

Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.2GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5180 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5180$ MHz; $\sigma = 5.06$ mho/m; $\epsilon_r = 45.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(4.08, 4.08, 4.08); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Main Ant_Ch 36/Area Scan (10x13x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.11 mW/g

802.11a_Main Ant_Ch 36/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

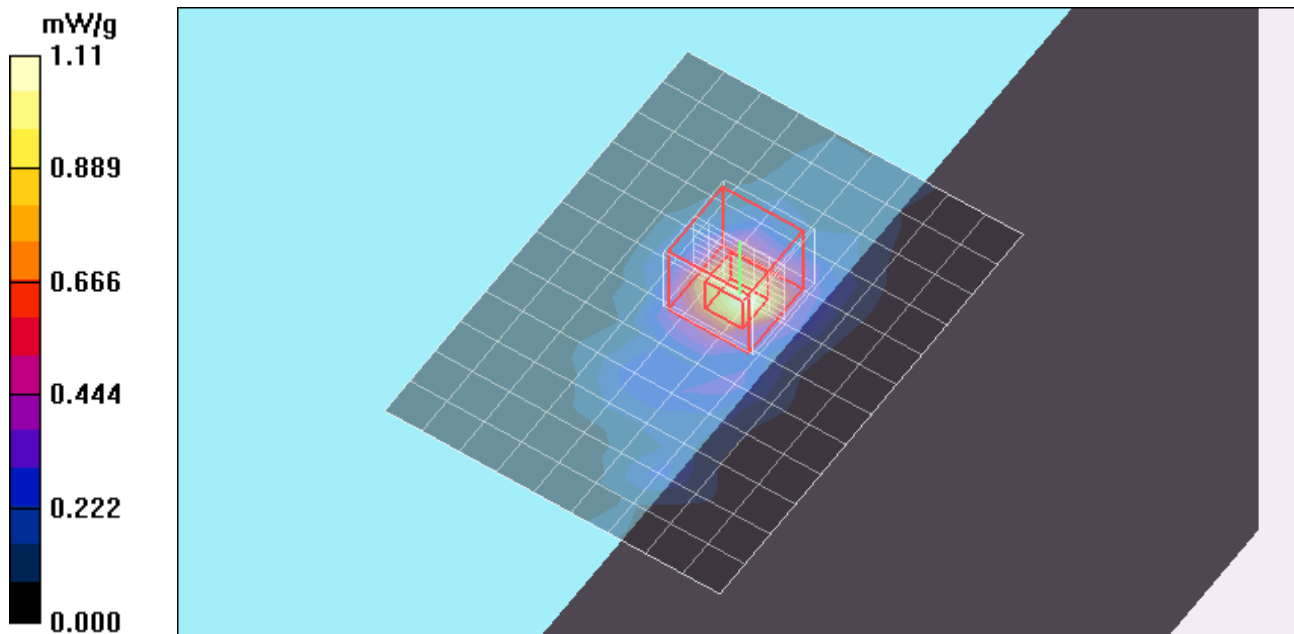
Reference Value = 16.1 V/m; Power Drift = 0.180 dB

Peak SAR (extrapolated) = 2.34 W/kg

SAR(1 g) = 0.733 mW/g; SAR(10 g) = 0.267 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.20 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.2GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5200 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5200$ MHz; $\sigma = 5.18$ mho/m; $\epsilon_r = 45.4$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

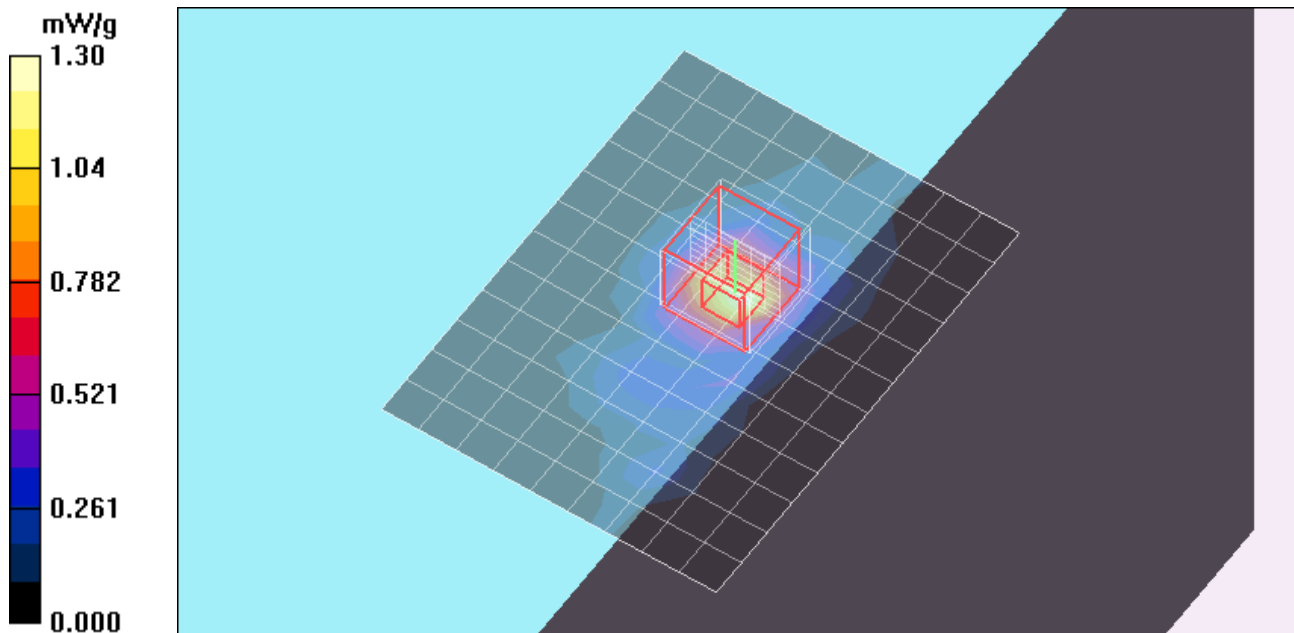
Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(4.08, 4.08, 4.08); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Main Ant_Ch 40/Area Scan (10x13x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.30 mW/g

802.11a_Main Ant_Ch 40/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 17.1 V/m; Power Drift = -0.004 dB
Peak SAR (extrapolated) = 2.49 W/kg
SAR(1 g) = 0.823 mW/g; SAR(10 g) = 0.304 mW/g
Maximum value of SAR (measured) = 1.39 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.2GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5240 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5240$ MHz; $\sigma = 5.14$ mho/m; $\epsilon_r = 46.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(4.08, 4.08, 4.08); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Main Ant_Ch 48/Area Scan (10x13x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.12 mW/g

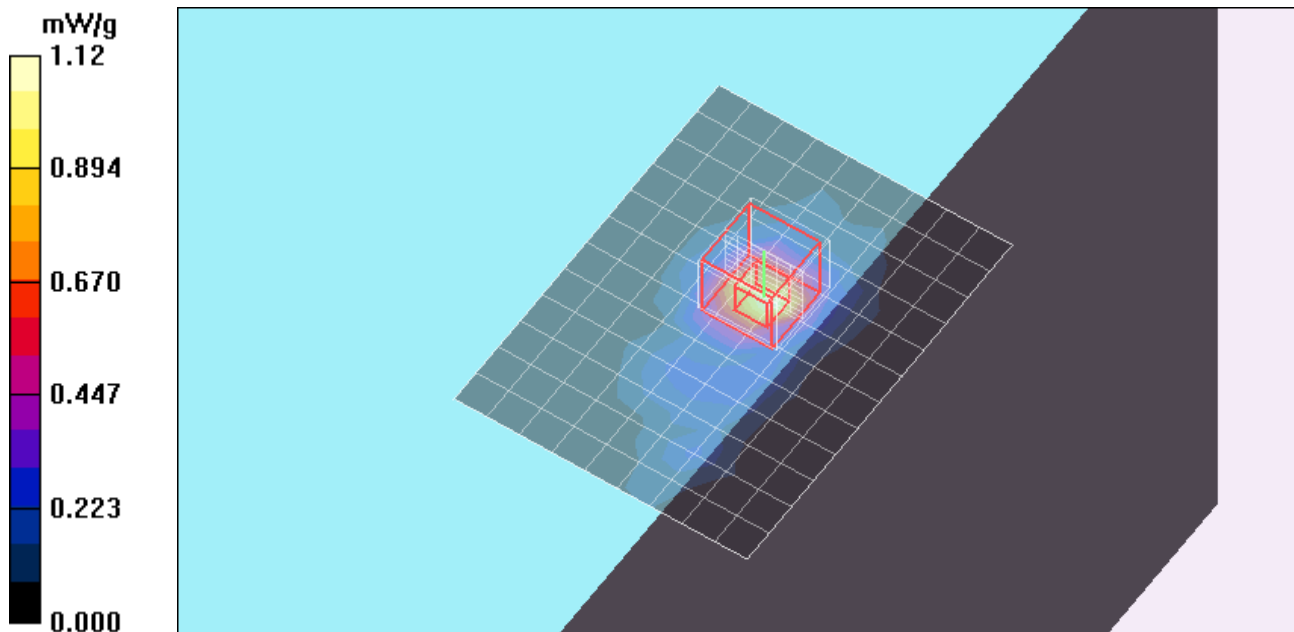
802.11a_Main Ant_Ch 48/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 15.7 V/m; Power Drift = 0.163 dB

