

## **Appendix for the SAR Test Report**

### **Dosimetric Assessment of the Portable Device DH7 from Ascom (FCC ID BXZDH7)**

### **According to the FCC Requirements SAR Distribution Plots**

April 18, 2016

**IMST GmbH**

Carl-Friedrich-Gauß-Str. 2 - 4  
47475 Kamp-Lintfort  
Germany

**Customer**

Ascom Sweden AB  
Grimbodalen 2  
40276 Göteborg  
Sweden

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 for Head and Body Worn Configuration

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [DH7\\_65H\\_b\\_dect\\_lm\\_1\\_clip\\_ant1.da4](#)

DUT: Ascom; Type: DH7; Serial: T26105R65H  
Program Name: DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24  
Medium parameters used:  $f = 1924.99$  MHz;  $\sigma = 1.43$  mho/m;  $\epsilon_r = 38.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(5.3, 5.3, 5.3); Calibrated: 23.02.2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 16.09.2015
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Tilted Left/Area Scan (7x12x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.038 mW/g

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

Reference Value = 5.44 V/m; Power Drift = 0.146 dB

Peak SAR (extrapolated) = 0.047 W/kg

**SAR(1 g) = 0.036 mW/g; SAR(10 g) = 0.021 mW/g**

Maximum value of SAR (measured) = 0.039 mW/g

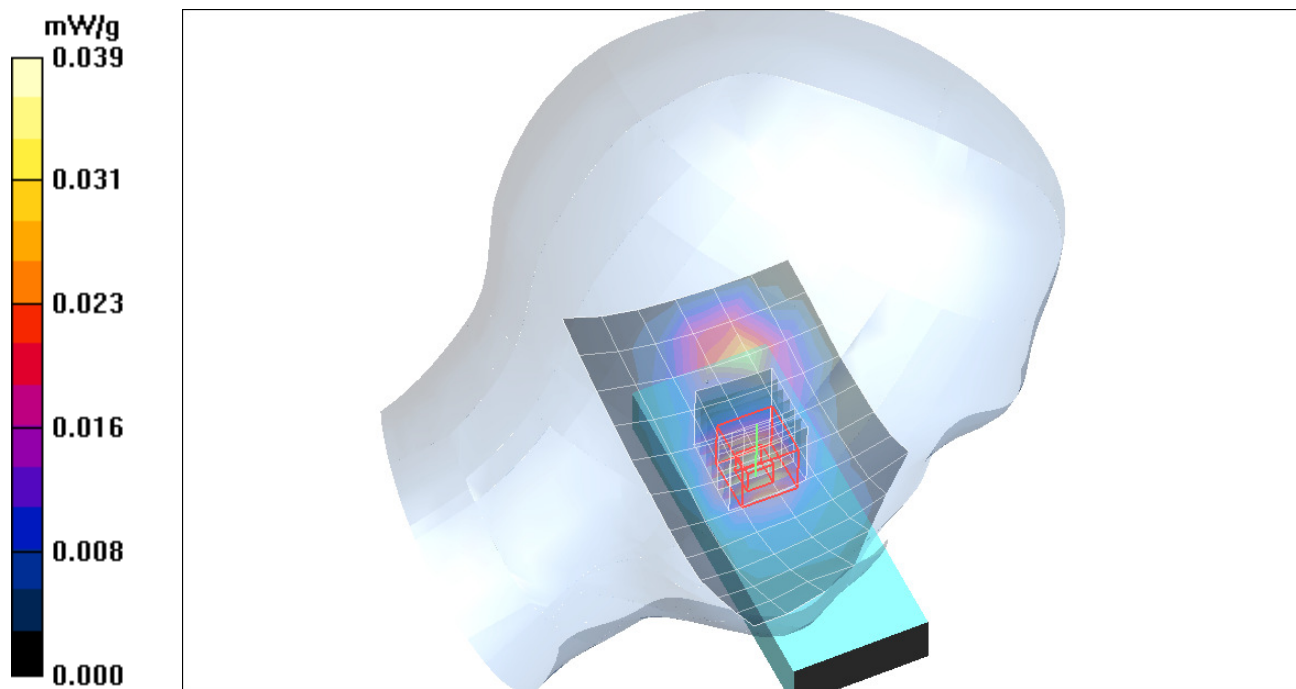


Fig. 1: SAR distribution for DECT US, channel 2, antenna 1, cheek position, left side of head

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [DH7\\_65H\\_b\\_dect\\_lm\\_2\\_clip\\_ant1.da4](#)

DUT: Ascom; Type: DH7; Serial: T26105R65H  
Program Name: DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24  
Medium parameters used:  $f = 1924.99$  MHz;  $\sigma = 1.43$  mho/m;  $\epsilon_r = 38.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(5.3, 5.3, 5.3); Calibrated: 23.02.2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 16.09.2015
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Tilted Left/Area Scan (7x12x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.023 mW/g

