

Report Number:EED32K00215411

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

Systemcheck 835-Head**DUT: D835V2 - SN4d193; Type: D835V2; Serial: SN4d193**

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; $\sigma = 0.92$ S/m; $\epsilon_r = 40.863$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(10.51, 10.51, 10.51); 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=15mm,Pin=250mW/Area Scan (8x12x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 2.73 W/kg

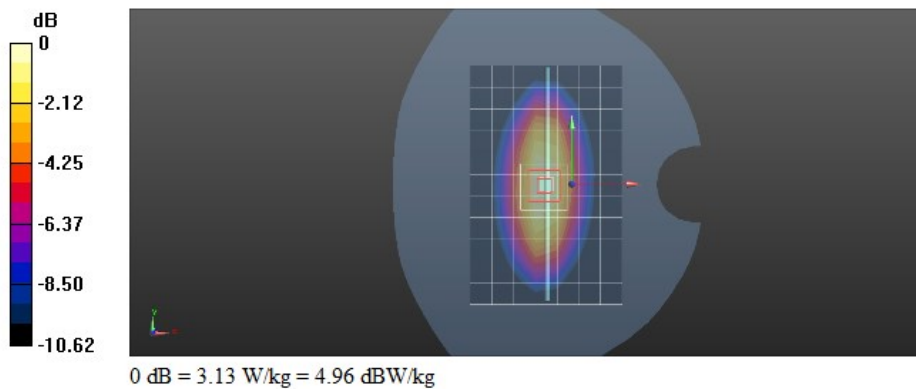
Configuration/d=15mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 52.03 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 3.53 W/kg

SAR(1 g) = 2.34 W/kg; SAR(10 g) = 1.55 W/kg

Maximum value of SAR (measured) = 3.13 W/kg



Test Laboratory: CTI SAR Lab

Systemcheck 835-Body**DUT: D835V2 - SN4d193; Type: D835V2; Serial: SN4d193**

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; $\sigma = 0.963$ S/m; $\epsilon_r = 54.373$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(10.03, 10.03, 10.03); Calibrated: 2/23/2018;
- Sensor-Surface: 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=15mm,Pin=250mW/Area Scan (8x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 2.50 W/kg

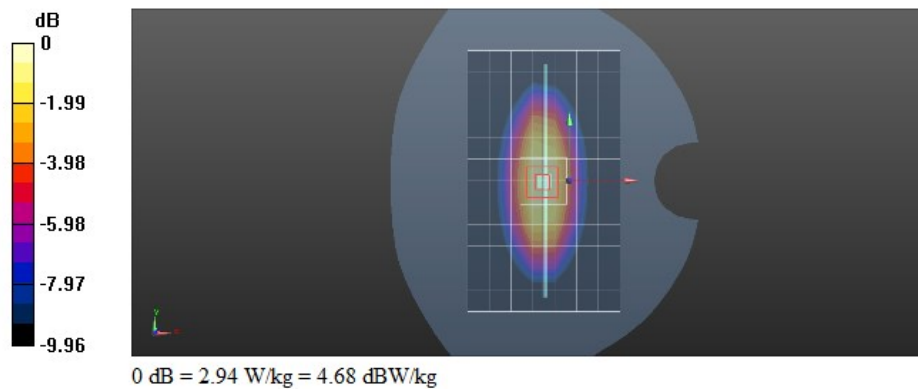
Configuration/d=15mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 50.02 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 3.39 W/kg

SAR(1 g) = 2.36 W/kg; SAR(10 g) = 1.59 W/kg

Maximum value of SAR (measured) = 2.94 W/kg



Test Laboratory: CTI SAR Lab

Systemcheck 835-Body-1**DUT: D835V2 - SN4d193; Type: D835V2; Serial: SN4d193**

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; $\sigma = 0.982$ S/m; $\epsilon_r = 53.472$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(10.03, 10.03, 10.03); Calibrated: 2/23/2018;
- Sensor-Surface: 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=15mm,Pin=250mW/Area Scan (8x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 2.69 W/kg