Peak SAR (extrapolated) = 2.17 W/kg

SAR(1 g) = 0.692 mW/g; SAR(10 g) = 0.253 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.3GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5260 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5260$ MHz; $\sigma = 5.45$ mho/m; $\epsilon_r = 47$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.81, 3.81, 3.81); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Main Ant_Ch 52/Area Scan (11x15x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.41 mW/g

802.11a_Main Ant_Ch 52/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

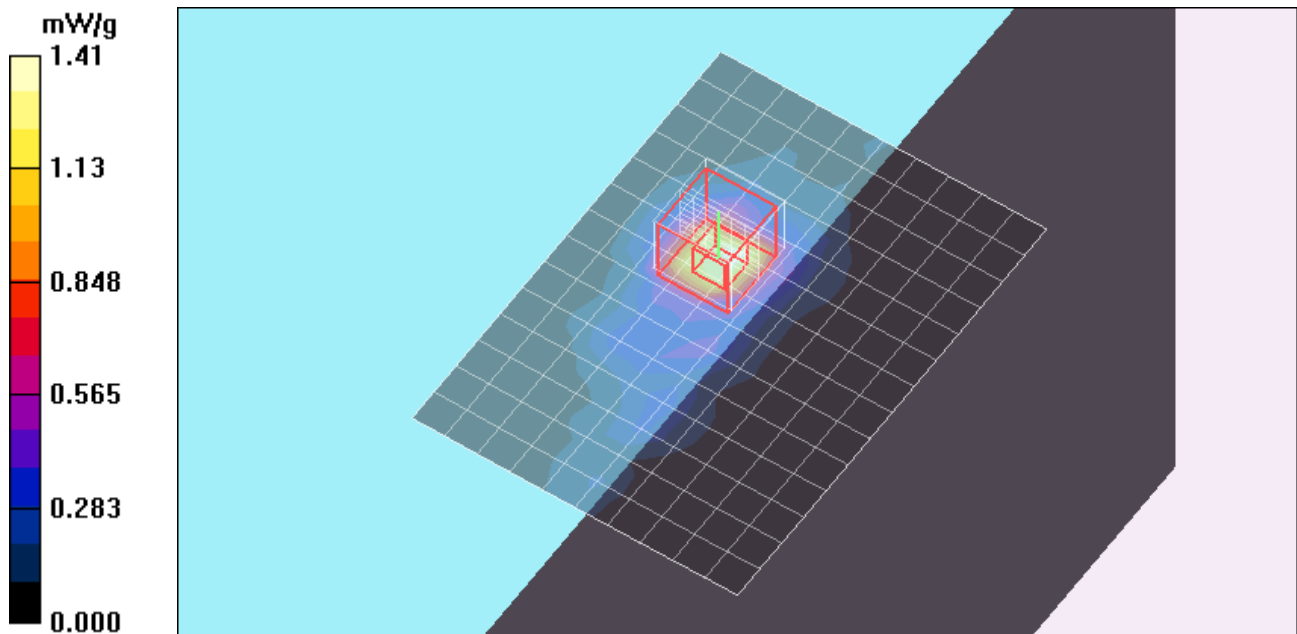
Reference Value = 17.5 V/m; Power Drift = 0.185 dB

Peak SAR (extrapolated) = 3.23 W/kg

SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.392 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.69 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.3GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5300 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5300$ MHz; $\sigma = 5.5$ mho/m; $\epsilon_r = 45.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.81, 3.81, 3.81); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Main Ant_Ch 60/Area Scan (13x16x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.28 mW/g

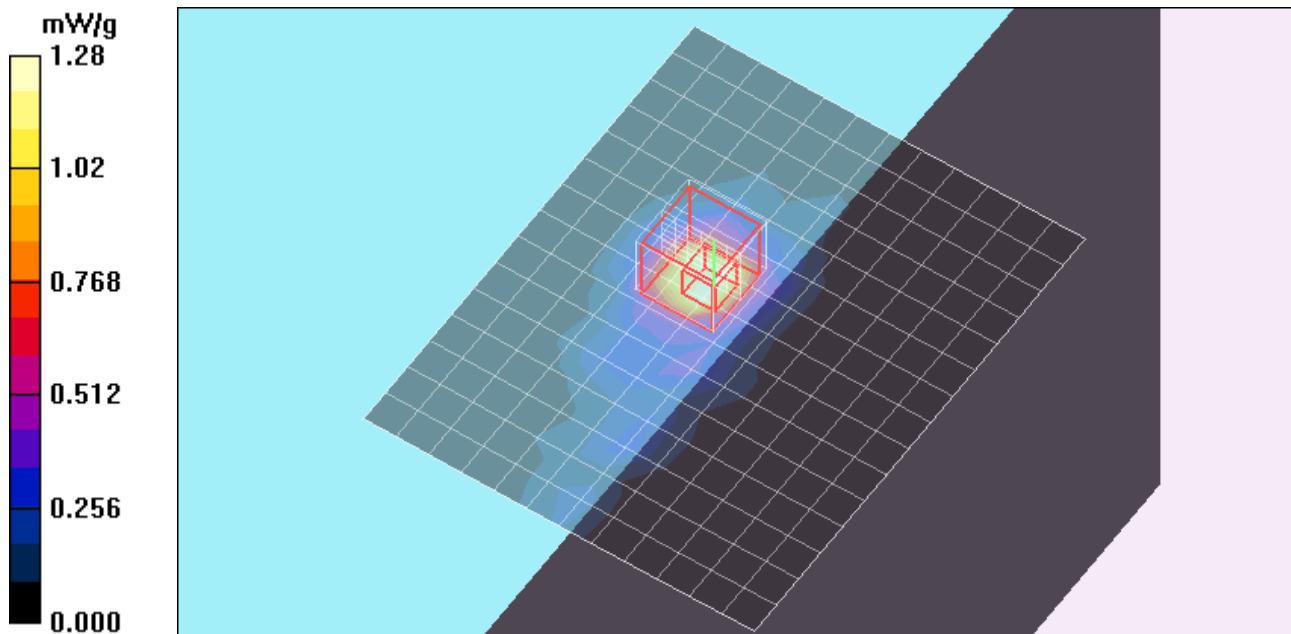
802.11a_Main Ant_Ch 60/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 17.3 V/m; Power Drift = 0.061 dB

Peak SAR (extrapolated) = 2.95 W/kg

SAR(1 g) = 0.948 mW/g; SAR(10 g) = 0.354 mW/g

Maximum value of SAR (measured) = 1.60 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.3GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5320 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5320$ MHz; $\sigma = 5.57$ mho/m; $\epsilon_r = 46.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.81, 3.81, 3.81); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Main Ant_Ch 64/Area Scan (11x13x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.46 mW/g

