

Plots of System Verification

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: 2022/02/22

S01 System Check_H2450_220222

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

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

Medium: H19T27N2_0222 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.795$ S/m; $\epsilon_r = 37.914$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(7.9, 7.9, 7.9) @ 2450 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

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

Maximum value of SAR (interpolated) = 4.29 W/kg

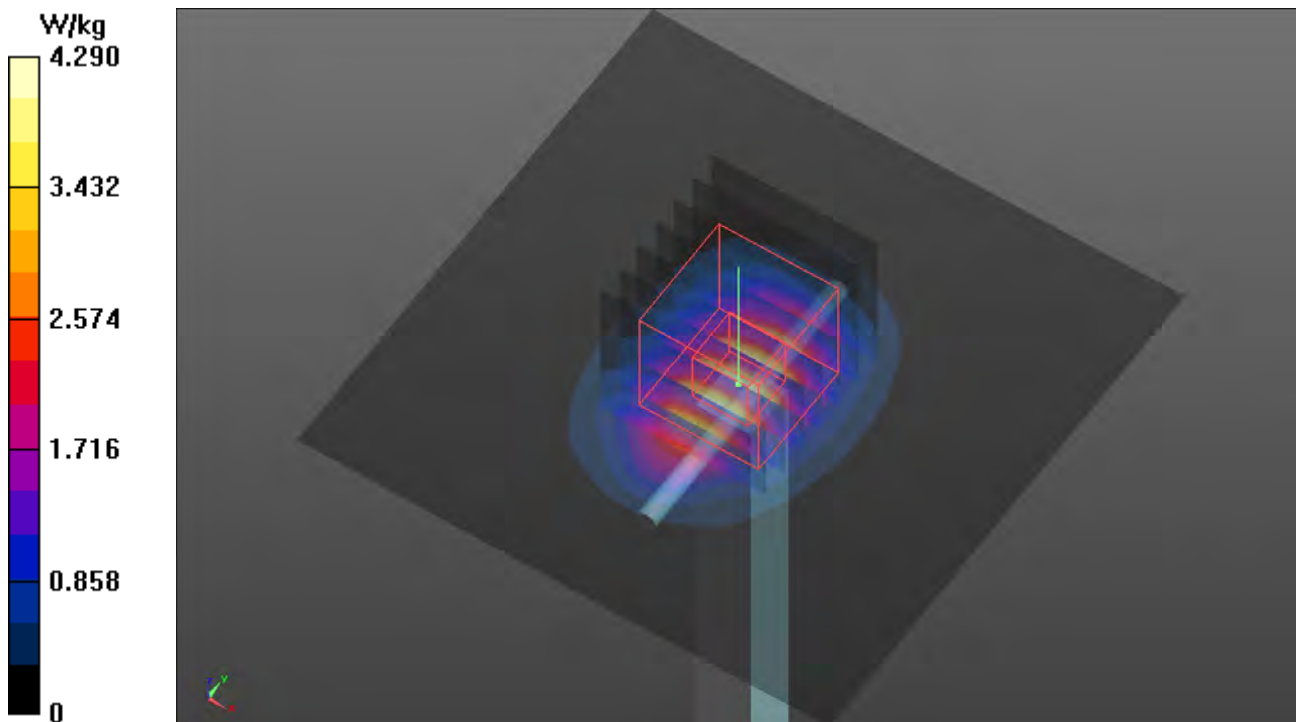
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 49.74 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 5.37 W/kg

SAR(1 g) = 2.54 W/kg; SAR(10 g) = 1.18 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 4.31 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/02/22

S02 System Check_H5250_220222

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

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

Medium: H34T60N1_0222 Medium parameters used: $f = 5250$ MHz; $\sigma = 4.795$ S/m; $\epsilon_r = 35.269$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(5.45, 5.45, 5.45) @ 5250 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

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

Maximum value of SAR (interpolated) = 8.91 W/kg

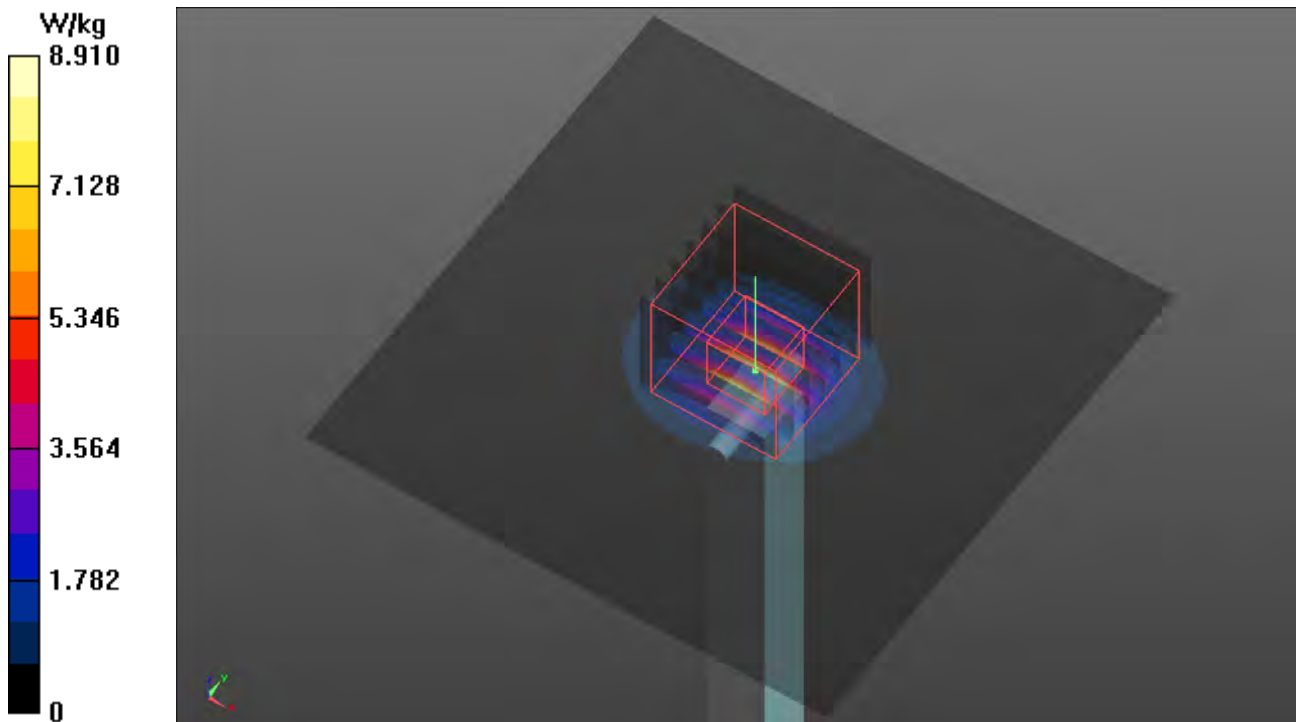
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 48.41 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 15.3 W/kg

SAR(1 g) = 3.9 W/kg; SAR(10 g) = 1.12 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 9.74 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/02/22

S03 System Check_H5600_220222

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

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

Medium: H34T60N1_0222 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.178$ S/m; $\epsilon_r = 34.66$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(4.8, 4.8, 4.8) @ 5600 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

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

Maximum value of SAR (interpolated) = 10.2 W/kg

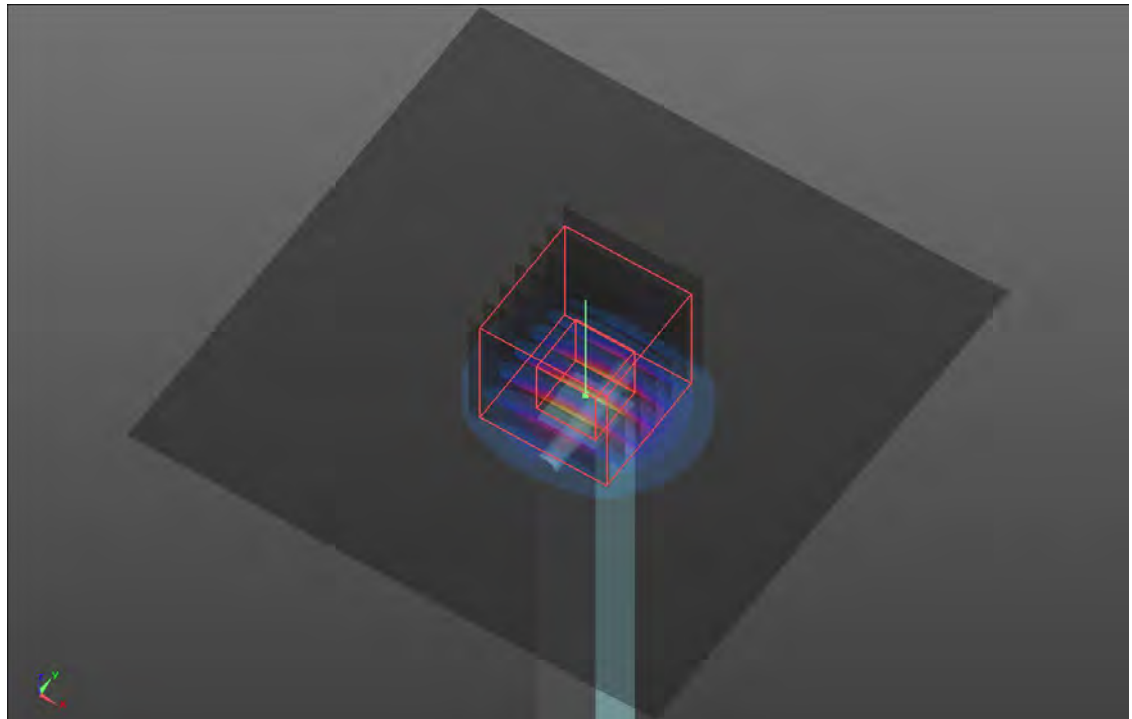
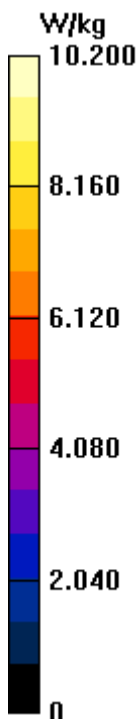
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 39.52 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 17.9 W/kg

SAR(1 g) = 3.94 W/kg; SAR(10 g) = 1.11 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 10.5 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/02/22

S04 System Check_H5750_220222

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

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

Medium: H34T60N1_0222 Medium parameters used: $f = 5750$ MHz; $\sigma = 5.34$ S/m; $\epsilon_r = 34.366$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(5, 5, 5) @ 5750 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1205; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

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

Maximum value of SAR (interpolated) = 9.07 W/kg

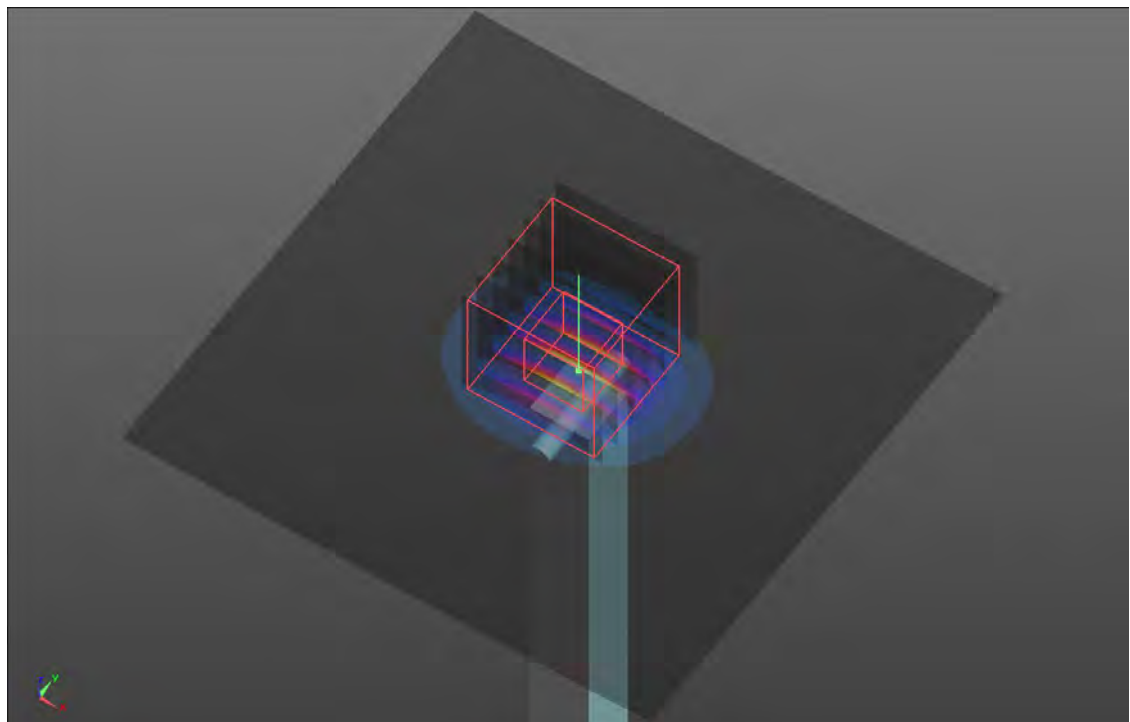
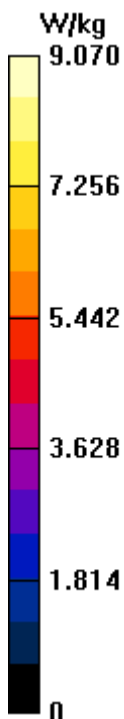
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 46.36 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 16.7 W/kg

