

Appendix A - System Verification

Test Laboratory: TUV Inc.

Date: 2024/10/21

System Check_HSL750MHz

DUT: D750V3 - SN1199

Communication System: CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HSL750_241021 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.892 \text{ S/m}$; $\epsilon_r = 42.655$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.3 °C; Liquid Temperature : 22.4°C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(10.05, 10.05, 10.05) @ 750 MHz; Calibrated: 2024/4/25
- 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 (7x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 3.01 W/kg

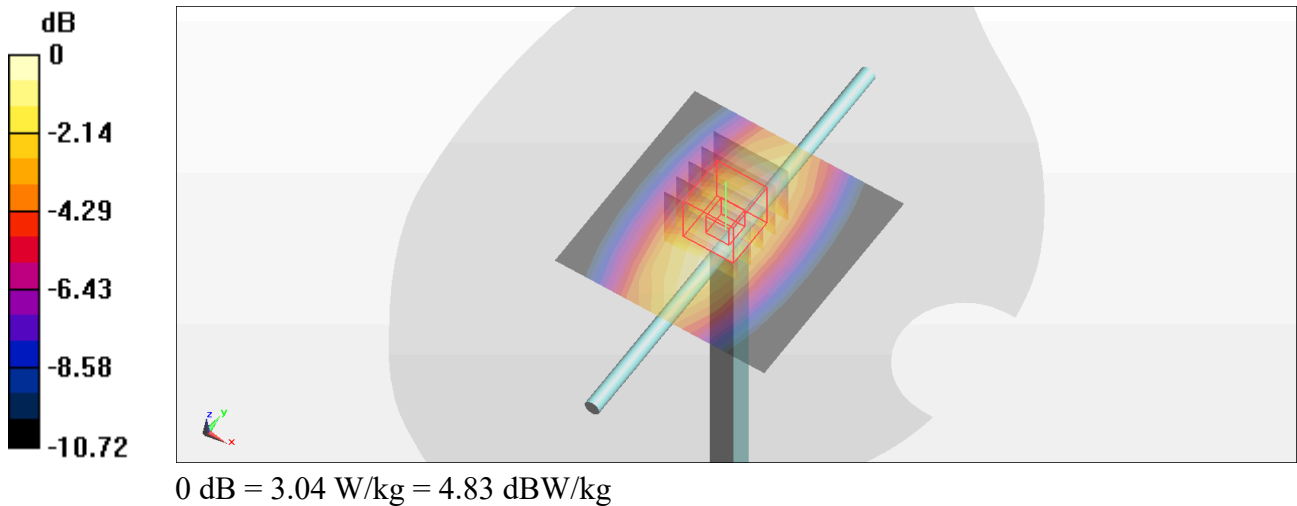
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 58.54 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.58 W/kg

