

# **Appendix A**

## **System Performance Check**

Test Laboratory: Audix SAR Lab  
CW 2450

Date: 15/8/2016

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:862

Communication System: UID 0, CW ; Frequency: 2450 MHz

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.982$  S/m;  $\epsilon_r = 52.819$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3767; ConvF(7.35, 7.35, 7.35); Calibrated: 30/01/2015;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn889; Calibrated: 02/02/2016
- Phantom: ELI 4.0; Type: QDOVA001BA; Serial: 1112
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CW 2450/Area Scan (41x61x1):

Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Maximum value of SAR (interpolated) = 15.21 W/kg

Configuration/ CW 2450/Zoom Scan (7x7x7)/Cube 0:

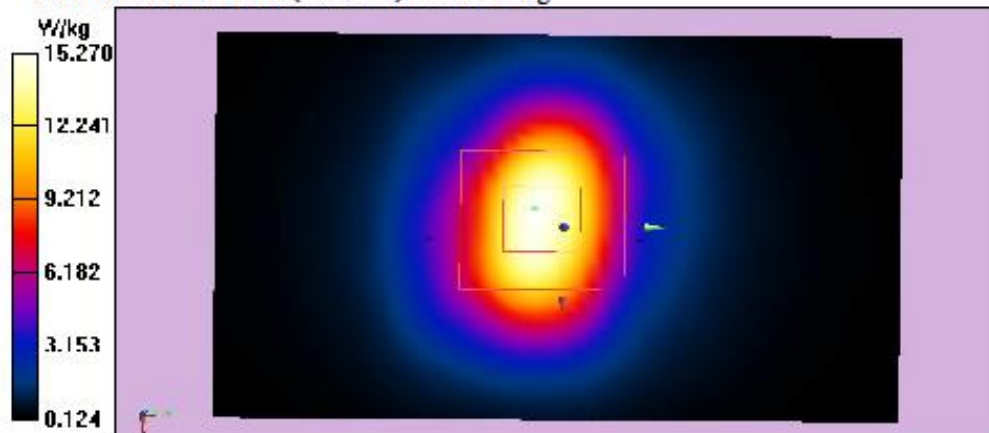
Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 56.66 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 20.5 W/kg

SAR(1 g) = 13.11 W/kg; SAR(10 g) = 6.01 W/kg

Maximum value of SAR (measured) = 15.27 W/kg



Test Laboratory: Audix SAR Lab

Date: 15/8/2016

CW 5200

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1102

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5200 MHz; Communication System PAR: 0 dB

Medium parameters used:  $f = 5200$  MHz;  $\sigma = 5.254$  S/m;  $\epsilon_r = 50.131$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3767; ConvF(4.98, 4.98, 4.98); Calibrated: 30/01/2015;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn889; Calibrated: 02/02/2016
- Phantom: ELI 4.0; Type: QDOVA001BA; Serial: 1112
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CW 5200/Area Scan (51x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 21.44 W/kg

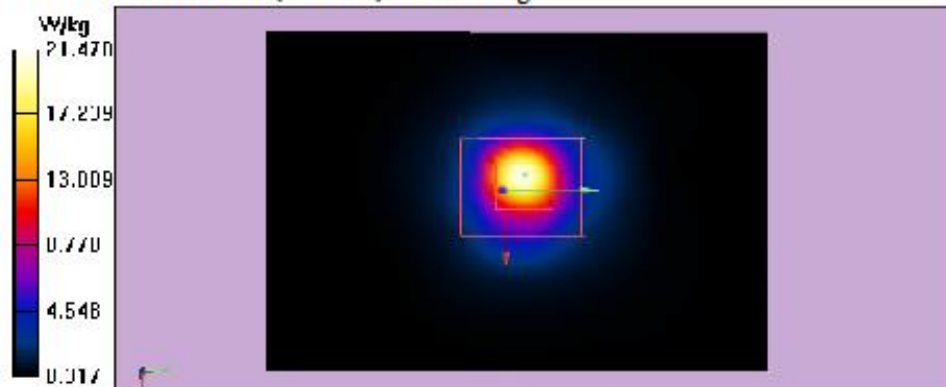
Configuration/CW 5200/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 97.19 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 45.60 W/kg

SAR(1 g) = 19.10 W/kg; SAR(10 g) = 5.39 W/kg

Maximum value of SAR (measured) = 21.72 W/kg



Test Laboratory: Audix SAR Lab

Date: 15/8/2016

**CW 5800**

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1102**

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5800 MHz; Communication System PAR: 0 dB

