

## Appendix B

# System Check Plots

System Performance Check-2450MHz-Bdoy
System Performance Check-D5GHz_5250MHz-Body
System Performance Check-D5GHz_5600MHz-Body
System Performance Check-D5GHz_5750MHz-Body

## System Performance Check-2450MHz-Bdoy

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

Medium parameters used (interpolated):  $f = 2450$  MHz;  $\sigma = 2.012$  S/m;  $\epsilon_r = 52.525$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7383; ConvF(7.82, 7.82, 7.82); Calibrated: 2017/12/14;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE3 Sn427; Calibrated: 2017/12/4
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1235
- DASY52 52.10.0(1442); SEMCAD X 14.6.10(7413)

**Configuration/D2450V2/Area Scan (6x7x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm

Maximum value of SAR (measured) = 15.9 W/kg

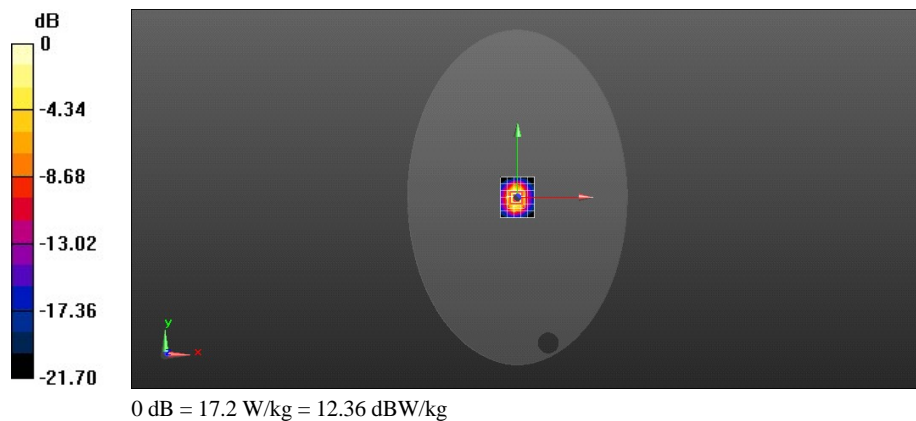
**Configuration/D2450V2/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 85.54 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 25.9 W/kg

**SAR(1 g) = 13.2 W/kg; SAR(10 g) = 6.23 W/kg**

Maximum value of SAR (measured) = 17.2 W/kg



### System Performance Check-D5GHz\_5250MHz-Body

Communication System: UID 0, CW (0); Frequency: 5250 MHz

Medium parameters used (interpolated):  $f = 5250$  MHz;  $\sigma = 5.449$  S/m;  $\epsilon_r = 49.612$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7383; ConvF(5.44, 5.44, 5.44); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 25.0$
- Electronics: DAE3 Sn427; Calibrated: 2017/12/4
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: 1805
- DASY52 52.10.0(1442); SEMCAD X 14.6.10(7413)

### System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5250 MHz/Area Scan (6x6x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 15.4 W/kg

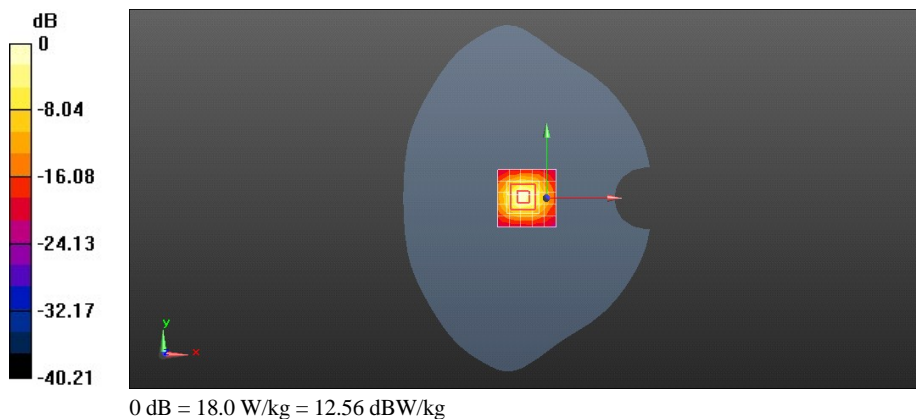
### System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5250 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 64.83 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 32.2 W/kg

