

SPEAG Calibration Laboratory

DUT: Dipole 5GHz; Type: D5GHz; Serial: D5GHzV2 - SN:1004

Communication System: CW-5GHz; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: HSL5800 ($\sigma = 5.2$ mho/m, $\epsilon_r = 35.39$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3025-Y2003; ConvF(2.3, 2.3, 2.3); Calibrated: 9/19/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn410; Calibrated: 4/22/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.8 Build 60

d=10mm, Pin=250mW, f=5800 MHz/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 84.8 V/m

Power Drift = -0.0 dB

Maximum value of SAR = 33.1 mW/g

d=10mm, Pin=250mW, f=5800 MHz/Zoom Scan (8x8x8), dist=3mm (7x7x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

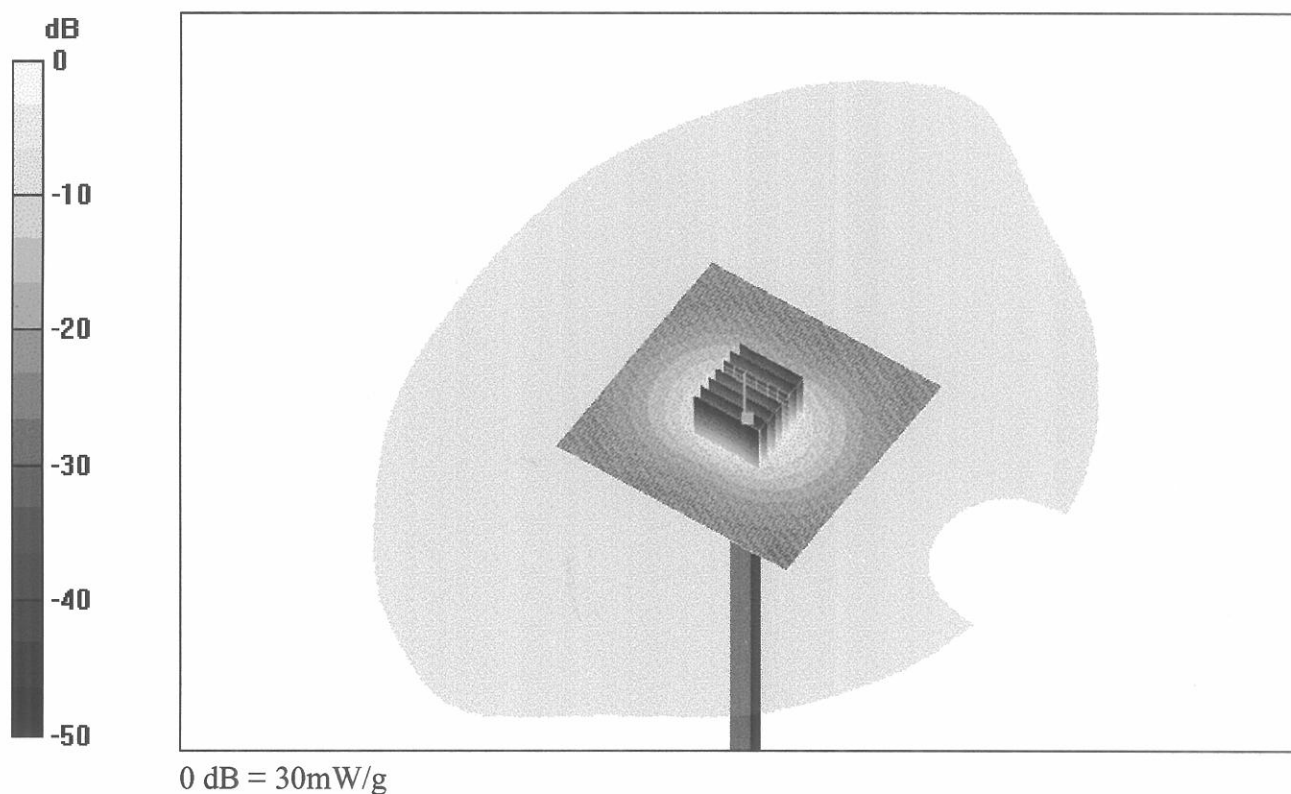
Peak SAR (extrapolated) = 114.0 W/kg

SAR(1 g) = 22.2 mW/g; SAR(10 g) = 6.1 mW/g

Reference Value = 84.8 V/m

Power Drift = -0.0 dB

Maximum value of SAR = 30 mW/g



4 Oct 2003 12:50:01

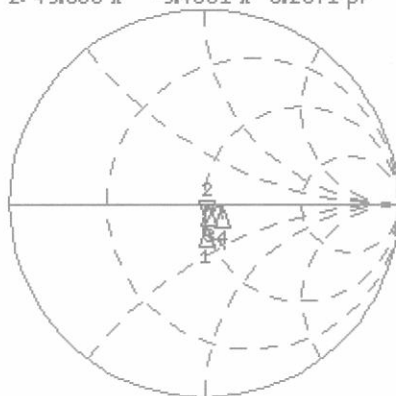
CH1 S11 1 U FS

2: 49.600 Ω -9.4551 Ω 3.2371 pF

5 200.000 000 MHz

Del

Cor



CH1 Markers

1: 48.547 Ω
-11.793 Ω
5.10000 GHz

3: 51.215 Ω
-1.6816 Ω
5.50000 GHz

4: 58.904 Ω
-2.6152 Ω
5.80000 GHz

↑

CH2 S11 LOG 5 dB/REF -20 dB 2:-20.481 dB 5 200.000 000 MHz

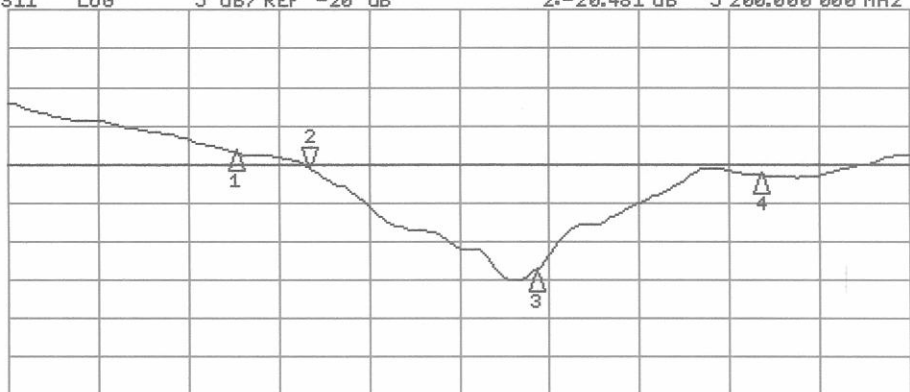
Smo

Cor

Avg

16

↑



START 4 800.000 000 MHz

STOP 6 000.000 000 MHz

CH2 Markers

1:-18.463 dB
5.10000 GHz

3:-33.833 dB
5.50000 GHz

4:-21.414 dB
5.80000 GHz

SPEAG Calibration Laboratory

DUT: Dipole 5GHz; Type: D5GHz; Serial: D5GHzV2 - SN:1004

Communication System: CW-5GHz; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: MSL5800 ($\sigma = 5.18$ mho/m, $\epsilon_r = 49.73$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3025-Y2003; ConvF(1.93, 1.93, 1.93); Calibrated: 9/19/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn410; Calibrated: 4/22/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.8 Build 60

d=10mm, Pin=250mW, f=5200 MHz/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 86.6 V/m

Power Drift = -0.0 dB

Maximum value of SAR = 33.4 mW/g

d=10mm, Pin=250mW, f=5200 MHz/Zoom Scan (8x8x8), dist=3mm (7x7x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