SAR(1 g) = 3.75 W/kg; SAR(10 g) = 1.07 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 9.85 W/kg



Plots of System Verification

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/02/22

S05 System Check_H2450_220222

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

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

Medium: H19T27N2_0222 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.795$ S/m; $\epsilon_r = 37.914$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(7.9, 7.9, 7.9) @ 2450 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

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

Maximum value of SAR (interpolated) = 4.29 W/kg

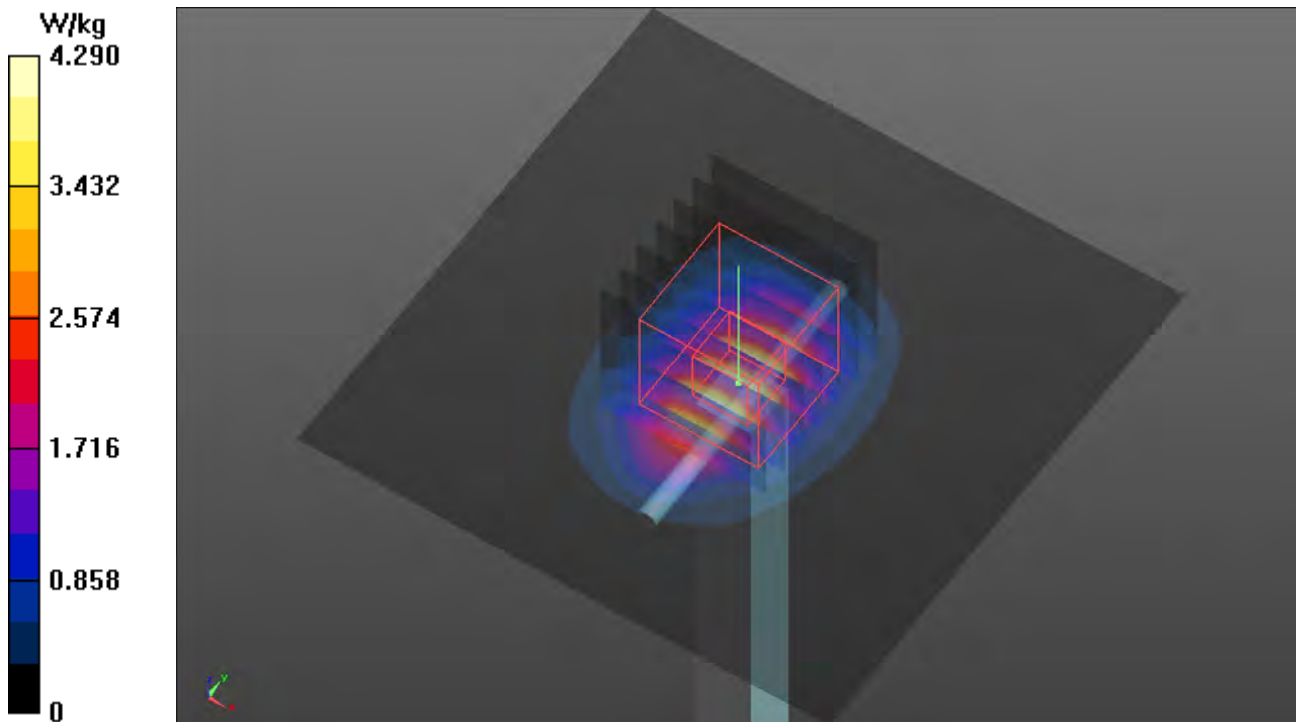
Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 49.74 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 5.37 W/kg

SAR(1 g) = 2.54 W/kg; SAR(10 g) = 1.18 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 4.31 W/kg



Plots of System Verification

S06 System Check_H6500_220223

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Dipole	50.0 x 10.0 x 8.0		6500

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL				6500.0,	5.6	6.17	33.8

Hardware Setup

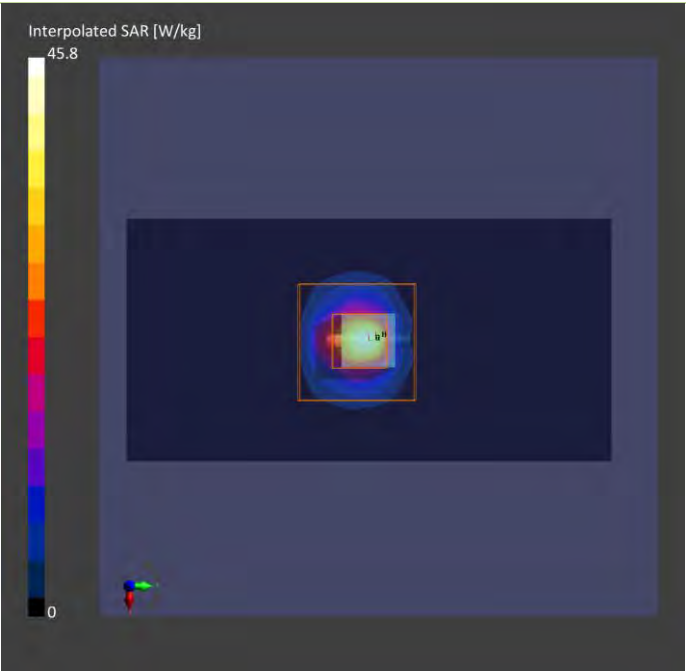
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2105	HBBL-600-10000, 2022-Feb-23	EX3DV4 - SN7554, 2021-08-26	DAE4 Sn1589, 2021-08-20

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	45.0 x 90.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	7.5 x 7.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-02-23	2022-02-23
psSAR1g [W/Kg]	25.0	28.6
psSAR10g [W/Kg]	4.93	5.29
Power Drift [dB]	-0.11	-0.01



Plots of System Verification

Test Lab: Bureau Veritas ADT SAR/HAC/PD Testing Lab

Power Density Plot No.:

S06 PD_System Check_10 GHz_2022.02.24

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	IMEI	DUT Type
SPEAG, 5G Verification Source	100.0 x 100.0 x 170.0	SN: 1016	Phone
10 GHz			

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5GAir	FRONT 5.55	Validation band	CW 0	10000.0 10000	1.0

Hardware Setup

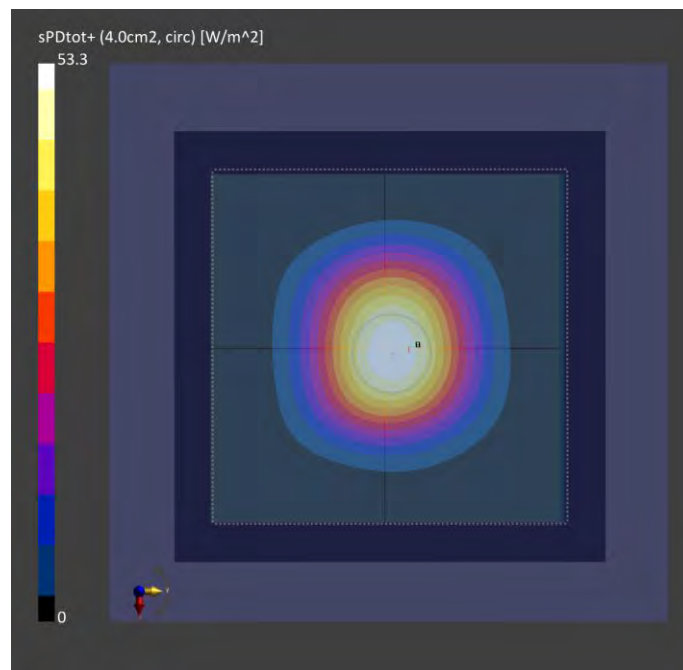
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air---	EUmmWV4 - SN9438_F1-55GHz, 2021-07-26	DAE4 Sn861, 2021-04-14

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	5.55

Measurement Results

	5G Scan
Date	2022-02-24
Avg. Area [cm ²]	4.00
pStotavg[W/m ²]	53.3
pSnavg [W/m ²]	53.2
E _{peak} [V/m]	148
Power Drift [dB]	0.03



Plots of Measurement

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: 2022/02/22

P01 WLAN2.4G_802.11b_Lid Closed Mode_0mm_Ch6_Ant 0+1

DUT: BFLF-WTW-P21120166

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

Medium: H19T27N2_0222 Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.786$ S/m; $\epsilon_r = 37.939$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(7.9, 7.9, 7.9) @ 2437 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (91x341x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.161 W/kg

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

Reference Value = 11.47 V/m; Power Drift = 0.13 dB

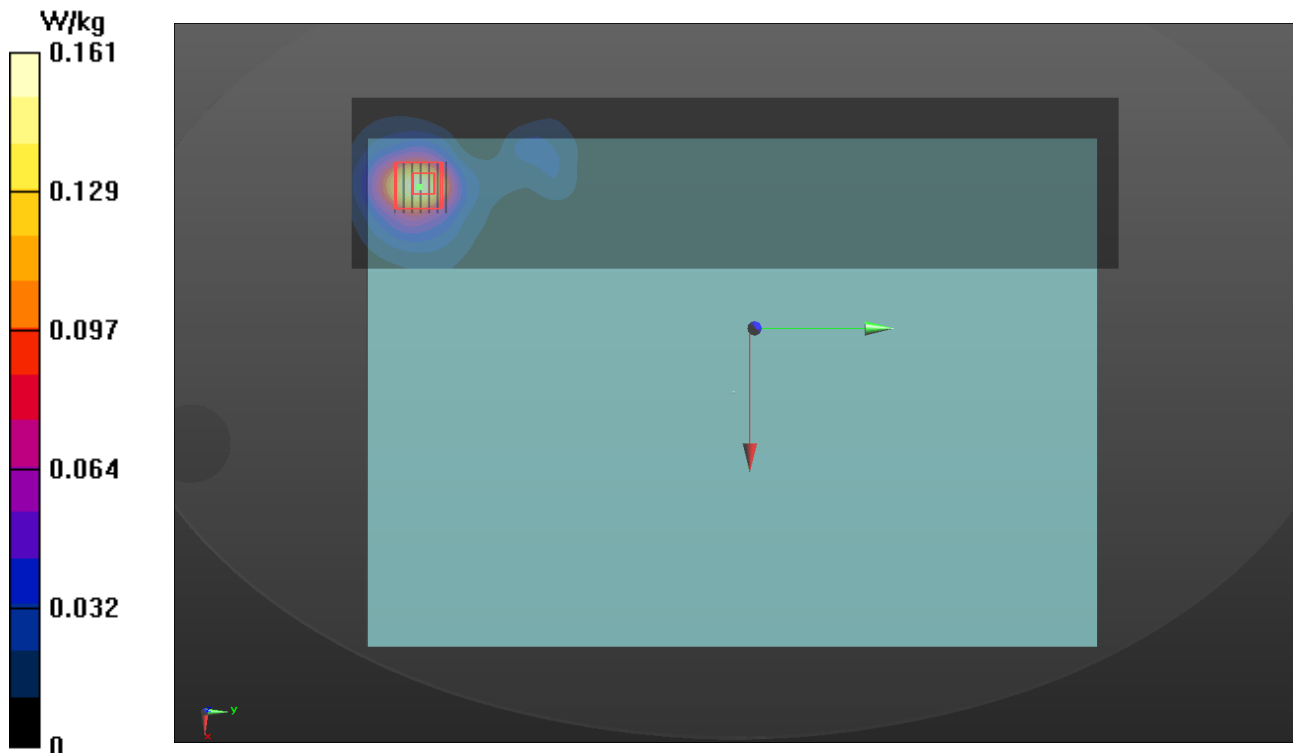
Peak SAR (extrapolated) = 0.289 W/kg

SAR(1 g) = 0.115 W/kg; SAR(10 g) = 0.045 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 11.8 mm

