Appendix B – System Check Plots

Date: 2024/10/15

System Performance Check at 2450 MHz

DUT: D2450V2_SN712

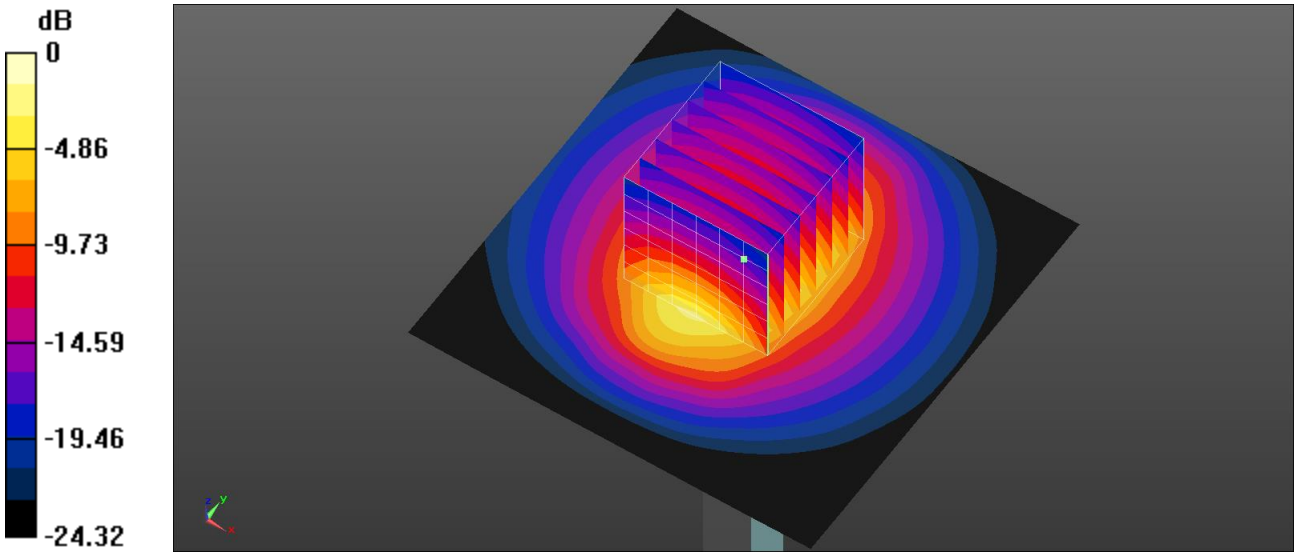
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.745 S/m; ε_r = 39.166; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(7.73, 7.11, 7.58) @ 2450 MHz; Calibrated: 2024/3/21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2024/6/5
- Phantom: ELI; Type: QD OVA 002 AA; Serial: 1133
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

System Performance Check at 2450MHz/Area Scan (71x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 3.99 W/kg

System Performance Check at 2450MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 50.71 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 4.98 W/kg
SAR(1 g) = 2.48 W/kg; SAR(10 g) = 1.19 W/kg
Smallest distance from peaks to all points 3 dB below = 9.2 mm
Ratio of SAR at M2 to SAR at M1 = 53.1%
Maximum value of SAR (measured) = 4.05 W/kg



