

Appendix B:SAR Measurement results Plots

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2.4G WiFi Body
5.2G WiFi Body
5.8G WiFi Body

Test Laboratory: CTI SAR Lab

802.11a 40CH Front Side 0mm**DUT: Wireless Battery Diagnostics System; Type: NA; Serial: NA**

Communication System: UID 0, WiFi 802.11 a/b/g/n/ac (0); Communication System Band: WiFi 5.2G; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5200$ MHz; $\sigma = 4.735$ S/m; $\epsilon_r = 35.385$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(5.46, 5.46, 5.46); Calibrated: 2/8/2020;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/8/2020
- Phantom: ELI v6.0; Type: QDOVA003AA; Serial: 2024
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (13x10x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 1.97 W/kg

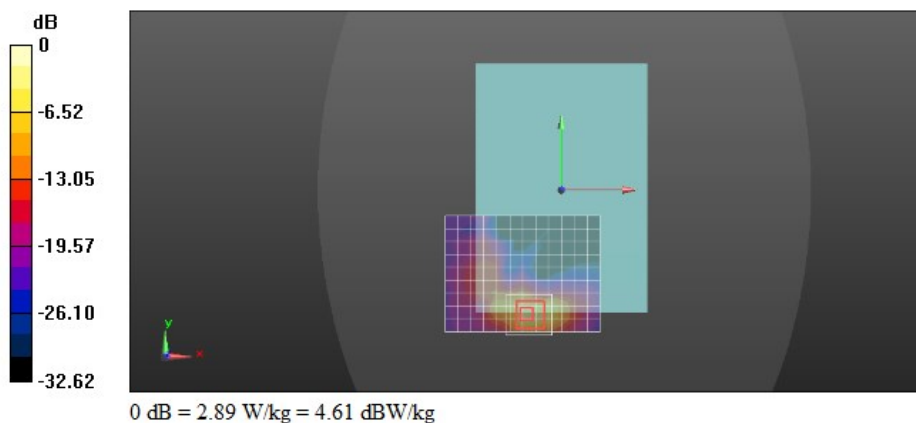
Configuration/Body/Zoom Scan (10x9x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 0.8050 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 5.13 W/kg

SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.311 W/kg

Maximum value of SAR (measured) = 2.89 W/kg



Test Laboratory: CTI SAR Lab

802.11a 165CH Front Side 0mm**DUT: Wireless Battery Diagnostics System; Type: NA; Serial: NA**

Communication System: UID 0, WiFi 802.11 a/b/g/n/ac (0); Communication System Band: WiFi 5.8G; Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5825$ MHz; $\sigma = 5.382$ S/m; $\epsilon_r = 35.526$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(4.9, 4.9, 4.9); Calibrated: 2/8/2020;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/8/2020
- Phantom: ELI v6.0; Type: QDOVA003AA; Serial: 2024
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (13x11x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

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

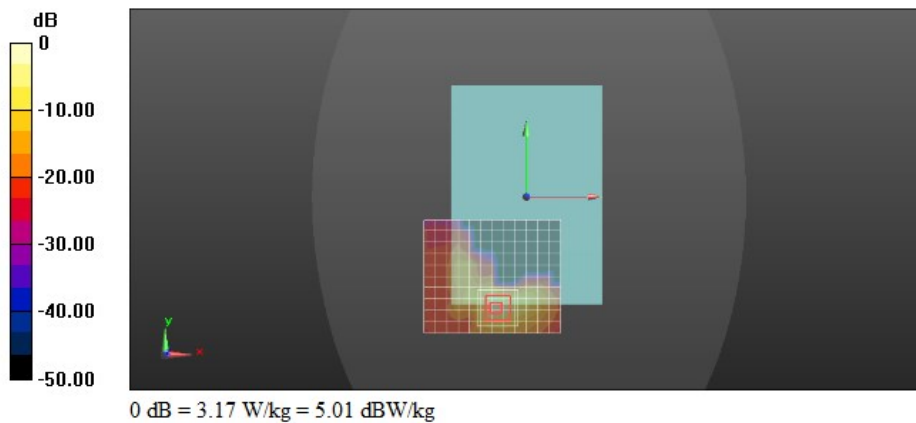
Configuration/Body/Zoom Scan (10x9x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 0.6580 V/m; Power Drift = 0.72 dB

Peak SAR (extrapolated) = 6.06 W/kg

SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.314 W/kg

Maximum value of SAR (measured) = 3.17 W/kg



Test Laboratory: CTI SAR Lab

WiFi 802.11b 1CH Front Side 0mm**DUT: Wireless Battery Diagnostics System; Type: NA; Serial: NA**

Communication System: UID 0, WiFi 802.11 a/b/g/n/ac (0); Communication System Band: WiFi; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2412$ MHz; $\sigma = 1.795$ S/m; $\epsilon_r = 38.308$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7328; ConvF(7.68, 7.68, 7.68); Calibrated: 2/8/2020;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1458; Calibrated: 1/8/2020
- Phantom: ELI v6.0; Type: QDOVA003AA; Serial: 2024
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (11x8x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

Maximum value of SAR (measured) = 2.31 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 2.012 V/m; Power Drift = 1.07 dB

Peak SAR (extrapolated) = 3.43 W/kg

SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.527 W/kg

Maximum value of SAR (measured) = 2.39 W/kg