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

Reference Value = 2.77 V/m; Power Drift = -0.139 dB

Peak SAR (extrapolated) = 0.048 W/kg

**SAR(1 g) = 0.024 mW/g; SAR(10 g) = 0.012 mW/g**

Maximum value of SAR (measured) = 0.028 mW/g

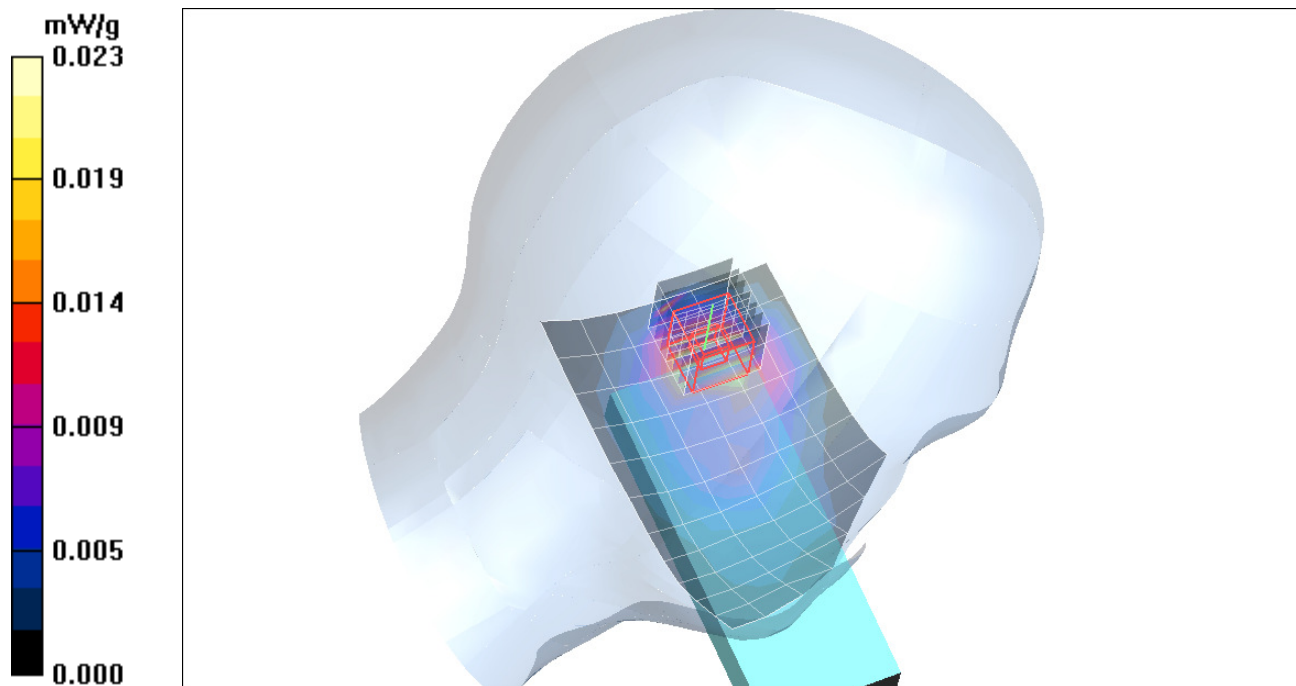


Fig. 2: SAR distribution for DECT US, channel 2, antenna 1, tilted position, left side of head

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [DH7\\_65H\\_b\\_dect\\_rm\\_1\\_clip\\_ant1.da4](#)

DUT: Ascom; Type: DH7; Serial: T26105R65H  
Program Name: DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24  
Medium parameters used:  $f = 1924.99$  MHz;  $\sigma = 1.43$  mho/m;  $\epsilon_r = 38.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(5.3, 5.3, 5.3); Calibrated: 23.02.2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 16.09.2015
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Cheek Right/Area Scan (7x12x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.033 mW/g

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

Reference Value = 4.13 V/m; Power Drift = 0.050 dB

Peak SAR (extrapolated) = 0.046 W/kg

**SAR(1 g) = 0.034 mW/g; SAR(10 g) = 0.020 mW/g**

Maximum value of SAR (measured) = 0.038 mW/g

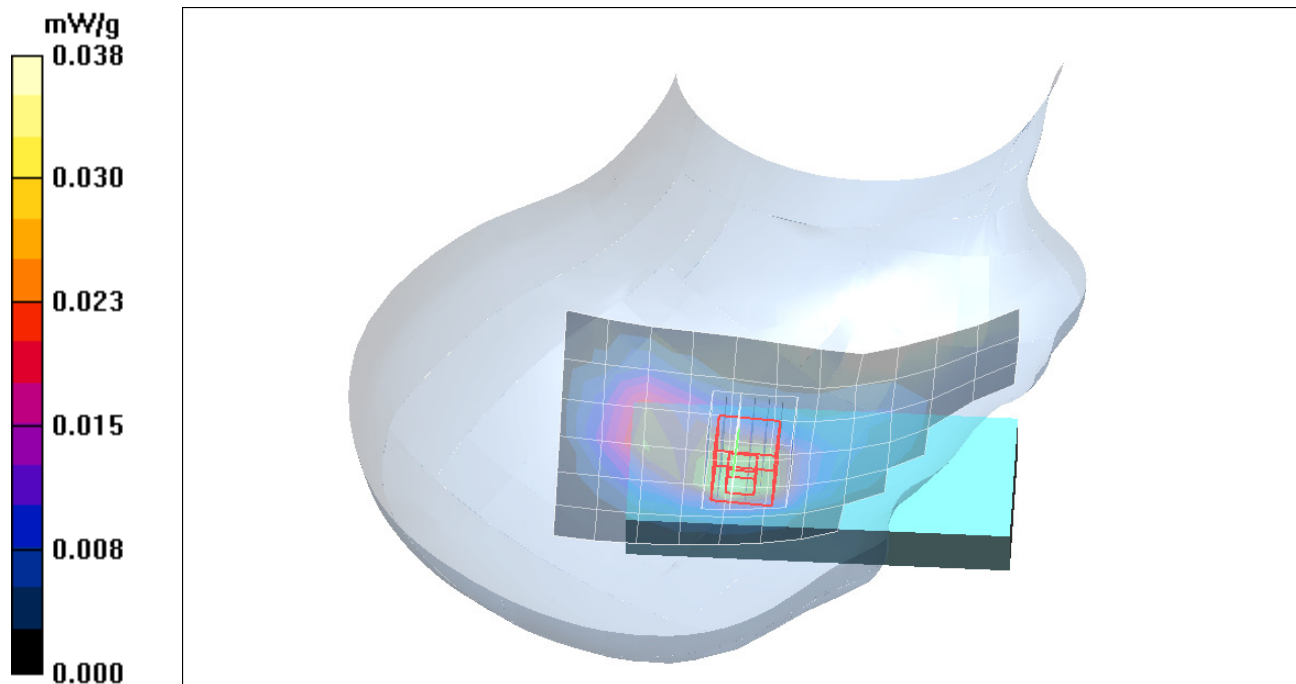


Fig. 3: SAR distribution for DECT US, channel 2, antenna 1, cheek position, right side of head

