

Test Laboratory: Compliance Certification Services

802.11a 5.2GHz

DUT: Broadcom; Type: HP Laptop; Serial: NA

Communication System: 802.11abgn; Frequency: 5200 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5200$ MHz; $\sigma = 5.33$ mho/m; $\epsilon_r = 47.2$; $\rho = 1000$ 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 Sn427; Calibrated: 10/20/2008
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Lapheld, Main Ant/Area Scan (13x19x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.008 mW/g

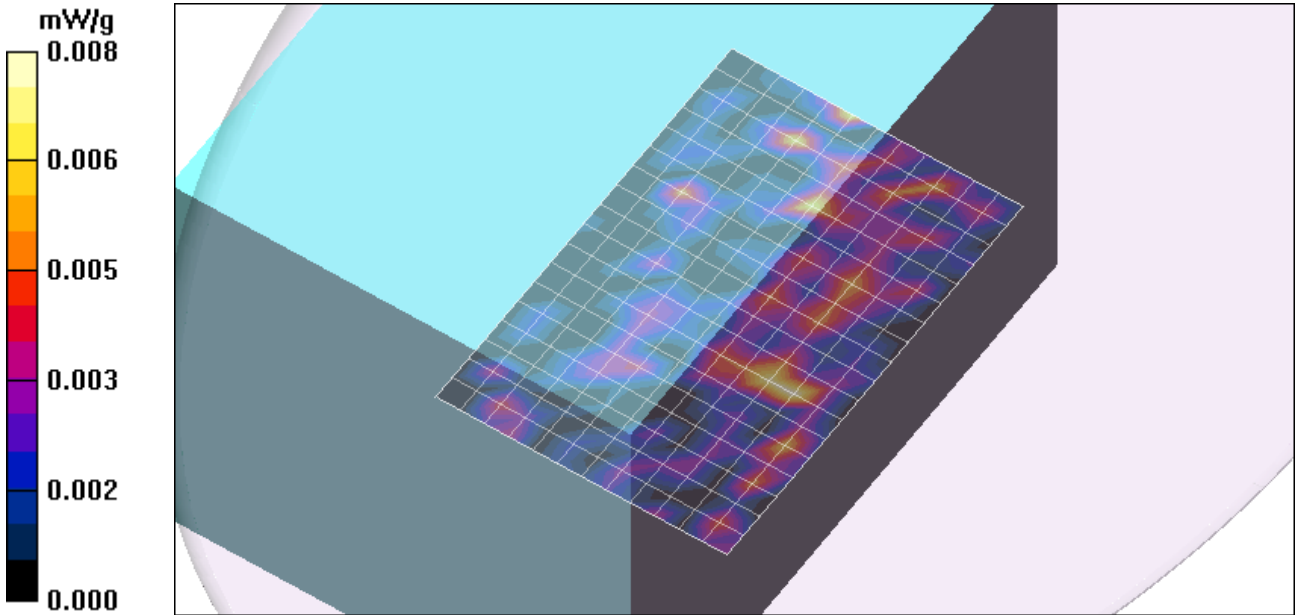
Lapheld, Main Ant/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 1.01 V/m; Power Drift = -0.710 dB

Peak SAR (extrapolated) = 0.002 W/kg

SAR(1 g) = 5.38e-006 mW/g; SAR(10 g) = 3.01e-007 mW/g

Maximum value of SAR (measured) = 0.007 mW/g



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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 Sn427; Calibrated: 10/20/2008
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Lapheld, Aux Ant/Area Scan (13x19x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.011 mW/g

