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Author Data Daoud Attayi	Dates of Test July 23 – 28 & August 11 – 12, 2004	Test Report No RIM-0102-0407-08	FCC ID L6ARAL11IN

APPENDIX A: SAR DISTRIBUTION COMPARISON FOR THE ACCURACY VERIFICATION

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Date/Time: 07/23/04 12:40:53

Test Laboratory: Research In Motion Limited

835 MHz dipole validation; Ambient temp. 24.4; Liquid temp. 23.6 deg.cel

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: 835 MHz Head Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000$

kg/m^3

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.5, 6.5, 6.5); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 115.5 V/m; Power Drift = 0.004 dB

Maximum value of SAR (measured) = 10.4 mW/g

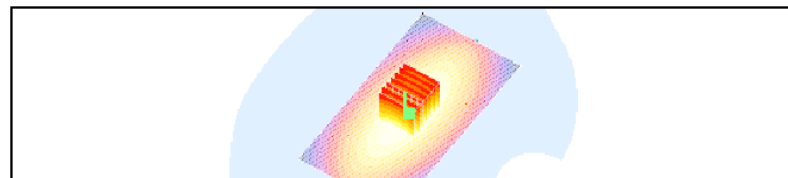
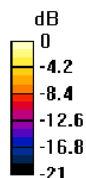
Peak SAR (extrapolated) = 14 W/kg

SAR(1 g) = 9.64 mW/g; SAR(10 g) = 6.32 mW/g

Unnamed procedure/Area Scan (81x151x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$


Reference Value = 115.5 V/m; Power Drift = 0.004 dB

Maximum value of SAR (interpolated) = 10.4 mW/g



0 dB = 10.4mW/g

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Date/Time: 08/12/04 09:23:25

Test Laboratory: Research In Motion Limited

835 MHz dipole validation; Ambient temp. 24.5; Liquid temp. 23.2 deg.cel

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: 835 MHz Head Medium parameters used: $f = 835$ MHz; $\sigma = 0.91$ mho/m; $\epsilon_r = 43.5$; $\rho = 1000$

kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.5, 6.5, 6.5); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure 2/Area Scan (81x151x1); Measurement grid: dx=10mm, dy=10mm

Reference Value = 111.9 V/m; Power Drift = -0.0 dB

Maximum value of SAR (interpolated) = 10.5 mW/g

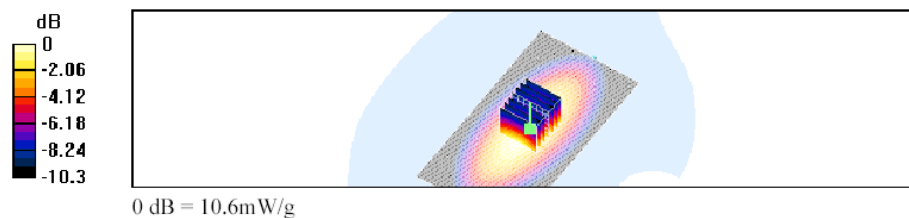
Unnamed procedure 2/Zoom Scan (7x7x7)/Cube 0; Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 111.9 V/m; Power Drift = -0.0 dB


Maximum value of SAR (measured) = 10.6 mW/g

Peak SAR (extrapolated) = 14.1 W/kg


SAR(1 g) = 9.81 mW/g; SAR(10 g) = 6.46 mW/g



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APPENDIX B: SAR DISTRIBUTION PLOTS FOR HEAD CONFIGURATION

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Date/Time: 07/26/04 13:11:43

Test Laboratory: Research In Motion Limited

**Touch left; Mid frequency (815.50 MHz); Retracted antenna; Ambient temp. 24.1;
Liquid temp. 22.8 deg.cel**

DUT: BlackBerry 7520 Wireless Handheld; Type: Sample (Retracted Ant.)

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3
Medium: 835 MHz Head Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.5, 6.5, 6.5); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Area Scan (101x141x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Reference Value = 27.4 V/m; Power Drift = 0.2 dB

Maximum value of SAR (interpolated) = 0.648 mW/g

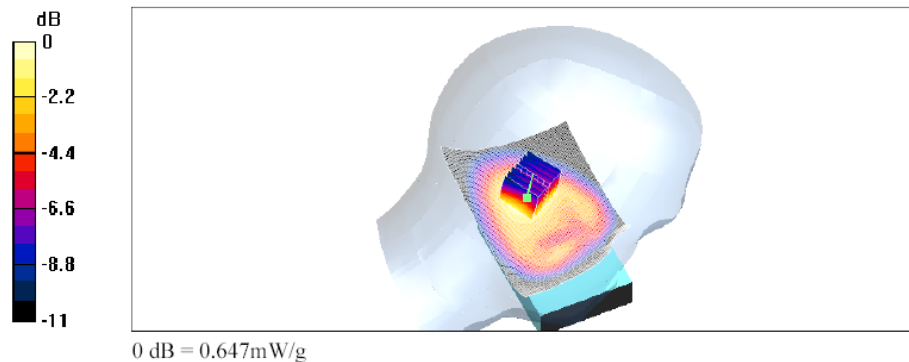
Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 27.4 V/m; Power Drift = 0.2 dB


