

Appendix B. MEASUREMENT SCANS

Date: 2018.03.26.

GSM850 Body Front Side Mid

Medium: MSL900

Communication System: GPRS 2 Tx slots; Communication System Band: GSM 850 (824.0 - 849.0 MHz); Frequency: 836.6 MHz; Duty Cycle: 1:4.1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 55.828$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(9.53, 9.53, 9.53); Calibrated: 2017.07.21.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

GSM 850_Front/Mid/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 8.303 V/m; Power Drift = -0.13 dB

Fast SAR: SAR(1 g) = 0.150 mW/g; SAR(10 g) = 0.105 mW/g

Maximum value of SAR (interpolated) = 0.159 W/kg

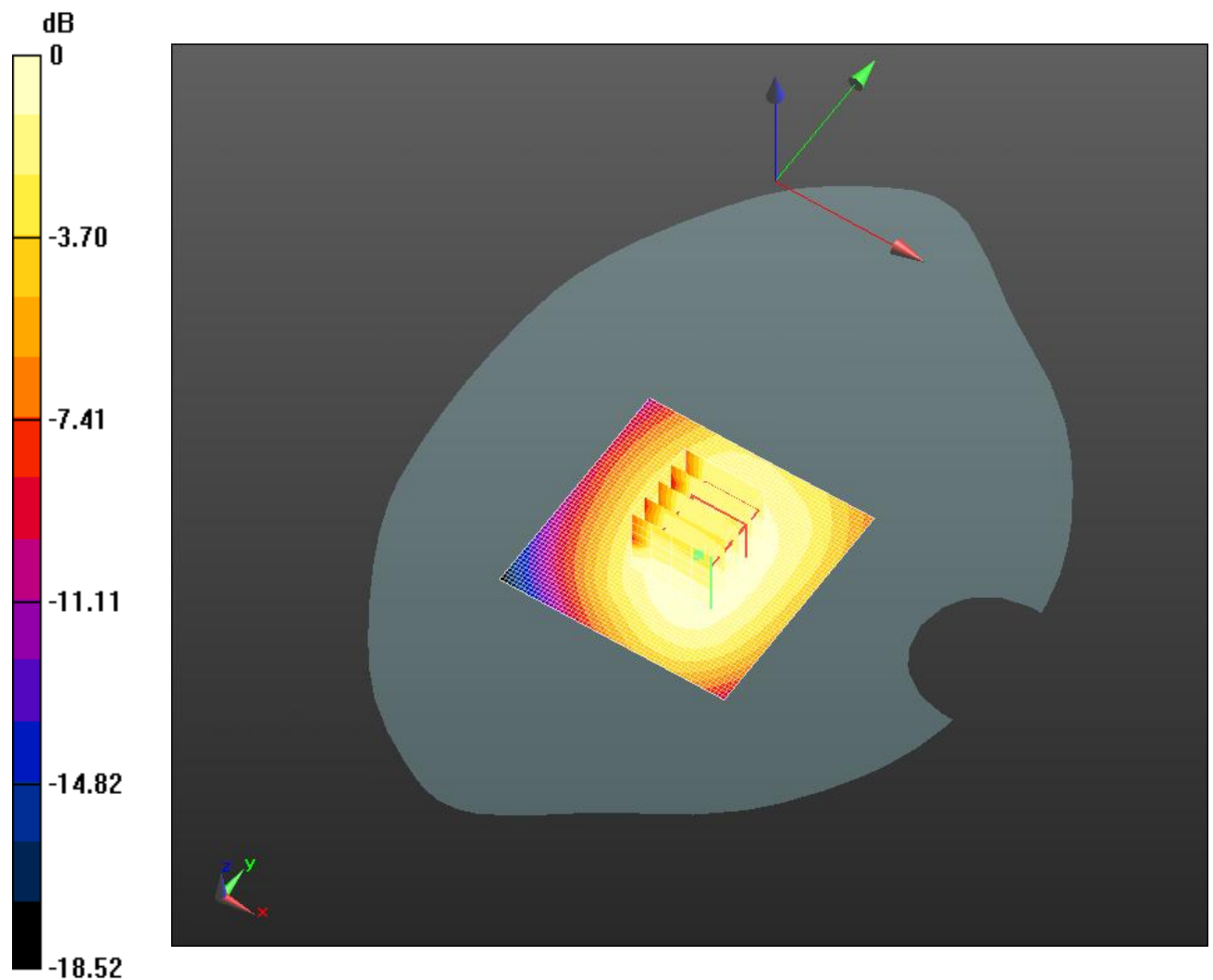
GSM 850_Front/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.303 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.358 mW/g

SAR(1 g) = 0.199 mW/g; SAR(10 g) = 0.129 mW/g

Maximum value of SAR (measured) = 0.155 W/kg



0 dB = 0.159 W/kg = -15.97 dB W/kg

Date: 2018.03.26.

GSM1900 Body Front Side Mid

Medium: MSL1900

Communication System: GPRS 2 Tx slots; Communication System Band: PCS 1900 (1850.0 - 1910.0 MHz); Frequency: 1880 MHz; Duty Cycle: 1:4.1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.537$ mho/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(7.85, 7.85, 7.85); Calibrated: 2017.07.21.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

1900_GPRS/GPRS1900 Faceup-Mid/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 10.873 V/m; Power Drift = -0.13 dB

Fast SAR: SAR(1 g) = 0.509 mW/g; SAR(10 g) = 0.291 mW/g

Maximum value of SAR (interpolated) = 0.578 W/kg

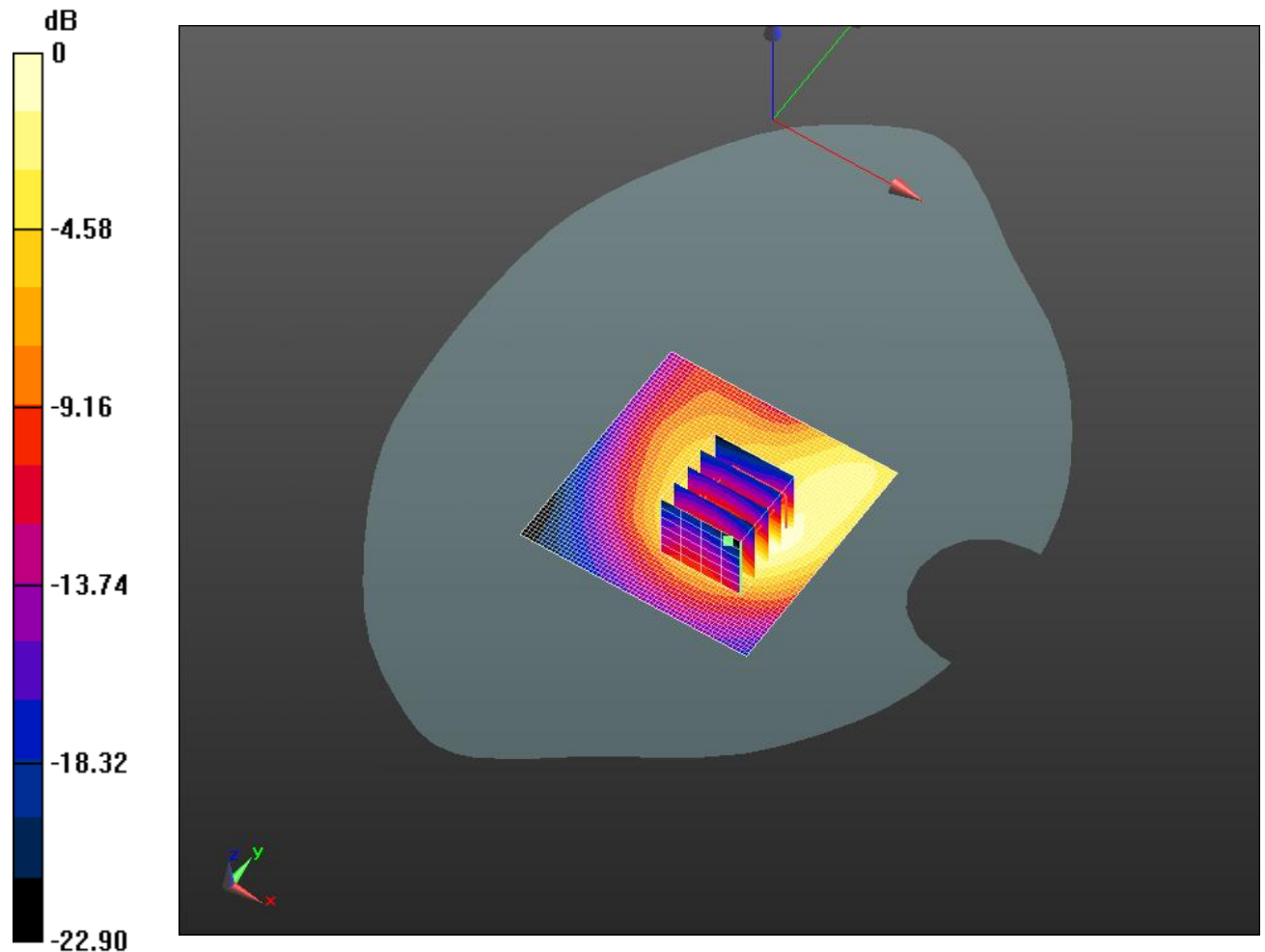
1900_GPRS/GPRS1900 Faceup-Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.873 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.997 mW/g

