



Appendix E

Plots of SAR Test Result for SZEM1806005350CR



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Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

WIFI 802.11 b-Body Bottom CH1 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11b (0); Communication System Band: ISM 2.4GHz Band;
 Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.963 \text{ S/m}$; $\epsilon_r = 50.58$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/IEEE802.11b Body Bottom CH1 Main Antenna/Area Scan (11x16x1): Measurement
 grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (measured) = 0.447 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH1 Main Antenna/Zoom Scan (7x7x7)/Cube 0:

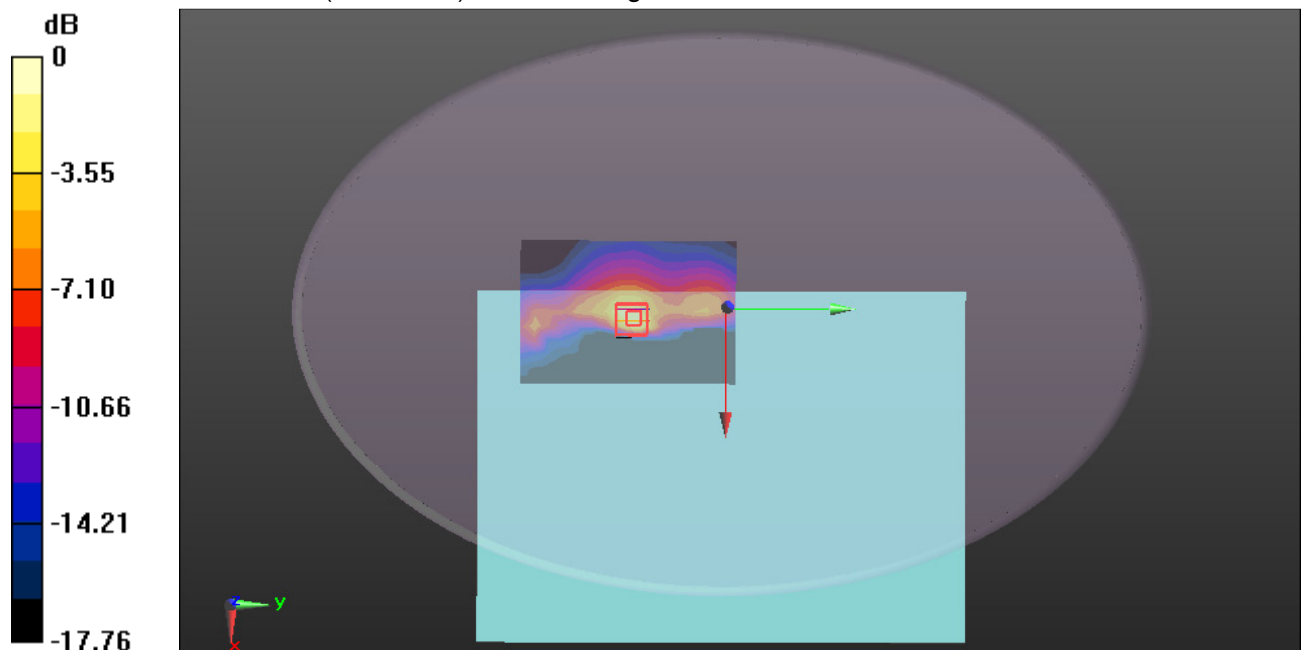
Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 8.163 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.957 W/kg

SAR(1 g) = 0.338 W/kg; SAR(10 g) = 0.140 W/kg

Maximum value of SAR (measured) = 0.657 W/kg



0 dB = 0.657 W/kg = -1.82 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

WIFI 802.11 b-Body Bottom CH6 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11b (0); Communication System Band: ISM 2.4GHz Band;
 Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.992 \text{ S/m}$; $\epsilon_r = 50.46$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/IEEE802.11b Body Bottom CH6 Main Antenna/Area Scan (11x16x1): Measurement
 grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (measured) = 0.499 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH6 Main Antenna/Zoom Scan (7x7x7)/Cube 0:

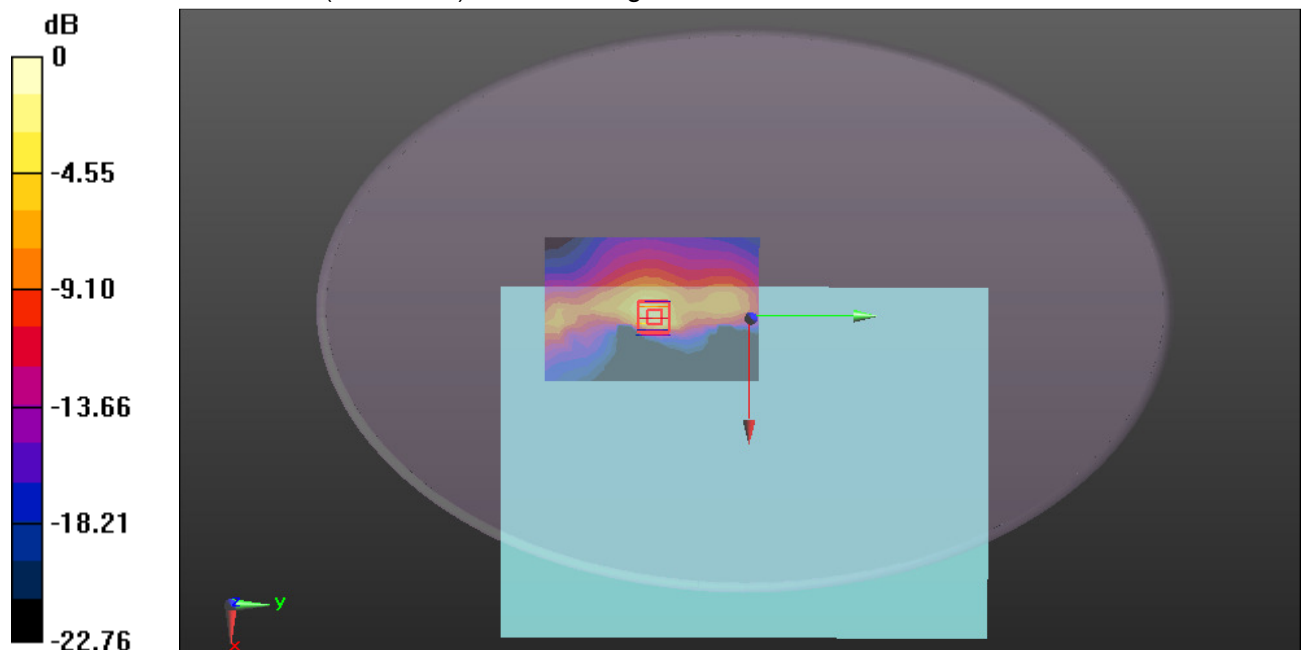
Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 7.350 V/m ; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.358 W/kg ; SAR(10 g) = 0.147 W/kg

Maximum value of SAR (measured) = 0.724 W/kg



0 dB = 0.724 W/kg = -1.40 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

WIFI 802.11 b-Body Bottom CH11 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11b (0); Communication System Band: ISM 2.4GHz Band;
 Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 2.023 \text{ S/m}$; $\epsilon_r = 50.372$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/IEEE802.11b Body Bottom CH11 Main Antenna/Area Scan (11x16x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 0.726 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH11 Main Antenna/Zoom Scan (7x7x7)/Cube 0:

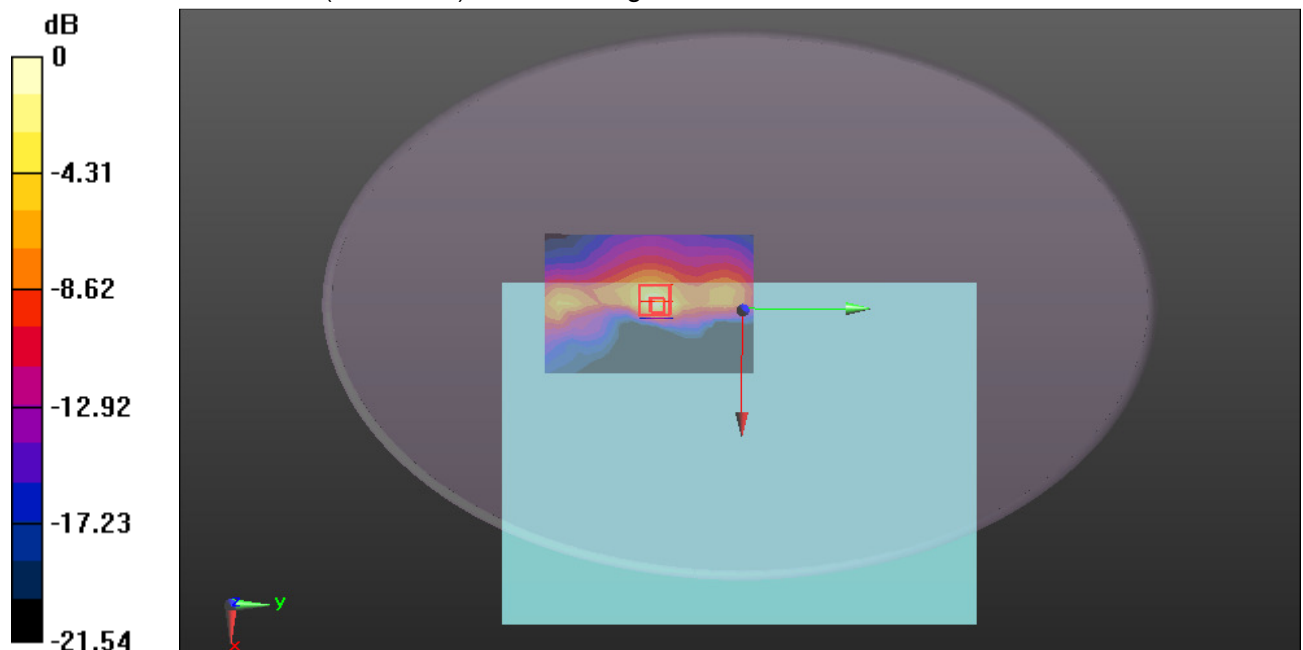
Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 7.842 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.381 W/kg; SAR(10 g) = 0.163 W/kg

Maximum value of SAR (measured) = 0.784 W/kg



0 dB = 0.784 W/kg = -1.06 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

WIFI 802.11 b-Body Bottom CH1 Aux Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11b (0); Communication System Band: ISM 2.4GHz Band;
 Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.963 \text{ S/m}$; $\epsilon_r = 50.58$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/IEEE802.11b Body Bottom CH1 Aux Antenna/Area Scan (11x17x1): Measurement
 grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (measured) = 0.491 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH1 Aux Antenna/Zoom Scan (7x7x7)/Cube 0:

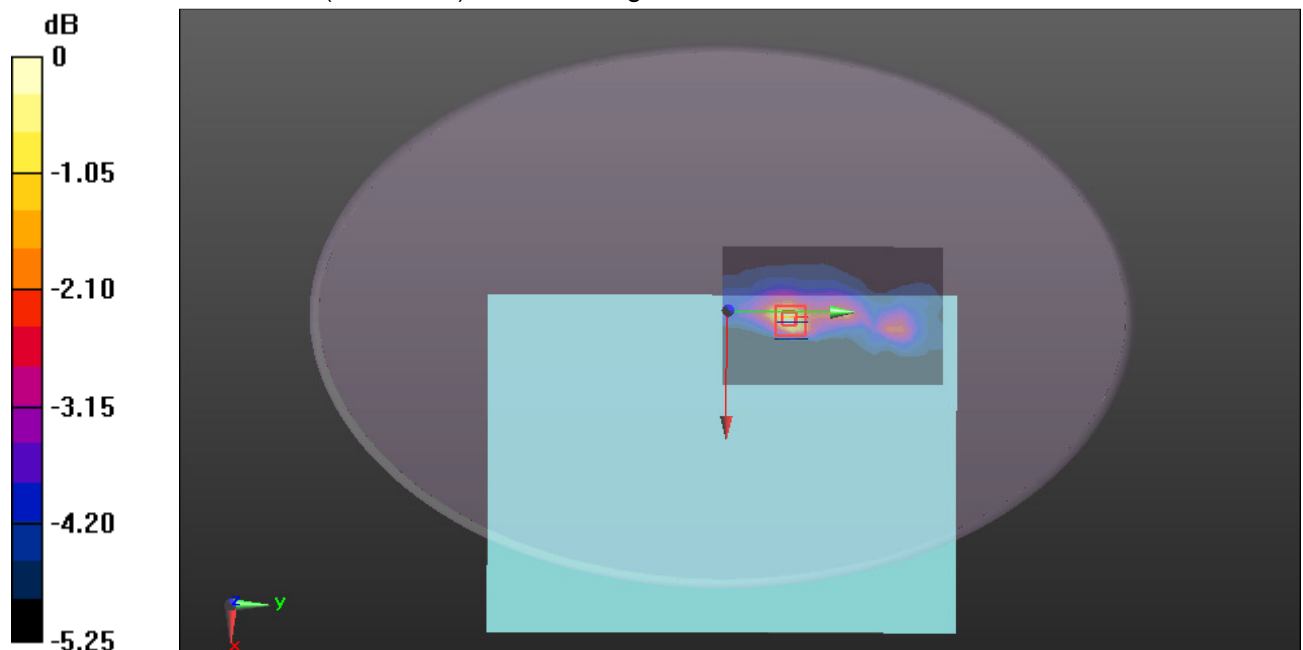
Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 10.66 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.683 W/kg

SAR(1 g) = 0.284 W/kg; SAR(10 g) = 0.118 W/kg

Maximum value of SAR (measured) = 0.520 W/kg



0 dB = 0.520 W/kg = -2.84 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

WIFI 802.11 b-Body Bottom CH6 Aux Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11b (0); Communication System Band: ISM 2.4GHz Band;
 Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.992 \text{ S/m}$; $\epsilon_r = 50.46$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/IEEE802.11b Body Bottom CH6 Aux Antenna/Area Scan (11x17x1): Measurement
 grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (measured) = 0.413 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH6 Aux Antenna/Zoom Scan (7x7x7)/Cube 0:

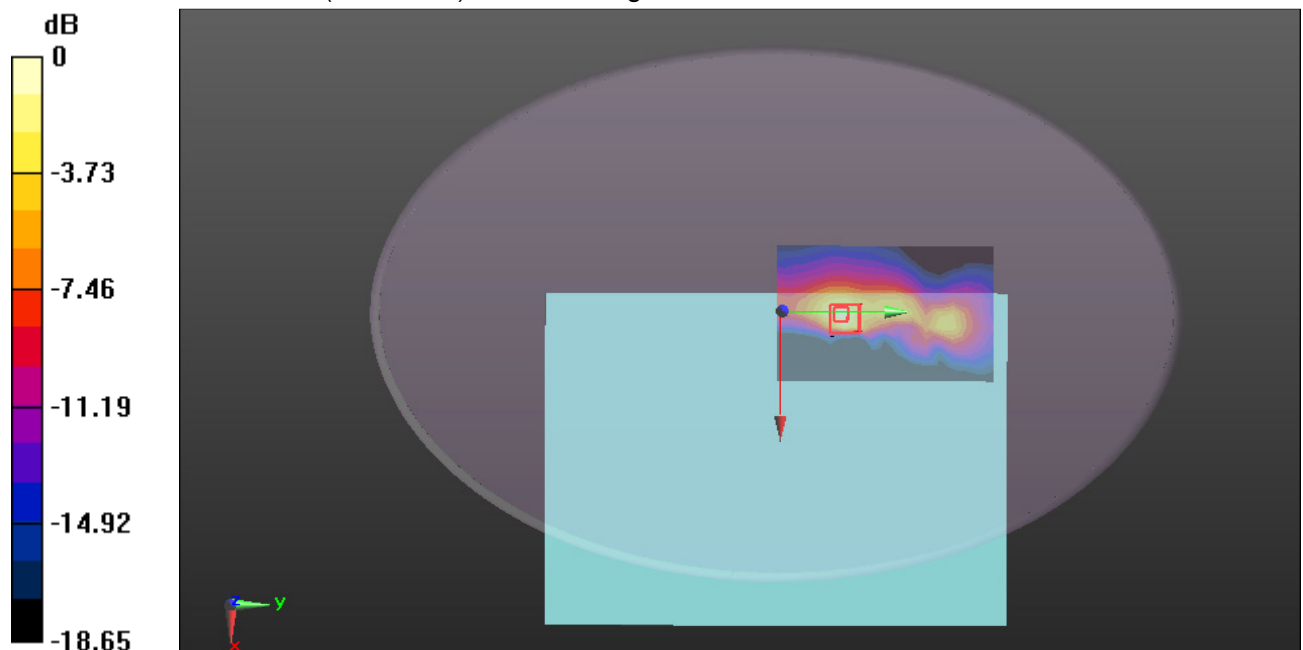
Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 6.022 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 0.666 W/kg

SAR(1 g) = 0.262 W/kg; SAR(10 g) = 0.109 W/kg

Maximum value of SAR (measured) = 0.448 W/kg



0 dB = 0.448 W/kg = -3.49 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

WIFI 802.11 b-Body Bottom CH11 Aux Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11b (0); Communication System Band: ISM 2.4GHz Band;
 Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 2.023 \text{ S/m}$; $\epsilon_r = 50.372$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/IEEE802.11b Body Bottom CH11 Aux Antenna/Area Scan (11x15x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 0.402 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH11 Aux Antenna/Zoom Scan (7x7x7)/Cube 0:

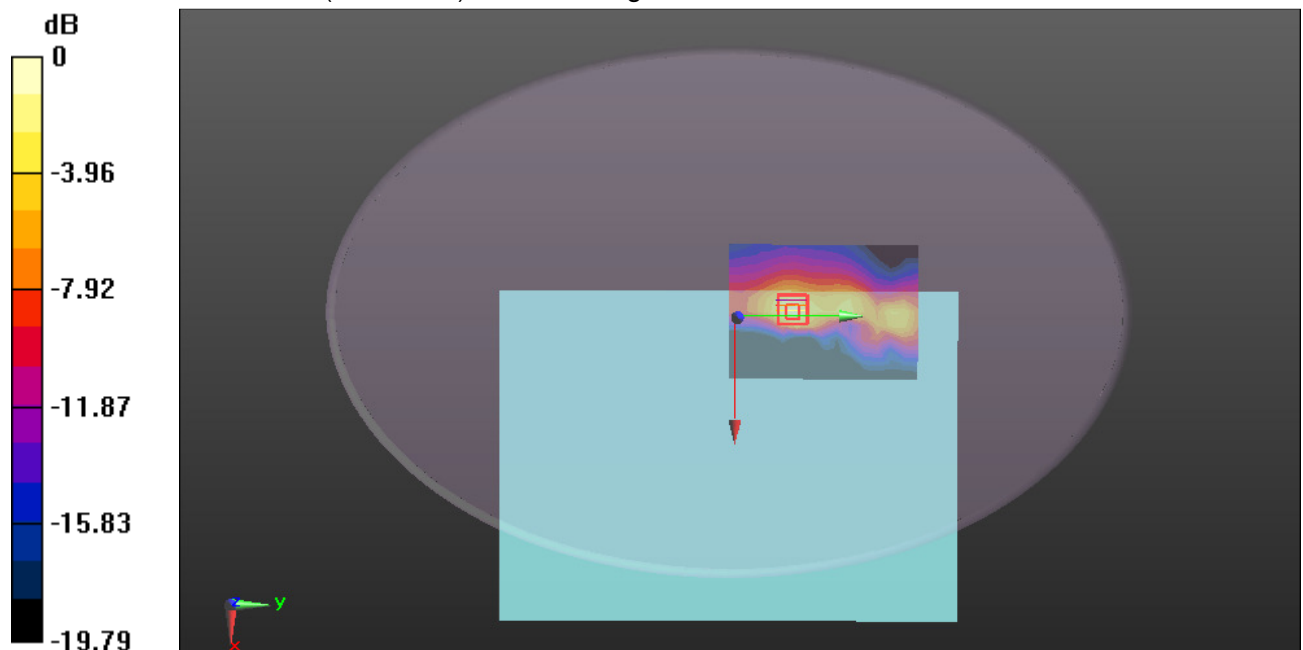
Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 5.566 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.661 W/kg

SAR(1 g) = 0.251 W/kg; SAR(10 g) = 0.118 W/kg

Maximum value of SAR (measured) = 0.445 W/kg



0 dB = 0.445 W/kg = -3.52 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

WIFI 802.11 b-Body Bottom CH11 Main Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11b (0); Communication System Band: ISM 2.4GHz Band;
 Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 2.023 \text{ S/m}$; $\epsilon_r = 50.372$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/IEEE802.11b Body Bottom CH11 Main Antenna/Area Scan (11x17x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 0.566 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH11 Main Antenna/Zoom Scan (7x7x7)/Cube 0:

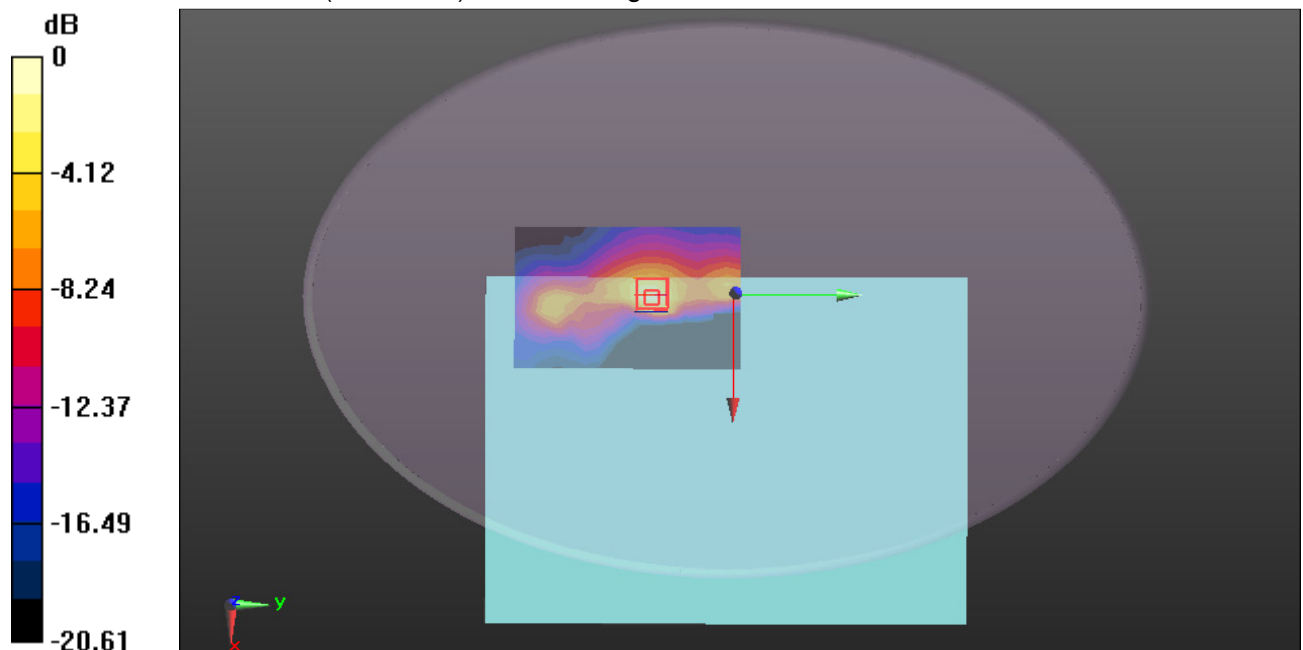
Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 8.130 V/m ; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.860 W/kg

SAR(1 g) = 0.358 W/kg ; SAR(10 g) = 0.165 W/kg

Maximum value of SAR (measured) = 0.630 W/kg



$0 \text{ dB} = 0.630 \text{ W/kg} = -2.01 \text{ dBW/kg}$

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

WIFI 802.11 b-Body Bottom CH1 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11b (0); Communication System Band: ISM 2.4GHz Band;
 Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.963 \text{ S/m}$; $\epsilon_r = 50.58$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/IEEE802.11b Body Bottom CH1 Aux Antenna/Area Scan (11x15x1): Measurement
 grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (measured) = 0.355 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH1 Aux Antenna/Zoom Scan (7x7x7)/Cube 0:

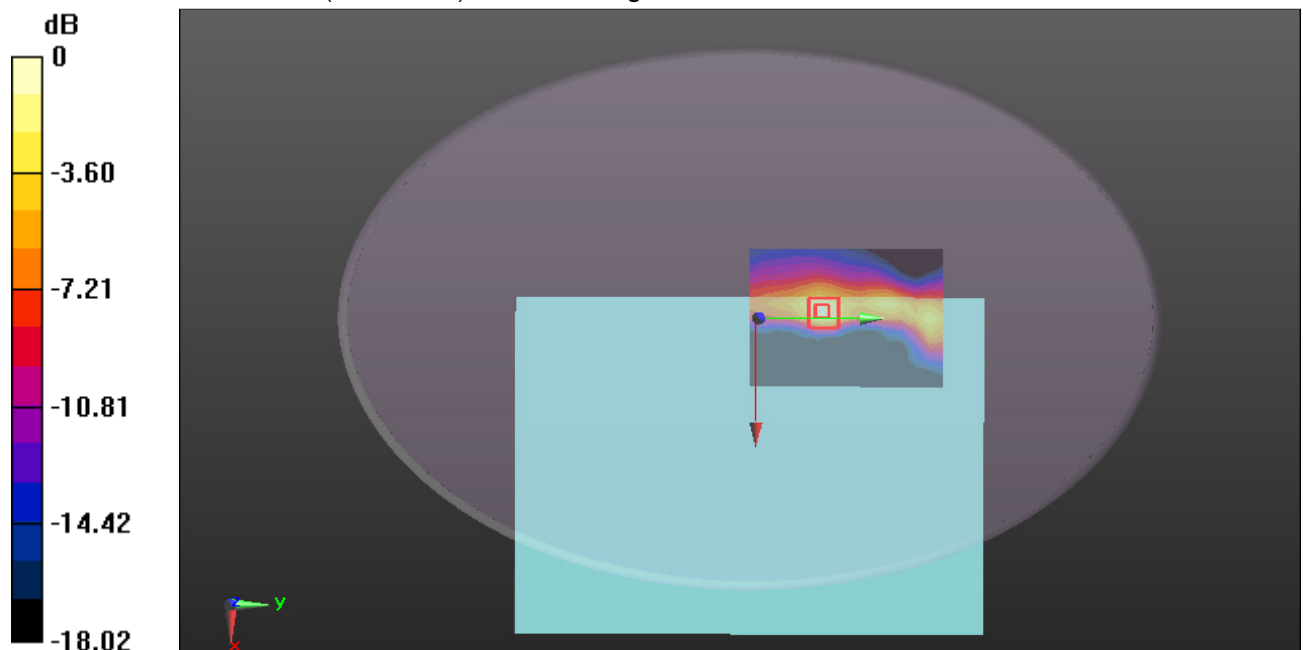
Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 5.646 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.570 W/kg

SAR(1 g) = 0.257 W/kg; SAR(10 g) = 0.116 W/kg

Maximum value of SAR (measured) = 0.429 W/kg



0 dB = 0.429 W/kg = -3.68 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

2.4G-Body Bottom CH00 Main Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, Bluetooth (0); Communication System Band: ISM 2.4Ghz Band;

Frequency: 2402 MHz; Duty Cycle: 1:1

Medium parameters used (extrapolated): $f = 2402 \text{ MHz}$; $\sigma = 1.951 \text{ S/m}$; $\epsilon_r = 50.615$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/2.4G Body Bottom CH00 Main Antenna/Area Scan (11x17x1): Measurement grid:
 $dx=10\text{mm}$, $dy=10\text{mm}$

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

Maximum value of SAR (measured) = 0.0215 W/kg

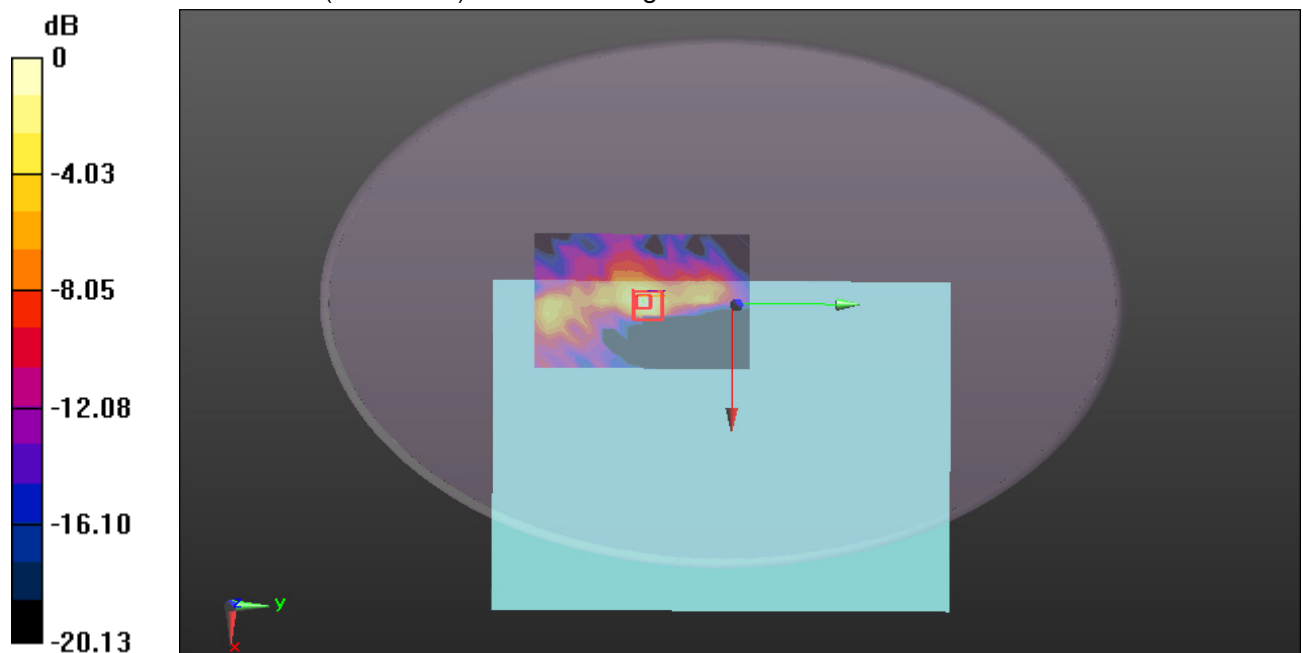
WiFi 2.4GHz/2.4G Body Bottom CH00 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 1.169 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.0320 W/kg

SAR(1 g) = 0.013 W/kg; SAR(10 g) = 0.00486 W/kg

Maximum value of SAR (measured) = 0.0228 W/kg



0 dB = 0.0228 W/kg = -16.42 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

2.4G-Body Bottom CH39 Main Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, Bluetooth (0); Communication System Band: ISM 2.4Ghz Band;

Frequency: 2441 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 2441 \text{ MHz}$; $\sigma = 1.998 \text{ S/m}$; $\epsilon_r = 50.464$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/2.4G Body Bottom CH39 Main Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 0.0206 W/kg

WiFi 2.4GHz/2.4G Body Bottom CH39 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

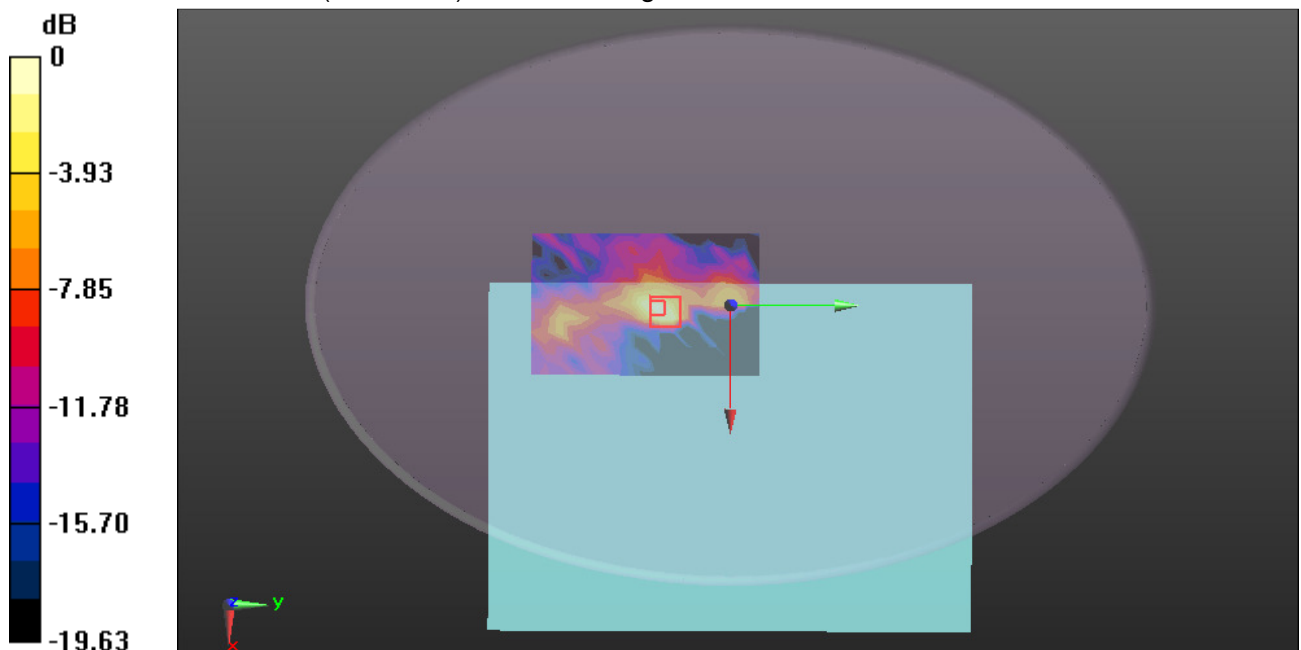
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 1.612 V/m ; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.0440 W/kg

SAR(1 g) = 0.014 W/kg ; SAR(10 g) = 0.00506 W/kg

Maximum value of SAR (measured) = 0.0249 W/kg



0 dB = 0.0249 W/kg = -16.04 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

2.4G-Body Bottom CH78 Main Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, Bluetooth (0); Communication System Band: ISM 2.4Ghz Band;

Frequency: 2480 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2480$ MHz; $\sigma = 2.046$ S/m; $\epsilon_r = 50.302$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/2.4G Body Bottom CH78 Main Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 0.0247 W/kg

