

Test Laboratory: Compliance Certification Services

Lapheld

DUT: Broadcom PCI-E Mini card; Type: 802.11bg; Serial: N/A

Communication System: 802.11bg; Frequency: 2437 MHz; Duty Cycle: 1:1.03

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 2$ mho/m; $\epsilon_r = 50.7$; $\rho = 1000$ 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 peak SAR value greater than 0.0012W/kg
- Probe: EX3DV3 - SN3531; ConvF(7.91, 7.91, 7.91); Calibrated: 4/23/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 11/16/2007
- Phantom: SAM 2; Type: SAM 2; Serial: 1050
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

B mode Lapheld Pacino ACON - M ch/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 0.111 mW/g

B mode Lapheld Pacino ACON - M ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

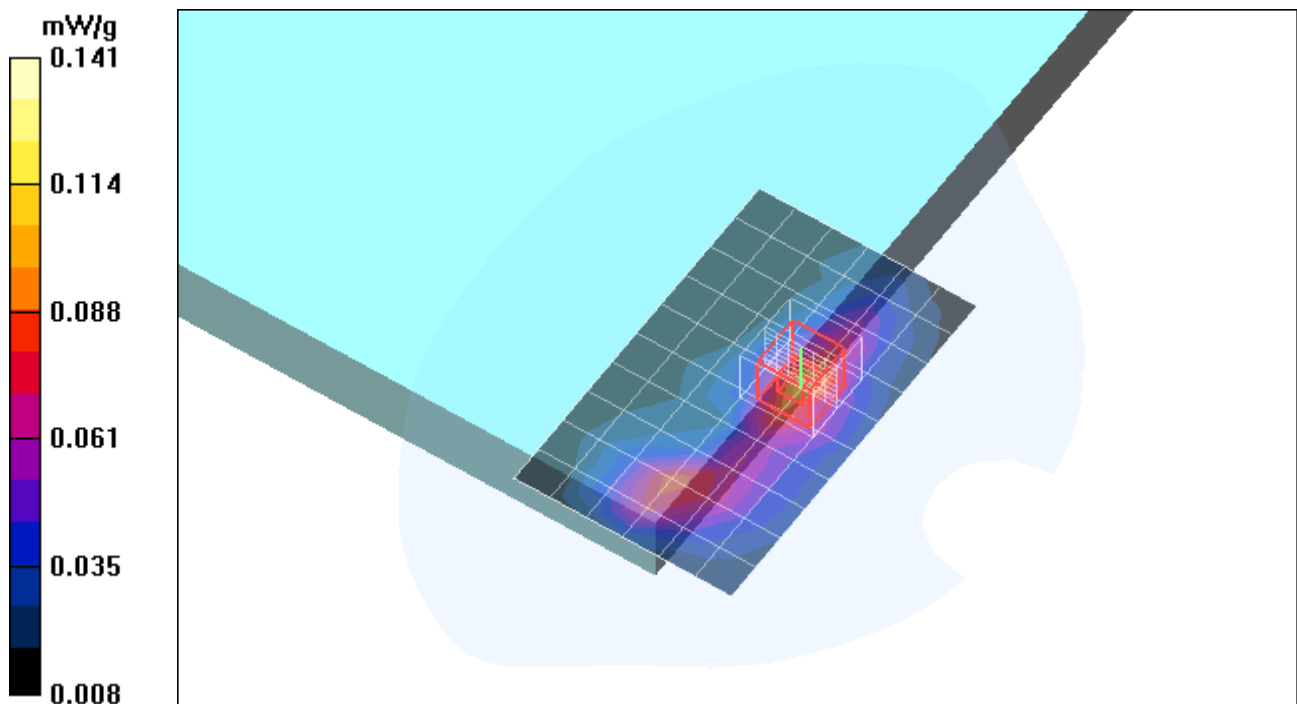
Reference Value = 4.82 V/m; Power Drift = -0.315 dB

Peak SAR (extrapolated) = 0.150 W/kg

SAR(1 g) = 0.085 mW/g; SAR(10 g) = 0.049 mW/g

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

Maximum value of SAR (measured) = 0.108 mW/g



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Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 2$ mho/m; $\epsilon_r = 50.7$; $\rho = 1000$ 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 peak SAR value greater than 0.0012W/kg
- Probe: EX3DV3 - SN3531; ConvF(7.91, 7.91, 7.91); Calibrated: 4/23/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 11/16/2007
- Phantom: SAM 2; Type: SAM 2; Serial: 1050
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

B mode Lapheld Pacino Amphenol - M ch/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 0.093 mW/g

B mode Lapheld Pacino Amphenol - M ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

