

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: 2021/10/22

S01 System Check_H1900_211022

DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: H16T20N1_1022 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.459$ S/m; $\epsilon_r = 39.16$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(7.35, 7.35, 7.35) @ 1900 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (61x61x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 3.28 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 48.82 V/m; Power Drift = -0.02 dB

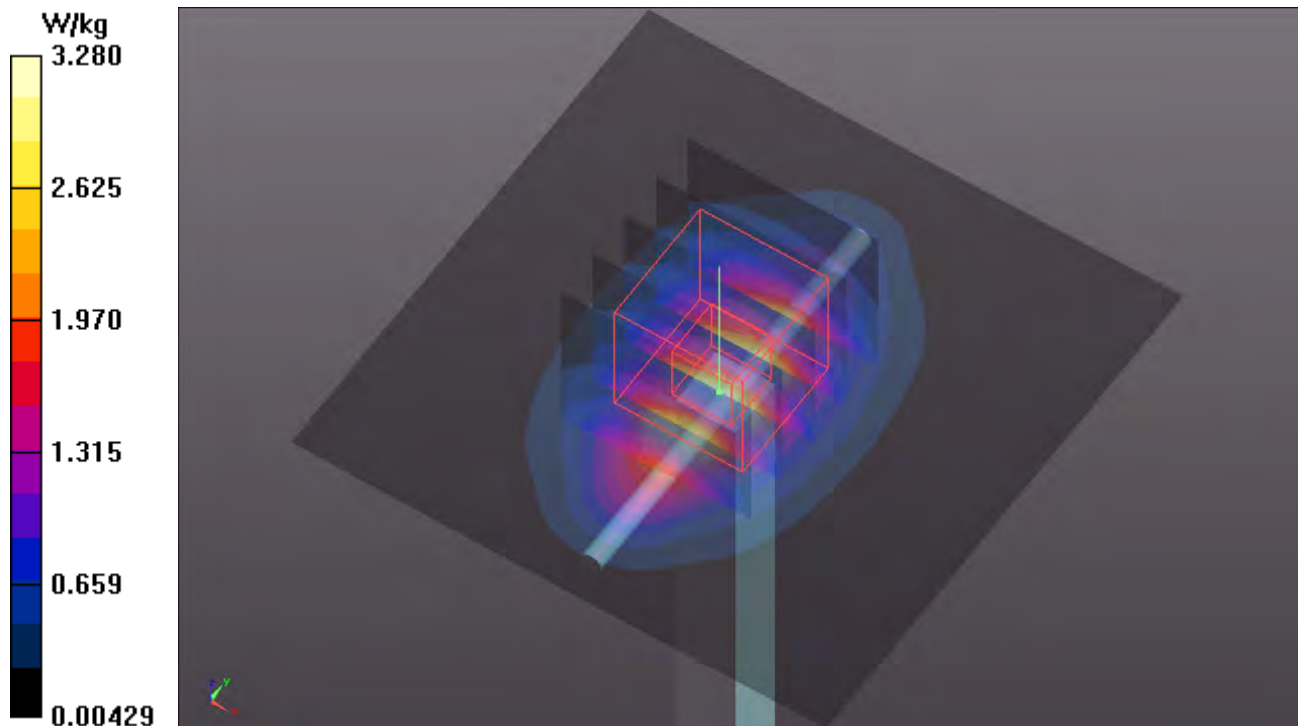
Peak SAR (extrapolated) = 3.90 W/kg

SAR(1 g) = 2.04 W/kg; SAR(10 g) = 1.08 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 53.7%

Maximum value of SAR (measured) = 3.27 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

S02 System Check_H1750_211022

DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1111

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: H16T20N1_1022 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.322$ S/m; $\epsilon_r = 39.729$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(7.66, 7.66, 7.66) @ 1750 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.81 W/kg

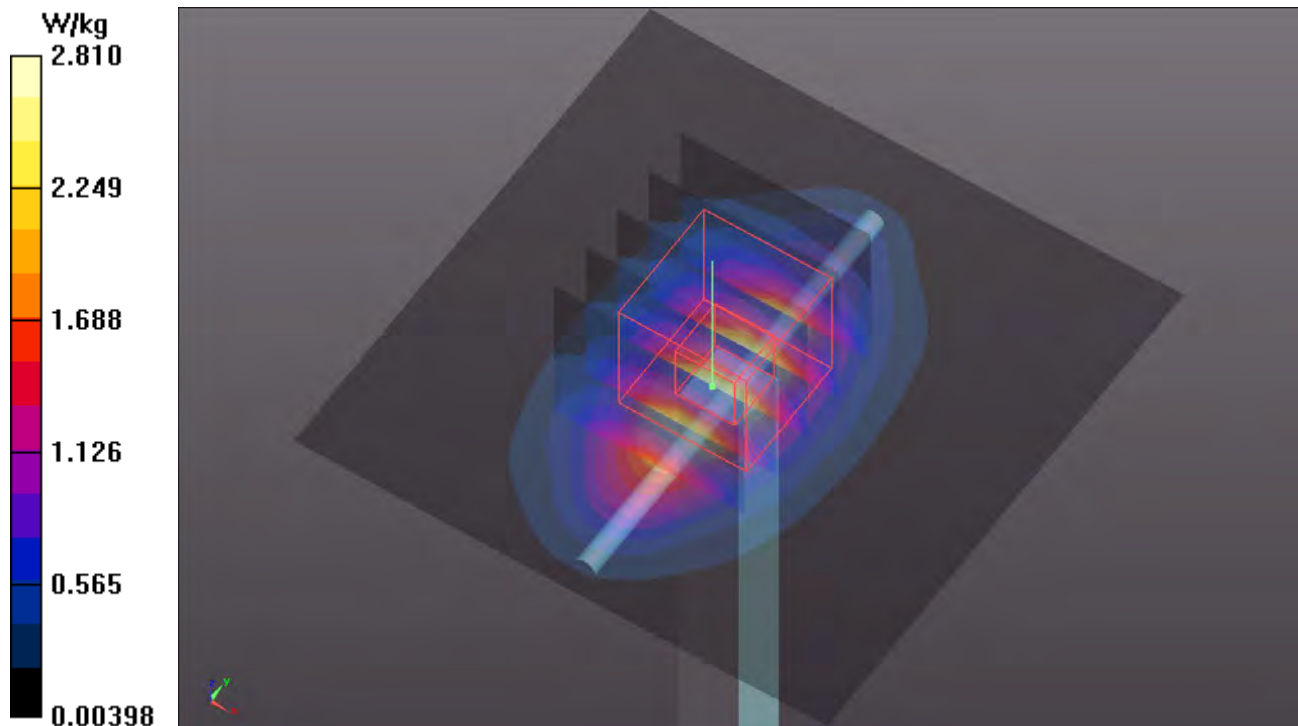
Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 47.16 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 3.28 W/kg

SAR(1 g) = 1.85 W/kg; SAR(10 g) = 0.980 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.77 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

S03 System Check_H835_211022

DUT: Dipole 835 MHz; Type: D835V2; SN: 4d092

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

Medium: H07T10N1_1022 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.945 \text{ S/m}$; $\epsilon_r = 43.081$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : $23.5 \text{ }^\circ\text{C}$; Liquid Temperature : $23.3 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.09, 9.09, 9.09) @ 835 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (61x61x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.634 W/kg

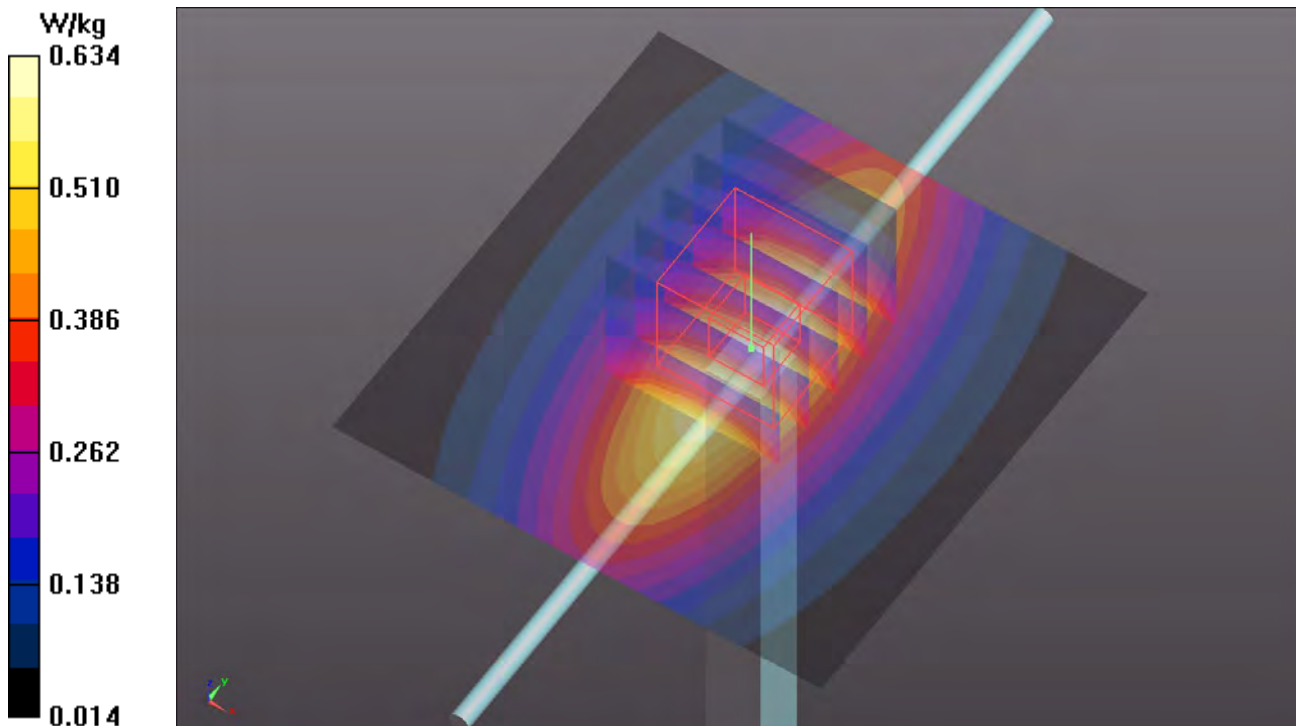
Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.99 V/m ; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.718 W/kg

SAR(1 g) = 0.466 W/kg ; SAR(10 g) = 0.308 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.637 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

S04 System Check_H835_211022

DUT: Dipole 835 MHz; Type: D835V2; SN: 4d092

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

Medium: H07T10N1_1022 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.945 \text{ S/m}$; $\epsilon_r = 43.081$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : $23.5 \text{ }^\circ\text{C}$; Liquid Temperature : $23.3 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.09, 9.09, 9.09) @ 835 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (61x61x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.634 W/kg

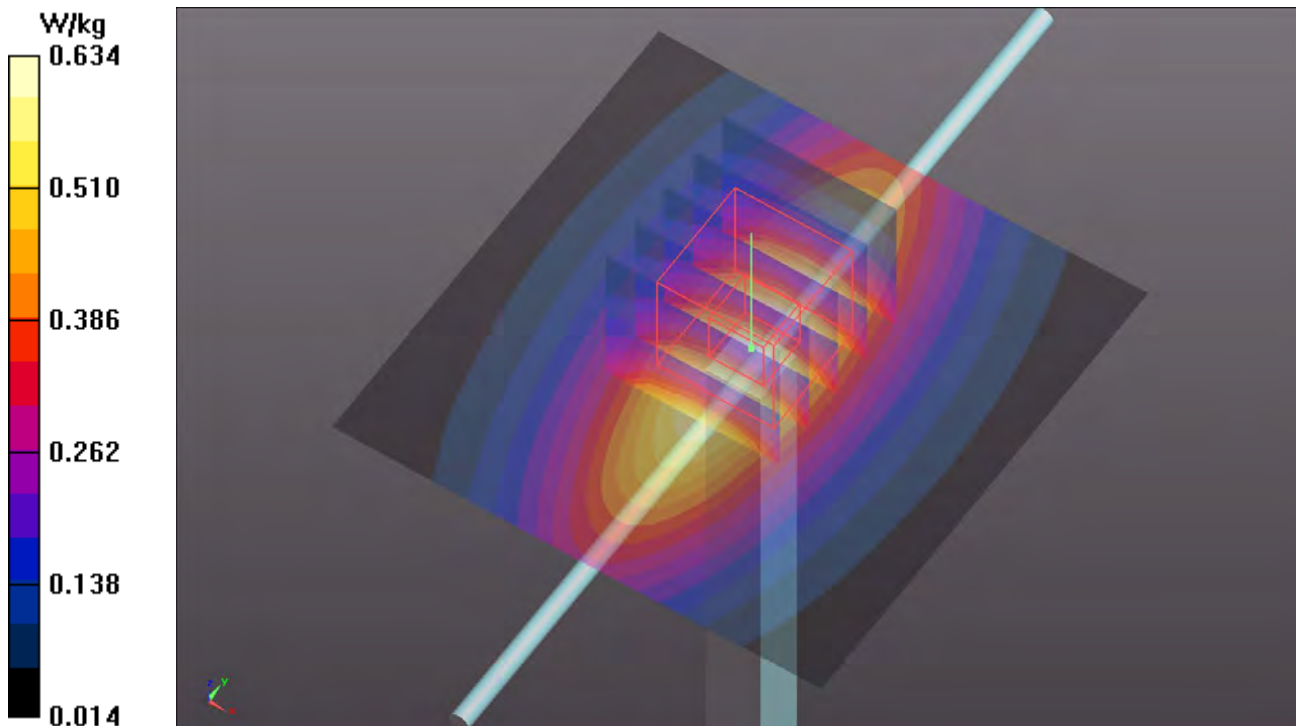
Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.99 V/m ; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.718 W/kg

SAR(1 g) = 0.466 W/kg ; SAR(10 g) = 0.308 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.637 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

S05 System Check_H2600_211022

DUT: Dipole 2600 MHz; Type: D2600V2; SN: 1020

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: H19T27N1_1022 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.039$ S/m; $\epsilon_r = 38.794$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(6.7, 6.7, 6.7) @ 2600 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- 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) = 5.06 W/kg

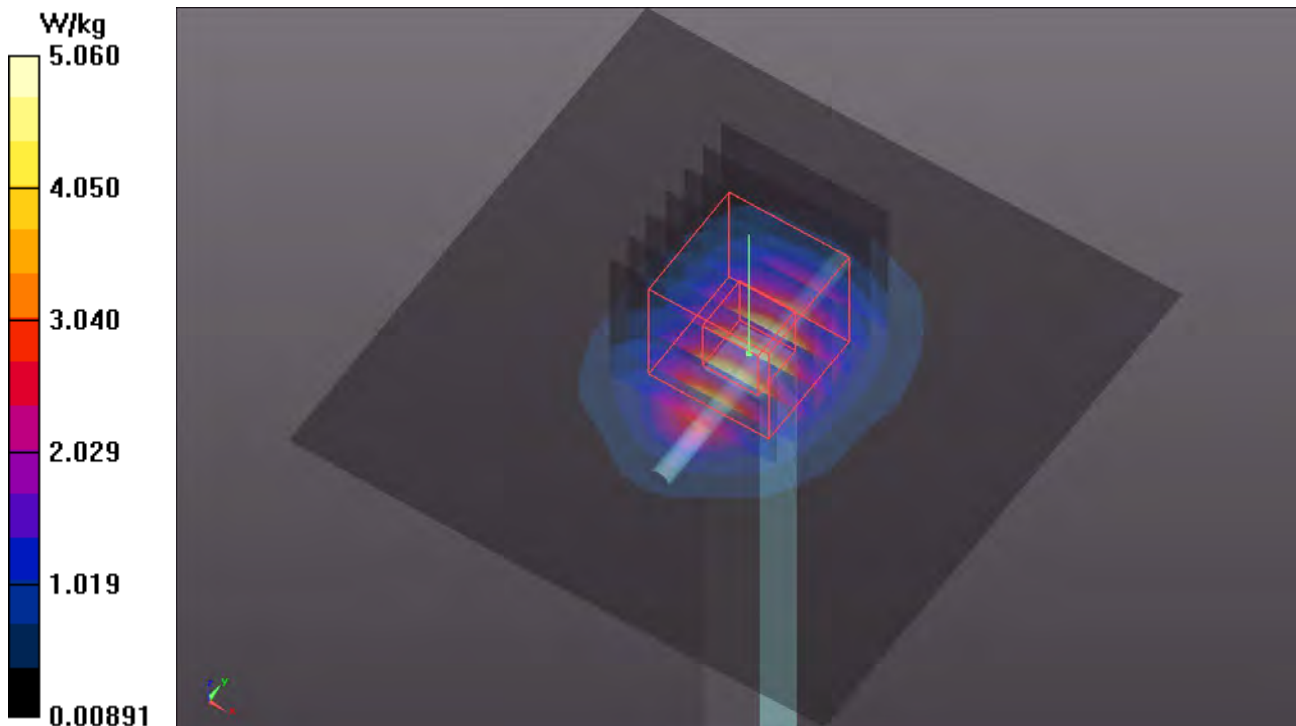
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 50.37 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 6.38 W/kg

SAR(1 g) = 2.92 W/kg; SAR(10 g) = 1.37 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 5.05 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

S06 System Check_H750_211022

DUT: Dipole 750 MHz; Type: D750V3; SN: 1078

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

Medium: H06T09N1_1022 Medium parameters used: $f = 750$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 43.122$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.62, 9.62, 9.62) @ 750 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.555 W/kg

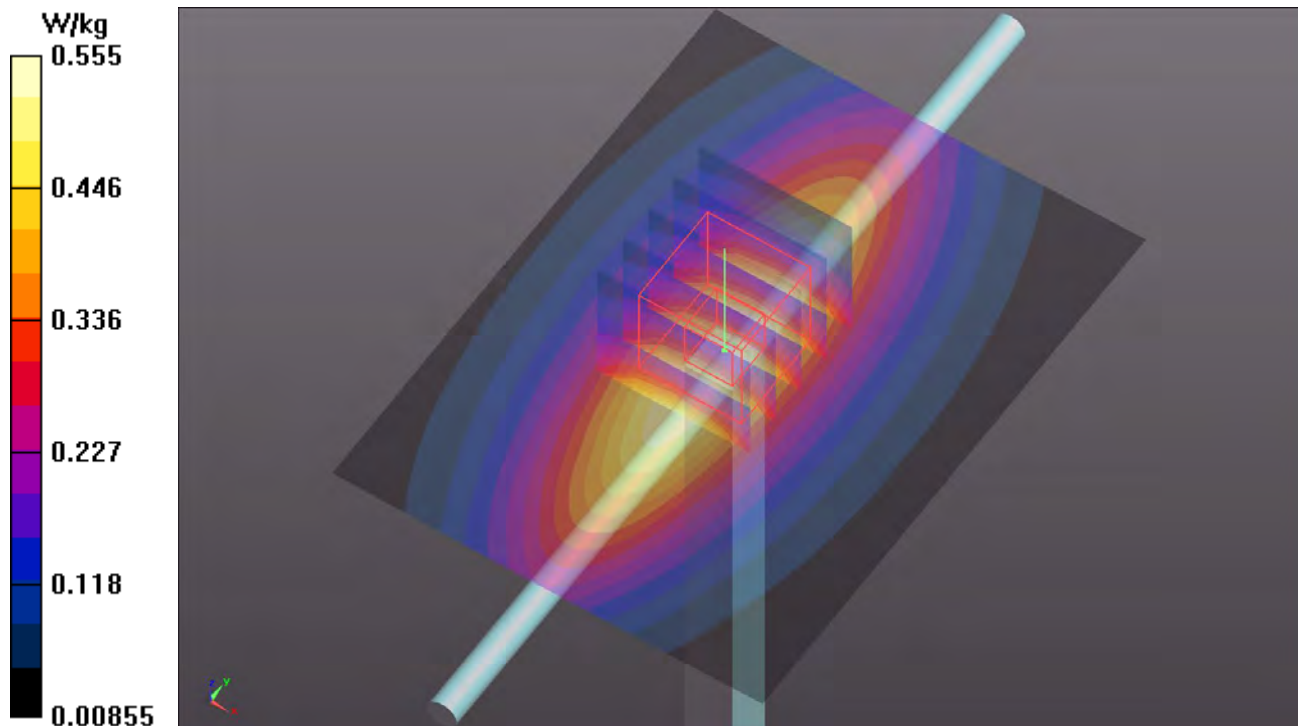
Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.81 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.622 W/kg

SAR(1 g) = 0.424 W/kg; SAR(10 g) = 0.281 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.557 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

S07 System Check_H750_211022

DUT: Dipole 750 MHz; Type: D750V3; SN: 1078

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

Medium: H06T09N1_1022 Medium parameters used: $f = 750$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 43.122$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.62, 9.62, 9.62) @ 750 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.555 W/kg

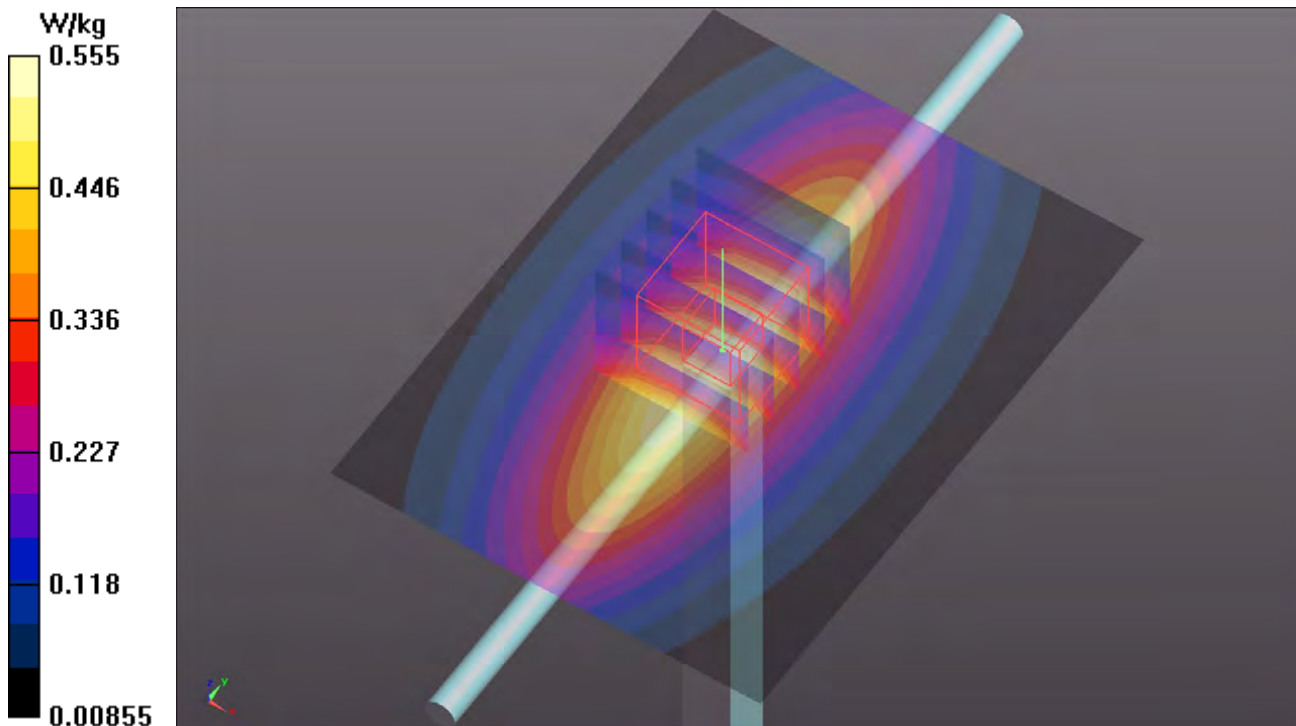
Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.81 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.622 W/kg

SAR(1 g) = 0.424 W/kg; SAR(10 g) = 0.281 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.557 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

S08 System Check_H750_211022

DUT: Dipole 750 MHz; Type: D750V3; SN: 1078

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

Medium: H06T09N1_1022 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.89 \text{ S/m}$; $\epsilon_r = 43.122$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : $23.5 \text{ }^\circ\text{C}$; Liquid Temperature : $23.3 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.62, 9.62, 9.62) @ 750 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (61x81x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.555 W/kg

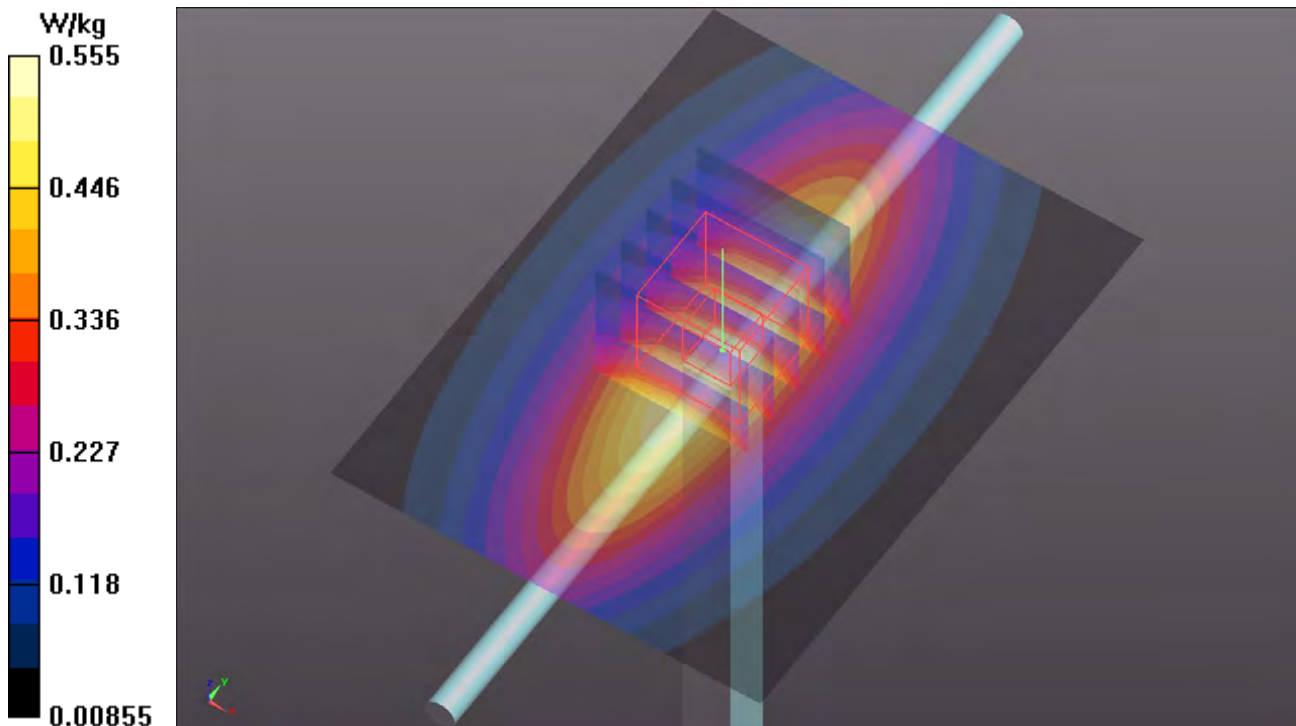
Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 25.81 V/m ; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.622 W/kg

SAR(1 g) = 0.424 W/kg ; SAR(10 g) = 0.281 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.557 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

S09 System Check_H1900_211022

DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: H16T20N1_1022 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.459$ S/m; $\epsilon_r = 39.16$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(7.35, 7.35, 7.35) @ 1900 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Configuration/Pin=50mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 3.28 W/kg

Configuration/Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 48.82 V/m; Power Drift = -0.02 dB

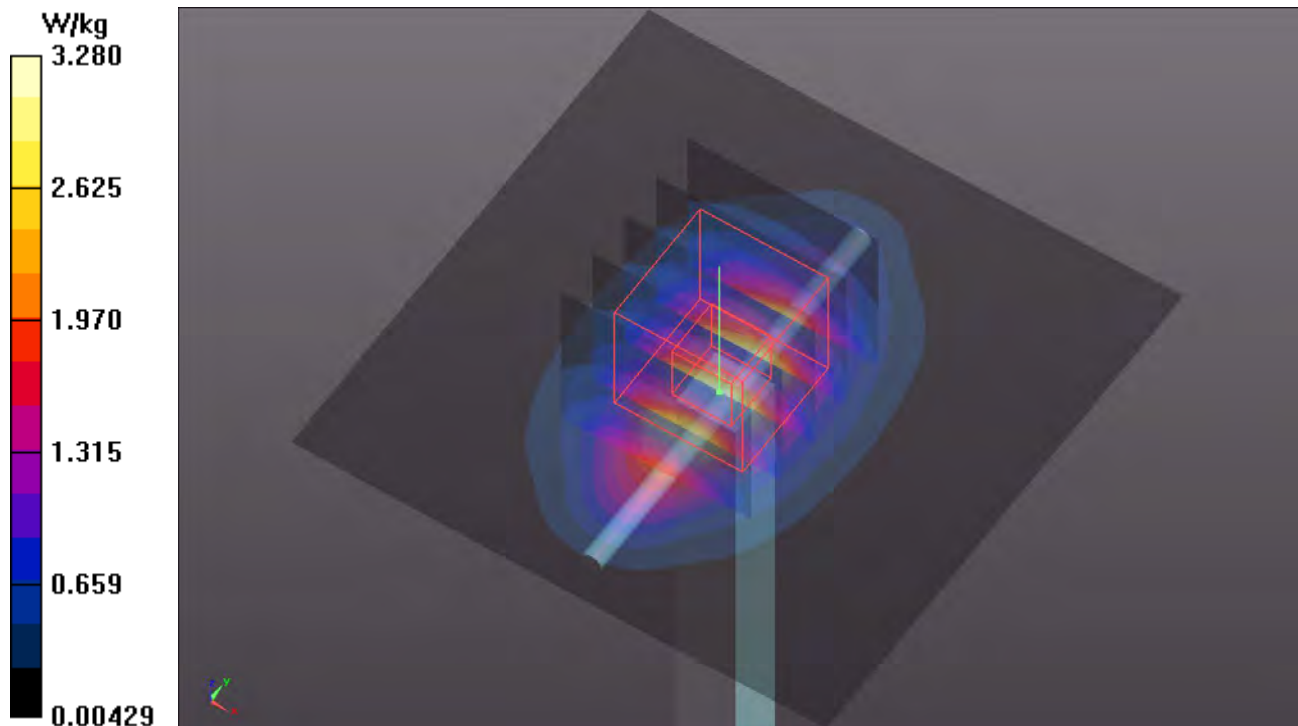
Peak SAR (extrapolated) = 3.90 W/kg

SAR(1 g) = 2.04 W/kg; SAR(10 g) = 1.08 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 53.7%

Maximum value of SAR (measured) = 3.27 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

S10 System Check_H835_211022

DUT: Dipole 835 MHz; Type: D835V2; SN: 4d092

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

Medium: H07T10N1_1022 Medium parameters used: $f = 835$ MHz; $\sigma = 0.945$ S/m; $\epsilon_r = 43.081$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.09, 9.09, 9.09) @ 835 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (61x61x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.634 W/kg

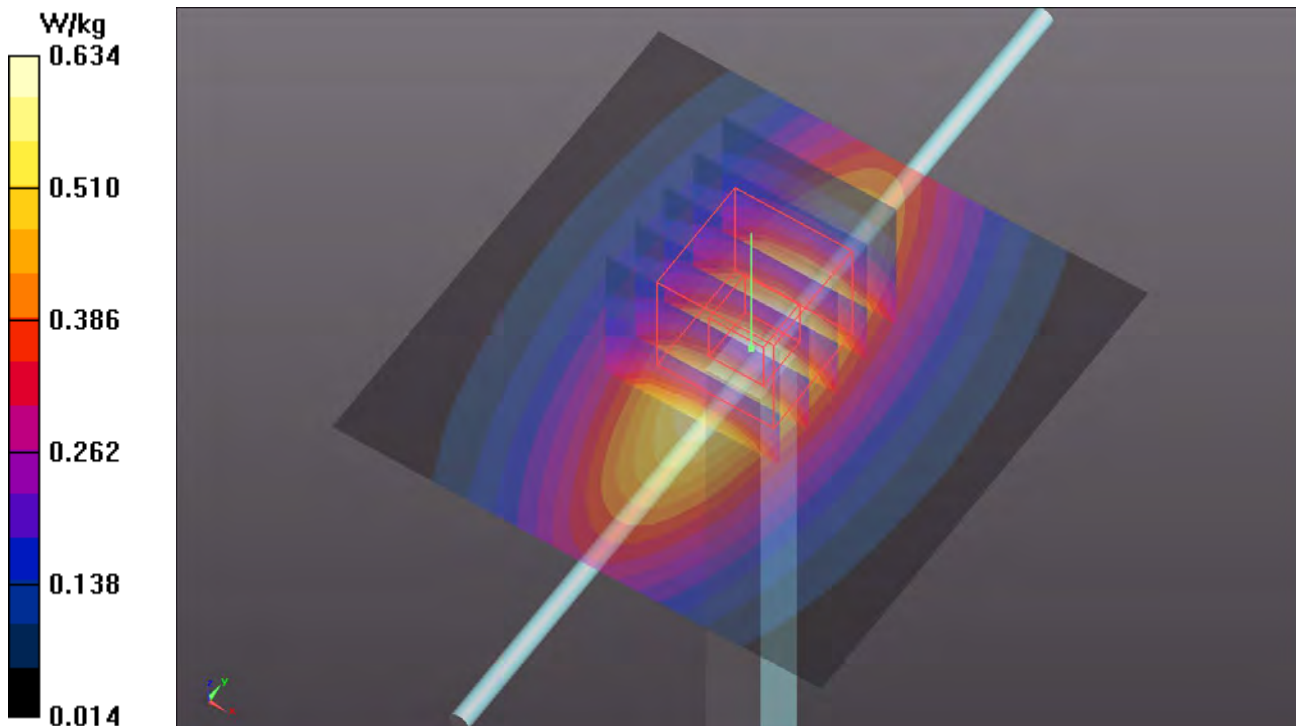
Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 26.99 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.718 W/kg

