

Annex A. Plots of System Verification

The plots for system verification are shown as follows.

Plots of System Verification

S01 – SAR System Check_H6.5GHz_211203

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Speag 6.5GHz System Validation Kit	50.0 x 10.0 x 8.0		6.5GHzV2 Validation Kit

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,	,		UID 0	6500.0,	5.65	6.188	33.751

Hardware Setup

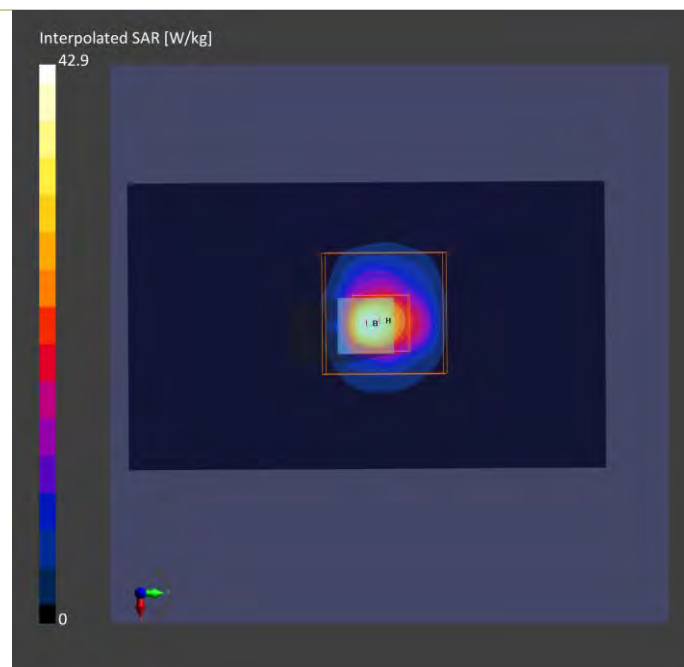
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 2105	H50T72N3, 2021-Dec-03	EX3DV4 - SN7554, 2021-08-26	DAE4 Sn1589, 2021-08-20

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	52.5 x 82.5	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	2021-12-03	2021-12-03
psSAR1g [W/Kg]	24.7	31.2
psSAR10g [W/Kg]	5.20	5.74
Power Drift [dB]	0.02	0.00



Plots of System Verification

S01 Power Density_System Check_10 GHz_2021.12.06

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	IMEI	DUT Type
SPEAG	100.0 x 100.0 x 172.0	SN: 1025	5G Verification Source 10 GHz

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5GAir	Front 10.00	Validation band	CW	10000.0	1.0

Hardware Setup

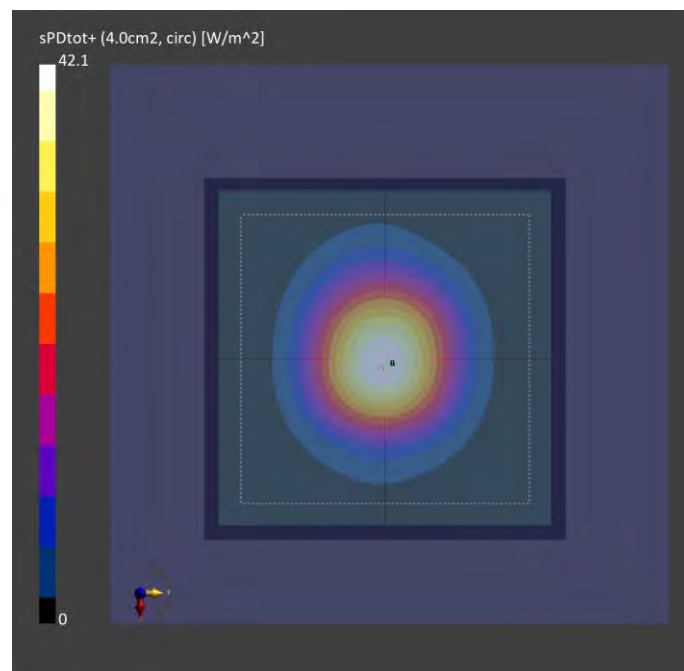
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	--Air--	EUmmWV4 - SN9438_F1-55GHz, 2021-07-26	DAE4 Sn1277, 2021-01-19

