



Appendix D

Plots of SAR Test Result for SZEM1801000960CR



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Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

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

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 2412 \text{ MHz}$; $\sigma = 1.906 \text{ S/m}$; $\epsilon_r = 51.861$; $\rho = 1000 \text{ kg/m}^3$

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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- DASY52 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) = 0.518 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH1 Main Antenna/Zoom Scan (7x7x5)/Cube 0:

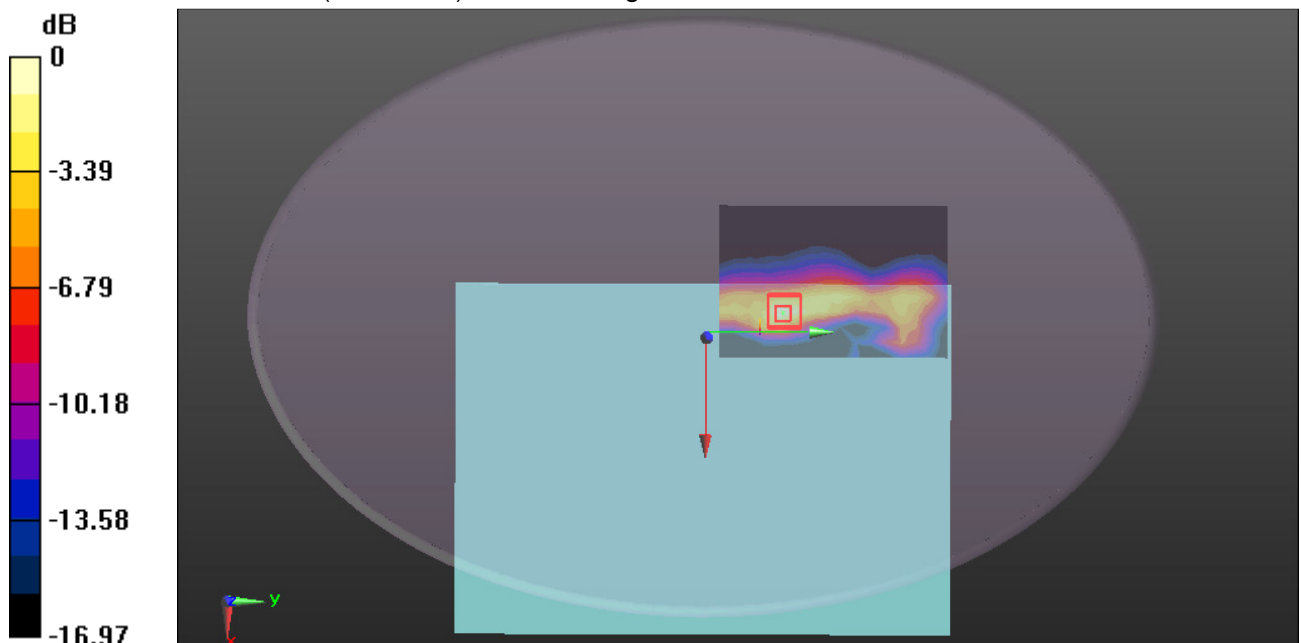
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.978 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.664 W/kg

SAR(1 g) = 0.300 W/kg; SAR(10 g) = 0.129 W/kg

Maximum value of SAR (measured) = 0.479 W/kg



0 dB = 0.479 W/kg = -3.20 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

WIFI 802.11 b-Body Bottom CH6 Main Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 2437 \text{ MHz}$; $\sigma = 1.942 \text{ S/m}$; $\epsilon_r = 51.839$; $\rho = 1000 \text{ kg/m}^3$

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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- DASY52 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) = 0.608 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH6 Main Antenna/Zoom Scan (7x7x5)/Cube 0:

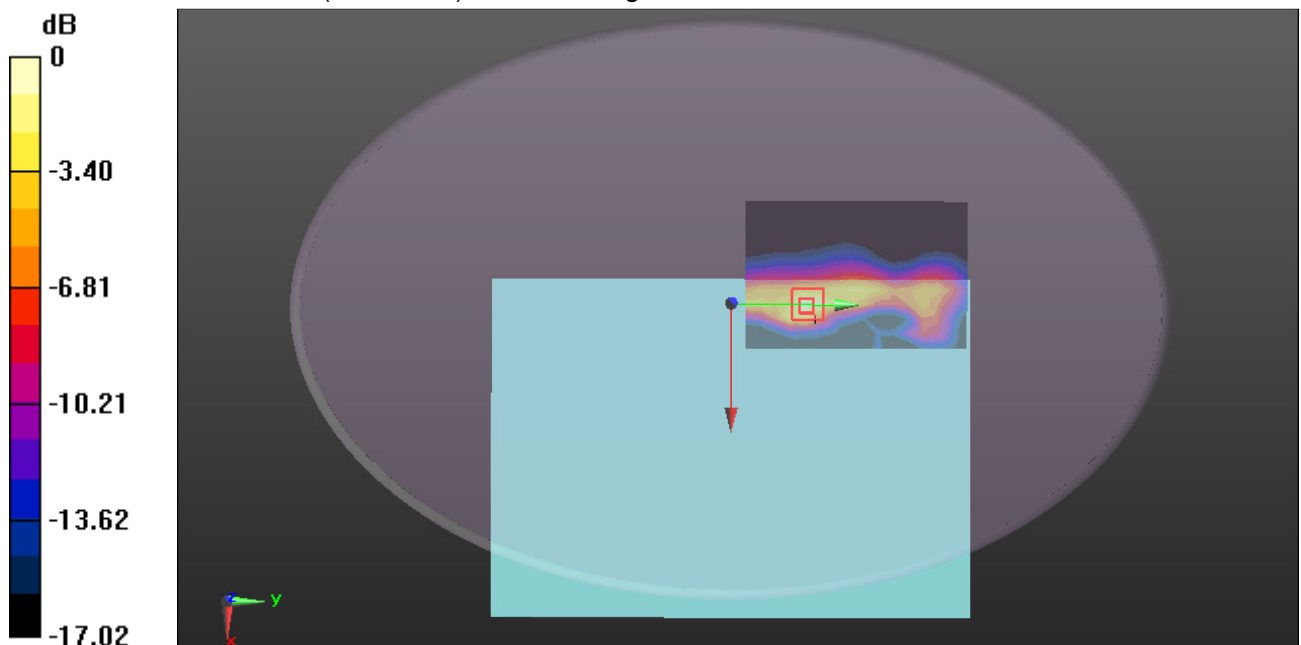
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.826 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.800 W/kg

SAR(1 g) = 0.360 W/kg; SAR(10 g) = 0.154 W/kg

Maximum value of SAR (measured) = 0.580 W/kg



0 dB = 0.580 W/kg = -2.37 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

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

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 2462 \text{ MHz}$; $\sigma = 1.966 \text{ S/m}$; $\epsilon_r = 51.784$; $\rho = 1000 \text{ kg/m}^3$

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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- 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) = 0.568 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH11 Main Antenna/Zoom Scan (7x7x5)/Cube 0:

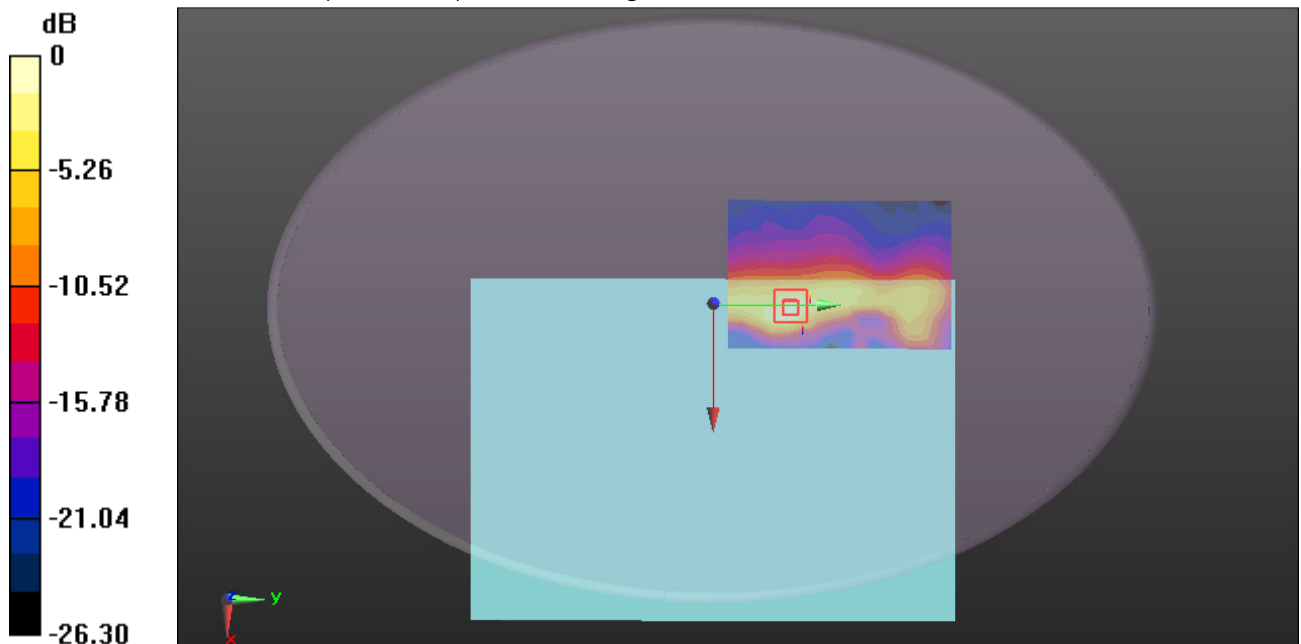
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.28 V/m ; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.877 W/kg

SAR(1 g) = 0.392 W/kg ; SAR(10 g) = 0.166 W/kg

Maximum value of SAR (measured) = 0.588 W/kg



0 dB = 0.588 W/kg = -2.31 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

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

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 2462 \text{ MHz}$; $\sigma = 1.966 \text{ S/m}$; $\epsilon_r = 51.784$; $\rho = 1000 \text{ kg/m}^3$

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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- 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) = 0.626 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH1 Aux Antenna/Zoom Scan (7x7x5)/Cube 0:

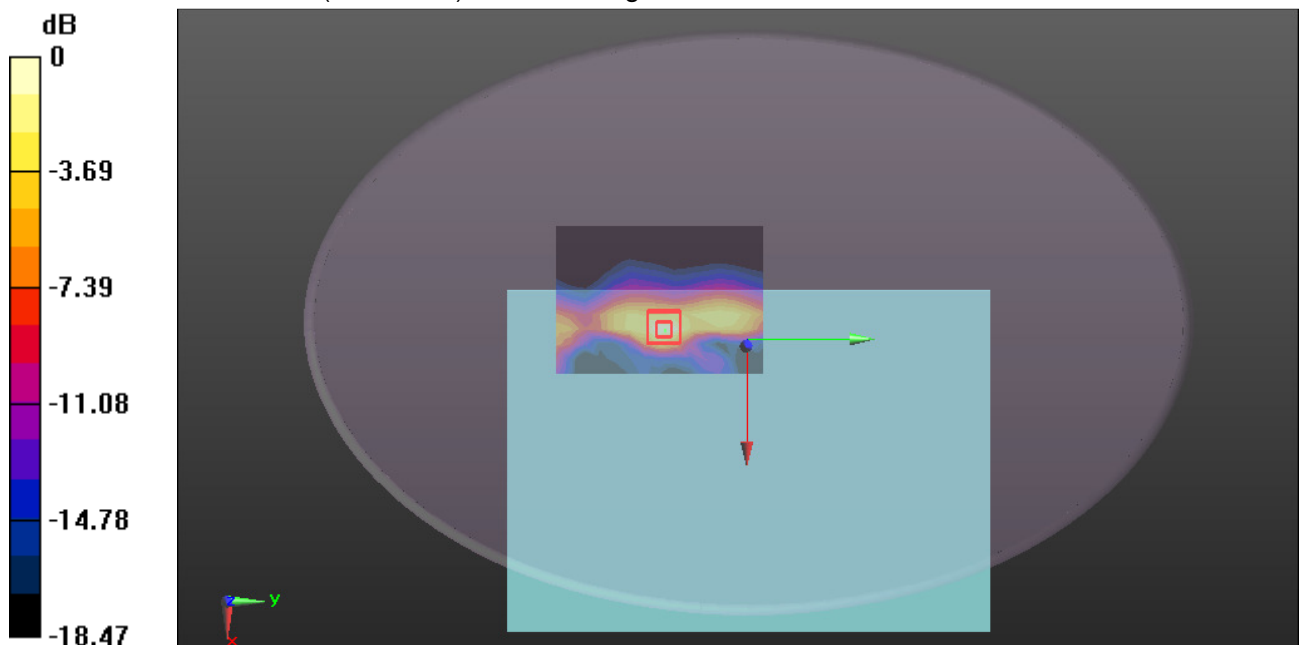
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.68 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.843 W/kg

SAR(1 g) = 0.390 W/kg; SAR(10 g) = 0.168 W/kg

Maximum value of SAR (measured) = 0.618 W/kg



0 dB = 0.618 W/kg = -2.09 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

WIFI 802.11 b-Body Bottom CH6 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 2437 \text{ MHz}$; $\sigma = 1.942 \text{ S/m}$; $\epsilon_r = 51.839$; $\rho = 1000 \text{ kg/m}^3$

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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WiFi 2.4GHz/IEEE802.11b Body Bottom CH6 Aux Antenna/Area Scan (11x15x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 0.741 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH6 Aux Antenna/Zoom Scan (7x7x5)/Cube 0:

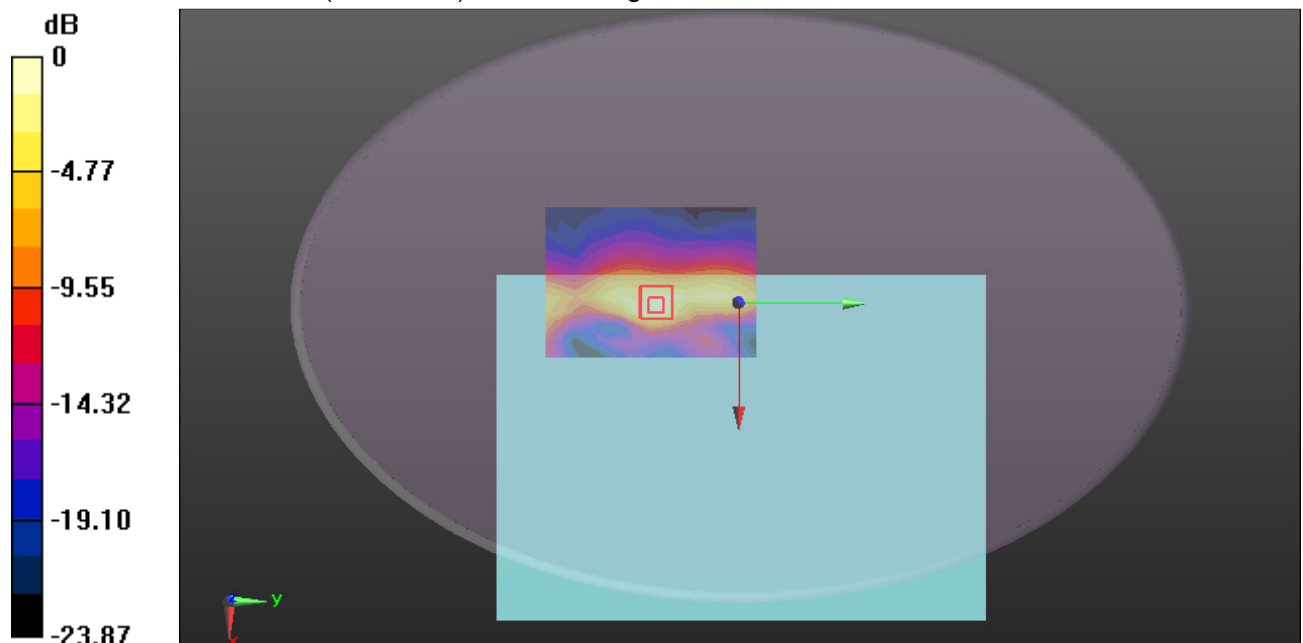
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.12 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.454 W/kg; SAR(10 g) = 0.193 W/kg