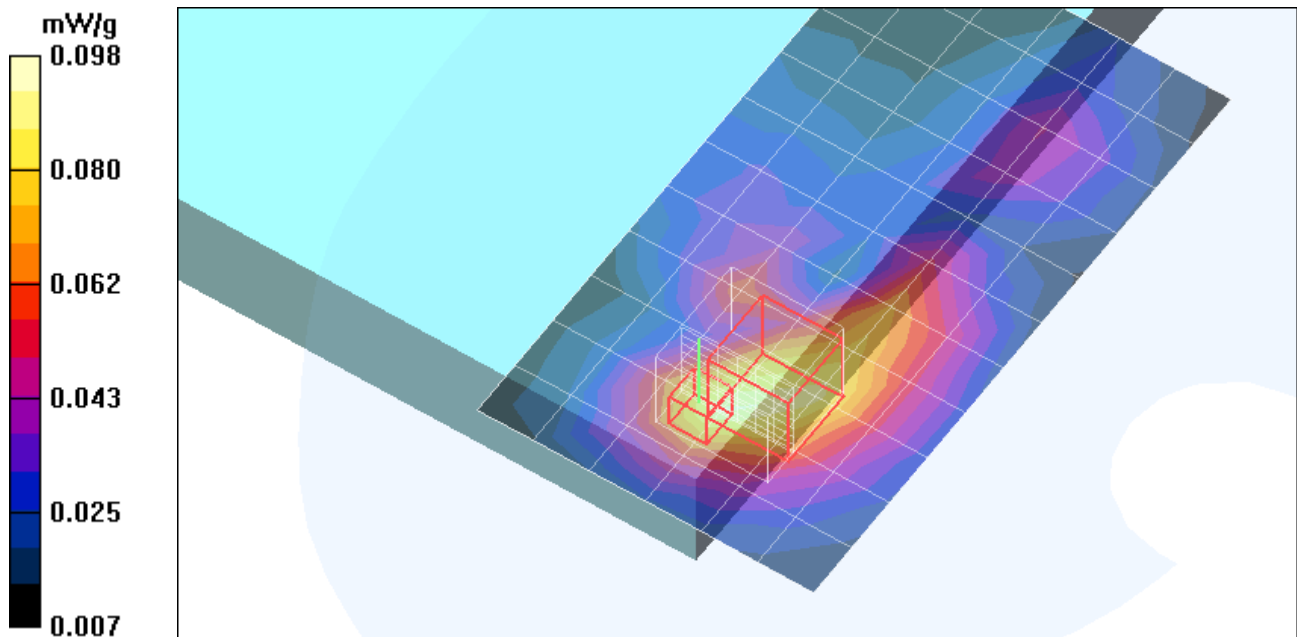
Reference Value = 2.81 V/m; Power Drift = 0.209 dB

Peak SAR (extrapolated) = 0.127 W/kg

SAR(1 g) = 0.075 mW/g; SAR(10 g) = 0.045 mW/g

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

Maximum value of SAR (measured) = 0.098 mW/g



Test Laboratory: Compliance Certification Services

Lapheld - Amphenol Antenna

DUT: Broadcom PCI-E Mini card; Type: 802.11bg; Serial: N/A

Communication System: 802.11agn; Frequency: 5200 MHz; Duty Cycle: 1:1.1
Medium parameters used: $f = 5200$ MHz; $\sigma = 5.38$ mho/m; $\epsilon_r = 48.1$; $\rho = 1000$ 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 peak SAR value greater than 0.0012W/kg
- Probe: EX3DV3 - SN3531; ConvF(4.21, 4.21, 4.21); Calibrated: 4/23/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 11/16/2007
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

802.11a Legacy mode 5.2 GHz Band Amphenol AUX Ant - M ch/Area Scan (9x13x1):

