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13. Simultaneous Transmission

The following procedures adopted from FCC KDB Publication 447498 D01v06 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 D01v06 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)

Ant.	Band	Frequency (MHz)	Output power		Separation distances [mm]					SAR Exemption				
			dBm	mW	Rear	Left	Right	Top	Bot.	Rear	Left	Right	Top	Bottom
Main1	WCDMA 2	1907.6	25.50	355	5	90	12	5	193	Measure	0.400	Measure	Measure	0.400
	WCDMA 4	1752.6	25.50	355						Measure	0.400	Measure	Measure	0.400
	WCDMA 5	846.6	24.50	282						Measure	0.400	Measure	Measure	0.400
	LTE 2	1909.3	25.50	355						Measure	0.400	Measure	Measure	0.400
	LTE 4	1754.3	25.50	355						Measure	0.400	Measure	Measure	0.400
	LTE 5	848.3	25.50	355						Measure	0.400	Measure	Measure	0.400
	LTE 12	715.3	25.50	355						Measure	0.400	Measure	Measure	0.400
	LTE 13	784.5	25.50	355						Measure	0.400	Measure	Measure	0.400
	LTE 14	795.5	25.50	355						Measure	0.400	Measure	Measure	0.400
	LTE 25	1914.3	25.50	355						Measure	0.400	Measure	Measure	0.400
	LTE 26	848.3	25.00	316						Measure	0.400	Measure	Measure	0.400
	LTE 66	1779.3	25.50	355						Measure	0.400	Measure	Measure	0.400
	LTE 71	695.5	24.50	282						Measure	0.400	Measure	Measure	0.400
	n2	1907.5	25.50	355						Measure	0.400	Measure	Measure	0.400
	n5	846.5	25.50	355						Measure	0.400	Measure	Measure	0.400
	n12	713.5	25.50	355						Measure	0.400	Measure	Measure	0.400
n25	1912.5	25.50	355	Measure	0.400	Measure	Measure	0.400						
n66	1777.5	25.50	355	Measure	0.400	Measure	Measure	0.400						
n71	695.5	24.50	282	Measure	0.400	Measure	Measure	0.400						
Main2	LTE 7	2567.5	23.50	224	5	74	38	5	194	Measure	0.400	Measure	Measure	0.400
	LTE 30	2312.5	23.30	214						Measure	0.400	Measure	Measure	0.400
	LTE 40	2357.5	23.50	224						Measure	0.400	Measure	Measure	0.400
	LTE 41 (PC 3)	2687.5	25.00	316						Measure	0.400	Measure	Measure	0.400
	LTE 48	3697.5	23.50	224						Measure	0.400	Measure	Measure	0.400
	n30	2312.5	23.50	224						Measure	0.400	Measure	Measure	0.400
	n41 (PC2)	2685	21.00	126						Measure	0.400	Measure	Measure	0.400
	n48	3694.98	17.50	56						Measure	0.400	0.383	Measure	0.400
	n77	3544.98	22.00	158						Measure	0.400	Measure	Measure	0.400
Sub1	LTE 2 (Sub)	1909.3	25.00	316	5	92	12	193	5	Measure	0.400	Measure	0.400	Measure
	LTE 4 (Sub)	1754.3	25.50	355						Measure	0.400	Measure	0.400	Measure
	LTE 7 (Sub)	2567.5	23.50	224						Measure	0.400	Measure	0.400	Measure
	LTE 66 (Sub)	1779.3	25.50	355						Measure	0.400	Measure	0.400	Measure

Ant.	Band	Frequency (MHz)	Output power		Separation distances [mm]					SAR Exemption				
			dBm	mW	Rear	Left	Right	Top	Bot.	Rear	Left	Right	Top	Bottom
Sub2 (SRS3)	n48	3694.98	11.00	13	5	111	5	175	52	Measure	0.400	Measure	0.400	0.400
	n77	3544.98	11.00	13						Measure	0.400	Measure	0.400	0.400
Sub3 (SRS2)	n48	3694.98	7.00	5	5	5	111	52	139	Measure	0.256	0.400	0.400	0.400
	n77	3544.98	7.00	5						Measure	0.251	0.400	0.400	0.400
Sub4 (SRS1)	n48	3694.98	7.00	5	5	74	34	193	5	Measure	0.400	0.038	0.400	0.256
	n77	3544.98	7.00	5						Measure	0.400	0.037	0.400	0.251
WIFI1	2.4 GHz	2462	19.00	79	5	5	113	16	196	Measure	Measure	0.400	Measure	0.400
	U-NII-2A	5320	17.00	50						Measure	Measure	0.400	Measure	0.400
	U-NII-2C	5720	17.00	50						Measure	Measure	0.400	Measure	0.400
	U-NII-3	5825	15.50	35						Measure	Measure	0.400	Measure	0.400
	Bluetooth	2480	17.00	50						Measure	Measure	0.400	Measure	0.400
WIFI2	2.4 GHz	2462	19.00	79	5	24	89	5	198	Measure	Measure	0.400	Measure	0.400
	U-NII-2A	5320	17.00	50						Measure	Measure	0.400	Measure	0.400
	U-NII-2C	5720	17.00	50						Measure	Measure	0.400	Measure	0.400
	U-NII-3	5825	15.50	35						Measure	Measure	0.400	Measure	0.400

- For distances < 5mm, a distance of 5mm is used to determine SAR exclusion and estimated SAR value.
- Output power is the maximum rated power (including tune-up or manufacturing tolerances) and includes source-based averaging.
- If the antenna separation distance is > 50mm then the estimated SAR value is the lesser of the estimated value at 50mm or 0.4 W/Kg.
- Formulas round separation distance to nearest mm and power to nearest mW before calculating estimated SAR or determining if SAR is excluded.

13.1.2 Estimated SAR (Reduced Output Power)

Ant.	Band	Frequency (MHz)	Output power		Separation distances [mm]					SAR Exemption					
			dBm	mW	Rear	Left	Right	Top	Bot.	Rear	Left	Right	Top	Bottom	
Main1	WCDMA 2	1907.6	15.00	32	5	90	12	5	193	Measure	Non-Power-Back-off	Measure	Measure	Non-Power-Back-off	
	WCDMA 4	1752.6	15.00	32						Measure		Measure	Measure		
	WCDMA 5	846.6	18.00	63						Measure		Measure	Measure		
	LTE 2	1909.3	15.00	32						Measure		Measure	Measure		
	LTE 4	1754.3	15.00	32						Measure		Measure	Measure		
	LTE 5	848.3	18.00	63						Measure		Measure	Measure		
	LTE 12	715.3	18.00	63						Measure		Measure	Measure		
	LTE 13	784.5	18.00	63						Measure		Measure	Measure		
	LTE 14	795.5	18.00	63						Measure		Measure	Measure		
	LTE 25	1914.3	15.00	32						Measure		Measure	Measure		
	LTE 26	848.3	18.00	63						Measure		Measure	Measure		
	LTE 66	1779.3	15.00	32						Measure		Measure	Measure		
	LTE 71	695.5	18.00	63						Measure		Measure	Measure		
	n2	1907.5	15.00	32						Measure		Measure	Measure		
	n5	846.5	18.00	63						Measure		Measure	Measure		
	n12	713.5	18.00	63						Measure		Measure	Measure		
n25	1912.5	15.00	32	Measure	Measure	Measure									
n66	1777.5	15.00	32	Measure	Measure	Measure									
n71	695.5	18.00	63	Measure	Measure	Measure									
Main2	LTE 7	2567.5	11.00	13	5	74	38	5	194	Measure	Non-Power-Back-off	Non-Power-Back-off	Measure	Non-Power-Back-off	
	LTE 30	2312.5	15.00	32						Measure			Measure		Measure
	LTE 40	2357.5	15.00	32						Measure			Measure		Measure
	LTE 41 (PC 3)	2687.5	12.00	16						Measure			Measure		Measure
	LTE 48	3697.5	13.50	22						Measure			Measure		Measure
	n30	2312.5	14.00	25						Measure			Measure		Measure
	n41 (PC 2)	2685	9.00	8						Measure			Measure		Measure
	n48	3694.98	9.00	8						Measure			Measure		Measure
n77	3544.98	9.00	8	Measure	Measure	Measure									
Sub1	LTE 2 (Sub)	1909.3	15.00	32	5	92	12	193	5	Measure	Non-Power-Back-off	Non-Power-Back-off	Measure	Non-Power-Back-off	
	LTE 4 (Sub)	1754.3	15.00	32						Measure			Measure		Measure
	LTE 7 (Sub)	2567.5	11.00	13						Measure			Measure		Measure
	LTE 66 (Sub)	1779.3	15.00	32						Measure			Measure		Measure

Ant.	Band	Frequency (MHz)	Output power		Separation distances [mm]					SAR Exemption				
			dBm	mW	Rear	Left	Right	Top	Bot.	Rear	Left	Right	Top	Bottom
WIFI1	2.4 GHz	2462	10.50	11	5	5	113	16	196	Measure	Measure	Non-Power-Back-off	Non-Power-Back-off	Non-Power-Back-off
	U-NII-2A	5320	6.50	4						Measure	Measure			
	U-NII-2C	5720	6.50	4						Measure	Measure			
	U-NII-3	5825	6.50	4						Measure	Measure			
	Bluetooth	2480	13.00	20						Measure	Measure			
WIFI2	2.4 GHz	2462	10.50	11	5	24	89	5	198	Measure	Non-Power-Back-off	Non-Power-Back-off	Measure	Non-Power-Back-off
	U-NII-2A	5320	6.50	4						Measure			Measure	
	U-NII-2C	5720	6.50	4						Measure			Measure	
	U-NII-3	5825	6.50	4						Measure			Measure	

Notes:

- For distances < 5mm, a distance of 5mm is used to determine SAR exclusion and estimated SAR value.
- Output power is the maximum rated power (including tune-up or manufacturing tolerances) and includes source-based averaging.
- If the antenna separation distance is > 50mm then the estimated SAR value is the lesser of the estimated value at 50mm or 0.4 W/Kg.
- 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 D01v06, 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 D01v06 4.3.2 procedures.

No.	Scenario	RF Exposure Condition
		Body
1	Licensed or EN-DC + Bluetooth	Yes
2	Licensed or EN-DC + WLAN 2.4 GHz Ant.1	Yes
3	Licensed or EN-DC + WLAN 5 GHz Ant.2	Yes
4	Licensed or EN-DC + WLAN 2.4 GHz MIMO	Yes
5	Licensed or EN-DC + WLAN 5 GHz MIMO	Yes
6	Licensed or EN-DC + WLAN 5 GHz Ant.2 + Bluetooth	Yes

Notes:

- For EN-DC mods, Samsung S.LSI TAS(Time Average SAR) in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. S.LSI TAS 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.

EN-DC Configuration

No	EN-DC Configuration			
	5G NR		LTE	
	Band	Antenna	Band	Antenna
1	n2	Main 1	B5/12/13/14/71	Main 1
2			B48	Main 2
3	n5	Main 1	B2/66	Main 1
4			B7/30/48	Main 2
5	n12	Main 1	B2/66	Main 1
6	n25	Main 1	B12	Main 1
7			B48	Main 2
8	n30	Main 1	B5/12/14	Main 1
9			B2/66	Sub 1
10	n41	Main 2	B12/25/71	Main 1
11			B2/4/66	Sub 1
12	n48	Main 2	B2/66	Main 1
13	n66	Main 1	B5/12/13/14/71	Main 1
14			B7	Sub 1
15			B48	Main 2
16	n71	Main 1	B2/66	Main 1
17			B7/48	Main 2
18	n77	Main 2	B2/5/12/13/14/66	Main 1
19			B7/30	Main 2
20	n78	Main 2	B2/4/5/12/13/66/71	Main 1
21			B7	Main 2

13.1.4 Simultaneous Transmission Analysis(Standalone)

Band / Position		Band						Summation					
		licensed	WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6
			2.4 GHz Ant.1	2.4 GHz MIMO	5 GHz Ant.2	5 GHz MIMO							
[①]	[②]	[③]	[④]	[⑤]									
WCDMA B.2													
Body	Rear	0.606	0.482	0.750	0.533	1.244	1.115	1.721	1.088	1.139	1.356	1.850	2.254
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.438	0.400	0.400	0.400	0.400	0.400	0.838	0.838	0.838	0.838	0.838	1.238
	Top	0.198	0.028	0.125	0.261	0.347	0.009	0.207	0.226	0.459	0.323	0.545	0.468
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
WCDMA B.4													
Body	Rear	0.767	0.482	0.750	0.533	1.244	1.115	1.882	1.249	1.300	1.517	2.011	2.415
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.624	0.400	0.400	0.400	0.400	0.400	1.024	1.024	1.024	1.024	1.024	1.424
	Top	0.074	0.028	0.125	0.261	0.347	0.009	0.083	0.102	0.335	0.199	0.421	0.344
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
WCDMA B.5													
Body	Rear	0.566	0.482	0.750	0.533	1.244	1.115	1.681	1.048	1.099	1.316	1.810	2.214
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.554	0.400	0.400	0.400	0.400	0.400	0.954	0.954	0.954	0.954	0.954	1.354
	Top	0.301	0.028	0.125	0.261	0.347	0.009	0.310	0.329	0.562	0.426	0.648	0.571
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
LTE B.2(Sub1)													
Body	Rear	0.518	0.482	0.750	0.533	1.244	1.115	1.633	1.000	1.051	1.268	1.762	2.166
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.376	0.400	0.400	0.400	0.400	0.400	0.776	0.776	0.776	0.776	0.776	1.176
	Top	0.400	0.028	0.125	0.261	0.347	0.009	0.409	0.428	0.661	0.525	0.747	0.670
	Bottom	0.323	0.400	0.400	0.400	0.400	0.400	0.723	0.723	0.723	0.723	0.723	1.123
LTE B.5													
Body	Rear	0.563	0.482	0.750	0.533	1.244	1.115	1.678	1.045	1.096	1.313	1.807	2.211
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.551	0.400	0.400	0.400	0.400	0.400	0.951	0.951	0.951	0.951	0.951	1.351
	Top	0.355	0.028	0.125	0.261	0.347	0.009	0.364	0.383	0.616	0.480	0.702	0.625
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
LTE B.7													
Body	Rear	0.729	0.482	0.750	0.533	1.244	1.115	1.844	1.211	1.262	1.479	1.973	2.377
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.363	0.400	0.400	0.400	0.400	0.400	0.763	0.763	0.763	0.763	0.763	1.163
	Top	0.724	0.028	0.125	0.261	0.347	0.009	0.733	0.752	0.985	0.849	1.071	0.994
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
LTE B.7(Sub1)													
Body	Rear	0.401	0.482	0.750	0.533	1.244	1.115	1.516	0.883	0.934	1.151	1.645	2.049
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.306	0.400	0.400	0.400	0.400	0.400	0.706	0.706	0.706	0.706	0.706	1.106
	Top	0.400	0.028	0.125	0.261	0.347	0.009	0.409	0.428	0.661	0.525	0.747	0.670
	Bottom	0.191	0.400	0.400	0.400	0.400	0.400	0.591	0.591	0.591	0.591	0.591	0.991

Band / Position	Band							Summation					
	licensed	WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6	
		2.4 GHz Ant.1	2.4 GHz MIMO	5 GHz Ant.2	5 GHz MIMO								[①+⑥]
[①]	[②]	[③]	[④]	[⑤]									
LTE B.12													
Body	Rear	0.578	0.482	0.750	0.533	1.244	1.115	1.693	1.060	1.111	1.328	1.822	2.226
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.163	0.400	0.400	0.400	0.400	0.400	0.563	0.563	0.563	0.563	0.563	0.963
	Top	0.307	0.028	0.125	0.261	0.347	0.009	0.316	0.335	0.568	0.432	0.654	0.577
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
LTE B.13													
Body	Rear	0.432	0.482	0.750	0.533	1.244	1.115	1.547	0.914	0.965	1.182	1.676	2.080
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.322	0.400	0.400	0.400	0.400	0.400	0.722	0.722	0.722	0.722	0.722	1.122
	Top	0.383	0.028	0.125	0.261	0.347	0.009	0.392	0.411	0.644	0.508	0.730	0.653
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
LTE B.14													
Body	Rear	0.397	0.482	0.750	0.533	1.244	1.115	1.512	0.879	0.930	1.147	1.641	2.045
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.349	0.400	0.400	0.400	0.400	0.400	0.749	0.749	0.749	0.749	0.749	1.149
	Top	0.369	0.028	0.125	0.261	0.347	0.009	0.378	0.397	0.630	0.494	0.716	0.639
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
LTE B.25													
Body	Rear	0.531	0.482	0.750	0.533	1.244	1.115	1.646	1.013	1.064	1.281	1.775	2.179
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.204	0.400	0.400	0.400	0.400	0.400	0.604	0.604	0.604	0.604	0.604	1.004
	Top	0.184	0.028	0.125	0.261	0.347	0.009	0.193	0.212	0.445	0.309	0.531	0.454
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
LTE B.26													
Body	Rear	0.471	0.482	0.750	0.533	1.244	1.115	1.586	0.953	1.004	1.221	1.715	2.119
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.418	0.400	0.400	0.400	0.400	0.400	0.818	0.818	0.818	0.818	0.818	1.218
	Top	0.312	0.028	0.125	0.261	0.347	0.009	0.321	0.340	0.573	0.437	0.659	0.582
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
LTE B.30													
Body	Rear	0.822	0.482	0.750	0.533	1.244	1.115	1.937	1.304	1.355	1.572	2.066	2.470
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.163	0.400	0.400	0.400	0.400	0.400	0.563	0.563	0.563	0.563	0.563	0.963
	Top	0.473	0.028	0.125	0.261	0.347	0.009	0.482	0.501	0.734	0.598	0.820	0.743
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
LTE B.40													
Body	Rear	0.377	0.482	0.750	0.533	1.244	1.115	1.492	0.859	0.910	1.127	1.621	2.025
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.091	0.400	0.400	0.400	0.400	0.400	0.491	0.491	0.491	0.491	0.491	0.891
	Top	0.241	0.028	0.125	0.261	0.347	0.009	0.250	0.269	0.502	0.366	0.588	0.511
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
LTE B.41													
Body	Rear	0.476	0.482	0.750	0.533	1.244	1.115	1.591	0.958	1.009	1.226	1.720	2.124
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.320	0.400	0.400	0.400	0.400	0.400	0.720	0.720	0.720	0.720	0.720	1.120
	Top	0.739	0.028	0.125	0.261	0.347	0.009	0.748	0.767	1.000	0.864	1.086	1.009
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200

Band / Position	Band							Summation					
	licensed	WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6	
		2.4 GHz Ant.1	2.4 GHz MIMO	5 GHz Ant.2	5 GHz MIMO								[①+⑥]
[①]	[②]	[③]	[④]	[⑤]									
LTE B.48													
Body	Rear	0.477	0.482	0.750	0.533	1.244	1.115	1.592	0.959	1.010	1.227	1.721	2.125
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.340	0.400	0.400	0.400	0.400	0.400	0.740	0.740	0.740	0.740	0.740	1.140
	Top	0.148	0.028	0.125	0.261	0.347	0.009	0.157	0.176	0.409	0.273	0.495	0.418
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
LTE B.66													
Body	Rear	0.502	0.482	0.750	0.533	1.244	1.115	1.617	0.984	1.035	1.252	1.746	2.150
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.663	0.400	0.400	0.400	0.400	0.400	1.063	1.063	1.063	1.063	1.063	1.463
	Top	0.087	0.028	0.125	0.261	0.347	0.009	0.096	0.115	0.348	0.212	0.434	0.357
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
LTE B.66(Sub1)													
Body	Rear	0.392	0.482	0.750	0.533	1.244	1.115	1.507	0.874	0.925	1.142	1.636	2.040
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.357	0.400	0.400	0.400	0.400	0.400	0.757	0.757	0.757	0.757	0.757	1.157
	Top	0.400	0.028	0.125	0.261	0.347	0.009	0.409	0.428	0.661	0.525	0.747	0.670
	Bottom	0.243	0.400	0.400	0.400	0.400	0.400	0.643	0.643	0.643	0.643	0.643	1.043
LTE B.71													
Body	Rear	0.553	0.482	0.750	0.533	1.244	1.115	1.668	1.035	1.086	1.303	1.797	2.201
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.107	0.400	0.400	0.400	0.400	0.400	0.507	0.507	0.507	0.507	0.507	0.907
	Top	0.251	0.028	0.125	0.261	0.347	0.009	0.260	0.279	0.512	0.376	0.598	0.521
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
NR n5													
Body	Rear	0.640	0.482	0.750	0.533	1.244	1.115	1.755	1.122	1.173	1.390	1.884	2.288
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.624	0.400	0.400	0.400	0.400	0.400	1.024	1.024	1.024	1.024	1.024	1.424
	Top	0.337	0.028	0.125	0.261	0.347	0.009	0.346	0.365	0.598	0.462	0.684	0.607
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
NR n12													
Body	Rear	0.666	0.482	0.750	0.533	1.244	1.115	1.781	1.148	1.199	1.416	1.910	2.314
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.197	0.400	0.400	0.400	0.400	0.400	0.597	0.597	0.597	0.597	0.597	0.997
	Top	0.289	0.028	0.125	0.261	0.347	0.009	0.298	0.317	0.550	0.414	0.636	0.559
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
NR n25													
Body	Rear	0.565	0.482	0.750	0.533	1.244	1.115	1.680	1.047	1.098	1.315	1.809	2.213
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.231	0.400	0.400	0.400	0.400	0.400	0.631	0.631	0.631	0.631	0.631	1.031
	Top	0.196	0.028	0.125	0.261	0.347	0.009	0.205	0.224	0.457	0.321	0.543	0.466
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200

Band / Position	Band						Summation						
	licensed	WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6	
		2.4 GHz Ant.1	2.4 GHz MIMO	5 GHz Ant.2	5 GHz MIMO								[①+⑥]
[①]	[②]	[③]	[④]	[⑤]									
NR n30													
Body	Rear	0.748	0.482	0.750	0.533	1.244	1.115	1.863	1.230	1.281	1.498	1.992	2.396
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.105	0.400	0.400	0.400	0.400	0.400	0.505	0.505	0.505	0.505	0.505	0.905
	Top	0.388	0.028	0.125	0.261	0.347	0.009	0.397	0.416	0.649	0.513	0.735	0.658
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
NR n41													
Body	Rear	0.398	0.482	0.750	0.533	1.244	1.115	1.513	0.880	0.931	1.148	1.642	2.046
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.321	0.400	0.400	0.400	0.400	0.400	0.721	0.721	0.721	0.721	0.721	1.121
	Top	0.477	0.028	0.125	0.261	0.347	0.009	0.486	0.505	0.738	0.602	0.824	0.747
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
NR n48													
Body	Rear	0.386	0.482	0.750	0.533	1.244	1.115	1.501	0.868	0.919	1.136	1.630	2.034
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.383	0.400	0.400	0.400	0.400	0.400	0.783	0.783	0.783	0.783	0.783	1.183
	Top	0.062	0.028	0.125	0.261	0.347	0.009	0.071	0.090	0.323	0.187	0.409	0.332
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
NR n48(SRS#1, Sub4 Ant.)													
Body	Rear	1.038	0.482	0.750	0.533	1.244	1.115	2.153	1.520	1.571	1.788	2.282	2.686
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.038	0.400	0.400	0.400	0.400	0.400	0.438	0.438	0.438	0.438	0.438	0.838
	Top	0.400	0.028	0.125	0.261	0.347	0.009	0.409	0.428	0.661	0.525	0.747	0.670
	Bottom	0.256	0.400	0.400	0.400	0.400	0.400	0.656	0.656	0.656	0.656	0.656	1.056
NR n48(SRS#2, Sub3 Ant.)													
Body	Rear	0.834	0.482	0.750	0.533	1.244	1.115	1.949	1.316	1.367	1.584	2.078	2.482
	Left	0.256	0.141	0.339	0.178	0.573	0.291	0.547	0.397	0.434	0.595	0.829	0.725
	Right	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
	Top	0.400	0.028	0.125	0.261	0.347	0.009	0.409	0.428	0.661	0.525	0.747	0.670
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
NR n48(SRS#3, Sub2 Ant.)													
Body	Rear	0.533	0.482	0.750	0.533	1.244	1.115	1.648	1.015	1.066	1.283	1.777	2.181
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.047	0.400	0.400	0.400	0.400	0.400	0.447	0.447	0.447	0.447	0.447	0.847
	Top	0.400	0.028	0.125	0.261	0.347	0.009	0.409	0.428	0.661	0.525	0.747	0.670
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
NR n66													
Body	Rear	0.717	0.482	0.750	0.533	1.244	1.115	1.832	1.199	1.250	1.467	1.961	2.365
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.776	0.400	0.400	0.400	0.400	0.400	1.176	1.176	1.176	1.176	1.176	1.576
	Top	0.084	0.028	0.125	0.261	0.347	0.009	0.093	0.112	0.345	0.209	0.431	0.354
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
NR n71													
Body	Rear	0.626	0.482	0.750	0.533	1.244	1.115	1.741	1.108	1.159	1.376	1.870	2.274
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.129	0.400	0.400	0.400	0.400	0.400	0.529	0.529	0.529	0.529	0.529	0.929
	Top	0.299	0.028	0.125	0.261	0.347	0.009	0.308	0.327	0.560	0.424	0.646	0.569
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200

Band / Position	Band						Summation						
	licensed	WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6	
		2.4 GHz Ant.1	2.4 GHz MIMO	5 GHz Ant.2	5 GHz MIMO								[①+⑥]
[①]	[②]	[③]	[④]	[⑤]									
NR n77													
Body	Rear	0.340	0.482	0.750	0.533	1.244	1.115	1.455	0.822	0.873	1.090	1.584	1.988
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.434	0.400	0.400	0.400	0.400	0.400	0.834	0.834	0.834	0.834	0.834	1.234
	Top	0.290	0.028	0.125	0.261	0.347	0.009	0.299	0.318	0.551	0.415	0.637	0.560
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
NR n77(SRS#1, Sub4 Ant.)													
Body	Rear	1.097	0.482	0.750	0.533	1.244	1.115	2.212	1.579	1.630	1.847	2.341	2.745
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.037	0.400	0.400	0.400	0.400	0.400	0.437	0.437	0.437	0.437	0.437	0.837
	Top	0.400	0.028	0.125	0.261	0.347	0.009	0.409	0.428	0.661	0.525	0.747	0.670
	Bottom	0.251	0.400	0.400	0.400	0.400	0.400	0.651	0.651	0.651	0.651	0.651	1.051
NR n77(SRS#2, Sub3 Ant.)													
Body	Rear	0.926	0.482	0.750	0.533	1.244	1.115	2.041	1.408	1.459	1.676	2.170	2.574
	Left	0.251	0.141	0.339	0.178	0.573	0.291	0.542	0.392	0.429	0.590	0.824	0.720
	Right	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
	Top	0.400	0.028	0.125	0.261	0.347	0.009	0.409	0.428	0.661	0.525	0.747	0.670
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200
NR n77(SRS#3, Sub2 Ant.)													
Body	Rear	0.539	0.482	0.750	0.533	1.244	1.115	1.654	1.021	1.072	1.289	1.783	2.187
	Left	0.400	0.141	0.339	0.178	0.573	0.291	0.691	0.541	0.578	0.739	0.973	0.869
	Right	0.091	0.400	0.400	0.400	0.400	0.400	0.491	0.491	0.491	0.491	0.491	0.891
	Top	0.400	0.028	0.125	0.261	0.347	0.009	0.409	0.428	0.661	0.525	0.747	0.670
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.800	0.800	0.800	0.800	0.800	1.200

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 D01v06.
- 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.
- Yellow entries was verified in section 13.2 by the SPLSR.
- Green entries was applied estimated SAR values.

<p>Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-5008-1021 FAX: 82-505-299-8311 www.kctl.co.kr</p>	<p>Report No.: KR23-SPF0043-B Page (381) of (910)</p>	
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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 SAR₁ and SAR₂ 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.

13.2.1 Hybrid SPLSR Procedure

Nov. 2019 TCB Workshop (SPLSR Hotspot Combination)

For devices whose simultaneous SAR is > 1.6 W/kg and who do not meet the SPLSR criteria, enlarged zoom scan/volume scan procedure is available.

This procedure can be quite time consuming, especially for devices where antennas are spatially separated.

Often needed only because one co-located antenna pair does not meet SPLSR.

Hybrid SPLSR and enlarged zoom scan/volume scan approach now being considered.

Can only be applied when simultaneous transmission SAR is > 1.6 W/kg, it does not meet SPLSR criteria, and antenna pair is co-located.

The Hybrid SPLSR was performed according to the following Test Procedure:

step1) Perform enlarged zoom scan/volume scan on the co-located antenna pair to determine 1g/10g aggregate SAR

Step2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair

1. Standalone SAR Numbering

licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

2. Combination for Hybrid SPLSR

No	Mode	Position	Combination	Scenario	Scaled 1g SAR	Coordinates		
						X	Y	Z
1	Body	Rear	④+⑥	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

WLAN 5 GHz Ant.2 Standalone Volume Scan Plot – Rear

Date: 11/13/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
 File Name: [3. WLAN 5.3GHz WIFI2 Body VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

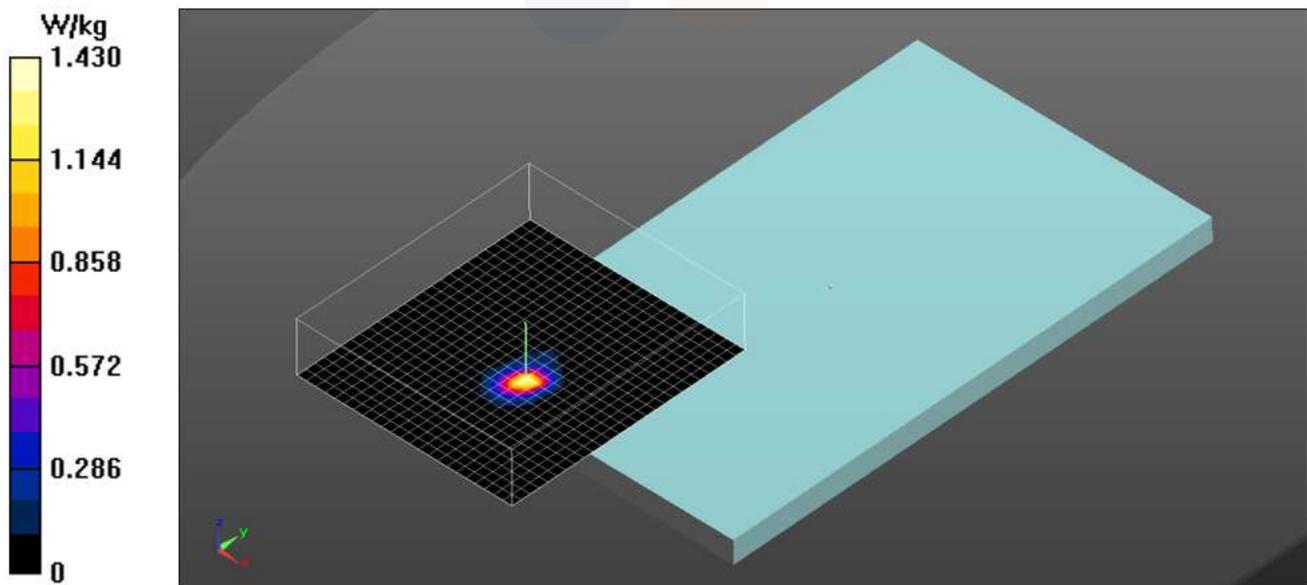
Communication System: UID 0, 5GWLAN (0); Frequency: 5260 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5260 \text{ MHz}$; $\sigma = 4.577 \text{ S/m}$; $\epsilon_r = 36.983$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(4.8, 4.8, 4.8) @ 5260 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WLAN5GHz_802.11a_Ch52_WIFI2_Rear_0 mm_Grip Sensor On/Volume Scan (24x27x7):

Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$
 Reference Value = 18.47 V/m; Power Drift = -0.16 dB
 Peak SAR (extrapolated) = 4.19 W/kg
SAR(1 g) = 0.476 W/kg; SAR(10 g) = 0.093 W/kg
 Total Absorbed Power = 0.00109 W
 Maximum value of SAR (measured) = 1.43 W/kg



Bluetooth Standalone Volume Scan Plot – Rear

Date: 11/10/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
 File Name: [2. Bluetooth_BDR_Body_VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

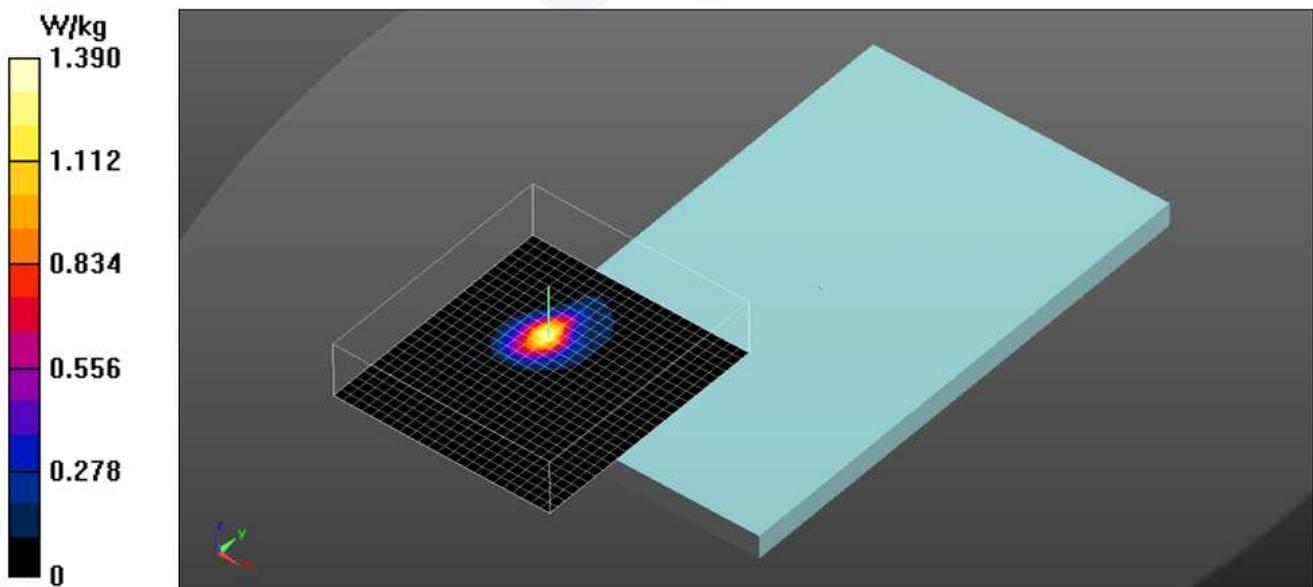
Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz; Duty Cycle: 1:1.30167
 Medium parameters used (interpolated): $f = 2402$ MHz; $\sigma = 1.714$ S/m; $\epsilon_r = 39.033$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.2, 7.2, 7.2) @ 2402 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/Bluetooth_DH5_BDR_Ch0_Rear_0 mm Grip Sensor on VS/Volume Scan (24x27x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 29.60 V/m; Power Drift = 0.07 dB
 Peak SAR (extrapolated) = 2.09 W/kg
SAR(1 g) = 0.667 W/kg; SAR(10 g) = 0.231 W/kg
 Total Absorbed Power = 0.00459 W

