

Validation Report for Head TSL of 5.5GHz

Validation Report for Head TSL of 5.6GHz

Test Laboratory: BTL Inc. Date: 2019/12/04

Test Laboratory: BTL Inc. Date: 2019/12/04

System Check_H5500_1204

System Check_H5600_1204

DUT: Dipole D5GHzV2;

DUT: Dipole D5GHzV2;

Communication System: UID 0, CW (0); Frequency: 5500 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5500$ MHz; $\sigma = 5.089$ S/m; $\epsilon_r = 34.996$; $\rho = 1000$ kg/m³
 Ambient Temperature : 23.2 °C; Liquid Temperature : 22.3 °C

Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.212$ S/m; $\epsilon_r = 34.691$; $\rho = 1000$ kg/m³
 Ambient Temperature : 23.2 °C; Liquid Temperature : 22.3 °C

DASY Configuration:

DASY Configuration:

- Probe: EX3DV4 - SN7544; ConvF(4.95, 4.95, 4.95) @ 5500 MHz; Calibrated: 2019/9/9
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1390; Calibrated: 2019/10/29
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1222
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

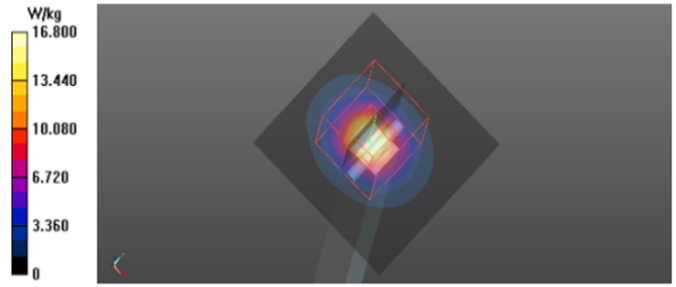
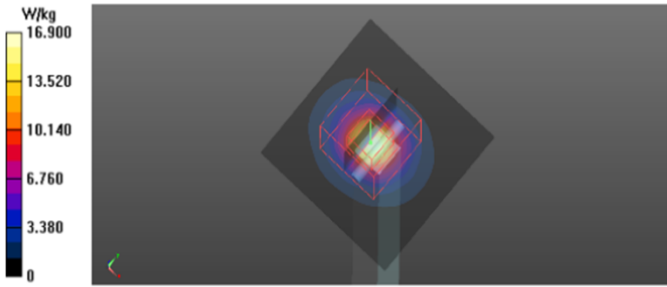
- Probe: EX3DV4 - SN7544; ConvF(4.81, 4.81, 4.81) @ 5600 MHz; Calibrated: 2019/9/9
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1390; Calibrated: 2019/10/29
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1222
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (6x6x1): Interpolated grid: $dx=10$ mm, $dy=10$ mm
 Maximum value of SAR (interpolated) = 16.9 W/kg

Area Scan (6x6x1): Interpolated grid: $dx=10$ mm, $dy=10$ mm
 Maximum value of SAR (interpolated) = 17.4 W/kg

Zoom Scan (7x7x6)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm
 Reference Value = 58.79 V/m; Power Drift = 0.04 dB
 Peak SAR (extrapolated) = 37.2 W/kg
SAR(1 g) = 7.79 W/kg; SAR(10 g) = 2.21 W/kg
 Maximum value of SAR (measured) = 16.9 W/kg

Zoom Scan (7x7x6)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm
 Reference Value = 58.21 V/m; Power Drift = 0.08 dB
 Peak SAR (extrapolated) = 38.4 W/kg
SAR(1 g) = 7.82 W/kg; SAR(10 g) = 2.19 W/kg
 Maximum value of SAR (measured) = 16.8 W/kg



Validation Report for Head TSL of 5.8GHz

Validation Report for Body TSL of 5.2GHz

Test Laboratory: BTL Inc. Date: 2019/12/04

Test Laboratory: BTL Inc. Date: 2019/12/04

System Check_H5800_1204

System Check_B5200_1204

DUT: Dipole D5GHzV2;SN;1160;

DUT: Dipole D5GHzV2;SN;1160;

Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5800$ MHz; $\sigma = 5.468$ S/m; $\epsilon_r = 34.215$; $\rho = 1000$ kg/m³
 Ambient Temperature : 23.2 °C; Liquid Temperature : 22.3 °C

Communication System: UID 0, CW (0); Frequency: 5200 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5200$ MHz; $\sigma = 5.368$ S/m; $\epsilon_r = 47.819$; $\rho = 1000$ kg/m³
 Ambient Temperature : 23.3 °C; Liquid Temperature : 22.4 °C

DASY Configuration:

DASY Configuration:

- Probe: EX3DV4 - SN7544; ConvF(4.75, 4.75, 4.75) @ 5800 MHz; Calibrated: 2019/9/9
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0
- Electronics: DAE4 Sn1390; Calibrated: 2019/10/29
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1222
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

