Appendix A. SAR Plots of System Verification

The plots for system verification are shown as follows.

S01 System Check_H2450_210607

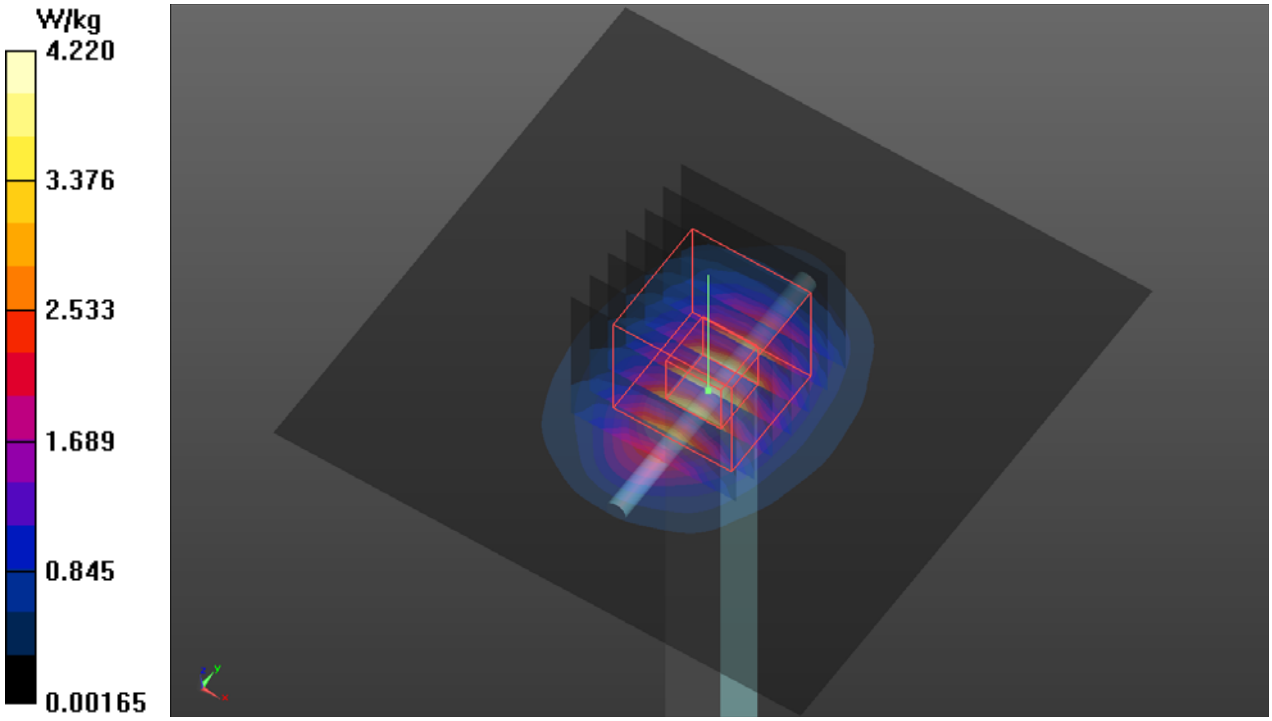
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0607 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.827 S/m; ε_r = 38.941; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃ ； Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7537; ConvF(7.61, 7.61, 7.61) @ 2450 MHz; Calibrated: 2021/04/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn528; Calibrated: 2021/03/23
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 4.22 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 47.51 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 5.12 W/kg
SAR(1 g) = 2.43 W/kg; SAR(10 g) = 1.15 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.10 W/kg



