

Test Laboratory: BTL Inc.

Date: 2023/12/18

System Check_H2450_1218

DUT: Dipole 2450 MHz D2450V2;SN:919;

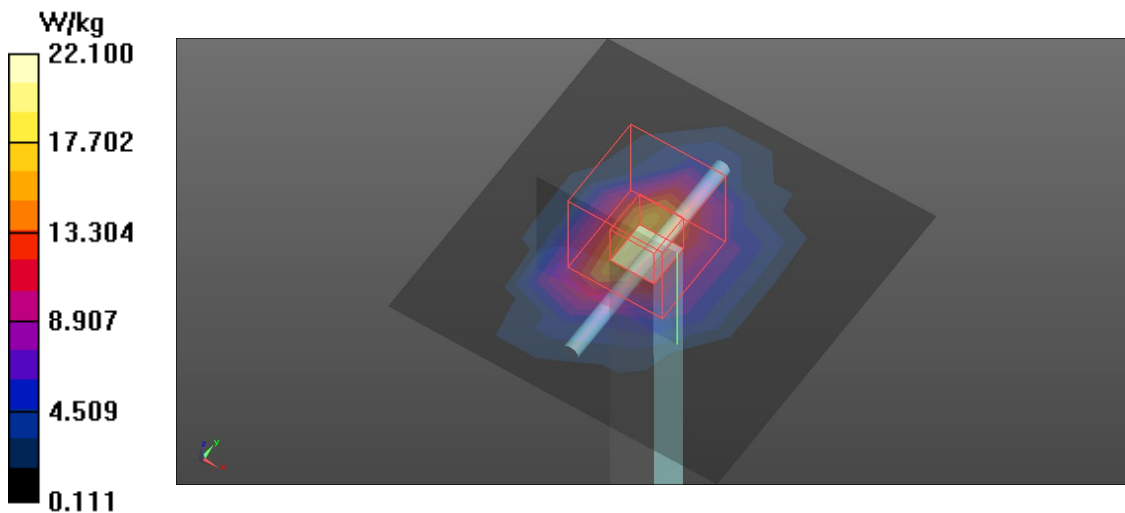
Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
Medium parameters used : $f = 2450$ MHz; $\sigma = 1.845$ S/m; $\epsilon_r = 39.737$; $\rho = 1000$ kg/m³
Ambient Temperature : 22.5 °C; Liquid Temperature : 22.3 °C

DASY Configuration:

- Probe:EX3DV4-SN7693;ConvF(8.32,8.32, 8.32) @ 2450 MHz; Calibrated: 2023/10/31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1717; Calibrated: 2023/4/10
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: TP:1222
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (8x8x1): Measurement grid: $dx=12$ mm, $dy=12$ mm
Maximum value of SAR (measured) = 17.4 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 108.2 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 27.1 W/kg
SAR(1 g) = 13.1 W/kg; SAR(10 g) = 6.09 W/kg
Maximum value of SAR (measured) = 22.1 W/kg



Test Laboratory: BTL Inc.

Date: 2023/12/19

System Check_H5250_1219

DUT: Dipole D5GHzV2;SN:1160;

