

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 Diaz ACON - M ch/Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 0.131 mW/g

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

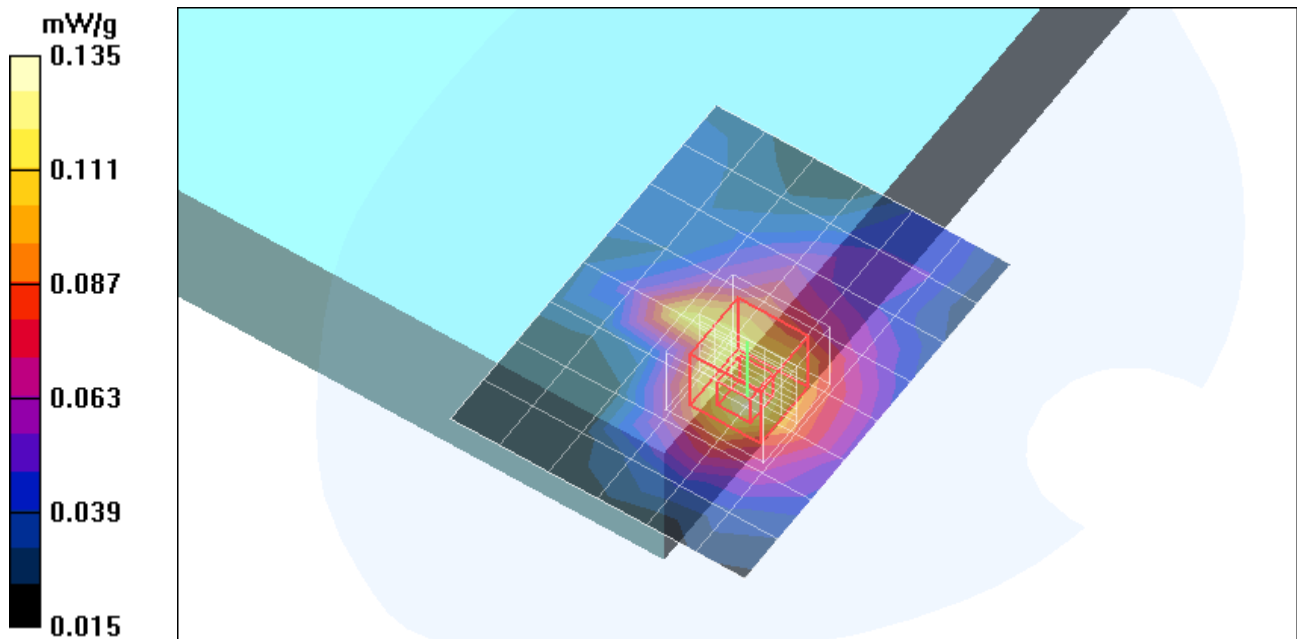
Reference Value = 5.25 V/m; Power Drift = 0.129 dB

Peak SAR (extrapolated) = 0.179 W/kg

SAR(1 g) = 0.105 mW/g; SAR(10 g) = 0.064 mW/g

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

Maximum value of SAR (measured) = 0.135 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 Diaz TYCO - M ch/Area Scan (8x11x1): Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 0.123 mW/g

