Date: 2016/11/26

Test Laboratory: SGS-SAR/HAC Lab

LG-X230FWCDMA Band2 9400CH Front side 10mm

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

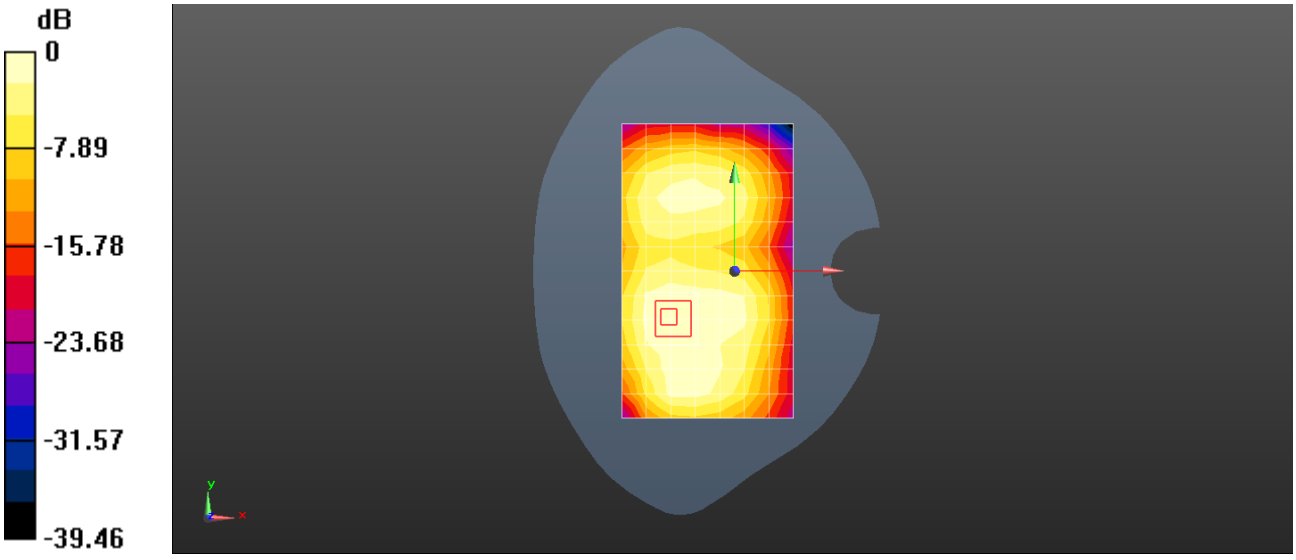
Medium: MSL1900;Medium parameters used: f = 1880 MHz; σ = 1.493 S/m; ε_r = 52.273; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(7.51, 7.51, 7.51); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM2; Type: SAM; Serial: 1640
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.485 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.953 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.665 W/kg
SAR(1 g) = 0.451 W/kg; SAR(10 g) = 0.294 W/kg
Maximum value of SAR (measured) = 0.481 W/kg



0 dB = 0.485 W/kg = -3.14 dBW/kg

Date: 2016/11/26

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F LTE Band2 20MHz bandwidth QPSK 1RB0Offset 19100CH Left touch cheek

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1900 MHz;Duty Cycle: 1:1

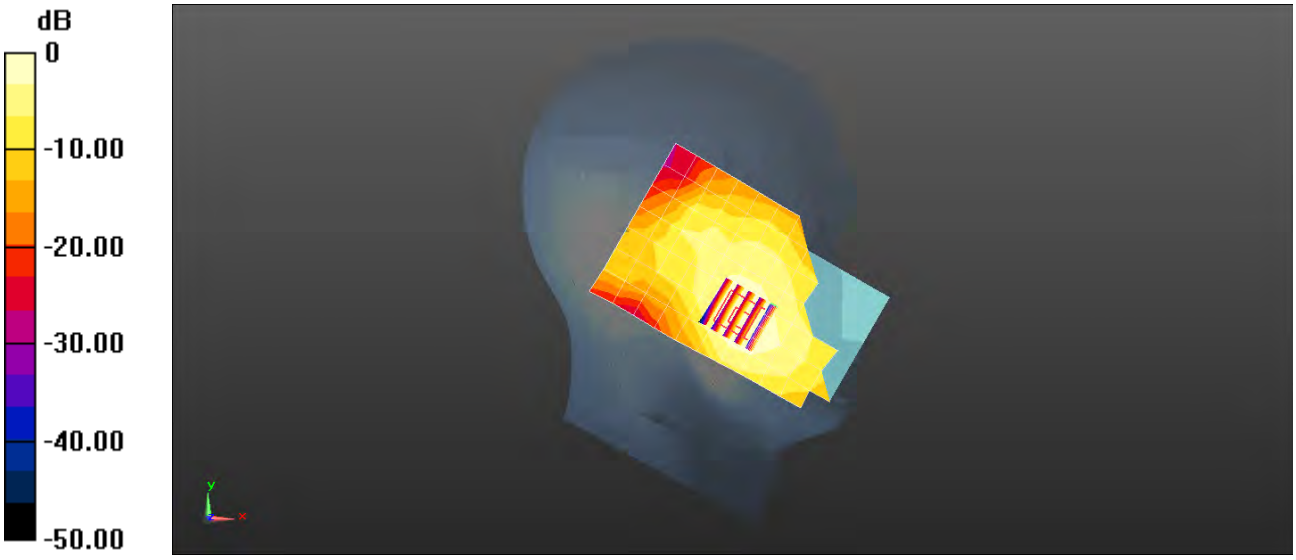
Medium: HSL1900;Medium parameters used: f = 1900 MHz; σ = 1.372 S/m; ε_r = 39.174; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(8.15, 8.15, 8.15); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM2; Type: SAM; Serial: 1640
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.797 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.13 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.730 W/kg; SAR(10 g) = 0.467 W/kg
Maximum value of SAR (measured) = 0.783 W/kg



0 dB = 0.797 W/kg = -0.98 dBW/kg

Date: 2016/11/26

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F LTE Band2 20MHz bandwidth QPSK 1RB0Offset 19100CH Front side 15mm

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1900 MHz;Duty Cycle: 1:1

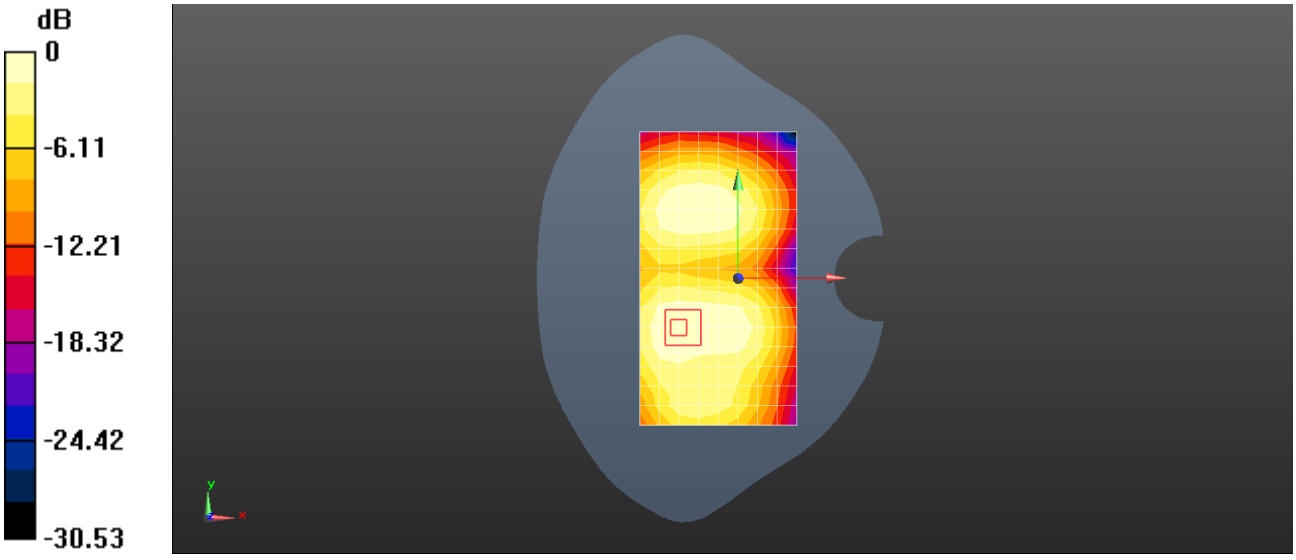
Medium: MSL1900;Medium parameters used: f = 1900 MHz; σ = 1.523 S/m; ε_r = 52.205; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(7.51, 7.51, 7.51); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM2; Type: SAM; Serial: 1640
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (9x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.434 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.740 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.590 W/kg
SAR(1 g) = 0.404 W/kg; SAR(10 g) = 0.265 W/kg



0 dB = 0.434 W/kg = -3.62 dBW/kg

Date: 2016/11/26

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F LTE Band2 20MHz bandwidth QPSK 1RB0Offset 19100CH Front side 10mm

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1900 MHz;Duty Cycle: 1:1

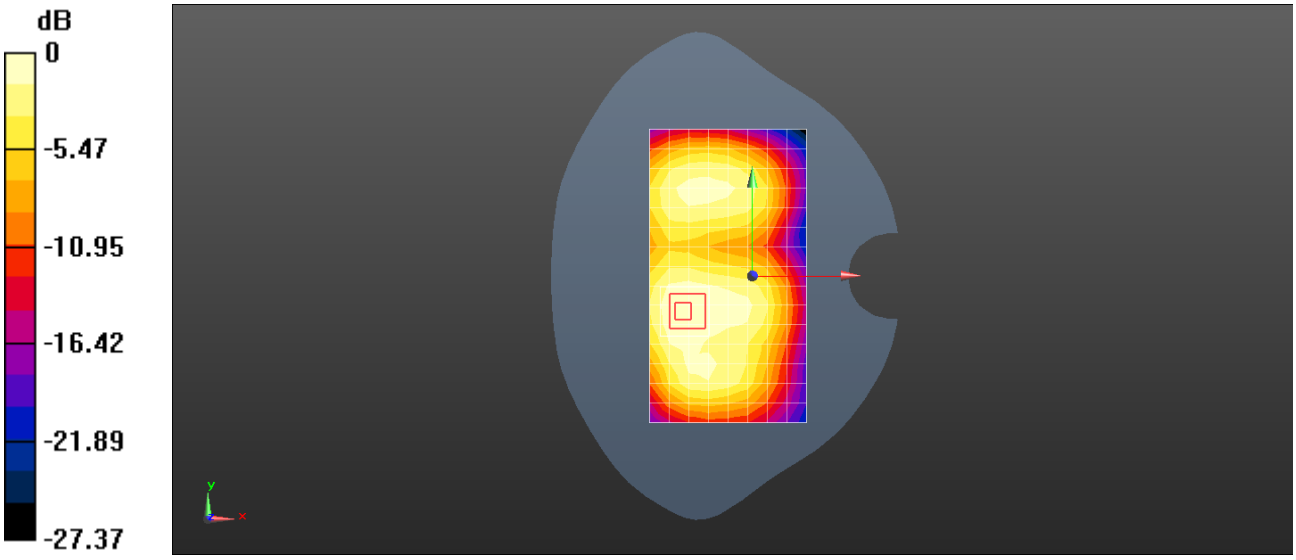
Medium: MSL1900;Medium parameters used: f = 1900 MHz; σ = 1.523 S/m; ε_r = 52.205; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(7.51, 7.51, 7.51); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM2; Type: SAM; Serial: 1640
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (9x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.782 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.51 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.08 W/kg
SAR(1 g) = 0.733 W/kg; SAR(10 g) = 0.478 W/kg
Maximum value of SAR (measured) = 0.786 W/kg



0 dB = 0.782 W/kg = -1.07 dBW/kg

Date: 2016/11/27

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F LTE Band4 20MHz bandwidth QPSK 1RB0Offset 20050CH Left touch cheek

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1720 MHz;Duty Cycle: 1:1

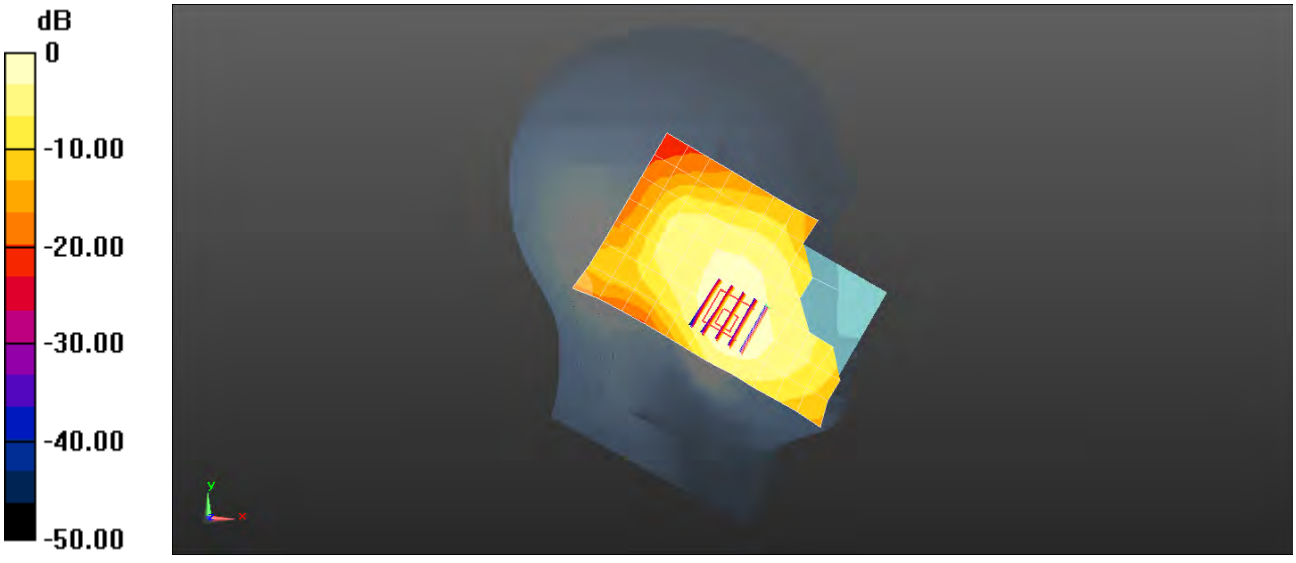
Medium: HSL1800;Medium parameters used: f = 1720 MHz; σ = 1.313 S/m; ε_r = 40.522; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(8.22, 8.22, 8.22); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM1; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.386 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.287 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.522 W/kg
SAR(1 g) = 0.371 W/kg; SAR(10 g) = 0.245 W/kg
Maximum value of SAR (measured) = 0.392 W/kg



0 dB = 0.386 W/kg = -4.13 dBW/kg

Date: 2016/11/27

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F LTE Band4 20MHz bandwidth QPSK 1RB0Offset 20050CH Back side 15mm

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1720 MHz;Duty Cycle: 1:1

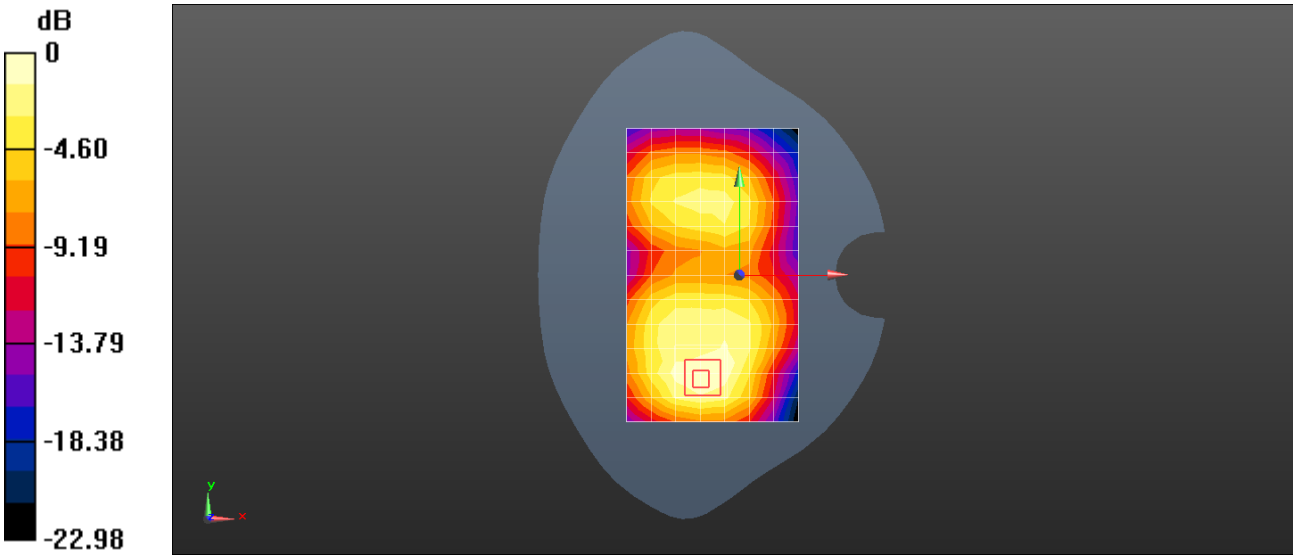
Medium: MSL1750;Medium parameters used: f = 1720 MHz; σ = 1.447 S/m; ε_r = 52.984; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(7.87, 7.87, 7.87); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM1; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.471 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.609 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.719 W/kg
SAR(1 g) = 0.450 W/kg; SAR(10 g) = 0.269 W/kg
Maximum value of SAR (measured) = 0.476 W/kg



0 dB = 0.471 W/kg = -3.27 dBW/kg

Date: 2016/11/27

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F LTE Band4 20MHz bandwidth QPSK 1RB0Offset 20050CH Back side 10mm

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1720 MHz;Duty Cycle: 1:1

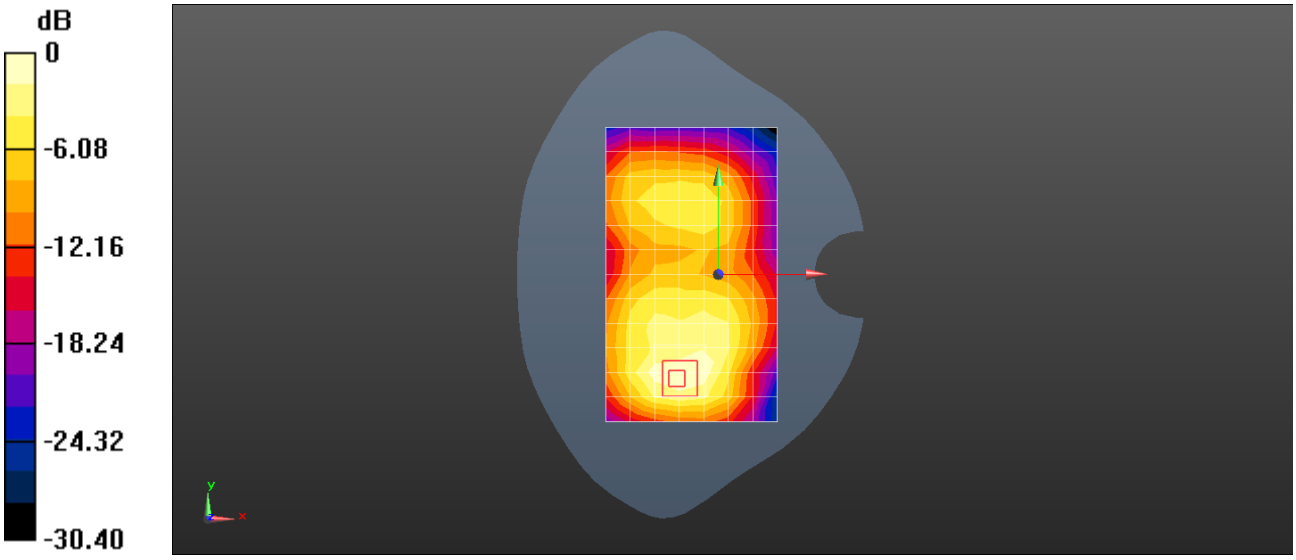
Medium: MSL1750;Medium parameters used: f = 1720 MHz; σ = 1.447 S/m; ε_r = 52.984; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(7.87, 7.87, 7.87); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM1; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.921 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.42 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.50 W/kg
SAR(1 g) = 0.884 W/kg; SAR(10 g) = 0.496 W/kg
Maximum value of SAR (measured) = 0.917 W/kg



0 dB = 0.921 W/kg = -0.36 dBW/kg

Date: 2016/11/25

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F LTE Band5 10MHz bandwidth QPSK 1RB0Offset 20600CH Right touch cheek