SAR(1 g) = 0.584 mW/g; SAR(10 g) = 0.315 mW/g

Maximum value of SAR (measured) = 0.655 W/kg



0 dB = 0.578 W/kg = -4.76 dB W/kg

Date: 2018.03.26.

WCDMA Band II Body Front Side Mid

Medium: MSL1900

Communication System: UMTS-FDD; Communication System Band: Band 2, UTRA/FDD (1850.0 - 1910.0 MHz); Frequency: 1880 MHz; Duty Cycle: 1:1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.537$ mho/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(7.85, 7.85, 7.85); Calibrated: 2017.07.21.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

UMTS Band 2_body Faceup/Mid/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 11.859 V/m; Power Drift = 0.08 dB

Fast SAR: SAR(1 g) = 0.612 mW/g; SAR(10 g) = 0.355 mW/g

Maximum value of SAR (interpolated) = 0.661 W/kg

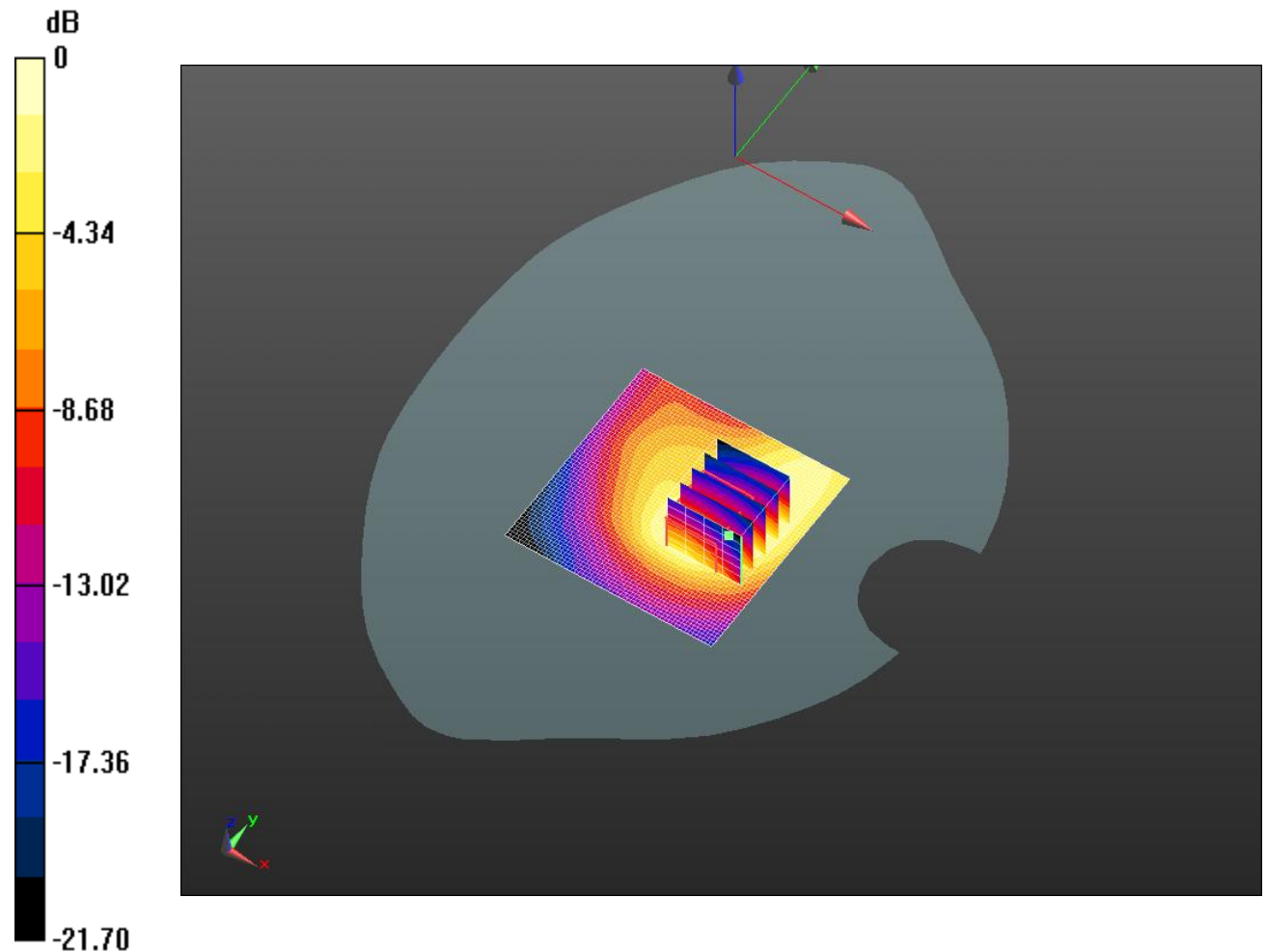
UMTS Band 2_body Faceup/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.859 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.218 mW/g

SAR(1 g) = 0.718 mW/g; SAR(10 g) = 0.384 mW/g

Maximum value of SAR (measured) = 0.786 W/kg



0 dB = 0.661 W/kg = -3.60 dB W/kg

Date: 2018.03.28.

WCDMA Band IV Body Front Mid

Medium: MSL1750

Communication System: UMTS-FDD; Communication System Band: Band4; Frequency: 1740 MHz; Duty Cycle: 1:1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used (interpolated): $f = 1740$ MHz; $\sigma = 1.512$ mho/m; $\epsilon_r = 54.596$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(7.99, 7.99, 7.99); Calibrated: 2017.07.21.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

UMTS Band 4_body Faceup/Mid/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 17.464 V/m; Power Drift = -0.07 dB