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.0

Measurement Results

	5G Scan
Date	2021-12-06
Avg. Area [cm ²]	4.00
pS _{tot} avg[W/m ²]	42.1
pS _n avg [W/m ²]	41.8
E _{peak} [V/m]	136
Power Drift [dB]	0.01



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

P01 SAR - UNII-5_802.11ax HE160_Bottom_0mm_CH47_Sample SKU AB_AL_WNC_Ant0

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
BEDW-WTW-P21090369,	325.0 x 210.0 x 10.0		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	Bottom, 0.00	U-NII-5	WLAN, 10755-AAC	6185.0, 47	5.6	5.70	34.3

Hardware Setup

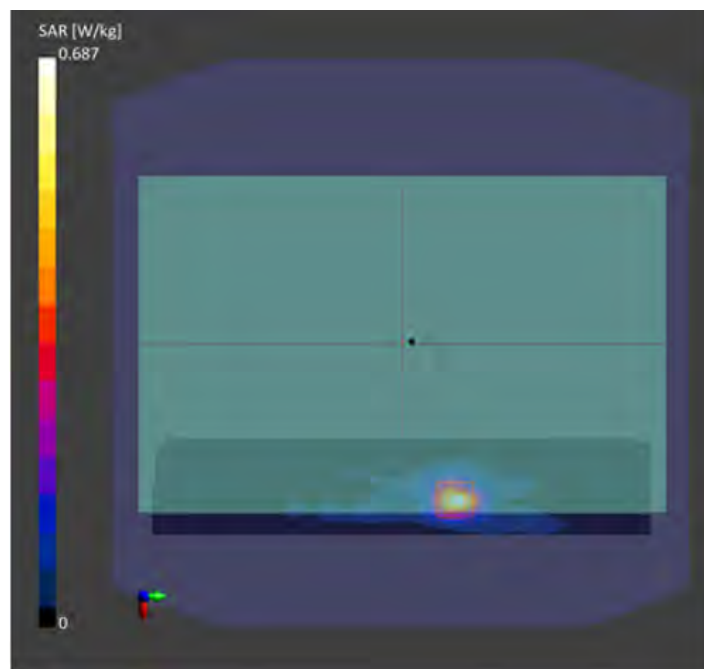
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2105	HBBL-600-10000 , 2021-Dec-03	EX3DV4 - SN7554, 2021-08-26	DAE4 Sn1589, 2021-08-20

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 300.0	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	2021-12-03	2021-12-03
psSAR1g [W/Kg]	0.415	0.419
psSAR10g [W/Kg]	0.181	0.187
Power Drift [dB]	-0.05	0.05



Plots of Measurement

P01 Power Density - UNII-5_802.11ax HE160_Bottom_0mm_Ch47_Sample SKU AB_AL_WNC_Ant0

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	IMEI	DUT Type
BEDW-WTW-P21090369	320.0 x 210.0 x 13.0		Laptop

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5GAir	Bottom 2.00	U-NII-5	WLAN 10755	6185.0 47	1.0

Hardware Setup

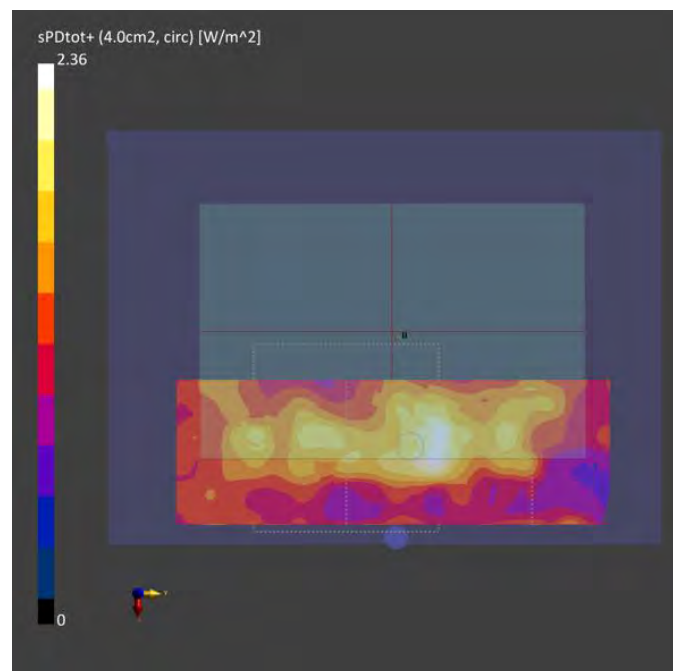
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	--Air--	EUmmWV4 - SN9438_F1-55GHz, 2021-07-26	DAE4 Sn1277, 2021-01-19