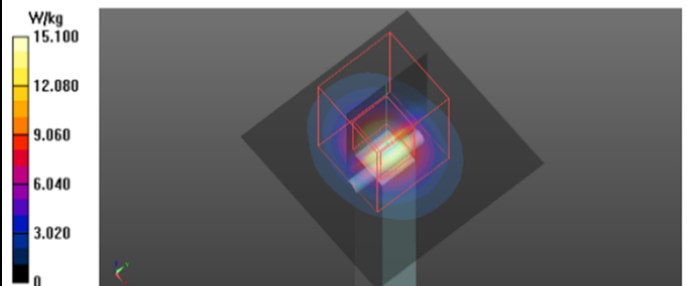
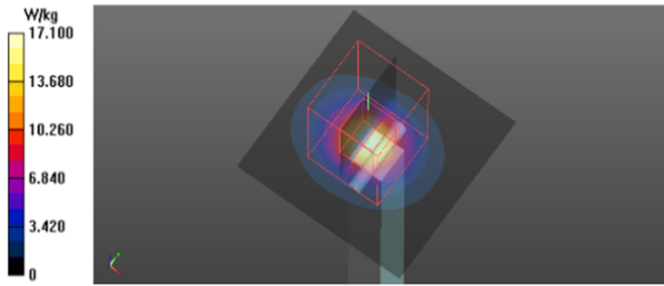
- Probe: EX3DV4 - SN7544; ConvF(4.68, 4.68, 4.68) @ 5200 MHz; Calibrated: 2019/9/9
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0
- Electronics: DAE4 Sn1390; Calibrated: 2019/10/29
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1222
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (6x6x1): Interpolated grid: dx=10 mm, dy=10 mm
 Maximum value of SAR (interpolated) = 17.0 W/kg

Area Scan (6x6x1): Interpolated grid: dx=10 mm, dy=10 mm
 Maximum value of SAR (interpolated) = 15.0 W/kg

Zoom Scan (7x7x6)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
 Reference Value = 57.22 V/m; Power Drift = 0.06 dB
 Peak SAR (extrapolated) = 41.0 W/kg
 SAR(1 g) = 7.83 W/kg; SAR(10 g) = 2.19 W/kg
 Maximum value of SAR (measured) = 17.1 W/kg

Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
 Reference Value = 55.25 V/m; Power Drift = 0.12 dB
 Peak SAR (extrapolated) = 29.3 W/kg
 SAR(1 g) = 7.02 W/kg; SAR(10 g) = 2.01 W/kg
 Maximum value of SAR (measured) = 15.1 W/kg



Validation Report for Body TSL of 5.3GHz

Validation Report for Body TSL of 5.5GHz

Test Laboratory: BTL Inc. Date: 2019/12/04

Test Laboratory: BTL Inc. Date: 2019/12/04

System Check_B5300_1204

System Check_B5500_1204

DUT: Dipole D5GHzV2;SN;1160;

DUT: Dipole D5GHzV2;

Communication System: UID 0, CW (0); Frequency: 5300 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5300$ MHz; $\sigma = 5.503$ S/m; $\epsilon_r = 47.637$; $\rho = 1000$ kg/m³
 Ambient Temperature : 23.3 °C; Liquid Temperature : 22.4 °C

Communication System: UID 0, CW (0); Frequency: 5500 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5500$ MHz; $\sigma = 5.792$ S/m; $\epsilon_r = 47.276$; $\rho = 1000$ kg/m³
 Ambient Temperature : 23.3 °C; Liquid Temperature : 22.4 °C

DASY Configuration:

DASY Configuration:

- Probe: EX3DV4 - SN7544; ConvF(4.51, 4.51, 4.51) @ 5300 MHz; Calibrated: 2019/9/9
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1390; Calibrated: 2019/10/29
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1222
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

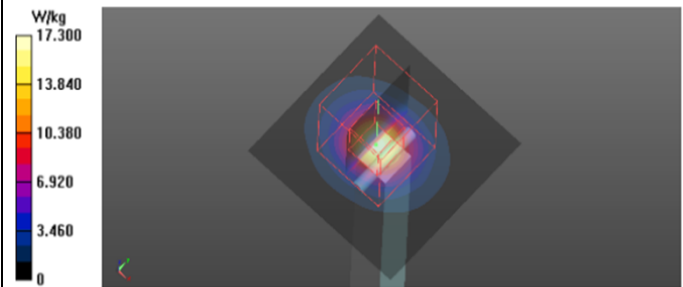
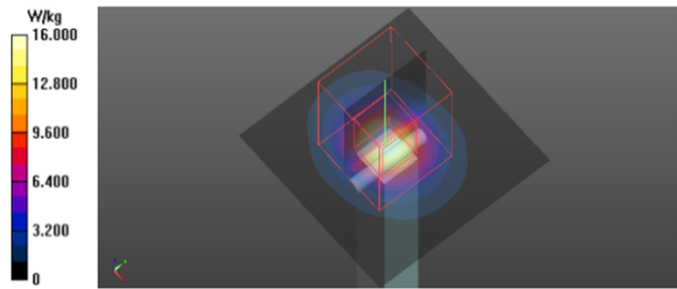
- Probe: EX3DV4 - SN7544; ConvF(4.26, 4.26, 4.26) @ 5500 MHz; Calibrated: 2019/9/9
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1390; Calibrated: 2019/10/29
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1222
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (6x6x1): Interpolated grid: $dx=10$ mm, $dy=10$ mm
 Maximum value of SAR (interpolated) = 16.5 W/kg