Info: Interpolated medium parameters used for SAR evaluation.
 Maximum value of SAR (measured) = 1.39 W/kg



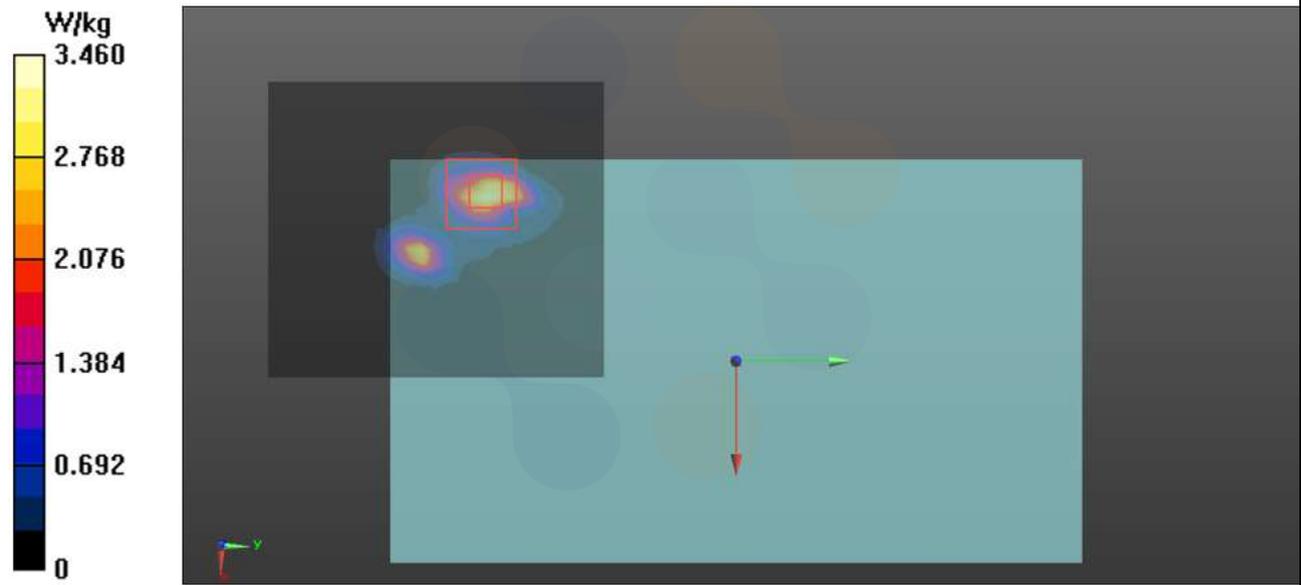
No.1 : Max Power Volume Scan Scenario : WLAN 5 GHz Ant.2 + Bluetooth

Multi-Band Average SAR
Multi-Band Configurations:

DASY Configuration for Configuration/Bluetooth_DH5_BDR_Ch0_Rear_0 mm Grip Sensor on VS/Volume Scan:

DASY Configuration for Configuration/WLAN5GHz_802.11a_Ch52_WIFI2_Rear_0 mm_Grip Sensor On/Volume Scan:

Multi Band Result:
SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.398 W/kg
Maximum value of SAR (interpolated) = 3.46 W/kg



13.3 Standalone SPLSR(Hybrid) and Volume Scan Analysis

Summary Table

Band	Mode	Simultaneous Scenario No	Highest SPLSR ≤ 0.04 Limit	Volume scan	
				Required (Yes / No)	Combined SAR Result (W/kg)
WCDMA II	Body	1	0.02	No	N/A
		5	0.03	No	N/A
		6	0.02	No	N/A
WCDMA IV		1	0.02	No	N/A
		5	0.03	No	N/A
		6	0.02	No	N/A
WCDMA V		1	0.02	No	N/A
		5	0.03	No	N/A
		6	0.02	No	N/A
LTE Band 2 (Sub 1)		1	0.01	No	N/A
		5	0.01	No	N/A
		6	0.01	No	N/A
LTE Band 5		1	0.02	No	N/A
		5	0.03	No	N/A
		6	0.03	No	N/A
LTE Band 7 (Main2)		1	0.03	No	N/A
		5	0.04	No	N/A
		6	0.04	No	N/A
LTE Band 7 (Sub1)		5	0.01	No	N/A
		6	0.01	No	N/A
LTE Band 12		1	0.02	No	N/A
		5	0.03	No	N/A
		6	0.03	No	N/A
LTE Band 13		5	0.02	No	N/A
		6	0.02	No	N/A
LTE Band 14		5	0.02	No	N/A
		6	0.02	No	N/A
LTE Band 25		1	0.02	No	N/A
		5	0.02	No	N/A
		6	0.02	No	N/A
LTE Band 26	5	0.02	No	N/A	
	6	0.02	No	N/A	
LTE Band 30	1	0.04	No	N/A	
	5	0.04	No	N/A	
	6	0.04	No	N/A	
LTE Band 40	5	0.03	No	N/A	
	6	0.03	No	N/A	

Band	Mode	Simultaneous Scenario No	Highest SPLSR ≤ 0.04 Limit	Volume scan	
				Required (Yes / No)	Combined SAR Result (W/kg)
LTE Band 41	Body	1	0.04	No	N/A
		5	0.04	No	N/A
		6	0.04	No	N/A
LTE Band 48		5	0.03	No	N/A
		6	0.03	No	N/A
LTE Band 66 (Main1)		1	0.02	No	N/A
		5	0.02	No	N/A
		6	0.02	No	N/A
LTE Band 66 (Sub1)		5	0.01	No	N/A
		6	0.01	No	N/A
LTE Band 71		1	0.03	No	N/A
		4	0.02	No	N/A
		5	0.03	No	N/A
		6	0.03	No	N/A
5G NR n5		1	0.03	No	N/A
		5	0.03	No	N/A
		6	0.03	No	N/A
5G NR n12		1	0.03	No	N/A
		5	0.03	No	N/A
		6	0.03	No	N/A
5G NR n25		1	0.02	No	N/A
		5	0.02	No	N/A
		6	0.02	No	N/A
5G NR n30		1	0.03	No	N/A
		5	0.04	No	N/A
		6	0.04	No	N/A
5G NR n41		1	0.04	No	N/A
		5	0.04	No	N/A
		6	0.04	No	N/A
5G NR n48		5	0.03	No	N/A
	6	0.03	No	N/A	
5G NR n48 SRS#1	1	0.02	No	N/A	
	4	0.01	No	N/A	
	5	0.02	No	N/A	
	6	0.02	No	N/A	
5G NR n48 SRS#2	1	0.07	Yes	1.170	
	5	0.10	Yes	1.140	
	6	0.07	Yes	1.180	
5G NR n48 SRS#3	1	0.01	No	N/A	
	5	0.01	No	N/A	
	6	0.01	No	N/A	

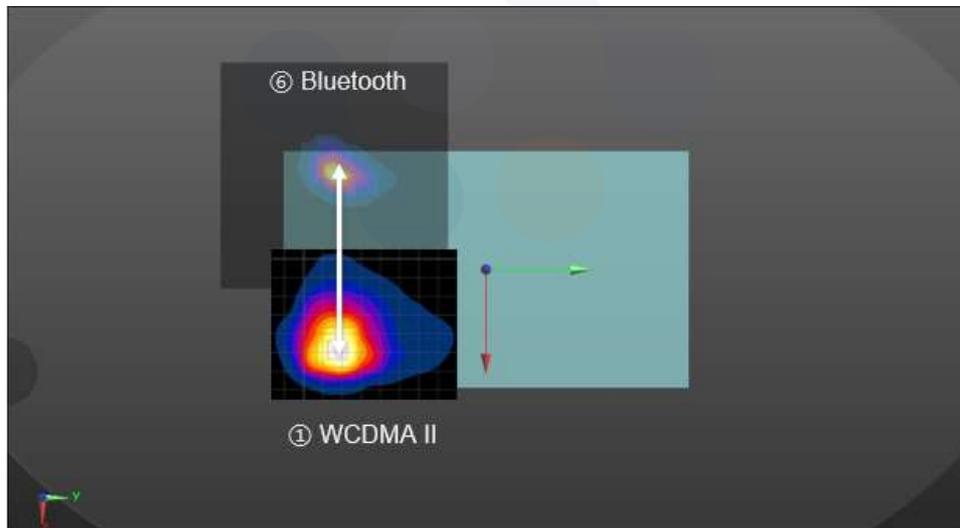
Band	Mode	Simultaneous Scenario No	Highest SPLSR ≤ 0.04 Limit	Volume scan	
				Required (Yes / No)	Combined SAR Result (W/kg)
5G NR n66	Body	1	0.03	No	N/A
		5	0.03	No	N/A
		6	0.03	No	N/A
5G NR n71		1	0.03	No	N/A
		4	0.02	No	N/A
		5	0.03	No	N/A
5G NR n77		6	0.03	No	N/A
		1	0.03	No	N/A
		5	0.04	No	N/A
5G NR n77 SRS#1		6	0.03	No	N/A
		1	0.02	No	N/A
		3	0.01	No	N/A
		4	0.01	No	N/A
		5	0.02	No	N/A
5G NR n77 SRS#2		6	0.02	No	N/A
		1	0.07	Yes	1.180
		4	0.05	Yes	0.928
		5	0.10	Yes	1.150
5G NR n77 SRS#3	6	0.07	Yes	1.180	
	1	0.01	No	N/A	
	5	0.01	No	N/A	
	6	0.01	No	N/A	

13.3.1 WCDMA II

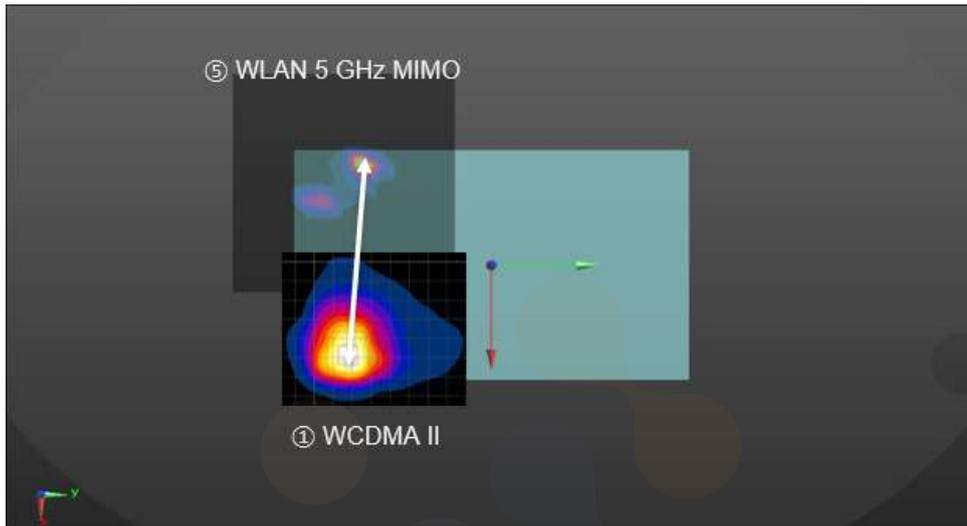
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

WCDMA II SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.721	1.850	2.254
Volume scan	Not Required		

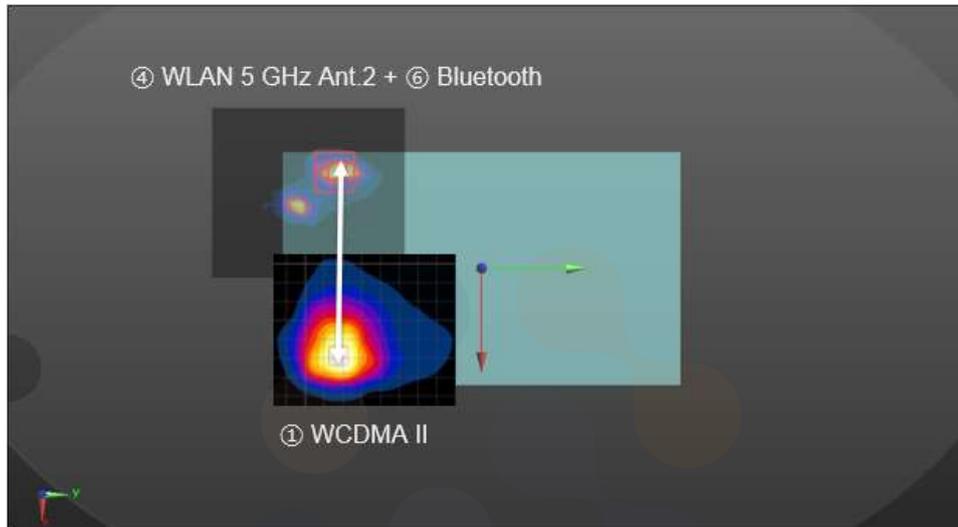
Scenario No.		Scenario		Position			SUM
1		[①]+[⑥]		Rear			1.721
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
103.13	0.02	①	WCDMA II	0.606	0.04910	-0.08780	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.850	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
102.42	0.03	①	WCDMA II	0.606	0.04910	-0.08780	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.254	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
100.92	0.02	①	WCDMA II	0.606	0.04910	-0.08780	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

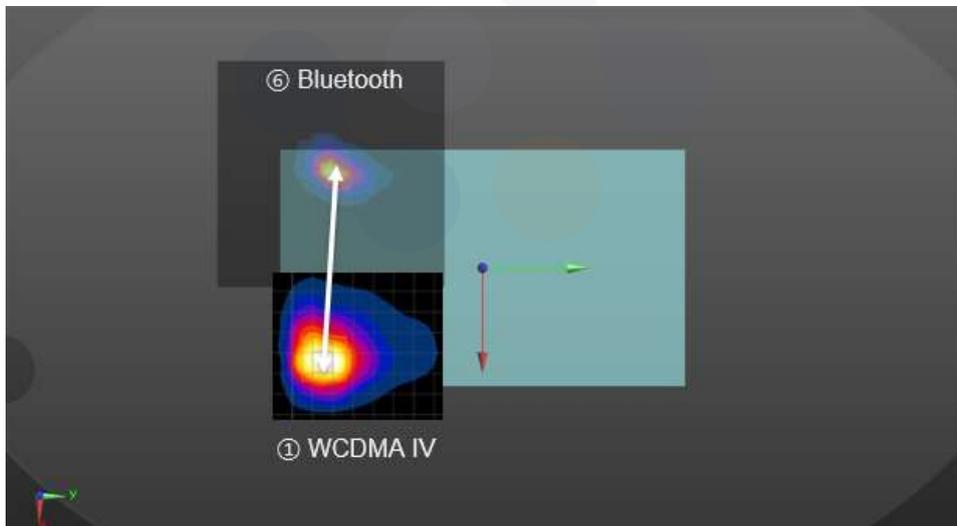


13.3.2 WCDMA IV

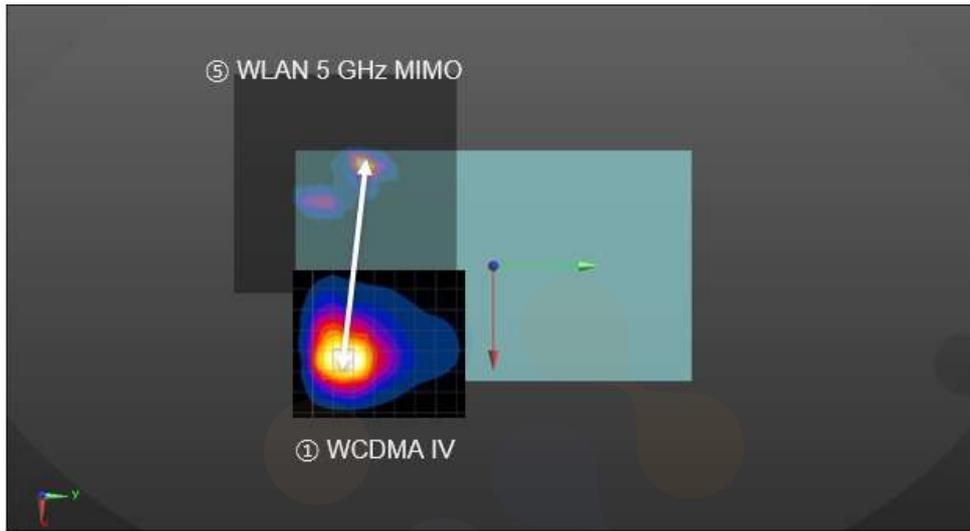
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

WCDMA IV SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.882	2.011	2.415
Volume scan	Not Required		

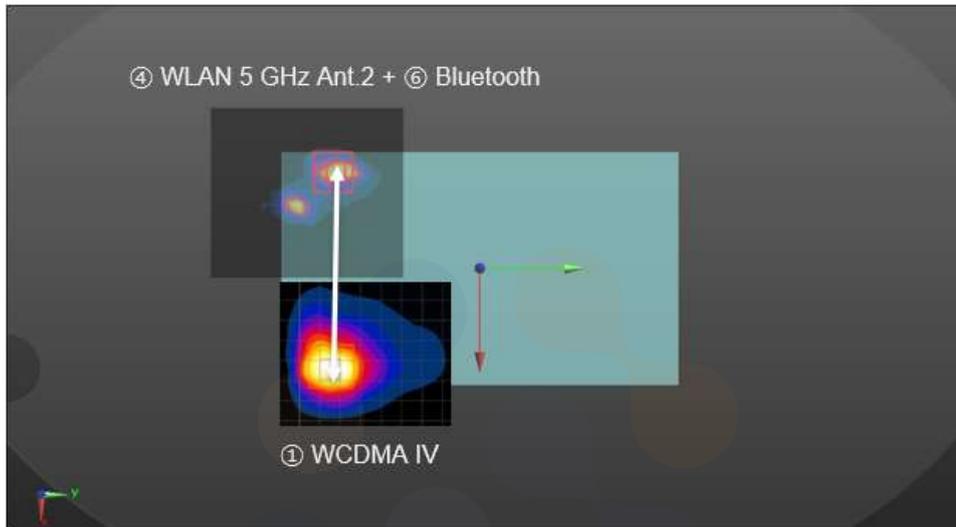
Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	1.882				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
113.16	0.02	①	WCDMA IV	0.767	0.05860	-0.09280	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		2.011	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
112.72	0.03	①	WCDMA IV	0.767	0.05860	-0.09280	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.415	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
110.95	0.02	①	WCDMA IV	0.767	0.05860	-0.09280	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

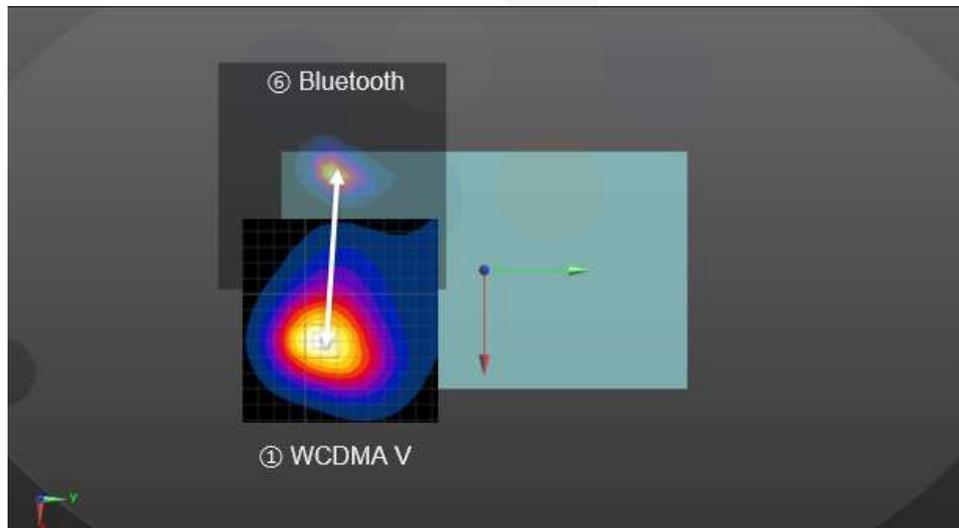


13.3.3 WCDMA V

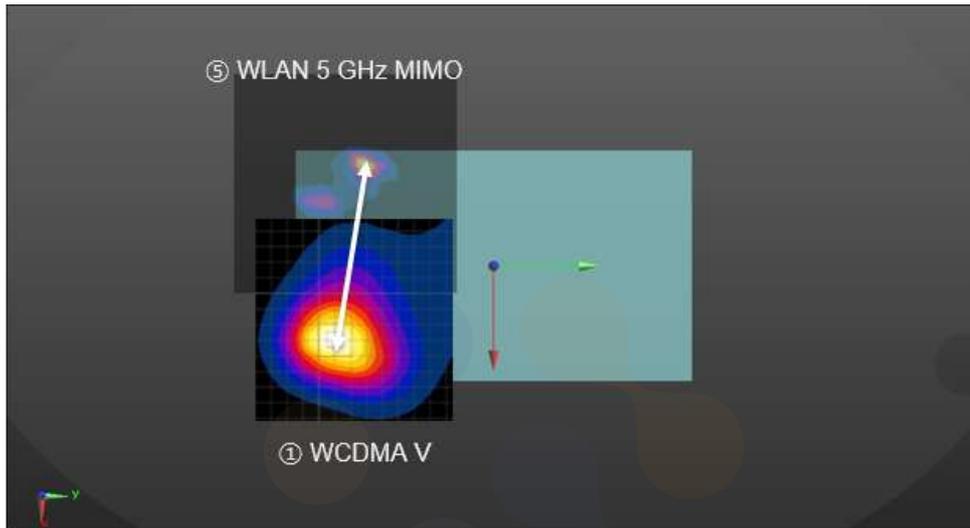
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

WCDMA V SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.681	1.810	2.214
Volume scan	Not Required		

Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	1.681				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
98.51	0.02	①	WCDMA V	0.566	0.04340	-0.09480	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.810	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
98.41	0.03	①	WCDMA V	0.566	0.04340	-0.09480	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.214	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
96.32	0.02	①	WCDMA V	0.566	0.04340	-0.09480	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

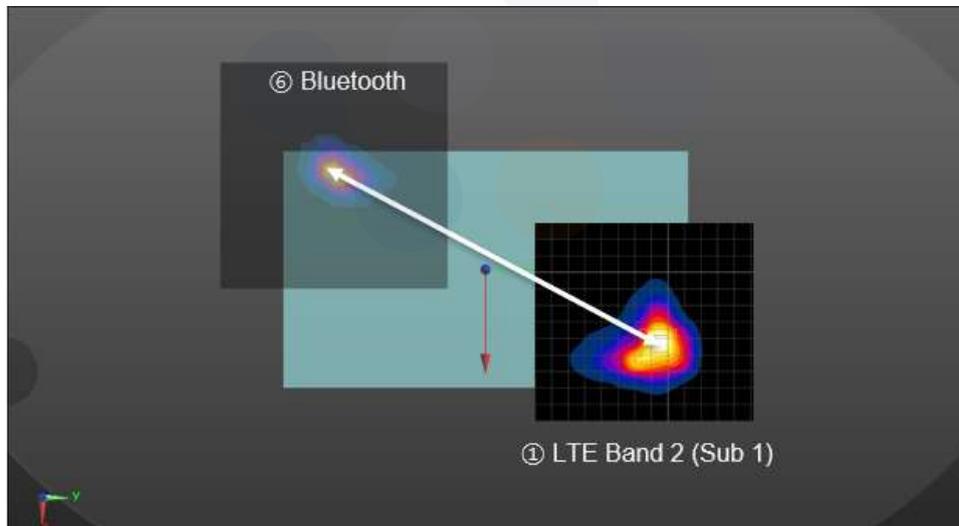


12.3.4 LTE Band 2 (Sub1)

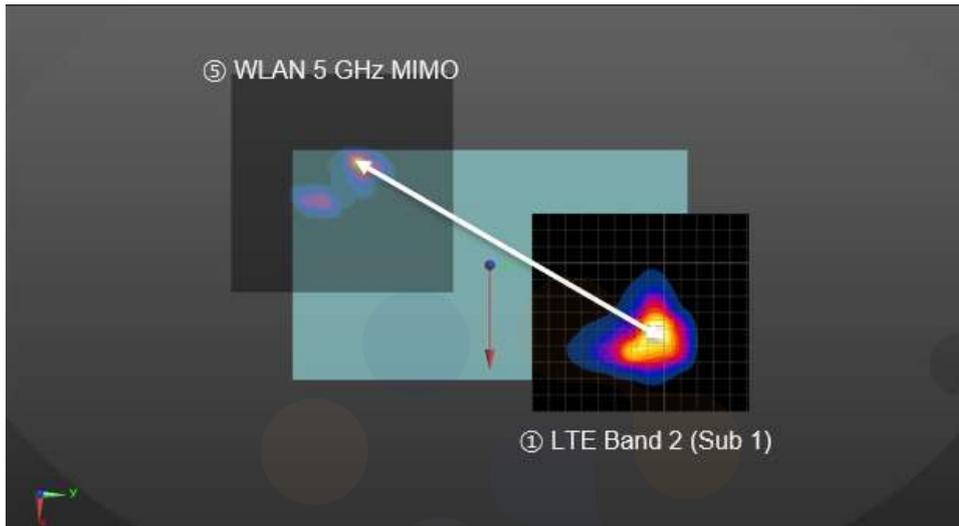
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 2 (Sub 1) SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.633	1.762	2.166
Volume scan	Not Required		

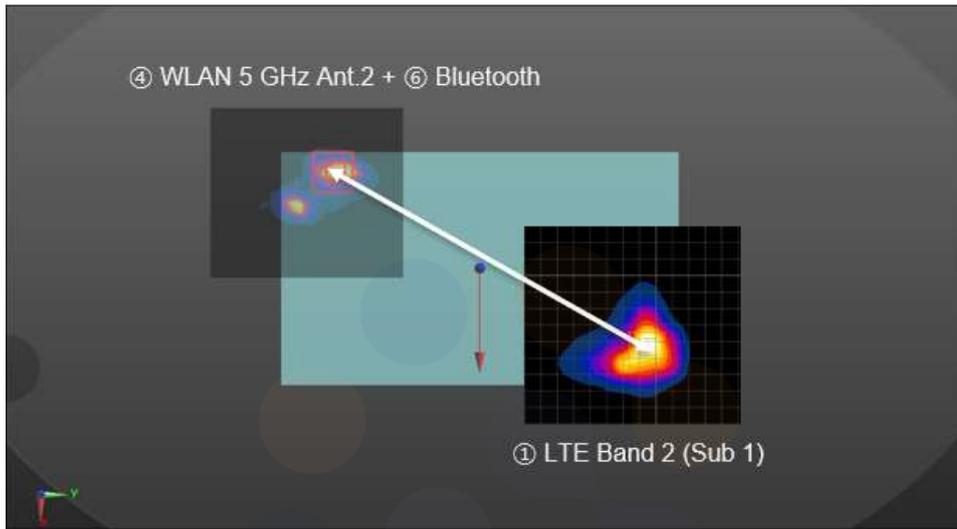
Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	1.633				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
196.53	0.01	①	LTE Band 2 (Sub 1)	0.518	0.05380	0.08790	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.762	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
189.19	0.01	①	LTE Band 2 (Sub 1)	0.518	0.05380	0.08790	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.166	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
195.51	0.01	①	LTE Band 2 (Sub 1)	0.518	0.05380	0.08790	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

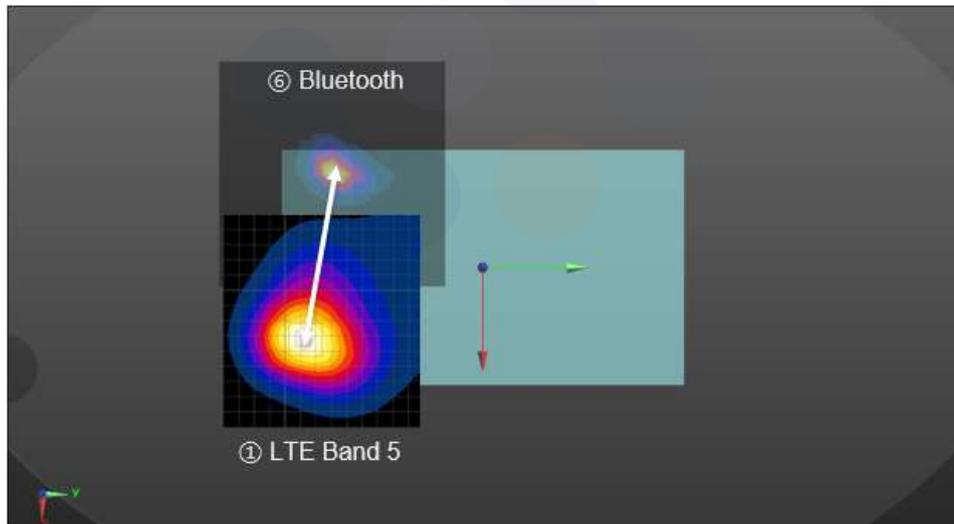


12.3.5 LTE Band 5

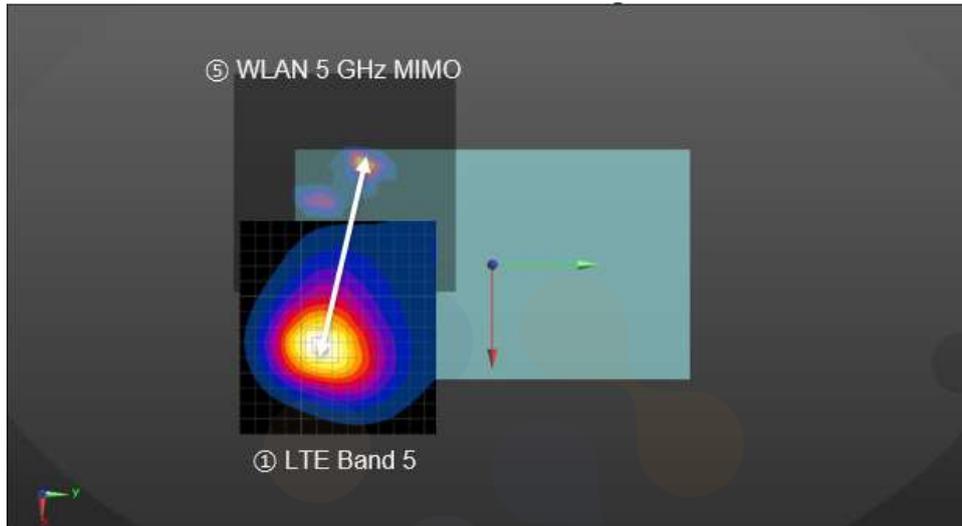
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 5 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.678	1.807	2.211
Volume scan	Not Required		

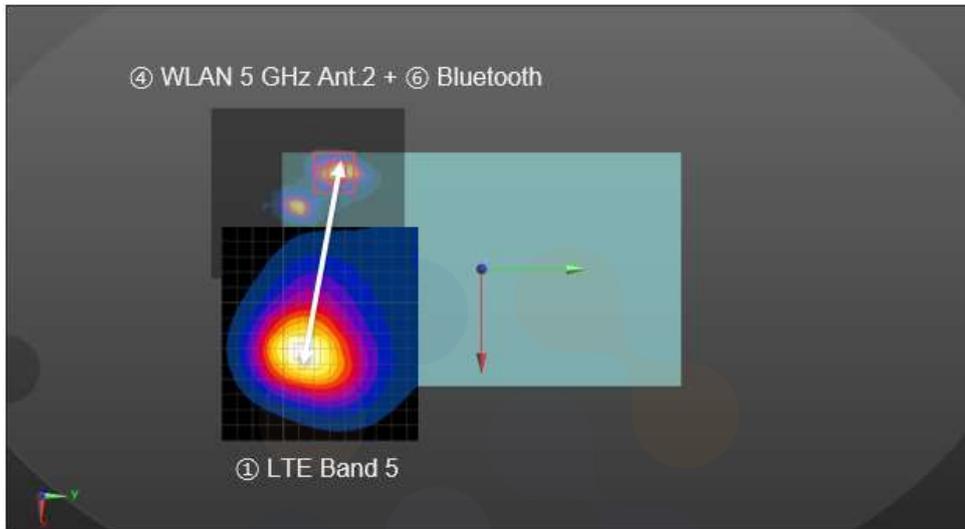
Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	1.678				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
91.66	0.02	①	LTE Band 5	0.563	0.03660	-0.09380	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.807	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
91.59	0.03	①	LTE Band 5	0.563	0.03660	-0.09380	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.211	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
89.47	0.03	①	LTE Band 5	0.563	0.03660	-0.09380	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

