Test Laboratory: BTL Date: 2022/11/30

System Check_H2450

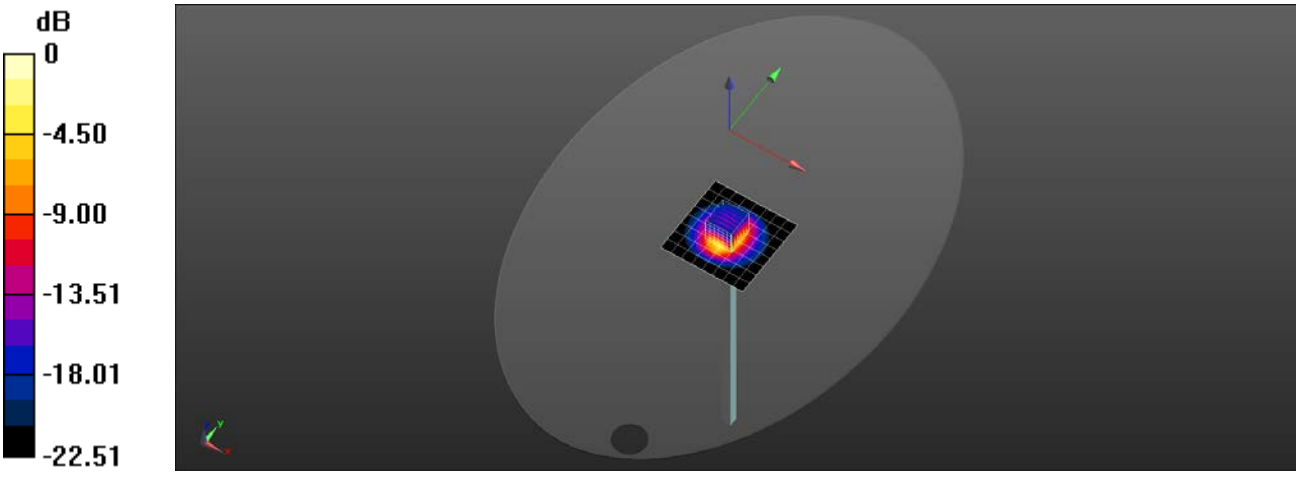
Frequency: 2450 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C
Medium parameters used: f = 2450 MHz; σ = 1.873 S/m; ε_r = 40.712; ρ = 1000 kg/m^3
DASY5 Configuration:
- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Electronics: DAE4 Sn1486; Calibrated: 2022/5/31
- Probe: EX3DV4 - SN7369; ConvF(7.61, 7.61, 7.61) @ 2450 MHz; Calibrated: 2022/5/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 AA; Serial: 1240

System Performance Check at Frequencies above 1 GHz/Pin=250mW /Area Scan (9x9x1):

Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 22.4 W/kg

System Performance Check at Frequencies above 1 GHz/Pin=250mW /Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 113.5 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 29.1 W/kg
SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.44 W/kg
Smallest distance from peaks to all points 3 dB below = 9 mm
Ratio of SAR at M2 to SAR at M1 = 47.7%
Maximum value of SAR (measured) = 23.6 W/kg



