Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/10/11

P13 LTE 13_QPSK10M_Right Cheek_Ch23230_1RB_OS24

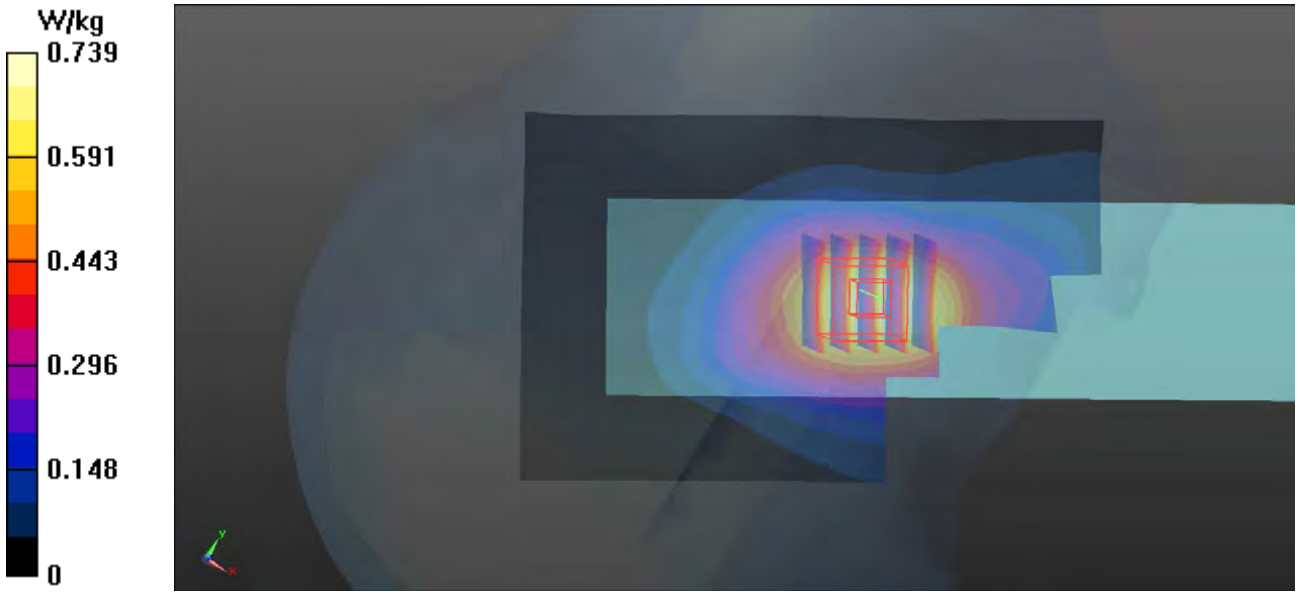
DUT: 180829W002

Communication System: LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium: HSL750_1011 Medium parameters used: f = 782 MHz; σ = 0.916 S/m; ε_r = 40.134; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃； Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.67, 9.67, 9.67); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (71x151x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.739 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.410 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 0.779 W/kg
SAR(1 g) = 0.606 W/kg; SAR(10 g) = 0.441 W/kg
Maximum value of SAR (measured) = 0.707 W/kg



P14 LTE 14_QPSK10M_Right Cheek_Ch23330_1RB_OS24

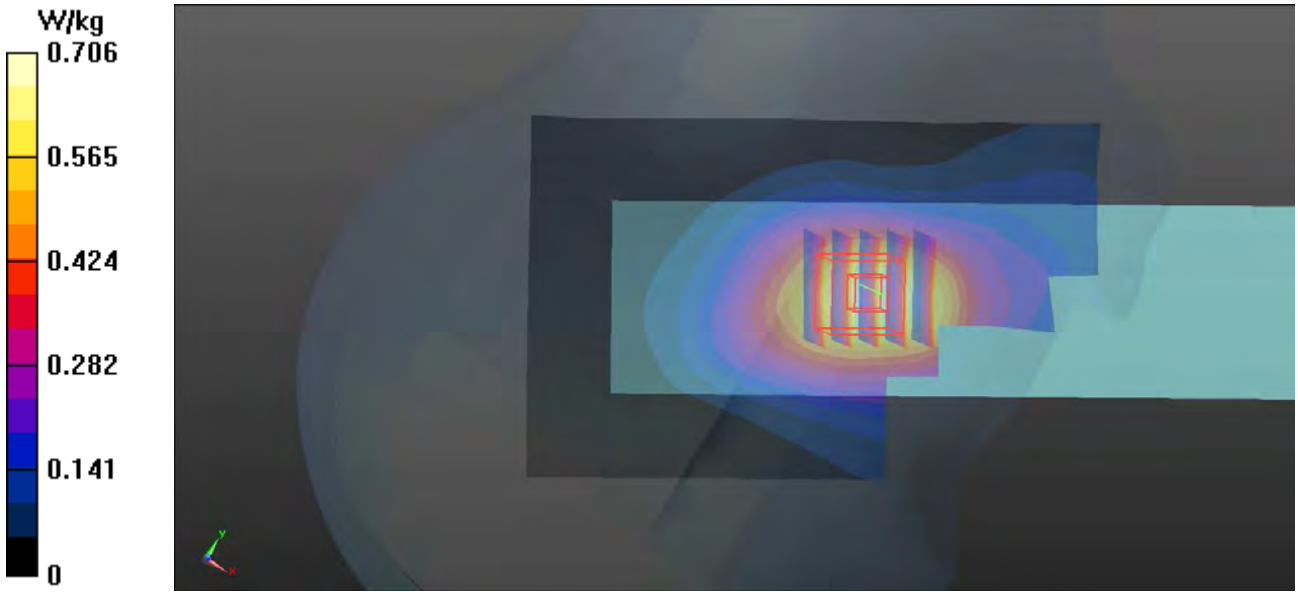
DUT: 180829W002

Communication System: LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium: HSL750_1011 Medium parameters used: f = 793 MHz; σ = 0.921 S/m; ε_r = 40.024; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.67, 9.67, 9.67); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (71x151x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.706 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.563 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.756 W/kg
SAR(1 g) = 0.593 W/kg; SAR(10 g) = 0.436 W/kg
Maximum value of SAR (measured) = 0.686 W/kg



P15 LTE 25_QPSK20M_Left Cheek_Ch26365_1RB_OS0

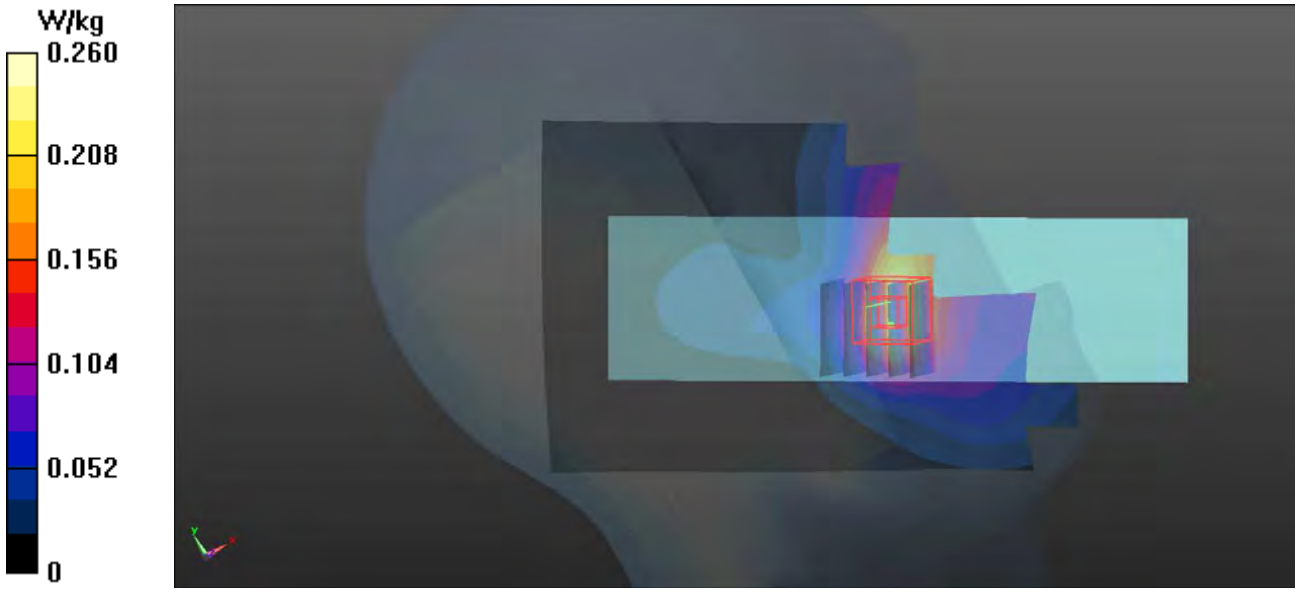
DUT: 180829W002

Communication System: LTE; Frequency: 1882.5 MHz;Duty Cycle: 1:1
Medium: HSL1900_1014 Medium parameters used: f = 1882.5 MHz; σ = 1.384 S/m; ε_r = 39.616; ρ = 1000 kg/m^3
Ambient Temperature：22.9 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(8.12, 8.12, 8.12); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (81x151x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.260 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.103 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.301 W/kg
SAR(1 g) = 0.198 W/kg; SAR(10 g) = 0.126 W/kg
Maximum value of SAR (measured) = 0.249 W/kg



P16 LTE 26_QPSK15M_Right Cheek_Ch26865_1RB_OS37

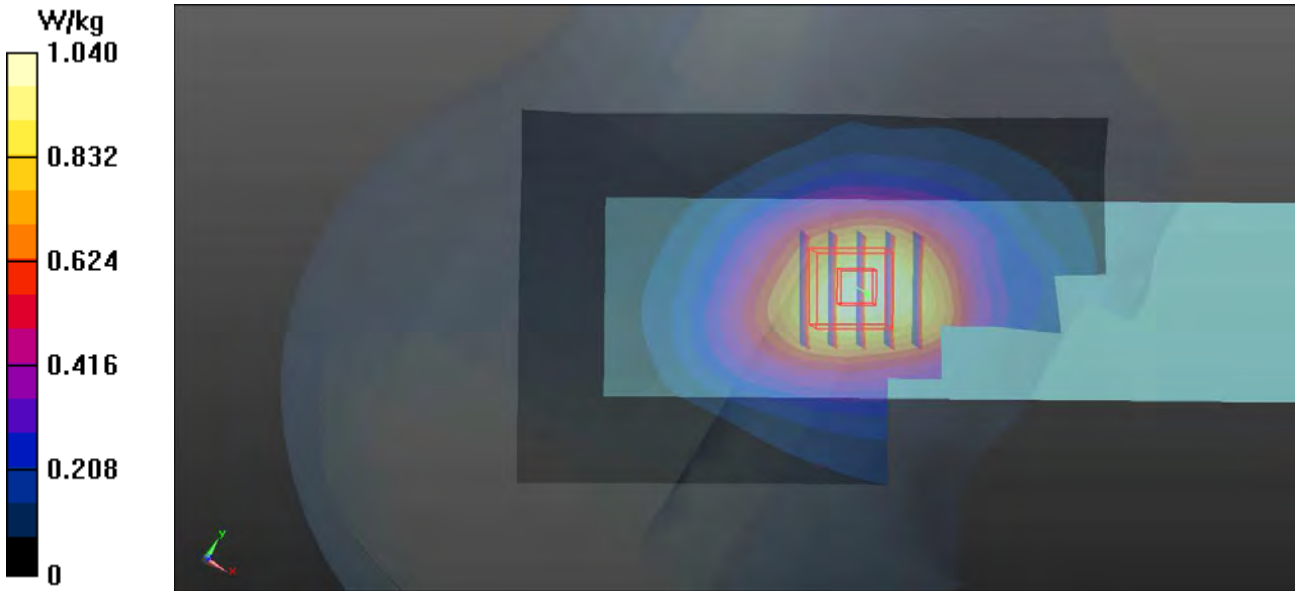
DUT: 180829W002

Communication System: LTE; Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium: HSL835_1012 Medium parameters used: f = 831.5 MHz; σ = 0.886 S/m; ε_r = 42.316; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.69, 9.69, 9.69); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (71x151x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.04 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.601 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.17 W/kg
SAR(1 g) = 0.901 W/kg; SAR(10 g) = 0.652 W/kg
Maximum value of SAR (measured) = 1.04 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/10/23

P17 LTE 38_QPSK20M_Right Cheek_Ch37850_1RB_OS50

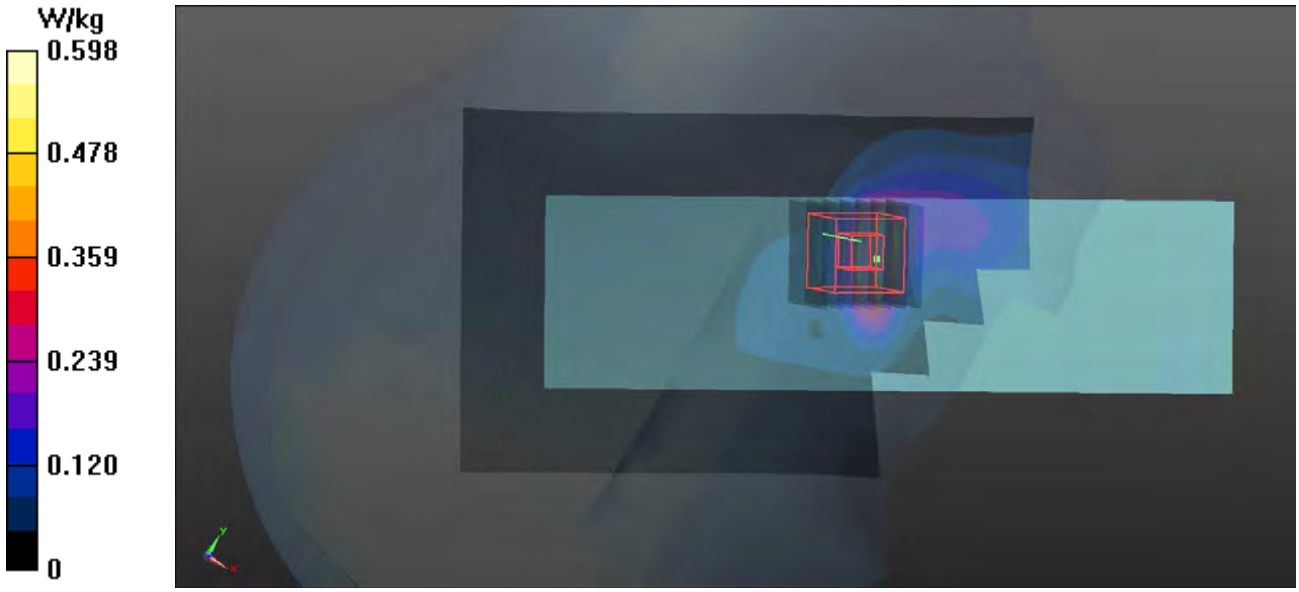
DUT: 180829W002

Communication System: LTE; Frequency: 2580 MHz;Duty Cycle: 1:1.58
Medium: HSL2600_1023 Medium parameters used: f = 2580 MHz; σ = 2.017 S/m; ε_r = 39.008; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃； Liquid Temperature：22.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.11, 7.11, 7.11); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (91x191x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.598 W/kg

- Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.052 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.471 W/kg; SAR(10 g) = 0.193 W/kg
Maximum value of SAR (measured) = 0.615 W/kg



P18 LTE 41_QPSK20M_Right Cheek_Ch41490_1RB_OS50

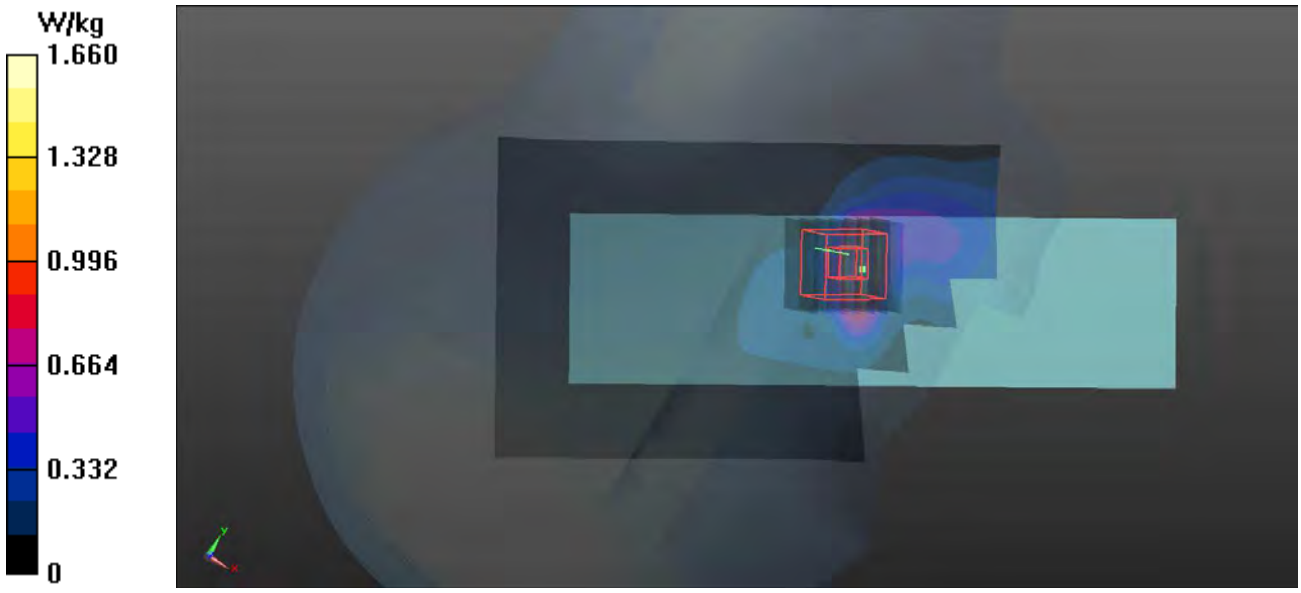
DUT: 180829W002

Communication System: LTE; Frequency: 2680 MHz;Duty Cycle: 1:1.58
Medium: HSL2600_1023 Medium parameters used: f = 2680 MHz; σ = 2.129 S/m; ε_r = 38.628; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.11, 7.11, 7.11); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (91x191x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.66 W/kg

- Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.053 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 2.56 W/kg
SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.465 W/kg
Maximum value of SAR (measured) = 1.49 W/kg



P19 LTE 66_QPSK20M_Right Cheek_Ch132572_1RB_OS0

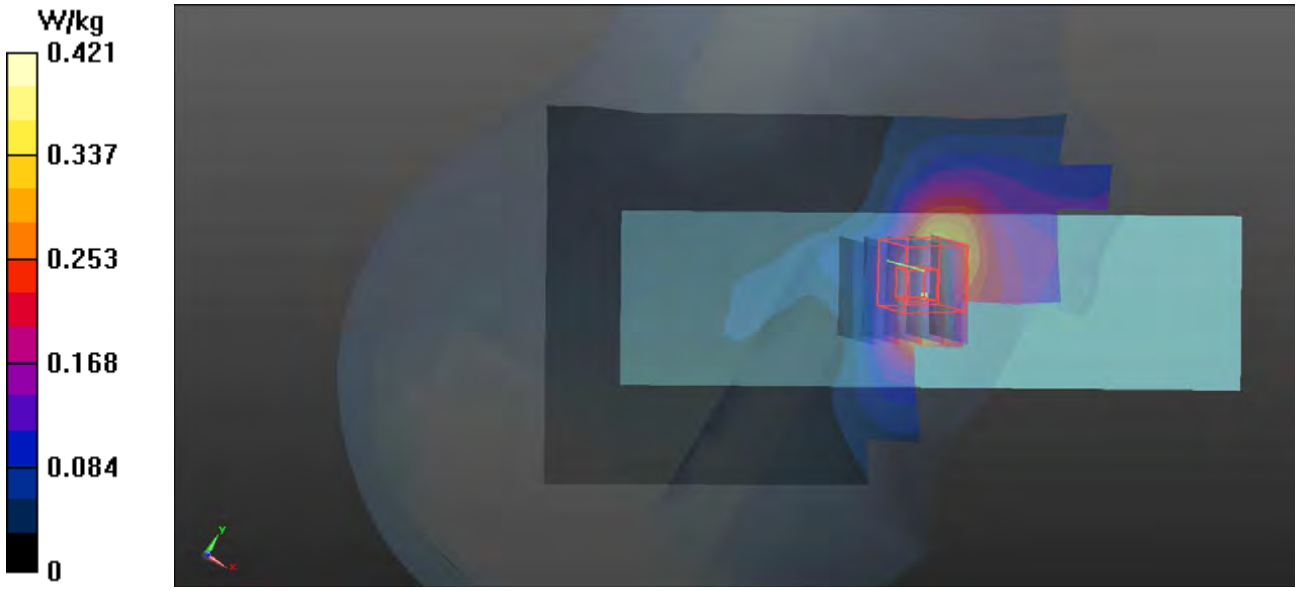
DUT: 180829W002

Communication System: LTE; Frequency: 1770 MHz;Duty Cycle: 1:1
Medium: HSL1750_1013 Medium parameters used: f = 1770 MHz; σ = 1.367 S/m; ε_r = 39.429; ρ = 1000 kg/m^3
Ambient Temperature：22.8 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(8.39, 8.39, 8.39); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (81x151x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.421 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.482 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.457 W/kg
SAR(1 g) = 0.306 W/kg; SAR(10 g) = 0.205 W/kg
Maximum value of SAR (measured) = 0.373 W/kg



P20 802.11b_Right Cheek_Ch1

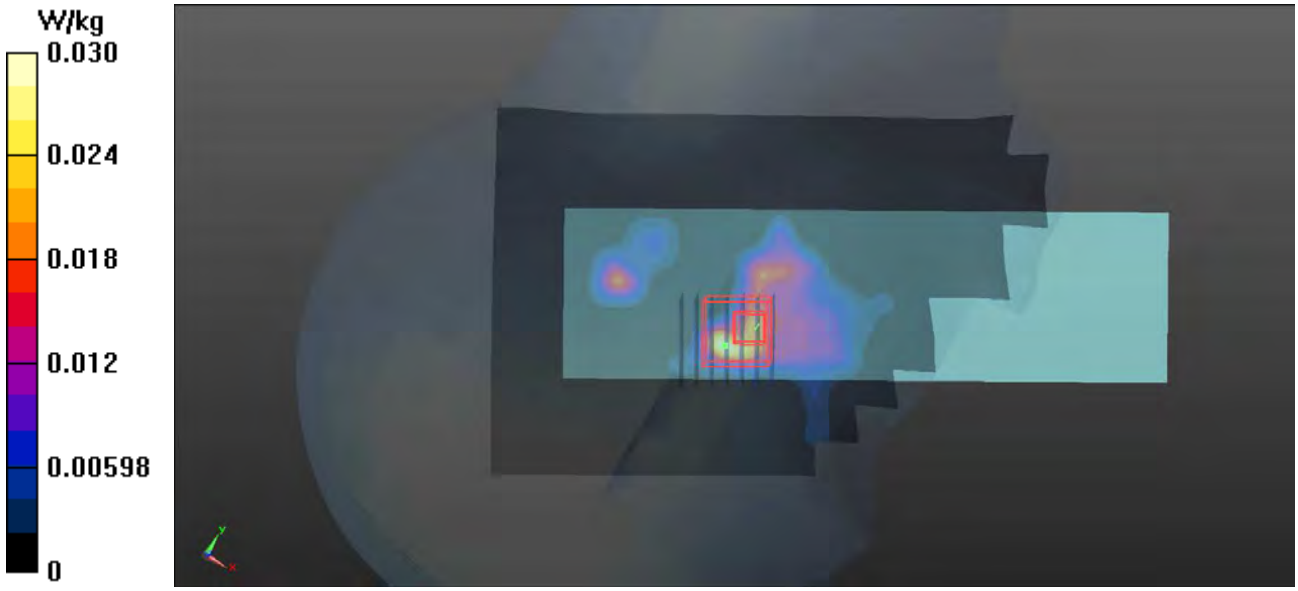
DUT: 180829W002

Communication System: 802.11b; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium: HSL2450_1026 Medium parameters used: f = 2412 MHz; σ = 1.804 S/m; ε_r = 39.561; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.19, 7.19, 7.19); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (101x191x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0299 W/kg

- Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.253 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.0280 W/kg
SAR(1 g) = 0.014 W/kg; SAR(10 g) = 0.00714 W/kg
Maximum value of SAR (measured) = 0.0203 W/kg



P21 802.11a_Left Cheek_Ch40

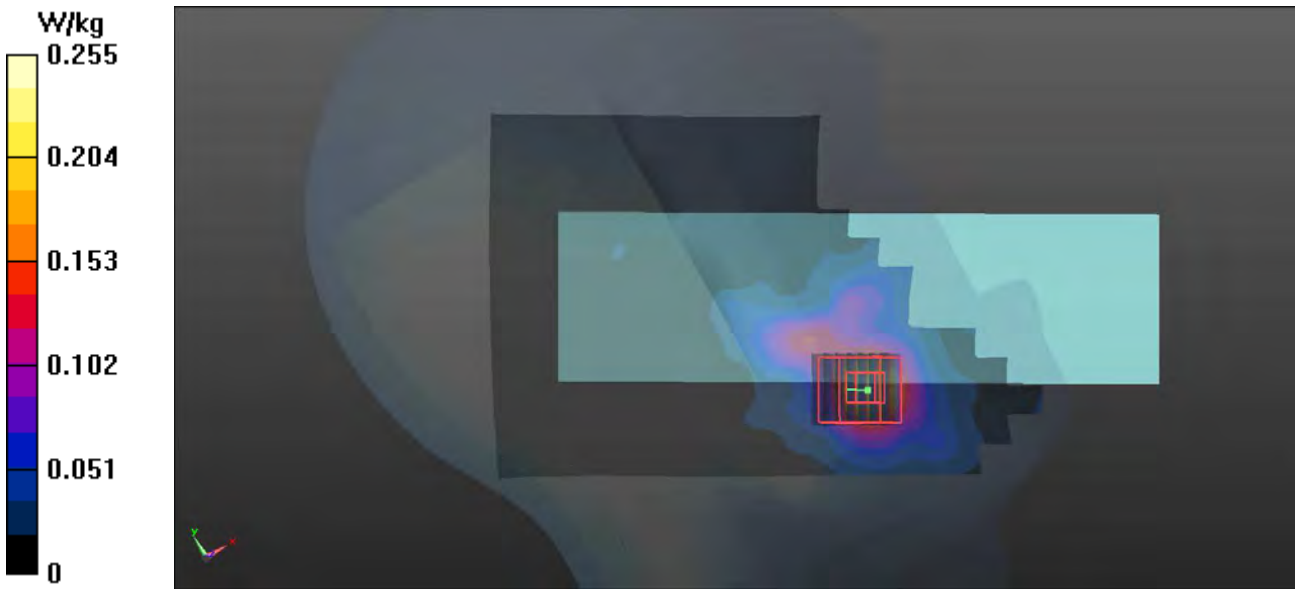
DUT: 180829W002

Communication System: 802.11a; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium: HSL5G_1018 Medium parameters used: f = 5200 MHz; σ = 4.642 S/m; ε_r = 35.413; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(4.9, 4.9, 4.9); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (121x221x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.255 W/kg

- Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.4460 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.444 W/kg
SAR(1 g) = 0.141 W/kg; SAR(10 g) = 0.056 W/kg
Maximum value of SAR (measured) = 0.250 W/kg



P22 802.11a_Left Cheek_Ch140

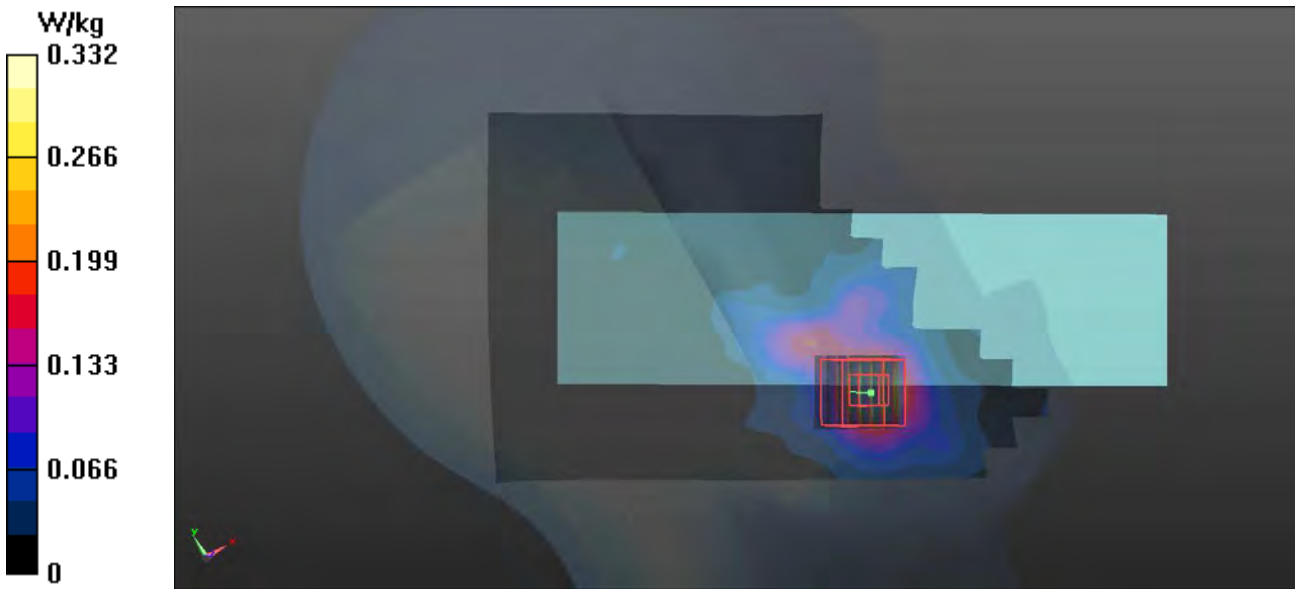
DUT: 180829W002

Communication System: 802.11a; Frequency: 5700 MHz;Duty Cycle: 1:1
Medium: HSL5G_1018 Medium parameters used: f = 5700 MHz; σ = 5.146 S/m; ε_r = 34.682; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(4.56, 4.56, 4.56); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (121x221x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.332 W/kg

- Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.6770 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.851 W/kg
SAR(1 g) = 0.204 W/kg; SAR(10 g) = 0.076 W/kg
Maximum value of SAR (measured) = 0.355 W/kg



P23 802.11a_Left Cheek_Ch157

DUT: 180829W002

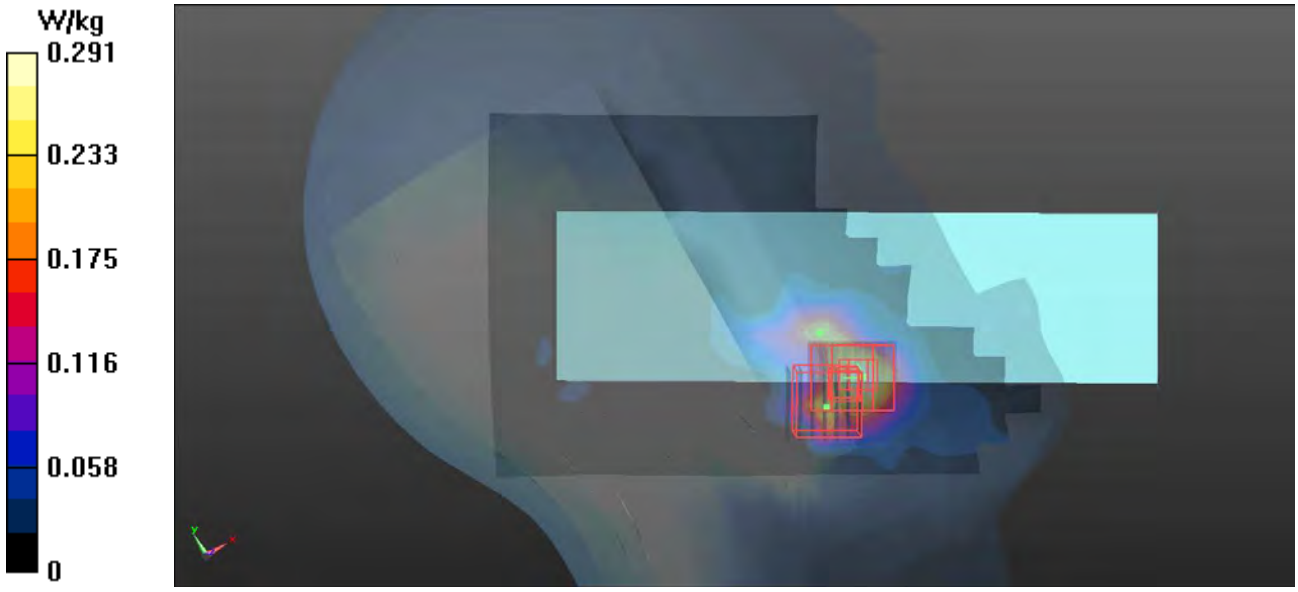
Communication System: 802.11a; Frequency: 5785 MHz;Duty Cycle: 1:1
Medium: HSL5G_1018 Medium parameters used: f = 5785 MHz; σ = 5.229 S/m; ε_r = 34.562; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(4.6, 4.6, 4.6); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (121x221x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.291 W/kg

- Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.7690 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.551 W/kg
SAR(1 g) = 0.150 W/kg; SAR(10 g) = 0.062 W/kg
Maximum value of SAR (measured) = 0.277 W/kg

- Zoom Scan (7x7x12)/Cube 1: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.7690 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.519 W/kg
SAR(1 g) = 0.137 W/kg; SAR(10 g) = 0.041 W/kg
Maximum value of SAR (measured) = 0.275 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/09/27

P24 GSM850_GPRS11_Rear Face_1.5cm_Ch251

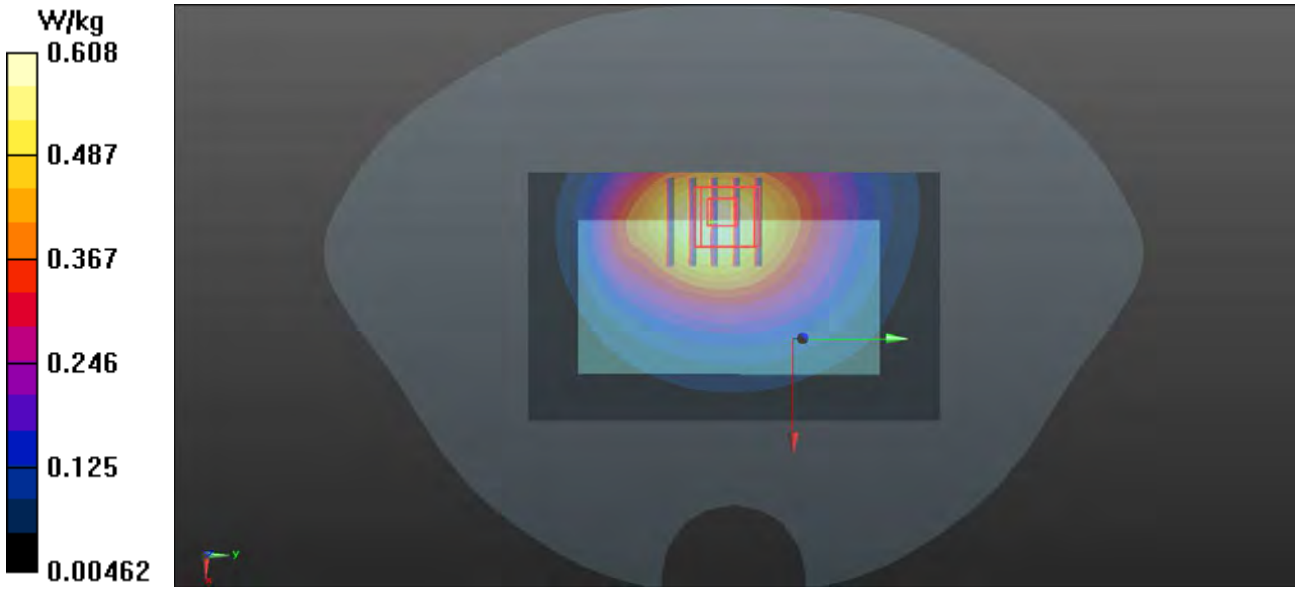
DUT: 180829W002

Communication System: GPRS11; Frequency: 848.8 MHz;Duty Cycle: 1:2.67
Medium: MSL835_0927 Medium parameters used: f = 849 MHz; σ = 1.006 S/m; ε_r = 55.471; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.608 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.54 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.30 W/kg
SAR(1 g) = 0.482 W/kg; SAR(10 g) = 0.339 W/kg
Maximum value of SAR (measured) = 0.616 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/10/08

P25 GSM1900_GPRS12_Rear Face_1.5cm_Ch661

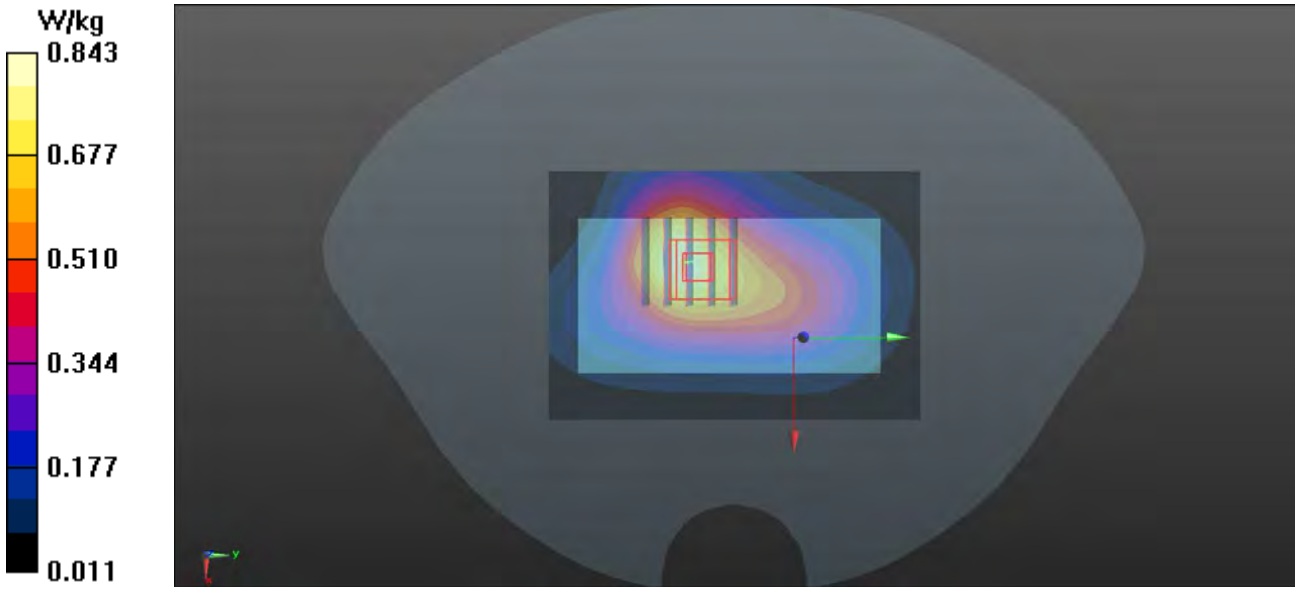
DUT: 180829W002

Communication System: GPRS12; Frequency: 1880 MHz;Duty Cycle: 1:2
Medium: MSL1900_1008 Medium parameters used: f = 1880 MHz; σ = 1.539 S/m; ε_r = 54.827; ρ = 1000 kg/m^3
Ambient Temperature：22.8 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.61, 7.61, 7.61); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.843 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.28 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.15 W/kg
SAR(1 g) = 0.575 W/kg; SAR(10 g) = 0.362 W/kg
Maximum value of SAR (measured) = 0.800 W/kg



P26 WCDMA II_RMC12.2K_Rear Face_1.5cm_Ch9538

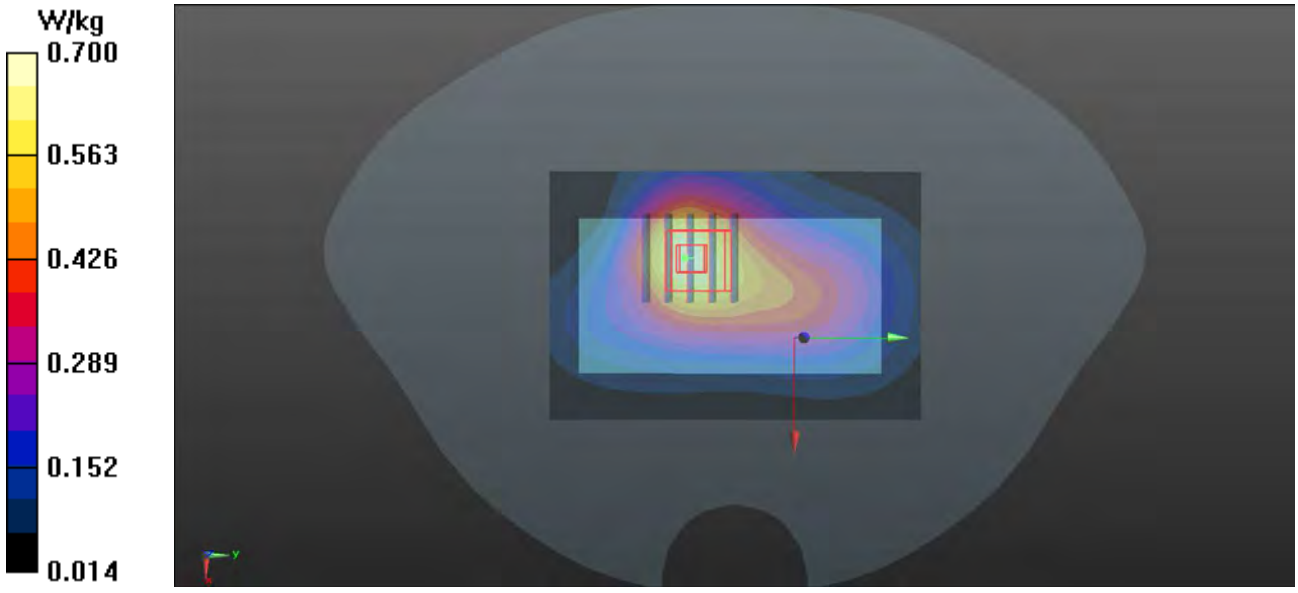
DUT: 180829W002

Communication System: WCDMA; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: MSL1900_1008 Medium parameters used: f = 1908 MHz; σ = 1.568 S/m; ε_r = 54.776; ρ = 1000 kg/m^3
Ambient Temperature：22.8 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.61, 7.61, 7.61); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.700 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.11 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.780 W/kg
SAR(1 g) = 0.488 W/kg; SAR(10 g) = 0.306 W/kg
Maximum value of SAR (measured) = 0.675 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/10/10

P27 WCDMA IV_RMC12.2K_Rear Face_1.5cm_Ch1513

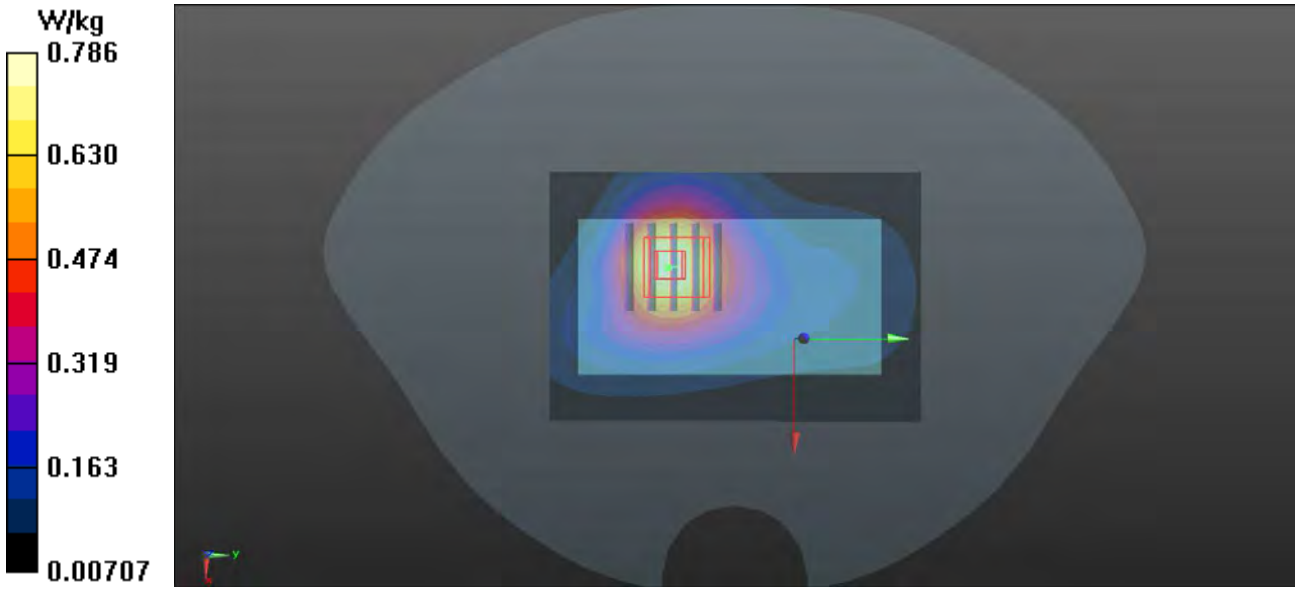
DUT: 180829W002

Communication System: WCDMA; Frequency: 1752.6 MHz;Duty Cycle: 1:1
Medium: MSL1750_1010 Medium parameters used: f = 1753 MHz; σ = 1.442 S/m; ε_r = 54.042; ρ = 1000 kg/m^3
Ambient Temperature：22.9 ℃; Liquid Temperature：21.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.8, 7.8, 7.8); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.786 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.19 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.873 W/kg
SAR(1 g) = 0.563 W/kg; SAR(10 g) = 0.350 W/kg
Maximum value of SAR (measured) = 0.762 W/kg