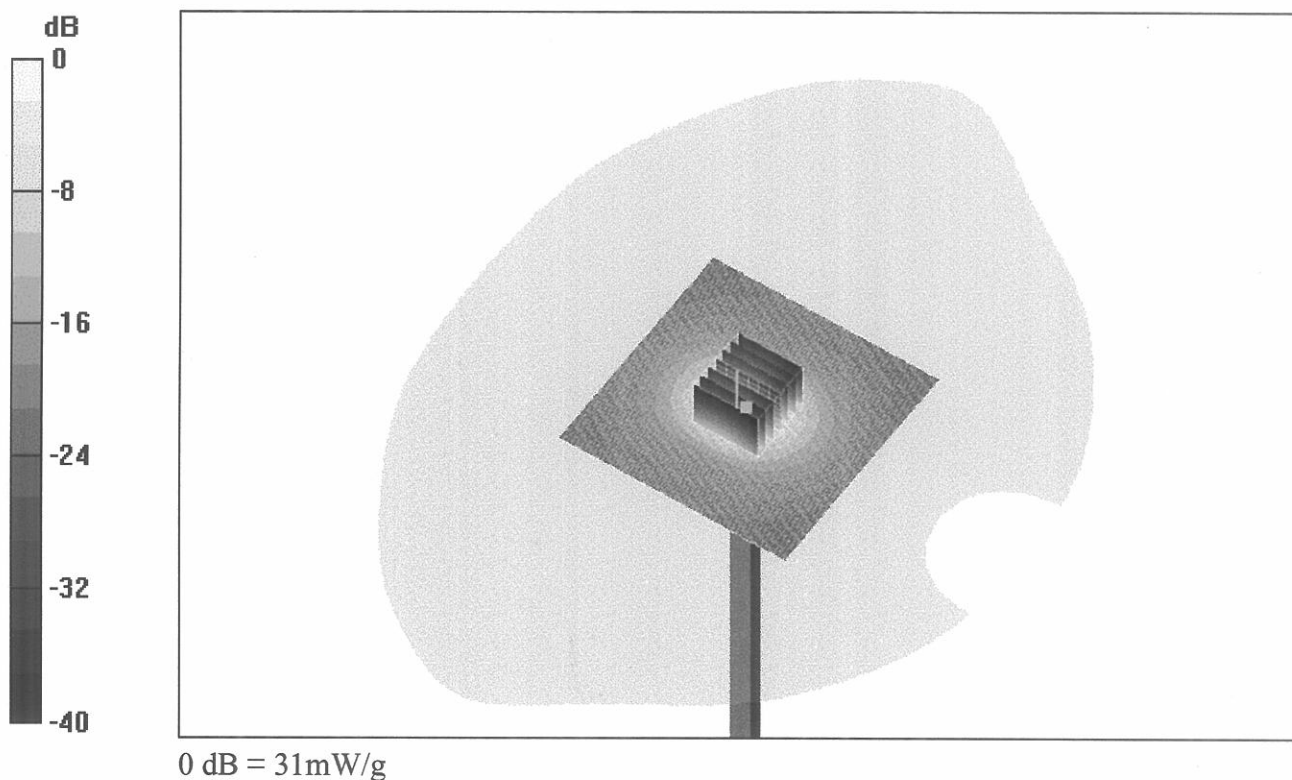
Peak SAR (extrapolated) = 80.6 W/kg

SAR(1 g) = 21 mW/g; SAR(10 g) = 5.84 mW/g

Reference Value = 86.6 V/m

Power Drift = -0.0 dB

Maximum value of SAR = 31 mW/g



SPEAG Calibration Laboratory

DUT: Dipole 5GHz; Type: D5GHz; Serial: D5GHzV2 - SN:1004

Communication System: CW-5GHz; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: MSL5800 ($\sigma = 6.01$ mho/m, $\epsilon_r = 48.51$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3025-Y2003; ConvF(1.65, 1.65, 1.65); Calibrated: 9/19/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn410; Calibrated: 4/22/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.8 Build 60

d=10mm, Pin=250mW, f=5800 MHz/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 82 V/m

Power Drift = -0.0008 dB

Maximum value of SAR = 31.6 mW/g

d=10mm, Pin=250mW, f=5800 MHz/Zoom Scan (8x8x8), dist=3mm (7x7x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

