13. Simultaneous Transmission

The following procedures adopted from FCC KDB Publication 447498 D04v01 are applicable to devices with built in unlicensed transmitters such as 802.11 and Bluetooth devices which may simultaneously transmit with the licensed transmitter.
This device contains transmitters that may operate simultaneously. Therefore, simultaneous transmission analysis is required. Per FCC KDB Publication 447498 D04v01 4.3.2 and IEEE 1528-2013 Section 6.3.4.1.2, simultaneous transmission SAR test exclusion may be applied when the sum of the 1g or 10g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is within SAR limits. The different test positions in an exposure condition may be considered collectively to determine SAR test exclusion according to the sum of 1g or 10g SAR.

13.1.1 Estimated SAR (Maximum Output Power)

Antenna	Tx	Frequency (MHz)	Output power		Separation distances (mm)					Exclusion				
			dBm	mW	Rear	Left	Right	Top	Bot.	Rear	Left	Right	Top	Bot
Main1	GSM 850	848.8	25.98	396	5	185	14	5	157	Measure	0.102	Measure	Measure	0.129
	GSM 1900	1909.8	22.98	199						Measure	0.037	Measure	Measure	0.049
	WCDMA 2	1907.6	24	251						Measure	0.046	Measure	Measure	0.062
	WCDMA 4	1752.6	25	316						Measure	0.051	Measure	Measure	0.068
	WCDMA 5	846.6	25	316						Measure	0.082	Measure	Measure	0.103
	LTE 5	848.3	25	316						Measure	0.082	Measure	Measure	0.103
	LTE 12	715.3	25	316						Measure	0.096	Measure	Measure	0.119
	LTE 13	784.5	25	316						Measure	0.088	Measure	Measure	0.110
	LTE 25	1914.3	24	251						Measure	0.046	Measure	Measure	0.062
	LTE 26	848.3	24	251						Measure	0.065	Measure	Measure	0.082
	LTE 66	1779.3	25	316						Measure	0.051	Measure	Measure	0.068
	NR n5	846.5	24	251						Measure	0.065	Measure	Measure	0.082
	NR n26	846.5	24	251						Measure	0.065	Measure	Measure	0.082
	NR n66	1777.5	25	316						Measure	0.051	Measure	Measure	0.068
	NR n71	695.5	25	316						Measure	0.099	Measure	Measure	0.122
Main2	LTE 41	2687.5	25	316	5	171	63	5	157	Measure	0.056	0.381	Measure	0.066
	NR n41 SRS 1	2685	19	79						Measure	0.014	0.095	Measure	0.016
	NR n77 SRS 1	3544.98	20	100						Measure	0.018	0.129	Measure	0.021
Sub1	LTE 2(Sub)	1909.3	23	200	5	166	30	157	5	Measure	0.078	Measure	0.086	Measure
	LTE 66(Sub)	1779.3	23	200						Measure	0.038	Measure	0.042	Measure
	NR n41 SRS 2	2685	10	10						Measure	0.002	0.050	0.002	Measure
Sub2	NR n78 SRS 4	3544.98	14	25	5	215	25	158	5	Measure	0.003	0.200	0.005	Measure
Sub3	NR n41 SRS 3	2685	9	8	5	36	144	5	148	Measure	0.028	0.002	Measure	0.002
	NR n78 SRS 2	3544.98	16.5	45						Measure	Measure	0.011	Measure	0.011
Sub4	NR n41 SRS 4	2685	12	16	5	228	5	133	21	Measure	0.002	Measure	0.005	0.160
	NR n78 SRS 3	3544.98	11.5	14						Measure	0.002	Measure	0.004	0.160
WIFI Ant.1	2.4 GHz	2462	20	100	5	23	204	5	158	Measure	Measure	0.013	Measure	0.020
	UNII-2A	5320	18	63						Measure	Measure	0.008	Measure	0.013
	UNII-2C	5720	18	63						Measure	Measure	0.008	Measure	0.013
	UNII-3	5825	18	63						Measure	Measure	0.008	Measure	0.013
	UNII-4	5885	18	63						Measure	Measure	0.008	Measure	0.013
	Bluetooth	2480	20.0	100						Measure	Measure	0.013	Measure	0.020
WIFI Ant.2	2.4 GHz	2462	20	100	5	12	199	157	5	Measure	Measure	0.013	0.021	Measure
	UNII-2A	5320	18	63						Measure	Measure	0.008	0.014	Measure
	UNII-2C	5720	18	63						Measure	Measure	0.008	0.014	Measure
	UNII-3	5825	18	63						Measure	Measure	0.008	0.014	Measure
	UNII-4	5885	18	63						Measure	Measure	0.008	0.014	Measure
	Bluetooth	2480	19.5	89						Measure	Measure	0.012	0.018	Measure

- For distances < 5mm, a distance of 5mm is used to determine SAR exclusion and estimated SAR value.
- Output power is the worst of the maximum rated power (including tune-up or manufacturing tolerances) and ERP(E.I.R.P − 2.15 dB)
- Estimated SAR values were calculated as $SAR_{est} = 0.4 * P_{ant}/P_{th}$ $[W/kg]$ according to the April, 2022 TCB workshop.(P_{th} is Section 2.6.2 Value, P_{ant} is Maximum Output power.)
- Formulas round separation distance to nearest mm and power to nearest mW before calculating estimated SAR or determining if SAR is excluded.

13.1.3 #Simultaneous Transmission Configurations

According to FCC KDB 447498 D04v01, transmitters are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds.
This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB Publication 447498 D04v01 4.3.2 procedures.

No.	Scenario	RF Exposure Condition
		Body
1	Licensed + WLAN 2.4 ㎓ Ant.1 (802.11b only)	Yes
2	Licensed + WLAN 2.4 ㎓ Ant.2	Yes
3	Licensed + WLAN 2.4 ㎓ MIMO	Yes
4	Licensed + WLAN 5 ㎓ MIMO	Yes
5	Licensed + WLAN 6 ㎓ MIMO	Yes
6	Licensed + Bluetooth Ant.1	Yes
7	Licensed + WLAN 2.4 ㎓ Ant.2 + Bluetooth Ant.1	Yes
8	Licensed + WLAN 5 ㎓ MIMO + Bluetooth Ant.1	Yes
9	Licensed + WLAN 6 ㎓ MIMO + Bluetooth Ant.1	Yes
10	Licensed + WLAN 5 ㎓ MIMO + Bluetooth Ant.2	Yes
11	Licensed + WLAN 6 ㎓ MIMO + Bluetooth Ant.2	Yes

Notes:
- For EN-DC mods, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. Smart Transmit algorithm controls the total RF exposure from both 4G and 5G NR to not exceed FCC limit.
  Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation.
- NFC mode is not considered for simultaneous transmission as it is a Handheld (Extremity 10g SAR) device.
- Digitizer mode is a front function and does not consider simultaneous transmission with other transmitters (tablet devices) that exclude front side tests.

13.1.4 Simultaneous Transmission Analysis(Standalone)

Band / Position (Body)		Band								Scenario										
		Licensed	WLAN					Bluetooth		No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	No.9	No.10	No.11
			2.4 GHz			5 GHz	6 GHz													
			Ant.1	Ant.2	MIMO	MIMO	MIMO	Ant.1	Ant.2											
		[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]	[①+②]	[①+③]	[①+④]	[①+⑤]	[①+⑥]	[①+⑦]	[①+③+⑦]	[①+⑤+⑦]	[①+⑥+⑦]	[①+⑤+⑧]	[①+⑥+⑧]
GSM 850	Rear	0.283	0.653	0.341	0.622	0.506	0.365	0.558	0.244	0.936	0.624	0.905	0.789	0.648	0.841	1.182	1.347	1.206	1.033	0.892
	Left	0.102	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.464	0.487	0.285	1.159	0.164	0.487	0.872	1.544	0.549	1.438	0.443
	Right	0.504	0.013	0.013	0.013	0.008	-	0.013	0.012	0.517	0.517	0.517	0.512	0.504	0.517	0.530	0.525	0.517	0.524	0.516
	Top	0.268	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.501	0.289	0.482	1.018	0.434	0.452	0.473	1.202	0.618	1.036	0.452
	Bot.	0.129	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.149	0.253	0.245	0.638	0.259	0.149	0.273	0.658	0.279	0.749	0.370
GSM 1900	Rear	0.623	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.276	0.964	1.245	1.129	0.988	1.181	1.522	1.687	1.546	1.373	1.232
	Left	0.037	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.399	0.422	0.220	1.094	0.099	0.422	0.807	1.479	0.484	1.373	0.378
	Right	0.516	0.013	0.013	0.013	0.008	-	0.013	0.012	0.529	0.529	0.529	0.524	0.516	0.529	0.542	0.537	0.529	0.536	0.528
	Top	0.766	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.999	0.787	0.980	1.516	0.932	0.950	0.971	1.700	1.116	1.534	0.950
	Bot.	0.049	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.069	0.173	0.165	0.558	0.179	0.069	0.193	0.578	0.199	0.669	0.290
WCDMA B.2	Rear	0.711	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.364	1.052	1.333	1.217	1.076	1.269	1.610	1.775	1.634	1.461	1.320
	Left	0.046	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.408	0.431	0.229	1.103	0.108	0.431	0.816	1.488	0.493	1.382	0.387
	Right	0.575	0.013	0.013	0.013	0.008	-	0.013	0.012	0.588	0.588	0.588	0.583	0.575	0.588	0.601	0.596	0.588	0.595	0.587
	Top	1.089	0.233	0.021	0.214	0.750	0.166	0.184	0.018	1.322	1.110	1.303	1.839	1.255	1.273	1.294	2.023	1.439	1.857	1.273
	Bot.	0.062	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.082	0.186	0.178	0.571	0.192	0.082	0.206	0.591	0.212	0.682	0.303
WCDMA B.4	Rear	0.766	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.419	1.107	1.388	1.272	1.131	1.324	1.665	1.830	1.689	1.516	1.375
	Left	0.051	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.413	0.436	0.234	1.108	0.113	0.436	0.821	1.493	0.498	1.387	0.392
	Right	0.255	0.013	0.013	0.013	0.008	-	0.013	0.012	0.268	0.268	0.268	0.263	0.255	0.268	0.281	0.276	0.268	0.275	0.267
	Top	0.918	0.233	0.021	0.214	0.750	0.166	0.184	0.018	1.151	0.939	1.132	1.668	1.084	1.102	1.123	1.852	1.268	1.686	1.102
	Bot.	0.068	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.088	0.192	0.184	0.577	0.198	0.088	0.212	0.597	0.218	0.688	0.309
WCDMA B.5	Rear	0.377	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.030	0.718	0.999	0.883	0.742	0.935	1.276	1.441	1.300	1.127	0.986
	Left	0.082	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.444	0.467	0.265	1.139	0.144	0.467	0.852	1.524	0.529	1.418	0.423
	Right	0.582	0.013	0.013	0.013	0.008	-	0.013	0.012	0.595	0.595	0.595	0.590	0.582	0.595	0.608	0.603	0.595	0.602	0.594
	Top	0.211	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.444	0.232	0.425	0.961	0.377	0.395	0.416	1.145	0.561	0.979	0.395
	Bot.	0.103	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.123	0.227	0.219	0.612	0.233	0.123	0.247	0.632	0.253	0.723	0.344
LTE B.2 (sub)	Rear	0.858	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.511	1.199	1.480	1.364	1.223	1.416	1.757	1.922	1.781	1.608	1.467
	Left	0.078	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.440	0.463	0.261	1.135	0.140	0.463	0.848	1.520	0.525	1.414	0.419
	Right	0.022	0.013	0.013	0.013	0.008	-	0.013	0.012	0.035	0.035	0.035	0.030	0.022	0.035	0.048	0.043	0.035	0.042	0.034
	Top	0.086	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.319	0.107	0.300	0.836	0.252	0.270	0.291	1.020	0.436	0.854	0.270
	Bot.	1.140	0.020	0.124	0.116	0.509	0.130	0.020	0.111	1.160	1.264	1.256	1.649	1.270	1.160	1.284	1.669	1.290	1.760	1.381
LTE B.5	Rear	0.467	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.120	0.808	1.089	0.973	0.832	1.025	1.366	1.531	1.390	1.217	1.076
	Left	0.082	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.444	0.467	0.265	1.139	0.144	0.467	0.852	1.524	0.529	1.418	0.423
	Right	0.657	0.013	0.013	0.013	0.008	-	0.013	0.012	0.670	0.670	0.670	0.665	0.657	0.670	0.683	0.678	0.670	0.677	0.669
	Top	0.225	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.458	0.246	0.439	0.975	0.391	0.409	0.430	1.159	0.575	0.993	0.409
	Bot.	0.103	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.123	0.227	0.219	0.612	0.233	0.123	0.247	0.632	0.253	0.723	0.344
LTE B.12 (B17)	Rear	0.449	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.102	0.790	1.071	0.955	0.814	1.007	1.348	1.513	1.372	1.199	1.058
	Left	0.096	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.458	0.481	0.279	1.153	0.158	0.481	0.866	1.538	0.543	1.432	0.437
	Right	0.309	0.013	0.013	0.013	0.008	-	0.013	0.012	0.322	0.322	0.322	0.317	0.309	0.322	0.335	0.330	0.322	0.329	0.321
	Top	0.246	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.479	0.267	0.460	0.996	0.412	0.430	0.451	1.180	0.596	1.014	0.430
	Bot.	0.119	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.139	0.243	0.235	0.628	0.249	0.139	0.263	0.648	0.269	0.739	0.360
LTE B.13	Rear	0.319	0.653	0.341	0.622	0.506	0.365	0.558	0.244	0.972	0.660	0.941	0.825	0.684	0.877	1.218	1.383	1.242	1.069	0.928
	Left	0.088	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.450	0.473	0.271	1.145	0.150	0.473	0.858	1.530	0.535	1.424	0.429
	Right	0.501	0.013	0.013	0.013	0.008	-	0.013	0.012	0.514	0.514	0.514	0.509	0.501	0.514	0.527	0.522	0.514	0.521	0.513
	Top	0.154	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.387	0.175	0.368	0.904	0.320	0.338	0.359	1.088	0.504	0.922	0.338
	Bot.	0.110	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.130	0.234	0.226	0.619	0.240	0.130	0.254	0.639	0.260	0.730	0.351
LTE B.25	Rear	0.652	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.305	0.993	1.274	1.158	1.017	1.210	1.551	1.716	1.575	1.402	1.261
	Left	0.046	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.408	0.431	0.229	1.103	0.108	0.431	0.816	1.488	0.493	1.382	0.387
	Right	0.510	0.013	0.013	0.013	0.008	-	0.013	0.012	0.523	0.523	0.523	0.518	0.510	0.523	0.536	0.531	0.523	0.530	0.522
	Top	1.012	0.233	0.021	0.214	0.750	0.166	0.184	0.018	1.245	1.033	1.226	1.762	1.178	1.196	1.217	1.946	1.362	1.780	1.196
	Bot.	0.062	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.082	0.186	0.178	0.571	0.192	0.082	0.206	0.591	0.212	0.682	0.303
LTE B.26	Rear	0.593	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.246	0.934	1.215	1.099	0.958	1.151	1.492	1.657	1.516	1.343	1.202
	Left	0.065	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.427	0.450	0.248	1.122	0.127	0.450	0.835	1.507	0.512	1.401	0.406
	Right	0.486	0.013	0.013	0.013	0.008	-	0.013	0.012	0.499	0.499	0.499	0.494	0.486	0.499	0.512	0.507	0.499	0.506	0.498
	Top	0.281	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.514	0.302	0.495	1.031	0.447	0.465	0.486	1.215	0.631	1.049	0.465
	Bot.	0.082	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.102	0.206	0.198	0.591	0.212	0.102	0.226	0.611	0.232	0.702	0.323
LTE B.41	Rear	0.785	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.438	1.126	1.407	1.291	1.150	1.343	1.684	1.849	1.708	1.535	1.394
	Left	0.056	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.418	0.441	0.239	1.113	0.118	0.441	0.826	1.498	0.503	1.392	0.397
	Right	0.381	0.013	0.013	0.013	0.008	-	0.013	0.012	0.394	0.394	0.394	0.389	0.381	0.394	0.407	0.402	0.394	0.401	0.393
	Top	0.419	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.652	0.440	0.633	1.169	0.585	0.603	0.624	1.353	0.769	1.187	0.603
	Bot.	0.066	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.086	0.190	0.182	0.575	0.196	0.086	0.210	0.595	0.216	0.686	0.307
LTE B.66 (B4)	Rear	0.560	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.213	0.901	1.182	1.066	0.925	1.118	1.459	1.624	1.483	1.310	1.169
	Left	0.051	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.413	0.436	0.234	1.108	0.113	0.436	0.821	1.493	0.498	1.387	0.392
	Right	0.286	0.013	0.013	0.013	0.008	-	0.013	0.012	0.299	0.299	0.299	0.294	0.286	0.299	0.312	0.307	0.299	0.306	0.298
	Top	0.753	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.986	0.774	0.967	1.503	0.919	0.937	0.958	1.687	1.103	1.521	0.937
	Bot.	0.068	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.088	0.192	0.184	0.577	0.198	0.088	0.212	0.597	0.218	0.688	0.309
LTE B.66 (B4) (Sub1)	Rear	0.302	0.653	0.341	0.622	0.506	0.365	0.558	0.244	0.955	0.643	0.924	0.808	0.667	0.860	1.201	1.366	1.225	1.052	0.911
	Left	0.038	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.400	0.423	0.221	1.095	0.100	0.423	0.808	1.480	0.485	1.374	0.379
	Right	0.193	0.013	0.013	0.013	0.008	-	0.013	0.012	0.206	0.206	0.206	0.201	0.193	0.206	0.219	0.214	0.206	0.213	0.205
	Top	0.042	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.275	0.063	0.256	0.792	0.208	0.226	0.247	0.976	0.392	0.810	0.226
	Bot.	0.409	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.429	0.533	0.525	0.918	0.539	0.429	0.553	0.938	0.559	1.029	0.650

Band / Position (Body)		Band								Scenario										
		Licensed	WLAN					Bluetooth		No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	No.9	No.10	No.11
			2.4 ㎓			5 ㎓	6 ㎓													
			Ant.1	Ant.2	MIMO	MIMO	MIMO	Ant.1	Ant.2											
		[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]	[①+②]	[①+③]	[①+④]	[①+⑤]	[①+⑥]	[①+⑦]	[①+③+⑦]	[①+⑤+⑦]	[①+⑥+⑦]	[①+⑤+⑧]	[①+⑥+⑧]
NR n5	Rear	0.583	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.236	0.924	1.205	1.089	0.948	1.141	1.482	1.647	1.506	1.333	1.192
	Left	0.065	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.427	0.450	0.248	1.122	0.127	0.450	0.835	1.507	0.512	1.401	0.406
	Right	0.512	0.013	0.013	0.013	0.008	-	0.013	0.012	0.525	0.525	0.525	0.520	0.512	0.525	0.538	0.533	0.525	0.532	0.524
	Top	0.274	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.507	0.295	0.488	1.024	0.440	0.458	0.479	1.208	0.624	1.042	0.458
	Bot.	0.082	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.102	0.206	0.198	0.591	0.212	0.102	0.226	0.611	0.232	0.702	0.323
NR n26	Rear	0.572	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.225	0.913	1.194	1.078	0.937	1.130	1.471	1.636	1.495	1.322	1.181
	Left	0.065	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.427	0.450	0.248	1.122	0.127	0.450	0.835	1.507	0.512	1.401	0.406
	Right	0.517	0.013	0.013	0.013	0.008	-	0.013	0.012	0.530	0.530	0.530	0.525	0.517	0.530	0.543	0.538	0.530	0.537	0.529
	Top	0.281	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.514	0.302	0.495	1.031	0.447	0.465	0.486	1.215	0.631	1.049	0.465
	Bot.	0.082	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.102	0.206	0.198	0.591	0.212	0.102	0.226	0.611	0.232	0.702	0.323
NR n41 (SRS 1)	Rear	0.560	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.213	0.901	1.182	1.066	0.925	1.118	1.459	1.624	1.483	1.310	1.169
	Left	0.014	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.376	0.399	0.197	1.071	0.076	0.399	0.784	1.456	0.461	1.350	0.355
	Right	0.095	0.013	0.013	0.013	0.008	-	0.013	0.012	0.108	0.108	0.108	0.103	0.095	0.108	0.121	0.116	0.108	0.115	0.107
	Top	0.135	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.368	0.156	0.349	0.885	0.301	0.319	0.340	1.069	0.485	0.903	0.319
	Bot.	0.016	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.036	0.140	0.132	0.525	0.146	0.036	0.160	0.545	0.166	0.636	0.257
NR n41 (SRS 2)	Rear	0.330	0.653	0.341	0.622	0.506	0.365	0.558	0.244	0.983	0.671	0.952	0.836	0.695	0.888	1.229	1.394	1.253	1.080	0.939
	Left	0.002	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.364	0.387	0.185	1.059	0.064	0.387	0.772	1.444	0.449	1.338	0.343
	Right	0.050	0.013	0.013	0.013	0.008	-	0.013	0.012	0.063	0.063	0.063	0.058	0.050	0.063	0.076	0.071	0.063	0.070	0.062
	Top	0.002	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.235	0.023	0.216	0.752	0.168	0.186	0.207	0.936	0.352	0.770	0.186
	Bot.	0.099	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.119	0.223	0.215	0.608	0.229	0.119	0.243	0.628	0.249	0.719	0.340
NR n41 (SRS 3)	Rear	0.405	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.058	0.746	1.027	0.911	0.770	0.963	1.304	1.469	1.328	1.155	1.014
	Left	0.028	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.390	0.413	0.211	1.085	0.090	0.413	0.798	1.470	0.475	1.364	0.369
	Right	0.002	0.013	0.013	0.013	0.008	-	0.013	0.012	0.015	0.015	0.015	0.010	0.002	0.015	0.028	0.023	0.015	0.022	0.014
	Top	0.062	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.295	0.083	0.276	0.812	0.228	0.246	0.267	0.996	0.412	0.830	0.246
	Bot.	0.002	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.022	0.126	0.118	0.511	0.132	0.022	0.146	0.531	0.152	0.622	0.243
NR n41 (SRS 4)	Rear	0.276	0.653	0.341	0.622	0.506	0.365	0.558	0.244	0.929	0.617	0.898	0.782	0.641	0.834	1.175	1.340	1.199	1.026	0.885
	Left	0.002	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.364	0.387	0.185	1.059	0.064	0.387	0.772	1.444	0.449	1.338	0.343
	Right	0.106	0.013	0.013	0.013	0.008	-	0.013	0.012	0.119	0.119	0.119	0.114	0.106	0.119	0.132	0.127	0.119	0.126	0.118
	Top	0.005	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.238	0.026	0.219	0.755	0.171	0.189	0.210	0.939	0.355	0.773	0.189
	Bot.	0.160	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.180	0.284	0.276	0.669	0.290	0.180	0.304	0.689	0.310	0.780	0.401
NR n66	Rear	0.660	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.313	1.001	1.282	1.166	1.025	1.218	1.559	1.724	1.583	1.410	1.269
	Left	0.051	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.413	0.436	0.234	1.108	0.113	0.436	0.821	1.493	0.498	1.387	0.392
	Right	0.241	0.013	0.013	0.013	0.008		0.013	0.012	0.254	0.254	0.254	0.249	0.241	0.254	0.267	0.262	0.254	0.261	0.253
	Top	0.808	0.233	0.021	0.214	0.750	0.166	0.184	0.018	1.041	0.829	1.022	1.558	0.974	0.992	1.013	1.742	1.158	1.576	0.992
	Bot.	0.068	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.088	0.192	0.184	0.577	0.198	0.088	0.212	0.597	0.218	0.688	0.309
NR n71	Rear	0.428	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.081	0.769	1.050	0.934	0.793	0.986	1.327	1.492	1.351	1.178	1.037
	Left	0.099	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.461	0.484	0.282	1.156	0.161	0.484	0.869	1.541	0.546	1.435	0.440
	Right	0.325	0.013	0.013	0.013	0.008	-	0.013	0.012	0.338	0.338	0.338	0.333	0.325	0.338	0.351	0.346	0.338	0.345	0.337
	Top	0.208	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.441	0.229	0.422	0.958	0.374	0.392	0.413	1.142	0.558	0.976	0.392
	Bot.	0.122	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.142	0.246	0.238	0.631	0.252	0.142	0.266	0.651	0.272	0.742	0.363
NR n77 (PC2) (SRS 1)	Rear	1.031	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.684	1.372	1.653	1.537	1.396	**1.589**	1.930	2.095	1.954	1.781	1.640
	Left	0.018	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.380	0.403	0.201	1.075	0.080	0.403	0.788	1.460	0.465	1.354	0.359
	Right	0.129	0.013	0.013	0.013	0.008	-	0.013	0.012	0.142	0.142	0.142	0.137	0.129	0.142	0.155	0.150	0.142	0.149	0.141
	Top	0.620	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.853	0.641	0.834	1.370	0.786	0.804	0.825	1.554	0.970	1.388	0.804
	Bot.	0.021	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.041	0.145	0.137	0.530	0.151	0.041	0.165	0.550	0.171	0.641	0.262
NR n78 (PC2) (SRS 2)	Rear	0.419	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.072	0.760	1.041	0.925	0.784	0.977	1.318	1.483	1.342	1.169	1.028
	Left	0.016	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.378	0.401	0.199	1.073	0.078	0.401	0.786	1.458	0.463	1.352	0.357
	Right	0.011	0.013	0.013	0.013	0.008	-	0.013	0.012	0.024	0.024	0.024	0.019	0.011	0.024	0.037	0.032	0.024	0.031	0.023
	Top	0.414	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.647	0.435	0.628	1.164	0.580	0.598	0.619	1.348	0.764	1.182	0.598
	Bot.	0.011	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.031	0.135	0.127	0.520	0.141	0.031	0.155	0.540	0.161	0.631	0.252
NR n78 (PC2) (SRS 3)	Rear	1.198	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.851	1.539	1.820	1.704	1.563	1.756	2.097	2.262	2.121	1.948	1.807
	Left	0.002	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.364	0.387	0.185	1.059	0.064	0.387	0.772	1.444	0.449	1.338	0.343
	Right	0.179	0.013	0.013	0.013	0.008	-	0.013	0.012	0.192	0.192	0.192	0.187	0.179	0.192	0.205	0.200	0.192	0.199	0.191
	Top	0.004	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.237	0.025	0.218	0.754	0.170	0.188	0.209	0.938	0.354	0.772	0.188
	Bot.	0.160	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.180	0.284	0.276	0.669	0.290	0.180	0.304	0.689	0.310	0.780	0.401
NR n78 (PC2) (SRS 4)	Rear	1.024	0.653	0.341	0.622	0.506	0.365	0.558	0.244	1.677	1.365	1.646	1.530	1.389	1.582	1.923	2.088	1.947	1.774	1.633
	Left	0.003	0.362	0.385	0.183	1.057	0.062	0.385	0.279	0.365	0.388	0.186	1.060	0.065	0.388	0.773	1.445	0.450	1.339	0.344
	Right	0.200	0.013	0.013	0.013	0.008	-	0.013	0.012	0.213	0.213	0.213	0.208	0.200	0.213	0.226	0.221	0.213	0.220	0.212
	Top	0.005	0.233	0.021	0.214	0.750	0.166	0.184	0.018	0.238	0.026	0.219	0.755	0.171	0.189	0.210	0.939	0.355	0.773	0.189
	Bot.	0.381	0.020	0.124	0.116	0.509	0.130	0.020	0.111	0.401	0.505	0.497	0.890	0.511	0.401	0.525	0.910	0.531	1.001	0.622

Notes:

- Simultaneous transmission SAR test exclusion considerations
  Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneously transmitting antenna. When the sum of 1-g or 10-g SAR of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit, SAR test exclusion applies to that simultaneous transmission configuration. Per KDB Publication 447498 D04v01.
- When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR1g 1.6 W/kg), the SPLSR procedures is not required. When the sum of SAR1g is greater than the SAR limit (SAR1g 1.6 W/kg), SAR test exclusion is determined by the SPLSR.
- Green entries was applied estimated SAR values.
- Yellow entries was verified in section 13.2 by the SPLSR.
- For WLAN 6 GHz values, please refer to the SAR Report_Part1_WIFI6E.
- Simultaneous transmission analysis was applied considering the worst case scenario in SAR values of DSI 0 & DSI 1 states.

13.2 SAR to Peak Location Separation Ratio Analysis

The simultaneous transmitting antennas in each operating mode and exposure condition combination are considered one pair at a time to determine the SPLSR. When SAR is measured for both antennas in the pair, the peak location separation distance is computed by the following formula.

$$\text{Peak Location Separation Distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

Where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the area or zoom scans.

When standalone test exclusion applies, SAR is estimated; the peak location is assumed to be at the feed-point or geometric center of the antenna. Due to curvatures on the SAM phantom, when SAR is estimated for one of the antennas in an antenna pair, the measured peak SAR location will be translated onto the test device to determine the peak location separation for the antenna pair.

The SPLSR is determined by the following formula.

$$\text{SPLSR} = \frac{(\text{SAR}_1 + \text{SAR}_2)^{1.5}}{R_i}$$

Where SAR_1 and SAR_2 are the highest reported or estimated SAR for each antenna in the pair, and R_i is the separation distance between the peak SAR locations for the antenna pair in mm.

When the SPLSR is <= 0.04, <= 0.10 (10g) the simultaneous transmission SAR is not required. Otherwise, the enlarged zoom scan and volume scan post-processing procedures will be performed.

13.2.2 Maximum Worst case Summary

Band	Position	Simultaneous Scenario No.	Scenario	Summation	Highest SPLSR ≤ 0.04 Limit	Volume scan Required (Yes / No)
GSM 1900	Rear	No.8	[①+⑤+⑦]	1.687	0.01	No
	Top			1.700	0.01	No
WCDMA II	Rear	No.7	[①+③+⑦]	1.610	0.01	No
		No.8	[①+⑤+⑦]	1.775	0.01	No
		No.9	[①+⑥+⑦]	1.634	0.01	No
	Top	No.4	[①+⑤]	1.839	0.02	No
		No.8	[①+⑤+⑦]	2.023	0.02	No
		No.10	[①+⑤+⑧]	1.857	0.02	No
WCDMA IV	Rear	No.7	[①+③+⑦]	1.665	0.01	No
		No.8	[①+⑤+⑦]	1.830	0.01	No
		No.9	[①+⑥+⑦]	1.689	0.01	No
	Top	No.4	[①+⑤]	1.668	0.01	No
		No.8	[①+⑤+⑦]	1.852	0.02	No
		No.10	[①+⑤+⑧]	1.686	0.01	No
LTE Band 2 (Sub 1)	Rear	No.7	[①+③+⑦]	1.757	0.02	No
		No.8	[①+⑤+⑦]	1.922	0.01	No
		No.9	[①+⑥+⑦]	1.781	0.01	No
		No.10	[①+⑤+⑧]	1.608	0.01	No
	Bottom	No.4	[①+⑤]	1.649	0.01	No
		No.8	[①+⑤+⑦]	1.669	0.01	No
		No.10	[①+⑤+⑧]	1.760	0.01	No
LTE Band 25	Rear	No.8	[①+⑤+⑦]	1.716	0.01	No
	Top	No.4	[①+⑤]	1.762	0.01	No
		No.8	[①+⑤+⑦]	1.946	0.02	No
		No.10	[①+⑤+⑧]	1.780	0.01	No
LTE Band 26	Rear	No.8	[①+⑤+⑦]	1.657	0.01	No
LTE Band 41	Rear	No.7	[①+③+⑦]	1.684	0.02	No
		No.8	[①+⑤+⑦]	1.849	0.02	No
		No.9	[①+⑥+⑦]	1.708	0.02	No
LTE Band 66	Rear	No.8	[①+⑤+⑦]	1.624	0.01	No
	Top			1.687	0.01	No
NR n5	Rear	No.8	[①+⑤+⑦]	1.647	0.01	No
NR n26	Rear	No.8	[①+⑤+⑦]	1.636	0.01	No
NR n41 (SRS 1)	Rear	No.8	[①+⑤+⑦]	1.624	0.01	No
NR n66	Rear	No.8	[①+⑤+⑦]	1.724	0.01	No
	Top			1.742	0.01	No

Band	Position	Simultaneous Scenario No.	Scenario	Summation	Highest SPLSR ≤ 0.04 Limit	Volume scan Required (Yes / No)
NR n77 (SRS 1)	Rear	No.1	[①+②]	1.684	0.02	No
		No.3	[①+④]	1.653	0.02	No
		No.7	[①+③+⑦]	1.930	0.02	No
		No.8	[①+⑤+⑦]	2.095	0.02	No
		No.9	[①+⑥+⑦]	1.954	0.02	No
		No.10	[①+⑤+⑧]	1.781	0.02	No
		No.11	[①+⑥+⑧]	1.640	0.01	No
NR n77 (SRS 3)	Rear	No.1	[①+②]	1.851	0.01	No
		No.3	[①+④]	1.820	0.01	No
		No.4	[①+⑤]	1.704	0.01	No
		No.6	[①+⑦]	1.756	0.01	No
		No.7	[①+③+⑦]	2.097	0.02	No
		No.8	[①+⑤+⑦]	2.262	0.01	No
		No.9	[①+⑥+⑦]	2.121	0.01	No
		No.10	[①+⑤+⑧]	1.948	0.01	No
		No.11	[①+⑥+⑧]	1.807	0.01	No
NR n78 (SRS 4)	Rear	No.1	[①+②]	1.677	0.01	No
		No.3	[①+④]	1.646	0.01	No
		No.7	[①+③+⑦]	1.923	0.02	No
		No.8	[①+⑤+⑦]	2.088	0.01	No
		No.9	[①+⑥+⑦]	1.947	0.01	No
		No.10	[①+⑤+⑧]	1.774	0.01	No
		No.11	[①+⑥+⑧]	1.633	0.01	No

13.2.3 SPLSR Analysis

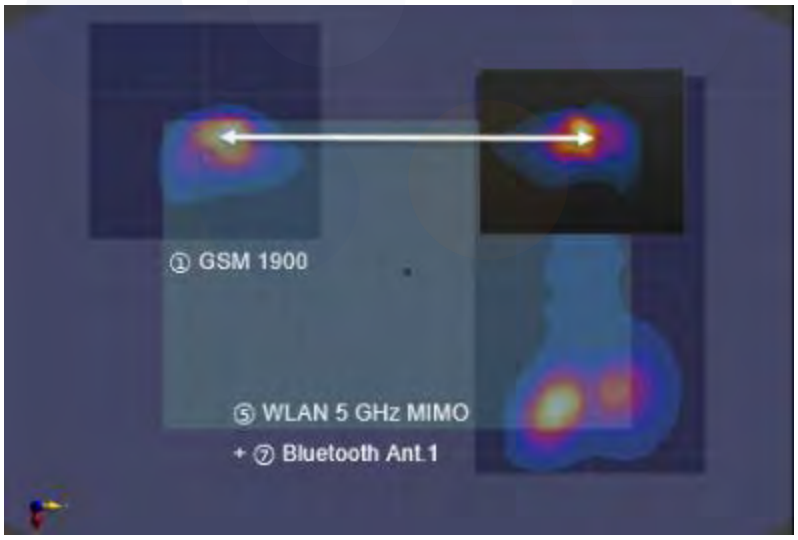
13.2.3.1 GSM 1900

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear	Top
Scenario No.	No.8	No.8
Scenario	[①+⑤+⑦]	[①+⑤+⑦]
Summation	1.687	1.700
Volume scan	Not Required	

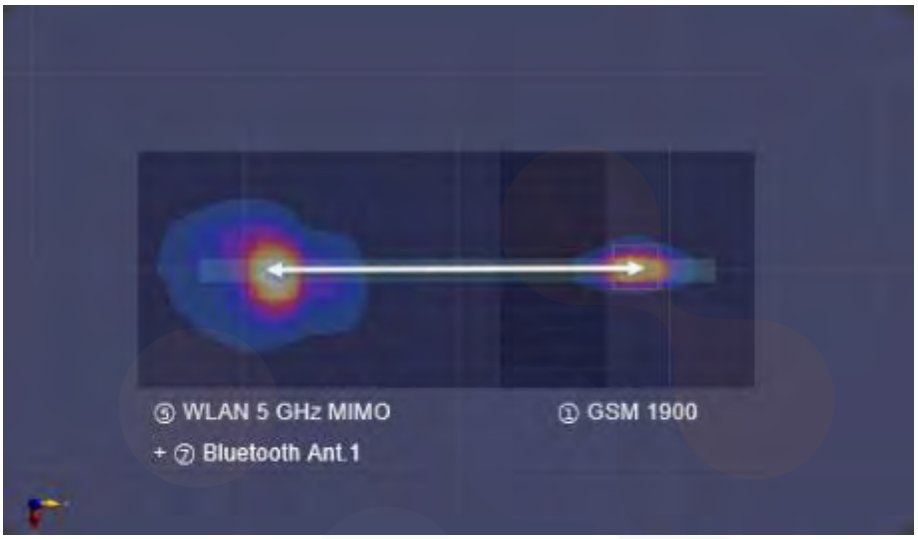
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	1.687