P28 WCDMA V_RMC12.2K_Rear Face_1.5cm_Ch4132

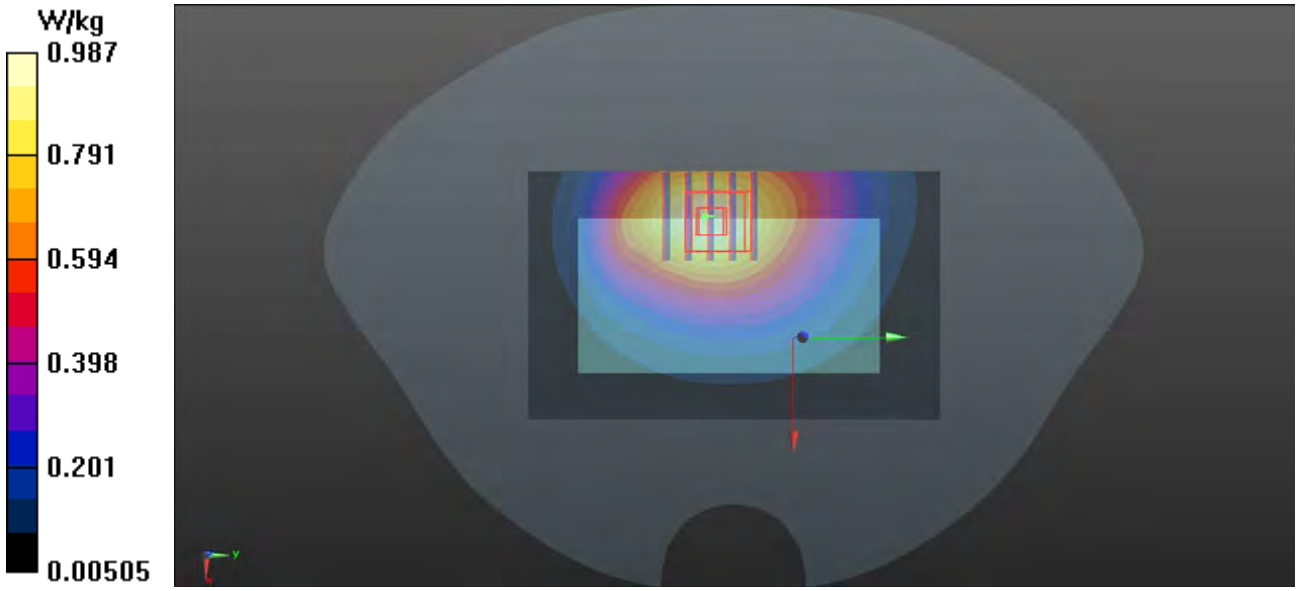
DUT: 180829W002

Communication System: WCDMA; Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium: MSL835_0927 Medium parameters used: f = 826.4 MHz; σ = 0.984 S/m; ε_r = 55.703; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.987 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.77 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.806 W/kg; SAR(10 g) = 0.578 W/kg
Maximum value of SAR (measured) = 1.01 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/09/27

P29 CDMA BC0_RC3+SO32_Rear Face_1.5cm_Ch384

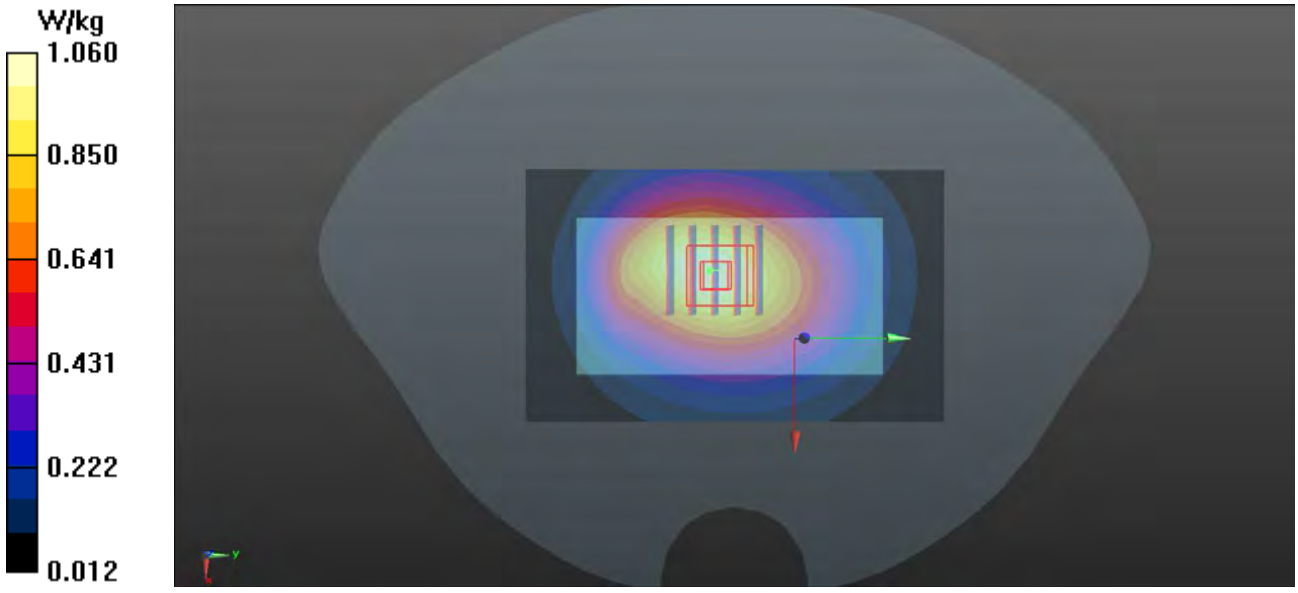
DUT: 180829W002

Communication System: CDMA2000; Frequency: 835.52 MHz;Duty Cycle: 1:1
Medium: MSL835_0927 Medium parameters used: f = 836 MHz; σ = 0.993 S/m; ε_r = 55.603; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃； Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.06 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.59 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.17 W/kg
SAR(1 g) = 0.860 W/kg; SAR(10 g) = 0.619 W/kg
Maximum value of SAR (measured) = 1.07 W/kg



P30 CDMA BC1_RC3+SO32_Rear Face_1.5cm_Ch600

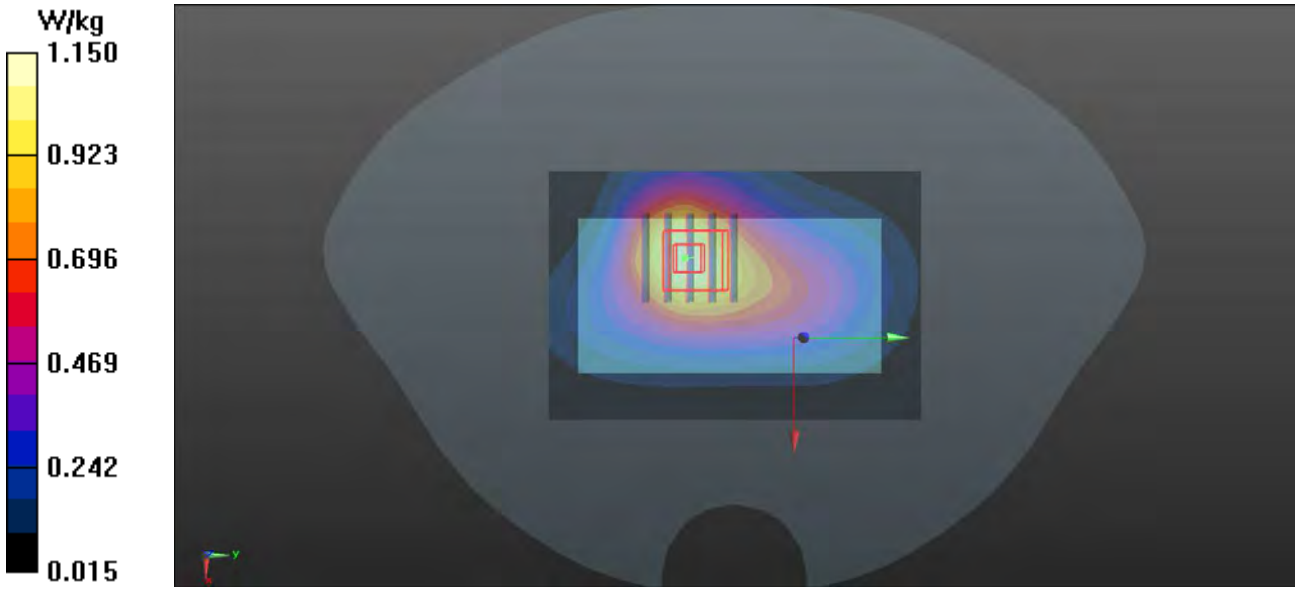
DUT: 180829W002

Communication System: CDMA2000; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: MSL1900_1008 Medium parameters used: f = 1880 MHz; σ = 1.539 S/m; ε_r = 54.827; ρ = 1000 kg/m^3
Ambient Temperature：22.8 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.61, 7.61, 7.61); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.15 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.70 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.27 W/kg
SAR(1 g) = 0.810 W/kg; SAR(10 g) = 0.513 W/kg
Maximum value of SAR (measured) = 1.11 W/kg



P31 CDMA BC10_RC3+SO32_Rear Face_1.5cm_Ch684

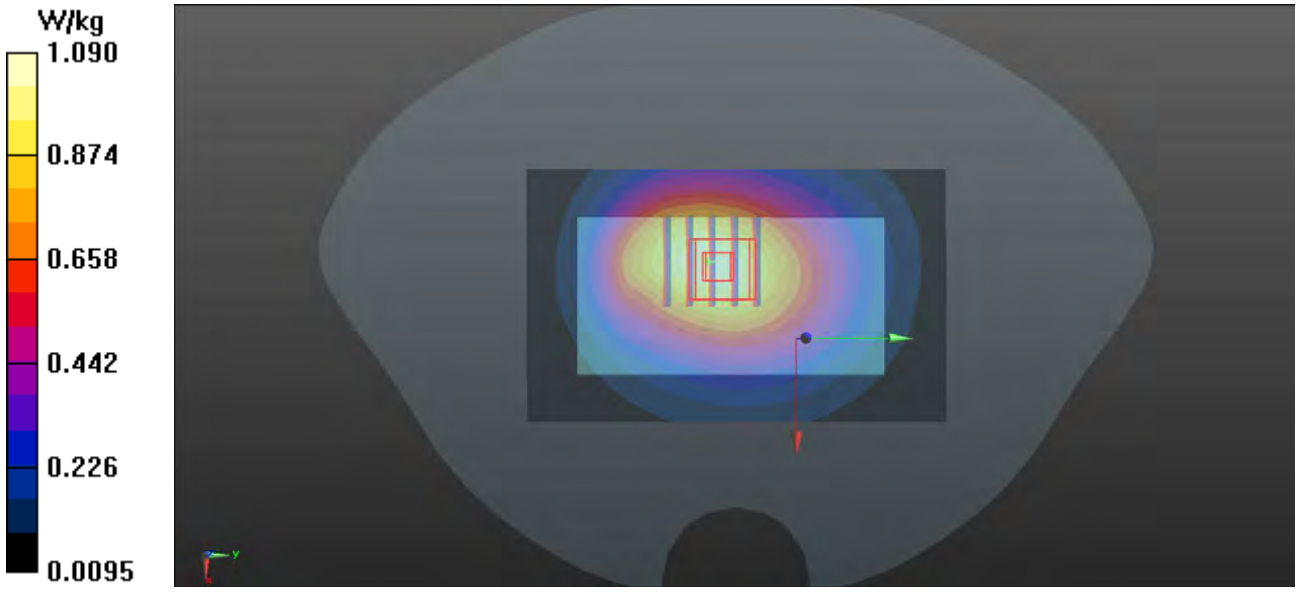
DUT: 180829W002

Communication System: CDMA2000; Frequency: 823.1 MHz;Duty Cycle: 1:1
Medium: MSL835_0927 Medium parameters used: f = 823.1 MHz; σ = 0.98 S/m; ε_r = 55.736; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.09 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.98 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.21 W/kg
SAR(1 g) = 0.888 W/kg; SAR(10 g) = 0.641 W/kg
Maximum value of SAR (measured) = 1.10 W/kg



P32 LTE 2_QPSK20M_Rear Face_1.5cm_Ch18900_1RB_OS0

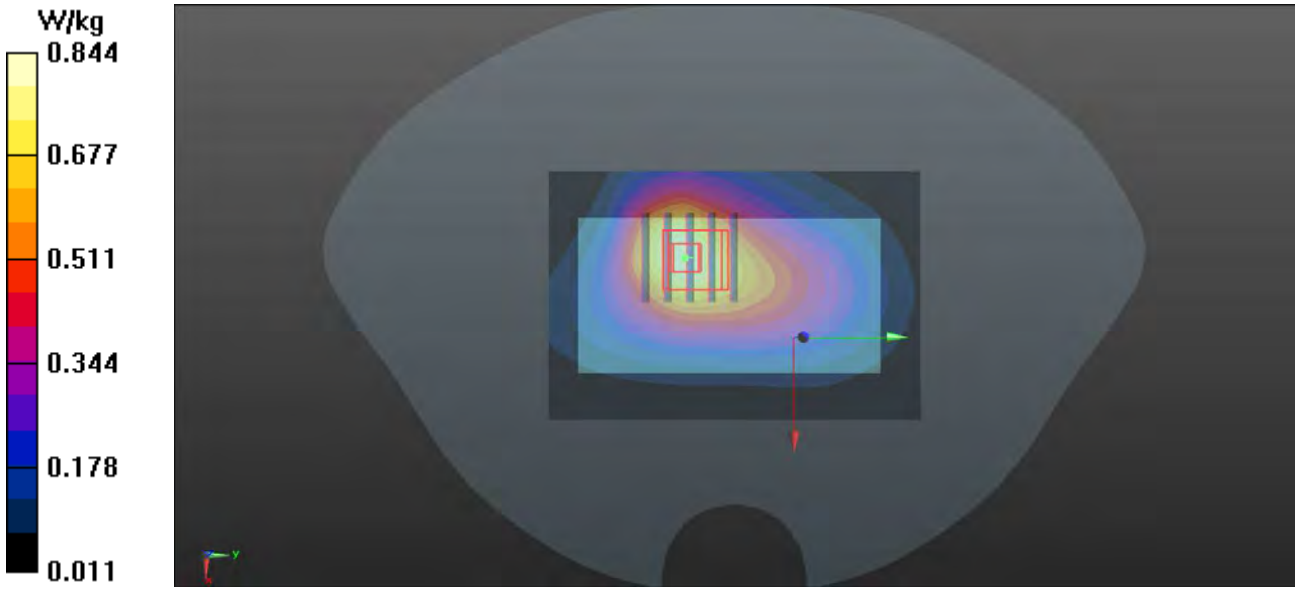
DUT: 180829W002

Communication System: LTE; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: MSL1900_1008 Medium parameters used: f = 1880 MHz; σ = 1.539 S/m; ε_r = 54.827; ρ = 1000 kg/m^3
Ambient Temperature：22.8 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.61, 7.61, 7.61); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.844 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.53 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.928 W/kg
SAR(1 g) = 0.590 W/kg; SAR(10 g) = 0.377 W/kg
Maximum value of SAR (measured) = 0.805 W/kg



P33 LTE 4_QPSK20M_Rear Face_1.5cm_Ch20300_1RB_OS0

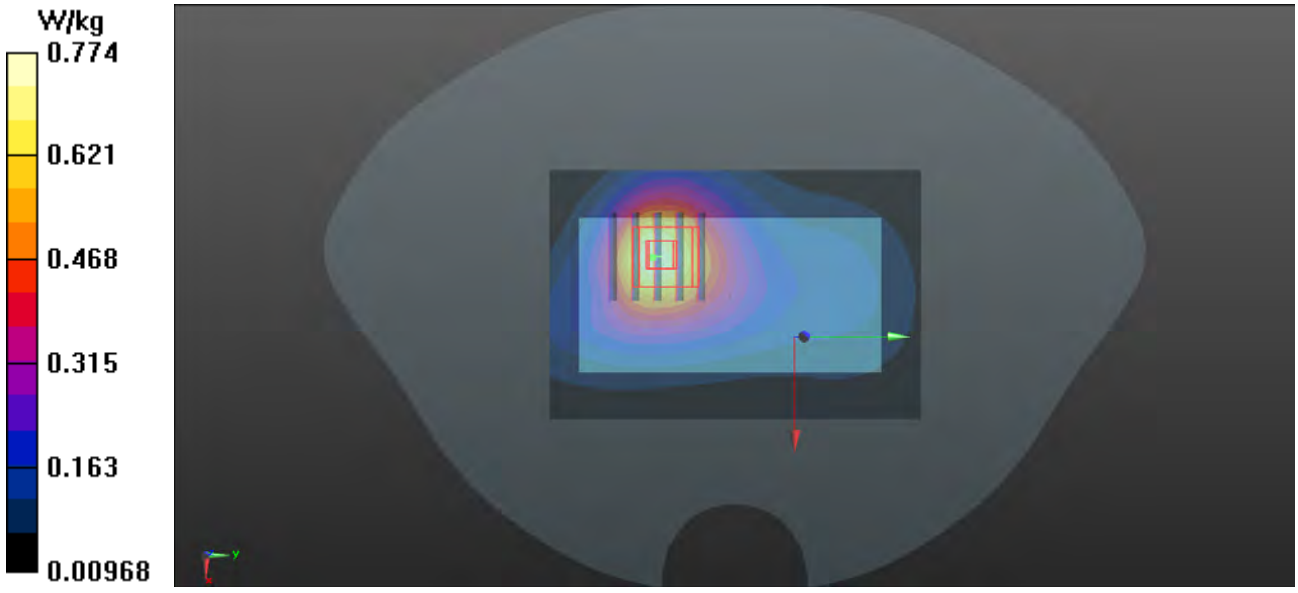
DUT: 180829W002

Communication System: LTE; Frequency: 1745 MHz;Duty Cycle: 1:1
Medium: MSL1750_1010 Medium parameters used: f = 1745 MHz; σ = 1.435 S/m; ε_r = 54.063; ρ = 1000 kg/m^3
Ambient Temperature：22.9 ℃; Liquid Temperature：21.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(8.39, 8.39, 8.39); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.774 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.82 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.832 W/kg
SAR(1 g) = 0.533 W/kg; SAR(10 g) = 0.334 W/kg
Maximum value of SAR (measured) = 0.715 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/09/27

P34 LTE 5_QPSK10M_Rear Face_1.5cm_Ch20525_1RB_OS24

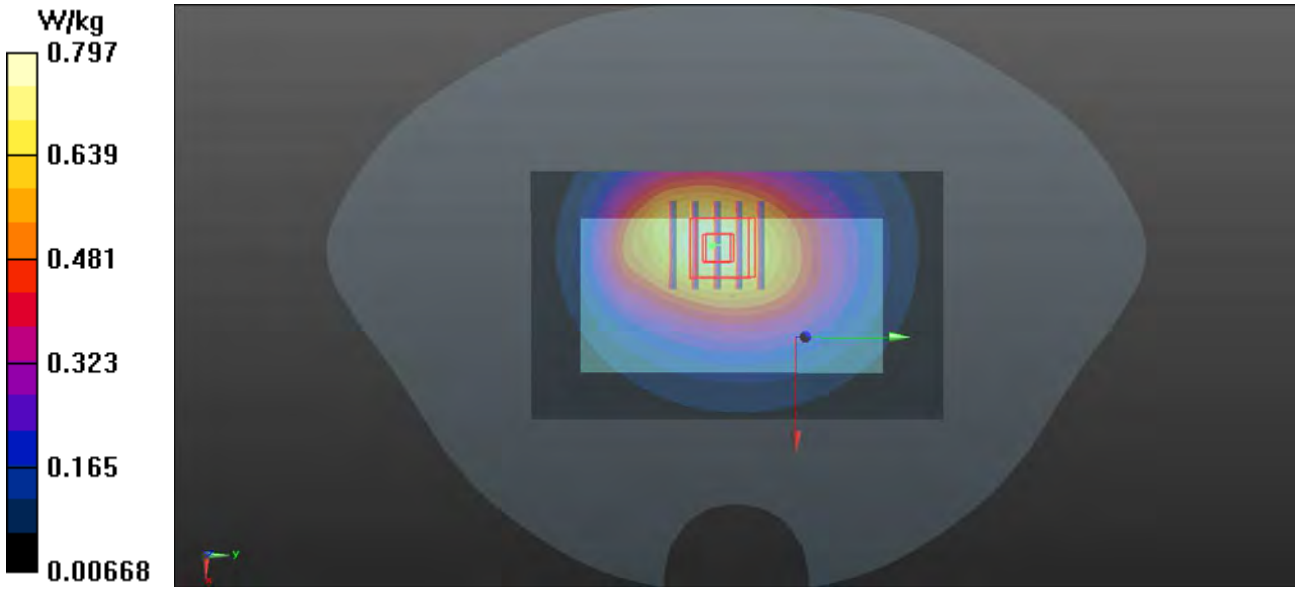
DUT: 180829W002

Communication System: LTE; Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium: MSL835_0927 Medium parameters used: f = 836.5 MHz; σ = 0.993 S/m; ε_r = 55.598; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃； Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.797 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.73 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.894 W/kg
SAR(1 g) = 0.654 W/kg; SAR(10 g) = 0.466 W/kg
Maximum value of SAR (measured) = 0.817 W/kg



P35 LTE 12_QPSK10M_Rear Face_1.5cm_Ch23130_1RB_OS24

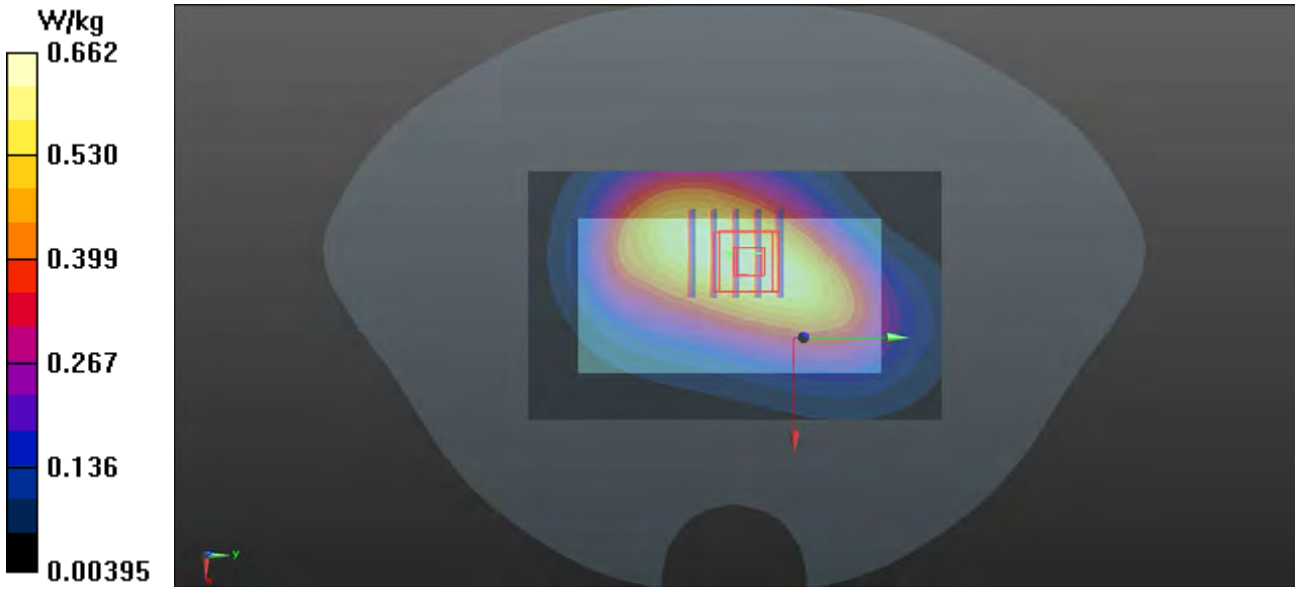
DUT: 180829W002

Communication System: LTE; Frequency: 711 MHz;Duty Cycle: 1:1
Medium: MSL750_0926 Medium parameters used: f = 711 MHz; σ = 0.943 S/m; ε_r = 56.462; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃； Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.67, 9.67, 9.67); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.662 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.91 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.716 W/kg
SAR(1 g) = 0.538 W/kg; SAR(10 g) = 0.402 W/kg
Maximum value of SAR (measured) = 0.651 W/kg



