

### Annex A. Plots of System Verification

The plots for system verification are shown as follows.

## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/25

### S01 System Check\_H2450\_220825

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

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

Medium: H19T27N1\_0825 Medium parameters used (interpolated):  $f = 2450$  MHz;  $\sigma = 1.881$  S/m;  $\epsilon_r = 39.283$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(8.12, 8.12, 8.12) @ 2450 MHz; Calibrated: 2022/05/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

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

Maximum value of SAR (interpolated) = 4.18 W/kg

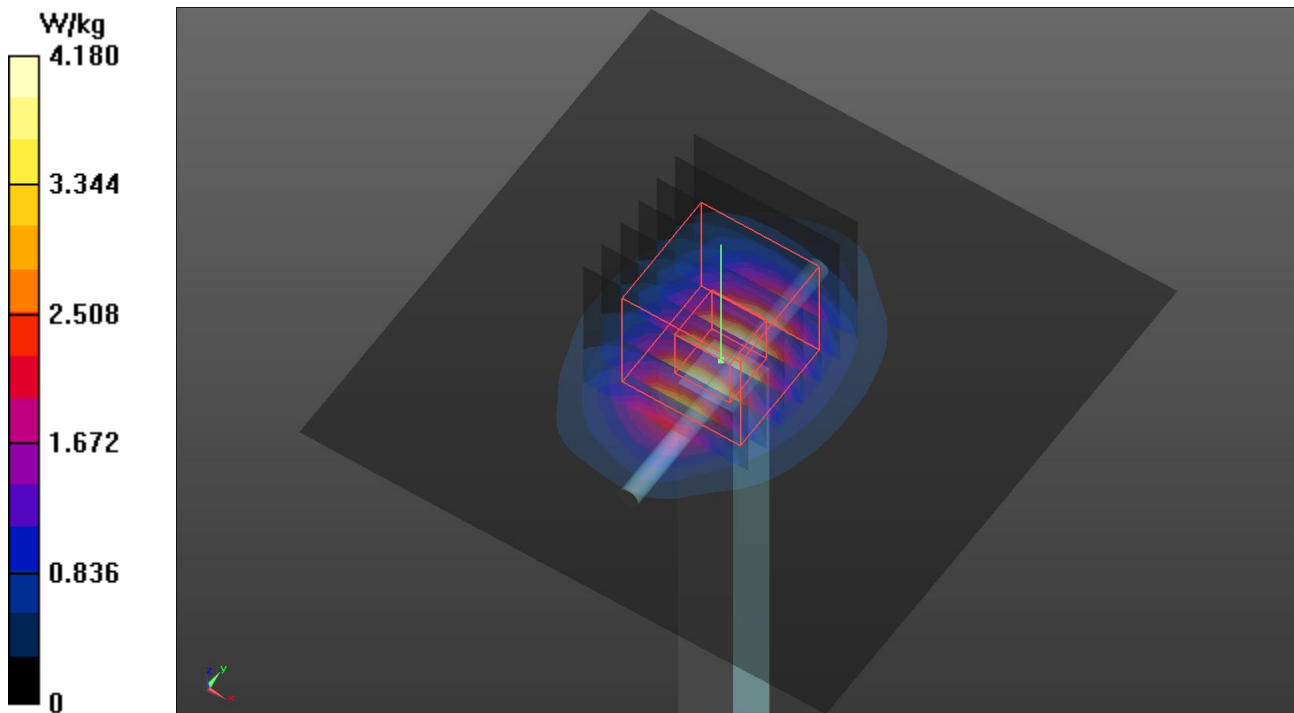
**Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 47.97 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 5.26 W/kg

**SAR(1 g) = 2.51 W/kg; SAR(10 g) = 1.20 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 4.27 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/24

### S02 System Check\_H5250\_220824

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

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

Medium: H34T60N1\_0824 Medium parameters used (interpolated):  $f = 5250$  MHz;  $\sigma = 4.736$  S/m;  $\epsilon_r = 36.971$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(5.74, 5.74, 5.74) @ 5250 MHz; Calibrated: 2022/5/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

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

Maximum value of SAR (interpolated) = 8.70 W/kg

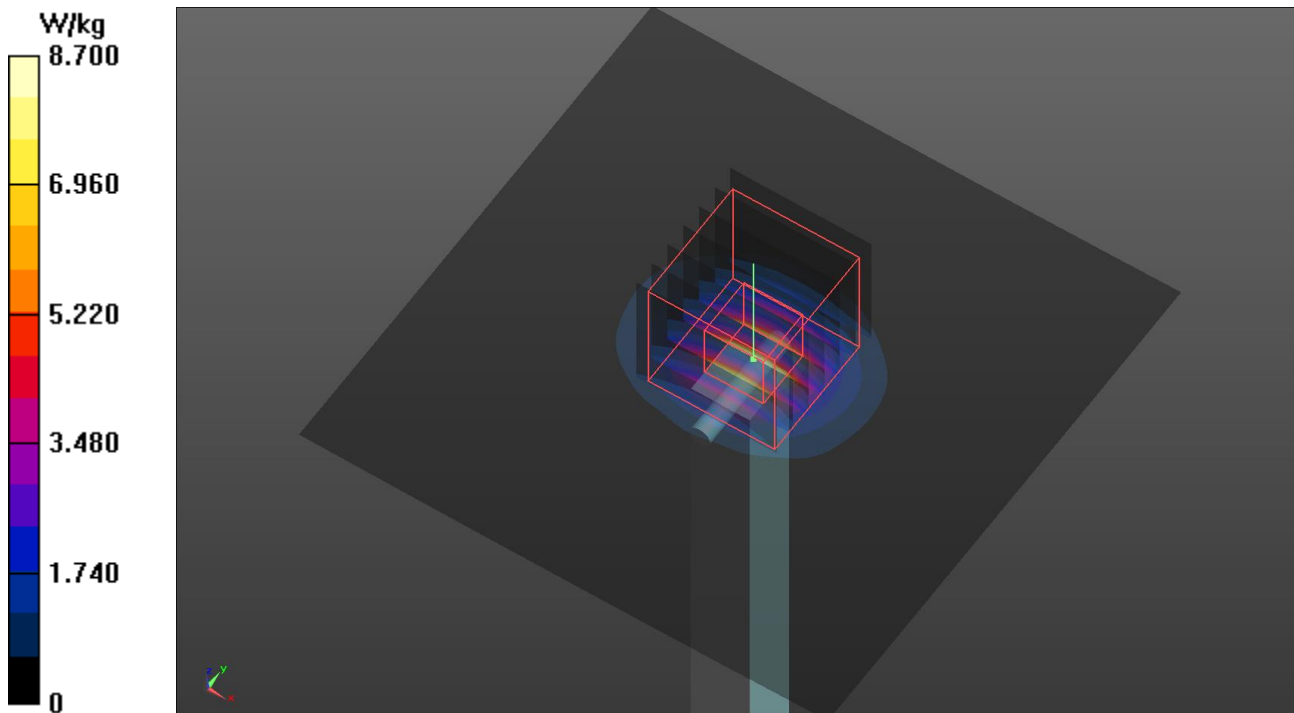
**Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 47.69 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 15.3 W/kg

**SAR(1 g) = 3.81 W/kg; SAR(10 g) = 1.11 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 9.42 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/24

### S03 System Check\_H5600\_220824

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

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

Medium: H34T60N1\_0824 Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.09$  S/m;  $\epsilon_r = 36.503$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(4.93, 4.93, 4.93) @ 5600 MHz; Calibrated: 2022/5/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

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

Maximum value of SAR (interpolated) = 10.6 W/kg

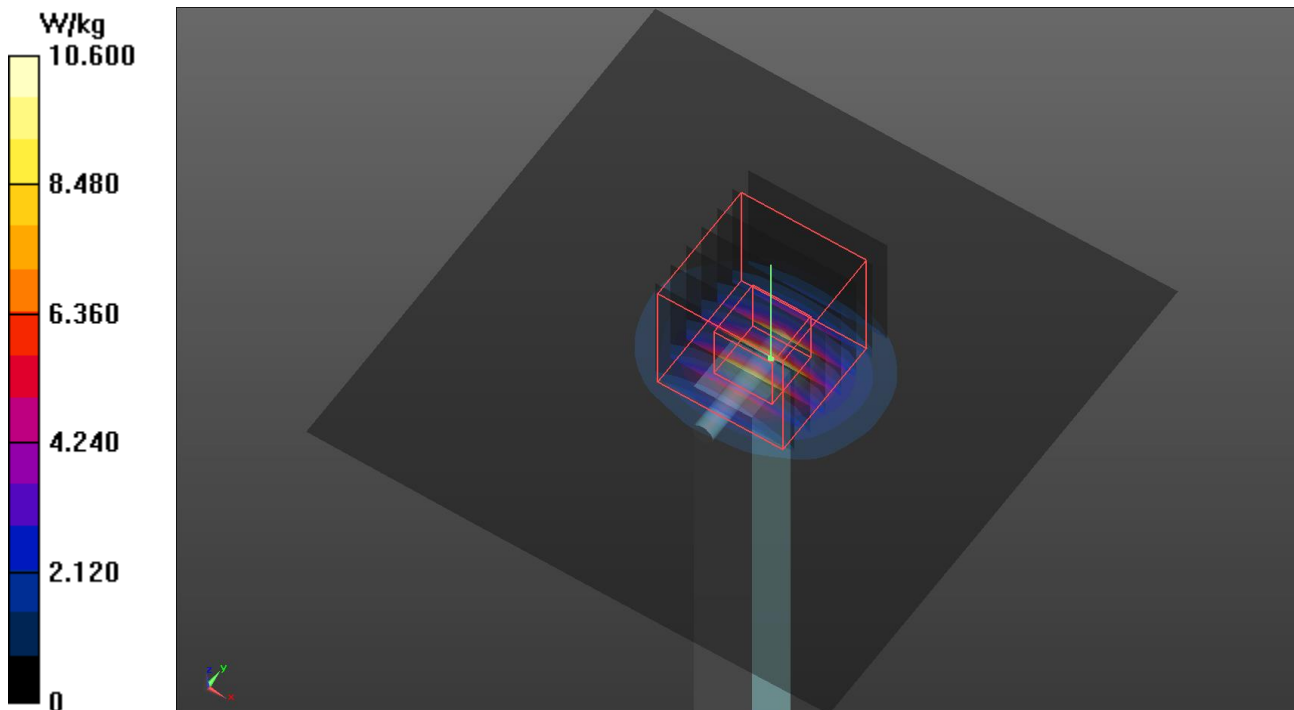
**Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 48.43 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 19.4 W/kg

**SAR(1 g) = 4.37 W/kg; SAR(10 g) = 1.27 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 11.2 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/24

### S04 System Check\_H5750\_220824

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

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

Medium: H34T60N1\_0824 Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.249$  S/m;  $\epsilon_r = 36.283$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(5.05, 5.05, 5.05) @ 5750 MHz; Calibrated: 2022/5/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

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

Maximum value of SAR (interpolated) = 9.39 W/kg

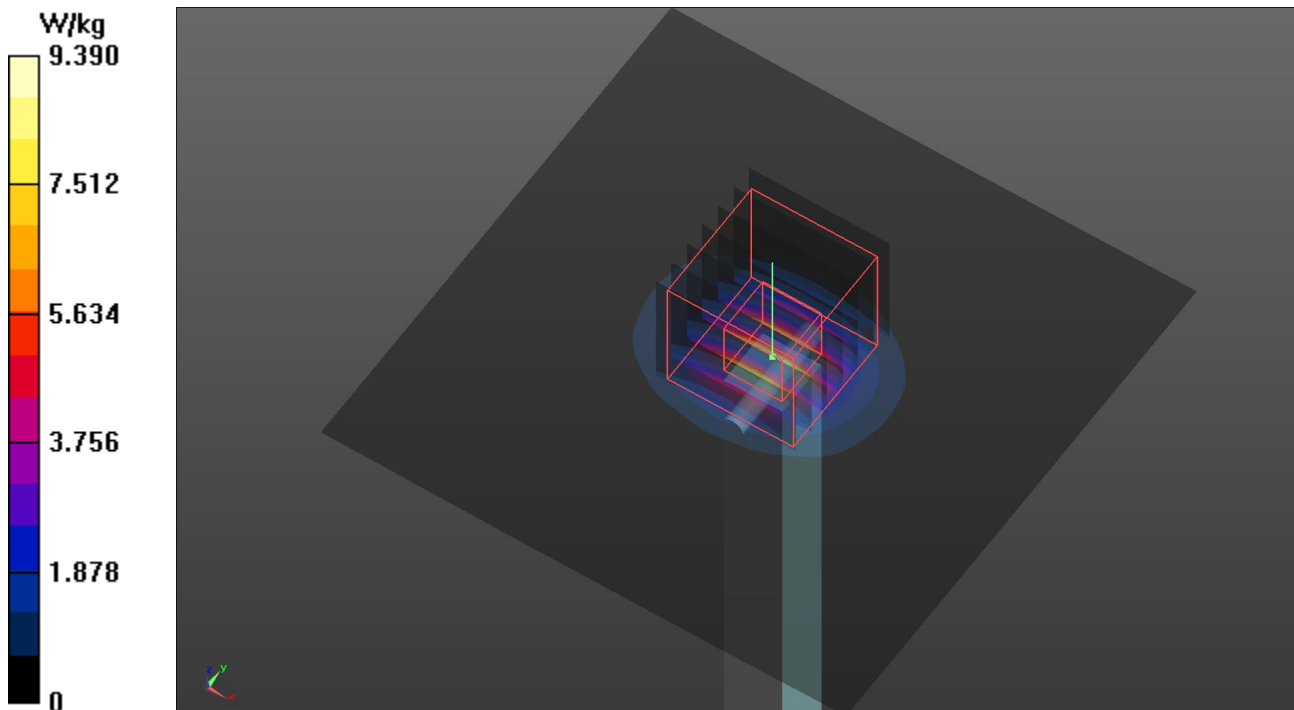
**Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 47.66 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 18.1 W/kg

**SAR(1 g) = 3.91 W/kg; SAR(10 g) = 1.13 W/kg** (SAR corrected for target medium)

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



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/24

### S05 System Check\_H5750\_220824

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

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

Medium: H34T60N1\_0824 Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.249$  S/m;  $\epsilon_r = 36.283$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(5.05, 5.05, 5.05) @ 5750 MHz; Calibrated: 2022/5/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

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

Maximum value of SAR (interpolated) = 9.39 W/kg

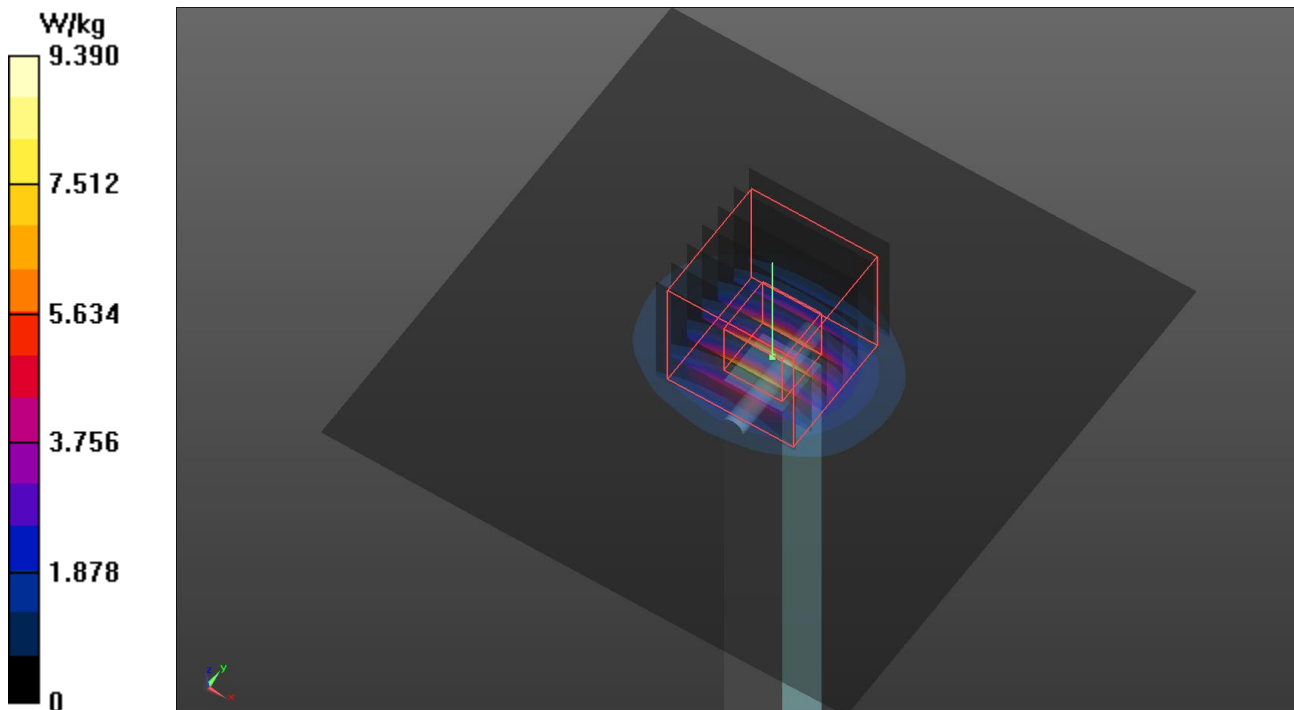
**Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=1.4$ mm

Reference Value = 47.66 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 18.1 W/kg

**SAR(1 g) = 3.91 W/kg; SAR(10 g) = 1.13 W/kg** (SAR corrected for target medium)

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



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/25

### S06 System Check\_H2450\_220825

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

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

Medium: H19T27N1\_0825 Medium parameters used (interpolated):  $f = 2450$  MHz;  $\sigma = 1.881$  S/m;  $\epsilon_r = 39.283$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(8.12, 8.12, 8.12) @ 2450 MHz; Calibrated: 2022/05/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

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

Maximum value of SAR (interpolated) = 4.18 W/kg

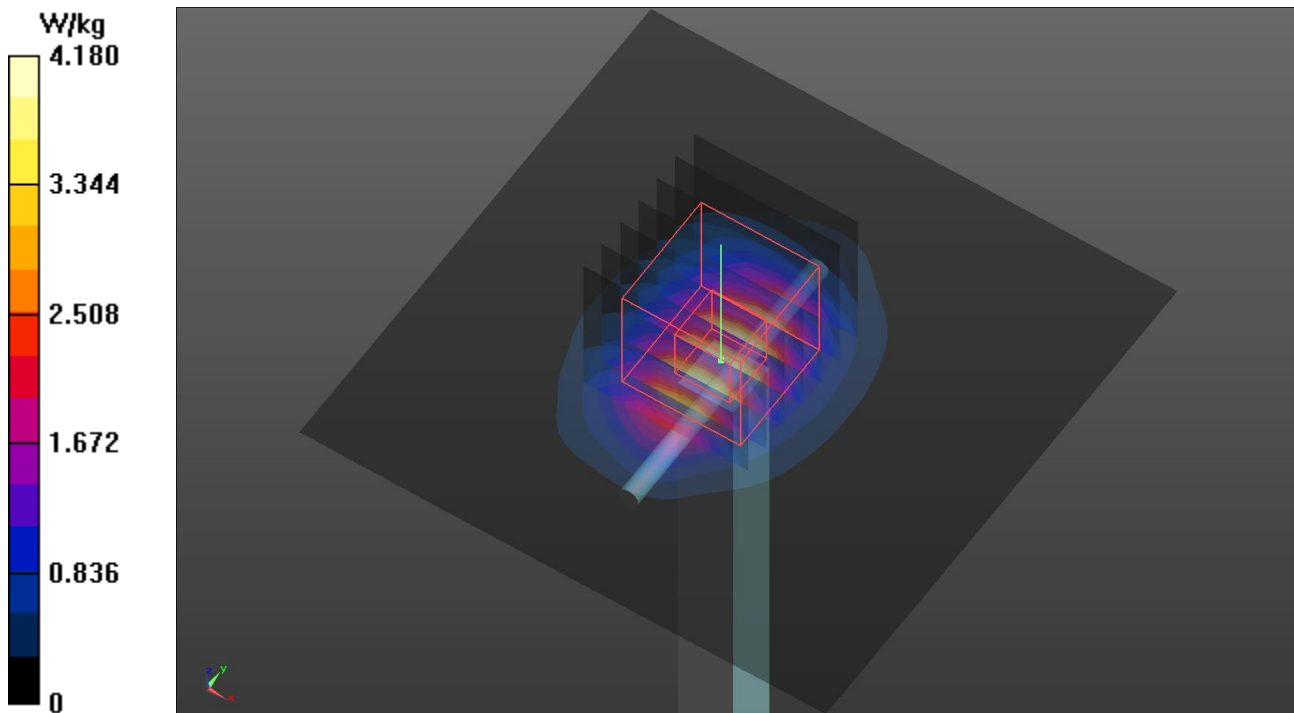
**Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 47.97 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 5.26 W/kg

**SAR(1 g) = 2.51 W/kg; SAR(10 g) = 1.20 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 4.27 W/kg



## Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/25

### S07 System Check\_H2450\_220825

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

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

Medium: H19T27N1\_0825 Medium parameters used (interpolated):  $f = 2450$  MHz;  $\sigma = 1.881$  S/m;  $\epsilon_r = 39.283$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(8.12, 8.12, 8.12) @ 2450 MHz; Calibrated: 2022/05/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

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

Maximum value of SAR (interpolated) = 4.18 W/kg

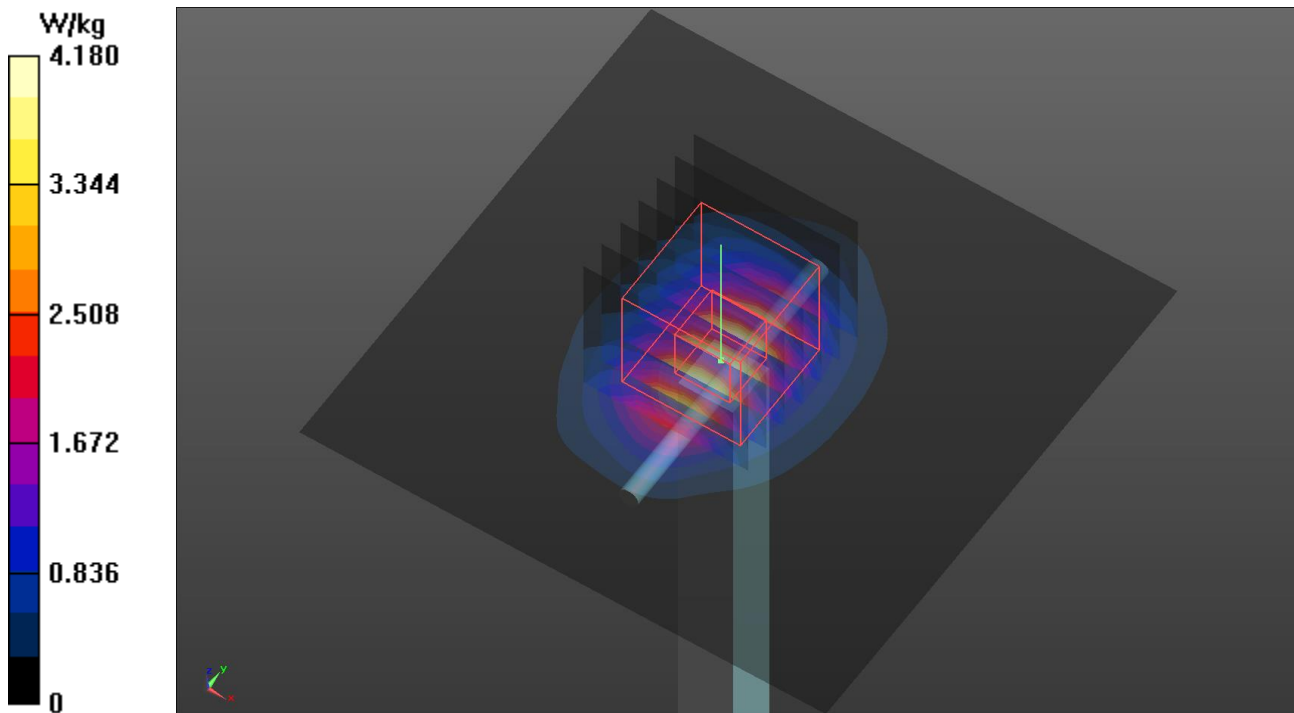
**Pin=50mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 47.97 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 5.26 W/kg

**SAR(1 g) = 2.51 W/kg; SAR(10 g) = 1.20 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 4.27 W/kg



### Annex B. Plots of Measurement

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

## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/25

### P01 WLAN2.4G\_802.11b\_Bottom Side\_5mm\_Ch12\_USB\_Ant 0+1

DUT: BBUI-WTW-P22031043

Communication System: UID 10012 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps); Frequency: 2467 MHz; Duty Cycle: 1:1

Medium: H19T27N1\_0825 Medium parameters used (interpolated):  $f = 2467$  MHz;  $\sigma = 1.898$  S/m;  $\epsilon_r = 39.238$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(8.12, 8.12, 8.12) @ 2467 MHz; Calibrated: 2022/5/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax; Serial: 1204
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (101x281x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 0.967 W/kg

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

Reference Value = 19.03 V/m; Power Drift = 0.09 dB

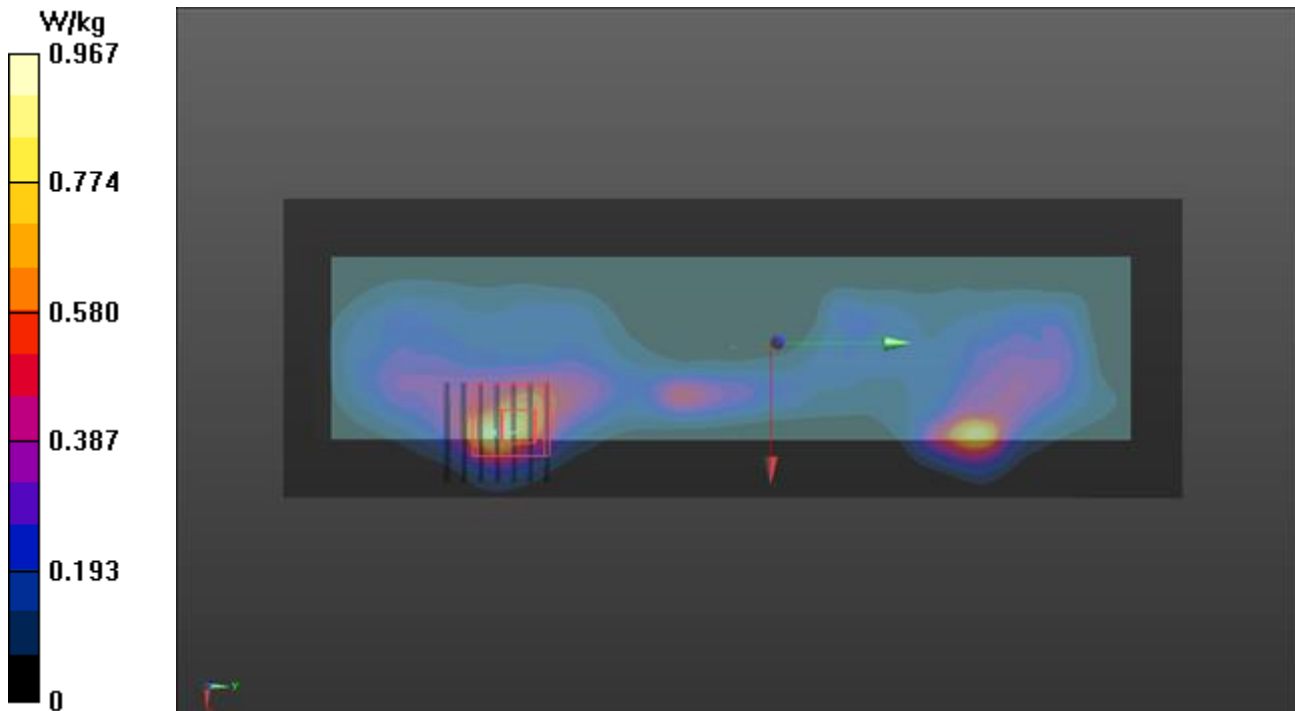
Peak SAR (extrapolated) = 1.47 W/kg

**SAR(1 g) = 0.579 W/kg; SAR(10 g) = 0.265 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.8 mm

Ratio of SAR at M2 to SAR at M1 = 38.9%

Maximum value of SAR (measured) = 1.06 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/24

### P02 WLAN5.3G\_802.11ac VHT80\_Bottom Side\_5mm\_Ch58\_USB\_Ant 0+1

DUT: BBUI-WTW-P22031043

Communication System: UID 10544 - AAC, IEEE 802.11ac WiFi (80MHz, MCS0); Frequency: 5290 MHz; Duty Cycle: 1:1.03

Medium: H34T60N1\_0824 Medium parameters used (interpolated):  $f = 5290$  MHz;  $\sigma = 4.775$  S/m;  $\epsilon_r = 36.932$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(5.74, 5.74, 5.74) @ 5290 MHz; Calibrated: 2022/5/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax; Serial: 1204
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (91x271x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 1.20 W/kg

