



Appendix A:SAR System performance Check Plots

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Test Laboratory: CTI SAR Lab

System Performance Check-D835-Head**DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:4d193**

Communication System: UID 0, CW (0); Communication System Band: D835(835.0 MHz); Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 835$ MHz; $\sigma = 0.881$ S/m; $\epsilon_r = 41.406$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(9.86, 9.86, 9.86); Calibrated: 2/6/2015;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/26/2015
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/System Check/Area Scan (8x12x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 2.19 W/kg

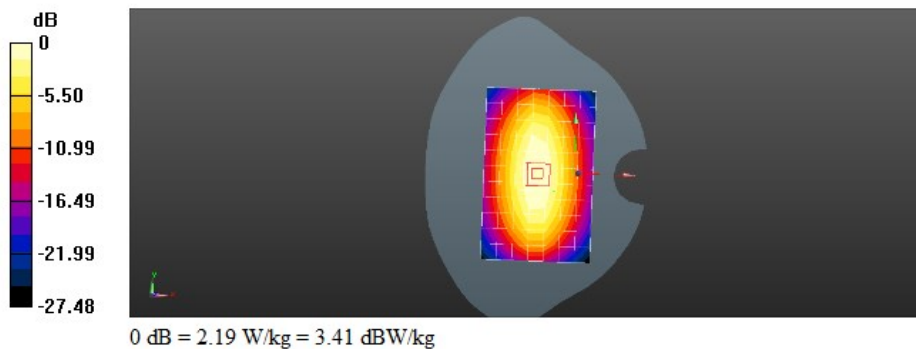
Configuration/System Check/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 52.84 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.30 W/kg

SAR(1 g) = 2.26 W/kg; SAR(10 g) = 1.49 W/kg

Maximum value of SAR (measured) = 2.44 W/kg



Test Laboratory: CTI SAR Lab

System Performance Check-D835-Body**DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:4d193**

Communication System: UID 0, CW (0); Communication System Band: D835(835.0 MHz); Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835$ MHz; $\sigma = 0.967$ S/m; $\epsilon_r = 54.397$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(9.31, 9.31, 9.31); Calibrated: 2/6/2015;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/26/2015
- Phantom: ELI v6.0; Type: QDOVA003AA; Serial: 2024
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/System Check d=15mm,Pin=250mW/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.41 W/kg

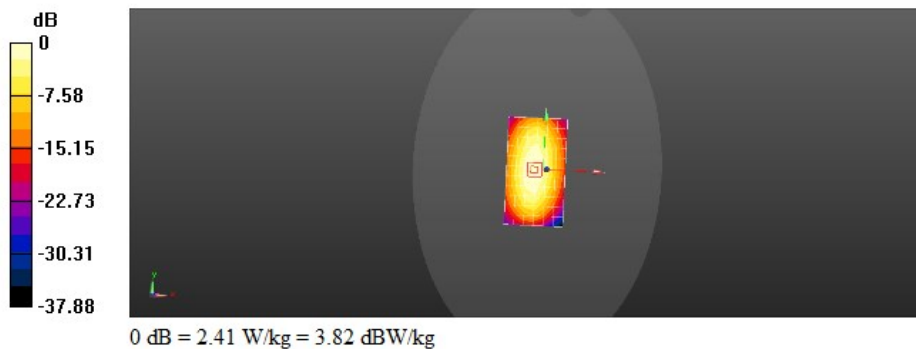
Configuration/System Check d=15mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 50.48 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 3.29 W/kg

SAR(1 g) = 2.29 W/kg; SAR(10 g) = 1.52 W/kg

Maximum value of SAR (measured) = 2.47 W/kg



Test Laboratory: CTI SAR Lab

System Performance Check-D1900-Head**DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d198**

Communication System: UID 0, CW (0); Communication System Band: D1900 (1900.0 MHz); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 38.648$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(8.02, 8.02, 8.02); Calibrated: 2/6/2015;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/26/2015
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8(1222); SEMCAD X 14.6.10(7331)

Configuration/System Check d=10mm, Pin=250mW/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 11.8 W/kg

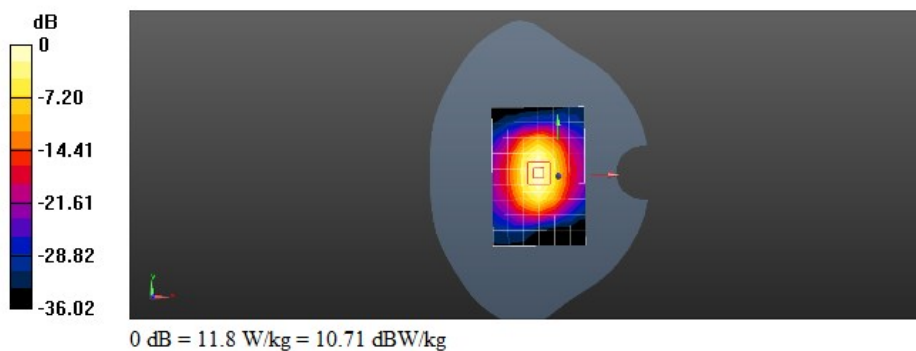
Configuration/System Check d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 93.06 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 19.9 W/kg