P36 LTE 13_QPSK10M_Rear Face_1.5cm_Ch23230_1RB_OS24

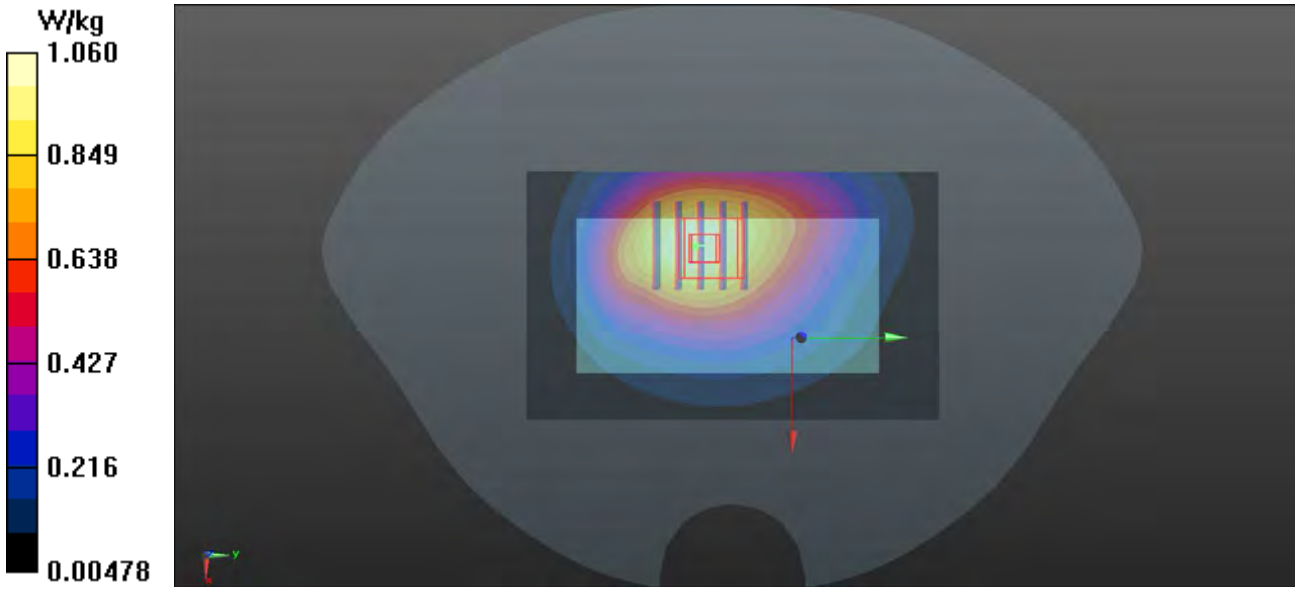
DUT: 180829W002

Communication System: LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium: MSL750_0926 Medium parameters used: f = 782 MHz; σ = 1.001 S/m; ε_r = 55.856; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.67, 9.67, 9.67); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.06 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.03 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.846 W/kg; SAR(10 g) = 0.606 W/kg
Maximum value of SAR (measured) = 1.05 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/09/26

P37 LTE 14_QPSK10M_Rear Face_1.5cm_Ch23330_1RB_OS24

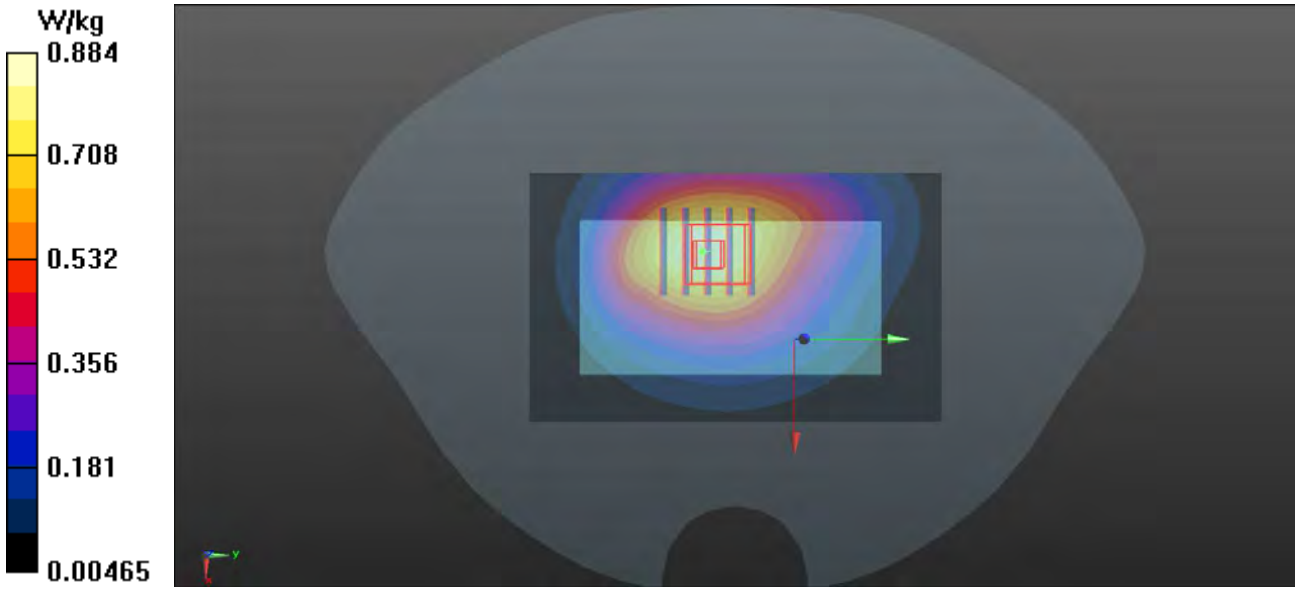
DUT: 180829W002

Communication System: LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium: MSL750_0926 Medium parameters used: f = 793 MHz; σ = 1.009 S/m; ε_r = 55.746; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.67, 9.67, 9.67); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.884 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.33 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.960 W/kg
SAR(1 g) = 0.702 W/kg; SAR(10 g) = 0.506 W/kg
Maximum value of SAR (measured) = 0.878 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/10/08

P38 LTE 25_QPSK20M_Rear Face_1.5cm_Ch26365_1RB_OS0

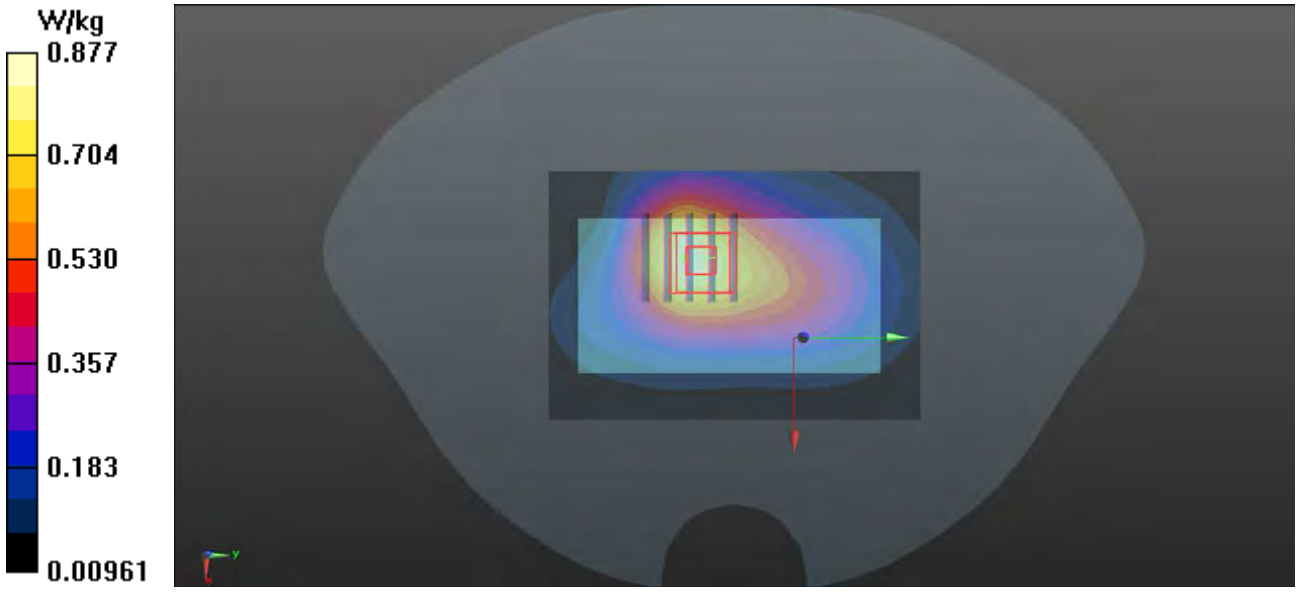
DUT: 180829W002

Communication System: LTE; Frequency: 1882.5 MHz;Duty Cycle: 1:1
Medium: MSL1900_1008 Medium parameters used: f = 1882.5 MHz; σ = 1.542 S/m; ε_r = 54.82; ρ = 1000 kg/m^3
Ambient Temperature：22.8 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.61, 7.61, 7.61); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.877 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.22 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.970 W/kg
SAR(1 g) = 0.612 W/kg; SAR(10 g) = 0.394 W/kg
Maximum value of SAR (measured) = 0.830 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/09/27

P39 LTE 26_QPSK15M_Rear Face_1.5cm_Ch26865_1RB_OS37

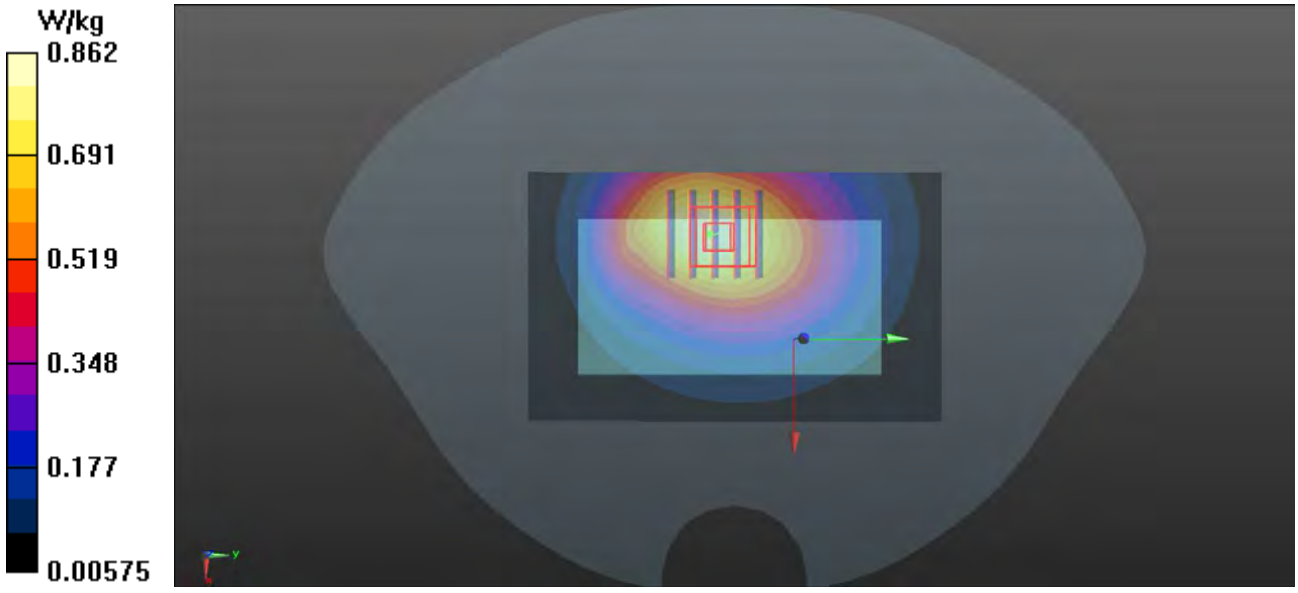
DUT: 180829W002

Communication System: LTE; Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium: MSL835_0927 Medium parameters used: f = 831.5 MHz; σ = 0.988 S/m; ε_r = 55.65; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃； Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.862 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.18 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.933 W/kg
SAR(1 g) = 0.694 W/kg; SAR(10 g) = 0.500 W/kg
Maximum value of SAR (measured) = 0.853 W/kg



P40 LTE 38_QPSK20M_Rear Face_1.5cm_Ch37850_1RB_OS50

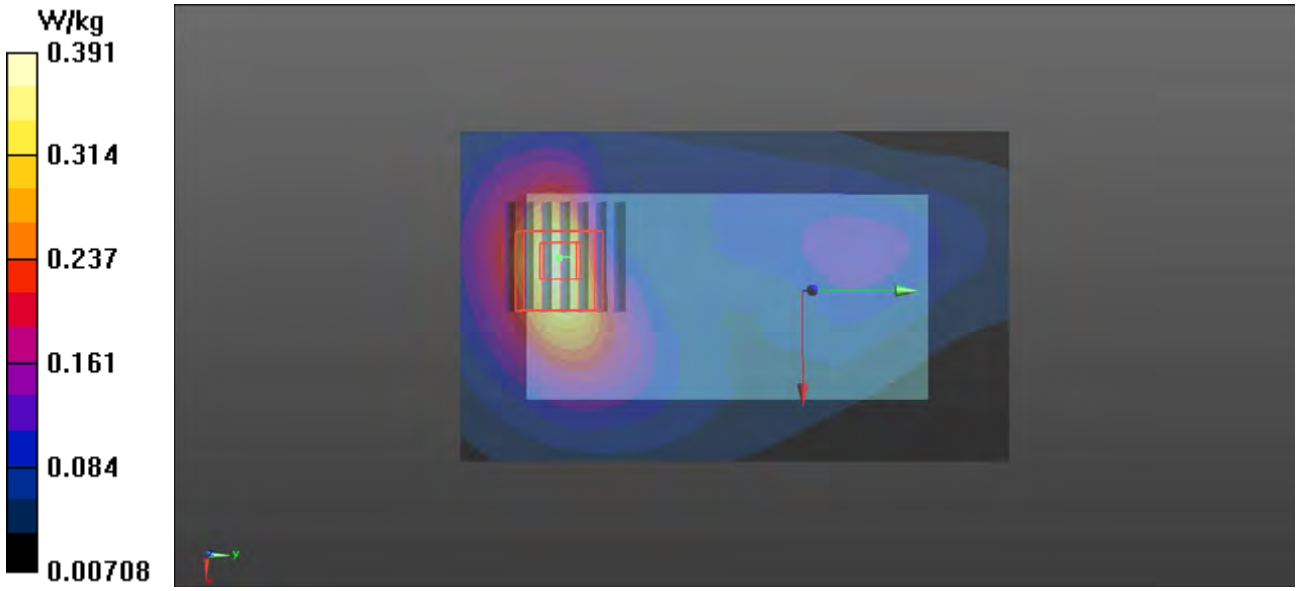
DUT: 180829W002

Communication System: LTE; Frequency: 2580 MHz;Duty Cycle: 1:1.58
Medium: MSL2600_1025 Medium parameters used: f = 2580 MHz; σ = 2.07 S/m; ε_r = 50.804; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.28, 7.28, 7.28); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (81x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.391 W/kg

- Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.567 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.452 W/kg
SAR(1 g) = 0.235 W/kg; SAR(10 g) = 0.126 W/kg
Maximum value of SAR (measured) = 0.366 W/kg



P41 LTE 41_QPSK20M_Rear Face_1.5cm_Ch41490_1RB_OS50

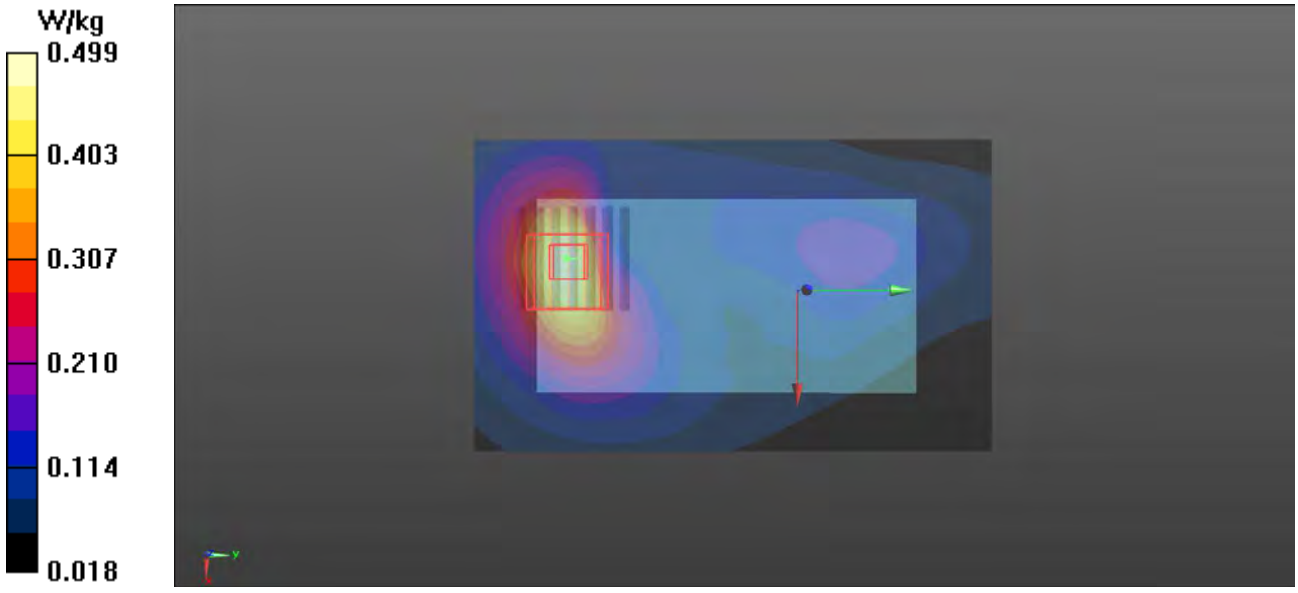
DUT: 180829W002

Communication System: LTE; Frequency: 2680 MHz;Duty Cycle: 1:1.58
Medium: MSL2600_1025 Medium parameters used: f = 2680 MHz; σ = 2.191 S/m; ε_r = 50.511; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.28, 7.28, 7.28); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (81x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.499 W/kg

- Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.853 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.673 W/kg
SAR(1 g) = 0.326 W/kg; SAR(10 g) = 0.165 W/kg
Maximum value of SAR (measured) = 0.517 W/kg



P42 LTE 66_QPSK20M_Rear Face_1.5cm_Ch132572_1RB_OS0

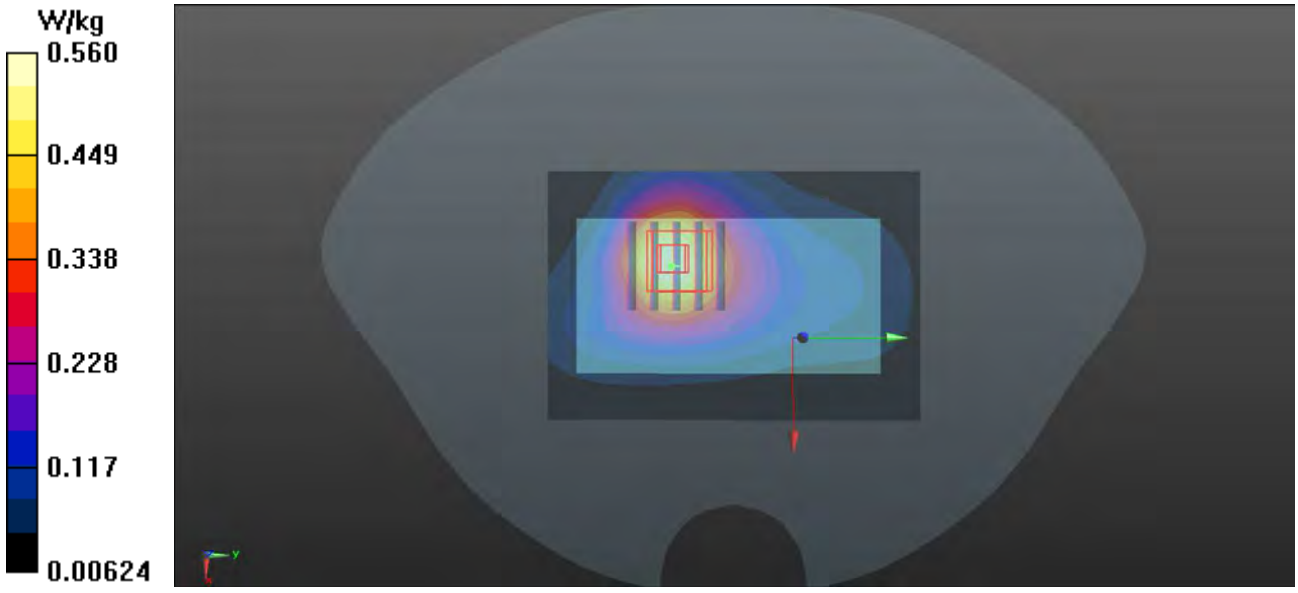
DUT: 180829W002

Communication System: LTE; Frequency: 1770 MHz;Duty Cycle: 1:1
Medium: MSL1750_1010 Medium parameters used: f = 1770 MHz; σ = 1.458 S/m; ε_r = 53.995; ρ = 1000 kg/m^3
Ambient Temperature：22.9 ℃; Liquid Temperature：21.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(8.39, 8.39, 8.39); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.560 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.34 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.637 W/kg
SAR(1 g) = 0.402 W/kg; SAR(10 g) = 0.249 W/kg
Maximum value of SAR (measured) = 0.549 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/10/19