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

Reference Value = 12.08 V/m; Power Drift = -0.08 dB

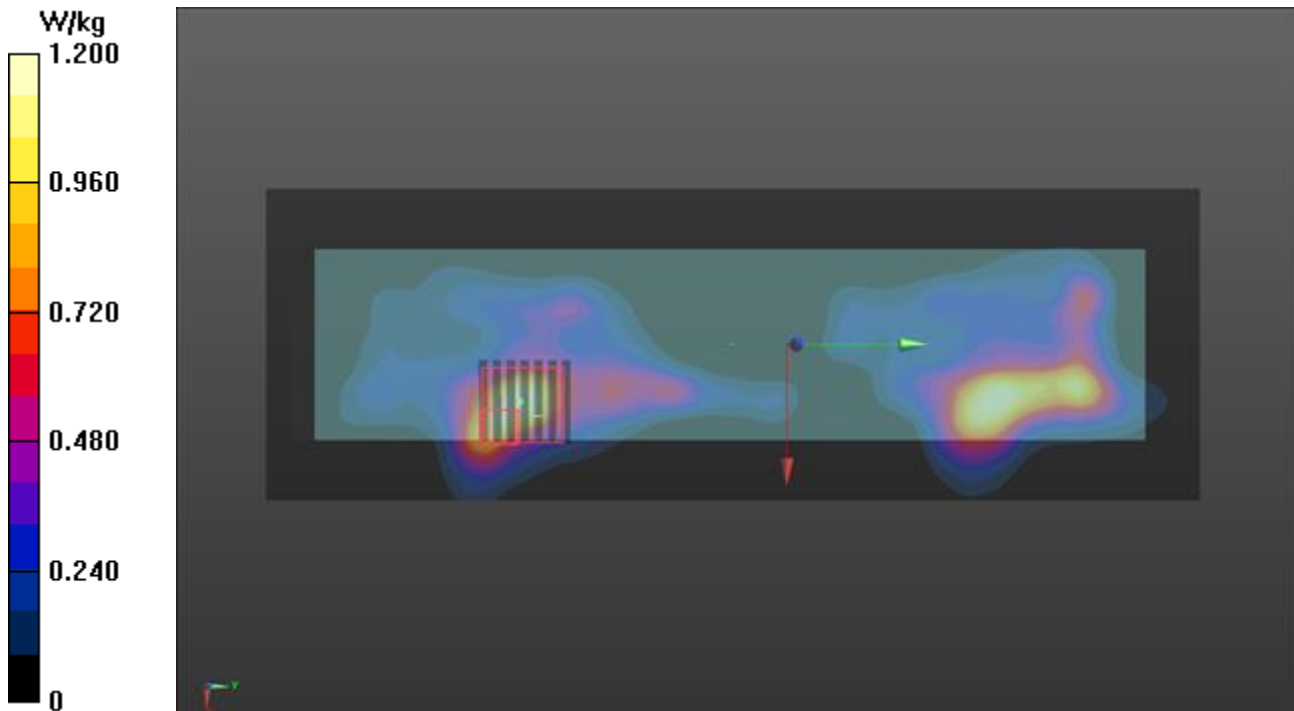
Peak SAR (extrapolated) = 1.80 W/kg

**SAR(1 g) = 0.434 W/kg; SAR(10 g) = 0.147 W/kg**

Smallest distance from peaks to all points 3 dB below = 5.6 mm

Ratio of SAR at M2 to SAR at M1 = 57.6%

Maximum value of SAR (measured) = 0.951 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/24

### P03 WLAN5.6G\_802.11ac VHT80\_Bottom Side\_5mm\_Ch138\_USB\_Ant 0+1

DUT: BBUI-WTW-P22031043

Communication System: UID 10544 - AAC, IEEE 802.11ac WiFi (80MHz, MCS0); Frequency: 5690 MHz; Duty Cycle: 1:1.03

Medium: H34T60N1\_0824 Medium parameters used (interpolated):  $f = 5690$  MHz;  $\sigma = 5.185$  S/m;  $\epsilon_r = 36.371$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(5.05, 5.05, 5.05) @ 5690 MHz; Calibrated: 2022/5/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax; Serial: 1204
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (131x371x1):** Interpolated grid:  $dx=1.100$  mm,  $dy=1.100$  mm  
Maximum value of SAR (interpolated) = 1.29 W/kg

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

Reference Value = 14.29 V/m; Power Drift = -0.06 dB

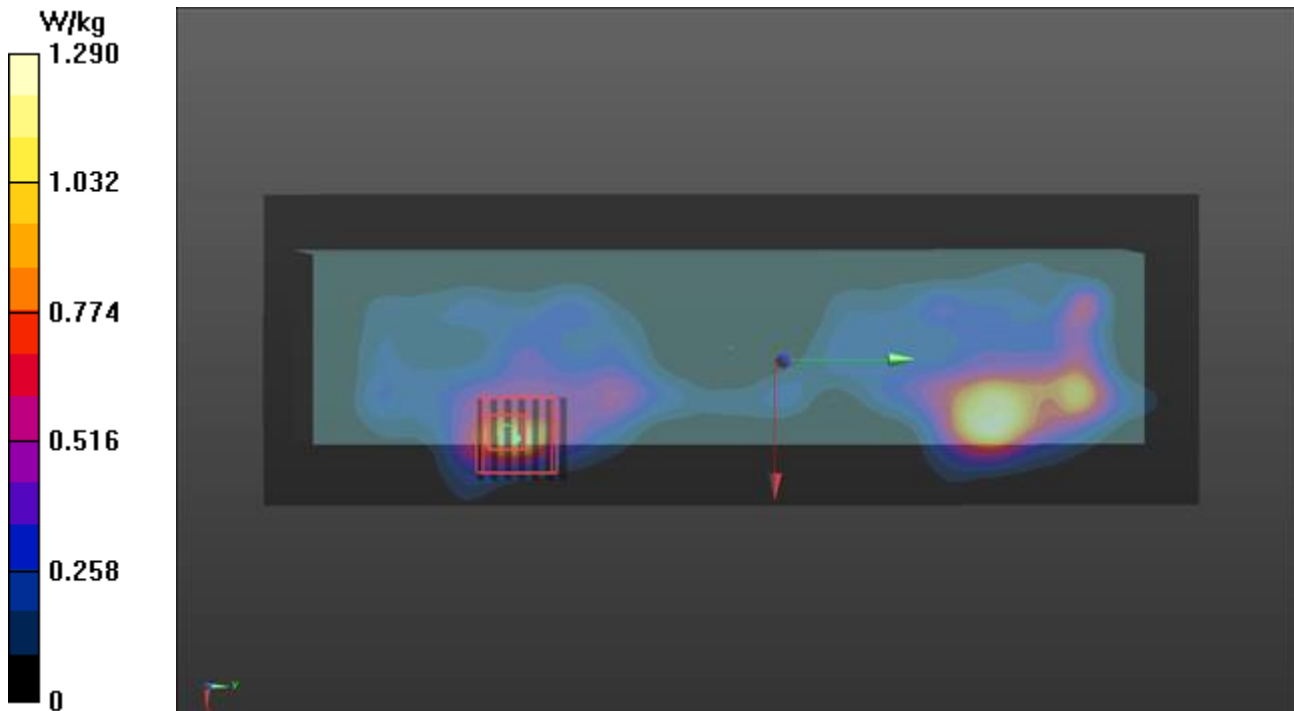
Peak SAR (extrapolated) = 1.67 W/kg

**SAR(1 g) = 0.409 W/kg; SAR(10 g) = 0.126 W/kg**

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

Ratio of SAR at M2 to SAR at M1 = 59.2%

Maximum value of SAR (measured) = 0.831 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/24

### P04 WLAN5.8G\_802.11ac VHT80\_Bottom Side\_5mm\_Ch155\_USB\_Ant 0+1

DUT: BBUI-WTW-P22031043

Communication System: UID 10544 - AAC, IEEE 802.11ac WiFi (80MHz, MCS0); Frequency: 5775 MHz; Duty Cycle: 1:1.03

Medium: H34T60N1\_0824 Medium parameters used:  $f = 5775$  MHz;  $\sigma = 5.274$  S/m;  $\epsilon_r = 36.261$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(5.05, 5.05, 5.05) @ 5775 MHz; Calibrated: 2022/5/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (131x371x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.02 W/kg

**Zoom Scan (7x7x6)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 13.48 V/m; Power Drift = -0.17 dB

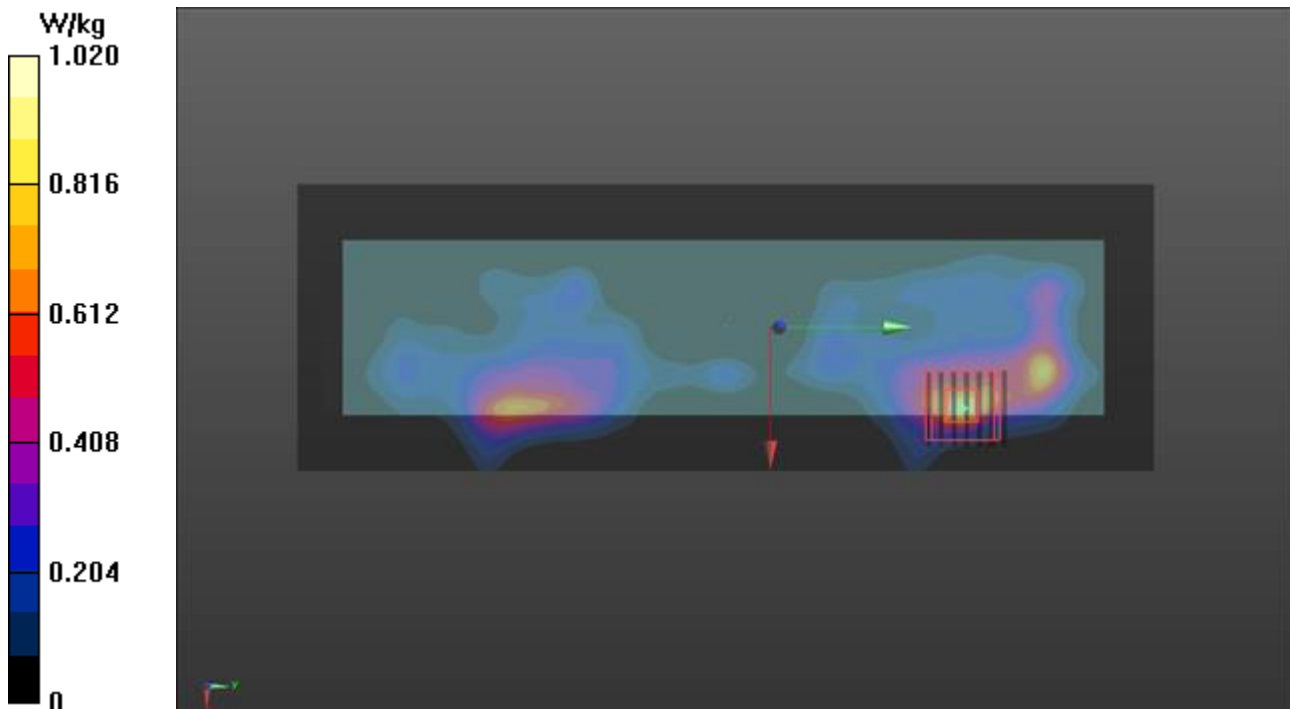
Peak SAR (extrapolated) = 1.89 W/kg

**SAR(1 g) = 0.404 W/kg; SAR(10 g) = 0.138 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.5 mm

Ratio of SAR at M2 to SAR at M1 = 59.1%

Maximum value of SAR (measured) = 1.02 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/24

### P05 WLAN5.9G\_802.11ac VHT80\_Bottom Side\_5mm\_Ch171\_USB\_Ant 0+1

DUT: BBUI-WTW-P22031043

Communication System: UID 10544 - AAC, IEEE 802.11ac WiFi (80MHz, MCS0); Frequency: 5855 MHz; Duty Cycle: 1:1.03

Medium: H34T60N1\_0824 Medium parameters used:  $f = 5855$  MHz;  $\sigma = 5.356$  S/m;  $\epsilon_r = 36.142$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(5.05, 5.05, 5.05) @ 5855 MHz; Calibrated: 2022/5/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (91x271x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.12 W/kg

**Zoom Scan (7x7x6)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 9.171 V/m; Power Drift = 0.08 dB

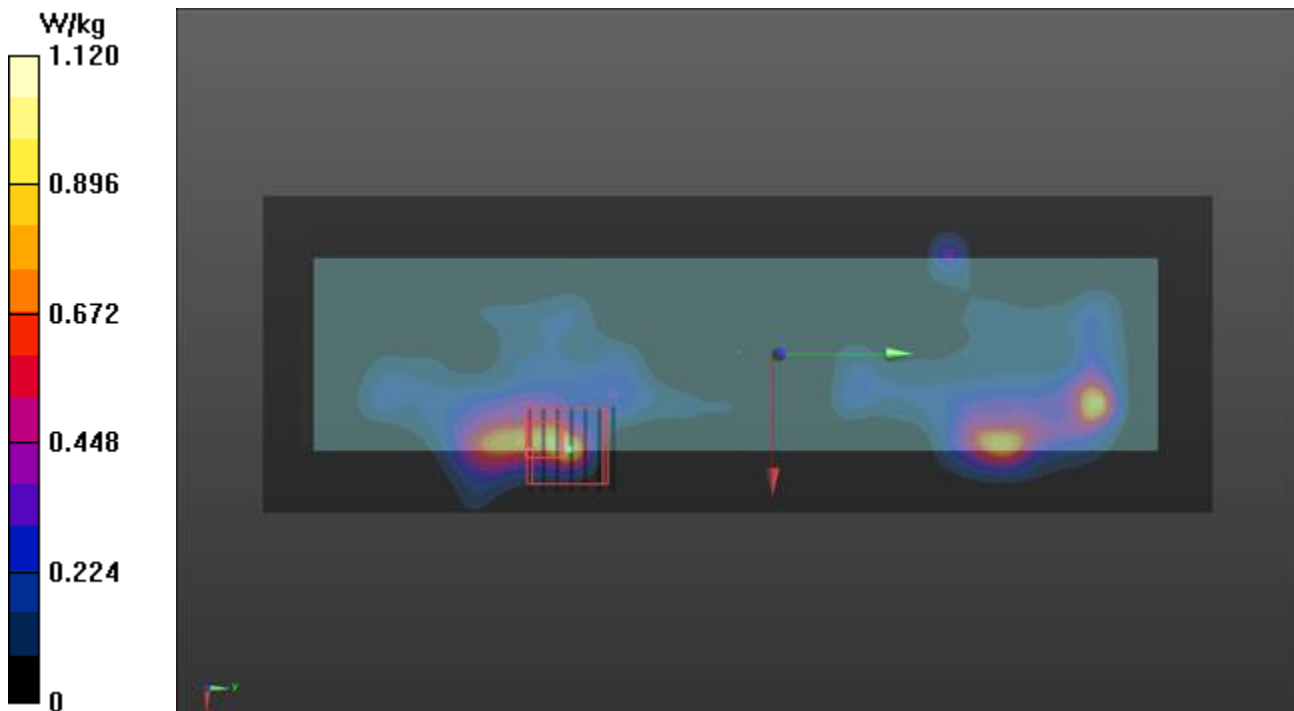
Peak SAR (extrapolated) = 2.99 W/kg

**SAR(1 g) = 0.459 W/kg; SAR(10 g) = 0.123 W/kg**

Smallest distance from peaks to all points 3 dB below = 5.8 mm

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

Maximum value of SAR (measured) = 1.58 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/25

### P06 BT\_BDR\_Bottom Side\_5mm\_Ch39\_USB\_Ant 0

DUT: BBUI-WTW-P22031043

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

Medium: H19T27N1\_0825 Medium parameters used (interpolated):  $f = 2441$  MHz;  $\sigma = 1.871$  S/m;  $\epsilon_r = 39.301$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(8.12, 8.12, 8.12) @ 2441 MHz; Calibrated: 2022/5/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax; Serial: 1204
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (81x231x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 0.315 W/kg

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

Reference Value = 10.30 V/m; Power Drift = -0.09 dB

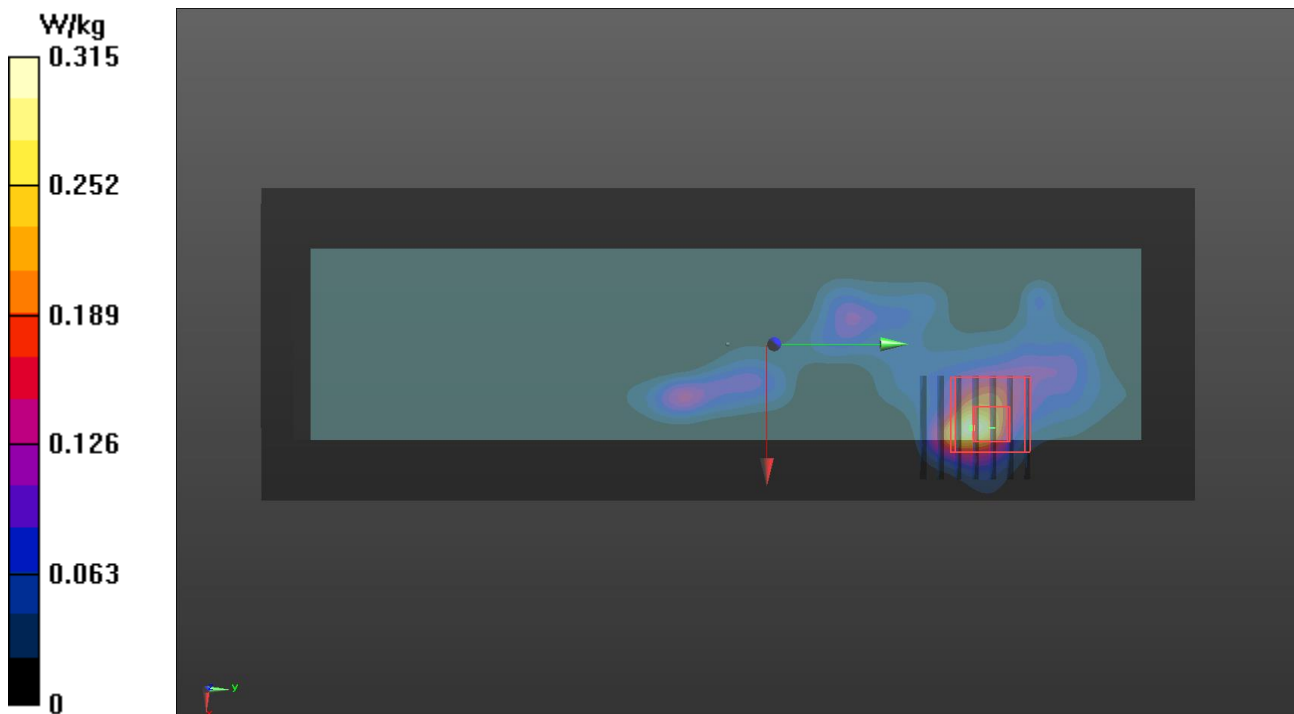
Peak SAR (extrapolated) = 0.428 W/kg

**SAR(1 g) = 0.171 W/kg; SAR(10 g) = 0.077 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.1 mm

Ratio of SAR at M2 to SAR at M1 = 41.9%

Maximum value of SAR (measured) = 0.324 W/kg



## Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/08/25

### P07 BT\_BDR\_Bottom Side\_5mm\_Ch39\_USB\_Ant 0

DUT: BBUI-WTW-P22031043

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

Medium: H19T27N1\_0825 Medium parameters used (interpolated):  $f = 2441$  MHz;  $\sigma = 1.871$  S/m;  $\epsilon_r = 39.301$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7736; ConvF(8.12, 8.12, 8.12) @ 2441 MHz; Calibrated: 2022/5/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2022/6/1
- Phantom: ELI Phantom\_1204; Type: QD OVA 002 Ax; Serial: 1204
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (81x231x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 0.181 W/kg

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

Reference Value = 8.099 V/m; Power Drift = 0.11 dB

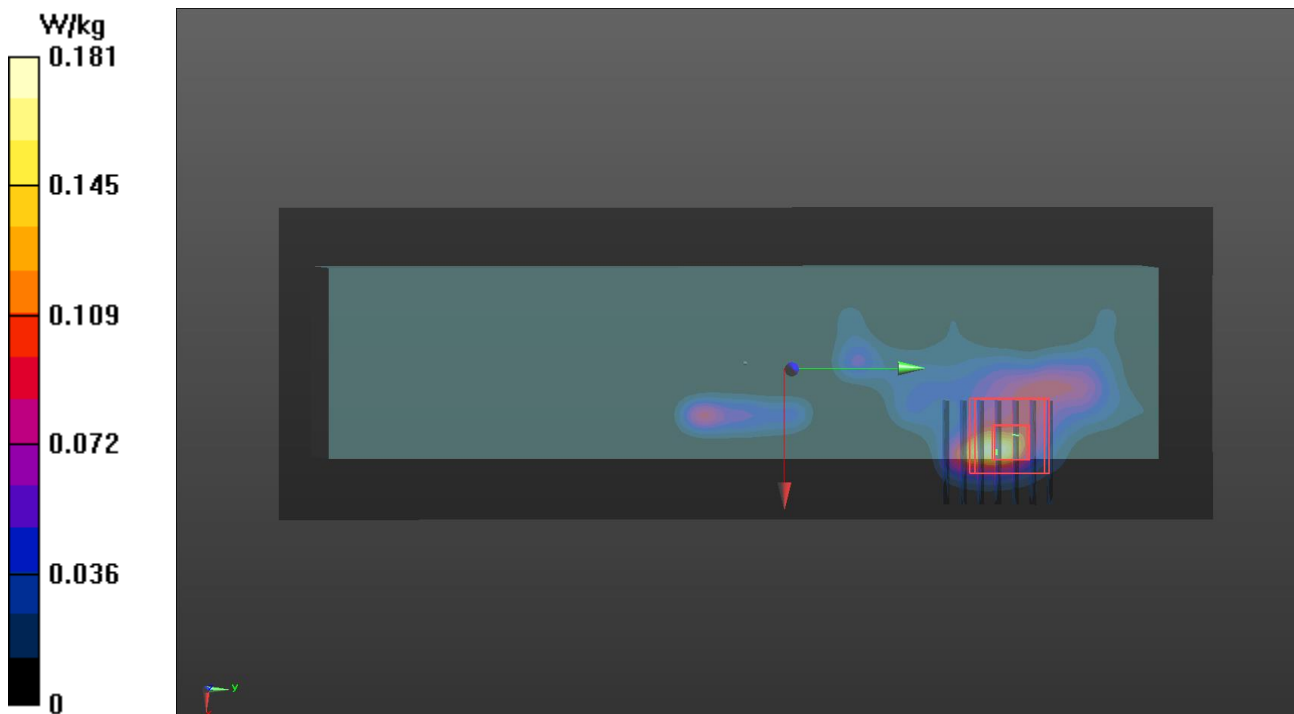
Peak SAR (extrapolated) = 0.244 W/kg

**SAR(1 g) = 0.080 W/kg; SAR(10 g) = 0.046 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.3 mm

Ratio of SAR at M2 to SAR at M1 = 41.1%

Maximum value of SAR (measured) = 0.190 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  $\pm 2^\circ\text{C}$ .
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 1g SAR (W/kg) | Measured 1g SAR (W/kg) | Normalized 1g SAR (W/kg) | Deviation (%) | Dipole S/N | Probe S/N | DAE S/N | Output Power (dB) |
| S01                 | 2450            | 23.1              | 1.881            | 39.283                         | 1.8                       | 39.2                                    | 4.50                       | 0.21                                     | Pass              | Pass            | Pass           | OFDM                      | N/A         | Pass | Aug. 25, 2022 | 2450              | 52.60                  | 2.51                   | 50.08                    | -4.79         | 737        | 7736      | 579     | 17                |
| S02                 | 5250            | 23.2              | 4.736            | 36.971                         | 4.71                      | 35.9                                    | 0.55                       | 2.98                                     | Pass              | Pass            | Pass           | OFDM                      | N/A         | Pass | Aug. 24, 2022 | 5250              | 80.60                  | 3.81                   | 76.02                    | -5.68         | 1019       | 7736      | 579     | 17                |
| S03                 | 5600            | 23.2              | 5.09             | 36.503                         | 5.07                      | 35.5                                    | 0.39                       | 2.83                                     | Pass              | Pass            | Pass           | OFDM                      | N/A         | Pass | Aug. 24, 2022 | 5600              | 82.40                  | 4.37                   | 87.19                    | 5.82          | 1019       | 7736      | 579     | 17                |
| S04                 | 5750            | 23.2              | 5.249            | 36.283                         | 5.22                      | 35.4                                    | 0.56                       | 2.49                                     | Pass              | Pass            | Pass           | OFDM                      | N/A         | Pass | Aug. 24, 2022 | 5750              | 79.40                  | 3.91                   | 78.01                    | -1.74         | 1019       | 7736      | 579     | 17                |
| S05                 | 5750            | 23.2              | 5.249            | 36.283                         | 5.22                      | 35.4                                    | 0.56                       | 2.49                                     | Pass              | Pass            | Pass           | OFDM                      | N/A         | Pass | Aug. 24, 2022 | 5750              | 79.40                  | 3.91                   | 78.01                    | -1.74         | 1019       | 7736      | 579     | 17                |
| S06                 | 2450            | 23.1              | 1.881            | 39.283                         | 1.8                       | 39.2                                    | 4.50                       | 0.21                                     | Pass              | Pass            | Pass           | OFDM                      | N/A         | Pass | Aug. 25, 2022 | 2450              | 52.60                  | 2.51                   | 50.08                    | -4.79         | 737        | 7736      | 579     | 17                |
| S07                 | 2450            | 23.1              | 1.881            | 39.283                         | 1.8                       | 39.2                                    | 4.50                       | 0.21                                     | Pass              | Pass            | Pass           | OFDM                      | N/A         | Pass | Aug. 25, 2022 | 2450              | 52.60                  | 2.51                   | 50.08                    | -4.79         | 737        | 7736      | 579     | 17                |

## **Annex D. Maximum Target Conducted Power**

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

| Tune-up Power  |         |           |                           |                           |                       |                       |                             |
|----------------|---------|-----------|---------------------------|---------------------------|-----------------------|-----------------------|-----------------------------|
| 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 0+1<br>Max Tune up |
| 802.11b        | 1       | 2412      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 6       | 2437      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 11      | 2462      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 12      | 2467      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 13      | 2472      | 12.0                      | 12.0                      | 12.0                  | 12.0                  | 15.0                        |
| 802.11g        | 1       | 2412      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 6       | 2437      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 11      | 2462      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 12      | 2467      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 13      | 2472      | 12.5                      | 12.5                      | 12.5                  | 12.5                  | 15.5                        |
| 802.11ac VHT20 | 1       | 2412      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 6       | 2437      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 11      | 2462      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 12      | 2467      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 13      | 2472      | 12.5                      | 12.5                      | 12.5                  | 12.5                  | 15.5                        |
| 802.11ac VHT40 | 3       | 2422      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 6       | 2437      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 9       | 2452      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 10      | 2457      | 12.5                      | 12.5                      | 12.5                  | 12.5                  | 15.5                        |
|                | 11      | 2462      | 11.5                      | 11.5                      | 11.5                  | 11.5                  | 14.5                        |
| 802.11ax HE20  | 1       | 2412      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 6       | 2437      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 11      | 2462      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 12      | 2467      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 13      | 2472      | 12.5                      | 12.5                      | 12.5                  | 12.5                  | 15.5                        |
| 802.11ax HE40  | 3       | 2422      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 6       | 2437      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 9       | 2452      | 15.0                      | 15.0                      | 15.0                  | 15.0                  | 18.0                        |
|                | 10      | 2457      | 12.5                      | 12.5                      | 12.5                  | 12.5                  | 15.5                        |
|                | 11      | 2462      | 11.5                      | 11.5                      | 11.5                  | 11.5                  | 14.5                        |

| Tune-up Power |         |           |                                 |                                |  |
|---------------|---------|-----------|---------------------------------|--------------------------------|--|
| Bluetooth     |         |           |                                 |                                |  |
| Mode          | Channel | Frequency | Max Tune-up<br>( Higher Power ) | Max Tune-up<br>( Lower Power ) |  |
| BR / EDR      | 0       | 2402      | 12.5                            | 6.0                            |  |
|               | 39      | 2441      | 12.5                            | 6.0                            |  |
|               | 78      | 2480      | 12.5                            | 6.0                            |  |
| LE            | 0       | 2402      | 12.5                            | 6.0                            |  |
|               | 19      | 2440      | 12.5                            | 6.0                            |  |
|               | 39      | 2480      | 12.5                            | 6.0                            |  |

| Tune-up Power  |         |           |                           |                           |                       |                       |                             |
|----------------|---------|-----------|---------------------------|---------------------------|-----------------------|-----------------------|-----------------------------|
| 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 0+1<br>Max Tune up |
| 802.11a        | 36      | 5180      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 40      | 5200      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 44      | 5220      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 48      | 5240      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT20 | 36      | 5180      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 40      | 5200      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 44      | 5220      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 48      | 5240      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT40 | 38      | 5190      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 46      | 5230      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT80 | 42      | 5210      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE20  | 36      | 5180      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 40      | 5200      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 44      | 5220      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 48      | 5240      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE40  | 38      | 5190      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 46      | 5230      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE80  | 42      | 5210      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |

| Tune-up Power  |         |           |                           |                           |                       |                       |                             |
|----------------|---------|-----------|---------------------------|---------------------------|-----------------------|-----------------------|-----------------------------|
| 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 0+1<br>Max Tune up |
| 802.11a        | 52      | 5260      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 56      | 5280      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 60      | 5300      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 64      | 5320      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT20 | 52      | 5260      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 56      | 5280      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 60      | 5300      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 64      | 5320      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT40 | 54      | 5270      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 62      | 5310      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT80 | 58      | 5290      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE20  | 52      | 5260      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 56      | 5280      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 60      | 5300      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 64      | 5320      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE40  | 54      | 5270      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 62      | 5310      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE80  | 58      | 5290      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |

| Tune-up Power  |         |           |                           |                           |                       |                       |                             |
|----------------|---------|-----------|---------------------------|---------------------------|-----------------------|-----------------------|-----------------------------|
| 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 0+1<br>Max Tune up |
| 802.11a        | 100     | 5500      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 116     | 5580      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 120     | 5600      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 124     | 5620      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 132     | 5660      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 140     | 5700      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 144     | 5720      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT20 | 100     | 5500      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 116     | 5580      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 120     | 5600      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 124     | 5620      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 132     | 5660      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 140     | 5700      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 144     | 5720      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT40 | 102     | 5510      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 110     | 5550      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 118     | 5590      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 126     | 5630      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 134     | 5670      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 142     | 5710      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 144     | 5720      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT80 | 106     | 5530      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 122     | 5610      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 138     | 5690      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE20  | 100     | 5500      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 116     | 5580      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 120     | 5600      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 124     | 5620      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 132     | 5660      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 140     | 5700      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 144     | 5720      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE40  | 102     | 5510      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 110     | 5550      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 118     | 5590      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 126     | 5630      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 134     | 5670      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 142     | 5710      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 144     | 5720      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE80  | 106     | 5530      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 122     | 5610      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 138     | 5690      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |

| Tune-up Power  |         |           |                           |                           |                       |                       |                             |
|----------------|---------|-----------|---------------------------|---------------------------|-----------------------|-----------------------|-----------------------------|
| 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 0+1<br>Max Tune up |
| 802.11a        | 149     | 5745      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 153     | 5765      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 157     | 5785      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 161     | 5805      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 165     | 5825      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT20 | 149     | 5745      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 153     | 5765      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 157     | 5785      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 161     | 5805      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 165     | 5825      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT40 | 151     | 5755      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 159     | 5795      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT80 | 155     | 5775      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE20  | 149     | 5745      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 153     | 5765      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 157     | 5785      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 161     | 5805      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 165     | 5825      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE40  | 151     | 5755      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 159     | 5795      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE80  | 155     | 5775      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |

| Tune-up Power  |         |           |                           |                           |                       |                       |                             |
|----------------|---------|-----------|---------------------------|---------------------------|-----------------------|-----------------------|-----------------------------|
| WLAN 5.9GHz    |         |           |                           |                           |                       |                       |                             |
| 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 0+1<br>Max Tune up |
| 802.11a        | 169     | 5845      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 173     | 5865      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 177     | 5885      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT20 | 169     | 5845      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 173     | 5865      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 177     | 5885      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT40 | 167     | 5835      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 175     | 5875      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ac VHT80 | 171     | 5855      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE20  | 169     | 5845      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 173     | 5865      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 177     | 5885      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE40  | 167     | 5835      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
|                | 175     | 5875      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |
| 802.11ax HE80  | 171     | 5855      | 13.5                      | 13.5                      | 13.5                  | 13.5                  | 16.5                        |

