

### 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: 2021/10/18

### S01 System Check\_H1900\_211018

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

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

Medium: H16T20N1\_1018 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.463$  S/m;  $\epsilon_r = 38.787$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.17, 8.17, 8.17) @ 1900 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- 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) = 4.61 W/kg

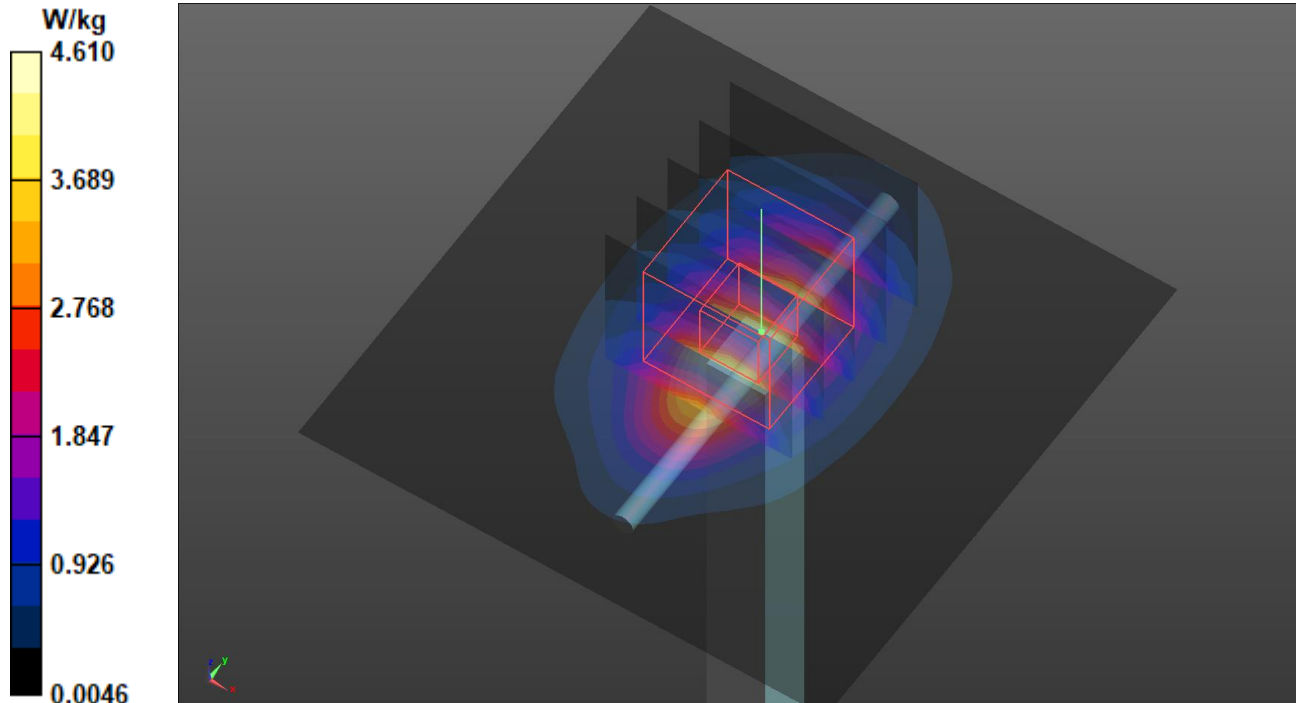
**Pin=50mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 56.61 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 5.35 W/kg

**SAR(1 g) = 2.24 W/kg; SAR(10 g) = 1.04 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 4.43 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/18

### S02 System Check\_H1750\_211018

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

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

Medium: H16T20N1\_1018 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.373$  S/m;  $\epsilon_r = 39.069$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.54, 8.54, 8.54) @ 1750 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- 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) = 2.71 W/kg

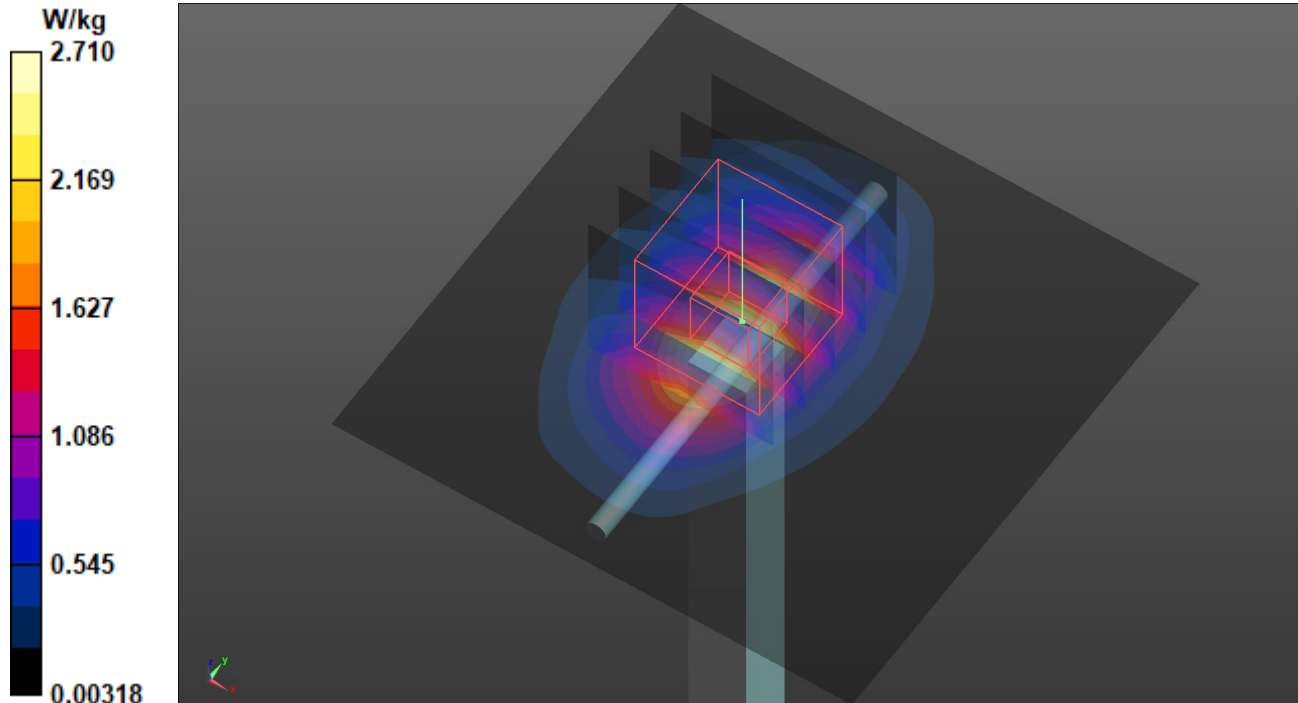
**Pin=50mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 40.64 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.28 W/kg

**SAR(1 g) = 1.79 W/kg; SAR(10 g) = 0.961 W/kg** (SAR corrected for target medium)

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



## Plots of System Verification

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Date: 2021/10/18

### S03 System Check\_H835\_211018

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

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

Medium: H07T10N1\_1018 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.919$  S/m;  $\epsilon_r = 41.768$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.83, 9.83, 9.83) @ 835 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- 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) = 0.351 W/kg

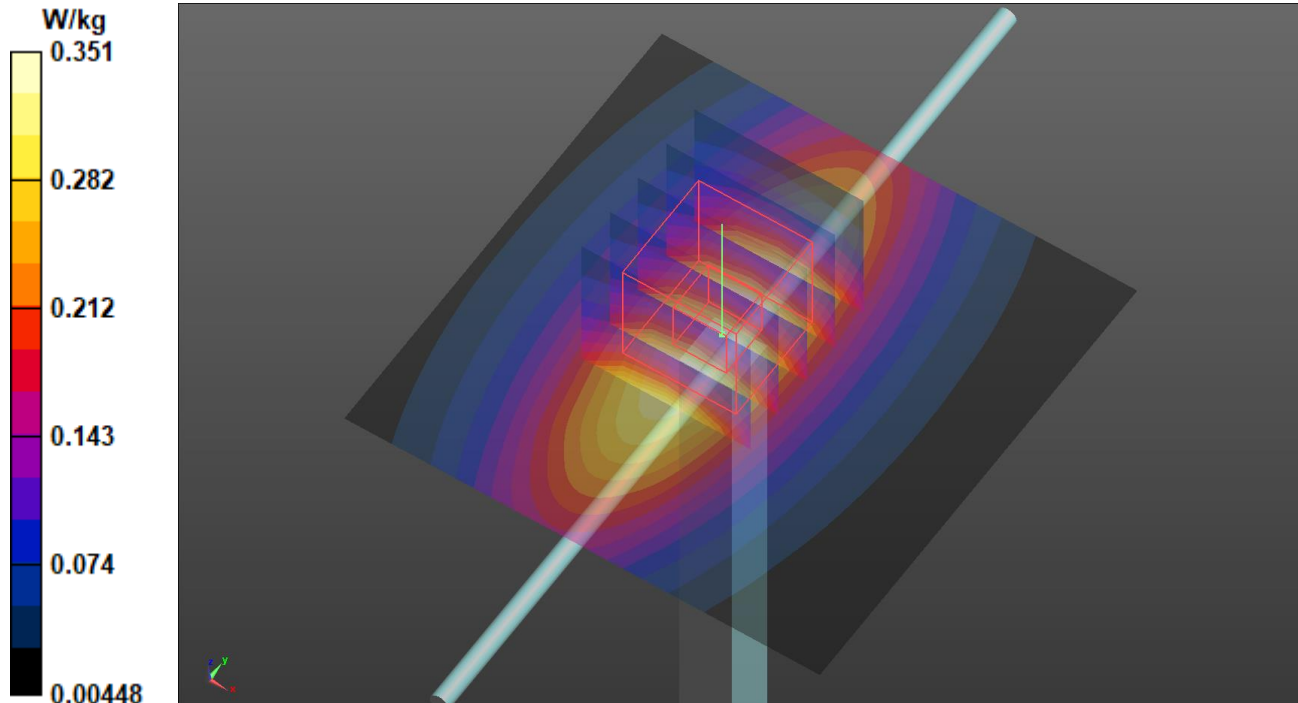
**Pin=50mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 19.66 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.401 W/kg

**SAR(1 g) = 0.651 W/kg; SAR(10 g) = 0.303 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.356 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/19

### S04 System Check\_H1750\_211019

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

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

Medium: H16T20N1\_1019 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.324$  S/m;  $\epsilon_r = 40.865$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.54, 8.54, 8.54) @ 1750 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- 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) = 2.69 W/kg

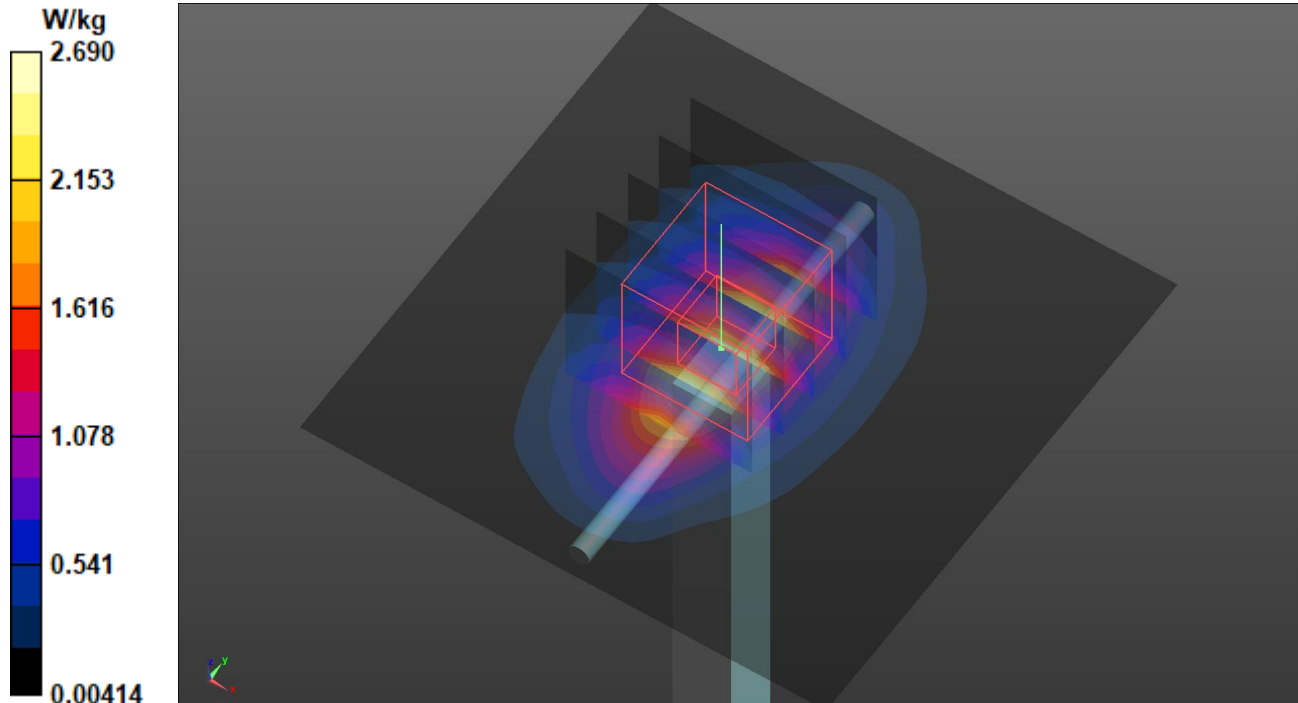
**Pin=50mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 45.73 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 3.19 W/kg

**SAR(1 g) = 1.8 W/kg; SAR(10 g) = 0.947 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.70 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/18

### S05 System Check\_H835\_211018

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

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

Medium: H07T10N1\_1018 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.919$  S/m;  $\epsilon_r = 41.768$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.83, 9.83, 9.83) @ 835 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- 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) = 0.351 W/kg

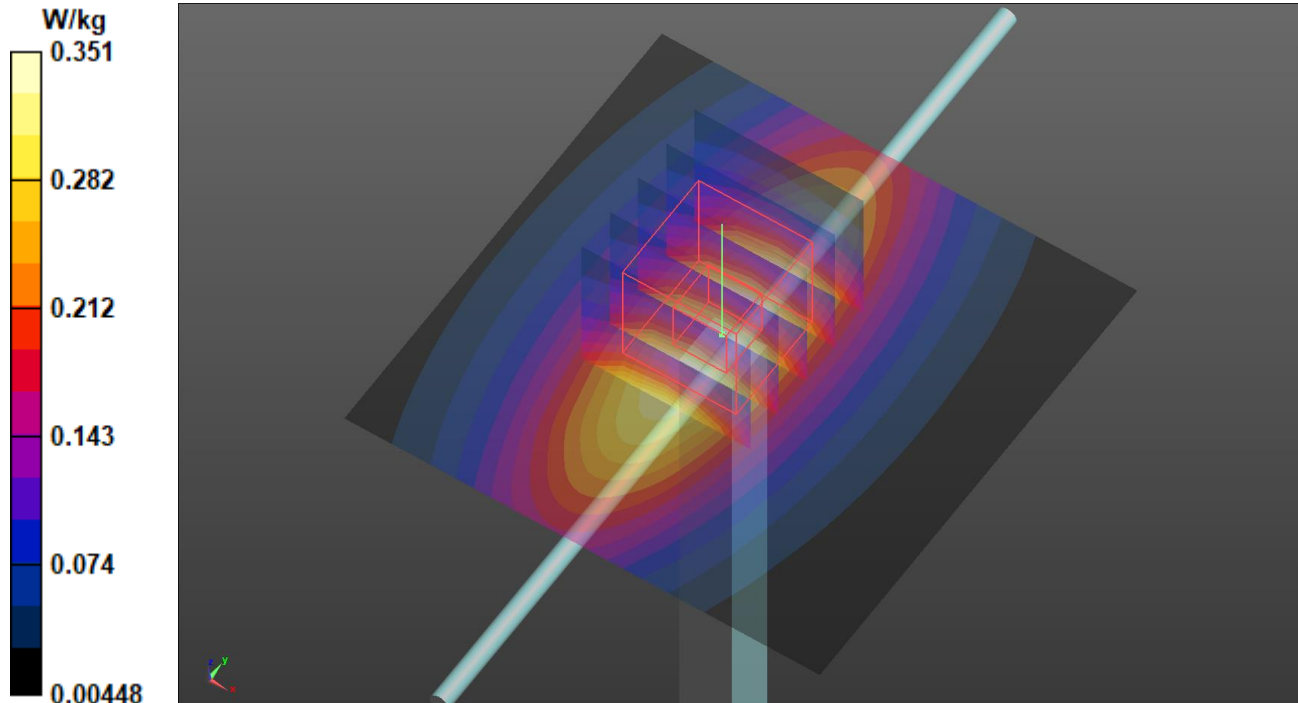
**Pin=50mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 19.66 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.401 W/kg

**SAR(1 g) = 0.651 W/kg; SAR(10 g) = 0.303 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.356 W/kg



## Plots of System Verification

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### S06 System Check\_H2600\_211019

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

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

Medium: H19T27N1\_1019 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.016$  S/m;  $\epsilon_r = 37.567$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.57, 7.57, 7.57) @ 2600 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=50mW/Area Scan (81x81x1):** Interpolated grid:  $dx=1.200$  mm,  $dy=1.200$  mm

Maximum value of SAR (interpolated) = 5.06 W/kg

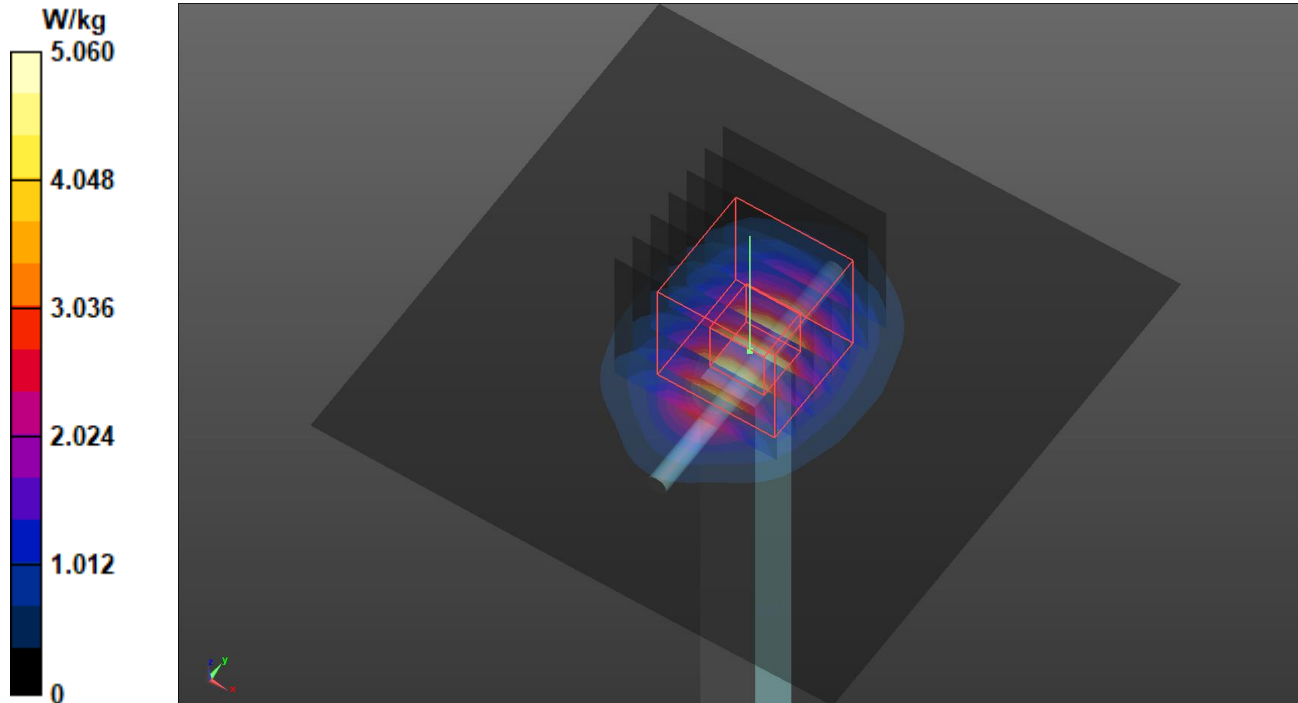
**Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 52.47 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 6.33 W/kg

**SAR(1 g) = 2.9 W/kg; SAR(10 g) = 1.31 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 5.09 W/kg



## Plots of System Verification

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Date: 2021/10/19

### S07 System Check\_H750\_211019

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

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

Medium: H06T09N1\_1019 Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.902$  S/m;  $\epsilon_r = 41.563$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.92, 9.92, 9.92) @ 750 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- 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) = 0.543 W/kg

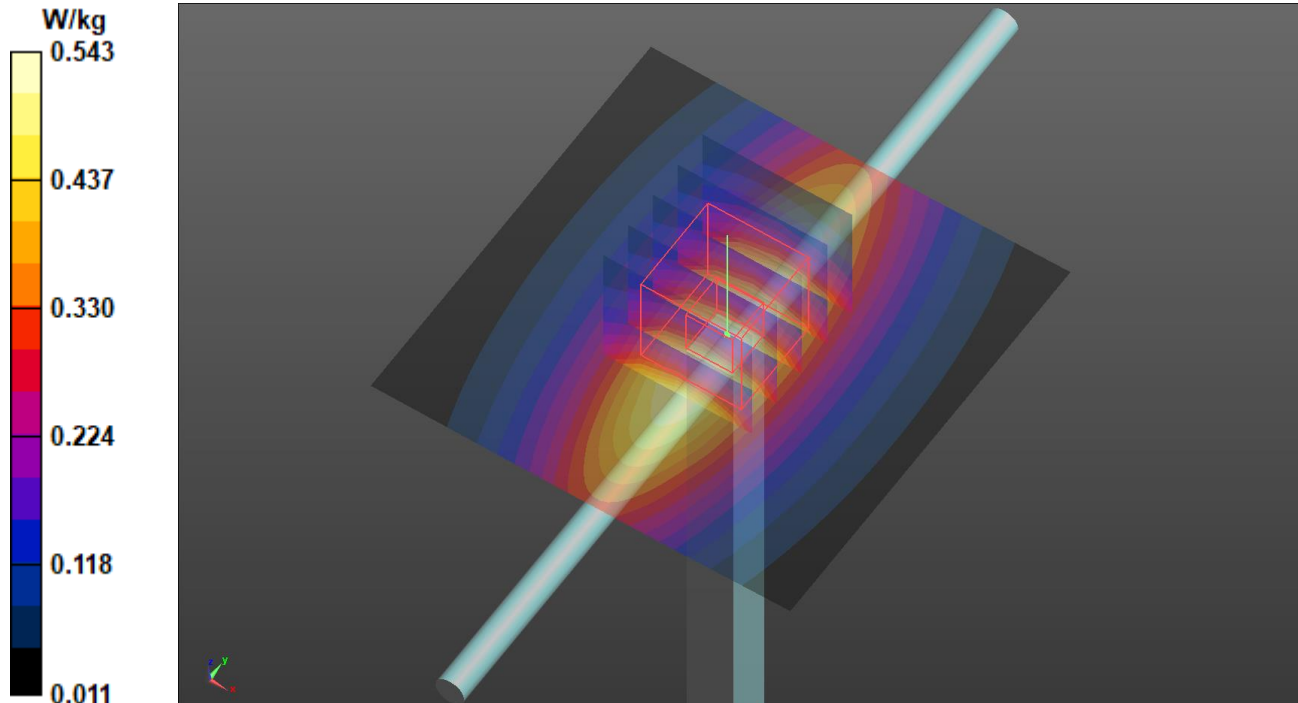
**Pin=50mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.42 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.620 W/kg

**SAR(1 g) = 0.404 W/kg; SAR(10 g) = 0.265 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.548 W/kg



## Plots of System Verification

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Date: 2021/10/19

### S08 System Check\_H750\_211019

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

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

Medium: H06T09N1\_1019 Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.902 \text{ S/m}$ ;  $\epsilon_r = 41.563$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.4 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.1 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.92, 9.92, 9.92) @ 750 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- 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) =  $0.543 \text{ W/kg}$

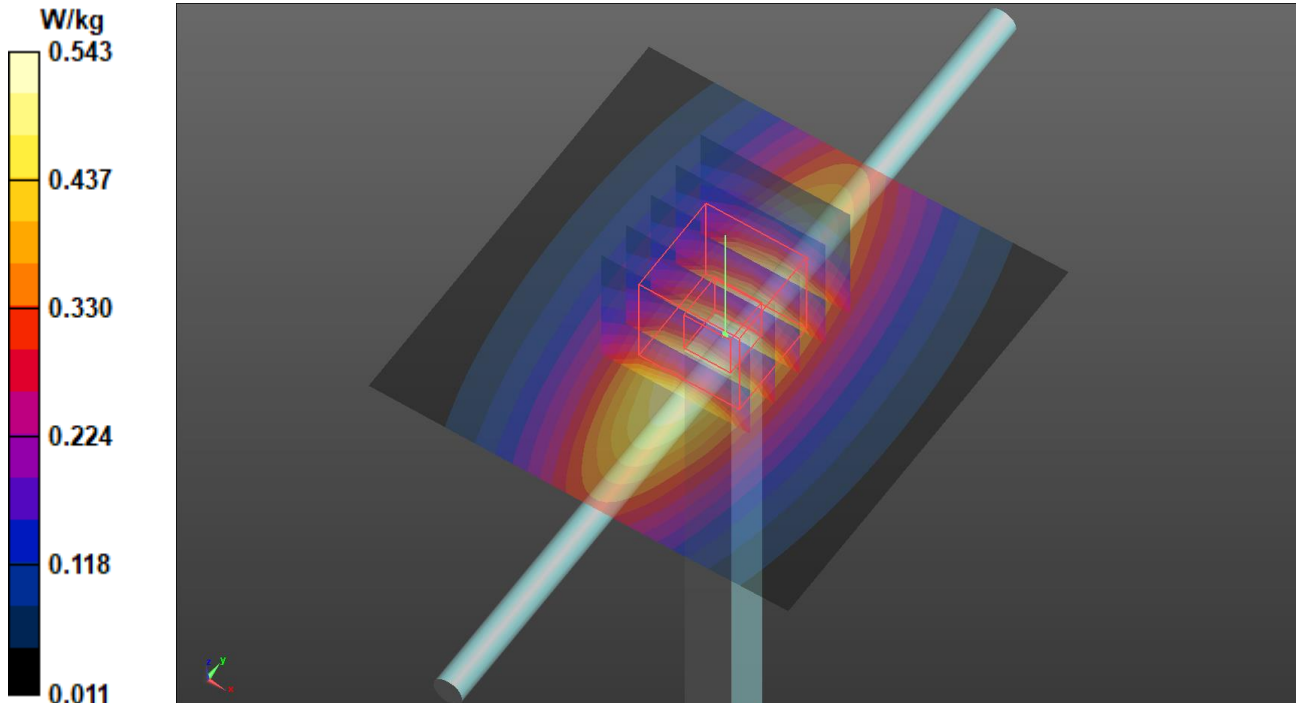
**Pin=50mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $25.42 \text{ V/m}$ ; Power Drift =  $-0.02 \text{ dB}$

Peak SAR (extrapolated) =  $0.620 \text{ W/kg}$

**SAR(1 g) =  $0.404 \text{ W/kg}$ ; SAR(10 g) =  $0.265 \text{ W/kg}$**  (SAR corrected for target medium)

Maximum value of SAR (measured) =  $0.548 \text{ W/kg}$



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/19

### S09 System Check\_H1900\_211019

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

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

Medium: H16T20N1\_1019 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.453$  S/m;  $\epsilon_r = 40.45$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.17, 8.17, 8.17) @ 1900 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- 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) = 3.11 W/kg

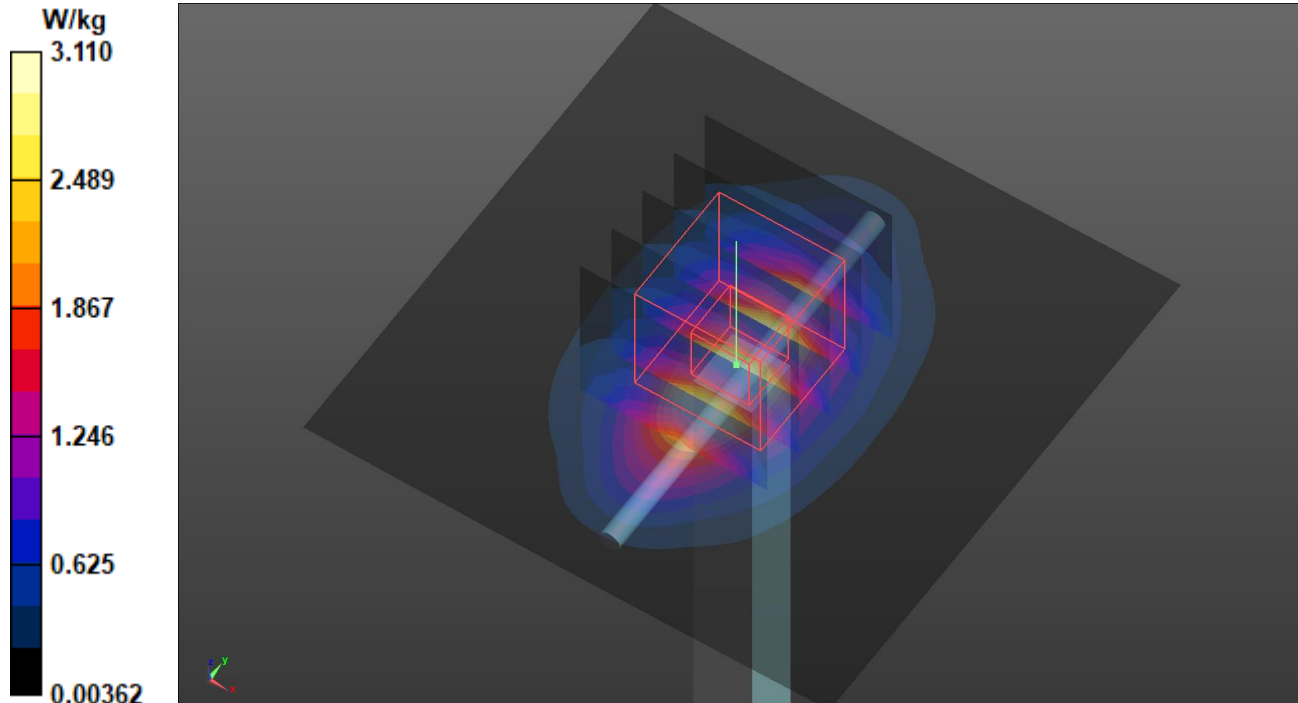
**Pin=50mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 47.79 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 3.76 W/kg

**SAR(1 g) = 1.95 W/kg; SAR(10 g) = 1.02 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 3.13 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/18

### S10 System Check\_H835\_211018

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

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

Medium: H07T10N1\_1018 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.919$  S/m;  $\epsilon_r = 41.768$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.83, 9.83, 9.83) @ 835 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- 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) = 0.351 W/kg