Maximum value of SAR (measured) = 0.647 mW/g

Peak SAR (extrapolated) = 0.846 W/kg

SAR(1 g) = 0.589 mW/g; SAR(10 g) = 0.395 mW/g



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Date/Time: 07/26/04 13:56:10

Test Laboratory: Research In Motion Limited

**Tilted left; Mid frequency (815.50 MHz); Retracted antenna; Ambient temp. 23.8;
Liquid temp. 22.6 deg.cel**

DUT: BlackBerry 7520 Wireless Handheld; Type: Sample (Retracted Ant.)

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3
Medium: 835 MHz Head Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.5, 6.5, 6.5); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Area Scan (101x141x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Reference Value = 26.9 V/m; Power Drift = -0.0 dB

Maximum value of SAR (interpolated) = 0.634 mW/g

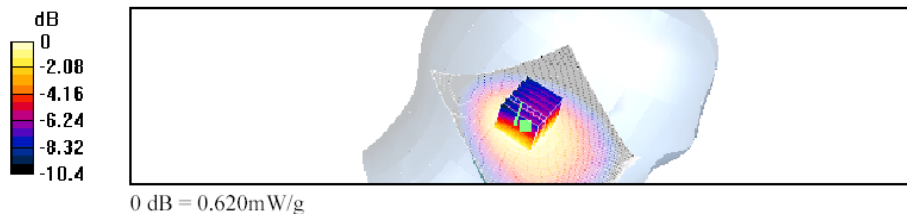
Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.9 V/m; Power Drift = -0.0 dB


Maximum value of SAR (measured) = 0.620 mW/g

Peak SAR (extrapolated) = 0.766 W/kg

SAR(1 g) = 0.584 mW/g; SAR(10 g) = 0.411 mW/g



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Date/Time: 07/23/04 14:21:57

Test Laboratory: Research In Motion Limited

Touch right; Mid frequency (815.50 MHz); Retracted antenna; Ambient temp. 24.0; Liquid temp. 23.2 deg.cel

DUT: BlackBerry 7520 Wireless Handheld; Type: Sample (Retracted Ant.)

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3
Medium: 835 MHz Head Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.5, 6.5, 6.5); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Area Scan (101x141x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Reference Value = 24.2 V/m; Power Drift = 0.0 dB

Maximum value of SAR (interpolated) = 0.751 mW/g

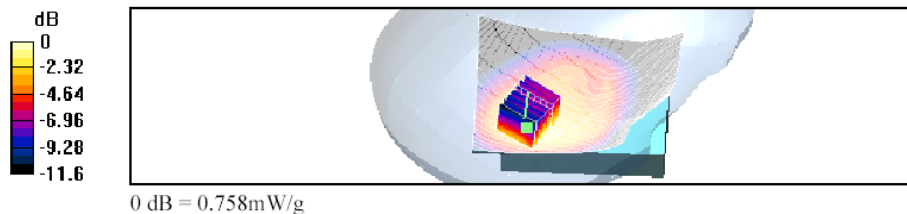
Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 24.2 V/m; Power Drift = 0.0 dB


Maximum value of SAR (measured) = 0.758 mW/g

Peak SAR (extrapolated) = 0.999 W/kg

SAR(1 g) = 0.706 mW/g; SAR(10 g) = 0.473 mW/g



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Date/Time: 07/23/04 17:06:48

Test Laboratory: Research In Motion limited

**Touch right; Mid frequency (815.50 MHz); Extended antenna; Ambient temp. 23.8;
Liquid temp. 22.9 deg.cel**

DUT: BlackBerry 7520 Wireless Handheld Ext; Type: Sample (Extended Ant.)