P43 802.11b_Rear Face_1.5cm_Ch1

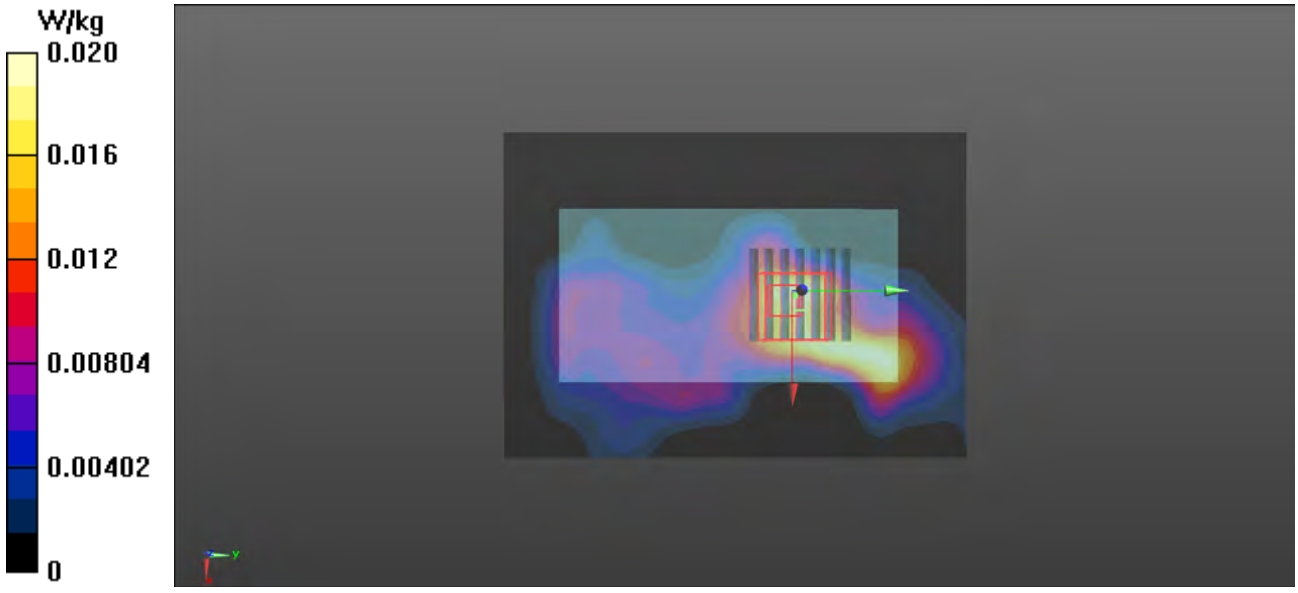
DUT: 180829W002

Communication System: 802.11b; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium: MSL2450_1019 Medium parameters used: f = 2412 MHz; σ = 1.917 S/m; ε_r = 51.716; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.39, 7.39, 7.39); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (91x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0201 W/kg

- Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.945 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.0390 W/kg
SAR(1 g) = 0.011 W/kg; SAR(10 g) = 0.00579 W/kg
Maximum value of SAR (measured) = 0.0174 W/kg



P44 802.11a_Rear Face_1.5cm_Ch40

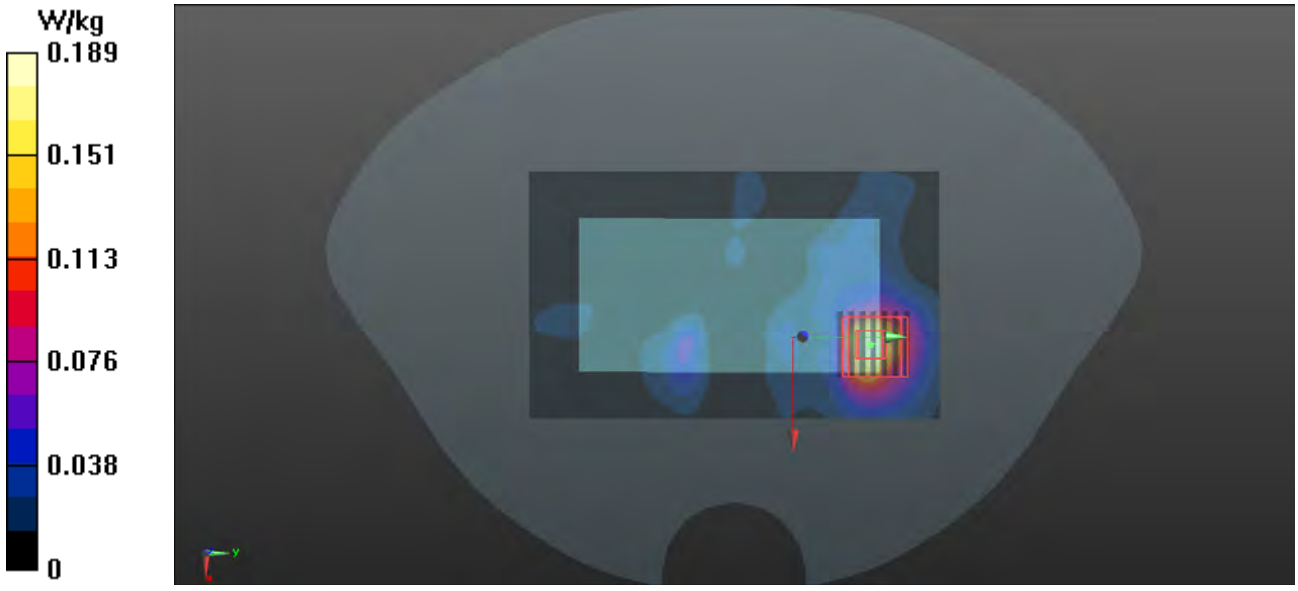
DUT: 180829W002

Communication System: 802.11a; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium: MSL5G_1017 Medium parameters used: f = 5200 MHz; σ = 5.278 S/m; ε_r = 48.936; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(4.27, 4.27, 4.27); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (91x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.189 W/kg

- Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.042 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.246 W/kg
SAR(1 g) = 0.084 W/kg; SAR(10 g) = 0.034 W/kg
Maximum value of SAR (measured) = 0.190 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/10/17

P45 802.11a_Rear Face_1.5cm_Ch140

DUT: 180829W002

Communication System: 802.11a; Frequency: 5700 MHz;Duty Cycle: 1:1
Medium: MSL5G_1017 Medium parameters used: f = 5700 MHz; σ = 6.005 S/m; ε_r = 47.917; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(3.77, 3.77, 3.77); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (91x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.479 W/kg

- Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.073 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.777 W/kg
SAR(1 g) = 0.199 W/kg; SAR(10 g) = 0.074 W/kg
Maximum value of SAR (measured) = 0.446 W/kg

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/10/17

P46 802.11a_Rear Face_1.5cm_Ch157

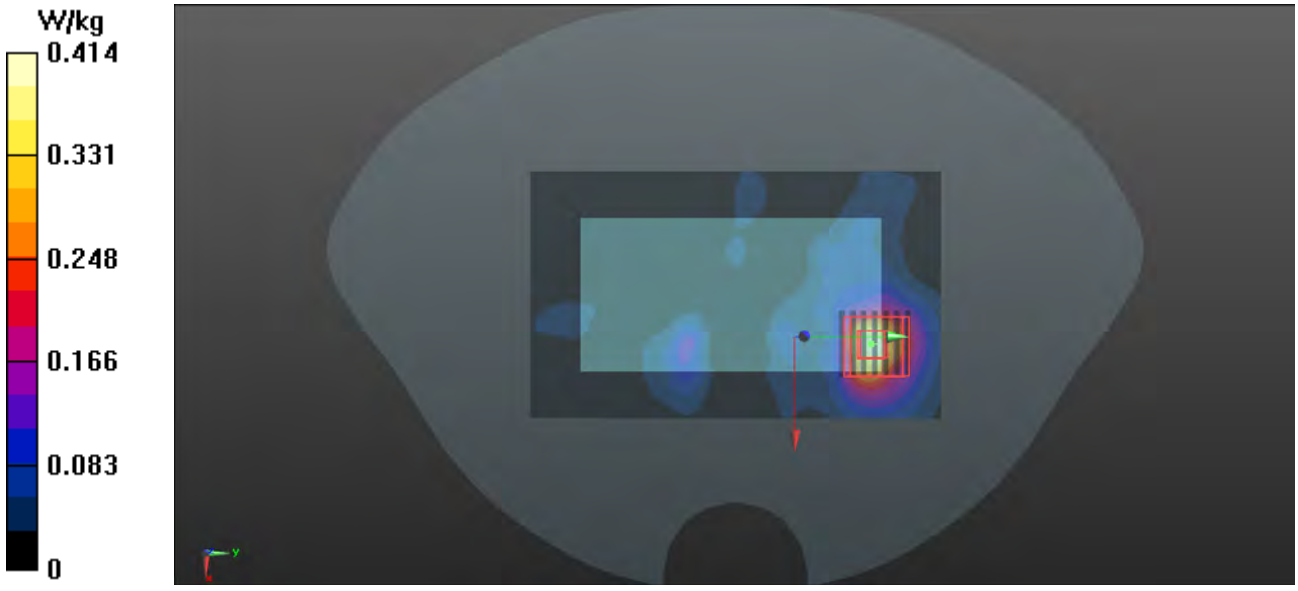
DUT: 180829W002

Communication System: 802.11a; Frequency: 5785 MHz;Duty Cycle: 1:1
Medium: MSL5G_1017 Medium parameters used: f = 5785 MHz; σ = 6.073 S/m; ε_r = 47.741; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(4, 4, 4); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (91x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.414 W/kg

- Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.098 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.647 W/kg
SAR(1 g) = 0.167 W/kg; SAR(10 g) = 0.062 W/kg
Maximum value of SAR (measured) = 0.397 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/09/27

P47 GSM850_GPRS11_Rear Face_1cm_Ch128

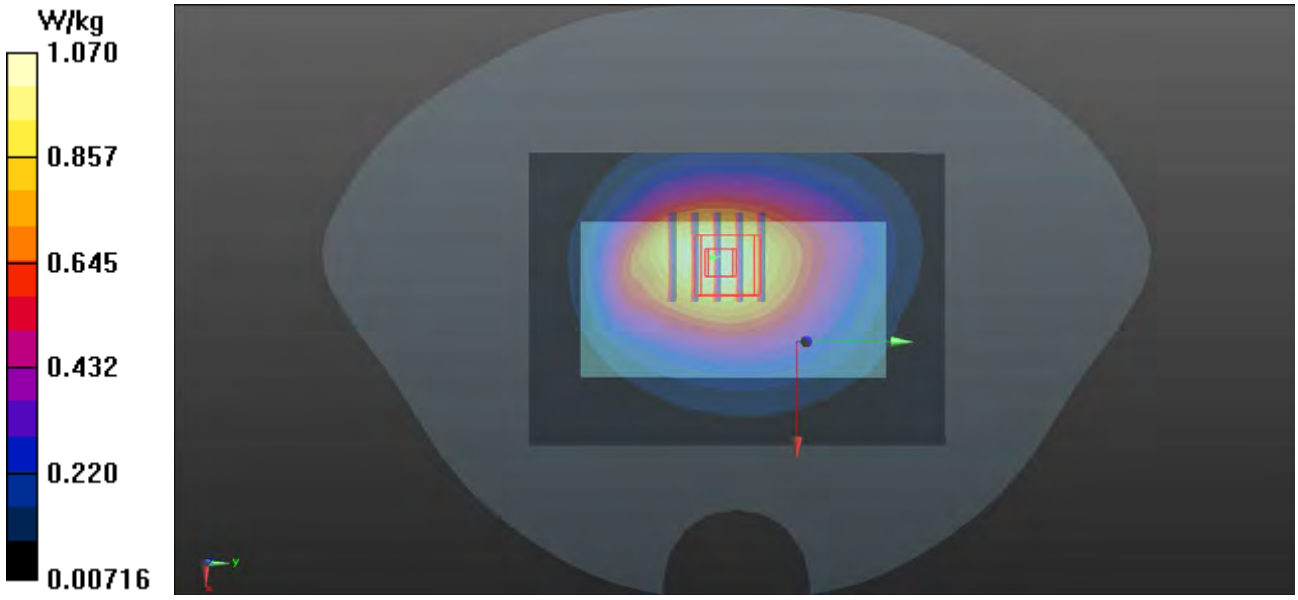
DUT: 180829W002

Communication System: GPRS11; Frequency: 824.2 MHz;Duty Cycle: 1:2.67
Medium: MSL835_0927 Medium parameters used : f = 824.2 MHz; σ = 0.982 S/m; ε_r = 55.725; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃； Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.07 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.73 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.18 W/kg
SAR(1 g) = 0.865 W/kg; SAR(10 g) = 0.623 W/kg
Maximum value of SAR (measured) = 1.08 W/kg



P48 GSM1900_GPRS12_Rear Face_1cm_Ch512

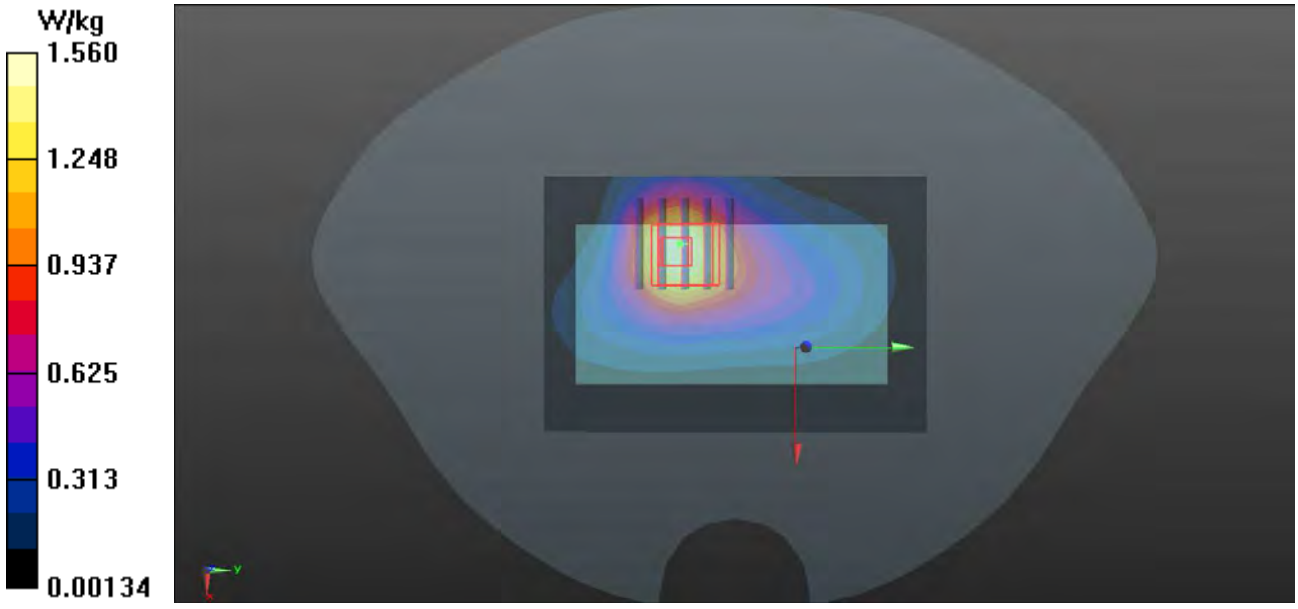
DUT: 180829W002

Communication System: GPRS12; Frequency: 1850.2 MHz;Duty Cycle: 1:2
Medium: MSL1900_1008 Medium parameters used: f = 1850.2 MHz; σ = 1.502 S/m; ε_r = 54.945; ρ = 1000 kg/m^3
Ambient Temperature：22.8 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.61, 7.61, 7.61); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.56 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.65 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 1.73 W/kg
SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.684 W/kg
Maximum value of SAR (measured) = 1.48 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/10/08

P49 WCDMA II_RMC12.2K_Rear Face_1cm_Ch9262

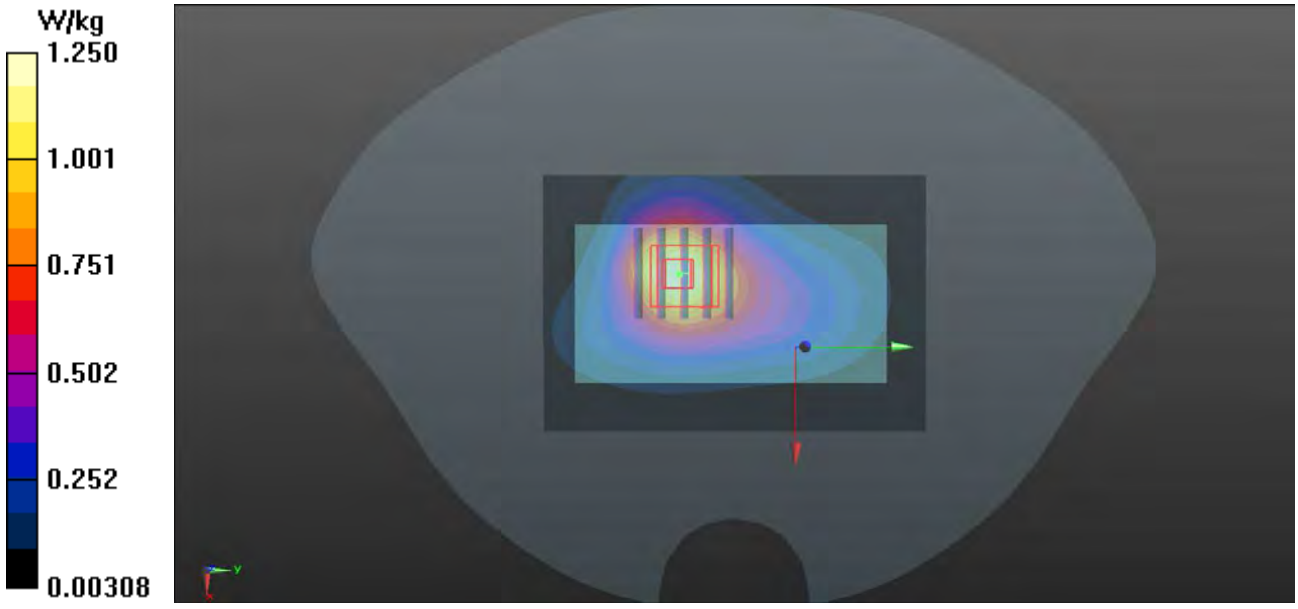
DUT: 180829W002

Communication System: WCDMA; Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium: MSL1900_1008 Medium parameters used: f = 1852.4 MHz; σ = 1.504 S/m; ε_r = 54.937; ρ = 1000 kg/m^3
Ambient Temperature：22.8 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.61, 7.61, 7.61); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.25 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.85 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.863 W/kg; SAR(10 g) = 0.541 W/kg
Maximum value of SAR (measured) = 1.17 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/10/10

P50 WCDMA IV_RMC12.2K_Rear Face_1cm_Ch1312

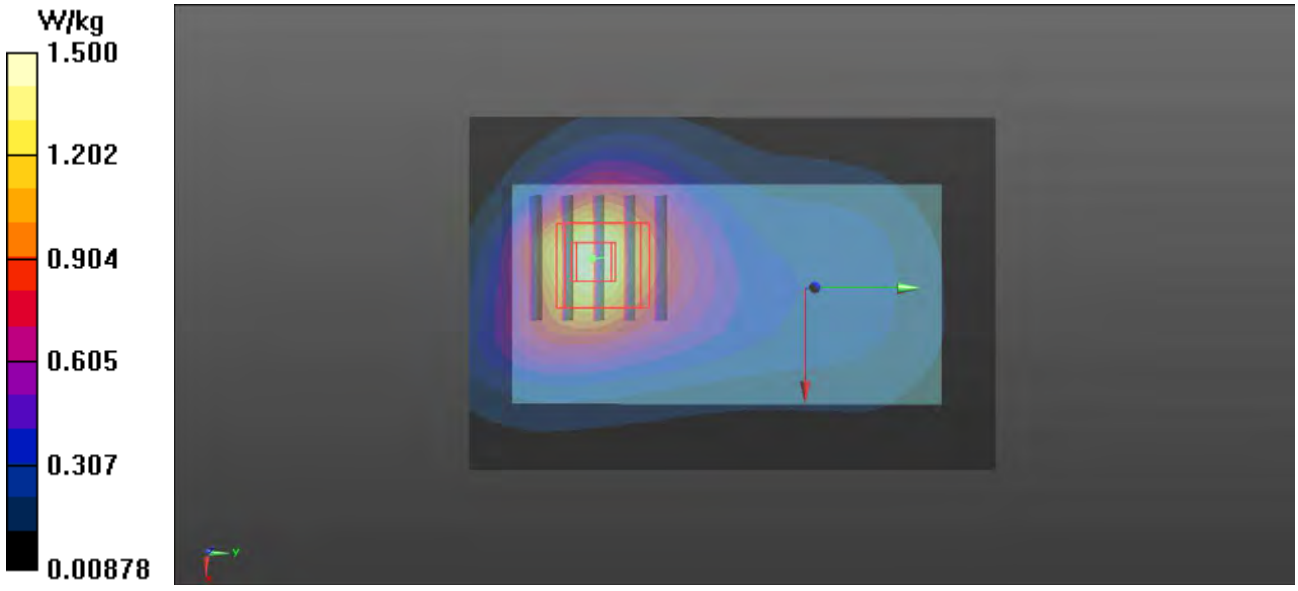
DUT: 180829W002

Communication System: WCDMA; Frequency: 1712.4 MHz;Duty Cycle: 1:1
Medium: MSL1750_1010 Medium parameters used: f = 1712.4 MHz; σ = 1.407 S/m; ε_r = 54.128; ρ = 1000 kg/m^3
Ambient Temperature：22.9 ℃; Liquid Temperature：21.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.8, 7.8, 7.8); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.50 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.82 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.61 W/kg
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.630 W/kg
Maximum value of SAR (measured) = 1.39 W/kg



P51 WCDMA V_RMC12.2K_Rear Face_1cm_Ch4182

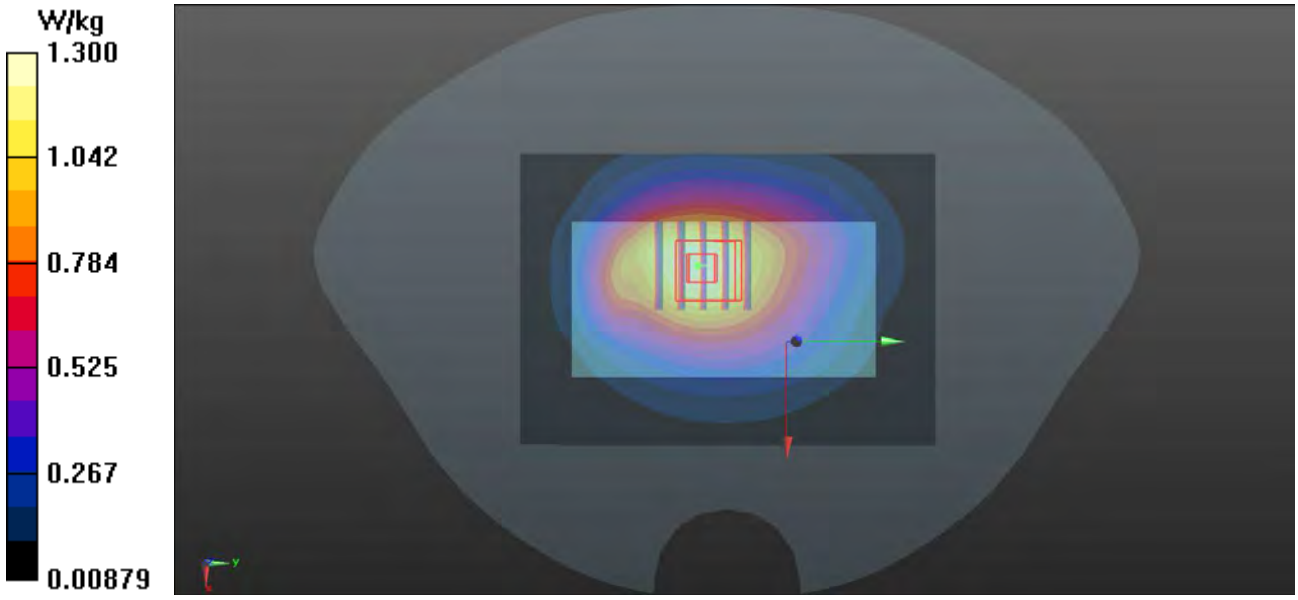
DUT: 180829W002

Communication System: WCDMA; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL835_0927 Medium parameters used: f = 836.4 MHz; σ = 0.993 S/m; ε_r = 55.599; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.30 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.66 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.44 W/kg
SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.756 W/kg
Maximum value of SAR (measured) = 1.31 W/kg