Fast SAR: SAR(1 g) = 0.722 mW/g; SAR(10 g) = 0.430 mW/g

Maximum value of SAR (interpolated) = 0.805 W/kg

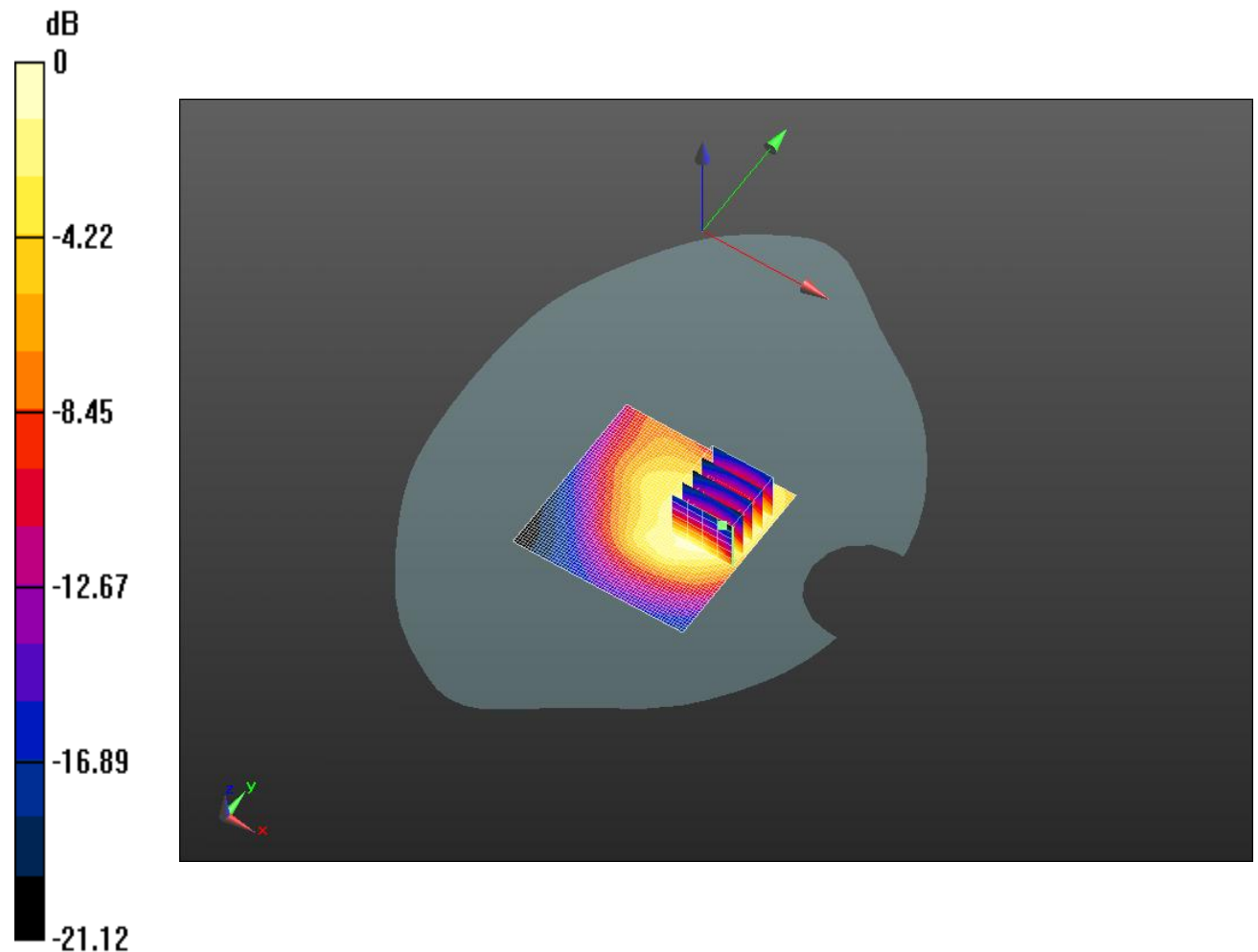
UMTS Band 4_body Faceup/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.464 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.152 mW/g

SAR(1 g) = 0.708 mW/g; SAR(10 g) = 0.424 mW/g

Maximum value of SAR (measured) = 0.771 W/kg



0 dB = 0.805 W/kg = -1.89 dB W/kg

Date: 2018.03.26.

WCDMA Band V Body Front Mid

Medium: MSL900

Communication System: UMTS-FDD; Communication System Band: Band 5, UTRA/FDD (824.0 - 849.0 MHz); Frequency: 836.4 MHz; Duty Cycle: 1:1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.968$ mho/m; $\epsilon_r = 55.77$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(9.53, 9.53, 9.53); Calibrated: 2017.07.21.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

UMTS Band 5_body Front/Mid/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 12.429 V/m; Power Drift = 0.05 dB

Fast SAR: SAR(1 g) = 0.154 mW/g; SAR(10 g) = 0.109 mW/g

Maximum value of SAR (interpolated) = 0.163 W/kg

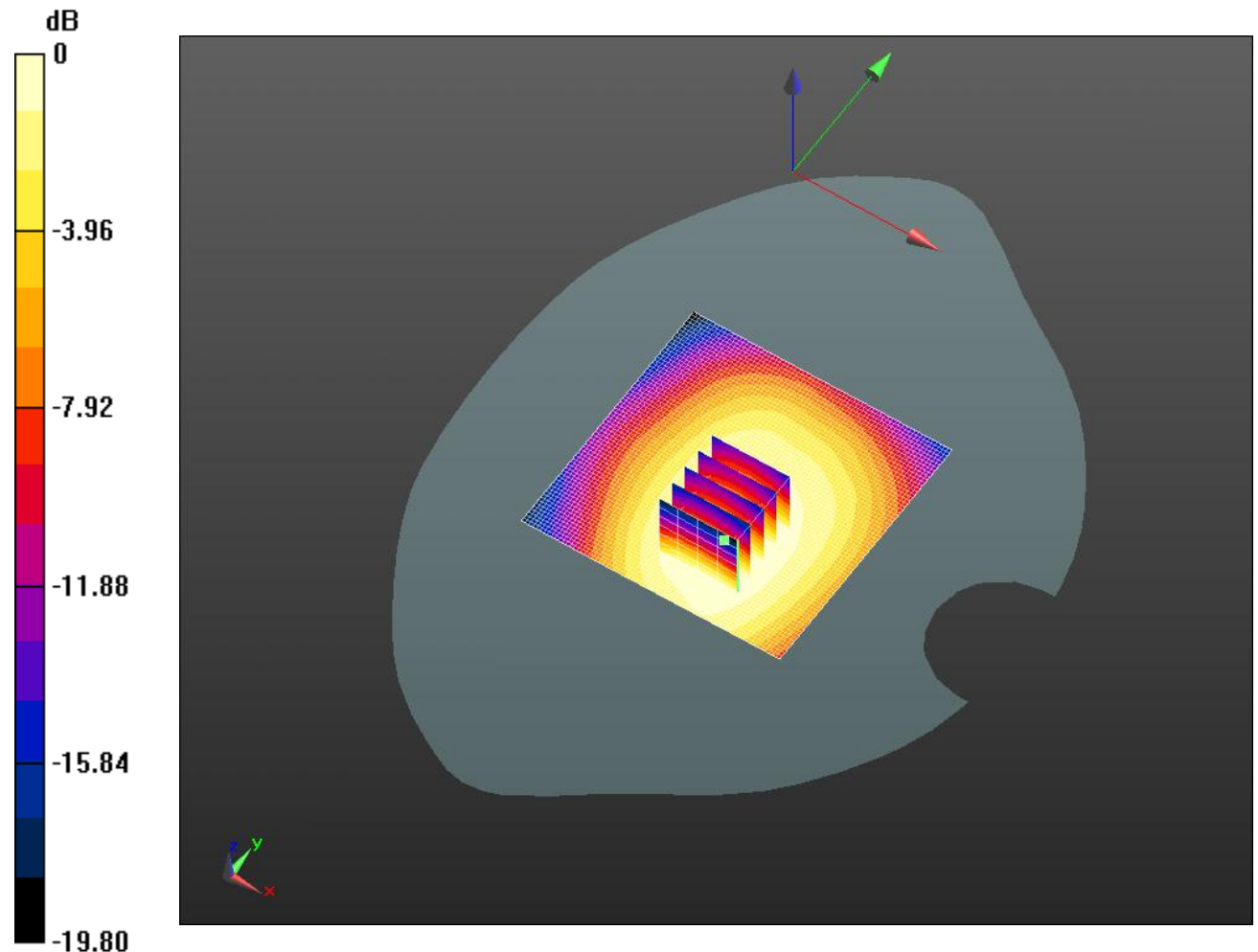
UMTS Band 5_body Front/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.429 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.189 mW/g

SAR(1 g) = 0.155 mW/g; SAR(10 g) = 0.120 mW/g

Maximum value of SAR (measured) = 0.162 W/kg



0 dB = 0.163 W/kg = -15.76 dB W/kg

Date: 2018.03.26.