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

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

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN2.4GHz Ant 0            |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 0<br>Avg. Power |
| 802.11b                     | 1       | 2412      | 14.95                    |
|                             | 6       | 2437      | 14.99                    |
|                             | 11      | 2462      | 14.97                    |
|                             | 12      | 2467      | 14.93                    |
|                             | 13      | 2472      | 11.86                    |
| 802.11g                     | 1       | 2412      | 14.65                    |
|                             | 6       | 2437      | 14.77                    |
|                             | 11      | 2462      | 14.59                    |
|                             | 12      | 2467      | 12.62                    |
|                             | 13      | 2472      | 11.69                    |
| 802.11ac VHT20              | 1       | 2412      | 14.51                    |
|                             | 6       | 2437      | 14.71                    |
|                             | 11      | 2462      | 14.61                    |
|                             | 12      | 2467      | 12.59                    |
|                             | 13      | 2472      | 11.71                    |
| 802.11ac VHT40              | 3       | 2422      | 14.51                    |
|                             | 6       | 2437      | 14.66                    |
|                             | 9       | 2452      | 14.67                    |
|                             | 10      | 2457      | 11.77                    |
|                             | 11      | 2462      | 10.59                    |
| 802.11ax HE20               | 1       | 2412      | 14.73                    |
|                             | 6       | 2437      | 14.54                    |
|                             | 11      | 2462      | 14.62                    |
|                             | 12      | 2467      | 12.68                    |
|                             | 13      | 2472      | 11.61                    |
| 802.11ax HE40               | 3       | 2422      | 14.52                    |
|                             | 6       | 2437      | 14.67                    |
|                             | 9       | 2452      | 14.6                     |
|                             | 10      | 2457      | 11.62                    |
|                             | 11      | 2462      | 10.56                    |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN2.4GHz Ant 1            |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 1<br>Avg. Power |
| 802.11b                     | 1       | 2412      | 14.93                    |
|                             | 6       | 2437      | 14.99                    |
|                             | 11      | 2462      | 14.87                    |
|                             | 12      | 2467      | 14.67                    |
|                             | 13      | 2472      | 11.79                    |
| 802.11g                     | 1       | 2412      | 14.75                    |
|                             | 6       | 2437      | 14.66                    |
|                             | 11      | 2462      | 14.76                    |
|                             | 12      | 2467      | 12.8                     |
|                             | 13      | 2472      | 11.67                    |
| 802.11ac VHT20              | 1       | 2412      | 14.79                    |
|                             | 6       | 2437      | 14.71                    |
|                             | 11      | 2462      | 14.53                    |
|                             | 12      | 2467      | 12.78                    |
|                             | 13      | 2472      | 11.77                    |
| 802.11ac VHT40              | 3       | 2422      | 14.78                    |
|                             | 6       | 2437      | 14.62                    |
|                             | 9       | 2452      | 14.58                    |
|                             | 10      | 2457      | 11.71                    |
|                             | 11      | 2462      | 10.59                    |
| 802.11ax HE20               | 1       | 2412      | 14.52                    |
|                             | 6       | 2437      | 14.77                    |
|                             | 11      | 2462      | 14.79                    |
|                             | 12      | 2467      | 12.74                    |
|                             | 13      | 2472      | 11.59                    |
| 802.11ax HE40               | 3       | 2422      | 14.57                    |
|                             | 6       | 2437      | 14.73                    |
|                             | 9       | 2452      | 14.55                    |
|                             | 10      | 2457      | 11.76                    |
|                             | 11      | 2462      | 10.64                    |

| 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 0+1<br>Avg. Power |
| 802.11b                     | 1       | 2412      | 14.83                    | 14.96                    | 17.91                      |
|                             | 6       | 2437      | 14.96                    | 14.99                    | 17.99                      |
|                             | 11      | 2462      | 14.73                    | 14.79                    | 17.77                      |
|                             | 12      | 2467      | 14.81                    | 14.64                    | 17.74                      |
|                             | 13      | 2472      | 11.86                    | 11.81                    | 14.85                      |
| 802.11g                     | 1       | 2412      | 14.71                    | 14.59                    | 17.66                      |
|                             | 6       | 2437      | 14.52                    | 14.68                    | 17.61                      |
|                             | 11      | 2462      | 14.76                    | 14.73                    | 17.76                      |
|                             | 12      | 2467      | 12.68                    | 12.53                    | 15.62                      |
|                             | 13      | 2472      | 11.71                    | 11.65                    | 14.69                      |
| 802.11ac VHT20              | 1       | 2412      | 14.51                    | 14.5                     | 17.52                      |
|                             | 6       | 2437      | 14.74                    | 14.79                    | 17.78                      |
|                             | 11      | 2462      | 14.77                    | 14.51                    | 17.65                      |
|                             | 12      | 2467      | 12.72                    | 12.74                    | 15.74                      |
|                             | 13      | 2472      | 11.67                    | 11.62                    | 14.66                      |
| 802.11ac VHT40              | 3       | 2422      | 14.57                    | 14.67                    | 17.63                      |
|                             | 6       | 2437      | 14.73                    | 14.74                    | 17.75                      |
|                             | 9       | 2452      | 14.67                    | 14.52                    | 17.61                      |
|                             | 10      | 2457      | 11.74                    | 11.59                    | 14.68                      |
|                             | 11      | 2462      | 10.5                     | 10.55                    | 13.54                      |
| 802.11ax HE20               | 1       | 2412      | 14.55                    | 14.78                    | 17.68                      |
|                             | 6       | 2437      | 14.59                    | 14.59                    | 17.60                      |
|                             | 11      | 2462      | 14.73                    | 14.6                     | 17.68                      |
|                             | 12      | 2467      | 12.78                    | 12.79                    | 15.80                      |
|                             | 13      | 2472      | 11.79                    | 11.77                    | 14.79                      |
| 802.11ax HE40               | 3       | 2422      | 14.79                    | 14.64                    | 17.73                      |
|                             | 6       | 2437      | 14.56                    | 14.79                    | 17.69                      |
|                             | 9       | 2452      | 14.75                    | 14.65                    | 17.71                      |
|                             | 10      | 2457      | 11.53                    | 11.51                    | 14.53                      |
|                             | 11      | 2462      | 10.52                    | 10.72                    | 13.63                      |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| Bluetooth ( Higher Power )  |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 0<br>Avg. Power |
| BR / EDR                    | 0       | 2402      | 12.35                    |
|                             | 39      | 2441      | 12.44                    |
|                             | 78      | 2480      | 12.22                    |
| LE                          | 0       | 2402      | 12.37                    |
|                             | 19      | 2440      | 12.11                    |
|                             | 39      | 2480      | 12.16                    |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| Bluetooth ( Lower Power )   |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 1<br>Avg. Power |
| BR / EDR                    | 0       | 2402      | 5.79                     |
|                             | 39      | 2441      | 5.92                     |
|                             | 78      | 2480      | 5.88                     |
| LE                          | 0       | 2402      | 5.69                     |
|                             | 19      | 2440      | 5.74                     |
|                             | 39      | 2480      | 5.59                     |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.2GHz Ant 0           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 0<br>Avg. Power |
| 802.11a                     | 36      | 5180      | 13.01                    |
|                             | 40      | 5200      | 13.25                    |
|                             | 44      | 5220      | 13.21                    |
|                             | 48      | 5240      | 13.12                    |
| 802.11ac VHT20              | 36      | 5180      | 13.09                    |
|                             | 40      | 5200      | 13.06                    |
|                             | 44      | 5220      | 13.14                    |
|                             | 48      | 5240      | 13.26                    |
| 802.11ac VHT40              | 38      | 5190      | 13.16                    |
|                             | 46      | 5230      | 13.28                    |
| 802.11ac VHT80              | 42      | 5210      | 13.21                    |
| 802.11ax HE20               | 36      | 5180      | 13.26                    |
|                             | 40      | 5200      | 13.17                    |
|                             | 44      | 5220      | 13.04                    |
|                             | 48      | 5240      | 13.04                    |
| 802.11ax HE40               | 38      | 5190      | 13.28                    |
|                             | 46      | 5230      | 13.23                    |
| 802.11ax HE80               | 42      | 5210      | 13.22                    |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.2GHz Ant 1           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 1<br>Avg. Power |
| 802.11a                     | 36      | 5180      | 13.01                    |
|                             | 40      | 5200      | 13.12                    |
|                             | 44      | 5220      | 13.06                    |
|                             | 48      | 5240      | 13.01                    |
| 802.11ac VHT20              | 36      | 5180      | 13.3                     |
|                             | 40      | 5200      | 13.09                    |
|                             | 44      | 5220      | 13.3                     |
|                             | 48      | 5240      | 13.28                    |
| 802.11ac VHT40              | 38      | 5190      | 13.21                    |
|                             | 46      | 5230      | 13.27                    |
| 802.11ac VHT80              | 42      | 5210      | 13.19                    |
| 802.11ax HE20               | 36      | 5180      | 13.25                    |
|                             | 40      | 5200      | 13.09                    |
|                             | 44      | 5220      | 13.25                    |
|                             | 48      | 5240      | 13.09                    |
| 802.11ax HE40               | 38      | 5190      | 13.12                    |
|                             | 46      | 5230      | 13.29                    |
| 802.11ax HE80               | 42      | 5210      | 13.16                    |

| WLAN Conducted Power (Full) |         |           |                          |                          |                            |
|-----------------------------|---------|-----------|--------------------------|--------------------------|----------------------------|
| WLAN 5.2GHz Ant 0+1         |         |           |                          |                          |                            |
| Mode                        | Channel | Frequency | MIMO Ant 0<br>Avg. Power | MIMO Ant 1<br>Avg. Power | MIMO Ant 0+1<br>Avg. Power |
| 802.11a                     | 36      | 5180      | 13.11                    | 13.02                    | 16.08                      |
|                             | 40      | 5200      | 13.3                     | 13.03                    | 16.18                      |
|                             | 44      | 5220      | 13.22                    | 13.06                    | 16.15                      |
|                             | 48      | 5240      | 13.1                     | 13                       | 16.06                      |
| 802.11ac VHT20              | 36      | 5180      | 13.06                    | 13.22                    | 16.15                      |
|                             | 40      | 5200      | 13.27                    | 13.18                    | 16.24                      |
|                             | 44      | 5220      | 13.07                    | 13.03                    | 16.06                      |
|                             | 48      | 5240      | 13.21                    | 13.19                    | 16.21                      |
| 802.11ac VHT40              | 38      | 5190      | 13.09                    | 13.26                    | 16.19                      |
|                             | 46      | 5230      | 13.05                    | 13.19                    | 16.13                      |
| 802.11ac VHT80              | 42      | 5210      | 13.02                    | 13.18                    | 16.11                      |
| 802.11ax HE20               | 36      | 5180      | 13.01                    | 13.2                     | 16.12                      |
|                             | 40      | 5200      | 13.22                    | 13.16                    | 16.2                       |
|                             | 44      | 5220      | 13.25                    | 13.26                    | 16.27                      |
|                             | 48      | 5240      | 13.08                    | 13.08                    | 16.09                      |
| 802.11ax HE40               | 38      | 5190      | 13.08                    | 13.23                    | 16.17                      |
|                             | 46      | 5230      | 13.14                    | 13.25                    | 16.21                      |
| 802.11ax HE80               | 42      | 5210      | 13.29                    | 13.25                    | 16.28                      |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.3GHz Ant 0           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 0<br>Avg. Power |
| 802.11a                     | 52      | 5260      | 13.06                    |
|                             | 56      | 5280      | 13.13                    |
|                             | 60      | 5300      | 13.28                    |
|                             | 64      | 5320      | 13.12                    |
| 802.11ac VHT20              | 52      | 5260      | 13.06                    |
|                             | 56      | 5280      | 13.02                    |
|                             | 60      | 5300      | 13.13                    |
|                             | 64      | 5320      | 13.2                     |
| 802.11ac VHT40              | 54      | 5270      | 13.19                    |
|                             | 62      | 5310      | 13.22                    |
| 802.11ac VHT80              | 58      | 5290      | 13.47                    |
| 802.11ax HE20               | 52      | 5260      | 13.17                    |
|                             | 56      | 5280      | 13.25                    |
|                             | 60      | 5300      | 13.03                    |
|                             | 64      | 5320      | 13.27                    |
| 802.11ax HE40               | 54      | 5270      | 13                       |
|                             | 62      | 5310      | 13.01                    |
| 802.11ax HE80               | 58      | 5290      | 13.19                    |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.3GHz Ant 1           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 1<br>Avg. Power |
| 802.11a                     | 52      | 5260      | 13.28                    |
|                             | 56      | 5280      | 13.26                    |
|                             | 60      | 5300      | 13.1                     |
|                             | 64      | 5320      | 13.11                    |
| 802.11ac VHT20              | 52      | 5260      | 13.29                    |
|                             | 56      | 5280      | 13.06                    |
|                             | 60      | 5300      | 13                       |
|                             | 64      | 5320      | 13.24                    |
| 802.11ac VHT40              | 54      | 5270      | 13.23                    |
|                             | 62      | 5310      | 13.28                    |
| 802.11ac VHT80              | 58      | 5290      | 13.41                    |
| 802.11ax HE20               | 52      | 5260      | 13.09                    |
|                             | 56      | 5280      | 13.03                    |
|                             | 60      | 5300      | 13.06                    |
|                             | 64      | 5320      | 13.18                    |
| 802.11ax HE40               | 54      | 5270      | 13.25                    |
|                             | 62      | 5310      | 13                       |
| 802.11ax HE80               | 58      | 5290      | 13.12                    |

| 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 0+1<br>Avg. Power |
| 802.11a                     | 52      | 5260      | 13.16                    | 13.3                     | 16.24                      |
|                             | 56      | 5280      | 13.14                    | 13.26                    | 16.21                      |
|                             | 60      | 5300      | 13.05                    | 13.12                    | 16.1                       |
|                             | 64      | 5320      | 13.24                    | 13.07                    | 16.17                      |
| 802.11ac VHT20              | 52      | 5260      | 13.13                    | 13.17                    | 16.16                      |
|                             | 56      | 5280      | 13.16                    | 13.17                    | 16.18                      |
|                             | 60      | 5300      | 13.23                    | 13.16                    | 16.21                      |
|                             | 64      | 5320      | 13.14                    | 13.03                    | 16.1                       |
| 802.11ac VHT40              | 54      | 5270      | 13.23                    | 13.24                    | 16.25                      |
|                             | 62      | 5310      | 13.04                    | 13.04                    | 16.05                      |
| 802.11ac VHT80              | 58      | 5290      | 13.23                    | 13.13                    | 16.19                      |
| 802.11ax HE20               | 52      | 5260      | 13.05                    | 13.04                    | 16.06                      |
|                             | 56      | 5280      | 13.16                    | 13.08                    | 16.13                      |
|                             | 60      | 5300      | 13.28                    | 13.04                    | 16.17                      |
|                             | 64      | 5320      | 13.1                     | 13.25                    | 16.19                      |
| 802.11ax HE40               | 54      | 5270      | 13.21                    | 13.16                    | 16.2                       |
|                             | 62      | 5310      | 13.05                    | 13.04                    | 16.06                      |
| 802.11ax HE80               | 58      | 5290      | 13.08                    | 13.16                    | 16.13                      |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.6GHz Ant 0           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 0<br>Avg. Power |
| 802.11a                     | 100     | 5500      | 13.25                    |
|                             | 116     | 5580      | 13.25                    |
|                             | 120     | 5600      | 13.09                    |
|                             | 124     | 5620      | 13.26                    |
|                             | 132     | 5660      | 13.19                    |
|                             | 140     | 5700      | 13.22                    |
|                             | 144     | 5720      | 13.3                     |
| 802.11ac VHT20              | 100     | 5500      | 13.3                     |
|                             | 116     | 5580      | 13.02                    |
|                             | 120     | 5600      | 13.27                    |
|                             | 124     | 5620      | 13.15                    |
|                             | 132     | 5660      | 13.14                    |
|                             | 140     | 5700      | 13.03                    |
|                             | 144     | 5720      | 13.1                     |
| 802.11ac VHT40              | 102     | 5510      | 13.05                    |
|                             | 110     | 5550      | 13.05                    |
|                             | 118     | 5590      | 13.09                    |
|                             | 126     | 5630      | 13.02                    |
|                             | 134     | 5670      | 13.06                    |
|                             | 142     | 5710      | 13.12                    |
| 802.11ac VHT80              | 106     | 5530      | 13.39                    |
|                             | 122     | 5610      | 13.36                    |
|                             | 138     | 5690      | 13.49                    |
| 802.11ax HE20               | 100     | 5500      | 13.19                    |
|                             | 116     | 5580      | 13.06                    |
|                             | 120     | 5600      | 13.12                    |
|                             | 124     | 5620      | 13.18                    |
|                             | 132     | 5660      | 13.13                    |
|                             | 140     | 5700      | 13.22                    |
|                             | 144     | 5720      | 13.22                    |
| 802.11ax HE40               | 102     | 5510      | 13.05                    |
|                             | 110     | 5550      | 13.01                    |
|                             | 118     | 5590      | 13.12                    |
|                             | 126     | 5630      | 13.06                    |
|                             | 134     | 5670      | 13.01                    |
|                             | 142     | 5710      | 13.26                    |
| 802.11ax HE80               | 106     | 5530      | 13.17                    |
|                             | 122     | 5610      | 13.07                    |
|                             | 138     | 5690      | 13.14                    |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.6GHz Ant 1           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 1<br>Avg. Power |
| 802.11a                     | 100     | 5500      | 13.28                    |
|                             | 116     | 5580      | 13.02                    |
|                             | 120     | 5600      | 13.09                    |
|                             | 124     | 5620      | 13.17                    |
|                             | 132     | 5660      | 13.06                    |
|                             | 140     | 5700      | 13.25                    |
|                             | 144     | 5720      | 13.16                    |
| 802.11ac VHT20              | 100     | 5500      | 13.2                     |
|                             | 116     | 5580      | 13.27                    |
|                             | 120     | 5600      | 13.1                     |
|                             | 124     | 5620      | 13.18                    |
|                             | 132     | 5660      | 13.2                     |
|                             | 140     | 5700      | 13.09                    |
|                             | 144     | 5720      | 13.18                    |
| 802.11ac VHT40              | 102     | 5510      | 13.08                    |
|                             | 110     | 5550      | 13.12                    |
|                             | 118     | 5590      | 13                       |
|                             | 126     | 5630      | 13.05                    |
|                             | 134     | 5670      | 13.06                    |
|                             | 142     | 5710      | 13.16                    |
| 802.11ac VHT80              | 106     | 5530      | 13.39                    |
|                             | 122     | 5610      | 13.32                    |
|                             | 138     | 5690      | 13.49                    |
| 802.11ax HE20               | 100     | 5500      | 13.04                    |
|                             | 116     | 5580      | 13.1                     |
|                             | 120     | 5600      | 13.25                    |
|                             | 124     | 5620      | 13.28                    |
|                             | 132     | 5660      | 13.25                    |
|                             | 140     | 5700      | 13.25                    |
|                             | 144     | 5720      | 13.21                    |
| 802.11ax HE40               | 102     | 5510      | 13.15                    |
|                             | 110     | 5550      | 13.27                    |
|                             | 118     | 5590      | 13.01                    |
|                             | 126     | 5630      | 13.12                    |
|                             | 134     | 5670      | 13.06                    |
|                             | 142     | 5710      | 13.29                    |
| 802.11ax HE80               | 106     | 5530      | 13.07                    |
|                             | 122     | 5610      | 13.15                    |
|                             | 138     | 5690      | 13.23                    |

| 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 0+1<br>Avg. Power |
| 802.11a                     | 100     | 5500      | 13.04                    | 13.11                    | 16.09                      |
|                             | 116     | 5580      | 13.27                    | 13.04                    | 16.17                      |
|                             | 120     | 5600      | 13.28                    | 13.23                    | 16.27                      |
|                             | 124     | 5620      | 13.11                    | 13.28                    | 16.21                      |
|                             | 132     | 5660      | 13.16                    | 13.02                    | 16.1                       |
|                             | 140     | 5700      | 13.08                    | 13.12                    | 16.11                      |
|                             | 144     | 5720      | 13.11                    | 13.27                    | 16.2                       |
| 802.11ac VHT20              | 100     | 5500      | 13.1                     | 13.02                    | 16.07                      |
|                             | 116     | 5580      | 13                       | 13                       | 16.01                      |
|                             | 120     | 5600      | 13.12                    | 13.25                    | 16.2                       |
|                             | 124     | 5620      | 13.24                    | 13.26                    | 16.26                      |
|                             | 132     | 5660      | 13.24                    | 13.19                    | 16.23                      |
|                             | 140     | 5700      | 13.1                     | 13.17                    | 16.15                      |
|                             | 144     | 5720      | 13.03                    | 13.06                    | 16.06                      |
| 802.11ac VHT40              | 102     | 5510      | 13.29                    | 13.13                    | 16.22                      |
|                             | 110     | 5550      | 13.19                    | 13.12                    | 16.17                      |
|                             | 118     | 5590      | 13.24                    | 13                       | 16.13                      |
|                             | 126     | 5630      | 13.03                    | 13.06                    | 16.06                      |
|                             | 134     | 5670      | 13.27                    | 13.2                     | 16.25                      |
|                             | 142     | 5710      | 13.18                    | 13.22                    | 16.21                      |
| 802.11ac VHT80              | 106     | 5530      | 12.36                    | 13.47                    | 15.96                      |
|                             | 122     | 5610      | 12.74                    | 13.35                    | 16.07                      |
|                             | 138     | 5690      | 12.79                    | 13.49                    | 16.16                      |
| 802.11ax HE20               | 100     | 5500      | 13.13                    | 13.14                    | 16.15                      |
|                             | 116     | 5580      | 13.05                    | 13.25                    | 16.16                      |
|                             | 120     | 5600      | 13.29                    | 13.11                    | 16.21                      |
|                             | 124     | 5620      | 13.06                    | 13.14                    | 16.11                      |
|                             | 132     | 5660      | 13.25                    | 13.29                    | 16.28                      |
|                             | 140     | 5700      | 13.23                    | 13.15                    | 16.2                       |
|                             | 144     | 5720      | 13.05                    | 13.15                    | 16.11                      |
| 802.11ax HE40               | 102     | 5510      | 13.26                    | 13.23                    | 16.26                      |
|                             | 110     | 5550      | 13.15                    | 13.14                    | 16.16                      |
|                             | 118     | 5590      | 13.09                    | 13.09                    | 16.1                       |
|                             | 126     | 5630      | 13.28                    | 13                       | 16.15                      |
|                             | 134     | 5670      | 13.07                    | 13.21                    | 16.15                      |
|                             | 142     | 5710      | 13.21                    | 13.13                    | 16.18                      |
| 802.11ax HE80               | 106     | 5530      | 13.21                    | 13.29                    | 16.26                      |
|                             | 122     | 5610      | 13.14                    | 13.03                    | 16.1                       |
|                             | 138     | 5690      | 13.28                    | 13.03                    | 16.17                      |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.8GHz Ant 0           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 0<br>Avg. Power |
| 802.11a                     | 149     | 5745      | 13.01                    |
|                             | 153     | 5765      | 13.27                    |
|                             | 157     | 5785      | 13.03                    |
|                             | 161     | 5805      | 13.26                    |
|                             | 165     | 5825      | 13.2                     |
| 802.11ac VHT20              | 149     | 5745      | 13.29                    |
|                             | 153     | 5765      | 13.19                    |
|                             | 157     | 5785      | 13.12                    |
|                             | 161     | 5805      | 13                       |
|                             | 165     | 5825      | 13.2                     |
| 802.11ac VHT40              | 151     | 5755      | 13.2                     |
|                             | 159     | 5795      | 13.11                    |
| 802.11ac VHT80              | 155     | 5775      | 13.48                    |
| 802.11ax HE20               | 149     | 5745      | 13.23                    |
|                             | 153     | 5765      | 13.29                    |
|                             | 157     | 5785      | 13.05                    |
|                             | 161     | 5805      | 13.22                    |
|                             | 165     | 5825      | 13.24                    |
| 802.11ax HE40               | 151     | 5755      | 13.03                    |
|                             | 159     | 5795      | 13.28                    |
| 802.11ax HE80               | 155     | 5775      | 13.14                    |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.8GHz Ant 1           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 1<br>Avg. Power |
| 802.11a                     | 149     | 5745      | 13.15                    |
|                             | 153     | 5765      | 13.28                    |
|                             | 157     | 5785      | 13.21                    |
|                             | 161     | 5805      | 13.03                    |
|                             | 165     | 5825      | 13.05                    |
| 802.11ac VHT20              | 149     | 5745      | 13.16                    |
|                             | 153     | 5765      | 13.3                     |
|                             | 157     | 5785      | 13.14                    |
|                             | 161     | 5805      | 13.24                    |
|                             | 165     | 5825      | 13.03                    |
| 802.11ac VHT40              | 151     | 5755      | 13.18                    |
|                             | 159     | 5795      | 13.03                    |
| 802.11ac VHT80              | 155     | 5775      | 13.48                    |
| 802.11ax HE20               | 149     | 5745      | 13.02                    |
|                             | 153     | 5765      | 13.06                    |
|                             | 157     | 5785      | 13.27                    |
|                             | 161     | 5805      | 13.06                    |
|                             | 165     | 5825      | 13.14                    |
| 802.11ax HE40               | 151     | 5755      | 13.05                    |
|                             | 159     | 5795      | 13.26                    |
| 802.11ax HE80               | 155     | 5775      | 13.2                     |

| 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 0+1<br>Avg. Power |
| 802.11a                     | 149     | 5745      | 13.14                    | 13.07                    | 16.12                      |
|                             | 153     | 5765      | 13.14                    | 13.05                    | 16.11                      |
|                             | 157     | 5785      | 13.01                    | 13.02                    | 16.03                      |
|                             | 161     | 5805      | 13.14                    | 13.12                    | 16.14                      |
|                             | 165     | 5825      | 13.11                    | 13.05                    | 16.09                      |
| 802.11ac VHT20              | 149     | 5745      | 13.01                    | 13.02                    | 16.03                      |
|                             | 153     | 5765      | 13.01                    | 13                       | 16.02                      |
|                             | 157     | 5785      | 13.26                    | 13.2                     | 16.24                      |
|                             | 161     | 5805      | 13.01                    | 13.13                    | 16.08                      |
|                             | 165     | 5825      | 13.15                    | 13.07                    | 16.12                      |
| 802.11ac VHT40              | 151     | 5755      | 13.26                    | 13.25                    | 16.27                      |
|                             | 159     | 5795      | 13.29                    | 13.19                    | 16.25                      |
| 802.11ac VHT80              | 155     | 5775      | 13.34                    | 13.32                    | 16.34                      |
| 802.11ax HE20               | 149     | 5745      | 13.06                    | 13.24                    | 16.16                      |
|                             | 153     | 5765      | 13.1                     | 13.23                    | 16.18                      |
|                             | 157     | 5785      | 13.07                    | 13.24                    | 16.17                      |
|                             | 161     | 5805      | 13.28                    | 13                       | 16.15                      |
|                             | 165     | 5825      | 13.1                     | 13.28                    | 16.2                       |
| 802.11ax HE40               | 151     | 5755      | 13.23                    | 13.12                    | 16.19                      |
|                             | 159     | 5795      | 13.04                    | 13.06                    | 16.06                      |
| 802.11ax HE80               | 155     | 5775      | 13.28                    | 13.15                    | 16.23                      |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.9GHz Ant 0           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 0<br>Avg. Power |
| 802.11a                     | 169     | 5845      | 13.28                    |
|                             | 173     | 5865      | 13.29                    |
|                             | 177     | 5885      | 13.04                    |
| 802.11ac VHT20              | 169     | 5845      | 13.11                    |
|                             | 173     | 5865      | 13.26                    |
|                             | 177     | 5885      | 13.26                    |
| 802.11ac VHT40              | 167     | 5835      | 13.13                    |
|                             | 175     | 5875      | 13.14                    |
| 802.11ac VHT80              | 171     | 5855      | 13.49                    |
| 802.11ax HE20               | 169     | 5845      | 13.11                    |
|                             | 173     | 5865      | 13.1                     |
|                             | 177     | 5885      | 13.17                    |
| 802.11ax HE40               | 167     | 5835      | 13.25                    |
|                             | 175     | 5875      | 13.07                    |
| 802.11ax HE80               | 171     | 5855      | 13.15                    |

| WLAN Conducted Power (Full) |         |           |                          |
|-----------------------------|---------|-----------|--------------------------|
| WLAN 5.9GHz Ant 1           |         |           |                          |
| Mode                        | Channel | Frequency | SISO Ant 1<br>Avg. Power |
| 802.11a                     | 169     | 5845      | 13.16                    |
|                             | 173     | 5865      | 13.21                    |
|                             | 177     | 5885      | 13.01                    |
| 802.11ac VHT20              | 169     | 5845      | 13.19                    |
|                             | 173     | 5865      | 13.24                    |
|                             | 177     | 5885      | 13.07                    |
| 802.11ac VHT40              | 167     | 5835      | 13.21                    |
|                             | 175     | 5875      | 13.13                    |
| 802.11ac VHT80              | 171     | 5855      | 13.46                    |
| 802.11ax HE20               | 169     | 5845      | 13.03                    |
|                             | 173     | 5865      | 13.09                    |
|                             | 177     | 5885      | 13.16                    |
| 802.11ax HE40               | 167     | 5835      | 13.01                    |
|                             | 175     | 5875      | 13.14                    |
| 802.11ax HE80               | 171     | 5855      | 13.16                    |

| WLAN Conducted Power (Full) |         |           |                          |                          |                            |
|-----------------------------|---------|-----------|--------------------------|--------------------------|----------------------------|
| WLAN 5.9GHz Ant 0+1         |         |           |                          |                          |                            |
| Mode                        | Channel | Frequency | MIMO Ant 0<br>Avg. Power | MIMO Ant 1<br>Avg. Power | MIMO Ant 0+1<br>Avg. Power |
| 802.11a                     | 169     | 5845      | 13.19                    | 13.24                    | 16.23                      |
|                             | 173     | 5865      | 13.09                    | 13.15                    | 16.13                      |
|                             | 177     | 5885      | 13.2                     | 13.09                    | 16.16                      |
| 802.11ac VHT20              | 169     | 5845      | 13.12                    | 13.03                    | 16.09                      |
|                             | 173     | 5865      | 13                       | 13.2                     | 16.11                      |
|                             | 177     | 5885      | 13.28                    | 13.21                    | 16.26                      |
| 802.11ac VHT40              | 167     | 5835      | 13.2                     | 13.12                    | 16.17                      |
|                             | 175     | 5875      | 13.25                    | 13.18                    | 16.23                      |
| 802.11ac VHT80              | 171     | 5855      | 13.33                    | 13.49                    | 16.42                      |
| 802.11ax HE20               | 169     | 5845      | 13.17                    | 13.03                    | 16.11                      |
|                             | 173     | 5865      | 13.01                    | 13                       | 16.02                      |
|                             | 177     | 5885      | 13.11                    | 13.06                    | 16.1                       |
| 802.11ax HE40               | 167     | 5835      | 13.04                    | 13.22                    | 16.14                      |
|                             | 175     | 5875      | 13.19                    | 13.02                    | 16.12                      |
| 802.11ax HE80               | 171     | 5855      | 13.13                    | 13.3                     | 16.23                      |

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

SAR Results for Body Exposure Condition.