SAR(1 g) = 10.8 W/kg; SAR(10 g) = 5.64 W/kg

Maximum value of SAR (measured) = 12.1 W/kg



Test Laboratory: CTI SAR Lab

System Performance Check-D1900-Body**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d198**

Communication System: UID 0, CW (0); Communication System Band: D1900 (1900.0 MHz); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.536$ S/m; $\epsilon_r = 50.867$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.67, 7.67, 7.67); Calibrated: 2/6/2015;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/26/2015
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/System Check d=10mm,Pin=250mW/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 12.2 W/kg

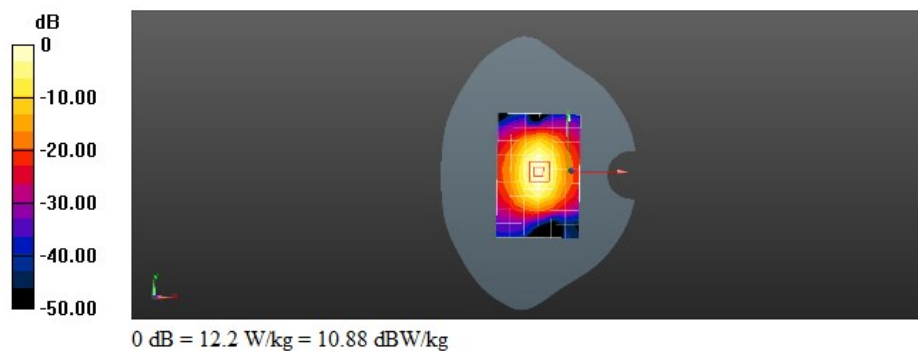
Configuration/System Check d=10mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 89.82 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 19.9 W/kg

SAR(1 g) = 11.1 W/kg; SAR(10 g) = 5.84 W/kg

Maximum value of SAR (measured) = 12.3 W/kg



Test Laboratory: CTI SAR Lab

System Performance Check-D2450-Head**DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:959**

Communication System: UID 0, CW (0); Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.802$ S/m; $\epsilon_r = 38.212$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.21, 7.21, 7.21); Calibrated: 2/6/2015;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/26/2015
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/System Check d=10mm, Pin=250mW/Area Scan (8x12x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 12.5 W/kg

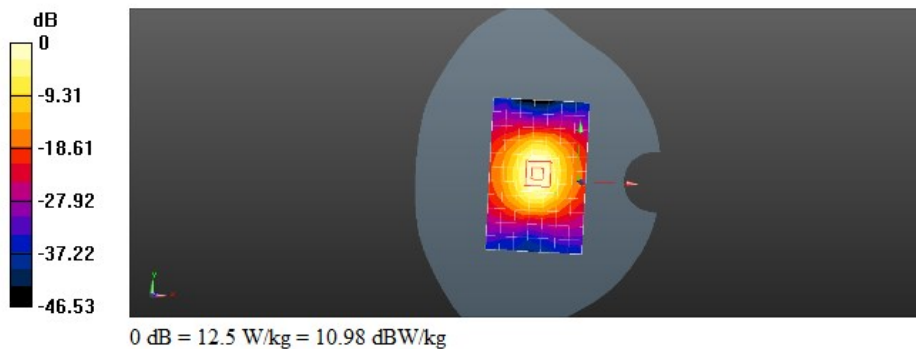
Configuration/System Check d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 94.82 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 30.8 W/kg

SAR(1 g) = 14.2 W/kg; SAR(10 g) = 6.43 W/kg

Maximum value of SAR (measured) = 16.1 W/kg



Test Laboratory: CTI SAR Lab

System Performance Check-D2450-Body**DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:959**

Communication System: UID 0, CW (0); Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.994$ S/m; $\epsilon_r = 51.275$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.37, 7.37, 7.37); Calibrated: 2/6/2015;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/26/2015
- Phantom: ELI v6.0; Type: QDOVA003AA; Serial: 2024
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/System Check d=10mm, Pin=250mW/Area Scan (8x12x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 10.5 W/kg

Configuration/System Check d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 84.34 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 24.9 W/kg

SAR(1 g) = 12.4 W/kg; SAR(10 g) = 5.81 W/kg

Maximum value of SAR (measured) = 14.3 W/kg

