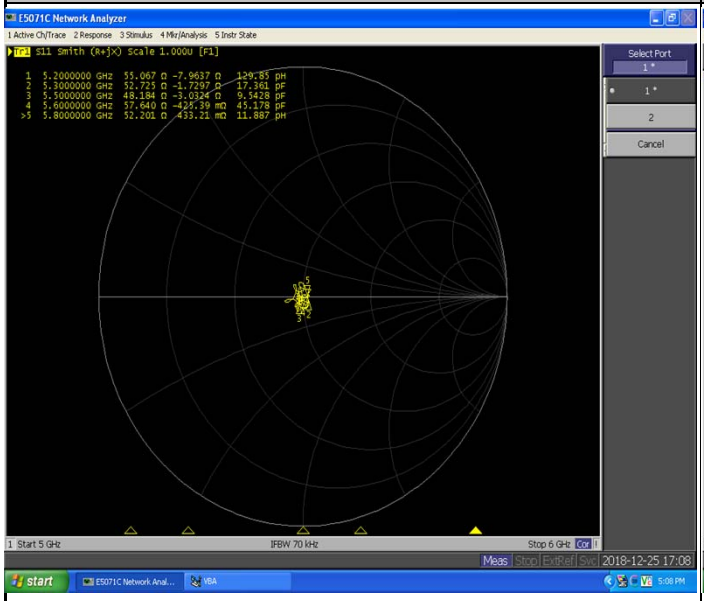
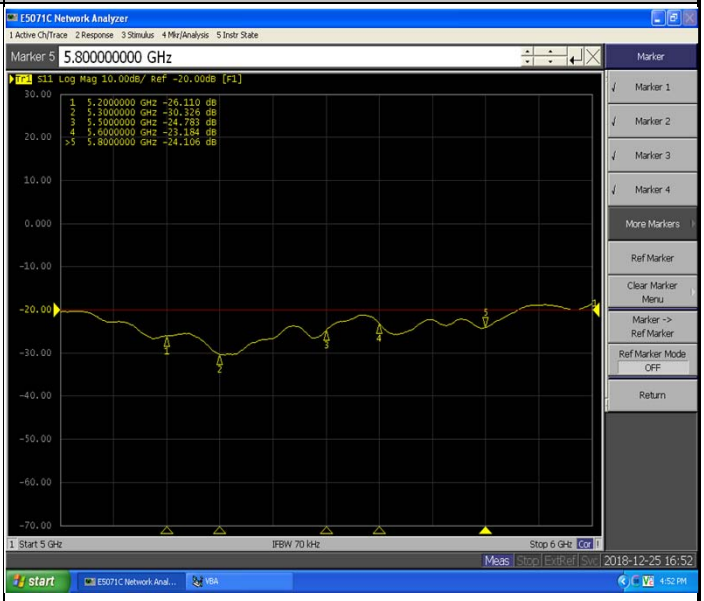
Impedance Test-Body	Return Loss-Body
	
Validation Report for Head TSL of 5.2GHz	Validation Report for Head TSL of 5.3GHz

Test Laboratory: BTL Inc. Date: 2018/12/25

System Check_H5200_7396

DUT: Dipole D5GHzV2;SN;1160;

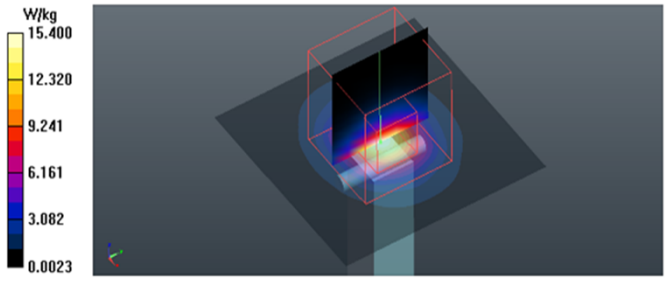
Communication System: UID 0, CW (0); Frequency: 5200 MHz; Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 4.766 S/m; ε_r = 35.64; ρ = 996 kg/m^3
Ambient Temperature : 23.2 ℃; Liquid Temperature : 22.5 ℃

DASY Configuration:

- Probe: EX3DV4 - SN7396; ConvF(5.7, 5.7, 5.7) @ 5200 MHz; Calibrated: 2018/5/29
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0
- Electronics: DAE4 Sn1390; Calibrated: 2018/5/11
- Phantom: SAM Right; Type: Twin SAM; Serial: 1896
- 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) = 15.4 W/kg

Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 41.93 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 30.7 W/kg
SAR(1 g) = 7.27 W/kg; SAR(10 g) = 2.07 W/kg
Maximum value of SAR (measured) = 15.4 W/kg



Test Laboratory: BTL Inc. Date: 2018/12/25

System Check_H5300_7396

DUT: Dipole D5GHzV2;SN;1160;

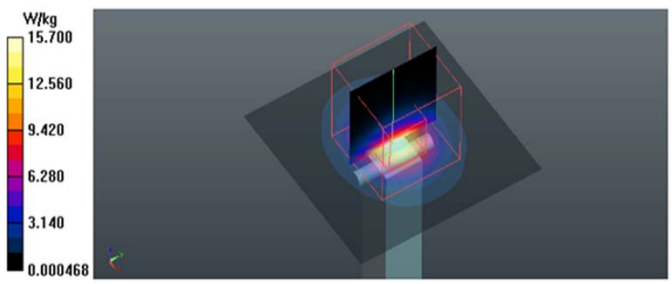
Communication System: UID 0, CW (0); Frequency: 5300 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5300 MHz; σ = 4.882 S/m; ε_r = 35.392; ρ = 996 kg/m^3
Ambient Temperature : 23.2 ℃; Liquid Temperature : 22.5 ℃

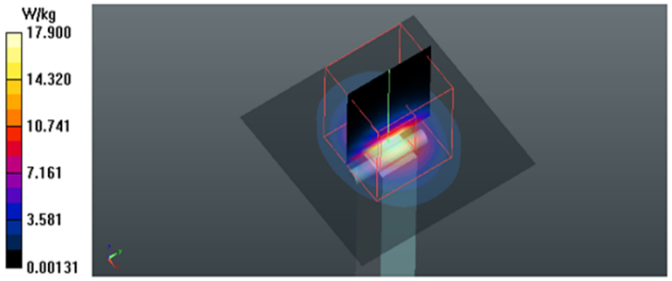
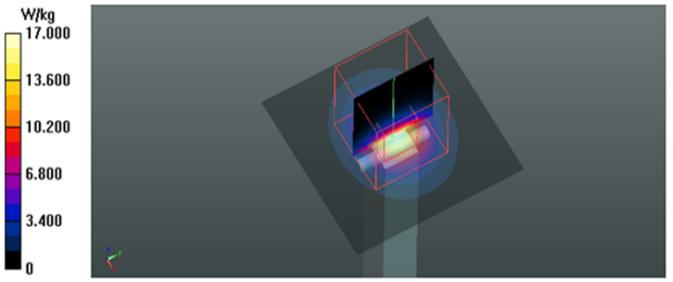
DASY Configuration:

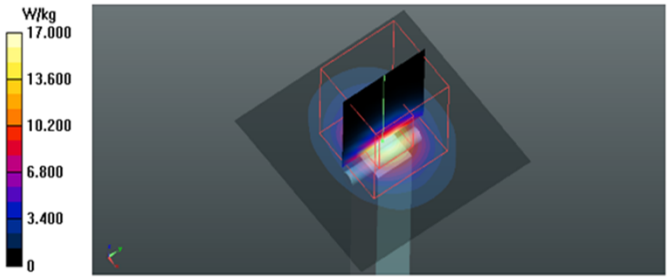
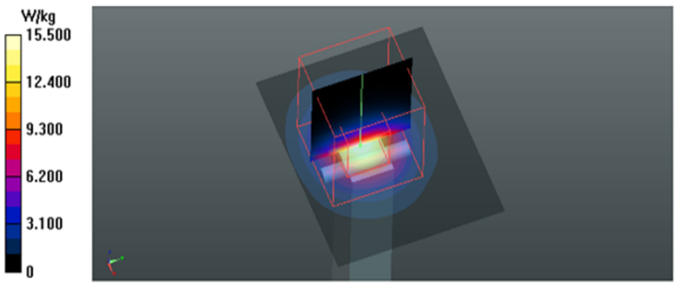
- Probe: EX3DV4 - SN7396; ConvF(5.35, 5.35, 5.35) @ 5300 MHz; Calibrated: 2018/5/29
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0
- Electronics: DAE4 Sn1390; Calibrated: 2018/5/11
- Phantom: SAM Right; Type: Twin SAM; Serial: 1896
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