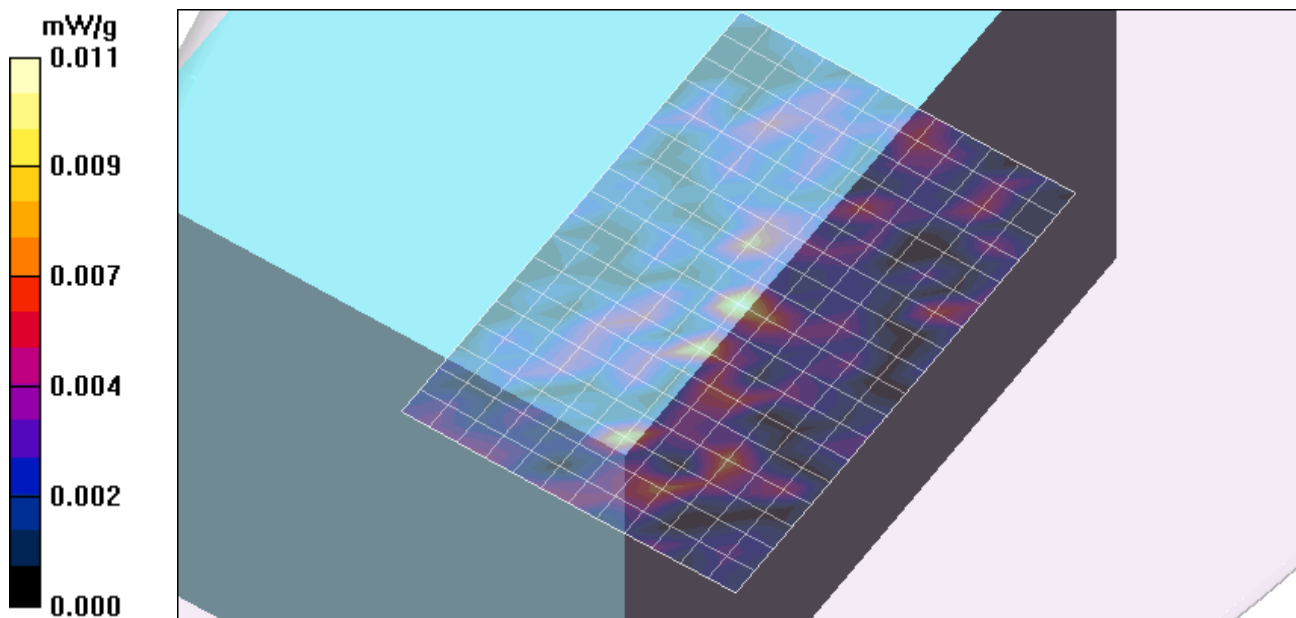
Lapheld, Aux Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 0.255 V/m; Power Drift = 9.77 dB

Peak SAR (extrapolated) = 0.012 W/kg

SAR(1 g) = 2.57e-005 mW/g; SAR(10 g) = 4.6e-007 mW/g

Maximum value of SAR (measured) = 0.012 mW/g



Test Laboratory: Compliance Certification Services

802.11a 5.3GHz

DUT: Broadcom; Type: HP Laptop; Serial: NA

Communication System: 802.11abgn; Frequency: 5300 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5300$ MHz; $\sigma = 5.48$ mho/m; $\epsilon_r = 47.2$; $\rho = 1000$ 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 Sn427; Calibrated: 10/20/2008
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Lapheld, Main Ant/Area Scan (13x19x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.016 mW/g