802.11a_Main Ant_Ch 64/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

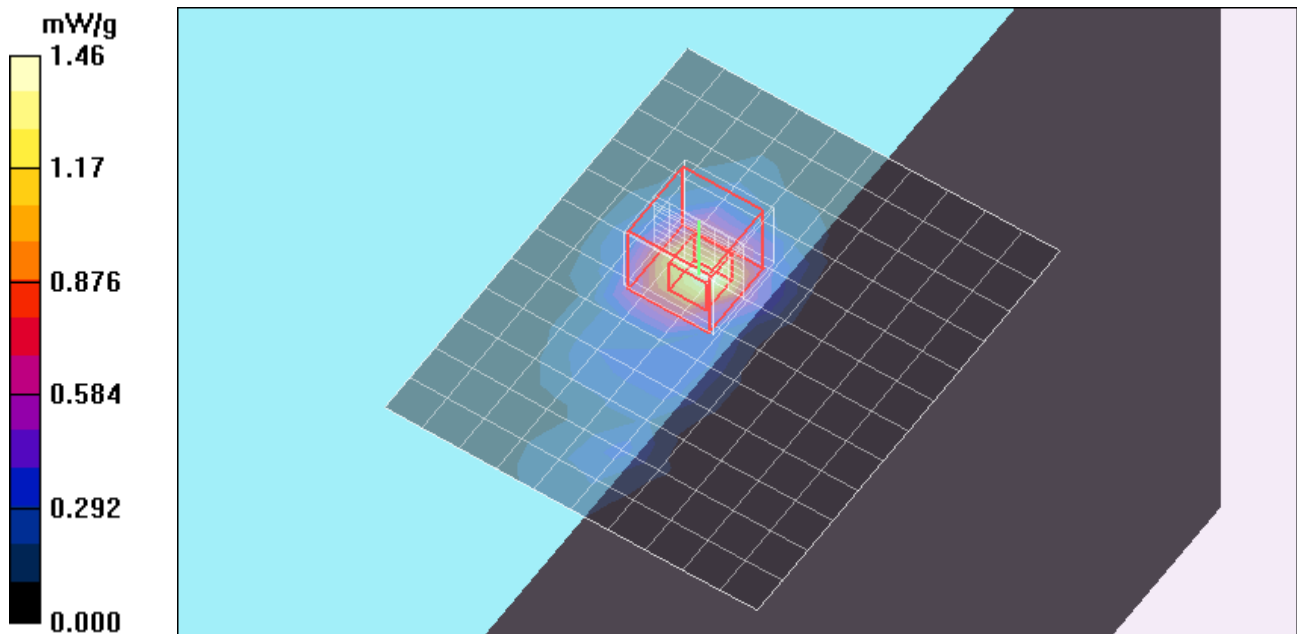
Reference Value = 17.3 V/m; Power Drift = 0.167 dB

Peak SAR (extrapolated) = 2.77 W/kg

SAR(1 g) = 0.900 mW/g; SAR(10 g) = 0.319 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.53 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.6GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5600 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5600$ MHz; $\sigma = 5.92$ mho/m; $\epsilon_r = 46.4$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

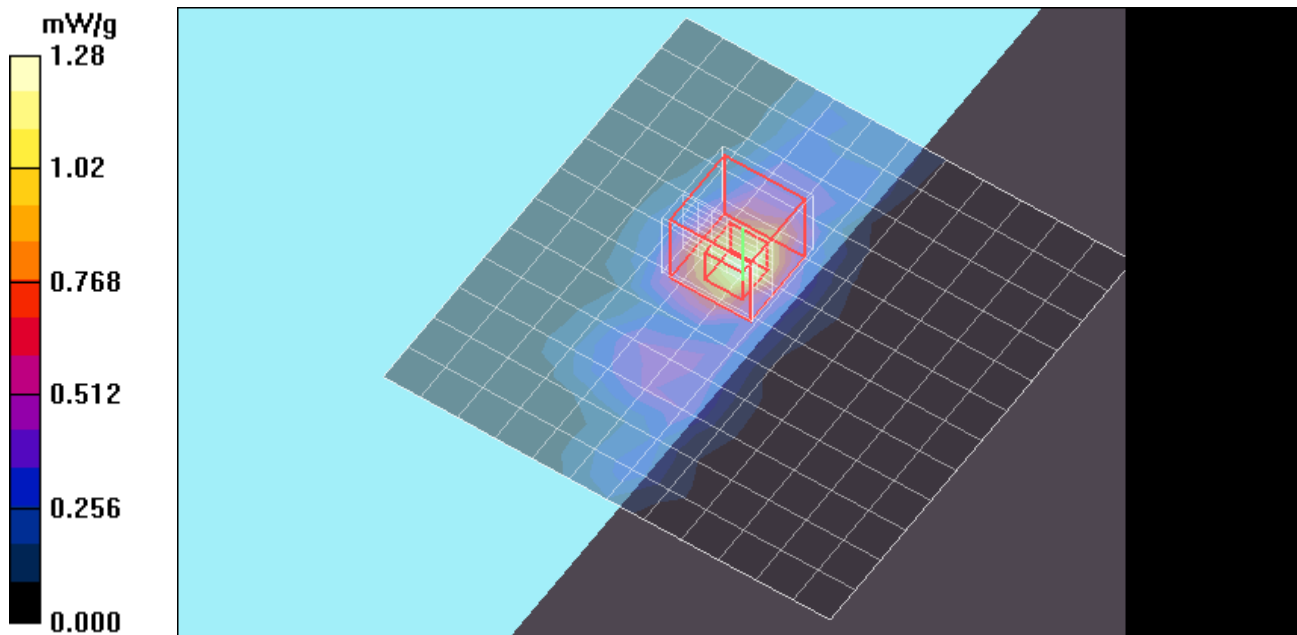
Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.61, 3.61, 3.61); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Main Ant_Ch 120/Area Scan (13x13x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.28 mW/g

802.11a_Main Ant_Ch 120/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 15.4 V/m; Power Drift = -0.115 dB
Peak SAR (extrapolated) = 2.58 W/kg
SAR(1 g) = 0.746 mW/g; SAR(10 g) = 0.288 mW/g
Maximum value of SAR (measured) = 1.19 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.8GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5745$ MHz; $\sigma = 6.08$ mho/m; $\epsilon_r = 45.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.84, 3.84, 3.84); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Main Ant_Ch 149/Area Scan (9x16x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.785 mW/g

802.11a_Main Ant_Ch 149/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

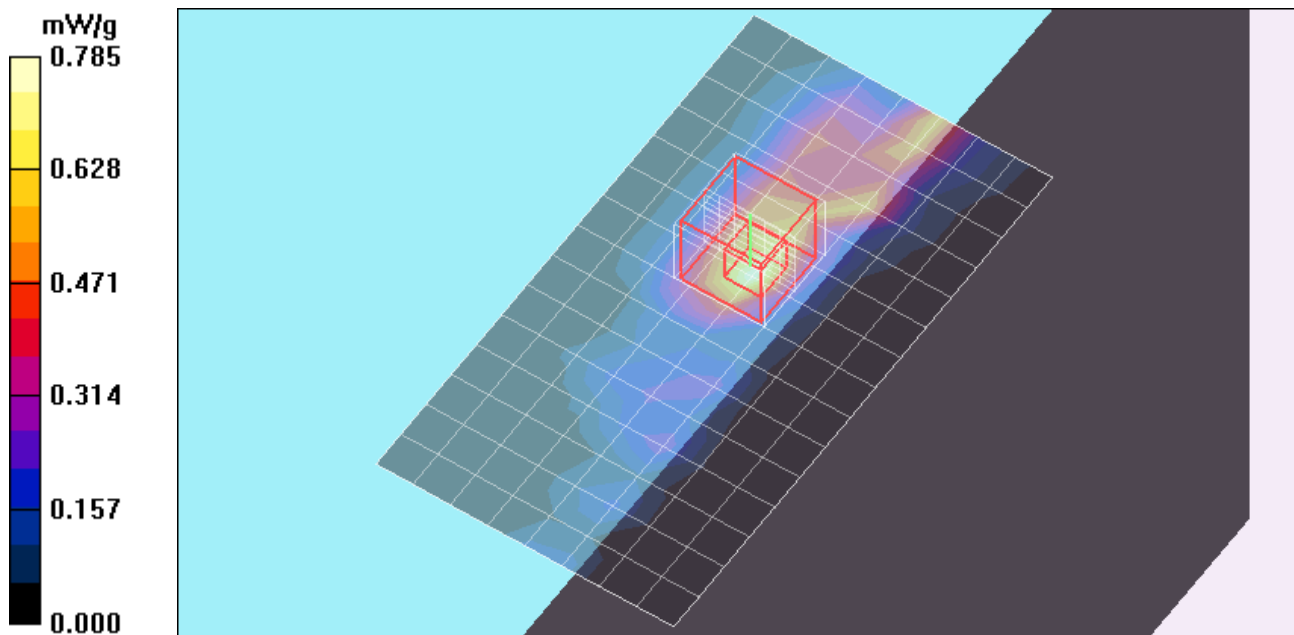
Reference Value = 12.2 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 0.457 mW/g; SAR(10 g) = 0.176 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.741 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.8GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5785 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5785$ MHz; $\sigma = 6.2$ mho/m; $\epsilon_r = 45.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.84, 3.84, 3.84); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Main Ant_Ch 157/Area Scan (9x16x1): Measurement grid: dx=10mm, dy=10mm[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.27 mW/g