SAR(1 g) = 7.76 W/kg; SAR(10 g) = 2.2 W/kg

Maximum value of SAR (measured) = 18.0 W/kg



### System Performance Check-D5GHz\_5600MHz-Body

Communication System: UID 0, CW (0); Frequency: 5600 MHz

Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.779$  S/m;  $\epsilon_r = 48.771$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7383; ConvF(4.42, 4.42, 4.42); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 25.0$
- Electronics: DAE3 Sn427; Calibrated: 2017/12/4
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: 1805
- DASY52 52.10.0(1442); SEMCAD X 14.6.10(7413)

### System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5600 MHz/Area Scan (6x6x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 13.8 W/kg

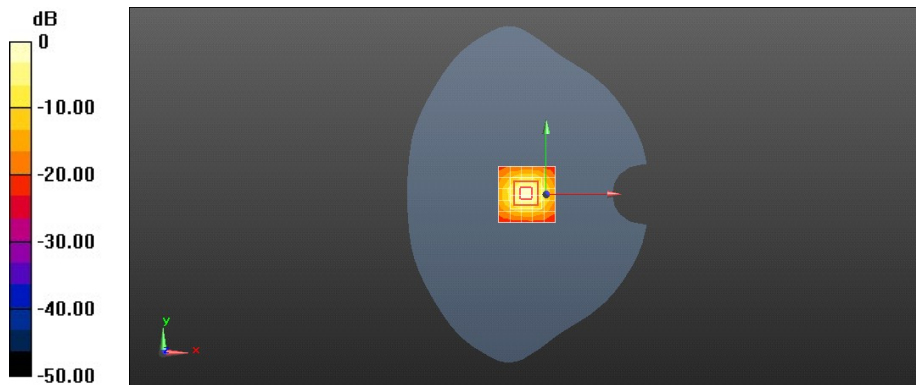
### System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5600 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 67.72 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 35.6 W/kg

**SAR(1 g) = 8.08 W/kg; SAR(10 g) = 2.24 W/kg**

Maximum value of SAR (measured) = 19.4 W/kg



0 dB = 19.4 W/kg = 12.88 dBW/kg

### System Performance Check-D5GHz\_5750MHz-Body

Communication System: UID 0, CW (0); Frequency: 5750 MHz

Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.947$  S/m;  $\epsilon_r = 48.383$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7383; ConvF(4.58, 4.58, 4.58); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 25.0$
- Electronics: DAE3 Sn427; Calibrated: 2017/12/4
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: 1805
- DASY52 52.10.0(1442); SEMCAD X 14.6.10(7413)

### System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5750 MHz/Area Scan (6x6x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 15.8 W/kg

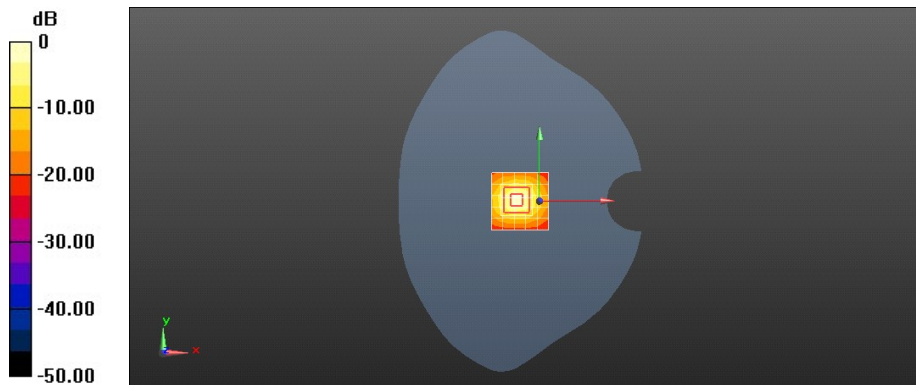
### System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5750 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 62.07 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 35.8 W/kg

