Test Laboratory: BTL Date: 2023/8/21

System Check_H2450

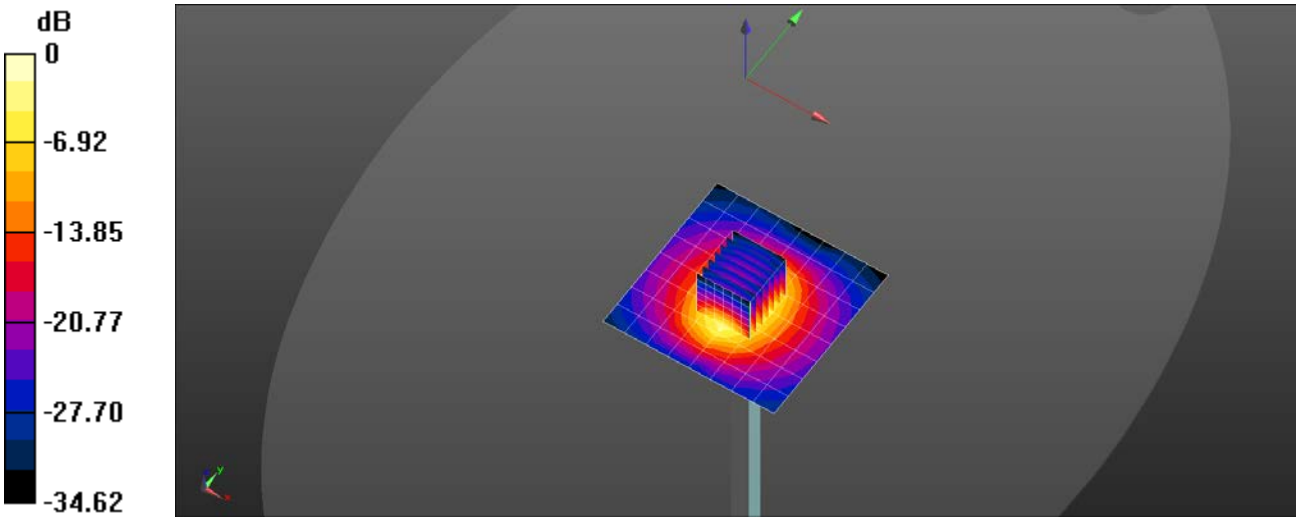
Frequency: 2450 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C
Medium parameters used (interpolated): f = 2450 MHz; σ = 1.76 S/m; ε_r = 38.646; ρ = 1000 kg/m^3
DASY5 Configuration:
- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Electronics: DAE4 Sn1486; Calibrated: 2023/6/16
- Probe: EX3DV4 - SN7369; ConvF(7.61, 7.61, 7.61) @ 2450 MHz; Calibrated: 2023/5/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2149

System Performance Check at Frequencies above 1 GHz/Pin=250mW/Area Scan (9x9x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 20.0 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 = 109.8 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 25.7 W/kg
SAR(1 g) = 12.1 W/kg; SAR(10 g) = 5.57 W/kg
Smallest distance from peaks to all points 3 dB below = 9 mm
Ratio of SAR at M2 to SAR at M1 = 47.3%
Maximum value of SAR (measured) = 20.6 W/kg



