

## System Check\_Head\_835MHz

### DUT: D835V2-4d167

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL\_850\_200126 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.882$  S/m;  $\epsilon_r = 42.016$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.6 °C ; Liquid Temperature : 22.6 °C

### DASY5 Configuration

- Probe: EX3DV4 - SN3931; ConvF(9.8, 9.8, 9.8) @ 835 MHz; Calibrated: 2019/9/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn495; Calibrated: 2019/5/21
- Phantom: ELI V5.0; Type: QD OVA 002 Ax; Serial: 1191
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 3.07 W/kg

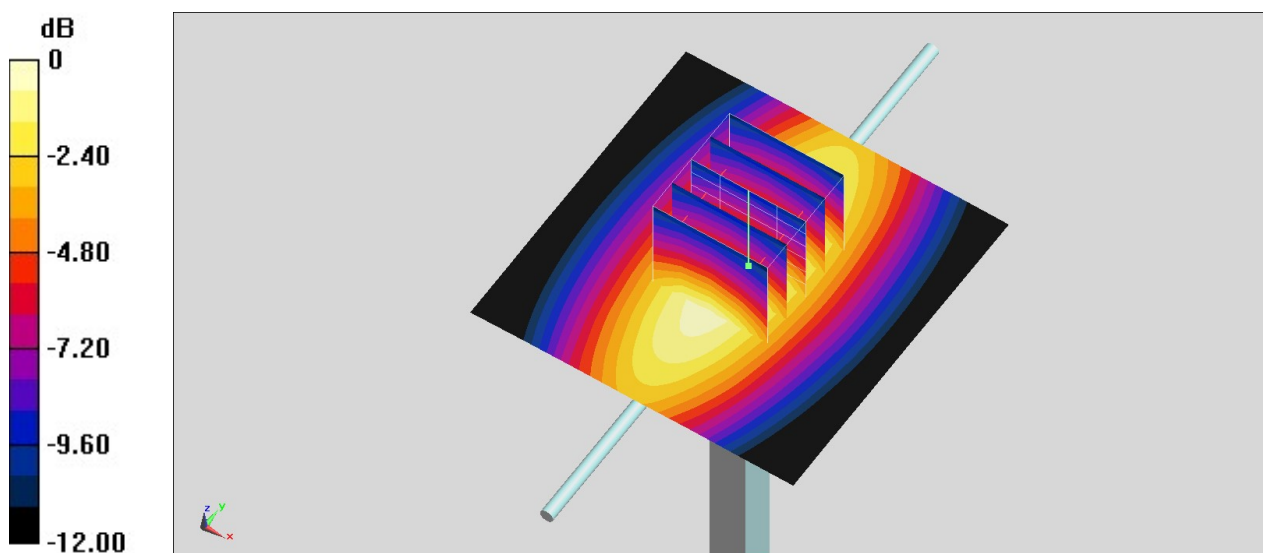
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 62.63 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 3.39 W/kg

**SAR(1 g) = 2.32 W/kg; SAR(10 g) = 1.52 W/kg**

Maximum value of SAR (measured) = 3.07 W/kg



0 dB = 3.07 W/kg = 4.87 dBW/kg

## System Check\_Head\_835MHz

**DUT: D835V2-4d167**

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL\_850\_200214 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.918 \text{ S/m}$ ;  $\epsilon_r = 41.502$ ;  $\rho = 1000 \text{ kg/m}^3$

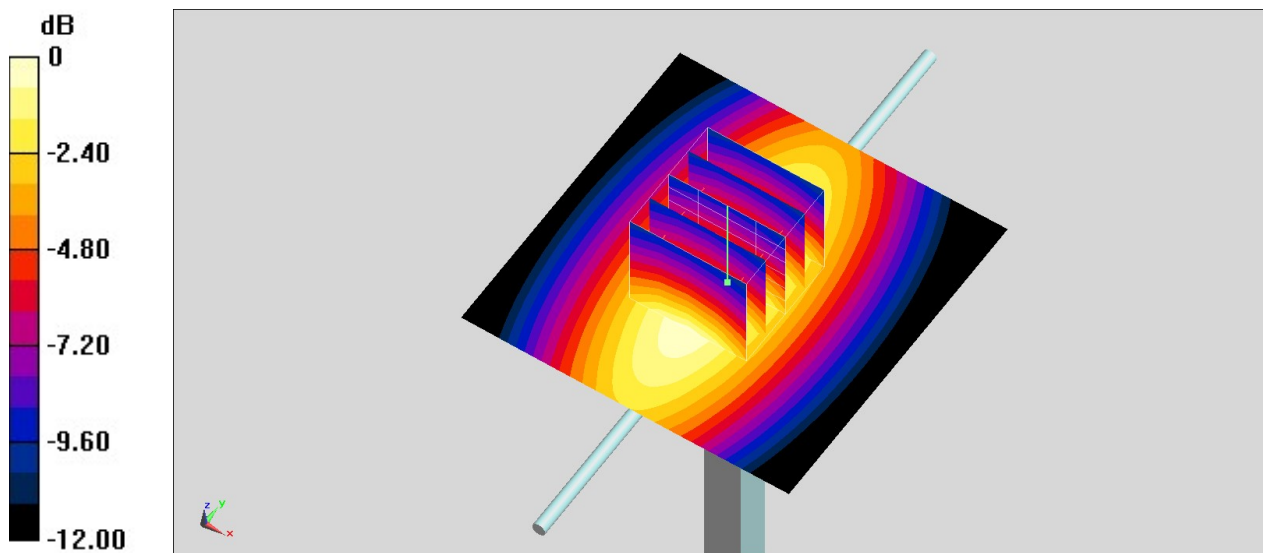
Ambient Temperature :  $23.4 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.4 \text{ }^\circ\text{C}$