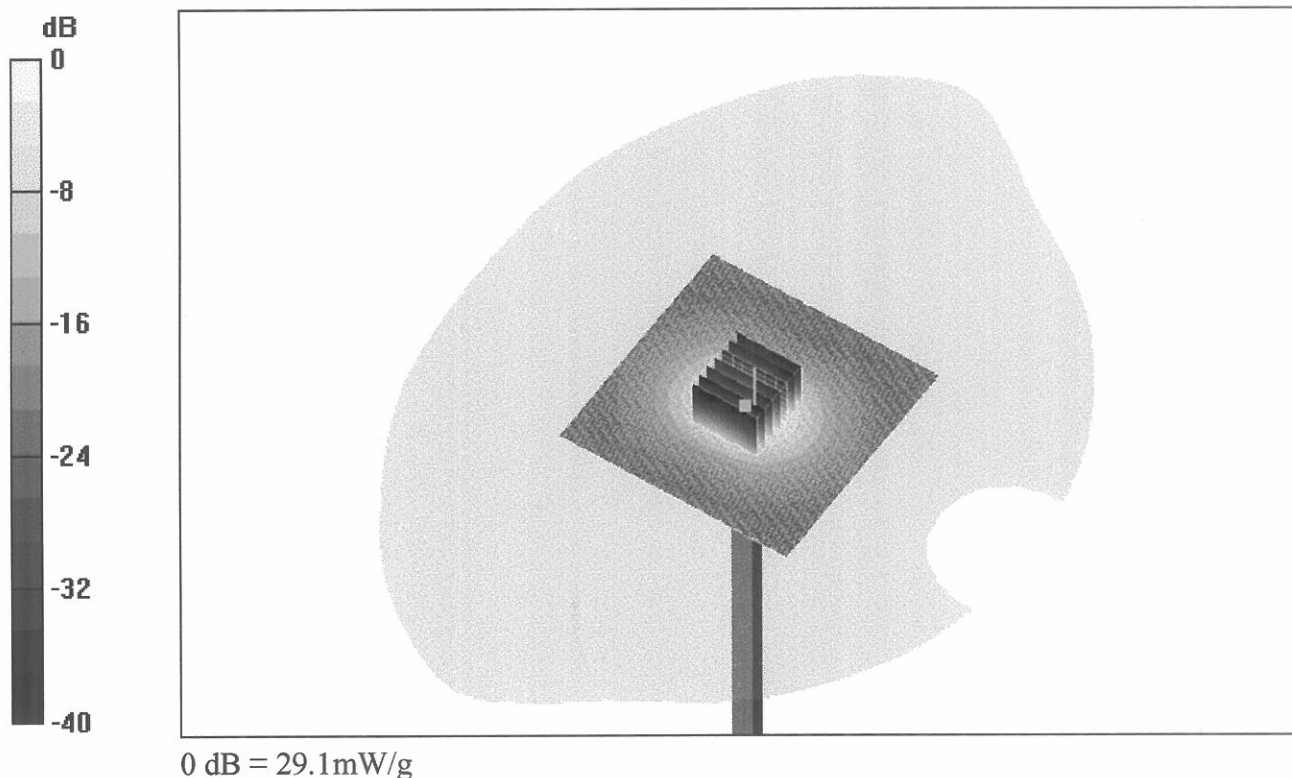
Peak SAR (extrapolated) = 80.3 W/kg

SAR(1 g) = 20 mW/g; SAR(10 g) = 5.61 mW/g

Reference Value = 82 V/m

Power Drift = -0.0008 dB

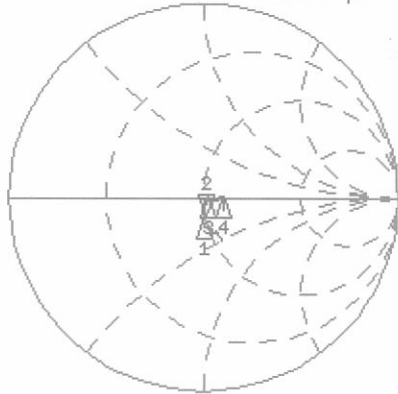
Maximum value of SAR = 29.1 mW/g



1004
Body

5 Oct 2003 12:29:16
CH1 S11 1 U FS 2: 49.492 Ω -8.7637 Ω 3.4925 pF 5 200.000 000 MHz

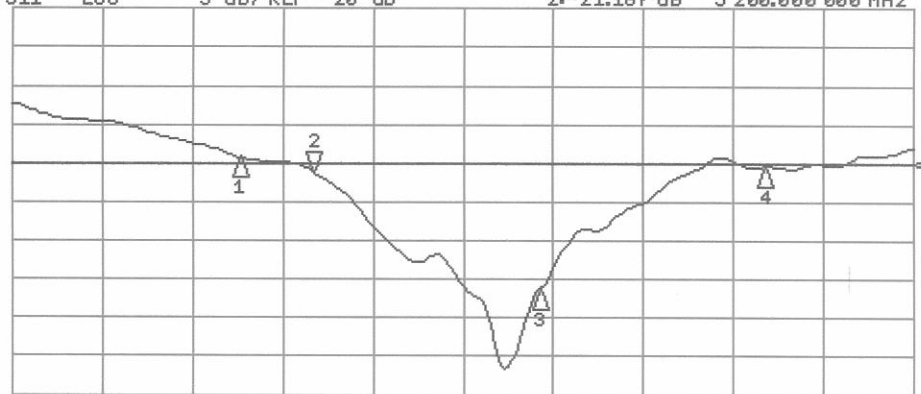
De1
Cor



CH1 Markers
1: 48.424 Ω
-10.590 Ω
5.10000 GHz
3: 51.492 Ω
-449.22 m Ω
5.50000 GHz
4: 60.572 Ω
-324.22 m Ω
5.80000 GHz

CH2 S11 LOG 5 dB/REF -20 dB 2:-21.167 dB 5 200.000 000 MHz

Smo
Cor
Avg
16
↑



CH2 Markers
1:-19.281 dB
5.10000 GHz
3:-36.359 dB
5.50000 GHz
4:-20.392 dB
5.80000 GHz

START 4 800.000 000 MHz STOP 6 000.000 000 MHz

Test Laboratory: Compliance Certification Services Inc.

D5GHz V2 SN 1004

DUT: Dipole 5GHz ; Type: D5GHz V2; Serial: 1004

Communication System: CW5GHz; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: BSL5GHz ($\sigma = 5.36$ mho/m, $\epsilon_r = 48.38$, $\rho = 1000$ kg/m³)

Air Temperature: 24.4 deg C; Liquid Temperature: 23.4 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(1.82, 1.82, 1.82); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.8 Build 62

Pin=250mW,d=10mm/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 86.8 V/m

Power Drift = 0.006 dB

Maximum value of SAR = 19.9 mW/g

Pin=250mW,d=10mm/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Reference Value = 86.8 V/m

Power Drift = -0.007 dB

Maximum value of SAR = 11.9 mW/g

Pin=250mW,d=10mm/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

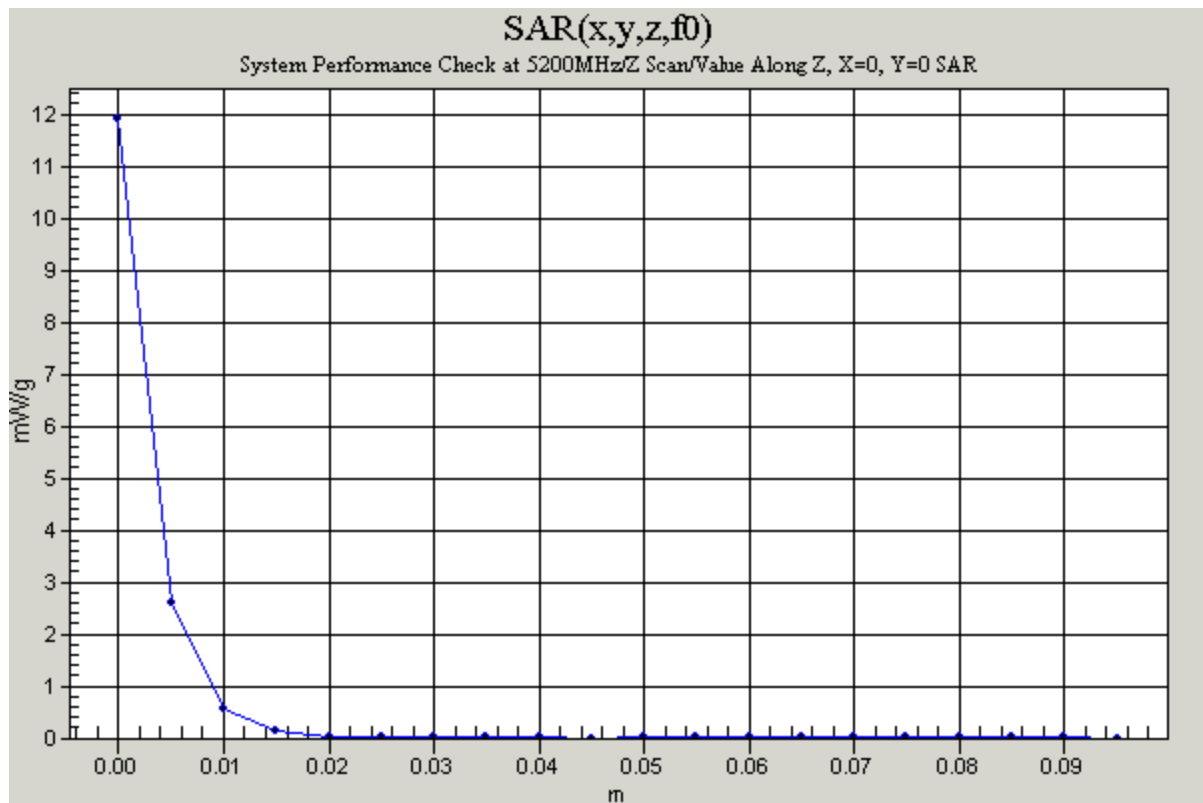
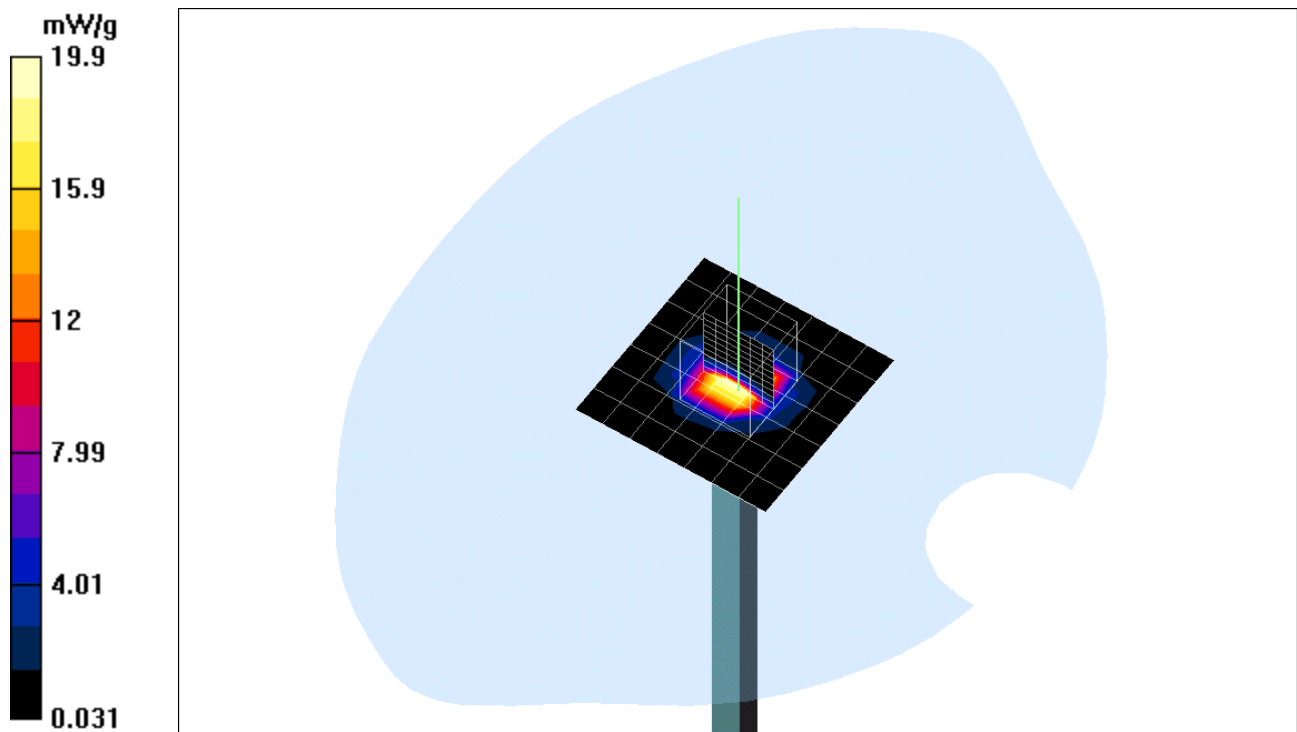
Peak SAR (extrapolated) = 90.2 W/kg

SAR(1 g) = 22 mW/g; SAR(10 g) = 6.1 mW/g

Reference Value = 86.8 V/m

Power Drift = 0.006 dB

Maximum value of SAR = 32 mW/g



Test Laboratory: Compliance Certification Services Inc.