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

Maximum value of SAR (measured) = 0.168 mW/g

802.11a Legacy mode 5.2 GHz Band Amphenol AUX Ant - M ch/Zoom Scan

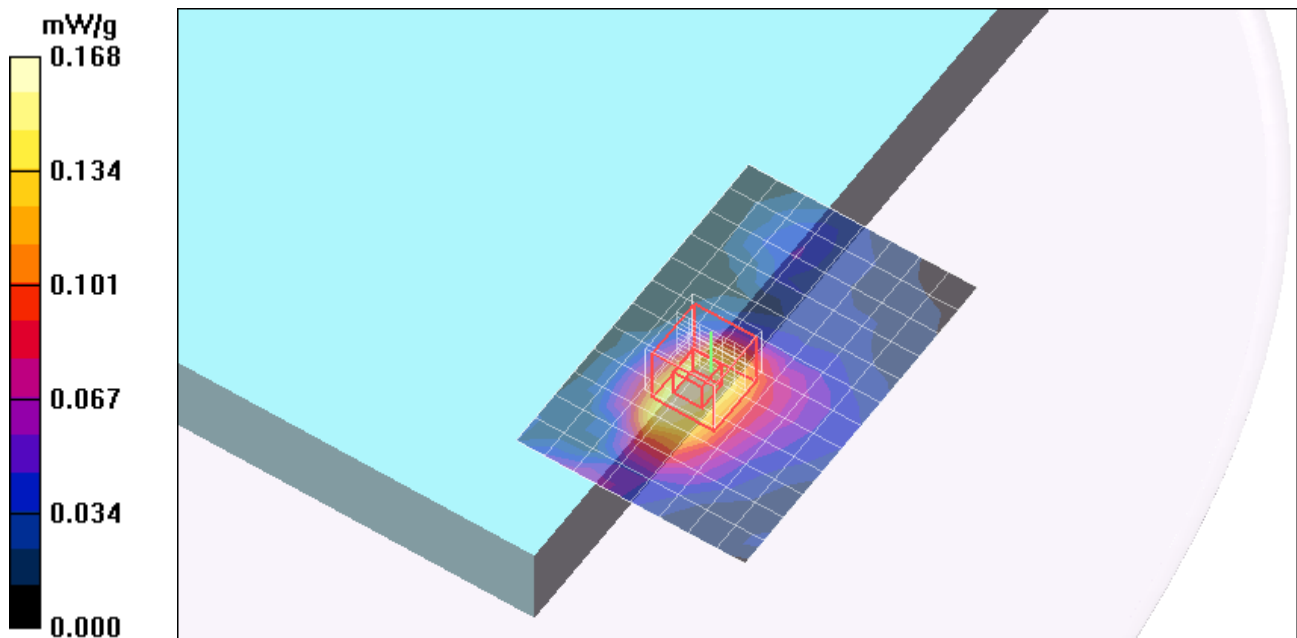
(7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 5.51 V/m; Power Drift = 0.139 dB

Peak SAR (extrapolated) = 0.387 W/kg

SAR(1 g) = 0.113 mW/g; SAR(10 g) = 0.048 mW/g

Maximum value of SAR (measured) = 0.171 mW/g



Test Laboratory: Compliance Certification Services

Lapheld - Amphenol Antenna

DUT: Broadcom PCI-E Mini card; Type: 802.11bg; Serial: N/A

Communication System: 802.11agn; Frequency: 5300 MHz; Duty Cycle: 1:1.1
Medium parameters used: $f = 5300$ MHz; $\sigma = 5.51$ mho/m; $\epsilon_r = 48$; $\rho = 1000$ 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 peak SAR value greater than 0.0012W/kg
- Probe: EX3DV3 - SN3531; ConvF(3.92, 3.92, 3.92); Calibrated: 4/23/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 11/16/2007
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

802.11a Legacy mode 5.3 GHz Band Amphenol AUX Ant - M ch/Area Scan (9x13x1):

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

Maximum value of SAR (measured) = 0.329 mW/g

802.11a Legacy mode 5.3 GHz Band Amphenol AUX Ant - M ch/Zoom Scan

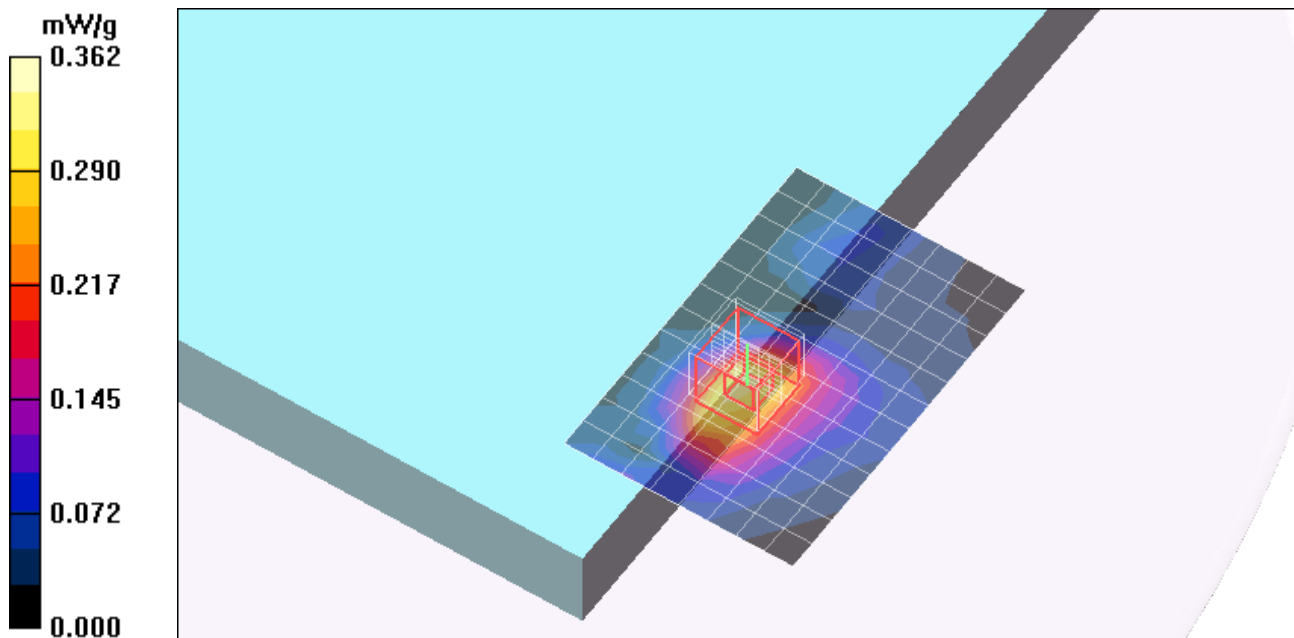
(7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 7.61 V/m; Power Drift = 0.303 dB

