Appendix A: Plots

Plot 1: WCDMA FDD Band 2, Ch. 9538, 1907.6 MHz, Rear

Date/Time: 9/27/2019 7:15:31 AM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, UMTS-FDD (WCDMA) (0); Frequency: 1907.6 MHz;Duty Cycle: 1:1.95434
Medium parameters used (interpolated): f = 1907.6 MHz; σ = 1.48 S/m; ε_r = 38.737; ρ = 1000 kg/m^3
Phantom section: Flat Section

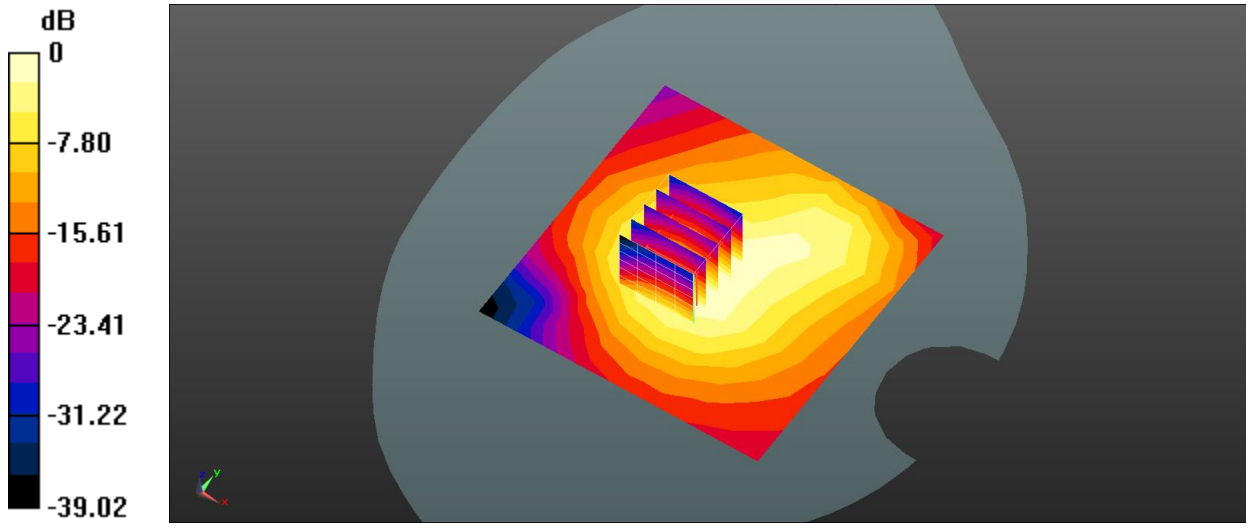
Procedure Notes: Operator: Josie; Ambient Temp: 24°C; Liquid Temp: 22°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(8.44, 8.44, 8.44); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body9-26-19/Rear_0 mm_WCDMA_High Ch/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.66 W/kg
Body9-26-19/Rear_0 mm_WCDMA_High Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 42.21 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.62 W/kg
SAR(1 g) = 2.26 W/kg; SAR(10 g) = 1.36 W/kg (SAR corrected for target medium)
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.98 W/kg



0 dB = 2.66 W/kg = 4.25 dBW/kg

Plot 2: WCDMA FDD Band 4, Ch. 1413, 1732.6 MHz, Rear

Date/Time: 9/30/2019 8:34:28 AM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, UMTS-FDD (WCDMA) (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1.95434
Medium parameters used (interpolated): f = 1732.6 MHz; σ = 1.38 S/m; ε_r = 38.908; ρ = 1000 kg/m^3
Phantom section: Flat Section

Procedure Notes: Operator: Josie; Ambient Temp: 23°C; Liquid Temp: 23°C; Comments: ;

DASY5 Configuration:

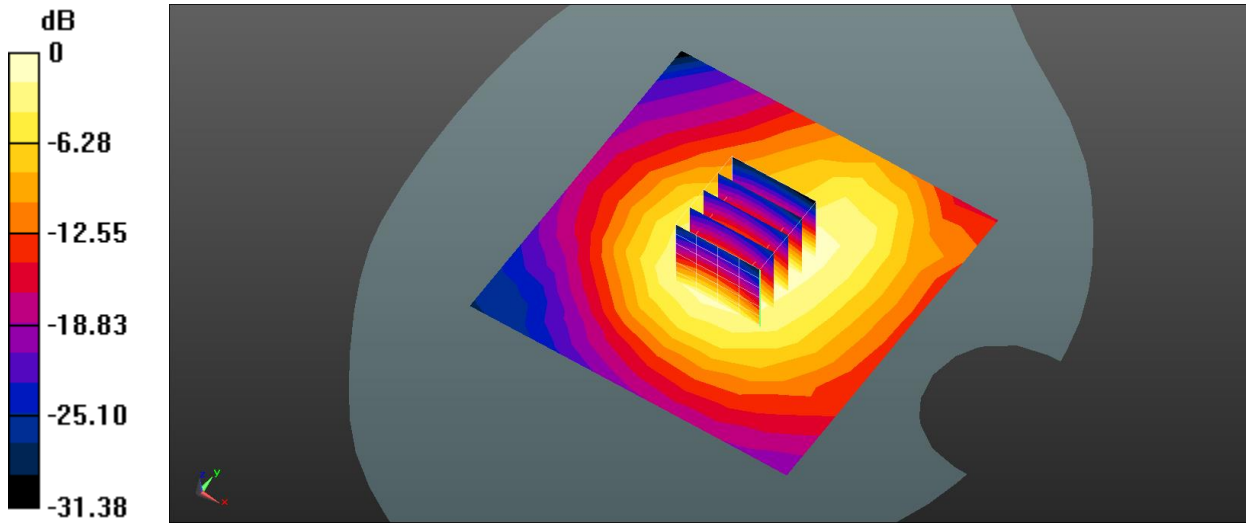
- Probe: EX3DV4 - SN3957; ConvF(8.72, 8.72, 8.72); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body_09302019/Rear_0 mm_WCDMA_Mid Ch/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.83 W/kg

Body_09302019/Rear_0 mm_WCDMA_Mid Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.72 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 1.86 W/kg
SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.800 W/kg (SAR corrected for target medium)

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.53 W/kg



0 dB = 1.83 W/kg = 2.62 dBW/kg

Plot 3: WCDMA FDD Band 5, Ch. 4183, 836.6 MHz, Rear

Date/Time: 9/30/2019 12:20:14 PM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, UMTS-FDD (WCDMA) (0); Frequency: 836.6 MHz;Duty Cycle: 1:1.95434
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.97 S/m; ε_r = 40.869; ρ = 1000 kg/m^3
Phantom section: Flat Section

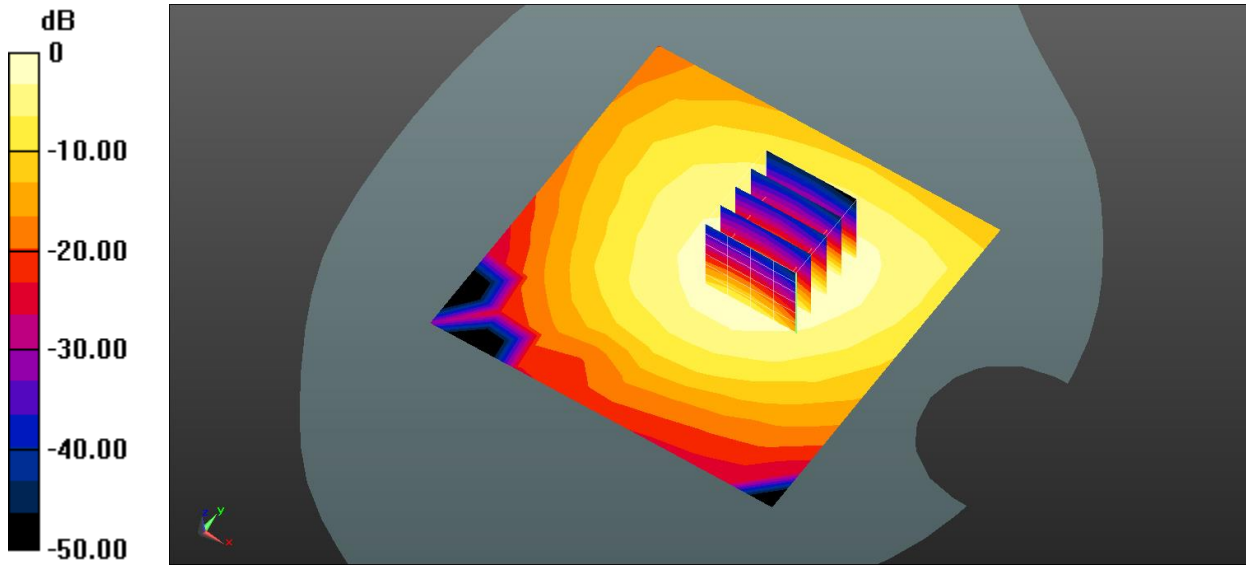
Procedure Notes: Operator: Josie; Ambient Temp: 23°C; Liquid Temp: 23°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(10.23, 10.23, 10.23); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body_20190930/Rear_0 mm_WCDMA_Mid Ch/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.168 W/kg
Body_20190930/Rear_0 mm_WCDMA_Mid Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.67 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.169 W/kg
SAR(1 g) = 0.118 W/kg; SAR(10 g) = 0.079 W/kg (SAR corrected for target medium)
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.145 W/kg



