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

Test Date : 2024-11-08 | Ambient Temp : 22.5 °C | Tissue Temp : 21.3 °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        | 7.09              | 1.89                   | 40.3             |

**Hardware Setup**

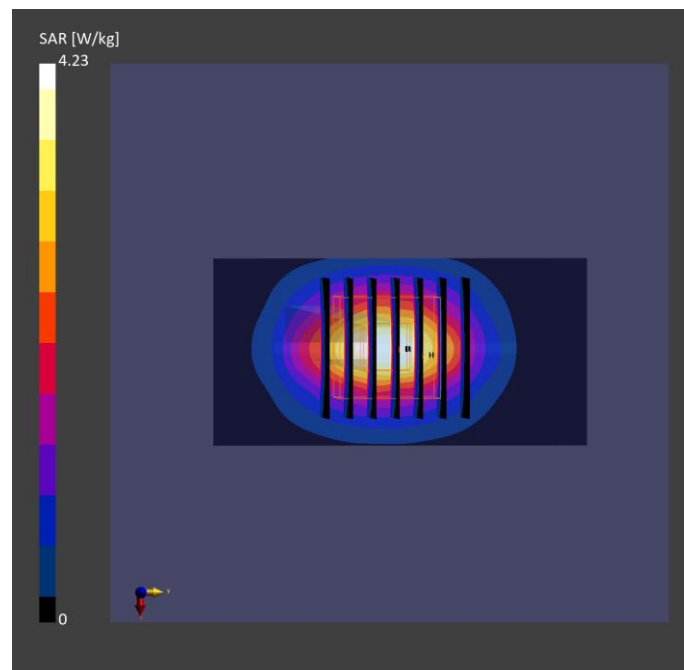
| Phantom                            | Tissue Simulating Liquid | Probe / Calibration Date     | DAE / Calibration Date   |
|------------------------------------|--------------------------|------------------------------|--------------------------|
| ELI V8.0 (20deg probe tilt) - 2179 | HBBL-600-10000           | EX3DV4 - SN7756 / 2024-09-04 | DAE4 Sn1742 / 2024-08-15 |

**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>2.56</b>   |
| psSAR-10g [W/kg] | 1.20          | <b>1.19</b>   |
| Power Drift [dB] |               | 0.13          |
| TSL Correction   | Positive only | Positive only |



Test Date : 2024-11-09 | Ambient Temp : 22.3 °C | Tissue Temp : 21.5 °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        | 5.27              | 4.27                   | 36.2             |

**Hardware Setup**

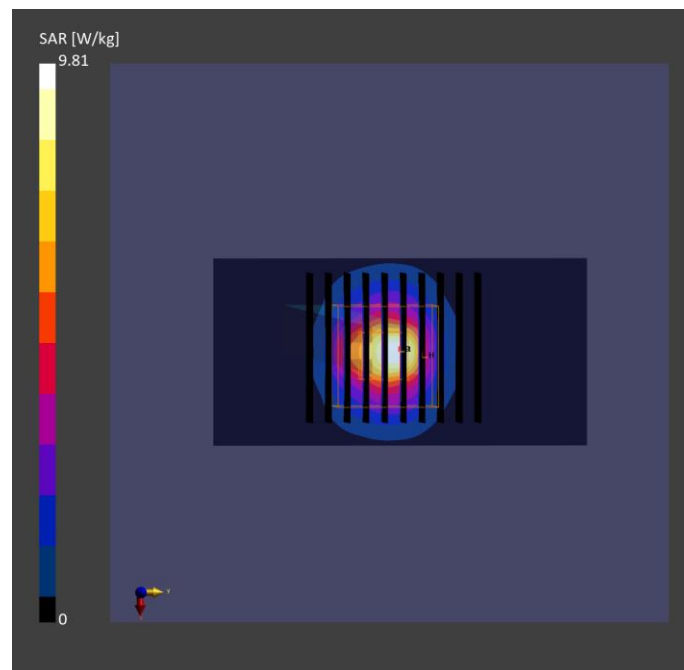
| Phantom                            | Tissue Simulating Liquid | Probe   Calibration Date     | DAE   Calibration Date   |
|------------------------------------|--------------------------|------------------------------|--------------------------|
| ELI V8.0 (20deg probe tilt) - 2179 | HBBL-600-10000           | EX3DV4 - SN7756 / 2024-09-04 | DAE4 Sn1742 / 2024-08-15 |

