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# **Appendix for the Report**

## **Dosimetric Assessment of the Portable Device KX-TGCA20 (FCC ID: ACJ96NKX-TGCA20)**

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

December 12, 2013

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**Customer**  
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## 1 SAR Distribution Plots, Head Measurement

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [TGCA20\\_yplm\\_1.da4](#)

DUT: Panasonic; Type: KX-TGCA20;

Program Name: DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used:  $f = 1924.99$  MHz;  $\sigma = 1.45$  mho/m;  $\epsilon_r = 40.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.05, 5.05, 5.05); Calibrated: 19.02.2013
- Sensor-Surface: 4mm (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

**Cheek Left/Area Scan (7x13x1):** Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 5.24 V/m; Power Drift = -0.075 dB

Peak SAR (extrapolated) = 0.143 W/kg

**SAR(1 g) = 0.071 mW/g; SAR(10 g) = 0.037 mW/g**

Maximum value of SAR (measured) = 0.080 mW/g

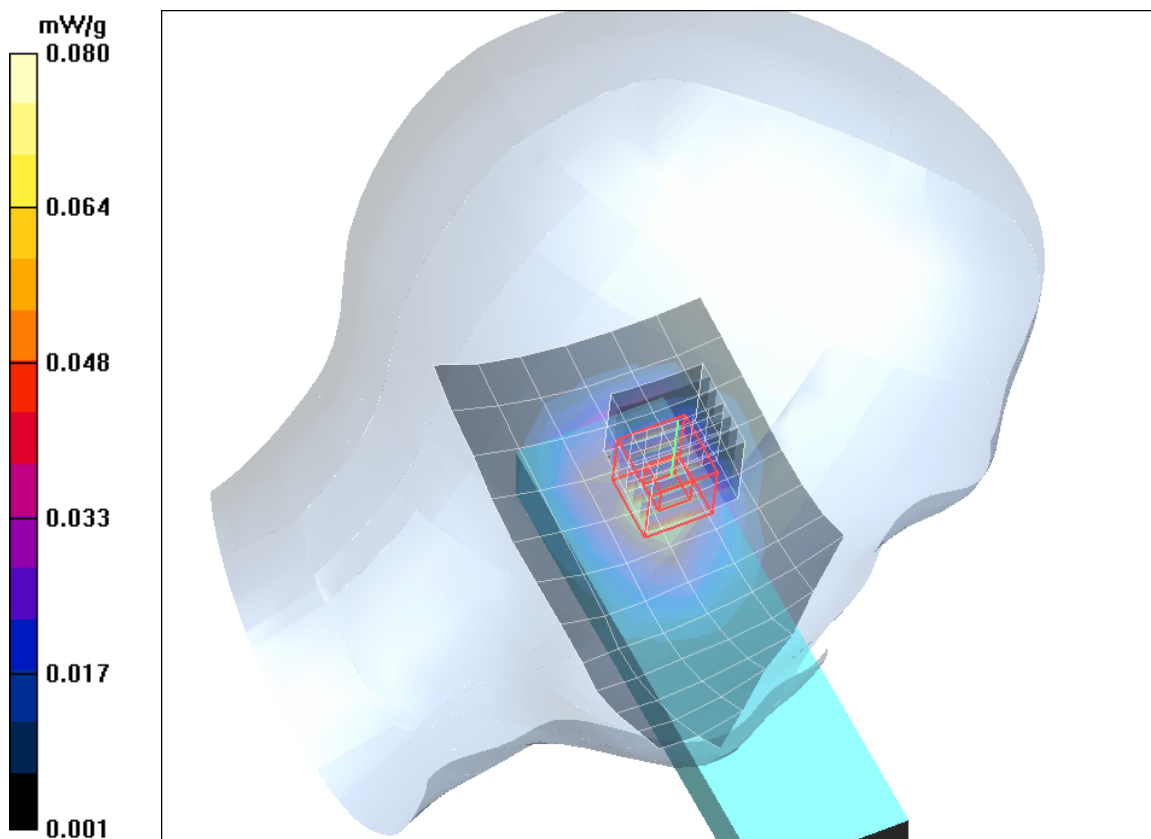


Fig. 1: SAR distribution for DECT US, channel 2, cheek position, left side of head, (December 06, 2013).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [TGCA20\\_yplm\\_2.da4](#)