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3
Medium: 835 MHz Head Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.5, 6.5, 6.5); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Area Scan (101x141x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Reference Value = 20.7 V/m; Power Drift = 0.1 dB

Maximum value of SAR (interpolated) = 0.527 mW/g

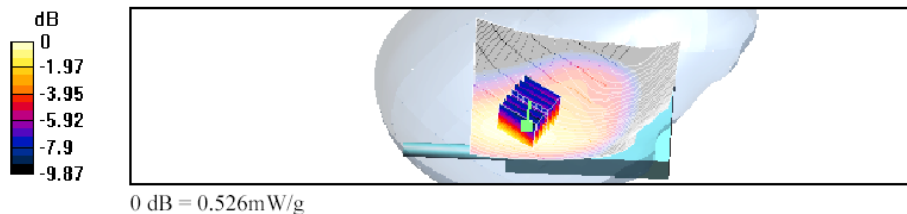
Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.7 V/m; Power Drift = 0.1 dB


Maximum value of SAR (measured) = 0.526 mW/g

Peak SAR (extrapolated) = 0.678 W/kg

SAR(1 g) = 0.483 mW/g; SAR(10 g) = 0.333 mW/g



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Test Laboratory: Research In Motion Limited

**Touch right; Mid frequency (815.50 MHz); Retracted antenna; Sanyo battery;
Ambient temp. 23.6; Liquid temp. 22.8 deg.cel**

DUT: BlackBerry 7520 Wireless Handheld; Type: Sample (Retracted Ant.)

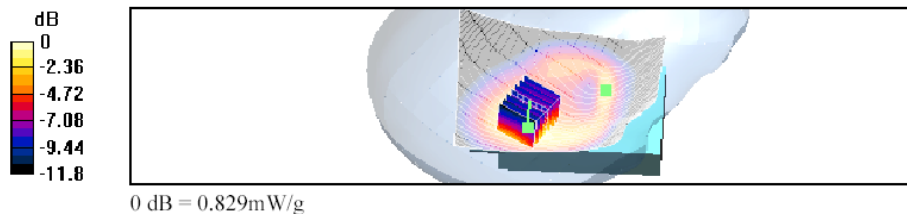
Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3
Medium: 835 MHz Head Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:


- Probe: ET3DV6 - SN1643; ConvF(6.5, 6.5, 6.5); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Area Scan (101x141x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Reference Value = 24.3 V/m; Power Drift = -0.2 dB
Maximum value of SAR (interpolated) = 0.847 mW/g

Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 24.3 V/m; Power Drift = -0.2 dB
Maximum value of SAR (measured) = 0.829 mW/g
Peak SAR (extrapolated) = 1.23 W/kg
SAR(1 g) = 0.768 mW/g; SAR(10 g) = 0.479 mW/g



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Date/Time: 07/26/04 16:51:41

Test Laboratory: Research In Motion Limited

**Touch right; Mid frequency (815.50 MHz); Retracted antenna; higher cap battery;
Ambient temp. 23.2; Liquid temp. 22.6 deg.cel**

DUT: BlackBerry 7520 Wireless Handheld; Type: Sample (Retracted Ant.)

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3
Medium: 835 MHz Head Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.5, 6.5, 6.5); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Area Scan (101x141x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Reference Value = 20.7 V/m; Power Drift = -0.1 dB

Maximum value of SAR (interpolated) = 0.751 mW/g

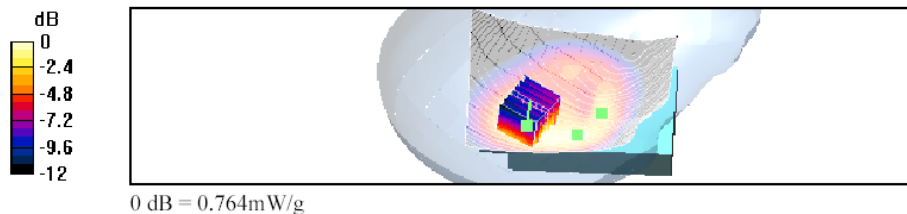
Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.7 V/m; Power Drift = -0.1 dB


Maximum value of SAR (measured) = 0.764 mW/g

Peak SAR (extrapolated) = 1.09 W/kg

SAR(1 g) = 0.711 mW/g; SAR(10 g) = 0.449 mW/g



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Date/Time: 07/27/04 09:03:05

Test Laboratory: Research In Motion Limited

**Touch right; Mid frequency (815.50 MHz) with Bluetooth ON; Retracted antenna;
Sanyo battery; Ambient temp. 24.5; Liquid temp. 23.3 deg.cel**

DUT: BlackBerry 7520 Wireless Handheld; Type: Sample (Retracted Ant.)

