

# APPENDIX A. Plots of System Performance Check

## System Check\_B2450\_140822

#### **DUT: Dipole 2450 MHz\_SN: 929**

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: B2450\_140822 Medium parameters used: f = 2450 MHz;  $\sigma = 2.005$  S/m;  $\epsilon_r = 51.281$ ;  $\rho = 2.005$  MHz;  $\sigma = 2.005$  S/m;  $\epsilon_r = 51.281$ ;  $\rho = 2.005$  MHz;  $\sigma = 2.005$  S/m;  $\epsilon_r = 51.281$ ;  $\rho = 2.005$  MHz;  $\sigma = 2.005$  S/m;  $\epsilon_r = 51.281$ ;  $\rho = 2.005$  MHz;  $\sigma = 2.005$  S/m;  $\epsilon_r = 51.281$ ;  $\rho = 2.005$  MHz;  $\sigma = 2.005$  S/m;  $\epsilon_r = 51.281$ ;  $\rho = 2.005$  MHz;  $\sigma = 2.005$  S/m;  $\epsilon_r = 51.281$ ;  $\rho = 2.005$  MHz;  $\sigma = 2.005$  S/m;  $\epsilon_r = 51.281$ ;  $\rho = 2.005$  MHz;  $\sigma = 2.005$  S/m;  $\epsilon_r = 51.281$ ;  $\rho = 2.005$  MHz;  $\sigma =$ 

Date: 2014/8/22

 $1000 \text{ kg/m}^3$ 

Ambient Temperature: 23.3  $^{\circ}$ C; Liquid Temperature: 22.8  $^{\circ}$ C

## DASY5 Configuration:

- Probe: EX3DV4 SN3820; ConvF(6.87, 6.87, 6.87); Calibrated: 2014/5/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2014/2/11
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm Maximum value of SAR (interpolated) = 21.7 W/kg

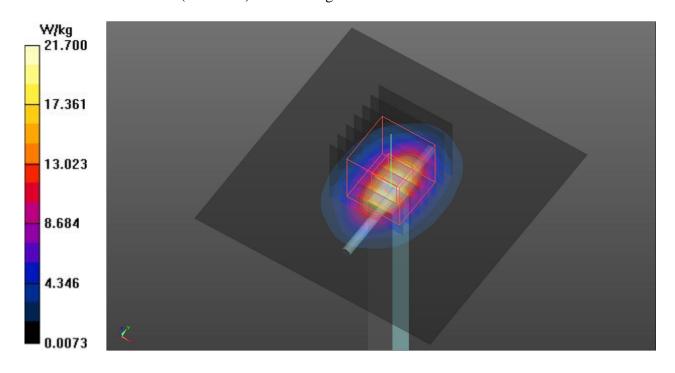
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 106.7 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 29.6 W/kg

SAR(1 g) = 14 W/kg; SAR(10 g) = 6.45 W/kg

Maximum value of SAR (measured) = 21.8 W/kg



# System Check\_B5200\_140821

# DUT: Dipole 5 GHz\_SN: 1171

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: B5G\_140821 Medium parameters used: f = 5200 MHz;  $\sigma = 5.299$  S/m;  $\varepsilon_r = 47.706$ ;  $\rho = 5.299$  S/m;  $\varepsilon_r = 47.706$ 

Date: 2014/8/21

 $1000 \text{ kg/m}^3$ 

Ambient Temperature: 23.2  $^{\circ}$ C; Liquid Temperature: 22.9  $^{\circ}$ C

## DASY5 Configuration:

- Probe: EX3DV4 SN3820; ConvF(4.44, 4.44, 4.44); Calibrated: 2014/5/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2014/2/11
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7331)

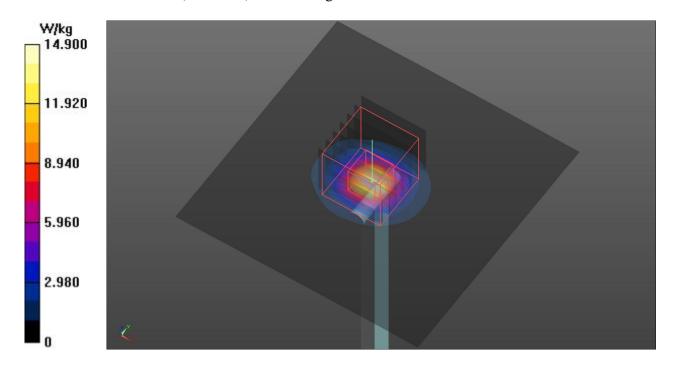
**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 14.9 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 55.03 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 29.5 W/kg