0 dB = 0.168 W/kg = -7.75 dBW/kg

Plot 4: LTE FDD Band 2, 1 RB, Ch. 18900, 1880 MHz, Rear

Date/Time: 9/27/2019 9:04:04 AM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, LTE-FDD (SC-FDMA, 1RB, 20 MHz, QPSK) (0); Frequency: 1880 MHz;Duty Cycle: 1:3.74111
Medium parameters used: f = 1880 MHz; σ = 1.464 S/m; ε_r = 38.81; ρ = 1000 kg/m^3
Phantom section: Flat Section

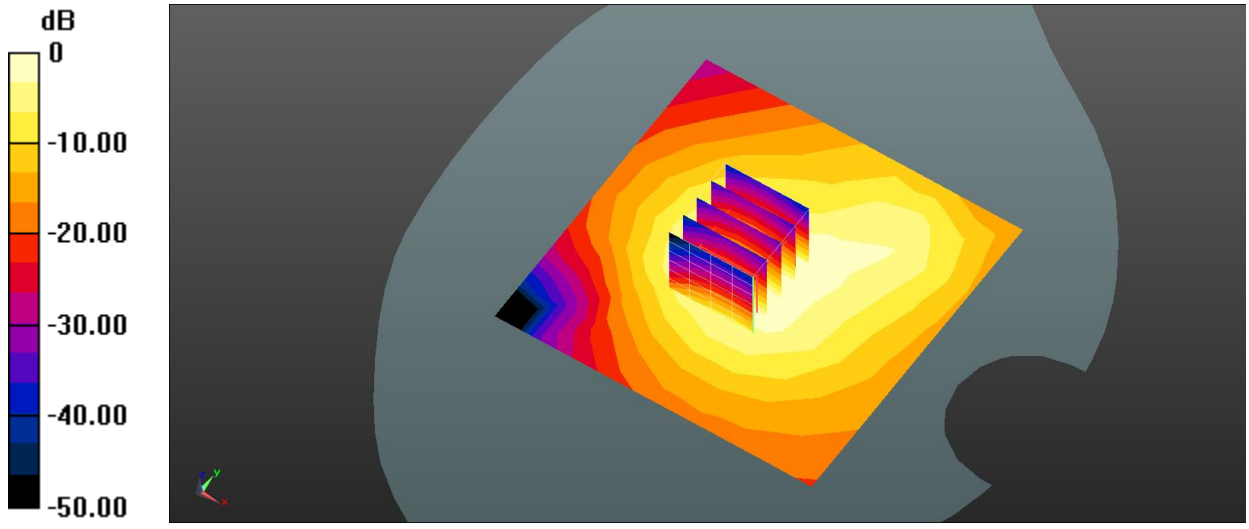
Procedure Notes: Operator: Josie; Ambient Temp: 24°C; Liquid Temp: 22°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(8.44, 8.44, 8.44); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body9-26-19/Rear_0 mm_LTE_20MHz_1RB_Mid Ch/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.51 W/kg

Body9-26-19/Rear_0 mm_LTE_20MHz_1RB_Mid Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 38.31 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 2.74 W/kg
SAR(1 g) = 1.71 W/kg; SAR(10 g) = 1.04 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 2.23 W/kg



0 dB = 2.51 W/kg = 4.00 dBW/kg

Plot 5: LTE FDD Band 4, 1 RB, Ch. 20175, 1732.5 MHz, Rear

Date/Time: 9/30/2019 10:01:33 AM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, LTE-FDD (SC-FDMA, 1RB, 20 MHz, QPSK) (0); Frequency: 1732.5 MHz;Duty Cycle: 1:3.74111
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.38 S/m; ε_r = 38.908; ρ = 1000 kg/m^3
Phantom section: Flat Section

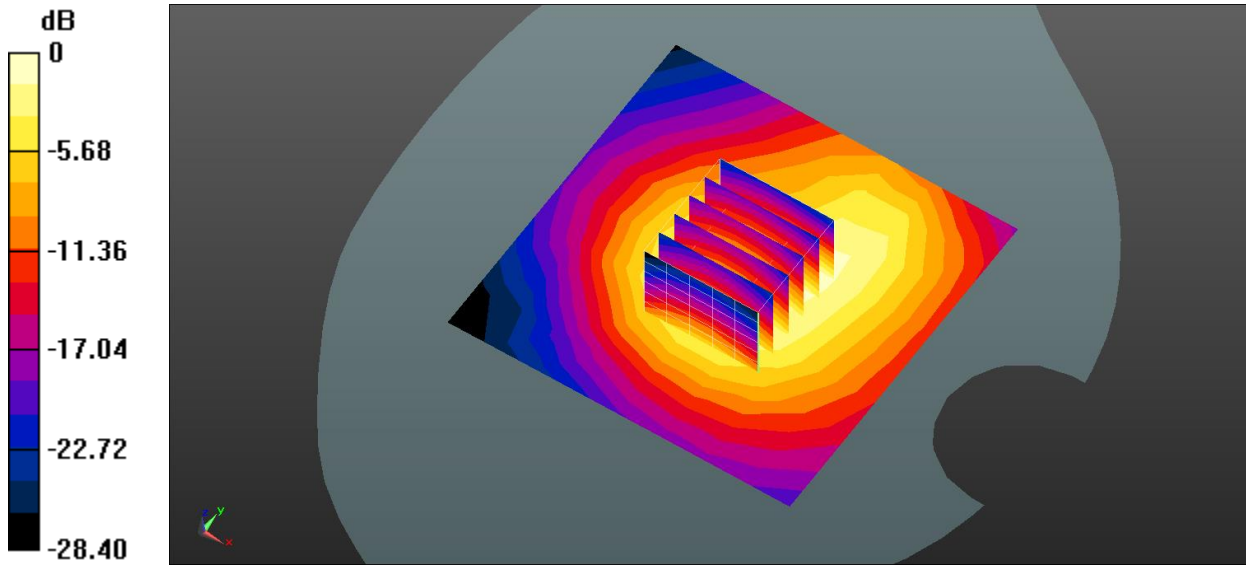
Procedure Notes: Operator: Josie; Ambient Temp: 23°C; Liquid Temp: 23°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(8.72, 8.72, 8.72); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body_09302019/Rear_0 mm_LTEB4_20MHz_1RB_Mid Ch/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.53 W/kg
Body_09302019/Rear_0 mm_LTEB4_20MHz_1RB_Mid Ch/Zoom Scan (6x6x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.35 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 1.56 W/kg
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.662 W/kg (SAR corrected for target medium)
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.31 W/kg



0 dB = 1.53 W/kg = 1.85 dBW/kg

Plot 6: LTE FDD Band 5, 1 RB, Ch. 20525, 836.5 MHz, Rear

Date/Time: 9/30/2019 2:10:55 PM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, LTE-FDD (SC-FDMA, 1RB, 10 MHz, QPSK) (0); Frequency: 836.5 MHz;Duty Cycle: 1:3.7325
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.969 S/m; ε_r = 40.87; ρ = 1000 kg/m^3
Phantom section: Flat Section