LTE Band 2 Body Front Side Mid

Medium: MSL1900

Communication System: LTE-FDD(CE); Communication System Band: Band2; Frequency: 1880 MHz; Duty Cycle: 1:1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.537$ mho/m; $\epsilon_r = 51.14$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(7.85, 7.85, 7.85); Calibrated: 2017.07.21.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

Body/Faceup Mid/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 10.217 V/m; Power Drift = -0.04 dB

Fast SAR: SAR(1 g) = 0.551 mW/g; SAR(10 g) = 0.282 mW/g

Maximum value of SAR (interpolated) = 0.676 W/kg

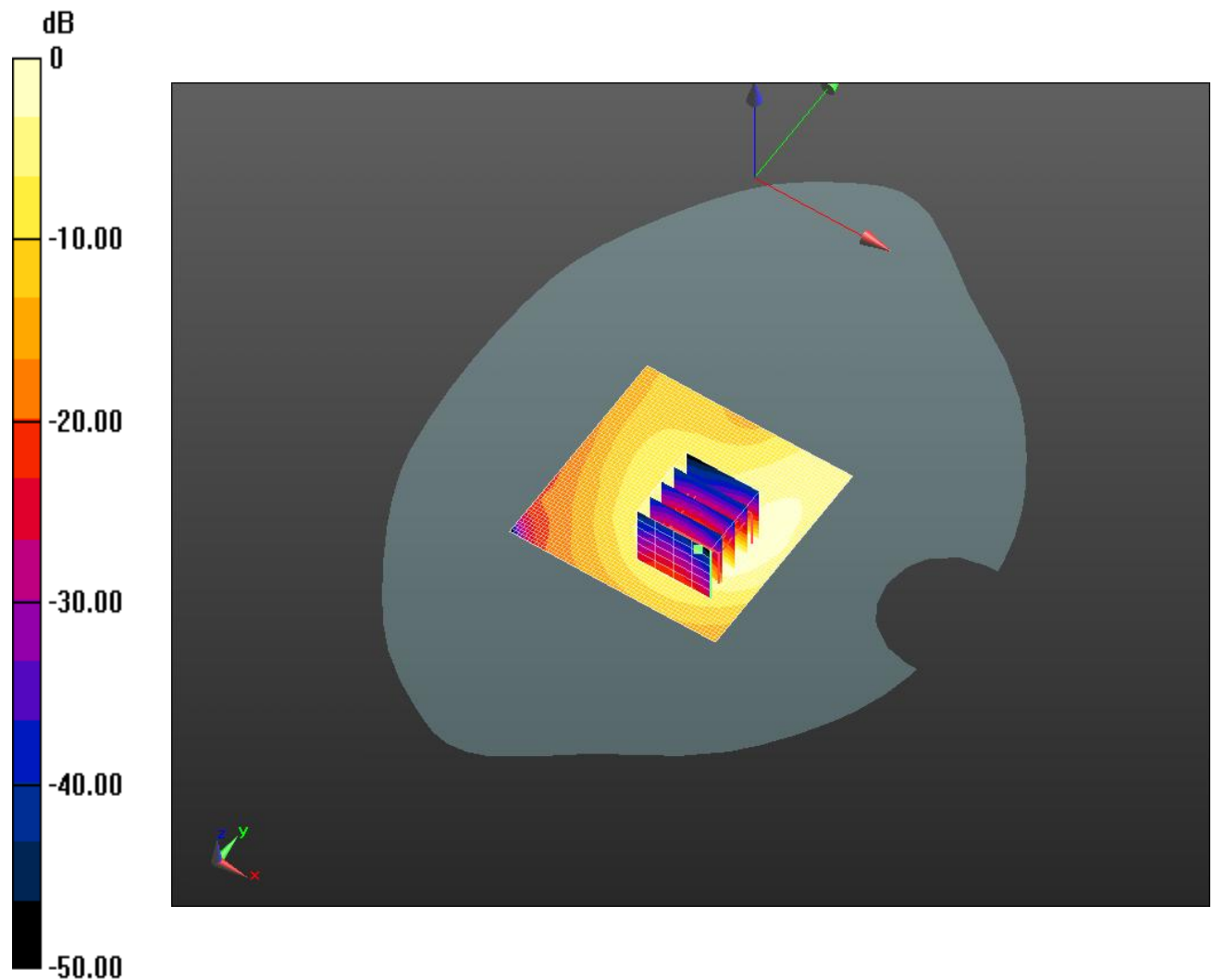
Body/Faceup Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.217 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.042 mW/g

SAR(1 g) = 0.607 mW/g; SAR(10 g) = 0.325 mW/g

Maximum value of SAR (measured) = 0.690 W/kg



0 dB = 0.676 W/kg = -3.40 dB W/kg

Date: 2018.04.08.

LTE Band 4 Body Front Side Mid

Medium: MSL1750

Communication System: LTE-FDD(CE); Communication System Band: Band4; Frequency: 1720 MHz; Duty Cycle: 1:1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used (interpolated): $f = 1720$ MHz; $\sigma = 1.522$ mho/m; $\epsilon_r = 55.319$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(7.99, 7.99, 7.99); Calibrated: 2017.07.21.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

Body/Faceup Mid /Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 15.136 V/m; Power Drift = -0.02 dB

Fast SAR: SAR(1 g) = 0.670 mW/g; SAR(10 g) = 0.394 mW/g

Maximum value of SAR (interpolated) = 0.698 W/kg

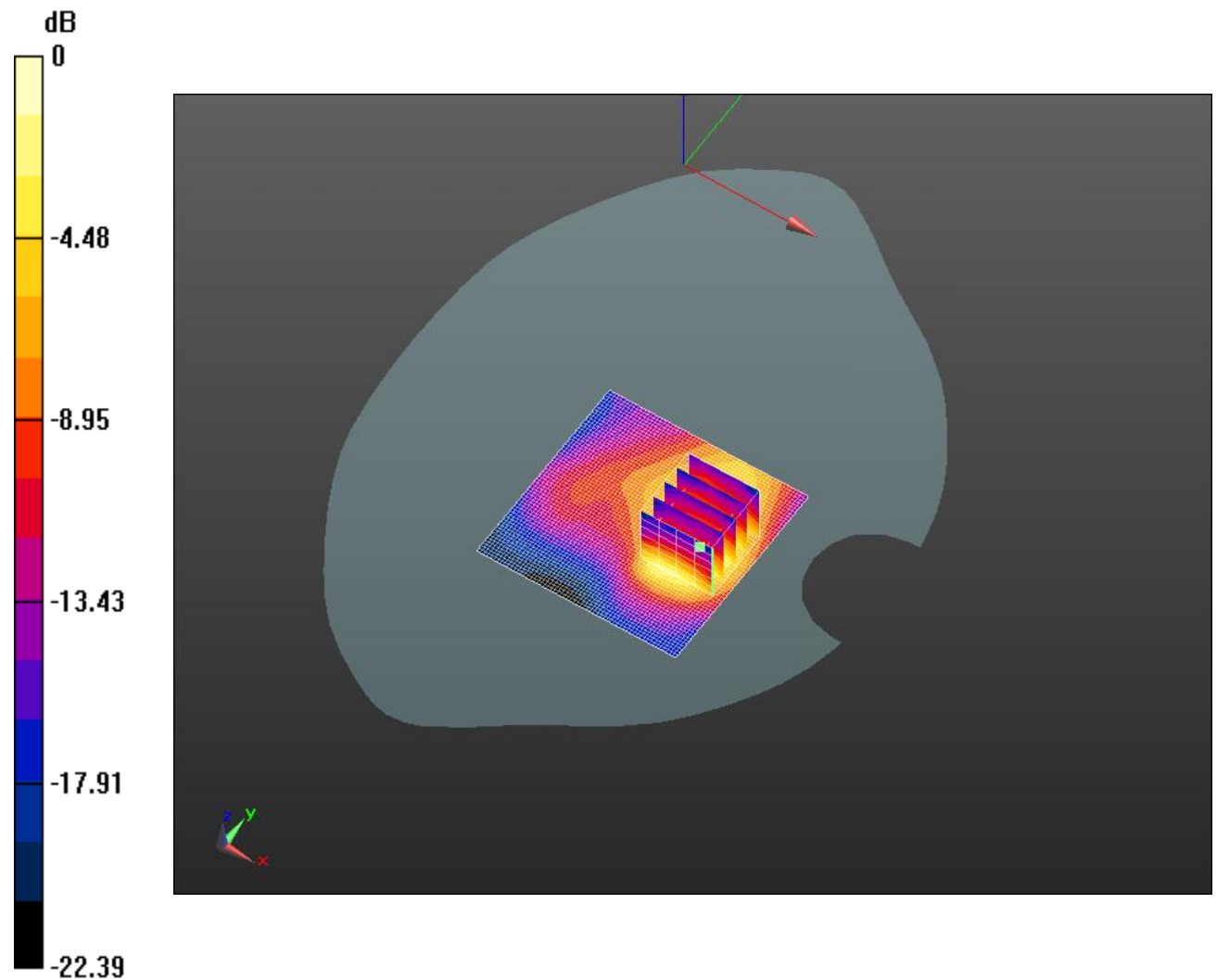
Body/Faceup Mid /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.136 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.183 mW/g

SAR(1 g) = 0.625 mW/g; SAR(10 g) = 0.371 mW/g

Maximum value of SAR (measured) = 0.652 W/kg



0 dB = 0.698 W/kg = -3.12 dB W/kg

Date: 2018.04.08.