D5GHz V2 SN 1004

DUT: Dipole 5GHz ; Type: D5GHz V2; Serial: 1004

Communication System: CW5GHz; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: BSL5GHz ($\sigma = 5.42$ mho/m, $\epsilon_r = 48.85$, $\rho = 1000$ kg/m³)

Air Temperature: 24.5 deg C; Liquid Temperature: 23.5 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(1.82, 1.82, 1.82); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.8 Build 62

Pin=250mW,d=10mm/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 85.8 V/m

Power Drift = 0.0 dB

Maximum value of SAR = 22.4 mW/g

Pin=250mW,d=10mm/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Reference Value = 85.8 V/m

Power Drift = 0.0 dB

Maximum value of SAR = 11.1 mW/g

Pin=250mW,d=10mm/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

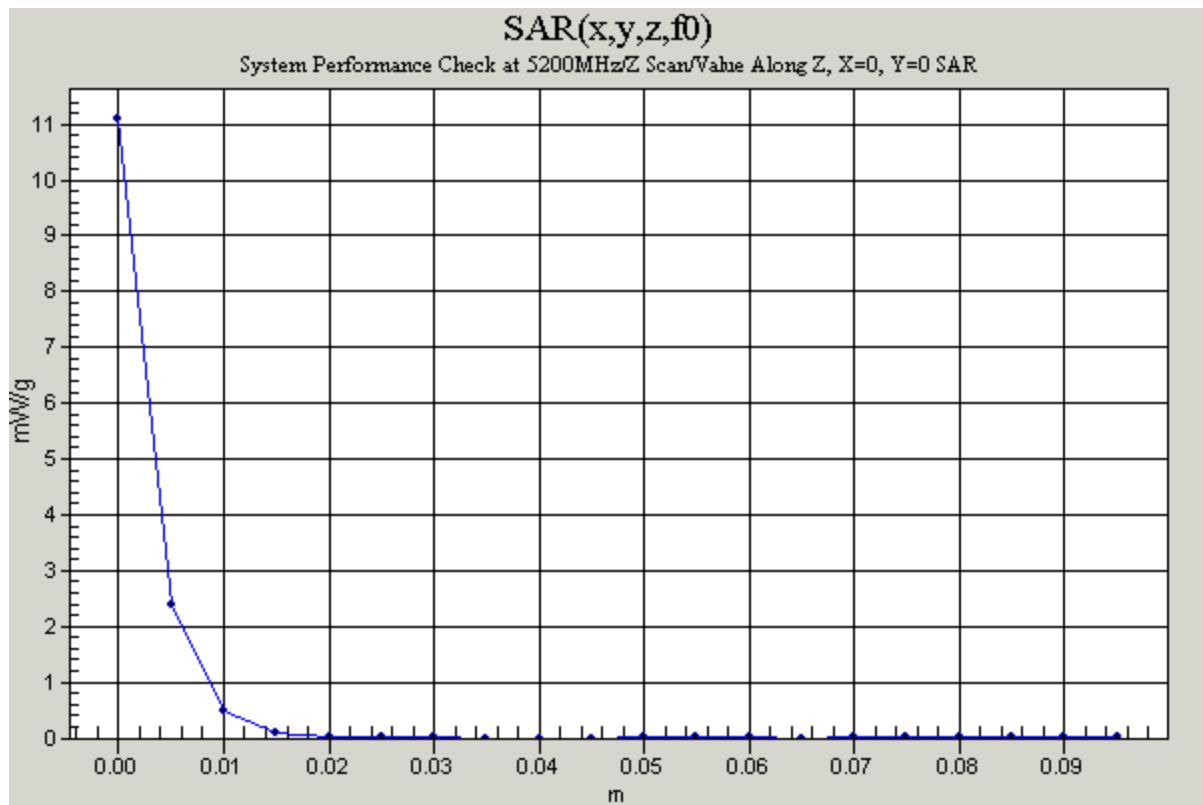
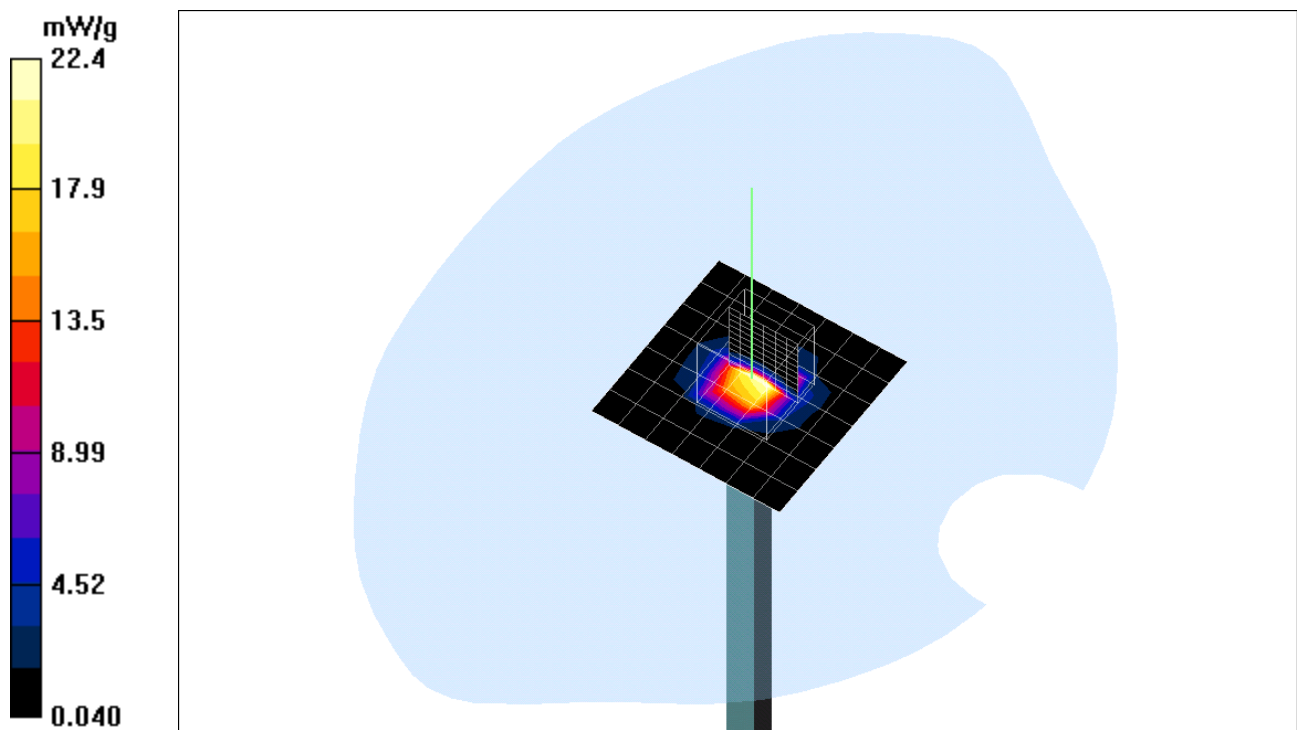
Peak SAR (extrapolated) = 91.6 W/kg