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

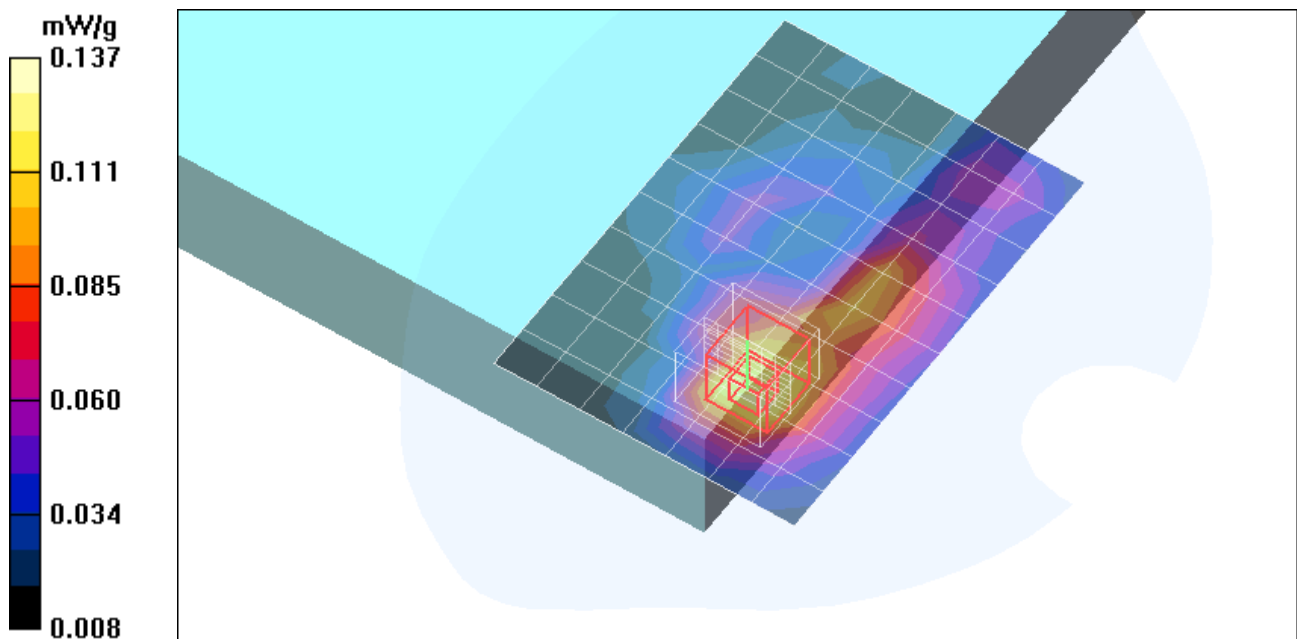
Reference Value = 4.19 V/m; Power Drift = -0.708 dB

Peak SAR (extrapolated) = 0.188 W/kg

SAR(1 g) = 0.107 mW/g; SAR(10 g) = 0.062 mW/g

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

Maximum value of SAR (measured) = 0.137 mW/g



Test Laboratory: Compliance Certification Services

Lapheld - Tyco 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:

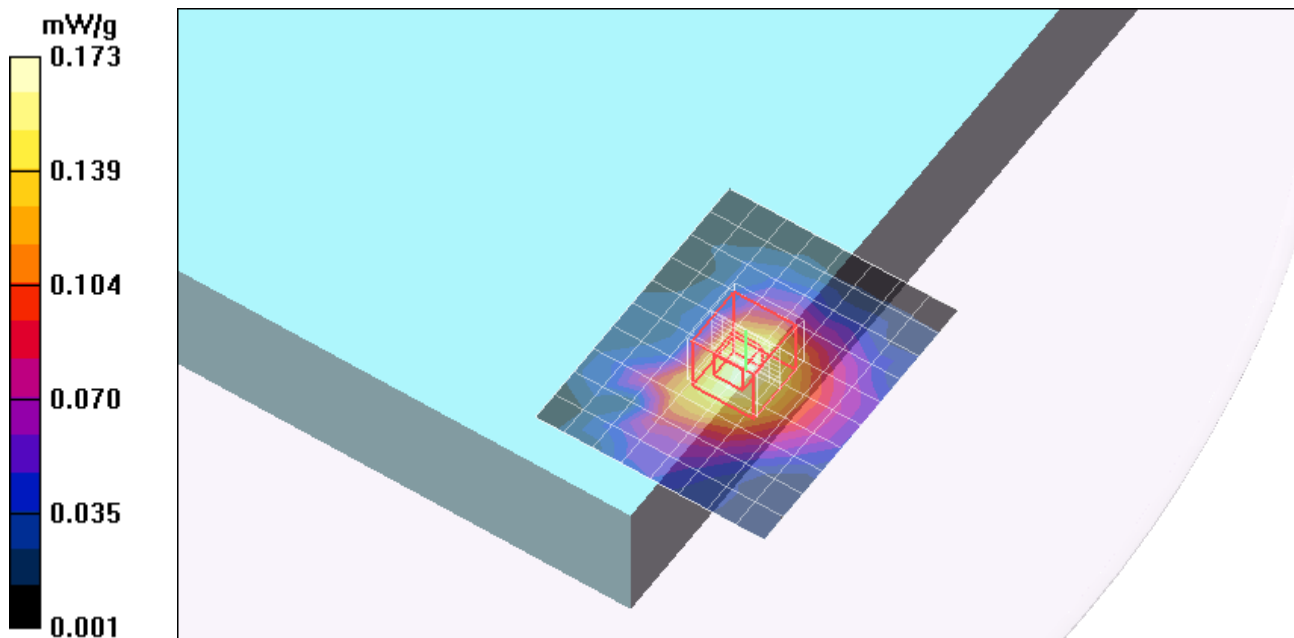
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with peak SAR value greater than 0.0012W/kg
- Probe: EX3DV3 - SN3531; ConvF(4.21, 4.21, 4.21); Calibrated: 4/23/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 11/16/2007
- Phantom: Flat 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 Tyco AUX Ant - M ch/Area Scan (9x11x1):

Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 0.173 mW/g

802.11a Legacy mode 5.2 GHz Band Tyco AUX Ant - M ch/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
 Reference Value = 5.50 V/m; Power Drift = -0.271 dB
 Peak SAR (extrapolated) = 0.619 W/kg
SAR(1 g) = 0.116 mW/g; SAR(10 g) = 0.047 mW/g
 Maximum value of SAR (measured) = 0.177 mW/g



Test Laboratory: Compliance Certification Services

Lapheld - Tyco 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 Tyco AUX Ant - M ch/Area Scan (9x11x1):

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

Maximum value of SAR (measured) = 0.429 mW/g

802.11a Legacy mode 5.3 GHz Band Tyco AUX Ant - M ch/Zoom Scan (7x7x9)/Cube 0:

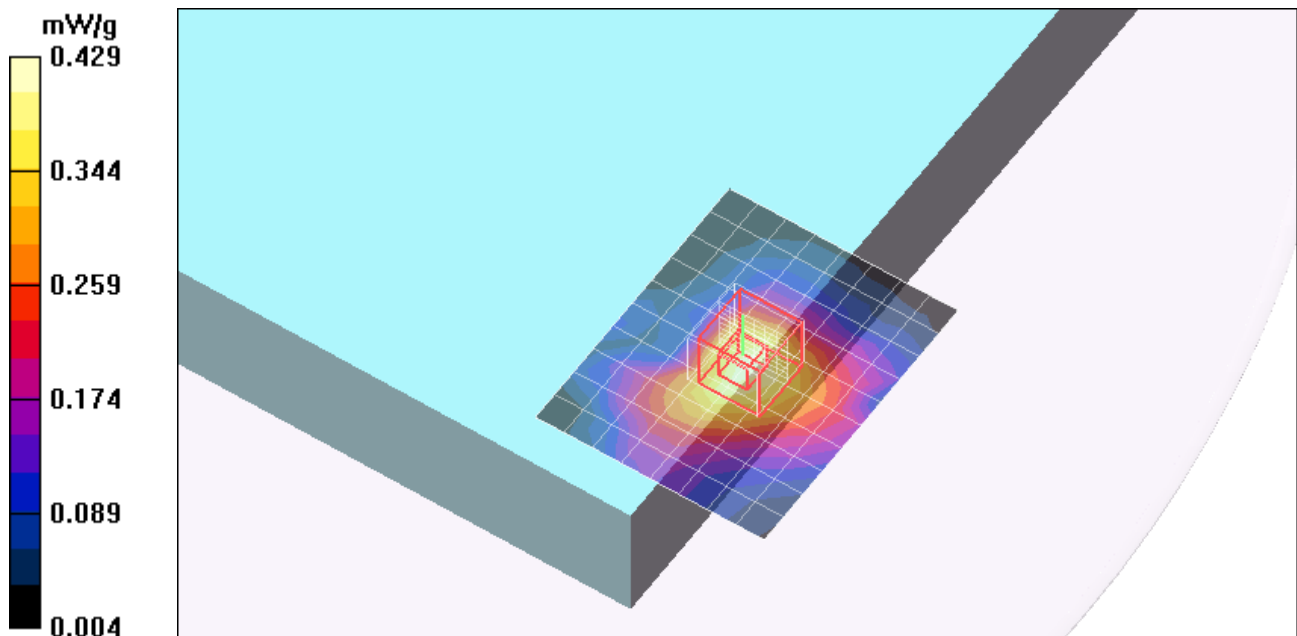
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 8.92 V/m; Power Drift = -0.209 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.284 mW/g; SAR(10 g) = 0.129 mW/g