Ratio of SAR at M2 to SAR at M1 = 63.8%

Maximum value of SAR (measured) = 0.174 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/02/22

P02 WLAN5.3G_802.11n HT40_Lid Closed Mode_0mm_Ch54_Ant 0+1

DUT: BFLF-WTW-P21120166

Communication System: UID 10599 - AAC, IEEE 802.11n (HT Mixed, 40MHz, MCS0); Frequency: 5270 MHz; Duty Cycle: 1:1

Medium: H34T60N1_0222 Medium parameters used: $f = 5270$ MHz; $\sigma = 4.82$ S/m; $\epsilon_r = 35.236$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(5.45, 5.45, 5.45) @ 5270 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (101x401x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.433 W/kg

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

Reference Value = 10.13 V/m; Power Drift = -0.10 dB

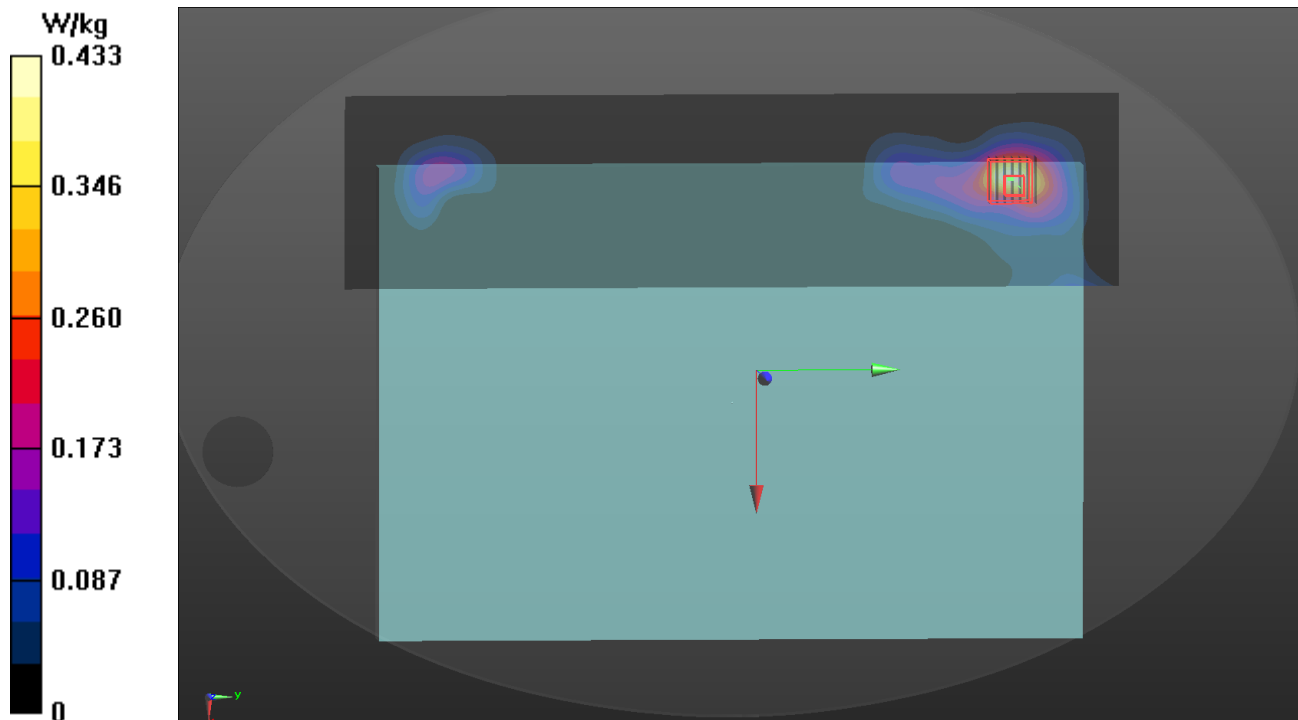
Peak SAR (extrapolated) = 0.846 W/kg

SAR(1 g) = 0.252 W/kg; SAR(10 g) = 0.101 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 9.3 mm

Ratio of SAR at M2 to SAR at M1 = 66.6%

Maximum value of SAR (measured) = 0.549 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/02/22

P03 WLAN5.6G_802.11n HT40_Lid Closed Mode_0mm_Ch142_Ant 0+1

DUT: BFLF-WTW-P21120166

Communication System: UID 10599 - AAC, IEEE 802.11n (HT Mixed, 40MHz, MCS0); Frequency: 5710 MHz; Duty Cycle: 1:1

Medium: H34T60N1_0222 Medium parameters used: $f = 5710$ MHz; $\sigma = 5.3$ S/m; $\epsilon_r = 34.468$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(5, 5, 5) @ 5710 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (101x401x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.892 W/kg

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

Reference Value = 14.32 V/m; Power Drift = -0.06 dB

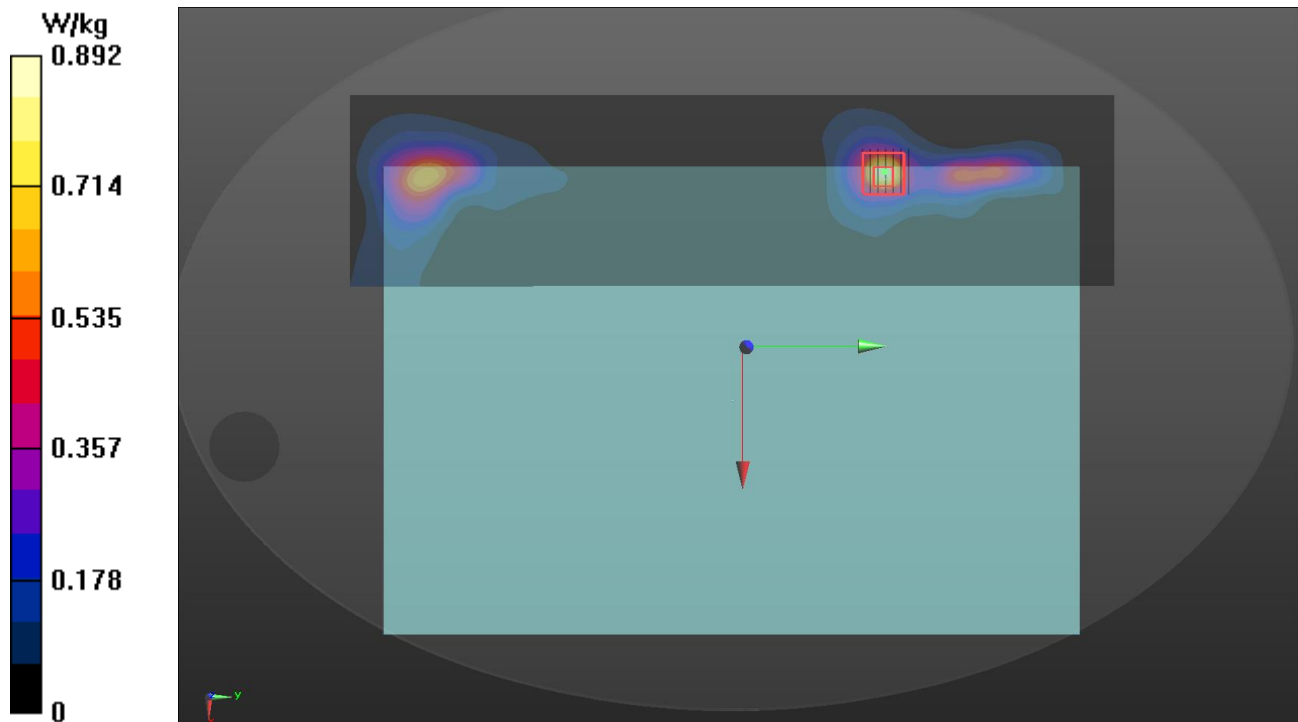
Peak SAR (extrapolated) = 1.57 W/kg

SAR(1 g) = 0.409 W/kg; SAR(10 g) = 0.140 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 7.9 mm

Ratio of SAR at M2 to SAR at M1 = 63.2%

Maximum value of SAR (measured) = 0.956 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/02/22

P04 WLAN5.8G_802.11a_Lid Closed Mode_0mm_Ch165_Ant 0+1

DUT: BFLF-WTW-P21120166

Communication System: UID 10062 - CAD, IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps); Frequency: 5825 MHz; Duty Cycle: 1:1

Medium: H34T60N1_0222 Medium parameters used: $f = 5825$ MHz; $\sigma = 5.332$ S/m; $\epsilon_r = 34.377$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(5, 5, 5) @ 5825 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (101x401x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.742 W/kg

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

Reference Value = 12.93 V/m; Power Drift = 0.08 dB

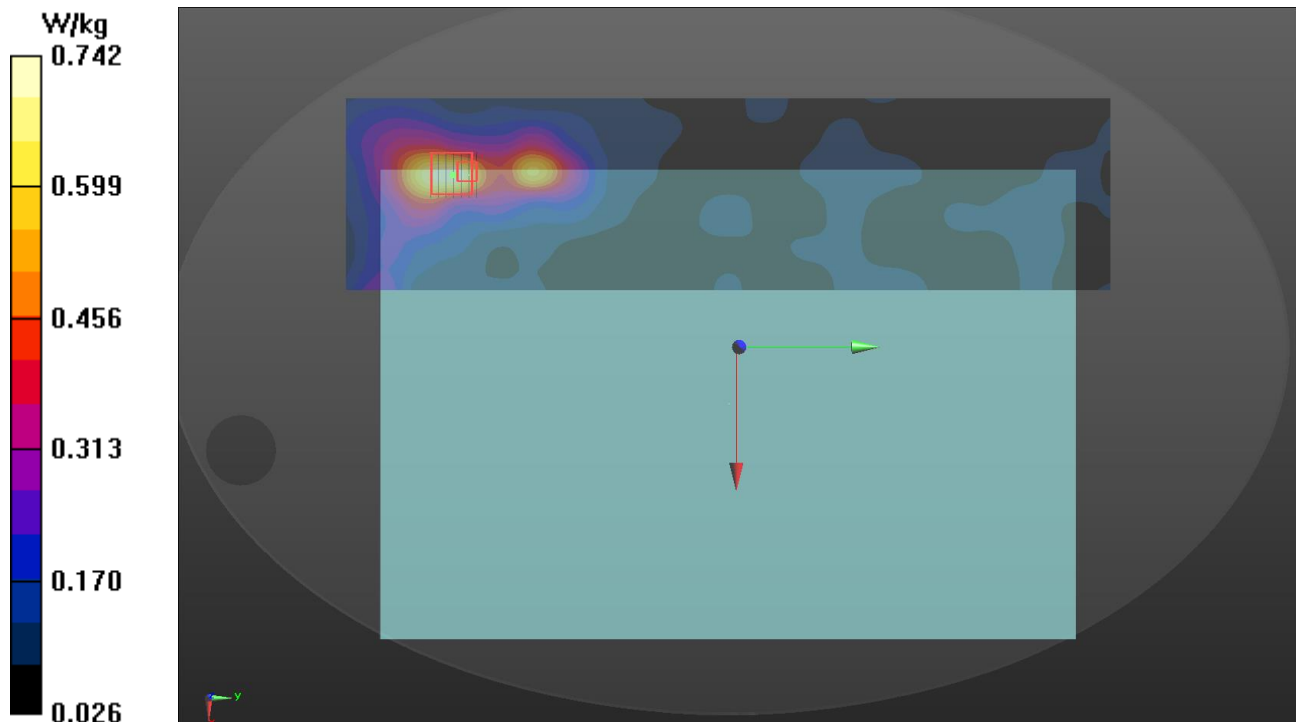
Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 0.649 W/kg; SAR(10 g) = 0.288 W/kg (SAR corrected for target medium)

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

Ratio of SAR at M2 to SAR at M1 = 71.7%

Maximum value of SAR (measured) = 0.833 W/kg



Plots of Measurement

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab

Date: 2022/02/22

P05 BT_BDR_Lid Closed Mode_0mm_Ch0_Ant 1

DUT: BFLF-WTW-P21120166

Communication System: UID 10032 - CAA, IEEE 802.15.1 Bluetooth (GFSK, DH5); Frequency: 2402 MHz; Duty Cycle: 1:1.31