0 dB = 23.6 W/kg = 13.73 dBW/kg

Test Laboratory: BTL Date: 2022/11/29

System Check_H5G

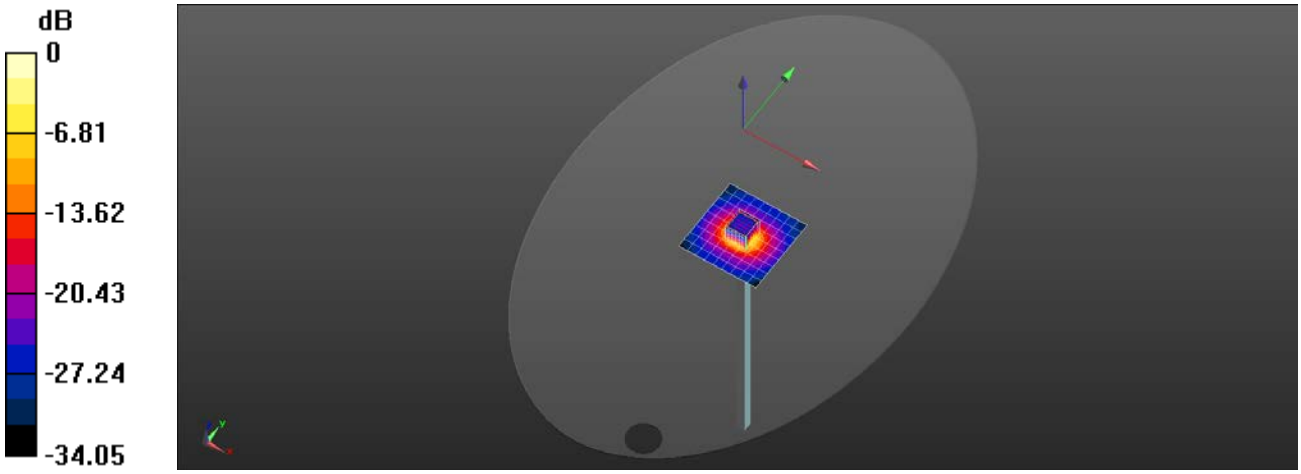
Frequency: 5200 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C
Medium parameters used: f = 5200 MHz; σ = 4.697 S/m; ε_r = 35.477; ρ = 1000 kg/m^3
DASY5 Configuration:
- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Electronics: DAE4 Sn1486; Calibrated: 2022/5/31
- Probe: EX3DV4 - SN7369; ConvF(5.2, 5.2, 5.2) @ 5200 MHz; Calibrated: 2022/5/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 AA; Serial: 1240

Configuration/Pin=100mW/Area Scan (10x10x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 12.3 W/kg

Configuration/Pin=100mW/Zoom Scan (7x7x12)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 63.49 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 31.1 W/kg
SAR(1 g) = 8.19 W/kg; SAR(10 g) = 2.38 W/kg
Smallest distance from peaks to all points 3 dB below = 7.4 mm
Ratio of SAR at M2 to SAR at M1 = 56.6%
Maximum value of SAR (measured) = 20.1 W/kg



0 dB = 20.1 W/kg = 13.03 dBW/kg

Test Laboratory: BTL Date: 2022/11/29

System Check_H5G

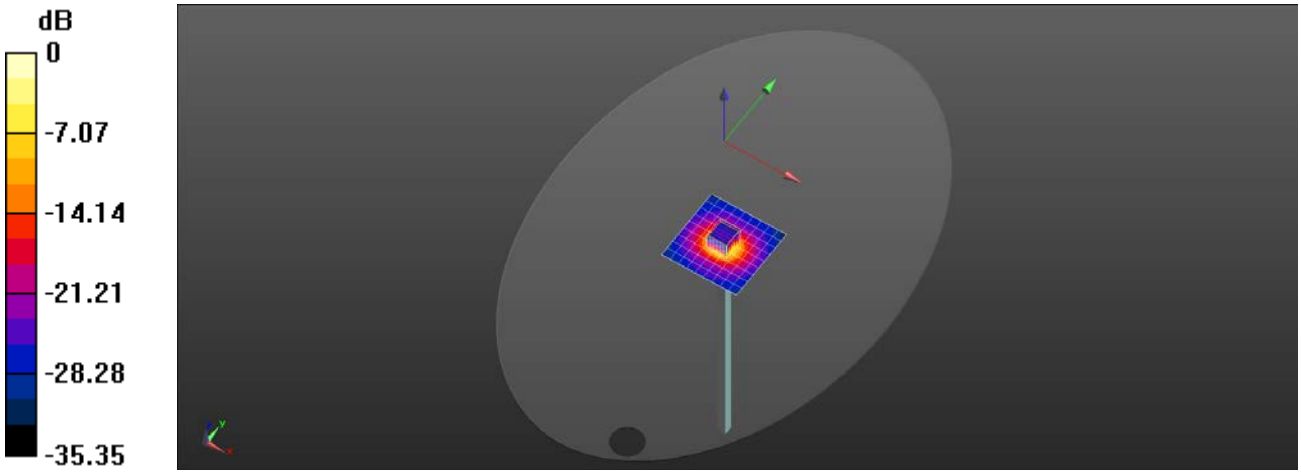
Frequency: 5300 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C
Medium parameters used (interpolated): f = 5300 MHz; σ = 4.817 S/m; ε_r = 35.233; ρ = 1000 kg/m^3
DASY5 Configuration:
- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Electronics: DAE4 Sn1486; Calibrated: 2022/5/31
- Probe: EX3DV4 - SN7369; ConvF(5.04, 5.04, 5.04) @ 5300 MHz; Calibrated: 2022/5/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 AA; Serial: 1240