### DASY5 Configuration

- Probe: ES3DV3 - SN3169; ConvF(6.42, 6.42, 6.42) @ 835 MHz; Calibrated: 2019/5/24
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn577; Calibrated: 2019/9/17
- Phantom: ELI V5.0; Type: QD OVA 002 Ax; Serial: 1191
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) =  $2.65 \text{ W/kg}$

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $55.36 \text{ V/m}$ ; Power Drift =  $0.02 \text{ dB}$   
Peak SAR (extrapolated) =  $3.38 \text{ W/kg}$   
**SAR(1 g) =  $2.27 \text{ W/kg}$ ; SAR(10 g) =  $1.49 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $2.66 \text{ W/kg}$



0 dB =  $2.66 \text{ W/kg} = 4.25 \text{ dBW/kg}$

## System Check\_Head\_1900MHz

### DUT: D1900V2-5d041

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL\_1900\_200119 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.447$  S/m;  $\epsilon_r = 40.783$ ;  $\rho = 1000$  kg/m<sup>3</sup>

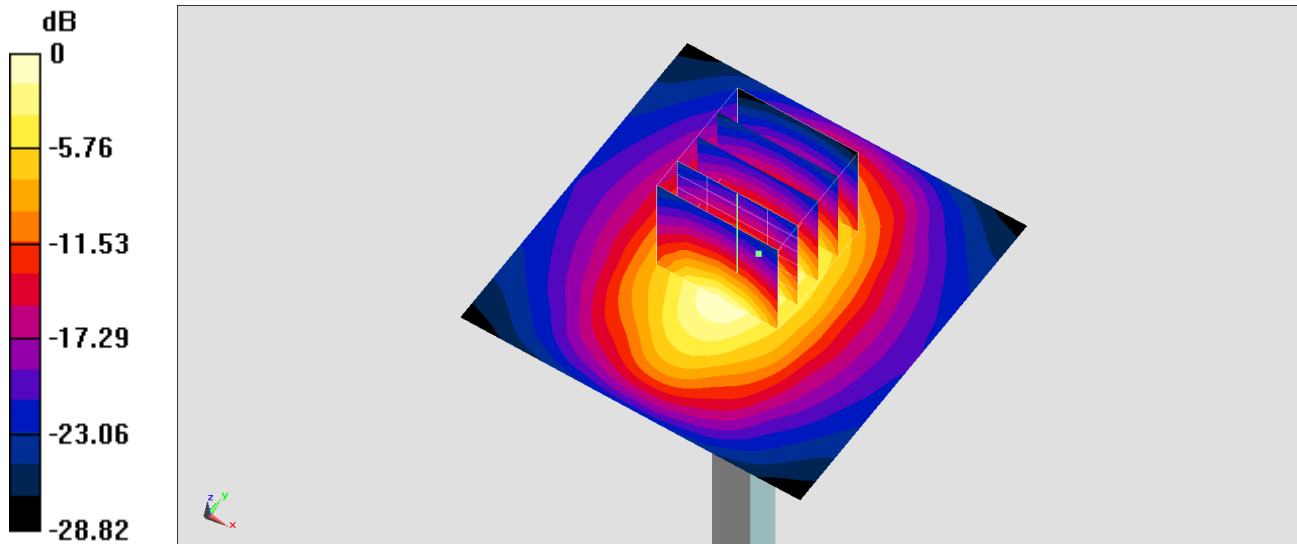
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3169; ConvF(5.14, 5.14, 5.14) @ 1900 MHz; Calibrated: 2019/5/24
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn577; Calibrated: 2019/9/17
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1131
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 13.9 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 100.5 V/m; Power Drift = -0.03 dB  
Peak SAR (extrapolated) = 20.0 W/kg  
**SAR(1 g) = 10.8 W/kg; SAR(10 g) = 5.6 W/kg**  
Maximum value of SAR (measured) = 13.5 W/kg



