

## Appendix B – System Check Plots

Test Date : 2024-04-19 | Ambient Temp : 22.7 °C | Tissue Temp : 22.2 °C

**System Performance Check**

**System Performance Check at 750 MHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D750	1222	17.0

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	750.000	9.22	0.928	44.4

**Hardware Setup**

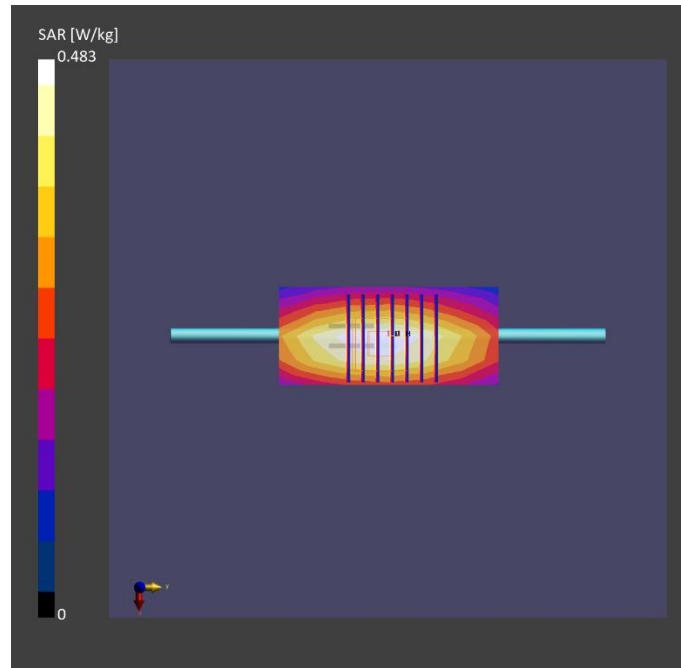
Phantom	Tissue Simulating Liquid	Probe / Calibration Date	DAE / Calibration Date
ELI V8.0 (20deg probe tilt) - 2141	HBBL-600-10000	EX3DV4 - SN7737 / 2023-06-05	DAE4 Sn1743 / 2023-08-17

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

**Measurement Results**

	Area Scan	Zoom Scan
psSAR-1g [W/kg]	0.429	<b>0.431</b>
psSAR-10g [W/kg]	0.289	<b>0.288</b>
Power Drift [dB]		0.06
TSL Correction	Positive only	Positive only



Test Date : 2024-04-20 | Ambient Temp : 22.6 °C | Tissue Temp : 22.3 °C

**System Performance Check**

**System Performance Check at 835 MHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D835	4d291	17.0

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	835.000	9.12	0.966	44.0

**Hardware Setup**

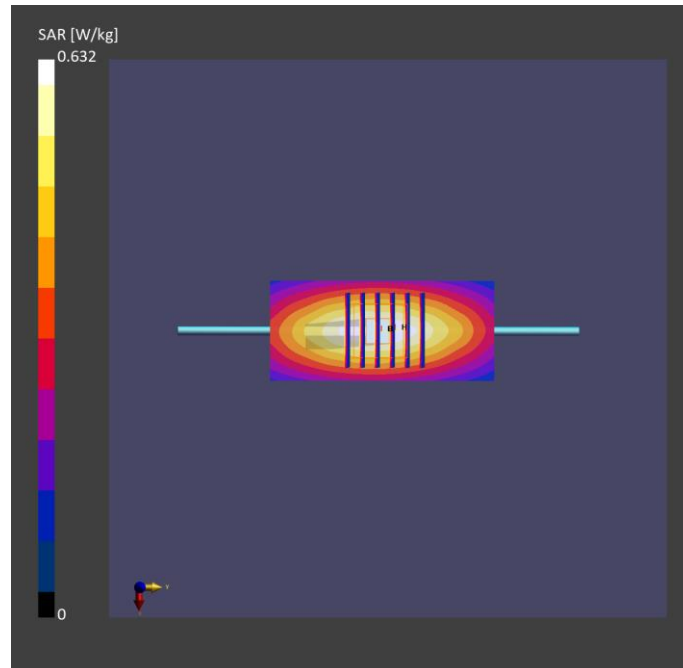
Phantom	Tissue Simulating Liquid	Probe / Calibration Date	DAE / Calibration Date
ELI V8.0 (20deg probe tilt) - 2141	HBBL-600-10000	EX3DV4 - SN7737 / 2023-06-05	DAE4 Sn1743 / 2023-08-17