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	2021-12-06
Avg. Area [cm ²]	4.00
pS _{tot} avg[W/m ²]	1.88
pS _n avg [W/m ²]	1.19
E _{peak} [V/m]	47.0
Power Drift [dB]	0.08



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	6500	23.3	6.188	33.751	6.07	34.5	1.94	-2.17	Pass	Pass	Pass	OFDM	N/A	Pass	Dec. 03, 2021	6500	290.00	31.2	312.00	7.59	1029	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 [%]
S01	Dec. 06, 2021	10	9438	1025	4	10.0	42.7	42.1	-1.41%

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 (Full)							
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	5.0	5.0	2.0	2.0	5.0
	5	5975	5.0	5.0	2.0	2.0	5.0
	9	5995	5.0	5.0	2.0	2.0	5.0
	13	6015	5.0	5.0	2.0	2.0	5.0
	17	6035	5.0	5.0	2.0	2.0	5.0
	21	6055	5.0	5.0	2.0	2.0	5.0
	25	6075	5.0	5.0	2.0	2.0	5.0
	29	6095	5.0	5.0	2.0	2.0	5.0
	33	6115	5.0	5.0	2.0	2.0	5.0
	37	6135	5.0	5.0	2.0	2.0	5.0
	41	6155	5.0	5.0	2.0	2.0	5.0
	45	6175	5.0	5.0	2.0	2.0	5.0
	49	6195	5.0	5.0	2.0	2.0	5.0
	53	6215	5.0	5.0	2.0	2.0	5.0
	57	6235	5.0	5.0	2.0	2.0	5.0
	61	6255	5.0	5.0	2.0	2.0	5.0
	65	6275	5.0	5.0	2.0	2.0	5.0
	69	6295	5.0	5.0	2.0	2.0	5.0
	73	6315	5.0	5.0	2.0	2.0	5.0
	77	6335	5.0	5.0	2.0	2.0	5.0
	81	6355	5.0	5.0	2.0	2.0	5.0
	85	6375	5.0	5.0	2.0	2.0	5.0
	89	6395	5.0	5.0	2.0	2.0	5.0
	93	6415	5.0	5.0	2.0	2.0	5.0
802.11ax HE40	3	5965	8.0	8.0	5.0	5.0	8.0
	11	6005	8.0	8.0	5.0	5.0	8.0
	19	6045	8.0	8.0	5.0	5.0	8.0
	27	6085	8.0	8.0	5.0	5.0	8.0
	35	6125	8.0	8.0	5.0	5.0	8.0
	43	6165	8.0	8.0	5.0	5.0	8.0
	51	6205	8.0	8.0	5.0	5.0	8.0
	59	6245	8.0	8.0	5.0	5.0	8.0
	67	6285	8.0	8.0	5.0	5.0	8.0
	75	6325	8.0	8.0	5.0	5.0	8.0
	83	6365	8.0	8.0	5.0	5.0	8.0
	91	6405	8.0	8.0	5.0	5.0	8.0
802.11ax HE80	7	5985	10.5	10.5	7.5	7.5	10.5
	23	6065	10.5	10.5	7.5	7.5	10.5
	39	6145	10.5	10.5	7.5	7.5	10.5
	55	6225	10.5	10.5	7.5	7.5	10.5
	71	6305	10.5	10.5	7.5	7.5	10.5
	87	6385	10.5	10.5	7.5	7.5	10.5
802.11ax HE160	15	6025	13.5	13.5	10.5	10.5	13.5
	47	6185	13.5	13.5	10.5	10.5	13.5
	79	6345	13.5	13.5	10.5	10.5	13.5

