

## APPENDIX B: VERIFICATION PLOTS

## cDASY6 Module WPT Measurement Report

### Device under test

Model / Manufacturer:  
SPEAG V-COIL50/400

Serial number:  
1012

Dimensions:  
125mm x 250mm x 35mm

Measurement scenario:  
400 kHz verification

### Hardware setup

DASY version:  
cDASY6 Module WPT, 1.2.0.8

Notebook version:  
1.2.5

Probe model / serial number:  
Single Probe with reference / WP000100

### Scan setup

Type:  
Dynamic

Resolution:  
X: 7.00 mm, Y: 7.00 mm, Z: 7.00 mm

Dimensions:  
X: 126.00 mm, Y: 119.00 mm, Z: 56.00 mm

Completed on:  
2023/02/13 20:28:10

### Measurement results

Maximum H-field:  
170.01 A/m (rms)

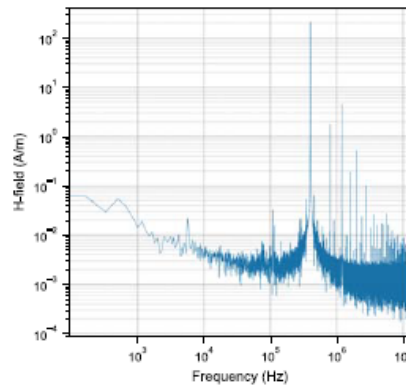
Location of maximum relative to DUT:  
X: 0.00 m, Y: 0.00 m, Z: 7.00 mm

Maximum H-field (x, y, z):  
140.51 A/m, 144.02 A/m, 240.00 A/m

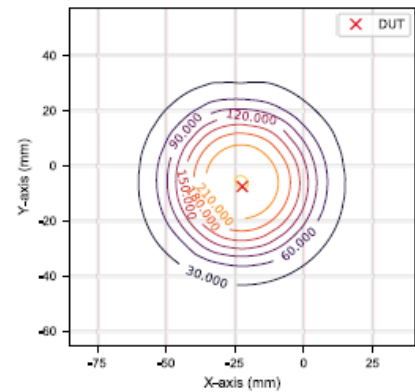
Peak frequency:  
400.00 kHz (median)

Distance to -20.0 dB boundary:  
39.60 mm

### H-field magnitude at maximum



### H-field magnitude at lowest plane



### Induced quantities in the anatomical model (f = 400.00 kHz, $\sigma = 0.355$ S/m, reconstruction error = 7.9%)

| Spacing (mm) | Peak Hinc (A/m, rms) | Peak Eind (V/m, rms) |           | Peak Jind (A/m <sup>2</sup> , rms) | psSAR (mW/kg) |          |                    |
|--------------|----------------------|----------------------|-----------|------------------------------------|---------------|----------|--------------------|
|              |                      | Cube avg.            | Line avg. |                                    | 1g avg.       | 10g avg. | -20 dB radius (mm) |
| 2.00         | 265                  | 4.91                 | 5.02      | 1.45                               | 4.14          | 1.99     | 38.4               |

### Standard compliance evaluation

| Spacing (mm) | ICNIRP 2020 (dB) |                |            | ICNIRP 1998 (dB) |                |            | IEEE 2019 (dB) |                |            | FCC 2020 (dB)  |                |            | HC Code 6 (dB) |                |            |
|--------------|------------------|----------------|------------|------------------|----------------|------------|----------------|----------------|------------|----------------|----------------|------------|----------------|----------------|------------|
|              | Peak Hinc (RL)   | Peak Eind (BR) | psSAR (BR) | Peak Hinc (RL)   | Peak Jind (BR) | psSAR (BR) | Peak Hinc (RL) | Peak Eind (BR) | psSAR (BR) | Peak Hinc (RL) | Peak Eind (BR) | psSAR (BR) | Peak Hinc (RL) | Peak Eind (BR) | psSAR (BR) |
| 2.00         | 27.2             | -20.7          | -30.0      | 43.7             | 5.24           | -30.0      | 9.75           | -24.3          | -30.0      | 44.4           | -20.7          | -25.8      | 43.7           | -20.7          | -25.8      |