0 dB = 13.9 W/kg = 11.43 dBW/kg

## System Check\_Head\_1900MHz

### DUT: D1900V2-5d041

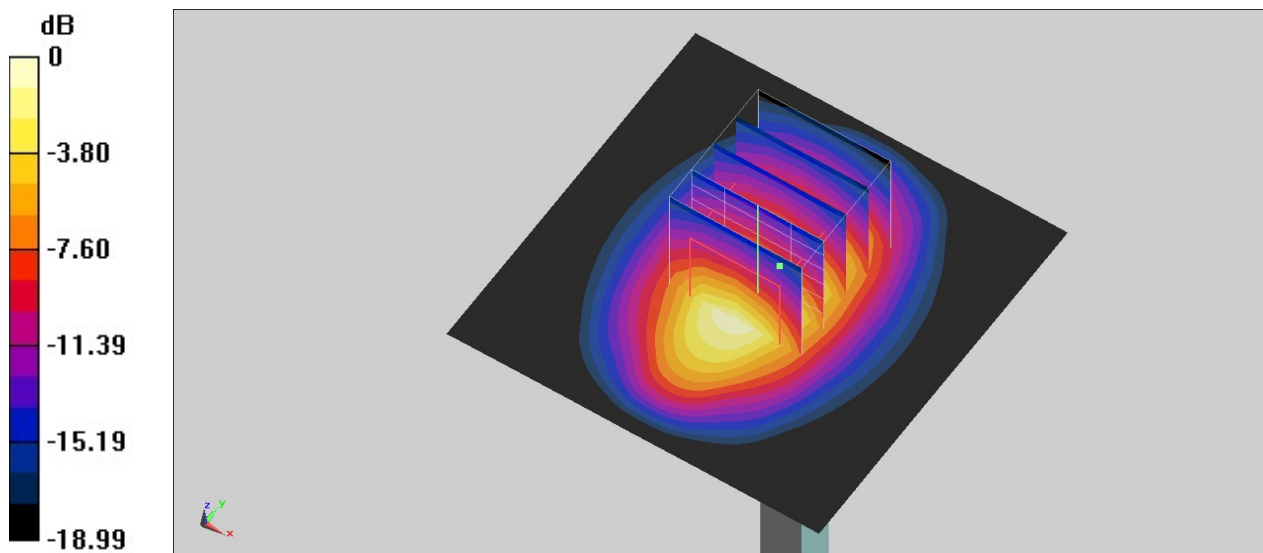
Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1  
Medium: HSL\_1900\_200128 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.449$  S/m;  $\epsilon_r = 39.742$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.6 °C ; Liquid Temperature : 22.6 °C

### DASY5 Configuration

- Probe: EX3DV4 - SN3931; ConvF(8.32, 8.32, 8.32) @ 1900 MHz; Calibrated: 2019/9/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn495; Calibrated: 2019/5/21
- Phantom: ELI V5.0; Type: QD OVA 002 Ax; Serial: 1191
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 15.8 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 107.0 V/m; Power Drift = -0.15 dB  
Peak SAR (extrapolated) = 18.0 W/kg  
**SAR(1 g) = 9.87 W/kg; SAR(10 g) = 5.14 W/kg**  
Maximum value of SAR (measured) = 15.1 W/kg



0 dB = 15.1 W/kg = 11.79 dBW/kg

## System Check\_Head\_2600MHz

### DUT: D2600V2-1008

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: HSL\_2600\_200118 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.92$  S/m;  $\epsilon_r = 38.589$ ;  $\rho = 1000$  kg/m<sup>3</sup>

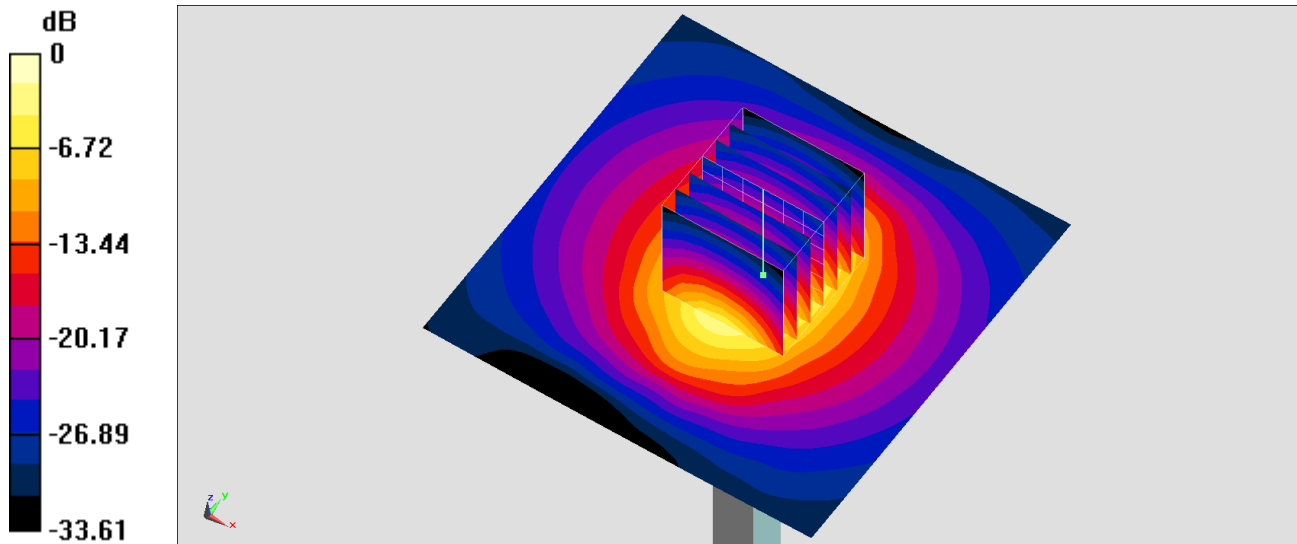
Ambient Temperature : 23.7 °C; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3169; ConvF(4.38, 4.38, 4.38) @ 2600 MHz; Calibrated: 2019/5/24
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn577; Calibrated: 2019/9/17
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1131
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Pin=250mW/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 20.0 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 102.6 V/m; Power Drift = -0.17 dB  
Peak SAR (extrapolated) = 30.4 W/kg  
**SAR(1 g) = 14.6 W/kg; SAR(10 g) = 6.61 W/kg**  
Maximum value of SAR (measured) = 19.4 W/kg



