Annex A. Plots of SAR and Power Density System Verification

The plots for system verification are shown as follows.

Measurement Report

S01S System Check_H6.5GHz_210922

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
H6.5GHz	50.0 x 10.0 x 8.0		

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			UID 0	6500	5.6	6.19	33.8

Hardware Setup

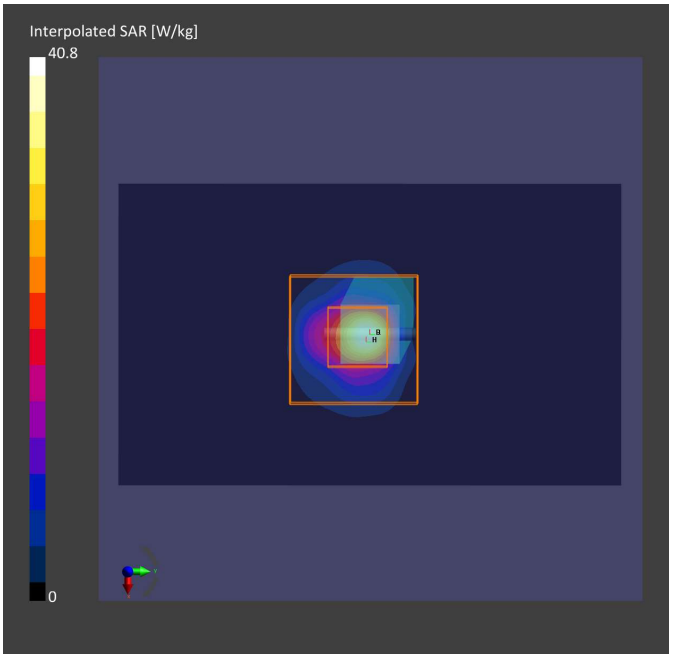
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2105	H50T72N1 , 2021-Sep-22	EX3DV4 - SN7554, 2021-08-26	DAE4 Sn1589, 2021-08-20

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	51.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2021-09-22	2021-09-22
psSAR1g [W/Kg]	22.6	27.5
psSAR10g [W/Kg]	4.55	5.08
Power Drift [dB]	-0.08	-0.03



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

Power Density Plot No.:

S01P PD_System Check_10 GHz_2021.09.23

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	IMEI	DUT Type
SPEAG	100.0 x 100.0 x 172.0	SN: 1025	-

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	1.0

Hardware Setup

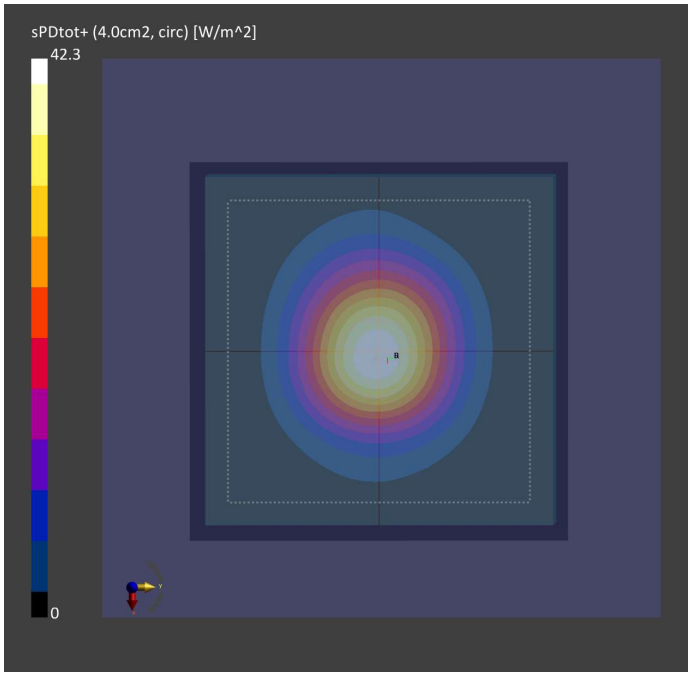
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air---	EUmmWV4 - SN9438_F1-55GHz, 2021-07-26	DAE4 Sn1589, 2021-08-20

Scan Setup

	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.0

Measurement Results

	5G Scan
Date	2021-09-23
Avg. Area [cm²]	4.00
$pS_{tot}avg$[W/m²]	42.3
$pS_{n}avg$ [W/m²]	42.1
E_{peak} [V/m]	136
Power Drift [dB]	0.01



Annex B. Plots of SAR and Power Density Measurement

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

Measurement Report

P01S UNII-5_802.11ax HE160_Bottom_0mm_Ch47_Sample 1_Ant 1_P-Sensor

w Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
BEDW-WTW-P21080873	312.0 x 212.0 x 12.0		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,	Bottom 0.00	U-NII-5	WLAN, 10755-AAC	6185 47	5.6	5.62	34.4

Hardware Setup

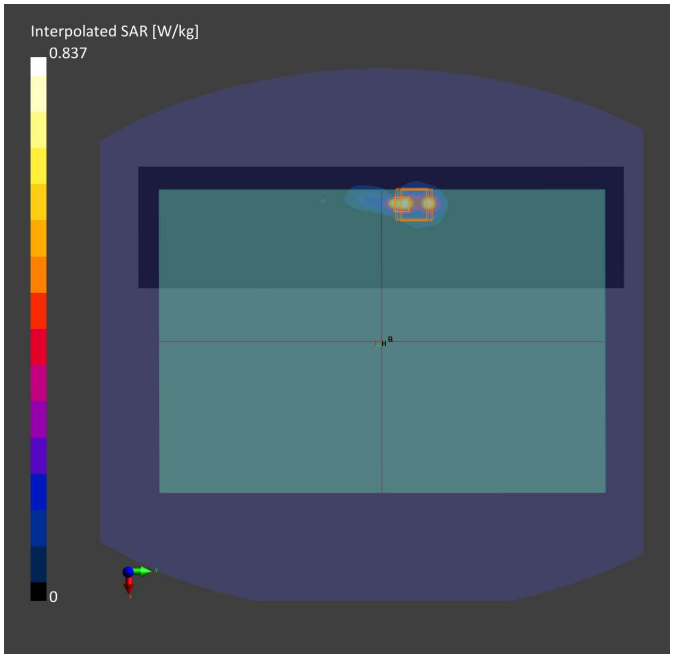
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2105	H50T72N1 , 2021-Sep-22	EX3DV4 - SN7554, 2021-08-26	DAE4 Sn1589, 2021-08-20

