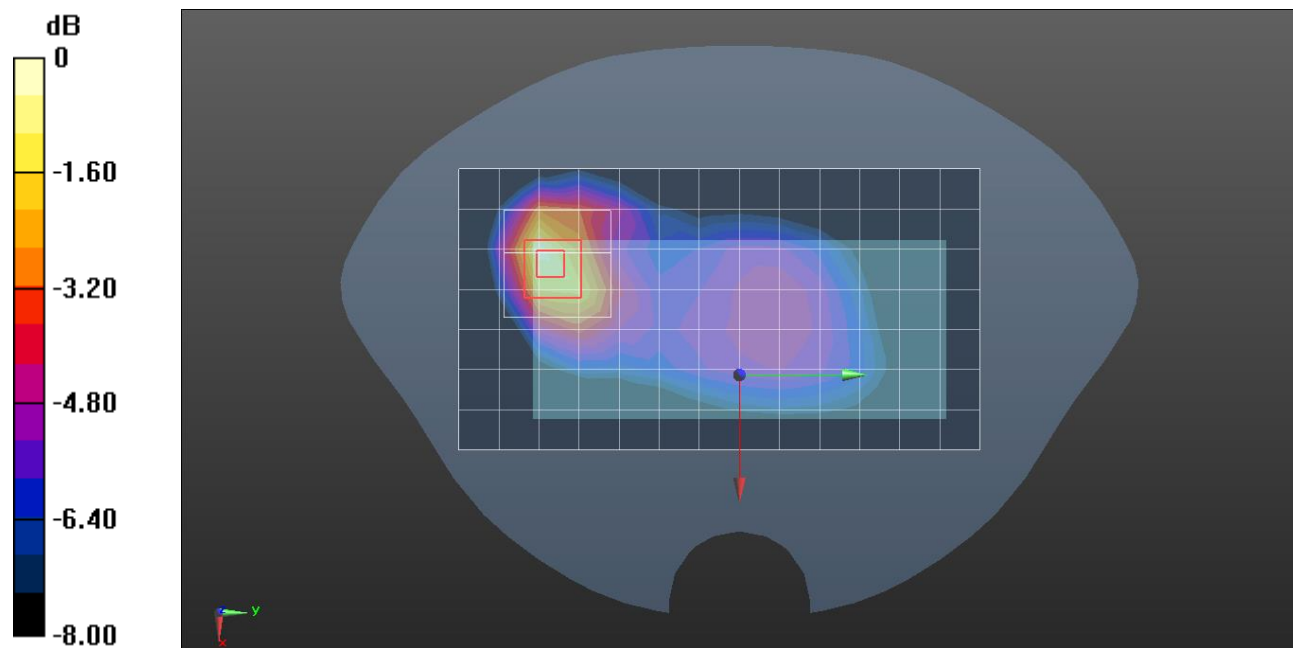
Peak SAR (extrapolated) = 0.730 W/kg

**SAR(1 g) = 0.420 W/kg; SAR(10 g) = 0.248 W/kg**

Smallest distance from peaks to all points 3 dB below = 13.6 mm

Ratio of SAR at M2 to SAR at M1 = 56.7%

Maximum value of SAR (measured) = 0.609 W/kg



0 dB = 0.609 W/kg = -2.15 dBW/kg

## NR Band n30

Frequency: 2310 MHz; Communication System Channel Number: 462000; Duty Cycle: 1:1

Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C

Medium parameters used:  $f = 2310$  MHz;  $\sigma = 1.651$  S/m;  $\epsilon_r = 38.409$ ;  $\rho = 1000$  kg/m<sup>3</sup>

DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn912; Calibrated: 2022-11-16
- Probe: EX3DV4 - SN7645; ConvF(7.3, 7.3, 7.3) @ 2310 MHz; Calibrated: 2022-11-15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Bottom/QPSK RB 25/14 ch.462000/Area Scan (10x6x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.716 W/kg

**Bottom/QPSK RB 25/14 ch.462000/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.67 V/m; Power Drift = -0.00 dB

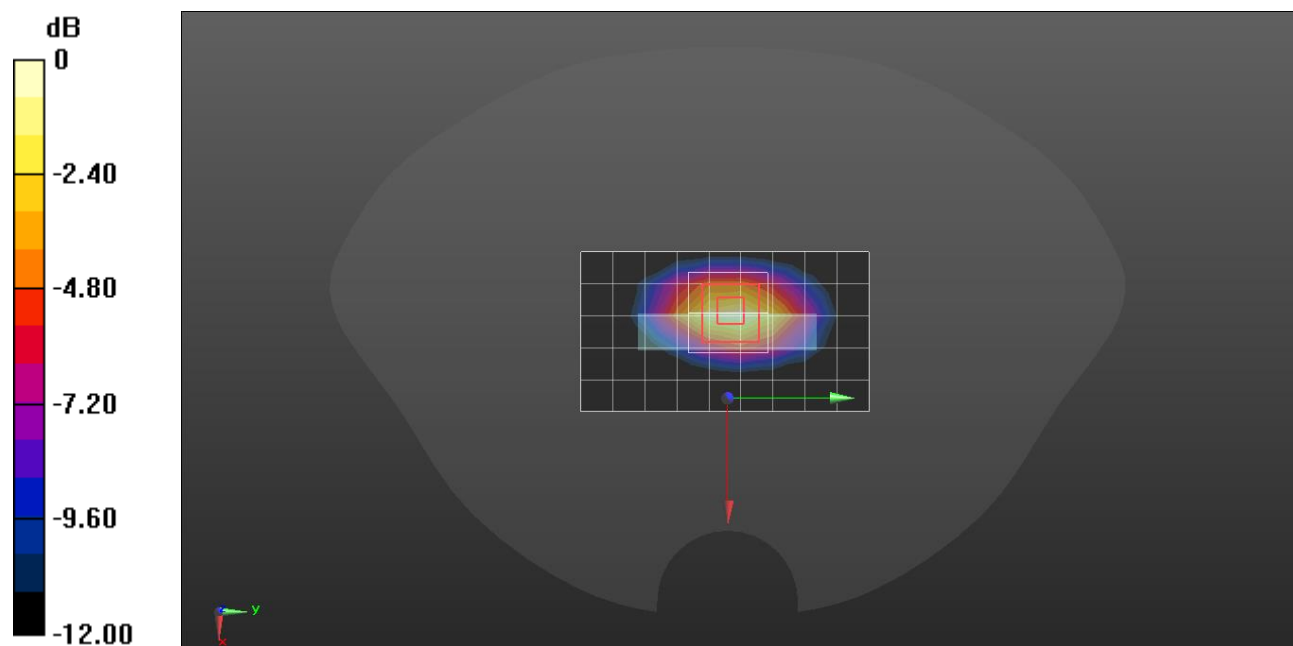
Peak SAR (extrapolated) = 0.846 W/kg

**SAR(1 g) = 0.471 W/kg; SAR(10 g) = 0.238 W/kg**

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 57.6%

Maximum value of SAR (measured) = 0.716 W/kg



0 dB = 0.716 W/kg = -1.45 dBW/kg

## NR Band n30

Frequency: 2310 MHz; Communication System Channel Number: 462000; Duty Cycle: 1:1

Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C

Medium parameters used:  $f = 2310$  MHz;  $\sigma = 1.729$  S/m;  $\epsilon_r = 38.759$ ;  $\rho = 1000$  kg/m<sup>3</sup>

DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn912; Calibrated: 2022-11-16
- Probe: EX3DV4 - SN7645; ConvF(7.3, 7.3, 7.3) @ 2310 MHz; Calibrated: 2022-11-15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Phantom section: Left Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LHS/Tilt QPSK RB 1/26 ch.462000/Area Scan (9x17x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.697 W/kg

**LHS/Tilt QPSK RB 1/26 ch.462000/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.44 V/m; Power Drift = -0.14 dB

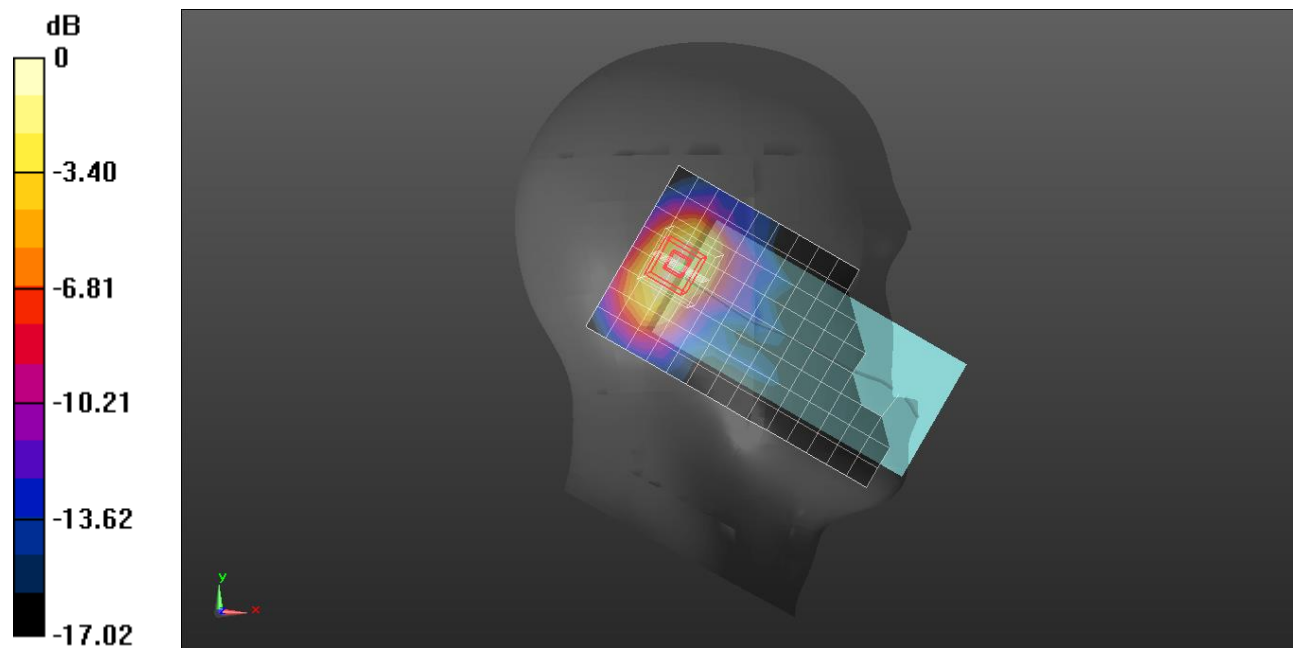
Peak SAR (extrapolated) = 0.814 W/kg

**SAR(1 g) = 0.447 W/kg; SAR(10 g) = 0.246 W/kg**

Smallest distance from peaks to all points 3 dB below = 9.5 mm

Ratio of SAR at M2 to SAR at M1 = 55.7%

Maximum value of SAR (measured) = 0.676 W/kg



0 dB = 0.676 W/kg = -1.70 dBW/kg

## NR Band n30

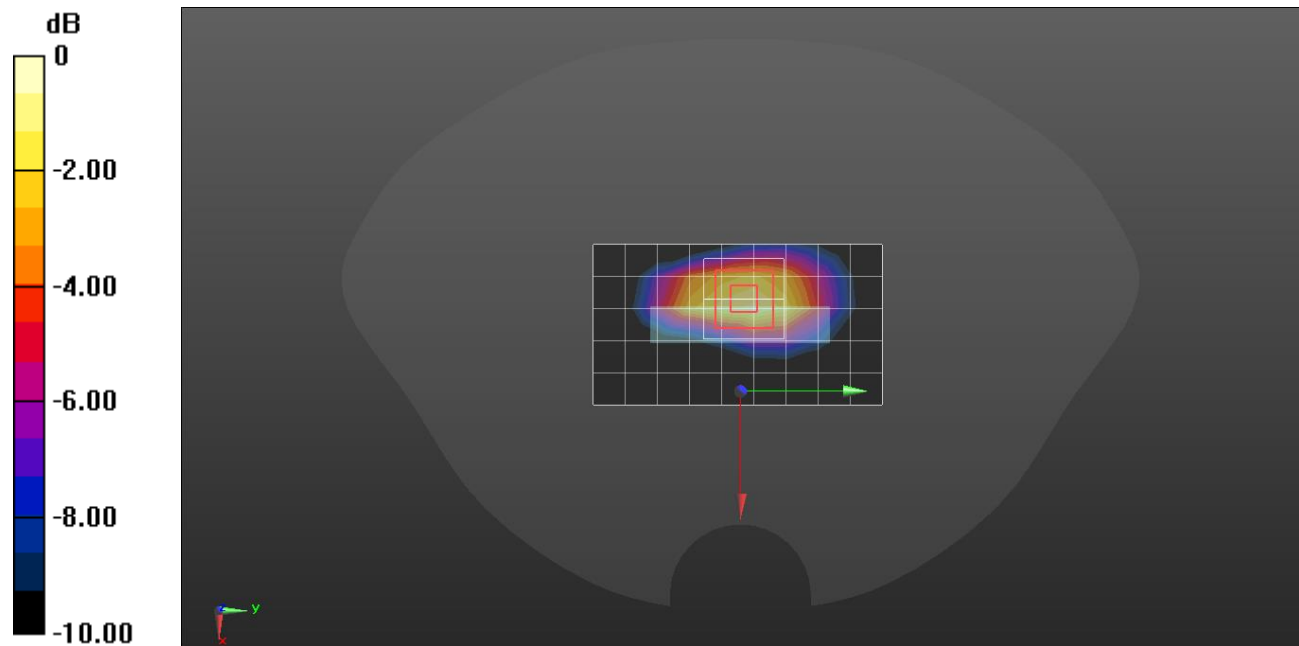
Frequency: 2310 MHz; Communication System Channel Number: 462000; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used:  $f = 2310$  MHz;  $\sigma = 1.729$  S/m;  $\epsilon_r = 38.759$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn912; Calibrated: 2022-11-16
- Probe: EX3DV4 - SN7645; ConvF(7.3, 7.3, 7.3) @ 2310 MHz; Calibrated: 2022-11-15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Top/QPSK RB 25/14 ch.462000/Area Scan (10x6x1):** Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 0.865 W/kg

**Top/QPSK RB 25/14 ch.462000/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Reference Value = 22.06 V/m; Power Drift = -0.07 dB  
 Peak SAR (extrapolated) = 1.15 W/kg  
**SAR(1 g) = 0.604 W/kg; SAR(10 g) = 0.304 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 10 mm  
 Ratio of SAR at M2 to SAR at M1 = 53.3%  
 Maximum value of SAR (measured) = 0.953 W/kg



0 dB = 0.953 W/kg = -0.21 dBW/kg

**Measurement Report for SM-F946U, RIGHT TOUCH, Band n41(Voice/data/SRSR0), 5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz), Channel 518598 (2593.0 MHz)**

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TOUCH, 0.00	Band n41	5G NR FR1 TDD, 10917-AAD	2593.0, 518598	7.74	1.91	39.4

**Hardware Setup**

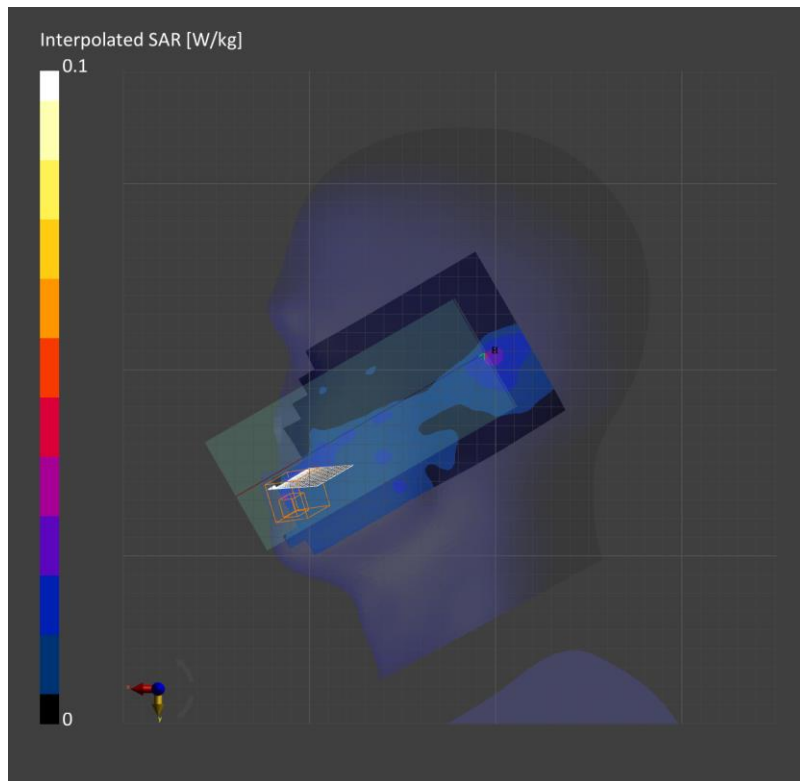
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Apr-12	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1343, 2022-08-18

**Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	4.7 x 4.7 x 1.5
Sensor Surface [mm]	3.0	1.4

**Measurement Results**

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.020	0.030
psSAR10g [W/Kg]	0.009	0.012
Power Drift [dB]		0.16
M2/M1 [%]		54.2
Dist 3dB Peak [mm]		> 15.0



Measurement Report for SM-F946U, EDGE BOTTOM, Band n41 (Voice/data/SRSR0), 5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz), Channel 518598 (2593.0 MHz)

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, HSL	EDGE BOTTOM, 10.00	Band n41	5G NR FR1 TDD, 10917-AAD	2593.0, 518598	7.74	1.91	39.4

Hardware Setup

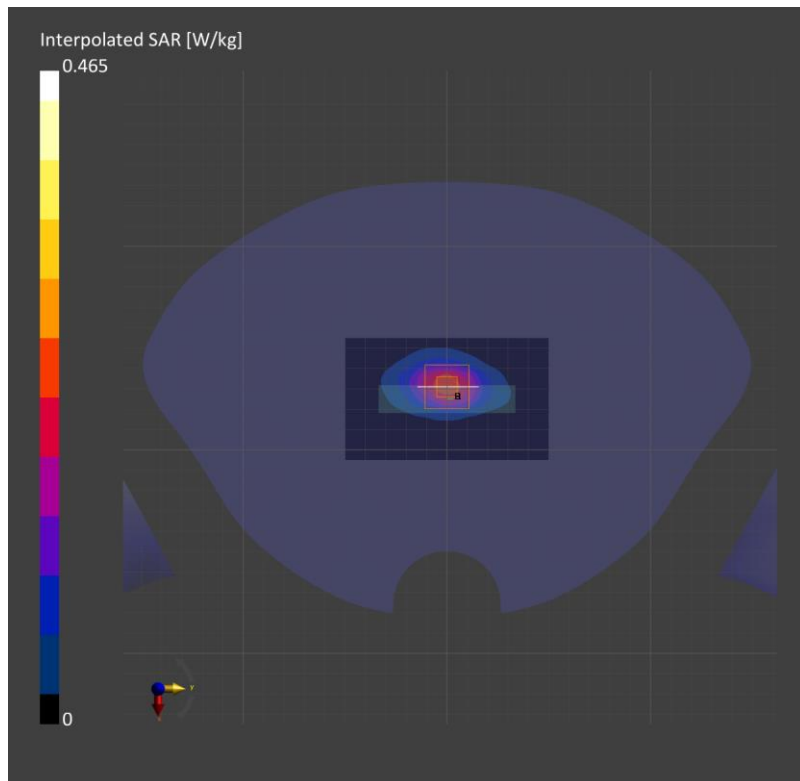
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Apr-11	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1343, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 100.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.209	0.227
psSAR10g [W/Kg]	0.097	0.103
Power Drift [dB]		0.04
M2/M1 [%]		80.1
Dist 3dB Peak [mm]		9.0





Measurement Report for SM-F946U, RIGHT TILT, Band n41 (SRS0/SRS1/SRS3), CW, Channel 2593000 (2593.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TILT, 0.00	Band n41	CW, 0--	2593.0, 2593000	7.74	1.91	39.4

Hardware Setup

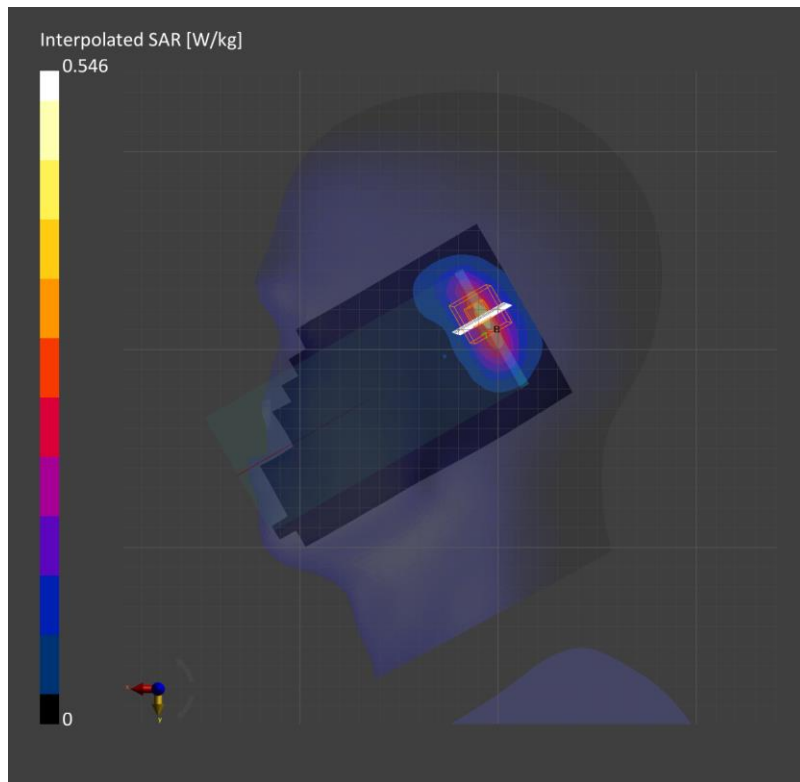
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Apr-13	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1343, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.261	0.260
psSAR10g [W/Kg]	0.128	0.125
Power Drift [dB]	-0.03	
M2/M1 [%]	82.5	
Dist 3dB Peak [mm]	8.6	



Measurement Report for SM-F946U, EDGE TOP, Band n41(SRS0/SRS1/SRS3), CW, Channel 2593000 (2593.0 MHz)

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, HSL	EDGE TOP, 10.00	Band n41	CW, 0--	2593.0, 2593000	7.74	1.91	39.4

Hardware Setup

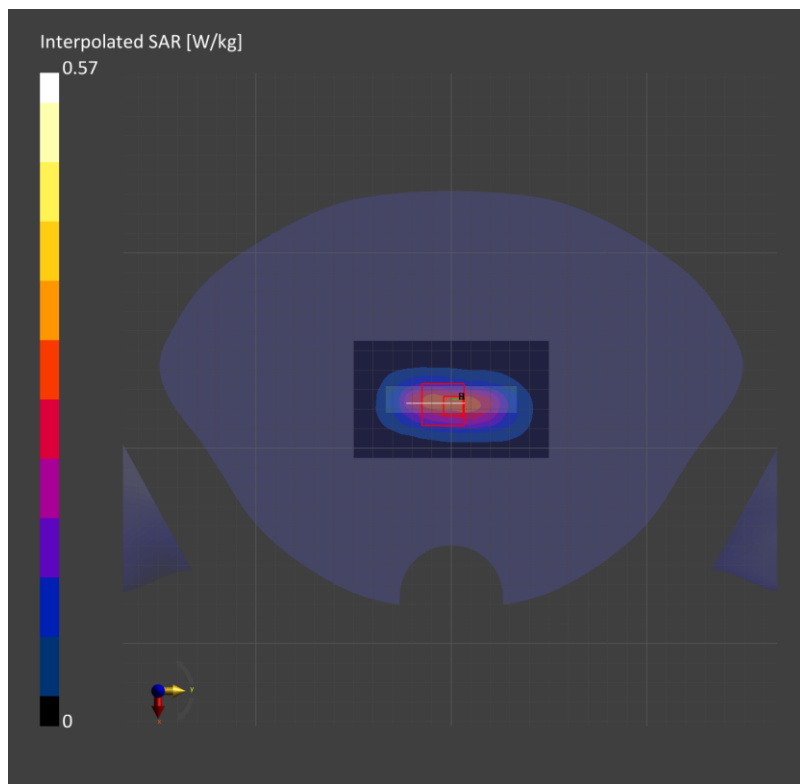
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Apr-13	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1343, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 100.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.250	0.264
psSAR10g [W/Kg]	0.126	0.128
Power Drift [dB]	-0.01	
M2/M1 [%]	77.9	
Dist 3dB Peak [mm]	8.9	



Measurement Report for SM-F946U, LEFT TILT, Band n41 (Voice/data/SRS0), 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz), Channel 518598 (2593.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
LeftHead, HSL	LEFT TILT, 0.00	Band n41	5G NR FR1 TDD, 10866-AAF	2593.0, 518598	7.74	1.91	37.7

Hardware Setup

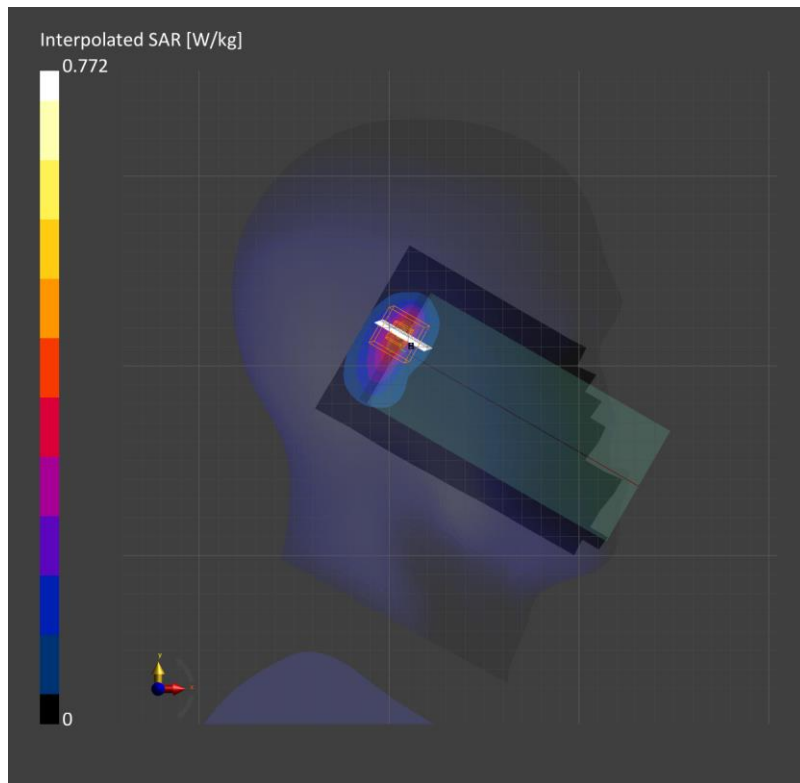
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Apr-19	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1343, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.351	0.361
psSAR10g [W/Kg]	0.162	0.166
Power Drift [dB]	0.07	
M2/M1 [%]	79.0	
Dist 3dB Peak [mm]	8.0	



Measurement Report for SM-F946U, EDGE TOP, Band n41(Voice/data/SRS0), 5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz), Channel 518598 (2593.0 MHz)

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, HSL	EDGE TOP, 10.00	Band n41	5G NR FR1 TDD, 10917-AAD	2593.0, 518598	7.74	1.91	37.7

Hardware Setup

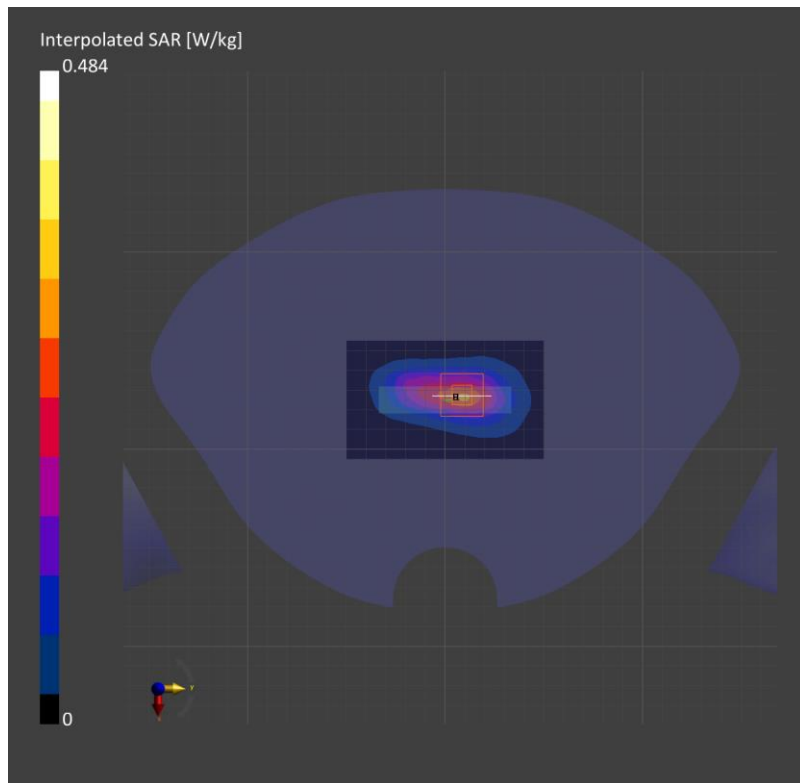
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Apr-18	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1343, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 100.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.222	0.244
psSAR10g [W/Kg]	0.107	0.118
Power Drift [dB]		0.08
M2/M1 [%]		80.4
Dist 3dB Peak [mm]		9.8



Measurement Report for SM-F946U, EDGE LEFT, Band n41(SRS1 /SRS1/SRS3), CW, Channel 2593000 (2593.0 MHz)

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, HSL	EDGE RIGHT, 10.00	Band n41	CW, 0--	2593.0, 2593000	7.03	1.90	39.5

Hardware Setup

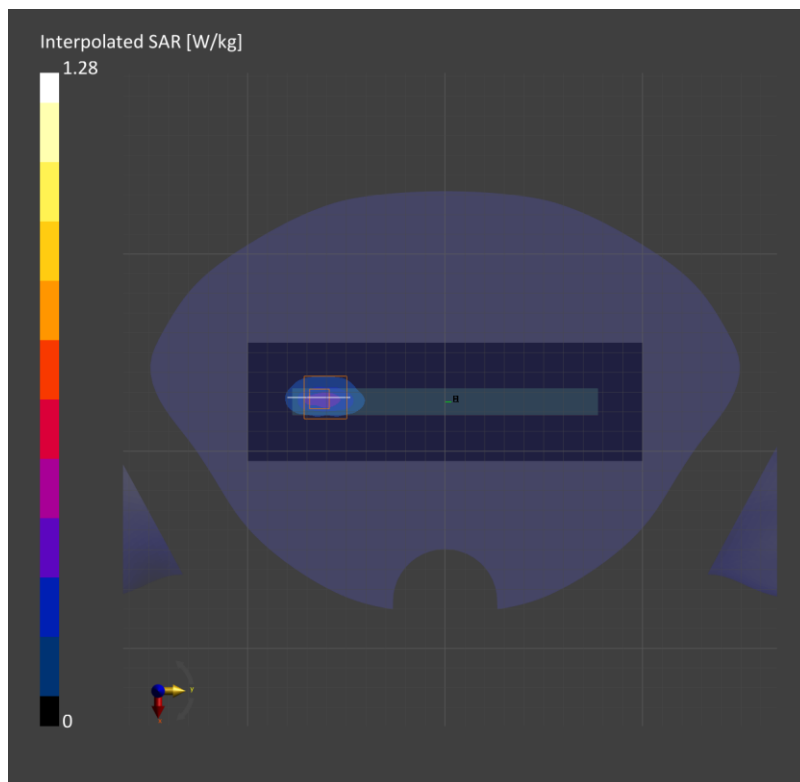
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Apr-26	EX3DV4 - SN7313, 2023-03-24	DAE4 Sn1343, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 200.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	2.9 x 2.9 x 1.2
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.290	0.291
psSAR10g [W/Kg]	0.117	0.105
Power Drift [dB]	-0.06	
M2/M1 [%]	64.1	
Dist 3dB Peak [mm]	4.1	



Measurement Report for SM-F946U, LEFT TOUCH, Band n41(SRS1/SRS1/SRS3), CW, Channel 2593000 (2593.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
LeftHead, HSL	LEFT TOUCH, 0.00	Band n41	CW, 0--	2593.0, 2593000	7.74	1.91	37.7