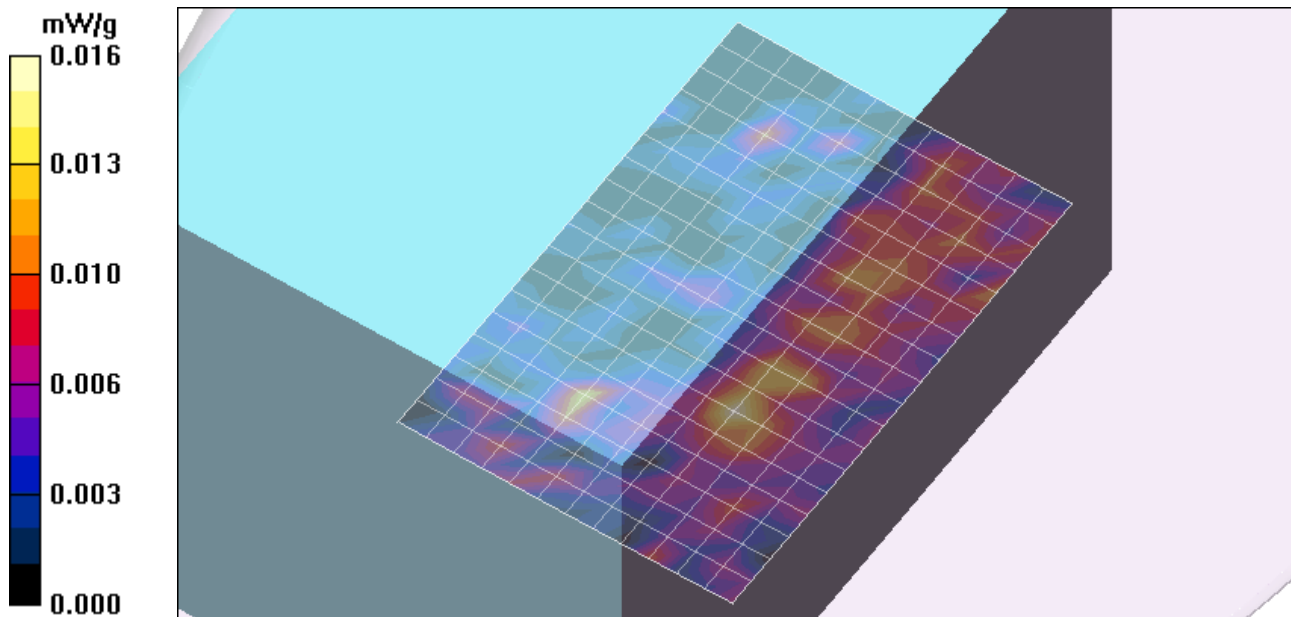
Lapheld, Main Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 1.27 V/m; Power Drift = -4.92 dB

Peak SAR (extrapolated) = 0.110 W/kg

SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00247 mW/g

Maximum value of SAR (measured) = 0.054 mW/g



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802.11a 5.3GHz

DUT: Broadcom; Type: HP Laptop; Serial: NA

Communication System: 802.11abgn; Frequency: 5300 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5300$ MHz; $\sigma = 5.48$ mho/m; $\epsilon_r = 47.2$; $\rho = 1000$ 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 Sn427; Calibrated: 10/20/2008
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Lapheld, Aux Ant/Area Scan (13x19x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.013 mW/g

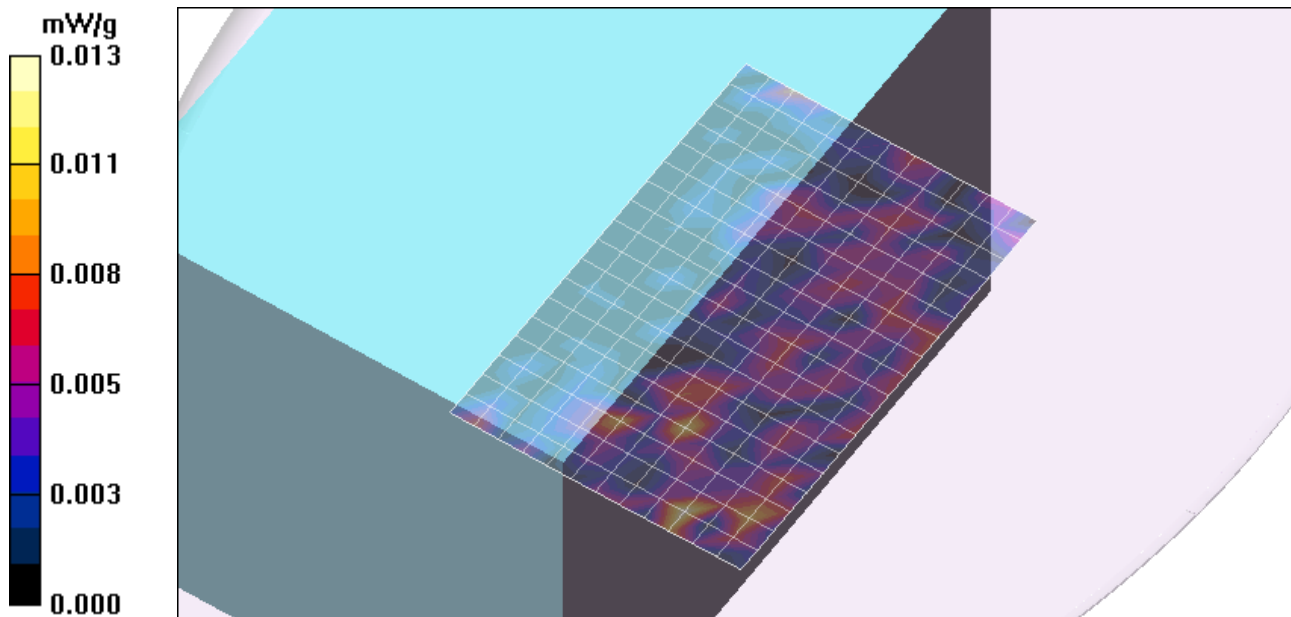
Lapheld, Aux Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 0.000 V/m; Power Drift = 999.0 dB