0 dB = 20.0 W/kg = 13.00 dBW/kg

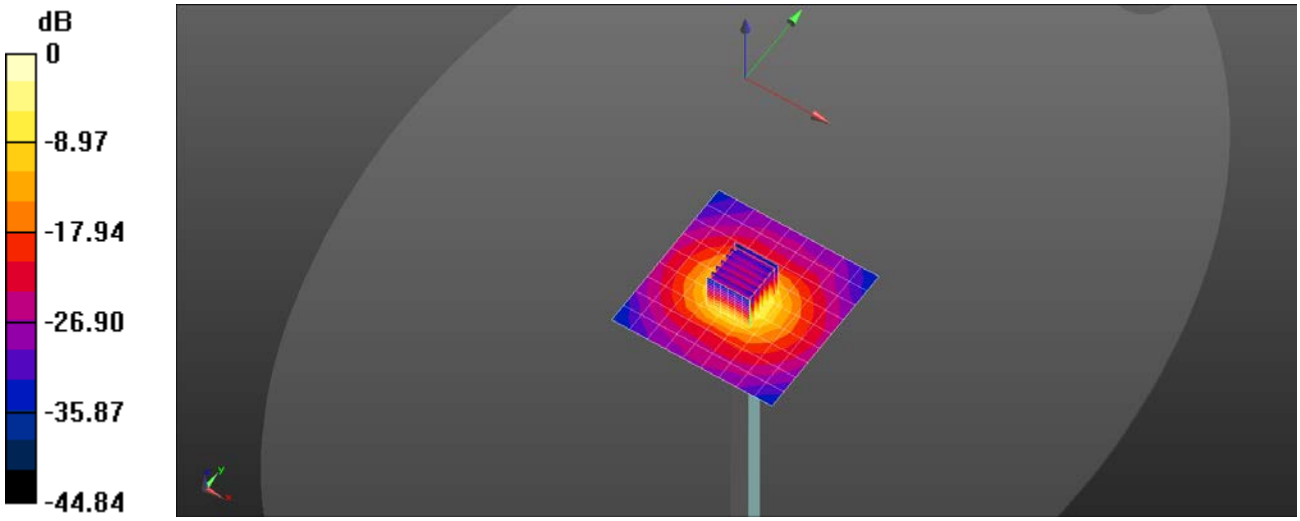
Test Laboratory: BTL Date: 2023/8/24

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 = 4.458 S/m; ε_r = 37.383; 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: 2023/6/16
- Probe: EX3DV4 - SN7369; ConvF(5.17, 5.17, 5.17) @ 5200 MHz; Calibrated: 2023/5/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2149

Configuration/Pin=100mW/Area Scan (10x10x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 13.4 W/kg

Configuration/Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 63.91 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 31.5 W/kg
SAR(1 g) = 7.63 W/kg; SAR(10 g) = 2.18 W/kg
Smallest distance from peaks to all points 3 dB below = 7.5 mm
Ratio of SAR at M2 to SAR at M1 = 53.5%
Maximum value of SAR (measured) = 19.6 W/kg



0 dB = 19.6 W/kg = 12.92 dBW/kg

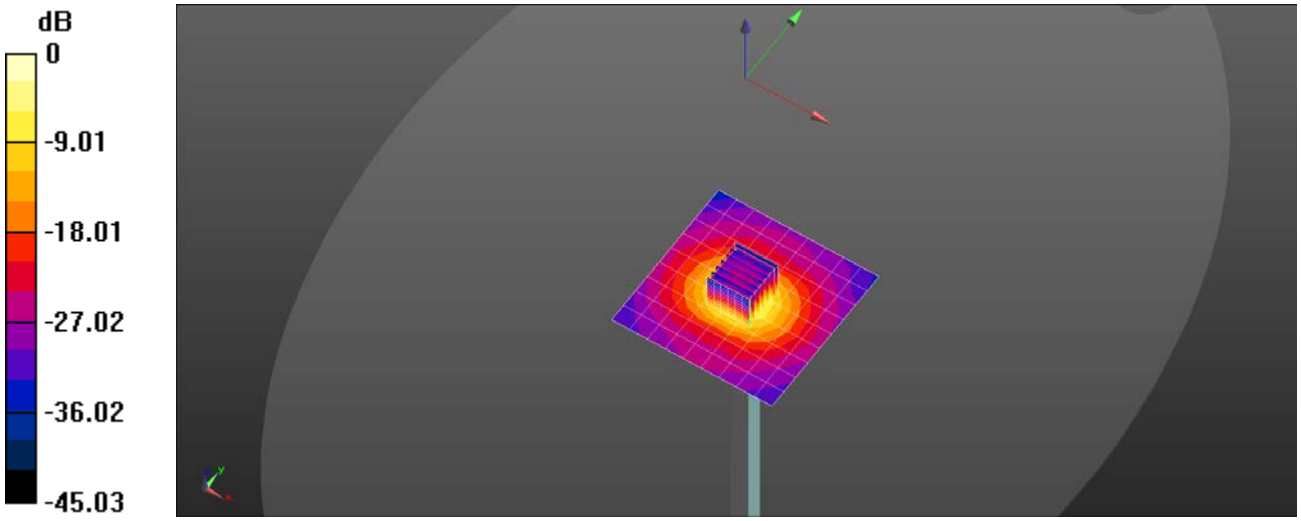
Test Laboratory: BTL Date: 2023/8/24

System Check_H5G

Frequency: 5300 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C
Medium parameters used: f = 5300 MHz; σ = 4.582 S/m; ε_r = 37.197; 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: 2023/6/16
- Probe: EX3DV4 - SN7369; ConvF(5.01, 5.01, 5.01) @ 5300 MHz; Calibrated: 2023/5/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2149