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [DH7\\_65H\\_b\\_dect\\_rm\\_2\\_clip\\_ant1.da4](#)

DUT: Ascom; Type: DH7; Serial: T26105R65H  
Program Name: DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24  
Medium parameters used:  $f = 1924.99$  MHz;  $\sigma = 1.43$  mho/m;  $\epsilon_r = 38.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(5.3, 5.3, 5.3); Calibrated: 23.02.2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 16.09.2015
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Tilted Right/Area Scan (7x12x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.019 mW/g

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

Reference Value = 3.65 V/m; Power Drift = 0.057 dB

Peak SAR (extrapolated) = 0.034 W/kg

**SAR(1 g) = 0.019 mW/g; SAR(10 g) = 0.010 mW/g**

Maximum value of SAR (measured) = 0.021 mW/g

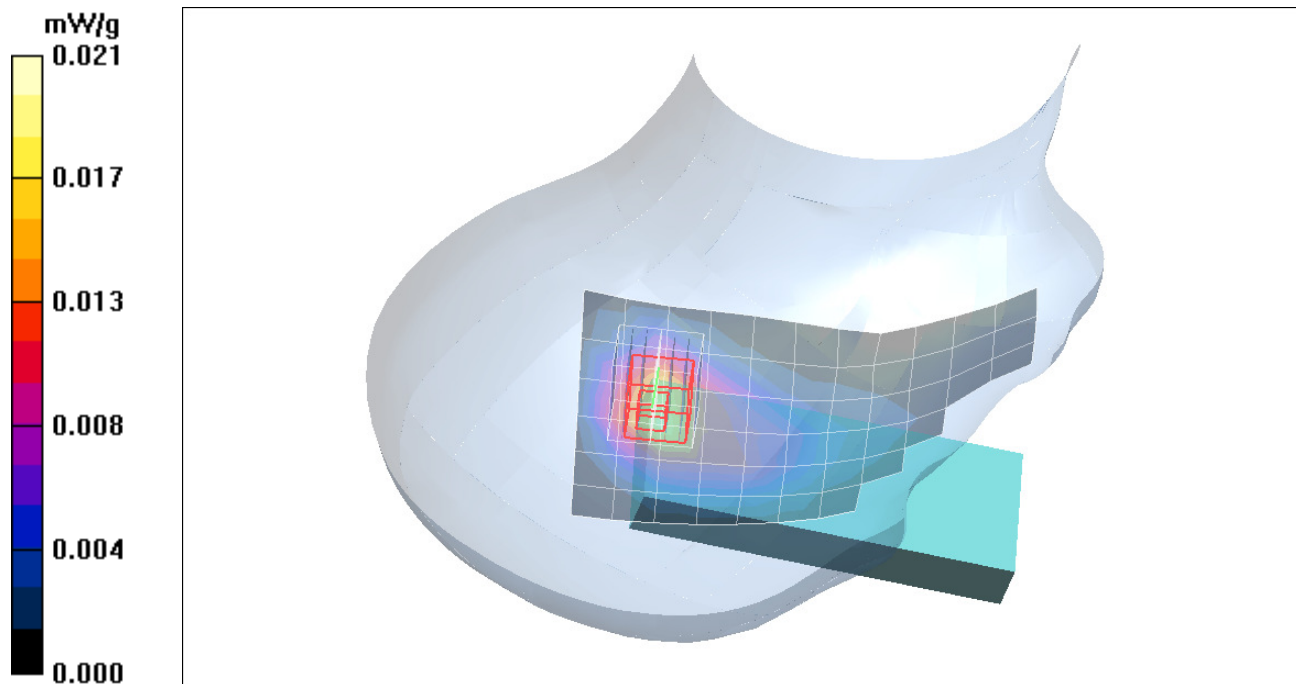


Fig. 4: SAR distribution for DECT US, channel 2, antenna 1, tilted position, right side of head

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [DH7\\_65H\\_b\\_dect\\_lm\\_1\\_clip\\_ant2.da4](#)

DUT: Ascom; Type: DH7; Serial: T26105R65H  
Program Name: DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24  
Medium parameters used:  $f = 1924.99$  MHz;  $\sigma = 1.43$  mho/m;  $\epsilon_r = 38.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(5.3, 5.3, 5.3); Calibrated: 23.02.2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 16.09.2015
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Cheek Left/Area Scan (7x12x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.022 mW/g

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

Reference Value = 3.77 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 0.032 W/kg

