

Appendix B:SAR Measurement results Plots

Table of contents
Bluetooth- Head
Bluetooth- Body

Test Laboratory: CTI SAR Lab

Situational Awareness Earmuffs GFSK 2480CH Left Hand Touch Cheek

DUT: Situational Awareness Earmuffs; Type: NA; Serial: NA

Communication System: UID 0, Bluetooth (0); Communication System Band: Bluetooth 3.0; Frequency: 2480 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2480$ MHz; $\sigma = 1.857$ S/m; $\epsilon_r = 39.632$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.56, 7.56, 7.56); Calibrated: 2/27/2022;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/4/2022
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (9x11x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.0109 W/kg

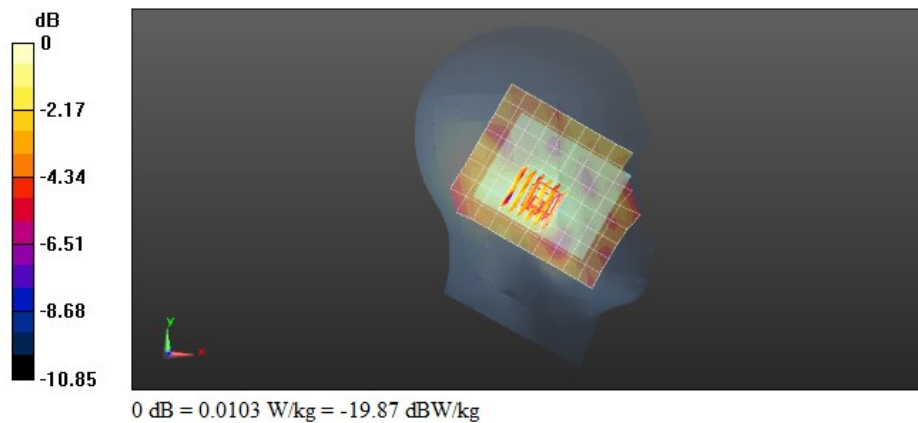
Configuration/Head/Zoom Scan (6x6x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 1.905 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 0.0110 W/kg

SAR(1 g) = 0.00849 W/kg; SAR(10 g) = 0.00644 W/kg

Maximum value of SAR (measured) = 0.0103 W/kg



Test Laboratory: CTI SAR Lab

Situational Awareness Earmuffs 4DQPSK 2480CH Left Hand Touch Cheek

DUT: Situational Awareness Earmuffs; Type: NA; Serial: NA

Communication System: UID 0, Bluetooth (0); Communication System Band: Bluetooth 3.0; Frequency: 2480 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2480$ MHz; $\sigma = 1.857$ S/m; $\epsilon_r = 39.632$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.56, 7.56, 7.56); Calibrated: 2/27/2022;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/4/2022
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (9x11x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.00894 W/kg

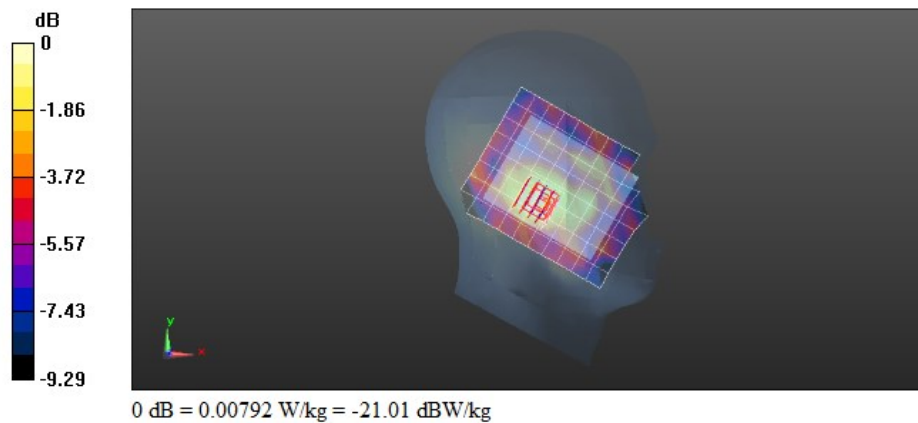
Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 1.533 V/m; Power Drift = -1.13 dB