WLAN Tune-up Power (Full)							
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	5.0	5.0	2.0	2.0	5.0
	101	6455	5.0	5.0	2.0	2.0	5.0
	105	6475	5.0	5.0	2.0	2.0	5.0
	109	6495	5.0	5.0	2.0	2.0	5.0
	113	6515	5.0	5.0	2.0	2.0	5.0
	117	6535	5.0	5.0	2.0	2.0	5.0
802.11ax HE40	99	6445	8.0	8.0	5.0	5.0	8.0
	107	6485	8.0	8.0	5.0	5.0	8.0
	115	6525	8.0	8.0	5.0	5.0	8.0
802.11ax HE80	103	6465	10.5	10.5	7.5	7.5	10.5
	119	6545	10.5	10.5	7.5	7.5	10.5
802.11ax HE160	111	6505	13.5	13.5	10.5	10.5	13.5

WLAN Tune-up Power (Full)							
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	5.0	5.0	2.0	2.0	5.0
	125	6575	5.0	5.0	2.0	2.0	5.0
	129	6595	5.0	5.0	2.0	2.0	5.0
	133	6615	5.0	5.0	2.0	2.0	5.0
	137	6635	5.0	5.0	2.0	2.0	5.0
	141	6655	5.0	5.0	2.0	2.0	5.0
	145	6675	5.0	5.0	2.0	2.0	5.0
	149	6695	5.0	5.0	2.0	2.0	5.0
	153	6715	5.0	5.0	2.0	2.0	5.0
	157	6735	5.0	5.0	2.0	2.0	5.0
	161	6755	5.0	5.0	2.0	2.0	5.0
	165	6775	5.0	5.0	2.0	2.0	5.0
	169	6795	5.0	5.0	2.0	2.0	5.0
	173	6815	5.0	5.0	2.0	2.0	5.0
	177	6835	5.0	5.0	2.0	2.0	5.0
	181	6855	5.0	5.0	2.0	2.0	5.0
	185	6875	5.0	5.0	2.0	2.0	5.0
802.11ax HE40	123	6565	8.0	8.0	5.0	5.0	8.0
	131	6605	8.0	8.0	5.0	5.0	8.0
	139	6645	8.0	8.0	5.0	5.0	8.0
	147	6685	8.0	8.0	5.0	5.0	8.0
	155	6725	8.0	8.0	5.0	5.0	8.0
	163	6765	8.0	8.0	5.0	5.0	8.0
	171	6805	8.0	8.0	5.0	5.0	8.0
	179	6845	8.0	8.0	5.0	5.0	8.0
	187	6885	8.0	8.0	5.0	5.0	8.0
802.11ax HE80	135	6625	10.5	10.5	7.5	7.5	10.5
	151	6705	10.5	10.5	7.5	7.5	10.5
	167	6785	10.5	10.5	7.5	7.5	10.5
	183	6865	10.5	10.5	7.5	7.5	10.5
802.11ax HE160	143	6665	13.5	13.5	10.5	10.5	13.5
	175	6825	13.5	13.5	10.5	10.5	13.5

WLAN Tune-up Power (Full)							
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	5.0	5.0	2.0	2.0	5.0
	193	6915	5.0	5.0	2.0	2.0	5.0
	197	6935	5.0	5.0	2.0	2.0	5.0
	201	6955	5.0	5.0	2.0	2.0	5.0
	205	6975	5.0	5.0	2.0	2.0	5.0
	209	6995	5.0	5.0	2.0	2.0	5.0
	213	7015	5.0	5.0	2.0	2.0	5.0
	217	7035	5.0	5.0	2.0	2.0	5.0
	221	7055	5.0	5.0	2.0	2.0	5.0
	225	7075	5.0	5.0	2.0	2.0	5.0
	229	7095	5.0	5.0	2.0	2.0	5.0
	233	7115	5.0	5.0	2.0	2.0	5.0
802.11ax HE40	195	6925	8.0	8.0	5.0	5.0	8.0
	203	6965	8.0	8.0	5.0	5.0	8.0
	211	7005	8.0	8.0	5.0	5.0	8.0
	219	7045	8.0	8.0	5.0	5.0	8.0
	227	7085	8.0	8.0	5.0	5.0	8.0
802.11ax HE80	199	6945	10.5	10.5	7.5	7.5	10.5
	215	7025	10.5	10.5	7.5	7.5	10.5
802.11ax HE160	207	6985	13.5	13.5	10.5	10.5	13.5