0 dB = 20.0 W/kg = 13.01 dBW/kg

## System Check\_Head\_2600MHz

### DUT: D2600V2-1008

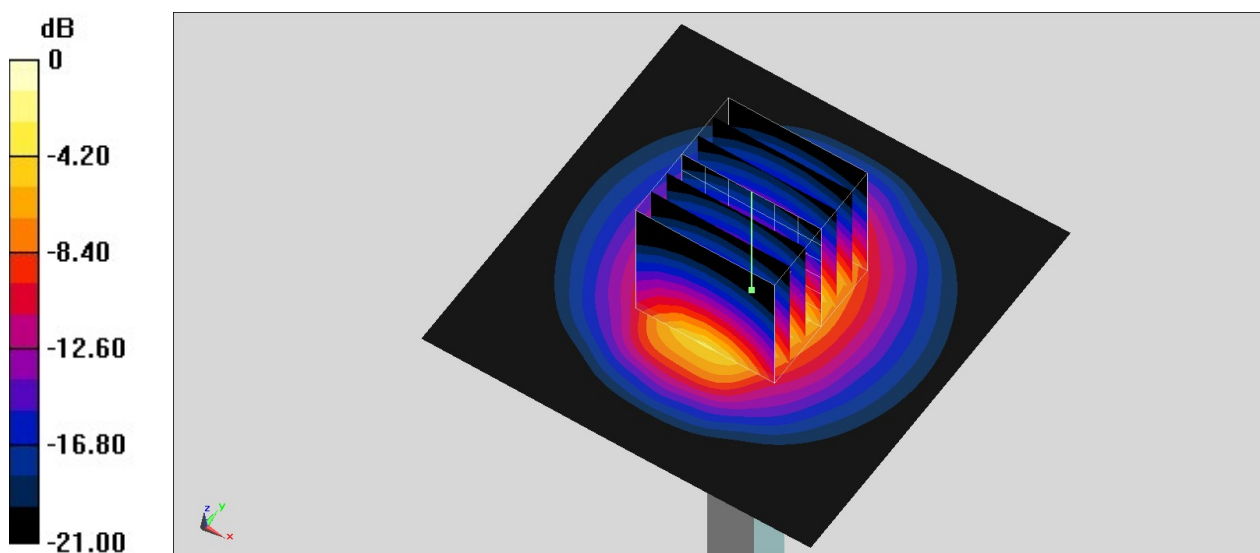
Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1  
Medium: HSL\_2600\_200127 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.982$  S/m;  $\epsilon_r = 38.418$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.4 °C ; Liquid Temperature : 22.4 °C

### DASY5 Configuration

- Probe: EX3DV4 - SN3931; ConvF(7.43, 7.43, 7.43) @ 2600 MHz; Calibrated: 2019/9/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn495; Calibrated: 2019/5/21
- Phantom: ELI V5.0; Type: QD OVA 002 Ax; Serial: 1191
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**Pin=250mW/Area Scan (71x71x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 26.0 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 116.1 V/m; Power Drift = -0.11 dB  
Peak SAR (extrapolated) = 31.5 W/kg  
**SAR(1 g) = 14.5 W/kg; SAR(10 g) = 6.36 W/kg**  
Maximum value of SAR (measured) = 25.1 W/kg



0 dB = 25.1 W/kg = 14.00 dBW/kg

Test Laboratory: Sporton International Inc.