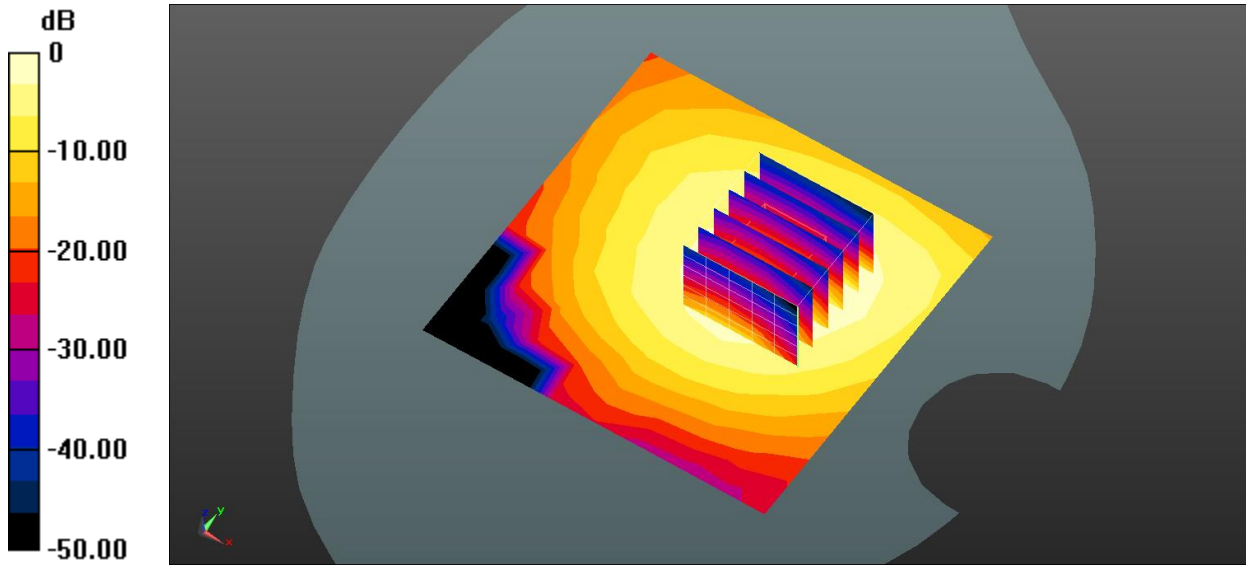
Procedure Notes: Operator: Josie; Ambient Temp: 23°C; Liquid Temp: 23°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(10.23, 10.23, 10.23); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body_20190930/Rear_0 mm_LTEB5_10MHz_1RB_Mid Ch/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.178 W/kg
Body_20190930/Rear_0 mm_LTEB5_10MHz_1RB_Mid Ch/Zoom Scan (6x6x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.62 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 0.215 W/kg
SAR(1 g) = 0.148 W/kg; SAR(10 g) = 0.098 W/kg (SAR corrected for target medium)
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.187 W/kg



0 dB = 0.178 W/kg = -7.50 dBW/kg

Plot 7: LTE FDD Band 12, 1 RB, Ch. 22095, 707.5 MHz, Rear

Date/Time: 9/27/2019 12:02:13 PM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, LTE-FDD (SC-FDMA, 1RB, 10 MHz, QPSK) (0); Frequency: 707.5 MHz;Duty Cycle: 1:3.7325
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.923 S/m; ε_r = 40.612; ρ = 1000 kg/m^3
Phantom section: Flat Section

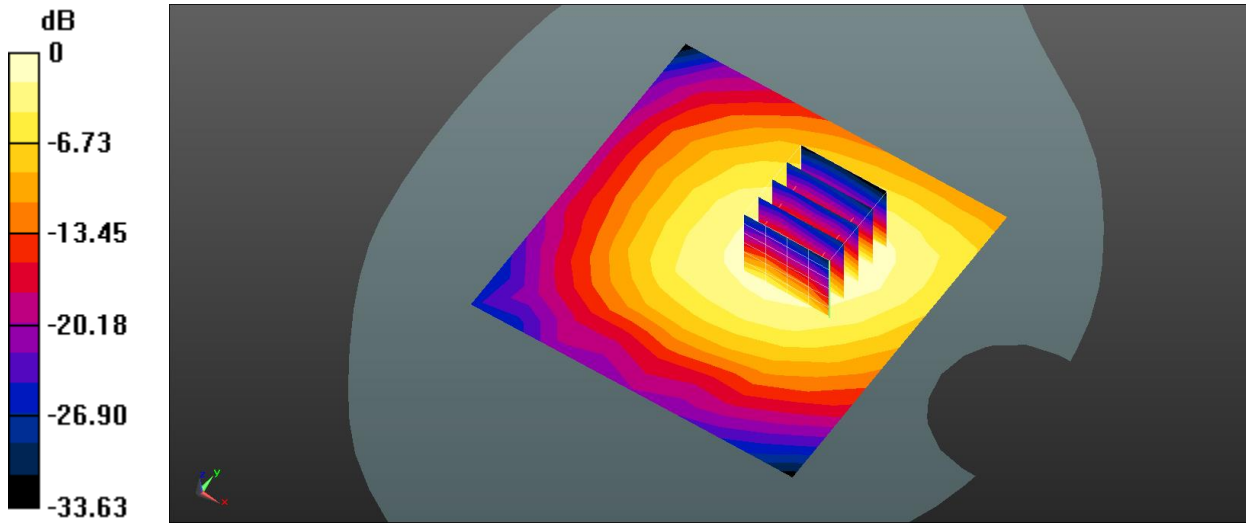
Procedure Notes: Operator: Josie; Ambient Temp: 24°C; Liquid Temp: 22.5°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(10.89, 10.89, 10.89); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body/Rear_0 mm_LTEB12_10MHz_1RB_Mid Ch/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.160 W/kg

Body/Rear_0 mm_LTEB12_10MHz_1RB_Mid Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.95 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.186 W/kg
SAR(1 g) = 0.131 W/kg; SAR(10 g) = 0.087 W/kg (SAR corrected for target medium)
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.161 W/kg



0 dB = 0.160 W/kg = -7.96 dBW/kg

Plot 8: LTE FDD Band 13, 1 RB, Ch. 23230, 782 MHz, Rear

Date/Time: 9/27/2019 1:53:54 PM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, LTE-FDD (SC-FDMA, 1RB, 10 MHz, QPSK) (0); Frequency: 782 MHz;Duty Cycle: 1:3.7325
Medium parameters used (interpolated): f = 782 MHz; σ = 0.948 S/m; ε_r = 40.054; ρ = 1000 kg/m^3
Phantom section: Flat Section

Procedure Notes: Operator: Josie; Ambient Temp: 24°C; Liquid Temp: 22.5°C; Comments: ;

DASY5 Configuration:

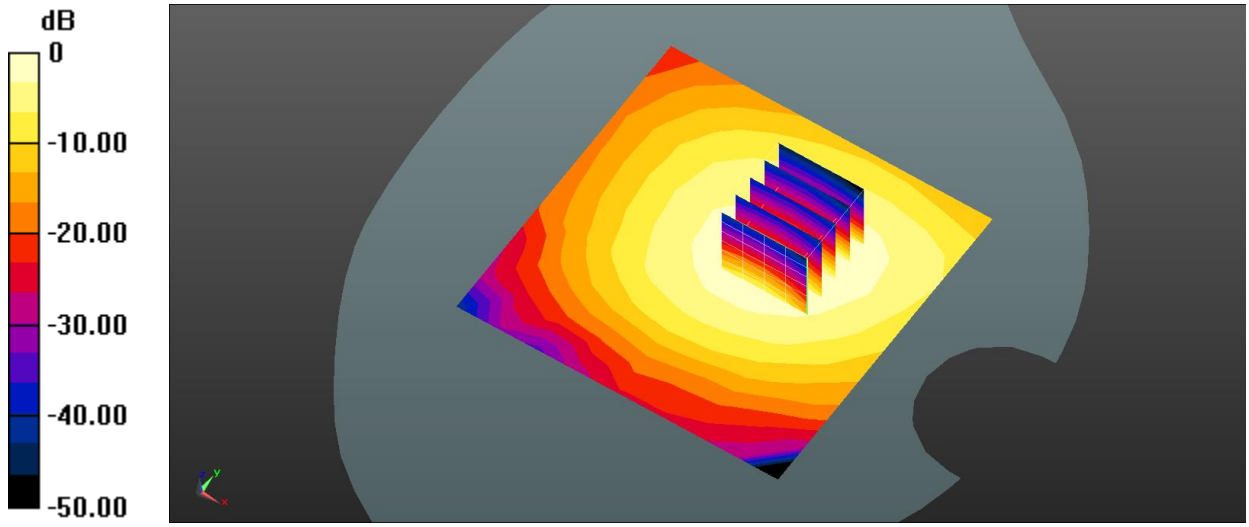
- Probe: EX3DV4 - SN3957; ConvF(10.89, 10.89, 10.89); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body/Rear_0 mm_LTEB13_10MHz_1RB_Mid Ch/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.213 W/kg