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 340.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2021-09-22	2021-09-22
psSAR1g [W/Kg]	0.491	0.590
psSAR10g [W/Kg]	0.133	0.137
Power Drift [dB]	-0.15	-0.01



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

Power Density Plot No.:

P01P UNII-5_802.11ax HE160_Bottom_0mm_Ch47_Sample 1_Ant 1_P-Sensor

w Device under Test Properties

Name, Manufacturer	Dimensions [mm]	IMEI	DUT Type
BEDW-WTW-P21080873	312.0 x 212.0 x 12.0		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 47	1.0

Hardware Setup

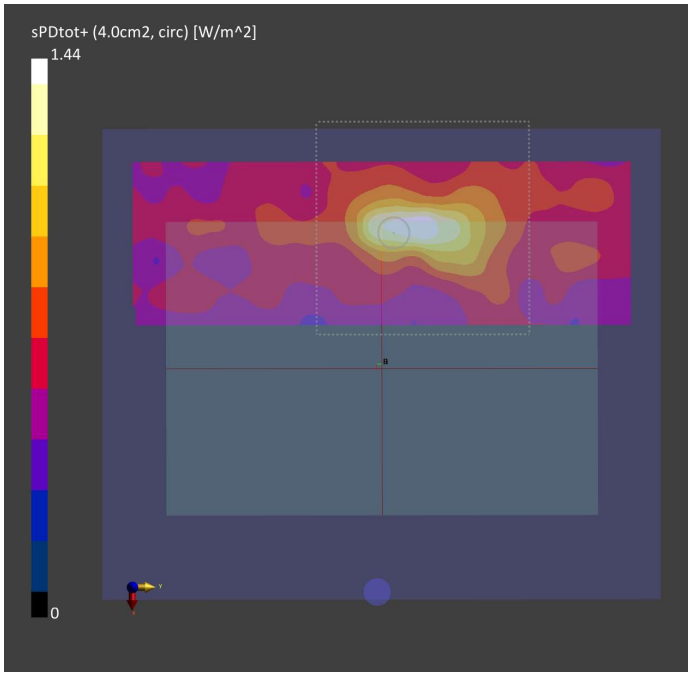
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air---	EUmmWV4 - SN9438_F1-55GHz, 2021-07-26	DAE4 Sn1589, 2021-08-20

Scan Setup

	5G Scan
Grid Extents [mm]	25.0 x 25.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	2.0

Measurement Results

	5G Scan
Date	2021-09-23
Avg. Area [cm²]	4.00
$pS_{tot}avg$[W/m²]	1.44
$pS_{n}avg$ [W/m²]	1.28
E_{peak} [V/m]	35.1
Power Drift [dB]	-0.15



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 ℃.
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. (℃)	Conductivity (σ)	Permittivity (εr)	Targeted Conductivity (σ)	Targeted Permittivity (εr)	Deviation Conductivity (σ)	Deviation Permittivity (εr)	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)
S01S	6500	23.2	6.19	33.8	6.07	34.5	1.98	-2.03	Pass	Pass	Pass	OFDM	N/A	Pass	Sep. 22, 2021	6500	290.00	27.5	275.00	-5.17	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 [%]
S01P	Sep. 23, 2021	10	9438	1025	4	10.0	42.7	42.3	-0.94%

