

Appendix for the Report

Dosimetric Assessment of the SDP650 FM Analogue PMR and Digital DMR (TDMA) Two-Way Radio from Simoco (FCC ID: STZSDP600TU) (IC: 7068A-SDP600TU)

According to the FCC Requirements SAR Distribution Plots

September 11, 2014

IMST GmbH

Carl-Friedrich-Gauß-Str. 2
D-47475 Kamp-Lintfort

Customer

Simoco Australasia Pty Ltd
1270 Ferntree Gully Road
Scoresby, VIC 3179
Australia

The test results only relate to the items tested.

This report shall not be reproduced except in full without the written approval of the testing laboratory.

1 SAR Distribution Plots, Body Worn

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [SDP650_055B_b4h_40HW_1_clip_lms.da4](#)

DUT: Simoco; Type: SDP650; Serial: 56NTU1412055B

Program Name: 400.125MHz

Communication System: CW; Frequency: 400.125 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 400.125$ MHz; $\sigma = 0.93$ mho/m; $\epsilon_r = 56.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(7.58, 7.58, 7.58); Calibrated: 28.01.2014

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 23.01.2014

- Phantom: ELI 4; Type: ELI 4; Serial: 1004

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Body Worn/Area Scan (9x22x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 7.02 mW/g

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

Reference Value = 89.6 V/m; Power Drift = -0.129 dB

Peak SAR (extrapolated) = 9.15 W/kg

SAR(1 g) = 6.46 mW/g; SAR(10 g) = 4.72 mW/g

Maximum value of SAR (measured) = 6.81 mW/g

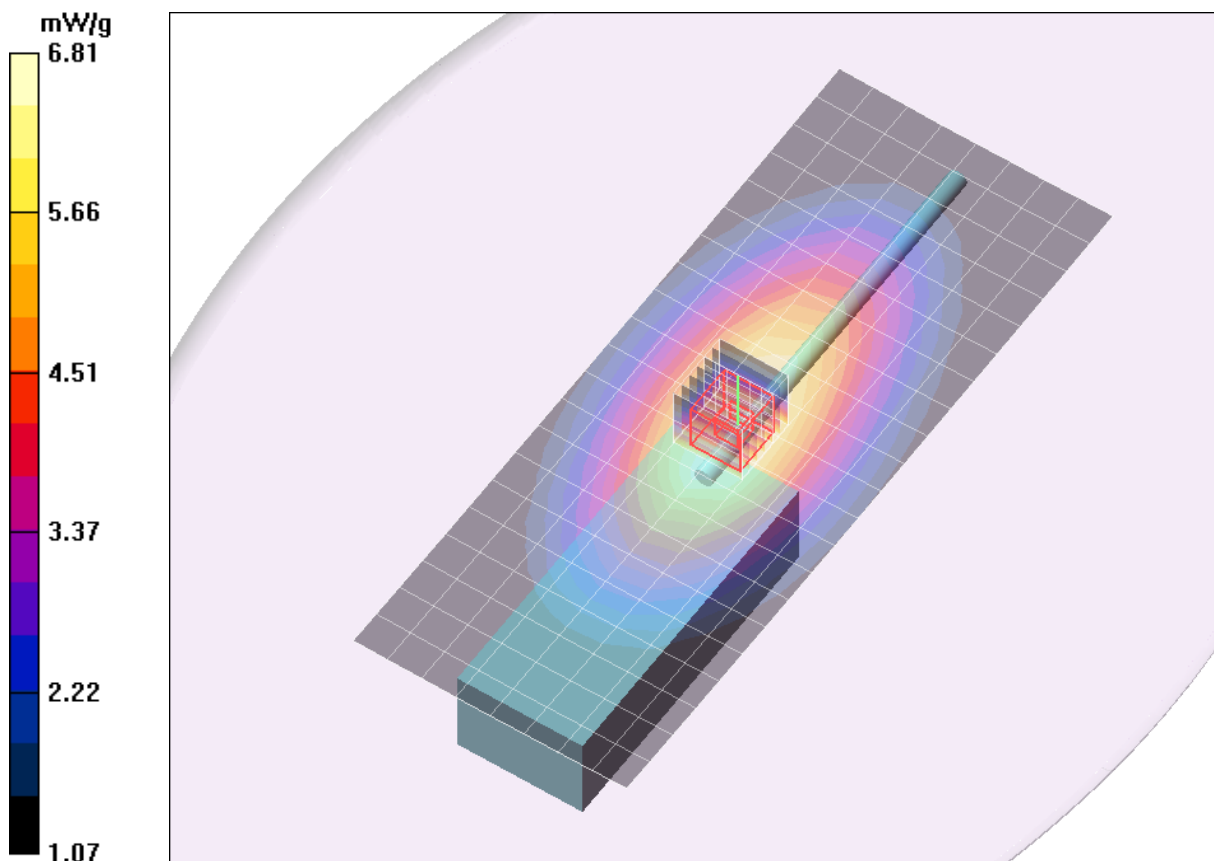


Fig. 1: SAR distribution for Simoco SDP650, low channel PMR mode, 400.125 MHz, body worn configuration, belt clip and remote speaker attached (August 20, 2014).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [SDP650_055B_b4h_40HW_1_clip_lms.da4](#)