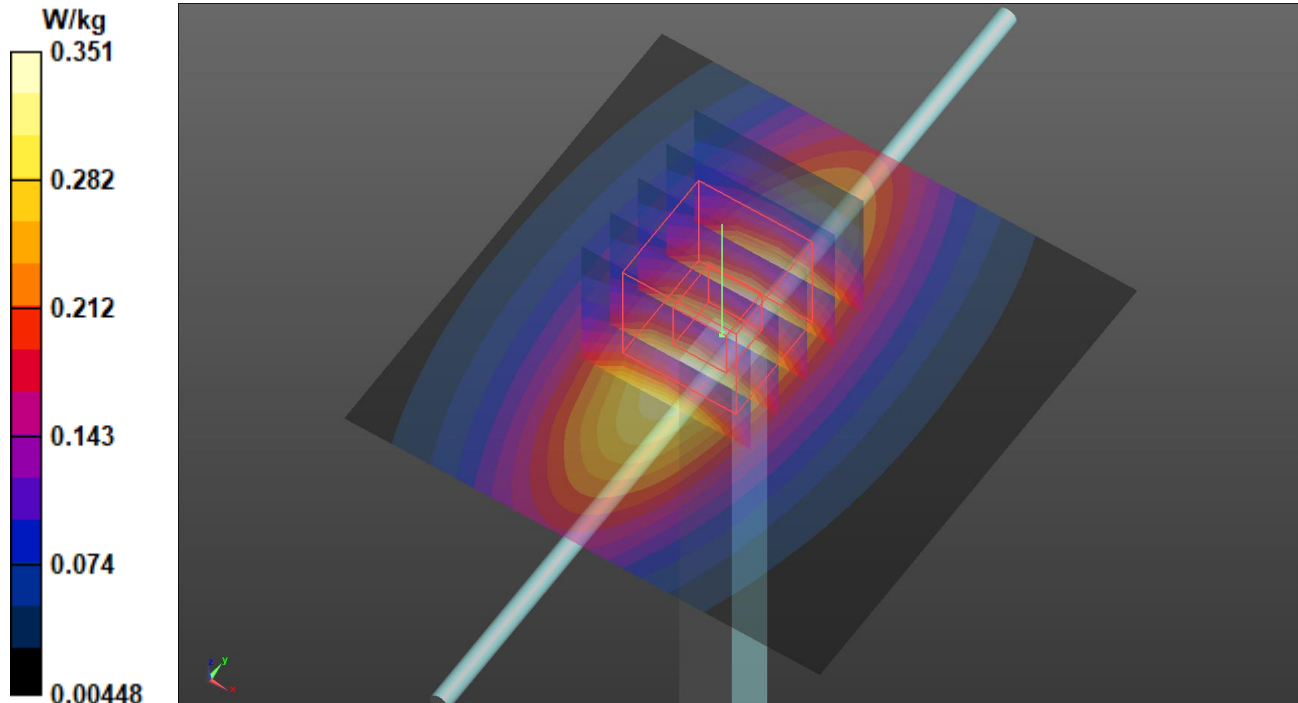
**Pin=50mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.66 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.401 W/kg

**SAR(1 g) = 0.651 W/kg; SAR(10 g) = 0.303 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.356 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/19

### S11 System Check\_H2600\_211019

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

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

Medium: H19T27N1\_1019 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.016$  S/m;  $\epsilon_r = 37.567$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.57, 7.57, 7.57) @ 2600 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=50mW/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 5.06 W/kg

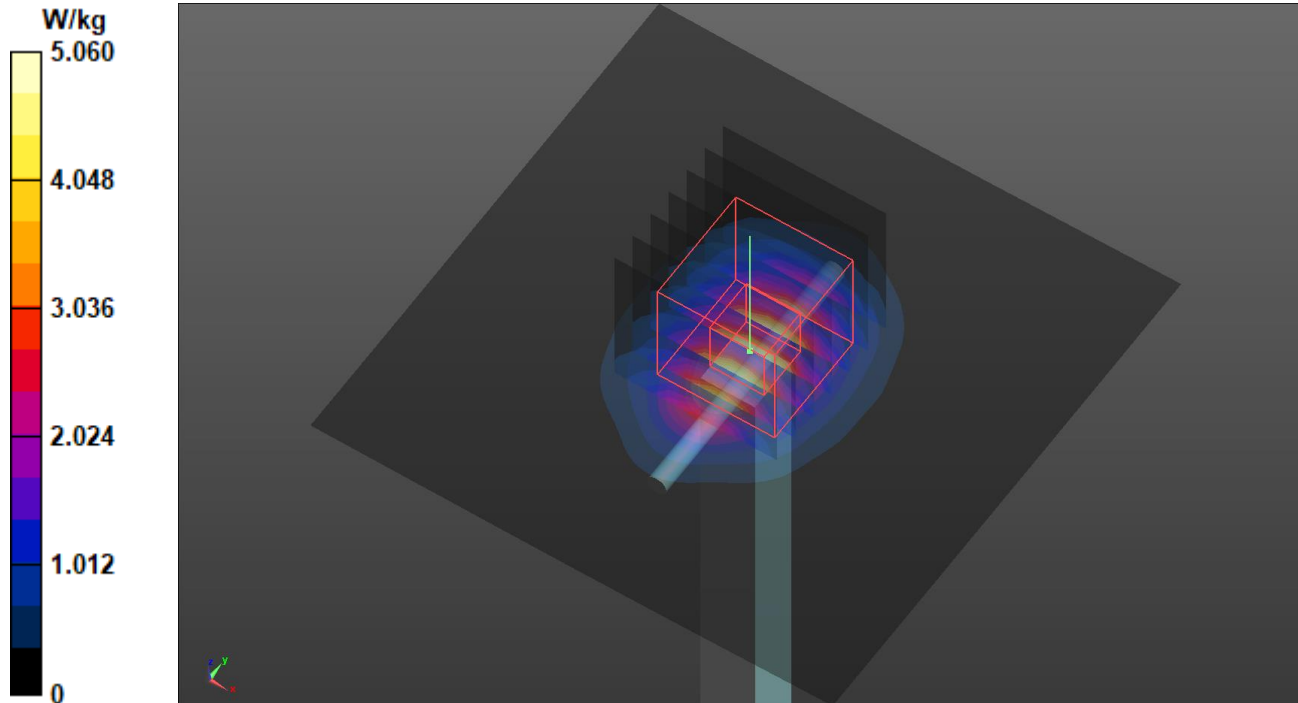
**Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 52.47 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 6.33 W/kg

**SAR(1 g) = 2.9 W/kg; SAR(10 g) = 1.31 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 5.09 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/19

### S12 System Check\_H2450\_211019

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

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

Medium: H19T27N1\_1019 Medium parameters used (interpolated):  $f = 2450$  MHz;  $\sigma = 1.864$  S/m;  $\epsilon_r = 38.07$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.77, 7.77, 7.77) @ 2450 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=50mW/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 4.61 W/kg

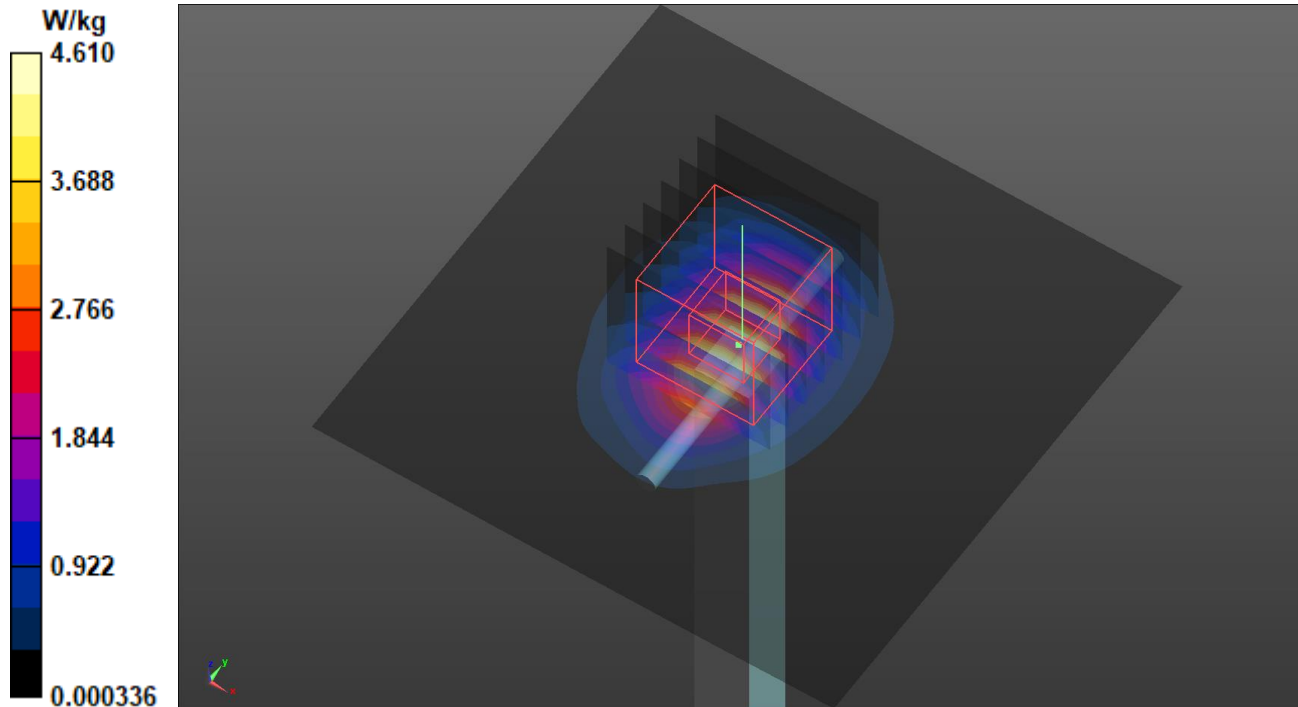
**Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 50.30 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 5.82 W/kg

**SAR(1 g) = 2.75 W/kg; SAR(10 g) = 1.3 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 4.68 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

### S13 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;  $\sigma = 4.903$  S/m;  $\epsilon_r = 36.001$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(5.45, 5.45, 5.45) @ 5250 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2021/09/20
- Phantom: ELI Phantom\_1043; Type: QD OVA 002 Ax;
- 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) = 9.96 W/kg

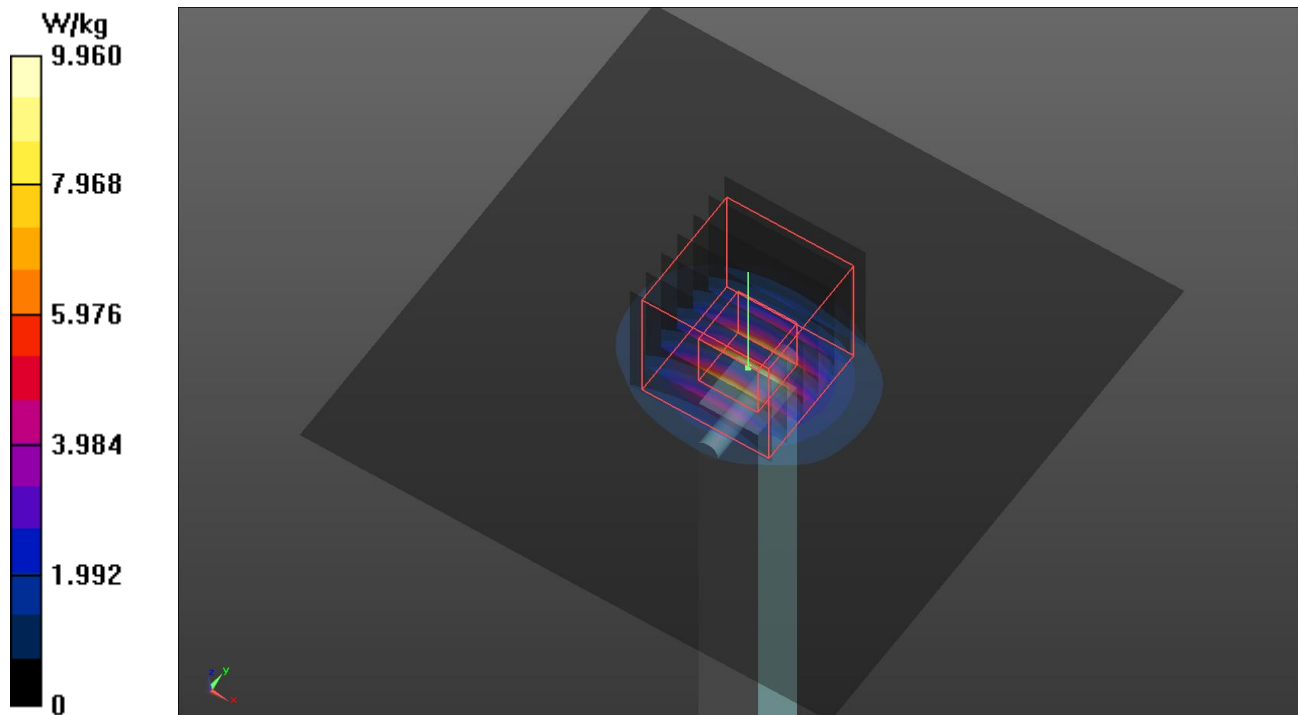
**Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 51.66 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 17.2 W/kg

**SAR(1 g) = 4.27 W/kg; SAR(10 g) = 1.23 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 10.8 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

### S14 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;  $\sigma = 5.248$  S/m;  $\epsilon_r = 35.454$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(4.8, 4.8, 4.8) @ 5600 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2021/09/20
- Phantom: ELI Phantom\_1043; Type: QD OVA 002 Ax;
- 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) = 9.99 W/kg

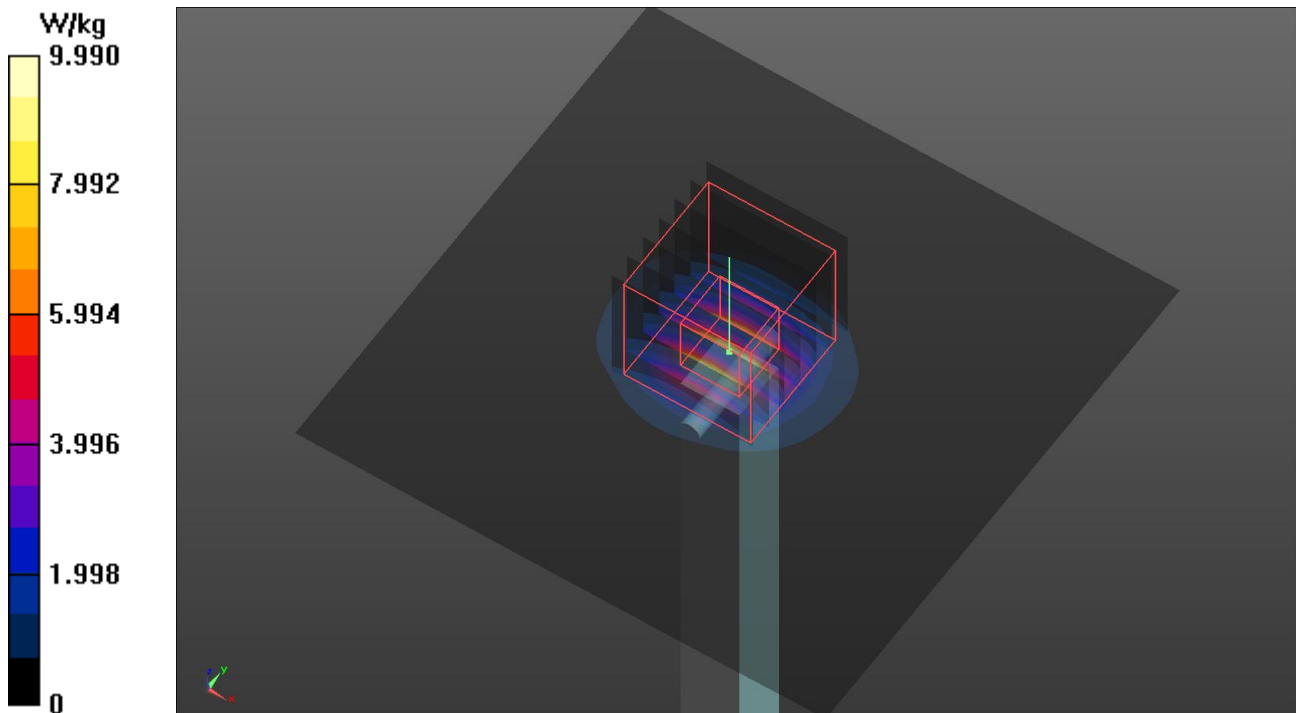
**Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 47.82 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 17.7 W/kg

**SAR(1 g) = 4.22 W/kg; SAR(10 g) = 1.25 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 10.7 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

### S15 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;  $\sigma = 5.413$  S/m;  $\epsilon_r = 35.103$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(5, 5, 5) @ 5750 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2021/09/20
- Phantom: ELI Phantom\_1043; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Configuration/Pin=50mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 10.1 W/kg

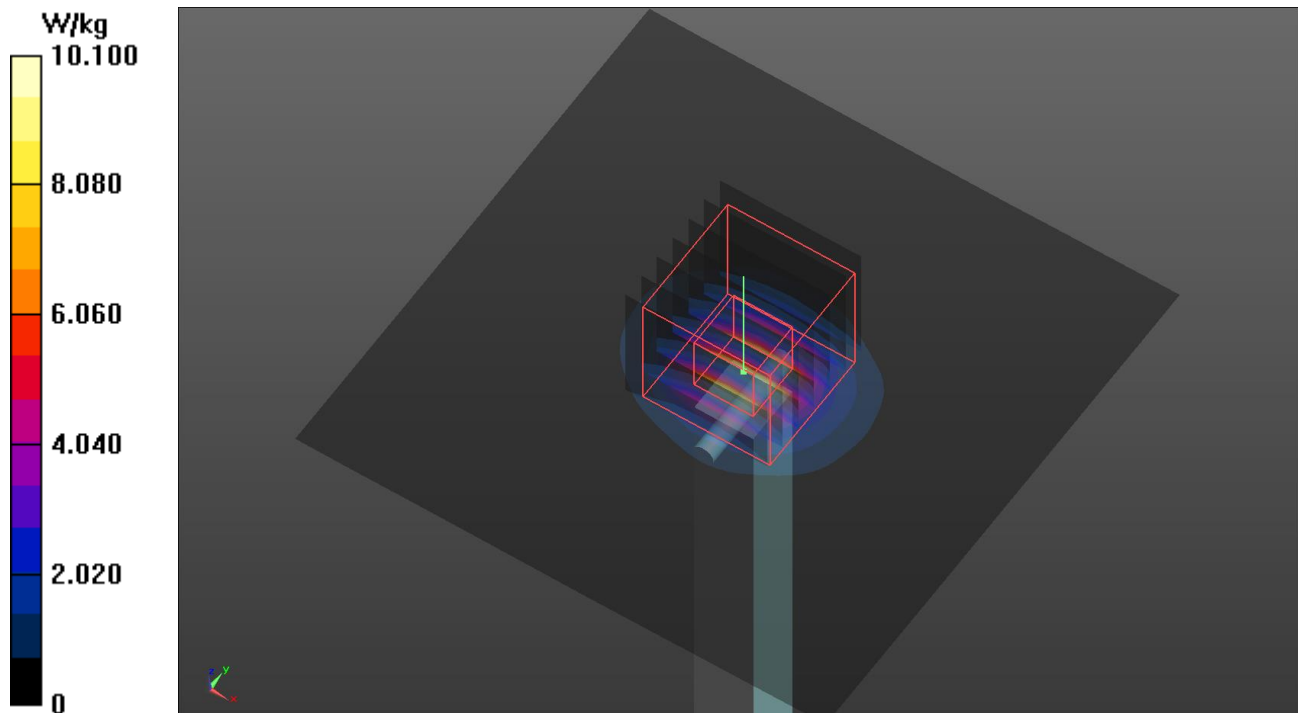
**Configuration/Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 48.76 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 18.7 W/kg

**SAR(1 g) = 4.06 W/kg; SAR(10 g) = 1.16 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 10.8 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

### S16 System Check\_H2450\_211021

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

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

Medium: H19T27N2\_1021 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.791$  S/m;  $\epsilon_r = 37.828$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(7.9, 7.9, 7.9) @ 2450 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2021/09/20
- Phantom: ELI Phantom\_1043; Type: QD OVA 002 Ax;
- 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) = 4.22 W/kg

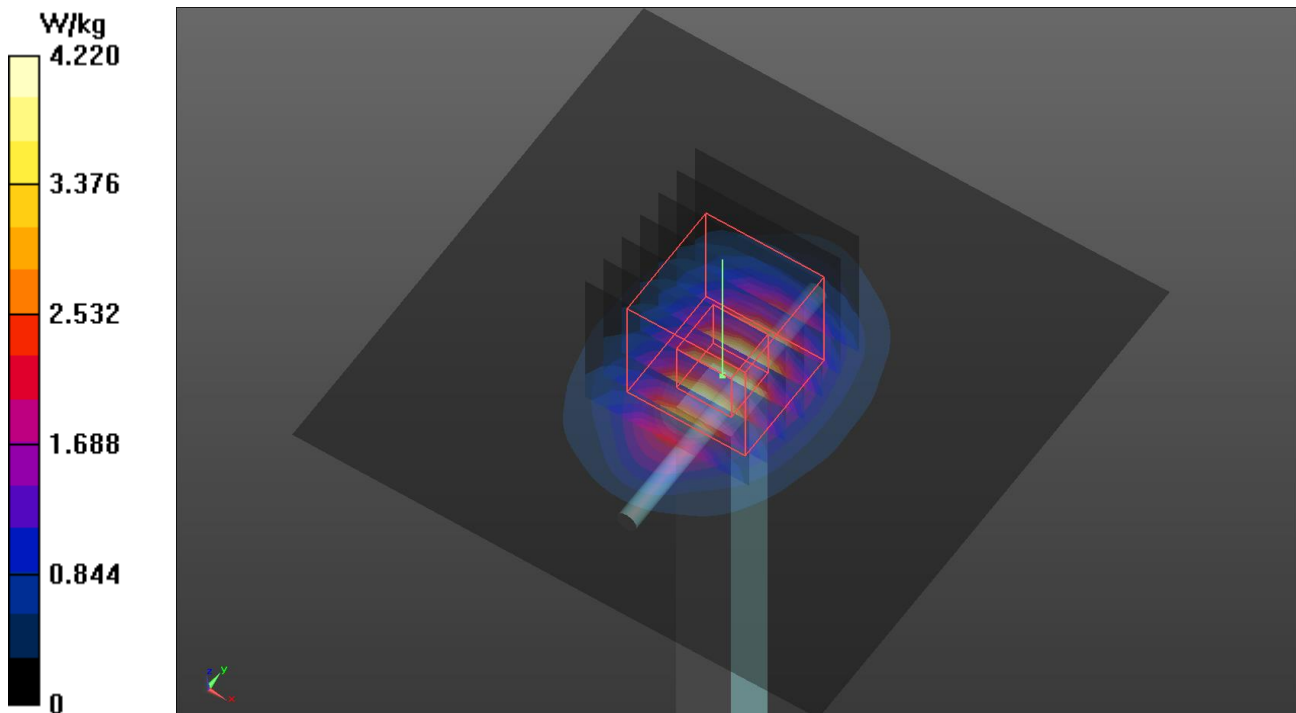
**Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 50.27 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 5.29 W/kg

**SAR(1 g) = 2.52 W/kg; SAR(10 g) = 1.17 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 4.28 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: 2021/10/18

**P01 WCDMA II\_RMC12.2K\_Left Side\_0mm\_Ch9262**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1852.4 MHz; Duty Cycle: 1:1.95  
Medium: H16T20N1\_1018 Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.433$  S/m;  $\epsilon_r = 38.849$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.17, 8.17, 8.17) @ 1852.4 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (61x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.67 W/kg

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

Reference Value = 33.72 V/m; Power Drift = -0.04 dB

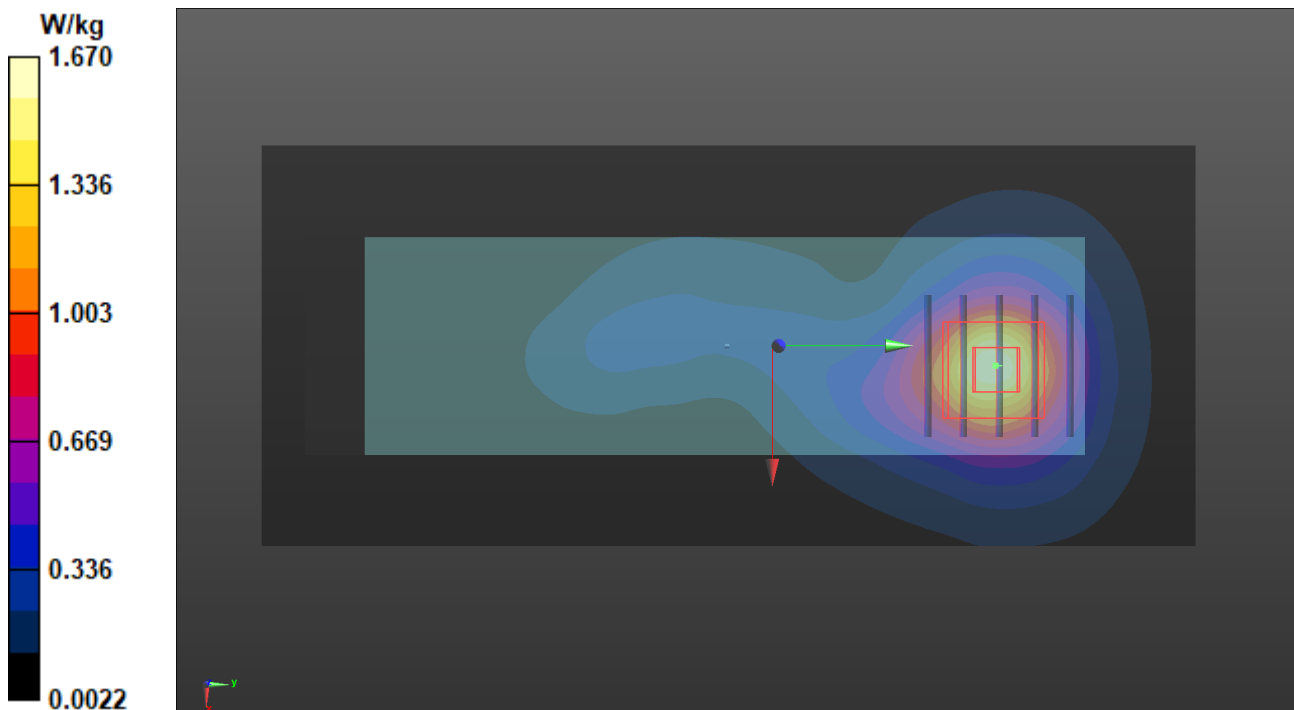
Peak SAR (extrapolated) = 2.02 W/kg

**SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.583 W/kg** (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 13.7 mm

Ratio of SAR at M2 to SAR at M1 = 55.3%

Maximum value of SAR (measured) = 1.69 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/18

**P02 WCDMA IV\_RMC12.2K\_Top Side\_0mm\_Ch1312**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1712.4 MHz; Duty Cycle: 1:1.95  
Medium: H16T20N1\_1018 Medium parameters used (interpolated):  $f = 1712.4$  MHz;  $\sigma = 1.352$  S/m;  $\epsilon_r = 39.116$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.54, 8.54, 8.54) @ 1712.4 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x191x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.64 W/kg

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

Reference Value = 34.39 V/m; Power Drift = 0.04 dB

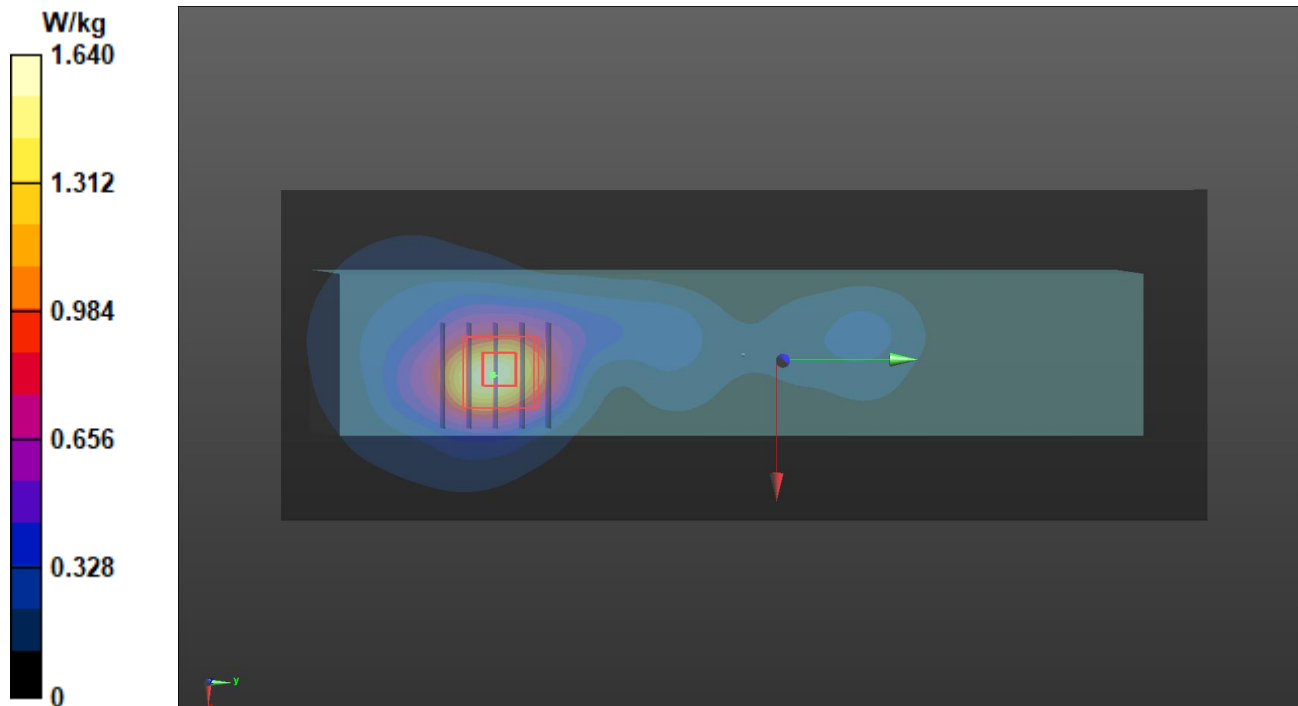
Peak SAR (extrapolated) = 2.16 W/kg

**SAR(1 g) = 1.22 W/kg; SAR(10 g) = 0.669 W/kg** (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 11.2 mm

Ratio of SAR at M2 to SAR at M1 = 58%

Maximum value of SAR (measured) = 1.77 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/18

**P03 WCDMA V\_RMC12.2K\_Left Side\_0mm\_Ch4132**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 826.4 MHz; Duty Cycle: 1:1.95  
Medium: H07T10N1\_1018 Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.911$  S/m;  $\epsilon_r = 41.878$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.83, 9.83, 9.83) @ 826.4 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (61x141x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
Maximum value of SAR (interpolated) = 0.595 W/kg