WiFi 2.4GHz/2.4G Body Bottom CH78 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

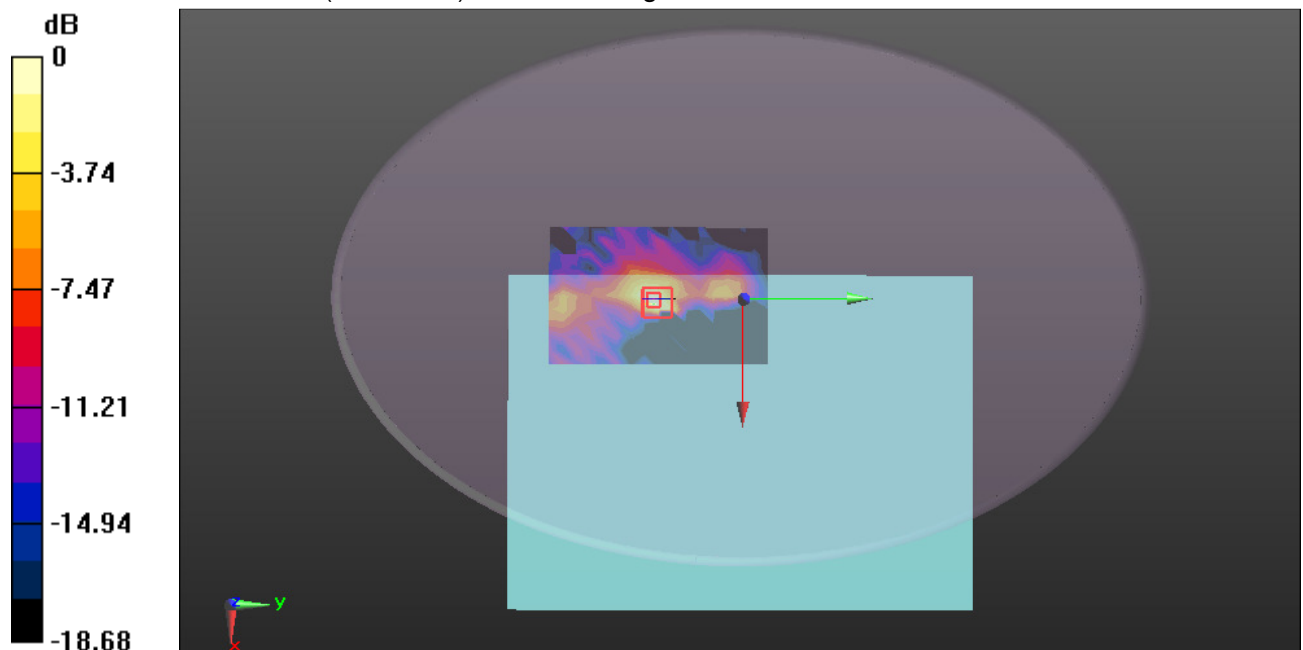
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 1.682 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.0670 W/kg

SAR(1 g) = 0.017 W/kg; SAR(10 g) = 0.00671 W/kg

Maximum value of SAR (measured) = 0.0294 W/kg



0 dB = 0.0294 W/kg = -15.32 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

2.4G-Body Bottom CH00 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, Bluetooth (0); Communication System Band: ISM 2.4Ghz Band;

Frequency: 2402 MHz; Duty Cycle: 1:1

Medium parameters used (extrapolated): $f = 2402 \text{ MHz}$; $\sigma = 1.951 \text{ S/m}$; $\epsilon_r = 50.615$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/2.4G Body Bottom CH00 Aux Antenna/Area Scan (11x17x1): Measurement grid:
 $dx=10\text{mm}$, $dy=10\text{mm}$

Info: Extrapolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.0138 W/kg

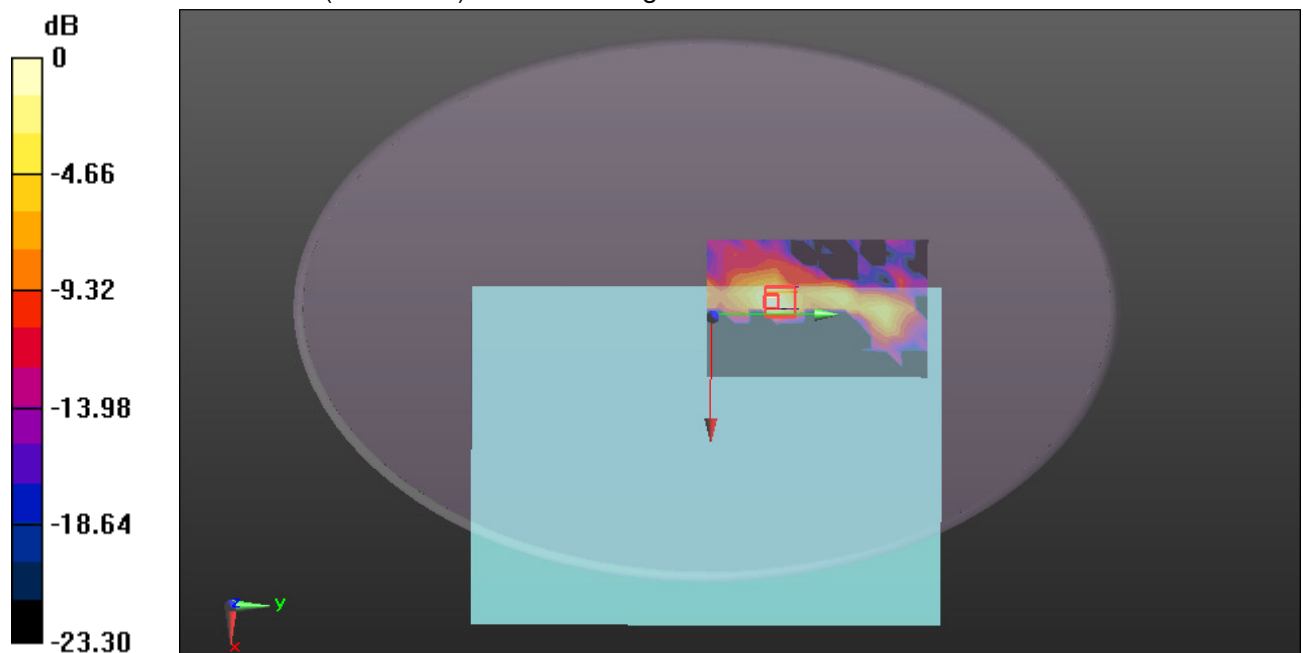
WiFi 2.4GHz/2.4G Body Bottom CH00 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 0.8970 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.0190 W/kg

SAR(1 g) = 0.00883 W/kg; SAR(10 g) = 0.00322 W/kg

Maximum value of SAR (measured) = 0.0152 W/kg



0 dB = 0.0152 W/kg = -18.18 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

2.4G-Body Bottom CH39 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, Bluetooth (0); Communication System Band: ISM 2.4Ghz Band;

Frequency: 2441 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2441 \text{ MHz}$; $\sigma = 1.998 \text{ S/m}$; $\epsilon_r = 50.464$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/2.4G Body Bottom CH39 Aux Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 0.0171 W/kg

WiFi 2.4GHz/2.4G Body Bottom CH39 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

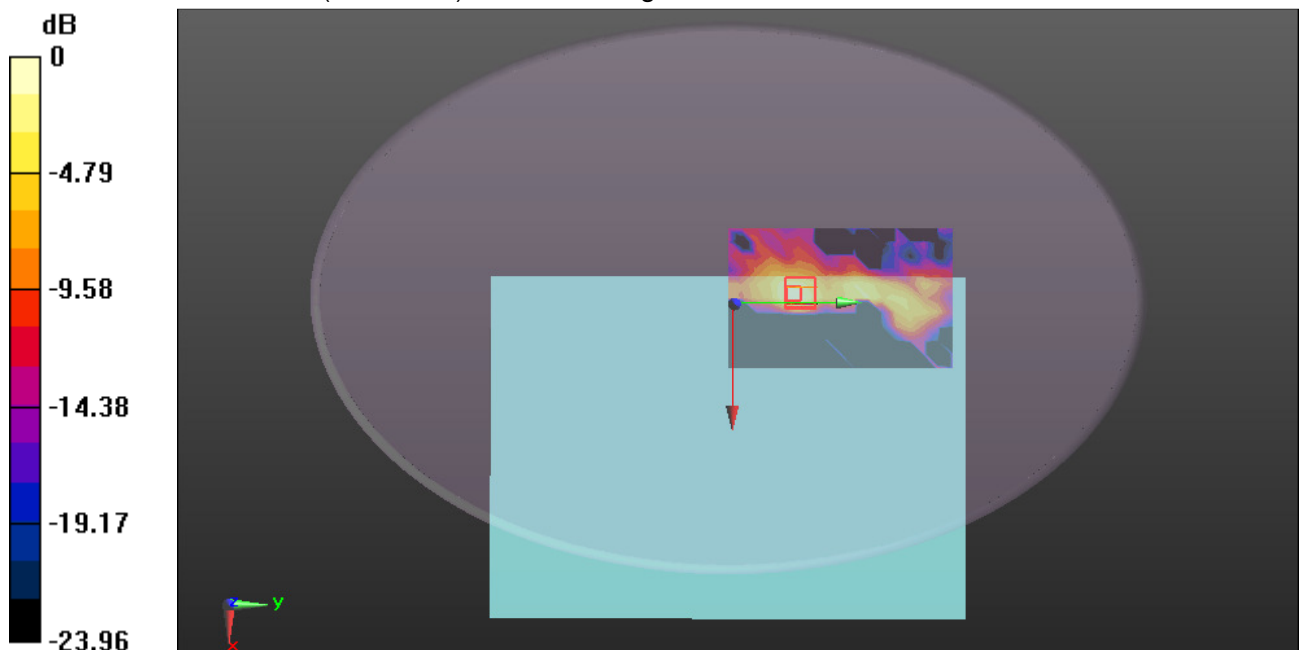
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 0.6090 V/m ; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.0240 W/kg

SAR(1 g) = 0.011 W/kg ; SAR(10 g) = 0.00431 W/kg

Maximum value of SAR (measured) = 0.0180 W/kg



$0 \text{ dB} = 0.0180 \text{ W/kg} = -17.45 \text{ dBW/kg}$

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

2.4G-Body Bottom CH78 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, Bluetooth (0); Communication System Band: ISM 2.4Ghz Band;

Frequency: 2480 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2480$ MHz; $\sigma = 2.046$ S/m; $\epsilon_r = 50.302$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/2.4G Body Bottom CH78 Aux Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 0.0201 W/kg

WiFi 2.4GHz/2.4G Body Bottom CH78 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

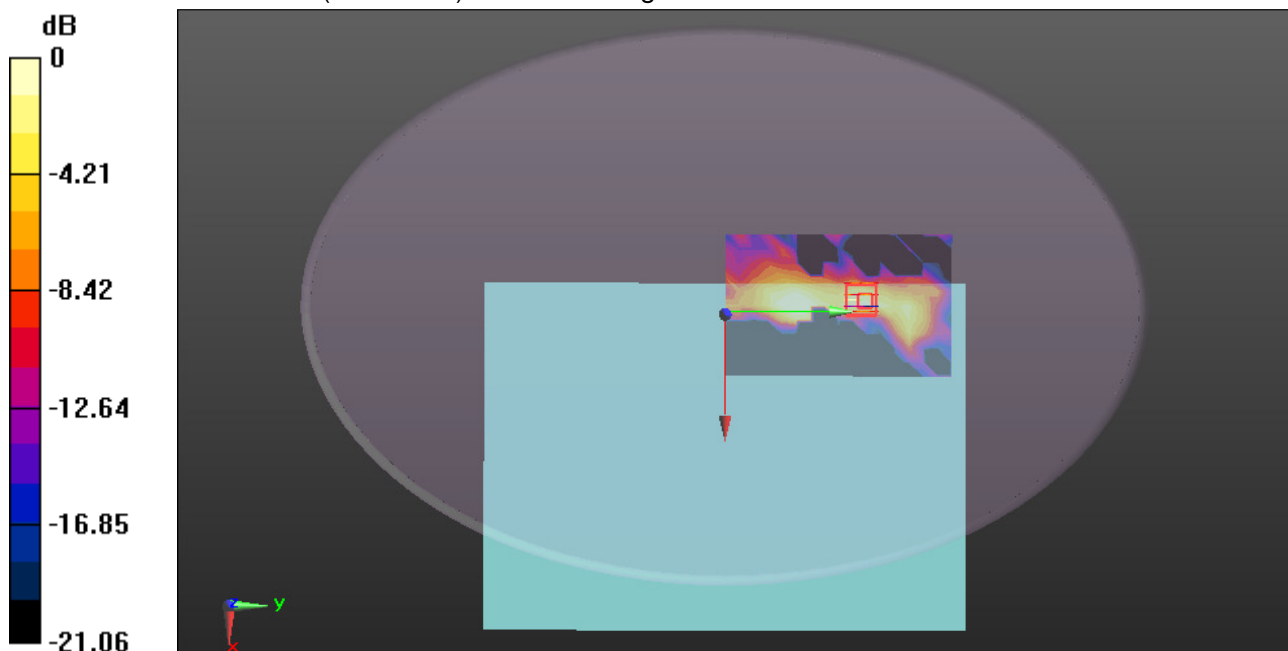
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 1.025 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.0170 W/kg

SAR(1 g) = 0.00783 W/kg; SAR(10 g) = 0.00313 W/kg

Maximum value of SAR (measured) = 0.0136 W/kg



0 dB = 0.0136 W/kg = -18.66 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

2.4G-Body Bottom CH78 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, Bluetooth (0); Communication System Band: ISM 2.4Ghz Band;

Frequency: 2480 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2480 \text{ MHz}$; $\sigma = 2.046 \text{ S/m}$; $\epsilon_r = 50.302$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/2.4G Body Bottom CH78 Main Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 0.0163 W/kg

WiFi 2.4GHz/2.4G Body Bottom CH78 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

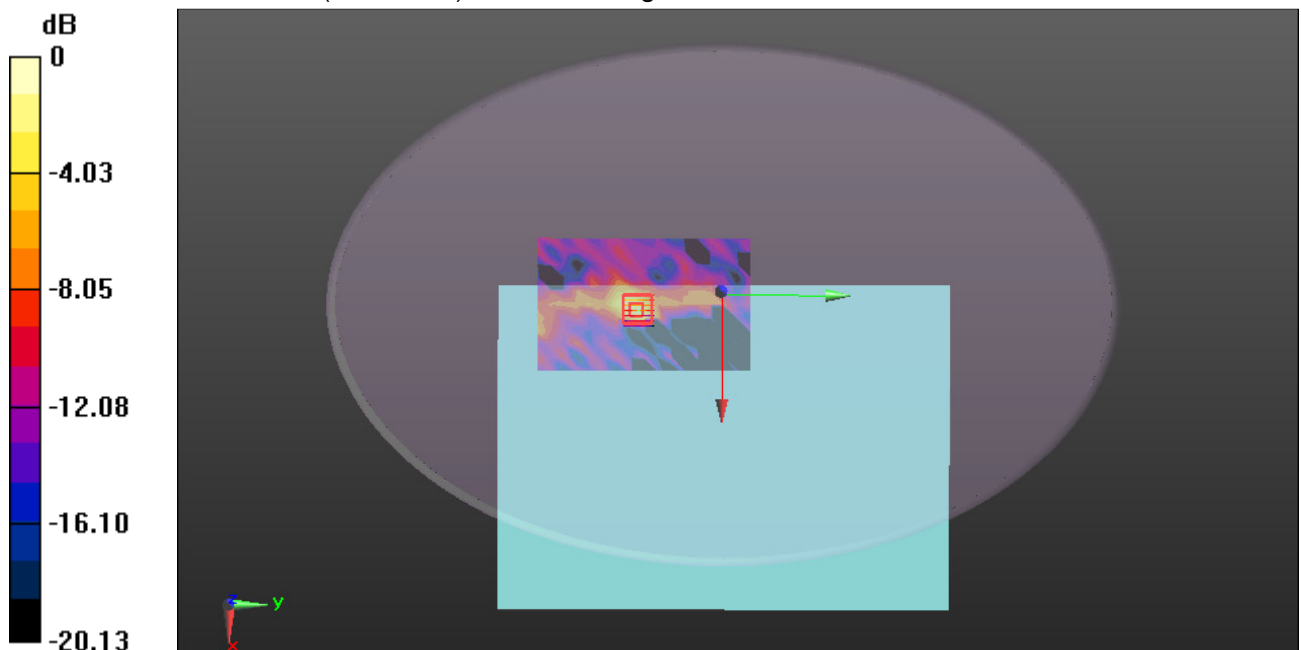
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 0.3420 V/m ; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.0310 W/kg

SAR(1 g) = 0.011 W/kg ; SAR(10 g) = 0.00399 W/kg

Maximum value of SAR (measured) = 0.0208 W/kg



$0 \text{ dB} = 0.0208 \text{ W/kg} = -16.82 \text{ dBW/kg}$

Test Laboratory: Compliance Certification Services Inc.

