

Annex 1 Measurement results (printout from DASY™)

Date/Time: 09.11.2005 11:19:32

P1528_OET65_EN50361-LeftHandSide-GSM2450-1

DUT: Sennheiser; Type: Bluetooth Office headset; Serial: n.a.

Program Name: Compliance Testing: P1528, OET65 and EN50361 Protocol (Left-Hand Side)

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

Medium parameters used: $f = 2480$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.62, 4.62, 4.62); Calibrated: 10.06.2005

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

- Electronics: DAE3 Sn477; Calibrated: 20.05.2005

- Phantom: SAM 12; Type: SAM; Serial: 1022

- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Touch position - Middle/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.58 mW/g

Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.01 V/m; Power Drift = -0.194 dB

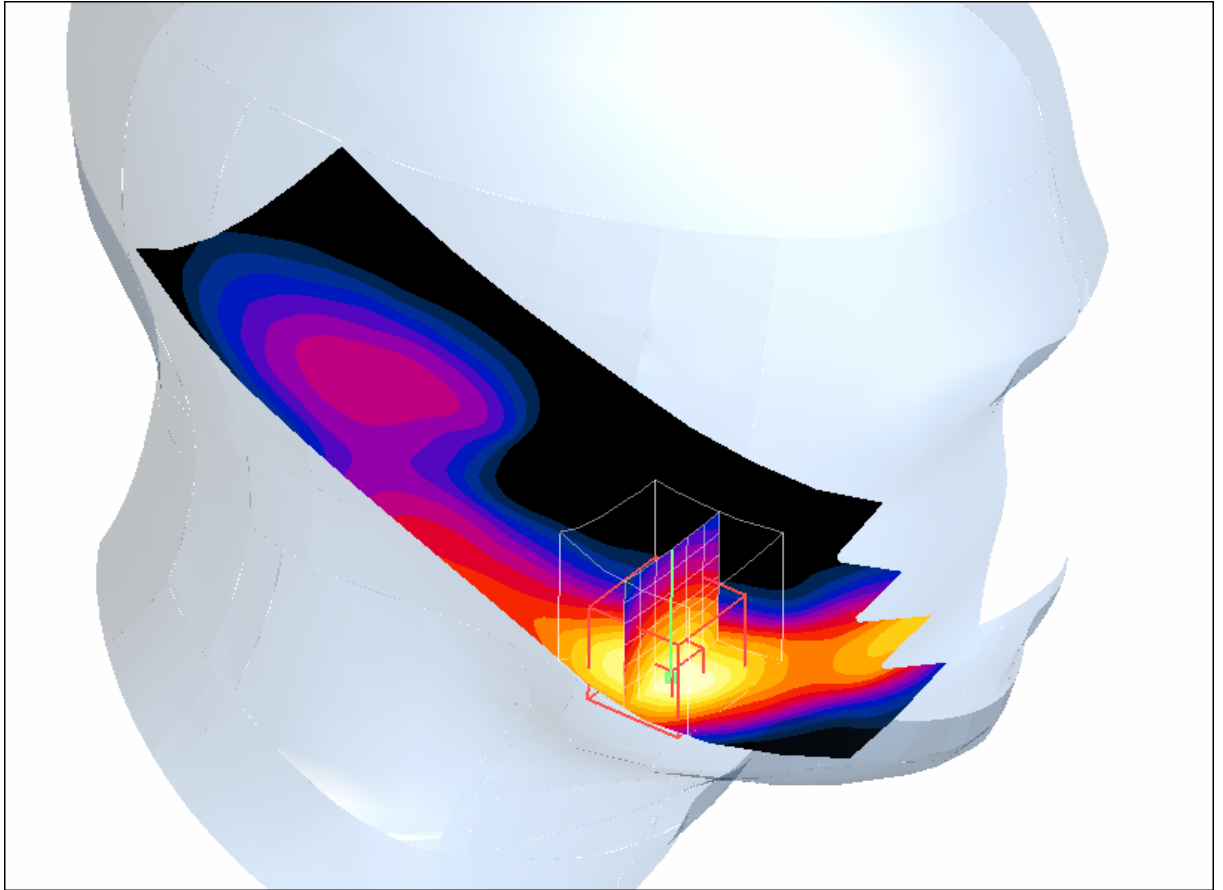
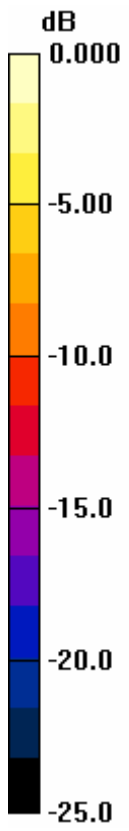
Peak SAR (extrapolated) = 3.09 W/kg

SAR(1 g) = 1.33 mW/g; SAR(10 g) = 0.552 mW/g

Maximum value of SAR (measured) = 1.52 mW/g



0 dB = 1.52mW/g



0 dB = 1.52mW/g

The transmission was in CW controlled by USB and Bluesnake software high frequency

P1528_OET65_EN50361-LeftHandSide-GSM2450-2

DUT: Sennheiser; Type: Bluetooth Office headset; Serial: n.a.

Program Name: Compliance Testing: P1528, OET65 and EN50361 Protocol (Left-Hand Side)

Communication System: Bluetooth; Frequency: 2480 MHz; Duty Cycle: 1:1.25

Medium parameters used: $f = 2480$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.62, 4.62, 4.62); Calibrated: 10.06.2005

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

- Electronics: DAE3 Sn477; Calibrated: 20.05.2005

- Phantom: SAM 12; Type: SAM; Serial: 1022

- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Touch position - Middle 2/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.48 mW/g