S02 System Check_H5250_210604

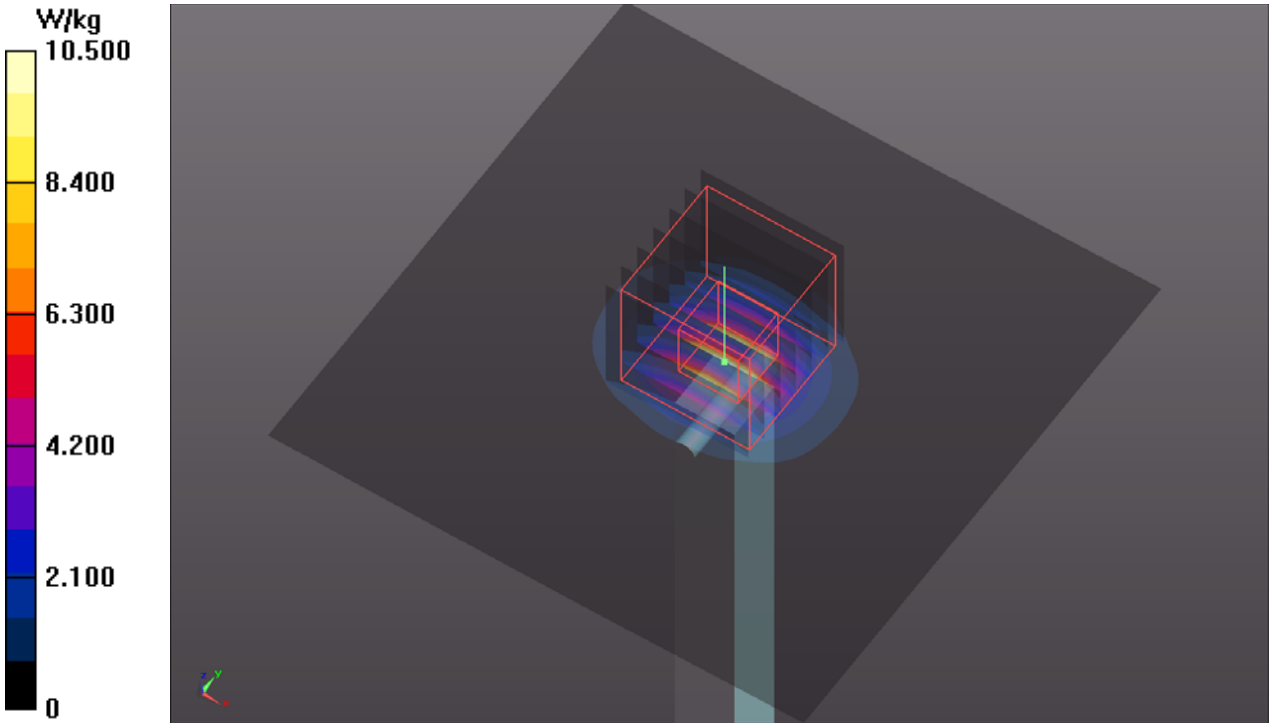
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0604 Medium parameters used: f = 5250 MHz; σ = 4.85 S/m; ε_r = 36.45; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(4.71, 4.71, 4.71) @ 5250 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI Phantom_1206; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 10.5 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 52.66 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 18.3 W/kg
SAR(1 g) = 4.36 W/kg; SAR(10 g) = 1.34 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 11.7 W/kg