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

**Measurement Results**

	Area Scan	Zoom Scan
psSAR-1g [W/kg]	0.495	<b>0.493</b>
psSAR-10g [W/kg]	0.325	<b>0.324</b>
Power Drift [dB]		0.02
TSL Correction	Positive only	Positive only



Test Date : 2024-04-18 | Ambient Temp : 23.0 °C | Tissue Temp : 22.6 °C

**System Performance Check**

**System Performance Check at 1800 MHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D1800	2d167	17.0

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	1800.000	8.96	1.43	42.9

**Hardware Setup**

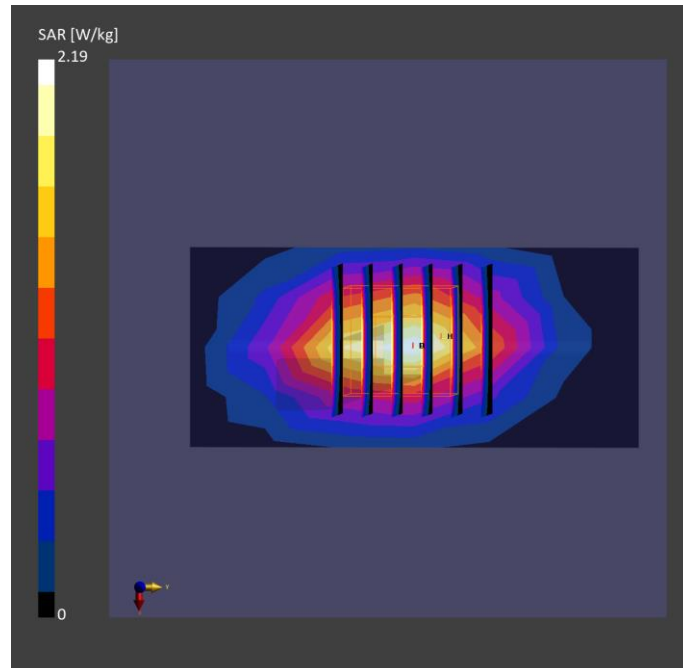
Phantom	Tissue Simulating Liquid	Probe / Calibration Date	DAE / Calibration Date
ELI V8.0 (20deg probe tilt) - 2141	HBBL-600-10000	EX3DV4 - SN7737 / 2023-06-05	DAE4 Sn1743 / 2023-08-17

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

**Measurement Results**

	Area Scan	Zoom Scan
psSAR-1g [W/kg]	1.83	<b>1.82</b>
psSAR-10g [W/kg]	0.954	<b>0.945</b>
Power Drift [dB]		0.00
TSL Correction	Positive only	Positive only



