

# Appendix B

## Detailed Test Results

WIFI 2.4G for Body
--------------------

Lora for Body
---------------

Test Laboratory: SGS-SAR Lab

## WIFI 2.4G 802.11b 11CH Back side 5mm

**DUT: AP82; Type: Rapid Response Button; Serial: C1**

Communication System: UID 0, WI-FI(2.4GHz) (0); Frequency: 2462 MHz;Duty Cycle: 1:1

Medium: HSL2450;Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.772$  S/m;  $\epsilon_r = 40.586$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(7.6, 7.6, 7.6); Calibrated: 2020-04-01;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1267; Calibrated: 2020-06-12
- Phantom: SAM 3; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (9x13x1):** Measurement grid: dx=12mm, dy=12mm

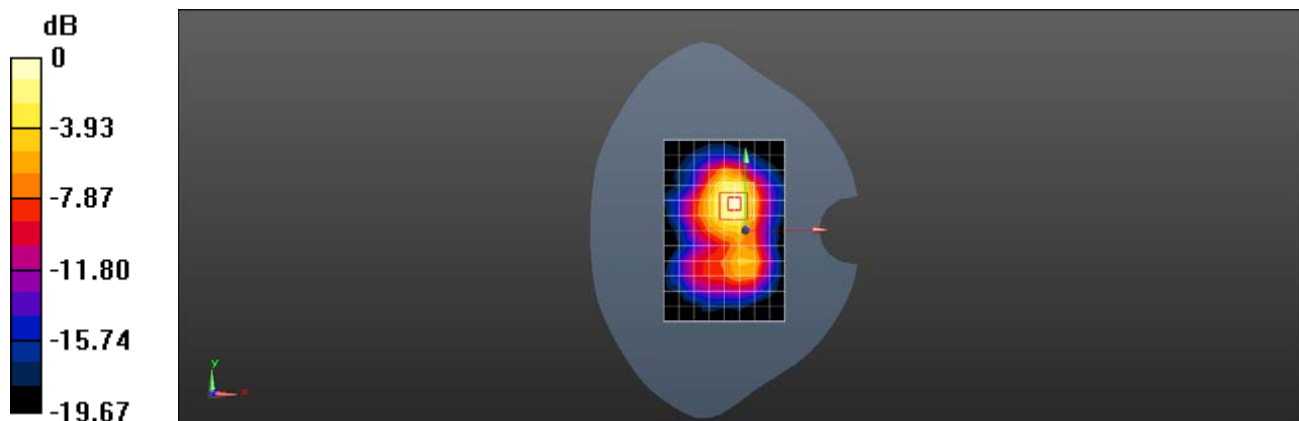
Maximum value of SAR (measured) = 1.14 W/kg

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

Reference Value = 13.42 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.52 W/kg

**SAR(1 g) = 0.770 W/kg; SAR(10 g) = 0.382 W/kg**



0 dB = 1.14 W/kg = 0.57 dBW/kg

Test Laboratory: SGS-SAR Lab

## Lora 125kHz DBPSK 0CH Back side 5mm

**DUT: AP82; Type: Rapid Response Button; Serial: C1**

Communication System: UID 0, Uers-define (0); Frequency: 902.3 MHz;Duty Cycle: 1:1

Medium: HSL835;Medium parameters used (interpolated):  $f = 902.3$  MHz;  $\sigma = 0.926$  S/m;  $\epsilon_r = 42.534$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(9.85, 9.85, 9.85); Calibrated: 2020-04-01;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1267; Calibrated: 2020-06-12
- Phantom: SAM 3; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (7x11x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.33 W/kg

