

Appendix A:SAR System performance Check Plots
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Test Laboratory: CTI SAR Lab

Systemcheck 2450-Body

DUT: D2450V2 - SN959; Type: D2450V2; Serial: SN959

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; $\sigma = 1.999$ S/m; $\epsilon_r = 53.124$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.69, 7.69, 7.69); Calibrated: 2/23/2018;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 5/7/2018
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/d=10mm,Pin=250mW/Area Scan (10x10x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

Maximum value of SAR (measured) = 14.2 W/kg

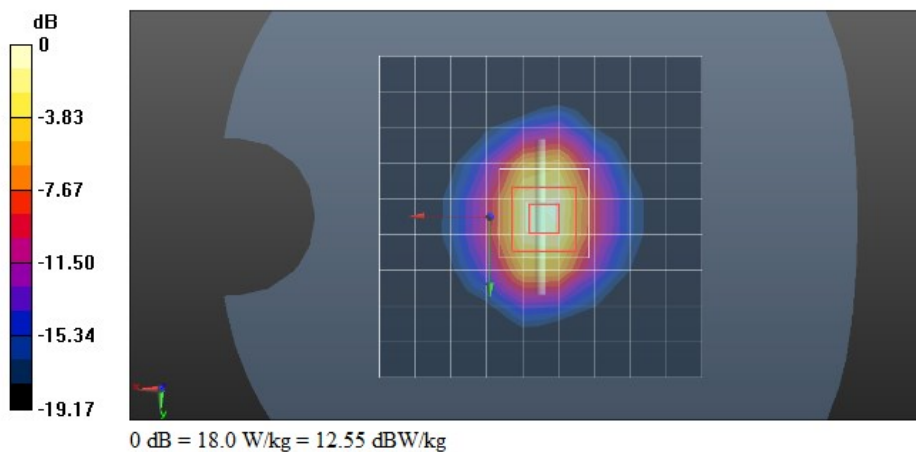
Configuration/d=10mm,Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 83.81 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 23.3 W/kg

SAR(1 g) = 12.3 W/kg; SAR(10 g) = 5.99 W/kg

Maximum value of SAR (measured) = 18.0 W/kg



Test Laboratory: CTI SAR Lab

Systemcheck 5300-Body**DUT: D5GHzV2 - SN1208; Type: D5GHzV2; Serial: SN1208**

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5300 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5300$ MHz; $\sigma = 5.173$ S/m; $\epsilon_r = 49.277$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(4.33, 4.33, 4.33); Calibrated: 2/23/2018;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 5/7/2018
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/d=10mm,Pin=100mW/Area Scan (11x11x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 14.2 W/kg

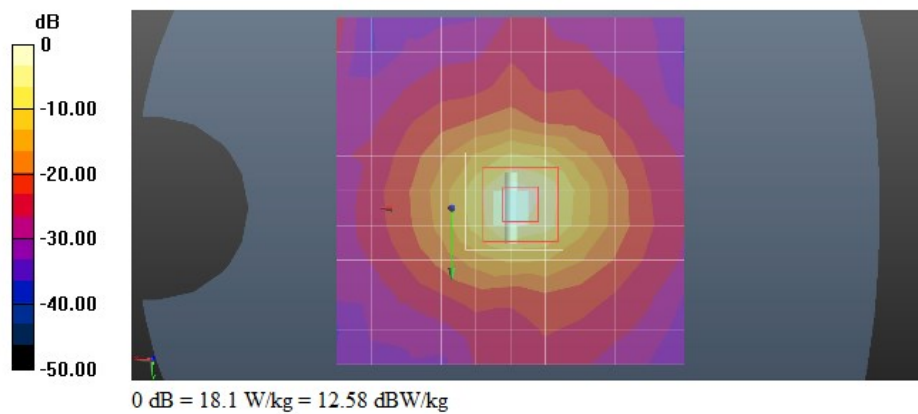
Configuration/d=10mm,Pin=100mW/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 40.41 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 28.9 W/kg

SAR(1 g) = 7.62 W/kg; SAR(10 g) = 2.19 W/kg

Maximum value of SAR (measured) = 18.1 W/kg



Test Laboratory: CTI SAR Lab

Systemcheck 5500-Body

DUT: D5GHzV2 - SN1208; Type: D5GHzV2; Serial: SN1208

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.64$ S/m; $\epsilon_r = 48.413$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(3.92, 3.92, 3.92); Calibrated: 2/23/2018;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 5/7/2018
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/d=10mm,Pin=100mW/Area Scan (11x11x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 15.0 W/kg