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 844 MHz;Duty Cycle: 1:1

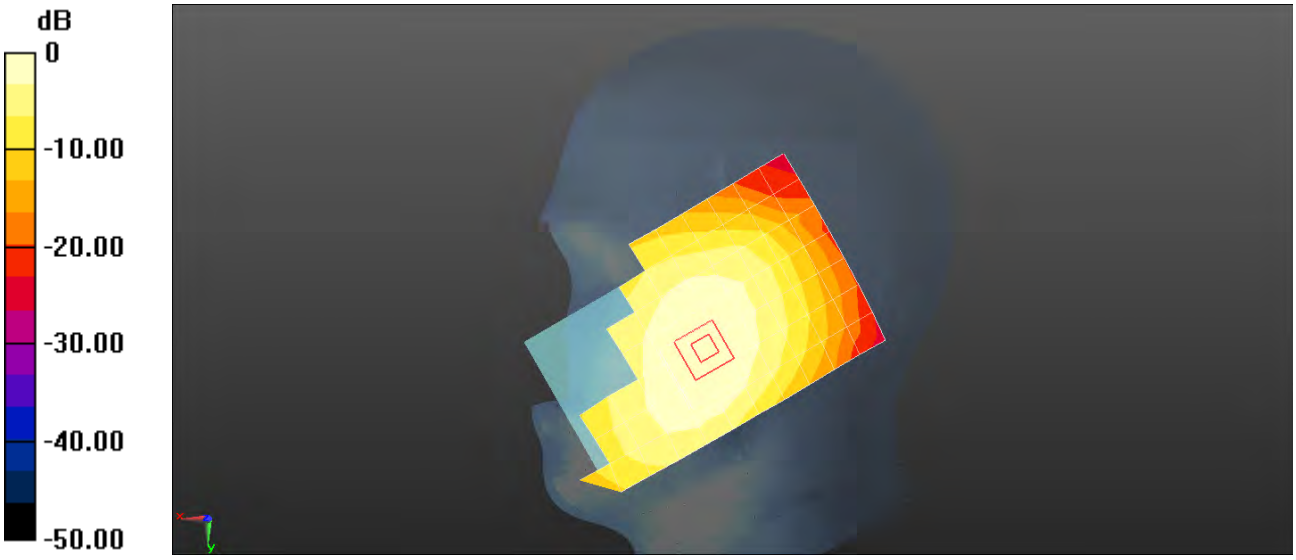
Medium: HSL835;Medium parameters used: f = 844 MHz; σ = 0.921 S/m; ε_r = 42.236; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(9.56, 9.56, 9.56); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM2; Type: SAM; Serial: 1640
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.553 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.887 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.672 W/kg
SAR(1 g) = 0.547 W/kg; SAR(10 g) = 0.417 W/kg
Maximum value of SAR (measured) = 0.573 W/kg



0 dB = 0.553 W/kg = -2.57 dBW/kg

Date: 2016/11/25

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F LTE Band5 10MHz bandwidth QPSK 1RB0Offset 20600CH Back side 15mm

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 844 MHz;Duty Cycle: 1:1

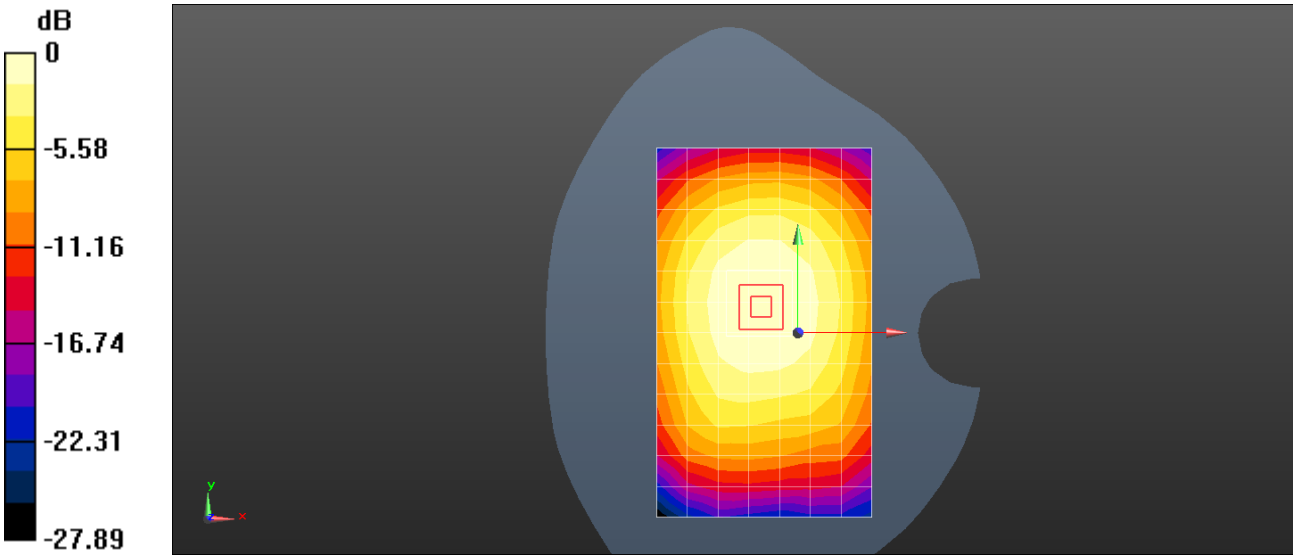
Medium: HSL835;Medium parameters used: f = 844 MHz; σ = 0.99 S/m; ε_r = 54.088; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(9.83, 9.83, 9.83); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM2; Type: SAM; Serial: 1640
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.669 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.48 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.804 W/kg
SAR(1 g) = 0.648 W/kg; SAR(10 g) = 0.494 W/kg
Maximum value of SAR (measured) = 0.679 W/kg



0 dB = 0.669 W/kg = -1.75 dBW/kg

Date: 2016/11/25

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F LTE Band5 10MHz bandwidth QPSK 1RB0Offset 20600CH Back side 10mm

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 844 MHz;Duty Cycle: 1:1

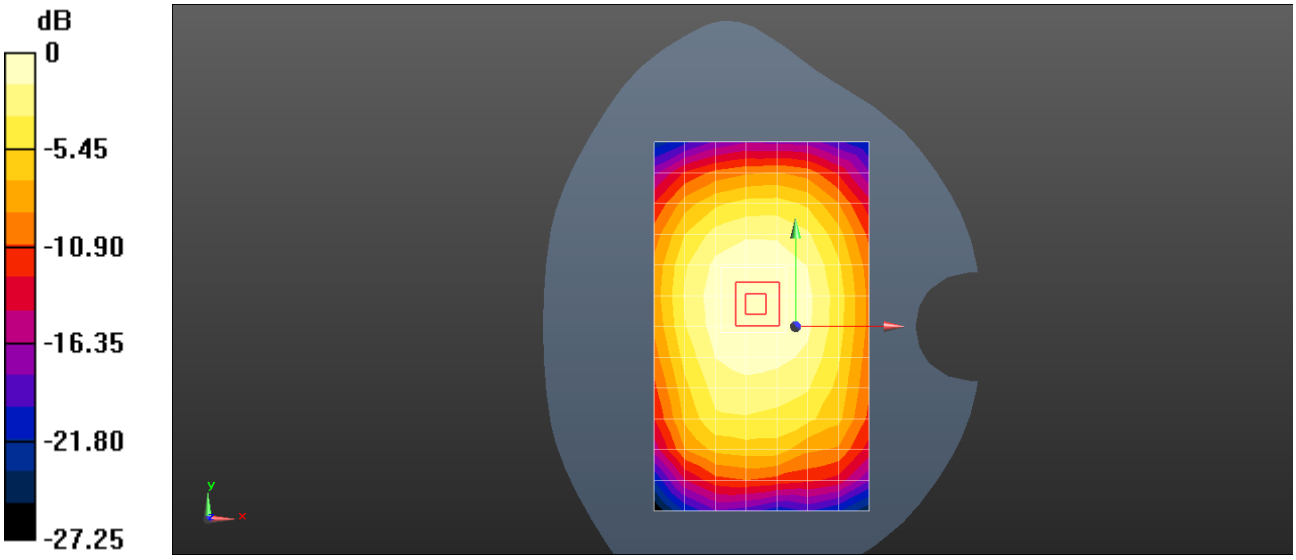
Medium: HSL835;Medium parameters used: f = 844 MHz; σ = 0.99 S/m; ε_r = 54.088; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(9.83, 9.83, 9.83); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM2; Type: SAM; Serial: 1640
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.716 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.61 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.853 W/kg
SAR(1 g) = 0.694 W/kg; SAR(10 g) = 0.534 W/kg
Maximum value of SAR (measured) = 0.726 W/kg



0 dB = 0.716 W/kg = -1.45 dBW/kg

Date: 2016/11/28

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F LTE Band7 20MHz bandwidth QPSK 1RB0Offset 21100CH Left touch cheek

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 2535 MHz;Duty Cycle: 1:1

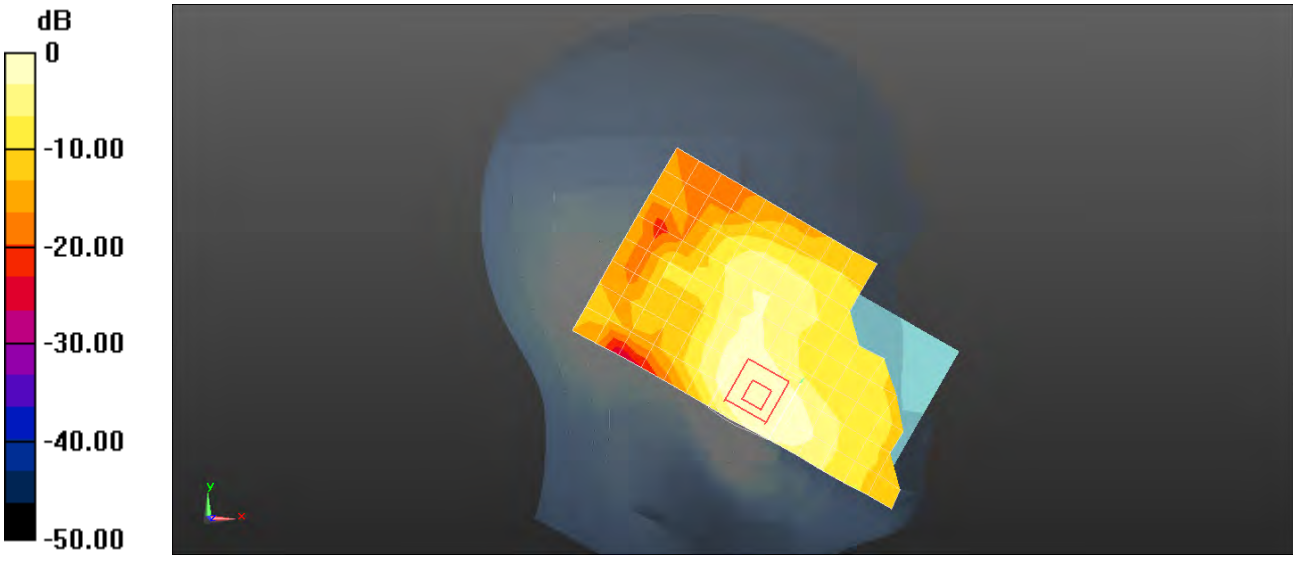
Medium: HSL2600;Medium parameters used: f = 2535 MHz; σ = 1.861 S/m; ε_r = 38.267; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(7.62, 7.62, 7.62); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM1; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (9x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.566 W/kg

Configuration/Head/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.206 V/m; Power Drift = 0.41 dB
Peak SAR (extrapolated) = 1.02 W/kg
SAR(1 g) = 0.540 W/kg; SAR(10 g) = 0.286 W/kg
Maximum value of SAR (measured) = 0.597 W/kg



0 dB = 0.566 W/kg = -2.47 dBW/kg

Date: 2016/11/28

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F LTE Band7 20MHz bandwidth QPSK 1RB0Offset 21100CH Front side 15mm

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 2535 MHz;Duty Cycle: 1:1

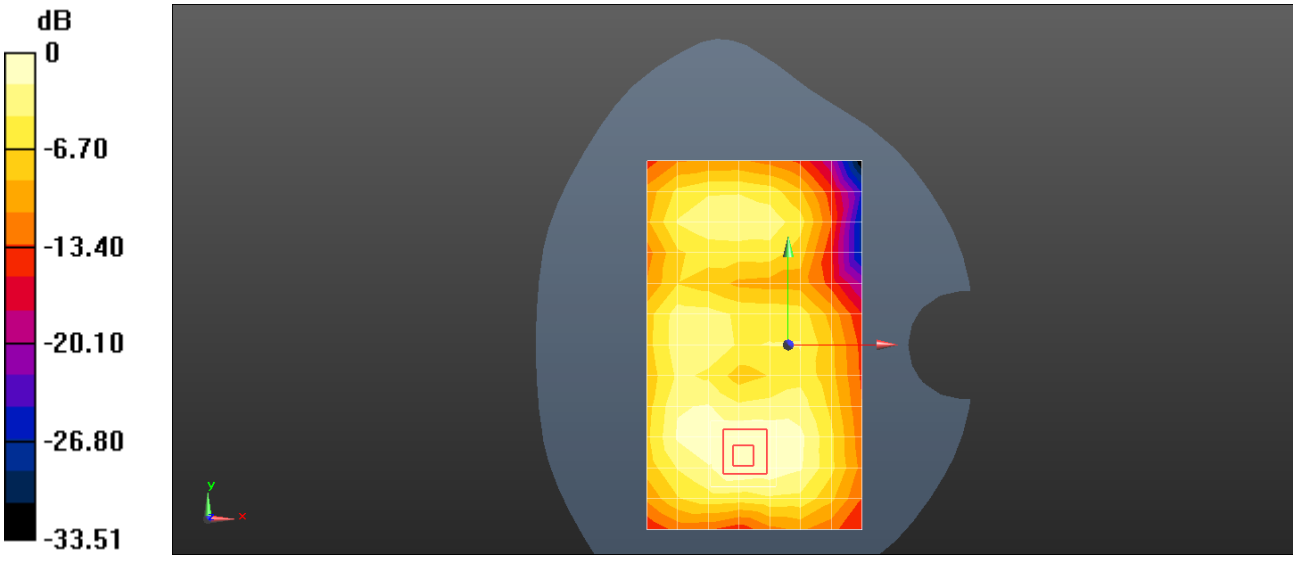
Medium: MSL2600;Medium parameters used: f = 2535 MHz; σ = 2.085 S/m; ε_r = 53.223; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(7.38, 7.38, 7.38); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM1; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.469 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.716 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.854 W/kg
SAR(1 g) = 0.475 W/kg; SAR(10 g) = 0.264 W/kg
Maximum value of SAR (measured) = 0.522 W/kg



0 dB = 0.469 W/kg = -3.28 dBW/kg

Date: 2016/11/28

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F LTE Band7 20MHz bandwidth QPSK 1RB0Offset 21100CH Front side 10mm

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 2535 MHz;Duty Cycle: 1:1

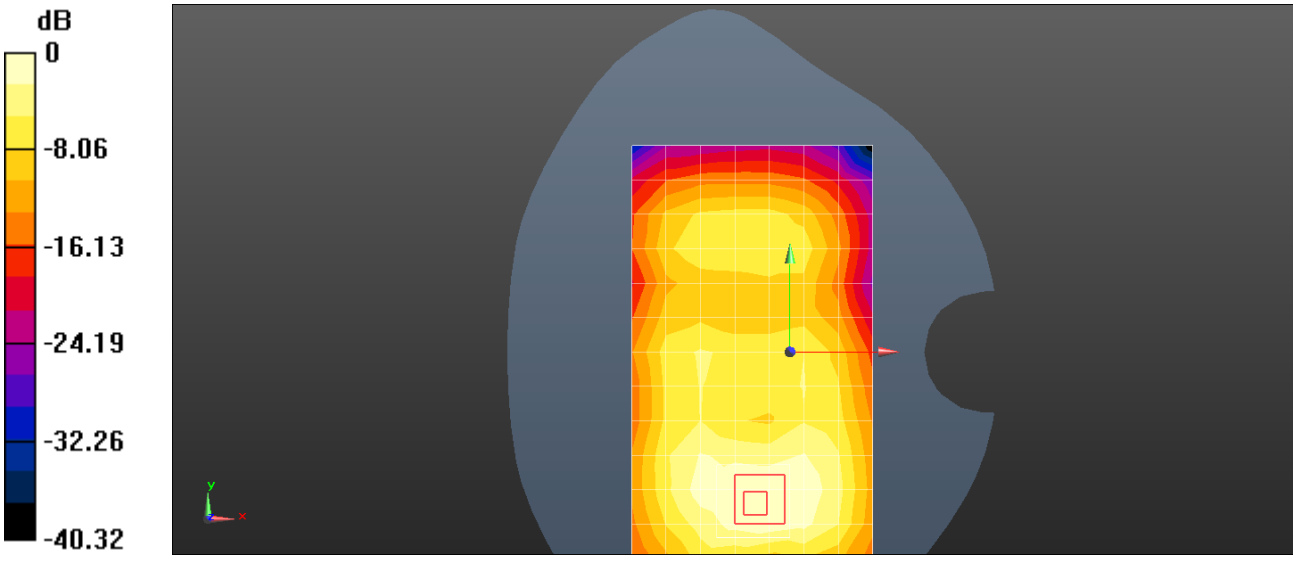
Medium: MSL2600;Medium parameters used: f = 2535 MHz; σ = 2.085 S/m; ε_r = 53.223; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(7.38, 7.38, 7.38); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM1; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.985 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.76 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 2.04 W/kg
SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.565 W/kg
Maximum value of SAR (measured) = 1.20 W/kg



0 dB = 0.985 W/kg = -0.07 dBW/kg

Date: 2016/12/2

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F 802.11b 6CH Right touch cheek

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, WI-FI(2.4GHz) (0); Frequency: 2437 MHz;Duty Cycle: 1:1

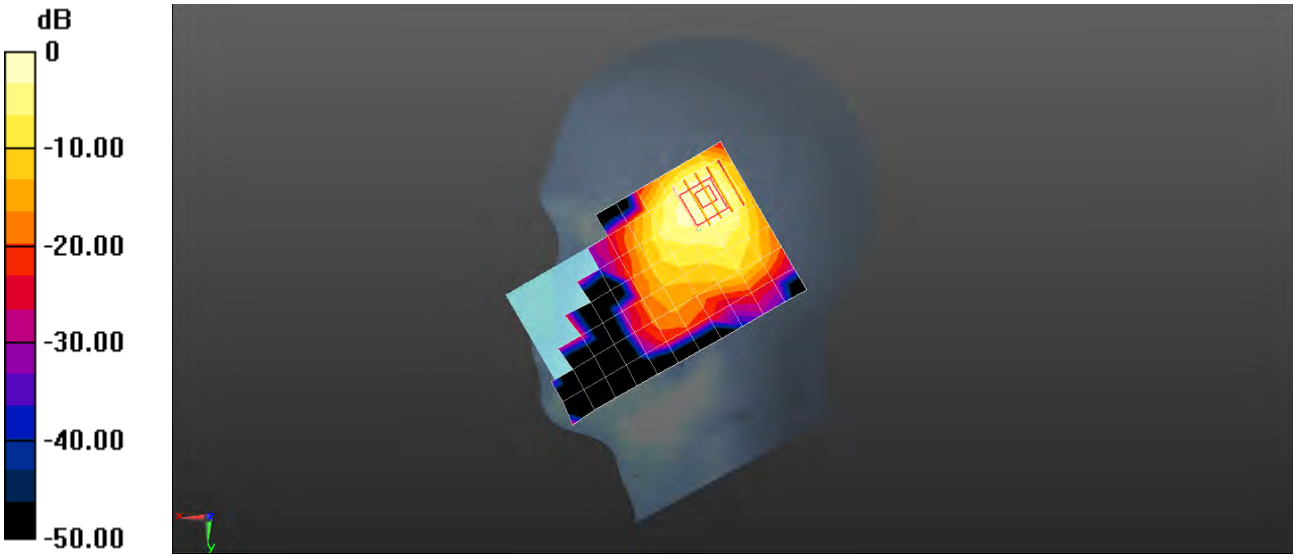
Medium: HSL2450;Medium parameters used: f = 2437 MHz; σ = 1.761 S/m; ε_r = 38.593; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(7.62, 7.62, 7.62); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM1; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.783 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.65 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.96 W/kg
SAR(1 g) = 0.895 W/kg; SAR(10 g) = 0.429 W/kg
Maximum value of SAR (measured) = 0.970 W/kg



0 dB = 0.783 W/kg = -1.06 dBW/kg

Date: 2016/12/2

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F 802.11b 6CH Back side 15mm

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, WI-FI(2.4GHz) (0); Frequency: 2437 MHz;Duty Cycle: 1:1

