

Appendix B - SAR Measurement

Test Laboratory: TUV Inc.

Date: 2024/10/9

05_WLAN2.4GHz_802.11b 1Mbps_Edge 4_0mm_Ch1

DUT: TPMS Tool

Communication System: WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: HSL2450_241009 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.762$ S/m; $\epsilon_r = 39.833$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.4°C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(7.67, 7.67, 7.67) @ 2412 MHz; Calibrated: 2024/4/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -44.0, 31.0$
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 AA; Serial: 1153
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Area Scan (9x14x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

Maximum value of SAR (measured) = 0.576 W/kg

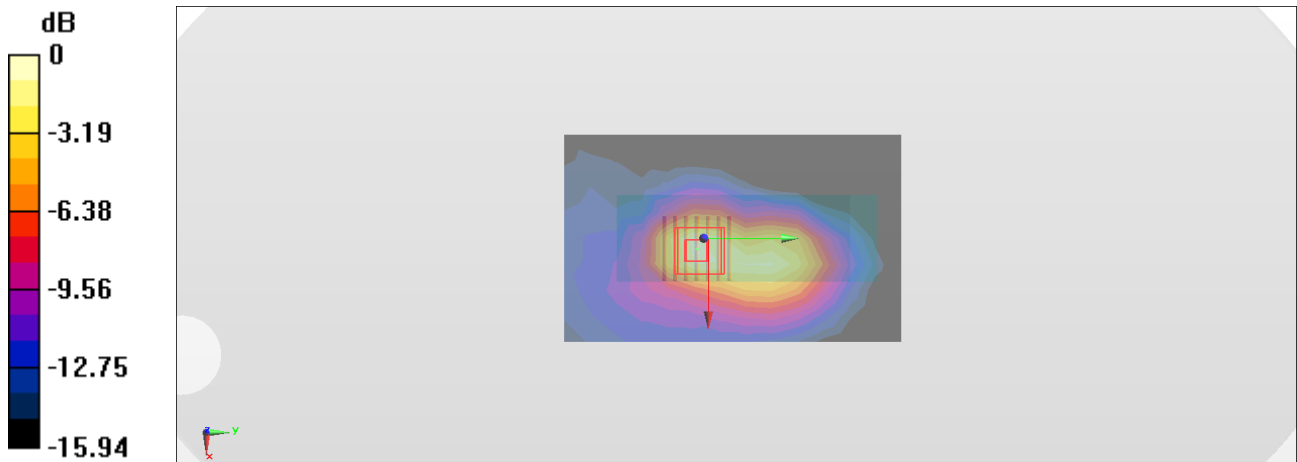
Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 18.19 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 0.821 W/kg

SAR(1 g) = 0.441 W/kg; SAR(10 g) = 0.228 W/kg

Maximum value of SAR (measured) = 0.674 W/kg



0 dB = 0.674 W/kg = -1.71 dBW/kg

10_WLAN5GHz_802.11n-HT20 MCS0_Edge 4_0mm_Ch48

DUT: TPMS Tool

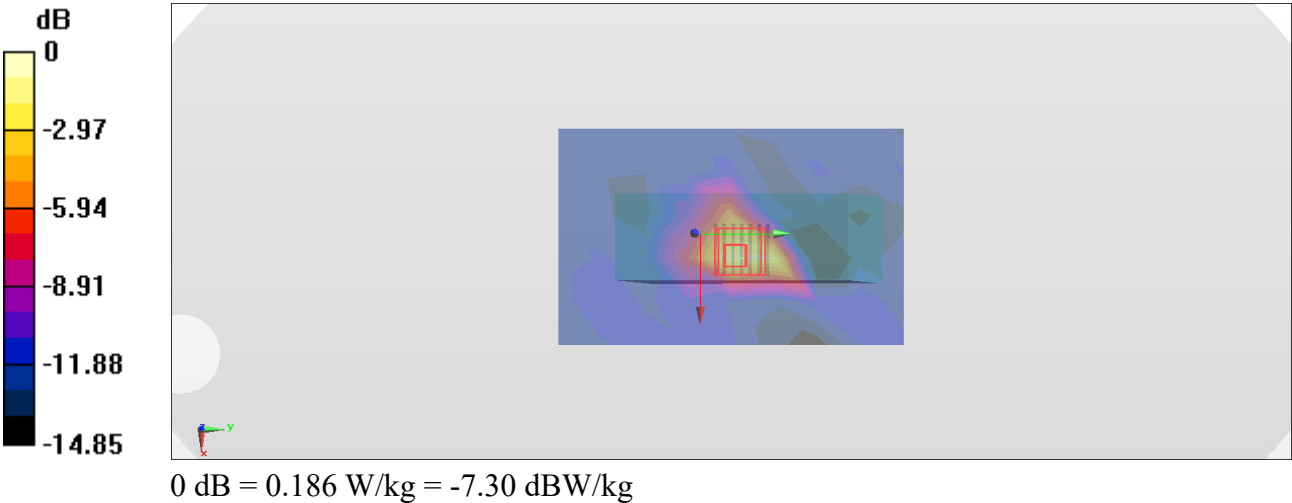
Communication System: WLAN; Frequency: 5240 MHz; Duty Cycle: 1:1
Medium: HSL5G_241015 Medium parameters used: $f = 5240 \text{ MHz}$; $\sigma = 4.646 \text{ S/m}$; $\epsilon_r = 35.787$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature : 23.6 °C; Liquid Temperature : 22.6°C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(5.05, 5.05, 5.05) @ 5240 MHz; Calibrated: 2024/4/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -44.0, 23.0$
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 AA; Serial: 1153
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Area Scan (12x18x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (measured) = 0.139 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$
Reference Value = 6.897 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.364 W/kg
SAR(1 g) = 0.082 W/kg; SAR(10 g) = 0.029 W/kg
Maximum value of SAR (measured) = 0.186 W/kg



15_WLAN5GHz_802.11a 6Mbps_Edge 4_0mm_Ch149

DUT: TPMS Tool

Communication System: WLAN; Frequency: 5745 MHz; Duty Cycle: 1:1
Medium: HSL5G_241015 Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 5.177 \text{ S/m}$; $\epsilon_r = 35.07$; $\rho = 1000 \text{ kg/m}^3$
Ambient Temperature : 23.6 °C;Liquid Temperature : 22.6°C

DASY Configuration:

- Electronics: DAE4 Sn855; Calibrated: 2024/4/22
- Probe: EX3DV4 - SN7400; ConvF(4.77, 4.77, 4.77) @ 5745 MHz; Calibrated: 2024/4/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -44.0, 23.0$
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 AA; Serial: 1153
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Area Scan (12x18x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (measured) = 0.0746 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$
Reference Value = 4.715 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.355 W/kg
SAR(1 g) = 0.037 W/kg; SAR(10 g) = 0.00753 W/kg
Maximum value of SAR (measured) = 0.110 W/kg