Touch position - Middle 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

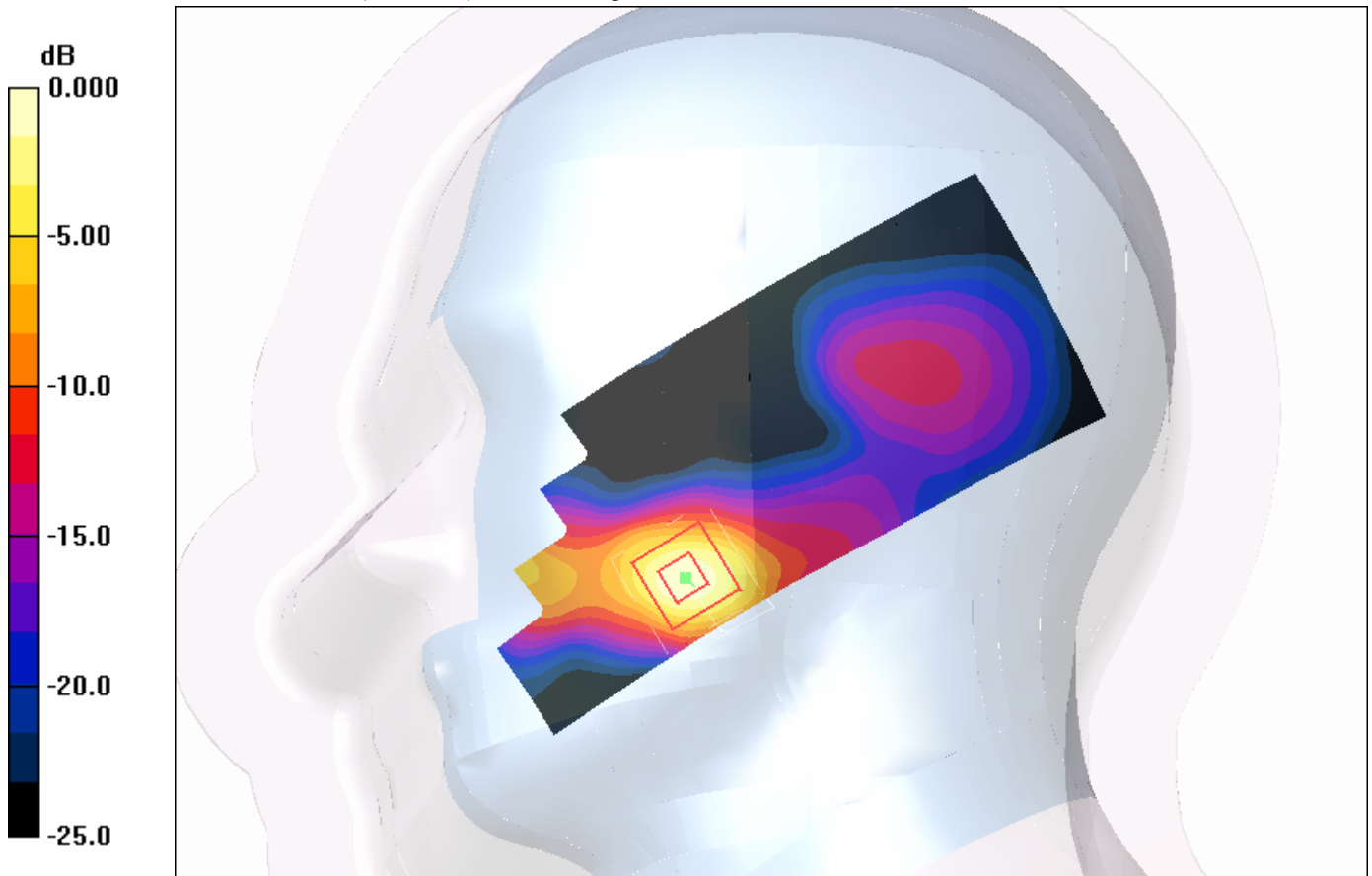
dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.97 V/m; Power Drift = 0.019 dB

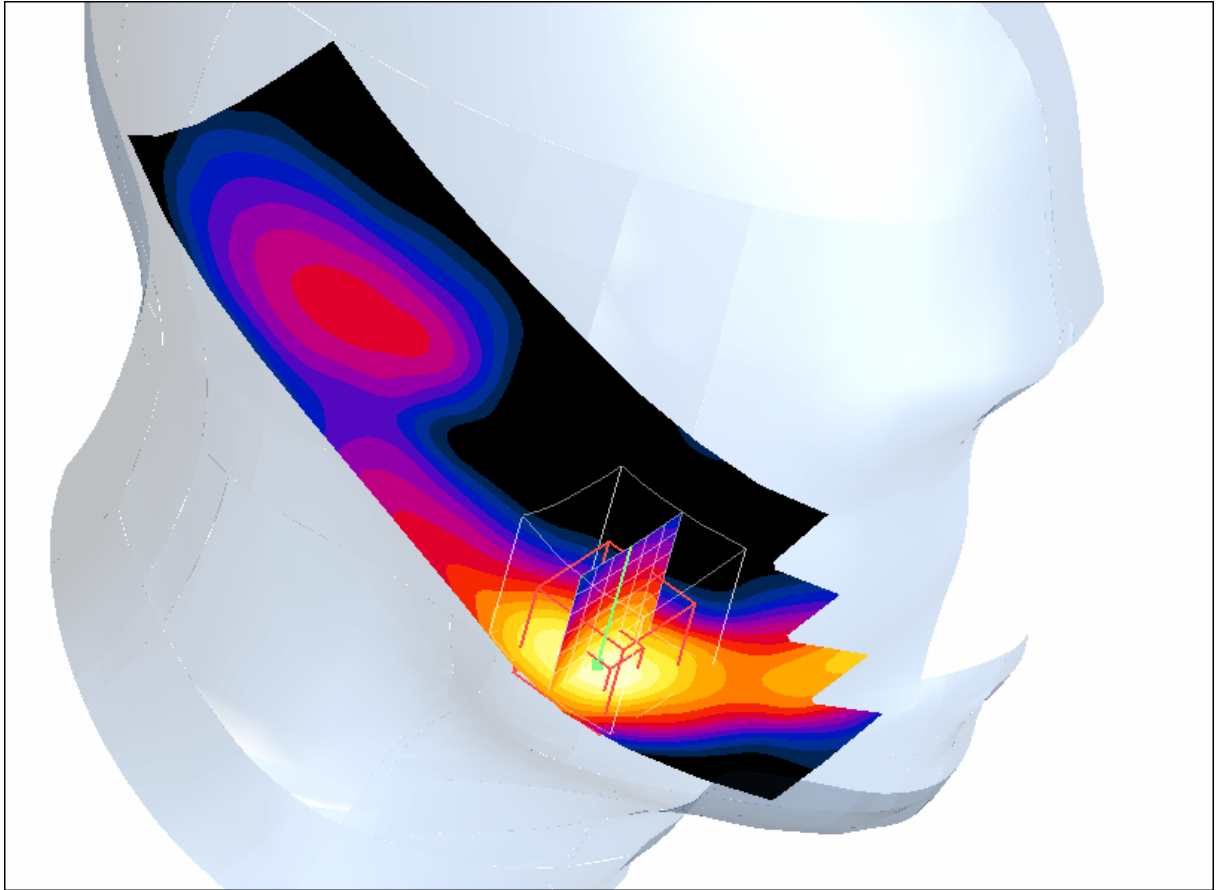
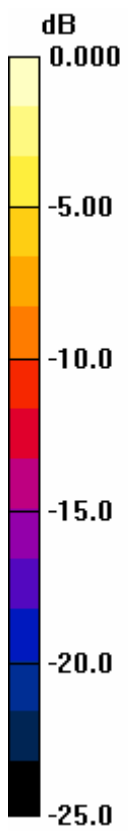
Peak SAR (extrapolated) = 2.82 W/kg

SAR(1 g) = 1.22 mW/g; SAR(10 g) = 0.510 mW/g

Maximum value of SAR (measured) = 1.44 mW/g



0 dB = 1.44mW/g



0 dB = 1.44mW/g

The transmission was in 80% duty cycle controlled by USB and Bluesnake software
Frequency hopping + BT modulation

P1528_OET65_EN50361-RightHandSide-GSM2450-3

DUT: Sennheiser; Type: Bluetooth Office headset; Serial: n.a.

Program Name: Compliance Testing: P1528, OET65 and EN50361 Protocol (Right-Hand Side)

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

Medium parameters used: $f = 2441$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.62, 4.62, 4.62); Calibrated: 10.06.2005

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

- Electronics: DAE3 Sn477; Calibrated: 20.05.2005

- Phantom: SAM left; Type: SAM; Serial: 1022

- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Touch position - Middle/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.93 mW/g

Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

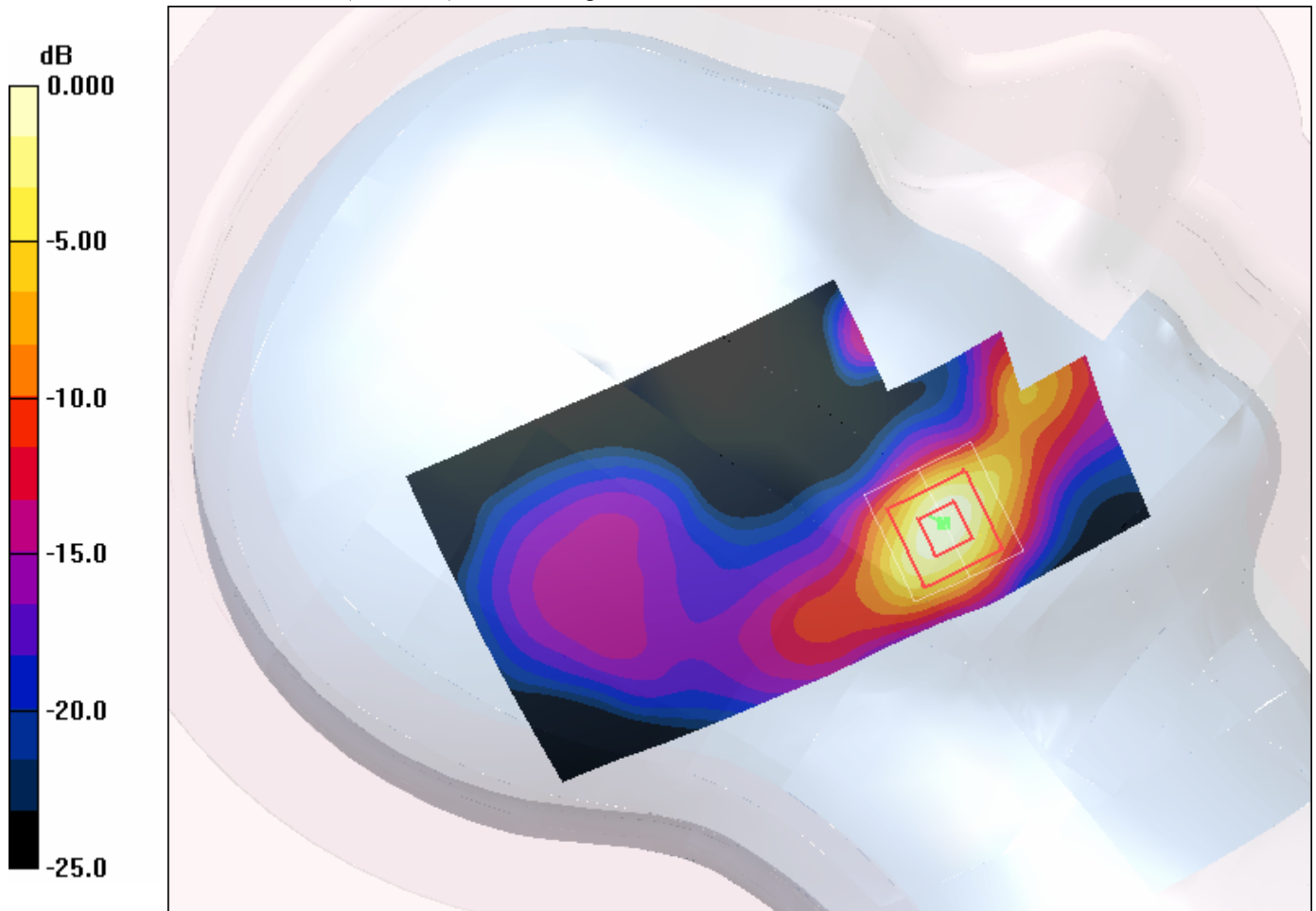
dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.82 V/m; Power Drift = 1.20 dB

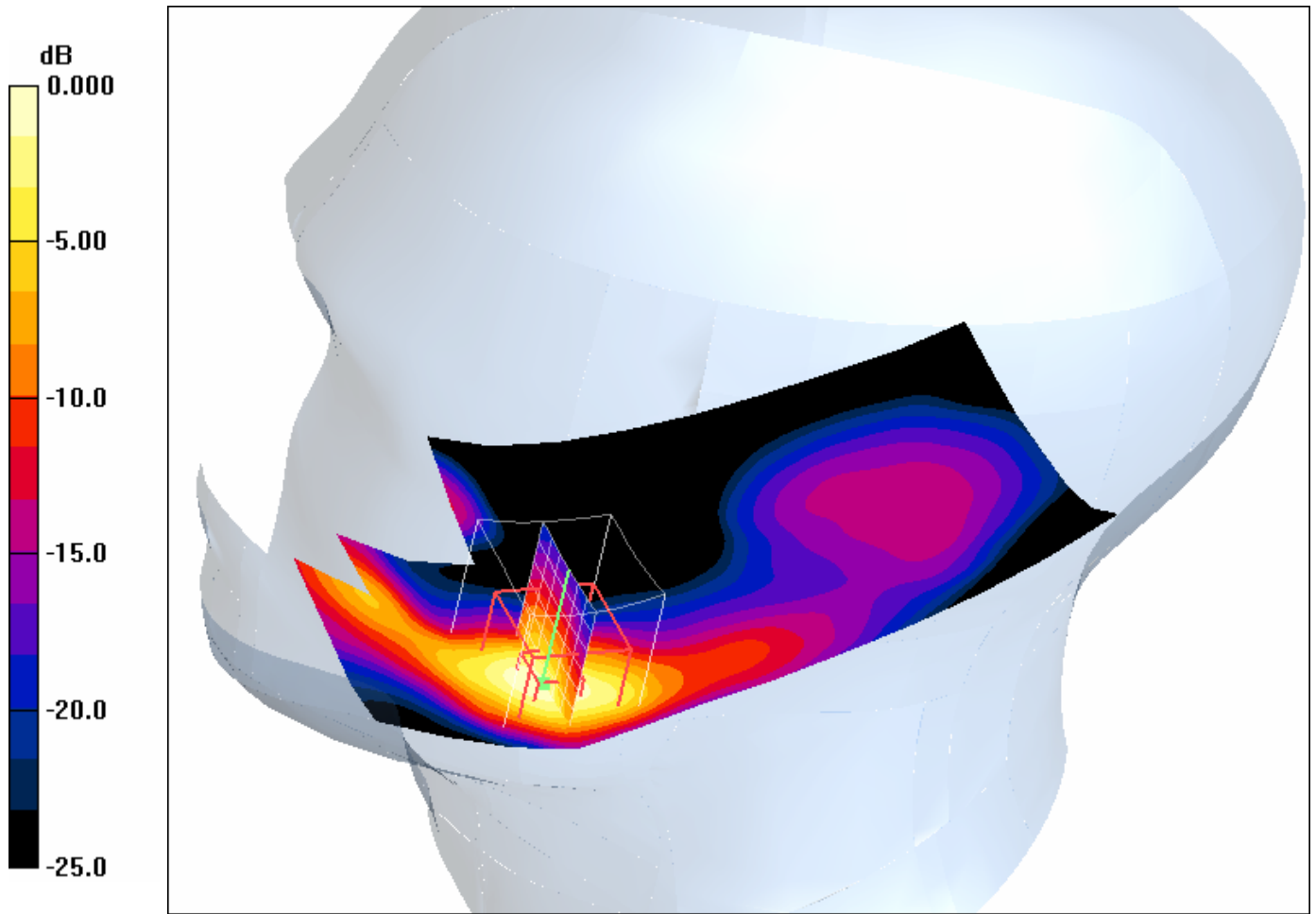
Peak SAR (extrapolated) = 3.80 W/kg

SAR(1 g) = 1.6 mW/g; SAR(10 g) = 0.648 mW/g

Maximum value of SAR (measured) = 1.91 mW/g



0 dB = 1.91mW/g



0 dB = 1.91mW/g

The transmission was in CW controlled by USB and Bluesnake software, high frequency, usb cable was connected

P1528_OET65_EN50361-RightHandSide-GSM2450-4

DUT: Sennheiser; Type: Bluetooth Office headset; Serial: n.a.