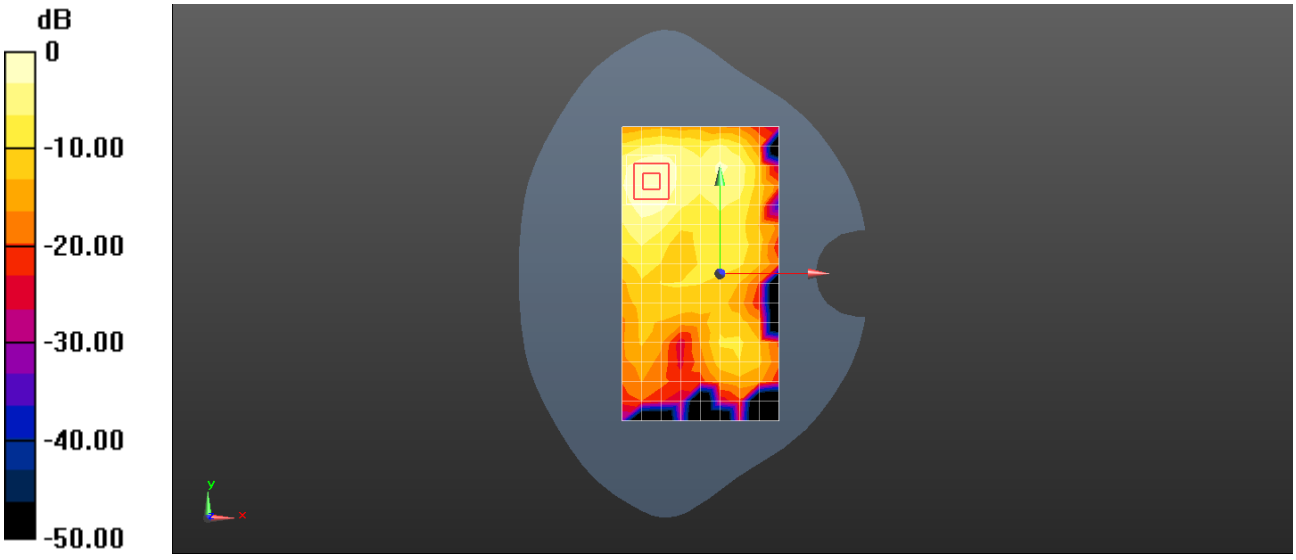
Medium: MSL2450;Medium parameters used: f = 2437 MHz; σ = 1.934 S/m; ε_r = 51.752; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(7.38, 7.38, 7.38); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM1; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (9x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.123 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.471 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.209 W/kg
SAR(1 g) = 0.125 W/kg; SAR(10 g) = 0.068 W/kg
Maximum value of SAR (measured) = 0.140 W/kg



0 dB = 0.123 W/kg = -9.09 dBW/kg

Date: 2016/12/2

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F 802.11b 6CH Back side 10mm

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, WI-FI(2.4GHz) (0); Frequency: 2437 MHz;Duty Cycle: 1:1

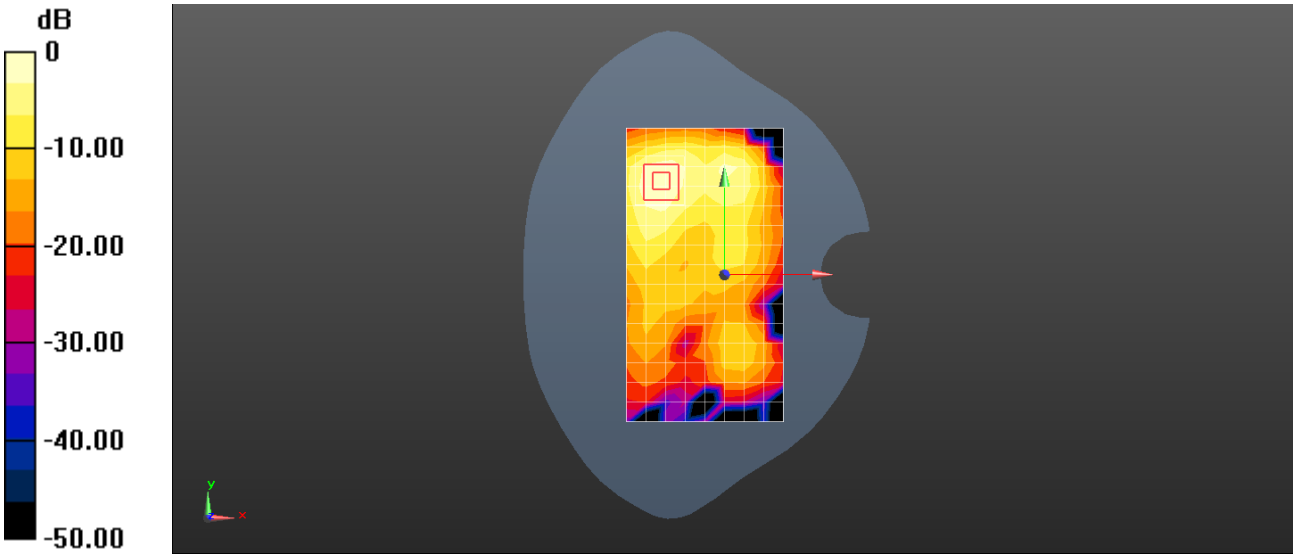
Medium: MSL2450;Medium parameters used: f = 2437 MHz; σ = 1.934 S/m; ε_r = 51.752; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(7.38, 7.38, 7.38); Calibrated: 2015/12/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1454; Calibrated: 2015/12/8
- Phantom: SAM1; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (9x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.247 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.532 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.424 W/kg
SAR(1 g) = 0.241 W/kg; SAR(10 g) = 0.126 W/kg
Maximum value of SAR (measured) = 0.272 W/kg



0 dB = 0.247 W/kg = -6.07 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF GSM850 190CH Right touch cheek

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, GSM Only Communication System (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

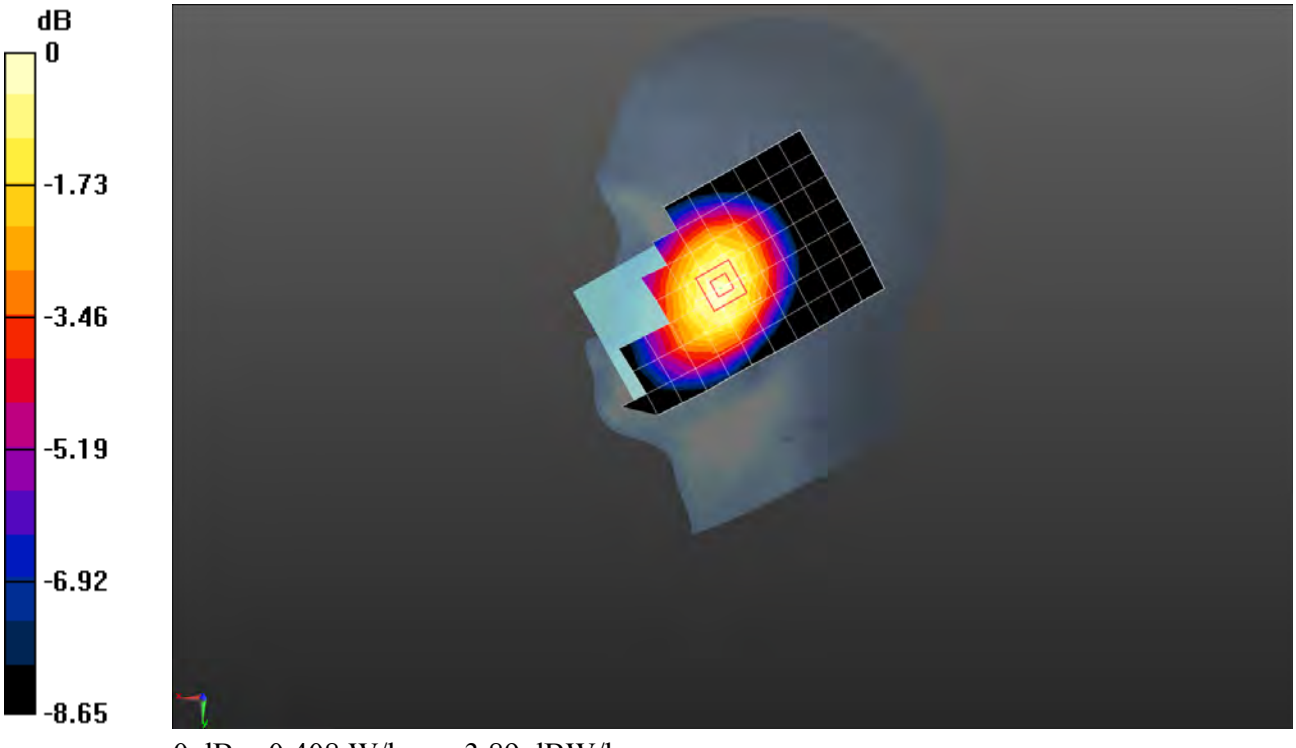
Medium: HSL900;Medium parameters used: f = 837 MHz; σ = 0.859 S/m; ε_r = 43.662; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(5.61, 5.61, 5.61); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.403 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.407 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.474 W/kg
SAR(1 g) = 0.389 W/kg; SAR(10 g) = 0.301 W/kg
Maximum value of SAR (measured) = 0.408 W/kg



0 dB = 0.408 W/kg = -3.89 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF GSM850 190CH Back Side 15mm

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, GSM Only Communication System (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

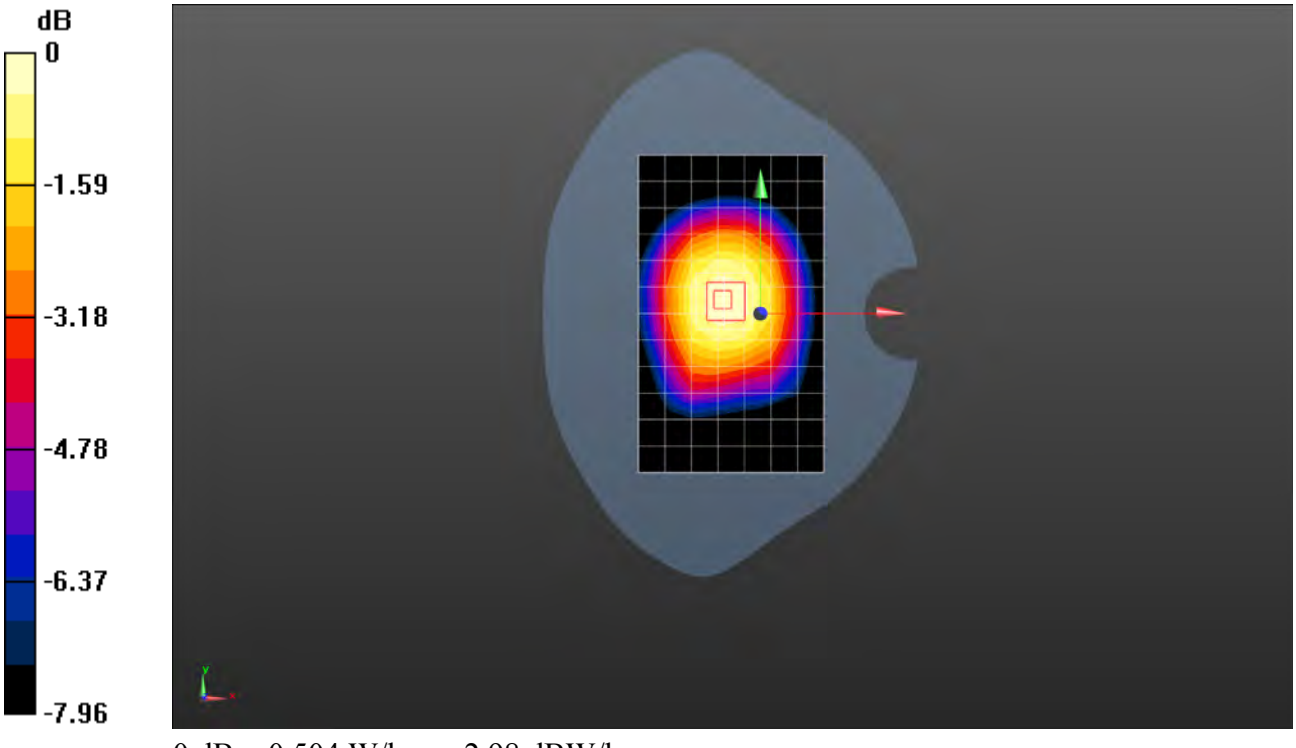
Medium: MSL835;Medium parameters used: f = 837 MHz; σ = 0.99 S/m; ε_r = 54.318; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(5.68, 5.68, 5.68); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = -1.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.489 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.26 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.604 W/kg
SAR(1 g) = 0.481 W/kg; SAR(10 g) = 0.367 W/kg
Maximum value of SAR (measured) = 0.504 W/kg



0 dB = 0.504 W/kg = -2.98 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF GSM850 GPRS 4TS 251CH Back side 10mm

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, GPRS/EGPRS Mode(4up) Communication System (0); Frequency: 848.6 MHz;Duty Cycle: 1:2.0797

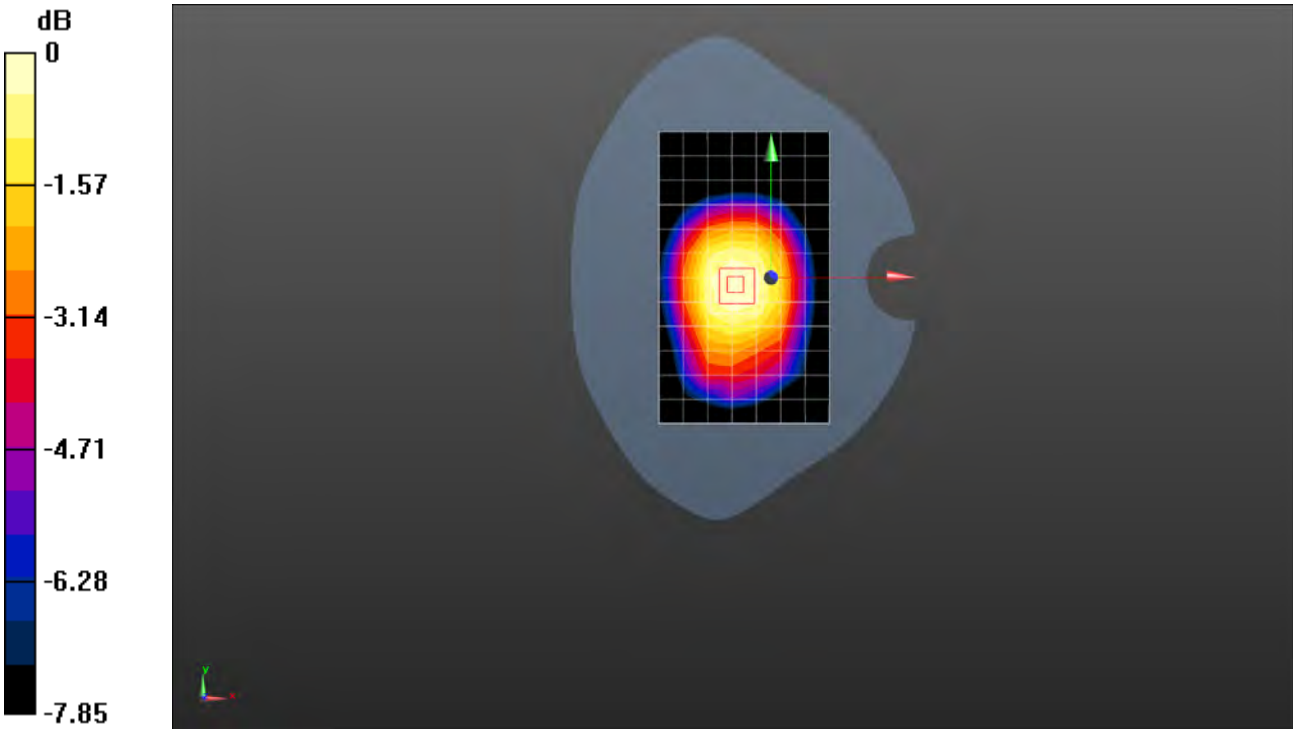
Medium: MSL835;Medium parameters used: f = 849 MHz; σ = 0.998 S/m; ε_r = 54.215; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(5.68, 5.68, 5.68); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = -1.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.914 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.06 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 1.08 W/kg
SAR(1 g) = 0.884 W/kg; SAR(10 g) = 0.681 W/kg
Maximum value of SAR (measured) = 0.927 W/kg



0 dB = 0.927 W/kg = -0.33 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF GSM1900 661CH Left touch cheek with SIM2

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, GSM Only Communication System (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042

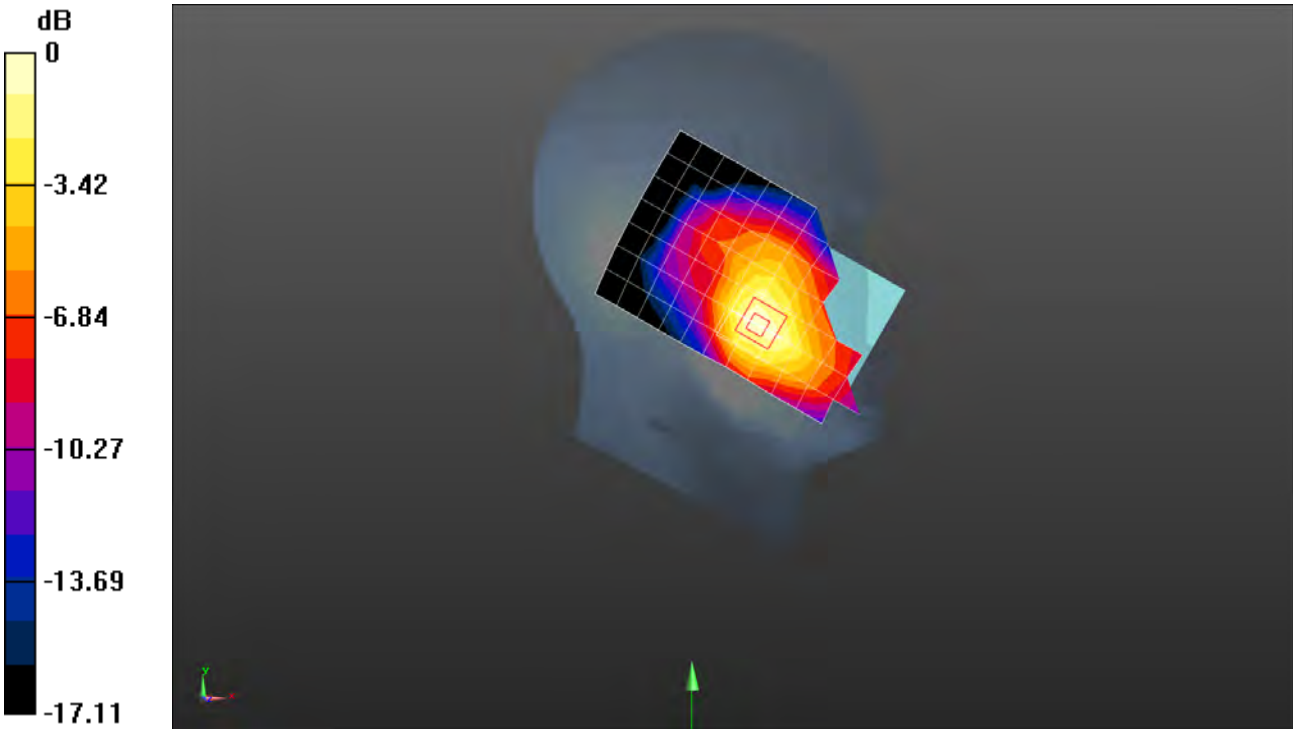
Medium: HSL1900;Medium parameters used: f = 1880 MHz; σ = 1.364 S/m; ε_r = 38.726; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(4.56, 4.56, 4.56); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.470 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.908 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.703 W/kg
SAR(1 g) = 0.467 W/kg; SAR(10 g) = 0.291 W/kg
Maximum value of SAR (measured) = 0.508 W/kg



0 dB = 0.508 W/kg = -2.94 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF GSM1900 661CH Front side 15mm

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, GSM Only Communication System (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042