Test Date : 2024-04-22 | Ambient Temp : 23.0 °C | Tissue Temp : 22.6 °C

**System Performance Check**

**System Performance Check at 1900 MHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D1900	5d111	17.0

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	1900.000	7.7	1.42	40.7

**Hardware Setup**

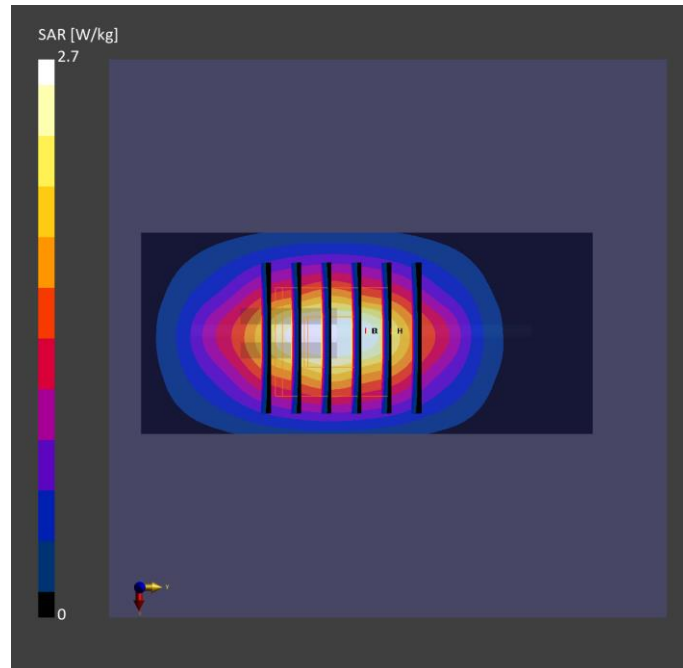
Phantom	Tissue Simulating Liquid	Probe / Calibration Date	DAE / Calibration Date
ELI V8.0 (20deg probe tilt) - 2141	HBBL-600-10000	EX3DV4 - SN7737 / 2023-06-05	DAE4 Sn1743 / 2023-08-17

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

**Measurement Results**

	Area Scan	Zoom Scan
psSAR-1g [W/kg]	1.84	<b>1.83</b>
psSAR-10g [W/kg]	0.959	<b>0.958</b>
Power Drift [dB]		0.02
TSL Correction	Positive only	Positive only



Test Date : 2024-04-15 | Ambient Temp : 22.8 °C | Tissue Temp : 22.2 °C

**System Performance Check**

**System Performance Check at 2450 MHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D2450	1087	17.0

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	2450.000	7.05	1.82	41.5

**Hardware Setup**

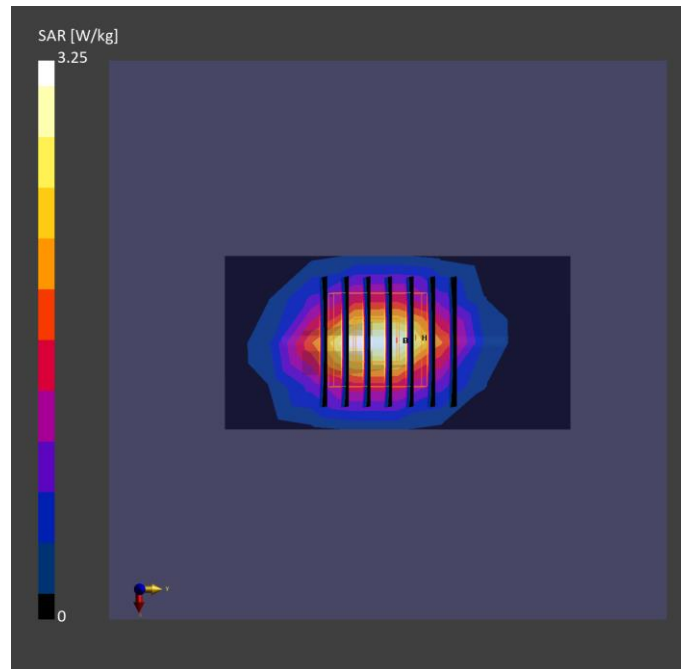
Phantom	Tissue Simulating Liquid	Probe   Calibration Date	DAE   Calibration Date
ELI V8.0 (20deg probe tilt) - 2141	HBBL-600-10000	EX3DV4 - SN7737 / 2023-06-05	DAE4 Sn1743 / 2023-08-17

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

**Measurement Results**

	Area Scan	Zoom Scan
psSAR-1g [W/kg]	2.58	<b>2.57</b>
psSAR-10g [W/kg]	1.20	<b>1.21</b>
Power Drift [dB]		0.01
TSL Correction	Positive only	Positive only