Hardware Setup

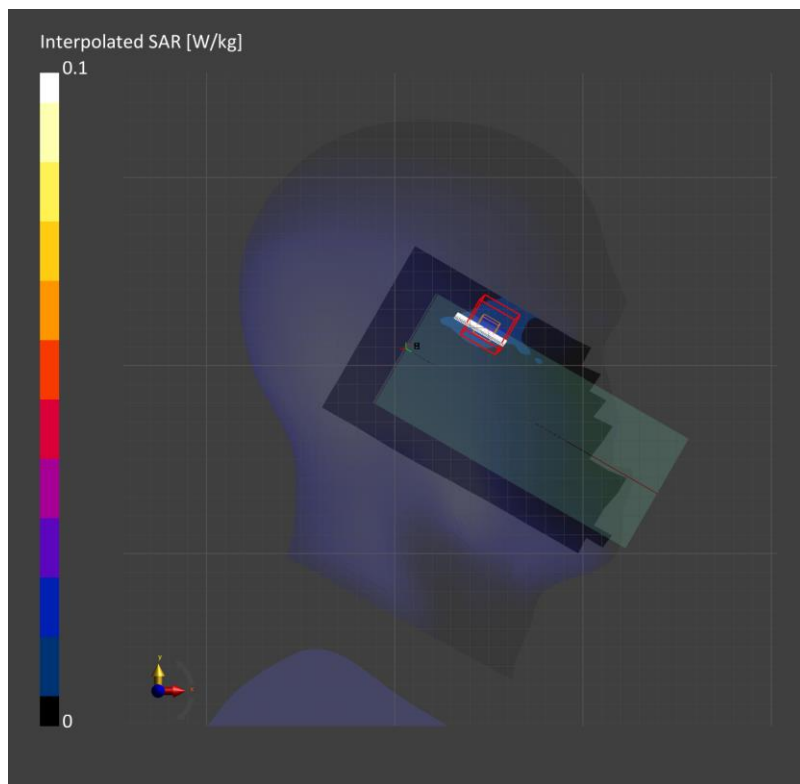
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Apr-17	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1343, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.019	0.017
psSAR10g [W/Kg]	0.008	0.005
Power Drift [dB]	0.12	
M2/M1 [%]	85.5	
Dist 3dB Peak [mm]	> 15.0	



**Measurement Report for SM-F946U, RIGHT TILT, Band n48(Voice/data/SRS0), 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz), Channel 645332 (3680.0 MHz)**

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TILT, 0.00	Band n48	5G NR FR1 TDD, 10913-AAD	3680.0, 645332	7.03	3.01	37.6

**Hardware Setup**

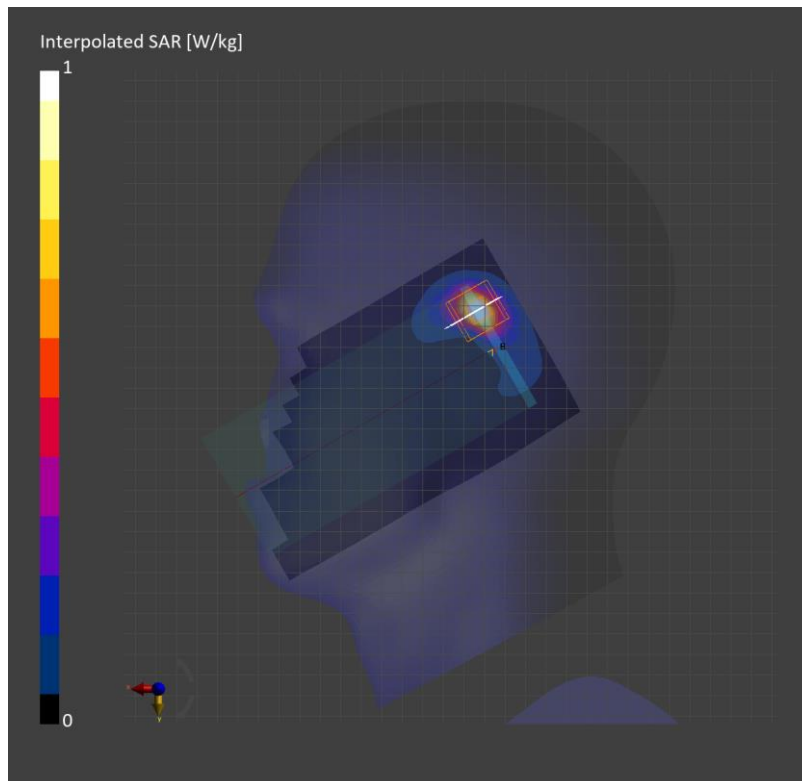
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Apr-12	EX3DV4 - SN7646, 2023-03-23	DAE4 Sn1671, 2022-05-31

**Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	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

**Measurement Results**

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.771	0.786
psSAR10g [W/Kg]	0.263	0.267
Power Drift [dB]		-0.01
M2/M1 [%]		73.5
Dist 3dB Peak [mm]		6.4



Measurement Report for SM-F946U, EDGE TOP, Band n48(Voice/data/SRS0), 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz), Channel 645332 (3680.0 MHz)

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, HSL	EDGE TOP, 10.00	Band n48	5G NR FR1 TDD, 10913-AAD	3680.0, 645332	7.03	3.01	37.6

Hardware Setup

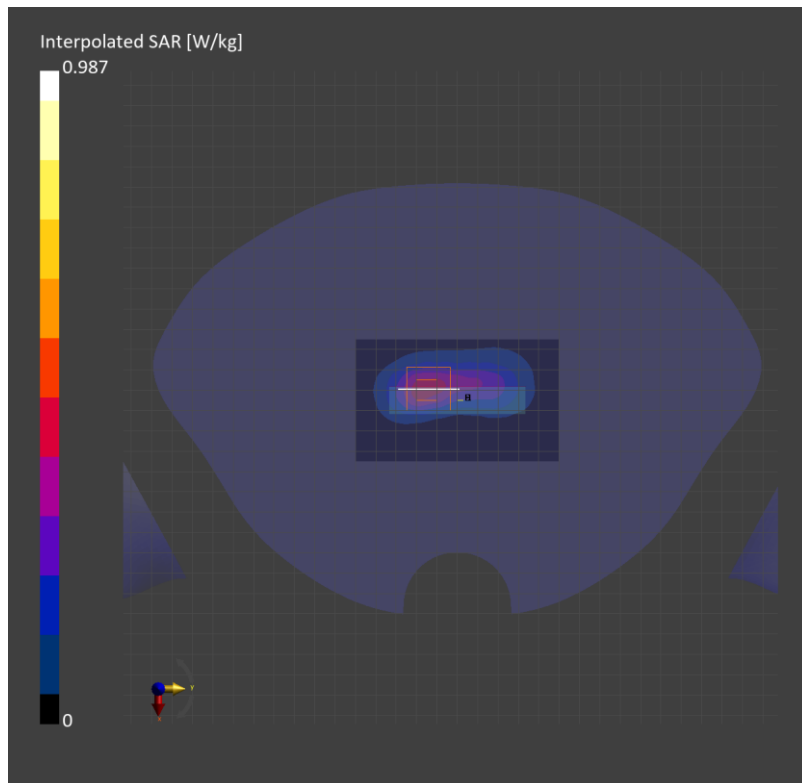
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Apr-13	EX3DV4 - SN7646, 2023-03-23	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 100.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.355	0.384
psSAR10g [W/Kg]	0.155	0.154
Power Drift [dB]		-0.03
M2/M1 [%]		72.9
Dist 3dB Peak [mm]		9.0





## NR Band n48(SRS1/SRS2/SRS3)

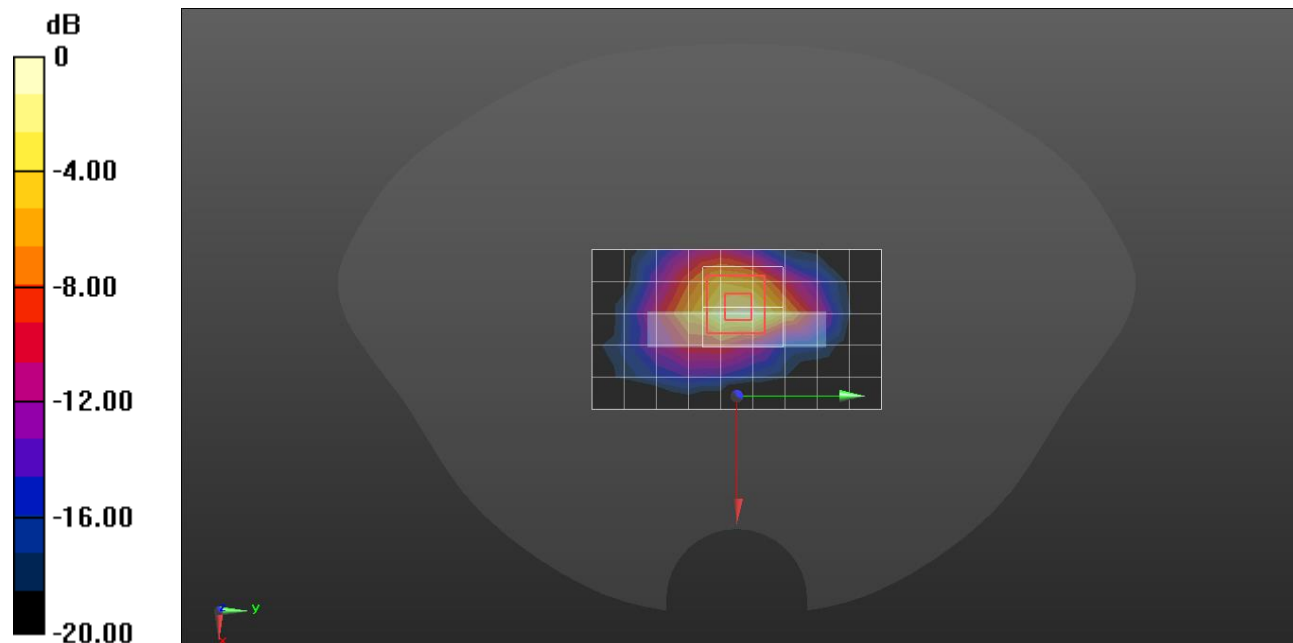
Frequency: 3570 MHz; Communication System Channel Number: 638000; Duty Cycle: 1:4.00037  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 3570$  MHz;  $\sigma = 2.973$  S/m;  $\epsilon_r = 37.893$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1447; Calibrated: 2023-03-22
- Probe: EX3DV4 - SN7313; ConvF(6.42, 6.71, 7.02) @ 3570 MHz; Calibrated: 2023-03-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Bottom/CW ch.638000/Area Scan (6x10x1):** Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 0.358 W/kg

**Bottom/CW ch.638000/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=1.4mm  
 Reference Value = 10.81 V/m; Power Drift = 0.12 dB  
 Peak SAR (extrapolated) = 0.560 W/kg  
**SAR(1 g) = 0.226 W/kg; SAR(10 g) = 0.088 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 8 mm  
 Ratio of SAR at M2 to SAR at M1 = 76.6%  
 Maximum value of SAR (measured) = 0.414 W/kg



0 dB = 0.414 W/kg = -3.83 dBW/kg

### NR Band n48(SRS1/SRS2/SRS3)

Frequency: 3570 MHz; Communication System Channel Number: 638000; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 3570$  MHz;  $\sigma = 2.973$  S/m;  $\epsilon_r = 37.893$ ;  $\rho = 1000$  kg/m<sup>3</sup>

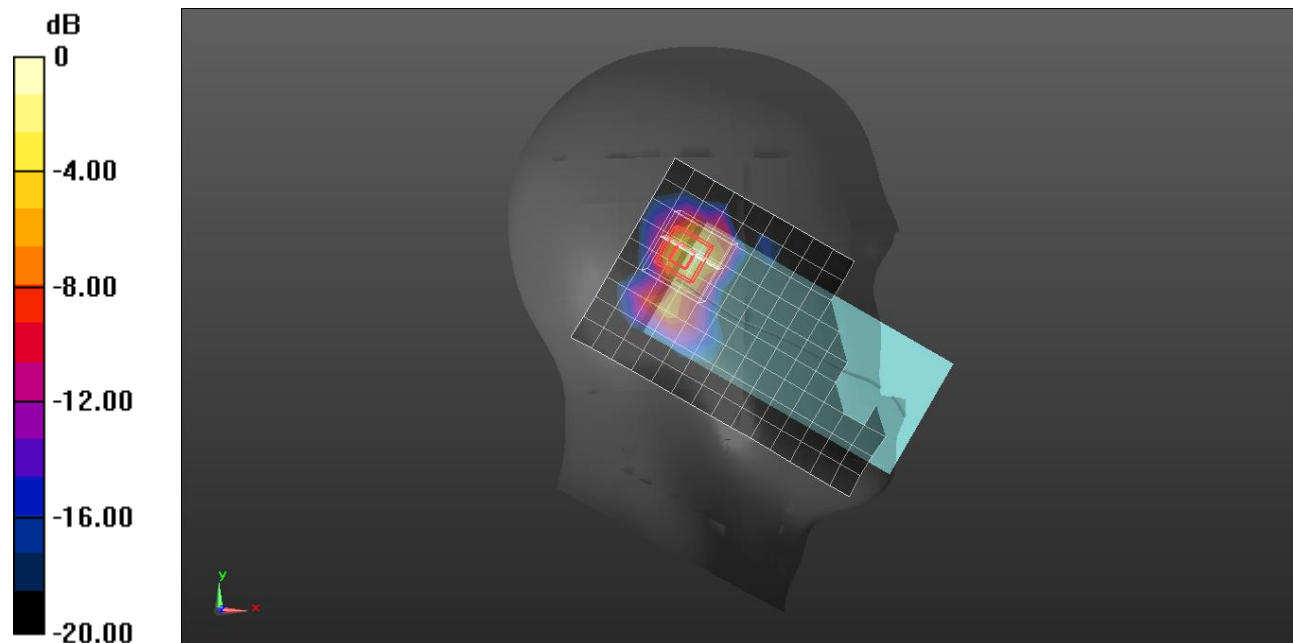
DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1447; Calibrated: 2023-03-22
- Probe: EX3DV4 - SN7313; ConvF(6.42, 6.71, 7.02) @ 3570 MHz; Calibrated: 2023-03-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Phantom section: Left Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LHS/Tilt CW ch.638000/Area Scan (10x17x1):** Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 0.362 W/kg

**LHS/Tilt CW ch.638000/Zoom Scan (8x8x8)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=1.4mm

Reference Value = 7.993 V/m; Power Drift = 0.03 dB  
 Peak SAR (extrapolated) = 0.729 W/kg  
**SAR(1 g) = 0.289 W/kg; SAR(10 g) = 0.105 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 6.8 mm  
 Ratio of SAR at M2 to SAR at M1 = 76.5%  
 Maximum value of SAR (measured) = 0.535 W/kg