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	5945	5.0	5.0	2.0	2.0	5.0
	5	5965	5.0	5.0	2.0	2.0	5.0
	9	5985	5.0	5.0	2.0	2.0	5.0
	13	6005	5.0	5.0	2.0	2.0	5.0
	17	6025	5.0	5.0	2.0	2.0	5.0
	21	6045	5.0	5.0	2.0	2.0	5.0
	25	6065	5.0	5.0	2.0	2.0	5.0
	29	6085	5.0	5.0	2.0	2.0	5.0
	33	6105	5.0	5.0	2.0	2.0	5.0
	37	6125	5.0	5.0	2.0	2.0	5.0
	41	6145	5.0	5.0	2.0	2.0	5.0
	45	6165	5.0	5.0	2.0	2.0	5.0
	49	6185	5.0	5.0	2.0	2.0	5.0
	53	6205	5.0	5.0	2.0	2.0	5.0
	57	6225	5.0	5.0	2.0	2.0	5.0
	61	6245	5.0	5.0	2.0	2.0	5.0
	65	6265	5.0	5.0	2.0	2.0	5.0
	69	6285	5.0	5.0	2.0	2.0	5.0
	73	6305	5.0	5.0	2.0	2.0	5.0
	77	6325	5.0	5.0	2.0	2.0	5.0
	81	6345	5.0	5.0	2.0	2.0	5.0
	85	6365	5.0	5.0	2.0	2.0	5.0
	89	6385	5.0	5.0	2.0	2.0	5.0
	93	6405	5.0	5.0	2.0	2.0	5.0
802.11ax HE40	3	5955	8.0	8.0	5.0	5.0	8.0
	11	5995	8.0	8.0	5.0	5.0	8.0
	19	6035	8.0	8.0	5.0	5.0	8.0
	27	6075	8.0	8.0	5.0	5.0	8.0
	35	6115	8.0	8.0	5.0	5.0	8.0
	43	6155	8.0	8.0	5.0	5.0	8.0
	51	6195	8.0	8.0	5.0	5.0	8.0
	59	6235	8.0	8.0	5.0	5.0	8.0
	67	6275	8.0	8.0	5.0	5.0	8.0
	75	6315	8.0	8.0	5.0	5.0	8.0
	83	6355	8.0	8.0	5.0	5.0	8.0
	91	6395	8.0	8.0	5.0	5.0	8.0
802.11ax HE80	7	5975	10.5	10.5	7.5	7.5	10.5
	23	6055	10.5	10.5	7.5	7.5	10.5
	39	6135	10.5	10.5	7.5	7.5	10.5
	55	6215	10.5	10.5	7.5	7.5	10.5
	71	6295	10.5	10.5	7.5	7.5	10.5
	87	6375	10.5	10.5	7.5	7.5	10.5
802.11ax HE160	15	6015	13.5	13.5	10.5	10.5	13.5
	47	6175	13.5	13.5	10.5	10.5	13.5
	79	6335	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	6425	5.0	5.0	2.0	2.0	5.0
	101	6445	5.0	5.0	2.0	2.0	5.0
	105	6465	5.0	5.0	2.0	2.0	5.0
	109	6485	5.0	5.0	2.0	2.0	5.0
	113	6505	5.0	5.0	2.0	2.0	5.0
	117	6525	5.0	5.0	2.0	2.0	5.0
802.11ax HE40	99	6435	8.0	8.0	5.0	5.0	8.0
	107	6475	8.0	8.0	5.0	5.0	8.0
	115	6515	8.0	8.0	5.0	5.0	8.0
802.11ax HE80	103	6455	10.5	10.5	7.5	7.5	10.5
	119	6535	10.5	10.5	7.5	7.5	10.5
802.11ax HE160	111	6495	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	6545	5.0	5.0	2.0	2.0	5.0
	125	6565	5.0	5.0	2.0	2.0	5.0
	129	6585	5.0	5.0	2.0	2.0	5.0
	133	6605	5.0	5.0	2.0	2.0	5.0
	137	6625	5.0	5.0	2.0	2.0	5.0
	141	6645	5.0	5.0	2.0	2.0	5.0
	145	6665	5.0	5.0	2.0	2.0	5.0
	149	6685	5.0	5.0	2.0	2.0	5.0
	153	6705	5.0	5.0	2.0	2.0	5.0
	157	6725	5.0	5.0	2.0	2.0	5.0
	161	6745	5.0	5.0	2.0	2.0	5.0
	165	6765	5.0	5.0	2.0	2.0	5.0
	169	6785	5.0	5.0	2.0	2.0	5.0
	173	6805	5.0	5.0	2.0	2.0	5.0
	177	6825	5.0	5.0	2.0	2.0	5.0
	181	6845	5.0	5.0	2.0	2.0	5.0
	185	6865	5.0	5.0	2.0	2.0	5.0
802.11ax HE40	123	6555	8.0	8.0	5.0	5.0	8.0
	131	6595	8.0	8.0	5.0	5.0	8.0
	139	6635	8.0	8.0	5.0	5.0	8.0
	147	6675	8.0	8.0	5.0	5.0	8.0
	155	6715	8.0	8.0	5.0	5.0	8.0
	163	6755	8.0	8.0	5.0	5.0	8.0
	171	6795	8.0	8.0	5.0	5.0	8.0
	179	6835	8.0	8.0	5.0	5.0	8.0
	187	6875	8.0	8.0	5.0	5.0	8.0
802.11ax HE80	135	6615	10.5	10.5	7.5	7.5	10.5
	151	6695	10.5	10.5	7.5	7.5	10.5
	167	6775	10.5	10.5	7.5	7.5	10.5
	183	6855	10.5	10.5	7.5	7.5	10.5
802.11ax HE160	143	6655	13.5	13.5	10.5	10.5	13.5
	175	6815	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	6885	5.0	5.0	2.0	2.0	5.0
	193	6905	5.0	5.0	2.0	2.0	5.0
	197	6925	5.0	5.0	2.0	2.0	5.0
	201	6945	5.0	5.0	2.0	2.0	5.0
	205	6965	5.0	5.0	2.0	2.0	5.0
	209	6985	5.0	5.0	2.0	2.0	5.0
	213	7005	5.0	5.0	2.0	2.0	5.0
	217	7025	5.0	5.0	2.0	2.0	5.0
	221	7045	5.0	5.0	2.0	2.0	5.0
	225	7065	5.0	5.0	2.0	2.0	5.0
	229	7085	5.0	5.0	2.0	2.0	5.0
	233	7105	5.0	5.0	2.0	2.0	5.0
802.11ax HE40	195	6915	8.0	8.0	5.0	5.0	8.0
	203	6955	8.0	8.0	5.0	5.0	8.0
	211	6995	8.0	8.0	5.0	5.0	8.0
	219	7035	8.0	8.0	5.0	5.0	8.0
	227	7075	8.0	8.0	5.0	5.0	8.0
802.11ax HE80	199	6935	10.5	10.5	7.5	7.5	10.5
	215	7015	10.5	10.5	7.5	7.5	10.5
802.11ax HE160	207	6975	13.5	13.5	10.5	10.5	13.5

WLAN Tune-up Power (Reduction)							
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	5945	5.0	5.0	2.0	2.0	5.0
	5	5965	5.0	5.0	2.0	2.0	5.0
	9	5985	5.0	5.0	2.0	2.0	5.0
	13	6005	5.0	5.0	2.0	2.0	5.0
	17	6025	5.0	5.0	2.0	2.0	5.0
	21	6045	5.0	5.0	2.0	2.0	5.0
	25	6065	5.0	5.0	2.0	2.0	5.0
	29	6085	5.0	5.0	2.0	2.0	5.0
	33	6105	5.0	5.0	2.0	2.0	5.0
	37	6125	5.0	5.0	2.0	2.0	5.0
	41	6145	5.0	5.0	2.0	2.0	5.0
	45	6165	5.0	5.0	2.0	2.0	5.0
	49	6185	5.0	5.0	2.0	2.0	5.0
	53	6205	5.0	5.0	2.0	2.0	5.0
	57	6225	5.0	5.0	2.0	2.0	5.0
	61	6245	5.0	5.0	2.0	2.0	5.0
	65	6265	5.0	5.0	2.0	2.0	5.0
	69	6285	5.0	5.0	2.0	2.0	5.0
	73	6305	5.0	5.0	2.0	2.0	5.0
	77	6325	5.0	5.0	2.0	2.0	5.0
	81	6345	5.0	5.0	2.0	2.0	5.0
	85	6365	5.0	5.0	2.0	2.0	5.0
	89	6385	5.0	5.0	2.0	2.0	5.0
	93	6405	5.0	5.0	2.0	2.0	5.0
802.11ax HE40	3	5955	8.0	8.0	5.0	5.0	8.0
	11	5995	8.0	8.0	5.0	5.0	8.0
	19	6035	8.0	8.0	5.0	5.0	8.0
	27	6075	8.0	8.0	5.0	5.0	8.0
	35	6115	8.0	8.0	5.0	5.0	8.0
	43	6155	8.0	8.0	5.0	5.0	8.0
	51	6195	8.0	8.0	5.0	5.0	8.0
	59	6235	8.0	8.0	5.0	5.0	8.0
	67	6275	8.0	8.0	5.0	5.0	8.0
	75	6315	8.0	8.0	5.0	5.0	8.0
	83	6355	8.0	8.0	5.0	5.0	8.0
	91	6395	8.0	8.0	5.0	5.0	8.0
802.11ax HE80	7	5975	10.0	10.0	7.0	7.0	10.0
	23	6055	10.0	10.0	7.0	7.0	10.0
	39	6135	10.0	10.0	7.0	7.0	10.0
	55	6215	10.0	10.0	7.0	7.0	10.0
	71	6295	10.0	10.0	7.0	7.0	10.0
	87	6375	10.0	10.0	7.0	7.0	10.0
802.11ax HE160	15	6015	10.0	10.0	7.0	7.0	10.0
	47	6175	10.0	10.0	7.0	7.0	10.0
	79	6335	10.0	10.0	7.0	7.0	10.0