P52 CDMA BC0_RTAP 153.6_Rear Face_1cm_Ch1013

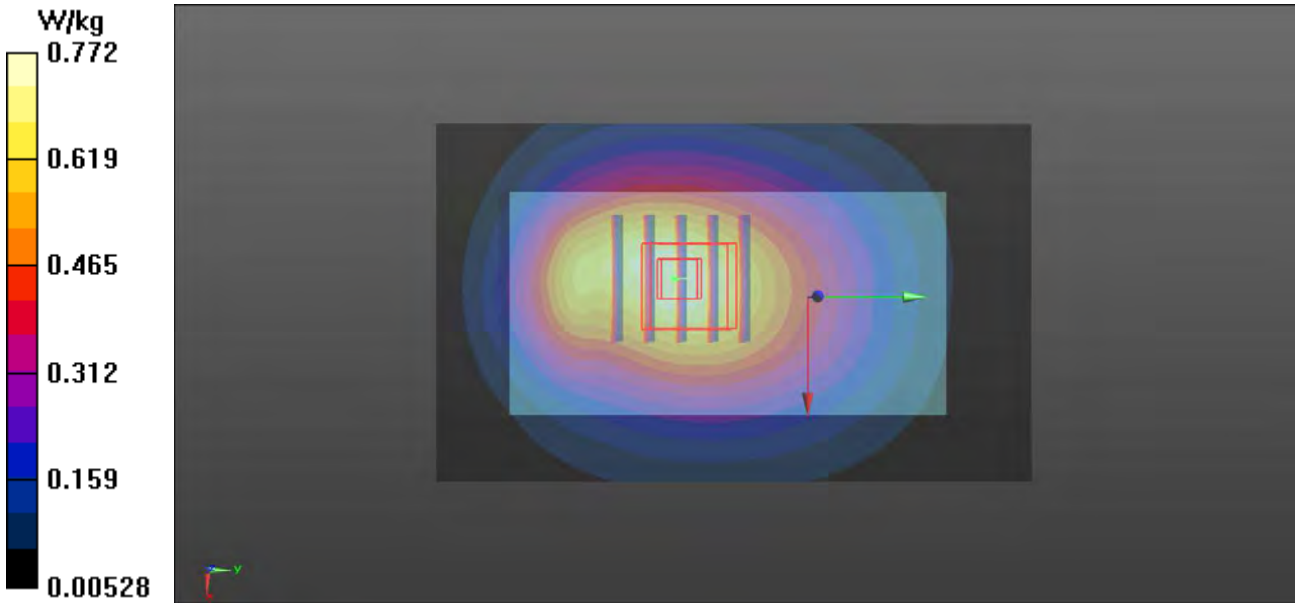
DUT: 180829W002

Communication System: CDMA2000; Frequency: 824.7 MHz;Duty Cycle: 1:1
Medium: MSL835_1219 Medium parameters used: f = 825 MHz; σ = 0.978 S/m; ε_r = 54.751; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.772 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.83 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.861 W/kg
SAR(1 g) = 0.629 W/kg; SAR(10 g) = 0.447 W/kg
Maximum value of SAR (measured) = 0.789 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/12/21

P53 CDMA BC1_RTAP 153.6_Rear Face_1cm_Ch600

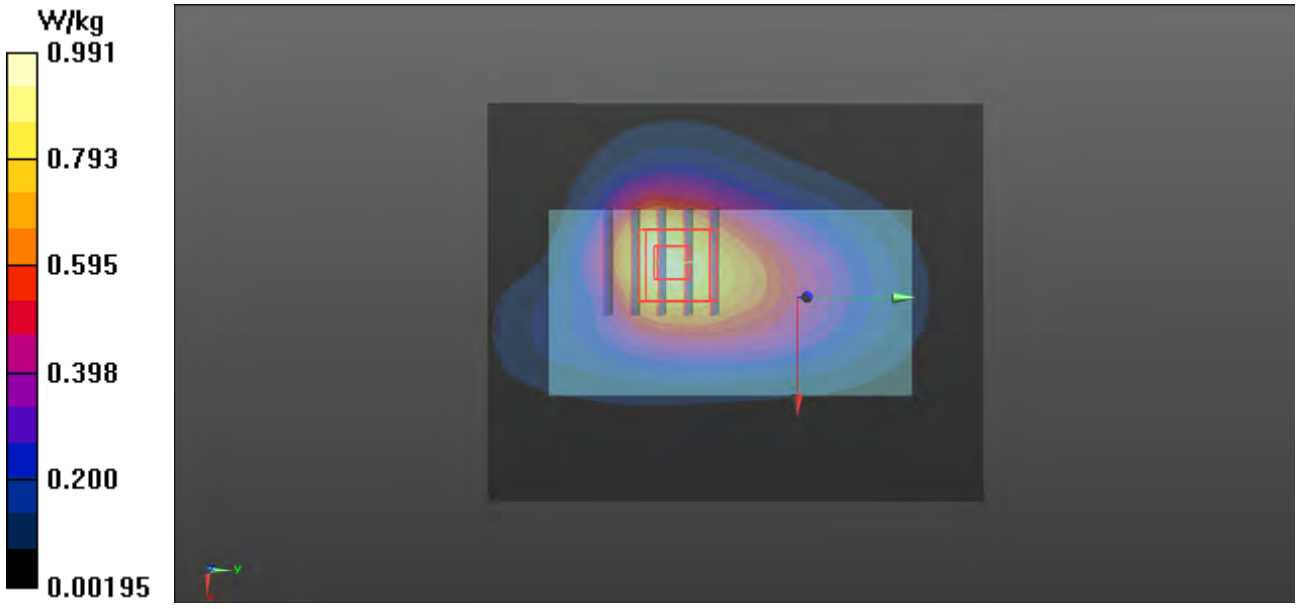
DUT: 180829W002

Communication System: CDMA2000; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: MSL1900_1221 Medium parameters used: f = 1880 MHz; σ = 1.501 S/m; ε_r = 52.028; ρ = 1000 kg/m^3
Ambient Temperature：22.8 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.61, 7.61, 7.61); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (81x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.991 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.75 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.670 W/kg; SAR(10 g) = 0.431 W/kg
Maximum value of SAR (measured) = 0.894 W/kg



P54 CDMA BC10_RTAP 153.6_Rear Face_1cm_Ch476

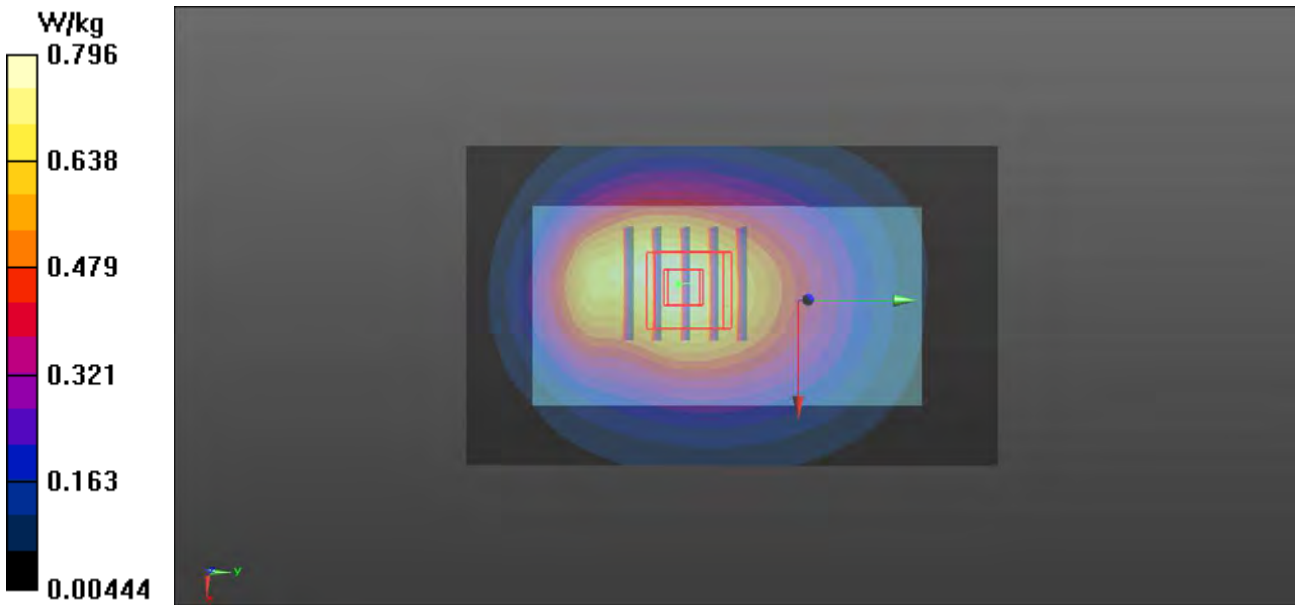
DUT: 180829W002

Communication System: CDMA2000; Frequency: 817.9 MHz;Duty Cycle: 1:1
Medium: MSL835_1219 Medium parameters used: f = 818 MHz; σ = 0.969 S/m; ε_r = 54.848; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.796 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.51 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.881 W/kg
SAR(1 g) = 0.647 W/kg; SAR(10 g) = 0.461 W/kg
Maximum value of SAR (measured) = 0.806 W/kg



P55 LTE 2_QPSK20M_Rear Face_1cm_Ch18900_1RB_OS0

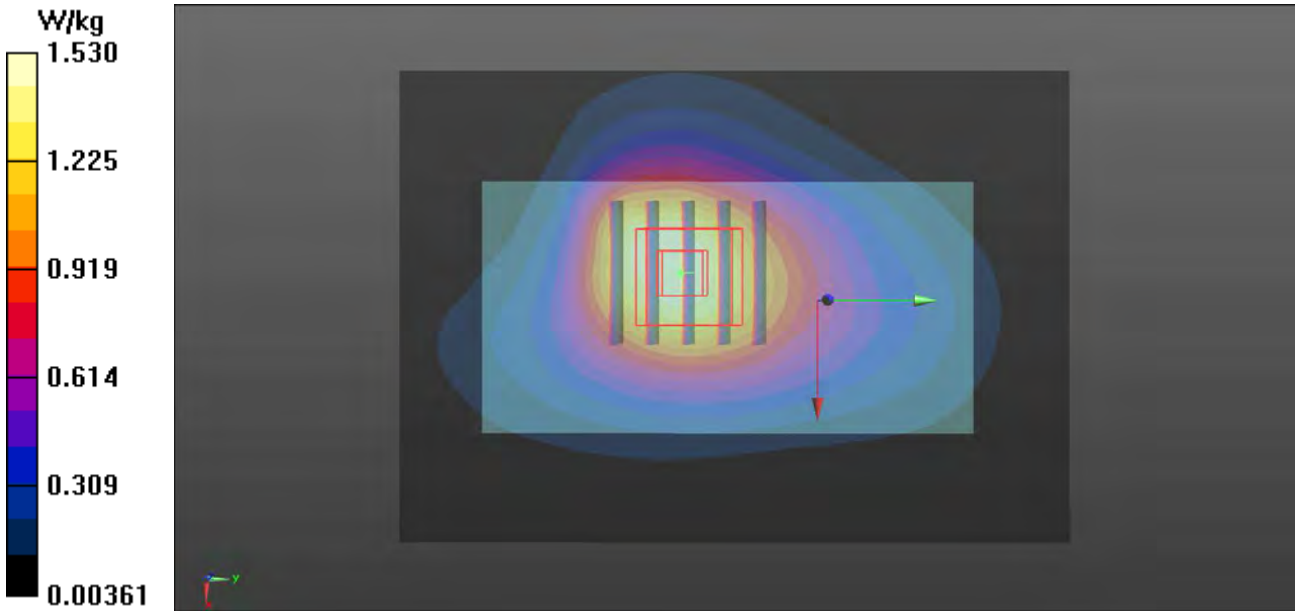
DUT: 180829W002

Communication System: LTE; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: MSL1900_1008 Medium parameters used: f = 1880 MHz; σ = 1.539 S/m; ε_r = 54.827; ρ = 1000 kg/m^3
Ambient Temperature：22.8 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.61, 7.61, 7.61); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.53 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.10 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.80 W/kg
SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.724 W/kg
Maximum value of SAR (measured) = 1.58 W/kg



P56 LTE 4_QPSK20M_Rear Face_1cm_Ch20300_1RB_OS50

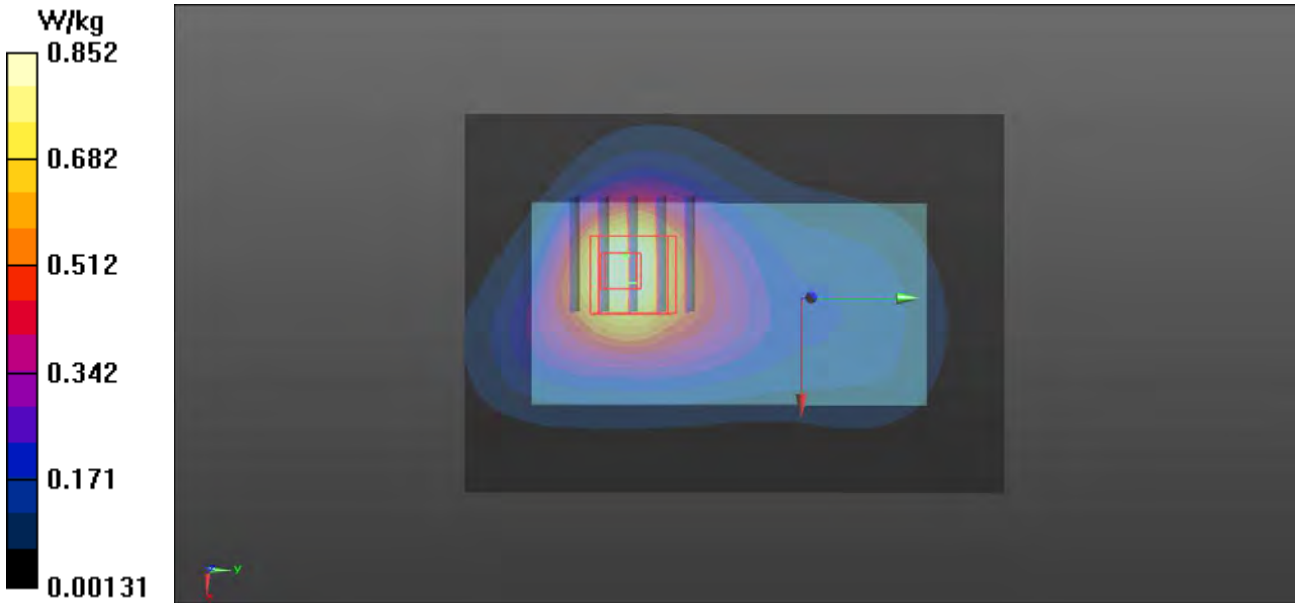
DUT: 180829W002

Communication System: LTE ; Frequency: 1745 MHz;Duty Cycle: 1:1
Medium: MSL1750_1220 Medium parameters used: f = 1745 MHz; σ = 1.463 S/m; ε_r = 53.681; ρ = 1000 kg/m^3
Ambient Temperature：22.9 ℃; Liquid Temperature：21.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.8, 7.8, 7.8); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.852 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.68 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 0.992 W/kg
SAR(1 g) = 0.633 W/kg; SAR(10 g) = 0.390 W/kg
Maximum value of SAR (measured) = 0.837 W/kg



P57 LTE 5_QPSK10M_Rear Face_1cm_Ch20525_1RB_OS24

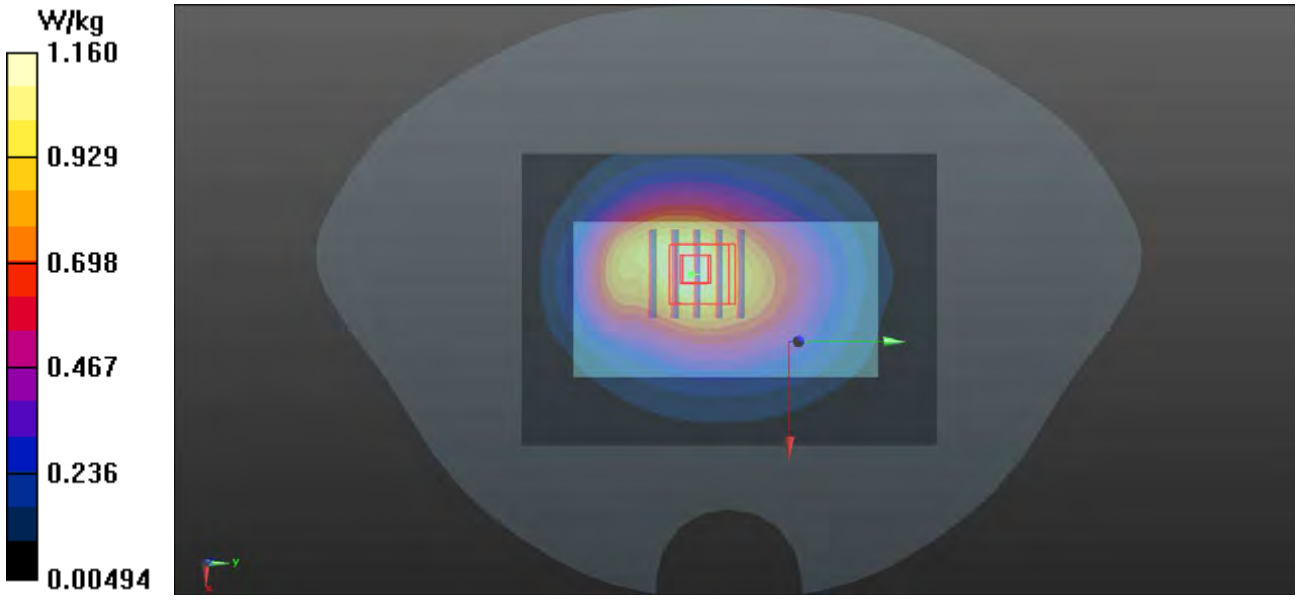
DUT: 180829W002

Communication System: LTE; Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium: MSL835_0927 Medium parameters used: f = 836.5 MHz; σ = 0.993 S/m; ε_r = 55.598; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.16 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.00 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.921 W/kg; SAR(10 g) = 0.661 W/kg
Maximum value of SAR (measured) = 1.12 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/09/26

P58 LTE 12_QPSK10M_Rear Face_1cm_Ch23130_1RB_OS24

DUT: 180829W002

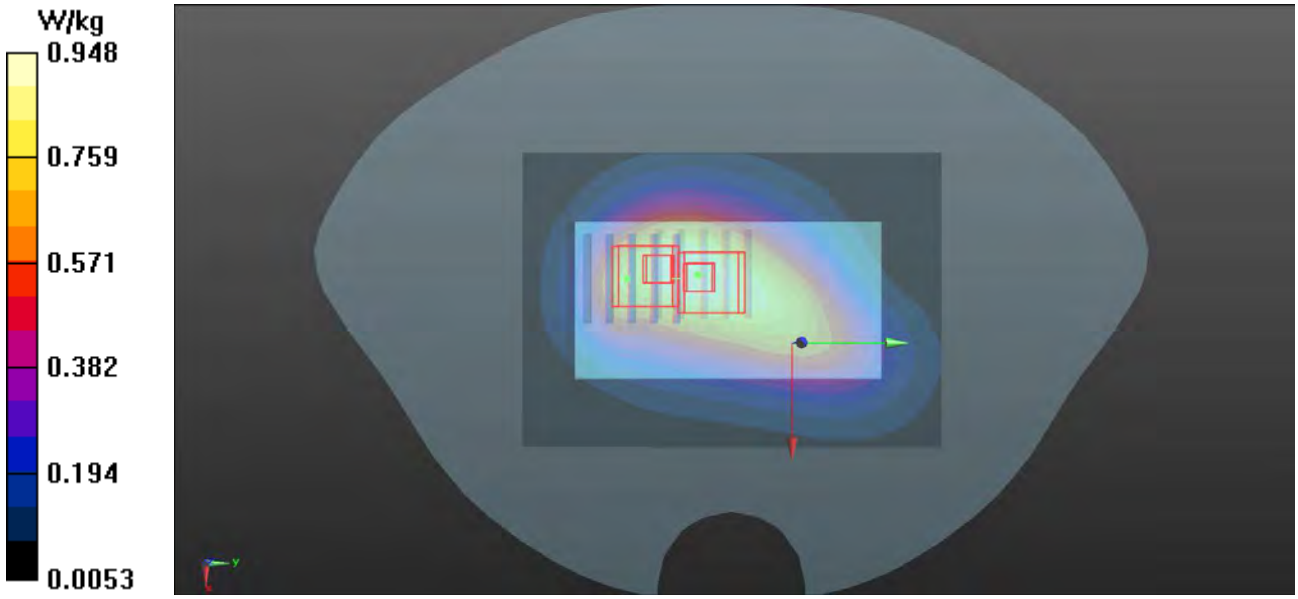
Communication System: LTE; Frequency: 711 MHz;Duty Cycle: 1:1
Medium: MSL750_0926 Medium parameters used: f = 711 MHz; σ = 0.943 S/m; ε_r = 56.462; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.67, 9.67, 9.67); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.948 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.59 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.768 W/kg; SAR(10 g) = 0.563 W/kg
Maximum value of SAR (measured) = 0.957 W/kg

- Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.59 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.07 W/kg
SAR(1 g) = 0.714 W/kg; SAR(10 g) = 0.463 W/kg
Maximum value of SAR (measured) = 0.938 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/09/26