0 dB = 0.535 W/kg = -2.72 dBW/kg

## NR Band n66

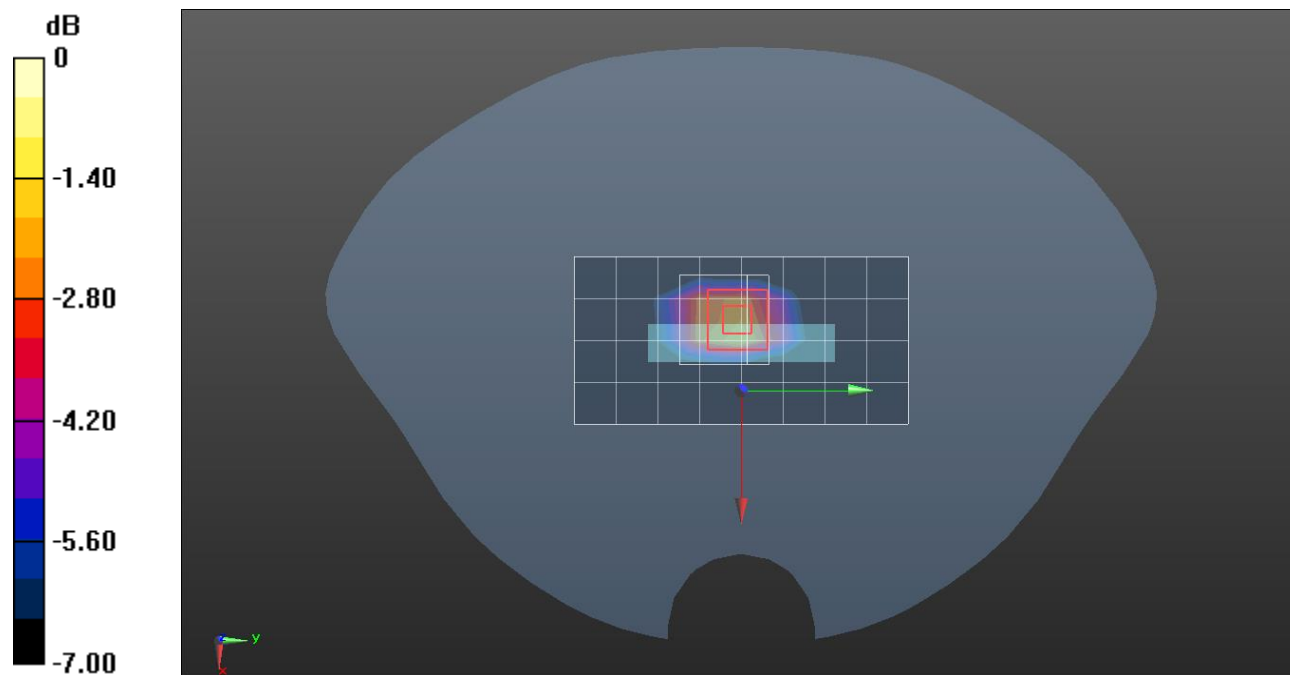
Frequency: 1745 MHz; Communication System Channel Number: 349000; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 1745$  MHz;  $\sigma = 1.347$  S/m;  $\epsilon_r = 40.077$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE3 Sn479; Calibrated: 2022-10-06
- Probe: EX3DV4 - SN7545; ConvF(8.38, 8.38, 8.38) @ 1745 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: SAM (20deg probe tilt) with CRP v5.0(Right); Phantom section: Flat Section ; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Bottom/QPSK RB 108/54 ch.349000/Area Scan (9x5x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.557 W/kg

**Bottom/QPSK RB 108/54 ch.349000/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 18.94 V/m; Power Drift = 0.15 dB  
 Peak SAR (extrapolated) = 0.946 W/kg  
**SAR(1 g) = 0.527 W/kg; SAR(10 g) = 0.281 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 10.1 mm  
 Ratio of SAR at M2 to SAR at M1 = 57.5%  
 Maximum value of SAR (measured) = 0.778 W/kg



0 dB = 0.778 W/kg = -1.09 dBW/kg

## NR Band n66

Frequency: 1745 MHz; Communication System Channel Number: 349000; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 1745$  MHz;  $\sigma = 1.344$  S/m;  $\epsilon_r = 40.607$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1667; Calibrated: 2022-04-27
- Probe: EX3DV4 - SN7314; ConvF(8.39, 8.39, 8.39) @ 1745 MHz; Calibrated: 2022-05-31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Right Section; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**RHS/Tilt QPSK 108/54 ch.349000/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.968 W/kg

**RHS/Tilt QPSK 108/54 ch.349000/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.74 V/m; Power Drift = 0.05 dB

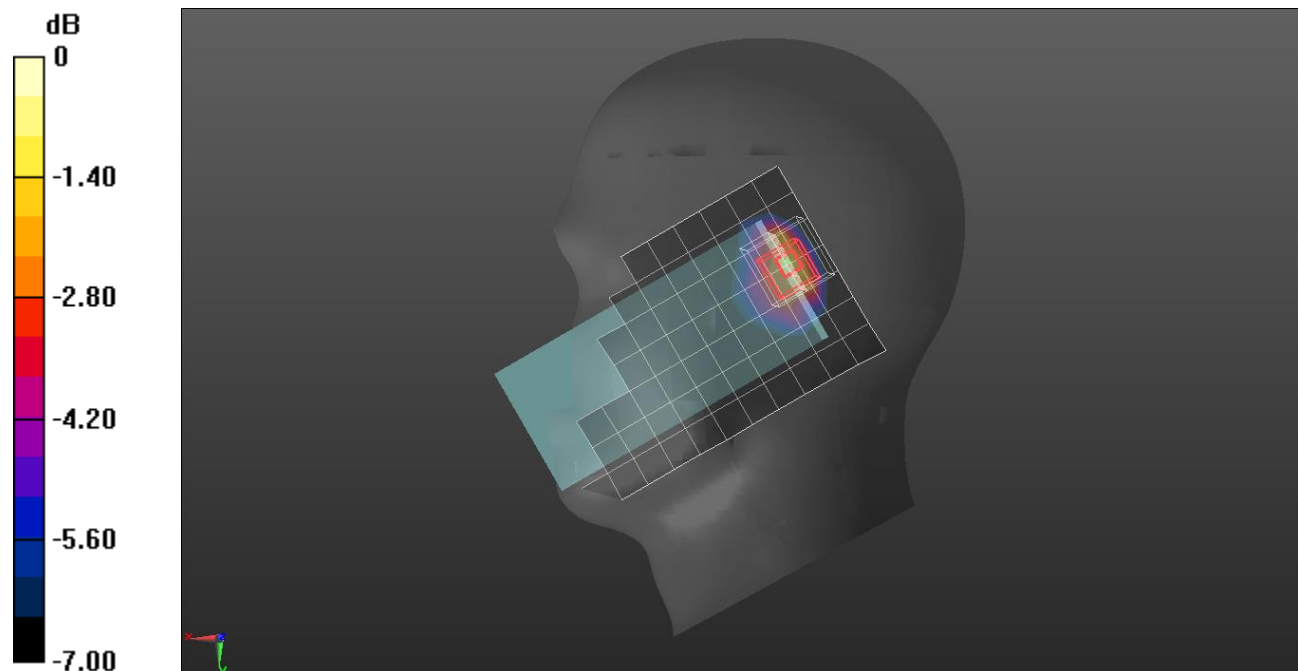
Peak SAR (extrapolated) = 1.42 W/kg

**SAR(1 g) = 0.833 W/kg; SAR(10 g) = 0.472 W/kg**

Smallest distance from peaks to all points 3 dB below = 10.8 mm

Ratio of SAR at M2 to SAR at M1 = 63.1%

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



0 dB = 1.20 W/kg = 0.79 dBW/kg

## NR Band n66

Frequency: 1745 MHz; Communication System Channel Number: 349000; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 1745$  MHz;  $\sigma = 1.344$  S/m;  $\epsilon_r = 40.607$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1667; Calibrated: 2022-04-27
- Probe: EX3DV4 - SN7314; ConvF(8.39, 8.39, 8.39) @ 1745 MHz; Calibrated: 2022-05-31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Top/QPSK RB 108/54 ch.349000/Area Scan (9x5x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.674 W/kg

**Top/QPSK RB 108/54 ch.349000/Zoom Scan (6x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.58 V/m; Power Drift = -0.02 dB

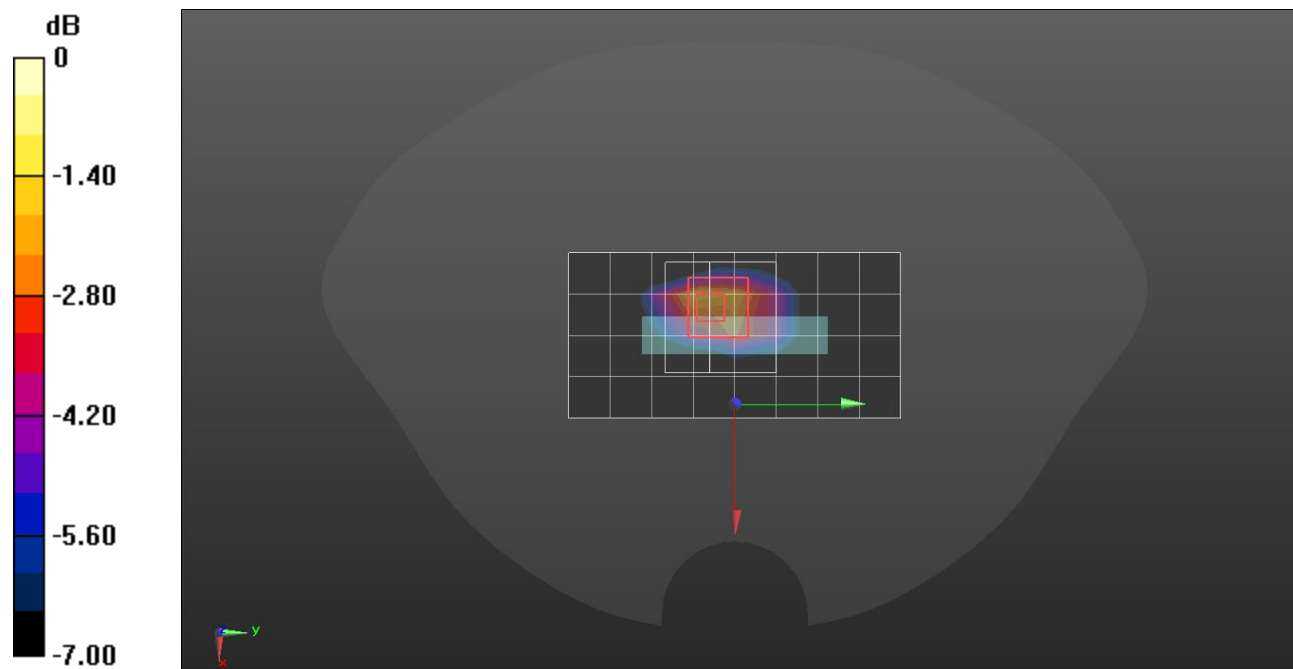
Peak SAR (extrapolated) = 1.12 W/kg

**SAR(1 g) = 0.635 W/kg; SAR(10 g) = 0.354 W/kg**

Smallest distance from peaks to all points 3 dB below = 9.3 mm

Ratio of SAR at M2 to SAR at M1 = 58.4%

Maximum value of SAR (measured) = 0.948 W/kg



0 dB = 0.948 W/kg = -0.23 dBW/kg

## NR Band n71

Frequency: 680.5 MHz; Communication System Channel Number: 136100; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 680.5$  MHz;  $\sigma = 0.903$  S/m;  $\epsilon_r = 42.273$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE3 Sn479; Calibrated: 2022-10-06
- Probe: EX3DV4 - SN7545; ConvF(10.14, 10.14, 10.14) @ 680.5 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: SAM (20deg probe tilt) with CRP v5.0(Right); Phantom section: Right Section ; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**RHS/Touch QPSK 50/28 ch.136100/Area Scan (7x13x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.156 W/kg

**RHS/Touch QPSK 50/28 ch.136100/Zoom Scan (7x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.77 V/m; Power Drift = 0.04 dB

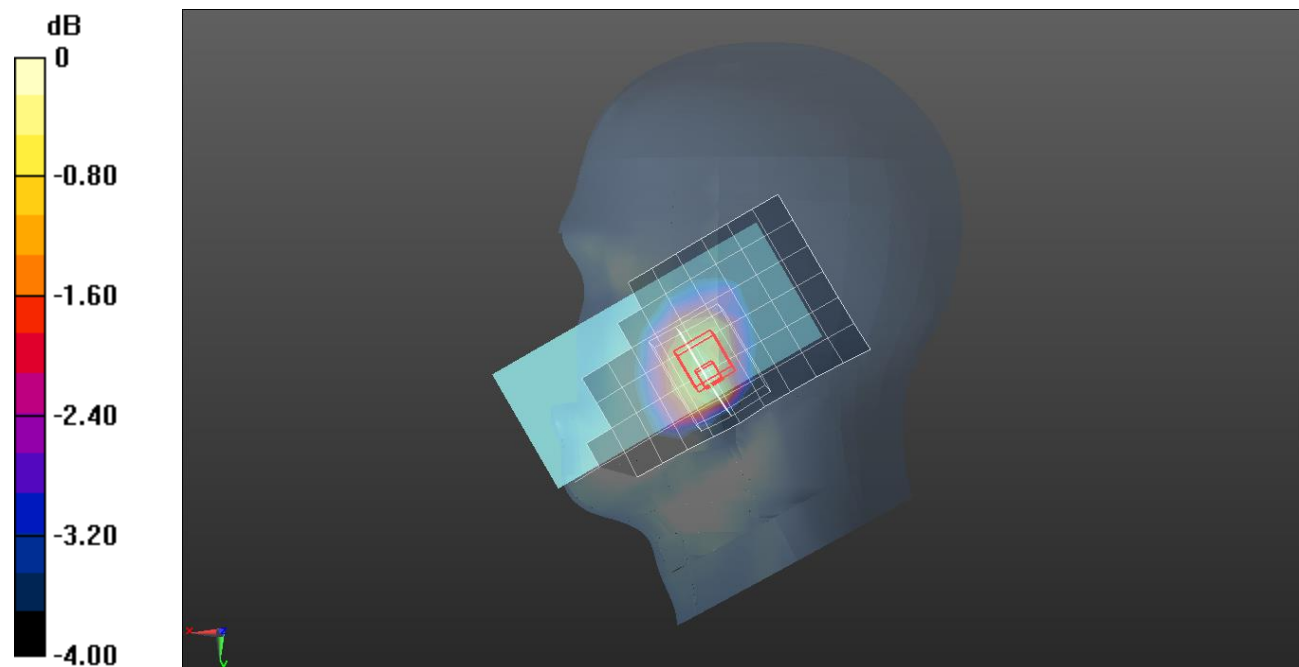
Peak SAR (extrapolated) = 0.192 W/kg

**SAR(1 g) = 0.139 W/kg; SAR(10 g) = 0.108 W/kg**

Smallest distance from peaks to all points 3 dB below = 15.1 mm

Ratio of SAR at M2 to SAR at M1 = 71%

Maximum value of SAR (measured) = 0.170 W/kg



0 dB = 0.170 W/kg = -7.70 dBW/kg

## NR Band n71

Frequency: 680.5 MHz; Communication System Channel Number: 136100; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 680.5$  MHz;  $\sigma = 0.89$  S/m;  $\epsilon_r = 42.104$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE3 Sn479; Calibrated: 2022-10-06
- Probe: EX3DV4 - SN7545; ConvF(10.14, 10.14, 10.14) @ 680.5 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: SAM (20deg probe tilt) with CRP v5.0(Right); Phantom section: Flat Section ; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Left/QPSK RB 50/28 ch.136100/Area Scan (14x5x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.439 W/kg

**Left/QPSK RB 50/28 ch.136100/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.16 V/m; Power Drift = 0.01 dB

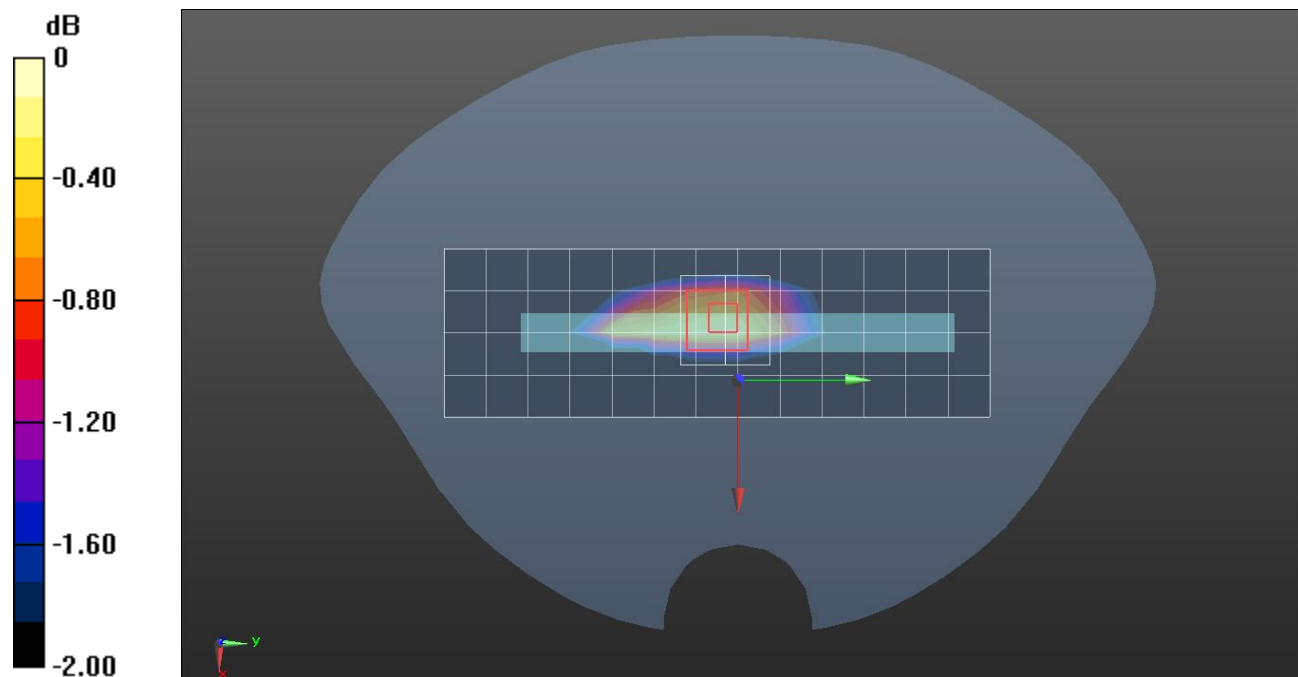
Peak SAR (extrapolated) = 0.520 W/kg

**SAR(1 g) = 0.354 W/kg; SAR(10 g) = 0.248 W/kg**

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)