Configuration/Pin=100mW/Area Scan (10x10x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 12.6 W/kg

Configuration/Pin=100mW/Zoom Scan (7x7x12)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 64.20 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 33.2 W/kg
SAR(1 g) = 8.54 W/kg; SAR(10 g) = 2.45 W/kg
Smallest distance from peaks to all points 3 dB below = 7.4 mm
Ratio of SAR at M2 to SAR at M1 = 55.8%.
Maximum value of SAR (measured) = 21.2 W/kg



0 dB = 21.2 W/kg = 13.26 dBW/kg

Test Laboratory: BTL Date: 2022/11/29

System Check_H5G

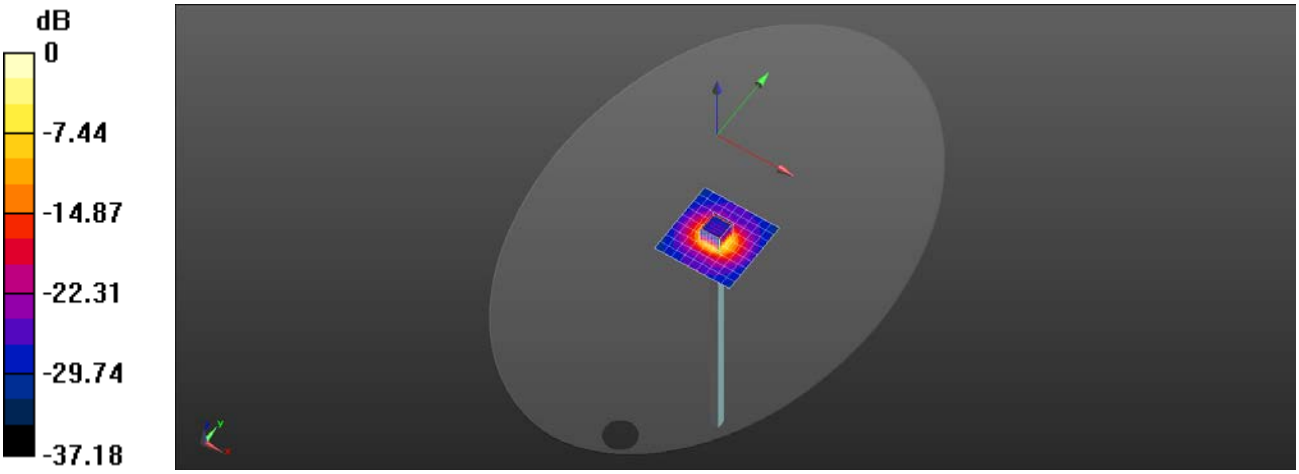
Frequency: 5600 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C
Medium parameters used: f = 5600 MHz; σ = 5.151 S/m; ε_r = 34.391; ρ = 1000 kg/m^3
DASY5 Configuration:
- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Electronics: DAE4 Sn1486; Calibrated: 2022/5/31
- Probe: EX3DV4 - SN7369; ConvF(4.66, 4.66, 4.66) @ 5600 MHz; Calibrated: 2022/5/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 AA; Serial: 1240

Configuration/Pin=100mW/Area Scan (10x10x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 13.7 W/kg

Configuration/Pin=100mW/Zoom Scan (7x7x12)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 63.31 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 37.0 W/kg
SAR(1 g) = 8.77 W/kg; SAR(10 g) = 2.51 W/kg
Smallest distance from peaks to all points 3 dB below = 7.5 mm
Ratio of SAR at M2 to SAR at M1 = 52.9%
Maximum value of SAR (measured) = 22.5 W/kg