DUT: Simoco; Type: SDP650; Serial: 56NTU1412055B
Program Name: 400.125MHz

Communication System: CW; Frequency: 400.125 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 400.125$ MHz; $\sigma = 0.93$ mho/m; $\epsilon_r = 56.6$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(7.58, 7.58, 7.58); Calibrated: 28.01.2014
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 23.01.2014
- Phantom: ELI 4; Type: ELI 4; Serial: 1004
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Body Worn/Area Scan (9x22x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 7.02 mW/g

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

Reference Value = 89.6 V/m; Power Drift = -0.129 dB

Peak SAR (extrapolated) = 9.15 W/kg

SAR(1 g) = 6.46 mW/g; SAR(10 g) = 4.72 mW/g

Maximum value of SAR (measured) = 6.81 mW/g

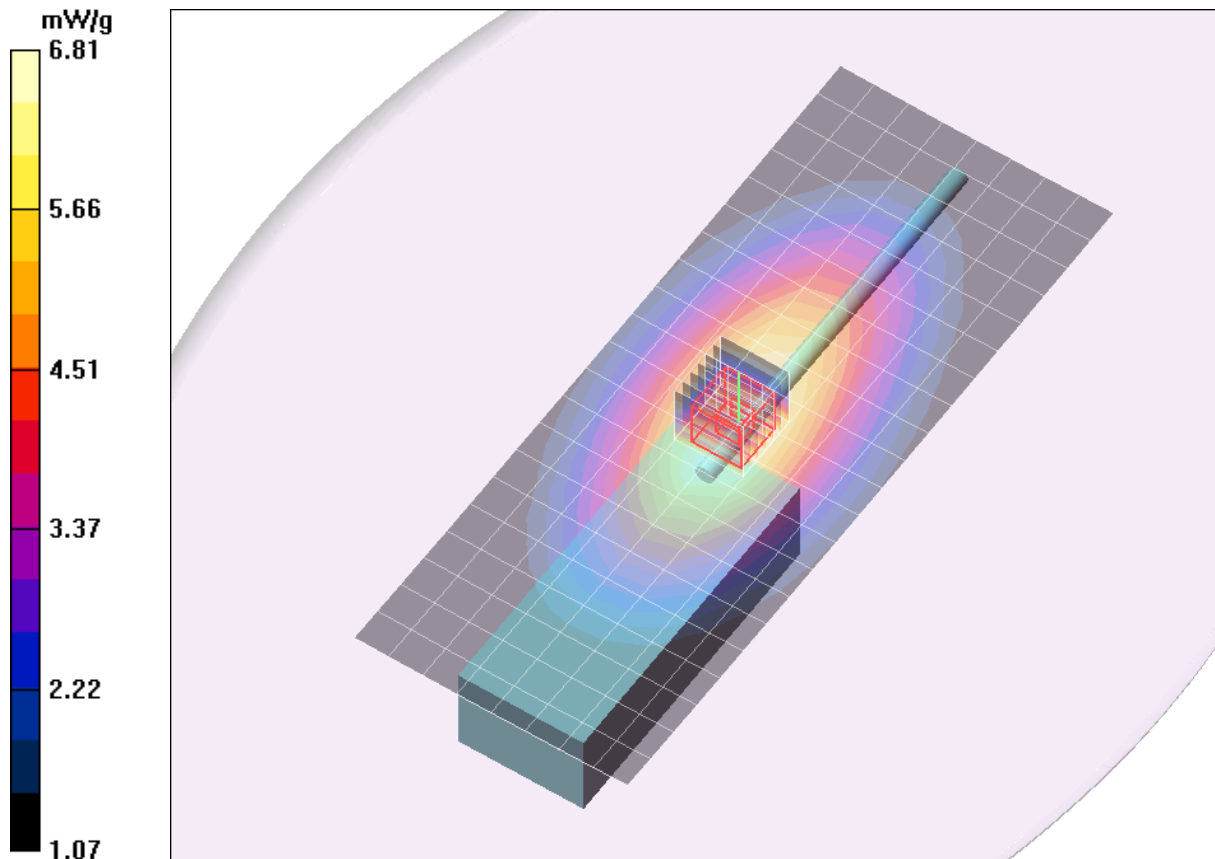


Fig. 2: SAR distribution for Simoco SDP650, low channel PMR mode, 412.950 MHz, body worn configuration, belt clip and remote speaker attached (August 20, 2014).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [SDP650_055B_b4h_40HW_1_clip_lms.da4](#)