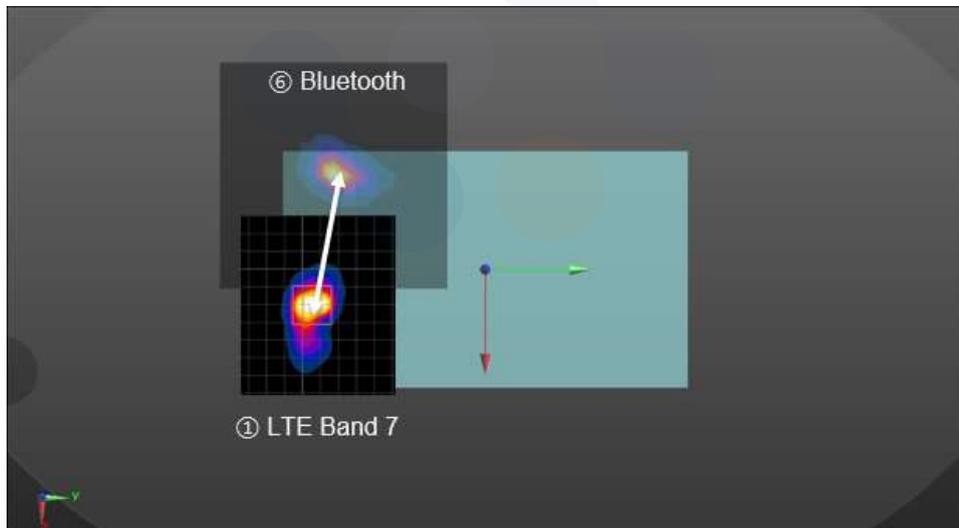


12.3.6 LTE Band 7 (Main2)

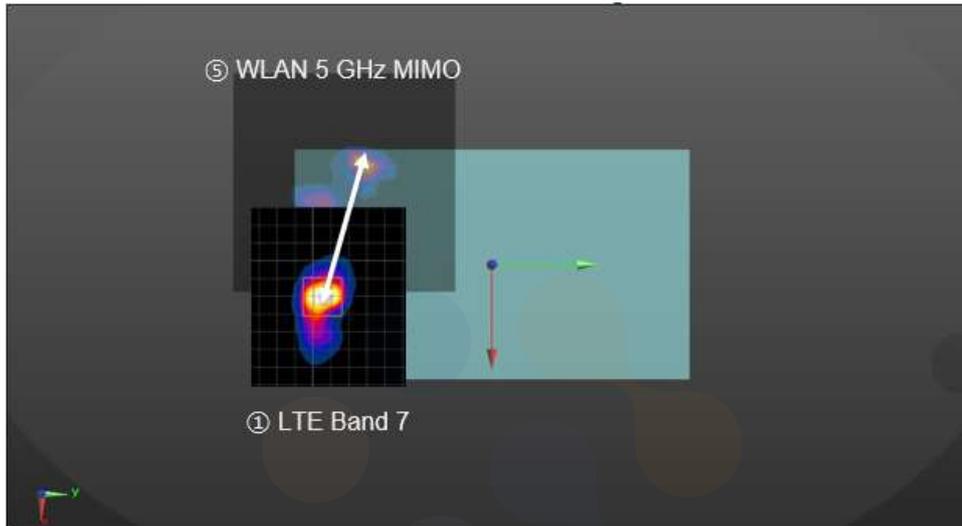
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 7 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.844	1.973	2.377
Volume scan	Not Required		

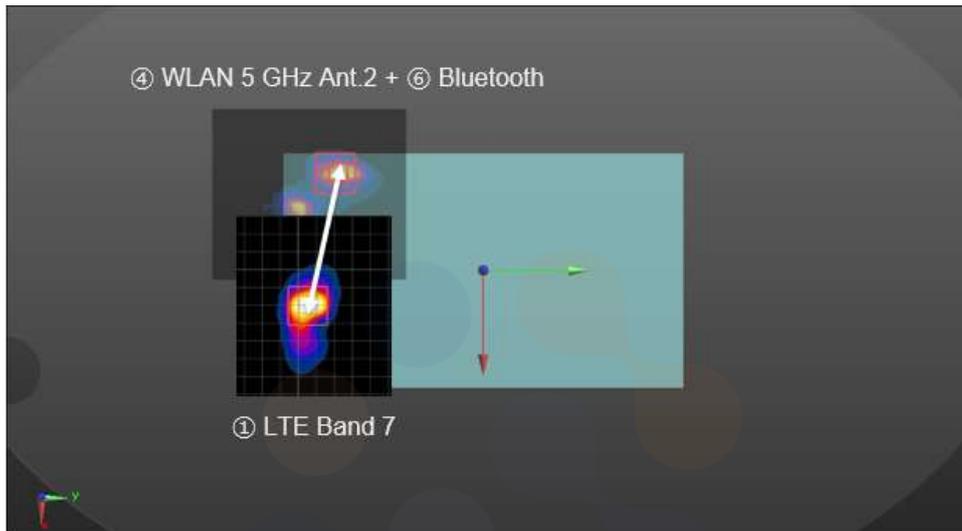
Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	1.844				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
73.22	0.03	①	LTE Band 7	0.729	0.01770	-0.09370	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.973	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
73.53	0.04	①	LTE Band 7	0.729	0.01770	-0.09370	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.377	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
71.05	0.04	①	LTE Band 7	0.729	0.01770	-0.09370	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

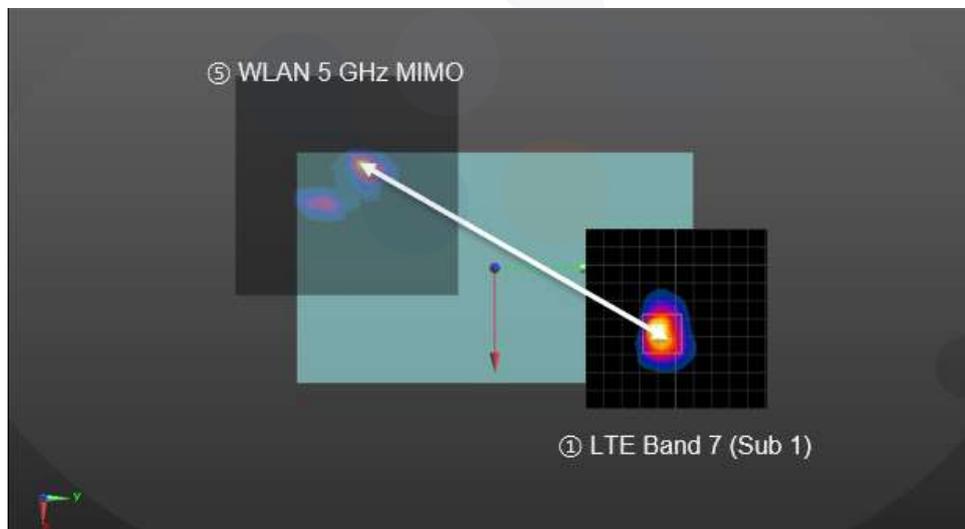


12.3.7 LTE Band 7 (Sub1)

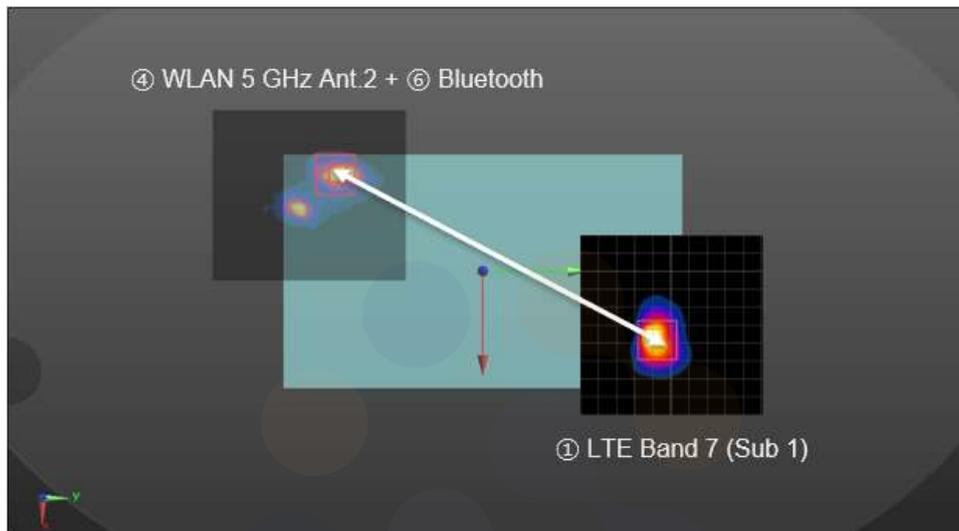
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 7 (Sub 1) SPLSR – Rear Position		
Scenario No.	No.5	No.6
Scenario	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.645	2.049
Volume scan	Not Required	

Scenario No.	Scenario	Position	SUM				
5	[①]+[⑤]	Rear	1.645				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
181.62	0.01	①	LTE Band 7 (Sub 1)	0.401	0.03560	0.09010	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.049	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
188.34	0.01	①	LTE Band 7 (Sub 1)	0.401	0.03560	0.09010	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

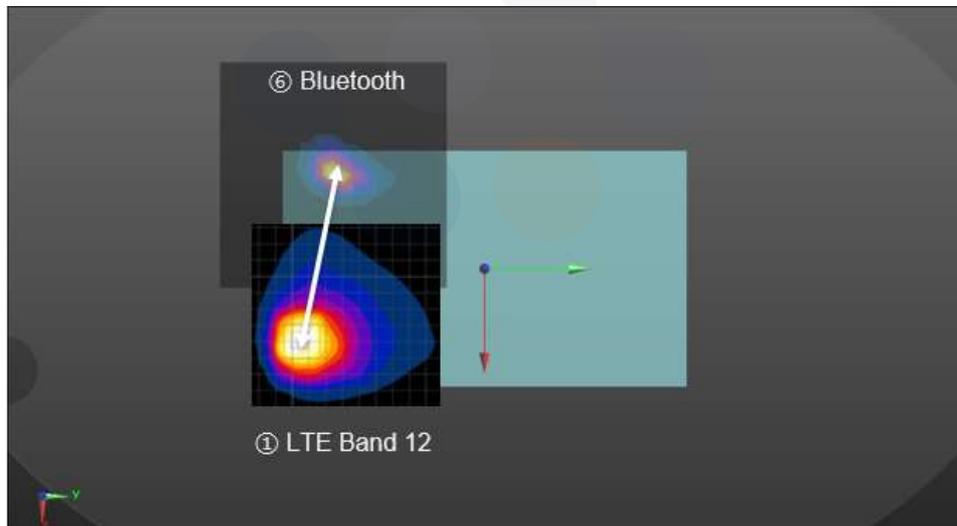


12.3.8 LTE Band 12

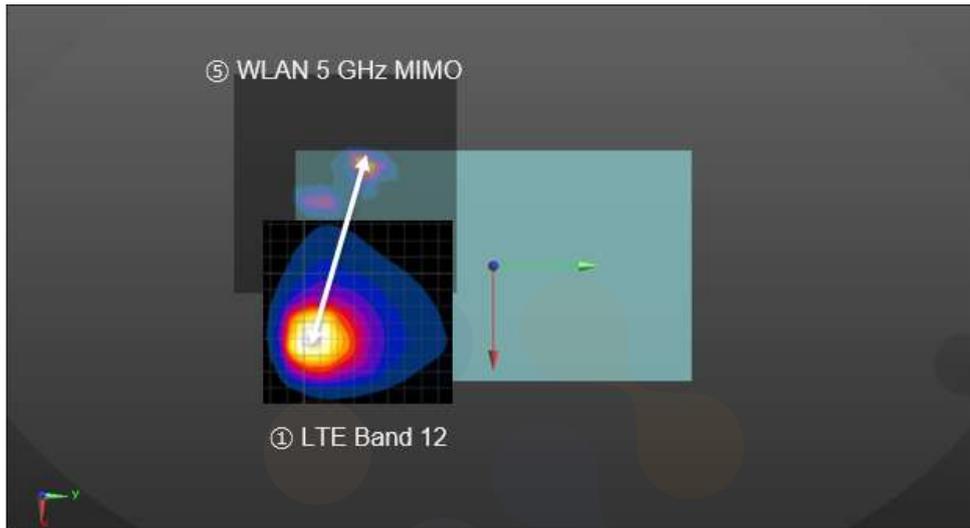
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 12 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.693	1.822	2.226
Volume scan	Not Required		

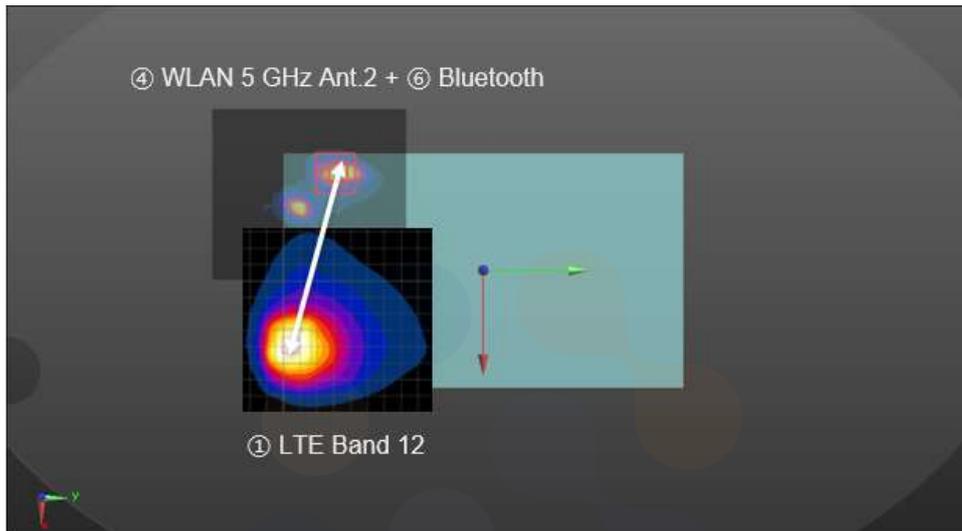
Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	1.693				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
92.69	0.02	①	LTE Band 12	0.578	0.03690	-0.09740	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.822	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
92.91	0.03	①	LTE Band 12	0.578	0.03690	-0.09740	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.226	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
90.51	0.03	①	LTE Band 12	0.578	0.03690	-0.09740	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

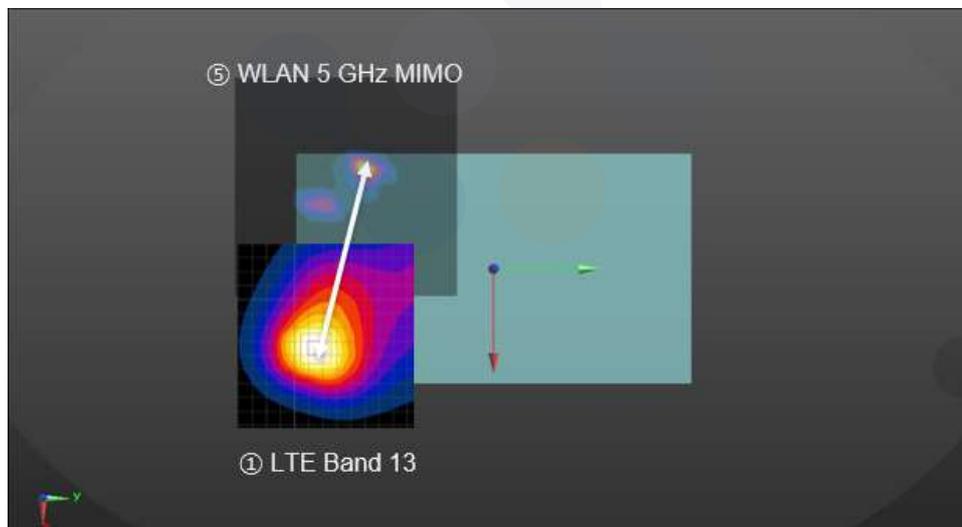


12.3.9 LTE Band 13

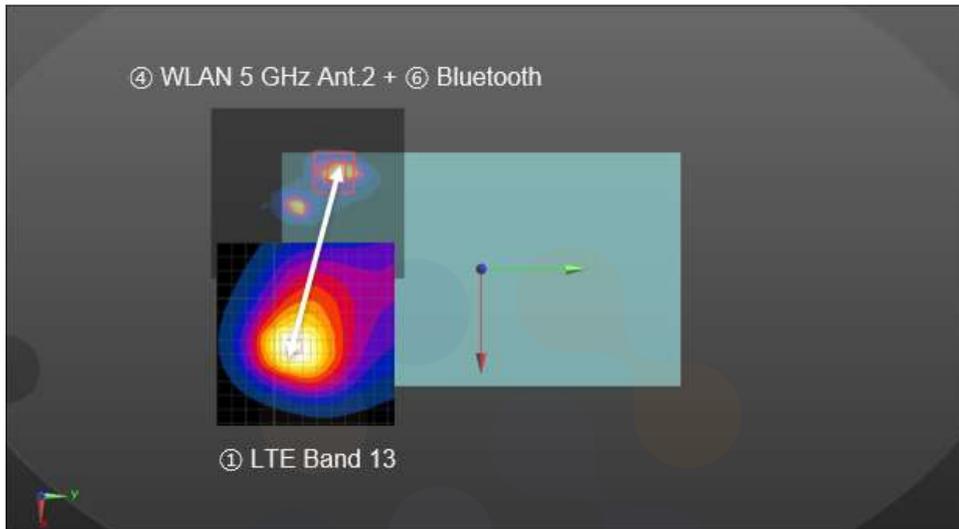
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 13 SPLSR – Rear Position		
Scenario No.	No.5	No.6
Scenario	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.676	2.080
Volume scan	Not Required	

Scenario No.	Scenario	Position	SUM				
5	[①]+[⑤]	Rear	1.676				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
94.34	0.02	①	LTE Band 13	0.432	0.03980	-0.09250	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.080	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
92.38	0.02	①	LTE Band 13	0.432	0.03980	-0.09250	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

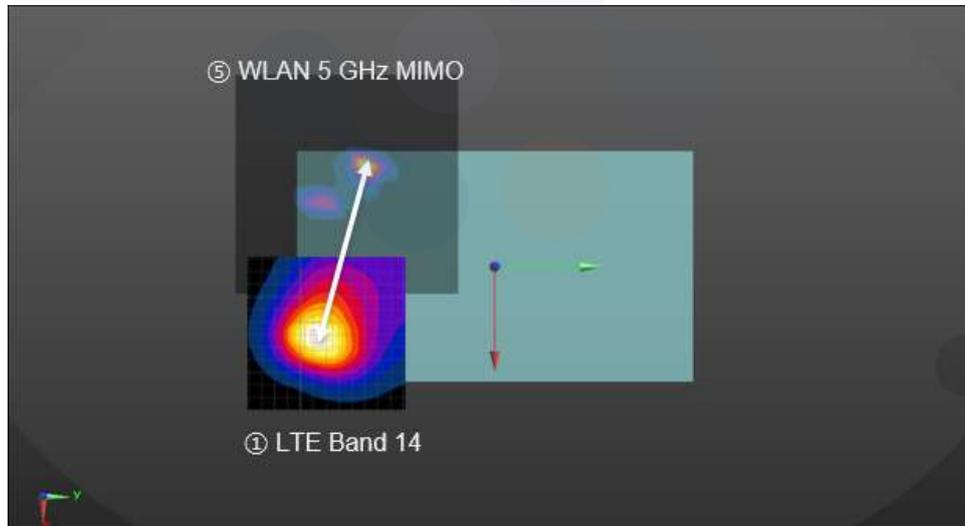


12.3.10 LTE Band 14

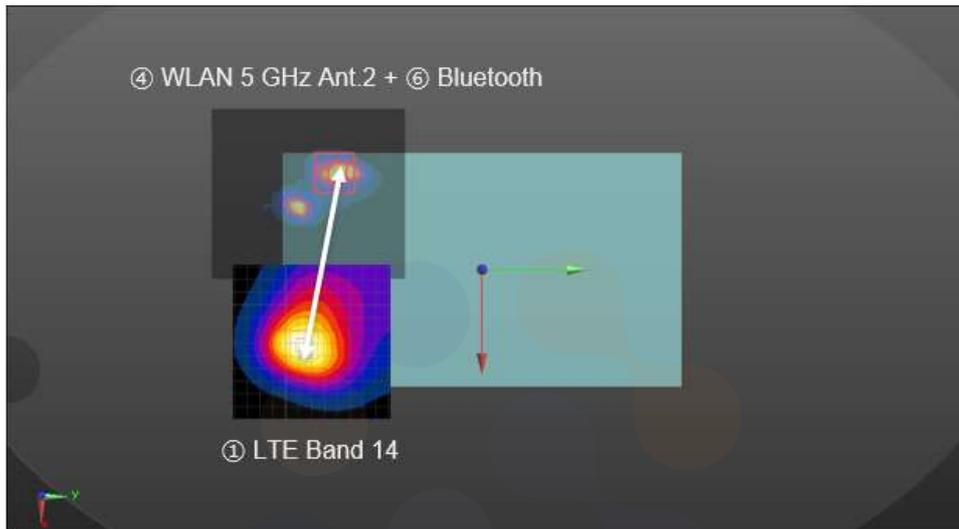
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 14 SPLSR – Rear Position		
Scenario No.	No.5	No.6
Scenario	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.641	2.045
Volume scan	Not Required	

Scenario No.	Scenario	Position	SUM				
5	[①]+[⑤]	Rear	1.641				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
91.03	0.02	①	LTE Band 14	0.397	0.03630	-0.09280	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.045	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
88.99	0.02	①	LTE Band 14	0.397	0.03630	-0.09280	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

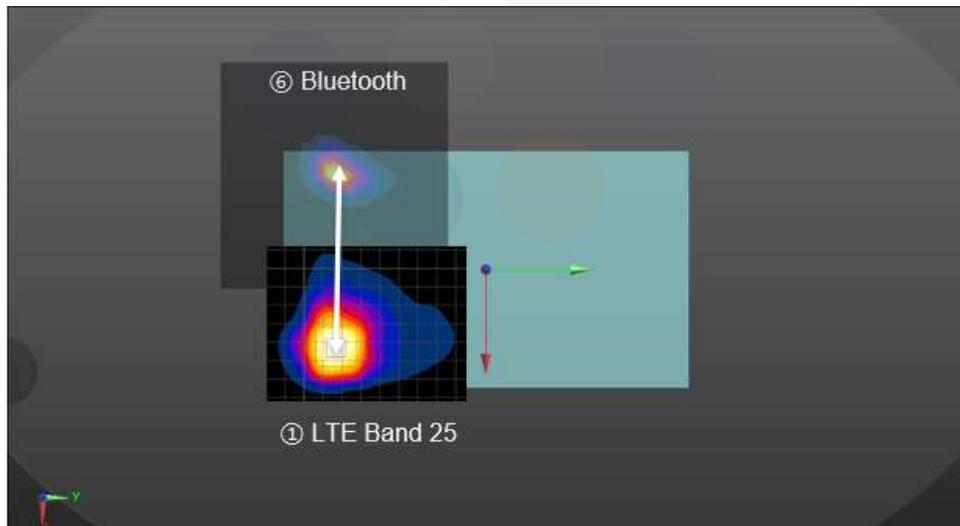


12.3.11 LTE Band 25

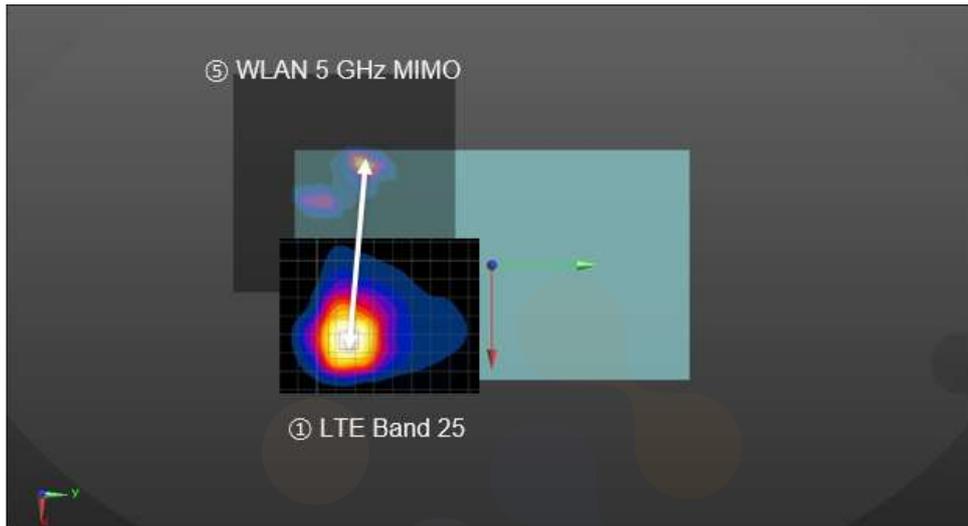
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 25 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.646	1.775	2.179
Volume scan	Not Required		

Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	1.646				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
101.90	0.02	①	LTE Band 25	0.531	0.04820	-0.08410	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.775	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
100.93	0.02	①	LTE Band 25	0.531	0.04820	-0.08410	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.179	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
99.70	0.02	①	LTE Band 25	0.531	0.04820	-0.08410	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

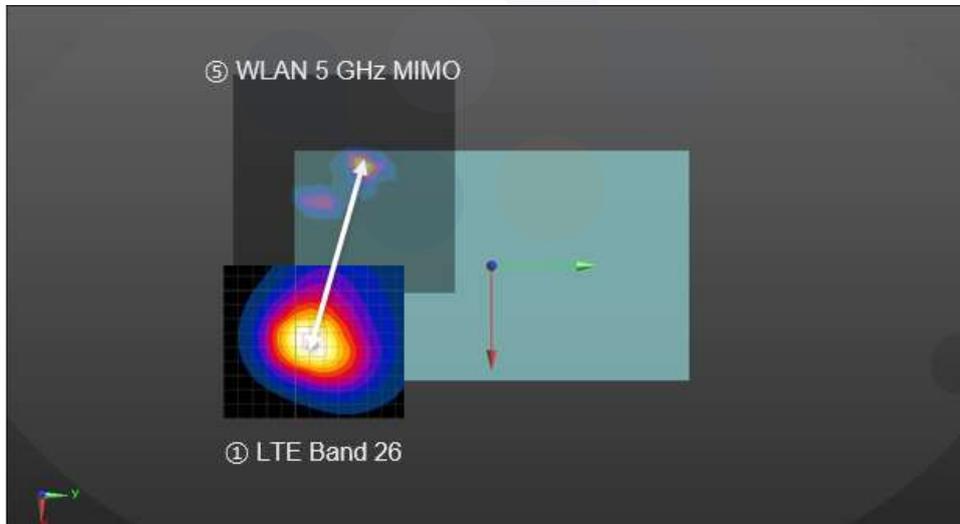


12.3.12 LTE Band 26

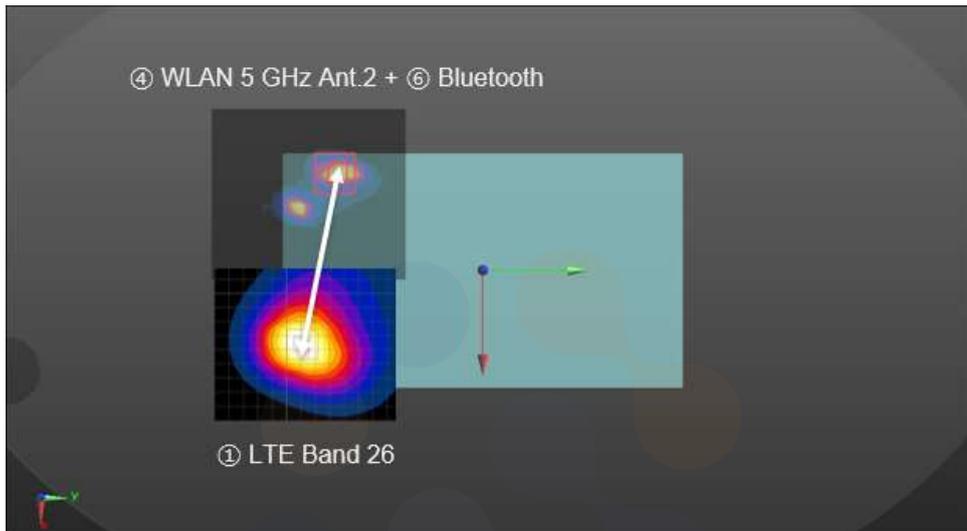
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 26 SPLSR – Rear Position		
Scenario No.	No.5	No.6
Scenario	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.715	2.119
Volume scan	Not Required	

Scenario No.		Scenario		Position			SUM
5		[①]+[⑤]		Rear			1.715
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
93.06	0.02	①	LTE Band 26	0.471	0.03790	-0.09460	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.119	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
90.90	0.02	①	LTE Band 26	0.471	0.03790	-0.09460	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

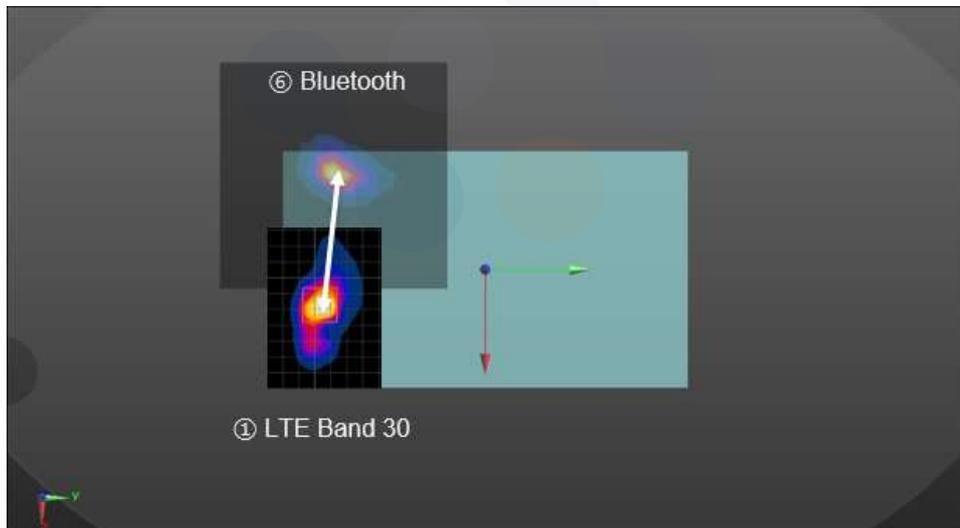


12.3.13 LTE Band 30

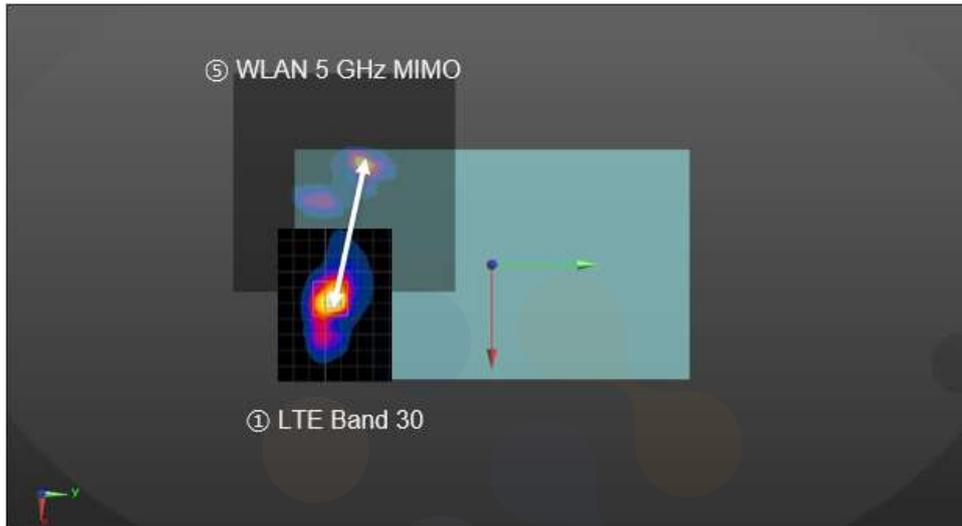
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 30 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.937	2.066	2.470
Volume scan	Not Required		

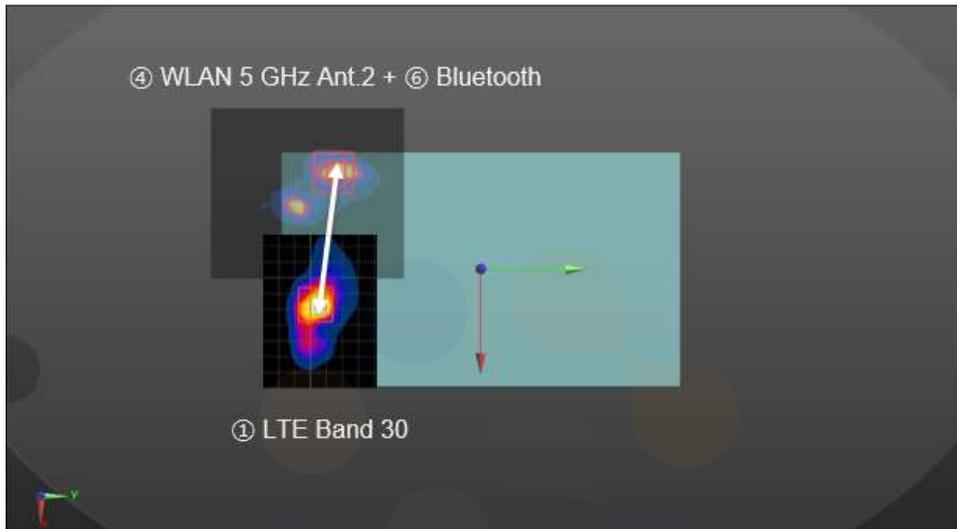
Scenario No.		Scenario		Position			SUM
1		[①]+[⑥]		Rear			1.937
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
73.44	0.04	①	LTE Band 30	0.822	0.01780	-0.09420	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		2.066	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
73.79	0.04	①	LTE Band 30	0.822	0.01780	-0.09420	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.470	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
71.26	0.04	①	LTE Band 30	0.822	0.01780	-0.09420	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

