

# **Appendix for the Report**

## **Dosimetric Assessment of the Portable Device Jabra Pro 90 (FCC ID: BCE-WHB005HS) (IC: 2386C-WHB005HS)**

### **According to the FCC Requirements**

### **SAR Distribution Plots**

November 27, 2013

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This revised version of the report supersedes all previous versions.  
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

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [Jab90\\_ybhl\\_1.da4](#)

DUT: Jabra; Type: PRO 90; Serial: CJ260D01

Program Name: Bluetooth

Communication System: Bluetooth; Frequency: 2402 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2402$  MHz;  $\sigma = 1.73$  mho/m;  $\epsilon_r = 40.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3860; ConvF(7.38, 7.38, 7.38); Calibrated: 29.07.2013

- Sensor-Surface: 2mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn631; Calibrated: 23.09.2013

- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340

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

**Body Worn/Area Scan (8x16x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.007 mW/g

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

Reference Value = 1.34 V/m; Power Drift = -0.082 dB

Peak SAR (extrapolated) = 0.022 W/kg

**SAR(1 g) = 0.00397 mW/g; SAR(10 g) = 0.00154 mW/g**

Maximum value of SAR (measured) = 0.015 mW/g

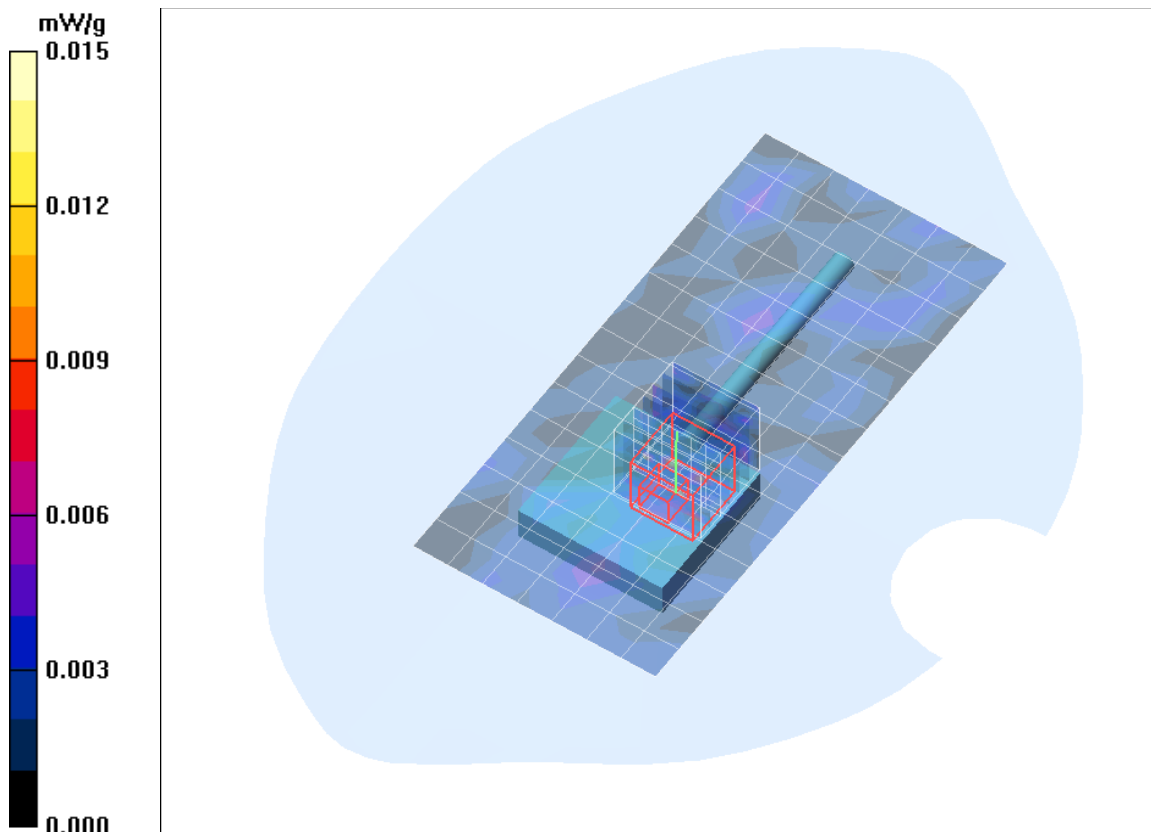


Fig. 1: SAR distribution for Bluetooth standard, channel 0, position 1 (November 21, 2013)