0 dB = 4.05 W/kg = 6.07 dBW/kg

Date: 2024/10/16

System Performance Check at 5250 MHz

DUT: D5GHzV2_SN1021

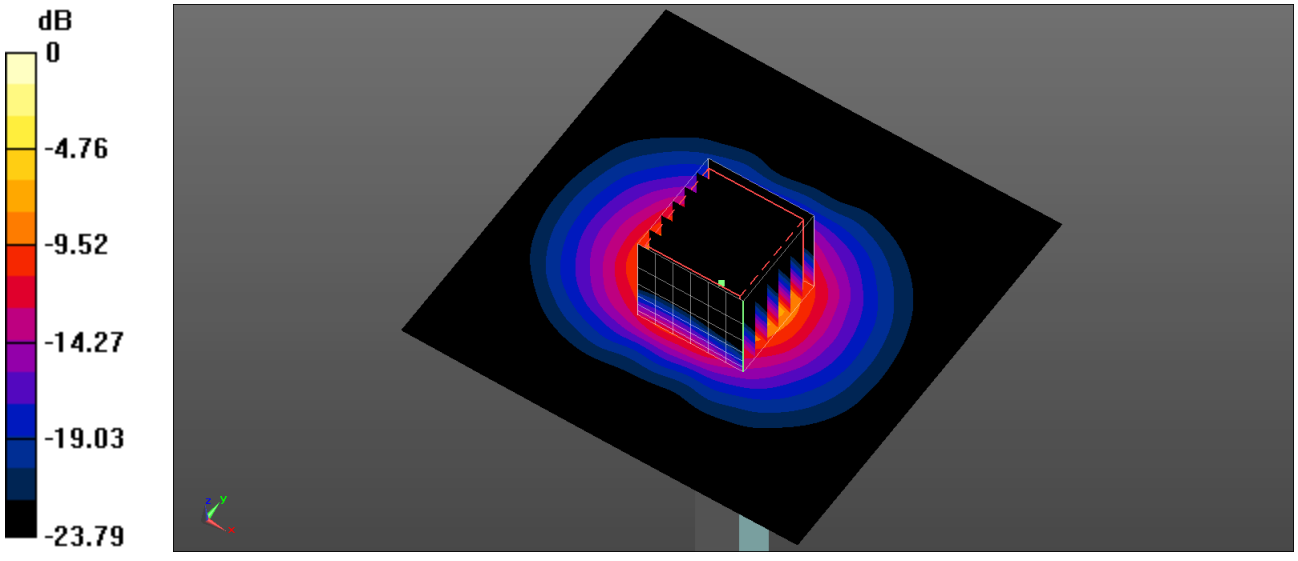
Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5250 MHz; σ = 4.43 S/m; ε_r = 35.176; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(5.68, 5.15, 5.5) @ 5250 MHz; Calibrated: 2024/3/21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2024/6/5
- Phantom: ELI; Type: QD OVA 002 AA; Serial: 1133
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

System Performance Check at 5250MHz/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 9.17 W/kg

System Performance Check at 5250MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 53.96 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 16.6 W/kg
SAR(1 g) = 3.91 W/kg; SAR(10 g) = 1.07 W/kg
Smallest distance from peaks to all points 3 dB below = 8.4 mm
Ratio of SAR at M2 to SAR at M1 = 60.7%
Maximum value of SAR (measured) = 9.82 W/kg



0 dB = 9.82 W/kg = 9.92 dBW/kg

Date: 2024/10/17

System Performance Check at 5600 MHz

DUT: D5GHzV2_SN1021

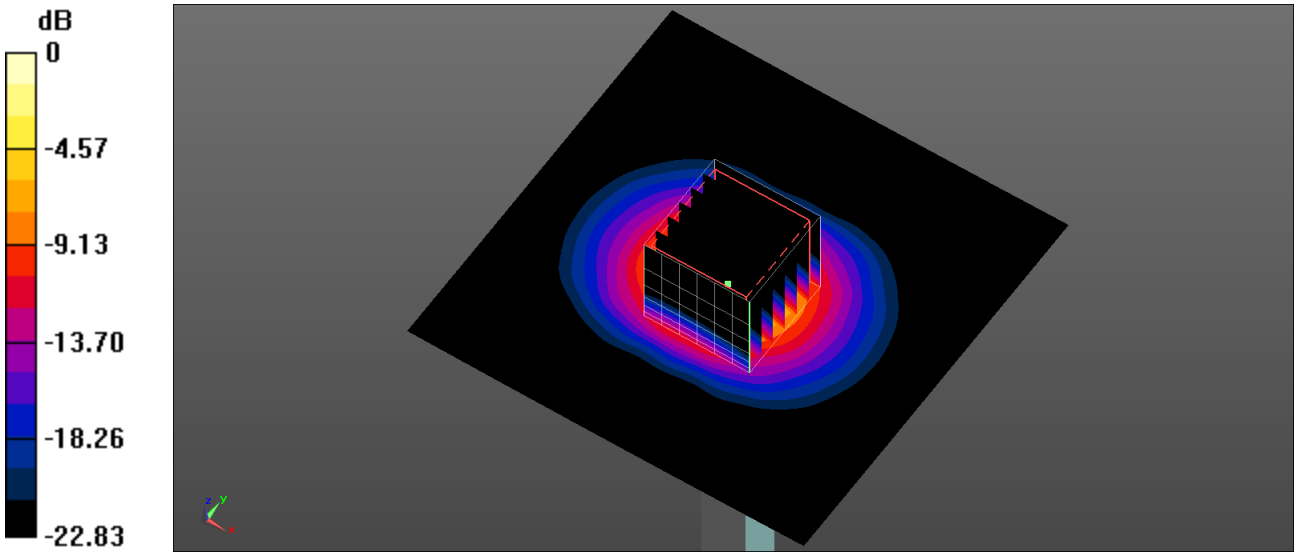
Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 4.699 S/m; ε_r = 34.757; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(4.9, 4.47, 4.74) @ 5600 MHz; Calibrated: 2024/3/21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2024/6/5
- Phantom: ELI; Type: QD OVA 002 AA; Serial: 1133
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