0 dB = 22.5 W/kg = 13.52 dBW/kg

Test Laboratory: BTL Date: 2022/11/29

System Check_H5G

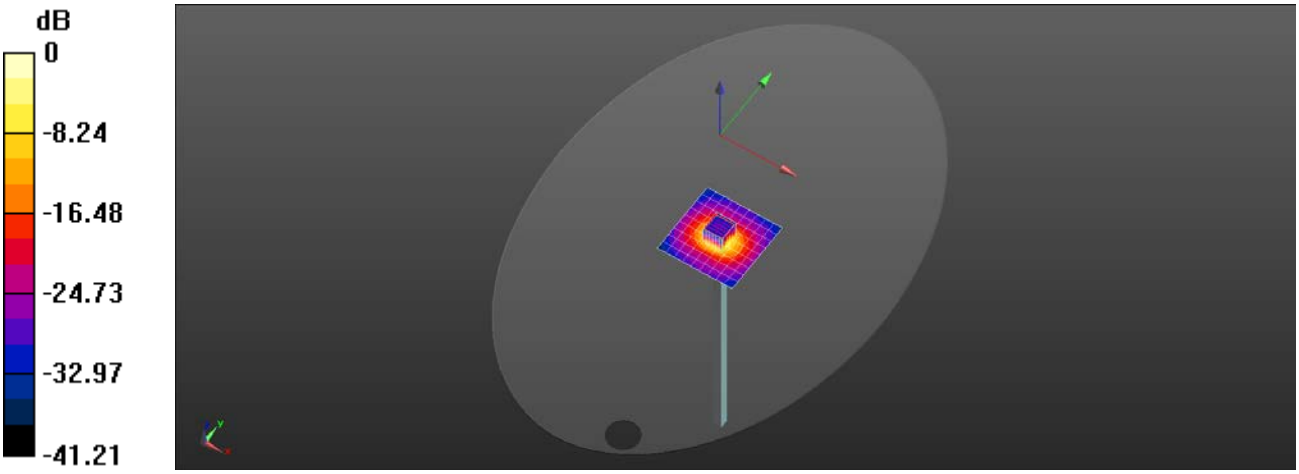
Frequency: 5800 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C
Medium parameters used: f = 5800 MHz; σ = 5.39 S/m; ε_r = 33.946; ρ = 1000 kg/m^3
DASY5 Configuration:
- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Electronics: DAE4 Sn1486; Calibrated: 2022/5/31
- Probe: EX3DV4 - SN7369; ConvF(4.65, 4.65, 4.65) @ 5800 MHz; Calibrated: 2022/5/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 AA; Serial: 1240

Configuration/Pin=100mW/Area Scan (10x10x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 13.5 W/kg

Configuration/Pin=100mW/Zoom Scan (7x7x12)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 61.03 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 37.1 W/kg
SAR(1 g) = 8.39 W/kg; SAR(10 g) = 2.38 W/kg
Smallest distance from peaks to all points 3 dB below = 7.5 mm
Ratio of SAR at M2 to SAR at M1 = 51.3%
Maximum value of SAR (measured) = 21.7 W/kg



0 dB = 21.7 W/kg = 13.36 dBW/kg

Measurement Report for Device, , , CW, Channel 0 (6500.0 MHz)

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	50.0 x 10.0 x 8.0		

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	,		, 0--	6500.0, 0	5.4	5.94	33.9

Hardware Setup

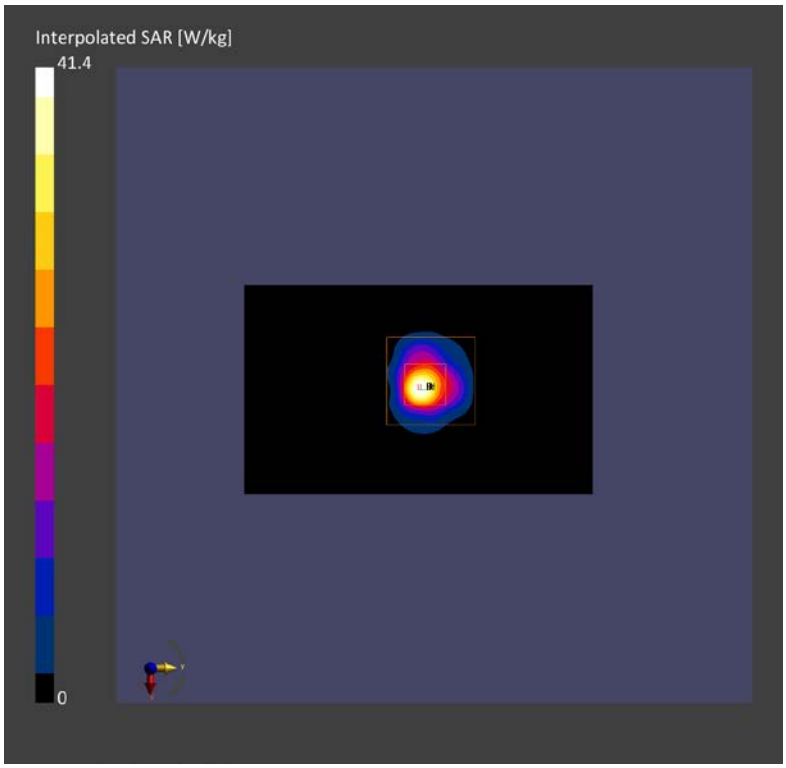
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1240	HBBL-600-10000 Charge:xxxx, 2022-12-01	EX3DV4 - SN7369, 2022-05-28	DAE4 Sn1486, 2022-05-31