Test Date : 2024-04-20 | Ambient Temp : 22.6 °C | Tissue Temp : 22.3 °C

**System Performance Check**

**System Performance Check at 2600 MHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D2600	1197	17.0

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	2600.000	7.17	1.99	40.9

**Hardware Setup**

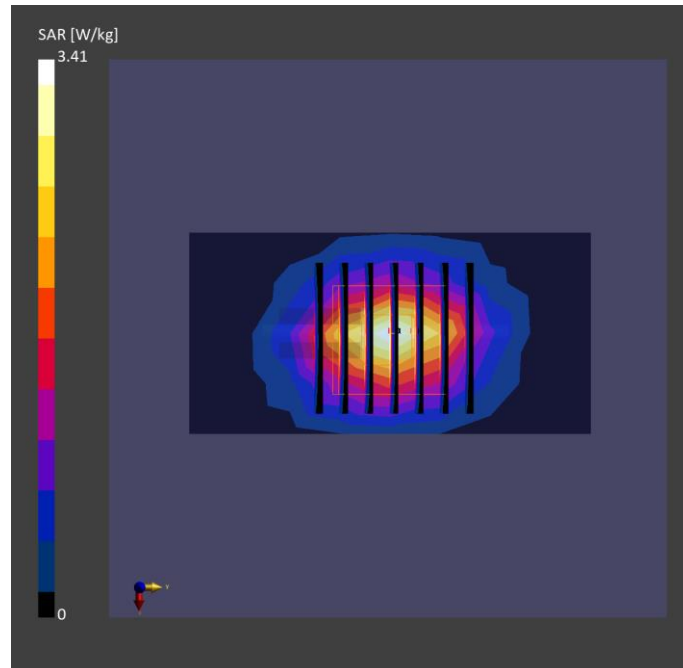
Phantom	Tissue Simulating Liquid	Probe / Calibration Date	DAE / Calibration Date
ELI V8.0 (20deg probe tilt) - 2141	HBBL-600-10000	EX3DV4 - SN7737 / 2023-06-05	DAE4 Sn1743 / 2023-08-17

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

**Measurement Results**

	Area Scan	Zoom Scan
psSAR-1g [W/kg]	2.59	<b>2.60</b>
psSAR-10g [W/kg]	1.15	<b>1.17</b>
Power Drift [dB]		0.00
TSL Correction	Positive only	Positive only



Test Date : 2024-04-23 | Ambient Temp : 22.6 °C | Tissue Temp : 22.3 °C

**System Performance Check**

**System Performance Check at 2600 MHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D2600	1197	17.0

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	2600.000	7.17	1.98	39.4

**Hardware Setup**

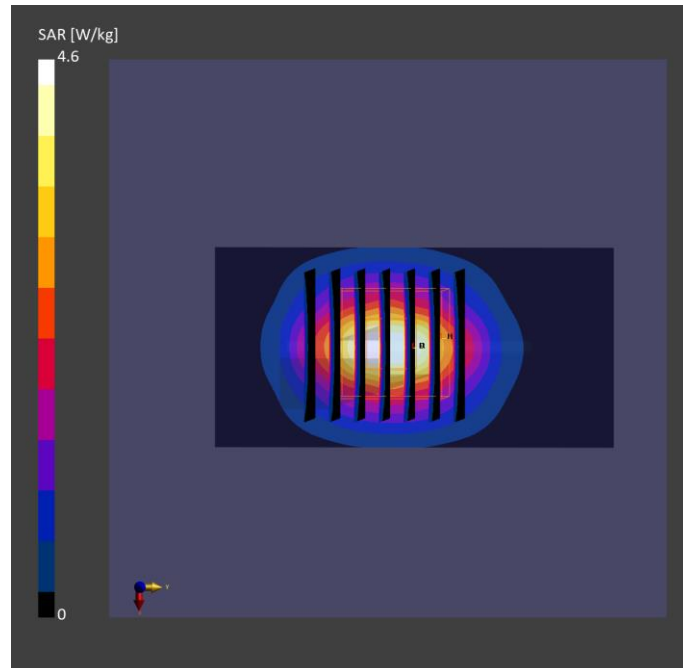
Phantom	Tissue Simulating Liquid	Probe / Calibration Date	DAE / Calibration Date
ELI V8.0 (20deg probe tilt) - 2141	HBBL-600-10000	EX3DV4 - SN7737 / 2023-06-05	DAE4 Sn1743 / 2023-08-17

