Annex A. Plots of System Verification

The plots for system verification are shown as follows.

Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

S01 System Check_H2450_220627

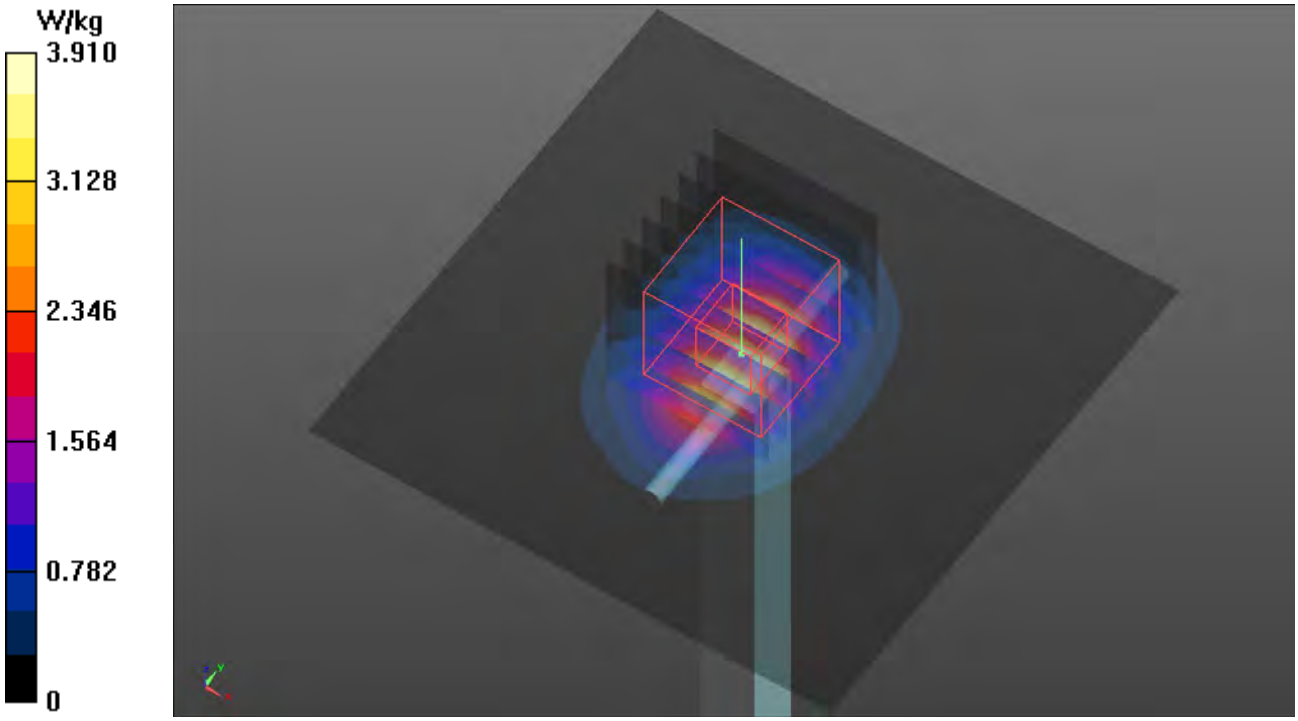
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0627 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.883 S/m; ε_r = 38.286; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2450 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 3.91 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 47.72 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 4.71 W/kg
SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.17 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 3.93 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

S02 System Check_H5250_220627

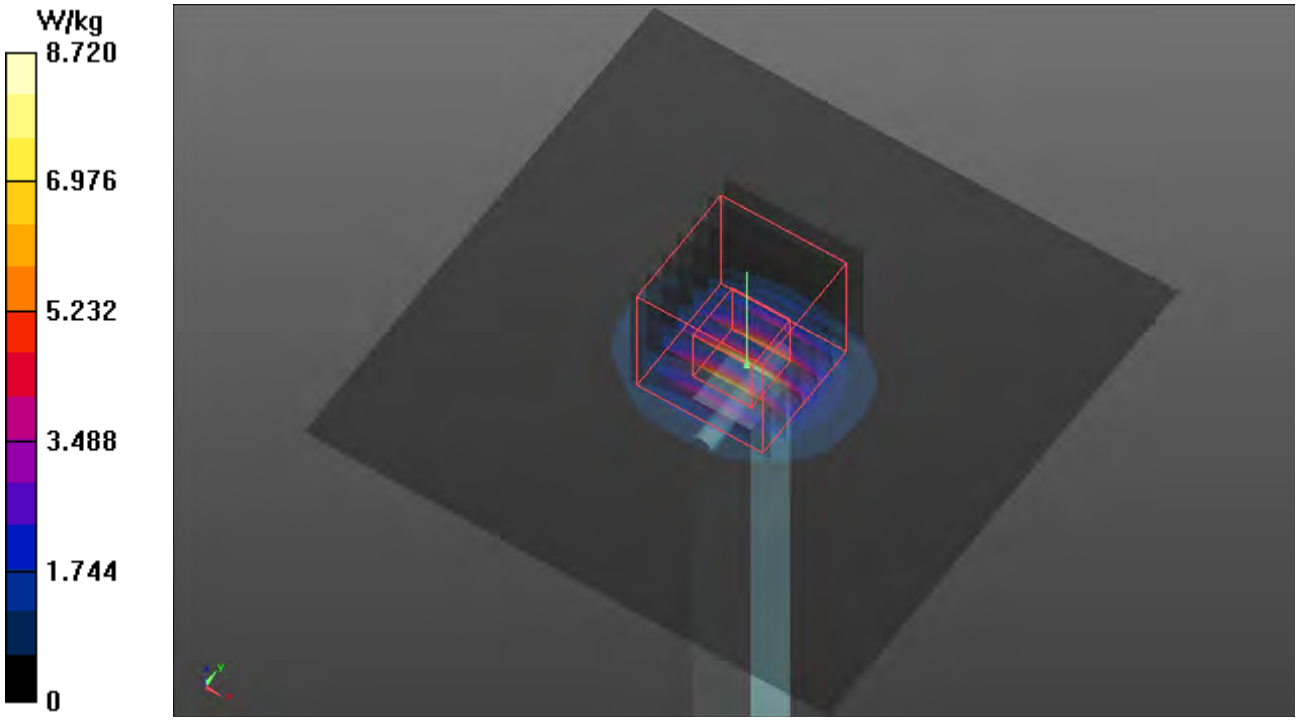
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0627 Medium parameters used: f = 5250 MHz; σ = 4.607 S/m; ε_r = 34.846; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(5.43, 5.43, 5.43) @ 5250 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 8.72 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 49.11 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 13.9 W/kg
SAR(1 g) = 3.76 W/kg; SAR(10 g) = 1.09 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 9.01 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

S03 System Check_H5600_220627

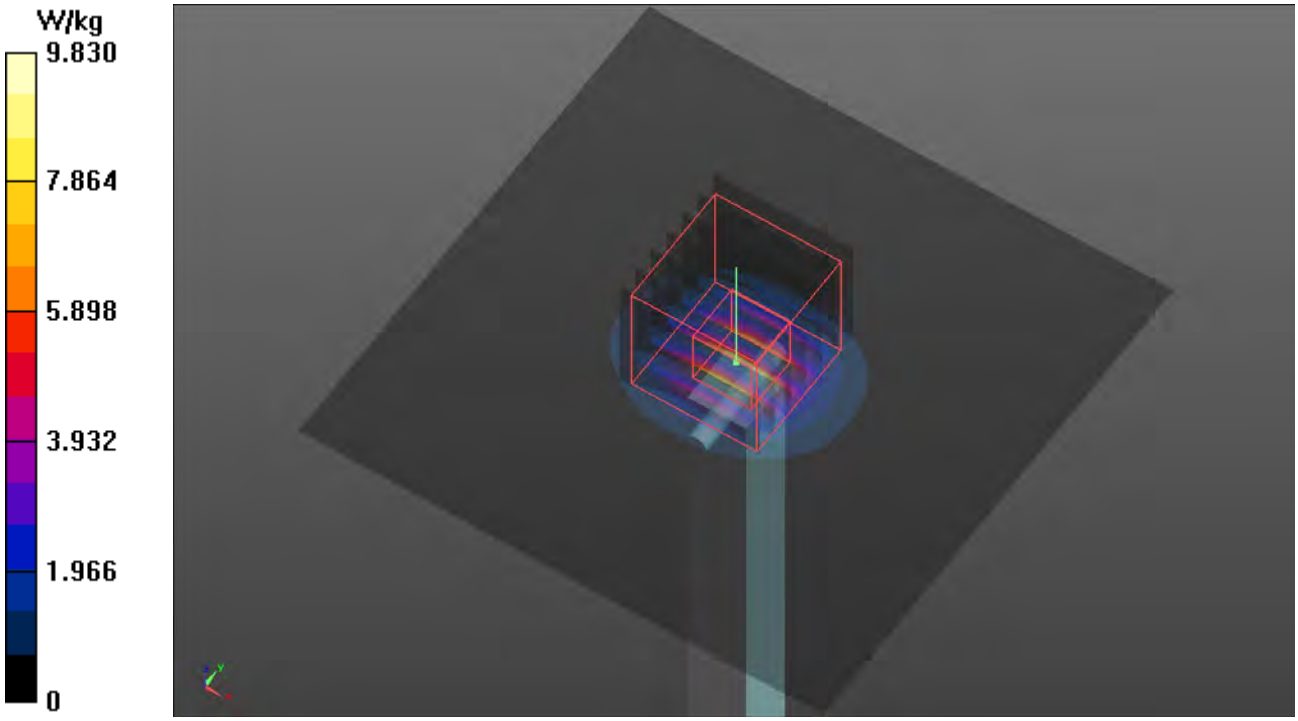
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0627 Medium parameters used: f = 5600 MHz; σ = 4.998 S/m; ε_r = 34.41; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(4.69, 4.69, 4.69) @ 5600 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 9.83 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 50.02 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 16.7 W/kg
SAR(1 g) = 3.97 W/kg; SAR(10 g) = 1.12 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 10.3 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

S04 System Check_H5750_220627

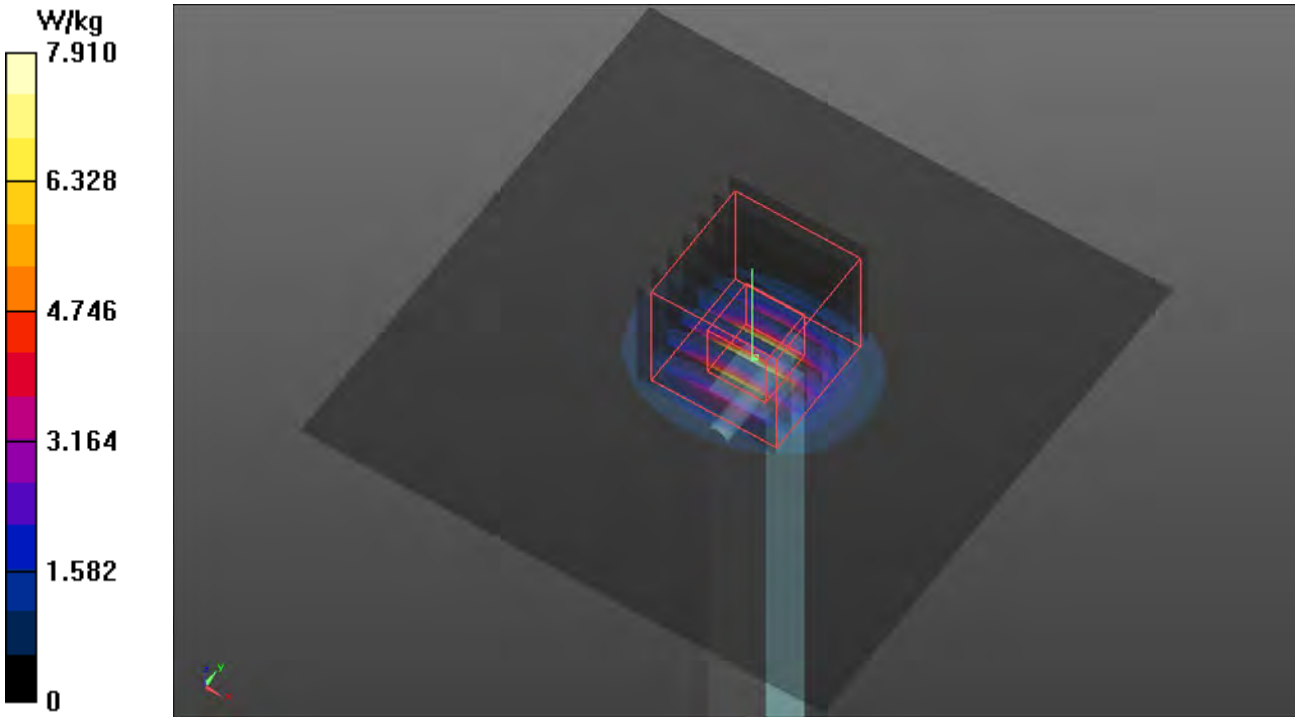
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5750 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0627 Medium parameters used: f = 5750 MHz; σ = 5.133 S/m; ε_r = 34.387; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(4.82, 4.82, 4.82) @ 5750 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 7.91 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 42.98 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 14.2 W/kg
SAR(1 g) = 3.91 W/kg; SAR(10 g) = 1.14 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 8.42 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

S05 System Check_H2450_220627

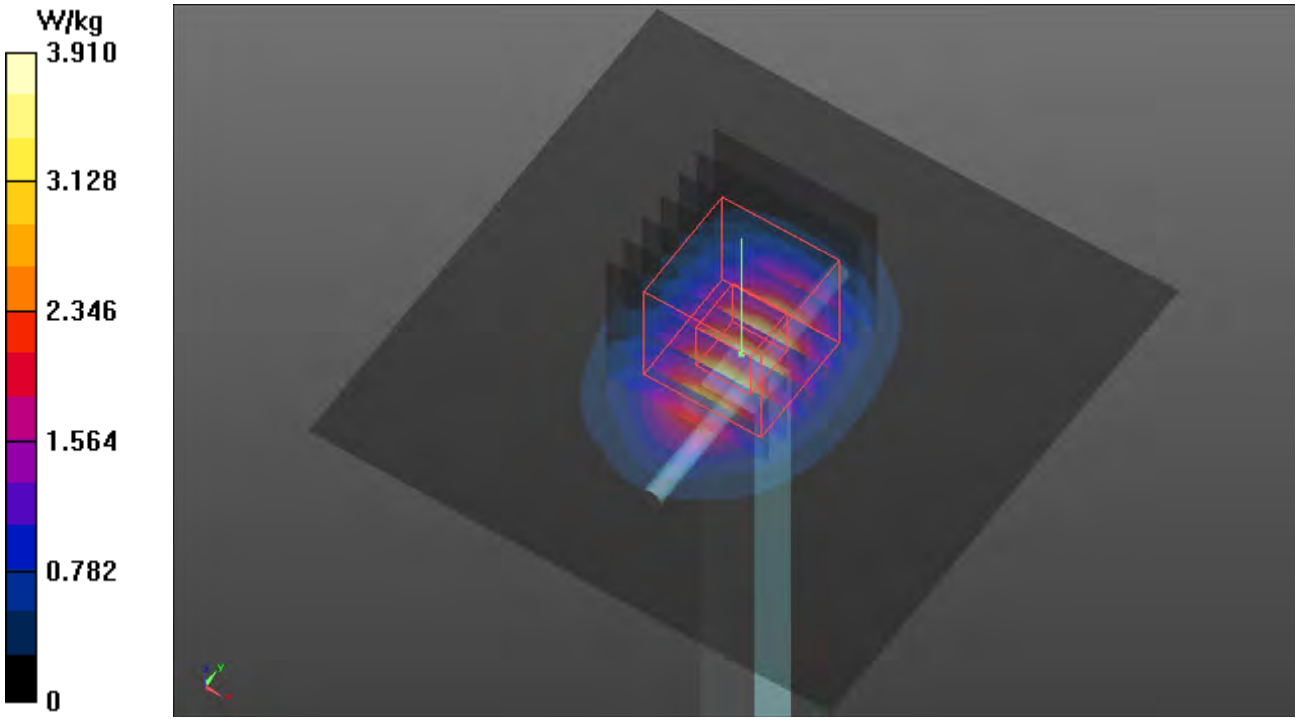
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0627 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.883 S/m; ε_r = 38.286; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2450 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 3.91 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 47.72 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 4.71 W/kg
SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.17 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 3.93 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/24

S06 System Check_H2450_220624

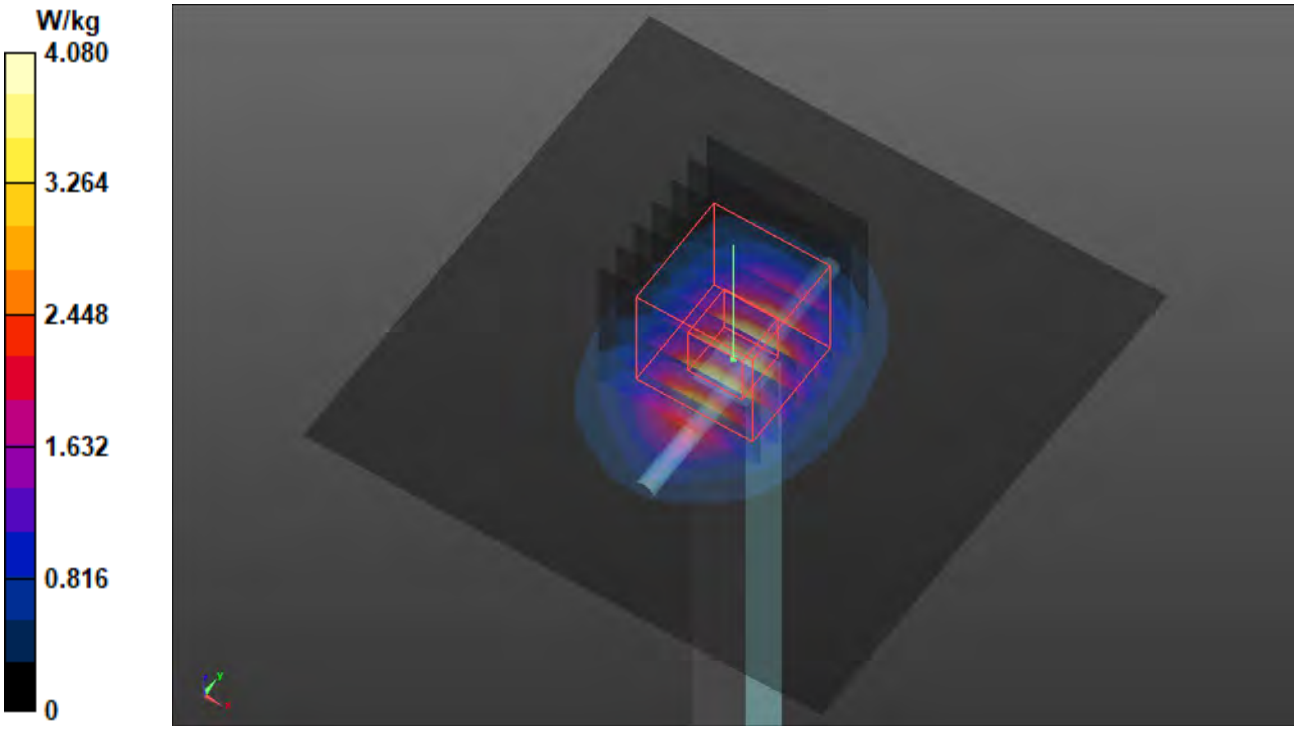
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0624 Medium parameters used: f = 2450 MHz; σ = 1.739 S/m; ε_r = 42.839; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃； Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(7.82, 7.82, 7.82) @ 2450 MHz; Calibrated: 2022/03/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2022/03/23
- Phantom: ELI Phantom_2118; Type: QD OVA 004 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 4.08 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 49.79 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 5.06 W/kg
SAR(1 g) = 2.52 W/kg; SAR(10 g) = 1.15 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.11 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/24

S07 System Check_H5250_220624

DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

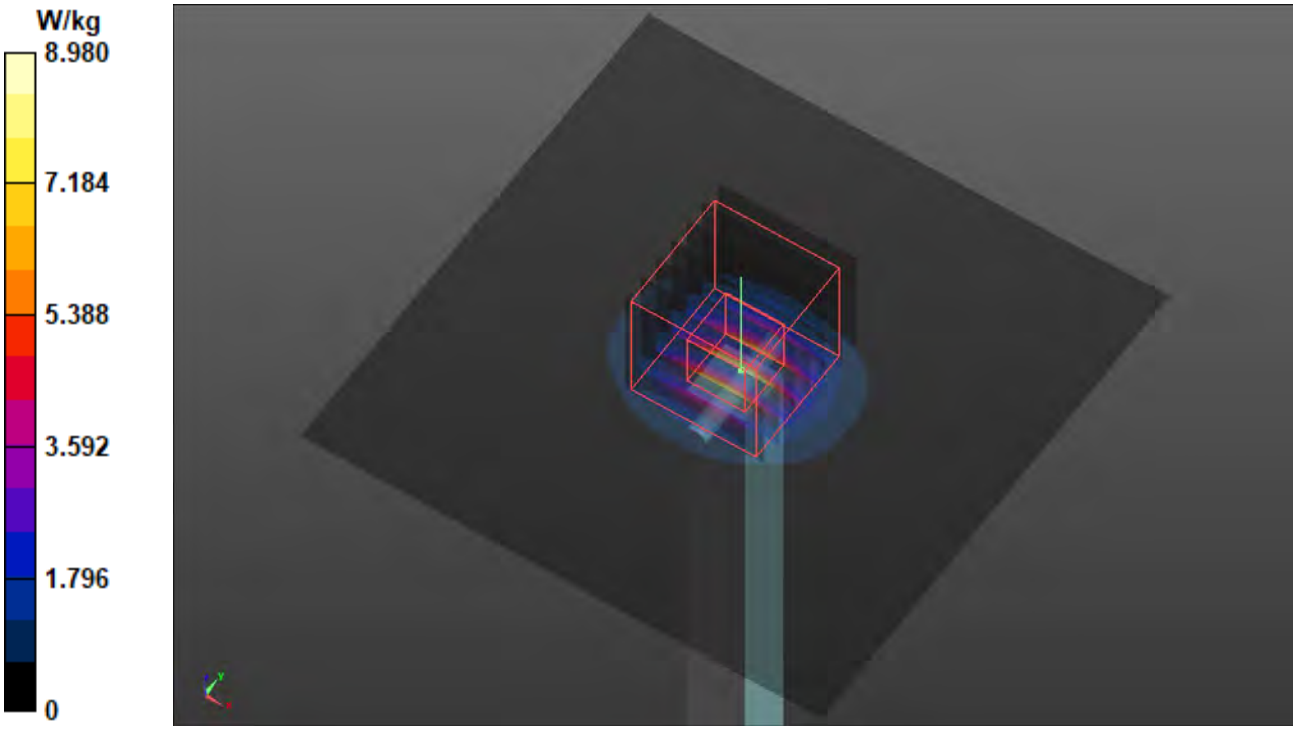
Communication System: UID 0, CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0624 Medium parameters used (interpolated): f = 5250 MHz; σ = 4.598 S/m; ε_r = 35.791; ρ = 1000 kg/m^3