Program Name: Compliance Testing: P1528, OET65 and EN50361 Protocol (Right-Hand Side)

Communication System: Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.25

Medium parameters used: $f = 2441$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.62, 4.62, 4.62); Calibrated: 10.06.2005

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

- Electronics: DAE3 Sn477; Calibrated: 20.05.2005

- Phantom: SAM left; Type: SAM; Serial: 1022

- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Touch position - Middle 2/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.33 mW/g

Touch position - Middle 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

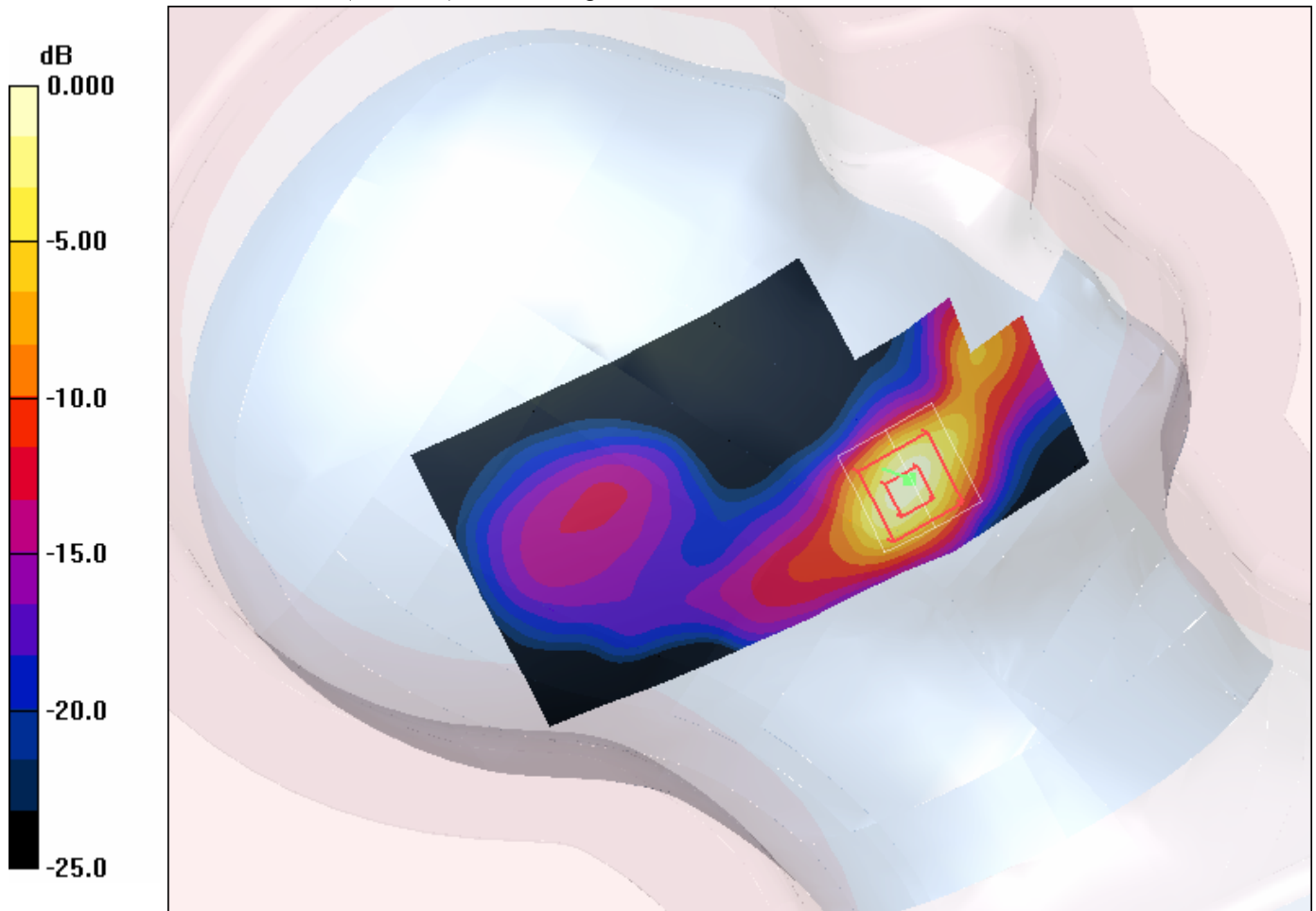
dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.99 V/m; Power Drift = 1.41 dB

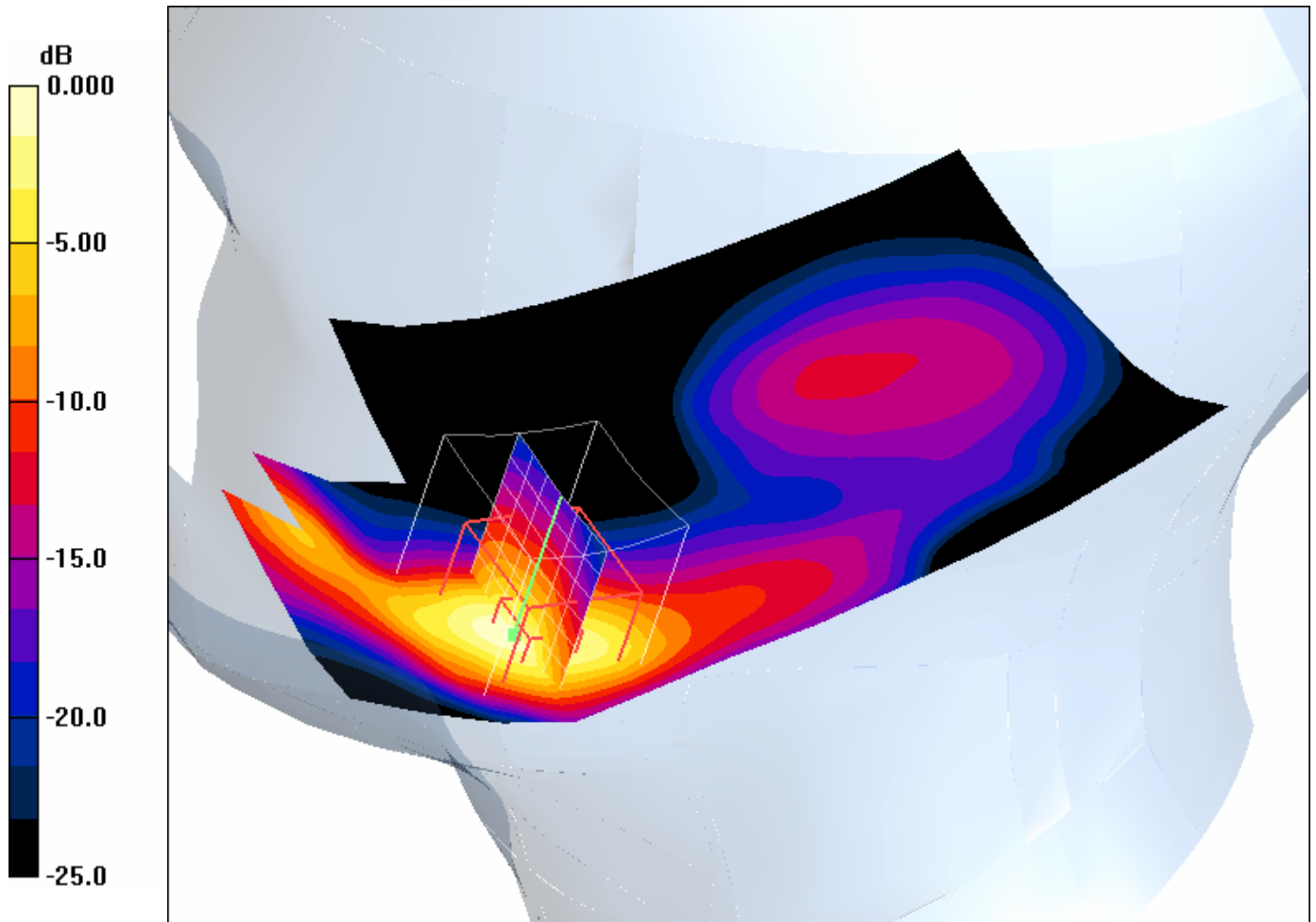
Peak SAR (extrapolated) = 2.96 W/kg

SAR(1 g) = 1.21 mW/g; SAR(10 g) = 0.488 mW/g

Maximum value of SAR (measured) = 1.46 mW/g



0 dB = 1.46mW/g



0 dB = 1.46mW/g

The transmission was in 80% duty cycle controlled by USB and Bluesnake software
Frequency hopping + BT modulation

P1528_OET65_EN50361-RightHandSide-GSM2450-5

DUT: Sennheiser; Type: Bluetooth Office headset; Serial: n.a.