**SAR(1 g) = 0.022 mW/g; SAR(10 g) = 0.014 mW/g**

Maximum value of SAR (measured) = 0.024 mW/g

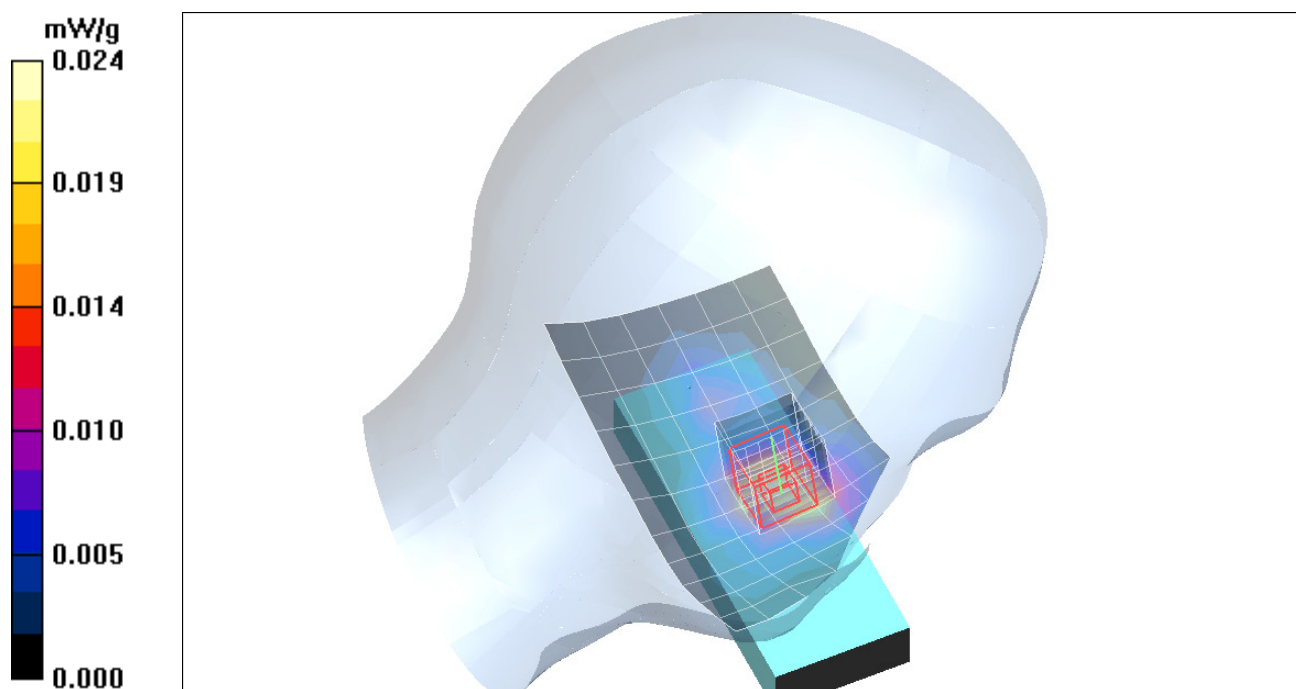


Fig. 5: SAR distribution for DECT US, channel 2, antenna 2, cheek position, left side of head

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [DH7\\_65H\\_b\\_dect\\_lm\\_2\\_clip\\_ant2.da4](#)

DUT: Ascom; Type: DH7; Serial: T26105R65H  
Program Name: DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24  
Medium parameters used:  $f = 1924.99$  MHz;  $\sigma = 1.43$  mho/m;  $\epsilon_r = 38.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(5.3, 5.3, 5.3); Calibrated: 23.02.2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 16.09.2015
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Tilted Left/Area Scan (7x12x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.010 mW/g