LTE Band 5 Body Front Side Mid

Medium: MSL900

Communication System: LTE-FDD(CE); Communication System Band: Band5; Frequency: 829.0 MHz; Duty Cycle: 1:1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used (interpolated): $f = 829.0$ MHz; $\sigma = 0.965$ mho/m; $\epsilon_r = 55.049$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(9.53, 9.53, 9.53); Calibrated: 2017.07.21.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

Body/Faceup Mid/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 11.555 V/m; Power Drift = 0.02 dB

Fast SAR: SAR(1 g) = 0.161 mW/g; SAR(10 g) = 0.108 mW/g

Maximum value of SAR (interpolated) = 0.191 W/kg

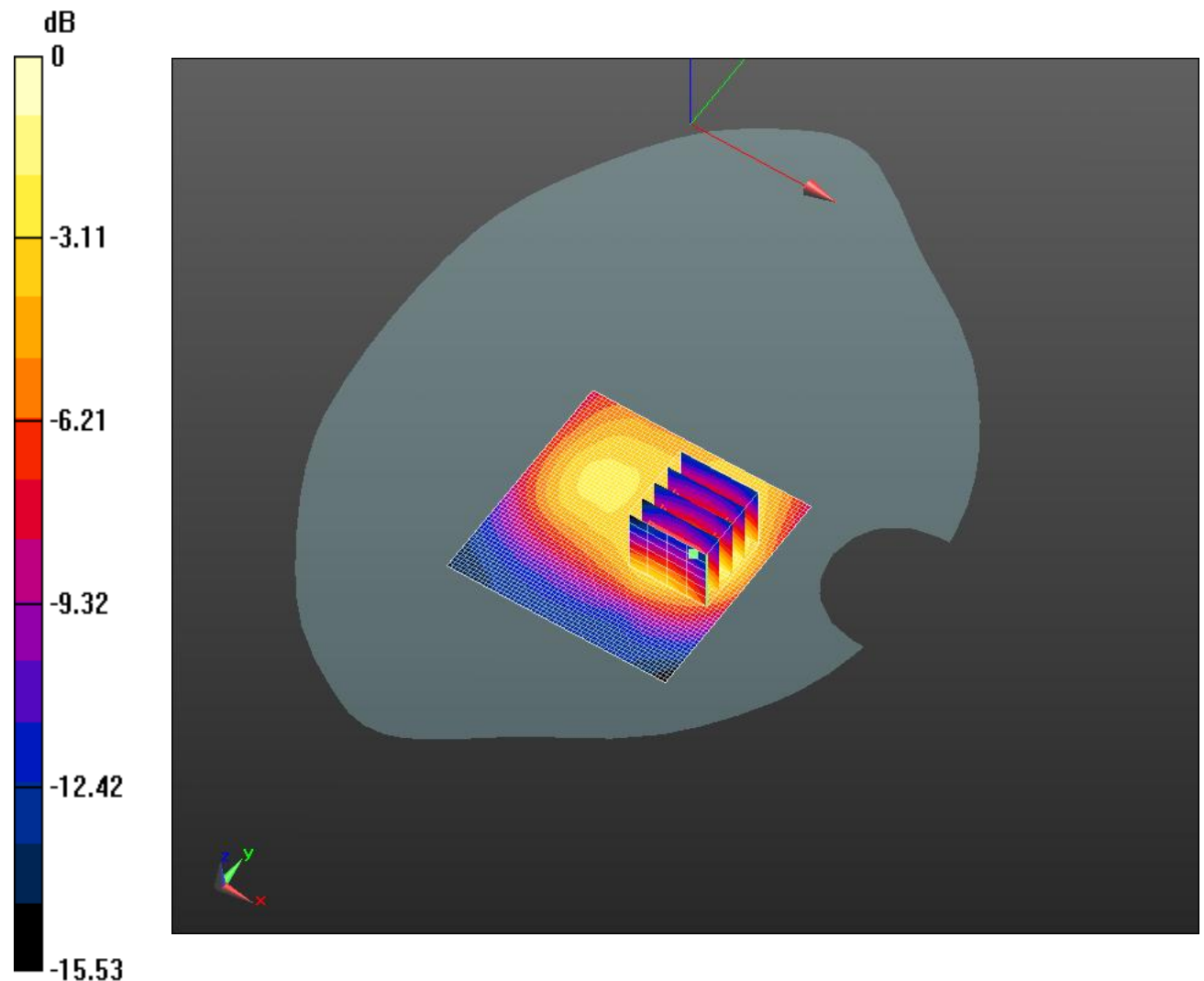
Body/Faceup Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.555 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.344 mW/g

SAR(1 g) = 0.157 mW/g; SAR(10 g) = 0.116 mW/g

Maximum value of SAR (measured) = 0.188 W/kg



Date: 2018.04.08.

LTE Band 7 Body Front Side Mid

Medium: MSL 2600

Communication System: LTE-FDD(CE); Communication System Band: Band7; Frequency: 2510 MHz; Duty Cycle: 1:1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used: $f = 2510$ MHz; $\sigma = 2.24$ mho/m; $\epsilon_r = 53.67$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(7.33, 7.33, 7.33); Calibrated: 2017.07.21.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

Body/Facedown Mid/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 11.980 V/m; Power Drift = -0.03 dB

Fast SAR: SAR(1 g) = 0.656 mW/g; SAR(10 g) = 0.312 mW/g

Maximum value of SAR (interpolated) = 0.774 W/kg

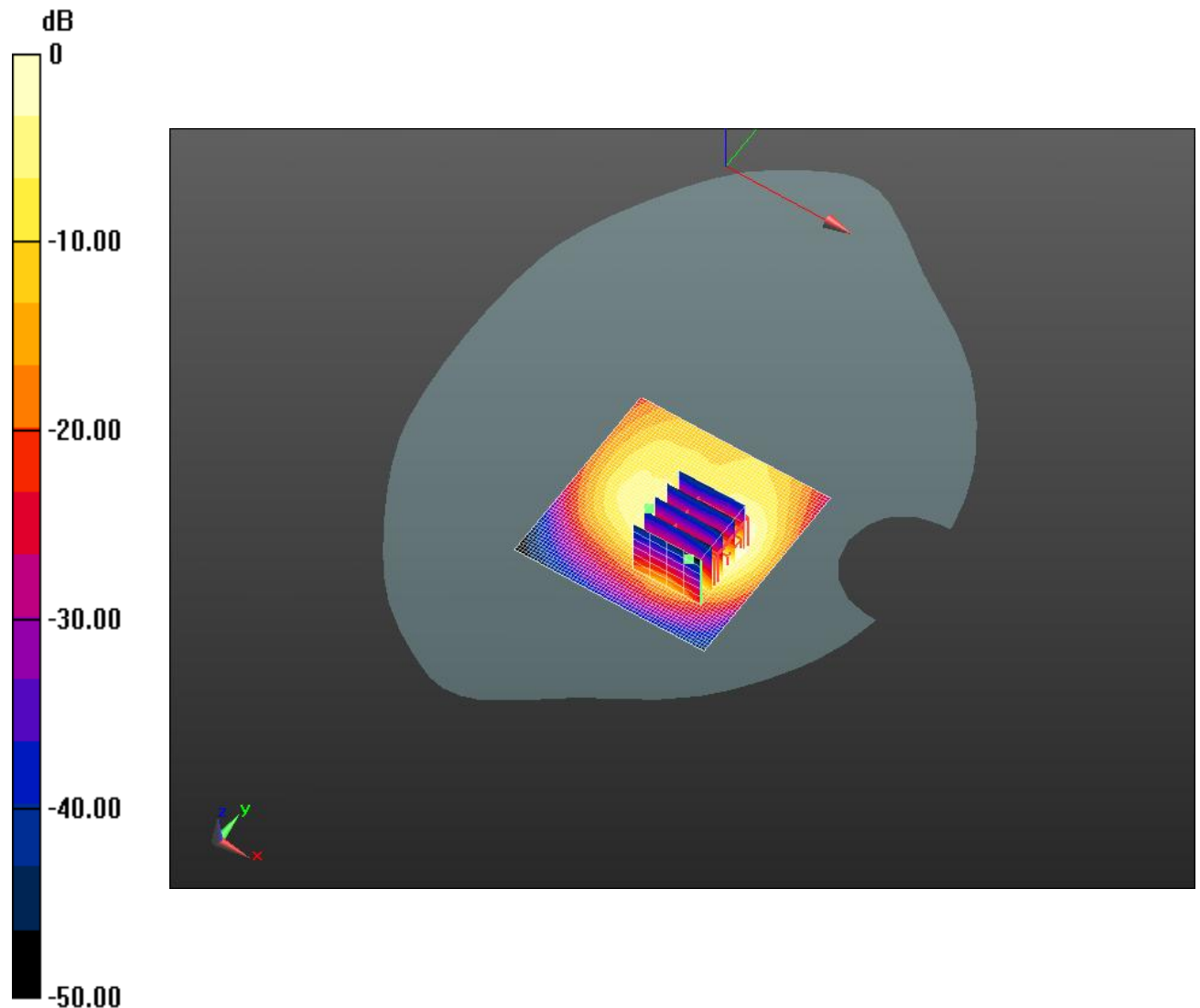
Body/Facedown Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.980 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.278 mW/g