Medium parameters used:  $f = 5800$  MHz;  $\sigma = 5.671$  S/m;  $\epsilon_r = 48.50$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3767; ConvF(4.33, 4.33, 4.33); Calibrated: 30/01/2015;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn889; Calibrated: 02/02/2016
- Phantom: ELI 4.0; Type: QDOVA001BA; Serial: 1112
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Configuration/CW 5800/Area Scan (41x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 22.84 W/kg

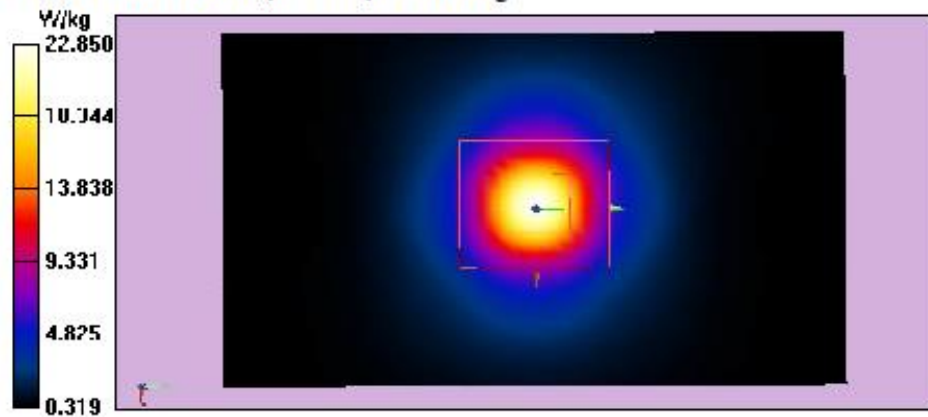
**Configuration/CW 5800/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 84.77 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 53.00 W/kg

SAR(1 g) = 19.50 W/kg; SAR(10 g) = 5.46 W/kg

Maximum value of SAR (measured) = 22.9 W/kg



## **Appendix A**

### **Test Plots of SAR Measurement**



Test Laboratory: Audix SAR Lab  
11b CH11(2462MHz Front)

Date: 15/8/2016

DUT: Tablet PC; M/N: UIT232B-U03

Communication System: UID 0, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps) (0);  
Communication System Band: ISM 2.4GHz Band (2400.0-2483.5MHz); Frequency:  
2462 MHz; Communication System PAR: 0 dB. Medium parameters used:  $f = 2462$  MHz;  
 $\sigma = 1.983$  S/m;  $\epsilon_r = 54.141$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3767; ConvF(7.35, 7.35, 7.35); Calibrated: 30/01/2015;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn889; Calibrated: 02/02/2016
- Phantom: ELI 4.0; Type: QDOVA001BA; Serial: 1112
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH11(2462MHz Front)/Area Scan (101x151x1): Interpolated grid:  
 $dx=2.000$  mm,  $dy=2.000$  mm

Maximum value of SAR (interpolated) = 0.00977 W/kg

Configuration/CH11(2462MHz Front)/Zoom Scan (7x7x7)/Cube 0:

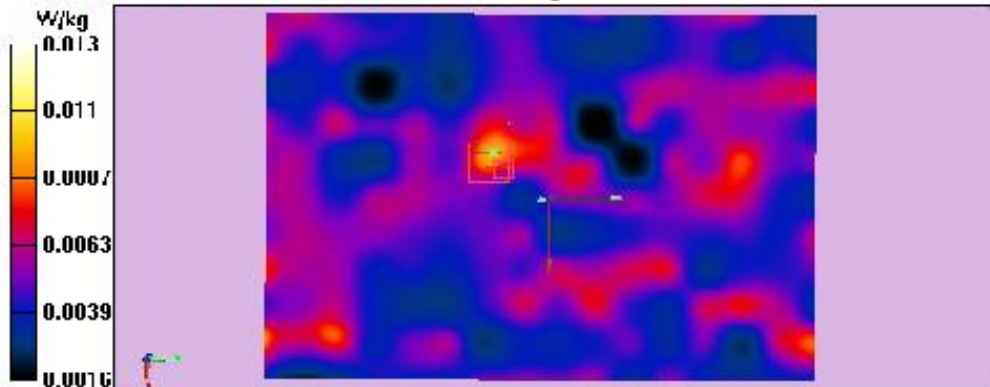
Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 1.598 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.0130 W/kg