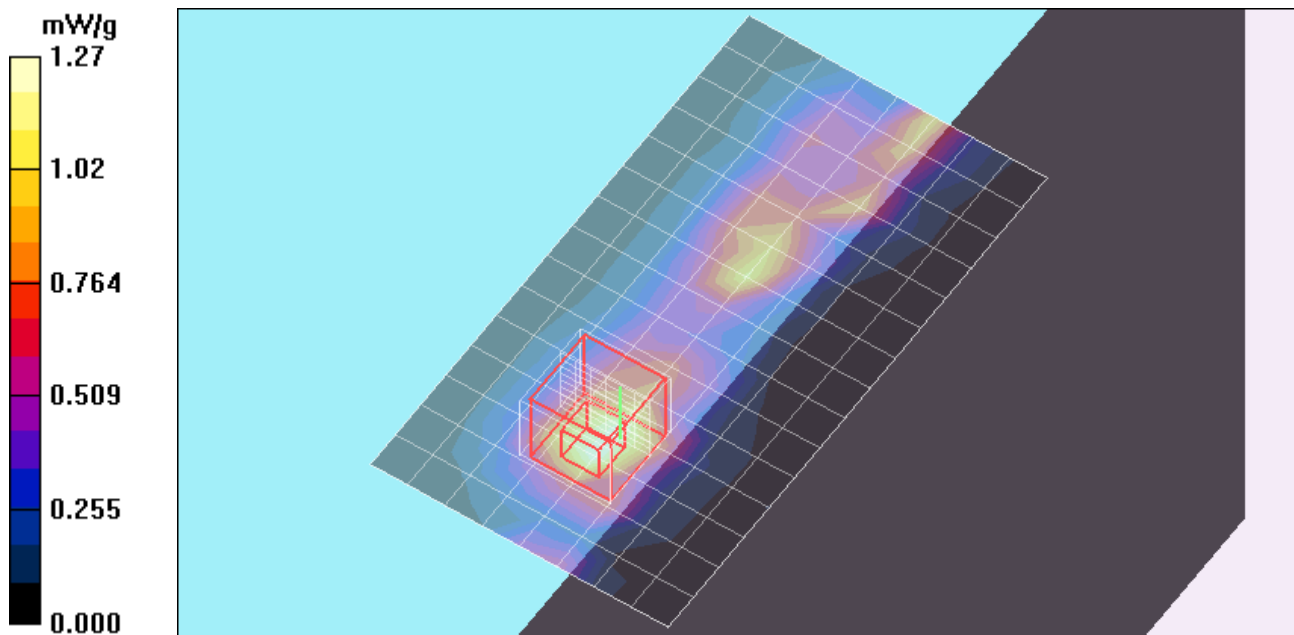
802.11a_Main Ant_Ch 157/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 15.5 V/m; Power Drift = 0.022 dB

Peak SAR (extrapolated) = 6.20 W/kg

SAR(1 g) = 0.829 mW/g; SAR(10 g) = 0.344 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.37 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.8GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5825$ MHz; $\sigma = 6.28$ mho/m; $\epsilon_r = 45.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.84, 3.84, 3.84); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Main Ant_Ch 165/Area Scan (9x16x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.36 mW/g

802.11a_Main Ant_Ch 165/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

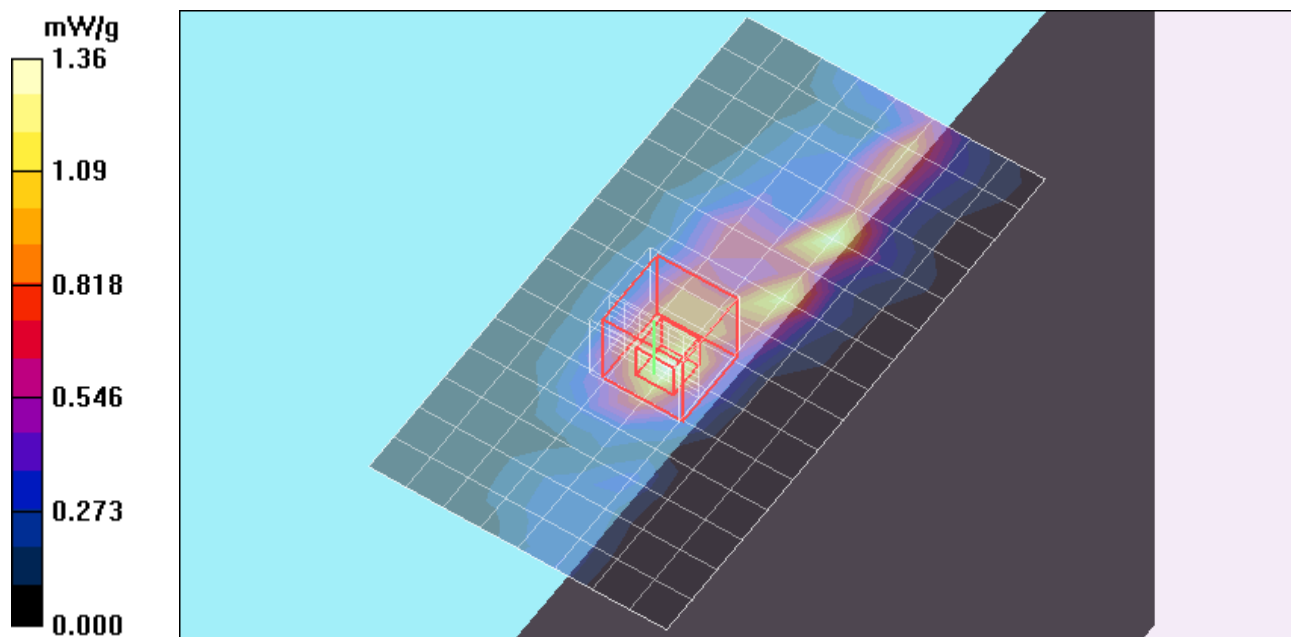
Reference Value = 15.7 V/m; Power Drift = 0.119 dB

Peak SAR (extrapolated) = 5.81 W/kg

SAR(1 g) = 0.786 mW/g; SAR(10 g) = 0.299 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.32 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.2GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5200 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 5.18 \text{ mho/m}$; $\epsilon_r = 45.4$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(4.08, 4.08, 4.08); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

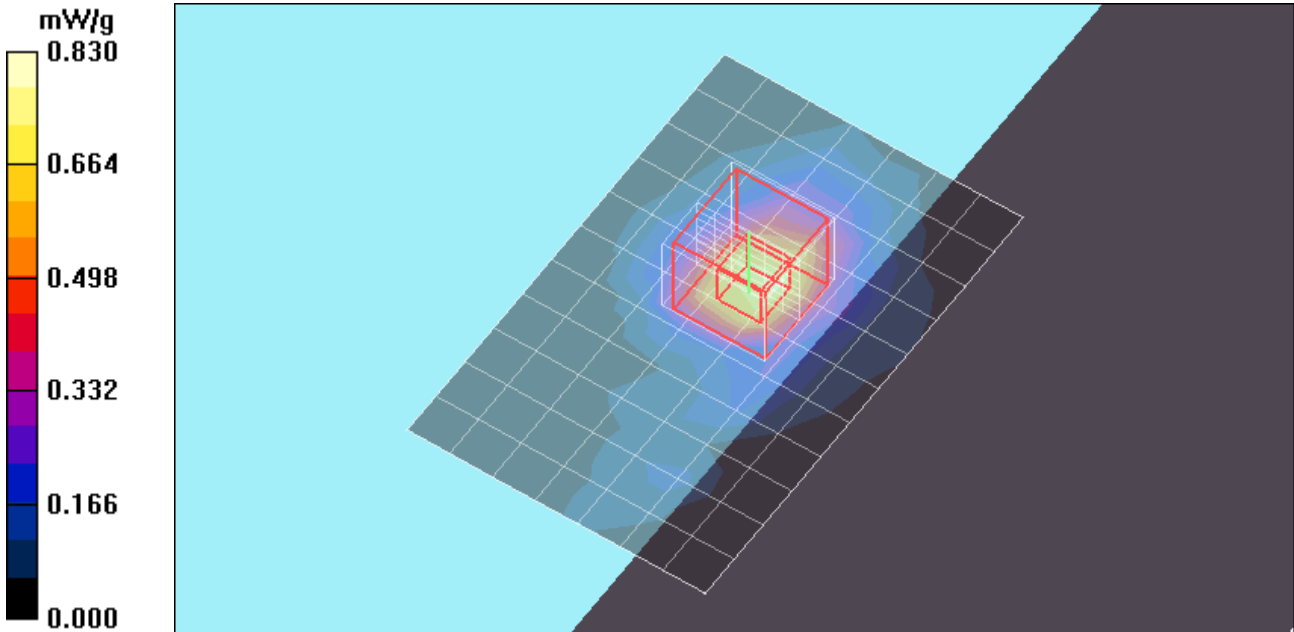
802.11a_Aux Ant_Ch 40/Area Scan (8x12x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.747 mW/g