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

**Measurement Results**

	Area Scan	Zoom Scan
psSAR-1g [W/kg]	2.75	<b>2.75</b>
psSAR-10g [W/kg]	1.22	<b>1.23</b>
Power Drift [dB]		0.00
TSL Correction	Positive only	Positive only





Test Date : 2024-04-21 | Ambient Temp : 22.9 °C | Tissue Temp : 22.5 °C

**System Performance Check**

**System Performance Check at 3500 MHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D3500	1013	17.0

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	3500.000	6.87	2.68	39.0

**Hardware Setup**

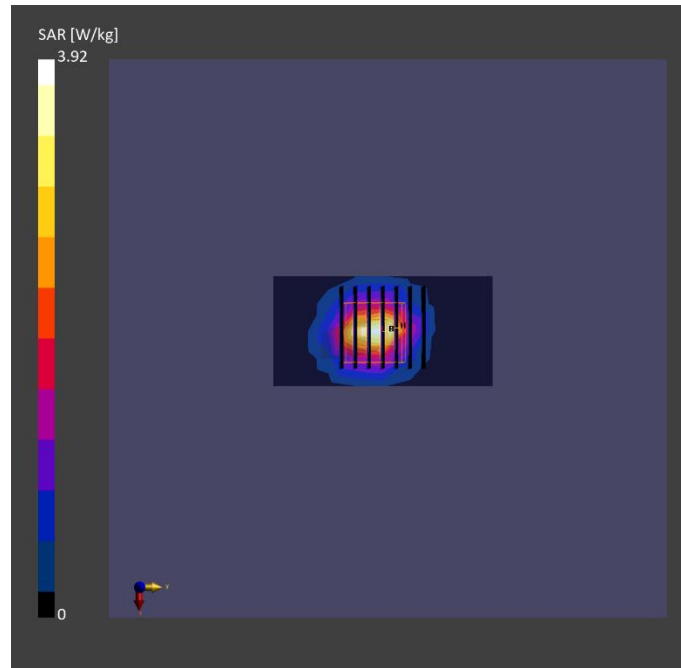
Phantom	Tissue Simulating Liquid	Probe / Calibration Date	DAE / Calibration Date
ELI V8.0 (20deg probe tilt) - 2141	HBBL-600-10000	EX3DV4 - SN7737 / 2023-06-05	DAE4 Sn1743 / 2023-08-17

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	28.0 x 28.0 x 28.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

**Measurement Results**

	Area Scan	Zoom Scan
psSAR-1g [W/kg]	2.95	<b>2.98</b>
psSAR-10g [W/kg]	1.11	<b>1.14</b>
Power Drift [dB]		0.01
TSL Correction	Positive only	Positive only



Test Date : 2024-04-21 | Ambient Temp : 22.9 °C | Tissue Temp : 22.5 °C

**System Performance Check**

**System Performance Check at 3700 MHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D3700	1034	17.0

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	3700.000	6.8	2.84	38.7

**Hardware Setup**

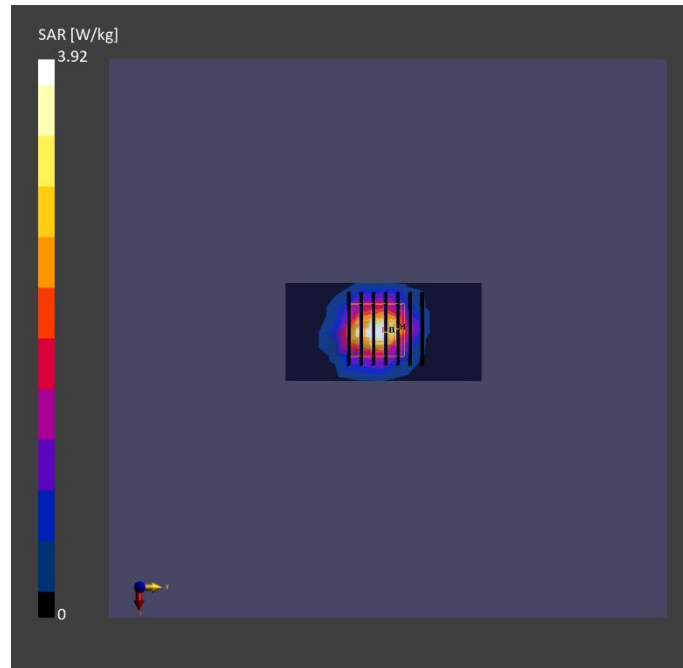
Phantom	Tissue Simulating Liquid	Probe / Calibration Date	DAE / Calibration Date
ELI V8.0 (20deg probe tilt) - 2141	HBBL-600-10000	EX3DV4 - SN7737 / 2023-06-05	DAE4 Sn1743 / 2023-08-17