Scans 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	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface Detection	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2022-12-01	2022-12-01
psSAR1g [W/Kg]	23.5	28.4
psSAR10g [W/Kg]	4.90	5.33
Power Drift [dB]	-0.02	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		53.1
Dist 3dB Peak [mm]		4.8


Interpolated SAR [W/kg]
41.4
0

Measurement Report for Device, FRONT, Validation band, CW, Channel 10000 (10000.0 MHz)

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	100.0 x 100.0 x 100.0		

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G	FRONT, 10.00	Validation band	CW, 0--	10000.0, 10000	1.0

Hardware Setup

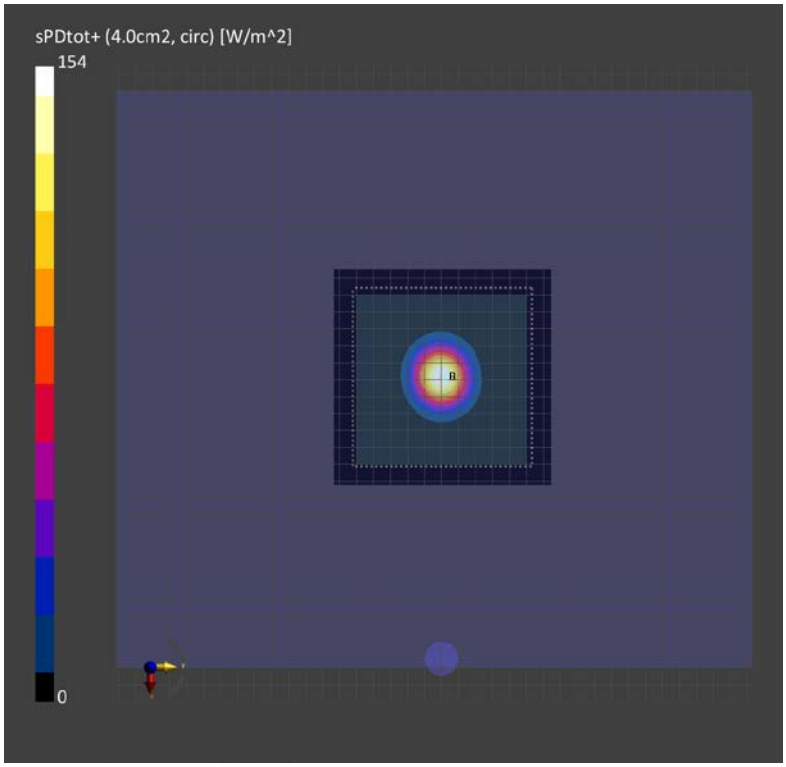
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave - 1085	Air -	EUmmWV4 - SN9583_F1-55GHz, 2022-09-27	DAE4 Sn1486, 2022-05-31

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
MAIA	N/A

Measurement Results

Scan Type	5G Scan
Date	2022-12-02
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	153
psPDtot+ [W/m^2]	154
psPDmod+ [W/m^2]	157
E_{max} [V/m]	281
Power Drift [dB]	0.05


sPDtot+ (4.0cm2, circ) [W/m^2]
154
0