Peak SAR (extrapolated) = 0.770 W/kg

SAR(1 g) = 0.227 mW/g; SAR(10 g) = 0.100 mW/g

Maximum value of SAR (measured) = 0.362 mW/g



Test Laboratory: Compliance Certification Services

Lapheld - Amphenol Antenna

DUT: Broadcom PCI-E Mini card; Type: 802.11bg; Serial: N/A

Communication System: 802.11agn; Frequency: 5600 MHz; Duty Cycle: 1:1.1
Medium parameters used: $f = 5600$ MHz; $\sigma = 5.93$ mho/m; $\epsilon_r = 47.3$; $\rho = 1000$ 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: EX3DV3 - SN3531; ConvF(3.5, 3.5, 3.5); Calibrated: 4/23/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 11/16/2007
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

802.11a Legacy mode 5.5 GHz Band Amphenol AUX Ant - M ch/Area Scan (9x13x1):

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

Maximum value of SAR (measured) = 0.459 mW/g

802.11a Legacy mode 5.5 GHz Band Amphenol AUX Ant - M ch/Zoom Scan

(7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 9.27 V/m; Power Drift = 0.029 dB

Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.308 mW/g; SAR(10 g) = 0.128 mW/g

Maximum value of SAR (measured) = 0.490 mW/g

802.11a Legacy mode 5.5 GHz Band Amphenol AUX Ant - M ch/Zoom Scan

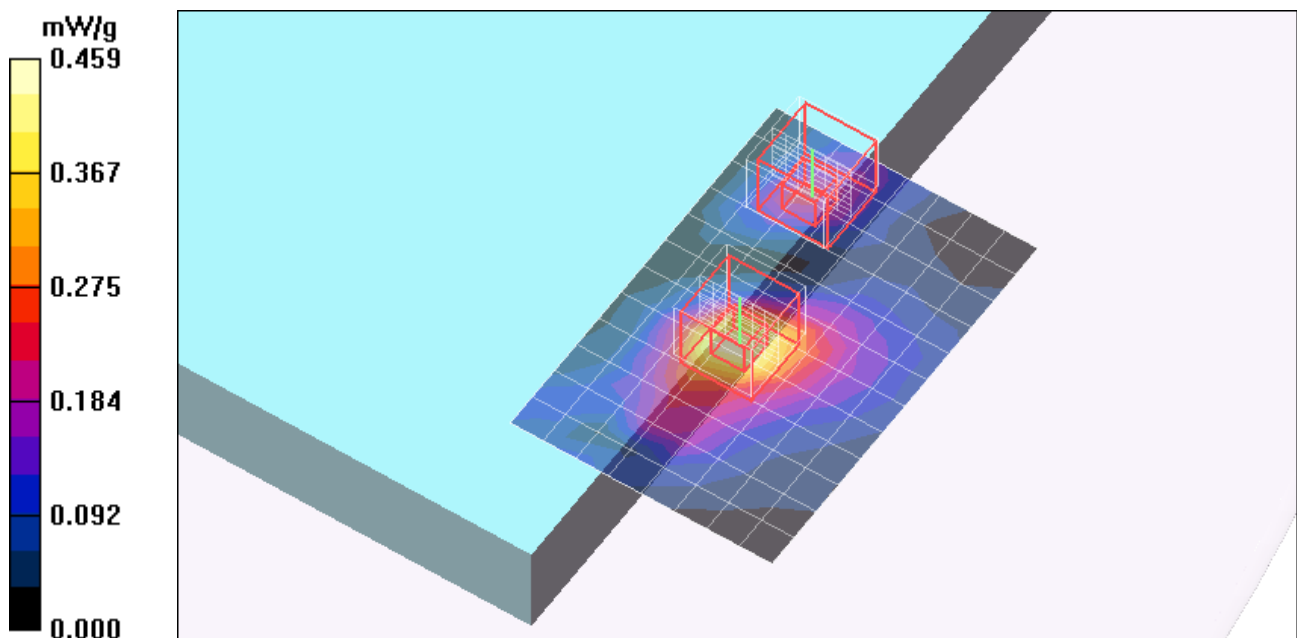
(7x7x9)/Cube 1: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 9.27 V/m; Power Drift = 0.029 dB

