

## 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)

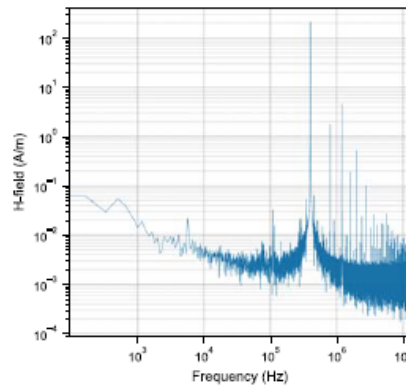
Location of maximum relative to DUT:  
X: 0.00 m, Y: 0.00 m, Z: 7.00 mm

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

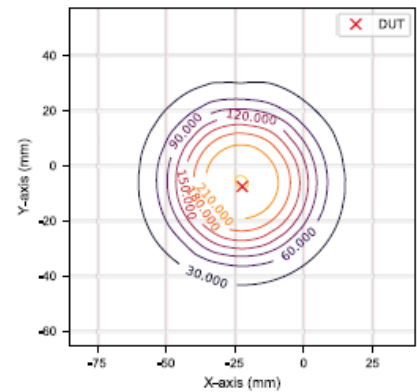
Peak frequency:  
400.00 kHz (median)

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)		-20 dB radius (mm)
		Cube avg.	Line avg.		1g avg.	10g avg.	
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: $w_{Ez} = 3.0$ , $w_{Ej} = 2.0$ , $w_j = 1.0$ , $w_{SAR1g} = 1.0$ , $w_{SAR10g} = 1.0$ )

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)	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	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)

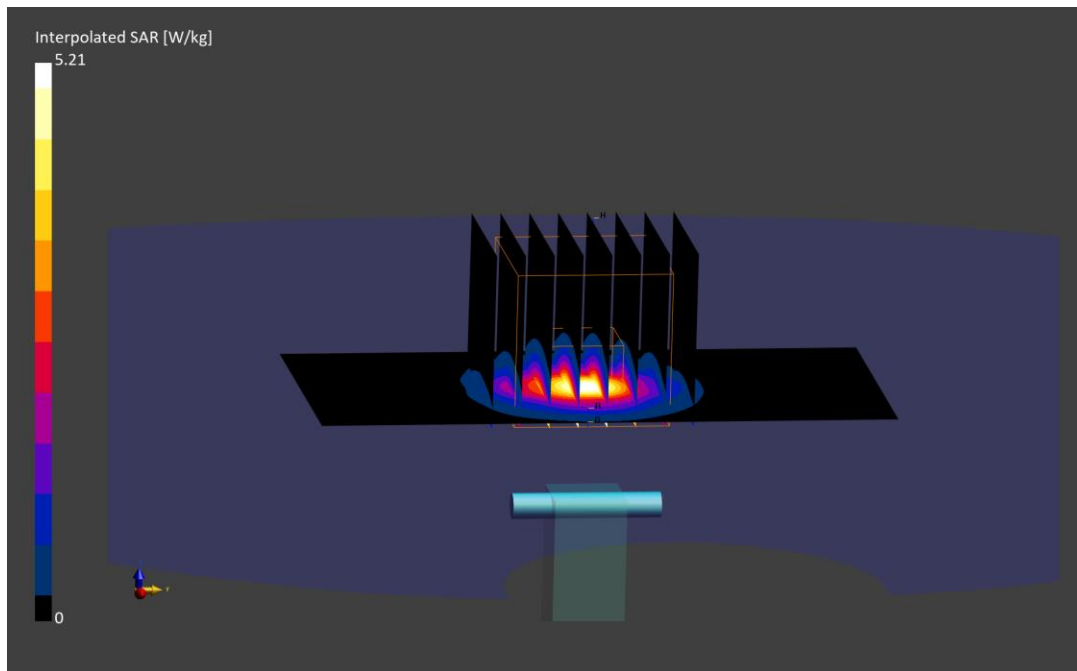
**Area Scan (40.0 x 80.0):** Measurement grid: dx=10.0 mm, dy=10.0 mm

**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

<b>DUT</b>	<b>Serial Number</b>
10 GHz Verification Source	1004

### Exposure Conditions

<b>Phantom Section</b>	<b>Position</b>	<b>Test Distance [mm]</b>	<b>Band</b>	<b>Frequency [MHz]</b>
5G	FRONT	10.00	Validation band	10000.0

### Hardware Setup

<b>Probe, Calibration Date</b>	<b>DAE, Calibration Date</b>
EUmmWV3 - SN9407_F1-55GHz, 2022-10-17	DAE4ip Sn1638, 2022-10-13

### Software Setup

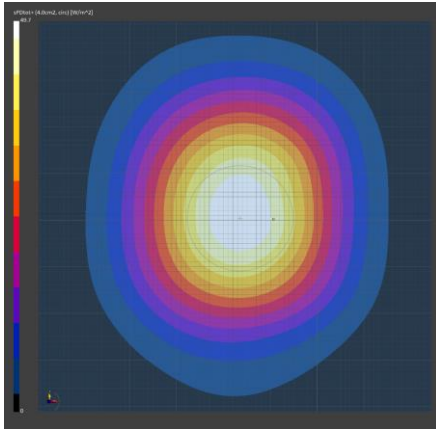
<b>Software</b>	<b>Software Version</b>
cDasy6 Module mmWave	3.0.0.841

### Scans Setup

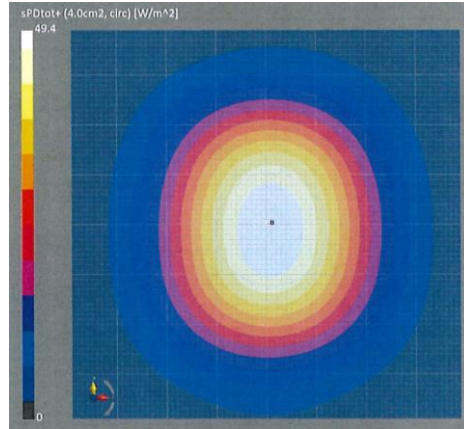
<b>Scan Type</b>	5G Scan
<b>Grid Extents [mm]</b>	120.0 x 120.0
<b>Grid Steps [lambda]</b>	0.25 x 0.25
<b>Sensor Surface [mm]</b>	10.0

### Measurement Results

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



10GHz System Verification



Calibration Certificate