#### Device Under Test Properties

Manufacturer	Dimensions [mm]	IMEI	DUT Type
	100.0 x 100.0 x 100.0		Phone

#### Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Frequency [MHz]	Conversion Factor
5G	FRONT, 5.55	30000.0	1.0

#### Hardware Setup

Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave - xxxx	Air -	EUmmWV4 - SN9461_F1-78GHz, 2019-11-05	DAE4 Sn854, 2019-05-21

#### Scans Setup

Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	5.55

#### Measurement Results

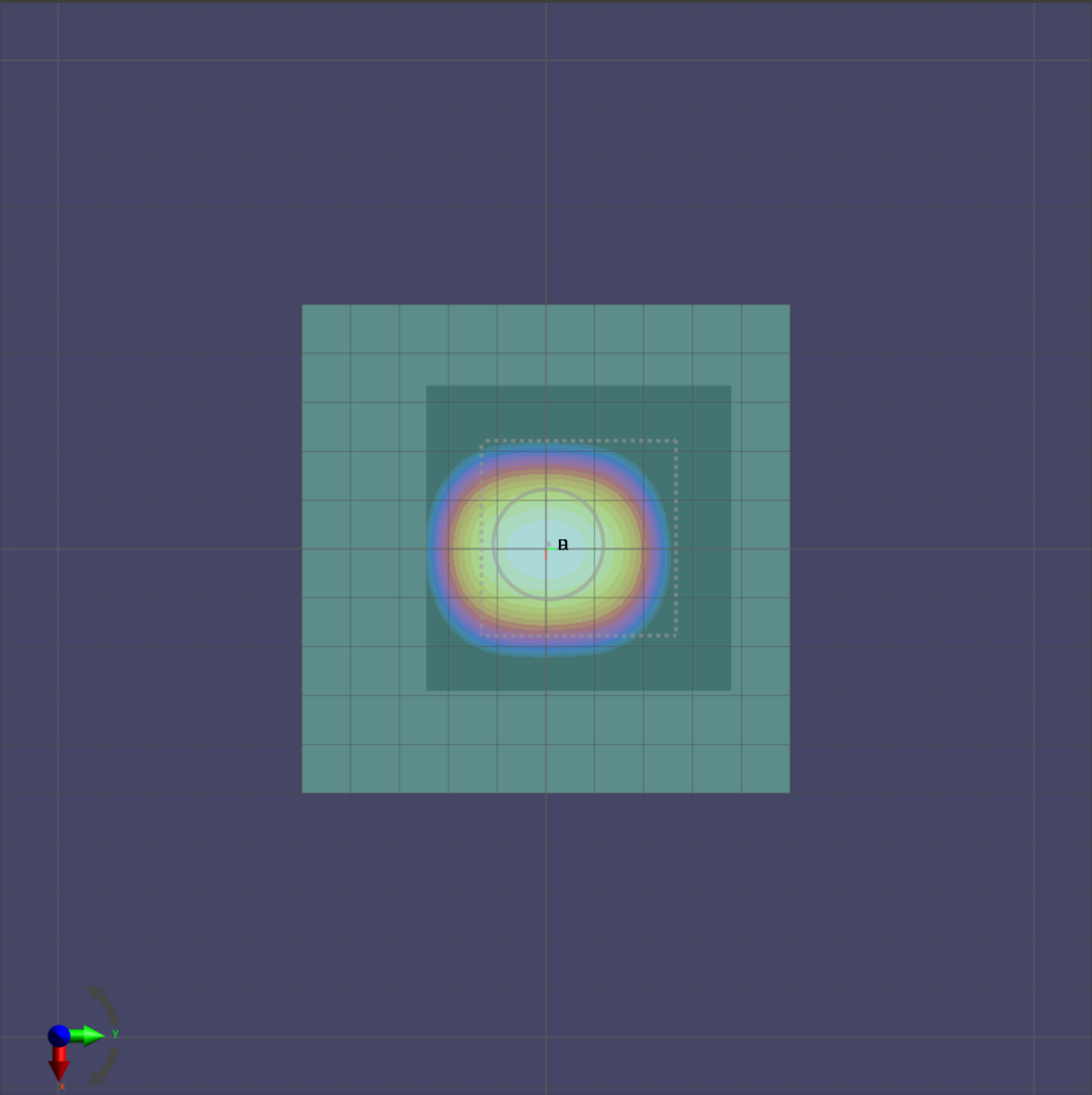
Date	2019-12-17, 00:12
Avg. Area [cm <sup>2</sup> ]	4.00
S <sub>avg inc</sub> [W/m <sup>2</sup> ]	31.1
S <sub>avg tot</sub> [W/m <sup>2</sup> ]	31.5
S <sub>peak</sub> [W/m <sup>2</sup> ]	46.2
E <sub>peak</sub> [V/m]	131
H <sub>peak</sub> [A/m]	0.358
Power Drift [dB]	-0.07

Averaged [4.0 cm<sup>2</sup>] |Re{S}|(x,y,z,f0) [dB(31.5W/m<sup>2</sup>)]

0



-10





Test Laboratory: Sporton International Inc.

