

Appendix A - System Verification

Test Laboratory: TUV Inc.

Date: 2024/3/20

System Check_HSL2450MHz

DUT: D2450V2 - SN735

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL2450_240320 Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 1.855$ S/m; $\epsilon_r =$

40.418 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C; Liquid Temperature : 22.1 °C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2023/4/25
- Probe: EX3DV4 - SN7400; ConvF(7.69, 7.69, 7.69) @ 2450 MHz; Calibrated: 2023/4/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -9.0, 31.0$
- Phantom: Right_Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: TP-1467
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Pin=250mW/Area Scan (8x8x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

Maximum value of SAR (measured) = 17.7 W/kg

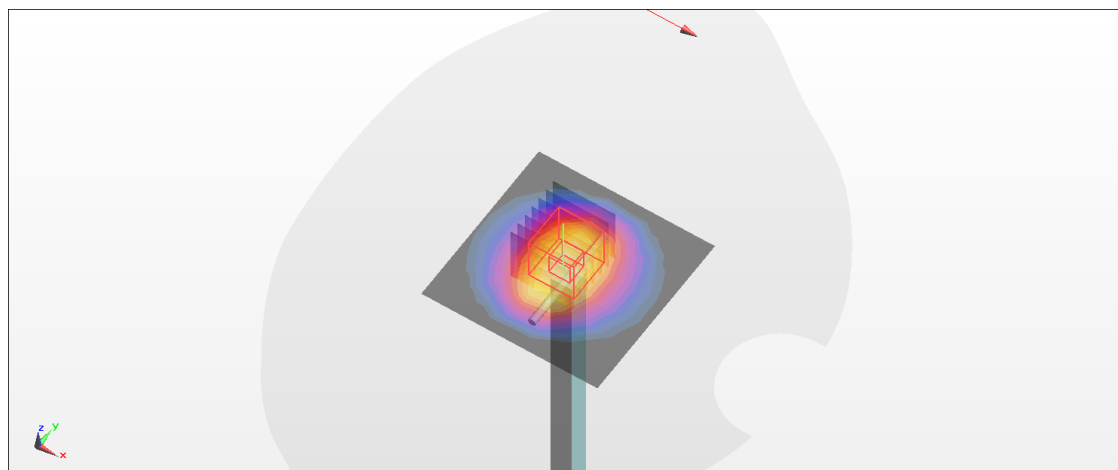
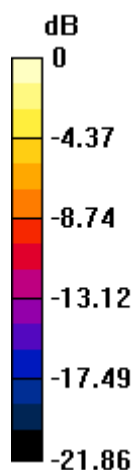
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 103.7 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 27.6 W/kg

SAR(1 g) = 13.2 W/kg; SAR(10 g) = 6.17 W/kg

Maximum value of SAR (measured) = 22.1 W/kg



0 dB = 22.1 W/kg = 13.44 dBW/kg

System Check_HSL5250MHz

DUT: D5GHzV2 - SN1145

Communication System: CW; Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: HSL5G_240413 Medium parameters used: $f = 5250$ MHz; $\sigma = 4.678$ S/m; $\epsilon_r = 36.711$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.7 °C; Liquid Temperature : 22.6°C

DASY Configuration:

- Electronics: DAE4 Sn917; Calibrated: 2024/3/11
- Probe: EX3DV4 - SN3804; ConvF(4.44, 4.44, 4.44) @ 5250 MHz; Calibrated: 2023/5/19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -9.0, 23.0$
- Phantom: Right_Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: TP-1467
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Pin=100mW/Area Scan (9x9x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 17.6 W/kg

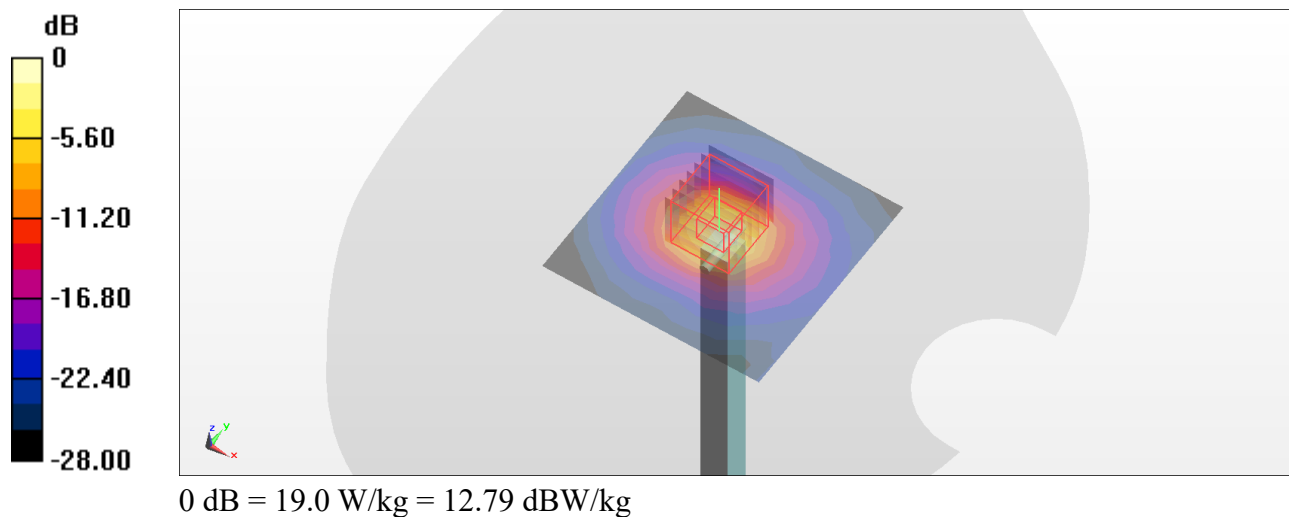
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 59.68 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 29.8 W/kg