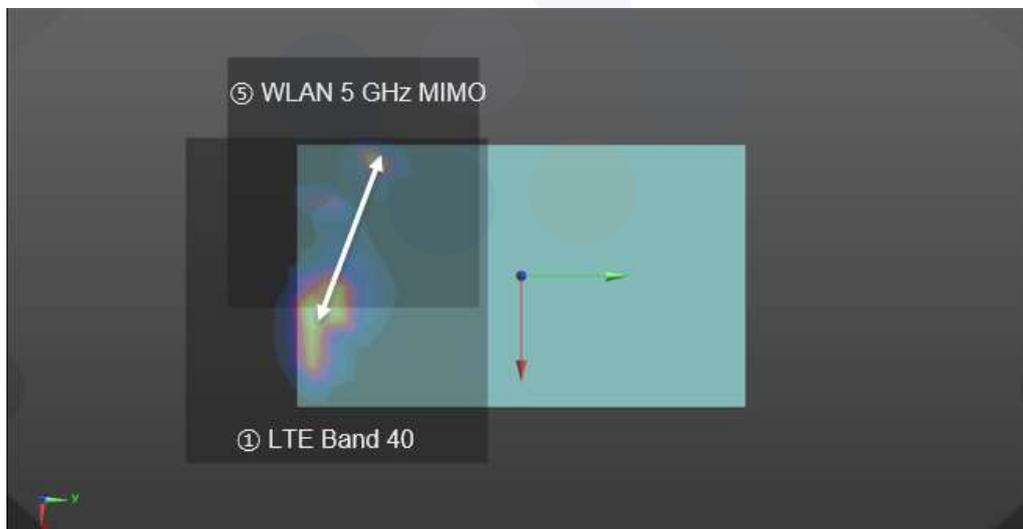


12.3.14 LTE Band 40

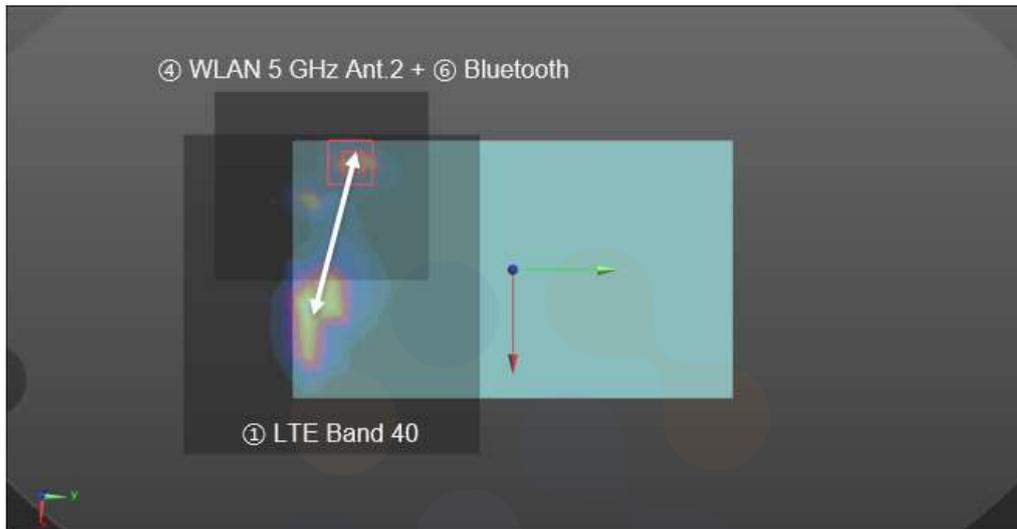
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 40 SPLSR – Rear Position		
Scenario No.	No.5	No.6
Scenario	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.621	2.025
Volume scan	Not Required	

Scenario No.	Scenario	Position	SUM				
5	[①]+[⑤]	Rear	1.621				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
69.51	0.03	①	LTE Band 40	0.377	0.01440	-0.09100	-0.17900
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.025	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
67.07	0.03	①	LTE Band 40	0.377	0.01440	-0.09100	-0.17900
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

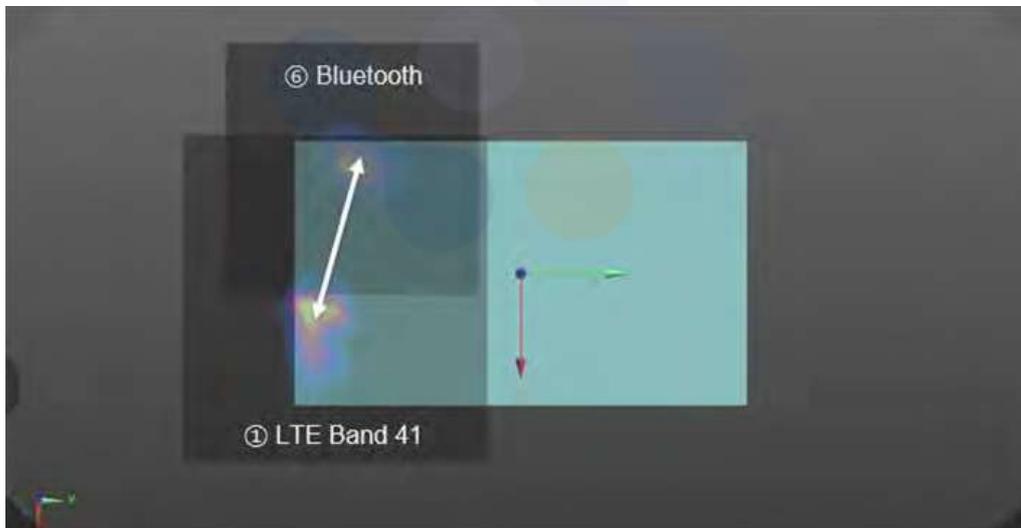


12.3.15 LTE Band 41

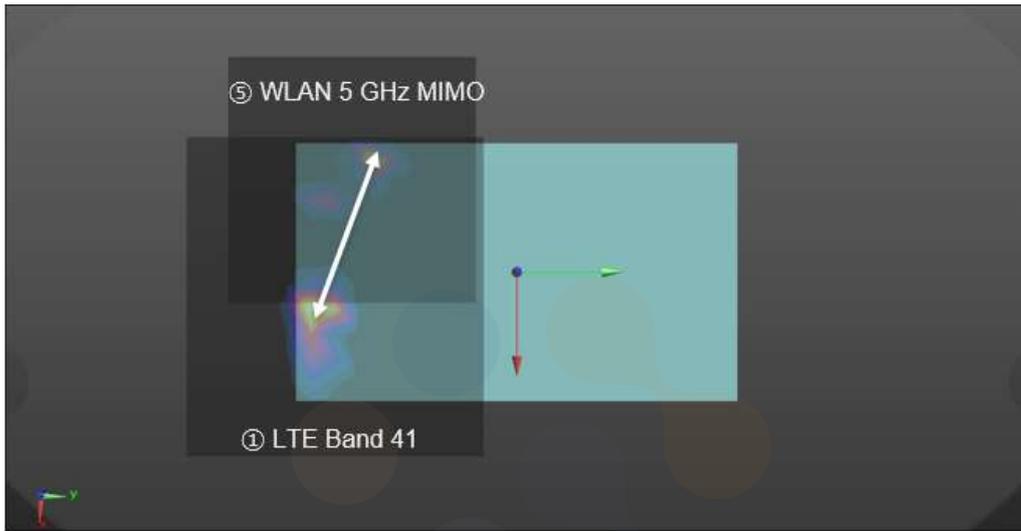
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 41 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.901	2.030	2.434
Volume scan	Not Required		

Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	1.901				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
70.71	0.04	①	LTE Band 41	0.786	0.01520	-0.09400	-0.17900
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		2.030	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
71.26	0.04	①	LTE Band 41	0.786	0.01520	-0.09400	-0.17900
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.434	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
68.53	0.04	①	LTE Band 41	0.786	0.01520	-0.09400	-0.17900
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400



12.3.16 LTE Band 48

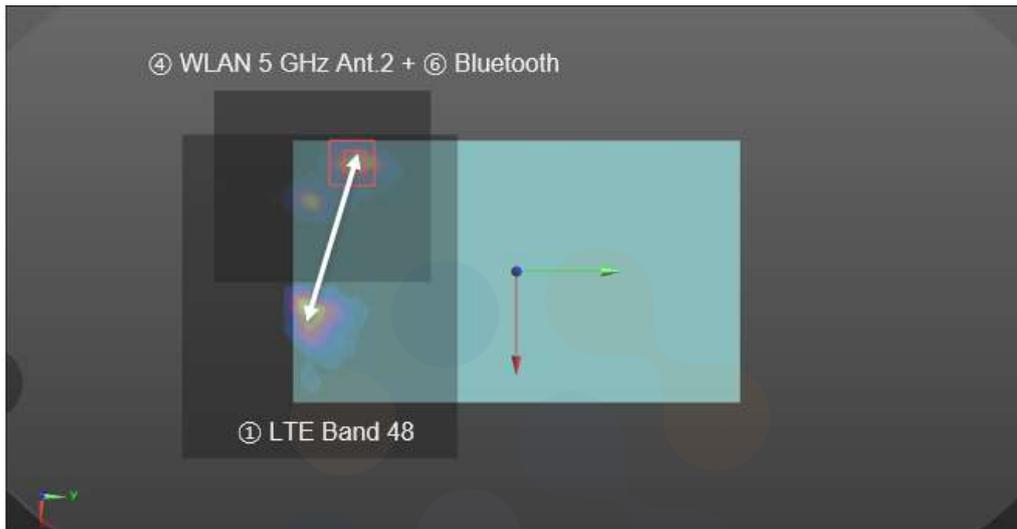
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 48 SPLSR – Rear Position		
Scenario No.	No.5	No.6
Scenario	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.721	2.125
Volume scan	Not Required	

Scenario No.	Scenario	Position	SUM				
5	[①]+[⑤]	Rear	1.721				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
81.92	0.03	①	LTE Band 48	0.477	0.02560	-0.09660	-0.17900
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.125	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
79.23	0.03	①	LTE Band 48	0.477	0.02560	-0.09660	-0.17900
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

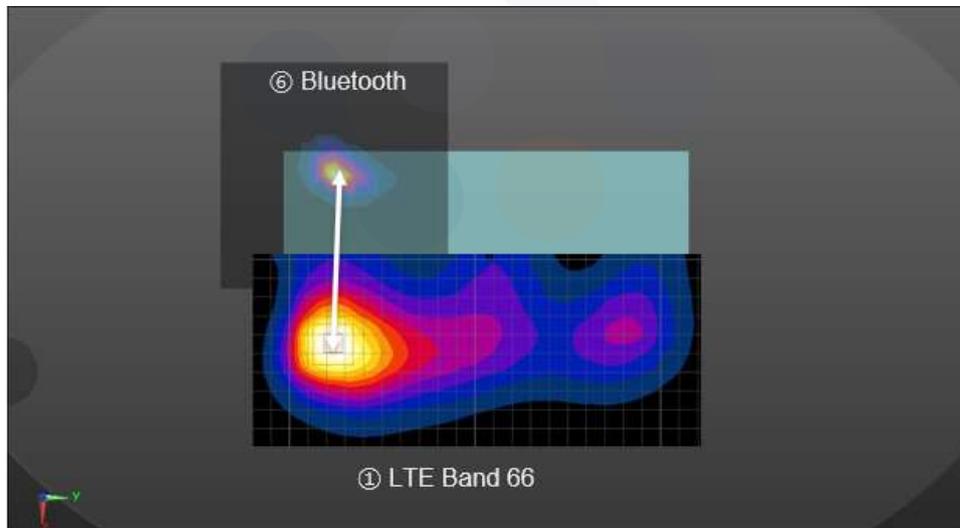


12.3.17 LTE Band 66 (Main1)

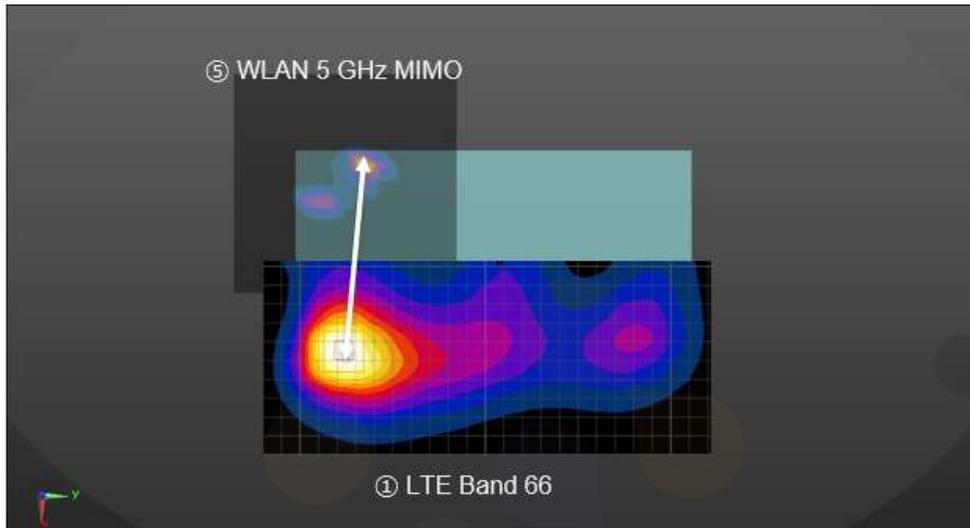
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 66 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.617	1.746	2.150
Volume scan	Not Required		

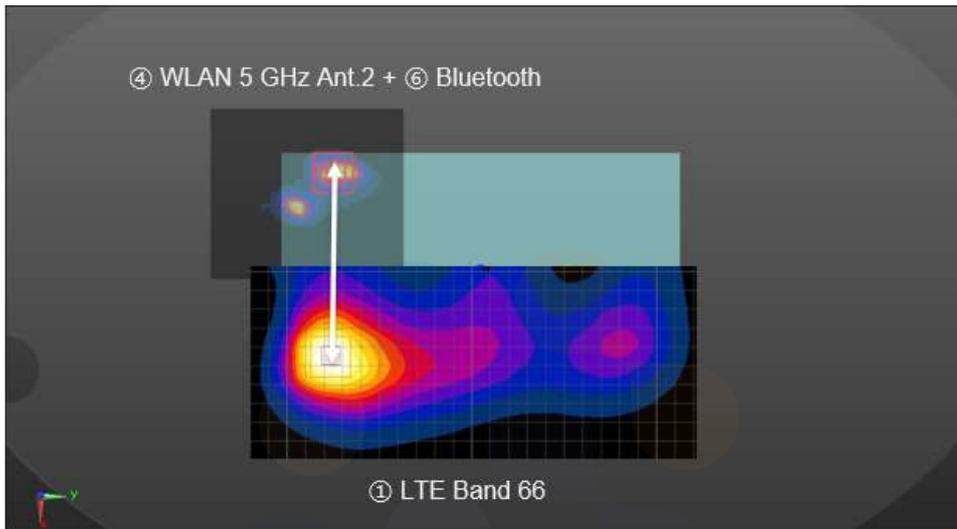
Scenario No.		Scenario		Position			SUM
1		[①]+[⑥]		Rear			1.617
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
98.00	0.02	①	LTE Band 66	0.502	0.04450	-0.07980	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.746	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
96.70	0.02	①	LTE Band 66	0.502	0.04450	-0.07980	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.150	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
95.80	0.02	①	LTE Band 66	0.502	0.04450	-0.07980	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

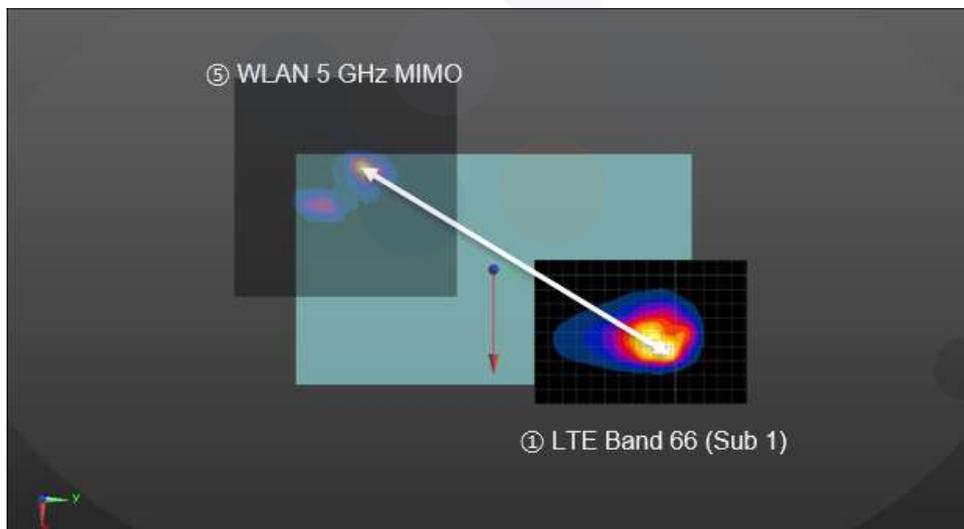


12.3.18 LTE Band 66 (Sub1)

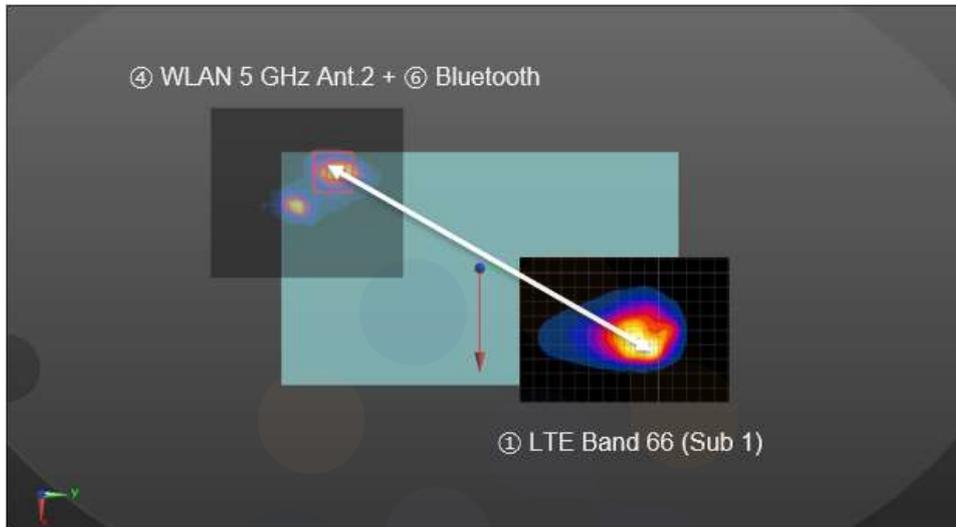
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 66 (Sub 1) SPLSR – Rear Position		
Scenario No.	No.5	No.6
Scenario	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.636	2.040
Volume scan	Not Required	

Scenario No.	Scenario	Position	SUM				
5	[①]+[⑤]	Rear	1.636				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
189.06	0.01	①	LTE Band 66 (Sub 1)	0.392	0.05160	0.08920	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.040	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
195.44	0.01	①	LTE Band 66 (Sub 1)	0.392	0.05160	0.08920	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

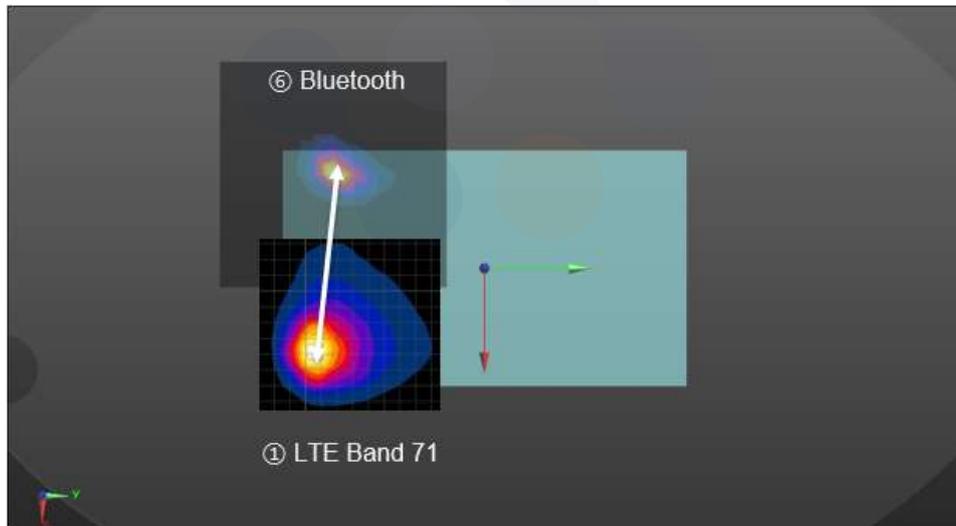


12.3.19 LTE Band 71

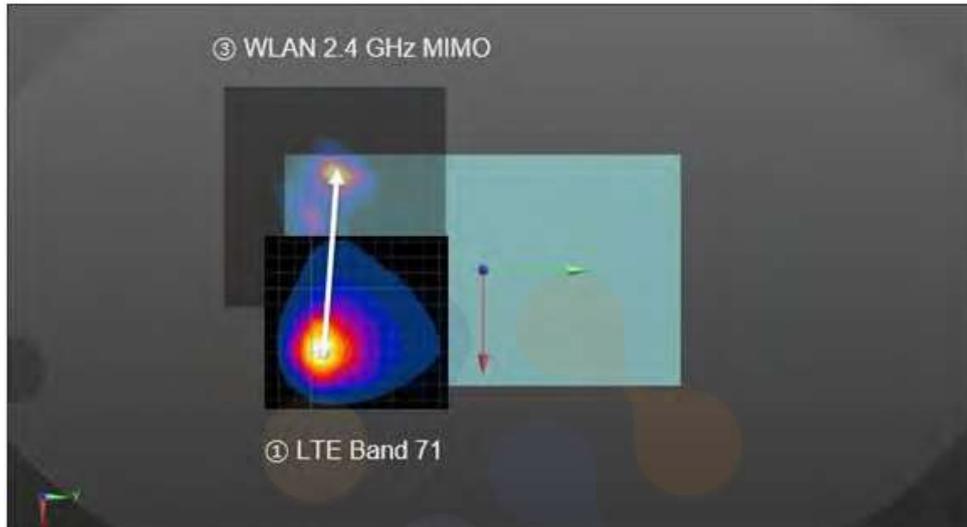
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

LTE Band 71 SPLSR – Rear Position				
Scenario No.	No.1	No.4	No.5	No.6
Scenario	[①]+[⑥]	[①]+[③]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.979	1.614	2.108	2.512
Volume scan	Not Required			

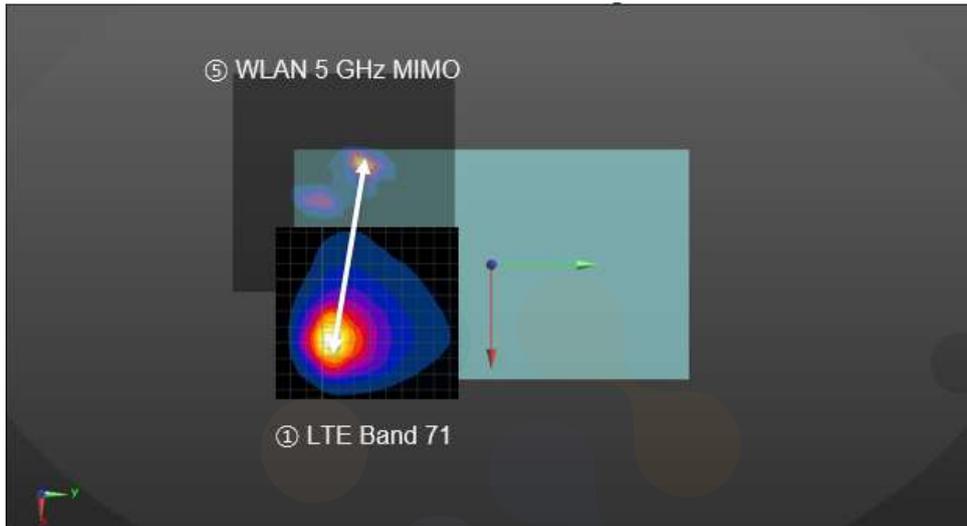
Scenario No.	Scenario		Position		SUM		
1	[①]+[⑥]		Rear		1.979		
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
92.09	0.03	①	LTE Band 71	0.864	0.03610	-0.09820	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



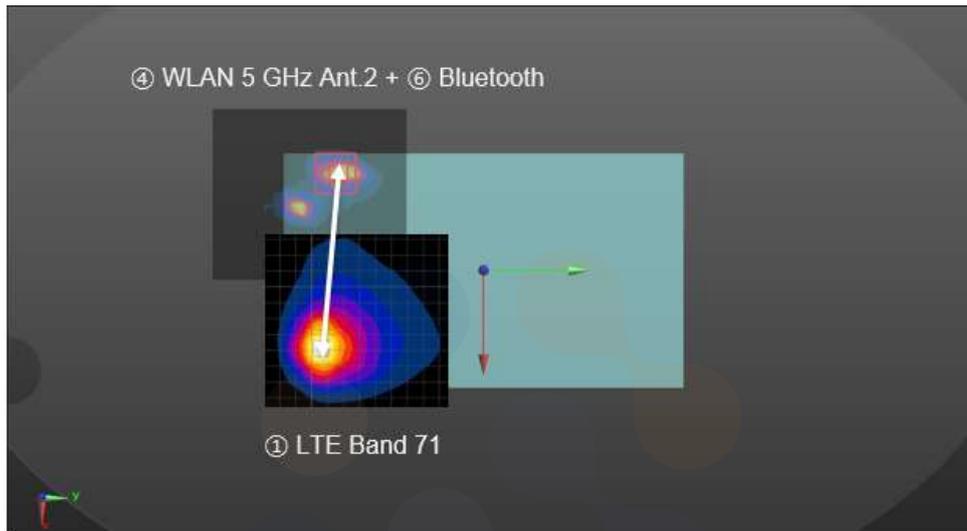
Scenario No.		Scenario		Position		SUM	
4		[①]+[③]		Rear		1.614	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
91.43	0.02	①	LTE Band 71	0.864	0.03610	-0.09820	-0.17700
		③	WLAN 2.4 GHz MIMO	0.750	-0.05280	-0.07800	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		2.108	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
92.39	0.03	①	LTE Band 71	0.864	0.03610	-0.09820	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.512	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
89.92	0.03	①	LTE Band 71	0.864	0.03610	-0.09820	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

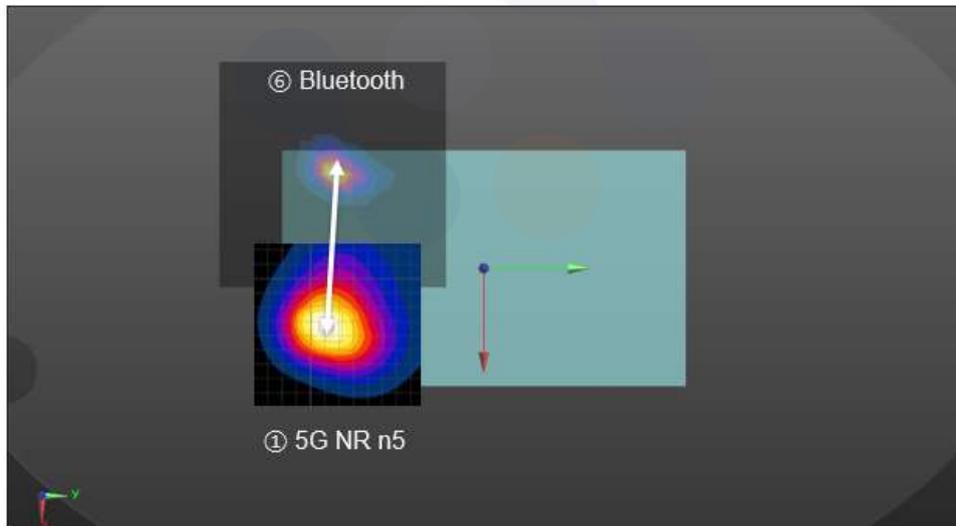


12.3.20 5G NR n5

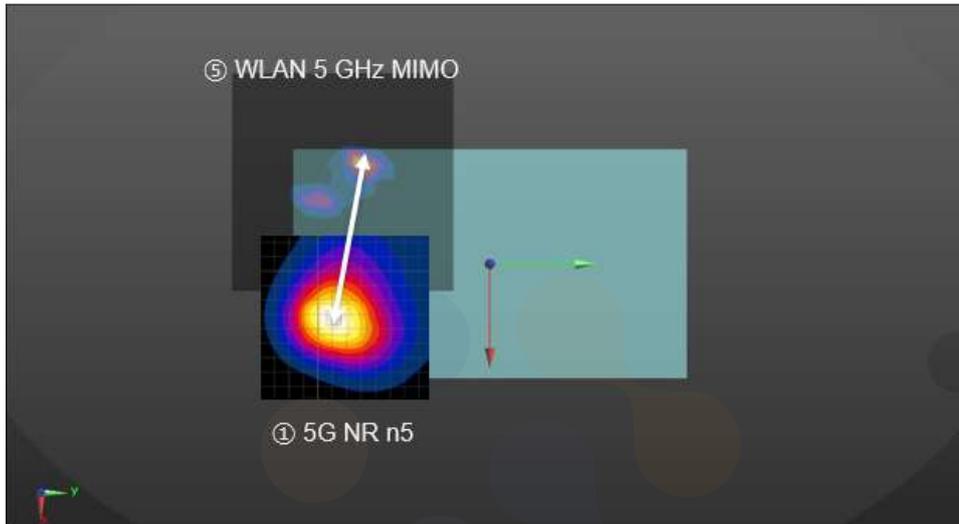
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n5 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.755	1.884	2.288
Volume scan	Not Required		

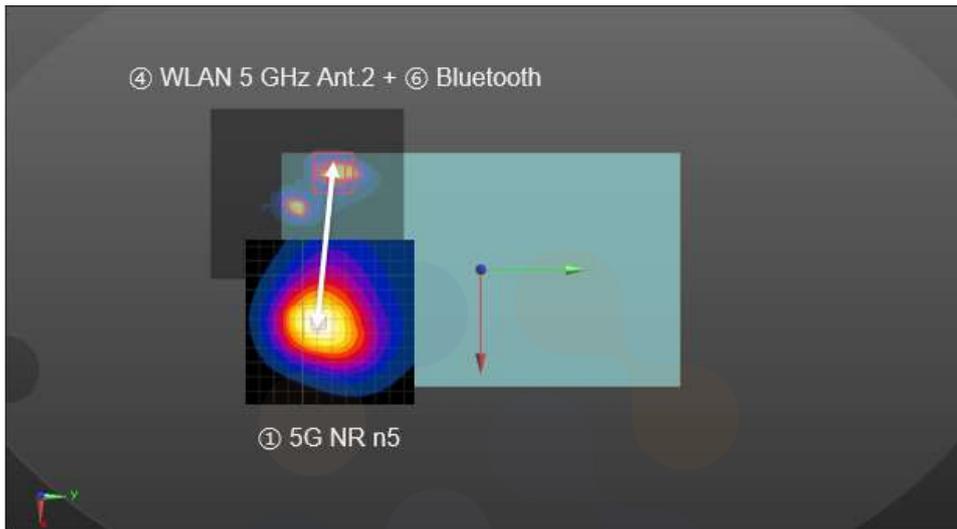
Scenario No.		Scenario		Position			SUM
1		[①]+[⑥]		Rear			1.755
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
90.78	0.03	①	5G NR n5	0.640	0.03540	-0.09530	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.884	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
90.85	0.03	①	5G NR n5	0.640	0.03540	-0.09530	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.288	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
88.59	0.03	①	5G NR n5	0.640	0.03540	-0.09530	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

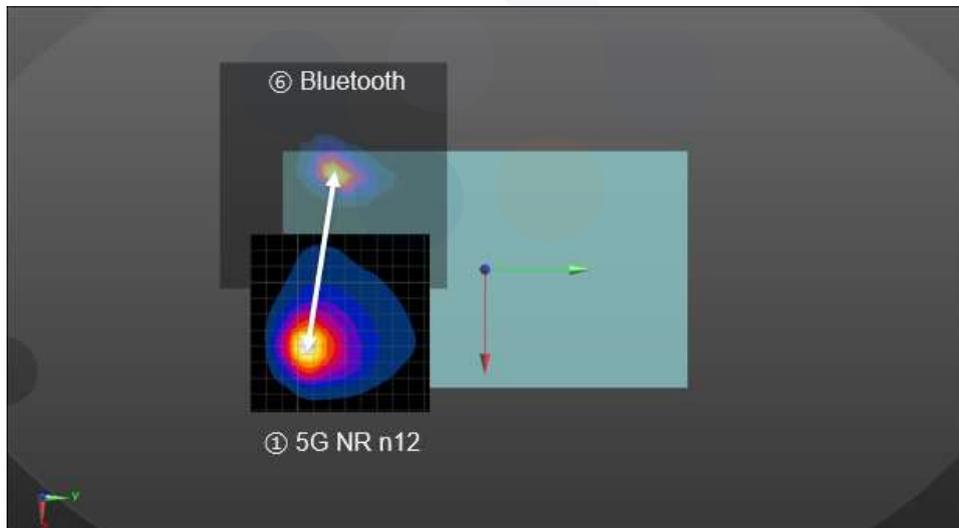


12.3.21 5G NR n12

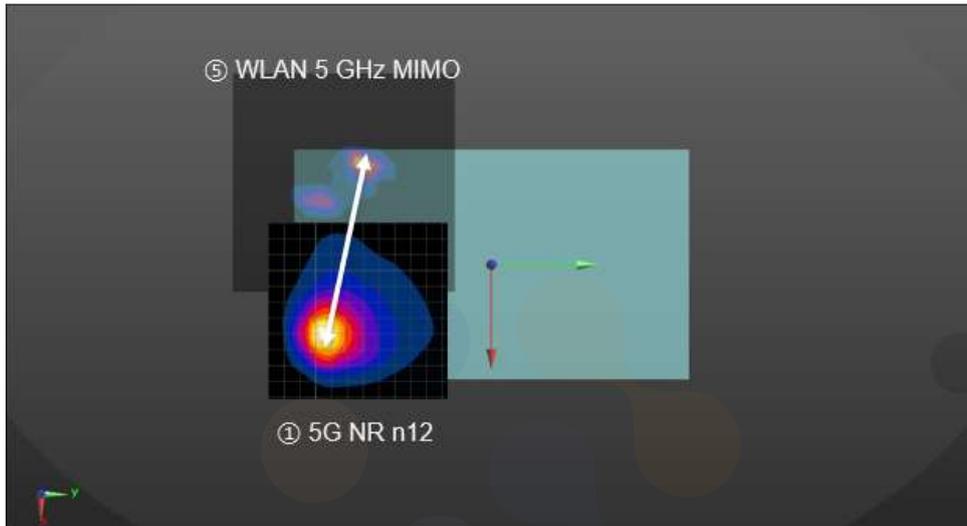
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n12 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.781	1.910	2.314
Volume scan	Not Required		