### **Note:**

1. SAR testing for WLAN was performed on the maximum power mode.

| Body SAR Test Result |          |                |               |                          |         |                 |            |            |              |                          |                                |                |                  |                        |                      |
|----------------------|----------|----------------|---------------|--------------------------|---------|-----------------|------------|------------|--------------|--------------------------|--------------------------------|----------------|------------------|------------------------|----------------------|
| System & Position    |          |                |               |                          |         | DUT & Accessory |            | SAR        |              |                          |                                |                |                  |                        |                      |
| Plot No.             | Band     | Mode           | Test Position | Separation Distance (mm) | Channel | Interface       | Ant Status | Duty Cycle | Crest Factor | Max. Tune-up Power (dBm) | Measured Conducted Power (dBm) | Scaling Factor | Power Drift (dB) | Measured SAR-1g (W/kg) | Scaled SAR-1g (W/kg) |
|                      | WLAN2.4G | 802.11b        | Front Face    | 5                        | 6       | USB             | Ant 0      | 100.00     | 1.00         | 15.00                    | 14.99                          | 1.00           | 0.13             | 0.253                  | 0.25                 |
|                      | WLAN2.4G | 802.11b        | Rear Face     | 5                        | 6       | USB             | Ant 0      | 100.00     | 1.00         | 15.00                    | 14.99                          | 1.00           | -0.14            | 0.153                  | 0.15                 |
|                      | WLAN2.4G | 802.11b        | Left Side     | 5                        | 6       | USB             | Ant 0      | 100.00     | 1.00         | 15.00                    | 14.99                          | 1.00           | 0.17             | 0.321                  | 0.32                 |
|                      | WLAN2.4G | 802.11b        | Right Side    | 5                        | 6       | USB             | Ant 0      | 100.00     | 1.00         | 15.00                    | 14.99                          | 1.00           | 0.11             | 0.357                  | 0.36                 |
|                      | WLAN2.4G | 802.11b        | Top Side      | 5                        | 6       | USB             | Ant 0      | 100.00     | 1.00         | 15.00                    | 14.99                          | 1.00           | 0.16             | 0.382                  | 0.38                 |
|                      | WLAN2.4G | 802.11b        | Bottom Side   | 5                        | 6       | USB             | Ant 0      | 100.00     | 1.00         | 15.00                    | 14.99                          | 1.00           | -0.13            | 0.418                  | 0.42                 |
|                      | WLAN2.4G | 802.11b        | Front Face    | 5                        | 6       | USB             | Ant 1      | 100.00     | 1.00         | 15.00                    | 14.99                          | 1.00           | 0.13             | 0.157                  | 0.16                 |
|                      | WLAN2.4G | 802.11b        | Rear Face     | 5                        | 6       | USB             | Ant 1      | 100.00     | 1.00         | 15.00                    | 14.99                          | 1.00           | -0.06            | 0.109                  | 0.11                 |
|                      | WLAN2.4G | 802.11b        | Left Side     | 5                        | 6       | USB             | Ant 1      | 100.00     | 1.00         | 15.00                    | 14.99                          | 1.00           | 0.11             | 0.26                   | 0.26                 |
|                      | WLAN2.4G | 802.11b        | Right Side    | 5                        | 6       | USB             | Ant 1      | 100.00     | 1.00         | 15.00                    | 14.99                          | 1.00           | -0.16            | 0.3                    | 0.30                 |
|                      | WLAN2.4G | 802.11b        | Top Side      | 5                        | 6       | USB             | Ant 1      | 100.00     | 1.00         | 15.00                    | 14.99                          | 1.00           | 0.12             | 0.324                  | 0.32                 |
|                      | WLAN2.4G | 802.11b        | Bottom Side   | 5                        | 6       | USB             | Ant 1      | 100.00     | 1.00         | 15.00                    | 14.99                          | 1.00           | 0.13             | 0.423                  | 0.42                 |
|                      | WLAN2.4G | 802.11b        | Front Face    | 5                        | 6       | USB             | Ant 0+1    | 100.00     | 1.00         | 18.00                    | 17.99                          | 1.00           | 0.1              | 0.251                  | 0.25                 |
|                      | WLAN2.4G | 802.11b        | Rear Face     | 5                        | 6       | USB             | Ant 0+1    | 100.00     | 1.00         | 18.00                    | 17.99                          | 1.00           | 0.19             | 0.15                   | 0.15                 |
|                      | WLAN2.4G | 802.11b        | Left Side     | 5                        | 6       | USB             | Ant 0+1    | 100.00     | 1.00         | 18.00                    | 17.99                          | 1.00           | 0.17             | 0.316                  | 0.32                 |
|                      | WLAN2.4G | 802.11b        | Right Side    | 5                        | 6       | USB             | Ant 0+1    | 100.00     | 1.00         | 18.00                    | 17.99                          | 1.00           | 0.17             | 0.348                  | 0.35                 |
|                      | WLAN2.4G | 802.11b        | Top Side      | 5                        | 6       | USB             | Ant 0+1    | 100.00     | 1.00         | 18.00                    | 17.99                          | 1.00           | -0.12            | 0.37                   | 0.37                 |
|                      | WLAN2.4G | 802.11b        | Bottom Side   | 5                        | 6       | USB             | Ant 0+1    | 100.00     | 1.00         | 18.00                    | 17.99                          | 1.00           | -0.02            | 0.428                  | 0.43                 |
|                      | WLAN2.4G | 802.11b        | Bottom Side   | 5                        | 1       | USB             | Ant 0+1    | 100.00     | 1.00         | 18.00                    | 17.91                          | 1.02           | 0.04             | 0.421                  | 0.43                 |
|                      | WLAN2.4G | 802.11b        | Bottom Side   | 5                        | 11      | USB             | Ant 0+1    | 100.00     | 1.00         | 18.00                    | 17.77                          | 1.05           | -0.16            | 0.405                  | 0.43                 |
| 1                    | WLAN2.4G | 802.11b        | Bottom Side   | 5                        | 12      | USB             | Ant 0+1    | 100.00     | 1.00         | 18.00                    | 17.74                          | 1.06           | 0.09             | 0.579                  | 0.61                 |
|                      | WLAN2.4G | 802.11b        | Bottom Side   | 5                        | 13      | USB             | Ant 0+1    | 100.00     | 1.00         | 15.00                    | 14.85                          | 1.04           | 0.02             | 0.199                  | 0.21                 |
|                      | WLAN2.4G | 802.11b        | Bottom Side   | 5                        | 12      | UART            | Ant 0+1    | 100.00     | 1.00         | 18.00                    | 17.74                          | 1.06           | -0.1             | 0.446                  | 0.47                 |
|                      |          |                |               |                          |         |                 |            |            |              |                          |                                |                |                  |                        |                      |
|                      | WLAN5.3G | 802.11ac VHT80 | Front Face    | 5                        | 58      | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.47                          | 1.01           | 0.04             | 0.224                  | 0.23                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Rear Face     | 5                        | 58      | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.47                          | 1.01           | -0.14            | 0.08                   | 0.08                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Left Side     | 5                        | 58      | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.47                          | 1.01           | -0.09            | 0.177                  | 0.18                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Right Side    | 5                        | 58      | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.47                          | 1.01           | -0.17            | 0.054                  | 0.05                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Top Side      | 5                        | 58      | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.47                          | 1.01           | -0.08            | 0.32                   | 0.32                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Bottom Side   | 5                        | 58      | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.47                          | 1.01           | 0.12             | 0.343                  | 0.35                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Front Face    | 5                        | 58      | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.41                          | 1.02           | -0.07            | 0.369                  | 0.38                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Rear Face     | 5                        | 58      | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.41                          | 1.02           | -0.18            | 0.055                  | 0.06                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Left Side     | 5                        | 58      | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.41                          | 1.02           | 0.07             | 0.111                  | 0.11                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Right Side    | 5                        | 58      | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.41                          | 1.02           | -0.02            | 0.06                   | 0.06                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Top Side      | 5                        | 58      | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.41                          | 1.02           | 0.1              | 0.399                  | 0.41                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Bottom Side   | 5                        | 58      | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.41                          | 1.02           | -0.19            | 0.427                  | 0.44                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Front Face    | 5                        | 58      | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.08                          | 1.10           | -0.12            | 0.311                  | 0.35                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Rear Face     | 5                        | 58      | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.08                          | 1.10           | -0.14            | 0.082                  | 0.09                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Left Side     | 5                        | 58      | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.08                          | 1.10           | 0.02             | 0.125                  | 0.14                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Right Side    | 5                        | 58      | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.08                          | 1.10           | -0.15            | 0.065                  | 0.07                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Top Side      | 5                        | 58      | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.08                          | 1.10           | 0.02             | 0.425                  | 0.48                 |
| 2                    | WLAN5.3G | 802.11ac VHT80 | Bottom Side   | 5                        | 58      | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.08                          | 1.10           | -0.08            | 0.434                  | 0.49                 |
|                      | WLAN5.3G | 802.11ac VHT80 | Bottom Side   | 5                        | 58      | UART            | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.08                          | 1.10           | 0.02             | 0.404                  | 0.46                 |
|                      |          |                |               |                          |         |                 |            |            |              |                          |                                |                |                  |                        |                      |

| Body SAR Test Result |          |                |               |                          |         |                 |            |            |              |                          |                                |                |                  |                        |                      |
|----------------------|----------|----------------|---------------|--------------------------|---------|-----------------|------------|------------|--------------|--------------------------|--------------------------------|----------------|------------------|------------------------|----------------------|
| System & Position    |          |                |               |                          |         | DUT & Accessory |            | SAR        |              |                          |                                |                |                  |                        |                      |
| Plot No.             | Band     | Mode           | Test Position | Separation Distance (mm) | Channel | Interface       | Ant Status | Duty Cycle | Crest Factor | Max. Tune-up Power (dBm) | Measured Conducted Power (dBm) | Scaling Factor | Power Drift (dB) | Measured SAR-1g (W/kg) | Scaled SAR-1g (W/kg) |
|                      | WLAN5.6G | 802.11ac VHT80 | Front Face    | 5                        | 138     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.09             | 0.211                  | 0.21                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Rear Face     | 5                        | 138     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.11             | 0.075                  | 0.08                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Left Side     | 5                        | 138     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | -0.01            | 0.167                  | 0.17                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Right Side    | 5                        | 138     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.16             | 0.051                  | 0.05                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Top Side      | 5                        | 138     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | -0.11            | 0.302                  | 0.30                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Bottom Side   | 5                        | 138     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.05             | 0.324                  | 0.32                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Front Face    | 5                        | 138     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.19             | 0.348                  | 0.35                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Rear Face     | 5                        | 138     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.06             | 0.051                  | 0.05                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Left Side     | 5                        | 138     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | -0.09            | 0.105                  | 0.11                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Right Side    | 5                        | 138     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.15             | 0.056                  | 0.06                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Top Side      | 5                        | 138     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | -0.09            | 0.376                  | 0.38                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Bottom Side   | 5                        | 138     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | -0.07            | 0.402                  | 0.40                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Front Face    | 5                        | 138     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.16                          | 1.08           | -0.01            | 0.293                  | 0.33                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Rear Face     | 5                        | 138     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.16                          | 1.08           | -0.15            | 0.077                  | 0.09                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Left Side     | 5                        | 138     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.16                          | 1.08           | 0.11             | 0.117                  | 0.13                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Right Side    | 5                        | 138     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.16                          | 1.08           | -0.15            | 0.061                  | 0.07                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Top Side      | 5                        | 138     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.16                          | 1.08           | -0.14            | 0.4                    | 0.44                 |
| 3                    | WLAN5.6G | 802.11ac VHT80 | Bottom Side   | 5                        | 138     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.16                          | 1.08           | -0.06            | 0.409                  | 0.45                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Bottom Side   | 5                        | 106     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 15.96                          | 1.13           | -0.08            | 0.194                  | 0.23                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Bottom Side   | 5                        | 122     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.07                          | 1.10           | 0.01             | 0.138                  | 0.16                 |
|                      | WLAN5.6G | 802.11ac VHT80 | Bottom Side   | 5                        | 138     | UART            | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.16                          | 1.08           | 0.18             | 0.381                  | 0.42                 |
|                      |          |                |               |                          |         |                 |            |            |              |                          |                                |                |                  |                        |                      |
|                      | WLAN5.8G | 802.11ac VHT80 | Front Face    | 5                        | 155     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.14             | 0.209                  | 0.21                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Rear Face     | 5                        | 155     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.19             | 0.074                  | 0.07                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Left Side     | 5                        | 155     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.05             | 0.165                  | 0.17                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Right Side    | 5                        | 155     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.18             | 0.05                   | 0.05                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Top Side      | 5                        | 155     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.09             | 0.298                  | 0.30                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Bottom Side   | 5                        | 155     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | -0.06            | 0.32                   | 0.32                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Front Face    | 5                        | 155     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.46                          | 1.01           | -0.1             | 0.344                  | 0.35                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Rear Face     | 5                        | 155     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.46                          | 1.01           | -0.03            | 0.051                  | 0.05                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Left Side     | 5                        | 155     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.46                          | 1.01           | -0.05            | 0.103                  | 0.10                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Right Side    | 5                        | 155     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.46                          | 1.01           | 0.06             | 0.056                  | 0.06                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Top Side      | 5                        | 155     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.46                          | 1.01           | -0.14            | 0.371                  | 0.37                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Bottom Side   | 5                        | 155     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.46                          | 1.01           | -0.03            | 0.397                  | 0.40                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Front Face    | 5                        | 155     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | -0.05            | 0.29                   | 0.30                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Rear Face     | 5                        | 155     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | -0.03            | 0.076                  | 0.08                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Left Side     | 5                        | 155     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | -0.04            | 0.116                  | 0.12                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Right Side    | 5                        | 155     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | 0.14             | 0.06                   | 0.06                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Top Side      | 5                        | 155     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | -0.03            | 0.395                  | 0.41                 |
| 4                    | WLAN5.8G | 802.11ac VHT80 | Bottom Side   | 5                        | 155     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | -0.17            | 0.404                  | 0.42                 |
|                      | WLAN5.8G | 802.11ac VHT80 | Bottom Side   | 5                        | 155     | UART            | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | 0.08             | 0.376                  | 0.40                 |
|                      |          |                |               |                          |         |                 |            |            |              |                          |                                |                |                  |                        |                      |

| Body SAR Test Result |                   |                |               |                          |         |                 |            |            |              |                          |                                |                |                  |                        |                      |
|----------------------|-------------------|----------------|---------------|--------------------------|---------|-----------------|------------|------------|--------------|--------------------------|--------------------------------|----------------|------------------|------------------------|----------------------|
| System & Position    |                   |                |               |                          |         | DUT & Accessory |            | SAR        |              |                          |                                |                |                  |                        |                      |
| Plot No.             | Band              | Mode           | Test Position | Separation Distance (mm) | Channel | Interface       | Ant Status | Duty Cycle | Crest Factor | Max. Tune-up Power (dBm) | Measured Conducted Power (dBm) | Scaling Factor | Power Drift (dB) | Measured SAR-1g (W/kg) | Scaled SAR-1g (W/kg) |
|                      | WLAN5.9G          | 802.11ac VHT80 | Front Face    | 5                        | 171     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.17             | 0.237                  | 0.24                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Rear Face     | 5                        | 171     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | -0.07            | 0.085                  | 0.09                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Left Side     | 5                        | 171     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.03             | 0.188                  | 0.19                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Right Side    | 5                        | 171     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.04             | 0.057                  | 0.06                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Top Side      | 5                        | 171     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | 0.01             | 0.339                  | 0.34                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Bottom Side   | 5                        | 171     | USB             | Ant 0      | 100.00     | 1.00         | 13.50                    | 13.49                          | 1.00           | -0.07            | 0.363                  | 0.36                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Front Face    | 5                        | 171     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.46                          | 1.01           | -0.01            | 0.391                  | 0.39                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Rear Face     | 5                        | 171     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.46                          | 1.01           | 0.08             | 0.058                  | 0.06                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Left Side     | 5                        | 171     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.46                          | 1.01           | -0.01            | 0.118                  | 0.12                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Right Side    | 5                        | 171     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.46                          | 1.01           | -0.16            | 0.063                  | 0.06                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Top Side      | 5                        | 171     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.46                          | 1.01           | 0.03             | 0.421                  | 0.43                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Bottom Side   | 5                        | 171     | USB             | Ant 1      | 100.00     | 1.00         | 13.50                    | 13.46                          | 1.01           | -0.06            | 0.451                  | 0.46                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Front Face    | 5                        | 171     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | 0.03             | 0.329                  | 0.35                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Rear Face     | 5                        | 171     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | 0.06             | 0.087                  | 0.09                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Left Side     | 5                        | 171     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | -0.17            | 0.132                  | 0.14                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Right Side    | 5                        | 171     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | -0.13            | 0.069                  | 0.07                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Top Side      | 5                        | 171     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | -0.18            | 0.449                  | 0.47                 |
| 5                    | WLAN5.9G          | 802.11ac VHT80 | Bottom Side   | 5                        | 171     | USB             | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | 0.08             | 0.459                  | 0.48                 |
|                      | WLAN5.9G          | 802.11ac VHT80 | Bottom Side   | 5                        | 171     | UART            | Ant 0+1    | 97.30      | 1.03         | 16.50                    | 16.42                          | 1.02           | 0.14             | 0.428                  | 0.45                 |
|                      |                   |                |               |                          |         |                 |            |            |              |                          |                                |                |                  |                        |                      |
|                      | BT (Higher Power) | BDR            | Front Face    | 5                        | 39      | USB             | Ant 0      | 100.00     | 1.00         | 12.50                    | 12.44                          | 1.01           | 0.17             | 0.103                  | 0.10                 |
|                      | BT (Higher Power) | BDR            | Rear Face     | 5                        | 39      | USB             | Ant 0      | 100.00     | 1.00         | 12.50                    | 12.44                          | 1.01           | -0.08            | 0.061                  | 0.06                 |
|                      | BT (Higher Power) | BDR            | Left Side     | 5                        | 39      | USB             | Ant 0      | 100.00     | 1.00         | 12.50                    | 12.44                          | 1.01           | 0.06             | 0.131                  | 0.13                 |
|                      | BT (Higher Power) | BDR            | Right Side    | 5                        | 39      | USB             | Ant 0      | 100.00     | 1.00         | 12.50                    | 12.44                          | 1.01           | -0.09            | 0.145                  | 0.15                 |
|                      | BT (Higher Power) | BDR            | Top Side      | 5                        | 39      | USB             | Ant 0      | 100.00     | 1.00         | 12.50                    | 12.44                          | 1.01           | -0.01            | 0.155                  | 0.16                 |
| 6                    | BT (Higher Power) | BDR            | Bottom Side   | 5                        | 39      | USB             | Ant 0      | 100.00     | 1.00         | 12.50                    | 12.44                          | 1.01           | -0.09            | 0.171                  | 0.17                 |
|                      | BT (Higher Power) | BDR            | Bottom Side   | 5                        | 0       | USB             | Ant 0      | 100.00     | 1.00         | 12.50                    | 12.35                          | 1.04           | -0.18            | 0.165                  | 0.17                 |
|                      | BT (Higher Power) | BDR            | Bottom Side   | 5                        | 78      | USB             | Ant 0      | 100.00     | 1.00         | 12.50                    | 12.22                          | 1.07           | -0.06            | 0.158                  | 0.17                 |
|                      | BT (Higher Power) | BDR            | Bottom Side   | 5                        | 39      | UART            | Ant 0      | 100.00     | 1.00         | 12.50                    | 12.44                          | 1.01           | 0.05             | 0.155                  | 0.16                 |
|                      |                   |                |               |                          |         |                 |            |            |              |                          |                                |                |                  |                        |                      |
|                      | BT (Lower Power)  | BDR            | Front Face    | 5                        | 39      | USB             | Ant 0      | 100.00     | 1.00         | 6.00                     | 5.92                           | 1.02           | -0.11            | 0.046                  | 0.05                 |
|                      | BT (Lower Power)  | BDR            | Rear Face     | 5                        | 39      | USB             | Ant 0      | 100.00     | 1.00         | 6.00                     | 5.92                           | 1.02           | 0.12             | 0.028                  | 0.03                 |
|                      | BT (Lower Power)  | BDR            | Left Side     | 5                        | 39      | USB             | Ant 0      | 100.00     | 1.00         | 6.00                     | 5.92                           | 1.02           | 0.12             | 0.06                   | 0.06                 |
|                      | BT (Lower Power)  | BDR            | Right Side    | 5                        | 39      | USB             | Ant 0      | 100.00     | 1.00         | 6.00                     | 5.92                           | 1.02           | -0.18            | 0.064                  | 0.07                 |
|                      | BT (Lower Power)  | BDR            | Top Side      | 5                        | 39      | USB             | Ant 0      | 100.00     | 1.00         | 6.00                     | 5.92                           | 1.02           | -0.15            | 0.071                  | 0.07                 |
| 7                    | BT (Lower Power)  | BDR            | Bottom Side   | 5                        | 39      | USB             | Ant 0      | 100.00     | 1.00         | 6.00                     | 5.92                           | 1.02           | 0.11             | 0.08                   | 0.08                 |
|                      | BT (Lower Power)  | BDR            | Bottom Side   | 5                        | 0       | USB             | Ant 0      | 100.00     | 1.00         | 6.00                     | 5.79                           | 1.05           | -0.05            | 0.068                  | 0.07                 |
|                      | BT (Lower Power)  | BDR            | Bottom Side   | 5                        | 78      | USB             | Ant 0      | 100.00     | 1.00         | 6.00                     | 5.88                           | 1.03           | -0.01            | 0.071                  | 0.07                 |
|                      | BT (Lower Power)  | BDR            | Bottom Side   | 5                        | 39      | UART            | Ant 0      | 100.00     | 1.00         | 6.00                     | 5.92                           | 1.02           | -0.07            | 0.066                  | 0.07                 |
|                      |                   |                |               |                          |         |                 |            |            |              |                          |                                |                |                  |                        |                      |

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

Since all the measured SAR<sub>1g</sub> are less than 0.8 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 | Body Exposure Condition |
|-----------------------------|---------------------------------|-------------------------|
| A                           | WLAN 2.4G + BT                  | Yes                     |
| B                           | WLAN 5G + BT                    | Yes                     |

Notes

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

| Simultaneous Transmission SAR Evaluation |                    |                  |                          |                         |                               |                               |                               |                               |
|------------------------------------------|--------------------|------------------|--------------------------|-------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Position                                 | 1                  | 2                | 3                        | 4                       | WLAN + BT with Higher Power   |                               | WLAN + BT with Lower Power    |                               |
|                                          |                    |                  |                          |                         | A ( 1 + 3 )                   | B ( 2 + 3 )                   | A ( 1 + 4 )                   | B ( 2 + 4 )                   |
|                                          | Max<br>WLAN 2.4GHz | Max<br>WLAN 5GHz | Max BT<br>(Higher Power) | Max BT<br>(Lower Power) | Summing result<br>1g SAR W/kg | Summing result<br>1g SAR W/kg | Summing result<br>1g SAR W/kg | Summing result<br>1g SAR W/kg |
|                                          | 1g SAR<br>W/kg     | 1g SAR<br>W/kg   | 1g SAR<br>W/kg           | 1g SAR<br>W/kg          |                               |                               |                               |                               |
| Front Face                               | 0.25               | 0.39             | 0.10                     | 0.05                    | 0.35                          | 0.49                          | 0.30                          | 0.44                          |
| Rear Face                                | 0.15               | 0.09             | 0.06                     | 0.03                    | 0.21                          | 0.15                          | 0.18                          | 0.12                          |
| Left Side                                | 0.32               | 0.19             | 0.13                     | 0.06                    | 0.45                          | 0.32                          | 0.38                          | 0.25                          |
| Right Side                               | 0.36               | 0.07             | 0.15                     | 0.07                    | 0.51                          | 0.22                          | 0.43                          | 0.14                          |
| Top Side                                 | 0.38               | 0.48             | 0.16                     | 0.07                    | 0.54                          | 0.64                          | 0.45                          | 0.55                          |
| Bottom Side                              | 0.61               | 0.49             | 0.17                     | 0.08                    | 0.78                          | 0.66                          | 0.69                          | 0.57                          |

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

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

## Annex J. Calibration of Test Equipment List

Calibration of Test Equipment List are shown as below.

| Equipment for SAR Test       |              |               |            |               |               |
|------------------------------|--------------|---------------|------------|---------------|---------------|
| Equipment                    | Manufacturer | Model         | SN         | Cal. Date     | Cal. Interval |
| System Validation Dipole     | SPEAG        | D2450V2       | 737        | Aug. 26, 2021 | 2 Years       |
| System Validation Dipole     | SPEAG        | D5GHzV2       | 1019       | Mar. 19, 2021 | 2 Years       |
| Dosimetric E-Field Probe     | SPEAG        | EX3DV4        | 7736       | May. 30, 2022 | 1 Year        |
| Data Acquisition Electronics | SPEAG        | DAE3          | 579        | Jun. 01, 2022 | 1 Year        |
| Spectrum Analyzer            | R&S          | FSL6          | 102006     | Apr. 13, 2022 | 1 Year        |
| Universal Wireless Test Set  | Anritsu      | MT8870A       | 6262411397 | Feb. 25, 2022 | 1 Year        |
| Thermometer                  | YFE          | YF-160A       | 150601220  | May. 26, 2022 | 1 Year        |
| Dielectric Assessment Kit    | SPEAG        | DAKS-3.5      | 1092       | May. 23, 2022 | 1 Year        |
| Dielectric Assessment Kit    | SPEAG        | DAKS_VNA R140 | 0010917    | May. 23, 2022 | 1 Year        |
| Powersource1                 | SPEAG        | SE_UMS_160 BA | 4260       | Jan. 13, 2022 | 1 Year        |

## Annex K. Considerations Related to Bluetooth for Setup and Testing

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

The Bluetooth call box has been used during SAR measurement and the EUT was set to **DH5** mode at the maximum output power. Its duty factor 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.

$$\text{Duty Factor} = \text{Pulse Width} / \text{Total Period} = (1 - 0) / (1 - 0) = 100.00\%$$

## **Annex Z.      Calibration Certificate for Probe and Dipole**

The SPEAG calibration certificates are shown as follows.