SAR(1 g) = 2.19 W/kg; SAR(10 g) = 1.42 W/kg

Maximum value of SAR (measured) = 3.04 W/kg



System Check_HSL835MHz

DUT: D835V2 - SN4d058

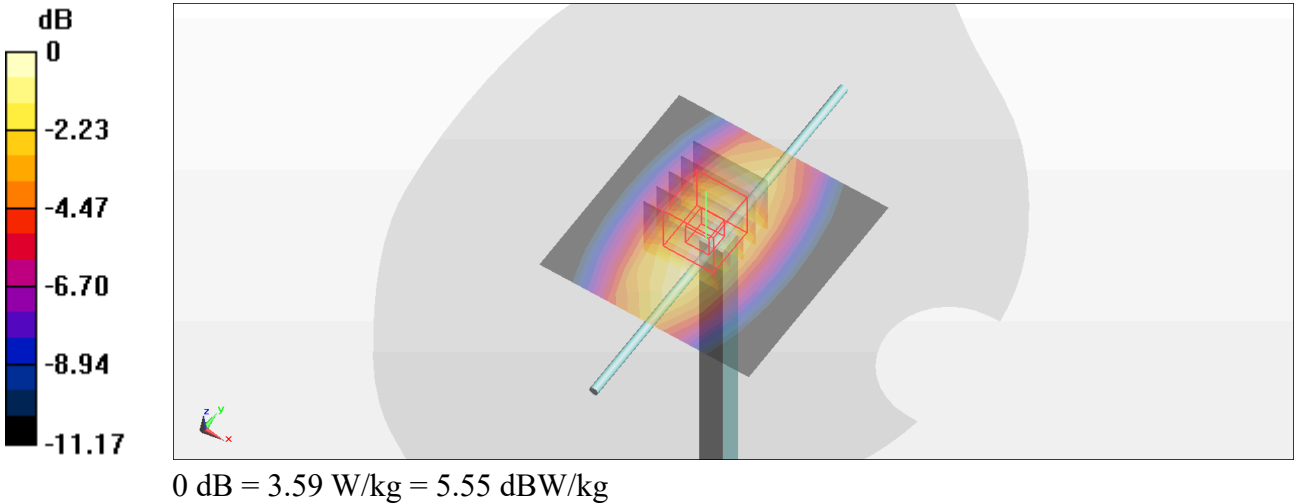
Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: HSL835_241021 Medium parameters used: $f = 835\text{ MHz}$; $\sigma = 0.918\text{ S/m}$; $\epsilon_r = 42.485$; $\rho = 1000\text{ kg/m}^3$
Ambient Temperature : 23.3 °C;Liquid Temperature : 22.4°C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(9.77, 9.77, 9.77) @ 835 MHz; Calibrated: 2024/4/25
- 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 (7x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 3.53 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 62.56 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 4.23 W/kg
SAR(1 g) = 2.56 W/kg; SAR(10 g) = 1.65 W/kg
Maximum value of SAR (measured) = 3.59 W/kg



System Check_HSL1800MHz

DUT: D1800V2 - SN2d156

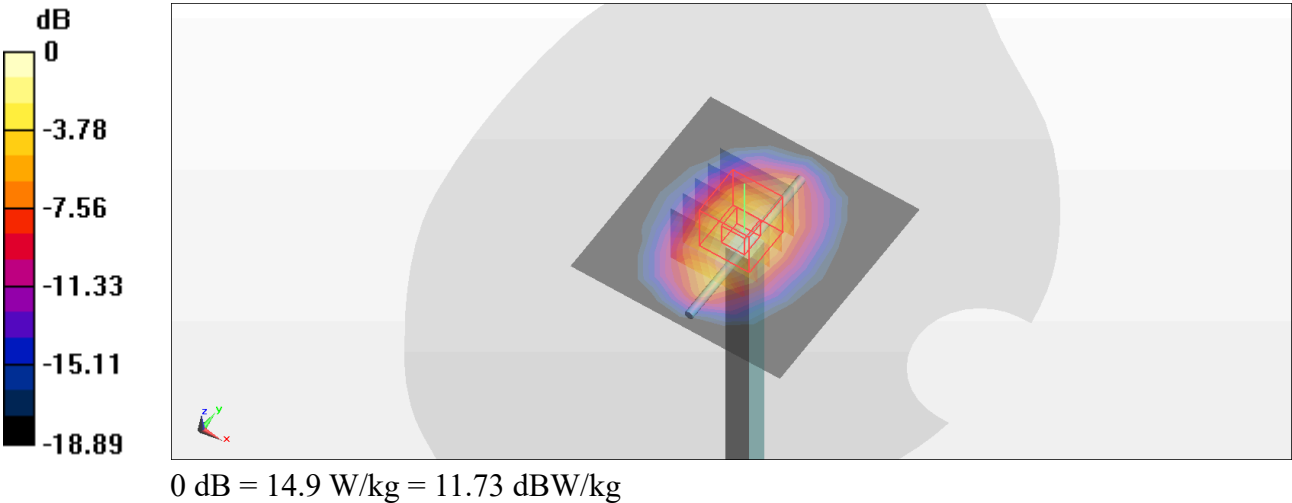
Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1
Medium: HSL1800_241023 Medium parameters used: $f = 1800\text{ MHz}$; $\sigma = 1.375\text{ S/m}$; $\epsilon_r = 40.817$; $\rho = 1000\text{ kg/m}^3$
Ambient Temperature : 23.4 °C;Liquid Temperature : 22.6°C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(8.68, 8.68, 8.68) @ 1800 MHz; Calibrated: 2024/4/25
- 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 (7x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 14.8 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 107.0 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 17.8 W/kg
SAR(1 g) = 9.56 W/kg; SAR(10 g) = 5.01 W/kg
Maximum value of SAR (measured) = 14.9 W/kg