SAR(1 g) = 0.466 W/kg; SAR(10 g) = 0.308 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.637 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

S11 System Check_H2300_211022

DUT: Dipole 2300 MHz; Type: D2300V2; SN:1004

Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1

Medium: H19T27N1_1022 Medium parameters used: $f = 2300$ MHz; $\sigma = 1.724$ S/m; $\epsilon_r = 39.827$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(7.99, 7.99, 7.99) @ 2300 MHz; Calibrated: 2021/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2021/03/24
- Phantom: ELI Phantom_1205; Type: QDOVA002AA; Serial: 1205
- 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) = 4.13 W/kg

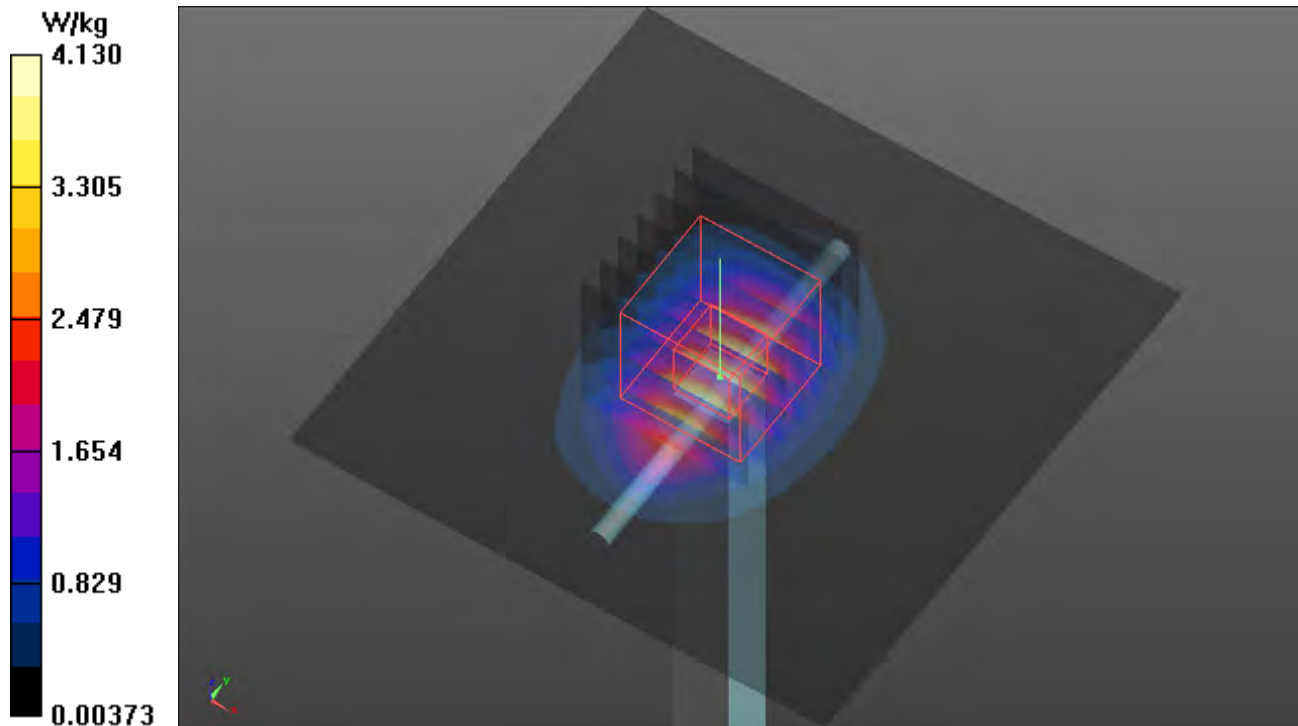
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 49.66 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 5.01 W/kg

SAR(1 g) = 2.46 W/kg; SAR(10 g) = 1.19 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 4.10 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

S12 System Check_H2600_211022

DUT: Dipole 2600 MHz; Type: D2600V2; SN: 1020

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: H19T27N1_1022 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.039$ S/m; $\epsilon_r = 38.794$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(6.7, 6.7, 6.7) @ 2600 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- 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) = 5.06 W/kg

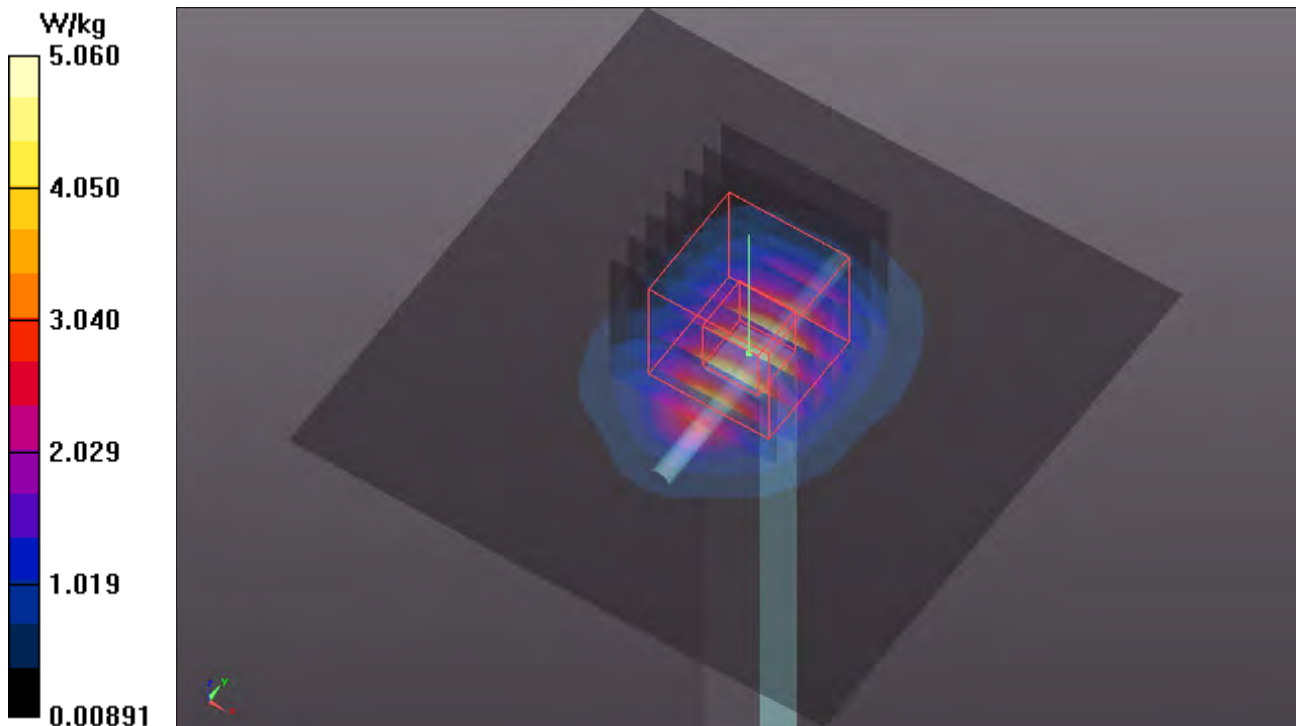
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 50.37 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 6.38 W/kg

SAR(1 g) = 2.92 W/kg; SAR(10 g) = 1.37 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 5.05 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

S13 System Check_H2600_211022

DUT: Dipole 2600 MHz; Type: D2600V2; SN: 1020

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: H19T27N1_1022 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.039$ S/m; $\epsilon_r = 38.794$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(6.7, 6.7, 6.7) @ 2600 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- 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) = 5.06 W/kg

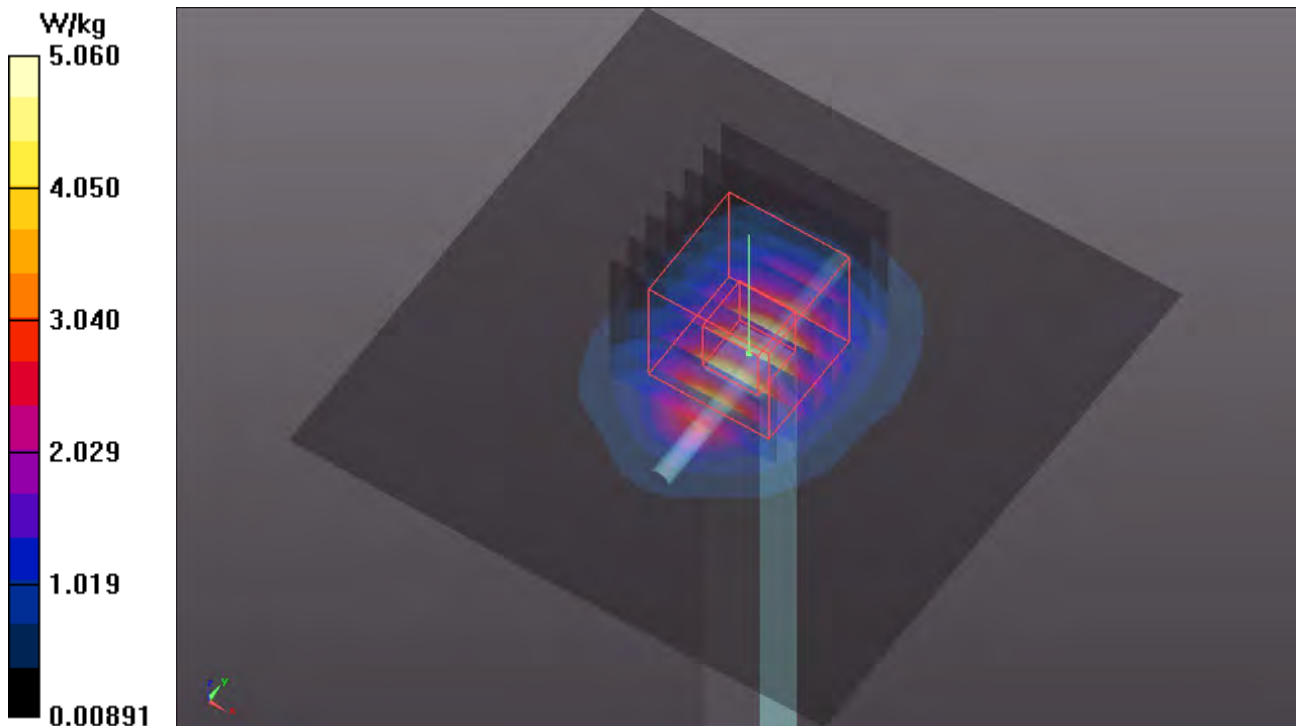
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 50.37 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 6.38 W/kg

SAR(1 g) = 2.92 W/kg; SAR(10 g) = 1.37 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 5.05 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

S14 System Check_H1750_211022

DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1111

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: H16T20N1_1022 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.322$ S/m; $\epsilon_r = 39.729$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(7.66, 7.66, 7.66) @ 1750 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Configuration/Pin=50mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.81 W/kg

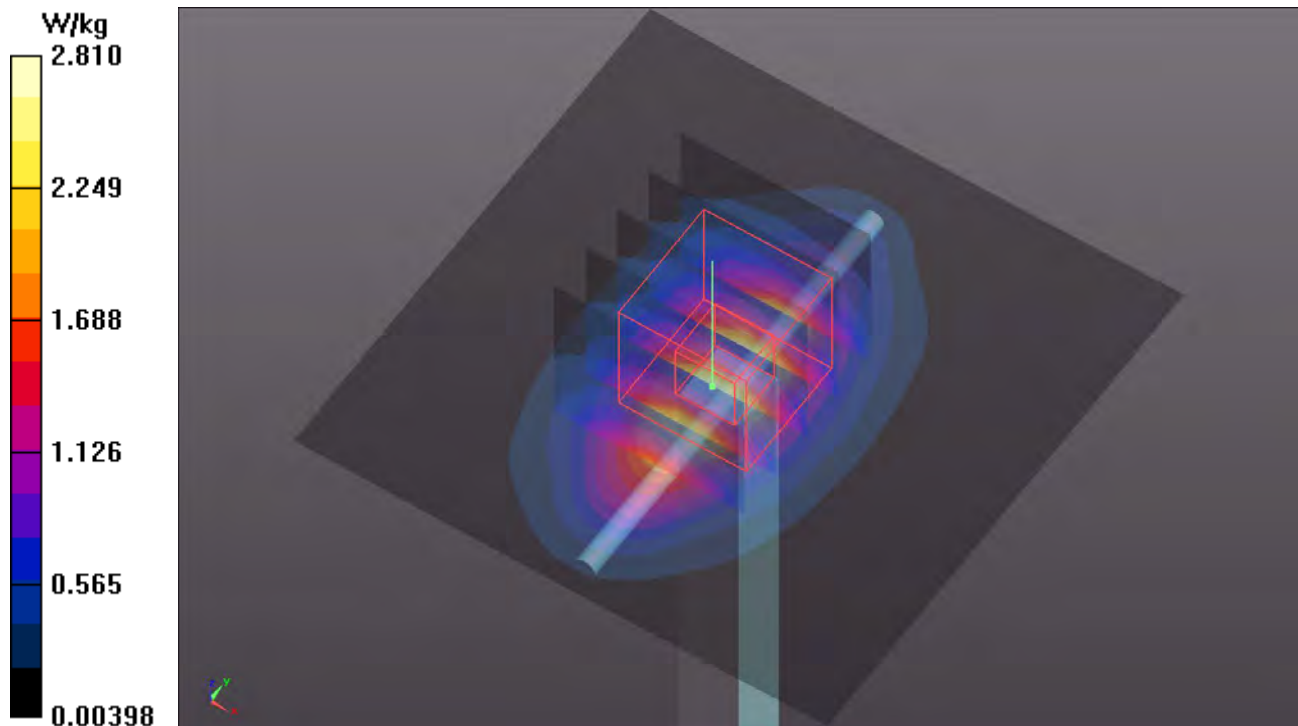
Configuration/Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 47.16 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.28 W/kg

SAR(1 g) = 1.85 W/kg; SAR(10 g) = 0.980 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.77 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/20

S15 System Check_H2450_211020

DUT: Dipole 2450 MHz; Type: D2450V2; SN: 835

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

Medium: H19T27N1_1020 Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 1.864$ S/m; $\epsilon_r = 38.07$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(7.89, 7.89, 7.89) @ 2450 MHz; Calibrated: 2021/06/03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2021/06/02
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- 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) = 4.39 W/kg

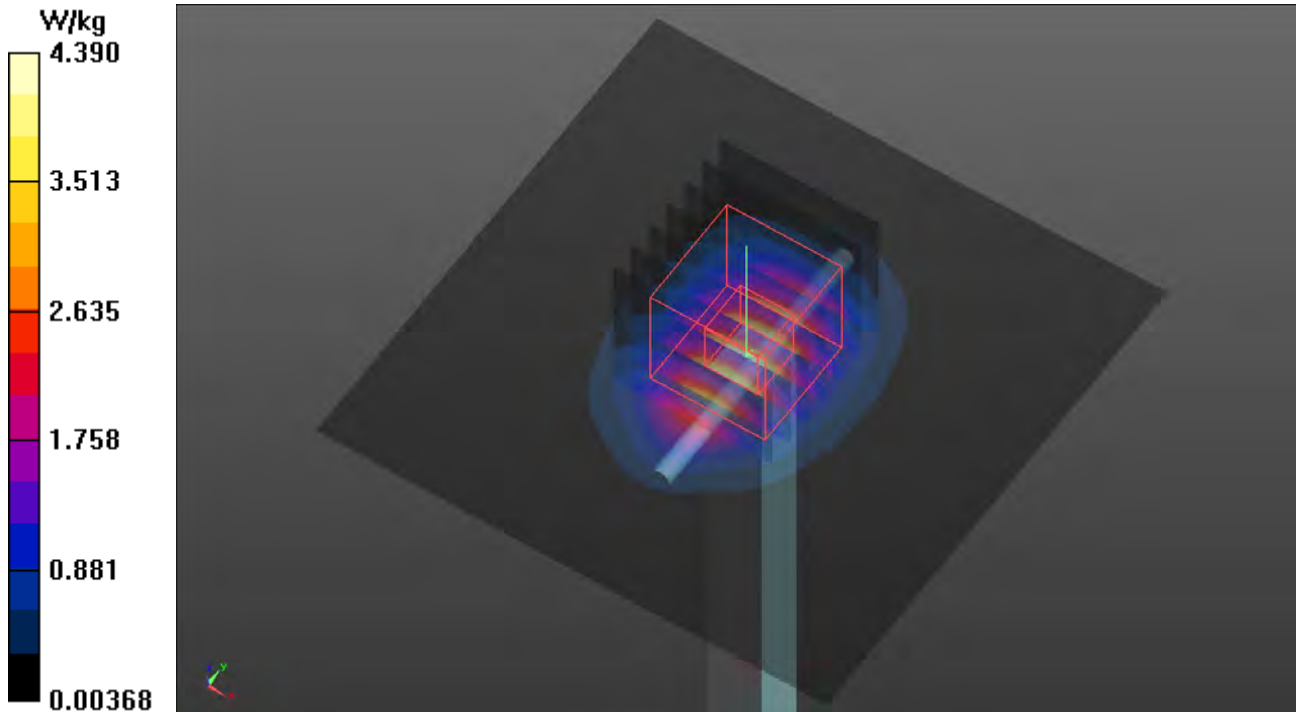
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 49.76 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 5.36 W/kg

SAR(1 g) = 2.48 W/kg; SAR(10 g) = 1.15 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 4.35 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

S16 System Check_H5250_211021

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

Communication System: UID 0, CW; Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: H34T60N1_1021 Medium parameters used (interpolated): $f = 5250$ MHz; $\sigma = 4.849$ S/m; $\epsilon_r = 35.568$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(5.78, 5.78, 5.78) @ 5250 MHz; Calibrated: 2021/06/03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2021/06/02
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- 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) = 8.97 W/kg

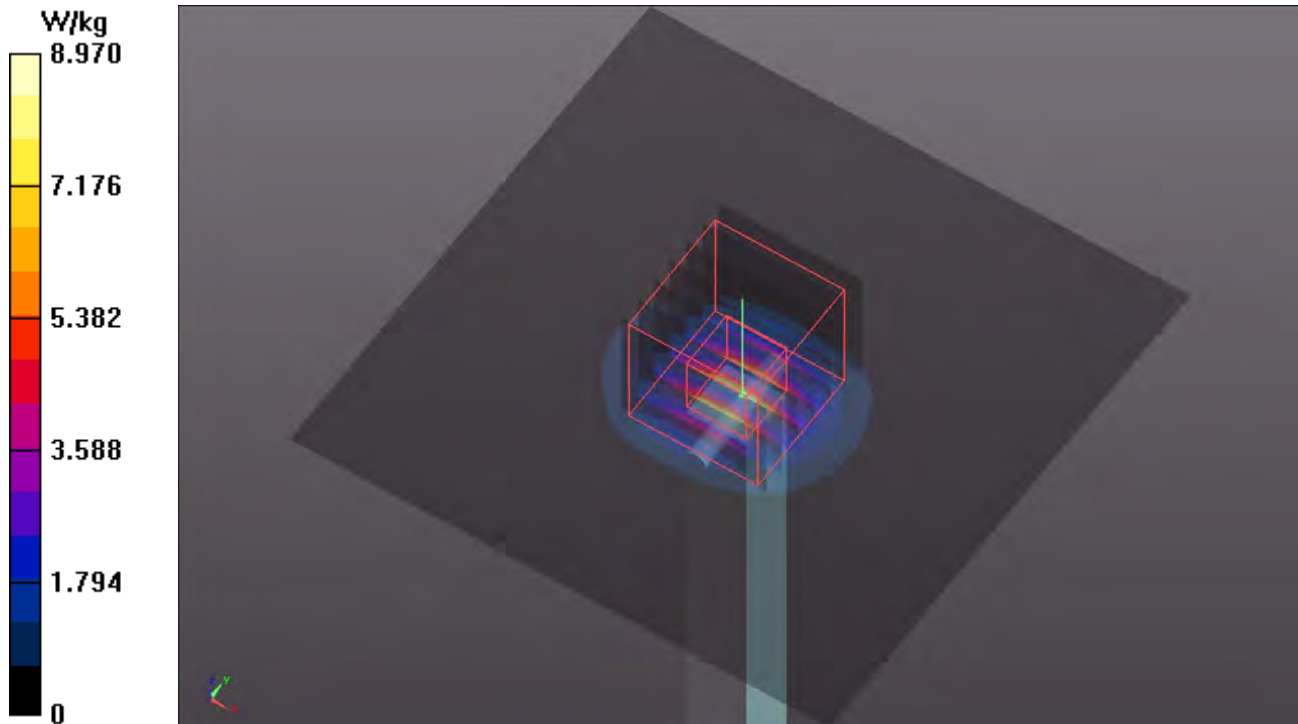
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 43.61 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 10.1 W/kg

SAR(1 g) = 3.87 W/kg; SAR(10 g) = 1.12 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 9.57 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

S17 System Check_H5600_211021

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

Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: H34T60N1_1021 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.17$ S/m; $\epsilon_r = 35.042$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(4.95, 4.95, 4.95) @ 5600 MHz; Calibrated: 2021/06/03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2021/06/02
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- 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) = 10.5 W/kg

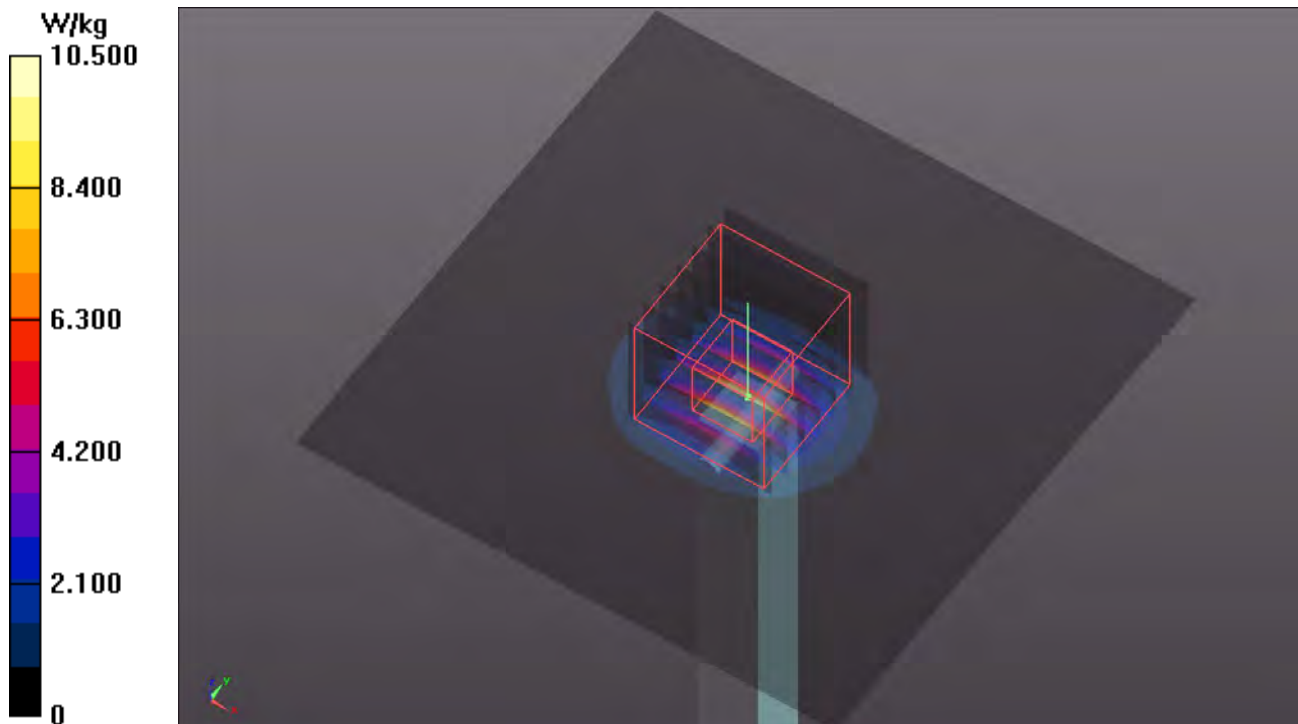
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 45.71 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 8.6 W/kg

SAR(1 g) = 4.33 W/kg; SAR(10 g) = 1.24 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 11.1 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

S18 System Check_H5750_211021

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

Communication System: UID 0, CW; Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: H34T60N1_1021 Medium parameters used: $f = 5750$ MHz; $\sigma = 5.319$ S/m; $\epsilon_r = 34.787$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(5.25, 5.25, 5.25) @ 5750 MHz; Calibrated: 2021/06/03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2021/06/02
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- 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) = 9.21 W/kg

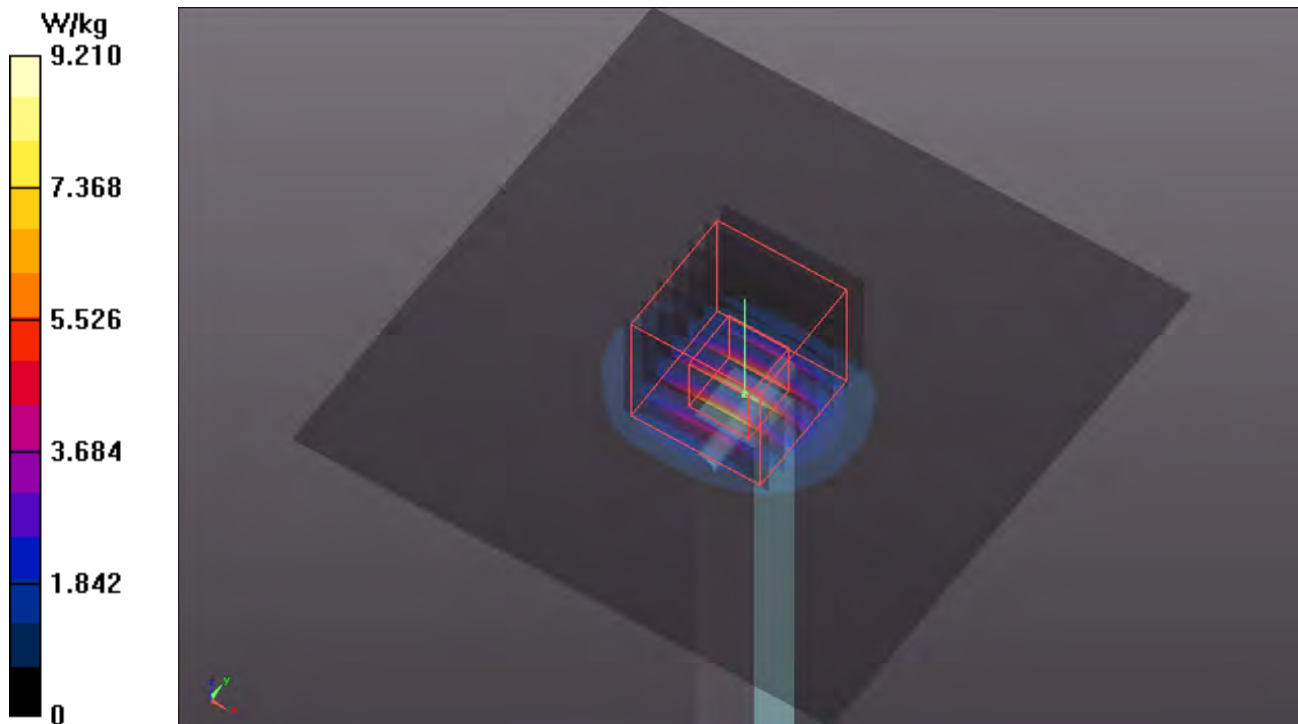
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 42.21 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 7.2 W/kg

SAR(1 g) = 3.78 W/kg; SAR(10 g) = 1.07 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 9.83 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/20

S19 System Check_H2450_211020

DUT: Dipole 2450 MHz; Type: D2450V2; SN: 835

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

Medium: H19T27N1_1020 Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 1.864$ S/m; $\epsilon_r = 38.07$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(7.89, 7.89, 7.89) @ 2450 MHz; Calibrated: 2021/06/03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2021/06/02
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- 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) = 4.39 W/kg

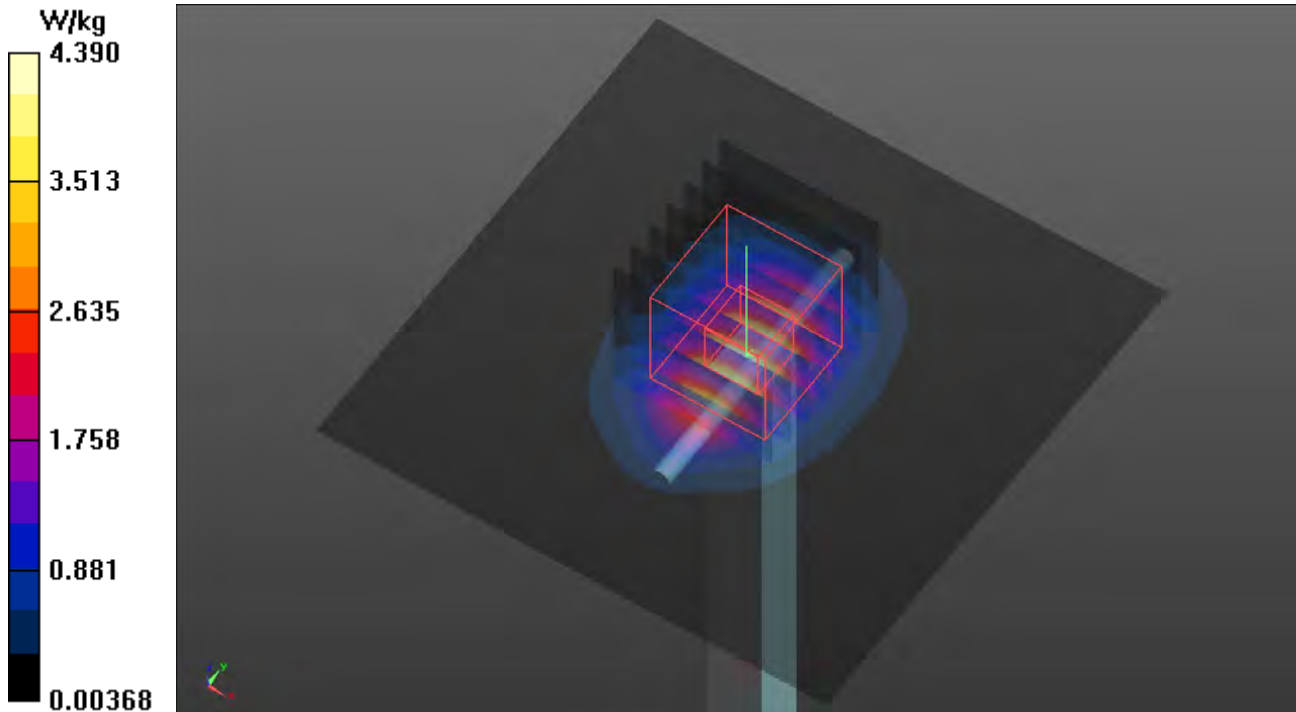
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 49.76 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 5.36 W/kg

SAR(1 g) = 2.48 W/kg; SAR(10 g) = 1.15 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 4.35 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: 2021/10/22

P01 WCDMA II_RMC12.2K_Bottom_0mm_Ch9262_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1852.4 MHz; Duty Cycle: 1:1.95
Medium: H16T20N1_1022 Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.417$ S/m; $\epsilon_r = 39.318$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(7.35, 7.35, 7.35) @ 1852.4 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (181x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

P02 WCDMA IV_RMC12.2K_Bottom_0mm_Ch1312_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1712.4 MHz; Duty Cycle: 1:1.95
Medium: H16T20N1_1022 Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.288$ S/m; $\epsilon_r = 39.895$; $\rho = 1000$ kg/m³

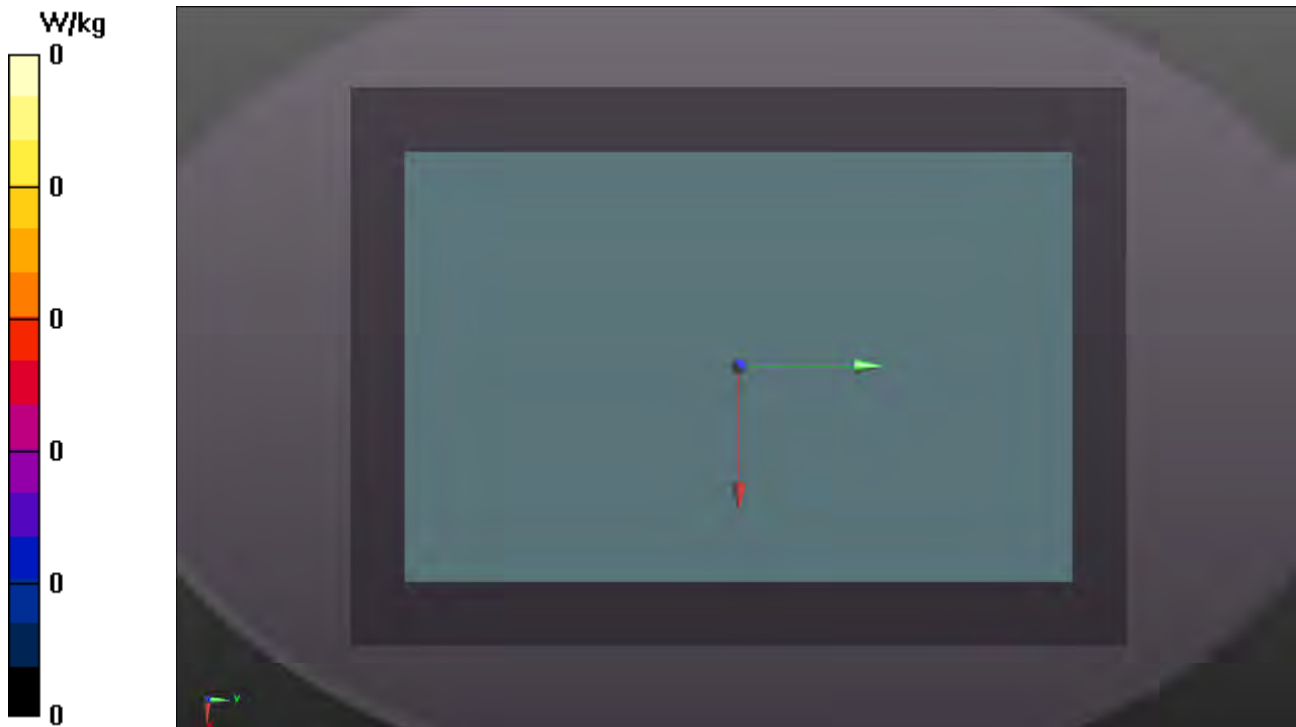
Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(7.66, 7.66, 7.66) @ 1712.4 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (181x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