SAR(1 g) = 22.1 mW/g; SAR(10 g) = 6.20 mW/g

Reference Value = 85.8 V/m

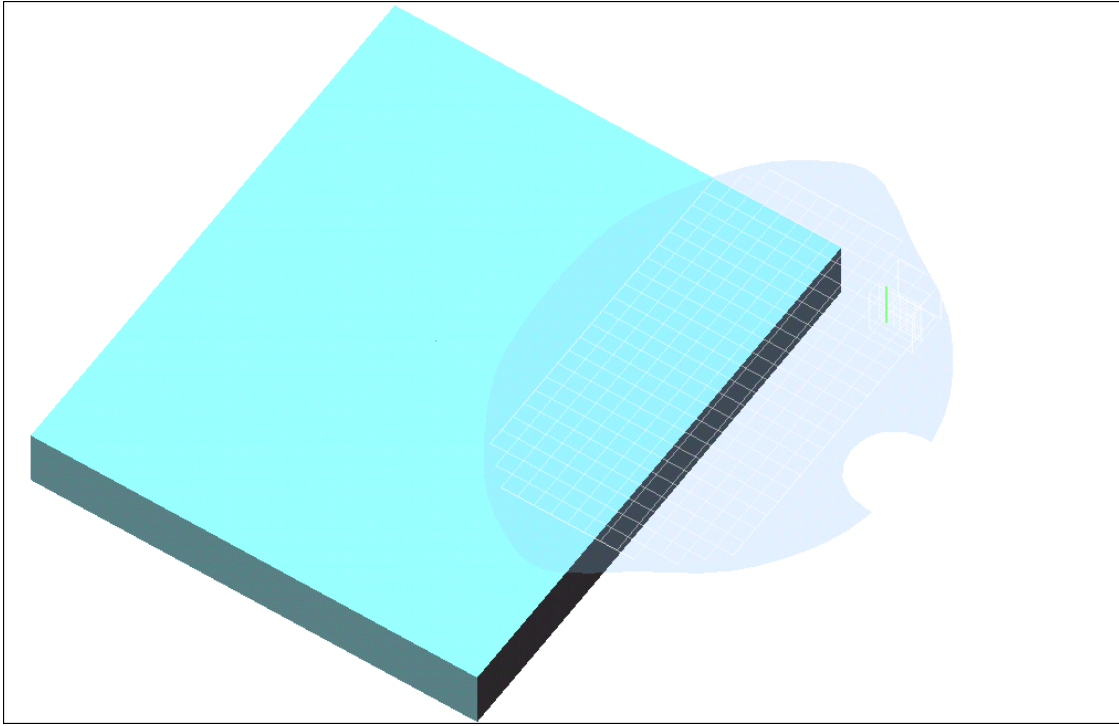
Power Drift = 0.0 dB

Maximum value of SAR = 32.1 mW/g



Test Laboratory: Compliance Certification Services Inc.

Test Configuration-1



Test Laboratory: Compliance Certification Services Inc.

Touch mode-Main

DUT: Notebook PC; Type: TravelMate C300; Serial: N/A

Communication System: 802.11A WLAN Mini PCI Card; Frequency: 5180 MHz;Duty Cycle: 1:1

Medium: BSL5200 ($\sigma = 5.42$ mho/m, $\epsilon_r = 48.85$, $\rho = 1000$ kg/m³)

Air Temperature:24.5 deg C;Liquid Temperature:23.5 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(1.82, 1.82, 1.82); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.8 Build 62

Low Rate=6 Mbit/Area Scan (15x25x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 0.658 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.00857 mW/g

Low Rate=6 Mbit/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

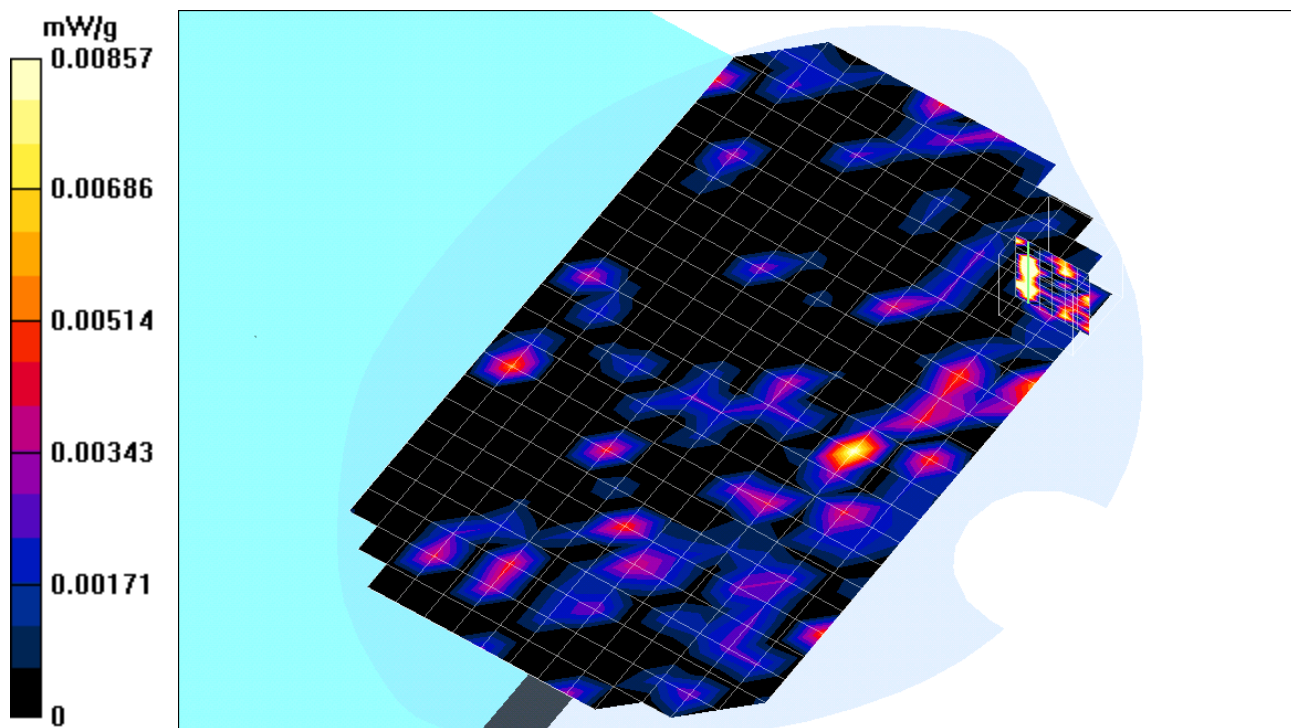
Peak SAR (extrapolated) = 0.388 W/kg

SAR(1 g) = 0.00459 mW/g; SAR(10 g) = 0.0023 mW/g

Reference Value = 0.658 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.017 mW/g



Test Laboratory: Compliance Certification Services Inc.

Touch mode-Main

DUT: Notebook PC; Type: TravelMate C300; Serial: N/A

Communication System: 802.11A WLAN Mini PCI Card; Frequency: 5240 MHz; Duty Cycle: 1:1

Medium: BSL5200 ($\sigma = 5.42$ mho/m, $\epsilon_r = 48.85$, $\rho = 1000$ kg/m³)

Air Temperature: 24.5 deg C; Liquid Temperature: 23.5 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(1.82, 1.82, 1.82); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.8 Build 62

Mid Rate=6 Mbit/Area Scan (13x17x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 0.524 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.00755 mW/g