WLAN Tune-up Power (Reduction)							
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	6425	5.0	5.0	2.0	2.0	5.0
	101	6445	5.0	5.0	2.0	2.0	5.0
	105	6465	5.0	5.0	2.0	2.0	5.0
	109	6485	5.0	5.0	2.0	2.0	5.0
	113	6505	5.0	5.0	2.0	2.0	5.0
	117	6525	5.0	5.0	2.0	2.0	5.0
802.11ax HE40	99	6435	8.0	8.0	5.0	5.0	8.0
	107	6475	8.0	8.0	5.0	5.0	8.0
	115	6515	8.0	8.0	5.0	5.0	8.0
802.11ax HE80	103	6455	8.5	8.5	5.5	5.5	8.5
	119	6535	8.5	8.5	5.5	5.5	8.5
802.11ax HE160	111	6495	8.5	8.5	5.5	5.5	8.5

WLAN Tune-up Power (Reduction)							
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	6545	5.0	5.0	2.0	2.0	5.0
	125	6565	5.0	5.0	2.0	2.0	5.0
	129	6585	5.0	5.0	2.0	2.0	5.0
	133	6605	5.0	5.0	2.0	2.0	5.0
	137	6625	5.0	5.0	2.0	2.0	5.0
	141	6645	5.0	5.0	2.0	2.0	5.0
	145	6665	5.0	5.0	2.0	2.0	5.0
	149	6685	5.0	5.0	2.0	2.0	5.0
	153	6705	5.0	5.0	2.0	2.0	5.0
	157	6725	5.0	5.0	2.0	2.0	5.0
	161	6745	5.0	5.0	2.0	2.0	5.0
	165	6765	5.0	5.0	2.0	2.0	5.0
	169	6785	5.0	5.0	2.0	2.0	5.0
	173	6805	5.0	5.0	2.0	2.0	5.0
	177	6825	5.0	5.0	2.0	2.0	5.0
	181	6845	5.0	5.0	2.0	2.0	5.0
	185	6865	5.0	5.0	2.0	2.0	5.0
802.11ax HE40	123	6555	8.0	8.0	5.0	5.0	8.0
	131	6595	8.0	8.0	5.0	5.0	8.0
	139	6635	8.0	8.0	5.0	5.0	8.0
	147	6675	8.0	8.0	5.0	5.0	8.0
	155	6715	8.0	8.0	5.0	5.0	8.0
	163	6755	8.0	8.0	5.0	5.0	8.0
	171	6795	8.0	8.0	5.0	5.0	8.0
	179	6835	8.0	8.0	5.0	5.0	8.0
	187	6875	8.0	8.0	5.0	5.0	8.0
802.11ax HE80	135	6615	8.5	8.5	5.5	5.5	8.5
	151	6695	8.5	8.5	5.5	5.5	8.5
	167	6775	8.5	8.5	5.5	5.5	8.5
	183	6855	8.5	8.5	5.5	5.5	8.5
802.11ax HE160	143	6655	8.5	8.5	5.5	5.5	8.5
	175	6815	8.5	8.5	5.5	5.5	8.5

WLAN Tune-up Power (Reduction)							
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	6885	5.0	5.0	2.0	2.0	5.0
	193	6905	5.0	5.0	2.0	2.0	5.0
	197	6925	5.0	5.0	2.0	2.0	5.0
	201	6945	5.0	5.0	2.0	2.0	5.0
	205	6965	5.0	5.0	2.0	2.0	5.0
	209	6985	5.0	5.0	2.0	2.0	5.0
	213	7005	5.0	5.0	2.0	2.0	5.0
	217	7025	5.0	5.0	2.0	2.0	5.0
	221	7045	5.0	5.0	2.0	2.0	5.0
	225	7065	5.0	5.0	2.0	2.0	5.0
	229	7085	5.0	5.0	2.0	2.0	5.0
	233	7105	5.0	5.0	2.0	2.0	5.0
802.11ax HE40	195	6915	8.0	8.0	5.0	5.0	8.0
	203	6955	8.0	8.0	5.0	5.0	8.0
	211	6995	8.0	8.0	5.0	5.0	8.0
	219	7035	8.0	8.0	5.0	5.0	8.0
	227	7075	8.0	8.0	5.0	5.0	8.0
802.11ax HE80	199	6935	9.5	9.5	6.5	6.5	9.5
	215	7015	9.5	9.5	6.5	6.5	9.5
802.11ax HE160	207	6975	9.5	9.5	6.5	6.5	9.5

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	13.43
	47	6185	13.47
	79	6345	13.46

UNII-6 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	111	6505	13.43

UNII-7 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	143	6665	13.45
	175	6825	13.47

UNII-8 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	207	6985	13.46

WLAN Conducted Power (Full)			
UNII-5 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	15	6025	13.43
	47	6185	13.46
	79	6345	13.45

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	13.45
	175	6825	13.48

UNII-8 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	207	6985	13.46

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	10.46	10.43	13.46
	47	6185	10.48	10.46	13.48
	79	6345	10.45	10.42	13.45

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	10.45	10.43	13.45

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	10.46	10.46	13.47
	175	6825	10.48	10.45	13.48

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	10.47	10.46	13.48

WLAN Conducted Power (Reduction)			
UNII-5 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	15	6025	9.91
	47	6185	9.94
	79	6345	9.96

UNII-6 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	111	6505	8.34

UNII-7 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	143	6665	8.41
	175	6825	8.48