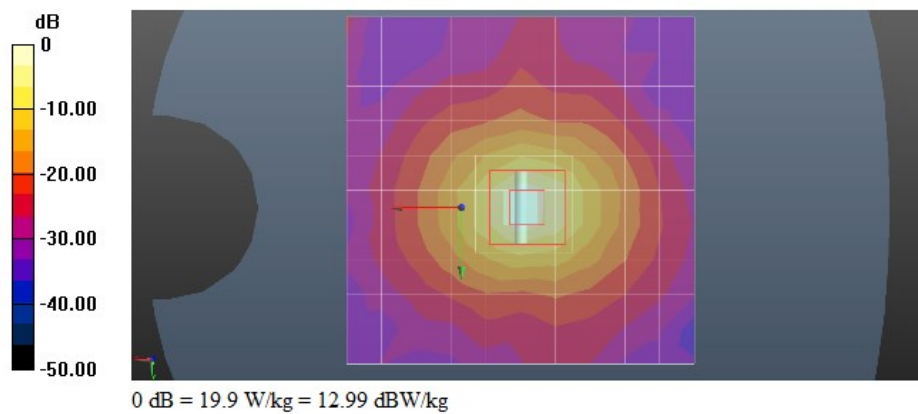
Configuration/d=10mm,Pin=100mW/Zoom Scan (8x8x16)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 40.76 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 31.7 W/kg

SAR(1 g) = 8.2 W/kg; SAR(10 g) = 2.35 W/kg

Maximum value of SAR (measured) = 19.9 W/kg



Test Laboratory: CTI SAR Lab

Systemcheck 5800-Body**DUT: D5GHzV2 - SN1208; Type: D5GHzV2; Serial: SN1208**

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5800 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5800$ MHz; $\sigma = 5.884$ S/m; $\epsilon_r = 47.267$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(3.93, 3.93, 3.93); Calibrated: 2/23/2018;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 5/7/2018
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/d=10mm,Pin=100mW/Area Scan (11x11x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 14.6 W/kg

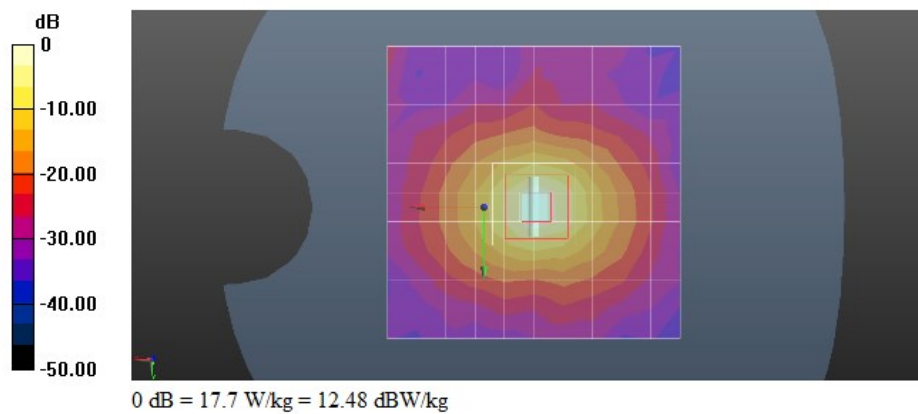
Configuration/d=10mm,Pin=100mW/Zoom Scan (8x8x16)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 36.99 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 30.2 W/kg

SAR(1 g) = 7.09 W/kg; SAR(10 g) = 2.11 W/kg

Maximum value of SAR (measured) = 17.7 W/kg



Test Laboratory: CTI SAR Lab

Systemcheck-850-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; $\sigma = 0.957$ S/m; $\epsilon_r = 55.45$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(10.03, 10.03, 10.03); Calibrated: 2/23/2018;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 5/7/2018
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/d=15mm,Pin=250mW/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.68 W/kg

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

Reference Value = 50.66 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 3.57 W/kg

SAR(1 g) = 2.42 W/kg; SAR(10 g) = 1.63 W/kg

Maximum value of SAR (measured) = 3.18 W/kg