Mid Rate=6 Mbit/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

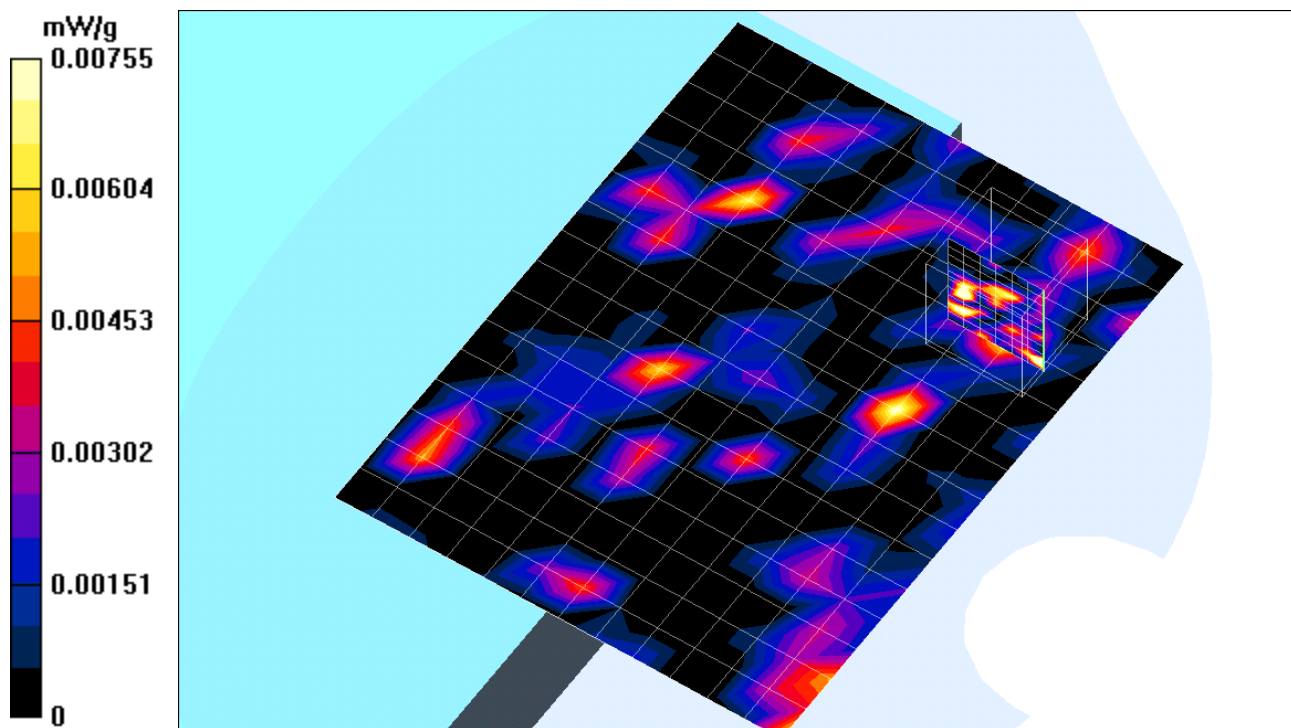
Peak SAR (extrapolated) = 0.368 W/kg

SAR(1 g) = 0.00407 mW/g; SAR(10 g) = 0.00258 mW/g

Reference Value = 0.524 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.013 mW/g



Test Laboratory: Compliance Certification Services Inc.

Touch mode-Main

DUT: Notebook PC; Type: TravelMate C300; Serial: N/A

Communication System: 802.11A WLAN Mini PCI Card; Frequency: 5260 MHz; Duty Cycle: 1:1

Medium: BSL5200 ($\sigma = 5.42$ mho/m, $\epsilon_r = 48.85$, $\rho = 1000$ kg/m³)

Air Temperature: 24.5 deg C; Liquid Temperature: 23.5 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(1.82, 1.82, 1.82); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.8 Build 62

Mid Rate=6 Mbit 2/Area Scan (13x17x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 0.276 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.0084 mW/g

Mid Rate=6 Mbit 2/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

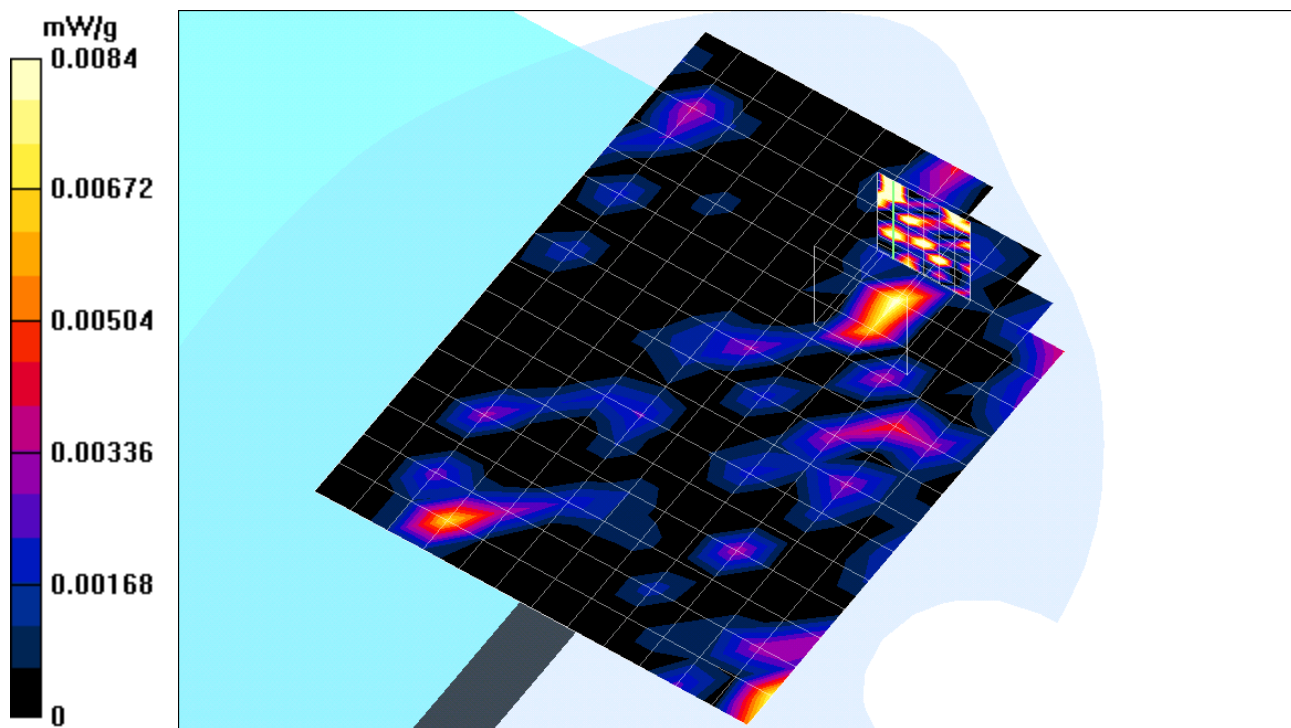
Peak SAR (extrapolated) = 0.360W/kg

SAR(1 g) = 0.00405 mW/g; SAR(10 g) = 0.035 mW/g

Reference Value = 0.276 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.018 mW/g



Test Laboratory: Compliance Certification Services Inc.

Touch mode-Main

DUT: Notebook PC; Type: TravelMate C300; Serial: N/A

Communication System: 802.11A WLAN Mini PCI Card; Frequency: 5320 MHz; Duty Cycle: 1:1

Medium: BSL5200 ($\sigma = 5.42$ mho/m, $\epsilon_r = 48.85$, $\rho = 1000$ kg/m³)

Air Temperature: 24.5 deg C; Liquid Temperature: 23.5 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(1.82, 1.82, 1.82); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.8 Build 62

High Rate=6 Mbit/Area Scan (13x17x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 0.637 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.00864 mW/g