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



Test Laboratory: Compliance Certification Services

Lapheld - Tyco 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:

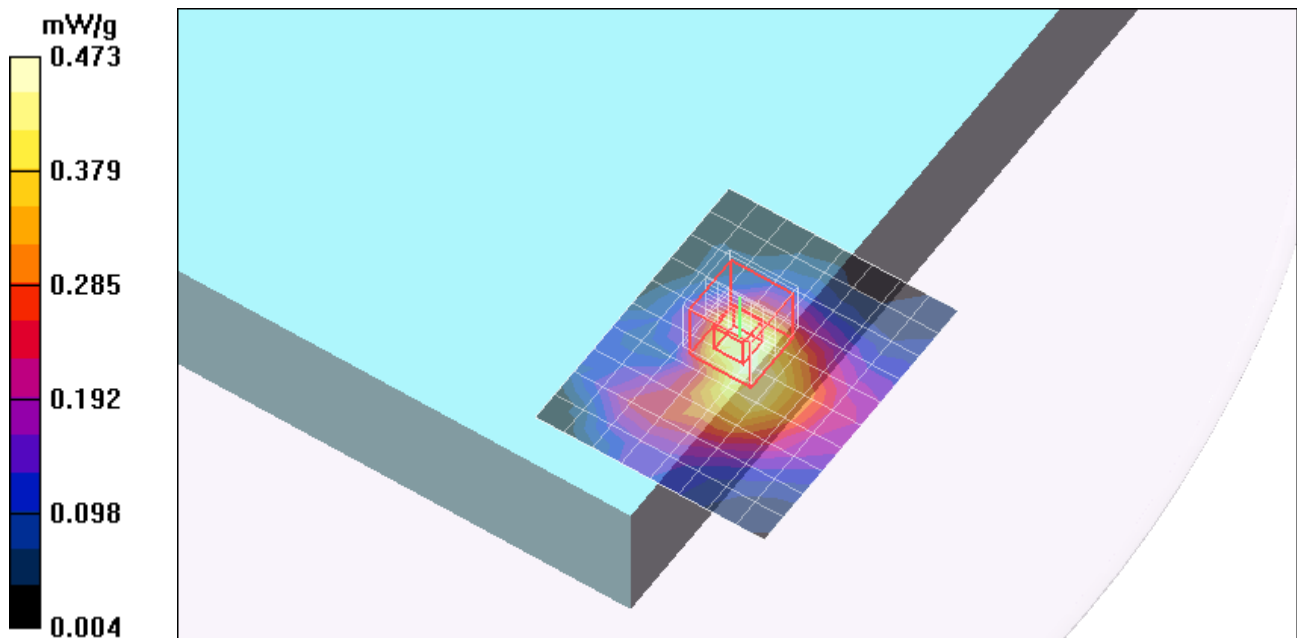
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with peak SAR value greater than 0.0012W/kg
- Probe: EX3DV3 - SN3531; ConvF(3.5, 3.5, 3.5); Calibrated: 4/23/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 11/16/2007
- Phantom: Flat Phantom 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 Tyco AUX Ant - M ch/Area Scan (9x11x1):

Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 0.473 mW/g

802.11a Legacy mode 5.5 GHz Band Tyco AUX Ant - M ch/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
 Reference Value = 9.60 V/m; Power Drift = 0.037 dB
 Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.314 mW/g; SAR(10 g) = 0.125 mW/g
 Maximum value of SAR (measured) = 0.513 mW/g



Test Laboratory: Compliance Certification Services

Lapheld - Tyco 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 (9x11x1):

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

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

Maximum value of SAR (measured) = 0.579 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

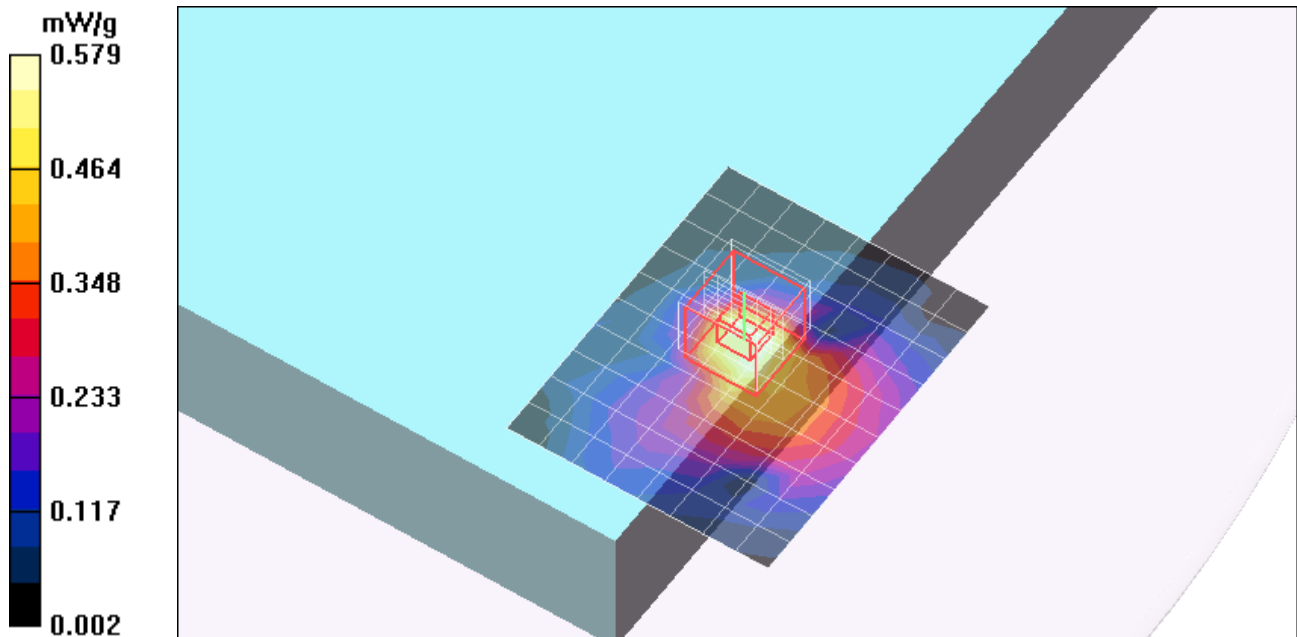
Reference Value = 1.66 V/m; Power Drift = -0.147 dB

Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.356 mW/g; SAR(10 g) = 0.143 mW/g

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

Maximum value of SAR (measured) = 0.657 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: $f = 5200$ 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 (9x11x1):