Ratio of SAR at M2 to SAR at M1 = 68%

Maximum value of SAR (measured) = 0.461 W/kg



0 dB = 0.461 W/kg = -3.36 dBW/kg

## NR Band n71

Frequency: 680.5 MHz; Communication System Channel Number: 136100; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 680.5$  MHz;  $\sigma = 0.897$  S/m;  $\epsilon_r = 41.18$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE3 Sn479; Calibrated: 2022-10-06
- Probe: EX3DV4 - SN7545; ConvF(10.14, 10.14, 10.14) @ 680.5 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: SAM (20deg probe tilt) with CRP v5.0(Right); Phantom section: Flat Section ; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Left/QPSK RB 50/28 ch.136100/Area Scan (14x5x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.252 W/kg

**Left/QPSK RB 50/28 ch.136100/Zoom Scan (5x9x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.95 V/m; Power Drift = 0.05 dB

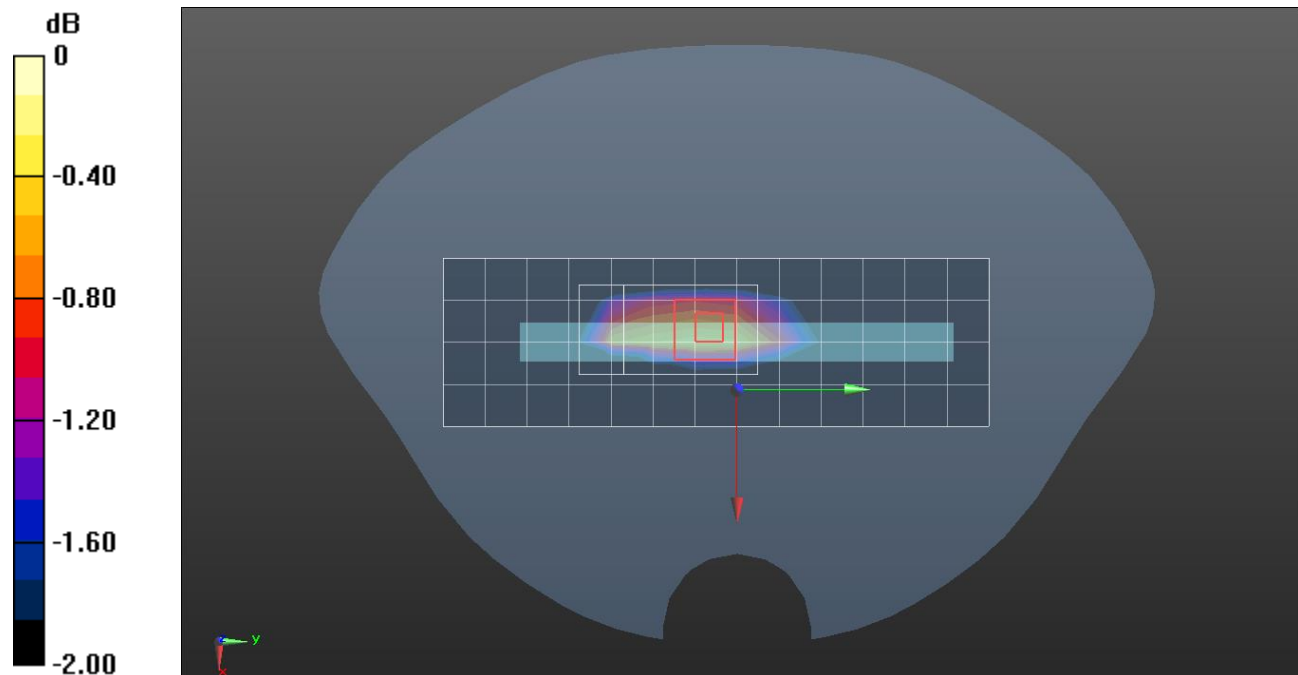
Peak SAR (extrapolated) = 0.317 W/kg

**SAR(1 g) = 0.203 W/kg; SAR(10 g) = 0.143 W/kg**

Smallest distance from peaks to all points 3 dB below = 15.8 mm

Ratio of SAR at M2 to SAR at M1 = 62.6%

Maximum value of SAR (measured) = 0.270 W/kg



0 dB = 0.270 W/kg = -5.69 dBW/kg



Measurement Report for SM-F946U, RIGHT TILT, Band n77(Voice/data/SRS0), 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz), Channel 662000 (3930.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TILT, 0.00	Band n77	5G NR FR1 TDD, 10866-AAF	3930.0, 662000	6.89	3.33	36.5

Hardware Setup

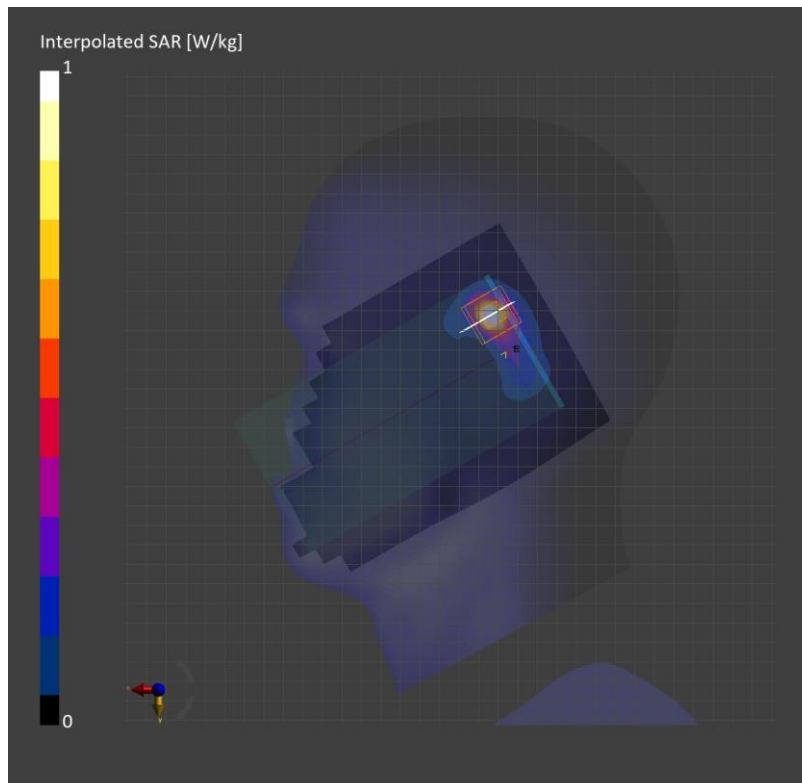
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Apr-20	EX3DV4 - SN7646, 2023-03-23	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 200.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.719	0.770
psSAR10g [W/Kg]	0.237	0.237
Power Drift [dB]		0.01
M2/M1 [%]		76.0
Dist 3dB Peak [mm]		5.9



Measurement Report for SM-F946U, EDGE TOP, Band n77(Voice/data/SRS0), 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz), Channel 662000 (3930.0 MHz)

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, HSL	EDGE TOP, 10.00	Band n77	5G NR FR1 TDD, 10866-AAF	3930.0, 662000	6.89	3.33	36.5

Hardware Setup

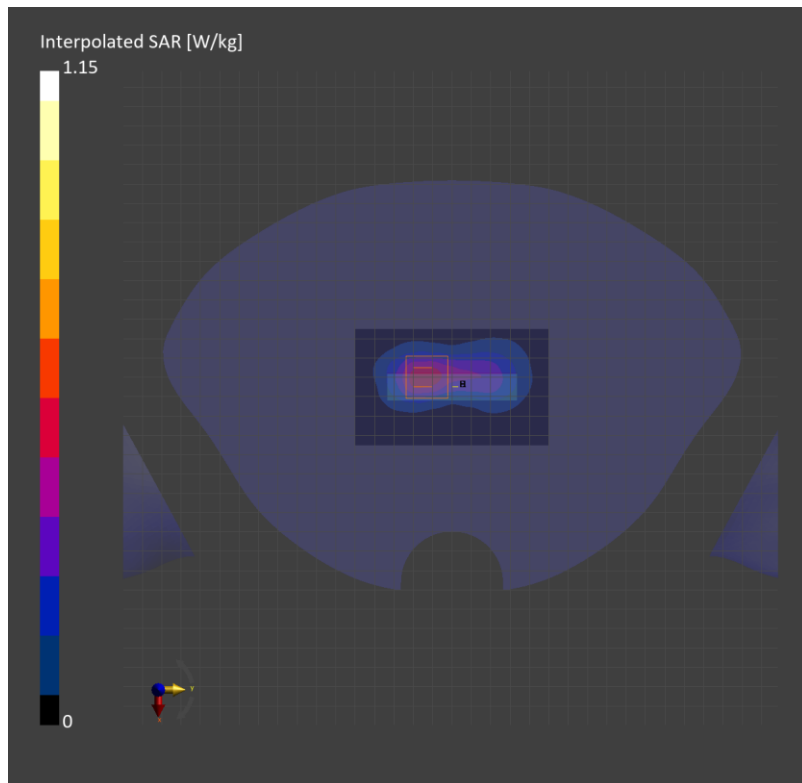
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Apr-19	EX3DV4 - SN7646, 2023-03-23	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 100.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.419	0.445
psSAR10g [W/Kg]	0.179	0.178
Power Drift [dB]		0.05
M2/M1 [%]		73.4
Dist 3dB Peak [mm]		9.3



### NR Band n77(SRS1/SRS2/SRS3)

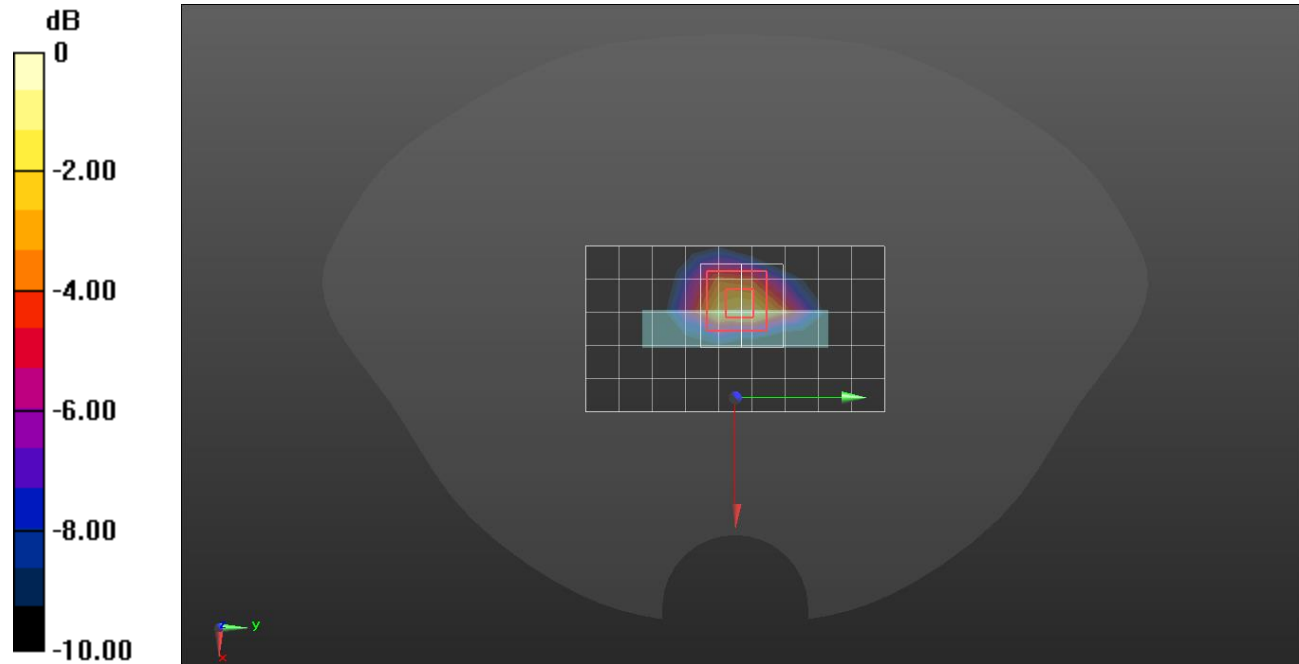
Frequency: 3500.01 MHz; Communication System Channel Number: 633334; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 3500.01$  MHz;  $\sigma = 2.904$  S/m;  $\epsilon_r = 38.164$ ;  $\rho = 1000$  kg/m<sup>3</sup>

DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1447; Calibrated: 2023-03-22
- Probe: EX3DV4 - SN7313; ConvF(6.42, 6.71, 7.02) @ 3500.01 MHz; Calibrated: 2023-03-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Bottom/CW ch.63334/Area Scan (6x10x1):** Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 0.315 W/kg

**Bottom/CW ch.63334/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=1.4mm  
 Reference Value = 10.59 V/m; Power Drift = -0.06 dB  
 Peak SAR (extrapolated) = 0.462 W/kg  
**SAR(1 g) = 0.210 W/kg; SAR(10 g) = 0.086 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 8.1 mm  
 Ratio of SAR at M2 to SAR at M1 = 80.5%  
 Maximum value of SAR (measured) = 0.370 W/kg



0 dB = 0.370 W/kg = -4.32 dBW/kg

Measurement Report for SM-F946U, LEFT TILT, Band n77(Voice/data/SRS0), CW, Channel 3750000 (3750.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
LeftHead, HSL	LEFT TILT, 0.00	Band n77	CW, 0--	3750.0, 3750000	7.03	3.07	37.0

Hardware Setup

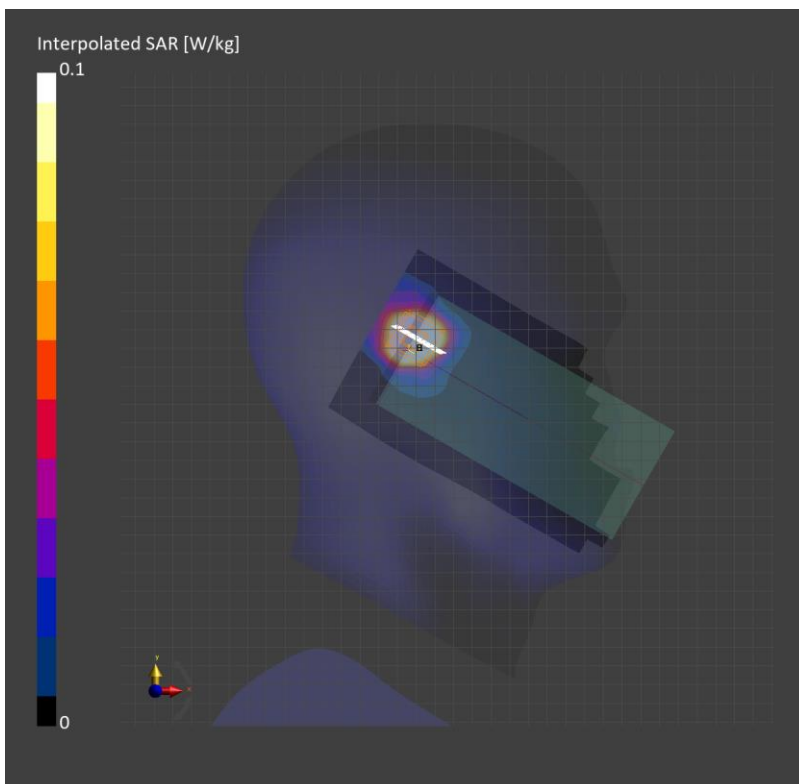
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 1991	HBBL-600-10000, 2023-Apr-12	EX3DV4 - SN7646, 2023-03-23	DAE4 Sn1671, 2022-05-31