In Collaboration with  
**s p e a g**  
CALIBRATION LABORATORY



中国认可  
国际互认  
校准  
CALIBRATION  
CNAS L0570

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

Client

**B.V.ADT**

Certificate No: **Z21-60284**

## CALIBRATION CERTIFICATE

Object

**D2450V2 - SN: 737**

Calibration Procedure(s)

**FF-Z11-003-01**

**Calibration Procedures for dipole validation kits**

Calibration date:

**August 26, 2021**

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

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

Calibration Equipment used (M&TE critical for calibration)

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

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

Issued: August 31, 2021

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



In Collaboration with

**s p e a g**  
**CALIBRATION LABORATORY**

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China

Tel: +86-10-62304633-2079

Fax: +86-10-62304633-2504

E-mail: cttl@chinattl.com

http://www.chinattl.cn

### Glossary:

|       |                                            |
|-------|--------------------------------------------|
| TSL   | tissue simulating liquid                   |
| ConvF | sensitivity in TSL / NORM <sub>x,y,z</sub> |
| N/A   | not applicable or not measured             |

### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

### Additional Documentation:

- DASY4/5 System Handbook

### Methods Applied and Interpretation of Parameters:

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

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



## Measurement Conditions

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

|                                     |                          |             |
|-------------------------------------|--------------------------|-------------|
| <b>DASY Version</b>                 | DASY52                   | V52.10.4    |
| <b>Extrapolation</b>                | Advanced Extrapolation   |             |
| <b>Phantom</b>                      | Triple Flat Phantom 5.1C |             |
| <b>Distance Dipole Center - TSL</b> | 10 mm                    | with Spacer |
| <b>Zoom Scan Resolution</b>         | dx, dy, dz = 5 mm        |             |
| <b>Frequency</b>                    | 2450 MHz $\pm$ 1 MHz     |             |

## Head TSL parameters

The following parameters and calculations were applied.

|                                                | Temperature         | Permittivity   | Conductivity         |
|------------------------------------------------|---------------------|----------------|----------------------|
| <b>Nominal Head TSL parameters</b>             | 22.0 °C             | 39.2           | 1.80 mho/m           |
| <b>Measured Head TSL parameters</b>            | (22.0 $\pm$ 0.2) °C | 40.0 $\pm$ 6 % | 1.77 mho/m $\pm$ 6 % |
| <b>Head TSL temperature change during test</b> | <1.0 °C             | ---            | ---                  |

## SAR result with Head TSL

| <b>SAR averaged over 1 cm<sup>3</sup> (1 g) of Head TSL</b>   | Condition          |                                                |
|---------------------------------------------------------------|--------------------|------------------------------------------------|
| SAR measured                                                  | 250 mW input power | 13.0 W/kg                                      |
| SAR for nominal Head TSL parameters                           | normalized to 1W   | <b>52.6 W/kg <math>\pm</math> 18.8 % (k=2)</b> |
| <b>SAR averaged over 10 cm<sup>3</sup> (10 g) of Head TSL</b> | Condition          |                                                |
| SAR measured                                                  | 250 mW input power | 5.92 W/kg                                      |
| SAR for nominal Head TSL parameters                           | normalized to 1W   | <b>23.9 W/kg <math>\pm</math> 18.7 % (k=2)</b> |



In Collaboration with

**s p e a g**

**CALIBRATION LABORATORY**

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China

Tel: +86-10-62304633-2079

Fax: +86-10-62304633-2504

E-mail: [cttl@chinattl.com](mailto:cttl@chinattl.com)

<http://www.chinattl.cn>

## Appendix (Additional assessments outside the scope of CNAS L0570)

### Antenna Parameters with Head TSL

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

### General Antenna Parameters and Design

|                                  |          |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.067 ns |
|----------------------------------|----------|

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

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

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

### Additional EUT Data

|                 |       |
|-----------------|-------|
| Manufactured by | SPEAG |
|-----------------|-------|



In Collaboration with

**s p e a g**  
**CALIBRATION LABORATORY**

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China

Tel: +86-10-62304633-2079

Fax: +86-10-62304633-2504

E-mail: cttl@chinattl.com

http://www.chinattl.cn

## DASY5 Validation Report for Head TSL

Date: 08.26.2021

Test Laboratory: CTTL, Beijing, China

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

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

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.772$  S/m;  $\epsilon_r = 40.04$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7517; ConvF(7.34, 7.34, 7.34) @ 2450 MHz; Calibrated: 2021-02-03
- Sensor-Surface: 1.4mm|(Mechanical Surface Detection)
- Electronics: DAE3 Sn536; Calibrated: 2020-11-06
- Phantom: MFP\_V5.1C (20deg probe tilt); Type: QD 000 P51 Cx; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

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

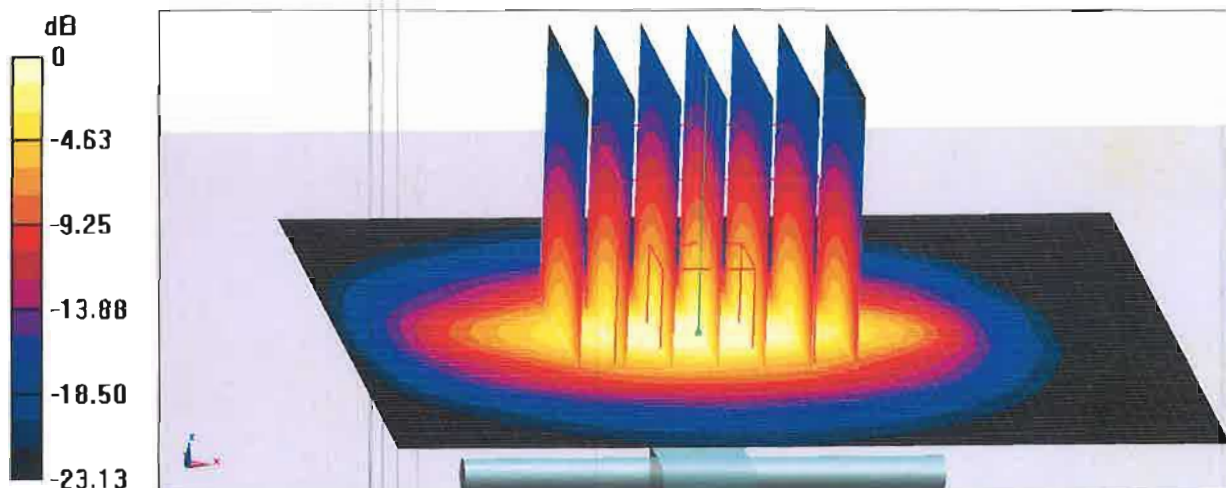
Peak SAR (extrapolated) = 27.8 W/kg

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

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

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

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



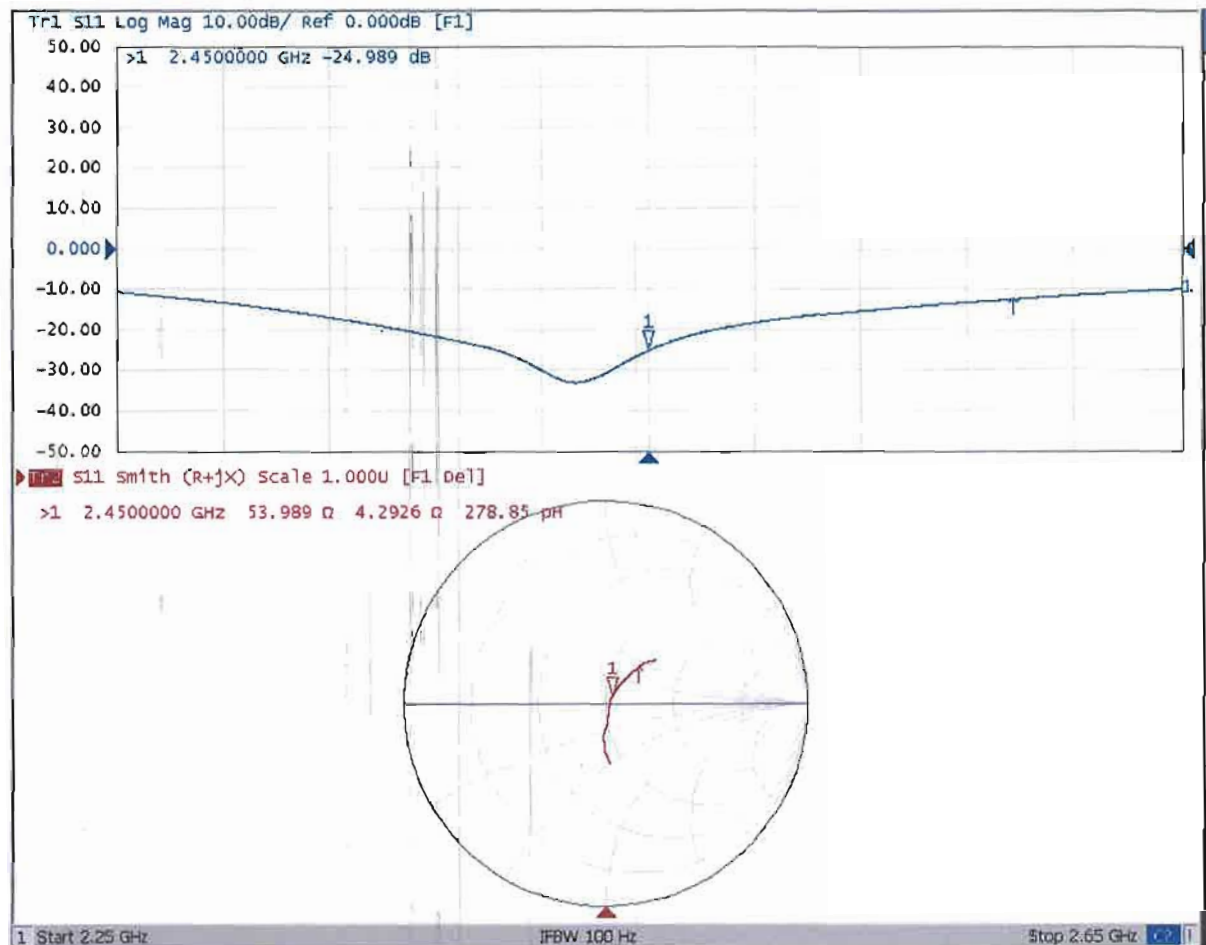
0 dB = 22.3 W/kg = 13.48 dBW/kg



In Collaboration with  
**s p e a g**  
CALIBRATION LABORATORY

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

## Impedance Measurement Plot for Head TSL





BUREAU  
VERITAS

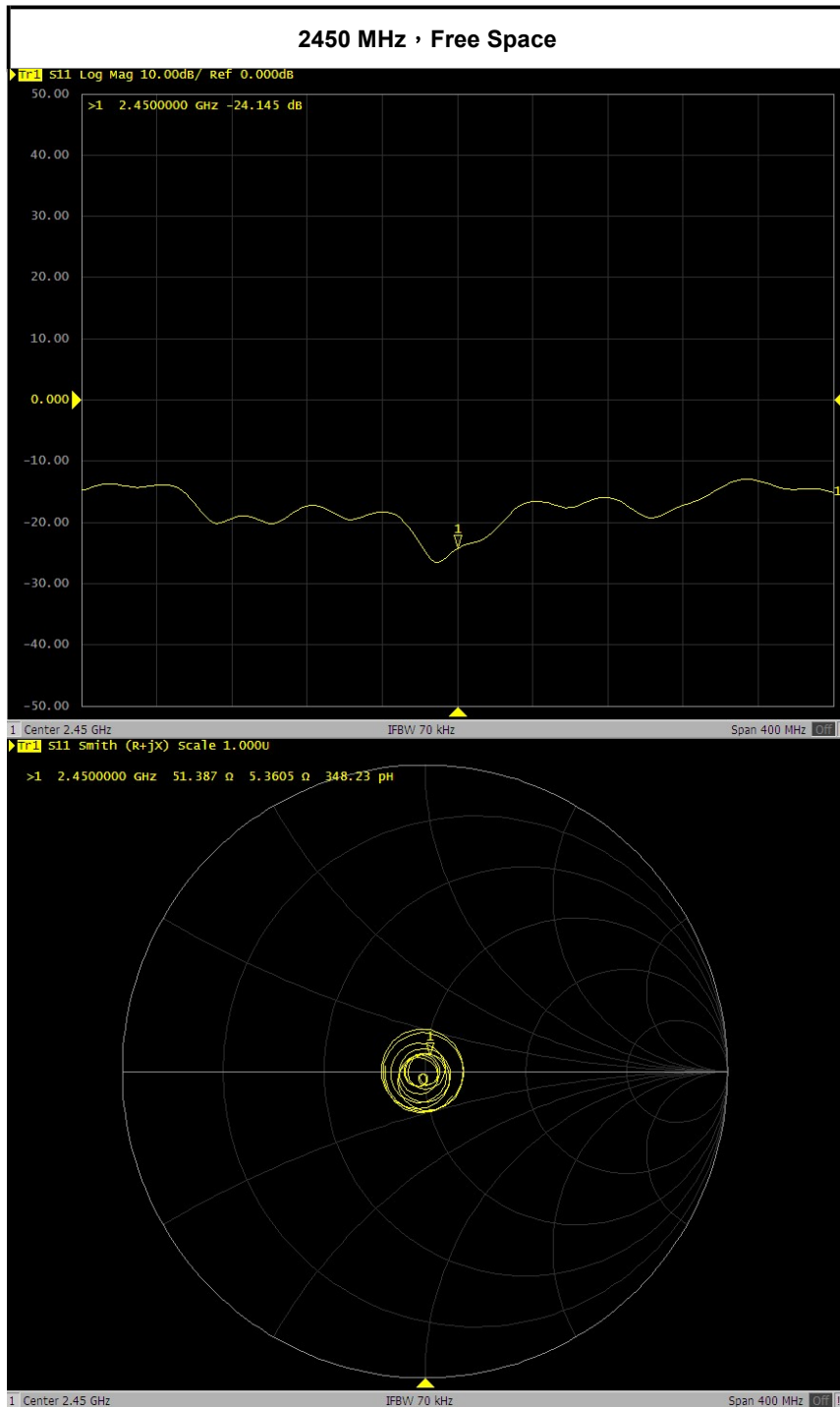
## Annual Confirmation of SAR Reference Dipole

Model : D2450V2

S/N : 737

Measurement Date : 2022/8/25

| Frequency (MHz) | Type       | Item                | Previous Measurement | Annual Check | Deviation | Accepted Tolerance | Result |
|-----------------|------------|---------------------|----------------------|--------------|-----------|--------------------|--------|
| 2450            | Free Space | Real Impedance      | 53.989               | 51.387       | -2.602    | $\pm 5\Omega$      | PASS   |
|                 |            | Imaginary Impedance | 4.2926               | 5.3605       | 1.07      | $\pm 5\Omega$      | PASS   |
|                 |            | Return Loss         | -24.989              | -24.145      | -3.38%    | $\pm 20\%$         | PASS   |





Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

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

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

Certificate No: **D5GHzV2-1019\_Mar21**

## CALIBRATION CERTIFICATE

Object **D5GHzV2 - SN:1019**

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

Calibration date: **March 19, 2021**

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

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

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards               | ID #               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|---------------------------------|--------------------|-----------------------------------|------------------------|
| Power meter NRP                 | SN: 104778         | 01-Apr-20 (No. 217-03100/03101)   | Apr-21                 |
| Power sensor NRP-Z91            | SN: 103244         | 01-Apr-20 (No. 217-03100)         | Apr-21                 |
| Power sensor NRP-Z91            | SN: 103245         | 01-Apr-20 (No. 217-03101)         | Apr-21                 |
| Reference 20 dB Attenuator      | SN: BH9394 (20k)   | 31-Mar-20 (No. 217-03106)         | Apr-21                 |
| Type-N mismatch combination     | SN: 310982 / 06327 | 31-Mar-20 (No. 217-03104)         | Apr-21                 |
| Reference Probe EX3DV4          | SN: 3503           | 30-Dec-20 (No. EX3-3503_Dec20)    | Dec-21                 |
| DAE4                            | SN: 601            | 02-Nov-20 (No. DAE4-601_Nov20)    | Nov-21                 |
| Secondary Standards             | ID #               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B              | SN: GB39512475     | 30-Oct-14 (in house check Oct-20) | In house check: Oct-22 |
| Power sensor HP 8481A           | SN: US37292783     | 07-Oct-15 (in house check Oct-20) | In house check: Oct-22 |
| Power sensor HP 8481A           | SN: MY41092317     | 07-Oct-15 (in house check Oct-20) | In house check: Oct-22 |
| RF generator R&S SMT-06         | SN: 100972         | 15-Jun-15 (in house check Oct-20) | In house check: Oct-22 |
| Network Analyzer Agilent E8358A | SN: US41080477     | 31-Mar-14 (in house check Oct-20) | In house check: Oct-21 |

Calibrated by: **Claudio Leubler** **Laboratory Technician**

Approved by: **Katja Pokovic** **Technical Manager**

Signature

Issued: March 19, 2021

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



Accredited by the Swiss Accreditation Service (SAS)

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

Accreditation No.: **SCS 0108**

**Glossary:**

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

**Calibration is Performed According to the Following Standards:**

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Additional Documentation:**

- DASY4/5 System Handbook

**Methods Applied and Interpretation of Parameters:**

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

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

## Measurement Conditions

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

|                              |                                                                      |                                  |
|------------------------------|----------------------------------------------------------------------|----------------------------------|
| DASY Version                 | DASY5                                                                | V52.10.4                         |
| Extrapolation                | Advanced Extrapolation                                               |                                  |
| Phantom                      | Modular Flat Phantom V5.0                                            |                                  |
| Distance Dipole Center - TSL | 10 mm                                                                | with Spacer                      |
| Zoom Scan Resolution         | dx, dy = 4.0 mm, dz = 1.4 mm                                         | Graded Ratio = 1.4 (Z direction) |
| Frequency                    | 5250 MHz $\pm$ 1 MHz<br>5600 MHz $\pm$ 1 MHz<br>5750 MHz $\pm$ 1 MHz |                                  |

## Head TSL parameters at 5250 MHz

The following parameters and calculations were applied.

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

## SAR result with Head TSL at 5250 MHz

|                                                       |                    |                                                |
|-------------------------------------------------------|--------------------|------------------------------------------------|
| SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL | Condition          |                                                |
| SAR measured                                          | 100 mW input power | 8.13 W/kg                                      |
| SAR for nominal Head TSL parameters                   | normalized to 1W   | <b>80.6 W/kg <math>\pm</math> 19.9 % (k=2)</b> |

|                                                         |                    |                                                |
|---------------------------------------------------------|--------------------|------------------------------------------------|
| SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL | condition          |                                                |
| SAR measured                                            | 100 mW input power | 2.32 W/kg                                      |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | <b>23.0 W/kg <math>\pm</math> 19.5 % (k=2)</b> |

## Head TSL parameters at 5600 MHz

The following parameters and calculations were applied.

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

## SAR result with Head TSL at 5600 MHz

|                                                       |                    |                                                |
|-------------------------------------------------------|--------------------|------------------------------------------------|
| SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL | Condition          |                                                |
| SAR measured                                          | 100 mW input power | 8.32 W/kg                                      |
| SAR for nominal Head TSL parameters                   | normalized to 1W   | <b>82.4 W/kg <math>\pm</math> 19.9 % (k=2)</b> |

|                                                         |                    |                                                |
|---------------------------------------------------------|--------------------|------------------------------------------------|
| SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL | condition          |                                                |
| SAR measured                                            | 100 mW input power | 2.36 W/kg                                      |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | <b>23.3 W/kg <math>\pm</math> 19.5 % (k=2)</b> |

## Head TSL parameters at 5750 MHz

The following parameters and calculations were applied.

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

## SAR result with Head TSL at 5750 MHz

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

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

## Appendix (Additional assessments outside the scope of SCS 0108)

### Antenna Parameters with Head TSL at 5250 MHz

|                                      |                                |
|--------------------------------------|--------------------------------|
| Impedance, transformed to feed point | 54.1 $\Omega$ - 6.4 j $\Omega$ |
| Return Loss                          | - 22.7 dB                      |

### Antenna Parameters with Head TSL at 5600 MHz

|                                      |                                |
|--------------------------------------|--------------------------------|
| Impedance, transformed to feed point | 57.6 $\Omega$ - 2.5 j $\Omega$ |
| Return Loss                          | - 22.6 dB                      |

### Antenna Parameters with Head TSL at 5750 MHz

|                                      |                                |
|--------------------------------------|--------------------------------|
| Impedance, transformed to feed point | 57.9 $\Omega$ + 3.1 j $\Omega$ |
| Return Loss                          | - 22.1 dB                      |

### General Antenna Parameters and Design

|                                  |          |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.203 ns |
|----------------------------------|----------|

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

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

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

### Additional EUT Data

|                 |       |
|-----------------|-------|
| Manufactured by | SPEAG |
|-----------------|-------|

## DASY5 Validation Report for Head TSL

Date: 19.03.2021

Test Laboratory: SPEAG, Zurich, Switzerland

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

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz

Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.51$  S/m;  $\epsilon_r = 34.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Medium parameters used:  $f = 5600$  MHz;  $\sigma = 4.86$  S/m;  $\epsilon_r = 34.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.01$  S/m;  $\epsilon_r = 34$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

#### DASY52 Configuration:

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

### Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 79.20 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 27.6 W/kg

**SAR(1 g) = 8.13 W/kg; SAR(10 g) = 2.32 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 70.7%

Maximum value of SAR (measured) = 18.1 W/kg

### Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 77.00 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 31.0 W/kg

**SAR(1 g) = 8.32 W/kg; SAR(10 g) = 2.36 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 66.9%

Maximum value of SAR (measured) = 19.6 W/kg

**Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 74.22 V/m; Power Drift = -0.08 dB

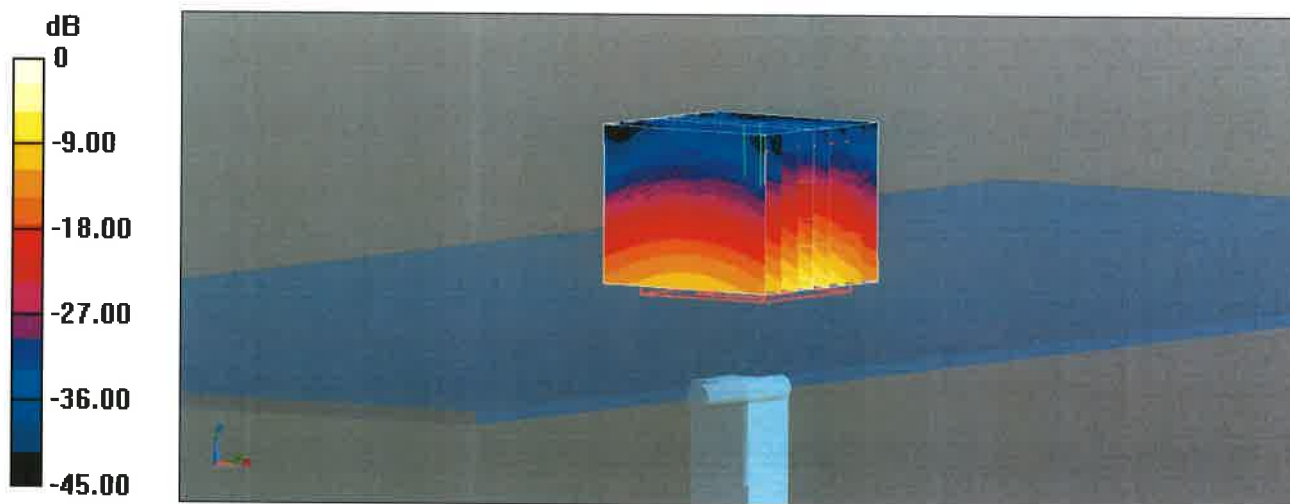
Peak SAR (extrapolated) = 31.6 W/kg

**SAR(1 g) = 8.02 W/kg; SAR(10 g) = 2.27 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.2 mm

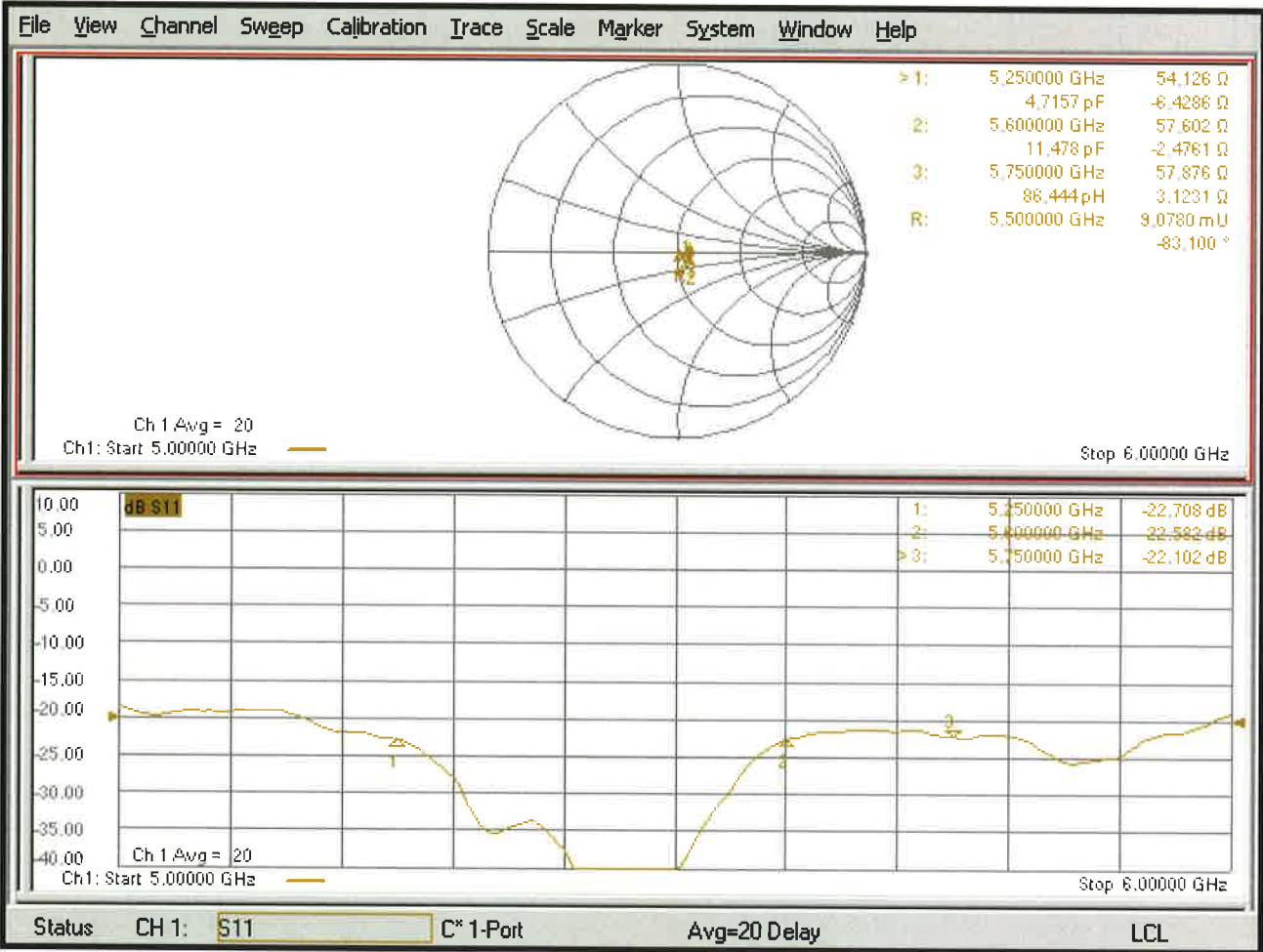
Ratio of SAR at M2 to SAR at M1 = 65%

Maximum value of SAR (measured) = 19.2 W/kg



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

Impedance Measurement Plot for Head TSL





BUREAU  
VERITAS

## Annual Confirmation of SAR Reference Dipole

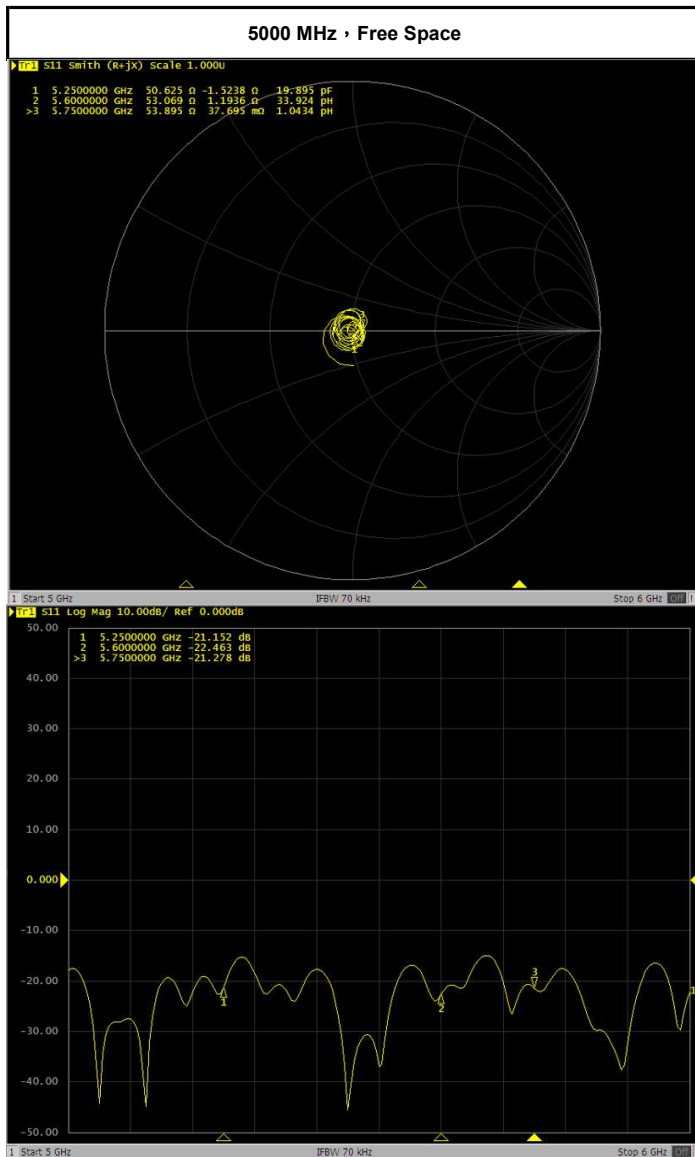
Model : D5000V2

S/N : 1019

Measurement Date :