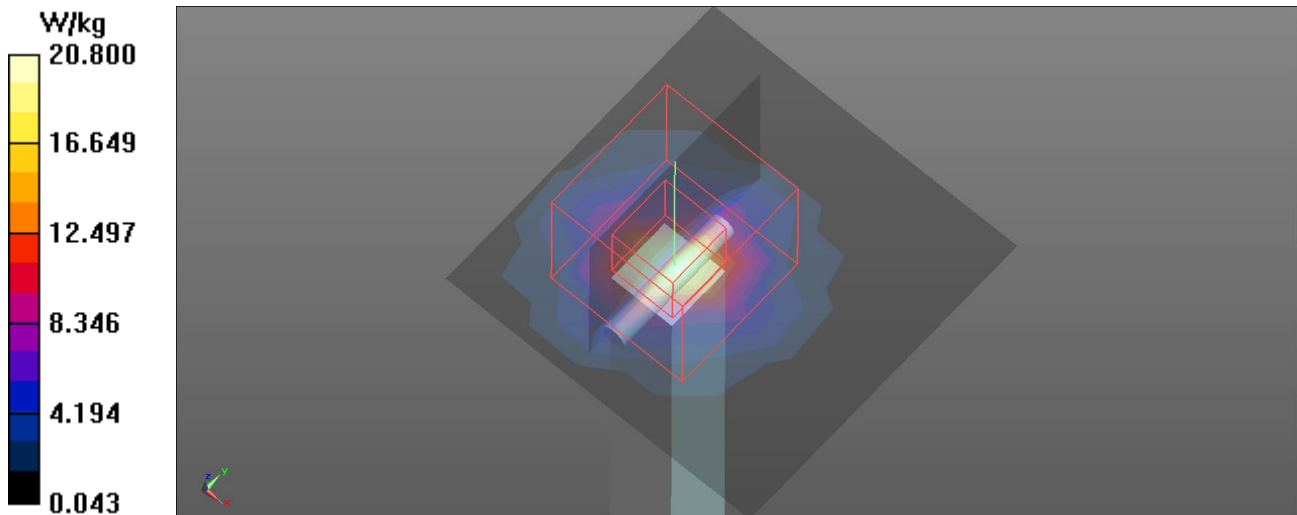
Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1
Medium parameters used : $f = 5250$ MHz; $\sigma = 4.763$ S/m; $\epsilon_r = 36.373$; $\rho = 1000$ kg/m³
Ambient Temperature : 22.7 °C; Liquid Temperature : 22.2 °C

DASY Configuration:

- Probe:EX3DV4-SN7544; ConvF(5.35, 5.35, 5.35) @ 5250 MHz; Calibrated: 2023/2/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1423; Calibrated: 2023/3/17
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (6x6x1): Measurement grid: $dx=10$ mm, $dy=10$ mm
Maximum value of SAR (measured) = 20.8 W/kg

Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm
Reference Value = 51.38 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 36.4 W/kg
SAR(1 g) = 7.82 W/kg; SAR(10 g) = 2.22 W/kg
Maximum value of SAR (measured) = 21.1 W/kg



Test Laboratory: BTL Inc.

Date: 2023/12/19

System Check_H5600_1219

DUT: Dipole D5GHzV2;SN:1160;

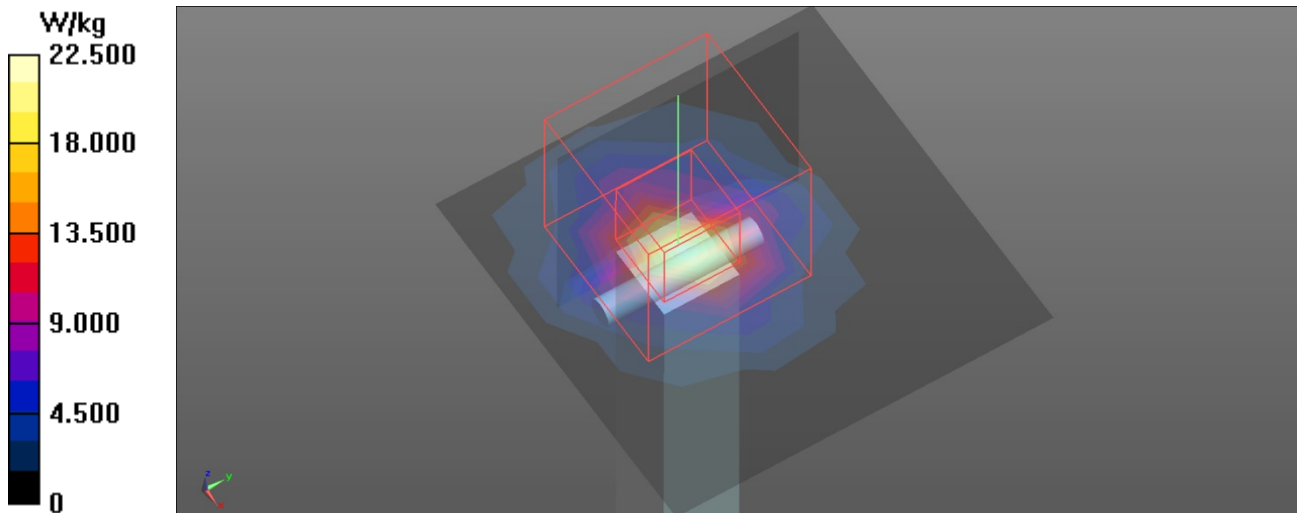
Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5600$ MHz; $\sigma = 5.173$ S/m; $\epsilon_r = 35.555$; $\rho = 1000$ kg/m³
Ambient Temperature : 22.7 °C; Liquid Temperature : 22.2 °C