Medium: H19T27N2_0222 Medium parameters used: $f = 2402$ MHz; $\sigma = 1.76$ S/m; $\epsilon_r = 38.01$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7555; ConvF(7.9, 7.9, 7.9) @ 2402 MHz; Calibrated: 2021/09/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2021/08/20
- Phantom: ELI Phantom_1205; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (91x341x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 0.0195 W/kg

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

Reference Value = 2.287 V/m; Power Drift = 0.02 dB

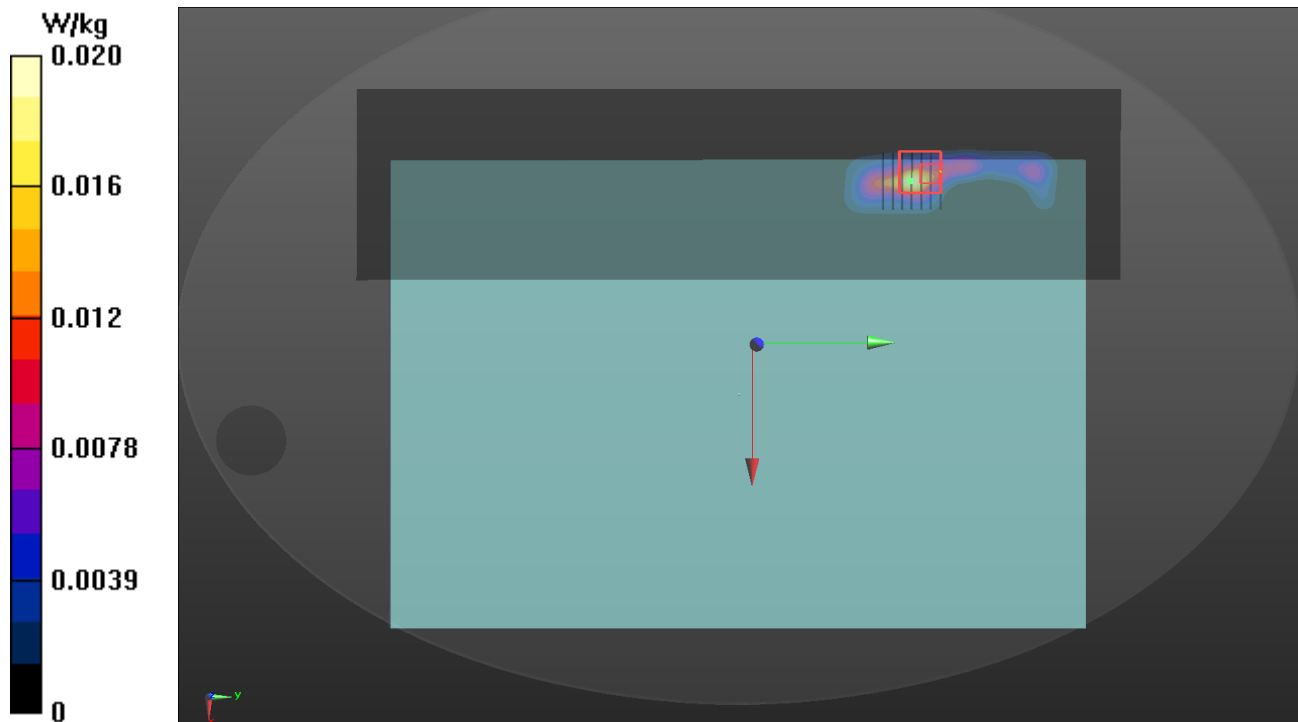
Peak SAR (extrapolated) = 0.0120 W/kg

SAR(1 g) = 0.00574 W/kg; SAR(10 g) = 0.00231 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 15 mm)

Ratio of SAR at M2 to SAR at M1 = 50.9%

Maximum value of SAR (measured) = 0.00991 W/kg



Plots of Measurement

Measurement Report

P06 UNII-8_802.11ax HE160_Lid Closed Mode_0mm_Ch207_Ant 0

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
BFLF-WTW-P21120166,	364.0 x 246.0 x 23.0		Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Lid Closed Mode, 0.00	U-NII-8	WLAN, 10755-AAC	6985.0, 207	5.6	6.54	32.9

Hardware Setup

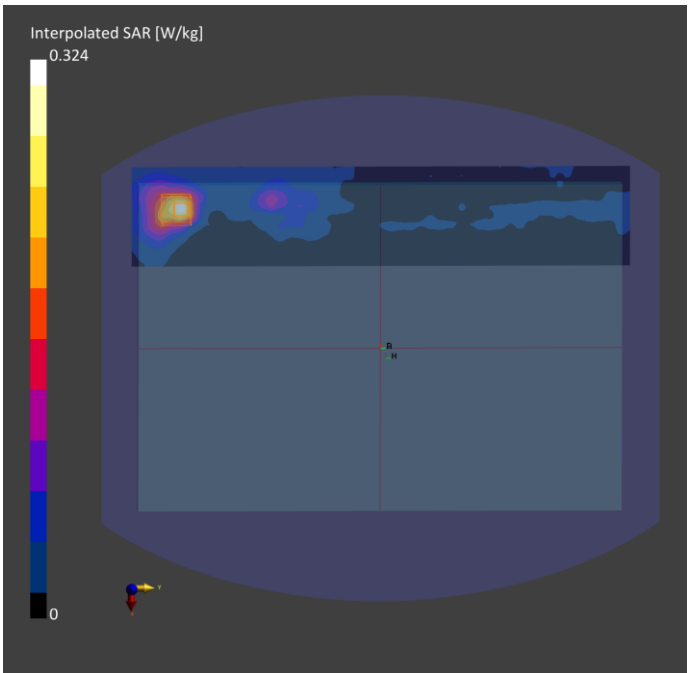
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2105	HBBL-600-10000, 2022-Feb-23	EX3DV4 - SN7554, 2021-08-26	DAE4 Sn1589, 2021-08-20

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	75.0 x 375.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	7.5 x 7.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-02-23	2022-02-23
psSAR1g [W/kg]	0.258	0.224
psSAR10g [W/kg]	0.096	0.078
Power Drift [dB]	0.05	-0.05



Plots of Measurement

Measurement Report

P06 UNII-8_802.11ax HE160_Lid Close Mode_0mm_C207_Ant 0

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
, BFLF-WTW-P22010013	340.0 x 240.0 x 10.0		Laptop

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Lid Close Mode, 2.00	U-NII-8	WLAN, 10755-AAC	6985.0, 207	1.0

Hardware Setup

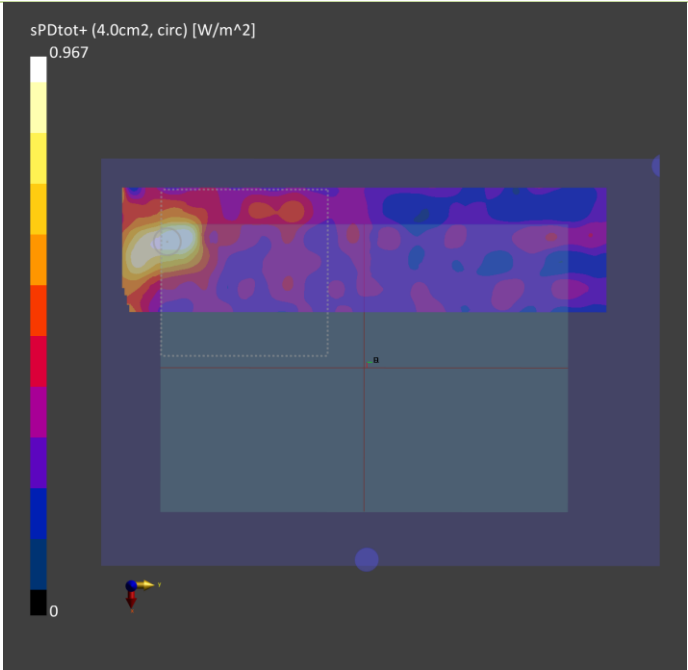
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 1035	Air---	EUmmWV4 - SN9438_F1-55GHz, 2021-07-26	DAE4 Sn861, 2021-04-14

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	2.0

Measurement Results

	5G Scan
Date	2022-02-24
Avg. Area [cm ²]	4.00
psPDn+ [W/m ²]	0.824
psPDtot+ [W/m ²]	0.967
psPDmod+ [W/m ²]	1.02
E _{max} [V/m]	27.6
Power Drift [dB]	0.02



Annex C. Tissue & System Verification

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

Note:

1. For Section 4.3, the dielectric properties of the tissue simulating liquid have been measured within 24 hours before the SAR testing and within ± 10 % of the target values. Liquid temperature during the SAR testing has kept within ± 2 °C.
2. For Section 4.4, The SAR measurement system was validated according to procedures in KDB 865664 D01. The validation status in tabulated summary is as below.
3. For Section 4.5, Comparing to the reference SAR value provided by SPEAG in dipole calibration certificate, the deviation of system check results is within its specification of 10 %. The result indicates the system check can meet the variation criterion and the plots please refer to Annex A of this report.

Tissue Verification									Validation for CW			Validation for Modulation				System Validation					Note			
Plot No.	Frequency (MHz)	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ε _r)	Targeted Conductivity (σ)	Targeted Permittivity (ε _r)	Deviation Conductivity (σ)	Deviation Permittivity (ε _r)	Sensitivity Range	Probe Linearity	Probe Isotropy	Modulation Type	Duty Factor	PAR	Date	Frequency (MHz)	Targeted 1g SAR (W/kg)	Measured 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N	Output Power (dB)
S01	2450	23.3	1.795	37.914	1.8	39.2	-0.28	-3.28	Pass	Pass	Pass	OFDM	N/A	Pass	Feb. 22, 2022	2450	52.60	2.54	50.68	-3.65	737	7555	1341	17
S02	5250	23.3	4.795	35.269	4.71	35.9	1.80	-1.76	Pass	Pass	Pass	OFDM	N/A	Pass	Feb. 22, 2022	5250	80.60	3.9	77.82	-3.46	1019	7555	1341	17
S03	5600	23.3	5.178	34.66	5.07	35.5	2.13	-2.37	Pass	Pass	Pass	OFDM	N/A	Pass	Feb. 22, 2022	5600	82.40	3.94	78.61	-4.60	1019	7555	1341	17
S04	5750	23.3	5.34	34.366	5.22	35.4	2.30	-2.92	Pass	Pass	Pass	OFDM	N/A	Pass	Feb. 22, 2022	5750	79.40	3.75	74.82	-5.77	1019	7555	1341	17
S05	2450	23.3	1.795	37.914	1.8	39.2	-0.28	-3.28	Pass	Pass	Pass	OFDM	N/A	Pass	Feb. 22, 2022	2450	52.60	2.54	50.68	-3.65	737	7555	1341	17
S06	6500	23.3	6.17	33.8	6.07	34.5	1.65	-2.03	Pass	Pass	Pass	OFDM	N/A	Pass	Feb. 23, 2022	6500	289.00	28.6	286.00	-1.04	1008	7554	1589	20

Plot No.	Test Date	Frequency [GHz]	mmWave Probe S/N	Verification Source S/N	Averaging Area [cm ²]	Distance [mm]	Target Power Density [W/m ²]	Measured Power Density [W/m ²]	Deviation [%]
S06	Feb. 24, 2022	10	9438	1025	4	10.0	51.3	53.3	3.90%

Annex D. Maximum Target Conducted Power

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

WLAN Tune-up Power (Laptop)							
WLAN 2.4GHz							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11b	1	2412	18.0	18.0	18.0	18.0	21.0
	6	2437	18.0	18.0	18.0	18.0	21.0
	11	2462	17.5	17.5	17.5	17.5	20.5
	12	2467	17.5	17.5	17.5	17.5	20.5
	13	2472	16.5	16.5	16.5	16.5	19.5
802.11g	1	2412	18.0	18.0	18.0	18.0	21.0
	6	2437	20.5	20.5	20.5	20.5	23.5
	11	2462	18.0	18.0	18.0	18.0	21.0
	12	2467	14.5	14.5	14.5	14.5	17.5
	13	2472	11.5	11.5	11.5	11.5	14.5
802.11ac VHT20	1	2412	17.5	17.5	17.5	17.5	20.5
	6	2437	20.0	20.0	20.0	20.0	23.0
	11	2462	17.0	17.0	17.0	17.0	20.0
	12	2467	14.0	14.0	14.0	14.0	17.0
	13	2472	9.5	9.5	9.5	9.5	12.5
802.11ac VHT40	3	2422	15.0	15.0	15.0	15.0	18.0
	6	2437	18.0	18.0	18.0	18.0	21.0
	9	2452	15.0	15.0	15.0	15.0	18.0
	10	2457	12.0	12.0	12.0	12.0	15.0
	11	2462	10.0	10.0	10.0	10.0	13.0
802.11ax HE20	1	2412	17.5	17.5	17.5	17.5	20.5
	6	2437	20.0	20.0	20.0	20.0	23.0
	11	2462	17.5	17.5	17.5	17.5	20.5
	12	2467	14.0	14.0	14.0	14.0	17.0
	13	2472	10.0	10.0	10.0	10.0	13.0
802.11ax HE40	3	2422	15.0	15.0	15.0	15.0	18.0
	6	2437	18.0	18.0	18.0	18.0	21.0
	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	10.0	10.0	10.0	10.0	13.0

