

## APPENDIX A. SAR PLOTS

- Test Laboratory: KTL
- Model: ST940
- Position: GSM850 BODY FRONT 0.5cm\_251CH\_GPRS 3TX
- Test Date: 09/04/2014
- Measured Liquid Temperature: 22.7 °C, Ambient Temperature: 22.1 °C

Communication System: UID 0, GPRS 850 3tx (0); Communication System Band: Exported from older format (data unavailable - please correct).; Frequency: 848.8 MHz; Communication System PAR: 3.17 dB; PMF: 1.44046  
Medium parameters used (interpolated):  $f = 848.8$  MHz;  $\sigma = 0.969$  S/m;  $\epsilon_r = 55.75$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV2 - SN3020; ConvF(6.17, 6.17, 6.17); Calibrated: 25.02.2014;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn1422; Calibrated: 13.01.2014
- Phantom: SAM with CRP v5.0(Left)\_2014\_03\_05; Type: QD000P40CD; Serial: TP:xxxx
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Front 3tx-h/Area Scan (7x7x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.806 W/kg

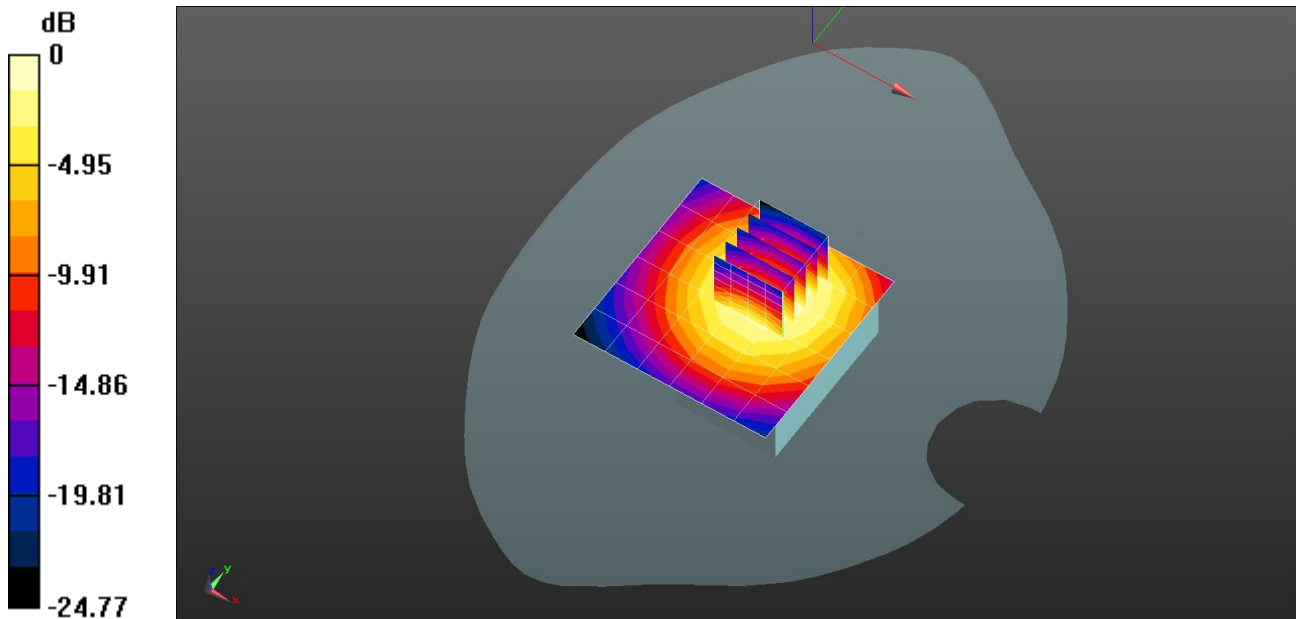
**Configuration/Front 3tx-h/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.133 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.02 W/kg