SAR(1 g) = 7.52 W/kg; SAR(10 g) = 2.19 W/kg

Maximum value of SAR (measured) = 19.0 W/kg



System Check_HSL5600MHz

DUT: D5GHzV2 - SN1145

Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: HSL5G_240413 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.045$ S/m; $\epsilon_r = 36.26$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.7 °C; Liquid Temperature : 22.6°C

DASY Configuration:

- Electronics: DAE4 Sn917; Calibrated: 2024/3/11
- Probe: EX3DV4 - SN3804; ConvF(4.17, 4.17, 4.17) @ 5600 MHz; Calibrated: 2023/5/19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -9.0, 23.0$
- Phantom: Right_Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: TP-1467
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Pin=100mW/Area Scan (9x9x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 18.7 W/kg

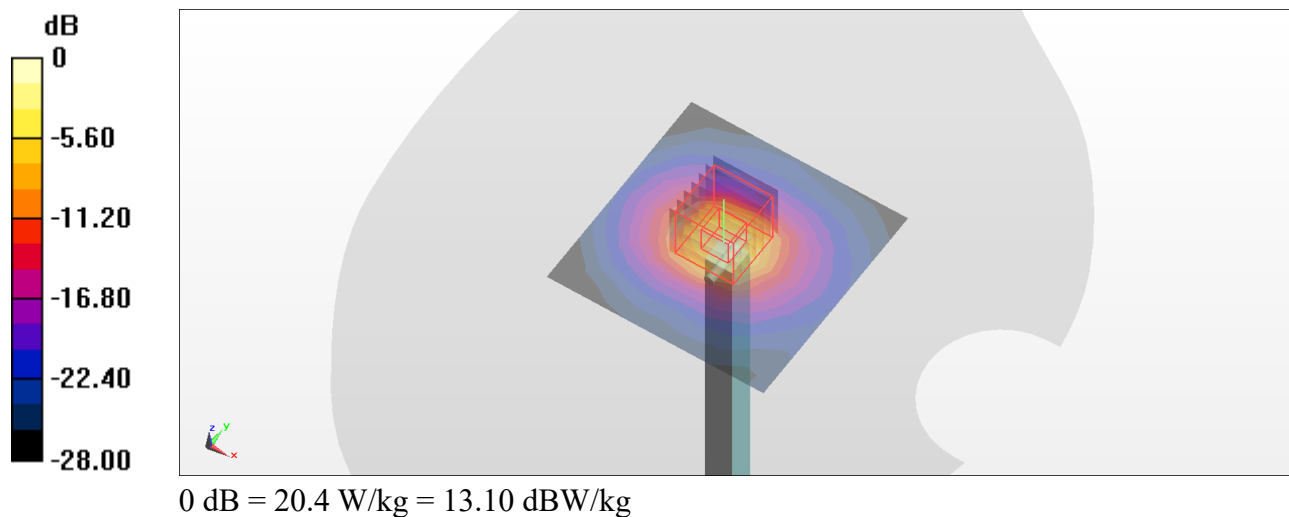
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 59.31 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 32.1 W/kg

SAR(1 g) = 8.08 W/kg; SAR(10 g) = 2.34 W/kg

Maximum value of SAR (measured) = 20.4 W/kg



System Check_HSL5750MHz

DUT: D5GHzV2 - SN1145

Communication System: CW; Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: HSL5G_240413 Medium parameters used: $f = 5750$ MHz; $\sigma = 5.208$ S/m; $\epsilon_r = 36.094$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.7 °C; Liquid Temperature : 22.6°C

DASY Configuration:

- Electronics: DAE4 Sn917; Calibrated: 2024/3/11
- Probe: EX3DV4 - SN3804; ConvF(4.34, 4.34, 4.34) @ 5750 MHz; Calibrated: 2023/5/19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -9.0, 23.0$
- Phantom: Right_Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: TP-1467
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Pin=100mW/Area Scan (9x9x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 18.4 W/kg