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	28.0 x 28.0 x 28.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

**Measurement Results**

	Area Scan	Zoom Scan
psSAR-1g [W/kg]	3.12	<b>3.16</b>
psSAR-10g [W/kg]	1.14	<b>1.17</b>
Power Drift [dB]		0.01
TSL Correction	Positive only	Positive only



Test Date : 2024-04-16 | Ambient Temp : 22.9 °C | Tissue Temp : 22.4 °C

**System Performance Check**

**System Performance Check at 5250 MHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D5GHz	1358	17.0

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	5250.000	5.58	4.63	37.2

**Hardware Setup**

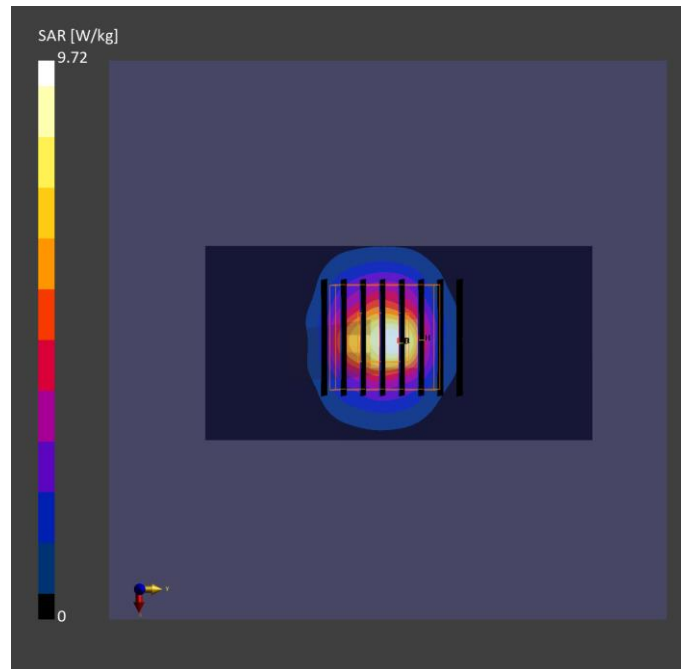
Phantom	Tissue Simulating Liquid	Probe   Calibration Date	DAE   Calibration Date
ELI V8.0 (20deg probe tilt) - 2141	HBBL-600-10000	EX3DV4 - SN7737 / 2023-06-05	DAE4 Sn1743 / 2023-08-17

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4

**Measurement Results**

	Area Scan	Zoom Scan
psSAR-1g [W/kg]	3.44	<b>3.83</b>
psSAR-10g [W/kg]	1.03	<b>1.10</b>
Power Drift [dB]		0.00
TSL Correction	Positive only	Positive only