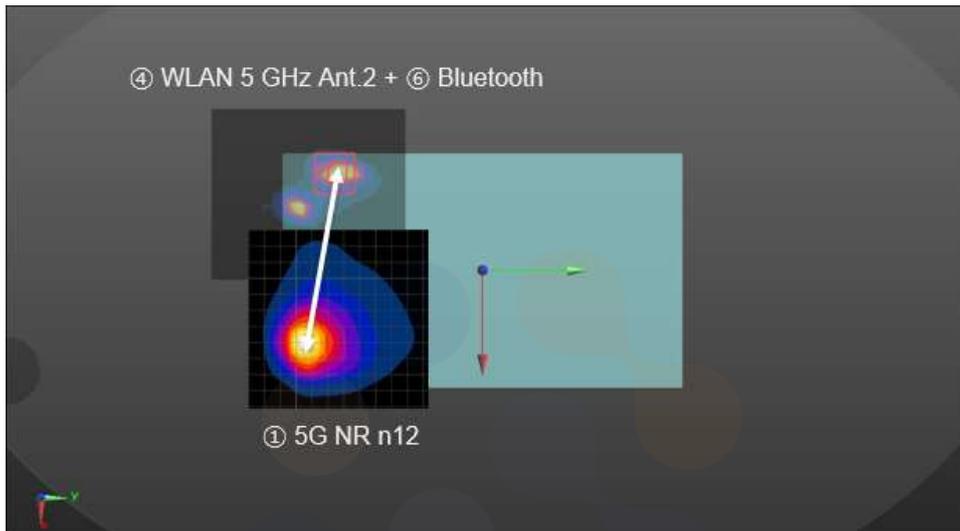
Scenario No.		Scenario		Position			SUM
1		[①]+[⑥]		Rear			1.781
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
91.72	0.03	①	5G NR n12	0.666	0.03590	-0.09740	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.910	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
91.95	0.03	①	5G NR n12	0.666	0.03590	-0.09740	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.314	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
89.54	0.03	①	5G NR n12	0.666	0.03590	-0.09740	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

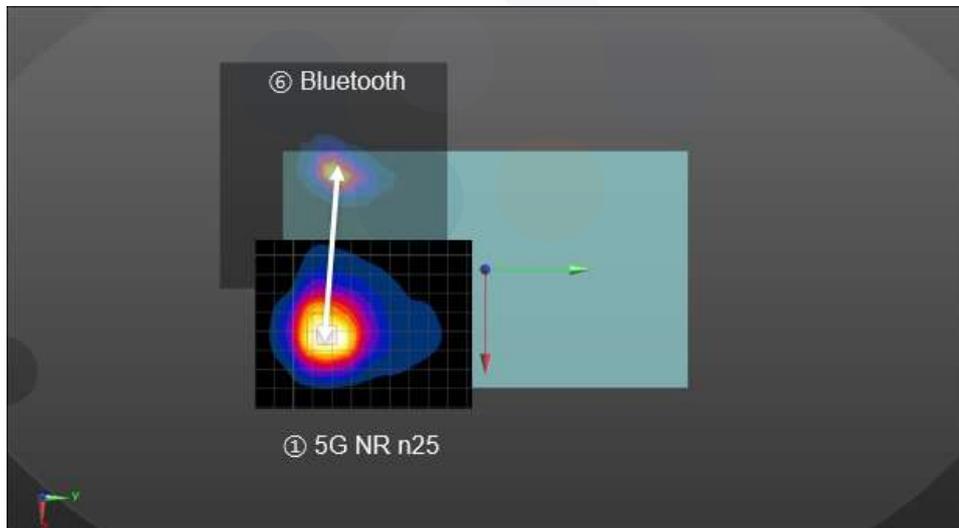


12.3.22 5G NR n25

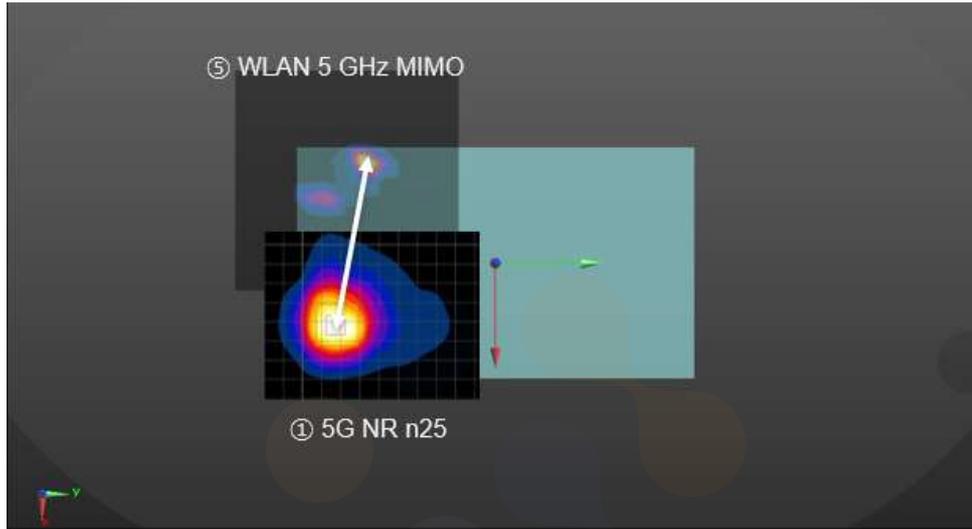
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n25 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.680	1.809	2.213
Volume scan	Not Required		

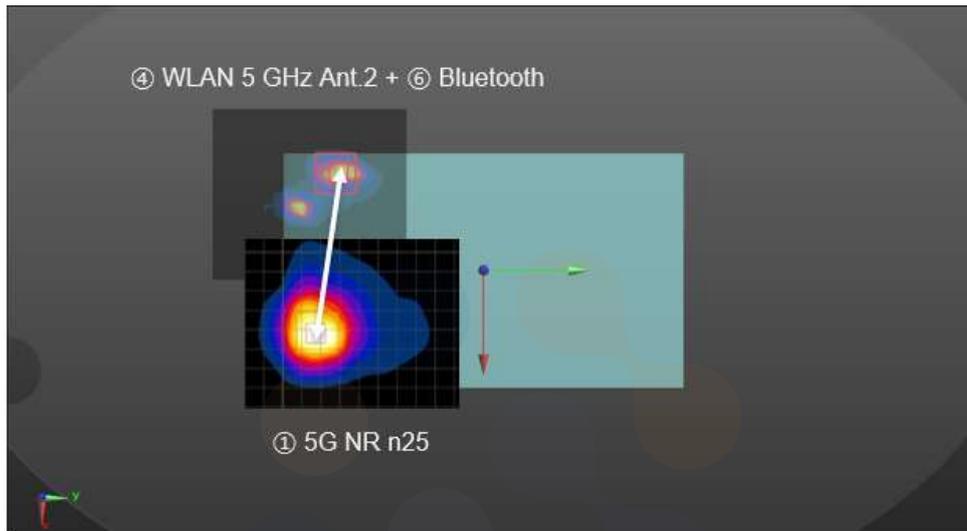
Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	1.680				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
103.18	0.02	①	5G NR n25	0.565	0.04910	-0.08830	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.809	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
102.51	0.02	①	5G NR n25	0.565	0.04910	-0.08830	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.213	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
100.98	0.02	①	5G NR n25	0.565	0.04910	-0.08830	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

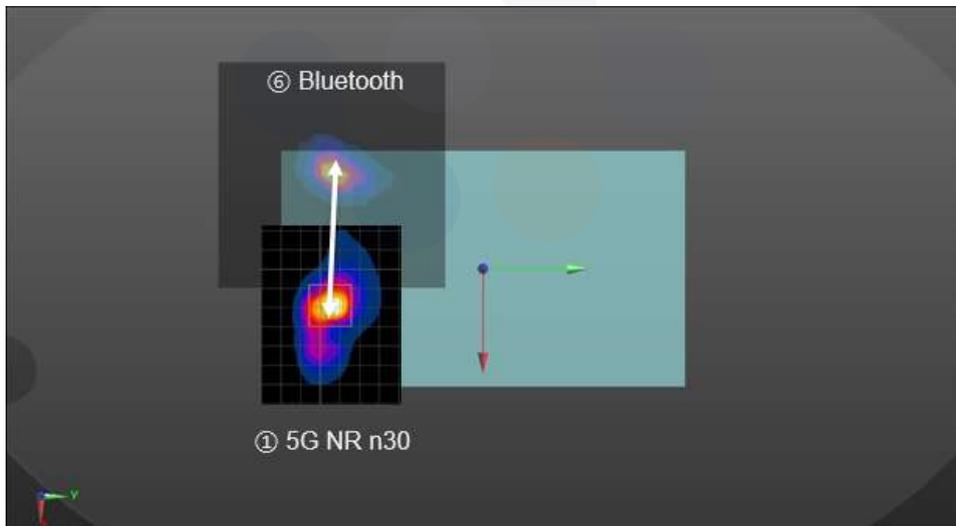


12.3.23 5G NR n30

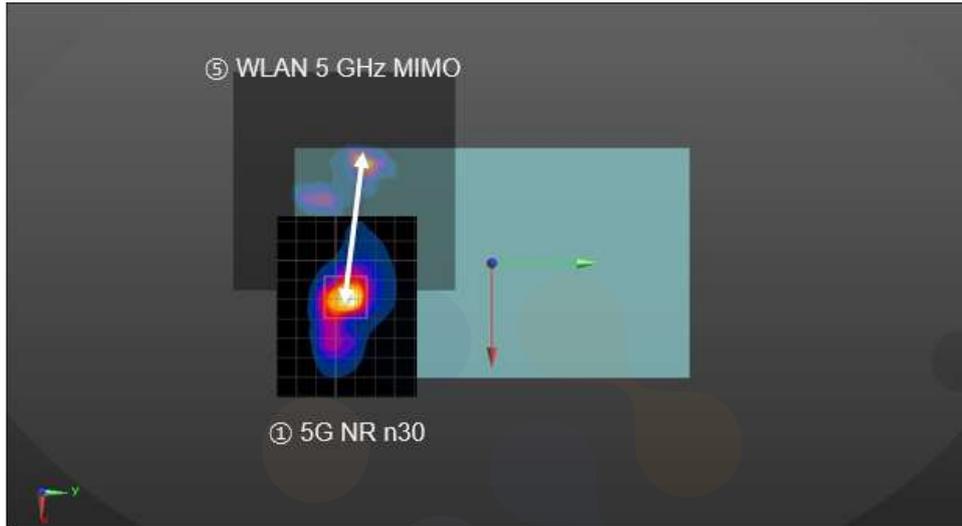
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n30 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.863	1.992	2.396
Volume scan	Not Required		

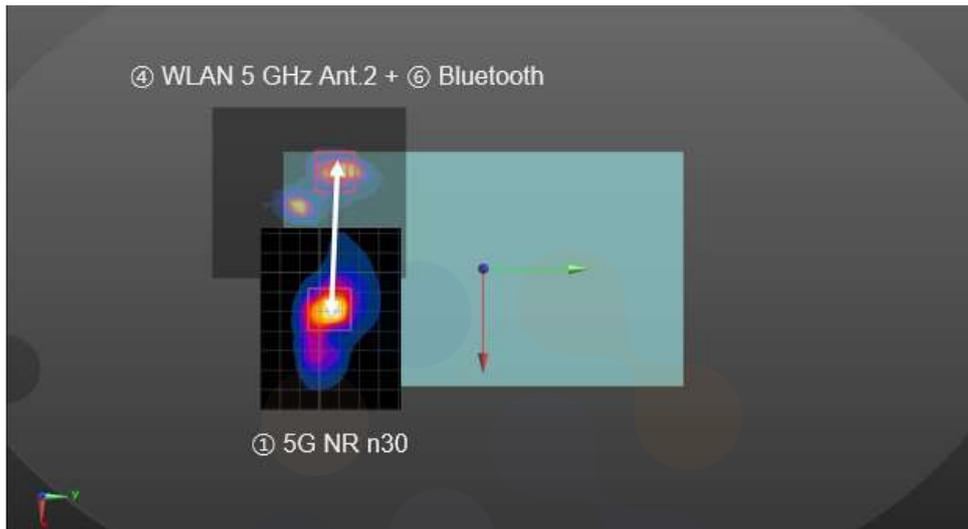
Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	1.863				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
75.56	0.03	①	5G NR n30	0.748	0.02000	-0.09420	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.992	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
75.87	0.04	①	5G NR n30	0.748	0.02000	-0.09420	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.396	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
73.39	0.04	①	5G NR n30	0.748	0.02000	-0.09420	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

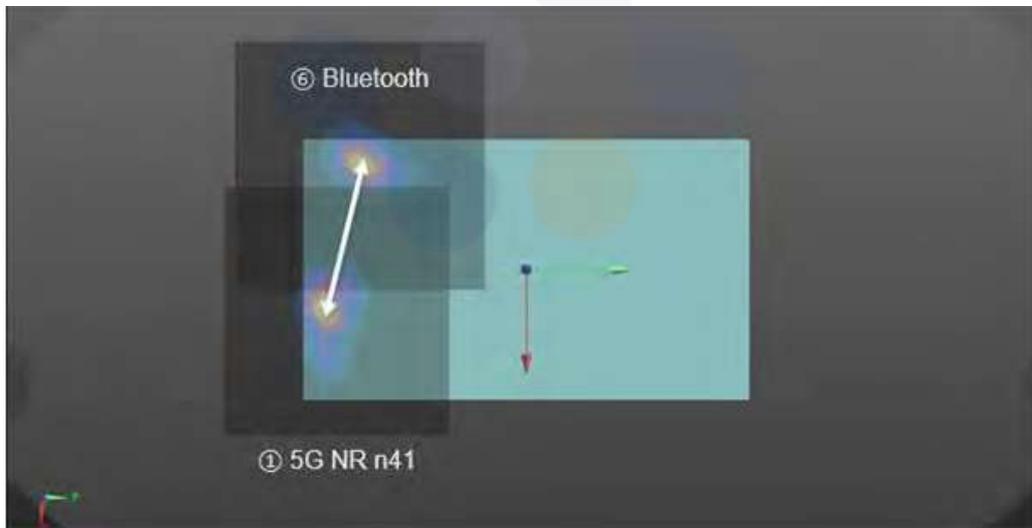


12.3.24 5G NR n41

licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n41 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.826	1.955	2.359
Volume scan	Not Required		

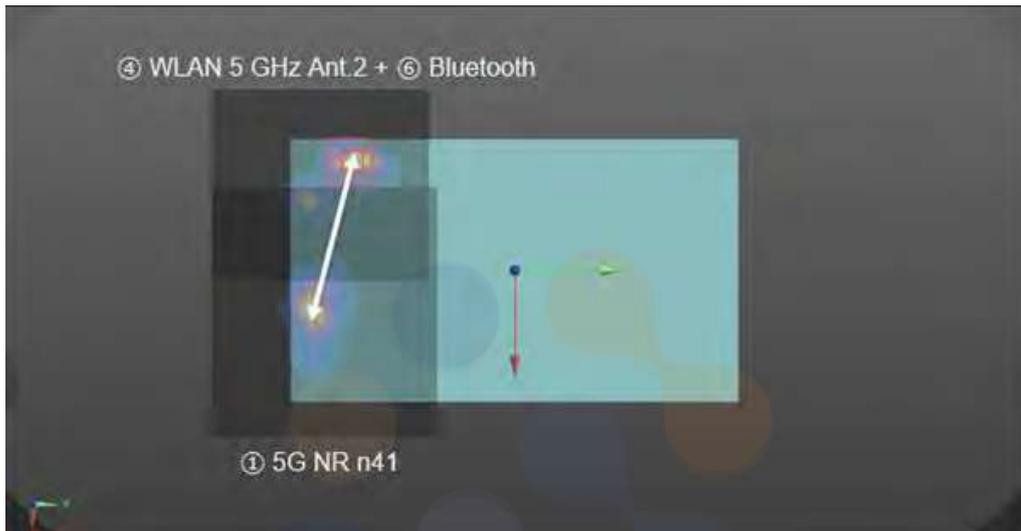
Scenario No.		Scenario		Position			SUM
1		[①]+[⑥]		Rear			1.826
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
71.33	0.04	①	5G NR n41	0.711	0.01640	-0.09160	-0.17900
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.955	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
71.59	0.04	①	5G NR n41	0.711	0.01640	-0.09160	-0.17900
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.359	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
69.14	0.04	①	5G NR n41	0.711	0.01640	-0.09160	-0.17900
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

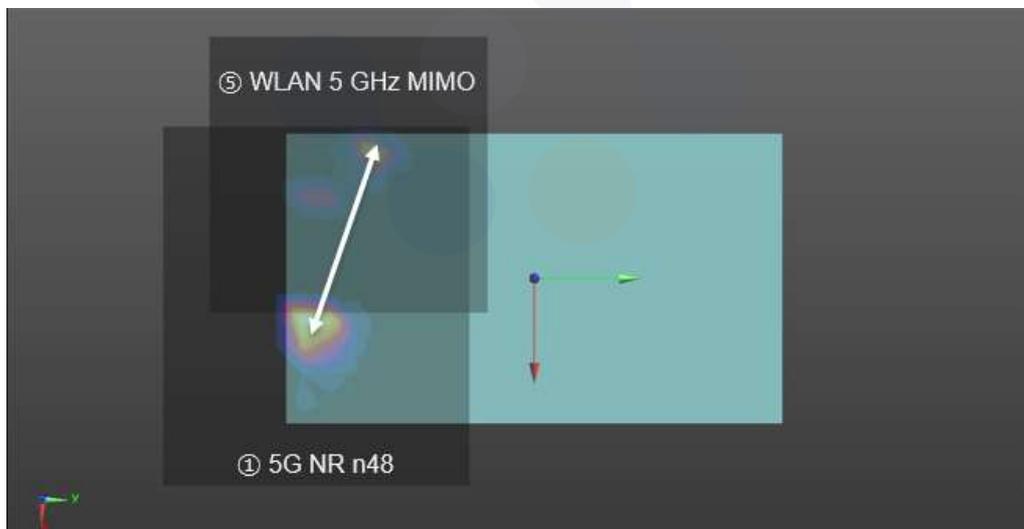


12.3.25 5G NR n48

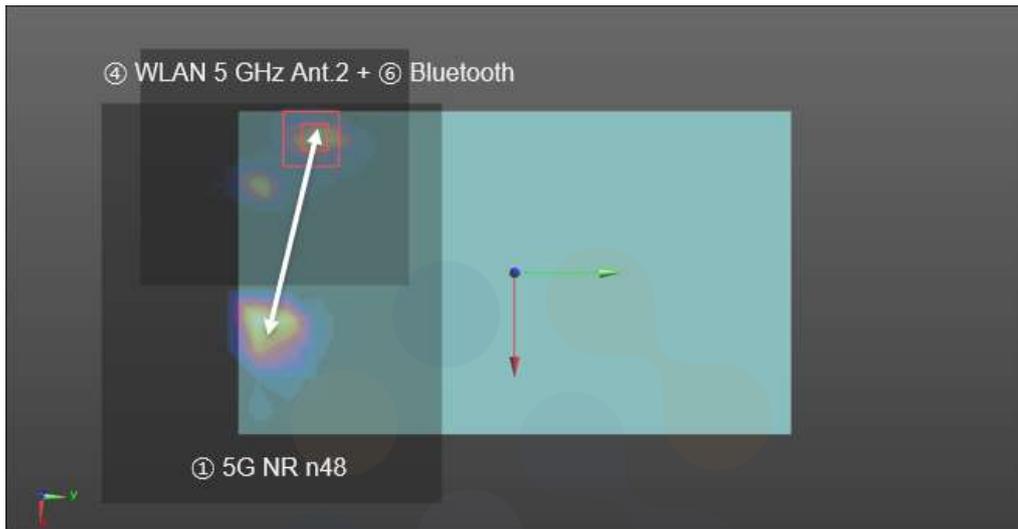
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n48 SPLSR – Rear Position		
Scenario No.	No.5	No.6
Scenario	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.630	2.034
Volume scan	Not Required	

Scenario No.	Scenario	Position	SUM				
5	[①]+[⑤]	Rear	1.630				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
77.10	0.03	①	5G NR n48	0.386	0.02180	-0.09280	-0.17900
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.034	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
74.66	0.03	①	5G NR n48	0.386	0.02180	-0.09280	-0.17900
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

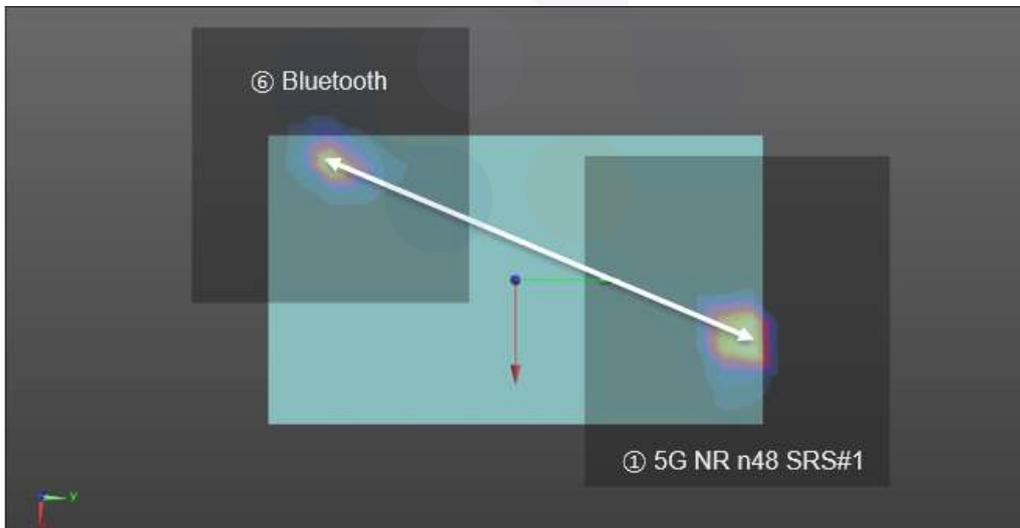


12.3.26 5G NR n48 SRS#1

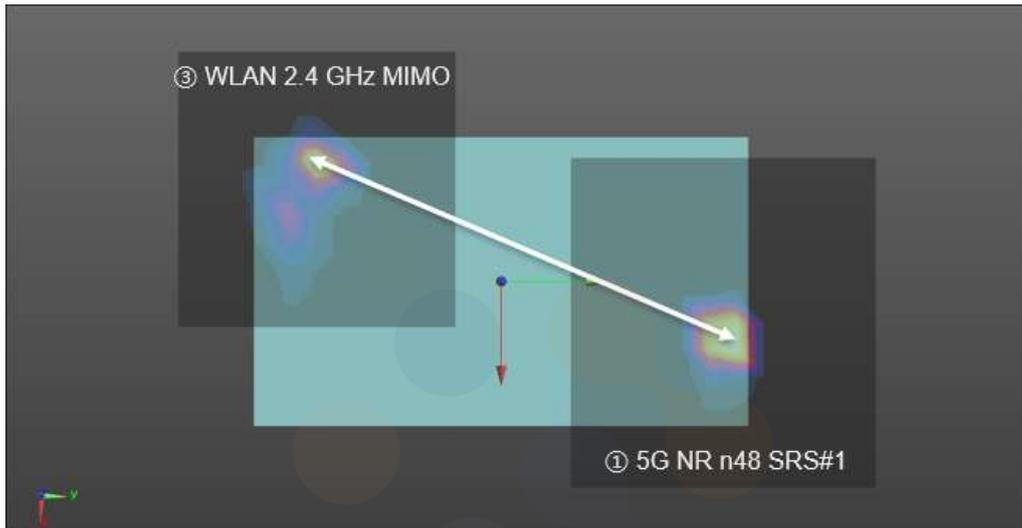
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n48 SRS#1 SPLSR – Rear Position				
Scenario No.	No.1	No.4	No.5	No.6
Scenario	[①]+[⑥]	[①]+[③]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	2.153	1.788	2.282	2.686
Volume scan	Not Required			

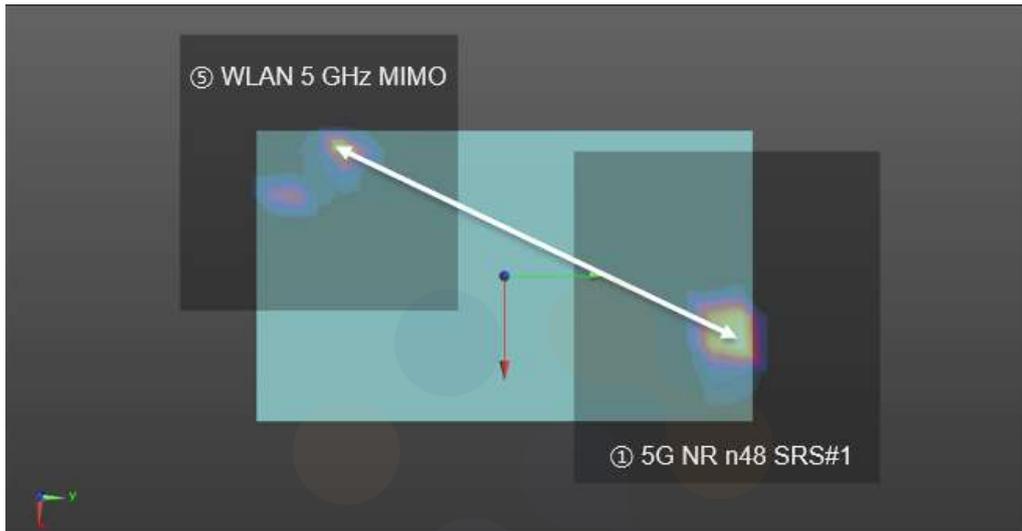
Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	2.153				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
187.76	0.02	①	5G NR n48 SRS#1	1.038	0.02200	0.09520	-0.18000
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



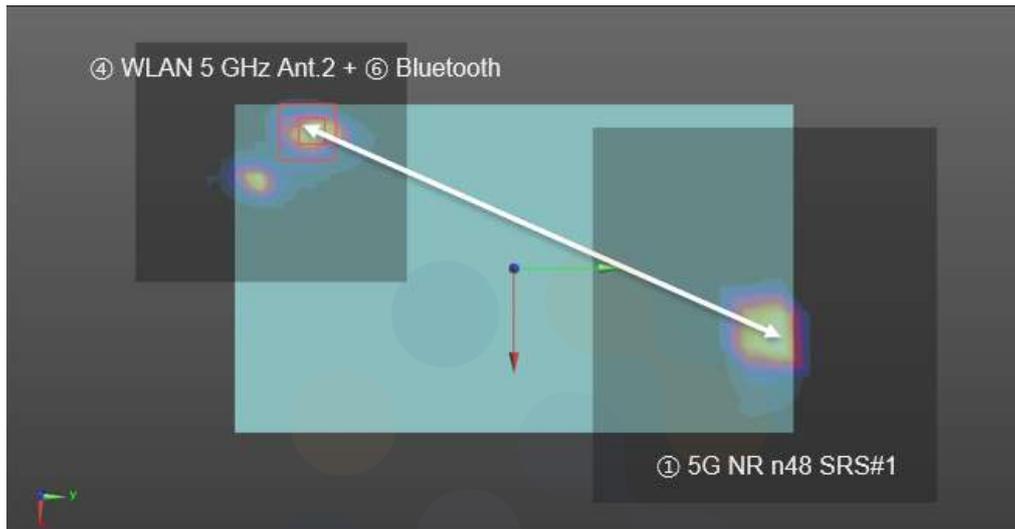
Scenario No.		Scenario		Position		SUM	
4		[①]+[③]		Rear		1.788	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
188.70	0.01	①	5G NR n48 SRS#1	1.038	0.02200	0.09520	-0.18000
		③	WLAN 2.4 GHz MIMO	0.750	-0.05280	-0.07800	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		2.282	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
180.13	0.02	①	5G NR n48 SRS#1	1.038	0.02200	0.09520	-0.18000
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.686	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
187.08	0.02	①	5G NR n48 SRS#1	1.038	0.02200	0.09520	-0.18000
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

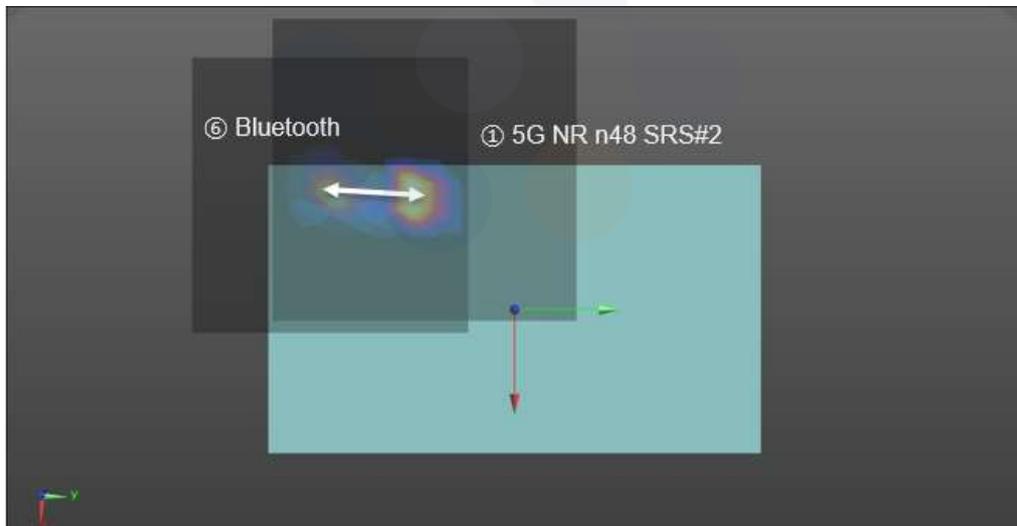


12.3.27 5G NR n48 SRS#2

licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n48 SRS#2 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.949	2.078	2.482
Volume scan	Required		

Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	1.949				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
38.67	0.07	①	5G NR n48 SRS#2	0.834	-0.05100	-0.03840	-0.18000
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



12.3.27.1 Volume Scan Analysis

Exposure Condition /Position		Enlarge Zoom 5G NR n48 [W/kg]	Enlarge Zoom Bluetooth [W/kg]	Scaled Volume Scan SUM Result [W/kg]
		SRS#2	Ant.1	
Body	Rear	0.790	0.678	1.170



5G NR n48 SRS#2 Standalone Volume Scan Plot – Rear

Date: 11/16/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
 File Name: [5G NR n48 SRS #2 Body VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3624.99 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 3624.99$ MHz; $\sigma = 2.942$ S/m; $\epsilon_r = 38.623$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

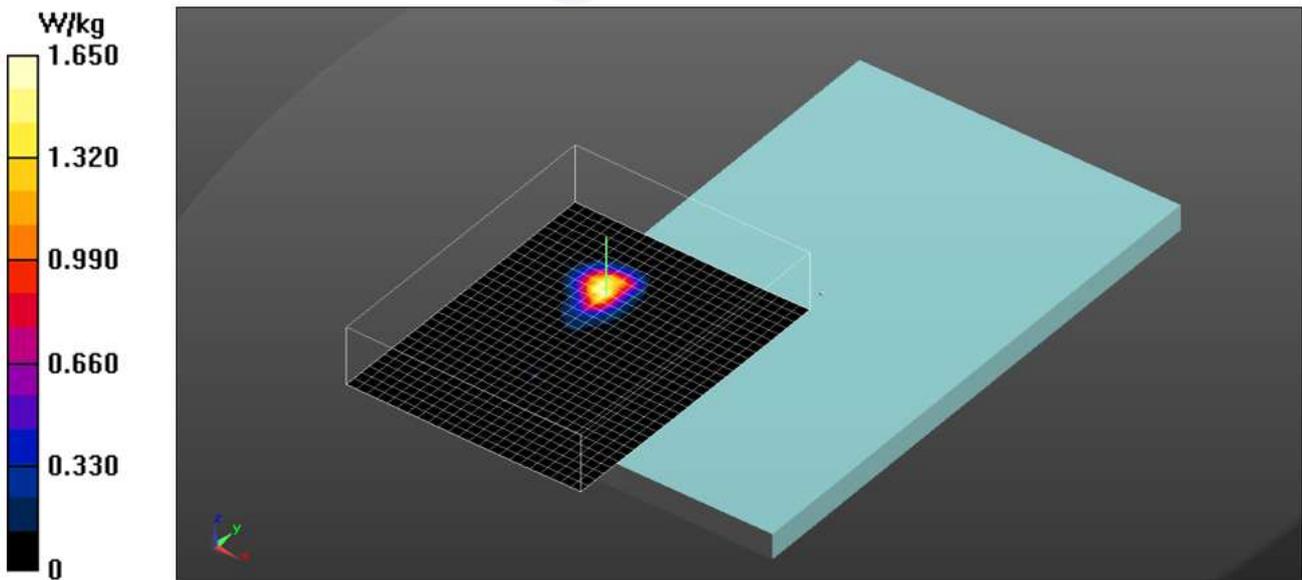
DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3624.99 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n48 DFT-S-OFDM_QPSK_SCS 30kHz_40 MHz 1RB 1offset_CH641666_Rear_0 mm Grip

Sensor on VS/Volume Scan (24x31x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 24.61 V/m; Power Drift = -0.07 dB
 Peak SAR (extrapolated) = 2.37 W/kg
SAR(1 g) = 0.790 W/kg; SAR(10 g) = 0.230 W/kg
 Total Absorbed Power = 0.00330 W