Peak SAR (extrapolated) = 0.00866 W/kg

SAR(1 g) = 0.00654 W/kg; SAR(10 g) = 0.00411 W/kg

Maximum value of SAR (measured) = 0.00792 W/kg



Test Laboratory: CTI SAR Lab

Situational Awareness Earmuffs 8DPSK 2402CH Right Hand Touch Cheek

DUT: Situational Awareness Earmuffs; Type: NA; Serial: NA

Communication System: UID 0, Bluetooth (0); Communication System Band: Bluetooth 3.0; Frequency: 2402 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2402$ MHz; $\sigma = 1.762$ S/m; $\epsilon_r = 39.805$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.56, 7.56, 7.56); Calibrated: 2/27/2022;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/4/2022
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (9x11x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

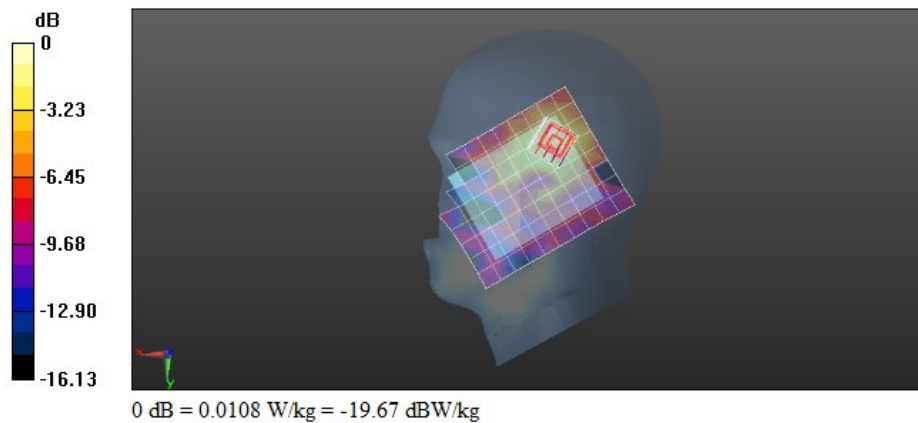
Maximum value of SAR (measured) = 0.0108 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 1.537 V/m; Power Drift = -0.78 dB

Peak SAR (extrapolated) = 0.0130 W/kg

SAR(1 g) = 0.00813 W/kg; SAR(10 g) = 0.00478 W/kg



Test Laboratory: CTI SAR Lab

Situational Awareness Earmuffs GFSK 2402CH Back Side 0mm

DUT: Situational Awareness Earmuffs; Type: NA; Serial: NA

Communication System: UID 0, Bluetooth (0); Communication System Band: Bluetooth 3.0; Frequency: 2402 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2402$ MHz; $\sigma = 1.708$ S/m; $\epsilon_r = 39.014$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.56, 7.56, 7.56); Calibrated: 2/27/2022;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/4/2022
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x10x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.0416 W/kg