Peak SAR (extrapolated) = 0.009 W/kg

SAR(1 g) = 6e-005 mW/g; SAR(10 g) = 4.31e-006 mW/g

Maximum value of SAR (measured) = 0.011 mW/g



Test Laboratory: Compliance Certification Services

802.11a 5.5 GHz

DUT: Broadcom; Type: HP Laptop; Serial: NA

Communication System: 802.11abgn; Frequency: 5600 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5600$ MHz; $\sigma = 5.89$ 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(3.61, 3.61, 3.61); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 10/20/2008
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Lapheld, Main Ant/Area Scan (11x16x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.015 mW/g

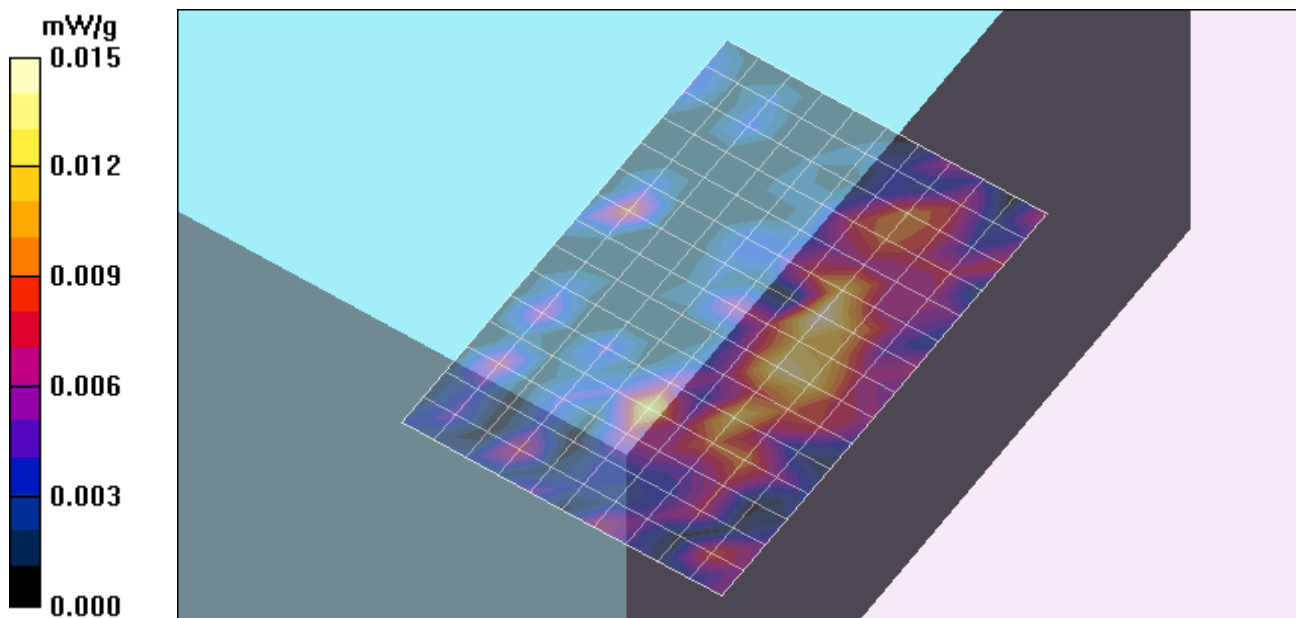
Lapheld, Main Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 0.776 V/m; Power Drift = -0.740 dB