**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>3.99</b>   |
| psSAR-10g [W/kg] | 1.08          | <b>1.15</b>   |
| Power Drift [dB] |               | 0.14          |
| TSL Correction   | Positive only | Positive only |



Test Date : 2024-11-10 | Ambient Temp : 22.4 °C | Tissue Temp : 21.4 °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        | 4.7               | 4.82                   | 34.0             |

**Hardware Setup**

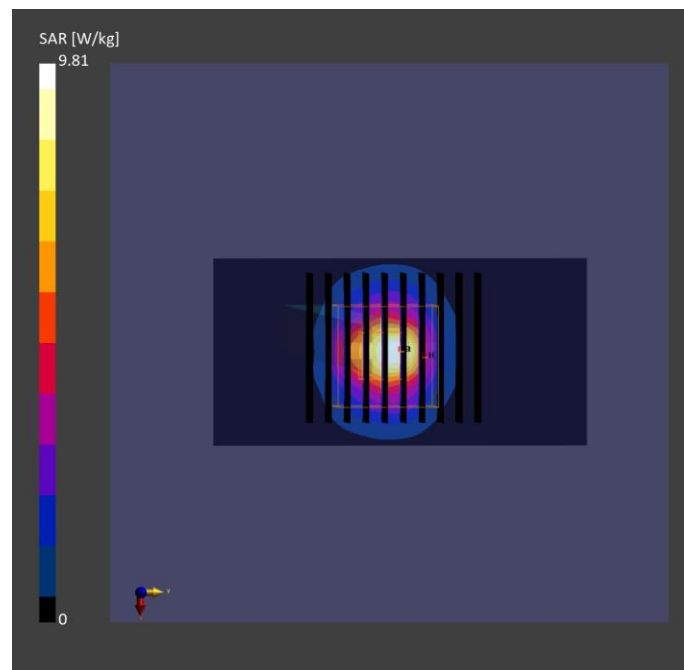
| Phantom                            | Tissue Simulating Liquid | Probe / Calibration Date     | DAE / Calibration Date   |
|------------------------------------|--------------------------|------------------------------|--------------------------|
| ELI V8.0 (20deg probe tilt) - 2179 | HBBL-600-10000           | EX3DV4 - SN7756 / 2024-09-04 | DAE4 Sn1742 / 2024-08-15 |

**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]  | 3.86          | <b>4.26</b>   |
| psSAR-10g [W/kg] | 1.17          | <b>1.21</b>   |
| Power Drift [dB] |               | 0.05          |
| TSL Correction   | Positive only | Positive only |



Test Date : 2024-11-10 | Ambient Temp : 22.4 °C | Tissue Temp : 21.4 °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        | 4.7               | 5.04                   | 33.7             |