Annex E. Measured Conducted Power Result

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

WLAN Conducted Power (Full)			
UNII-5 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	15	6025	13.44
	47	6185	13.49
	79	6345	13.41

UNII-6 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	111	6505	13.39

UNII-7 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	143	6665	13.38
	175	6825	13.4

UNII-8 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	207	6985	13.35

WLAN Conducted Power (Full)			
UNII-5 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	15	6025	13.45
	47	6185	13.49
	79	6345	13.47

UNII-6 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	111	6505	13.43

UNII-7 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	143	6665	13.37
	175	6825	13.39

UNII-8 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	207	6985	13.41

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	10.47	10.46	13.48
	47	6185	10.49	10.48	13.5
	79	6345	10.43	10.43	13.44

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	10.33	10.44	13.4

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	10.43	10.36	13.41
	175	6825	10.38	10.33	13.37

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	10.42	10.39	13.42

Annex F. SAR and Power Density Test Result

SAR Results for Body Exposure Condition.

Note:

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

SAR and Power Density Test Result																									
System & Position						DUT & Accessory		SAR								Power Density									
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	Antenna Manufacturer	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]
1	UNII-5	802.11ax HE160	Bottom	0	47	WNC	Ant 0	96.00	1.04	13.50	13.49	1.00	0.05	0.419	0.44	3.29	0.25	4.31	1.545	4.00	0.08	1.19	1.95	1.88	3.08
	UNII-5	802.11ax HE160	Bottom	0	47	WNC	Ant 1	94.00	1.06	13.50	13.49	1.00	0.09	0.328	0.35	1.99									
	UNII-5	802.11ax HE160	Bottom	0	47	WNC	Ant 0+1	91.80	1.09	13.50	13.50	1.00	0.11	0.197	0.21	1.24									
	UNII-5	802.11ax HE160	Bottom	0	15	WNC	Ant 0	96.00	1.04	13.50	13.44	1.01	-0.07	0.339	0.36	2.12									
	UNII-5	802.11ax HE160	Bottom	0	79	WNC	Ant 0	96.00	1.04	13.50	13.41	1.02	0.09	0.298	0.32	1.83									
	UNII-6	802.11ax HE160	Bottom	0	111	WNC	Ant 0	96.00	1.04	13.50	13.39	1.03	0.07	0.208	0.22	1.23									
	UNII-7	802.11ax HE160	Bottom	0	143	WNC	Ant 0	96.00	1.04	13.50	13.38	1.03	-0.13	0.186	0.20	1.10									
	UNII-7	802.11ax HE160	Bottom	0	175	WNC	Ant 0	96.00	1.04	13.50	13.40	1.02	-0.12	0.157	0.17	0.89									
	UNII-8	802.11ax HE160	Bottom	0	207	WNC	Ant 0	96.00	1.04	13.50	13.35	1.04	0.05	0.187	0.20	0.96									
	UNII-5	802.11ax HE160	Bottom	0	47	HB	Ant 0	96.00	1.04	13.50	13.49	1.00	0.18	0.36	0.37	2.24									
	UNII-5	802.11ax HE160	Bottom	0	47	Speed	Ant 0	96.00	1.04	13.50	13.49	1.00	0.1	0.367	0.38	2.27									
	UNII-5	802.11ax HE160	Bottom	0	47	Auden	Ant 0	96.00	1.04	13.50	13.49	1.00	0.09	0.351	0.37	2.16									