Body/Rear_0 mm_LTEB13_10MHz_1RB_Mid Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.32 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.237 W/kg
SAR(1 g) = 0.166 W/kg; SAR(10 g) = 0.112 W/kg (SAR corrected for target medium)

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.205 W/kg



0 dB = 0.213 W/kg = -6.72 dBW/kg

Plot 9: LTE FDD Band 14, 1 RB, Ch. 23330, 793 MHz, Rear

Date/Time: 9/27/2019 2:18:48 PM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, LTE-FDD (SC-FDMA, 1RB, 10 MHz, QPSK) (0); Frequency: 793 MHz;Duty Cycle: 1:3.7325
Medium parameters used (interpolated): f = 793 MHz; σ = 0.952 S/m; ε_r = 39.984; ρ = 1000 kg/m^3
Phantom section: Flat Section

Procedure Notes: Operator: Josie; Ambient Temp: 24°C; Liquid Temp: 22.5°C; Comments: ;

DASY5 Configuration:

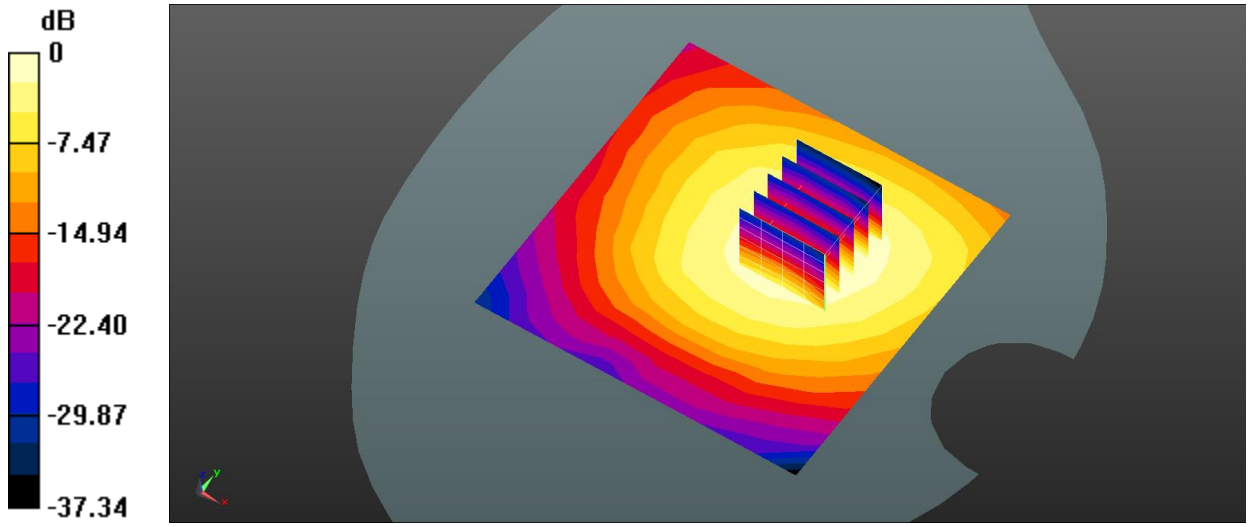
- Probe: EX3DV4 - SN3957; ConvF(10.89, 10.89, 10.89); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body/Rear_0 mm_LTEB14_10MHz_1RB_Mid Ch/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.206 W/kg

Body/Rear_0 mm_LTEB14_10MHz_1RB_Mid Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.07 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.226 W/kg
SAR(1 g) = 0.155 W/kg; SAR(10 g) = 0.104 W/kg (SAR corrected for target medium)

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.189 W/kg



0 dB = 0.206 W/kg = -6.86 dBW/kg

Plot 10: LTE FDD Band 66, 1 RB, Ch. 132322, 1745 MHz, Rear

Date/Time: 9/30/2019 11:12:05 AM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, LTE-FDD (SC-FDMA, 1RB, 20 MHz, QPSK) (0); Frequency: 1745 MHz;Duty Cycle: 1:3.74111
Medium parameters used: f = 1745 MHz; σ = 1.387 S/m; ε_r = 38.896; ρ = 1000 kg/m^3
Phantom section: Flat Section

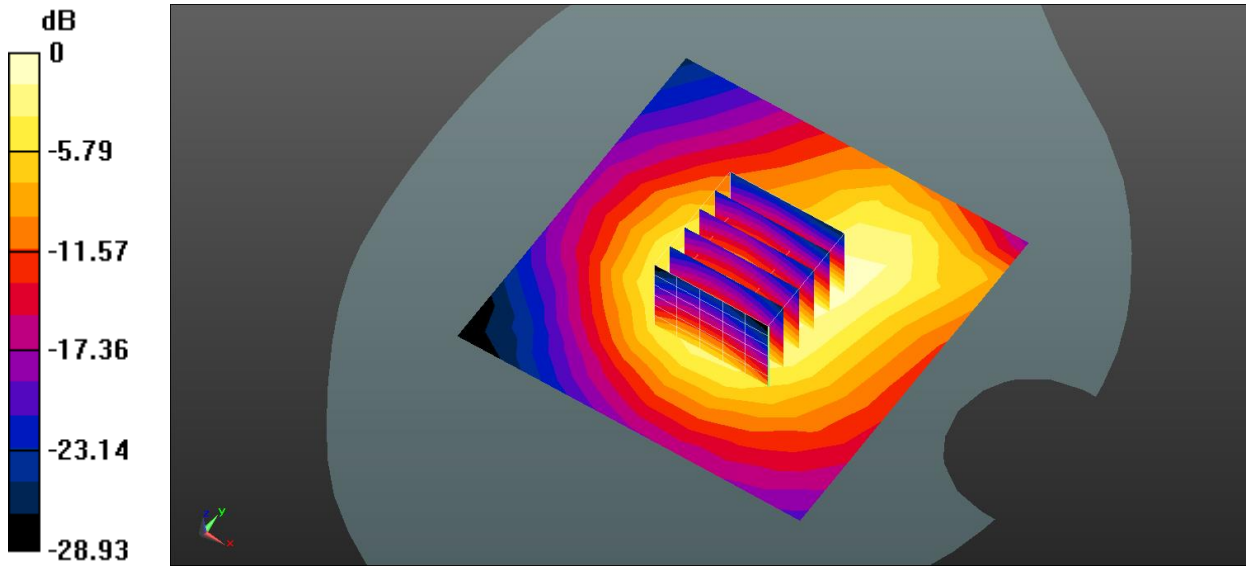
Procedure Notes: Operator: Josie; Ambient Temp: 23°C; Liquid Temp: 23°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(8.72, 8.72, 8.72); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body_09302019/Rear_0 mm_LTEB66_20MHz_1RB_Mid Ch/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.43 W/kg

Body_09302019/Rear_0 mm_LTEB66_20MHz_1RB_Mid Ch/Zoom Scan (6x6x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.65 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.47 W/kg
SAR(1 g) = 0.963 W/kg; SAR(10 g) = 0.613 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 1.24 W/kg



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

Plot 11: LTE FDD Band 71, 1 RB, Ch. 133297, 680.5 MHz, Rear

Date/Time: 9/27/2019 2:18:48 PM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, LTE-FDD (SC-FDMA, 1RB, 10 MHz, QPSK) (0); Frequency: 793 MHz;Duty Cycle: 1:3.7325
Medium parameters used (interpolated): f = 793 MHz; σ = 0.952 S/m; ε_r = 39.984; ρ = 1000 kg/m^3
Phantom section: Flat Section