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① GSM 1900	0.623	-0.07380	-0.09290	-0.17700	180.59	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.08400	0.08740	-0.17700		



Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Top	1.700

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① GSM 1900	0.766	0.00000	0.08000	-0.17700	165.02	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	0.934	0.00280	-0.08500	-0.17700		



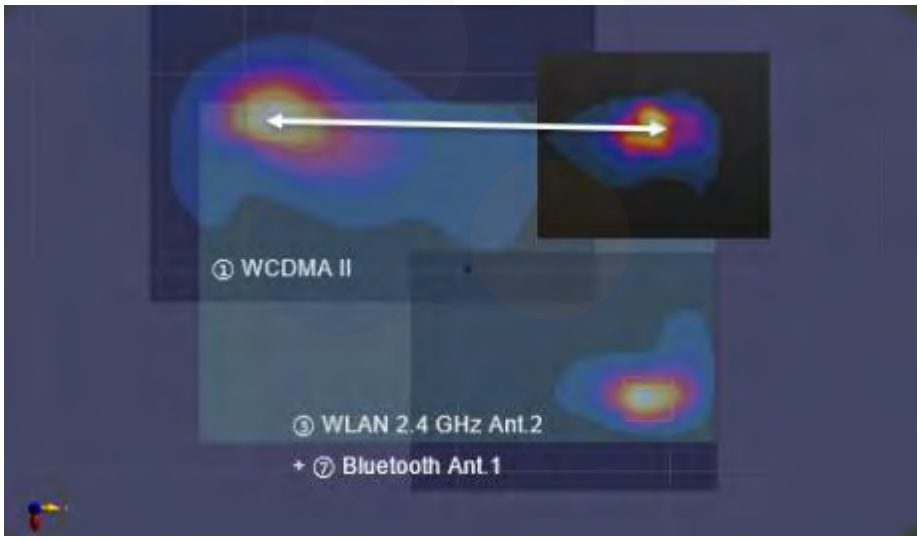
13.2.3.2 WCDMA II

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear			Top		
Scenario No.	No.7	No.8	No.9	No.4	No.8	No.10
Scenario	[①+③+⑦]	[①+⑤+⑦]	[①+⑥+⑦]	[①+⑤]	[①+⑤+⑦]	[①+⑤+⑧]
Summation	1.610	1.775	1.634	1.839	2.023	1.857
Volume scan	Not Required					

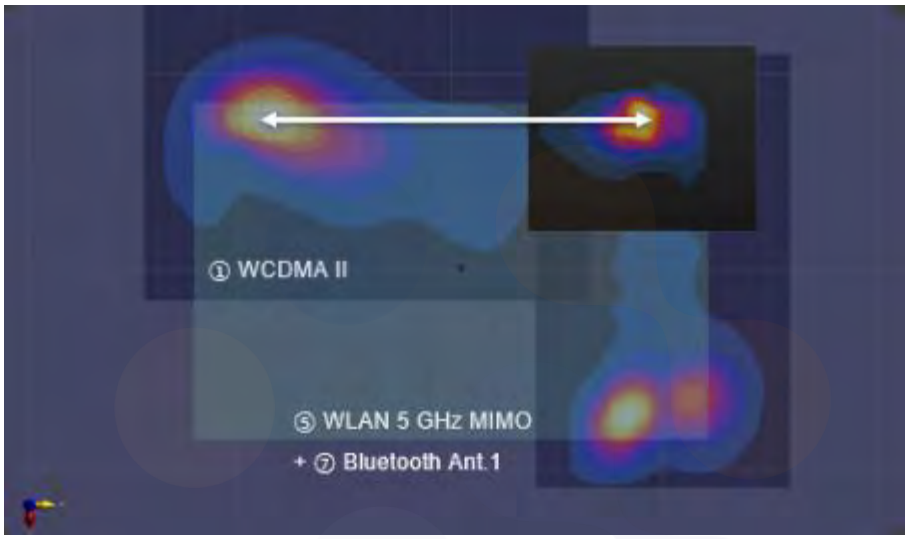
Scenario No.	Scenario	Position	SUM
No.7	[①+③+⑦]	Rear	1.610

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① WCDMA II	0.711	-0.07810	-0.08660	-0.17700	174.62	0.01
③ WLAN 2.4 GHz Ant.2 + ⑦ Bluetooth Ant.1	0.899	-0.07540	0.08800	-0.17600		



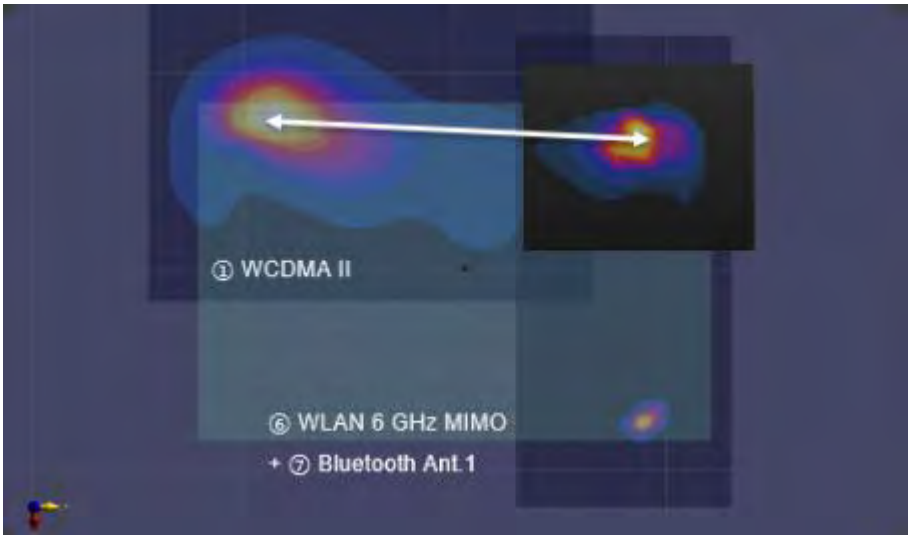
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	1.775

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① WCDMA II	0.711	-0.07810	-0.08660	-0.17700	174.10	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.08400	0.08740	-0.17700		



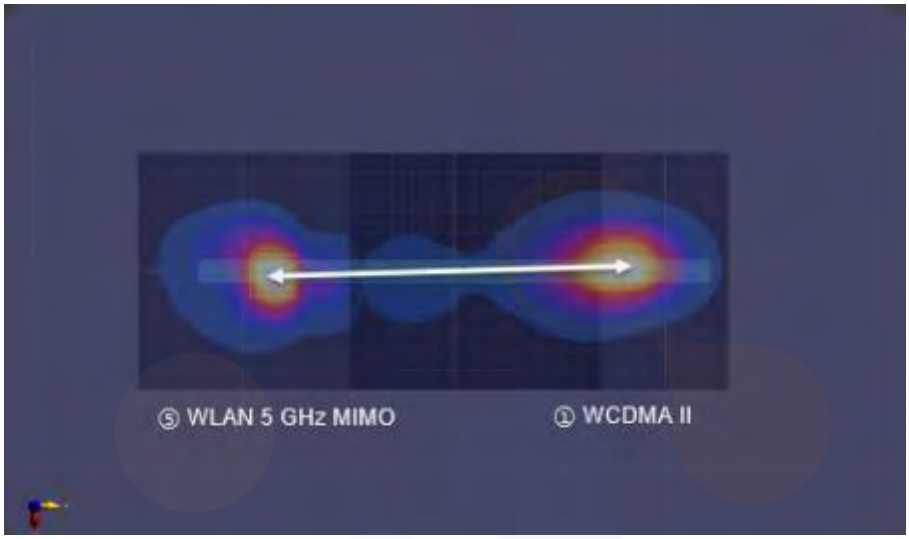
Scenario No.	Scenario	Position	SUM
No.9	[①+⑥+⑦]	Rear	1.634

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① WCDMA II	0.711	-0.07810	-0.08660	-0.17700	174.62	0.01
⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth Ant.1	0.925	-0.07540	0.08800	-0.17600		



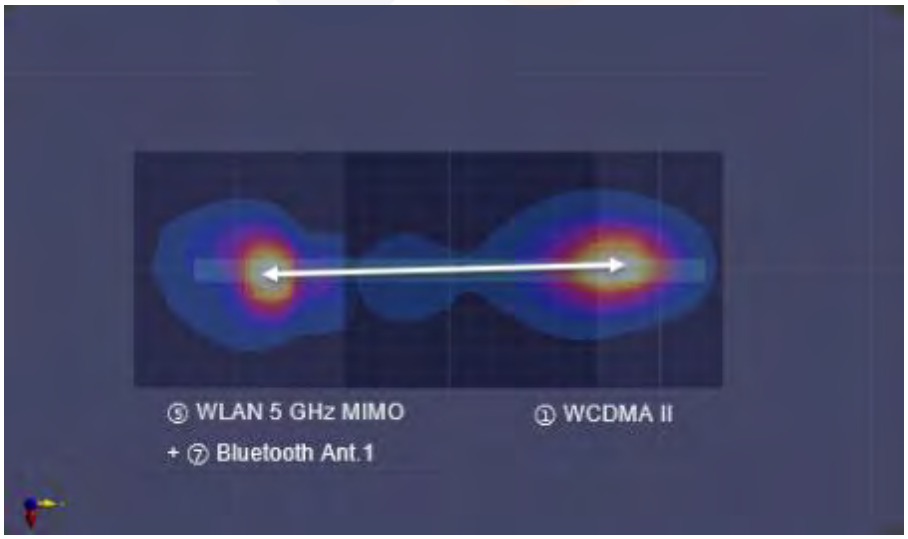
Scenario No.	Scenario	Position	SUM
No.4	[①+⑤]	Top	1.839

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① WCDMA II	1.089	-0.00150	0.07880	-0.17700	163.86	0.02
⑤ WLAN 5 GHz MIMO	0.750	0.00280	-0.08500	-0.17700		



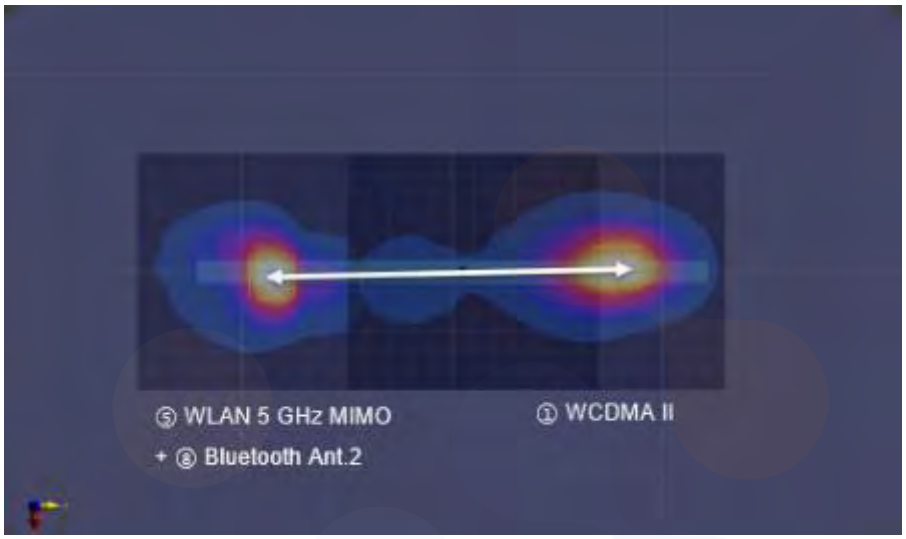
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Top	2.023

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① WCDMA II	1.089	-0.00150	0.07880	-0.17700	163.86	0.02
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	0.934	0.00280	-0.08500	-0.17700		



Scenario No.	Scenario	Position	SUM
No.10	[①+⑤+⑧]	Top	1.857

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① WCDMA II	1.089	-0.00150	0.07880	-0.17700	163.86	0.02
⑤ WLAN 5 GHz MIMO + ⑧ Bluetooth Ant.2	0.768	0.00280	-0.08500	-0.17700		



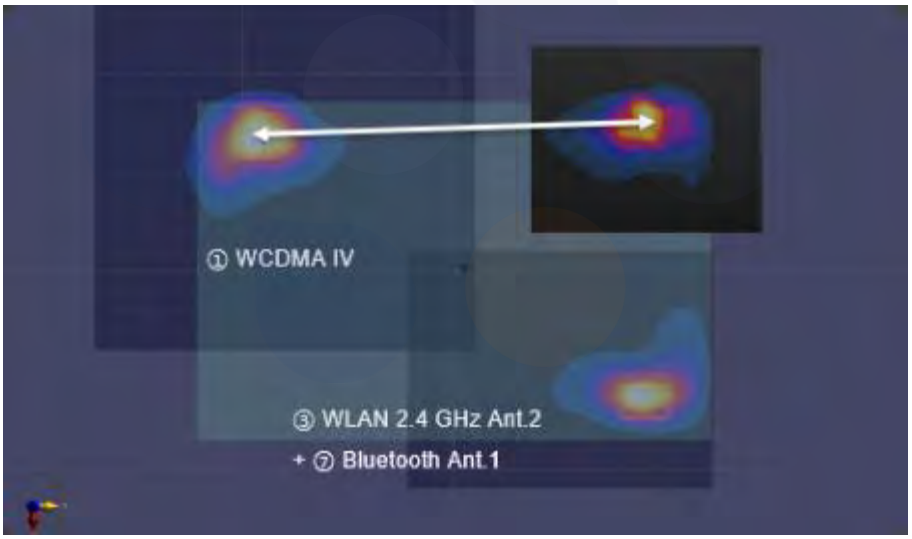
13.2.3.3 WCDMA IV

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear			Top		
Scenario No.	No.7	No.8	No.9	No.4	No.8	No.10
Scenario	[①+③+⑦]	[①+⑤+⑦]	[①+⑥+⑦]	[①+⑤]	[①+⑤+⑦]	[①+⑤+⑧]
Summation	1.665	1.830	1.689	1.668	1.852	1.686
Volume scan	Not Required					

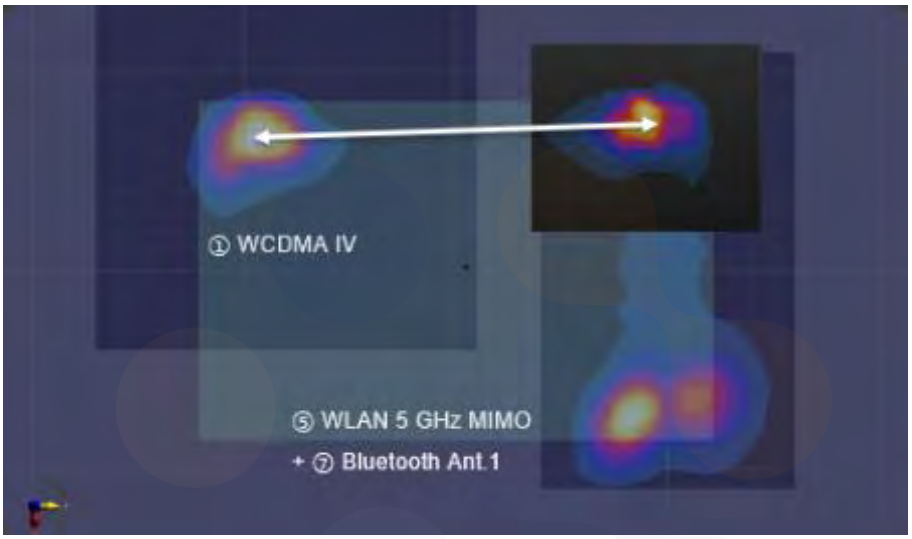
Scenario No.	Scenario	Position	SUM
No.7	[①+③+⑦]	Rear	1.665

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① WCDMA IV	0.766	-0.06810	-0.09350	-0.17700	181.65	0.01
③ WLAN 2.4 GHz Ant.2 + ⑦ Bluetooth Ant.1	0.899	-0.07540	0.08800	-0.17600		



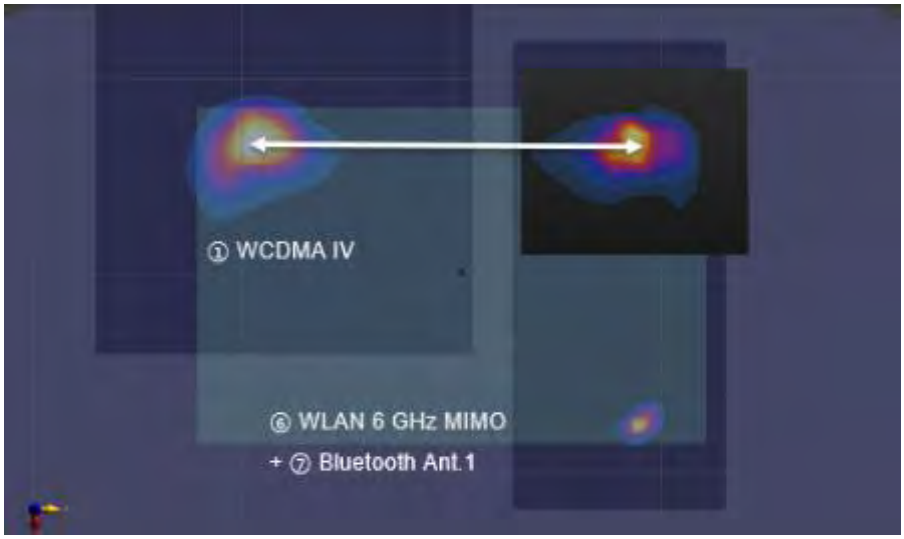
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	1.830

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① WCDMA IV	0.766	-0.06810	-0.09350	-0.17700	181.60	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.08400	0.08740	-0.17700		



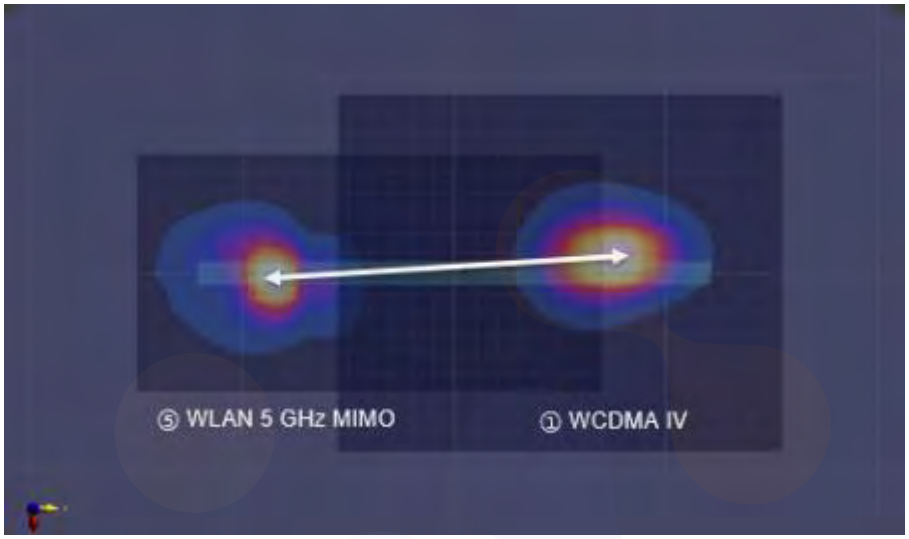
Scenario No.	Scenario	Position	SUM
No.9	[①+⑥+⑦]	Rear	1.689

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① WCDMA IV	0.766	-0.06810	-0.09350	-0.17700	181.65	0.01
⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth Ant.1	0.925	-0.07540	0.08800	-0.17600		



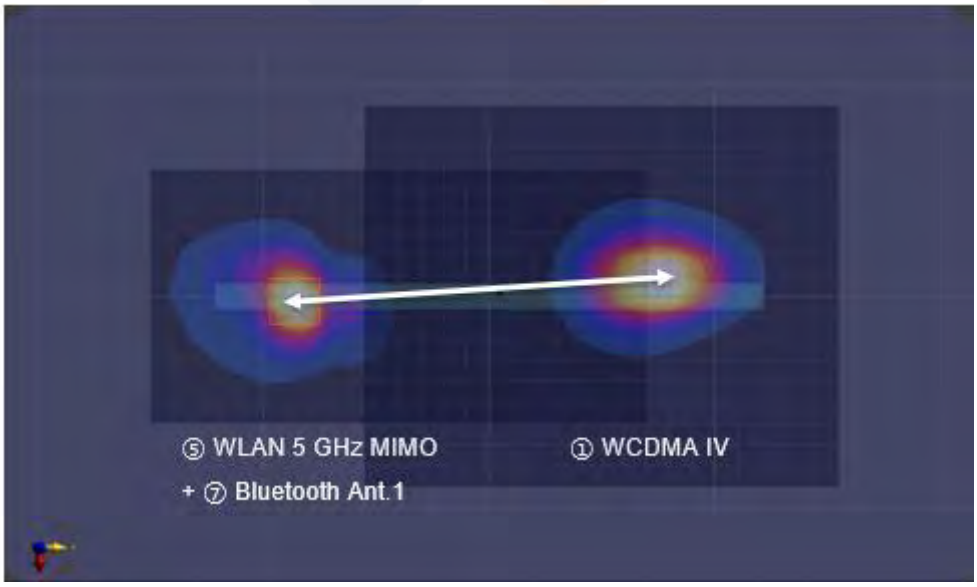
Scenario No.	Scenario	Position	SUM
No.4	[①+⑤]	Top	1.668

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① WCDMA IV	0.918	-0.00740	0.07710	-0.17700	162.42	0.01
⑤ WLAN 5 GHz MIMO	0.750	0.00280	-0.08500	-0.17700		



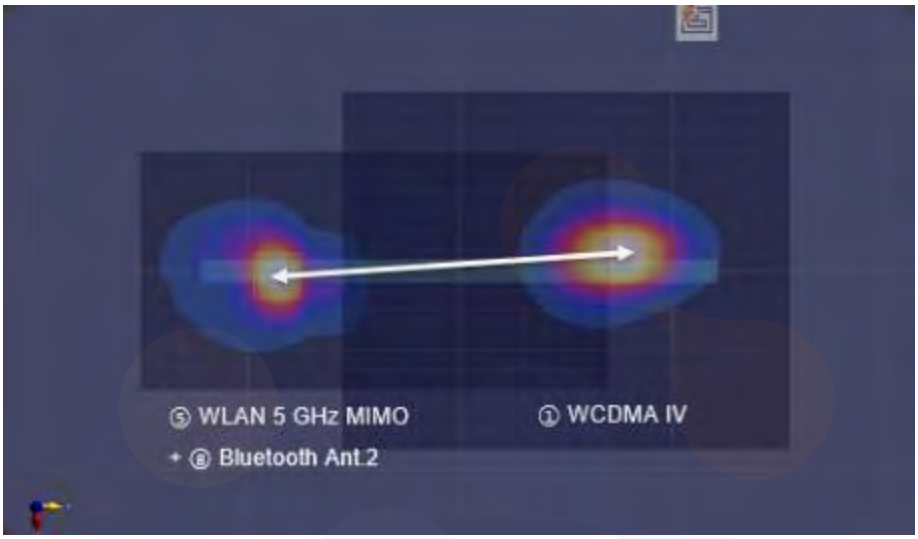
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Top	1.852

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① WCDMA IV	0.918	-0.00740	0.07710	-0.17700	162.42	0.02
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	0.934	0.00280	-0.08500	-0.17700		



Scenario No.	Scenario	Position	SUM
No.10	[①+⑤+⑧]	Top	1.686

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① WCDMA IV	0.918	-0.00740	0.07710	-0.17700	162.42	0.01
⑤ WLAN 5 GHz MIMO + ⑧ Bluetooth Ant.2	0.768	0.00280	-0.08500	-0.17700		



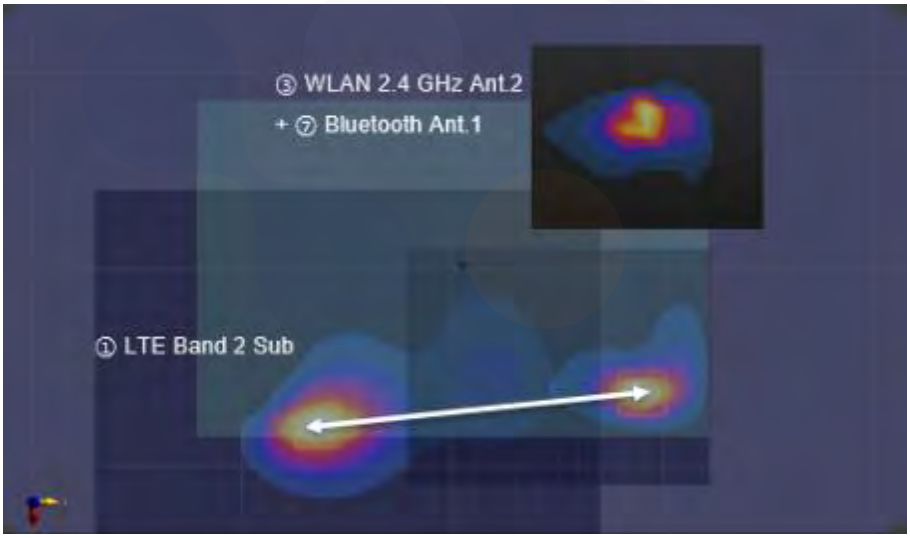
13.2.3.4 LTE Band 2 (Sub 1)

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear				Bottom		
Scenario No.	No.7	No.8	No.9	No.10	No.4	No.8	No.10
Scenario	[①+③+⑦]	[①+⑤+⑦]	[①+⑥+⑦]	[①+⑤+⑧]	[①+⑤]	[①+⑤+⑦]	[①+⑤+⑧]
Summation	1.757	1.922	1.781	1.608	1.649	1.669	1.760
Volume scan	Not Required						

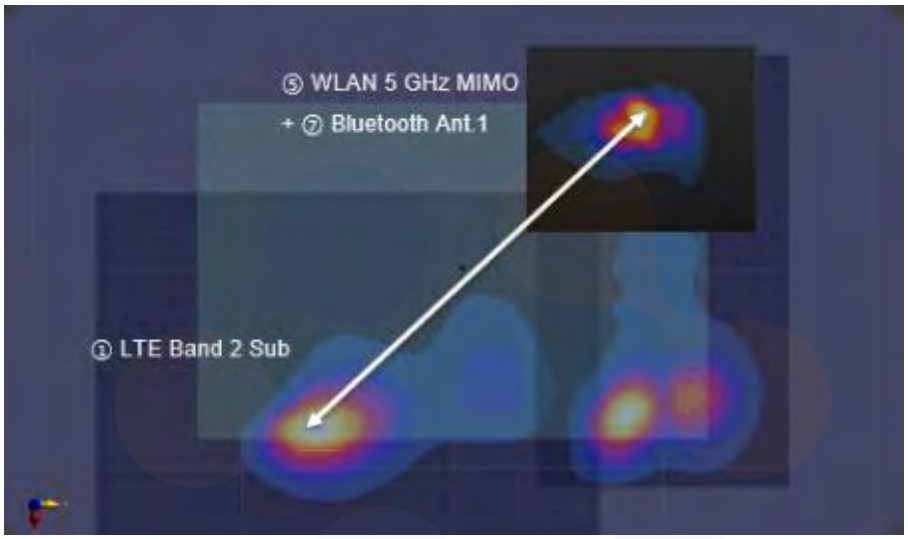
Scenario No.	Scenario	Position	SUM
No.7	[①+③+⑦]	Rear	1.757

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 2 Sub	0.858	0.08000	-0.06510	-0.17700	154.93	0.02
③ WLAN 2.4 GHz Ant.2 + ⑦ Bluetooth Ant.1	0.899	0.06600	0.08920	-0.17700		



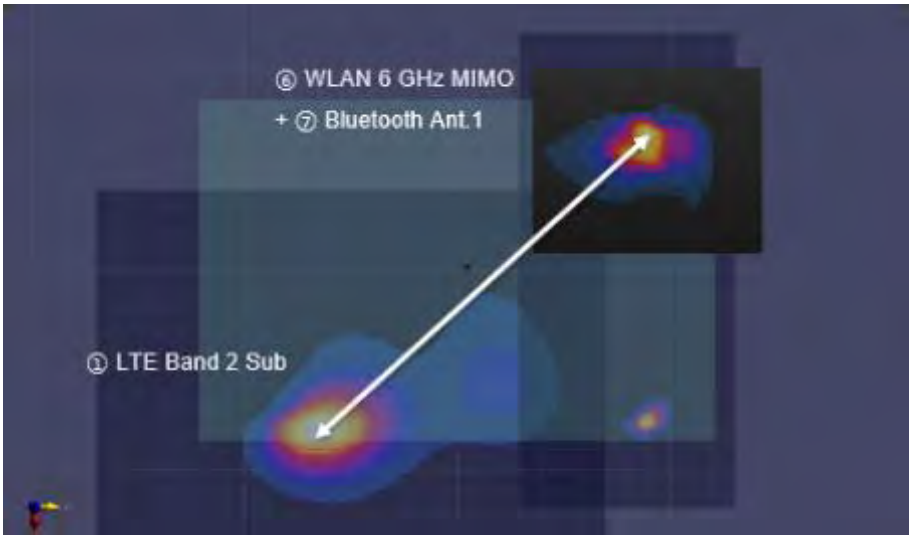
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	1.922

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 2 Sub	0.858	0.08000	-0.06510	-0.17700	218.15	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.07540	0.08800	-0.17600		



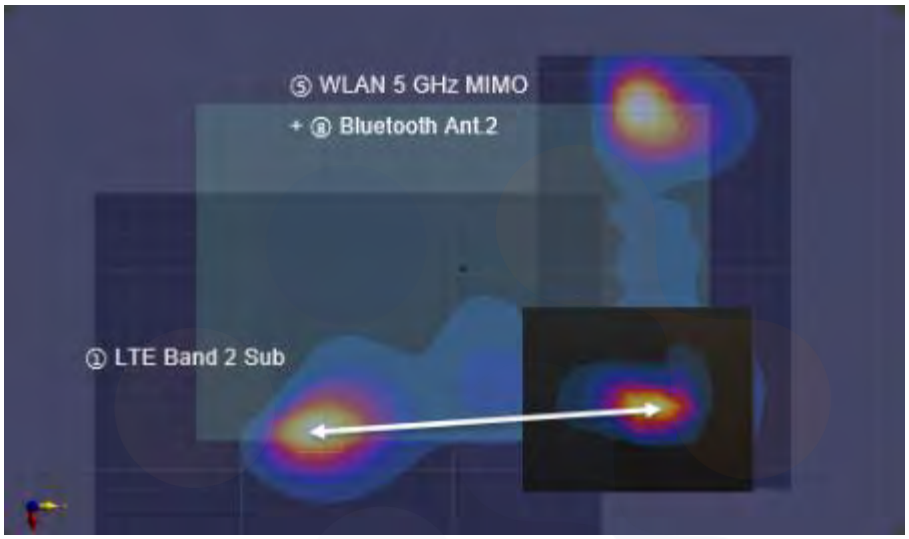
Scenario No.	Scenario	Position	SUM
No.9	[①+⑥+⑦]	Rear	1.608

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 2 Sub	0.858	0.08000	-0.06510	-0.17700	218.15	0.01
⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth Ant.1	0.925	-0.07540	0.08800	-0.17600		



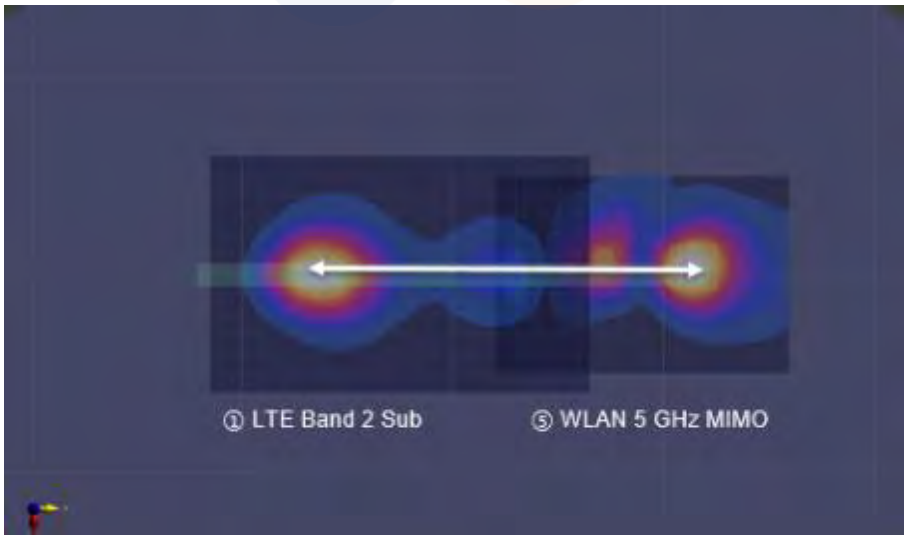
Scenario No.	Scenario	Position	SUM
No.10	[①+⑤+⑧]	Rear	1.606

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 2 Sub	0.858	0.08000	-0.06510	-0.17700	157.29	0.01
⑤ WLAN 5 GHz MIMO + ⑧ Bluetooth Ant.2	0.750	0.07240	0.09200	-0.17600		



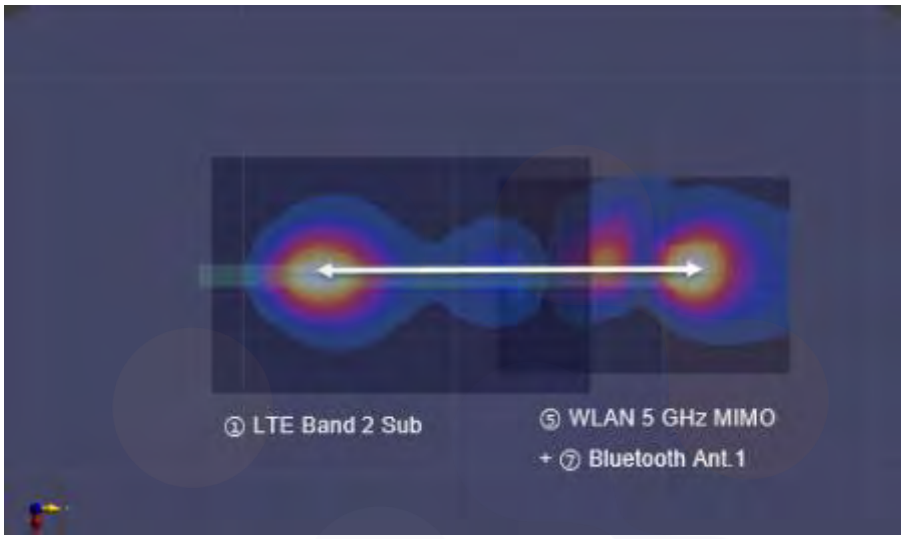
Scenario No.	Scenario	Position	SUM
No.4	[①+⑤]	Bottom	1.649

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 2 Sub	1.140	0.00000	-0.06390	-0.17700	175.94	0.01
⑤ WLAN 5 GHz MIMO	0.509	-0.00380	0.11200	-0.17700		