**Device Under Test Properties**

Manufacturer	Dimensions [mm]	IMEI	DUT Type
	100.0 x 100.0 x 100.0		Phone

**Exposure Conditions**

Phantom Section	Position, Test Distance [mm]	Frequency [MHz]	Conversion Factor
5G	FRONT, 5.55	30000.0	1.0

**Hardware Setup**

Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave - xxxx	Air -	EUmmWV4 - SN9461_F1-78GHz, 2019-11-05	DAE4 Sn854, 2019-05-21

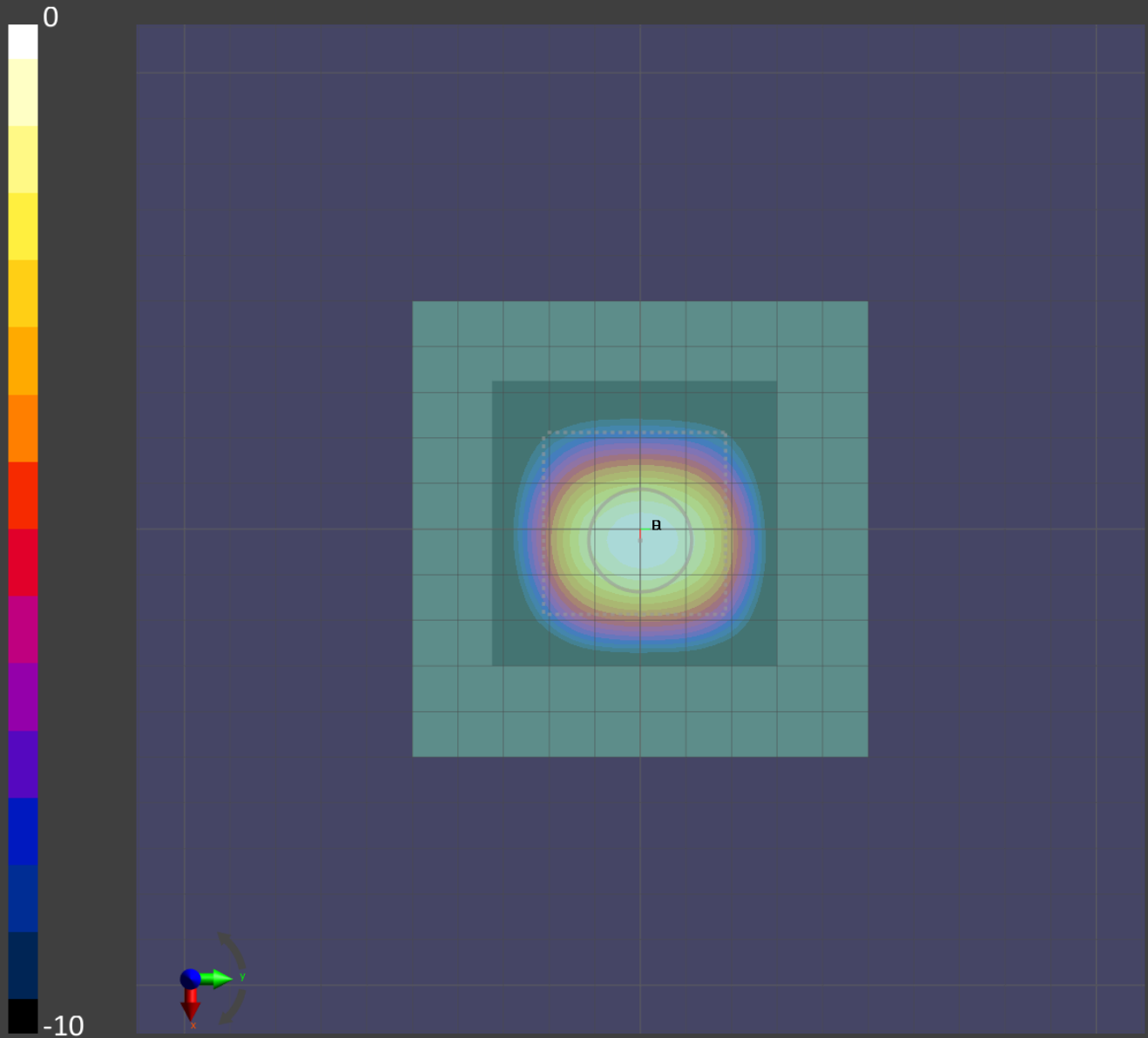
**Scans Setup**

Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	5.55

**Measurement Results**

Date	2019-12-26, 00:29
Avg. Area [cm <sup>2</sup> ]	4.00
S <sub>avg inc</sub> [W/m <sup>2</sup> ]	34.1
S <sub>avg tot</sub> [W/m <sup>2</sup> ]	34.5
S <sub>peak</sub> [W/m <sup>2</sup> ]	49.3
E <sub>peak</sub> [V/m]	135
H <sub>peak</sub> [A/m]	0.378
Power Drift [dB]	-0.13

Averaged [4.0 cm<sup>2</sup>] |Re{S}|(x,y,z,f0) [dB(34.5W/m<sup>2</sup>)]



Test Laboratory: Sporton International Inc.