System Check_HSL1800MHz

DUT: D1800V2 - SN2d156

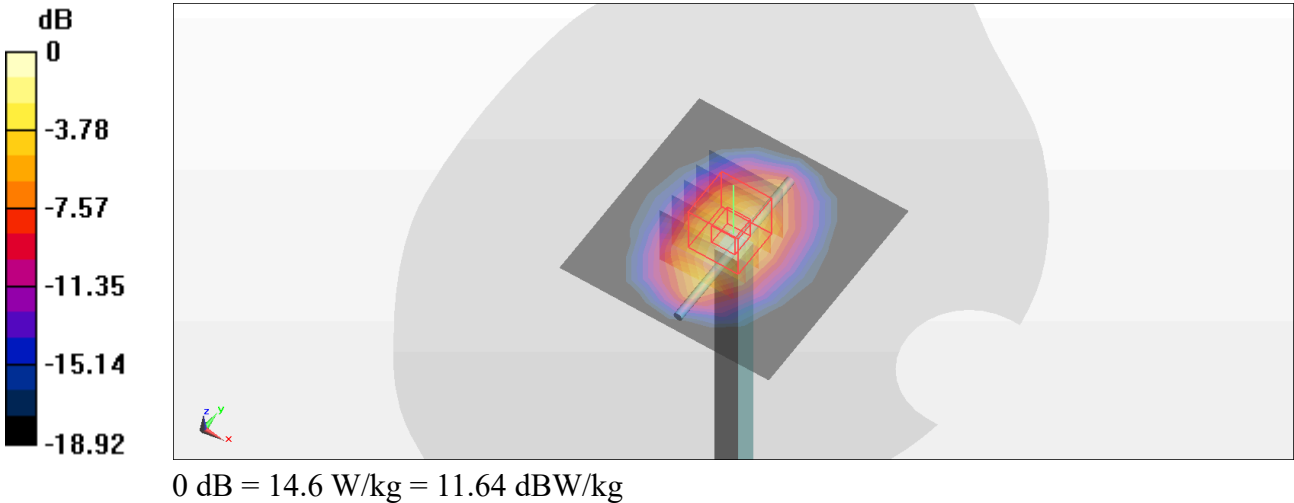
Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1
Medium: HSL1800_241024 Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.361 \text{ S/m}$; $\epsilon_r = 39.926$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature : 23.1 °C;Liquid Temperature : 22.2°C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(8.68, 8.68, 8.68) @ 1800 MHz; Calibrated: 2024/4/25
- 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 (7x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 15.0 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 111.0 V/m; Power Drift = -0.40 dB
Peak SAR (extrapolated) = 17.6 W/kg
SAR(1 g) = 9.39 W/kg; SAR(10 g) = 4.92 W/kg
Maximum value of SAR (measured) = 14.6 W/kg



System Check_HSL1900MHz

DUT: D1900V2 - SN5d090

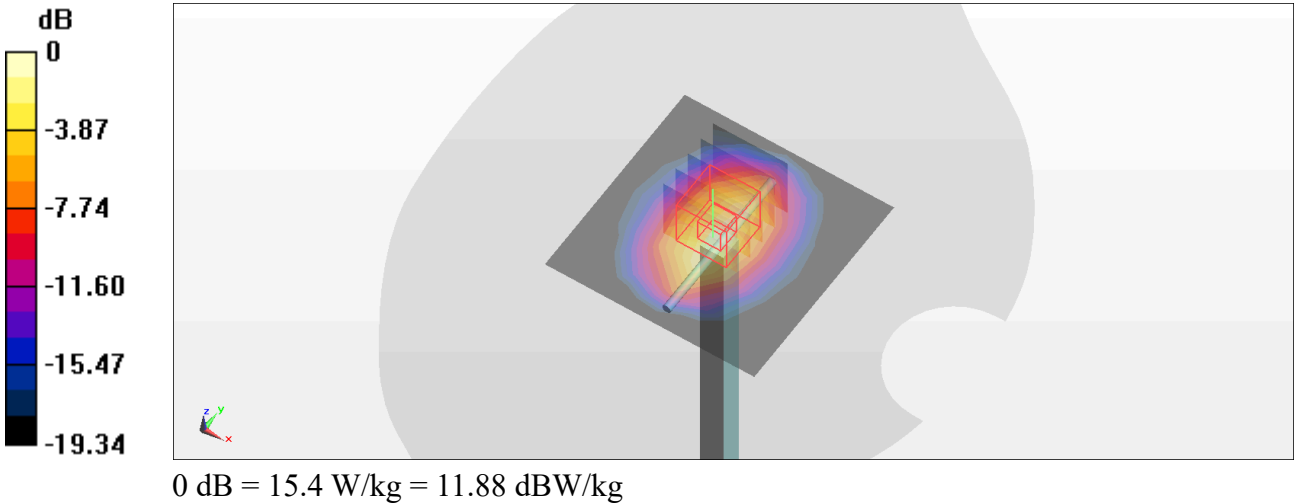
Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: HSL1900_241023 Medium parameters used: $f = 1900\text{ MHz}$; $\sigma = 1.407\text{ S/m}$; $\epsilon_r = 40.566$; $\rho = 1000\text{ kg/m}^3$
Ambient Temperature : 23.4 °C;Liquid Temperature : 22.6°C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(8.44, 8.44, 8.44) @ 1900 MHz; Calibrated: 2024/4/25
- 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 (7x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 15.5 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 108.7 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 18.5 W/kg
SAR(1 g) = 9.91 W/kg; SAR(10 g) = 5.13 W/kg
Maximum value of SAR (measured) = 15.4 W/kg