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

Reference Value = 2.33 V/m; Power Drift = -0.009 dB

Peak SAR (extrapolated) = 0.015 W/kg

**SAR(1 g) = 0.00914 mW/g; SAR(10 g) = 0.00501 mW/g**

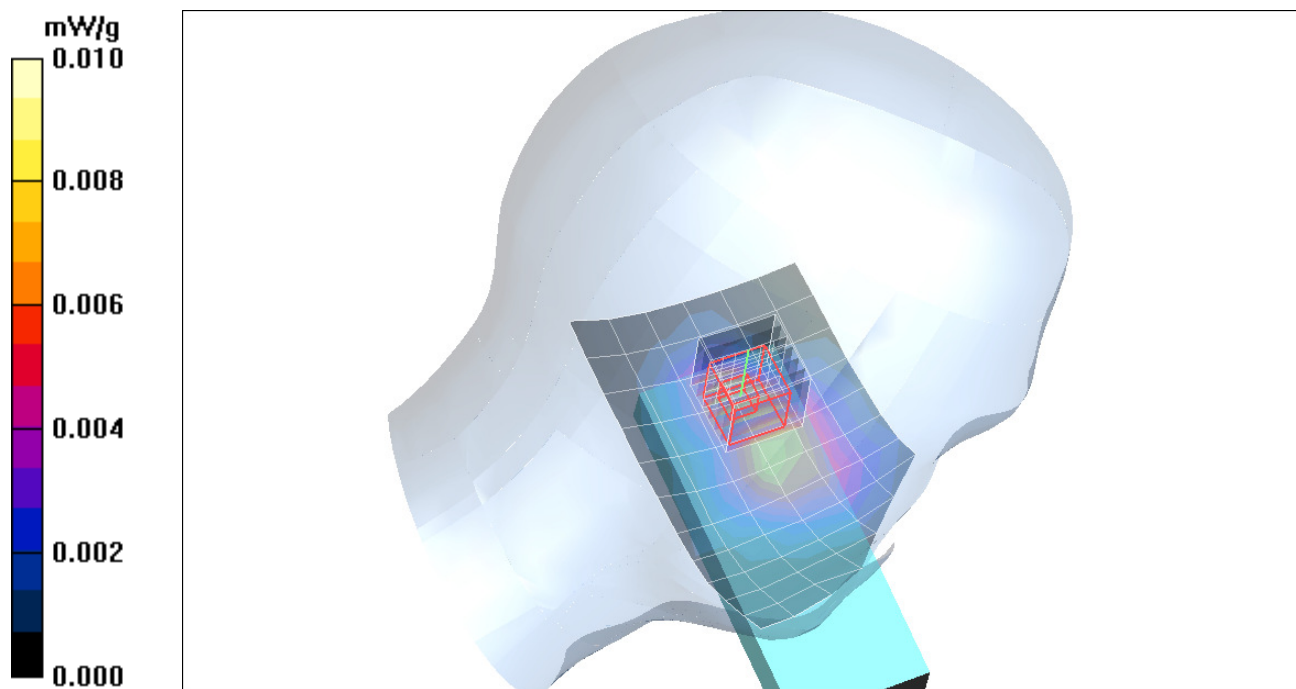


Fig. 6: SAR distribution for DECT US, channel 2, antenna 2, tilted position, left side of head



Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [DH7\\_65H\\_b\\_dect\\_rm\\_1\\_clip\\_ant2.da4](#)

DUT: Ascom; Type: DH7; Serial: T26105R65H  
Program Name: DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24  
Medium parameters used:  $f = 1924.99$  MHz;  $\sigma = 1.43$  mho/m;  $\epsilon_r = 38.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(5.3, 5.3, 5.3); Calibrated: 23.02.2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 16.09.2015
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Cheek Right/Area Scan (7x12x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.032 mW/g

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

Reference Value = 2.27 V/m; Power Drift = 0.136 dB

Peak SAR (extrapolated) = 0.052 W/kg

**SAR(1 g) = 0.030 mW/g; SAR(10 g) = 0.017 mW/g**

Maximum value of SAR (measured) = 0.034 mW/g

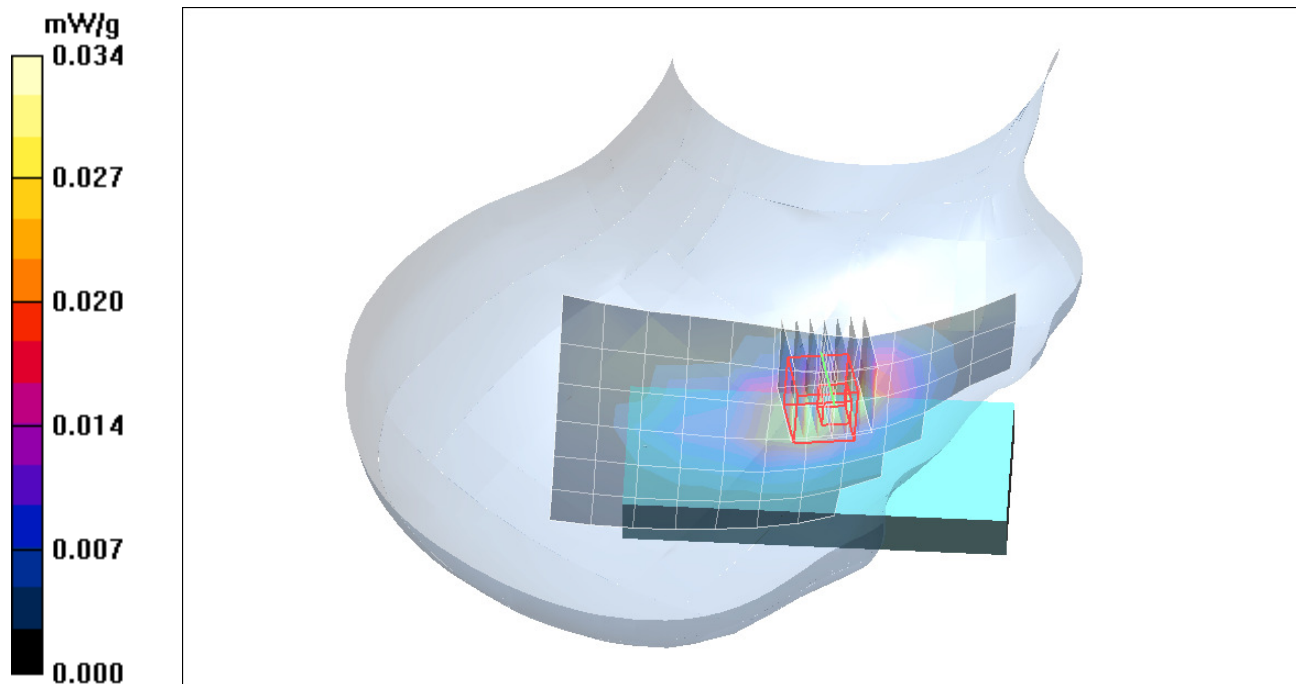


Fig. 7: SAR distribution for DECT US, channel 2, antenna 2, cheek position, right side of head



Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [DH7\\_65H\\_b\\_dect\\_rm\\_2\\_clip\\_ant2.da4](#)

DUT: Ascom; Type: DH7; Serial: T26105R65H  
Program Name: DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24  
Medium parameters used:  $f = 1924.99$  MHz;  $\sigma = 1.43$  mho/m;  $\epsilon_r = 38.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(5.3, 5.3, 5.3); Calibrated: 23.02.2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 16.09.2015
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Tilted Right/Area Scan (7x12x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.010 mW/g