Configuration/Pin=100mW/Area Scan (10x10x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 14.0 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 = -0.00 dB
Peak SAR (extrapolated) = 33.8 W/kg
SAR(1 g) = 8.04 W/kg; SAR(10 g) = 2.29 W/kg
Smallest distance from peaks to all points 3 dB below = 7.5 mm
Ratio of SAR at M2 to SAR at M1 = 52.5%
Maximum value of SAR (measured) = 20.7 W/kg



0 dB = 20.7 W/kg = 13.16 dBW/kg

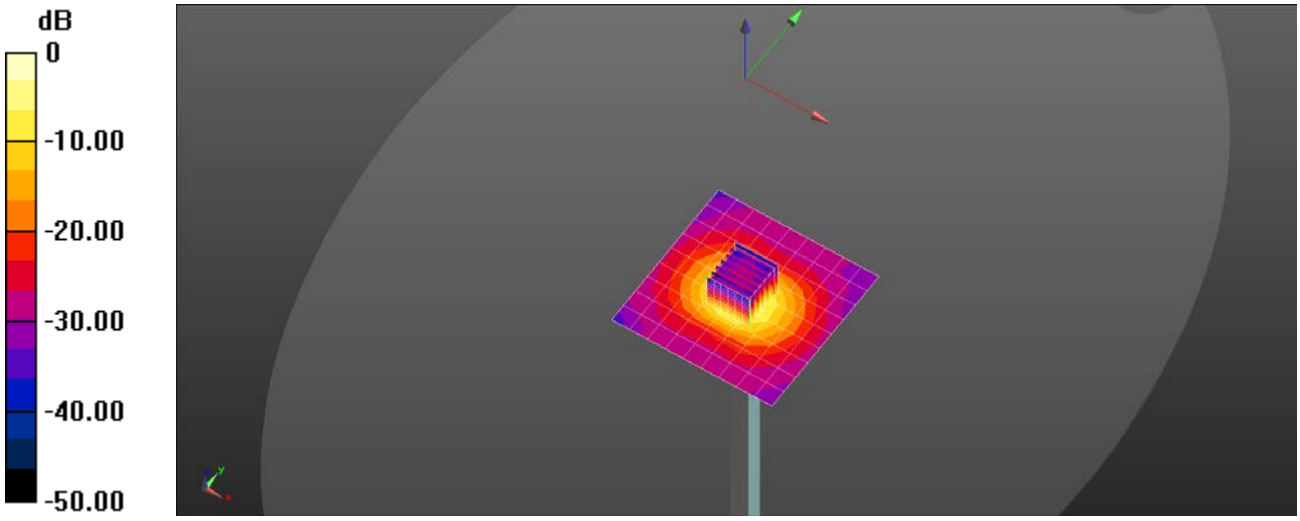
Test Laboratory: BTL Date: 2023/8/24

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 = 4.946 S/m; ε_r = 36.499; 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: 2023/6/16
- Probe: EX3DV4 - SN7369; ConvF(4.6, 4.6, 4.6) @ 5600 MHz; Calibrated: 2023/5/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2149

Configuration/Pin=100mW/Area Scan (10x10x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 14.2 W/kg

Configuration/Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 61.67 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 36.0 W/kg
SAR(1 g) = 7.9 W/kg; SAR(10 g) = 2.24 W/kg
Smallest distance from peaks to all points 3 dB below = 7.6 mm
Ratio of SAR at M2 to SAR at M1 = 49.8%
Maximum value of SAR (measured) = 20.9 W/kg