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.209	0.216
psSAR10g [W/Kg]	0.076	0.072
Power Drift [dB]	0.03	
M2/M1 [%]	71.9	
Dist 3dB Peak [mm]	7.1	



Measurement Report for SM-F946U, EDGE TOP, Wi-Fi (DTS Band), IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle), Channel 6 (2437.0 MHz)

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, HSL	EDGE TOP, 10.00	WLAN 2.4GHz	WLAN, 10415-AAA	2437.0, 6	8.04	1.84	38.8

Hardware Setup

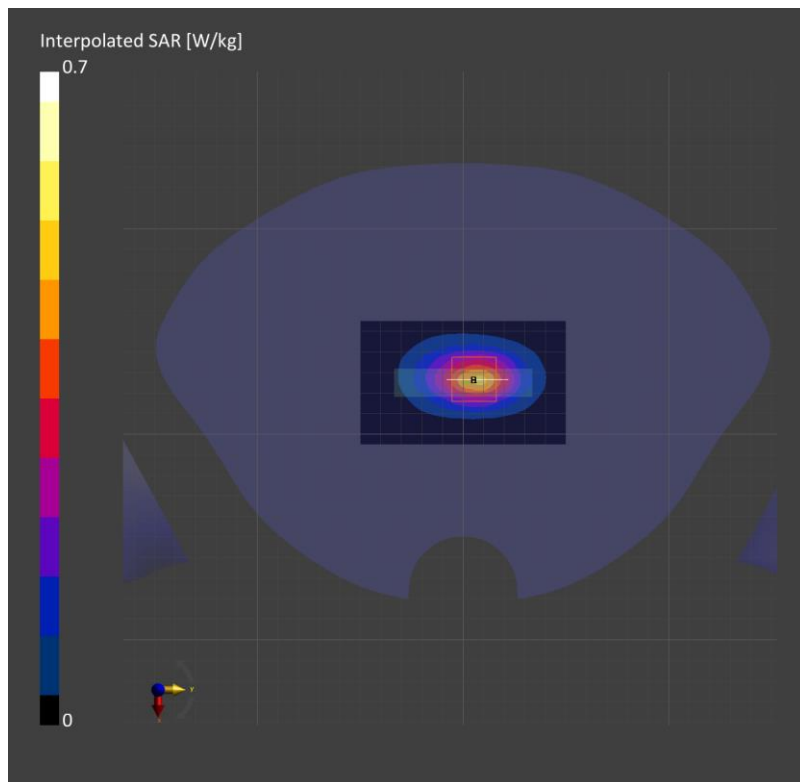
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Mar-30	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1670, 2022-06-07

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 100.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.377	0.381
psSAR10g [W/Kg]	0.186	0.187
Power Drift [dB]		0.04
M2/M1 [%]		82.5
Dist 3dB Peak [mm]		10.8



## Wi-Fi 2.4GHz

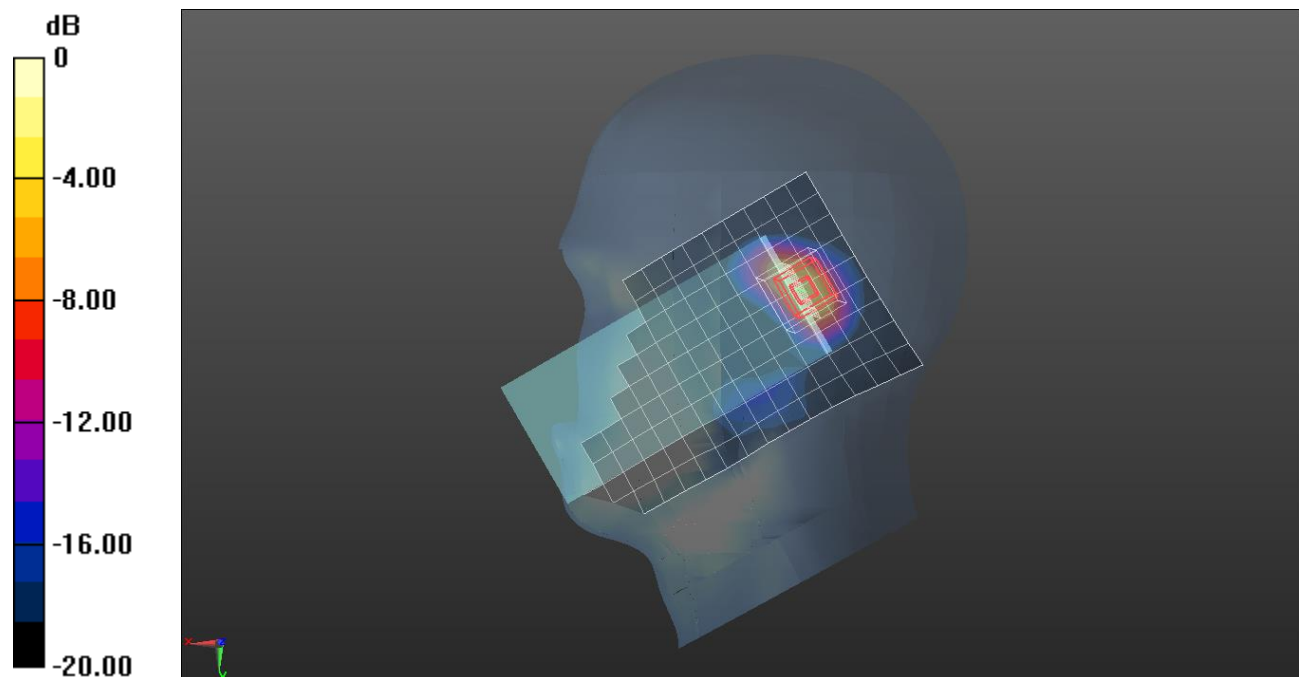
Frequency: 2462 MHz; Communication System Channel Number: 11; Duty Cycle: 1:1  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used (interpolated):  $f = 2462$  MHz;  $\sigma = 1.819$  S/m;  $\epsilon_r = 38.783$ ;  $\rho = 1000$  kg/m<sup>3</sup>

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn912; Calibrated: 2022-11-16
- Probe: EX3DV4 - SN7313; ConvF(6.94, 7.21, 7.57) @ 2462 MHz; Calibrated: 2023-03-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: SAM (20deg probe tilt) with CRP v5.0(Right); Phantom section: Right Section ; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**RHS/Tilt 802.11 b mode ch.11 MIMO/Area Scan (10x17x1):** Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 0.634 W/kg

**RHS/Tilt 802.11 b mode ch.11 MIMO/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Reference Value = 24.55 V/m; Power Drift = -0.14 dB  
 Peak SAR (extrapolated) = 1.54 W/kg  
**SAR(1 g) = 0.670 W/kg; SAR(10 g) = 0.266 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 6 mm  
 Ratio of SAR at M2 to SAR at M1 = 46.2%  
 Maximum value of SAR (measured) = 1.23 W/kg



0 dB = 1.23 W/kg = 0.90 dBW/kg

Measurement Report for SM-F946U, EDGE TOP, WLAN 2.4GHz, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle), Channel 6 (2437.0 MHz)

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, HSL	EDGE TOP, 10.00	WLAN 2.4GHz	WLAN, 10415-AAA	2437.0, 6	8.04	1.78	38.0

Hardware Setup

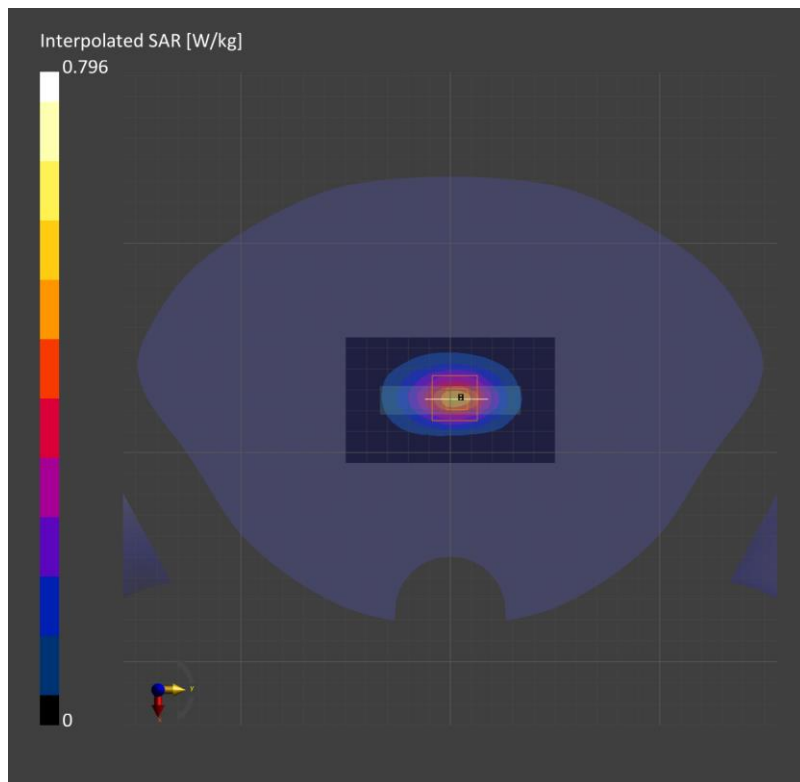
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-Mar-30	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1670, 2022-06-07

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 100.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.405	0.422
psSAR10g [W/Kg]	0.196	0.206
Power Drift [dB]		0.00
M2/M1 [%]		82.3
Dist 3dB Peak [mm]		10.0



Measurement Report for SM-F946U, RIGHT TOUCH, Wi-Fi (U-NII Bands), IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle), Channel 58 (5290.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TOUCH, 0.00	WLAN 5GHz	WLAN, 10626-AAC	5290.0, 58	5.4	4.70	35.3

Hardware Setup

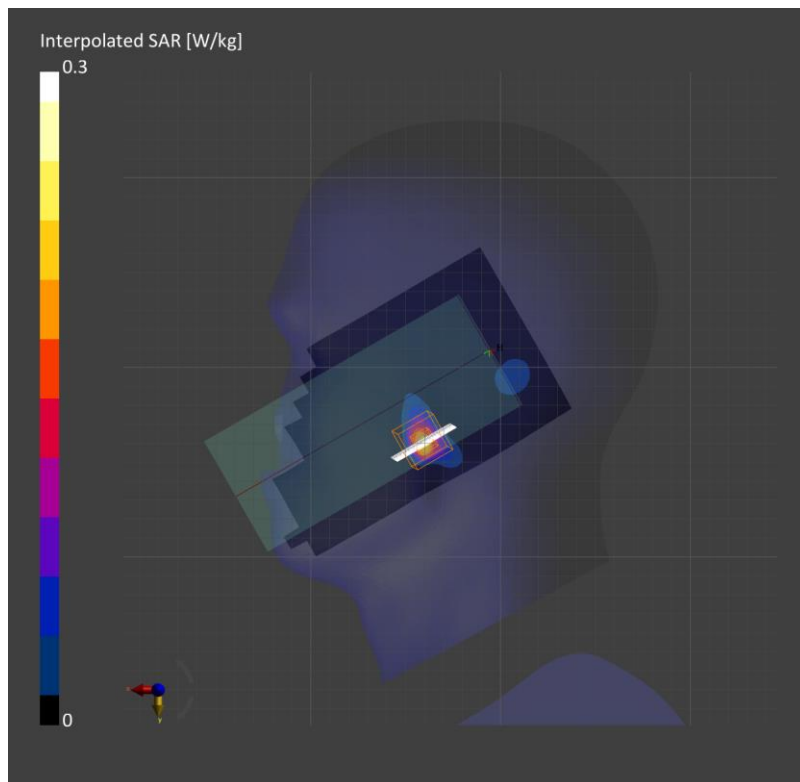
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2043	HBBL-600-10000, 2023-Apr-10	EX3DV4 - SN7314, 2022-05-31	DAE4 Sn1494, 2022-07-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.147	0.164
psSAR10g [W/Kg]	0.043	0.039
Power Drift [dB]		-0.03
M2/M1 [%]		67.2
Dist 3dB Peak [mm]		4.8





Measurement Report for SM-F946U, REAR, Wi-Fi (U-NII Bands), IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle), Channel 58 (5290.0 MHz)

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, HSL	REAR, 10.00	WLAN 5GHz	WLAN, 10626-AAC	5290.0, 58	5.15	4.77	36.5

Hardware Setup

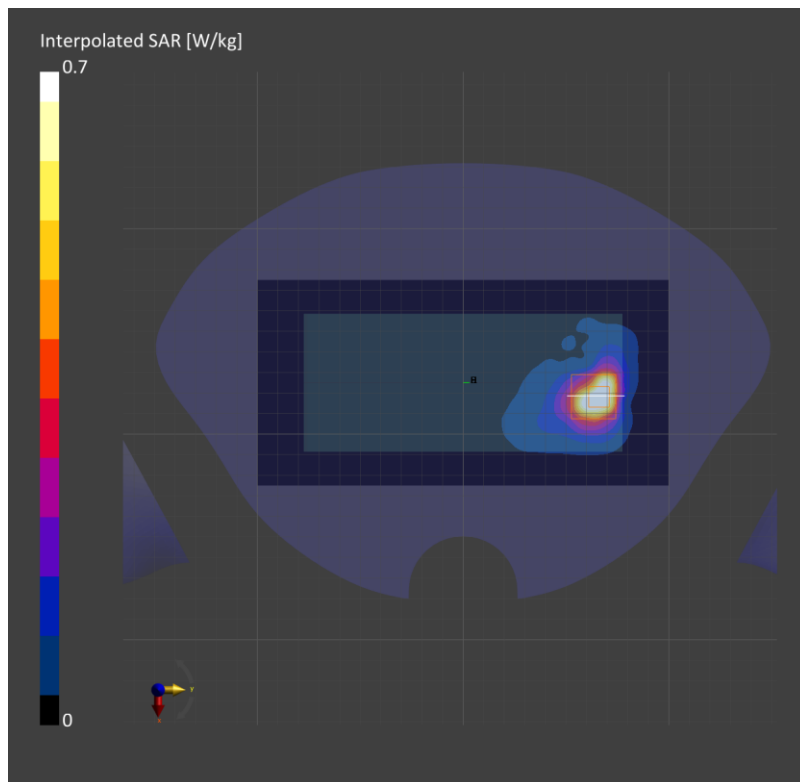
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2043	HBBL-600-10000, 2023-May-01	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1494, 2022-07-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.558	0.595
psSAR10g [W/Kg]	0.197	0.195
Power Drift [dB]		-0.01
M2/M1 [%]		68.0
Dist 3dB Peak [mm]		7.4



Measurement Report for SM-F946U, REAR, Wi-Fi (U-NII Bands), IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle), Channel 58 (5290.0 MHz)

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, HSL	REAR, 0.00	WLAN 5GHz	WLAN, 1 0626-AAC	5290.0, 58	5.15	4.64	37.6

Hardware Setup

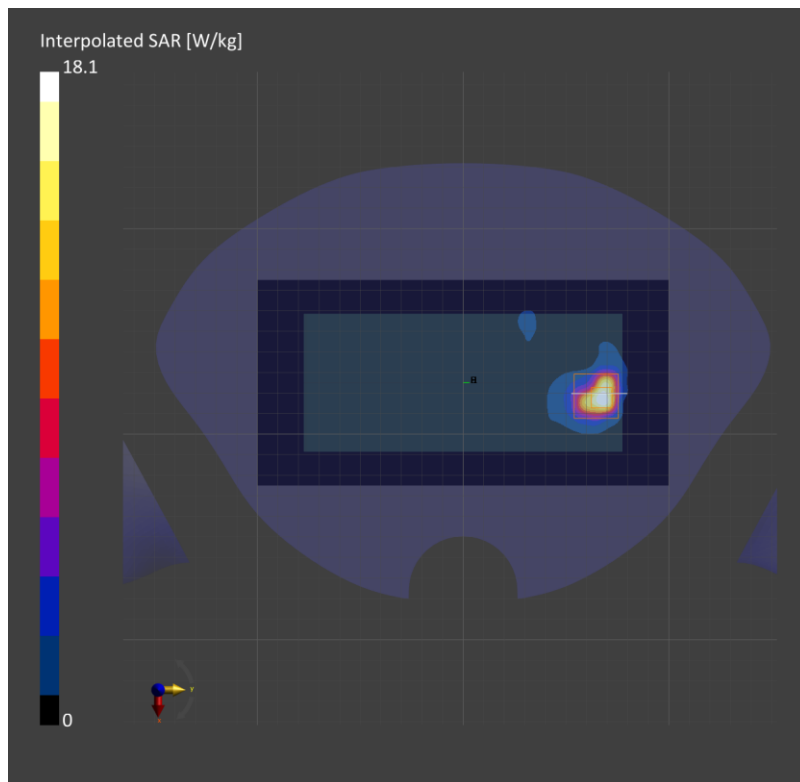
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2043	HBBL-600-10000, 2023-Apr-25	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1494, 2022-07-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	3.9 x 3.9 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	3.75	4.10
psSAR10g [W/Kg]	1.13	1.09
Power Drift [dB]		-0.03
M2/M1 [%]		63.0
Dist 3dB Peak [mm]		4.4