SAR(1 g) = 0.684 mW/g; SAR(10 g) = 0.311 mW/g

Maximum value of SAR (measured) = 0.756 W/kg



0 dB = 0.774 W/kg = -2.23 dB W/kg

Date: 2018.04.08.

Wi-Fi 802.11b Body Front Side Mid

Medium: MSL2450

Communication System: 802.11b/g/n; Communication System Band: 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.99$ mho/m; $\epsilon_r = 52.26$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(7.42, 7.42, 7.42); Calibrated: 2017.07.21.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

802.11b/Faceup-Mid/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 14.360 V/m; Power Drift = 0.02 dB

Fast SAR: SAR(1 g) = 0.572 mW/g; SAR(10 g) = 0.385 mW/g

Maximum value of SAR (interpolated) = 0.563 W/kg

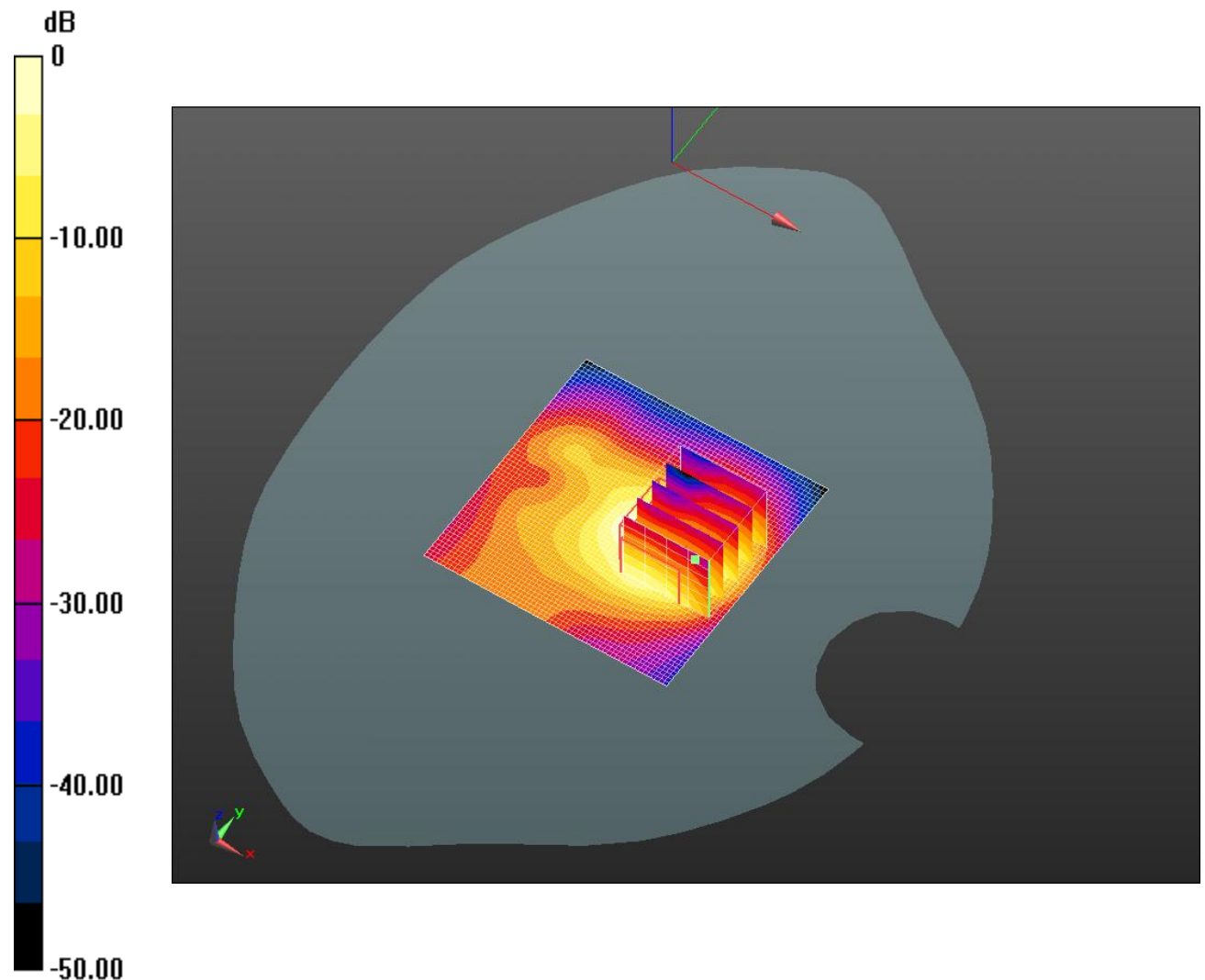
802.11b/Faceup-Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.360 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.079 mW/g

SAR(1 g) = 0.429 mW/g; SAR(10 g) = 0.299 mW/g

Maximum value of SAR (measured) = 0.516 W/kg



0 dB = 0.563 W/kg = -5.20 dB W/kg

Date: 2018.03.28.

Wi-Fi 802.11a Body Front Side CH36

Medium: MSL 5G

Communication System: 5G; Communication System Band: 5.2G; Frequency: 5180 MHz; Duty Cycle: 1:1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used: $f = 5180$ MHz; $\sigma = 5.26$ mho/m; $\epsilon_r = 47.95$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(4.82, 4.82, 4.82); Calibrated: 2017.07.21;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

36/Faceup /Area Scan (91x91x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Reference Value = 4.375 V/m; Power Drift = -0.08 dB