Maximum value of SAR (measured) = 0.714 W/kg



0 dB = 0.714 W/kg = -1.46 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

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

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 2462 \text{ MHz}$; $\sigma = 1.966 \text{ S/m}$; $\epsilon_r = 51.784$; $\rho = 1000 \text{ kg/m}^3$

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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- DASY52 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) = 0.743 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH11 Aux Antenna/Zoom Scan (7x7x5)/Cube 0:

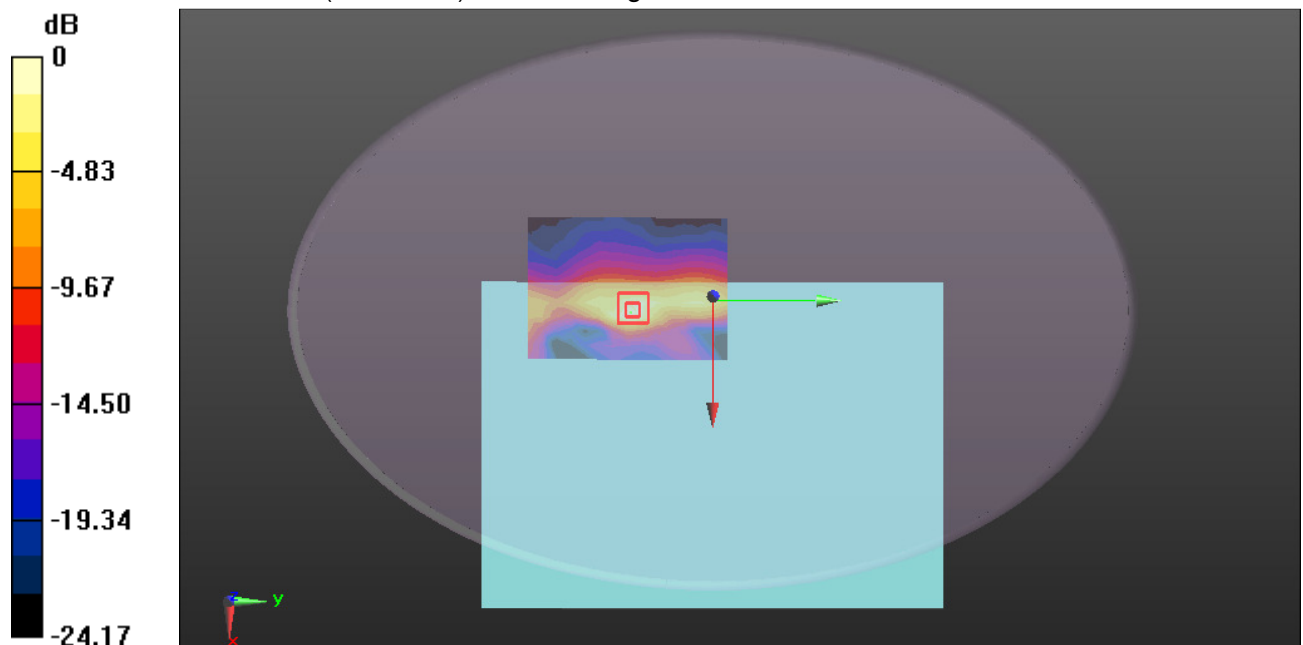
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.11 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.459 W/kg; SAR(10 g) = 0.192 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: 1/25/2018

WIFI 802.11 b-Body Bottom CH11 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 2462 \text{ MHz}$; $\sigma = 1.966 \text{ S/m}$; $\epsilon_r = 51.784$; $\rho = 1000 \text{ kg/m}^3$

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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- 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) = 0.205 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH11 Main Antenna/Zoom Scan (7x7x5)/Cube 0:

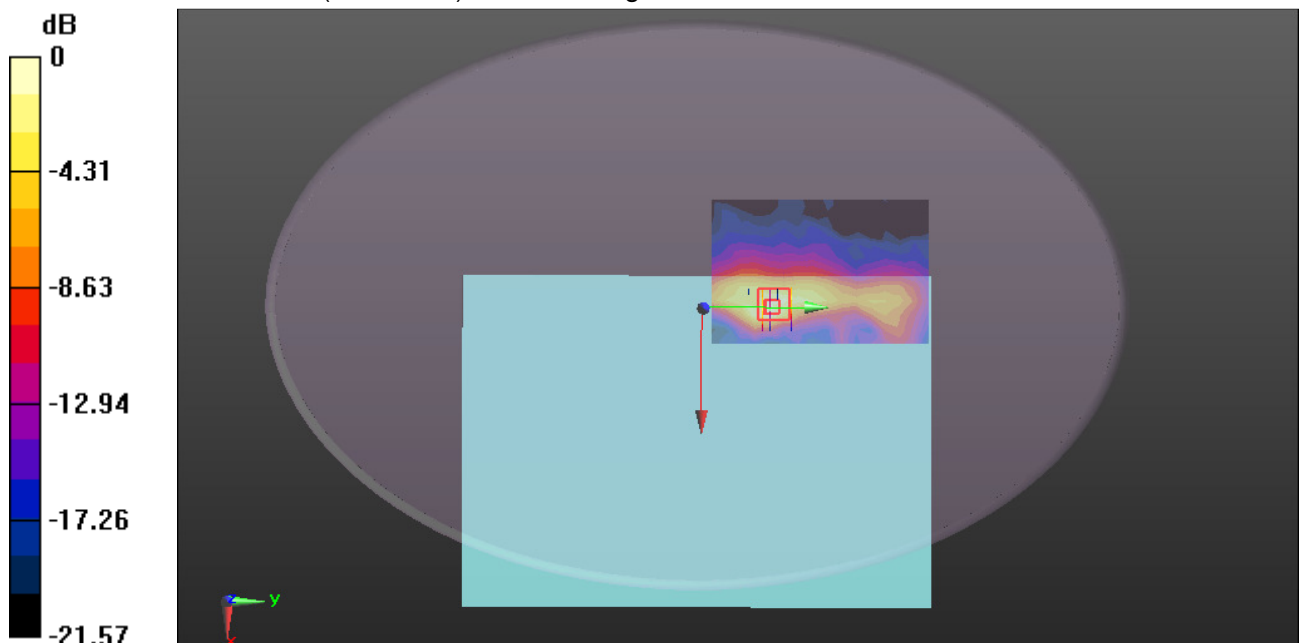
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 4.718 V/m ; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.320 W/kg

SAR(1 g) = 0.135 W/kg ; SAR(10 g) = 0.057 W/kg

Maximum value of SAR (measured) = 0.219 W/kg



0 dB = 0.219 W/kg = -6.60 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

WIFI 802.11 b-Body Bottom CH11 Aux Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 2462 \text{ MHz}$; $\sigma = 1.966 \text{ S/m}$; $\epsilon_r = 51.784$; $\rho = 1000 \text{ kg/m}^3$

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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- DASY52 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) = 0.361 W/kg

WiFi 2.4GHz/IEEE802.11b Body Bottom CH11 Aux Antenna/Zoom Scan (7x7x5)/Cube 0:

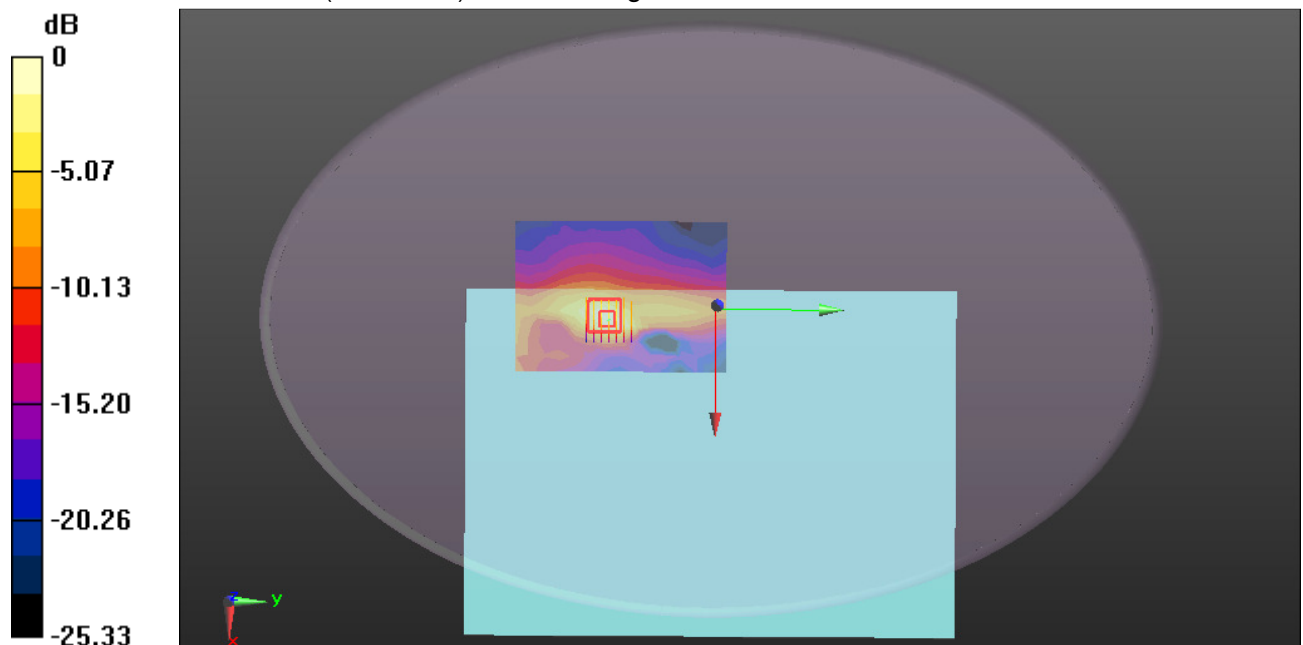
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 5.963 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.559 W/kg

SAR(1 g) = 0.244 W/kg; SAR(10 g) = 0.103 W/kg

Maximum value of SAR (measured) = 0.393 W/kg



0 dB = 0.393 W/kg = -4.06 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

2.4GHz-Body Bottom CH00 Main Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 2402 \text{ MHz}$; $\sigma = 1.892 \text{ S/m}$; $\epsilon_r = 51.898$; $\rho = 1000 \text{ kg/m}^3$

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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

2.4GHz/2.4GHz Body Bottom CH00 Main Antenna/Area Scan (11x16x1): Measurement grid:

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

Maximum value of SAR (measured) = 0.0197 W/kg

2.4GHz/2.4GHz Body Bottom CH00 Main Antenna/Zoom Scan (7x7x5)/Cube 0: Measurement grid:

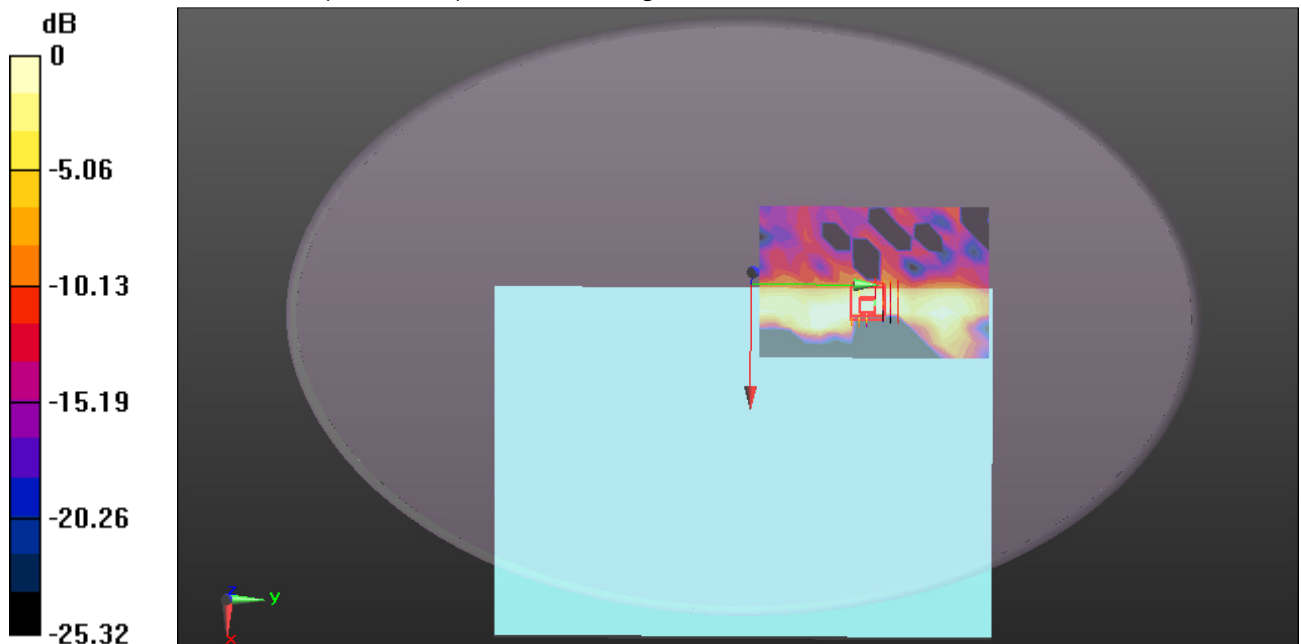
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 0.9680 V/m ; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.0180 W/kg

SAR(1 g) = 0.00957 W/kg ; SAR(10 g) = 0.00481 W/kg

Maximum value of SAR (measured) = 0.0141 W/kg



0 dB = 0.0141 W/kg = -18.51 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

2.4GHz-Body Bottom CH39 Main Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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; $\sigma = 1.945$ S/m; $\epsilon_r = 51.841$; $\rho = 1000$ 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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

2.4GHz/2.4GHz Body Bottom CH39 Main Antenna/Area Scan (11x16x1): Measurement grid:

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

Maximum value of SAR (measured) = 0.0172 W/kg

2.4GHz/2.4GHz Body Bottom CH39 Main Antenna/Zoom Scan (7x7x5)/Cube 0: Measurement grid:

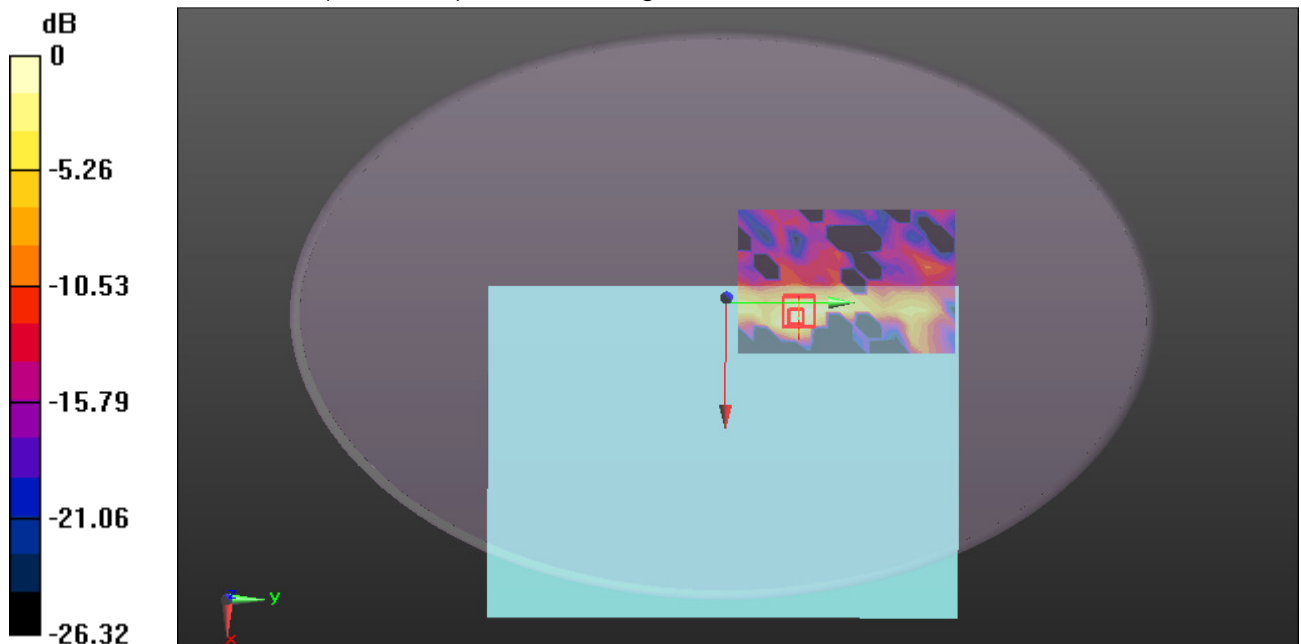
$dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 1.397 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.0290 W/kg

SAR(1 g) = 0.012 W/kg; SAR(10 g) = 0.00506 W/kg

Maximum value of SAR (measured) = 0.0185 W/kg



0 dB = 0.0185 W/kg = -17.33 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

2.4GHz-Body Bottom CH78 Main Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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; $\sigma = 1.978$ S/m; $\epsilon_r = 51.729$; $\rho = 1000$ 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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

2.4GHz/2.4GHz Body Bottom CH78 Main Antenna/Area Scan (11x16x1): Measurement grid:

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

Maximum value of SAR (measured) = 0.0238 W/kg

2.4GHz/2.4GHz Body Bottom CH78 Main Antenna/Zoom Scan (7x7x5)/Cube 0: Measurement grid:

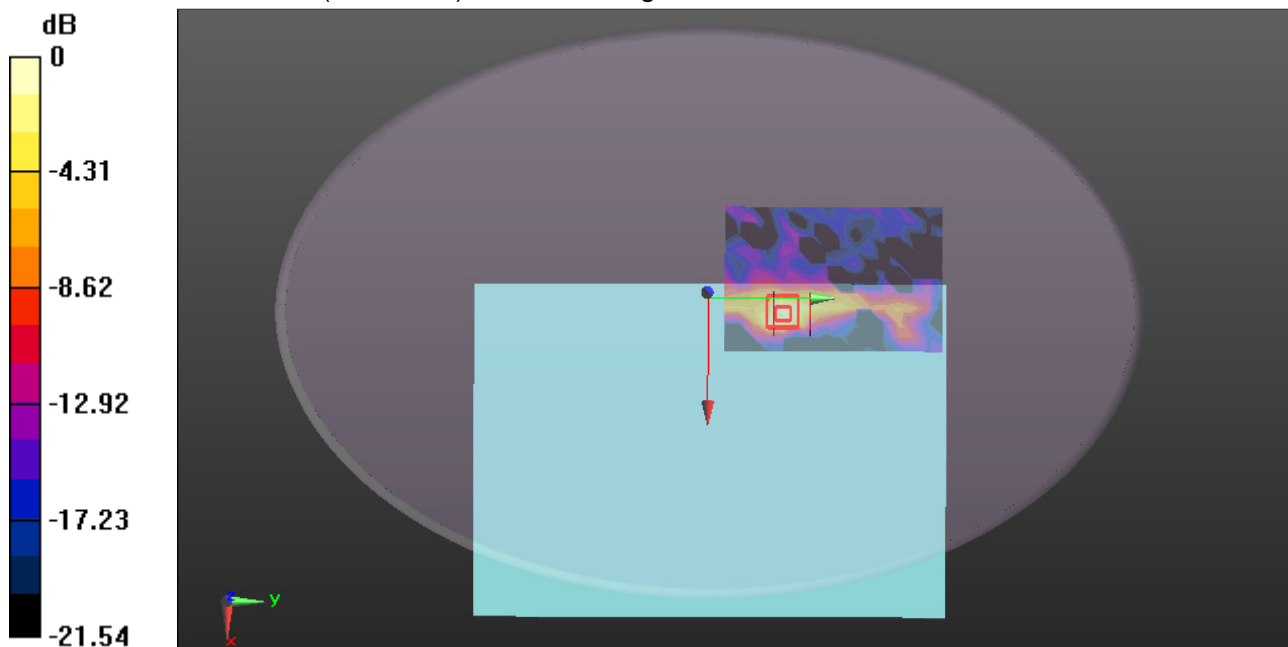
$dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 1.607 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.0490 W/kg

SAR(1 g) = 0.016 W/kg; SAR(10 g) = 0.00655 W/kg

Maximum value of SAR (measured) = 0.0253 W/kg



0 dB = 0.0253 W/kg = -15.97 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

2.4GHz-Body Bottom CH00 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 2402 \text{ MHz}$; $\sigma = 1.892 \text{ S/m}$; $\epsilon_r = 51.898$; $\rho = 1000 \text{ kg/m}^3$

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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

2.4GHz/2.4GHz Body Bottom CH00 Aux Antenna/Area Scan (11x16x1): Measurement grid:

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

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

2.4GHz/2.4GHz Body Bottom CH00 Aux Antenna/Zoom Scan (7x7x5)/Cube 0: Measurement grid:

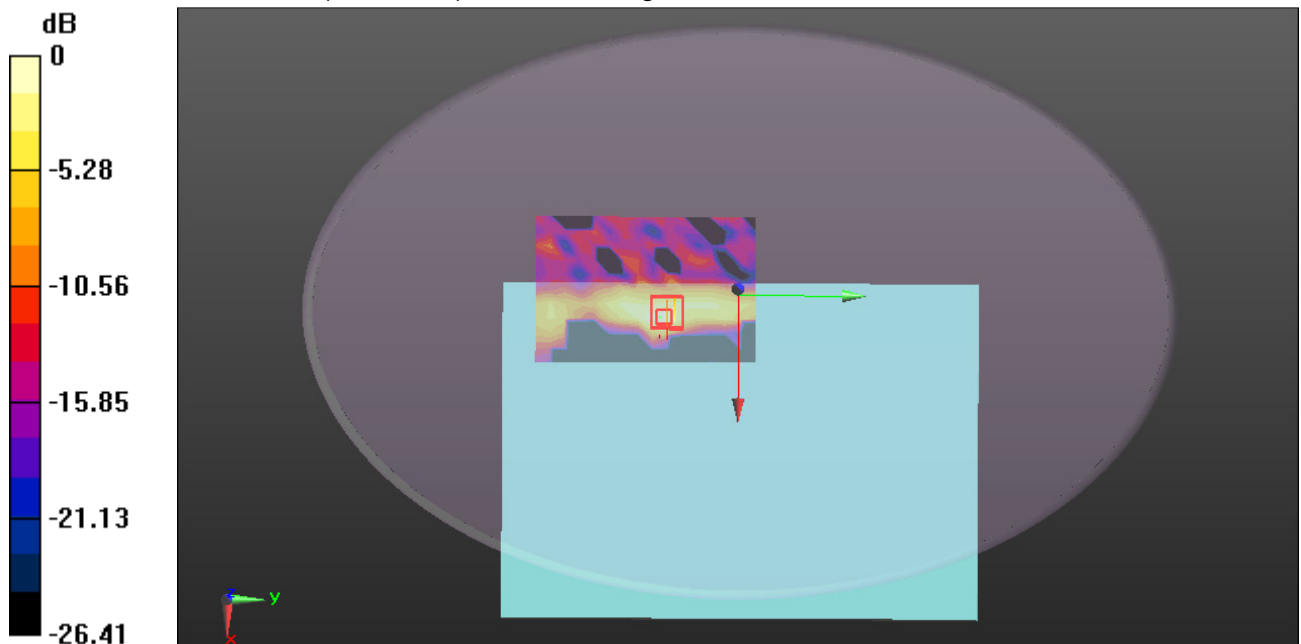
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.629 V/m ; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.0450 W/kg

SAR(1 g) = 0.015 W/kg ; SAR(10 g) = 0.00679 W/kg

Maximum value of SAR (measured) = 0.0234 W/kg



0 dB = 0.0234 W/kg = -16.31 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

2.4GHz-Body Bottom CH39 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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; $\sigma = 1.945$ S/m; $\epsilon_r = 51.841$; $\rho = 1000$ 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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

2.4GHz/2.4GHz Body Bottom CH39 Aux Antenna/Area Scan (11x16x1): Measurement grid:

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

Maximum value of SAR (measured) = 0.0338 W/kg

2.4GHz/2.4GHz Body Bottom CH39 Aux Antenna/Zoom Scan (7x7x5)/Cube 0: Measurement grid:

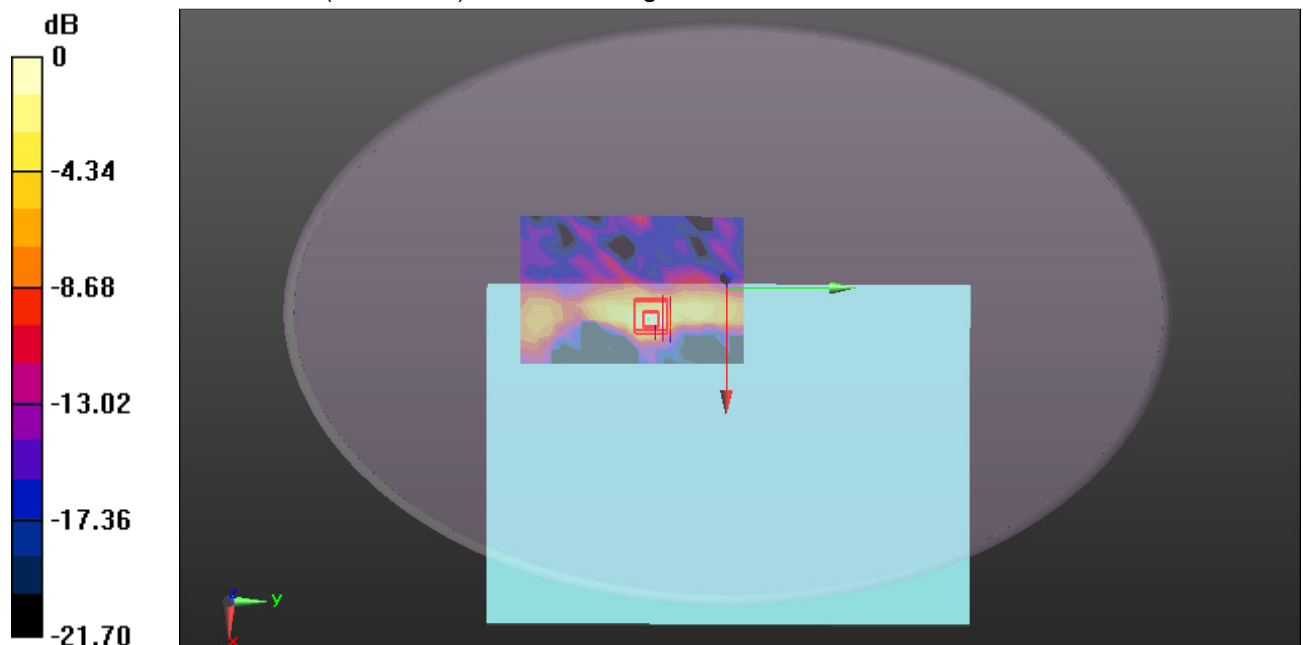
$dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 2.626 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.0490 W/kg

SAR(1 g) = 0.020 W/kg; SAR(10 g) = 0.00894 W/kg

Maximum value of SAR (measured) = 0.0329 W/kg



0 dB = 0.0329 W/kg = -14.83 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

2.4GHz-Body Bottom CH78 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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; $\sigma = 1.978$ S/m; $\epsilon_r = 51.729$; $\rho = 1000$ 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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

2.4GHz/2.4GHz Body Bottom CH78 Aux Antenna/Area Scan (11x16x1): Measurement grid:

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

Maximum value of SAR (measured) = 0.0330 W/kg

2.4GHz/2.4GHz Body Bottom CH78 Aux Antenna/Zoom Scan (7x7x5)/Cube 0: Measurement grid:

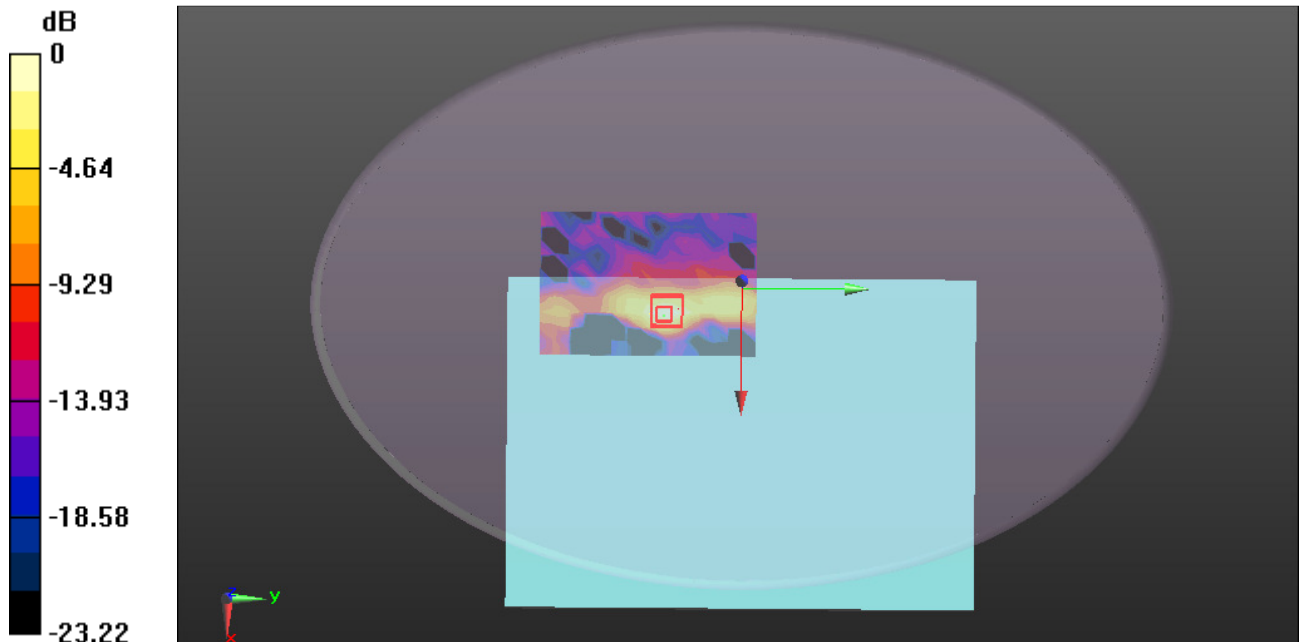
$dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 2.702 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.0450 W/kg

SAR(1 g) = 0.021 W/kg; SAR(10 g) = 0.0088 W/kg

Maximum value of SAR (measured) = 0.0313 W/kg



0 dB = 0.0313 W/kg = -15.04 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

2.4GHz-Body Bottom CH78 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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; $\sigma = 1.978$ S/m; $\epsilon_r = 51.729$; $\rho = 1000$ 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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

2.4GHz/2.4GHz Body Bottom CH78 Main Antenna/Area Scan (11x16x1): Measurement grid:

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

Maximum value of SAR (measured) = 0.0345 W/kg

2.4GHz/2.4GHz Body Bottom CH78 Main Antenna/Zoom Scan (7x7x5)/Cube 0: Measurement grid:

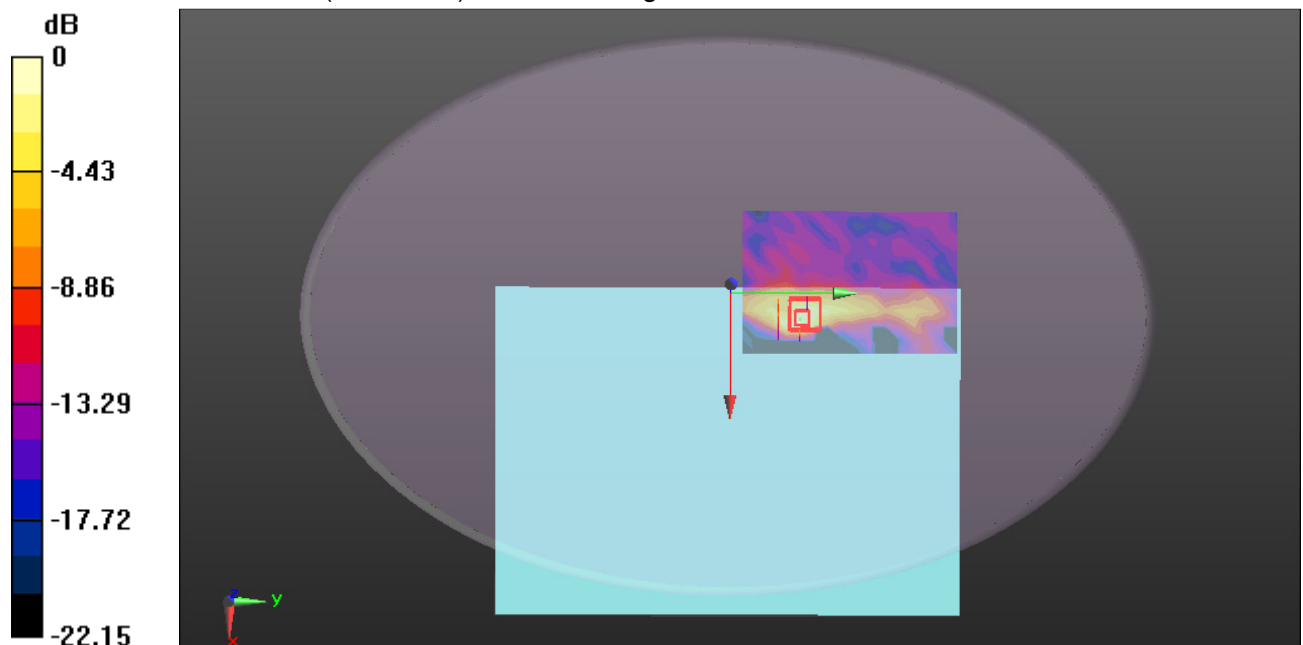
$dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 1.139 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.0500 W/kg

SAR(1 g) = 0.011 W/kg; SAR(10 g) = 0.00466 W/kg

Maximum value of SAR (measured) = 0.0355 W/kg



0 dB = 0.0355 W/kg = -14.50 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/25/2018

2.4GHz-Body Bottom CH78 Aux Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 2480 \text{ MHz}$; $\sigma = 1.978 \text{ S/m}$; $\epsilon_r = 51.729$; $\rho = 1000 \text{ kg/m}^3$

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), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/20/2017
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

2.4GHz/2.4GHz Body Bottom CH78 Aux Antenna/Area Scan (11x16x1): Measurement grid:

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

Maximum value of SAR (measured) = 0.0380 W/kg

2.4GHz/2.4GHz Body Bottom CH78 Aux Antenna/Zoom Scan (7x7x5)/Cube 0: Measurement grid:

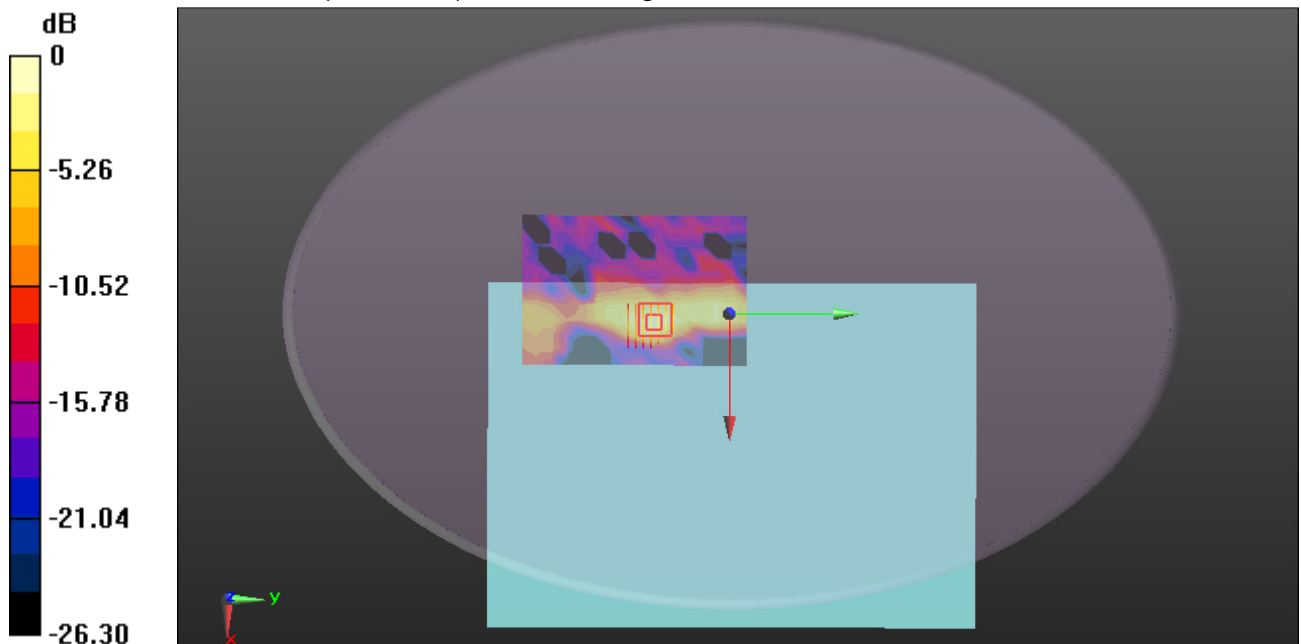
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.948 V/m ; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.0500 W/kg

SAR(1 g) = 0.018 W/kg ; SAR(10 g) = 0.00832 W/kg

Maximum value of SAR (measured) = 0.0325 W/kg



0 dB = 0.0325 W/kg = -14.88 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

WIFI 802.11 a-Body Bottom CH52 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 5260 \text{ MHz}$; $\sigma = 5.265 \text{ S/m}$; $\epsilon_r = 48.26$; $\rho = 1000 \text{ kg/m}^3$

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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

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

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

Maximum value of SAR (measured) = 0.861 W/kg

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

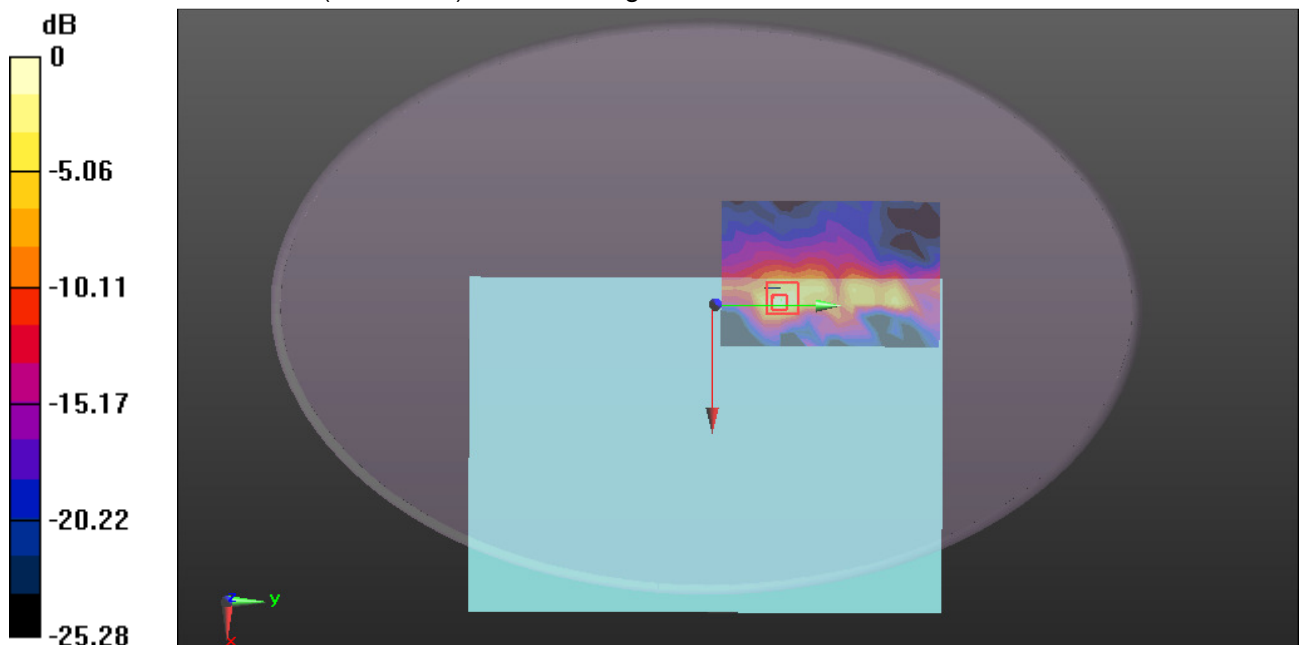
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 1.144 V/m ; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 1.70 W/kg

SAR(1 g) = 0.335 W/kg ; SAR(10 g) = 0.104 W/kg

Maximum value of SAR (measured) = 0.832 W/kg



0 dB = 0.832 W/kg = -0.80 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

WIFI 802.11 a-Body Bottom CH56 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 5280$ MHz; $\sigma = 5.342$ S/m; $\epsilon_r = 48.389$; $\rho = 1000$ 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:xxxx
- DASYS 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

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

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

Maximum value of SAR (measured) = 0.668 W/kg

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

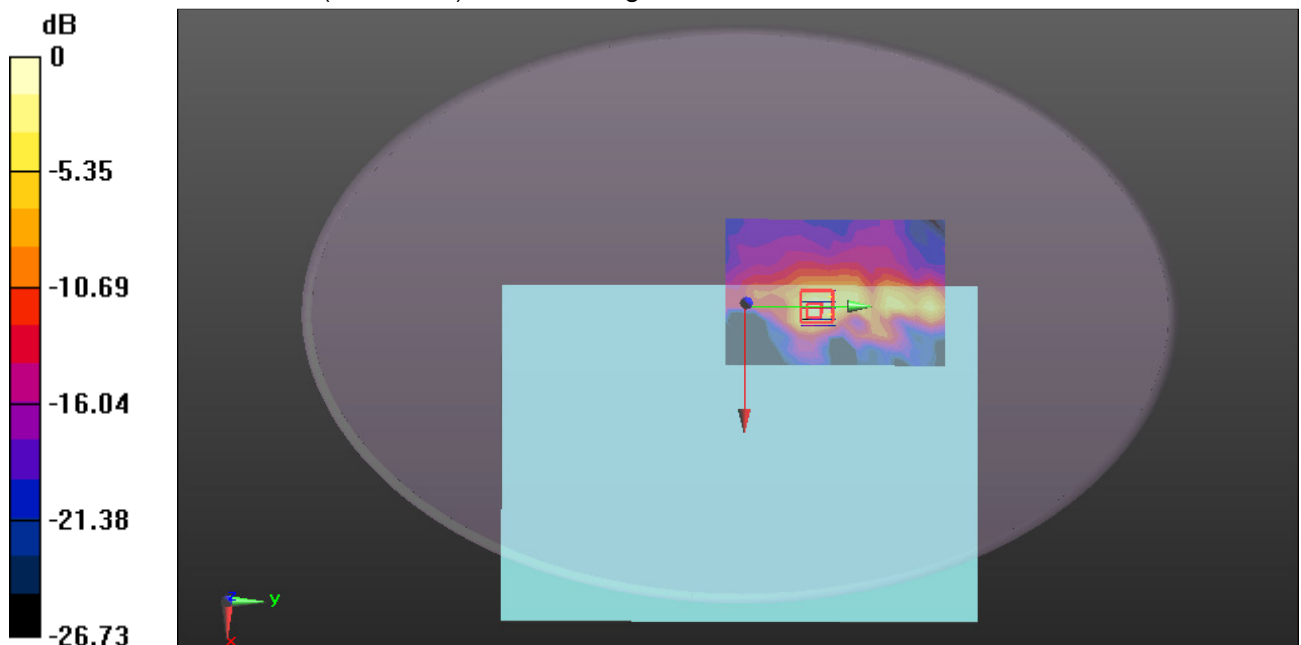
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 0.4580 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.51 W/kg