**Hardware Setup**

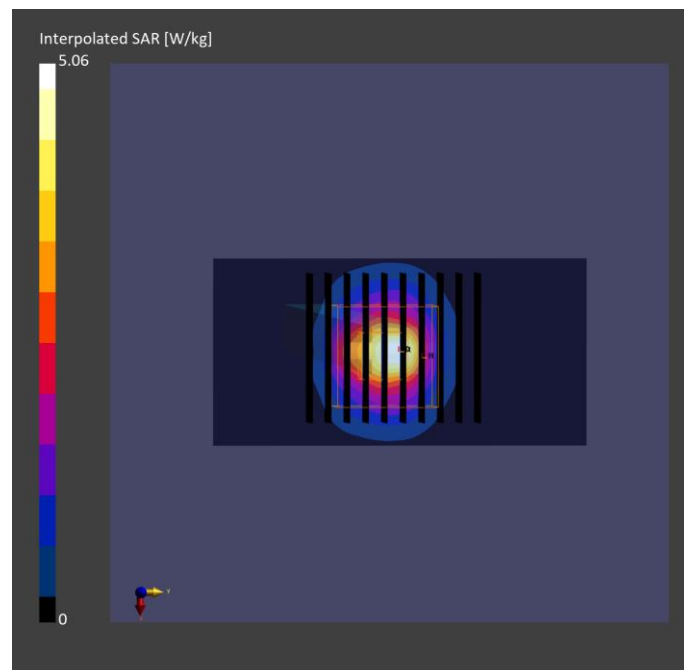
| Phantom                            | Tissue Simulating Liquid | Probe / Calibration Date     | DAE / Calibration Date   |
|------------------------------------|--------------------------|------------------------------|--------------------------|
| ELI V8.0 (20deg probe tilt) - 2179 | HBBL-600-10000           | EX3DV4 - SN7756 / 2024-09-04 | DAE4 Sn1742 / 2024-08-15 |

**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]  | 3.69          | <b>4.24</b>   |
| psSAR-10g [W/kg] | 1.10          | <b>1.20</b>   |
| Power Drift [dB] |               | 0.11          |
| TSL Correction   | Positive only | Positive only |



Test Date : 2024-11-11 | Ambient Temp : 22.6 °C | Tissue Temp : 21.3 °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        | 4.64              | 5.67                   | 34.0             |

**Hardware Setup**

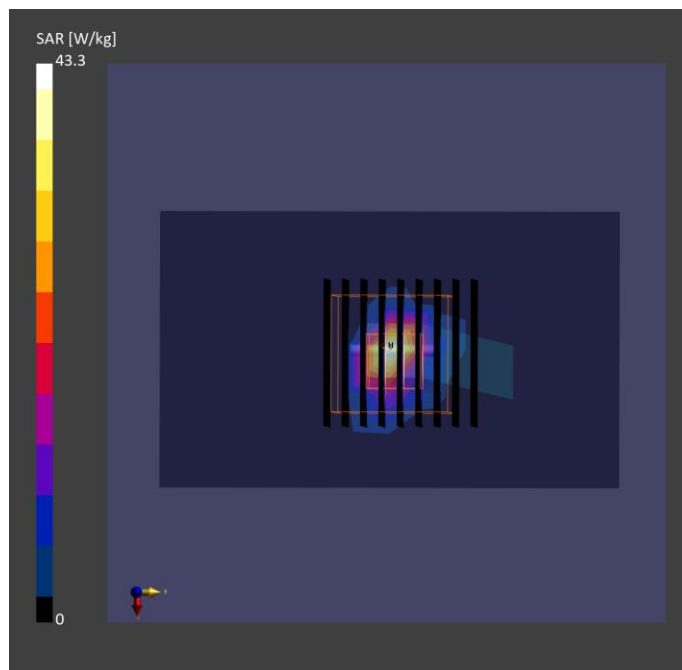
| Phantom                            | Tissue Simulating Liquid | Probe   Calibration Date     | DAE   Calibration Date   |
|------------------------------------|--------------------------|------------------------------|--------------------------|
| ELI V8.0 (20deg probe tilt) - 2179 | HBBL-600-10000           | EX3DV4 - SN7756 / 2024-09-04 | DAE4 Sn1742 / 2024-08-15 |

**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]                                      | 20.1          | 26.7          |
| psSAR-8g [W/kg]                                      | 5.44          | 6.04          |
| psSAR-10g [W/kg]                                     | 4.51          | 4.96          |
| psAPD (1.0 cm <sup>2</sup> , sq) [W/m <sup>2</sup> ] |               | 267           |
| psAPD (4.0 cm <sup>2</sup> , sq) [W/m <sup>2</sup> ] |               | 121           |
| Power Drift [dB]                                     |               | 0.02          |
| TSL Correction                                       | Positive only | Positive only |