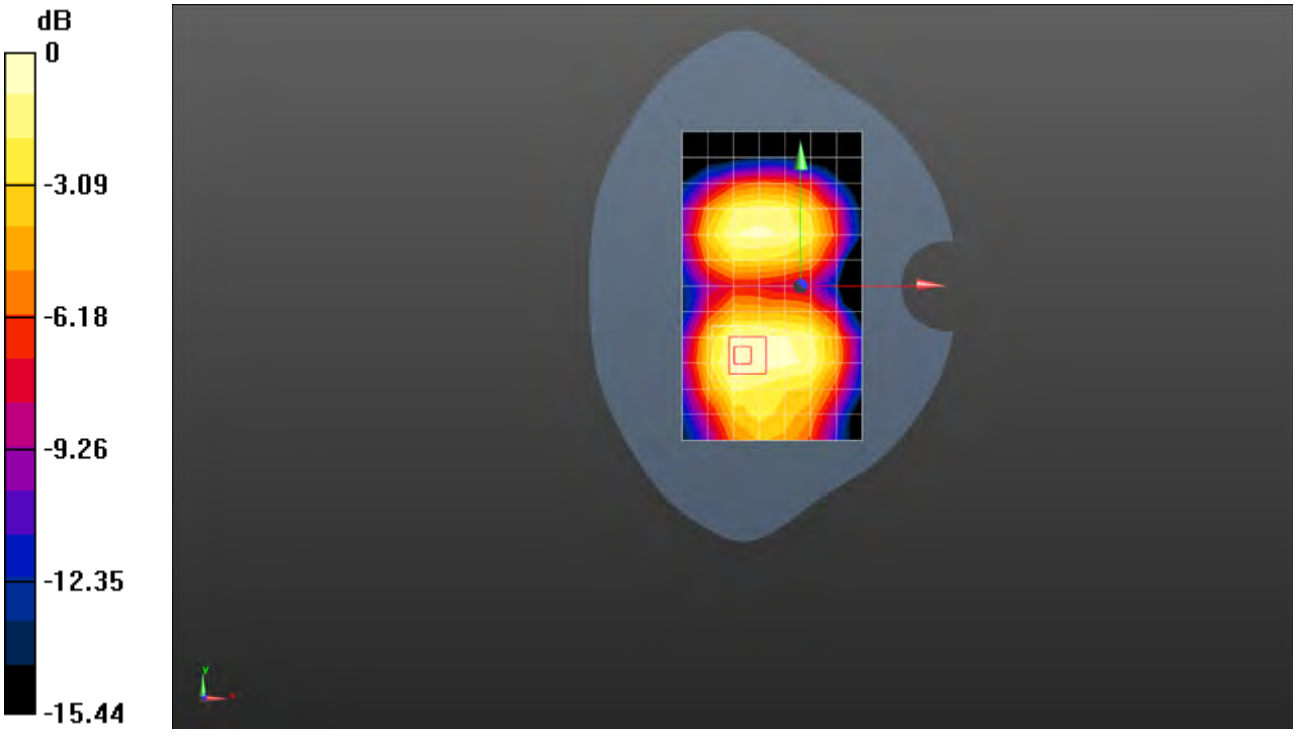
Medium: MSL1900;Medium parameters used: f = 1880 MHz; σ = 1.459 S/m; ε_r = 53.099; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(4.23, 4.23, 4.23); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.226 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.151 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.325 W/kg
SAR(1 g) = 0.222 W/kg; SAR(10 g) = 0.146 W/kg
Maximum value of SAR (measured) = 0.238 W/kg



0 dB = 0.238 W/kg = -6.23 dBW/kg

Date: 2017/1/6

Test Laboratory: SGS-SAR/HAC Lab

LG-X230F GSM1900 GPRS 4TS 661CH Back side 10mm

DUT: LG-X230F; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, GPRS/EGPRS Mode(4up) Communication System (0); Frequency: 1880 MHz;Duty Cycle: 1:2.0797

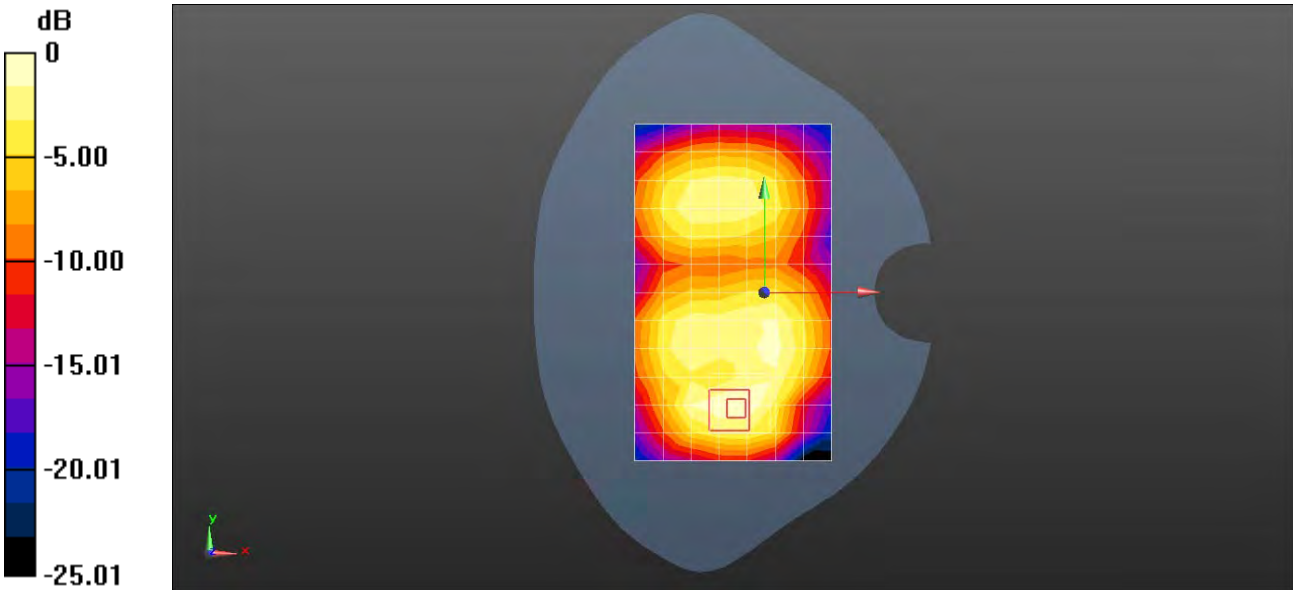
Medium: MSL1900;Medium parameters used: f = 1880 MHz; σ = 1.493 S/m; ε_r = 52.273; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(7.82, 7.82, 7.82); Calibrated: 2016/12/19;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2016/2/5
- Phantom: SAM1; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.557 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.34 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.951 W/kg
SAR(1 g) = 0.545 W/kg; SAR(10 g) = 0.305 W/kg
Maximum value of SAR (measured) = 0.587 W/kg



0 dB = 0.557 W/kg = -2.54 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF WCDMA Band2 9400CH Left touch cheek

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

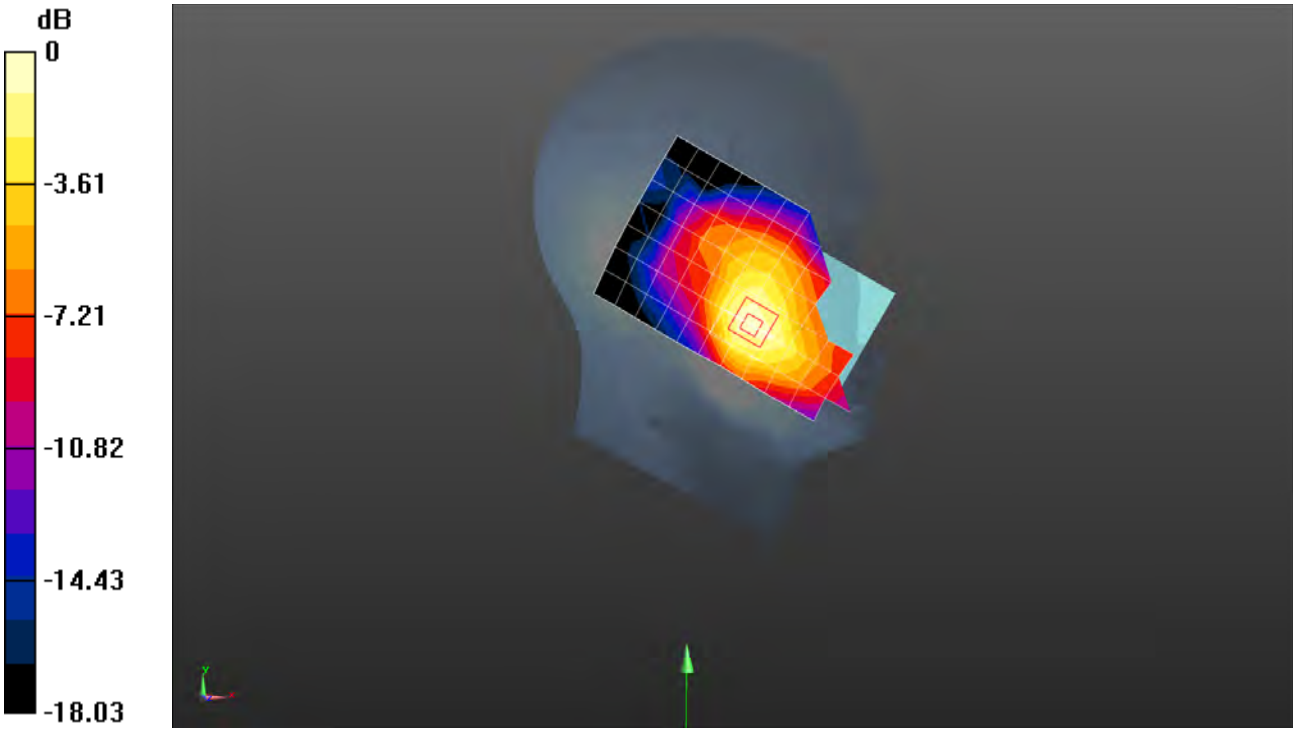
Medium: HSL1900;Medium parameters used: f = 1880 MHz; σ = 1.364 S/m; ε_r = 38.726; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(4.56, 4.56, 4.56); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.609 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.324 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.863 W/kg
SAR(1 g) = 0.579 W/kg; SAR(10 g) = 0.363 W/kg
Maximum value of SAR (measured) = 0.630 W/kg



0 dB = 0.630 W/kg = -2.01 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF WCDMA Band2 9400CH Front side 15mm

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

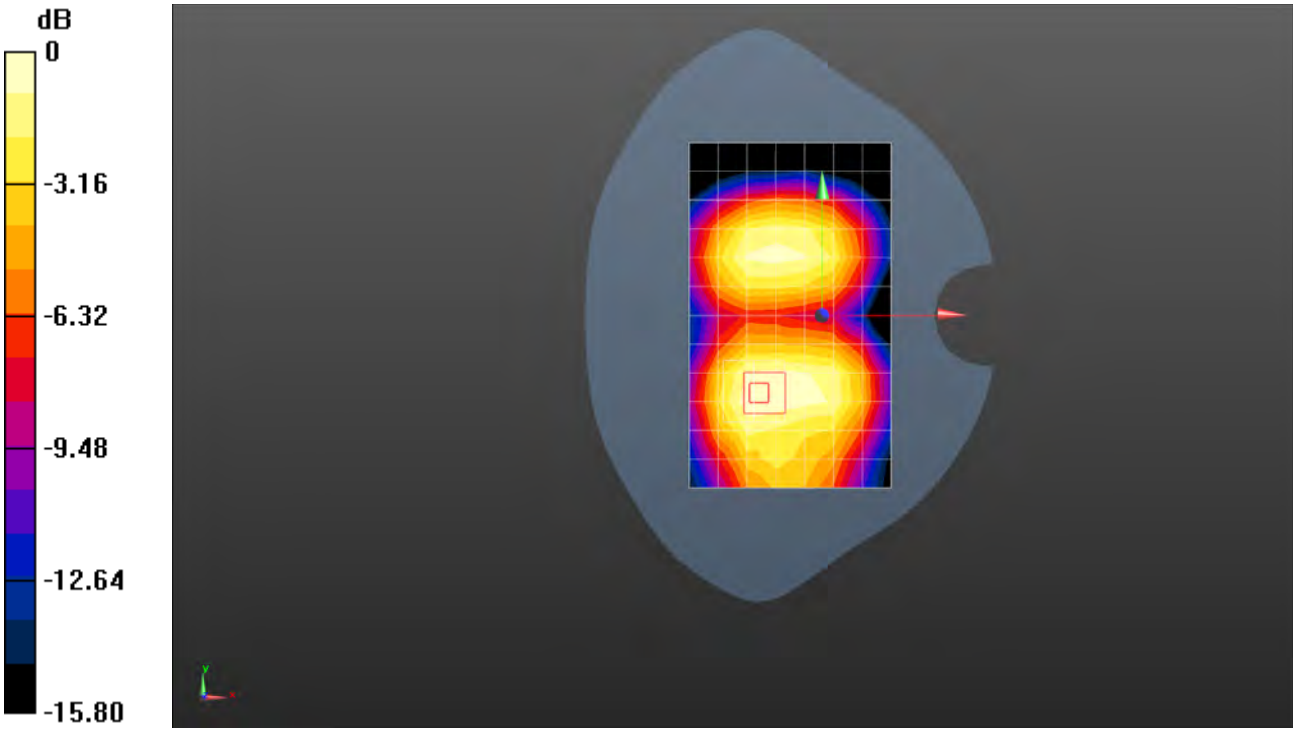
Medium: MSL1900;Medium parameters used: f = 1880 MHz; σ = 1.459 S/m; ε_r = 53.099; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(4.23, 4.23, 4.23); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.302 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.305 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.444 W/kg
SAR(1 g) = 0.300 W/kg; SAR(10 g) = 0.198 W/kg
Maximum value of SAR (measured) = 0.320 W/kg



0 dB = 0.320 W/kg = -4.95 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF WCDMA Band2 9400CH Front side 10mm

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

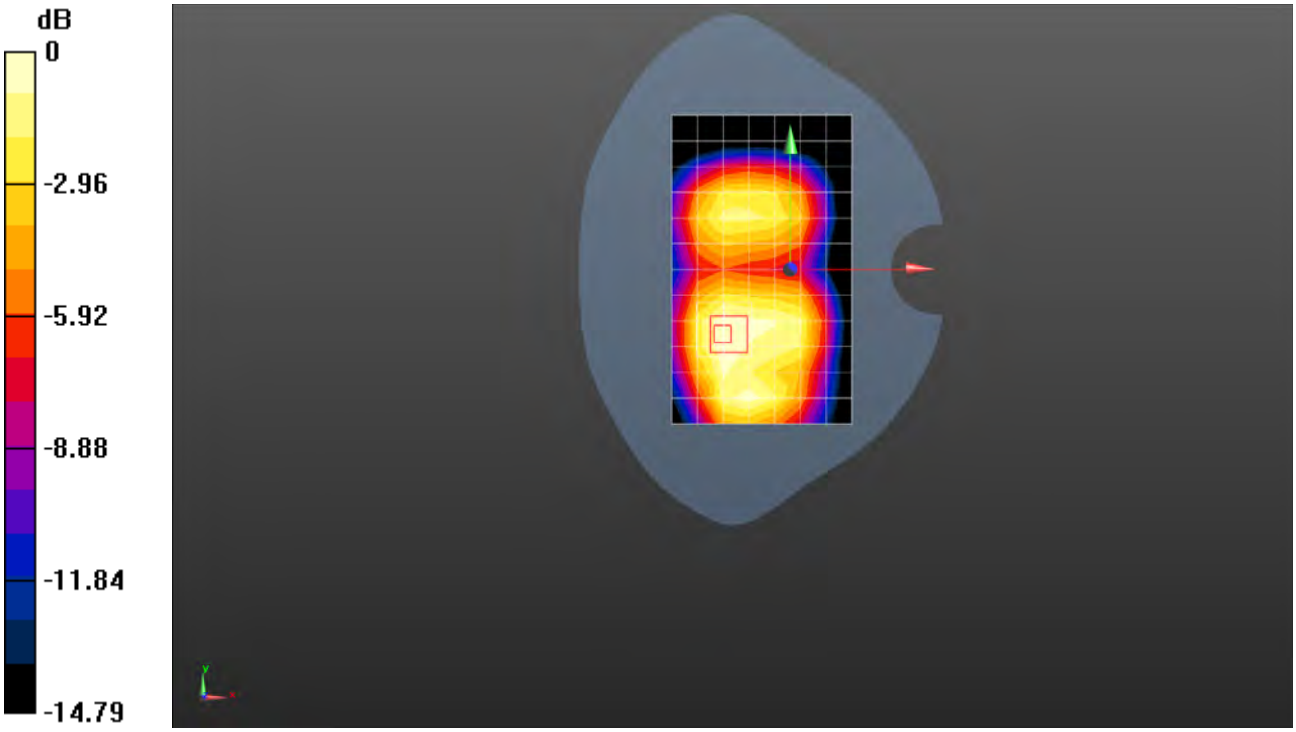
Medium: MSL1900;Medium parameters used: f = 1880 MHz; σ = 1.459 S/m; ε_r = 53.099; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(4.23, 4.23, 4.23); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.450 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.149 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.643 W/kg
SAR(1 g) = 0.433 W/kg; SAR(10 g) = 0.287 W/kg
Maximum value of SAR (measured) = 0.460 W/kg



0 dB = 0.460 W/kg = -3.37 dBW/kg

Date: 2016-12-25

Test Laboratory: SGS-SAR Lab

LG-X230dsF WCDMA Band4 1412CH Left touch cheek with SIM2

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, WCDMA (0); Frequency: 1732.4 MHz;Duty Cycle: 1:1

Medium: HSL1750;Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.358 S/m; ε_r = 39.153; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

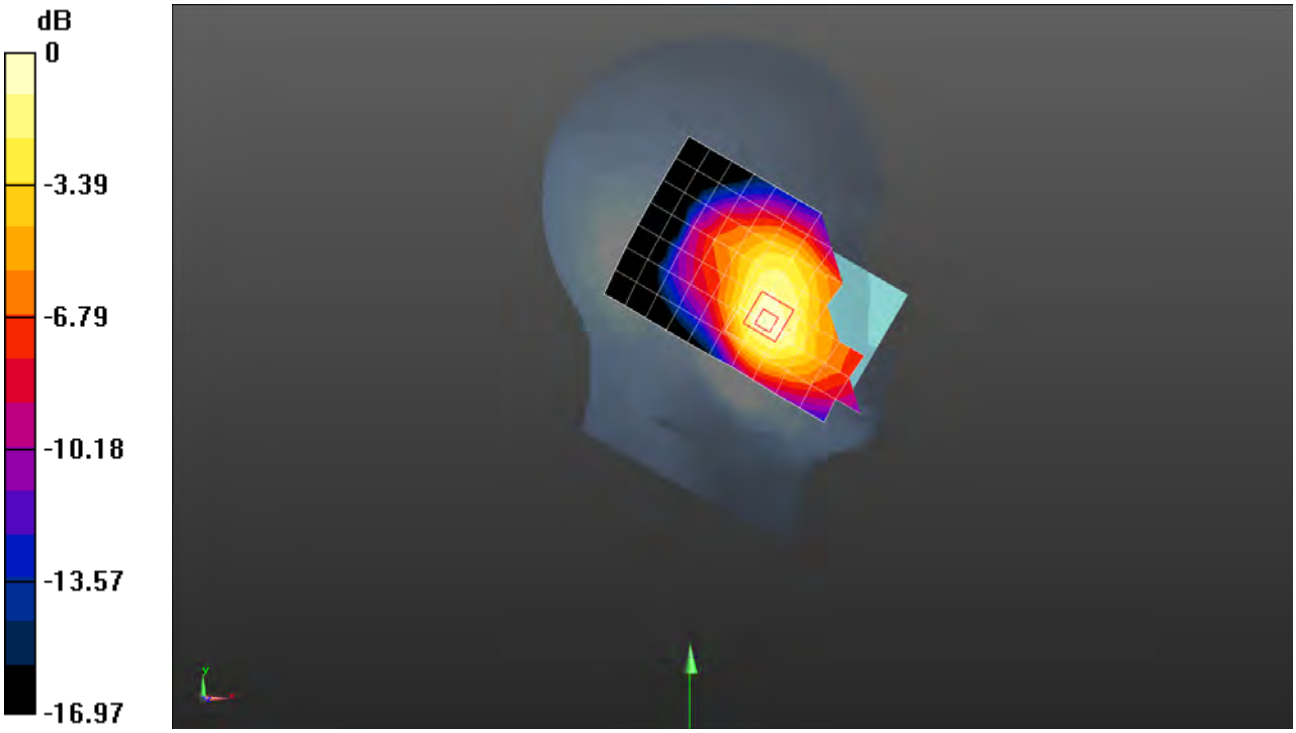
- Probe: ES3DV3 - SN3071; ConvF(4.73, 4.73, 4.73); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.291 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.608 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.443 W/kg
SAR(1 g) = 0.306 W/kg; SAR(10 g) = 0.197 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.331 W/kg



0 dB = 0.331 W/kg = -4.80 dBW/kg

Date: 2016-12-25

Test Laboratory: SGS-SAR Lab

LG-X230dsF WCDMA Band4 1412CH Front side 15mm with SIM2

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, WCDMA (0); Frequency: 1732.4 MHz;Duty Cycle: 1:1

Medium: MSL1750;Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.466 S/m; ε_r = 51.092; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