2022/3/18

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





Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

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

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

Certificate No: **EX3-7736\_May22**

## CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:7736**

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

Calibration date: **May 30, 2022**

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

All calibrations have been conducted in the closed laboratory facility: environment temperature  $(22 \pm 3)^{\circ}\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 04-Apr-22 (No. 217-03525/03524)   | Apr-23                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-22 (No. 217-03524)         | Apr-23                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-22 (No. 217-03525)         | Apr-23                 |
| Reference 20 dB Attenuator | SN: CC2552 (20x) | 04-Apr-22 (No. 217-03527)         | Apr-23                 |
| DAE4                       | SN: 660          | 13-Oct-21 (No. DAE4-660_Oct21)    | Oct-22                 |
| Reference Probe ES3DV2     | SN: 3013         | 27-Dec-21 (No. ES3-3013_Dec21)    | Dec-22                 |
|                            |                  |                                   |                        |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-20) | In house check: Jun-22 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-20) | In house check: Jun-22 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-20) | In house check: Jun-22 |
| RF generator HP 8648C      | SN: US3842U01700 | 04-Aug-99 (in house check Jun-20) | In house check: Jun-22 |
| Network Analyzer E8358A    | SN: US41080477   | 31-Mar-14 (in house check Oct-20) | In house check: Oct-22 |

|                                                                                                                 | Name         | Function              | Signature            |
|-----------------------------------------------------------------------------------------------------------------|--------------|-----------------------|----------------------|
| Calibrated by:                                                                                                  | Leif Klysner | Laboratory Technician |                      |
| Approved by:                                                                                                    | Sven Kühn    | Technical Manager     |                      |
|                                                                                                                 |              |                       | Issued: May 31, 2022 |
| This calibration certificate shall not be reproduced except in full without written approval of the laboratory. |              |                       |                      |



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

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

## Glossary:

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

## Calibration is Performed According to the Following Standards:

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

## Methods Applied and Interpretation of Parameters:

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

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:7736

## Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc (k=2) |
|-----------------------------------------------------------|----------|----------|----------|-----------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.42     | 0.47     | 0.46     | ± 10.1 %  |
| DCP (mV) <sup>B</sup>                                     | 105.5    | 102.0    | 103.8    |           |

## Calibration Results for Modulation Response

| UID       | Communication System Name   |   | A<br>dB | B<br>dB/μV | C     | D<br>dB | VR<br>mV | Max<br>dev. | Max<br>Unc <sup>E</sup><br>(k=2) |
|-----------|-----------------------------|---|---------|------------|-------|---------|----------|-------------|----------------------------------|
| 0         | CW                          | X | 0.00    | 0.00       | 1.00  | 0.00    | 139.4    | ± 2.7 %     | ± 4.7 %                          |
|           |                             | Y | 0.00    | 0.00       | 1.00  |         | 138.6    |             |                                  |
|           |                             | Z | 0.00    | 0.00       | 1.00  |         | 146.2    |             |                                  |
| 10352-AAA | Pulse Waveform (200Hz, 10%) | X | 1.58    | 61.34      | 7.22  | 10.00   | 60.0     | ± 2.7 %     | ± 9.6 %                          |
|           |                             | Y | 1.39    | 60.09      | 6.00  |         | 60.0     |             |                                  |
|           |                             | Z | 1.59    | 61.27      | 7.02  |         | 60.0     |             |                                  |
| 10353-AAA | Pulse Waveform (200Hz, 20%) | X | 0.89    | 60.55      | 5.69  | 6.99    | 80.0     | ± 2.7 %     | ± 9.6 %                          |
|           |                             | Y | 20.00   | 74.00      | 9.00  |         | 80.0     |             |                                  |
|           |                             | Z | 0.79    | 60.00      | 5.23  |         | 80.0     |             |                                  |
| 10354-AAA | Pulse Waveform (200Hz, 40%) | X | 0.43    | 60.00      | 4.21  | 3.98    | 95.0     | ± 2.7 %     | ± 9.6 %                          |
|           |                             | Y | 0.13    | 137.62     | 0.05  |         | 95.0     |             |                                  |
|           |                             | Z | 0.02    | 121.85     | 0.21  |         | 95.0     |             |                                  |
| 10355-AAA | Pulse Waveform (200Hz, 60%) | X | 7.45    | 159.85     | 18.73 | 2.22    | 120.0    | ± 2.2 %     | ± 9.6 %                          |
|           |                             | Y | 7.19    | 159.92     | 13.92 |         | 120.0    |             |                                  |
|           |                             | Z | 4.00    | 159.68     | 13.75 |         | 120.0    |             |                                  |
| 10387-AAA | QPSK Waveform, 1 MHz        | X | 0.48    | 63.38      | 12.37 | 1.00    | 150.0    | ± 4.5 %     | ± 9.6 %                          |
|           |                             | Y | 0.64    | 66.14      | 14.09 |         | 150.0    |             |                                  |
|           |                             | Z | 0.48    | 62.98      | 11.50 |         | 150.0    |             |                                  |
| 10388-AAA | QPSK Waveform, 10 MHz       | X | 1.40    | 67.09      | 14.46 | 0.00    | 150.0    | ± 0.9 %     | ± 9.6 %                          |
|           |                             | Y | 1.46    | 67.31      | 14.91 |         | 150.0    |             |                                  |
|           |                             | Z | 1.25    | 65.24      | 13.49 |         | 150.0    |             |                                  |
| 10396-AAA | 64-QAM Waveform, 100 kHz    | X | 1.79    | 65.59      | 16.66 | 3.01    | 150.0    | ± 1.3 %     | ± 9.6 %                          |
|           |                             | Y | 1.60    | 63.86      | 15.86 |         | 150.0    |             |                                  |
|           |                             | Z | 1.57    | 63.46      | 15.42 |         | 150.0    |             |                                  |
| 10399-AAA | 64-QAM Waveform, 40 MHz     | X | 2.86    | 66.74      | 15.38 | 0.00    | 150.0    | ± 2.4 %     | ± 9.6 %                          |
|           |                             | Y | 2.87    | 66.55      | 15.41 |         | 150.0    |             |                                  |
|           |                             | Z | 2.74    | 65.85      | 14.89 |         | 150.0    |             |                                  |
| 10414-AAA | WLAN CCDF, 64-QAM, 40MHz    | X | 3.83    | 66.31      | 15.47 | 0.00    | 150.0    | ± 4.1 %     | ± 9.6 %                          |
|           |                             | Y | 3.99    | 66.67      | 15.75 |         | 150.0    |             |                                  |
|           |                             | Z | 3.88    | 66.22      | 15.42 |         | 150.0    |             |                                  |

Note: For details on UID parameters see Appendix

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

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7736

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$V^{-1}$ | T1<br>$ms.V^{-2}$ | T2<br>$ms.V^{-1}$ | T3<br>ms | T4<br>$V^{-2}$ | T5<br>$V^{-1}$ | T6   |
|---|----------|----------|----------------------|-------------------|-------------------|----------|----------------|----------------|------|
| X | 9.3      | 68.11    | 34.13                | 3.91              | 0.00              | 4.97     | 0.73           | 0.00           | 1.00 |
| Y | 10.0     | 73.17    | 34.20                | 3.54              | 0.00              | 4.90     | 0.16           | 0.02           | 1.00 |
| Z | 10.0     | 74.27    | 34.84                | 3.20              | 0.00              | 4.98     | 0.00           | 0.07           | 1.00 |

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | 168.6      |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Diameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       | 1 mm       |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |

**Note:** Measurement distance from surface can be increased to 3-4 mm for an *Area Scan* job.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7736

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>c</sup> | Relative Permittivity <sup>f</sup> | Conductivity (S/m) <sup>f</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>g</sup> | Depth <sup>g</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 41.9                               | 0.89                            | 10.21   | 10.21   | 10.21   | 0.57               | 0.90                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 9.93    | 9.93    | 9.93    | 0.49               | 0.98                    | ± 12.0 %  |
| 1450                 | 40.5                               | 1.20                            | 8.98    | 8.98    | 8.98    | 0.54               | 0.80                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 8.71    | 8.71    | 8.71    | 0.28               | 0.86                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 8.34    | 8.34    | 8.34    | 0.30               | 0.86                    | ± 12.0 %  |
| 2000                 | 40.0                               | 1.40                            | 8.30    | 8.30    | 8.30    | 0.26               | 0.86                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 8.29    | 8.29    | 8.29    | 0.31               | 0.90                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 8.12    | 8.12    | 8.12    | 0.31               | 0.90                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 7.86    | 7.86    | 7.86    | 0.28               | 0.90                    | ± 12.0 %  |
| 3300                 | 38.2                               | 2.71                            | 6.89    | 6.89    | 6.89    | 0.30               | 1.35                    | ± 13.1 %  |
| 3500                 | 37.9                               | 2.91                            | 6.82    | 6.82    | 6.82    | 0.30               | 1.35                    | ± 13.1 %  |
| 3700                 | 37.7                               | 3.12                            | 6.79    | 6.79    | 6.79    | 0.30               | 1.35                    | ± 13.1 %  |
| 3900                 | 37.5                               | 3.32                            | 6.38    | 6.38    | 6.38    | 0.40               | 1.60                    | ± 13.1 %  |
| 4100                 | 37.2                               | 3.53                            | 6.35    | 6.35    | 6.35    | 0.40               | 1.60                    | ± 13.1 %  |
| 4200                 | 37.1                               | 3.63                            | 6.20    | 6.20    | 6.20    | 0.40               | 1.70                    | ± 13.1 %  |
| 4400                 | 36.9                               | 3.84                            | 6.17    | 6.17    | 6.17    | 0.40               | 1.70                    | ± 13.1 %  |
| 4600                 | 36.7                               | 4.04                            | 6.15    | 6.15    | 6.15    | 0.40               | 1.80                    | ± 13.1 %  |
| 4800                 | 36.4                               | 4.25                            | 6.10    | 6.10    | 6.10    | 0.40               | 1.80                    | ± 13.1 %  |
| 4950                 | 36.3                               | 4.40                            | 6.04    | 6.04    | 6.04    | 0.40               | 1.80                    | ± 13.1 %  |
| 5250                 | 35.9                               | 4.71                            | 5.74    | 5.74    | 5.74    | 0.40               | 1.80                    | ± 13.1 %  |
| 5600                 | 35.5                               | 5.07                            | 4.93    | 4.93    | 4.93    | 0.40               | 1.80                    | ± 13.1 %  |
| 5750                 | 35.4                               | 5.22                            | 5.05    | 5.05    | 5.05    | 0.40               | 1.80                    | ± 13.1 %  |

<sup>c</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>f</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>g</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7736

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>c</sup> | Relative Permittivity <sup>f</sup> | Conductivity (S/m) <sup>f</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>g</sup> | Depth <sup>g</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 6500                 | 34.5                               | 6.07                            | 5.45    | 5.45    | 5.45    | 0.20               | 2.50                    | ± 18.6 %  |

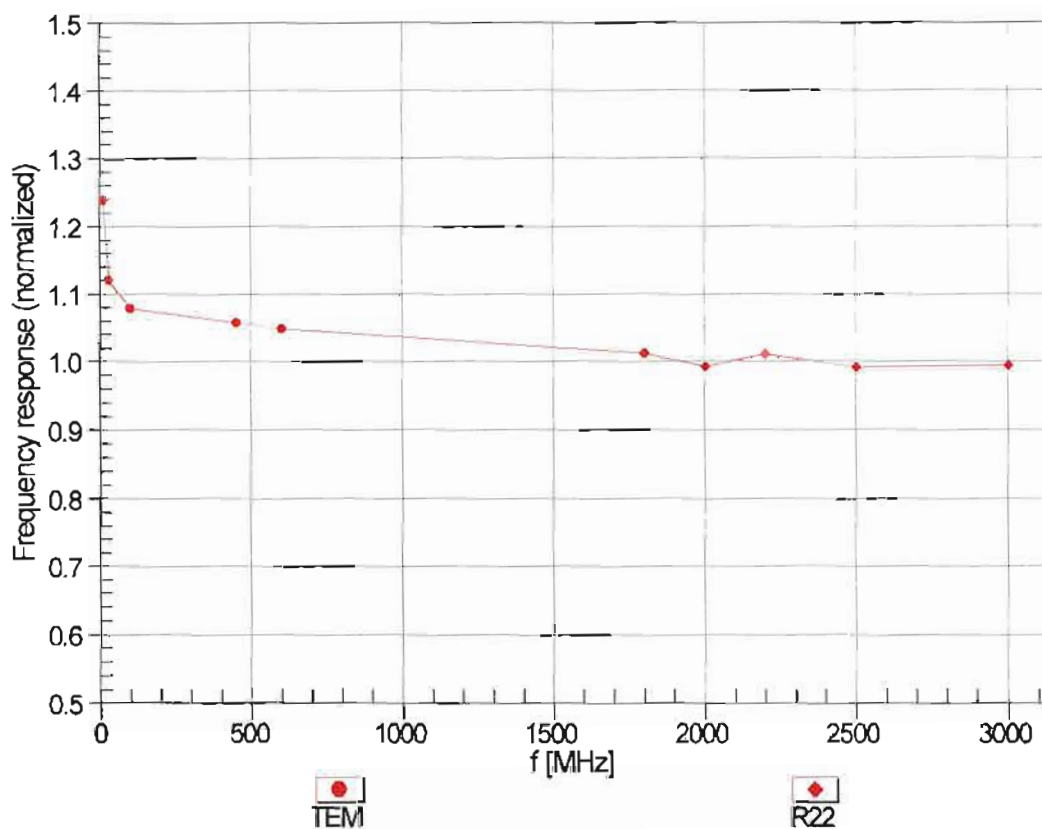
<sup>c</sup> Frequency validity at 6.5 GHz is -600/+700 MHz, and ± 700 MHz at or above 7 GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

<sup>f</sup> At frequencies 6-10 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>g</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz; below ± 2% for frequencies between 3-6 GHz; and below ± 4% for frequencies between 6-10 GHz at any distance larger than half the probe tip diameter from the boundary.

## Frequency Response of E-Field

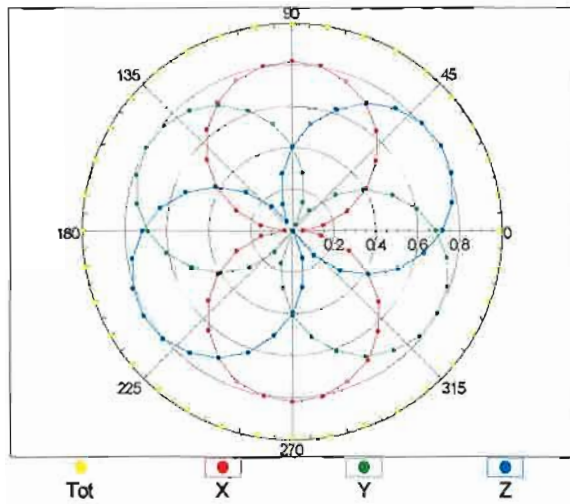
(TEM-Cell: Ifi110 EXX, Waveguide: R22)



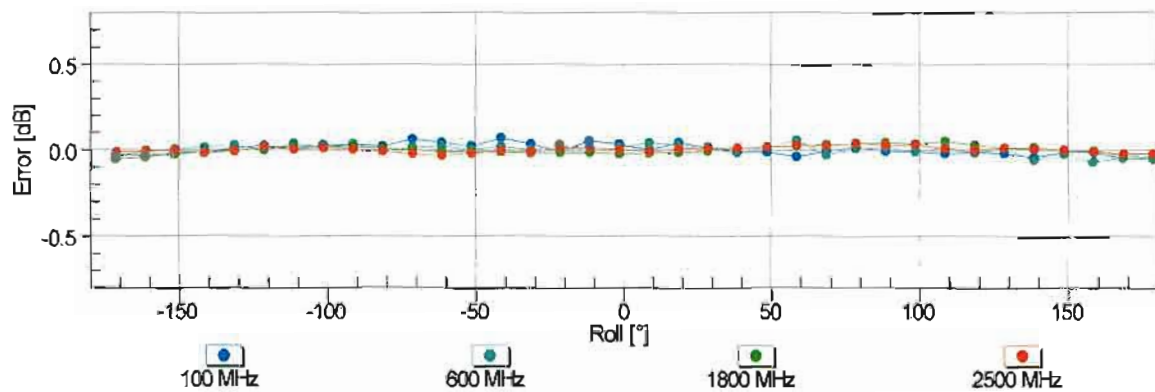
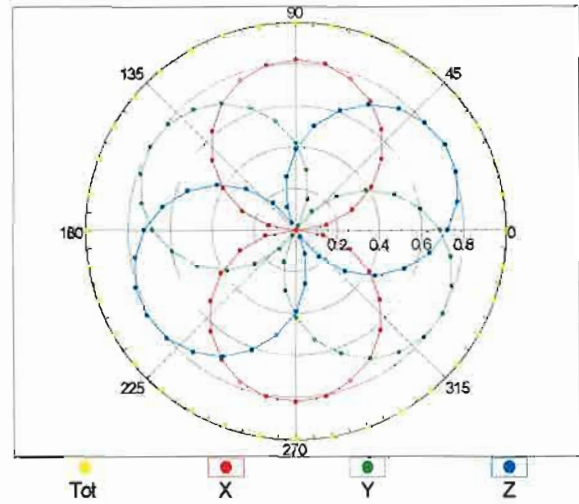
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

## Receiving Pattern ( $\phi$ ), $\vartheta = 0^\circ$

$f=600\text{ MHz, TEM}$



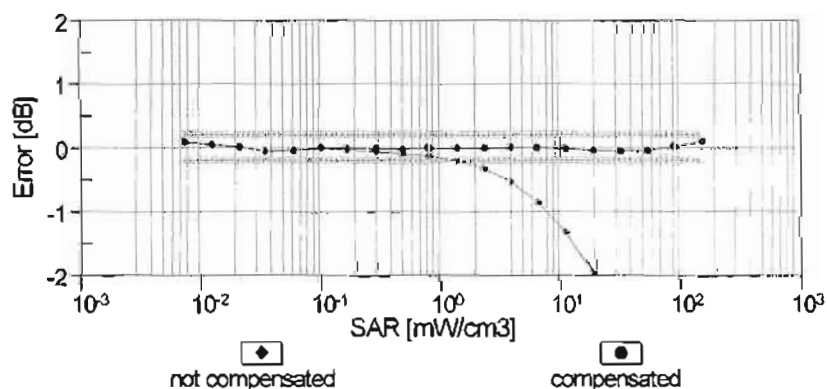
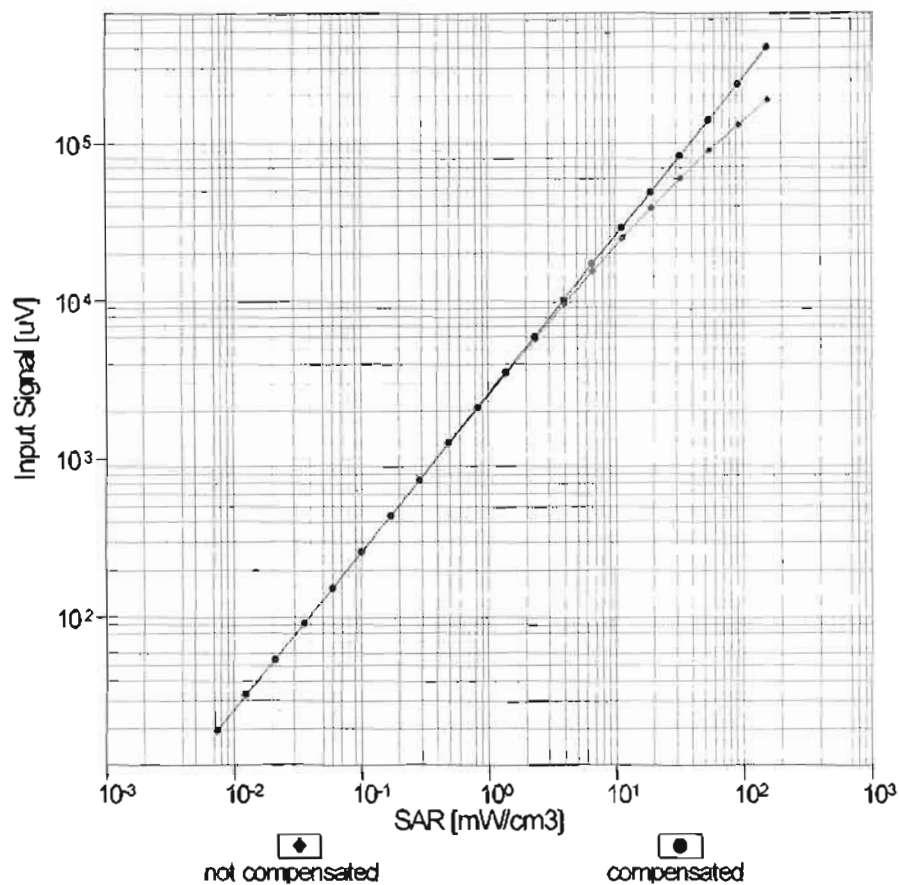
$f=1800\text{ MHz, R22}$



Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )

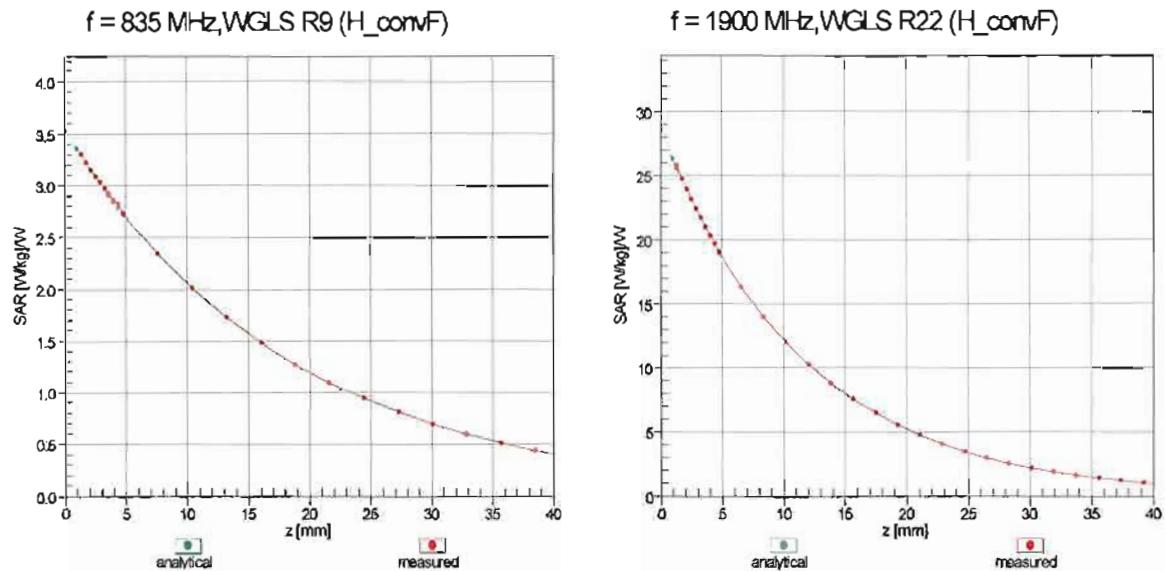
## Dynamic Range f(SAR<sub>head</sub>)

(TEM cell , f<sub>eval</sub>= 1900 MHz)



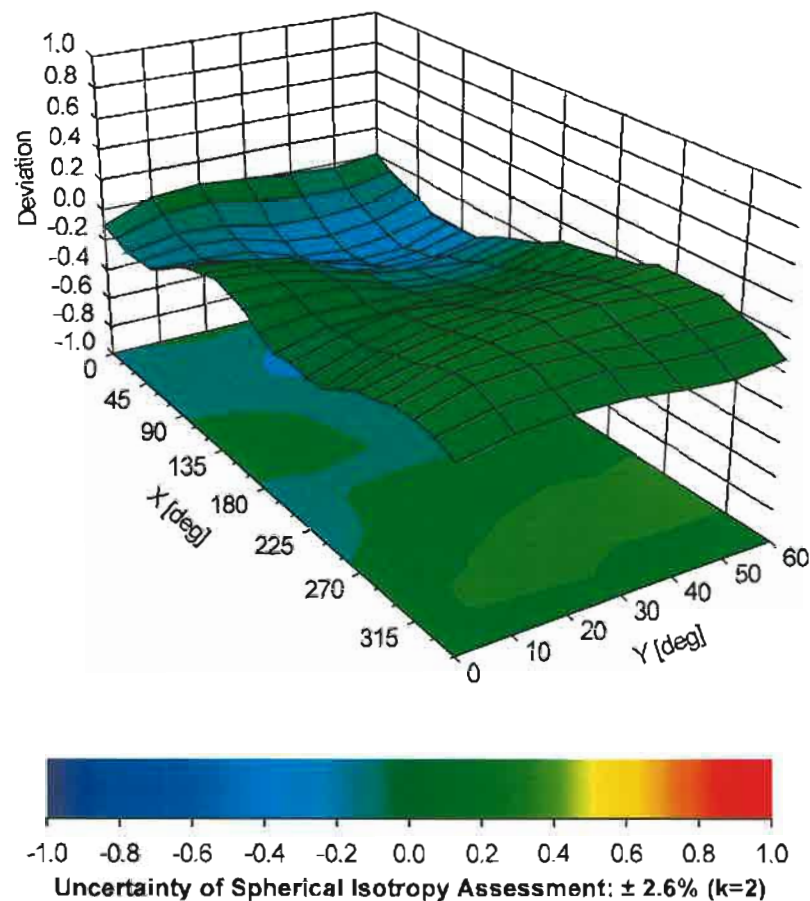
Uncertainty of Linearity Assessment:  $\pm 0.6\%$  (k=2)

## Conversion Factor Assessment



## Deviation from Isotropy in Liquid

Error ( $\phi, \theta$ ),  $f = 900 \text{ MHz}$



## Appendix: Modulation Calibration Parameters

| UID   | Rev | Communication System Name                           | Group     | PAR (dB) | Unc <sup>E</sup> (k=2) |
|-------|-----|-----------------------------------------------------|-----------|----------|------------------------|
| 0     | -   | CW                                                  | CW        | 0.00     | ± 4.7 %                |
| 10010 | CAA | SAR Validation (Square, 100ms, 10ms)                | Test      | 10.00    | ± 9.6 %                |
| 10011 | CAB | UMTS-FDD (WCDMA)                                    | WCDMA     | 2.91     | ± 9.6 %                |
| 10012 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)            | WLAN      | 1.87     | ± 9.6 %                |
| 10013 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)       | WLAN      | 9.46     | ± 9.6 %                |
| 10021 | DAC | GSM-FDD (TDMA, GMSK)                                | GSM       | 9.39     | ± 9.6 %                |
| 10023 | DAC | GPRS-FDD (TDMA, GMSK, TN 0)                         | GSM       | 9.57     | ± 9.6 %                |
| 10024 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                       | GSM       | 6.56     | ± 9.6 %                |
| 10025 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                         | GSM       | 12.62    | ± 9.6 %                |
| 10026 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                       | GSM       | 9.55     | ± 9.6 %                |
| 10027 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)                     | GSM       | 4.80     | ± 9.6 %                |
| 10028 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)                   | GSM       | 3.55     | ± 9.6 %                |
| 10029 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)                     | GSM       | 7.78     | ± 9.6 %                |
| 10030 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)                 | Bluetooth | 5.30     | ± 9.6 %                |
| 10031 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)                 | Bluetooth | 1.87     | ± 9.6 %                |
| 10032 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | Bluetooth | 1.16     | ± 9.6 %                |
| 10033 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | Bluetooth | 7.74     | ± 9.6 %                |
| 10034 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | Bluetooth | 4.53     | ± 9.6 %                |
| 10035 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | Bluetooth | 3.83     | ± 9.6 %                |
| 10036 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | Bluetooth | 8.01     | ± 9.6 %                |
| 10037 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | Bluetooth | 4.77     | ± 9.6 %                |
| 10038 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | Bluetooth | 4.10     | ± 9.6 %                |
| 10039 | CAB | CDMA2000 (1xRTT, RC1)                               | CDMA2000  | 4.57     | ± 9.6 %                |
| 10042 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | AMPS      | 7.78     | ± 9.6 %                |
| 10044 | CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | AMPS      | 0.00     | ± 9.6 %                |
| 10048 | CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | DECT      | 13.80    | ± 9.6 %                |
| 10049 | CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | DECT      | 10.79    | ± 9.6 %                |
| 10056 | CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | TD-SCDMA  | 11.01    | ± 9.6 %                |
| 10058 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | GSM       | 6.52     | ± 9.6 %                |
| 10059 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | WLAN      | 2.12     | ± 9.6 %                |
| 10060 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | WLAN      | 2.83     | ± 9.6 %                |
| 10061 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)           | WLAN      | 3.60     | ± 9.6 %                |
| 10062 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)            | WLAN      | 8.68     | ± 9.6 %                |
| 10063 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)            | WLAN      | 8.63     | ± 9.6 %                |
| 10064 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)           | WLAN      | 9.09     | ± 9.6 %                |
| 10065 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)           | WLAN      | 9.00     | ± 9.6 %                |
| 10066 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)           | WLAN      | 9.38     | ± 9.6 %                |
| 10067 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)           | WLAN      | 10.12    | ± 9.6 %                |
| 10068 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)           | WLAN      | 10.24    | ± 9.6 %                |
| 10069 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)           | WLAN      | 10.56    | ± 9.6 %                |
| 10071 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)       | WLAN      | 9.83     | ± 9.6 %                |
| 10072 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)      | WLAN      | 9.62     | ± 9.6 %                |
| 10073 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)      | WLAN      | 9.94     | ± 9.6 %                |
| 10074 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)      | WLAN      | 10.30    | ± 9.6 %                |
| 10075 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)      | WLAN      | 10.77    | ± 9.6 %                |
| 10076 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)      | WLAN      | 10.94    | ± 9.6 %                |
| 10077 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)      | WLAN      | 11.00    | ± 9.6 %                |
| 10081 | CAB | CDMA2000 (1xRTT, RC3)                               | CDMA2000  | 3.97     | ± 9.6 %                |
| 10082 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | AMPS      | 4.77     | ± 9.6 %                |
| 10090 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | GSM       | 6.56     | ± 9.6 %                |
| 10097 | CAB | UMTS-FDD (HSDPA)                                    | WCDMA     | 3.98     | ± 9.6 %                |
| 10098 | CAB | UMTS-FDD (HSUPA, Subtest 2)                         | WCDMA     | 3.98     | ± 9.6 %                |
| 10099 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | GSM       | 9.55     | ± 9.6 %                |