Peak SAR (extrapolated) = 0.606 W/kg

SAR(1 g) = 0.159 mW/g; SAR(10 g) = 0.064 mW/g

Maximum value of SAR (measured) = 0.255 mW/g



Test Laboratory: Compliance Certification Services

Lapheld - Amphenol Antenna

DUT: Broadcom PCI-E Mini card; Type: 802.11bg; Serial: N/A

Communication System: 802.11agn; Frequency: 5795 MHz; Duty Cycle: 1:1.1

Medium parameters used (interpolated): $f = 5795$ MHz; $\sigma = 6.23$ 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 peak SAR value greater than 0.0012W/kg
- Probe: EX3DV3 - SN3531; ConvF(3.7, 3.7, 3.7); Calibrated: 4/23/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 11/16/2007
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

802.11n HT40 mode 5.8 GHz Band Amphenol AUX Ant - M ch/Area Scan (9x13x1):

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

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

Maximum value of SAR (measured) = 0.327 mW/g

802.11n HT40 mode 5.8 GHz Band Amphenol AUX Ant - M ch/Zoom Scan (7x7x9)/Cube

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

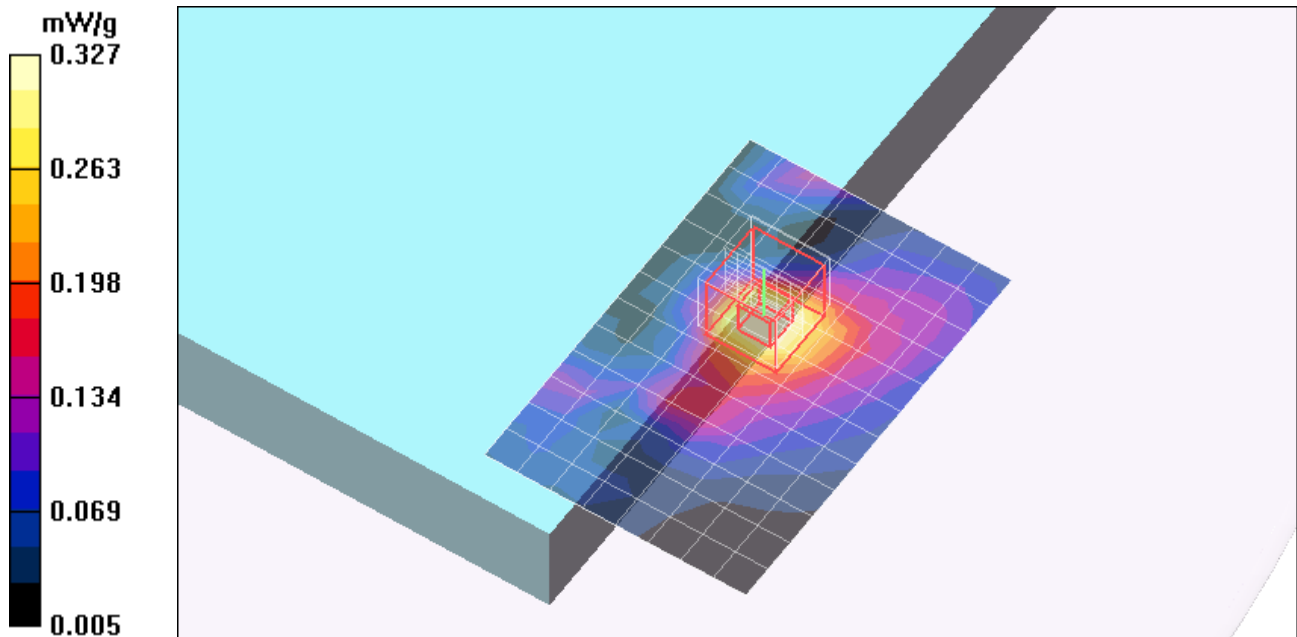
Reference Value = 2.26 V/m; Power Drift = 0.015 dB

Peak SAR (extrapolated) = 1.55 W/kg

SAR(1 g) = 0.242 mW/g; SAR(10 g) = 0.089 mW/g

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

Maximum value of SAR (measured) = 0.384 mW/g



Test Laboratory: Compliance Certification Services

Lapheld - Acon Antenna

DUT: Broadcom PCI-E Mini card; Type: 802.11bg; Serial: N/A

Communication System: 802.11agn; Frequency: 5200 MHz; Duty Cycle: 1:1.1
Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 5.38 \text{ mho/m}$; $\epsilon_r = 48.1$; $\rho = 1000 \text{ kg/m}^3$
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 peak SAR value greater than 0.0012W/kg
- Probe: EX3DV3 - SN3531; ConvF(4.21, 4.21, 4.21); Calibrated: 4/23/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 11/16/2007
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

802.11a Legacy mode 5.2 GHz Band Amphenol AUX Ant - M ch/Area Scan (9x13x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (measured) = 0.230 mW/g