WLAN Tune-up Power (Laptop)					
Bluetooth					
Mode	Channel	Frequency		Ant 1 Max Tune-up	
BR / EDR	0	2402		11.5	
	39	2441		11.5	
	78	2480		11.5	
LE	0	2402		11.5	
	19	2440		11.5	
	39	2480		11.5	

WLAN Tune-up Power (Laptop)							
WLAN 5.2GHz							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11a	36	5180	19.0	19.0	16.0	16.0	19.0
	40	5200	19.0	19.0	16.0	16.0	19.0
	44	5220	19.0	19.0	16.0	16.0	19.0
	48	5240	19.0	19.0	16.0	16.0	19.0
802.11n HT20	36	5180	18.5	18.5	15.5	15.5	18.5
	40	5200	19.5	19.5	16.5	16.5	19.5
	44	5220	19.5	19.5	16.5	16.5	19.5
	48	5240	19.5	19.5	16.5	16.5	19.5
802.11n HT40	38	5190	17.0	17.0	14.0	14.0	17.0
	46	5230	19.5	19.5	16.5	16.5	19.5
802.11ac VHT20	36	5180	18.5	18.5	15.5	15.5	18.5
	40	5200	19.5	19.5	16.5	16.5	19.5
	44	5220	19.5	19.5	16.5	16.5	19.5
	48	5240	19.5	19.5	16.5	16.5	19.5
802.11ac VHT40	38	5190	17.0	17.0	14.0	14.0	17.0
	46	5230	19.5	19.5	16.5	16.5	19.5
802.11ac VHT80	42	5210	14.0	14.0	11.0	11.0	14.0
802.11ax HE20	36	5180	18.5	18.5	15.5	15.5	18.5
	40	5200	19.5	19.5	16.5	16.5	19.5
	44	5220	19.5	19.5	16.5	16.5	19.5
	48	5240	19.5	19.5	16.5	16.5	19.5
802.11ax HE40	38	5190	17.0	17.0	14.0	14.0	17.0
	46	5230	19.5	19.5	16.5	16.5	19.5
802.11ax HE80	42	5210	14.0	14.0	11.0	11.0	14.0

WLAN Tune-up Power (Laptop)							
WLAN 5.3GHz							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11a	52	5260	17.5	17.5	14.5	14.5	17.5
	56	5280	17.5	17.5	14.5	14.5	17.5
	60	5300	17.5	17.5	14.5	14.5	17.5
	64	5320	17.5	17.5	14.5	14.5	17.5
802.11n HT20	52	5260	17.5	17.5	14.5	14.5	17.5
	56	5280	17.5	17.5	14.5	14.5	17.5
	60	5300	17.5	17.5	14.5	14.5	17.5
	64	5320	17.5	17.5	14.5	14.5	17.5
802.11n HT40	54	5270	17.5	17.5	14.5	14.5	17.5
	62	5310	17.5	17.5	14.5	14.5	17.5
802.11ac VHT20	52	5260	17.5	17.5	14.5	14.5	17.5
	56	5280	17.5	17.5	14.5	14.5	17.5
	60	5300	17.5	17.5	14.5	14.5	17.5
	64	5320	17.5	17.5	14.5	14.5	17.5
802.11ac VHT40	54	5270	17.5	17.5	14.5	14.5	17.5
	62	5310	17.5	17.5	14.5	14.5	17.5
802.11ac VHT80	58	5290	14.0	14.0	11.5	11.5	14.5
802.11ac VHT160	50	5250	13.5	13.5	10.5	10.5	13.5
802.11ax HE20	52	5260	17.5	17.5	14.5	14.5	17.5
	56	5280	17.5	17.5	14.5	14.5	17.5
	60	5300	17.5	17.5	14.5	14.5	17.5
	64	5320	17.5	17.5	14.5	14.5	17.5
802.11ax HE40	54	5270	17.5	17.5	14.5	14.5	17.5
	62	5310	17.5	17.5	14.5	14.5	17.5
802.11ax HE80	58	5290	14.0	14.0	11.5	11.5	14.5
802.11ax HE160	50	5250	13.5	13.5	10.5	10.5	13.5

WLAN Tune-up Power (Laptop)							
WLAN 5.6GHz							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11a	100	5500	19.0	19.0	16.0	16.0	19.0
	116	5580	19.0	19.0	16.0	16.0	19.0
	120	5600	19.0	19.0	16.0	16.0	19.0
	124	5620	19.0	19.0	16.0	16.0	19.0
	132	5660	19.0	19.0	16.0	16.0	19.0
	140	5700	19.0	19.0	16.0	16.0	19.0
	144	5720	19.0	19.0	16.0	16.0	19.0
802.11n HT20	100	5500	18.5	18.5	15.5	15.5	18.5
	116	5580	19.5	19.5	16.5	16.5	19.5
	120	5600	19.5	19.5	16.5	16.5	19.5
	124	5620	19.5	19.5	16.5	16.5	19.5
	132	5660	18.5	18.5	15.5	15.5	18.5
	140	5700	17.0	17.0	14.0	14.0	17.0
	144	5720	19.0	19.0	16.0	16.0	19.0
802.11n HT40	102	5510	16.5	16.5	13.5	13.5	16.5
	110	5550	19.0	19.0	16.0	16.0	19.0
	118	5590	19.0	19.0	16.0	16.0	19.0
	126	5630	18.5	18.5	15.5	15.5	18.5
	134	5670	18.0	18.0	15.0	15.0	18.0
	142	5710	19.5	19.5	16.5	16.5	19.5
802.11ac VHT20	100	5500	18.5	18.5	15.5	15.5	18.5
	116	5580	19.5	19.5	16.5	16.5	19.5
	120	5600	19.5	19.5	16.5	16.5	19.5
	124	5620	19.5	19.5	16.5	16.5	19.5
	132	5660	18.5	18.5	15.5	15.5	18.5
	140	5700	17.0	17.0	14.0	14.0	17.0
	144	5720	19.0	19.0	16.0	16.0	19.0
802.11ac VHT40	102	5510	16.5	16.5	13.5	13.5	16.5
	110	5550	19.0	19.0	16.0	16.0	19.0
	118	5590	19.0	19.0	16.0	16.0	19.0
	126	5630	18.5	18.5	15.5	15.5	18.5
	134	5670	18.0	18.0	15.0	15.0	18.0
	142	5710	19.5	19.5	16.5	16.5	19.5
802.11ac VHT80	106	5530	15.5	15.5	12.5	12.5	15.5
	122	5610	17.5	17.5	14.5	14.5	17.5
	138	5690	19.0	19.0	16.0	16.0	19.0
802.11ac VHT160	114	5570	12.5	12.5	9.5	9.5	12.5
802.11ax HE20	100	5500	18.5	18.5	15.5	15.5	18.5
	116	5580	19.5	19.5	16.5	16.5	19.5
	120	5600	19.5	19.5	16.5	16.5	19.5
	124	5620	19.5	19.5	16.5	16.5	19.5
	132	5660	18.5	18.5	15.5	15.5	18.5
	140	5700	17.0	17.0	14.0	14.0	17.0
	144	5720	19.0	19.0	16.0	16.0	19.0
802.11ax HE40	102	5510	16.5	16.5	13.5	13.5	16.5
	110	5550	19.0	19.0	16.0	16.0	19.0
	118	5590	19.0	19.0	16.0	16.0	19.0
	126	5630	18.5	18.5	15.5	15.5	18.5
	134	5670	18.0	18.0	15.0	15.0	18.0
	142	5710	19.5	19.5	16.5	16.5	19.5
802.11ax HE80	106	5530	15.5	15.5	12.5	12.5	15.5
	122	5610	17.5	17.5	14.5	14.5	17.5
	138	5690	19.0	19.0	16.0	16.0	19.0
802.11ax HE160	114	5570	12.5	12.5	9.5	9.5	12.5

WLAN Tune-up Power (Laptop)							
WLAN 5.8GHz							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11a	149	5745	21.0	21.0	18.0	18.0	21.0
	153	5765	20.5	20.5	17.5	17.5	20.5
	157	5785	20.5	20.5	17.5	17.5	20.5
	161	5805	20.5	20.5	17.5	17.5	20.5
	165	5825	21.0	21.0	18.0	18.0	21.0
802.11n HT20	149	5745	19.5	19.5	16.5	16.5	19.5
	153	5765	19.5	19.5	16.5	16.5	19.5
	157	5785	19.5	19.5	16.5	16.5	19.5
	161	5805	19.5	19.5	16.5	16.5	19.5
	165	5825	19.5	19.5	16.5	16.5	19.5
802.11n HT40	151	5755	19.5	19.5	16.5	16.5	19.5
	159	5795	19.5	19.5	16.5	16.5	19.5
802.11ac VHT20	149	5745	19.5	19.5	16.5	16.5	19.5
	153	5765	19.5	19.5	16.5	16.5	19.5
	157	5785	19.5	19.5	16.5	16.5	19.5
	161	5805	19.5	19.5	16.5	16.5	19.5
	165	5825	19.5	19.5	16.5	16.5	19.5
802.11ac VHT40	151	5755	19.5	19.5	16.5	16.5	19.5
	159	5795	19.5	19.5	16.5	16.5	19.5
802.11ac VHT80	155	5775	17.5	17.5	14.5	14.5	17.5
802.11ax HE20	149	5745	19.5	19.5	16.5	16.5	19.5
	153	5765	19.5	19.5	16.5	16.5	19.5
	157	5785	19.5	19.5	16.5	16.5	19.5
	161	5805	19.5	19.5	16.5	16.5	19.5
	165	5825	19.5	19.5	16.5	16.5	19.5
802.11ax HE40	151	5755	19.5	19.5	16.5	16.5	19.5
	159	5795	19.5	19.5	16.5	16.5	19.5
802.11ax HE80	155	5775	17.5	17.5	14.5	14.5	17.5

WLAN Tune-up Power (Laptop)							
UNII-5							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11ax HE20	1	5955	1.0	1.0	1.0	1.0	4.0
	5	5975	1.0	1.0	1.0	1.0	4.0
	9	5995	1.0	1.0	1.0	1.0	4.0
	13	6015	1.0	1.0	1.0	1.0	4.0
	17	6035	1.0	1.0	1.0	1.0	4.0
	21	6055	1.0	1.0	1.0	1.0	4.0
	25	6075	1.0	1.0	1.0	1.0	4.0
	29	6095	1.0	1.0	1.0	1.0	4.0
	33	6115	1.0	1.0	1.0	1.0	4.0
	37	6135	1.0	1.0	1.0	1.0	4.0
	41	6155	1.0	1.0	1.0	1.0	4.0
	45	6175	1.0	1.0	1.0	1.0	4.0
	49	6195	1.0	1.0	1.0	1.0	4.0
	53	6215	1.0	1.0	1.0	1.0	4.0
	57	6235	1.0	1.0	1.0	1.0	4.0
	61	6255	1.0	1.0	1.0	1.0	4.0
	65	6275	1.0	1.0	1.0	1.0	4.0
	69	6295	1.0	1.0	1.0	1.0	4.0
	73	6315	1.0	1.0	1.0	1.0	4.0
	77	6335	1.0	1.0	1.0	1.0	4.0
	81	6355	1.0	1.0	1.0	1.0	4.0
	85	6375	1.0	1.0	1.0	1.0	4.0
	89	6395	1.0	1.0	1.0	1.0	4.0
	93	6415	1.0	1.0	1.0	1.0	4.0
802.11ax HE40	3	5965	3.5	3.5	3.5	3.5	6.5
	11	6005	3.5	3.5	3.5	3.5	6.5
	19	6045	3.5	3.5	3.5	3.5	6.5
	27	6085	3.5	3.5	3.5	3.5	6.5
	35	6125	3.5	3.5	3.5	3.5	6.5
	43	6165	3.5	3.5	3.5	3.5	6.5
	51	6205	3.5	3.5	3.5	3.5	6.5
	59	6245	3.5	3.5	3.5	3.5	6.5
	67	6285	3.5	3.5	3.5	3.5	6.5
	75	6325	3.5	3.5	3.5	3.5	6.5
	83	6365	3.5	3.5	3.5	3.5	6.5
	91	6405	3.5	3.5	3.5	3.5	6.5
802.11ax HE80	7	5985	7.0	7.0	7.0	7.0	10.0
	23	6065	7.0	7.0	7.0	7.0	10.0
	39	6145	7.0	7.0	7.0	7.0	10.0
	55	6225	7.0	7.0	7.0	7.0	10.0
	71	6305	7.0	7.0	7.0	7.0	10.0
	87	6385	7.0	7.0	7.0	7.0	10.0
802.11ax HE160	15	6025	9.0	9.0	9.0	9.0	12.0
	47	6185	9.0	9.0	9.0	9.0	12.5
	79	6345	9.5	9.5	9.5	9.5	12.5