System Check_HSL1900MHz

DUT: D1900V2 - SN5d090

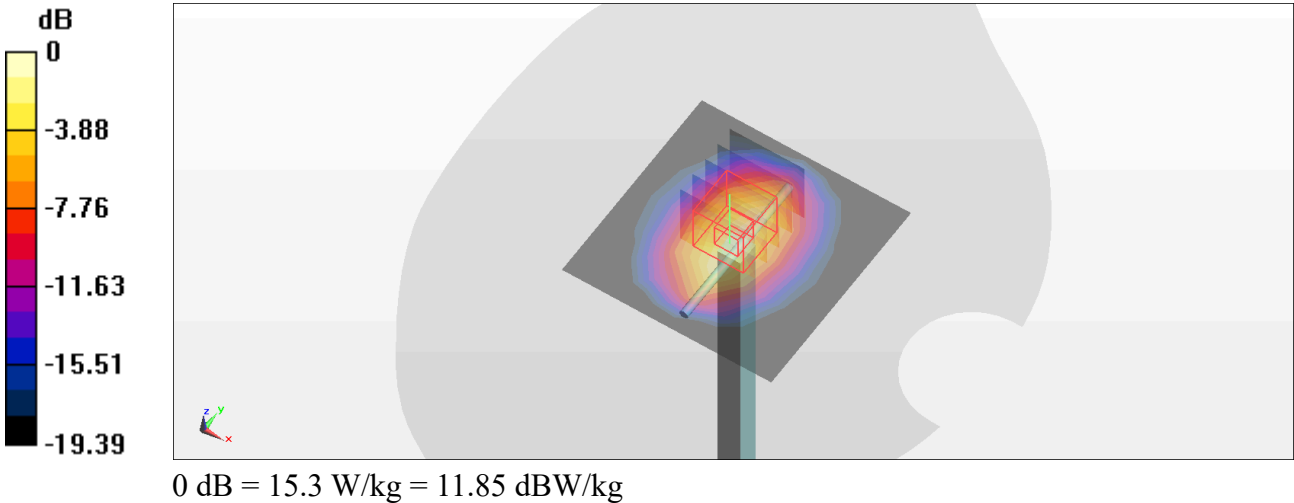
Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: HSL1900_241024 Medium parameters used: $f = 1900\text{ MHz}$; $\sigma = 1.421\text{ S/m}$; $\epsilon_r = 39.762$; $\rho = 1000\text{ kg/m}^3$
Ambient Temperature : 23.1 °C;Liquid Temperature : 22.2°C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(8.44, 8.44, 8.44) @ 1900 MHz; Calibrated: 2024/4/25
- 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 (7x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 15.8 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 113.9 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 18.4 W/kg
SAR(1 g) = 9.82 W/kg; SAR(10 g) = 5.08 W/kg
Maximum value of SAR (measured) = 15.3 W/kg