802.11a Legacy mode 5.2 GHz Band Amphenol AUX Ant - M ch/Zoom Scan

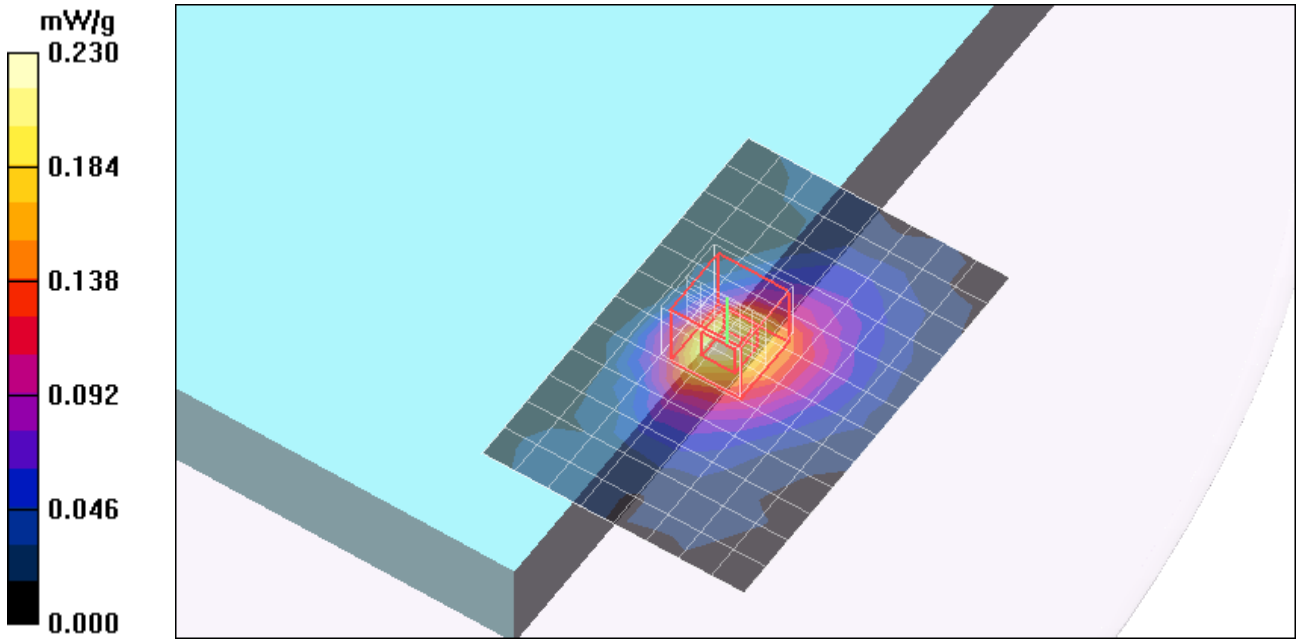
(7x7x9)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2.5\text{mm}$

Reference Value = 6.64 V/m; Power Drift = -0.053 dB

Peak SAR (extrapolated) = 0.510 W/kg

SAR(1 g) = 0.149 mW/g; SAR(10 g) = 0.063 mW/g

Maximum value of SAR (measured) = 0.237 mW/g



Test Laboratory: Compliance Certification Services

Lapheld - Acon Antenna

DUT: Broadcom PCI-E Mini card; Type: 802.11bg; Serial: N/A

Communication System: 802.11agn; Frequency: 5300 MHz; Duty Cycle: 1:1.1
Medium parameters used: $f = 5300$ MHz; $\sigma = 5.51$ mho/m; $\epsilon_r = 48$; $\rho = 1000$ 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 peak SAR value greater than 0.0012W/kg
- Probe: EX3DV3 - SN3531; ConvF(3.92, 3.92, 3.92); Calibrated: 4/23/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 11/16/2007
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

802.11a Legacy mode 5.3 GHz Band Amphenol AUX Ant - M ch/Area Scan (9x13x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.552 mW/g