DUT: Simoco; Type: SDP650; Serial: 56NTU1412055B
Program Name: 400.125MHz

Communication System: CW; Frequency: 400.125 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 400.125$ MHz; $\sigma = 0.93$ mho/m; $\epsilon_r = 56.6$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(7.58, 7.58, 7.58); Calibrated: 28.01.2014
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 23.01.2014
- Phantom: ELI 4; Type: ELI 4; Serial: 1004
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Body Worn/Area Scan (9x22x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 7.02 mW/g

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

Reference Value = 89.6 V/m; Power Drift = -0.129 dB

Peak SAR (extrapolated) = 9.15 W/kg

SAR(1 g) = 6.46 mW/g; SAR(10 g) = 4.72 mW/g

Maximum value of SAR (measured) = 6.81 mW/g

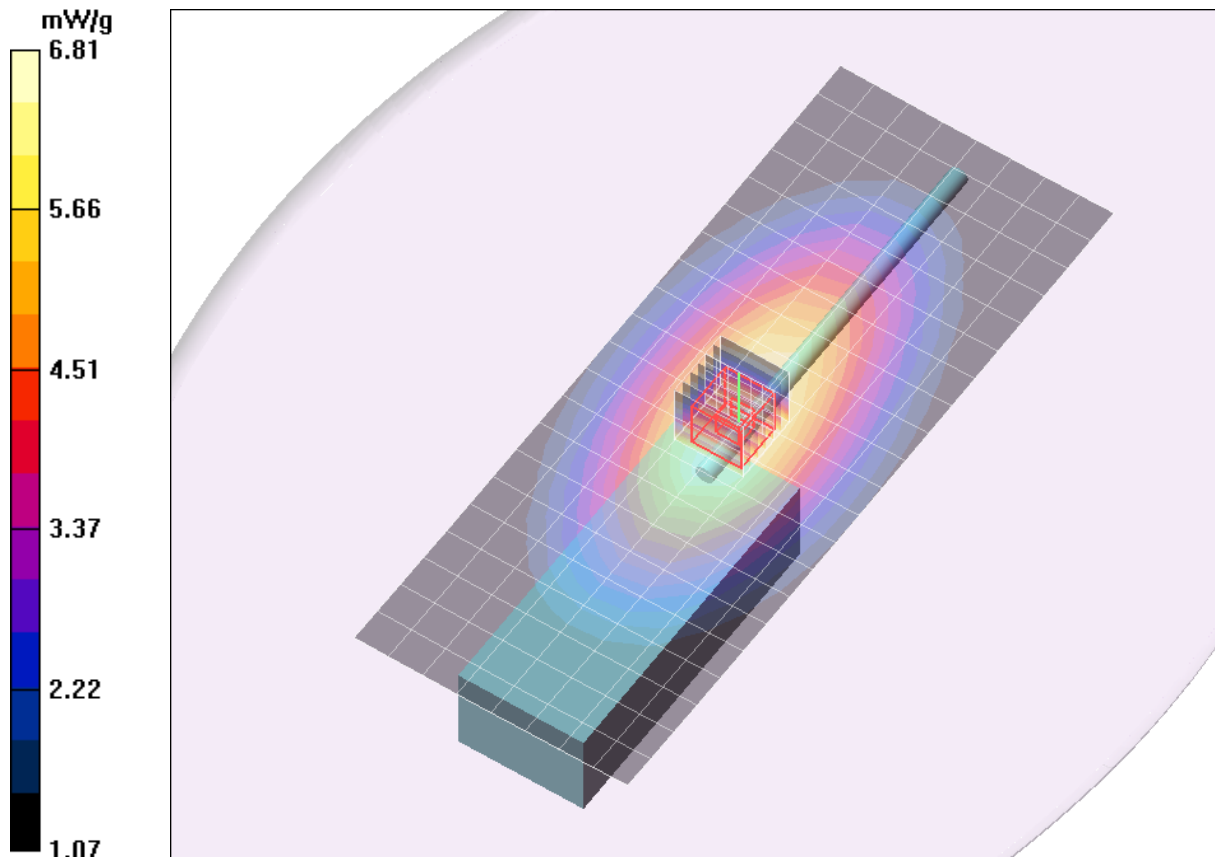


Fig. 3: SAR distribution for Simoco SDP650, low channel PMR mode, 459.075 MHz, body worn configuration, belt clip and remote speaker attached (August 20, 2014).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [SDP650_055B_b4h_40HW_1_clip_lms.da4](#)