SAR(1 g) = 0.00782 W/kg; SAR(10 g) = 0.00601 W/kg

Maximum value of SAR (measured) = 0.0134 W/kg



Test Laboratory: Audix SAR Lab

Date: 15/8/2016

11a CH48(5240MHz Front)

DUT: Tablet PC; M/N: UIT232B-U03

Communication System: UID 0, IEEE 802.11a WiFi 5.2GHz (0); Communication

System Band: IEEE 802.11a WiFi 5.2GHz; Frequency: 5240 MHz; Communication

System PAR: 0 dB. Medium parameters used:  $f = 5240 \text{ MHz}$ ;  $\sigma = 4.974 \text{ S/m}$ ;  $\epsilon_r = 47.18$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3767; ConvF(4.98, 4.98, 4.98); Calibrated: 30/01/2015;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn889; Calibrated: 02/02/2016
- Phantom: ELI 4.0; Type: QDOVA001BA; Serial: 1112
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH48(5240MHz Front)/Area Scan (101x151x1): Interpolated grid:

$dx=2.000 \text{ mm}$ ,  $dy=2.000 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.0565 \text{ W/kg}$

Configuration/CH48(5240MHz Front)/Zoom Scan (7x7x12)/Cube 0:

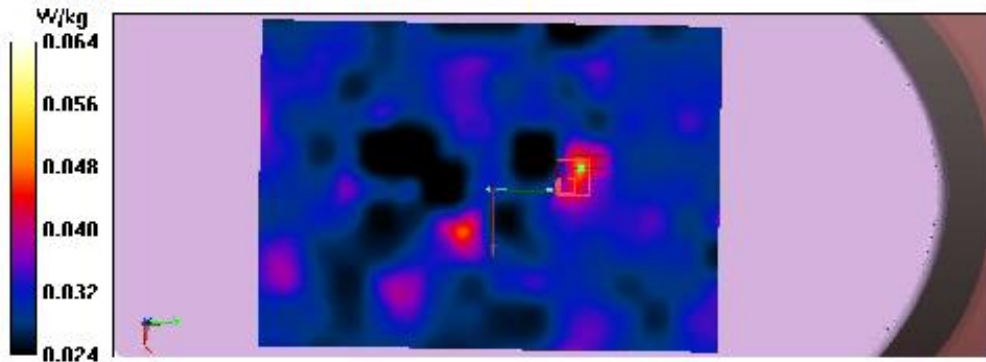
Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=2\text{mm}$

Reference Value =  $2.477 \text{ V/m}$ ; Power Drift =  $-0.04 \text{ dB}$

Peak SAR (extrapolated) =  $0.0780 \text{ W/kg}$

SAR(1 g) =  $0.051 \text{ W/kg}$ ; SAR(10 g) =  $0.044 \text{ W/kg}$

Maximum value of SAR (measured) =  $0.0639 \text{ W/kg}$



Test Laboratory: Audix SAR Lab

Date: 15/8/2016

11a CH165(5825MHz Front)

DUT: Tablet PC; M/N: UIT232B-U03

Communication System: UID 0, IEEE 802.11a WiFi 5.8GHz (0); Communication

System Band: IEEE 802.11a WiFi 5.8GHz ; Frequency: 5825 MHz; Communication

System PAR: 0 dB. Medium parameters used:  $f = 5825 \text{ MHz}$ ;  $\sigma = 6.009 \text{ S/m}$ ;  $\epsilon_r = 47.81$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3767; ConvF(4.33, 4.33, 4.33); Calibrated: 30/01/2015;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn889; Calibrated: 02/02/2016
- Phantom: ELI 4.0; Type: QDOVA001BA; Serial: 1112
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH165(5825MHz Front)/Area Scan (101x151x1): Interpolated

grid:  $dx=2.000 \text{ mm}$ ,  $dy=2.000 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.0640 \text{ W/kg}$

Configuration/CH165(5825MHz Front)/Zoom Scan (7x7x12)/Cube 0:

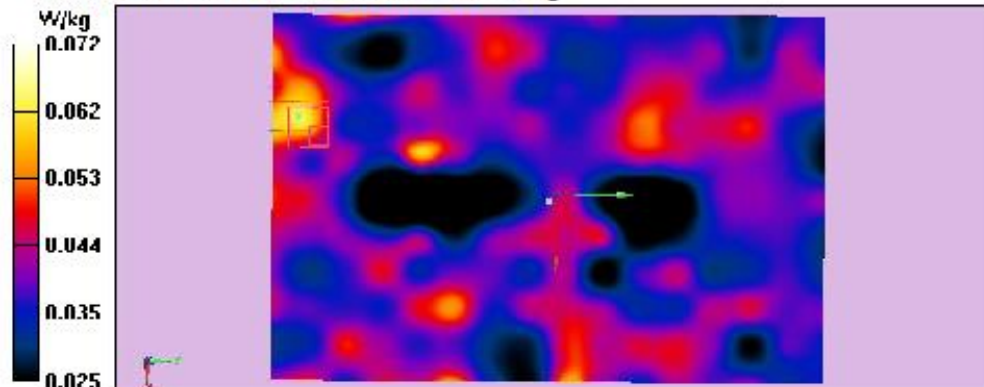
Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=2\text{mm}$

Reference Value =  $2.312 \text{ V/m}$ ; Power Drift =  $-0.01 \text{ dB}$

Peak SAR (extrapolated) =  $0.0720 \text{ W/kg}$

SAR(1 g) =  $0.058 \text{ W/kg}$ ; SAR(10 g) =  $0.051 \text{ W/kg}$

Maximum value of SAR (measured) =  $0.0717 \text{ W/kg}$





Test Laboratory: Audix SAR Lab

Date: 15/8/2016

11b CH11(2462MHz Top)

DUT: Tablet PC; M/N: UTT232B-U03

Communication System: UID 0, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps) (0);

Communication System Band: ISM 2.4GHz Band (2400.0-2483.5MHz); Frequency:

2462 MHz; Communication System PAR: 0 dB. Medium parameters used:  $f = 2462$  MHz;

$\sigma = 1.981$  S/m;  $\epsilon_r = 54.144$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3767; ConvF(7.35, 7.35, 7.35); Calibrated: 30/01/2015;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn889; Calibrated: 02/02/2016
- Phantom: ELI 4.0; Type: QDOVA001BA; Serial: 1112
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH11(2462MHz Top)/Area Scan (51x151x1): Interpolated grid:

$dx=2.000$  mm,  $dy=2.000$  mm

Maximum value of SAR (interpolated) = 0.326 W/kg

Configuration/CH11(2462MHz Top)/Zoom Scan (7x7x7)/Cube 0: Measurement

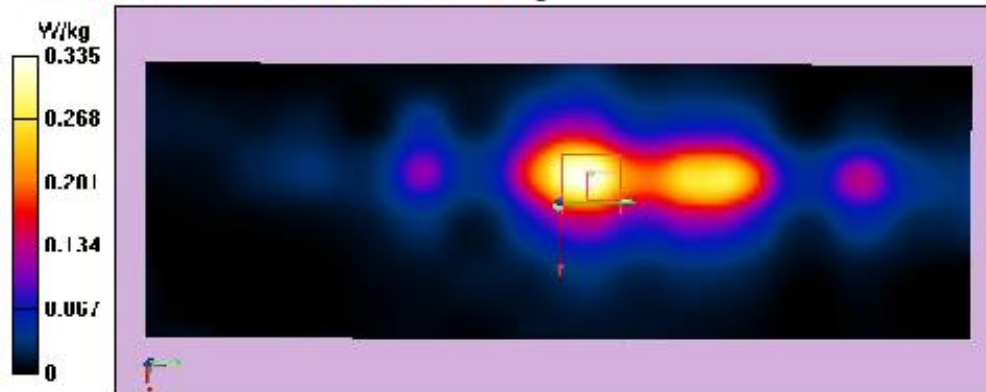
grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 6.210 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.206 W/kg

SAR(1 g) = 0.197 W/kg; SAR(10 g) = 0.129 W/kg

Maximum value of SAR (measured) = 0.335 W/kg



Test Laboratory: Audix SAR Lab

Date: 15/8/2016

11a CH48(5240MHz Top)

DUT: Tablet PC; M/N: UTT232B-U03

Communication System: UID 0, IEEE 802.11a WiFi 5.2GHz (0); Communication

System Band: IEEE 802.11a WiFi 5.2GHz; Frequency: 5240 MHz; Communication

System PAR: 0 dB. Medium parameters used:  $f = 5240 \text{ MHz}$ ;  $\sigma = 4.977 \text{ S/m}$ ;  $\epsilon_r = 47.19$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3767; ConvF(4.98, 4.98, 4.98); Calibrated: 30/01/2015;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn889; Calibrated: 02/02/2016
- Phantom: ELI 4.0; Type: QDOVA001BA; Serial: 1112
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH48(5240MHz Top)/Area Scan (51x151x1): Interpolated grid:

$dx=2.000 \text{ mm}$ ,  $dy=2.000 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.445 \text{ W/kg}$

Configuration/CH48(5240MHz Top)/Zoom Scan (7x7x12)/Cube 0:

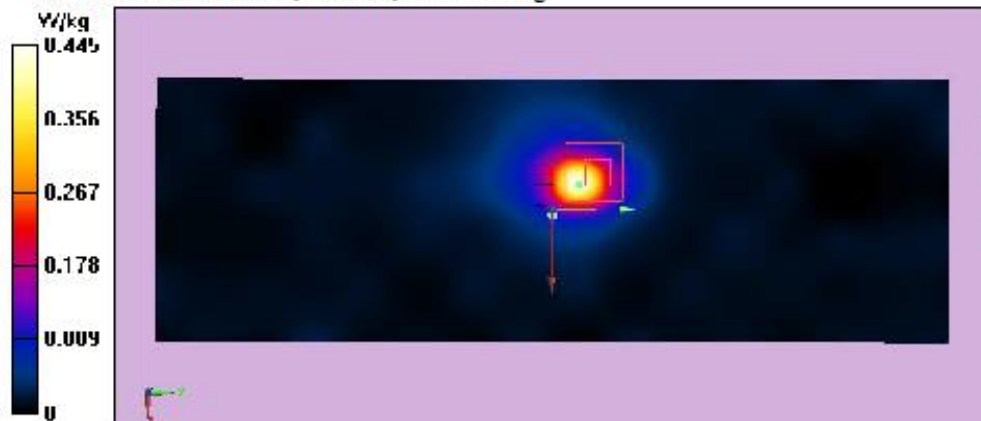
Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=2\text{mm}$

Reference Value =  $5.015 \text{ V/m}$ ; Power Drift =  $-0.18 \text{ dB}$

Peak SAR (extrapolated) =  $2.03 \text{ W/kg}$

SAR(1 g) =  $0.261 \text{ W/kg}$ ; SAR(10 g) =  $0.208 \text{ W/kg}$

Maximum value of SAR (measured) =  $0.832 \text{ W/kg}$



Test Laboratory: Audix SAR Lab

Date: 15/8/2016

11a CH165(5825MHz Top)

DUT: Tablet PC; M/N: UIT232B-U03

Communication System: UID 0, IEEE 802.11a WiFi 5.8GHz (0); Communication

System Band: IEEE 802.11a WiFi 5.8GHz ; Frequency: 5825 MHz; Communication

System PAR: 0 dB. Medium parameters used:  $f = 5825 \text{ MHz}$ ;  $\sigma = 6.102 \text{ S/m}$ ;  $\epsilon_r = 47.81$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3767; ConvF(4.33, 4.33, 4.33); Calibrated: 30/01/2015;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn889; Calibrated: 02/02/2016
- Phantom: ELI 4.0; Type: QDOVA001BA; Serial: 1112
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH165(5825MHz Top)/Area Scan (51x151x1): Interpolated grid:

$dx=2.000 \text{ mm}$ ,  $dy=2.000 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.642 \text{ W/kg}$

Configuration/CH165(5825MHz Top)/Zoom Scan (7x7x12)/Cube 0:

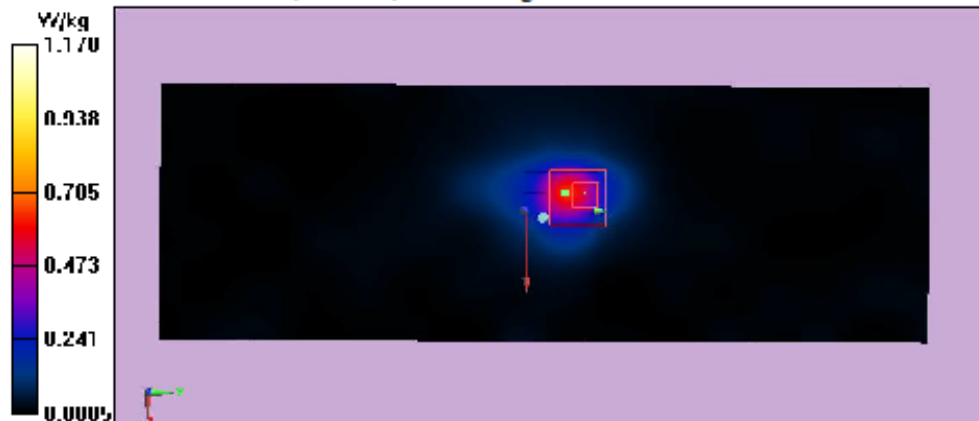
Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=2\text{mm}$