0 dB = 20.9 W/kg = 13.20 dBW/kg

Test Laboratory: BTL Date: 2023/8/24

System Check_H5G

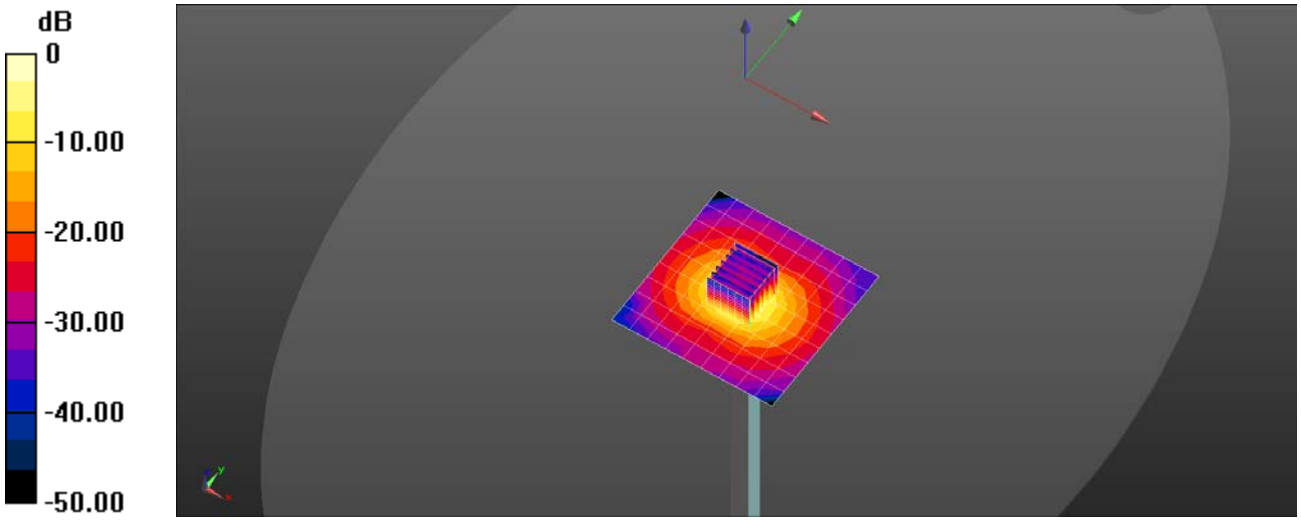
Frequency: 5800 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C
Medium parameters used: f = 5800 MHz; σ = 5.2 S/m; ε_r = 36.096; ρ = 1000 kg/m^3
DASY5 Configuration:
- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Electronics: DAE4 Sn1486; Calibrated: 2023/6/16
- Probe: EX3DV4 - SN7369; ConvF(4.6, 4.6, 4.6) @ 5800 MHz; Calibrated: 2023/5/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2149

Configuration/Pin=100mW/Area Scan (10x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 14.6 W/kg

Configuration/Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 61.11 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 37.8 W/kg
SAR(1 g) = 7.92 W/kg; SAR(10 g) = 2.22 W/kg
Smallest distance from peaks to all points 3 dB below = 7.6 mm
Ratio of SAR at M2 to SAR at M1 = 48.3%
Maximum value of SAR (measured) = 21.3 W/kg



0 dB = 21.3 W/kg = 13.28 dBW/kg

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	16.0 x 6.0 x 300.0		

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	6.25	33.2

Hardware Setup

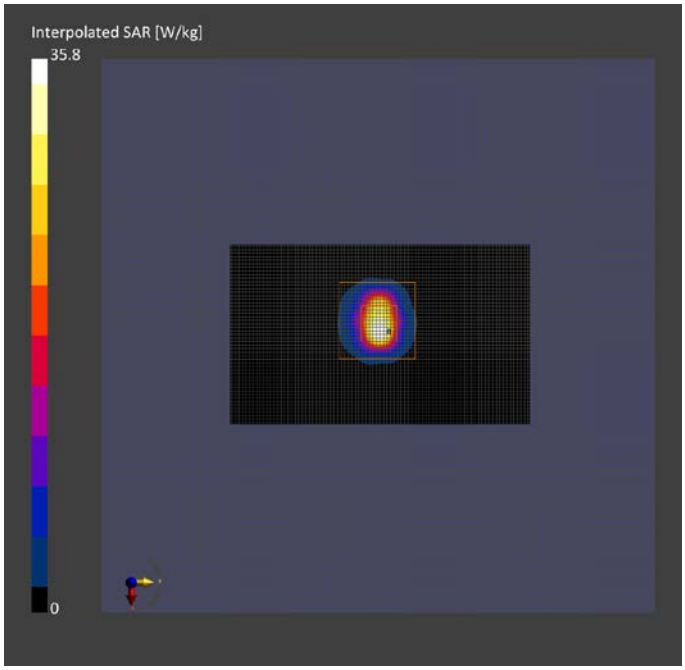
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2149	H6E Charge: xxxx, 2023-Aug-29	EX3DV4 - SN7369, 2023-05-22	DAE4 Sn1486, 2023-06-16

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	2023-08-29	2023-08-29
psSAR1g [W/kg]	22.0	29.6
psSAR10g [W/kg]	4.71	5.35
psAPD (1.0cm2, sq) [W/m2]		296
psAPD (4.0cm2, sq) [W/m2]		130
Power Drift [dB]	-0.05	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		50.8
Dist 3dB Peak [mm]		4.6