Fast SAR: SAR(1 g) = 0.354 mW/g; SAR(10 g) = 0.145 mW/g

Maximum value of SAR (interpolated) = 0.357 W/kg

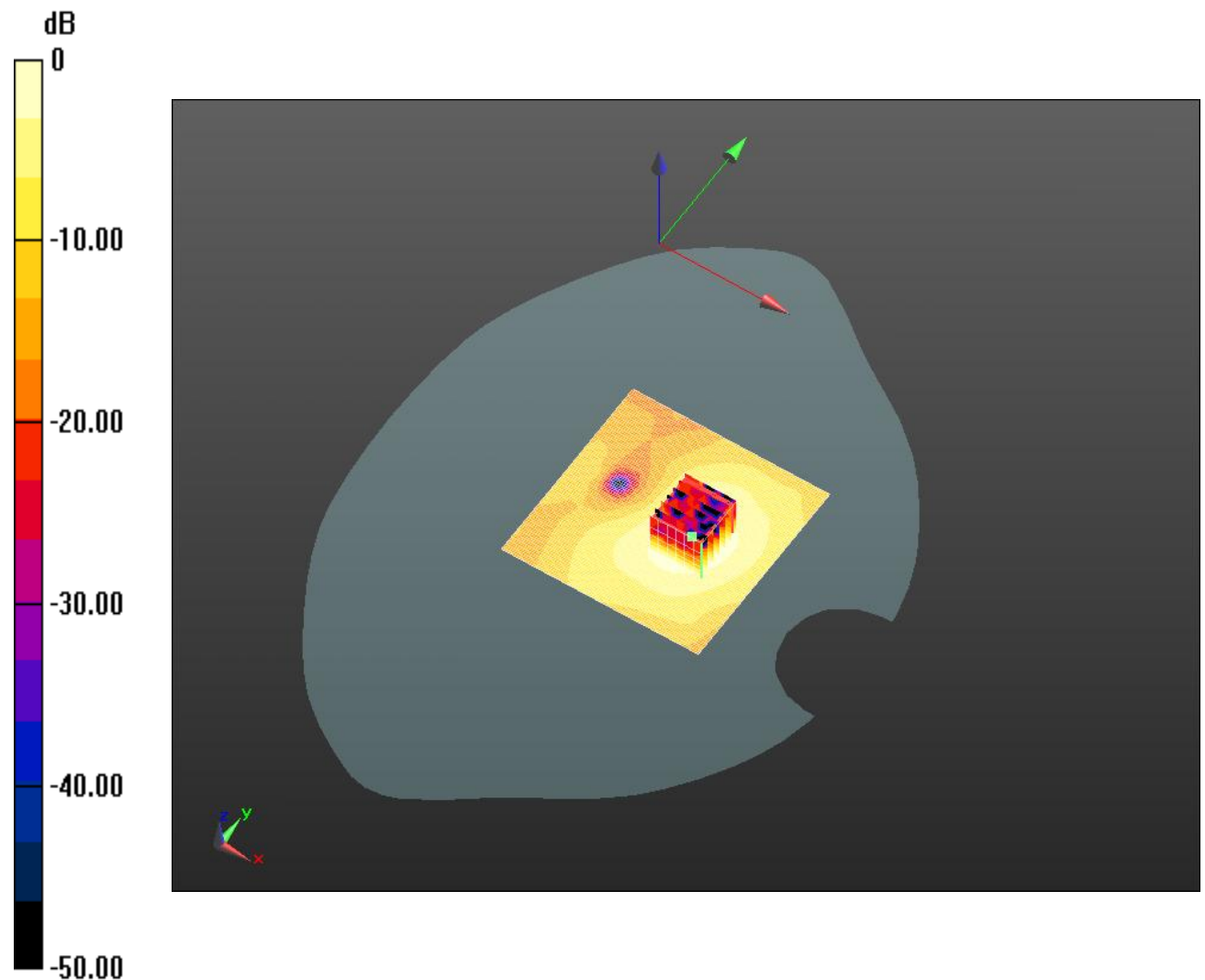
36/Faceup /Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 4.375 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.444 mW/g

SAR(1 g) = 0.366 mW/g; SAR(10 g) = 0.144 mW/g

Maximum value of SAR (measured) = 0.350 W/kg



Date: 2018.04.08.

Wi-Fi 802.11n Body Front Side CH64

Medium: MSL 5G

Communication System: 5G; Communication System Band: 5.3G; Frequency: 5320 MHz; Duty Cycle: 1:1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used: $f = 5320$ MHz; $\sigma = 5.27$ mho/m; $\epsilon_r = 49.69$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(4.82, 4.82, 4.82); Calibrated: 2017.07.21.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

64/Faceup/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 8.221 V/m; Power Drift = 0.05 dB

Fast SAR: SAR(1 g) = 0.315 mW/g; SAR(10 g) = 0.133 mW/g

Maximum value of SAR (interpolated) = 0.407 W/kg

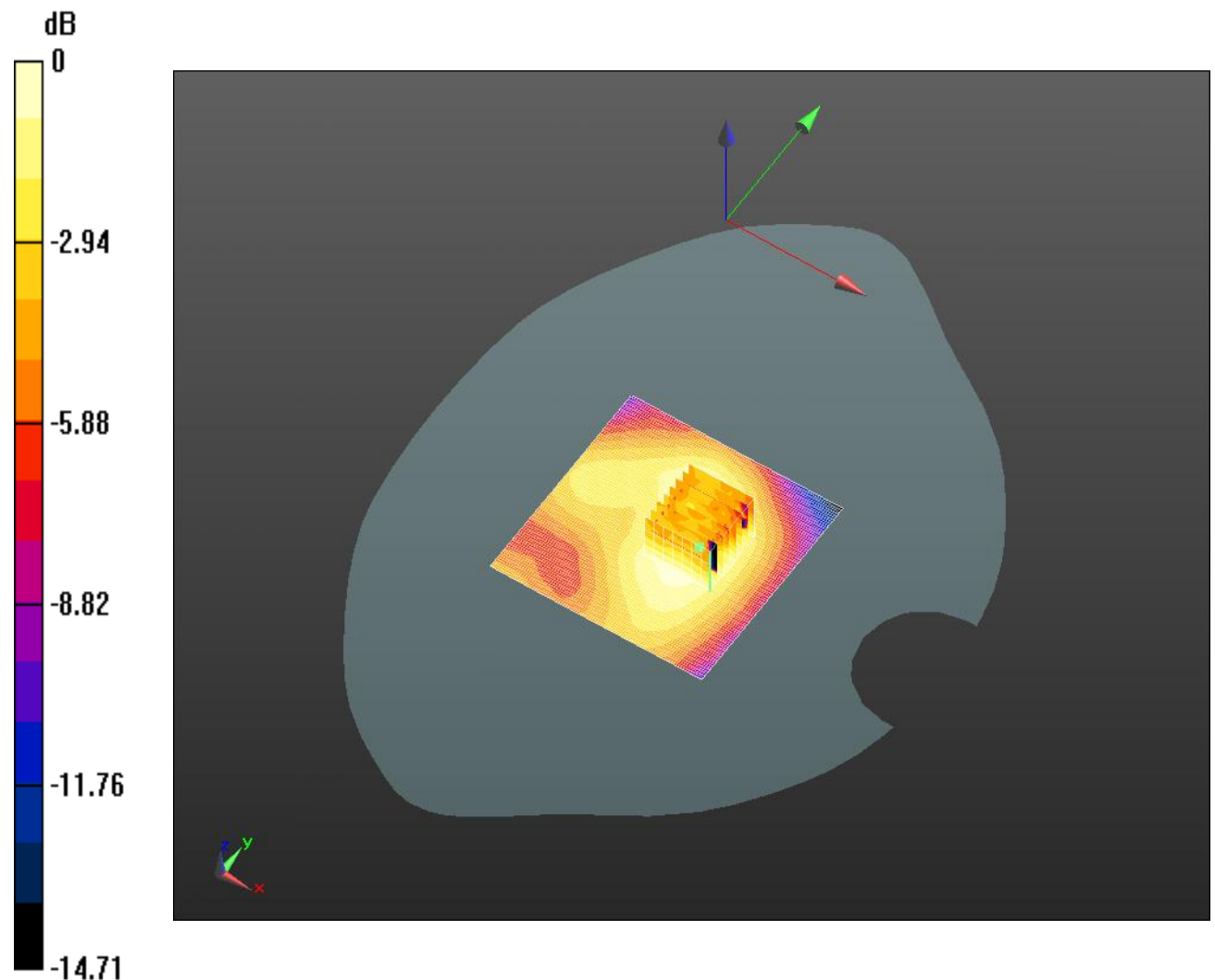
64/Faceup/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 8.221 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.933 mW/g

SAR(1 g) = 0.311 mW/g; SAR(10 g) = 0.135 mW/g

Maximum value of SAR (measured) = 0.435 W/kg



0 dB = 0.407 W/kg = -7.80 dB W/kg

Date: 2018.03.29.