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

Maximum value of SAR (measured) = 0.146 mW/g

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

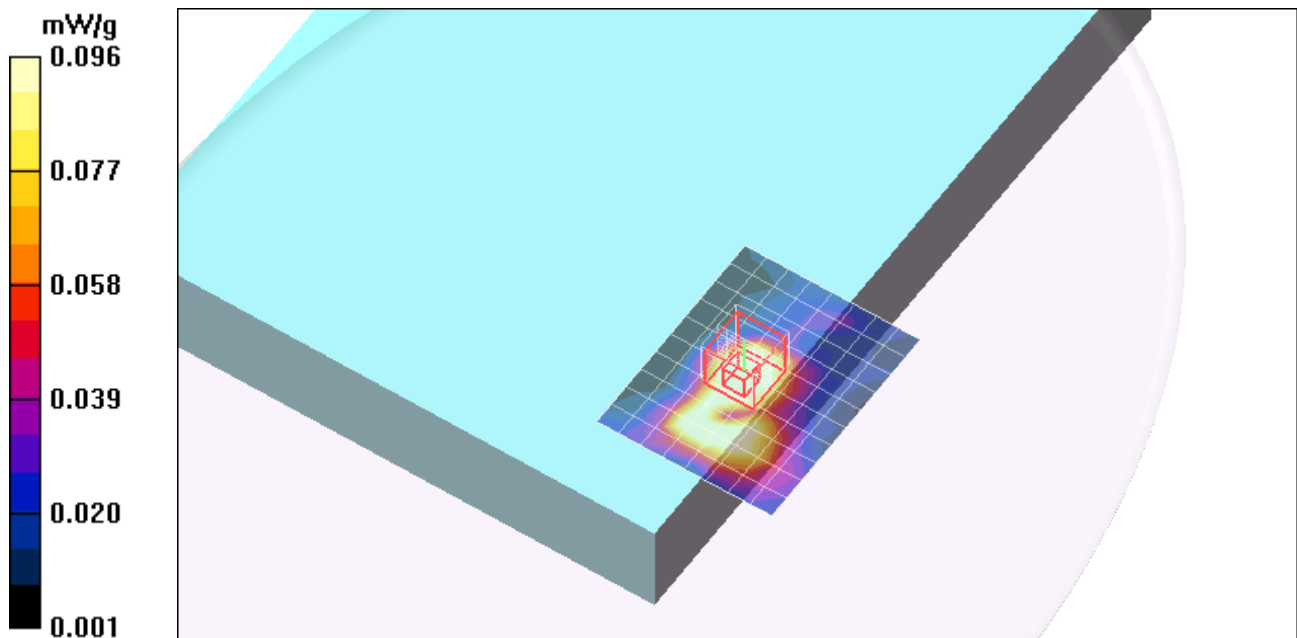
(7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 5.51 V/m; Power Drift = -0.290 dB

Peak SAR (extrapolated) = 0.906 W/kg

SAR(1 g) = 0.096 mW/g; SAR(10 g) = 0.037 mW/g

Maximum value of SAR (measured) = 0.148 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 (9x11x1):