P03 WCDMA V_RMC12.2K_Bottom_0mm_Ch4132_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 826.4 MHz; Duty Cycle: 1:1.95434
Medium: H07T10N1_1022 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.936$ S/m; $\epsilon_r = 43.192$; $\rho = 1000$ kg/m³

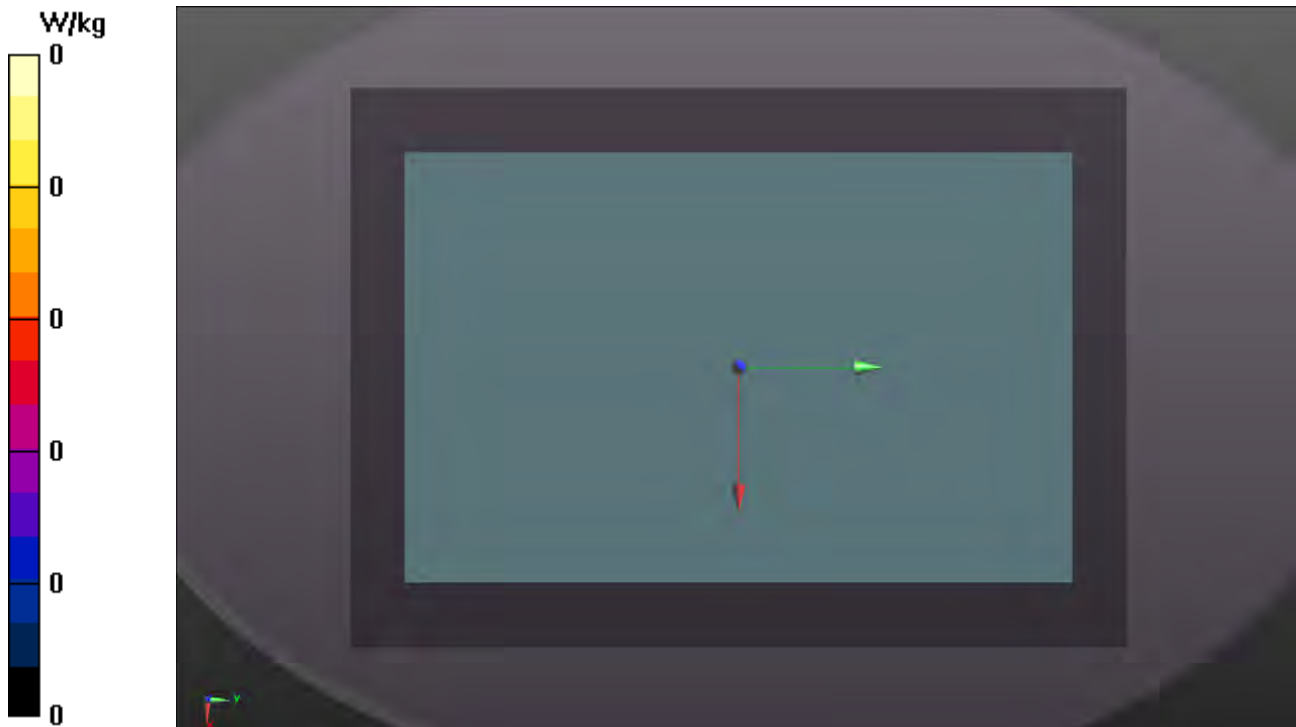
Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.09, 9.09, 9.09) @ 826.4 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (181x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

P04 LTE 5_QPSK10M_Bottom_0mm_Ch20525_1RB_OS0_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 836.5 MHz; Duty Cycle: 1:3.74

Medium: H07T10N1_1022 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.947$ S/m; $\epsilon_r = 43.064$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.09, 9.09, 9.09) @ 836.5 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (181x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

P05 LTE 7_QPSK20M_Bottom_0mm_Ch21350_1RB_OS0_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2560 MHz; Duty Cycle: 1:3.74

Medium: H19T27N1_1022 Medium parameters used: $f = 2560$ MHz; $\sigma = 1.996$ S/m; $\epsilon_r = 38.903$; $\rho = 1000$ kg/m³

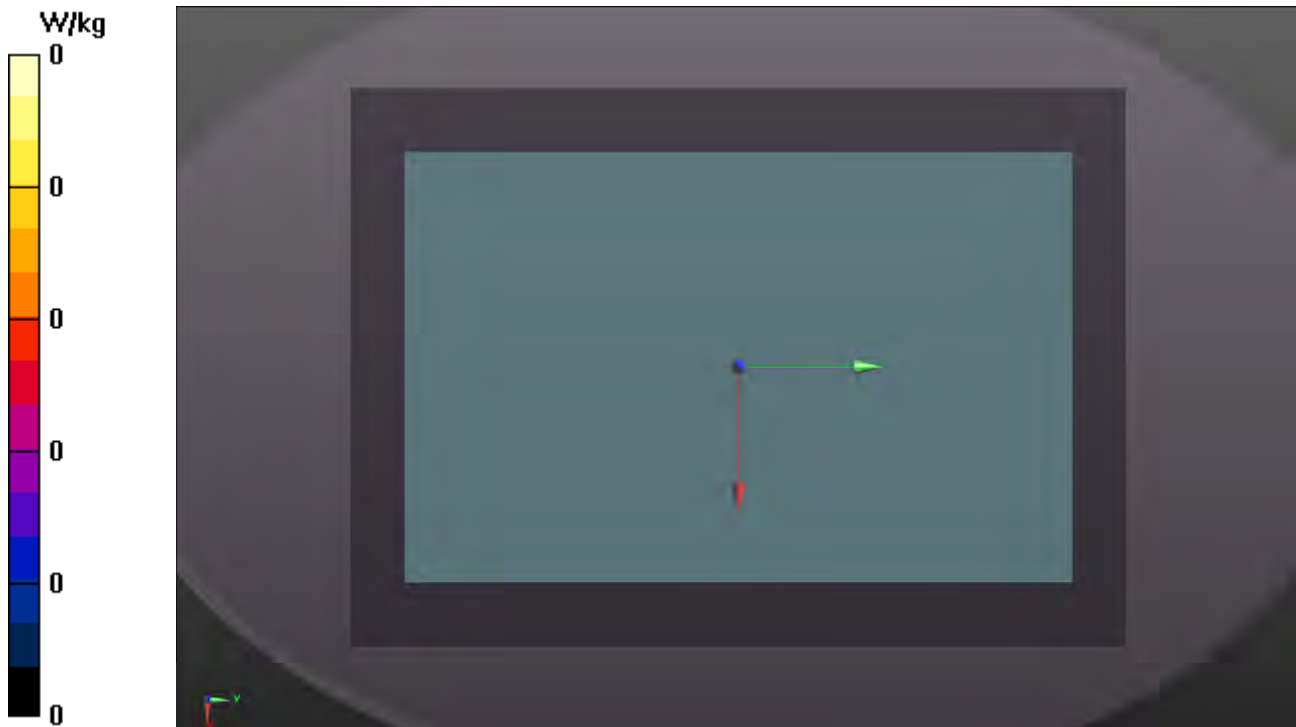
Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(6.7, 6.7, 6.7) @ 2560 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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: 2021/10/22

P06 LTE 12_QPSK10M_Bottom_0mm_Ch23060_1RB_OS0_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 704 MHz; Duty Cycle: 1:3.74

Medium: H06T09N1_1022 Medium parameters used: $f = 704$ MHz; $\sigma = 0.848$ S/m; $\epsilon_r = 43.716$; $\rho = 1000$ kg/m³

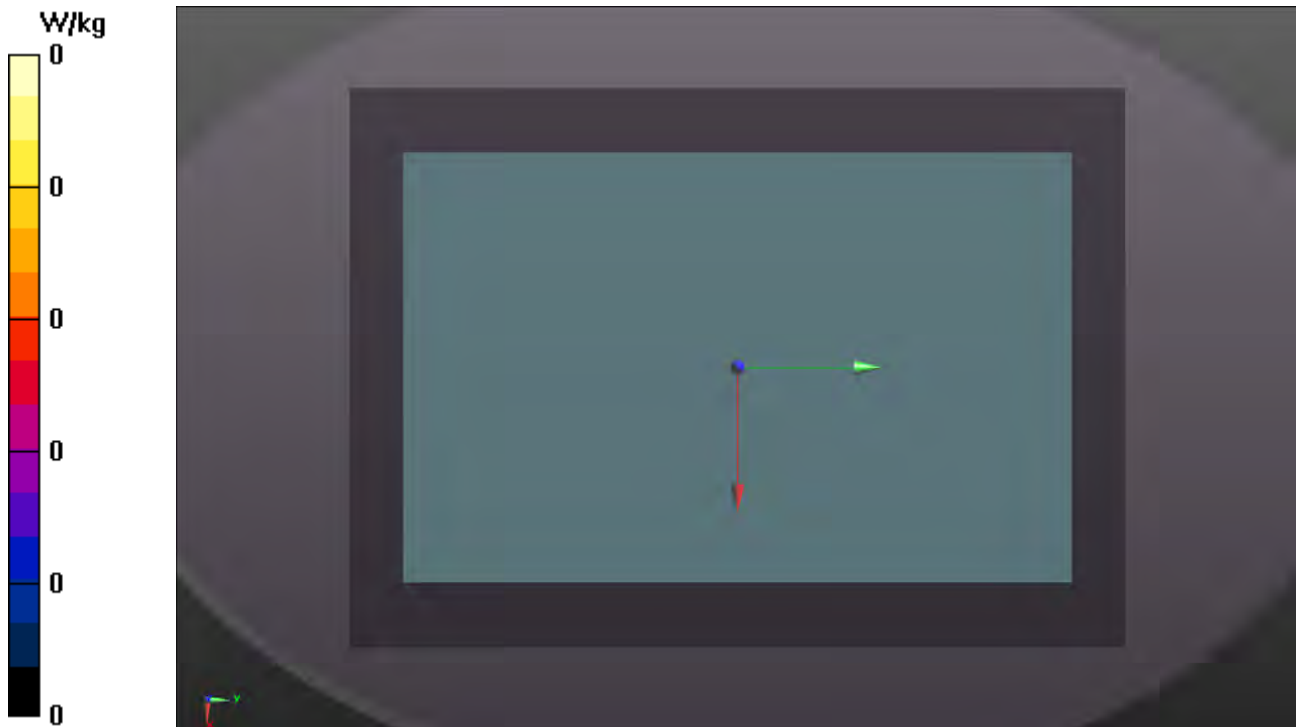
Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.62, 9.62, 9.62) @ 704 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (181x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

P07 LTE 13_QPSK10M_Bottom_0mm_Ch23230_1RB_OS0_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 782 MHz; Duty Cycle: 1:3.74

Medium: H06T09N1_1022 Medium parameters used: $f = 782$ MHz; $\sigma = 0.919$ S/m; $\epsilon_r = 42.732$; $\rho = 1000$ kg/m³

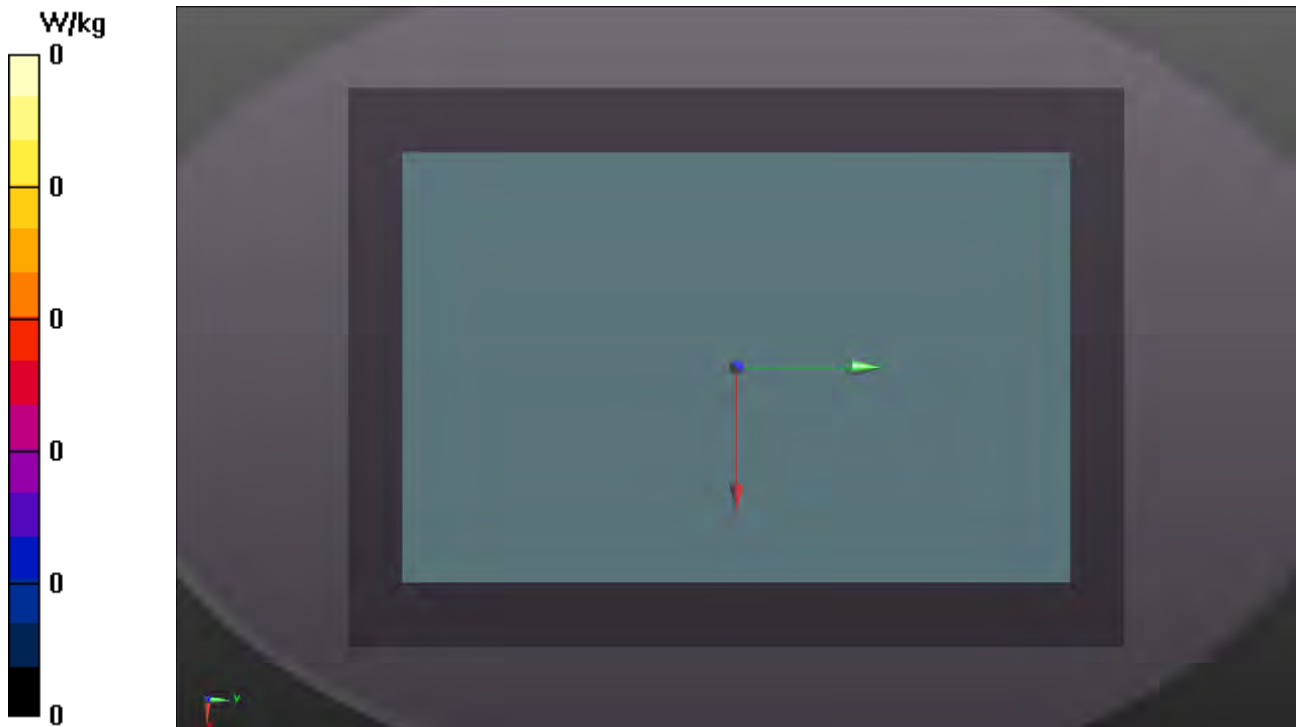
Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.62, 9.62, 9.62) @ 782 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (181x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

P08 LTE 14_QPSK10M_Bottom_0mm_Ch23330_1RB_OS0_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 793 MHz; Duty Cycle: 1:3.74

Medium: H06T09N1_1022 Medium parameters used: $f = 793$ MHz; $\sigma = 0.929$ S/m; $\epsilon_r = 42.595$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.62, 9.62, 9.62) @ 793 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (181x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

P09 LTE 25 _QPSK20M_Bottom_0mm_Ch26140_1RB_OS0_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1860 MHz; Duty Cycle: 1:3.74

Medium: H16T20N1_1022 Medium parameters used: $f = 1860$ MHz; $\sigma = 1.423$ S/m; $\epsilon_r = 39.283$; $\rho = 1000$ kg/m³

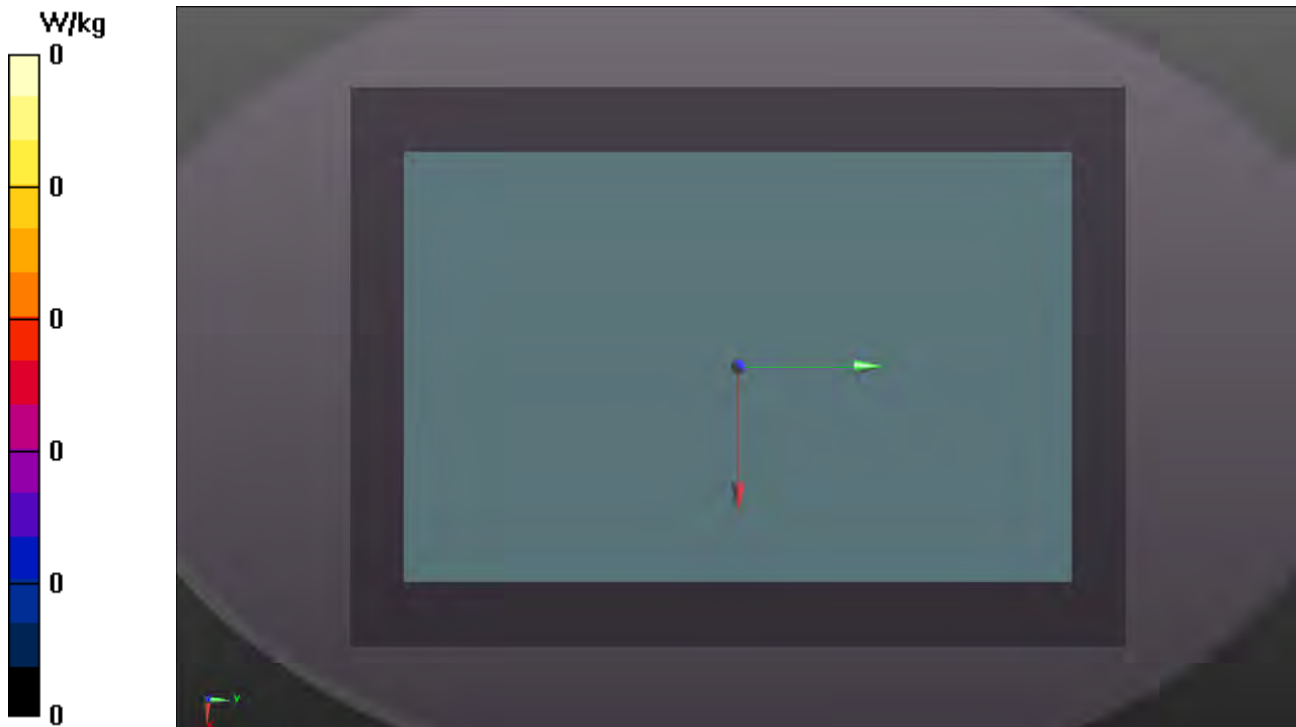
Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(7.35, 7.35, 7.35) @ 1860 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (181x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

P10 LTE 26 _QPSK15M_Bottom_0mm_Ch26765_1RB_OS0_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10181 - CAE, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK); Frequency: 821.5 MHz; Duty Cycle: 1:3.74

Medium: H07T10N1_1022 Medium parameters used (interpolated): $f = 821.5$ MHz; $\sigma = 0.931$ S/m; $\epsilon_r = 43.256$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.09, 9.09, 9.09) @ 821.5 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (181x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/22

P11 LTE 30 _QPSK10M_Bottom_0mm_Ch27710_1RB_OS0_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 2310 MHz; Duty Cycle: 1:3.74

Medium: H19T27N1_1022 Medium parameters used: $f = 2310$ MHz; $\sigma = 1.734$ S/m; $\epsilon_r = 39.778$; $\rho = 1000$ kg/m³

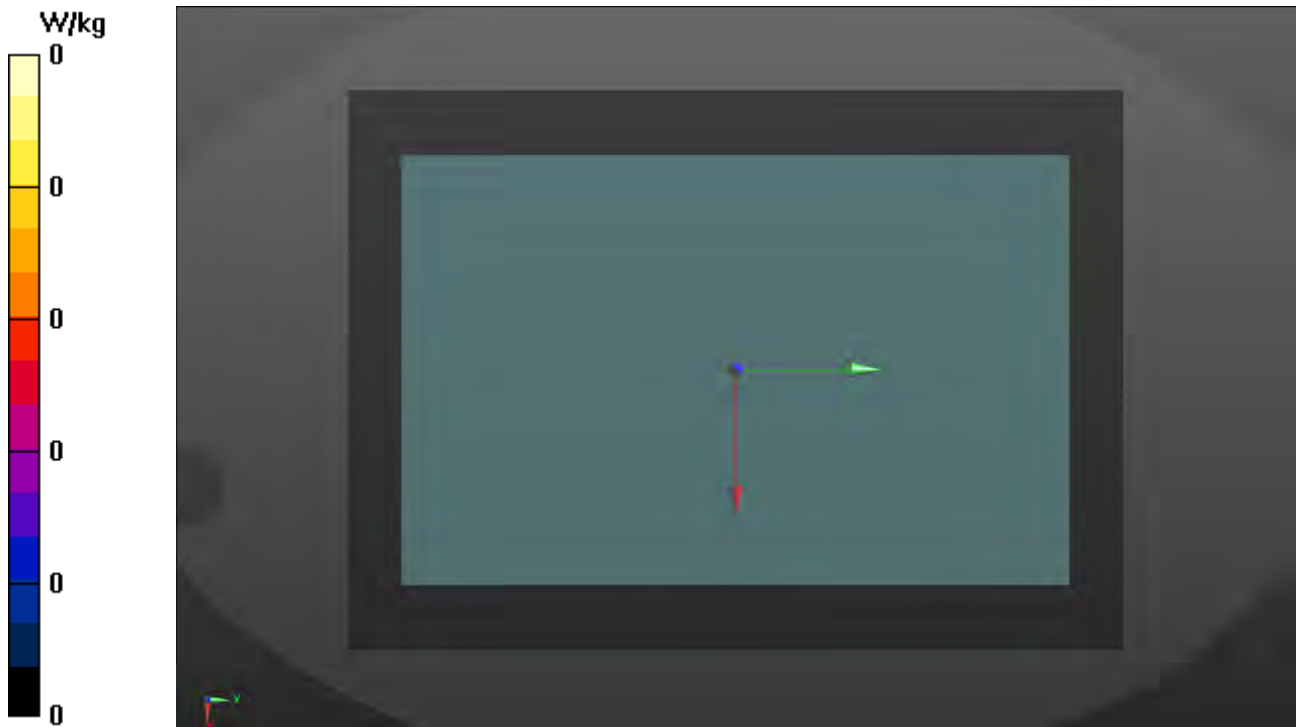
Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(7.99, 7.99, 7.99) @ 2310 MHz; Calibrated: 2021/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2021/03/24
- Phantom: ELI Phantom_1205; Type: QDOVA002AA; Serial: 1205
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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: 2021/10/22

P12 LTE 38_QPSK20M_Bottom_0mm_Ch38150_1RB_OS0_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2610 MHz; Duty Cycle: 1:8.33

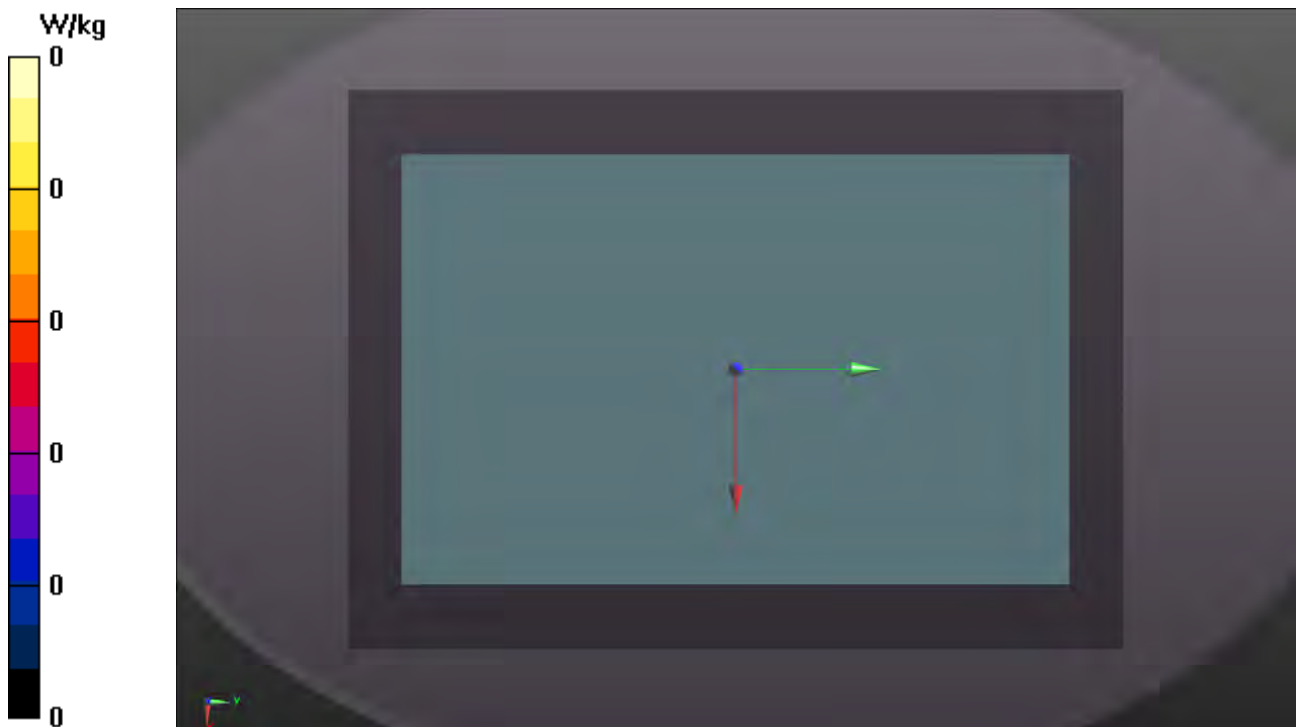
Medium: H19T27N1_1022 Medium parameters used (interpolated): $f = 2610$ MHz; $\sigma = 2.049$ S/m; $\epsilon_r = 38.762$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(6.7, 6.7, 6.7) @ 2610 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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: 2021/10/22

P13 LTE 41_QPSK20M_Bottom_0mm_Ch40185_1RB_OS0_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2549.5 MHz; Duty Cycle: 1:8.33

Medium: H19T27N1_1022 Medium parameters used: $f = 2550$ MHz; $\sigma = 1.984$ S/m; $\epsilon_r = 38.93$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(6.7, 6.7, 6.7) @ 2549.5 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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: 2021/10/22

P14 LTE 66_QPSK20M_Bottom_0mm_Ch132072_1RB_OS0_Sample WNC_Ant0

DUT: BEDW-WTW-P21090357

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1720 MHz; Duty Cycle: 1:3.74

Medium: H16T20N1_1022 Medium parameters used: $f = 1720$ MHz; $\sigma = 1.295$ S/m; $\epsilon_r = 39.864$; $\rho = 1000$ kg/m³

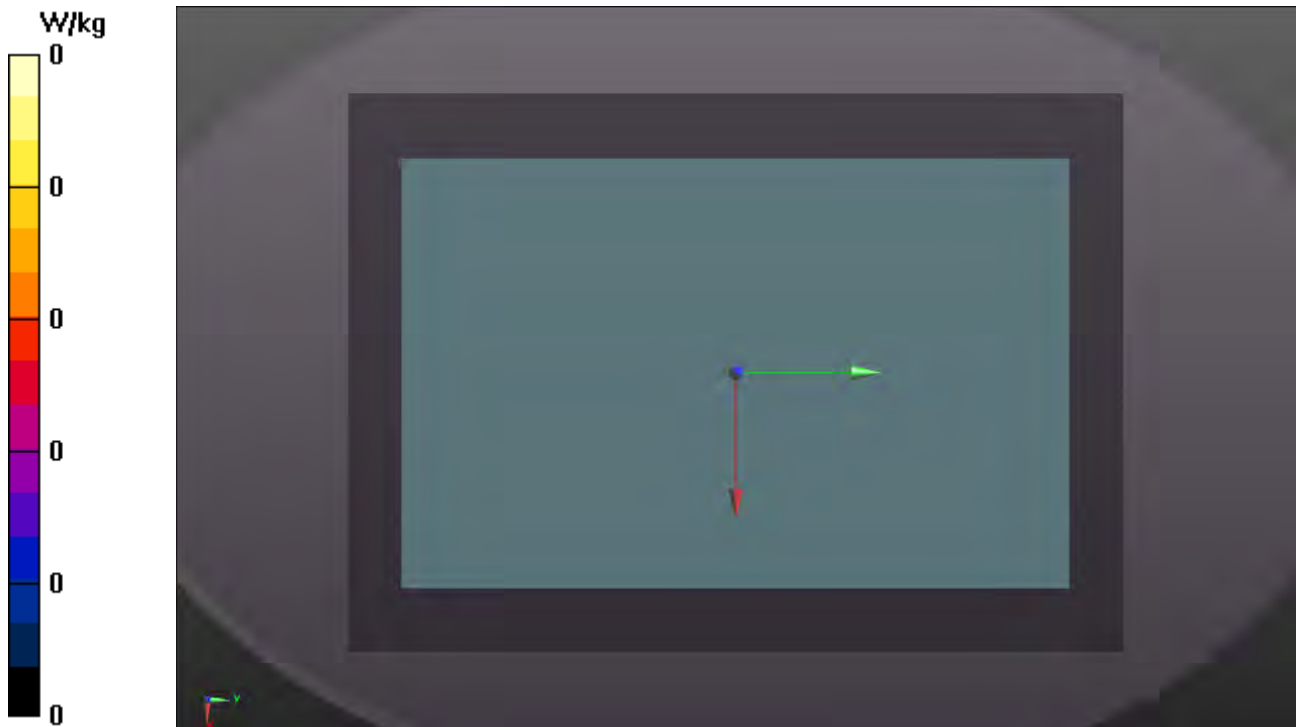
Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(7.66, 7.66, 7.66) @ 1720 MHz; Calibrated: 2021/07/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (181x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/20

P15 WLAN2.4G_802.11b_Bottom_0mm_Ch1_Sample_WNC_Ant 1

DUT: BEDW-WTW-P21090356

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_1020 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.828$ S/m; $\epsilon_r = 38.231$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(7.89, 7.89, 7.89) @ 2412 MHz; Calibrated: 2021/06/03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2021/06/02
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x301x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.35 W/kg

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

Reference Value = 24.10 V/m; Power Drift = -0.11 dB

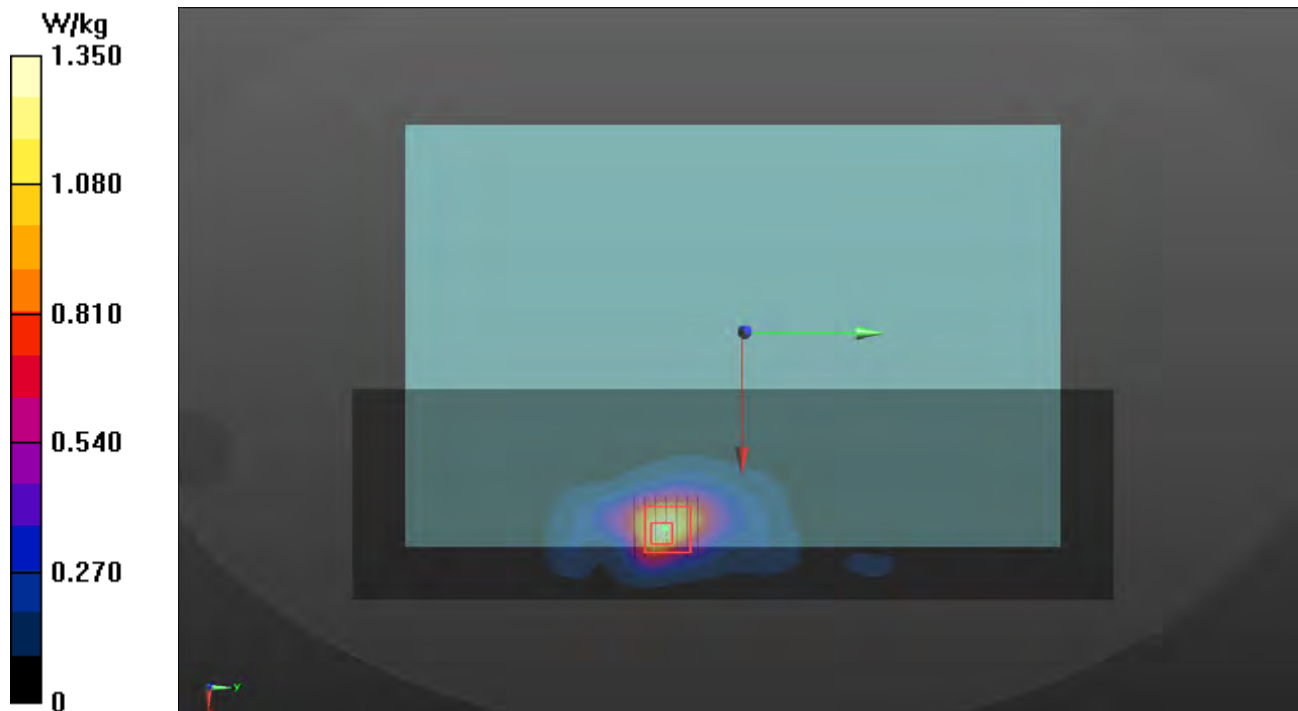
Peak SAR (extrapolated) = 2.50 W/kg

SAR(1 g) = 1.09 W/kg; SAR(10 g) = 0.510 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 8.9 mm

Ratio of SAR at M2 to SAR at M1 = 45.5%

Maximum value of SAR (measured) = 1.84 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

P16 WLAN5.3G_802.11ac VHT160_Bottom_0mm_Ch50_Sample_WNC_Ant 1

DUT: BEDW-WTW-P21090356

Communication System: UID 10554 - AAD, IEEE 802.11ac WiFi (160MHz, MCS0); Frequency: 5250 MHz; Duty Cycle: 1:1.01