P59 LTE 13_QPSK10M_Rear Face_1cm_Ch23230_1RB_OS24

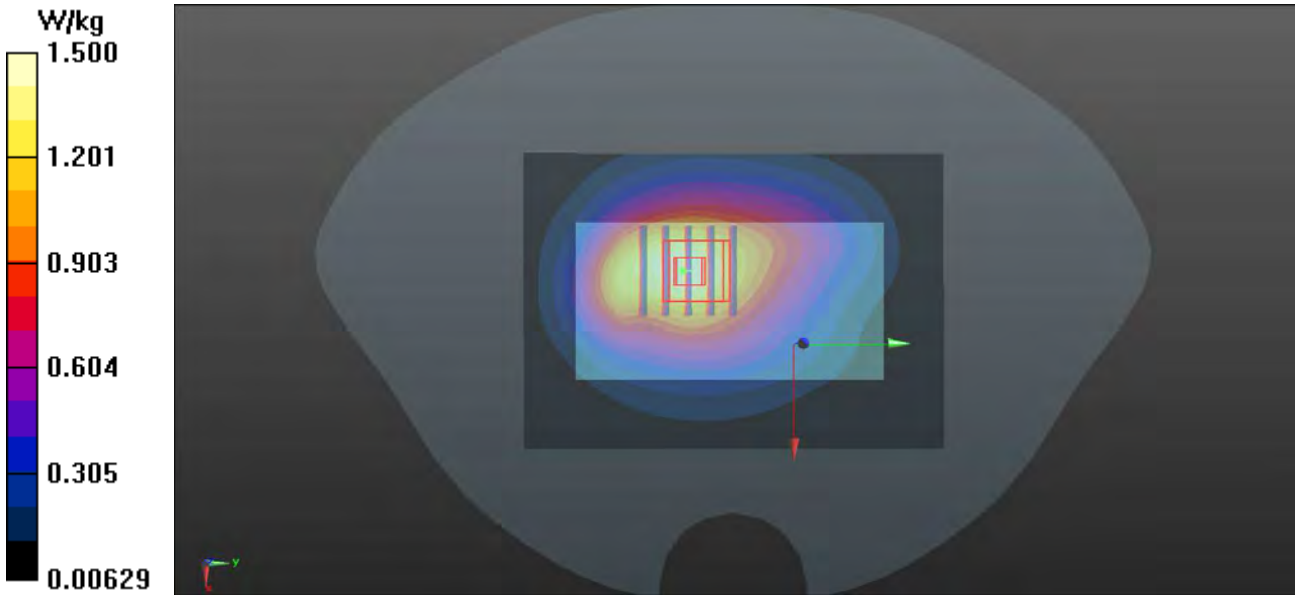
DUT: 180829W002

Communication System: LTE; Frequency: 782 MHz;Duty Cycle: 1:1
Medium: MSL750_0926 Medium parameters used: f = 782 MHz; σ = 1.001 S/m; ε_r = 55.856; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.67, 9.67, 9.67); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.50 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.47 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 1.71 W/kg
SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.833 W/kg
Maximum value of SAR (measured) = 1.55 W/kg



P60 LTE 14_QPSK10M_Rear Face_1cm_Ch23330_1RB_OS24

DUT: 180829W002

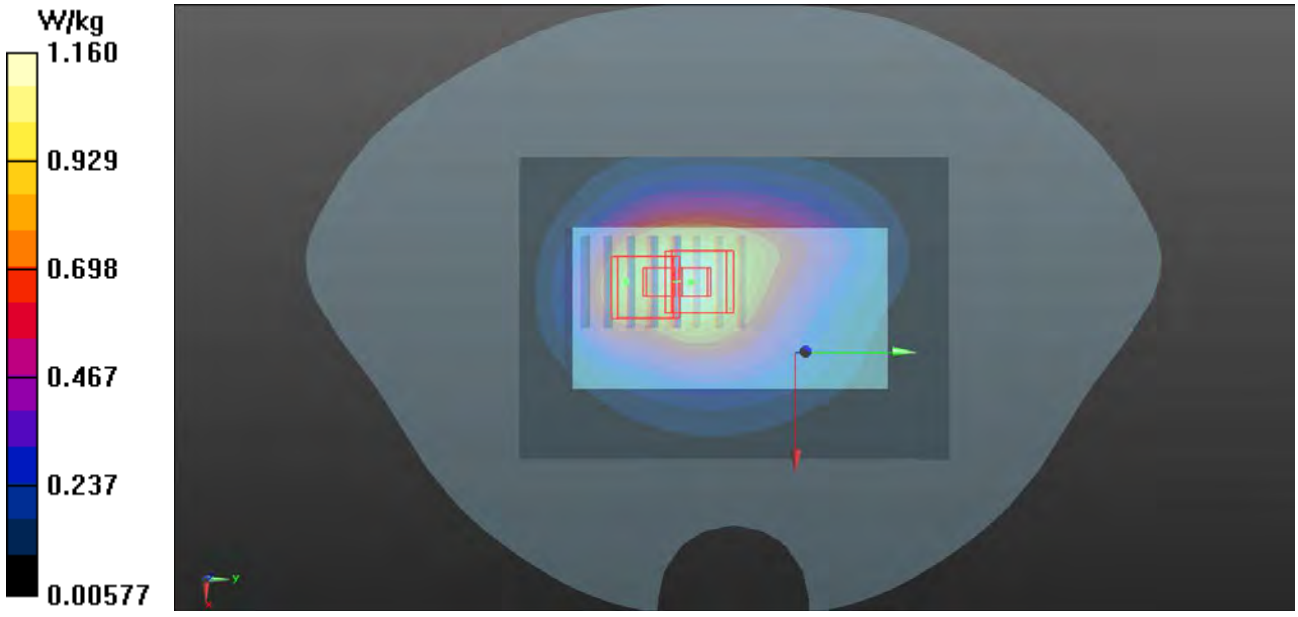
Communication System: LTE; Frequency: 793 MHz;Duty Cycle: 1:1
Medium: MSL750_0926 Medium parameters used: f = 793 MHz; σ = 1.009 S/m; ε_r = 55.746; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.67, 9.67, 9.67); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.16 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.76 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.954 W/kg; SAR(10 g) = 0.682 W/kg
Maximum value of SAR (measured) = 1.19 W/kg

- Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.76 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.24 W/kg
SAR(1 g) = 0.843 W/kg; SAR(10 g) = 0.545 W/kg
Maximum value of SAR (measured) = 1.12 W/kg



P61 LTE 25_QPSK20M_Rear Face_1cm_Ch26140_1RB_OS0

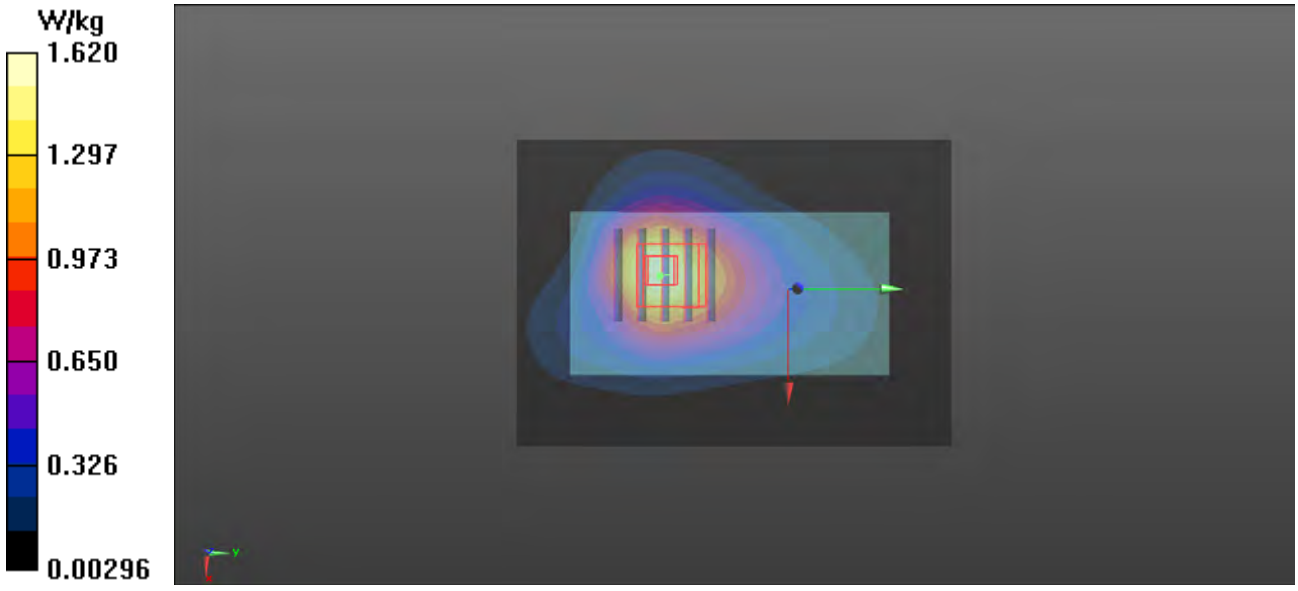
DUT: 180829W002

Communication System: LTE; Frequency: 1860 MHz;Duty Cycle: 1:1
Medium: MSL1900_1008 Medium parameters used: f = 1860 MHz; σ = 1.514 S/m; ε_r = 54.901; ρ = 1000 kg/m^3
Ambient Temperature：22.8 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.61, 7.61, 7.61); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.62 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.85 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.77 W/kg
SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.694 W/kg
Maximum value of SAR (measured) = 1.53 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/09/27

P62 LTE 26_QPSK15M_Rear Face_1cm_Ch26965_1RB_OS37

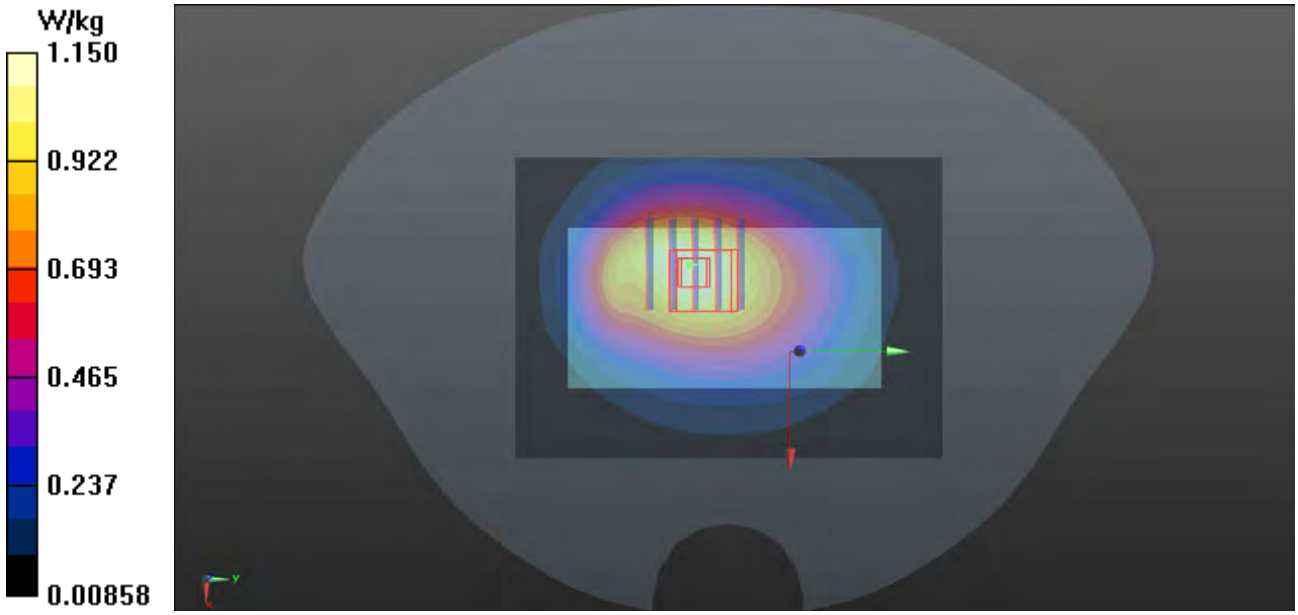
DUT: 180829W002

Communication System: LTE; Frequency: 841.5 MHz;Duty Cycle: 1:1
Medium: MSL835_0927 Medium parameters used: f = 841.5 MHz; σ = 0.999 S/m; ε_r = 55.546; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.15 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.76 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.29 W/kg
SAR(1 g) = 0.929 W/kg; SAR(10 g) = 0.669 W/kg
Maximum value of SAR (measured) = 1.17 W/kg



P63 LTE 38_QPSK20M_Bottom Side_1cm_Ch38150_1RB_OS50

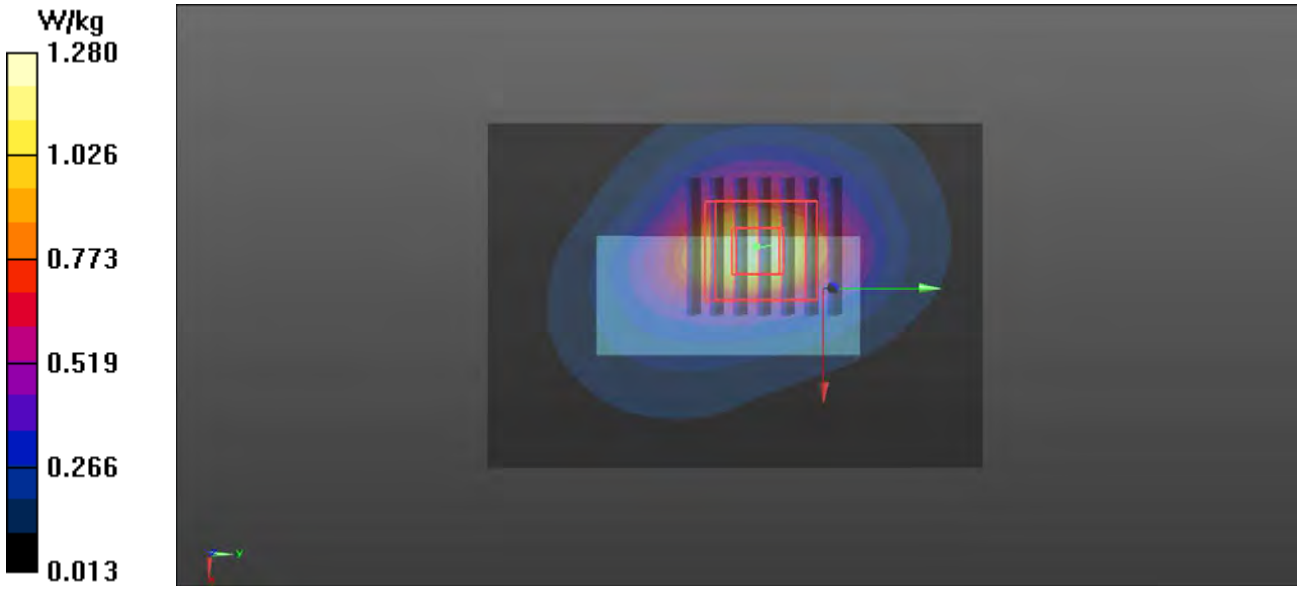
DUT: 180829W002

Communication System: LTE; Frequency: 2610 MHz;Duty Cycle: 1:1.58
Medium: MSL2600_1025 Medium parameters used: f = 2610 MHz; σ = 2.108 S/m; ε_r = 50.716; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.28, 7.28, 7.28); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x111x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.28 W/kg

- Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.13 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.67 W/kg
SAR(1 g) = 0.825 W/kg; SAR(10 g) = 0.411 W/kg
Maximum value of SAR (measured) = 1.35 W/kg



P64 LTE 41_QPSK20M_Bottom Side_1cm_Ch41055_1RB_OS50

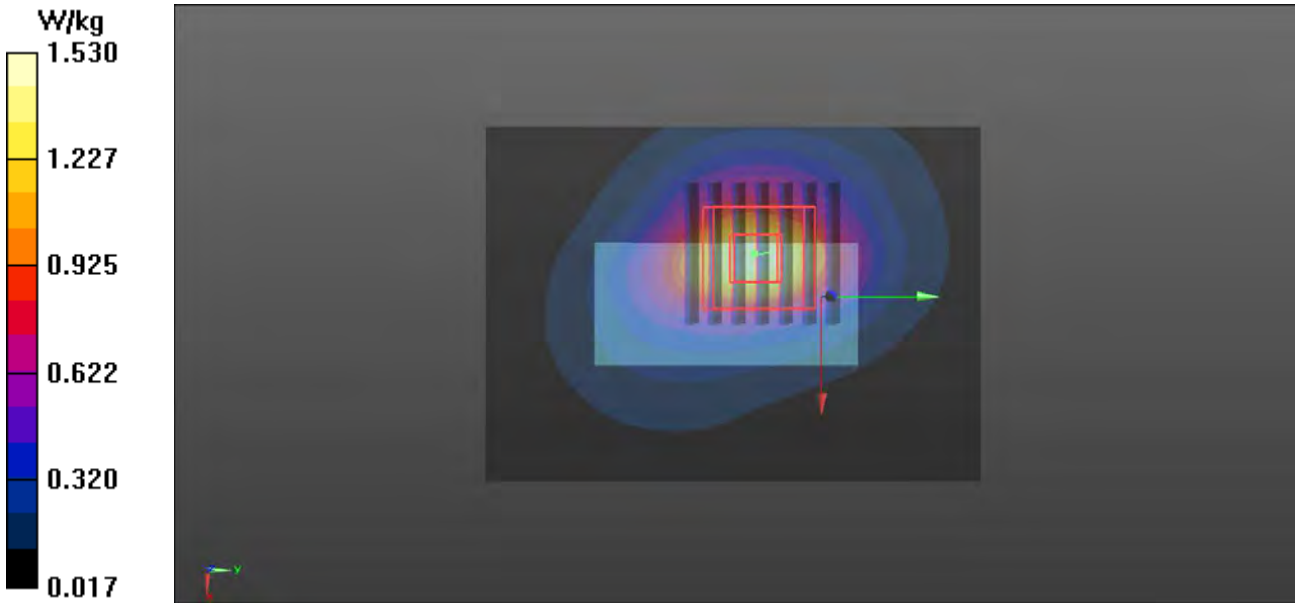
DUT: 180829W002

Communication System: LTE; Frequency: 2636.5 MHz;Duty Cycle: 1:1.58
Medium: MSL2600_1218 Medium parameters used: f = 2636.5 MHz; σ = 2.250 S/m; ε_r = 52.245; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：21.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.28, 7.28, 7.28); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x111x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.53 W/kg

- Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.16 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.83 W/kg
SAR(1 g) = 0.925 W/kg; SAR(10 g) = 0.462 W/kg
Maximum value of SAR (measured) = 1.47 W/kg



P65 LTE 66_QPSK20M_Rear Face_1cm_Ch132072_1RB_OS0

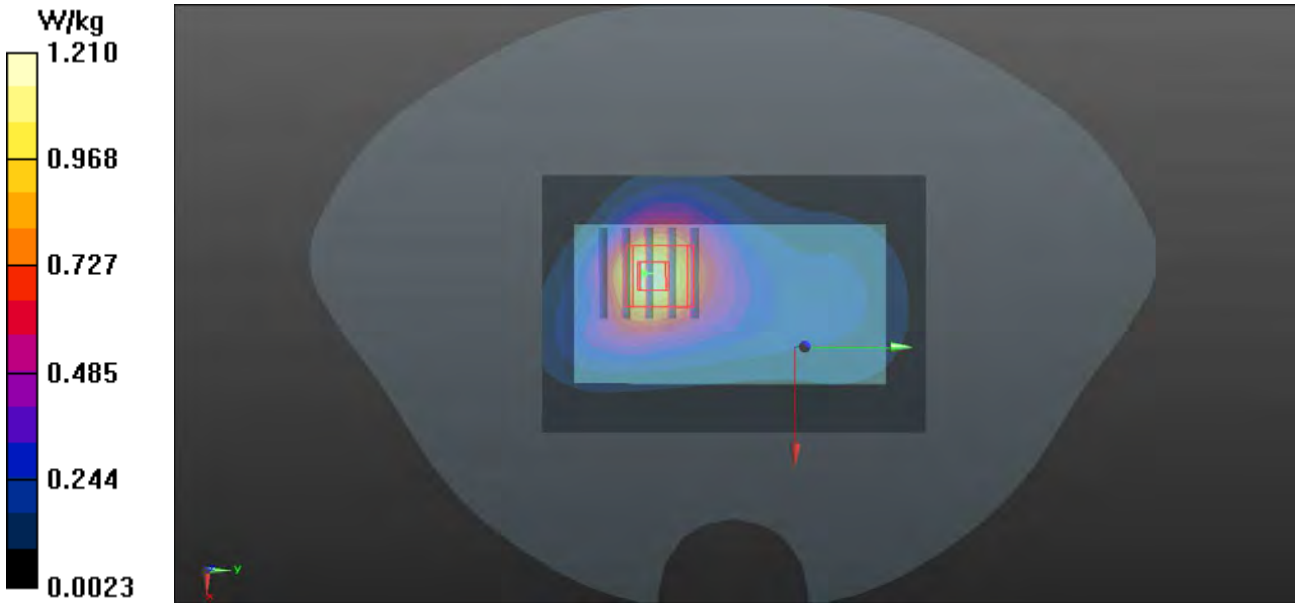
DUT: 180829W002

Communication System: LTE; Frequency: 1720 MHz;Duty Cycle: 1:1
Medium: MSL1750_1220 Medium parameters used: f = 1720 MHz; σ = 1.437 S/m; ε_r = 53.743; ρ = 1000 kg/m^3
Ambient Temperature：22.9 ℃; Liquid Temperature：21.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.8, 7.8, 7.8); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Front Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1695
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.21 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.57 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.33 W/kg
SAR(1 g) = 0.852 W/kg; SAR(10 g) = 0.52 W/kg
Maximum value of SAR (measured) = 1.14 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/10/19

P66 802.11b_Rear Face_1cm_Ch1

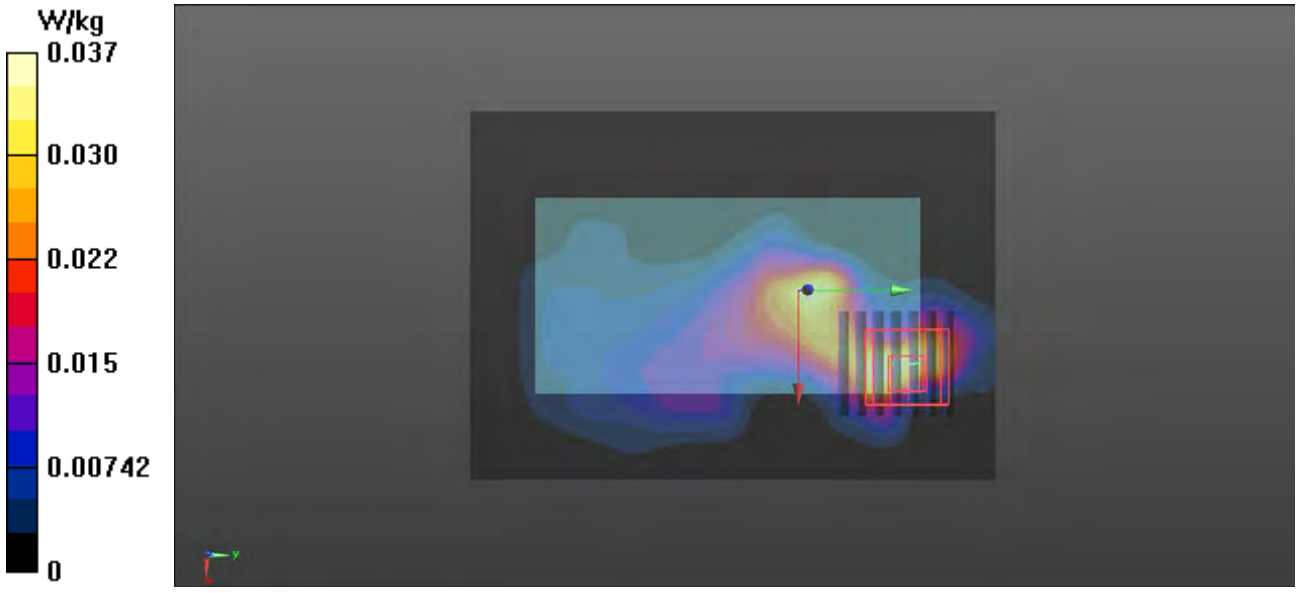
DUT: 180829W002

Communication System: 802.11b; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium: MSL2450_1019 Medium parameters used: f = 2412 MHz; σ = 1.917 S/m; ε_r = 51.716; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.39, 7.39, 7.39); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (91x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0371 W/kg

- Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.311 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.0470 W/kg
SAR(1 g) = 0.024 W/kg; SAR(10 g) = 0.014 W/kg
Maximum value of SAR (measured) = 0.0362 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/10/17

P67 802.11a_Rear Face_1cm_Ch40

DUT: 180829W002

Communication System: 802.11a; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium: MSL5G_1017 Medium parameters used: f = 5200 MHz; σ = 5.278 S/m; ε_r = 48.936; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(4.27, 4.27, 4.27); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (91x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.302 W/kg

- Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.721 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.535 W/kg
SAR(1 g) = 0.140 W/kg; SAR(10 g) = 0.053 W/kg
Maximum value of SAR (measured) = 0.298 W/kg

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2018/10/17

P68 802.11a_Rear Face_1cm_Ch157

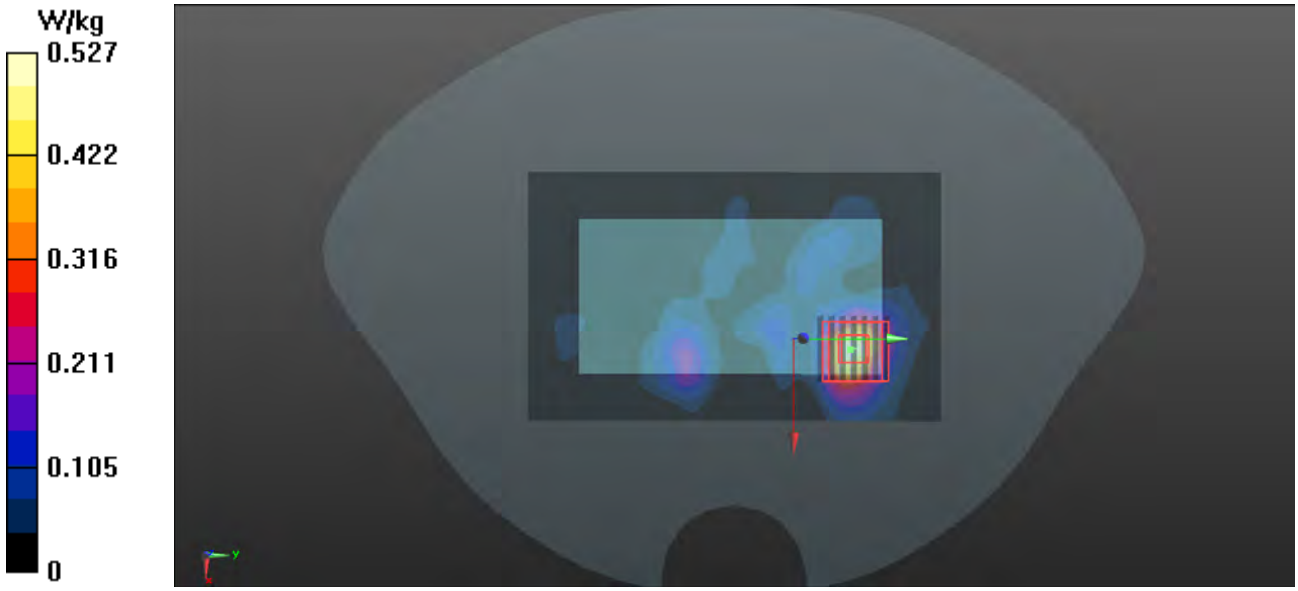
DUT: 180829W002

Communication System: 802.11a; Frequency: 5785 MHz;Duty Cycle: 1:1
Medium: MSL5G_1017 Medium parameters used: f = 5785 MHz; σ = 6.073 S/m; ε_r = 47.741; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(4, 4, 4); Calibrated: 2018/08/31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2018/08/28
- Phantom: Left Phantom with CRP v5.0; Type: QD000P40CD; Serial: TP:1722
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- Area Scan (91x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.527 W/kg

- Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.309 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.763 W/kg
SAR(1 g) = 0.197 W/kg; SAR(10 g) = 0.068 W/kg
Maximum value of SAR (measured) = 0.480 W/kg



Appendix C. Calibration Certificate for Probe and Dipole

The SPEAG calibration certificates are shown as follows.

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CNAS L0570

Client **ADT_CN** **Certificate No: Z18-60310**

CALIBRATION CERTIFICATE

Object	D750V3 - SN: 1067
Calibration Procedure(s)	FF-Z11-003-01 Calibration Procedures for dipole validation kits
Calibration date:	September 5, 2018

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)℃ and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRVD	102083	01-Nov-17 (CTTL, No.J17X08756)	Oct-18
Power sensor NRV-Z5	100542	01-Nov-17 (CTTL, No.J17X08756)	Oct-18
Reference Probe EX3DV4	SN 7464	12-Sep-17(SPEAG,No.EX3-7464_Sep17)	Sep-18
DAE4	SN 1524	13-Sep-17(SPEAG,No.DAE4-1524_Sep17)	Sep-18
Secondary Standards	**ID #**	**Cal Date(Calibrated by, Certificate No.)**	**Scheduled Calibration**
Signal Generator E4438C	MY49071430	23-Jan-18 (CTTL, No.J18X00560)	Jan-19
NetworkAnalyzer E5071C	MY46110673	24-Jan-18 (CTTL, No.J18X00561)	Jan-19

	Name	Function	Signature
Calibrated by:	Zhao Jing	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: September 8, 2018

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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORMx,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, "Measurement procedure for assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
c) IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
d) KDB865664, 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%.

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Measurement Conditions

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

DASY Version	DASY52	52.10.1.1476
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	750 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.9	0.89 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	43.1 ± 6 %	0.87 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.07 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**8.51 mW /g ± 18.8 % (k=2)**
SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	1.40 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**5.72 mW /g ± 18.7 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	55.5	0.96 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	56.8 ± 6 %	0.93 mho/m ± 6 %
Body TSL temperature change during test	<1.0 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm^3 (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.14 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**8.80 mW /g ± 18.8 % (k=2)**
SAR averaged over 10 cm^3 (10 g) of Body TSL	Condition	
SAR measured	250 mW input power	1.46 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**5.97 mW /g ±18.7 % (k=2)**

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Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.7Ω- 2.03jΩ
Return Loss	- 27.8dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	48.7Ω- 3.79jΩ
Return Loss	- 27.8dB

General Antenna Parameters and Design

Electrical Delay (one direction)	0.897 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

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DASY5 Validation Report for Head TSL Date: 09.05.2018

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN: 1067

Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used: f = 750 MHz; σ = 0.866 S/m; ε_r = 43.13; ρ = 1000 kg/m3

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7464; ConvF(10.57, 10.57, 10.57) @ 750 MHz; Calibrated: 9/12/2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1524; Calibrated: 9/13/2017
- Phantom: MFP_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

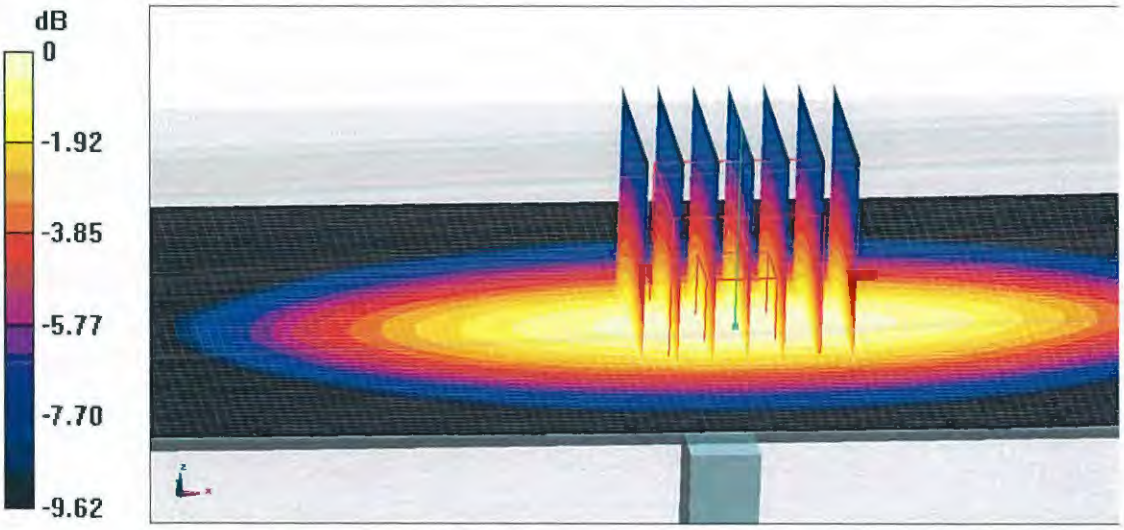
Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.01 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 3.05 W/kg

SAR(1 g) = 2.07 W/kg; SAR(10 g) = 1.4 W/kg

Maximum value of SAR (measured) = 2.73 W/kg



0 dB = 2.73 W/kg = 4.36 dBW/kg

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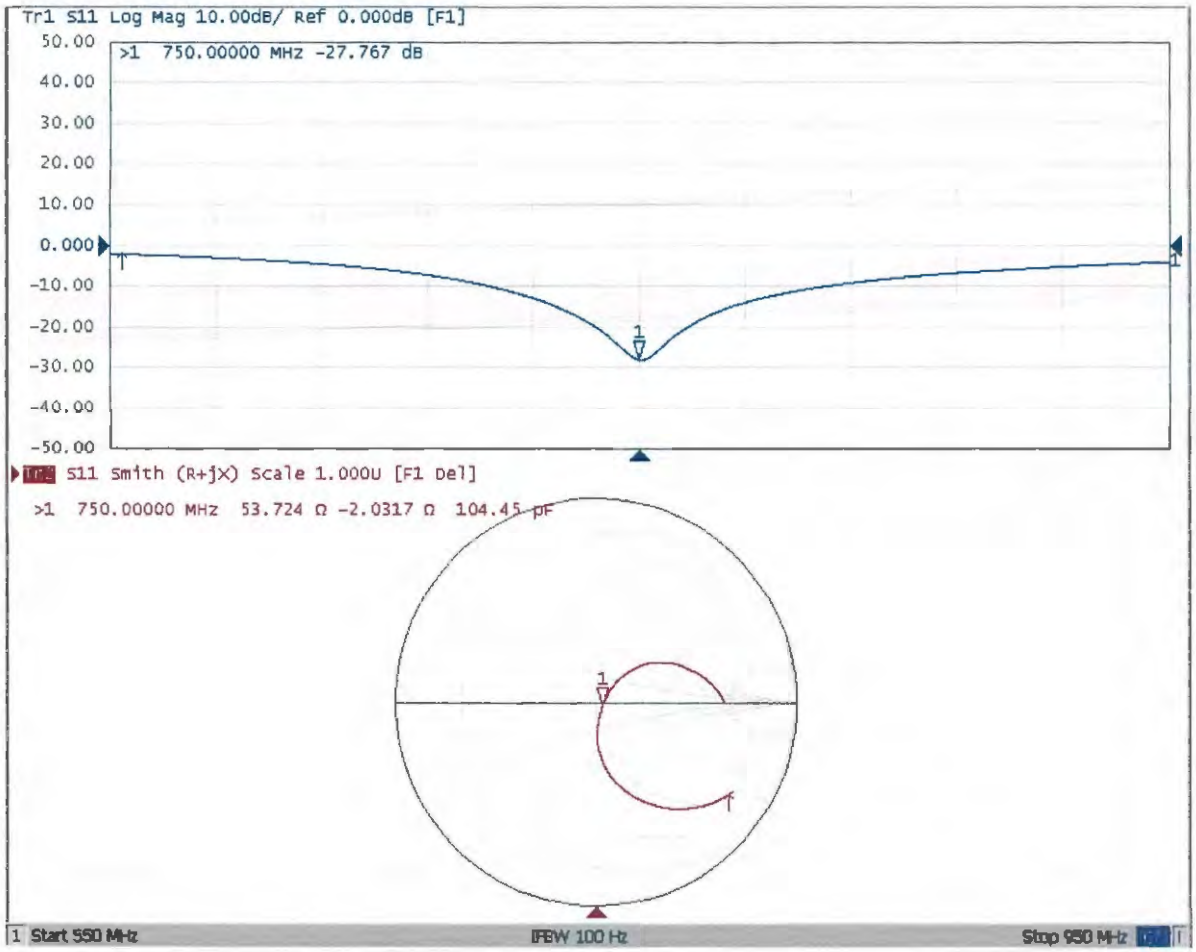
Impedance Measurement Plot for Head TSL



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DASY5 Validation Report for Body TSL Date: 09.05.2018

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN: 1067

Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used: f = 750 MHz; σ = 0.932 S/m; ε_r = 56.82; ρ = 1000 kg/m3

Phantom section: Center Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7464; ConvF(10.63, 10.63, 10.63) @ 750 MHz; Calibrated: 9/12/2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1524; Calibrated: 9/13/2017
- Phantom: MFP_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

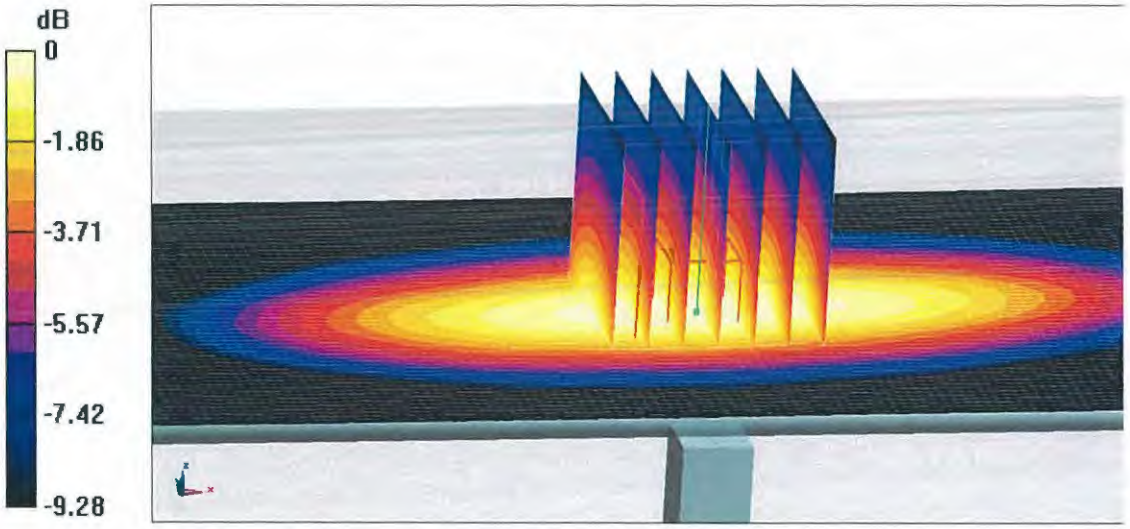
Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.11 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.06 W/kg

SAR(1 g) = 2.14 W/kg; SAR(10 g) = 1.46 W/kg

Maximum value of SAR (measured) = 2.76 W/kg



0 dB = 2.76 W/kg = 4.41 dBW/kg

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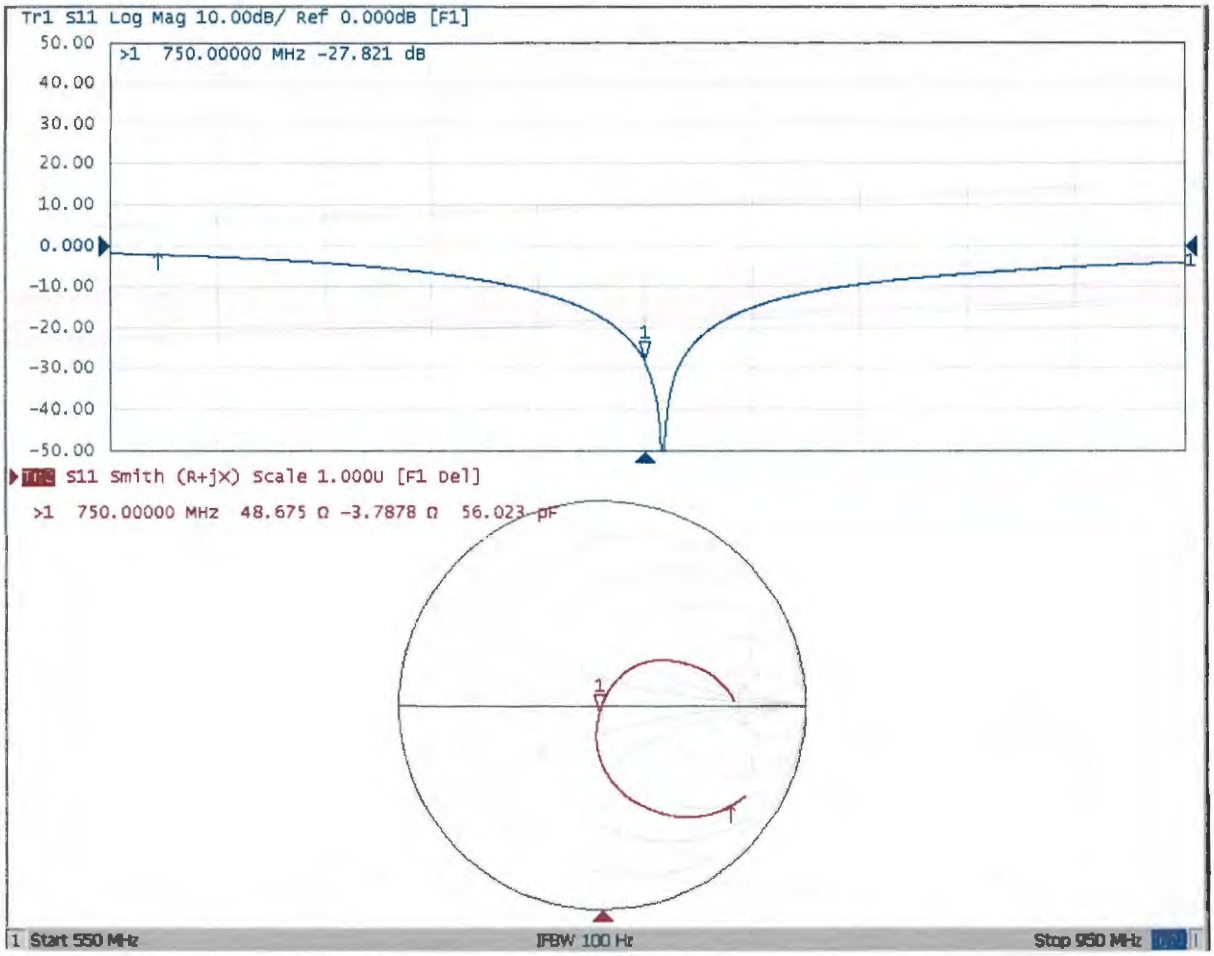
Impedance Measurement Plot for Body TSL



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CNAS L0570

Client **ADT_CN** **Certificate No: Z18-60311**

CALIBRATION CERTIFICATE

Object D835V2 - SN: 4d139

Calibration Procedure(s) FF-Z11-003-01
Calibration Procedures for dipole validation kits

Calibration date: September 6, 2018

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)℃ and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRVD	102083	01-Nov-17 (CTTL, No.J17X08756)	Oct-18
Power sensor NRV-Z5	100542	01-Nov-17 (CTTL, No.J17X08756)	Oct-18
Reference Probe EX3DV4	SN 7464	12-Sep-17(SPEAG,No.EX3-7464_Sep17)	Sep-18
DAE4	SN 1524	13-Sep-17(SPEAG,No.DAE4-1524_Sep17)	Sep-18
Secondary Standards	**ID #**	**Cal Date(Calibrated by, Certificate No.)**	**Scheduled Calibration**
Signal Generator E4438C	MY49071430	23-Jan-18 (CTTL, No.J18X00560)	Jan-19
NetworkAnalyzer E5071C	MY46110673	24-Jan-18 (CTTL, No.J18X00561)	Jan-19

	Name	Function	Signature
Calibrated by:	Zhao Jing	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: September 9, 2018

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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORMx,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, "Measurement procedure for assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016

c) IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010

d) KDB865664, 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%.

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Measurement Conditions

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

DASY Version	DASY52	52.10.1.1476
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
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	42.7 ± 6 %	0.90 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.37 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**9.51 mW /g ± 18.8 % (k=2)**
SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	1.56 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**6.25 mW /g ± 18.7 % (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	56.0 ± 6 %	1.00 mho/m ± 6 %
Body TSL temperature change during test	<1.0 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm^3 (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.47 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**9.70 mW /g ± 18.8 % (k=2)**
SAR averaged over 10 cm^3 (10 g) of Body TSL	Condition	
SAR measured	250 mW input power	1.65 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**6.50 mW /g ± 18.7 % (k=2)**

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Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	51.5Ω- 3.46jΩ
Return Loss	- 28.6dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	48.3Ω- 4.75jΩ
Return Loss	- 25.8dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.256 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

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DASY5 Validation Report for Head TSL Date: 09.04.2018

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d139

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: f = 835 MHz; σ = 0.904 S/m; ε_r = 42.71; ρ = 1000 kg/m3

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7464; ConvF(10.28, 10.28, 10.28) @ 835 MHz; Calibrated: 9/12/2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1524; Calibrated: 9/13/2017
- Phantom: MFP_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

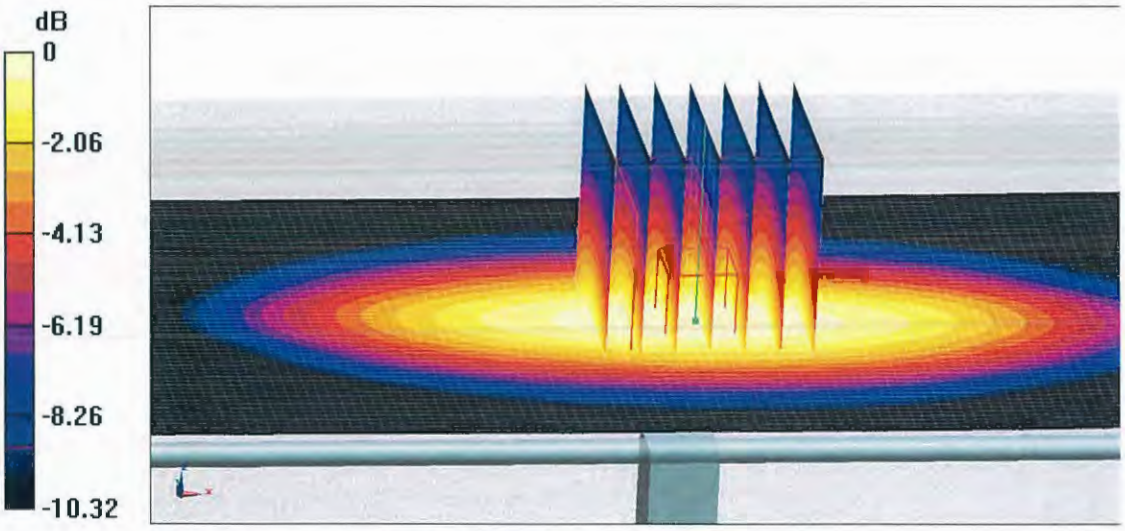
Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.15 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 3.58 W/kg

SAR(1 g) = 2.37 W/kg; SAR(10 g) = 1.56 W/kg

Maximum value of SAR (measured) = 3.18 W/kg



0 dB = 3.18 W/kg = 5.02 dBW/kg