**SAR(1 g) = 0.748 W/kg; SAR(10 g) = 0.509 W/kg**

Maximum value of SAR (measured) = 0.850 W/kg



0 dB = 0.806 W/kg = -0.94 dBW/kg

- Test Laboratory: KTL
- Model: ST940
- Position: GSM1900 BODY FRONT 0.5cm\_512CH\_GPRS 2TX
- Test Date: 09/05/2014
- Measured Liquid Temperature: 22.2 °C, Ambient Temperature: 22.0 °C

Communication System: UID 0, GPRS 1900 4tx (0); Communication System Band: GSM; Frequency: 1850.2 MHz; Communication System PAR: 0.158 dB; PMF: 1.01836  
Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.53$  S/m;  $\epsilon_r = 51.24$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV2 - SN3020; ConvF(4.41, 4.41, 4.41); Calibrated: 25.02.2014;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1422; Calibrated: 13.01.2014
- Phantom: SAM with CRP v5.0(Right)\_2014\_03\_05; Type: QD000P40CD; Serial: TP:xxxx
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Body/Front 4tx-I/Area Scan (7x7x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 1.01 W/kg

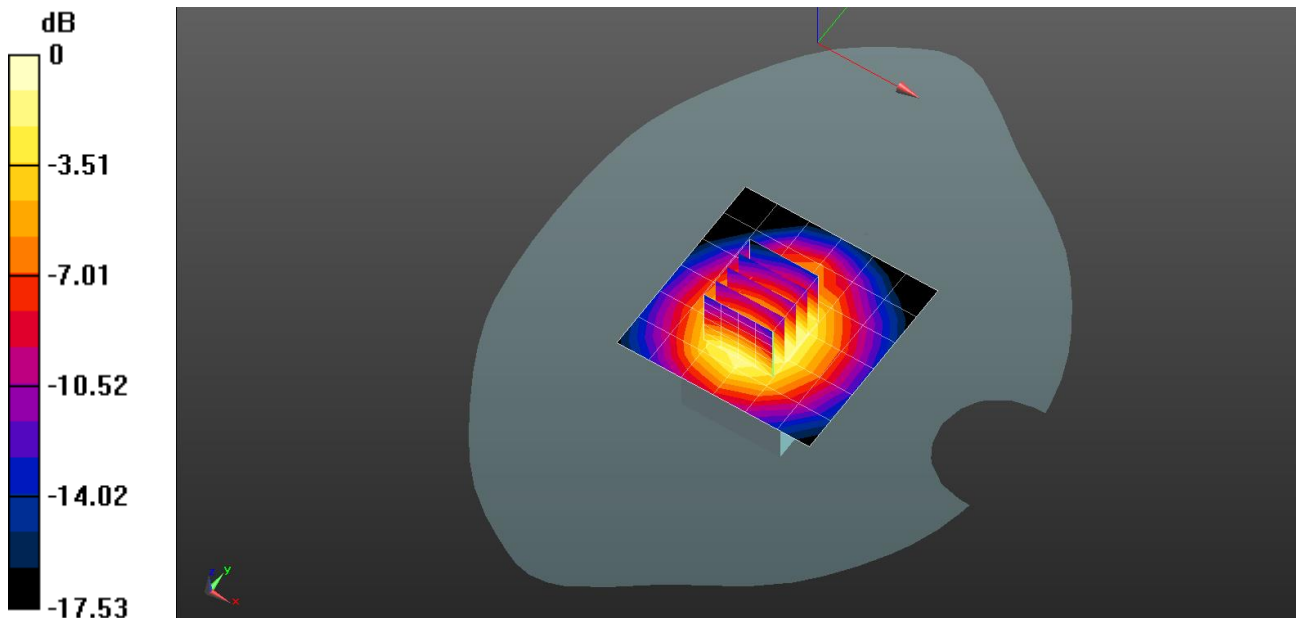
**Body/Front 4tx-I/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 25.549 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.30 W/kg