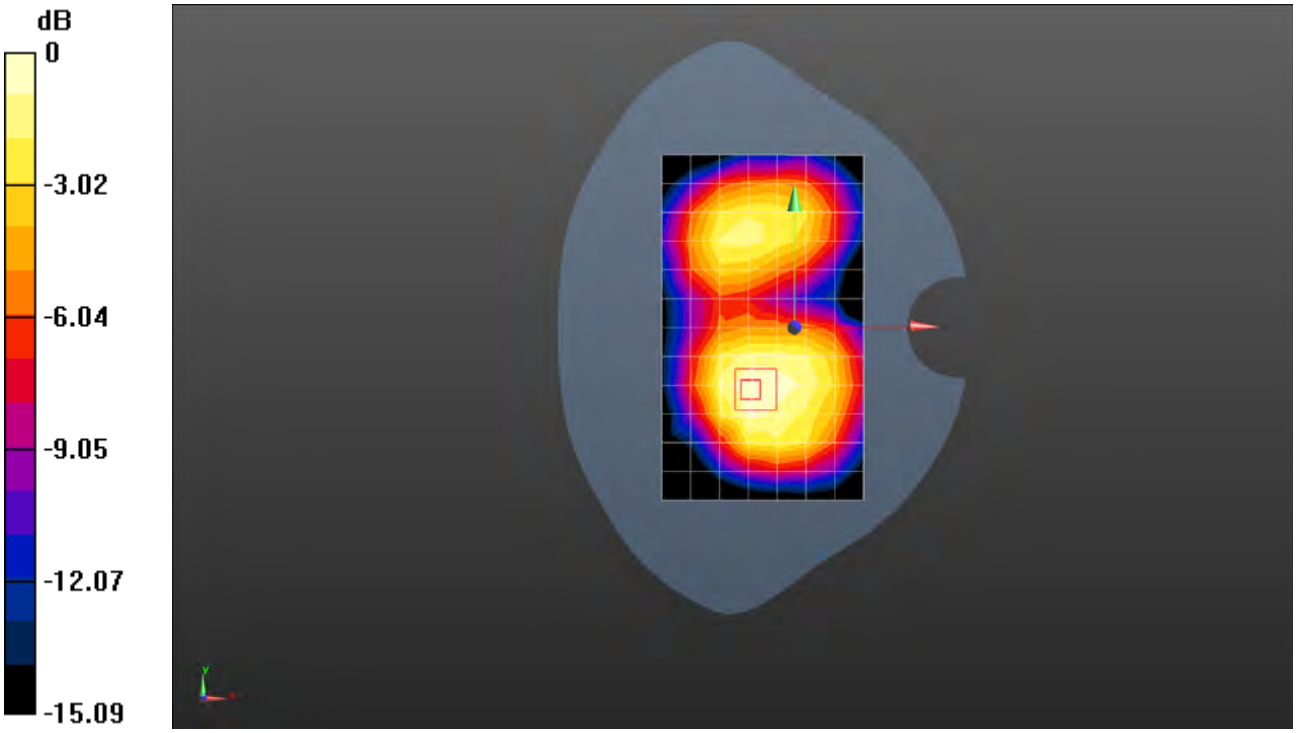
- Probe: ES3DV3 - SN3071; ConvF(4.56, 4.56, 4.56); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.253 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.418 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.356 W/kg
SAR(1 g) = 0.240 W/kg; SAR(10 g) = 0.157 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.256 W/kg



0 dB = 0.256 W/kg = -5.92 dBW/kg

Date: 2016-12-25

Test Laboratory: SGS-SAR Lab

LG-X230dsF WCDMA Band4 1412CH Bottom side 10mm with SIM2

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, WCDMA (0); Frequency: 1732.4 MHz;Duty Cycle: 1:1

Medium: MSL1750;Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.466 S/m; ε_r = 51.092; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

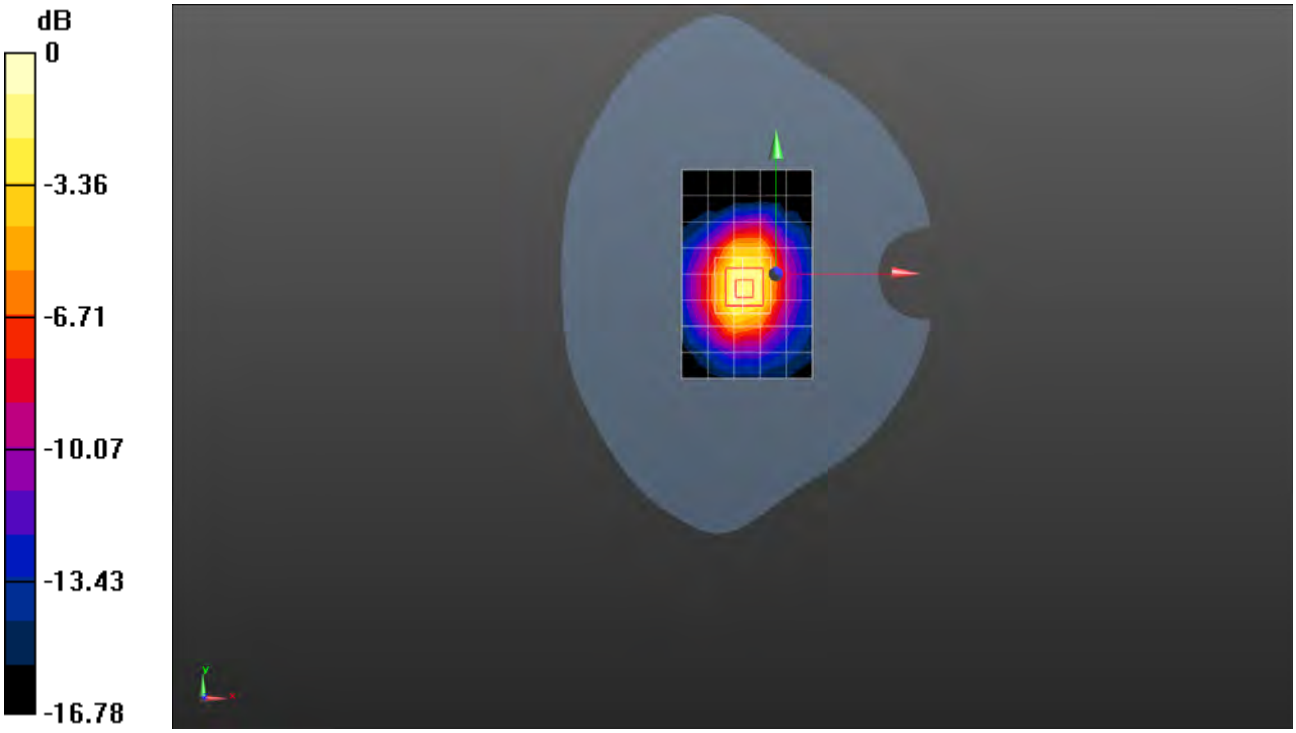
- Probe: ES3DV3 - SN3071; ConvF(4.56, 4.56, 4.56); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (6x9x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.445 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.56 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.823 W/kg
SAR(1 g) = 0.502 W/kg; SAR(10 g) = 0.282 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.551 W/kg



0 dB = 0.551 W/kg = -2.59 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF WCDMA Band5 4182CH Right touch cheek

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, WCDMA (0); Frequency: 836.4 MHz;Duty Cycle: 1:1

Medium: HSL900;Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.859 S/m; ε_r = 43.663; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY 5 Configuration:

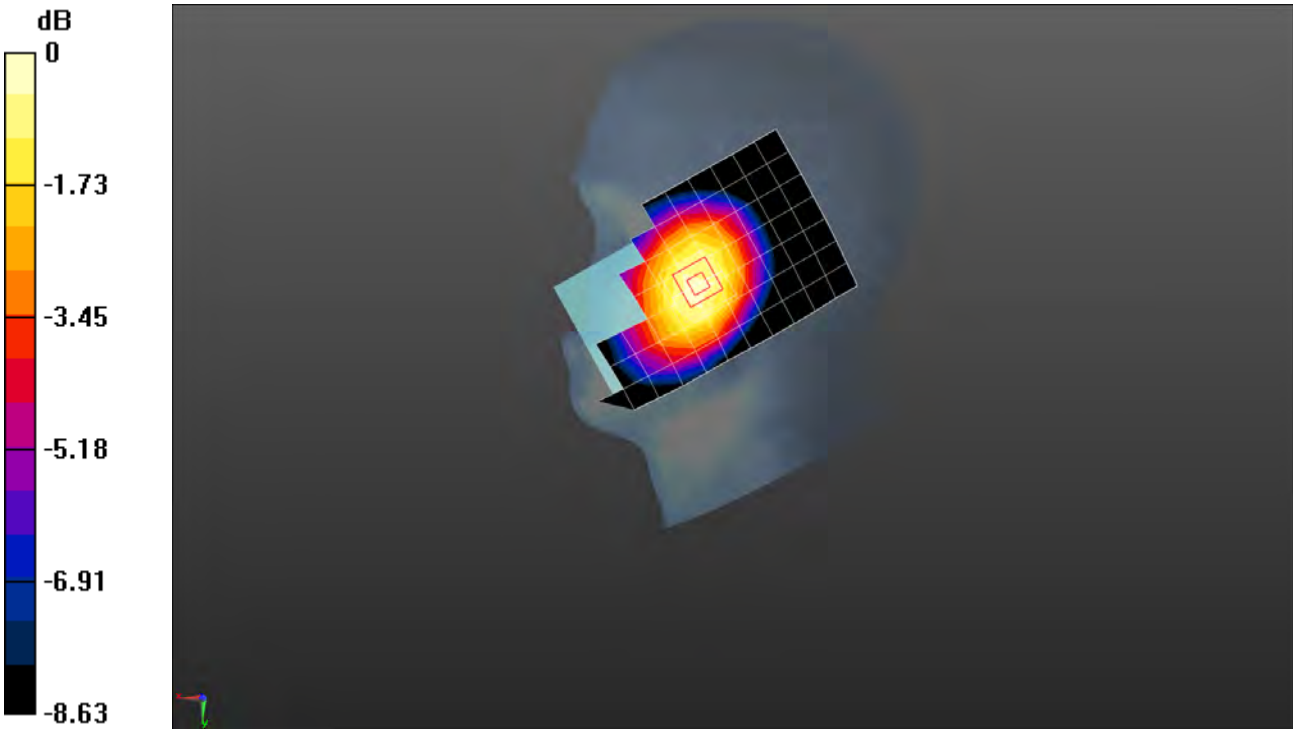
- Probe: ES3DV3 - SN3071; ConvF(5.61, 5.61, 5.61); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.352 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.988 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.409 W/kg
SAR(1 g) = 0.340 W/kg; SAR(10 g) = 0.264 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.357 W/kg



0 dB = 0.357 W/kg = -4.47 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF WCDMA Band5 4182CH Back side 15mm with SIM2

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, WCDMA (0); Frequency: 836.4 MHz;Duty Cycle: 1:1

Medium: MSL835;Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.987 S/m; ε_r = 54.31; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

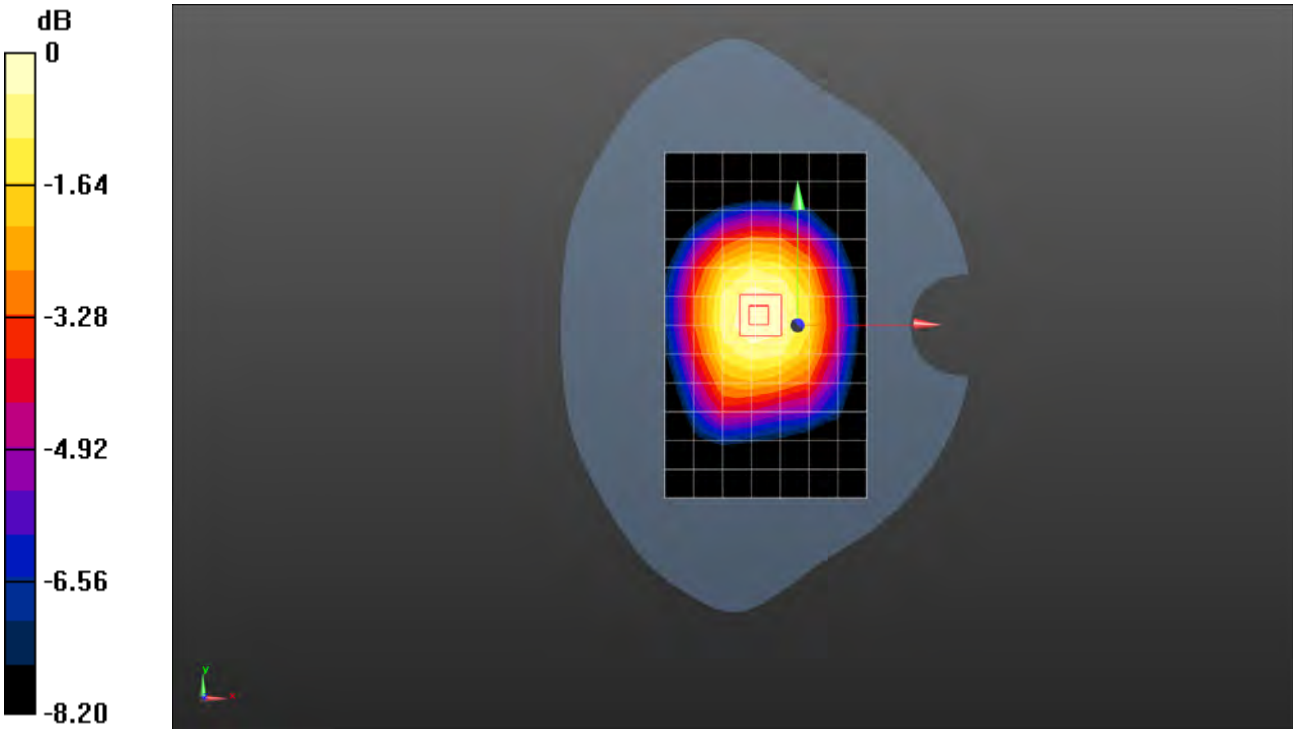
- Probe: ES3DV3 - SN3071; ConvF(5.68, 5.68, 5.68); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.440 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.20 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.545 W/kg
SAR(1 g) = 0.434 W/kg; SAR(10 g) = 0.331 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.453 W/kg



0 dB = 0.453 W/kg = -3.44 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF WCDMA Band5 4182CH Back side 10mm

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, WCDMA (0); Frequency: 836.4 MHz;Duty Cycle: 1:1

Medium: MSL835;Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.987 S/m; ε_r = 54.31; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

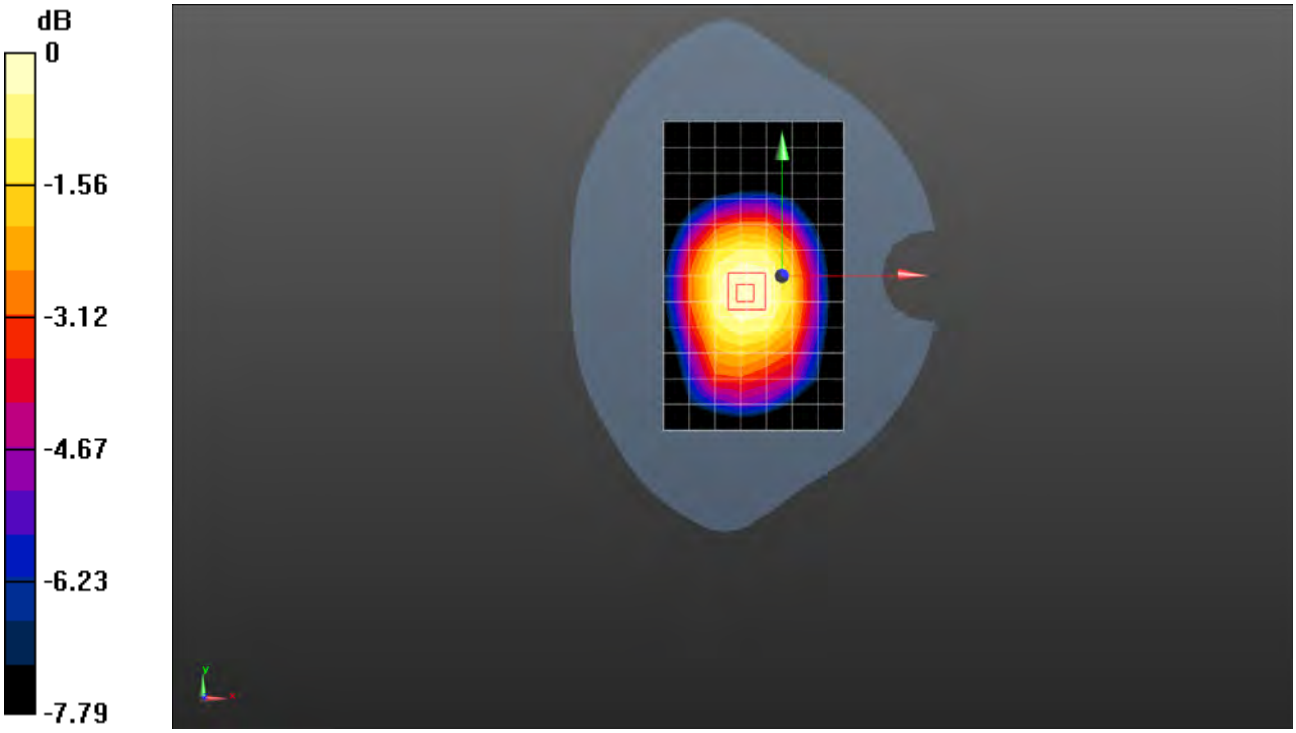
- Probe: ES3DV3 - SN3071; ConvF(5.68, 5.68, 5.68); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.509 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.84 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.591 W/kg
SAR(1 g) = 0.487 W/kg; SAR(10 g) = 0.377 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.508 W/kg



0 dB = 0.508 W/kg = -2.94 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF LTE Band2 20MHz bandwidth QPSK 1RB0Offset 19100CH Left touch cheek

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1900 MHz;Duty Cycle: 1:1

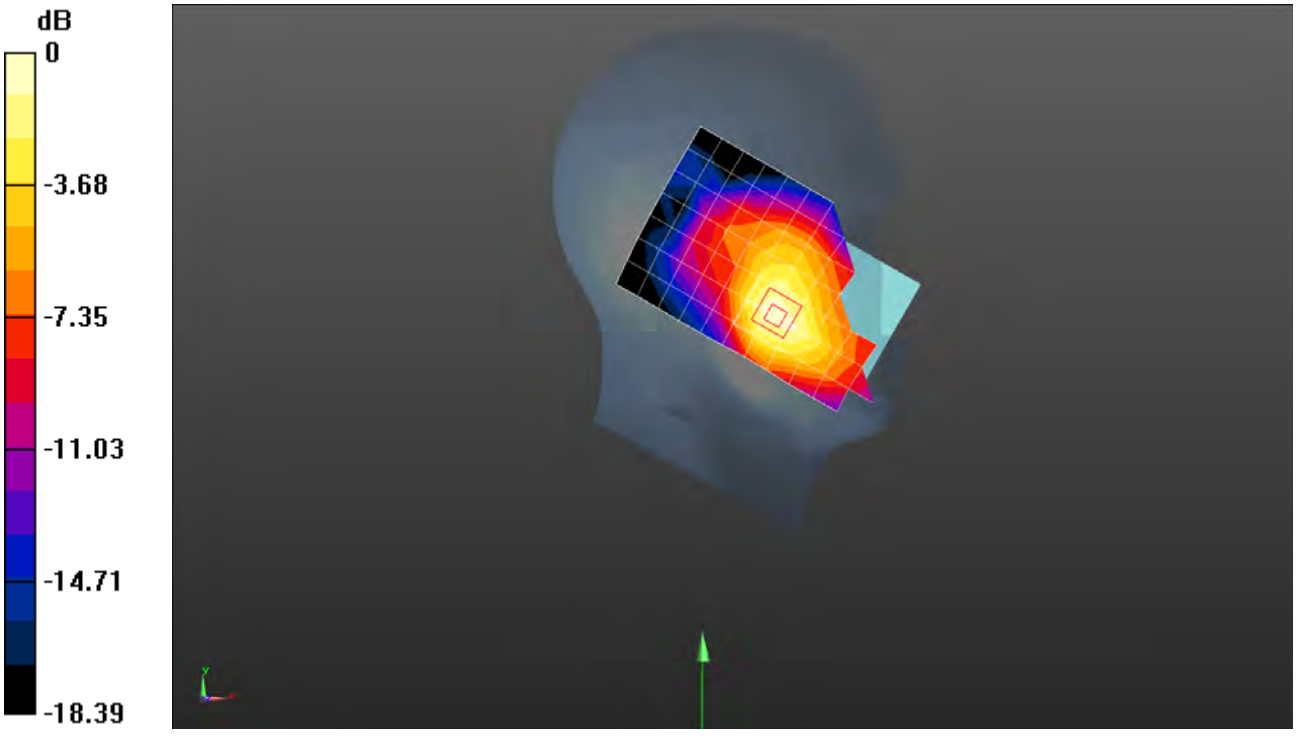
Medium: HSL1900;Medium parameters used: f = 1900 MHz; σ = 1.387 S/m; ε_r = 38.634; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(4.56, 4.56, 4.56); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.779 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.289 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.754 W/kg; SAR(10 g) = 0.468 W/kg
Maximum value of SAR (measured) = 0.821 W/kg



0 dB = 0.821 W/kg = -0.86 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF LTE Band2 20MHz bandwidth QPSK 1RB0Offset 19100CH Front side 15mm