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3
Medium: 835 MHz Head Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.5, 6.5, 6.5); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Area Scan (101x141x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Reference Value = 20.6 V/m; Power Drift = 0.2 dB

Maximum value of SAR (interpolated) = 0.732 mW/g

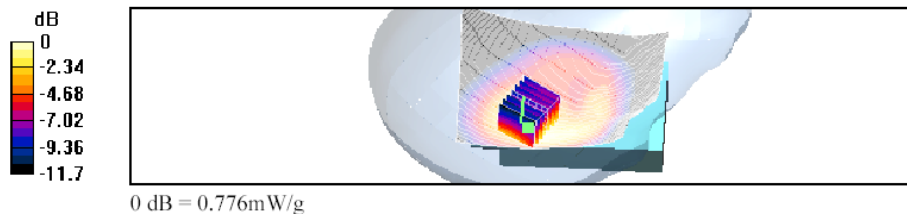
Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.6 V/m; Power Drift = 0.2 dB


Maximum value of SAR (measured) = 0.776 mW/g

Peak SAR (extrapolated) = 1.07 W/kg

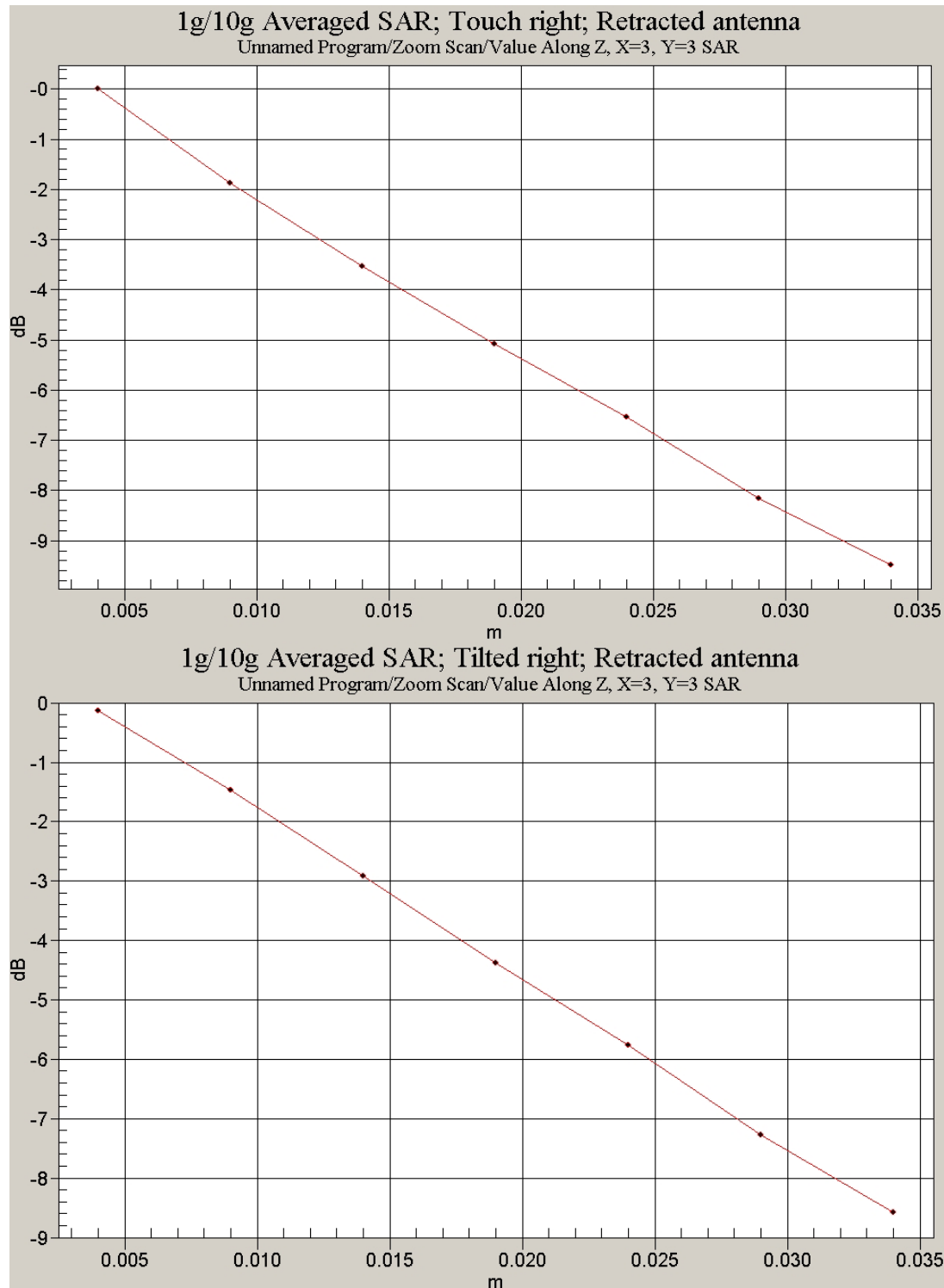
SAR(1 g) = 0.703 mW/g; SAR(10 g) = 0.451 mW/g