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	WWAN + WLAN 6G + BT	Yes

Notes

1. The WLAN 2.4G , 5G and 6G cannot transmit simultaneously.

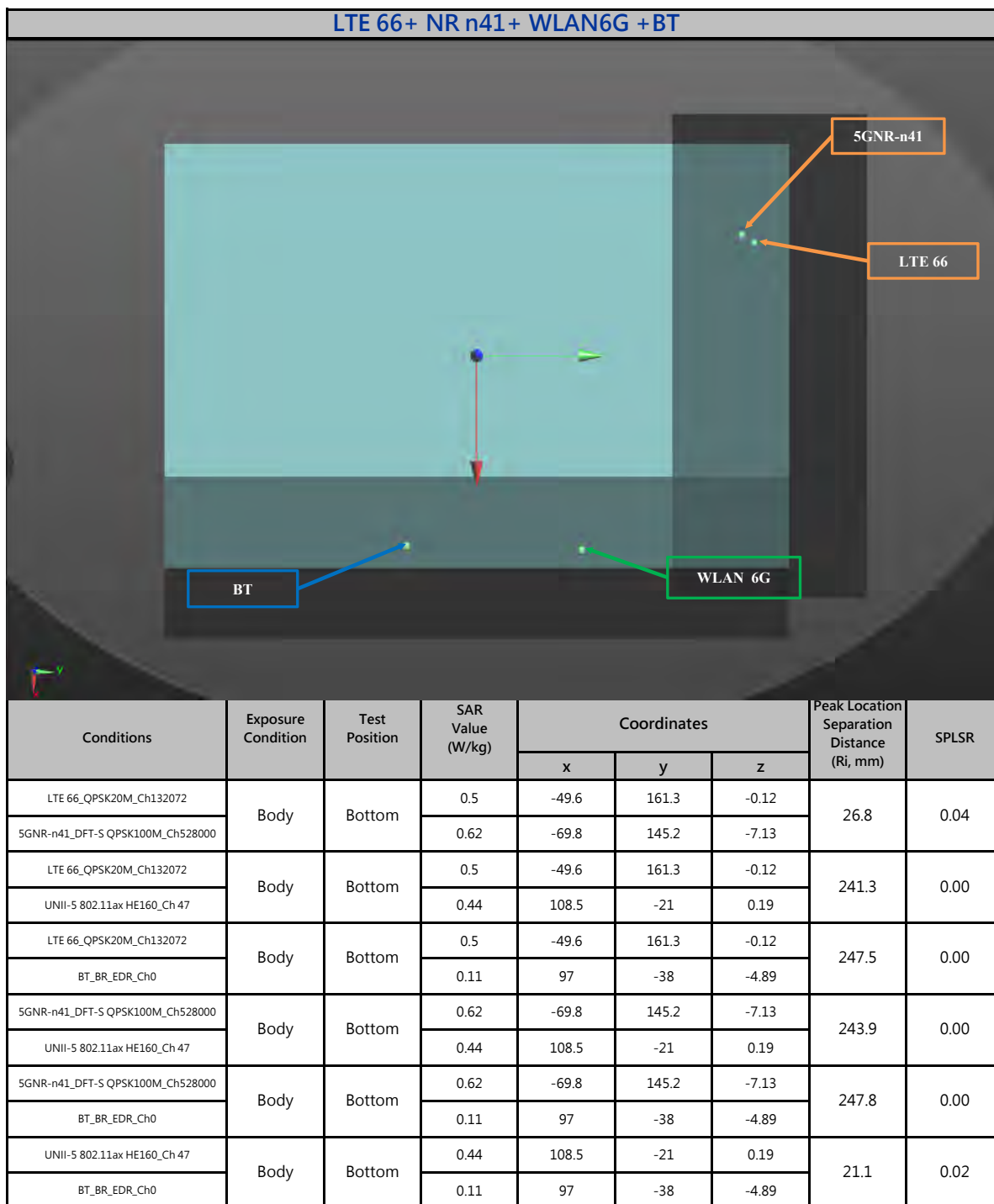
Simultaneous Transmission SAR Evaluation (Body)					
Band	Position	1	3	3	A (1 + 2 + 3)
		Max WWAN	Max WLAN 6G	Max BT	Summing result 1g SAR W/kg
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	
LTE 2	Bottom	0.39	0.44	0.11	0.94
LTE 4	Bottom	0.00	0.44	0.11	0.55
LTE 5	Bottom	0.00	0.44	0.11	0.55
LTE 7	Bottom	0.69	0.44	0.11	1.24
LTE 12	Bottom	0.00	0.44	0.11	0.55
LTE 13	Bottom	0.00	0.44	0.11	0.55
LTE 14	Bottom	0.00	0.44	0.11	0.55
LTE 25	Bottom	0.00	0.44	0.11	0.55
LTE 26	Bottom	0.00	0.44	0.11	0.55
LTE 30	Bottom	0.00	0.44	0.11	0.55
LTE 41	Bottom	0.00	0.44	0.11	0.55
LTE 42	Bottom	0.64	0.44	0.11	1.19
LTE 48	Bottom	0.69	0.44	0.11	1.24
LTE 66	Bottom	0.50	0.44	0.11	1.05