System Check_HSL2300MHz

DUT: D2300V2 - SN1108

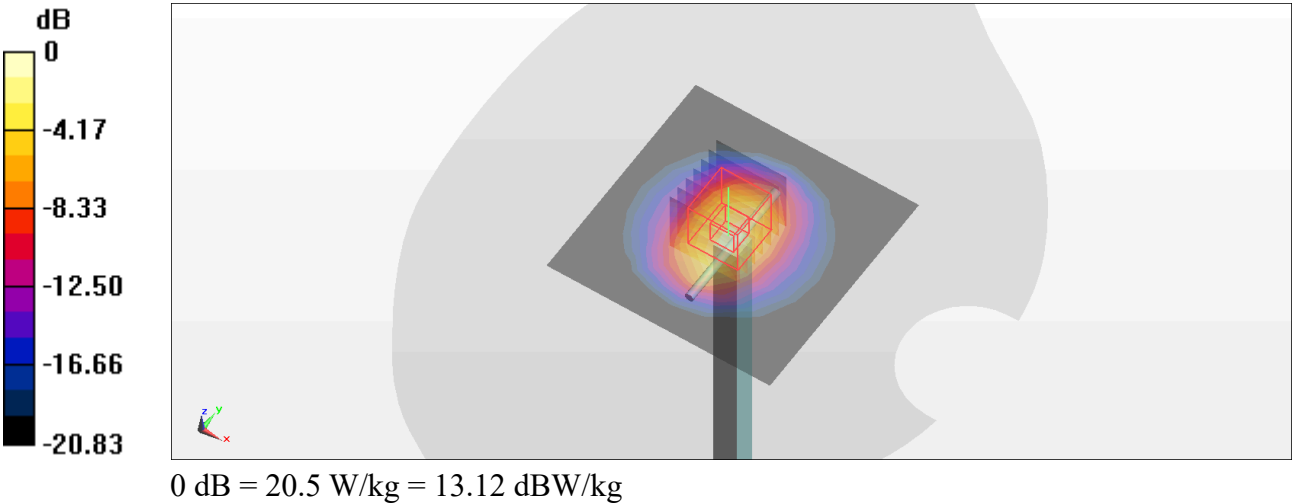
Communication System: CW; Frequency: 2300 MHz; Duty Cycle: 1:1
Medium: HSL2300_241023 Medium parameters used: $f = 2300 \text{ MHz}$; $\sigma = 1.713 \text{ S/m}$; $\epsilon_r = 40.26$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature : 23.4 °C;Liquid Temperature : 22.6°C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(7.83, 7.83, 7.83) @ 2300 MHz; Calibrated: 2024/4/25
- 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 (9x9x1): Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$
Maximum value of SAR (measured) = 20.5 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 105.6 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 25.1 W/kg
SAR(1 g) = 12.5 W/kg; SAR(10 g) = 5.97 W/kg
Maximum value of SAR (measured) = 20.5 W/kg