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

Reference Value = 2.44 V/m; Power Drift = 0.150 dB

Peak SAR (extrapolated) = 0.013 W/kg

**SAR(1 g) = 0.00901 mW/g; SAR(10 g) = 0.00537 mW/g**

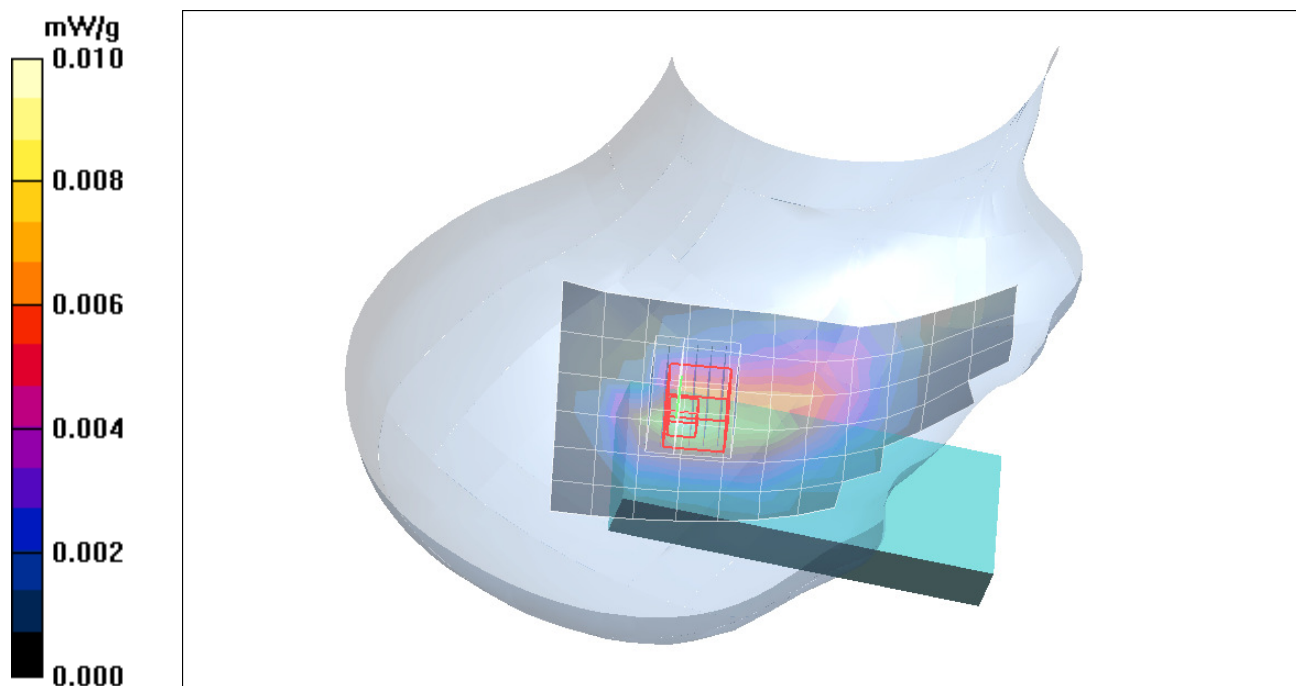


Fig. 8: SAR distribution for DECT US, channel 2, antenna 2, tilted position, right side of head

**Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:**  
[DH7 65H y dect fm front clip hs ant1 0mm.da4](#)

**DUT: Ascom; Type: DH7; Serial: T26105R65H**  
**Program Name: US DECT**

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24  
 Medium parameters used:  $f = 1925$  MHz;  $\sigma = 1.59$  mho/m;  $\epsilon_r = 51.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 9/16/2015
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (7x12x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.043 mW/g