WLAN Tune-up Power (Laptop)							
UNII-6							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11ax HE20	97	6435	1.5	1.5	1.5	1.5	4.5
	101	6455	1.5	1.5	1.5	1.5	4.5
	105	6475	1.5	1.5	1.5	1.5	4.5
	109	6495	1.5	1.5	1.5	1.5	4.5
	113	6515	1.5	1.5	1.5	1.5	4.5
	117	6535	1.5	1.5	1.5	1.5	4.5
802.11ax HE40	99	6445	4.0	4.0	4	4	7.0
	107	6485	4.0	4.0	4	4	7.0
	115	6525	4.0	4.0	4	4	7.0
802.11ax HE80	103	6465	7.0	7.0	7	7	10.0
	119	6545	7.0	7.0	7	7	10.0
802.11ax HE160	111	6505	9.5	9.5	9.5	9.5	12.5

WLAN Tune-up Power (Laptop)							
UNII-7							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11ax HE20	121	6555	1.5	1.5	1.5	1.5	4.5
	125	6575	1.5	1.5	1.5	1.5	4.5
	129	6595	1.5	1.5	1.5	1.5	4.5
	133	6615	1.5	1.5	1.5	1.5	4.5
	137	6635	1.5	1.5	1.5	1.5	4.5
	141	6655	1.5	1.5	1.5	1.5	4.5
	145	6675	1.5	1.5	1.5	1.5	4.5
	149	6695	1.5	1.5	1.5	1.5	4.5
	153	6715	1.5	1.5	1.5	1.5	4.5
	157	6735	1.5	1.5	1.5	1.5	4.5
	161	6755	1.5	1.5	1.5	1.5	4.5
	165	6775	1.5	1.5	1.5	1.5	4.5
	169	6795	1.5	1.5	1.5	1.5	4.5
	173	6815	1.5	1.5	1.5	1.5	4.5
	177	6835	1.5	1.5	1.5	1.5	4.5
	181	6855	1.5	1.5	1.5	1.5	4.5
	185	6875	1.5	1.5	1.5	1.5	4.5
802.11ax HE40	123	6565	4.0	4.0	4	4	7.0
	131	6605	4.0	4.0	4	4	7.0
	139	6645	4.0	4.0	4	4	7.0
	147	6685	4.0	4.0	4	4	7.0
	155	6725	4.0	4.0	4	4	7.0
	163	6765	4.0	4.0	4	4	7.0
	171	6805	4.0	4.0	4	4	7.0
	179	6845	4.0	4.0	4	4	7.0
	187	6885	4.0	4.0	4	4	7.0
802.11ax HE80	135	6625	7.0	7.0	7	7	10.0
	151	6705	7.0	7.0	7	7	10.0
	167	6785	7.0	7.0	7	7	10.0
	183	6865	7.0	7.0	7	7	10.0
802.11ax HE160	143	6665	9.0	9.0	9	9	12.0
	175	6825	9.0	9.0	9	9	12.0

WLAN Tune-up Power (Laptop)							
UNII-8							
Mode	Channel	Frequency	SISO Ant 0 Max Tune up	SISO Ant 1 Max Tune up	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MIMO Ant 0+1 Max Tune up
802.11ax HE20	189	6895	2.0	2.0	2	2	5.0
	193	6915	2.0	2.0	2	2	5.0
	197	6935	2.0	2.0	2	2	5.0
	201	6955	2.0	2.0	2	2	5.0
	205	6975	2.0	2.0	2	2	5.0
	209	6995	2.0	2.0	2	2	5.0
	213	7015	2.0	2.0	2	2	5.0
	217	7035	2.0	2.0	2	2	5.0
	221	7055	2.0	2.0	2	2	5.0
	225	7075	2.0	2.0	2	2	5.0
	229	7095	2.0	2.0	2	2	5.0
	233	7115	2.0	2.0	2	2	5.0
802.11ax HE40	195	6925	4.5	4.5	4.5	4.5	7.5
	203	6965	4.5	4.5	4.5	4.5	7.5
	211	7005	4.5	4.5	4.5	4.5	7.5
	219	7045	4.5	4.5	4.5	4.5	7.5
	227	7085	4.5	4.5	4.5	4.5	7.5
802.11ax HE80	199	6945	7.5	7.5	7.5	7.5	10.5
	215	7025	7.5	7.5	7.5	7.5	10.5
802.11ax HE160	207	6985	9.5	9.5	9.5	9.5	12.5

Annex E. Measured Conducted Power Result

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

WLAN Conducted Power (Full)_Laptop			
WLAN2.4GHz Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11b	1	2412	17.92
	6	2437	17.96
	11	2462	17.41
	12	2467	17.45
	13	2472	16.46
802.11g	1	2412	17.88
	6	2437	17.93
	11	2462	17.91
	12	2467	14.39
	13	2472	11.42
802.11n HT20	1	2412	17.41
	6	2437	17.42
	11	2462	15.96
	12	2467	13.9
	13	2472	9.41
802.11n HT40	3	2422	13.23
	6	2437	17.81
	9	2452	13.91
	10	2457	11.93
	11	2462	9.82
802.11ac VHT20	1	2412	17.42
	6	2437	17.91
	11	2462	16.87
	12	2467	13.91
	13	2472	9.44
802.11ac VHT40	3	2422	14.89
	6	2437	17.88
	9	2452	14.91
	10	2457	11.92
	11	2462	9.86
802.11ax HE20	1	2412	17.43
	6	2437	17.88
	11	2462	15.56
	12	2467	13.91
	13	2472	9.92
802.11ax HE40	3	2422	14.89
	6	2437	17.86
	9	2452	14.92
	10	2457	12.35
	11	2462	9.91

WLAN Conducted Power (Full)_Laptop			
WLAN2.4GHz Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11b	1	2412	17.97
	6	2437	17.98
	11	2462	17.46
	12	2467	17.41
	13	2472	16.48
802.11g	1	2412	17.88
	6	2437	17.41
	11	2462	17.76
	12	2467	14.37
	13	2472	11.42
802.11n HT20	1	2412	17.38
	6	2437	19.81
	11	2462	15.92
	12	2467	13.88
	13	2472	9.34
802.11n HT40	3	2422	13.43
	6	2437	17.83
	9	2452	13.84
	10	2457	11.84
	11	2462	9.77
802.11ac VHT20	1	2412	17.43
	6	2437	17.85
	11	2462	16.88
	12	2467	13.91
	13	2472	9.39
802.11ac VHT40	3	2422	14.91
	6	2437	17.89
	9	2452	14.88
	10	2457	11.78
	11	2462	9.79
802.11ax HE20	1	2412	17.38
	6	2437	17.55
	11	2462	15.76
	12	2467	13.88
	13	2472	9.87
802.11ax HE40	3	2422	14.91
	6	2437	17.89
	9	2452	14.88
	10	2457	12.37
	11	2462	9.92

WLAN Conducted Power (Full)_Laptop					
WLAN2.4GHz Ant 0+1					
Mode	Channel	Frequency	MIMO Ant 0 Avg. Power	MIMO Ant 1 Avg. Power	MIMO Ant 0+1 Avg. Power
802.11b	1	2412	17.88	17.92	20.91
	6	2437	17.92	17.91	20.93
	11	2462	17.43	17.47	20.46
	12	2467	17.41	17.44	20.44
	13	2472	16.45	16.47	19.47
802.11g	1	2412	17.92	17.78	20.86
	6	2437	17.45	17.31	20.39
	11	2462	17.97	17.78	20.89
	12	2467	14.45	14.36	17.42
	13	2472	11.48	11.32	14.41
802.11n HT20	1	2412	17.4	17.35	20.39
	6	2437	17.74	17.73	20.75
	11	2462	15.83	15.87	18.86
	12	2467	13.88	13.85	16.88
	13	2472	9.37	9.29	12.34
802.11n HT40	3	2422	13.46	13.49	16.49
	6	2437	17.76	17.85	20.82
	9	2452	13.81	13.89	16.86
	10	2457	11.82	11.89	14.87
	11	2462	9.88	9.86	12.88
802.11ac VHT20	1	2412	17.32	17.42	20.38
	6	2437	17.76	17.84	20.81
	11	2462	16.85	16.88	19.88
	12	2467	13.89	13.91	16.91
	13	2472	9.32	9.39	12.37
802.11ac VHT40	3	2422	14.73	14.82	17.79
	6	2437	17.88	17.79	20.85
	9	2452	14.91	14.82	17.88
	10	2457	11.78	11.84	14.82
	11	2462	9.87	9.91	12.9
802.11ax HE20	1	2412	17.32	17.41	20.38
	6	2437	17.88	17.82	20.86
	11	2462	15.79	15.81	18.81
	12	2467	13.82	13.81	16.83
	13	2472	9.78	9.89	12.85
802.11ax HE40	3	2422	14.86	14.88	17.88
	6	2437	17.88	17.79	20.85
	9	2452	14.74	14.81	17.79
	10	2457	12.11	12.28	15.21
	11	2462	9.82	9.89	12.87

WLAN Conducted Power (Laptop)			
WLAN 5.3GHz Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11a	52	5260	17.38
	56	5280	17.41
	60	5300	17.39
	64	5320	17.43
802.11n HT20	52	5260	17.37
	56	5280	17.42
	60	5300	17.43
	64	5320	17.45
802.11n HT40	54	5270	17.48
	62	5310	17.47
802.11ac VHT20	52	5260	17.31
	56	5280	17.22
	60	5300	17.31
	64	5320	17.32
802.11ac VHT40	54	5270	17.31
	62	5310	17.29
802.11ac VHT80	58	5290	13.91
802.11ac VHT160	50	5250	13.39
802.11ax HE20	52	5260	17.42
	56	5280	17.43
	60	5300	17.39
	64	5320	17.41
802.11ax HE40	54	5270	17.35
	62	5310	17.44
802.11ax HE80	58	5290	13.46
802.11ax HE160	50	5250	13.39

WLAN Conducted Power (Laptop)			
WLAN 5.3GHz Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11a	52	5260	17.38
	56	5280	17.41
	60	5300	17.21
	64	5320	17.34
802.11n HT20	52	5260	17.37
	56	5280	17.29
	60	5300	17.35
	64	5320	17.32
802.11n HT40	54	5270	17.46
	62	5310	17.45
802.11ac VHT20	52	5260	17.35
	56	5280	17.25
	60	5300	17.3
	64	5320	17.34
802.11ac VHT40	54	5270	17.23
	62	5310	17.35
802.11ac VHT80	58	5290	13.77
802.11ac VHT160	50	5250	13.38
802.11ax HE20	52	5260	17.29
	56	5280	17.33
	60	5300	17.29
	64	5320	17.33
802.11ax HE40	54	5270	17.39
	62	5310	17.44
802.11ax HE80	58	5290	13.42
802.11ax HE160	50	5250	13.39