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

Reference Value = 26.55 V/m; Power Drift = 0.01 dB

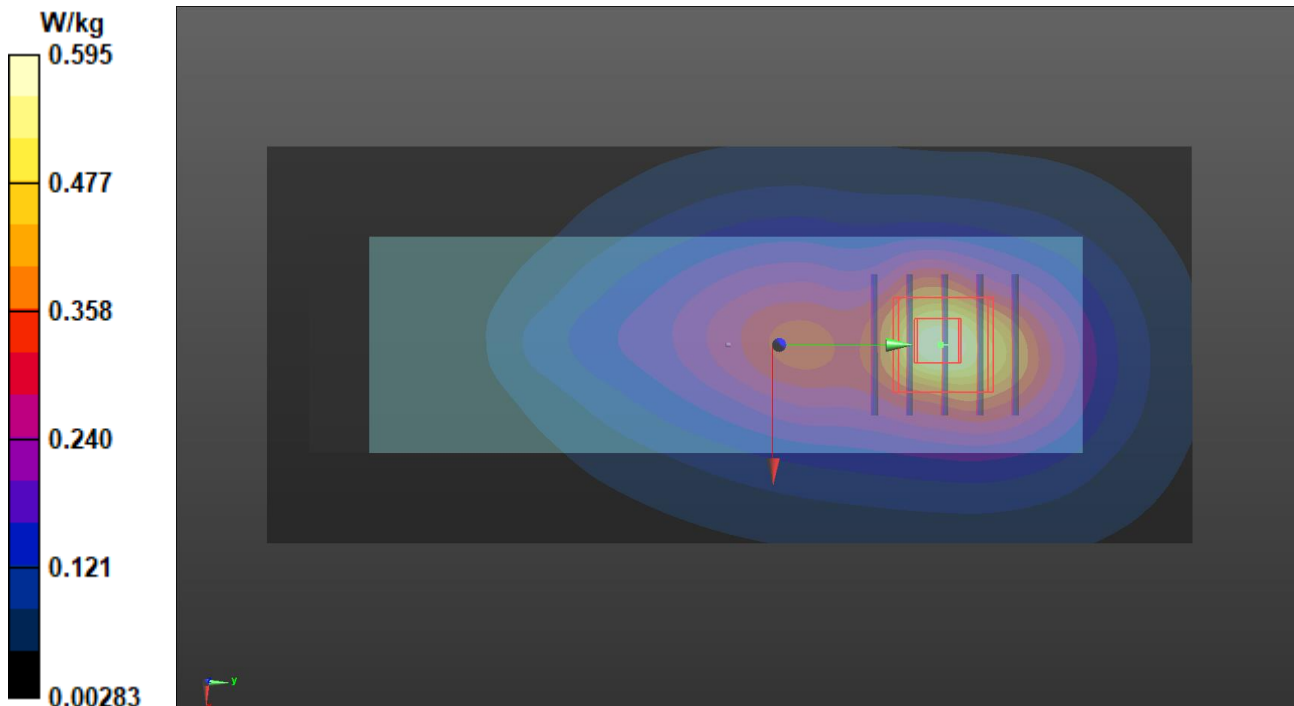
Peak SAR (extrapolated) = 0.710 W/kg

**SAR(1 g) = 0.398 W/kg; SAR(10 g) = 0.203 W/kg** (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 15.2 mm

Ratio of SAR at M2 to SAR at M1 = 56.7%

Maximum value of SAR (measured) = 0.590 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/19

**P04 LTE 4 \_QPSK20M\_Top Side\_0mm\_Ch20050\_1RB\_OS0**

**DUT: BICM-WTW-P21090832**

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

Medium: H16T20N1\_1019 Medium parameters used:  $f = 1720$  MHz;  $\sigma = 1.302$  S/m;  $\epsilon_r = 40.948$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.54, 8.54, 8.54) @ 1720 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x191x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
Maximum value of SAR (interpolated) = 1.52 W/kg

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

Reference Value = 35.07 V/m; Power Drift = 0.01 dB

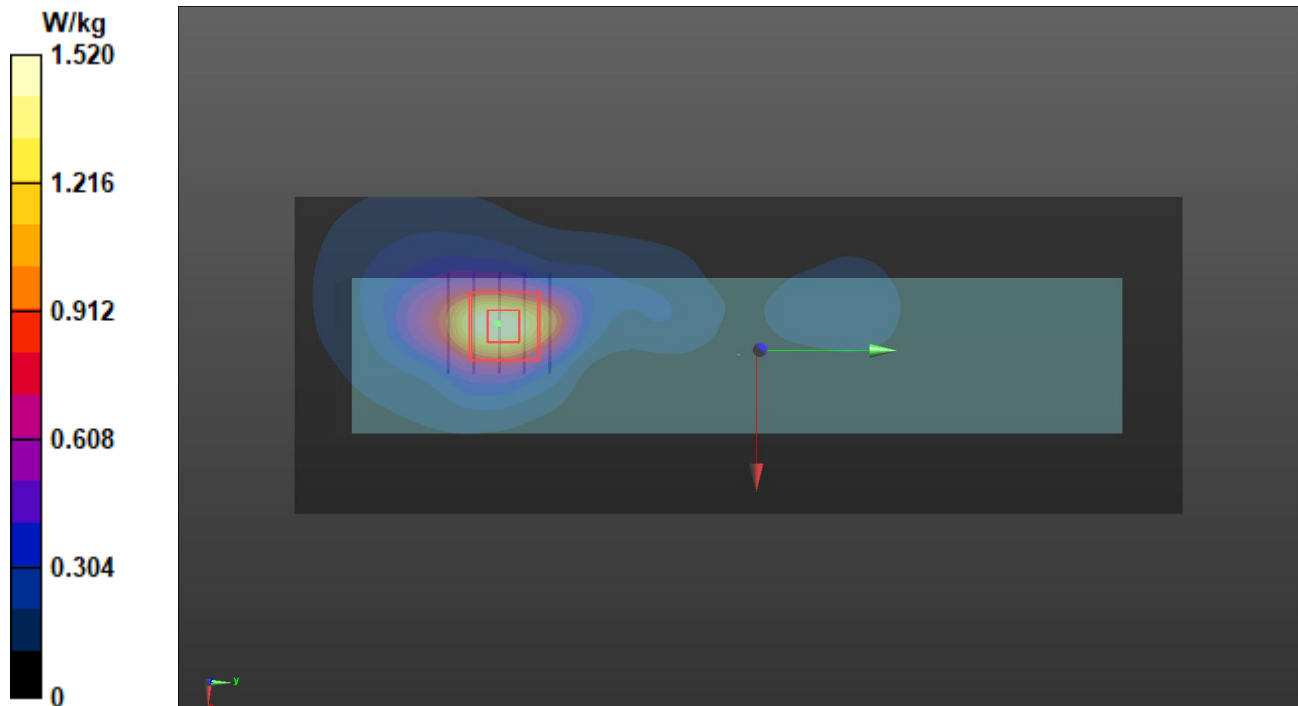
Peak SAR (extrapolated) = 1.90 W/kg

**SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.601 W/kg** (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 11.2 mm

Ratio of SAR at M2 to SAR at M1 = 57.3%

Maximum value of SAR (measured) = 1.59 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/18

**P05 LTE 5\_QPSK10M\_Left Side\_0mm\_Ch20450\_1RB\_OS0**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 829 MHz; Duty Cycle: 1:3.74

Medium: H07T10N1\_1018 Medium parameters used:  $f = 829$  MHz;  $\sigma = 0.913$  S/m;  $\epsilon_r = 41.846$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.83, 9.83, 9.83) @ 829 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (61x141x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Maximum value of SAR (interpolated) = 0.528 W/kg

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

Reference Value = 25.11 V/m; Power Drift = 0.02 dB

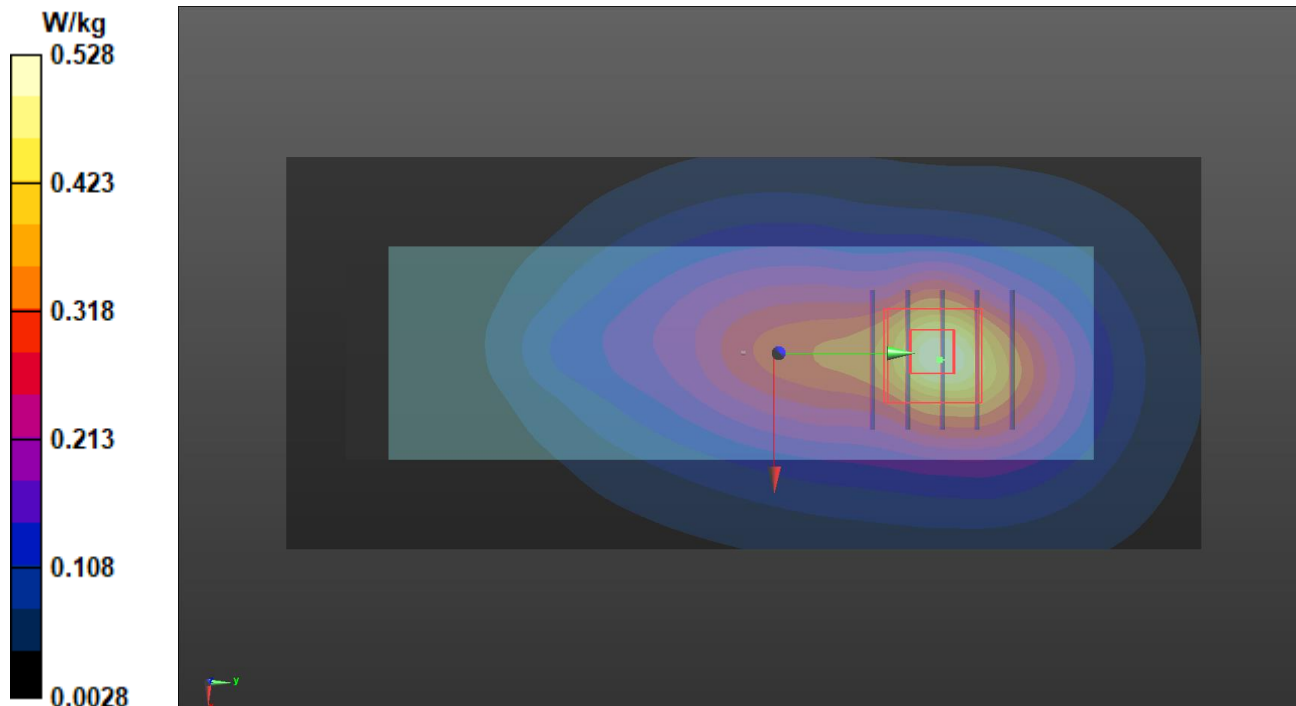
Peak SAR (extrapolated) = 0.632 W/kg

**SAR(1 g) = 0.360 W/kg; SAR(10 g) = 0.215 W/kg** (SAR corrected for target medium)

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

Ratio of SAR at M2 to SAR at M1 = 58%

Maximum value of SAR (measured) = 0.520 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/19

**P06 LTE 7 \_QPSK20M\_Top Side\_0mm\_Ch21100\_1RB\_OS0**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2535 MHz; Duty Cycle: 1:3.74

Medium: H19T27N1\_1019 Medium parameters used (interpolated):  $f = 2535$  MHz;  $\sigma = 1.948$  S/m;  $\epsilon_r = 37.802$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.57, 7.57, 7.57) @ 2535 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (91x241x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.577 W/kg

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

Reference Value = 17.53 V/m; Power Drift = 0.01 dB

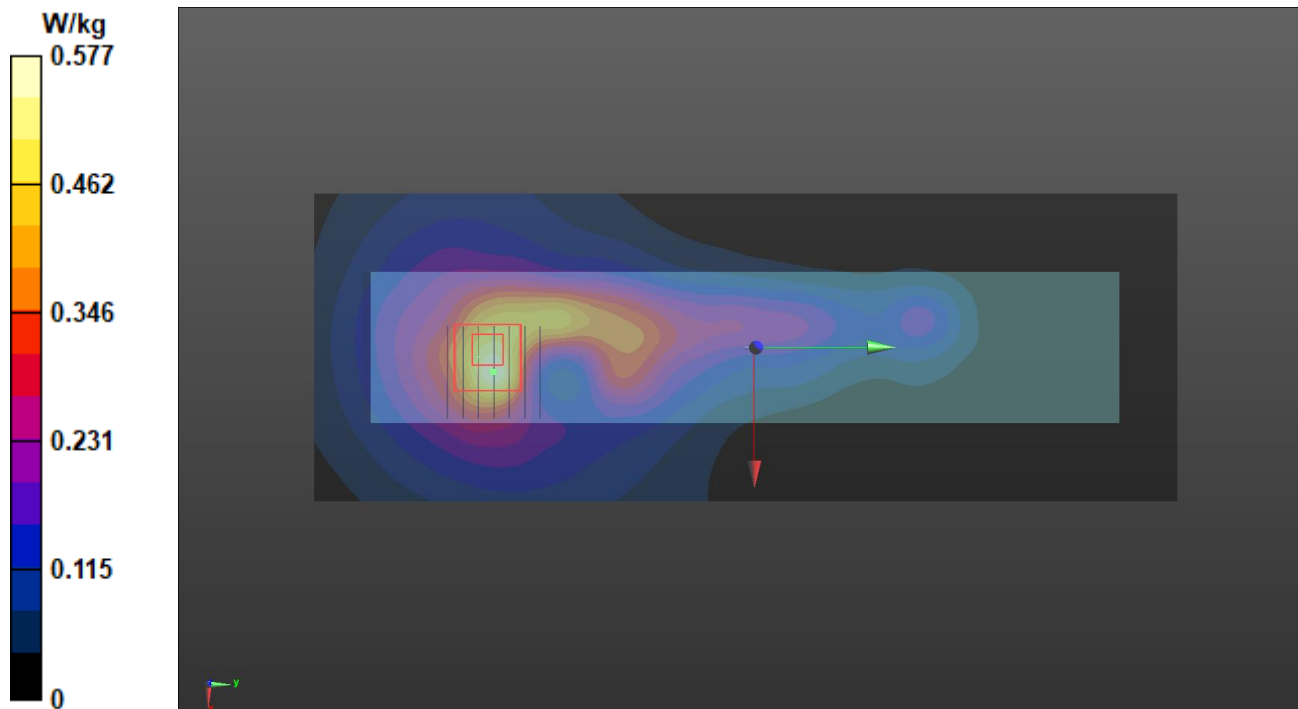
Peak SAR (extrapolated) = 1.24 W/kg

**SAR(1 g) = 0.599 W/kg; SAR(10 g) = 0.232 W/kg** (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 9.4 mm

Ratio of SAR at M2 to SAR at M1 = 51.4%

Maximum value of SAR (measured) = 0.949 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/19

**P07 LTE 12\_QPSK10M\_Left Side\_0mm\_Ch23095\_1RB\_OS0**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 707.5 MHz; Duty Cycle: 1:3.74

Medium: H06T09N1\_1019 Medium parameters used (interpolated):  $f = 707.5$  MHz;  $\sigma = 0.886$  S/m;  $\epsilon_r = 41.676$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.92, 9.92, 9.92) @ 707.5 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (61x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.426 W/kg

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

Reference Value = 22.95 V/m; Power Drift = -0.02 dB

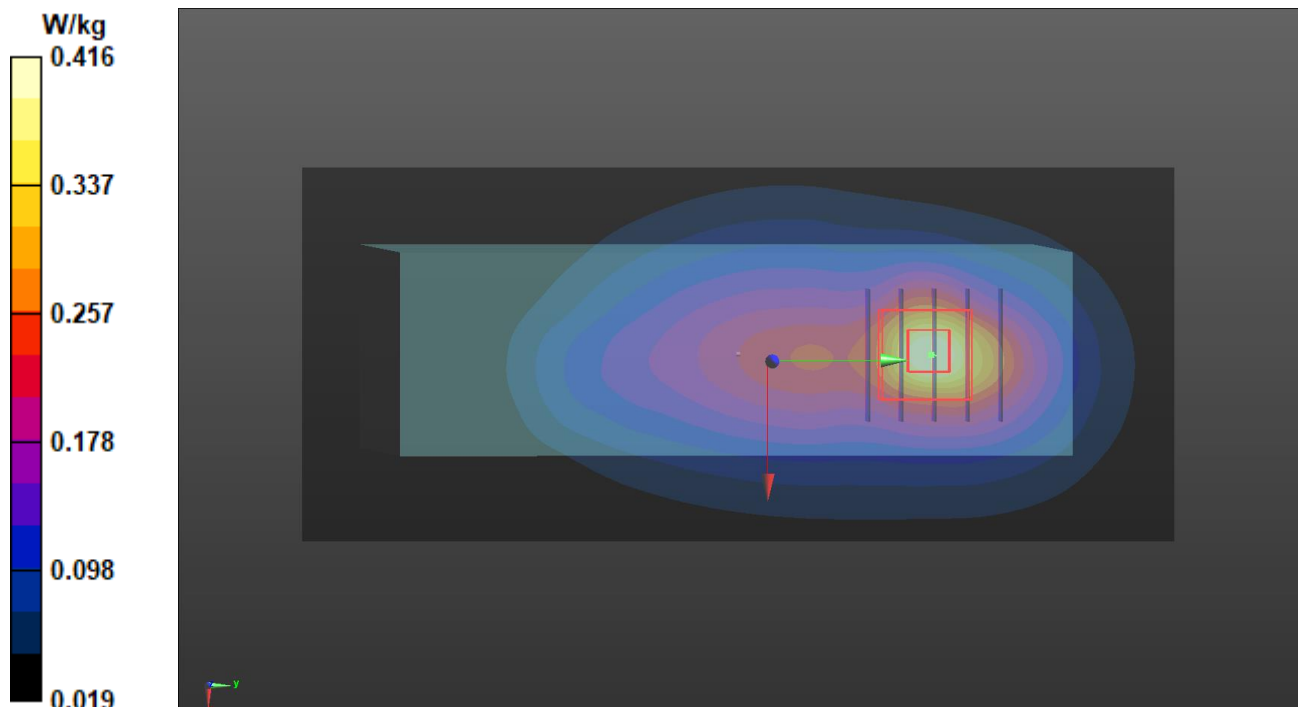
Peak SAR (extrapolated) = 0.502 W/kg

**SAR(1 g) = 0.281 W/kg; SAR(10 g) = 0.169 W/kg** (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 14.5 mm

Ratio of SAR at M2 to SAR at M1 = 56.8%

Maximum value of SAR (measured) = 0.416 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/19

**P08 LTE 13\_QPSK10M\_Left Side\_0mm\_Ch23230\_1RB\_OS0**

**DUT: BICM-WTW-P21090832**

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

Medium: H06T09N1\_1019 Medium parameters used:  $f = 782 \text{ MHz}$ ;  $\sigma = 0.913 \text{ S/m}$ ;  $\epsilon_r = 41.467$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.4 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.1 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.92, 9.92, 9.92) @ 782 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (61x141x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) =  $0.432 \text{ W/kg}$

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

Reference Value =  $22.29 \text{ V/m}$ ; Power Drift =  $0.02 \text{ dB}$

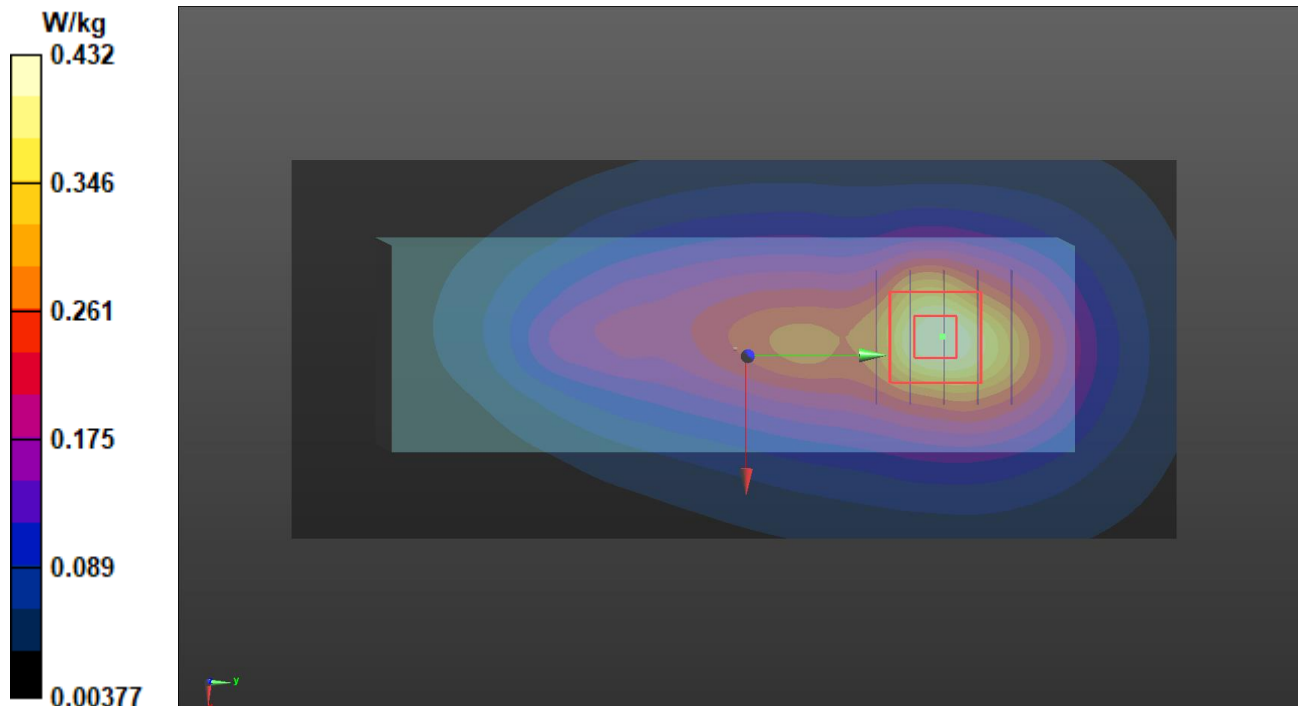
Peak SAR (extrapolated) =  $0.516 \text{ W/kg}$

**SAR(1 g) =  $0.310 \text{ W/kg}$ ; SAR(10 g) =  $0.197 \text{ W/kg}$**  (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below =  $17.2 \text{ mm}$

Ratio of SAR at M2 to SAR at M1 =  $61.6\%$

Maximum value of SAR (measured) =  $0.438 \text{ W/kg}$



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/19

**P09 LTE 25\_QPSK20M\_Left Side\_0mm\_Ch26140\_1RB\_OS0**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 1860 MHz; Duty Cycle: 1:3.74

Medium: H16T20N1\_1019 Medium parameters used:  $f = 1860$  MHz;  $\sigma = 1.423$  S/m;  $\epsilon_r = 40.523$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.17, 8.17, 8.17) @ 1860 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (61x141x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
Maximum value of SAR (interpolated) = 1.68 W/kg

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

Reference Value = 34.60 V/m; Power Drift = -0.07 dB

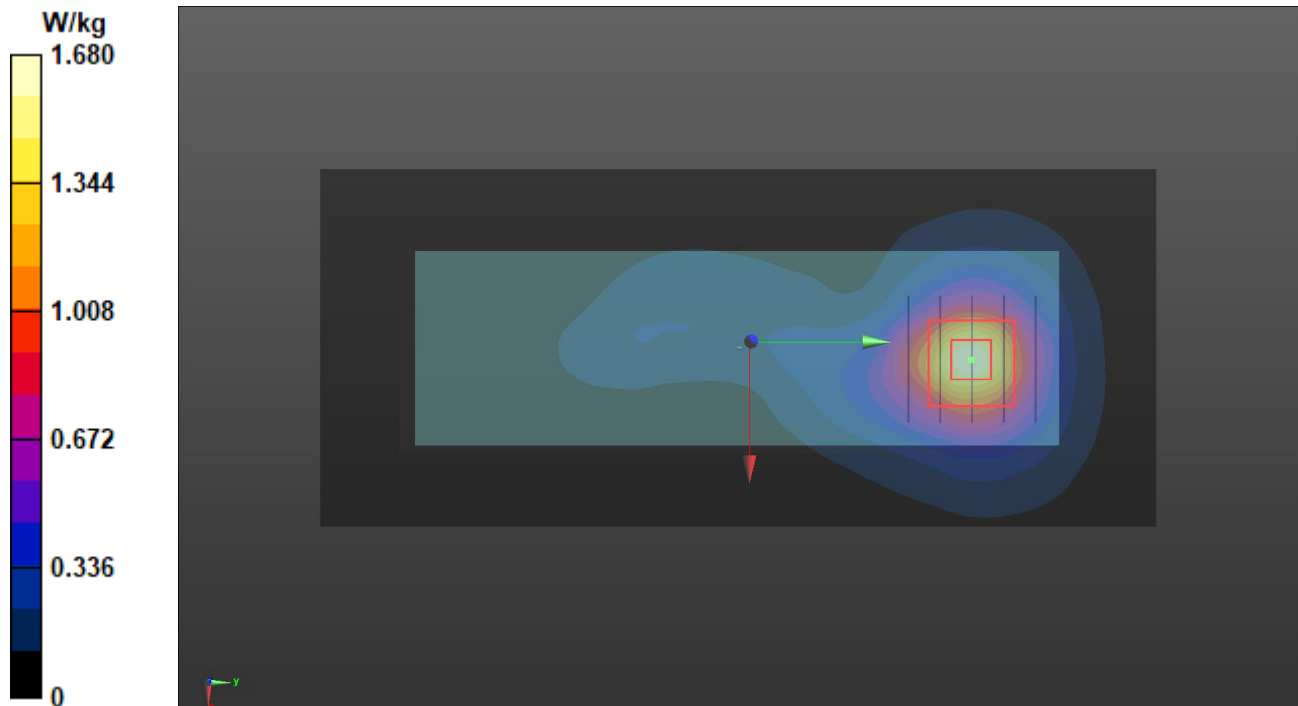
Peak SAR (extrapolated) = 1.98 W/kg

**SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.522 W/kg** (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 13.2 mm

Ratio of SAR at M2 to SAR at M1 = 55.8%

Maximum value of SAR (measured) = 1.66 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/18

**P10 LTE 26\_QPSK15M\_Left Side\_0mm\_Ch26865\_1RB\_OS0**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10181 - CAE, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK); Frequency: 831.5 MHz; Duty Cycle: 1:3.734

Medium: H07T10N1\_1018 Medium parameters used (interpolated):  $f = 831.5$  MHz;  $\sigma = 0.916$  S/m;  $\epsilon_r = 41.812$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.83, 9.83, 9.83) @ 831.5 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (61x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.544 W/kg

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

Reference Value = 25.45 V/m; Power Drift = 0.01 dB

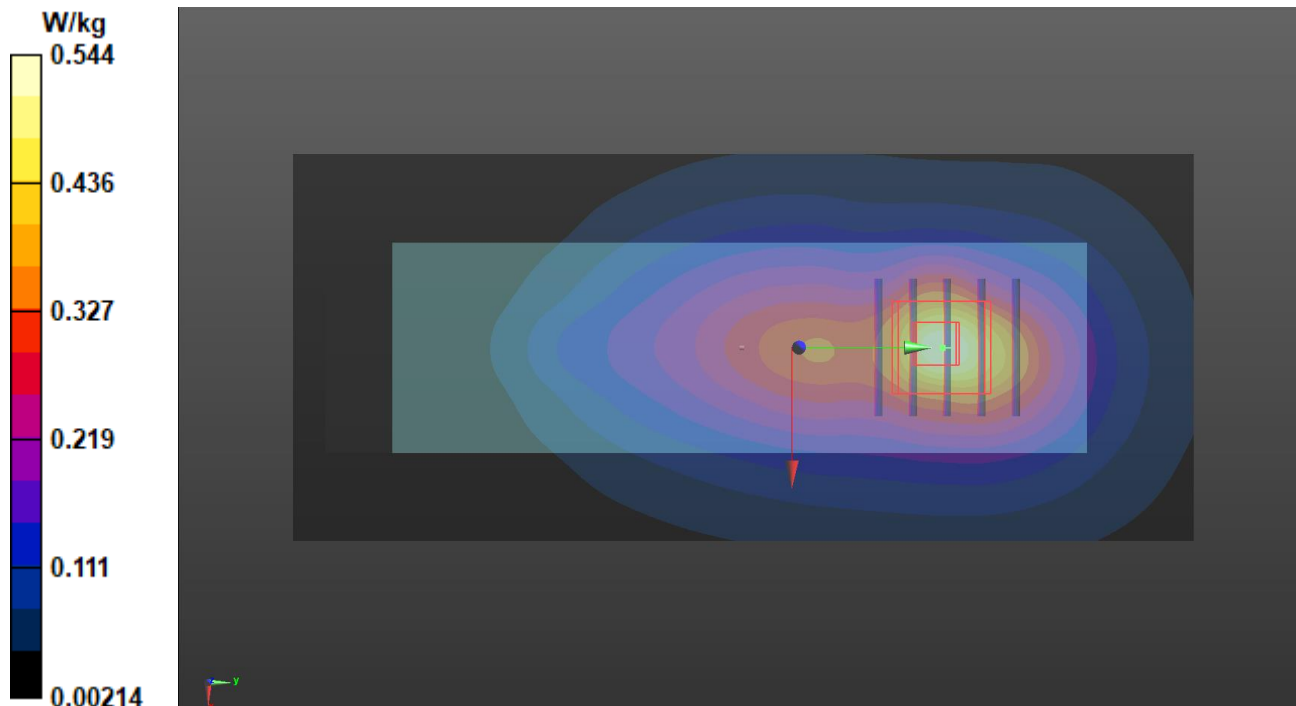
Peak SAR (extrapolated) = 0.652 W/kg

**SAR(1 g) = 0.369 W/kg; SAR(10 g) = 0.213 W/kg** (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 14.5 mm

Ratio of SAR at M2 to SAR at M1 = 57.5%

Maximum value of SAR (measured) = 0.541 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/19

**P11 LTE 41 \_QPSK20M\_Top Side\_0mm\_Ch41490\_1RB\_OS0**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2680 MHz; Duty Cycle: 1:8.33

Medium: H19T27N1\_1019 Medium parameters used:  $f = 2680$  MHz;  $\sigma = 2.102$  S/m;  $\epsilon_r = 37.294$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.57, 7.57, 7.57) @ 2680 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (91x241x1):** Interpolated grid:  $dx=1.200$  mm,  $dy=1.200$  mm  
Maximum value of SAR (interpolated) = 0.663 W/kg