|       |     |                                                |         |       |         |
|-------|-----|------------------------------------------------|---------|-------|---------|
| 10100 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)       | LTE-FDD | 5.67  | ± 9.6 % |
| 10101 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)     | LTE-FDD | 6.42  | ± 9.6 % |
| 10102 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)     | LTE-FDD | 6.60  | ± 9.6 % |
| 10103 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)       | LTE-TDD | 9.29  | ± 9.6 % |
| 10104 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)     | LTE-TDD | 9.97  | ± 9.6 % |
| 10105 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)     | LTE-TDD | 10.01 | ± 9.6 % |
| 10108 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)       | LTE-FDD | 5.80  | ± 9.6 % |
| 10109 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)     | LTE-FDD | 6.43  | ± 9.6 % |
| 10110 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 % |
| 10111 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)      | LTE-FDD | 6.44  | ± 9.6 % |
| 10112 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | LTE-FDD | 6.59  | ± 9.6 % |
| 10113 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | LTE-FDD | 6.62  | ± 9.6 % |
| 10114 | CAD | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | WLAN    | 8.10  | ± 9.6 % |
| 10115 | CAD | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | WLAN    | 8.46  | ± 9.6 % |
| 10116 | CAD | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | WLAN    | 8.15  | ± 9.6 % |
| 10117 | CAD | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | WLAN    | 8.07  | ± 9.6 % |
| 10118 | CAD | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | WLAN    | 8.59  | ± 9.6 % |
| 10119 | CAD | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | WLAN    | 8.13  | ± 9.6 % |
| 10140 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | LTE-FDD | 6.49  | ± 9.6 % |
| 10141 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | LTE-FDD | 6.53  | ± 9.6 % |
| 10142 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | LTE-FDD | 5.73  | ± 9.6 % |
| 10143 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | LTE-FDD | 6.35  | ± 9.6 % |
| 10144 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | LTE-FDD | 6.65  | ± 9.6 % |
| 10145 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | LTE-FDD | 5.76  | ± 9.6 % |
| 10146 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | LTE-FDD | 6.41  | ± 9.6 % |
| 10147 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | LTE-FDD | 6.72  | ± 9.6 % |
| 10149 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-FDD | 6.42  | ± 9.6 % |
| 10150 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-FDD | 6.60  | ± 9.6 % |
| 10151 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)        | LTE-TDD | 9.28  | ± 9.6 % |
| 10152 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-TDD | 9.92  | ± 9.6 % |
| 10153 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-TDD | 10.05 | ± 9.6 % |
| 10154 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 % |
| 10155 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10156 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         | LTE-FDD | 5.79  | ± 9.6 % |
| 10157 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)       | LTE-FDD | 6.49  | ± 9.6 % |
| 10158 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)      | LTE-FDD | 6.62  | ± 9.6 % |
| 10159 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)       | LTE-FDD | 6.56  | ± 9.6 % |
| 10160 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)        | LTE-FDD | 5.82  | ± 9.6 % |
| 10161 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10162 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)      | LTE-FDD | 6.58  | ± 9.6 % |
| 10166 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)       | LTE-FDD | 5.46  | ± 9.6 % |
| 10167 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)     | LTE-FDD | 6.21  | ± 9.6 % |
| 10168 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)     | LTE-FDD | 6.79  | ± 9.6 % |
| 10169 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-FDD | 5.73  | ± 9.6 % |
| 10170 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10171 | AAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-FDD | 6.49  | ± 9.6 % |
| 10172 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-TDD | 9.21  | ± 9.6 % |
| 10173 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-TDD | 9.48  | ± 9.6 % |
| 10174 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-TDD | 10.25 | ± 9.6 % |
| 10175 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)          | LTE-FDD | 5.72  | ± 9.6 % |
| 10176 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10177 | CAI | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)           | LTE-FDD | 5.73  | ± 9.6 % |
| 10178 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)         | LTE-FDD | 6.52  | ± 9.6 % |
| 10179 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)        | LTE-FDD | 6.50  | ± 9.6 % |
| 10180 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)         | LTE-FDD | 6.50  | ± 9.6 % |
| 10181 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)          | LTE-FDD | 5.73  | ± 9.6 % |

|       |     |                                               |         |       |         |
|-------|-----|-----------------------------------------------|---------|-------|---------|
| 10182 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)       | LTE-FDD | 6.52  | ± 9.6 % |
| 10183 | AAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)       | LTE-FDD | 6.50  | ± 9.6 % |
| 10184 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | LTE-FDD | 5.73  | ± 9.6 % |
| 10185 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | LTE-FDD | 6.51  | ± 9.6 % |
| 10186 | AAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | LTE-FDD | 6.50  | ± 9.6 % |
| 10187 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | LTE-FDD | 5.73  | ± 9.6 % |
| 10188 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | LTE-FDD | 6.52  | ± 9.6 % |
| 10189 | AAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | LTE-FDD | 6.50  | ± 9.6 % |
| 10193 | CAD | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)  | WLAN    | 8.09  | ± 9.6 % |
| 10194 | CAD | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) | WLAN    | 8.12  | ± 9.6 % |
| 10195 | CAD | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) | WLAN    | 8.21  | ± 9.6 % |
| 10196 | CAD | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)       | WLAN    | 8.10  | ± 9.6 % |
| 10197 | CAD | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)      | WLAN    | 8.13  | ± 9.6 % |
| 10198 | CAD | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)      | WLAN    | 8.27  | ± 9.6 % |
| 10219 | CAD | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)       | WLAN    | 8.03  | ± 9.6 % |
| 10220 | CAD | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)    | WLAN    | 8.13  | ± 9.6 % |
| 10221 | CAD | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)    | WLAN    | 8.27  | ± 9.6 % |
| 10222 | CAD | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)        | WLAN    | 8.06  | ± 9.6 % |
| 10223 | CAD | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)      | WLAN    | 8.48  | ± 9.6 % |
| 10224 | CAD | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)     | WLAN    | 8.08  | ± 9.6 % |
| 10225 | CAB | UMTS-FDD (HSPA+)                              | WCDMA   | 5.97  | ± 9.6 % |
| 10226 | CAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | LTE-TDD | 9.49  | ± 9.6 % |
| 10227 | CAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | LTE-TDD | 10.26 | ± 9.6 % |
| 10228 | CAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | LTE-TDD | 9.22  | ± 9.6 % |
| 10229 | CAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | LTE-TDD | 9.48  | ± 9.6 % |
| 10230 | CAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | LTE-TDD | 10.25 | ± 9.6 % |
| 10231 | CAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | LTE-TDD | 9.19  | ± 9.6 % |
| 10232 | CAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)        | LTE-TDD | 9.48  | ± 9.6 % |
| 10233 | CAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)        | LTE-TDD | 10.25 | ± 9.6 % |
| 10234 | CAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)          | LTE-TDD | 9.21  | ± 9.6 % |
| 10235 | CAG | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)       | LTE-TDD | 9.48  | ± 9.6 % |
| 10236 | CAG | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)       | LTE-TDD | 10.25 | ± 9.6 % |
| 10237 | CAG | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)         | LTE-TDD | 9.21  | ± 9.6 % |
| 10238 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)       | LTE-TDD | 9.48  | ± 9.6 % |
| 10239 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)       | LTE-TDD | 10.25 | ± 9.6 % |
| 10240 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)         | LTE-TDD | 9.21  | ± 9.6 % |
| 10241 | CAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)    | LTE-TDD | 9.82  | ± 9.6 % |
| 10242 | CAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)    | LTE-TDD | 9.86  | ± 9.6 % |
| 10243 | CAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)      | LTE-TDD | 9.46  | ± 9.6 % |
| 10244 | CAD | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)      | LTE-TDD | 10.06 | ± 9.6 % |
| 10245 | CAD | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)      | LTE-TDD | 10.06 | ± 9.6 % |
| 10246 | CAD | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)        | LTE-TDD | 9.30  | ± 9.6 % |
| 10247 | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)      | LTE-TDD | 9.91  | ± 9.6 % |
| 10248 | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)      | LTE-TDD | 10.09 | ± 9.6 % |
| 10249 | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)        | LTE-TDD | 9.29  | ± 9.6 % |
| 10250 | CAG | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)     | LTE-TDD | 9.81  | ± 9.6 % |
| 10251 | CAG | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)     | LTE-TDD | 10.17 | ± 9.6 % |
| 10252 | CAG | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)       | LTE-TDD | 9.24  | ± 9.6 % |
| 10253 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)     | LTE-TDD | 9.90  | ± 9.6 % |
| 10254 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)     | LTE-TDD | 10.14 | ± 9.6 % |
| 10255 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)       | LTE-TDD | 9.20  | ± 9.6 % |
| 10256 | CAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)   | LTE-TDD | 9.96  | ± 9.6 % |
| 10257 | CAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)   | LTE-TDD | 10.08 | ± 9.6 % |
| 10258 | CAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)     | LTE-TDD | 9.34  | ± 9.6 % |
| 10259 | CAD | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)     | LTE-TDD | 9.98  | ± 9.6 % |
| 10260 | CAD | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)     | LTE-TDD | 9.97  | ± 9.6 % |

|       |     |                                                           |          |       |         |
|-------|-----|-----------------------------------------------------------|----------|-------|---------|
| 10261 | CAD | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)                   | LTE-TDD  | 9.24  | ± 9.6 % |
| 10262 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)                 | LTE-TDD  | 9.83  | ± 9.6 % |
| 10263 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)                 | LTE-TDD  | 10.16 | ± 9.6 % |
| 10264 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)                   | LTE-TDD  | 9.23  | ± 9.6 % |
| 10265 | CAG | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)                | LTE-TDD  | 9.92  | ± 9.6 % |
| 10266 | CAG | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)                | LTE-TDD  | 10.07 | ± 9.6 % |
| 10267 | CAG | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)                  | LTE-TDD  | 9.30  | ± 9.6 % |
| 10268 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)                | LTE-TDD  | 10.06 | ± 9.6 % |
| 10269 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)                | LTE-TDD  | 10.13 | ± 9.6 % |
| 10270 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                  | LTE-TDD  | 9.58  | ± 9.6 % |
| 10274 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                 | WCDMA    | 4.87  | ± 9.6 % |
| 10275 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                  | WCDMA    | 3.96  | ± 9.6 % |
| 10277 | CAA | PHS (QPSK)                                                | PHS      | 11.81 | ± 9.6 % |
| 10278 | CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)                        | PHS      | 11.81 | ± 9.6 % |
| 10279 | CAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)                       | PHS      | 12.18 | ± 9.6 % |
| 10290 | AAB | CDMA2000, RC1, SO55, Full Rate                            | CDMA2000 | 3.91  | ± 9.6 % |
| 10291 | AAB | CDMA2000, RC3, SO55, Full Rate                            | CDMA2000 | 3.46  | ± 9.6 % |
| 10292 | AAB | CDMA2000, RC3, SO32, Full Rate                            | CDMA2000 | 3.39  | ± 9.6 % |
| 10293 | AAB | CDMA2000, RC3, SO3, Full Rate                             | CDMA2000 | 3.50  | ± 9.6 % |
| 10295 | AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                     | CDMA2000 | 12.49 | ± 9.6 % |
| 10297 | AAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                   | LTE-FDD  | 5.81  | ± 9.6 % |
| 10298 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                    | LTE-FDD  | 5.72  | ± 9.6 % |
| 10299 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                  | LTE-FDD  | 6.39  | ± 9.6 % |
| 10300 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                  | LTE-FDD  | 6.60  | ± 9.6 % |
| 10301 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)        | WiMAX    | 12.03 | ± 9.6 % |
| 10302 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3CTRL) | WiMAX    | 12.57 | ± 9.6 % |
| 10303 | AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)       | WiMAX    | 12.52 | ± 9.6 % |
| 10304 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)       | WiMAX    | 11.86 | ± 9.6 % |
| 10305 | AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC)      | WiMAX    | 15.24 | ± 9.6 % |
| 10306 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC)      | WiMAX    | 14.67 | ± 9.6 % |
| 10307 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC)       | WiMAX    | 14.49 | ± 9.6 % |
| 10308 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)      | WiMAX    | 14.46 | ± 9.6 % |
| 10309 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3)   | WiMAX    | 14.58 | ± 9.6 % |
| 10310 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3)    | WiMAX    | 14.57 | ± 9.6 % |
| 10311 | AAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                  | LTE-FDD  | 6.06  | ± 9.6 % |
| 10313 | AAA | iDEN 1:3                                                  | iDEN     | 10.51 | ± 9.6 % |
| 10314 | AAA | iDEN 1:6                                                  | iDEN     | 13.48 | ± 9.6 % |
| 10315 | AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc dc)         | WLAN     | 1.71  | ± 9.6 % |
| 10316 | AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc dc)     | WLAN     | 8.36  | ± 9.6 % |
| 10317 | AAD | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc dc)           | WLAN     | 8.36  | ± 9.6 % |
| 10352 | AAA | Pulse Waveform (200Hz, 10%)                               | Generic  | 10.00 | ± 9.6 % |
| 10353 | AAA | Pulse Waveform (200Hz, 20%)                               | Generic  | 6.99  | ± 9.6 % |
| 10354 | AAA | Pulse Waveform (200Hz, 40%)                               | Generic  | 3.98  | ± 9.6 % |
| 10355 | AAA | Pulse Waveform (200Hz, 60%)                               | Generic  | 2.22  | ± 9.6 % |
| 10356 | AAA | Pulse Waveform (200Hz, 80%)                               | Generic  | 0.97  | ± 9.6 % |
| 10387 | AAA | QPSK Waveform, 1 MHz                                      | Generic  | 5.10  | ± 9.6 % |
| 10388 | AAA | QPSK Waveform, 10 MHz                                     | Generic  | 5.22  | ± 9.6 % |
| 10396 | AAA | 64-QAM Waveform, 100 kHz                                  | Generic  | 6.27  | ± 9.6 % |
| 10399 | AAA | 64-QAM Waveform, 40 MHz                                   | Generic  | 6.27  | ± 9.6 % |
| 10400 | AAE | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc dc)               | WLAN     | 8.37  | ± 9.6 % |
| 10401 | AAE | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc dc)               | WLAN     | 8.60  | ± 9.6 % |
| 10402 | AAE | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc dc)               | WLAN     | 8.53  | ± 9.6 % |
| 10403 | AAB | CDMA2000 (1xEV-DO, Rev. 0)                                | CDMA2000 | 3.76  | ± 9.6 % |
| 10404 | AAB | CDMA2000 (1xEV-DO, Rev. A)                                | CDMA2000 | 3.77  | ± 9.6 % |
| 10406 | AAB | CDMA2000, RC3, SO32, SCH0, Full Rate                      | CDMA2000 | 5.22  | ± 9.6 % |
| 10410 | AAG | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub=2,3,4,7,8,9) | LTE-TDD  | 7.82  | ± 9.6 % |

|       |     |                                                            |          |       |         |
|-------|-----|------------------------------------------------------------|----------|-------|---------|
| 10414 | AAA | WLAN CCDF, 64-QAM, 40MHz                                   | Generic  | 8.54  | ± 9.6 % |
| 10415 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc dc)          | WLAN     | 1.54  | ± 9.6 % |
| 10416 | AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc dc)      | WLAN     | 8.23  | ± 9.6 % |
| 10417 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc dc)          | WLAN     | 8.23  | ± 9.6 % |
| 10418 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Long)  | WLAN     | 8.14  | ± 9.6 % |
| 10419 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Short) | WLAN     | 8.19  | ± 9.6 % |
| 10422 | AAC | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)               | WLAN     | 8.32  | ± 9.6 % |
| 10423 | AAC | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)            | WLAN     | 8.47  | ± 9.6 % |
| 10424 | AAC | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)            | WLAN     | 8.40  | ± 9.6 % |
| 10425 | AAC | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                | WLAN     | 8.41  | ± 9.6 % |
| 10426 | AAC | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)              | WLAN     | 8.45  | ± 9.6 % |
| 10427 | AAC | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)             | WLAN     | 8.41  | ± 9.6 % |
| 10430 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                           | LTE-FDD  | 8.28  | ± 9.6 % |
| 10431 | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                          | LTE-FDD  | 8.38  | ± 9.6 % |
| 10432 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                          | LTE-FDD  | 8.34  | ± 9.6 % |
| 10433 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                          | LTE-FDD  | 8.34  | ± 9.6 % |
| 10434 | AAA | W-CDMA (BS Test Model 1, 64 DPCH)                          | WCDMA    | 8.60  | ± 9.6 % |
| 10435 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub)              | LTE-TDD  | 7.82  | ± 9.6 % |
| 10447 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)             | LTE-FDD  | 7.56  | ± 9.6 % |
| 10448 | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)            | LTE-FDD  | 7.53  | ± 9.6 % |
| 10449 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)            | LTE-FDD  | 7.51  | ± 9.6 % |
| 10450 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)            | LTE-FDD  | 7.48  | ± 9.6 % |
| 10451 | AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)            | WCDMA    | 7.59  | ± 9.6 % |
| 10453 | AAD | Validation (Square, 10ms, 1ms)                             | Test     | 10.00 | ± 9.6 % |
| 10456 | AAC | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc dc)               | WLAN     | 8.63  | ± 9.6 % |
| 10457 | AAA | UMTS-FDD (DC-HSDPA)                                        | WCDMA    | 6.62  | ± 9.6 % |
| 10458 | AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                     | CDMA2000 | 6.55  | ± 9.6 % |
| 10459 | AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                     | CDMA2000 | 8.25  | ± 9.6 % |
| 10460 | AAA | UMTS-FDD (WCDMA, AMR)                                      | WCDMA    | 2.39  | ± 9.6 % |
| 10461 | AAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Sub)             | LTE-TDD  | 7.82  | ± 9.6 % |
| 10462 | AAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Sub)           | LTE-TDD  | 8.30  | ± 9.6 % |
| 10463 | AAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Sub)           | LTE-TDD  | 8.56  | ± 9.6 % |
| 10464 | AAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Sub)               | LTE-TDD  | 7.82  | ± 9.6 % |
| 10465 | AAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Sub)             | LTE-TDD  | 8.32  | ± 9.6 % |
| 10466 | AAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Sub)             | LTE-TDD  | 8.57  | ± 9.6 % |
| 10467 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub)               | LTE-TDD  | 7.82  | ± 9.6 % |
| 10468 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Sub)             | LTE-TDD  | 8.32  | ± 9.6 % |
| 10469 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Sub)             | LTE-TDD  | 8.56  | ± 9.6 % |
| 10470 | AAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub)              | LTE-TDD  | 7.82  | ± 9.6 % |
| 10471 | AAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Sub)            | LTE-TDD  | 8.32  | ± 9.6 % |
| 10472 | AAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Sub)            | LTE-TDD  | 8.57  | ± 9.6 % |
| 10473 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Sub)              | LTE-TDD  | 7.82  | ± 9.6 % |
| 10474 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Sub)            | LTE-TDD  | 8.32  | ± 9.6 % |
| 10475 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Sub)            | LTE-TDD  | 8.57  | ± 9.6 % |
| 10477 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Sub)            | LTE-TDD  | 8.32  | ± 9.6 % |
| 10478 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Sub)            | LTE-TDD  | 8.57  | ± 9.6 % |
| 10479 | AAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Sub)           | LTE-TDD  | 7.74  | ± 9.6 % |
| 10480 | AAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Sub)         | LTE-TDD  | 8.18  | ± 9.6 % |
| 10481 | AAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Sub)         | LTE-TDD  | 8.45  | ± 9.6 % |
| 10482 | AAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Sub)             | LTE-TDD  | 7.71  | ± 9.6 % |
| 10483 | AAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, Sub)              | LTE-TDD  | 8.39  | ± 9.6 % |
| 10484 | AAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Sub)           | LTE-TDD  | 8.47  | ± 9.6 % |
| 10485 | AAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Sub)             | LTE-TDD  | 7.59  | ± 9.6 % |
| 10486 | AAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Sub)           | LTE-TDD  | 8.38  | ± 9.6 % |
| 10487 | AAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Sub)           | LTE-TDD  | 8.60  | ± 9.6 % |
| 10488 | AAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Sub)            | LTE-TDD  | 7.70  | ± 9.6 % |

|       |     |                                                     |         |      |         |
|-------|-----|-----------------------------------------------------|---------|------|---------|
| 10489 | AAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.31 | ± 9.6 % |
| 10490 | AAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10491 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Sub)     | LTE-TDD | 7.74 | ± 9.6 % |
| 10492 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.41 | ± 9.6 % |
| 10493 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.55 | ± 9.6 % |
| 10494 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Sub)     | LTE-TDD | 7.74 | ± 9.6 % |
| 10495 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.37 | ± 9.6 % |
| 10496 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10497 | AAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Sub)   | LTE-TDD | 7.67 | ± 9.6 % |
| 10498 | AAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Sub) | LTE-TDD | 8.40 | ± 9.6 % |
| 10499 | AAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Sub) | LTE-TDD | 8.68 | ± 9.6 % |
| 10500 | AAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Sub)     | LTE-TDD | 7.67 | ± 9.6 % |
| 10501 | AAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.44 | ± 9.6 % |
| 10502 | AAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.52 | ± 9.6 % |
| 10503 | AAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Sub)     | LTE-TDD | 7.72 | ± 9.6 % |
| 10504 | AAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.31 | ± 9.6 % |
| 10505 | AAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10506 | AAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Sub)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10507 | AAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Sub)  | LTE-TDD | 8.36 | ± 9.6 % |
| 10508 | AAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Sub)  | LTE-TDD | 8.55 | ± 9.6 % |
| 10509 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Sub)    | LTE-TDD | 7.99 | ± 9.6 % |
| 10510 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Sub)  | LTE-TDD | 8.49 | ± 9.6 % |
| 10511 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Sub)  | LTE-TDD | 8.51 | ± 9.6 % |
| 10512 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Sub)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10513 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Sub)  | LTE-TDD | 8.42 | ± 9.6 % |
| 10514 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Sub)  | LTE-TDD | 8.45 | ± 9.6 % |
| 10515 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc dc)   | WLAN    | 1.58 | ± 9.6 % |
| 10516 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc dc) | WLAN    | 1.57 | ± 9.6 % |
| 10517 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc dc)  | WLAN    | 1.58 | ± 9.6 % |
| 10518 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc dc)   | WLAN    | 8.23 | ± 9.6 % |
| 10519 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc dc)  | WLAN    | 8.39 | ± 9.6 % |
| 10520 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc dc)  | WLAN    | 8.12 | ± 9.6 % |
| 10521 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc dc)  | WLAN    | 7.97 | ± 9.6 % |
| 10522 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc dc)  | WLAN    | 8.45 | ± 9.6 % |
| 10523 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc dc)  | WLAN    | 8.08 | ± 9.6 % |
| 10524 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc dc)  | WLAN    | 8.27 | ± 9.6 % |
| 10525 | AAC | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc dc)           | WLAN    | 8.36 | ± 9.6 % |
| 10526 | AAC | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc dc)           | WLAN    | 8.42 | ± 9.6 % |
| 10527 | AAC | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc dc)           | WLAN    | 8.21 | ± 9.6 % |
| 10528 | AAC | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc dc)           | WLAN    | 8.36 | ± 9.6 % |
| 10529 | AAC | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc dc)           | WLAN    | 8.36 | ± 9.6 % |
| 10531 | AAC | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc dc)           | WLAN    | 8.43 | ± 9.6 % |
| 10532 | AAC | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc dc)           | WLAN    | 8.29 | ± 9.6 % |
| 10533 | AAC | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc dc)           | WLAN    | 8.38 | ± 9.6 % |
| 10534 | AAC | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc dc)           | WLAN    | 8.45 | ± 9.6 % |
| 10535 | AAC | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc dc)           | WLAN    | 8.45 | ± 9.6 % |
| 10536 | AAC | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc dc)           | WLAN    | 8.32 | ± 9.6 % |
| 10537 | AAC | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc dc)           | WLAN    | 8.44 | ± 9.6 % |
| 10538 | AAC | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc dc)           | WLAN    | 8.54 | ± 9.6 % |
| 10540 | AAC | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc dc)           | WLAN    | 8.39 | ± 9.6 % |
| 10541 | AAC | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc dc)           | WLAN    | 8.46 | ± 9.6 % |
| 10542 | AAC | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc dc)           | WLAN    | 8.65 | ± 9.6 % |
| 10543 | AAC | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc dc)           | WLAN    | 8.65 | ± 9.6 % |
| 10544 | AAC | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc dc)           | WLAN    | 8.47 | ± 9.6 % |
| 10545 | AAC | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc dc)           | WLAN    | 8.55 | ± 9.6 % |
| 10546 | AAC | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc dc)           | WLAN    | 8.35 | ± 9.6 % |

|       |     |                                                         |      |      |         |
|-------|-----|---------------------------------------------------------|------|------|---------|
| 10547 | AAC | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc dc)               | WLAN | 8.49 | ± 9.6 % |
| 10548 | AAC | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc dc)               | WLAN | 8.37 | ± 9.6 % |
| 10550 | AAC | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc dc)               | WLAN | 8.39 | ± 9.6 % |
| 10551 | AAC | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc dc)               | WLAN | 8.50 | ± 9.6 % |
| 10552 | AAC | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc dc)               | WLAN | 8.42 | ± 9.6 % |
| 10553 | AAC | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc dc)               | WLAN | 8.45 | ± 9.6 % |
| 10554 | AAD | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc dc)              | WLAN | 8.48 | ± 9.6 % |
| 10555 | AAD | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc dc)              | WLAN | 8.47 | ± 9.6 % |
| 10556 | AAD | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc dc)              | WLAN | 8.50 | ± 9.6 % |
| 10557 | AAD | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc dc)              | WLAN | 8.52 | ± 9.6 % |
| 10558 | AAD | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc dc)              | WLAN | 8.61 | ± 9.6 % |
| 10560 | AAD | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc dc)              | WLAN | 8.73 | ± 9.6 % |
| 10561 | AAD | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc dc)              | WLAN | 8.56 | ± 9.6 % |
| 10562 | AAD | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc dc)              | WLAN | 8.69 | ± 9.6 % |
| 10563 | AAD | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc dc)              | WLAN | 8.77 | ± 9.6 % |
| 10564 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc dc)  | WLAN | 8.25 | ± 9.6 % |
| 10565 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc dc) | WLAN | 8.45 | ± 9.6 % |
| 10566 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc dc) | WLAN | 8.13 | ± 9.6 % |
| 10567 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc dc) | WLAN | 8.00 | ± 9.6 % |
| 10568 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc dc) | WLAN | 8.37 | ± 9.6 % |
| 10569 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc dc) | WLAN | 8.10 | ± 9.6 % |
| 10570 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc dc) | WLAN | 8.30 | ± 9.6 % |
| 10571 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc dc)       | WLAN | 1.99 | ± 9.6 % |
| 10572 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc dc)       | WLAN | 1.99 | ± 9.6 % |
| 10573 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc dc)     | WLAN | 1.98 | ± 9.6 % |
| 10574 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc dc)      | WLAN | 1.98 | ± 9.6 % |
| 10575 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc dc)  | WLAN | 8.59 | ± 9.6 % |
| 10576 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc dc)  | WLAN | 8.60 | ± 9.6 % |
| 10577 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc dc) | WLAN | 8.70 | ± 9.6 % |
| 10578 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc dc) | WLAN | 8.49 | ± 9.6 % |
| 10579 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc dc) | WLAN | 8.36 | ± 9.6 % |
| 10580 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc dc) | WLAN | 8.76 | ± 9.6 % |
| 10581 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc dc) | WLAN | 8.35 | ± 9.6 % |
| 10582 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc dc) | WLAN | 8.67 | ± 9.6 % |
| 10583 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc dc)       | WLAN | 8.59 | ± 9.6 % |
| 10584 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc dc)       | WLAN | 8.60 | ± 9.6 % |
| 10585 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc dc)      | WLAN | 8.70 | ± 9.6 % |
| 10586 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc dc)      | WLAN | 8.49 | ± 9.6 % |
| 10587 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc dc)      | WLAN | 8.36 | ± 9.6 % |
| 10588 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc dc)      | WLAN | 8.76 | ± 9.6 % |
| 10589 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc dc)      | WLAN | 8.35 | ± 9.6 % |
| 10590 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc dc)      | WLAN | 8.67 | ± 9.6 % |
| 10591 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc dc)           | WLAN | 8.63 | ± 9.6 % |
| 10592 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc dc)           | WLAN | 8.79 | ± 9.6 % |
| 10593 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc dc)           | WLAN | 8.64 | ± 9.6 % |
| 10594 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc dc)           | WLAN | 8.74 | ± 9.6 % |
| 10595 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc dc)           | WLAN | 8.74 | ± 9.6 % |
| 10596 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc dc)           | WLAN | 8.71 | ± 9.6 % |
| 10597 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc dc)           | WLAN | 8.72 | ± 9.6 % |
| 10598 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc dc)           | WLAN | 8.50 | ± 9.6 % |
| 10599 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc dc)           | WLAN | 8.79 | ± 9.6 % |
| 10600 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc dc)           | WLAN | 8.88 | ± 9.6 % |
| 10601 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc dc)           | WLAN | 8.82 | ± 9.6 % |
| 10602 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc dc)           | WLAN | 8.94 | ± 9.6 % |
| 10603 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc dc)           | WLAN | 9.03 | ± 9.6 % |
| 10604 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc dc)           | WLAN | 8.76 | ± 9.6 % |