UNII-8 Ant 0			
Mode	Channel	Frequency	SISO Ant 0 Avg. Power
802.11ax HE160	207	6985	9.38

WLAN Conducted Power (Reduction)			
UNII-5 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	15	6025	9.77
	47	6185	9.81
	79	6345	9.98

UNII-6 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	111	6505	8.47

UNII-7 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	143	6665	8.48
	175	6825	8.42

UNII-8 Ant 1			
Mode	Channel	Frequency	SISO Ant 1 Avg. Power
802.11ax HE160	207	6985	9.42

WLAN Conducted Power (Reduction)					
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	6.97	6.74	9.87
	47	6185	6.75	6.78	9.78
	79	6345	6.95	6.86	9.92

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	5.49	5.41	8.46

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	5.48	5.45	8.48
	175	6825	5.45	5.42	8.45

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	6.45	6.42	9.45

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																
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	Sample	Ant Status	Power Reduction	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/m^2]	Scaling Factor for Measurement Uncertainty	Averaging Area [cm^2]	Power Drift [dB]	Normal psPD [W/m^2]	Scaled Normal psPD [W/m^2]	Total psPD [W/m^2]	Scaled Total psPD [W/m^2]
	UNII-5	802.11ax HE160	Bottom	0	79	1	Ant 0	w/	98.51	1.02	10.00	9.96	1.01	-0.06	0.42	0.43	3.02	0.25	2.81	1.545	4.00	0.02	1.27	2.00	1.41	2.22
	UNII-5	802.11ax HE160	Bottom	0	79	1	Ant 1	w/	97.53	1.03	10.00	9.98	1.00	0.13	0.485	0.50	2.31			-				-		-
	UNII-5	802.11ax HE160	Bottom	0	79	1	Ant 0+1	w/	96.90	1.03	10.00	9.92	1.02	-0.15	0.306	0.32	1.72	0.25	2.39	1.545	4.00	0.06	0.658	1.05	0.786	1.25
	UNII-5	802.11ax HE160	Bottom	0	15	1	Ant 1	w/	97.53	1.03	10.00	9.77	1.05	0.02	0.575	0.62	2.67			-				-		-
1	UNII-5	802.11ax HE160	Bottom	0	47	1	Ant 1	w/	97.53	1.03	10.00	9.81	1.04	-0.01	0.59	0.63	2.49	0.25	4.03	1.545	4.00	-0.15	1.28	2.04	1.44	2.29
	UNII-6	802.11ax HE160	Bottom	0	111	1	Ant 1	w/	97.53	1.03	8.50	8.47	1.01	-0.03	0.346	0.36	1.47			-				-		-
	UNII-7	802.11ax HE160	Bottom	0	143	1	Ant 1	w/	97.53	1.03	8.50	8.48	1.00	0.08	0.264	0.27	1.28			-				-		-
	UNII-7	802.11ax HE160	Bottom	0	175	1	Ant 1	w/	97.53	1.03	8.50	8.42	1.02	0.05	0.251	0.26	1.15			-				-		-
	UNII-8	802.11ax HE160	Bottom	0	207	1	Ant 1	w/	97.53	1.03	9.50	9.42	1.02	-0.06	0.302	0.32	1.31			-				-		-
	UNII-5	802.11ax HE160	Bottom	0	47	2	Ant 1	w/	97.53	1.03	10.00	9.81	1.04	0.01	0.484	0.52	3.26	0.25	4.73	1.545	4.00	0.13	1.25	1.99	1.33	2.12
																				-				-		-

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	WIFI6E_Ant0 + BT_Ant1	Yes
B	WIFI6E_Ant0+1 + BT_Ant1	Yes

Notes

1. The WLAN 2.4G and WIFI6E cannot transmit simultaneously.

Simultaneous Transmission SAR Evaluation (Body)					
Position	1	2	3	A (1+3)	B (2+3)
	WIFI6E Ant 0	**WIFI6E Ant 0+1**	**BT Ant 1**	Summimg result 1g SAR W/kg	Summimg result 1g SAR W/kg
	1g SAR W/kg	**1g SAR W/kg**	**1g SAR W/kg**		
Bottom	0.63	0.32	0.56	1.19	0.88

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	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
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

Annex Z. Calibration Certificate for Probe and Dipole

The SPEAG calibration certificates are shown as follows.

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

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

Client Auden

Certificate No: D6.5GHzV2-1029_Feb21

CALIBRATION CERTIFICATE

Object: D6.5GHzV2 - SN:1029

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

Calibration date: February 10, 2021

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	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: 7405	30-Dec-20 (No. EX3-7405_Dec20)	Dec-21
DAE4	SN: 908	14-Aug-20 (No. DAE4-908_Aug20)	Aug-21

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor R&S NRP33T	SN: 100967	17-Oct-16 (in house check Dec-18)	In house check: Dec-21
RF generator Anapico APSIN20G	SN: 669	28-Mar-17 (in house check Dec-18)	In house check: Dec-21
Network Analyzer R&S ZVL13	SN: 101093	10-May-12 (in house check Dec-18)	In house check: Dec-21

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: February 12, 2021

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:

a) IEC/IEEE 62209-1528 ED1, "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)", draft 2019

Additional Documentation:

b) DASY6 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.
- *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 absorbed power density (APD):* The absorbed power density is evaluated according to Samaras T, Christ A, Kuster N, "*Compliance assessment of the epithelial or absorbed power density above 6 GHz using SAR measurement systems",* Bioelectromagnetics, 2021 (submitted). The additional evaluation uncertainty of 0.55 dB (rectangular distribution) is considered.

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	DASY6	V6.14
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	5 mm	with Spacer
Zoom Scan Resolution	dx, dy = 3.4 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	6500 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	34.5	6.07 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	33.7 ± 6 %	6.12 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	29.2 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**290 W/kg ± 24.7 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	condition	
SAR measured	100 mW input power	5.33 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**53.0 W/kg ± 24.4 % (k=2)**

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	50.4 Ω - 4.3 jΩ
Return Loss	- 27.4 dB

APD (Absorber Power Density)

APD averaged over 1 cm²	Condition	
APD measured	100 mW input power	290 W/m²
APD measured	normalized to 1W	**2900 W/m² ± 29.2 % (k=2)**

APD averaged over 4 cm²	condition	
APD measured	100 mW input power	132 W/m²
APD measured	normalized to 1W	**1320 W/m² ± 28.9 % (k=2)**

*The reported APD values have been derived using psSAR10g. cDASY6 V6.16+ will use psSAR8g resulting in more accurate estimation of the APD values. The estimated offset is less than – 0.15 dB.