Ambient Temperature：23.6 ℃； Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(5.28, 5.28, 5.28) @ 5250 MHz; Calibrated: 2022/03/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2022/03/23
- Phantom: ELI Phantom_2118; Type: QD OVA 004 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 8.98 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 50.03 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 14.5 W/kg
SAR(1 g) = 3.81 W/kg; SAR(10 g) = 1.11 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 9.33 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/24

S08 System Check_H5600_220624

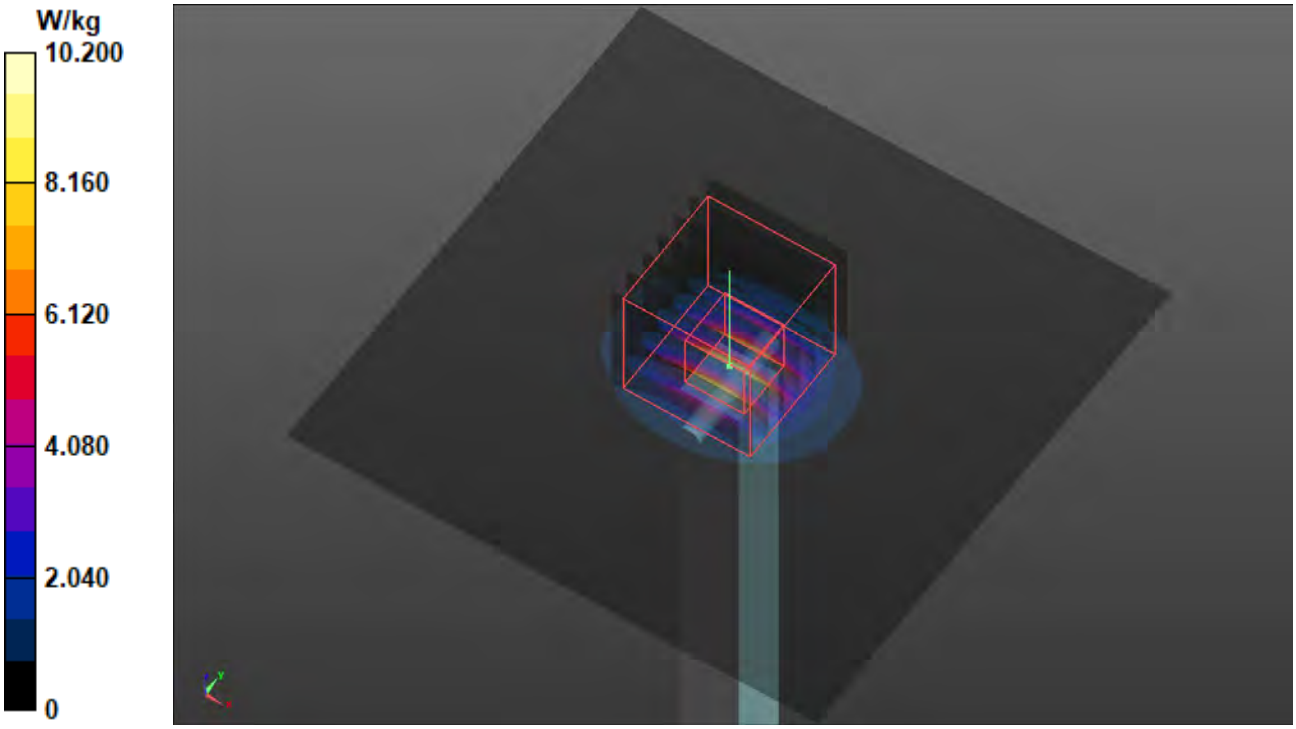
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0624 Medium parameters used: f = 5600 MHz; σ = 4.961 S/m; ε_r = 35.288; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃； Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(4.78, 4.78, 4.78) @ 5600 MHz; Calibrated: 2022/03/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2022/03/23
- Phantom: ELI Phantom_2118; Type: QD OVA 004 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 10.2 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 51.01 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 17.3 W/kg
SAR(1 g) = 4.11 W/kg; SAR(10 g) = 1.14 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 10.7 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/24

S09 System Check_H5750_220624

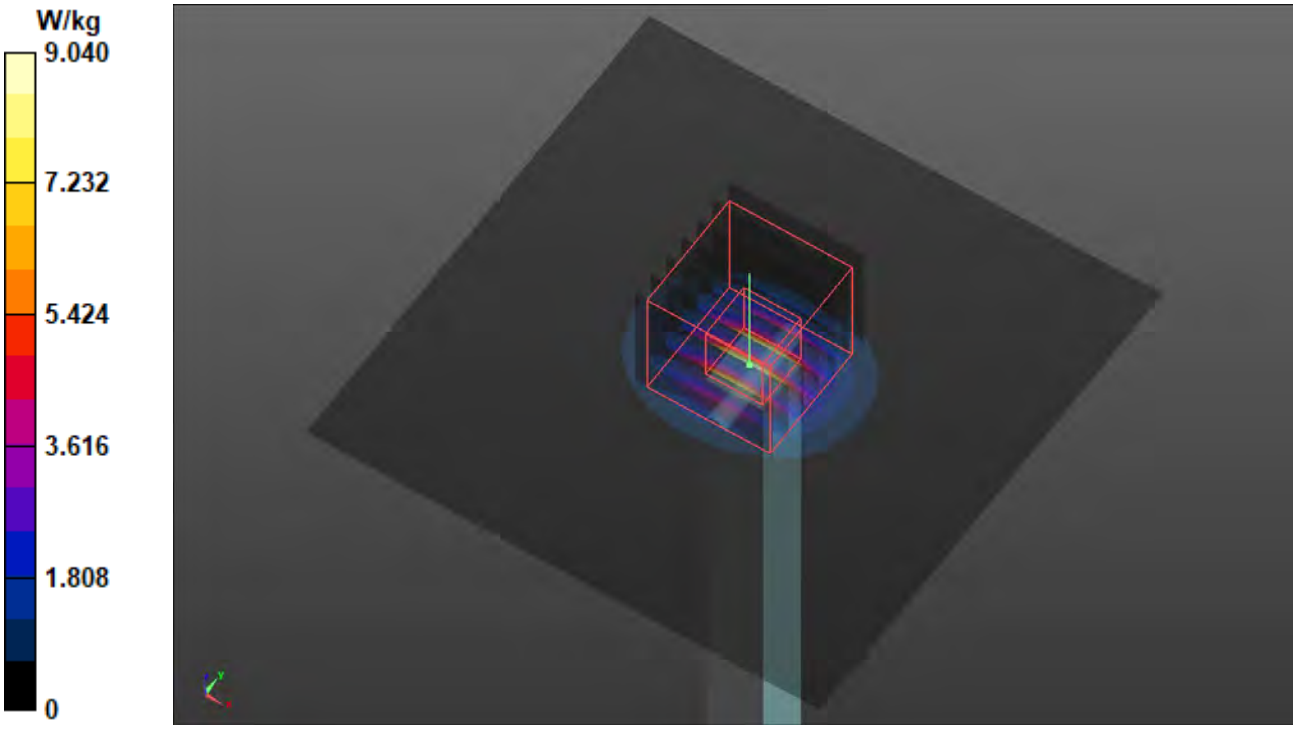
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5750 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0624 Medium parameters used: f = 5750 MHz; σ = 5.141 S/m; ε_r = 35.109; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃； Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(5.06, 5.06, 5.06) @ 5750 MHz; Calibrated: 2022/03/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2022/03/23
- Phantom: ELI Phantom_2118; Type: QD OVA 004 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 9.04 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 46.02 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 16.3 W/kg
SAR(1 g) = 3.77 W/kg; SAR(10 g) = 1.08 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 9.63 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

S10 System Check_H2450_220627

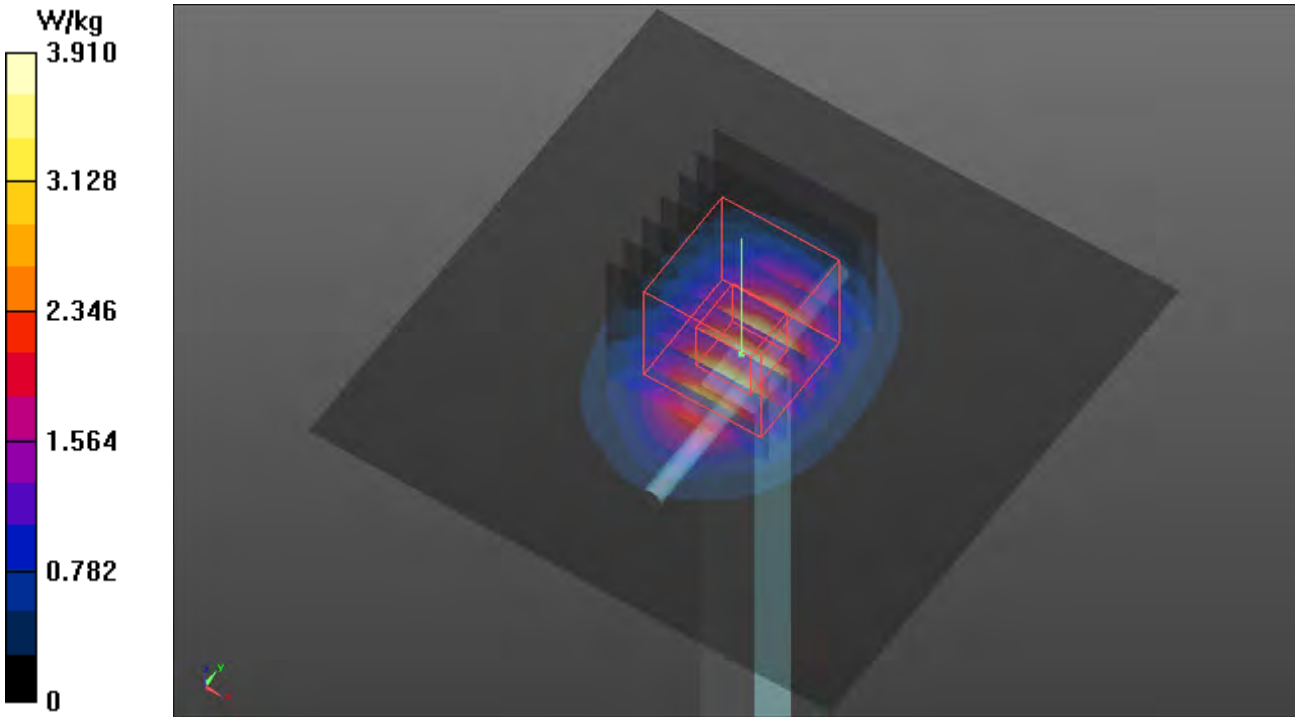
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0627 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.883 S/m; ε_r = 38.286; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2450 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 3.91 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 47.72 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 4.71 W/kg
SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.17 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 3.93 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

S11 System Check_H2450_220627

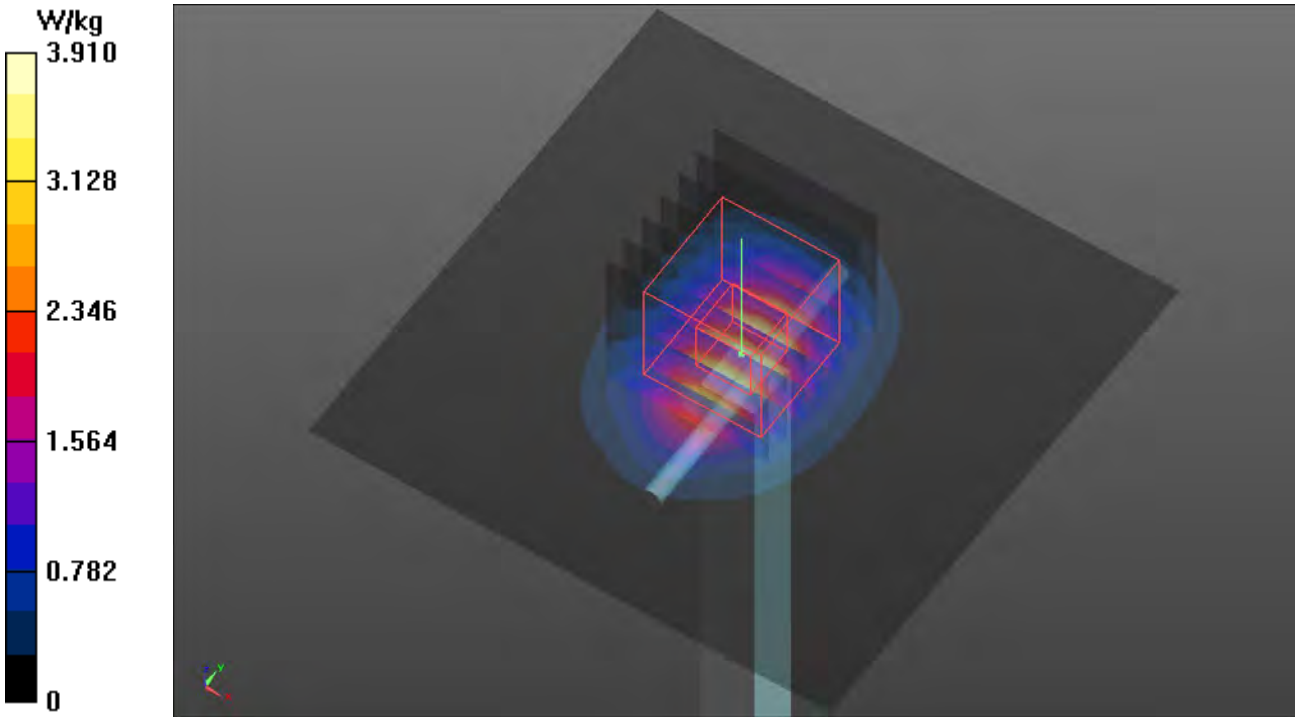
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0627 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.883 S/m; ε_r = 38.286; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2450 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 3.91 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 47.72 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 4.71 W/kg
SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.17 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 3.93 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

S12 System Check_H5250_220627

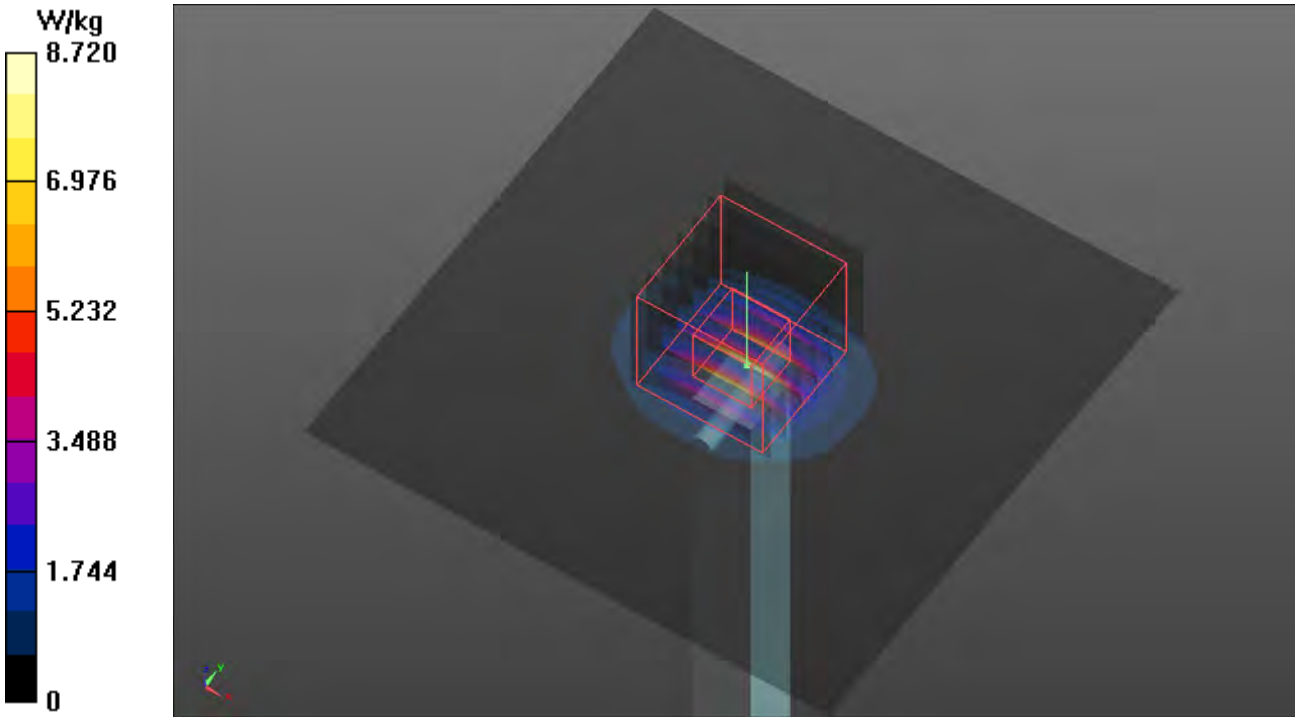
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0627 Medium parameters used: f = 5250 MHz; σ = 4.607 S/m; ε_r = 34.846; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(5.43, 5.43, 5.43) @ 5250 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 8.72 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 49.11 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 13.9 W/kg
SAR(1 g) = 3.76 W/kg; SAR(10 g) = 1.09 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 9.01 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

S13 System Check_H5600_220627

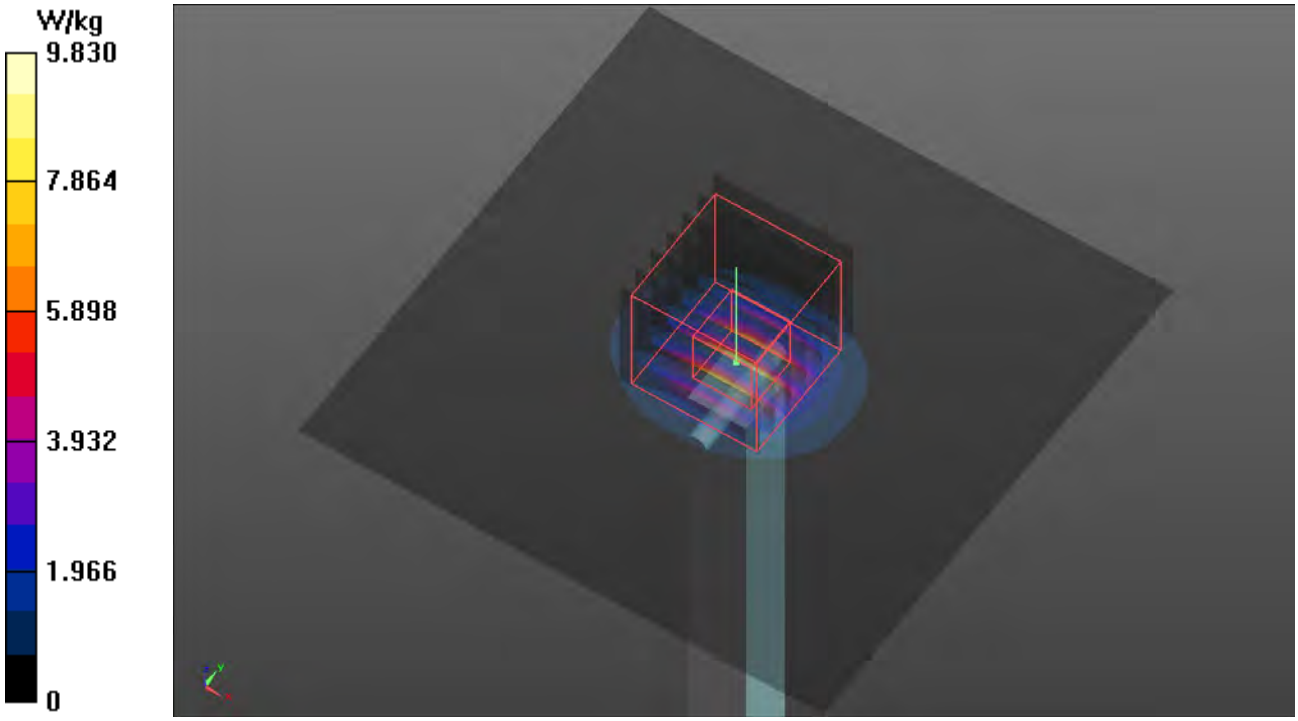
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0627 Medium parameters used: f = 5600 MHz; σ = 4.998 S/m; ε_r = 34.41; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(4.69, 4.69, 4.69) @ 5600 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 9.83 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 50.02 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 16.7 W/kg
SAR(1 g) = 3.97 W/kg; SAR(10 g) = 1.12 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 10.3 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