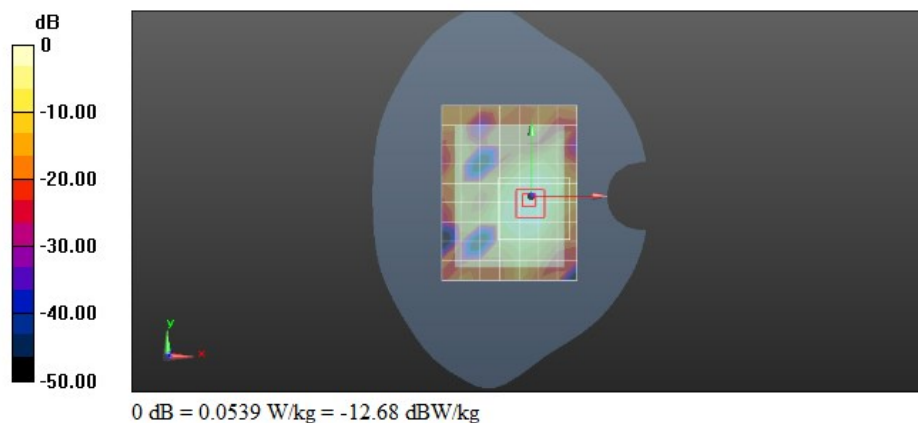
Configuration/Body/Zoom Scan (8x7x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 2.945 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.0670 W/kg

SAR(1 g) = 0.034 W/kg; SAR(10 g) = 0.017 W/kg

Maximum value of SAR (measured) = 0.0539 W/kg



Test Laboratory: CTI SAR Lab

Situational Awareness Earmuffs 4DQPSK 2402CH Back Side 0mm

DUT: Situational Awareness Earmuffs; Type: NA; Serial: NA

Communication System: UID 0, Bluetooth (0); Communication System Band: Bluetooth 3.0; Frequency: 2402 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2402$ MHz; $\sigma = 1.779$ S/m; $\epsilon_r = 38.922$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.56, 7.56, 7.56); Calibrated: 2/27/2022;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/4/2022
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x10x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.0553 W/kg

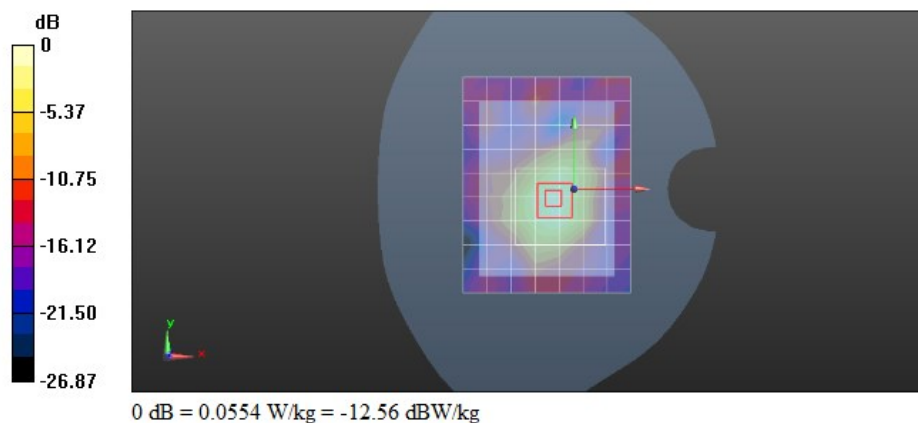
Configuration/Body/Zoom Scan (8x7x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 5.191 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.0680 W/kg

SAR(1 g) = 0.035 W/kg; SAR(10 g) = 0.017 W/kg

Maximum value of SAR (measured) = 0.0554 W/kg



Test Laboratory: CTI SAR Lab

Situational Awareness Earmuffs 8DPSK 2402CH Back Side 0mm

DUT: Situational Awareness Earmuffs; Type: NA; Serial: NA

Communication System: UID 0, Bluetooth (0); Communication System Band: Bluetooth 3.0; Frequency: 2402 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2402$ MHz; $\sigma = 1.779$ S/m; $\epsilon_r = 38.922$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.56, 7.56, 7.56); Calibrated: 2/27/2022;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/4/2022
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: 1875
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x10x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.0517 W/kg

Configuration/Body/Zoom Scan (8x7x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 5.191 V/m; Power Drift = -0.21 dB

Peak SAR (extrapolated) = 0.0680 W/kg

SAR(1 g) = 0.035 W/kg; SAR(10 g) = 0.017 W/kg

Maximum value of SAR (measured) = 0.0538 W/kg