Peak SAR (extrapolated) = 0.060 W/kg

SAR(1 g) = 0.000272 mW/g; SAR(10 g) = 2.64e-005 mW/g

Maximum value of SAR (measured) = 0.259 mW/g



Test Laboratory: Compliance Certification Services

802.11a 5.5 GHz

DUT: Broadcom; Type: HP Laptop; Serial: NA

Communication System: 802.11abgn; Frequency: 5600 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5600$ MHz; $\sigma = 5.89$ mho/m; $\epsilon_r = 46.6$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

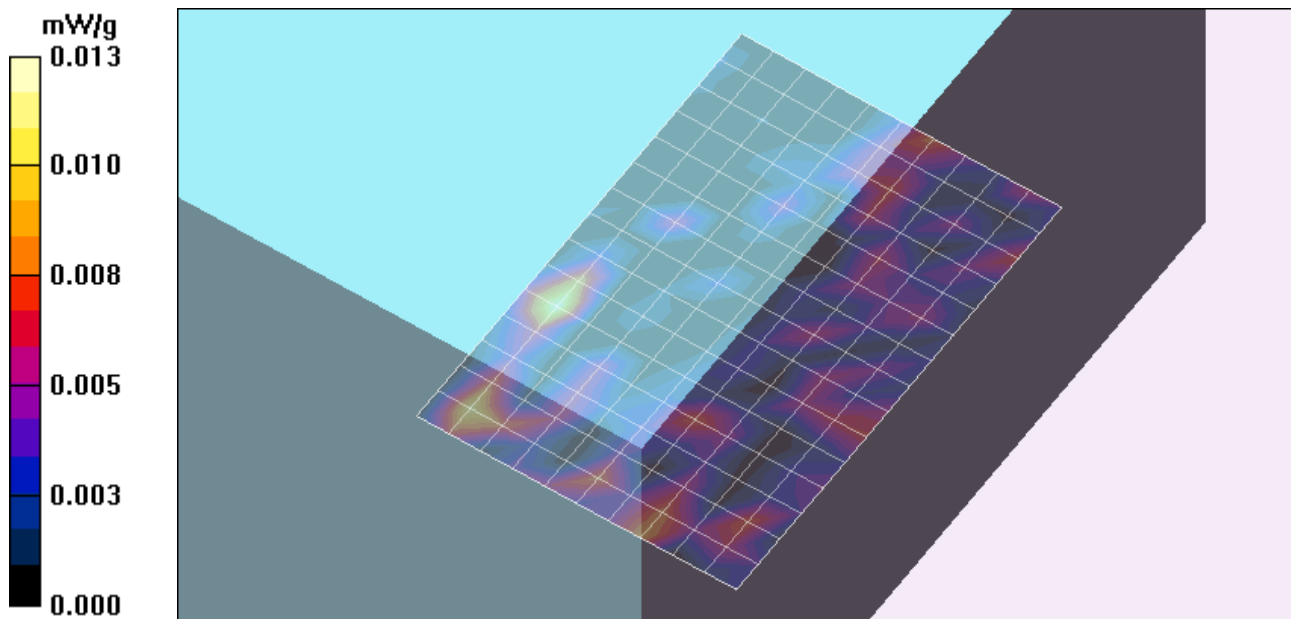
Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

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(3.61, 3.61, 3.61); Calibrated: 3/23/2009
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 10/20/2008
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Lapheld, Aux Ant/Area Scan (11x16x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.013 mW/g

Lapheld, Aux Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 0.685 V/m; Power Drift = 1.20 dB
Peak SAR (extrapolated) = 0.010 W/kg
SAR(1 g) = 2.46e-005 mW/g; SAR(10 g) = 2.58e-006 mW/g



Test Laboratory: Compliance Certification Services

802.11a 5.8 GHz

DUT: Broadcom; Type: HP Laptop; Serial: NA

Communication System: 802.11abgn; Frequency: 5785 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 5785$ MHz; $\sigma = 6.18$ mho/m; $\epsilon_r = 46.1$; $\rho = 1000$ 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 Sn427; Calibrated: 10/20/2008
 - Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
 - Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Lapheld, Main Ant/Area Scan (11x16x1):