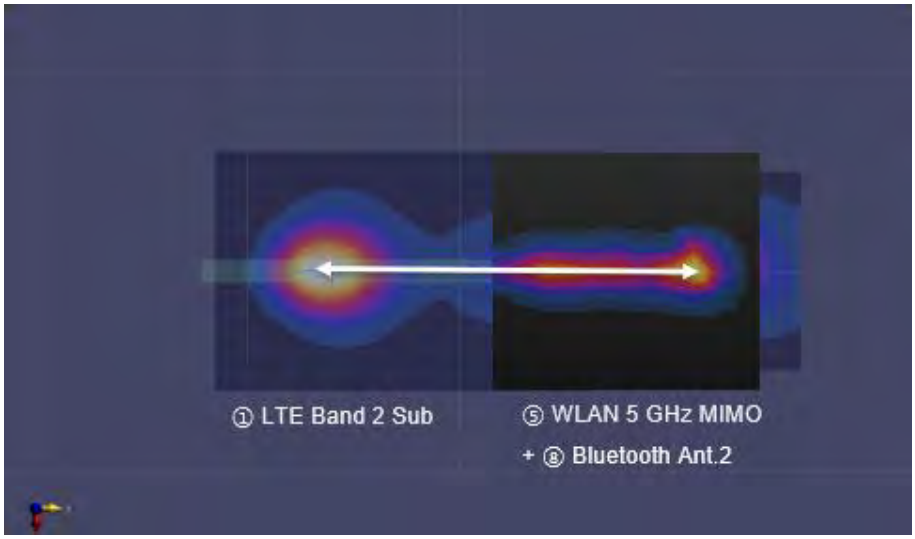
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Bottom	1.669

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 2 Sub	1.140	0.00000	-0.06390	-0.17700	175.94	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	0.529	-0.00380	0.11200	-0.17700		



Scenario No.	Scenario	Position	SUM
No.10	[①+⑤+⑧]	Bottom	1.760

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 2 Sub	1.140	0.00000	-0.06390	-0.17700	161.52	0.01
⑤ WLAN 5 GHz MIMO + ⑧ Bluetooth Ant.2	0.620	-0.00220	0.09760	-0.17600		



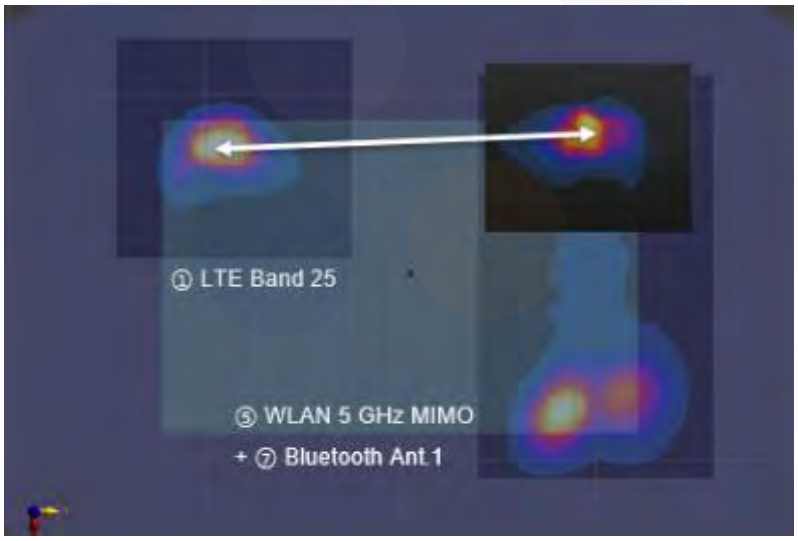
13.2.3.7 LTE Band 25

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear	Top		
Scenario No.	No.8	No.4	No.8	No.10
Scenario	[①+⑤+⑦]	[①+⑤]	[①+⑤+⑦]	[①+⑤+⑧]
Summation	1.716	1.762	1.946	1.780
Volume scan	Not Required			

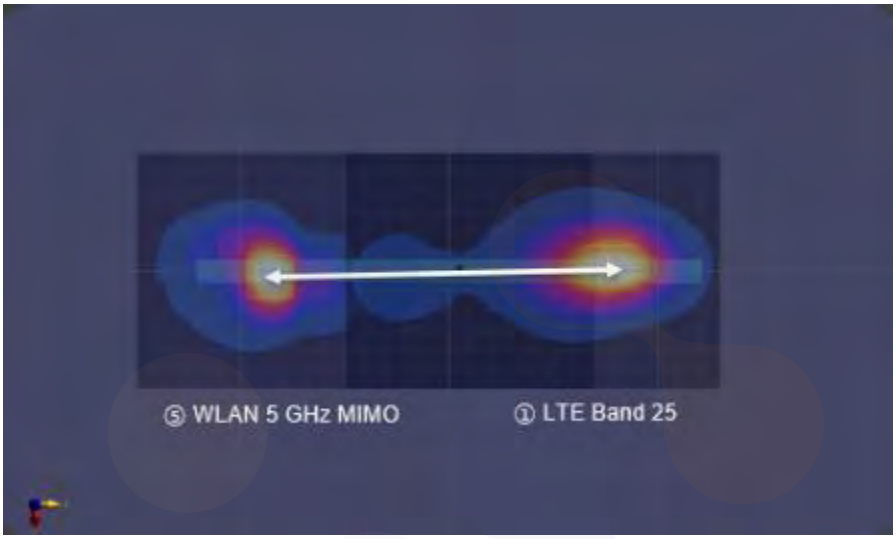
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	1.716

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 25	0.652	-0.07310	-0.09280	-0.18100	180.57	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.08400	0.08740	-0.17700		



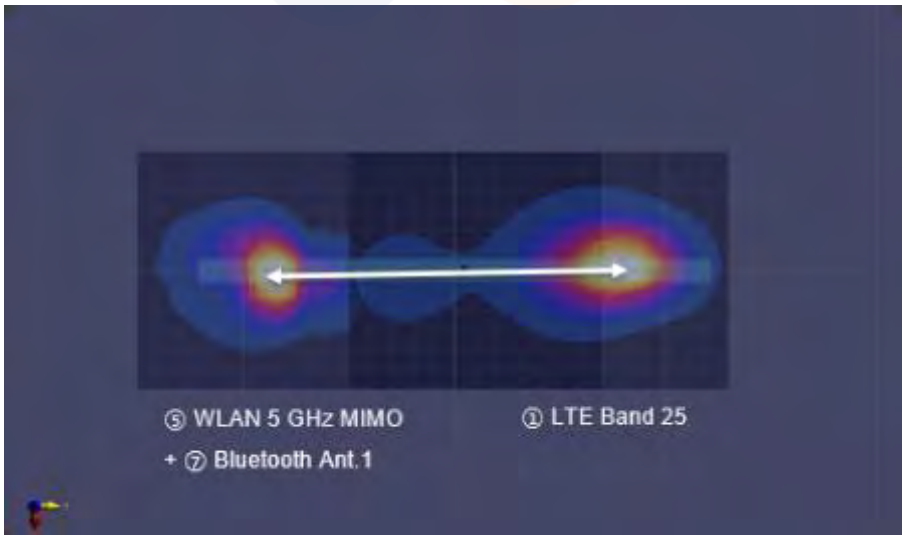
Scenario No.	Scenario	Position	SUM
No.4	[①+⑤]	Top	1.762

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 25	1.012	-0.00150	0.07890	-0.17700	163.96	0.01
⑤ WLAN 5 GHz MIMO	0.750	0.00280	-0.08500	-0.17700		



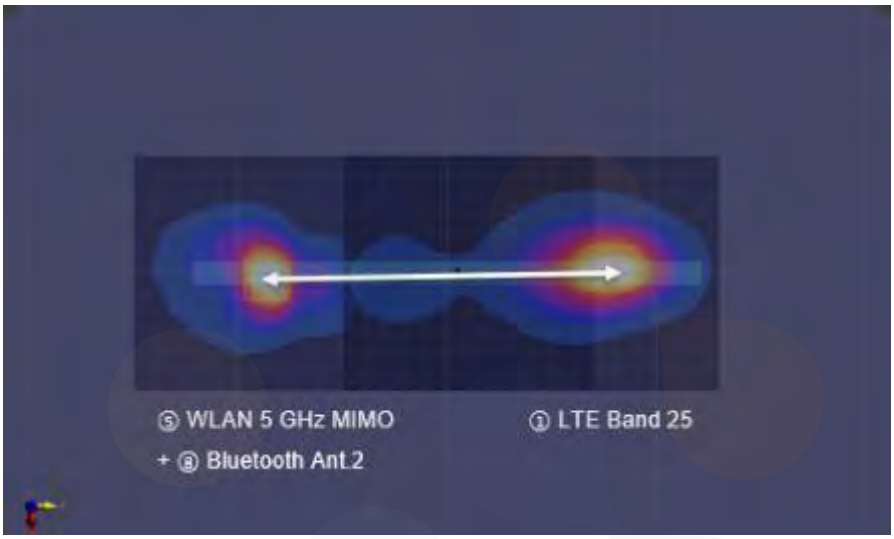
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Top	1.946

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 25	1.012	-0.00150	0.07890	-0.17700	163.96	0.02
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	0.934	0.00280	-0.08500	-0.17700		



Scenario No.	Scenario	Position	SUM
No.10	[①+⑤+⑧]	Top	1.780

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 25	1.012	-0.00150	0.07890	-0.17700	163.96	0.01
⑤ WLAN 5 GHz MIMO + ⑧ Bluetooth Ant.2	0.768	0.00280	-0.08500	-0.17700		



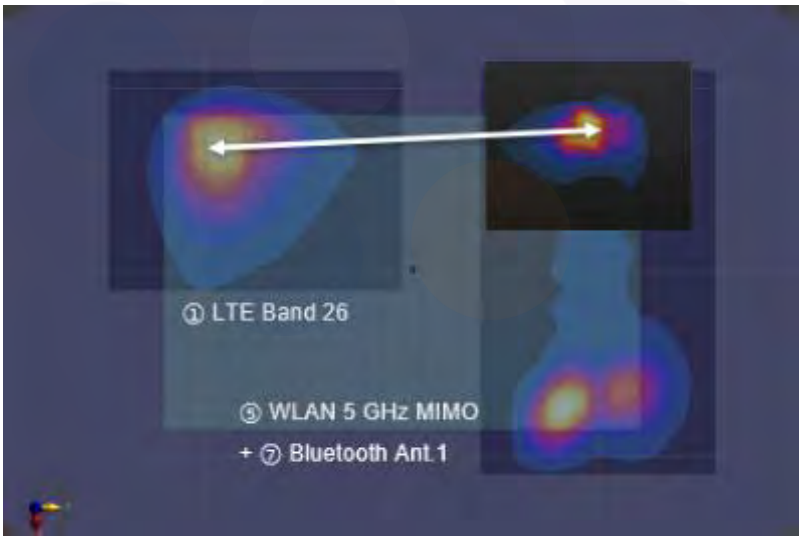
13.2.3.8 LTE Band 26

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear
Scenario No.	No.8
Scenario	[①+⑤+⑦]
Summation	1.657
Volume scan	Not Required

Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	1.657

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 26	0.593	-0.07450	-0.09790	-0.17700	185.54	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.08400	0.08740	-0.17700		



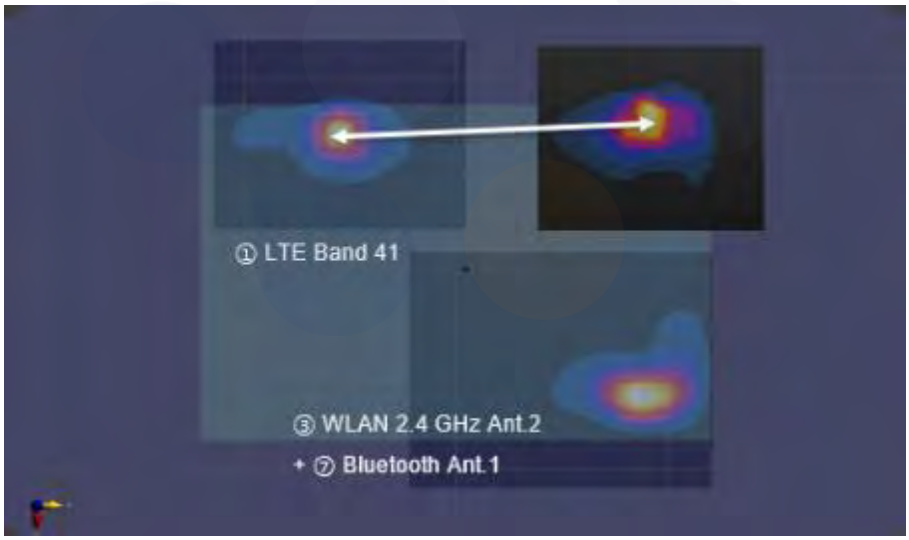
13.2.3.9 LTE Band 41

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear		
Scenario No.	No.7	No.8	No.9
Scenario	[①+③+⑦]	[①+⑤+⑦]	[①+⑥+⑦]
Summation	1.684	1.849	1.708
Volume scan	Not Required		

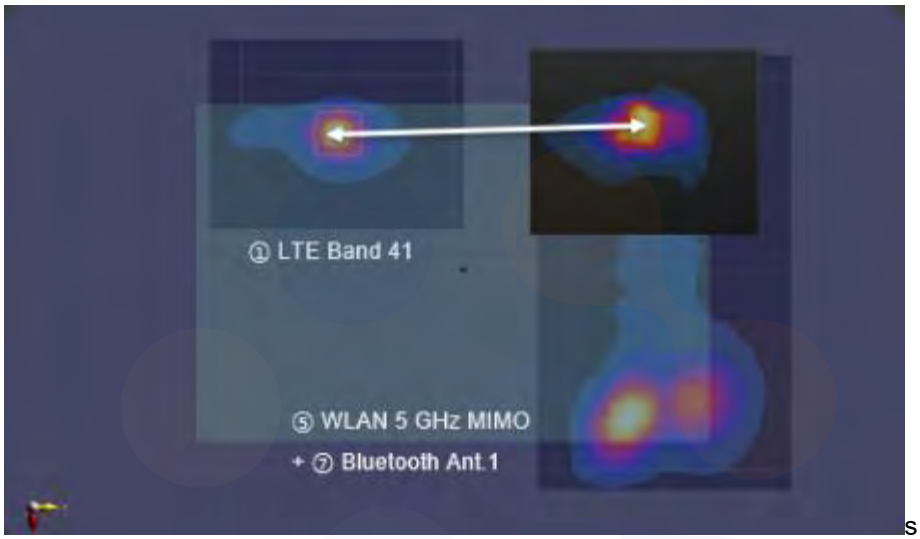
Scenario No.	Scenario	Position	SUM
No.7	[①+③+⑦]	Rear	1.684

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 41	0.785	-0.07300	-0.05500	-0.17700	143.02	0.02
③ WLAN 2.4 GHz Ant.2 + ⑦ Bluetooth Ant.1	0.899	-0.07540	0.08800	-0.17600		



Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	1.849

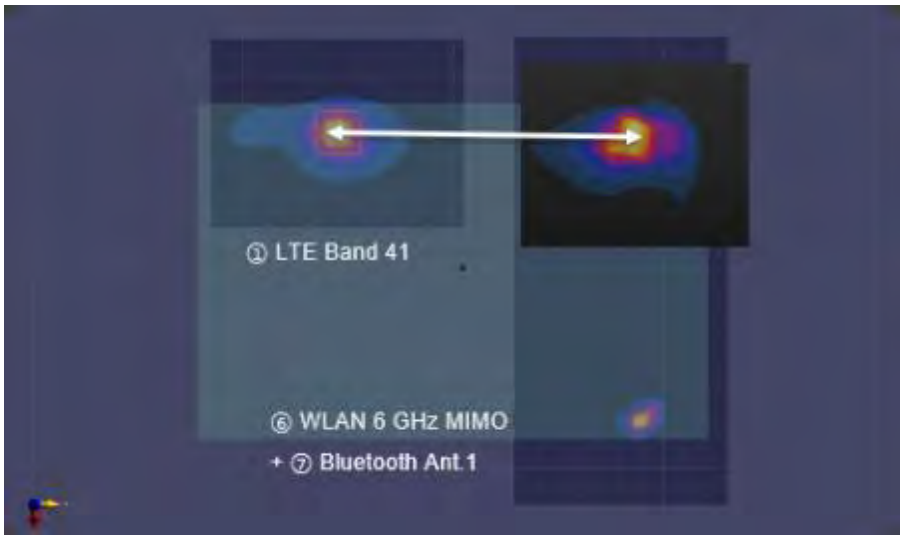
Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 41	0.785	-0.07300	-0.05500	-0.17700	142.82	0.02
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.08400	0.08740	-0.17700		



s

Scenario No.	Scenario	Position	SUM
No.9	[①+⑥+⑦]	Rear	1.708

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 41	0.785	-0.07300	-0.05500	-0.17700	143.02	0.02
⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth Ant.1	0.925	-0.07540	0.08800	-0.17600		



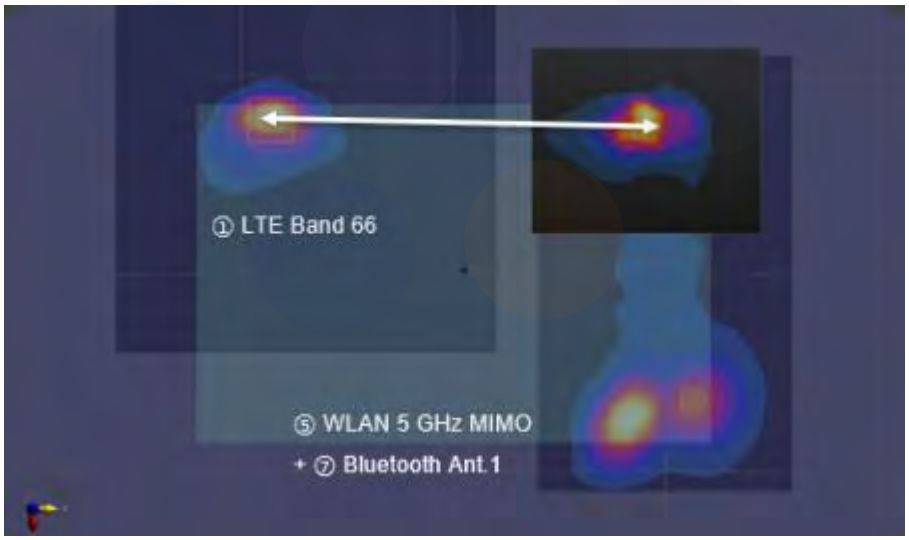
13.2.3.10 LTE Band 66

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear	Top
Scenario No.	No.8	
Scenario	[①+⑤+⑦]	
Summation	1.624	1.687
Volume scan	Not Required	

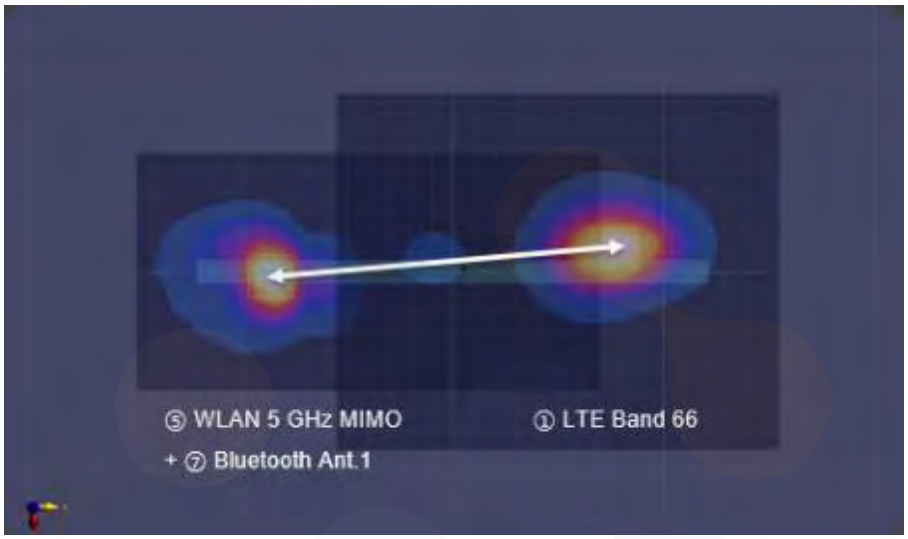
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	1.624

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 66	0.560	-0.07850	-0.08500	-0.17700	172.49	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.08400	0.08740	-0.17700		



Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Top	1.687

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① LTE Band 66	0.753	-0.01190	0.07850	-0.17700	164.16	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	0.934	0.00280	-0.08500	-0.17700		



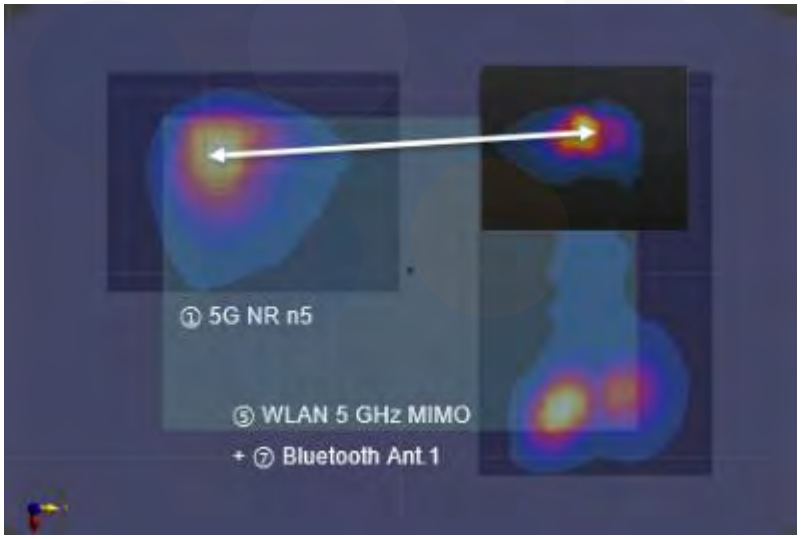
13.2.3.11 NR n5

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear
Scenario No.	No.8
Scenario	[①+⑤+⑦]
Summation	1.647
Volume scan	Not Required

Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	1.647

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n5	0.583	-0.07300	-0.09790	-0.17700	185.63	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.08400	0.08740	-0.17700		



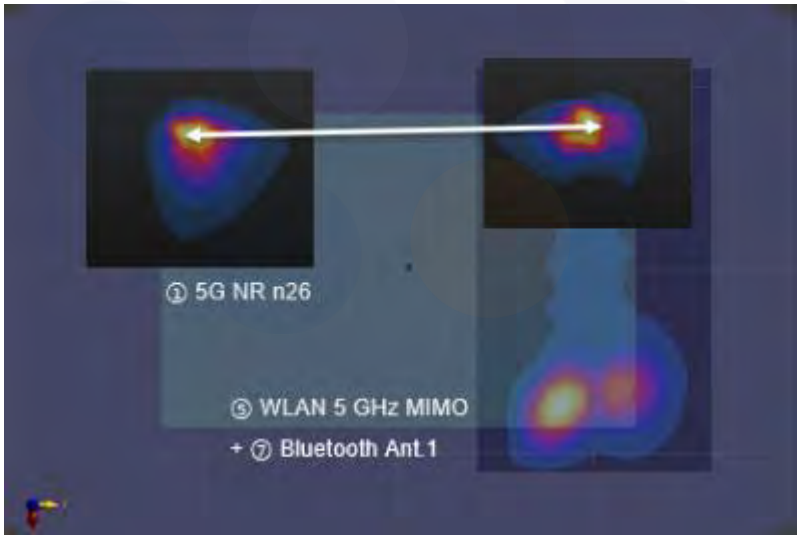
13.2.3.12 NR n26

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear
Scenario No.	No.8
Scenario	[①+⑤+⑦]
Summation	1.636
Volume scan	Not Required

Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	1.636

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n26	0.572	-0.07520	-0.09890	-0.17700	186.51	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.08400	0.08740	-0.17700		



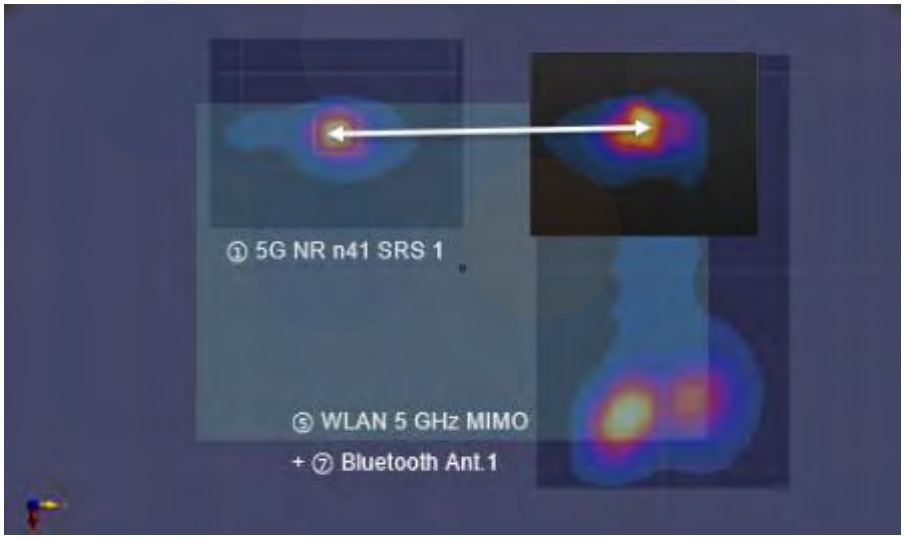
13.2.3.13 NR n41 (SRS 1)

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear
Scenario No.	No.8
Scenario	[①+⑤+⑦]
Summation	1.624
Volume scan	Not Required

Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	1.624

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n41 SRS 1	0.560	-0.07200	-0.05500	-0.17700	142.90	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.08400	0.08740	-0.17700		



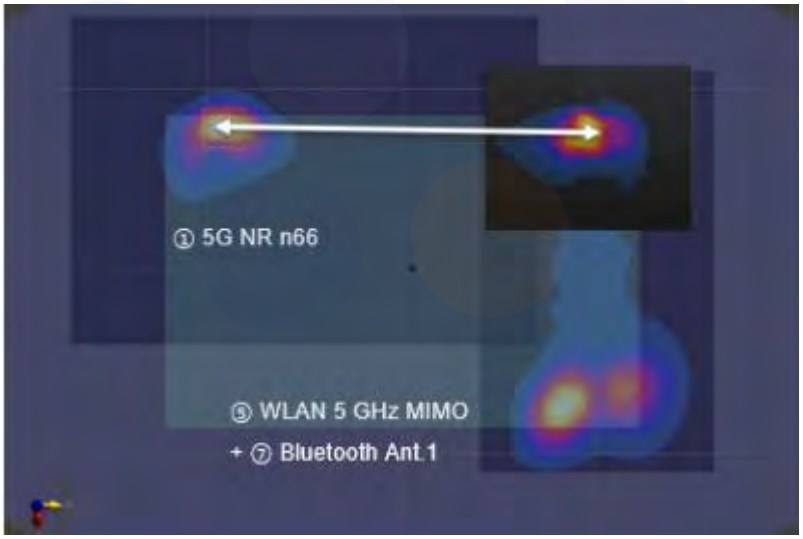
13.2.3.14 NR n66

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear	Top
Scenario No.	No.8	No.8
Scenario	[①+⑤+⑦]	[①+⑤+⑦]
Summation	1.724	1.742
Volume scan	Not Required	

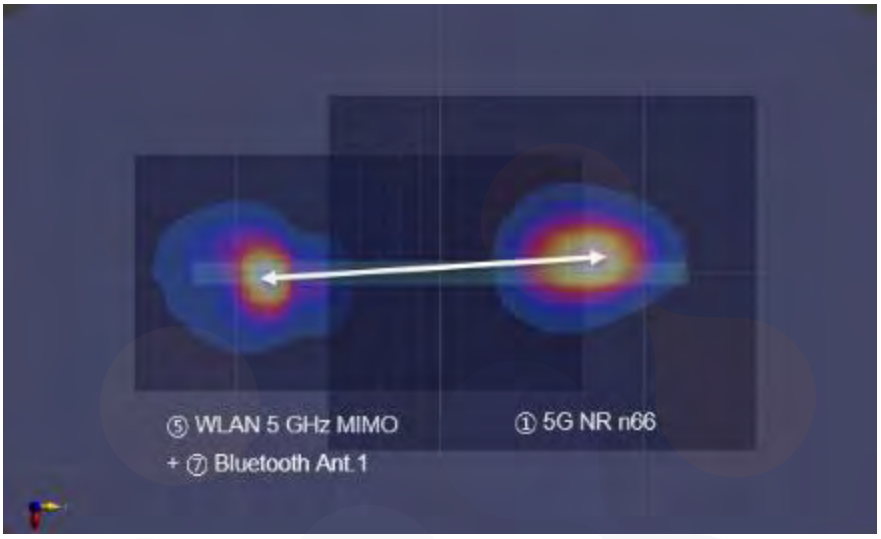
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	1.724

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n66	0.660	-0.07850	-0.09190	-0.17700	179.38	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.08400	0.08740	-0.17700		



Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Top	1.742

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n66	0.808	-0.00600	0.07400	-0.17700	159.24	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	0.934	0.00280	-0.08500	-0.17700		



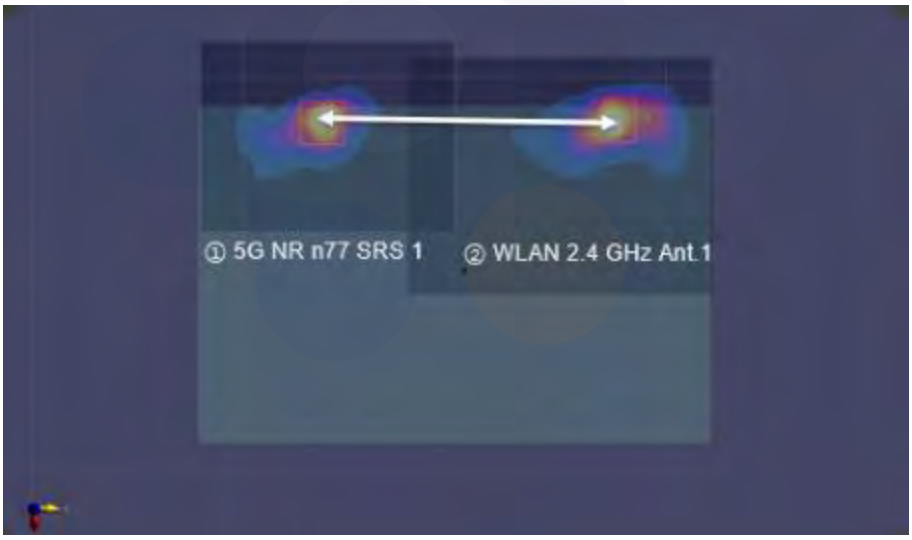
13.2.3.16 NR n77 (SRS 1)

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear						
Scenario No.	No.1	No.3	No.7	No.8	No.9	No.10	No.11
Scenario	[①+②]	[①+④]	[①+③+⑦]	[①+⑤+⑦]	[①+⑥+⑦]	[①+⑤+⑧]	[①+⑥+⑧]
Summation	1.684	1.653	1.930	2.095	1.954	1.781	1.640
Volume scan	Not Required						

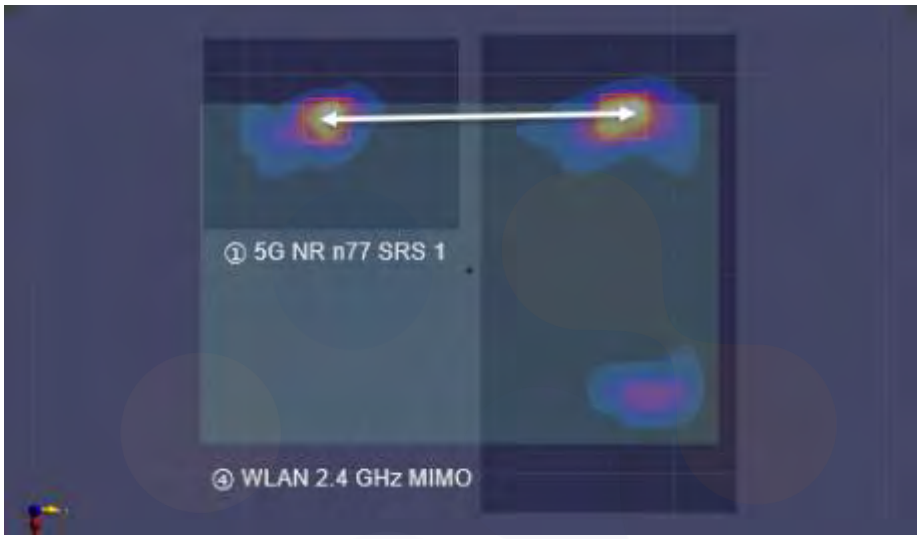
Scenario No.	Scenario	Position	SUM
No.1	[①+②]	Rear	1.684

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n77 SRS 1	1.031	-0.07760	-0.06300	-0.17700	142.02	0.02
② WLAN 2.4 GHz Ant.1	0.653	-0.08020	0.07900	-0.17700		



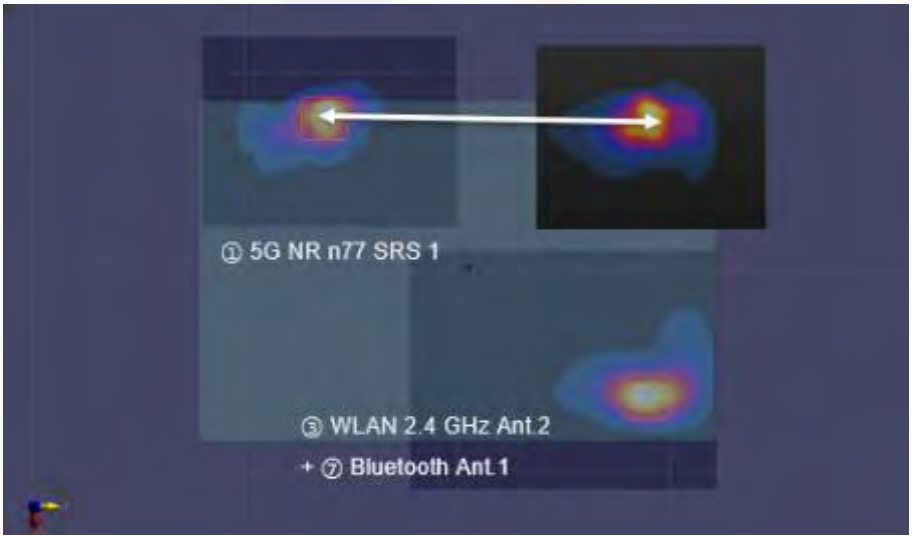
Scenario No.	Scenario	Position	SUM
No.3	[①+④]	Rear	1.653

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n77 SRS 1	1.031	-0.07760	-0.06300	-0.17700	142.86	0.02
④ WLAN 2.4 GHz MIMO	0.622	-0.08160	0.07980	-0.17700		



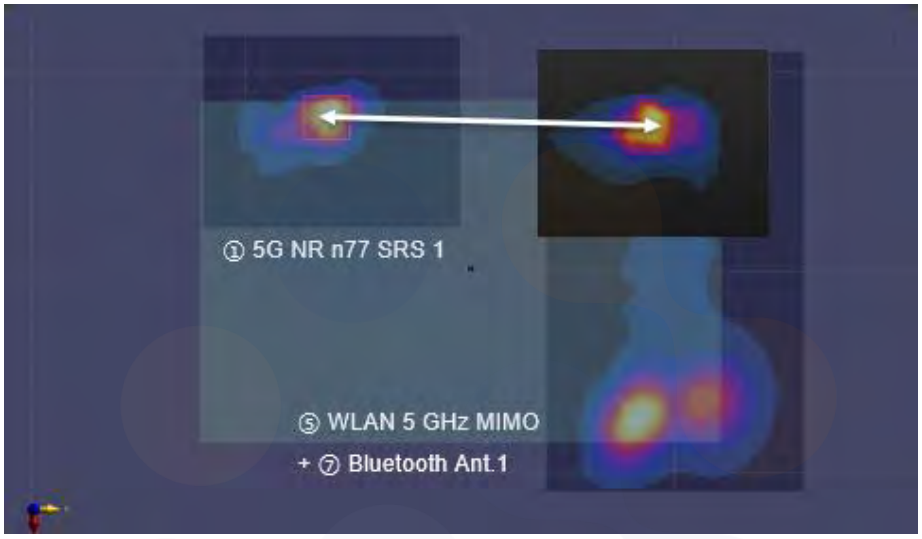
Scenario No.	Scenario	Position	SUM
No.7	[①+③+⑦]	Rear	1.930

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n77 SRS 1	1.031	-0.07760	-0.06300	-0.17700	151.02	0.02
③ WLAN 2.4 GHz Ant.2 + ⑦ Bluetooth Ant.1	0.899	-0.07540	0.08800	-0.17600		