### Standard compliance evaluation (coverage factor-adjusted) (Coefficients: $w_{EF} = 3.0$ , $w_{EJ} = 2.0$ , $w_J = 1.0$ , $w_{SAR1g} = 1.0$ , $w_{SAR10g} = 1.0$ )

| Spacing (mm) | ICNIRP 2020 (dB) |            |  | ICNIRP 1998 (dB) |            |  | IEEE 2019 (dB) |            |  | FCC 2020 (dB)  |            |  | HC Code 6 (dB) |            |  |
|--------------|------------------|------------|--|------------------|------------|--|----------------|------------|--|----------------|------------|--|----------------|------------|--|
|              | Peak Eind (BR)   | psSAR (BR) |  | Peak Jind (BR)   | psSAR (BR) |  | Peak Eind (BR) | psSAR (BR) |  | Peak Eind (BR) | psSAR (BR) |  | Peak Eind (BR) | psSAR (BR) |  |
| 2.00         | -13.5            | -31.1      |  | 2.96             | -31.1      |  | -20.6          | -31.1      |  | -13.5          | -27.0      |  | -13.5          | -27.0      |  |

# ELEMENT

**DUT: Dipole 5800.0 MHz; Type: D5GHzV2 - SN1057**

Communication System: UID: 0, CW; Frequency: 5800.0 MHz  
Medium: 5200-5800 Body; Medium parameters used:  
f = 5800.0 MHz; cond = 6.22 S/m; perm = 46.4; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 10 mm

Test Date: 04/03/2023; Ambient Temp: 22.1<sup>0</sup>C; Tissue Temp: 21.8<sup>0</sup>C

Probe: EX3DV4 - SN7570; ConvF:(4.39,4.39,4.39); Calibrated: 2023-01-11  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn1558; Calibrated: 2023-01-17  
Phantom: Twin-SAM V8.0; Serial: 2060  
Measurement SW: DASY Module SAR V16.2.0.1425

## 5800 MHz System Verification at 17 dBm (50 mW)

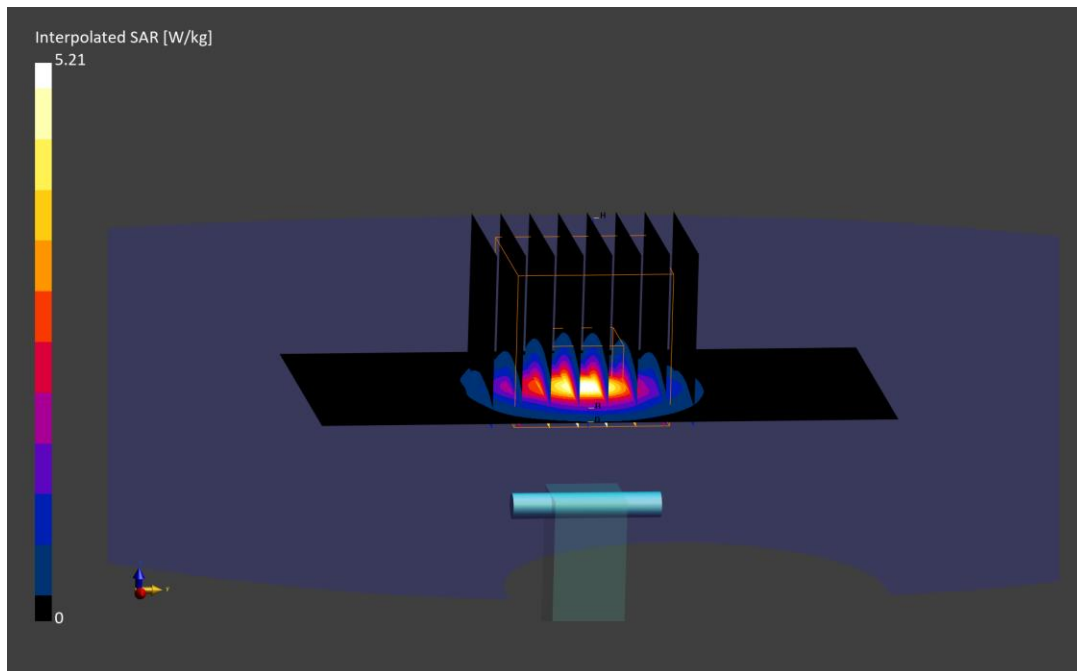
**Area Scan (40.0 x 80.0):** Measurement grid: dx=10.0 mm, dy=10.0 mm