SAR(1 g) = 0.303 W/kg; SAR(10 g) = 0.098 W/kg

Maximum value of SAR (measured) = 0.753 W/kg



0 dB = 0.753 W/kg = -1.23 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

WIFI 802.11 a-Body Bottom CH64 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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; $\sigma = 5.401$ S/m; $\epsilon_r = 48.42$; $\rho = 1000$ 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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

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

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

Maximum value of SAR (measured) = 0.883 W/kg

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

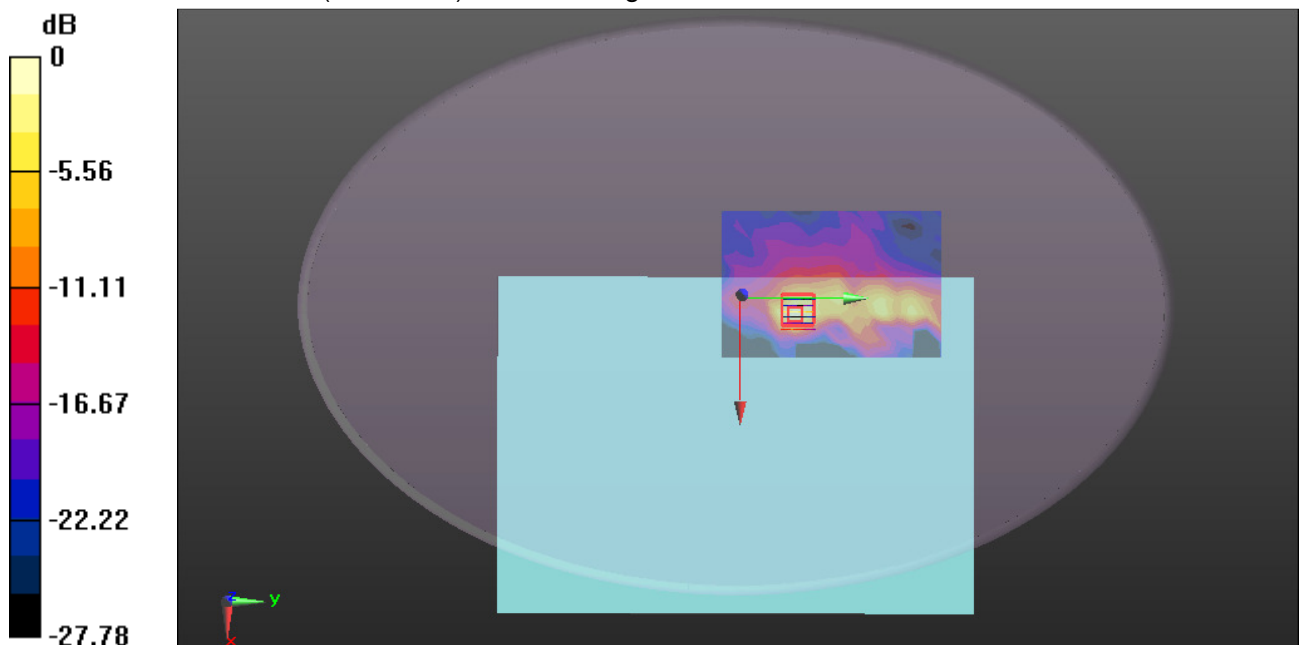
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 2.183 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.75 W/kg

SAR(1 g) = 0.336 W/kg; SAR(10 g) = 0.099 W/kg

Maximum value of SAR (measured) = 0.839 W/kg



0 dB = 0.839 W/kg = -0.76 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

WIFI 802.11 a-Body Bottom CH100 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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; $\sigma = 5.501$ S/m; $\epsilon_r = 48.292$; $\rho = 1000$ 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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

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

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

Maximum value of SAR (measured) = 0.935 W/kg

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

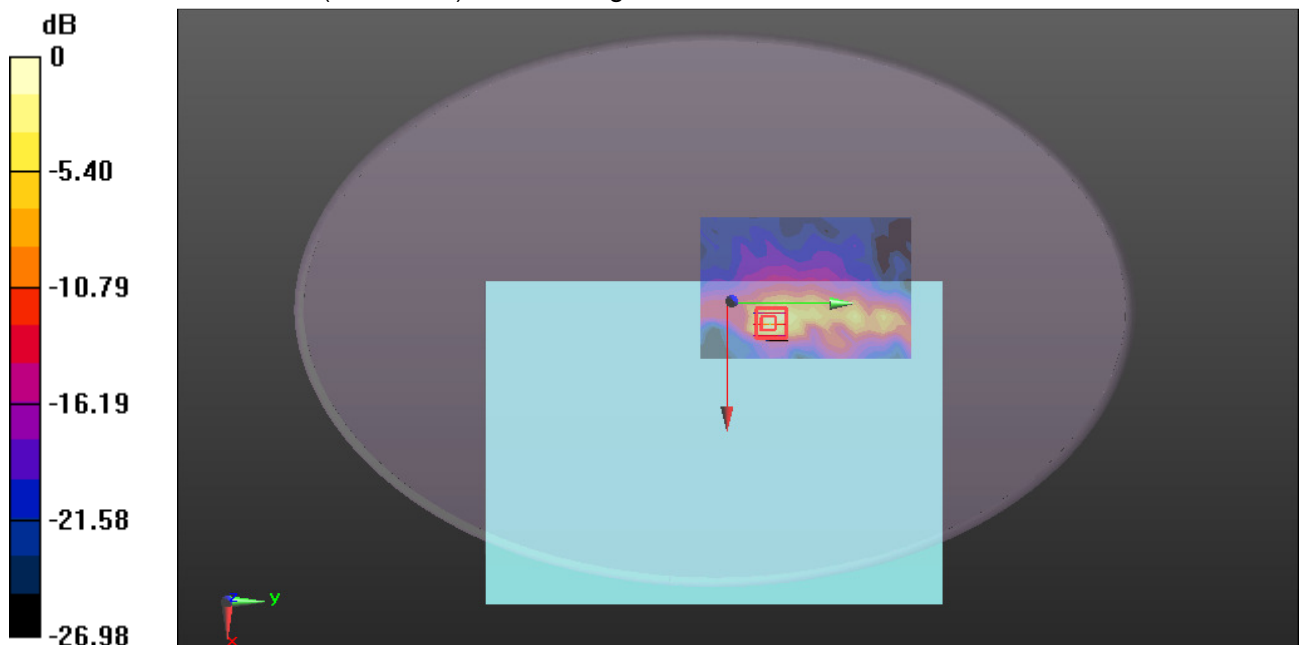
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 3.463 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 2.83 W/kg

SAR(1 g) = 0.537 W/kg; SAR(10 g) = 0.155 W/kg

Maximum value of SAR (measured) = 1.43 W/kg



0 dB = 1.43 W/kg = 1.55 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

WIFI 802.11 a-Body Bottom CH116 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; Serial: N/A

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

Frequency: 5580 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5580$ MHz; $\sigma = 5.829$ S/m; $\epsilon_r = 48.001$; $\rho = 1000$ 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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH116 Main Antenna/Area Scan (11x16x1): Measurement grid:

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

Maximum value of SAR (measured) = 1.21 W/kg

WIFI/IEEE802.11a Body Bottom CH116 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

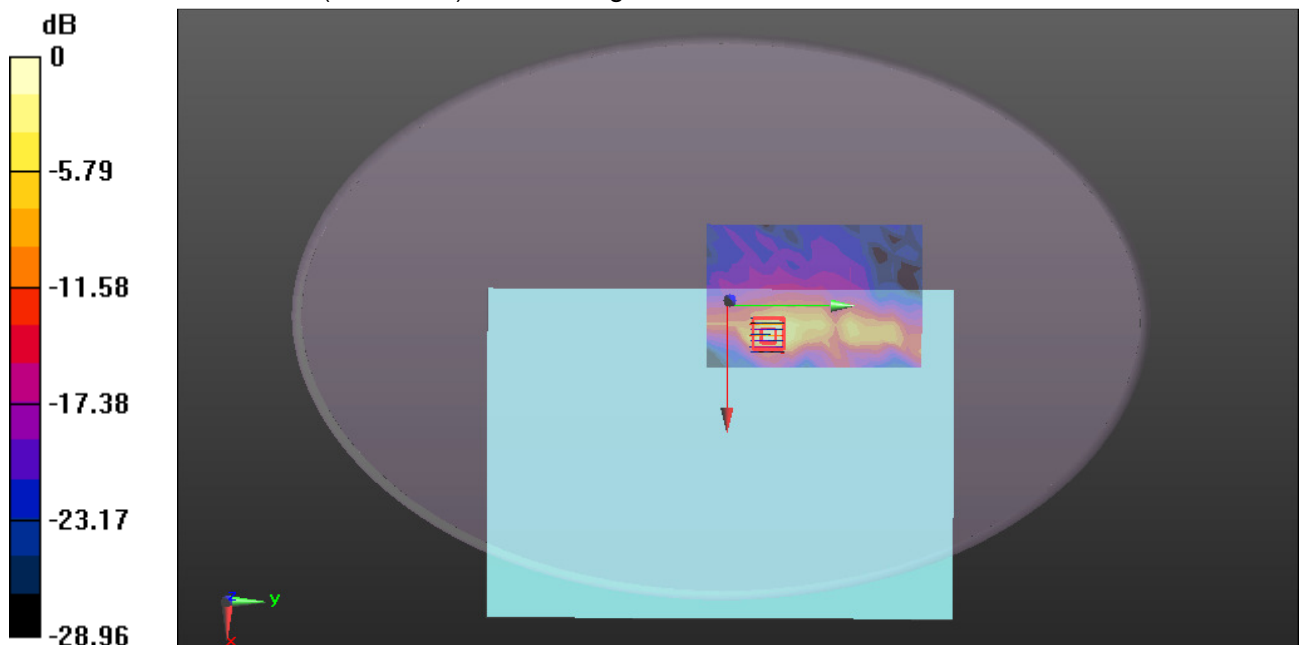
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 3.126 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 2.57 W/kg

SAR(1 g) = 0.476 W/kg; SAR(10 g) = 0.135 W/kg

Maximum value of SAR (measured) = 1.31 W/kg



0 dB = 1.31 W/kg = 1.17 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

WIFI 802.11 a-Body Bottom CH144 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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 (interpolated): $f = 5720$ MHz; $\sigma = 5.858$ S/m; $\epsilon_r = 47.809$; $\rho = 1000$ 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:xxxx
- 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=10mm, dy=10mm

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

Maximum value of SAR (measured) = 1.02 W/kg

WIFI/IEEE802.11a Body Bottom CH144 Main Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

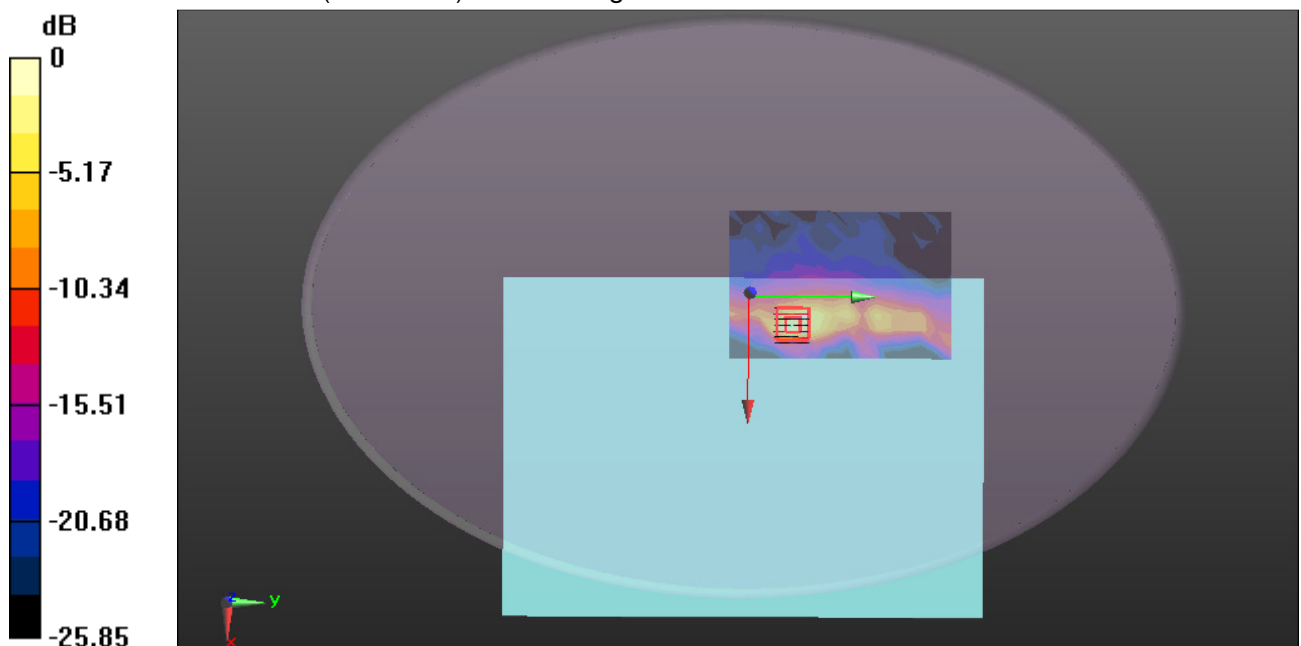
Reference Value = 3.213 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 2.25 W/kg

SAR(1 g) = 0.404 W/kg; SAR(10 g) = 0.115 W/kg

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

Maximum value of SAR (measured) = 1.13 W/kg



0 dB = 1.13 W/kg = 0.53 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

WIFI 802.11 a-Body Bottom CH149 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 5745 \text{ MHz}$; $\sigma = 5.756 \text{ S/m}$; $\epsilon_r = 47.464$; $\rho = 1000 \text{ kg/m}^3$

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(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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH149 Main Antenna/Area Scan (11x16x1): Measurement grid:

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

Maximum value of SAR (measured) = 0.746 W/kg

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

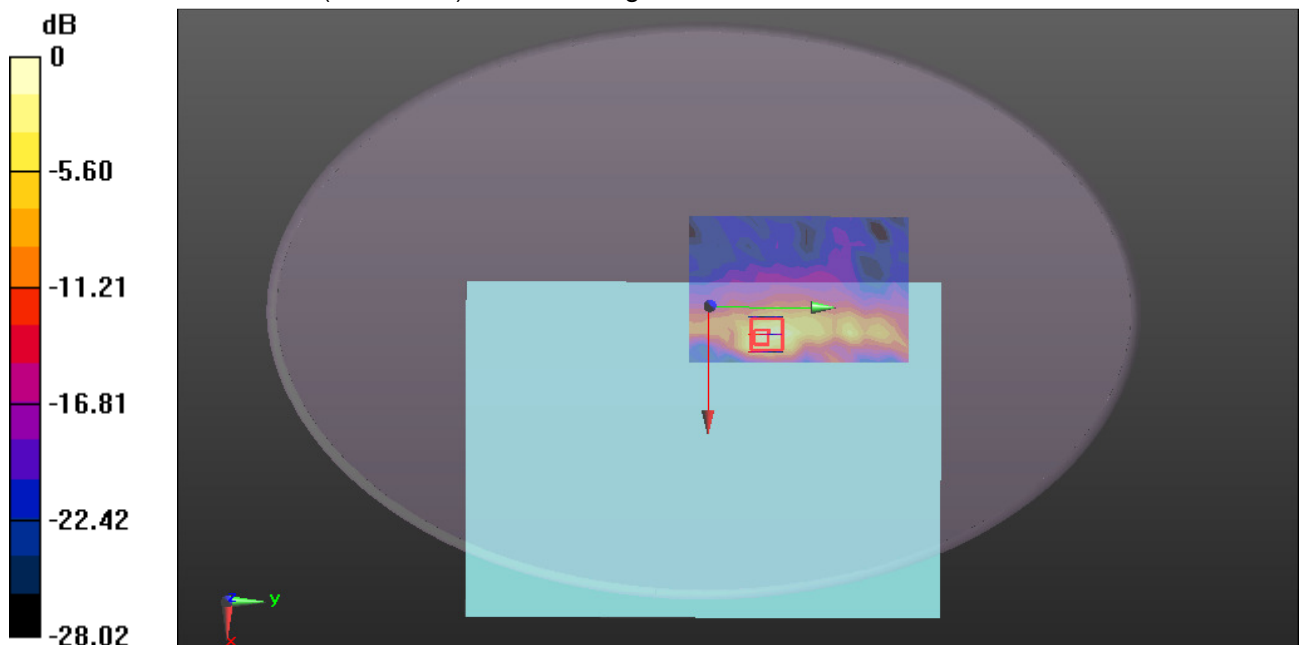
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 1.707 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.87 W/kg

SAR(1 g) = 0.331 W/kg; SAR(10 g) = 0.101 W/kg

Maximum value of SAR (measured) = 0.898 W/kg



0 dB = 0.898 W/kg = -0.47 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

WIFI 802.11 a-Body Bottom CH157 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 5785 \text{ MHz}$; $\sigma = 6.06 \text{ S/m}$; $\epsilon_r = 47.553$; $\rho = 1000 \text{ kg/m}^3$

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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH157 Main Antenna/Area Scan (11x16x1): Measurement grid:

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

Maximum value of SAR (measured) = 0.974 W/kg

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

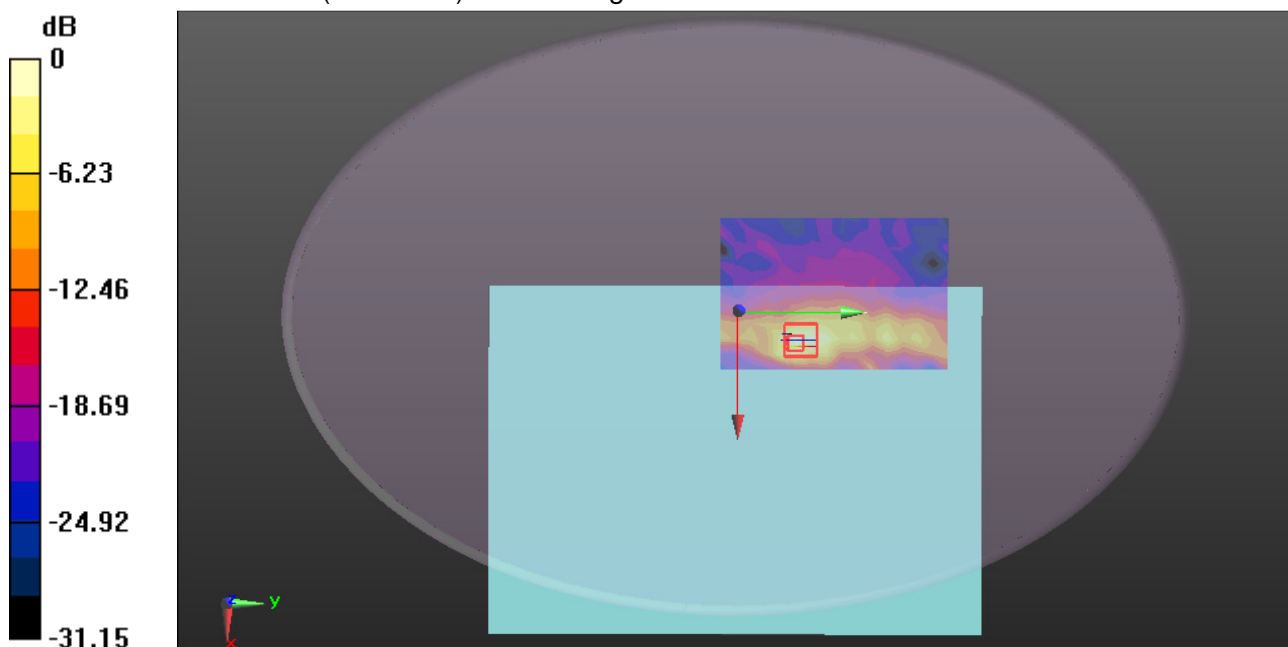
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 1.987 V/m ; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 2.49 W/kg

SAR(1 g) = 0.431 W/kg ; SAR(10 g) = 0.134 W/kg

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



0 dB = 1.16 W/kg = 0.64 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

WIFI 802.11 a-Body Bottom CH165 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 5825 \text{ MHz}$; $\sigma = 6.005 \text{ S/m}$; $\epsilon_r = 48.054$; $\rho = 1000 \text{ kg/m}^3$

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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH165 Main Antenna/Area Scan (11x16x1): Measurement grid:

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

Maximum value of SAR (measured) = 1.25 W/kg

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

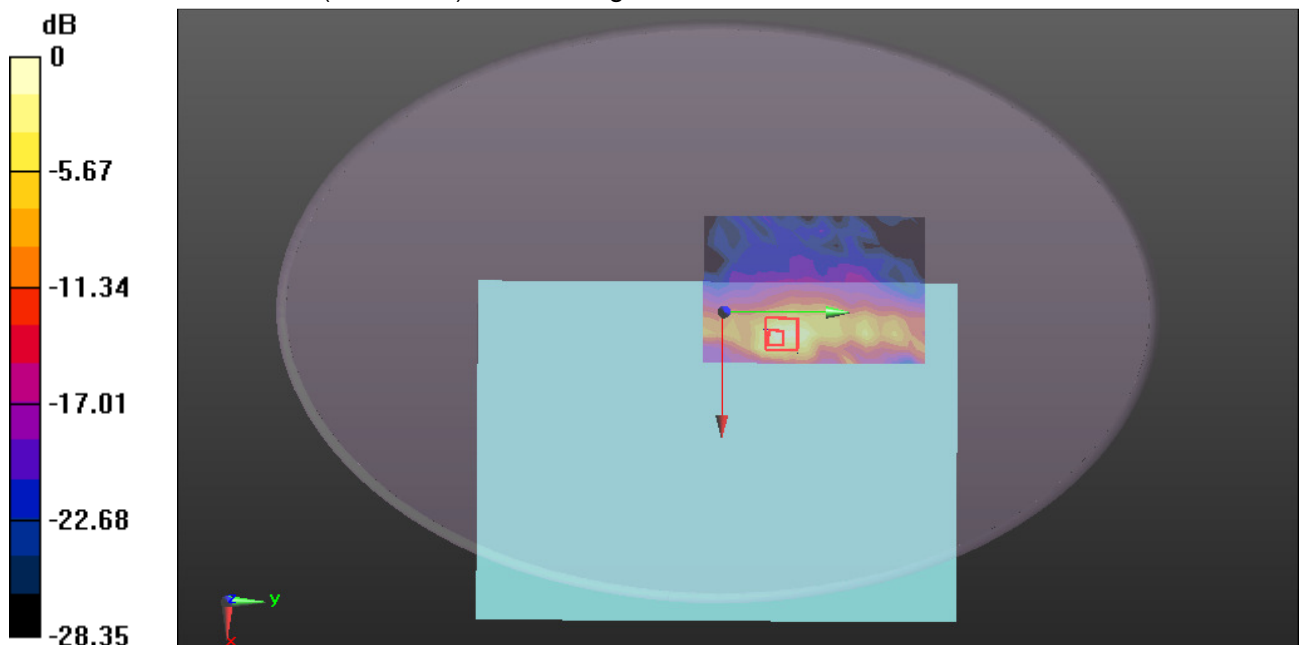
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 3.313 V/m ; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 2.98 W/kg

SAR(1 g) = 0.495 W/kg ; SAR(10 g) = 0.158 W/kg

Maximum value of SAR (measured) = 1.34 W/kg



0 dB = 1.34 W/kg = 1.27 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

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

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 5260 \text{ MHz}$; $\sigma = 5.265 \text{ S/m}$; $\epsilon_r = 48.26$; $\rho = 1000 \text{ kg/m}^3$

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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH52 Aux Antenna/Area Scan (11x15x1): Measurement grid:

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

Maximum value of SAR (measured) = 1.36 W/kg

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

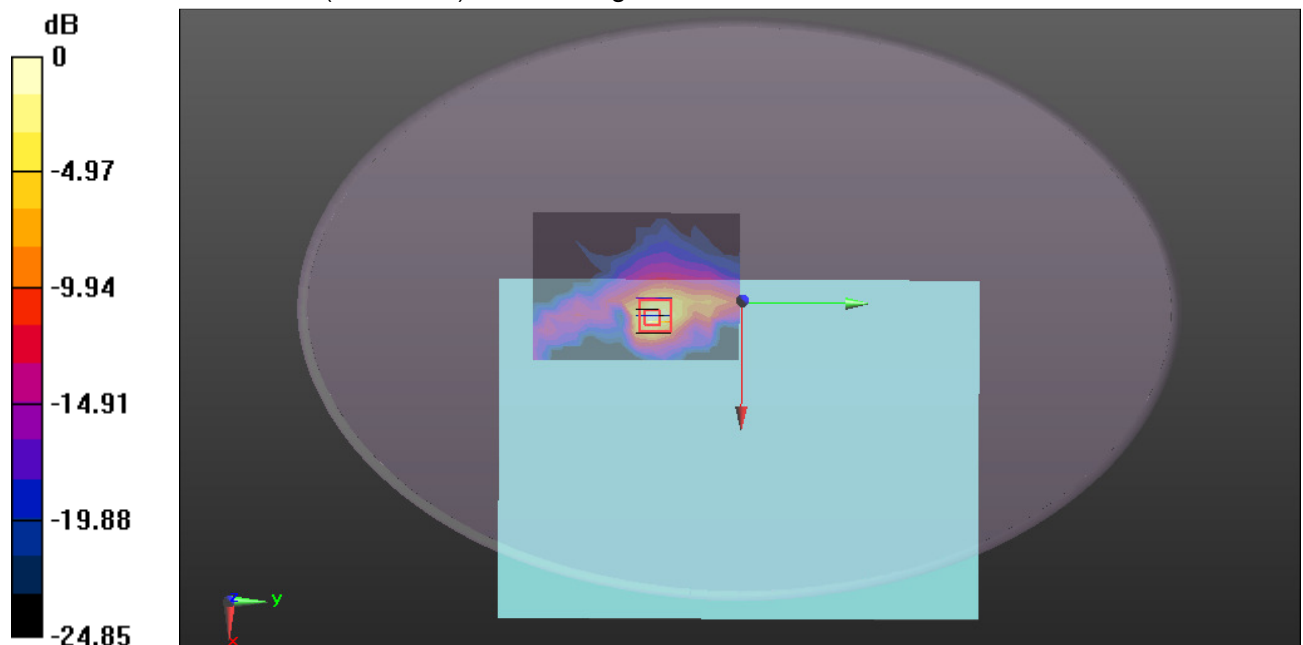
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 3.739 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 2.76 W/kg

SAR(1 g) = 0.543 W/kg; SAR(10 g) = 0.168 W/kg

Maximum value of SAR (measured) = 1.37 W/kg



0 dB = 1.37 W/kg = 1.37 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

WIFI 802.11 a-Body Bottom CH60 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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; $\sigma = 5.387$ S/m; $\epsilon_r = 48.486$; $\rho = 1000$ 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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH60 Aux Antenna/Area Scan (11x15x1): Measurement grid:

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

Maximum value of SAR (measured) = 1.31 W/kg

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

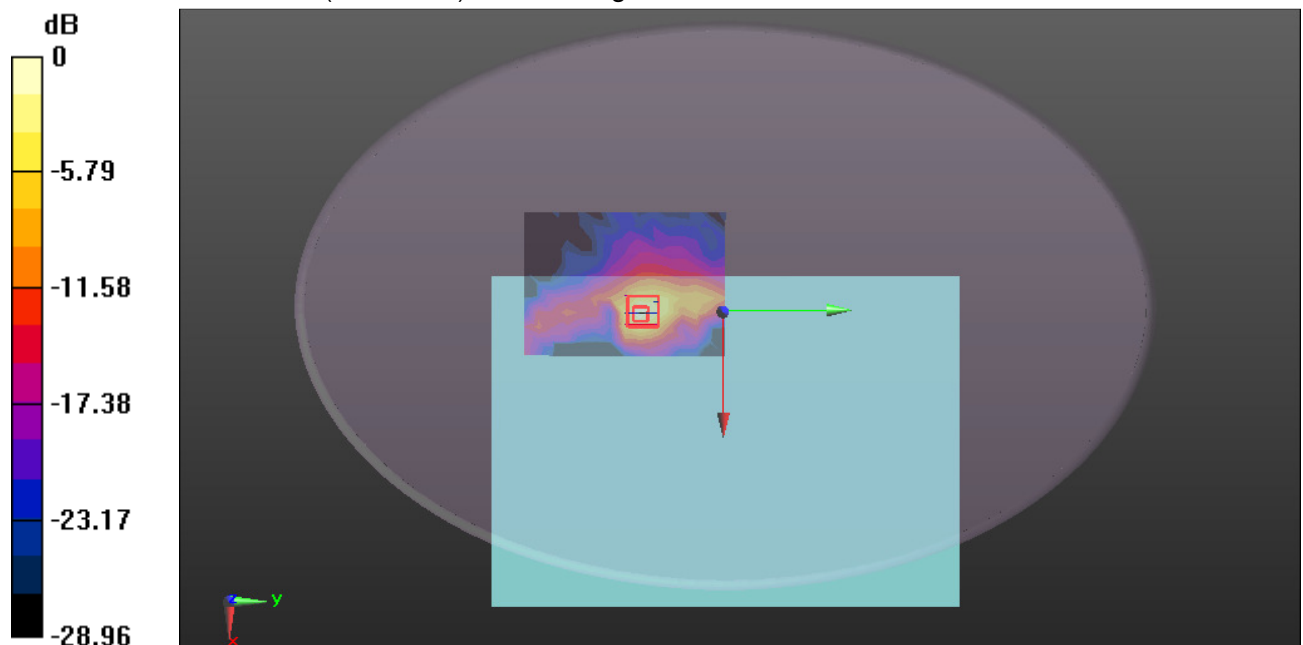
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 3.546 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 2.65 W/kg