Procedure Notes: Operator: Josie; Ambient Temp: 24°C; Liquid Temp: 22.5°C; Comments: ;

DASY5 Configuration:

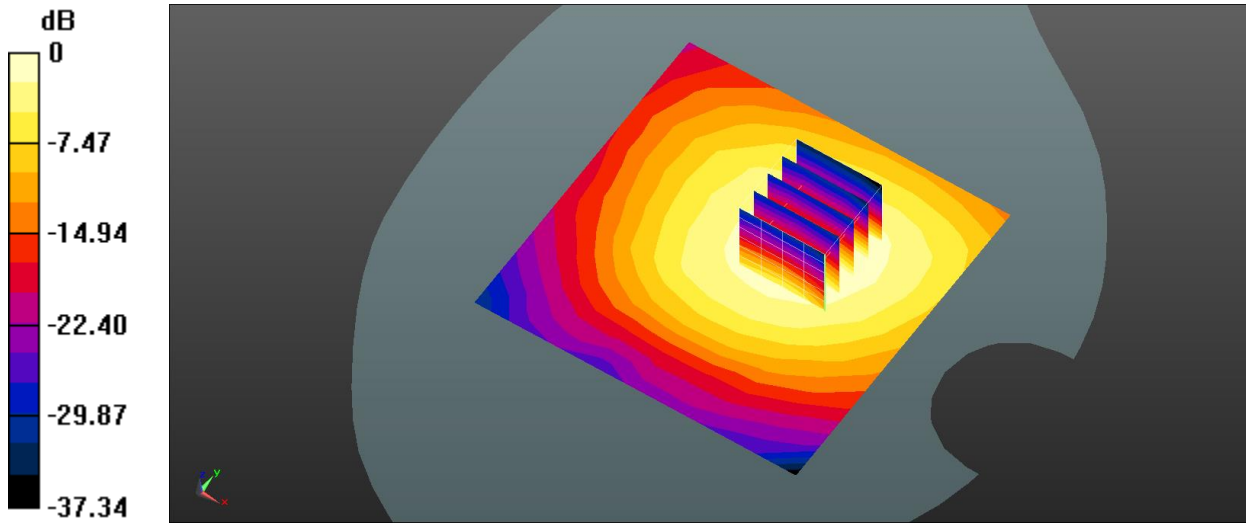
- Probe: EX3DV4 - SN3957; ConvF(10.89, 10.89, 10.89); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body/Rear_0 mm_LTEB14_10MHz_1RB_Mid Ch/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.206 W/kg

Body/Rear_0 mm_LTEB14_10MHz_1RB_Mid Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.07 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.226 W/kg
SAR(1 g) = 0.155 W/kg; SAR(10 g) = 0.104 W/kg (SAR corrected for target medium)

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.189 W/kg



0 dB = 0.206 W/kg = -6.86 dBW/kg

Plot 12: 802.11b, Ch. 6, 2437 MHz, Rear

Date/Time: 10/7/2019 9:16:46 AM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, WiFi - 100% Duty Cycle (0); Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.838 S/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

Procedure Notes: Operator: Josie; Ambient Temp: 23°C; Liquid Temp: 23°C; Comments: ;

DASY5 Configuration:

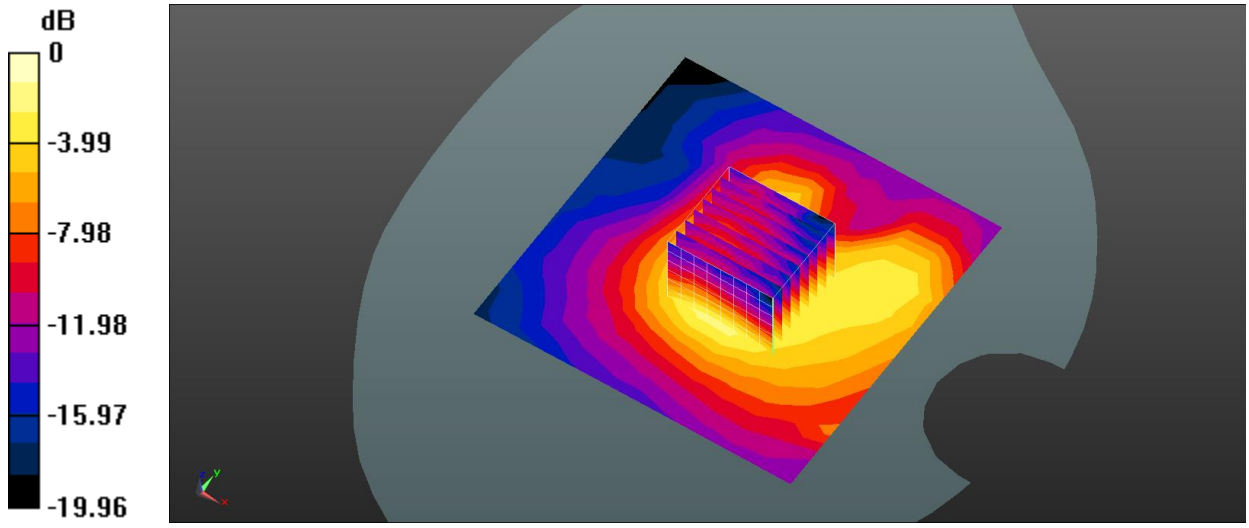
- Probe: EX3DV4 - SN3957; ConvF(7.8, 7.8, 7.8); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body_10-7-2019/Rear_0 mm_WiFi_Mid Ch/Area Scan (11x11x1): Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.253 W/kg

Body_10-7-2019/Rear_0 mm_WiFi_Mid Ch/Zoom Scan (9x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.23 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.335 W/kg
SAR(1 g) = 0.195 W/kg; SAR(10 g) = 0.112 W/kg (SAR corrected for target medium)

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.264 W/kg



0 dB = 0.253 W/kg = -5.97 dBW/kg

Plot 13: Bluetooth LE, Ch. 19, 2440 MHz, Rear

Date/Time: 9/30/2019 3:50:30 PM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, Bluetooth LE (0); Frequency: 2440 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2440 MHz; σ = 1.84 S/m; ε_r = 37.895; ρ = 1000 kg/m^3
Phantom section: Flat Section

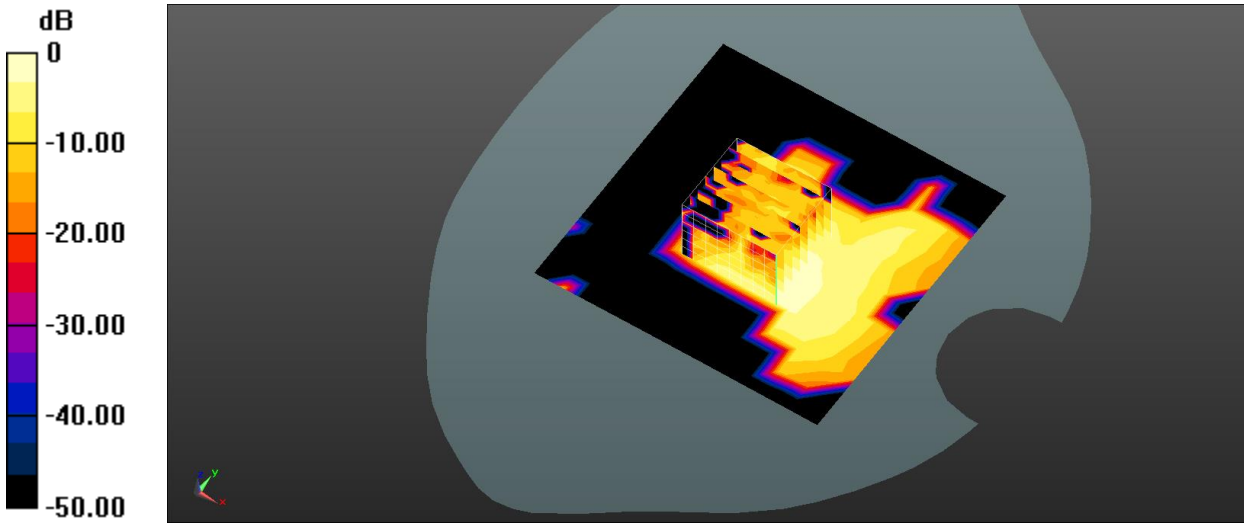
Procedure Notes: Operator: Josie; Ambient Temp: 24°C; Liquid Temp: 23°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(7.8, 7.8, 7.8); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body/Rear_0 mm_Bluetooth_Mid Ch/Area Scan (11x11x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.0128 W/kg