DUT: Simoco; Type: SDP650; Serial: 56NTU1412055B

Program Name: 400.125MHz

Communication System: CW; Frequency: 400.125 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 400.125$ MHz; $\sigma = 0.93$ mho/m; $\epsilon_r = 56.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(7.58, 7.58, 7.58); Calibrated: 28.01.2014

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 23.01.2014

- Phantom: ELI 4; Type: ELI 4; Serial: 1004

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Body Worn/Area Scan (9x22x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 7.02 mW/g

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

Reference Value = 89.6 V/m; Power Drift = -0.129 dB

Peak SAR (extrapolated) = 9.15 W/kg

SAR(1 g) = 6.46 mW/g; SAR(10 g) = 4.72 mW/g

Maximum value of SAR (measured) = 6.81 mW/g

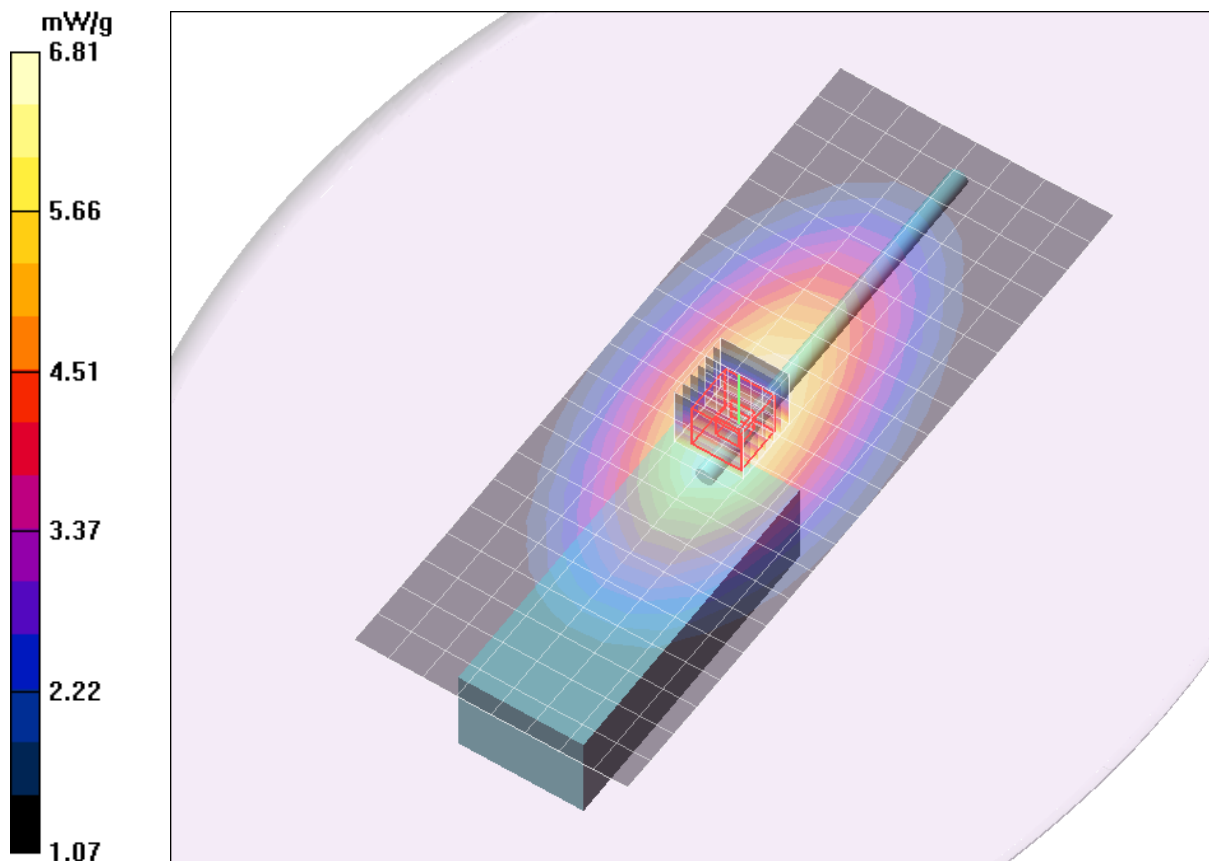


Fig. 4: SAR distribution for Simoco SDP650, low channel PMR mode, 479.925 MHz, body worn configuration, belt clip and remote speaker attached (August 20, 2014).