Info: Interpolated medium parameters used for SAR evaluation.
 Maximum value of SAR (measured) = 1.65 W/kg



Bluetooth Standalone Volume Scan Plot – Rear

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
 File Name: [Bluetooth_BDR_Body_VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz; Duty Cycle: 1:1.30167
 Medium parameters used (interpolated): $f = 2402$ MHz; $\sigma = 1.731$ S/m; $\epsilon_r = 37.918$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

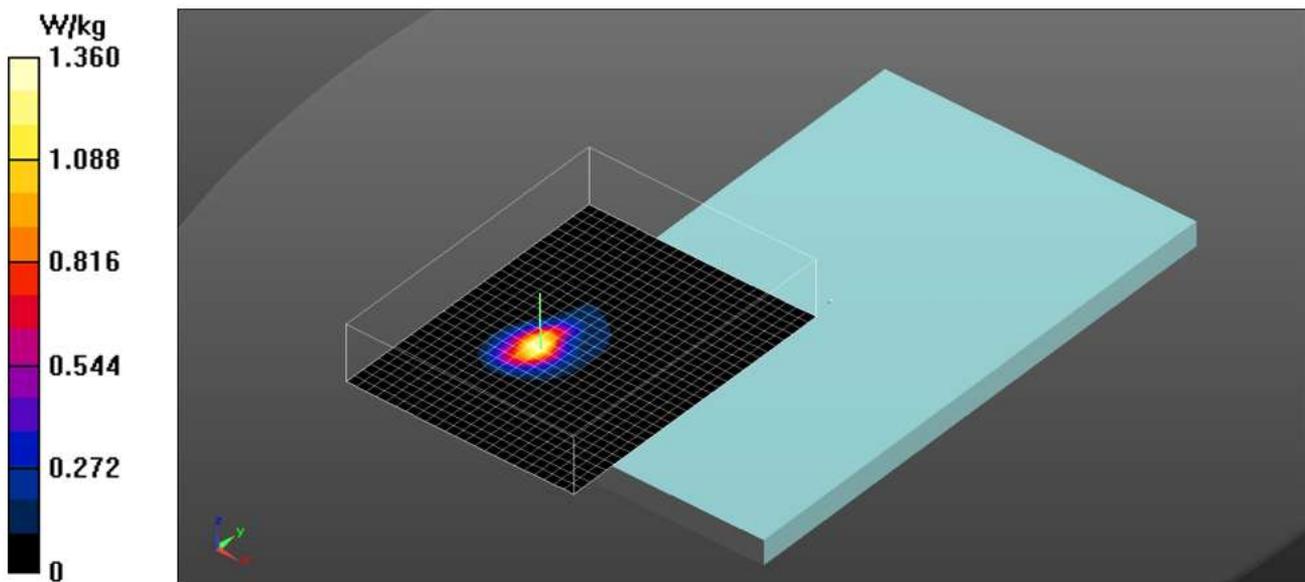
DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.2, 7.2, 7.2) @ 2402 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/Bluetooth_DH5_BDR_Ch0_Rear_0 mm Grip Sensor on VS/Volume Scan (24x31x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 29.23 V/m; Power Drift = 0.15 dB
 Peak SAR (extrapolated) = 1.98 W/kg
SAR(1 g) = 0.678 W/kg; SAR(10 g) = 0.206 W/kg
 Total Absorbed Power = 0.00295 W

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.36 W/kg



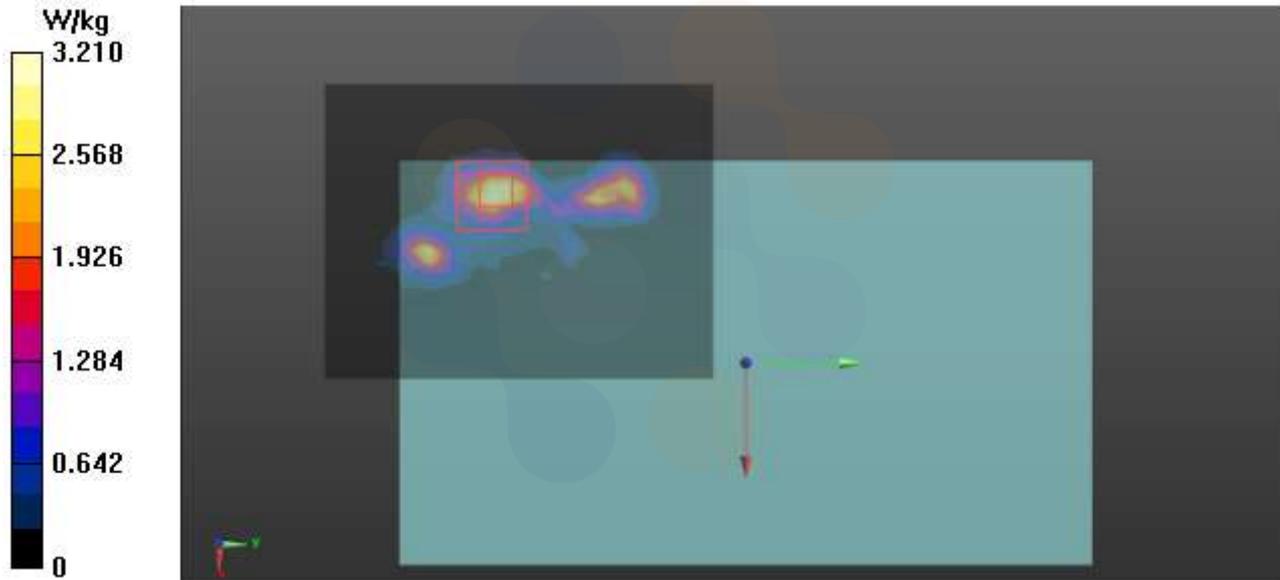
No.1 : Volume Scan Scenario : 5G NR n48 SRS#2 + Bluetooth

Multi-Band Average SAR
Multi-Band Configurations:

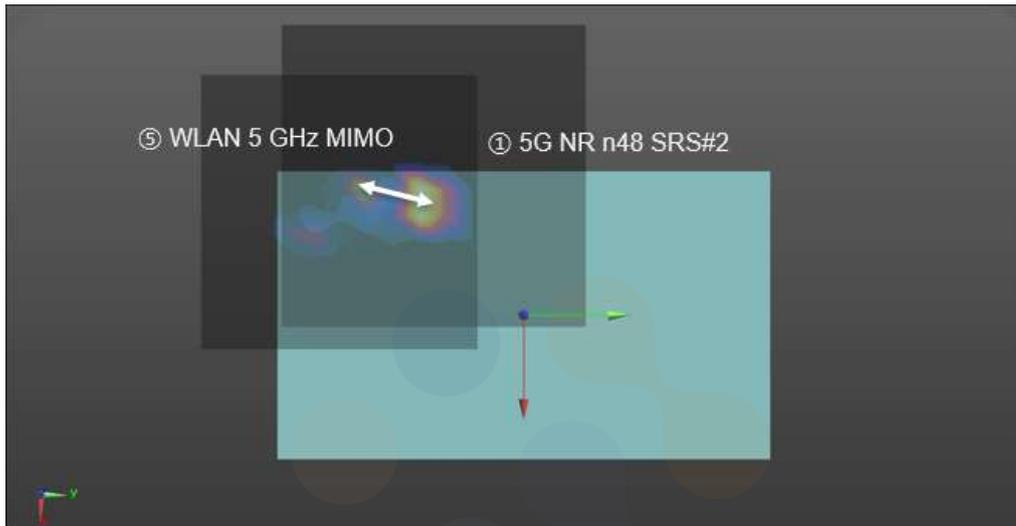
DASY Configuration for Configuration/5G NR n48 DFT-S-OFDM_QPSK_SCS 30kHz_40 MHz 1RB
lffset_CH641666_Rear_0 mm Grip Sensor on VS/Volume Scan:

DASY Configuration for Configuration/Bluetooth_DH5_BDR_Ch0_Rear_0 mm Grip Sensor on VS/Volume
Scan:

Multi Band Result:
SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.362 W/kg
Maximum value of SAR (interpolated) = 3.21 W/kg



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		2.078	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
30.82	0.10	①	5G NR n48 SRS#2	0.834	-0.05100	-0.03840	-0.18000
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



12.3.27.2 Volume Scan Analysis

Exposure Condition /Position		Enlarge Zoom 5G NR n48 [W/kg]	Enlarge Zoom WLAN 5 GHz [W/kg]	Scaled Volume Scan SUM Result [W/kg]
		SRS#2	MIMO	
Body	Rear	0.790	0.881	1.140



5G NR n48 SRS#2 Standalone Volume Scan Plot – Rear

Date: 11/16/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
 File Name: [5G NR n48 SRS #2 Body VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3624.99 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 3624.99$ MHz; $\sigma = 2.942$ S/m; $\epsilon_r = 38.623$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

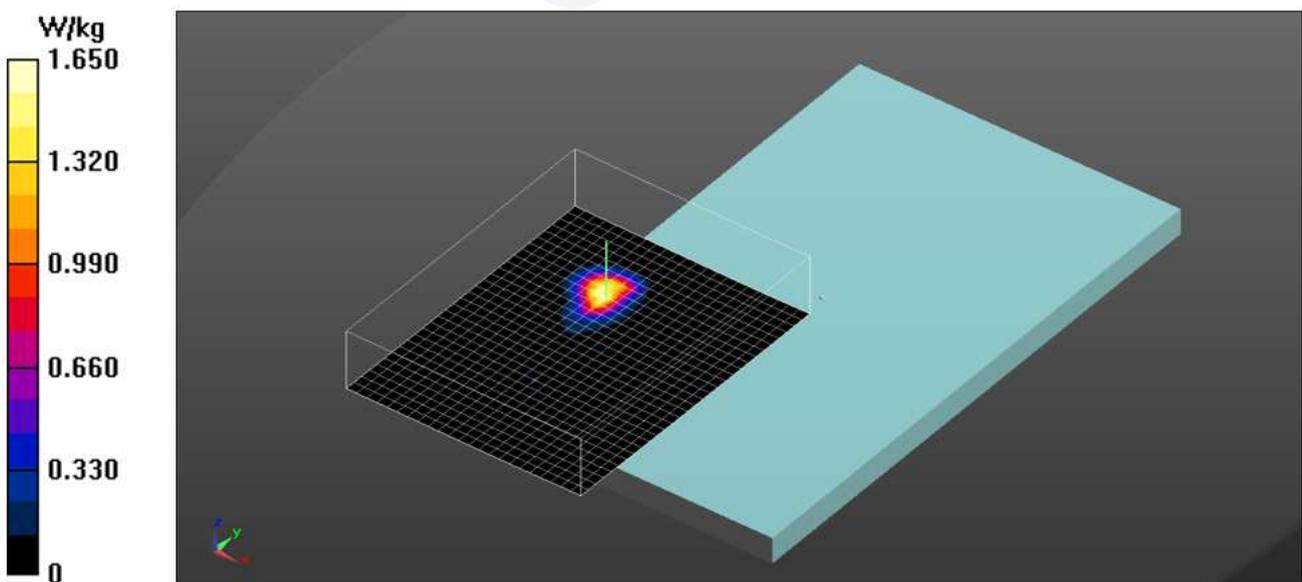
DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3624.99 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n48 DFT-S-OFDM_QPSK_SCS 30kHz_40 MHz 1RB 1offset_CH641666_Rear_0 mm Grip

Sensor on VS/Volume Scan (24x31x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 24.61 V/m; Power Drift = -0.07 dB
 Peak SAR (extrapolated) = 2.37 W/kg
SAR(1 g) = 0.790 W/kg; SAR(10 g) = 0.230 W/kg
 Total Absorbed Power = 0.00330 W

Info: Interpolated medium parameters used for SAR evaluation.
 Maximum value of SAR (measured) = 1.65 W/kg



WLAN 5 GHz MIMO Standalone Volume Scan Plot – Rear

Date: 11/16/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
 File Name: [WLAN 5.6GHz MIMO Body VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, 5GWLAN (0); Frequency: 5620 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 5620 \text{ MHz}$; $\sigma = 5.054 \text{ S/m}$; $\epsilon_r = 34.299$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

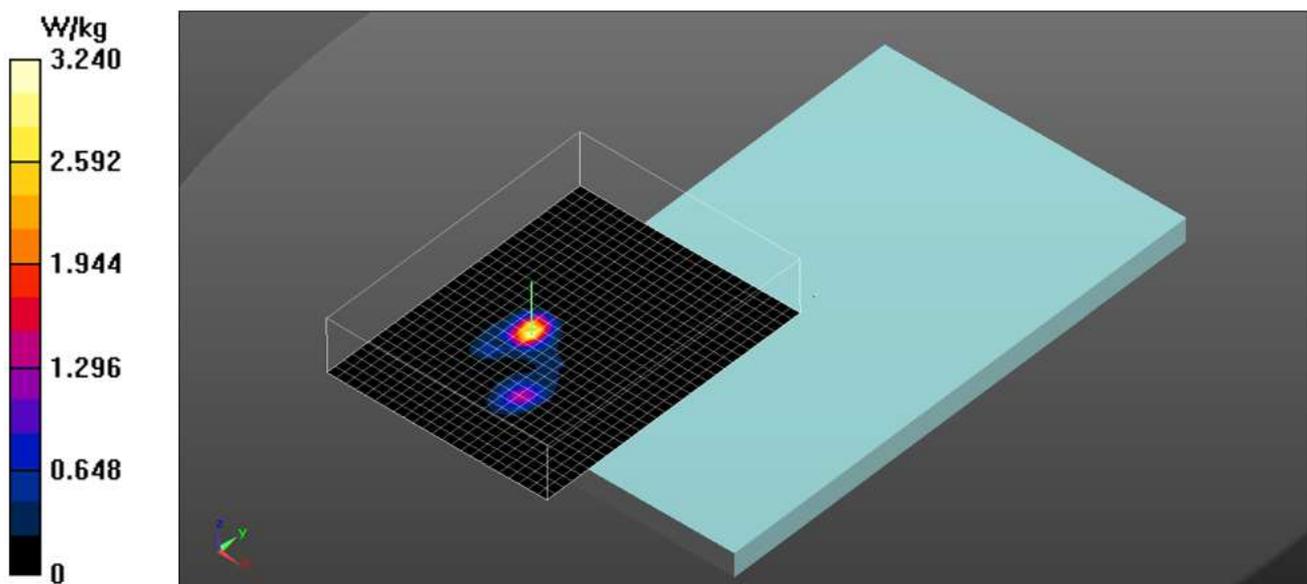
- Probe: EX3DV4 - SN3697;ConvF(4.46, 4.46, 4.46) @ 5620 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WLAN5GHz_802.11a_Ch124_MIMO_Rear_0 mm_Grip Sensor On/Volume Scan (24x31x7):

Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$
 Reference Value = 12.31 V/m; Power Drift = 0.19 dB
 Peak SAR (extrapolated) = 5.89 W/kg
SAR(1 g) = 0.881 W/kg; SAR(10 g) = 0.141 W/kg
 Total Absorbed Power = 0.00233 W

Info: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 3.24 W/kg



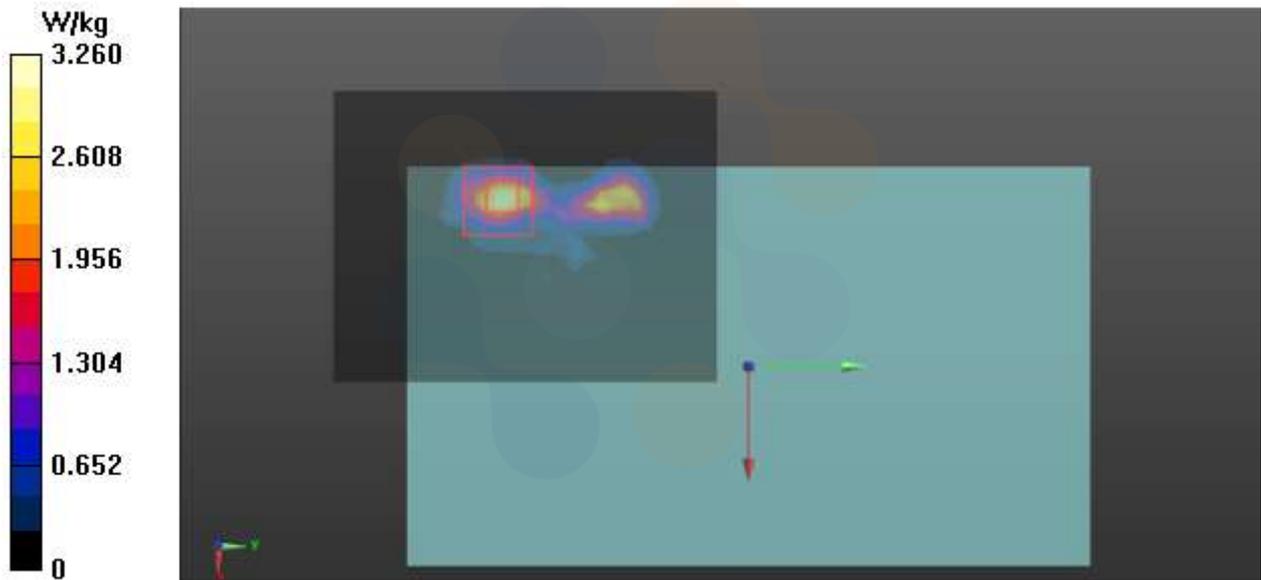
No.2 : Volume Scan Scenario : 5G NR n48 SRS#2 + WLAN 5 GHz MIMO

Multi-Band Average SAR
Multi-Band Configurations:

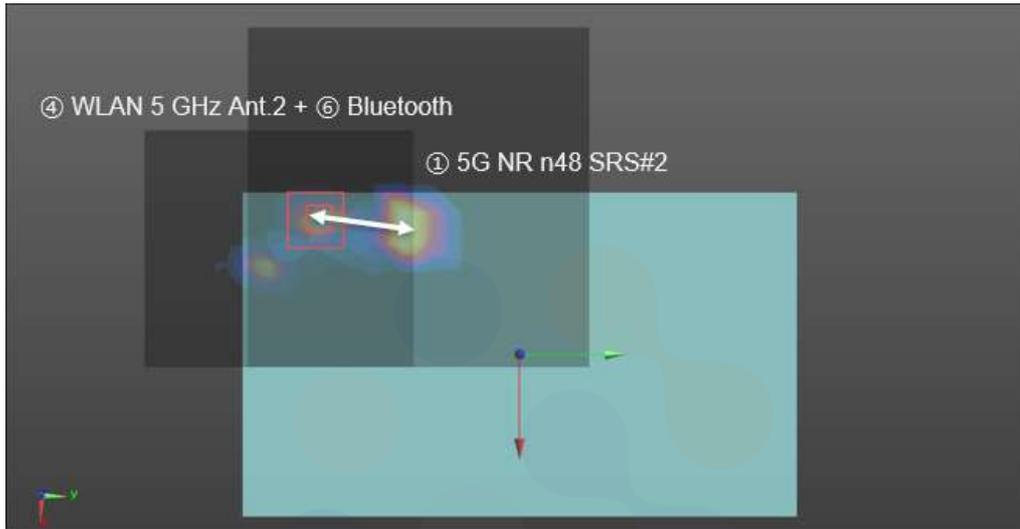
DASY Configuration for Configuration/5G NR n48 DFT-S-OFDM_QPSK_SCS 30kHz_40 MHz 1RB
loffset_CH641666_Rear_0 mm Grip Sensor on VS/Volume Scan:

DASY Configuration for Configuration/WLAN5GHz_802.11a_Ch124_MIMO_Rear_0 mm_Grip Sensor
On/Volume Scan:

Multi Band Result:
SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.233 W/kg
Maximum value of SAR (interpolated) = 6.61 W/kg



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.482	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
38.81	0.07	①	5G NR n48 SRS#2	0.834	-0.05100	-0.03840	-0.18000
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400



12.3.27.3 Volume Scan Analysis

Exposure Condition /Position		Enlarge Zoom 5G NR n48 [W/kg]	Enlarge Zoom WLAN 5 GHz [W/kg]	Enlarge Zoom Bluetooth [W/kg]	Scaled Volume Scan SUM Result [W/kg]
		SRS#2	Ant.2	Ant.1	
Body	Rear	0.790	0.435	0.678	1.180



5G NR n48 SRS#2 Standalone Volume Scan Plot – Rear

Date: 11/16/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [5G NR n48 SRS #2 Body VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3624.99 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 3624.99$ MHz; $\sigma = 2.942$ S/m; $\epsilon_r = 38.623$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

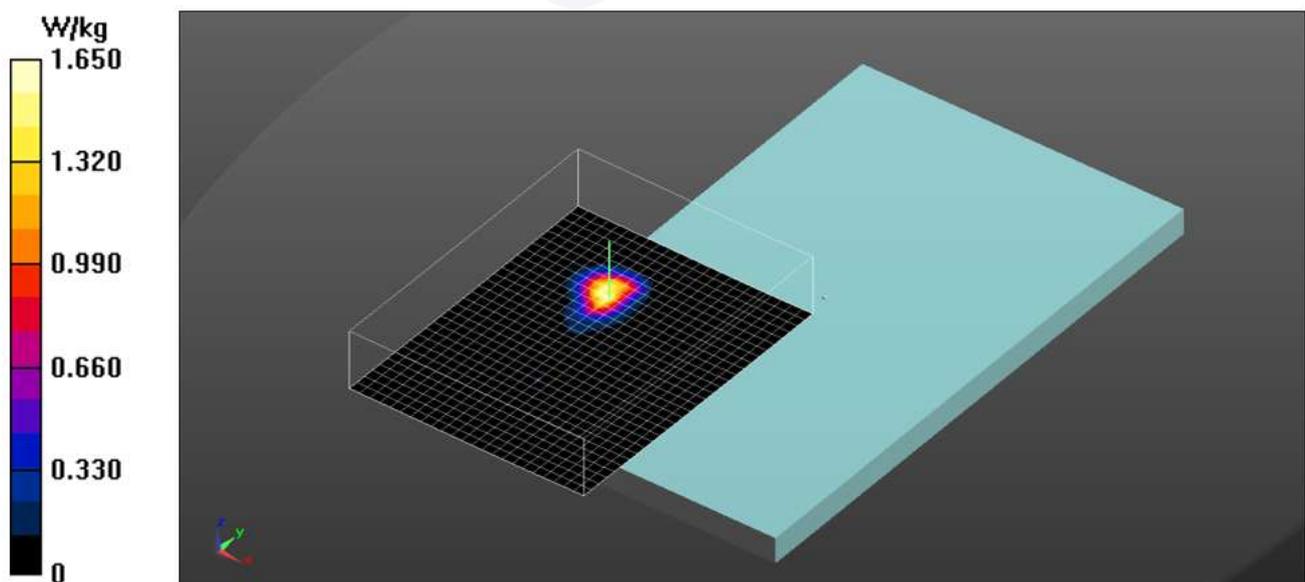
DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3624.99 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n48 DFT-S-OFDM_QPSK_SCS 30kHz_40 MHz 1RB 1offset_CH641666_Rear_0 mm Grip

Sensor on VS/Volume Scan (24x31x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 24.61 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 2.37 W/kg
SAR(1 g) = 0.790 W/kg; SAR(10 g) = 0.230 W/kg
Total Absorbed Power = 0.00330 W

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.65 W/kg



WLAN 5 GHz Ant.2 Standalone Volume Scan Plot – Rear

Date: 11/16/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [1. WLAN 5.3GHz WIFI2 Body VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, 5GWLAN (0); Frequency: 5260 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5260 \text{ MHz}$; $\sigma = 4.648 \text{ S/m}$; $\epsilon_r = 35.005$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

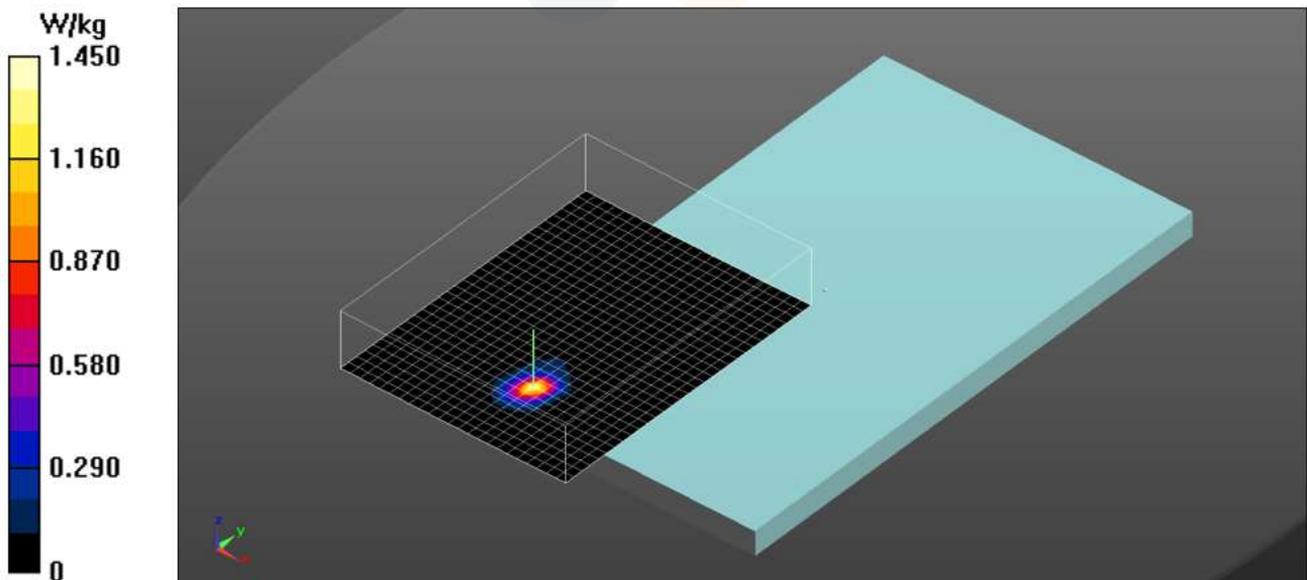
DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(4.8, 4.8, 4.8) @ 5260 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WLAN5GHz_802.11a_Ch52_WIFI2_Rear_0 mm_Grip Sensor On/Volume Scan (24x31x7):

Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$
Reference Value = 17.90 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 4.96 W/kg
SAR(1 g) = 0.435 W/kg; SAR(10 g) = 0.084 W/kg
Total Absorbed Power = 0.00102 W

Maximum value of SAR (measured) = 1.45 W/kg



Bluetooth Standalone Volume Scan Plot – Rear

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
 File Name: [Bluetooth_BDR_Body_VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, Bluetooth (0); Frequency: 2402 Mhz; Duty Cycle: 1:1.30167
 Medium parameters used (interpolated): $f = 2402$ Mhz; $\sigma = 1.731$ S/m; $\epsilon_r = 37.918$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

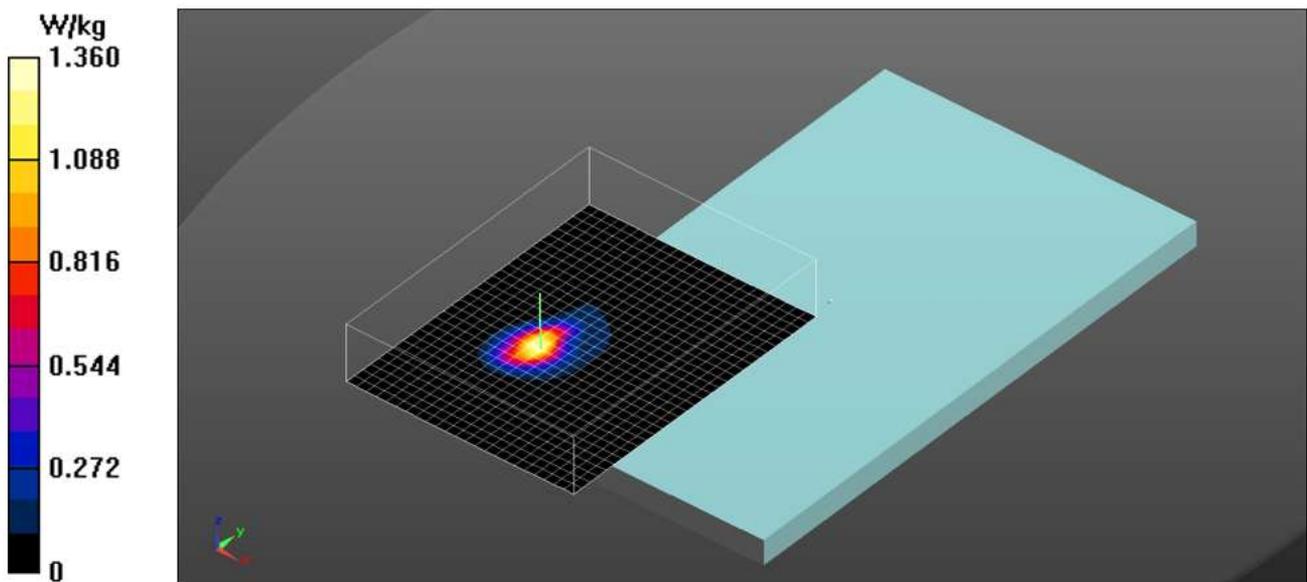
DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.2, 7.2, 7.2) @ 2402 Mhz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/Bluetooth_DH5_BDR_Ch0_Rear_0 mm Grip Sensor on VS/Volume Scan (24x31x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 29.23 V/m; Power Drift = 0.15 dB
 Peak SAR (extrapolated) = 1.98 W/kg
SAR(1 g) = 0.678 W/kg; SAR(10 g) = 0.206 W/kg
 Total Absorbed Power = 0.00295 W

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.36 W/kg



No.3 : Volume Scan Scenario : 5G NR n48 SRS#2 + WLAN 5 GHz Ant.2 + Bluetooth

Multi-Band Average SAR
Multi-Band Configurations:

DASY Configuration for Configuration/5G NR n48 DFT-S-OFDM_QPSK_SCS 30kHz_40 MHz 1RB
loffset_CH641666_Rear_0 mm Grip Sensor on VS/Volume Scan:

DASY Configuration for Configuration/WLAN5GHz_802.11a_Ch52_WIFI2_Rear_0 mm_Grip Sensor
On/Volume Scan:

DASY Configuration for Configuration/Bluetooth_DH5_BDR_Ch0_Rear_0 mm Grip Sensor on VS/Volume
Scan:

Multi Band Result:

SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.366 W/kg
Maximum value of SAR (interpolated) = 3.21 W/kg

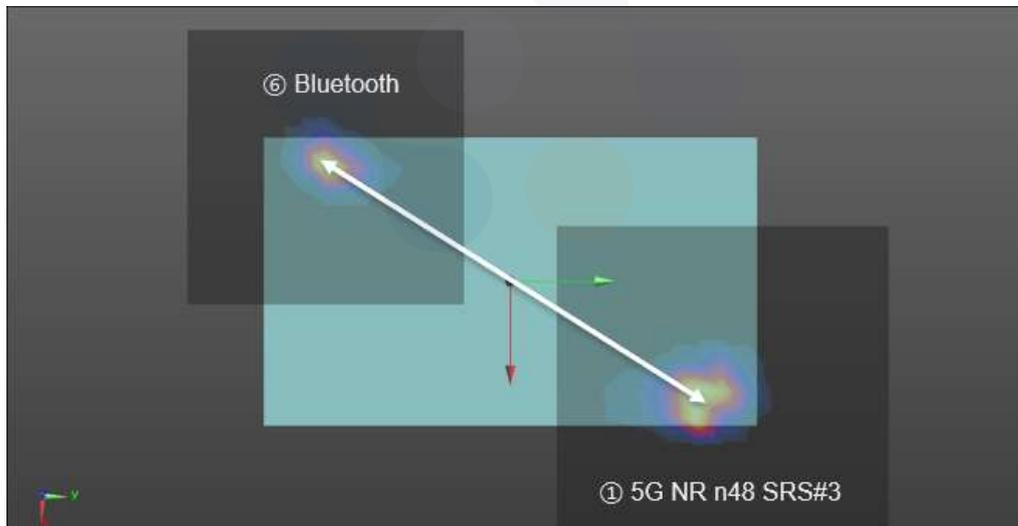


12.3.28 5G NR n48 SRS#3

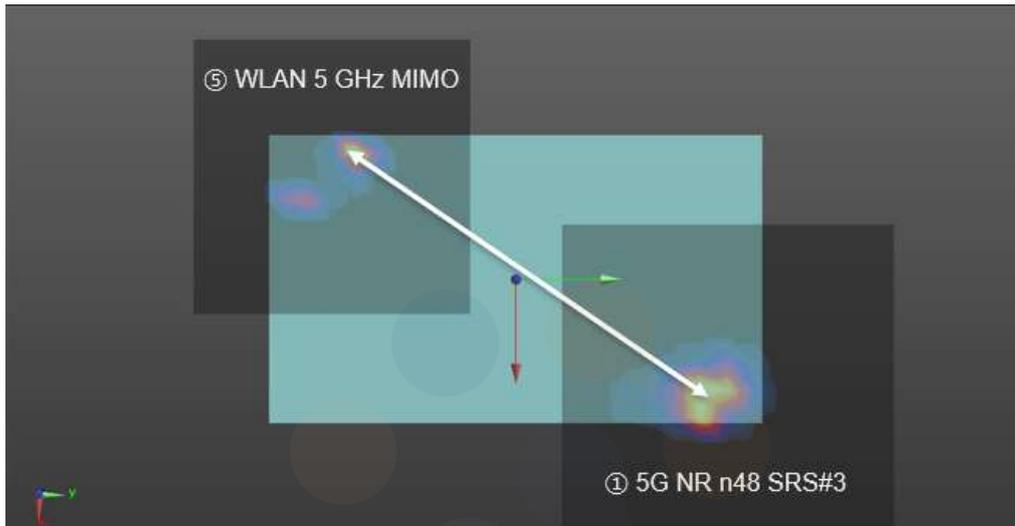
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n48 SRS#3 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.648	1.777	2.181
Volume scan	Not Required		