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [Jab90\\_ybhm\\_1.da4](#)

DUT: Jabra; Type: PRO 90; Serial: CJ260D01

Program Name: Bluetooth

Communication System: Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2441$  MHz;  $\sigma = 1.8$  mho/m;  $\epsilon_r = 40.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3860; ConvF(7.38, 7.38, 7.38); Calibrated: 29.07.2013

- Sensor-Surface: 2mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn631; Calibrated: 23.09.2013

- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340

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

**Body Worn/Area Scan (8x16x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.007 mW/g

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

Reference Value = 1.17 V/m; Power Drift = -0.111 dB

Peak SAR (extrapolated) = 0.113 W/kg

**SAR(1 g) = 0.00648 mW/g; SAR(10 g) = 0.00189 mW/g**

Maximum value of SAR (measured) = 0.063 mW/g

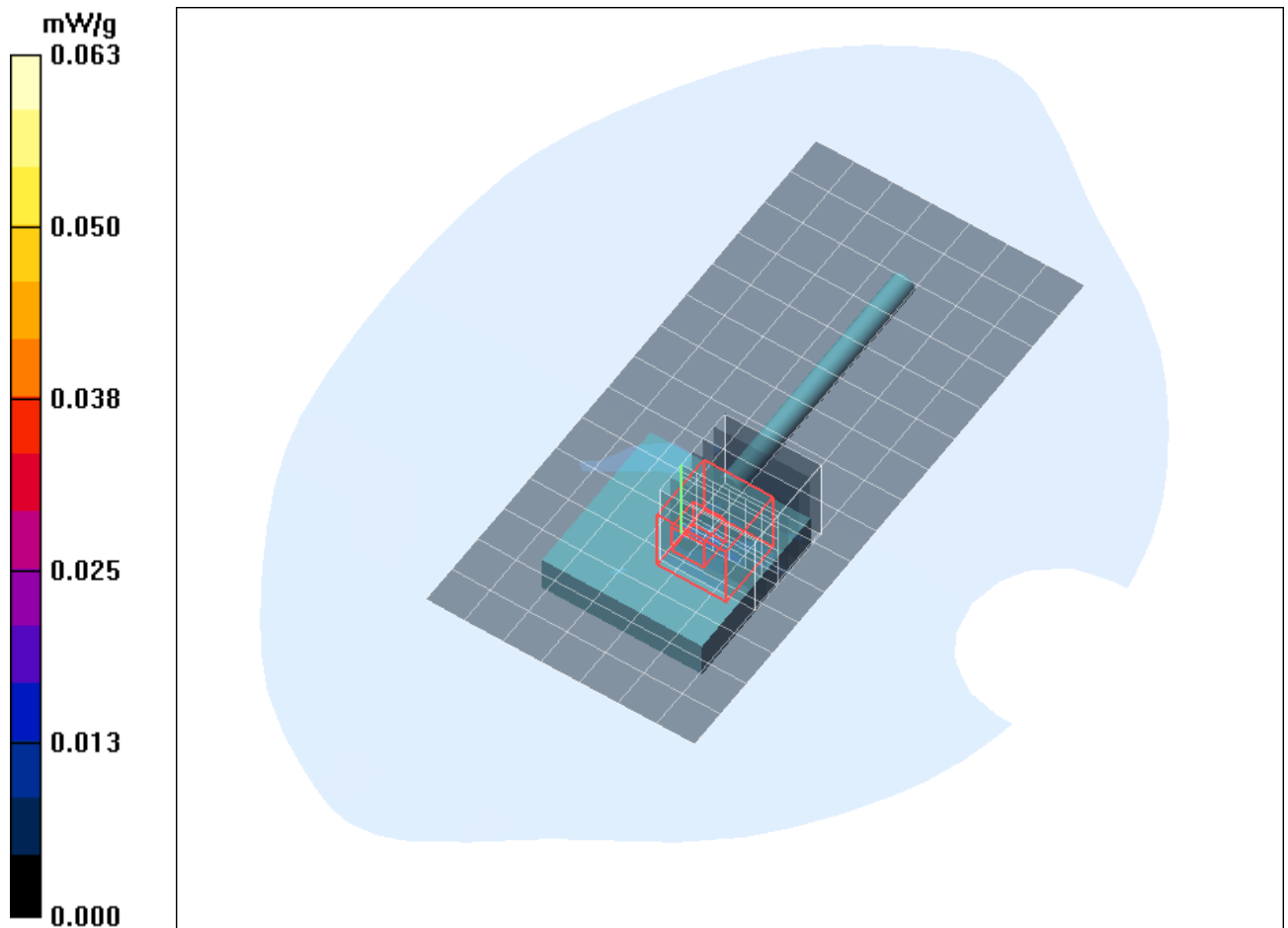


Fig. 2: SAR distribution for Bluetooth standard, channel 39, position 1 (November 21, 2013)

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [Jab90\\_ybhh\\_1.da4](#)

DUT: Jabra; Type: PRO 90; Serial: CJ260D01

Program Name: Bluetooth

Communication System: Bluetooth; Frequency: 2480 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2480$  MHz;  $\sigma = 1.88$  mho/m;  $\epsilon_r = 40.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3860; ConvF(7.38, 7.38, 7.38); Calibrated: 29.07.2013

- Sensor-Surface: 2mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn631; Calibrated: 23.09.2013

- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340

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

**Body Worn/Area Scan (8x16x1):** Measurement grid: dx=12mm, dy=12mm

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

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

Reference Value = 0.782 V/m; Power Drift = 0.070 dB

Peak SAR (extrapolated) = 0.061 W/kg

**SAR(1 g) = 0.00513 mW/g; SAR(10 g) = 0.00208 mW/g**

Maximum value of SAR (measured) = 0.040 mW/g

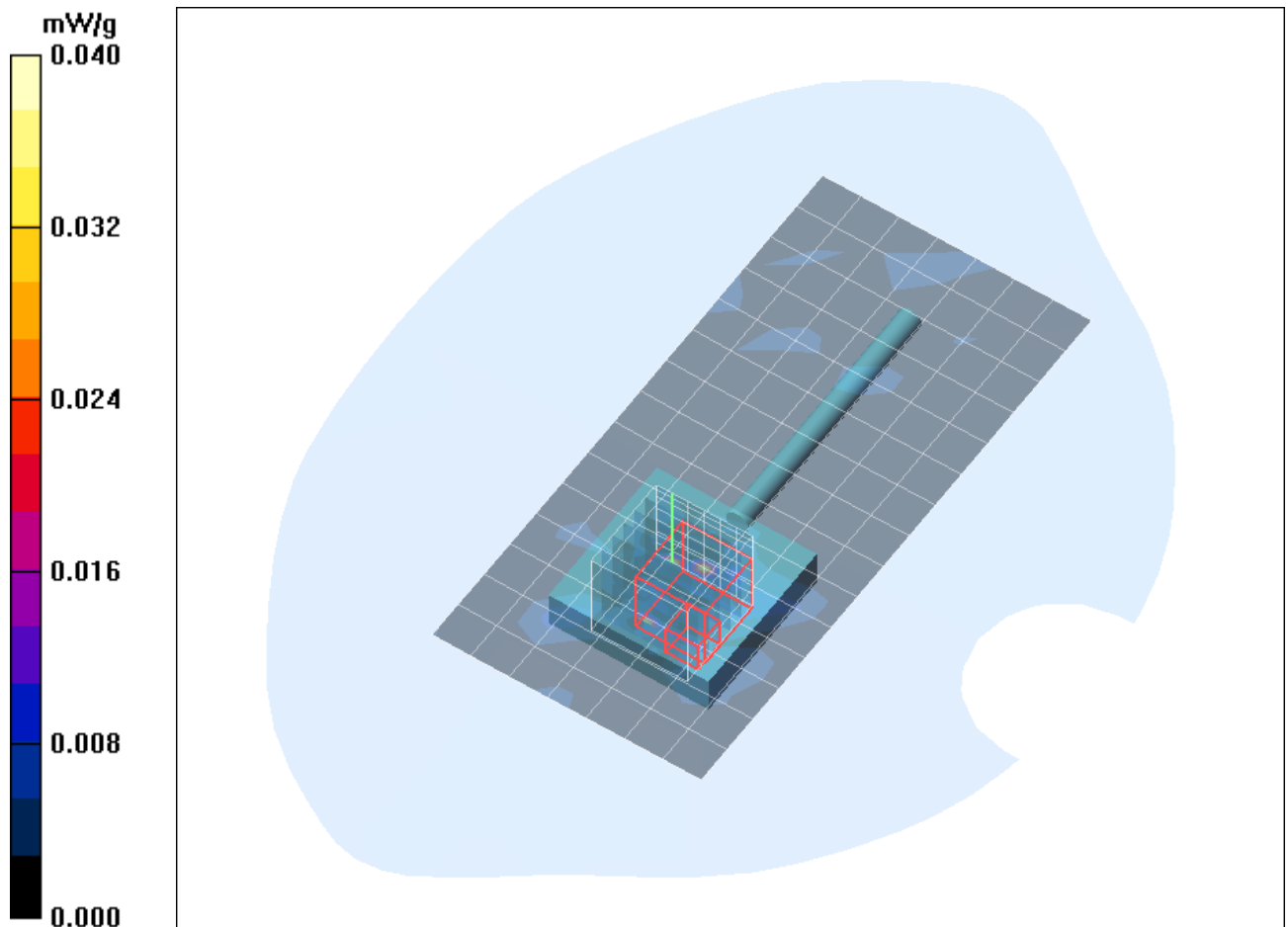


Fig. 3: SAR distribution for Bluetooth standard, channel 78, position 1 (November 21, 2013).

**Test Laboratory:** Imst GmbH, DASY Yellow (II); **File Name:** [Jab90\\_ybhl\\_2.da4](#)

**DUT:** Jabra; **Type:** PRO 90; **Serial:** CJ260D01

**Program Name:** Bluetooth

Communication System: Bluetooth; Frequency: 2402 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2402$  MHz;  $\sigma = 1.73$  mho/m;  $\epsilon_r = 40.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3860; ConvF(7.38, 7.38, 7.38); Calibrated: 29.07.2013

- Sensor-Surface: 2mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn631; Calibrated: 23.09.2013

- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340

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

**Body Worn/Area Scan (8x16x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.066 mW/g

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

Reference Value = 2.62 V/m; Power Drift = 0.057 dB

Peak SAR (extrapolated) = 0.055 W/kg

**SAR(1 g) = 0.010 mW/g; SAR(10 g) = 0.004 mW/g**

Maximum value of SAR (measured) = 0.046 mW/g

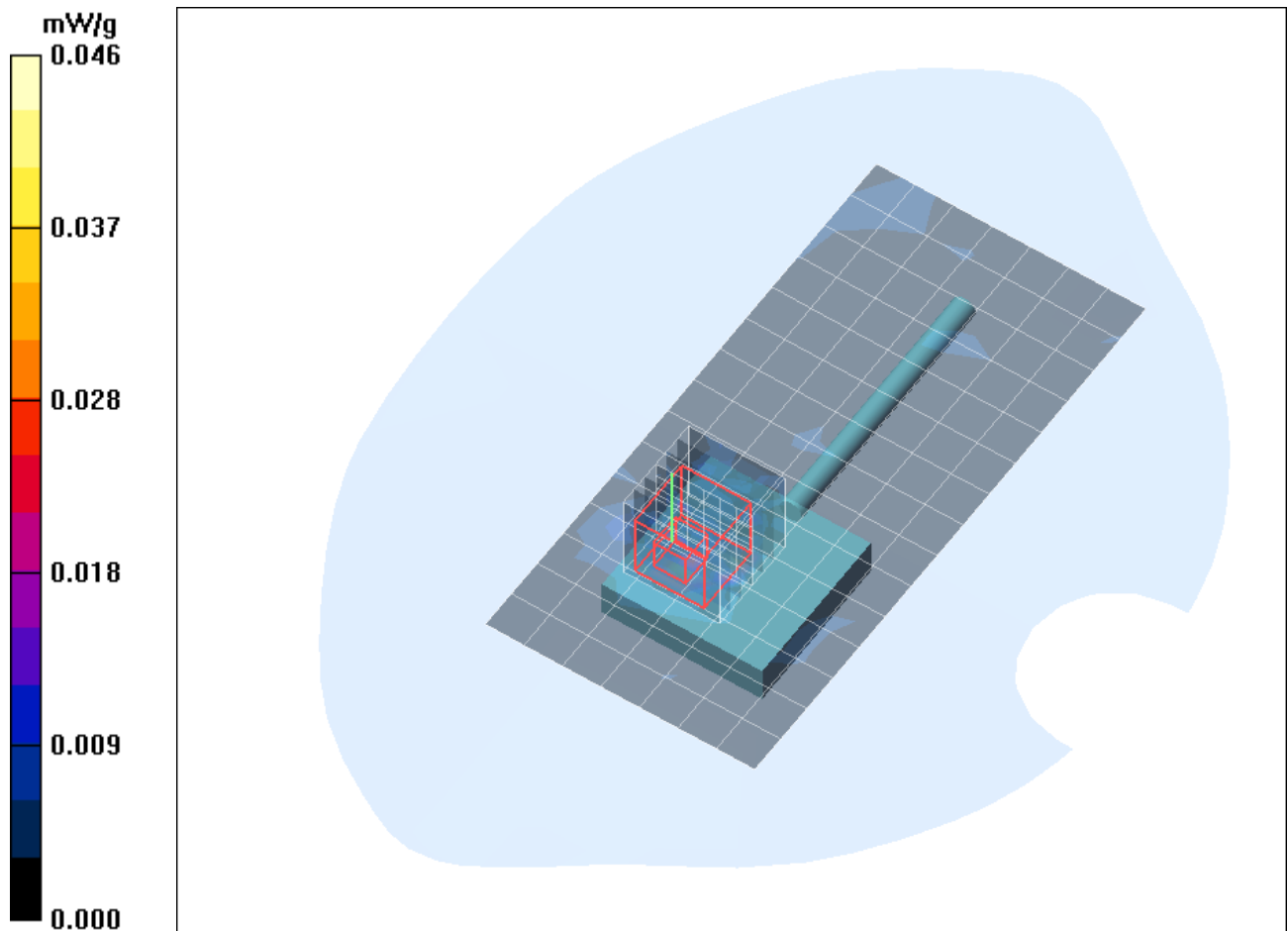


Fig. 4: SAR distribution for Bluetooth standard, channel 0, position 2  
(November 21, 2013)

**Test Laboratory:** Imst GmbH, DASY Yellow (II); **File Name:** [Jab90\\_ybhm\\_2.da4](#)

**DUT:** Jabra; **Type:** PRO 90; **Serial:** CJ260D01

**Program Name:** Bluetooth

Communication System: Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2441$  MHz;  $\sigma = 1.8$  mho/m;  $\epsilon_r = 40.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3860; ConvF(7.38, 7.38, 7.38); Calibrated: 29.07.2013

- Sensor-Surface: 2mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn631; Calibrated: 23.09.2013

- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340

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

**Body Worn/Area Scan (8x16x1):** Measurement grid: dx=12mm, dy=12mm

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

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

Reference Value = 1.45 V/m; Power Drift = 0.137 dB

Peak SAR (extrapolated) = 0.139 W/kg

**SAR(1 g) = 0.010 mW/g; SAR(10 g) = 0.00277 mW/g**

Maximum value of SAR (measured) = 0.092 mW/g

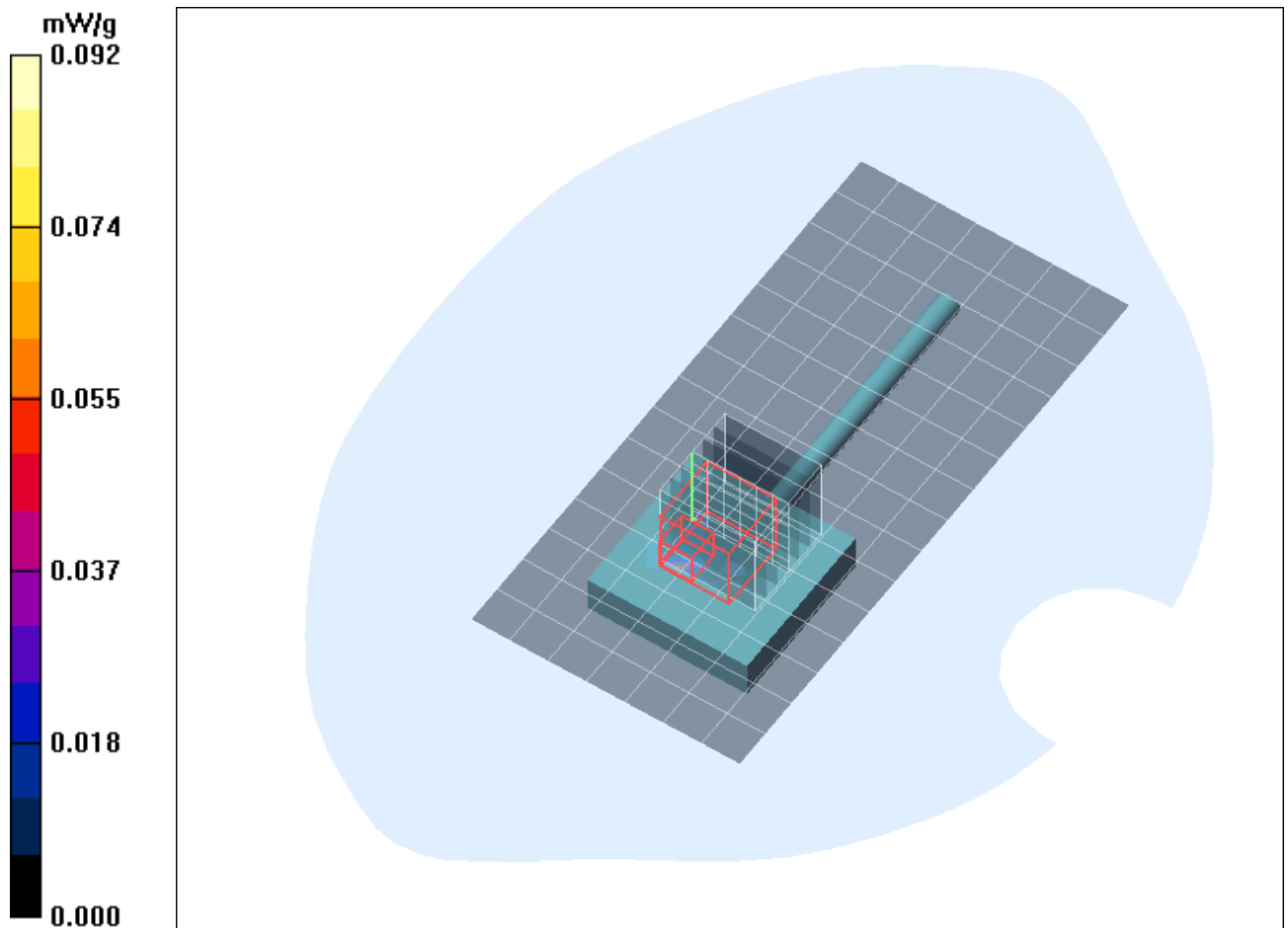


Fig. 5: SAR distribution for Bluetooth standard, channel 39, position 2 (November 21, 2013)

**Test Laboratory:** Imst GmbH, DASY Yellow (II); **File Name:** [Jab90\\_ybhh\\_2.da4](#)

**DUT:** Jabra; **Type:** PRO 90; **Serial:** CJ260D01

**Program Name:** Bluetooth

Communication System: Bluetooth; Frequency: 2480 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2480$  MHz;  $\sigma = 1.88$  mho/m;  $\epsilon_r = 40.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3860; ConvF(7.38, 7.38, 7.38); Calibrated: 29.07.2013

- Sensor-Surface: 2mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn631; Calibrated: 23.09.2013

- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340

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

**Body Worn/Area Scan (8x16x1):** Measurement grid: dx=12mm, dy=12mm

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

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

Reference Value = 1.83 V/m; Power Drift = -0.171 dB

Peak SAR (extrapolated) = 0.127 W/kg

**SAR(1 g) = 0.017 mW/g; SAR(10 g) = 0.00523 mW/g**

Maximum value of SAR (measured) = 0.071 mW/g

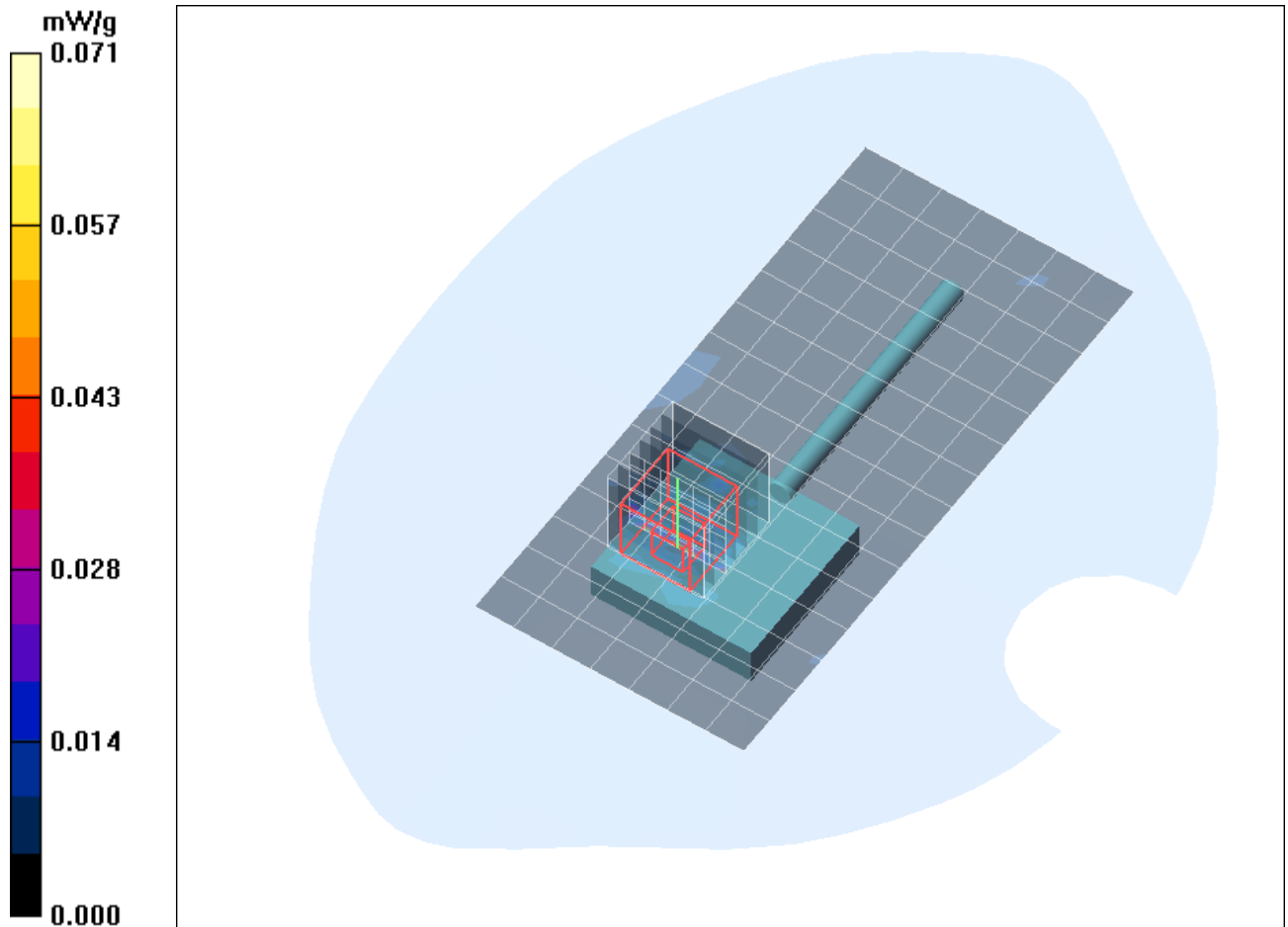


Fig. 6: SAR distribution for Bluetooth standard, channel 78, position 2 (November 21, 2013).