S03 System Check_H5600_210607

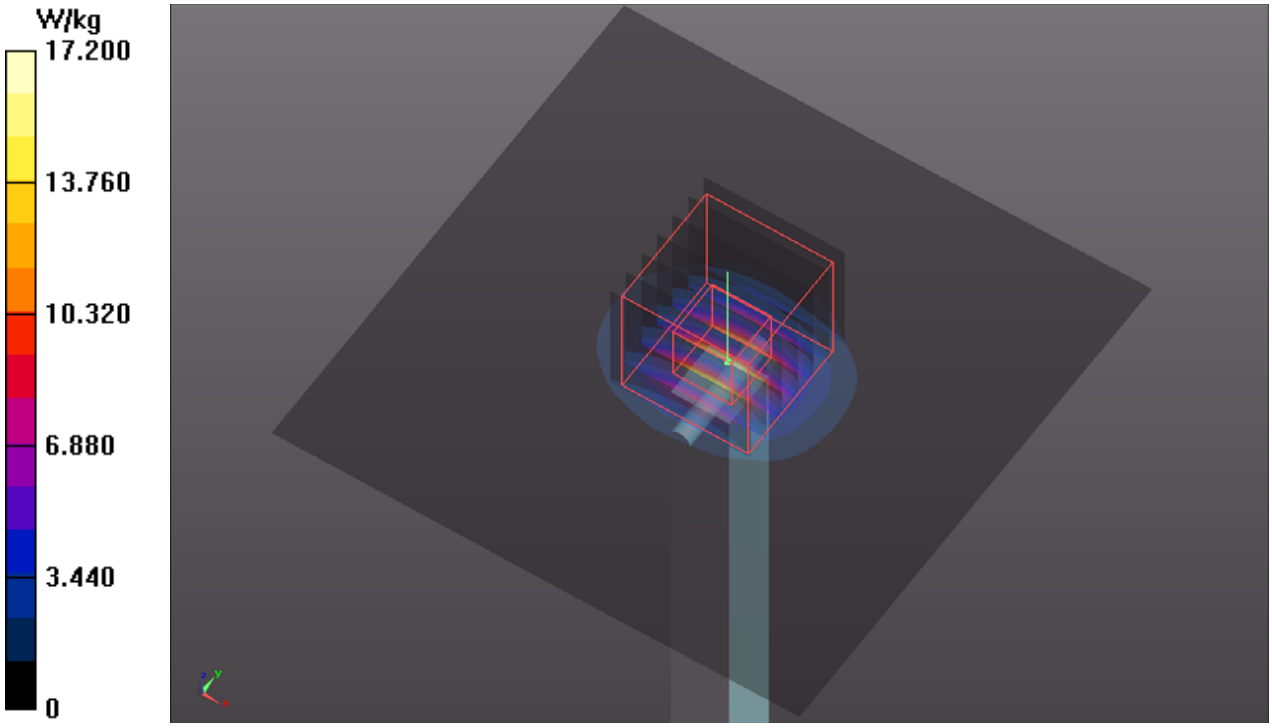
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0607 Medium parameters used: f = 5600 MHz; σ = 4.965 S/m; ε_r = 35.254; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(4.24, 4.24, 4.24) @ 5600 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI Phantom_1206; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 17.2 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 65.85 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 31.6 W/kg
SAR(1 g) = 3.81 W/kg; SAR(10 g) = 0.986 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 18.5 W/kg



S04 System Check_H5750_210608

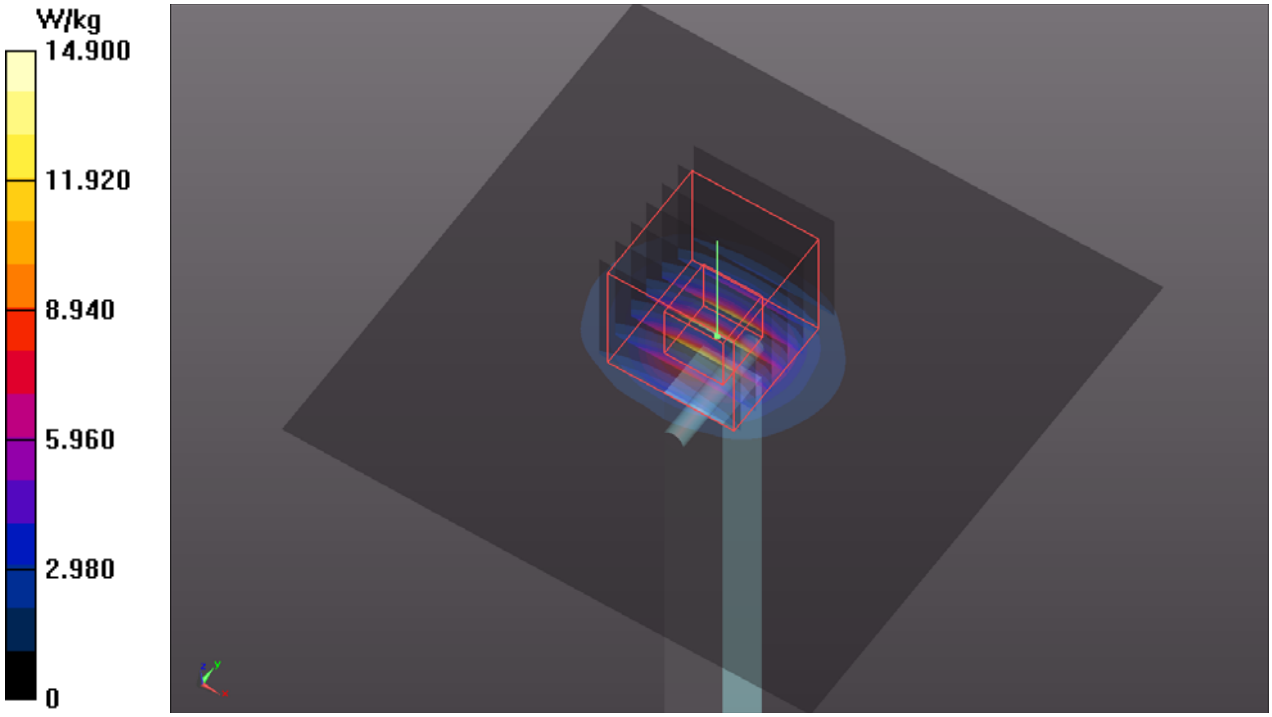
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5750 MHz;Duty Cycle: 1:1
Medium: H34T60N2_0608 Medium parameters used: f = 5750 MHz; σ = 5.382 S/m; ε_r = 35.934; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(4.36, 4.36, 4.36) @ 5750 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI Phantom_1206; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 14.9 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 54.44 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 27.4 W/kg
SAR(1 g) = 4.23 W/kg; SAR(10 g) = 1.32 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 15.7 W/kg