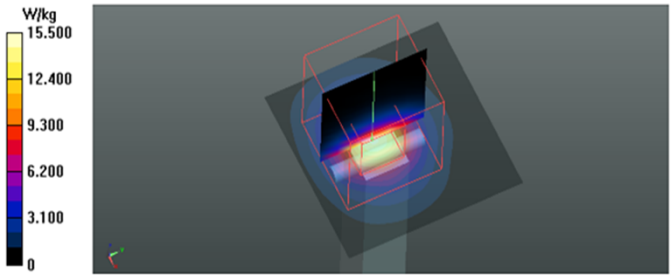
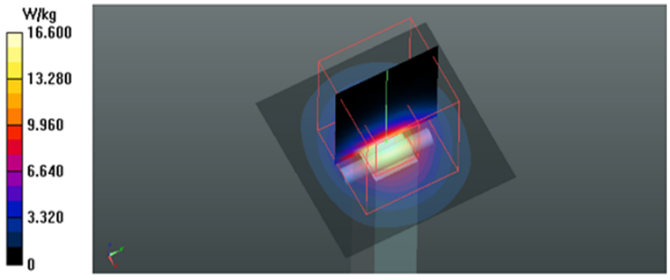
Area Scan (6x6x1): Interpolated grid: dx=10 mm, dy=10 mm
Maximum value of SAR (interpolated) = 16.5 W/kg

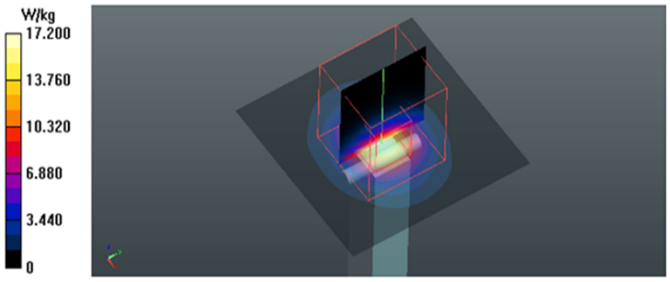
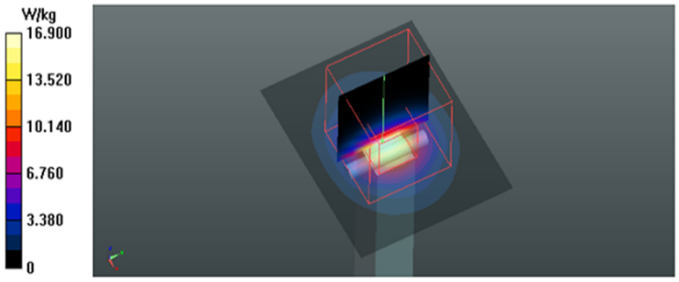
Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 41.02 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 31.4 W/kg
SAR(1 g) = 7.34 W/kg; SAR(10 g) = 2.07 W/kg
Maximum value of SAR (measured) = 15.7 W/kg