High Rate=6 Mbit/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

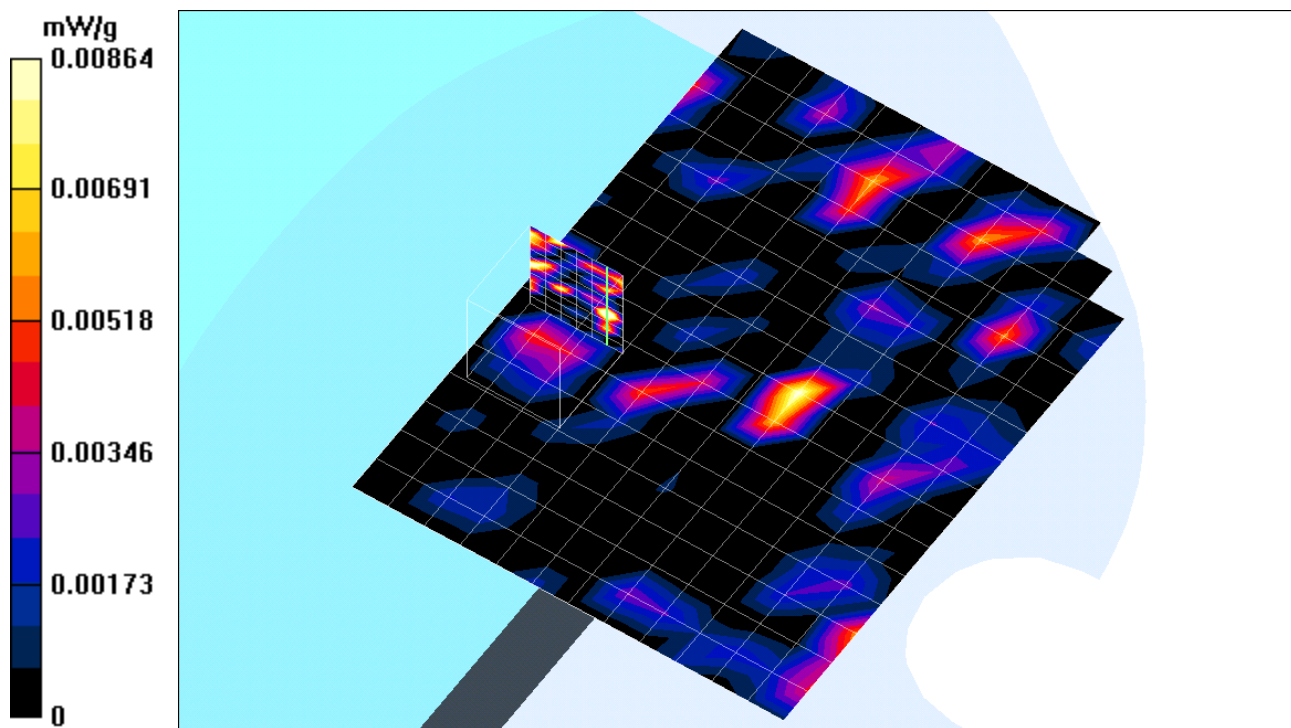
Peak SAR (extrapolated) = 0.342 W/kg

SAR(1 g) = 0.00311 mW/g; SAR(10 g) = 0.00148 mW/g

Reference Value = 0.637 V/m

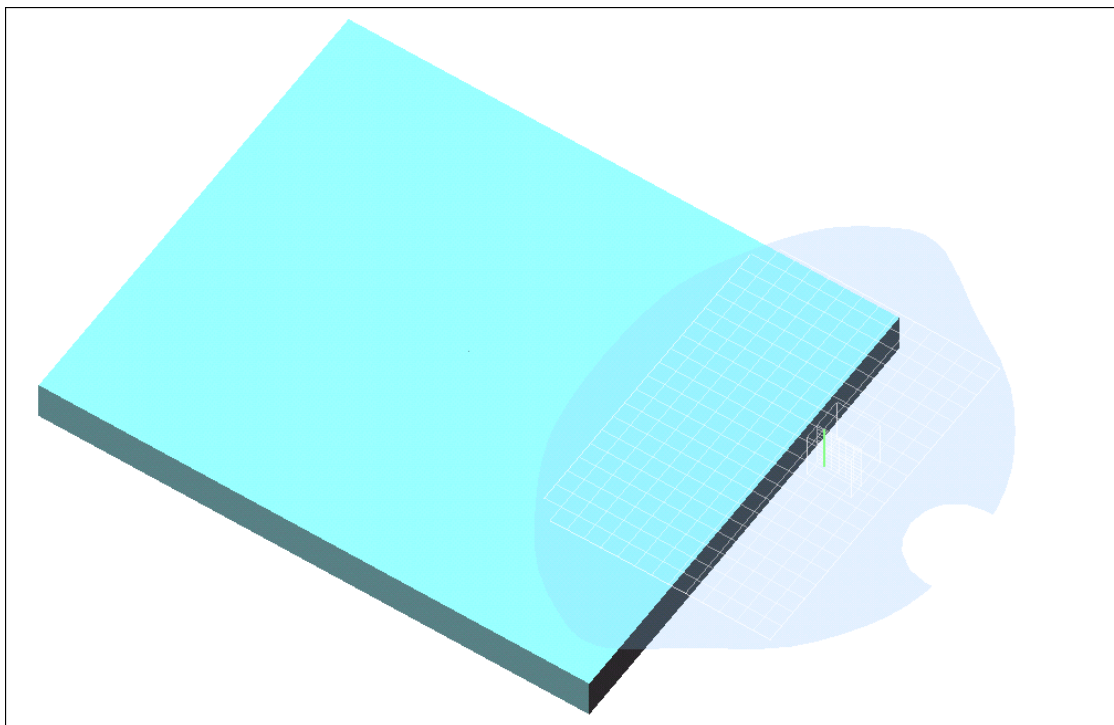
Power Drift = -0.2 dB

Maximum value of SAR = 0.013 mW/g



Test Laboratory: Compliance Certification Services Inc.

Test Configuration-2



Test Laboratory: Compliance Certification Services Inc.

Touch mode-Aux

DUT: Notebook PC; Type: TravelMate C300; Serial: N/A

Communication System: 802.11A WLAN Mini PCI Card; Frequency: 5180 MHz; Duty Cycle: 1:1

Medium: BSL5200 ($\sigma = 5.36$ mho/m, $\epsilon_r = 48.38$, $\rho = 1000$ kg/m³)

Air Temperature: 24.4 deg C; Liquid Temperature: 23.4 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(1.82, 1.82, 1.82); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.8 Build 62

Low Rate=6M bit/Area Scan (15x21x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 0.894 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.016 mW/g

Low Rate=6M bit/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Peak SAR (extrapolated) = 0.680 W/kg

SAR(1 g) = 0.00396 mW/g; SAR(10 g) = 15 mW/g

Reference Value = 0.894 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.018 mW/g

Low Rate=6M bit/Zoom Scan (7x7x11)/Cube 1: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