DASY Configuration:

- Probe: EX3DV4 - SN7544; ConvF(4.8, 4.8, 4.8) @ 5600 MHz; Calibrated: 2023/2/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1423; Calibrated: 2023/3/17
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (6x6x1): Measurement grid: $dx=10$ mm, $dy=10$ mm
Maximum value of SAR (measured) = 22.1 W/kg

Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm
Reference Value = 51.43 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 41.2 W/kg
SAR(1 g) = 8.15 W/kg; SAR(10 g) = 2.28 W/kg
Maximum value of SAR (measured) = 22.5 W/kg



Test Laboratory: BTL Inc.

Date: 2023/12/19

System Check_H5750_1219

DUT: Dipole D5GHzV2;SN:1160;

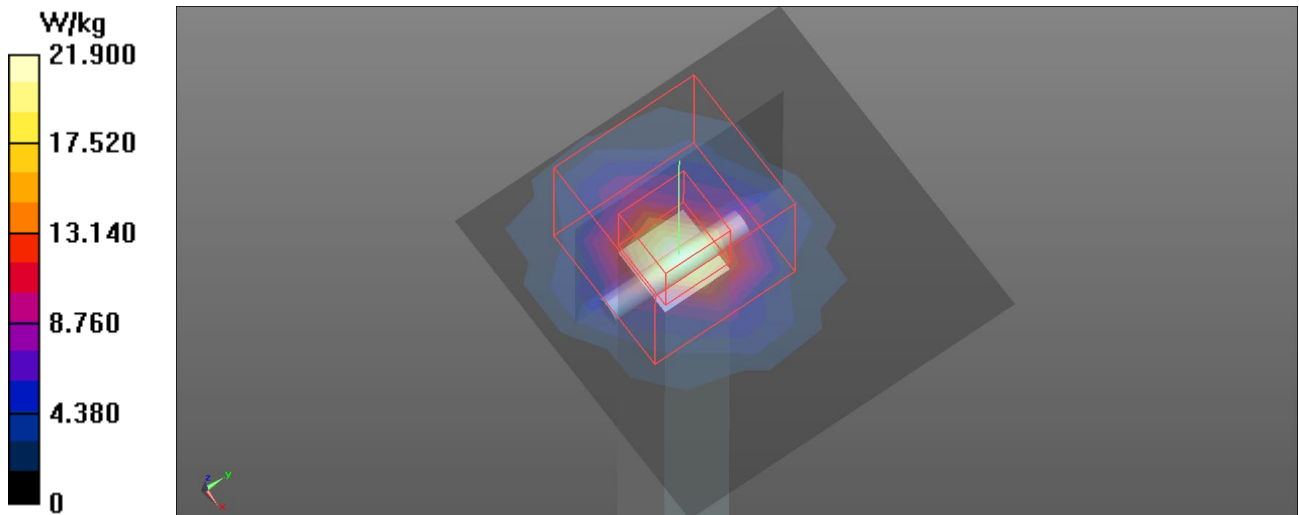
Communication System: UID 0, CW (0); Frequency: 5750 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5750$ MHz; $\sigma = 5.363$ S/m; $\epsilon_r = 35.226$; $\rho = 1000$ kg/m³
Ambient Temperature : 22.7 °C; Liquid Temperature : 22.2 °C

DASY Configuration:

- Probe: EX3DV4-SN7544;ConvF(4.87, 4.87, 4.87) @ 5750 MHz; Calibrated: 2023/2/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1423; Calibrated: 2023/3/17
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (6x6x1): Measurement grid: $dx=10$ mm, $dy=10$ mm
Maximum value of SAR (measured) = 21.9 W/kg

-Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm
Reference Value = 50.32 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 41.6 W/kg
SAR(1 g) = 7.95 W/kg; SAR(10 g) = 2.23 W/kg
Maximum value of SAR (measured) = 21.9 W/kg



Test Laboratory: BTL Inc.