System Check_HSL2300MHz

DUT: D2300V2 - SN1108

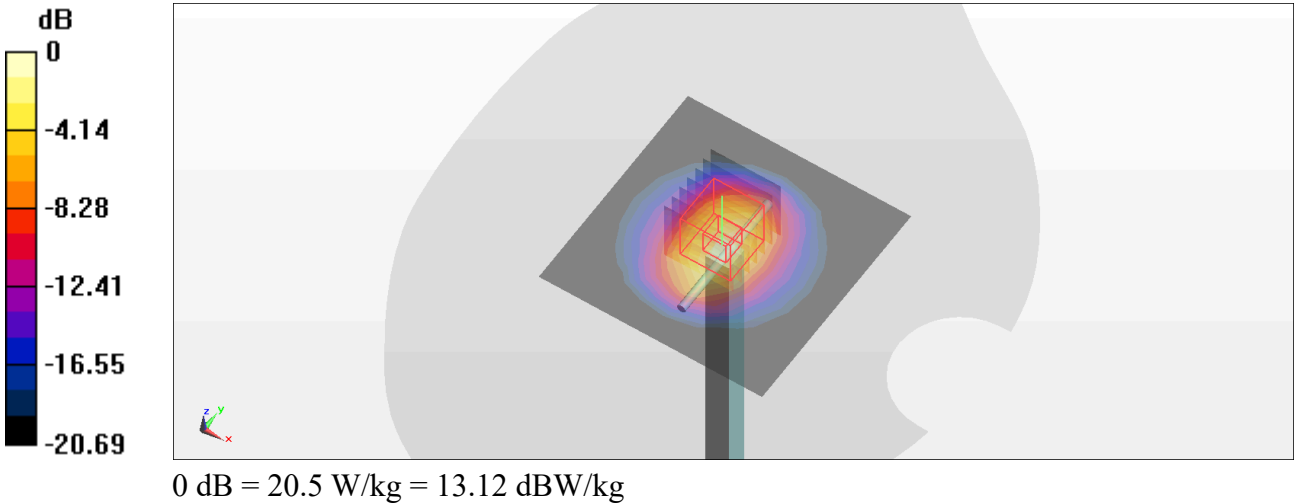
Communication System: CW; Frequency: 2300 MHz; Duty Cycle: 1:1
Medium: HSL2300_241024 Medium parameters used: $f = 2300\text{ MHz}$; $\sigma = 1.677\text{ S/m}$; $\epsilon_r = 39.98$; $\rho = 1000\text{ kg/m}^3$
Ambient Temperature : 23.1 °C;Liquid Temperature : 22.2°C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(7.83, 7.83, 7.83) @ 2300 MHz; Calibrated: 2024/4/25
- 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 (9x9x1): Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$
Maximum value of SAR (measured) = 20.4 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 110.4 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 25.0 W/kg
SAR(1 g) = 12.4 W/kg; SAR(10 g) = 5.96 W/kg
Maximum value of SAR (measured) = 20.5 W/kg



System Check_HSL3500MHz

DUT: D3500V2 - SN1105

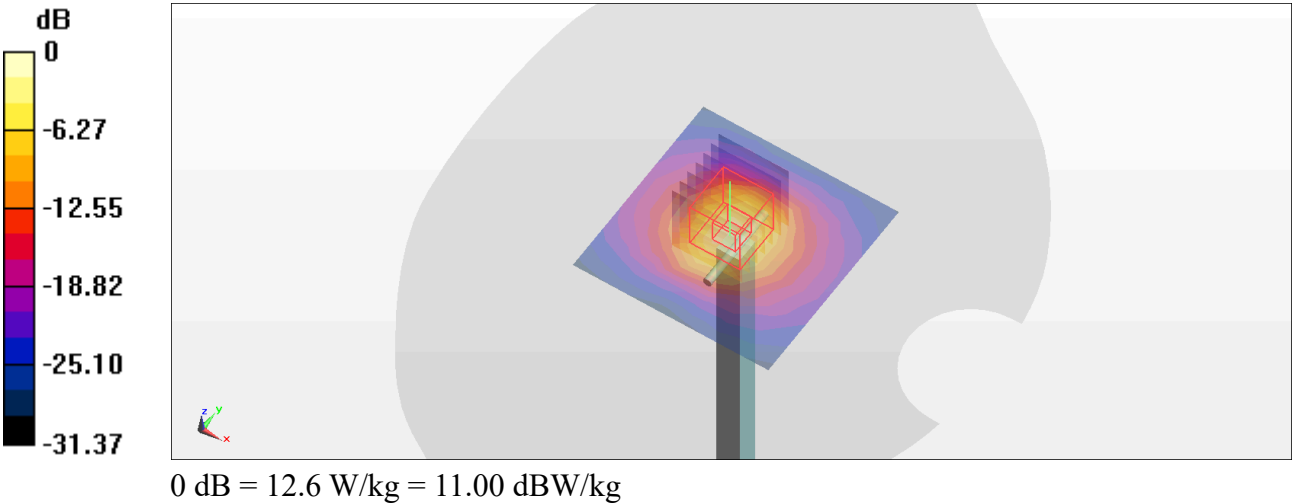
Communication System: CW; Frequency: 3500 MHz; Duty Cycle: 1:1
Medium: HSL3500_241026 Medium parameters used: $f = 3500 \text{ MHz}$; $\sigma = 2.827 \text{ S/m}$; $\epsilon_r = 37.861$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature : 23.5 °C; Liquid Temperature : 22.3 °C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(7.05, 7.05, 7.05) @ 3500 MHz; Calibrated: 2024/4/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -9.0, 29.0$
- 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 (8x8x1): Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$
Maximum value of SAR (measured) = 9.37 W/kg