Date: 6/15/2018

2.4G-Body Bottom CH39 Aux Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, Bluetooth (0); Communication System Band: ISM 2.4Ghz Band;

Frequency: 2441 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2441$ MHz; $\sigma = 1.998$ S/m; $\epsilon_r = 50.464$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.32, 7.32, 7.32); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/2.4G Body Bottom CH39 Aux Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 0.00909 W/kg

WiFi 2.4GHz/2.4G Body Bottom CH39 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

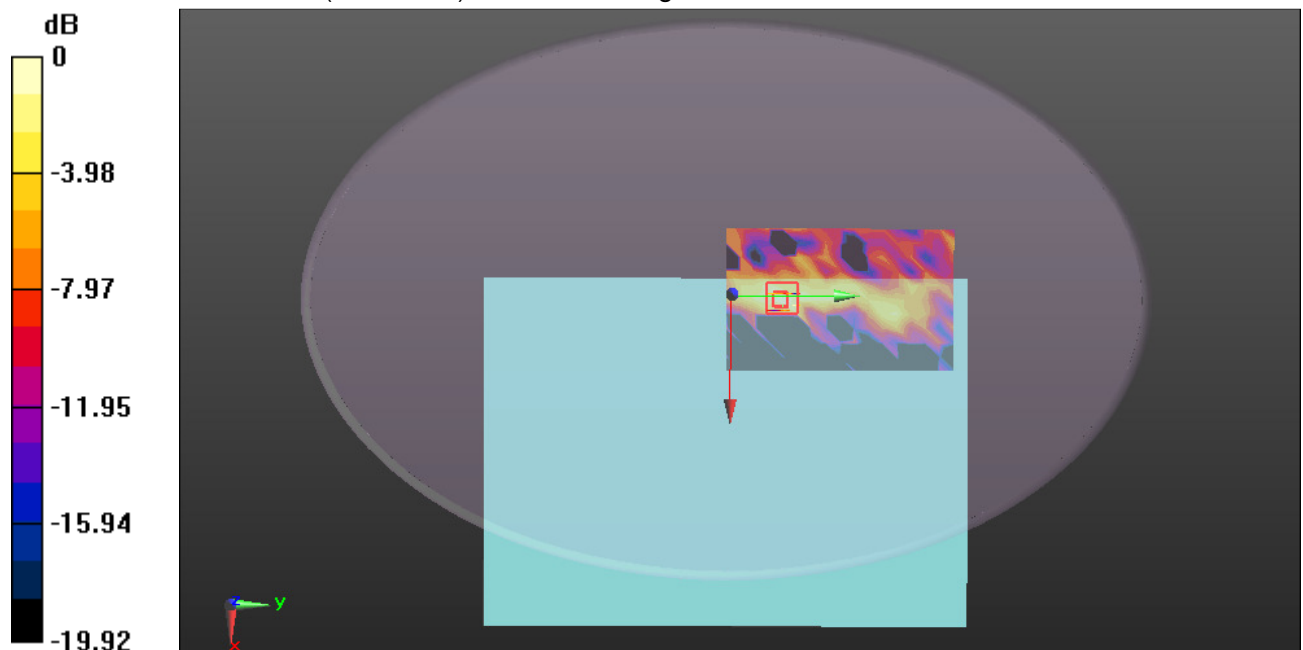
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 0.6220 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.0223 W/kg

SAR(1 g) = 0.00674 W/kg; SAR(10 g) = 0.00156 W/kg

Maximum value of SAR (measured) = 0.00970 W/kg



0 dB = 0.00970 W/kg = -20.13 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH52 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band II;

Frequency: 5260 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5260$ MHz; $\sigma = 5.438$ S/m; $\epsilon_r = 49.137$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.67, 4.67, 4.67); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH52 Main Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 0.617 W/kg

WIFI/IEEE802.11a Body Bottom CH52 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

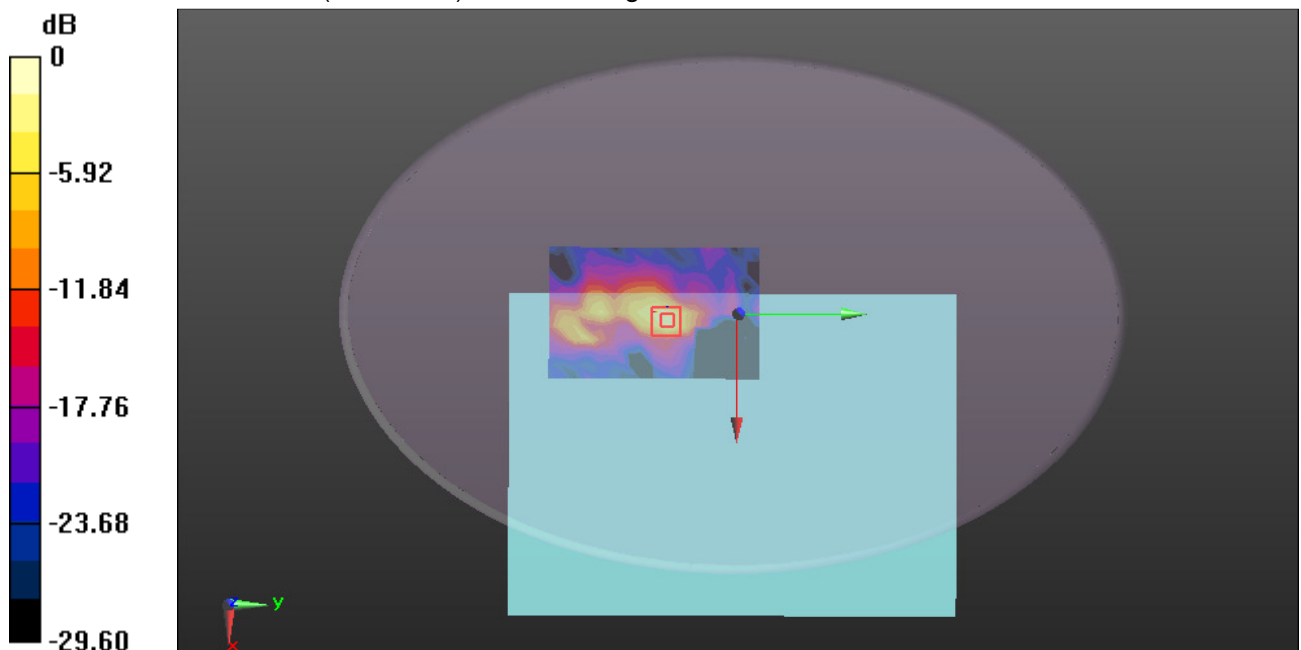
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 1.735 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 1.79 W/kg

SAR(1 g) = 0.355 W/kg; SAR(10 g) = 0.095 W/kg

Maximum value of SAR (measured) = 0.955 W/kg



0 dB = 0.955 W/kg = -0.20 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH60 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band II;

Frequency: 5300 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5300$ MHz; $\sigma = 5.494$ S/m; $\epsilon_r = 48.888$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.67, 4.67, 4.67); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH60 Main Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 0.606 W/kg

WIFI/IEEE802.11a Body Bottom CH60 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

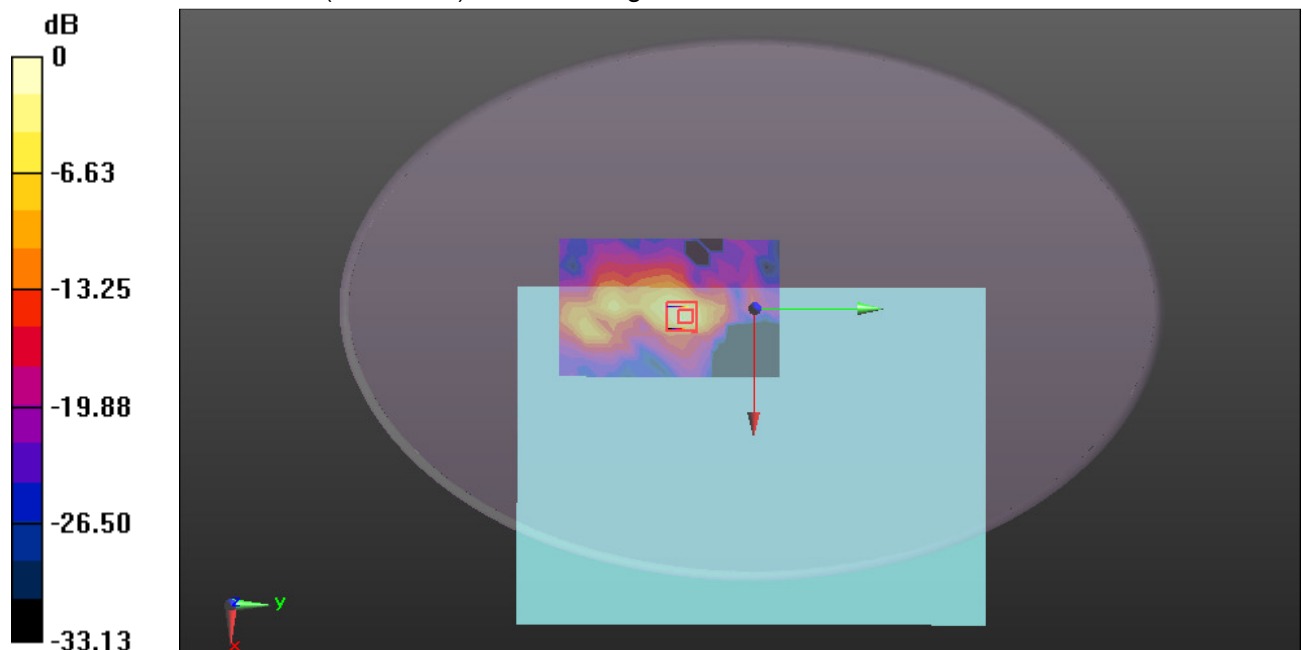
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 2.129 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.74 W/kg

SAR(1 g) = 0.338 W/kg; SAR(10 g) = 0.094 W/kg

Maximum value of SAR (measured) = 0.904 W/kg



0 dB = 0.904 W/kg = -0.44 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH64 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band II;

Frequency: 5320 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5320$ MHz; $\sigma = 5.546$ S/m; $\epsilon_r = 48.869$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.67, 4.67, 4.67); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH64 Main Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 0.439 W/kg

WIFI/IEEE802.11a Body Bottom CH64 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

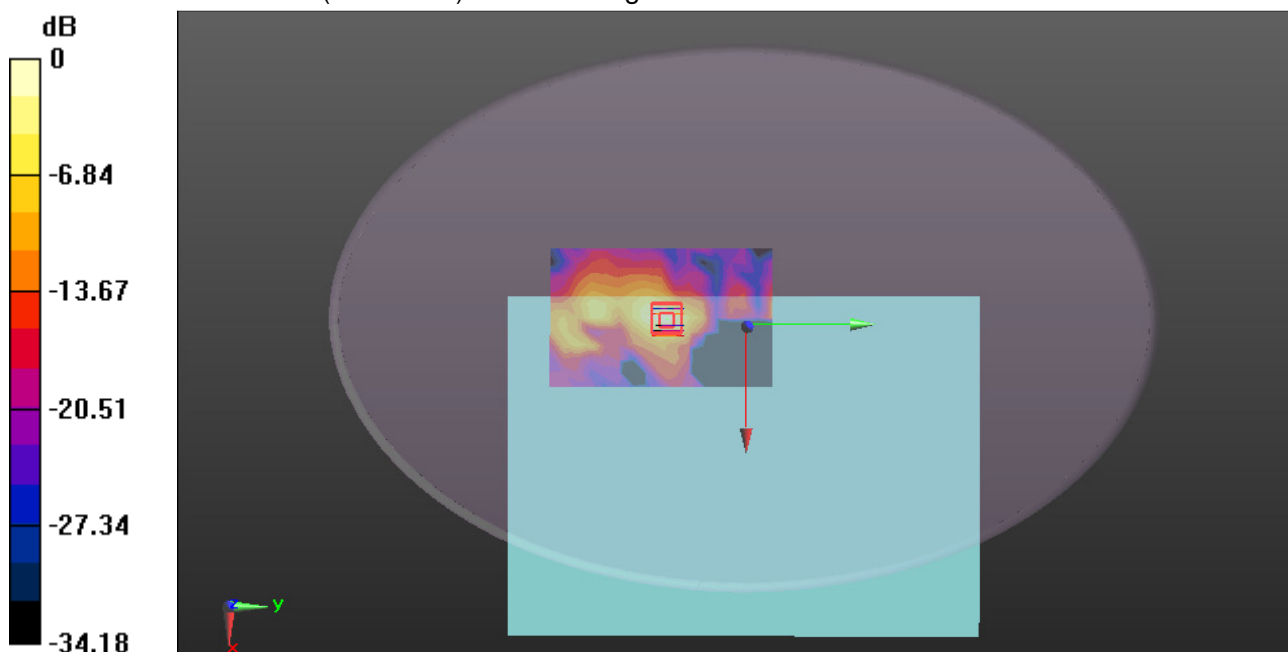
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 0.8080 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.986 W/kg

SAR(1 g) = 0.204 W/kg; SAR(10 g) = 0.060 W/kg

Maximum value of SAR (measured) = 0.517 W/kg



0 dB = 0.517 W/kg = -2.87 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH100 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band III;

Frequency: 5500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.78$ S/m; $\epsilon_r = 48.751$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.26, 4.26, 4.26); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH100 Main Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 2.25 W/kg

WIFI/IEEE802.11a Body Bottom CH100 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

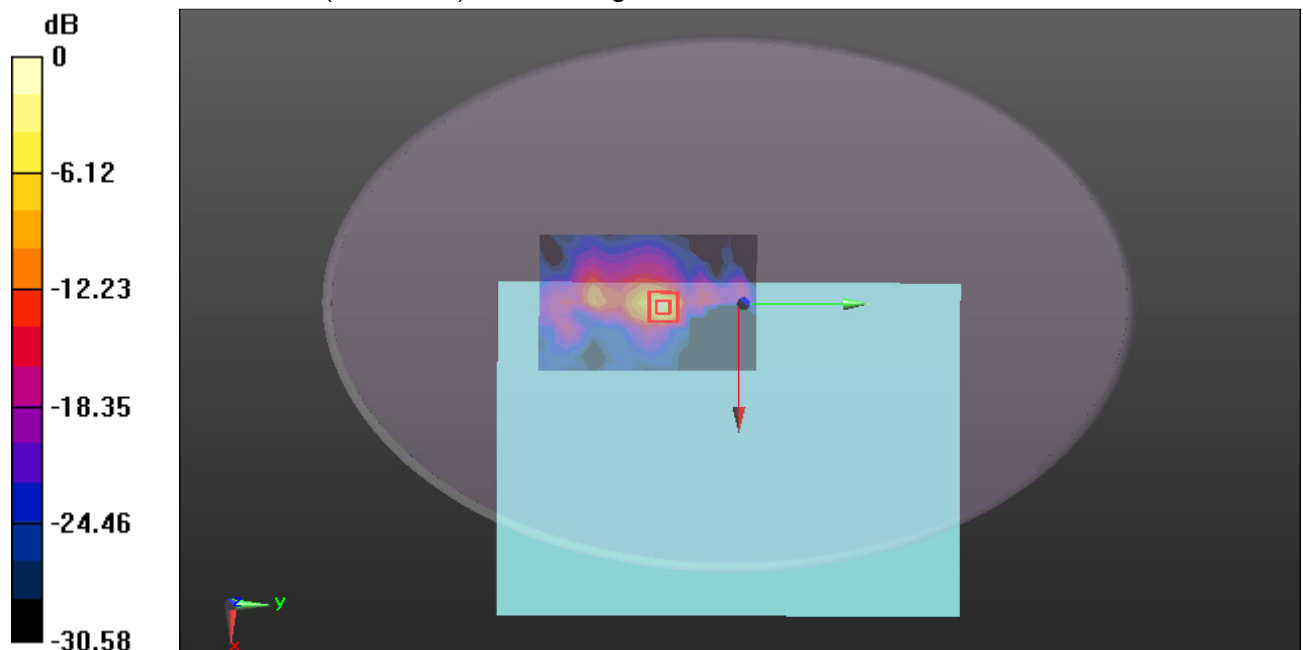
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 2.825 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 5.78 W/kg

SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.261 W/kg

Maximum value of SAR (measured) = 3.16 W/kg



0 dB = 3.16 W/kg = 5.00 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH132 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band III;

Frequency: 5660 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5660$ MHz; $\sigma = 5.968$ S/m; $\epsilon_r = 48.326$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.18, 4.18, 4.18); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH132 Main Antenna/Area Scan (11x16x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 1.64 W/kg

WIFI/IEEE802.11a Body Bottom CH132 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