#### Device Under Test Properties

Manufacturer	Dimensions [mm]	IMEI	DUT Type
	100.0 x 100.0 x 100.0		Phone

#### Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Frequency [MHz]	Conversion Factor
5G	FRONT, 5.55	30000.0	1.0

#### Hardware Setup

Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave - xxxx	Air -	EUmmWV4 - SN9461_F1-78GHz, 2019-11-05	DAE4 Sn376, 2019-12-06

#### Scans Setup

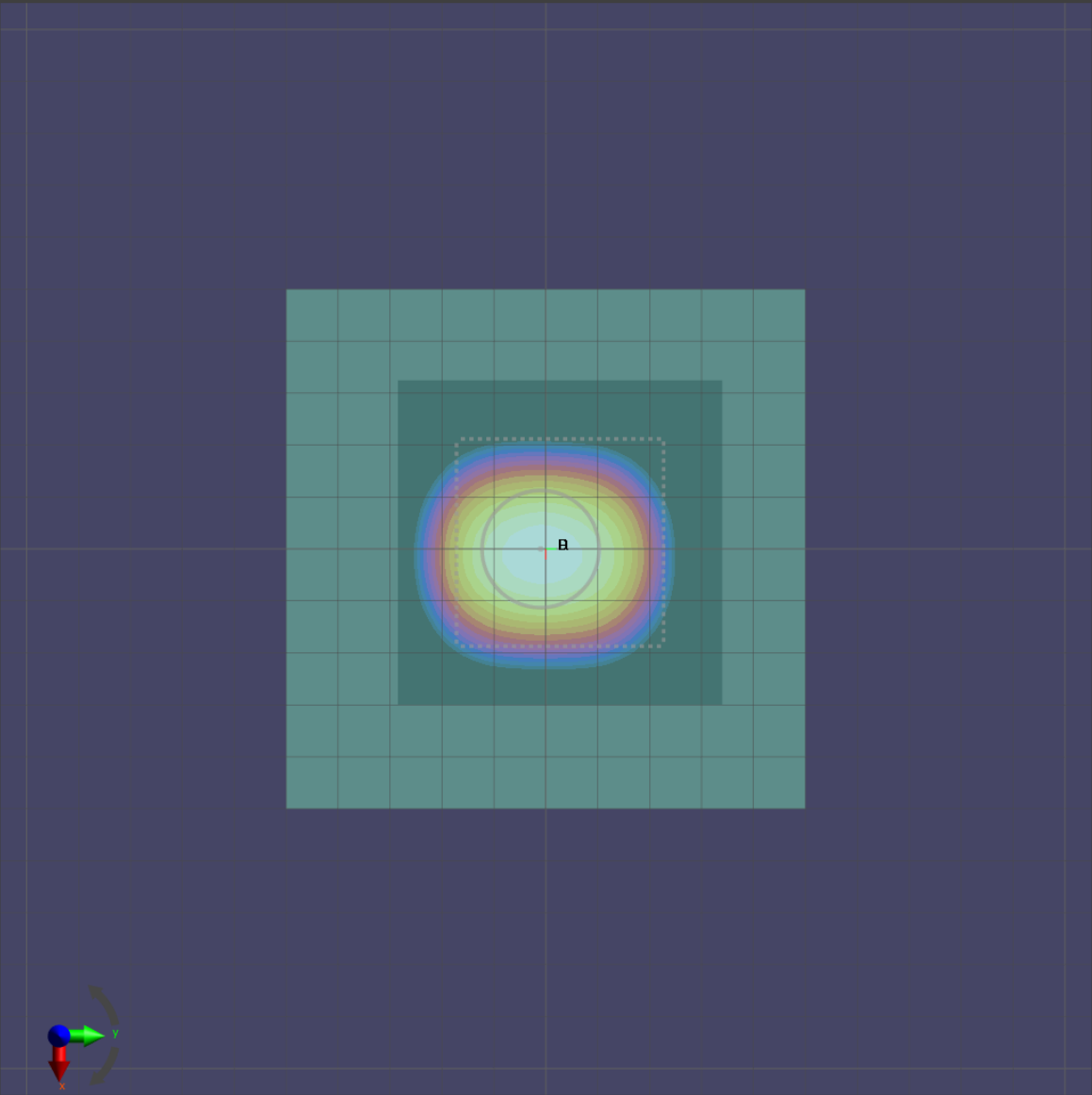
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	5.55

#### Measurement Results

Date	2020-01-23, 00:03
Avg. Area [cm <sup>2</sup> ]	4.00
S <sub>avg inc</sub> [W/m <sup>2</sup> ]	30.8
S <sub>avg tot</sub> [W/m <sup>2</sup> ]	31.2
S <sub>peak</sub> [W/m <sup>2</sup> ]	46.3
E <sub>peak</sub> [V/m]	134
H <sub>peak</sub> [A/m]	0.368
Power Drift [dB]	0.03

Averaged [4.0 cm<sup>2</sup>] |Re{S}|(x,y,z,f0) [dB(31.2W/m<sup>2</sup>)]

0



-10

Test Laboratory: Sporton International Inc.