Date: 2023/12/19

System Check_H5800_1219

DUT: Dipole D5GHzV2;SN:1160;

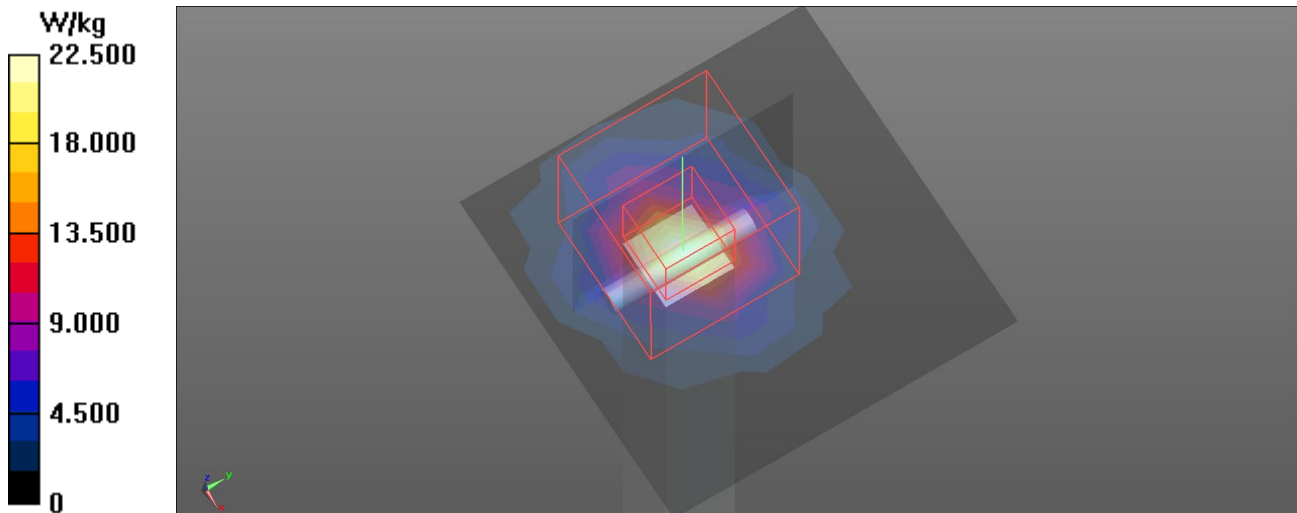
Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5800$ MHz; $\sigma = 5.415$ S/m; $\epsilon_r = 35.096$; $\rho = 1000$ kg/m³
Ambient Temperature : 22.7 °C; Liquid Temperature : 22.2 °C

DASY Configuration:

- Probe:EX3DV4 SN7544;ConvF(4.87, 4.87, 4.87) @ 5800 MHz; Calibrated: 2023/2/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1423; Calibrated: 2023/3/17
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (6x6x1): Measurement grid: $dx=10$ mm, $dy=10$ mm
Maximum value of SAR (measured) = 22.1 W/kg

Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm
Reference Value = 50.97 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 43.3 W/kg
SAR(1 g) = 8.11 W/kg; SAR(10 g) = 2.28 W/kg
Maximum value of SAR (measured) = 22.5 W/kg



Measurement Report for Device, , , UID 0 -, Channel 0 (6500.0MHz)

Device under Test Properties

| | | | |
|---------------------------------------|---|-------------|---------------------------|
| Model, Manufacturer Device, | Dimensions [mm] 50.0 x 10.0 x 8.0 | IMEI | DUT Type 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 | , | | , 0-- | 6500.0, 0 | 5.8 | 5.91 | 33.4 |