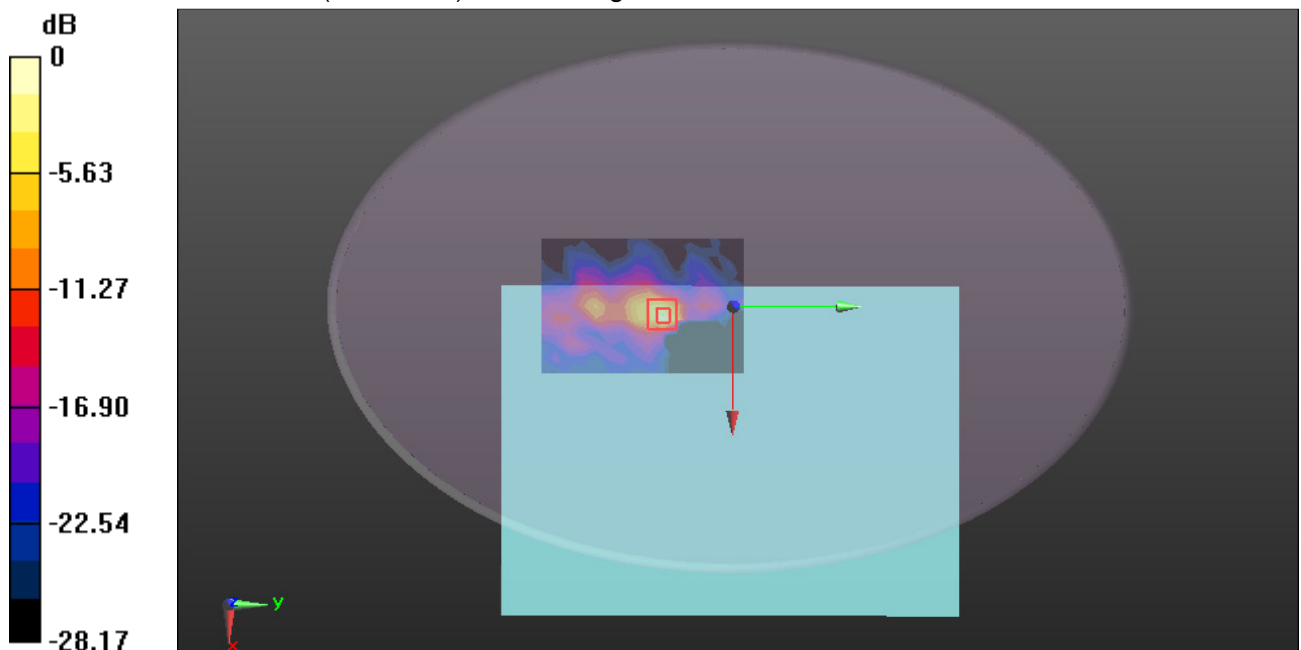
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 1.972 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 3.50 W/kg

SAR(1 g) = 0.646 W/kg; SAR(10 g) = 0.158 W/kg

Maximum value of SAR (measured) = 1.87 W/kg



0 dB = 1.87 W/kg = 2.72 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH144 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band III;

Frequency: 5720 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5720$ MHz; $\sigma = 6.092$ S/m; $\epsilon_r = 48.05$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.45, 4.45, 4.45); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH144 Main Antenna/Area Scan (11x16x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 0.930 W/kg

WIFI/IEEE802.11a Body Bottom CH144 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

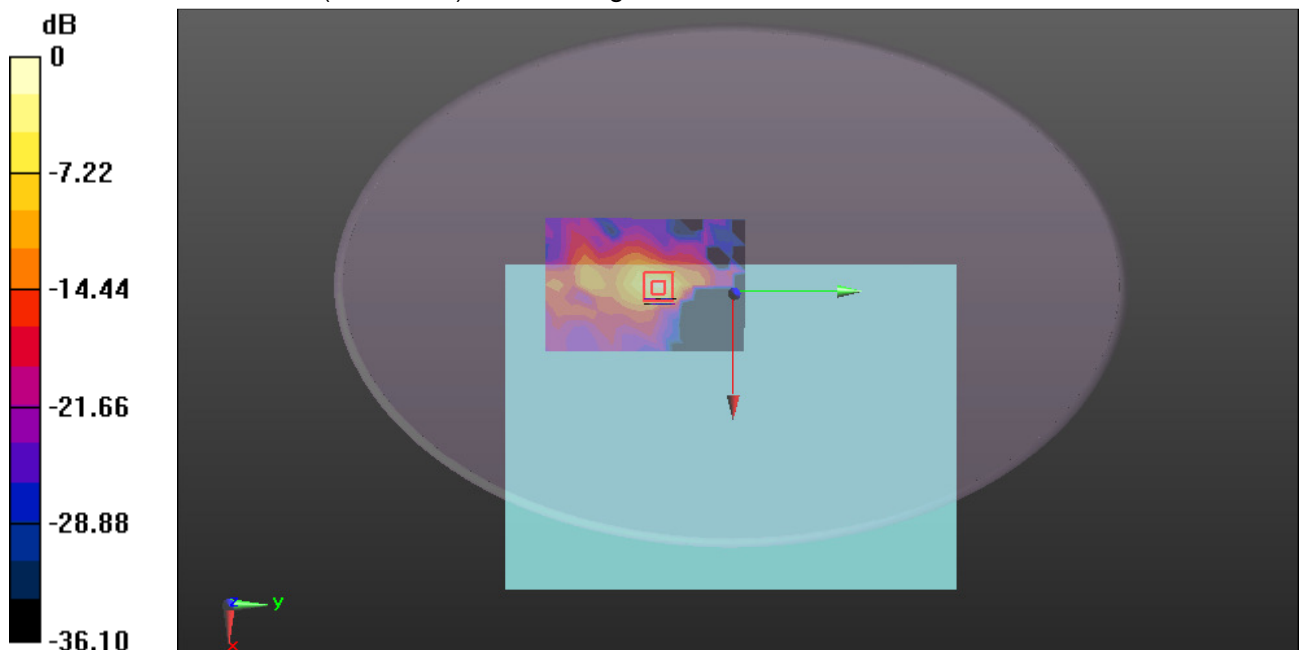
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 0.9960 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 2.39 W/kg

SAR(1 g) = 0.664 W/kg; SAR(10 g) = 0.162 W/kg

Maximum value of SAR (measured) = 1.27 W/kg



0 dB = 1.27 W/kg = 1.04 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH149 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band IV;

Frequency: 5745 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 6.147 \text{ S/m}$; $\epsilon_r = 48.049$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.45, 4.45, 4.45); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH149 Main Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 1.49 W/kg

WIFI/IEEE802.11a Body Bottom CH149 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

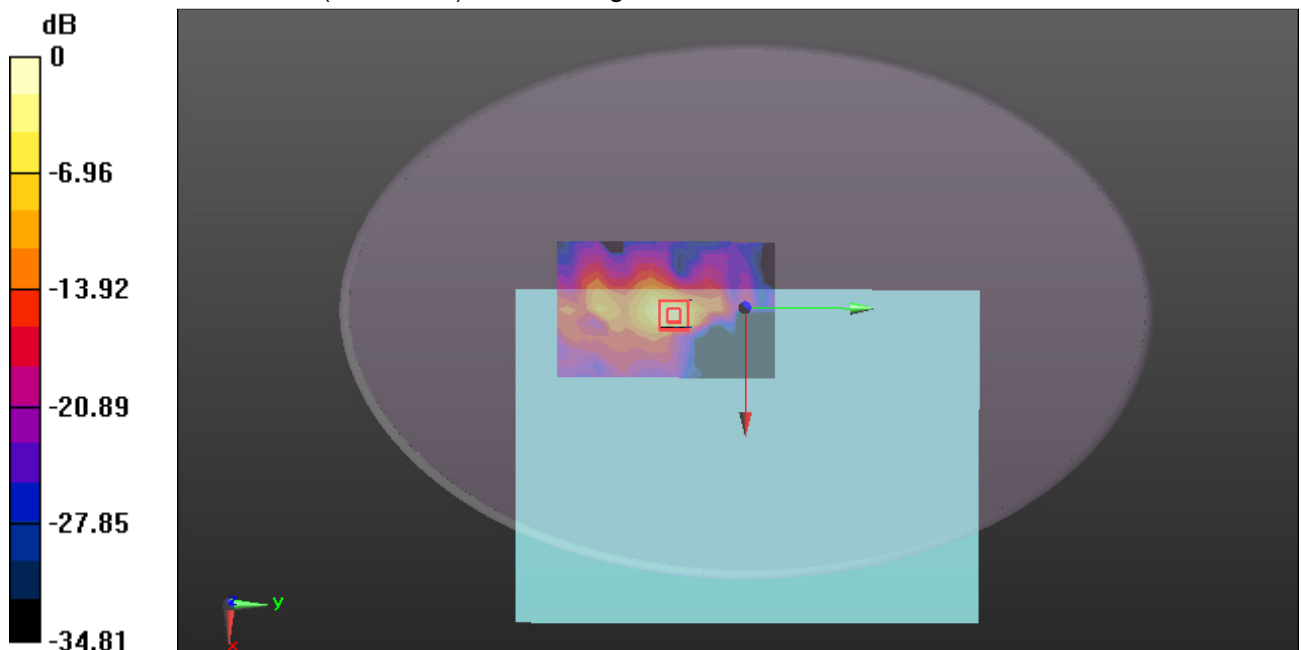
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 1.799 V/m ; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 3.36 W/kg

SAR(1 g) = 0.945 W/kg ; SAR(10 g) = 0.273 W/kg

Maximum value of SAR (measured) = 1.78 W/kg



$0 \text{ dB} = 1.78 \text{ W/kg} = 2.50 \text{ dBW/kg}$

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH157 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band IV;

Frequency: 5785 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5785 \text{ MHz}$; $\sigma = 6.189 \text{ S/m}$; $\epsilon_r = 47.955$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.45, 4.45, 4.45); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH157 Main Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 1.75 W/kg

WIFI/IEEE802.11a Body Bottom CH157 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

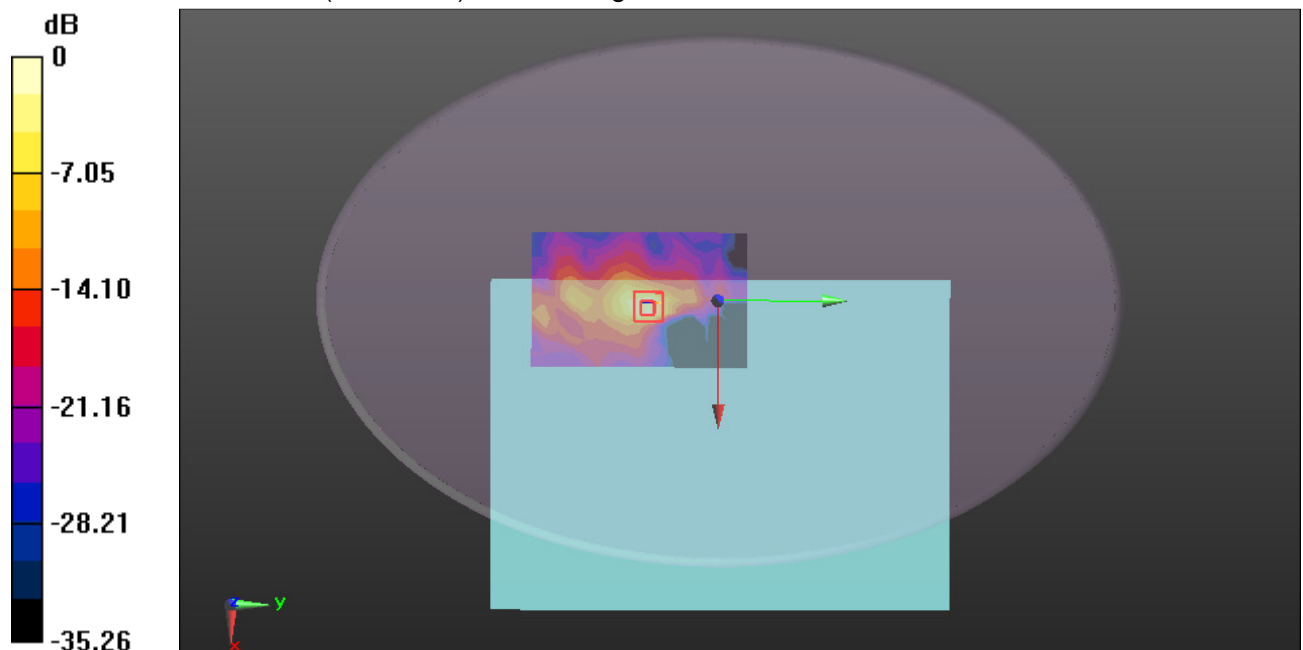
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 2.359 V/m ; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 4.85 W/kg

SAR(1 g) = 0.991 W/kg ; SAR(10 g) = 0.245 W/kg

Maximum value of SAR (measured) = 2.49 W/kg



$0 \text{ dB} = 2.49 \text{ W/kg} = 3.96 \text{ dBW/kg}$

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH165 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band IV;

Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5825$ MHz; $\sigma = 6.252$ S/m; $\epsilon_r = 47.724$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.45, 4.45, 4.45); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH165 Main Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 2.20 W/kg

WIFI/IEEE802.11a Body Bottom CH165 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

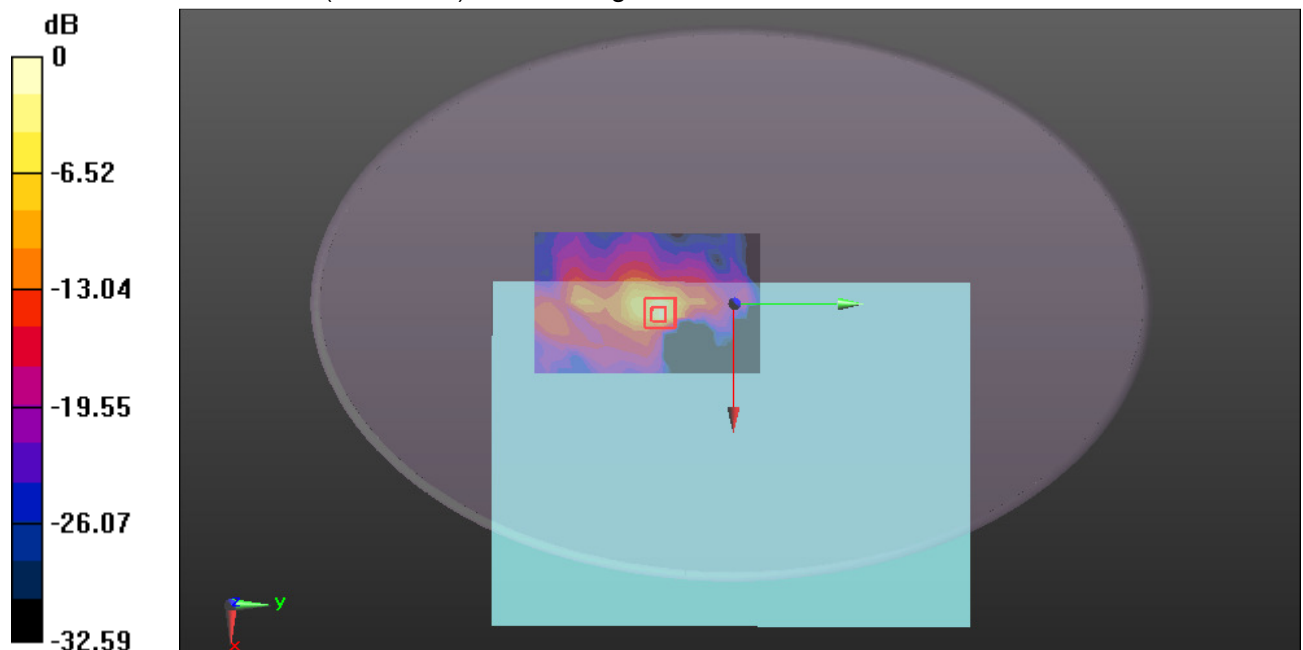
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 2.055 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 5.65 W/kg

SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.320 W/kg

Maximum value of SAR (measured) = 3.13 W/kg



0 dB = 3.13 W/kg = 4.96 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH52 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band II;

Frequency: 5260 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5260$ MHz; $\sigma = 5.438$ S/m; $\epsilon_r = 49.137$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.67, 4.67, 4.67); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH52 Aux Antenna/Area Scan (11x16x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 1.77 W/kg

WIFI/IEEE802.11a Body Bottom CH52 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

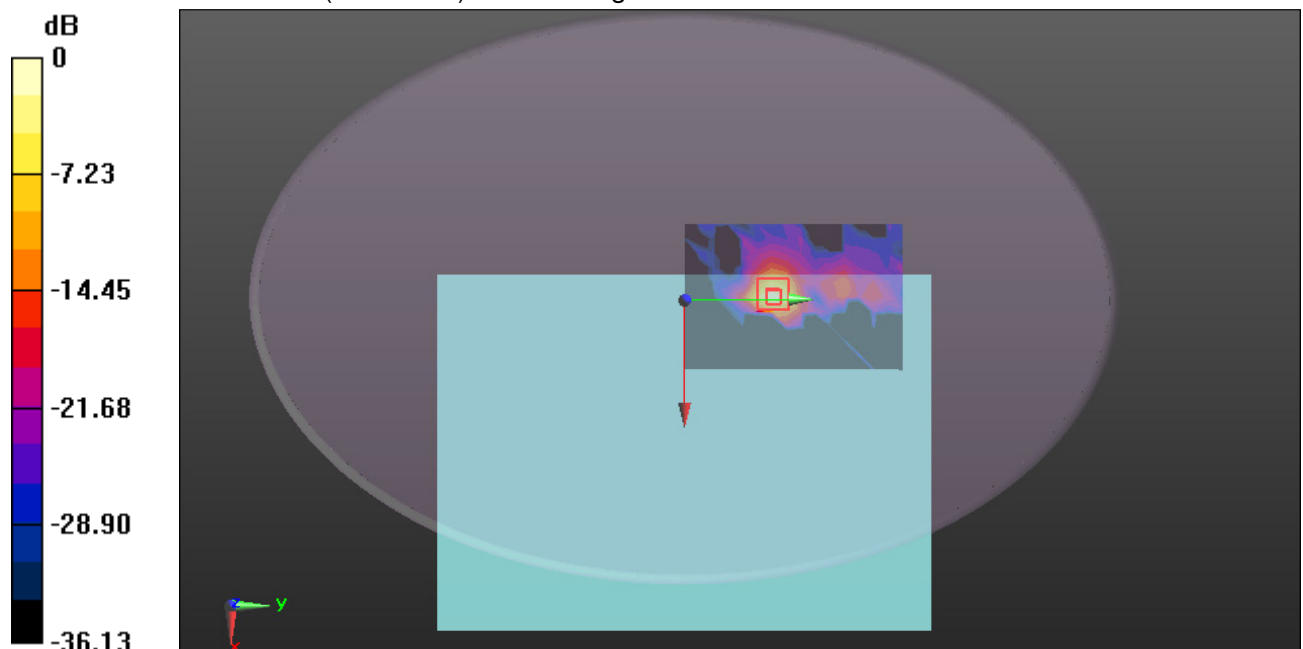
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 0.8461 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.02 W/kg