Body/Rear_0 mm_Bluetooth_Mid Ch/Zoom Scan (9x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.724 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.0190 W/kg
SAR(1 g) = 0.00943 W/kg; SAR(10 g) = 0.00523 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.0137 W/kg



0 dB = 0.0128 W/kg = -18.93 dBW/kg

Plot 14: LoRa, Ch. 63, 914.9 MHz, Rear

Date/Time: 10/15/2019 12:04:48 PM

Test Laboratory: TUV Rheinland of North America
DUT: Satellite Tracking of People; Serial: PG22000037

Communication System: UID 0, Other (0); Frequency: 915 MHz;Duty Cycle: 1:1
Medium parameters used: f = 915 MHz; σ = 0.955 S/m; ε_r = 41.892; ρ = 1000 kg/m^3
Phantom section: Flat Section

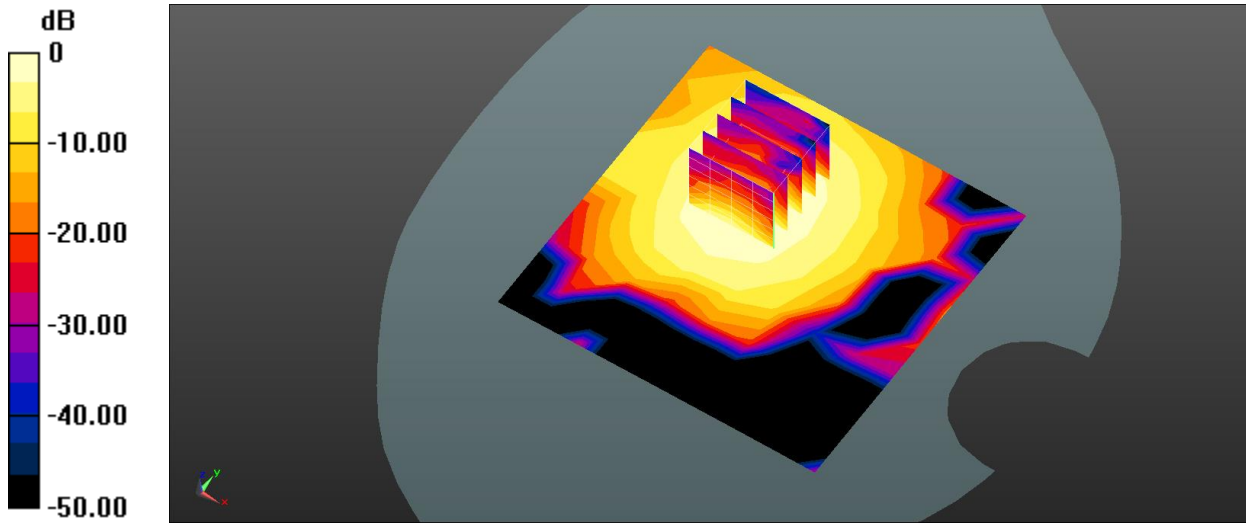
Procedure Notes: Operator: Josie; Ambient Temp: 23°C; Liquid Temp: 21°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(10.23, 10.23, 10.23); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body 2/Rear_High Ch/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.0218 W/kg

Body 2/Rear_High Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.499 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.0260 W/kg
SAR(1 g) = 0.019 W/kg; SAR(10 g) = 0.013 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.0222 W/kg



0 dB = 0.0218 W/kg = -16.62 dBW/kg

Plot 15: 750 MHz System Check, September 27, 2019

Date/Time: 9/27/2019 10:47:04 AM

Test Laboratory: TUV Rheinland of North America
DUT: Dipole 750 MHz ; Serial: 304307-0702101

Communication System: UID 0, CW (0); Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.94 S/m; ε_r = 41.111; ρ = 1000 kg/m^3
Phantom section: Flat Section

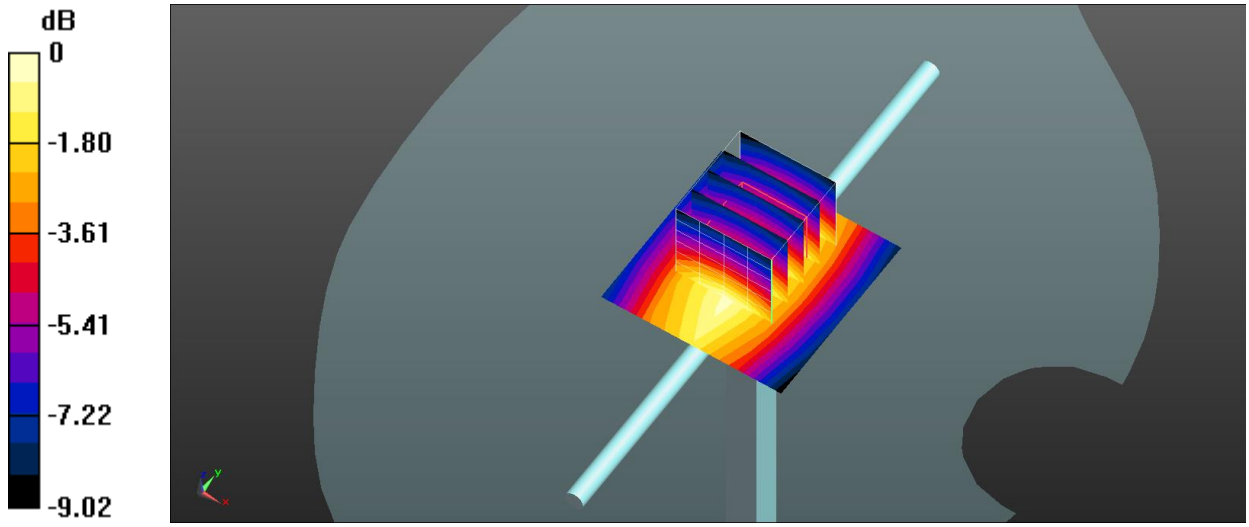
Procedure Notes: Operator: Josie; Ambient Temp: 24°C; Liquid Temp: 22.5°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(10.89, 10.89, 10.89); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body/Sys Check_750MHz/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.25 W/kg

Body/Sys Check_750MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.85 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.41 W/kg
SAR(1 g) = 0.925 W/kg; SAR(10 g) = 0.602 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 1.18 W/kg



0 dB = 1.25 W/kg = 0.97 dBW/kg

Plot 16: 835 MHz System Check, September 30, 2019

Date/Time: 9/30/2019 11:54:06 AM

Test Laboratory: TUV Rheinland of North America
DUT: Dipole 835 MHz; Serial: 304308-0802101

Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.969 S/m; ε_r = 40.874; ρ = 1000 kg/m^3
Phantom section: Flat Section