Program Name: Compliance Testing: P1528, OET65 and EN50361 Protocol (Right-Hand Side)

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

Medium parameters used: $f = 2402$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.62, 4.62, 4.62); Calibrated: 10.06.2005

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

- Electronics: DAE3 Sn477; Calibrated: 20.05.2005

- Phantom: SAM left; Type: SAM; Serial: 1022

- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Touch position - Middle 2 2/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.33 mW/g

Touch position - Middle 2 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

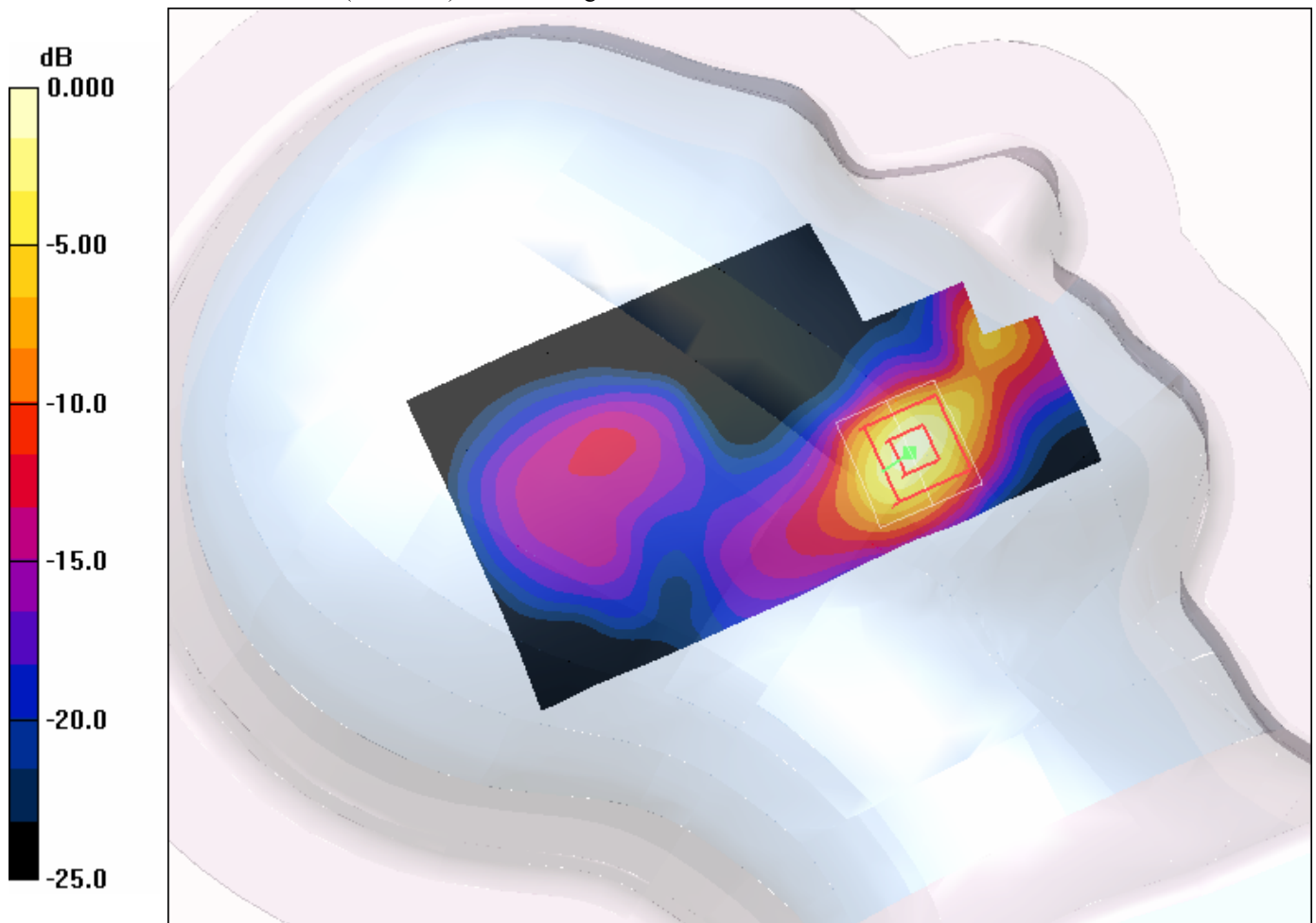
dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.51 V/m; Power Drift = 0.950 dB