Medium: H34T60N1_1021 Medium parameters used (interpolated): $f = 5250$ MHz; $\sigma = 4.849$ S/m; $\epsilon_r = 35.568$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(5.78, 5.78, 5.78) @ 5250 MHz; Calibrated: 2021/06/03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2021/06/02
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x361x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.09 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 22.06 V/m; Power Drift = -0.13 dB

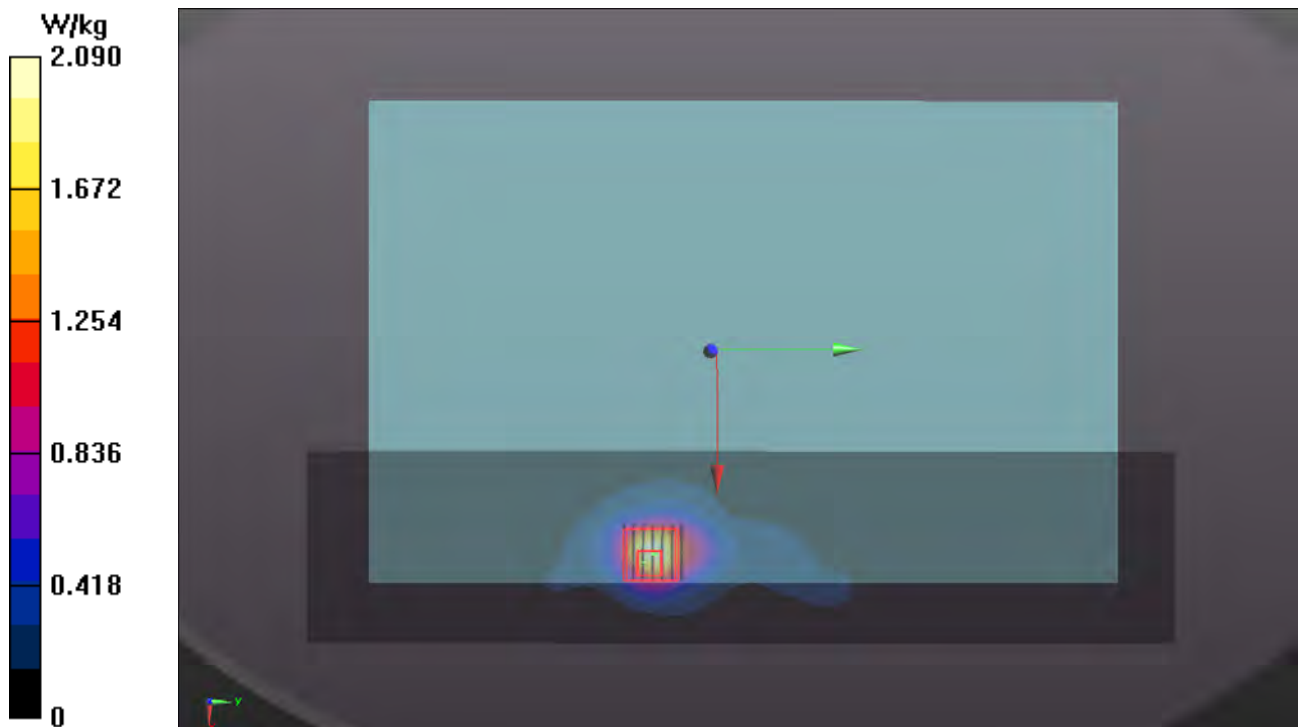
Peak SAR (extrapolated) = 3.95 W/kg

SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.378 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 9.1 mm

Ratio of SAR at M2 to SAR at M1 = 64.2%

Maximum value of SAR (measured) = 2.37 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

P17 WLAN5.6G_802.11ac VHT160_Bottom_0mm_Ch114_Sample_WNC_Ant 0+1

DUT: BEDW-WTW-P21090356

Communication System: UID 10554 - AAD, IEEE 802.11ac WiFi (160MHz, MCS0); Frequency: 5570 MHz; Duty Cycle: 1:1.01

Medium: H34T60N1_1021 Medium parameters used (interpolated): $f = 5570$ MHz; $\sigma = 5.146$ S/m; $\epsilon_r = 35.073$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(4.95, 4.95, 4.95) @ 5570 MHz; Calibrated: 2021/06/03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2021/06/02
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x361x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.29 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 23.04 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 3.87 W/kg

SAR(1 g) = 0.953 W/kg; SAR(10 g) = 0.322 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 8.9 mm

Ratio of SAR at M2 to SAR at M1 = 63.1%

Maximum value of SAR (measured) = 2.22 W/kg

Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 23.04 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 2.95 W/kg

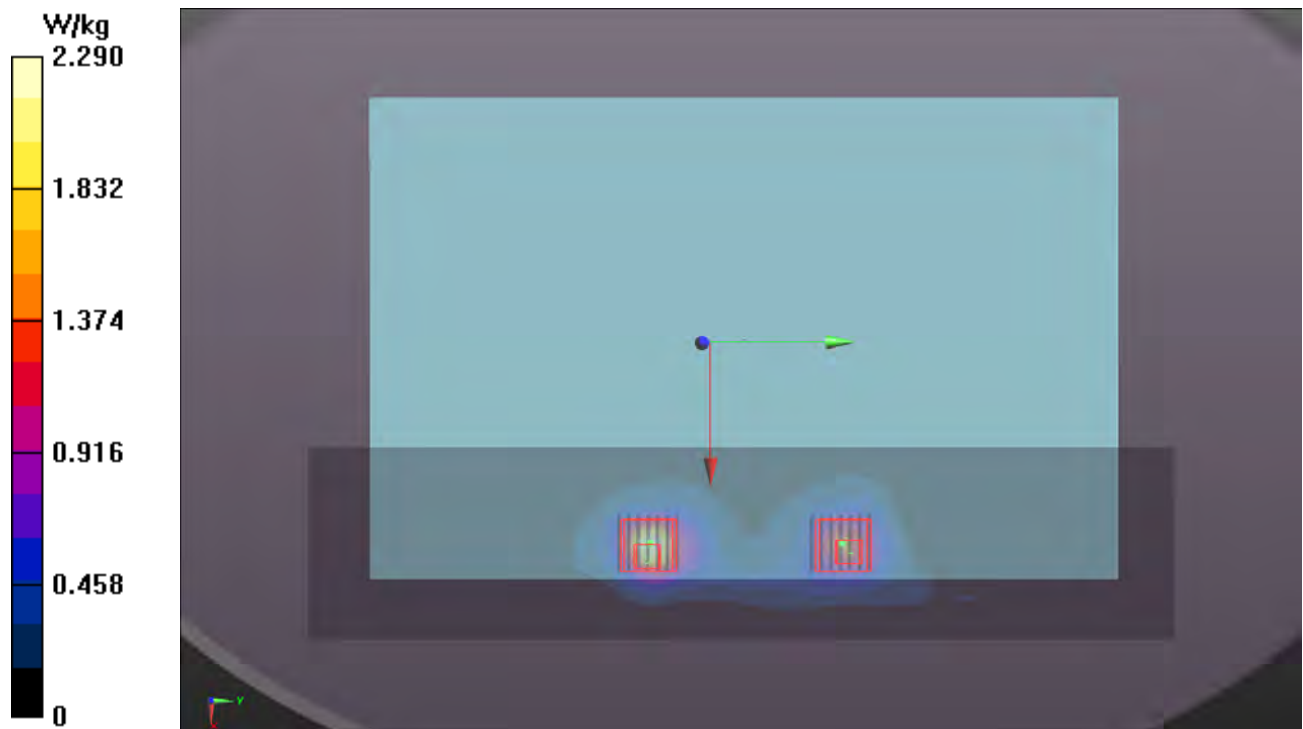
SAR(1 g) = 0.729 W/kg; SAR(10 g) = 0.251 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 8.6 mm

Ratio of SAR at M2 to SAR at M1 = 62.6%

Maximum value of SAR (measured) = 1.75 W/kg

Plots of Measurement



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

P18 WLAN5.8G_802.11ac VHT80_Bottom_0mm_Ch155_Sample_Speed_Ant 0+1

DUT: BEDW-WTW-P21090356

Communication System: UID 10544 - AAC, IEEE 802.11ac WiFi (80MHz, MCS0); Frequency: 5775 MHz; Duty Cycle: 1:1.02

Medium: H34T60N1_1021 Medium parameters used: $f = 5775$ MHz; $\sigma = 5.344$ S/m; $\epsilon_r = 34.756$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(5.25, 5.25, 5.25) @ 5775 MHz; Calibrated: 2021/06/03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2021/06/02
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x361x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.80 W/kg

Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 19.52 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 4.35 W/kg

SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.380 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 8.5 mm

Ratio of SAR at M2 to SAR at M1 = 64.9%

Maximum value of SAR (measured) = 2.64 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 19.52 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 4.30 W/kg

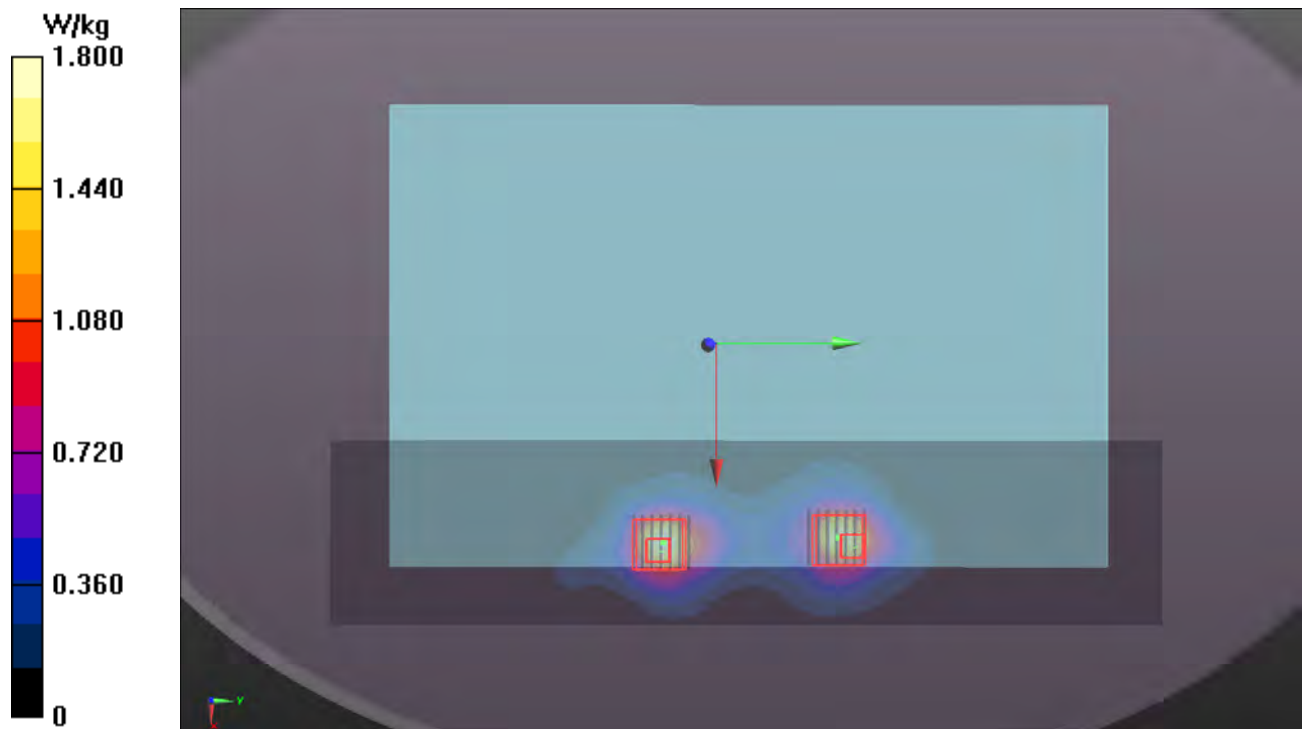
SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.398 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 65%

Maximum value of SAR (measured) = 2.65 W/kg

Plots of Measurement



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/20

P19 BT_BDR_Bottom_0mm_Ch0_Sample_Speed_Ant 1

DUT: BEDW-WTW-P21090356

Communication System: UID 10032 - CAA, IEEE 802.15.1 Bluetooth (GFSK, DH5); Frequency: 2402 MHz; Duty Cycle: 1:1.3

Medium: H19T27N1_1020 Medium parameters used (interpolated): $f = 2402$ MHz; $\sigma = 1.813$ S/m; $\epsilon_r = 38.292$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(7.89, 7.89, 7.89) @ 2402 MHz; Calibrated: 2021/06/03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2021/06/02
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x301x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.286 W/kg

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

Reference Value = 10.83 V/m; Power Drift = -0.09 dB

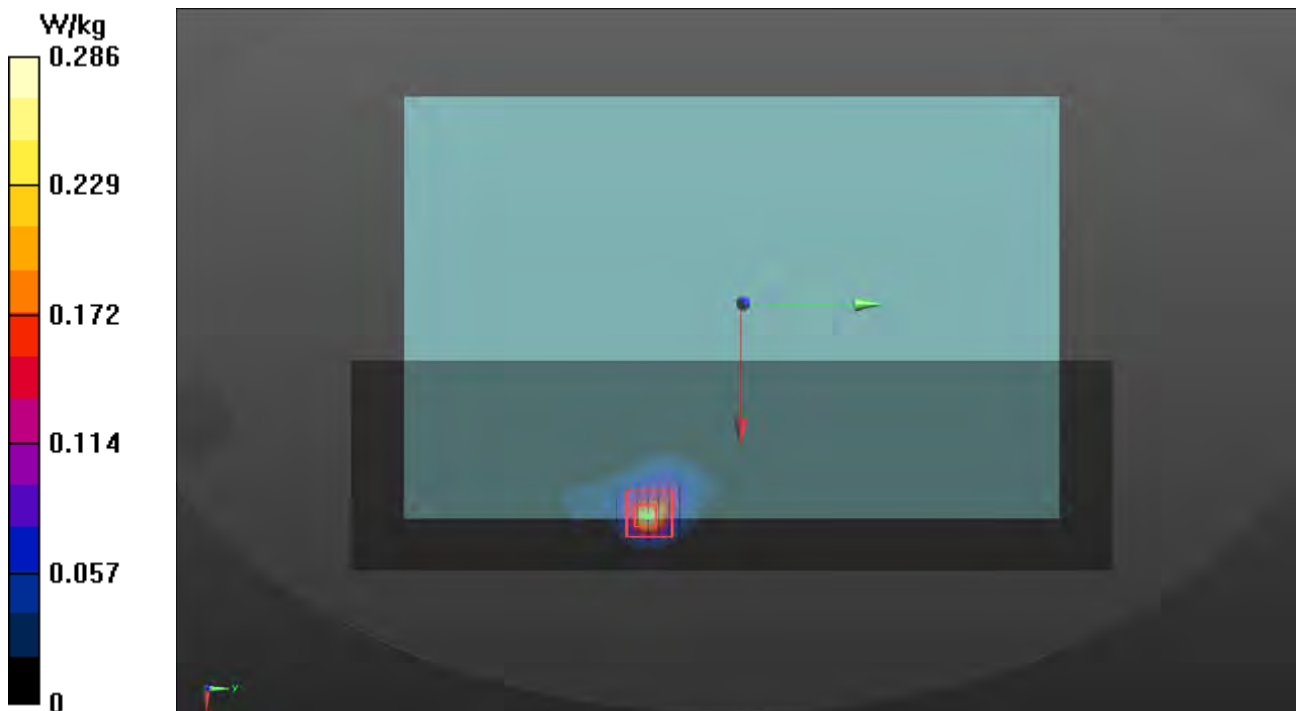
Peak SAR (extrapolated) = 0.304 W/kg

SAR(1 g) = 0.131 W/kg; SAR(10 g) = 0.059 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 8.1 mm

Ratio of SAR at M2 to SAR at M1 = 44.6%

Maximum value of SAR (measured) = 0.233 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 °C.
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. (°C)	Conductivity (σ)	Permittivity (ε _r)	Targeted Conductivity (σ)	Targeted Permittivity (ε _r)	Deviation Conductivity (σ)	Deviation Permittivity (ε _r)	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	1900	23.3	1.459	39.16	1.4	40	4.21	-2.10	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	1900	40.40	2.04	40.70	0.75	5d036	3820	1341	17
S02	1750	23.3	1.322	39.729	1.37	40.1	-3.50	-0.93	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	1750	36.40	1.85	36.91	1.41	1111	3820	1341	17
S03	835	23.3	0.945	43.081	0.9	41.5	5.00	3.81	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	835	9.49	0.466	9.30	-2.02	4d092	3820	1341	17
S04	835	23.3	0.945	43.081	0.9	41.5	5.00	3.81	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	835	9.49	0.466	9.30	-2.02	4d092	3820	1341	17
S05	2600	23.3	2.039	38.794	1.96	39	4.03	-0.53	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	2600	57.60	2.92	58.26	1.15	1020	3820	1341	17
S06	750	23.3	0.89	43.122	0.89	41.9	0.00	2.92	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	750	8.58	0.424	8.46	-1.40	1078	3820	1341	17
S07	750	23.3	0.89	43.122	0.89	41.9	0.00	2.92	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	750	8.58	0.424	8.46	-1.40	1078	3820	1341	17
S08	750	23.3	0.89	43.122	0.89	41.9	0.00	2.92	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	750	8.58	0.424	8.46	-1.40	1078	3820	1341	17
S09	1900	23.3	1.459	39.16	1.4	40	4.21	-2.10	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	1900	40.40	2.04	40.70	0.75	5d036	3820	1341	17
S10	835	23.3	0.945	43.081	0.9	41.5	5.00	3.81	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	835	9.49	0.466	9.30	-2.02	4d092	3820	1341	17
S11	2300	23.3	1.724	39.827	1.67	39.5	3.23	0.83	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	2300	49.20	2.46	49.08	-0.24	1004	3971	1431	17
S12	2600	23.3	2.039	38.794	1.96	39	4.03	-0.53	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	2600	57.60	2.92	58.26	1.15	1020	3820	1341	17
S13	2600	23.3	2.039	38.794	1.96	39	4.03	-0.53	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	2600	57.60	2.92	58.26	1.15	1020	3820	1341	17
S14	1750	23.3	1.322	39.729	1.37	40.1	-3.50	-0.93	Pass	Pass	Pass	N/A	N/A	N/A	Oct 22, 2021	1750	36.40	1.85	36.91	1.41	1111	3820	1341	17
S15	2450	23.2	1.864	38.07	1.8	39.2	3.56	-2.88	Pass	Pass	Pass	OFDM	N/A	Pass	Oct 20, 2021	2450	52.70	2.48	49.48	-6.11	835	7472	579	17
S16	5250	23.1	4.849	35.568	4.71	35.9	2.95	-0.92	Pass	Pass	Pass	OFDM	N/A	Pass	Oct 21, 2021	5250	80.60	3.87	77.22	-4.20	1019	7472	579	17
S17	5600	23.1	5.17	35.042	5.07	35.5	1.97	-1.29	Pass	Pass	Pass	OFDM	N/A	Pass	Oct 21, 2021	5600	82.40	4.33	86.39	4.85	1019	7472	579	17
S18	5750	23.1	5.319	34.787	5.22	35.4	1.90	-1.73	Pass	Pass	Pass	OFDM	N/A	Pass	Oct 21, 2021	5750	79.40	3.78	75.42	-5.01	1019	7472	579	17
S19	2450	23.2	1.864	38.07	1.8	39.2	3.56	-2.88	Pass	Pass	Pass	OFDM	N/A	Pass	Oct 20, 2021	2450	52.70	2.48	49.48	-6.11	835	7472	579	17

Annex D. Maximum Target Conducted Power

The maximum conducted average power (Unit: dBm) including tune-up tolerance is shown as below.

WCDMA Max. Tune-up Power (Full)		
Mode	RMC 12.2K	HSDPA DC-HSDPA HSUPA
	Maximum Target Power	Maximum Target Power
WCDMA Band II	24.5	24.5
WCDMA Band IV	24.5	24.5
WCDMA Band V	24.5	24.5

LTE Max. Tune-up Power (Full)			
Mode	QPSK	16QAM	64QAM
	Maximum Target Power	Maximum Target Power	Maximum Target Power
LTE 2	24.5	23.5	22.5
LTE 4	24.5	23.5	22.5
LTE 5	24.5	23.5	22.5
LTE 7	24.5	23.5	22.5
LTE 12	24.5	23.5	22.5
LTE 13	24.5	23.5	22.5
LTE 14	24.5	23.5	22.5
LTE 17	24.5	23.5	22.5
LTE 25	24.5	23.5	22.5
LTE 26	24.5	23.5	22.5
LTE 30	23.0	22.0	21.0
LTE 38	24.5	23.5	22.5
LTE 41	24.5	23.5	22.5
LTE 66	24.5	23.5	22.5

WLAN Tune-up Power (Full)							
WLAN 2.4GHz							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11b	1	2412	17.0	17.0	-	-	-
	6	2437	17.0	17.0	-	-	-
	11	2462	17.0	17.0	-	-	-
	12	2467	17.0	17.0	-	-	-
	13	2472	17.0	17.0	-	-	-
802.11g	1	2412	17.0	17.0	-	-	-
	6	2437	17.0	17.0	-	-	-
	11	2462	17.0	17.0	-	-	-
	12	2467	16.0	16.0	-	-	-
	13	2472	12.5	12.5	-	-	-
802.11n HT20	1	2412	17.0	17.0	17.0	17.0	20.0
	6	2437	17.0	17.0	17.0	17.0	20.0
	11	2462	17.0	17.0	17.0	17.0	20.0
	12	2467	16.0	16.0	13.0	13.0	16.0
	13	2472	12.5	12.5	10.0	10.0	13.0
802.11n HT40	3	2422	17.0	17.0	17.0	17.0	20.0
	6	2437	17.0	17.0	17.0	17.0	20.0
	9	2452	17.0	17.0	16.0	16.0	19.0
	10	2457	14.0	14.0	13.0	13.0	16.0
	11	2462	12.0	12.0	9.0	9.0	12.0
802.11ax HE20	1	2412	17.0	17.0	17.0	17.0	20.0
	6	2437	17.0	17.0	17.0	17.0	20.0
	11	2462	17.0	17.0	17.0	17.0	20.0
	12	2467	17.0	17.0	13.0	13.0	16.0
	13	2472	14.0	14.0	10.0	10.0	13.0
802.11ax HE40	3	2422	17.0	17.0	17.0	17.0	20.0
	6	2437	17.0	17.0	17.0	17.0	20.0
	9	2452	17.0	17.0	16.0	16.0	19.0
	10	2457	14.0	14.0	13.0	13.0	16.0
	11	2462	11.5	11.5	10.0	10.0	13.0

WLAN Tune-up Power (Full)			
Bluetooth			
Mode	Channel	Frequency	Ant 1 Max Tune-up
BR / EDR	0	2402	10.5
	39	2441	10.5
	78	2480	10.5
LE	0	2402	9.0
	19	2440	9.0
	39	2480	9.0

WLAN Tune-up Power (Full)							
WLAN 5.2GHz							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11a	36	5180	13.5	15.0	-	-	-
	40	5200	13.5	15.0	-	-	-
	44	5220	13.5	15.0	-	-	-
	48	5240	13.5	15.0	-	-	-
802.11n HT20	36	5180	13.5	15.0	13.5	13.5	16.5
	40	5200	13.5	15.0	13.5	13.5	16.5
	44	5220	13.5	15.0	13.5	13.5	16.5
	48	5240	13.5	15.0	13.5	13.5	16.5
802.11n HT40	38	5190	13.5	15.0	13.5	13.5	16.5
	46	5230	13.5	15.0	13.5	13.5	16.5
802.11ac VHT80	42	5210	13.5	15.0	13.5	13.5	16.5
802.11ax HE20	36	5180	13.5	15.0	13.5	13.5	16.5
	40	5200	13.5	15.0	13.5	13.5	16.5
	44	5220	13.5	15.0	13.5	13.5	16.5
	48	5240	13.5	15.0	13.5	13.5	16.5
802.11ax HE40	38	5190	13.5	15.0	13.5	13.5	16.5
	46	5230	13.5	15.0	13.5	13.5	16.5
802.11ax HE80	42	5210	13.5	15.0	13.5	13.5	16.5

WLAN Tune-up Power (Full)							
WLAN 5.3GHz							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11a	52	5260	13.5	15.0	-	-	-
	56	5280	13.5	15.0	-	-	-
	60	5300	13.5	15.0	-	-	-
	64	5320	13.5	15.0	-	-	-
802.11n HT20	52	5260	13.5	15.0	13.5	13.5	16.5
	56	5280	13.5	15.0	13.5	13.5	16.5
	60	5300	13.5	15.0	13.5	13.5	16.5
	64	5320	13.5	15.0	13.5	13.5	16.5
802.11n HT40	54	5270	13.5	15.0	13.5	13.5	16.5
	62	5310	13.5	15.0	13.5	13.5	16.5
802.11ac VHT80	58	5290	13.5	15.0	13.5	13.5	16.5
802.11ac VHT160	50	5250	13.5	15.0	13.5	13.5	16.5
802.11ax HE20	52	5260	13.5	15.0	13.5	13.5	16.5
	56	5280	13.5	15.0	13.5	13.5	16.5
	60	5300	13.5	15.0	13.5	13.5	16.5
	64	5320	13.5	15.0	13.5	13.5	16.5
802.11ax HE40	54	5270	13.5	15.0	13.5	13.5	16.5
	62	5310	13.5	15.0	13.5	13.5	16.5
802.11ax HE80	58	5290	13.5	15.0	13.5	13.5	16.5
802.11ax HE160	50	5250	13.5	15.0	13.5	13.5	16.5

WLAN Tune-up Power (Full)							
WLAN 5.6GHz							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11a	100	5500	13.5	13.5	-	-	-
	116	5580	13.5	13.5	-	-	-
	120	5600	13.5	13.5	-	-	-
	124	5620	13.5	13.5	-	-	-
	132	5660	13.5	13.5	-	-	-
	140	5700	13.5	13.5	-	-	-
802.11n HT20	100	5500	13.5	13.5	13.5	13.5	16.5
	116	5580	13.5	13.5	13.5	13.5	16.5
	120	5600	13.5	13.5	13.5	13.5	16.5
	124	5620	13.5	13.5	13.5	13.5	16.5
	132	5660	13.5	13.5	13.5	13.5	16.5
	140	5700	13.5	13.5	13.5	13.5	16.5
802.11n HT40	102	5510	13.5	13.5	13.5	13.5	16.5
	110	5550	13.5	13.5	13.5	13.5	16.5
	118	5590	13.5	13.5	13.5	13.5	16.5
	126	5630	13.5	13.5	13.5	13.5	16.5
	134	5670	13.5	13.5	13.5	13.5	16.5
	142	5710	13.5	13.5	13.5	13.5	16.5
802.11ac VHT80	106	5530	13.5	13.5	13.5	13.5	16.5
	122	5610	13.5	13.5	13.5	13.5	16.5
	138	5690	13.5	13.5	13.5	13.5	16.5
802.11ac VHT160	114	5570	13.5	13.5	13.5	13.5	16.5
802.11ax HE20	100	5500	13.5	13.5	13.5	13.5	16.5
	116	5580	13.5	13.5	13.5	13.5	16.5
	120	5600	13.5	13.5	13.5	13.5	16.5
	124	5620	13.5	13.5	13.5	13.5	16.5
	132	5660	13.5	13.5	13.5	13.5	16.5
	140	5700	13.5	13.5	13.5	13.5	16.5
802.11ax HE40	102	5510	13.5	13.5	13.5	13.5	16.5
	110	5550	13.5	13.5	13.5	13.5	16.5
	118	5590	13.5	13.5	13.5	13.5	16.5
	126	5630	13.5	13.5	13.5	13.5	16.5
	134	5670	13.5	13.5	13.5	13.5	16.5
	142	5710	13.5	13.5	13.5	13.5	16.5
802.11ax HE80	106	5530	13.5	13.5	13.5	13.5	16.5
	122	5610	13.5	13.5	13.5	13.5	16.5
	138	5690	13.5	13.5	13.5	13.5	16.5
802.11ax HE160	114	5570	13.5	13.5	13.5	13.5	16.5

WLAN Tune-up Power (Full)							
WLAN 5.8GHz							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11a	149	5745	14.0	14.0	-	-	-
	153	5765	14.0	14.0	-	-	-
	157	5785	14.0	14.0	-	-	-
	161	5805	14.0	14.0	-	-	-
	165	5825	14.0	14.0	-	-	-
802.11n HT20	149	5745	14.0	14.0	14.0	14.0	17.0
	153	5765	14.0	14.0	14.0	14.0	17.0
	157	5785	14.0	14.0	14.0	14.0	17.0
	161	5805	14.0	14.0	14.0	14.0	17.0
	165	5825	14.0	14.0	14.0	14.0	17.0
802.11n HT40	151	5755	14.0	14.0	14.0	14.0	17.0
	159	5795	14.0	14.0	14.0	14.0	17.0
802.11ac VHT80	155	5775	14.0	14.0	14.0	14.0	17.0
802.11ax HE20	149	5745	14.0	14.0	14.0	14.0	17.0
	153	5765	14.0	14.0	14.0	14.0	17.0
	157	5785	14.0	14.0	14.0	14.0	17.0
	161	5805	14.0	14.0	14.0	14.0	17.0
	165	5825	14.0	14.0	14.0	14.0	17.0
802.11ax HE40	151	5755	14.0	14.0	14.0	14.0	17.0
	159	5795	14.0	14.0	14.0	14.0	17.0
802.11ax HE80	155	5775	14.0	14.0	14.0	14.0	17.0

Annex E. Measured Conducted Power Result

The measuring conducted power (Unit: dBm) are shown as below.