System Performance Check at 5600MHz/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 9.72 W/kg

System Performance Check at 5600MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 52.74 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 17.9 W/kg
SAR(1 g) = 3.96 W/kg; SAR(10 g) = 1.08 W/kg
Smallest distance from peaks to all points 3 dB below = 8.8 mm
Ratio of SAR at M2 to SAR at M1 = 59.4%
Maximum value of SAR (measured) = 10.2 W/kg



0 dB = 10.2 W/kg = 10.10 dBW/kg

Date: 2024/10/18

System Performance Check at 5800 MHz

DUT: D5GHzV2_SN1021

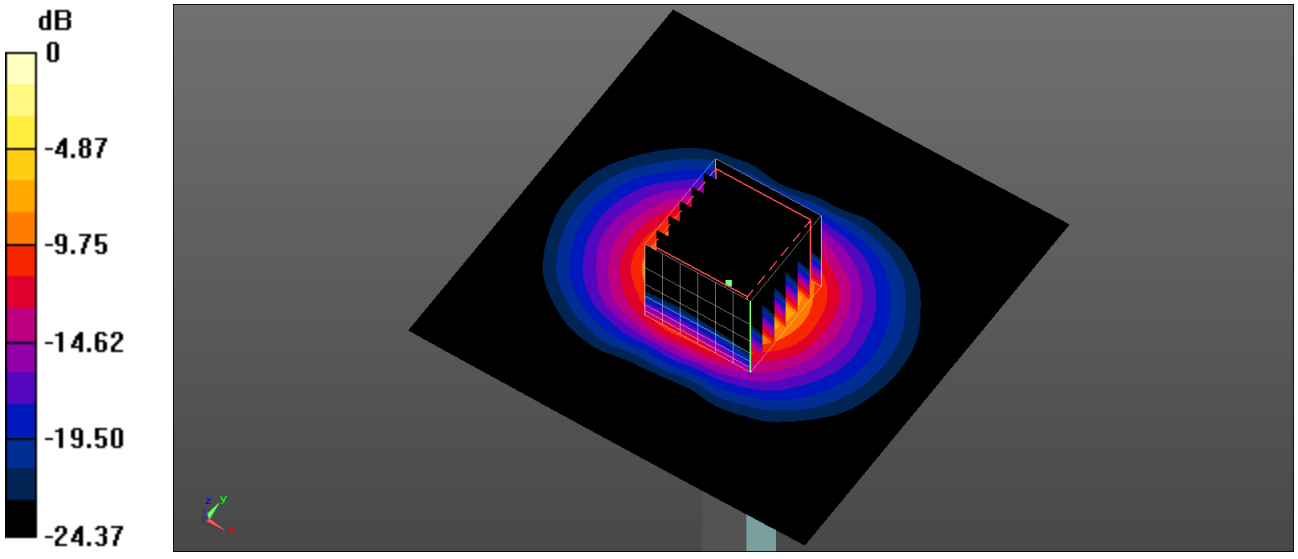
Communication System: UID 0, CW (0); Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 4.969 S/m; ε_r = 34.27; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(5.03, 4.62, 4.96) @ 5800 MHz; Calibrated: 2024/3/21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2024/6/5
- Phantom: ELI; Type: QD OVA 002 AA; Serial: 1133
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

System Performance Check at 5800MHz/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 9.63 W/kg

System Performance Check at 5800MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 55.06 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 18.9 W/kg
SAR(1 g) = 3.95 W/kg; SAR(10 g) = 1.07 W/kg
Smallest distance from peaks to all points 3 dB below = 8.5 mm
Ratio of SAR at M2 to SAR at M1 = 61.1%
Maximum value of SAR (measured) = 10.4 W/kg