S14 System Check_H5750_220627

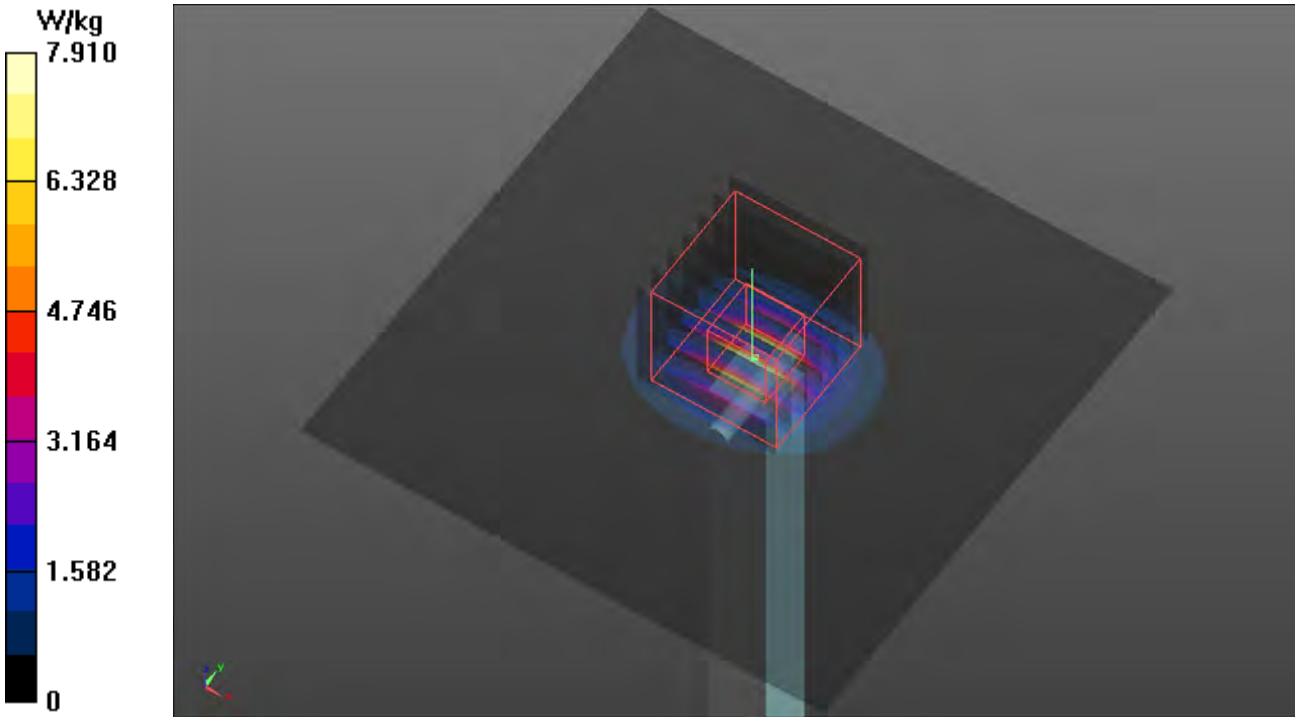
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5750 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0627 Medium parameters used: f = 5750 MHz; σ = 5.133 S/m; ε_r = 34.387; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(4.82, 4.82, 4.82) @ 5750 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 7.91 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 42.98 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 14.2 W/kg
SAR(1 g) = 3.91 W/kg; SAR(10 g) = 1.14 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 8.42 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

S15 System Check_H2450_220627

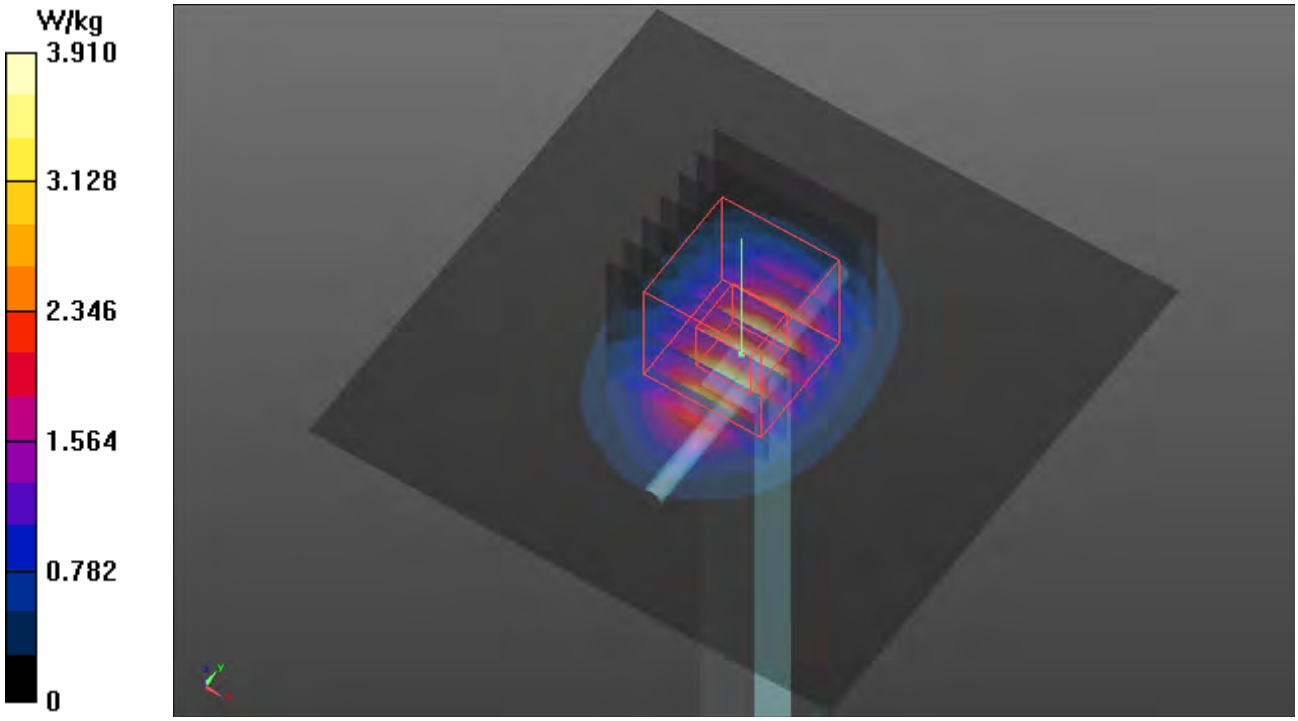
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0627 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.883 S/m; ε_r = 38.286; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2450 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 3.91 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 47.72 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 4.71 W/kg
SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.17 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 3.93 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/30

S16 System Check_H2450_220630

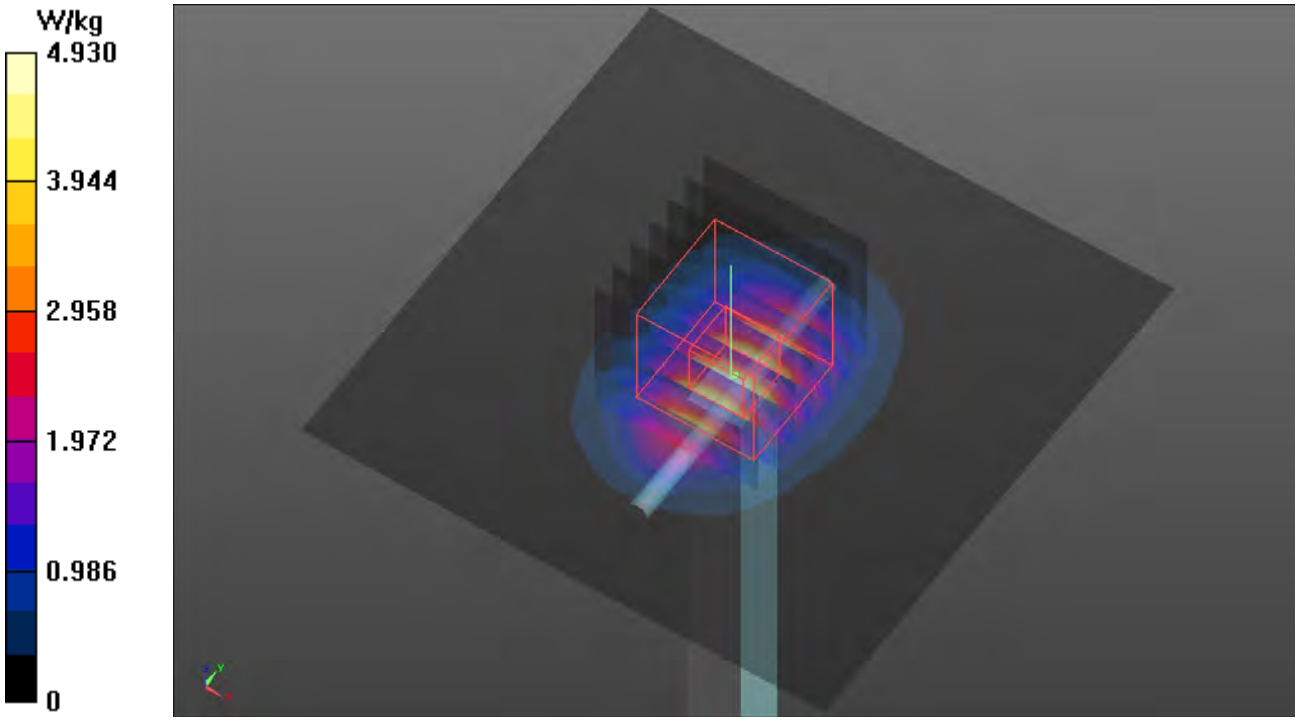
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0630 Medium parameters used: f = 2450 MHz; σ = 1.794 S/m; ε_r = 37.894; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2450 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 4.93 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.21 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 6.05 W/kg
SAR(1 g) = 2.83 W/kg; SAR(10 g) = 1.32 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.98 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/30

S17 System Check_H5250_220630

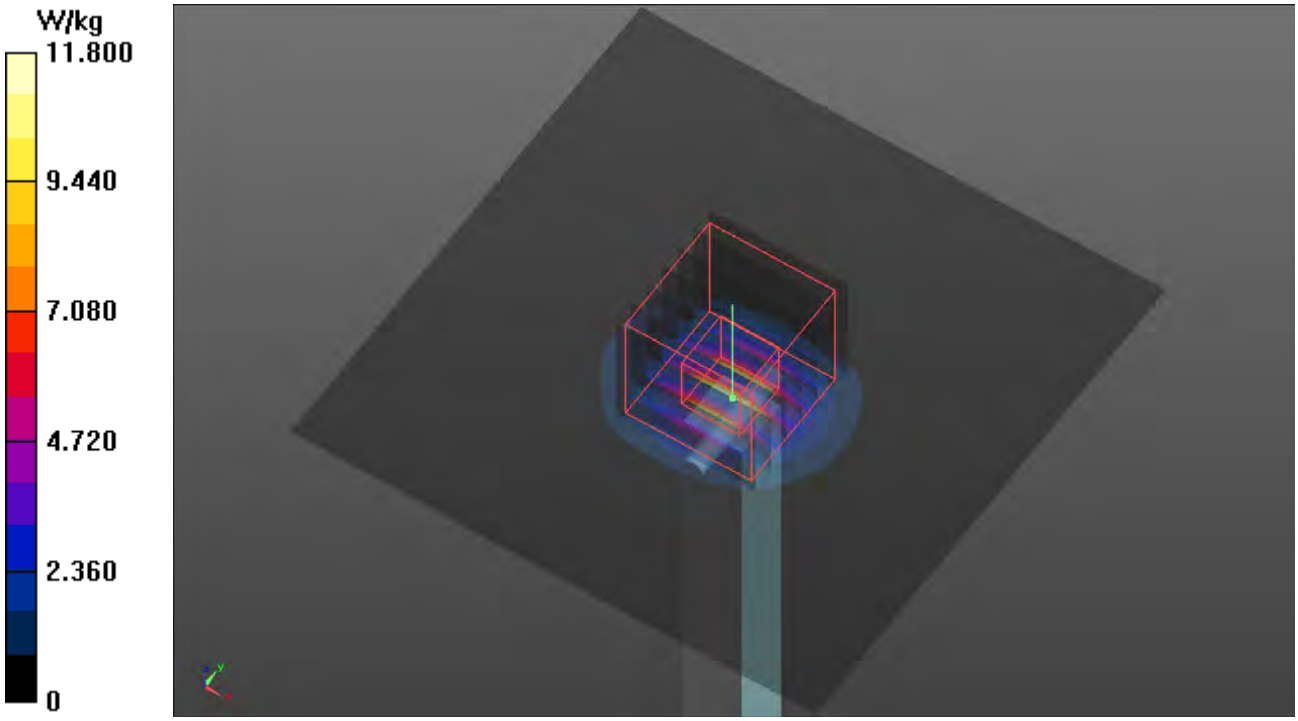
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0630 Medium parameters used (interpolated): f = 5250 MHz; σ = 4.79 S/m; ε_r = 35.104; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(5.43, 5.43, 5.43) @ 5250 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 11.8 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 45.86 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 18.5 W/kg
SAR(1 g) = 4.29 W/kg; SAR(10 g) = 1.12 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 11.9 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/30

S18 System Check_H5600_220630

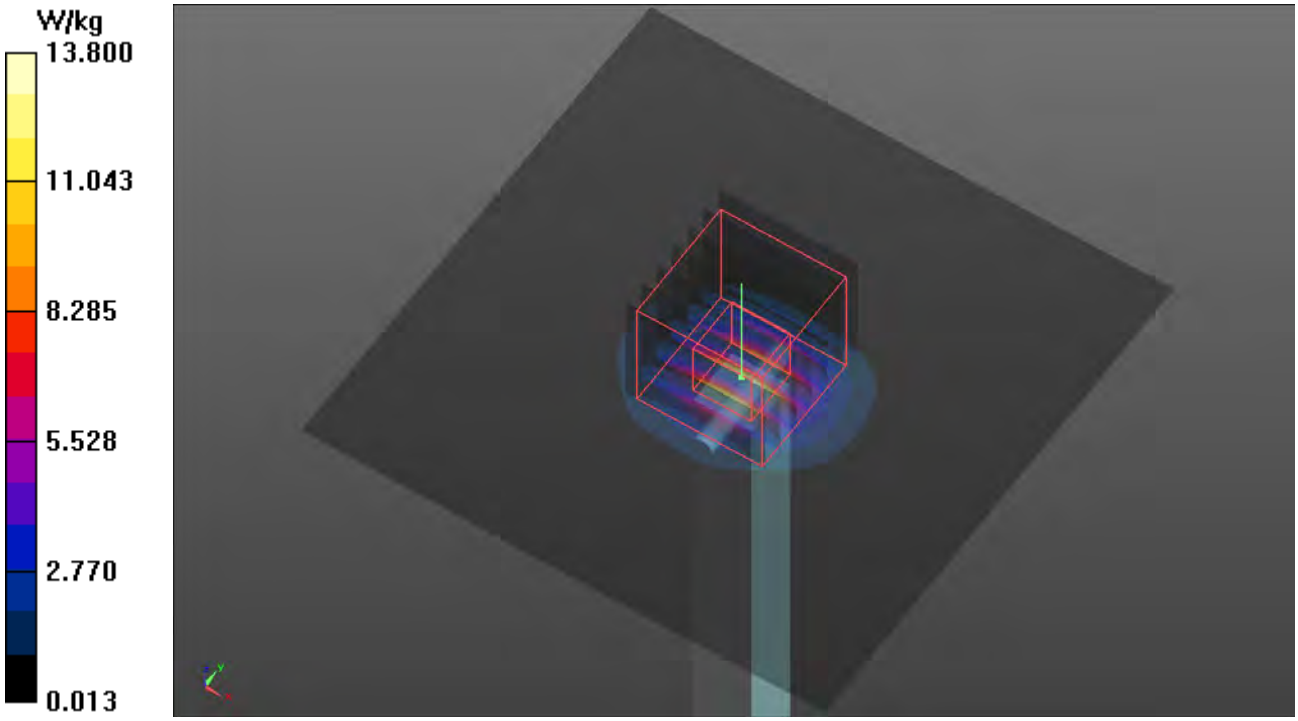
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0630 Medium parameters used: f = 5600 MHz; σ = 5.142 S/m; ε_r = 34.62; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(4.69, 4.69, 4.69) @ 5600 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 13.8 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 55.02 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 23.9 W/kg
SAR(1 g) = 4.5 W/kg; SAR(10 g) = 1.06 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 14.5 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/30

S19 System Check_H5750_220630

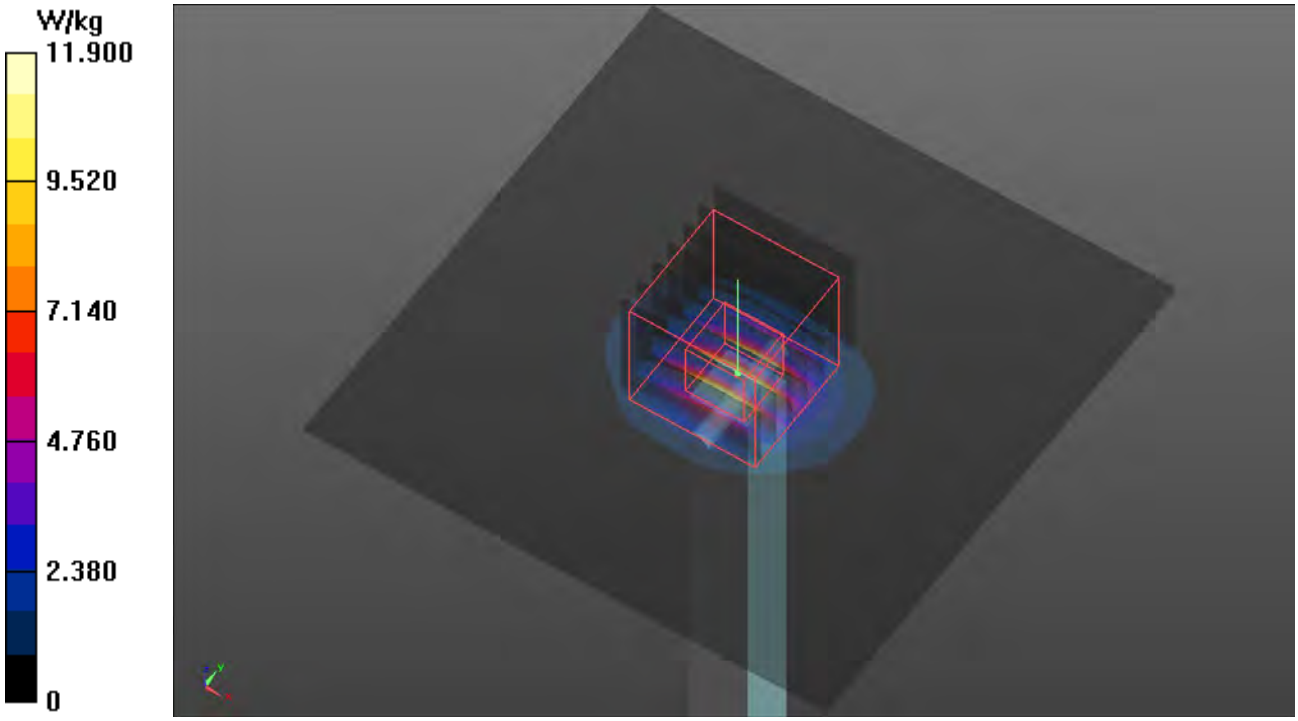
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5750 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0630 Medium parameters used: f = 5750 MHz; σ = 5.292 S/m; ε_r = 34.437; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(4.82, 4.82, 4.82) @ 5750 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 11.9 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 52.11 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 21.7 W/kg
SAR(1 g) = 4.28 W/kg; SAR(10 g) = 1.08 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 12.9 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/30

S20 System Check_H2450_220630

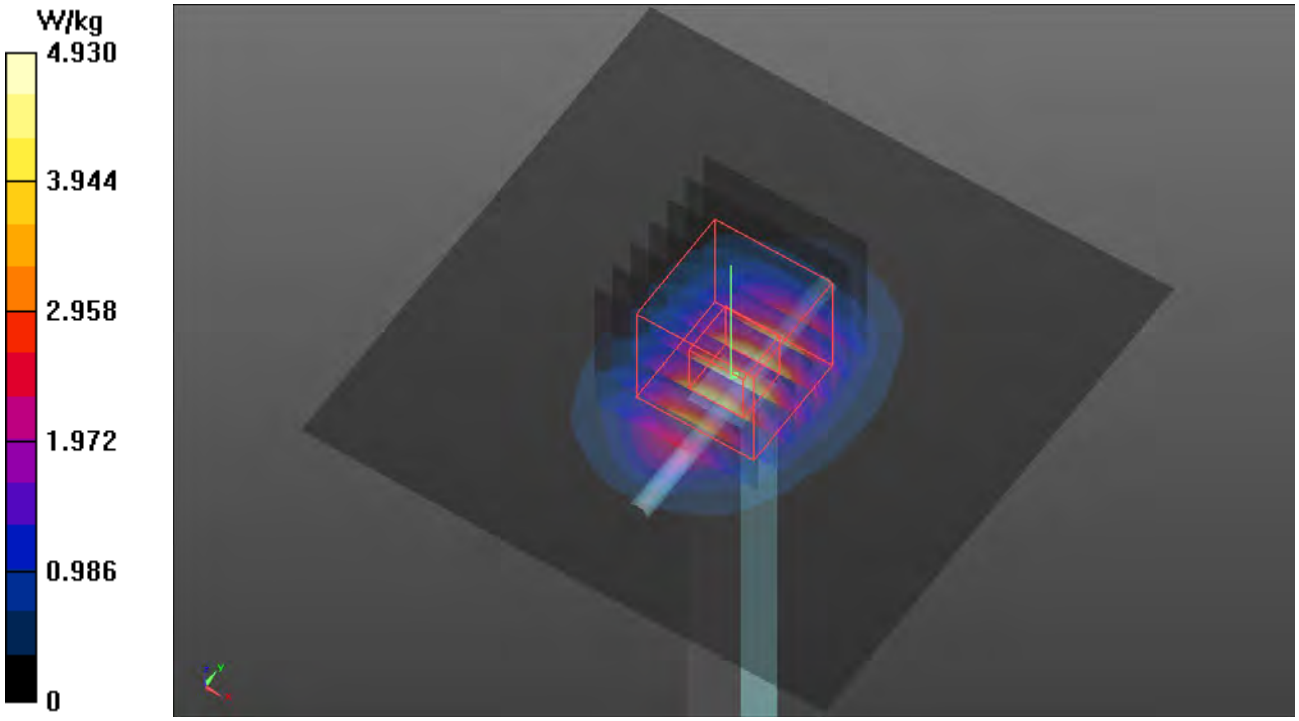
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0630 Medium parameters used: f = 2450 MHz; σ = 1.794 S/m; ε_r = 37.894; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2450 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 4.93 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.21 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 6.05 W/kg
SAR(1 g) = 2.83 W/kg; SAR(10 g) = 1.32 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.98 W/kg



Annex B. Plots of Measurement

The SAR plots for highest measured SAR in each exposure configuration, wireless mode and frequency band combination are shown as follows.

Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

P01 WLAN2.4G_802.11b_Left Side_0mm_Ch1_Sample 1_Ant 0+1_Holster 2_Scan Handle_w

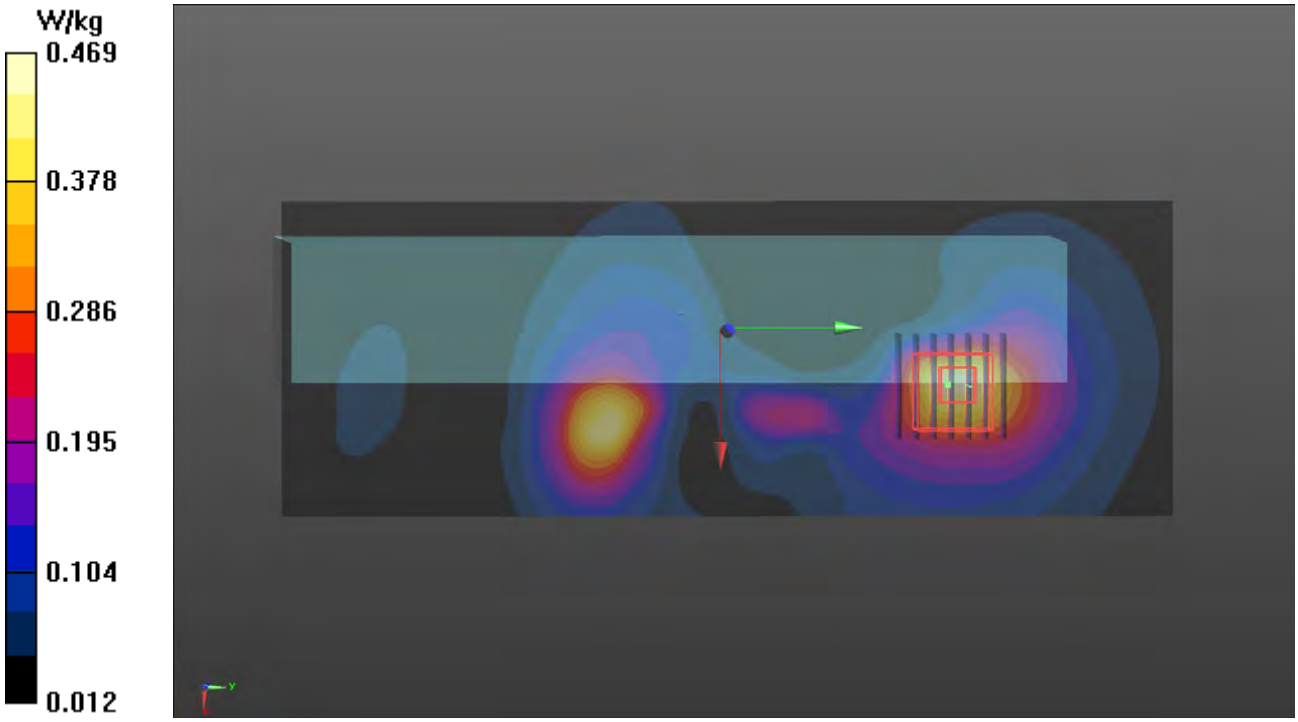
DUT: BERD-WTW-P22060334

Communication System: UID 10012 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps); Frequency: 2412 MHz;Duty Cycle: 1:1.01
Medium: H19T27N1_0627 Medium parameters used: f = 2412 MHz; σ = 1.851 S/m; ε_r = 38.447; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2412 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (81x221x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.469 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.92 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.670 W/kg
SAR(1 g) = 0.340 W/kg; SAR(10 g) = 0.180 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 7 mm
Ratio of SAR at M2 to SAR at M1 = 54.3%
Maximum value of SAR (measured) = 0.550 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

P02 WLAN5.2G_802.11ac VHT40_Left Side_0mm_Ch46_Sample 1_Ant 0+1_Holster 2_Scan Handle_w

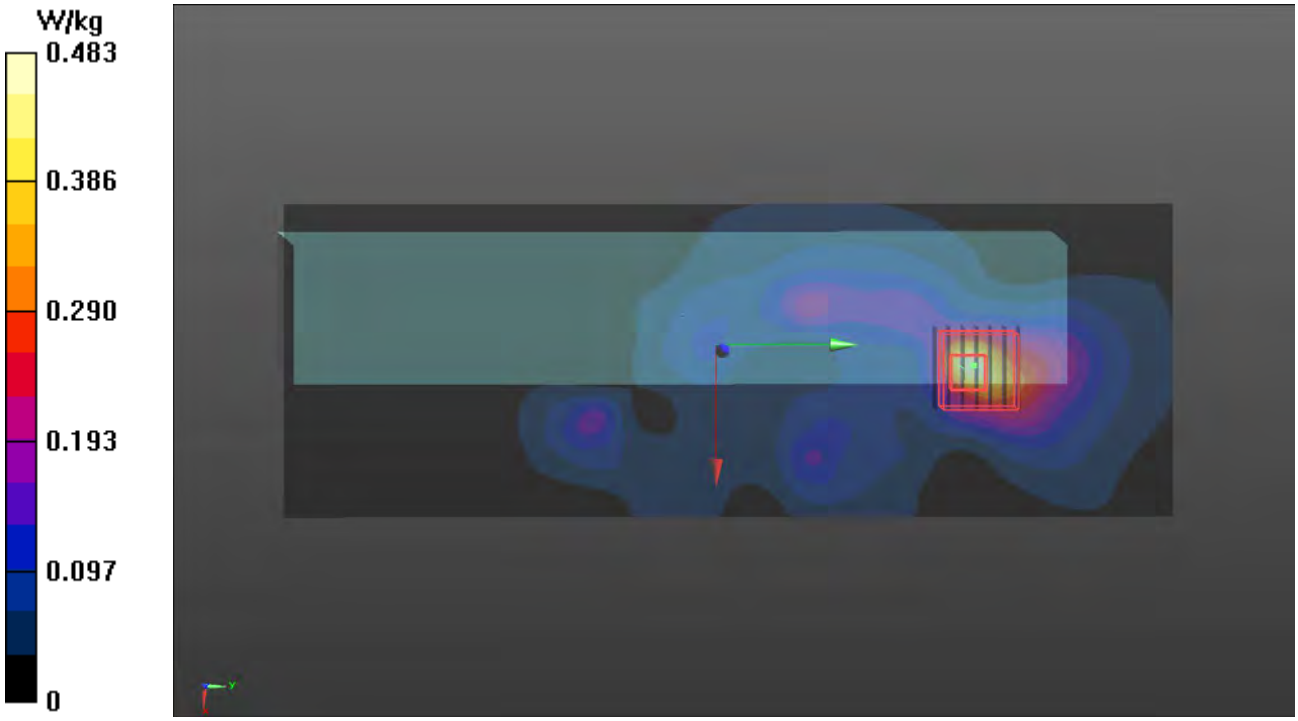
DUT: BERD-WTW-P22060334

Communication System: UID 10534 - AAC, IEEE 802.11ac WiFi (40MHz, MCS0); Frequency: 5230 MHz;Duty Cycle: 1:1.28
Medium: H34T60N1_0627 Medium parameters used: f = 5230 MHz; σ = 4.551 S/m; ε_r = 34.83; ρ = 1000 kg/m^3
Ambient Temperature : 23.5 ℃ ; Liquid Temperature : 23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(5.43, 5.43, 5.43) @ 5230 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (91x261x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.483 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 11.08 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.745 W/kg
SAR(1 g) = 0.132 W/kg; SAR(10 g) = 0.037 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 6.9 mm
Ratio of SAR at M2 to SAR at M1 = 70.5%
Maximum value of SAR (measured) = 0.499 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

P03 WLAN5.6G_802.11ac VHT40_Left Side_0mm_Ch110_Sample 1_Ant 0+1_Holster 2_Scan Handle_w

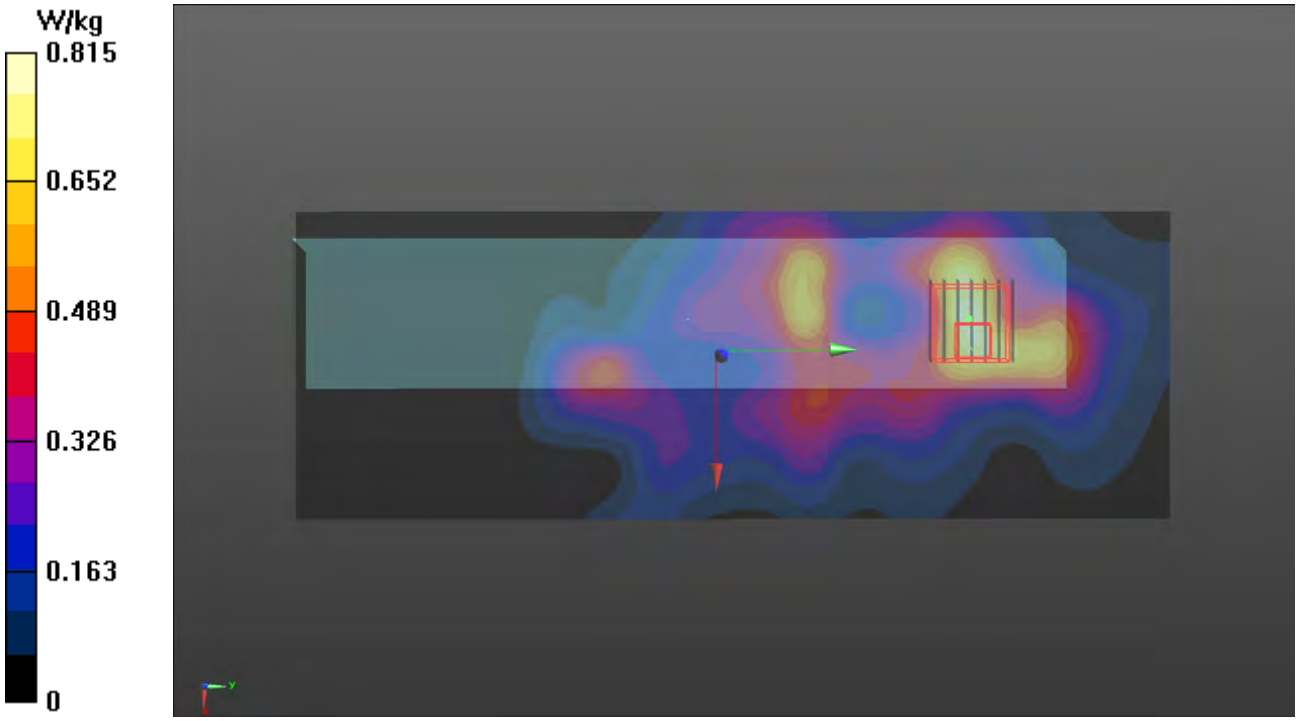
DUT: BERD-WTW-P22060334

Communication System: UID 10534 - AAC, IEEE 802.11ac WiFi (40MHz, MCS0); Frequency: 5550 MHz;Duty Cycle: 1:1.28
Medium: H34T60N1_0627 Medium parameters used: f = 5550 MHz; σ = 4.865 S/m; ε_r = 34.54; ρ = 1000 kg/m^3
Ambient Temperature : 23.5 ℃ ; Liquid Temperature : 23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(4.69, 4.69, 4.69) @ 5550 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (91x261x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.815 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 15.83 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.98 W/kg
SAR(1 g) = 0.514 W/kg; SAR(10 g) = 0.189 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 6.8 mm
Ratio of SAR at M2 to SAR at M1 = 65.7%
Maximum value of SAR (measured) = 1.22 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

P04 WLAN5.8G_802.11ac VHT80_Left Side_0mm_Ch155_Sample 1_Ant 0+1_Holster 2_Scan Handle_w

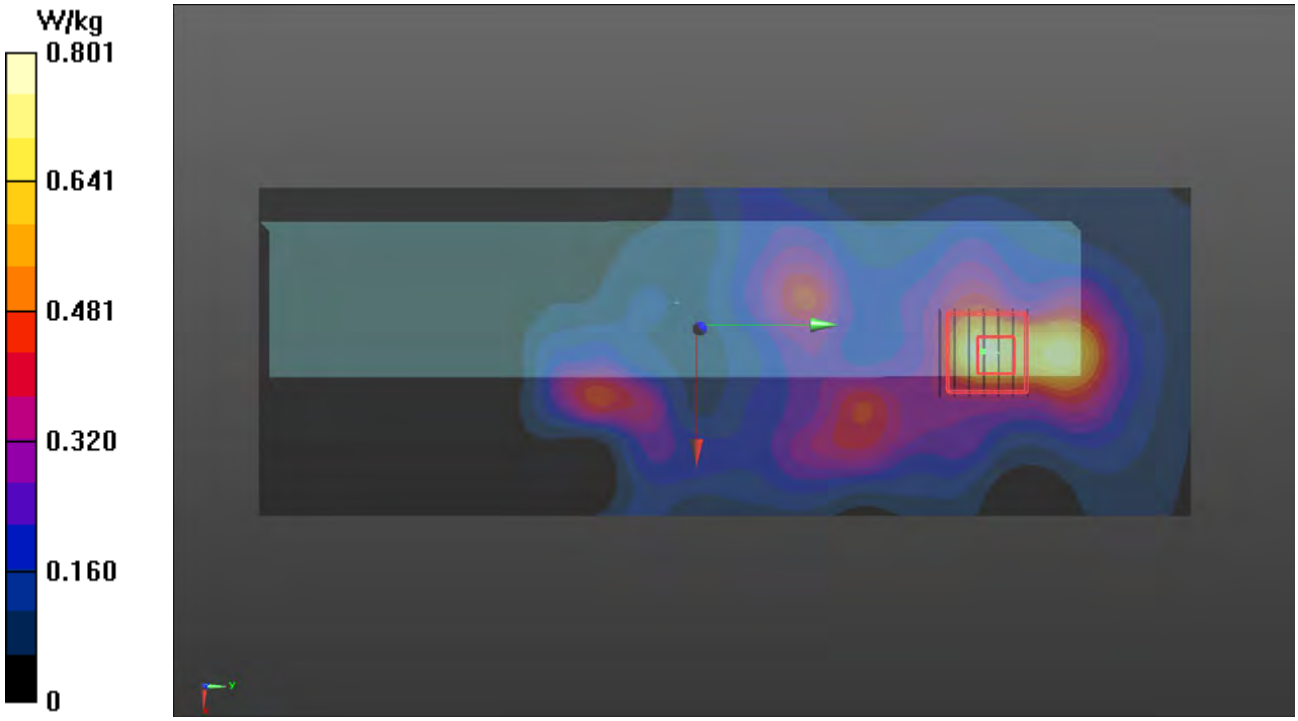
DUT: BERD-WTW-P22060334

Communication System: UID 10544 - AAC, IEEE 802.11ac WiFi (80MHz, MCS0); Frequency: 5775 MHz;Duty Cycle: 1:1.56
Medium: H34T60N1_0627 Medium parameters used: f = 5775 MHz; σ = 5.109 S/m; ε_r = 34.307; ρ = 1000 kg/m^3
Ambient Temperature : 23.5 ℃ ; Liquid Temperature : 23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(4.82, 4.82, 4.82) @ 5775 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (91x261x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.801 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 13.37 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.81 W/kg
SAR(1 g) = 0.434 W/kg; SAR(10 g) = 0.134 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 6.4 mm
Ratio of SAR at M2 to SAR at M1 = 64%
Maximum value of SAR (measured) = 1.08 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

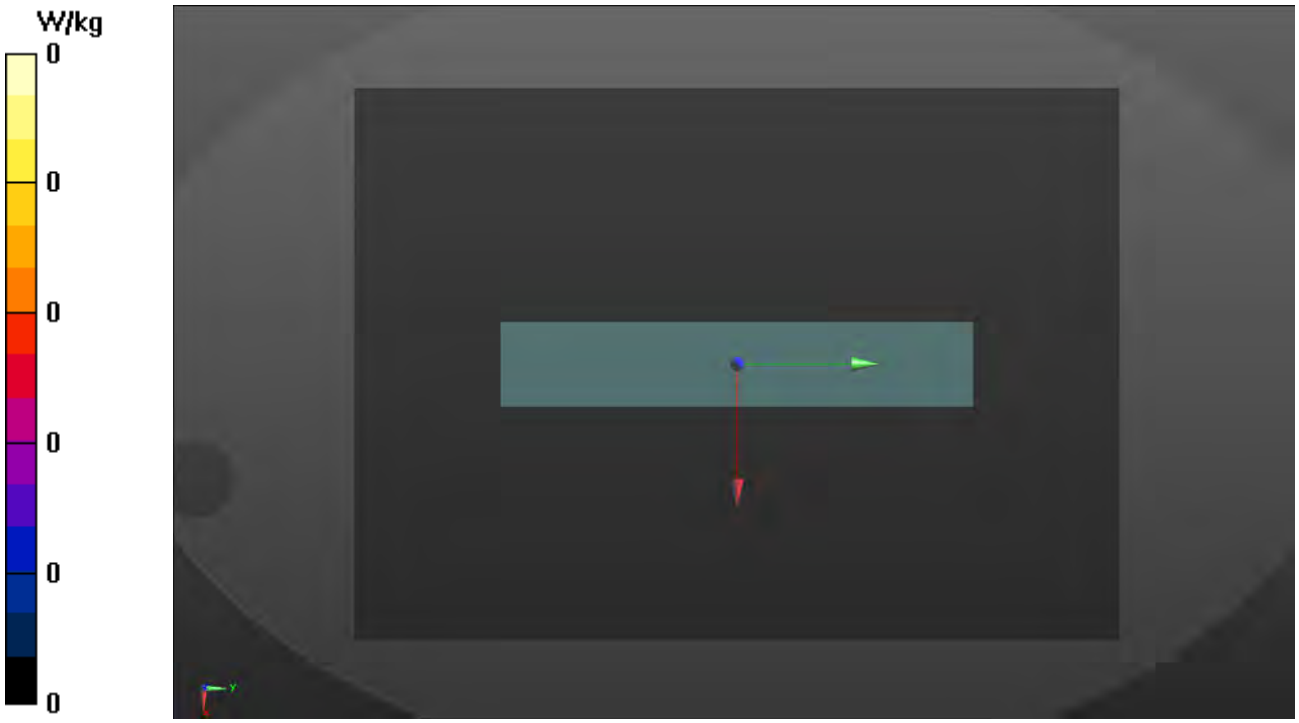
P05 BT_BDR_Left Side_0mm_Ch78_Sample 1_Ant 0_Holster 2_Scan Handle_w

DUT: BERD-WTW-P22060334

Communication System: UID 10032 - CAA, IEEE 802.15.1 Bluetooth (GFSK, DH5); Frequency: 2480 MHz;Duty Cycle: 1:1.32
Medium: H19T27N1_0627 Medium parameters used: f = 2480 MHz; σ = 1.914 S/m; ε_r = 38.11; ρ = 1000 kg/m^3
Ambient Temperature : 23.5 ℃ ; Liquid Temperature : 23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2480 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (221x301x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/24

P06 WLAN2.4G_802.11b_Left Side_0mm_Ch1_Sample 2_Ant 0+1_Holster 2_Scan Handle_w

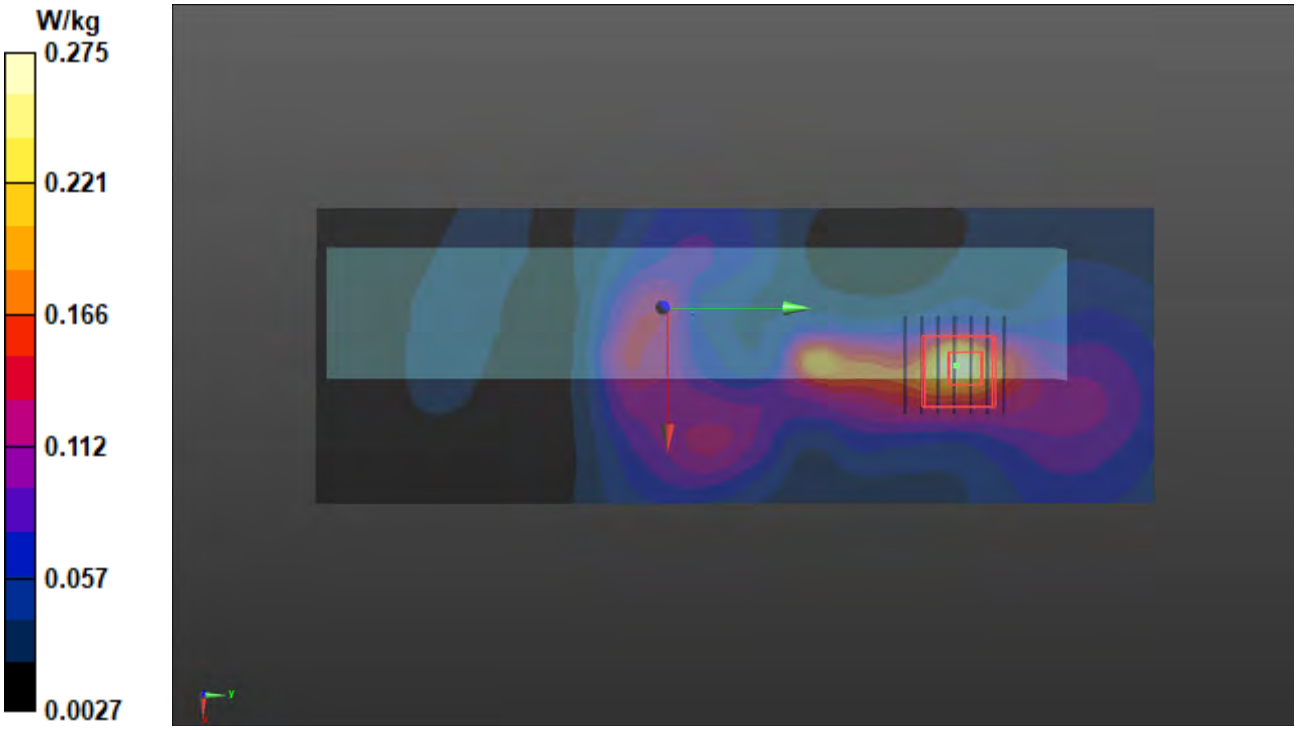
DUT: BERD-WTW-P22060334

Communication System: UID 10012 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps); Frequency: 2412 MHz;Duty Cycle: 1:1.01
Medium: H19T27N1_0624 Medium parameters used: f = 2412 MHz; σ = 1.711 S/m; ε_r = 42.89; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃； Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(7.82, 7.82, 7.82) @ 2412 MHz; Calibrated: 2022/03/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2022/03/23
- Phantom: ELI Phantom_2118; Type: QD OVA 004 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x221x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.275 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.51 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.364 W/kg
SAR(1 g) = 0.186 W/kg; SAR(10 g) = 0.088 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 7.8 mm
Ratio of SAR at M2 to SAR at M1 = 53.3%
Maximum value of SAR (measured) = 0.282 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/24

P07 WLAN5.2G_802.11ac VHT40_Left Side_0mm_Ch46_Sample 2_Ant 0+1_Holster 2_Scan Handle_w