802.11a_Aux Ant_Ch 40/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 13.2 V/m; Power Drift = 0.131 dB
Peak SAR (extrapolated) = 1.49 W/kg

SAR(1 g) = 0.525 mW/g; SAR(10 g) = 0.212 mW/g
Maximum value of SAR (measured) = 0.830 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.3GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5260 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5260$ MHz; $\sigma = 5.15$ mho/m; $\epsilon_r = 46.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.81, 3.81, 3.81); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Aux Ant_Ch 52/Area Scan (7x10x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.48 mW/g

802.11a_Aux Ant_Ch 52/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

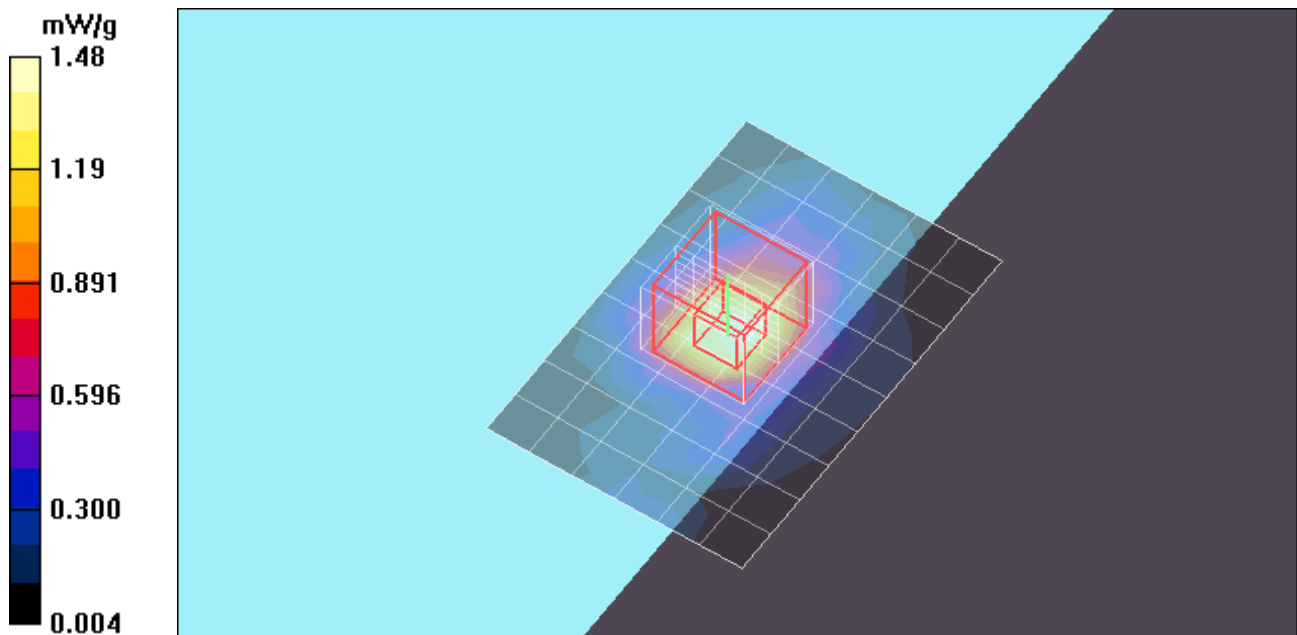
Reference Value = 18.5 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 2.95 W/kg

SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.424 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.65 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.3GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5300 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5300$ MHz; $\sigma = 5.21$ mho/m; $\epsilon_r = 45.3$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.81, 3.81, 3.81); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Aux Ant_Ch 60/Area Scan (7x11x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.61 mW/g

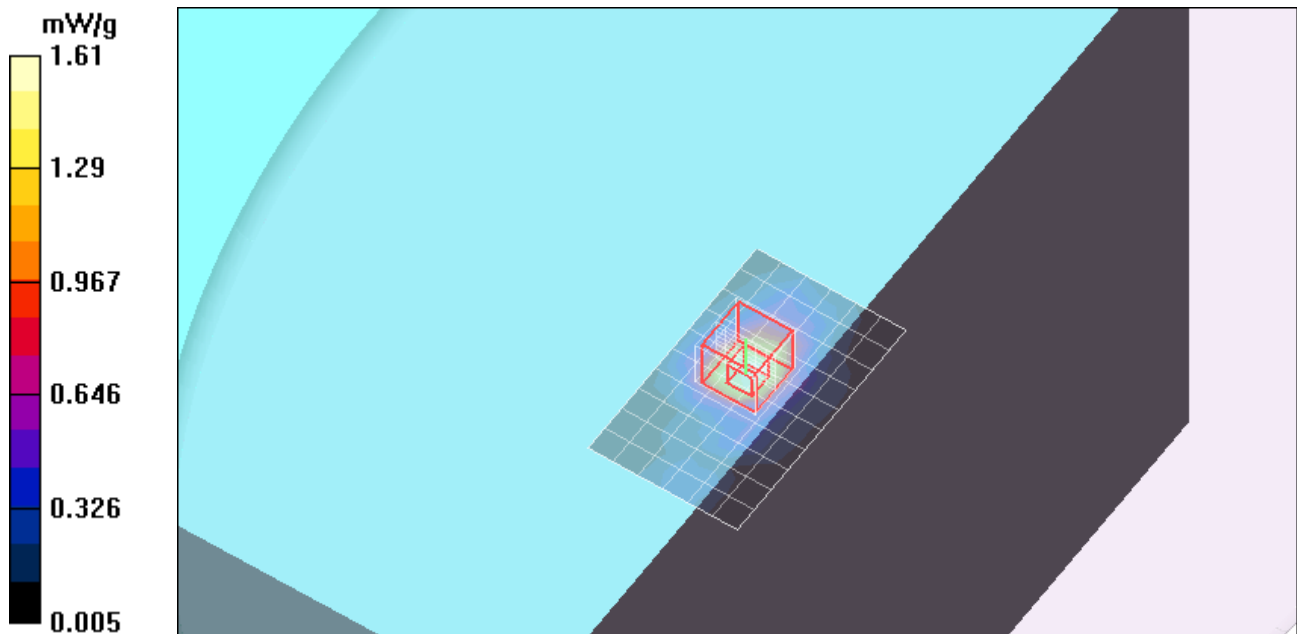
802.11a_Aux Ant_Ch 60/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm,
dz=2.5mm

Reference Value = 19.3 V/m; Power Drift = -0.824 dB

Peak SAR (extrapolated) = 2.63 W/kg

SAR(1 g) = 0.927 mW/g; SAR(10 g) = 0.373 mW/g

Maximum value of SAR (measured) = 1.43 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.3GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5320 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5320$ MHz; $\sigma = 5.29$ mho/m; $\epsilon_r = 45.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.81, 3.81, 3.81); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Aux Ant_Ch 64/Area Scan (7x10x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.17 mW/g

802.11a_Aux Ant_Ch 64/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

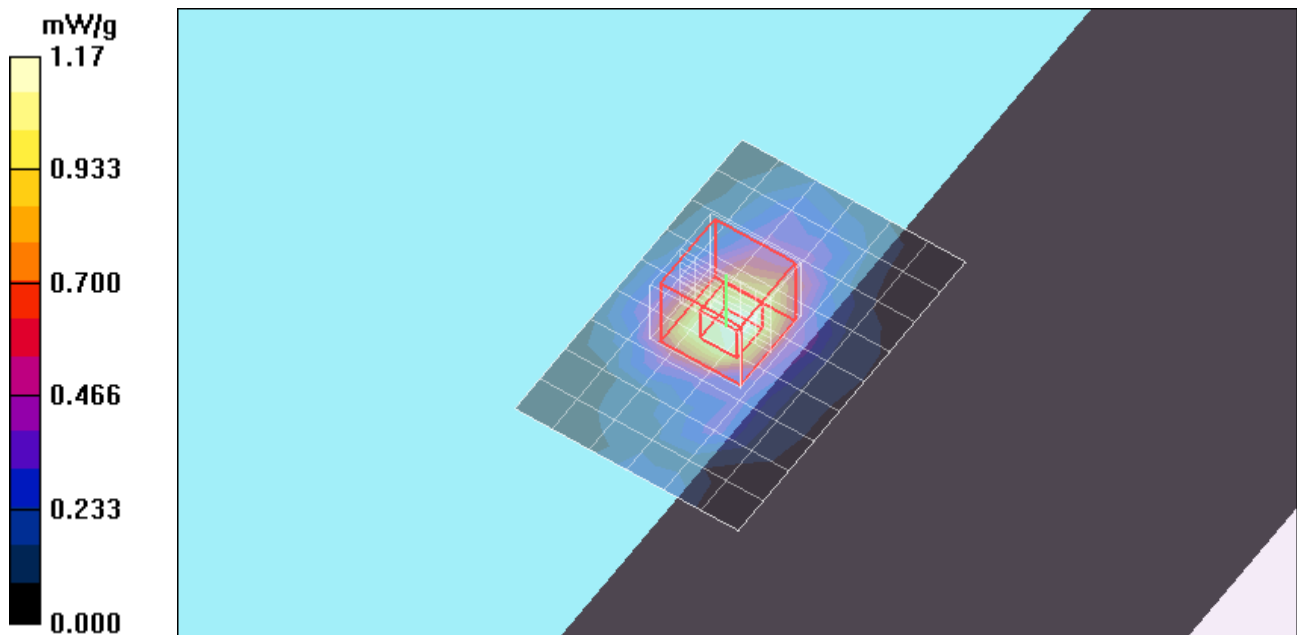
Reference Value = 16.1 V/m; Power Drift = 0.110 dB