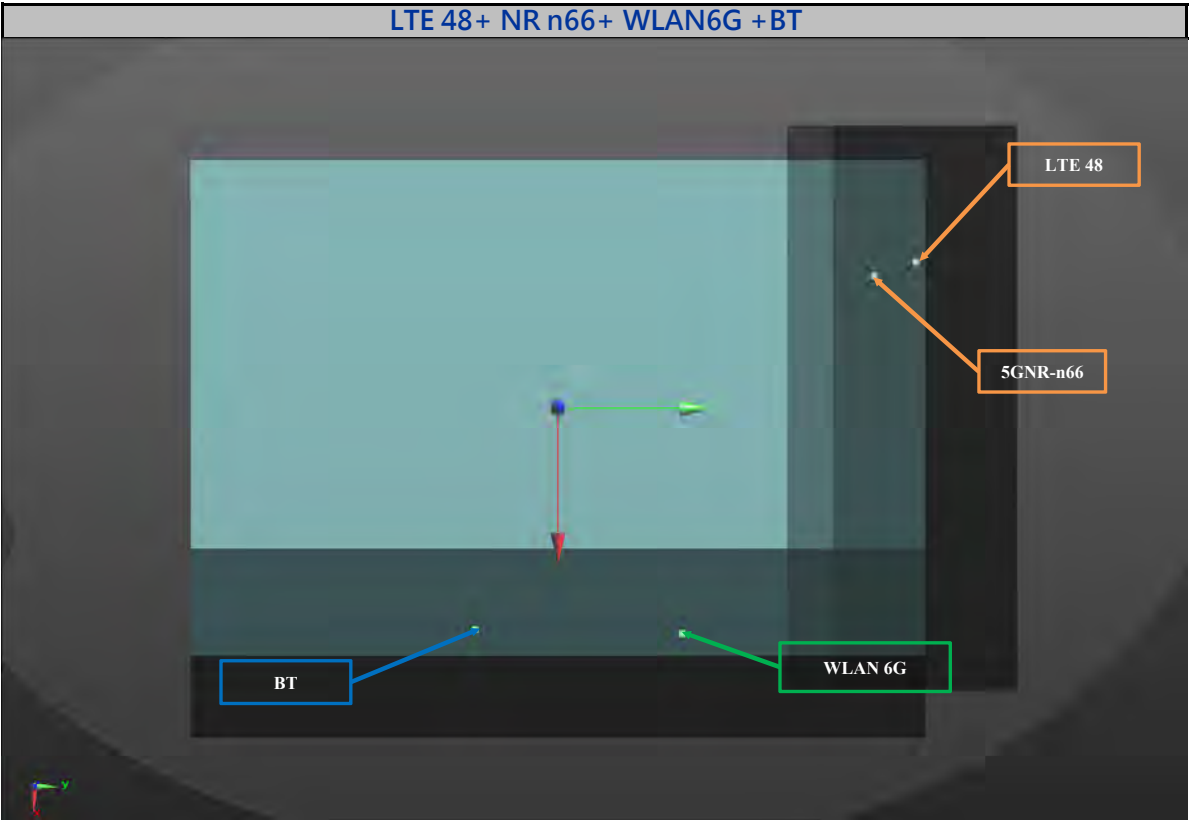
Simultaneous Transmission SAR Evaluation (Body) for EN-DC