2 SAR Distribution Plots, PTT Configuration

Test Laboratory: IMST GmbH, DASY Blue (I); File Name:
[SDP650_055B_b4h_40HW_1_clip_PTT_25mm.da4](#)

DUT: Simoco; Type: SDP650; Serial: 56NTU1412055B
Program Name: 400.125MHz

Communication System: CW; Frequency: 400.125 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 400.125$ MHz; $\sigma = 0.83$ mho/m; $\epsilon_r = 44.9$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(7.33, 7.33, 7.33); Calibrated: 28.01.2014
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 23.01.2014
- Phantom: ELI 4; Type: ELI 4; Serial: 1004
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Body Worn/Area Scan (9x22x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 7.14 mW/g

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

Reference Value = 97.2 V/m; Power Drift = -0.626 dB

Peak SAR (extrapolated) = 8.35 W/kg

SAR(1 g) = 6.55 mW/g; SAR(10 g) = 5.09 mW/g

Maximum value of SAR (measured) = 6.85 mW/g

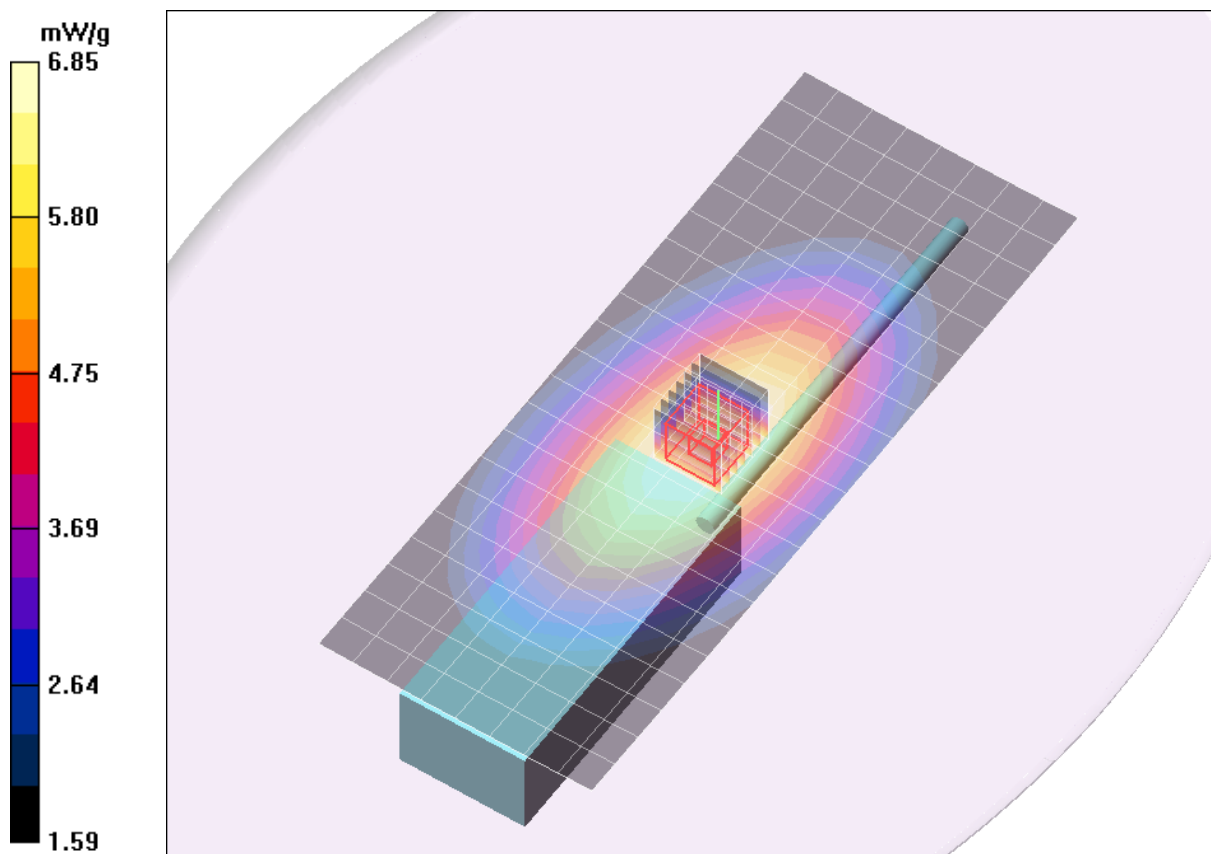


Fig. 5: SAR distribution for Simoco SDP650, low channel PMR mode, 400.120 MHz, PTT configuration, 25 mm distance, belt clip attached (August 21, 2014).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name:
[SDP650_055B_b4h_40HW_1_clip_PTT_25mm.da4](#)