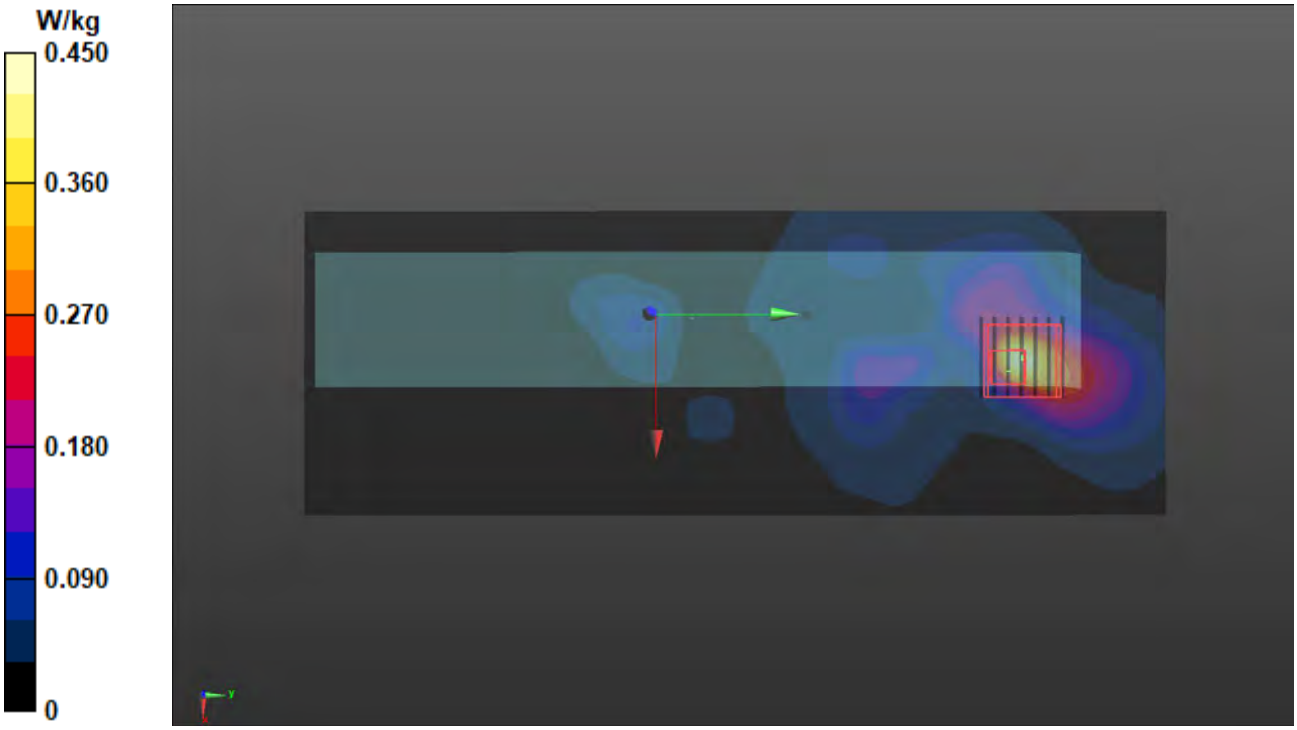
DUT: BERD-WTW-P22060334

Communication System: UID 10534 - AAC, IEEE 802.11ac WiFi (40MHz, MCS0); Frequency: 5230 MHz;Duty Cycle: 1:1.28
Medium: H34T60N1_0624 Medium parameters used: f = 5230 MHz; σ = 4.57 S/m; ε_r = 35.871; ρ = 1000 kg/m^3
Ambient Temperature : 23.6 ℃ ; Liquid Temperature : 23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(5.28, 5.28, 5.28) @ 5230 MHz; Calibrated: 2022/03/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2022/03/23
- Phantom: ELI Phantom_2118; Type: QD OVA 004 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x261x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.450 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 10.58 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.682 W/kg
SAR(1 g) = 0.161 W/kg; SAR(10 g) = 0.050 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 6.8 mm
Ratio of SAR at M2 to SAR at M1 = 67.5%
Maximum value of SAR (measured) = 0.428 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/24

P08 WLAN5.6G_802.11ac VHT40_Left Side_0mm_Ch110_Sample 2_Ant 0+1_Holster 2_Scan Handle_w

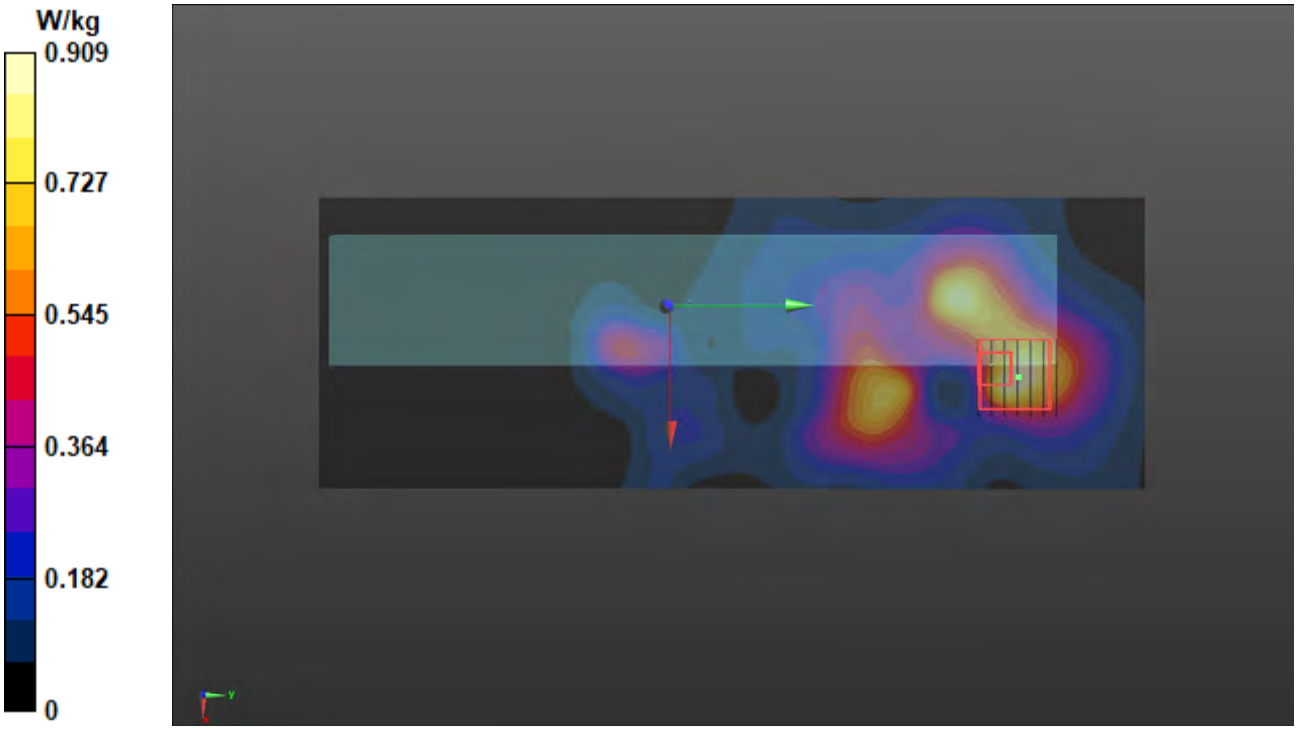
DUT: BERD-WTW-P22060334

Communication System: UID 10534 - AAC, IEEE 802.11ac WiFi (40MHz, MCS0); Frequency: 5550 MHz;Duty Cycle: 1:1.28
Medium: H34T60N1_0624 Medium parameters used: f = 5550 MHz; σ = 4.912 S/m; ε_r = 35.33; ρ = 1000 kg/m^3
Ambient Temperature : 23.6 ℃ ; Liquid Temperature : 23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(4.78, 4.78, 4.78) @ 5550 MHz; Calibrated: 2022/03/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2022/03/23
- Phantom: ELI Phantom_2118; Type: QD OVA 004 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x261x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.909 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 14.23 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 2.10 W/kg
SAR(1 g) = 0.539 W/kg; SAR(10 g) = 0.176 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 65.5%
Maximum value of SAR (measured) = 1.31 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/24

P09 WLAN5.8G_802.11ac VHT80_Left Side_0mm_Ch155_Sample 2_Ant 0+1_Holster 2_Scan Handle_w

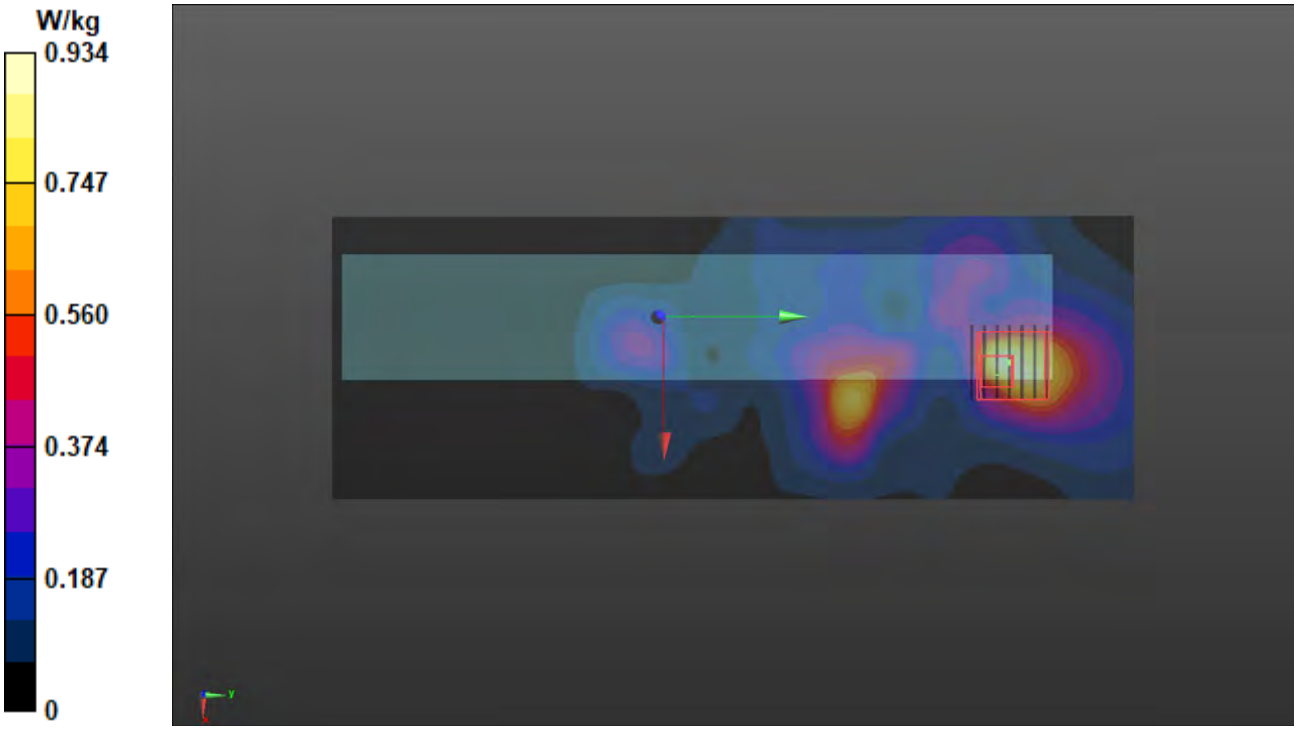
DUT: BERD-WTW-P22060334

Communication System: UID 10544 - AAC, IEEE 802.11ac WiFi (80MHz, MCS0); Frequency: 5775 MHz;Duty Cycle: 1:1.56
Medium: H34T60N1_0624 Medium parameters used: f = 5775 MHz; σ = 5.15 S/m; ε_r = 35.077; ρ = 1000 kg/m^3
Ambient Temperature : 23.6 ℃ ; Liquid Temperature : 23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(5.06, 5.06, 5.06) @ 5775 MHz; Calibrated: 2022/03/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2022/03/23
- Phantom: ELI Phantom_2118; Type: QD OVA 004 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x261x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.934 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 13.92 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.67 W/kg
SAR(1 g) = 0.406 W/kg; SAR(10 g) = 0.145 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 6.4 mm
Ratio of SAR at M2 to SAR at M1 = 63.9%
Maximum value of SAR (measured) = 0.983 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

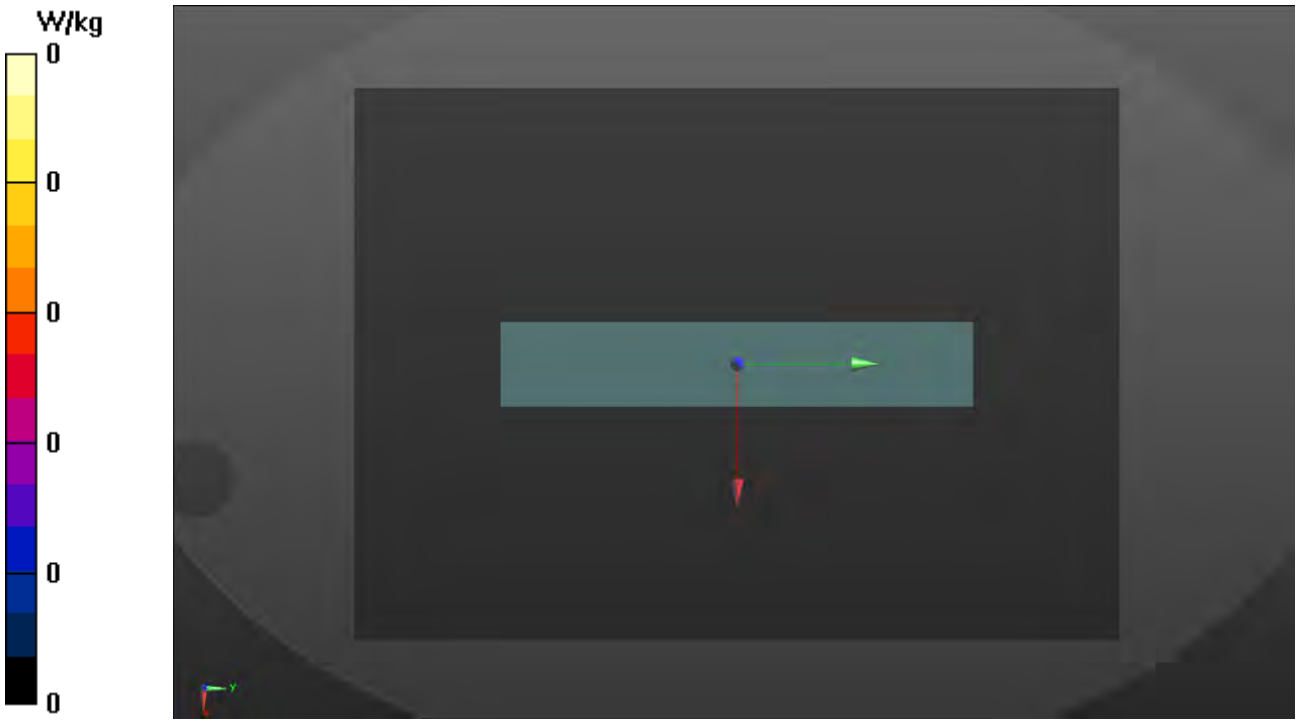
P10 BT_BDR_Left Side_0mm_Ch78_Sample 2_Ant 0_Holster 2_Scan Handle_w

DUT: BERD-WTW-P22060334

Communication System: UID 10032 - CAA, IEEE 802.15.1 Bluetooth (GFSK, DH5); Frequency: 2480 MHz;Duty Cycle: 1:1.32
Medium: H19T27N1_0627 Medium parameters used: f = 2480 MHz; σ = 1.914 S/m; ε_r = 38.11; ρ = 1000 kg/m^3
Ambient Temperature : 23.5 ℃ ; Liquid Temperature : 23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2480 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (221x301x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

P11 WLAN2.4G_802.11b_Left Side_0mm_Ch1_Sample 3_Ant 0+1_Holster 2_Scan Handle_w

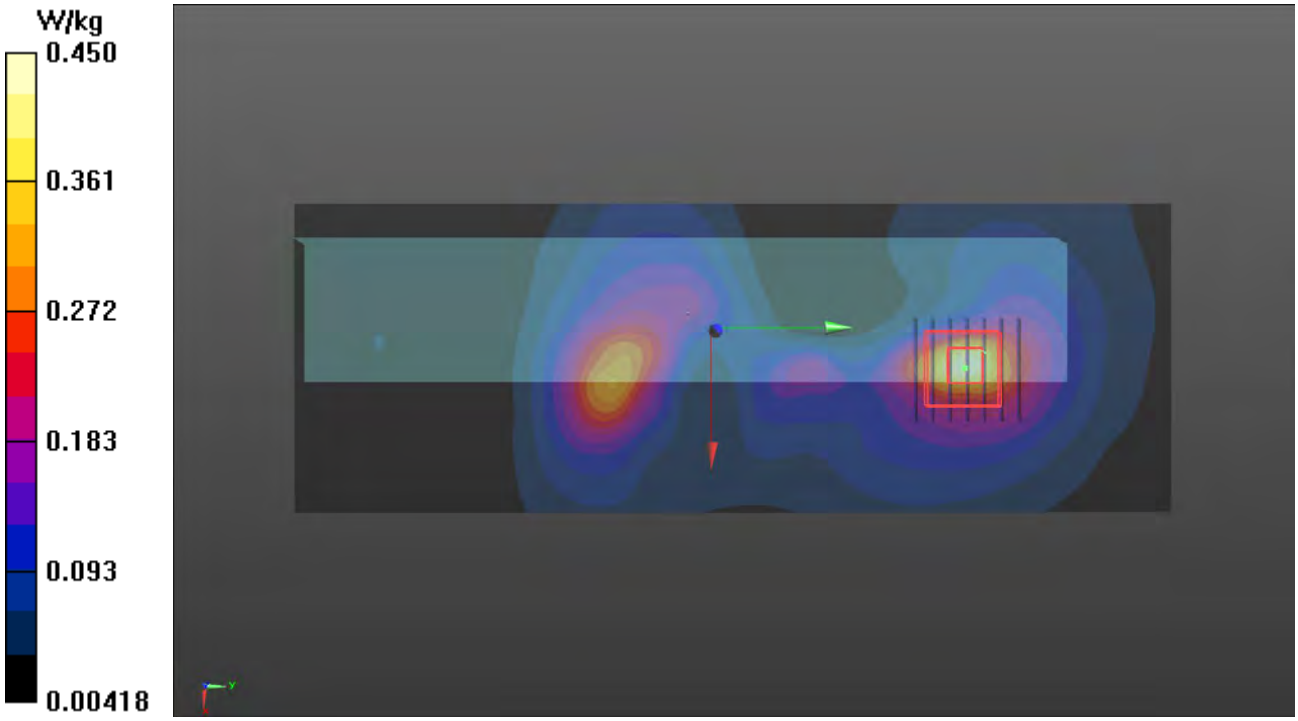
DUT: BERD-WTW-P22060334

Communication System: UID 10012 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps); Frequency: 2412 MHz;Duty Cycle: 1:1.01
Medium: H19T27N1_0627 Medium parameters used: f = 2412 MHz; σ = 1.851 S/m; ε_r = 38.447; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2412 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (81x221x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.450 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.83 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.564 W/kg
SAR(1 g) = 0.293 W/kg; SAR(10 g) = 0.155 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8 mm
Ratio of SAR at M2 to SAR at M1 = 50.3%
Maximum value of SAR (measured) = 0.445 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

P12 WLAN5.2G_802.11ac VHT40_Left Side_0mm_Ch46_Sample 3_Ant 0+1_Holster 2_Scan Handle_w

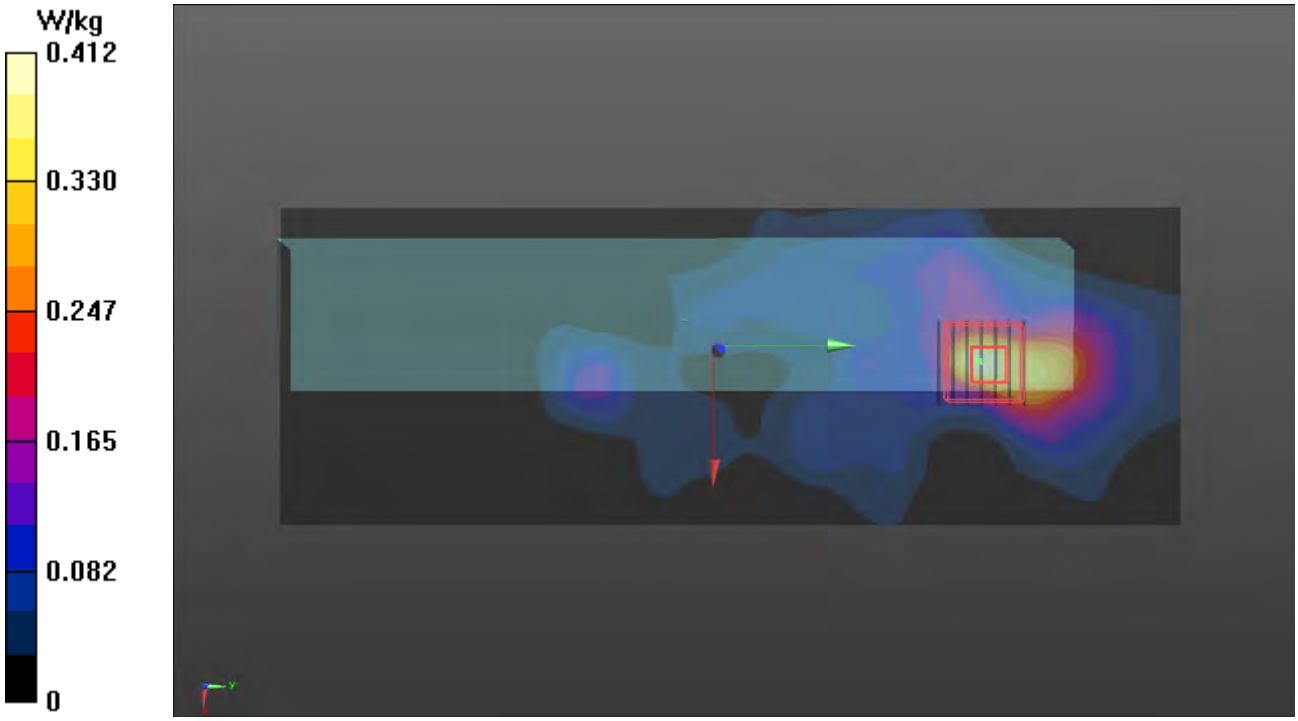
DUT: BERD-WTW-P22060334

Communication System: UID 10534 - AAC, IEEE 802.11ac WiFi (40MHz, MCS0); Frequency: 5230 MHz;Duty Cycle: 1:1.28
Medium: H34T60N1_0627 Medium parameters used: f = 5230 MHz; σ = 4.551 S/m; ε_r = 34.83; ρ = 1000 kg/m^3
Ambient Temperature : 23.5 ℃ ; Liquid Temperature : 23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(5.43, 5.43, 5.43) @ 5230 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (91x261x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.412 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 9.845 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.670 W/kg
SAR(1 g) = 0.162 W/kg; SAR(10 g) = 0.048 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 71.6%
Maximum value of SAR (measured) = 0.461 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