Validation Report for Head TSL of 5.5GHz	Validation Report for Head TSL of 5.6GHz
Test Laboratory: BTL Inc. Date: 2018/12/25 **System Check_H5500_7396** **DUT: Dipole D5GHzV2;SN:1160;** Communication System: UID 0, CW (0); Frequency: 5500 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5500 MHz; σ = 5.112 S/m; ε_r = 34.912; ρ = 996 kg/m^3 Ambient Temperature：23.2 ℃; Liquid Temperature：22.5℃ DASY Configuration: • Probe: EX3DV4 - SN7396; ConvF(4.94, 4.94, 4.94) @ 5500 MHz; Calibrated: 2018/5/29 • Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0 • Electronics: DAE4 Sn1390; Calibrated: 2018/5/11 • Phantom: SAM Right; Type: Twin SAM; Serial: 1896 • 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) = 18.5 W/kg **Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 42.15 V/m; Power Drift = -0.07 dB Peak SAR (extrapolated) = 38.9 W/kg **SAR(1 g) = 8.32 W/kg; SAR(10 g) = 2.33 W/kg** Maximum value of SAR (measured) = 17.9 W/kg 	Test Laboratory: BTL Inc. Date: 2018/12/25 **System Check_H5600_7396** **DUT: Dipole D5GHzV2;SN:1160;** Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5600 MHz; σ = 5.235 S/m; ε_r = 34.669; ρ = 996 kg/m^3 Ambient Temperature：23.2 ℃; Liquid Temperature：22.5℃ DASY Configuration: • Probe: EX3DV4 - SN7396; ConvF(4.94, 4.94, 4.94) @ 5600 MHz; Calibrated: 2018/5/29 • Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0 • Electronics: DAE4 Sn1390; Calibrated: 2018/5/11 • Phantom: SAM Right; Type: Twin SAM; Serial: 1896 • 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) = 17.4 W/kg **Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 40.04 V/m; Power Drift = -0.09 dB Peak SAR (extrapolated) = 37.1 W/kg **SAR(1 g) = 7.84 W/kg; SAR(10 g) = 2.2 W/kg** Maximum value of SAR (measured) = 17.0 W/kg 

Validation Report for Head TSL of 5.8GHz	Validation Report for Body TSL of 5.2GHz
Test Laboratory: BTL Inc. Date: 2018/12/25 **System Check_H5800_7396** **DUT: Dipole D5GHzV2;SN;1160;** Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5800 MHz; σ = 5.479 S/m; ε_r = 34.208; ρ = 996 kg/m^3 Ambient Temperature : 23.2 ℃; Liquid Temperature : 22.5 ℃ DASY Configuration: • Probe: EX3DV4 - SN7396; ConvF(5.05, 5.05, 5.05) @ 5800 MHz; Calibrated: 2018/5/29 • Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0 • Electronics: DAE4 Sn1390; Calibrated: 2018/5/11 • Phantom: SAM Right; Type: Twin SAM; Serial: 1896 • 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) = 17.5 W/kg **Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 39.17 V/m; Power Drift = -0.06 dB Peak SAR (extrapolated) = 37.5 W/kg **SAR(1 g) = 7.89 W/kg; SAR(10 g) = 2.21 W/kg** Maximum value of SAR (measured) = 17.0 W/kg 	Test Laboratory: BTL Inc. Date: 2018/12/25 **System Check_B5200_7396** **DUT: Dipole D5GHzV2;SN;1160;** Communication System: UID 0, CW (0); Frequency: 5200 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5200 MHz; σ = 5.372 S/m; ε_r = 47.807; ρ = 996 kg/m^3 Ambient Temperature : 23.2 ℃; Liquid Temperature : 22.5 ℃ DASY Configuration: • Probe: EX3DV4 - SN7396; ConvF(5.3, 5.3, 5.3) @ 5200 MHz; Calibrated: 2018/5/29 • Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0 • Electronics: DAE4 Sn1390; Calibrated: 2018/5/11 • Phantom: SAM Right; Type: Twin SAM; Serial: 1896 • DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450) **Area Scan (6x5x1):** Interpolated grid: dx=10 mm, dy=10 mm Maximum value of SAR (interpolated) = 15.9 W/kg **Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 35.81 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 31.3 W/kg **SAR(1 g) = 7.28 W/kg; SAR(10 g) = 2.06 W/kg** Maximum value of SAR (measured) = 15.5 W/kg 