Measurement Report for SM-F946U, CHEEK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle), Channel 138 (5690.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	CHEEK, 0.00	WLAN 5GHz	WLAN, 10626-AAC	5690.0, 138	4.8	5.18	34.6

Hardware Setup

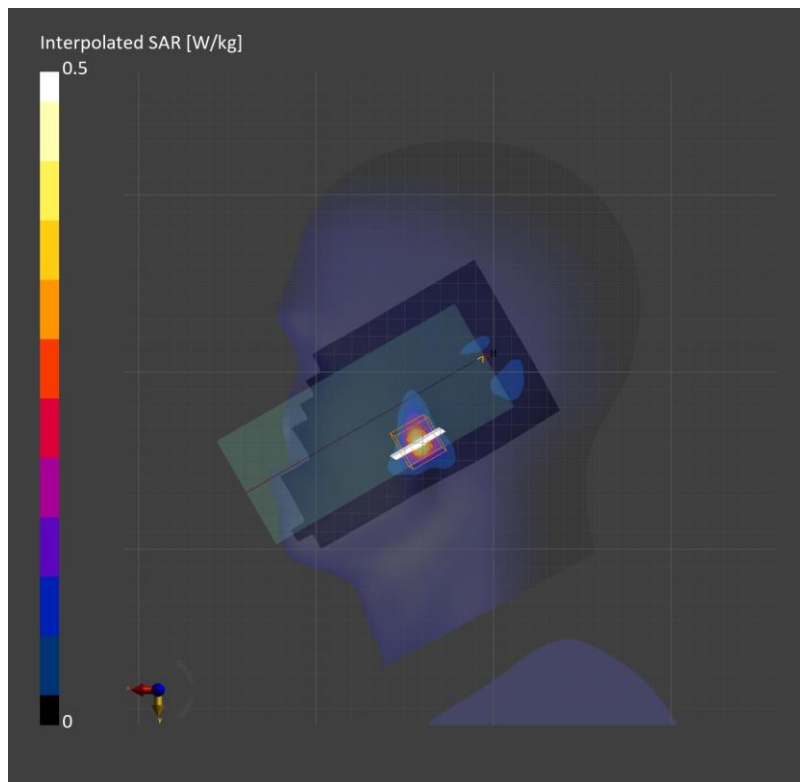
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2043	HBBL-600-10000, 2023-Apr-10	EX3DV4 - SN7314, 2022-05-31	DAE4 Sn1494, 2022-07-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.286	0.310
psSAR10g [W/Kg]	0.087	0.084
Power Drift [dB]	-0.02	
M2/M1 [%]	63.8	
Dist 3dB Peak [mm]	4.8	



Measurement Report for SM-F946U, REAR, Wi-Fi (U-NII Bands), IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle), Channel 138 (5690.0 MHz)

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, HSL	REAR, 10.00	U-NII-2C, U-NII-3	WLAN, 10626-AAC	5690.0, 138	4.56	5.03	36.3

Hardware Setup

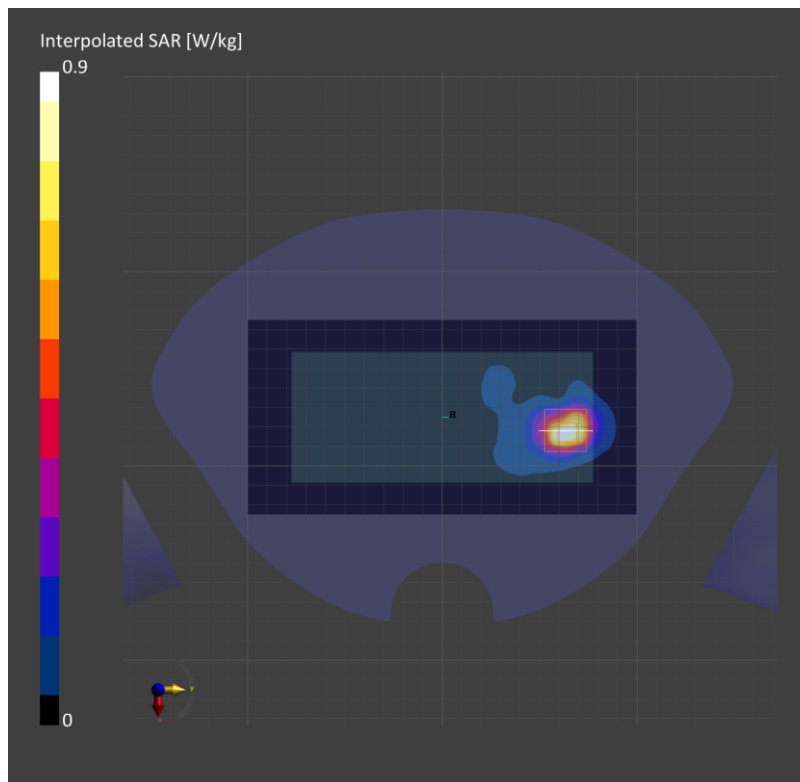
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2043	HBBL-600-10000, 2023-May-01	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1494, 2022-07-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.646	0.690
psSAR10g [W/Kg]	0.219	0.219
Power Drift [dB]		-0.04
M2/M1 [%]		65.3
Dist 3dB Peak [mm]		7.6



Measurement Report for SM-F946U, REAR, Wi-Fi (U-NII Bands), IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle), Channel 138 (5690.0 MHz)

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, HSL	REAR, 0.00	U-NII-2C, U-NII-3	WLAN, 10626-AAC	5690.0, 138	4.56	5.10	36.8

Hardware Setup

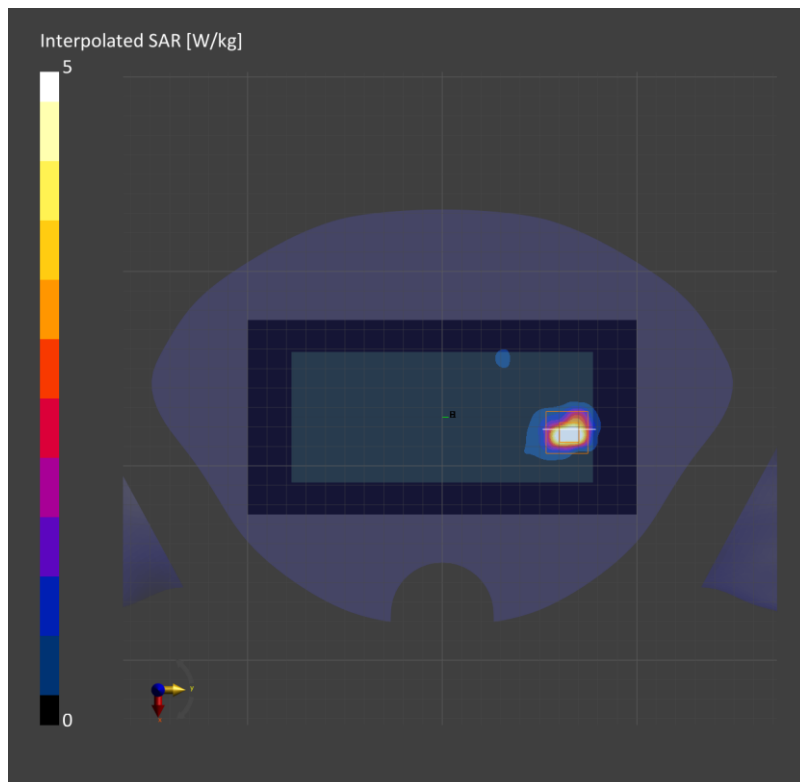
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2043	HBBL-600-10000, 2023-Apr-25	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1494, 2022-07-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	3.9 x 3.9 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	3.89	4.19
psSAR10g [W/Kg]	1.07	1.03
Power Drift [dB]		0.02
M2/M1 [%]		62.4
Dist 3dB Peak [mm]		4.9



Measurement Report for SM-F946U, RIGHT TOUCH, Wi-Fi (U-NII Bands), IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle), Channel 155 (5775.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TOUCH, 0.00	WLAN 5GHz	WLAN, 10626-AAC	5775.0, 155	4.8	5.16	36.0

Hardware Setup

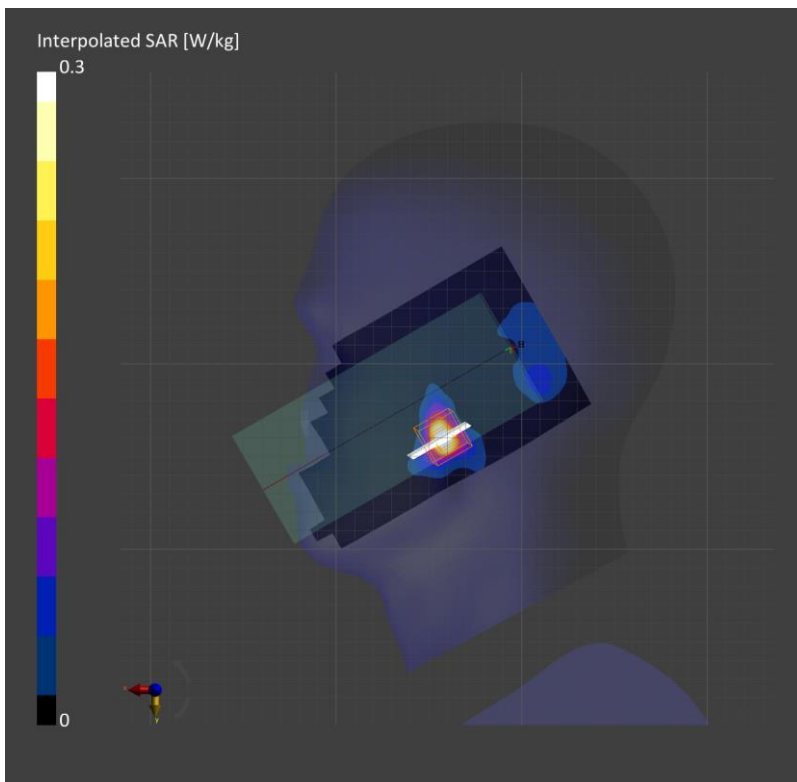
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2043	HBBL-600-10000, 2023-Apr-11	EX3DV4 - SN7314, 2022-05-31	DAE4 Sn1494, 2022-07-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.214	0.233
psSAR10g [W/Kg]	0.065	0.064
Power Drift [dB]		-0.07
M2/M1 [%]		63.2
Dist 3dB Peak [mm]		4.8



Measurement Report for SM-F946U, REAR, Wi-Fi (U-NII Bands), IEEE 802.11ax (80MHz, MCS0, 90pc duty cycle), Channel 155 (5775.0 MHz)

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, HSL	REAR, 10.00	WLAN 5GHz	WLAN, 10719-AAC	5775.0, 155	4.5	5.14	36.1

Hardware Setup

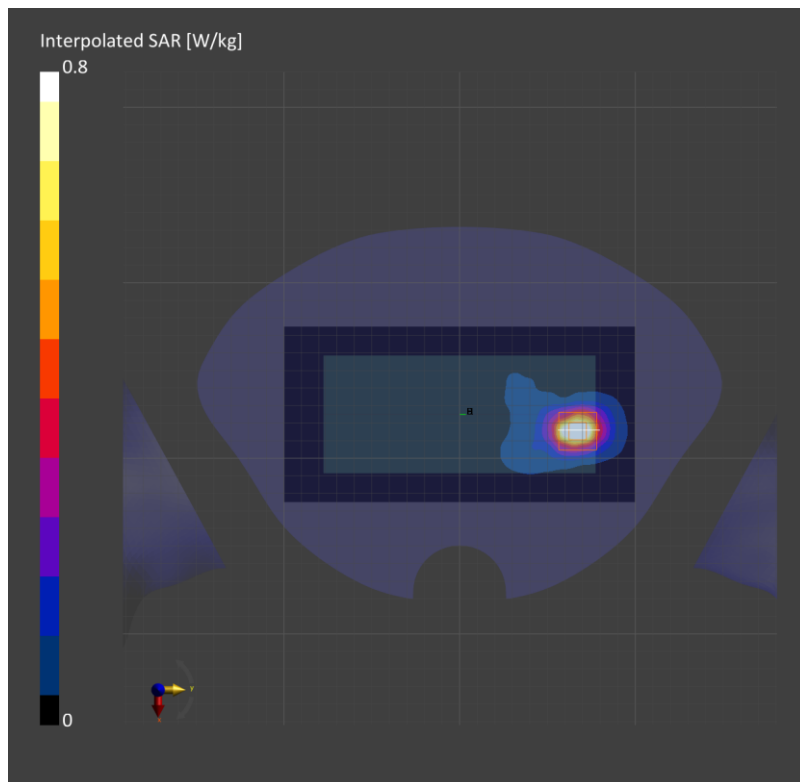
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2043	HBBL-600-10000, 2023-May-01	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1494, 2022-07-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.693	0.702
psSAR10g [W/Kg]	0.225	0.223
Power Drift [dB]		0.17
M2/M1 [%]		63.3
Dist 3dB Peak [mm]		7.9



**Measurement Report for SM-F946U, RIGHT TOUCH, Wi-Fi (U-NII Bands), IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle), Channel 5855000 (5855.0 MHz)**

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	RIGHT TOUCH, 0.00	WLAN 5GHz	CW, 10626-AAC	5855.0, 5855000	4.8	5.24	35.8

**Hardware Setup**

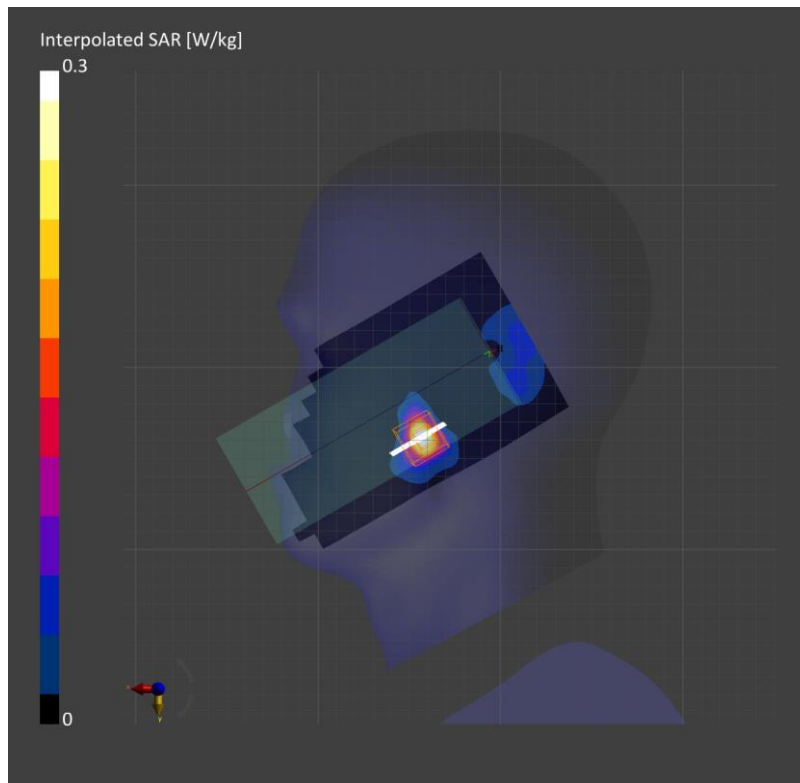
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2043	HBBL-600-10000, 2023-Apr-11	EX3DV4 - SN7314, 2022-05-31	DAE4 Sn1494, 2022-07-18

**Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	3.8 x 3.8 x 1.4
Sensor Surface [mm]	3.0	1.4

**Measurement Results**

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.207	0.215
psSAR10g [W/Kg]	0.065	0.060
Power Drift [dB]		-0.07
M2/M1 [%]		69.2
Dist 3dB Peak [mm]		6.1