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1900 MHz;Duty Cycle: 1:1

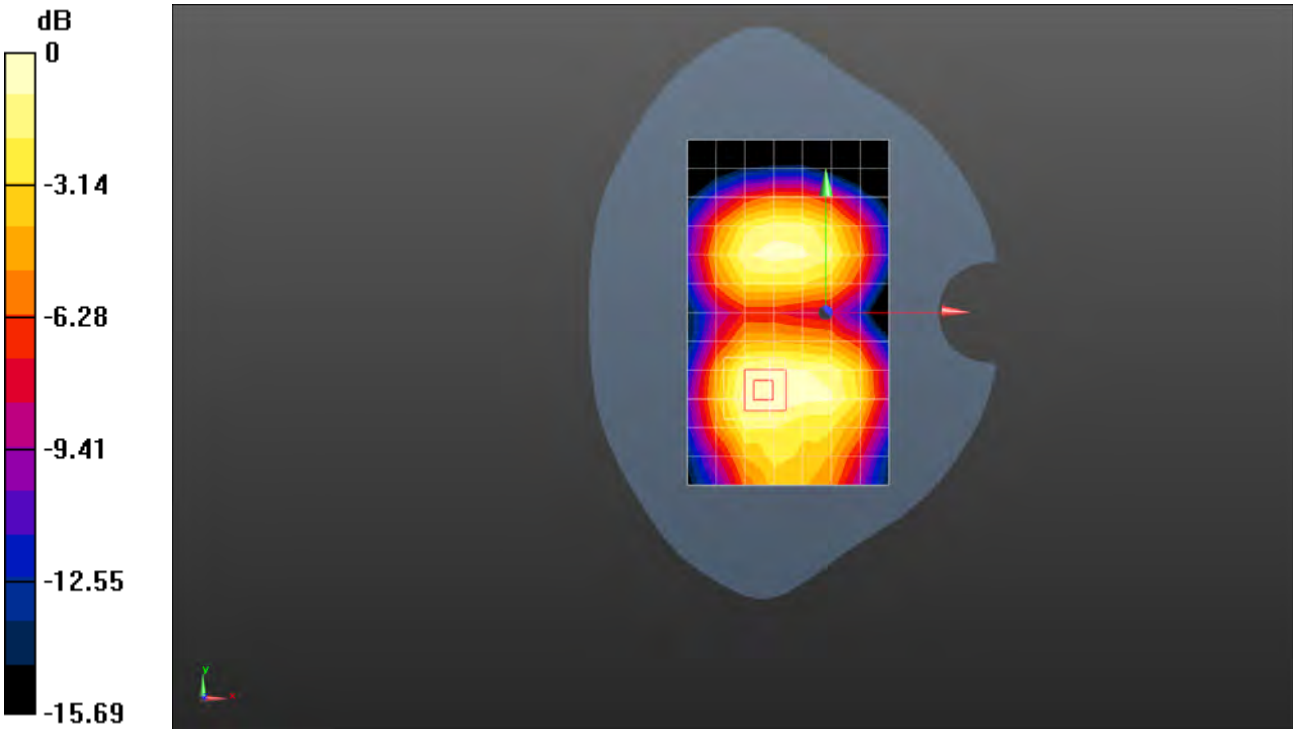
Medium: MSL1900;Medium parameters used: f = 1900 MHz; σ = 1.476 S/m; ε_r = 53.025; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(4.23, 4.23, 4.23); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.381 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.950 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.565 W/kg
SAR(1 g) = 0.381 W/kg; SAR(10 g) = 0.250 W/kg
Maximum value of SAR (measured) = 0.404 W/kg



0 dB = 0.404 W/kg = -3.94 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF LTE Band2 20MHz bandwidth QPSK 1RB0Offset 19100CH Front side 10mm

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1900 MHz;Duty Cycle: 1:1

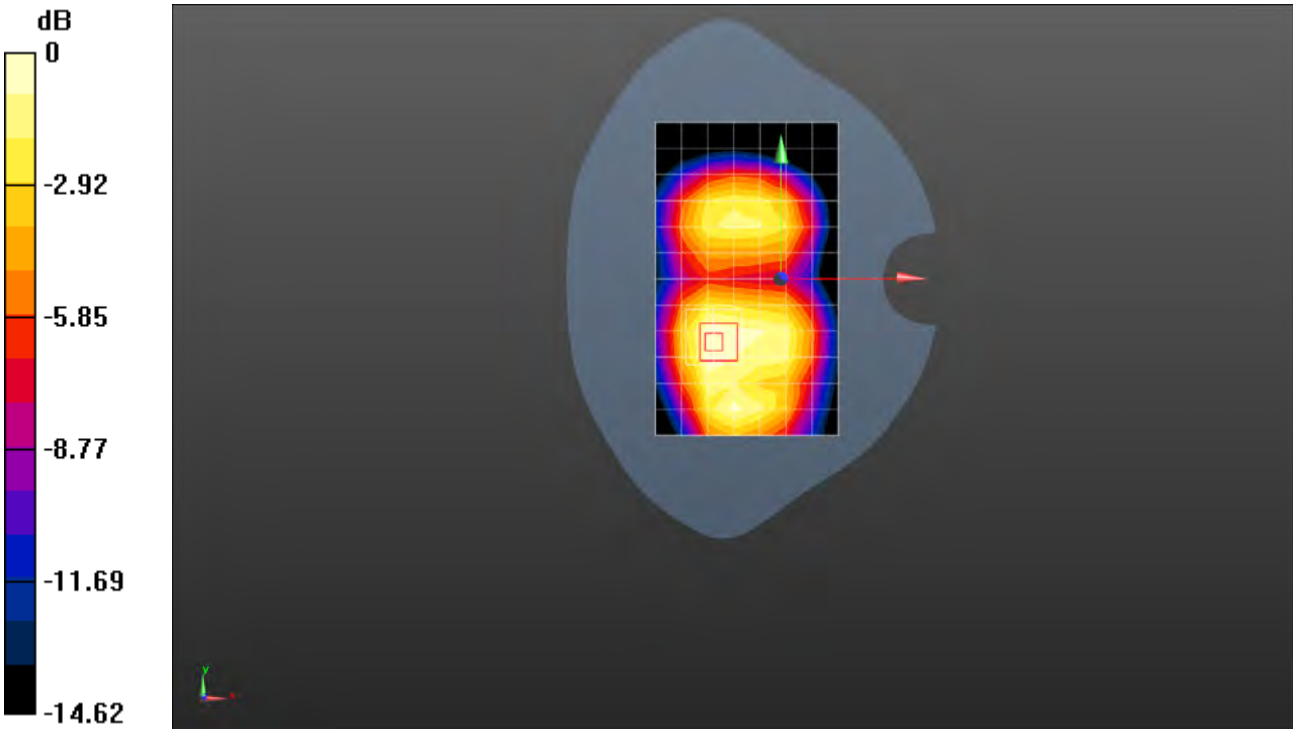
Medium: MSL1900;Medium parameters used: f = 1900 MHz; σ = 1.476 S/m; ε_r = 53.025; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(4.23, 4.23, 4.23); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.580 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.685 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.848 W/kg
SAR(1 g) = 0.569 W/kg; SAR(10 g) = 0.374 W/kg
Maximum value of SAR (measured) = 0.607 W/kg



0 dB = 0.607 W/kg = -2.17 dBW/kg

Date: 2016-12-25

Test Laboratory: SGS-SAR Lab

LG-X230dsF LTE Band4 20MHz bandwidth QPSK 1RB0Offset 20050CH Left touch cheek wiht SIM2

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1720 MHz;Duty Cycle: 1:1

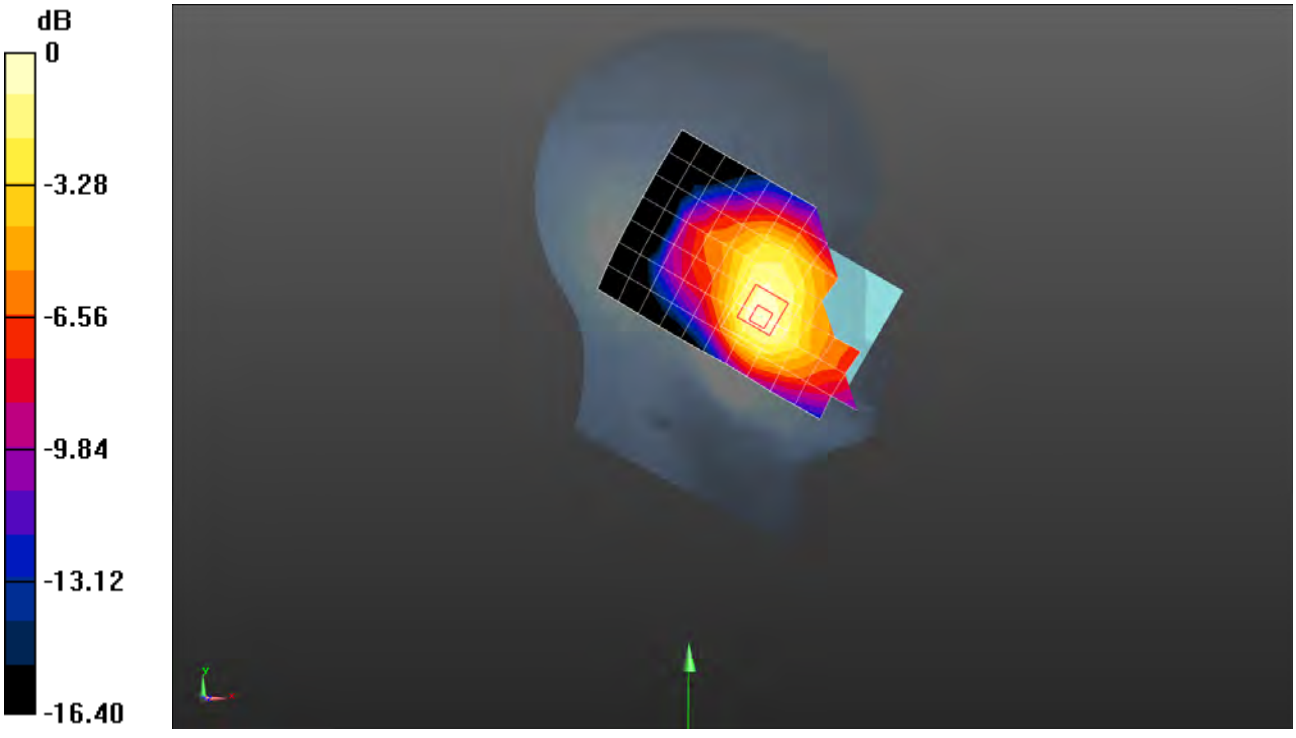
Medium: HSL1800;Medium parameters used: f = 1720 MHz; σ = 1.313 S/m; ε_r = 40.522; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(4.73, 4.73, 4.73); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.296 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.344 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.447 W/kg
SAR(1 g) = 0.310 W/kg; SAR(10 g) = 0.201 W/kg
Maximum value of SAR (measured) = 0.337 W/kg



0 dB = 0.337 W/kg = -4.72 dBW/kg

Date: 2016-12-25

Test Laboratory: SGS-SAR Lab

LG-X230dsF LTE Band4 20MHz bandwidth QPSK 1RB0Offset 20050CH Back side 15mm with SIM2

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1720 MHz;Duty Cycle: 1:1

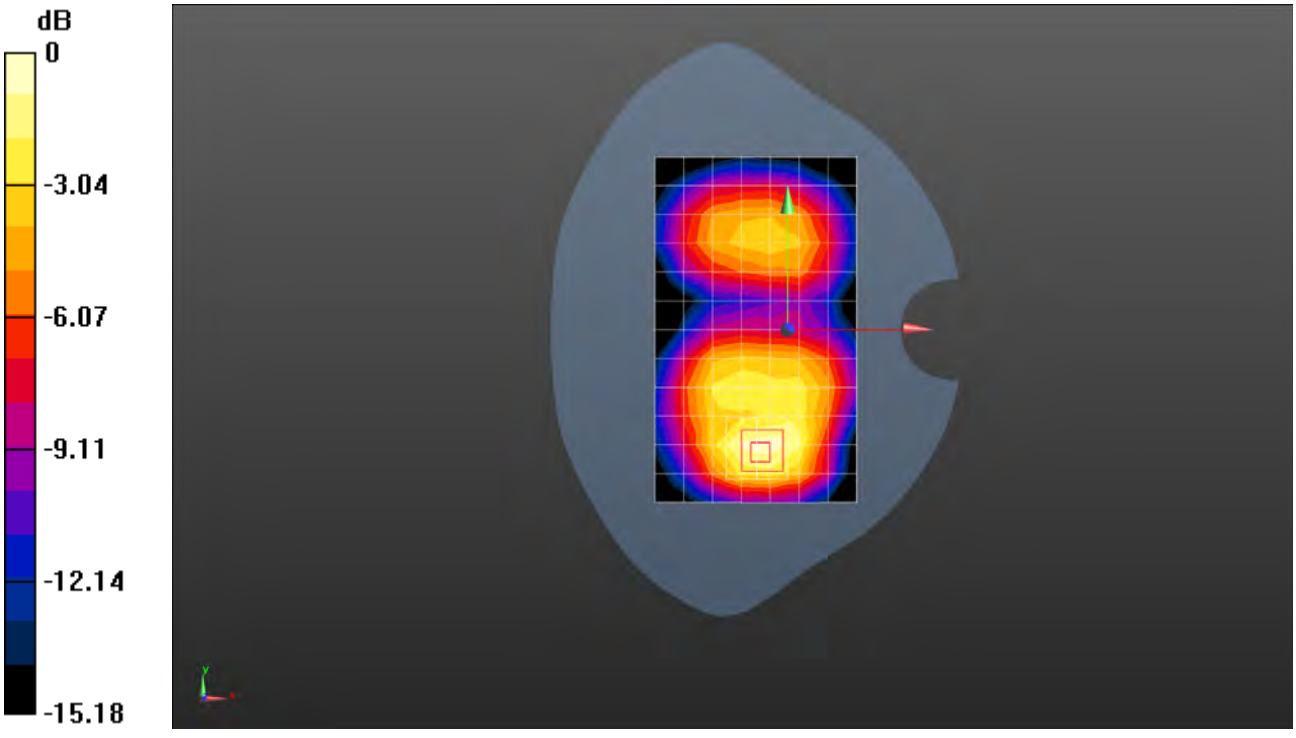
Medium: MSL1750;Medium parameters used: f = 1720 MHz; σ = 1.452 S/m; ε_r = 51.122; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(4.56, 4.56, 4.56); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.424 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.297 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.679 W/kg
SAR(1 g) = 0.416 W/kg; SAR(10 g) = 0.242 W/kg
Maximum value of SAR (measured) = 0.453 W/kg



0 dB = 0.453 W/kg = -3.44 dBW/kg

Date: 2016-12-25

Test Laboratory: SGS-SAR Lab

LG-X230dsF LTE Band4 20MHz bandwidth QPSK 1RB0Offset 20050CH Back side 10mm with SIM2

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1720 MHz;Duty Cycle: 1:1

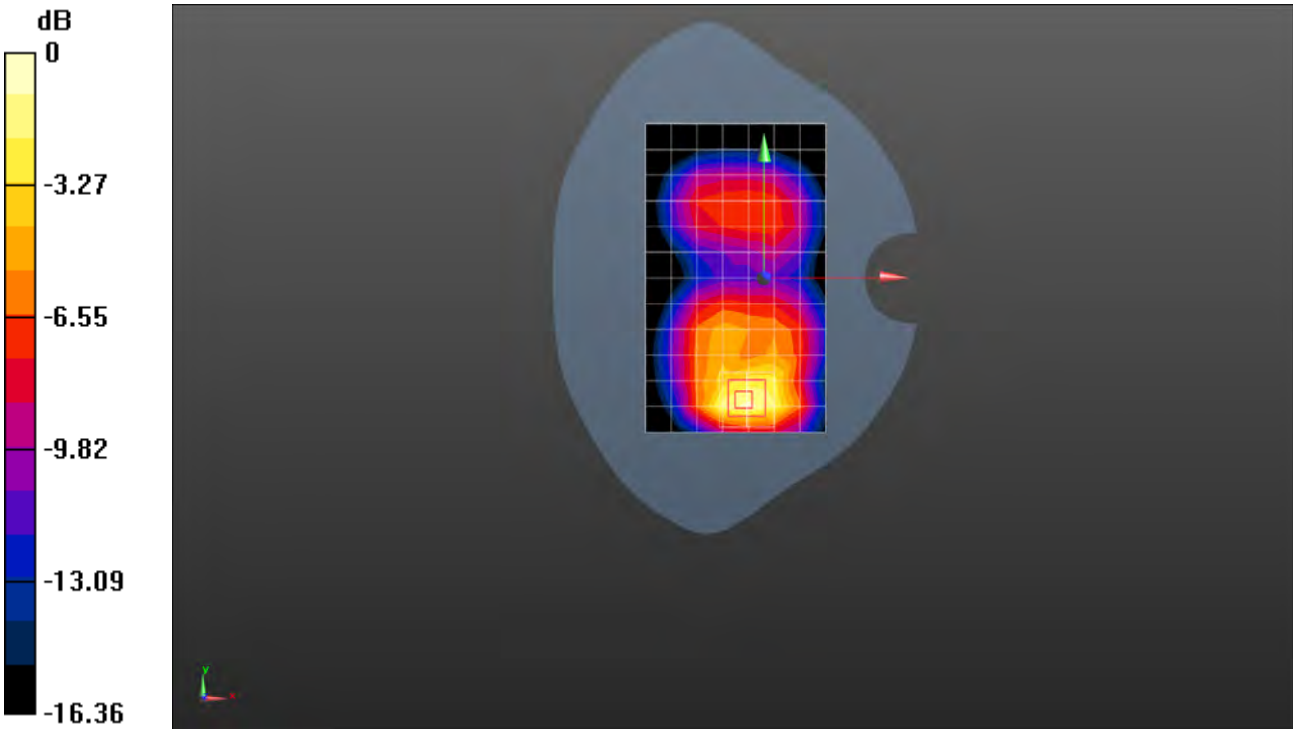
Medium: MSL1750;Medium parameters used: f = 1720 MHz; σ = 1.452 S/m; ε_r = 51.122; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(4.56, 4.56, 4.56); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = -1.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.871 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.270 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.58 W/kg
SAR(1 g) = 0.909 W/kg; SAR(10 g) = 0.495 W/kg
Maximum value of SAR (measured) = 1.02 W/kg



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

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF LTE Band5 10MHz bandwidth QPSK 1RB0Offset 20600CH Right touch cheek

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 844 MHz;Duty Cycle: 1:1

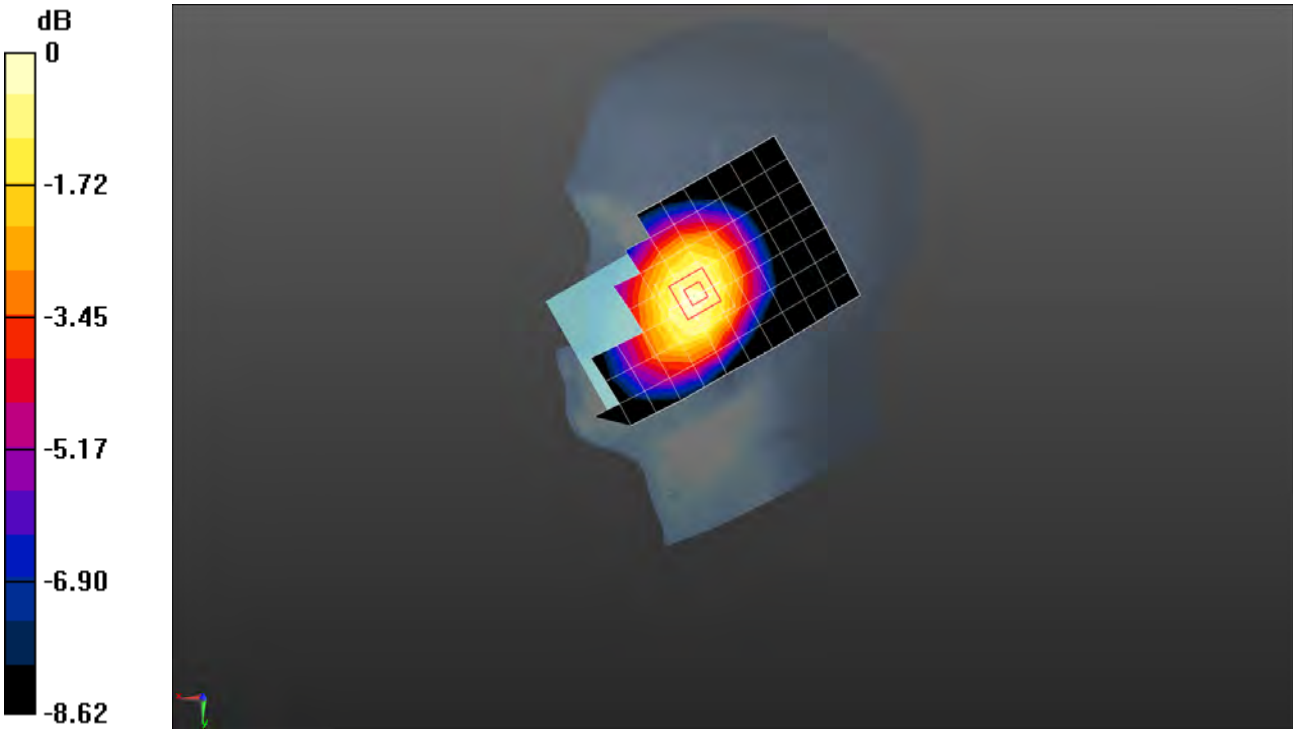
Medium: HSL900;Medium parameters used: f = 844 MHz; σ = 0.864 S/m; ε_r = 43.522; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(5.61, 5.61, 5.61); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.365 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.060 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.424 W/kg
SAR(1 g) = 0.352 W/kg; SAR(10 g) = 0.273 W/kg
Maximum value of SAR (measured) = 0.370 W/kg