|       |     |                                                   |           |       |         |
|-------|-----|---------------------------------------------------|-----------|-------|---------|
| 10605 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc dc)     | WLAN      | 8.97  | ± 9.6 % |
| 10606 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc dc)     | WLAN      | 8.82  | ± 9.6 % |
| 10607 | AAC | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc dc)         | WLAN      | 8.64  | ± 9.6 % |
| 10608 | AAC | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc dc)         | WLAN      | 8.77  | ± 9.6 % |
| 10609 | AAC | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc dc)         | WLAN      | 8.57  | ± 9.6 % |
| 10610 | AAC | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc dc)         | WLAN      | 8.78  | ± 9.6 % |
| 10611 | AAC | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc dc)         | WLAN      | 8.70  | ± 9.6 % |
| 10612 | AAC | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc dc)         | WLAN      | 8.77  | ± 9.6 % |
| 10613 | AAC | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc dc)         | WLAN      | 8.94  | ± 9.6 % |
| 10614 | AAC | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc dc)         | WLAN      | 8.59  | ± 9.6 % |
| 10615 | AAC | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc dc)         | WLAN      | 8.82  | ± 9.6 % |
| 10616 | AAC | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc dc)         | WLAN      | 8.82  | ± 9.6 % |
| 10617 | AAC | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc dc)         | WLAN      | 8.81  | ± 9.6 % |
| 10618 | AAC | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc dc)         | WLAN      | 8.58  | ± 9.6 % |
| 10619 | AAC | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc dc)         | WLAN      | 8.86  | ± 9.6 % |
| 10620 | AAC | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc dc)         | WLAN      | 8.87  | ± 9.6 % |
| 10621 | AAC | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc dc)         | WLAN      | 8.77  | ± 9.6 % |
| 10622 | AAC | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc dc)         | WLAN      | 8.68  | ± 9.6 % |
| 10623 | AAC | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc dc)         | WLAN      | 8.82  | ± 9.6 % |
| 10624 | AAC | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc dc)         | WLAN      | 8.96  | ± 9.6 % |
| 10625 | AAC | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc dc)         | WLAN      | 8.96  | ± 9.6 % |
| 10626 | AAC | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc dc)         | WLAN      | 8.83  | ± 9.6 % |
| 10627 | AAC | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc dc)         | WLAN      | 8.88  | ± 9.6 % |
| 10628 | AAC | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc dc)         | WLAN      | 8.71  | ± 9.6 % |
| 10629 | AAC | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc dc)         | WLAN      | 8.85  | ± 9.6 % |
| 10630 | AAC | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc dc)         | WLAN      | 8.72  | ± 9.6 % |
| 10631 | AAC | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc dc)         | WLAN      | 8.81  | ± 9.6 % |
| 10632 | AAC | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc dc)         | WLAN      | 8.74  | ± 9.6 % |
| 10633 | AAC | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc dc)         | WLAN      | 8.83  | ± 9.6 % |
| 10634 | AAC | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc dc)         | WLAN      | 8.80  | ± 9.6 % |
| 10635 | AAC | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc dc)         | WLAN      | 8.81  | ± 9.6 % |
| 10636 | AAD | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc dc)        | WLAN      | 8.83  | ± 9.6 % |
| 10637 | AAD | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc dc)        | WLAN      | 8.79  | ± 9.6 % |
| 10638 | AAD | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc dc)        | WLAN      | 8.86  | ± 9.6 % |
| 10639 | AAD | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc dc)        | WLAN      | 8.85  | ± 9.6 % |
| 10640 | AAD | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc dc)        | WLAN      | 8.98  | ± 9.6 % |
| 10641 | AAD | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc dc)        | WLAN      | 9.06  | ± 9.6 % |
| 10642 | AAD | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc dc)        | WLAN      | 9.06  | ± 9.6 % |
| 10643 | AAD | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc dc)        | WLAN      | 8.89  | ± 9.6 % |
| 10644 | AAD | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc dc)        | WLAN      | 9.05  | ± 9.6 % |
| 10645 | AAD | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc dc)        | WLAN      | 9.11  | ± 9.6 % |
| 10646 | AAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub=2,7)  | LTE-TDD   | 11.96 | ± 9.6 % |
| 10647 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub=2,7) | LTE-TDD   | 11.96 | ± 9.6 % |
| 10648 | AAA | CDMA2000 (1x Advanced)                            | CDMA2000  | 3.45  | ± 9.6 % |
| 10652 | AAE | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)    | LTE-TDD   | 6.91  | ± 9.6 % |
| 10653 | AAE | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD   | 7.42  | ± 9.6 % |
| 10654 | AAD | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD   | 6.96  | ± 9.6 % |
| 10655 | AAE | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD   | 7.21  | ± 9.6 % |
| 10658 | AAA | Pulse Waveform (200Hz, 10%)                       | Test      | 10.00 | ± 9.6 % |
| 10659 | AAA | Pulse Waveform (200Hz, 20%)                       | Test      | 6.99  | ± 9.6 % |
| 10660 | AAA | Pulse Waveform (200Hz, 40%)                       | Test      | 3.98  | ± 9.6 % |
| 10661 | AAA | Pulse Waveform (200Hz, 60%)                       | Test      | 2.22  | ± 9.6 % |
| 10662 | AAA | Pulse Waveform (200Hz, 80%)                       | Test      | 0.97  | ± 9.6 % |
| 10670 | AAA | Bluetooth Low Energy                              | Bluetooth | 2.19  | ± 9.6 % |
| 10671 | AAC | IEEE 802.11ax (20MHz, MCS0, 90pc dc)              | WLAN      | 9.09  | ± 9.6 % |
| 10672 | AAC | IEEE 802.11ax (20MHz, MCS1, 90pc dc)              | WLAN      | 8.57  | ± 9.6 % |

|       |     |                                       |      |      |         |
|-------|-----|---------------------------------------|------|------|---------|
| 10673 | AAC | IEEE 802.11ax (20MHz, MCS2, 90pc dc)  | WLAN | 8.78 | ± 9.6 % |
| 10674 | AAC | IEEE 802.11ax (20MHz, MCS3, 90pc dc)  | WLAN | 8.74 | ± 9.6 % |
| 10675 | AAC | IEEE 802.11ax (20MHz, MCS4, 90pc dc)  | WLAN | 8.90 | ± 9.6 % |
| 10676 | AAC | IEEE 802.11ax (20MHz, MCS5, 90pc dc)  | WLAN | 8.77 | ± 9.6 % |
| 10677 | AAC | IEEE 802.11ax (20MHz, MCS6, 90pc dc)  | WLAN | 8.73 | ± 9.6 % |
| 10678 | AAC | IEEE 802.11ax (20MHz, MCS7, 90pc dc)  | WLAN | 8.78 | ± 9.6 % |
| 10679 | AAC | IEEE 802.11ax (20MHz, MCS8, 90pc dc)  | WLAN | 8.89 | ± 9.6 % |
| 10680 | AAC | IEEE 802.11ax (20MHz, MCS9, 90pc dc)  | WLAN | 8.80 | ± 9.6 % |
| 10681 | AAC | IEEE 802.11ax (20MHz, MCS10, 90pc dc) | WLAN | 8.62 | ± 9.6 % |
| 10682 | AAC | IEEE 802.11ax (20MHz, MCS11, 90pc dc) | WLAN | 8.83 | ± 9.6 % |
| 10683 | AAC | IEEE 802.11ax (20MHz, MCS0, 99pc dc)  | WLAN | 8.42 | ± 9.6 % |
| 10684 | AAC | IEEE 802.11ax (20MHz, MCS1, 99pc dc)  | WLAN | 8.26 | ± 9.6 % |
| 10685 | AAC | IEEE 802.11ax (20MHz, MCS2, 99pc dc)  | WLAN | 8.33 | ± 9.6 % |
| 10686 | AAC | IEEE 802.11ax (20MHz, MCS3, 99pc dc)  | WLAN | 8.28 | ± 9.6 % |
| 10687 | AAC | IEEE 802.11ax (20MHz, MCS4, 99pc dc)  | WLAN | 8.45 | ± 9.6 % |
| 10688 | AAC | IEEE 802.11ax (20MHz, MCS5, 99pc dc)  | WLAN | 8.29 | ± 9.6 % |
| 10689 | AAC | IEEE 802.11ax (20MHz, MCS6, 99pc dc)  | WLAN | 8.55 | ± 9.6 % |
| 10690 | AAC | IEEE 802.11ax (20MHz, MCS7, 99pc dc)  | WLAN | 8.29 | ± 9.6 % |
| 10691 | AAC | IEEE 802.11ax (20MHz, MCS8, 99pc dc)  | WLAN | 8.25 | ± 9.6 % |
| 10692 | AAC | IEEE 802.11ax (20MHz, MCS9, 99pc dc)  | WLAN | 8.29 | ± 9.6 % |
| 10693 | AAC | IEEE 802.11ax (20MHz, MCS10, 99pc dc) | WLAN | 8.25 | ± 9.6 % |
| 10694 | AAC | IEEE 802.11ax (20MHz, MCS11, 99pc dc) | WLAN | 8.57 | ± 9.6 % |
| 10695 | AAC | IEEE 802.11ax (40MHz, MCS0, 90pc dc)  | WLAN | 8.78 | ± 9.6 % |
| 10696 | AAC | IEEE 802.11ax (40MHz, MCS1, 90pc dc)  | WLAN | 8.91 | ± 9.6 % |
| 10697 | AAC | IEEE 802.11ax (40MHz, MCS2, 90pc dc)  | WLAN | 8.61 | ± 9.6 % |
| 10698 | AAC | IEEE 802.11ax (40MHz, MCS3, 90pc dc)  | WLAN | 8.89 | ± 9.6 % |
| 10699 | AAC | IEEE 802.11ax (40MHz, MCS4, 90pc dc)  | WLAN | 8.82 | ± 9.6 % |
| 10700 | AAC | IEEE 802.11ax (40MHz, MCS5, 90pc dc)  | WLAN | 8.73 | ± 9.6 % |
| 10701 | AAC | IEEE 802.11ax (40MHz, MCS6, 90pc dc)  | WLAN | 8.86 | ± 9.6 % |
| 10702 | AAC | IEEE 802.11ax (40MHz, MCS7, 90pc dc)  | WLAN | 8.70 | ± 9.6 % |
| 10703 | AAC | IEEE 802.11ax (40MHz, MCS8, 90pc dc)  | WLAN | 8.82 | ± 9.6 % |
| 10704 | AAC | IEEE 802.11ax (40MHz, MCS9, 90pc dc)  | WLAN | 8.56 | ± 9.6 % |
| 10705 | AAC | IEEE 802.11ax (40MHz, MCS10, 90pc dc) | WLAN | 8.69 | ± 9.6 % |
| 10706 | AAC | IEEE 802.11ax (40MHz, MCS11, 90pc dc) | WLAN | 8.66 | ± 9.6 % |
| 10707 | AAC | IEEE 802.11ax (40MHz, MCS0, 99pc dc)  | WLAN | 8.32 | ± 9.6 % |
| 10708 | AAC | IEEE 802.11ax (40MHz, MCS1, 99pc dc)  | WLAN | 8.55 | ± 9.6 % |
| 10709 | AAC | IEEE 802.11ax (40MHz, MCS2, 99pc dc)  | WLAN | 8.33 | ± 9.6 % |
| 10710 | AAC | IEEE 802.11ax (40MHz, MCS3, 99pc dc)  | WLAN | 8.29 | ± 9.6 % |
| 10711 | AAC | IEEE 802.11ax (40MHz, MCS4, 99pc dc)  | WLAN | 8.39 | ± 9.6 % |
| 10712 | AAC | IEEE 802.11ax (40MHz, MCS5, 99pc dc)  | WLAN | 8.67 | ± 9.6 % |
| 10713 | AAC | IEEE 802.11ax (40MHz, MCS6, 99pc dc)  | WLAN | 8.33 | ± 9.6 % |
| 10714 | AAC | IEEE 802.11ax (40MHz, MCS7, 99pc dc)  | WLAN | 8.26 | ± 9.6 % |
| 10715 | AAC | IEEE 802.11ax (40MHz, MCS8, 99pc dc)  | WLAN | 8.45 | ± 9.6 % |
| 10716 | AAC | IEEE 802.11ax (40MHz, MCS9, 99pc dc)  | WLAN | 8.30 | ± 9.6 % |
| 10717 | AAC | IEEE 802.11ax (40MHz, MCS10, 99pc dc) | WLAN | 8.48 | ± 9.6 % |
| 10718 | AAC | IEEE 802.11ax (40MHz, MCS11, 99pc dc) | WLAN | 8.24 | ± 9.6 % |
| 10719 | AAC | IEEE 802.11ax (80MHz, MCS0, 90pc dc)  | WLAN | 8.81 | ± 9.6 % |
| 10720 | AAC | IEEE 802.11ax (80MHz, MCS1, 90pc dc)  | WLAN | 8.87 | ± 9.6 % |
| 10721 | AAC | IEEE 802.11ax (80MHz, MCS2, 90pc dc)  | WLAN | 8.76 | ± 9.6 % |
| 10722 | AAC | IEEE 802.11ax (80MHz, MCS3, 90pc dc)  | WLAN | 8.55 | ± 9.6 % |
| 10723 | AAC | IEEE 802.11ax (80MHz, MCS4, 90pc dc)  | WLAN | 8.70 | ± 9.6 % |
| 10724 | AAC | IEEE 802.11ax (80MHz, MCS5, 90pc dc)  | WLAN | 8.90 | ± 9.6 % |
| 10725 | AAC | IEEE 802.11ax (80MHz, MCS6, 90pc dc)  | WLAN | 8.74 | ± 9.6 % |
| 10726 | AAC | IEEE 802.11ax (80MHz, MCS7, 90pc dc)  | WLAN | 8.72 | ± 9.6 % |
| 10727 | AAC | IEEE 802.11ax (80MHz, MCS8, 90pc dc)  | WLAN | 8.66 | ± 9.6 % |
| 10728 | AAC | IEEE 802.11ax (80MHz, MCS9, 90pc dc)  | WLAN | 8.65 | ± 9.6 % |

|       |     |                                                |               |      |         |
|-------|-----|------------------------------------------------|---------------|------|---------|
| 10729 | AAC | IEEE 802.11ax (80MHz, MCS10, 90pc dc)          | WLAN          | 8.64 | ± 9.6 % |
| 10730 | AAC | IEEE 802.11ax (80MHz, MCS11, 90pc dc)          | WLAN          | 8.67 | ± 9.6 % |
| 10731 | AAC | IEEE 802.11ax (80MHz, MCS0, 99pc dc)           | WLAN          | 8.42 | ± 9.6 % |
| 10732 | AAC | IEEE 802.11ax (80MHz, MCS1, 99pc dc)           | WLAN          | 8.46 | ± 9.6 % |
| 10733 | AAC | IEEE 802.11ax (80MHz, MCS2, 99pc dc)           | WLAN          | 8.40 | ± 9.6 % |
| 10734 | AAC | IEEE 802.11ax (80MHz, MCS3, 99pc dc)           | WLAN          | 8.25 | ± 9.6 % |
| 10735 | AAC | IEEE 802.11ax (80MHz, MCS4, 99pc dc)           | WLAN          | 8.33 | ± 9.6 % |
| 10736 | AAC | IEEE 802.11ax (80MHz, MCS5, 99pc dc)           | WLAN          | 8.27 | ± 9.6 % |
| 10737 | AAC | IEEE 802.11ax (80MHz, MCS6, 99pc dc)           | WLAN          | 8.36 | ± 9.6 % |
| 10738 | AAC | IEEE 802.11ax (80MHz, MCS7, 99pc dc)           | WLAN          | 8.42 | ± 9.6 % |
| 10739 | AAC | IEEE 802.11ax (80MHz, MCS8, 99pc dc)           | WLAN          | 8.29 | ± 9.6 % |
| 10740 | AAC | IEEE 802.11ax (80MHz, MCS9, 99pc dc)           | WLAN          | 8.48 | ± 9.6 % |
| 10741 | AAC | IEEE 802.11ax (80MHz, MCS10, 99pc dc)          | WLAN          | 8.40 | ± 9.6 % |
| 10742 | AAC | IEEE 802.11ax (80MHz, MCS11, 99pc dc)          | WLAN          | 8.43 | ± 9.6 % |
| 10743 | AAC | IEEE 802.11ax (160MHz, MCS0, 90pc dc)          | WLAN          | 8.94 | ± 9.6 % |
| 10744 | AAC | IEEE 802.11ax (160MHz, MCS1, 90pc dc)          | WLAN          | 9.16 | ± 9.6 % |
| 10745 | AAC | IEEE 802.11ax (160MHz, MCS2, 90pc dc)          | WLAN          | 8.93 | ± 9.6 % |
| 10746 | AAC | IEEE 802.11ax (160MHz, MCS3, 90pc dc)          | WLAN          | 9.11 | ± 9.6 % |
| 10747 | AAC | IEEE 802.11ax (160MHz, MCS4, 90pc dc)          | WLAN          | 9.04 | ± 9.6 % |
| 10748 | AAC | IEEE 802.11ax (160MHz, MCS5, 90pc dc)          | WLAN          | 8.93 | ± 9.6 % |
| 10749 | AAC | IEEE 802.11ax (160MHz, MCS6, 90pc dc)          | WLAN          | 8.90 | ± 9.6 % |
| 10750 | AAC | IEEE 802.11ax (160MHz, MCS7, 90pc dc)          | WLAN          | 8.79 | ± 9.6 % |
| 10751 | AAC | IEEE 802.11ax (160MHz, MCS8, 90pc dc)          | WLAN          | 8.82 | ± 9.6 % |
| 10752 | AAC | IEEE 802.11ax (160MHz, MCS9, 90pc dc)          | WLAN          | 8.81 | ± 9.6 % |
| 10753 | AAC | IEEE 802.11ax (160MHz, MCS10, 90pc dc)         | WLAN          | 9.00 | ± 9.6 % |
| 10754 | AAC | IEEE 802.11ax (160MHz, MCS11, 90pc dc)         | WLAN          | 8.94 | ± 9.6 % |
| 10755 | AAC | IEEE 802.11ax (160MHz, MCS0, 99pc dc)          | WLAN          | 8.64 | ± 9.6 % |
| 10756 | AAC | IEEE 802.11ax (160MHz, MCS1, 99pc dc)          | WLAN          | 8.77 | ± 9.6 % |
| 10757 | AAC | IEEE 802.11ax (160MHz, MCS2, 99pc dc)          | WLAN          | 8.77 | ± 9.6 % |
| 10758 | AAC | IEEE 802.11ax (160MHz, MCS3, 99pc dc)          | WLAN          | 8.69 | ± 9.6 % |
| 10759 | AAC | IEEE 802.11ax (160MHz, MCS4, 99pc dc)          | WLAN          | 8.58 | ± 9.6 % |
| 10760 | AAC | IEEE 802.11ax (160MHz, MCS5, 99pc dc)          | WLAN          | 8.49 | ± 9.6 % |
| 10761 | AAC | IEEE 802.11ax (160MHz, MCS6, 99pc dc)          | WLAN          | 8.58 | ± 9.6 % |
| 10762 | AAC | IEEE 802.11ax (160MHz, MCS7, 99pc dc)          | WLAN          | 8.49 | ± 9.6 % |
| 10763 | AAC | IEEE 802.11ax (160MHz, MCS8, 99pc dc)          | WLAN          | 8.53 | ± 9.6 % |
| 10764 | AAC | IEEE 802.11ax (160MHz, MCS9, 99pc dc)          | WLAN          | 8.54 | ± 9.6 % |
| 10765 | AAC | IEEE 802.11ax (160MHz, MCS10, 99pc dc)         | WLAN          | 8.54 | ± 9.6 % |
| 10766 | AAC | IEEE 802.11ax (160MHz, MCS11, 99pc dc)         | WLAN          | 8.51 | ± 9.6 % |
| 10767 | AAE | 5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)     | 5G NR FR1 TDD | 7.99 | ± 9.6 % |
| 10768 | AAD | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.01 | ± 9.6 % |
| 10769 | AAD | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.01 | ± 9.6 % |
| 10770 | AAD | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.02 | ± 9.6 % |
| 10771 | AAD | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.02 | ± 9.6 % |
| 10772 | AAD | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.23 | ± 9.6 % |
| 10773 | AAD | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.03 | ± 9.6 % |
| 10774 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.02 | ± 9.6 % |
| 10775 | AAD | 5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.31 | ± 9.6 % |
| 10776 | AAD | 5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.30 | ± 9.6 % |
| 10777 | AAC | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.30 | ± 9.6 % |
| 10778 | AAD | 5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10779 | AAC | 5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.42 | ± 9.6 % |
| 10780 | AAD | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.38 | ± 9.6 % |
| 10781 | AAD | 5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.38 | ± 9.6 % |
| 10782 | AAD | 5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.43 | ± 9.6 % |
| 10783 | AAE | 5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.31 | ± 9.6 % |
| 10784 | AAD | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.29 | ± 9.6 % |

|       |     |                                                 |               |      |         |
|-------|-----|-------------------------------------------------|---------------|------|---------|
| 10785 | AAD | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.40 | ± 9.6 % |
| 10786 | AAD | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
| 10787 | AAD | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.44 | ± 9.6 % |
| 10788 | AAD | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.39 | ± 9.6 % |
| 10789 | AAD | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 10790 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.39 | ± 9.6 % |
| 10791 | AAE | 5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 7.83 | ± 9.6 % |
| 10792 | AAD | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.92 | ± 9.6 % |
| 10793 | AAD | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.95 | ± 9.6 % |
| 10794 | AAD | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.82 | ± 9.6 % |
| 10795 | AAD | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.84 | ± 9.6 % |
| 10796 | AAD | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.82 | ± 9.6 % |
| 10797 | AAD | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 8.01 | ± 9.6 % |
| 10798 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.89 | ± 9.6 % |
| 10799 | AAD | 5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.93 | ± 9.6 % |
| 10801 | AAD | 5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.89 | ± 9.6 % |
| 10802 | AAD | 5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.87 | ± 9.6 % |
| 10803 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 7.93 | ± 9.6 % |
| 10805 | AAD | 5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10806 | AAD | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 10809 | AAD | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10810 | AAD | 5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10812 | AAD | 5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
| 10817 | AAE | 5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
| 10818 | AAD | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10819 | AAD | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.33 | ± 9.6 % |
| 10820 | AAD | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.30 | ± 9.6 % |
| 10821 | AAD | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10822 | AAD | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10823 | AAD | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.36 | ± 9.6 % |
| 10824 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.39 | ± 9.6 % |
| 10825 | AAD | 5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10827 | AAD | 5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.42 | ± 9.6 % |
| 10828 | AAD | 5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.43 | ± 9.6 % |
| 10829 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.40 | ± 9.6 % |
| 10830 | AAD | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.63 | ± 9.6 % |
| 10831 | AAD | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.73 | ± 9.6 % |
| 10832 | AAD | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.74 | ± 9.6 % |
| 10833 | AAD | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.70 | ± 9.6 % |
| 10834 | AAD | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.75 | ± 9.6 % |
| 10835 | AAD | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.70 | ± 9.6 % |
| 10836 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.66 | ± 9.6 % |
| 10837 | AAD | 5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.68 | ± 9.6 % |
| 10839 | AAD | 5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.70 | ± 9.6 % |
| 10840 | AAD | 5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.67 | ± 9.6 % |
| 10841 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)    | 5G NR FR1 TDD | 7.71 | ± 9.6 % |
| 10843 | AAD | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)   | 5G NR FR1 TDD | 8.49 | ± 9.6 % |
| 10844 | AAD | 5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)   | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10846 | AAD | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)   | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10854 | AAD | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10855 | AAD | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.36 | ± 9.6 % |
| 10856 | AAD | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 10857 | AAD | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
| 10858 | AAD | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.36 | ± 9.6 % |
| 10859 | AAD | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10860 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.41 | ± 9.6 % |

|       |     |                                                      |               |      |         |
|-------|-----|------------------------------------------------------|---------------|------|---------|
| 10861 | AAD | 5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.40 | ± 9.6 % |
| 10863 | AAD | 5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10864 | AAD | 5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 10865 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)      | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10866 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10868 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.89 | ± 9.6 % |
| 10869 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)     | 5G NR FR2 TDD | 5.75 | ± 9.6 % |
| 10870 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)  | 5G NR FR2 TDD | 5.86 | ± 9.6 % |
| 10871 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)    | 5G NR FR2 TDD | 5.75 | ± 9.6 % |
| 10872 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz) | 5G NR FR2 TDD | 6.52 | ± 9.6 % |
| 10873 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)    | 5G NR FR2 TDD | 6.61 | ± 9.6 % |
| 10874 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD | 6.65 | ± 9.6 % |
| 10875 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)        | 5G NR FR2 TDD | 7.78 | ± 9.6 % |
| 10876 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)     | 5G NR FR2 TDD | 8.39 | ± 9.6 % |
| 10877 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)       | 5G NR FR2 TDD | 7.95 | ± 9.6 % |
| 10878 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)    | 5G NR FR2 TDD | 8.41 | ± 9.6 % |
| 10879 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)       | 5G NR FR2 TDD | 8.12 | ± 9.6 % |
| 10880 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)    | 5G NR FR2 TDD | 8.38 | ± 9.6 % |
| 10881 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)      | 5G NR FR2 TDD | 5.75 | ± 9.6 % |
| 10882 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)   | 5G NR FR2 TDD | 5.96 | ± 9.6 % |
| 10883 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)     | 5G NR FR2 TDD | 6.57 | ± 9.6 % |
| 10884 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)  | 5G NR FR2 TDD | 6.53 | ± 9.6 % |
| 10885 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)     | 5G NR FR2 TDD | 6.61 | ± 9.6 % |
| 10886 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)  | 5G NR FR2 TDD | 6.65 | ± 9.6 % |
| 10887 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)         | 5G NR FR2 TDD | 7.78 | ± 9.6 % |
| 10888 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)      | 5G NR FR2 TDD | 8.35 | ± 9.6 % |
| 10889 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)        | 5G NR FR2 TDD | 8.02 | ± 9.6 % |
| 10890 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)     | 5G NR FR2 TDD | 8.40 | ± 9.6 % |
| 10891 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)        | 5G NR FR2 TDD | 8.13 | ± 9.6 % |
| 10892 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)     | 5G NR FR2 TDD | 8.41 | ± 9.6 % |
| 10897 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)        | 5G NR FR1 TDD | 5.66 | ± 9.6 % |
| 10898 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.67 | ± 9.6 % |
| 10899 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.67 | ± 9.6 % |
| 10900 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10901 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10902 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10903 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10904 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10905 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10906 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10907 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.78 | ± 9.6 % |
| 10908 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.93 | ± 9.6 % |
| 10909 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.96 | ± 9.6 % |
| 10910 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.83 | ± 9.6 % |
| 10911 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.93 | ± 9.6 % |
| 10912 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.84 | ± 9.6 % |
| 10913 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.84 | ± 9.6 % |
| 10914 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.85 | ± 9.6 % |
| 10915 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.83 | ± 9.6 % |
| 10916 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.87 | ± 9.6 % |
| 10917 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.94 | ± 9.6 % |
| 10918 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.86 | ± 9.6 % |
| 10919 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.86 | ± 9.6 % |
| 10920 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.87 | ± 9.6 % |
| 10921 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.84 | ± 9.6 % |
| 10922 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.82 | ± 9.6 % |

|       |     |                                                     |               |       |         |
|-------|-----|-----------------------------------------------------|---------------|-------|---------|
| 10923 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.84  | ± 9.6 % |
| 10924 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.84  | ± 9.6 % |
| 10925 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.95  | ± 9.6 % |
| 10926 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.84  | ± 9.6 % |
| 10927 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.94  | ± 9.6 % |
| 10928 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)       | 5G NR FR1 FDD | 5.52  | ± 9.6 % |
| 10929 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.52  | ± 9.6 % |
| 10930 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.52  | ± 9.6 % |
| 10931 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51  | ± 9.6 % |
| 10932 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51  | ± 9.6 % |
| 10933 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51  | ± 9.6 % |
| 10934 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51  | ± 9.6 % |
| 10935 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51  | ± 9.6 % |
| 10936 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)     | 5G NR FR1 FDD | 5.90  | ± 9.6 % |
| 10937 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.77  | ± 9.6 % |
| 10938 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.90  | ± 9.6 % |
| 10939 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.82  | ± 9.6 % |
| 10940 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.89  | ± 9.6 % |
| 10941 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.83  | ± 9.6 % |
| 10942 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.85  | ± 9.6 % |
| 10943 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.95  | ± 9.6 % |
| 10944 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.81  | ± 9.6 % |
| 10945 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.85  | ± 9.6 % |
| 10946 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.83  | ± 9.6 % |
| 10947 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.87  | ± 9.6 % |
| 10948 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.94  | ± 9.6 % |
| 10949 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.87  | ± 9.6 % |
| 10950 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.94  | ± 9.6 % |
| 10951 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.92  | ± 9.6 % |
| 10952 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)   | 5G NR FR1 FDD | 8.25  | ± 9.6 % |
| 10953 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 FDD | 8.15  | ± 9.6 % |
| 10954 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 FDD | 8.23  | ± 9.6 % |
| 10955 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 FDD | 8.42  | ± 9.6 % |
| 10956 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)   | 5G NR FR1 FDD | 8.14  | ± 9.6 % |
| 10957 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 FDD | 8.31  | ± 9.6 % |
| 10958 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 FDD | 8.61  | ± 9.6 % |
| 10959 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 FDD | 8.33  | ± 9.6 % |
| 10960 | AAC | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)   | 5G NR FR1 TDD | 9.32  | ± 9.6 % |
| 10961 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 TDD | 9.36  | ± 9.6 % |
| 10962 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 TDD | 9.40  | ± 9.6 % |
| 10963 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 TDD | 9.55  | ± 9.6 % |
| 10964 | AAC | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)   | 5G NR FR1 TDD | 9.29  | ± 9.6 % |
| 10965 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 TDD | 9.37  | ± 9.6 % |
| 10966 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 TDD | 9.55  | ± 9.6 % |
| 10967 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 TDD | 9.42  | ± 9.6 % |
| 10968 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.49  | ± 9.6 % |
| 10972 | AAB | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)         | 5G NR FR1 TDD | 11.59 | ± 9.6 % |
| 10973 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 9.06  | ± 9.6 % |
| 10974 | AAB | 5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)  | 5G NR FR1 TDD | 10.28 | ± 9.6 % |
| 10978 | AAA | ULLA BDR                                            | ULLA          | 2.23  | ± 9.6 % |
| 10979 | AAA | ULLA HDR4                                           | ULLA          | 7.02  | ± 9.6 % |
| 10980 | AAA | ULLA HDR8                                           | ULLA          | 8.82  | ± 9.6 % |
| 10981 | AAA | ULLA HDRp4                                          | ULLA          | 1.50  | ± 9.6 % |
| 10982 | AAA | ULLA HDRp8                                          | ULLA          | 1.44  | ± 9.6 % |
| 10983 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 TDD | 9.31  | ± 9.6 % |
| 10984 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 TDD | 9.42  | ± 9.6 % |

|       |     |                                                    |               |      |         |
|-------|-----|----------------------------------------------------|---------------|------|---------|
| 10985 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.54 | ± 9.6 % |
| 10986 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.50 | ± 9.6 % |
| 10987 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.53 | ± 9.6 % |
| 10988 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 70 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.38 | ± 9.6 % |
| 10989 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 80 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.33 | ± 9.6 % |
| 10990 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 90 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.52 | ± 9.6 % |

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.