SAR(1 g) = 0.521 W/kg; SAR(10 g) = 0.163 W/kg

Maximum value of SAR (measured) = 1.32 W/kg



0 dB = 1.32 W/kg = 1.21 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

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

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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; $\sigma = 5.401$ S/m; $\epsilon_r = 48.42$; $\rho = 1000$ 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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH64 Aux Antenna/Area Scan (11x15x1): Measurement grid:

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

Maximum value of SAR (measured) = 1.24 W/kg

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

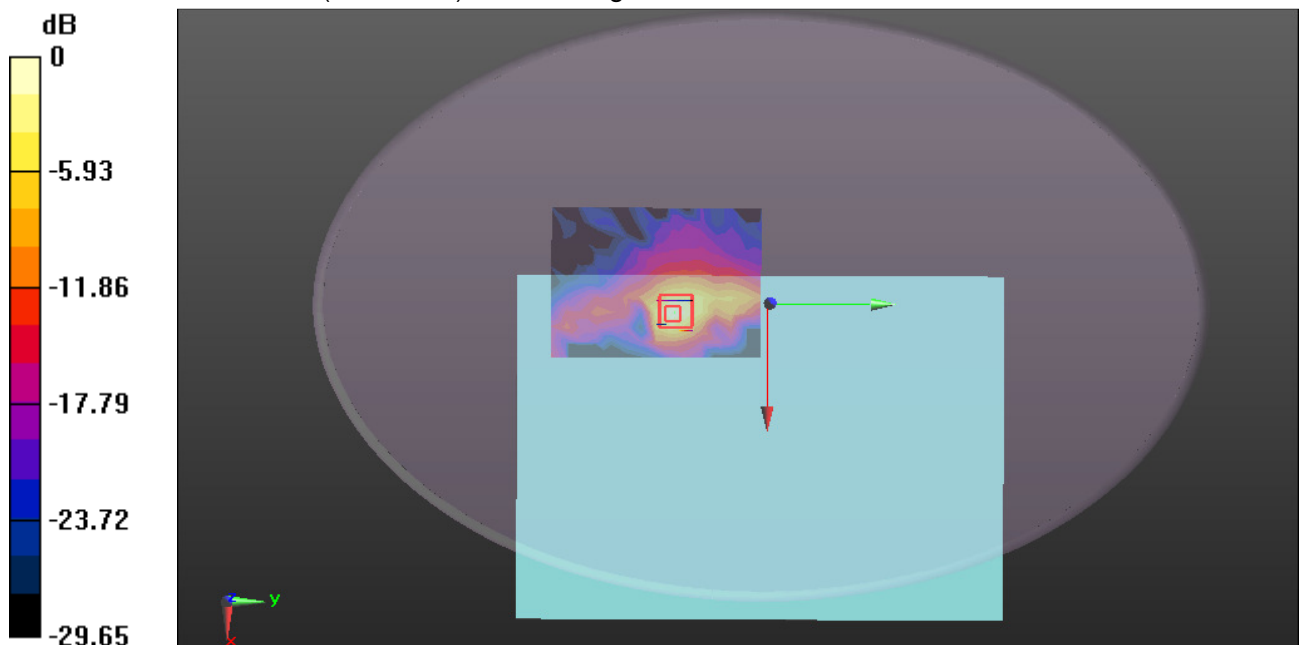
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 3.336 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 2.45 W/kg

SAR(1 g) = 0.487 W/kg; SAR(10 g) = 0.155 W/kg

Maximum value of SAR (measured) = 1.22 W/kg



0 dB = 1.22 W/kg = 0.86 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

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

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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; $\sigma = 5.501$ S/m; $\epsilon_r = 48.292$; $\rho = 1000$ 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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH100 Aux Antenna/Area Scan (11x15x1): Measurement grid:

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

Maximum value of SAR (measured) = 1.14 W/kg

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

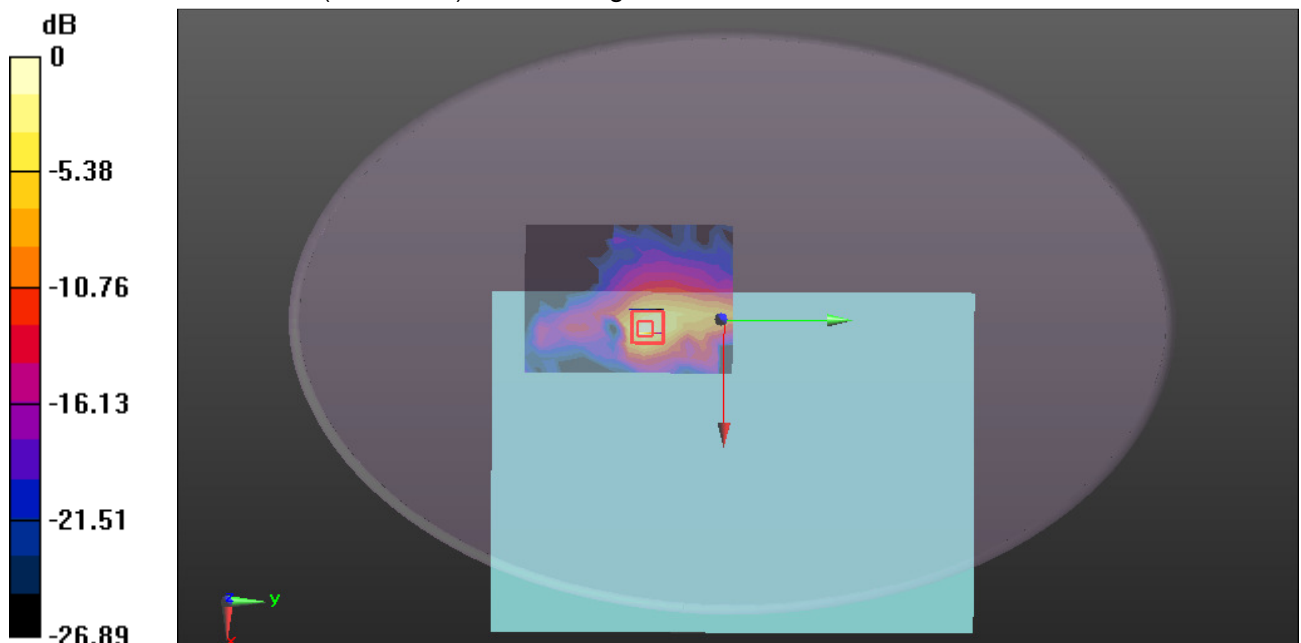
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 4.677 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.30 W/kg

SAR(1 g) = 0.453 W/kg; SAR(10 g) = 0.147 W/kg

Maximum value of SAR (measured) = 1.14 W/kg



0 dB = 1.14 W/kg = 0.57 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

WIFI 802.11 a-Body Bottom CH128 Aux Antenna South Star ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; Serial: N/A

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

Frequency: 5640 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5640$ MHz; $\sigma = 5.658$ 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: 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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH128 Aux Antenna/Area Scan (11x15x1): Measurement grid:

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

Maximum value of SAR (measured) = 0.981 W/kg

WIFI/IEEE802.11a Body Bottom CH128 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement

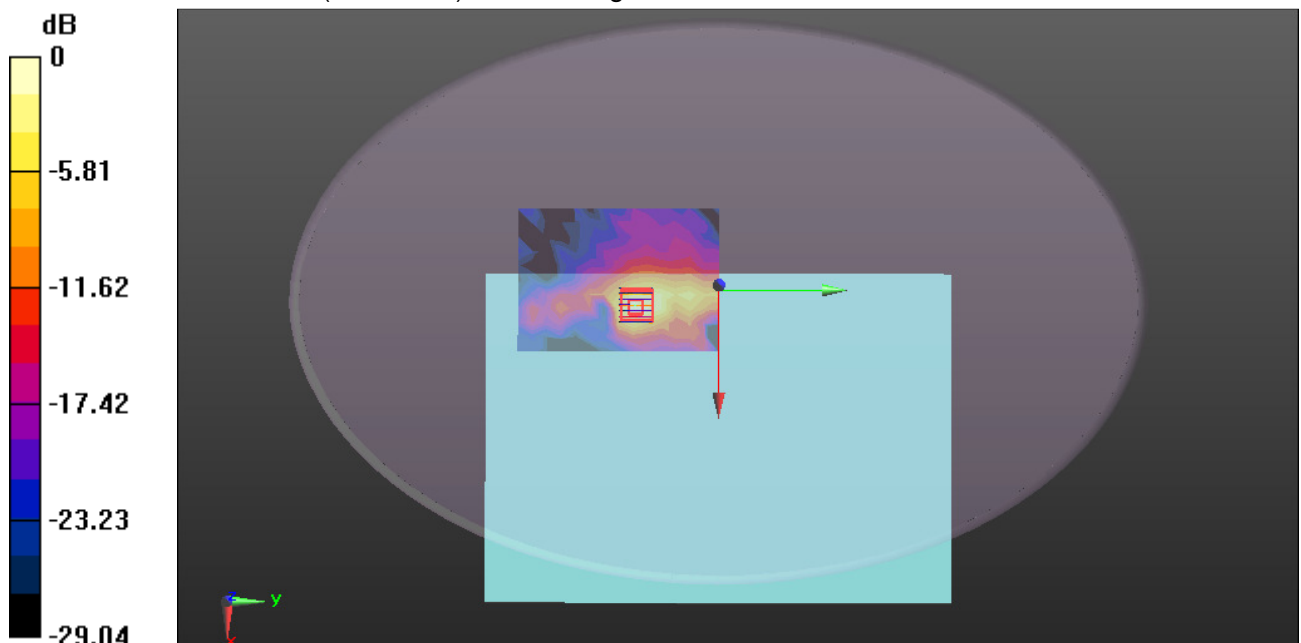
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 4.770 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 2.07 W/kg

SAR(1 g) = 0.396 W/kg; SAR(10 g) = 0.134 W/kg

Maximum value of SAR (measured) = 1.02 W/kg



0 dB = 1.02 W/kg = 0.09 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

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

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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 (interpolated): $f = 5720$ MHz; $\sigma = 5.858$ S/m; $\epsilon_r = 47.809$; $\rho = 1000$ 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(4.45, 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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH144 Aux Antenna/Area Scan (11x15x1): Measurement grid:
dx=10mm, dy=10mm

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

Maximum value of SAR (measured) = 0.851 W/kg

WIFI/IEEE802.11a Body Bottom CH144 Aux Antenna/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

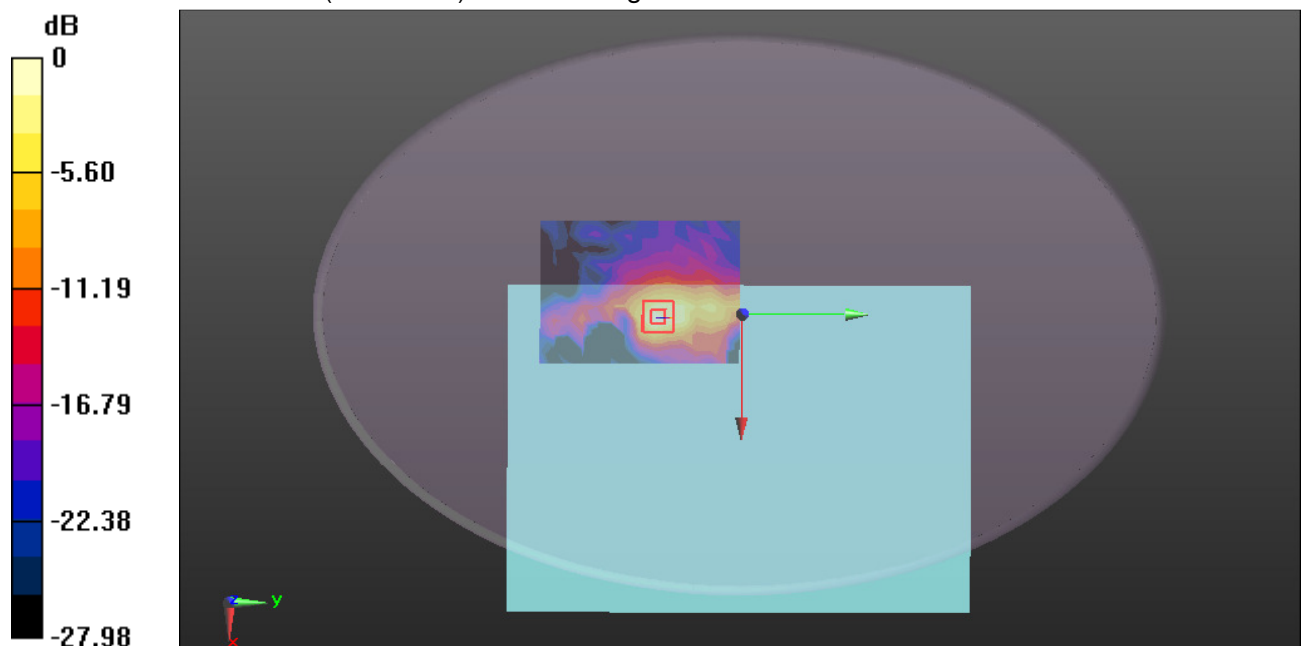
Reference Value = 4.533 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.83 W/kg

SAR(1 g) = 0.348 W/kg; SAR(10 g) = 0.117 W/kg

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

Maximum value of SAR (measured) = 0.891 W/kg



0 dB = 0.891 W/kg = -0.50 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

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

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 5745 \text{ MHz}$; $\sigma = 5.756 \text{ S/m}$; $\epsilon_r = 47.464$; $\rho = 1000 \text{ kg/m}^3$

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(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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH149 Aux Antenna/Area Scan (11x15x1): Measurement grid:

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

Maximum value of SAR (measured) = 0.791 W/kg

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

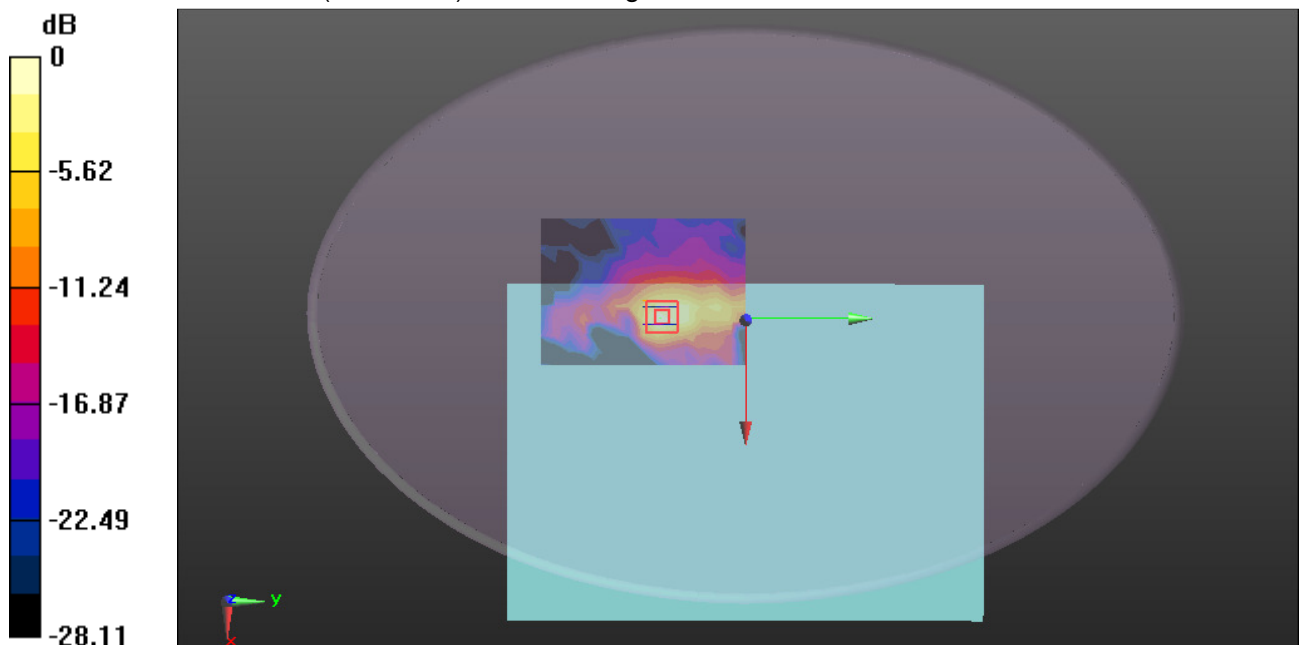
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 4.195 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.81 W/kg

SAR(1 g) = 0.333 W/kg; SAR(10 g) = 0.111 W/kg

Maximum value of SAR (measured) = 0.865 W/kg



0 dB = 0.865 W/kg = -0.63 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

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

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 5785 \text{ MHz}$; $\sigma = 6.06 \text{ S/m}$; $\epsilon_r = 47.553$; $\rho = 1000 \text{ kg/m}^3$

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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH157 Aux Antenna/Area Scan (11x15x1): Measurement grid:

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

Maximum value of SAR (measured) = 0.840 W/kg

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

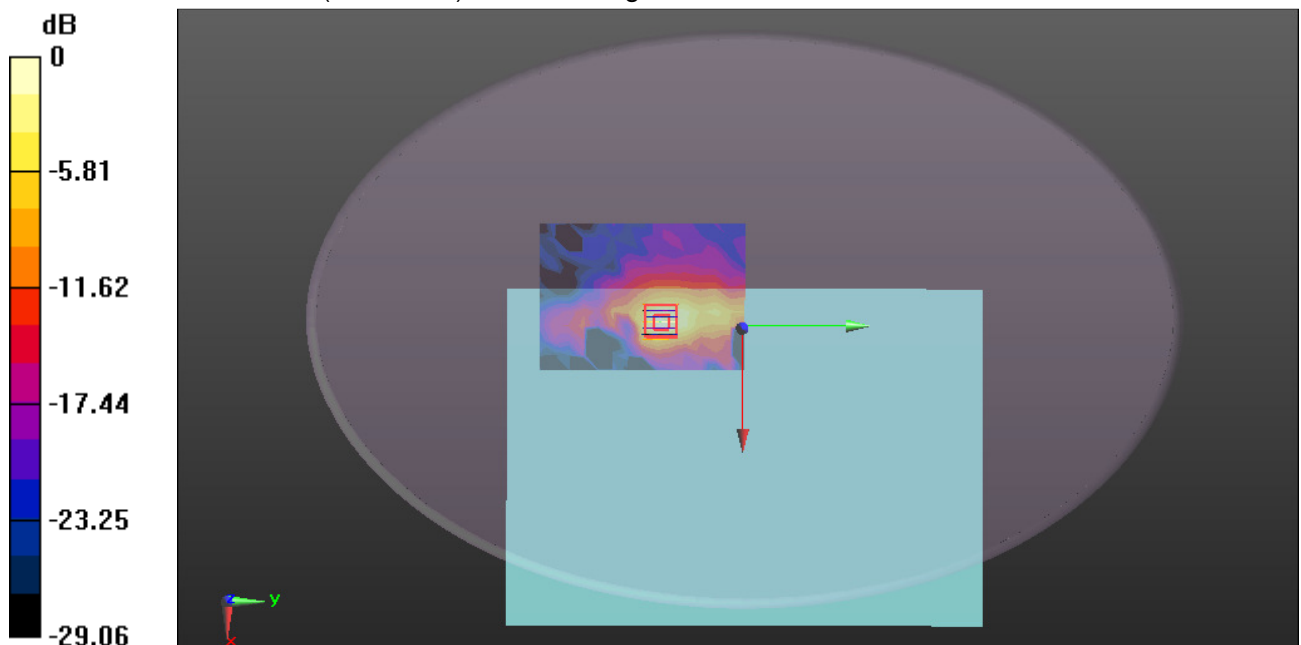
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 3.898 V/m ; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.97 W/kg

SAR(1 g) = 0.365 W/kg ; SAR(10 g) = 0.122 W/kg

Maximum value of SAR (measured) = 0.946 W/kg



0 dB = 0.946 W/kg = -0.24 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

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

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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: $f = 5825 \text{ MHz}$; $\sigma = 6.005 \text{ S/m}$; $\epsilon_r = 48.054$; $\rho = 1000 \text{ kg/m}^3$

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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH165 Aux Antenna/Area Scan (11x15x1): Measurement grid:

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

Maximum value of SAR (measured) = 0.835 W/kg

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

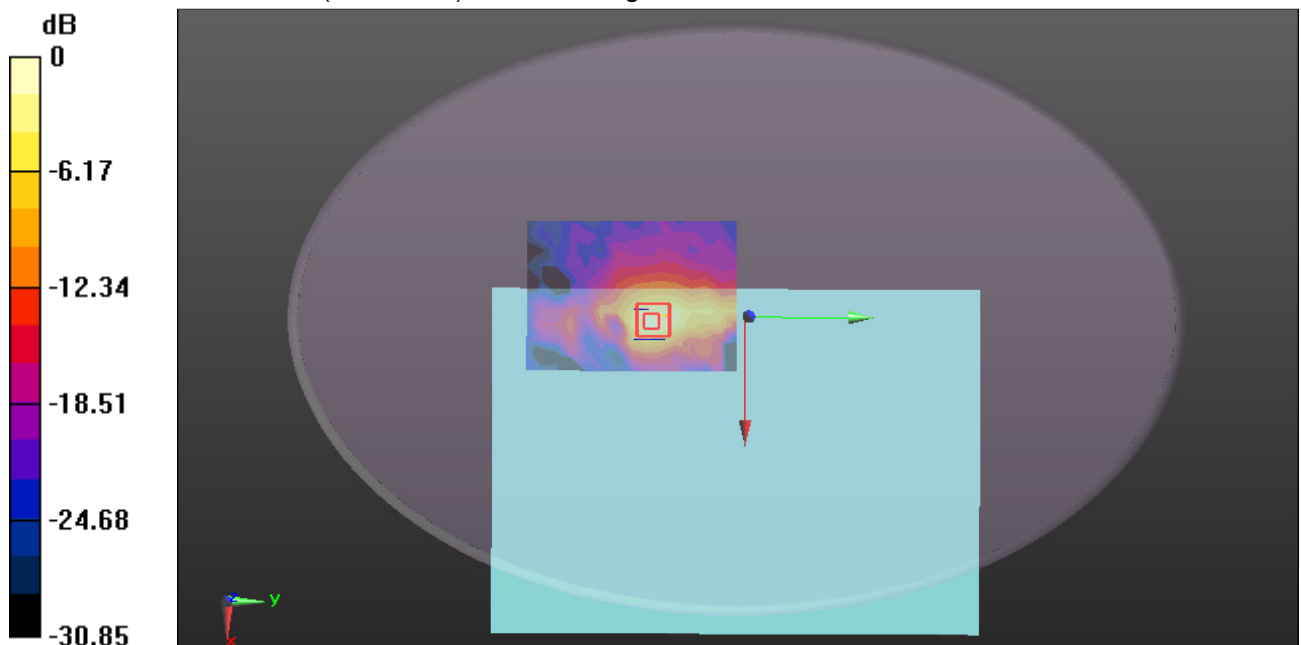
grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 3.712 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 2.02 W/kg

SAR(1 g) = 0.367 W/kg; SAR(10 g) = 0.124 W/kg

Maximum value of SAR (measured) = 0.966 W/kg



0 dB = 0.966 W/kg = -0.15 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

WIFI 802.11 a-Body Bottom CH100 Main Antenna INPAQ ANT

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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; $\sigma = 5.501$ S/m; $\epsilon_r = 48.292$; $\rho = 1000$ 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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

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

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

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

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

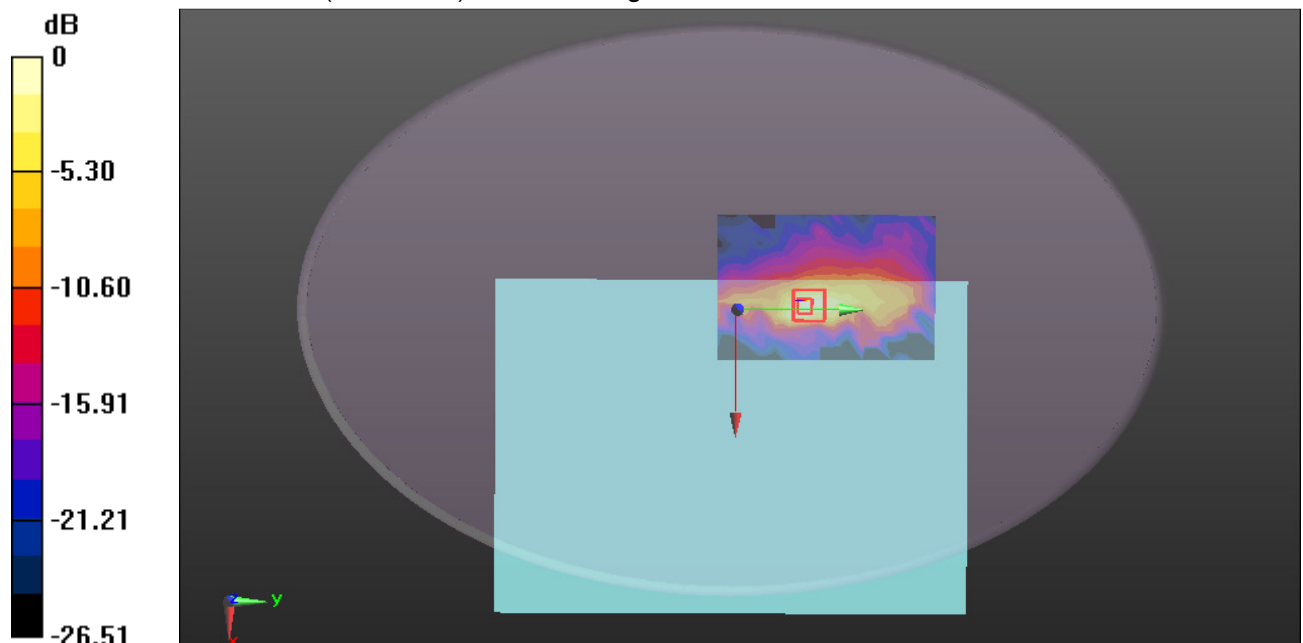
grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 2.397 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.37 W/kg

SAR(1 g) = 0.275 W/kg; SAR(10 g) = 0.093 W/kg

Maximum value of SAR (measured) = 0.681 W/kg



0 dB = 0.681 W/kg = -1.67 dBW/kg

Test Laboratory: Compliance Certification Services Inc.

Date: 1/26/2018

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

DUT: Notebook Computer; Type: Lenovo ideapad 330S-14IKB; 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; $\sigma = 5.265$ S/m; $\epsilon_r = 48.26$; $\rho = 1000$ 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:xxxx
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

WIFI/IEEE802.11a Body Bottom CH52 Aux Antenna 47/Area Scan (11x15x1): Measurement grid:

dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.914 W/kg

WIFI/IEEE802.11a Body Bottom CH52 Aux Antenna 47/Zoom Scan (7x7x7)/Cube 0:

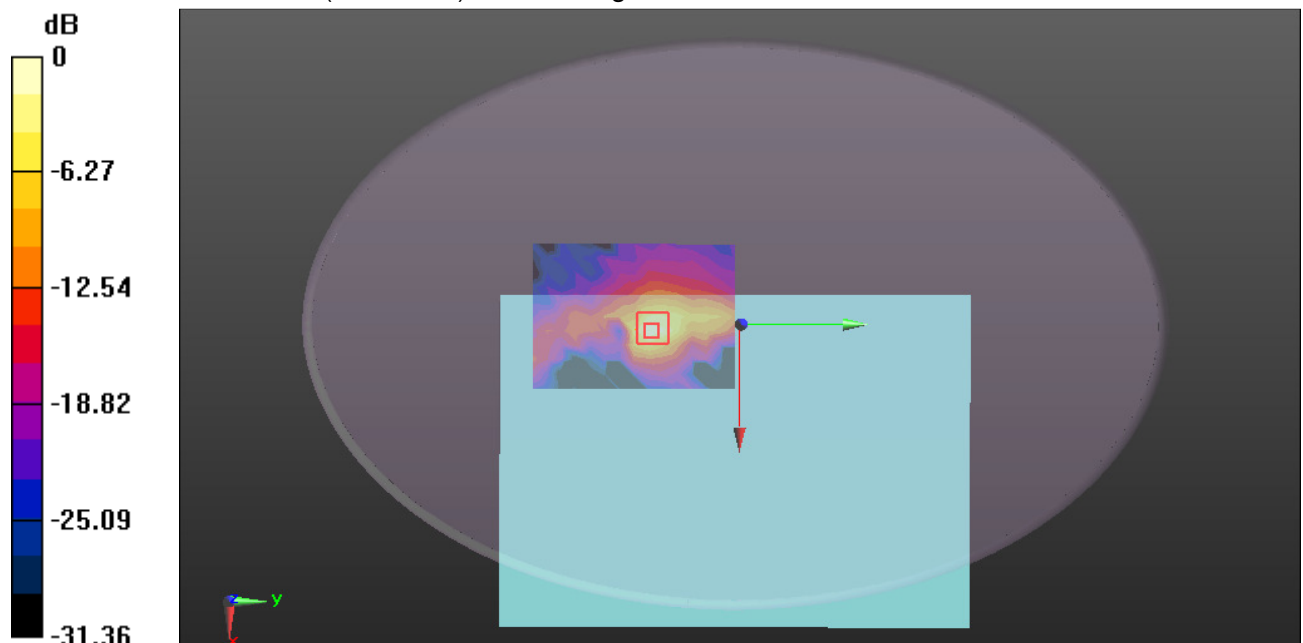
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 2.101 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 2.05 W/kg

SAR(1 g) = 0.411 W/kg; SAR(10 g) = 0.121 W/kg

Maximum value of SAR (measured) = 1.10 W/kg



0 dB = 1.10 W/kg = 0.41 dBW/kg