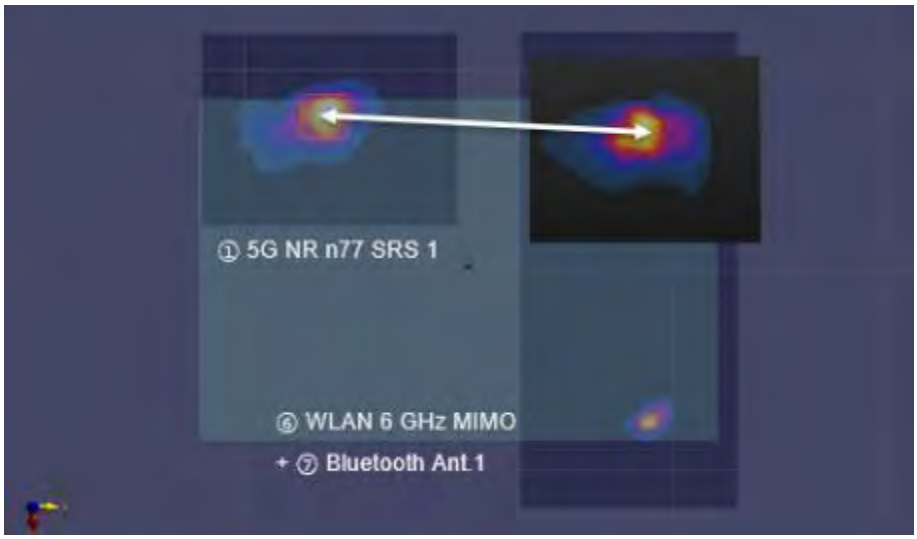
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	2.095

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n77 SRS 1	1.031	-0.07760	-0.06300	-0.17700	150.54	0.02
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.08400	0.08740	-0.17700		



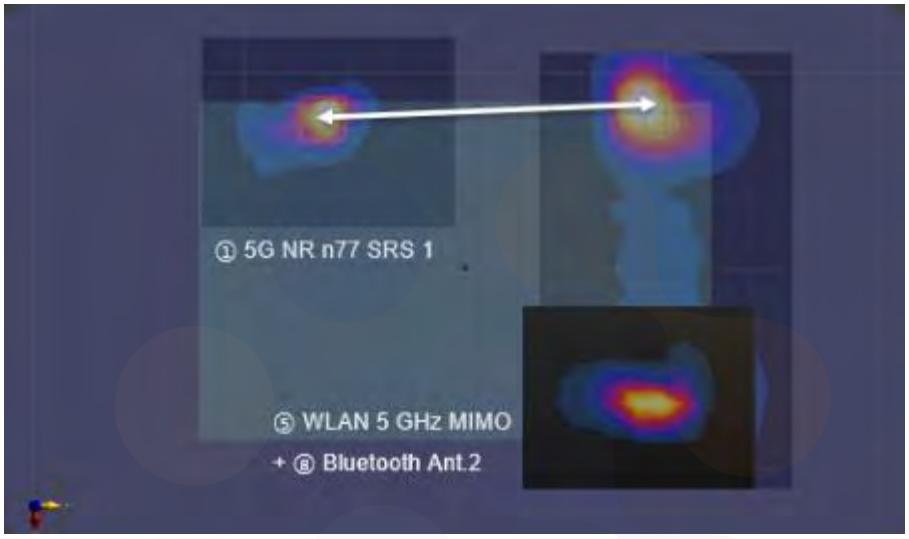
Scenario No.	Scenario	Position	SUM
No.9	[①+⑥+⑦]	Rear	1.954

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n77 SRS 1	1.031	-0.07760	-0.06300	-0.17700	151.02	0.02
⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth Ant.1	0.925	-0.07540	0.08800	-0.17600		



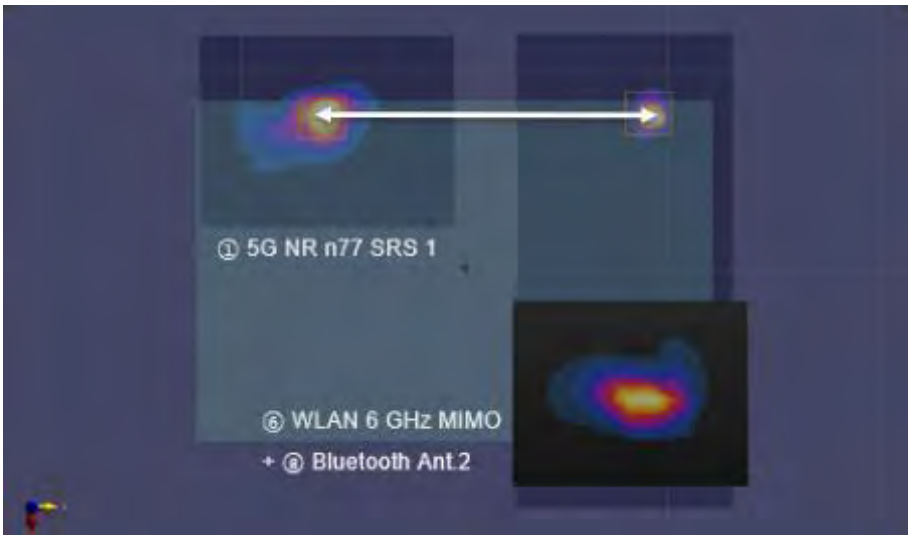
Scenario No.	Scenario	Position	SUM
No.10	[①+⑤+⑧]	Rear	1.781

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n77 SRS 1	1.031	-0.07760	-0.06300	-0.17700	150.54	0.02
⑤ WLAN 5 GHz MIMO + ⑧ Bluetooth Ant.2	0.750	-0.08400	0.08740	-0.17700		



Scenario No.	Scenario	Position	SUM
No.11	[①+⑥+⑧]	Rear	1.640

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n77 SRS 1	1.031	-0.07760	-0.06300	-0.17700	155.81	0.01
⑥ WLAN 6 GHz MIMO + ⑧ Bluetooth Ant.2	0.611	-0.07900	0.09280	-0.17700		



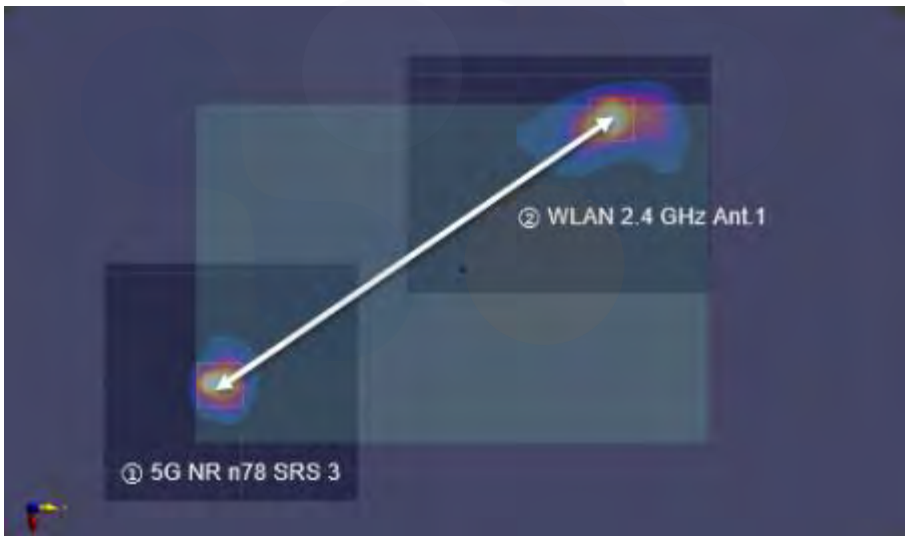
13.2.3.17 NR n78 (SRS 3)

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

Position	Rear								
Scenario No.	No.1	No.3	No.4	No.6	No.7	No.8	No.9	No.10	No.11
Scenario	[①+②]	[①+④]	[①+⑤]	[①+⑦]	[①+③+⑦]	[①+⑤+⑦]	[①+⑥+⑦]	[①+⑤+⑧]	[①+⑥+⑧]
Summation	1.851	1.820	1.704	1.756	2.097	2.262	2.121	1.948	1.807
Volume scan	Not Required								

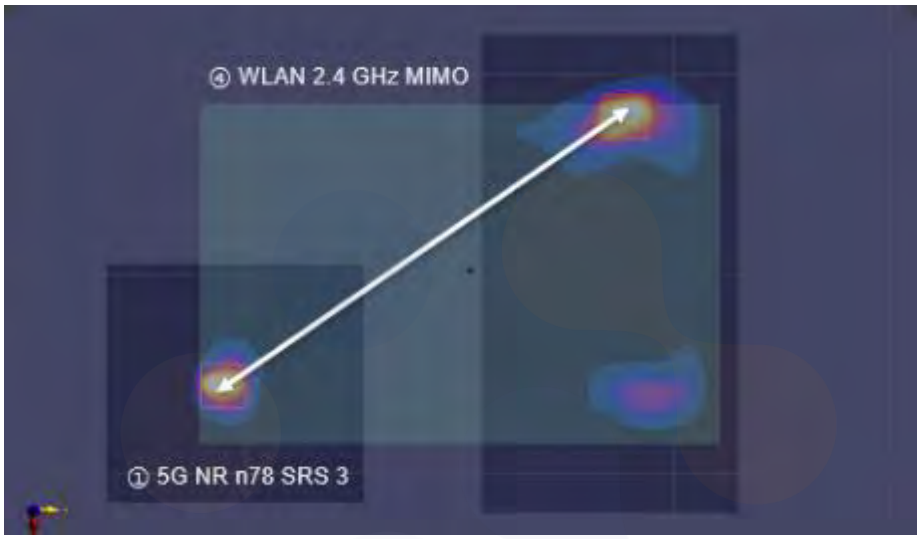
Scenario No.	Scenario	Position	SUM
No.1	[①+②]	Rear	1.851

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 3	1.198	0.05800	-0.11060	-0.17700	234.62	0.01
② WLAN 2.4 GHz Ant.1	0.653	-0.08020	0.07900	-0.17700		



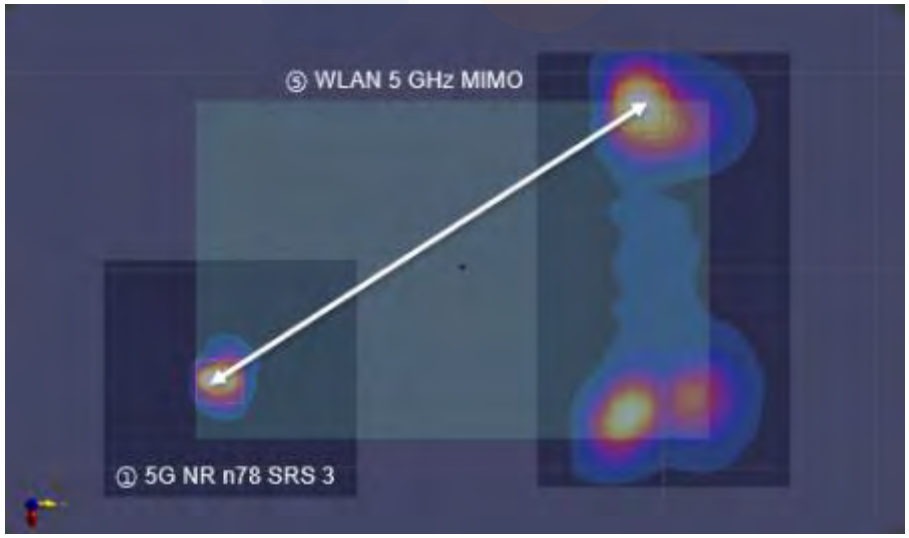
Scenario No.	Scenario	Position	SUM
No.3	[①+④]	Rear	1.820

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 3	1.198	0.05800	-0.11060	-0.17700	236.09	0.01
④ WLAN 2.4 GHz MIMO	0.622	-0.08160	0.07980	-0.17700		



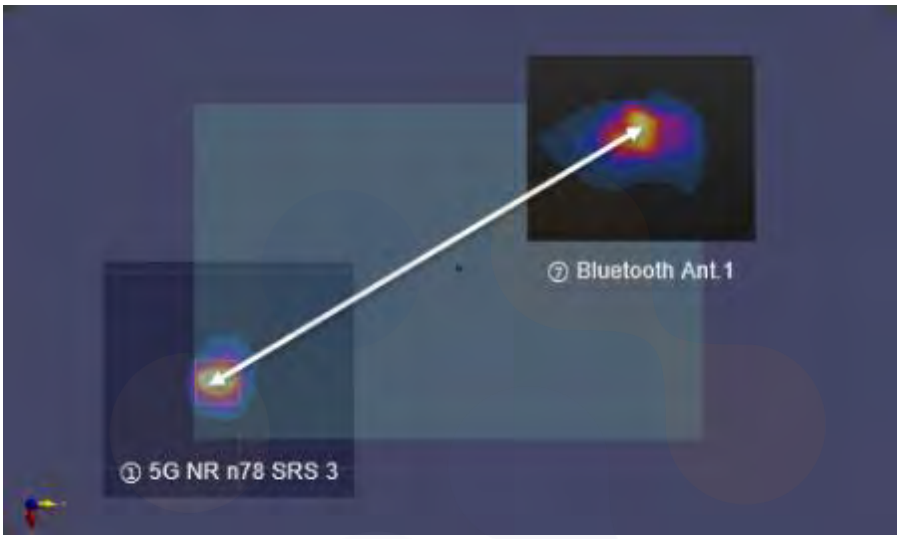
Scenario No.	Scenario	Position	SUM
No.4	[①+⑤]	Rear	1.704

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 3	1.198	0.05800	-0.11060	-0.17700	243.66	0.01
⑤ WLAN 5 GHz MIMO	0.506	-0.08400	0.08740	-0.17700		



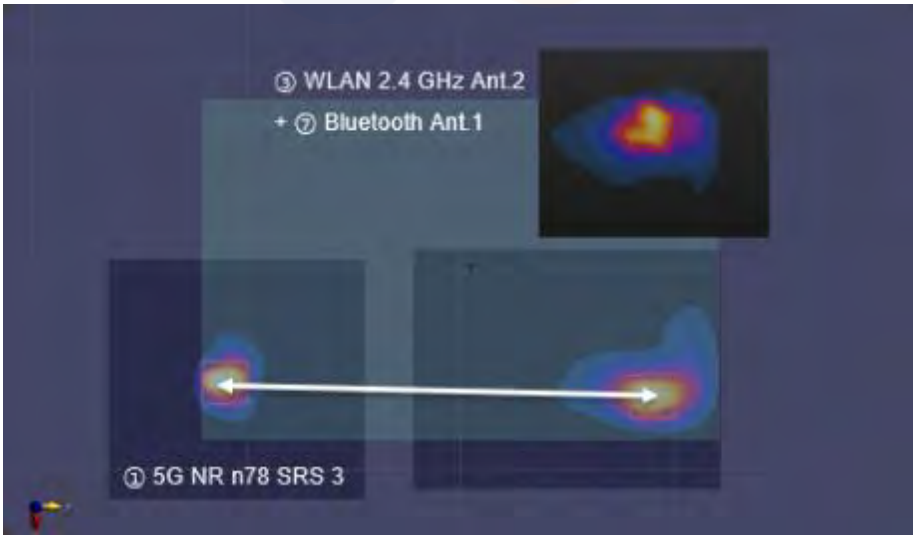
Scenario No.	Scenario	Position	SUM
No.6	[①+⑦]	Rear	1.756

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 3	1.198	0.05800	-0.11060	-0.17700	239.25	0.01
⑦ Bluetooth Ant.1	0.558	-0.07540	0.08800	-0.17600		



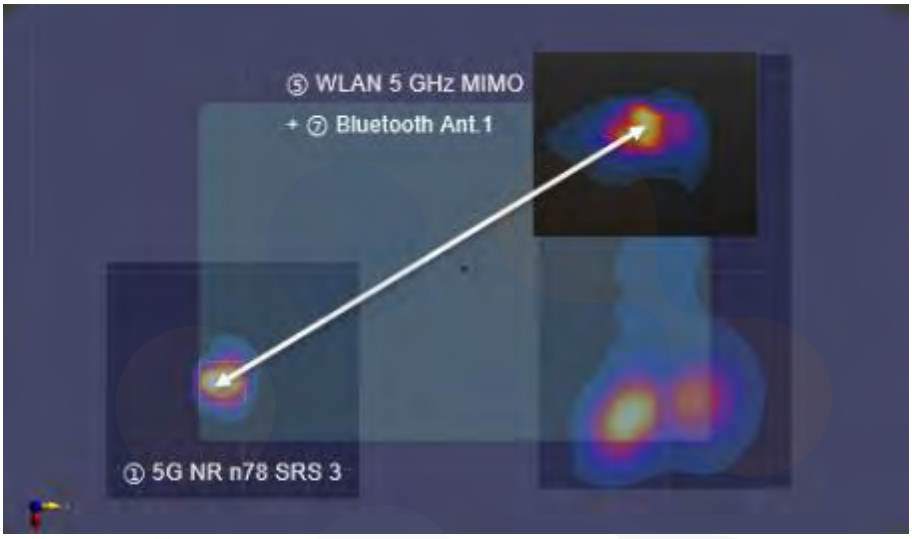
Scenario No.	Scenario	Position	SUM
No.7	[①+③+⑦]	Rear	2.097

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 3	1.198	0.05800	-0.11060	-0.17700	199.96	0.02
③ WLAN 2.4 GHz Ant.2 + ⑦ Bluetooth Ant.1	0.899	0.06600	0.08920	-0.17700		



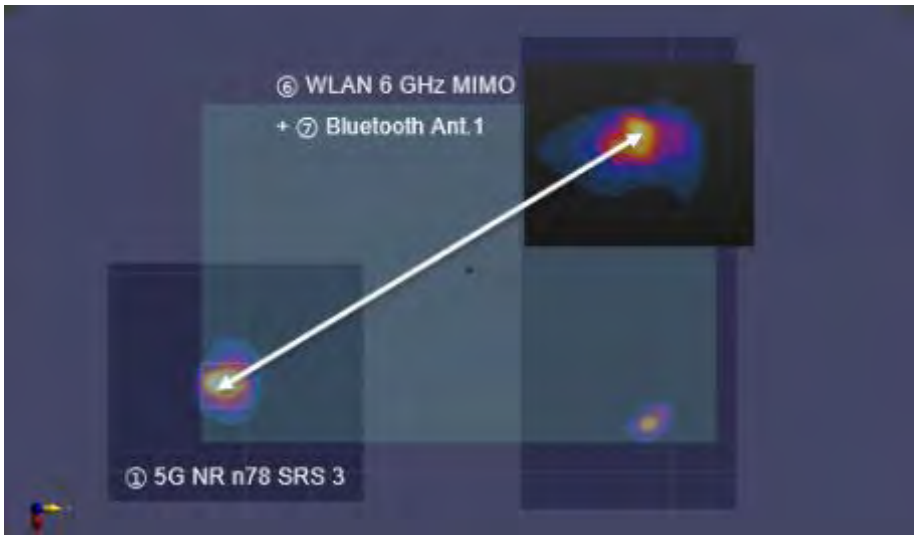
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	2.262

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 3	1.198	0.05800	-0.11060	-0.17700	239.25	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.07540	0.08800	-0.17600		



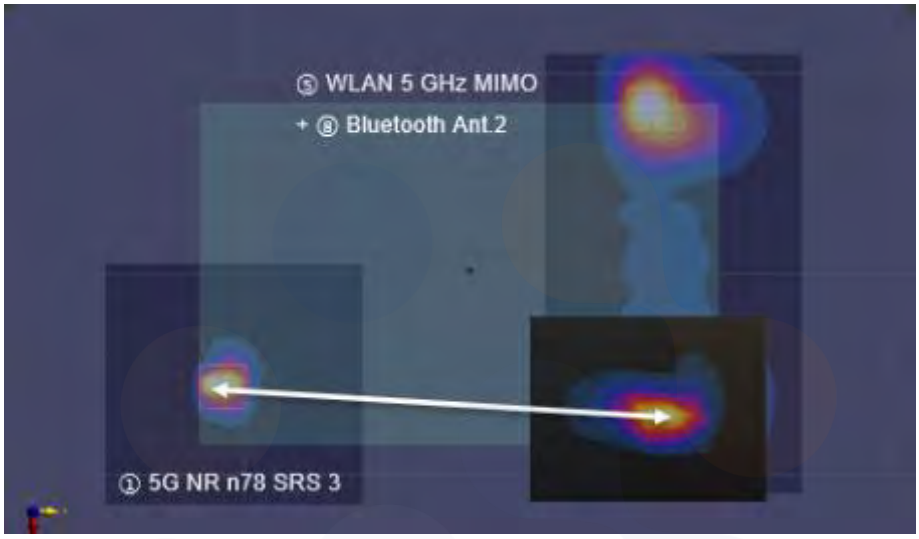
Scenario No.	Scenario	Position	SUM
No.9	[①+⑥+⑦]	Rear	2.121

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 3	1.198	0.05800	-0.11060	-0.17700	239.25	0.01
⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth Ant.1	0.925	-0.07540	0.08800	-0.17600		



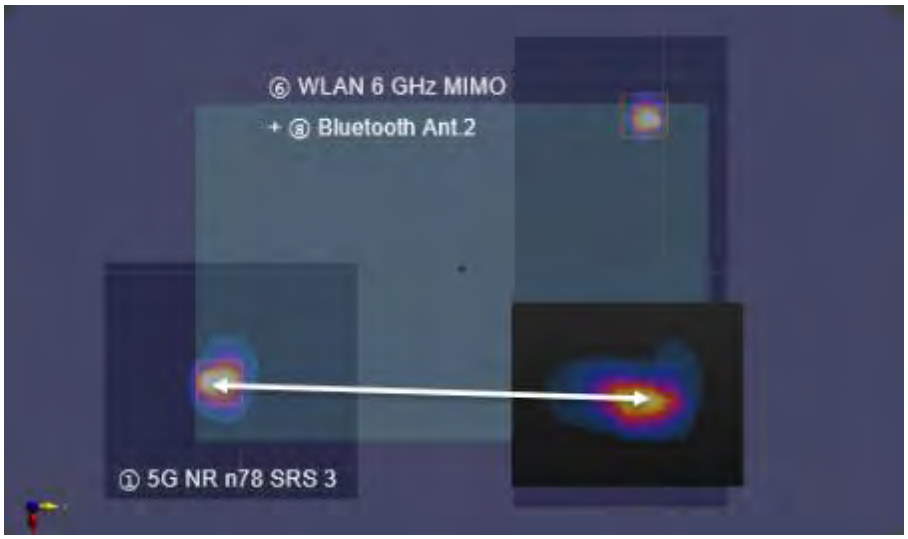
Scenario No.	Scenario	Position	SUM
No.10	[①+⑤+⑧]	Rear	1.948

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 3	1.198	0.05800	-0.11060	-0.17700	203.11	0.01
⑤ WLAN 5 GHz MIMO + ⑧ Bluetooth Ant.2	0.750	0.07240	0.09200	-0.17600		



Scenario No.	Scenario	Position	SUM
No.11	[①+⑥+⑧]	Rear	1.807

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 3	1.198	0.05800	-0.11060	-0.17700	203.11	0.01
⑥ WLAN 6 GHz MIMO + ⑧ Bluetooth Ant.2	0.611	0.07240	0.09200	-0.17600		



13.2.3.18 NR n78 (SRS 4)

Licensed	WLAN 2.4 GHz			WLAN 5 GHz	WLAN 6 GHz	Bluetooth	
	Ant. 1	Ant. 2	MIMO	MIMO	MIMO	Ant. 1	Ant. 2
[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]	[⑧]

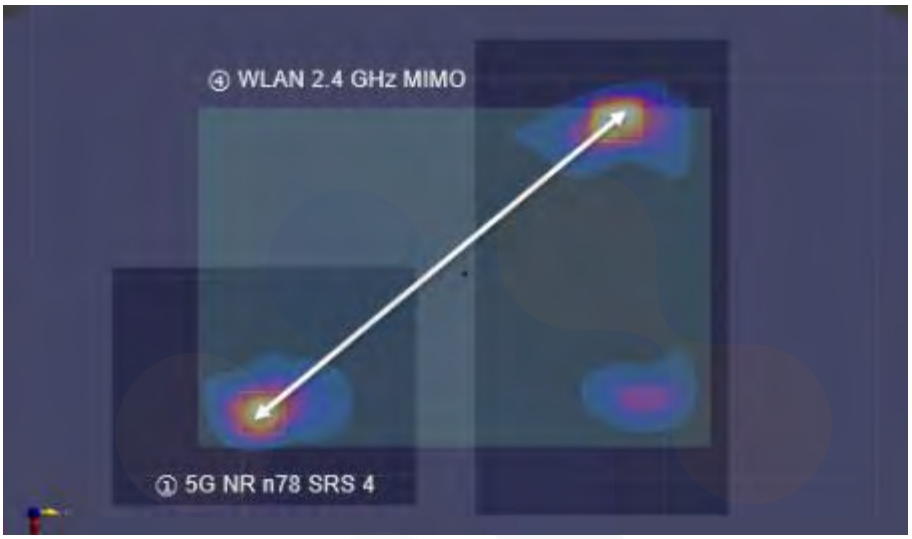
Position	Rear						
Scenario No.	No.1	No.3	No.7	No.8	No.9	No.10	No.11
Scenario	[①+②]	[①+④]	[①+③+⑦]	[①+⑤+⑦]	[①+⑥+⑦]	[①+⑤+⑧]	[①+⑥+⑧]
Summation	1.677	1.646	1.923	2.088	1.947	1.774	1.633
Volume scan	Not Required						

Scenario No.	Scenario	Position	SUM
No.1	[①+②]	Rear	1.677

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 4	1.024	0.07100	-0.09400	-0.17700	229.76	0.01
② WLAN 2.4 GHz Ant.1	0.653	-0.08020	0.07900	-0.17700		

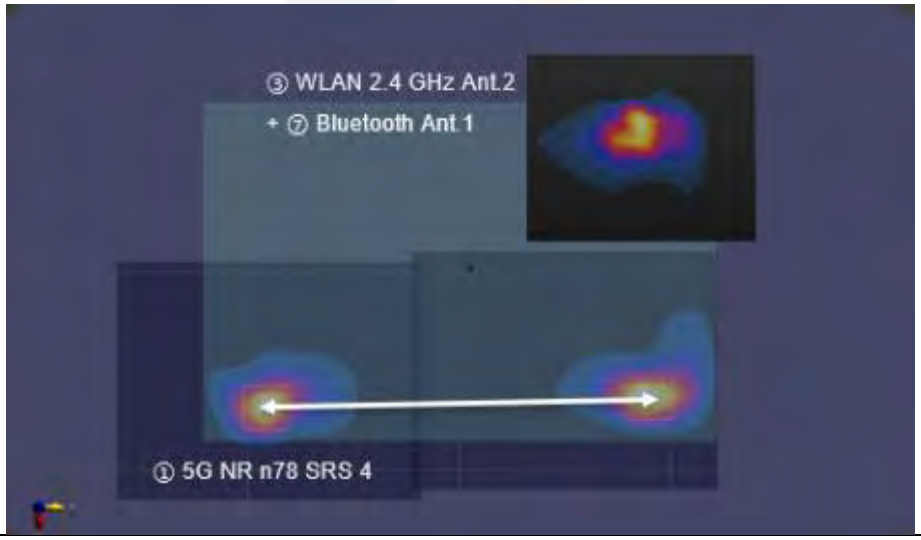
Scenario No.	Scenario	Position	SUM
No.3	[①+④]	Rear	1.646

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 4	1.024	0.07100	-0.09400	-0.17700	231.29	0.01
④ WLAN 2.4 GHz MIMO	0.622	-0.08160	0.07980	-0.17700		



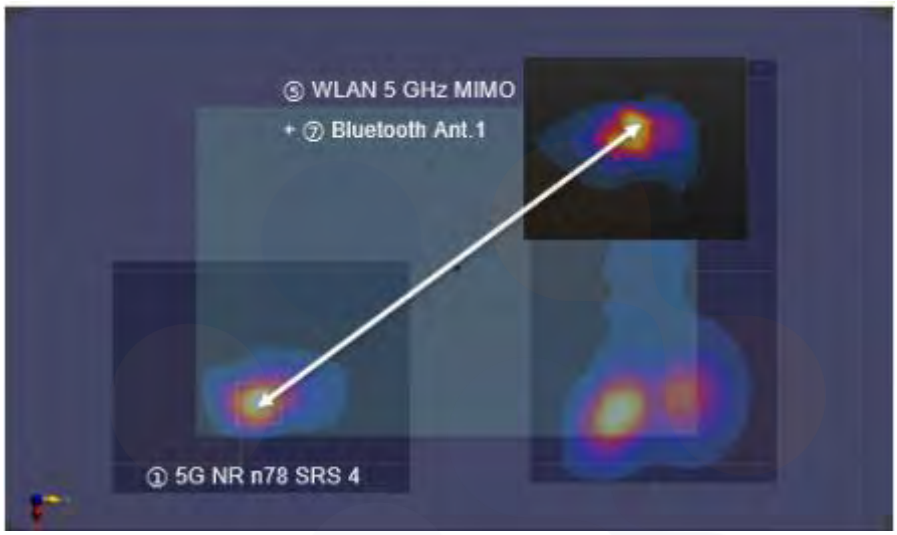
Scenario No.	Scenario	Position	SUM
No.7	[①+③+⑦]	Rear	1.923

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 4	1.024	0.07100	-0.09400	-0.17700	183.27	0.02
③ WLAN 2.4 GHz Ant.2 + ⑦ Bluetooth Ant.1	0.899	0.06600	0.08920	-0.17700		



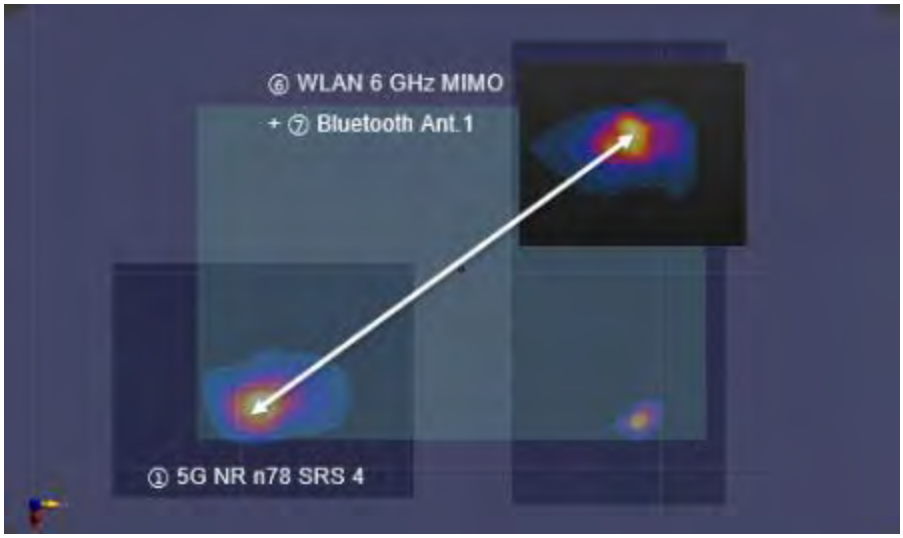
Scenario No.	Scenario	Position	SUM
No.8	[①+⑤+⑦]	Rear	2.088

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 4	1.024	0.07100	-0.09400	-0.17700	233.58	0.01
⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth Ant.1	1.064	-0.07540	0.08800	-0.17600		



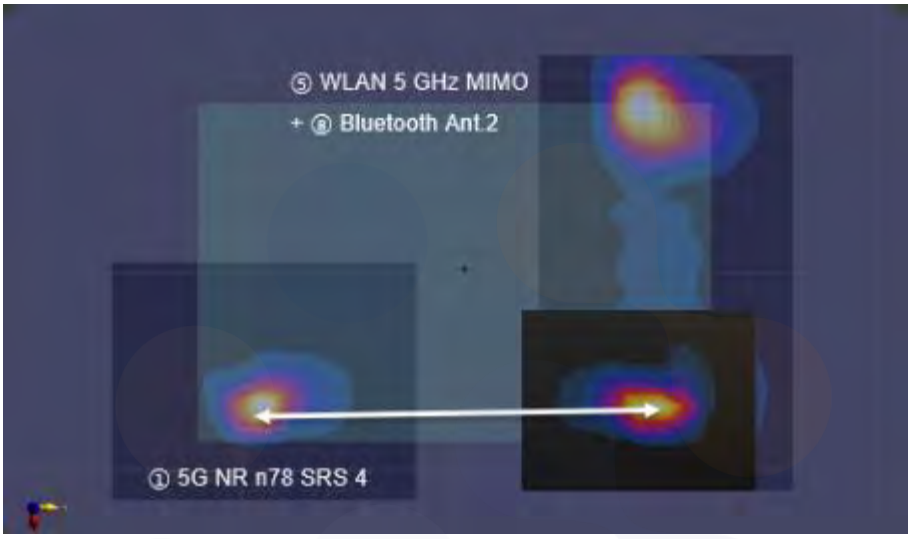
Scenario No.	Scenario	Position	SUM
No.9	[①+⑥+⑦]	Rear	1.947

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 4	1.024	0.07100	-0.09400	-0.17700	233.58	0.01
⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth Ant.1	0.925	-0.07540	0.08800	-0.17600		



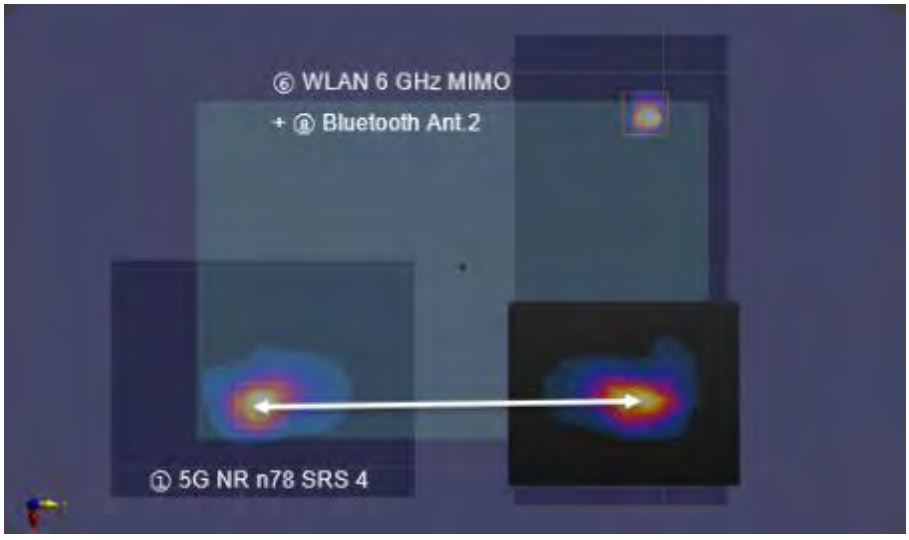
Scenario No.	Scenario	Position	SUM
No.10	[①+⑤+⑧]	Rear	1.774

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 4	1.024	0.07100	-0.09400	-0.17700	186.01	0.01
⑤ WLAN 5 GHz MIMO + ⑧ Bluetooth Ant.2	0.750	0.07240	0.09200	-0.17600		



Scenario No.	Scenario	Position	SUM
No.11	[①+⑥+⑧]	Rear	1.633

Mode	SAR Ratio	Coordinates			Distance (mm)	SPLSR Result
		X	Y	Z		
① 5G NR n78 SRS 4	1.024	0.07100	-0.09400	-0.17700	186.01	0.01
⑥ WLAN 6 GHz MIMO + ⑧ Bluetooth Ant.2	0.611	0.07240	0.09200	-0.17600		



14. SAR Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

1) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg.
2) **When the original highest measured SAR is ≥ 0.80 W/㎏, the measurement was repeated once.**
3) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
4) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Band	Mode	Frequency (㎒)	EUT Position	Separation Distance (㎜)	Measured 1 g SAR (W/kg)	Repeated 1 g SAR (W/kg)	Ratio
WCDMA Band II	RMC	1 880.0	Top	18	0.883	0.879	1.00
LTE Band 2 (Sub1)	QPSK 20㎒ 1RB 49Offset	1 900.0	Bottom	18	0.989	0.960	1.03
5G NR n77 SRS 1 (Power Class 2)	DFT-S-OFDM_QPSK 100㎒ 270RB 0offset	3 750.0	Rear	0	0.875	0.827	1.06
5G NR n78 SRS 3 (Power Class 2)	100 ㎒ CW	3 500.01	Rear	0	1.080	1.050	1.03
5G NR n78 SRS 4 (Power Class 2)	100 ㎒ CW	3 500.01	Rear	0	0.868	0.863	1.01

15. Measurement Uncertainty

Per KDB 865664 D01 SAR measurement 100㎒ to 6㎓, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be ≤ 30%, for a confidence interval of *k* = 2. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Standard 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg and highest measured 10-g SAR is less 3.75W/kg. Therefore, the measurement uncertainty table is not required in this report.