General Antenna Parameters and Design

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

DASY6 Validation Report for Head TSL

Measurement Report for D6.5GHz-1029, UID 0 -, Channel 6500 (6500.0MHz)

Device under Test Properties

Name, Manufacturer	Dimensions [mm]	IMEI	DUT Type
D6.5GHz	16.0 x 6.0 x 300.0	SN: 1029	-

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Cond. [S/m]	TSL Permittivity
Flat, HSL	5.00	Band	CW,	6500	5.75	6.12	33.7

Hardware Setup

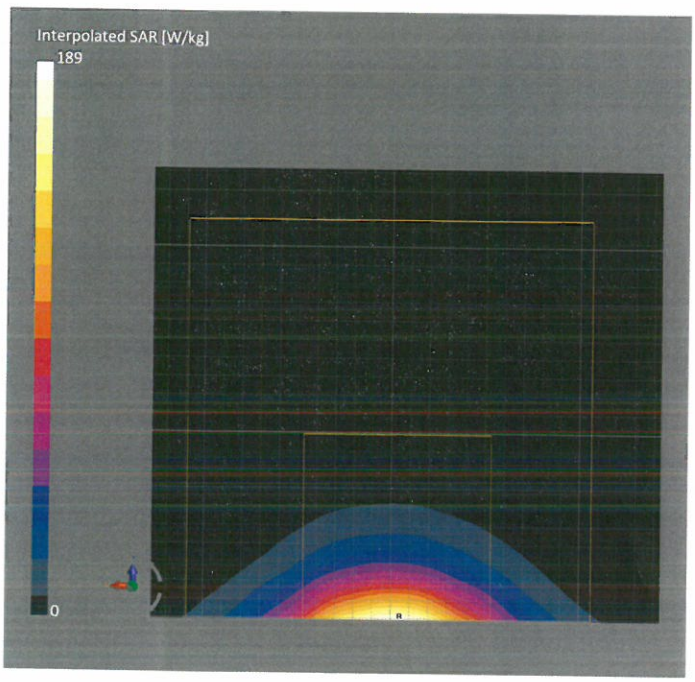
Phantom	TSL	Probe, Calibration Date	DAE, Calibration Date
MFP V8.0 Center - 1182	HBBL600-10000V6	EX3DV4 - SN7405, 2020-12-30	DAE4 Sn908, 2020-08-14

Scan Setup

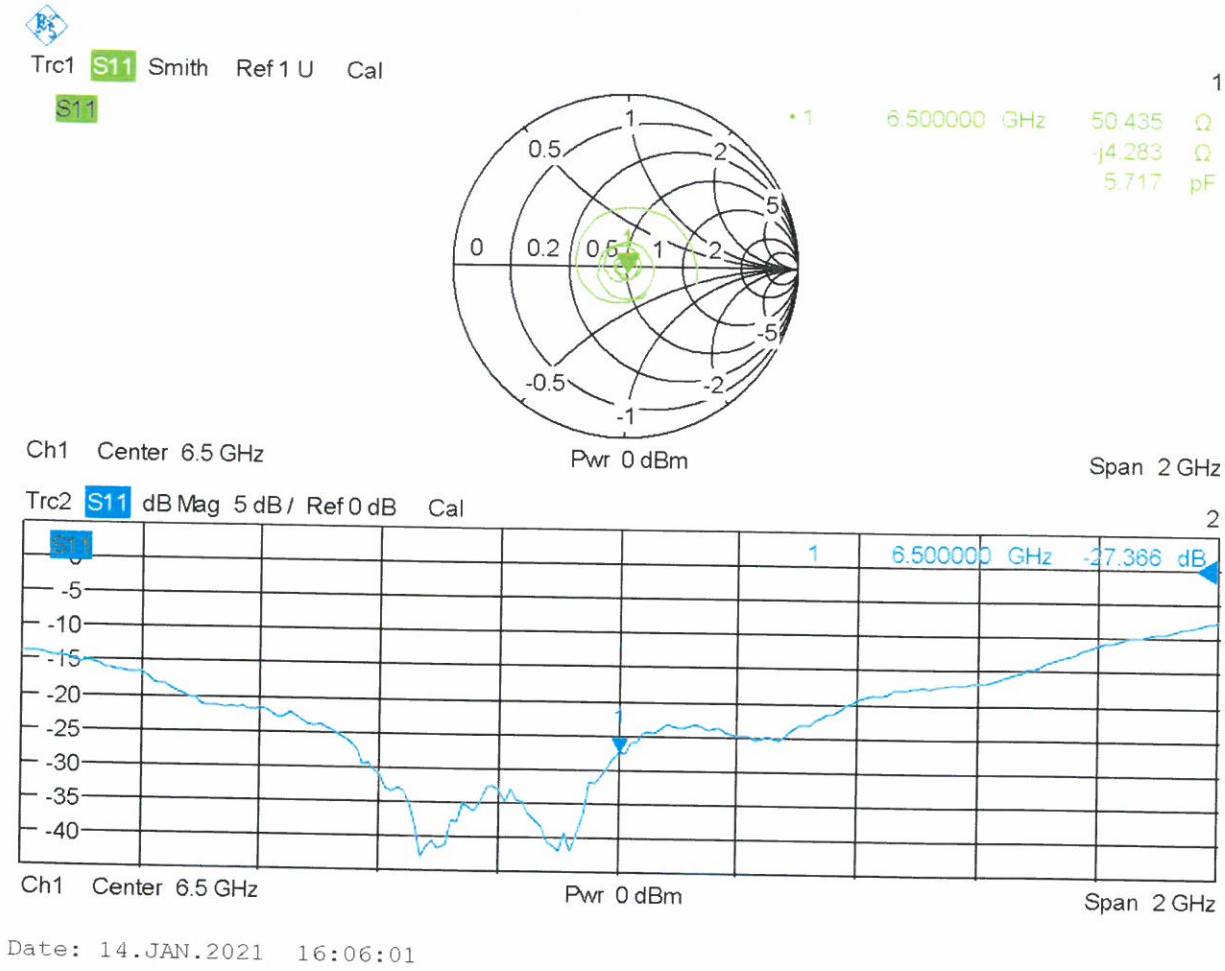
	Zoom Scan
Grid Extents [mm]	22.0 x 22.0 x 22.0
Grid Steps [mm]	3.4 x 3.4 x 1.4
Sensor Surface [mm]	1.4
Graded Grid	Yes
Grading Ratio	1.4
MAIA	N/A
Surface Detection	VMS + 6p
Scan Method	Measured