Area Scan (6x6x1): Interpolated grid: $dx=10$ mm, $dy=10$ mm
 Maximum value of SAR (interpolated) = 17.0 W/kg

Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm
 Reference Value = 57.20 V/m; Power Drift = -0.05 dB
 Peak SAR (extrapolated) = 32.1 W/kg
SAR(1 g) = 7.48 W/kg; SAR(10 g) = 2.13 W/kg
 Maximum value of SAR (measured) = 16.0 W/kg

Zoom Scan (7x7x6)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm
 Reference Value = 57.07 V/m; Power Drift = 0.03 dB
 Peak SAR (extrapolated) = 37.0 W/kg
SAR(1 g) = 7.74 W/kg; SAR(10 g) = 2.21 W/kg
 Maximum value of SAR (measured) = 17.3 W/kg



Validation Report for Body TSL of 5.6GHz

Validation Report for Body TSL of 5.8GHz

Test Laboratory: BTL Inc. Date: 2019/12/04

Test Laboratory: BTL Inc. Date: 2019/12/04

System Check_B5600_1204

System Check_B5800_1204

DUT: Dipole D5GHzV2;

DUT: Dipole D5GHzV2;SN:1160;

Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.943$ S/m; $\epsilon_r = 47.085$; $\rho = 1000$ kg/m³
 Ambient Temperature : 23.3 °C; Liquid Temperature : 22.4 °C

Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5800$ MHz; $\sigma = 6.234$ S/m; $\epsilon_r = 46.686$; $\rho = 1000$ kg/m³
 Ambient Temperature : 23.3 °C; Liquid Temperature : 22.4 °C

DASY Configuration:

DASY Configuration:

- Probe: EX3DV4 - SN7544; ConvF(4.1, 4.1, 4.1) @ 5600 MHz; Calibrated: 2019/9/9
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1390; Calibrated: 2019/10/29
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1222
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

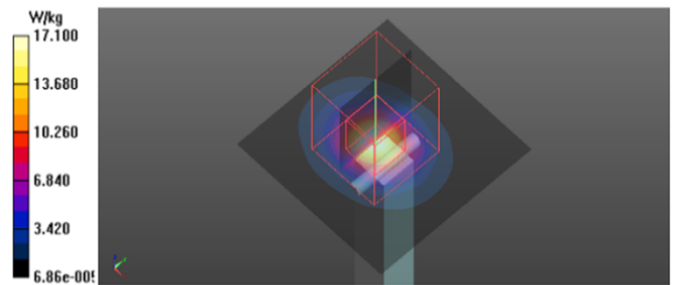
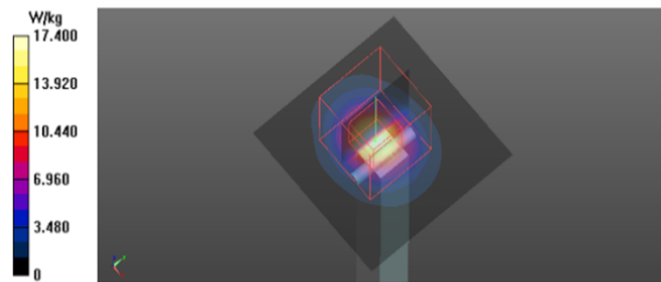
- Probe: EX3DV4 - SN7544; ConvF(4.13, 4.13, 4.13) @ 5800 MHz; Calibrated: 2019/9/9
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1390; Calibrated: 2019/10/29
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1222
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (6x6x1): Interpolated grid: $dx=10$ mm, $dy=10$ mm
 Maximum value of SAR (interpolated) = 17.6 W/kg

Area Scan (6x6x1): Interpolated grid: $dx=10$ mm, $dy=10$ mm
 Maximum value of SAR (interpolated) = 16.8 W/kg

Zoom Scan (7x7x6)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm
 Reference Value = 55.73 V/m; Power Drift = 0.05 dB
 Peak SAR (extrapolated) = 39.0 W/kg
 SAR(1 g) = 8.01 W/kg; SAR(10 g) = 2.23 W/kg
 Maximum value of SAR (measured) = 17.4 W/kg

Zoom Scan (7x7x6)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm
 Reference Value = 54.08 V/m; Power Drift = 0.12 dB
 Peak SAR (extrapolated) = 38.5 W/kg
 SAR(1 g) = 7.73 W/kg; SAR(10 g) = 2.17 W/kg
 Maximum value of SAR (measured) = 17.1 W/kg



Calibrator: *Rob - Liang*

Approver: *Herbert Liu*