WCDMA Conducted Power (Full)									
Band	WCDMA II			WCDMA IV			WCDMA V		
TX Channel	9262	9400	9538	1312	1413	1513	4132	4182	4233
Rx Channel	9662	9800	9938	1537	1638	1738	4357	4407	4458
Frequency	1852.4	1880	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6
RMC 12.2K	23.82	23.71	23.65	24.02	23.96	23.82	23.97	23.89	23.83
HSDPA Subtest-1	22.96	22.85	22.79	22.97	22.91	22.77	22.89	22.81	22.75
HSDPA Subtest-2	22.93	22.82	22.76	22.96	22.90	22.76	22.87	22.79	22.73
HSDPA Subtest-3	22.42	22.31	22.25	22.48	22.42	22.28	22.36	22.28	22.22
HSDPA Subtest-4	22.40	22.29	22.23	22.44	22.38	22.24	22.34	22.26	22.20
DC-HSDPA Subtest-1	22.84	22.73	22.67	22.88	22.82	22.68	22.76	22.68	22.62
DC-HSDPA Subtest-2	22.81	22.70	22.64	22.87	22.81	22.67	22.74	22.66	22.60
DC-HSDPA Subtest-3	22.30	22.19	22.13	22.39	22.33	22.19	22.23	22.15	22.09
DC-HSDPA Subtest-4	22.28	22.17	22.11	22.35	22.29	22.15	22.21	22.13	22.07
HSUPA Subtest-1	22.93	22.82	22.76	22.93	22.87	22.73	22.91	22.83	22.77
HSUPA Subtest-2	20.86	20.75	20.69	20.87	20.81	20.67	20.87	20.79	20.73
HSUPA Subtest-3	21.90	21.79	21.73	21.89	21.83	21.69	21.89	21.81	21.75
HSUPA Subtest-4	20.92	20.81	20.75	20.82	20.76	20.62	20.84	20.76	20.70
HSUPA Subtest-5	22.97	22.86	22.80	22.95	22.89	22.75	22.97	22.89	22.83
HSPA+ Subtest-1	21.23	21.12	21.06	21.43	21.37	21.23	21.52	21.39	21.37

LTE Conducted Power (Full)							
LTE Band 2							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		18700	18900	19100	
		Frequency (MHz)		1860	1880	1900	
20M	QPSK	1	0	23.44	23.58	23.61	0
		1	50	23.18	23.32	23.35	0
		1	99	23.01	23.15	23.18	0
		50	0	22.32	22.46	22.49	1
		50	25	22.23	22.37	22.40	1
		50	50	22.12	22.26	22.29	1
		100	0	22.18	22.32	22.35	1
20M	16QAM	1	0	22.28	22.42	22.45	1
		1	50	22.23	22.37	22.40	1
		1	99	22.19	22.33	22.36	1
		50	0	21.36	21.50	21.53	2
		50	25	21.28	21.42	21.45	2
		50	50	21.18	21.32	21.35	2
		100	0	21.26	21.40	21.43	2
20M	64QAM	1	0	21.51	21.65	21.68	2
		1	50	21.42	21.56	21.59	2
		1	99	21.38	21.52	21.55	2
		50	0	20.44	20.58	20.61	3
		50	25	20.35	20.49	20.52	3
		50	50	20.30	20.44	20.47	3
		100	0	20.34	20.48	20.51	3
BW	MCS Index	Channel		18675	18900	19125	3GPP MPR
		Frequency (MHz)		1857.5	1880	1902.5	
15M	QPSK	1	0	23.36	23.54	23.56	0
		1	37	23.09	23.29	23.26	0
		1	74	22.96	23.13	23.18	0
		36	0	22.28	22.41	22.45	1
		36	19	22.23	22.27	22.34	1
		36	39	22.08	22.20	22.20	1
		75	0	22.16	22.24	22.25	1
15M	16QAM	1	0	22.20	22.37	22.45	1
		1	37	22.16	22.31	22.37	1
		1	74	22.12	22.27	22.26	1
		36	0	21.35	21.50	21.52	2
		36	19	21.23	21.36	21.45	2
		36	39	21.17	21.31	21.28	2
		75	0	21.17	21.30	21.34	2
15M	64QAM	1	0	21.46	21.57	21.62	2
		1	37	21.35	21.55	21.52	2
		1	74	21.34	21.46	21.50	2
		36	0	20.36	20.54	20.57	3
		36	19	20.25	20.43	20.44	3
		36	39	20.23	20.37	20.38	3
		75	0	20.28	20.38	20.41	3

LTE Conducted Power (Full)							
LTE Band 2							
BW	MCS Index	Channel		18650	18900	19150	3GPP MPR
		Frequency (MHz)		1855	1880	1905	
10M	QPSK	1	0	23.33	23.50	23.47	0
		1	24	23.05	23.20	23.19	0
		1	49	22.84	22.90	23.14	0
		25	0	22.07	22.28	22.32	1
		25	12	22.20	22.32	22.36	1
		25	25	21.93	22.05	22.18	1
		50	0	22.15	22.19	22.18	1
10M	16QAM	1	0	22.10	22.35	22.31	1
		1	24	22.16	22.33	22.32	1
		1	49	22.00	22.19	22.26	1
		25	0	21.28	21.39	21.42	2
		25	12	21.09	21.31	21.31	2
		25	25	21.05	21.14	21.27	2
		50	0	21.10	21.34	21.32	2
10M	64QAM	1	0	21.40	21.55	21.49	2
		1	24	21.30	21.46	21.50	2
		1	49	21.23	21.36	21.47	2
		25	0	20.29	20.50	20.47	3
		25	12	20.23	20.25	20.29	3
		25	25	20.24	20.30	20.30	3
		50	0	20.17	20.32	20.43	3
BW	MCS Index	Channel		18625	18900	19175	3GPP MPR
		Frequency (MHz)		1852.5	1880	1907.5	
5M	QPSK	1	0	23.31	23.53	23.30	0
		1	12	23.18	23.22	23.13	0
		1	24	23.00	23.00	22.97	0
		12	0	22.24	22.38	22.25	1
		12	6	22.11	22.36	22.23	1
		12	13	21.87	22.19	21.98	1
		25	0	22.12	22.15	22.22	1
5M	16QAM	1	0	22.18	22.22	22.40	1
		1	12	21.98	22.29	22.23	1
		1	24	22.07	22.21	22.14	1
		12	0	21.26	21.30	21.36	2
		12	6	21.15	21.25	21.34	2
		12	13	21.10	21.30	21.16	2
		25	0	21.23	21.23	21.28	2
5M	64QAM	1	0	21.34	21.59	21.52	2
		1	12	21.17	21.42	21.50	2
		1	24	21.29	21.51	21.39	2
		12	0	20.30	20.43	20.54	3
		12	6	20.16	20.29	20.31	3
		12	13	20.16	20.23	20.22	3
		25	0	20.09	20.38	20.42	3

LTE Conducted Power (Full)							
LTE Band 2							
BW	MCS Index	Channel		18615	18900	19185	3GPP MPR
		Frequency (MHz)		1851.5	1880	1908.5	
3M	QPSK	1	0	23.32	23.36	23.49	0
		1	7	23.04	23.30	23.15	0
		1	14	22.89	22.98	23.10	0
		8	0	22.23	22.26	22.42	1
		8	3	22.02	22.37	22.19	1
		8	7	22.00	22.04	22.25	1
		15	0	22.16	22.19	22.31	1
3M	16QAM	1	0	22.26	22.18	22.39	1
		1	7	22.05	22.22	22.29	1
		1	14	22.05	22.26	22.19	1
		8	0	21.13	21.38	21.48	2
		8	3	21.07	21.35	21.32	2
		8	7	20.97	21.22	21.19	2
		15	0	21.17	21.31	21.42	2
3M	64QAM	1	0	21.46	21.45	21.48	2
		1	7	21.27	21.41	21.45	2
		1	14	21.23	21.37	21.51	2
		8	0	20.26	20.38	20.46	3
		8	3	20.23	20.33	20.32	3
		8	7	20.24	20.37	20.30	3
		15	0	20.15	20.35	20.42	3
BW	MCS Index	Channel		18607	18900	19193	3GPP MPR
		Frequency (MHz)		1850.7	1880	1909.3	
1.4M	QPSK	1	0	23.28	23.43	23.46	0
		1	2	23.02	23.26	23.29	0
		1	5	22.83	23.00	23.12	0
		3	0	23.18	23.41	23.36	0
		3	1	23.12	23.31	23.34	0
		3	3	22.98	23.12	23.13	0
		6	0	22.12	22.23	22.21	1
1.4M	16QAM	1	0	22.15	22.39	22.25	1
		1	2	22.12	22.21	22.23	1
		1	5	22.14	22.18	22.22	1
		3	0	22.22	22.38	22.52	1
		3	1	22.11	22.34	22.30	1
		3	3	22.02	22.22	22.25	1
		6	0	21.09	21.28	21.41	2
1.4M	64QAM	1	0	21.47	21.55	21.61	2
		1	2	21.21	21.41	21.46	2
		1	5	21.21	21.34	21.42	2
		3	0	21.40	21.47	21.43	2
		3	1	21.24	21.37	21.47	2
		3	3	21.23	21.28	21.41	2
		6	0	20.23	20.34	20.36	3

LTE Conducted Power (Full)							
LTE Band 4							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20050	20175	20300	
		Frequency (MHz)		1720	1732.5	1745	
20M	QPSK	1	0	23.68	23.62	23.77	0
		1	50	23.52	23.46	23.61	0
		1	99	23.39	23.33	23.48	0
		50	0	22.67	22.61	22.76	1
		50	25	22.54	22.48	22.63	1
		50	50	22.47	22.41	22.56	1
		100	0	22.58	22.52	22.67	1
20M	16QAM	1	0	22.60	22.54	22.69	1
		1	50	22.57	22.51	22.66	1
		1	99	22.54	22.48	22.63	1
		50	0	21.75	21.69	21.84	2
		50	25	21.67	21.61	21.76	2
		50	50	21.59	21.53	21.68	2
		100	0	21.65	21.59	21.74	2
20M	64QAM	1	0	21.57	21.51	21.66	2
		1	50	21.54	21.48	21.63	2
		1	99	21.51	21.45	21.60	2
		50	0	20.72	20.66	20.81	3
		50	25	20.64	20.58	20.73	3
		50	50	20.56	20.50	20.65	3
		100	0	20.62	20.56	20.71	3
BW	MCS Index	Channel		20025	20175	20325	3GPP MPR
		Frequency (MHz)		1717.5	1732.5	1747.5	
15M	QPSK	1	0	23.58	23.58	23.72	0
		1	37	23.49	23.42	23.51	0
		1	74	23.38	23.31	23.40	0
		36	0	22.57	22.60	22.75	1
		36	19	22.52	22.45	22.58	1
		36	39	22.46	22.35	22.53	1
		75	0	22.52	22.45	22.63	1
15M	16QAM	1	0	22.53	22.52	22.60	1
		1	37	22.57	22.43	22.63	1
		1	74	22.50	22.40	22.53	1
		36	0	21.75	21.68	21.84	2
		36	19	21.59	21.51	21.73	2
		36	39	21.58	21.49	21.68	2
		75	0	21.60	21.58	21.72	2
15M	64QAM	1	0	21.51	21.46	21.66	2
		1	37	21.47	21.45	21.58	2
		1	74	21.41	21.39	21.52	2
		36	0	20.70	20.66	20.79	3
		36	19	20.58	20.49	20.73	3
		36	39	20.48	20.43	20.58	3
		75	0	20.60	20.50	20.62	3

LTE Conducted Power (Full)							
LTE Band 4							
BW	MCS Index	Channel		20000	20175	20350	3GPP MPR
		Frequency (MHz)		1715	1732.5	1750	
10M	QPSK	1	0	23.51	23.47	23.64	0
		1	24	23.35	23.32	23.59	0
		1	49	23.24	23.10	23.38	0
		25	0	22.67	22.45	22.67	1
		25	12	22.38	22.26	22.53	1
		25	25	22.44	22.19	22.40	1
		50	0	22.41	22.36	22.46	1
10M	16QAM	1	0	22.51	22.48	22.51	1
		1	24	22.43	22.29	22.58	1
		1	49	22.34	22.39	22.51	1
		25	0	21.65	21.48	21.71	2
		25	12	21.53	21.44	21.63	2
		25	25	21.53	21.40	21.56	2
		50	0	21.54	21.48	21.52	2
10M	64QAM	1	0	21.46	21.38	21.53	2
		1	24	21.40	21.38	21.54	2
		1	49	21.33	21.30	21.39	2
		25	0	20.53	20.59	20.71	3
		25	12	20.61	20.58	20.57	3
		25	25	20.40	20.42	20.45	3
		50	0	20.49	20.54	20.57	3
BW	MCS Index	Channel		19975	20175	20375	3GPP MPR
		Frequency (MHz)		1712.5	1732.5	1752.5	
5M	QPSK	1	0	23.54	23.45	23.59	0
		1	12	23.40	23.39	23.41	0
		1	24	23.20	23.16	23.22	0
		12	0	22.64	22.45	22.58	1
		12	6	22.40	22.30	22.28	1
		12	13	22.37	22.20	22.33	1
		25	0	22.45	22.39	22.52	1
5M	16QAM	1	0	22.45	22.38	22.61	1
		1	12	22.41	22.37	22.49	1
		1	24	22.37	22.31	22.49	1
		12	0	21.66	21.54	21.74	2
		12	6	21.58	21.46	21.64	2
		12	13	21.48	21.35	21.60	2
		25	0	21.62	21.43	21.57	2
5M	64QAM	1	0	21.45	21.31	21.49	2
		1	12	21.37	21.40	21.59	2
		1	24	21.34	21.30	21.40	2
		12	0	20.61	20.53	20.63	3
		12	6	20.49	20.51	20.65	3
		12	13	20.50	20.39	20.46	3
		25	0	20.57	20.43	20.49	3

LTE Conducted Power (Full)							
LTE Band 4							
BW	MCS Index	Channel		19965	20175	20385	3GPP MPR
		Frequency (MHz)		1711.5	1732.5	1753.5	
3M	QPSK	1	0	23.45	23.55	23.72	0
		1	7	23.33	23.35	23.54	0
		1	14	23.28	23.24	23.24	0
		8	0	22.61	22.45	22.51	1
		8	3	22.44	22.34	22.56	1
		8	7	22.37	22.34	22.42	1
		15	0	22.42	22.43	22.46	1
3M	16QAM	1	0	22.40	22.37	22.61	1
		1	7	22.54	22.36	22.51	1
		1	14	22.46	22.32	22.57	1
		8	0	21.73	21.55	21.64	2
		8	3	21.63	21.43	21.59	2
		8	7	21.47	21.34	21.55	2
		15	0	21.44	21.48	21.64	2
3M	64QAM	1	0	21.51	21.43	21.50	2
		1	7	21.43	21.37	21.39	2
		1	14	21.30	21.24	21.56	2
		8	0	20.58	20.63	20.75	3
		8	3	20.47	20.50	20.60	3
		8	7	20.56	20.37	20.47	3
		15	0	20.47	20.49	20.55	3
BW	MCS Index	Channel		19957	20175	20393	3GPP MPR
		Frequency (MHz)		1710.7	1732.5	1754.3	
1.4M	QPSK	1	0	23.49	23.54	23.71	0
		1	2	23.38	23.34	23.47	0
		1	5	23.17	23.16	23.40	0
		3	0	23.60	23.52	23.54	0
		3	1	23.43	23.39	23.54	0
		3	3	23.39	23.24	23.33	0
		6	0	22.41	22.45	22.54	1
1.4M	16QAM	1	0	22.51	22.42	22.53	1
		1	2	22.48	22.32	22.49	1
		1	5	22.42	22.38	22.56	1
		3	0	22.61	22.53	22.77	1
		3	1	22.53	22.43	22.54	1
		3	3	22.52	22.42	22.48	1
		6	0	21.50	21.58	21.62	2
1.4M	64QAM	1	0	21.45	21.36	21.58	2
		1	2	21.37	21.36	21.44	2
		1	5	21.36	21.30	21.50	2
		3	0	21.54	21.52	21.63	2
		3	1	21.57	21.50	21.63	2
		3	3	21.40	21.38	21.53	2
		6	0	20.56	20.43	20.48	3

LTE Conducted Power (Full)							
LTE Band 5							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20450	20525	20600	
		Frequency (MHz)		829	836.5	844	
10M	QPSK	1	0	23.53	23.55	23.42	0
		1	24	23.45	23.47	23.34	0
		1	49	23.32	23.34	23.21	0
		25	0	22.52	22.54	22.41	1
		25	12	22.48	22.50	22.37	1
		25	25	22.41	22.43	22.30	1
		50	0	22.47	22.49	22.36	1
10M	16QAM	1	0	22.49	22.51	22.38	1
		1	24	22.45	22.47	22.34	1
		1	49	22.42	22.44	22.31	1
		25	0	21.57	21.59	21.46	2
		25	12	21.53	21.55	21.42	2
		25	25	21.51	21.53	21.40	2
		50	0	21.54	21.56	21.43	2
10M	64QAM	1	0	21.48	21.50	21.37	2
		1	24	21.44	21.46	21.33	2
		1	49	21.41	21.43	21.30	2
		25	0	20.56	20.58	20.45	3
		25	12	20.52	20.54	20.41	3
		25	25	20.50	20.52	20.39	3
		50	0	20.53	20.55	20.42	3
BW	MCS Index	Channel		20425	20525	20625	3GPP MPR
		Frequency (MHz)		826.5	836.5	846.5	
5M	QPSK	1	0	23.49	23.48	23.35	0
		1	12	23.37	23.39	23.32	0
		1	24	23.31	23.31	23.19	0
		12	0	22.50	22.46	22.38	1
		12	6	22.47	22.41	22.28	1
		12	13	22.35	22.37	22.22	1
		25	0	22.42	22.49	22.34	1
5M	16QAM	1	0	22.46	22.46	22.31	1
		1	12	22.36	22.44	22.25	1
		1	24	22.37	22.43	22.25	1
		12	0	21.52	21.54	21.41	2
		12	6	21.50	21.55	21.38	2
		12	13	21.47	21.47	21.35	2
		25	0	21.47	21.51	21.33	2
5M	64QAM	1	0	21.39	21.41	21.32	2
		1	12	21.36	21.44	21.31	2
		1	24	21.31	21.38	21.24	2
		12	0	20.55	20.56	20.41	3
		12	6	20.52	20.49	20.40	3
		12	13	20.47	20.45	20.37	3
		25	0	20.45	20.53	20.41	3

LTE Conducted Power (Full)							
LTE Band 5							
BW	MCS Index	Channel		20415	20525	20635	3GPP MPR
		Frequency (MHz)		825.5	836.5	847.5	
3M	QPSK	1	0	23.41	23.43	23.30	0
		1	7	23.33	23.35	23.24	0
		1	14	23.24	23.29	23.12	0
		8	0	22.49	22.35	22.27	1
		8	3	22.44	22.39	22.19	1
		8	7	22.30	22.23	22.21	1
		15	0	22.39	22.42	22.25	1
3M	16QAM	1	0	22.33	22.38	22.24	1
		1	7	22.24	22.25	22.24	1
		1	14	22.23	22.38	22.21	1
		8	0	21.46	21.49	21.29	2
		8	3	21.43	21.44	21.37	2
		8	7	21.43	21.39	21.26	2
		15	0	21.43	21.35	21.25	2
3M	64QAM	1	0	21.41	21.38	21.25	2
		1	7	21.39	21.31	21.18	2
		1	14	21.34	21.34	21.22	2
		8	0	20.34	20.43	20.36	3
		8	3	20.41	20.46	20.38	3
		8	7	20.35	20.37	20.25	3
		15	0	20.32	20.35	20.38	3
BW	MCS Index	Channel		20407	20525	20643	3GPP MPR
		Frequency (MHz)		824.7	836.5	848.3	
1.4M	QPSK	1	0	23.38	23.45	23.40	0
		1	2	23.31	23.27	23.28	0
		1	5	23.16	23.31	23.14	0
		3	0	23.50	23.47	23.29	0
		3	1	23.39	23.40	23.13	0
		3	3	23.23	23.37	23.17	0
		6	0	22.23	22.31	22.28	1
1.4M	16QAM	1	0	22.30	22.36	22.21	1
		1	2	22.41	22.38	22.24	1
		1	5	22.35	22.36	22.12	1
		3	0	22.53	22.51	22.40	1
		3	1	22.32	22.49	22.41	1
		3	3	22.42	22.43	22.29	1
		6	0	21.49	21.52	21.43	2
1.4M	64QAM	1	0	21.42	21.48	21.27	2
		1	2	21.33	21.37	21.15	2
		1	5	21.33	21.32	21.20	2
		3	0	21.43	21.39	21.34	2
		3	1	21.34	21.42	21.25	2
		3	3	21.40	21.39	21.30	2
		6	0	20.37	20.44	20.29	3

LTE Conducted Power (Full)							
LTE Band 7							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20850	21100	21350	
		Frequency (MHz)		2510	2535	2560	
20M	QPSK	1	0	23.74	23.78	23.81	0
		1	50	23.61	23.65	23.68	0
		1	99	23.57	23.61	23.64	0
		50	0	22.71	22.75	22.78	1
		50	25	22.67	22.71	22.74	1
		50	50	22.63	22.67	22.70	1
		100	0	22.50	22.54	22.57	1
20M	16QAM	1	0	22.70	22.74	22.77	1
		1	50	22.67	22.71	22.74	1
		1	99	22.64	22.68	22.71	1
		50	0	21.58	21.62	21.65	2
		50	25	21.54	21.58	21.61	2
		50	50	21.50	21.54	21.57	2
		100	0	21.43	21.47	21.50	2
20M	64QAM	1	0	21.72	21.76	21.79	2
		1	50	21.69	21.73	21.76	2
		1	99	21.66	21.70	21.73	2
		50	0	20.60	20.64	20.67	3
		50	25	20.56	20.60	20.63	3
		50	50	20.52	20.56	20.59	3
		100	0	20.45	20.49	20.52	3
BW	MCS Index	Channel		20825	21100	21375	3GPP MPR
		Frequency (MHz)		2507.5	2535	2562.5	
15M	QPSK	1	0	23.64	23.69	23.79	0
		1	37	23.52	23.62	23.63	0
		1	74	23.50	23.61	23.55	0
		36	0	22.61	22.66	22.73	1
		36	19	22.63	22.69	22.68	1
		36	39	22.57	22.57	22.69	1
		75	0	22.49	22.50	22.49	1
15M	16QAM	1	0	22.65	22.66	22.67	1
		1	37	22.58	22.69	22.64	1
		1	74	22.54	22.67	22.68	1
		36	0	21.49	21.52	21.57	2
		36	19	21.53	21.53	21.55	2
		36	39	21.42	21.52	21.53	2
		75	0	21.41	21.47	21.40	2
15M	64QAM	1	0	21.68	21.70	21.69	2
		1	37	21.63	21.69	21.75	2
		1	74	21.62	21.64	21.63	2
		36	0	20.58	20.61	20.60	3
		36	19	20.55	20.53	20.62	3
		36	39	20.48	20.47	20.58	3
		75	0	20.43	20.43	20.49	3

LTE Conducted Power (Full)							
LTE Band 7							
BW	MCS Index	Channel		20800	21100	21400	3GPP MPR
		Frequency (MHz)		2505	2535	2565	
10M	QPSK	1	0	23.64	23.70	23.70	0
		1	24	23.46	23.44	23.62	0
		1	49	23.50	23.55	23.48	0
		25	0	22.61	22.62	22.67	1
		25	12	22.50	22.62	22.59	1
		25	25	22.51	22.57	22.65	1
		50	0	22.34	22.51	22.52	1
10M	16QAM	1	0	22.55	22.54	22.63	1
		1	24	22.52	22.67	22.58	1
		1	49	22.41	22.64	22.57	1
		25	0	21.38	21.53	21.55	2
		25	12	21.38	21.47	21.36	2
		25	25	21.30	21.42	21.37	2
		50	0	21.27	21.35	21.34	2
10M	64QAM	1	0	21.61	21.52	21.64	2
		1	24	21.62	21.67	21.70	2
		1	49	21.53	21.53	21.66	2
		25	0	20.53	20.55	20.53	3
		25	12	20.42	20.57	20.56	3
		25	25	20.40	20.46	20.45	3
		50	0	20.30	20.37	20.42	3
BW	MCS Index	Channel		20775	21100	21425	3GPP MPR
		Frequency (MHz)		2502.5	2535	2567.5	
5M	QPSK	1	0	23.60	23.56	23.64	0
		1	12	23.46	23.51	23.34	0
		1	24	23.33	23.51	23.37	0
		12	0	22.53	22.69	22.56	1
		12	6	22.53	22.63	22.56	1
		12	13	22.51	22.47	22.46	1
		25	0	22.40	22.52	22.38	1
5M	16QAM	1	0	22.67	22.57	22.60	1
		1	12	22.54	22.71	22.70	1
		1	24	22.59	22.54	22.62	1
		12	0	21.45	21.39	21.52	2
		12	6	21.44	21.53	21.47	2
		12	13	21.44	21.44	21.45	2
		25	0	21.25	21.39	21.47	2
5M	64QAM	1	0	21.60	21.64	21.56	2
		1	12	21.48	21.55	21.64	2
		1	24	21.51	21.66	21.70	2
		12	0	20.41	20.51	20.48	3
		12	6	20.34	20.56	20.48	3
		12	13	20.32	20.40	20.37	3
		25	0	20.24	20.35	20.33	3

LTE Conducted Power (Full)							
LTE Band 12							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		23060	23095	23130	
		Frequency (MHz)		704	707.5	711	
10M	QPSK	1	0	23.69	23.68	23.51	0
		1	24	23.58	23.57	23.40	0
		1	49	23.56	23.55	23.38	0
		25	0	22.59	22.58	22.41	1
		25	12	22.57	22.56	22.39	1
		25	25	22.52	22.51	22.34	1
		50	0	22.49	22.48	22.31	1
10M	16QAM	1	0	22.56	22.55	22.38	1
		1	24	22.54	22.53	22.36	1
		1	49	22.53	22.52	22.35	1
		25	0	21.64	21.63	21.46	2
		25	12	21.63	21.62	21.45	2
		25	25	21.60	21.59	21.42	2
		50	0	21.62	21.61	21.44	2
10M	64QAM	1	0	21.54	21.53	21.36	2
		1	24	21.52	21.51	21.34	2
		1	49	21.51	21.50	21.33	2
		25	0	20.62	20.61	20.44	3
		25	12	20.61	20.60	20.43	3
		25	25	20.58	20.57	20.40	3
		50	0	20.60	20.59	20.42	3
BW	MCS Index	Channel		23035	23095	23155	3GPP MPR
		Frequency (MHz)		701.5	707.5	713.5	
5M	QPSK	1	0	23.60	23.63	23.46	0
		1	12	23.55	23.52	23.40	0
		1	24	23.55	23.45	23.36	0
		12	0	22.49	22.57	22.31	1
		12	6	22.49	22.50	22.32	1
		12	13	22.48	22.47	22.24	1
		25	0	22.47	22.47	22.29	1
5M	16QAM	1	0	22.55	22.55	22.36	1
		1	12	22.48	22.52	22.26	1
		1	24	22.50	22.45	22.34	1
		12	0	21.54	21.58	21.44	2
		12	6	21.54	21.56	21.45	2
		12	13	21.53	21.52	21.42	2
		25	0	21.57	21.55	21.43	2
5M	64QAM	1	0	21.52	21.43	21.31	2
		1	12	21.51	21.49	21.26	2
		1	24	21.42	21.44	21.27	2
		12	0	20.54	20.53	20.35	3
		12	6	20.60	20.56	20.35	3
		12	13	20.55	20.50	20.40	3
		25	0	20.56	20.51	20.40	3

LTE Conducted Power (Full)							
LTE Band 12							
BW	MCS Index	Channel		23025	23095	23165	3GPP MPR
		Frequency (MHz)		700.5	707.5	714.5	
3M	QPSK	1	0	23.54	23.60	23.37	0
		1	7	23.52	23.47	23.28	0
		1	14	23.46	23.42	23.30	0
		8	0	22.41	22.52	22.25	1
		8	3	22.42	22.52	22.22	1
		8	7	22.47	22.47	22.20	1
		15	0	22.34	22.32	22.26	1
3M	16QAM	1	0	22.46	22.50	22.26	1
		1	7	22.45	22.34	22.25	1
		1	14	22.42	22.37	22.32	1
		8	0	21.51	21.43	21.32	2
		8	3	21.52	21.49	21.29	2
		8	7	21.58	21.51	21.22	2
		15	0	21.50	21.40	21.32	2
3M	64QAM	1	0	21.36	21.43	21.33	2
		1	7	21.37	21.37	21.19	2
		1	14	21.39	21.31	21.23	2
		8	0	20.51	20.49	20.30	3
		8	3	20.58	20.44	20.20	3
		8	7	20.46	20.37	20.31	3
		15	0	20.39	20.53	20.23	3
BW	MCS Index	Channel		23017	23095	23173	3GPP MPR
		Frequency (MHz)		699.7	707.5	715.3	
1.4M	QPSK	1	0	23.47	23.57	23.41	0
		1	2	23.49	23.42	23.31	0
		1	5	23.40	23.37	23.28	0
		3	0	23.50	23.47	23.35	0
		3	1	23.42	23.36	23.28	0
		3	3	23.31	23.35	23.11	0
		6	0	22.38	22.44	22.23	1
1.4M	16QAM	1	0	22.47	22.43	22.20	1
		1	2	22.41	22.35	22.34	1
		1	5	22.31	22.43	22.24	1
		3	0	22.60	22.53	22.42	1
		3	1	22.48	22.50	22.39	1
		3	3	22.45	22.41	22.31	1
		6	0	21.44	21.39	21.40	2
1.4M	64QAM	1	0	21.52	21.31	21.12	2
		1	2	21.38	21.40	21.13	2
		1	5	21.32	21.40	21.09	2
		3	0	21.41	21.43	21.30	2
		3	1	21.47	21.49	21.19	2
		3	3	21.54	21.52	21.33	2
		6	0	20.45	20.44	20.23	3

LTE Conducted Power (Full)							
LTE Band 13							
BW	MCS Index	RB Size	RB Offset		Mid		3GPP MPR (dB)
		Channel			23230		
		Frequency (MHz)			782		
10M	QPSK	1	0		23.72		0
		1	24		23.66		0
		1	49		23.62		0
		25	0		22.86		1
		25	12		22.83		1
		25	25		22.78		1
		50	0		22.82		1
10M	16QAM	1	0		22.81		1
		1	24		22.75		1
		1	49		22.67		1
		25	0		21.92		2
		25	12		21.91		2
		25	25		21.88		2
		50	0		21.98		2
10M	64QAM	1	0		21.81		2
		1	24		21.75		2
		1	49		21.67		2
		25	0		20.92		3
		25	12		20.91		3
		25	25		20.88		3
		50	0		20.98		3
BW	MCS Index	Channel		23205	23230	23255	3GPP MPR
		Frequency (MHz)		779.5	782	784.5	
5M	QPSK	1	0	23.61	23.66	23.58	0
		1	12	23.55	23.60	23.52	0
		1	24	23.51	23.56	23.48	0
		12	0	22.75	22.80	22.72	1
		12	6	22.72	22.77	22.69	1
		12	13	22.67	22.72	22.64	1
		25	0	22.71	22.76	22.68	1
5M	16QAM	1	0	22.70	22.75	22.67	1
		1	12	22.64	22.69	22.61	1
		1	24	22.56	22.61	22.53	1
		12	0	21.81	21.86	21.78	2
		12	6	21.80	21.85	21.77	2
		12	13	21.77	21.82	21.74	2
		25	0	21.87	21.92	21.84	2
5M	64QAM	1	0	21.70	21.75	21.67	2
		1	12	21.64	21.69	21.61	2
		1	24	21.56	21.61	21.53	2
		12	0	20.81	20.86	20.78	3
		12	6	20.80	20.85	20.77	3
		12	13	20.77	20.82	20.74	3
		25	0	20.87	20.92	20.84	3

LTE Conducted Power (Full)							
LTE Band 14							
BW	MCS Index	RB Size	RB Offset		Mid		3GPP MPR (dB)
		Channel			23330		
		Frequency (MHz)			793		
10M	QPSK	1	0		23.86		0
		1	24		23.82		0
		1	49		23.68		0
		25	0		22.91		1
		25	12		22.89		1
		25	25		22.81		1
		50	0		22.87		1
10M	16QAM	1	0		22.89		1
		1	24		22.84		1
		1	49		22.81		1
		25	0		21.99		2
		25	12		21.97		2
		25	25		21.91		2
		50	0		21.96		2
10M	64QAM	1	0		21.87		2
		1	24		21.82		2
		1	49		21.79		2
		25	0		20.97		3
		25	12		20.95		3
		25	25		20.89		3
		50	0		20.94		3
BW	MCS Index	Channel		23305	23330	23355	3GPP MPR
		Frequency (MHz)		790.5	793	795.5	
5M	QPSK	1	0	23.75	23.80	23.71	0
		1	12	23.71	23.76	23.67	0
		1	24	23.57	23.62	23.53	0
		12	0	22.80	22.85	22.76	1
		12	6	22.78	22.83	22.74	1
		12	13	22.70	22.75	22.66	1
		25	0	22.76	22.81	22.72	1
5M	16QAM	1	0	22.78	22.83	22.74	1
		1	12	22.73	22.78	22.69	1
		1	24	22.70	22.75	22.66	1
		12	0	21.88	21.93	21.84	2
		12	6	21.86	21.91	21.82	2
		12	13	21.80	21.85	21.76	2
		25	0	21.85	21.90	21.81	2
5M	64QAM	1	0	21.76	21.81	21.72	2
		1	12	21.71	21.76	21.67	2
		1	24	21.68	21.73	21.64	2
		12	0	20.86	20.91	20.82	3
		12	6	20.84	20.89	20.80	3
		12	13	20.78	20.83	20.74	3
		25	0	20.83	20.88	20.79	3

LTE Conducted Power (Full)							
LTE Band 17							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		23780	23790	23800	
		Frequency (MHz)		709	710	711	
10M	QPSK	1	0	23.73	23.69	23.76	0
		1	24	23.71	23.67	23.74	0
		1	49	23.63	23.59	23.66	0
		25	0	22.91	22.87	22.94	1
		25	12	22.83	22.79	22.86	1
		25	25	22.78	22.74	22.81	1
		50	0	22.75	22.71	22.78	1
10M	16QAM	1	0	22.87	22.83	22.90	1
		1	24	22.82	22.78	22.85	1
		1	49	22.76	22.72	22.79	1
		25	0	21.91	21.87	21.94	2
		25	12	21.86	21.82	21.89	2
		25	25	21.83	21.79	21.86	2
		50	0	21.81	21.77	21.84	2
10M	64QAM	1	0	21.85	21.81	21.88	2
		1	24	21.80	21.76	21.83	2
		1	49	21.74	21.70	21.77	2
		25	0	20.89	20.85	20.92	3
		25	12	20.84	20.80	20.87	3
		25	25	20.81	20.77	20.84	3
		50	0	20.79	20.75	20.82	3
BW	MCS Index	Channel		23755	23790	23825	3GPP MPR
		Frequency (MHz)		706.5	710	713.5	
5M	QPSK	1	0	23.67	23.60	23.73	0
		1	12	23.66	23.59	23.71	0
		1	24	23.57	23.55	23.58	0
		12	0	22.82	22.78	22.85	1
		12	6	22.79	22.70	22.86	1
		12	13	22.75	22.74	22.72	1
		25	0	22.68	22.68	22.72	1
5M	16QAM	1	0	22.82	22.80	22.83	1
		1	12	22.72	22.78	22.77	1
		1	24	22.70	22.64	22.77	1
		12	0	21.89	21.83	21.87	2
		12	6	21.77	21.79	21.83	2
		12	13	21.82	21.79	21.80	2
		25	0	21.80	21.69	21.80	2
5M	64QAM	1	0	21.78	21.71	21.82	2
		1	12	21.70	21.67	21.77	2
		1	24	21.74	21.62	21.76	2
		12	0	20.87	20.85	20.91	3
		12	6	20.74	20.77	20.79	3
		12	13	20.74	20.71	20.77	3
		25	0	20.72	20.69	20.81	3

LTE Conducted Power (Full)							
LTE Band 25							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		26140	26365	26590	
		Frequency (MHz)		1860	1882.5	1905	
20M	QPSK	1	0	23.35	23.53	23.64	0
		1	50	23.15	23.33	23.44	0
		1	99	22.94	23.12	23.23	0
		50	0	22.25	22.43	22.54	1
		50	25	22.18	22.36	22.47	1
		50	50	22.07	22.25	22.36	1
		100	0	22.13	22.31	22.42	1
20M	16QAM	1	0	22.24	22.42	22.53	1
		1	50	22.19	22.37	22.48	1
		1	99	22.16	22.34	22.45	1
		50	0	21.28	21.46	21.57	2
		50	25	21.21	21.39	21.50	2
		50	50	21.13	21.31	21.42	2
		100	0	21.18	21.36	21.47	2
20M	64QAM	1	0	21.26	21.44	21.55	2
		1	50	21.21	21.39	21.50	2
		1	99	21.18	21.36	21.47	2
		50	0	20.30	20.48	20.59	3
		50	25	20.23	20.41	20.52	3
		50	50	20.15	20.33	20.44	3
		100	0	20.20	20.38	20.49	3
BW	MCS Index	Channel		26115	26365	26615	3GPP MPR
		Frequency (MHz)		1857.5	1882.5	1907.5	
15M	QPSK	1	0	23.25	23.52	23.61	0
		1	37	23.14	23.26	23.41	0
		1	74	22.89	23.10	23.16	0
		36	0	22.22	22.37	22.51	1
		36	19	22.16	22.30	22.47	1
		36	39	22.01	22.21	22.35	1
		75	0	22.10	22.30	22.42	1
15M	16QAM	1	0	22.14	22.39	22.45	1
		1	37	22.16	22.36	22.47	1
		1	74	22.16	22.28	22.39	1
		36	0	21.27	21.42	21.51	2
		36	19	21.14	21.36	21.45	2
		36	39	21.12	21.26	21.34	2
		75	0	21.16	21.30	21.44	2
15M	64QAM	1	0	21.26	21.42	21.47	2
		1	37	21.21	21.38	21.44	2
		1	74	21.18	21.31	21.37	2
		36	0	20.22	20.46	20.52	3
		36	19	20.16	20.41	20.46	3
		36	39	20.05	20.26	20.42	3
		75	0	20.15	20.28	20.40	3