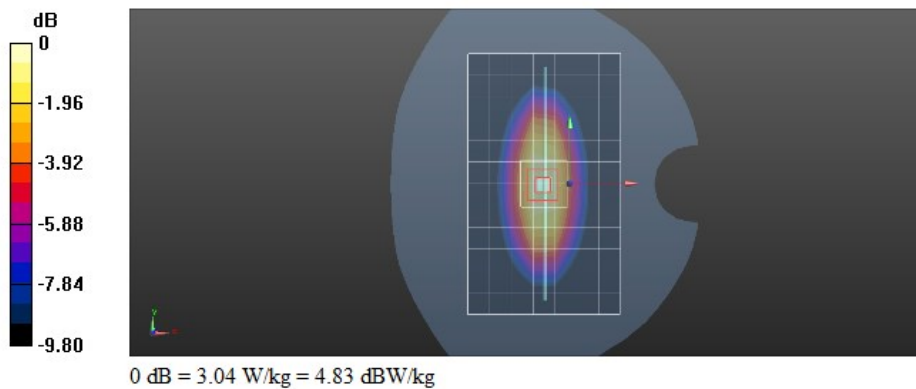
Configuration/d=15mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 51.49 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 3.51 W/kg

SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.64 W/kg

Maximum value of SAR (measured) = 3.04 W/kg



Test Laboratory: CTI SAR Lab

Systemcheck 1750-Head**DUT: D1750V2 - SN1134; Type: D1750V2; Serial: SN1134**

Communication System: UID 0, CW (0); Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.334$ S/m; $\epsilon_r = 39.252$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(8.57, 8.57, 8.57); 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=250 mW/Area Scan (8x8x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 10.2 W/kg

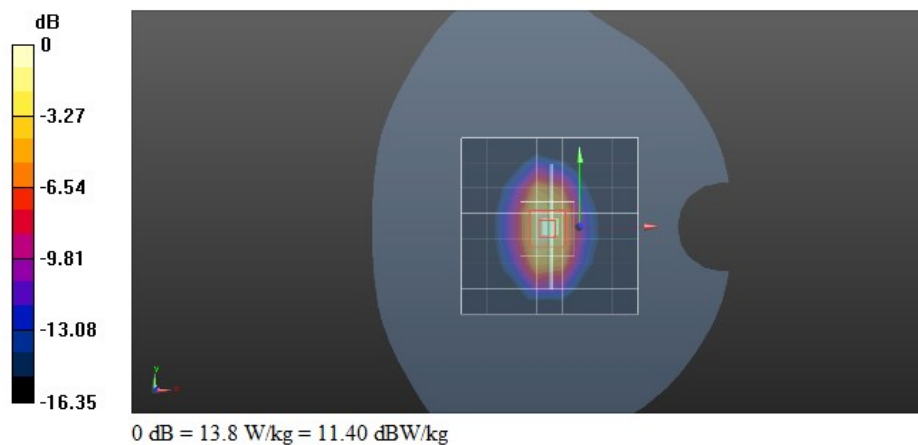
Configuration/d=10mm, Pin=250 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 94.04 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 16.4 W/kg

SAR(1 g) = 8.97 W/kg; SAR(10 g) = 4.86 W/kg

Maximum value of SAR (measured) = 13.8 W/kg



Test Laboratory: CTI SAR Lab

Systemcheck 1750-Body**DUT: D1750V2 - SN1134; Type: D1750V2; Serial: SN1134**

Communication System: UID 0, CW (0); Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.466$ S/m; $\epsilon_r = 53.077$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(8.2, 8.2, 8.2); 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=250 mW/Area Scan (8x8x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 8.99 W/kg