Peak SAR (extrapolated) = 2.34 W/kg

SAR(1 g) = 0.820 mW/g; SAR(10 g) = 0.333 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.27 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.6GHz

DUT: Apple; Type: NA; Serial: NA

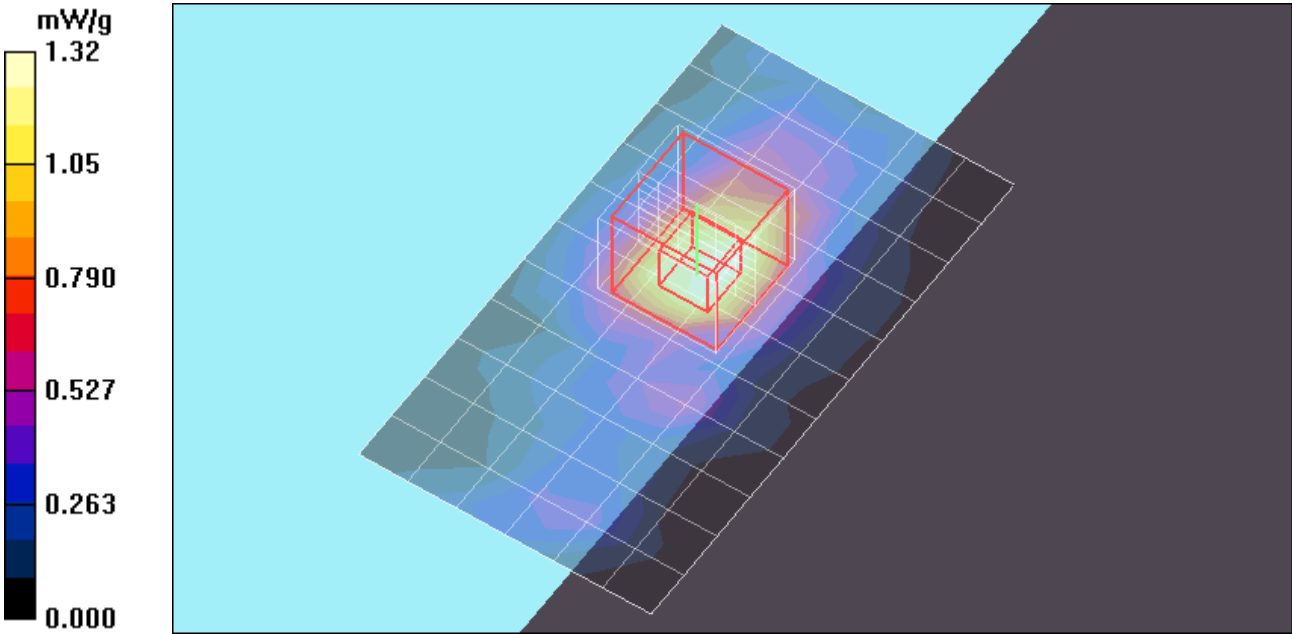
Communication System: 802.11abgn; Frequency: 5500 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5500 \text{ MHz}$; $\sigma = 5.34 \text{ mho/m}$; $\epsilon_r = 46.1$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

- DASY4 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
 - Probe: EX3DV4 - SN3686; ConvF(3.76, 3.76, 3.76); Calibrated: 3/23/2009
 - Sensor-Surface: 2.5mm (Mechanical Surface Detection)
 - Electronics: DAE3 Sn500; Calibrated: 9/15/2009
 - Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
 - Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Aux Ant_Ch 100/Area Scan (7x12x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.32 mW/g

802.11a_Aux Ant_Ch 100/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 17.0 V/m; Power Drift = 0.083 dB
Peak SAR (extrapolated) = 2.74 W/kg
SAR(1 g) = 0.907 mW/g; SAR(10 g) = 0.335 mW/g
Maximum value of SAR (measured) = 1.45 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.6GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.62$ mho/m; $\epsilon_r = 46.1$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.61, 3.61, 3.61); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Aux Ant_Ch 120/Area Scan (7x12x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.59 mW/g

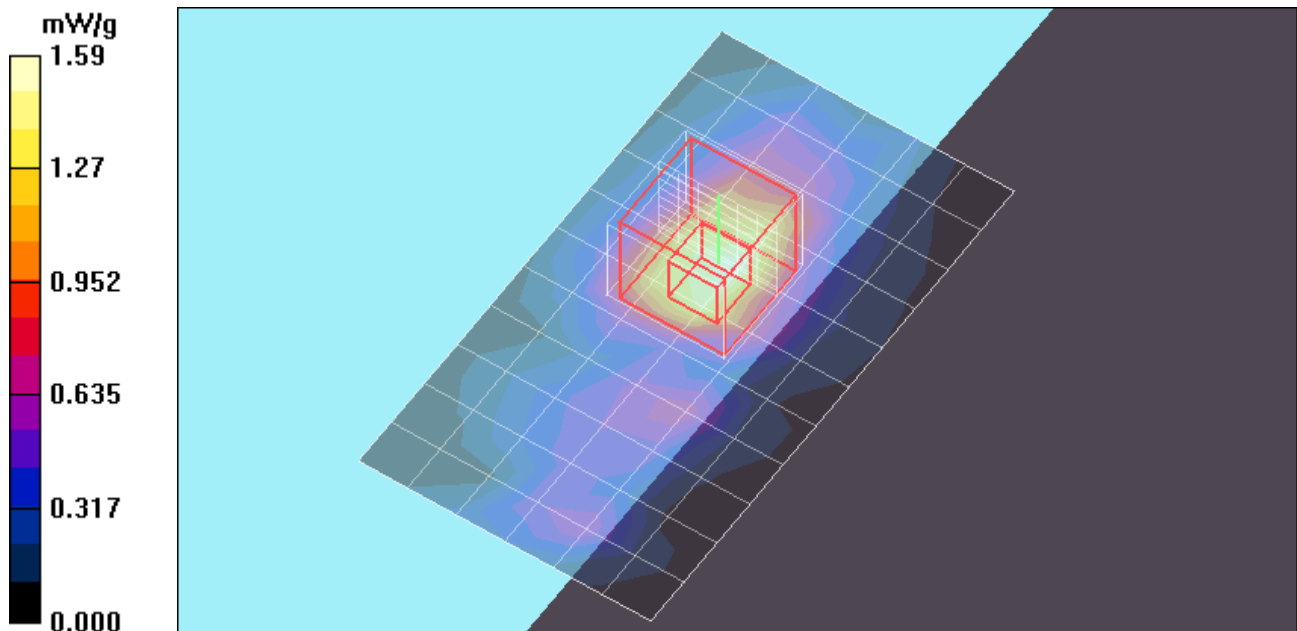
802.11a_Aux Ant_Ch 120/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 18.1 V/m; Power Drift = 0.134 dB

Peak SAR (extrapolated) = 3.19 W/kg

SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.423 mW/g

Maximum value of SAR (measured) = 1.67 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.6GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5700 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5700 \text{ MHz}$; $\sigma = 5.84 \text{ mho/m}$; $\epsilon_r = 45.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.61, 3.61, 3.61); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Aux Ant_Ch 140/Area Scan (7x12x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.981 mW/g

