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## ***Appendix B – System Check Plots***

Test Date : 2024-05-16 | Ambient Temp : 22.9 °C | Tissue Temp : 22.7 °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              | 1.79                   | 39.9             |

**Hardware Setup**

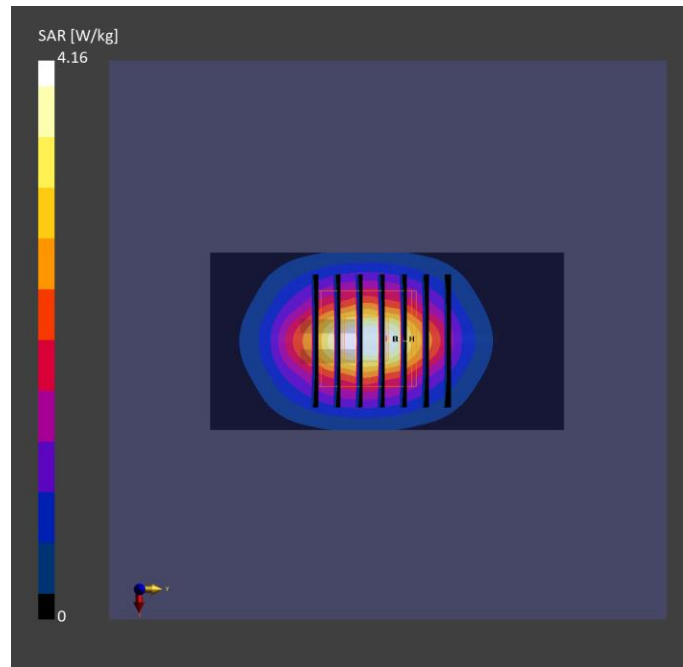
| Phantom                            | Tissue Simulating Liquid | Probe   Calibration Date     | DAE   Calibration Date   |
|------------------------------------|--------------------------|------------------------------|--------------------------|
| ELI V8.0 (20deg probe tilt) - 2141 | HBBL-600-10000           | 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>2.55</b>   |
| psSAR-10g [W/kg] | 1.20          | <b>1.19</b>   |
| Power Drift [dB] |               | 0.00          |
| TSL Correction   | Positive only | Positive only |



Test Date : 2024-05-16 | Ambient Temp : 22.9 °C | Tissue Temp : 22.7 °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              | 4.52                   | 36.5             |

**Hardware Setup**

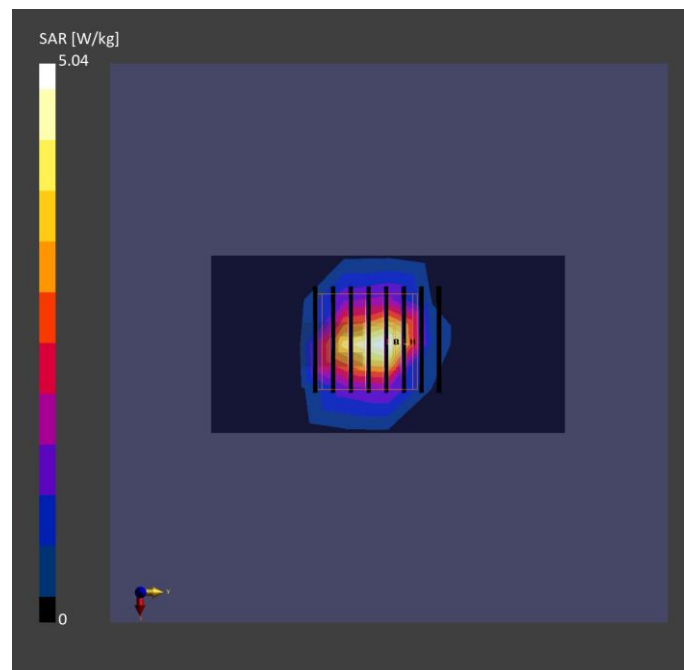
| Phantom                            | Tissue Simulating Liquid | Probe   Calibration Date     | DAE   Calibration Date   |
|------------------------------------|--------------------------|------------------------------|--------------------------|
| ELI V8.0 (20deg probe tilt) - 2141 | HBBL-600-10000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