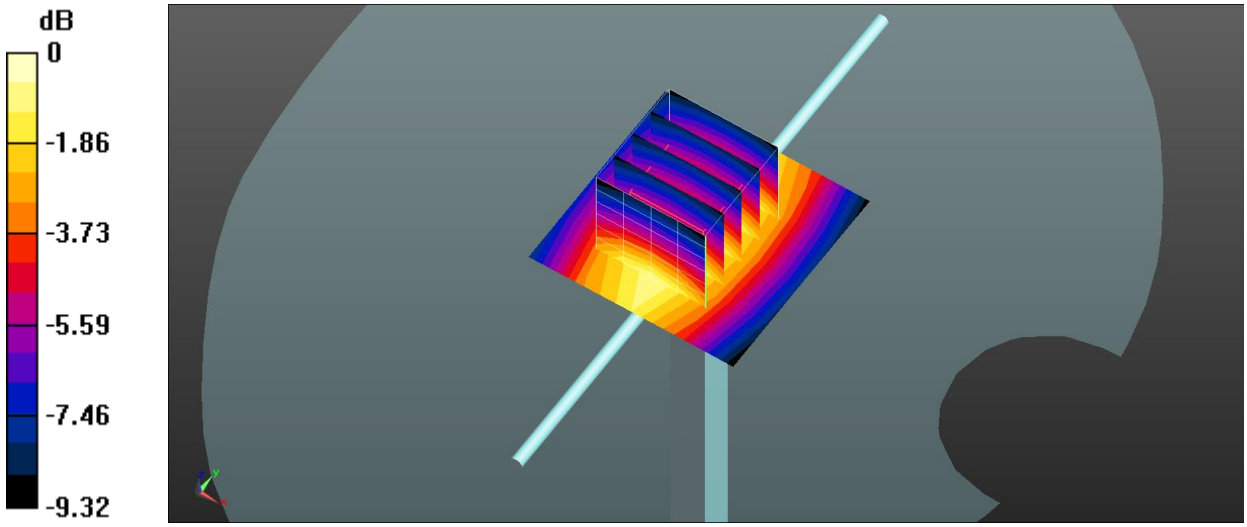
Procedure Notes: Operator: Josie; Ambient Temp: 24°C; Liquid Temp: 23°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(10.23, 10.23, 10.23); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body/SysCheck_835MHz/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.31 W/kg

Body/SysCheck_835MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 38.15 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.46 W/kg
SAR(1 g) = 0.966 W/kg; SAR(10 g) = 0.626 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 1.24 W/kg



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

Plot 17: 900 MHz System Check, October 15, 2019

Date/Time: 10/15/2019 11:01:21 AM

Test Laboratory: TUV Rheinland of North America
DUT: Dipole 900 MHz; Serial: 304309-0902101

Communication System: UID 0, CW (0); Frequency: 900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 900 MHz; σ = 0.949 S/m; ε_r = 41.93; ρ = 1000 kg/m^3
Phantom section: Flat Section

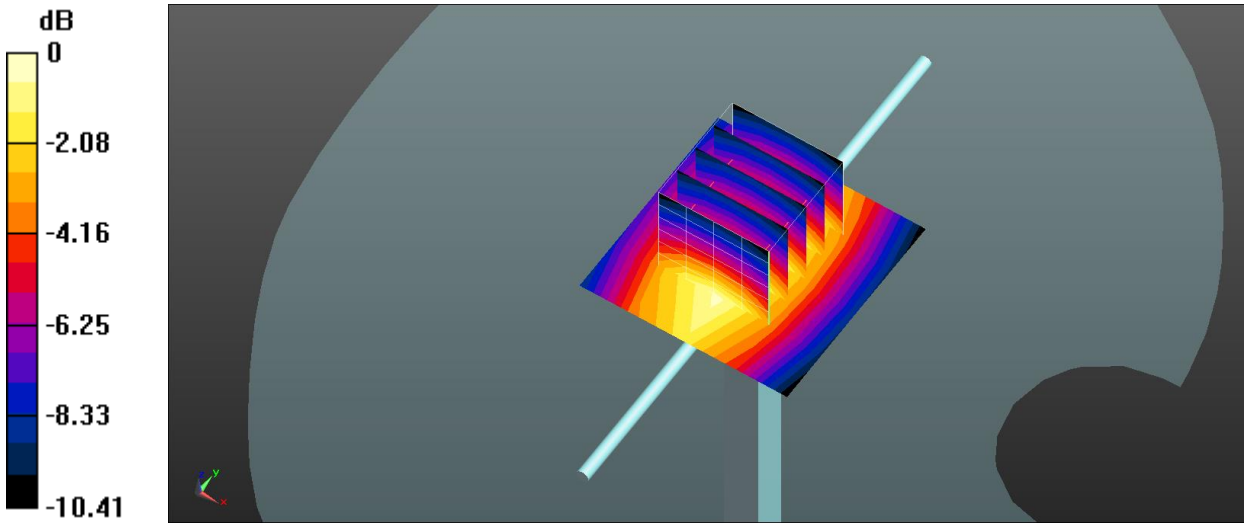
Procedure Notes: Operator: Josie; Ambient Temp: 22°C; Liquid Temp: 21°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(10.23, 10.23, 10.23); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body/SysCheck_900MHz/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.34 W/kg

Body/SysCheck_900MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 38.35 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.60 W/kg
SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.690 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 1.36 W/kg



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

Plot 18: 1750 MHz System Check, September 30, 2019

Date/Time: 9/30/2019 7:34:19 AM

Test Laboratory: TUV Rheinland of North America
DUT: Dipole 1750 MHz; Serial: 304317-1702101

Communication System: UID 0, CW (0); Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.39 S/m; ε_r = 38.891; ρ = 1000 kg/m^3
Phantom section: Flat Section

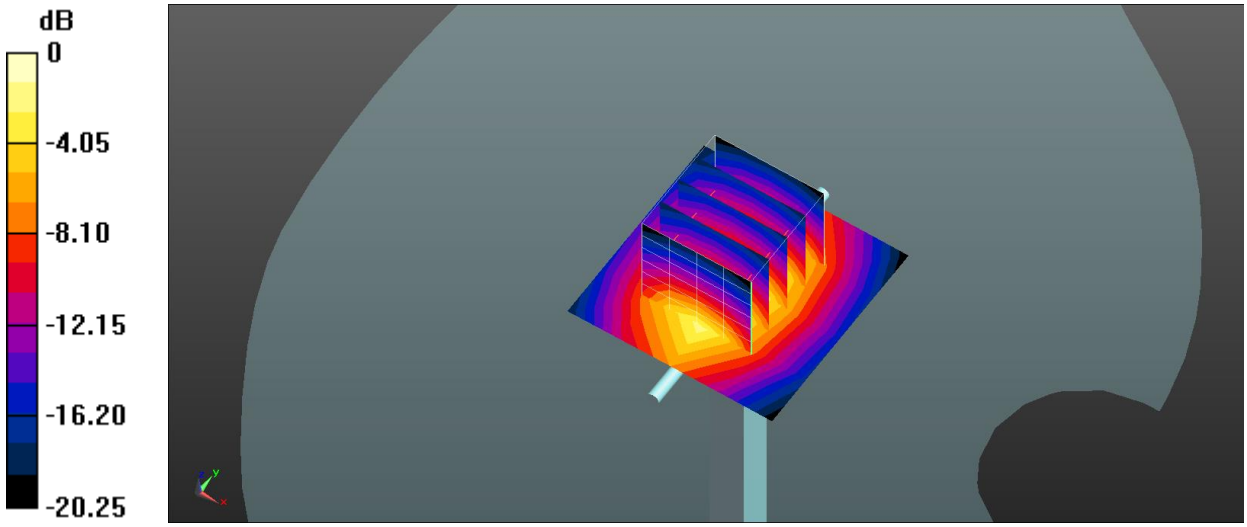
Procedure Notes: Operator: Josie; Ambient Temp: 22°C; Liquid Temp: 23°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(8.72, 8.72, 8.72); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body/SysCheck_1750 MHz/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 5.28 W/kg

Body/SysCheck_1750 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 62.81 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 6.74 W/kg
SAR(1 g) = 3.67 W/kg; SAR(10 g) = 1.92 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 5.29 W/kg



0 dB = 5.28 W/kg = 7.23 dBW/kg

Plot 19: 1900 MHz System Check, September 26, 2019

Date/Time: 9/26/2019 1:55:29 PM

Test Laboratory: TUV Rheinland of North America
DUT: Dipole 1900 MHz - 1902103; Serial: 304319-1902103

Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.476 S/m; ε_r = 38.757; ρ = 1000 kg/m^3
Phantom section: Flat Section