0 dB = 0.370 W/kg = -4.32 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF LTE Band5 10MHz bandwidth QPSK 1RB0Offset 20600CH Back side 15mm with SIM2

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 844 MHz;Duty Cycle: 1:1

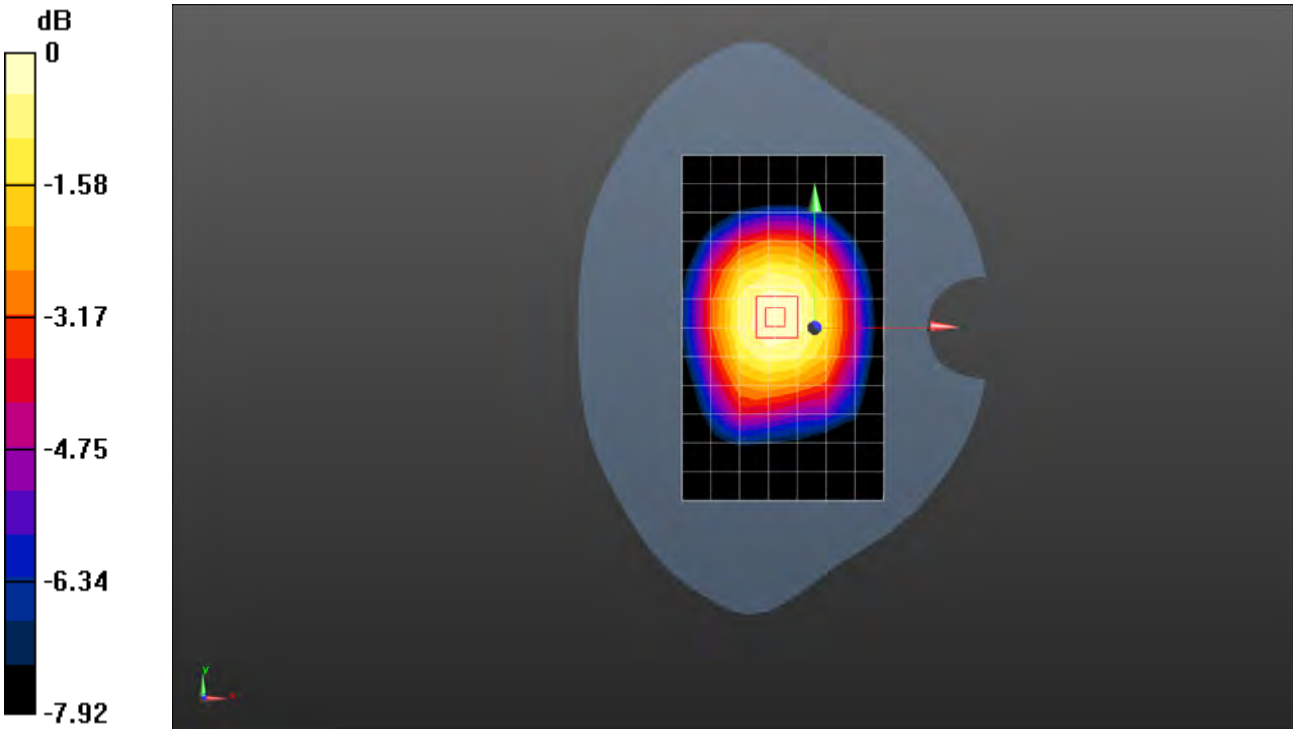
Medium: MSL835;Medium parameters used: f = 844 MHz; σ = 0.993 S/m; ε_r = 54.253; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(5.68, 5.68, 5.68); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.465 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.78 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.570 W/kg
SAR(1 g) = 0.453 W/kg; SAR(10 g) = 0.346 W/kg
Maximum value of SAR (measured) = 0.474 W/kg



0 dB = 0.474 W/kg = -3.24 dBW/kg

Date: 2016-12-24

Test Laboratory: SGS-SAR Lab

LG-X230dsF LTE Band5 10MHz bandwidth QPSK 1RB0Offset 20600CH Back side 10mm

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 844 MHz;Duty Cycle: 1:1

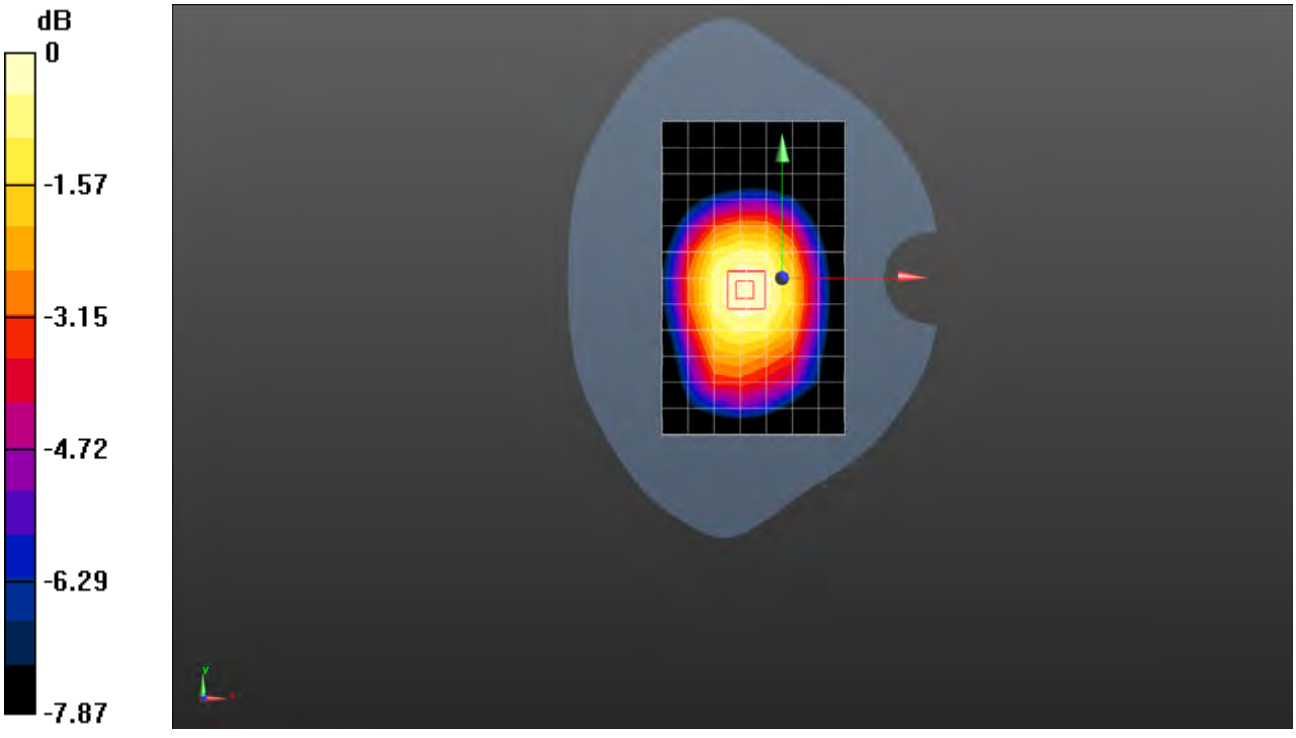
Medium: MSL835;Medium parameters used: f = 844 MHz; σ = 0.993 S/m; ε_r = 54.253; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(5.68, 5.68, 5.68); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.511 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.05 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.607 W/kg
SAR(1 g) = 0.499 W/kg; SAR(10 g) = 0.386 W/kg
Maximum value of SAR (measured) = 0.523 W/kg



0 dB = 0.523 W/kg = -2.81 dBW/kg

Date: 2016-12-23

Test Laboratory: SGS-SAR Lab

LG-X230dsF LTE Band7 20MHz bandwidth QPSK 1RB0Offset 21100CH Left touch cheek with SIM2

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 2535 MHz;Duty Cycle: 1:1

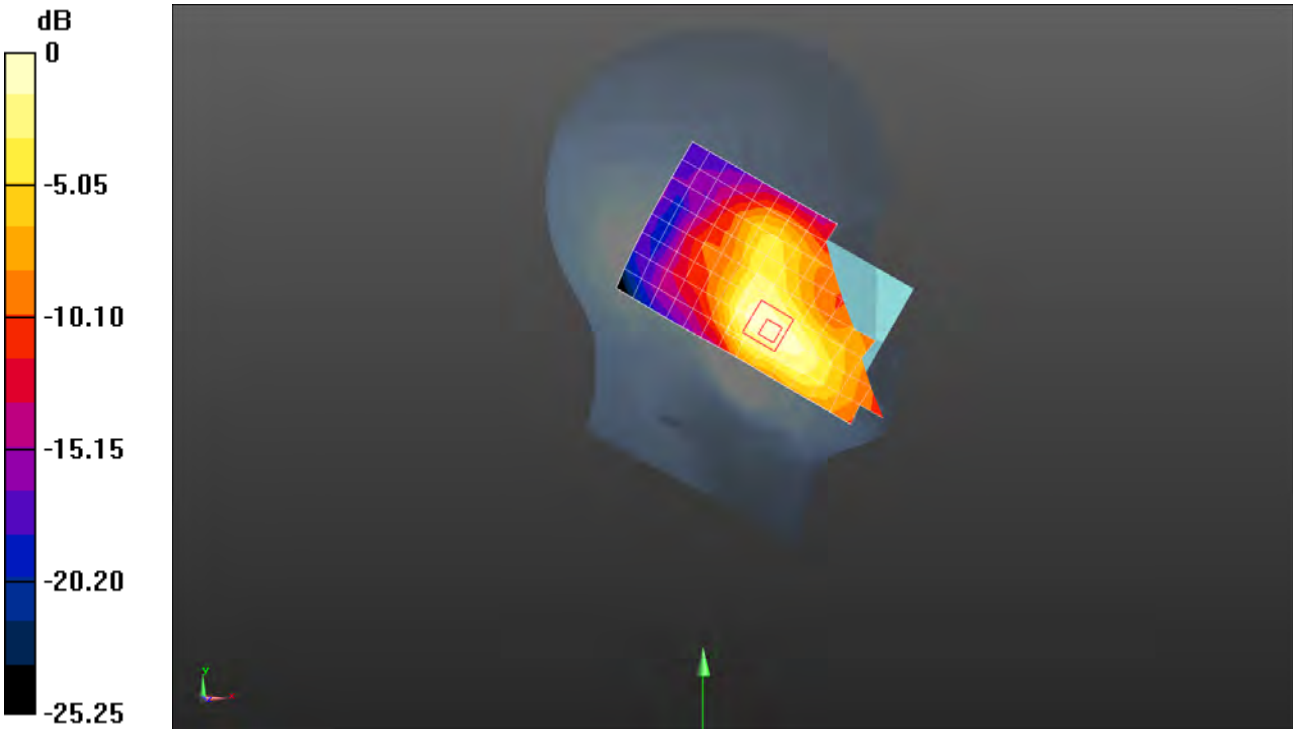
Medium: HSL2600;Medium parameters used: f = 2535 MHz; σ = 1.861 S/m; ε_r = 38.267; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(4.18, 4.18, 4.18); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (9x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.736 W/kg

Configuration/Head/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.643 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.677 W/kg; SAR(10 g) = 0.362 W/kg
Maximum value of SAR (measured) = 0.733 W/kg



0 dB = 0.733 W/kg = -1.35 dBW/kg

Date: 2016-12-23

Test Laboratory: SGS-SAR Lab

LG-X230dsF LTE Band7 20MHz bandwidth QPSK 1RB0Offset 21100CH Front side 15mm with SIM2

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 2535 MHz;Duty Cycle: 1:1

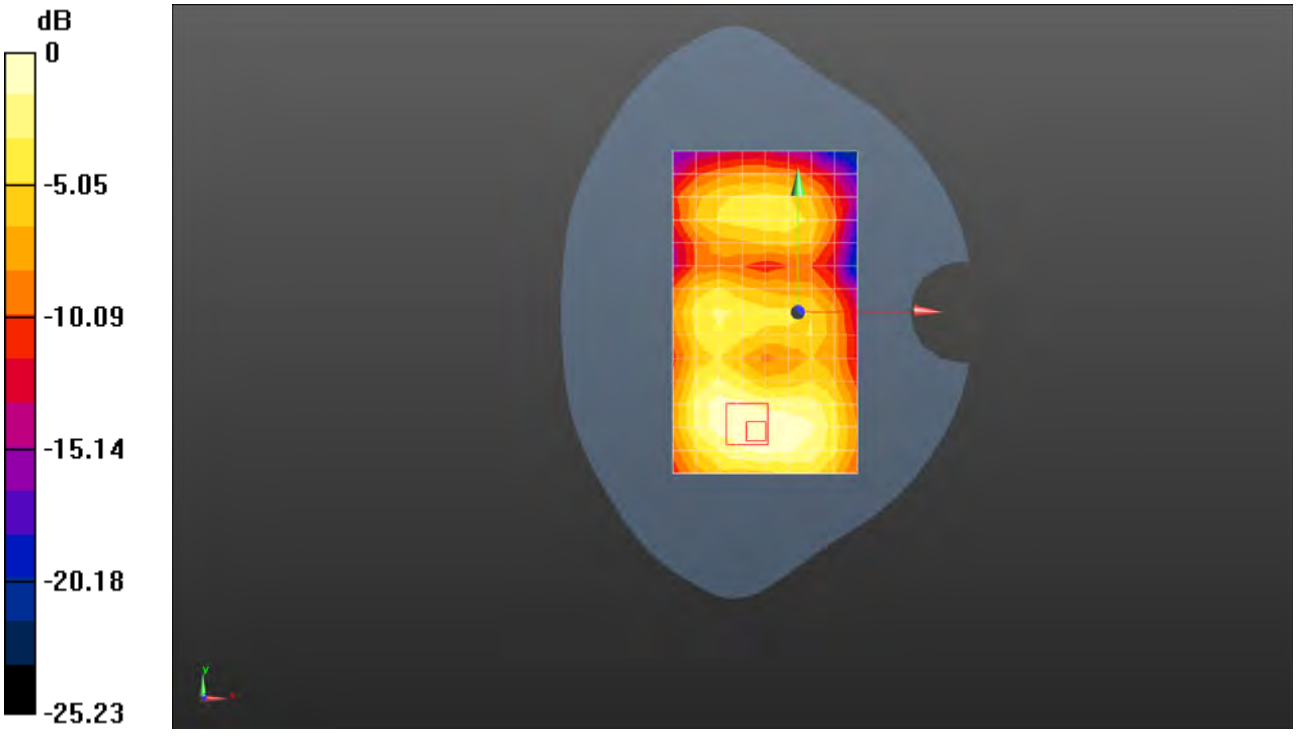
Medium: MSL2600;Medium parameters used: f = 2535 MHz; σ = 2.085 S/m; ε_r = 53.223; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(3.88, 3.88, 3.88); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = -1.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (9x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.453 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.919 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.800 W/kg
SAR(1 g) = 0.427 W/kg; SAR(10 g) = 0.239 W/kg
Maximum value of SAR (measured) = 0.464 W/kg



0 dB = 0.464 W/kg = -3.33 dBW/kg

Date: 2016-12-23

Test Laboratory: SGS-SAR Lab

LG-X230dsF LTE Band7 20MHz bandwidth QPSK 1RB0Offset 21100CH Front side 10mm with SIM2

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 353886080003978

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 2535 MHz;Duty Cycle: 1:1

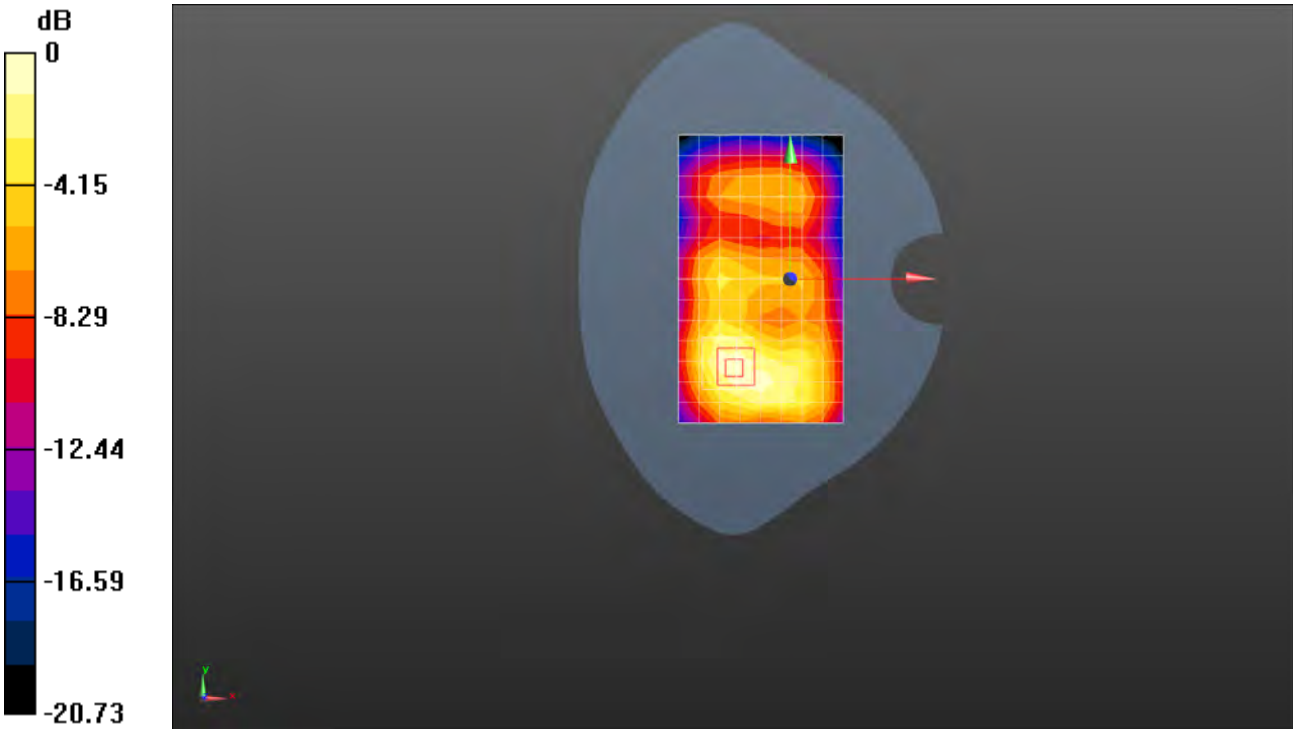
Medium: MSL2600;Medium parameters used: f = 2535 MHz; σ = 2.085 S/m; ε_r = 53.223; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3071; ConvF(3.88, 3.88, 3.88); Calibrated: 2016-12-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = -1.0, 32.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (9x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.931 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.41 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.64 W/kg
SAR(1 g) = 0.932 W/kg; SAR(10 g) = 0.511 W/kg
Maximum value of SAR (measured) = 1.01 W/kg



0 dB = 1.01 W/kg = 0.04 dBW/kg

Date: 2016-12-28

Test Laboratory: SGS-SAR Lab

LG-X230dsF 802.11b 6CH Right touch cheek

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, WI-FI(2.4GHz) (0); Frequency: 2437 MHz;Duty Cycle: 1:1