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

Reference Value = 18.22 V/m; Power Drift = 0.14 dB

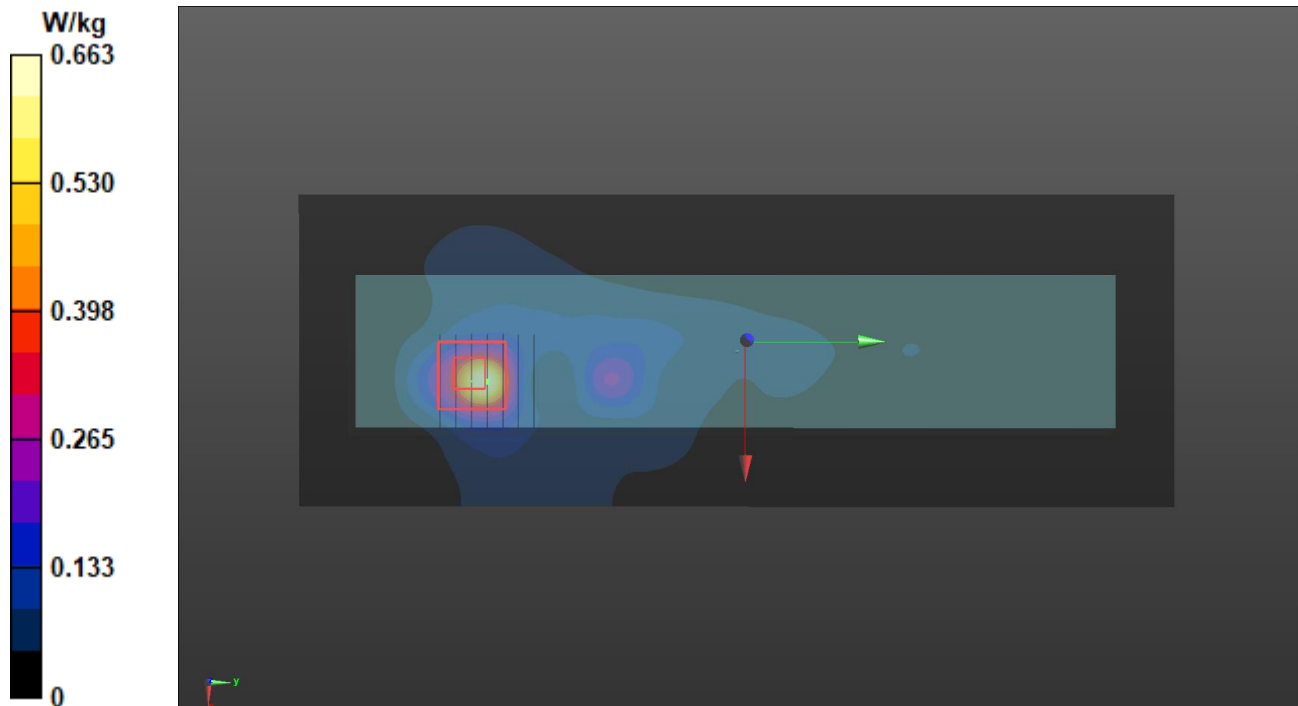
Peak SAR (extrapolated) = 1.07 W/kg

**SAR(1 g) = 0.452 W/kg; SAR(10 g) = 0.172 W/kg** (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 7 mm

Ratio of SAR at M2 to SAR at M1 = 47.9%

Maximum value of SAR (measured) = 0.779 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/19

**P12 WLAN2.4G\_802.11b\_Bottom Side\_0mm\_Ch6\_Ant 1**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10012 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps); Frequency: 2437 MHz; Duty Cycle: 1:1.01

Medium: H19T27N1\_1019 Medium parameters used (interpolated):  $f = 2437$  MHz;  $\sigma = 1.852$  S/m;  $\epsilon_r = 38.129$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.77, 7.77, 7.77) @ 2437 MHz; Calibrated: 2021/03/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2021/04/14
- Phantom: ELI V5.0 1204; Type: QD OVA 002 AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (91x241x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.25 W/kg

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

Reference Value = 23.75 V/m; Power Drift = 0.07 dB

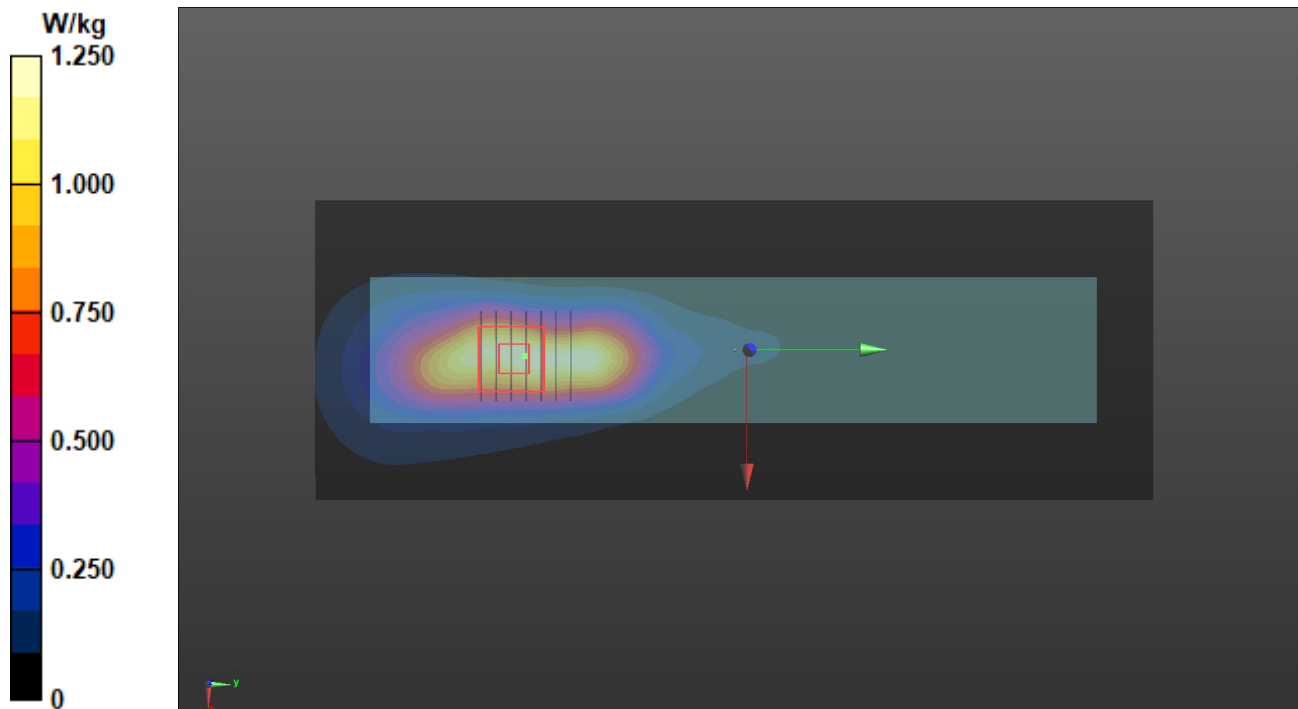
Peak SAR (extrapolated) = 2.45 W/kg

**SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.560 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 = 47.8%

Maximum value of SAR (measured) = 1.99 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

**P13 WLAN5.3G\_802.11a\_Bottom Side\_0mm\_Ch60\_Ant 1**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10591 - AAC, IEEE 802.11n (HT Mixed, 20MHz, MCS0); Frequency: 5300 MHz; Duty Cycle: 1:1.01

Medium: H34T60N1\_1021 Medium parameters used (interpolated):  $f = 5300$  MHz;  $\sigma = 4.94$  S/m;  $\epsilon_r = 35.836$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(5.45, 5.45, 5.45) @ 5300 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2021/09/20
- Phantom: ELI Phantom\_1043; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**ConfiguraArea Scan (101x281x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 6.09 W/kg

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

Reference Value = 33.18 V/m; Power Drift = 0.16 dB

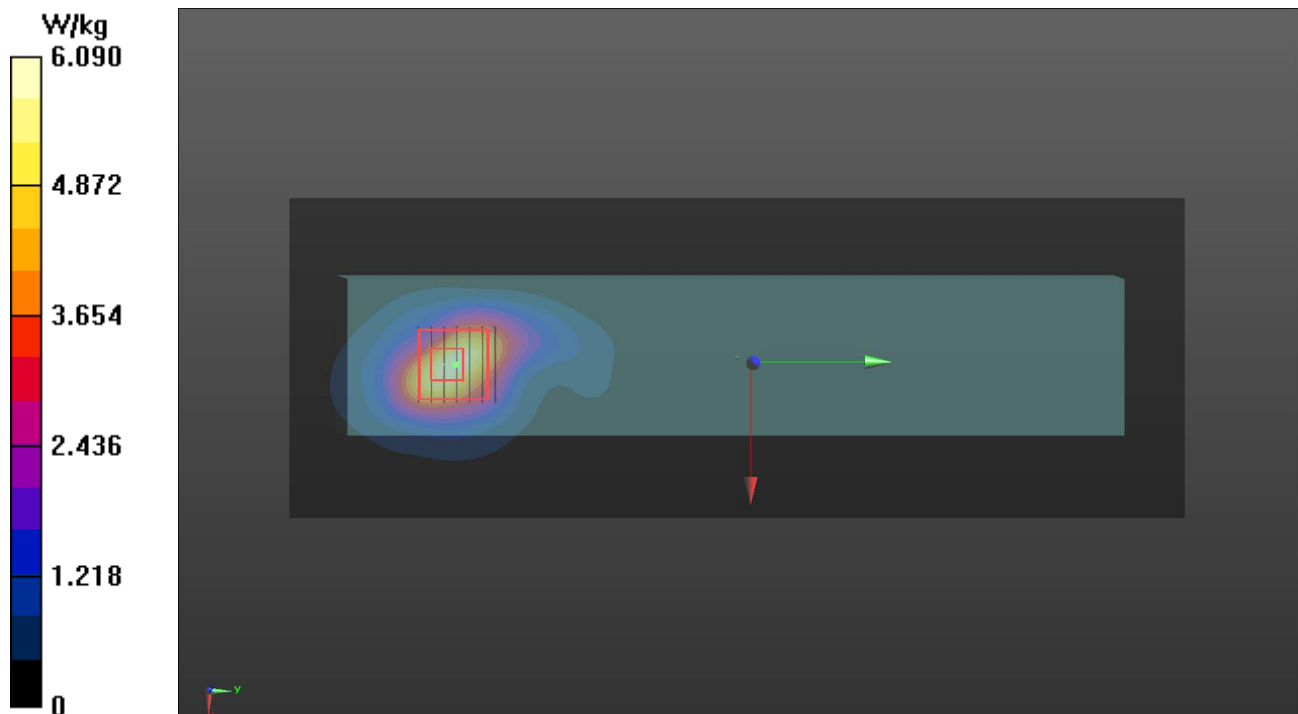
Peak SAR (extrapolated) = 12.3 W/kg

**SAR(1 g) = 3.61 W/kg; SAR(10 g) = 1.42 W/kg** (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 10.4 mm

Ratio of SAR at M2 to SAR at M1 = 67.1%

Maximum value of SAR (measured) = 7.81 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

**P14 WLAN5.6G\_802.11n HT40\_Bottom Side\_0mm\_Ch110\_Ant 0+1**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10599 - AAC, IEEE 802.11n (HT Mixed, 40MHz, MCS0); Frequency: 5550 MHz; Duty Cycle: 1:1.02

Medium: H34T60N1\_1021 Medium parameters used:  $f = 5550$  MHz;  $\sigma = 5.215$  S/m;  $\epsilon_r = 35.474$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(4.8, 4.8, 4.8) @ 5550 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2021/09/20
- Phantom: ELI Phantom\_1043; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (101x281x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 4.62 W/kg

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

Reference Value = 26.80 V/m; Power Drift = -0.17 dB

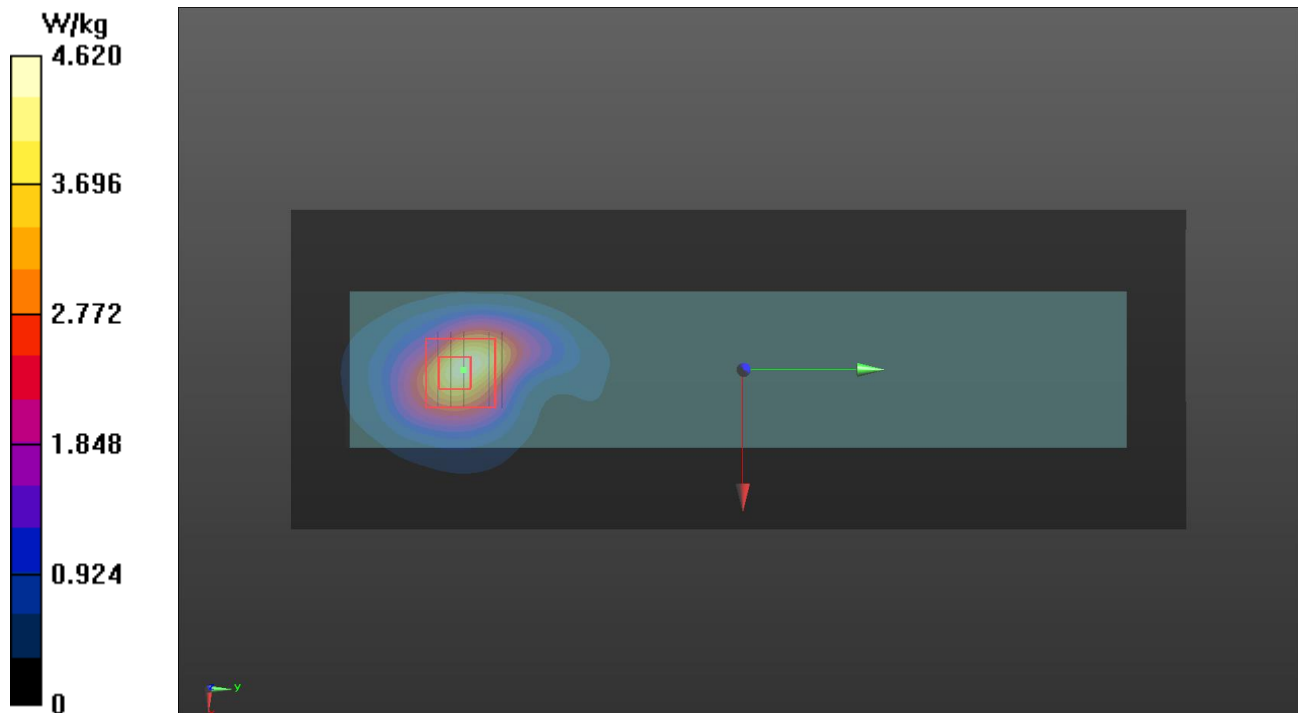
Peak SAR (extrapolated) = 8.11 W/kg

**SAR(1 g) = 2.3 W/kg; SAR(10 g) = 0.924 W/kg** (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 11.3 mm

Ratio of SAR at M2 to SAR at M1 = 64.3%

Maximum value of SAR (measured) = 5.23 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

**P15 WLAN5.8G\_802.11a\_Bottom Side\_0mm\_Ch149\_Ant 1**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10317 - AAD, IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps); Frequency: 5745 MHz; Duty Cycle: 1:1.01

Medium: H34T60N1\_1021 Medium parameters used (interpolated):  $f = 5745$  MHz;  $\sigma = 5.405$  S/m;  $\epsilon_r = 35.114$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(5, 5, 5) @ 5745 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2021/09/20
- Phantom: ELI Phantom\_1043; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (101x281x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 10.6 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 40.03 V/m; Power Drift = -0.11 dB

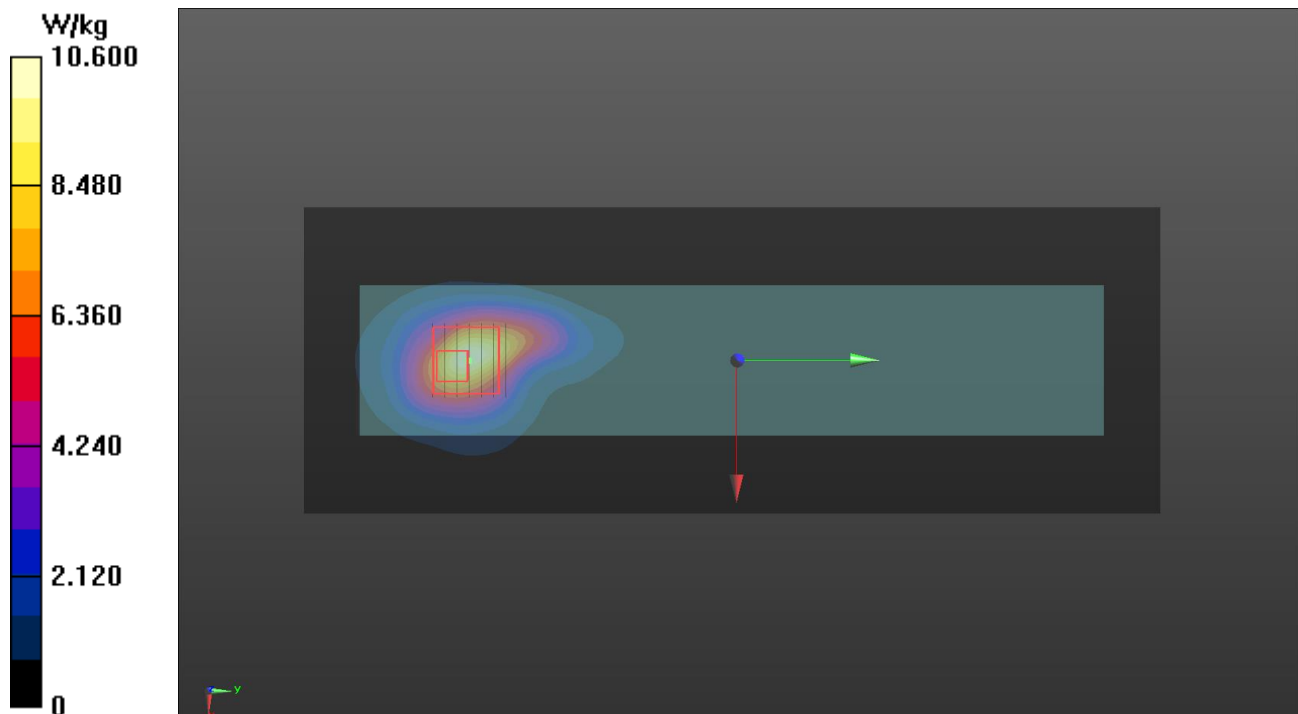
Peak SAR (extrapolated) = 21.4 W/kg

**SAR(1 g) = 5.39 W/kg; SAR(10 g) = 2.05 W/kg** (SAR corrected for target medium)

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

Ratio of SAR at M2 to SAR at M1 = 63.7%

Maximum value of SAR (measured) = 12.2 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2021/10/21

**P16 BT\_BR\_EDR\_Right Side\_0mm\_Ch39\_Ant 0**

**DUT: BICM-WTW-P21090832**

Communication System: UID 10032 - CAA, IEEE 802.15.1 Bluetooth (GFSK, DH5); Frequency: 2441 MHz; Duty Cycle: 1:1.29

Medium: H19T27N2\_1021 Medium parameters used (interpolated):  $f = 2441$  MHz;  $\sigma = 1.786$  S/m;  $\epsilon_r = 37.847$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(7.9, 7.9, 7.9) @ 2441 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2021/09/20
- Phantom: ELI Phantom\_1043; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (81x181x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 0.158 W/kg

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

Reference Value = 8.856 V/m; Power Drift = -0.01 dB

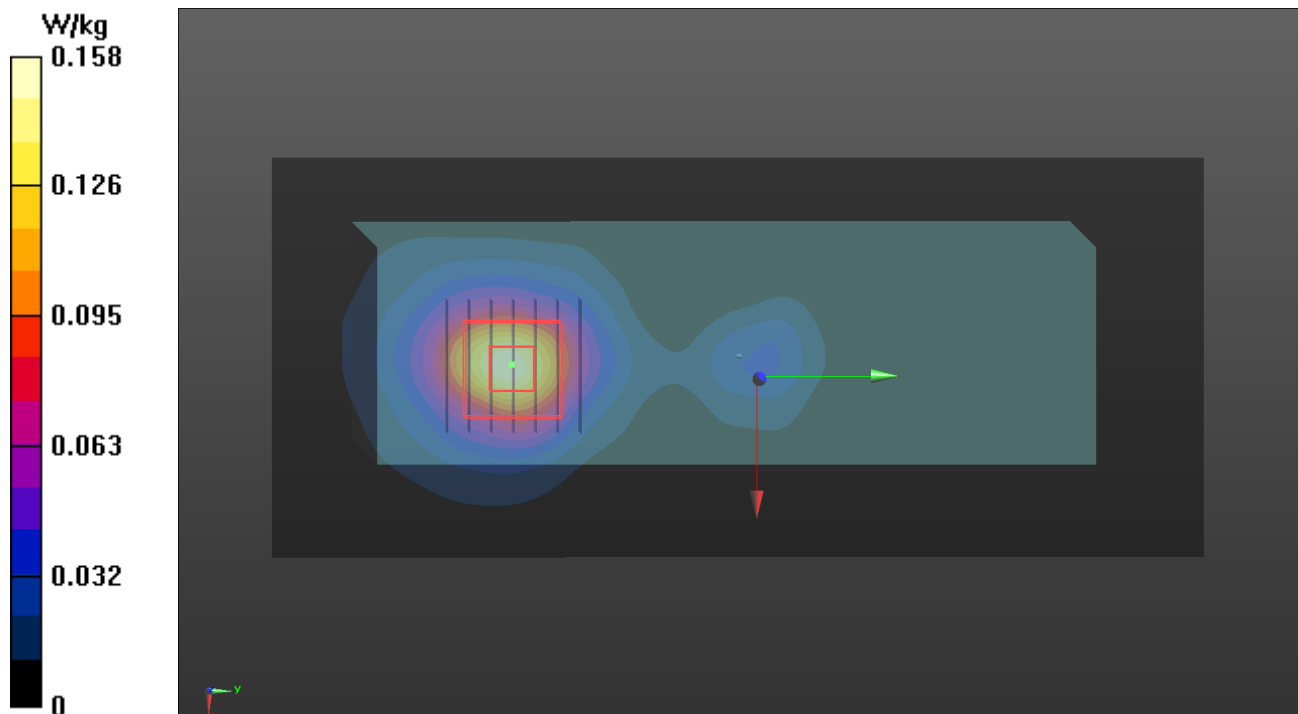
Peak SAR (extrapolated) = 0.191 W/kg

**SAR(1 g) = 0.096 W/kg; SAR(10 g) = 0.048 W/kg** (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 12 mm

Ratio of SAR at M2 to SAR at M1 = 50.5%

Maximum value of SAR (measured) = 0.153 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  $\pm 10$  % of the target values. Liquid temperature during the SAR testing has kept within  $\pm 2$  °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 <sub>r</sub> ) | Targeted Conductivity (σ) | Targeted Permittivity (ε <sub>r</sub> ) | Deviation Conductivity (σ) | Deviation Permittivity (ε <sub>r</sub> ) | Sensitivity Range | Probe Linearity | Probe Isotropy | Modulation Type           | Duty Factor | PAR  | Date          | Frequency (MHz)   | Targeted 10g SAR (W/kg) | Measured 10g SAR (W/kg) | Normalized 10g SAR (W/kg) | Deviation (%) | Dipole S/N | Probe S/N | DAE S/N | Output Power (dB) |
| S01                 | 1900            | 23.1              | 1.463            | 38.787                         | 1.4                       | 40                                      | 4.50                       | -3.03                                    | Pass              | Pass            | Pass           | N/A                       | N/A         | N/A  | Oct. 18, 2021 | 1900              | 21.10                   | 1.04                    | 20.75                     | -1.66         | 5d036      | 3650      | 861     | 17                |
| S02                 | 1750            | 23.1              | 1.373            | 39.069                         | 1.37                      | 40.1                                    | 0.22                       | -2.57                                    | Pass              | Pass            | Pass           | N/A                       | N/A         | N/A  | Oct. 18, 2021 | 1750              | 19.00                   | 0.961                   | 19.17                     | 0.92          | 1111       | 3650      | 861     | 17                |
| S03                 | 835             | 23.1              | 0.919            | 41.768                         | 0.9                       | 41.5                                    | 2.11                       | 0.65                                     | Pass              | Pass            | Pass           | N/A                       | N/A         | N/A  | Oct. 18, 2021 | 835               | 6.11                    | 0.303                   | 6.05                      | -1.05         | 4d092      | 3650      | 861     | 17                |
| S04                 | 1750            | 23.1              | 1.324            | 40.865                         | 1.37                      | 40.1                                    | -3.36                      | 1.91                                     | Pass              | Pass            | Pass           | N/A                       | N/A         | N/A  | Oct. 19, 2021 | 1750              | 19.00                   | 0.947                   | 18.90                     | -0.55         | 1111       | 3650      | 861     | 17                |
| S05                 | 835             | 23.1              | 0.919            | 41.768                         | 0.9                       | 41.5                                    | 2.11                       | 0.65                                     | Pass              | Pass            | Pass           | N/A                       | N/A         | N/A  | Oct. 18, 2021 | 835               | 6.11                    | 0.303                   | 6.05                      | -1.05         | 4d092      | 3650      | 861     | 17                |
| S06                 | 2600            | 23.1              | 2.016            | 37.567                         | 1.96                      | 39                                      | 2.86                       | -3.67                                    | Pass              | Pass            | Pass           | N/A                       | N/A         | N/A  | Oct. 19, 2021 | 2600              | 25.70                   | 1.31                    | 26.14                     | 1.70          | 1020       | 3650      | 861     | 17                |
| S07                 | 750             | 23.1              | 0.902            | 41.563                         | 0.89                      | 41.9                                    | 1.35                       | -0.80                                    | Pass              | Pass            | Pass           | N/A                       | N/A         | N/A  | Oct. 19, 2021 | 750               | 5.59                    | 0.265                   | 5.29                      | -5.41         | 1078       | 3650      | 861     | 17                |
| S08                 | 750             | 23.1              | 0.902            | 41.563                         | 0.89                      | 41.9                                    | 1.35                       | -0.80                                    | Pass              | Pass            | Pass           | N/A                       | N/A         | N/A  | Oct. 19, 2021 | 750               | 5.59                    | 0.265                   | 5.29                      | -5.41         | 1078       | 3650      | 861     | 17                |
| S09                 | 1900            | 23.1              | 1.453            | 40.45                          | 1.4                       | 40                                      | 3.79                       | 1.13                                     | Pass              | Pass            | Pass           | N/A                       | N/A         | N/A  | Oct. 19, 2021 | 1900              | 21.10                   | 1.02                    | 20.35                     | -3.55         | 5d036      | 3650      | 861     | 17                |
| S10                 | 835             | 23.1              | 0.919            | 41.768                         | 0.9                       | 41.5                                    | 2.11                       | 0.65                                     | Pass              | Pass            | Pass           | N/A                       | N/A         | N/A  | Oct. 18, 2021 | 835               | 6.11                    | 0.303                   | 6.05                      | -1.05         | 4d092      | 3650      | 861     | 17                |
| S11                 | 2600            | 23.1              | 2.016            | 37.567                         | 1.96                      | 39                                      | 2.86                       | -3.67                                    | Pass              | Pass            | Pass           | N/A                       | N/A         | N/A  | Oct. 19, 2021 | 2600              | 25.70                   | 1.31                    | 26.14                     | 1.70          | 1020       | 3650      | 861     | 17                |
| S12                 | 2450            | 23.1              | 1.864            | 38.07                          | 1.8                       | 39.2                                    | 3.56                       | -2.88                                    | Pass              | Pass            | Pass           | OFDM                      | N/A         | Pass | Oct. 19, 2021 | 2450              | 23.90                   | 1.3                     | 25.94                     | 8.53          | 835        | 3650      | 861     | 17                |
| S13                 | 5250            | 23.2              | 4.903            | 36.001                         | 4.71                      | 35.9                                    | 4.10                       | 0.28                                     | Pass              | Pass            | Pass           | OFDM                      | N/A         | Pass | Oct. 21, 2021 | 5250              | 23.00                   | 1.23                    | 24.54                     | 6.70          | 1019       | 7555      | 1590    | 17                |
| S14                 | 5600            | 23.2              | 5.248            | 35.454                         | 5.07                      | 35.5                                    | 3.51                       | -0.13                                    | Pass              | Pass            | Pass           | OFDM                      | N/A         | Pass | Oct. 21, 2021 | 5600              | 23.30                   | 1.25                    | 24.94                     | 7.04          | 1019       | 7555      | 1590    | 17                |
| S15                 | 5750            | 23.2              | 5.413            | 35.103                         | 5.22                      | 35.4                                    | 3.70                       | -0.84                                    | Pass              | Pass            | Pass           | OFDM                      | N/A         | Pass | Oct. 21, 2021 | 5750              | 22.40                   | 1.16                    | 23.15                     | 3.33          | 1019       | 7555      | 1590    | 17                |
| S16                 | 2450            | 23.2              | 1.791            | 37.828                         | 1.8                       | 39.2                                    | -0.50                      | -3.50                                    | Pass              | Pass            | Pass           | OFDM                      | N/A         | Pass | Oct. 21, 2021 | 2450              | 23.90                   | 1.17                    | 23.34                     | -2.32         | 835        | 7555      | 1590    | 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<br>DC-HSDPA<br>HSUPA |
|                                 | Maximum<br>Target Power | Maximum<br>Target Power    |
| WCDMA Band II                   | 24.0                    | 23.0                       |
| WCDMA Band IV                   | 24.0                    | 23.0                       |
| WCDMA Band V                    | 24.0                    | 23.0                       |

| LTE Max. Tune-up Power (Full) |                      |                      |
|-------------------------------|----------------------|----------------------|
| Mode                          | QPSK                 | 16QAM                |
|                               | Maximum Target Power | Maximum Target Power |
| LTE 2                         | 24.0                 | 23.0                 |
| LTE 4                         | 24.0                 | 23.0                 |
| LTE 5                         | 24.0                 | 23.0                 |
| LTE 7                         | 23.0                 | 22.0                 |
| LTE 12                        | 24.0                 | 23.0                 |
| LTE 13                        | 24.0                 | 23.0                 |
| LTE 25                        | 24.0                 | 23.0                 |
| LTE 26                        | 24.0                 | 23.0                 |
| LTE 41                        | 23.0                 | 22.0                 |

| WLAN Tune-up Power (Full) |         |           |                           |                           |                       |                       |                                |
|---------------------------|---------|-----------|---------------------------|---------------------------|-----------------------|-----------------------|--------------------------------|
| WLAN 2.4GHz               |         |           |                           |                           |                       |                       |                                |
| Mode                      | Channel | Frequency | SISO Ant 0<br>Max Tune up | SISO Ant 1<br>Max Tune up | MIMO Ant 0<br>Tune up | MIMO Ant 1<br>Tune up | MIMO Ant<br>0+1<br>Max Tune up |
| 802.11b                   | 1       | 2412      | 19.5                      | 20.0                      |                       |                       |                                |
|                           | 6       | 2437      | 21.0                      | 21.0                      |                       |                       |                                |
|                           | 11      | 2462      | 20.0                      | 21.0                      |                       |                       |                                |
|                           | 12      | 2467      | 18.0                      | 18.0                      |                       |                       |                                |
|                           | 13      | 2472      | 15.0                      | 14.5                      |                       |                       |                                |
| 802.11g                   | 1       | 2412      | 16.5                      | 17.0                      |                       |                       |                                |
|                           | 6       | 2437      | 21.0                      | 21.0                      |                       |                       |                                |
|                           | 11      | 2462      | 17.0                      | 16.5                      |                       |                       |                                |
|                           | 12      | 2467      | 14.0                      | 14.0                      |                       |                       |                                |
|                           | 13      | 2472      | -5.5                      | -5.5                      |                       |                       |                                |
| 802.11n HT20              | 1       | 2412      | 16.0                      | 16.5                      | 16.0                  | 16.0                  | 19.0                           |
|                           | 6       | 2437      | 20.5                      | 21.0                      | 20.5                  | 20.5                  | 23.5                           |
|                           | 11      | 2462      | 16.0                      | 16.5                      | 16.0                  | 16.0                  | 19.0                           |
|                           | 12      | 2467      | 13.5                      | 14.0                      | 12.5                  | 12.5                  | 15.5                           |
|                           | 13      | 2472      | -5.5                      | -5.5                      | -8.5                  | -8.5                  | -5.5                           |
| 802.11n HT40              | 3       | 2422      | 14.0                      | 13.5                      | 13.5                  | 13.5                  | 16.5                           |
|                           | 6       | 2437      | 16.0                      | 16.0                      | 16.0                  | 16.0                  | 19.0                           |
|                           | 9       | 2452      | 14.5                      | 14.5                      | 14.5                  | 14.5                  | 17.5                           |
|                           | 10      | 2457      | 14.5                      | 14.5                      | 14.5                  | 14.5                  | 17.5                           |
|                           | 11      | 2462      | 14.5                      | 14.5                      | 14.5                  | 14.5                  | 17.5                           |