WLAN Conducted Power(Laptop)					
WLAN 5.3GHz Ant 0+1					
Mode	Channel	Frequency	MIMO Ant 0 Avg. Power	MIMO Ant 1 Avg. Power	MIMO Ant 0+1 Avg. Power
802.11a	52	5260	14.28	14.31	17.31
	56	5280	14.31	14.33	17.33
	60	5300	14.24	14.35	17.31
	64	5320	14.21	14.21	17.22
802.11n HT20	52	5260	14.11	14.37	17.25
	56	5280	14.13	14.33	17.24
	60	5300	14.39	14.28	17.35
	64	5320	14.33	14.32	17.34
802.11n HT40	54	5270	14.41	14.45	17.44
	62	5310	14.42	14.41	17.43
802.11ac VHT20	52	5260	14.35	14.26	17.32
	56	5280	14.24	14.35	17.31
	60	5300	14.23	14.27	17.26
	64	5320	14.28	14.2	17.25
802.11ac VHT40	54	5270	14.22	14.28	17.26
	62	5310	13.27	13.3	16.3
802.11ac VHT80	58	5290	11.32	11.41	14.38
802.11ac VHT160	50	5250	10.25	10.36	13.32
802.11ax HE20	52	5260	14.23	14.25	17.25
	56	5280	14.21	14.31	17.27
	60	5300	14.28	14.29	17.3
	64	5320	14.32	14.33	17.34
802.11ax HE40	54	5270	14.25	14.21	17.24
	62	5310	13.11	13.33	16.23
802.11ax HE80	58	5290	11.32	11.36	14.35
802.11ax HE160	50	5250	10.27	10.39	13.34

WLAN Conducted Power (Full)			
WLAN 5.6GHz Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11a	100	5500	18.87
	116	5580	18.91
	120	5600	18.84
	124	5620	18.79
	132	5660	18.91
	140	5700	18.83
	144	5720	18.88
802.11n HT20	100	5500	18.42
	116	5580	19.37
	120	5600	19.28
	124	5620	19.31
	132	5660	18.42
	140	5700	16.91
	144	5720	18.87
802.11n HT40	102	5510	16.43
	110	5550	18.98
	118	5590	18.92
	126	5630	18.48
	134	5670	17.97
	142	5710	19.47
802.11ac VHT20	100	5500	18.29
	116	5580	19.2
	120	5600	19.21
	124	5620	19.31
	132	5660	18.24
	140	5700	16.82
	144	5720	18.83
802.11ac VHT40	102	5510	16.2
	110	5550	18.89
	118	5590	18.86
	126	5630	18.45
	134	5670	17.83
	142	5710	19.28
802.11ac VHT80	106	5530	15.42
	122	5610	17.39
	138	5690	18.86
802.11ac VHT160	114	5570	12.38
802.11ax HE20	100	5500	18.33
	116	5580	19.41
	120	5600	19.37
	124	5620	19.29
	132	5660	18.37
	140	5700	16.79
	144	5720	18.83
802.11ax HE40	102	5510	16.44
	110	5550	18.84
	118	5590	18.87
	126	5630	18.42
	134	5670	17.91
	142	5710	19.39
802.11ax HE80	106	5530	15.42
	122	5610	17.39
	138	5690	18.83
802.11ax HE160	114	5570	12.37

WLAN Conducted Power (Full)			
WLAN 5.6GHz Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11a	100	5500	18.88
	116	5580	18.91
	120	5600	18.75
	124	5620	18.79
	132	5660	18.87
	140	5700	18.92
	144	5720	18.82
802.11n HT20	100	5500	18.38
	116	5580	19.38
	120	5600	19.29
	124	5620	19.41
	132	5660	18.37
	140	5700	16.91
	144	5720	18.89
802.11n HT40	102	5510	16.46
	110	5550	18.97
	118	5590	18.94
	126	5630	18.45
	134	5670	17.89
	142	5710	19.45
802.11ac VHT20	100	5500	18.32
	116	5580	19.25
	120	5600	19.32
	124	5620	19.27
	132	5660	18.22
	140	5700	16.85
	144	5720	18.87
802.11ac VHT40	102	5510	16.26
	110	5550	18.74
	118	5590	18.79
	126	5630	18.41
	134	5670	17.86
	142	5710	19.38
802.11ac VHT80	106	5530	15.38
	122	5610	17.42
	138	5690	18.87
802.11ac VHT160	114	5570	12.33
802.11ax HE20	100	5500	18.39
	116	5580	19.36
	120	5600	19.42
	124	5620	19.32
	132	5660	18.36
	140	5700	16.79
	144	5720	18.91
802.11ax HE40	102	5510	16.38
	110	5550	18.87
	118	5590	18.79
	126	5630	18.42
	134	5670	17.91
	142	5710	19.33
802.11ax HE80	106	5530	15.42
	122	5610	17.39
	138	5690	18.89
802.11ax HE160	114	5570	12.29

WLAN Conducted Power(Laptop)					
WLAN 5.6GHz Ant 0+1					
Mode	Channel	Frequency	MIMO Ant 0 Avg. Power	MIMO Ant 1 Avg. Power	MIMO Ant 0+1 Avg. Power
802.11a	100	5500	15.78	15.81	18.81
	116	5580	15.82	15.85	18.85
	120	5600	15.79	15.83	18.82
	124	5620	15.77	15.96	18.88
	132	5660	15.74	15.79	18.78
	140	5700	15.82	15.86	18.85
	144	5720	15.85	15.91	18.89
802.11n HT20	100	5500	15.11	15.33	18.23
	116	5580	16.14	16.24	19.2
	120	5600	16.21	16.16	19.2
	124	5620	16.14	16.21	19.19
	132	5660	15.22	14.88	18.06
	140	5700	13.79	13.87	16.84
	144	5720	15.82	15.91	18.88
802.11n HT40	102	5510	13.31	13.42	16.38
	110	5550	15.96	15.88	18.93
	118	5590	15.89	15.84	18.88
	126	5630	15.43	15.45	18.45
	134	5670	14.87	14.92	17.91
	142	5710	16.38	16.44	19.42
802.11ac VHT20	100	5500	15.31	15.23	18.28
	116	5580	16.33	16.27	19.31
	120	5600	16.37	16.2	19.3
	124	5620	16.32	16.2	19.27
	132	5660	15.2	15.37	18.3
	140	5700	13.76	13.71	16.75
	144	5720	15.89	15.86	18.89
802.11ac VHT40	102	5510	13.35	13.32	16.35
	110	5550	15.78	15.83	18.82
	118	5590	15.93	15.77	18.86
	126	5630	15.43	15.43	18.44
	134	5670	14.82	14.8	17.82
	142	5710	16.35	16.32	19.35
802.11ac VHT80	106	5530	12.13	12.33	15.24
	122	5610	14.21	14.37	17.3
	138	5690	15.79	15.86	18.84
802.11ac VHT160	114	5570	12.21	12.32	15.28
802.11ax HE20	100	5500	15.26	15.39	18.34
	116	5580	16.16	16.22	19.2
	120	5600	16.21	16.31	19.27
	124	5620	16.25	16.33	19.3
	132	5660	15.31	15.37	18.35
	140	5700	13.84	13.87	16.87
	144	5720	15.83	15.91	18.88
802.11ax HE40	102	5510	13.21	13.39	16.31
	110	5550	15.79	15.88	18.85
	118	5590	15.85	15.79	18.83
	126	5630	15.11	15.38	18.26
	134	5670	14.86	14.84	17.86
	142	5710	16.11	16.31	19.22
802.11ax HE80	106	5530	12.24	12.33	15.3
	122	5610	14.21	14.32	17.28
	138	5690	15.82	15.88	18.86
802.11ax HE160	114	5570	9.27	9.37	12.33

WLAN Conducted Power (Full)			
WLAN 5.8GHz Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11a	149	5745	20.96
	153	5765	20.45
	157	5785	20.43
	161	5805	20.48
	165	5825	20.92
802.11n HT20	149	5745	19.42
	153	5765	19.38
	157	5785	19.41
	161	5805	19.29
	165	5825	19.37
802.11n HT40	151	5755	19.32
	159	5795	19.41
802.11ac VHT20	149	5745	19.37
	153	5765	19.3
	157	5785	19.3
	161	5805	19.3
	165	5825	19.22
802.11ac VHT40	151	5755	19.27
	159	5795	19.24
802.11ac VHT80	155	5775	17.44
802.11ax HE20	149	5745	19.41
	153	5765	19.38
	157	5785	19.44
	161	5805	19.41
	165	5825	19.38
802.11ax HE40	151	5755	19.31
	159	5795	19.29
802.11ax HE80	155	5775	17.42

WLAN Conducted Power (Full)			
WLAN 5.8GHz Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11a	149	5745	20.96
	153	5765	20.45
	157	5785	20.43
	161	5805	20.46
	165	5825	20.94
802.11n HT20	149	5745	19.41
	153	5765	19.38
	157	5785	19.33
	161	5805	19.29
	165	5825	19.41
802.11n HT40	151	5755	19.38
	159	5795	19.45
802.11ac VHT20	149	5745	19.22
	153	5765	19.23
	157	5785	19.2
	161	5805	19.2
	165	5825	19.35
802.11ac VHT40	151	5755	19.29
	159	5795	19.22
802.11ac VHT80	155	5775	17.33
802.11ax HE20	149	5745	19.31
	153	5765	19.42
	157	5785	19.39
	161	5805	19.34
	165	5825	19.32
802.11ax HE40	151	5755	19.41
	159	5795	19.44
802.11ax HE80	155	5775	17.36

WLAN Conducted Power(Laptop)					
WLAN 5.8GHz Ant 0+1					
Mode	Channel	Frequency	MIMO Ant 0 Avg. Power	MIMO Ant 1 Avg. Power	MIMO Ant 0+1 Avg. Power
802.11a	149	5745	17.94	17.87	20.92
	153	5765	17.14	17.42	20.29
	157	5785	17.12	17.44	20.29
	161	5805	17.21	17.39	20.31
	165	5825	17.85	17.91	20.89
802.11n HT20	149	5745	16.12	16.28	19.21
	153	5765	16.26	16.31	19.3
	157	5785	16.21	16.27	19.25
	161	5805	16.15	16.33	19.25
	165	5825	16.28	16.21	19.26
802.11n HT40	151	5755	16.38	16.14	19.27
	159	5795	16.31	16.26	19.3
802.11ac VHT20	149	5745	16.25	16.37	19.32
	153	5765	16.37	16.22	19.31
	157	5785	16.36	16.31	19.35
	161	5805	16.28	16.36	19.33
	165	5825	16.39	16.28	19.35
802.11ac VHT40	151	5755	16.28	16.39	19.35
	159	5795	16.31	16.34	19.34
802.11ac VHT80	155	5775	14.32	14.31	17.33
802.11ax HE20	149	5745	16.14	16.26	19.21
	153	5765	16.22	16.38	19.31
	157	5785	16.15	16.31	19.24
	161	5805	16.25	16.29	19.28
	165	5825	16.24	16.37	19.32
802.11ax HE40	151	5755	16.31	16.25	19.29
	159	5795	16.15	16.33	19.25
802.11ax HE80	155	5775	14.22	14.42	17.33

WLAN Conducted Power (Full)			
UNII-5 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	15	6025	8.92
	47	6185	8.99
	79	6345	9.28

UNII-6 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	111	6505	9.21

UNII-7 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	143	6665	8.99
	175	6825	8.68

UNII-8 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	207	6985	9.47

WLAN Conducted Power (Full)			
UNII-5 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	15	6025	8.88
	47	6185	8.71
	79	6345	9.23

UNII-6 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	111	6505	9.19

UNII-7 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	143	6665	8.81
	175	6825	8.66

UNII-8 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	207	6985	9.48

WLAN Conducted Power (Full)					
UNII-5 Ant 0+1					
Mode	Channel	Frequency	MIMO Ant 0 Avg. Power	MIMO Ant 1 Avg. Power	MIMO Ant 0+1 Avg. Power
802.11ax HE160	15	6025	6.11	10.51	11.86
	47	6185	8.11	8.86	11.51
	79	6345	7.72	10.52	12.35
UNII-6 Ant 0+1					
Mode	Channel	Frequency	MIMO Ant 0 Avg. Power	MIMO Ant 1 Avg. Power	MIMO Ant 0+1 Avg. Power
802.11ax HE160	111	6505	5.35	11.12	12.14
UNII-7 Ant 0+1					
Mode	Channel	Frequency	MIMO Ant 0 Avg. Power	MIMO Ant 1 Avg. Power	MIMO Ant 0+1 Avg. Power
802.11ax HE160	143	6665	6.96	9.95	11.72
	175	6825	7.77	9.81	11.92
UNII-8 Ant 0+1					
Mode	Channel	Frequency	MIMO Ant 0 Avg. Power	MIMO Ant 1 Avg. Power	MIMO Ant 0+1 Avg. Power
802.11ax HE160	207	6985	8.79	10.07	12.49

Annex F. SAR Test Result

SAR Results for Body Exposure Condition.