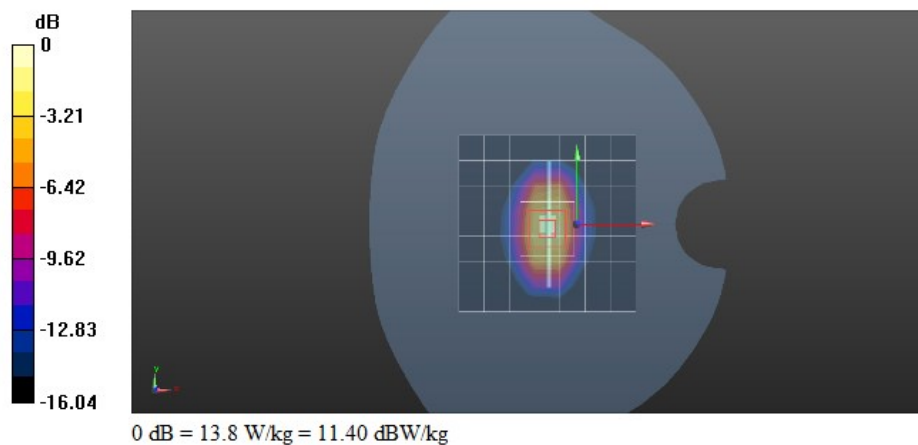
Configuration/d=10mm, Pin=250 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 92.84 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 16.0 W/kg

SAR(1 g) = 9.12 W/kg; SAR(10 g) = 4.95 W/kg

Maximum value of SAR (measured) = 13.8 W/kg



Test Laboratory: CTI SAR Lab

Systemcheck 1900-Head**DUT: D1900V2 - SN5d198; Type: D1900V2; Serial: SN5d198**

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; $\sigma = 1.404$ S/m; $\epsilon_r = 39.267$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(8.26, 8.26, 8.26); 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(1222); SEMCAD X 14.6.10(7331)

Configuration/d=10mm, Pin=250 mW/Area Scan (8x8x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 10.7 W/kg

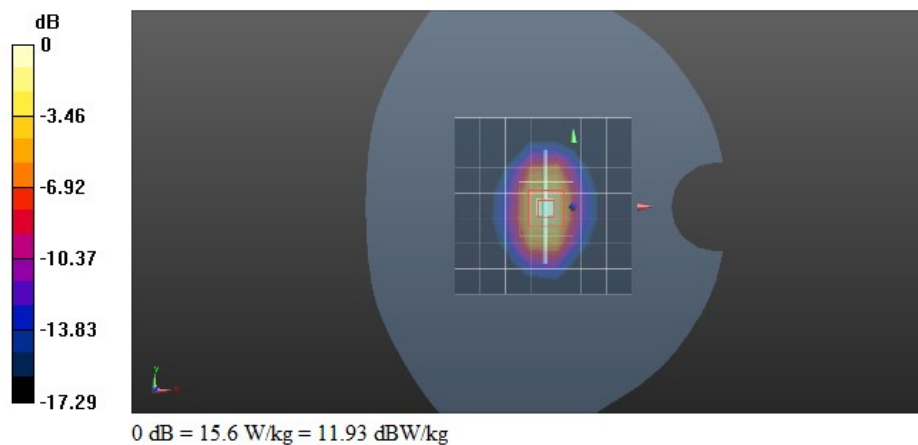
Configuration/d=10mm, Pin=250 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 100.5 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 18.5 W/kg

SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.39 W/kg

Maximum value of SAR (measured) = 15.6 W/kg



Test Laboratory: CTI SAR Lab

Systemcheck 1900-Body**DUT: D1900V2 - SN5d198; Type: D1900V2; Serial: SN5d198**

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; $\sigma = 1.55$ S/m; $\epsilon_r = 52.514$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.97, 7.97, 7.97); 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=250 mW/Area Scan (8x8x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 10.7 W/kg