0 dB = 10.4 W/kg = 10.17 dBW/kg

Test Date : 2024-10-21 | Ambient Temp : 22.8 °C | Tissue Temp : 22.0 °C

System Performance Check

System Performance Check at 6500 MHz

Verification Source Properties

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D6.5GHzV2	1016	20.0

Exposure Conditions

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat		6500.000	5.5	6.13	33.9

Hardware Setup

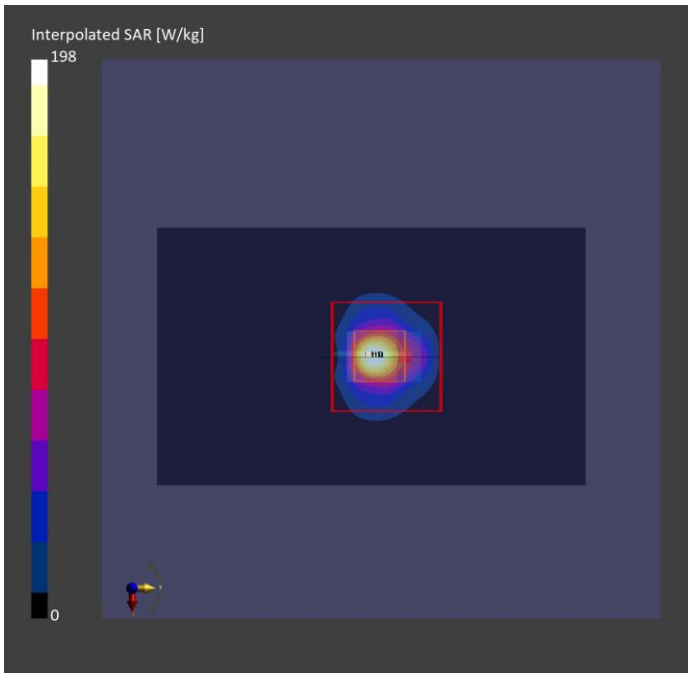
Phantom	Tissue Simulating Liquid	Probe | Calibration Date	DAE | Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HBBL-600-10000V6(51T72N2)	EX3DV4 - SN3847 / 2024-02-21	DAE4 Sn1253 / 2024-04-22

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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR-*1g* [W/kg]	25.2	**30.1**
psSAR-*8g* [W/kg]	6.21	**6.89**
psSAR-*10g* [W/kg]	5.10	**5.68**
psAPD (*1.0 cm²*, sq) [W/m²]		**301**
psAPD (*4.0 cm²*, sq) [W/m²]		**137**
Power Drift [dB]		0.12
TSL Correction	Positive only	Positive only



Test Date : 2024-10-22 | Ambient Temp : 22.8 °C

System Performance Check

System Performance Check at 10GHz

Verification Source Properties

Manufacturer	Model No.	Serial No.
SPEAG	D10G	2003

Exposure Conditions

Phantom Section	Group	Frequency [MHz]	Conversion Factor
5G	CW	10000.0	1.0

Hardware Setup

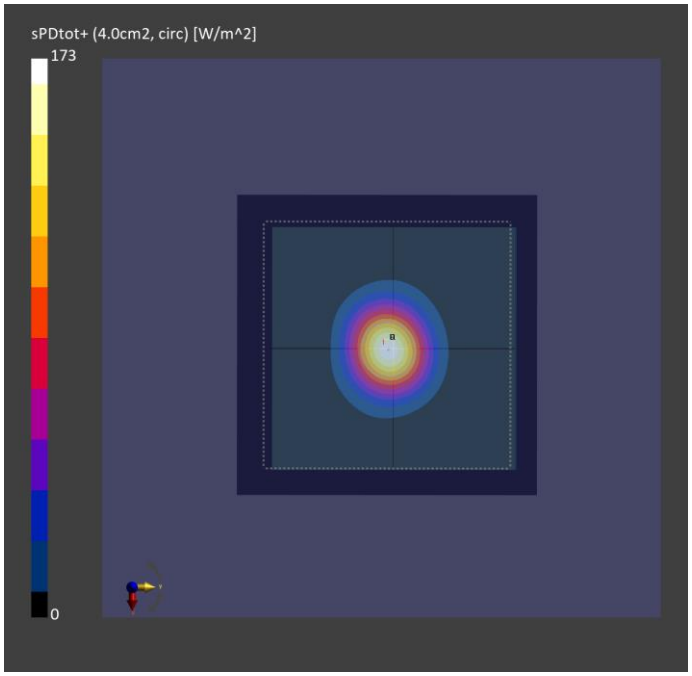
Phantom	Medium	Probe / Calibration Date	DAE / Calibration Date
mmWave - 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz / 2023-12-05	DAE4 Sn1253 / 2024-04-22