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

Reference Value = 4.34 V/m; Power Drift = -0.042 dB

Peak SAR (extrapolated) = 0.084 W/kg

**SAR(1 g) = 0.044 mW/g; SAR(10 g) = 0.022 mW/g**

Maximum value of SAR (measured) = 0.050 mW/g

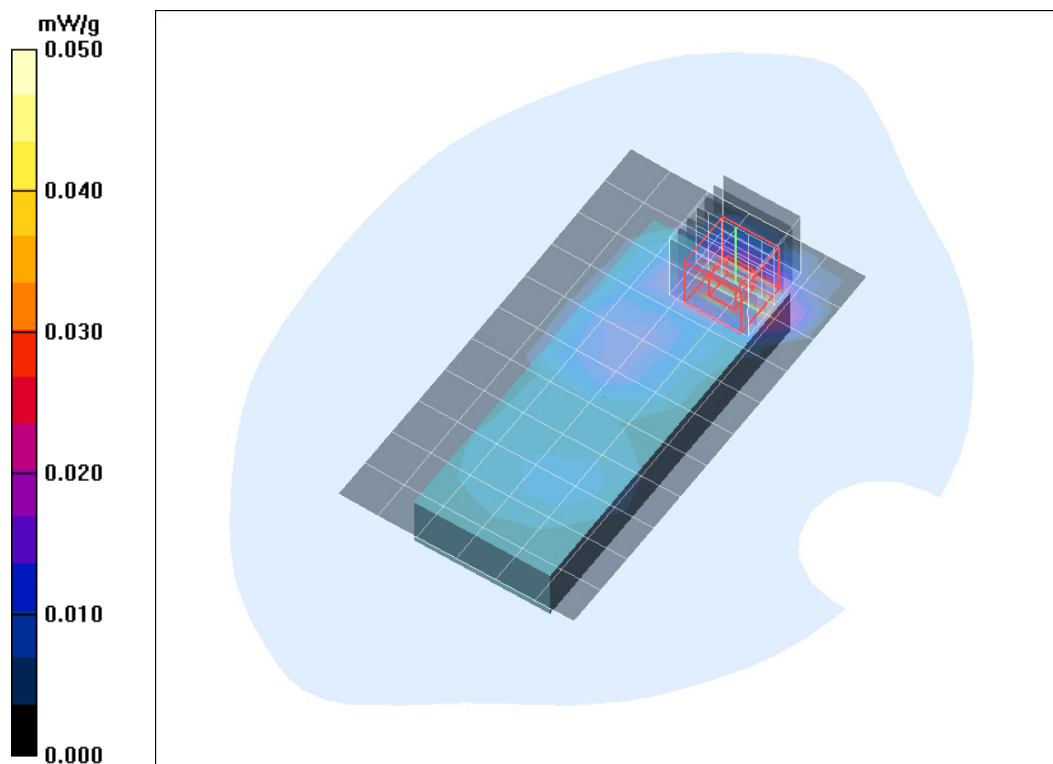


Fig. 9: SAR distribution for DECT US, channel 2, antenna 1, body worn configuration, front side of the device towards the phantom, HS and belt clip attached

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[DH7 65H y dect fm back clip hs ant1 0mm.da4](#)

DUT: Ascom; Type: DH7; Serial: T26105R65H  
Program Name: US DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24  
Medium parameters used:  $f = 1925$  MHz;  $\sigma = 1.59$  mho/m;  $\epsilon_r = 51.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 9/16/2015
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (7x12x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.009 mW/g

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

Reference Value = 2.41 V/m; Power Drift = -0.032 dB

Peak SAR (extrapolated) = 0.013 W/kg

**SAR(1 g) = 0.00836 mW/g; SAR(10 g) = 0.0051 mW/g**

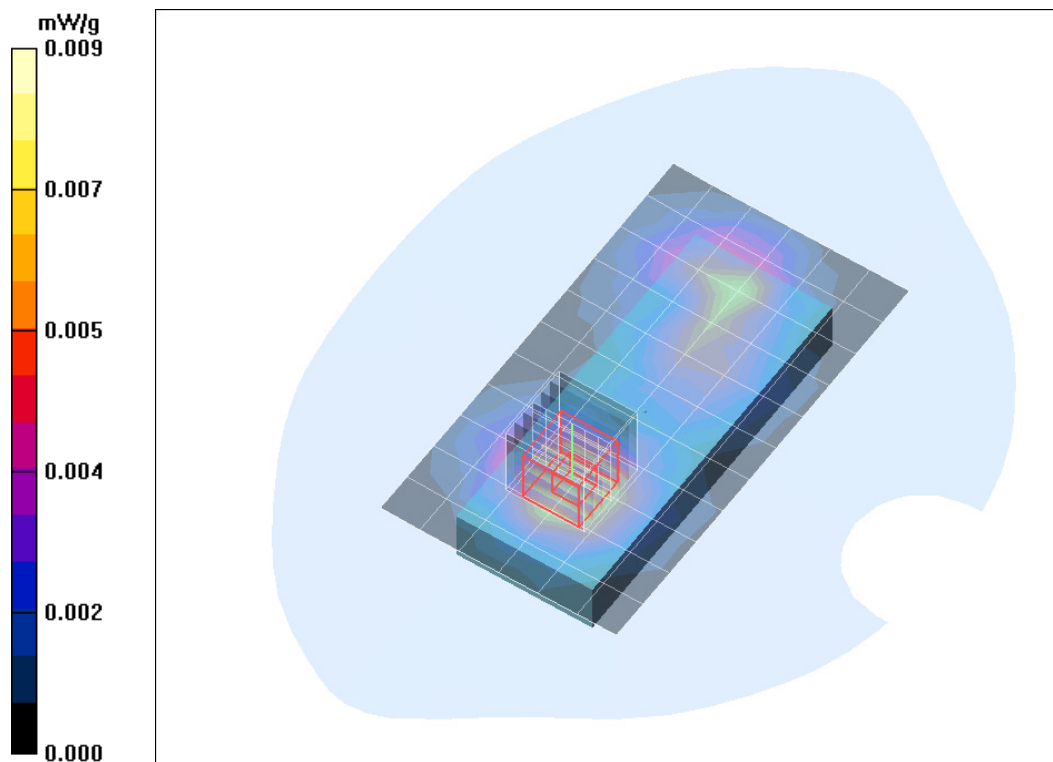


Fig. 10: SAR distribution for DECT US, channel 2, antenna 1, body worn configuration, back side of the device towards the phantom, HS and belt clip attached

**Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:**  
[DH7 65H y dect fm front clip hs ant2 0mm.da4](#)

**DUT: Ascom; Type: DH7; Serial: T26105R65H**  
**Program Name: US DECT**

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24  
 Medium parameters used:  $f = 1925$  MHz;  $\sigma = 1.59$  mho/m;  $\epsilon_r = 51.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 9/16/2015
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (7x12x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.059 mW/g

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

Reference Value = 2.04 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 0.123 W/kg