Reference Value =  $6.541 \text{ V/m}$ ; Power Drift =  $-0.05 \text{ dB}$

Peak SAR (extrapolated) =  $0.71 \text{ W/kg}$

SAR(1 g) =  $0.224 \text{ W/kg}$ ; SAR(10 g) =  $0.208 \text{ W/kg}$

Maximum value of SAR (measured) =  $1.17 \text{ W/kg}$



Test Laboratory: Audix SAR Lab

Date: 15/8/2016

CH39(2441MHz Front)

DUT: Tablet PC; M/N: UIT232B-U03

Communication System: UID 0, Blue Tooth (0); Communication System Band: Mid;

Frequency: 2441 MHz; Communication System PAR: 0 dB. Medium parameters used (interpolated):  $f = 2441$  MHz;  $\sigma = 1.974$  S/m;  $\epsilon_r = 53.371$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3767; ConvF(7.35, 7.35, 7.35); Calibrated: 30/01/2015;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn889; Calibrated: 02/02/2016
- Phantom: ELI 4.0; Type: QDOVA001BA; Serial: 1112
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH2441(2441MHz Back)/Area Scan (51x71x1): Interpolated grid:

$dx=2.000$  mm,  $dy=2.000$  mm

Maximum value of SAR (interpolated) = 0.0447 W/kg

Configuration/CH2441(2441MHz Back)/Zoom Scan (7x7x7)/Cube 0:

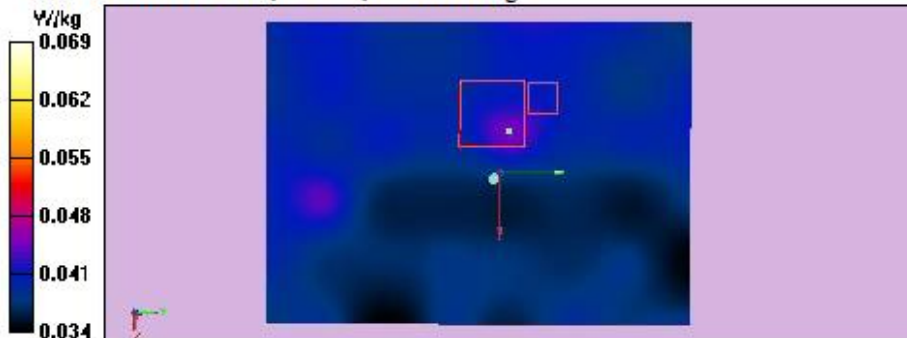
Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 4.323 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.0690 W/kg

SAR(1 g) = 0.059 W/kg; SAR(10 g) = 0.052 W/kg

Maximum value of SAR (measured) = 0.0693 W/kg





Test Laboratory: Audix SAR Lab

Date: 15/8/2016

**CH39(2441MHz Top)**

DUT: Tablet PC; M/N: UIT232B-U03

Communication System: UID 0, Blue Tooth (0); Communication System Band: Mid;

Frequency: 2441 MHz; Communication System PAR: 0 dB. Medium parameters used (interpolated):  $f = 2441$  MHz;  $\sigma = 1.974$  S/m;  $\epsilon_r = 53.371$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3767; ConvF(7.35, 7.35, 7.35); Calibrated: 30/01/2015;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn889; Calibrated: 02/02/2016
- Phantom: ELI 4.0; Type: QDOVA001BA; Serial: 1112
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Configuration/CH2441(2441MHz Top)/Area Scan (51x71x1):** Interpolated grid:  
dx=2.000 mm, dy=2.000 mm

Maximum value of SAR (interpolated) = 0.0153 W/kg

**Configuration/CH2441(2441MHz Top)/Zoom Scan (7x7x7)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.457 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.0210 W/kg

SAR(1 g) = 0.019 W/kg; SAR(10 g) = 0.016 W/kg

Maximum value of SAR (measured) = 0.0211 W/kg