Measurement Report for SM-F946U, REAR, Wi-Fi (U-NII Bands), IEEE 802.11ax (80MHz, MCS0, 90pc duty cycle), Channel 5855000 (5855.0 MHz)

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, HSL	REAR, 10.00	WLAN 5GHz	CW, 10719-AAC	5855.0, 5855000	4.5	5.20	35.8

Hardware Setup

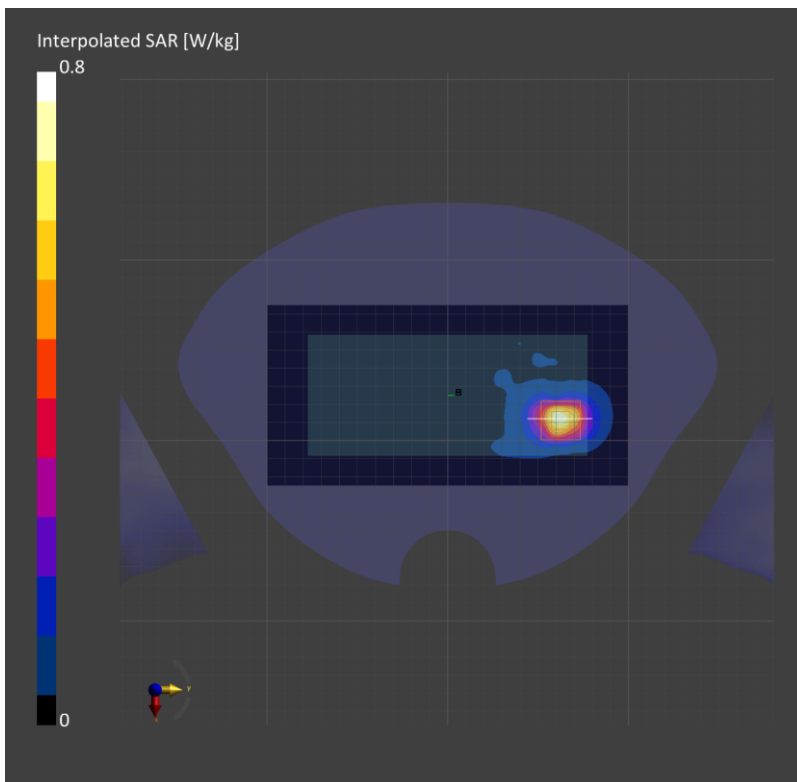
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2043	HBBL-600-10000, 2023-May-01	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1494, 2022-07-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.534	0.601
psSAR10g [W/Kg]	0.184	0.191
Power Drift [dB]		-0.05
M2/M1 [%]		64.0
Dist 3dB Peak [mm]		7.2



Measurement Report for SM-F946U, REAR, Wi-Fi (U-NII Bands), IEEE 802.11ax (80MHz, MCS0, 90pc duty cycle), Channel 5855000 (5855.0 MHz)

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, HSL	REAR, 0.00	WLAN 5GHz	CW, 10719-AAC	5855.0, 5855000	4.5	5.20	35.8

Hardware Setup

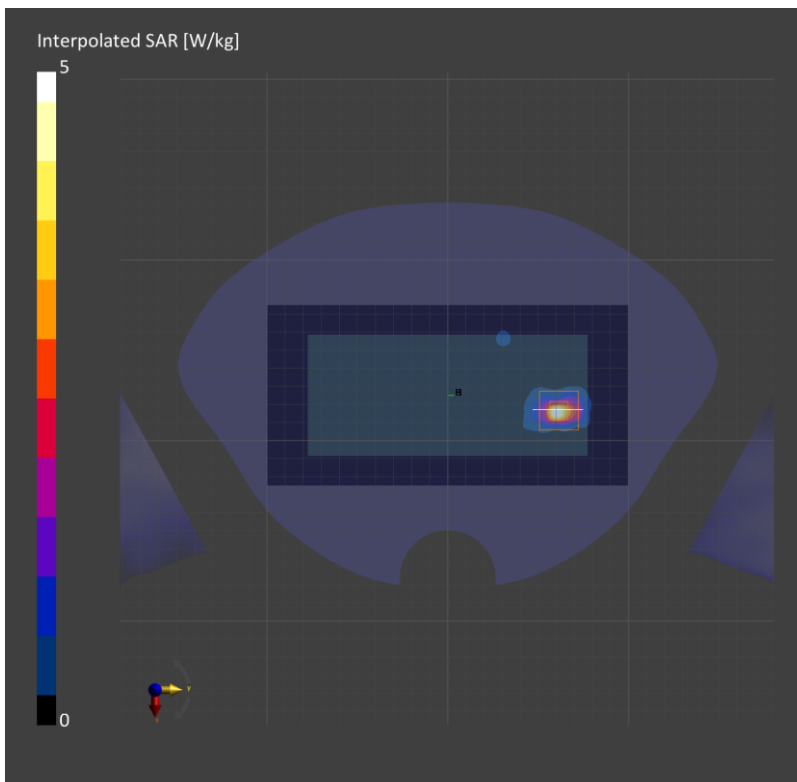
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2043	HBBL-600-10000, 2023-May-01	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1494, 2022-07-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	2.91	3.15
psSAR10g [W/Kg]	0.751	0.784
Power Drift [dB]		0.09
M2/M1 [%]		61.1
Dist 3dB Peak [mm]		4.8



## Bluetooth

Frequency: 2440 MHz; Communication System Channel Number: 19; Duty Cycle: 1:1.17625

Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C

Medium parameters used:  $f = 2440$  MHz;  $\sigma = 1.797$  S/m;  $\epsilon_r = 39.097$ ;  $\rho = 1000$  kg/m<sup>3</sup>

DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1668; Calibrated: 4/26/2023
- Probe: EX3DV4 - SN7652; ConvF(8.21, 7.98, 8.36) @ 2440 MHz; Calibrated: 4/24/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Left/GFSK ch.19 Ant.1/Area Scan (16x6x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.0973 W/kg

**Left/GFSK ch.19 Ant.1/Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.242 V/m; Power Drift = 0.08 dB

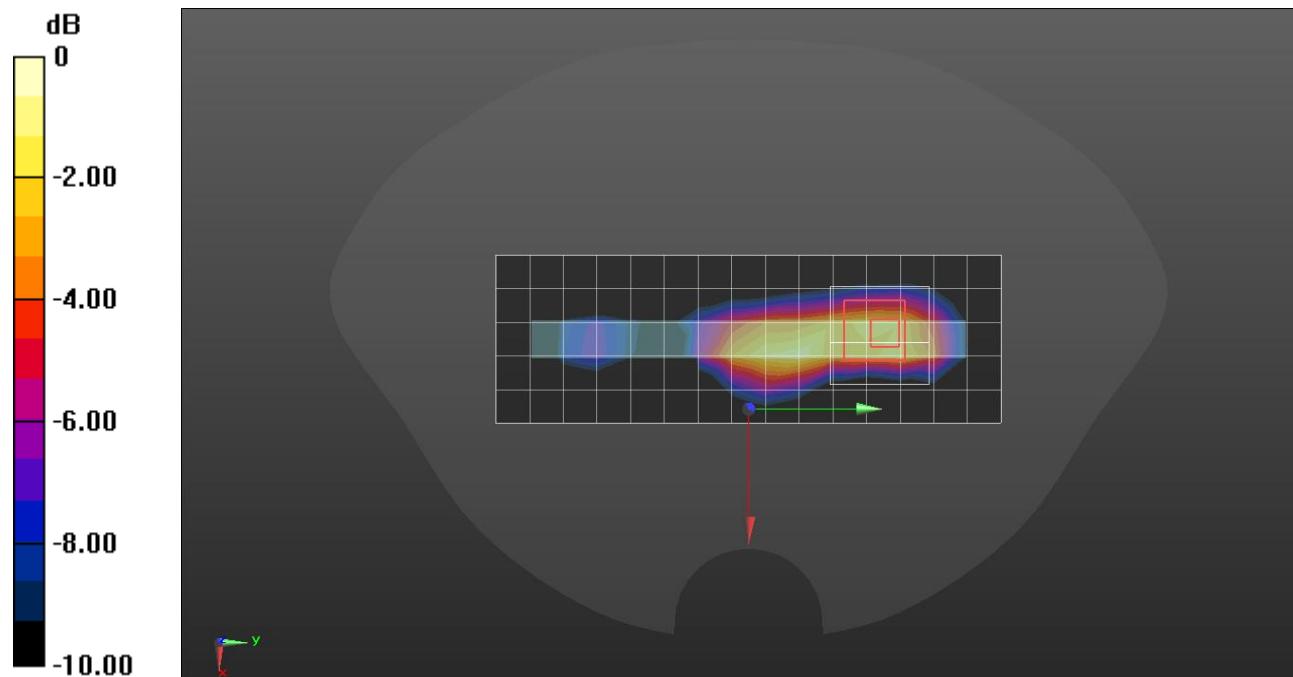
Peak SAR (extrapolated) = 0.161 W/kg

**SAR(1 g) = 0.069 W/kg; SAR(10 g) = 0.033 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.3 mm

Ratio of SAR at M2 to SAR at M1 = 45.5%

Maximum value of SAR (measured) = 0.116 W/kg



0 dB = 0.116 W/kg = -9.36 dBW/kg

Measurement Report for Device, TILT, ISM 2.4 GHz Band, Bluetooth Low Energy, Channel 19 (2440.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	TILT, 0.00	ISM 2.4 GHz Band	Bluetooth, 10670-AAA	2440.0, 19	8.04	1.82	39.7

Hardware Setup

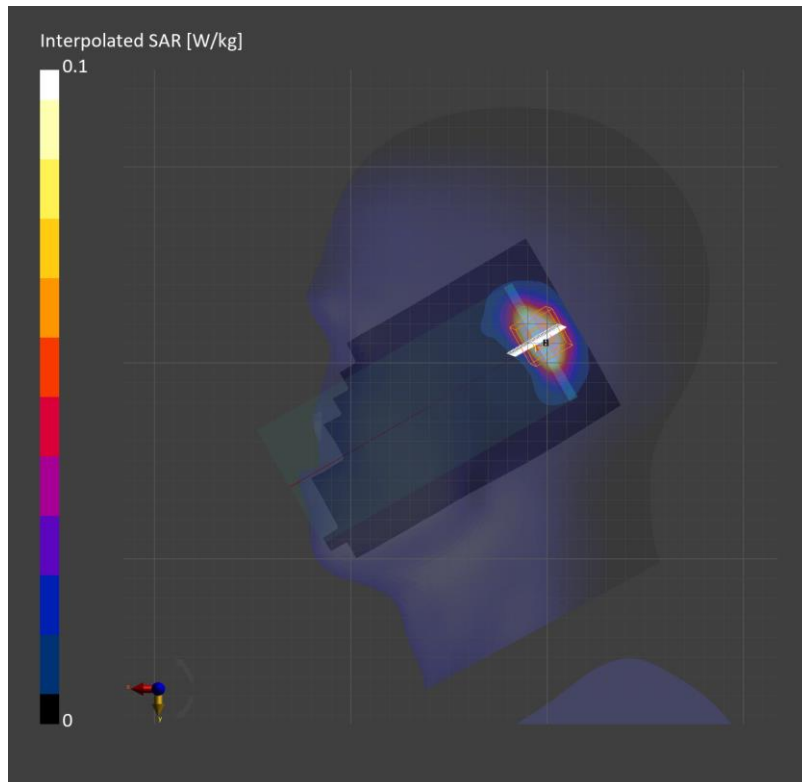
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2039	HBBL-600-10000, 2023-May-22	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1447, 2023-03-22

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 200.0	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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.126	0.128
psSAR10g [W/Kg]	0.053	0.053
Power Drift [dB]		-0.01
M2/M1 [%]		74.8
Dist 3dB Peak [mm]		6.8



## Bluetooth

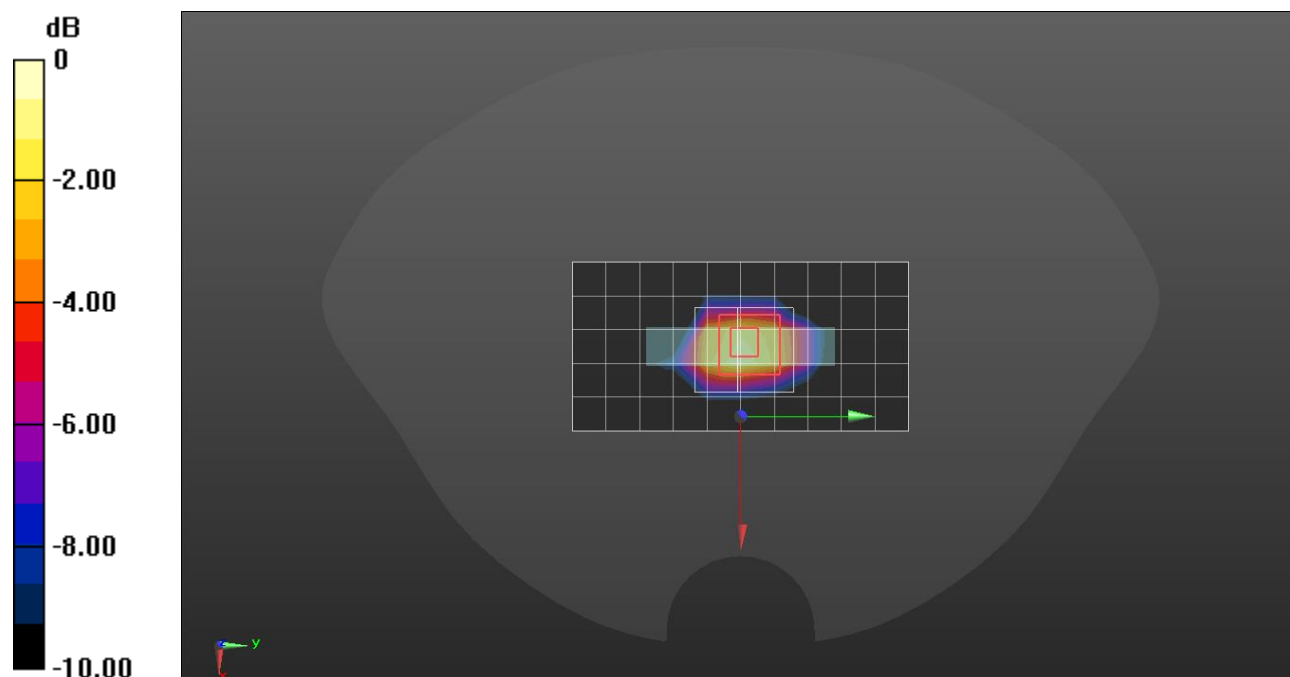
Frequency: 2440 MHz; Communication System Channel Number: 19; Duty Cycle: 1:1.17625  
 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C  
 Medium parameters used:  $f = 2440 \text{ MHz}$ ;  $\sigma = 1.797 \text{ S/m}$ ;  $\epsilon_r = 39.097$ ;  $\rho = 1000 \text{ kg/m}^3$

### DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1668; Calibrated: 4/26/2023
- Probe: EX3DV4 - SN7652; ConvF(8.21, 7.98, 8.36) @ 2440 MHz; Calibrated: 4/24/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Top/Bluetooth GFSK ch.19 Ant.2/Area Scan (11x6x1):** Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 0.126 W/kg

**Top/Bluetooth GFSK ch.19 Ant.2/Zoom Scan (7x8x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Reference Value = 8.408 V/m; Power Drift = 0.09 dB  
 Peak SAR (extrapolated) = 0.218 W/kg  
**SAR(1 g) = 0.091 W/kg; SAR(10 g) = 0.042 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 4.5 mm  
 Ratio of SAR at M2 to SAR at M1 = 50.4%  
 Maximum value of SAR (measured) = 0.147 W/kg



0 dB = 0.147 W/kg = -8.33 dBW/kg

Measurement Report for SM-F946U, REAR, NFC, CW, Channel 13600 (13.6 MHz)

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, HSL	REAR, 0.00	NFC	CW, 0--	13.6, 13600	16.64	0.773	57.0

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - 2005	HBBL4-250V3, 2023-Apr-25	EX3DV4 - SN7313, 2023-03-24	DAE4 Sn1343, 2022-08-18

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.045	0.043
psSAR10g [W/Kg]	0.026	0.014
Power Drift [dB]		-0.05
M2/M1 [%]		60.0
Dist 3dB Peak [mm]		4.8