#### Device Under Test Properties

Manufacturer	Dimensions [mm]	IMEI	DUT Type
	100.0 x 100.0 x 100.0		Phone

#### Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Frequency [MHz]	Conversion Factor
5G	FRONT, 5.55	30000.0	1.0

#### Hardware Setup

Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave - xxxx	Air -	EUmmWV4 - SN9441_F1-78GHz, 2019-11-20	DAE4 Sn778, 2019-05-21

#### Scans Setup

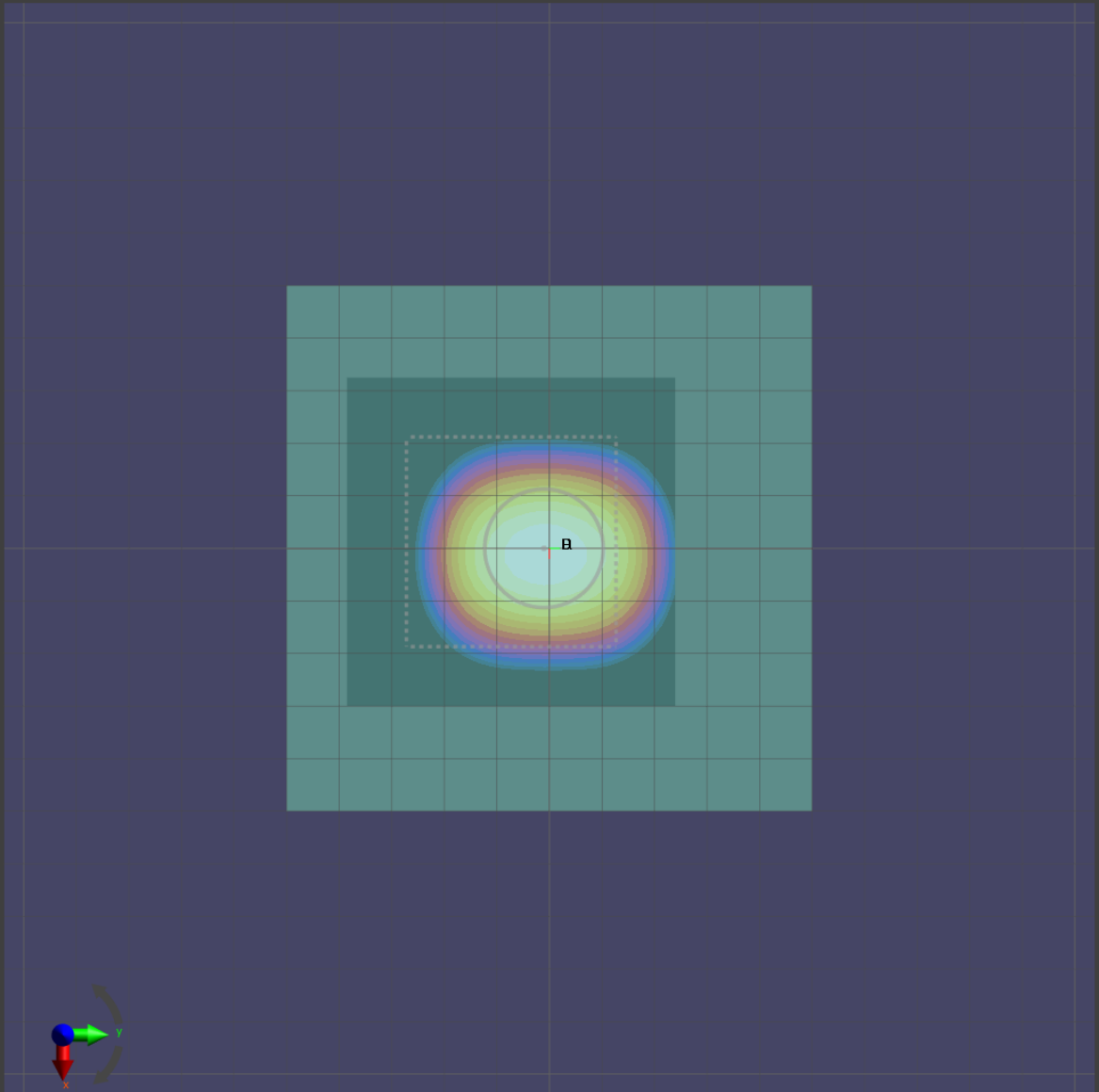
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	5.55

#### Measurement Results

Date	2020-02-12, 00:37
Avg. Area [cm <sup>2</sup> ]	4.00
S <sub>avg inc</sub> [W/m <sup>2</sup> ]	30.4
S <sub>avg tot</sub> [W/m <sup>2</sup> ]	30.9
S <sub>peak</sub> [W/m <sup>2</sup> ]	44.8
E <sub>peak</sub> [V/m]	130
H <sub>peak</sub> [A/m]	0.353
Power Drift [dB]	-0.03

Averaged [4.0 cm<sup>2</sup>] |Re{S}|(x,y,z,f0) [dB(30.9W/m<sup>2</sup>)]

0



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