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [mm]	0.125 x 0.125
Sensor Surface [mm]	10.0

Measurement Results

	5G Scan
Avg. Area [cm²]	4.00
psPD n+ [W/m²]	**171**
psPD tot+ [W/m²]	**173**
psPD mod+ [W/m²]	179
E max [V/m]	299
Power Drift [dB]	0.01



Test Date : 2024-10-23 | Ambient Temp : 23.1 °C

System Performance Check

System Performance Check at 10GHz

Verification Source Properties

Manufacturer	Model No.	Serial No.
SPEAG	D10G	2003

Exposure Conditions

Phantom Section	Group	Frequency [MHz]	Conversion Factor
5G	CW	10000.0	1.0

Hardware Setup

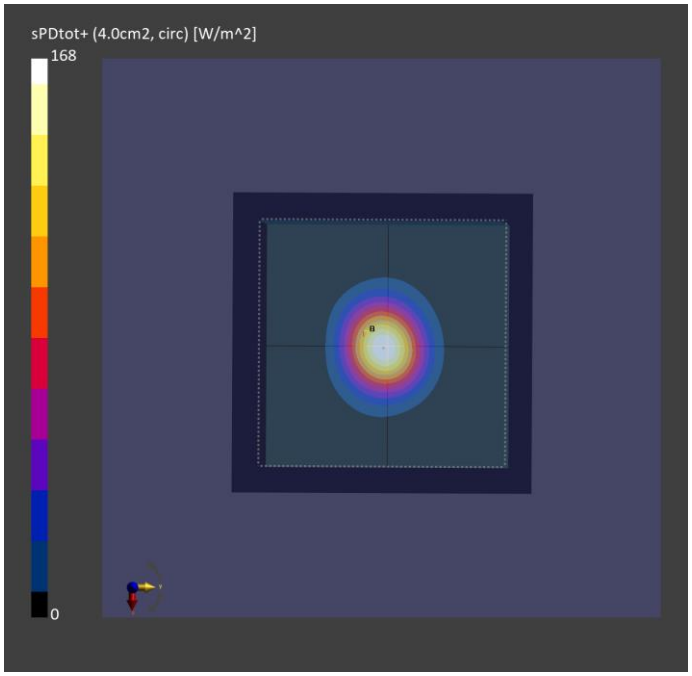
Phantom	Medium	Probe / Calibration Date	DAE / Calibration Date
mmWave - 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz / 2023-12-05	DAE4 Sn1253 / 2024-04-22

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [mm]	0.125 x 0.125
Sensor Surface [mm]	10.0

Measurement Results

	5G Scan
Avg. Area [cm²]	4.00
psPD n+ [W/m²]	**166**
psPD tot+ [W/m²]	**168**
psPD mod+ [W/m²]	172
E max [V/m]	289
Power Drift [dB]	0.05



Test Date : 2024-10-24 | Ambient Temp : 22.9 °C

System Performance Check

System Performance Check at 10GHz

Verification Source Properties

Manufacturer	Model No.	Serial No.
SPEAG	D10G	2003

Exposure Conditions

Phantom Section	Group	Frequency [MHz]	Conversion Factor
5G	CW	10000.0	1.0

Hardware Setup

Phantom	Medium	Probe / Calibration Date	DAE / Calibration Date
mmWave - 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz / 2023-12-05	DAE4 Sn1253 / 2024-04-22

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [mm]	0.125 x 0.125
Sensor Surface [mm]	10.0

Measurement Results

	5G Scan
Avg. Area [cm²]	4.00
psPD n+ [W/m²]	**167**
psPD tot+ [W/m²]	**171**
psPD mod+ [W/m²]	175
E max [V/m]	292
Power Drift [dB]	0.11