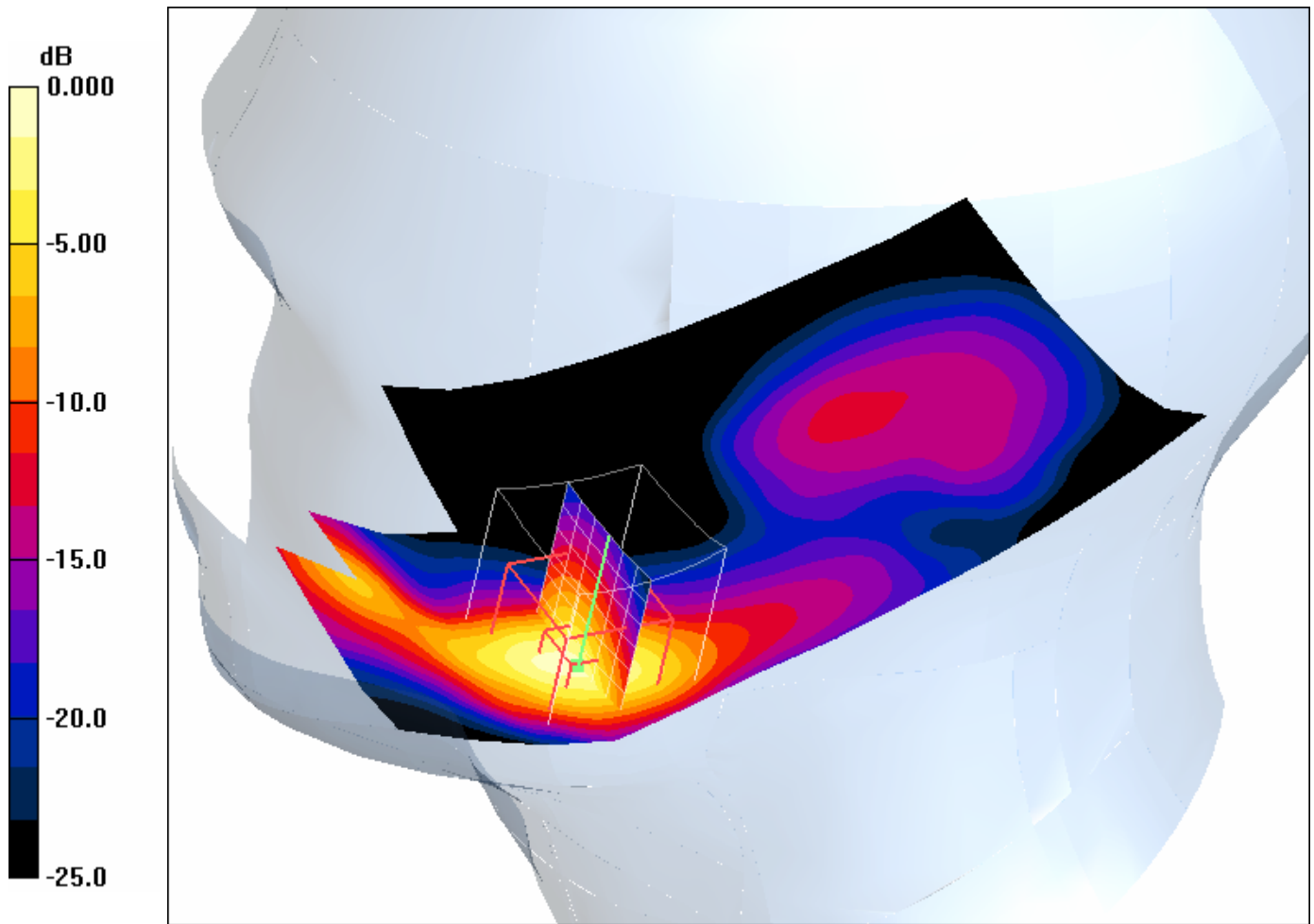
Peak SAR (extrapolated) = 3.06 W/kg

SAR(1 g) = 1.3 mW/g; SAR(10 g) = 0.530 mW/g

Maximum value of SAR (measured) = 1.59 mW/g



0 dB = 1.59mW/g



0 dB = 1.59mW/g

The transmission was in CW controlled by USB and Bluesnake software, low frequency, usb cable was connected

P1528_OET65_EN50361-RightHandSide-GSM2450-6

DUT: Sennheiser; Type: Bluetooth Office headset; Serial: n.a.

Program Name: Compliance Testing: P1528, OET65 and EN50361 Protocol (Right-Hand Side)

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

Medium parameters used: $f = 2441$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.62, 4.62, 4.62); Calibrated: 10.06.2005

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

- Electronics: DAE3 Sn477; Calibrated: 20.05.2005

- Phantom: SAM left; Type: SAM; Serial: 1022

- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Touch position - Middle 2 2 2/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.51 mW/g

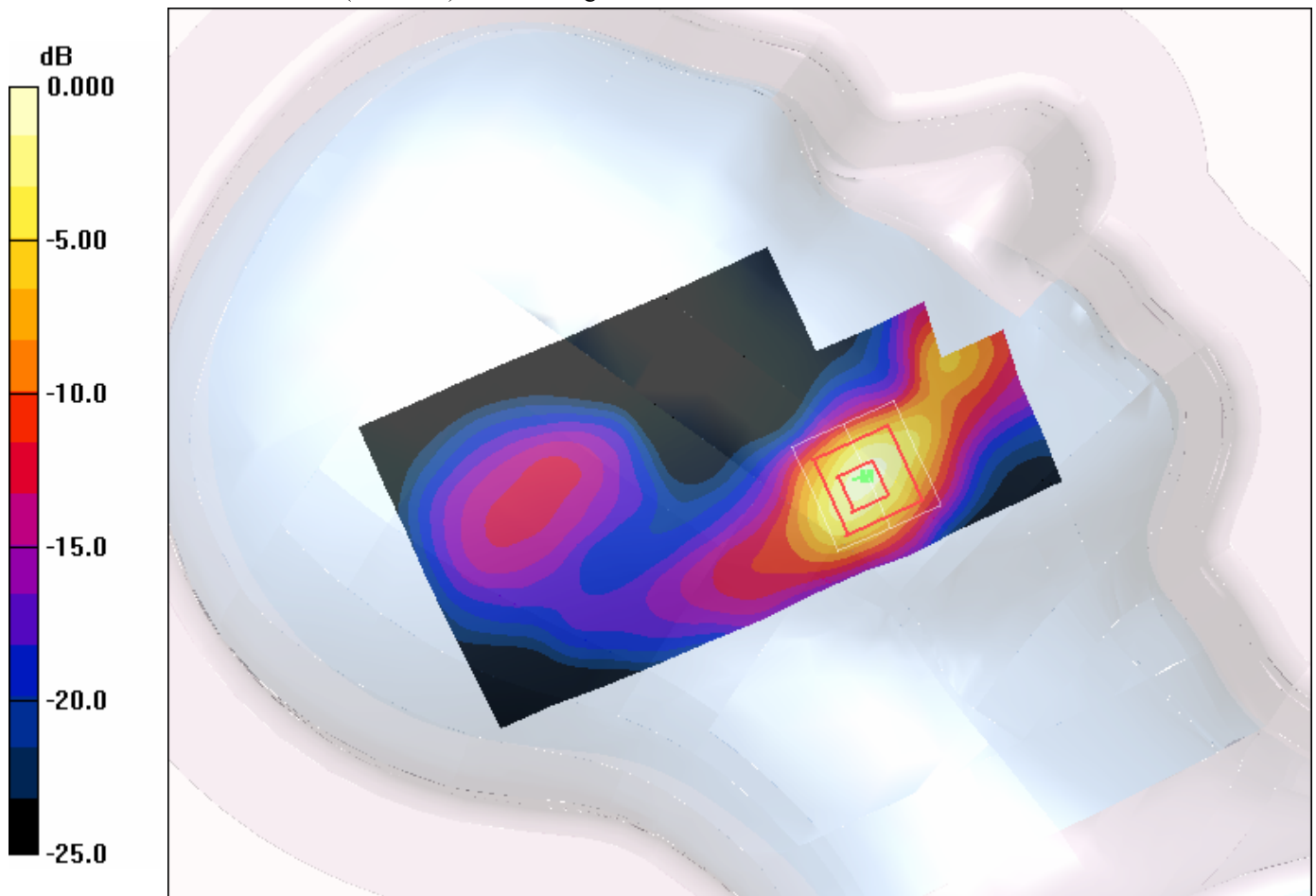
Touch position - Middle 2 2 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.67 V/m; Power Drift = 0.158 dB