| WLAN Tune-up Power (Full) |         |           |                      |  |
|---------------------------|---------|-----------|----------------------|--|
| Bluetooth                 |         |           |                      |  |
| Mode                      | Channel | Frequency | Ant 0<br>Max Tune-up |  |
| BR / EDR                  | 0       | 2402      | 11.5                 |  |
|                           | 39      | 2441      | 11.5                 |  |
|                           | 78      | 2480      | 11.5                 |  |
| LE                        | 0       | 2402      | 10.0                 |  |
|                           | 19      | 2440      | 10.0                 |  |
|                           | 39      | 2480      | 10.0                 |  |

| WLAN Tune-up Power (Full) |         |           |                           |                           |                       |                       |                                |
|---------------------------|---------|-----------|---------------------------|---------------------------|-----------------------|-----------------------|--------------------------------|
| WLAN 5.2GHz               |         |           |                           |                           |                       |                       |                                |
| Mode                      | Channel | Frequency | SISO Ant 0<br>Max Tune up | SISO Ant 1<br>Max Tune up | MIMO Ant 0<br>Tune up | MIMO Ant 1<br>Tune up | MIMO Ant<br>0+1<br>Max Tune up |
| 802.11a                   | 36      | 5180      | 17.5                      | 17.5                      |                       |                       |                                |
|                           | 40      | 5200      | 20.5                      | 20.5                      |                       |                       |                                |
|                           | 44      | 5220      | 21.0                      | 21.0                      |                       |                       |                                |
|                           | 48      | 5240      | 21.0                      | 21.0                      |                       |                       |                                |
| 802.11n HT20              | 36      | 5180      | 17.0                      | 17.5                      | 17.0                  | 17.0                  | 20.0                           |
|                           | 40      | 5200      | 20.0                      | 20.5                      | 20.0                  | 20.0                  | 23.0                           |
|                           | 44      | 5220      | 21.0                      | 21.0                      | 21.0                  | 21.0                  | 24.0                           |
|                           | 48      | 5240      | 21.0                      | 21.0                      | 21.0                  | 21.0                  | 24.0                           |
| 802.11n HT40              | 38      | 5190      | 18.0                      | 17.5                      | 17.5                  | 17.5                  | 20.5                           |
|                           | 46      | 5230      | 19.5                      | 18.5                      | 18.5                  | 18.5                  | 21.5                           |
| 802.11ac VHT80            | 42      | 5210      | 18.0                      | 18.0                      | 18.0                  | 18.0                  | 21.0                           |

| WLAN Tune-up Power (Full) |         |           |                           |                           |                       |                       |                                |
|---------------------------|---------|-----------|---------------------------|---------------------------|-----------------------|-----------------------|--------------------------------|
| WLAN 5.3GHz               |         |           |                           |                           |                       |                       |                                |
| Mode                      | Channel | Frequency | SISO Ant 0<br>Max Tune up | SISO Ant 1<br>Max Tune up | MIMO Ant 0<br>Tune up | MIMO Ant 1<br>Tune up | MIMO Ant<br>0+1<br>Max Tune up |
| 802.11a                   | 52      | 5260      | 21.0                      | 21.5                      |                       |                       |                                |
|                           | 56      | 5280      | 21.0                      | 21.5                      |                       |                       |                                |
|                           | 60      | 5300      | 21.0                      | 21.5                      |                       |                       |                                |
|                           | 64      | 5320      | 17.5                      | 17.0                      |                       |                       |                                |
| 802.11n HT20              | 52      | 5260      | 21.0                      | 21.5                      | 21.0                  | 21.0                  | 24.0                           |
|                           | 56      | 5280      | 21.0                      | 21.0                      | 21.0                  | 21.0                  | 24.0                           |
|                           | 60      | 5300      | 21.0                      | 21.0                      | 21.0                  | 21.0                  | 24.0                           |
|                           | 64      | 5320      | 17.0                      | 17.5                      | 17.0                  | 17.0                  | 20.0                           |
| 802.11n HT40              | 54      | 5270      | 18.5                      | 18.5                      | 18.5                  | 18.5                  | 21.5                           |
|                           | 62      | 5310      | 15.5                      | 15.5                      | 15.5                  | 15.5                  | 18.5                           |
| 802.11ac VHT80            | 58      | 5290      | 16.5                      | 16.0                      | 16.0                  | 16.0                  | 19.0                           |
| 802.11ac VHT160           | 50      | 5250      | 13.0                      | 13.5                      | 13.0                  | 13.0                  | 16.0                           |

| WLAN Tune-up Power (Full) |         |           |                           |                           |                       |                       |                                |
|---------------------------|---------|-----------|---------------------------|---------------------------|-----------------------|-----------------------|--------------------------------|
| WLAN 5.6GHz               |         |           |                           |                           |                       |                       |                                |
| Mode                      | Channel | Frequency | SISO Ant 0<br>Max Tune up | SISO Ant 1<br>Max Tune up | MIMO Ant 0<br>Tune up | MIMO Ant 1<br>Tune up | MIMO Ant<br>0+1<br>Max Tune up |
| 802.11a                   | 100     | 5500      | 18.5                      | 17.5                      |                       |                       |                                |
|                           | 116     | 5580      | 21.0                      | 21.5                      |                       |                       |                                |
|                           | 120     | 5600      | 21.0                      | 21.5                      |                       |                       |                                |
|                           | 124     | 5620      | 21.0                      | 21.5                      |                       |                       |                                |
|                           | 132     | 5660      | 21.0                      | 21.5                      |                       |                       |                                |
|                           | 140     | 5700      | 19.0                      | 18.5                      |                       |                       |                                |
|                           | 144     | 5720      | 19.0                      | 18.5                      |                       |                       |                                |
| 802.11n HT20              | 100     | 5500      | 16.5                      | 18.5                      | 16.5                  | 16.5                  | 19.5                           |
|                           | 116     | 5580      | 21.0                      | 21.5                      | 21.0                  | 21.0                  | 24.0                           |
|                           | 120     | 5600      | 21.0                      | 21.5                      | 21.0                  | 21.0                  | 24.0                           |
|                           | 124     | 5620      | 21.0                      | 21.5                      | 21.0                  | 21.0                  | 24.0                           |
|                           | 132     | 5660      | 21.0                      | 21.5                      | 21.0                  | 21.0                  | 24.0                           |
|                           | 140     | 5700      | 18.5                      | 19.0                      | 18.5                  | 18.5                  | 21.5                           |
|                           | 144     | 5720      | 18.5                      | 19.0                      | 18.5                  | 18.5                  | 21.5                           |
| 802.11n HT40              | 102     | 5510      | 17.5                      | 18.0                      | 17.5                  | 17.5                  | 20.5                           |
|                           | 110     | 5550      | 21.5                      | 21.5                      | 21.5                  | 21.5                  | 24.5                           |
|                           | 118     | 5590      | 21.5                      | 21.5                      | 21.5                  | 21.5                  | 24.5                           |
|                           | 126     | 5630      | 21.5                      | 21.5                      | 21.5                  | 21.5                  | 24.5                           |
|                           | 134     | 5670      | 18.5                      | 19.0                      | 18.5                  | 18.5                  | 21.5                           |
|                           | 142     | 5710      | 18.5                      | 19.0                      | 18.5                  | 18.5                  | 21.5                           |
| 802.11ac VHT80            | 106     | 5530      | 18.5                      | 17.5                      | 17.5                  | 17.5                  | 20.5                           |
|                           | 122     | 5610      | 20.5                      | 20.0                      | 20.0                  | 20.0                  | 23.0                           |
|                           | 138     | 5690      | 21.0                      | 21.0                      | 21.0                  | 21.0                  | 24.0                           |
| 802.11ac VHT160           | 114     | 5570      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                           |

| WLAN Tune-up Power (Full) |         |           |                           |                           |                       |                       |                                |
|---------------------------|---------|-----------|---------------------------|---------------------------|-----------------------|-----------------------|--------------------------------|
| WLAN 5.8GHz               |         |           |                           |                           |                       |                       |                                |
| Mode                      | Channel | Frequency | SISO Ant 0<br>Max Tune up | SISO Ant 1<br>Max Tune up | MIMO Ant 0<br>Tune up | MIMO Ant 1<br>Tune up | MIMO Ant<br>0+1<br>Max Tune up |
| 802.11a                   | 149     | 5745      | 22.0                      | 22.0                      |                       |                       |                                |
|                           | 153     | 5765      | 22.0                      | 22.0                      |                       |                       |                                |
|                           | 157     | 5785      | 21.5                      | 21.5                      |                       |                       |                                |
|                           | 161     | 5805      | 21.5                      | 21.5                      |                       |                       |                                |
|                           | 165     | 5825      | 21.5                      | 21.5                      |                       |                       |                                |
| 802.11n HT20              | 149     | 5745      | 22.0                      | 21.0                      | 21.0                  | 21.0                  | 24.0                           |
|                           | 153     | 5765      | 22.0                      | 21.5                      | 21.5                  | 21.5                  | 24.5                           |
|                           | 157     | 5785      | 21.5                      | 21.5                      | 21.5                  | 21.5                  | 24.5                           |
|                           | 161     | 5805      | 21.5                      | 21.5                      | 21.5                  | 21.5                  | 24.5                           |
|                           | 165     | 5825      | 21.5                      | 21.5                      | 21.5                  | 21.5                  | 24.5                           |
| 802.11n HT40              | 151     | 5755      | 19.5                      | 19.5                      | 19.5                  | 19.5                  | 22.5                           |
|                           | 159     | 5795      | 20.0                      | 20.5                      | 20.5                  | 20.5                  | 23.5                           |
| 802.11ac VHT80            | 155     | 5775      | 18.5                      | 18.5                      | 18.5                  | 18.5                  | 21.5                           |

## **Annex E.      Measured Conducted Power Result**

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

| Band               | WCDMA Band II |              |        | WCDMA Band IV |              |        | WCDMA Band V |       |       | 3GPP<br>MPR<br>(dB) |
|--------------------|---------------|--------------|--------|---------------|--------------|--------|--------------|-------|-------|---------------------|
| Channel            | 9262          | 9400         | 9538   | 1312          | 1413         | 1513   | 4132         | 4182  | 4233  |                     |
| Frequency (MHz)    | 1852.4        | 1880.0       | 1907.6 | 1712.4        | 1732.6       | 1752.6 | 826.4        | 836.4 | 846.6 |                     |
| RMC 12.2K          | 23.01         | <b>23.09</b> | 22.97  | 23.19         | <b>23.36</b> | 23.31  | <b>22.59</b> | 22.48 | 22.56 | -                   |
| HSDPA Subtest-1    | 21.96         | 21.98        | 21.94  | 22.22         | 22.14        | 22.12  | 21.16        | 21.11 | 21.16 | 0                   |
| HSDPA Subtest-2    | 21.99         | 22.01        | 21.97  | 22.26         | 22.18        | 22.16  | 21.21        | 21.16 | 21.21 | 0                   |
| HSDPA Subtest-3    | 21.47         | 21.49        | 21.45  | 21.76         | 21.68        | 21.66  | 20.70        | 20.65 | 20.70 | 0.5                 |
| HSDPA Subtest-4    | 21.47         | 21.49        | 21.45  | 21.76         | 21.68        | 21.66  | 20.70        | 20.65 | 20.70 | 0.5                 |
| DC-HSDPA Subtest-1 | 21.94         | 21.96        | 21.92  | 22.13         | 22.05        | 22.03  | 21.14        | 21.09 | 21.14 | 0                   |
| DC-HSDPA Subtest-2 | 21.97         | 21.99        | 21.95  | 22.21         | 22.13        | 22.11  | 21.18        | 21.13 | 21.18 | 0                   |
| DC-HSDPA Subtest-3 | 21.42         | 21.44        | 21.40  | 22.09         | 22.01        | 21.99  | 20.67        | 20.62 | 20.67 | 0.5                 |
| DC-HSDPA Subtest-4 | 21.41         | 21.43        | 21.39  | 21.75         | 21.67        | 21.65  | 20.67        | 20.62 | 20.67 | 0.5                 |
| HSUPA Subtest-1    | 21.72         | 21.74        | 21.70  | 21.90         | 21.82        | 21.80  | 21.11        | 21.05 | 21.10 | 0                   |
| HSUPA Subtest-2    | 20.95         | 20.97        | 20.93  | 20.96         | 20.88        | 20.86  | 20.24        | 20.19 | 20.24 | 2                   |
| HSUPA Subtest-3    | 20.66         | 20.68        | 20.64  | 20.93         | 20.85        | 20.83  | 20.13        | 20.08 | 20.13 | 1                   |
| HSUPA Subtest-4    | 20.92         | 20.94        | 20.90  | 20.99         | 20.91        | 20.89  | 20.16        | 20.11 | 20.16 | 2                   |
| HSUPA Subtest-5    | 22.09         | 22.11        | 22.07  | 22.29         | 22.21        | 22.19  | 21.26        | 21.21 | 21.26 | 0                   |

| LTE Band 2 |           |                 |           |        |        |        |               |      |           |                 |           |        |        |        |               |
|------------|-----------|-----------------|-----------|--------|--------|--------|---------------|------|-----------|-----------------|-----------|--------|--------|--------|---------------|
| BW         | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |
|            |           | Channel         |           | 18700  | 18900  | 19100  |               |      |           | Channel         |           | 18675  | 18900  | 19125  |               |
|            |           | Frequency (MHz) |           | 1860.0 | 1880.0 | 1900.0 |               |      |           | Frequency (MHz) |           | 1857.5 | 1880.0 | 1902.5 |               |
| 20M        | QPSK      | 1               | 0         | 23.23  | 22.97  | 22.82  | 0             | 15M  | QPSK      | 1               | 0         | 23.18  | 22.90  | 22.75  | 0             |
|            |           | 1               | 50        | 23.19  | 23.17  | 23.10  | 0             |      |           | 1               | 37        | 23.14  | 23.11  | 23.04  | 0             |
|            |           | 1               | 99        | 22.70  | 22.68  | 22.61  | 0             |      |           | 1               | 74        | 22.63  | 22.61  | 22.53  | 0             |
|            |           | 50              | 0         | 21.90  | 21.88  | 21.81  | 1             |      |           | 36              | 0         | 21.81  | 21.78  | 21.69  | 1             |
|            |           | 50              | 25        | 21.86  | 21.84  | 21.77  | 1             |      |           | 36              | 19        | 21.75  | 21.72  | 21.63  | 1             |
|            |           | 50              | 50        | 21.86  | 21.84  | 21.77  | 1             |      |           | 36              | 39        | 21.75  | 21.72  | 21.63  | 1             |
|            |           | 100             | 0         | 21.90  | 21.88  | 21.81  | 1             |      |           | 75              | 0         | 21.81  | 21.78  | 21.69  | 1             |
|            | 16QAM     | 1               | 0         | 22.28  | 22.00  | 21.83  | 1             |      | 16QAM     | 1               | 0         | 22.23  | 21.91  | 21.75  | 1             |
|            |           | 1               | 50        | 22.24  | 22.22  | 22.13  | 1             |      |           | 1               | 37        | 22.18  | 22.13  | 22.05  | 1             |
|            |           | 1               | 99        | 21.70  | 21.68  | 21.61  | 1             |      |           | 1               | 74        | 21.62  | 21.59  | 21.51  | 1             |
|            |           | 50              | 0         | 20.90  | 20.86  | 20.78  | 2             |      |           | 36              | 0         | 20.79  | 20.76  | 20.63  | 2             |
|            |           | 50              | 25        | 20.83  | 20.81  | 20.72  | 2             |      |           | 36              | 19        | 20.72  | 20.68  | 20.57  | 2             |
|            |           | 50              | 50        | 20.83  | 20.81  | 20.72  | 2             |      |           | 36              | 39        | 20.72  | 20.68  | 20.57  | 2             |
|            |           | 100             | 0         | 20.90  | 20.86  | 20.78  | 2             |      |           | 75              | 0         | 20.79  | 20.76  | 20.63  | 2             |
| BW         | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |
|            |           | Channel         |           | 18650  | 18900  | 19150  |               |      |           | Channel         |           | 18625  | 18900  | 19175  |               |
|            |           | Frequency (MHz) |           | 1855.0 | 1880.0 | 1905.0 |               |      |           | Frequency (MHz) |           | 1852.5 | 1880.0 | 1907.5 |               |
| 10M        | QPSK      | 1               | 0         | 23.12  | 22.80  | 22.64  | 0             | 5M   | QPSK      | 1               | 0         | 23.08  | 22.78  | 22.63  | 0             |
|            |           | 1               | 24        | 23.07  | 23.03  | 22.96  | 0             |      |           | 1               | 12        | 23.04  | 23.00  | 22.92  | 0             |
|            |           | 1               | 49        | 22.52  | 22.49  | 22.41  | 0             |      |           | 1               | 24        | 22.49  | 22.45  | 22.37  | 0             |
|            |           | 25              | 0         | 21.70  | 21.66  | 21.52  | 1             |      |           | 12              | 0         | 21.62  | 21.56  | 21.40  | 1             |
|            |           | 25              | 12        | 21.62  | 21.58  | 21.47  | 1             |      |           | 12              | 6         | 21.51  | 21.46  | 21.34  | 1             |
|            |           | 25              | 25        | 21.62  | 21.58  | 21.47  | 1             |      |           | 12              | 13        | 21.51  | 21.46  | 21.34  | 1             |
|            |           | 50              | 0         | 21.70  | 21.66  | 21.52  | 1             |      |           | 25              | 0         | 21.62  | 21.56  | 21.40  | 1             |
|            | 16QAM     | 1               | 0         | 22.18  | 21.86  | 21.68  | 1             |      | 16QAM     | 1               | 0         | 22.12  | 21.77  | 21.57  | 1             |
|            |           | 1               | 24        | 22.13  | 22.10  | 22.00  | 1             |      |           | 1               | 12        | 22.06  | 22.01  | 21.93  | 1             |
|            |           | 1               | 49        | 21.56  | 21.53  | 21.44  | 1             |      |           | 1               | 24        | 21.44  | 21.38  | 21.31  | 1             |
|            |           | 25              | 0         | 20.71  | 20.64  | 20.49  | 2             |      |           | 12              | 0         | 20.59  | 20.53  | 20.39  | 2             |
|            |           | 25              | 12        | 20.60  | 20.56  | 20.43  | 2             |      |           | 12              | 6         | 20.48  | 20.44  | 20.29  | 2             |
|            |           | 25              | 25        | 20.60  | 20.56  | 20.43  | 2             |      |           | 12              | 13        | 20.48  | 20.44  | 20.29  | 2             |
|            |           | 50              | 0         | 20.71  | 20.64  | 20.49  | 2             |      |           | 25              | 0         | 20.59  | 20.53  | 20.39  | 2             |
| BW         | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |
|            |           | Channel         |           | 18615  | 18900  | 19185  |               |      |           | Channel         |           | 18607  | 18900  | 19193  |               |
|            |           | Frequency (MHz) |           | 1851.5 | 1880.0 | 1908.5 |               |      |           | Frequency (MHz) |           | 1850.7 | 1880.0 | 1909.3 |               |
| 3M         | QPSK      | 1               | 0         | 23.02  | 22.67  | 22.48  | 0             | 1.4M | QPSK      | 1               | 0         | 22.98  | 22.66  | 22.49  | 0             |
|            |           | 1               | 7         | 22.95  | 22.91  | 22.81  | 0             |      |           | 1               | 2         | 22.94  | 22.91  | 22.82  | 0             |
|            |           | 1               | 14        | 22.34  | 22.31  | 22.22  | 0             |      |           | 1               | 5         | 22.34  | 22.28  | 22.19  | 0             |
|            |           | 8               | 0         | 21.49  | 21.44  | 21.28  | 1             |      |           | 3               | 0         | 22.23  | 22.36  | 22.16  | 0             |
|            |           | 8               | 3         | 21.39  | 21.34  | 21.20  | 1             |      |           | 3               | 1         | 22.18  | 22.11  | 22.05  | 0             |
|            |           | 8               | 7         | 21.39  | 21.34  | 21.20  | 1             |      |           | 3               | 3         | 22.09  | 22.15  | 22.12  | 0             |
|            |           | 15              | 0         | 21.49  | 21.44  | 21.28  | 1             |      |           | 6               | 0         | 21.43  | 21.36  | 21.14  | 1             |
|            | 16QAM     | 1               | 0         | 22.07  | 21.74  | 21.56  | 1             |      | 16QAM     | 1               | 0         | 22.02  | 21.67  | 21.48  | 1             |
|            |           | 1               | 7         | 22.01  | 21.96  | 21.88  | 1             |      |           | 1               | 2         | 21.96  | 21.93  | 21.81  | 1             |
|            |           | 1               | 14        | 21.43  | 21.34  | 21.24  | 1             |      |           | 1               | 5         | 21.35  | 21.32  | 21.22  | 1             |
|            |           | 8               | 0         | 20.52  | 20.45  | 20.27  | 2             |      |           | 3               | 0         | 21.18  | 21.14  | 21.08  | 1             |
|            |           | 8               | 3         | 20.38  | 20.31  | 20.17  | 2             |      |           | 3               | 1         | 21.15  | 21.09  | 21.22  | 1             |
|            |           | 8               | 7         | 20.38  | 20.31  | 20.17  | 2             |      |           | 3               | 3         | 21.21  | 21.18  | 21.18  | 1             |
|            |           | 15              | 0         | 20.52  | 20.45  | 20.27  | 2             |      |           | 6               | 0         | 20.48  | 20.40  | 20.08  | 2             |

| LTE Band 4 |           |                 |           |        |        |        |               |      |           |                 |           |        |        |        |               |
|------------|-----------|-----------------|-----------|--------|--------|--------|---------------|------|-----------|-----------------|-----------|--------|--------|--------|---------------|
| BW         | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |
|            |           | Channel         |           | 20050  | 20175  | 20300  |               |      |           | Channel         |           | 20025  | 20175  | 20325  |               |
|            |           | Frequency (MHz) |           | 1720.0 | 1732.5 | 1745.0 |               |      |           | Frequency (MHz) |           | 1717.5 | 1732.5 | 1747.5 |               |
| 20M        | QPSK      | 1               | 0         | 23.28  | 23.14  | 23.13  | 0             | 15M  | QPSK      | 1               | 0         | 23.22  | 23.08  | 23.07  | 0             |
|            |           | 1               | 50        | 23.12  | 23.03  | 23.04  | 0             |      |           | 1               | 37        | 23.05  | 22.96  | 22.97  | 0             |
|            |           | 1               | 99        | 22.84  | 22.75  | 22.76  | 0             |      |           | 1               | 74        | 22.77  | 22.67  | 22.68  | 0             |
|            |           | 50              | 0         | 22.21  | 22.12  | 22.13  | 1             |      |           | 36              | 0         | 22.12  | 22.02  | 22.04  | 1             |
|            |           | 50              | 25        | 22.10  | 22.01  | 22.02  | 1             |      |           | 36              | 19        | 22.00  | 21.87  | 21.88  | 1             |
|            |           | 50              | 50        | 22.07  | 21.98  | 21.99  | 1             |      |           | 36              | 39        | 21.97  | 21.83  | 21.84  | 1             |
|            |           | 100             | 0         | 22.15  | 22.06  | 22.07  | 1             |      |           | 75              | 0         | 22.06  | 21.94  | 21.97  | 1             |
|            | 16QAM     | 1               | 0         | 22.33  | 22.19  | 22.17  | 1             |      | 16QAM     | 1               | 0         | 22.28  | 22.13  | 22.12  | 1             |
|            |           | 1               | 50        | 22.16  | 22.06  | 22.08  | 1             |      |           | 1               | 37        | 22.10  | 21.98  | 22.01  | 1             |
|            |           | 1               | 99        | 21.87  | 21.76  | 21.79  | 1             |      |           | 1               | 74        | 21.77  | 21.65  | 21.68  | 1             |
|            |           | 50              | 0         | 21.22  | 21.12  | 21.13  | 2             |      |           | 36              | 0         | 21.10  | 20.99  | 21.01  | 2             |
|            |           | 50              | 25        | 21.10  | 20.97  | 20.99  | 2             |      |           | 36              | 19        | 20.96  | 20.81  | 20.84  | 2             |
|            |           | 50              | 50        | 21.06  | 20.93  | 20.94  | 2             |      |           | 36              | 39        | 20.91  | 20.78  | 20.79  | 2             |
|            |           | 100             | 0         | 21.15  | 21.04  | 21.06  | 2             |      |           | 75              | 0         | 21.04  | 20.88  | 20.91  | 2             |
| 10M        | QPSK      | 1               | 0         | 23.18  | 23.04  | 23.03  | 0             | 5M   | QPSK      | 1               | 0         | 23.13  | 22.97  | 22.96  | 0             |
|            |           | 1               | 24        | 22.97  | 22.87  | 22.89  | 0             |      |           | 1               | 12        | 22.94  | 22.81  | 22.85  | 0             |
|            |           | 1               | 49        | 22.67  | 22.58  | 22.59  | 0             |      |           | 1               | 24        | 22.59  | 22.48  | 22.51  | 0             |
|            |           | 25              | 0         | 22.04  | 21.91  | 21.94  | 1             |      |           | 12              | 0         | 21.92  | 21.78  | 21.81  | 1             |
|            |           | 25              | 12        | 21.89  | 21.76  | 21.77  | 1             |      |           | 12              | 6         | 21.75  | 21.57  | 21.63  | 1             |
|            |           | 25              | 25        | 21.85  | 21.71  | 21.73  | 1             |      |           | 12              | 13        | 21.72  | 21.53  | 21.55  | 1             |
|            |           | 50              | 0         | 21.97  | 21.81  | 21.85  | 1             |      |           | 25              | 0         | 21.83  | 21.69  | 21.72  | 1             |
|            | 16QAM     | 1               | 0         | 22.22  | 22.07  | 22.06  | 1             |      | 16QAM     | 1               | 0         | 22.18  | 22.03  | 22.00  | 1             |
|            |           | 1               | 24        | 22.03  | 21.92  | 21.93  | 1             |      |           | 1               | 12        | 21.98  | 21.87  | 21.88  | 1             |
|            |           | 1               | 49        | 21.73  | 21.60  | 21.64  | 1             |      |           | 1               | 24        | 21.67  | 21.55  | 21.57  | 1             |
|            |           | 25              | 0         | 21.05  | 20.92  | 20.94  | 2             |      |           | 12              | 0         | 20.99  | 20.83  | 20.85  | 2             |
|            |           | 25              | 12        | 20.89  | 20.74  | 20.76  | 2             |      |           | 12              | 6         | 20.79  | 20.56  | 20.61  | 2             |
|            |           | 25              | 25        | 20.85  | 20.65  | 20.69  | 2             |      |           | 12              | 13        | 20.72  | 20.50  | 20.53  | 2             |
|            |           | 50              | 0         | 20.98  | 20.81  | 20.85  | 2             |      |           | 25              | 0         | 20.90  | 20.67  | 20.72  | 2             |
| 3M         | QPSK      | 1               | 0         | 23.08  | 22.93  | 22.90  | 0             | 1.4M | QPSK      | 1               | 0         | 23.03  | 22.89  | 22.85  | 0             |
|            |           | 1               | 7         | 22.86  | 22.72  | 22.75  | 0             |      |           | 1               | 2         | 22.83  | 22.67  | 22.72  | 0             |
|            |           | 1               | 14        | 22.52  | 22.37  | 22.41  | 0             |      |           | 1               | 5         | 22.46  | 22.32  | 22.33  | 0             |
|            |           | 8               | 0         | 21.82  | 21.67  | 21.70  | 1             |      |           | 3               | 0         | 22.34  | 22.29  | 22.21  | 0             |
|            |           | 8               | 3         | 21.62  | 21.44  | 21.48  | 1             |      |           | 3               | 1         | 22.43  | 22.32  | 22.23  | 0             |
|            |           | 8               | 7         | 21.59  | 21.39  | 21.41  | 1             |      |           | 3               | 3         | 22.15  | 22.09  | 22.24  | 0             |
|            |           | 15              | 0         | 21.74  | 21.54  | 21.59  | 1             |      |           | 6               | 0         | 21.66  | 21.43  | 21.49  | 1             |
|            | 16QAM     | 1               | 0         | 22.13  | 21.96  | 21.92  | 1             |      | 16QAM     | 1               | 0         | 22.08  | 21.93  | 21.90  | 1             |
|            |           | 1               | 7         | 21.87  | 21.74  | 21.77  | 1             |      |           | 1               | 2         | 21.86  | 21.71  | 21.77  | 1             |
|            |           | 1               | 14        | 21.52  | 21.41  | 21.44  | 1             |      |           | 1               | 5         | 21.49  | 21.34  | 21.38  | 1             |
|            |           | 8               | 0         | 20.85  | 20.67  | 20.72  | 2             |      |           | 3               | 0         | 21.38  | 21.37  | 21.43  | 1             |
|            |           | 8               | 3         | 20.64  | 20.44  | 20.46  | 2             |      |           | 3               | 1         | 21.23  | 21.32  | 21.22  | 1             |
|            |           | 8               | 7         | 20.58  | 20.34  | 20.38  | 2             |      |           | 3               | 3         | 21.26  | 21.12  | 21.11  | 1             |
|            |           | 15              | 0         | 20.76  | 20.53  | 20.58  | 2             |      |           | 6               | 0         | 20.68  | 20.41  | 20.46  | 2             |
| BW         | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |
|            |           | Channel         |           | 19965  | 20175  | 20385  |               |      |           | Channel         |           | 19957  | 20175  | 20393  |               |
|            |           | Frequency (MHz) |           | 1711.5 | 1732.5 | 1753.5 |               |      |           | Frequency (MHz) |           | 1710.7 | 1732.5 | 1754.3 |               |