Measurement Results

	Zoom Scan
Date	2021-02-10, 10:31
psSAR1g [W/Kg]	29.2
psSAR10g [W/Kg]	5.33
Power Drift [dB]	0.00
Power Scaling	Disabled
Scaling Factor [dB]	
TSL Correction	Enabled
M2/M1 [%]	49.0
Dist 3dB Peak [mm]	4.8



Impedance Measurement Plot for Head TSL



Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
Swiss Calibration Service

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

Client BV ADT-TW (Auden)

Certificate No: 5G-Veri10-1025_Jan21

CALIBRATION CERTIFICATE

Object: 5G Verification Source 10 GHz - SN: 1025

Calibration procedure(s): QA CAL-45.v3
Calibration procedure for sources in air above 6 GHz

Calibration date: January 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 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Reference Probe EummWV3	SN: 9374	30-Dec-20 (No. EUmmWV3-9374_Dec20)	Dec-21
DAE4ip	SN: 1602	11-Aug-20 (No. DAE4ip-1602_Aug20)	Aug-21

Secondary Standards	ID #	Check Date (in house)	Scheduled Check

	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: January 25, 2021

Glossary

CW Continuous wave

Calibration is Performed According to the Following Standards

- Internal procedure QA CAL-45-5Gsources
- IEC TR 63170 ED1, "Measurement procedure for the evaluation of power density related to human exposure to radio frequency fields from wireless communication devices operating between 6 GHz and 100 GHz", January 2018

Methods Applied and Interpretation of Parameters

- *Coordinate System:* z-axis in the waveguide horn boresight, x-axis is in the direction of the E-field, y-axis normal to the others in the field scanning plane parallel to the horn flare and horn flange.
- *Measurement Conditions: (1) 10 GHz:* The forward power to the horn antenna is measured prior and after the measurement with a power sensor. During the measurements, the horn is directly connected to the cable and the antenna ohmic and mismatch losses are determined by far-field measurements. *(2) 30, 45, 60 and 90 GHz*: The verification sources are switched on for at least 30 minutes. Absorbers are used around the probe cub and at the ceiling to minimize reflections.
- *Horn Positioning:* The waveguide horn is mounted vertically on the flange of the waveguide source to allow vertical positioning of the EUmmW probe during the scan. The plane is parallel to the phantom surface. Probe distance is verified using mechanical gauges positioned on the flare of the horn.
- *E- field distribution:* E field is measured in two x-y-plane (10mm, 10mm + λ/4) with a vectorial E-field probe. The E-field value stated as calibration value represents the E-field-maxima and the averaged (1cm^2 and 4cm^2) power density values at 10mm in front of the horn.
- *Field polarization:* Above the open horn, linear polarization of the field is expected. This is verified graphically in the field representation.

Calibrated Quantity

- Local peak E-field (V/m) and average of peak spatial components of the poynting vector (W/m^2) averaged over the surface area of 1 cm^2 and 4cm^2 at the nominal operational frequency of the verification source. Both square and circular averaging results are listed.

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	cDASY6 Module mmWave	V2.2
Phantom	5G Phantom	
Distance Horn Aperture - plane	10 mm	
XY Scan Resolution	dx, dy = 7.5 mm	
Number of measured planes	2 (10mm, 10mm + λ/4)	
Frequency	10 GHz ± 10 MHz	

Calibration Parameters, 10 GHz

Circular Averaging

Distance Horn Aperture to Measured Plane	***Prad*[1] *(mW)***	**Max E-field (V/m)**	Uncertainty (k = 2)	Avg Power Density Avg (psPDn+, psPDtot+, psPDmod+) (W/m^2)		Uncertainty (k = 2)
				1 cm^2	**4** cm^2	
10 mm	74.0	**134**	1.27 dB	**45.8**	**42.7**	1.28 dB

Square Averaging

Distance Horn Aperture to Measured Plane	***Prad*[1] *(mW)***	**Max E-field (V/m)**	Uncertainty (k = 2)	Avg Power Density Avg (psPDn+, psPDtot+, psPDmod+) (W/m^2)		Uncertainty (k = 2)
				1 cm^2	**4** cm^2	
10 mm	74.0	**134**	1.27 dB	**45.9**	**42.7**	1.28 dB

[1] Assessed ohmic and mismatch loss: 0.45 dB

DASY Report

Measurement Report for 5G Verification Source 10 GHz, UID 0 -, Channel 10000 (10000.0MHz)

Device under Test Properties

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

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group,	Frequency [MHz], Channel Number	Conversion Factor
5G -	10.0 mm	Validation band	CW	10000.0, 10000	1.0

Hardware Setup

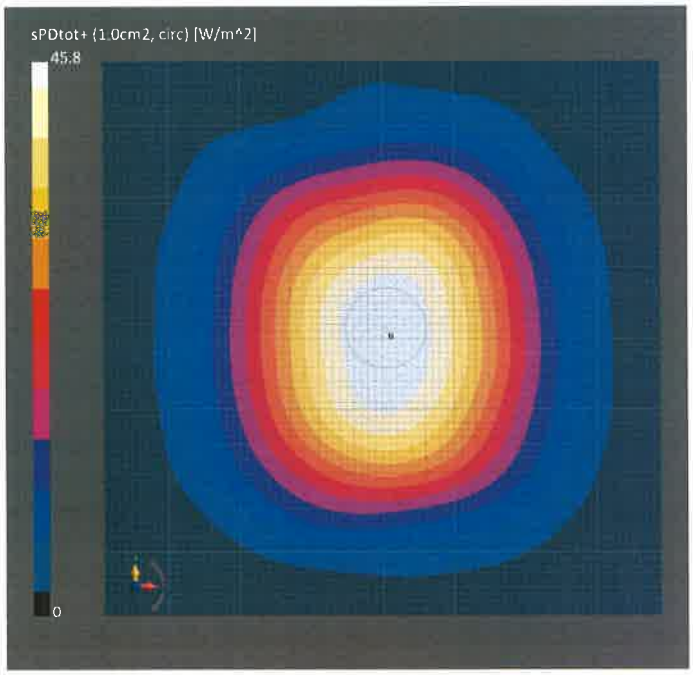
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave Phantom - 1002	Air	EUmmWV3 - SN9374_F1-78GHz, 2020-12-30	DAE4ip Sn1602, 2020-08-11