Validation Report for Body TSL of 5.3GHz	Validation Report for Body TSL of 5.5GHz
Test Laboratory: BTL Inc. Date: 2018/12/25 **System Check_B5300_7396** **DUT: Dipole D5GHzV2;SN;1160;** Communication System: UID 0, CW (0); Frequency: 5300 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5300 MHz; σ = 5.507 S/m; ε_r = 47.625; ρ = 996 kg/m^3 Ambient Temperature : 23.2 ℃; Liquid Temperature : 22.5 ℃ DASY Configuration: • Probe: EX3DV4 - SN7396; ConvF(5.05, 5.05, 5.05) @ 5300 MHz; Calibrated: 2018/5/29 • Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0 • Electronics: DAE4 Sn1390; Calibrated: 2018/5/11 • Phantom: SAM Right; Type: Twin SAM; Serial: 1896 • DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450) **Area Scan (5x5x1):** Interpolated grid: dx=10 mm, dy=10 mm Maximum value of SAR (interpolated) = 14.7 W/kg **Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 34.45 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 30.9 W/kg **SAR(1 g) = 7.16 W/kg; SAR(10 g) = 2 W/kg** Maximum value of SAR (measured) = 15.5 W/kg 	Test Laboratory: BTL Inc. Date: 2018/12/25 **System Check_B5500_7396** **DUT: Dipole D5GHzV2;SN;1160;** Communication System: UID 0, CW (0); Frequency: 5500 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5500 MHz; σ = 5.797 S/m; ε_r = 47.264; ρ = 996 kg/m^3 Ambient Temperature : 23.2 ℃; Liquid Temperature : 22.5 ℃ DASY Configuration: • Probe: EX3DV4 - SN7396; ConvF(4.38, 4.38, 4.38) @ 5500 MHz; Calibrated: 2018/5/29 • Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0 • Electronics: DAE4 Sn1390; Calibrated: 2018/5/11 • Phantom: SAM Right; Type: Twin SAM; Serial: 1896 • DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450) **Area Scan (5x5x1):** Interpolated grid: dx=10 mm, dy=10 mm Maximum value of SAR (interpolated) = 16.4 W/kg **Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 38.51 V/m; Power Drift = -0.17 dB Peak SAR (extrapolated) = 33.9 W/kg **SAR(1 g) = 7.72 W/kg; SAR(10 g) = 2.16 W/kg** Maximum value of SAR (measured) = 16.6 W/kg 

Validation Report for Body TSL of 5.6GHz	Validation Report for Body TSL of 5.8GHz
Test Laboratory: BTL Inc. Date: 2018/12/25 **System Check_B5600_7396** **DUT: Dipole D5GHzV2;SN;1160;** Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5600 MHz; σ = 5.947 S/m; ε_r = 47.073; ρ = 996 kg/m^3 Ambient Temperature：23.2 ℃; Liquid Temperature：22.5 ℃ DASY Configuration: • Probe: EX3DV4 - SN7396; ConvF(4.38, 4.38, 4.38) @ 5600 MHz; Calibrated: 2018/5/29 • Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0 • Electronics: DAE4 Sn1390; Calibrated: 2018/5/11 • Phantom: SAM Right; Type: Twin SAM; Serial: 1896 • 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 **Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 38.11 V/m; Power Drift = -0.17 dB Peak SAR (extrapolated) = 35.4 W/kg **SAR(1 g) = 7.92 W/kg; SAR(10 g) = 2.2 W/kg** Maximum value of SAR (measured) = 17.2 W/kg 	Test Laboratory: BTL Inc. Date: 2018/12/25 **System Check_B5800_7396** **DUT: Dipole D5GHzV2;SN;1160;** Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5800 MHz; σ = 6.239 S/m; ε_r = 46.673; ρ = 996 kg/m^3 Ambient Temperature：23.2 ℃; Liquid Temperature：22.5 ℃ DASY Configuration: • Probe: EX3DV4 - SN7396; ConvF(4.5, 4.5, 4.5) @ 5800 MHz; Calibrated: 2018/5/29 • Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0 • Electronics: DAE4 Sn1390; Calibrated: 2018/5/11 • Phantom: SAM Right; Type: Twin SAM; Serial: 1896 • DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450) **Area Scan (6x5x1):** Interpolated grid: dx=10 mm, dy=10 mm Maximum value of SAR (interpolated) = 16.6 W/kg **Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 37.07 V/m; Power Drift = -0.19 dB Peak SAR (extrapolated) = 35.6 W/kg **SAR(1 g) = 7.79 W/kg; SAR(10 g) = 2.16 W/kg** Maximum value of SAR (measured) = 16.9 W/kg 

Calibrator: Rot - Liang

Approver: Herbert Liu