SAR(1 g) = 0.877 W/kg; SAR(10 g) = 0.209 W/kg

Maximum value of SAR (measured) = 1.67 W/kg



0 dB = 1.67 W/kg = 2.23 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH56 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band II;

Frequency: 5280 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5280 \text{ MHz}$; $\sigma = 5.455 \text{ S/m}$; $\epsilon_r = 48.996$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.67, 4.67, 4.67); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH56 Aux Antenna/Area Scan (11x16x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 1.68 W/kg

WIFI/IEEE802.11a Body Bottom CH56 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

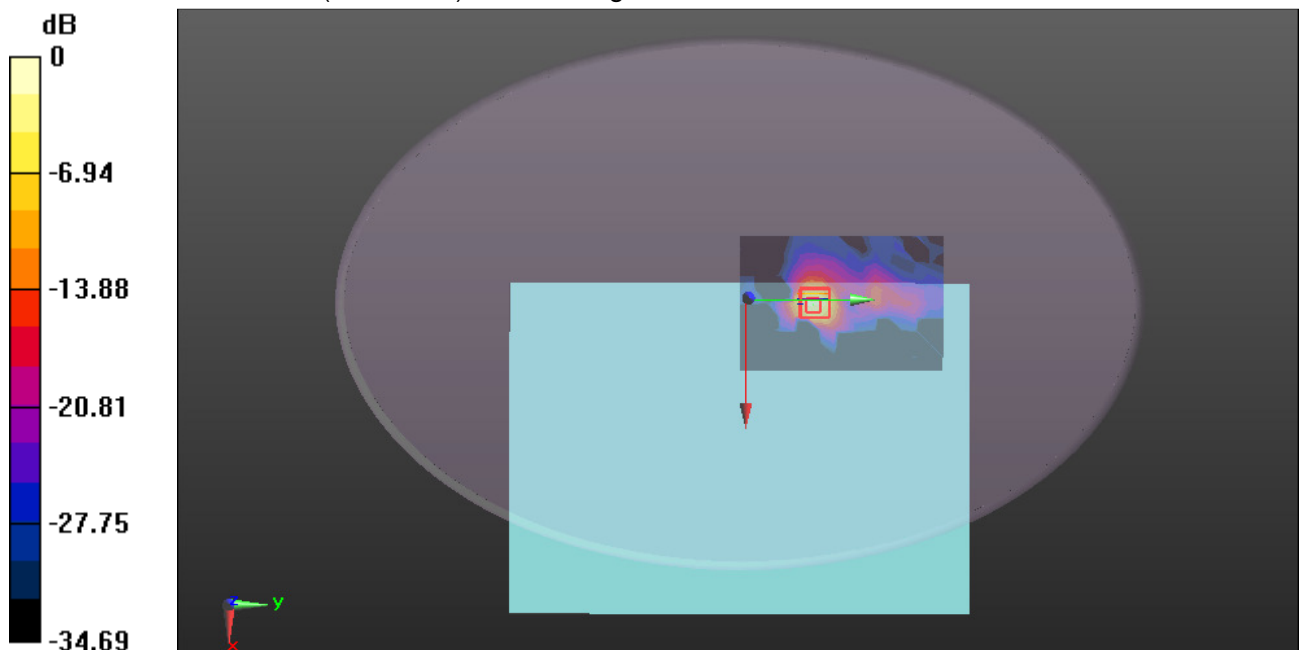
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 0.8430 V/m ; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 3.92 W/kg

SAR(1 g) = 0.879 W/kg ; SAR(10 g) = 0.221 W/kg

Maximum value of SAR (measured) = 2.19 W/kg



$0 \text{ dB} = 2.19 \text{ W/kg} = 3.40 \text{ dBW/kg}$

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH64 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band II;

Frequency: 5320 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5320$ MHz; $\sigma = 5.546$ S/m; $\epsilon_r = 48.869$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.67, 4.67, 4.67); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH64 Aux Antenna/Area Scan (11x16x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 1.77 W/kg

WIFI/IEEE802.11a Body Bottom CH64 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

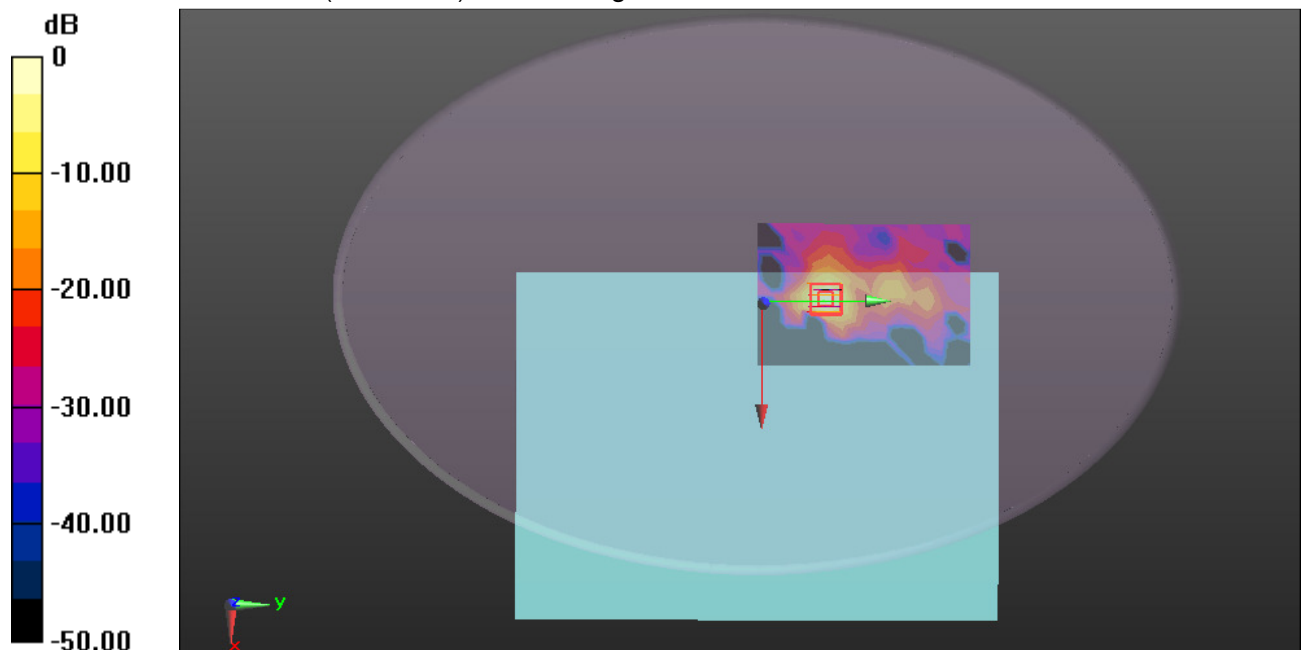
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 0.8710 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 4.12 W/kg

SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.269 W/kg

Maximum value of SAR (measured) = 2.40 W/kg



0 dB = 2.40 W/kg = 3.80 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH100 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band III;

Frequency: 5500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.78$ S/m; $\epsilon_r = 48.751$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.26, 4.26, 4.26); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH100 Aux Antenna/Area Scan (11x16x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 1.48 W/kg

WIFI/IEEE802.11a Body Bottom CH100 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

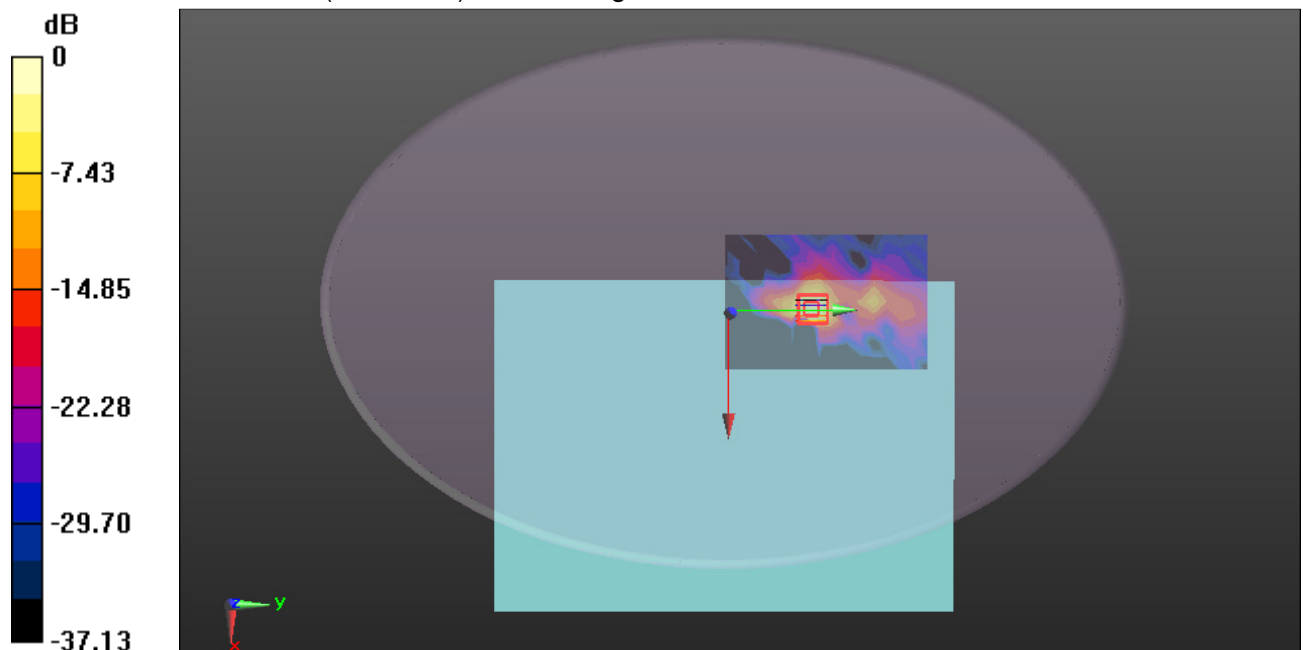
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 0.7491 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 4.35 W/kg

SAR(1 g) = 0.998 W/kg; SAR(10 g) = 0.257 W/kg

Maximum value of SAR (measured) = 2.58 W/kg



0 dB = 2.58 W/kg = 4.12 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH112 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band III;

Frequency: 5560 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5560$ MHz; $\sigma = 5.824$ S/m; $\epsilon_r = 48.396$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.18, 4.18, 4.18); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH112 Aux Antenna/Area Scan (11x16x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 1.54 W/kg

WIFI/IEEE802.11a Body Bottom CH112 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

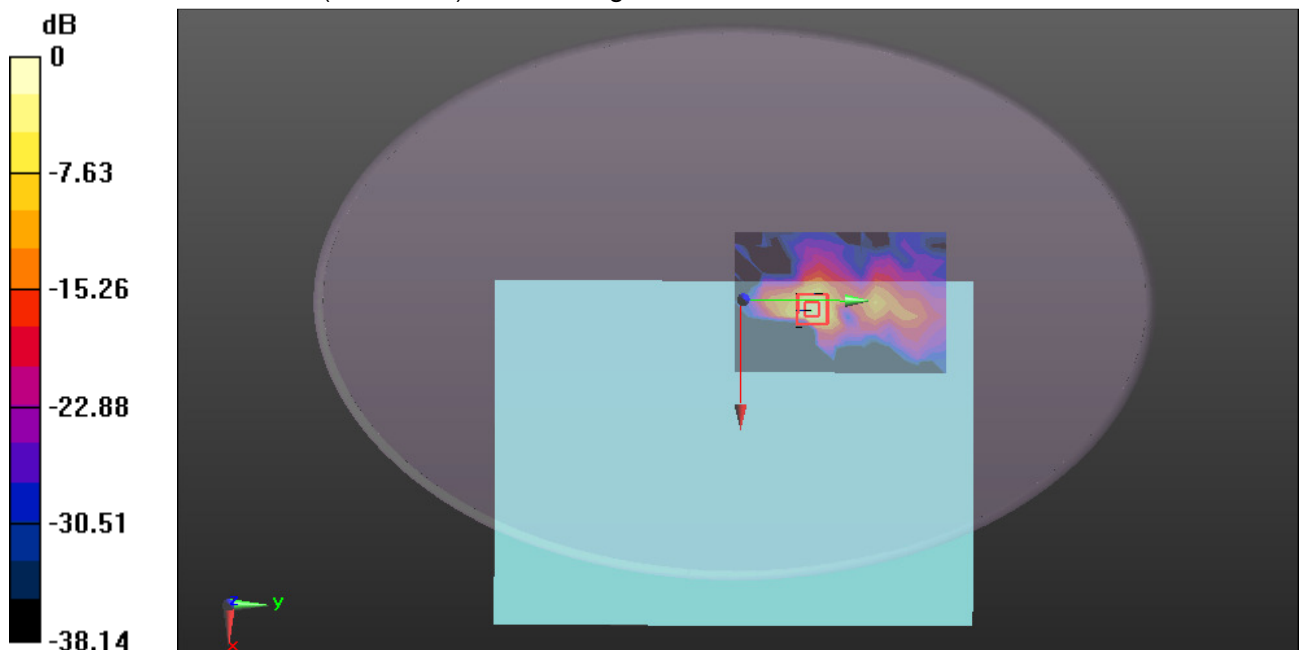
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 0.9164 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 4.64 W/kg

SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.267 W/kg

Maximum value of SAR (measured) = 2.69 W/kg



0 dB = 2.69 W/kg = 4.30 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH144 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band III;

Frequency: 5720 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5720 \text{ MHz}$; $\sigma = 6.092 \text{ S/m}$; $\epsilon_r = 48.05$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.45, 4.45, 4.45); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH144 Aux Antenna/Area Scan (11x16x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 1.66 W/kg

WIFI/IEEE802.11a Body Bottom CH144 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

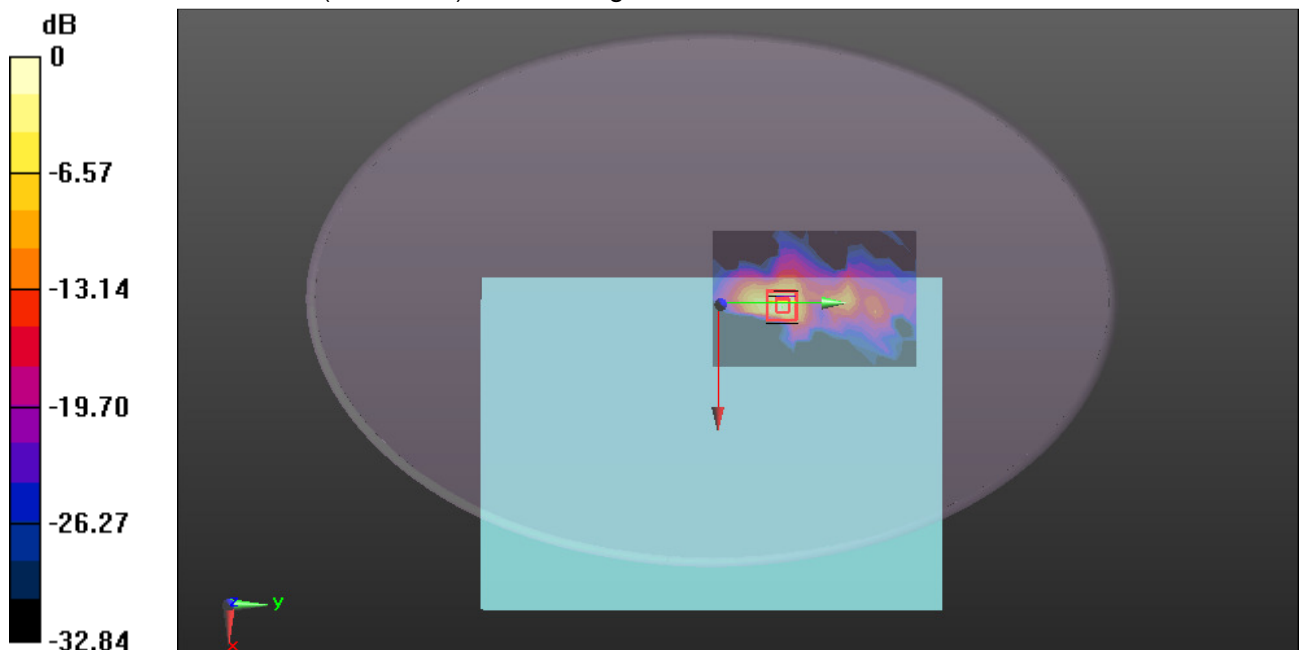
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 0.9360 V/m ; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 4.37 W/kg