Note:

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

Laptop SAR Test Result

System & Position						DUT & Accessory	SAR							
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WLAN2.4G	802.11b	Bottom	0	6	Ant 0	100.00	1.00	18.00	17.96	1.01	0	<0.001	0.00
	WLAN2.4G	802.11b	Bottom	0	6	Ant 1	100.00	1.00	18.00	17.98	1.00	0	<0.001	0.00
	WLAN2.4G	802.11b	Bottom	0	6	Ant 0+1	100.00	1.00	21.00	20.93	1.02	0	<0.001	0.00
	WLAN2.4G	802.11b	Bottom	0	1	Ant 0+1	100.00	1.00	21.00	20.91	1.02	0	<0.001	0.00
	WLAN2.4G	802.11b	Bottom	0	11	Ant 0+1	100.00	1.00	20.50	20.46	1.01	0	<0.001	0.00
	WLAN2.4G	802.11b	Bottom	0	12	Ant 0+1	100.00	1.00	20.50	20.44	1.01	0	<0.001	0.00
	WLAN2.4G	802.11b	Bottom	0	13	Ant 0+1	100.00	1.00	19.50	19.47	1.01	0	<0.001	0.00
1	WLAN2.4G	802.11b	Lid Closed Mode	0	6	Ant 0+1	100.00	1.00	21.00	20.93	1.02	0.13	0.115	0.12
	WLAN5.3G	802.11n HT40	Bottom	0	54	Ant 0	100.00	1.00	17.50	17.48	1.00	0	<0.001	0.00
	WLAN5.3G	802.11n HT40	Bottom	0	54	Ant 1	100.00	1.00	17.50	17.46	1.01	0	<0.001	0.00
	WLAN5.3G	802.11n HT40	Bottom	0	54	Ant 0+1	100.00	1.00	17.50	17.44	1.01	0	<0.001	0.00
	WLAN5.3G	802.11n HT40	Bottom	0	62	Ant 0+1	100.00	1.00	17.50	17.43	1.02	0	<0.001	0.00
2	WLAN5.3G	802.11n HT40	Lid Closed Mode	0	54	Ant 0+1	100.00	1.00	17.50	17.44	1.01	-0.1	0.252	0.25
	WLAN5.6G	802.11n HT40	Bottom	0	142	Ant 0	100.00	1.00	19.50	19.47	1.01	0	<0.001	0.00
	WLAN5.6G	802.11n HT40	Bottom	0	142	Ant 1	100.00	1.00	19.50	19.45	1.01	0	<0.001	0.00
	WLAN5.6G	802.11n HT40	Bottom	0	142	Ant 0+1	100.00	1.00	19.50	19.42	1.02	0	<0.001	0.00
	WLAN5.6G	802.11n HT40	Bottom	0	102	Ant 0+1	100.00	1.00	16.50	16.38	1.03	0	<0.001	0.00
	WLAN5.6G	802.11n HT40	Bottom	0	110	Ant 0+1	100.00	1.00	19.00	18.93	1.02	0	<0.001	0.00
	WLAN5.6G	802.11n HT40	Bottom	0	118	Ant 0+1	100.00	1.00	19.00	18.88	1.03	0	<0.001	0.00
	WLAN5.6G	802.11n HT40	Bottom	0	126	Ant 0+1	100.00	1.00	18.50	18.45	1.01	0	<0.001	0.00
	WLAN5.6G	802.11n HT40	Bottom	0	134	Ant 0+1	100.00	1.00	18.00	17.91	1.02	0	<0.001	0.00
3	WLAN5.6G	802.11n HT40	Lid Closed Mode	0	110	Ant 0+1	100.00	1.00	19.00	18.93	1.02	-0.06	0.409	0.42
	WLAN5.8G	802.11a	Bottom	0	149	Ant 0	100.00	1.00	21.00	20.96	1.01	0	<0.001	0.00
	WLAN5.8G	802.11a	Bottom	0	149	Ant 1	100.00	1.00	21.00	20.96	1.01	0	<0.001	0.00
	WLAN5.8G	802.11a	Bottom	0	149	Ant 0+1	100.00	1.00	21.00	20.92	1.02	0	<0.001	0.00
	WLAN5.8G	802.11a	Bottom	0	153	Ant 0+1	100.00	1.00	20.50	20.29	1.05	0	<0.001	0.00
	WLAN5.8G	802.11a	Bottom	0	157	Ant 0+1	100.00	1.00	20.50	20.29	1.05	0	<0.001	0.00
	WLAN5.8G	802.11a	Bottom	0	161	Ant 0+1	100.00	1.00	20.50	20.31	1.04	0	<0.001	0.00
	WLAN5.8G	802.11a	Bottom	0	165	Ant 0+1	100.00	1.00	21.00	20.89	1.03	0	<0.001	0.00
4	WLAN5.8G	802.11a	Lid Closed Mode	0	165	Ant 0+1	100.00	1.00	21.00	20.89	1.03	0.08	0.649	0.67
	BT	BDR	Bottom	0	0	Ant 1	76.43	1.31	11.50	10.49	1.26	0	<0.001	0.00
	BT	BDR	Bottom	0	39	Ant 1	76.43	1.31	11.50	10.34	1.31	0	<0.001	0.00
	BT	BDR	Bottom	0	78	Ant 1	76.43	1.31	11.50	10.35	1.30	0	<0.001	0.00
5	BT	BDR	Lid Closed Mode	0	0	Ant 1	76.43	1.31	11.50	10.49	1.26	0	<0.001	0.00

SAR and Power Density Test Result

System & Position						DUT & Accessory		SAR								Power Density								
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	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)	Measured APD W/m ² (4cm ²)	Grid Step [λ]	iPD [W/m2]	Scaling Factor for Measurement Uncertainty	Averaging Area [cm2]	Power Drift [dB]	Normal psPD [W/m2]	Scaled Normal psPD [W/m2]	Total psPD [W/m2]	Scaled Total psPD [W/m2]
	UNII-8	802.11ax HE160	Bottom	0	207	Ant 0	99.90	1.00	9.50	9.47	1.01	0	<0.001	0.00	0			-				-		-
	UNII-8	802.11ax HE160	Bottom	0	207	Ant 1	99.90	1.00	9.50	9.48	1.00	0	<0.001	0.00	0			-				-		-
	UNII-8	802.11ax HE160	Bottom	0	207	Ant 0+1	99.90	1.00	12.50	12.49	1.00	0	<0.001	0.00	0			-				-		-
	UNII-5	802.11ax HE160	Bottom	0	15	Ant 0	99.90	1.00	12.00	11.86	1.03	0	<0.001	0.00	0			-				-		-
	UNII-5	802.11ax HE160	Bottom	0	47	Ant 0	99.90	1.00	12.00	11.51	1.12	0	<0.001	0.00	0			-				-		-
	UNII-5	802.11ax HE160	Bottom	0	79	Ant 0	99.90	1.00	12.50	12.35	1.04	0	<0.001	0.00	0			-				-		-
	UNII-6	802.11ax HE160	Bottom	0	111	Ant 0	99.90	1.00	12.50	12.14	1.09	0	<0.001	0.00	0			-				-		-
	UNII-7	802.11ax HE160	Bottom	0	143	Ant 0	99.90	1.00	12.00	11.72	1.07	0	<0.001	0.00	0			-				-		-
	UNII-7	802.11ax HE160	Bottom	0	175	Ant 0	99.90	1.00	12.00	11.92	1.02	0	<0.001	0.00	0			-				-		-
6	UNII-8	802.11ax HE160	Lid Closed Mode	0	207	Ant 0	99.90	1.00	9.50	9.47	1.01	-0.05	0.224	0.23	1.75	0.25	1.55	1.545	4.00	0.02	0.824	1.27	0.967	1.49
																		-				-		-

Annex G. SAR Measurement Variability

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

Annex H. Analysis of Simultaneous Transmission SAR.

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	WLAN2.4G_Ant 0+BT_Ant 1	Yes
B	WLAN5G_Ant 0+BT_Ant 1	Yes
C	WLAN5G_Ant 0+1+BT_Ant 1	Yes
D	WIFI 6E_Ant 0+BT_Ant 1	Yes
E	WIFI 6E_Ant 0+1+BT_Ant 1	Yes

Notes

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

Simultaneous Transmission SAR Evaluation (Body)											
Position	1	2	3	4	5	6	A(1+6)	B(2+6)	C(3+6)	D(4+6)	E(5+6)
	WLAN 2.4GHz Ant 0	WLAN 5GHz Ant 0	WLAN 5GHz Ant 0+1	WLAN 6E Ant 0	WLAN 6E Ant 0+1	Max BT	Summimg result 1g SAR W/kg	Summimg result 1g SAR W/kg	Summimg result 1g SAR W/kg	Summimg result 1g SAR W/kg	Summimg result 1g SAR W/kg
	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg					
Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lid Closed Mode	0.00	0.00	0.67	0.23	0.00	0.00	0.00	0.00	0.67	0.23	0.00

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	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1019	Mar. 19, 2021	1 Year
System Validation Dipole	SPEAG	D6.5GHzV2	1008	Sep. 24, 2021	1 Year
System Verification Source	SPEAG	5G Verification Source 10 GHz	1025	Jan. 19, 2021	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7554	Aug. 26, 2021	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7555	Sep. 27, 2021	1 Year
E-Field Probe	SPEAG	EUmmWV4	9438	Jul. 26, 2021	1 Year
Data Acquisition Electronics	SPEAG	DAE4	861	Apr. 14, 2021	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1589	Aug. 20, 2021	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1341	Aug. 20, 2021	1 Year
Spectrum Analyzer	R&S	FSL6	102006	Apr. 06, 2021	1 Year
Power Meter	Anritsu	ML2495A	1218009	Jun. 24, 2021	1 Year
Power Sensor	Anritsu	MA2411B	1207252	Jun. 24, 2021	1 Year
Universal Wireless Test Set	Anritsu	MT8870A/MU887000A	6201699387	Sep. 22, 2021	1 Year
Thermometer	YFE	YF-160A	191100743	Apr. 12, 2021	1 Year
Dielectric Assessment Kit	SPEAG	DAKS-3.5	1151	Jul. 14, 2021	1 Year
Powersource1	SPEAG	SE_UMS_160 BA	4010	Jul. 13, 2021	1 Year

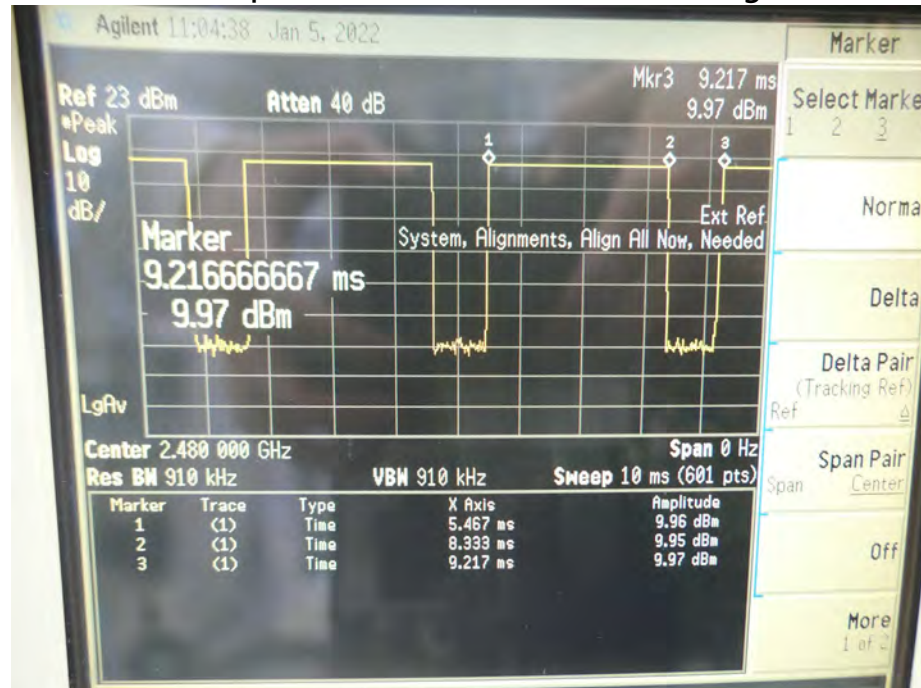
Annex K. Considerations Related to Bluetooth for Setup and Testing

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

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

The duty factor of Bluetooth signal are shown as below.

<Time-domain plot for Bluetooth transmission signal>



Time-domain plot for Bluetooth transmission signal

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

$$\text{Duty Factor} = \text{Pulse Width} / \text{Total Period} = (8.333 - 5.467) / (9.217 - 5.467) = 76.43\%$$