Hardware Setup

| | | | |
|---|---|---|---|
| Phantom Twin-SAM V8.0 (30deg probe tilt) - 2081 | TSL, Measured Date HBBL-695-10000 | Probe, Calibration Date EX3DV4 - SN7693, 2023-10-31 | DAE, Calibration Date DAE4 Sn1423, 2023-03-17 |
|---|---|---|---|

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 | Yes | Yes |
| Grading Ratio | 1.5 | 1.4 |
| MAIA | N/A | N/A |
| Surface Detection Scan Method | VMS + 6p Measured | VMS + 6p Measured |

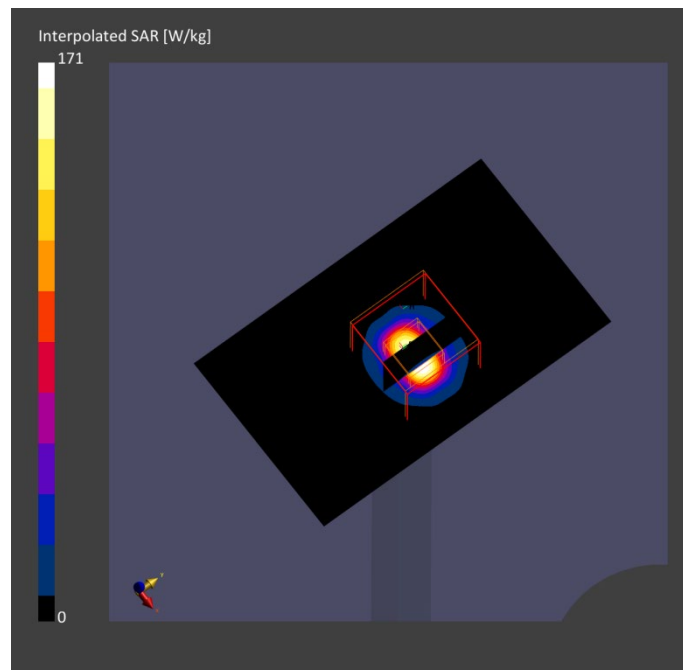
Measurement Results

| | Area Scan | Zoom Scan |
|---------------------|---------------|---------------|
| Date | 2023-12-18 | 2023-12-18 |
| psSAR1g [W/kg] | 21.6 | 28.3 |
| psSAR10g [W/kg] | 4.77 | 5.40 |
| Power Drift [dB] | -0.01 | 0.00 |
| Power Scaling | Disabled | Disabled |
| Scaling Factor | | |
| TSL Correction [dB] | No correction | No correction |
| M2/M1 [%] | | 51.4 |
| Dist 3dB Peak [mm] | | 4.4 |

Warning(s) / Error(s)

Details Area Scan
Warning(s)
Error(s)

Zoom Scan



Measurement Report for Device, FRONT, Validation band, UID 0 -, Channel 10000 (10000.0MHz)

Device under Test Properties

| | | | |
|--|---|-------------|--|
| Model, Manufacturer 1041, Device | Dimensions [mm] 100.0 x 100.0 x 172.0 | IMEI | DUT Type 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 mmWave- xxxx | Medium --Air | Probe, Calibration Date EUmmWV4 - SN9626_F1-55GHz, 2023-05-17 | DAE, Calibration Date DAE4 Sn1423, 2023-03-17 |
|--------------------------------|------------------------|---|---|

Scan Setup

| | 5G Scan | |
|---------------------|---------|-------|
| Grid Extents [mm] | 60.0 x | 60.0 |
| Grid Steps [lambda] | 0.125 x | 0.125 |
| Sensor Surface [mm] | | 10.0 |
| MAIA | | Y |

Measurement Results

| | 5G Scan |
|------------------------------|------------|
| Date | 2023-12-18 |
| Avg. Area [cm ²] | 4.00 |
| psPDn+ [W/m ²] | 43.5 |
| psPDtot+ [W/m ²] | 48.0 |
| psPDmod+ [W/m ²] | 48.4 |
| E _{max} [V/m] | 152 |
| Power Drift [dB] | 0.03 |

Warning(s) / Error(s)

Details 5G Scan
Warning(s)
Error(s)