DUT: Panasonic; Type: KX-TGCA20;

Program Name: DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used:  $f = 1924.99$  MHz;  $\sigma = 1.45$  mho/m;  $\epsilon_r = 40.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.05, 5.05, 5.05); Calibrated: 19.02.2013
- Sensor-Surface: 4mm (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

**Tilted Left/Area Scan (7x13x1):** Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 5.03 V/m; Power Drift = -0.115 dB

Peak SAR (extrapolated) = 0.066 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

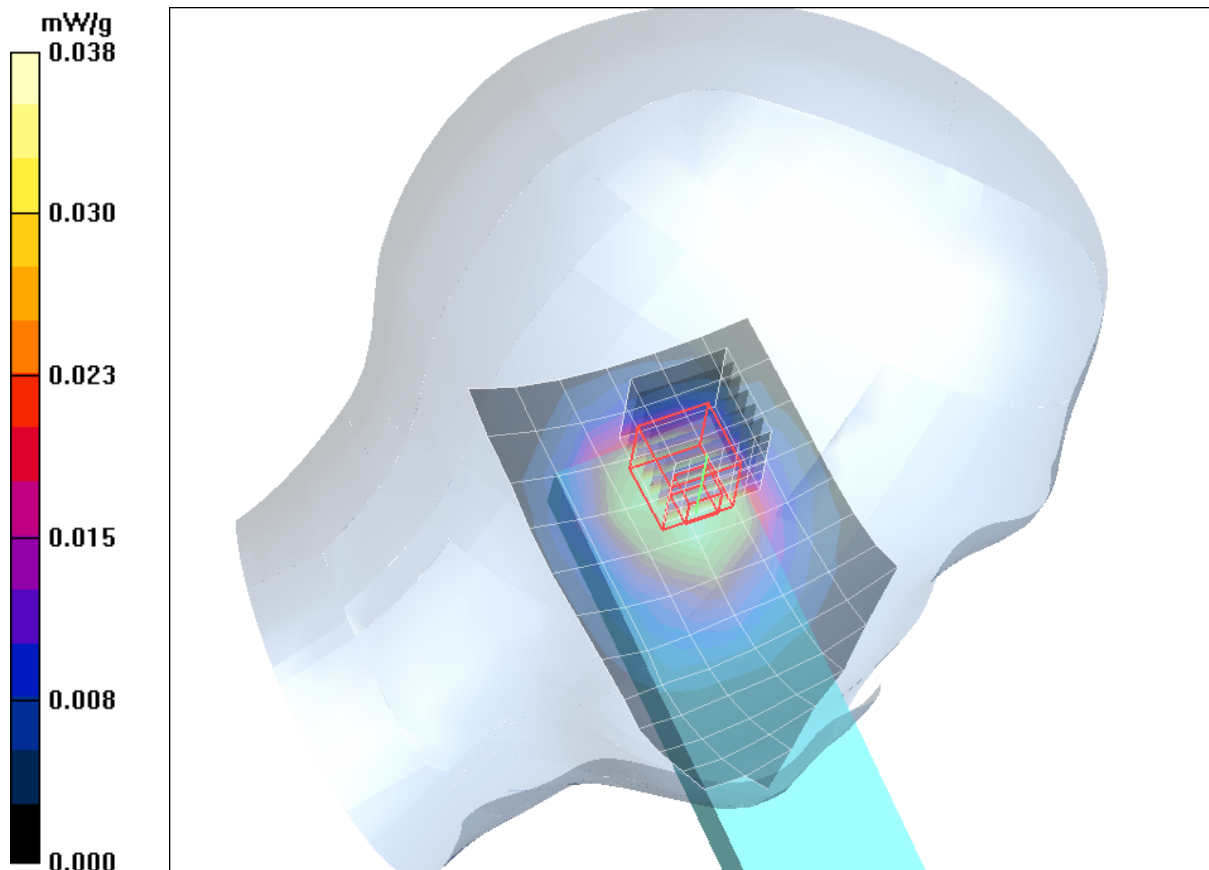


Fig. 2: SAR distribution for DECT US, channel 2, tilted position, left side of head, (December 06, 2013).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [TGCA20\\_yprm\\_1.da4](#)

DUT: Panasonic; Type: KX-TGCA20;