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Z-Axis plots for the each worst case configuration:



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APPENDIX C: SAR DISTRIBUTION PLOTS FOR BODY-WORN SAR CONFIGURATION

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Date/Time: 07/27/04 12:43:18

Test Laboratory: Research In Motion Limited

Body-worn with Plastic Swivel Holster; Mid frequency (815.50 MHz); Retracted antenna; GS Melcotec battery; Ambient temp. 24.4; Liquid temp. 23.4 deg.cel

DUT: BlackBerry 7520 Wireless Handheld; Type: Sample (Retracted Ant.)

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: M 835 Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.3, 6.3, 6.3); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Area Scan (101x141x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Reference Value = 21.4 V/m; Power Drift = -0.1 dB

Maximum value of SAR (interpolated) = 0.436 mW/g

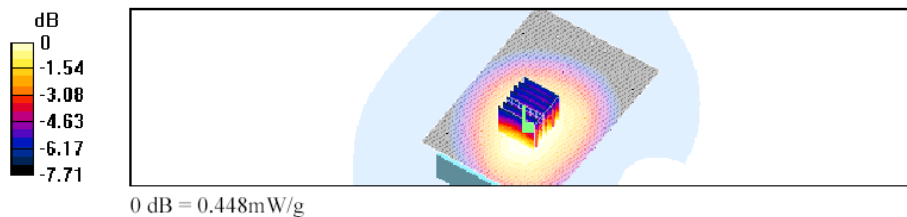
Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.4 V/m; Power Drift = -0.1 dB


Maximum value of SAR (measured) = 0.448 mW/g

Peak SAR (extrapolated) = 0.519 W/kg

SAR(1 g) = 0.420 mW/g; SAR(10 g) = 0.319 mW/g



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Date/Time: 07/27/04 14:08:36

Test Laboratory: Research In Motion Limited

Body-worn with Plastic Swivel Holster; Mid frequency (815.50 MHz); Retracted antenna; Sanyo battery; Ambient temp. 24.3; Liquid temp. 23.0 deg.cel

DUT: BlackBerry 7520 Wireless Handheld; Type: Sample (Retracted Ant.)

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: M 835 Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.3, 6.3, 6.3); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Area Scan (101x141x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Reference Value = 21.4 V/m; Power Drift = -0.1 dB

Maximum value of SAR (interpolated) = 0.436 mW/g

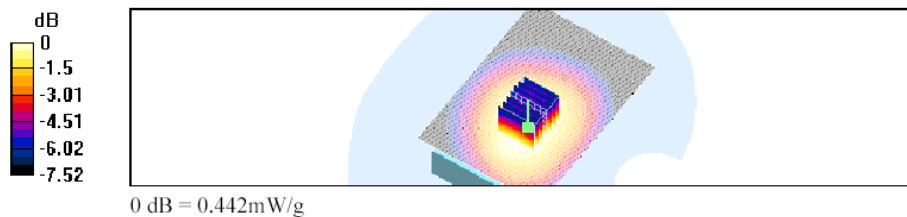
Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.4 V/m; Power Drift = -0.1 dB


Maximum value of SAR (measured) = 0.442 mW/g

Peak SAR (extrapolated) = 0.516 W/kg

SAR(1 g) = 0.419 mW/g; SAR(10 g) = 0.320 mW/g



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Date/Time: 07/27/04 14:47:26

Test Laboratory: Research In Motion Limited

Body-worn with Plastic Swivel Holster; Mid frequency (815.50 MHz); Retracted antenna; Higher cap. battery; Ambient temp. 24.2; Liquid temp. 22.9 deg.cel

DUT: BlackBerry 7520 Wireless Handheld; Type: Sample (Retracted Ant.);

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: M 835 Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.3, 6.3, 6.3); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Area Scan (101x141x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Reference Value = 21.6 V/m; Power Drift = -0.1 dB

Maximum value of SAR (interpolated) = 0.448 mW/g

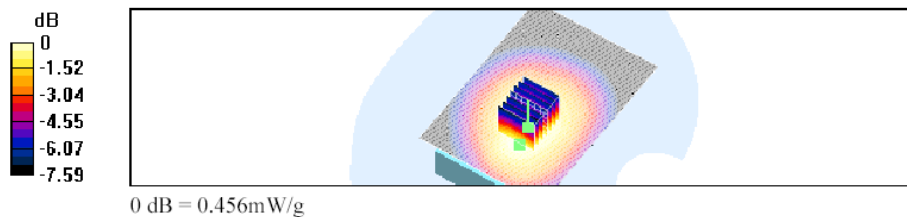
Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.6 V/m; Power Drift = -0.1 dB