LTE Conducted Power (Full)							
LTE Band 25							
BW	MCS Index	Channel		26090	26365	26640	3GPP MPR
		Frequency (MHz)		1855	1882.5	1910	
10M	QPSK	1	0	23.28	23.38	23.60	0
		1	24	23.02	23.17	23.32	0
		1	49	22.80	22.97	23.11	0
		25	0	22.08	22.29	22.40	1
		25	12	22.13	22.23	22.27	1
		25	25	22.00	22.07	22.26	1
		50	0	22.00	22.23	22.28	1
10M	16QAM	1	0	22.05	22.40	22.48	1
		1	24	22.00	22.24	22.39	1
		1	49	22.02	22.29	22.37	1
		25	0	21.15	21.36	21.50	2
		25	12	21.05	21.30	21.25	2
		25	25	20.98	21.12	21.28	2
		50	0	21.00	21.33	21.38	2
10M	64QAM	1	0	21.11	21.44	21.35	2
		1	24	21.16	21.32	21.32	2
		1	49	21.07	21.24	21.22	2
		25	0	20.18	20.40	20.53	3
		25	12	20.10	20.19	20.38	3
		25	25	19.95	20.24	20.41	3
		50	0	20.13	20.22	20.42	3
BW	MCS Index	Channel		26065	26365	26665	3GPP MPR
		Frequency (MHz)		1852.5	1882.5	1912.5	
5M	QPSK	1	0	23.29	23.40	23.42	0
		1	12	23.05	23.09	23.26	0
		1	24	22.87	23.06	22.88	0
		12	0	22.20	22.29	22.31	1
		12	6	22.09	22.24	22.26	1
		12	13	22.00	22.22	22.11	1
		25	0	22.07	22.08	22.20	1
5M	16QAM	1	0	22.16	22.30	22.34	1
		1	12	22.10	22.17	22.31	1
		1	24	22.04	22.17	22.31	1
		12	0	21.14	21.24	21.39	2
		12	6	21.05	21.28	21.40	2
		12	13	21.01	21.26	21.31	2
		25	0	21.08	21.23	21.38	2
5M	64QAM	1	0	21.16	21.33	21.47	2
		1	12	21.15	21.32	21.39	2
		1	24	21.04	21.27	21.28	2
		12	0	20.09	20.32	20.43	3
		12	6	20.10	20.31	20.39	3
		12	13	20.08	20.27	20.32	3
		25	0	20.12	20.27	20.31	3

LTE Conducted Power (Full)							
LTE Band 25							
BW	MCS Index	Channel		26055	26365	26675	3GPP MPR
		Frequency (MHz)		1851.5	1882.5	1913.5	
3M	QPSK	1	0	23.20	23.30	23.45	0
		1	7	23.03	23.11	23.35	0
		1	14	22.84	22.98	23.15	0
		8	0	22.18	22.35	22.37	1
		8	3	22.11	22.26	22.36	1
		8	7	22.07	22.19	22.34	1
		15	0	22.05	22.14	22.29	1
3M	16QAM	1	0	22.12	22.19	22.37	1
		1	7	22.10	22.19	22.40	1
		1	14	22.06	22.14	22.25	1
		8	0	21.18	21.25	21.36	2
		8	3	21.19	21.27	21.40	2
		8	7	20.95	21.25	21.22	2
		15	0	21.11	21.23	21.39	2
3M	64QAM	1	0	21.15	21.31	21.51	2
		1	7	21.18	21.18	21.44	2
		1	14	21.12	21.18	21.37	2
		8	0	20.10	20.31	20.45	3
		8	3	20.06	20.37	20.47	3
		8	7	20.13	20.15	20.32	3
		15	0	20.16	20.17	20.38	3
BW	MCS Index	Channel		26047	26365	26683	3GPP MPR
		Frequency (MHz)		1850.7	1882.5	1914.3	
1.4M	QPSK	1	0	23.15	23.48	23.54	0
		1	2	22.97	23.18	23.34	0
		1	5	22.81	23.04	23.13	0
		3	0	23.16	23.37	23.43	0
		3	1	23.10	23.20	23.35	0
		3	3	22.98	23.20	23.31	0
		6	0	22.03	22.16	22.28	1
1.4M	16QAM	1	0	22.20	22.26	22.34	1
		1	2	22.08	22.32	22.36	1
		1	5	22.10	22.23	22.29	1
		3	0	22.18	22.30	22.45	1
		3	1	22.12	22.36	22.35	1
		3	3	21.98	22.23	22.30	1
		6	0	21.13	21.28	21.31	2
1.4M	64QAM	1	0	21.20	21.38	21.42	2
		1	2	21.17	21.27	21.35	2
		1	5	21.05	21.29	21.30	2
		3	0	21.10	21.40	21.52	2
		3	1	21.06	21.26	21.45	2
		3	3	20.96	21.21	21.32	2
		6	0	20.09	20.17	20.41	3

LTE Conducted Power (Full)							
LTE Band 26							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		26765	26865	26965	
		Frequency (MHz)		821.5	831.5	841.5	
15M	QPSK	1	0	23.75	23.58	23.51	0
		1	37	23.66	23.49	23.42	0
		1	74	23.56	23.39	23.32	0
		36	0	22.73	22.56	22.49	1
		36	19	22.72	22.55	22.48	1
		36	39	22.59	22.42	22.35	1
		75	0	22.66	22.49	22.42	1
15M	16QAM	1	0	23.11	22.94	22.87	1
		1	37	23.00	22.83	22.76	1
		1	74	22.94	22.77	22.70	1
		36	0	21.81	21.64	21.57	2
		36	19	21.79	21.62	21.55	2
		36	39	21.68	21.51	21.44	2
		75	0	21.75	21.58	21.51	2
15M	64QAM	1	0	22.08	21.91	21.84	2
		1	37	21.97	21.80	21.73	2
		1	74	21.91	21.74	21.67	2
		36	0	20.78	20.61	20.54	3
		36	19	20.76	20.59	20.52	3
		36	39	20.65	20.48	20.41	3
		75	0	20.72	20.55	20.48	3
BW	MCS Index	Channel		26740	26865	26990	3GPP MPR
		Frequency (MHz)		819	831.5	844	
10M	QPSK	1	0	23.67	23.57	23.41	0
		1	24	23.62	23.40	23.39	0
		1	49	23.52	23.29	23.30	0
		25	0	22.71	22.47	22.43	1
		25	12	22.65	22.50	22.42	1
		25	25	22.55	22.35	22.27	1
		50	0	22.62	22.44	22.40	1
10M	16QAM	1	0	23.03	22.86	22.83	1
		1	24	22.90	22.77	22.67	1
		1	49	22.94	22.74	22.64	1
		25	0	21.78	21.57	21.52	2
		25	12	21.70	21.60	21.48	2
		25	25	21.65	21.41	21.41	2
		50	0	21.67	21.53	21.47	2
10M	64QAM	1	0	22.04	21.82	21.82	2
		1	24	21.91	21.80	21.67	2
		1	49	21.82	21.67	21.57	2
		25	0	20.73	20.59	20.47	3
		25	12	20.70	20.56	20.50	3
		25	25	20.63	20.48	20.32	3
		50	0	20.67	20.48	20.47	3

LTE Conducted Power (Full)							
LTE Band 26							
BW	MCS Index	Channel		26715	26865	27015	3GPP MPR
		Frequency (MHz)		816.5	831.5	846.5	
5M	QPSK	1	0	23.68	23.42	23.41	0
		1	12	23.57	23.34	23.18	0
		1	24	23.32	23.28	23.15	0
		12	0	22.63	22.42	22.28	1
		12	6	22.55	22.39	22.34	1
		12	13	22.51	22.35	22.27	1
		25	0	22.57	22.36	22.29	1
5M	16QAM	1	0	23.09	22.88	22.70	1
		1	12	22.87	22.58	22.66	1
		1	24	22.85	22.59	22.65	1
		12	0	21.75	21.43	21.46	2
		12	6	21.61	21.49	21.47	2
		12	13	21.55	21.44	21.21	2
		25	0	21.59	21.49	21.44	2
5M	64QAM	1	0	21.87	21.79	21.75	2
		1	12	21.77	21.67	21.63	2
		1	24	21.74	21.59	21.48	2
		12	0	20.74	20.44	20.38	3
		12	6	20.74	20.55	20.43	3
		12	13	20.53	20.33	20.27	3
		25	0	20.55	20.48	20.29	3
BW	MCS Index	Channel		26705	26865	27025	3GPP MPR
		Frequency (MHz)		815.5	831.5	847.5	
3M	QPSK	1	0	23.66	23.47	23.38	0
		1	7	23.51	23.36	23.23	0
		1	14	23.45	23.24	23.15	0
		8	0	22.68	22.46	22.35	1
		8	3	22.59	22.39	22.32	1
		8	7	22.57	22.22	22.12	1
		15	0	22.61	22.37	22.19	1
3M	16QAM	1	0	22.88	22.87	22.80	1
		1	7	22.83	22.79	22.70	1
		1	14	22.84	22.72	22.47	1
		8	0	21.69	21.49	21.48	2
		8	3	21.73	21.43	21.37	2
		8	7	21.58	21.31	21.30	2
		15	0	21.58	21.47	21.38	2
3M	64QAM	1	0	21.98	21.73	21.63	2
		1	7	21.78	21.70	21.67	2
		1	14	21.82	21.52	21.64	2
		8	0	20.70	20.44	20.36	3
		8	3	20.61	20.55	20.38	3
		8	7	20.52	20.28	20.30	3
		15	0	20.59	20.43	20.43	3

LTE Conducted Power (Full)							
LTE Band 26							
BW	MCS Index	Channel		26697	26865	27033	3GPP MPR
		Frequency (MHz)		814.7	831.5	848.3	
1.4M	QPSK	1	0	23.67	23.44	23.45	0
		1	2	23.52	23.27	23.36	0
		1	5	23.33	23.26	23.12	0
		3	0	23.58	23.48	23.42	0
		3	1	23.54	23.44	23.43	0
		3	3	23.44	23.36	23.29	0
		6	0	22.65	22.39	22.28	1
1.4M	16QAM	1	0	23.04	22.86	22.73	1
		1	2	22.95	22.74	22.71	1
		1	5	22.82	22.57	22.66	1
		3	0	22.63	22.53	22.33	1
		3	1	22.66	22.55	22.38	1
		3	3	22.61	22.30	22.32	1
		6	0	21.62	21.38	21.48	2
1.4M	64QAM	1	0	22.02	21.74	21.81	2
		1	2	21.80	21.69	21.70	2
		1	5	21.88	21.58	21.50	2
		3	0	21.63	21.58	21.41	2
		3	1	21.69	21.51	21.34	2
		3	3	21.49	21.36	21.26	2
		6	0	20.48	20.37	20.31	3

LTE Conducted Power (Full)							
LTE Band 30							
BW	MCS Index	RB Size	RB Offset		Mid		3GPP MPR (dB)
		Channel			27710		
		Frequency (MHz)			2310		
10M	QPSK	1	0		22.35		0
		1	24		21.99		0
		1	49		21.83		0
		25	0		21.29		1
		25	12		21.24		1
		25	25		21.21		1
		50	0		21.22		1
10M	16QAM	1	0		21.39		1
		1	24		21.33		1
		1	49		21.31		1
		25	0		20.34		2
		25	12		20.32		2
		25	25		20.29		2
		50	0		20.21		2
10M	64QAM	1	0		20.38		2
		1	24		20.32		2
		1	49		20.30		2
		25	0		19.33		3
		25	12		19.31		3
		25	25		19.28		3
		50	0		19.20		3
BW	MCS Index	Channel		27685	27710	27735	3GPP MPR
		Frequency (MHz)		2307.5	2310	2312.5	
5M	QPSK	1	0	22.25	22.29	22.21	0
		1	12	21.89	21.93	21.85	0
		1	24	21.73	21.77	21.69	0
		12	0	21.19	21.23	21.15	1
		12	6	21.14	21.18	21.10	1
		12	13	21.11	21.15	21.07	1
		25	0	21.12	21.16	21.08	1
5M	16QAM	1	0	21.29	21.33	21.25	1
		1	12	21.23	21.27	21.19	1
		1	24	21.21	21.25	21.17	1
		12	0	20.24	20.28	20.20	2
		12	6	20.22	20.26	20.18	2
		12	13	20.19	20.23	20.15	2
		25	0	20.11	20.15	20.07	2
5M	64QAM	1	0	20.28	20.32	20.24	2
		1	12	20.22	20.26	20.18	2
		1	24	20.20	20.24	20.16	2
		12	0	19.23	19.27	19.19	3
		12	6	19.21	19.25	19.17	3
		12	13	19.18	19.22	19.14	3
		25	0	19.10	19.14	19.06	3

LTE Conducted Power (Full)							
LTE Band 38							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		37850	38000	38150	
		Frequency (MHz)		2580	2595	2610	
20M	QPSK	1	0	23.85	23.88	23.93	0
		1	50	23.59	23.62	23.67	0
		1	99	23.45	23.48	23.53	0
		50	0	22.81	22.84	22.89	1
		50	25	22.66	22.69	22.74	1
		50	50	22.52	22.55	22.60	1
		100	0	22.64	22.67	22.72	1
20M	16QAM	1	0	22.93	22.96	23.01	1
		1	50	22.69	22.72	22.77	1
		1	99	22.58	22.61	22.66	1
		50	0	21.93	21.96	22.01	2
		50	25	21.78	21.81	21.86	2
		50	50	21.69	21.72	21.77	2
		100	0	21.64	21.67	21.72	2
20M	64QAM	1	0	21.65	21.68	21.73	2
		1	50	21.62	21.65	21.70	2
		1	99	21.55	21.58	21.63	2
		50	0	20.84	20.87	20.92	3
		50	25	20.79	20.82	20.87	3
		50	50	20.78	20.81	20.86	3
		100	0	20.72	20.75	20.80	3
BW	MCS Index	Channel		37825	38000	38175	3GPP MPR
		Frequency (MHz)		2577.5	2595	2612.5	
15M	QPSK	1	0	23.80	23.82	23.90	0
		1	37	23.58	23.52	23.62	0
		1	74	23.37	23.38	23.43	0
		36	0	22.79	22.76	22.88	1
		36	19	22.63	22.69	22.71	1
		36	39	22.47	22.51	22.52	1
		75	0	22.61	22.63	22.63	1
15M	16QAM	1	0	22.86	22.96	22.97	1
		1	37	22.61	22.68	22.71	1
		1	74	22.55	22.51	22.66	1
		36	0	21.93	21.86	21.92	2
		36	19	21.76	21.77	21.85	2
		36	39	21.66	21.68	21.68	2
		75	0	21.63	21.59	21.71	2
15M	64QAM	1	0	21.56	21.61	21.70	2
		1	37	21.57	21.55	21.66	2
		1	74	21.45	21.48	21.55	2
		36	0	20.83	20.84	20.83	3
		36	19	20.74	20.79	20.84	3
		36	39	20.73	20.81	20.78	3
		75	0	20.70	20.71	20.75	3

LTE Conducted Power (Full)							
LTE Band 38							
BW	MCS Index	Channel		37800	38000	38200	3GPP MPR
		Frequency (MHz)		2575	2595	2615	
10M	QPSK	1	0	23.75	23.70	23.84	0
		1	24	23.52	23.61	23.60	0
		1	49	23.21	23.29	23.35	0
		25	0	22.67	22.74	22.78	1
		25	12	22.57	22.55	22.64	1
		25	25	22.45	22.38	22.48	1
		50	0	22.47	22.53	22.66	1
10M	16QAM	1	0	22.91	22.73	22.88	1
		1	24	22.64	22.65	22.68	1
		1	49	22.42	22.48	22.50	1
		25	0	21.83	21.93	21.90	2
		25	12	21.69	21.67	21.79	2
		25	25	21.58	21.52	21.65	2
		50	0	21.39	21.56	21.58	2
10M	64QAM	1	0	21.60	21.54	21.52	2
		1	24	21.45	21.52	21.56	2
		1	49	21.40	21.46	21.60	2
		25	0	20.62	20.71	20.81	3
		25	12	20.68	20.75	20.72	3
		25	25	20.66	20.75	20.82	3
		50	0	20.57	20.59	20.74	3
BW	MCS Index	Channel		37775	38000	38225	3GPP MPR
		Frequency (MHz)		2572.5	2595	2617.5	
5M	QPSK	1	0	23.72	23.71	23.62	0
		1	12	23.53	23.50	23.58	0
		1	24	23.37	23.32	23.35	0
		12	0	22.69	22.73	22.79	1
		12	6	22.57	22.50	22.47	1
		12	13	22.39	22.42	22.21	1
		25	0	22.49	22.54	22.52	1
5M	16QAM	1	0	22.77	22.88	22.78	1
		1	12	22.55	22.66	22.76	1
		1	24	22.38	22.44	22.42	1
		12	0	21.91	21.78	21.93	2
		12	6	21.70	21.65	21.70	2
		12	13	21.45	21.53	21.59	2
		25	0	21.54	21.54	21.59	2
5M	64QAM	1	0	21.50	21.51	21.51	2
		1	12	21.51	21.51	21.45	2
		1	24	21.37	21.53	21.57	2
		12	0	20.68	20.80	20.86	3
		12	6	20.76	20.70	20.64	3
		12	13	20.57	20.63	20.80	3
		25	0	20.55	20.56	20.72	3

LTE Conducted Power (Full)									
LTE Band 41									
BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)
		Channel		39750	40185	40620	41055	41490	
		Frequency (MHz)		2506	2549.5	2593	2636.5	2680	
20M	QPSK	1	0	24.05	24.07	24.01	24.06	23.81	0
		1	50	23.87	23.89	23.83	23.88	23.63	0
		1	99	23.79	23.81	23.75	23.80	23.55	0
		50	0	22.84	22.86	22.80	22.85	22.60	1
		50	25	22.71	22.73	22.67	22.72	22.47	1
		50	50	22.67	22.69	22.63	22.68	22.43	1
		100	0	22.75	22.77	22.71	22.76	22.51	1
20M	16QAM	1	0	23.02	23.04	22.98	23.03	22.78	1
		1	50	22.82	22.84	22.78	22.83	22.58	1
		1	99	22.73	22.75	22.69	22.74	22.49	1
		50	0	22.01	22.03	21.97	22.02	21.77	2
		50	25	21.92	21.94	21.88	21.93	21.68	2
		50	50	21.85	21.87	21.81	21.86	21.61	2
		100	0	21.81	21.83	21.77	21.82	21.57	2
20M	64QAM	1	0	21.64	21.66	21.60	21.65	21.40	2
		1	50	21.56	21.58	21.52	21.57	21.32	2
		1	99	21.49	21.51	21.45	21.50	21.25	2
		50	0	20.90	20.92	20.86	20.91	20.66	3
		50	25	20.83	20.85	20.79	20.84	20.59	3
		50	50	20.75	20.77	20.71	20.76	20.51	3
		100	0	20.80	20.82	20.76	20.81	20.56	3
BW	MCS Index	Channel		39725	40173	40620	41068	41515	3GPP MPR
		Frequency (MHz)		2503.5	2548.3	2593	2637.8	2682.5	
15M	QPSK	1	0	23.96	23.97	23.91	24.03	23.79	0
		1	37	23.83	23.85	23.79	23.82	23.61	0
		1	74	23.76	23.76	23.67	23.74	23.50	0
		36	0	22.76	22.76	22.76	22.80	22.57	1
		36	19	22.65	22.66	22.64	22.66	22.39	1
		36	39	22.61	22.59	22.59	22.68	22.41	1
		75	0	22.65	22.70	22.67	22.68	22.45	1
15M	16QAM	1	0	22.96	22.94	22.95	22.93	22.76	1
		1	37	22.79	22.79	22.68	22.81	22.55	1
		1	74	22.66	22.70	22.65	22.70	22.48	1
		36	0	21.94	21.94	21.95	21.99	21.53	2
		36	19	21.92	21.93	21.84	21.91	21.40	2
		36	39	21.81	21.85	21.76	21.86	21.36	2
		75	0	21.76	21.78	21.74	21.75	21.46	2
15M	64QAM	1	0	21.54	21.61	21.53	21.56	21.77	2
		1	37	21.48	21.54	21.42	21.55	21.56	2
		1	74	21.49	21.41	21.44	21.43	21.47	2
		36	0	20.81	20.87	20.76	20.86	20.50	3
		36	19	20.83	20.83	20.75	20.76	20.39	3
		36	39	20.74	20.70	20.66	20.69	20.35	3
		75	0	20.73	20.74	20.66	20.81	20.49	3

LTE Conducted Power (Full)									
LTE Band 41									
BW	MCS Index	Channel		39700	40160	40620	41080	41540	3GPP MPR
		Frequency (MHz)		2501	2547	2593	2639	2685	
10M	QPSK	1	0	23.97	24.00	23.88	23.99	23.75	0
		1	24	23.77	23.82	23.81	23.84	23.52	0
		1	49	23.73	23.65	23.67	23.65	23.40	0
		25	0	22.78	22.76	22.67	22.76	22.47	1
		25	12	22.54	22.64	22.59	22.60	22.38	1
		25	25	22.53	22.62	22.55	22.58	22.34	1
		50	0	22.63	22.68	22.61	22.68	22.43	1
10M	16QAM	1	0	22.91	23.03	22.90	22.97	22.71	1
		1	24	22.72	22.81	22.80	22.83	22.59	1
		1	49	22.68	22.69	22.65	22.65	22.37	1
		25	0	21.74	21.71	21.70	21.71	21.53	2
		25	12	21.56	21.67	21.54	21.59	21.36	2
		25	25	21.54	21.59	21.55	21.55	21.38	2
		50	0	21.65	21.65	21.64	21.73	21.44	2
10M	64QAM	1	0	21.97	22.06	21.93	21.96	21.73	2
		1	24	21.76	21.76	21.76	21.85	21.55	2
		1	49	21.72	21.74	21.69	21.61	21.40	2
		25	0	20.78	20.75	20.76	20.76	20.46	3
		25	12	20.59	20.60	20.58	20.62	20.41	3
		25	25	20.53	20.59	20.53	20.55	20.35	3
		50	0	20.66	20.70	20.66	20.65	20.41	3
BW	MCS Index	Channel		39675	40148	40620	41093	41565	3GPP MPR
		Frequency (MHz)		2498.5	2545.8	2593	2640.3	2687.5	
5M	QPSK	1	0	23.96	23.96	23.88	23.94	23.75	0
		1	12	23.78	23.71	23.79	23.80	23.56	0
		1	24	23.72	23.71	23.67	23.69	23.44	0
		12	0	22.76	22.82	22.74	22.77	22.53	1
		12	6	22.66	22.59	22.66	22.72	22.31	1
		12	13	22.62	22.60	22.52	22.57	22.32	1
		25	0	22.61	22.72	22.70	22.64	22.38	1
5M	16QAM	1	0	22.92	22.94	22.88	22.95	22.70	1
		1	12	22.69	22.69	22.70	22.77	22.55	1
		1	24	22.77	22.63	22.65	22.63	22.42	1
		12	0	21.83	21.82	21.69	21.79	21.48	2
		12	6	21.62	21.58	21.66	21.65	21.28	2
		12	13	21.64	21.57	21.45	21.56	21.35	2
		25	0	21.63	21.66	21.61	21.61	21.46	2
5M	64QAM	1	0	21.89	21.99	21.90	22.02	21.68	2
		1	12	21.78	21.70	21.80	21.76	21.51	2
		1	24	21.78	21.71	21.70	21.68	21.41	2
		12	0	20.76	20.83	20.70	20.74	20.58	3
		12	6	20.66	20.65	20.65	20.65	20.34	3
		12	13	20.57	20.65	20.51	20.56	20.29	3
		25	0	20.70	20.73	20.71	20.59	20.44	3

LTE Conducted Power (Full)							
LTE Band 66							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		132072	132322	132572	
		Frequency (MHz)		1720	1745	1770	
20M	QPSK	1	0	23.82	23.79	23.68	0
		1	50	23.65	23.62	23.51	0
		1	99	23.58	23.55	23.44	0
		50	0	22.77	22.74	22.63	1
		50	25	22.66	22.63	22.52	1
		50	50	22.62	22.59	22.48	1
		100	0	22.64	22.61	22.50	1
20M	16QAM	1	0	22.90	22.87	22.76	1
		1	50	22.87	22.84	22.73	1
		1	99	22.80	22.77	22.66	1
		50	0	21.87	21.84	21.73	2
		50	25	21.81	21.78	21.67	2
		50	50	21.75	21.72	21.61	2
		100	0	21.78	21.75	21.64	2
20M	64QAM	1	0	21.89	21.86	21.75	2
		1	50	21.86	21.83	21.72	2
		1	99	21.77	21.74	21.63	2
		50	0	20.87	20.84	20.73	3
		50	25	20.76	20.73	20.62	3
		50	50	20.74	20.71	20.60	3
		100	0	20.71	20.68	20.57	3
BW	MCS Index	Channel		132047	132322	132597	3GPP MPR
		Frequency (MHz)		1717.5	1745	1772.5	
15M	QPSK	1	0	23.79	23.75	23.63	0
		1	37	23.59	23.57	23.50	0
		1	74	23.51	23.45	23.37	0
		36	0	22.68	22.66	22.54	1
		36	19	22.63	22.62	22.50	1
		36	39	22.59	22.54	22.45	1
		75	0	22.58	22.55	22.41	1
15M	16QAM	1	0	22.90	22.82	22.66	1
		1	37	22.87	22.82	22.73	1
		1	74	22.71	22.69	22.60	1
		36	0	21.83	21.77	21.70	2
		36	19	21.74	21.77	21.65	2
		36	39	21.65	21.71	21.60	2
		75	0	21.69	21.73	21.64	2
15M	64QAM	1	0	21.85	21.76	21.69	2
		1	37	21.77	21.76	21.65	2
		1	74	21.74	21.74	21.54	2
		36	0	20.78	20.81	20.63	3
		36	19	20.66	20.71	20.61	3
		36	39	20.73	20.63	20.58	3
		75	0	20.64	20.60	20.56	3

LTE Conducted Power (Full)							
LTE Band 66							
BW	MCS Index	Channel		132022	132322	132622	3GPP MPR
		Frequency (MHz)		1715	1745	1775	
10M	QPSK	1	0	23.61	23.75	23.66	0
		1	24	23.47	23.52	23.39	0
		1	49	23.46	23.38	23.26	0
		25	0	22.76	22.69	22.57	1
		25	12	22.50	22.54	22.46	1
		25	25	22.44	22.49	22.37	1
		50	0	22.52	22.48	22.34	1
10M	16QAM	1	0	22.82	22.66	22.56	1
		1	24	22.73	22.78	22.55	1
		1	49	22.70	22.67	22.61	1
		25	0	21.79	21.68	21.67	2
		25	12	21.70	21.75	21.51	2
		25	25	21.62	21.61	21.60	2
		50	0	21.62	21.65	21.43	2
10M	64QAM	1	0	21.80	21.69	21.68	2
		1	24	21.74	21.74	21.59	2
		1	49	21.58	21.69	21.43	2
		25	0	20.70	20.73	20.68	3
		25	12	20.73	20.65	20.49	3
		25	25	20.53	20.51	20.51	3
		50	0	20.62	20.58	20.39	3
BW	MCS Index	Channel		131997	132322	132647	3GPP MPR
		Frequency (MHz)		1712.5	1745	1777.5	
5M	QPSK	1	0	23.63	23.72	23.42	0
		1	12	23.50	23.58	23.25	0
		1	24	23.41	23.48	23.28	0
		12	0	22.65	22.61	22.44	1
		12	6	22.56	22.49	22.28	1
		12	13	22.53	22.49	22.27	1
		25	0	22.52	22.45	22.22	1
5M	16QAM	1	0	22.75	22.78	22.66	1
		1	12	22.75	22.67	22.55	1
		1	24	22.71	22.58	22.54	1
		12	0	21.67	21.61	21.69	2
		12	6	21.64	21.71	21.59	2
		12	13	21.73	21.66	21.48	2
		25	0	21.71	21.51	21.50	2
5M	64QAM	1	0	21.70	21.72	21.67	2
		1	12	21.72	21.76	21.62	2
		1	24	21.62	21.65	21.50	2
		12	0	20.75	20.63	20.57	3
		12	6	20.57	20.66	20.58	3
		12	13	20.61	20.51	20.48	3
		25	0	20.55	20.67	20.41	3

LTE Conducted Power (Full)							
LTE Band 66							
BW	MCS Index	Channel		131987	132322	132657	3GPP MPR
		Frequency (MHz)		1711.5	1745	1778.5	
3M	QPSK	1	0	23.67	23.60	23.64	0
		1	7	23.41	23.47	23.43	0
		1	14	23.55	23.33	23.36	0
		8	0	22.66	22.54	22.63	1
		8	3	22.60	22.56	22.29	1
		8	7	22.39	22.39	22.31	1
		15	0	22.54	22.60	22.43	1
3M	16QAM	1	0	22.87	22.75	22.58	1
		1	7	22.66	22.75	22.55	1
		1	14	22.70	22.63	22.54	1
		8	0	21.72	21.60	21.70	2
		8	3	21.68	21.64	21.60	2
		8	7	21.69	21.62	21.46	2
		15	0	21.69	21.65	21.59	2
3M	64QAM	1	0	21.72	21.76	21.63	2
		1	7	21.63	21.76	21.59	2
		1	14	21.67	21.55	21.48	2
		8	0	20.78	20.73	20.66	3
		8	3	20.57	20.65	20.51	3
		8	7	20.59	20.55	20.44	3
		15	0	20.56	20.57	20.40	3
BW	MCS Index	Channel		131979	132322	132665	3GPP MPR
		Frequency (MHz)		1710.7	1745	1779.3	
1.4M	QPSK	1	0	23.67	23.75	23.50	0
		1	2	23.53	23.38	23.37	0
		1	5	23.53	23.38	23.23	0
		3	0	23.62	23.64	23.47	0
		3	1	23.53	23.48	23.38	0
		3	3	23.50	23.41	23.32	0
		6	0	22.55	22.45	22.38	1
1.4M	16QAM	1	0	22.74	22.74	22.59	1
		1	2	22.71	22.78	22.61	1
		1	5	22.67	22.65	22.52	1
		3	0	22.68	22.76	22.63	1
		3	1	22.72	22.72	22.44	1
		3	3	22.54	22.61	22.52	1
		6	0	21.66	21.60	21.55	2
1.4M	64QAM	1	0	21.83	21.75	21.53	2
		1	2	21.76	21.70	21.69	2
		1	5	21.75	21.60	21.52	2
		3	0	21.72	21.71	21.61	2
		3	1	21.66	21.63	21.43	2
		3	3	21.60	21.61	21.49	2
		6	0	20.62	20.57	20.39	3

WLAN Conducted Power (Full)			
WLAN2.4GHz Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11b	1	2412	16.95
	6	2437	16.99
	11	2462	16.92
	12	2467	16.89
	13	2472	16.93
802.11g	1	2412	16.91
	6	2437	16.95
	11	2462	16.92
	12	2467	15.95
	13	2472	12.46
802.11n HT20	1	2412	16.96
	6	2437	16.94
	11	2462	16.97
	12	2467	15.92
	13	2472	12.44
802.11n HT40	3	2422	16.88
	6	2437	16.83
	9	2452	16.82
	10	2457	13.89
	11	2462	11.79
802.11ax HE20	1	2412	16.85
	6	2437	16.84
	11	2462	16.83
	12	2467	16.8
	13	2472	13.78
802.11ax HE40	3	2422	16.77
	6	2437	16.74
	9	2452	16.73
	10	2457	13.87
	11	2462	11.47

WLAN Conducted Power (Full)			
WLAN2.4GHz Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11b	1	2412	16.91
	6	2437	16.98
	11	2462	16.96
	12	2467	16.95
	13	2472	16.91
802.11g	1	2412	16.9
	6	2437	16.93
	11	2462	16.91
	12	2467	15.94
	13	2472	12.43
802.11n HT20	1	2412	16.88
	6	2437	16.82
	11	2462	16.95
	12	2467	15.97
	13	2472	12.45
802.11n HT40	3	2422	16.87
	6	2437	16.81
	9	2452	16.81
	10	2457	13.88
	11	2462	11.76
802.11ax HE20	1	2412	16.84
	6	2437	16.82
	11	2462	16.82
	12	2467	16.79
	13	2472	13.75
802.11ax HE40	3	2422	16.76
	6	2437	16.72
	9	2452	16.72
	10	2457	13.86
	11	2462	11.44

WLAN Conducted Power (Full)					
WLAN2.4GHz Ant 0+1					
Mode	Channel	Frequency	MIMO Ant 0 Avg. Power	MIMO Ant 1 Avg. Power	MIMO Ant 0+1 Avg. Power
802.11n HT20	1	2412	16.95	16.93	19.95
	6	2437	16.91	16.79	19.86
	11	2462	16.9	16.96	19.94
	12	2467	12.89	12.92	15.92
	13	2472	9.91	9.55	12.74
802.11n HT40	3	2422	16.93	16.95	19.95
	6	2437	16.96	16.98	19.98
	9	2452	15.92	15.95	18.95
	10	2457	12.97	12.81	15.9
	11	2462	8.98	8.87	11.94
802.11ax HE20	1	2412	16.85	16.8	19.84
	6	2437	16.77	16.82	19.81
	11	2462	15.79	15.82	18.82
	12	2467	12.83	12.78	15.82
	13	2472	8.93	8.83	11.89
802.11ax HE40	3	2422	16.84	16.78	19.82
	6	2437	16.74	16.78	19.77
	9	2452	15.74	15.81	18.79
	10	2457	12.81	12.75	15.79
	11	2462	8.89	8.78	11.85