Program Name: DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used:  $f = 1924.99$  MHz;  $\sigma = 1.45$  mho/m;  $\epsilon_r = 40.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.05, 5.05, 5.05); Calibrated: 19.02.2013

- Sensor-Surface: 4mm (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

**Cheek Right/Area Scan (7x13x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.062 mW/g

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

Reference Value = 6.08 V/m; Power Drift = -0.086 dB

Peak SAR (extrapolated) = 0.109 W/kg

**SAR(1 g) = 0.066 mW/g; SAR(10 g) = 0.036 mW/g**

Maximum value of SAR (measured) = 0.072 mW/g

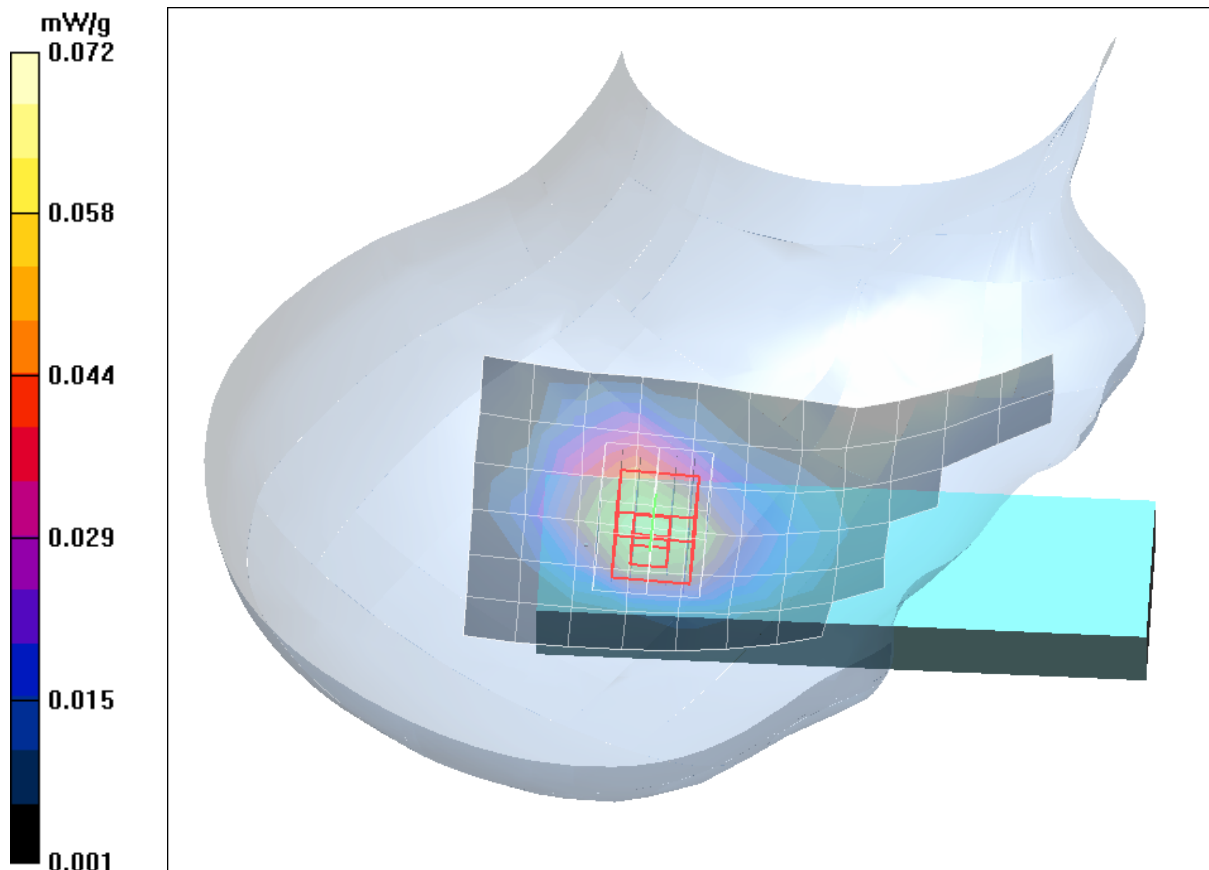


Fig. 3: SAR distribution for DECT US, channel 2, cheek position, right side of head, (December 06, 2013).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [TGCA20\\_yprm\\_2.da4](#)