Maximum value of SAR (measured) = 0.456 mW/g

Peak SAR (extrapolated) = 0.520 W/kg

SAR(1 g) = 0.428 mW/g; SAR(10 g) = 0.325 mW/g



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Date/Time: 07/27/04 16:04:16

Test Laboratory: Research In Motion Limited

Body-worn with Plastic Swivel Holster; Mid frequency (815.50 MHz) with headset and Bluetooth ON; Retracted antenna; Higher cap. battery; Ambient temp. 24.2; Liquid temp. 22.8 deg.cel

DUT: BlackBerry 7520 Wireless Handheld; Type: Sample (Retracted Ant.)

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: M 835 Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.3, 6.3, 6.3); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Area Scan (101x141x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Reference Value = 21.1 V/m; Power Drift = 0.0 dB

Maximum value of SAR (interpolated) = 0.439 mW/g

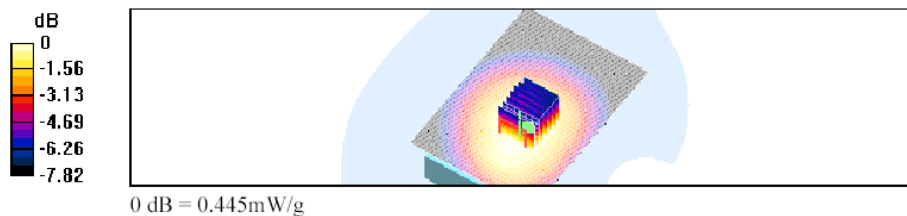
Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.1 V/m; Power Drift = 0.0 dB


Maximum value of SAR (measured) = 0.445 mW/g

Peak SAR (extrapolated) = 0.513 W/kg

SAR(1 g) = 0.420 mW/g; SAR(10 g) = 0.319 mW/g



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Test Laboratory: Research In Motion Limited

Body-worn with Plastic Swivel Holster; Mid frequency (815.50 MHz); Extended antenna; Higher cap. battery; Ambient temp. 24.2; Liquid temp. 22.8 deg.cel

DUT: BlackBerry 7520 Wireless Handheld Ext; Type: Sample (Extended Ant.)

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: M 835 Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.3, 6.3, 6.3); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Area Scan (101x141x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Reference Value = 21.4 V/m; Power Drift = 0.0 dB

Maximum value of SAR (interpolated) = 0.421 mW/g

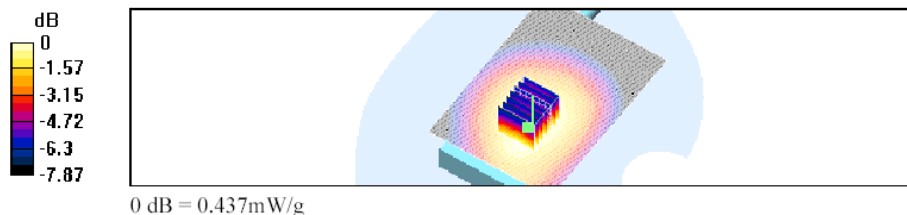
Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.4 V/m; Power Drift = 0.0 dB


Maximum value of SAR (measured) = 0.437 mW/g

Peak SAR (extrapolated) = 0.508 W/kg

SAR(1 g) = 0.404 mW/g; SAR(10 g) = 0.309 mW/g



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Date/Time: 08/12/04 10:51:14

Test Laboratory: Research In Motion Limited

Body-worn with Vertical Foam Holster; Mid frequency (815.50 MHz); Retracted antenna; Back side; GS Melcotec battery; Ambient temp. 24.7; Liquid temp. 23.3 deg.cel

DUT: BlackBerry 7520 Wireless Handheld; Type: Sample (Retracted Ant.)