| LTE Band 5 |           |                 |           |       |       |       |               |      |           |                 |           |       |       |       |               |
|------------|-----------|-----------------|-----------|-------|-------|-------|---------------|------|-----------|-----------------|-----------|-------|-------|-------|---------------|
| BW         | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) |
|            |           | Channel         |           | 20450 | 20525 | 20600 |               |      |           | Channel         |           | 20425 | 20525 | 20625 |               |
|            |           | Frequency (MHz) |           | 829.0 | 836.5 | 844.0 |               |      |           | Frequency (MHz) |           | 826.5 | 836.5 | 846.5 |               |
| 10M        | QPSK      | 1               | 0         | 22.56 | 22.69 | 22.29 | 0             | 5M   | QPSK      | 1               | 0         | 22.51 | 22.64 | 22.23 | 0             |
|            |           | 1               | 24        | 22.46 | 22.53 | 22.27 | 0             |      |           | 1               | 12        | 22.40 | 22.48 | 22.20 | 0             |
|            |           | 1               | 49        | 22.26 | 22.33 | 22.07 | 0             |      |           | 1               | 24        | 22.18 | 22.27 | 22.02 | 0             |
|            |           | 25              | 0         | 21.40 | 21.47 | 21.21 | 1             |      |           | 12              | 0         | 21.21 | 21.29 | 21.12 | 1             |
|            |           | 25              | 12        | 21.32 | 21.39 | 21.13 | 1             |      |           | 12              | 6         | 21.31 | 21.38 | 21.07 | 1             |
|            |           | 25              | 25        | 21.32 | 21.39 | 21.13 | 1             |      |           | 12              | 13        | 21.21 | 21.29 | 21.08 | 1             |
|            |           | 50              | 0         | 21.24 | 21.31 | 21.05 | 1             |      |           | 25              | 0         | 21.10 | 21.18 | 21.07 | 1             |
|            | 16QAM     | 1               | 0         | 21.61 | 21.74 | 21.33 | 1             |      | 16QAM     | 1               | 0         | 21.53 | 21.69 | 21.24 | 1             |
|            |           | 1               | 24        | 21.51 | 21.58 | 21.31 | 1             |      |           | 1               | 12        | 21.43 | 21.50 | 21.21 | 1             |
|            |           | 1               | 49        | 21.30 | 21.38 | 21.10 | 1             |      |           | 1               | 24        | 21.19 | 21.28 | 21.05 | 1             |
|            |           | 25              | 0         | 20.30 | 20.38 | 20.08 | 2             |      |           | 12              | 0         | 20.19 | 20.29 | 20.13 | 2             |
|            |           | 25              | 12        | 20.42 | 20.49 | 20.17 | 2             |      |           | 12              | 6         | 20.31 | 20.38 | 20.05 | 2             |
|            |           | 25              | 25        | 20.30 | 20.38 | 20.08 | 2             |      |           | 12              | 13        | 20.19 | 20.29 | 20.08 | 2             |
|            |           | 50              | 0         | 20.20 | 20.28 | 20.01 | 2             |      |           | 25              | 0         | 20.09 | 20.17 | 20.16 | 2             |
| BW         | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) |
|            |           | Channel         |           | 20415 | 20525 | 20635 |               |      |           | Channel         |           | 20407 | 20525 | 20643 |               |
|            |           | Frequency (MHz) |           | 825.5 | 836.5 | 847.5 |               |      |           | Frequency (MHz) |           | 824.7 | 836.5 | 848.3 |               |
| 3M         | QPSK      | 1               | 0         | 22.44 | 22.57 | 22.13 | 0             | 1.4M | QPSK      | 1               | 0         | 22.39 | 22.54 | 22.06 | 0             |
|            |           | 1               | 7         | 22.31 | 22.39 | 22.09 | 0             |      |           | 1               | 2         | 22.26 | 22.35 | 22.02 | 0             |
|            |           | 1               | 14        | 22.08 | 22.18 | 22.13 | 0             |      |           | 1               | 5         | 22.01 | 22.12 | 22.19 | 0             |
|            |           | 8               | 0         | 21.07 | 21.17 | 21.07 | 1             |      |           | 3               | 0         | 22.17 | 22.06 | 22.05 | 0             |
|            |           | 8               | 3         | 21.20 | 21.27 | 21.21 | 1             |      |           | 3               | 1         | 22.06 | 22.18 | 22.14 | 0             |
|            |           | 8               | 7         | 21.07 | 21.17 | 21.14 | 1             |      |           | 3               | 3         | 22.03 | 22.09 | 22.15 | 0             |
|            |           | 15              | 0         | 21.13 | 21.05 | 21.09 | 1             |      |           | 6               | 0         | 21.13 | 21.02 | 21.09 | 1             |
|            | 16QAM     | 1               | 0         | 21.50 | 21.64 | 21.18 | 1             |      | 16QAM     | 1               | 0         | 21.43 | 21.58 | 21.06 | 1             |
|            |           | 1               | 7         | 21.38 | 21.46 | 21.14 | 1             |      |           | 1               | 2         | 21.29 | 21.37 | 21.03 | 1             |
|            |           | 1               | 14        | 21.11 | 21.23 | 21.15 | 1             |      |           | 1               | 5         | 21.18 | 21.16 | 21.15 | 1             |
|            |           | 8               | 0         | 20.05 | 20.14 | 20.06 | 2             |      |           | 3               | 0         | 21.06 | 21.05 | 21.09 | 1             |
|            |           | 8               | 3         | 20.18 | 20.29 | 20.05 | 2             |      |           | 3               | 1         | 21.18 | 21.19 | 21.11 | 1             |
|            |           | 8               | 7         | 20.05 | 20.14 | 20.11 | 2             |      |           | 3               | 3         | 21.19 | 21.21 | 21.17 | 1             |
|            |           | 15              | 0         | 20.09 | 20.02 | 20.13 | 2             |      |           | 6               | 0         | 20.21 | 20.23 | 20.17 | 2             |

| LTE Band 7 |           |                 |           |        |        |        |               |     |           |                 |           |        |        |        |               |
|------------|-----------|-----------------|-----------|--------|--------|--------|---------------|-----|-----------|-----------------|-----------|--------|--------|--------|---------------|
| BW         | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW  | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |
|            |           | Channel         |           | 20850  | 21100  | 21350  |               |     |           | Channel         |           | 20825  | 21100  | 21375  |               |
|            |           | Frequency (MHz) |           | 2510.0 | 2535.0 | 2560.0 |               |     |           | Frequency (MHz) |           | 2507.5 | 2535.0 | 2562.5 |               |
| 20M        | QPSK      | 1               | 0         | 21.76  | 22.07  | 21.62  | 0             | 15M | QPSK      | 1               | 0         | 21.68  | 22.02  | 21.54  | 0             |
|            |           | 1               | 50        | 21.98  | 22.03  | 21.89  | 0             |     |           | 1               | 37        | 21.92  | 21.97  | 21.82  | 0             |
|            |           | 1               | 99        | 21.59  | 21.64  | 21.50  | 0             |     |           | 1               | 74        | 21.50  | 21.56  | 21.41  | 0             |
|            |           | 50              | 0         | 20.90  | 20.95  | 20.81  | 1             |     |           | 36              | 0         | 20.66  | 20.74  | 20.55  | 1             |
|            |           | 50              | 25        | 20.79  | 20.84  | 20.70  | 1             |     |           | 36              | 19        | 20.80  | 20.86  | 20.69  | 1             |
|            |           | 50              | 50        | 20.86  | 20.91  | 20.77  | 1             |     |           | 36              | 39        | 20.76  | 20.82  | 20.63  | 1             |
|            |           | 100             | 0         | 20.84  | 20.89  | 20.75  | 1             |     |           | 75              | 0         | 20.74  | 20.79  | 20.60  | 1             |
|            | 16QAM     | 1               | 0         | 20.78  | 21.12  | 20.63  | 1             |     | 16QAM     | 1               | 0         | 20.71  | 21.07  | 20.57  | 1             |
|            |           | 1               | 50        | 21.00  | 21.07  | 20.91  | 1             |     |           | 1               | 37        | 20.96  | 21.02  | 20.85  | 1             |
|            |           | 1               | 99        | 20.60  | 20.66  | 20.50  | 1             |     |           | 1               | 74        | 20.52  | 20.59  | 20.42  | 1             |
|            |           | 50              | 0         | 19.75  | 19.82  | 19.65  | 2             |     |           | 36              | 0         | 19.61  | 19.68  | 19.50  | 2             |
|            |           | 50              | 25        | 19.89  | 19.95  | 19.77  | 2             |     |           | 36              | 19        | 19.78  | 19.85  | 19.64  | 2             |
|            |           | 50              | 50        | 19.85  | 19.90  | 19.72  | 2             |     |           | 36              | 39        | 19.71  | 19.81  | 19.57  | 2             |
|            |           | 100             | 0         | 19.82  | 19.88  | 19.70  | 2             |     |           | 75              | 0         | 19.68  | 19.75  | 19.55  | 2             |
| BW         | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW  | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |
|            |           | Channel         |           | 20800  | 21100  | 21400  |               |     |           | Channel         |           | 20775  | 21100  | 21425  |               |
|            |           | Frequency (MHz) |           | 2505.0 | 2535.0 | 2565.0 |               |     |           | Frequency (MHz) |           | 2502.5 | 2535.0 | 2567.5 |               |
| 10M        | QPSK      | 1               | 0         | 21.60  | 21.96  | 21.46  | 0             | 5M  | QPSK      | 1               | 0         | 21.55  | 21.91  | 21.39  | 0             |
|            |           | 1               | 24        | 21.85  | 21.92  | 21.75  | 0             |     |           | 1               | 12        | 21.80  | 21.86  | 21.69  | 0             |
|            |           | 1               | 49        | 21.42  | 21.48  | 21.32  | 0             |     |           | 1               | 24        | 21.34  | 21.41  | 21.24  | 0             |
|            |           | 25              | 0         | 20.54  | 20.61  | 20.41  | 1             |     |           | 12              | 0         | 20.40  | 20.51  | 20.26  | 1             |
|            |           | 25              | 12        | 20.69  | 20.76  | 20.56  | 1             |     |           | 12              | 6         | 20.60  | 20.67  | 20.43  | 1             |
|            |           | 25              | 25        | 20.63  | 20.71  | 20.50  | 1             |     |           | 12              | 13        | 20.53  | 20.62  | 20.36  | 1             |
|            |           | 50              | 0         | 20.61  | 20.67  | 20.47  | 1             |     |           | 25              | 0         | 20.51  | 20.57  | 20.31  | 1             |
|            | 16QAM     | 1               | 0         | 20.65  | 21.01  | 20.48  | 1             |     | 16QAM     | 1               | 0         | 20.56  | 20.97  | 20.40  | 1             |
|            |           | 1               | 24        | 20.90  | 20.95  | 20.79  | 1             |     |           | 1               | 12        | 20.82  | 20.91  | 20.71  | 1             |
|            |           | 1               | 49        | 20.44  | 20.51  | 20.33  | 1             |     |           | 1               | 24        | 20.34  | 20.43  | 20.21  | 1             |
|            |           | 25              | 0         | 19.49  | 19.58  | 19.36  | 2             |     |           | 12              | 0         | 19.34  | 19.46  | 19.21  | 2             |
|            |           | 25              | 12        | 19.69  | 19.78  | 19.52  | 2             |     |           | 12              | 6         | 19.55  | 19.62  | 19.38  | 2             |
|            |           | 25              | 25        | 19.61  | 19.73  | 19.45  | 2             |     |           | 12              | 13        | 19.49  | 19.58  | 19.30  | 2             |
|            |           | 50              | 0         | 19.58  | 19.67  | 19.42  | 2             |     |           | 25              | 0         | 19.46  | 19.53  | 19.28  | 2             |

| LTE Band 12 |           |                 |           |       |       |       |               |      |           |                 |           |       |       |       |               |
|-------------|-----------|-----------------|-----------|-------|-------|-------|---------------|------|-----------|-----------------|-----------|-------|-------|-------|---------------|
| BW          | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) |
|             |           | Channel         |           | 23060 | 23095 | 23130 |               |      |           | Channel         |           | 23035 | 23095 | 23155 |               |
|             |           | Frequency (MHz) |           | 704.0 | 707.5 | 711.0 |               |      |           | Frequency (MHz) |           | 701.5 | 707.5 | 713.5 |               |
| 10M         | QPSK      | 1               | 0         | 23.05 | 23.03 | 23.03 | 0             | 5M   | QPSK      | 1               | 0         | 23.00 | 22.98 | 22.98 | 0             |
|             |           | 1               | 24        | 23.03 | 23.01 | 23.02 | 0             |      |           | 1               | 12        | 22.98 | 22.95 | 22.96 | 0             |
|             |           | 1               | 49        | 22.97 | 22.95 | 22.96 | 0             |      |           | 1               | 24        | 22.90 | 22.85 | 22.87 | 0             |
|             |           | 25              | 0         | 22.03 | 21.96 | 21.97 | 1             |      |           | 12              | 0         | 21.84 | 21.81 | 21.82 | 1             |
|             |           | 25              | 12        | 21.98 | 22.01 | 22.02 | 1             |      |           | 12              | 6         | 21.93 | 21.91 | 21.92 | 1             |
|             |           | 25              | 25        | 21.99 | 21.97 | 21.98 | 1             |      |           | 12              | 13        | 21.86 | 21.82 | 21.84 | 1             |
|             |           | 50              | 0         | 22.01 | 21.99 | 22.00 | 1             |      |           | 25              | 0         | 21.90 | 21.86 | 21.88 | 1             |
|             | 16QAM     | 1               | 0         | 22.09 | 22.07 | 22.07 | 1             |      | 16QAM     | 1               | 0         | 22.05 | 22.02 | 22.02 | 1             |
|             |           | 1               | 24        | 22.07 | 22.03 | 22.04 | 1             |      |           | 1               | 12        | 22.02 | 21.93 | 21.95 | 1             |
|             |           | 1               | 49        | 21.98 | 21.95 | 21.96 | 1             |      |           | 1               | 24        | 21.89 | 21.83 | 21.86 | 1             |
|             |           | 25              | 0         | 20.94 | 20.91 | 20.93 | 2             |      |           | 12              | 0         | 20.81 | 20.76 | 20.79 | 2             |
|             |           | 25              | 12        | 21.03 | 21.00 | 21.02 | 2             |      |           | 12              | 6         | 20.91 | 20.88 | 20.90 | 2             |
|             |           | 25              | 25        | 20.97 | 20.92 | 20.94 | 2             |      |           | 12              | 13        | 20.84 | 20.77 | 20.81 | 2             |
|             |           | 50              | 0         | 21.00 | 20.97 | 20.99 | 2             |      |           | 25              | 0         | 20.87 | 20.84 | 20.85 | 2             |
| BW          | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) |
|             |           | Channel         |           | 23025 | 23095 | 23165 |               |      |           | Channel         |           | 23017 | 23095 | 23173 |               |
|             |           | Frequency (MHz) |           | 700.5 | 707.5 | 714.5 |               |      |           | Frequency (MHz) |           | 699.7 | 707.5 | 715.3 |               |
| 3M          | QPSK      | 1               | 0         | 22.93 | 22.90 | 22.90 | 0             | 1.4M | QPSK      | 1               | 0         | 22.90 | 22.86 | 22.86 | 0             |
|             |           | 1               | 7         | 22.90 | 22.84 | 22.86 | 0             |      |           | 1               | 2         | 22.86 | 22.78 | 22.81 | 0             |
|             |           | 1               | 14        | 22.80 | 22.76 | 22.79 | 0             |      |           | 1               | 5         | 22.74 | 22.68 | 22.70 | 0             |
|             |           | 8               | 0         | 21.72 | 21.67 | 21.70 | 1             |      |           | 3               | 0         | 22.61 | 22.51 | 22.53 | 0             |
|             |           | 8               | 3         | 21.83 | 21.78 | 21.81 | 1             |      |           | 3               | 1         | 22.59 | 22.52 | 22.57 | 0             |
|             |           | 8               | 7         | 21.73 | 21.69 | 21.72 | 1             |      |           | 3               | 3         | 22.48 | 22.44 | 22.49 | 0             |
|             |           | 15              | 0         | 21.78 | 21.73 | 21.76 | 1             |      |           | 6               | 0         | 21.69 | 21.65 | 21.67 | 1             |
|             | 16QAM     | 1               | 0         | 22.00 | 21.98 | 21.98 | 1             |      | 16QAM     | 1               | 0         | 21.94 | 21.90 | 21.90 | 1             |
|             |           | 1               | 7         | 21.98 | 21.89 | 21.92 | 1             |      |           | 1               | 2         | 21.90 | 21.80 | 21.84 | 1             |
|             |           | 1               | 14        | 21.82 | 21.77 | 21.80 | 1             |      |           | 1               | 5         | 21.75 | 21.69 | 21.72 | 1             |
|             |           | 8               | 0         | 20.67 | 20.61 | 20.63 | 2             |      |           | 3               | 0         | 21.55 | 21.47 | 21.51 | 1             |
|             |           | 8               | 3         | 20.84 | 20.78 | 20.81 | 2             |      |           | 3               | 1         | 21.57 | 21.71 | 21.69 | 1             |
|             |           | 8               | 7         | 20.71 | 20.63 | 20.67 | 2             |      |           | 3               | 3         | 21.52 | 21.49 | 21.55 | 1             |
|             |           | 15              | 0         | 20.77 | 20.71 | 20.75 | 2             |      |           | 6               | 0         | 20.67 | 20.62 | 20.65 | 2             |

| LTE Band 13 |           |                 |           |     |       |      |               |    |           |                 |           |       |       |       |               |
|-------------|-----------|-----------------|-----------|-----|-------|------|---------------|----|-----------|-----------------|-----------|-------|-------|-------|---------------|
| BW          | MCS Index | RB Size         | RB Offset | Low | Mid   | High | 3GPP MPR (dB) | BW | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) |
|             |           | Channel         |           |     | 23230 |      |               |    |           | Channel         |           | 23205 | 23230 | 23225 |               |
|             |           | Frequency (MHz) |           |     | 782.0 |      |               |    |           | Frequency (MHz) |           | 779.5 | 782.0 | 784.5 |               |
| 10M         | QPSK      | 1               | 0         |     | 22.82 |      | 0             | 5M | QPSK      | 1               | 0         | 22.88 | 22.67 | 22.91 | 0             |
|             |           | 1               | 24        |     | 22.78 |      | 0             |    |           | 1               | 12        | 22.78 | 22.74 | 22.74 | 0             |
|             |           | 1               | 49        |     | 22.75 |      | 0             |    |           | 1               | 24        | 22.53 | 22.69 | 22.34 | 0             |
|             |           | 25              | 0         |     | 21.64 |      | 1             |    |           | 12              | 0         | 21.66 | 21.54 | 21.56 | 1             |
|             |           | 25              | 12        |     | 21.63 |      | 1             |    |           | 12              | 6         | 21.83 | 21.57 | 21.71 | 1             |
|             |           | 25              | 25        |     | 21.58 |      | 1             |    |           | 12              | 13        | 21.72 | 21.61 | 21.65 | 1             |
|             |           | 50              | 0         |     | 21.79 |      | 1             |    |           | 25              | 0         | 21.68 | 21.63 | 21.77 | 1             |
|             | 16QAM     | 1               | 0         |     | 21.59 |      | 1             |    | 16QAM     | 1               | 0         | 21.84 | 21.60 | 22.05 | 1             |
|             |           | 1               | 24        |     | 21.65 |      | 1             |    |           | 1               | 12        | 21.74 | 21.54 | 21.90 | 1             |
|             |           | 1               | 49        |     | 21.57 |      | 1             |    |           | 1               | 24        | 21.45 | 21.53 | 21.48 | 1             |
|             |           | 25              | 0         |     | 20.34 |      | 2             |    |           | 12              | 0         | 20.70 | 20.54 | 20.60 | 2             |
|             |           | 25              | 12        |     | 20.40 |      | 2             |    |           | 12              | 6         | 20.83 | 20.61 | 20.73 | 2             |
|             |           | 25              | 25        |     | 20.50 |      | 2             |    |           | 12              | 13        | 20.67 | 20.35 | 20.74 | 2             |
|             |           | 50              | 0         |     | 20.56 |      | 2             |    |           | 25              | 0         | 20.83 | 20.73 | 20.79 | 2             |

| LTE Band 25 |           |                 |           |        |        |        |               |      |           |                 |           |        |        |        |               |
|-------------|-----------|-----------------|-----------|--------|--------|--------|---------------|------|-----------|-----------------|-----------|--------|--------|--------|---------------|
| BW          | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |
|             |           | Channel         |           | 26140  | 26365  | 26590  |               |      |           | Channel         |           | 26115  | 26365  | 26615  |               |
|             |           | Frequency (MHz) |           | 1860.0 | 1882.5 | 1905.0 |               |      |           | Frequency (MHz) |           | 1857.5 | 1882.5 | 1907.5 |               |
| 20M         | QPSK      | 1               | 0         | 23.01  | 23.02  | 23.12  | 0             | 15M  | QPSK      | 1               | 0         | 22.96  | 22.97  | 23.07  | 0             |
|             |           | 1               | 50        | 22.95  | 22.94  | 23.00  | 0             |      |           | 1               | 37        | 22.89  | 22.88  | 22.95  | 0             |
|             |           | 1               | 99        | 22.60  | 22.59  | 22.65  | 0             |      |           | 1               | 74        | 22.52  | 22.51  | 22.59  | 0             |
|             |           | 50              | 0         | 21.82  | 21.81  | 21.97  | 1             |      |           | 36              | 0         | 21.67  | 21.66  | 21.73  | 1             |
|             |           | 50              | 25        | 21.92  | 21.91  | 21.88  | 1             |      |           | 36              | 19        | 21.83  | 21.82  | 21.89  | 1             |
|             |           | 50              | 50        | 21.85  | 21.84  | 21.90  | 1             |      |           | 36              | 39        | 21.71  | 21.70  | 21.80  | 1             |
|             |           | 100             | 0         | 21.90  | 21.89  | 21.95  | 1             |      |           | 75              | 0         | 21.80  | 21.76  | 21.87  | 1             |
|             | 16QAM     | 1               | 0         | 22.06  | 22.07  | 22.17  | 1             |      | 16QAM     | 1               | 0         | 21.98  | 22.02  | 22.12  | 1             |
|             |           | 1               | 50        | 21.99  | 21.98  | 22.05  | 1             |      |           | 1               | 37        | 21.91  | 21.88  | 21.96  | 1             |
|             |           | 1               | 99        | 21.63  | 21.62  | 21.68  | 1             |      |           | 1               | 74        | 21.52  | 21.50  | 21.57  | 1             |
|             |           | 50              | 0         | 20.78  | 20.76  | 20.85  | 2             |      |           | 36              | 0         | 20.65  | 20.62  | 20.71  | 2             |
|             |           | 50              | 25        | 20.93  | 20.91  | 20.99  | 2             |      |           | 36              | 19        | 20.81  | 20.80  | 20.87  | 2             |
|             |           | 50              | 50        | 20.82  | 20.80  | 20.89  | 2             |      |           | 36              | 39        | 20.69  | 20.68  | 20.78  | 2             |
|             |           | 100             | 0         | 20.89  | 20.87  | 20.96  | 2             |      |           | 75              | 0         | 20.79  | 20.75  | 20.85  | 2             |
| BW          | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |
|             |           | Channel         |           | 26090  | 26365  | 26640  |               |      |           | Channel         |           | 26065  | 26365  | 26665  |               |
|             |           | Frequency (MHz) |           | 2855.0 | 1882.5 | 1910.0 |               |      |           | Frequency (MHz) |           | 1852.5 | 1882.5 | 1912.5 |               |
| 10M         | QPSK      | 1               | 0         | 22.90  | 22.92  | 23.02  | 0             | 5M   | QPSK      | 1               | 0         | 22.85  | 22.86  | 22.97  | 0             |
|             |           | 1               | 24        | 22.80  | 22.79  | 22.88  | 0             |      |           | 1               | 12        | 22.74  | 22.72  | 22.82  | 0             |
|             |           | 1               | 49        | 22.43  | 22.42  | 22.50  | 0             |      |           | 1               | 24        | 22.36  | 22.34  | 22.43  | 0             |
|             |           | 25              | 0         | 21.54  | 21.51  | 21.62  | 1             |      |           | 12              | 0         | 21.39  | 21.36  | 21.48  | 1             |
|             |           | 25              | 12        | 21.72  | 21.71  | 21.79  | 1             |      |           | 12              | 6         | 21.62  | 21.60  | 21.69  | 1             |
|             |           | 25              | 25        | 21.59  | 21.57  | 21.68  | 1             |      |           | 12              | 13        | 21.45  | 21.44  | 21.57  | 1             |
|             |           | 50              | 0         | 21.69  | 21.65  | 21.77  | 1             |      |           | 25              | 0         | 21.57  | 21.53  | 21.67  | 1             |
|             | 16QAM     | 1               | 0         | 21.96  | 21.97  | 22.07  | 1             |      | 16QAM     | 1               | 0         | 21.83  | 21.85  | 21.99  | 1             |
|             |           | 1               | 24        | 21.83  | 21.81  | 21.93  | 1             |      |           | 1               | 12        | 21.73  | 21.71  | 21.81  | 1             |
|             |           | 1               | 49        | 21.41  | 21.39  | 21.51  | 1             |      |           | 1               | 24        | 21.33  | 21.31  | 21.41  | 1             |
|             |           | 25              | 0         | 20.49  | 20.47  | 20.57  | 2             |      |           | 12              | 0         | 20.35  | 20.33  | 20.46  | 2             |
|             |           | 25              | 12        | 20.69  | 20.66  | 20.77  | 2             |      |           | 12              | 6         | 20.63  | 20.59  | 20.69  | 2             |
|             |           | 25              | 25        | 20.53  | 20.52  | 20.64  | 2             |      |           | 12              | 13        | 20.43  | 20.39  | 20.52  | 2             |
|             |           | 50              | 0         | 20.65  | 20.61  | 20.73  | 2             |      |           | 25              | 0         | 20.54  | 20.50  | 20.67  | 2             |
| BW          | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |
|             |           | Channel         |           | 26055  | 26365  | 26675  |               |      |           | Channel         |           | 26047  | 26365  | 26683  |               |
|             |           | Frequency (MHz) |           | 1851.5 | 1882.5 | 1913.5 |               |      |           | Frequency (MHz) |           | 1850.7 | 1882.5 | 1914.3 |               |
| 3M          | QPSK      | 1               | 0         | 22.92  | 22.94  | 22.90  | 0             | 1.4M | QPSK      | 1               | 0         | 22.82  | 22.99  | 22.95  | 0             |
|             |           | 1               | 7         | 22.89  | 22.87  | 22.77  | 0             |      |           | 1               | 2         | 22.92  | 22.81  | 22.91  | 0             |
|             |           | 1               | 14        | 22.51  | 22.41  | 22.55  | 0             |      |           | 1               | 5         | 22.54  | 22.48  | 22.54  | 0             |
|             |           | 8               | 0         | 21.71  | 21.64  | 21.65  | 1             |      |           | 3               | 0         | 22.62  | 22.65  | 22.72  | 0             |
|             |           | 8               | 3         | 21.82  | 21.76  | 21.86  | 1             |      |           | 3               | 1         | 22.85  | 22.70  | 22.87  | 0             |
|             |           | 8               | 7         | 21.73  | 21.74  | 21.77  | 1             |      |           | 3               | 3         | 22.75  | 22.75  | 22.81  | 0             |
|             |           | 15              | 0         | 21.77  | 21.73  | 21.88  | 1             |      |           | 6               | 0         | 21.71  | 21.76  | 21.76  | 1             |
|             | 16QAM     | 1               | 0         | 21.98  | 21.79  | 21.84  | 1             |      | 16QAM     | 1               | 0         | 21.80  | 21.93  | 21.92  | 1             |
|             |           | 1               | 7         | 21.71  | 21.71  | 21.74  | 1             |      |           | 1               | 2         | 21.80  | 21.78  | 21.87  | 1             |
|             |           | 1               | 14        | 21.44  | 21.41  | 21.49  | 1             |      |           | 1               | 5         | 21.42  | 21.41  | 21.55  | 1             |
|             |           | 8               | 0         | 20.68  | 20.55  | 20.79  | 2             |      |           | 3               | 0         | 21.52  | 21.56  | 21.71  | 1             |
|             |           | 8               | 3         | 20.70  | 20.65  | 20.86  | 2             |      |           | 3               | 1         | 21.85  | 21.82  | 21.88  | 1             |
|             |           | 8               | 7         | 20.58  | 20.70  | 20.74  | 2             |      |           | 3               | 3         | 21.63  | 21.79  | 21.74  | 1             |
|             |           | 15              | 0         | 20.81  | 20.69  | 20.77  | 2             |      |           | 6               | 0         | 20.69  | 20.66  | 20.79  | 2             |