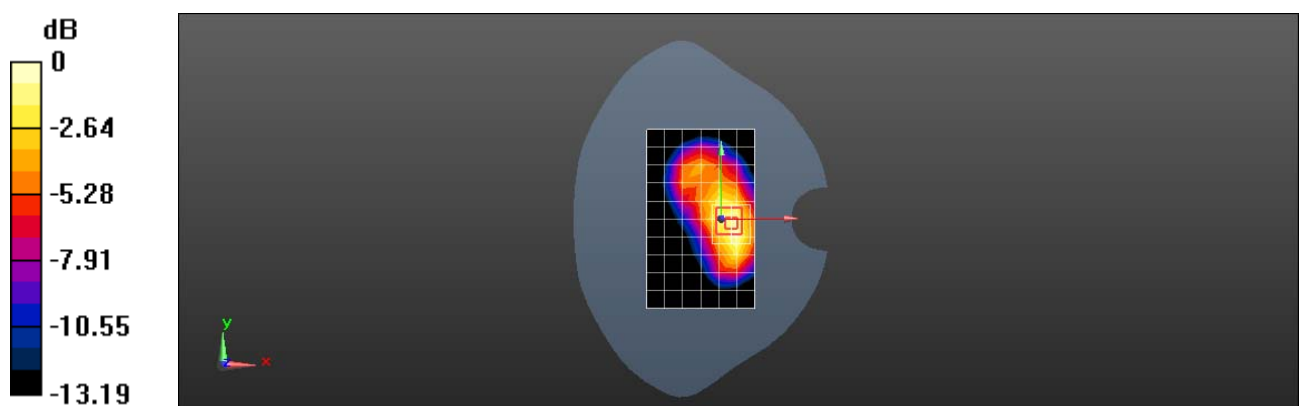
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.31 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.83 W/kg

**SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.686 W/kg**

Maximum value of SAR (measured) = 1.48 W/kg



0 dB = 1.48 W/kg = 1.70 dBW/kg

Test Laboratory: SGS-SAR Lab

## Lora 500kHz DBPSK 67CH Back side 5mm

**DUT: AP82; Type: Rapid Response Button; Serial: C1**

Communication System: UID 0, Uers-define (0); Frequency: 907.8 MHz;Duty Cycle: 1:1

Medium: HSL835;Medium parameters used:  $f = 908$  MHz;  $\sigma = 0.929$  S/m;  $\epsilon_r = 42.482$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(9.85, 9.85, 9.85); Calibrated: 2020-04-01;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1267; Calibrated: 2020-06-12
- Phantom: SAM 3; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

**Configuration/Body/Area Scan (7x11x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 1.34 W/kg

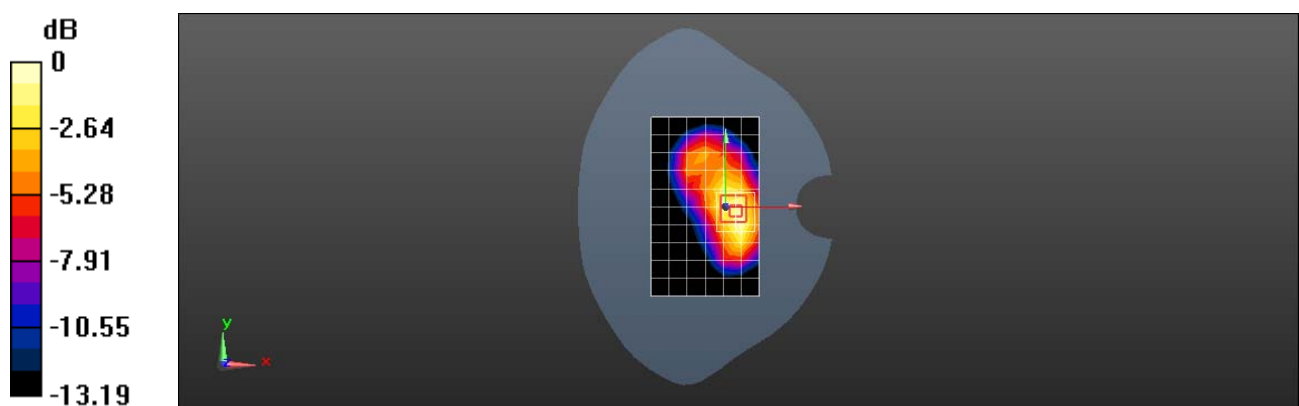
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.33 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 1.84 W/kg

**SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.690 W/kg**

Maximum value of SAR (measured) = 1.49 W/kg



0 dB = 1.49 W/kg = 1.73 dBW/kg