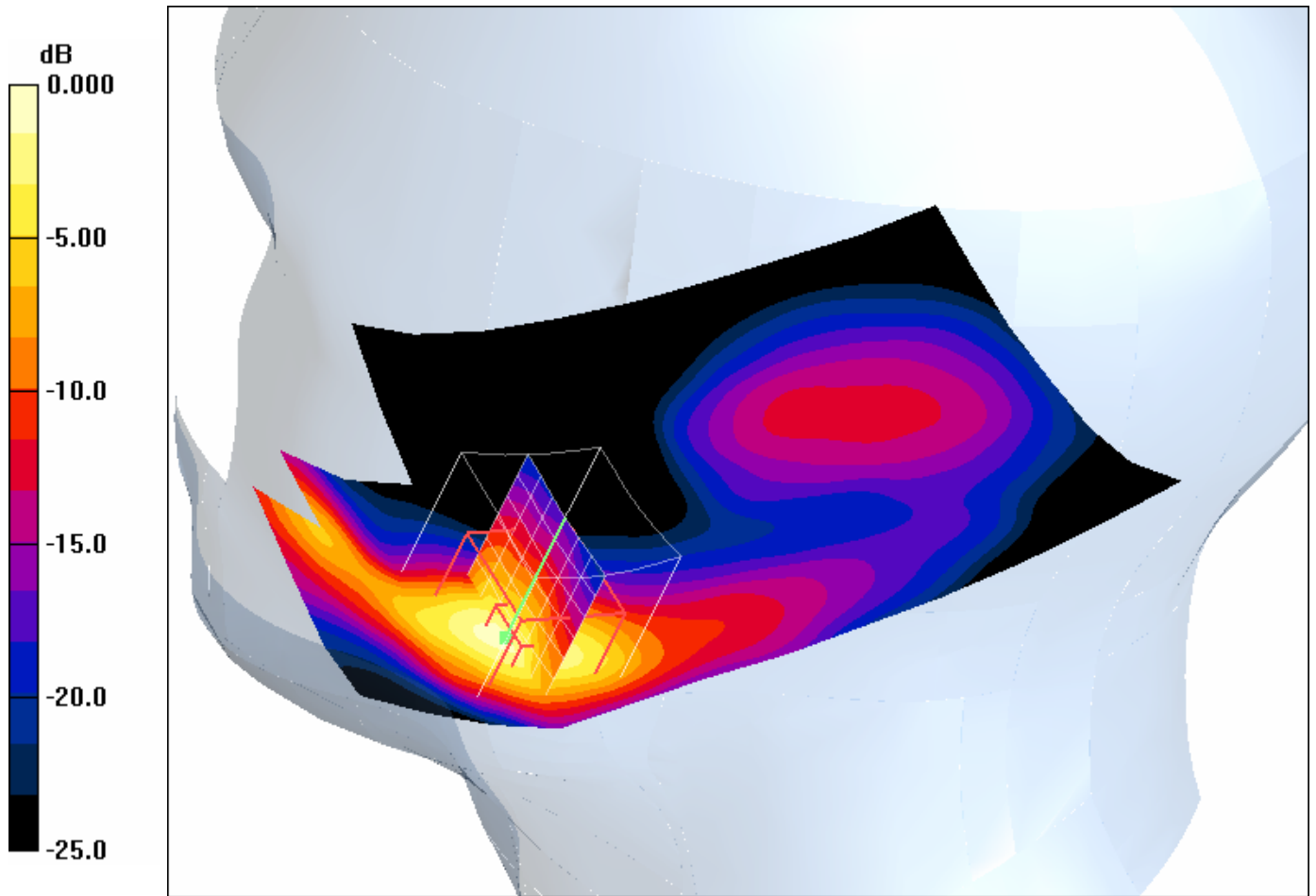
Peak SAR (extrapolated) = 3.62 W/kg

SAR(1 g) = 1.52 mW/g; SAR(10 g) = 0.621 mW/g

Maximum value of SAR (measured) = 1.83 mW/g



0 dB = 1.83mW/g



0 dB = 1.83mW/g

The transmission was in CW controlled by USB and Bluesnake software, mid frequency