S05 System Check_H2450_210618

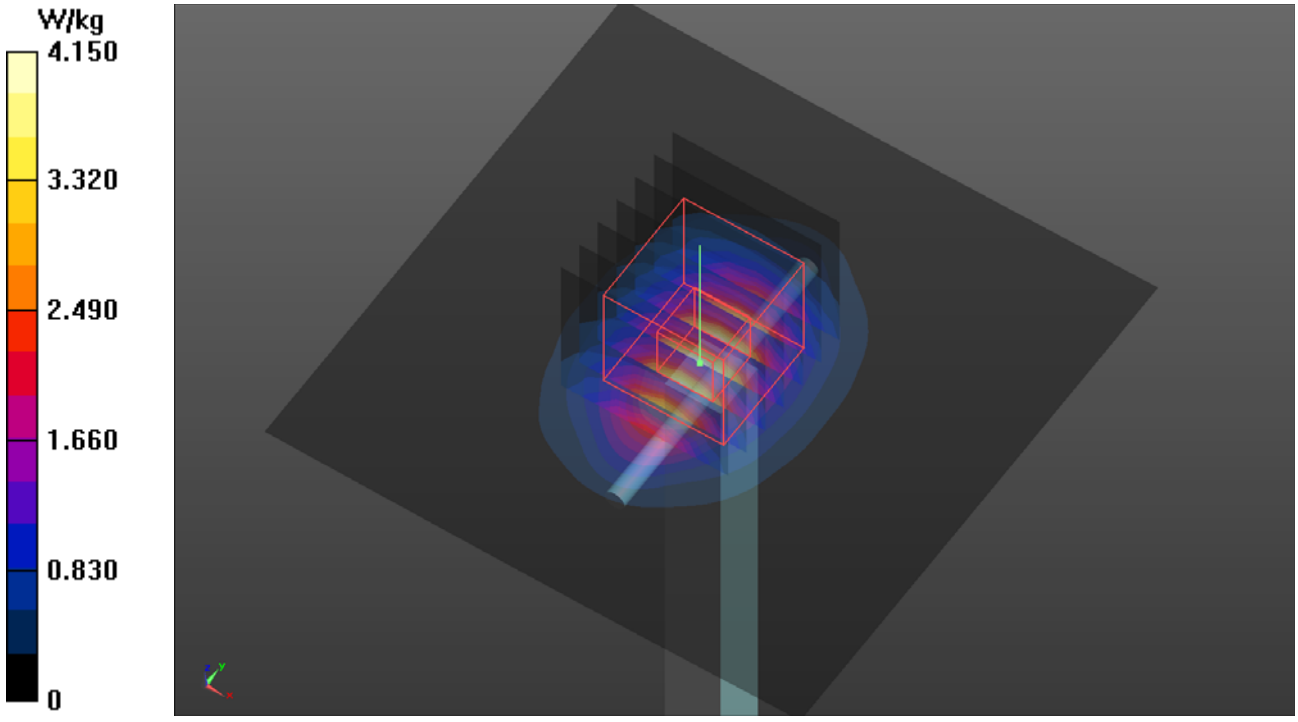
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0618 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.875 S/m; ε_r = 38.706; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(7.77, 7.77, 7.77) @ 2450 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2021/01/19
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 4.15 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 49.20 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 5.16 W/kg
SAR(1 g) = 2.49 W/kg; SAR(10 g) = 1.18 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.23 W/kg