**Zoom Scan (22.0 x 22.0 x 22.0):** Measurement grid: dx=4.0 mm, dy=4.0 mm, dz=1.4 mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 15.4 W/kg

**SAR(1 g) = 3.55 W/kg; SAR(10 g) = 1.01 W/kg**

Deviation (1 g) = -5.08%



# ELEMENT

## 10 GHz System Verification

Date: 03/06/2023

| DUT                        | Serial Number |
|----------------------------|---------------|
| 10 GHz Verification Source | 1004          |

### Exposure Conditions

| Phantom Section | Position | Test Distance [mm] | Band            | Frequency [MHz] |
|-----------------|----------|--------------------|-----------------|-----------------|
| 5G              | FRONT    | 10.00              | Validation band | 10000.0         |

### Hardware Setup

| Probe, Calibration Date               | DAE, Calibration Date     |
|---------------------------------------|---------------------------|
| EUmmWV3 - SN9407_F1-55GHz, 2022-10-17 | DAE4ip Sn1638, 2022-10-13 |

### Software Setup

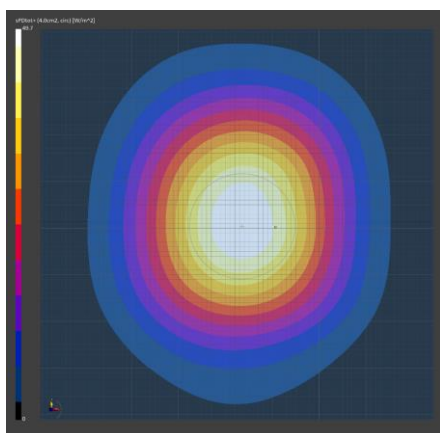
| Software             | Software Version |
|----------------------|------------------|
| cDasy6 Module mmWave | 3.0.0.841        |

### Scans Setup

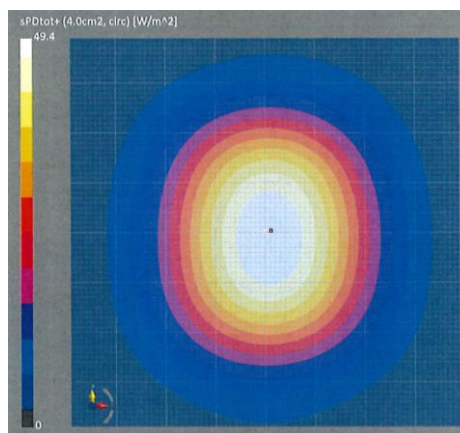
|                     |               |
|---------------------|---------------|
| Scan Type           | 5G Scan       |
| Grid Extents [mm]   | 120.0 x 120.0 |
| Grid Steps [lambda] | 0.25 x 0.25   |
| Sensor Surface [mm] | 10.0          |

### Measurement Results

|                                           |         |
|-------------------------------------------|---------|
| Scan Type                                 | 5G Scan |
| Avg. Area [cm <sup>2</sup> ]              | 4.00    |
| pS <sub>tot</sub> avg [W/m <sup>2</sup> ] | 49.7    |
| pS <sub>n</sub> avg [W/m <sup>2</sup> ]   | 49.5    |
| E <sub>peak</sub> [V/m]                   | 144     |
| Deviation [dB]                            | 0.03    |



10GHz System Verification



Calibration Certificate