DUT: Panasonic; Type: KX-TGCA20;

Program Name: DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used:  $f = 1924.99$  MHz;  $\sigma = 1.45$  mho/m;  $\epsilon_r = 40.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.05, 5.05, 5.05); Calibrated: 19.02.2013
- Sensor-Surface: 4mm (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

**Tilted Right/Area Scan (7x13x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.036 mW/g

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

Reference Value = 5.24 V/m; Power Drift = -0.123 dB

Peak SAR (extrapolated) = 0.061 W/kg

**SAR(1 g) = 0.037 mW/g; SAR(10 g) = 0.021 mW/g**

Maximum value of SAR (measured) = 0.041 mW/g

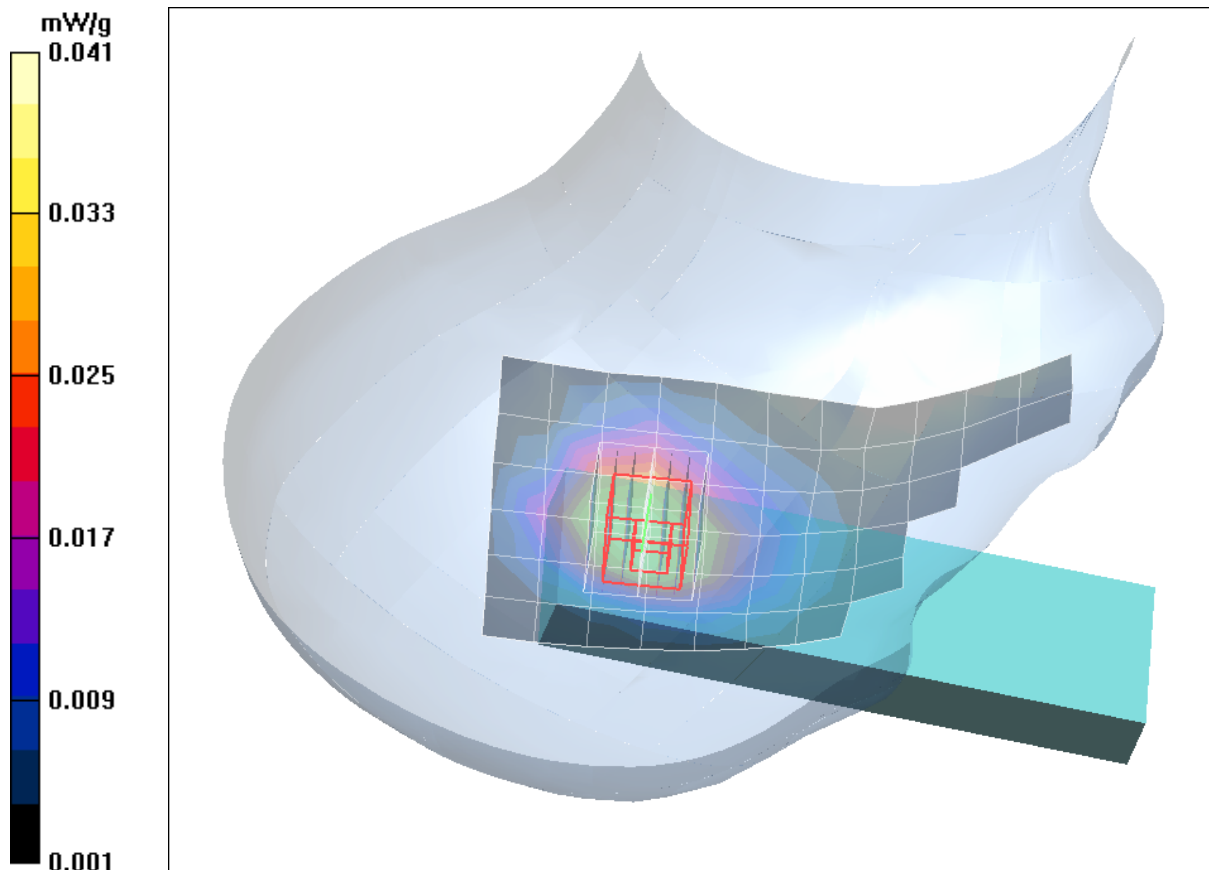


Fig. 4: SAR distribution for DECT US, channel 2, tilted position, right side of head, (December 06, 2013)