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: M 835 Medium parameters used: $f = 815.5$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 53.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.3, 6.3, 6.3); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 25.7 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.629 mW/g

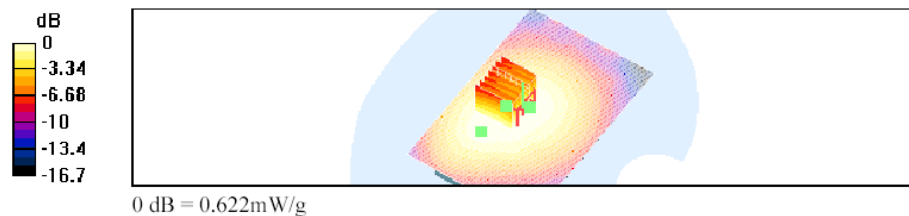
Peak SAR (extrapolated) = 0.719 W/kg

SAR(1 g) = 0.589 mW/g; SAR(10 g) = 0.452 mW/g


Unnamed procedure/Area Scan (101x151x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 25.7 V/m; Power Drift = -0.0 dB

Maximum value of SAR (interpolated) = 0.622 mW/g



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Date/Time: 08/12/04 11:30:18

Test Laboratory: Research In Motion Limited

Body-worn with Horizontal Foam Holster; Mid frequency (815.50 MHz); Retracted antenna; Back side; GS Melcotec battery; Ambient temp. 24.6; Liquid temp. 23.2 deg.cel

DUT: BlackBerry 7520 Wireless Handheld; Type: Sample (Retracted Ant.)

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: M 835 Medium parameters used: $f = 815.5$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 53.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.3, 6.3, 6.3); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.9 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.814 mW/g

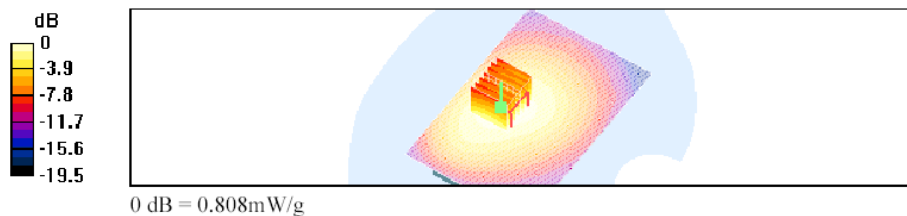
Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.748 mW/g; SAR(10 g) = 0.526 mW/g


Unnamed procedure/Area Scan (101x151x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 26.9 V/m; Power Drift = -0.0 dB

Maximum value of SAR (interpolated) = 0.808 mW/g



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Date/Time: 08/12/04 13:35:57

Test Laboratory: Research In Motion Limited

Body-worn with Horizontal Foam Holster; Mid frequency (815.50 MHz); Retracted antenna; Back side; higher cap battery; Ambient temp. 24.5; Liquid temp. 23.0 deg.cel

DUT: BlackBerry 7520 Wireless Handheld; Type: Sample (Retracted Ant.)

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: M 835 Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 53.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.3, 6.3, 6.3); Calibrated: 09/10/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn473;
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 25.9 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.855 mW/g

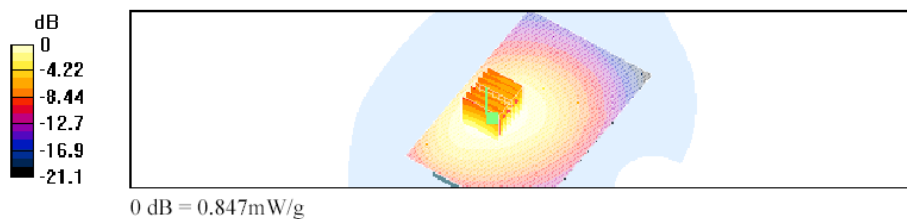
Peak SAR (extrapolated) = 1.15 W/kg

SAR(1 g) = 0.792 mW/g; SAR(10 g) = 0.555 mW/g


Unnamed procedure/Area Scan (101x151x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Reference Value = 25.9 V/m; Power Drift = 0.0 dB