WLAN Conducted Power (Full)			
Bluetooth Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
BR / EDR	0	2402	9.39
	39	2441	9.67
	78	2480	10.29
LE	0	2402	8.75
	19	2440	8.76
	39	2480	8.88

WLAN Conducted Power (Full)			
WLAN 5.2GHz Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11a	36	5180	13.41
	40	5200	13.43
	44	5220	13.44
	48	5240	13.45
802.11n HT20	36	5180	13.4
	40	5200	13.39
	44	5220	13.44
	48	5240	13.41
802.11n HT40	38	5190	13.46
	46	5230	13.42
802.11ac VHT80	42	5210	13.49
802.11ax HE20	36	5180	13.42
	40	5200	13.46
	44	5220	13.43
	48	5240	13.41
802.11ax HE40	38	5190	13.45
	46	5230	13.47
802.11ax HE80	42	5210	13.38

WLAN Conducted Power (Full)			
WLAN 5.2GHz Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11a	36	5180	14.95
	40	5200	14.9
	44	5220	14.94
	48	5240	14.96
802.11n HT20	36	5180	14.92
	40	5200	14.93
	44	5220	14.91
	48	5240	14.89
802.11n HT40	38	5190	14.97
	46	5230	14.87
802.11ac VHT80	42	5210	14.99
802.11ax HE20	36	5180	14.91
	40	5200	14.94
	44	5220	14.92
	48	5240	14.95
802.11ax HE40	38	5190	14.93
	46	5230	14.89
802.11ax HE80	42	5210	14.88

WLAN Conducted Power (Full)					
WLAN 5.2GHz Ant 0+1					
Mode	Channel	Frequency	MIMO Ant 0 Avg. Power	MIMO Ant 1 Avg. Power	MIMO Ant 0+1 Avg. Power
802.11n HT20	36	5180	13.41	13.39	16.41
	40	5200	13.43	13.41	16.43
	44	5220	13.45	13.42	16.45
	48	5240	13.44	13.37	16.42
802.11n HT40	38	5190	13.41	13.45	16.44
	46	5230	13.43	13.44	16.45
802.11ac VHT80	42	5210	13.49	13.48	16.5
802.11ax HE20	36	5180	13.47	13.46	16.48
	40	5200	13.44	13.38	16.42
	44	5220	13.45	13.43	16.45
	48	5240	13.43	13.41	16.43
802.11ax HE40	38	5190	13.46	13.44	16.46
	46	5230	13.47	13.42	16.46
802.11ax HE80	42	5210	13.38	13.36	16.38

WLAN Conducted Power (Full)			
WLAN 5.3GHz Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11a	52	5260	13.38
	56	5280	13.42
	60	5300	13.44
	64	5320	13.43
802.11n HT20	52	5260	13.45
	56	5280	13.43
	60	5300	13.44
	64	5320	13.42
802.11n HT40	54	5270	13.39
	62	5310	13.41
802.11ac VHT80	58	5290	13.4
802.11ac VHT160	50	5250	13.49
802.11ax HE20	52	5260	13.41
	56	5280	13.46
	60	5300	13.39
	64	5320	13.43
802.11ax HE40	54	5270	13.42
	62	5310	13.45
802.11ax HE80	58	5290	13.38
802.11ax HE160	50	5250	13.4

WLAN Conducted Power (Full)			
WLAN 5.3GHz Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11a	52	5260	14.91
	56	5280	14.95
	60	5300	14.89
	64	5320	14.88
802.11n HT20	52	5260	14.96
	56	5280	14.94
	60	5300	14.93
	64	5320	14.92
802.11n HT40	54	5270	14.91
	62	5310	14.94
802.11ac VHT80	58	5290	14.96
802.11ac VHT160	50	5250	14.98
802.11ax HE20	52	5260	14.95
	56	5280	14.91
	60	5300	14.88
	64	5320	14.89
802.11ax HE40	54	5270	14.94
	62	5310	14.87
802.11ax HE80	58	5290	14.93
802.11ax HE160	50	5250	14.92

WLAN Conducted Power (Full)					
WLAN 5.3GHz Ant 0+1					
Mode	Channel	Frequency	MIMO Ant 0 Avg. Power	MIMO Ant 1 Avg. Power	MIMO Ant 0+1 Avg. Power
802.11n HT20	52	5260	13.37	13.43	16.41
	56	5280	13.44	13.42	16.44
	60	5300	13.41	13.46	16.45
	64	5320	13.43	13.45	16.45
802.11n HT40	54	5270	13.46	13.44	16.46
	62	5310	13.47	13.41	16.45
802.11ac VHT80	58	5290	13.46	13.39	16.44
802.11ac VHT160	50	5250	13.49	13.47	16.49
802.11ax HE20	52	5260	13.45	13.4	16.44
	56	5280	13.42	13.46	16.45
	60	5300	13.43	13.41	16.43
	64	5320	13.39	13.43	16.42
802.11ax HE40	54	5270	13.41	13.45	16.44
	62	5310	13.43	13.42	16.44
802.11ax HE80	58	5290	13.45	13.44	16.46
802.11ax HE160	50	5250	13.38	13.38	16.39

WLAN Conducted Power (Full)			
WLAN 5.6GHz Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11a	100	5500	13.39
	116	5580	13.46
	120	5600	13.45
	124	5620	13.41
	132	5660	13.44
	140	5700	13.42
802.11n HT20	100	5500	13.38
	116	5580	13.4
	120	5600	13.39
	124	5620	13.41
	132	5660	13.45
	140	5700	13.46
802.11n HT40	144	5720	13.44
	102	5510	13.37
	110	5550	13.39
	118	5590	13.41
	126	5630	13.43
	134	5670	13.42
802.11ac VHT80	142	5710	13.44
	106	5530	13.48
	122	5610	13.38
802.11ac VHT160	138	5690	13.39
	114	5570	13.49
802.11ax HE20	100	5500	13.45
	116	5580	13.41
	120	5600	13.43
	124	5620	13.44
	132	5660	13.42
	140	5700	13.37
802.11ax HE40	144	5720	13.38
	102	5510	13.39
	110	5550	13.41
	118	5590	13.43
	126	5630	13.38
	134	5670	13.37
802.11ax HE80	142	5710	13.44
	106	5530	13.38
	122	5610	13.42
802.11ax HE160	138	5690	13.41
	114	5570	13.39

WLAN Conducted Power (Full)			
WLAN 5.6GHz Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11a	100	5500	13.43
	116	5580	13.39
	120	5600	13.45
	124	5620	13.42
	132	5660	13.41
	140	5700	13.31
802.11n HT20	100	5500	13.39
	116	5580	13.44
	120	5600	13.42
	124	5620	13.37
	132	5660	13.41
	140	5700	13.38
	144	5720	13.42
802.11n HT40	102	5510	13.38
	110	5550	13.39
	118	5590	13.44
	126	5630	13.43
	134	5670	13.41
	142	5710	13.42
802.11ac VHT80	106	5530	13.48
	122	5610	13.45
	138	5690	13.46
802.11ac VHT160	114	5570	13.49
802.11ax HE20	100	5500	13.45
	116	5580	13.44
	120	5600	13.42
	124	5620	13.41
	132	5660	13.42
	140	5700	13.38
	144	5720	13.45
802.11ax HE40	102	5510	13.44
	110	5550	13.43
	118	5590	13.41
	126	5630	13.4
	134	5670	13.39
	142	5710	13.38
802.11ax HE80	106	5530	13.42
	122	5610	13.41
	138	5690	13.43
802.11ax HE160	114	5570	13.39

WLAN Conducted Power (Full)					
WLAN 5.6GHz Ant 0+1					
Mode	Channel	Frequency	MIMO Ant 0 Avg. Power	MIMO Ant 1 Avg. Power	MIMO Ant 0+1 Avg. Power
802.11n HT20	100	5500	13.36	13.43	16.41
	116	5580	13.44	13.42	16.44
	120	5600	13.41	13.44	16.44
	124	5620	13.39	13.37	16.39
	132	5660	13.43	13.38	16.42
	140	5700	13.42	13.44	16.44
	144	5720	13.45	13.4	16.44
802.11n HT40	102	5510	13.39	13.46	16.44
	110	5550	13.41	13.39	16.41
	118	5590	13.45	13.45	16.46
	126	5630	13.44	13.41	16.44
	134	5670	13.38	13.45	16.43
	142	5710	13.37	13.43	16.41
802.11ac VHT80	106	5530	13.47	13.48	16.49
	122	5610	13.39	13.44	16.43
	138	5690	13.42	13.47	16.46
802.11ac VHT160	114	5570	13.48	13.49	16.5
802.11ax HE20	100	5500	13.39	13.45	16.43
	116	5580	13.41	13.38	16.41
	120	5600	13.44	13.46	16.46
	124	5620	13.42	13.46	16.45
	132	5660	13.46	13.45	16.47
	140	5700	13.43	13.44	16.45
	144	5720	13.42	13.42	16.43
802.11ax HE40	102	5510	13.46	13.41	16.45
	110	5550	13.42	13.46	16.45
	118	5590	13.41	13.47	16.45
	126	5630	13.39	13.42	16.42
	134	5670	13.45	13.44	16.46
	142	5710	13.46	13.43	16.46
802.11ax HE80	106	5530	13.44	13.38	16.42
	122	5610	13.43	13.43	16.44
	138	5690	13.38	13.45	16.43

WLAN Conducted Power (Full)			
WLAN 5.8GHz Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11a	149	5745	13.91
	153	5765	13.89
	157	5785	13.93
	161	5805	13.88
	165	5825	13.92
802.11n HT20	149	5745	13.91
	153	5765	13.94
	157	5785	13.93
	161	5805	13.92
	165	5825	13.91
802.11n HT40	151	5755	13.96
	159	5795	13.92
802.11ac VHT80	155	5775	13.97
802.11ax HE20	149	5745	13.93
	153	5765	13.92
	157	5785	13.94
	161	5805	13.9
	165	5825	13.89
802.11ax HE40	151	5755	13.95
	159	5795	13.88
802.11ax HE80	155	5775	13.91

WLAN Conducted Power (Full)			
WLAN 5.8GHz Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11a	149	5745	13.97
	153	5765	13.95
	157	5785	13.93
	161	5805	13.89
	165	5825	13.91
802.11n HT20	149	5745	13.92
	153	5765	13.88
	157	5785	13.94
	161	5805	13.97
	165	5825	13.95
802.11n HT40	151	5755	13.93
	159	5795	13.88
802.11ac VHT80	155	5775	13.98
802.11ax HE20	149	5745	13.91
	153	5765	13.89
	157	5785	13.94
	161	5805	13.92
	165	5825	13.96
802.11ax HE40	151	5755	13.88
	159	5795	13.91
802.11ax HE80	155	5775	13.89

WLAN Conducted Power (Full)					
WLAN 5.8GHz Ant 0+1					
Mode	Channel	Frequency	MIMO Ant 0 Avg. Power	MIMO Ant 1 Avg. Power	MIMO Ant 0+1 Avg. Power
802.11n HT20	149	5745	13.89	13.87	16.89
	153	5765	13.91	13.94	16.94
	157	5785	13.92	13.84	16.89
	161	5805	13.95	13.89	16.93
	165	5825	12.94	12.96	15.96
802.11n HT40	151	5755	13.91	13.95	16.94
	159	5795	13.96	13.91	16.95
802.11ac VHT80	155	5775	13.99	13.97	16.99
802.11ax HE20	149	5745	13.89	13.93	16.92
	153	5765	13.93	13.92	16.94
	157	5785	13.94	13.96	16.96
	161	5805	13.89	13.92	16.92
	165	5825	13.95	13.93	16.95
802.11ax HE40	151	5755	13.97	13.95	16.97
	159	5795	13.9	13.89	16.91
802.11ax HE80	155	5775	13.96	13.92	16.95

Downlink Carrier Aggregation Scenarios Exclusion

Intra Band		Inter Band								
Contiguous	2CC Non-Contiguous	2 Bands / 2CC	2 Bands / 3CC	2 Bands / 4CC	2 Bands / 5CC	3 Bands / 3CC	3 Bands / 4CC	3 Bands / 5CC	4 Bands / 4CC	4 Bands / 5CC
CA_5B			CA_5B-66A	CA_2A-2A-5B	CA_2A-2A-5B	CA_2A-30A-66A	CA_2A-5B-30A			CA_2A-5B-30A-66A
			CA_5B-30A				CA_5B-30A-66A			
			CA_2A-5B				CA_2A-5B-66A			
			CA_2A-66A-66A				CA_5B-66A-66A			CA_2A-5B-66A-66A
							CA_2A-5A-66A-66A			
			CA_2A-2A-5A	CA_2A-2A-66C	CA_2A-2A-66C		CA_2A-5A-66C	CA_2A-2A-5A-66C		
			CA_5A-66C							
			CA_5A-66B	CA_2A-2A-66B	CA_2A-2A-66B		CA_2A-5A-66B	CA_2A-2A-5A-66B		
				CA_5B-66C	CA_5B-66C			CA_2A-5B-66C		
		CA_2A-13A						CA_2A-13A-46D		
		CA_2A-66A						CA_2A-46D-66A		
		CA_2A-46A						CA_5B-30A-66A-66A		
								CA_13A-46D-66A		
		CA_13A-66A								
		CA_2A-5A				CA_5A-30A-66A	CA_2A-2A-5A-66A			
		CA_30A-66A				CA_30A-66A-66A	CA_2A-2A-30A-66A			
		CA_5A-30A				CA_5A-66A-66A	CA_2A-30A-66A-66A		CA_2A-5A-30A-66A	
		CA_5A-66A				CA_2A-5A-30A	CA_2A-2A-5A-30A			
						CA_2A-5A-66A				
		CA_2A-12A	CA_2A-12A-30A							
		CA_2A-30A	CA_2A-12A-66A						CA_2A-12A-30A-66A	
		CA_12A-30A								
		CA_12A-66A								
		CA_2A-2A	CA_2A-2A-66A				CA_2A-2A-12A-66A			
			CA_2A-2A-30A				CA_2A-2A-12A-30A			
			CA_2A-2A-13A	CA_2A-2A-66A-66A	CA_2A-2A-66A-66A	CA_2A-13A-66A	CA_2A-2A-13A-66A			
			CA_13A-66A-66A				CA_2A-13A-66A-66A			
			CA_2A-66A-66A							
CA_66B			CA_13A-66B				CA_2A-13A-66B			
			CA_2A-66B							
CA_66C			CA_13A-66C				CA_2A-13A-66C			
			CA_2A-66C				CA_2A-12A-66A-66A			
							CA_5A-30A-66A-66A			
	CA_66A-66A	CA_5A-66A	CA_5A-66A-66A				CA_12A-30A-66A-66A			
			CA_12A-66A-66A							
			CA_12A-30A-66A							
		CA_4A-13A		CA_2A-2A-66A-66A	CA_2A-2A-66A-66A	CA_2A-4A-13A				
		CA_2A-4A				CA_2A-4A-5A				
						CA_2A-14A-30A				
			CA_2A-2A-4A							
			CA_2A-2A-5A							
			CA_2A-4A-4A							
			CA_4A-4A-5A							
			CA_14A-66A-66A							
		CA_2A-14A								
		CA_2A-29A								
		CA_4A-4A								
		CA_4A-46A								
		CA_13A-46A								
		CA_14A-30A								
		CA_14A-66A								
		CA_25A-26A								
		CA_25A-25A								
		CA_30A-29A								
		CA_66A-29A								
		CA_66A-46A								
	CA_66A-66B									
	CA_66A-66C									
CA_41C										
CA_66D										

Note : Only the blue marked required power measurement, the others applied to CA downlink exclusions.

Downlink Carrier Aggregation Scenarios Conducted Power

Configure	Combination	PCC								SCC1				SCC2				SCC3				SCC4				Measurement Power			
		LTE Band	BW [MHz]	UL Channel	UL Freq. [MHz]	UL RB	UL Offset	DL Channel	DL Freq. [MHz]	LTE Band	BW [MHz]	DL Channel	DL Freq. [MHz]	LTE Band	BW [MHz]	DL Channel	DL Freq. [MHz]	LTE Band	BW [MHz]	DL Channel	DL Freq. [MHz]	LTE Band	BW [MHz]	DL Channel	DL Freq. [MHz]	Maximum Tune-up Power	Single Carrier Tx Power without DL-CA Active (dBm)	Tx Power with DL-CA Active (dBm)	
																												PCC	Total
Intra Band Contiguous	CA_41C	41	20	39750	2506	1	0	39750	2506	41	20	39948	2520.4													24.5	24.14	24.02	24.02
	CA_66D	66	20	132072	1720	1	0	66536	2120	66	20	66734	2139.8	66	20	66932	2159.2									24.5	24.12	23.95	23.95
Intra Band Non-Contiguous	CA_66A-66B	66	20	132072	1720	1	0	66536	2120	66	10	67187	2185.1	66	10	67286	2195									24.5	24.12	23.89	23.89
	CA_66A-66C	66	20	132072	1720	1	0	66536	2120	66	20	66787	2145.1	66	20	66985	2164.9									24.5	24.12	23.94	23.94
	CA_25A-25A	25	20	26365	1882.5	1	0	8365	1962.5	25	10	26590	1905													24.5	23.95	23.69	23.69
	CA_2A-14A	2	20	18700	1860	1	0	700	1940	14	10	5330	763													24.5	24.06	23.92	23.92
	CA_2A-29A	2	20	18700	1860	1	0	700	1940	29	10	9715	722.5													24.5	24.06	23.94	23.94
	CA_4A-46A	4	20	20050	1720	1	0	2050	2120	46	20	50665	5537.5													24.5	23.94	23.85	23.85
	CA_13A-46A	13	10	23230	782	1	0	5280	758	46	20	50690	5540													24.5	24.01	23.89	23.89
	CA_14A-30A	14	10	23330	793	1	0	5330	763	30	10	9820	2355													24.5	23.83	23.73	23.73
	CA_14A-66A	14	10	23330	793	1	0	5330	763	66	20	66786	2145													24.5	23.83	23.74	23.74
	CA_25A-26A	25	20	26365	1882.5	1	0	8365	1962.5	26	15	8865	876.5													24.5	23.95	23.61	23.61
	CA_30A-29A	30	10	27710	2310	1	0	9820	2355	29	10	9715	722.5												23	22.50	21.49	21.49	
	CA_66A-29A	66	20	132072	1720	1	0	66536	2120	29	10	9715	722.5												24.5	24.12	24.01	24.01	
	CA_66A-46A	66	20	132072	1720	1	0	66536	2120	46	20	50665	5537.5													24.5	24.12	24.05	24.05
	CA_2A-2A-4A	2	20	18700	1860	1	0	700	1940	2	20	900	1960	4	20	2175	2132.5									24.5	24.06	23.82	23.82
	CA_2A-2A-5A	2	20	18700	1860	1	0	700	1940	2	20	900	1960	5	10	2549	883.9									24.5	24.06	23.74	23.74
	CA_2A-4A-4A	2	20	18700	1860	1	0	700	1940	4	20	2050	2120	4	20	2300	2145									24.5	24.06	23.81	23.81
	CA_4A-4A-5A	4	20	20050	1720	1	0	2050	2120	4	20	2300	2145	5	10	2549	883.9									24.5	23.94	23.77	23.77
	CA_14A-66A-66A	14	10	23330	793	1	0	5279	755.9	66	20	66786	2145	66	20	67036	2170									24.5	23.83	23.71	23.71
	CA_2A-4A-13A	2	20	18700	1860	1	0	700	1940	4	20	2175	2132.5	13	10	5230	751									24.5	24.06	23.83	23.83
	CA_2A-4A-5A	2	20	18700	1860	1	0	700	1940	4	20	2050	2120	5	10	2549	883.9									24.5	24.06	23.94	23.94
	CA_2A-14A-30A	2	20	18700	1860	1	0	700	1940	14	10	5330	763	30	10	9820	2355									24.5	24.06	23.95	23.95
	CA_2A-2A-66A-66A	2	20	18700	1860	1	0	700	1940	2	20	900	1960	66	20	67036	2170	66	20	66786	2145					24.5	24.06	23.94	23.94
	CA_2A-2A-12A-66A	2	20	18700	1860	1	0	700	1940	2	20	900	1960	12	10	5094	737.4	66	20	67036	2170	66	20	66786	2145	24.5	24.06	23.84	23.84
	CA_2A-2A-12A-30A	2	20	18700	1860	1	0	700	1940	2	20	900	1960	12	10	5094	737.4	30	10	9820	2355					24.5	24.06	23.82	23.82
	CA_2A-2A-13A-66A	2	20	18700	1860	1	0	700	1940	2	20	1100	1980	13	10	5230	751	66	20	66786	2145					24.5	24.06	23.87	23.87
	CA_2A-13A-66A-66A	2	20	18700	1860	1	0	700	1940	13	10	5230	751	66	20	67036	2170	66	20	66786	2145					24.5	24.06	23.90	23.90
	CA_2A-13A-66B	2	20	18700	1860	1	0	700	1940	13	10	5230	751	66	10	66486	2115	66	10	66585	2124.9					24.5	24.06	23.77	23.77
	CA_2A-12A-66A-66A	2	20	18700	1860	1	0	700	1940	12	10	5094	737.4	66	20	67036	2170	66	20	66786	2145					24.5	24.06	23.94	23.94
	CA_5A-30A-66A-66A	5	10	20450	829	1	0	2450	874	30	10	9820	2355	66	20	67036	2170	66	20	66786	2145					24.5	23.70	23.56	23.56
	CA_12A-30A-66A-66A	12	10	23035	701.5	1	0	5035	731.5	30	10	9820	2355	66	20	67036	2170	66	20	66786	2145					24.5	23.85	23.65	23.65
	CA_2A-5A-30A-66A	2	20	18700	1860	1	0	700	1940	5	10	2450	874	30	10	9820	2355	66	20	66786	2145					24.5	24.06	23.95	23.95
	CA_2A-12A-30A-66A	2	20	18700	1860	1	0	700	1940	12	10	5094	737.4	30	10	9820	2355	66	20	66786	2145					24.5	24.06	23.88	23.88
	CA_2A-2A-5A-66C	2	20	18700	1860	1	0	700	1940	2	20	900	1960	5	10	2549	883.9	66	20	66536	2120	66	20	66734	2139.8	24.5	24.06	23.92	23.92
	CA_2A-2A-5A-66B	2	20	18700	1860	1	0	700	1940	2	20	900	1960	5	10	2549	883.9	66	10	66486	2115	66	10	66585	2124.9	24.5	24.06	23.96	23.96
	CA_2A-5B-66C	2	20	18700	1860	1	0	700	1940	5	10	2450	874	5	10	2549	883.9	66	20	67036	2170	66	20	66786	2145	24.5	24.06	23.90	23.90
	CA_2A-13A-46D	2	20	18700	1860	1	0	700	1940	13	10	5230	751	46	20	46892	5160.2	46	20	47090	5180	46	20	47288	5199.8	24.5	24.06	23.84	23.84
	CA_2A-46D-66A	2	20	18700	1860	1	0	700	1940	46	20	46892	5160.2	46	20	47090	5180	46	20	47288	5199.8	66	20	66786	2145	24.5	24.06	23.72	23.72
	CA_5B-30A-66A-66A	5	10	20450	829	1	0	2450	874	2	20	900	1960	30	10	9820	2355	66	20	67036	2170	66	20	66786	2145	24.5	23.70	23.45	23.45
	CA_13A-46D-66A	13	10	23230	782	1	0	5280	758	46	20	50665	5537.5	46	20	47090	5180	46	20	47288	5199.8	66	20	66536	2120	24.5	24.01	23.89	23.89
	CA_2A-5B-30A-66A	2	20	18700	1860	1	0	700	1940	5	10	2450	874	5	10	2549	883.9	30	10	9820	2355	66	20	67036	2170	24.5	24.06	23.82	23.82
	CA_2A-5B-66A-66A	2	20	18700	1860	1	0	700	1940	5	10	2450	874	5	10	2549	883.9	66	20	67036	2170	66	20	66786	2145	24.5	24.06	23.73	23.73

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

System & Position																		DUT & Accessory		SAR							
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Sample	Ant Status	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	WCDMA II	RMC12.2K	Bottom	0	9262			WNC	Ant 0	-	1.00	24.50	23.82	1.17	0	<0.001	0.00										
	WCDMA II	RMC12.2K	Bottom	0	9400			WNC	Ant 0	-	1.00	24.50	23.71	1.20	0	<0.001	0.00										
	WCDMA II	RMC12.2K	Bottom	0	9538			WNC	Ant 0	-	1.00	24.50	23.65	1.22	0	<0.001	0.00										
	WCDMA II	RMC12.2K	Bottom	0	9262			HB	Ant 0	-	1.00	24.50	23.82	1.17	0	<0.001	0.00										
2	WCDMA IV	RMC12.2K	Bottom	0	1312			WNC	Ant 0	-	1.00	24.50	24.02	1.12	0	<0.001	0.00										
	WCDMA IV	RMC12.2K	Bottom	0	1413			WNC	Ant 0	-	1.00	24.50	23.96	1.13	0	<0.001	0.00										
	WCDMA IV	RMC12.2K	Bottom	0	1513			WNC	Ant 0	-	1.00	24.50	23.82	1.17	0	<0.001	0.00										
	WCDMA IV	RMC12.2K	Bottom	0	1312			HB	Ant 0	-	1.00	24.50	24.02	1.12	0	<0.001	0.00										
3	WCDMA V	RMC12.2K	Bottom	0	4132			WNC	Ant 0	-	1.00	24.50	23.97	1.13	0	<0.001	0.00										
	WCDMA V	RMC12.2K	Bottom	0	4182			WNC	Ant 0	-	1.00	24.50	23.89	1.15	0	<0.001	0.00										
	WCDMA V	RMC12.2K	Bottom	0	4233			WNC	Ant 0	-	1.00	24.50	23.83	1.17	0	<0.001	0.00										
	WCDMA V	RMC12.2K	Bottom	0	4132			HB	Ant 0	-	1.00	24.50	23.97	1.13	0	<0.001	0.00										
4	LTE 5	QPSK10M	Bottom	0	20525	1	0	WNC	Ant 0	-	1.00	24.50	23.55	1.24	0	<0.001	0.00										
	LTE 5	QPSK10M	Bottom	0	20525	25	0	WNC	Ant 0	-	1.00	23.50	22.54	1.25	0	<0.001	0.00										
	LTE 5	QPSK10M	Bottom	0	20450	1	0	WNC	Ant 0	-	1.00	24.50	23.53	1.25	0	<0.001	0.00										
	LTE 5	QPSK10M	Bottom	0	20600	1	0	WNC	Ant 0	-	1.00	24.50	23.42	1.28	0	<0.001	0.00										
	LTE 5	QPSK10M	Bottom	0	20525	1	0	HB	Ant 0	-	1.00	24.50	23.55	1.24	0	<0.001	0.00										
																	-										
5	LTE 7	QPSK20M	Bottom	0	21350	1	0	WNC	Ant 0	-	1.00	24.50	23.81	1.17	0	<0.001	0.00										
	LTE 7	QPSK20M	Bottom	0	21350	50	0	WNC	Ant 0	-	1.00	23.50	22.78	1.18	0	<0.001	0.00										
	LTE 7	QPSK20M	Bottom	0	20850	1	0	WNC	Ant 0	-	1.00	24.50	23.74	1.19	0	<0.001	0.00										
	LTE 7	QPSK20M	Bottom	0	21100	1	0	WNC	Ant 0	-	1.00	24.50	23.78	1.18	0	<0.001	0.00										
	LTE 7	QPSK20M	Bottom	0	21350	1	0	HB	Ant 0	-	1.00	24.50	23.81	1.17	0	<0.001	0.00										
																	-										
6	LTE 12	QPSK10M	Bottom	0	23060	1	0	WNC	Ant 0	-	1.00	24.50	23.69	1.21	0	<0.001	0.00										
	LTE 12	QPSK10M	Bottom	0	23060	25	0	WNC	Ant 0	-	1.00	23.50	22.59	1.23	0	<0.001	0.00										
	LTE 12	QPSK10M	Bottom	0	23095	1	0	WNC	Ant 0	-	1.00	24.50</															

System & Position																		DUT & Accessory		SAR							
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Sample	Ant Status	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)										
	LTE 25	QPSK20M	Bottom	0	26590	1	0	WNC	Ant 0	-	1.00	24.50	23.64	1.22	0	<0.001	0.00										
	LTE 25	QPSK20M	Bottom	0	26590	50	0	WNC	Ant 0	-	1.00	23.50	22.54	1.25	0	<0.001	0.00										
9	LTE 25	QPSK20M	Bottom	0	26140	1	0	WNC	Ant 0	-	1.00	24.50	23.35	1.30	0	<0.001	0.00										
	LTE 25	QPSK20M	Bottom	0	26365	1	0	WNC	Ant 0	-	1.00	24.50	23.53	1.25	0	<0.001	0.00										
	LTE 25	QPSK20M	Bottom	0	26590	1	0	HB	Ant 0	-	1.00	24.50	23.64	1.22	0	<0.001	0.00										
																	-										
10	LTE 26	QPSK15M	Bottom	0	26765	1	0	WNC	Ant 0	-	1.00	24.50	23.75	1.19	0	<0.001	0.00										
	LTE 26	QPSK15M	Bottom	0	26765	36	0	WNC	Ant 0	-	1.00	23.50	22.73	1.19	0	<0.001	0.00										
	LTE 26	QPSK15M	Bottom	0	26865	1	0	WNC	Ant 0	-	1.00	24.50	23.58	1.24	0	<0.001	0.00										
	LTE 26	QPSK15M	Bottom	0	26965	1	0	WNC	Ant 0	-	1.00	24.50	23.51	1.26	0	<0.001	0.00										
	LTE 26	QPSK15M	Bottom	0	26765	1	0	HB	Ant 0	-	1.00	24.50	23.75	1.19	0	<0.001	0.00										
																	-										
11	LTE 30	QPSK10M	Bottom	0	27710	1	0	WNC	Ant 0	-	1.00	23.00	22.35	1.16	0	<0.001	0.00										
	LTE 30	QPSK10M	Bottom	0	27710	25	0	WNC	Ant 0	-	1.00	22.00	21.29	1.18	0	<0.001	0.00										
	LTE 30	QPSK10M	Bottom	0	27710	1	0	HB	Ant 0	-	1.00	23.00	22.35	1.16	0	<0.001	0.00										
																	-										
12	LTE 38	QPSK20M	Bottom	0	38150	1	0	WNC	Ant 0	-	1.00	24.50	23.93	1.14	0	<0.001	0.00										
	LTE 38	QPSK20M	Bottom	0	38150	50	0	WNC	Ant 0	-	1.00	23.50	22.89	1.15	0	<0.001	0.00										
	LTE 38	QPSK20M	Bottom	0	37850	1	0	WNC	Ant 0	-	1.00	24.50	23.85	1.16	0	<0.001	0.00										
	LTE 38	QPSK20M	Bottom	0	38000	1	0	WNC	Ant 0	-	1.00	24.50	23.88	1.15	0	<0.001	0.00										
	LTE 38	QPSK20M	Bottom	0	38150	1	0	HB	Ant 0	-	1.00	24.50	23.93	1.14	0	<0.001	0.00										
																	-										
13	LTE 41	QPSK20M	Bottom	0	40185	1	0	WNC	Ant 0	-	1.00	24.50	24.07	1.10	0	<0.001	0.00										
	LTE 41	QPSK20M	Bottom	0	40185	50	0	WNC	Ant 0	-	1.00	23.50	22.86	1.16	0	<0.001	0.00										
	LTE 41	QPSK20M	Bottom	0	39750	1	0	WNC	Ant 0	-	1.00	24.50	24.05	1.11	0	<0.001	0.00										
	LTE 41	QPSK20M	Bottom	0	40620	1	0	WNC	Ant 0	-	1.00	24.50	24.01	1.12	0	<0.001	0.00										
	LTE 41	QPSK20M	Bottom	0	41055	1	0	WNC	Ant 0	-	1.00	24.50	24.06	1.11	0	<0.001	0.00										
	LTE 41	QPSK20M	Bottom	0	41490	1	0	WNC	Ant 0	-	1.00	24.50	23.81	1.17	0	<0.001	0.00										
	LTE 41	QPSK20M	Bottom</																								

Body SAR Test Result																	
System & Position								DUT & Accessory		SAR							
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Sample	Ant Status	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)
	WLAN2.4G	802.11b	Bottom	0	6			WNC	Ant 0	99.50	1.01	17.00	16.99	1.00	-0.05	0.804	0.81
	WLAN2.4G	802.11b	Bottom	0	6			WNC	Ant 1	98.80	1.01	17.00	16.98	1.00	0.07	1.06	1.07
	WLAN2.4G	802.11n HT40	Bottom	0	6			WNC	Ant 0+1	90.00	1.11	20.00	19.98	1.00	0.07	0.948	1.05
15	WLAN2.4G	802.11b	Bottom	0	1			WNC	Ant 1	98.80	1.01	17.00	16.91	1.02	-0.11	1.09	1.12
	WLAN2.4G	802.11b	Bottom	0	11			WNC	Ant 1	98.80	1.01	17.00	16.96	1.01	-0.11	1	1.02
	WLAN2.4G	802.11b	Bottom	0	12			WNC	Ant 1	98.80	1.01	17.00	16.95	1.01	-0.05	1.01	1.03
	WLAN2.4G	802.11b	Bottom	0	13			WNC	Ant 1	98.80	1.01	17.00	16.91	1.02	-0.01	0.97	1.00
	WLAN2.4G	802.11n HT40	Bottom	0	3			WNC	Ant 0+1	90.00	1.11	20.00	19.95	1.01	-0.09	0.952	1.07
	WLAN2.4G	802.11n HT40	Bottom	0	9			WNC	Ant 0+1	90.00	1.11	19.00	18.95	1.01	0.06	0.724	0.81
	WLAN2.4G	802.11n HT40	Bottom	0	10			WNC	Ant 0+1	90.00	1.11	16.00	15.90	1.02	-0.11	0.357	0.40
	WLAN2.4G	802.11n HT40	Bottom	0	11			WNC	Ant 0+1	90.00	1.11	12.00	11.94	1.01	0.14	0.144	0.16
	WLAN2.4G	802.11b	Bottom	0	1			HB	Ant 1	98.80	1.01	17.00	16.91	1.02	0.02	0.972	1.00
	WLAN2.4G	802.11b	Bottom	0	1			Speed	Ant 1	98.80	1.01	17.00	16.91	1.02	0.06	0.979	1.01
	WLAN2.4G	802.11b	Bottom	0	1			Auden	Ant 1	98.80	1.01	17.00	16.91	1.02	0.07	0.973	1.00
	WLAN2.4G	802.11b	Bottom	0	1			WNC	Ant 1	98.80	1.01	17.00	16.91	1.02	-0.08	1.05	1.08
	WLAN5.3G	802.11ac VHT160	Bottom	0	50			WNC	Ant 0	98.83	1.01	13.50	13.49	1.00	-0.02	0.733	0.74
16	WLAN5.3G	802.11ac VHT160	Bottom	0	50			WNC	Ant 1	98.75	1.01	15.00	14.98	1.00	-0.13	1.06	1.07
	WLAN5.3G	802.11ac VHT160	Bottom	0	50			WNC	Ant 0+1	98.68	1.01	16.50	16.49	1.00	-0.06	0.731	0.74
	WLAN5.3G	802.11ac VHT160	Bottom	0	50			HB	Ant 1	98.75	1.01	15.00	14.98	1.00	-0.01	0.95	0.96
	WLAN5.3G	802.11ac VHT160	Bottom	0	50			Speed	Ant 1	98.75	1.01	15.00	14.98	1.00	0.02	0.731	0.74
	WLAN5.3G	802.11ac VHT160	Bottom	0	50			Auden	Ant 1	98.75	1.01	15.00	14.98	1.00	0.03	0.797	0.80
	WLAN5.3G	802.11ac VHT160	Bottom	0	50			WNC	Ant 1	98.80	1.01	15.00	14.98	1.00	-0.03	1.01	1.02
	WLAN5.6G	802.11ac VHT160	Bottom	0	114			WNC	Ant 0	98.83	1.01	13.50	13.49	1.00	0.01	0.795	0.80
	WLAN5.6G	802.11ac VHT160	Bottom	0	114			WNC	Ant 1	98.75	1.01	13.50	13.49	1.00	-0.16	0.745	0.75
17	WLAN5.6G	802.11ac VHT160	Bottom	0	114			WNC	Ant 0+1	98.68	1.01						

Body SAR Test Result	
----------------------	--

[illegible]

Annex G. SAR Measurement Variability

SAR repeated measurement are shown as below.