P13 WLAN5.6G_802.11ac VHT40_Left Side_0mm_Ch110_Sample 3_Ant 0+1_Holster 2_Scan Handle_w

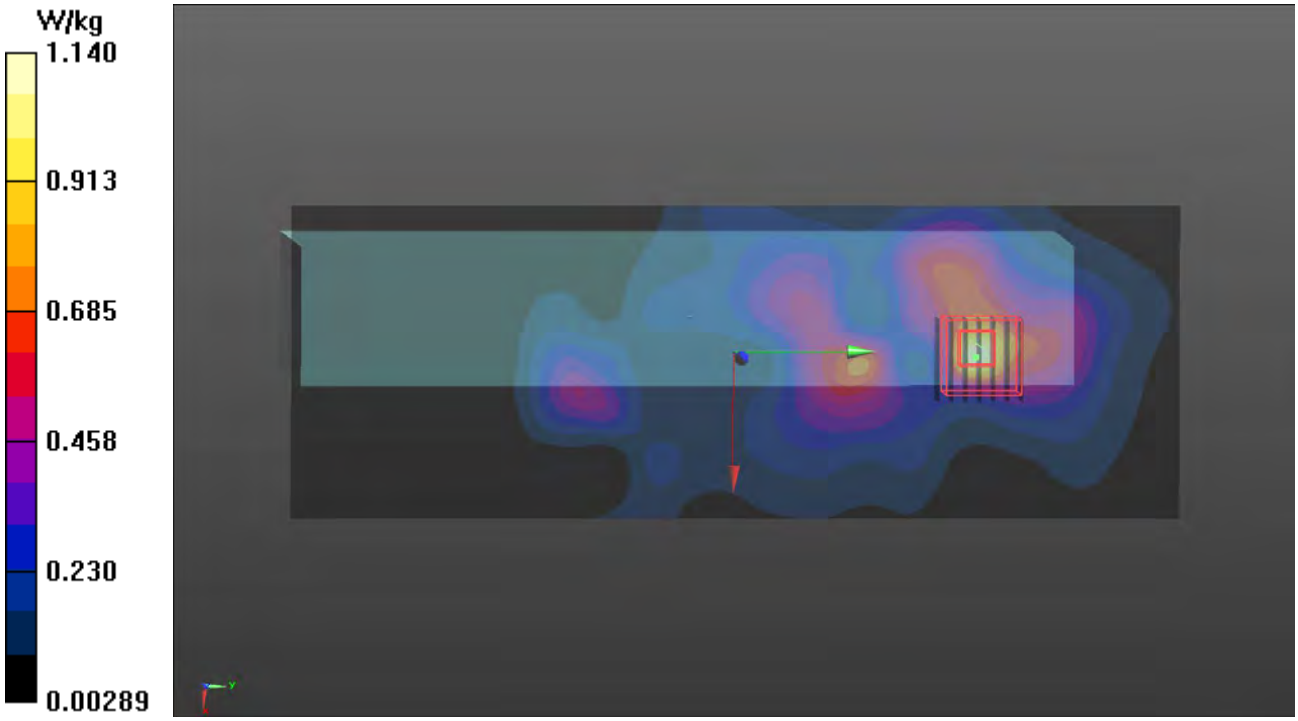
DUT: BERD-WTW-P22060334

Communication System: UID 10534 - AAC, IEEE 802.11ac WiFi (40MHz, MCS0); Frequency: 5550 MHz;Duty Cycle: 1:1.28
Medium: H34T60N1_0627 Medium parameters used: f = 5550 MHz; σ = 4.865 S/m; ε_r = 34.54; ρ = 1000 kg/m^3
Ambient Temperature : 23.5 ℃ ; Liquid Temperature : 23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(4.69, 4.69, 4.69) @ 5550 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (91x261x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.14 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 16.35 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 2.19 W/kg
SAR(1 g) = 0.567 W/kg; SAR(10 g) = 0.191 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 5.8 mm
Ratio of SAR at M2 to SAR at M1 = 66.1%
Maximum value of SAR (measured) = 1.34 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

P14 WLAN5.8G_802.11ac VHT80_Left Side_0mm_Ch155_Sample 3_Ant 0+1_Holster 2_Scan Handle_w

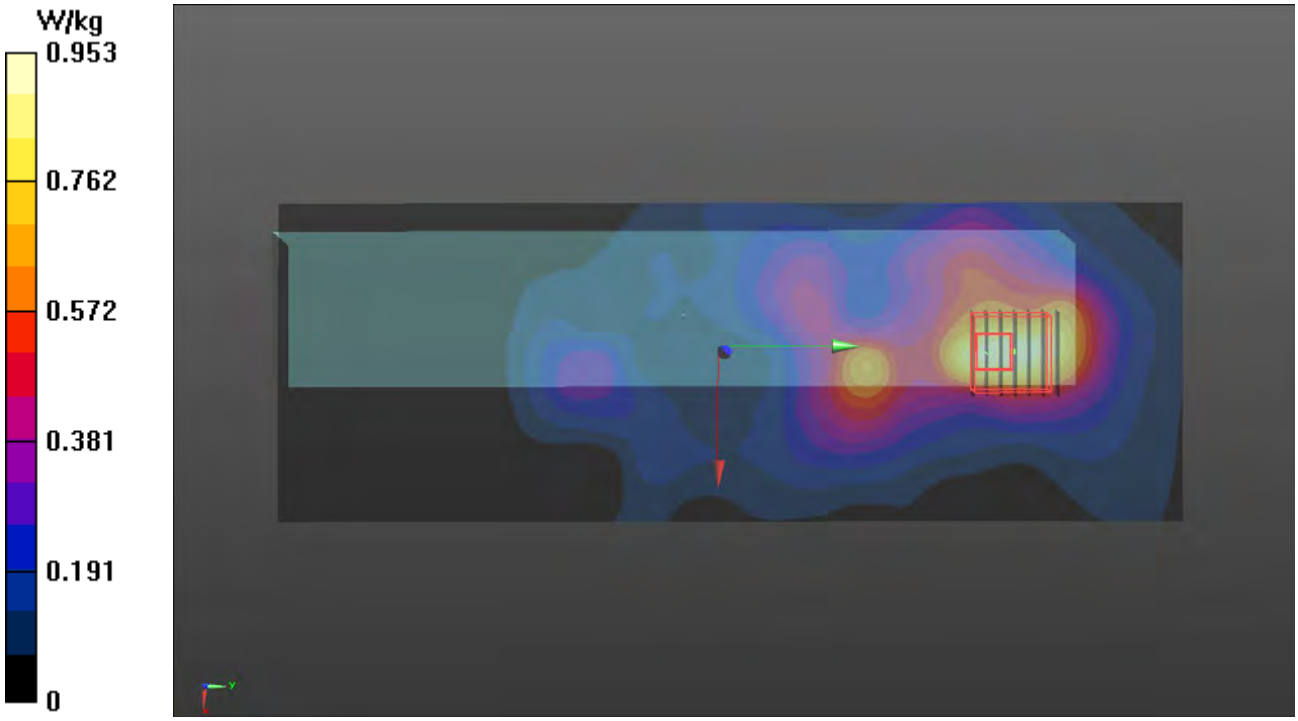
DUT: BERD-WTW-P22060334

Communication System: UID 10544 - AAC, IEEE 802.11ac WiFi (80MHz, MCS0); Frequency: 5775 MHz;Duty Cycle: 1:1.56
Medium: H34T60N1_0627 Medium parameters used: f = 5775 MHz; σ = 5.109 S/m; ε_r = 34.307; ρ = 1000 kg/m^3
Ambient Temperature : 23.5 ℃ ; Liquid Temperature : 23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(4.82, 4.82, 4.82) @ 5775 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (91x261x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.953 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 14.72 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.36 W/kg
SAR(1 g) = 0.555 W/kg; SAR(10 g) = 0.195 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 7.4 mm
Ratio of SAR at M2 to SAR at M1 = 63.7%
Maximum value of SAR (measured) = 1.42 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/27

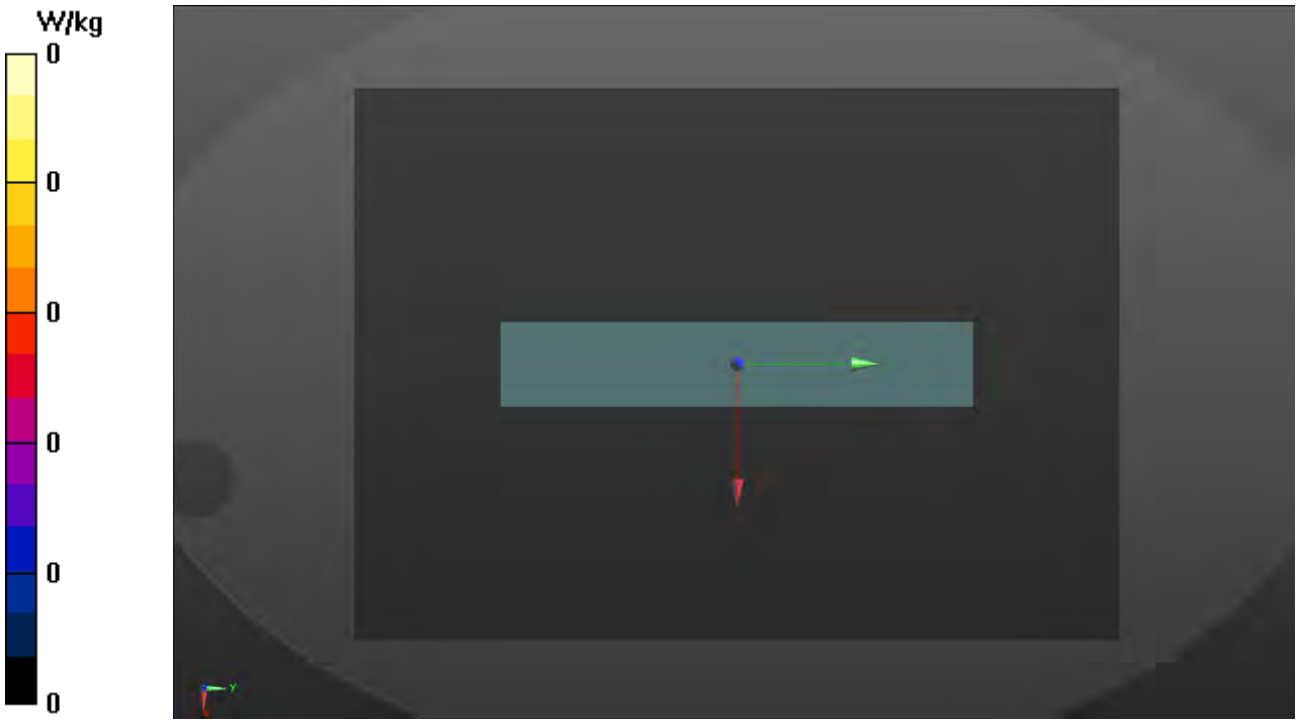
P15 BT_BDR_Left Side_0mm_Ch78_Sample 3_Ant 0_Holster 2_Scan Handle_w

DUT: BERD-WTW-P22060334

Communication System: UID 10032 - CAA, IEEE 802.15.1 Bluetooth (GFSK, DH5); Frequency: 2480 MHz;Duty Cycle: 1:1.32
Medium: H19T27N1_0627 Medium parameters used: f = 2480 MHz; σ = 1.914 S/m; ε_r = 38.11; ρ = 1000 kg/m^3
Ambient Temperature : 23.5 ℃ ; Liquid Temperature : 23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2480 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (221x301x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/30

P16 WLAN2.4G_802.11b_Left Side_0mm_Ch1_Sample 4_Ant 0+1_Holster 2_Scan Handle_w

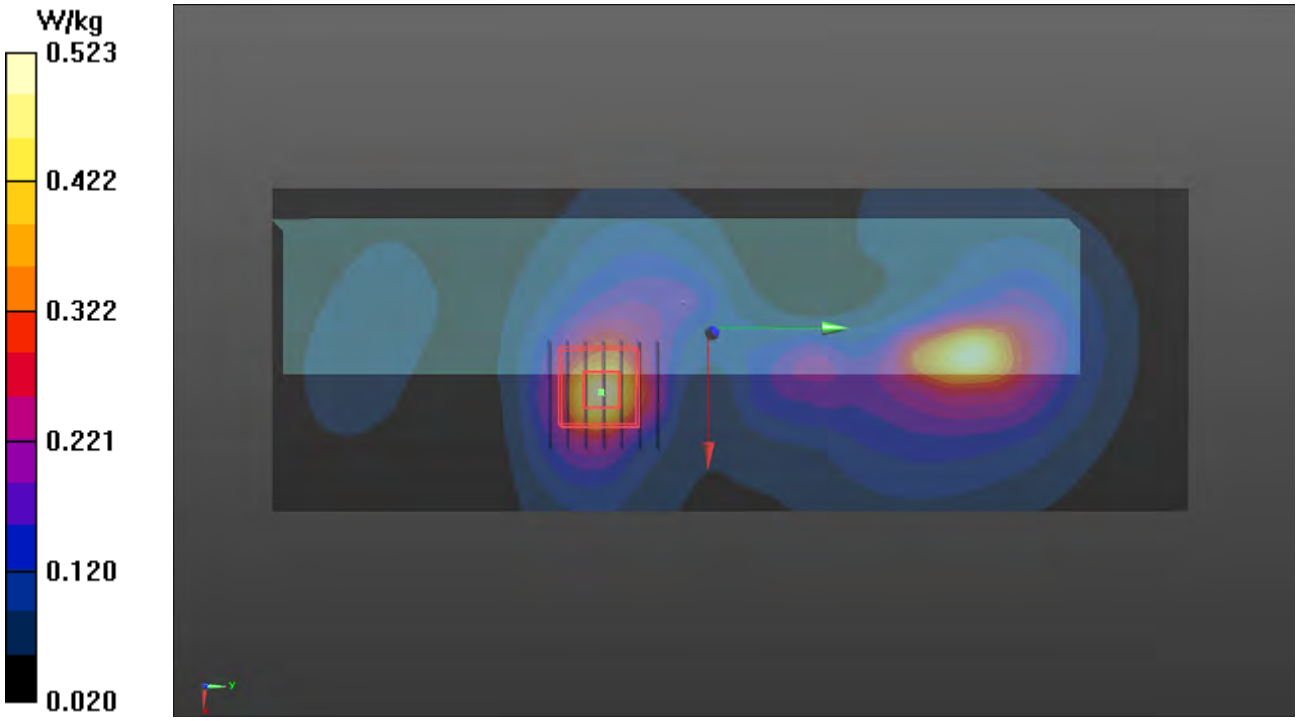
DUT: BERD-WTW-P22060334

Communication System: UID 10012 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps); Frequency: 2412 MHz;Duty Cycle: 1:1.01
Medium: H19T27N1_0630 Medium parameters used: f = 2412 MHz; σ = 1.767 S/m; ε_r = 37.963; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2412 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (81x221x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.523 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.43 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.642 W/kg
SAR(1 g) = 0.319 W/kg; SAR(10 g) = 0.168 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 9.8 mm
Ratio of SAR at M2 to SAR at M1 = 49.7%
Maximum value of SAR (measured) = 0.528 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/30

P17 WLAN5.2G_802.11ac VHT40_Left Side_0mm_Ch46_Sample 4_Ant 0+1_Holster 2_Scan Handle_w

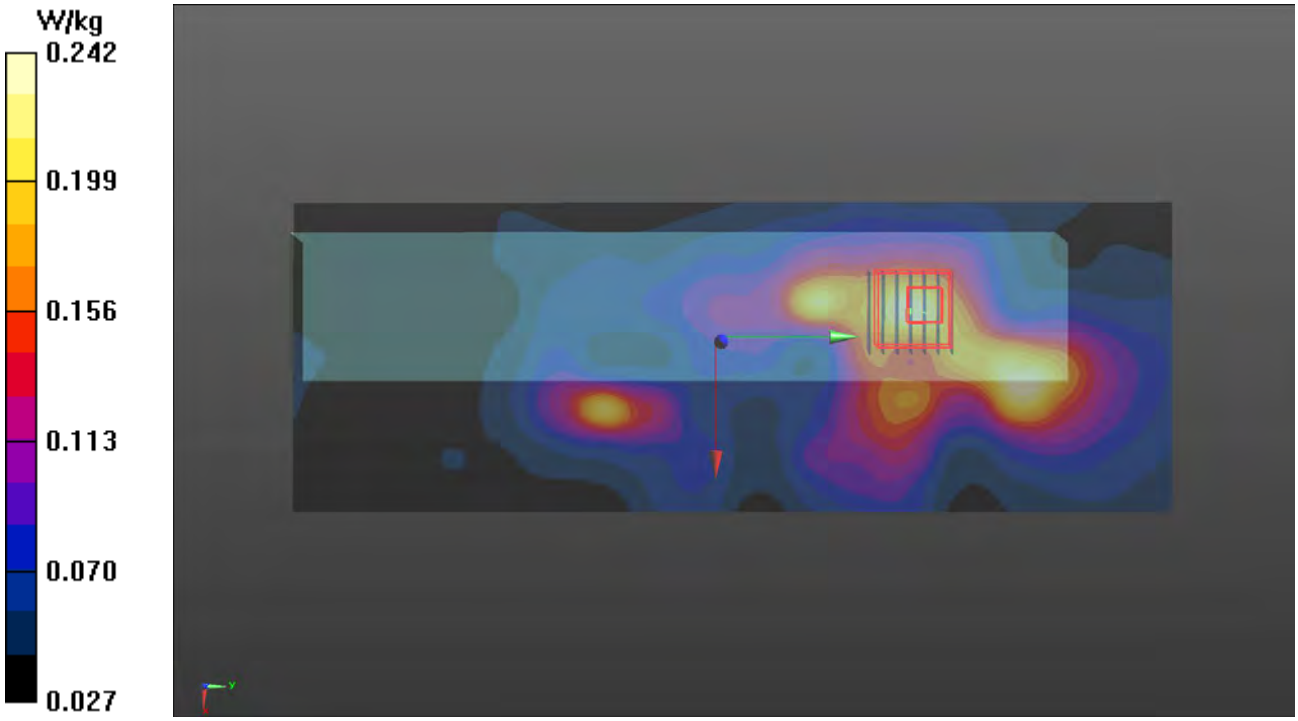
DUT: BERD-WTW-P22060334

Communication System: UID 10534 - AAC, IEEE 802.11ac WiFi (40MHz, MCS0); Frequency: 5230 MHz;Duty Cycle: 1:1.28
Medium: H34T60N1_0630 Medium parameters used: f = 5230 MHz; σ = 4.772 S/m; ε_r = 35.135; ρ = 1000 kg/m^3
Ambient Temperature : 23.6 ℃ ; Liquid Temperature : 23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(5.43, 5.43, 5.43) @ 5230 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (91x261x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.242 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 7.637 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.291 W/kg
SAR(1 g) = 0.139 W/kg; SAR(10 g) = 0.083 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 12 mm)
Ratio of SAR at M2 to SAR at M1 = 79.3%
Maximum value of SAR (measured) = 0.228 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/30

P18 WLAN5.6G_802.11ac VHT40_Left Side_0mm_Ch110_Sample 4_Ant 0+1_Holster 2_Scan Handle_w

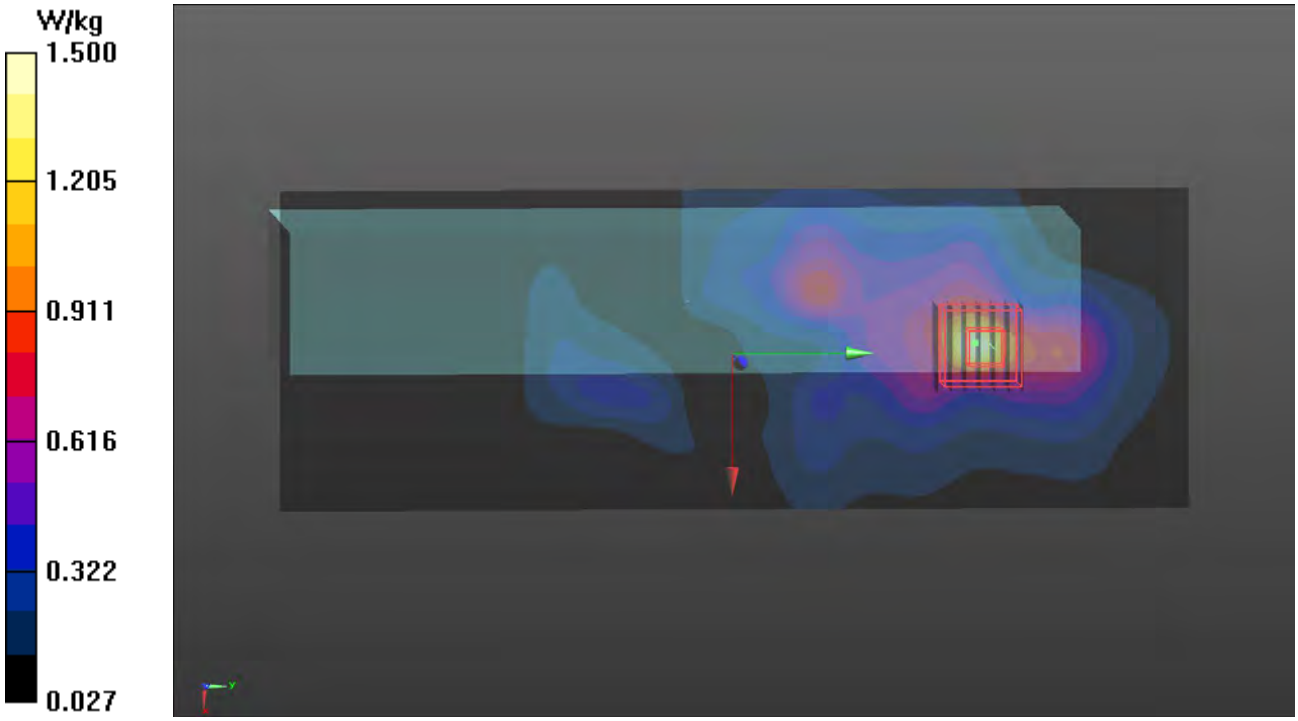
DUT: BERD-WTW-P22060334

Communication System: UID 10534 - AAC, IEEE 802.11ac WiFi (40MHz, MCS0); Frequency: 5550 MHz;Duty Cycle: 1:1.28
Medium: H34T60N1_0630 Medium parameters used: f = 5550 MHz; σ = 5.084 S/m; ε_r = 34.699; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(4.69, 4.69, 4.69) @ 5550 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (91x261x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.50 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 18.81 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 2.45 W/kg
SAR(1 g) = 0.677 W/kg; SAR(10 g) = 0.263 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 7.9 mm
Ratio of SAR at M2 to SAR at M1 = 66.7%
Maximum value of SAR (measured) = 1.51 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/30