DUT: Simoco; Type: SDP650; Serial: 56NTU1412055B
Program Name: 400.125MHz

Communication System: CW; Frequency: 400.125 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 400.125$ MHz; $\sigma = 0.83$ mho/m; $\epsilon_r = 44.9$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(7.33, 7.33, 7.33); Calibrated: 28.01.2014
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 23.01.2014
- Phantom: ELI 4; Type: ELI 4; Serial: 1004
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Body Worn/Area Scan (9x22x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 7.14 mW/g

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

Reference Value = 97.2 V/m; Power Drift = -0.626 dB

Peak SAR (extrapolated) = 8.35 W/kg

SAR(1 g) = 6.55 mW/g; SAR(10 g) = 5.09 mW/g

Maximum value of SAR (measured) = 6.85 mW/g

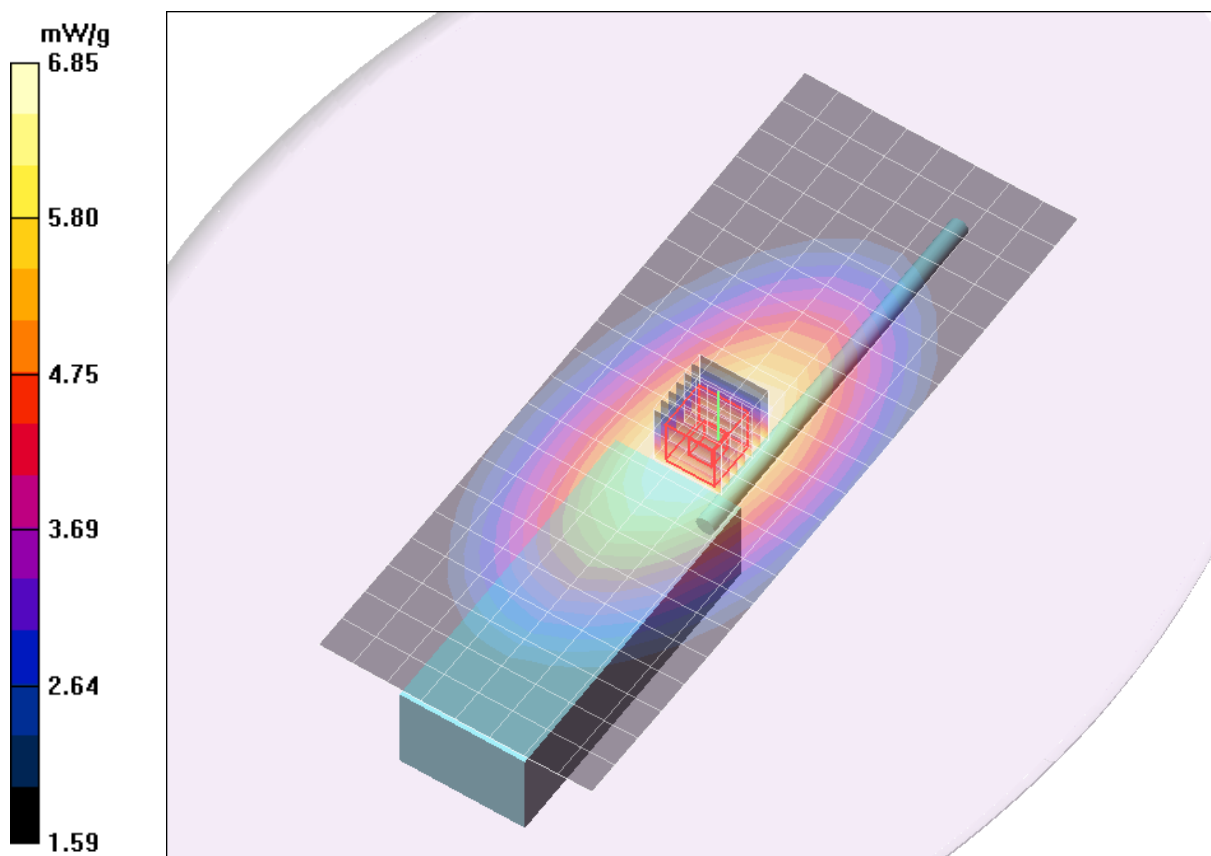


Fig. 6: SAR distribution for Simoco SDP650, low channel PMR mode, 412.950 MHz, PTT configuration, 25 mm distance, belt clip attached (August 21, 2014).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name:
[SDP650_055B_b4h_40HW_1_clip_PTT_25mm.da4](#)