Test Date : 2024-04-16 | Ambient Temp : 22.9 °C | Tissue Temp : 22.4 °C

**System Performance Check**

**System Performance Check at 5600 MHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D5GHz	1358	17.0

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	5600.000	4.83	5.09	37.0

**Hardware Setup**

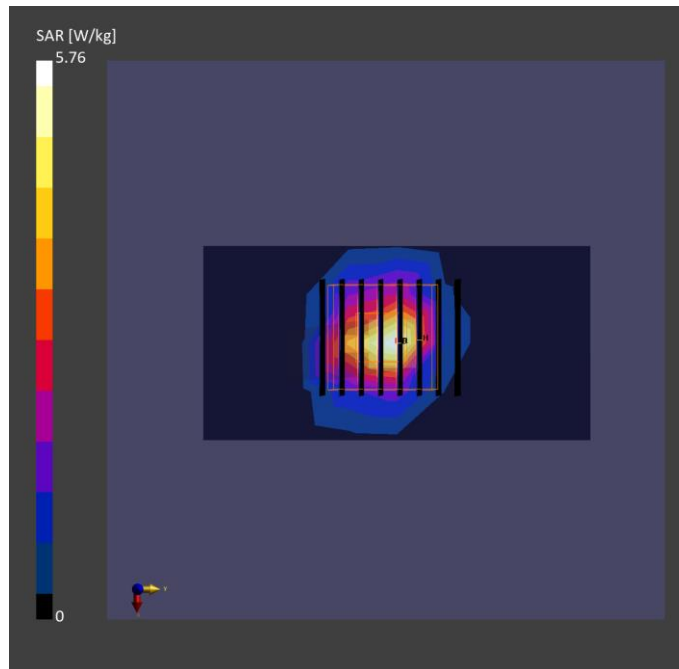
Phantom	Tissue Simulating Liquid	Probe   Calibration Date	DAE   Calibration Date
ELI V8.0 (20deg probe tilt) - 2141	HBBL-600-10000	EX3DV4 - SN7737 / 2023-06-05	DAE4 Sn1743 / 2023-08-17

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4

**Measurement Results**

	Area Scan	Zoom Scan
psSAR-1g [W/kg]	3.90	<b>4.30</b>
psSAR-10g [W/kg]	1.16	<b>1.22</b>
Power Drift [dB]		0.01
TSL Correction	Positive only	Positive only



Test Date : 2024-04-17 | Ambient Temp : 22.7 °C | Tissue Temp : 22.4 °C

**System Performance Check**

**System Performance Check at 5800 MHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D5GHz	1358	17.0

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	5800.000	4.9	5.01	37.1

**Hardware Setup**

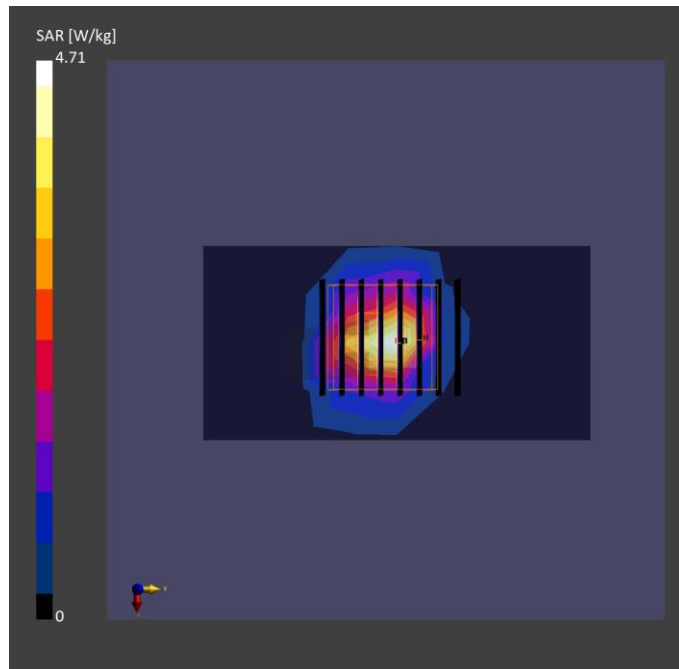
Phantom	Tissue Simulating Liquid	Probe   Calibration Date	DAE   Calibration Date
ELI V8.0 (20deg probe tilt) - 2141	HBBL-600-10000	EX3DV4 - SN7737 / 2023-06-05	DAE4 Sn1743 / 2023-08-17