**SAR(1 g) = 0.063 mW/g; SAR(10 g) = 0.030 mW/g**

Maximum value of SAR (measured) = 0.074 mW/g

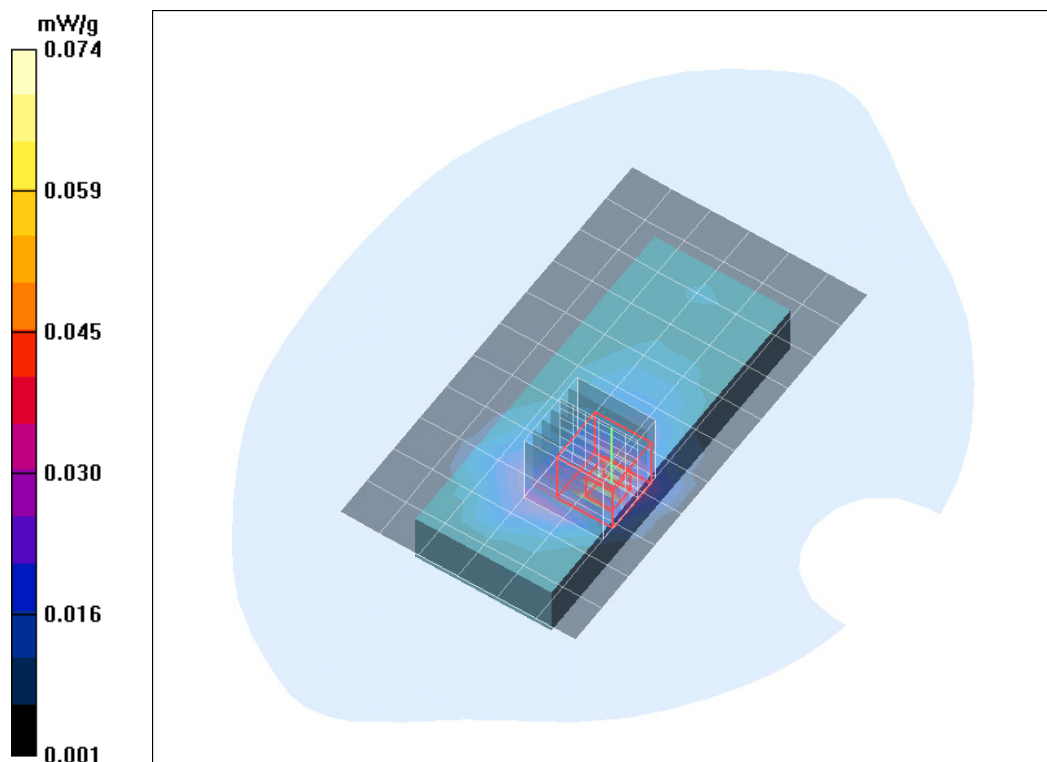


Fig. 11: SAR distribution for DECT US, channel 2, antenna 2, body worn configuration, front side of the device towards the phantom, HS and belt clip attached

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[DH7 65H y dect fm back clip hs ant2 0mm.da4](#)

DUT: Ascom; Type: DH7; Serial: T26105R65H  
Program Name: US DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24  
Medium parameters used:  $f = 1925$  MHz;  $\sigma = 1.59$  mho/m;  $\epsilon_r = 51.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 9/16/2015
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (7x12x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.023 mW/g

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

Reference Value = 1.18 V/m; Power Drift = 0.130 dB

Peak SAR (extrapolated) = 0.055 W/kg

**SAR(1 g) = 0.025 mW/g; SAR(10 g) = 0.013 mW/g**

Maximum value of SAR (measured) = 0.030 mW/g

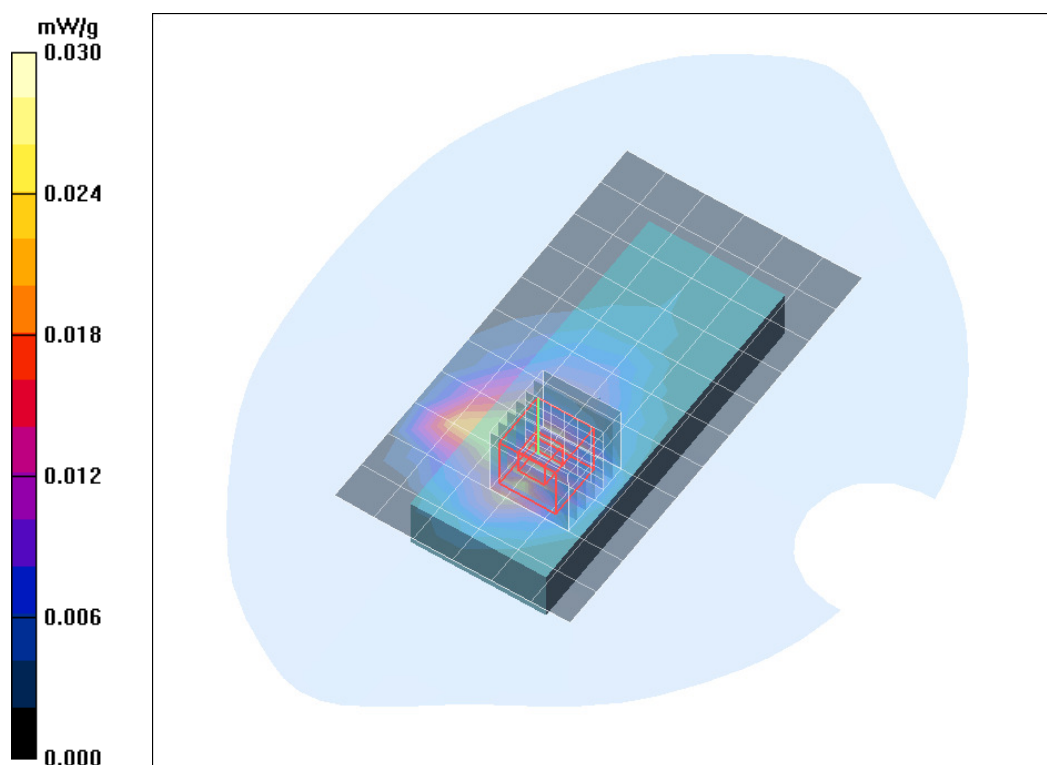


Fig. 12: SAR distribution for DECT US, channel 2, antenna 2, body worn configuration, back side of the device towards the phantom, HS and belt clip attached