**Scan Setup**

|                     | Area Scan   | Zoom Scan          |
|---------------------|-------------|--------------------|
| Grid Extents [mm]   | 40.0 x 80.0 | 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]  | 3.50          | <b>3.84</b>   |
| psSAR-10g [W/kg] | 1.05          | <b>1.10</b>   |
| Power Drift [dB] |               | 0.01          |
| TSL Correction   | Positive only | Positive only |



Test Date : 2024-05-16 | Ambient Temp : 22.9 °C | Tissue Temp : 22.7 °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              | 4.92                   | 35.9             |

**Hardware Setup**

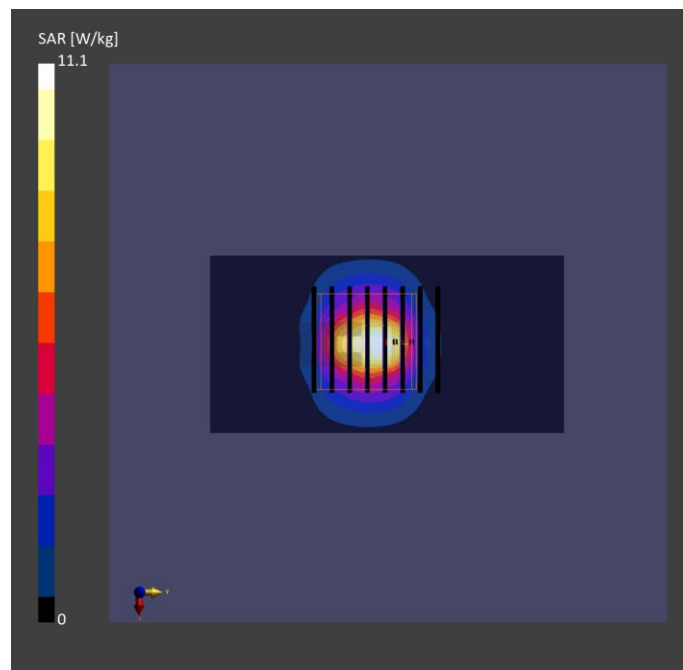
| Phantom                            | Tissue Simulating Liquid | Probe   Calibration Date     | DAE   Calibration Date   |
|------------------------------------|--------------------------|------------------------------|--------------------------|
| ELI V8.0 (20deg probe tilt) - 2141 | HBBL-600-10000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

**Scan Setup**

|                     | Area Scan   | Zoom Scan          |
|---------------------|-------------|--------------------|
| Grid Extents [mm]   | 40.0 x 80.0 | 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]  | 3.93          | <b>4.26</b>   |
| psSAR-10g [W/kg] | 1.16          | <b>1.21</b>   |
| Power Drift [dB] |               | 0.01          |
| TSL Correction   | Positive only | Positive only |



Test Date : 2024-05-16 | Ambient Temp : 22.9 °C | Tissue Temp : 22.7 °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               | 5.15                   | 35.6             |

**Hardware Setup**

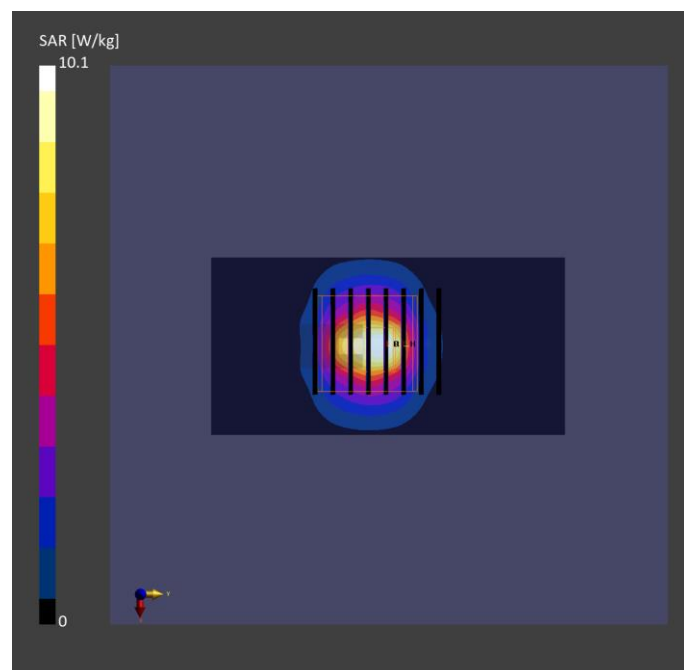
| Phantom                            | Tissue Simulating Liquid | Probe / Calibration Date     | DAE / Calibration Date   |
|------------------------------------|--------------------------|------------------------------|--------------------------|
| ELI V8.0 (20deg probe tilt) - 2141 | HBBL-600-10000           | 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]  | 3.48          | <b>3.81</b>   |
| psSAR-10g [W/kg] | 1.03          | <b>1.08</b>   |
| Power Drift [dB] |               | 0.02          |
| TSL Correction   | Positive only | Positive only |