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

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

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

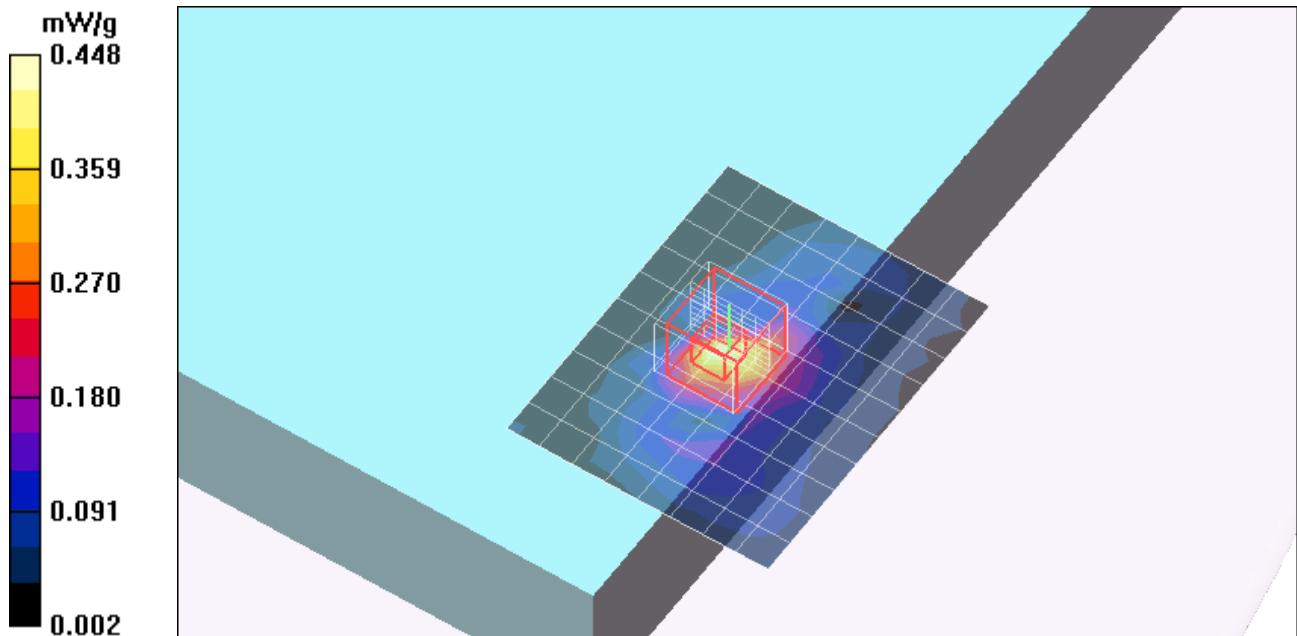
(7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 9.36 V/m; Power Drift = 0.009 dB

Peak SAR (extrapolated) = 0.824 W/kg

SAR(1 g) = 0.273 mW/g; SAR(10 g) = 0.101 mW/g

Maximum value of SAR (measured) = 0.447 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 (9x11x1):

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

Maximum value of SAR (measured) = 0.609 mW/g

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

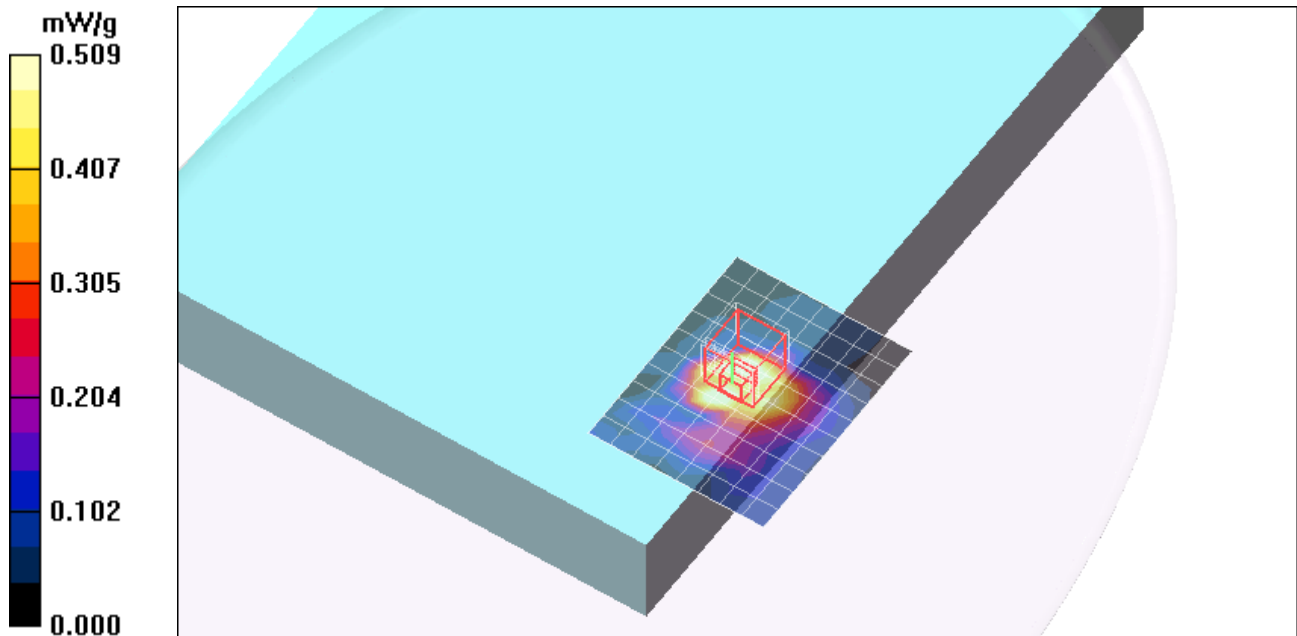
(7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 13.4 V/m; Power Drift = -0.114 dB