P19 WLAN5.8G_802.11ac VHT80_Left Side_0mm_Ch155_Sample 4_Ant 0+1_Holster 2_Scan Handle_w

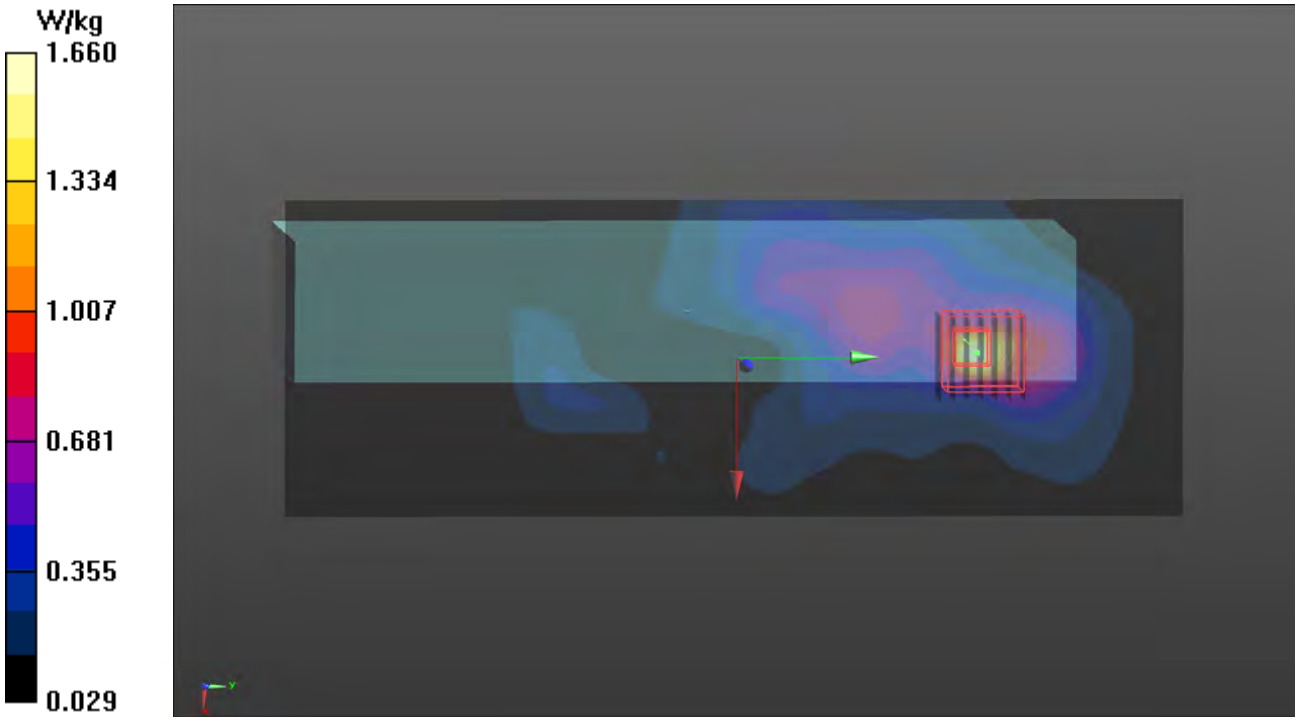
DUT: BERD-WTW-P22060334

Communication System: UID 10544 - AAC, IEEE 802.11ac WiFi (80MHz, MCS0); Frequency: 5775 MHz;Duty Cycle: 1:1.56
Medium: H34T60N1_0630 Medium parameters used: f = 5775 MHz; σ = 5.317 S/m; ε_r = 34.42; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(4.82, 4.82, 4.82) @ 5775 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (91x261x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.66 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 19.05 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 2.73 W/kg
SAR(1 g) = 0.552 W/kg; SAR(10 g) = 0.187 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 7.4 mm
Ratio of SAR at M2 to SAR at M1 = 63%
Maximum value of SAR (measured) = 1.56 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2022/06/30

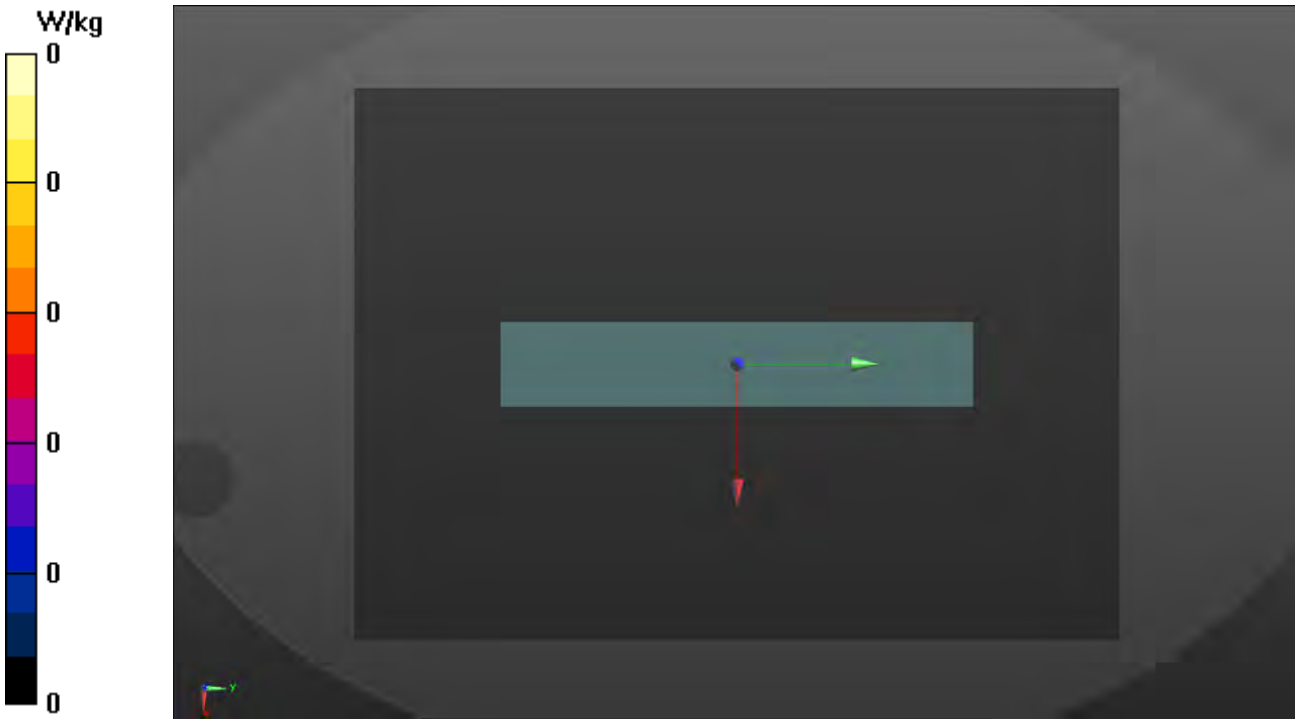
P20 BT_BDR_Left Side_0mm_Ch78_Sample 4_Ant 0_Holster 2_Scan Handle_w

DUT: BERD-WTW-P22060334

Communication System: UID 10032 - CAA, IEEE 802.15.1 Bluetooth (GFSK, DH5); Frequency: 2480 MHz;Duty Cycle: 1:1.32
Medium: H19T27N1_0630 Medium parameters used: f = 2480 MHz; σ = 1.816 S/m; ε_r = 37.829; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.81, 7.81, 7.81) @ 2480 MHz; Calibrated: 2021/12/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2022/02/23
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (221x301x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0 W/kg



Annex C. Tissue & System Verification

The measuring results for tissue simulating liquid and system check are shown as below.

Note:

1. For Section 4.3, the dielectric properties of the tissue simulating liquid have been measured within 24 hours before the SAR testing and within ±10 % of the target values. Liquid temperature during the SAR testing has kept within ±2 ℃.

2. For Section 4.4, The SAR measurement system was validated according to procedures in KDB 865664 D01. The validation status in tabulated summary is as below.

3. For Section 4.5, Comparing to the reference SAR value provided by SPEAG in dipole calibration certificate, the deviation of system check results is within its specification of 10 %. The result indicates the system check can meet the variation criterion and the plots please refer to Annex A of this report.

Tissue Verification									Validation for CW			Validation for Modulation				System Validation					Note			
Plot No.	Frequency (MHz)	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (εr)	Targeted Conductivity (σ)	Targeted Permittivity (εr)	Deviation Conductivity (σ)	Deviation Permittivity (εr)	Sensitivity Range	Probe Linearity	Probe Isotropy	Modulation Type	Duty Factor	PAR	Date	Frequency (MHz)	Targeted 1g SAR (W/kg)	Measured 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N	Output Power (dB)
S01	2450	23.3	1.883	38.286	1.8	39.2	4.61	-2.33	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 27, 2022	2450	52.60	2.44	48.68	-7.44	737	7350	1431	17
S02	5250	23.3	4.607	34.846	4.71	35.9	-2.19	-2.94	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 27, 2022	5250	80.60	3.76	75.02	-6.92	1019	7350	1431	17
S03	5600	23.3	4.998	34.41	5.07	35.5	-1.42	-3.07	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 27, 2022	5600	82.40	3.97	79.21	-3.87	1019	7350	1431	17
S04	5750	23.3	5.133	34.387	5.22	35.4	-1.67	-2.86	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 27, 2022	5750	79.40	3.91	78.01	-1.74	1019	7350	1431	17
S05	2450	23.3	1.883	38.286	1.8	39.2	4.61	-2.33	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 27, 2022	2450	52.60	2.44	48.68	-7.44	737	7350	1431	17
S06	2450	23.4	1.739	42.839	1.8	39.2	-3.39	9.28	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 24, 2022	2450	52.60	2.52	50.28	-4.41	737	3650	861	17
S07	5250	23.4	4.598	35.791	4.71	35.9	-2.38	-0.30	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 24, 2022	5250	80.60	3.81	76.02	-5.68	1019	3650	861	17
S08	5600	23.4	4.961	35.288	5.07	35.5	-2.15	-0.60	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 24, 2022	5600	82.40	4.11	82.01	-0.48	1019	3650	861	17
S09	5750	23.4	5.141	35.109	5.22	35.4	-1.51	-0.82	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 24, 2022	5750	79.40	3.77	75.22	-5.26	1019	3650	861	17
S10	2450	23.3	1.883	38.286	1.8	39.2	4.61	-2.33	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 27, 2022	2450	52.60	2.44	48.68	-7.44	737	7350	1431	17
S11	2450	23.3	1.883	38.286	1.8	39.2	4.61	-2.33	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 27, 2022	2450	52.60	2.44	48.68	-7.44	737	7350	1431	17
S12	5250	23.3	4.607	34.846	4.71	35.9	-2.19	-2.94	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 27, 2022	5250	80.60	3.76	75.02	-6.92	1019	7350	1431	17
S13	5600	23.3	4.998	34.41	5.07	35.5	-1.42	-3.07	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 27, 2022	5600	82.40	3.97	79.21	-3.87	1019	7350	1431	17
S14	5750	23.3	5.133	34.387	5.22	35.4	-1.67	-2.86	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 27, 2022	5750	79.40	3.91	78.01	-1.74	1019	7350	1431	17
S15	2450	23.3	1.883	38.286	1.8	39.2	4.61	-2.33	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 27, 2022	2450	52.60	2.44	48.68	-7.44	737	7350	1431	17
S16	2450	23.2	1.794	37.894	1.8	39.2	-0.33	-3.33	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 30, 2022	2450	52.60	2.83	56.47	7.35	737	7350	1431	17
S17	5250	23.2	4.79	35.104	4.71	35.9	1.70	-2.22	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 30, 2022	5250	80.60	4.29	85.60	6.20	1019	7350	1431	17
S18	5600	23.2	5.142	34.62	5.07	35.5	1.42	-2.48	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 30, 2022	5600	82.40	4.5	89.79	8.96	1019	7350	1431	17
S19	5750	23.2	5.292	34.437	5.22	35.4	1.38	-2.72	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 30, 2022	5750	79.40	4.28	85.40	7.55	1019	7350	1431	17
S20	2450	23.2	1.794	37.894	1.8	39.2	-0.33	-3.33	Pass	Pass	Pass	OFDM	N/A	Pass	Jun. 30, 2022	2450	52.60	2.83	56.47	7.35	737	7350	1431	17

Annex F. SAR Test Result

SAR Results for Body Exposure Condition.

Note:

1. SAR testing for WLAN was performed on the maximum power mode.
2. The “< 0.001” means there is no SAR value or the SAR is too low to be measured.

Body SAR Test Result

System & Position						DUT & Accessory				SAR							
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	Sample	Ant Status	Holster	Scan Handle (gun)	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
1	WLAN2.4G	802.11b	Left Side	0	1	1	Ant 0+1	2	w/	99.30	1.01	23.00	22.24	1.19	-0.09	0.34	0.41
2	WLAN5.2G	802.11ac VHT40	Left Side	0	46	1	Ant 0+1	2	w/	77.90	1.28	17.50	16.54	1.25	-0.04	0.132	0.21
3	WLAN5.6G	802.11ac VHT40	Left Side	0	110	1	Ant 0+1	2	w/	77.90	1.28	22.00	21.55	1.11	0.08	0.514	0.73
4	WLAN5.8G	802.11ac VHT80	Left Side	0	155	1	Ant 0+1	2	w/	64.00	1.56	22.00	21.19	1.21	-0.02	0.434	0.82
5	BT	BDR	Left Side	0	78	1	Ant 0	2	w/	75.80	1.32	7.00	7.00	1.00	0	<0.001	0.00
6	WLAN2.4G	802.11b	Left Side	0	1	2	Ant 0+1	2	w/	99.30	1.01	23.00	22.24	1.19	-0.09	0.186	0.22
7	WLAN5.2G	802.11ac VHT40	Left Side	0	46	2	Ant 0+1	2	w/	77.90	1.28	17.50	16.54	1.25	-0.01	0.161	0.26
8	WLAN5.6G	802.11ac VHT40	Left Side	0	110	2	Ant 0+1	2	w/	77.90	1.28	22.00	21.55	1.11	-0.13	0.539	0.77
9	WLAN5.8G	802.11ac VHT80	Left Side	0	155	2	Ant 0+1	2	w/	64.00	1.56	22.00	21.19	1.21	-0.03	0.406	0.77
10	BT	BDR	Left Side	0	78	2	Ant 0	2	w/	75.80	1.32	7.00	7.00	1.00	0	<0.001	0.00
11	WLAN2.4G	802.11b	Left Side	0	1	3	Ant 0+1	2	w/	99.30	1.01	23.00	22.24	1.19	-0.04	0.293	0.35
12	WLAN5.2G	802.11ac VHT40	Left Side	0	46	3	Ant 0+1	2	w/	77.90	1.28	17.50	16.54	1.25	-0.15	0.162	0.26
13	WLAN5.6G	802.11ac VHT40	Left Side	0	110	3	Ant 0+1	2	w/	77.90	1.28	22.00	21.55	1.11	0.05	0.567	0.81
14	WLAN5.8G	802.11ac VHT80	Left Side	0	155	3	Ant 0+1	2	w/	64.00	1.56	22.00	21.19	1.21	-0.03	0.555	1.05
15	BT	BDR	Left Side	0	78	3	Ant 0	2	w/	75.80	1.32	7.00	7.00	1.00	0	<0.001	0.00
16	WLAN2.4G	802.11b	Left Side	0	1	4	Ant 0+1	2	w/	99.30	1.01	23.00	22.24	1.19	0.05	0.319	0.38
17	WLAN5.2G	802.11ac VHT40	Left Side	0	46	4	Ant 0+1	2	w/	77.90	1.28	17.50	16.54	1.25	-0.01	0.139	0.22
18	WLAN5.6G	802.11ac VHT40	Left Side	0	110	4	Ant 0+1	2	w/	77.90	1.28	22.00	21.55	1.11	0.01	0.677	0.96
19	WLAN5.8G	802.11ac VHT80	Left Side	0	155	4	Ant 0+1	2	w/	64.00	1.56	22.00	21.19	1.21	-0.08	0.552	1.04
20	BT	BDR	Left Side	0	78	4	Ant 0	2	w/	75.80	1.32	7.00	7.00	1.00	0	<0.001	0.00

Annex G. SAR Measurement Variability

Since all the measured SAR_{1g} are less than 0.8 W/kg, the repeated measurement is not required.

Annex H. Analysis of Simultaneous Transmission SAR.

Since all the verified SAR values are less than the values in original report, the simultaneous transmission evaluation has no effect and the simultaneous transmission SAR is not required.

Annex I. SAR to Peak Location Separation Ratio Analysis.

Since sum of simultaneous transmission SAR is less than the SAR limit for Body / Head : SAR_{1g} 1.6 W/kg ; Extremity SAR_{10g} 4.0 W/kg. There is no requirement for SAR to Peak Location Separation Ratio Analysis.

Annex J. Calibration of Test Equipment List

Calibration of Test Equipment List are shown as below.

Equipment for SAR Test					
Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D2450V2	737	Aug. 26, 2021	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1019	Mar. 19, 2021	2 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3650	Mar. 24, 2022	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7350	Dec. 20, 2021	1 Year
Data Acquisition Electronics	SPEAG	DAE4	861	Mar. 23, 2022	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1431	Feb. 23, 2022	1 Year
Spectrum Analyzer	R&S	FPH	103560	Jan. 28, 2022	1 Year
Universal Wireless Test Set	Anritsu	MT8870A	6201699387	Sep. 22, 2021	1 Year
Thermometer	YFE	YF-160A	120702365	Aug. 06, 2021	1 Year
Dielectric Assessment Kit	SPEAG	DAK-12	1164	Mar. 21, 2022	1 Year
Powersource1	SPEAG	SE_UMS_160 BA	4260	Jan. 13, 2022	1 Year

Annex K. Considerations Related to Bluetooth for Setup and Testing

This device has installed Bluetooth engineering testing software which can provide continuous transmitting RF signal. During Bluetooth SAR testing, this device was operated to transmit continuously at the maximum transmission duty with specified transmission mode, operating frequency, lowest data rate, and maximum output power.

The Bluetooth call box has been used during SAR measurement and the EUT was set to DH5 mode at the maximum output power. Its duty factor output power and the measured SAR for Bluetooth would be scaled to the 100% transmission duty factor to determine compliance.

Since all the verified SAR values are less than the values in original report, So Considerations Related to Bluetooth for Setup and Testing SAR is not required.

Annex Z. Calibration Certificate for Probe and Dipole

The SPEAG calibration certificates are shown as follows.

In Collaboration with
s p e a g
CALIBRATION LABORATORY
Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, Chi
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E-mail: ctl@chinattl.com http://www.chinattl.cn

中国认可
国际互认
校准
CALIBRATION
CNAS L0570

Client **B.V.ADT** **Certificate No: Z21-60284**

CALIBRATION CERTIFICATE

Object	D2450V2 - SN: 737
Calibration Procedure(s)	FF-Z11-003-01 Calibration Procedures for dipole validation kits
Calibration date:	August 26, 2021

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 (Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	106277	23-Sep-20 (CTTL, No.J20X08336)	Sep-21
Power sensor NRP8S	104291	23-Sep-20 (CTTL, No.J20X08336)	Sep-21
Reference Probe EX3DV4	SN 7517	03-Feb-21(CTTL-SPEAG,No.Z21-60001)	Feb-22
DAE3	SN 536	06-Nov-20(CTTL-SPEAG,No.Z20-60452)	Nov-21
Secondary Standards	**ID #**	**Cal Date (Calibrated by, Certificate No.)**	**Scheduled Calibration**
Signal Generator E4438C	MY49071430	01-Feb-21 (CTTL, No.J21X00593)	Jan-22
NetworkAnalyzer E5071C	MY46110673	14-Jan-21 (CTTL, No.J21X00232)	Jan-22

	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: August 31, 2021

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: cttl@chinattl.com http://www.chinattl.cn

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	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2450 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	39 2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.0 ± 6 %	1.77 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	13.0 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**52.6 W/kg ± 18.8 % (*k*=2)**
SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	5.92 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**23.9 W/kg ± 18.7 % (*k*=2)**

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
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Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	54.0Ω+ 4.29jΩ
Return Loss	- 25.0dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.067 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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E-mail: cttl@chinattl.com http://www.chinattl.cn

DASY5 Validation Report for Head TSL Date: 08.26.2021

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2450 MHz; σ = 1.772 S/m; ε_r = 40.04; ρ = 1000 kg/m^3

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7517; ConvF(7.34, 7.34, 7.34) @ 2450 MHz; Calibrated: 2021-02-03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn536; Calibrated: 2020-11-06
- Phantom: MFP_V5.1C (20deg probe tilt); Type: QD 000 P51 Cx; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Reference Value = 108.5 V/m; Power Drift = -0.01 dB