System Check_H6500_210609

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Dipole	50.0 x 10.0 x 8.0		6500

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				6500.0	5.7	6.11	34.4

Hardware Setup

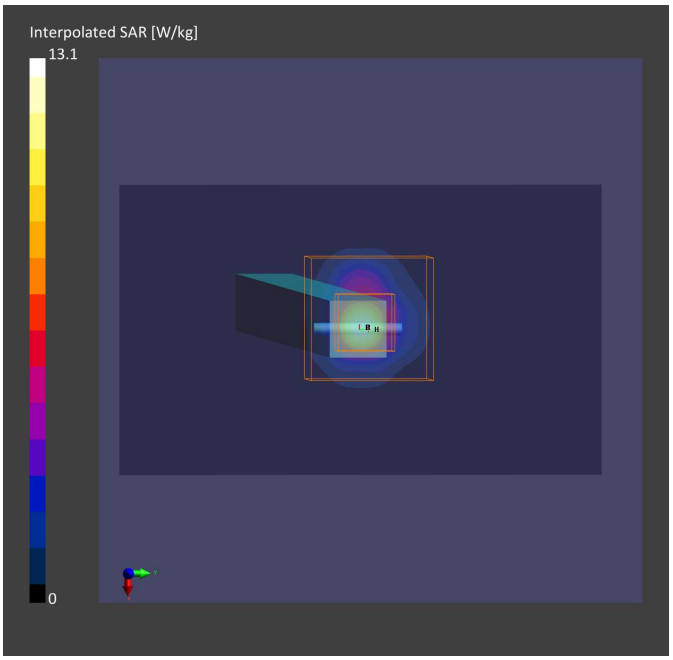
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2118	HBBL-600-10000 , 2021-Jun-09	EX3DV4 - SN7555, 2020-09-28	DAE4 Sn1589, 2020-09-15

Scan 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

Measurement Results

	Area Scan	Zoom Scan
Date	2021-04-13	2021-04-13
psSAR1g [W/Kg]	25.7	30.2
psSAR10g [W/Kg]	5.12	5.55
Power Drift [dB]	-0.03	-0.05
M2/M1 [%]		50.6
Dist 3dB Peak [mm]		4.3



Test Lab: Bureau Veritas ADT SAR/HAC/PD Testing Lab

PD_System Check_10 GHz_2021.06.11

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
SPEAG, 5G Verification Source 10 GHz	100.0 x 100.0 x 172.0	SN: 1025	-

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Front Face, 10.00	Validation band	CW	10000.0,	1.0

Hardware Setup

Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 1029	--Air-	EUmmWV4 - SN9454_F1-78GHz, 2020-09-24	DAE4 Sn1590, 2020-09-15

Scan Setup

	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

	5G Scan
Date	2021-06-11
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	41.3
psPDtot+ [W/m²]	41.4
psPDmod+ [W/m²]	41.7
E_{max} [V/m]	131
Power Drift [dB]	0.02