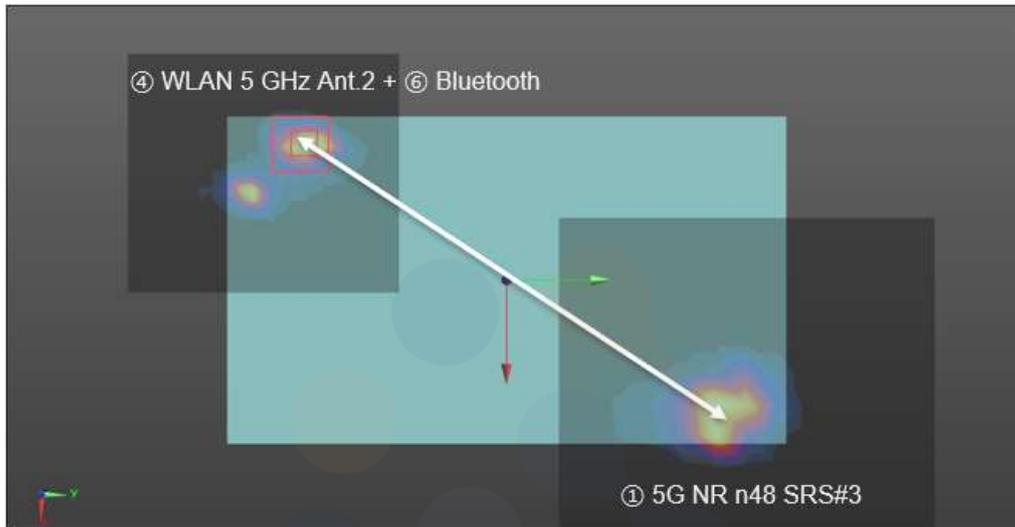
Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	1.648				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
190.03	0.01	①	5G NR n48 SRS#3	0.533	0.05520	0.07920	-0.17900
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.777	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
182.84	0.01	①	5G NR n48 SRS#3	0.533	0.05520	0.07920	-0.17900
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.181	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
188.95	0.01	①	5G NR n48 SRS#3	0.533	0.05520	0.07920	-0.17900
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

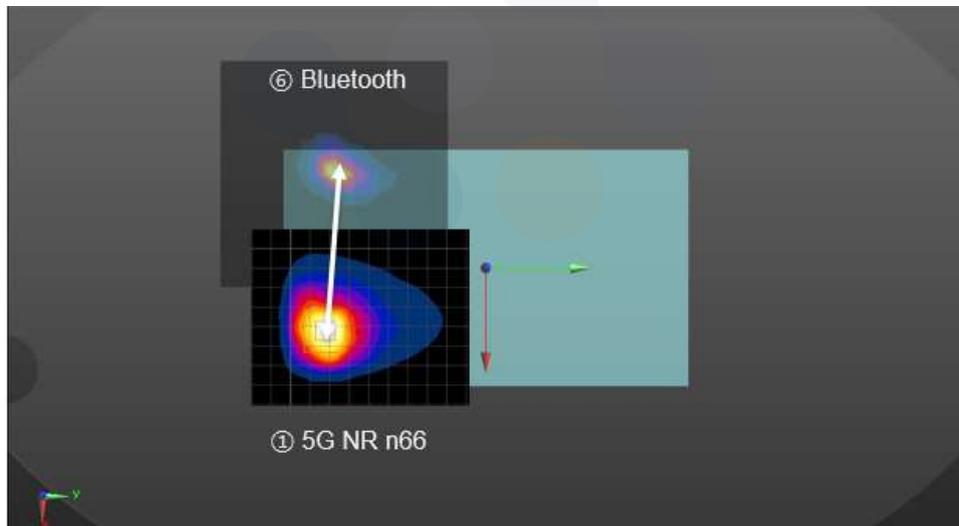


12.3.29 5G NR n66

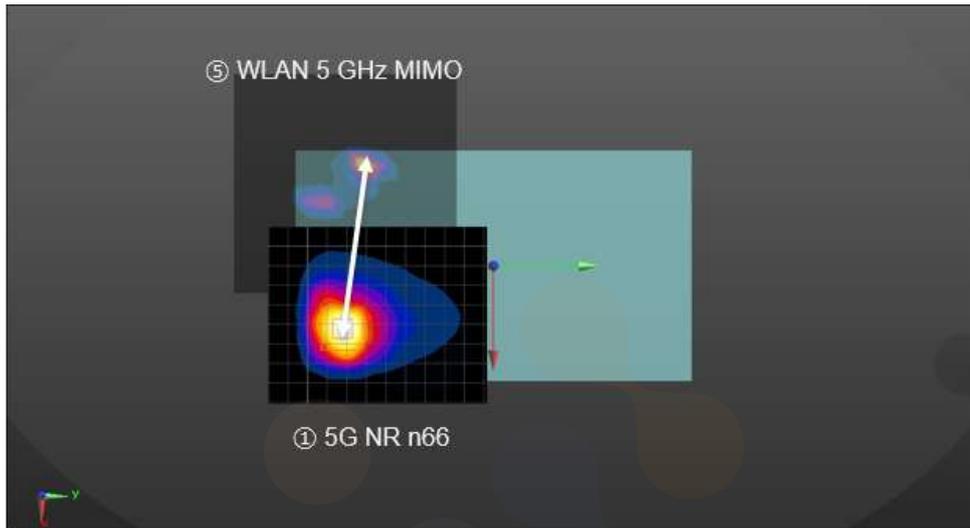
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n66 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.832	1.961	2.365
Volume scan	Not Required		

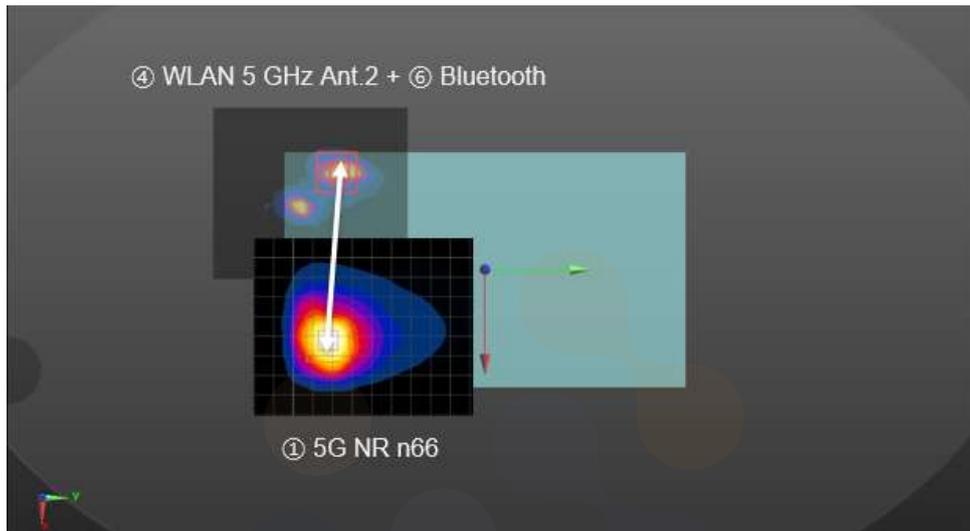
Scenario No.	Scenario	Position	SUM				
1	[①]+[⑥]	Rear	1.832				
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
100.79	0.03	①	5G NR n66	0.717	0.04660	-0.08900	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.961	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
100.20	0.03	①	5G NR n66	0.717	0.04660	-0.08900	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.365	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
98.58	0.03	①	5G NR n66	0.717	0.04660	-0.08900	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

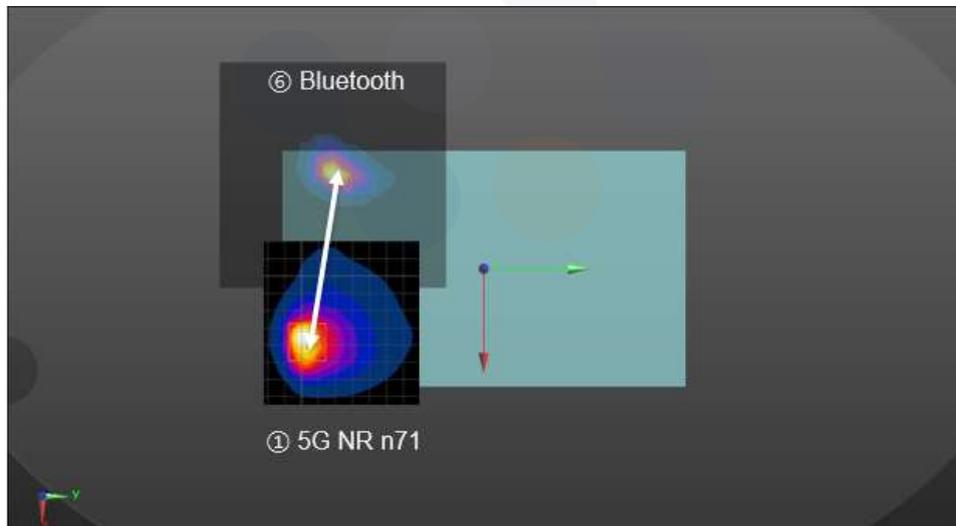


12.3.30 5G NR n71

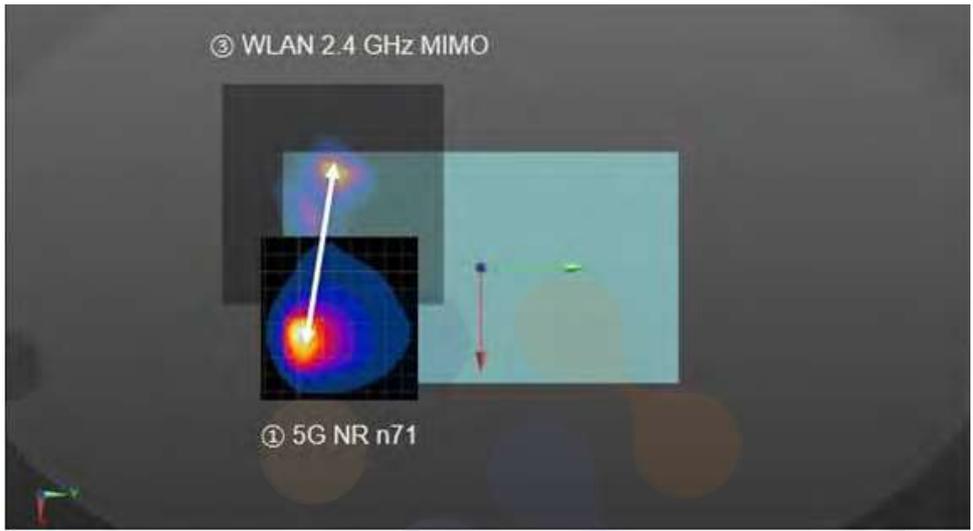
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n71 SPLSR – Rear Position				
Scenario No.	No.1	No.4	No.5	No.6
Scenario	[①]+[⑥]	[①]+[③]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	2.018	1.653	2.147	2.551
Volume scan	Not Required			

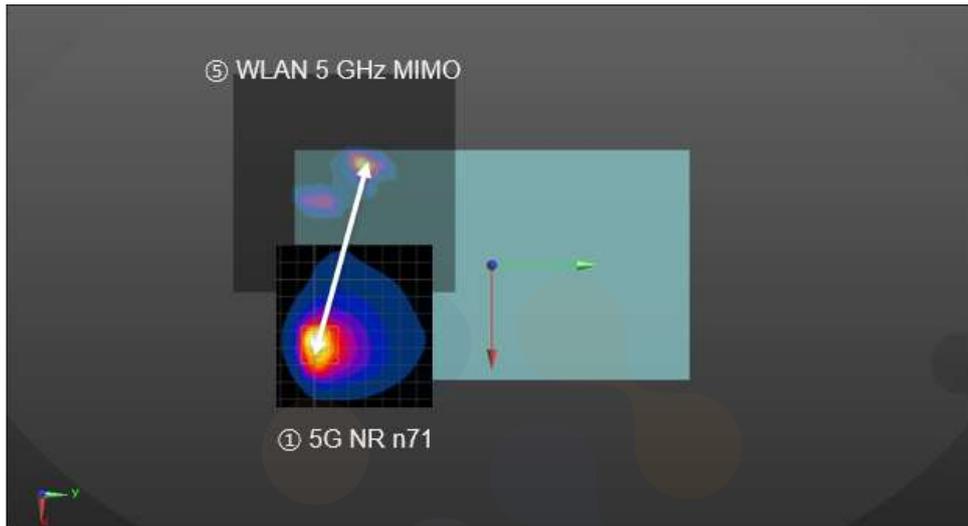
Scenario No.	Scenario		Position		SUM		
1	[①]+[⑥]		Rear		2.018		
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
94.33	0.03	①	5G NR n71	0.903	0.03840	-0.09820	-0.17700
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



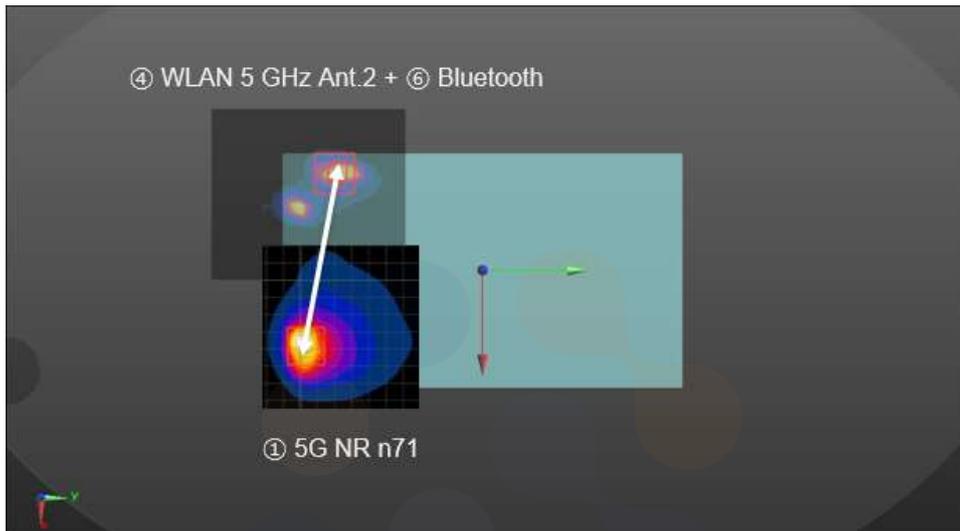
Scenario No.		Scenario		Position		SUM	
4		[①]+[③]		Rear		1.653	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
93.67	0.02	①	5G NR n71	0.903	0.03840	-0.09820	-0.17700
		③	WLAN 2.4 GHz MIMO	0.750	-0.05280	-0.07800	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		2.147	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
94.58	0.03	①	5G NR n71	0.903	0.03840	-0.09820	-0.17700
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.551	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
92.15	0.03	①	5G NR n71	0.903	0.03840	-0.09820	-0.17700
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400



12.3.31 5G NR n77

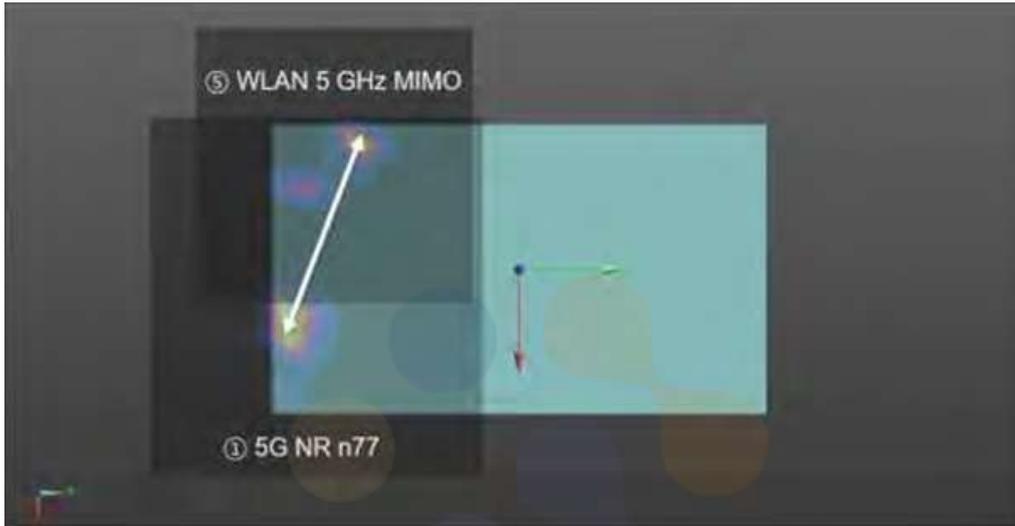
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n77 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.892	2.021	2.425
Volume scan	Not Required		

Scenario No.		Scenario		Position			SUM
1		[①]+[⑥]		Rear			1.892
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
79.55	0.03	①	5G NR n77	0.777	0.02340	-0.09740	-0.17800
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		2.021	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
80.13	0.04	①	5G NR n77	0.777	0.02340	-0.09740	-0.17800
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.425	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
77.38	0.03	①	5G NR n77	0.777	0.02340	-0.09740	-0.17800
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

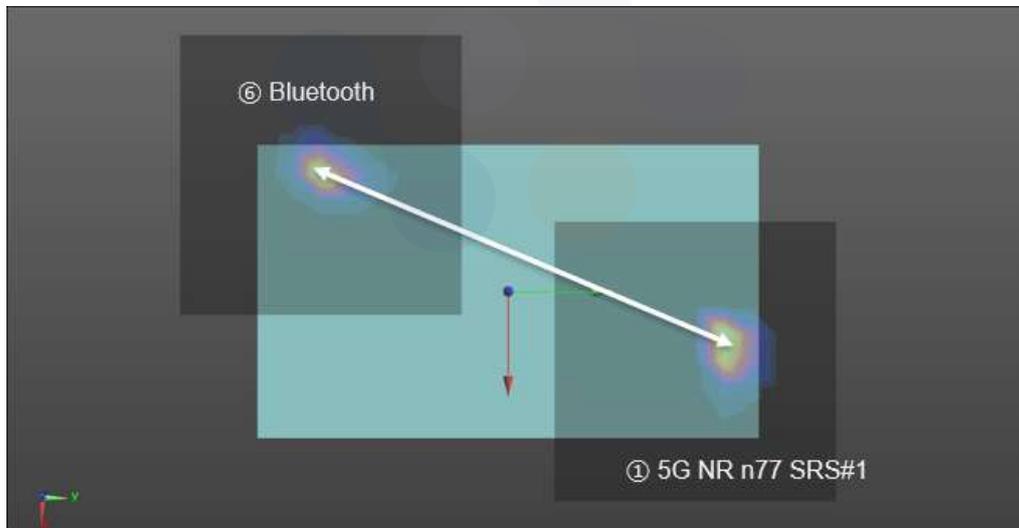


12.3.32 5G NR n77 SRS#1

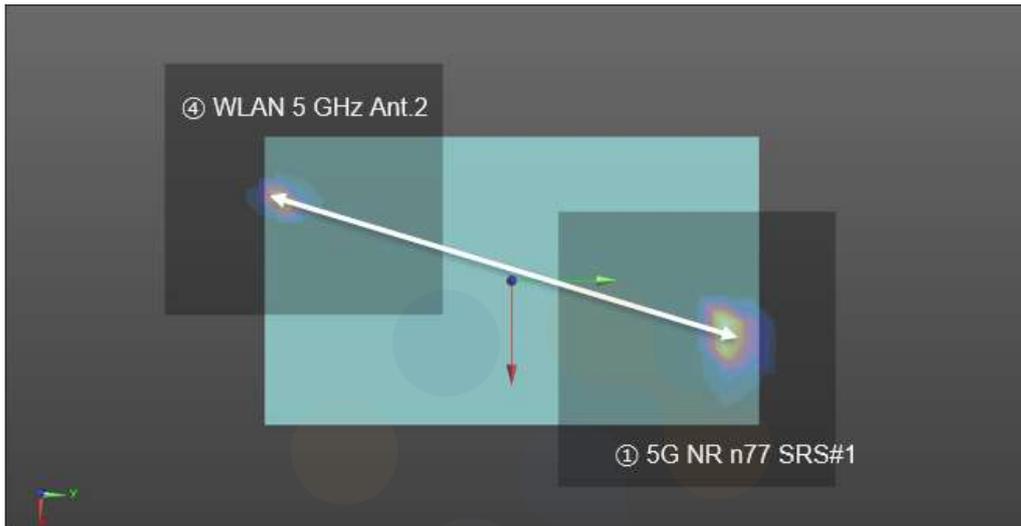
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n77 SRS#1 SPLSR – Rear Position					
Scenario No.	No.1	No.3	No.4	No.5	No.6
Scenario	[①]+[⑥]	[①]+[④]	[①]+[③]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	2.212	1.630	1.847	2.341	2.745
Volume scan	Not Required				

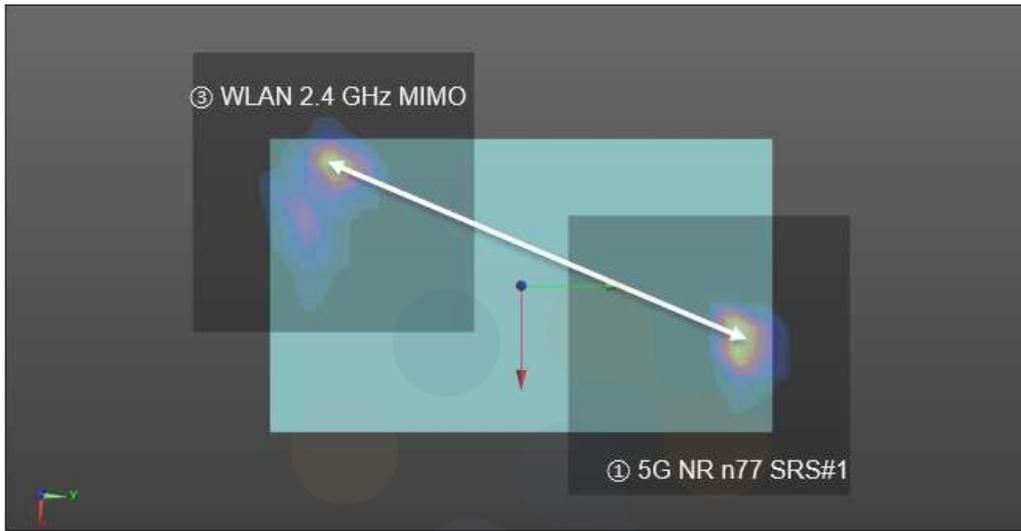
Scenario No.	Scenario		Position		SUM		
1	[①]+[⑥]		Rear		2.212		
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
190.33	0.02	①	5G NR n77 SRS#1	1.097	0.02560	0.09640	-0.18000
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



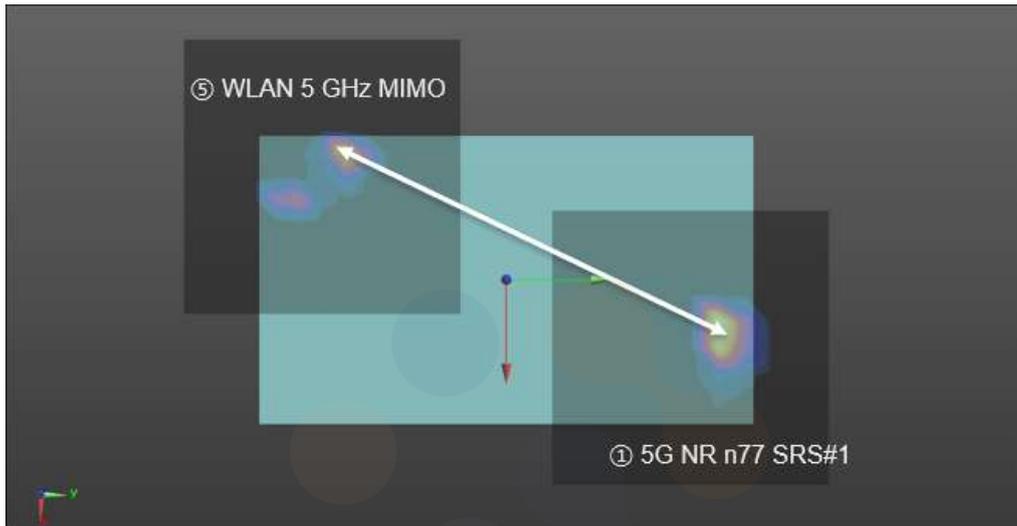
Scenario No.		Scenario		Position		SUM	
3		[①]+[④]		Rear		1.630	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
202.68	0.01	①	5G NR n77 SRS#1	1.097	0.02560	0.09640	-0.18000
		④	WLAN 5 GHz Ant.2	0.533	-0.03360	-0.09740	-0.18400



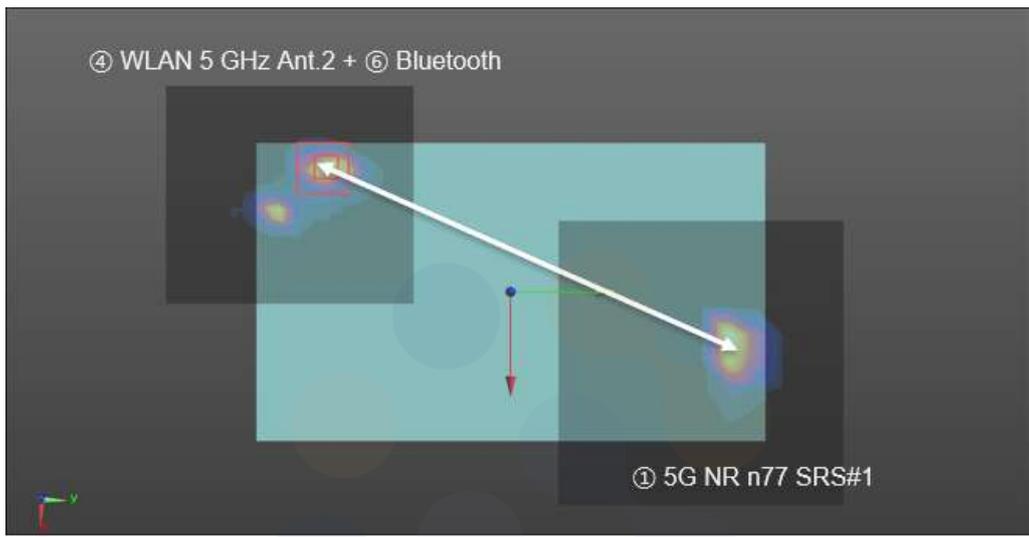
Scenario No.		Scenario		Position		SUM	
4		[①]+[③]		Rear		1.847	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
191.25	0.01	①	5G NR n77 SRS#1	1.097	0.02560	0.09640	-0.18000
		③	WLAN 2.4 GHz MIMO	0.750	-0.05280	-0.07800	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		2.341	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
182.71	0.02	①	5G NR n77 SRS#1	1.097	0.02560	0.09640	-0.18000
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.745	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
189.61	0.02	①	5G NR n77 SRS#1	1.097	0.02560	0.09640	-0.18000
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400

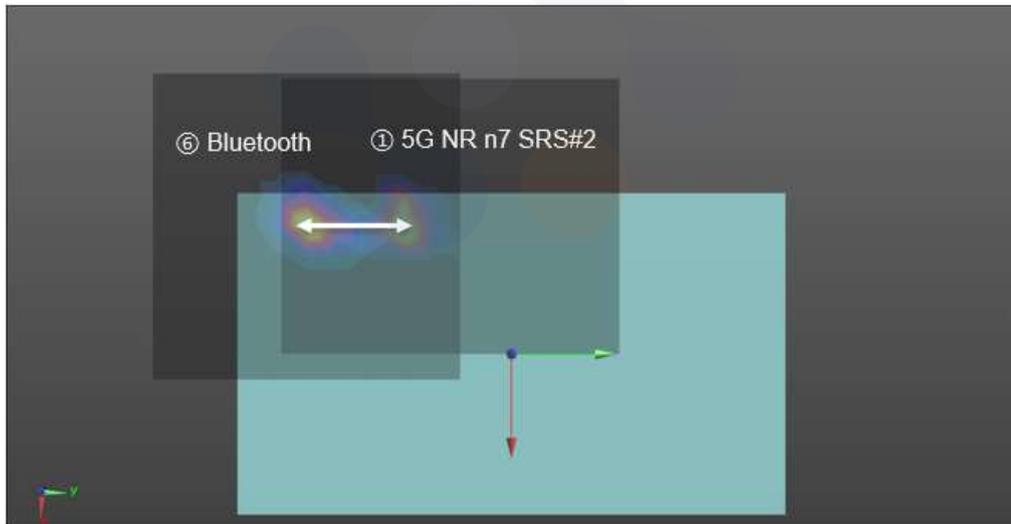


12.3.33 5G NR n77 SRS#2

licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n77 SRS#2 SPLSR – Rear Position				
Scenario No.	No.1	No.4	No.5	No.6
Scenario	[①]+[⑥]	[①]+[③]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	2.041	1.676	2.170	2.574
Volume scan	Required			

Scenario No.		Scenario		Position			SUM
1		[①]+[⑥]		Rear			2.041
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
41.64	0.07	①	5G NR n77 SRS#2	0.926	-0.04980	-0.03560	-0.17900
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



12.3.33.1 Volume Scan Analysis

Exposure Condition /Position		Enlarge Zoom 5G NR n77 [W/kg]	Enlarge Zoom Bluetooth [W/kg]	Scaled Volume Scan SUM Result [W/kg]
		SRS#2	Ant.1	
Body	Rear	0.912	0.678	1.180



5G NR n77 SRS#2 Standalone Volume Scan Plot – Rear

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
 File Name: [5G NR n77 SRS #2 Body VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3500.01 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 3500.01$ MHz; $\sigma = 2.855$ S/m; $\epsilon_r = 37.135$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

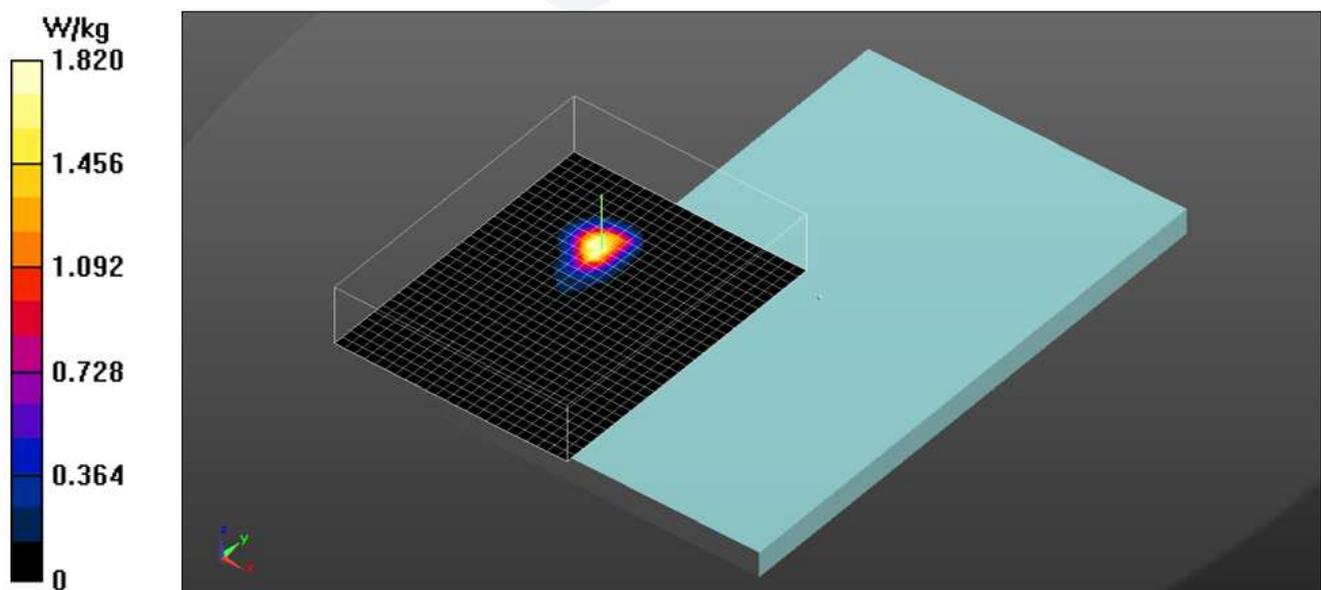
DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500.01 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100 MHz 1RB 137offset_CH633334_Rear_0 mm

Grip Sensor on VS/Volume Scan (24x31x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 23.52 V/m; Power Drift = -0.06 dB
 Peak SAR (extrapolated) = 2.81 W/kg
SAR(1 g) = 0.912 W/kg; SAR(10 g) = 0.263 W/kg
 Total Absorbed Power = 0.00369 W

Info: Interpolated medium parameters used for SAR evaluation.
 Maximum value of SAR (measured) = 1.82 W/kg



Bluetooth Standalone Volume Scan Plot – Rear

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [Bluetooth_BDR_Body_VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, Bluetooth (0); Frequency: 2402 Mhz; Duty Cycle: 1:1.30167
Medium parameters used (interpolated): $f = 2402$ Mhz; $\sigma = 1.731$ S/m; $\epsilon_r = 37.918$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