SAR(1 g) = 0.916 W/kg ; SAR(10 g) = 0.242 W/kg

Maximum value of SAR (measured) = 2.44 W/kg



$0 \text{ dB} = 2.44 \text{ W/kg} = 3.87 \text{ dBW/kg}$

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH149 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band IV;

Frequency: 5745 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 6.147 \text{ S/m}$; $\epsilon_r = 48.049$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.45, 4.45, 4.45); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH149 Aux Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 2.38 W/kg

WIFI/IEEE802.11a Body Bottom CH149 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

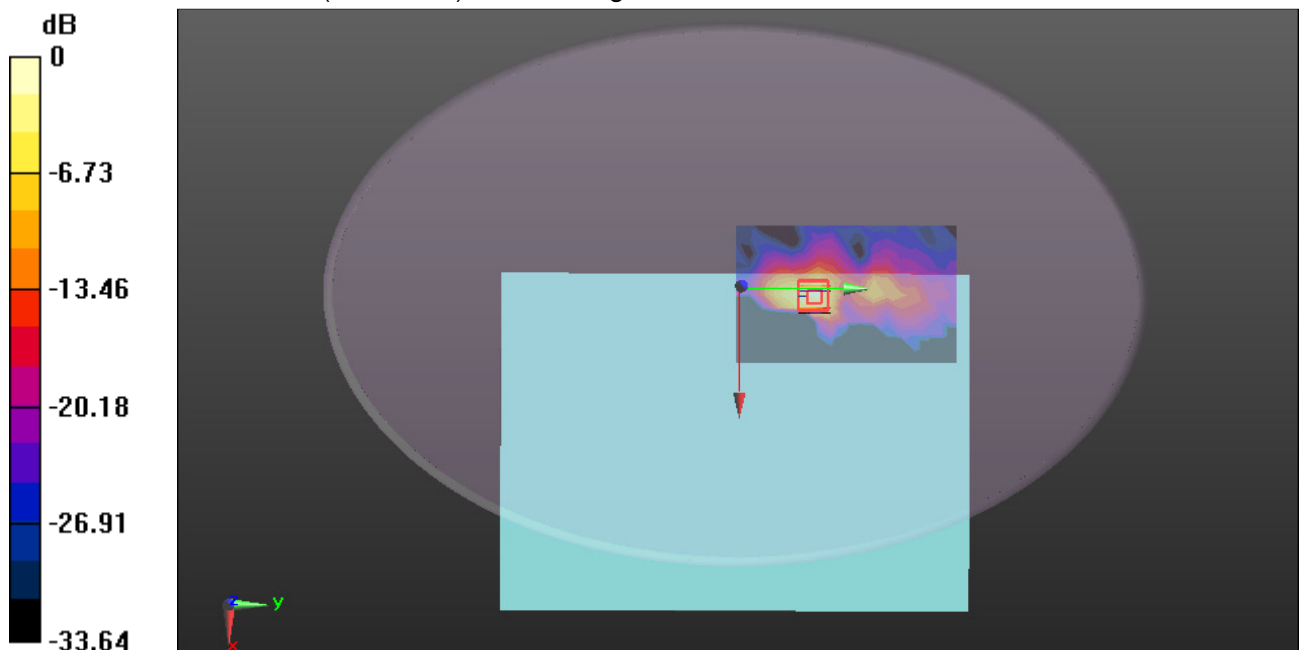
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 1.733 V/m ; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 5.20 W/kg

SAR(1 g) = 1.01 W/kg ; SAR(10 g) = 0.309 W/kg

Maximum value of SAR (measured) = 2.86 W/kg



$0 \text{ dB} = 2.86 \text{ W/kg} = 4.56 \text{ dBW/kg}$

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH157 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band IV;

Frequency: 5785 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5785 \text{ MHz}$; $\sigma = 6.189 \text{ S/m}$; $\epsilon_r = 47.955$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.45, 4.45, 4.45); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH157 Aux Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 1.90 W/kg

WIFI/IEEE802.11a Body Bottom CH157 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

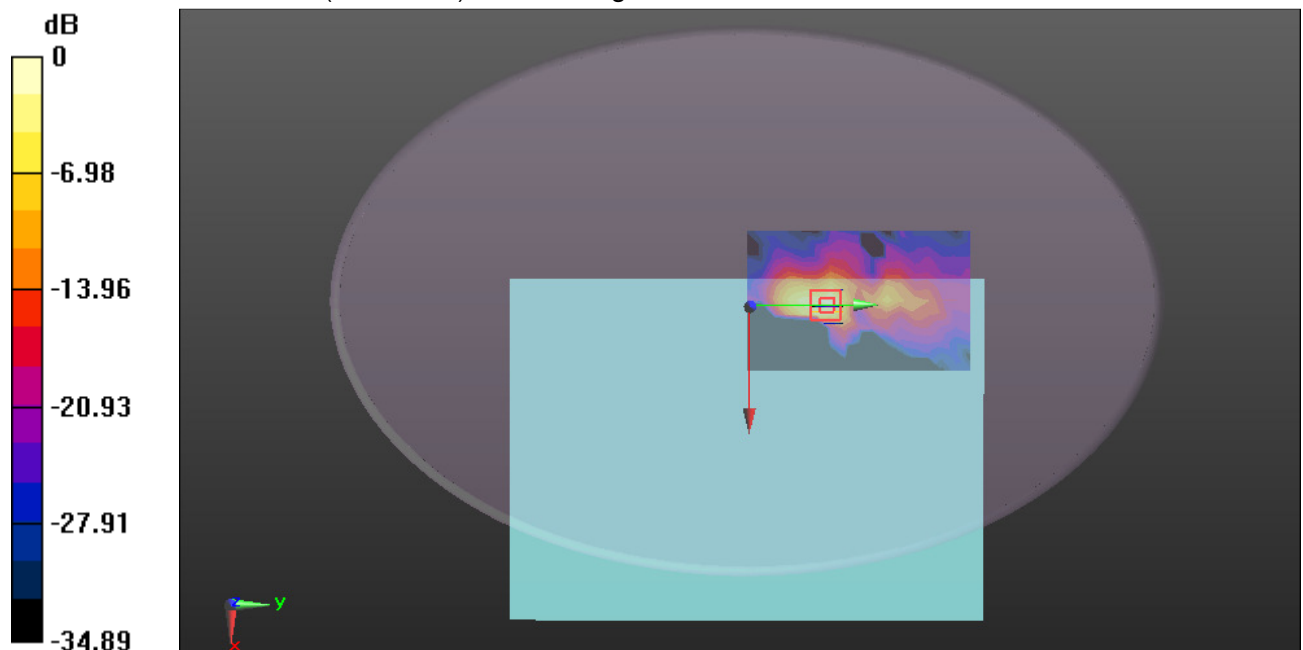
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 0.8300 V/m ; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 4.18 W/kg

SAR(1 g) = 0.891 W/kg ; SAR(10 g) = 0.248 W/kg

Maximum value of SAR (measured) = 2.29 W/kg



$0 \text{ dB} = 2.29 \text{ W/kg} = 3.60 \text{ dBW/kg}$

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH165 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band IV;

Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5825 \text{ MHz}$; $\sigma = 6.252 \text{ S/m}$; $\epsilon_r = 47.724$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.45, 4.45, 4.45); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH165 Aux Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 1.69 W/kg

WIFI/IEEE802.11a Body Bottom CH165 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

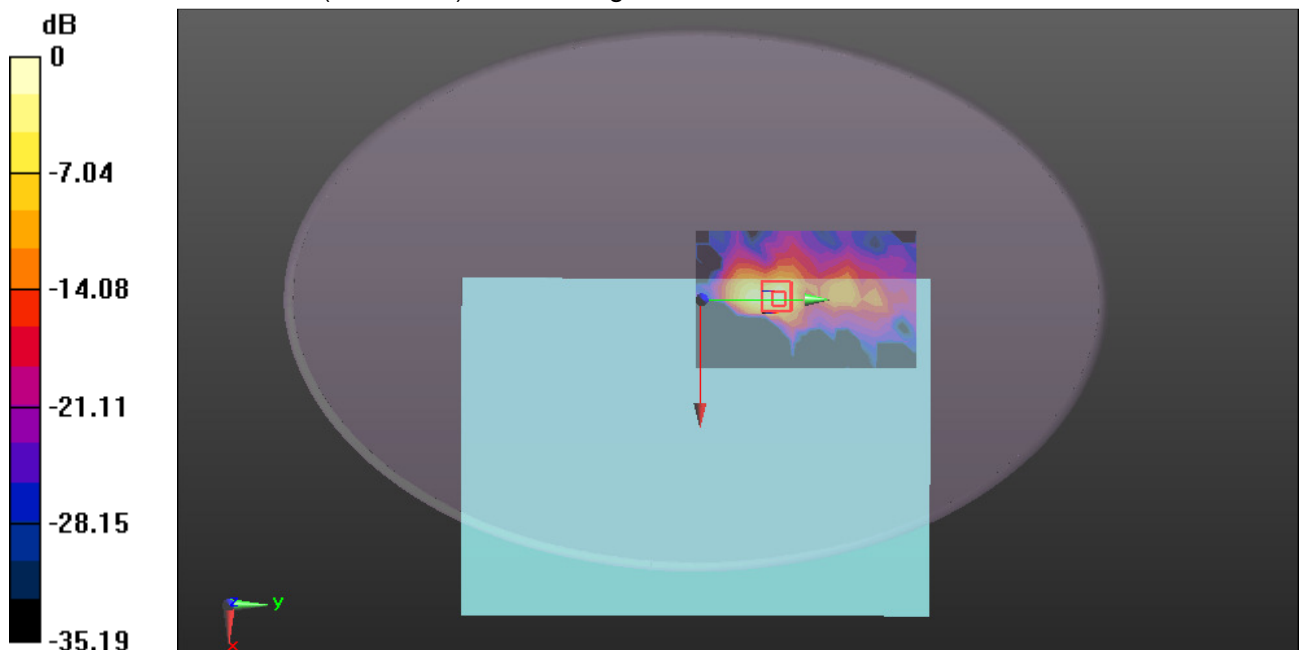
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 0.7874 V/m ; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 3.24 W/kg

SAR(1 g) = 0.863 W/kg ; SAR(10 g) = 0.244 W/kg

Maximum value of SAR (measured) = 1.65 W/kg



$0 \text{ dB} = 1.65 \text{ W/kg} = 2.17 \text{ dBW/kg}$

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH100 Main Antenna INPAQ ANT repeat

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band III;

Frequency: 5500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.78$ S/m; $\epsilon_r = 48.751$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.26, 4.26, 4.26); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH100 Main Antenna repeat/Area Scan (11x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 2.24 W/kg

WIFI/IEEE802.11a Body Bottom CH100 Main Antenna repeat/Zoom Scan (7x7x7)/Cube 0:

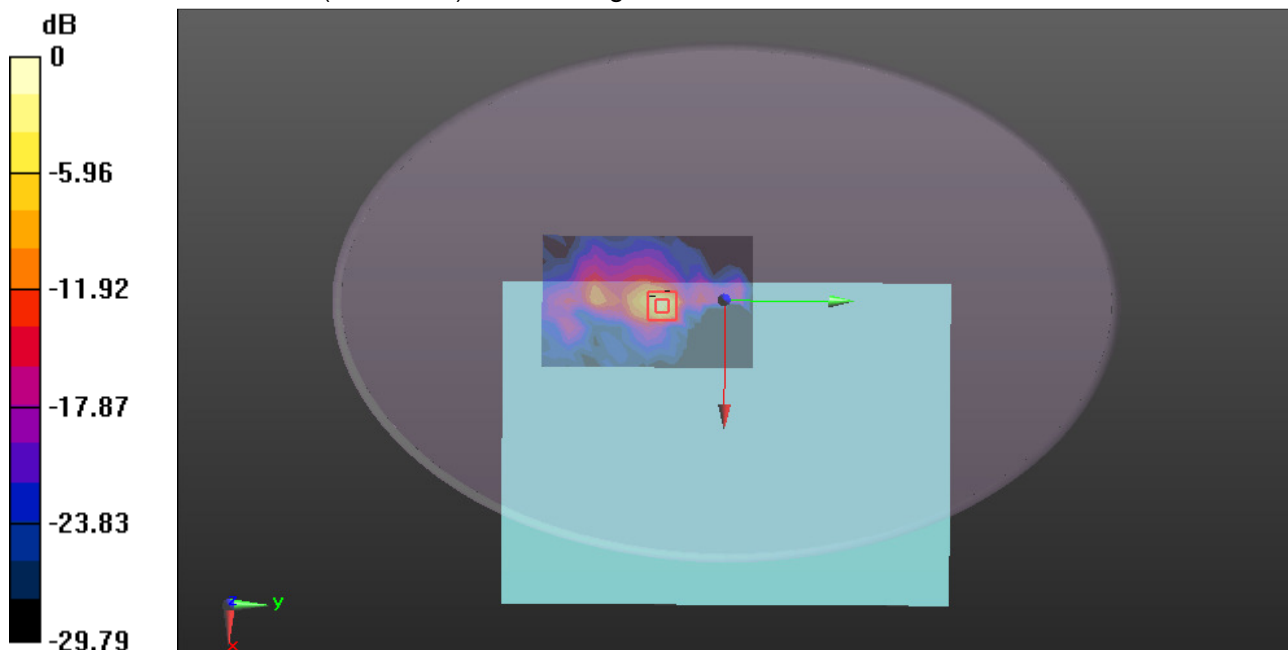
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 1.972 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 5.88 W/kg

SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.263 W/kg

Maximum value of SAR (measured) = 3.21 W/kg



0 dB = 3.21 W/kg = 5.07 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH165 Main Antenna INPAQ ANT repeat

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band IV;

Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5825 \text{ MHz}$; $\sigma = 6.252 \text{ S/m}$; $\epsilon_r = 47.724$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.45, 4.45, 4.45); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH165 Main Antenna repeat/Area Scan (11x17x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 1.64 W/kg

WIFI/IEEE802.11a Body Bottom CH165 Main Antenna repeat/Zoom Scan (7x7x7)/Cube 0:

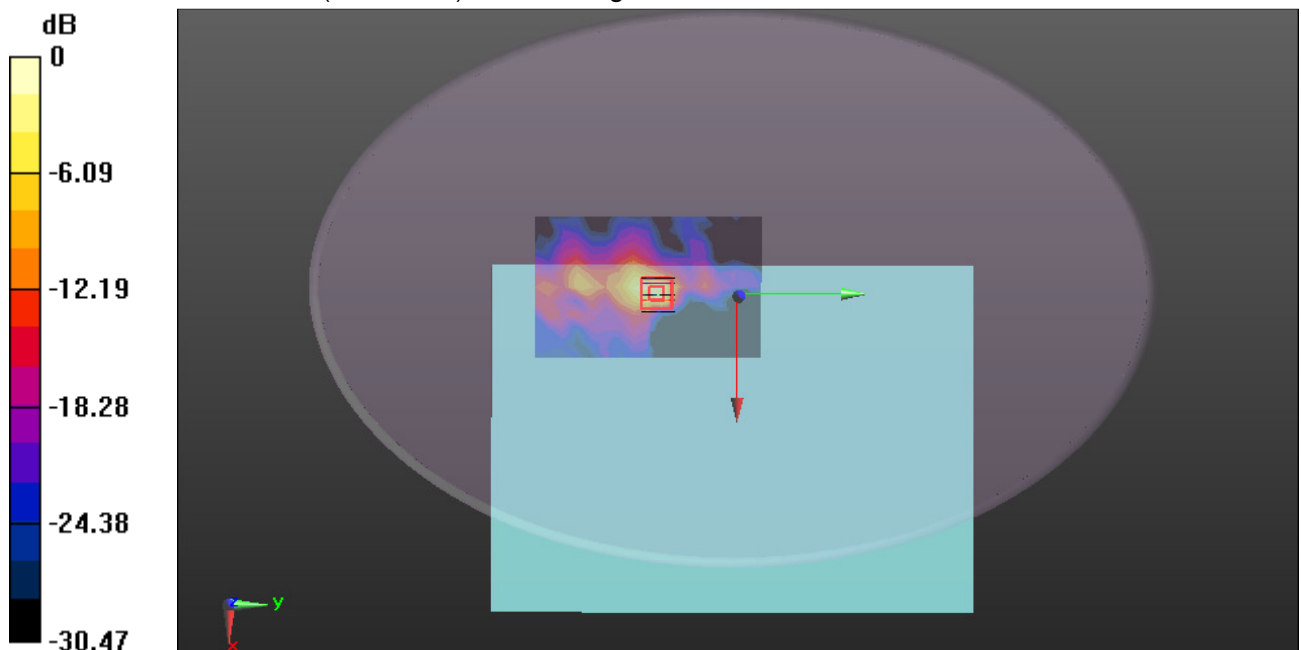
Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 1.709 V/m ; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 5.24 W/kg

SAR(1 g) = 1.05 W/kg ; SAR(10 g) = 0.308 W/kg

Maximum value of SAR (measured) = 2.70 W/kg



0 dB = 2.70 W/kg = 4.31 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH64 Aux Antenna South Star ANT repeat