Peak SAR (extrapolated) = 4.40 W/kg

SAR(1 g) = 0.641 mW/g; SAR(10 g) = 0.213 mW/g

Maximum value of SAR (measured) = 0.972 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 (9x11x1):

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

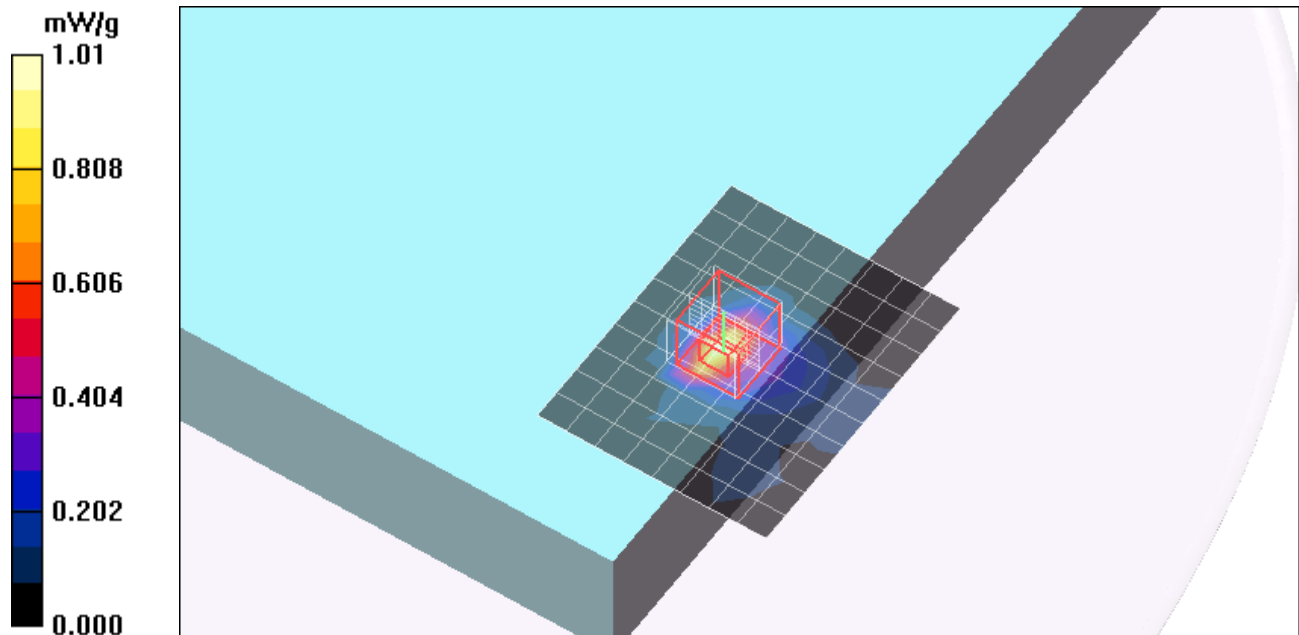
Reference Value = 1.76 V/m; Power Drift = -0.147 dB

Peak SAR (extrapolated) = 2.10 W/kg

SAR(1 g) = 0.639 mW/g; SAR(10 g) = 0.239 mW/g

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

Maximum value of SAR (measured) = 1.03 mW/g



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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) = 1.06 mW/g