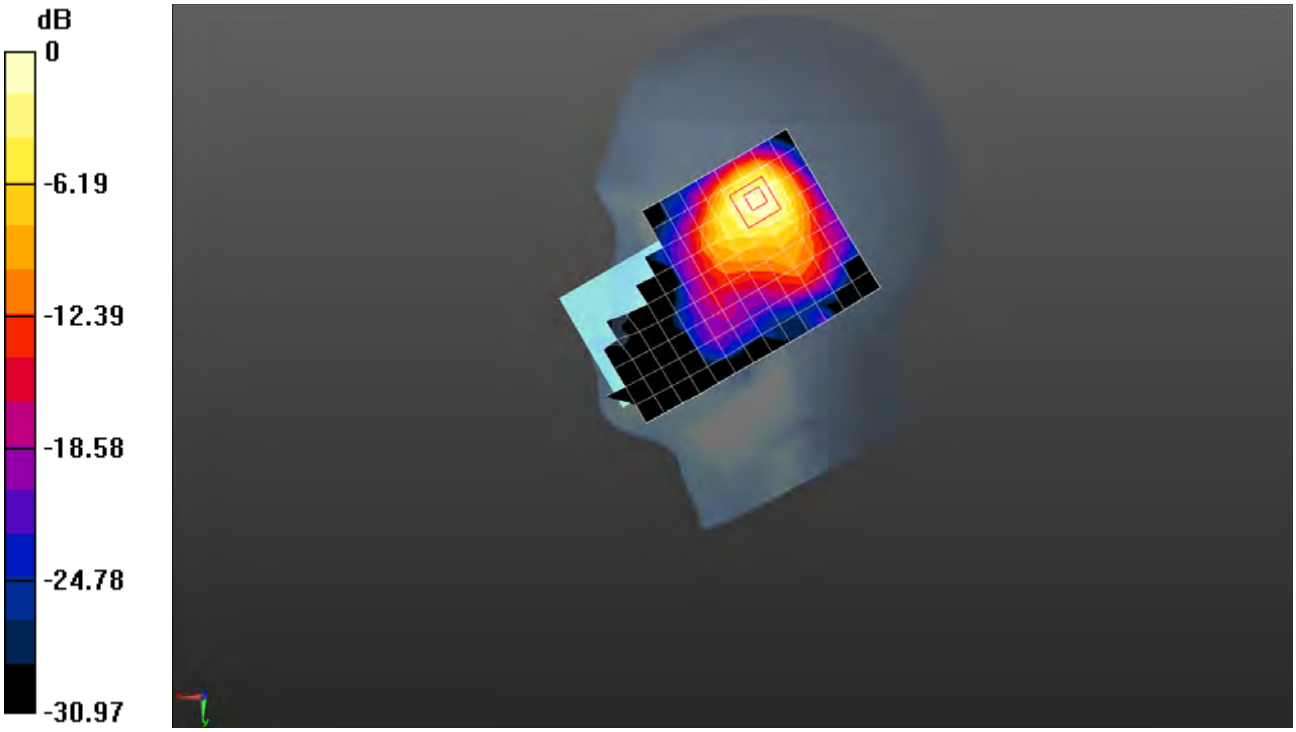
Medium: HSL2450;Medium parameters used: f = 2437 MHz; σ = 1.866 S/m; ε_r = 37.734; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(7.33, 7.33, 7.33); Calibrated: 2016-12-19;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2016-02-05
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.858 W/kg

Configuration/Head/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.212 V/m; Power Drift = 0.20 dB
Peak SAR (extrapolated) = 1.82 W/kg
SAR(1 g) = 0.767 W/kg; SAR(10 g) = 0.354 W/kg
Maximum value of SAR (measured) = 0.834 W/kg



0 dB = 0.834 W/kg = -0.79 dBW/kg

Date: 2016-12-28

Test Laboratory: SGS-SAR Lab

LG-X230dsF 802.11b 6CH Back side 15mm

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, WI-FI(2.4GHz) (0); Frequency: 2437 MHz;Duty Cycle: 1:1

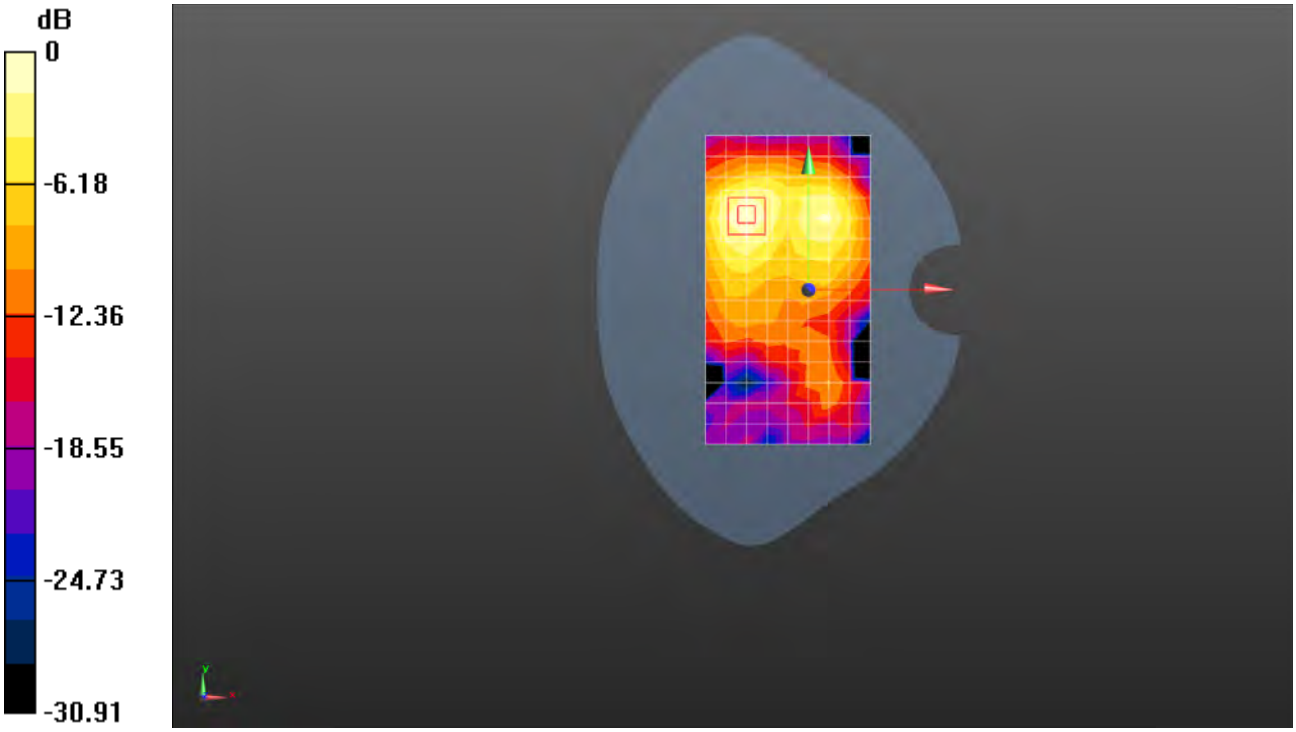
Medium: MSL2450;Medium parameters used: f = 2437 MHz; σ = 1.934 S/m; ε_r = 51.752; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(7.46, 7.46, 7.46); Calibrated: 2016-12-19;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2016-02-05
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (9x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.104 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.284 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.181 W/kg
SAR(1 g) = 0.099 W/kg; SAR(10 g) = 0.052 W/kg
Maximum value of SAR (measured) = 0.110 W/kg



0 dB = 0.110 W/kg = -9.59 dBW/kg

Date: 2016-12-28

Test Laboratory: SGS-SAR Lab

LG-X230dsF 802.11b 6CH Back side 10mm

DUT: LG-X230dsF; Type: Mobile Handset; Serial: 355464080003097

Communication System: UID 0, WI-FI(2.4GHz) (0); Frequency: 2437 MHz;Duty Cycle: 1:1

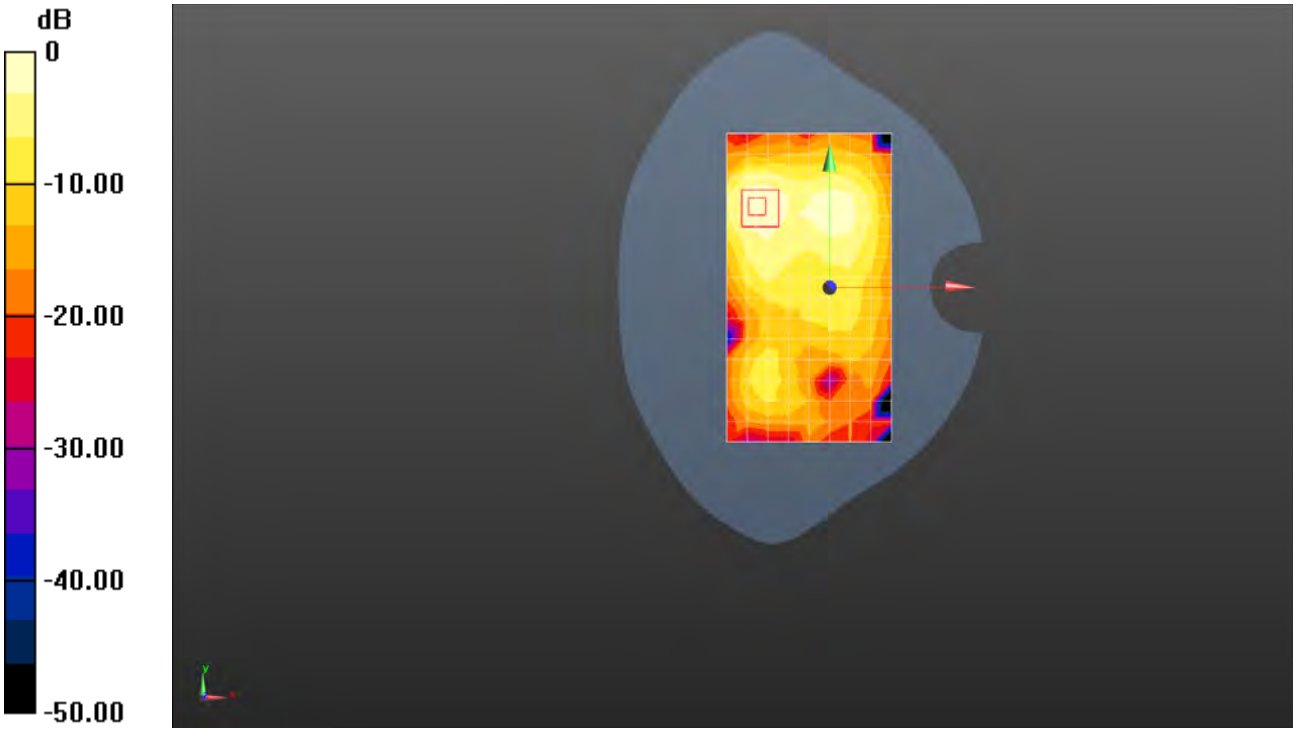
Medium: MSL2450;Medium parameters used: f = 2437 MHz; σ = 1.934 S/m; ε_r = 51.752; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(7.46, 7.46, 7.46); Calibrated: 2016-12-19;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2016-02-05
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (9x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.110 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.067 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.241 W/kg
SAR(1 g) = 0.123 W/kg; SAR(10 g) = 0.061 W/kg
Maximum value of SAR (measured) = 0.138 W/kg



0 dB = 0.138 W/kg = -8.60 dBW/kg

Appendix C

Calibration certificate

1. Dipole
D835V2-SN 4d120(2016-6-22)
D1750V2-SN 1149(2016-6-23)
D1900V2-SN 5d142(2016-6-23)
D2450V2-SN 869(2016-6-21)
D2600V2-SN 1125(2016-6-22)
2. DAE
DAE4-SN 1454(2015-12-08)
DAE4-SN 1267(2016-02-05)
DAE3-SN 569(2016-12-09)
3. Probe
EX3DV4-SN 7340(2015-12-10)
ES3DV3-SN 3297(2016-10-14)
EX3DV4-SN 3962(2016-12-19)
ES3DV3-SN 3071(2016-12-08)

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client **Auden**

Certificate No: D835V2-4d120_Jun16

CALIBRATION CERTIFICATE

Object: D835V2 - SN:4d120

Calibration procedure(s): QA CAL-05.v9
Calibration procedure for dipole validation kits above 700 MHz

Calibration date: June 22, 2016

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	06-Apr-16 (No. 217-02288/02289)	Apr-17
Power sensor NRP-Z91	SN: 103244	06-Apr-16 (No. 217-02288)	Apr-17
Power sensor NRP-Z91	SN: 103245	06-Apr-16 (No. 217-02289)	Apr-17
Reference 20 dB Attenuator	SN: 5058 (20k)	05-Apr-16 (No. 217-02292)	Apr-17
Type-N mismatch combination	SN: 5047.2 / 06327	05-Apr-16 (No. 217-02295)	Apr-17
Reference Probe EX3DV4	SN: 7349	15-Jun-16 (No. EX3-7349_Jun16)	Jun-17
DAE4	SN: 601	30-Dec-15 (No. DAE4-601_Dec15)	Dec-16

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (No. 217-02222)	In house check: Oct-16
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (No. 217-02222)	In house check: Oct-16
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (No. 217-02223)	In house check: Oct-16
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Jun-15)	In house check: Oct-16
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-15)	In house check: Oct-16

	Name	Function	Signature
Calibrated by:	Claudio Leubler	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: June 27, 2016

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.8.8
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	41.0 ± 6 %	0.92 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.40 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**9.42 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.55 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**6.11 W/kg ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Body TSL parameters	22.0 °C	55.2	0.97 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	54.4 ± 6 %	1.01 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm^3 (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.46 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**9.52 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Body TSL	condition	
SAR measured	250 mW input power	1.60 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**6.23 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	51.7 Ω - 4.1 jΩ
Return Loss	- 27.0 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	46.6 Ω - 6.5 jΩ
Return Loss	- 22.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.397 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	June 29, 2010

DASY5 Validation Report for Head TSL

Date: 22.06.2016

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d120

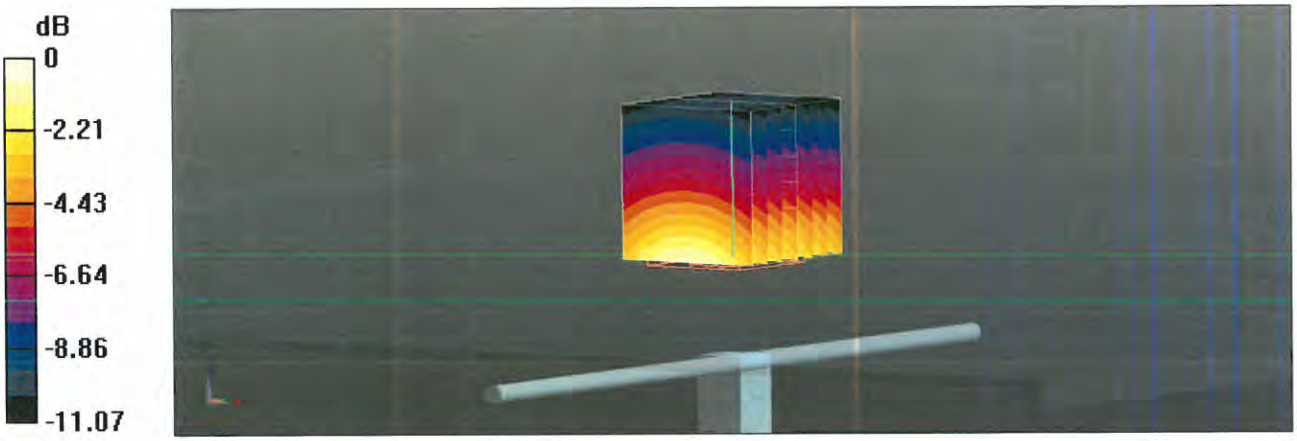
Communication System: UID 0 - CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.92 S/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(9.72, 9.72, 9.72); Calibrated: 15.06.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.12.2015
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

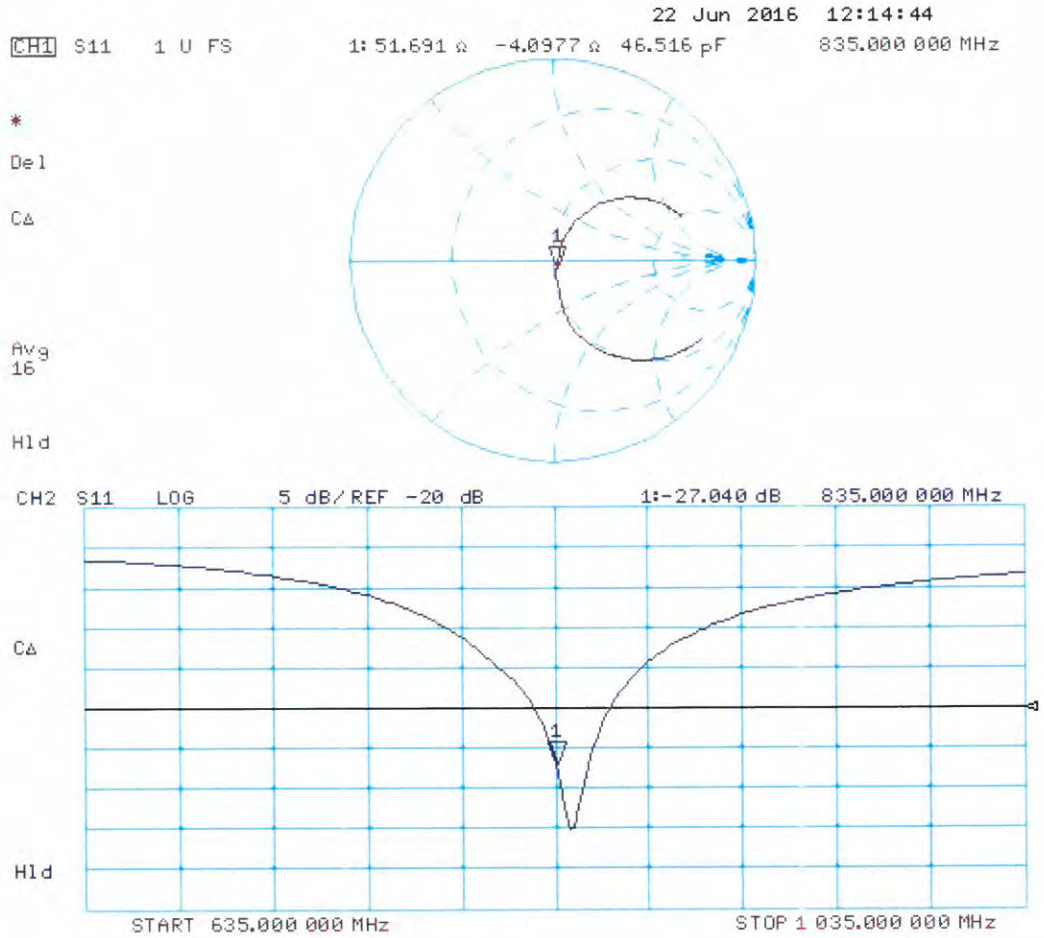
Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 61.88 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.60 W/kg
SAR(1 g) = 2.4 W/kg; SAR(10 g) = 1.55 W/kg
Maximum value of SAR (measured) = 3.21 W/kg



0 dB = 3.21 W/kg = 5.07 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 22.06.2016

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d120

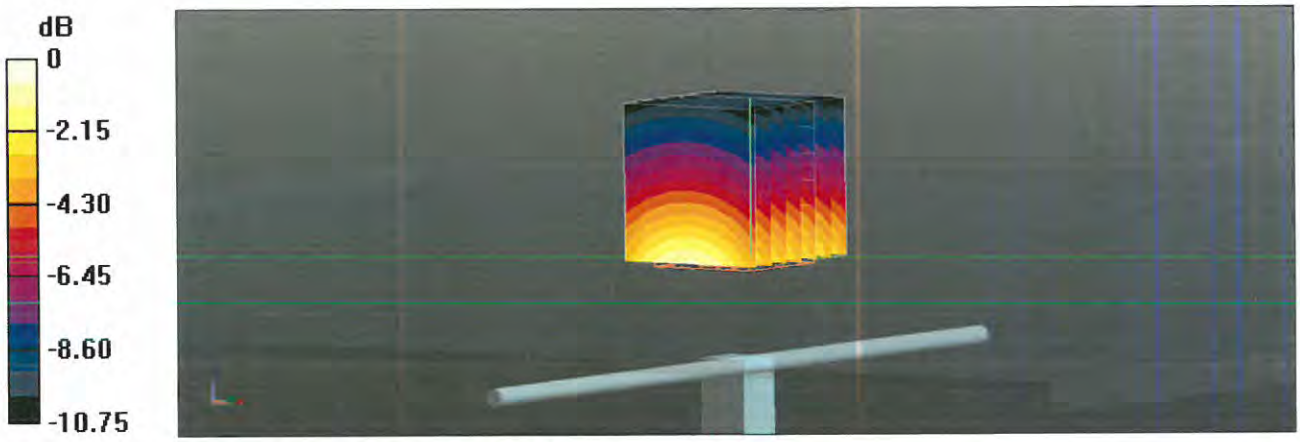
Communication System: UID 0 - CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 1.01 S/m; ε_r = 54.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(9.73, 9.73, 9.73); Calibrated: 15.06.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.12.2015
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

Dipole Calibration for Body Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 59.94 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.62 W/kg
SAR(1 g) = 2.46 W/kg; SAR(10 g) = 1.6 W/kg
Maximum value of SAR (measured) = 3.25 W/kg



0 dB = 3.25 W/kg = 5.12 dBW/kg

Impedance Measurement Plot for Body TSL