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
MAIA	MAIA not used

Measurement Results

	5G Scan
Date	2021-01-19, 13:50
Avg. Area [cm²]	1.00
psPDn+ [W/m²]	45.7
psPDtot+ [W/m²]	45.8
psPDmod+ [W/m²]	46.0
E_{max} [V/m]	134
Power Drift [dB]	0.02



DASY Report

Measurement Report for 5G Verification Source 10 GHz, UID 0 -, Channel 10000 (10000.0MHz)

Device under Test Properties

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

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group,	Frequency [MHz], Channel Number	Conversion Factor
5G -	10.0 mm	Validation band	CW	10000.0, 10000	1.0

Hardware Setup

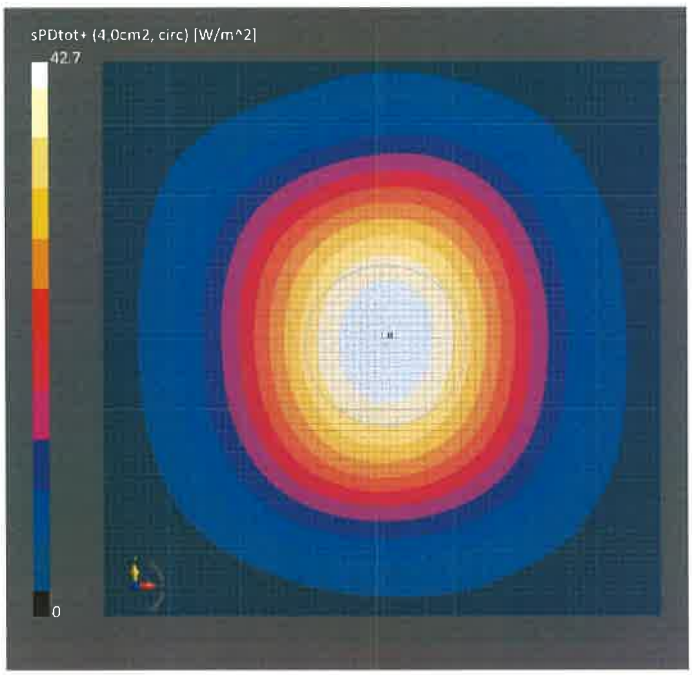
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave Phantom - 1002	Air	EUmmWV3 - SN9374_F1-78GHz, 2020-12-30	DAE4ip Sn1602, 2020-08-11

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
MAIA	MAIA not used

Measurement Results

	5G Scan
Date	2021-01-19, 13:50
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	42.6
psPDtot+ [W/m²]	42.7
psPDmod+ [W/m²]	42.9
E_{max} [V/m]	134
Power Drift [dB]	0.02



DASY Report

Measurement Report for 5G Verification Source 10 GHz, UID 0 -, Channel 10000 (10000.0MHz)

Device under Test Properties

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

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group,	Frequency [MHz], Channel Number	Conversion Factor
5G -	10.0 mm	Validation band	CW	10000.0, 10000	1.0

Hardware Setup

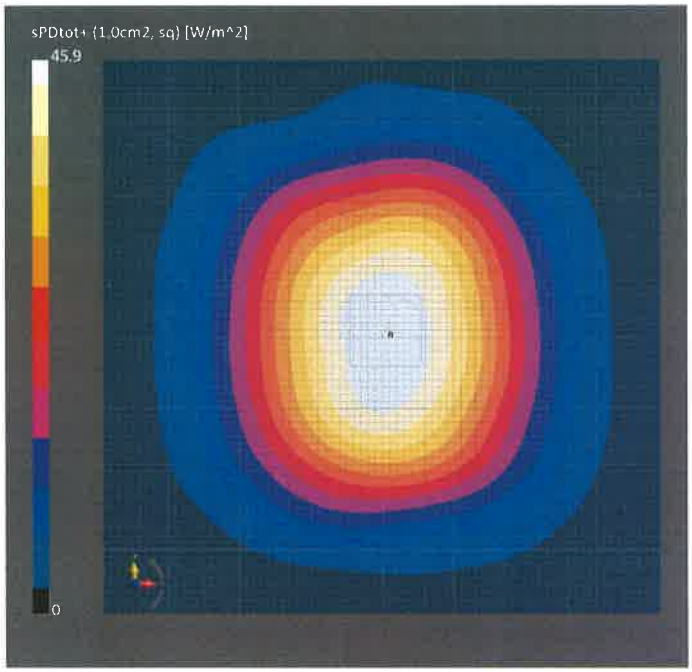
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave Phantom - 1002	Air	EUmmWV3 - SN9374_F1-78GHz, 2020-12-30	DAE4ip Sn1602, 2020-08-11

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
MAIA	MAIA not used

Measurement Results

	5G Scan
Date	2021-01-19, 13:50
Avg. Area [cm²]	1.00
psPDn+ [W/m²]	45.8
psPDtot+ [W/m²]	45.9
psPDmod+ [W/m²]	46.1
E_{max} [V/m]	134
Power Drift [dB]	0.02



DASY Report

Measurement Report for 5G Verification Source 10 GHz, UID 0 -, Channel 10000 (10000.0MHz)

Device under Test Properties

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

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group,	Frequency [MHz], Channel Number	Conversion Factor
5G -	10.0 mm	Validation band	CW	10000.0, 10000	1.0

Hardware Setup

Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave Phantom - 1002	Air	EUmmWV3 - SN9374_F1-78GHz, 2020-12-30	DAE4ip Sn1602, 2020-08-11

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
MAIA	MAIA not used

Measurement Results

	5G Scan
Date	2021-01-19, 13:50
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	42.6
psPDtot+ [W/m²]	42.7
psPDmod+ [W/m²]	42.9
E_{max} [V/m]	134
Power Drift [dB]	0.02