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4

**Measurement Results**

	Area Scan	Zoom Scan
psSAR-1g [W/kg]	3.45	<b>3.68</b>
psSAR-10g [W/kg]	0.965	<b>1.08</b>
Power Drift [dB]		0.01
TSL Correction	Positive only	Positive only



Test Date : 2024-04-17 | Ambient Temp : 22.7 °C | Tissue Temp : 22.4 °C

**System Performance Check**

**System Performance Check at 6500 MHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D6.5GHz	1081	20.0

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	6500.000	5.0	6.1	35.4

**Hardware Setup**

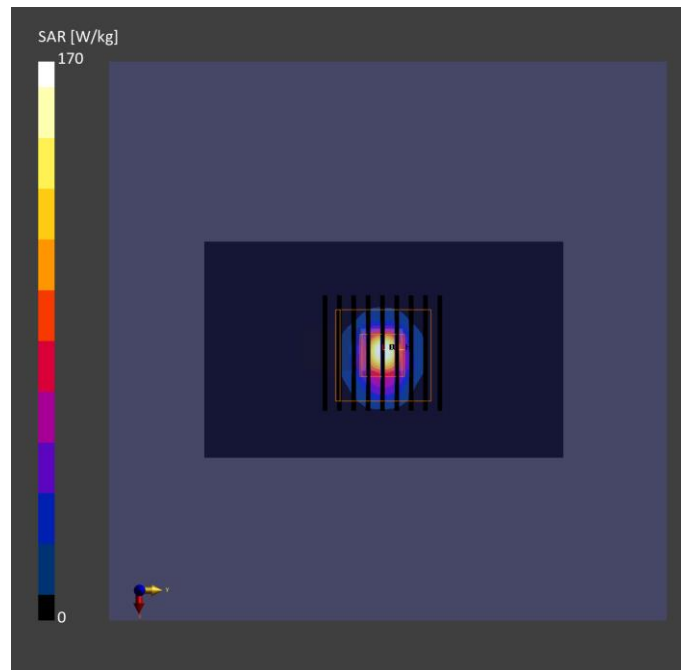
Phantom	Tissue Simulating Liquid	Probe   Calibration Date	DAE   Calibration Date
ELI V8.0 (20deg probe tilt) - 2141	HBBL-600-10000	EX3DV4 - SN7737 / 2023-06-05	DAE4 Sn1743 / 2023-08-17

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	51.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4

**Measurement Results**

	Area Scan	Zoom Scan
psSAR-1g [W/kg]	25.2	<b>26.6</b>
psSAR-8g [W/kg]	5.95	<b>6.03</b>
psSAR-10g [W/kg]	4.66	<b>4.94</b>
psAPD (1.0 cm <sup>2</sup> , sq) [W/m <sup>2</sup> ]		<b>266</b>
psAPD (4.0 cm <sup>2</sup> , sq) [W/m <sup>2</sup> ]		<b>123</b>
Power Drift [dB]		0.04
TSL Correction	Positive only	Positive only



Test Date : 2024-04-17 | Ambient Temp : 22.8 °C

**System Performance Check**

**System Performance Check at 10GHz**

**Verification Source Properties**

Manufacturer	Model No.	Serial No.
SPEAG	10G Verification Source	1060

**Exposure Conditions**

Phantom Section	Group	Frequency [MHz]	Conversion Factor
5G	CW	10000.0	1.0

**Hardware Setup**

Phantom	Medium	Probe   Calibration Date	DAE   Calibration Date
mmWave - 1102	Air	EUmmWV3 - SN9403_F1-55GHz / 2023-12-05	DAE4 Sn1669 / 2023-05-23

**Scan Setup**

	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [mm]	0.125 x 0.125
Sensor Surface [mm]	10.0

**Measurement Results**

	5G Scan
Avg. Area [cm <sup>2</sup> ]	4.00
psPD n+ [W/m <sup>2</sup> ]	<b>57.3</b>
psPD tot+ [W/m <sup>2</sup> ]	<b>57.4</b>
psPD mod+ [W/m <sup>2</sup> ]	57.7
E max [V/m]	153
Power Drift [dB]	0.03