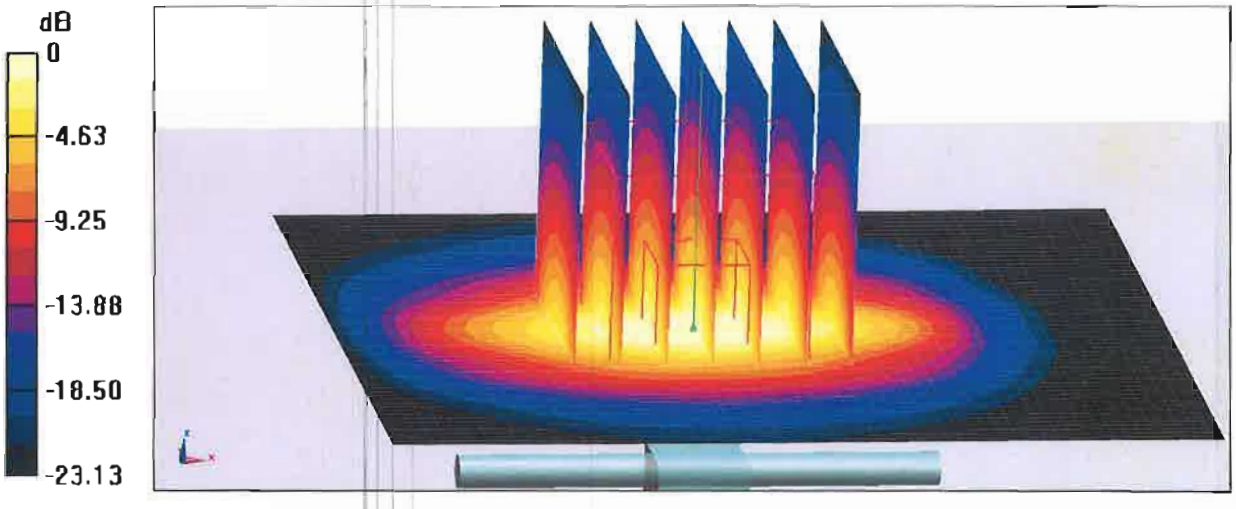
Peak SAR (extrapolated) = 27.8 W/kg

SAR(1 g) = 13 W/kg; SAR(10 g) = 5.92 W/kg

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 46.7%

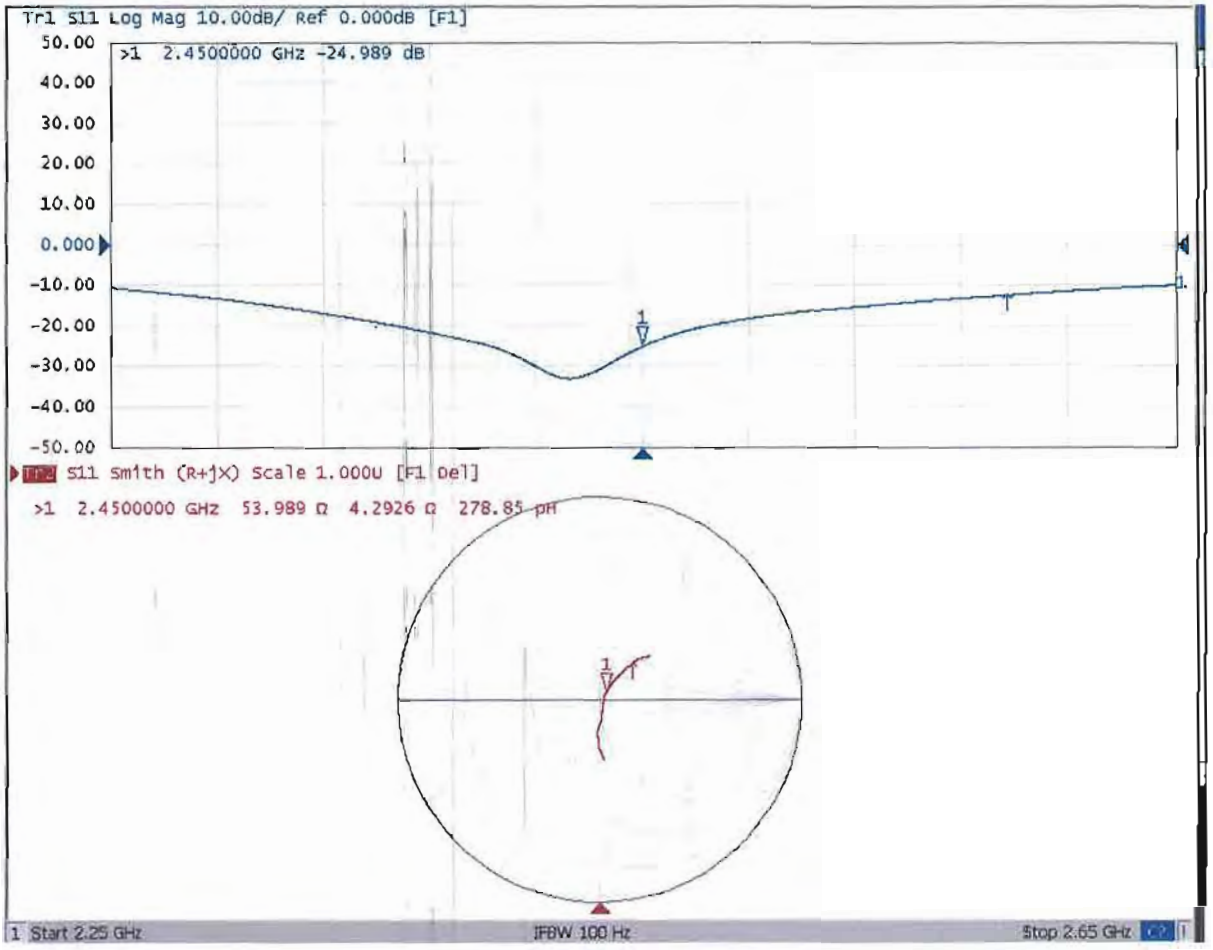
Maximum value of SAR (measured) = 22.3 W/kg



0 dB = 22.3 W/kg = 13.48 dBW/kg

In Collaboration with
s p e a g
CALIBRATION LABORATORY
Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: cttl@chinattl.com http://www.chinattl.cn

Impedance Measurement Plot for Head TSL



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Client **B.V. ADT (Auden)** **Certificate No: D5GHzV2-1019_Mar21**

CALIBRATION CERTIFICATE

Object D5GHzV2 - SN:1019

Calibration procedure(s) QA CAL-22.v6
Calibration Procedure for SAR Validation Sources between 3-10 GHz

Calibration date: March 19, 2021

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	01-Apr-20 (No. 217-03100/03101)	Apr-21
Power sensor NRP-Z91	SN: 103244	01-Apr-20 (No. 217-03100)	Apr-21
Power sensor NRP-Z91	SN: 103245	01-Apr-20 (No. 217-03101)	Apr-21
Reference 20 dB Attenuator	SN: BH9394 (20k)	31-Mar-20 (No. 217-03106)	Apr-21
Type-N mismatch combination	SN: 310982 / 06327	31-Mar-20 (No. 217-03104)	Apr-21
Reference Probe EX3DV4	SN: 3503	30-Dec-20 (No. EX3-3503_Dec20)	Dec-21
DAE4	SN: 601	02-Nov-20 (No. DAE4-601_Nov20)	Nov-21

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Oct-20)	In house check: Oct-22
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-20)	In house check: Oct-22
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-20)	In house check: Oct-22
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-20)	In house check: Oct-22
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-20)	In house check: Oct-21

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

Issued: March 19, 2021

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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, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
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	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4.0 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	5250 MHz ± 1 MHz 5600 MHz ± 1 MHz 5750 MHz ± 1 MHz	

Head TSL parameters at 5250 MHz

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	35.9	4.71 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.7 ± 6 %	4.51 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5250 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.13 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**80.6 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.32 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**23.0 W/kg ± 19.5 % (k=2)**

Head TSL parameters at 5600 MHz

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	35.5	5.07 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.2 ± 6 %	4.86 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5600 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.32 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**82.4 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.36 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**23.3 W/kg ± 19.5 % (k=2)**

Head TSL parameters at 5750 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.4	5.22 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.0 ± 6 %	5.01 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5750 MHz

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.02 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**79.4 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.27 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**22.4 W/kg ± 19.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL at 5250 MHz

Impedance, transformed to feed point	54.1 Ω - 6.4 jΩ
Return Loss	- 22.7 dB

Antenna Parameters with Head TSL at 5600 MHz

Impedance, transformed to feed point	57.6 Ω - 2.5 jΩ
Return Loss	- 22.6 dB

Antenna Parameters with Head TSL at 5750 MHz

Impedance, transformed to feed point	57.9 Ω + 3.1 jΩ
Return Loss	- 22.1 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.203 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

DASY5 Validation Report for Head TSL

Date: 19.03.2021

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1019

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz
Medium parameters used: f = 5250 MHz; σ = 4.51 S/m; ε_r = 34.7; ρ = 1000 kg/m^3
Medium parameters used: f = 5600 MHz; σ = 4.86 S/m; ε_r = 34.2; ρ = 1000 kg/m^3
Medium parameters used: f = 5750 MHz; σ = 5.01 S/m; ε_r = 34; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

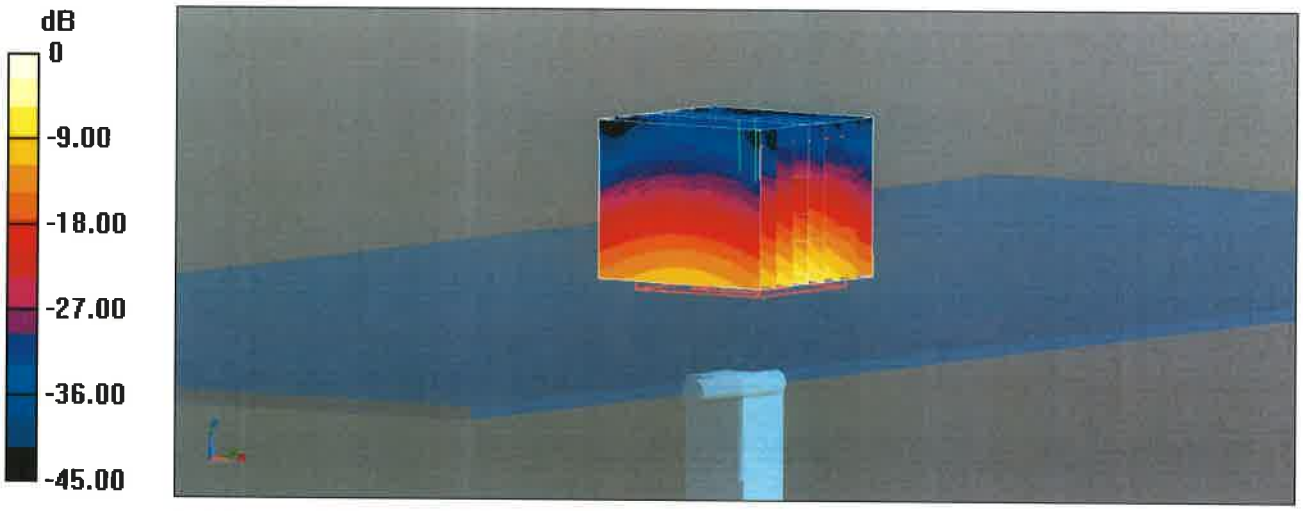
DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.5, 5.5, 5.5) @ 5250 MHz, ConvF(5.1, 5.1, 5.1) @ 5600 MHz, ConvF(5.08, 5.08, 5.08) @ 5750 MHz; Calibrated: 30.12.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 02.11.2020
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 79.20 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 27.6 W/kg
SAR(1 g) = 8.13 W/kg; SAR(10 g) = 2.32 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 70.7%
Maximum value of SAR (measured) = 18.1 W/kg

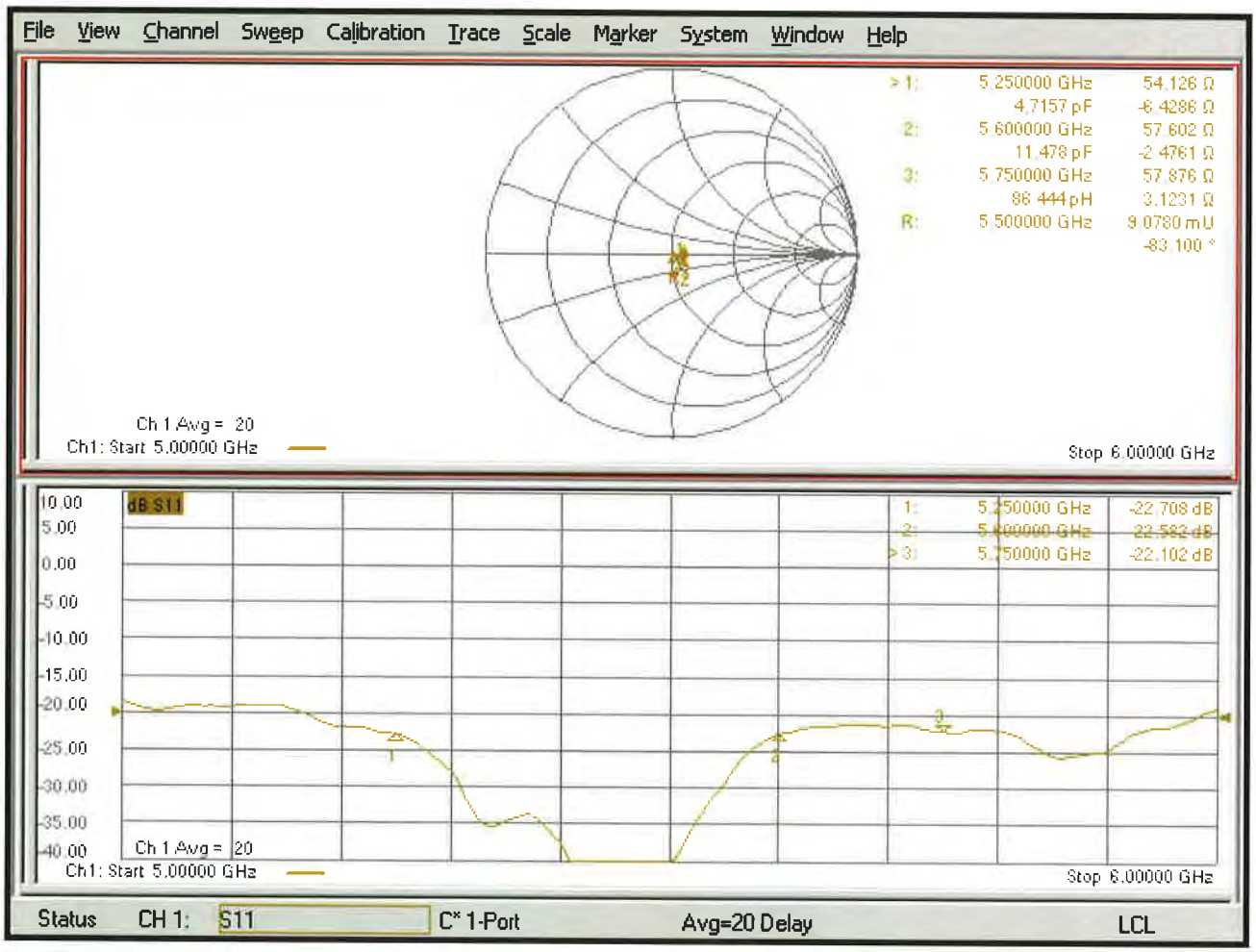
Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 77.00 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 31.0 W/kg
SAR(1 g) = 8.32 W/kg; SAR(10 g) = 2.36 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 66.9%
Maximum value of SAR (measured) = 19.6 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 74.22 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 31.6 W/kg
SAR(1 g) = 8.02 W/kg; SAR(10 g) = 2.27 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 65%
Maximum value of SAR (measured) = 19.2 W/kg



0 dB = 19.6 W/kg = 12.92 dBW/kg

Impedance Measurement Plot for Head TSL

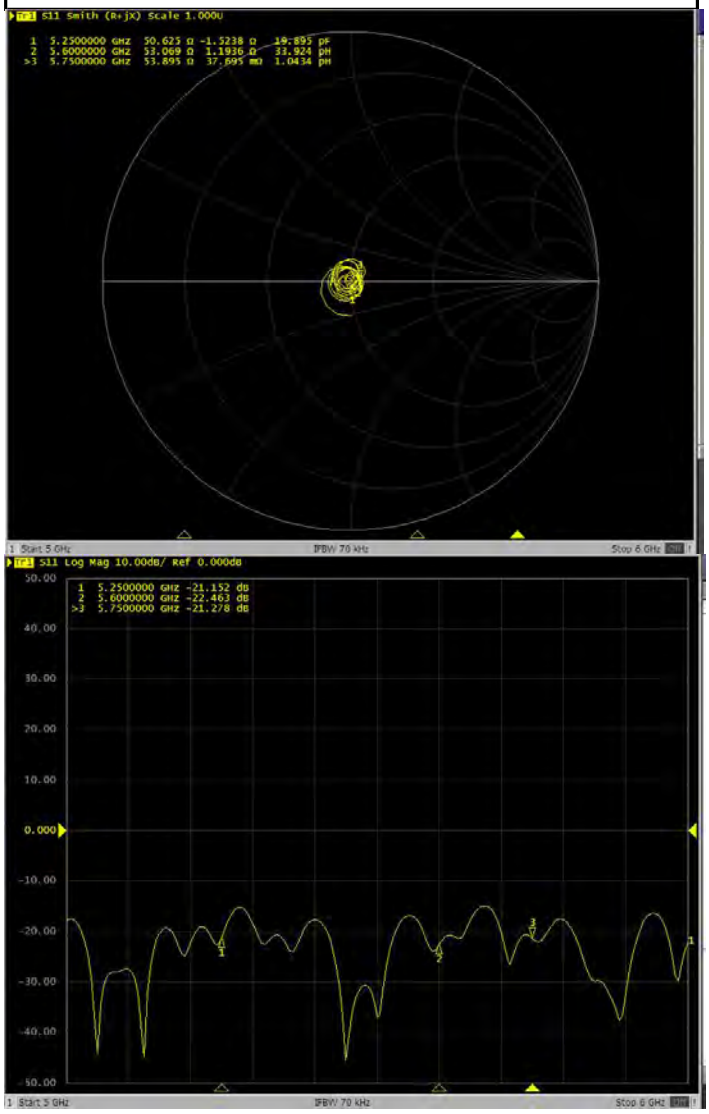


Annual Confirmation of SAR Reference Dipole

Model： D5000V2 S/N： 1019 Measurement Date： 2022/3/18

Frequency (MHz)	Type	Item	Previous Measurement	Annual Check	Deviation	Accepted Tolerance	Result
5250	Free Space	Real Impedance	54.126	50.625	-3.501	±5Ω	PASS
		Imaginary Impedance	-6.4286	-1.5238	4.905	±5Ω	PASS
		Return Loss	-22.708	-21.152	-6.85%	±20%	PASS
Frequency (MHz)	**Type**	**Item**	**Previous Measurement**	**Annual Check**	**Deviation**	**Accepted Tolerance**	**Result**
5600	Free Space	Real Impedance	57.602	53.069	-4.533	±5Ω	PASS
		Imaginary Impedance	-2.4761	1.1936	3.670	±5Ω	PASS
		Return Loss	-22.582	-22.463	-0.53%	±20%	PASS
Frequency (MHz)	**Type**	**Item**	**Previous Measurement**	**Annual Check**	**Deviation**	**Accepted Tolerance**	**Result**
5750	Free Space	Real Impedance	57.876	53.895	-3.981	±5Ω	PASS
		Imaginary Impedance	3.1231	0.0377	-3.085	±5Ω	PASS
		Return Loss	-22.102	-21.278	-3.73%	±20%	PASS

5000 MHz，Free Space



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Accreditation No.: **SCS 0108**

Client B.V. ADT (Auden)

Certificate No: EX3-3650_Mar22

CALIBRATION CERTIFICATE

Object: EX3DV4 - SN:3650

Calibration procedure(s): QA CAL-01.v9, QA CAL-14.v6, QA CAL-23.v5, QA CAL-25.v7
Calibration procedure for dosimetric E-field probes

Calibration date: March 24, 2022

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	09-Apr-21 (No. 217-03291/03292)	Apr-22
Power sensor NRP-Z91	SN: 103244	09-Apr-21 (No. 217-03291)	Apr-22
Power sensor NRP-Z91	SN: 103245	09-Apr-21 (No. 217-03292)	Apr-22
Reference 20 dB Attenuator	SN: CC2552 (20x)	09-Apr-21 (No. 217-03343)	Apr-22
DAE4	SN: 660	13-Oct-21 (No. DAE4-660_Oct21)	Oct-22
Reference Probe ES3DV2	SN: 3013	27-Dec-21 (No. ES3-3013_Dec21)	Dec-22
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-20)	In house check: Jun-22
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-20)	In house check: Oct-22

	Name	Function	Signature
Calibrated by:	Leif Klysner	Laboratory Technician	
Approved by:	Sven Kühn	Deputy Manager	

Issued: March 30, 2022

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Accreditation No.: **SCS 0108**

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

a) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *PAR:* PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy):* in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset:* The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- *Connector Angle:* The angle is assessed using the information gained by determining the *NORMx* (no uncertainty required).

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3650

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	0.41	0.41	0.41	± 10.1 %
DCP (mV)[B]	101.4	99.3	95.7	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Max dev.	Max Unc[E] (k=2)
0	CW	X	0.00	0.00	1.00	0.00	149.1	± 1.9 %	± 4.7 %
		Y	0.00	0.00	1.00		147.5		
		Z	0.00	0.00	1.00		151.1		
10352-AAA	Pulse Waveform (200Hz, 10%)	X	2.97	66.96	11.31	10.00	60.0	± 3.7 %	± 9.6 %
		Y	20.00	95.23	22.83		60.0		
		Z	74.00	106.00	25.00		60.0		
10353-AAA	Pulse Waveform (200Hz, 20%)	X	2.74	69.13	11.00	6.99	80.0	± 2.5 %	± 9.6 %
		Y	20.00	103.07	25.84		80.0		
		Z	20.00	91.54	20.22		80.0		
10354-AAA	Pulse Waveform (200Hz, 40%)	X	20.00	84.17	13.70	3.98	95.0	± 1.4 %	± 9.6 %
		Y	20.00	121.74	33.43		95.0		
		Z	20.00	92.75	19.21		95.0		
10355-AAA	Pulse Waveform (200Hz, 60%)	X	0.32	60.94	5.14	2.22	120.0	± 1.2 %	± 9.6 %
		Y	20.00	131.82	36.61		120.0		
		Z	20.00	94.46	18.62		120.0		
10387-AAA	QPSK Waveform, 1 MHz	X	2.58	77.34	19.46	1.00	150.0	± 3.4 %	± 9.6 %
		Y	2.13	69.71	17.68		150.0		
		Z	1.81	66.89	15.69		150.0		
10388-AAA	QPSK Waveform, 10 MHz	X	2.48	72.38	18.21	0.00	150.0	± 1.4 %	± 9.6 %
		Y	3.04	73.17	18.64		150.0		
		Z	2.47	69.56	16.49		150.0		
10396-AAA	64-QAM Waveform, 100 kHz	X	3.35	76.48	22.06	3.01	150.0	± 1.2 %	± 9.6 %
		Y	3.18	71.56	19.80		150.0		
		Z	3.28	71.33	19.18		150.0		
10399-AAA	64-QAM Waveform, 40 MHz	X	3.53	68.48	16.72	0.00	150.0	± 1.8 %	± 9.6 %
		Y	3.84	68.69	16.93		150.0		
		Z	3.67	67.85	16.20		150.0		
10414-AAA	WLAN CCDF, 64-QAM, 40MHz	X	4.67	66.39	16.11	0.00	150.0	± 3.6 %	± 9.6 %
		Y	5.09	66.17	16.07		150.0		
		Z	5.08	66.16	15.88		150.0		

Note: For details on UID parameters see Appendix

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%.

[A] The uncertainties of Norm X,Y,Z do not affect the E^2-field uncertainty inside TSL (see Pages 5 and 6).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.