16. Test Equipment Information

Test Platform	SPEAG DASY5 System, SPEAG DASY6 System, SPEAG DASY8 System			
Version	DASY6: 16.4.0.5005, DASY8: 16.4.0.5005, DASY52: 52.10.4.1535 / SEMCAD: 14.6.14 (7501)			
Location	Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Korea			
Manufacture	SPEAG			
Hardware Reference				
Equipment	Model	Serial Number	Date of Calibration	Due date of next Calibration
Shield Room	-	8F - 3	-	-
	-	8F - 4	-	-
	-	8F - 5	-	-
	-	8F - 6	-	-
	-	8F - 7	-	-
DASY6 Robot	TX60 Lspeag	F/19/0007289/A/001	-	-
	TX90XL speag	F/18/0004968/A/001	-	-
DASY8 Robot	TX2-60L	F/22/0040786/A/001	-	-
	TX2-60L	F/22/0040787/A/001	-	-
	TX2-60L	F/22/0042066/A/001	-	-
Phantom	2mm Oval Phantom ELI5	1173	-	-
	2mm Oval Phantom ELI5	2097	-	-
	2mm Oval Phantom ELI5	2098	-	-
	ELI Phantom V8.0	2182	-	-
	ELI Phantom V8.0	2189	-	-
Mounting Device	Mounting Device	-	-	-
DAE	DAE4	666	2024-01-17	2025-01-17
			2025-01-21	2026-01-21
	DAE4	1342	2024-02-16	2025-02-16
	DAE4	1567	2024-03-14	2025-03-14
	DAE4	1756	2024-09-13	2025-09-13
	DAE4	1758	2024-08-15	2025-08-15
	DAE4	1759	2024-11-19	2025-11-19
Probe	EX3DV4	3697	2024-04-22	2025-04-22
	EX3DV4	3928	2024-02-22	2025-02-22
			2025-02-21	2026-02-21
	EX3DV4	7540	2024-05-23	2025-05-23
	EX3DV4	7770	2024-11-22	2025-11-22
	EX3DV4	7840	2024-08-20	2025-08-20
	EX3DV4	7851	2024-07-17	2025-07-17
PSG Analog Signal Generator	E8257D	MY49280020	2024-07-03	2025-07-03
Dual Power Meter	E4419B	GB40202622	2024-11-04	2025-11-04
	EPM-442A	GB37480680	2024-04-26	2025-04-26
Power Sensor	8481H	2703A11902	2024-04-26	2025-04-26
	8481H	3318A18090	2024-04-26	2025-04-26
	E9301A	MY41499102	2024-11-04	2025-11-04
	E9301A	US39210857	2024-11-04	2025-11-04

Hardware Reference				
Equipment	Model	Serial Number	Date of Calibration	Due date of next Calibration
Attenuator	8491B 10dB	29425	2024-04-26	2025-04-26
	8491B-6dB	MY39270294	2024-04-26	2025-04-26
	8491B-6dB	MY39271046	2024-04-26	2025-04-26
	8491A	35560	2024-04-26	2025-04-26
	8491A	35934	2024-04-26	2025-04-26
	8491A	36316	2024-04-26	2025-04-26
Dual Directional Coupler	ZMDC-30-1+	F708102210	2024-12-11	2025-12-11
Directional Coupler	772D	MY46151145	2024-11-04	2025-11-04
	778D	17185	2024-11-04	2025-11-04
Power Amplifier	TVA-R5-13A+	2202007	2024-12-11	2025-12-11
	AMP2027ADB	10005	2024-04-26	2025-04-26
	AMP2027	10010	2024-07-03	2025-07-03
Low Pass Filter	NLP-1000+	VUU79701846	2024-04-26	2025-04-26
	VLF-3000+	31831	2024-04-26	2025-04-26
	VLF-6000+	31838	2024-04-26	2025-04-26
Confined Loop Antennas	CLA13	1019	2024-05-21	2025-05-21
Dipole Validation Kits	D750V3	1224	2024-09-16	2026-09-16
	D850V2	1030	2024-09-16	2026-09-16
	D1750V2	1195	2024-09-13	2026-09-13
	D1900V2	5d248	2024-09-16	2026-09-16
	D2450V2	1091	2024-09-13	2026-09-13
	D2600V2	1200	2024-09-13	2026-09-13
	D3500V2	1146	2024-09-19	2026-09-19
	D3700V2	1027	2024-08-21	2026-08-21
	D3900V2	1043	2024-02-15	2026-02-15
	D5GHzV2	1134	2024-01-17	2026-01-17
Dielectric Assessment Kit	DAK-3.5	1078	2024-06-10	2025-06-10
	DAK-12	1165	2024-06-12	2025-06-12
ENA Series Network Analyzer	E5071B	MY42403524	2024-02-13	2025-02-13
			2025-02-10	2026-02-10
Spectrum Analyzer	FSP7	100289	2024-12-11	2025-12-11
Humidity/Temp	MHB-382SD	46301	2024-02-16	2025-02-16
	PC-5400TRH	PC-5400TRH-1	2024-11-06	2025-11-06
	PC-5400TRH	PC-5400TRH-2	2024-11-06	2025-11-06
	PC-5400TRH	PC-5400TRH-3	2024-11-06	2025-11-06
	PC-5400TRH	PC-5400TRH-4	2024-11-06	2025-11-06
Wideband Radio Communication Tester	CMW500	132120	2024-04-26	2025-04-26
Radio Communication Test Station	MT8000A	6261987911	2024-08-13	2025-08-13

17. Test System Verification Results

Eurofins KCTL Co.,Ltd.

Measurement Report for CLA13, FRONT, CLA13, UID 0 -,(13.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
CLA13, Speag	222.0 x 222.0 x 97.5	1019	Validation Dipole

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, Head Simulating Liquid	FRONT, 0.00	CLA13	CW, 0--	13.000,	14.72	0.720	55.9

Hardware Setup

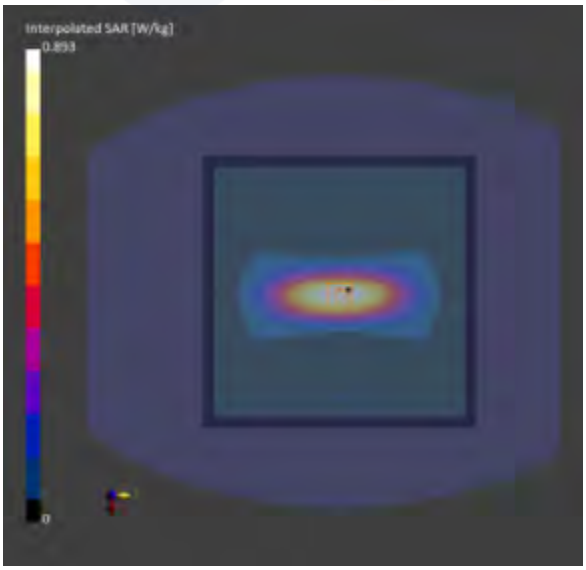
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2097	HBBL4-250V3, 2025-01-23	EX3DV4 - SN3928, 2024-02-22	DAE4 Sn1756, 2024-09-13

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	240.0 x 240.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-23	2025-01-23
psSAR1g [W/kg]	0.536	0.518
psSAR8g [W/kg]	0.449	0.345
psSAR10g [W/kg]	0.435	0.326
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01



Date: 11/22/2024

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 750 MHz Verification Input Power 250 mW 2024-11-22.da53:0

DUT: Dipole 750 MHz D750V3, Type: D750V3, Serial: D750V3 - SN:1224

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.89 S/m; ε_r = 41.824; ρ = 1000 kg/m^3
Phantom section: Flat Section

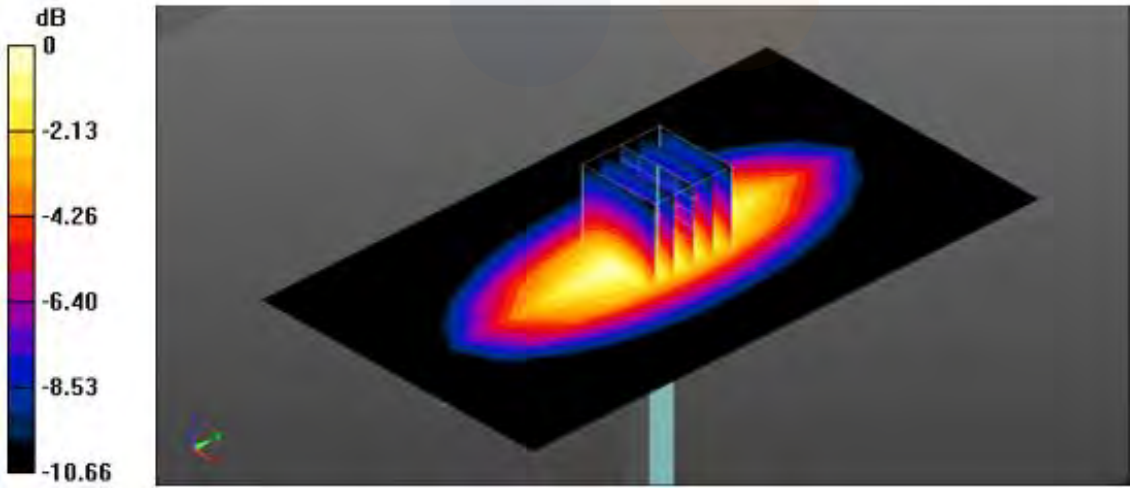
DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(10.04, 10.04, 10.04) @ 750 MHz; Calibrated: 5/23/2024
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 2/16/2024
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/750 MHz Verification Input Power 250 mW 2024-11-22/Area Scan (9x15x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.06 W/kg

Configuration/750 MHz Verification Input Power 250 mW 2024-11-22/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 60.43 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 3.39 W/kg
SAR(1 g) = 2.23 W/kg; SAR(10 g) = 1.47 W/kg

Maximum value of SAR (measured) = 3.00 W/kg



0 dB = 3.00 W/kg = 4.77 dBW/kg

Date: 11/26/2024

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 750 MHz Verification Input Power 250 mW 2024-11-26.da53:0

DUT: Dipole 750 MHz D750V3, Type: D750V3, Serial: D750V3 - SN:1224

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.884 S/m; ε_r = 43.69; ρ = 1000 kg/m^3
Phantom section: Flat Section

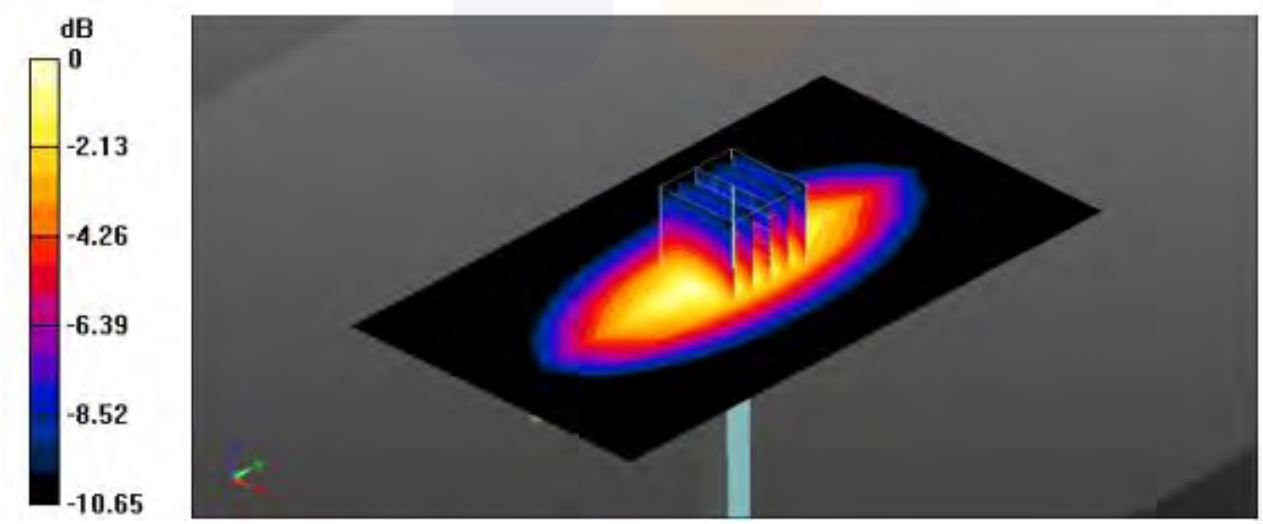
DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(10.04, 10.04, 10.04) @ 750 MHz; Calibrated: 5/23/2024
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 2/16/2024
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/750 MHz Verification Input Power 250 mW 2024-11-26/Area Scan (9x15x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.00 W/kg

Configuration/750 MHz Verification Input Power 250 mW 2024-11-26/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 60.38 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 3.37 W/kg
SAR(1 g) = 2.21 W/kg; SAR(10 g) = 1.46 W/kg

Maximum value of SAR (measured) = 2.97 W/kg



0 dB = 2.97 W/kg = 4.73 dBW/kg

Eurofins KCTL Co.,Ltd.

Measurement Report for D850V2 - SN1030, FRONT, D850, UID 0 -, (850.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D850V2 - SN1030, Speag	10.0 x 10.0 x 346.0	1030	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 15.00	D850	CW, 0--	850.000	8.57	0.883	41.5

Hardware Setup

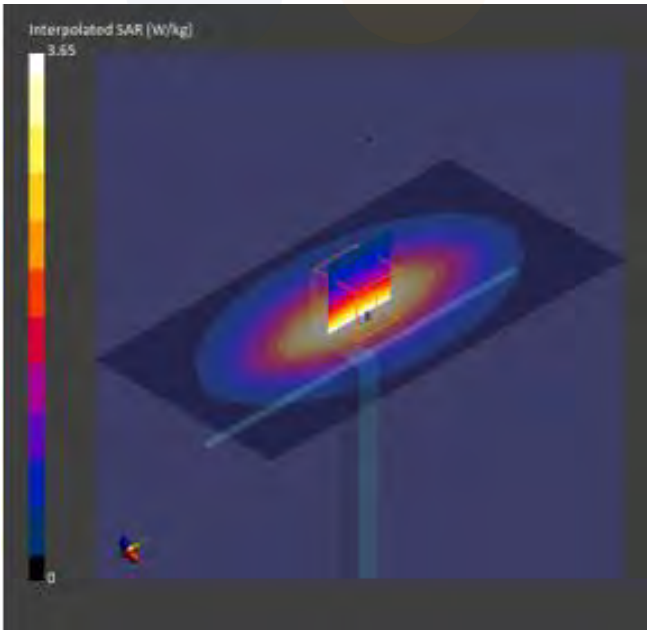
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2024-11-26	EX3DV4 - SN7840, 2024-08-20	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-26	2024-11-26
psSAR1g [W/kg]	2.59	2.55
psSAR8g [W/kg]	1.79	1.80
psSAR10g [W/kg]	1.70	1.71
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01
Peak SAR [W/kg]		3.65



Date: 11/27/2024

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 850 MHz Verification Input Power 250 mW 2024-11-27.da52:0

DUT: Dipole 850 MHz D850V2, Type: D850V2, Serial: D850V2 - SN:1030

Communication System: UID 0, CW (0); Frequency: 850 MHz; Duty Cycle: 1:1
Medium parameters used: f = 850 MHz; σ = 0.895 S/m; ε_r = 41.759; ρ = 1000 kg/m^3
Phantom section: Flat Section

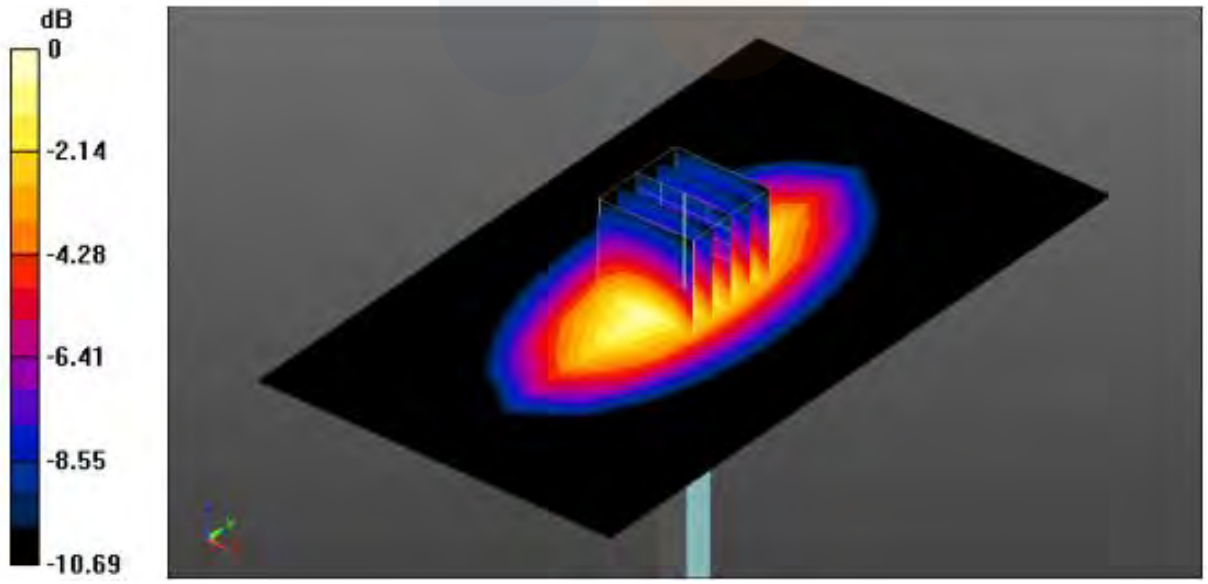
DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(9.56, 9.56, 9.56) @ 850 MHz; Calibrated: 5/23/2024
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 2/16/2024
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check/850 MHz Verification Input Power 250 mW 2024-11-27/Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.27 W/kg

System Performance Check/850 MHz Verification Input Power 250 mW 2024-11-27/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 62.73 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 3.71 W/kg
SAR(1 g) = 2.43 W/kg; SAR(10 g) = 1.6 W/kg

Maximum value of SAR (measured) = 3.27 W/kg



0 dB = 3.27 W/kg = 5.15 dBW/kg

Eurofins KCTL Co.,Ltd.

Measurement Report for D850V2 - SN1030, FRONT, D850, UID 0 -, (850.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D850V2 - SN1030,	10.0 x 10.0 x 346.0	1030	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 15.00	D850	CW, 0--	850.000	8.59	0.904	41.8

Hardware Setup

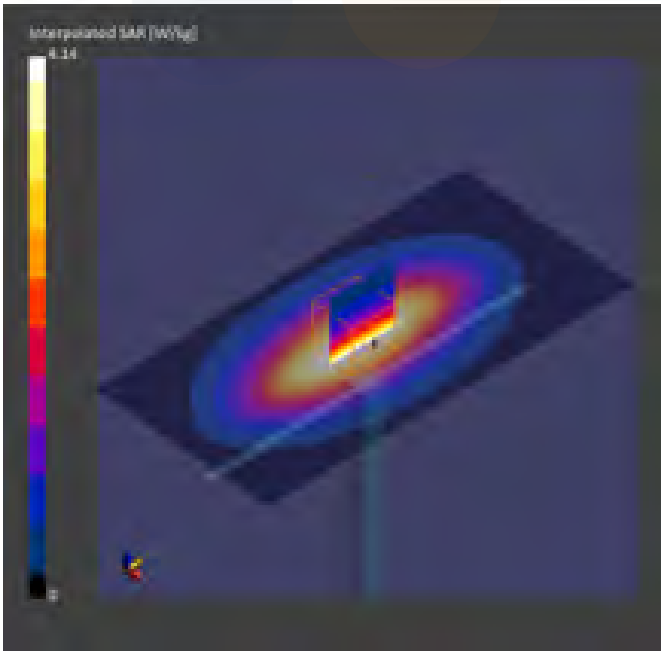
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2024-11-28	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn666, 2024-01-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-28	2024-11-28
psSAR1g [W/kg]	2.52	2.59
psSAR8g [W/kg]	1.75	1.78
psSAR10g [W/kg]	1.65	1.68
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.00
Peak SAR [W/kg]		4.14



Eurofins KCTL Co.,Ltd.

Measurement Report for D850V2 - SN1030, FRONT, D850, UID 0 -, (850.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D850V2 - SN1030, Speag	10.0 x 10.0 x 346.0	1030	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 15.00	D850	CW, 0--	850.000	8.59	0.892	42.0

Hardware Setup

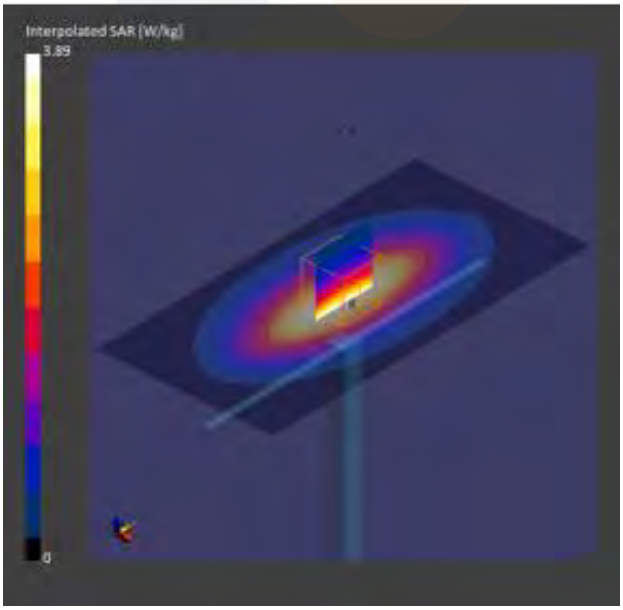
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-01-22	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-22	2025-01-22
psSAR1g [W/kg]	2.47	2.53
psSAR8g [W/kg]	1.71	1.74
psSAR10g [W/kg]	1.62	1.65
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.01
Peak SAR [W/kg]		3.89



Eurofins KCTL Co.,Ltd.

Measurement Report for D1750V2 - SN1195, FRONT, D1750, UID 0 -, (1750.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1750V2 - SN1195, Speag	10.0 x 10.0 x 302.0	1195	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D1750	CW, 0--	1750.000	8.19	1.32	39.5

Hardware Setup

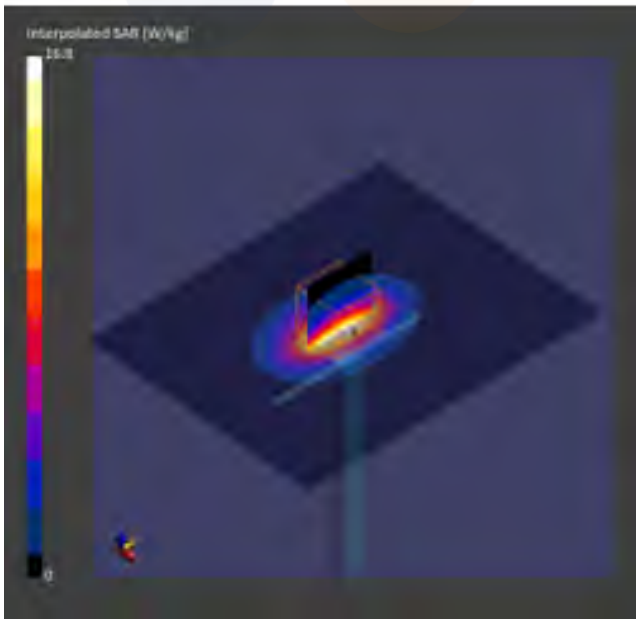
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2024-11-26	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn666, 2024-01-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	105.0 x 135.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-26	2024-11-26
psSAR1g [W/kg]	9.22	9.29
psSAR8g [W/kg]	5.37	5.36
psSAR10g [W/kg]	4.93	4.95
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.02
Peak SAR [W/kg]		16.8



Eurofins KCTL Co.,Ltd.

Measurement Report for D1750V2 - SN1195, FRONT, D1750, UID 0 -, (1750.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1750V2 - SN1195, Speag	10.0 x 10.0 x 302.0	1195	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D1750	CW, 0--	1750.000	8.19	1.34	40.3

Hardware Setup

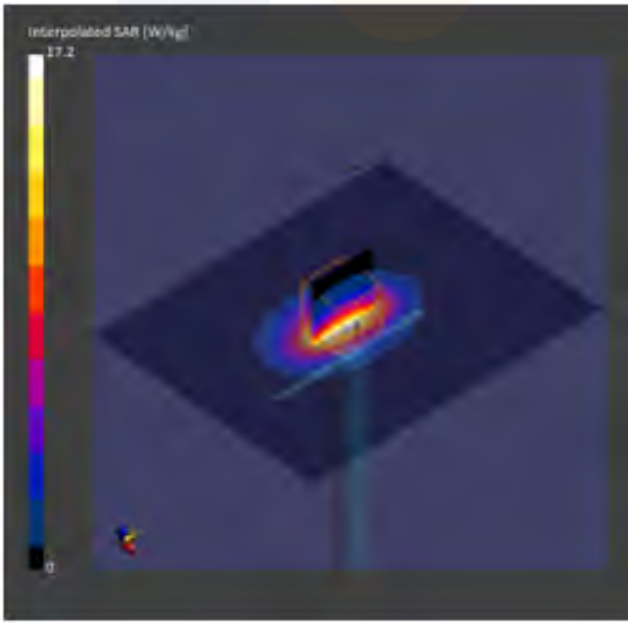
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2024-11-27	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn666, 2024-01-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	105.0 x 135.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-27	2024-11-27
psSAR1g [W/kg]	9.43	9.50
psSAR8g [W/kg]	5.49	5.48
psSAR10g [W/kg]	5.04	5.06
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.00
Peak SAR [W/kg]		17.2



Eurofins KCTL Co.,Ltd.

Measurement Report for D1750V2 - SN1195, FRONT, D1750, UID 0 -, (1750.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1750V2 - SN1195, Speag	10.0 x 10.0 x 302.0	1195	Validation Dipole

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, Head Simulating Liquid	FRONT, 10.00	D1750	CW, 0--	1750.000	8.19	1.40	41.6

Hardware Setup

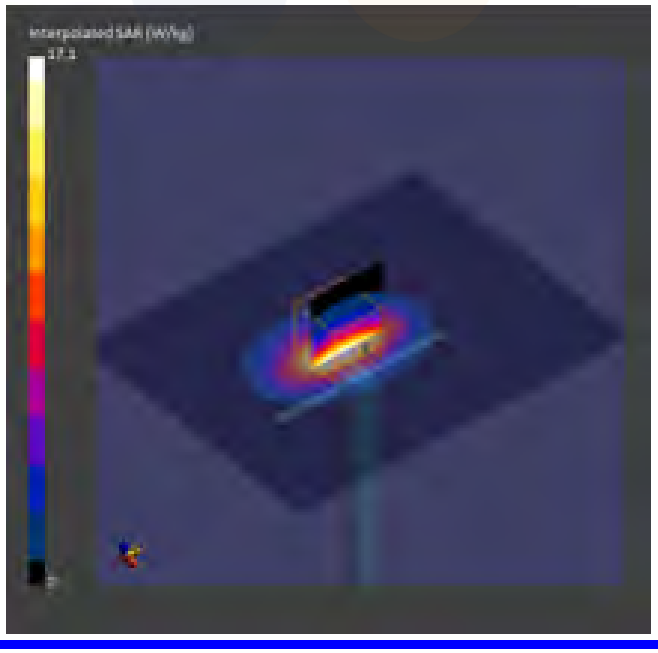
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2024-12-12	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn666, 2024-01-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	105.0 x 135.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-12	2024-12-12
psSAR1g [W/kg]	9.61	9.69
psSAR8g [W/kg]	5.66	5.62
psSAR10g [W/kg]	5.20	5.19
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.02
Peak SAR [W/kg]		17.1



Eurofins KCTL Co.,Ltd.

Measurement Report for D1750V2 - SN1195, FRONT, D1750, UID 0 -, (1750.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1750V2 - SN1195, Speag	10.0 x 10.0 x 302.0	1195	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D1750	CW, 0--	1750.000	8.19	1.36	40.6

Hardware Setup

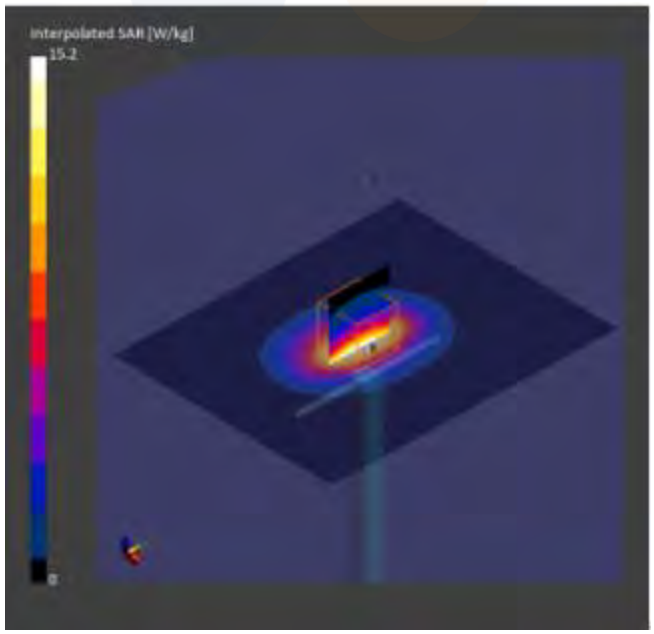
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-22	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	105.0 x 135.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-22	2025-01-22
psSAR1g [W/kg]	8.93	9.11
psSAR8g [W/kg]	5.43	5.56
psSAR10g [W/kg]	5.02	5.17
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.01
Peak SAR [W/kg]		15.2



Eurofins KCTL Co.,Ltd.

Measurement Report for D1900V2 - SN5d248, FRONT, D1900, UID 0 -, (1900.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1900V2 - SN5d248, Speag	10.0 x 10.0 x 300.0	5d248	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D1900	CW, 0--	1900.000	7.4	1.39	39.4

Hardware Setup

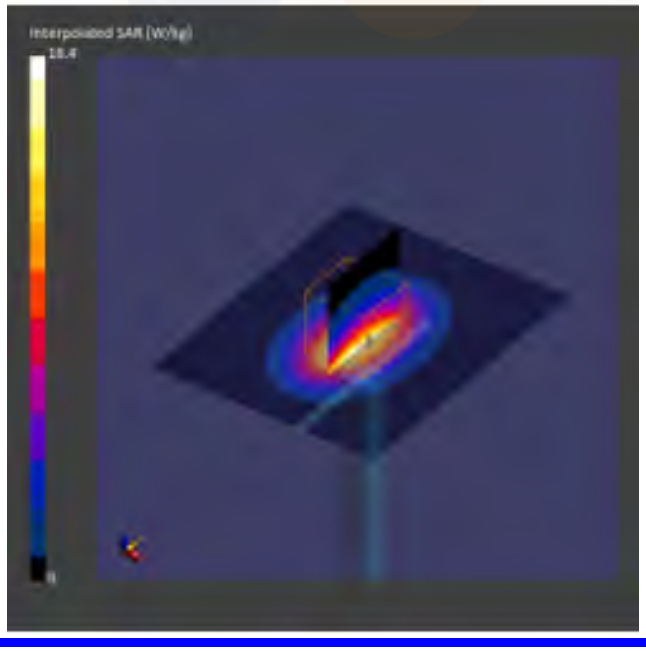
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2182	HBBL-600-10000, 2024-11-25	EX3DV4 - SN3928, 2024-02-22	DAE4 Sn1567, 2024-03-14

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 100.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-25	2024-11-25
psSAR1g [W/kg]	10.1	10.0
psSAR8g [W/kg]	5.80	5.77
psSAR10g [W/kg]	5.32	5.31
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.01
Peak SAR [W/kg]		18.4



Eurofins KCTL Co.,Ltd.

Measurement Report for D1900V2 - SN5d248, FRONT, D1900, UID 0 -, (1900.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1900V2 - SN5d248, Speag	10.0 x 10.0 x 300.0	5d248	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D1900	CW, 0--	1900.000	7.4	1.40	40.8

Hardware Setup

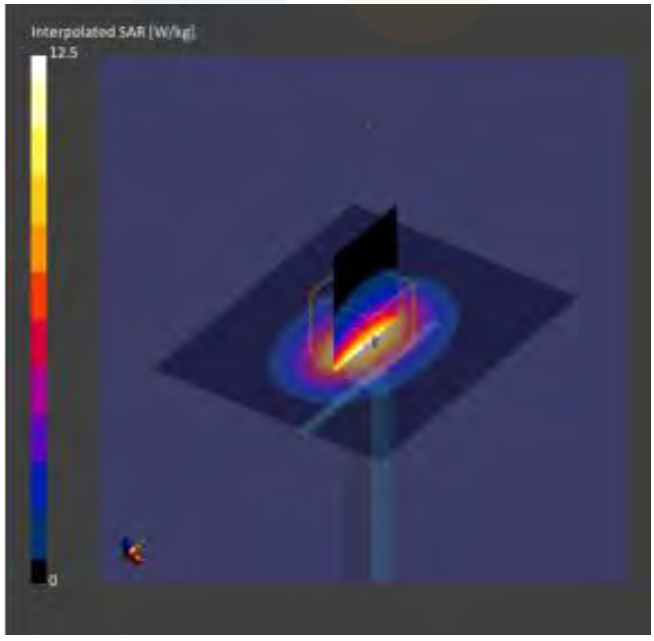
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2182	HBBL-600-10000, 2024-11-27	EX3DV4 - SN3928, 2024-02-22	DAE4 Sn1567, 2024-03-14

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 100.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-27	2024-11-27
psSAR1g [W/kg]	10.0	9.97
psSAR8g [W/kg]	5.71	5.74
psSAR10g [W/kg]	5.24	5.30
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01
Peak SAR [W/kg]		17.9



Eurofins KCTL Co.,Ltd.

Measurement Report for D1900V2 - SN5d248, FRONT, D1900, UID 0 -, (1900.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1900V2 - SN5d248, Speag	10.0 x 10.0 x 300.0	5d248	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D1900	CW, 0--	1900.000	8.11	1.39	38.5

Hardware Setup

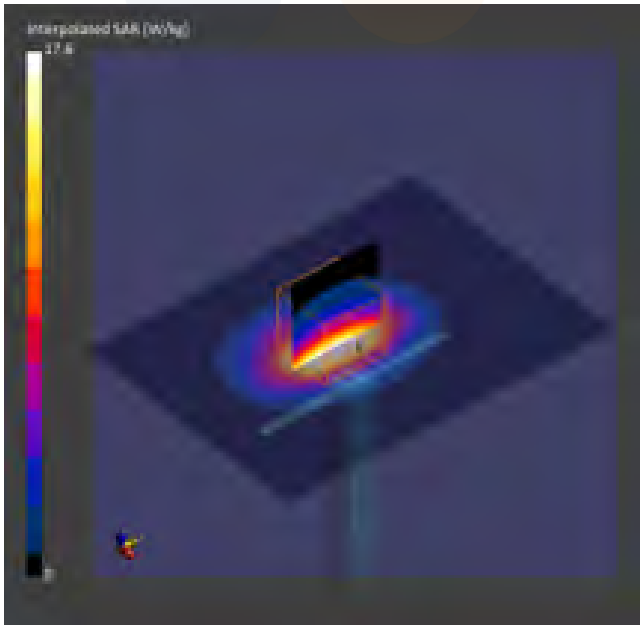
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2024-12-11	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn666, 2024-01-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 120.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-11	2024-12-11
psSAR1g [W/kg]	9.15	9.71
psSAR8g [W/kg]	5.33	5.56
psSAR10g [W/kg]	4.89	5.12
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.02
Peak SAR [W/kg]		17.5



Eurofins KCTL Co.,Ltd.