Test Date : 2024-11-12 | Ambient Temp : 22.2 °C

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

| Manufacturer | Model No.                    | Serial No. |
|--------------|------------------------------|------------|
| SPEAG        | 5G Verification Source 10GHz | 1060       |

**Exposure Conditions**

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

**Hardware Setup**

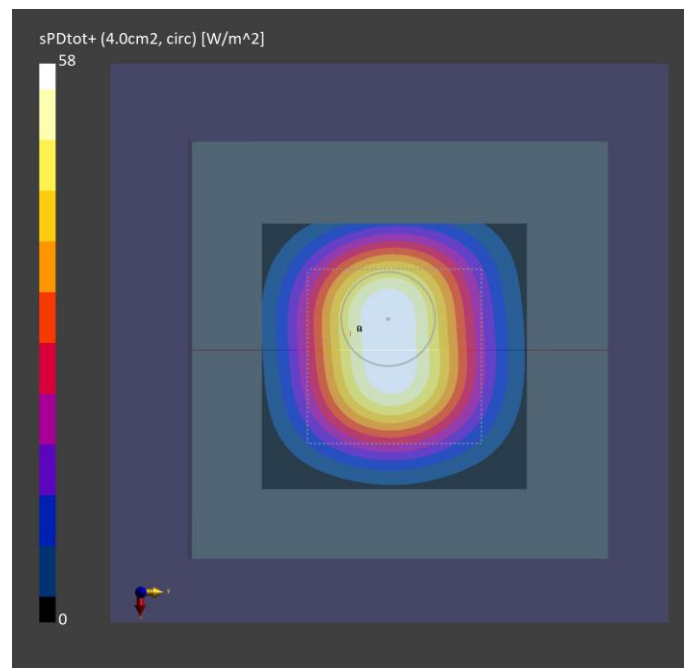
| Phantom       | Medium | Probe / Calibration Date                   | DAE / Calibration Date   |
|---------------|--------|--------------------------------------------|--------------------------|
| mmWave - 1102 | Air    | EUmmWV4 - SN9639_F1-<br>55GHz / 2024-09-16 | DAE4 Sn1742 / 2024-08-15 |

**Scan Setup**

|                     | 5G Scan       |
|---------------------|---------------|
| Grid Extents [mm]   | 60.0 x 60.0   |
| Grid Steps [mm]     | 0.125 x 0.125 |
| Sensor Surface [mm] | 2.0           |

**Measurement Results**

|                               | 5G Scan     |
|-------------------------------|-------------|
| Avg. Area [cm <sup>2</sup> ]  | 4.00        |
| psPD n+ [W/m <sup>2</sup> ]   | <b>57.9</b> |
| psPD tot+ [W/m <sup>2</sup> ] | <b>58.0</b> |
| psPD mod+ [W/m <sup>2</sup> ] | 58.3        |
| E max [V/m]                   | 158         |
| Power Drift [dB]              | 0.02        |



Test Date : 2024-11-13 | Ambient Temp : 22.8 °C

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

| Manufacturer | Model No.                    | Serial No. |
|--------------|------------------------------|------------|
| SPEAG        | 5G Verification Source 10GHz | 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    | EUmmWV4 - SN9639_F1-<br>55GHz / 2024-09-16 | DAE4 Sn1742 / 2024-08-15 |

**Scan Setup**

|                     | 5G Scan       |
|---------------------|---------------|
| Grid Extents [mm]   | 60.0 x 60.0   |
| Grid Steps [mm]     | 0.125 x 0.125 |
| Sensor Surface [mm] | 2.0           |

**Measurement Results**

|                               | 5G Scan     |
|-------------------------------|-------------|
| Avg. Area [cm <sup>2</sup> ]  | 4.00        |
| psPD n+ [W/m <sup>2</sup> ]   | <b>58.4</b> |
| psPD tot+ [W/m <sup>2</sup> ] | <b>58.7</b> |
| psPD mod+ [W/m <sup>2</sup> ] | 58.9        |
| E max [V/m]                   | 158         |
| Power Drift [dB]              | -0.02       |