Repeat SAR							
Plot	Band	Mode	Test Position	Ch.	Original Measured SAR-1g (W/kg)	1st Repeated SAR-1g (W/kg)	L/S Ratio
R15	WLAN2.4G	802.11b	Bottom	1	1.09	1.05	1.04
R16	WLAN5.3G	802.11ac VHT160	Bottom	50	1.06	1.01	1.05
R17	WLAN5.6G	802.11ac VHT160	Bottom	114	0.953	0.917	1.04
R18	WLAN5.8G	802.11ac VHT80	Bottom	155	1.16	1.13	1.03

Annex H. Analysis of Simultaneous Transmission SAR.

The analysis of simultaneous transmission SAR are shown as below.

<Possibilities of Simultaneous Transmission>

The simultaneous transmission possibilities for this device are listed as below.

Simultaneous TX Combination	Capable Transmit Configurations	Body Exposure Condition
A	WWAN + WLAN 2.4G + BT	Yes
B	WWAN + WLAN 5G + BT	Yes

Notes

1. The WLAN 2.4G and WLAN 5G cannot transmit simultaneously.

Simultaneous Transmission SAR Evaluation (Body)							
Band	Position	1	2	3	4	A (1 + 2 + 4)	B (1 + 3 + 4)
		Max WWAN	Max WLAN 2.4GHz	Max WLAN 5GHz	Max BT	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg		
WCDMA II	Bottom	0.00	1.12	1.18	0.22	1.34	1.40
WCDMA IV	Bottom	0.00	1.12	1.18	0.22	1.34	1.40
WCDMA V	Bottom	0.00	1.12	1.18	0.22	1.34	1.40
LTE 5	Bottom	0.00	1.12	1.18	0.22	1.34	1.40
LTE 7	Bottom	0.00	1.12	1.18	0.22	1.34	1.40
LTE 12	Bottom	0.00	1.12	1.18	0.22	1.34	1.40
LTE 13	Bottom	0.00	1.12	1.18	0.22	1.34	1.40
LTE 14	Bottom	0.00	1.12	1.18	0.22	1.34	1.40
LTE 25	Bottom	0.00	1.12	1.18	0.22	1.34	1.40
LTE 26	Bottom	0.00	1.12	1.18	0.22	1.34	1.40
LTE 30	Bottom	0.00	1.12	1.18	0.22	1.34	1.40
LTE 38	Bottom	0.00	1.12	1.18	0.22	1.34	1.40
LTE 41	Bottom	0.00	1.12	1.18	0.22	1.34	1.40
LTE 66	Bottom	0.00	1.12	1.18	0.22	1.34	1.40

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	D750V3	1078	Jun. 21, 2021	1 Year
System Validation Dipole	SPEAG	D835V2	4d092	Jun. 23, 2021	1 Year
System Validation Dipole	SPEAG	D1750V2	1111	Apr. 14, 2021	1 Year
System Validation Dipole	SPEAG	D1900V2	5d036	Jan. 22, 2021	1 Year
System Validation Dipole	SPEAG	D2300V2	1004	Jan. 22, 2021	1 Year
System Validation Dipole	SPEAG	D2450V2	835	Jun. 22, 2021	1 Year
System Validation Dipole	SPEAG	D2600V2	1020	Aug. 17, 2021	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1019	Mar. 19, 2021	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3971	Jan. 27, 2021	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7472	Jun. 03, 2021	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3820	Jul. 28, 2021	1 Year
Data Acquisition Electronics	SPEAG	DAE3	579	Jun. 02, 2021	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1431	Mar. 24, 2021	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1341	Aug. 20, 2021	1 Year
Universal Radio Communication Tester	Anritsu	MT8821C	6201381727	Aug. 24, 2021	1 Year
Spectrum Analyzer	R&S	FSL6	102006	Apr. 06, 2021	1 Year
Universal Wireless Test Set	Anritsu	MT8870A/MU887000A	6201699387	Sep. 22, 2021	1 Year
Thermometer	YFE	YF-160A	191100743	Apr. 12, 2021	1 Year
Dielectric Assessment Kit	SPEAG	DAKS-3.5	1151	Jul. 14, 2021	1 Year
Powersource1	SPEAG	SE_UMS_160 BA	4010	Jul. 13, 2021	1 Year

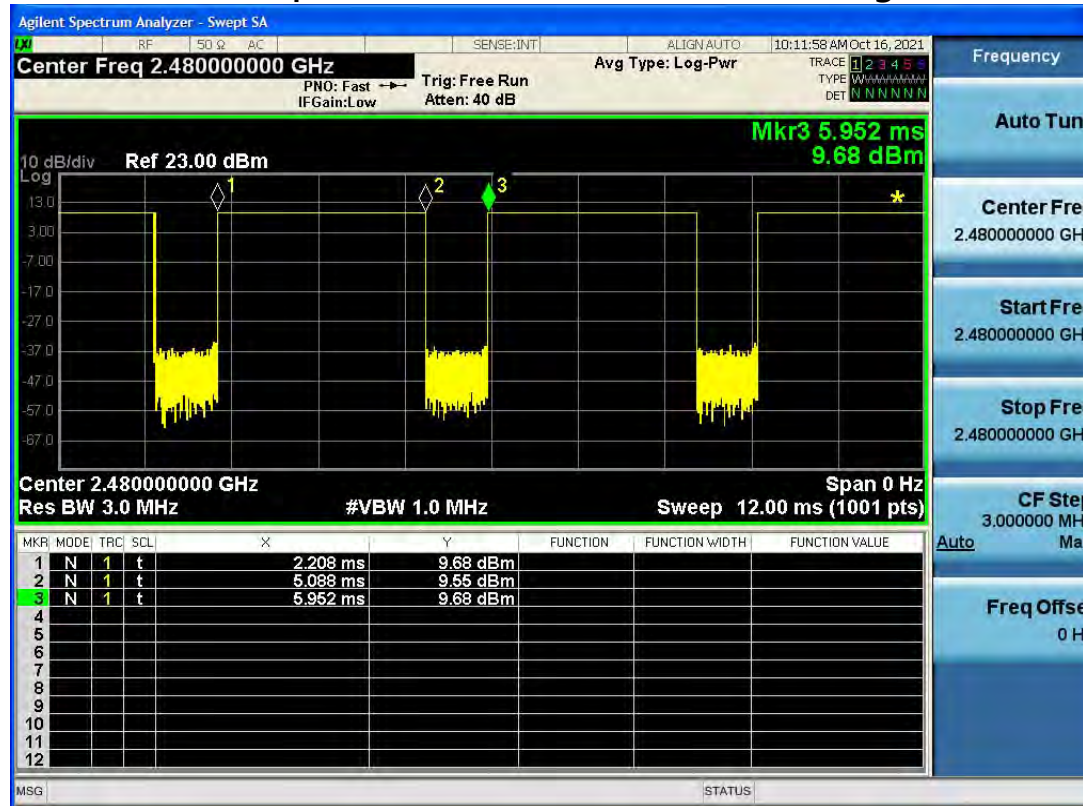
Annex K. Considerations Related to Bluetooth for Setup and Testing

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 was calculated as below and the measured SAR for Bluetooth would be scaled to the 100% transmission duty factor to determine compliance.

The duty factor of Bluetooth signal are shown as below.

<Time-domain plot for Bluetooth transmission signal>



The duty factor of Bluetooth signal has been calculated as following.

$$\text{Duty Factor} = \text{Pulse Width} / \text{Total Period} = (5.088 - 2.208) / (5.952 - 2.208) = 76.92\%$$

Annex Z. Calibration Certificate for Probe and Dipole

The SPEAG calibration certificates are shown as follows.



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Client **Auden**

Certificate No: **D750V3-1078_Jun21**

CALIBRATION CERTIFICATE

Object **D750V3 - SN:1078**

Calibration procedure(s) **QA CAL-05.v11**
Calibration Procedure for SAR Validation Sources between 0.7-3 GHz

Calibration date: **June 21, 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	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: BH9394 (20k)	09-Apr-21 (No. 217-03343)	Apr-22
Type-N mismatch combination	SN: 310982 / 06327	09-Apr-21 (No. 217-03344)	Apr-22
Reference Probe EX3DV4	SN: 7349	28-Dec-20 (No. EX3-7349_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:	Jeffrey Katzman	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: June 21, 2021

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Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

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:

- 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
- 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
- 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
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- 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	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	750 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.9	0.89 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	42.7 $\pm$ 6 %	0.91 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.17 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	8.58 W/kg $\pm$ 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.41 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	5.59 W/kg $\pm$ 16.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.6 Ω - 0.7 j Ω
Return Loss	- 29.0 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.037 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
-----------------	-------

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1078

Communication System: UID 0 - CW; Frequency: 750 MHz

Medium parameters used: $f = 750$ MHz; $\sigma = 0.91$ S/m; $\epsilon_r = 42.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(10.11, 10.11, 10.11) @ 750 MHz; Calibrated: 28.12.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 02.11.2020
- Phantom: Flat Phantom 4.9 (front); Type: QD 00L P49 AA; Serial: 1001
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

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

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 60.51 V/m; Power Drift = -0.01 dB

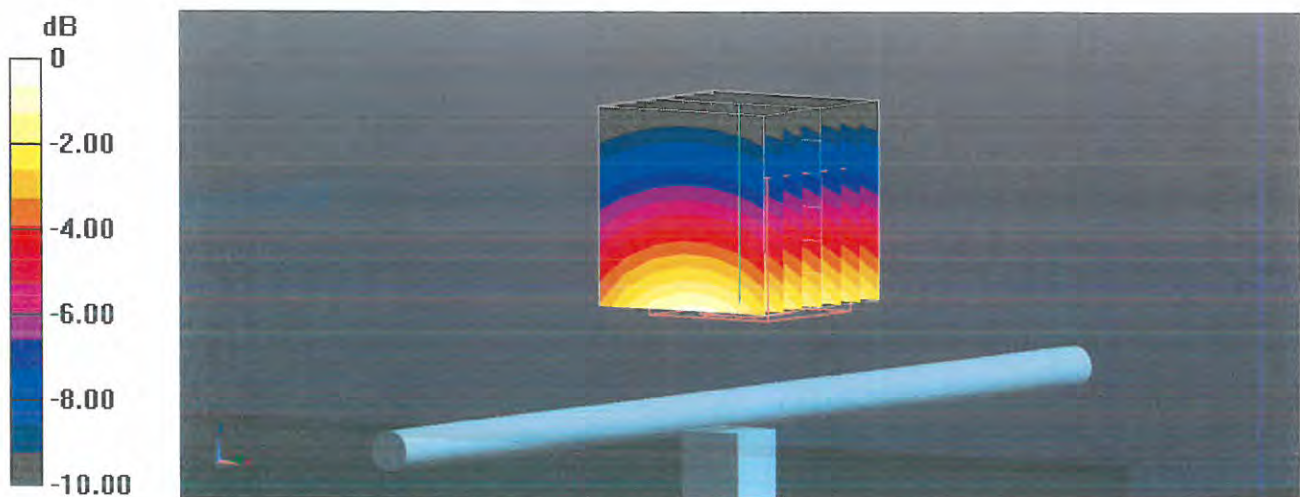
Peak SAR (extrapolated) = 3.34 W/kg

SAR(1 g) = 2.17 W/kg; SAR(10 g) = 1.41 W/kg

Smallest distance from peaks to all points 3 dB below = 16 mm

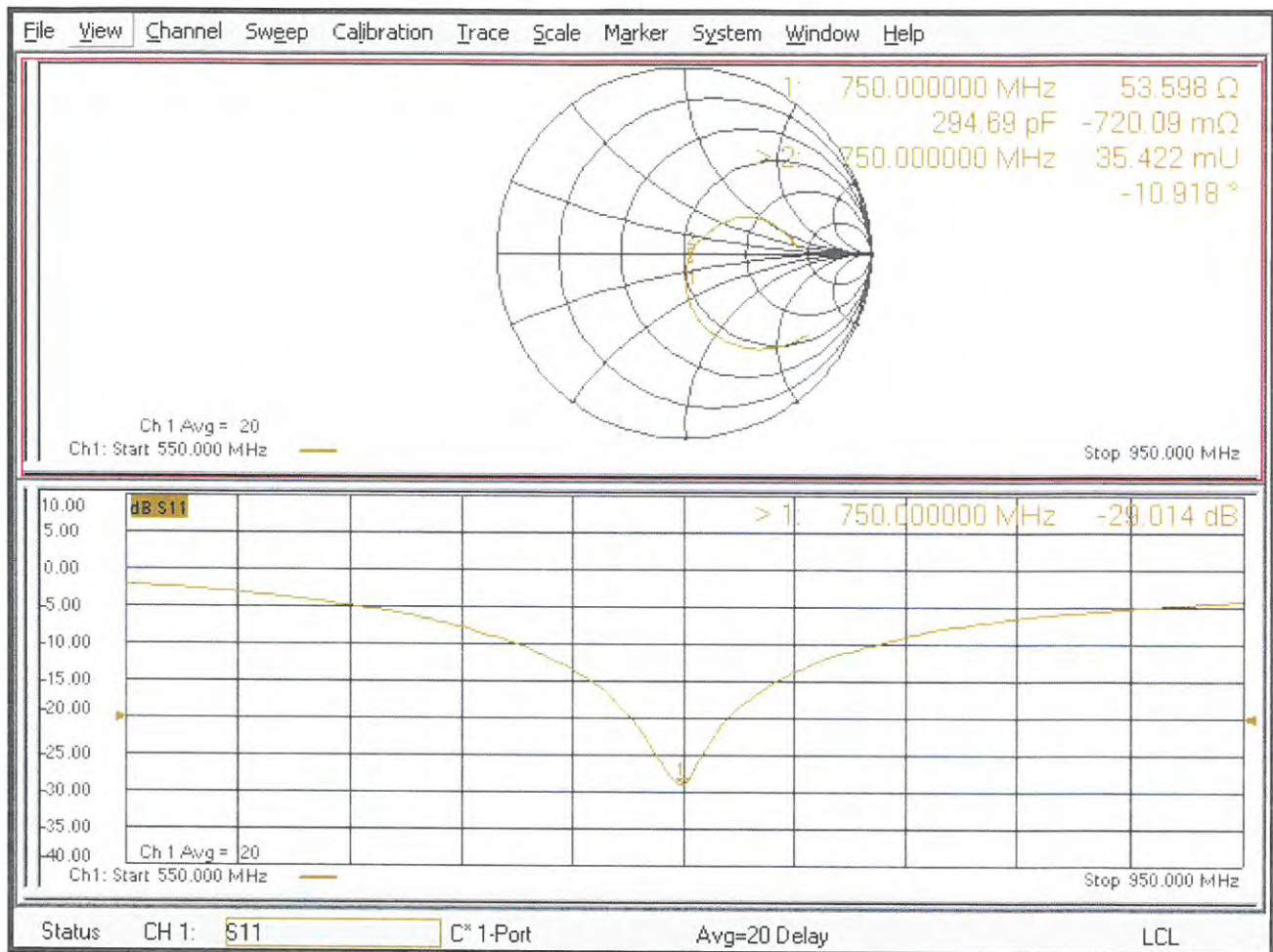
Ratio of SAR at M2 to SAR at M1 = 65.1%

Maximum value of SAR (measured) = 2.92 W/kg



0 dB = 2.92 W/kg = 4.66 dBW/kg

Impedance Measurement Plot for Head TSL





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Client

AUDEN

Certificate No: **Z21-60253**

CALIBRATION CERTIFICATE

Object

D835V2 - SN: 4d092

Calibration Procedure(s)

FF-Z11-003-01

Calibration Procedures for dipole validation kits

Calibration date:

June 23, 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 3846	26-Apr-21(CTTL-SPEAG,No.Z21-60084)	Apr-22
DAE4	SN 549	08-Jan-21(CTTL-SPEAG,No.Z21-60002)	Jan-22
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: June 26, 2021

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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:

- 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
- 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
- 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
- KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

- 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	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	41.0 $\pm$ 6 %	0.89 mho/m $\pm$ 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.36 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	9.49 W/kg $\pm$ 18.8 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	1.52 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	6.11 W/kg $\pm$ 18.7 % (k=2)



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E-mail: cttl@chinattl.com http://www.chinattl.cn

Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.5Ω- 2.52jΩ
Return Loss	- 27.6dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.305 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
-----------------	-------



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
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E-mail: cttl@chinattl.com http://www.chinattl.cn

DASY5 Validation Report for Head TSL

Date: 06.23.2021

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d092

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

Medium parameters used: $f = 835$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 40.96$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3846; ConvF(10, 10, 10) @ 835 MHz; Calibrated: 2021-04-26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn549; Calibrated: 2021-01-08
- 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 = 56.72 V/m; Power Drift = -0.03 dB

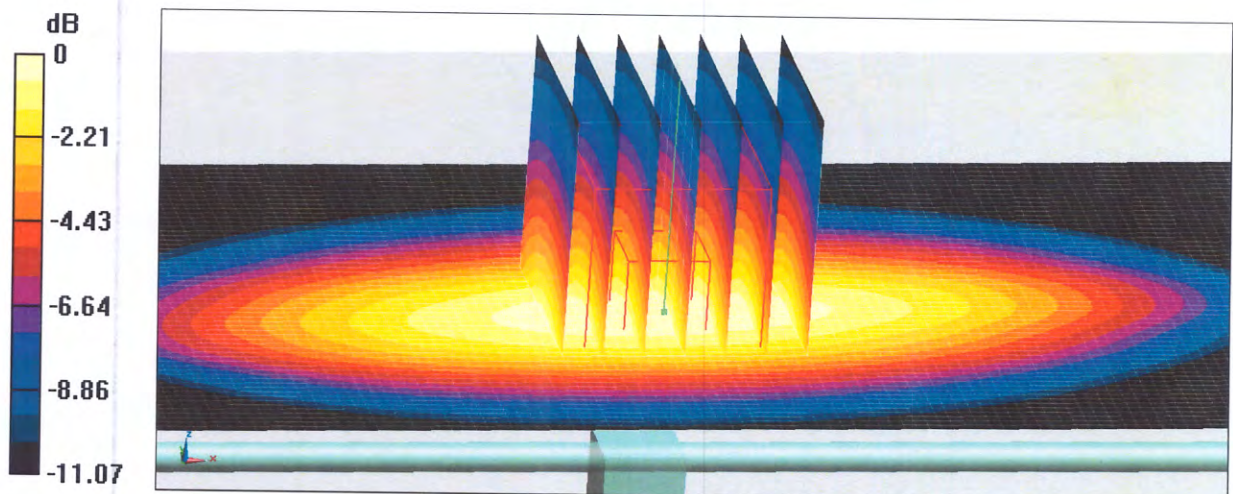
Peak SAR (extrapolated) = 3.77 W/kg

SAR(1 g) = 2.36 W/kg; SAR(10 g) = 1.52 W/kg

Smallest distance from peaks to all points 3 dB below = 17.9 mm

Ratio of SAR at M2 to SAR at M1 = 62.7%

Maximum value of SAR (measured) = 3.26 W/kg



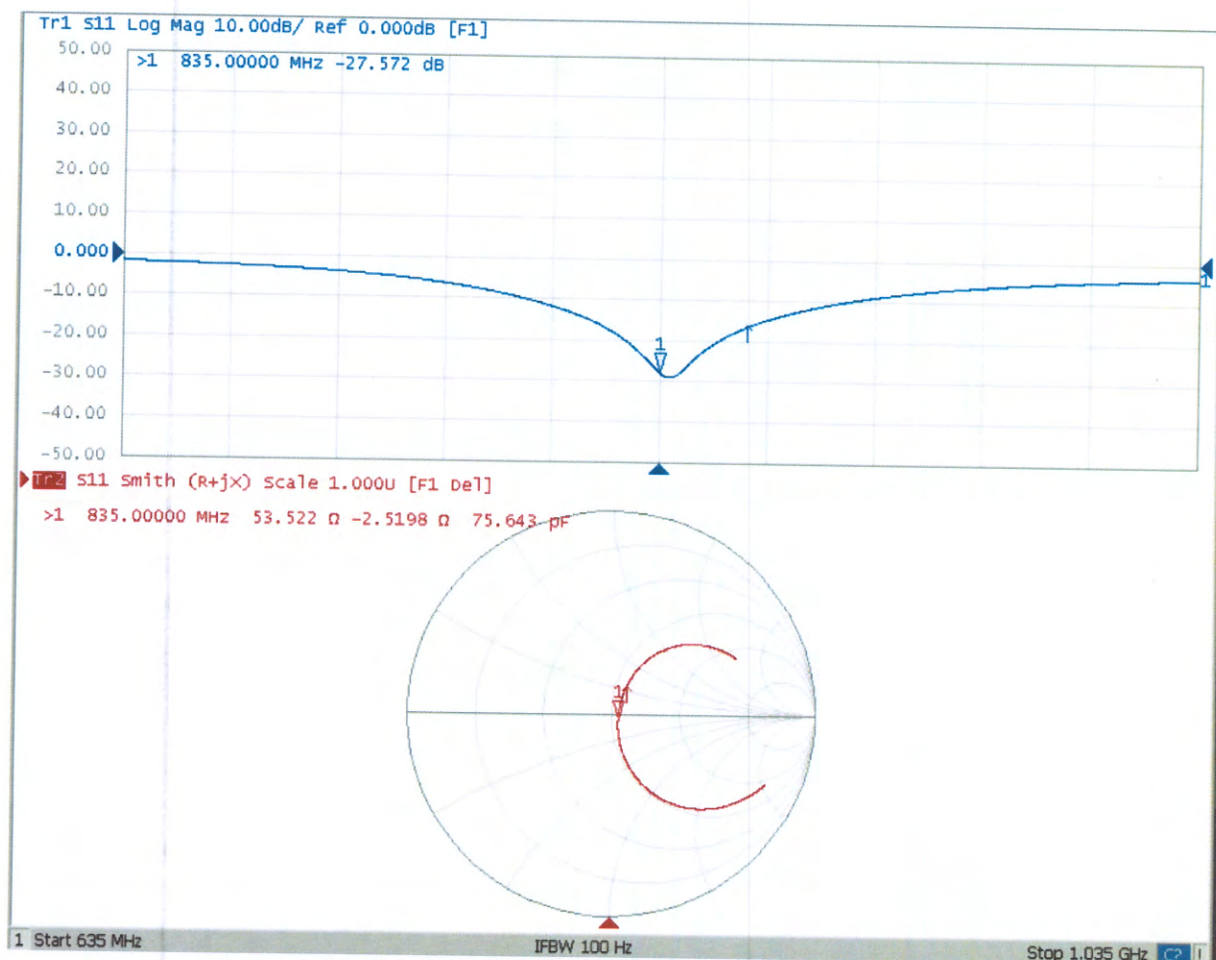
0 dB = 3.26 W/kg = 5.13 dBW/kg



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Impedance Measurement Plot for Head TSL





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Client **AUDEN**

Certificate No: **Z21-60099**

CALIBRATION CERTIFICATE

Object **D1750V2 - SN: 1111**

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

Calibration date: **April 14, 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	106276	12-May-20 (CTTL, No.J20X02965)	May-21
Power sensor NRP6A	101369	12-May-20 (CTTL, No.J20X02965)	May-21
ReferenceProbe EX3DV4	SN 7307	29-May-20(SPEAG,No.EX3-7307_May20)	May-21
DAE4	SN 777	08-Jan-21(CTTL-SPEAG,No.Z21-60003)	Jan-22
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: April 19, 2021

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



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:

- 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
- 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
- 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
- KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

- 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	1750 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.1	1.37 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	40.5 $\pm$ 6 %	1.39 mho/m $\pm$ 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	9.16 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	36.4 W/kg $\pm$ 18.8 % (k=2)
SAR averaged over 10 cm³ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	4.78 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	19.0 W/kg $\pm$ 18.7 % (k=2)



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Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	48.9Ω- 4.12jΩ
Return Loss	- 27.3 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.125 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

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

Additional EUT Data

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DASY5 Validation Report for Head TSL

Date: 04.14.2021

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN: 1111

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.391$ S/m; $\epsilon_r = 40.52$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7307; ConvF(8.64, 8.64, 8.64) @ 1750 MHz; Calibrated: 2020-05-29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn777; Calibrated: 2021-01-08
- 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)

System Performance Check/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

$dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 94.69 V/m; Power Drift = -0.08 dB

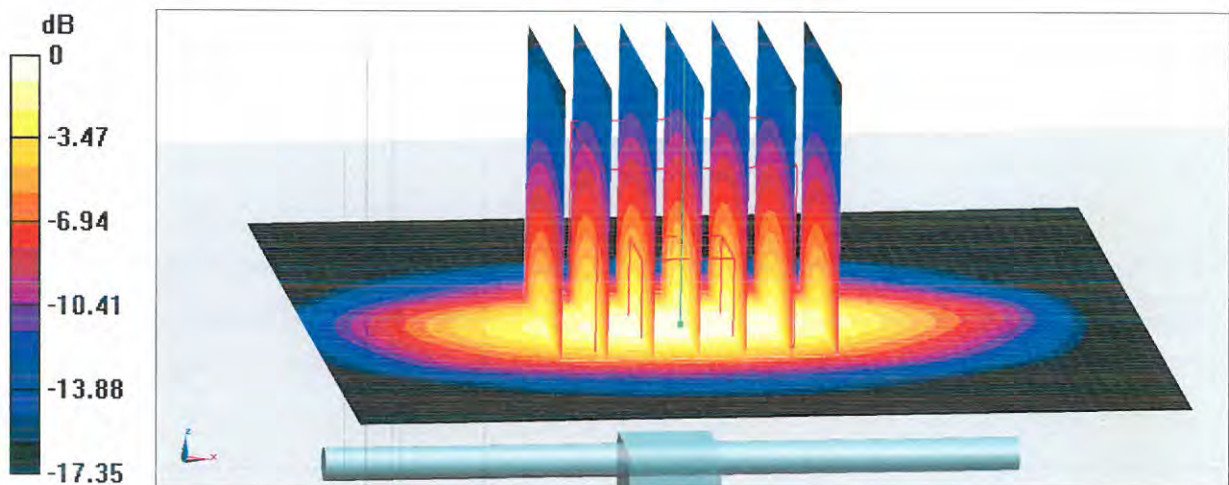
Peak SAR (extrapolated) = 17.3 W/kg

SAR(1 g) = 9.16 W/kg; SAR(10 g) = 4.78 W/kg

Smallest distance from peaks to all points 3 dB below = 10 mm

Ratio of SAR at M2 to SAR at M1 = 53.3%

Maximum value of SAR (measured) = 14.4 W/kg



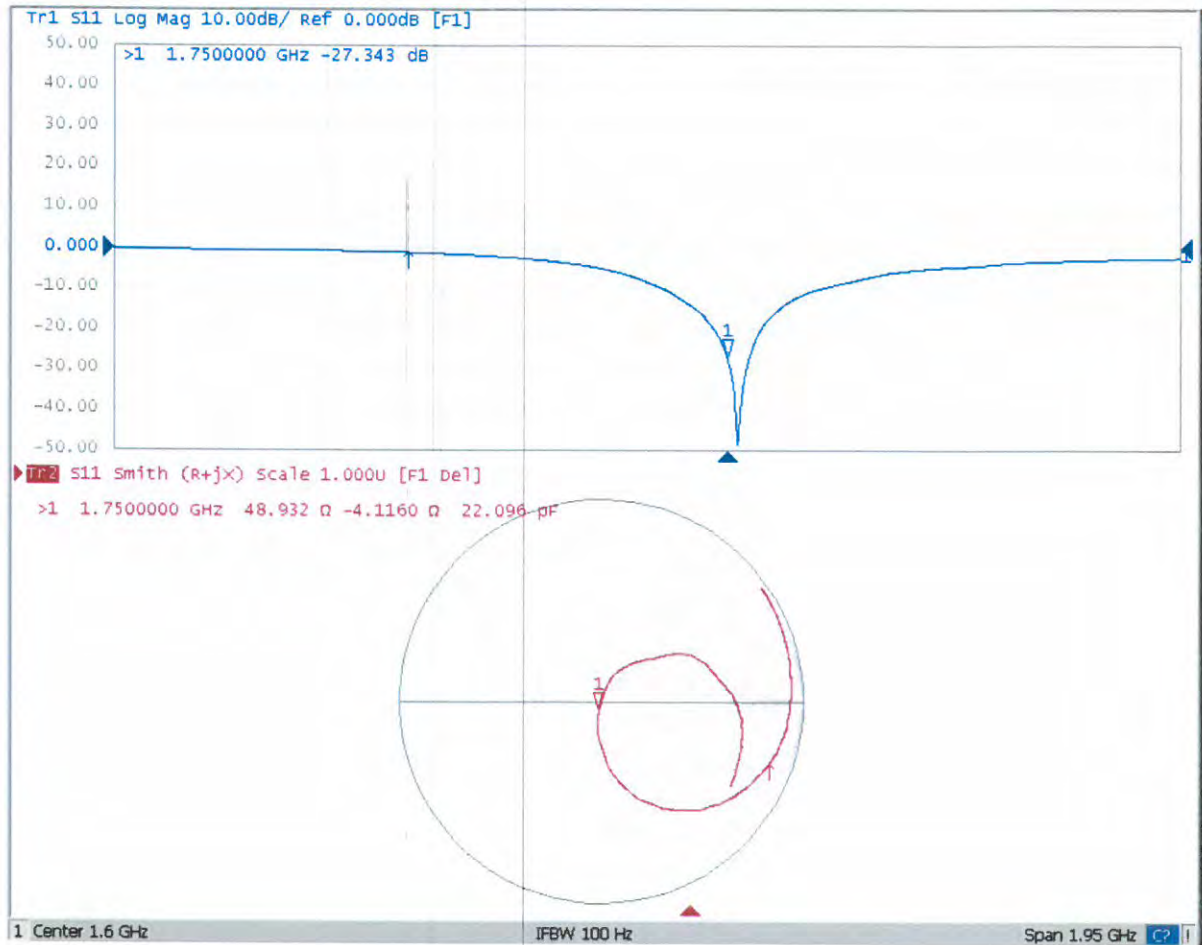
0 dB = 14.4 W/kg = 11.58 dBW/kg



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Impedance Measurement Plot for Head TSL





Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Client **B.V. ADT (Auden)**

Certificate No: **D1900V2-5d036_Jan21**

CALIBRATION CERTIFICATE

Object **D1900V2 - SN:5d036**

Calibration procedure(s) **QA CAL-05.v11
Calibration Procedure for SAR Validation Sources between 0.7-3 GHz**

Calibration date: **January 22, 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 $(22 \pm 3)^{\circ}\text{C}$ 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: 7349	28-Dec-20 (No. EX3-7349_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:	Jeffrey Katzman	Laboratory Technician	

Approved by:	Katja Pokovic	Technical Manager	
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Issued: January 25, 2021

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Accreditation No.: **SCS 0108**

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Multilateral Agreement for the recognition of calibration certificates

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:

- 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
- 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
- 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
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- 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	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	41.2 $\pm$ 6 %	1.39 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	10.0 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	40.4 W/kg $\pm$ 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.23 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	21.1 W/kg $\pm$ 16.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	$50.4 \Omega + 5.3 j\Omega$
Return Loss	- 25.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.195 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

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