Measurement grid: dx=10mm, dy=10mm

Info: [Interpolated medium parameters used for SAR evaluation.](#)
Maximum value of SAR (measured) = 0.120 mW/g

Lapheld, Main Ant/Zoom Scan (7x7x9)/Cube 0:

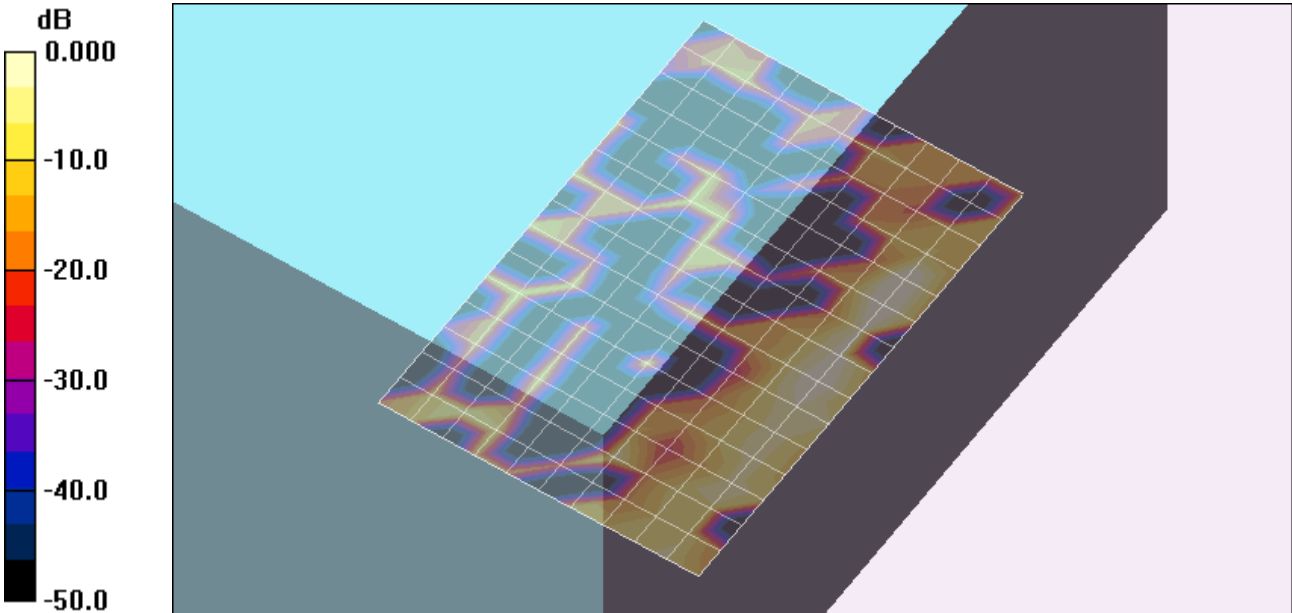
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 0.000 V/m; Power Drift = 0.000 dB

Peak SAR (extrapolated) = 0.044 W/kg

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

Maximum value of SAR (measured) = 0.060 mW/g



0 dB = 0.060mW/g

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802.11a 5.8 GHz

DUT: Broadcom; Type: HP Laptop; Serial: NA

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

Medium parameters used (interpolated): $f = 5785$ MHz; $\sigma = 6.18$ mho/m; $\epsilon_r = 46.1$; $\rho = 1000$ 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 Sn427; Calibrated: 10/20/2008
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Lapheld, Aux Ant/Area Scan (11x16x1): Measurement grid: dx=10mm, dy=10mm

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

Maximum value of SAR (measured) = 0.081 mW/g

Lapheld, Aux Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 0.000 V/m; Power Drift = 999.0 dB

Peak SAR (extrapolated) = 0.076 W/kg

SAR(1 g) = 0.000336 mW/g; SAR(10 g) = 3.54e-005 mW/g

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

Maximum value of SAR (measured) = 0.173 mW/g