DUT: Simoco; Type: SDP650; Serial: 56NTU1412055B
Program Name: 400.125MHz

Communication System: CW; Frequency: 400.125 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 400.125$ MHz; $\sigma = 0.83$ mho/m; $\epsilon_r = 44.9$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(7.33, 7.33, 7.33); Calibrated: 28.01.2014
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 23.01.2014
- Phantom: ELI 4; Type: ELI 4; Serial: 1004
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Body Worn/Area Scan (9x22x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 7.14 mW/g

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

Reference Value = 97.2 V/m; Power Drift = -0.626 dB

Peak SAR (extrapolated) = 8.35 W/kg

SAR(1 g) = 6.55 mW/g; SAR(10 g) = 5.09 mW/g

Maximum value of SAR (measured) = 6.85 mW/g

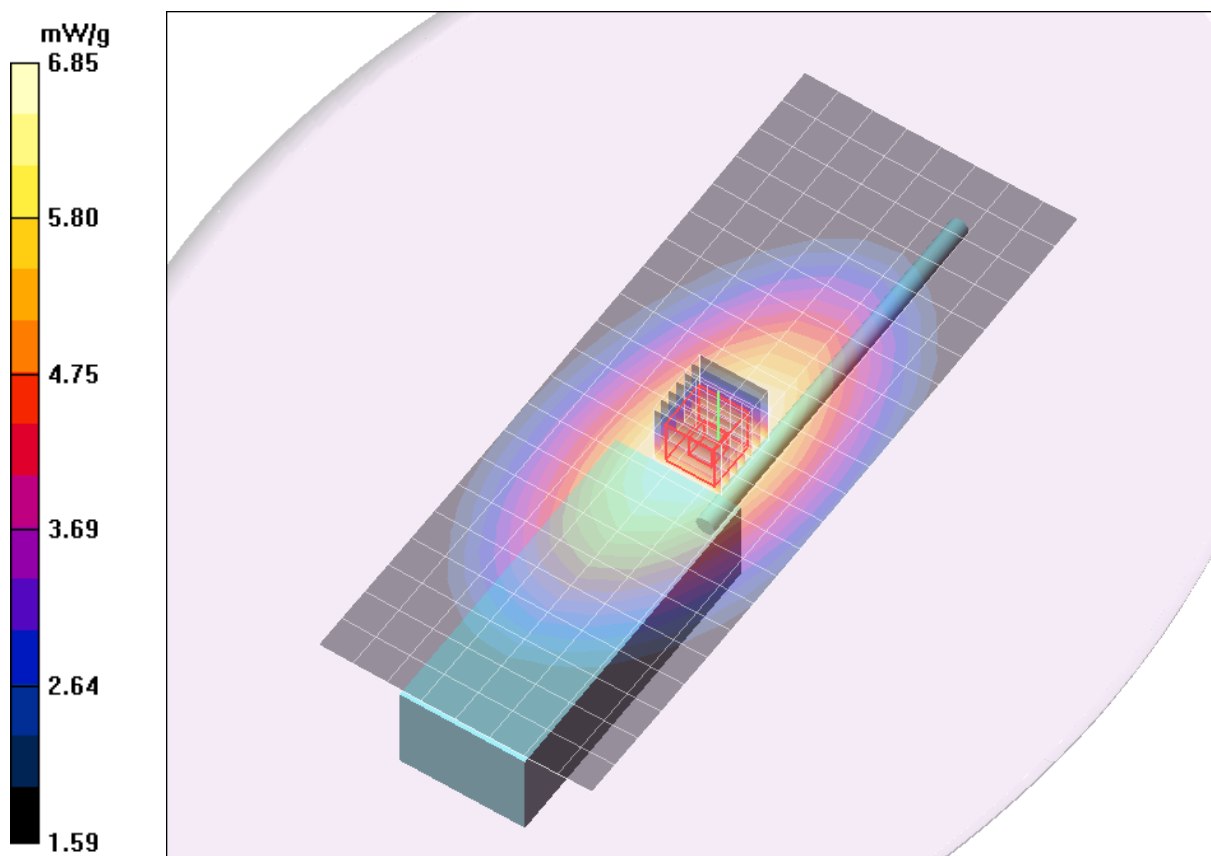


Fig. 7: SAR distribution for Simoco SDP650, low channel PMR mode, 459.075 MHz, PTT configuration, 25 mm distance, belt clip attached (August 21, 2014).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name:
[SDP650_055B_b4h_40HW_1_clip_PTT_25mm.da4](#)