802.11a Legacy mode 5.3 GHz Band Amphenol AUX Ant - M ch/Zoom Scan

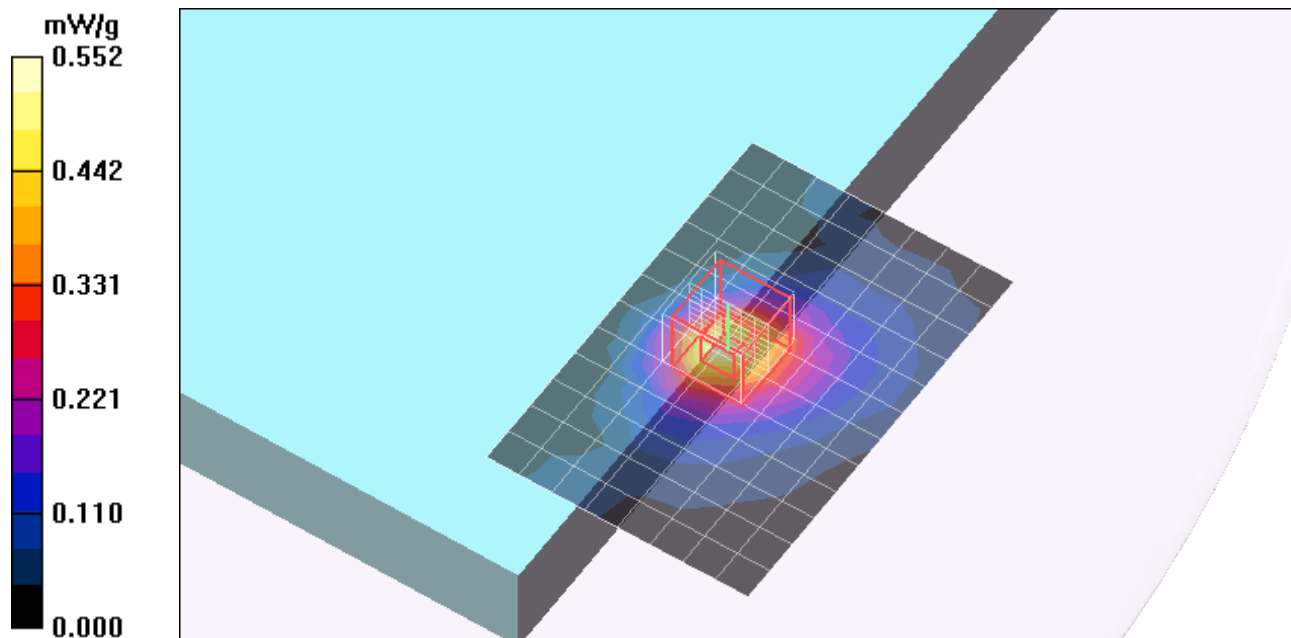
(7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 9.93 V/m; Power Drift = 0.017 dB

Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.353 mW/g; SAR(10 g) = 0.146 mW/g

Maximum value of SAR (measured) = 0.562 mW/g



Test Laboratory: Compliance Certification Services

Lapheld - Acon Antenna

DUT: Broadcom PCI-E Mini card; Type: 802.11bg; Serial: N/A

Communication System: 802.11agn; Frequency: 5600 MHz; Duty Cycle: 1:1.1
 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.93$ mho/m; $\epsilon_r = 47.3$; $\rho = 1000$ 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 peak SAR value greater than 0.0012W/kg
- Probe: EX3DV3 - SN3531; ConvF(3.5, 3.5, 3.5); Calibrated: 4/23/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 11/16/2007
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

802.11a Legacy mode 5.5 GHz Band Amphenol AUX Ant - M ch/Area Scan (9x13x1):

Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 0.948 mW/g

802.11a Legacy mode 5.5 GHz Band Amphenol AUX Ant - M ch/Zoom Scan

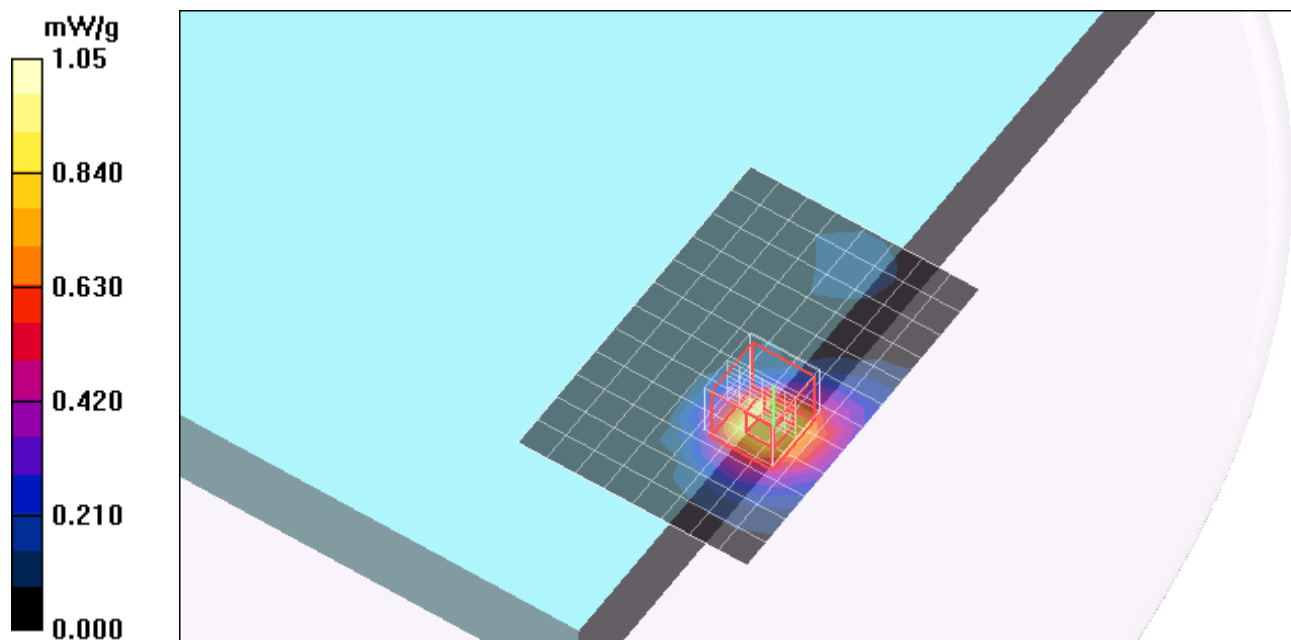
(7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 13.8 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 2.37 W/kg