**SAR(1 g) = 7.71 W/kg; SAR(10 g) = 2.15 W/kg**

Maximum value of SAR (measured) = 19.2 W/kg



0 dB = 19.2 W/kg = 12.83 dBW/kg

### System Performance Check-D5GHz\_5750MHz-Body

Communication System: UID 0, CW (0); Frequency: 5750 MHz

Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.893$  S/m;  $\epsilon_r = 48.906$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7383; ConvF(4.58, 4.58, 4.58); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 25.0$
- Electronics: DAE3 Sn427; Calibrated: 2017/12/4
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: 1805
- DASY52 52.10.0(1442); SEMCAD X 14.6.10(7413)

### System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5750 MHz/Area Scan (6x6x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 15.6 W/kg

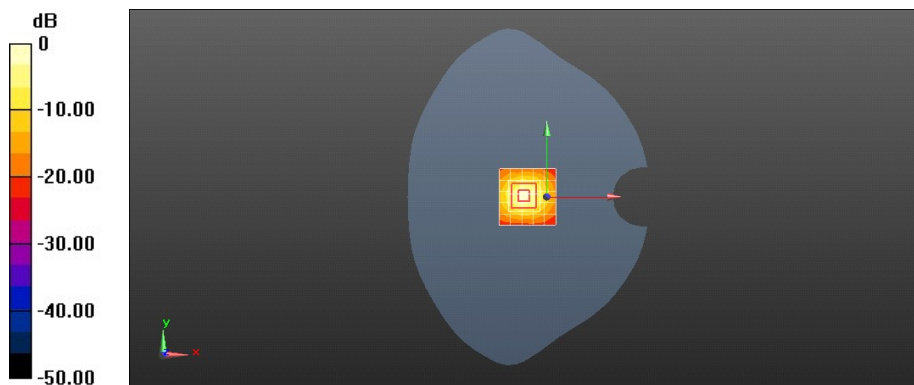
### System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5750 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 63.15 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 35.5 W/kg

**SAR(1 g) = 7.64 W/kg; SAR(10 g) = 2.13 W/kg**

Maximum value of SAR (measured) = 19.0 W/kg



0 dB = 19.0 W/kg = 12.79 dBW/kg

### System Performance Check-D5GHz\_5750MHz-Body

Communication System: UID 0, CW (0); Frequency: 5750 MHz

Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.932$  S/m;  $\epsilon_r = 48.585$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7383; ConvF(4.58, 4.58, 4.58); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 25.0$
- Electronics: DAE3 Sn427; Calibrated: 2017/12/4
- Phantom: SAM v5.0; Type: QD000P40CD; Serial: 1805
- DASY52 52.10.0(1442); SEMCAD X 14.6.10(7413)

### System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5750 MHz/Area Scan (6x6x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 15.7 W/kg

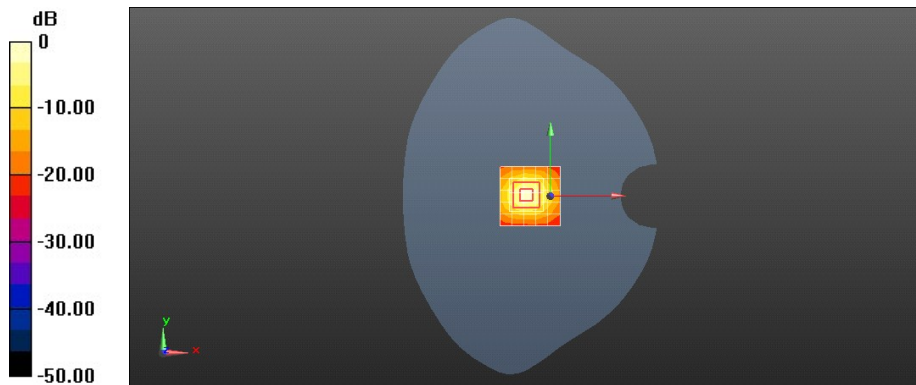
### System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5750 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 62.07 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 35.7 W/kg

**SAR(1 g) = 7.7 W/kg; SAR(10 g) = 2.14 W/kg**

Maximum value of SAR (measured) = 19.1 W/kg



0 dB = 19.1 W/kg = 12.82 dBW/kg