DUT: Simoco; Type: SDP650; Serial: 56NTU1412055B
Program Name: 400.125MHz

Communication System: CW; Frequency: 400.125 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 400.125$ MHz; $\sigma = 0.83$ mho/m; $\epsilon_r = 44.9$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(7.33, 7.33, 7.33); Calibrated: 28.01.2014
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 23.01.2014
- Phantom: ELI 4; Type: ELI 4; Serial: 1004
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Body Worn/Area Scan (9x22x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 7.14 mW/g

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

Reference Value = 97.2 V/m; Power Drift = -0.626 dB

Peak SAR (extrapolated) = 8.35 W/kg

SAR(1 g) = 6.55 mW/g; SAR(10 g) = 5.09 mW/g

Maximum value of SAR (measured) = 6.85 mW/g

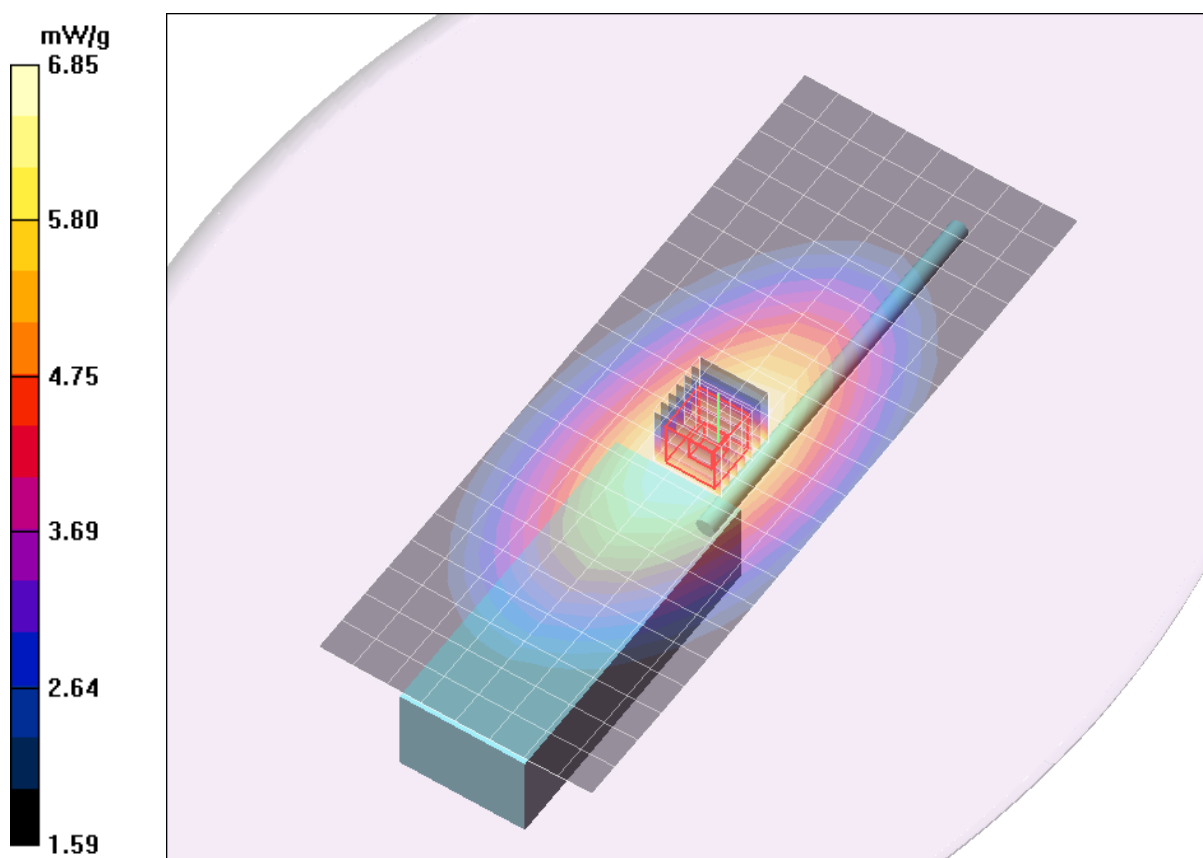


Fig. 8: SAR distribution for Simoco SDP650, low channel PMR mode, 479.925 MHz, PTT configuration, 25 mm distance, belt clip attached (August 21, 2014).