SAR(1 g) = 0.677 mW/g; SAR(10 g) = 0.265 mW/g

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



Test Laboratory: Compliance Certification Services

Lapheld - Acon Antenna

DUT: Broadcom PCI-E Mini card; Type: 802.11bg; Serial: N/A

Communication System: 802.11agn; Frequency: 5795 MHz; Duty Cycle: 1:1.1

Medium parameters used (interpolated): $f = 5795$ MHz; $\sigma = 6.23$ 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 peak SAR value greater than 0.0012W/kg
- Probe: EX3DV3 - SN3531; ConvF(3.7, 3.7, 3.7); Calibrated: 4/23/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 11/16/2007
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

802.11n HT40 mode 5.8 GHz Band Amphenol AUX Ant - M ch/Area Scan (9x13x1):

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 HT40 mode 5.8 GHz Band Amphenol AUX Ant - M ch/Zoom Scan (7x7x9)/Cube

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

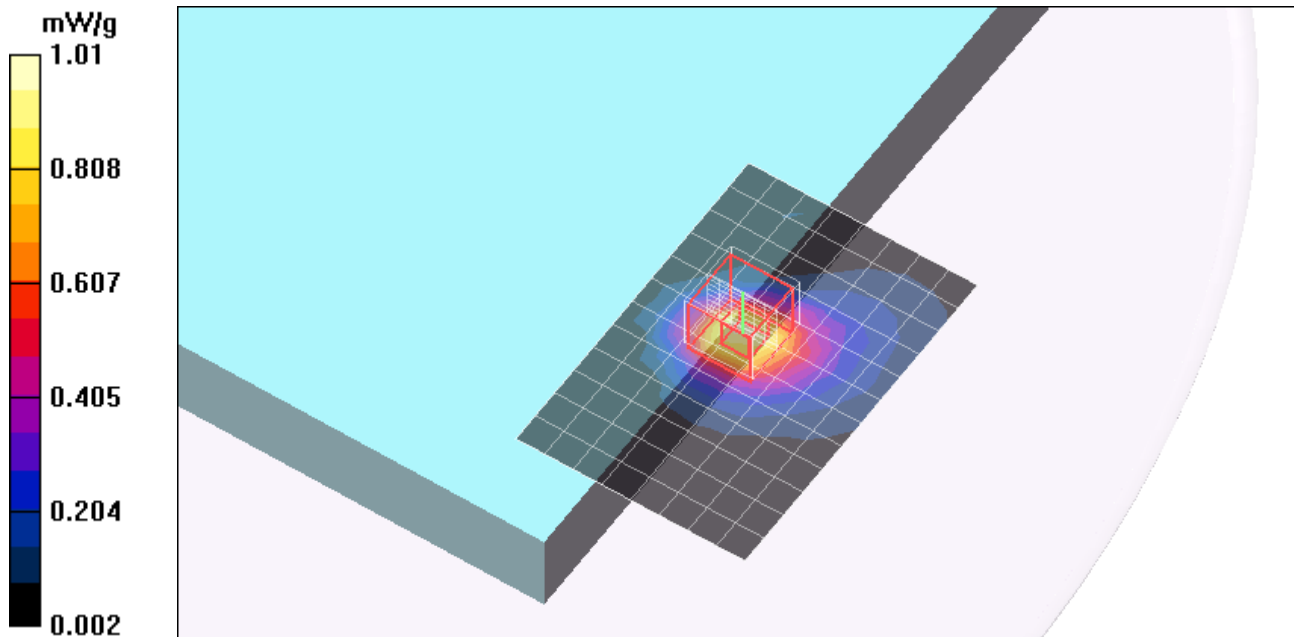
Reference Value = 0.338 V/m; Power Drift = -0.183 dB

Peak SAR (extrapolated) = 2.66 W/kg

SAR(1 g) = 0.692 mW/g; SAR(10 g) = 0.266 mW/g

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

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



Test Laboratory: Compliance Certification Services

Lapheld - Acon Antenna

DUT: Broadcom PCI-E Mini card; Type: 802.11bg; Serial: N/A

Communication System: 802.11agn; Frequency: 5795 MHz;Duty Cycle: 1:1.1

802.11n HT40 mode 5.8 GHz Band Amphenol AUX Ant - M ch/Z Scan (1x1x41):

Measurement grid: dx=20mm, dy=20mm, dz=2.5mm

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

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