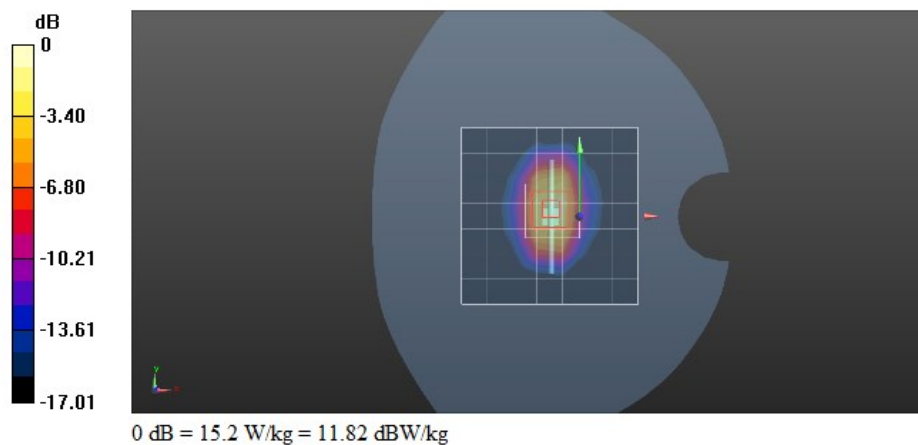
Configuration/d=10mm, Pin=250 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 94.80 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 17.8 W/kg

SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.41 W/kg

Maximum value of SAR (measured) = 15.2 W/kg



Test Laboratory: CTI SAR Lab

Systemcheck 2450-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; $\sigma = 1.838$ S/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.49, 7.49, 7.49); 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(1222); SEMCAD X 14.6.10(7331)

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

Maximum value of SAR (measured) = 12.6 W/kg

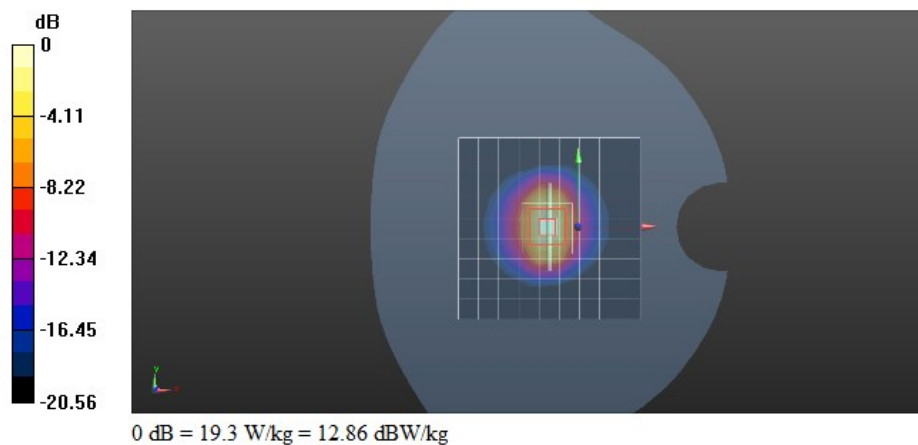
Configuration/d=10mm, Pin=250 mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 103.7 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 25.3 W/kg

SAR(1 g) = 13 W/kg; SAR(10 g) = 6.19 W/kg

Maximum value of SAR (measured) = 19.3 W/kg



Test Laboratory: CTI SAR Lab

Systemcheck 2450-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; $\sigma = 1.965$ S/m; $\epsilon_r = 52.022$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.69, 7.69, 7.69); Calibrated: 2/23/2018;
- Sensor-Surface: 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(1222); SEMCAD X 14.6.10(7331)

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

Maximum value of SAR (measured) = 17.5 W/kg

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

Reference Value = 95.97 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 23.9 W/kg

SAR(1 g) = 12.5 W/kg; SAR(10 g) = 6.02 W/kg

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