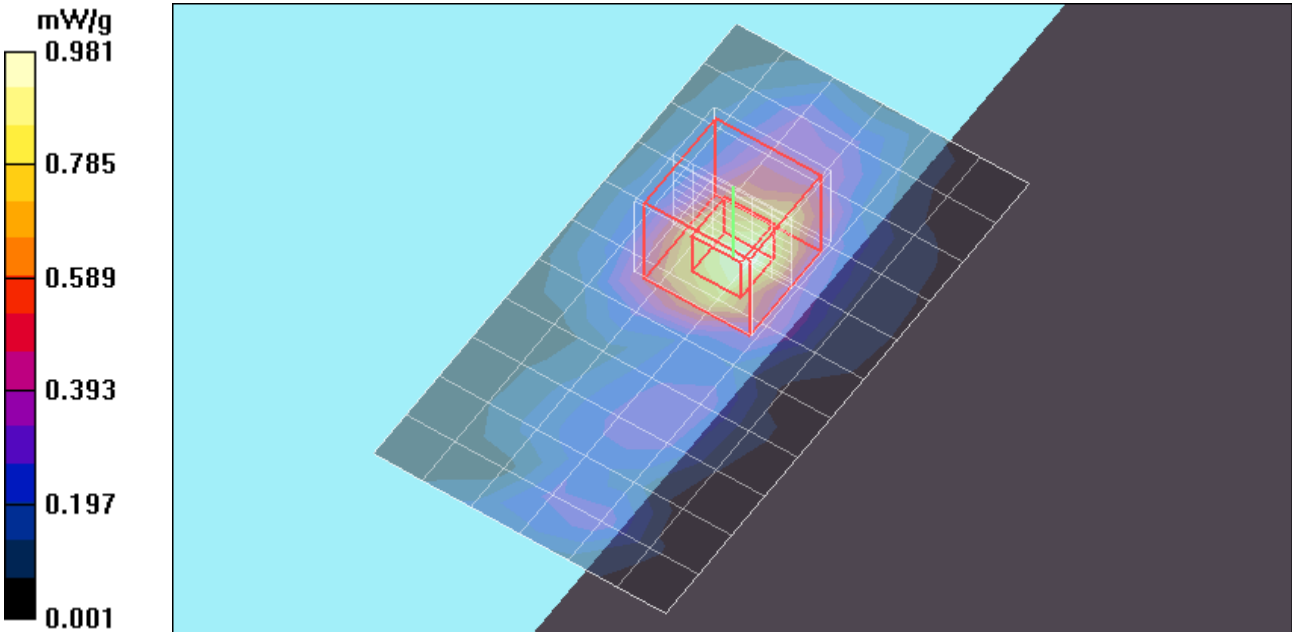
802.11a_Aux Ant_Ch 140/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 13.8 V/m; Power Drift = 0.165 dB

Peak SAR (extrapolated) = 1.94 W/kg

SAR(1 g) = 0.624 mW/g; SAR(10 g) = 0.248 mW/g

Maximum value of SAR (measured) = 0.982 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.8GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5785 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5785$ MHz; $\sigma = 5.88$ mho/m; $\epsilon_r = 45$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.84, 3.84, 3.84); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_Aux Ant_Ch 157/Area Scan (7x12x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.807 mW/g

802.11a_Aux Ant_Ch 157/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

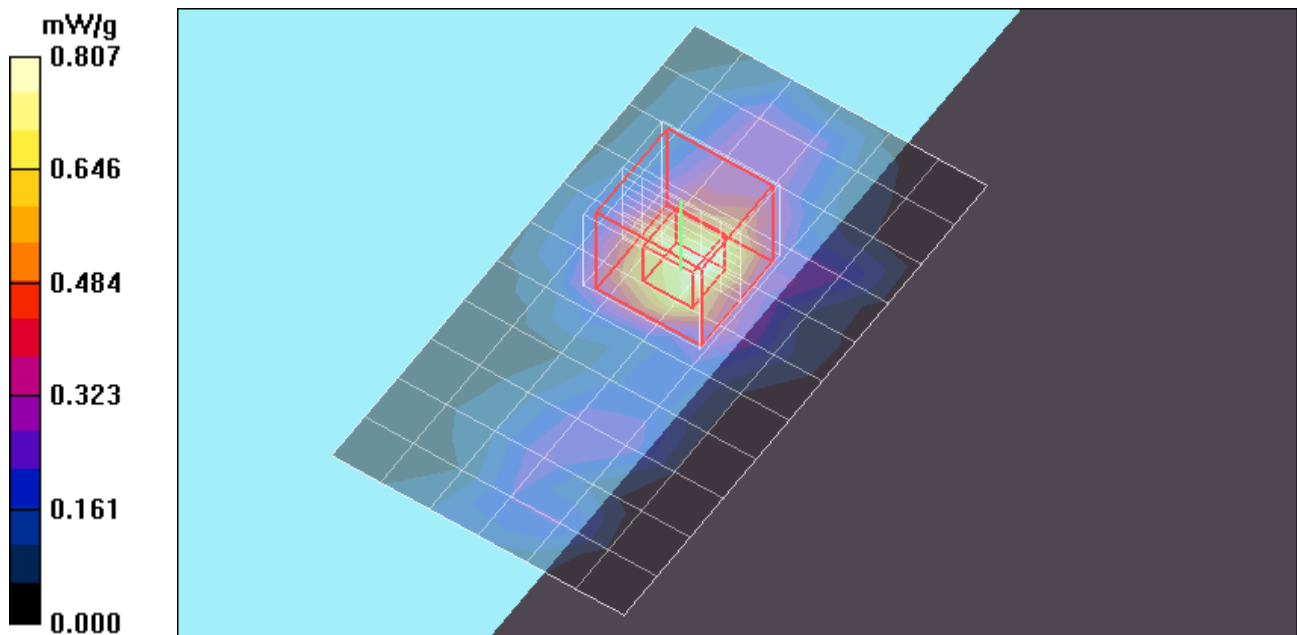
Reference Value = 12.7 V/m; Power Drift = 0.033 dB

Peak SAR (extrapolated) = 1.65 W/kg

SAR(1 g) = 0.521 mW/g; SAR(10 g) = 0.188 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.834 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.8GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5785 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5785$ MHz; $\sigma = 5.88$ mho/m; $\epsilon_r = 45$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.84, 3.84, 3.84); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11n HT20_Main&Aux Ant_Ch 157/Area Scan (8x19x1): Measurement grid: dx=10mm, dy=10mm[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.01 mW/g

802.11n HT20_Main&Aux Ant_Ch 157/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 13.9 V/m; Power Drift = -0.094 dB

Peak SAR (extrapolated) = 2.13 W/kg

SAR(1 g) = 0.645 mW/g; SAR(10 g) = 0.261 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.05 mW/g

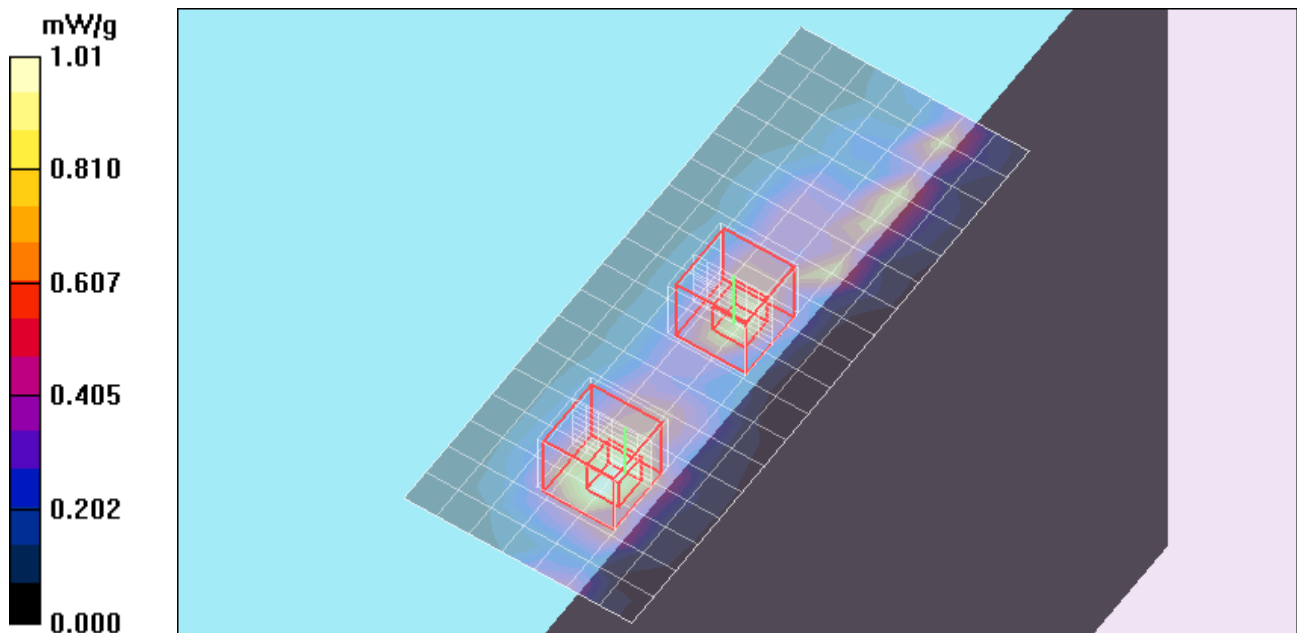
802.11n HT20_Main&Aux Ant_Ch 157/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 13.9 V/m; Power Drift = -0.094 dB