Wi-Fi 802.11n Body Front Side CH122

Medium: MSL 5G

Communication System: 5G; Communication System Band: 5.6G; Frequency: 5610 MHz; Duty Cycle: 1:1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used: $f = 5610$ MHz; $\sigma = 4.87$ mho/m; $\epsilon_r = 48.37$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(4.05, 4.05, 4.05); Calibrated: 2017.07.21.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

122/Faceup/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 4.764 V/m; Power Drift = 0.16 dB

Fast SAR: SAR(1 g) = 0.271 mW/g; SAR(10 g) = 0.117 mW/g

Maximum value of SAR (interpolated) = 0.258 W/kg

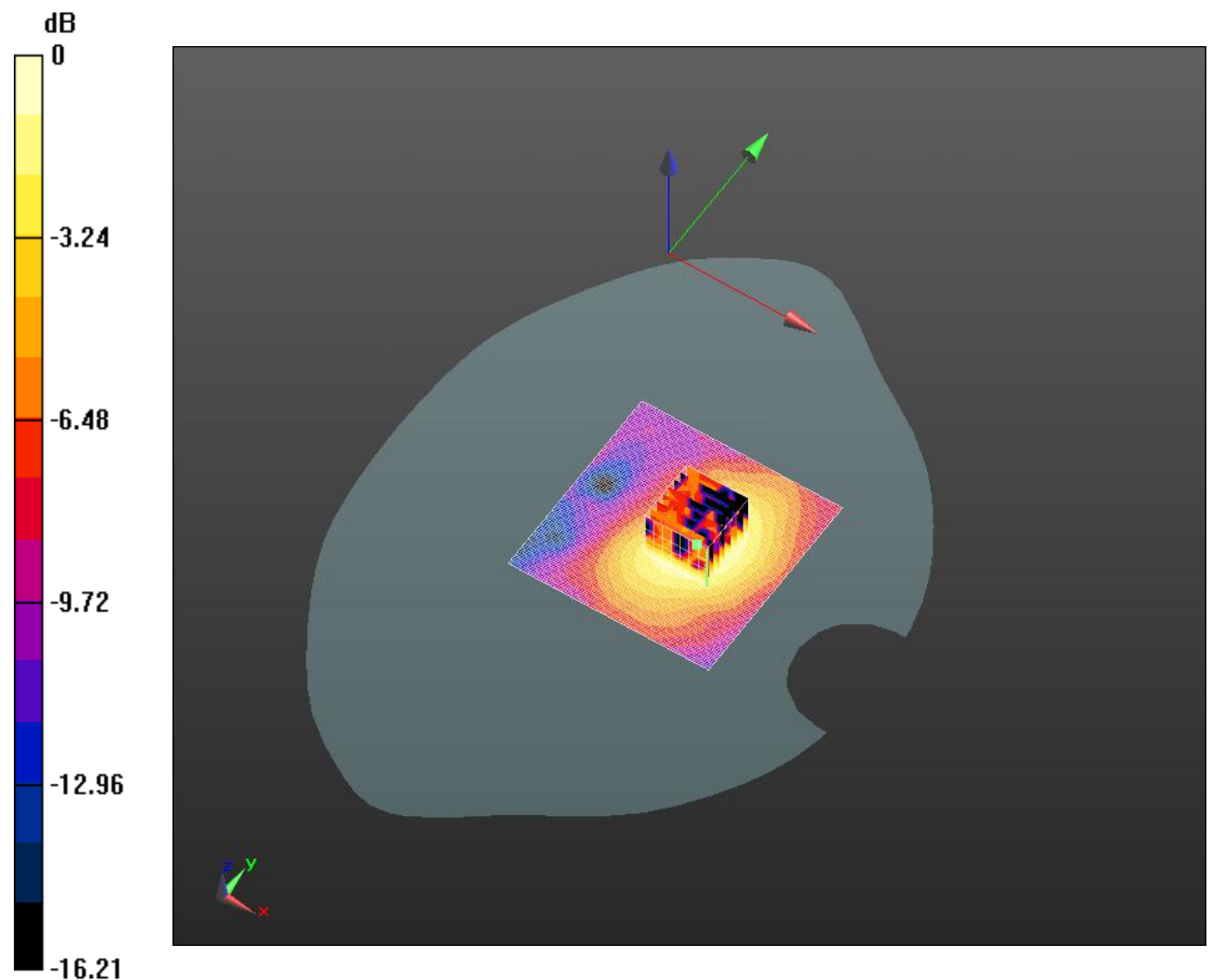
122/Faceup/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 4.764 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.664 mW/g

SAR(1 g) = 0.204 mW/g; SAR(10 g) = 0.084 mW/g

Maximum value of SAR (measured) = 0.247 W/kg



0 dB = 0.258 W/kg = -11.78 dB W/kg

Date: 2018.04.08.

Wi-Fi 802.11n Body Front Side CH151

Medium: MSL 5G

Communication System: 5G; Communication System Band: 5.8G; Frequency: 5755 MHz; Duty Cycle: 1:1

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used: $f = 5755$ MHz; $\sigma = 5.97$ mho/m; $\epsilon_r = 49.13$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(4.35, 4.35, 4.35); Calibrated: 2017.07.21.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

151/Faceup/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 2.409 V/m; Power Drift = -0.05 dB

Fast SAR: SAR(1 g) = 0.065 mW/g; SAR(10 g) = 0.025 mW/g

Maximum value of SAR (interpolated) = 0.0651 W/kg

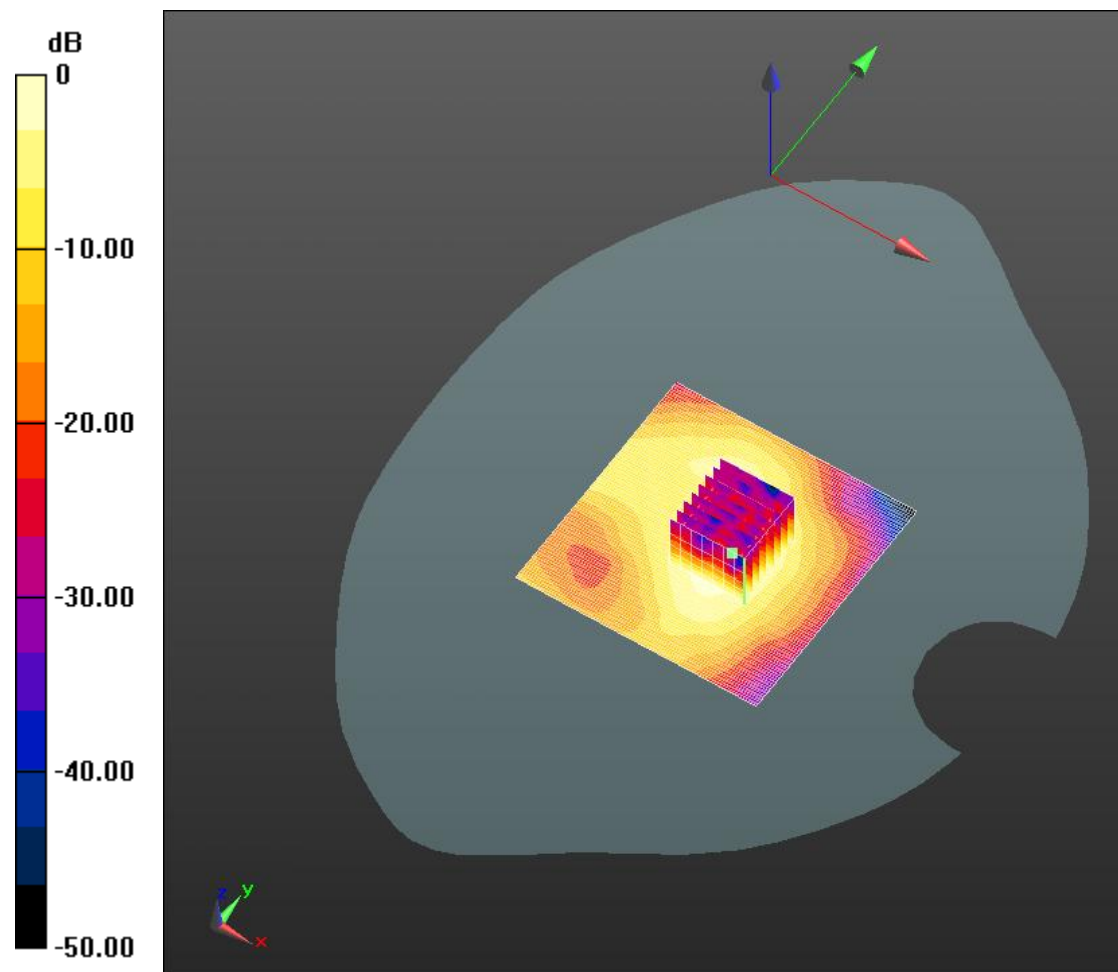
151/Faceup/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.409 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.746 mW/g

SAR(1 g) = 0.049 mW/g; SAR(10 g) = 0.020 mW/g

Maximum value of SAR (measured) = 0.0640 W/kg



0 dB = 0.0640 W/kg = -23.63 dB W/kg