| LTE Band 26 |           |                 |           |       |       |       |               |     |           |                 |           |       |       |       |               |
|-------------|-----------|-----------------|-----------|-------|-------|-------|---------------|-----|-----------|-----------------|-----------|-------|-------|-------|---------------|
| BW          | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) | BW  | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) |
|             |           | Channel         |           | 26765 | 26865 | 26965 |               |     |           | Channel         |           | 26740 | 26865 | 26990 |               |
|             |           | Frequency (MHz) |           | 821.5 | 831.5 | 841.5 |               |     |           | Frequency (MHz) |           | 819.0 | 831.5 | 844.0 |               |
| 15M         | QPSK      | 1               | 0         | 22.75 | 22.85 | 22.59 | 0             | 10M | QPSK      | 1               | 0         | 22.69 | 22.80 | 22.53 | 0             |
|             |           | 1               | 37        | 22.41 | 22.33 | 22.14 | 0             |     |           | 1               | 24        | 22.33 | 22.24 | 22.05 | 0             |
|             |           | 1               | 74        | 22.54 | 22.46 | 22.27 | 0             |     |           | 1               | 49        | 22.47 | 22.38 | 22.18 | 0             |
|             |           | 36              | 0         | 21.59 | 21.71 | 21.52 | 1             |     |           | 25              | 0         | 21.51 | 21.42 | 21.22 | 1             |
|             |           | 36              | 19        | 21.61 | 21.53 | 21.34 | 1             |     |           | 25              | 12        | 21.50 | 21.41 | 21.20 | 1             |
|             |           | 36              | 39        | 21.59 | 21.62 | 21.43 | 1             |     |           | 25              | 25        | 21.59 | 21.51 | 21.31 | 1             |
|             |           | 75              | 0         | 21.51 | 21.59 | 21.40 | 1             |     |           | 50              | 0         | 21.48 | 21.39 | 21.17 | 1             |
|             | 16QAM     | 1               | 0         | 21.80 | 21.90 | 21.64 | 1             |     | 16QAM     | 1               | 0         | 21.75 | 21.85 | 21.59 | 1             |
|             |           | 1               | 37        | 21.45 | 21.35 | 21.15 | 1             |     |           | 1               | 24        | 21.38 | 21.28 | 21.07 | 1             |
|             |           | 1               | 74        | 21.58 | 21.50 | 21.28 | 1             |     |           | 1               | 49        | 21.54 | 21.44 | 21.21 | 1             |
|             |           | 36              | 0         | 20.62 | 20.52 | 20.31 | 2             |     |           | 25              | 0         | 20.51 | 20.40 | 20.16 | 2             |
|             |           | 36              | 19        | 20.60 | 20.51 | 20.30 | 2             |     |           | 25              | 12        | 20.50 | 20.37 | 20.15 | 2             |
|             |           | 36              | 39        | 20.71 | 20.63 | 20.40 | 2             |     |           | 25              | 25        | 20.62 | 20.53 | 20.25 | 2             |
|             |           | 75              | 0         | 20.57 | 20.49 | 20.28 | 2             |     |           | 50              | 0         | 20.45 | 20.35 | 20.12 | 2             |
| BW          | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) | BW  | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) |
|             |           | Channel         |           | 26715 | 26865 | 27015 |               |     |           | Channel         |           | 26705 | 26865 | 27025 |               |
|             |           | Frequency (MHz) |           | 816.5 | 831.5 | 846.5 |               |     |           | Frequency (MHz) |           | 815.5 | 831.5 | 847.5 |               |
| 5M          | QPSK      | 1               | 0         | 22.63 | 22.74 | 22.47 | 0             | 3M  | QPSK      | 1               | 0         | 22.57 | 22.69 | 22.40 | 0             |
|             |           | 1               | 12        | 22.25 | 22.15 | 22.06 | 0             |     |           | 1               | 7         | 22.19 | 22.10 | 22.09 | 0             |
|             |           | 1               | 24        | 22.40 | 22.32 | 22.09 | 0             |     |           | 1               | 14        | 22.35 | 22.26 | 22.03 | 0             |
|             |           | 12              | 0         | 21.39 | 21.29 | 21.07 | 1             |     |           | 8               | 0         | 21.33 | 21.20 | 21.14 | 1             |
|             |           | 12              | 6         | 21.38 | 21.28 | 21.04 | 1             |     |           | 8               | 3         | 21.29 | 21.18 | 21.05 | 1             |
|             |           | 12              | 13        | 21.51 | 21.41 | 21.16 | 1             |     |           | 8               | 7         | 21.43 | 21.34 | 21.04 | 1             |
|             |           | 25              | 0         | 21.35 | 21.25 | 21.02 | 1             |     |           | 15              | 0         | 21.26 | 21.16 | 21.12 | 1             |
|             | 16QAM     | 1               | 0         | 21.69 | 21.80 | 21.51 | 1             |     | 16QAM     | 1               | 0         | 21.61 | 21.72 | 21.42 | 1             |
|             |           | 1               | 12        | 21.28 | 21.20 | 21.09 | 1             |     |           | 1               | 7         | 21.22 | 21.11 | 21.08 | 1             |
|             |           | 1               | 24        | 21.44 | 21.35 | 21.14 | 1             |     |           | 1               | 14        | 21.37 | 21.28 | 21.03 | 1             |
|             |           | 12              | 0         | 20.46 | 20.31 | 20.06 | 2             |     |           | 8               | 0         | 20.31 | 20.19 | 20.09 | 2             |
|             |           | 12              | 6         | 20.43 | 20.30 | 20.12 | 2             |     |           | 8               | 3         | 20.28 | 20.16 | 20.02 | 2             |
|             |           | 12              | 13        | 20.55 | 20.47 | 20.15 | 2             |     |           | 8               | 7         | 20.44 | 20.34 | 20.04 | 2             |
|             |           | 25              | 0         | 20.38 | 20.26 | 20.27 | 2             |     |           | 15              | 0         | 20.24 | 20.14 | 20.07 | 2             |
| BW          | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) |     |           |                 |           |       |       |       |               |
|             |           | Channel         |           | 26697 | 26865 | 27033 |               |     |           |                 |           |       |       |       |               |
|             |           | Frequency (MHz) |           | 814.7 | 831.5 | 848.3 |               |     |           |                 |           |       |       |       |               |
| 1.4M        | QPSK      | 1               | 0         | 22.55 | 22.65 | 22.38 | 0             |     |           |                 |           |       |       |       |               |
|             |           | 1               | 2         | 22.12 | 22.23 | 22.06 | 0             |     |           |                 |           |       |       |       |               |
|             |           | 1               | 5         | 22.29 | 22.19 | 22.02 | 0             |     |           |                 |           |       |       |       |               |
|             |           | 3               | 0         | 22.09 | 22.07 | 22.01 | 0             |     |           |                 |           |       |       |       |               |
|             |           | 3               | 1         | 22.08 | 22.11 | 22.02 | 0             |     |           |                 |           |       |       |       |               |
|             |           | 3               | 3         | 22.17 | 22.25 | 22.11 | 0             |     |           |                 |           |       |       |       |               |
|             |           | 6               | 0         | 21.16 | 21.15 | 21.09 | 1             |     |           |                 |           |       |       |       |               |
|             | 16QAM     | 1               | 0         | 21.59 | 21.70 | 21.42 | 1             |     |           |                 |           |       |       |       |               |
|             |           | 1               | 2         | 21.15 | 21.07 | 21.03 | 1             |     |           |                 |           |       |       |       |               |
|             |           | 1               | 5         | 21.34 | 21.23 | 21.19 | 1             |     |           |                 |           |       |       |       |               |
|             |           | 3               | 0         | 21.19 | 21.27 | 21.13 | 1             |     |           |                 |           |       |       |       |               |
|             |           | 3               | 1         | 21.14 | 21.22 | 21.16 | 1             |     |           |                 |           |       |       |       |               |
|             |           | 3               | 3         | 21.05 | 21.14 | 21.09 | 1             |     |           |                 |           |       |       |       |               |
|             |           | 6               | 0         | 20.16 | 20.26 | 20.16 | 2             |     |           |                 |           |       |       |       |               |

| LTE Band 41 |           |                 |           |        |        |        |        |        |               |     |           |                 |           |        |        |        |        |        |               |
|-------------|-----------|-----------------|-----------|--------|--------|--------|--------|--------|---------------|-----|-----------|-----------------|-----------|--------|--------|--------|--------|--------|---------------|
| BW          | MCS Index | RB Size         | RB Offset | Low    | Mid    | Mid    | Mid    | High   | 3GPP MPR (dB) | BW  | MCS Index | RB Size         | RB Offset | Low    | Mid    | Mid    | Mid    | High   | 3GPP MPR (dB) |
|             |           | Channel         |           | 39750  | 40185  | 40620  | 41055  | 41490  |               |     |           | Channel         |           | 39725  | 40173  | 40620  | 41068  | 41515  |               |
|             |           | Frequency (MHz) |           | 2506.0 | 2549.5 | 2593.0 | 2636.5 | 2680.0 |               |     |           | Frequency (MHz) |           | 2503.5 | 2548.3 | 2593.0 | 2637.8 | 2682.5 |               |
| 20M         | QPSK      | 1               | 0         | 21.47  | 21.51  | 21.59  | 21.47  | 21.91  | 0             | 15M | QPSK      | 1               | 0         | 21.45  | 21.46  | 21.49  | 21.46  | 21.84  | 0             |
|             |           | 1               | 50        | 21.63  | 21.65  | 21.71  | 21.63  | 21.90  | 0             |     |           | 1               | 37        | 21.65  | 21.71  | 21.70  | 21.67  | 21.82  | 0             |
|             |           | 1               | 99        | 21.35  | 21.37  | 21.43  | 21.35  | 21.62  | 0             |     |           | 1               | 74        | 21.32  | 21.36  | 21.37  | 21.31  | 21.62  | 0             |
|             |           | 50              | 0         | 20.60  | 20.62  | 20.68  | 20.60  | 20.92  | 1             |     |           | 36              | 0         | 20.50  | 20.52  | 20.68  | 20.55  | 20.79  | 1             |
|             |           | 50              | 25        | 20.58  | 20.60  | 20.66  | 20.58  | 20.85  | 1             |     |           | 36              | 19        | 20.55  | 20.50  | 20.64  | 20.49  | 20.85  | 1             |
|             |           | 50              | 50        | 20.65  | 20.67  | 20.73  | 20.65  | 20.83  | 1             |     |           | 36              | 39        | 20.55  | 20.58  | 20.66  | 20.64  | 20.87  | 1             |
|             |           | 100             | 0         | 20.57  | 20.59  | 20.65  | 20.57  | 20.84  | 1             |     |           | 75              | 0         | 20.47  | 20.51  | 20.57  | 20.50  | 20.78  | 1             |
|             | 16QAM     | 1               | 0         | 20.40  | 20.49  | 20.58  | 20.46  | 20.83  | 1             |     | 16QAM     | 1               | 0         | 20.40  | 20.45  | 20.56  | 20.45  | 20.87  | 1             |
|             |           | 1               | 50        | 20.65  | 20.66  | 20.73  | 20.64  | 20.92  | 1             |     |           | 1               | 37        | 20.68  | 20.71  | 20.76  | 20.71  | 20.99  | 1             |
|             |           | 1               | 99        | 20.31  | 20.33  | 20.43  | 20.26  | 20.53  | 1             |     |           | 1               | 74        | 20.27  | 20.31  | 20.34  | 20.29  | 20.56  | 1             |
|             |           | 50              | 0         | 19.58  | 19.60  | 19.67  | 19.55  | 19.87  | 2             |     |           | 36              | 0         | 19.56  | 19.59  | 19.68  | 19.51  | 19.79  | 2             |
|             |           | 50              | 25        | 19.52  | 19.55  | 19.59  | 19.49  | 19.77  | 2             |     |           | 36              | 19        | 19.58  | 19.53  | 19.65  | 19.49  | 19.79  | 2             |
|             |           | 50              | 50        | 19.63  | 19.67  | 19.68  | 19.59  | 19.85  | 2             |     |           | 36              | 39        | 19.61  | 19.61  | 19.63  | 19.59  | 19.89  | 2             |
|             |           | 100             | 0         | 19.47  | 19.51  | 19.61  | 19.56  | 19.83  | 2             |     |           | 75              | 0         | 19.48  | 19.50  | 19.59  | 19.47  | 19.77  | 2             |
| BW          | MCS Index | RB Size         | RB Offset | Low    | Mid    | Mid    | Mid    | High   | 3GPP MPR (dB) | BW  | MCS Index | RB Size         | RB Offset | Low    | Mid    | Mid    | Mid    | High   | 3GPP MPR (dB) |
|             |           | Channel         |           | 39700  | 40160  | 40620  | 41080  | 41540  |               |     |           | Channel         |           | 39675  | 40148  | 40620  | 41093  | 41565  |               |
|             |           | Frequency (MHz) |           | 2501.0 | 2547.0 | 2593.0 | 2639.0 | 2685.0 |               |     |           | Frequency (MHz) |           | 2498.5 | 2545.8 | 2593.0 | 2640.3 | 2687.5 |               |
| 10M         | QPSK      | 1               | 0         | 21.37  | 21.36  | 21.48  | 21.38  | 21.76  | 0             | 5M  | QPSK      | 1               | 0         | 21.47  | 21.43  | 21.47  | 21.43  | 21.80  | 0             |
|             |           | 1               | 24        | 21.69  | 21.65  | 21.70  | 21.69  | 21.84  | 0             |     |           | 1               | 12        | 21.65  | 21.60  | 21.64  | 21.58  | 21.88  | 0             |
|             |           | 1               | 49        | 21.22  | 21.24  | 21.30  | 21.23  | 21.53  | 0             |     |           | 1               | 24        | 21.24  | 21.23  | 21.32  | 21.26  | 21.56  | 0             |
|             |           | 25              | 0         | 20.50  | 20.50  | 20.52  | 20.51  | 20.82  | 1             |     |           | 12              | 0         | 20.49  | 20.48  | 20.64  | 20.53  | 20.77  | 1             |
|             |           | 25              | 12        | 20.47  | 20.59  | 20.49  | 20.55  | 20.83  | 1             |     |           | 12              | 6         | 20.53  | 20.53  | 20.49  | 20.41  | 20.69  | 1             |
|             |           | 25              | 25        | 20.56  | 20.61  | 20.66  | 20.57  | 20.83  | 1             |     |           | 12              | 13        | 20.51  | 20.55  | 20.61  | 20.55  | 20.76  | 1             |
|             |           | 50              | 0         | 20.49  | 20.44  | 20.57  | 20.45  | 20.79  | 1             |     |           | 25              | 0         | 20.45  | 20.42  | 20.53  | 20.51  | 20.78  | 1             |
|             | 16QAM     | 1               | 0         | 20.37  | 20.49  | 20.48  | 20.36  | 20.85  | 1             |     | 16QAM     | 1               | 0         | 20.36  | 20.44  | 20.45  | 20.37  | 20.80  | 1             |
|             |           | 1               | 24        | 20.54  | 20.64  | 20.78  | 20.56  | 20.85  | 1             |     |           | 1               | 12        | 20.64  | 20.66  | 20.70  | 20.62  | 20.88  | 1             |
|             |           | 1               | 49        | 20.17  | 20.29  | 20.29  | 20.31  | 20.53  | 1             |     |           | 1               | 24        | 20.30  | 20.21  | 20.30  | 20.20  | 20.57  | 1             |
|             |           | 25              | 0         | 19.53  | 19.52  | 19.55  | 19.49  | 19.78  | 2             |     |           | 12              | 0         | 19.48  | 19.48  | 19.66  | 19.48  | 19.79  | 2             |
|             |           | 25              | 12        | 19.41  | 19.52  | 19.58  | 19.41  | 19.67  | 2             |     |           | 12              | 6         | 19.47  | 19.50  | 19.51  | 19.47  | 19.73  | 2             |
|             |           | 25              | 25        | 19.49  | 19.50  | 19.61  | 19.55  | 19.91  | 2             |     |           | 12              | 13        | 19.49  | 19.62  | 19.64  | 19.61  | 19.88  | 2             |
|             |           | 50              | 0         | 19.48  | 19.49  | 19.58  | 19.45  | 19.75  | 2             |     |           | 25              | 0         | 19.49  | 19.51  | 19.53  | 19.48  | 19.75  | 2             |

### Power Measurements for Intra-Band Contiguous Downlink CA

| CA Combination | PCC      |          |            |                |         |           |            |                | SCC1     |          |            |                | Power                            |                               |
|----------------|----------|----------|------------|----------------|---------|-----------|------------|----------------|----------|----------|------------|----------------|----------------------------------|-------------------------------|
|                | LTE Band | BW (MHz) | UL Channel | UL Freq. (MHz) | RB Size | RB Offset | DL Channel | DL Freq. (MHz) | LTE Band | BW (MHz) | DL Channel | DL Freq. (MHz) | Tx Power with DL-CA Active (dBm) | Single Carrier Tx Power (dBm) |
| CA_2C          | 2        | 20       | 18700      | 1860           | 1       | 0         | 700        | 1940           | 2        | 20       | 898        | 1959.8         | 23.22                            | 23.23                         |
| CA_7C          | 7        | 20       | 21001      | 2525.1         | 1       | 0         | 3001       | 2645.1         | 7        | 20       | 3199       | 2664.9         | 22.05                            | 22.07                         |
| CA_41C         | 41       | 20       | 41292      | 2660.2         | 1       | 0         | 41292      | 2660.2         | 41       | 20       | 41490      | 2680           | 21.88                            | 21.91                         |

### Power Measurements for Intra-Band Non-Contiguous Downlink CA

| CA Combination | PCC      |          |            |                |         |           |            |                | SCC1     |          |            |                | Power                            |                               |
|----------------|----------|----------|------------|----------------|---------|-----------|------------|----------------|----------|----------|------------|----------------|----------------------------------|-------------------------------|
|                | LTE Band | BW (MHz) | UL Channel | UL Freq. (MHz) | RB Size | RB Offset | DL Channel | DL Freq. (MHz) | LTE Band | BW (MHz) | DL Channel | DL Freq. (MHz) | Tx Power with DL-CA Active (dBm) | Single Carrier Tx Power (dBm) |
| CA_7A_7A       | 7        | 20       | 20850      | 2510           | 1       | 0         | 2850       | 2630           | 7        | 20       | 3350       | 2680           | 22.04                            | 22.07                         |
| CA_41A_41A     | 41       | 20       | 39750      | 2506           | 1       | 0         | 39750      | 2506           | 41       | 20       | 41490      | 2680           | 21.85                            | 21.91                         |

### Power Measurements for Inter-Band Downlink CA

| CA Combination | PCC      |          |            |                |         |           |            |                | SCC1     |          |            |                | Power                            |                               |
|----------------|----------|----------|------------|----------------|---------|-----------|------------|----------------|----------|----------|------------|----------------|----------------------------------|-------------------------------|
|                | LTE Band | BW (MHz) | UL Channel | UL Freq. (MHz) | RB Size | RB Offset | DL Channel | DL Freq. (MHz) | LTE Band | BW (MHz) | DL Channel | DL Freq. (MHz) | Tx Power with DL-CA Active (dBm) | Single Carrier Tx Power (dBm) |
| CA_2A_5A       | 2        | 20       | 18700      | 18600          | 1       | 0         | 700        | 1940           | 5        | 10       | 2525       | 881.5          | 23.17                            | 23.23                         |
| CA_2A_12A      | 2        | 20       | 18700      | 18600          | 1       | 0         | 700        | 1940           | 12       | 10       | 5095       | 737.5          | 23.17                            | 23.23                         |
| CA_2A_13A      | 2        | 20       | 18700      | 18600          | 1       | 0         | 700        | 1940           | 13       | 10       | 5230       | 751            | 23.15                            | 23.23                         |
| CA_2A_29A      | 2        | 20       | 18700      | 18600          | 1       | 0         | 700        | 1940           | 29       | 10       | 9715       | 722.5          | 23.19                            | 23.23                         |
| CA_4A_5A       | 4        | 20       | 20050      | 1720           | 1       | 0         | 2050       | 2120           | 5        | 10       | 2525       | 881.5          | 23.23                            | 23.28                         |
| CA_4A_12A      | 4        | 20       | 20050      | 1720           | 1       | 0         | 2050       | 2120           | 12       | 10       | 5095       | 737.5          | 23.22                            | 23.28                         |
| CA_4A_13A      | 4        | 20       | 20050      | 1720           | 1       | 0         | 2050       | 2120           | 13       | 10       | 5230       | 751            | 23.23                            | 23.28                         |
| CA_4A_29A      | 4        | 20       | 20050      | 1720           | 1       | 0         | 2050       | 2120           | 29       | 10       | 9715       | 722.5          | 23.20                            | 23.28                         |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN2.4GHz Ant 0            |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 0<br>Avg. Power |
| 802.11b                     | 1       | 2412      | 19.43                    |
|                             | 6       | 2437      | 20.91                    |
|                             | 11      | 2462      | 19.99                    |
|                             | 12      | 2467      | 17.93                    |
|                             | 13      | 2472      | 14.94                    |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN2.4GHz Ant 1            |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 1<br>Avg. Power |
| 802.11b                     | 1       | 2412      | 19.99                    |
|                             | 6       | 2437      | 20.95                    |
|                             | 11      | 2462      | 20.85                    |
|                             | 12      | 2467      | 17.95                    |
|                             | 13      | 2472      | 14.45                    |

| WLAN Conducted Power (Full) |         |           |                          |                          |                               |
|-----------------------------|---------|-----------|--------------------------|--------------------------|-------------------------------|
| WLAN2.4GHz Ant 0+1          |         |           |                          |                          |                               |
| Mode                        | Channel | Frequency | MIMO Ant 0<br>Avg. Power | MIMO Ant 1<br>Avg. Power | MIMO Ant<br>0+1<br>Avg. Power |
| 802.11n HT20                | 1       | 2412      | 15.86                    | 15.81                    | 18.85                         |
|                             | 6       | 2437      | 19.31                    | 19.22                    | 22.28                         |
|                             | 11      | 2462      | 16.00                    | 15.80                    | 18.91                         |
|                             | 12      | 2467      | 12.44                    | 12.43                    | 15.45                         |
|                             | 13      | 2472      | -8.49                    | -8.37                    | -5.42                         |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.3GHz Ant 0           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 0<br>Avg. Power |
| 802.11a                     | 52      | 5260      | 20.83                    |
|                             | 56      | 5280      | 20.82                    |
|                             | 60      | 5300      | 20.9                     |
|                             | 64      | 5320      | 16.85                    |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.3GHz Ant 1           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 1<br>Avg. Power |
| 802.11a                     | 52      | 5260      | 21.35                    |
|                             | 56      | 5280      | 21.32                    |
|                             | 60      | 5300      | 21.4                     |
|                             | 64      | 5320      | 16.78                    |

| WLAN Conducted Power (Full) |         |           |                          |                          |                               |
|-----------------------------|---------|-----------|--------------------------|--------------------------|-------------------------------|
| WLAN 5.3GHz Ant 0+1         |         |           |                          |                          |                               |
| Mode                        | Channel | Frequency | MIMO Ant 0<br>Avg. Power | MIMO Ant 1<br>Avg. Power | MIMO Ant<br>0+1<br>Avg. Power |
| 802.11n HT20                | 52      | 5260      | 20.48                    | 20.62                    | 23.56                         |
|                             | 56      | 5280      | 20.57                    | 20.6                     | 23.6                          |
|                             | 60      | 5300      | 20.73                    | 20.93                    | 23.84                         |
|                             | 64      | 5320      | 16.89                    | 16.93                    | 19.92                         |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.6GHz Ant 0           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 0<br>Avg. Power |
| 802.11n HT40                | 102     | 5510      | 17.45                    |
|                             | 110     | 5550      | 21.4                     |
|                             | 118     | 5590      | 21.35                    |
|                             | 126     | 5630      | 21.35                    |
|                             | 134     | 5670      | 18.44                    |
|                             | 142     | 5710      | 18.41                    |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.6GHz Ant 1           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 1<br>Avg. Power |
| 802.11n HT40                | 102     | 5510      | 17.99                    |
|                             | 110     | 5550      | 21.37                    |
|                             | 118     | 5590      | 21.35                    |
|                             | 126     | 5630      | 21.3                     |
|                             | 134     | 5670      | 18.99                    |
|                             | 142     | 5710      | 18.87                    |

| WLAN Conducted Power (Full) |         |           |                          |                          |                               |
|-----------------------------|---------|-----------|--------------------------|--------------------------|-------------------------------|
| WLAN 5.6GHz Ant 0+1         |         |           |                          |                          |                               |
| Mode                        | Channel | Frequency | MIMO Ant 0<br>Avg. Power | MIMO Ant 1<br>Avg. Power | MIMO Ant<br>0+1<br>Avg. Power |
| 802.11n HT40                | 102     | 5510      | 17.43                    | 17.45                    | 20.45                         |
|                             | 110     | 5550      | 21.19                    | 20.3                     | 23.78                         |
|                             | 118     | 5590      | 20.85                    | 20.56                    | 23.72                         |
|                             | 126     | 5630      | 20.57                    | 20.85                    | 23.72                         |
|                             | 134     | 5670      | 18.4                     | 18.4                     | 21.41                         |
|                             | 142     | 5710      | 18.42                    | 18.38                    | 21.41                         |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.8GHz Ant 0           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 0<br>Avg. Power |
| 802.11a                     | 149     | 5745      | 21.99                    |
|                             | 153     | 5765      | 21.97                    |
|                             | 157     | 5785      | 21.35                    |
|                             | 161     | 5805      | 21.32                    |
|                             | 165     | 5825      | 21.25                    |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.8GHz Ant 1           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 1<br>Avg. Power |
| 802.11a                     | 149     | 5745      | 21.99                    |
|                             | 153     | 5765      | 21.9                     |
|                             | 157     | 5785      | 21.39                    |
|                             | 161     | 5805      | 21.5                     |
|                             | 165     | 5825      | 21.38                    |

| WLAN Conducted Power (Full) |         |           |                          |                          |                               |
|-----------------------------|---------|-----------|--------------------------|--------------------------|-------------------------------|
| WLAN 5.8GHz Ant 0+1         |         |           |                          |                          |                               |
| Mode                        | Channel | Frequency | MIMO Ant 0<br>Avg. Power | MIMO Ant 1<br>Avg. Power | MIMO Ant<br>0+1<br>Avg. Power |
| 802.11n HT20                | 149     | 5745      | 20.51                    | 21.37                    | 23.97                         |
|                             | 153     | 5765      | 20.61                    | 21.5                     | 24.09                         |
|                             | 157     | 5785      | 20.71                    | 21.4                     | 24.08                         |
|                             | 161     | 5805      | 20.49                    | 21.48                    | 24.02                         |
|                             | 165     | 5825      | 20.55                    | 21.4                     | 24.01                         |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| Bluetooth Ant 0             |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 0<br>Avg. Power |
| BR / EDR                    | 0       | 2402      | 9.66                     |
|                             | 39      | 2441      | 10.22                    |
|                             | 78      | 2480      | 11.28                    |
| LE                          | 0       | 2402      | 8.01                     |
|                             | 19      | 2440      | 8.03                     |
|                             | 39      | 2480      | 8.46                     |

## **Annex F. SAR Test Result**

SAR Results for Extremity Exposure Condition.

**Note:**

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

| Extremity SAR Test Result |          |          |               |                          |         |     |           |                 |            |              |                          |                                |                |                  |                         |                       |
|---------------------------|----------|----------|---------------|--------------------------|---------|-----|-----------|-----------------|------------|--------------|--------------------------|--------------------------------|----------------|------------------|-------------------------|-----------------------|
| System & Position         |          |          |               |                          |         |     |           | DUT & Accessory | SAR        |              |                          |                                |                |                  |                         |                       |
| Plot No.                  | Band     | Mode     | Test Position | Separation Distance (mm) | Channel | RB# | RB offset | Ant Status      | Duty Cycle | Crest Factor | Max. Tune-up Power (dBm) | Measured Conducted Power (dBm) | Scaling Factor | Power Drift (dB) | Measured SAR-10g (W/kg) | Scaled SAR-10g (W/kg) |
| 1                         | WCDMA II | RMC12.2K | Left Side     | 0                        | 9262    |     |           | Ant 0           | -          | 1.00         | 24.00                    | 23.01                          | 1.26           | -0.04            | 0.583                   | 0.73                  |
| 2                         | WCDMA IV | RMC12.2K | Top Side      | 0                        | 1312    |     |           | Ant 0           | -          | 1.00         | 24.00                    | 23.19                          | 1.21           | 0.04             | 0.669                   | 0.81                  |
| 3                         | WCDMA V  | RMC12.2K | Left Side     | 0                        | 4132    |     |           | Ant 0           | -          | 1.00         | 24.00                    | 22.59                          | 1.38           | 0.01             | 0.203                   | 0.28                  |
| 4                         | LTE 4    | QPSK20M  | Top Side      | 0                        | 20050   | 1   | 0         | Ant 0           | -          | 1.00         | 24.00                    | 23.28                          | 1.18           | 0.01             | 0.601                   | 0.71                  |
| 5                         | LTE 5    | QPSK10M  | Left Side     | 0                        | 20450   | 1   | 0         | Ant 0           | -          | 1.00         | 24.00                    | 22.56                          | 1.39           | 0.02             | 0.215                   | 0.30                  |
| 6                         | LTE 7    | QPSK20M  | Top Side      | 0                        | 21100   | 1   | 0         | Ant 0           | -          | 1.00         | 23.00                    | 22.07                          | 1.24           | 0.01             | 0.232                   | 0.29                  |
| 7                         | LTE 12   | QPSK10M  | Left Side     | 0                        | 23095   | 1   | 0         | Ant 0           | -          | 1.00         | 24.00                    | 23.03                          | 1.25           | -0.02            | 0.169                   | 0.21                  |
| 8                         | LTE 13   | QPSK10M  | Left Side     | 0                        | 23230   | 1   | 0         | Ant 0           | -          | 1.00         | 24.00                    | 22.82                          | 1.31           | 0.02             | 0.197                   | 0.26                  |
| 9                         | LTE 25   | QPSK20M  | Left Side     | 0                        | 26140   | 1   | 0         | Ant 0           | -          | 1.00         | 24.00                    | 23.01                          | 1.26           | -0.07            | 0.522                   | 0.66                  |
| 10                        | LTE 26   | QPSK15M  | Left Side     | 0                        | 26865   | 1   | 0         | Ant 0           | -          | 1.00         | 24.00                    | 22.85                          | 1.30           | 0.01             | 0.213                   | 0.28                  |
| 11                        | LTE 41   | QPSK20M  | Top Side      | 0                        | 41490   | 1   | 0         | Ant 0           | -          | 1.00         | 23.00                    | 21.91                          | 1.29           | 0.14             | 0.172                   | 0.22                  |