Band	Band	Position	1	2	3	4	A (1 + 2 + 3 + 4)
			Max LTE	Max NR	Max WLAN 6E	Max BT	Summing result 1g SAR W/kg
			1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	
LTE 5	5GNR-n2	Bottom	0.00	0.35	0.44	0.11	0.90
LTE 12	5GNR-n2	Bottom	0.00	0.35	0.44	0.11	0.90
LTE 13	5GNR-n2	Bottom	0.00	0.35	0.44	0.11	0.90
LTE 30	5GNR-n2	Bottom	0.00	0.35	0.44	0.11	0.90
LTE 48	5GNR-n2	Bottom	0.69	0.35	0.44	0.11	1.59
LTE 66	5GNR-n2	Bottom	0.50	0.35	0.44	0.11	1.40
LTE 2	5GNR-n5	Bottom	0.39	0.00	0.44	0.11	0.94
LTE 7	5GNR-n5	Bottom	0.69	0.00	0.44	0.11	1.24
LTE 12	5GNR-n5	Bottom	0.00	0.00	0.44	0.11	0.55
LTE 48	5GNR-n5	Bottom	0.69	0.00	0.44	0.11	1.24
LTE 66	5GNR-n5	Bottom	0.50	0.00	0.44	0.11	1.05
LTE 5	5GNR-n7	Bottom	0.00	0.46	0.44	0.11	1.01
LTE 12	5GNR-n7	Bottom	0.00	0.46	0.44	0.11	1.01
LTE 2	5GNR-n12	Bottom	0.39	0.00	0.44	0.11	0.94
LTE 66	5GNR-n12	Bottom	0.50	0.00	0.44	0.11	1.05
LTE 2	5GNR-n41	Bottom	0.39	0.62	0.44	0.11	1.56
LTE 25	5GNR-n41	Bottom	0.00	0.62	0.44	0.11	1.17
LTE 26	5GNR-n41	Bottom	0.00	0.62	0.44	0.11	1.17
LTE 66	5GNR-n41	Bottom	0.50	0.62	0.44	0.11	1.67
LTE 41	5GNR-n41	Bottom	0.00	0.62	0.44	0.11	1.17
LTE 5	5GNR-n66	Bottom	0.00	0.51	0.44	0.11	1.06
LTE 12	5GNR-n66	Bottom	0.00	0.51	0.44	0.11	1.06
LTE 13	5GNR-n66	Bottom	0.00	0.51	0.44	0.11	1.06
LTE 30	5GNR-n66	Bottom	0.00	0.51	0.44	0.11	1.06
LTE 48	5GNR-n66	Bottom	0.69	0.51	0.44	0.11	1.75

Annex I. SAR to Peak Location Separation Ratio Analysis.

The result of analysis are shown as below.





Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (Ri, mm)	SPLSR
				x	y	z		
LTE 48_QPSK20M_Ch56640	Body	Bottom	0.69	-69.2	159	0.06	30.0	0.04
5GNR-n66_DFT-S QPSK20M_Ch349000			0.51	-54.4	133.2	-4.16		
LTE 48_QPSK20M_Ch56640	Body	Bottom	0.69	-69.2	159	0.06	252.9	0.00
UNII-5 802.11ax HE160_Ch 47			0.44	108.5	-21	0.19		
LTE 48_QPSK20M_Ch56640	Body	Bottom	0.69	-69.2	159	0.06	257.8	0.00
BT_BR_EDR_Ch0			0.11	97	-38	-4.89		
5GNR-n66_DFT-S QPSK20M_Ch349000	Body	Bottom	0.51	-54.4	133.2	-4.16	224.4	0.00
UNII-5 802.11ax HE160_Ch 47			0.44	108.5	-21	0.19		
5GNR-n66_DFT-S QPSK20M_Ch349000	Body	Bottom	0.51	-54.4	133.2	-4.16	228.5	0.00
BT_BR_EDR_Ch0			0.11	97	-38	-4.89		
UNII-5 802.11ax HE160_Ch 47	Body	Bottom	0.44	108.5	-21	0.19	21.1	0.02
BT_BR_EDR_Ch0			0.11	97	-38	-4.89		

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	D6.5GHzV2	1029	Feb. 10, 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
E-Field Probe	SPEAG	EUmmWV4	9438	Jul. 26, 2021	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1589	Aug. 20, 2021	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1277	Jan. 19, 2021	1 Year
Spectrum Analyzer	R&S	FSL6	102006	Apr. 06, 2021	1 Year
Universal Wireless Test Set	Anritsu	MT8870A/MU887000A	6262296569	Aug. 18, 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