Measurement Report for D1900V2 - SN5d248, FRONT, D1900, UID 0 -, (1900.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1900V2 - SN5d248, Speag	10.0 x 10.0 x 300.0	5d248	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D1900	CW, 0--	1900.000	8.31	1.39	40.6

Hardware Setup

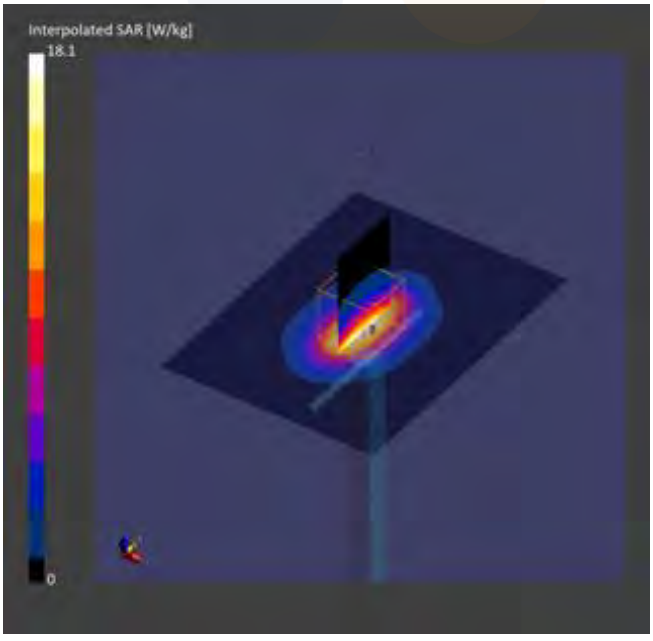
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2182	HBBL-600-10000, 2025-01-21	EX3DV4 - SN7540, 2024-05-23	DAE4 Sn1567, 2024-03-14

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 120.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-21	2025-01-21
psSAR1g [W/kg]	9.52	9.83
psSAR8g [W/kg]	5.37	5.60
psSAR10g [W/kg]	4.91	5.17
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01
Peak SAR [W/kg]		18.1



Eurofins KCTL Co.,Ltd.

Measurement Report for D1900V2 - SN5d248, FRONT, D1900, UID 0 -, (1900.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1900V2 - SN5d248, Speag	10.0 x 10.0 x 300.0	5d248	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D1900	CW, 0--	1900.000	8.11	1.37	40.8

Hardware Setup

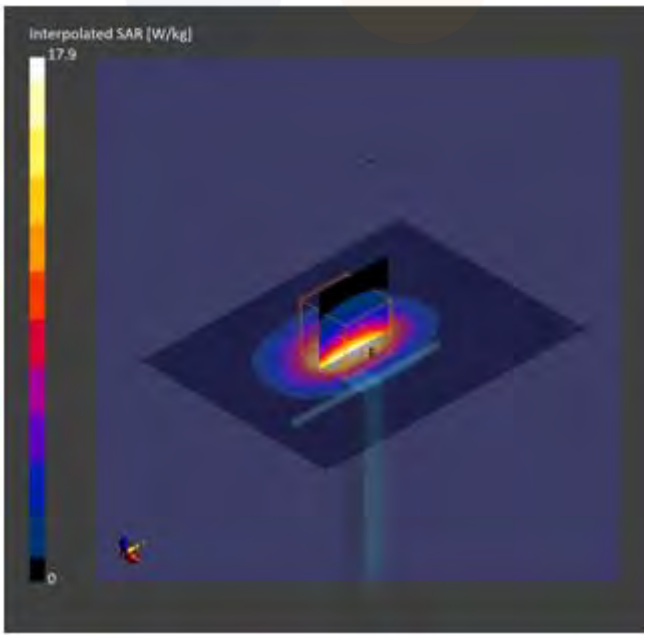
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-21	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 120.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-21	2025-01-21
psSAR1g [W/kg]	9.09	9.71
psSAR8g [W/kg]	5.32	5.55
psSAR10g [W/kg]	4.89	5.11
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.01
Peak SAR [W/kg]		17.9



Eurofins KCTL Co.,Ltd.

Measurement Report for D1900V2 - SN5d248, FRONT, D1900, UID 0 -, (1900.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1900V2 - SN5d248, SPEAG	10.0 x 10.0 x 300.0	5d248	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D1900	CW, 0--	1900.000	6.81	1.39	40.1

Hardware Setup

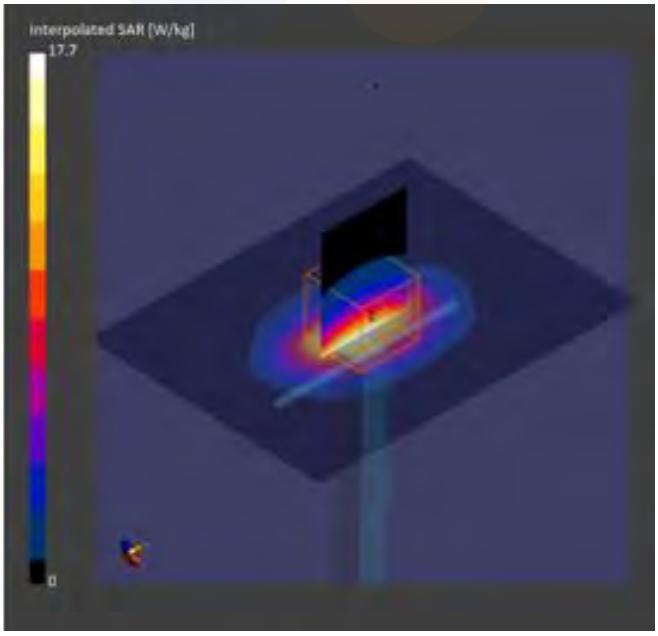
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2182	HBBL-600-10000 , 2025-02-13	EX3DV4 - SN7770, 2024-11-22	DAE4 Sn1567, 2024-03-14

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 120.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-13	2025-02-13
psSAR1g [W/kg]	9.74	10.2
psSAR8g [W/kg]	5.61	5.91
psSAR10g [W/kg]	5.15	5.45
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01
Peak SAR [W/kg]		17.7



Eurofins KCTL Co.,Ltd.

Measurement Report for D2450V2 – SN1091, FRONT, Validation band, UID 0 -, (2450.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D2450V2 – SN1091, Speag	10.0 x 10.0 x 290.0	SN1091	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	Validation band	CW, 0--	2450.000	7.44	1.80	39.4

Hardware Setup

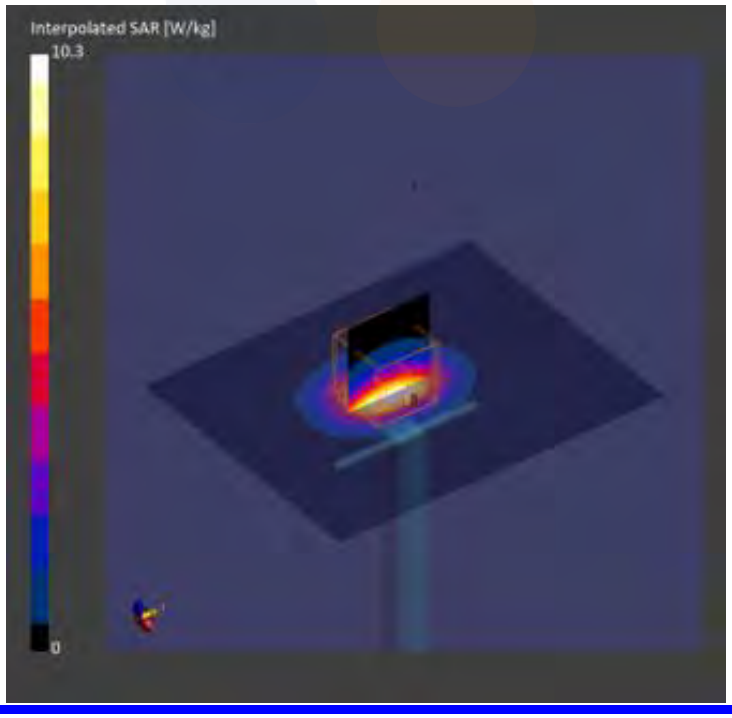
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-26	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-26	2025-01-26
psSAR1g [W/kg]	4.93	5.37
psSAR8g [W/kg]	2.65	2.79
psSAR10g [W/kg]	2.41	2.53
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.02
Peak SAR [W/kg]		10.3



Date: 3/11/2025

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2450 MHz Verification Input Power 100 mW 2025-03-11.da5:0

DUT: Dipole 2450 MHz D2450V2, Type: D2450V2, Serial: D2450V2 - SN:1091

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2450 MHz; σ = 1.797 S/m; ε_r = 37.664; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

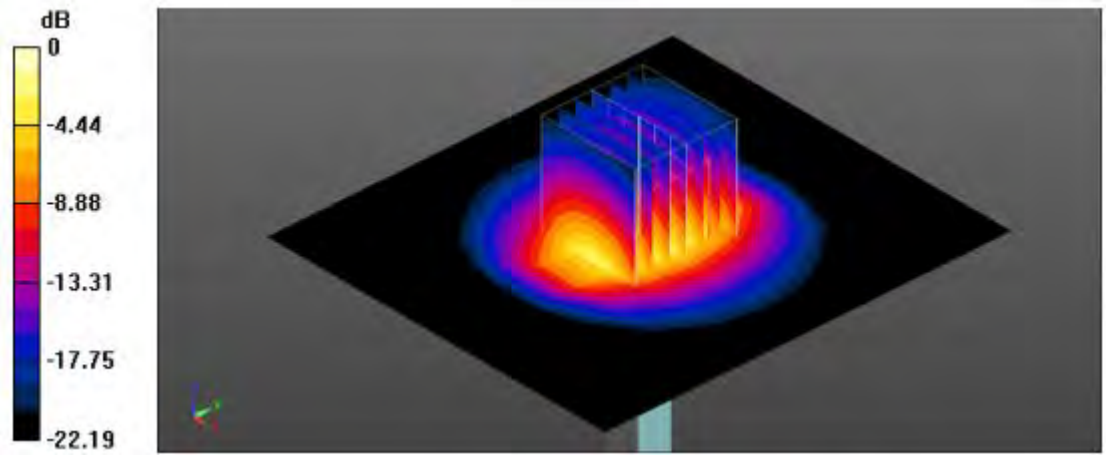
- Probe: EX3DV4 - SN3928;ConvF(6.95, 6.67, 7.67) @ 2450 MHz; Calibrated: 2/21/2025
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/21/2025
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/2450 MHz Verification Input Power 100 mW 2025-03-11/Area Scan (10x11x1):
Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 6.49 W/kg

Configuration/2450 MHz Verification Input Power 100 mW 2025-03-11/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 74.30 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 10.8 W/kg
SAR(1 g) = 5.41 W/kg; SAR(10 g) = 2.53 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 8.77 W/kg



0 dB = 8.77 W/kg = 9.43 dBW/kg

Eurofins KCTL Co.,Ltd.

Measurement Report for D2600V2 - SN1200, FRONT, D2600, UID 0 -, (2600.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D2600V2 - SN1200, Speag	10.0 x 10.0 x 290.0	1200	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D2600	CW, 0--	2600.000	7.06	1.92	37.8

Hardware Setup

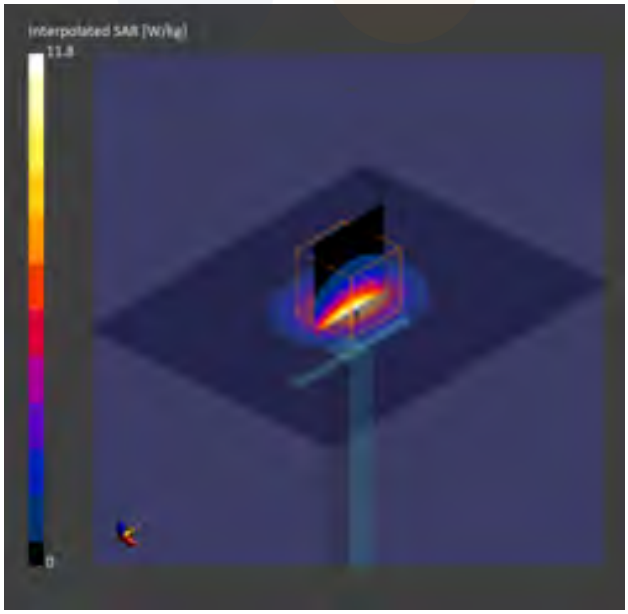
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-01-14	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-14	2025-01-14
psSAR1g [W/kg]	5.70	5.66
psSAR8g [W/kg]	2.82	2.83
psSAR10g [W/kg]	2.54	2.56
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.00
Peak SAR [W/kg]		11.8



Eurofins KCTL Co.,Ltd.

Measurement Report for D2600V2 - SN1200, FRONT, D2600, UID 0 -, (2600.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D2600V2 - SN1200, Speag	10.0 x 10.0 x 290.0	1200	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D2600	CW, 0--	2600.000	7.06	1.96	38.5

Hardware Setup

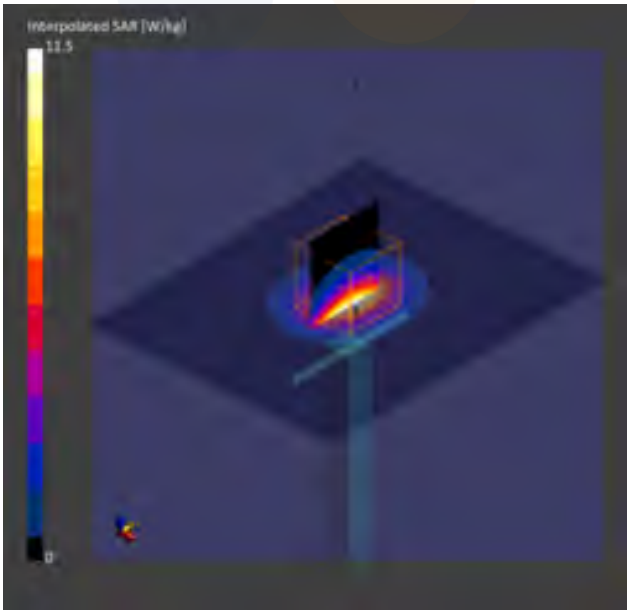
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-01-15	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-15	2025-01-15
psSAR1g [W/kg]	5.55	5.52
psSAR8g [W/kg]	2.75	2.77
psSAR10g [W/kg]	2.48	2.50
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01
Peak SAR [W/kg]		11.5



Eurofins KCTL Co.,Ltd.

Measurement Report for D2600V2 - SN1200, FRONT, D2600, UID 0 -, (2600.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D2600V2 - SN1200, Speag	10.0 x 10.0 x 290.0	1200	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D2600	CW, 0--	2600.000	7.06	1.90	38.8

Hardware Setup

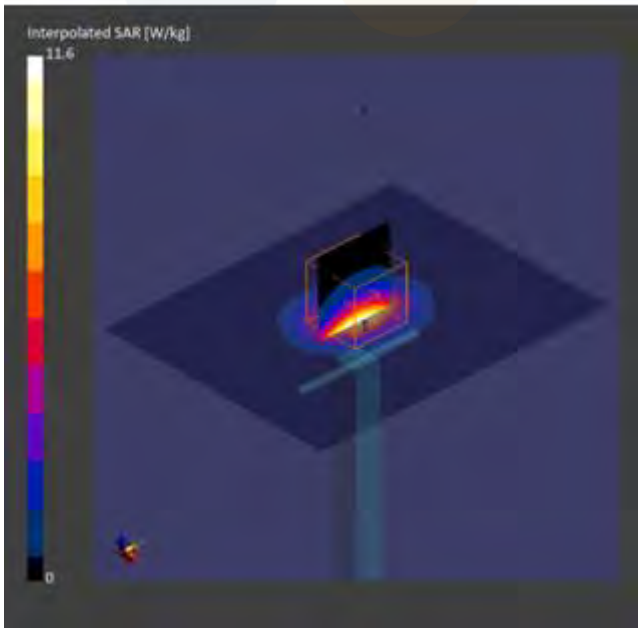
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-01-25	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-25	2025-01-25
psSAR1g [W/kg]	5.58	5.65
psSAR8g [W/kg]	2.75	2.84
psSAR10g [W/kg]	2.47	2.57
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.05
Peak SAR [W/kg]		11.6



Eurofins KCTL Co.,Ltd.

Measurement Report for D2600V2 - SN1200, FRONT, D2600, UID 0 -, (2600.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D2600V2 - SN1200, Speag	10.0 x 10.0 x 290.0	1200	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D2600	CW, 0--	2600.000	7.06	1.98	38.7

Hardware Setup

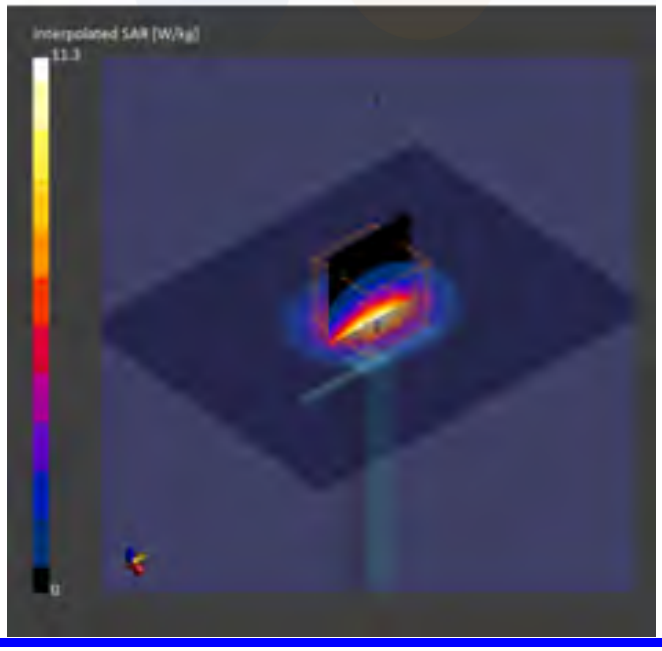
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-02-10	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-10	2025-02-10
psSAR1g [W/kg]	5.65	5.49
psSAR8g [W/kg]	2.80	2.76
psSAR10g [W/kg]	2.51	2.49
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.00
Peak SAR [W/kg]		11.3



Eurofins KCTL Co.,Ltd.

Measurement Report for D3500V2 - SN1146, FRONT, D3500, UID 0 -,(3500.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D3500V2 - SN1146, Speag	10.0 x 10.0 x 285.0	1146	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D3500	CW, 0--	3500.000	6.74	2.81	37.4

Hardware Setup

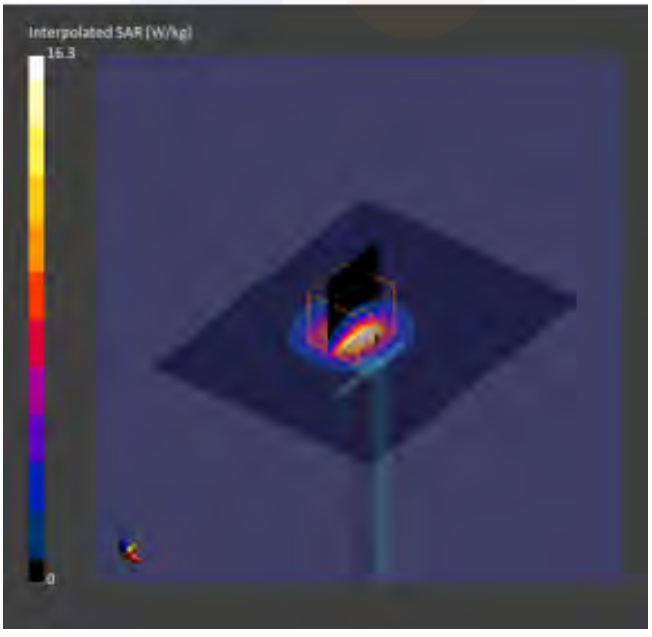
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-15	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-15	2025-01-15
psSAR1g [W/kg]	5.51	6.44
psSAR8g [W/kg]	2.56	2.81
psSAR10g [W/kg]	2.29	2.50
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.00
Peak SAR [W/kg]		16.3



Eurofins KCTL Co.,Ltd.

Measurement Report for D3500V2 - SN1146, FRONT, D3500, UID 0 -, (3500.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D3500V2 - SN1146, Speag	10.0 x 10.0 x 285.0	1146	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D3500	CW, 0--	3500.000	6.74	2.96	39.0

Hardware Setup

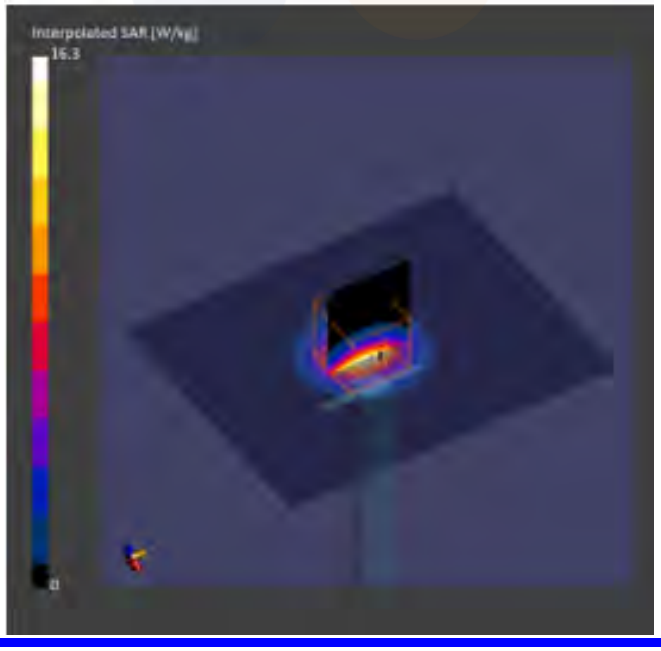
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-02-13	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-13	2025-02-13
psSAR1g [W/kg]	6.23	6.52
psSAR8g [W/kg]	2.74	2.87
psSAR10g [W/kg]	2.42	2.55
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.08
Peak SAR [W/kg]		16.3



Eurofins KCTL Co.,Ltd.

Measurement Report for D3700V2 - SN1027, FRONT, Custom Band, UID 0 -, (3700.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D3700V2 - SN1027, Speag	10.0 x 10.0 x 285.0	1027	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	Custom Band	CW, 0--	3700.000	6.75	3.05	36.6

Hardware Setup

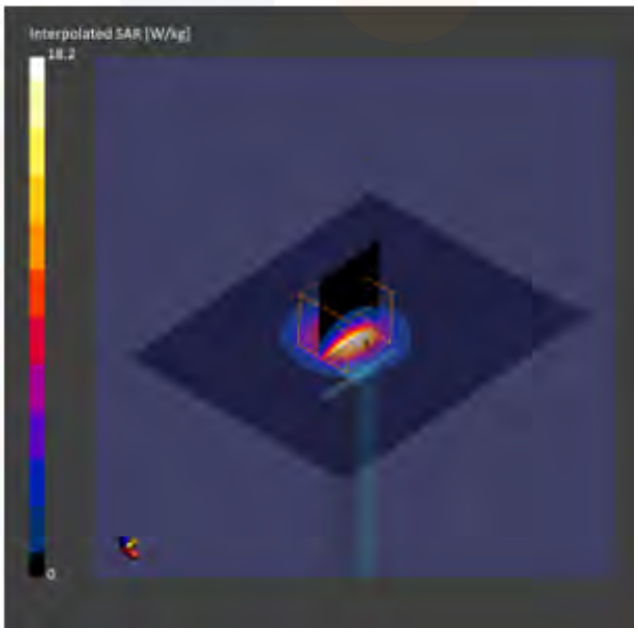
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-02-05	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-05	2025-02-05
psSAR1g [W/kg]	6.18	6.83
psSAR8g [W/kg]	2.71	2.92
psSAR10g [W/kg]	2.40	2.58
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.06
Peak SAR [W/kg]		18.2



Eurofins KCTL Co.,Ltd.

Measurement Report for D3700V2 - SN1027, FRONT, Custom Band, UID 0 -, (3700.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D3700V2 - SN1027, Speag	10.0 x 10.0 x 285.0	1027	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	Custom Band	CW, 0--	3700.000	6.75	3.13	38.5

Hardware Setup

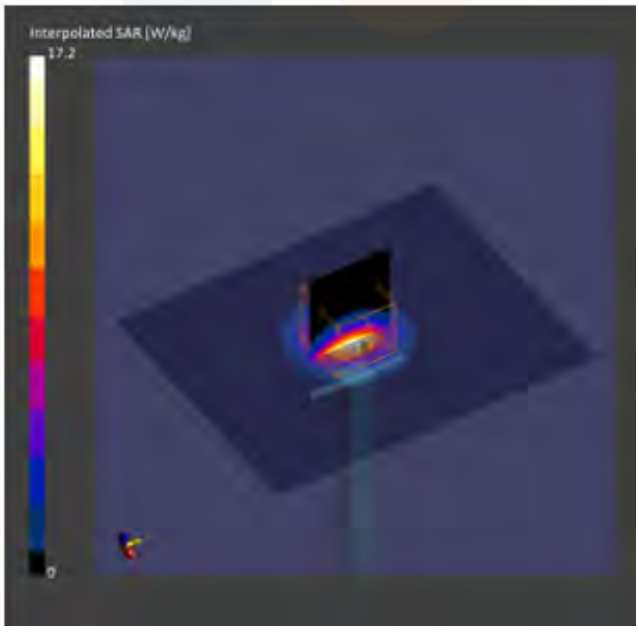
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-02-13	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-13	2025-02-13
psSAR1g [W/kg]	6.33	6.85
psSAR8g [W/kg]	2.69	2.97
psSAR10g [W/kg]	2.38	2.63
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.03
Peak SAR [W/kg]		17.2



Eurofins KCTL Co.,Ltd.

Measurement Report for D3900V2 - SN1043, FRONT, Custom Band, UID 0 -, (3900.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D3900V2 - SN1043, Speag	10.0 x 10.0 x 285.0	1043	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	Custom Band	CW, 0--	3900.000	6.6	3.26	36.3

Hardware Setup

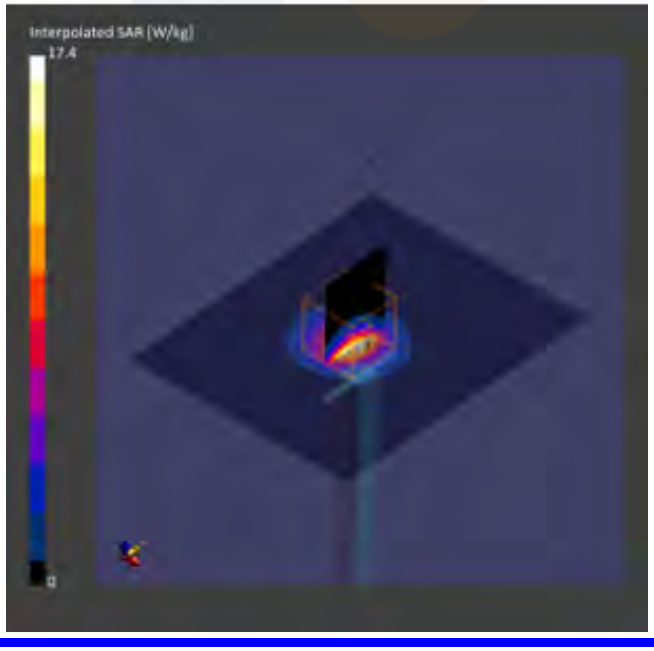
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-02-05	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-05	2025-02-05
psSAR1g [W/kg]	6.11	6.54
psSAR8g [W/kg]	2.54	2.71
psSAR10g [W/kg]	2.23	2.39
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.02
Peak SAR [W/kg]		17.4



Eurofins KCTL Co.,Ltd.

Measurement Report for D3900V2 - SN1043, FRONT, Custom Band, UID 0 -, (3900.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D3900V2 - SN1043, Speag	10.0 x 10.0 x 285.0	1043	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz],	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	Custom Band	CW, 0--	3900.000,	6.6	3.27	38.3

Hardware Setup

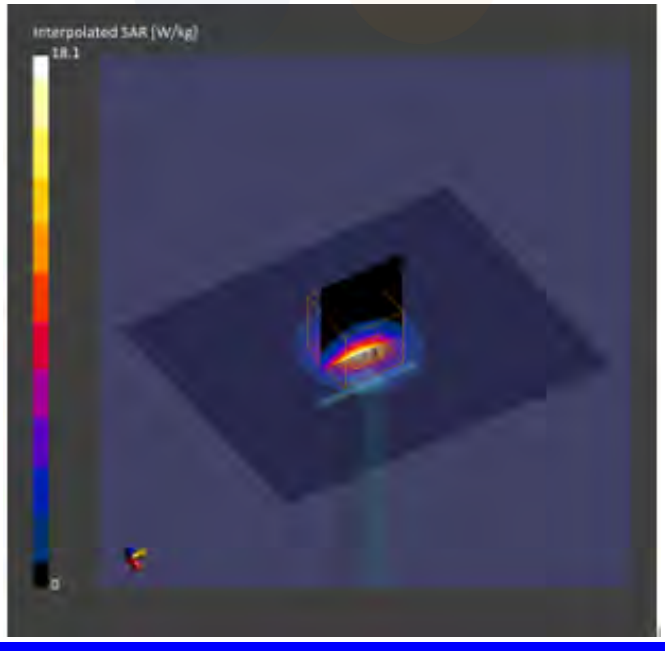
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-02-13	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-13	2025-02-13
psSAR1g [W/kg]	6.38	6.95
psSAR8g [W/kg]	2.59	2.92
psSAR10g [W/kg]	2.27	2.57
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01
Peak SAR [W/kg]		18.1



Eurofins KCTL Co.,Ltd.

Measurement Report for D5GHzV2, FRONT, D5GHz, UID 0 -, (5250.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D5GHzV2, Speag	10.0 x 10.0 x 300.0	1134	Validation Dipole

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, Head Simulating Liquid	FRONT, 10.00	D5GHz	CW, 0--	5250.000	5.47	4.57	37.3

Hardware Setup

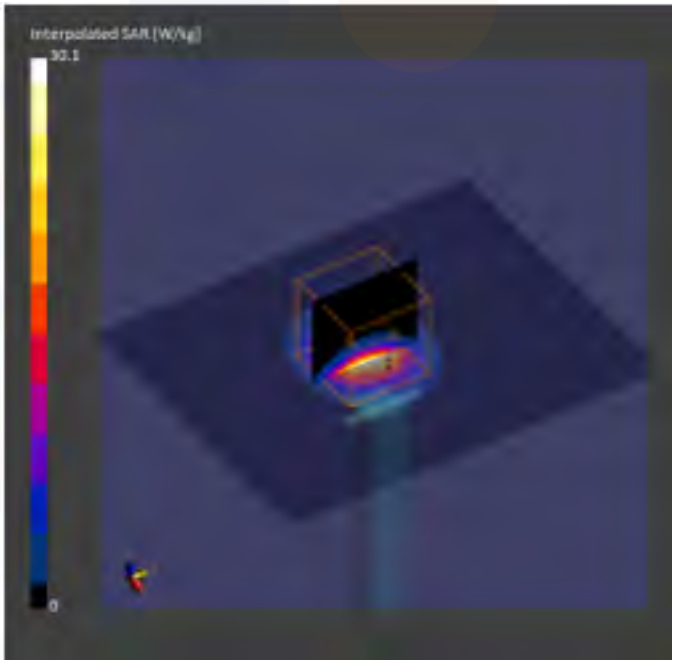
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-24	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 100.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-24	2025-01-24
psSAR1g [W/kg]	6.09	7.23
psSAR8g [W/kg]	2.16	2.43
psSAR10g [W/kg]	1.87	2.10
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.01
Peak SAR [W/kg]		30.1



Eurofins KCTL Co.,Ltd.

Measurement Report for D5GHzV2, FRONT, D5GHz, UID 0 -, (5600.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D5GHzV2, Speag	10.0 x 10.0 x 300.0	1134	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D5GHz	CW, 0--	5600.000	4.83	4.92	36.5

Hardware Setup

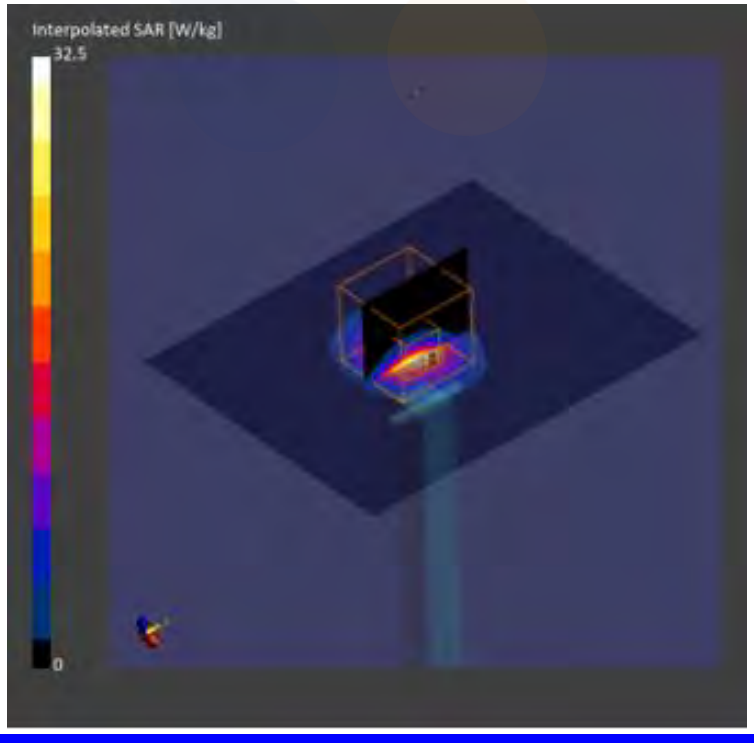
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-24	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 100.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-24	2025-01-24
psSAR1g [W/kg]	7.22	8.05
psSAR8g [W/kg]	2.51	2.72
psSAR10g [W/kg]	2.17	2.35
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01
Peak SAR [W/kg]		32.5



Eurofins KCTL Co.,Ltd.

Measurement Report for D5GHzV2, FRONT, D5GHz, UID 0 -, (5800.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D5GHzV2, Speag	10.0 x 10.0 x 300.0	1134	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D5GHz	CW, 0--	5800.000	4.93	5.11	36.0

Hardware Setup

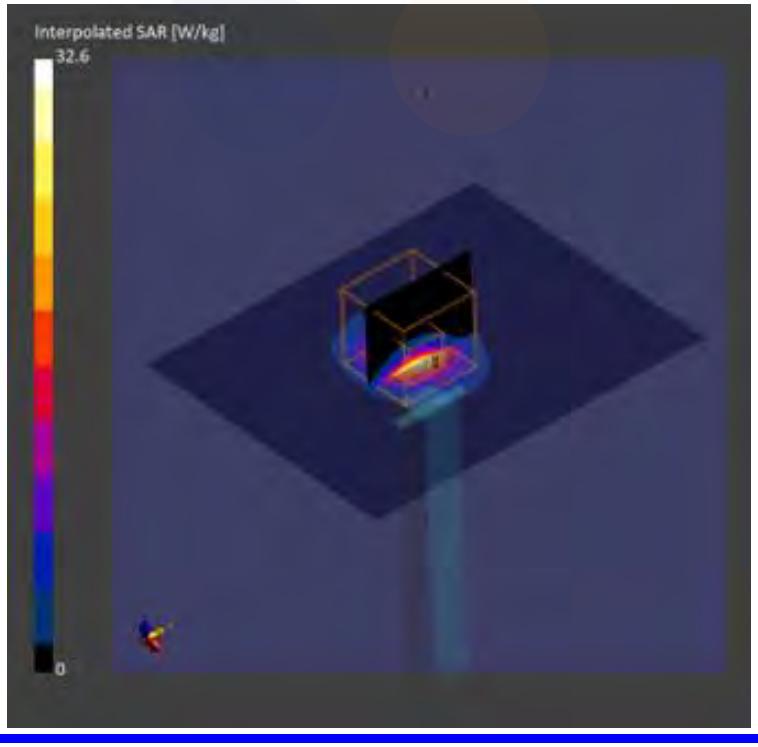
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-24	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 100.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-24	2025-01-24
psSAR1g [W/kg]	7.23	7.99
psSAR8g [W/kg]	2.50	2.69
psSAR10g [W/kg]	2.16	2.33
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.08
Peak SAR [W/kg]		32.6



Eurofins KCTL Co.,Ltd.