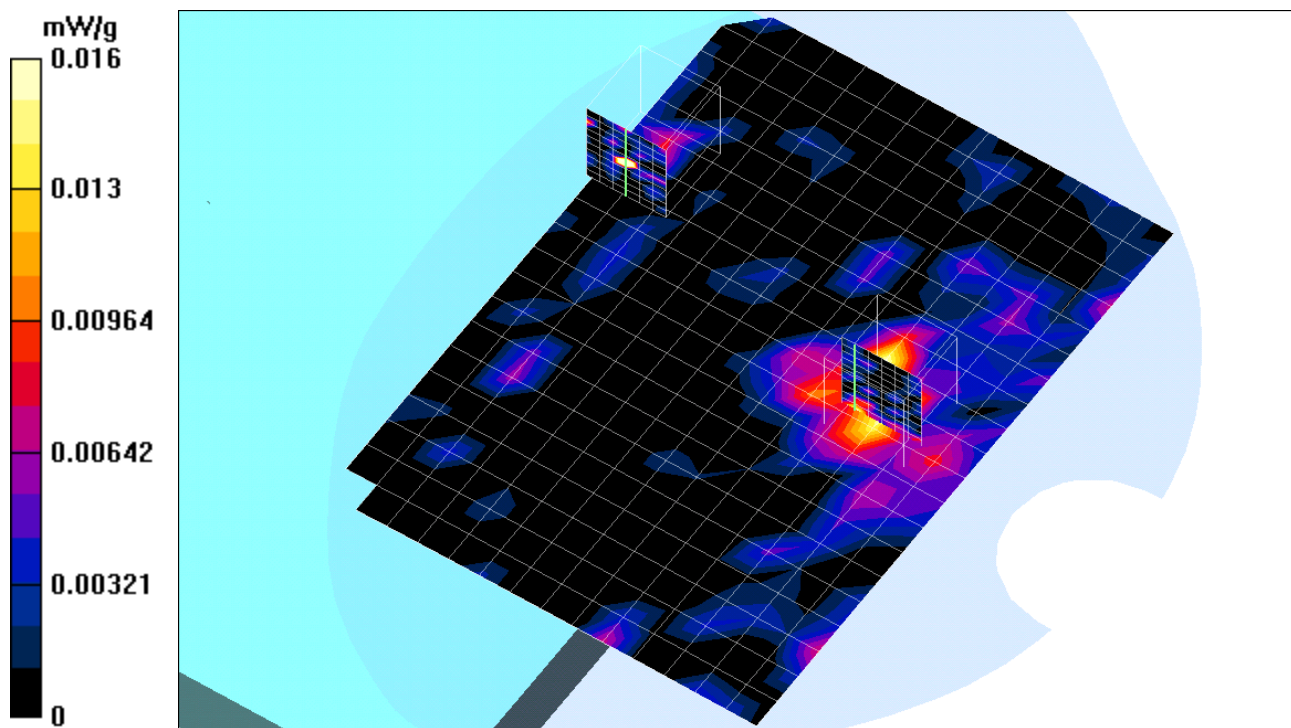
Peak SAR (extrapolated) = 0.507 W/kg

SAR(1 g) = 0.00268 mW/g; SAR(10 g) = 0.000987 mW/g

Reference Value = 0.894 V/m

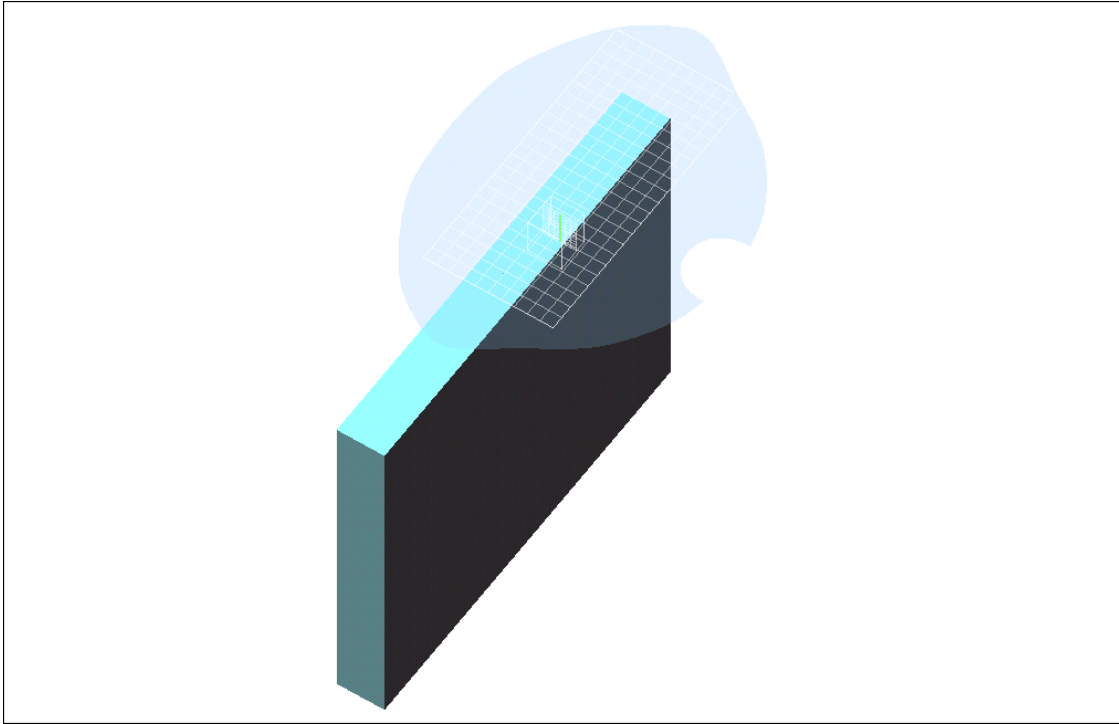
Power Drift = 0.2 dB

Maximum value of SAR = 0.031 mW/g



Test Laboratory: Compliance Certification Services Inc.

Test Configuration-3



Test Laboratory: Compliance Certification Services Inc.

15mm mode-Main

DUT: Notebook PC; Type: TravelMate C300; Serial: N/A

Communication System: 802.11A/B WLAN Mini PCI Card; Frequency: 5180 MHz; Duty Cycle: 1:1

Medium: BSL5200 ($\sigma = 5.42$ mho/m, $\epsilon_r = 48.85$, $\rho = 1000$ kg/m³)

Air Temperature: 24.5 deg C; Liquid Temperature: 23.5 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(1.82, 1.82, 1.82); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.8 Build 62

Low Rate=6M bit/Area Scan (11x23x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 1.1 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.013 mW/g

Low Rate=6M bit/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

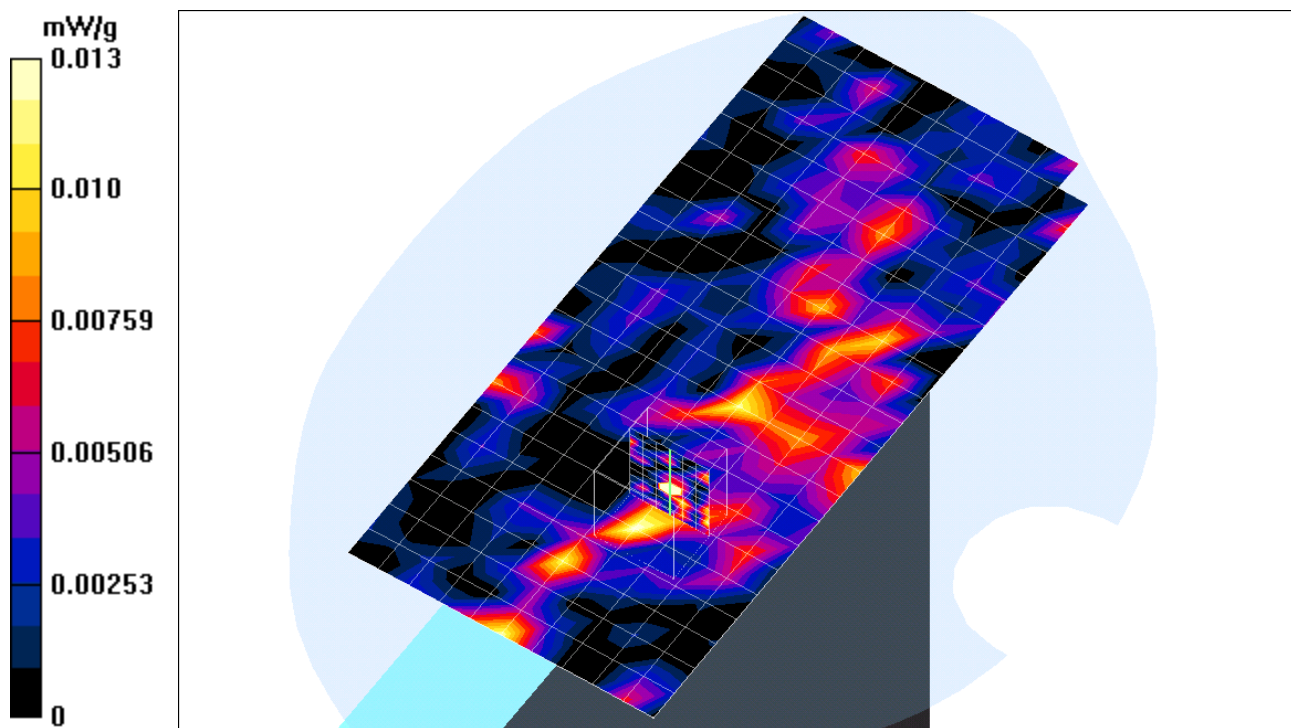
Peak SAR (extrapolated) = 0.878 W/kg

SAR(1 g) = 0.00896 mW/g; SAR(10 g) = 0.00405 mW/g

Reference Value = 1.1 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.039 mW/g



Test Laboratory: Compliance Certification Services Inc.

15mm mode-Main

DUT: Notebook PC; Type: TravelMate C300; Serial: N/A

Communication System: 802.11A/B WLAN Mini PCI Card; Frequency: 5320 MHz; Duty Cycle: 1:1

Medium: BSL5200 ($\sigma = 5.42$ mho/m, $\epsilon_r = 48.85$, $\rho = 1000$ kg/m³)

Air Temperature: 24.5 deg C; Liquid Temperature: 23.5 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(1.82, 1.82, 1.82); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.8 Build 62

High Rate=6M bit/Area Scan (10x17x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 0.877 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.019 mW/g

High Rate=6M bit/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Peak SAR (extrapolated) = 0.102 W/kg

SAR(1 g) = 0.00659 mW/g; SAR(10 g) = 0.0027 mW/g

Reference Value = 0.877 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.014 mW/g