**SAR(1 g) = 0.890 W/kg; SAR(10 g) = 0.563 W/kg**

Maximum value of SAR (measured) = 1.02 W/kg



0 dB = 1.02 W/kg = 0.09 dBW/kg

**835 MHz Body – Verification DATA (D835V2 – 481)**

- Test Date: 09/04/2014

- Measured Liquid Temperature: 22.7 °C, Ambient Temperature: 22.1 °C

Communication System: UID 0, CW (0); Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz; Communication System PAR: 0 dB; PMF: 1  
Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.96 \text{ S/m}$ ;  $\epsilon_r = 55.87$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section  
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV2 - SN3020; ConvF(6.17, 6.17, 6.17); Calibrated: 25.02.2014;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 1.0, 32.0$
- Electronics: DAE4 Sn1422; Calibrated: 13.01.2014
- Phantom: SAM with CRP v5.0(Left)\_2014\_03\_05; Type: QD000P40CD; Serial: TP:xxxx
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**835MHz/d=10mm, Pin=xx mW, dist=3.0mm (ES-Probe) 2/Area Scan (7x8x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 2.97 W/kg

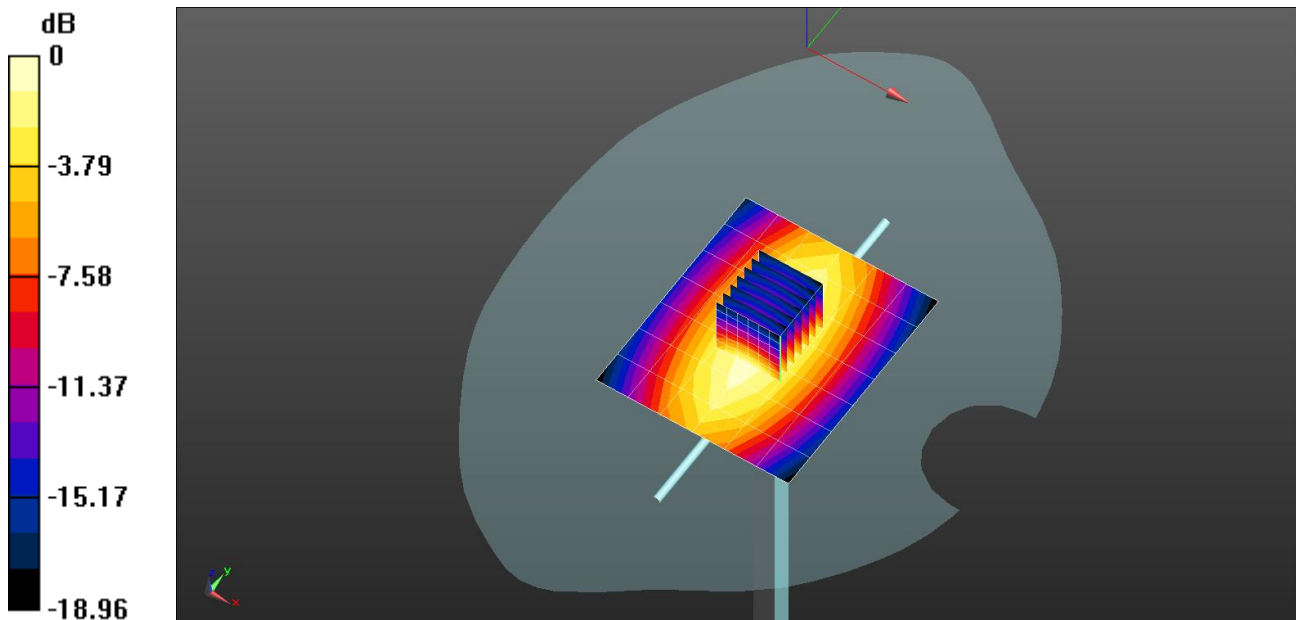
**835MHz/d=10mm, Pin=xx mW, dist=3.0mm (ES-Probe) 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 57.286 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 3.81 W/kg