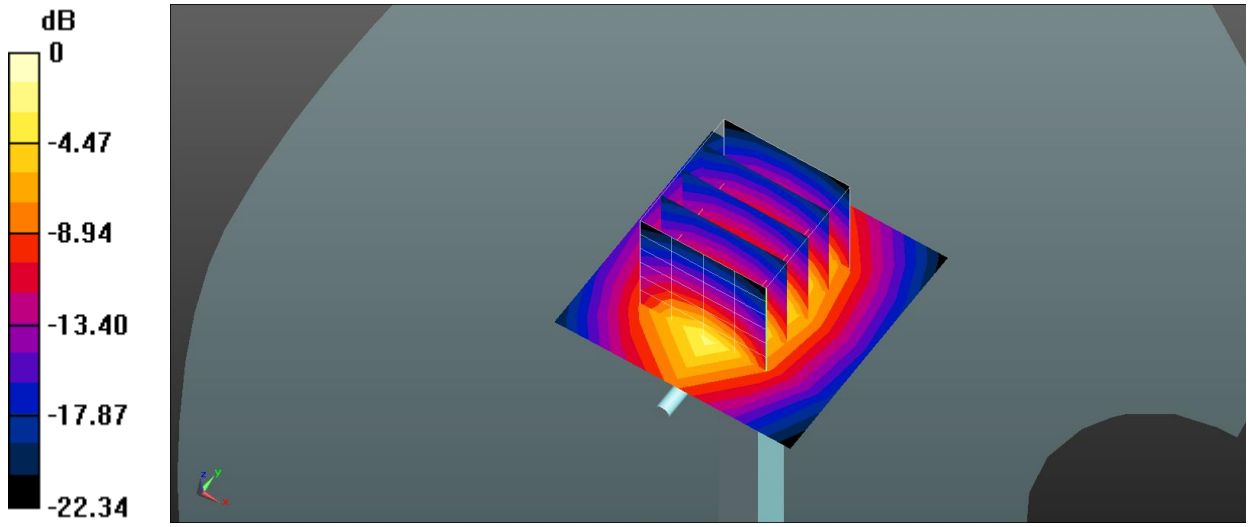
Procedure Notes: Operator: Josie; Ambient Temp: 23°C; Liquid Temp: 22°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(8.44, 8.44, 8.44); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body/Sys Check_1900 MHz/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 6.45 W/kg

Body/Sys Check_1900 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 67.06 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 8.39 W/kg
SAR(1 g) = 4.48 W/kg; SAR(10 g) = 2.28 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 6.54 W/kg



0 dB = 6.45 W/kg = 8.10 dBW/kg

Plot 20: 2450 MHz System Check, September 30, 2019

Date/Time: 9/30/2019 2:56:23 PM

Test Laboratory: TUV Rheinland of North America
DUT: Dipole 2450 MHz; Serial: 304324-2402103

Communication System: UID 0, WiFi - 100% Duty Cycle (0); Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.838 S/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

Procedure Notes: Operator: Josie; Ambient Temp: 24°C; Liquid Temp: 23°C; Comments: ;

DASY5 Configuration:

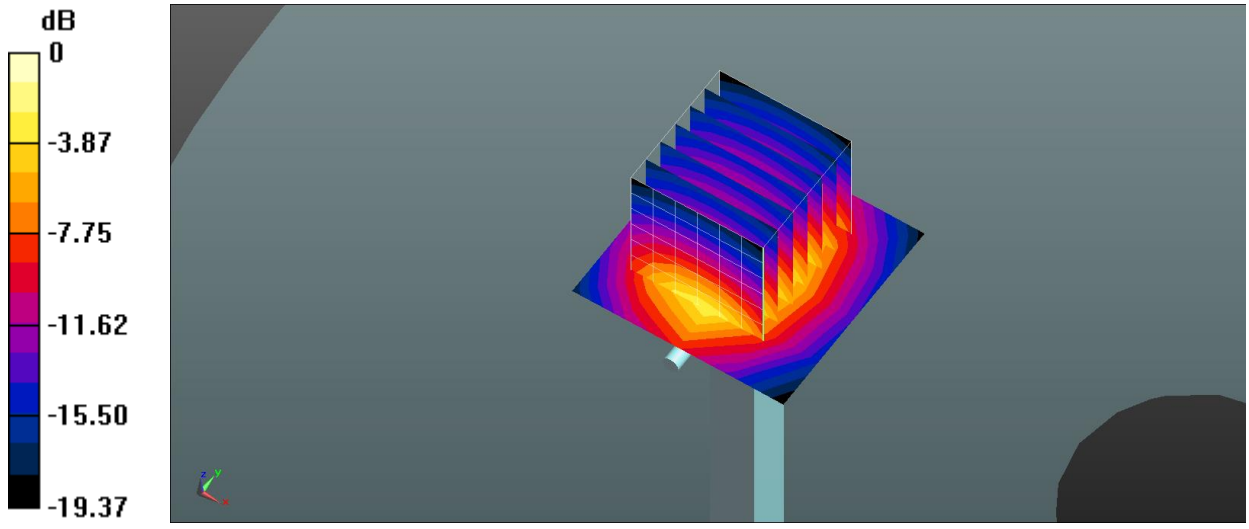
- Probe: EX3DV4 - SN3957; ConvF(7.8, 7.8, 7.8); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body/SysCheck_2450MHz/Area Scan (5x5x1): Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 9.16 W/kg

Body/SysCheck_2450MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 72.44 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 12.0 W/kg
SAR(1 g) = 5.71 W/kg; SAR(10 g) = 2.62 W/kg (SAR corrected for target medium)

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 8.81 W/kg



0 dB = 9.16 W/kg = 9.62 dBW/kg

Plot 21: 2450 MHz System Check, October 7, 2019

Date/Time: 10/7/2019 8:49:46 AM

Test Laboratory: TUV Rheinland of North America
DUT: Dipole 2450 MHz; Serial: 304324-2402103

Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.845 S/m; ε_r = 37.578; ρ = 1000 kg/m^3
Phantom section: Flat Section

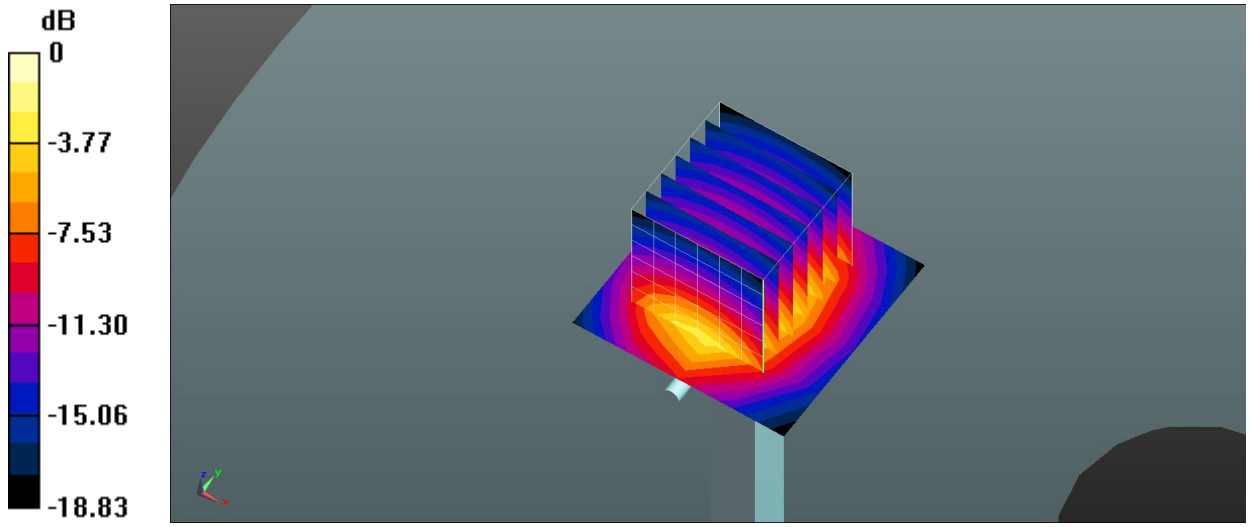
Procedure Notes: Operator: Josie; Ambient Temp: 22°C; Liquid Temp: 23°C; Comments: ;

DASY5 Configuration:

- Probe: EX3DV4 - SN3957; ConvF(7.8, 7.8, 7.8); Calibrated: 3/28/2019;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1419; Calibrated: 2/1/2019
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: TP:1806
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body/Sys Check_2450MHz/Area Scan (5x5x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 8.84 W/kg

Body/Sys Check_2450MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 71.69 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 12.3 W/kg
SAR(1 g) = 5.83 W/kg; SAR(10 g) = 2.67 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 9.02 W/kg



0 dB = 8.84 W/kg = 9.46 dBW/kg