Peak SAR (extrapolated) = 2.62 W/kg

SAR(1 g) = 0.515 mW/g; SAR(10 g) = 0.195 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.889 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.6GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5510 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5510$ MHz; $\sigma = 5.41$ mho/m; $\epsilon_r = 45.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.76, 3.76, 3.76); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11n HT40_Main&Aux Ant_Ch 102/Area Scan (8x19x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.37 mW/g

802.11n HT40_Main&Aux Ant_Ch 102/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 17.0 V/m; Power Drift = -0.136 dB

Peak SAR (extrapolated) = 6.39 W/kg

SAR(1 g) = 0.869 mW/g; SAR(10 g) = 0.372 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

802.11n HT40_Main&Aux Ant_Ch 102/Zoom Scan 2 (7x7x9)/Cube 0: Measurement grid:

dx=4mm, dy=4mm, dz=2.5mm

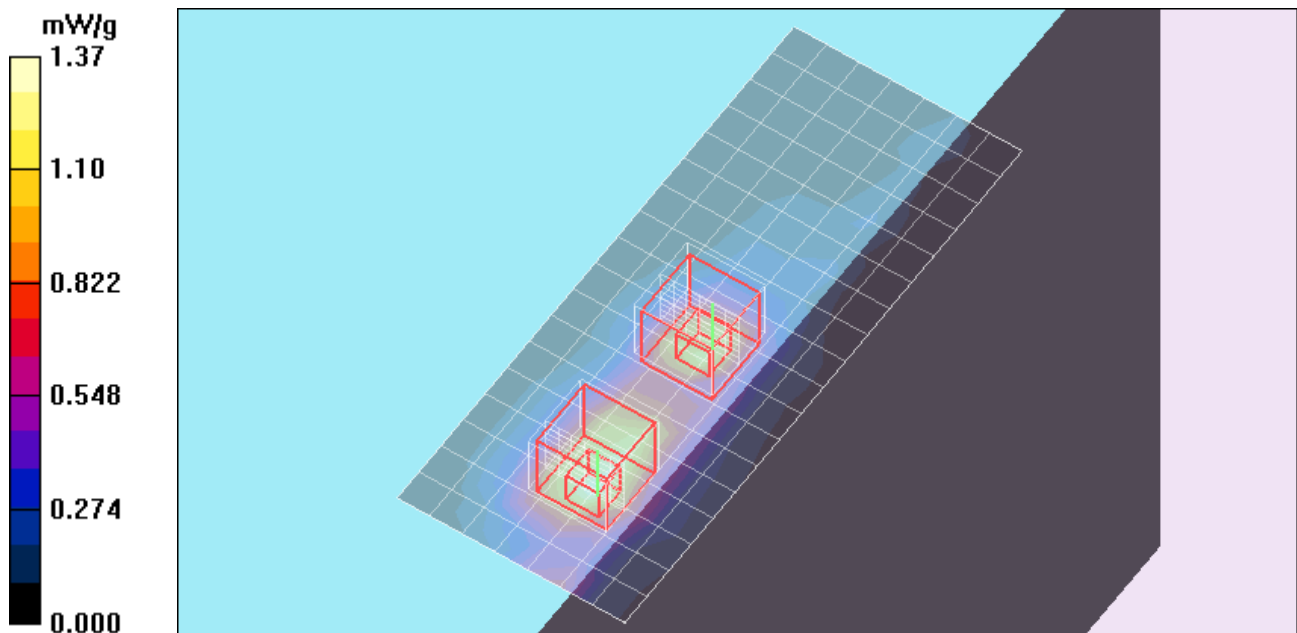
Reference Value = 17.0 V/m; Power Drift = -0.136 dB

Peak SAR (extrapolated) = 2.82 W/kg

SAR(1 g) = 0.777 mW/g; SAR(10 g) = 0.301 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.26 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.6GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5590 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5590$ MHz; $\sigma = 5.63$ mho/m; $\epsilon_r = 45.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.61, 3.61, 3.61); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11n HT40_Main&Aux Ant_Ch 118/Area Scan (8x19x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.62 mW/g

802.11n HT40_Main&Aux Ant_Ch 118/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

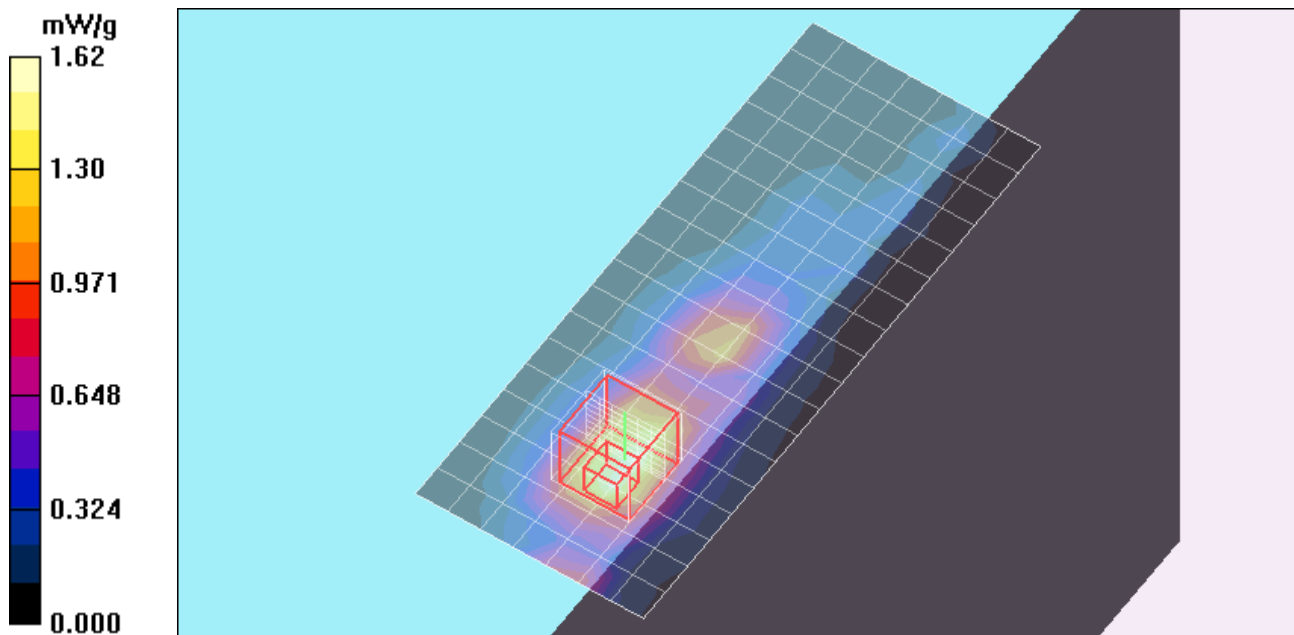
Reference Value = 17.9 V/m; Power Drift = -0.035 dB

Peak SAR (extrapolated) = 2.88 W/kg

SAR(1 g) = 0.981 mW/g; SAR(10 g) = 0.433 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.60 mW/g



Test Laboratory: Compliance Certification Services

Laptop - Lapheld_5.6GHz

DUT: Apple; Type: NA; Serial: NA

Communication System: 802.11abgn; Frequency: 5670 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5670$ MHz; $\sigma = 5.73$ mho/m; $\epsilon_r = 45.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(3.61, 3.61, 3.61); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 9/15/2009
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11n HT40_Main&Aux Ant_Ch 134/Area Scan (8x14x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.21 mW/g

802.11n HT40_Main&Aux Ant_Ch 134/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 15.7 V/m; Power Drift = -0.038 dB

Peak SAR (extrapolated) = 2.41 W/kg

SAR(1 g) = 0.765 mW/g; SAR(10 g) = 0.315 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