**SAR(1 g) = 2.59 W/kg; SAR(10 g) = 1.72 W/kg**

Maximum value of SAR (measured) = 3.01 W/kg



0 dB = 2.97 W/kg = 4.72 dBW/kg

**1900 MHz Body- Verification DATA (D1900V2 – 5d038)**

- Test Date: 09/05/2014

- Measured Liquid Temperature: 22.2 °C, Ambient Temperature: 22.0 °C

Communication System: UID 0, CW (0); Communication System Band: D1900 (1900.0 MHz); Frequency: 1900 MHz; Communication System PAR: 0 dB; PMF: 1  
Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.57$  S/m;  $\epsilon_r = 51.05$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV2 - SN3020; ConvF(4.41, 4.41, 4.41); Calibrated: 25.02.2014;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 1.0, 32.0$
- Electronics: DAE4 Sn1422; Calibrated: 13.01.2014
- Phantom: SAM with CRP v5.0(Right)\_2014\_03\_05; Type: QD000P40CD; Serial: TP:xxxx
- DASYS 52.8.7(1137); SEMCAD X 14.6.10(7164)

**1900MHz/d=10mm, Pin=xx mW, dist=3.0mm (ES-Probe) 2/Area Scan (7x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 12.6 W/kg

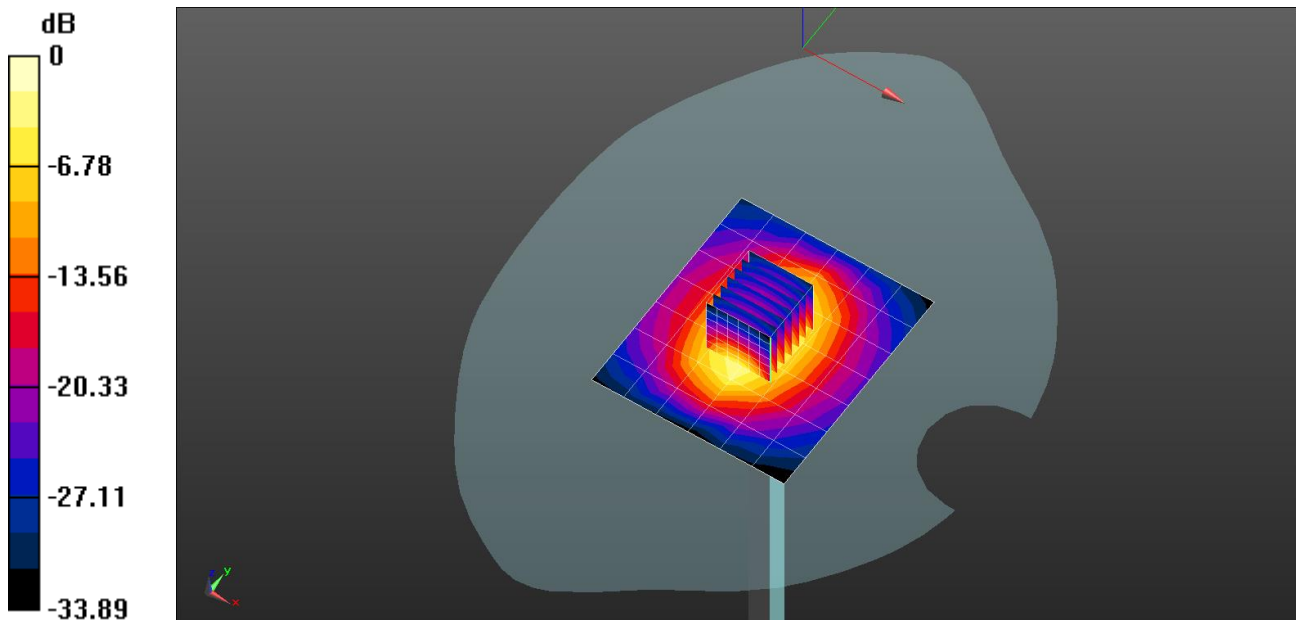
**1900MHz/d=10mm, Pin=xx mW, dist=3.0mm (ES-Probe) 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 95.079 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 18.6 W/kg

**SAR(1 g) = 10.6 W/kg; SAR(10 g) = 5.62 W/kg**

Maximum value of SAR (measured) = 13.4 W/kg



0 dB = 12.6 W/kg = 11.02 dBW/kg