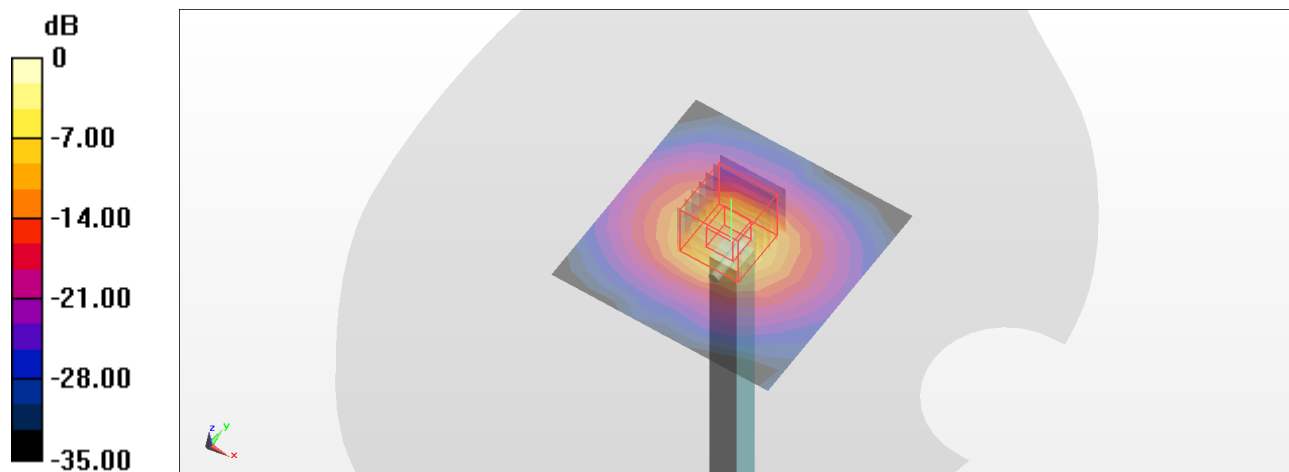
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 57.52 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 33.9 W/kg

SAR(1 g) = 7.54 W/kg; SAR(10 g) = 2.16 W/kg

Maximum value of SAR (measured) = 19.6 W/kg



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

Test Laboratory: TUV International Inc.

System Check_HSL6500_20240401

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
DeviceD6.5GHzV2	N/AN/AN/A x x , 16.0 x 6.0 x 300.0	SN: 1044	Phone, Dipole

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	5,		CW, 0--	6500.000, 0	5.3	5.54	30.8

Hardware Setup

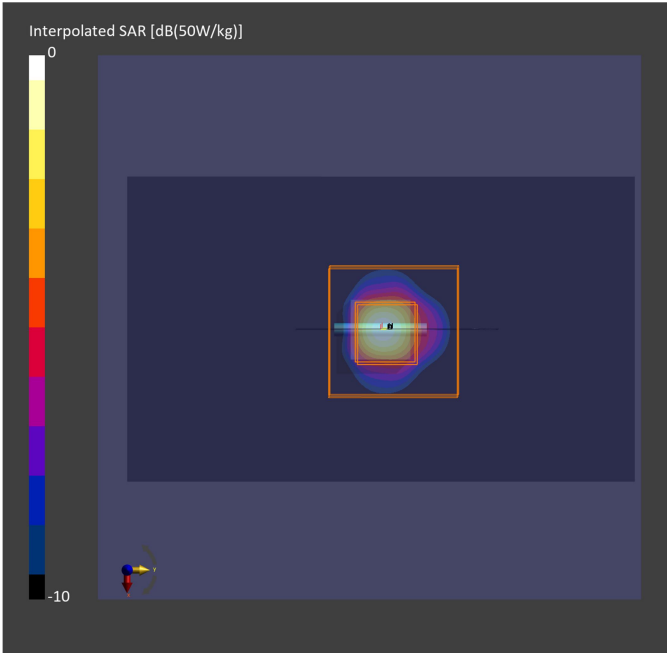
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V4.0 (30deg probe tilt) - 1467	HSL6500_20240401 , --	EX3DV4 - SN7400, 2023-04-28	DAE4 Sn855, 2023-04-25

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
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-04-01, 11:50	2024-04-01, 12:07
psSAR1g [W/kg]	23.9	27.9
psSAR10g [W/kg]	4.62	5.14
Power Drift [dB]	-0.00	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.8
Dist 3dB Peak [mm]		4.8



Test Laboratory: TUV International Inc.

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device ,10GHz	100.0 x 100.0 x 100.0	SN: 2013	Phone ,Verification Source

Exposure Conditions

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

Hardware Setup

Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 1089	---Air	EUmmWV4 - SN9599_F1-55GHz, 2023-04-19	DAE4 Sn855, 2023-04-25

Scan Setup

	5G Scan
Sensor Surface [mm]	10.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2024-03-25, 10:14
Avg. Area [cm ²]	4.00
psPDn+ [W/m ²]	151
psPDtot+ [W/m ²]	153
psPDmod+ [W/m ²]	157
E _{max} [V/m]	280
Power Drift [dB]	0.01