Measurement Report for D5GHzV2, FRONT, D5GHz, UID 0 -, (5800.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D5GHzV2, Speag	10.0 x 10.0 x 300.0	1134	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 10.00	D5GHz	CW, 0--	5800.000	4.93	5.20	34.8

Hardware Setup

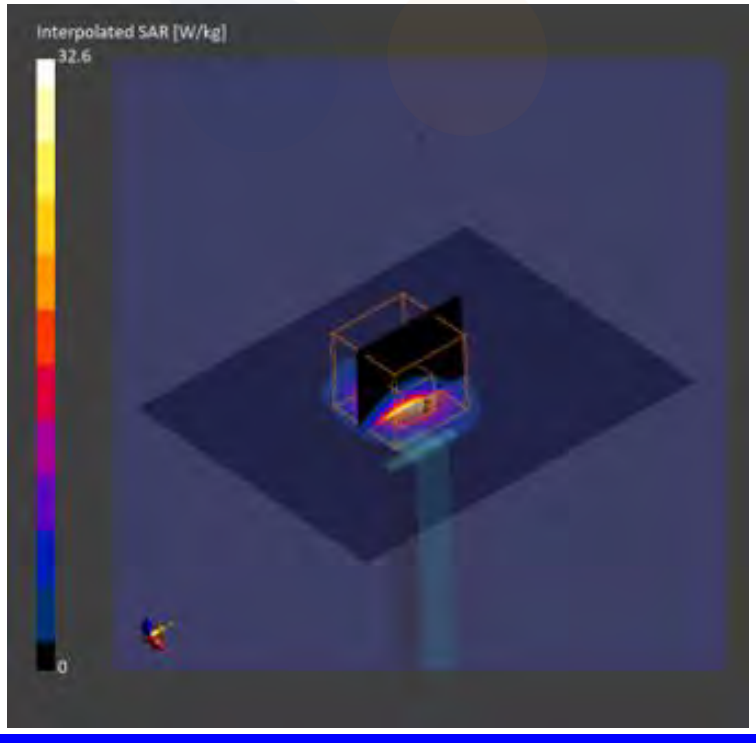
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-25	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 100.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-25	2025-01-25
psSAR1g [W/kg]	7.17	7.98
psSAR8g [W/kg]	2.48	2.69
psSAR10g [W/kg]	2.14	2.32
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.09
Peak SAR [W/kg]		32.6



18. Test Results

1)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE RIGHT, Custom Band, UID 0 -, Channel 190 (836.600MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XA000S4H	Tablet

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, Head Simulating Liquid	EDGE RIGHT, 0.00	Custom Band	CW, 0--	836.600, 190	8.59	0.899	41.9

Hardware Setup

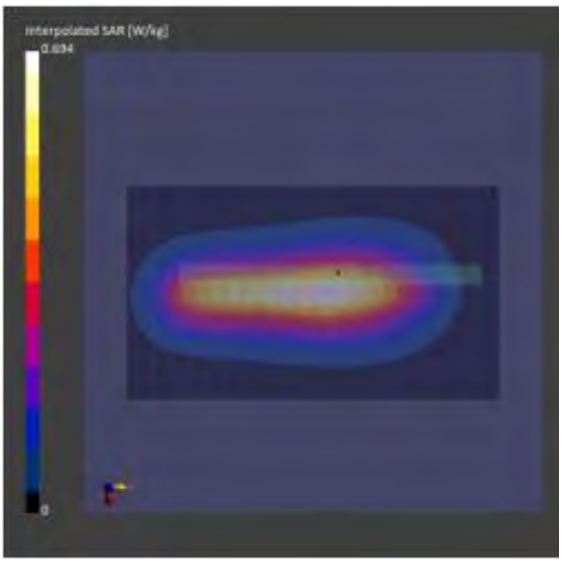
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2024-11-28	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn666, 2024-01-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-28	2024-11-28
psSAR1g [W/kg]	0.400	0.402
psSAR8g [W/kg]	0.274	0.267
psSAR10g [W/kg]	0.258	0.253
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.04
Peak SAR [W/kg]		0.693



2)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE TOP, PCS 1900, UID 10028 DAC, Channel 661 (1880.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XA000RVL	Tablet

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, Head Simulating Liquid	EDGE TOP, 0.00	PCS 1900	GSM, 10028-DAC	1880.000, 661	7.4	1.39	40.7

Hardware Setup

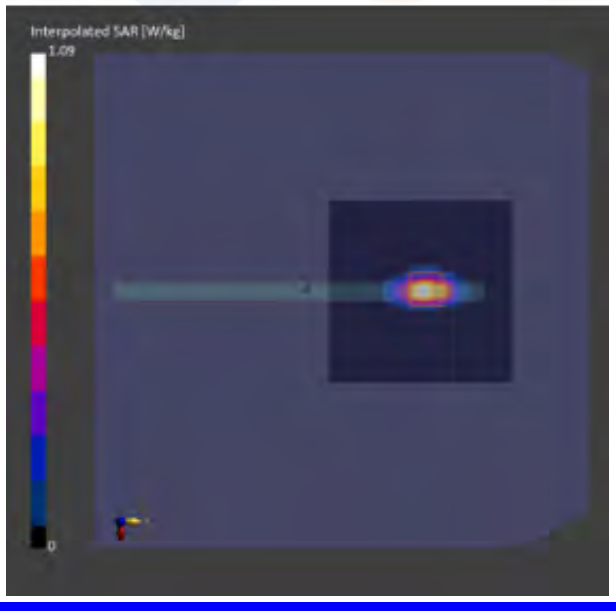
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2182	HBBL-600-10000, 2024-11-27	EX3DV4 - SN3928, 2024-02-22	DAE4 Sn1567, 2024-03-14

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-27	2024-11-27
psSAR1g [W/kg]	0.529	0.539
psSAR8g [W/kg]	0.259	0.264
psSAR10g [W/kg]	0.231	0.238
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01
Peak SAR [W/kg]		1.09



3)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE TOP, Custom Band, UID 0 -, Channel 9400 (1880.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XB00727T	Tablet

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, Head Simulating Liquid	EDGE TOP, 18.00	Custom Band	CW, 0--	1880.000, 9400	8.31	1.37	40.7

Hardware Setup

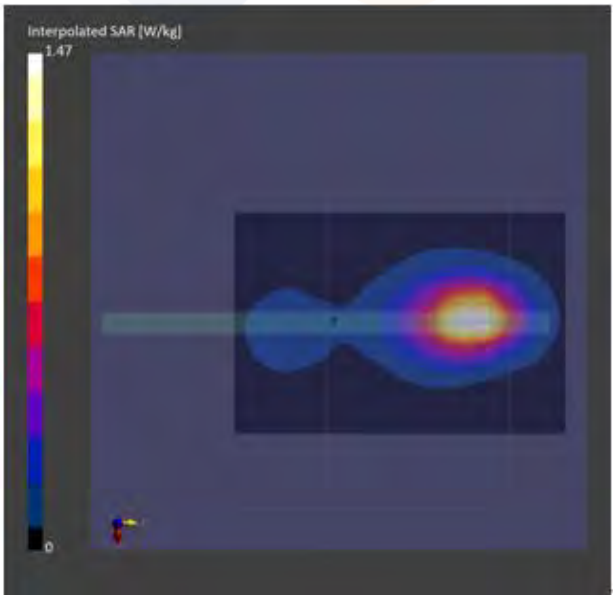
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2182	HBBL-600-10000, 2025-01-21	EX3DV4 - SN7540, 2024-05-23	DAE4 Sn1567, 2024-03-14

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-21	2025-01-21
psSAR1g [W/kg]	0.846	0.883
psSAR8g [W/kg]	0.518	0.555
psSAR10g [W/kg]	0.481	0.518
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01
Peak SAR [W/kg]		1.47



4)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE TOP, Custom Band, UID 0 -, Channel 1412 (1732.400MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XA000S4H	Tablet

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, Head Simulating Liquid	EDGE TOP, 18.00	Custom Band	CW, 0--	1732.400, 1412	8.19	1.30	39.5

Hardware Setup

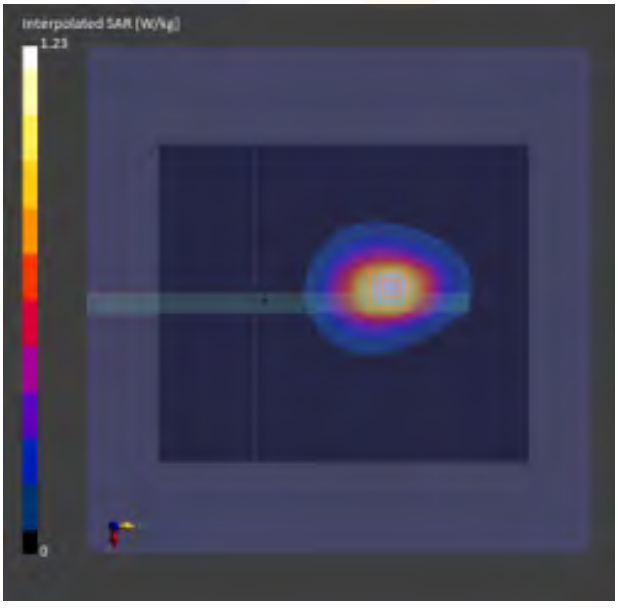
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2024-11-26	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn666, 2024-01-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	180.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-26	2024-11-26
psSAR1g [W/kg]	0.677	0.731
psSAR8g [W/kg]	0.431	0.465
psSAR10g [W/kg]	0.403	0.435
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01
Peak SAR [W/kg]		1.23



5)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE RIGHT, Custom Band, UID 0 -, Channel 4183 (836.600MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XA000S4H	Tablet

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, Head Simulating Liquid	EDGE RIGHT, 0.00	Custom Band	CW, 0--	836.600, 4183	8.59	0.899	41.9

Hardware Setup

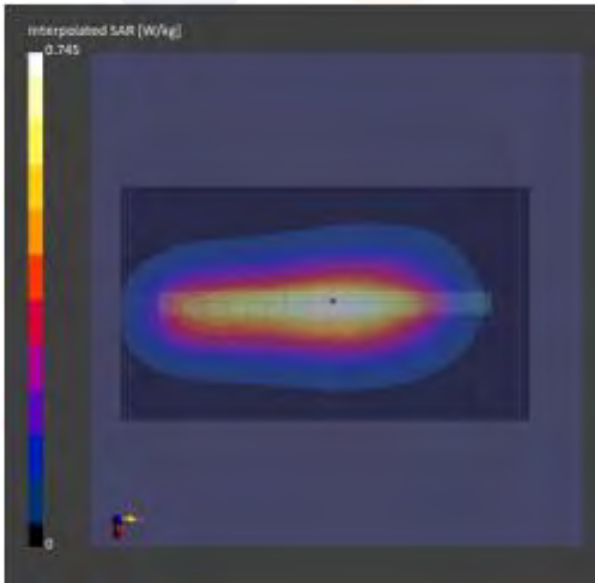
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2024-11-28	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn666, 2024-01-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-28	2024-11-28
psSAR1g [W/kg]	0.424	0.436
psSAR8g [W/kg]	0.293	0.291
psSAR10g [W/kg]	0.277	0.275
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.03
Peak SAR [W/kg]		0.745



6)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE BOTTOM, Custom Band, UID 0 -, Channel 19100 (1900.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XB00739E	Tablet

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, Head Simulating Liquid	EDGE BOTTOM, 18.00	Custom Band	CW, 0--	1900.000, 19100	8.11	1.37	40.8

Hardware Setup

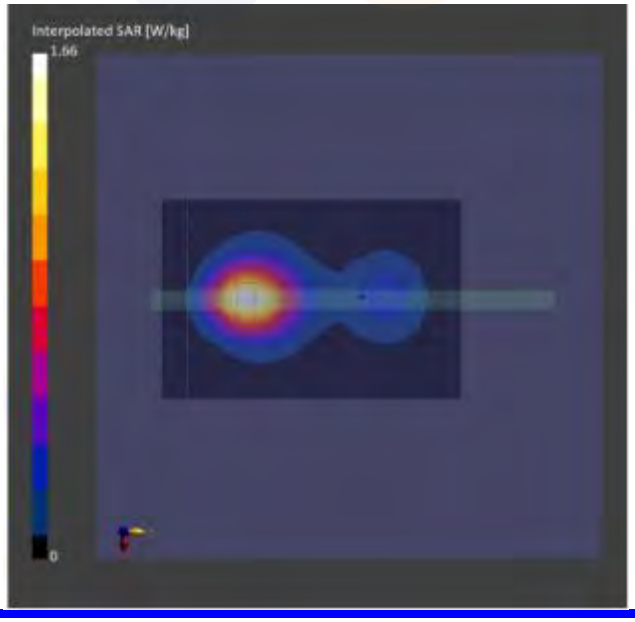
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-21	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-21	2025-01-21
psSAR1g [W/kg]	0.932	0.989
psSAR8g [W/kg]	0.573	0.624
psSAR10g [W/kg]	0.532	0.582
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.02
Peak SAR [W/kg]		1.66



7)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE RIGHT, Custom Band, UID 0 -, Channel 20525 (836.500MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XB003LWE	Tablet

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, Head Simulating Liquid	EDGE RIGHT, 0.00	Custom Band	CW, 0--	836.500, 20525	8.57	0.877	41.6

Hardware Setup

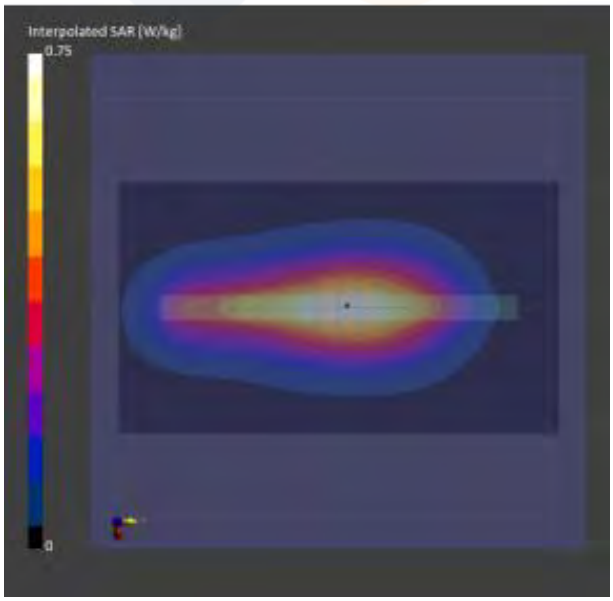
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2024-11-26	EX3DV4 - SN7840, 2024-08-20	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-26	2024-11-26
psSAR1g [W/kg]	0.507	0.494
psSAR8g [W/kg]	0.351	0.347
psSAR10g [W/kg]	0.332	0.330
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.04
Peak SAR [W/kg]		0.750



8)

Date: 11/26/2024

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2. LTE Band 12_10 MHz_QPSK_Body.da53:0

DUT: SM-X356B, Type: Tablet, Serial: R32XA000PRX

Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium parameters used: f = 707.5 MHz; σ = 0.867 S/m; ε_r = 43.849; ρ = 1000 kg/m^3
Phantom section: Flat Section

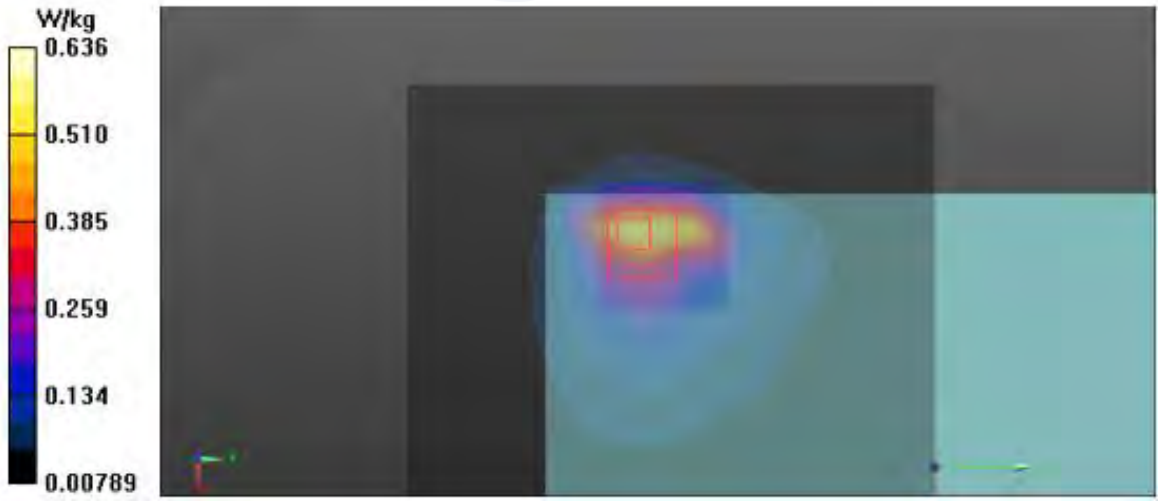
DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(10.04, 10.04, 10.04) @ 707.5 MHz; Calibrated: 5/23/2024
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 2/16/2024
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 12_QPSK_10 MHz_25RB_25offset_CH23095_Rear_0 mm Grip/Area Scan (11x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.533 W/kg

Configuration/LTE Band 12_QPSK_10 MHz_25RB_25offset_CH23095_Rear_0 mm Grip/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.744 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.914 W/kg
SAR(1 g) = 0.334 W/kg; SAR(10 g) = 0.173 W/kg

Maximum value of SAR (measured) = 0.636 W/kg



9)

Date: 11/22/2024

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2. LTE Band 13_10 MHz_QPSK_Body.da53:1

DUT: SM-X356B, Type: Tablet, Serial: R32XA000PRX

Communication System: UID 0, LTE Band 13 (0); Frequency: 782 MHz; Duty Cycle: 1:1
Medium parameters used: f = 782 MHz; σ = 0.901 S/m; ε_r = 41.74; ρ = 1000 kg/m^3
Phantom section: Flat Section

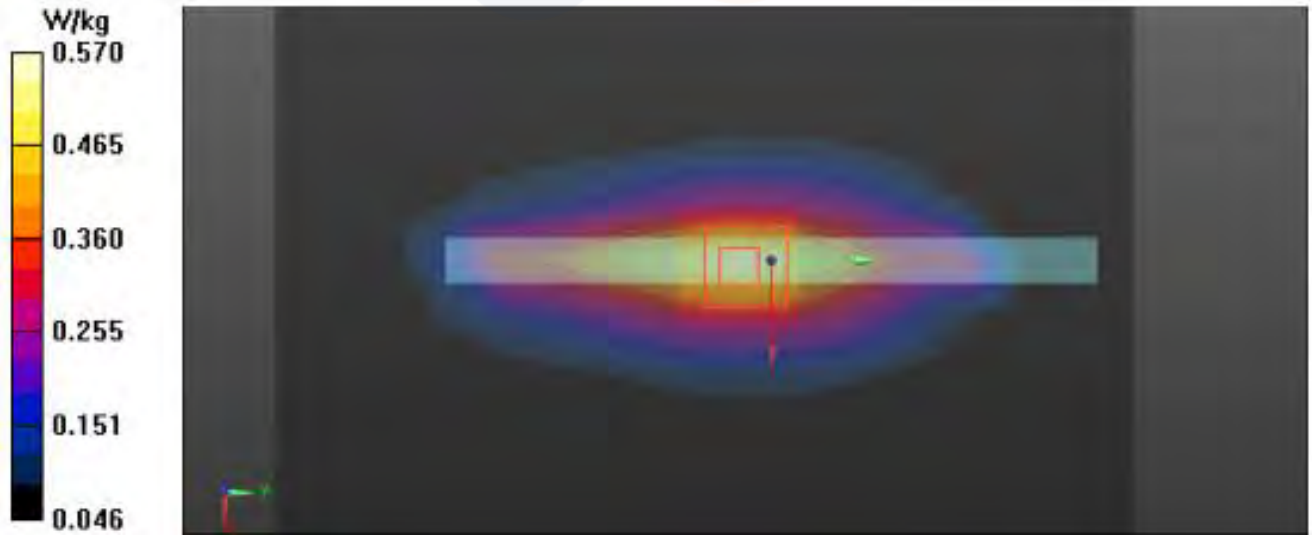
DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(10.04, 10.04, 10.04) @ 782 MHz; Calibrated: 5/23/2024
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 2/16/2024
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration 2/LTE Band 13_QPSK_10 MHz_1RB_0offset_CH23230_Right_0 mm/Area Scan (11x16x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.552 W/kg

Configuration 2/LTE Band 13_QPSK_10 MHz_1RB_0offset_CH23230_Right_0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.34 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.658 W/kg
SAR(1 g) = 0.401 W/kg; SAR(10 g) = 0.259 W/kg

Maximum value of SAR (measured) = 0.570 W/kg



10)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE TOP, Custom Band, UID 0 -, Channel 26590 (1905.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XB00727T	Tablet

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, Head Simulating Liquid	EDGE TOP, 18.00	Custom Band	CW, 0--	1905.000, 26590	8.31	1.39	40.6

Hardware Setup

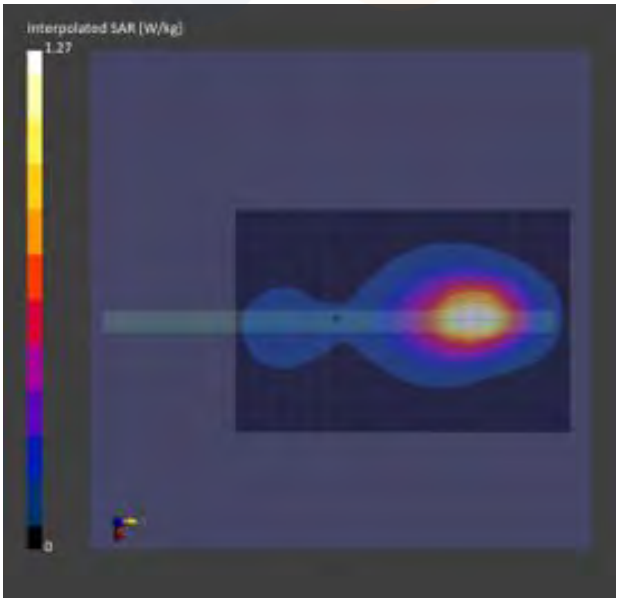
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2182	HBBL-600-10000, 2025-01-21	EX3DV4 - SN7540, 2024-05-23	DAE4 Sn1567, 2024-03-14

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-21	2025-01-21
psSAR1g [W/kg]	0.702	0.775
psSAR8g [W/kg]	0.430	0.488
psSAR10g [W/kg]	0.399	0.456
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.01
Peak SAR [W/kg]		1.27



11)
Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, BACK, Custom Band, UID 0 -, Channel 26865 (831.500MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XB003LWE	Tablet

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, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	831.500, 26865	8.57	0.875	41.7

Hardware Setup

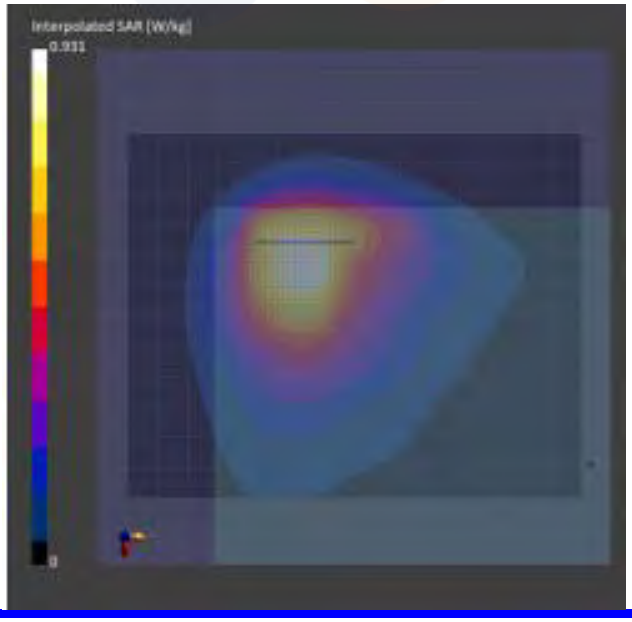
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2024-11-26	EX3DV4 - SN7840, 2024-08-20	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 150.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-26	2024-11-26
psSAR1g [W/kg]	0.369	0.437
psSAR8g [W/kg]	0.255	0.256
psSAR10g [W/kg]	0.241	0.239
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.05
Peak SAR [W/kg]		0.931



12)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, BACK, Band 41, UID 10435 AAG, Channel 39750 (2506.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XB006Z5W	Tablet

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, Head Simulating Liquid	BACK, 0.00	Band 41	LTE-TDD, 10435-AAG	2506.000, 39750	7.06	1.82	38.9

Hardware Setup

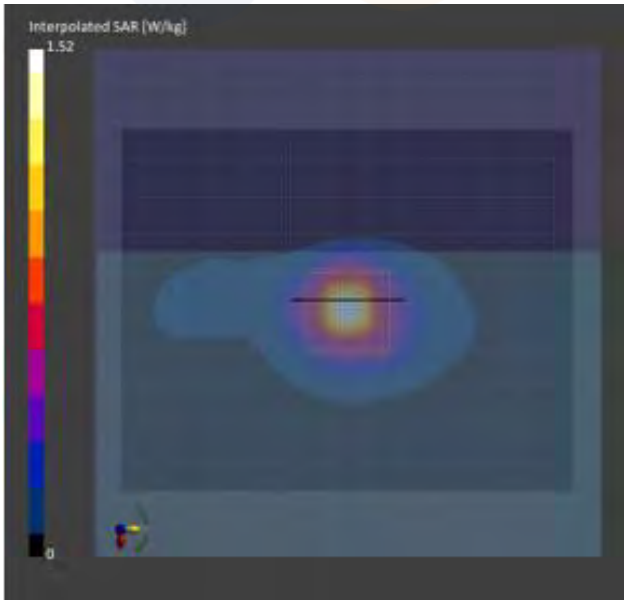
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-01-25	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-25	2025-01-25
psSAR1g [W/kg]	0.615	0.622
psSAR8g [W/kg]	0.281	0.271
psSAR10g [W/kg]	0.250	0.241
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.09
Peak SAR [W/kg]		1.52



13)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE TOP, Custom Band, UID 0 -, Channel 132072 (1720.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XA000S4H	Tablet

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, Head Simulating Liquid	EDGE TOP, 18.00	Custom Band	CW, 0--	1720.000, 132072	8.19	1.30	39.6

Hardware Setup

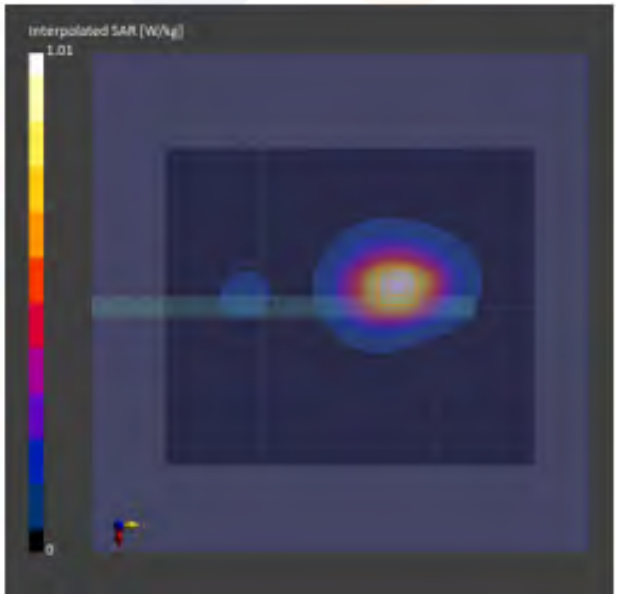
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2024-11-26	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn666, 2024-01-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	180.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-26	2024-11-26
psSAR1g [W/kg]	0.575	0.608
psSAR8g [W/kg]	0.361	0.390
psSAR10g [W/kg]	0.336	0.365
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.02
Peak SAR [W/kg]		1.01



14)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE BOTTOM, Custom Band, UID 0 -, Channel 132072 (1720.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XB00739E	Tablet

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, Head Simulating Liquid	EDGE BOTTOM, 18.00	Custom Band	CW, 0--	1720.000, 132072	8.19	1.34	40.6

Hardware Setup

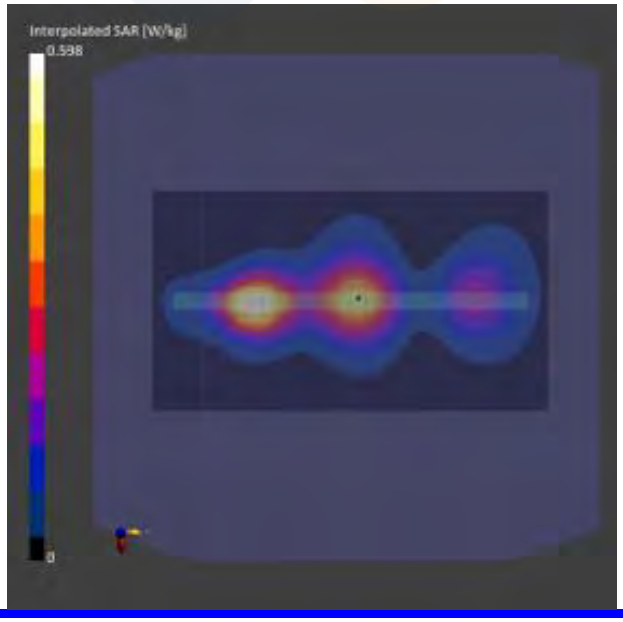
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-22	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	150.0 x 270.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-22	2025-01-22
psSAR1g [W/kg]	0.341	0.367
psSAR8g [W/kg]	0.215	0.234
psSAR10g [W/kg]	0.200	0.219
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.00
Peak SAR [W/kg]		0.598



15)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, BACK, Custom Band, UID 0 -, Channel 167300 (836.500MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XB00727T	Tablet

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, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	836.500, 167300	8.59	0.889	42.0

Hardware Setup

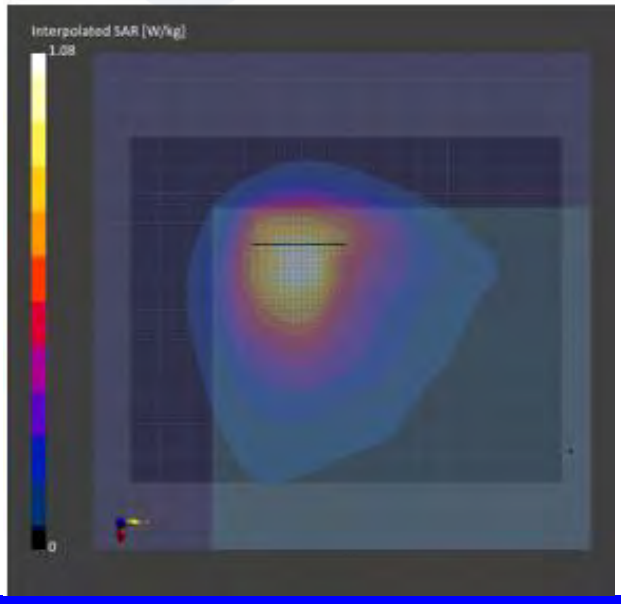
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-01-22	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 150.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-22	2025-01-22
psSAR1g [W/kg]	0.390	0.463
psSAR8g [W/kg]	0.263	0.261
psSAR10g [W/kg]	0.248	0.243
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.02
Peak SAR [W/kg]		1.08



16)

Date: 11/27/2024

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. NR n 26_20 MHz_QPSK_Body.da53:0

DUT: SM-X356B, Type: Tablet, Serial: R32XA000PRX

Communication System: UID 0, 5G NR n26 (0); Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.888 S/m; ε_r = 41.837; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

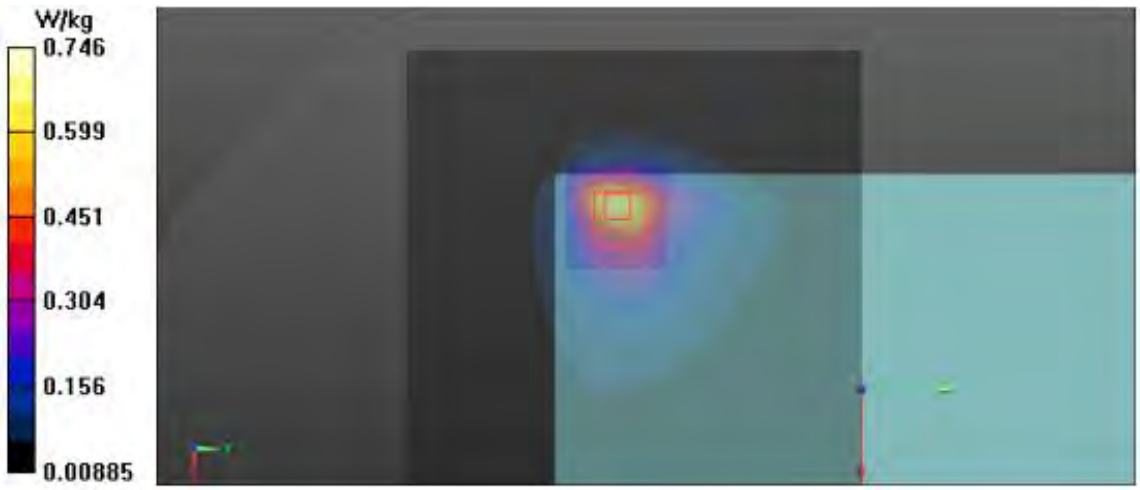
- Probe: EX3DV4 - SN7540;ConvF(9.56, 9.56, 9.56) @ 831.5 MHz; Calibrated: 5/23/2024
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 2/16/2024
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n26_CP-OFDM_QPSK_20MHz_1RB_1offset_CH166300_Rear_0 mm Grip/Area Scan (13x13x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.651 W/kg

Configuration/5G NR n26_CP-OFDM_QPSK_20MHz_1RB_1offset_CH166300_Rear_0 mm Grip/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.721 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.08 W/kg
SAR(1 g) = 0.444 W/kg; SAR(10 g) = 0.231 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.746 W/kg



17)
Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, BACK, Custom Band, UID 0 -, Channel 518598 (2592.99MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XB006Z5W	Tablet

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, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	2592.99, 518598	7.06	1.89	38.8

Hardware Setup

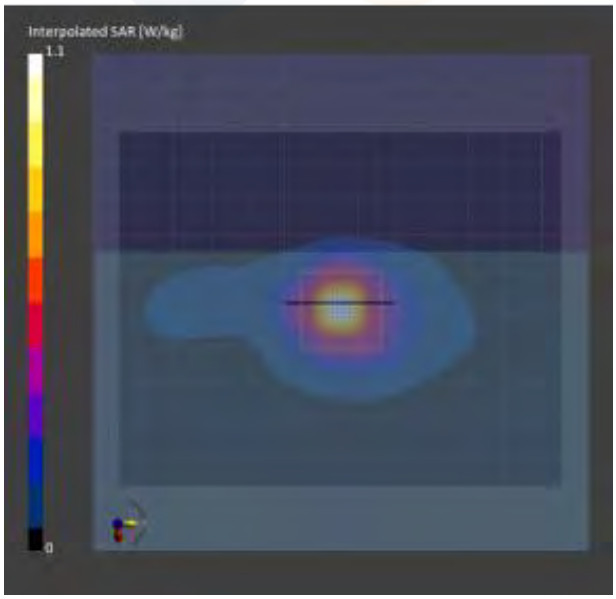
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-01-25	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-25	2025-01-25
psSAR1g [W/kg]	0.445	0.447
psSAR8g [W/kg]	0.201	0.195
psSAR10g [W/kg]	0.179	0.174
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.03
Peak SAR [W/kg]		1.10



18)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, BACK, Custom Band, UID 0 -, Channel 518593 (2592.99MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XB00727T	Tablet

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, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	2592.99, 518598	7.06	1.95	38.5