Interpolated SAR [W/kg]
35.8
0

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

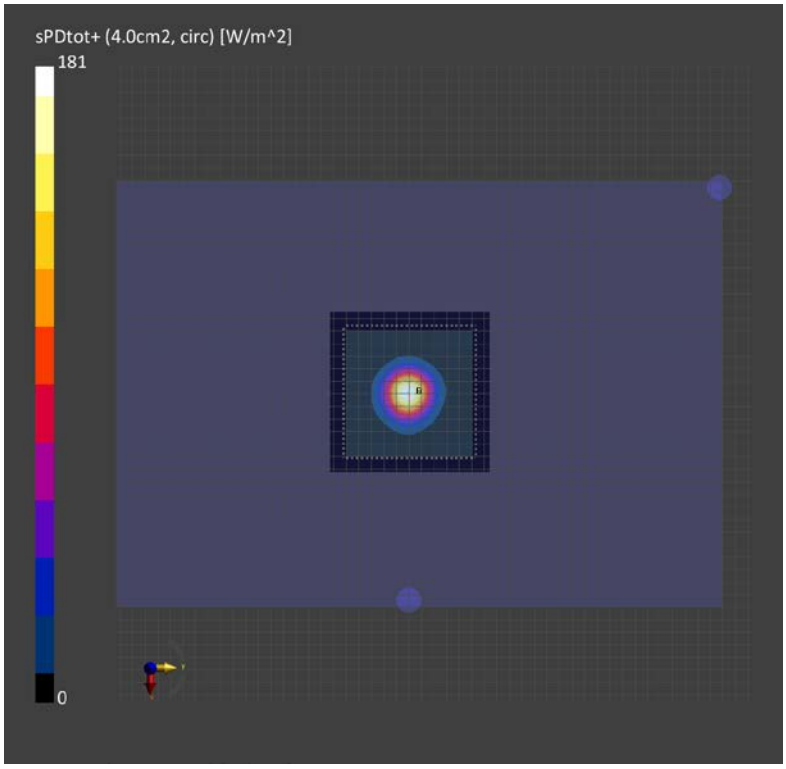
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave - 1085	Air -	EUmmWV4 - SN9583_F1-55GHz, 2023-04-18	DAE4 Sn1486, 2023-06-16

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	2023-09-05
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	179
psPDtot+ [W/m^2]	181
psPDmod+ [W/m^2]	184
E_{max} [V/m]	311
Power Drift [dB]	0.03


sPDtot+ (4.0cm2, circ) [W/m^2]
181
0

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

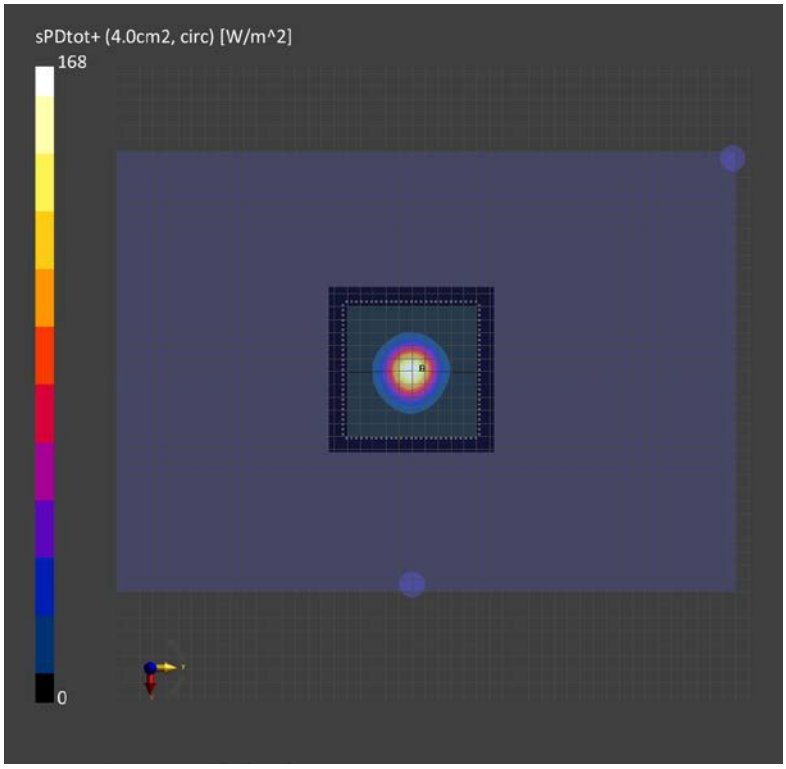
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave - 1085	Air -	EUmmWV4 - SN9583_F1-55GHz, 2023-04-18	DAE4 Sn1486, 2023-06-16

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	2023-10-25
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	165
psPDtot+ [W/m^2]	168
psPDmod+ [W/m^2]	170
E_{max} [V/m]	297
Power Drift [dB]	-0.02


sPDtot+ (4.0cm2, circ) [W/m^2]
168
0