Test Date : 2024-05-16 | Ambient Temp : 22.9 °C | Tissue Temp : 22.7 °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               | 5.97                   | 34.4             |

**Hardware Setup**

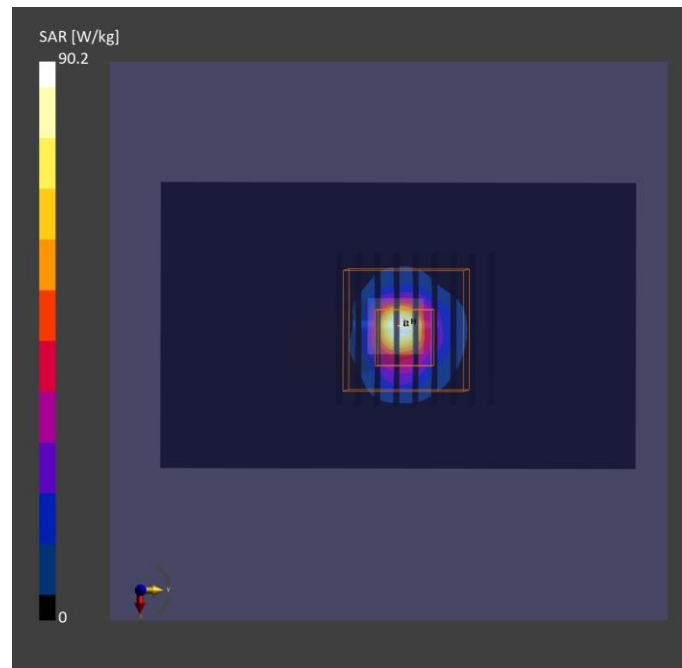
| Phantom                            | Tissue Simulating Liquid | Probe   Calibration Date     | DAE   Calibration Date   |
|------------------------------------|--------------------------|------------------------------|--------------------------|
| ELI V8.0 (20deg probe tilt) - 2141 | HBBL-600-10000           | 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]                                      | 23.2          | <b>26.3</b>   |
| psSAR-8g [W/kg]                                      | 5.54          | <b>5.95</b>   |
| psSAR-10g [W/kg]                                     | 4.59          | <b>4.89</b>   |
| psAPD (1.0 cm <sup>2</sup> , sq) [W/m <sup>2</sup> ] |               | <b>261</b>    |
| psAPD (4.0 cm <sup>2</sup> , sq) [W/m <sup>2</sup> ] |               | <b>119</b>    |
| Power Drift [dB]                                     |               | 0.01          |
| TSL Correction                                       | Positive only | Positive only |



Test Date : 2024-05-14 | Ambient Temp : 22.5 °C

**System Performance Check****System Performance Check at 10 GHz****Verification Source Properties**

| Manufacturer | Model No. | Serial No. |
|--------------|-----------|------------|
| SPEAG        | D10G      | 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-<br>55GHz / 2023-12-05 | DAE4 Sn1741 / 2023-08-23 |

**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>56.4</b> |
| psPD tot+ [W/m <sup>2</sup> ] | <b>56.5</b> |
| psPD mod+ [W/m <sup>2</sup> ] | 56.9        |
| E max [V/m]                   | 153         |
| Power Drift [dB]              | 0.05        |