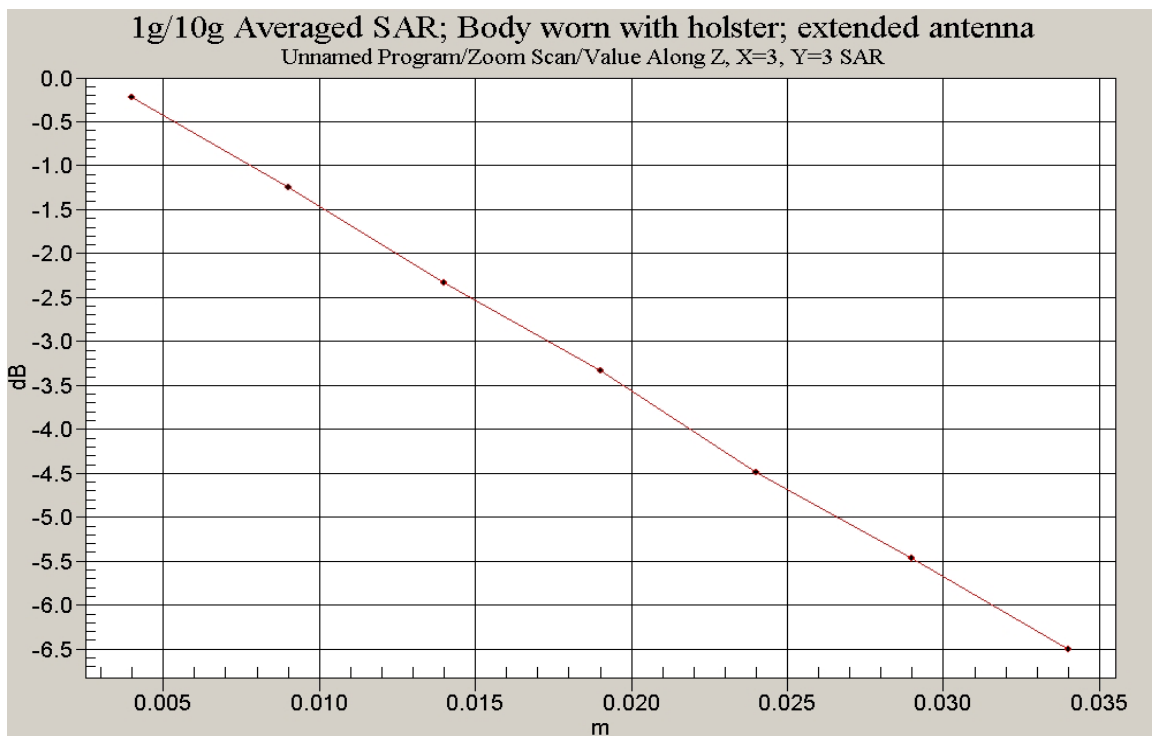
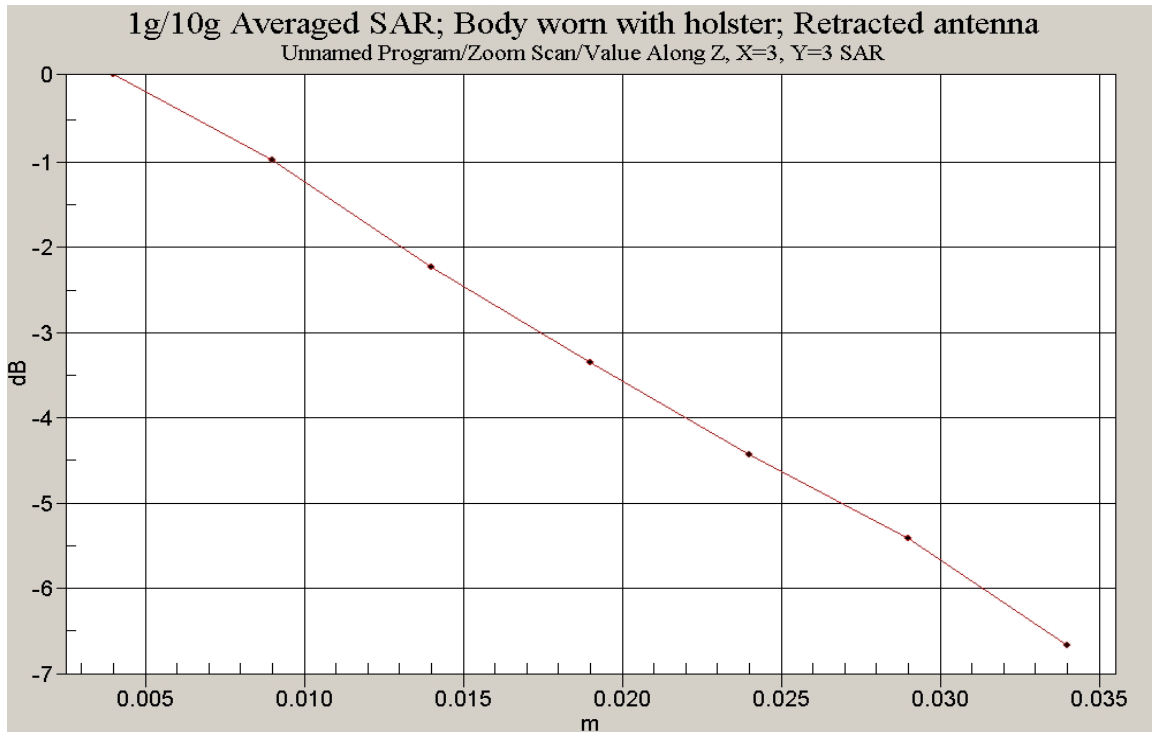
Maximum value of SAR (interpolated) = 0.847 mW/g




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Z-Axis plots for the each worst case configuration:



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