Pin=100mW/Zoom Scan (7x7x8)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=1.4\text{mm}$
Reference Value = 68.91 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 17.2 W/kg
SAR(1 g) = 6.5 W/kg; SAR(10 g) = 2.48 W/kg
Maximum value of SAR (measured) = 12.6 W/kg



System Check_HSL3700MHz

DUT: D3700V2 - SN1077

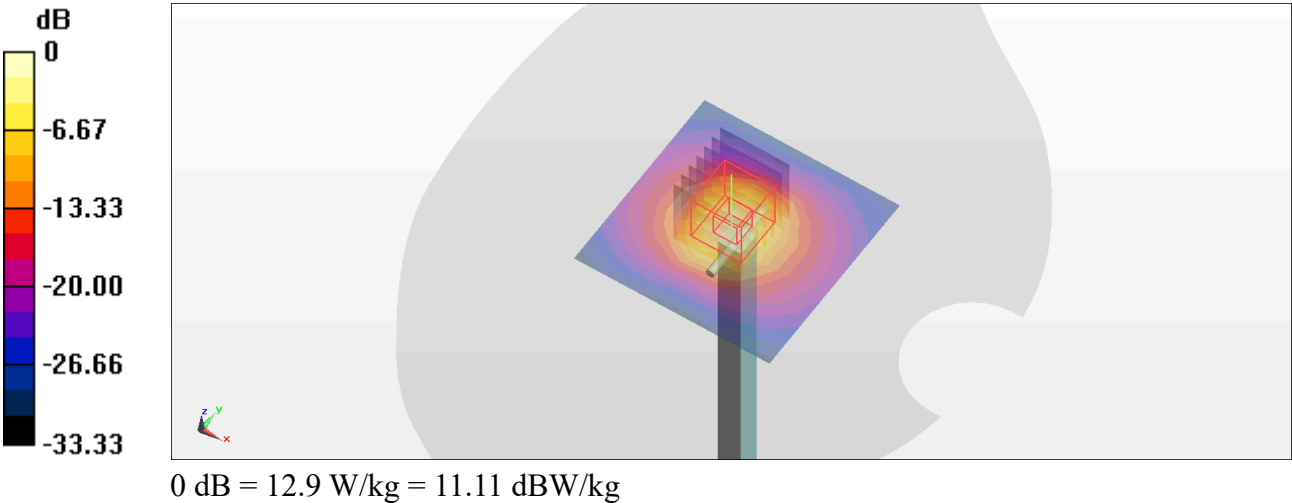
Communication System: CW; Frequency: 3700 MHz; Duty Cycle: 1:1
Medium: HSL3700_241026 Medium parameters used: $f = 3700 \text{ MHz}$; $\sigma = 3.001 \text{ S/m}$; $\epsilon_r = 37.52$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature : 23.5 °C;Liquid Temperature : 22.3°C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(6.84, 6.84, 6.84) @ 3700 MHz; Calibrated: 2024/4/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -9.0, 29.0$
- 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 (8x8x1): Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$
Maximum value of SAR (measured) = 9.34 W/kg

Pin=100mW/Zoom Scan (7x7x8)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=1.4\text{mm}$
Reference Value = 67.82 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 17.7 W/kg
SAR(1 g) = 6.43 W/kg; SAR(10 g) = 2.39 W/kg
Maximum value of SAR (measured) = 12.9 W/kg



System Check_HSL3900MHz

DUT: D3900V2 - SN1049

Communication System: CW; Frequency: 3900 MHz; Duty Cycle: 1:1
Medium: HSL3900_241026 Medium parameters used: $f = 3900\text{ MHz}$; $\sigma = 3.191\text{ S/m}$; $\epsilon_r = 37.236$; $\rho = 1000\text{ kg/m}^3$
Ambient Temperature : 23.5 °C;Liquid Temperature : 22.3°C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(6.81, 6.81, 6.81) @ 3900 MHz; Calibrated: 2024/4/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -9.0, 29.0$
- 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 (8x8x1): Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$
Maximum value of SAR (measured) = 9.48 W/kg

Pin=100mW/Zoom Scan (7x7x8)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=1.4\text{mm}$
Reference Value = 69.23 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 19.6 W/kg
SAR(1 g) = 6.76 W/kg; SAR(10 g) = 2.39 W/kg
Maximum value of SAR (measured) = 13.9 W/kg