BLUESNAKE CONFIGURATION: TX Gain 7 maximum transmit power in BT test mode

Test results 1 to 6 +20dBm EIRP

Annex 2 Photo documentation

Picture no. 1

Measurement System DASY 4



Picture no. 2

DUT - left side view



Picture no. 3

DUT - right side view



Picture no. 4

Battery



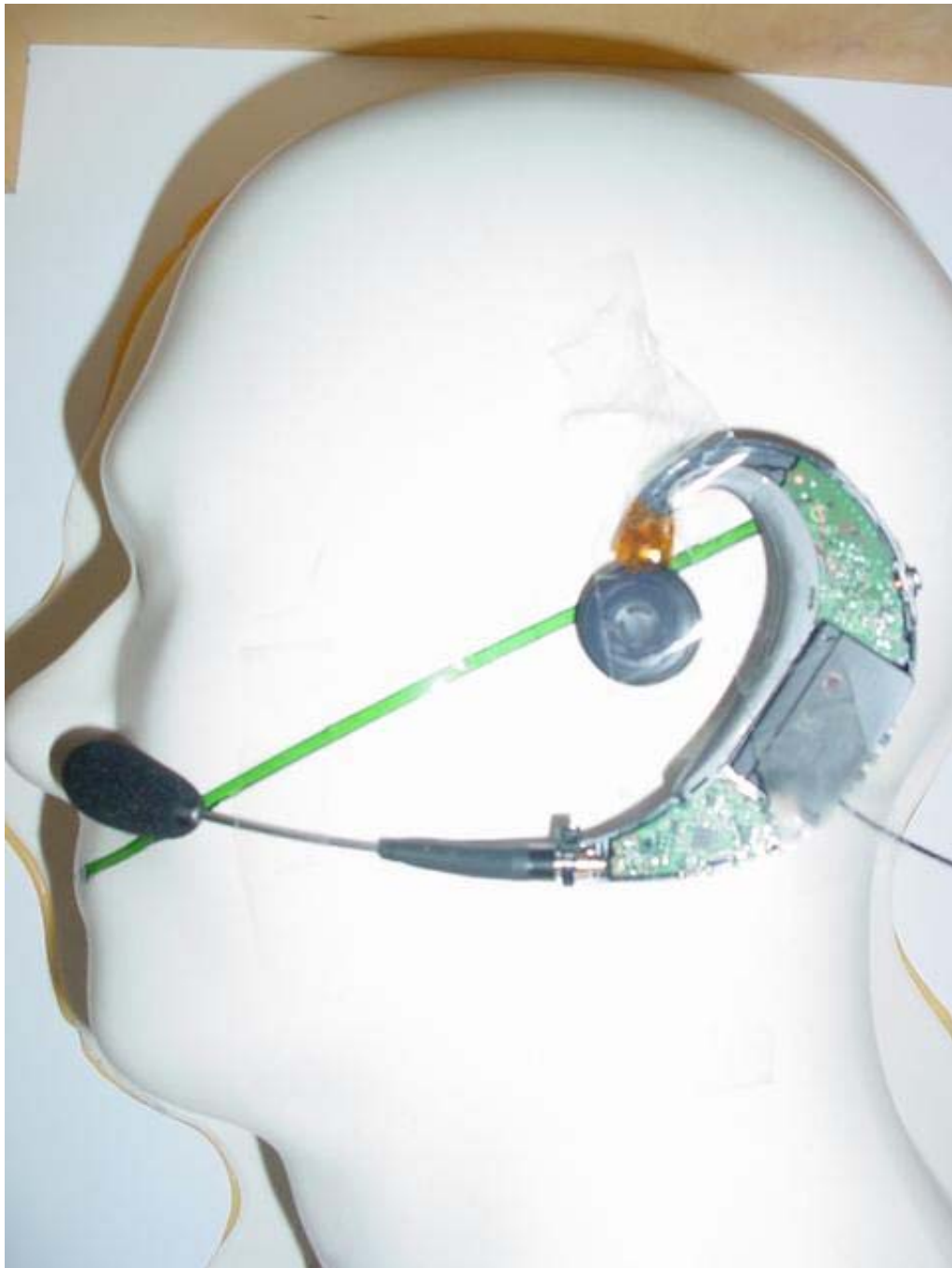
Picture no. 5

Battery



Picture no. 6

Test position left hand touched



Picture no. 7

Test position left hand touched



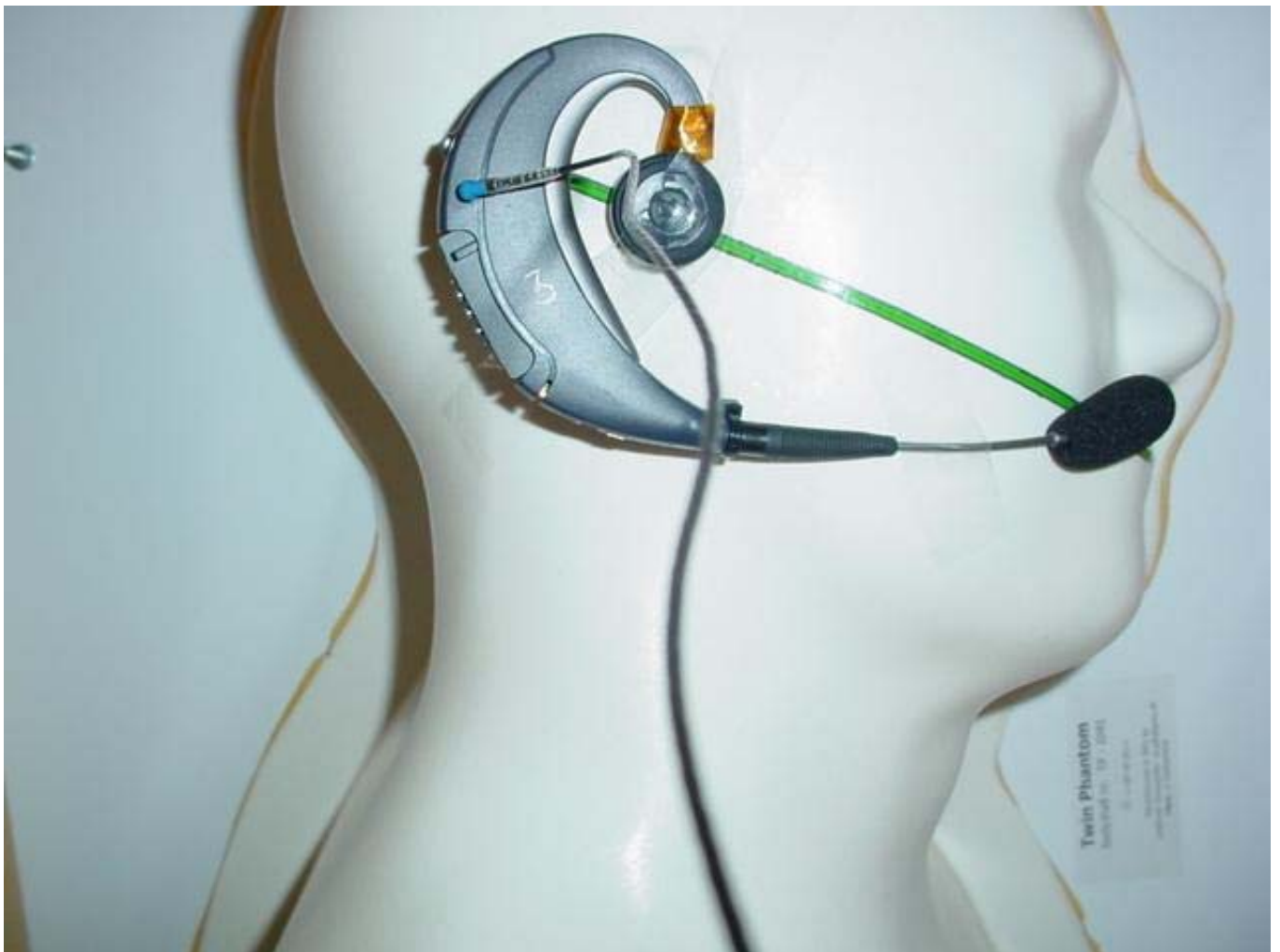
Picture no. 8

Test position left hand touched



Picture no. 9

Test position right hand touched



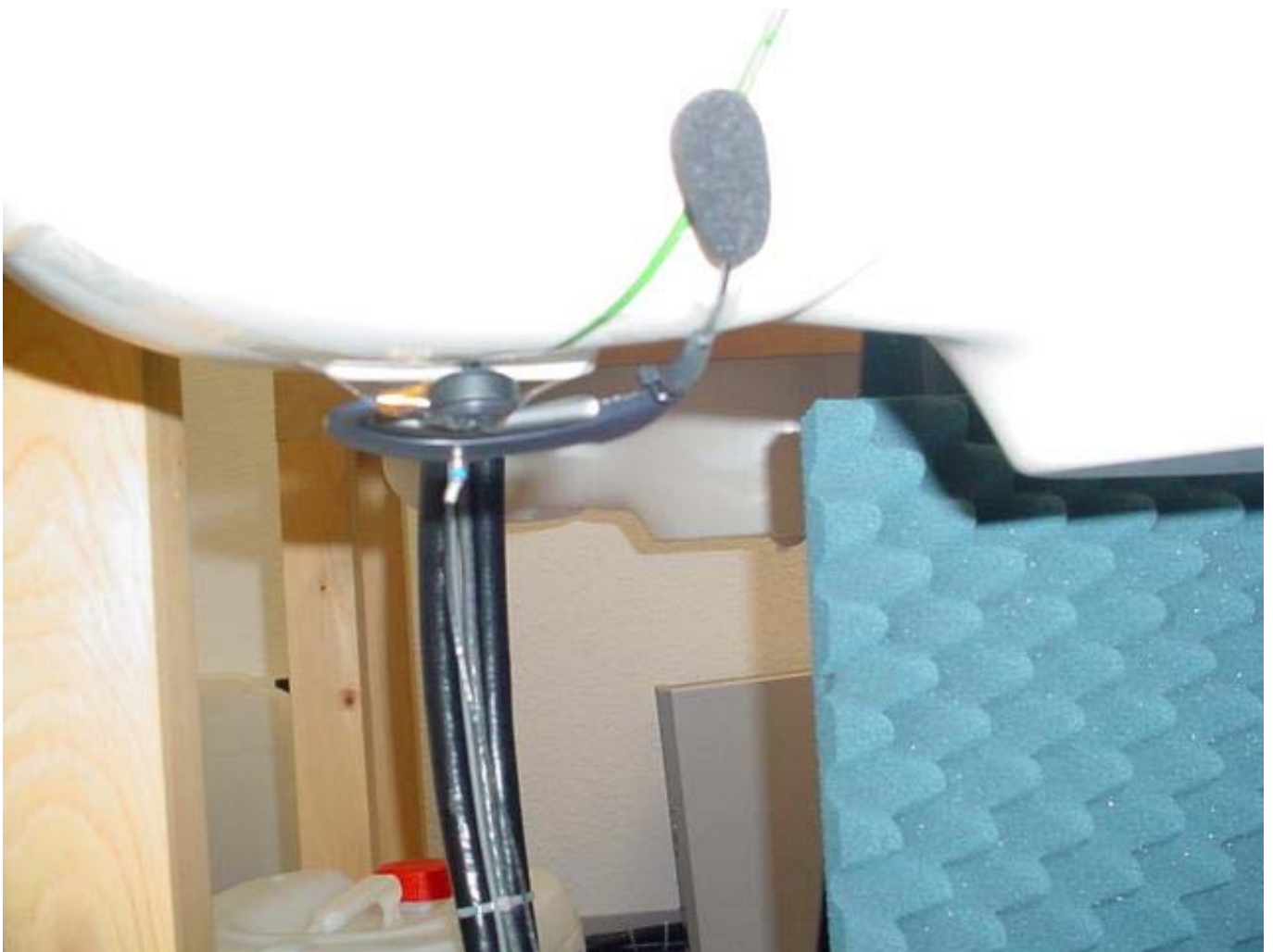
Picture no. 10

Test position right hand touched



Picture no. 11

Test position right hand touched



Picture no. 12

Test position right hand touched