SAR(1 g) = 7.17 W/kg; SAR(10 g) = 2.03 W/kg

Maximum value of SAR (measured) = 15.0 W/kg



# System Check\_B5300\_140821

## DUT: Dipole 5 GHz\_SN: 1171

Communication System: CW; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: B5G\_140821 Medium parameters used: f = 5300 MHz;  $\sigma = 5.428$  S/m;  $\varepsilon_r = 47.532$ ;  $\rho = 5.428$  S/m;  $\varepsilon_r = 47.532$ ;  $\rho = 6.428$  S/m;  $\varepsilon_r = 6.428$  S/m;  $\varepsilon_r$ 

Date: 2014/8/21

 $1000 \text{ kg/m}^3$ 

Ambient Temperature: 23.2 °C; Liquid Temperature: 22.9 °C

## DASY5 Configuration:

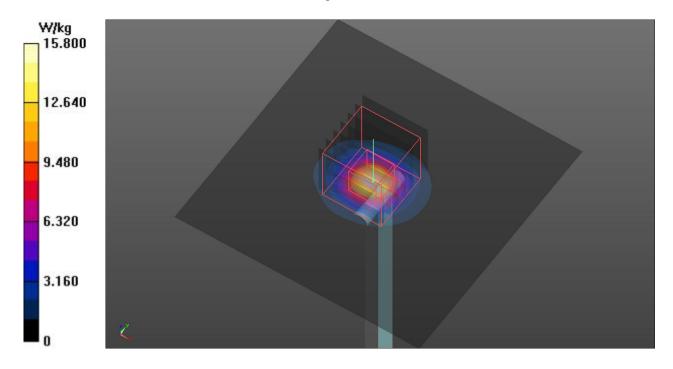
- Probe: EX3DV4 SN3820; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2014/2/11
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7331)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 15.8 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 56.69 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 31.4 W/kg

SAR(1 g) = 7.48 W/kg; SAR(10 g) = 2.1 W/kgMaximum value of SAR (measured) = 15.7 W/kg



# System Check\_B5600\_140822

# DUT: Dipole 5 GHz\_SN: 1171

Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: B5G\_140822 Medium parameters used: f = 5600 MHz;  $\sigma = 5.991$  S/m;  $\epsilon_r = 47.13$ ;  $\rho = 600$  MHz;  $\sigma = 6000$  MHz;  $\sigma$ 

Date: 2014/8/22

 $1000 \text{ kg/m}^3$ 

**Ambient Temperature**: 23.3  $^{\circ}$ C ; **Liquid Temperature**: 22.7  $^{\circ}$ C

## DASY5 Configuration:

- Probe: EX3DV4 SN3820; ConvF(3.83, 3.83, 3.83); Calibrated: 2014/5/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2014/2/11
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7331)

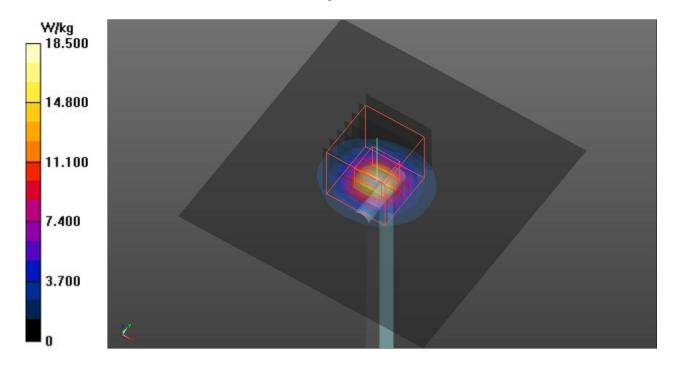
**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 18.5 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 59.07 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 35.4 W/kg

SAR(1 g) = 8.43 W/kg; SAR(10 g) = 2.4 W/kg

Maximum value of SAR (measured) = 17.7 W/kg



## System Check\_B5800\_140821

# DUT: Dipole 5 GHz\_SN: 1171

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: B5G\_140821 Medium parameters used: f = 5800 MHz;  $\sigma = 6.101$  S/m;  $\varepsilon_r = 46.703$ ;  $\rho = 3.00$ 

Date: 2014/8/21

 $1000 \text{ kg/m}^3$ 

**Ambient Temperature**: 23.2 °C ; **Liquid Temperature**: 22.9 °C

## DASY5 Configuration:

- Probe: EX3DV4 SN3820; ConvF(4, 4, 4); Calibrated: 2014/5/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2014/2/11
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7331)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 16.2 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 59.17 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 34.4 W/kg

SAR(1 g) = 8.07 W/kg; SAR(10 g) = 2.28 W/kg

Maximum value of SAR (measured) = 17.1 W/kg