| Extremity SAR Test Result |          |              |               |                          |         |     |           |                 |            |              |                          |                                |                |                  |                         |                       |
|---------------------------|----------|--------------|---------------|--------------------------|---------|-----|-----------|-----------------|------------|--------------|--------------------------|--------------------------------|----------------|------------------|-------------------------|-----------------------|
| System & Position         |          |              |               |                          |         |     |           | DUT & Accessory | SAR        |              |                          |                                |                |                  |                         |                       |
| Plot No.                  | Band     | Mode         | Test Position | Separation Distance (mm) | Channel | RB# | RB offset | Ant Status      | Duty Cycle | Crest Factor | Max. Tune-up Power (dBm) | Measured Conducted Power (dBm) | Scaling Factor | Power Drift (dB) | Measured SAR-10g (W/kg) | Scaled SAR-10g (W/kg) |
|                           | WLAN2.4G | 802.11b      | Rear Face     | 0                        | 6       |     |           | Ant 0           | 98.80      | 1.01         | 21.00                    | 20.91                          | 1.02           | -0.05            | 0.12                    | 0.12                  |
|                           | WLAN2.4G | 802.11b      | Left Side     | 0                        | 6       |     |           | Ant 0           | 98.80      | 1.01         | 21.00                    | 20.91                          | 1.02           | 0                | <0.001                  | 0.00                  |
|                           | WLAN2.4G | 802.11b      | Right Side    | 0                        | 6       |     |           | Ant 0           | 98.80      | 1.01         | 21.00                    | 20.91                          | 1.02           | 0.17             | 0.54                    | 0.56                  |
|                           | WLAN2.4G | 802.11b      | Top Side      | 0                        | 6       |     |           | Ant 0           | 98.80      | 1.01         | 21.00                    | 20.91                          | 1.02           | -0.06            | 0.194                   | 0.20                  |
|                           | WLAN2.4G | 802.11b      | Bottom Side   | 0                        | 6       |     |           | Ant 0           | 98.80      | 1.01         | 21.00                    | 20.91                          | 1.02           | 0                | <0.001                  | 0.00                  |
|                           | WLAN2.4G | 802.11b      | Rear Face     | 0                        | 6       |     |           | Ant 1           | 98.80      | 1.01         | 21.00                    | 20.95                          | 1.01           | 0.09             | 0.066                   | 0.07                  |
|                           | WLAN2.4G | 802.11b      | Left Side     | 0                        | 6       |     |           | Ant 1           | 98.80      | 1.01         | 21.00                    | 20.95                          | 1.01           | 0                | <0.001                  | 0.00                  |
|                           | WLAN2.4G | 802.11b      | Right Side    | 0                        | 6       |     |           | Ant 1           | 98.80      | 1.01         | 21.00                    | 20.95                          | 1.01           | 0.02             | 0.509                   | 0.52                  |
|                           | WLAN2.4G | 802.11b      | Top Side      | 0                        | 6       |     |           | Ant 1           | 98.80      | 1.01         | 21.00                    | 20.95                          | 1.01           | 0                | <0.001                  | 0.00                  |
| 12                        | WLAN2.4G | 802.11b      | Bottom Side   | 0                        | 6       |     |           | Ant 1           | 98.80      | 1.01         | 21.00                    | 20.95                          | 1.01           | 0.07             | 0.56                    | 0.57                  |
|                           | WLAN2.4G | 802.11n HT20 | Rear Face     | 0                        | 6       |     |           | Ant 0+1         | 99.06      | 1.01         | 23.50                    | 22.28                          | 1.32           | 0.06             | 0.081                   | 0.11                  |
|                           | WLAN2.4G | 802.11n HT20 | Left Side     | 0                        | 6       |     |           | Ant 0+1         | 99.06      | 1.01         | 23.50                    | 22.28                          | 1.32           | 0                | <0.001                  | 0.00                  |
|                           | WLAN2.4G | 802.11n HT20 | Right Side    | 0                        | 6       |     |           | Ant 0+1         | 99.06      | 1.01         | 23.50                    | 22.28                          | 1.32           | 0.08             | 0.35                    | 0.47                  |
|                           | WLAN2.4G | 802.11n HT20 | Top Side      | 0                        | 6       |     |           | Ant 0+1         | 99.06      | 1.01         | 23.50                    | 22.28                          | 1.32           | -0.14            | 0.226                   | 0.30                  |
|                           | WLAN2.4G | 802.11n HT20 | Bottom Side   | 0                        | 6       |     |           | Ant 0+1         | 99.06      | 1.01         | 23.50                    | 22.28                          | 1.32           | 0.11             | 0.391                   | 0.52                  |
|                           | WLAN2.4G | 802.11b      | Bottom Side   | 0                        | 1       |     |           | Ant 1           | 98.80      | 1.01         | 20.00                    | 19.99                          | 1.00           | 0.12             | 0.532                   | 0.54                  |
|                           | WLAN2.4G | 802.11b      | Bottom Side   | 0                        | 11      |     |           | Ant 1           | 98.80      | 1.01         | 21.00                    | 20.85                          | 1.04           | -0.07            | 0.53                    | 0.56                  |
|                           | WLAN2.4G | 802.11b      | Bottom Side   | 0                        | 12      |     |           | Ant 1           | 98.80      | 1.01         | 18.00                    | 17.95                          | 1.01           | -0.03            | 0.428                   | 0.44                  |
|                           | WLAN2.4G | 802.11b      | Bottom Side   | 0                        | 13      |     |           | Ant 1           | 98.80      | 1.01         | 14.50                    | 14.45                          | 1.01           | 0.12             | 0.438                   | 0.45                  |
|                           |          |              |               |                          |         |     |           |                 |            |              |                          |                                |                |                  |                         |                       |
|                           | WLAN5.3G | 802.11a      | Rear Face     | 0                        | 60      |     |           | Ant 0           | 98.90      | 1.01         | 21.00                    | 20.90                          | 1.02           | -0.16            | 0.122                   | 0.13                  |
|                           | WLAN5.3G | 802.11a      | Left Side     | 0                        | 60      |     |           | Ant 0           | 98.90      | 1.01         | 21.00                    | 20.90                          | 1.02           | 0                | <0.001                  | 0.00                  |
|                           | WLAN5.3G | 802.11a      | Right Side    | 0                        | 60      |     |           | Ant 0           | 98.90      | 1.01         | 21.00                    | 20.90                          | 1.02           | -0.03            | 0.878                   | 0.90                  |
|                           | WLAN5.3G | 802.11a      | Top Side      | 0                        | 60      |     |           | Ant 0           | 98.90      | 1.01         | 21.00                    | 20.90                          | 1.02           | -0.16            | 0.578                   | 0.60                  |
|                           | WLAN5.3G | 802.11a      | Bottom Side   | 0                        | 60      |     |           | Ant 0           | 98.90      | 1.01         | 21.00                    | 20.90                          | 1.02           | 0                | <0.001                  | 0.00                  |
|                           | WLAN5.3G | 802.11a      | Rear Face     | 0                        | 60      |     |           | Ant 1           | 98.90      | 1.01         | 21.50                    | 21.40                          | 1.02           | 0.05             | 0.145                   | 0.15                  |
|                           | WLAN5.3G | 802.11a      | Left Side     | 0                        | 60      |     |           | Ant 1           | 98.90      | 1.01         | 21.50                    | 21.40                          | 1.02           | 0                | <0.001                  | 0.00                  |
|                           | WLAN5.3G | 802.11a      | Right Side    | 0                        | 60      |     |           | Ant 1           | 98.90      | 1.01         | 21.50                    | 21.40                          | 1.02           | 0.02             | 0.507                   | 0.52                  |
|                           | WLAN5.3G | 802.11a      | Top Side      | 0                        | 60      |     |           | Ant 1           | 98.90      | 1.01         | 21.50                    | 21.40                          | 1.02           | 0                | <0.001                  | 0.00                  |
| 13                        | WLAN5.3G | 802.11a      | Bottom Side   | 0                        | 60      |     |           | Ant 1           | 98.90      | 1.01         | 21.50                    | 21.40                          | 1.02           | 0.16             | 1.42                    | 1.46                  |
|                           | WLAN5.3G | 802.11n HT20 | Rear Face     | 0                        | 60      |     |           | Ant 0+1         | 98.40      | 1.02         | 24.00                    | 23.84                          | 1.04           | -0.1             | 0.128                   | 0.14                  |
|                           | WLAN5.3G | 802.11n HT20 | Left Side     | 0                        | 60      |     |           | Ant 0+1         | 98.40      | 1.02         | 24.00                    | 23.84                          | 1.04           | 0                | <0.001                  | 0.00                  |
|                           | WLAN5.3G | 802.11n HT20 | Right Side    | 0                        | 60      |     |           | Ant 0+1         | 98.40      | 1.02         | 24.00                    | 23.84                          | 1.04           | -0.13            | 1.23                    | 1.30                  |
|                           | WLAN5.3G | 802.11n HT20 | Top Side      | 0                        | 60      |     |           | Ant 0+1         | 98.40      | 1.02         | 24.00                    | 23.84                          | 1.04           | -0.11            | 0.625                   | 0.66                  |
|                           | WLAN5.3G | 802.11n HT20 | Bottom Side   | 0                        | 60      |     |           | Ant 0+1         | 98.40      | 1.02         | 24.00                    | 23.84                          | 1.04           | 0.15             | 0.834                   | 0.88                  |
|                           | WLAN5.3G | 802.11a      | Bottom Side   | 0                        | 52      |     |           | Ant 1           | 98.90      | 1.01         | 21.50                    | 21.35                          | 1.04           | -0.17            | 1.28                    | 1.34                  |
|                           | WLAN5.3G | 802.11a      | Bottom Side   | 0                        | 56      |     |           | Ant 1           | 98.90      | 1.01         | 21.50                    | 21.32                          | 1.04           | 0.04             | 1.29                    | 1.36                  |
|                           | WLAN5.3G | 802.11a      | Bottom Side   | 0                        | 64      |     |           | Ant 1           | 98.90      | 1.01         | 17.00                    | 16.78                          | 1.05           | -0.05            | 0.575                   | 0.61                  |
|                           |          |              |               |                          |         |     |           |                 |            |              |                          |                                |                |                  |                         |                       |

| Extremity SAR Test Result |          |              |               |                          |         |     |           |                 |            |              |                          |                                |                |                  |                         |                       |
|---------------------------|----------|--------------|---------------|--------------------------|---------|-----|-----------|-----------------|------------|--------------|--------------------------|--------------------------------|----------------|------------------|-------------------------|-----------------------|
| System & Position         |          |              |               |                          |         |     |           | DUT & Accessory | SAR        |              |                          |                                |                |                  |                         |                       |
| Plot No.                  | Band     | Mode         | Test Position | Separation Distance (mm) | Channel | RB# | RB offset | Ant Status      | Duty Cycle | Crest Factor | Max. Tune-up Power (dBm) | Measured Conducted Power (dBm) | Scaling Factor | Power Drift (dB) | Measured SAR-10g (W/kg) | Scaled SAR-10g (W/kg) |
|                           | WLAN5.6G | 802.11n HT40 | Rear Face     | 0                        | 110     |     |           | Ant 0           | 98.70      | 1.01         | 21.50                    | 21.40                          | 1.02           | -0.08            | 0.099                   | 0.10                  |
|                           | WLAN5.6G | 802.11n HT40 | Left Side     | 0                        | 110     |     |           | Ant 0           | 98.70      | 1.01         | 21.50                    | 21.40                          | 1.02           | 0                | <0.001                  | 0.00                  |
|                           | WLAN5.6G | 802.11n HT40 | Right Side    | 0                        | 110     |     |           | Ant 0           | 98.70      | 1.01         | 21.50                    | 21.40                          | 1.02           | 0.17             | 0.708                   | 0.73                  |
|                           | WLAN5.6G | 802.11n HT40 | Top Side      | 0                        | 110     |     |           | Ant 0           | 98.70      | 1.01         | 21.50                    | 21.40                          | 1.02           | 0.09             | 0.326                   | 0.34                  |
|                           | WLAN5.6G | 802.11n HT40 | Bottom Side   | 0                        | 110     |     |           | Ant 0           | 98.70      | 1.01         | 21.50                    | 21.40                          | 1.02           | 0                | <0.001                  | 0.00                  |
|                           | WLAN5.6G | 802.11n HT40 | Rear Face     | 0                        | 110     |     |           | Ant 1           | 98.60      | 1.01         | 21.50                    | 21.37                          | 1.03           | 0.07             | 0.091                   | 0.09                  |
|                           | WLAN5.6G | 802.11n HT40 | Left Side     | 0                        | 110     |     |           | Ant 1           | 98.60      | 1.01         | 21.50                    | 21.37                          | 1.03           | 0                | <0.001                  | 0.00                  |
|                           | WLAN5.6G | 802.11n HT40 | Right Side    | 0                        | 110     |     |           | Ant 1           | 98.60      | 1.01         | 21.50                    | 21.37                          | 1.03           | -0.02            | 0.331                   | 0.34                  |
|                           | WLAN5.6G | 802.11n HT40 | Top Side      | 0                        | 110     |     |           | Ant 1           | 98.60      | 1.01         | 21.50                    | 21.37                          | 1.03           | 0                | <0.001                  | 0.00                  |
|                           | WLAN5.6G | 802.11n HT40 | Bottom Side   | 0                        | 110     |     |           | Ant 1           | 98.60      | 1.01         | 21.50                    | 21.37                          | 1.03           | -0.14            | 0.847                   | 0.88                  |
|                           | WLAN5.6G | 802.11n HT40 | Rear Face     | 0                        | 110     |     |           | Ant 0+1         | 98.40      | 1.02         | 24.50                    | 23.78                          | 1.18           | 0.14             | 0.08                    | 0.10                  |
|                           | WLAN5.6G | 802.11n HT40 | Left Side     | 0                        | 110     |     |           | Ant 0+1         | 98.40      | 1.02         | 24.50                    | 23.78                          | 1.18           | 0                | <0.001                  | 0.00                  |
|                           | WLAN5.6G | 802.11n HT40 | Right Side    | 0                        | 110     |     |           | Ant 0+1         | 98.40      | 1.02         | 24.50                    | 23.78                          | 1.18           | 0.18             | 0.471                   | 0.57                  |
|                           | WLAN5.6G | 802.11n HT40 | Top Side      | 0                        | 110     |     |           | Ant 0+1         | 98.40      | 1.02         | 24.50                    | 23.78                          | 1.18           | -0.01            | 0.2                     | 0.24                  |
| 14                        | WLAN5.6G | 802.11n HT40 | Bottom Side   | 0                        | 110     |     |           | Ant 0+1         | 98.40      | 1.02         | 24.50                    | 23.78                          | 1.18           | -0.17            | 0.924                   | 1.11                  |
|                           | WLAN5.6G | 802.11n HT40 | Bottom Side   | 0                        | 102     |     |           | Ant 0+1         | 98.40      | 1.02         | 20.50                    | 20.45                          | 1.01           | -0.15            | 0.667                   | 0.69                  |
|                           | WLAN5.6G | 802.11n HT40 | Bottom Side   | 0                        | 118     |     |           | Ant 0+1         | 98.40      | 1.02         | 24.50                    | 23.72                          | 1.20           | 0.14             | 0.898                   | 1.10                  |
|                           | WLAN5.6G | 802.11n HT40 | Bottom Side   | 0                        | 126     |     |           | Ant 0+1         | 98.40      | 1.02         | 24.50                    | 23.72                          | 1.20           | -0.01            | 0.867                   | 1.06                  |
|                           | WLAN5.6G | 802.11n HT40 | Bottom Side   | 0                        | 134     |     |           | Ant 0+1         | 98.40      | 1.02         | 21.50                    | 21.41                          | 1.02           | 0.01             | 0.585                   | 0.61                  |
|                           | WLAN5.6G | 802.11n HT40 | Bottom Side   | 0                        | 142     |     |           | Ant 0+1         | 98.40      | 1.02         | 21.50                    | 21.41                          | 1.02           | -0.02            | 0.739                   | 0.77                  |
|                           |          |              |               |                          |         |     |           |                 |            |              |                          |                                |                |                  |                         |                       |
|                           | WLAN5.8G | 802.11a      | Rear Face     | 0                        | 149     |     |           | Ant 0           | 98.90      | 1.01         | 22.00                    | 21.99                          | 1.00           | -0.16            | 0.102                   | 0.10                  |
|                           | WLAN5.8G | 802.11a      | Left Side     | 0                        | 149     |     |           | Ant 0           | 98.90      | 1.01         | 22.00                    | 21.99                          | 1.00           | 0                | <0.001                  | 0.00                  |
|                           | WLAN5.8G | 802.11a      | Right Side    | 0                        | 149     |     |           | Ant 0           | 98.90      | 1.01         | 22.00                    | 21.99                          | 1.00           | -0.1             | 0.702                   | 0.71                  |
|                           | WLAN5.8G | 802.11a      | Top Side      | 0                        | 149     |     |           | Ant 0           | 98.90      | 1.01         | 22.00                    | 21.99                          | 1.00           | 0.15             | 0.301                   | 0.30                  |
|                           | WLAN5.8G | 802.11a      | Bottom Side   | 0                        | 149     |     |           | Ant 0           | 98.90      | 1.01         | 22.00                    | 21.99                          | 1.00           | 0                | <0.001                  | 0.00                  |
|                           | WLAN5.8G | 802.11a      | Rear Face     | 0                        | 149     |     |           | Ant 1           | 98.90      | 1.01         | 22.00                    | 21.99                          | 1.00           | -0.15            | 0.157                   | 0.16                  |
|                           | WLAN5.8G | 802.11a      | Left Side     | 0                        | 149     |     |           | Ant 1           | 98.90      | 1.01         | 22.00                    | 21.99                          | 1.00           | 0                | <0.001                  | 0.00                  |
|                           | WLAN5.8G | 802.11a      | Right Side    | 0                        | 149     |     |           | Ant 1           | 98.90      | 1.01         | 22.00                    | 21.99                          | 1.00           | -0.05            | 0.552                   | 0.56                  |
|                           | WLAN5.8G | 802.11a      | Top Side      | 0                        | 149     |     |           | Ant 1           | 98.90      | 1.01         | 22.00                    | 21.99                          | 1.00           | 0                | <0.001                  | 0.00                  |
| 15                        | WLAN5.8G | 802.11a      | Bottom Side   | 0                        | 149     |     |           | Ant 1           | 98.90      | 1.01         | 22.00                    | 21.99                          | 1.00           | -0.11            | 2.05                    | 2.07                  |
|                           | WLAN5.8G | 802.11n HT20 | Rear Face     | 0                        | 153     |     |           | Ant 0+1         | 97.14      | 1.03         | 24.50                    | 24.09                          | 1.10           | 0.08             | 0.126                   | 0.14                  |
|                           | WLAN5.8G | 802.11n HT20 | Left Side     | 0                        | 153     |     |           | Ant 0+1         | 97.14      | 1.03         | 24.50                    | 24.09                          | 1.10           | 0                | <0.001                  | 0.00                  |
|                           | WLAN5.8G | 802.11n HT20 | Right Side    | 0                        | 153     |     |           | Ant 0+1         | 97.14      | 1.03         | 24.50                    | 24.09                          | 1.10           | -0.15            | 1.03                    | 1.17                  |
|                           | WLAN5.8G | 802.11n HT20 | Top Side      | 0                        | 153     |     |           | Ant 0+1         | 97.14      | 1.03         | 24.50                    | 24.09                          | 1.10           | 0.03             | 0.418                   | 0.47                  |
|                           | WLAN5.8G | 802.11n HT20 | Bottom Side   | 0                        | 153     |     |           | Ant 0+1         | 97.14      | 1.03         | 24.50                    | 24.09                          | 1.10           | 0.06             | 1.3                     | 1.47                  |
|                           | WLAN5.8G | 802.11a      | Bottom Side   | 0                        | 153     |     |           | Ant 1           | 98.90      | 1.01         | 22.00                    | 21.90                          | 1.02           | 0.13             | 1.7                     | 1.75                  |
|                           | WLAN5.8G | 802.11a      | Bottom Side   | 0                        | 157     |     |           | Ant 1           | 98.90      | 1.01         | 21.50                    | 21.39                          | 1.03           | -0.1             | 1.76                    | 1.83                  |
|                           | WLAN5.8G | 802.11a      | Bottom Side   | 0                        | 161     |     |           | Ant 1           | 98.90      | 1.01         | 21.50                    | 21.50                          | 1.00           | -0.15            | 1.62                    | 1.64                  |
|                           | WLAN5.8G | 802.11a      | Bottom Side   | 0                        | 165     |     |           | Ant 1           | 98.90      | 1.01         | 21.50                    | 21.38                          | 1.03           | 0.17             | 1.73                    | 1.80                  |
|                           | WLAN5.8G | 802.11a      | Bottom Side   | 0                        | 149     |     |           | Ant 1           | 0.00       | 1.00         | 0.00                     | 0.00                           | 1              | 0.02             | 2.03                    | 2.03                  |
|                           |          |              |               |                          |         |     |           |                 |            |              |                          |                                |                |                  |                         |                       |

| Extremity SAR Test Result |      |          |               |                          |         |     |           |                 |            |              |                          |                                |                |                  |                         |                       |
|---------------------------|------|----------|---------------|--------------------------|---------|-----|-----------|-----------------|------------|--------------|--------------------------|--------------------------------|----------------|------------------|-------------------------|-----------------------|
| System & Position         |      |          |               |                          |         |     |           | DUT & Accessory | SAR        |              |                          |                                |                |                  |                         |                       |
| Plot No.                  | Band | Mode     | Test Position | Separation Distance (mm) | Channel | RB# | RB offset | Ant Status      | Duty Cycle | Crest Factor | Max. Tune-up Power (dBm) | Measured Conducted Power (dBm) | Scaling Factor | Power Drift (dB) | Measured SAR-10g (W/kg) | Scaled SAR-10g (W/kg) |
|                           | BT   | BR / EDR | Rear Face     | 0                        | 78      |     |           | Ant 0           | 77.60      | 1.29         | 11.50                    | 11.28                          | 1.05           | 0                | <0.001                  | 0.00                  |
|                           | BT   | BR / EDR | Left Side     | 0                        | 78      |     |           | Ant 0           | 77.60      | 1.29         | 11.50                    | 11.28                          | 1.05           | 0                | <0.001                  | 0.00                  |
|                           | BT   | BR / EDR | Right Side    | 0                        | 78      |     |           | Ant 0           | 77.60      | 1.29         | 11.50                    | 11.28                          | 1.05           | -0.15            | 0.046                   | 0.06                  |
|                           | BT   | BR / EDR | Top Side      | 0                        | 78      |     |           | Ant 0           | 77.60      | 1.29         | 11.50                    | 11.28                          | 1.05           | 0                | <0.001                  | 0.00                  |
|                           | BT   | BR / EDR | Bottom Side   | 0                        | 78      |     |           | Ant 0           | 77.60      | 1.29         | 11.50                    | 11.28                          | 1.05           | 0                | <0.001                  | 0.00                  |
|                           | BT   | BR / EDR | Right Side    | 0                        | 0       |     |           | Ant 0           | 77.60      | 1.29         | 11.50                    | 9.66                           | 1.53           | -0.04            | 0.035                   | 0.07                  |
| 16                        | BT   | BR / EDR | Right Side    | 0                        | 39      |     |           | Ant 0           | 77.60      | 1.29         | 11.50                    | 10.22                          | 1.34           | -0.01            | 0.048                   | 0.08                  |

## **Annex G. SAR Measurement Variability**

Since all the measured SAR<sub>10g</sub> are less than 2.0 W/kg, the repeated measurement is not required.



## **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       | Extremity Exposure Condition |
|-----------------------------|---------------------------------------|------------------------------|
| A                           | MAX WWAN + WLAN 2.4G_Ant 1 + BT_Ant 0 | Yes                          |
| B                           | MAX WWAN + WLAN 5G_Ant 1 + BT_Ant 0   | Yes                          |
| C                           | MAX WWAN + WLAN 5G_MIMO + BT_Ant 0    | Yes                          |

#### Notes

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

| Simultaneous Transmission SAR Evaluation (Extremity) |             |                 |                      |                    |                      |                 |                                      |                                      |                                      |
|------------------------------------------------------|-------------|-----------------|----------------------|--------------------|----------------------|-----------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Band                                                 | Position    | 1               | 2                    | 3                  | 4                    | 5               | A(1+2+5)                             | B(1+3+5)                             | C(1+4+5)                             |
|                                                      |             | Max WWAN        | WLAN<br>2.4GHz Ant 1 | WLAN 5GHz<br>Ant 1 | WLAN 5GHz<br>Ant 0+1 | BT Ant 0        | Summing<br>result<br>10g SAR<br>W/kg | Summing<br>result<br>10g SAR<br>W/kg | Summing<br>result<br>10g SAR<br>W/kg |
|                                                      |             | 10g SAR<br>W/kg | 10g SAR<br>W/kg      | 10g SAR<br>W/kg    | 10g SAR<br>W/kg      | 10g SAR<br>W/kg |                                      |                                      |                                      |
| WCDMA II                                             | Rear Face   | 0.28            | 0.07                 | 0.16               | 0.14                 | 0.00            | 0.35                                 | 0.44                                 | 0.42                                 |
|                                                      | Left Side   | 0.73            | 0.00                 | 0.00               | 0.00                 | 0.00            | 0.73                                 | 0.73                                 | 0.73                                 |
|                                                      | Right Side  | 1.00            | 0.52                 | 0.56               | 1.30                 | 0.08            | 1.60                                 | 1.64                                 | 2.38                                 |
|                                                      | Top Side    | 0.50            | 0.00                 | 0.00               | 0.66                 | 0.00            | 0.50                                 | 0.50                                 | 1.16                                 |
|                                                      | Bottom Side | 1.00            | 0.57                 | 2.07               | 1.47                 | 0.00            | 1.57                                 | 3.07                                 | 2.47                                 |
| WCDMA IV                                             | Rear Face   | 0.18            | 0.07                 | 0.16               | 0.14                 | 0.00            | 0.25                                 | 0.34                                 | 0.32                                 |
|                                                      | Left Side   | 0.38            | 0.00                 | 0.00               | 0.00                 | 0.00            | 0.38                                 | 0.38                                 | 0.38                                 |
|                                                      | Right Side  | 1.00            | 0.52                 | 0.56               | 1.30                 | 0.08            | 1.60                                 | 1.64                                 | 2.38                                 |
|                                                      | Top Side    | 0.81            | 0.00                 | 0.00               | 0.66                 | 0.00            | 0.81                                 | 0.81                                 | 1.47                                 |
|                                                      | Bottom Side | 1.00            | 0.57                 | 2.07               | 1.47                 | 0.00            | 1.57                                 | 3.07                                 | 2.47                                 |
| WCDMA V                                              | Rear Face   | 0.22            | 0.07                 | 0.16               | 0.14                 | 0.00            | 0.29                                 | 0.38                                 | 0.36                                 |
|                                                      | Left Side   | 0.28            | 0.00                 | 0.00               | 0.00                 | 0.00            | 0.28                                 | 0.28                                 | 0.28                                 |
|                                                      | Right Side  | 1.00            | 0.52                 | 0.56               | 1.30                 | 0.08            | 1.60                                 | 1.64                                 | 2.38                                 |
|                                                      | Top Side    | 0.18            | 0.00                 | 0.00               | 0.66                 | 0.00            | 0.18                                 | 0.18                                 | 0.84                                 |
|                                                      | Bottom Side | 1.00            | 0.57                 | 2.07               | 1.47                 | 0.00            | 1.57                                 | 3.07                                 | 2.47                                 |
| LTE 4                                                | Rear Face   | 0.13            | 0.07                 | 0.16               | 0.14                 | 0.00            | 0.20                                 | 0.29                                 | 0.27                                 |
|                                                      | Left Side   | 0.28            | 0.00                 | 0.00               | 0.00                 | 0.00            | 0.28                                 | 0.28                                 | 0.28                                 |
|                                                      | Right Side  | 1.00            | 0.52                 | 0.56               | 1.30                 | 0.08            | 1.60                                 | 1.64                                 | 2.38                                 |
|                                                      | Top Side    | 0.71            | 0.00                 | 0.00               | 0.66                 | 0.00            | 0.71                                 | 0.71                                 | 1.37                                 |
|                                                      | Bottom Side | 1.00            | 0.57                 | 2.07               | 1.47                 | 0.00            | 1.57                                 | 3.07                                 | 2.47                                 |
| LTE 5                                                | Rear Face   | 0.25            | 0.07                 | 0.16               | 0.14                 | 0.00            | 0.32                                 | 0.41                                 | 0.39                                 |
|                                                      | Left Side   | 0.30            | 0.00                 | 0.00               | 0.00                 | 0.00            | 0.30                                 | 0.30                                 | 0.30                                 |
|                                                      | Right Side  | 1.00            | 0.52                 | 0.56               | 1.30                 | 0.08            | 1.60                                 | 1.64                                 | 2.38                                 |
|                                                      | Top Side    | 0.17            | 0.00                 | 0.00               | 0.66                 | 0.00            | 0.17                                 | 0.17                                 | 0.83                                 |
|                                                      | Bottom Side | 1.00            | 0.57                 | 2.07               | 1.47                 | 0.00            | 1.57                                 | 3.07                                 | 2.47                                 |
| LTE 7                                                | Rear Face   | 0.10            | 0.07                 | 0.16               | 0.14                 | 0.00            | 0.17                                 | 0.26                                 | 0.24                                 |
|                                                      | Left Side   | 0.29            | 0.00                 | 0.00               | 0.00                 | 0.00            | 0.29                                 | 0.29                                 | 0.29                                 |
|                                                      | Right Side  | 1.00            | 0.52                 | 0.56               | 1.30                 | 0.08            | 1.60                                 | 1.64                                 | 2.38                                 |
|                                                      | Top Side    | 0.29            | 0.00                 | 0.00               | 0.66                 | 0.00            | 0.29                                 | 0.29                                 | 0.95                                 |
|                                                      | Bottom Side | 1.00            | 0.57                 | 2.07               | 1.47                 | 0.00            | 1.57                                 | 3.07                                 | 2.47                                 |
| LTE 12                                               | Rear Face   | 0.13            | 0.07                 | 0.16               | 0.14                 | 0.00            | 0.20                                 | 0.29                                 | 0.27                                 |
|                                                      | Left Side   | 0.21            | 0.00                 | 0.00               | 0.00                 | 0.00            | 0.21                                 | 0.21                                 | 0.21                                 |
|                                                      | Right Side  | 1.00            | 0.52                 | 0.56               | 1.30                 | 0.08            | 1.60                                 | 1.64                                 | 2.38                                 |
|                                                      | Top Side    | 0.12            | 0.00                 | 0.00               | 0.66                 | 0.00            | 0.12                                 | 0.12                                 | 0.78                                 |
|                                                      | Bottom Side | 1.00            | 0.57                 | 2.07               | 1.47                 | 0.00            | 1.57                                 | 3.07                                 | 2.47                                 |
| LTE 13                                               | Rear Face   | 0.22            | 0.07                 | 0.16               | 0.14                 | 0.00            | 0.29                                 | 0.38                                 | 0.36                                 |
|                                                      | Left Side   | 0.26            | 0.00                 | 0.00               | 0.00                 | 0.00            | 0.26                                 | 0.26                                 | 0.26                                 |
|                                                      | Right Side  | 1.00            | 0.52                 | 0.56               | 1.30                 | 0.08            | 1.60                                 | 1.64                                 | 2.38                                 |
|                                                      | Top Side    | 0.17            | 0.00                 | 0.00               | 0.66                 | 0.00            | 0.17                                 | 0.17                                 | 0.83                                 |
|                                                      | Bottom Side | 1.00            | 0.57                 | 2.07               | 1.47                 | 0.00            | 1.57                                 | 3.07                                 | 2.47                                 |
| LTE 25                                               | Rear Face   | 0.23            | 0.07                 | 0.16               | 0.14                 | 0.00            | 0.30                                 | 0.39                                 | 0.37                                 |
|                                                      | Left Side   | 0.66            | 0.00                 | 0.00               | 0.00                 | 0.00            | 0.66                                 | 0.66                                 | 0.66                                 |
|                                                      | Right Side  | 1.00            | 0.52                 | 0.56               | 1.30                 | 0.08            | 1.60                                 | 1.64                                 | 2.38                                 |
|                                                      | Top Side    | 0.40            | 0.00                 | 0.00               | 0.66                 | 0.00            | 0.40                                 | 0.40                                 | 1.06                                 |
|                                                      | Bottom Side | 1.00            | 0.57                 | 2.07               | 1.47                 | 0.00            | 1.57                                 | 3.07                                 | 2.47                                 |
| LTE 26                                               | Rear Face   | 0.26            | 0.07                 | 0.16               | 0.14                 | 0.00            | 0.33                                 | 0.42                                 | 0.40                                 |
|                                                      | Left Side   | 0.28            | 0.00                 | 0.00               | 0.00                 | 0.00            | 0.28                                 | 0.28                                 | 0.28                                 |
|                                                      | Right Side  | 1.00            | 0.52                 | 0.56               | 1.30                 | 0.08            | 1.60                                 | 1.64                                 | 2.38                                 |
|                                                      | Top Side    | 0.17            | 0.00                 | 0.00               | 0.66                 | 0.00            | 0.17                                 | 0.17                                 | 0.83                                 |
|                                                      | Bottom Side | 1.00            | 0.57                 | 2.07               | 1.47                 | 0.00            | 1.57                                 | 3.07                                 | 2.47                                 |
| LTE 41                                               | Rear Face   | 0.03            | 0.07                 | 0.16               | 0.14                 | 0.00            | 0.10                                 | 0.19                                 | 0.17                                 |
|                                                      | Left Side   | 0.06            | 0.00                 | 0.00               | 0.00                 | 0.00            | 0.06                                 | 0.06                                 | 0.06                                 |
|                                                      | Right Side  | 1.00            | 0.52                 | 0.56               | 1.30                 | 0.08            | 1.60                                 | 1.64                                 | 2.38                                 |
|                                                      | Top Side    | 0.22            | 0.00                 | 0.00               | 0.66                 | 0.00            | 0.22                                 | 0.22                                 | 0.88                                 |
|                                                      | Bottom Side | 1.00            | 0.57                 | 2.07               | 1.47                 | 0.00            | 1.57                                 | 3.07                                 | 2.47                                 |

## **Annex I. SAR to Peak Location Separation Ratio Analysis.**

Since sum of simultaneous transmission SAR is less than the SAR limit for Extremity SAR<sub>10g</sub> 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        | 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        | 7555       | Sep. 27, 2021 | 1 Year        |
| Dosimetric E-Field Probe             | SPEAG        | EX3DV4        | 3650       | Mar. 26, 2021 | 1 Year        |
| Data Acquisition Electronics         | SPEAG        | DAE4          | 861        | Apr. 14, 2021 | 1 Year        |
| Data Acquisition Electronics         | SPEAG        | DAE4          | 1590       | Sep. 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        |
| 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>



Time-domain plot for Bluetooth transmission signal

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

$$\text{Duty Factor} = \text{Pulse Width} / \text{Total Period} = (20.83 - 17.92) / (21.67 - 17.92) = 77.60\%$$