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band II;

Frequency: 5320 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5320$ MHz; $\sigma = 5.546$ S/m; $\epsilon_r = 48.869$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.67, 4.67, 4.67); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH64 Aux Antenna repeat/Area Scan (11x16x1): Measurement

grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 2.71 W/kg

WIFI/IEEE802.11a Body Bottom CH64 Aux Antenna repeat/Zoom Scan (7x7x7)/Cube 0:

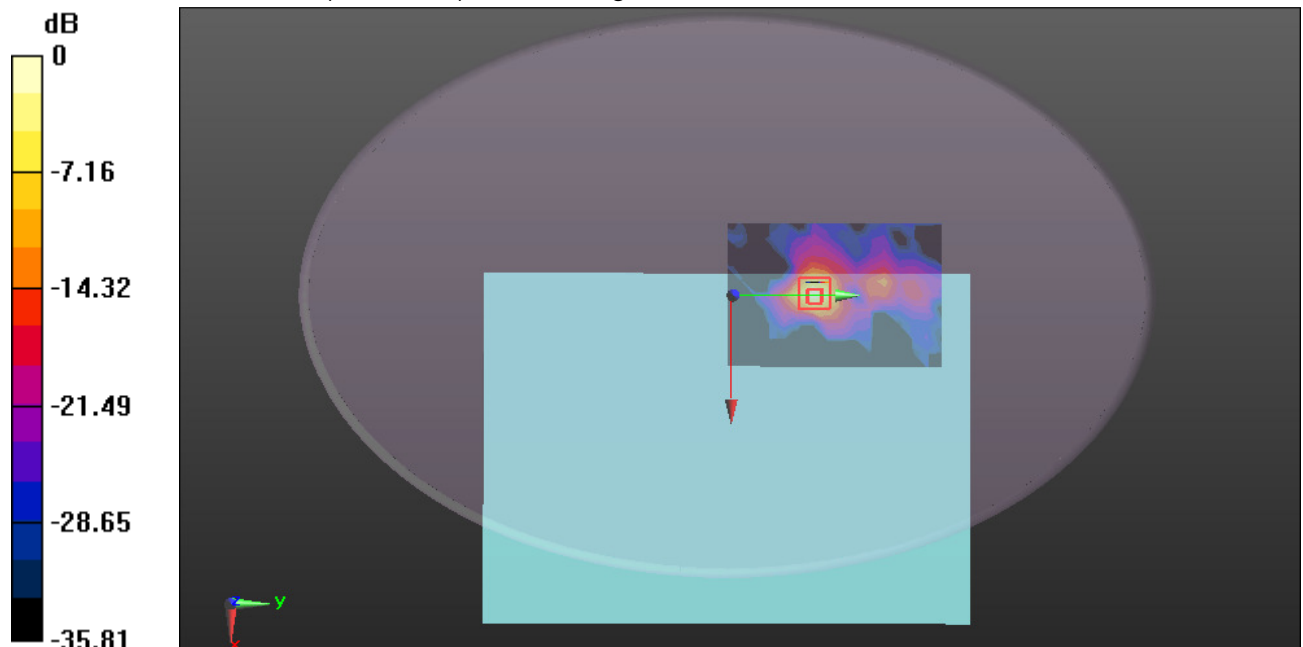
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0.6560 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 4.79 W/kg

SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.257 W/kg

Maximum value of SAR (measured) = 2.58 W/kg



0 dB = 2.58 W/kg = 4.12 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH112 Aux Antenna South Star ANT repeat

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band III;

Frequency: 5560 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5560$ MHz; $\sigma = 5.824$ S/m; $\epsilon_r = 48.396$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.18, 4.18, 4.18); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH112 Aux Antenna repeat/Area Scan (11x16x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 2.80 W/kg

WIFI/IEEE802.11a Body Bottom CH112 Aux Antenna repeat/Zoom Scan (7x7x7)/Cube 0:

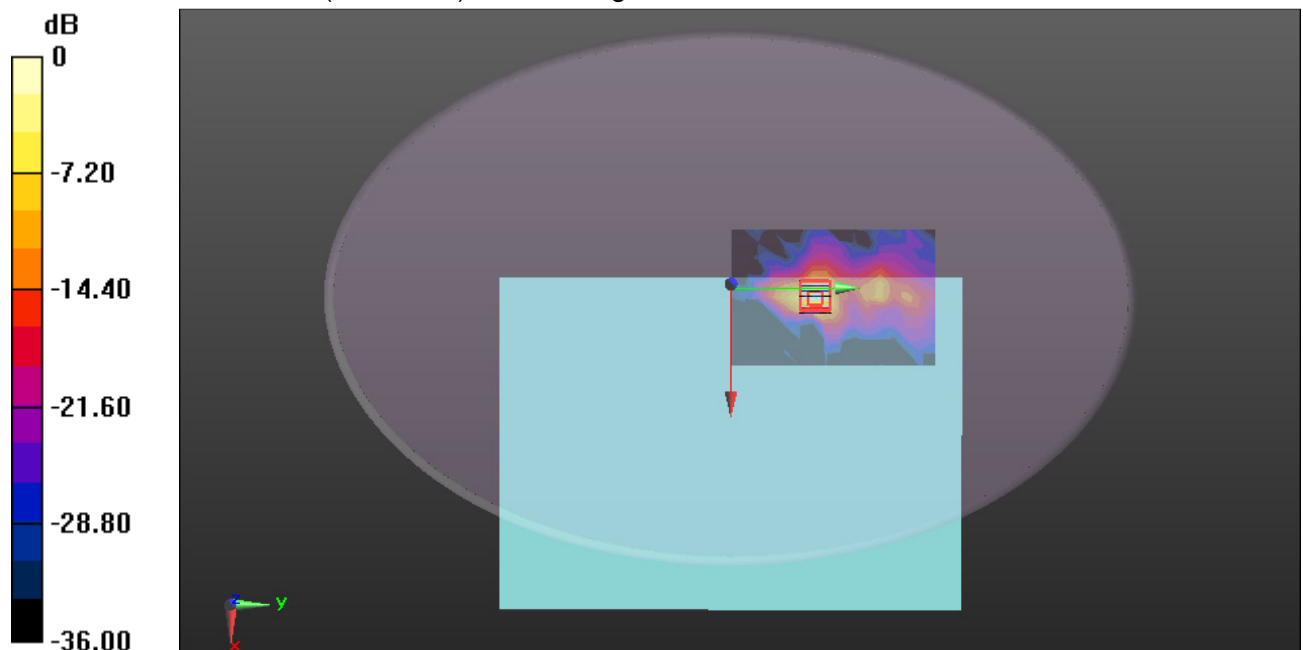
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0.4987 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 5.31 W/kg

SAR(1 g) = 1.10 W/kg; SAR(10 g) = 0.295 W/kg

Maximum value of SAR (measured) = 2.93 W/kg



0 dB = 2.93 W/kg = 4.67 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH149 Aux Antenna South Star ANT repeat

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band IV;

Frequency: 5745 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 6.147 \text{ S/m}$; $\epsilon_r = 48.049$; $\rho = 1000 \text{ kg/m}^3$

Room Ambient Temperature: 22°C ; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.45, 4.45, 4.45); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH149 Aux Antenna repeat/Area Scan (11x17x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 3.09 W/kg

WIFI/IEEE802.11a Body Bottom CH149 Aux Antenna repeat/Zoom Scan (7x7x7)/Cube 0:

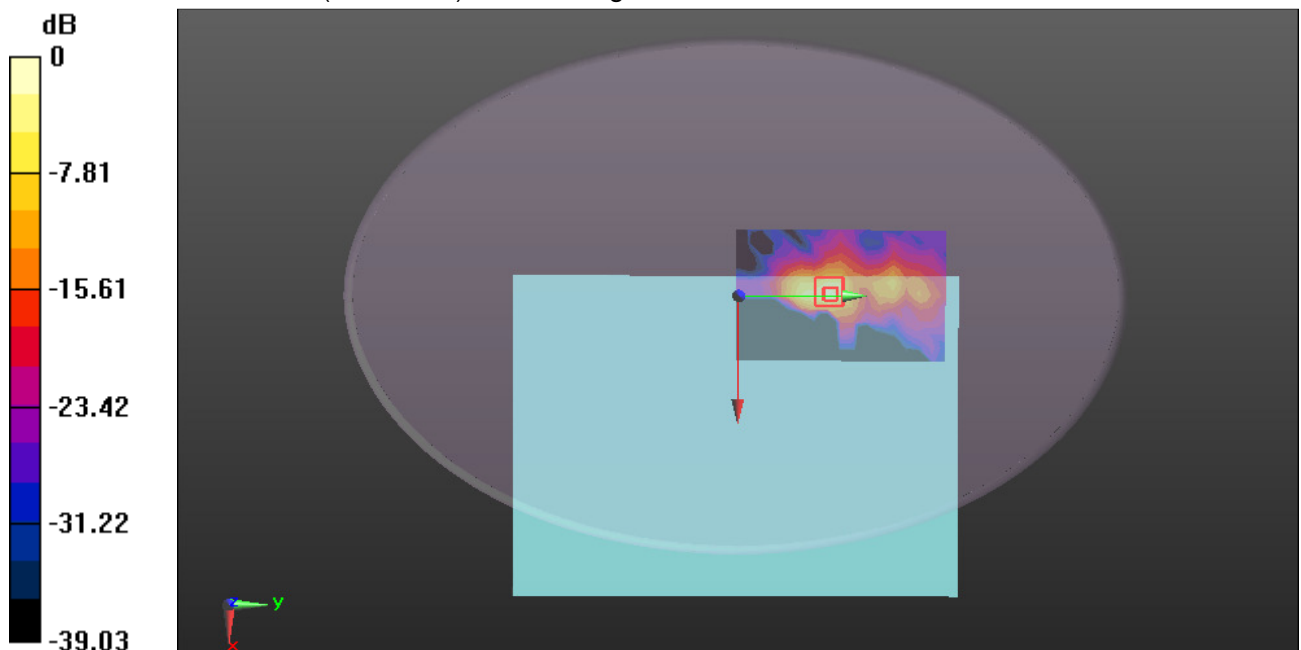
Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 1.565 V/m ; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 5.73 W/kg

SAR(1 g) = 1.03 W/kg ; SAR(10 g) = 0.324 W/kg

Maximum value of SAR (measured) = 3.02 W/kg



$0 \text{ dB} = 3.02 \text{ W/kg} = 4.80 \text{ dBW/kg}$

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH100 Main Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band III;

Frequency: 5500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.78$ S/m; $\epsilon_r = 48.751$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.26, 4.26, 4.26); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH100 Main Antenna/Area Scan (11x17x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 0.948 W/kg

WIFI/IEEE802.11a Body Bottom CH100 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

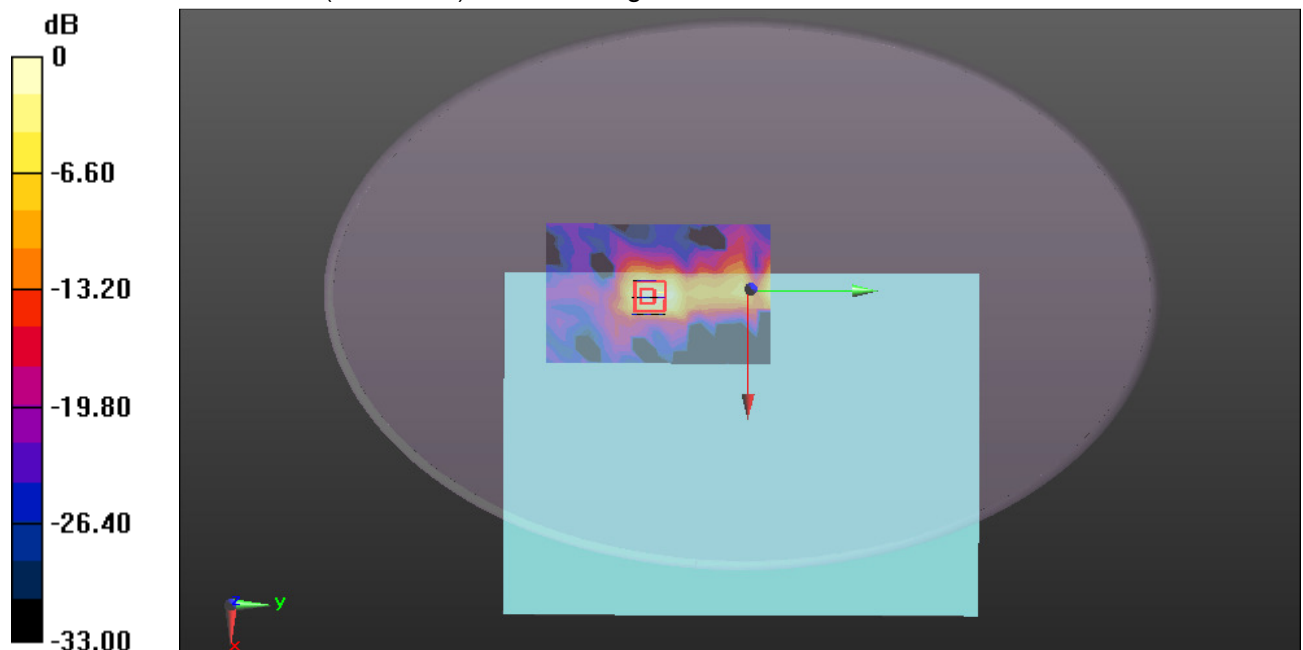
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 7.362 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.75 W/kg

SAR(1 g) = 0.604 W/kg; SAR(10 g) = 0.187 W/kg

Maximum value of SAR (measured) = 0.983 W/kg



0 dB = 0.983 W/kg = -0.07 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 6/16/2018

WIFI 802.11 a-Body Bottom CH112 Aux Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 130S-14IGM;81KU; Serial: N/A

Communication System: UID 0, IEEE 802.11 a (0); Communication System Band: 5G Band III;

Frequency: 5560 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5560$ MHz; $\sigma = 5.824$ S/m; $\epsilon_r = 48.396$; $\rho = 1000$ kg/m³

Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(4.18, 4.18, 4.18); Calibrated: 7/26/2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1102
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH112 Aux Antenna/Area Scan (11x16x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 1.16 W/kg

WIFI/IEEE802.11a Body Bottom CH112 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

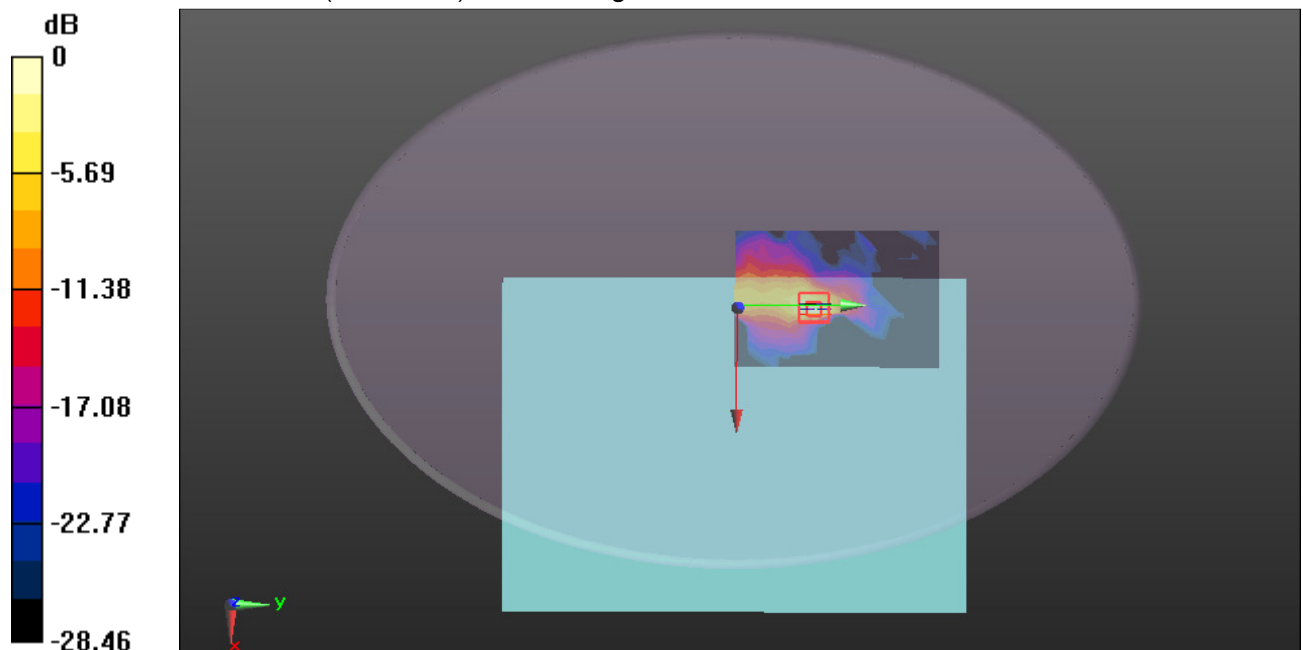
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 6.116 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 1.60 W/kg

SAR(1 g) = 0.612 W/kg; SAR(10 g) = 0.173 W/kg

Maximum value of SAR (measured) = 1.62 W/kg



0 dB = 1.62 W/kg = 2.10 dBW/kg