Hardware Setup

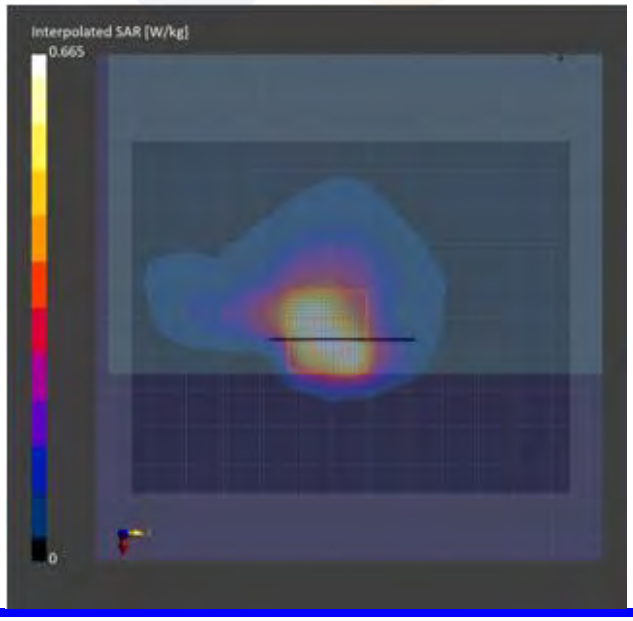
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-01-15	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-15	2025-01-15
psSAR1g [W/kg]	0.239	0.289
psSAR8g [W/kg]	0.128	0.134
psSAR10g [W/kg]	0.116	0.121
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.03
Peak SAR [W/kg]		0.665



19)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, BACK, Custom Band, UID 0 -, Channel 518598 (2592.99MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XB00727T	Tablet

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, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	2592.99, 518598	7.06	1.98	38.7

Hardware Setup

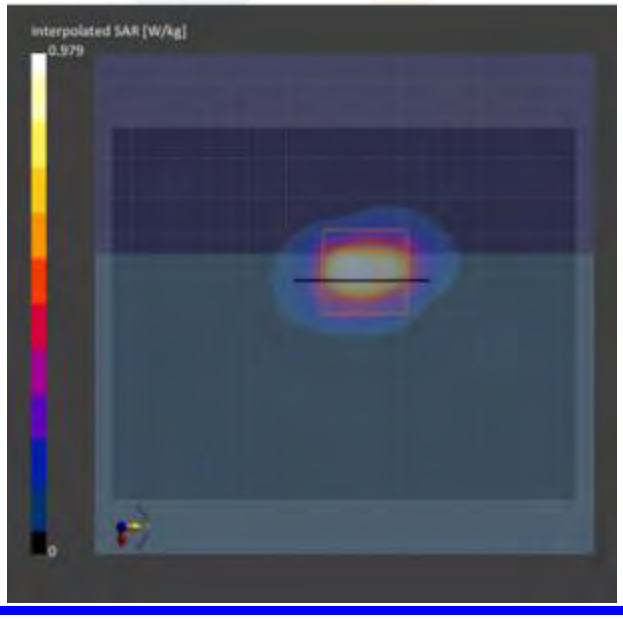
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-02-10	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-10	2025-02-10
psSAR1g [W/kg]	0.315	0.372
psSAR8g [W/kg]	0.145	0.149
psSAR10g [W/kg]	0.128	0.131
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.02
Peak SAR [W/kg]		0.979



20)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, BACK, Custom Band, UID 0 -, Channel 518598 (2592.99MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XB00727T	Tablet

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, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	2592.99, 518598	7.06	1.95	38.5

Hardware Setup

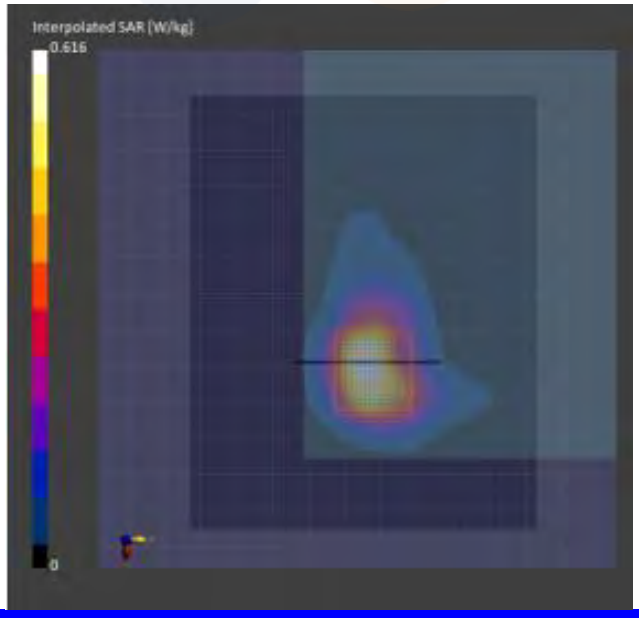
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-01-15	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 96.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-15	2025-01-15
psSAR1g [W/kg]	0.247	0.250
psSAR8g [W/kg]	0.125	0.114
psSAR10g [W/kg]	0.113	0.102
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.02
Peak SAR [W/kg]		0.616



21)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE TOP, Custom Band, UID 0 -, Channel 349000 (1745.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XA000S4H	Tablet

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, Head Simulating Liquid	EDGE TOP, 18.00	Custom Band	CW, 0--	1745.000, 349000	8.19	1.34	40.3

Hardware Setup

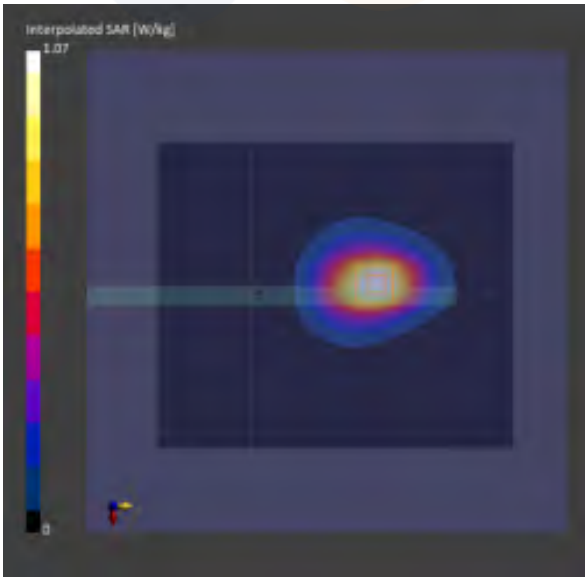
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2024-11-27	EX3DV4 - SN3697, 2024-04-22	DAE4 Sn666, 2024-01-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	180.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-11-27	2024-11-27
psSAR1g [W/kg]	0.613	0.663
psSAR8g [W/kg]	0.392	0.424
psSAR10g [W/kg]	0.367	0.396
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.04
Peak SAR [W/kg]		1.07



22)

Date: 11/26/2024

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. NR n 71_20 MHz_QPSK_Body.da53:0

DUT: SM-X356B, Type: Tablet, Serial: R32XA000PRX

Communication System: UID 0, 5G NR n71 (0); Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 680.5 MHz; σ = 0.854 S/m; ε_r = 43.897; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

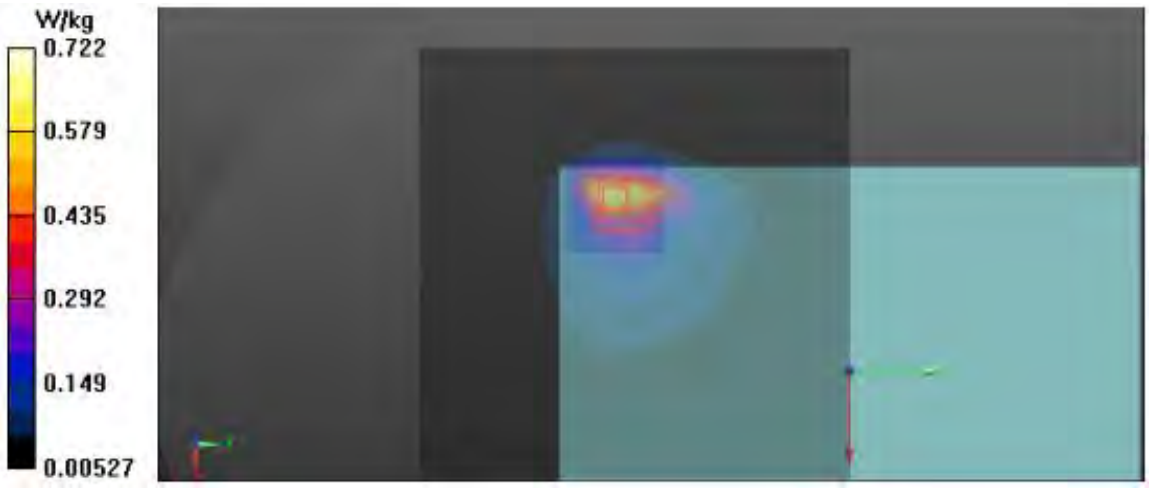
- Probe: EX3DV4 - SN7540;ConvF(10.04, 10.04, 10.04) @ 680.5 MHz; Calibrated: 5/23/2024
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 2/16/2024
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n71_DFT-S-OFDM_QPSK_20MHz_50RB_0offset_CH136100_Rear_0 mm
Grip/Area Scan (13x13x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.656 W/kg

Configuration/5G NR n71_DFT-S-OFDM_QPSK_20MHz_50RB_0offset_CH136100_Rear_0 mm
Grip/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.676 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.350 W/kg; SAR(10 g) = 0.177 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.722 W/kg



23)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, BACK, Custom Band, UID 0 -, Channel 650000 (3750.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XB00739E	Tablet

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, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	3750.000, 650000	6.75	3.18	38.4

Hardware Setup

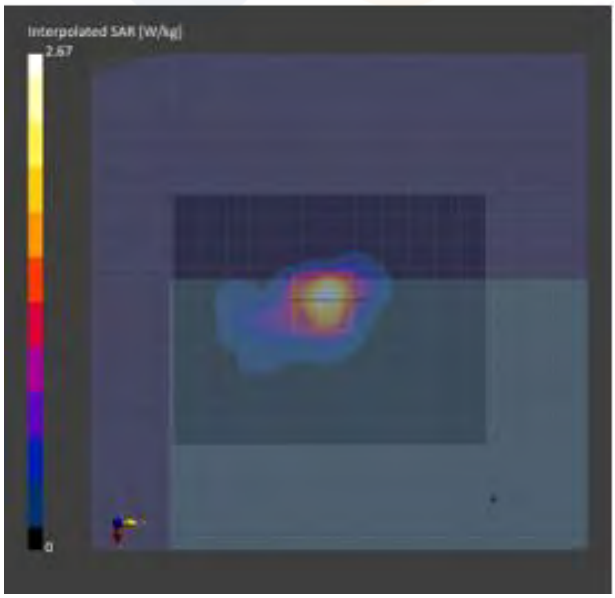
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-02-13	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 108.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-13	2025-02-13
psSAR1g [W/kg]	0.717	0.875
psSAR8g [W/kg]	0.312	0.338
psSAR10g [W/kg]	0.276	0.297
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.00
Peak SAR [W/kg]		2.67



24)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, BACK, Custom Band, UID 0 -, Channel 633334 (3500.010MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XB00739E	Tablet

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, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	3500.010, 633334	6.74	2.81	37.4

Hardware Setup

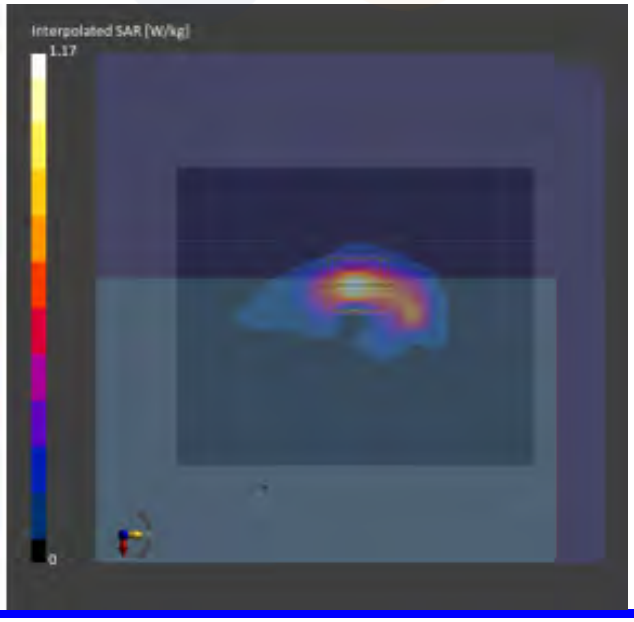
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-15	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	108.0 x 144.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-15	2025-01-15
psSAR1g [W/kg]	0.381	0.415
psSAR8g [W/kg]	0.156	0.170
psSAR10g [W/kg]	0.138	0.150
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.06
Peak SAR [W/kg]		1.17



25)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, BACK, Custom Band, UID 0 -, Channel 633334 (3500.010MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XB00739E	Tablet

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, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	3500.010, 633334	6.74	2.81	37.4

Hardware Setup

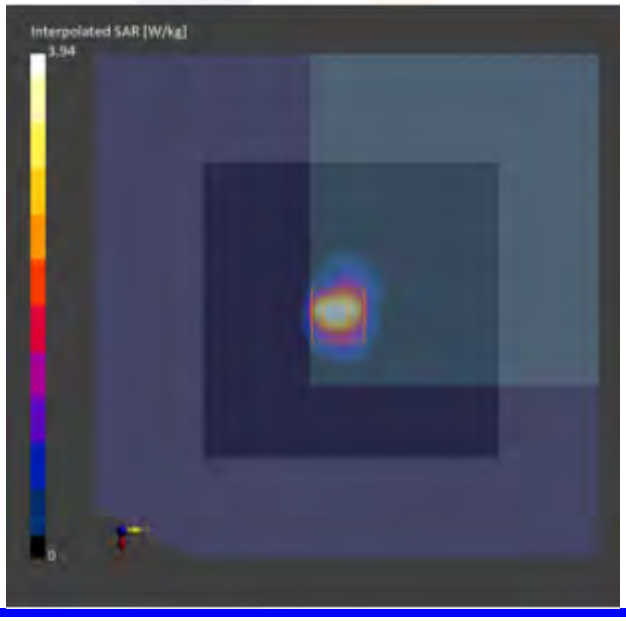
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-15	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	108.0 x 108.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-15	2025-01-15
psSAR1g [W/kg]	0.653	1.08
psSAR8g [W/kg]	0.271	0.321
psSAR10g [W/kg]	0.237	0.273
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.03
Peak SAR [W/kg]		3.94



26)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, BACK, Custom Band, UID 0 -, Channel 633334 (3500.010MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XB00739E	Tablet

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, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	3500.010, 633334	6.74	2.81	37.4

Hardware Setup

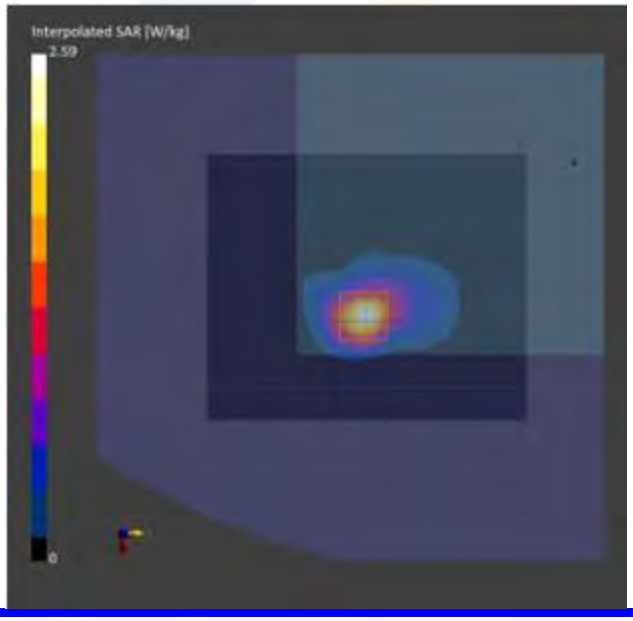
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-15	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	108.0 x 132.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-15	2025-01-15
psSAR1g [W/kg]	0.758	0.868
psSAR8g [W/kg]	0.340	0.368
psSAR10g [W/kg]	0.303	0.327
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.06
Peak SAR [W/kg]		2.59



27)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, BACK, Custom Band, UID 0 -, Channel 11 (2462.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XB00739E	Tablet + Ant.1

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, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	2462.000, 11	7.44	1.80	39.2

Hardware Setup

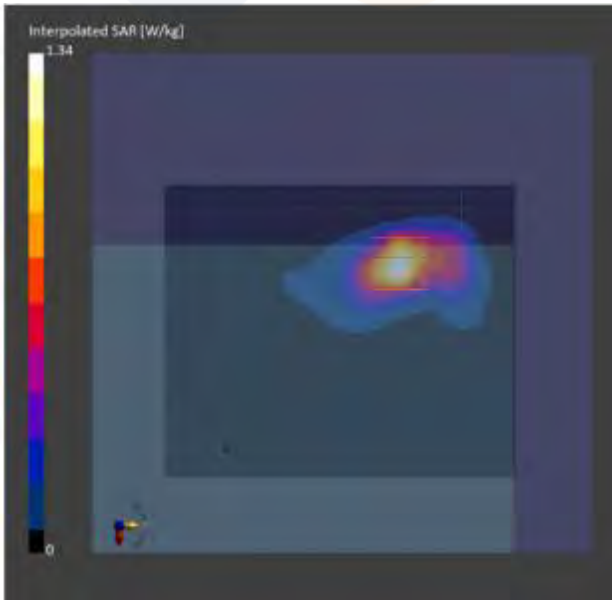
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-26	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 144.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-26	2025-01-26
psSAR1g [W/kg]	0.470	0.567
psSAR8g [W/kg]	0.237	0.262
psSAR10g [W/kg]	0.214	0.234
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01
Peak SAR [W/kg]		1.34



28)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE LEFT, Custom Band, UID 0 -, Channel 11 (2462.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XB00739E	Tablet + Ant 2

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, Head Simulating Liquid	EDGE LEFT, 0.00	Custom Band	CW, 0--	2462.000, 11	7.44	1.80	39.2

Hardware Setup

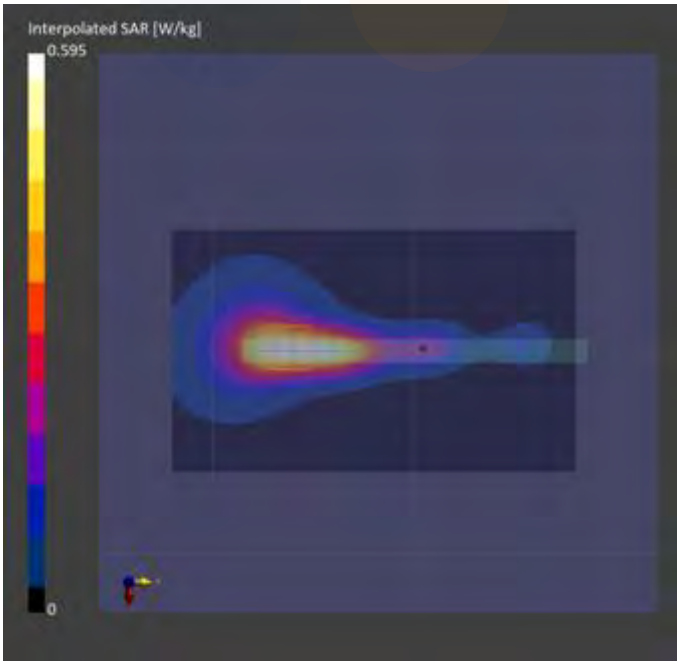
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-26	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 192.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-26	2025-01-26
psSAR1g [W/kg]	0.293	0.305
psSAR8g [W/kg]	0.166	0.171
psSAR10g [W/kg]	0.153	0.158
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.03
Peak SAR [W/kg]		0.594



29)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, BACK, Custom Band, UID 0 -, Channel 11 (2462.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	243.0 x 171.0 x 12.0	R32XB00739E	Tablet + MIMO

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, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	2462.000, 11	7.44	1.80	39.2

Hardware Setup

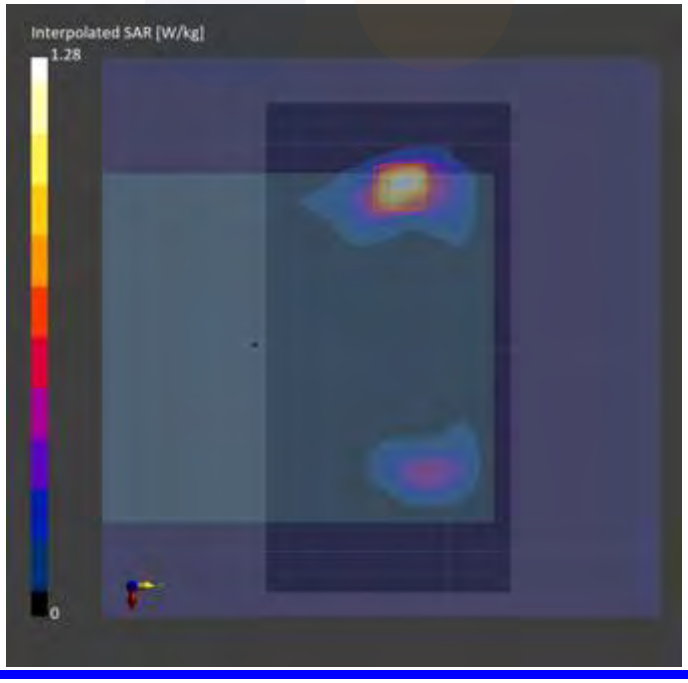
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-26	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	228.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-26	2025-01-26
psSAR1g [W/kg]	0.468	0.535
psSAR8g [W/kg]	0.247	0.250
psSAR10g [W/kg]	0.224	0.224
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.02
Peak SAR [W/kg]		1.28



30)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE LEFT, Custom Band, UID 0 -, Channel 64 (5320.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XB00739E	Tablet + MIMO

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, Head Simulating Liquid	EDGE LEFT, 0.00	Custom Band	CW, 0--	5320.000, 64	5.47	4.65	37.1

Hardware Setup

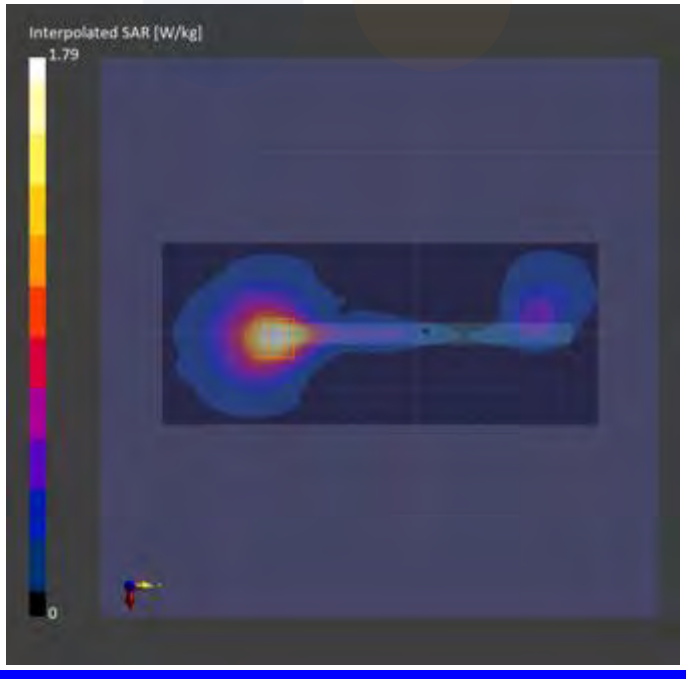
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-24	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 240.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-24	2025-01-24
psSAR1g [W/kg]	0.426	0.459
psSAR8g [W/kg]	0.190	0.200
psSAR10g [W/kg]	0.171	0.181
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.14
Peak SAR [W/kg]		1.79



31)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE LEFT, Custom Band, UID 0 -, Channel 144 (5720.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XB00739E	Tablet + MIMO

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, Head Simulating Liquid	EDGE LEFT, 0.00	Custom Band	CW, 0--	5720.000, 144	4.93	5.04	36.2

Hardware Setup

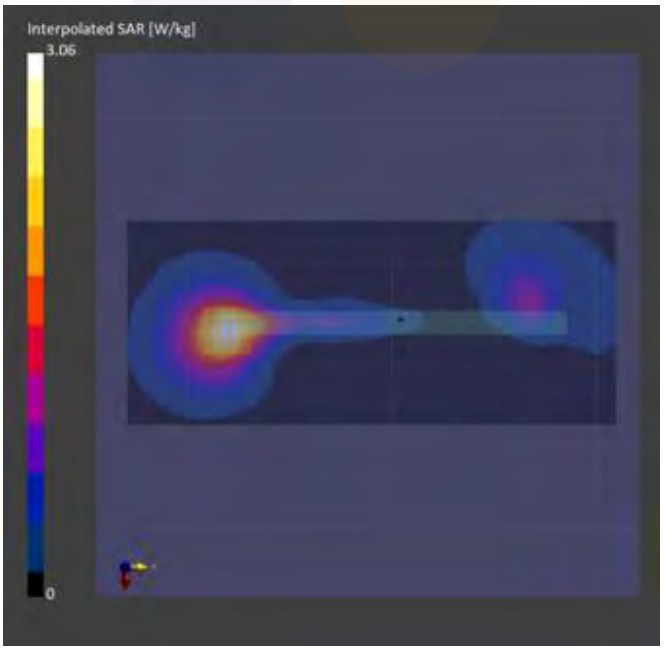
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-24	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 240.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-24	2025-01-24
psSAR1g [W/kg]	0.635	0.718
psSAR8g [W/kg]	0.281	0.304
psSAR10g [W/kg]	0.254	0.273
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.04
Peak SAR [W/kg]		3.06



32)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE LEFT, Custom Band, UID 0 -, Channel 165 (5745.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XB00739E	Tablet + MIMO

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, Head Simulating Liquid	EDGE LEFT, 0.00	Custom Band	CW, 0--	5745.000, 165	4.93	5.06	36.2

Hardware Setup

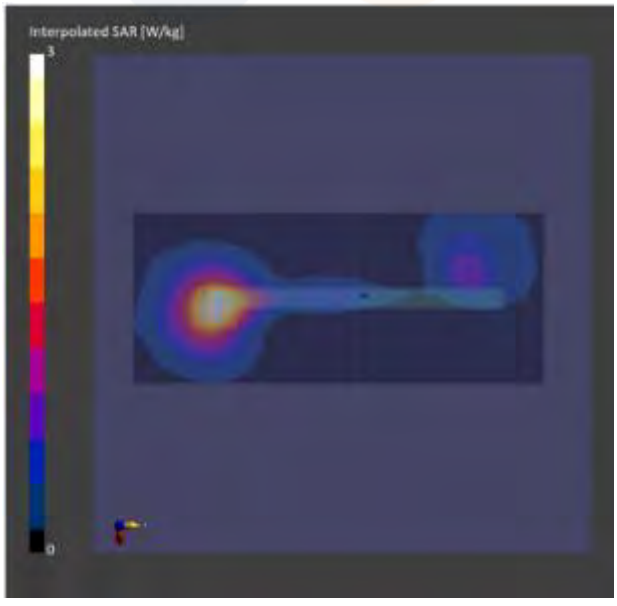
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-25	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 240.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-25	2025-01-25
psSAR1g [W/kg]	0.692	0.744
psSAR8g [W/kg]	0.312	0.328
psSAR10g [W/kg]	0.283	0.297
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.11
Peak SAR [W/kg]		3.00



33)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, EDGE LEFT, Custom Band, UID 0 -, Channel 173 (5865.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, SAMSUNG	171.0 x 243.0 x 12.0	R32XB00739E	Tablet + MIMO

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, Head Simulating Liquid	EDGE LEFT, 0.00	Custom Band	CW, 0--	5865.000, 173	4.93	5.25	34.6

Hardware Setup

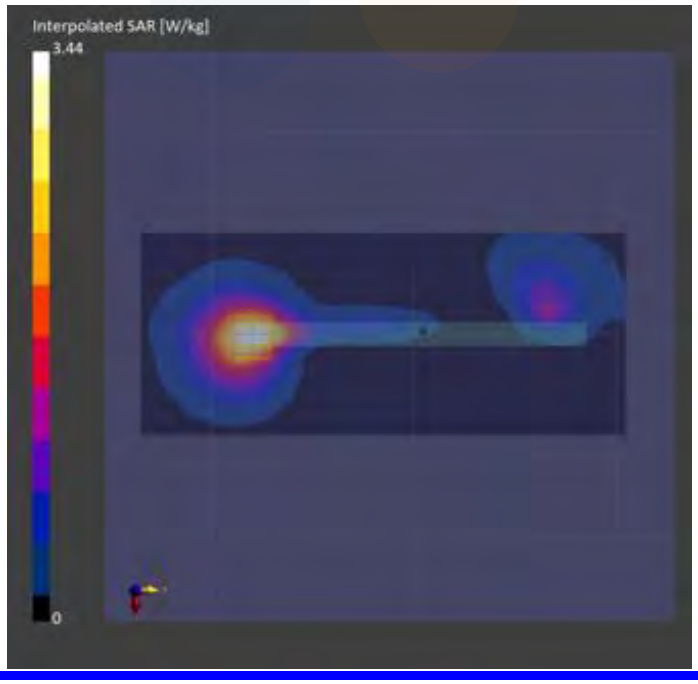
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2189	HBBL-600-10000 , 2025-01-25	EX3DV4 - SN7851, 2024-07-17	DAE4 Sn1759, 2024-11-19

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 240.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-25	2025-01-25
psSAR1g [W/kg]	0.766	0.796
psSAR8g [W/kg]	0.336	0.347
psSAR10g [W/kg]	0.303	0.314
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.14
Peak SAR [W/kg]		3.44



34)

Date: 3/11/2025

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. Bluetooth_Ant.1_Body.da53:0

DUT: SM-X356B, Type: Tablet, Serial: R32Y100R15R

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz; Duty Cycle: 1:1.30167
Medium parameters used (interpolated): f = 2441 MHz; σ = 1.792 S/m; ε_r = 37.666; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3928;ConvF(6.95, 6.67, 7.67) @ 2441 MHz; Calibrated: 2/21/2025
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/21/2025
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/Bluetooth_Ant.1_BDR_DH5_CH39_Rear_0 mm Grip Sensor/Area Scan (11x11x1):
Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.732 W/kg

Configuration/Bluetooth_Ant.1_BDR_DH5_CH39_Rear_0 mm Grip Sensor/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.87 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.25 W/kg
SAR(1 g) = 0.431 W/kg; SAR(10 g) = 0.182 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.816 W/kg

35)

Date: 3/11/2025

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2. Bluetooth_Ant.2_Body.da53:1

DUT: SM-X356B, Type: Tablet, Serial: R32Y100R15R

Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz; Duty Cycle: 1:1.30167
Medium parameters used (interpolated): f = 2402 MHz; σ = 1.752 S/m; ε_r = 37.732; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

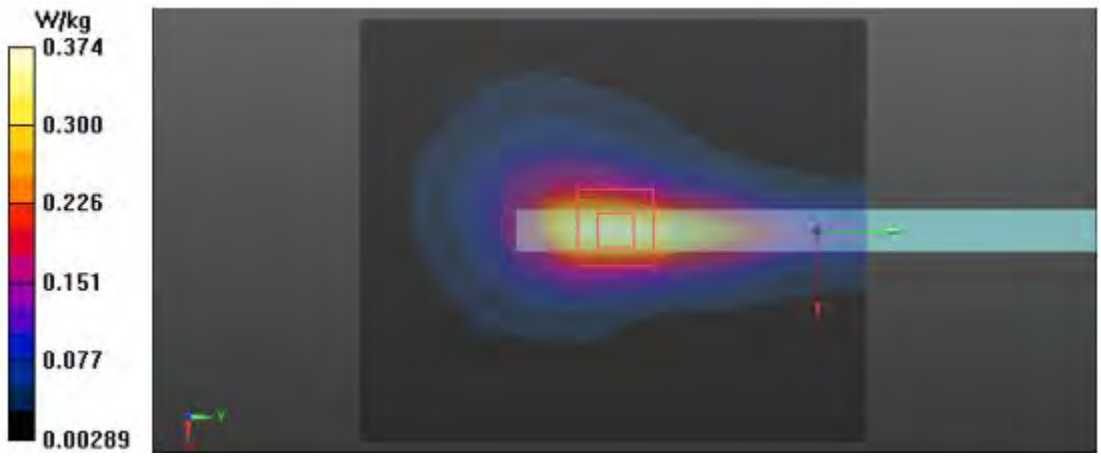
- Probe: EX3DV4 - SN3928;ConvF(6.95, 6.67, 7.67) @ 2402 MHz; Calibrated: 2/21/2025
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/21/2025
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration 2/Bluetooth_Ant.2_BDR_DH5_CH0_Left_0 mm/Area Scan (11x13x1): Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.375 W/kg

Configuration 2/Bluetooth_Ant.2_BDR_DH5_CH0_Left_0 mm/Zoom Scan (7x8x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.60 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.457 W/kg
SAR(1 g) = 0.231 W/kg; SAR(10 g) = 0.118 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.374 W/kg



36)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X356B, FRONT, Custom Band, UID 0 -, Channel 13600 (13.600MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X356B, Samsung	243.0 x 170.0 x 11.0	R32XB00710K	Tablet

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, Head Simulating Liquid	FRONT, 0.00	Custom Band	CW, 0--	13.600, 13600	14.72	0.737	56.4

Hardware Setup

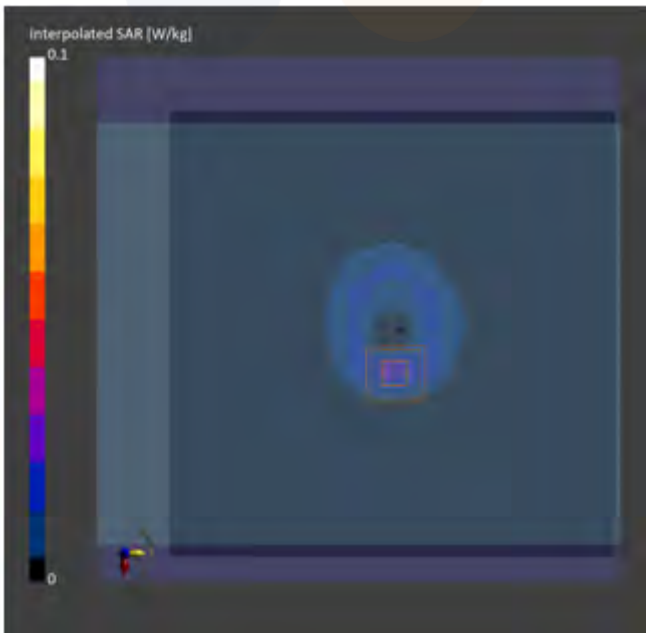
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 - 2097	HBBL4-250V3, 2025-01-23	EX3DV4 - SN3928, 2024-02-22	DAE4 Sn1756, 2024-09-13

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	180.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-23	2025-01-23
psSAR1g [W/kg]	0.024	0.022
psSAR8g [W/kg]	0.016	0.009
psSAR10g [W/kg]	0.015	0.008
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.02



Appendixes List

Appendix A	A.1 Probe Calibration certificate (EX3DV4_SN3697) A.2 Probe Calibration certificate (EX3DV4_SN3928) (2024-02-22) A.3 Probe Calibration certificate (EX3DV4_SN3928) (2025-02-21) A.4 Probe Calibration certificate (EX3DV4_SN7540) A.5 Probe Calibration certificate (EX3DV4_SN7770) A.6 Probe Calibration certificate (EX3DV4_SN7840) A.7 Probe Calibration certificate (EX3DV4_SN7851) A.8 Dipole Calibration certificate (CLA13_SN1019) A.9 Dipole Calibration certificate (D750V3_SN1224) A.10 Dipole Calibration certificate (D850V2_SN1030) A.11 Dipole Calibration certificate (D1750V2_SN1195) A.12 Dipole Calibration certificate (D1900V2_SN5d248) A.13 Dipole Calibration certificate (D2450V2_SN1091) A.14 Dipole Calibration certificate (D2600V2_SN1200) A.15 Dipole Calibration certificate (D3500V2_SN1146) A.16 Dipole Calibration certificate (D3700V2_SN1027) A.17 Dipole Calibration certificate (D3900V2_SN1043) A.18 Dipole Calibration certificate (D5GHzv2_SN1134) A.19 Justification for Extended SAR Dipole Calibrations
Appendix B	SAR Tissue Specification
Appendix C	LTE CA RF Conducted Power
Appendix D	Power Reduction Verification
Appendix E	#Antenna Location & Distance
Appendix F	EUT Photo
Appendix G	Test Setup Photo