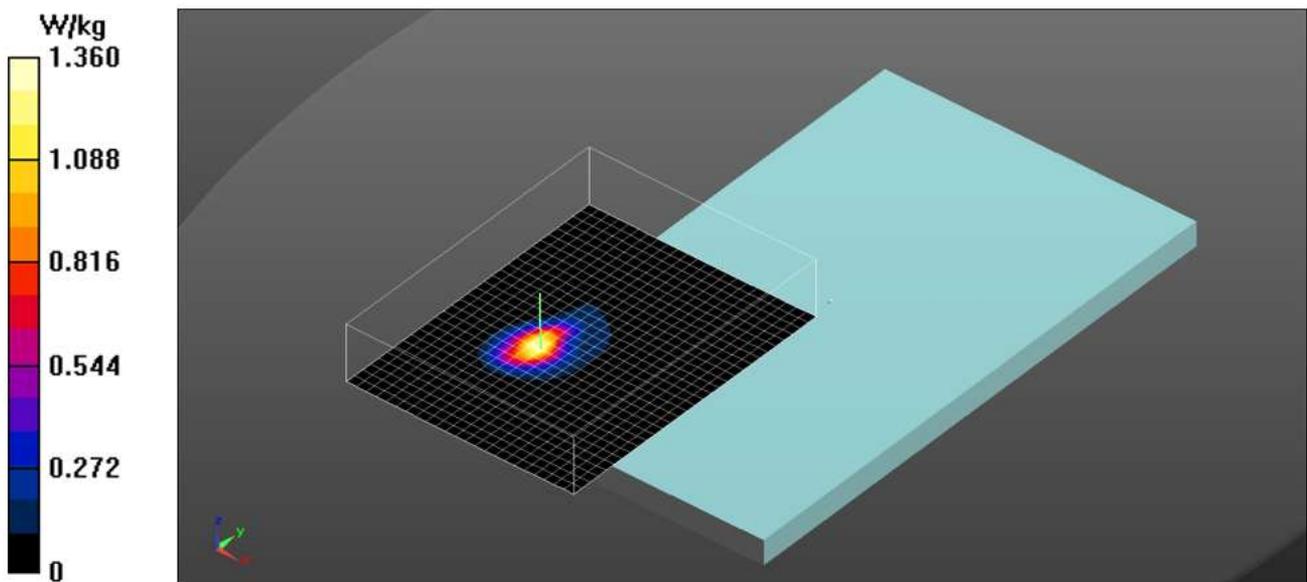
DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.2, 7.2, 7.2) @ 2402 Mhz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/Bluetooth_DH5_BDR_Ch0_Rear_0 mm Grip Sensor on VS/Volume Scan (24x31x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 29.23 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 1.98 W/kg
SAR(1 g) = 0.678 W/kg; SAR(10 g) = 0.206 W/kg
Total Absorbed Power = 0.00295 W

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.36 W/kg



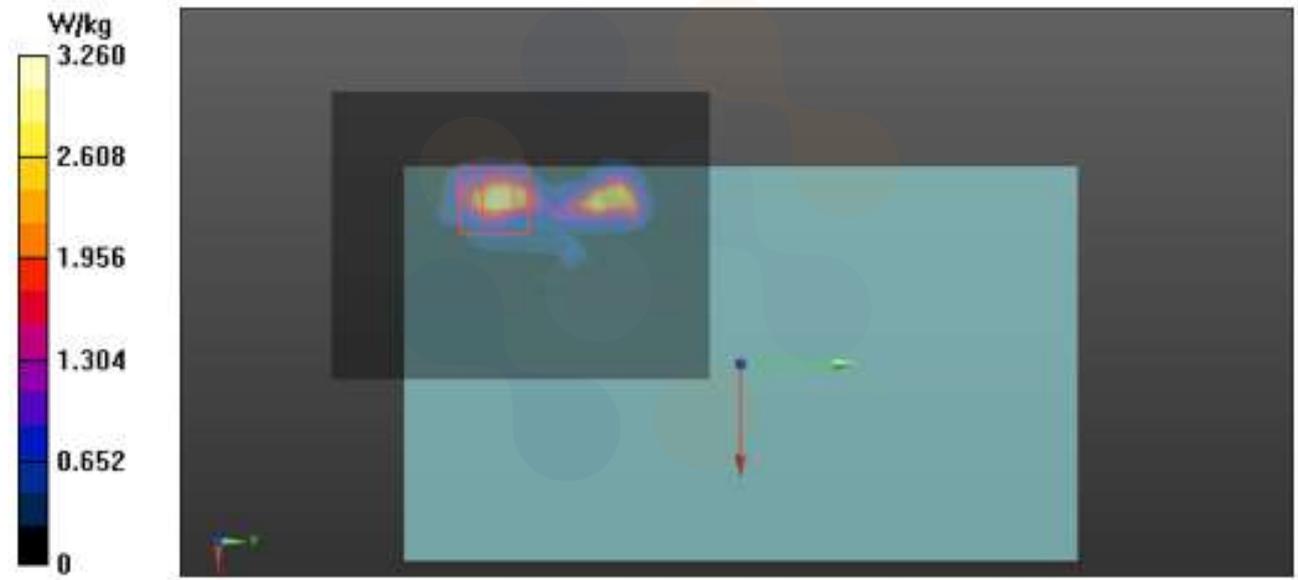
No.1 : Volume Scan Scenario : 5G NR n77 SRS#2 + Bluetooth

Multi-Band Average SAR
Multi-Band Configurations:

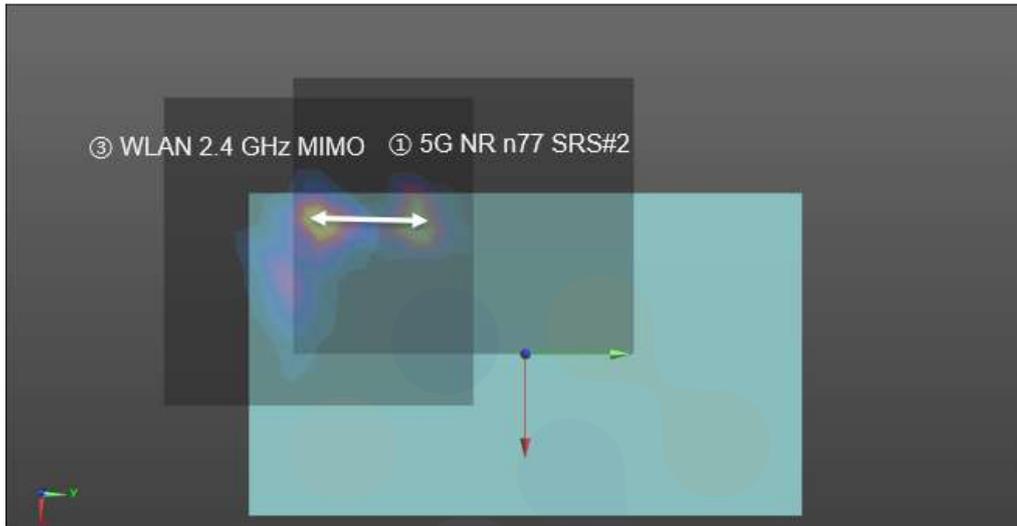
**DASY Configuration for Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100 MHz 1RB
137offset_CH633334_Rear_0 mm Grip Sensor on VS/Volume Scan:**

**DASY Configuration for Configuration/Bluetooth_DH5_BDR_Ch0_Rear_0 mm Grip Sensor on VS/Volume
Scan:**

Multi Band Result:
SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.364 W/kg
Maximum value of SAR (interpolated) = 3.26 W/kg



Scenario No.		Scenario		Position		SUM	
4		[①]+[③]		Rear		1.676	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
42.80	0.05	①	5G NR n77 SRS#2	0.926	-0.04980	-0.03560	-0.17900
		③	WLAN 2.4 GHz MIMO	0.750	-0.05280	-0.07800	-0.18400



12.3.33.2 Volume Scan Analysis

Exposure Condition /Position		Enlarge Zoom 5G NR n77 [W/kg]	Enlarge Zoom WLAN 2.4 GHz [W/kg]	Scaled Volume Scan SUM Result [W/kg]
		SRS#2	MIMO	
Body	Rear	0.912	0.558	0.928



5G NR n77 SRS#2 Standalone Volume Scan Plot – Rear

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
 File Name: [5G NR n77 SRS #2 Body VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3500.01 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 3500.01$ MHz; $\sigma = 2.855$ S/m; $\epsilon_r = 37.135$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

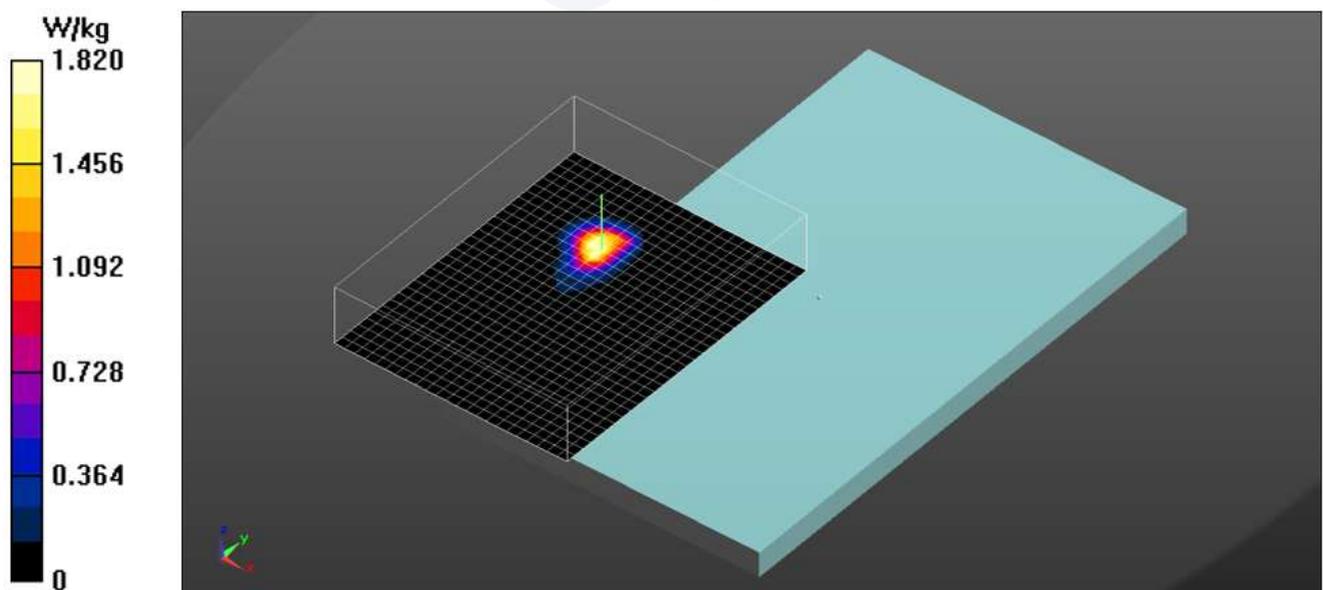
DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500.01 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100 MHz 1RB 137offset_CH633334_Rear_0 mm

Grip Sensor on VS/Volume Scan (24x31x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 23.52 V/m; Power Drift = -0.06 dB
 Peak SAR (extrapolated) = 2.81 W/kg
SAR(1 g) = 0.912 W/kg; SAR(10 g) = 0.263 W/kg
 Total Absorbed Power = 0.00369 W

Info: Interpolated medium parameters used for SAR evaluation.
 Maximum value of SAR (measured) = 1.82 W/kg



WLAN 2.4 GHz MIMO Standalone Volume Scan Plot – Rear

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
 File Name: [WLAN 2.4 GHz MIMO Body VS.da53:0](#)

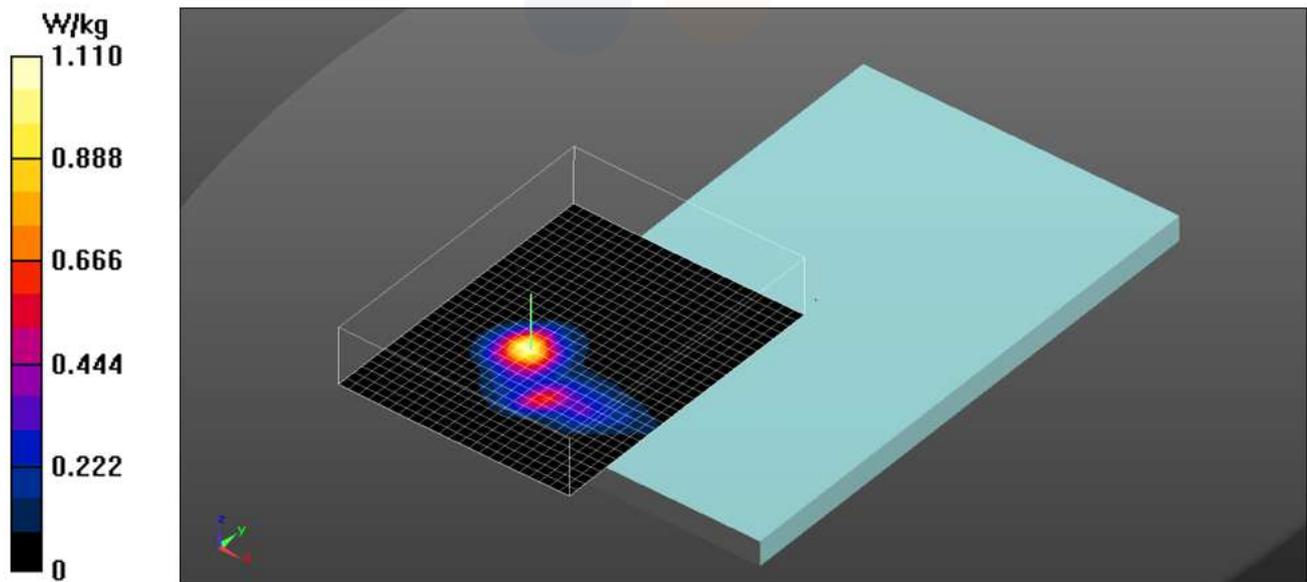
DUT: SM-X308U, Type: Tablet, Serial: R32WA0019PJ

Communication System: UID 0, 2.4GWLAN (0); Frequency: 2462 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.773 \text{ S/m}$; $\epsilon_r = 37.68$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.2, 7.2, 7.2) @ 2462 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/802.11 b_MIMO_CH11_Rear_0 mm_Grip Sensor On VS/Volume Scan (24x31x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 25.60 V/m; Power Drift = 0.09 dB
 Peak SAR (extrapolated) = 1.68 W/kg
SAR(1 g) = 0.558 W/kg; SAR(10 g) = 0.222 W/kg
 Total Absorbed Power = 0.00643 W
 Maximum value of SAR (measured) = 1.11 W/kg



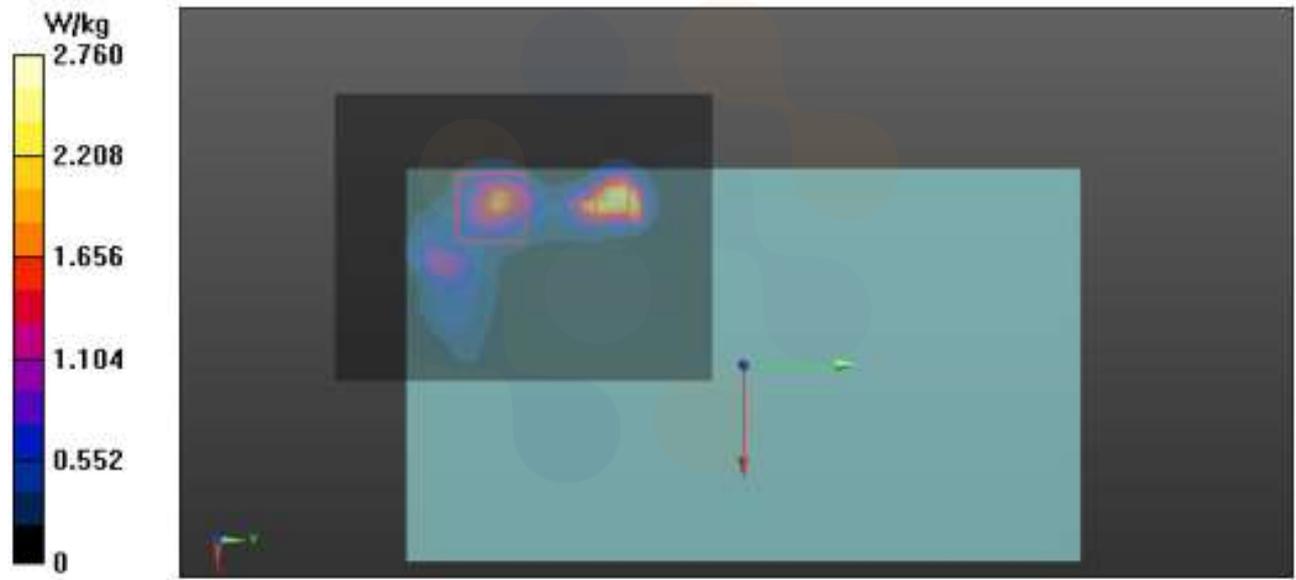
No.2 : Volume Scan Scenario : 5G NR n77 SRS#2 + WLAN 2.4 GHz MIMO

Multi-Band Average SAR
Multi-Band Configurations:

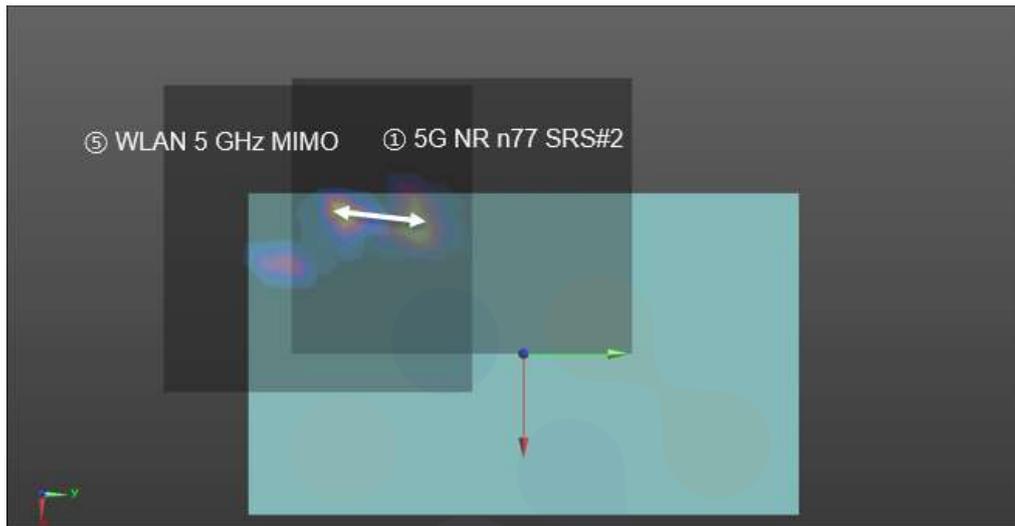
**DASY Configuration for Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100 MHz 1RB
137offset_CH633334_Rear_0 mm Grip Sensor on VS/Volume Scan:**

**DASY Configuration for Configuration/802.11 b_MIMO_CH11_Rear_0 mm_Grip Sensor On VS/Volume
Scan:**

Multi Band Result:
SAR(1 g) = 0.928 W/kg; SAR(10 g) = 0.290 W/kg
Maximum value of SAR (interpolated) = 2.76 W/kg



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		2.170	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
33.65	0.10	①	5G NR n77 SRS#2	0.926	-0.04980	-0.03560	-0.17900
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



12.3.33.3 Volume Scan Analysis

Exposure Condition /Position		Enlarge Zoom 5G NR n77 [W/kg]	Enlarge Zoom WLAN 5 GHz [W/kg]	Scaled Volume Scan SUM Result [W/kg]
		SRS#2	MIMO	
Body	Rear	0.912	0.881	1.150



5G NR n77 SRS#2 Standalone Volume Scan Plot – Rear

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
 File Name: [5G NR n77 SRS #2 Body VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3500.01 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 3500.01$ MHz; $\sigma = 2.855$ S/m; $\epsilon_r = 37.135$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

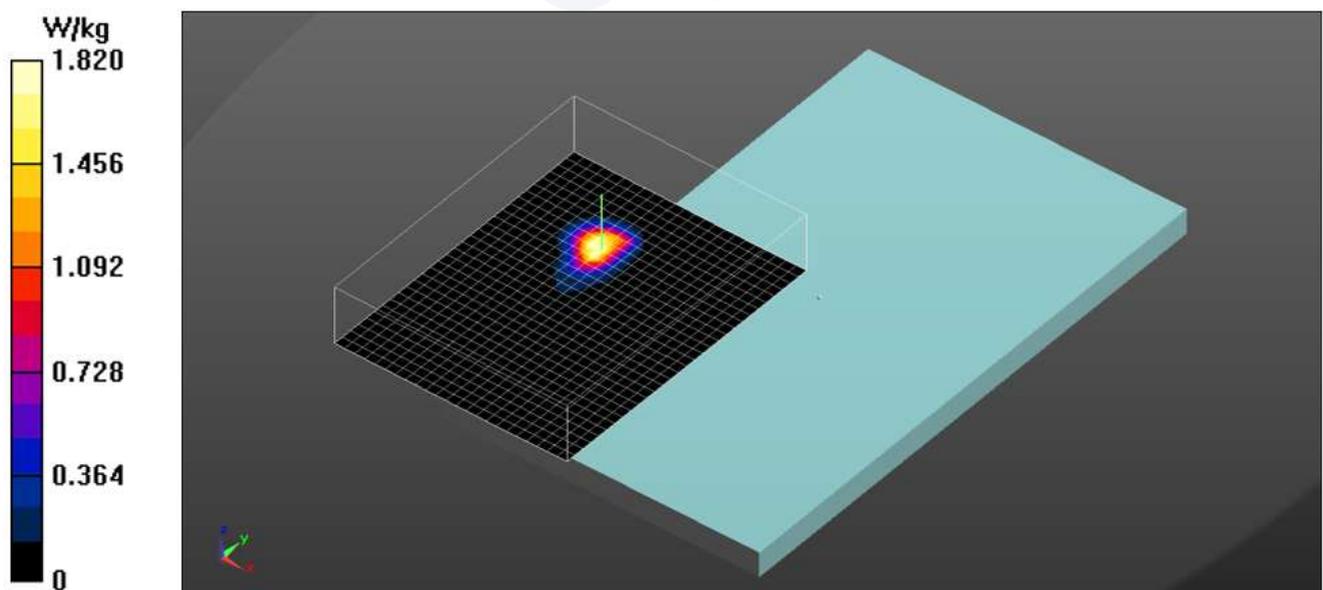
DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500.01 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100 MHz 1RB 137offset_CH633334_Rear_0 mm

Grip Sensor on VS/Volume Scan (24x31x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 23.52 V/m; Power Drift = -0.06 dB
 Peak SAR (extrapolated) = 2.81 W/kg
SAR(1 g) = 0.912 W/kg; SAR(10 g) = 0.263 W/kg
 Total Absorbed Power = 0.00369 W

Info: Interpolated medium parameters used for SAR evaluation.
 Maximum value of SAR (measured) = 1.82 W/kg



WLAN 5 GHz MIMO Standalone Volume Scan Plot – Rear

Date: 11/16/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
 File Name: [WLAN 5.6GHz MIMO Body VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, 5GWLAN (0); Frequency: 5620 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 5620 \text{ MHz}$; $\sigma = 5.054 \text{ S/m}$; $\epsilon_r = 34.299$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

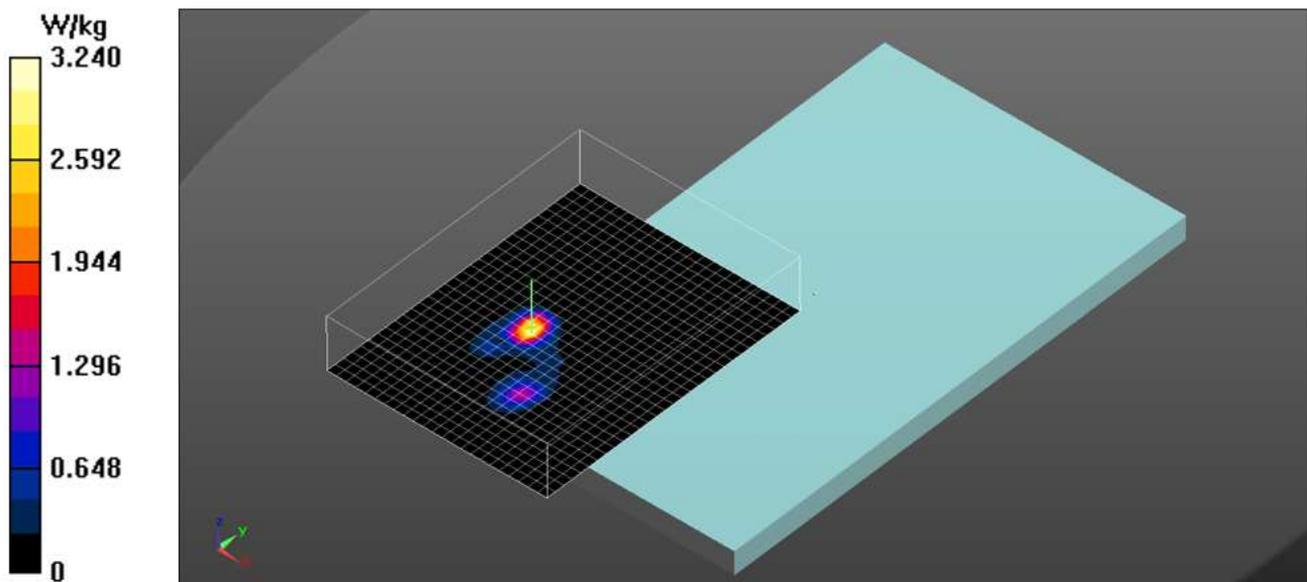
- Probe: EX3DV4 - SN3697;ConvF(4.46, 4.46, 4.46) @ 5620 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WLAN5GHz_802.11a_Ch124_MIMO_Rear_0 mm_Grip Sensor On/Volume Scan (24x31x7):

Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$
 Reference Value = 12.31 V/m; Power Drift = 0.19 dB
 Peak SAR (extrapolated) = 5.89 W/kg
SAR(1 g) = 0.881 W/kg; SAR(10 g) = 0.141 W/kg
 Total Absorbed Power = 0.00233 W

Info: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 3.24 W/kg



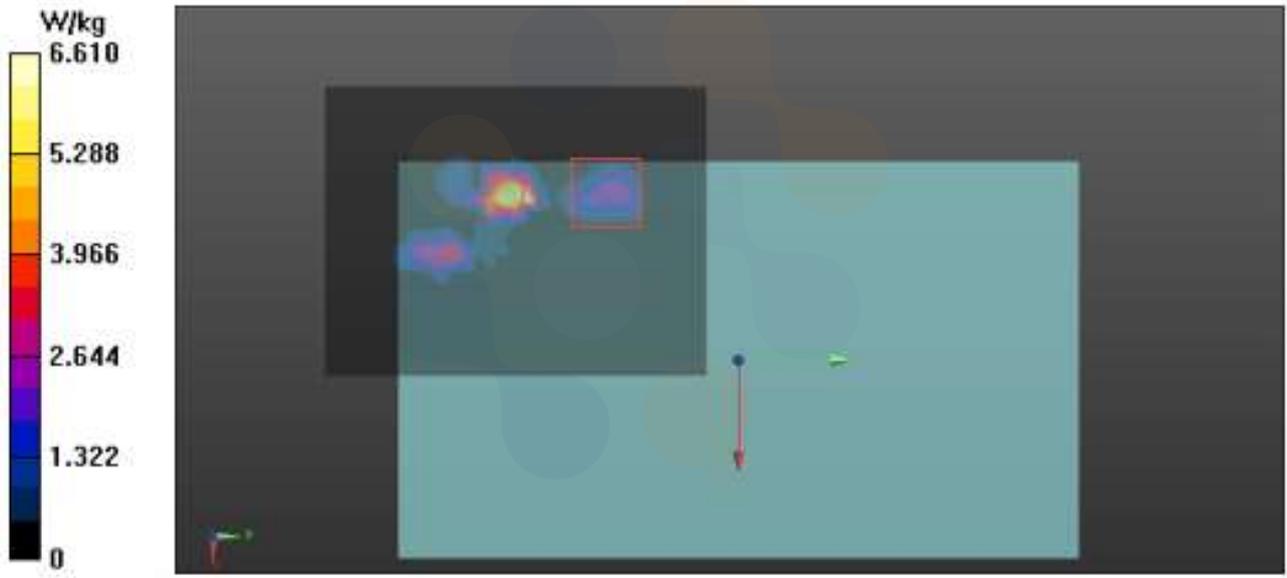
No.3 : Volume Scan Scenario : 5G NR n77 SRS#2 + WLAN 5 GHz MIMO

Multi-Band Average SAR
Multi-Band Configurations:

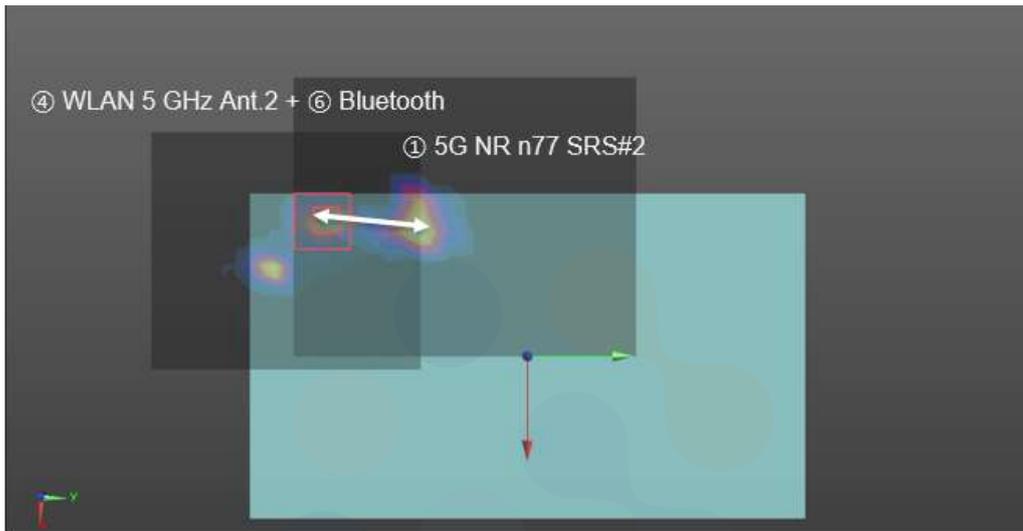
**DASY Configuration for Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100 MHz 1RB
137offset_CH633334_Rear_0 mm Grip Sensor on VS/Volume Scan:**

**DASY Configuration for Configuration/WLAN5GHz_802.11a_Ch124_MIMO_Rear_0 mm_Grip Sensor
On/Volume Scan:**

Multi Band Result:
SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.263 W/kg
Maximum value of SAR (interpolated) = 6.61 W/kg



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.574	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
41.72	0.07	①	5G NR n77 SRS#2	0.926	-0.04980	-0.03560	-0.17900
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400



12.3.33.4 Volume Scan Analysis

Exposure Condition /Position		Enlarge Zoom 5G NR n77 [W/kg]	Enlarge Zoom WLAN 5 GHz [W/kg]	Enlarge Zoom Bluetooth [W/kg]	Scaled Volume Scan SUM Result [W/kg]
		SRS#2	Ant.2	Ant.1	
Body	Rear	0.912	0.435	0.678	1.180



5G NR n77 SRS#2 Standalone Volume Scan Plot – Rear

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [5G NR n77 SRS #2 Body VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3500.01 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 3500.01$ MHz; $\sigma = 2.855$ S/m; $\epsilon_r = 37.135$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

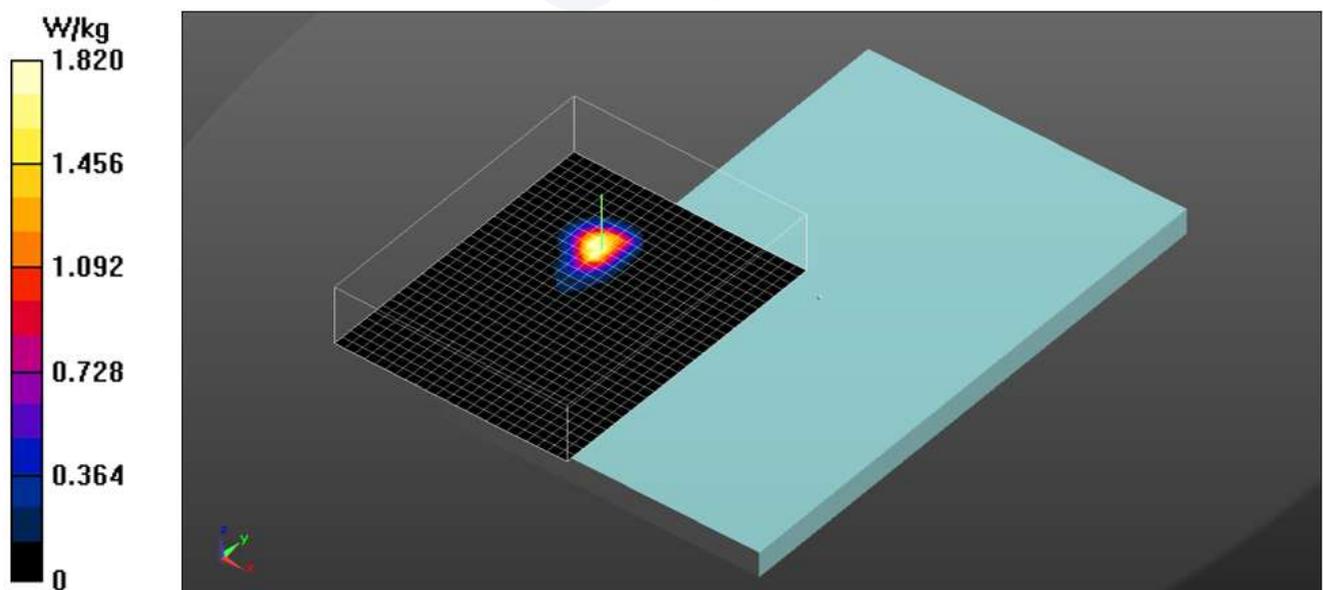
DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500.01 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100 MHz 1RB 137offset_CH633334_Rear_0 mm

Grip Sensor on VS/Volume Scan (24x31x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 23.52 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 2.81 W/kg
SAR(1 g) = 0.912 W/kg; SAR(10 g) = 0.263 W/kg
Total Absorbed Power = 0.00369 W

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.82 W/kg



WLAN 5 GHz Ant.2 Standalone Volume Scan Plot – Rear

Date: 11/16/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
 File Name: [1. WLAN 5.3GHz WIFI2 Body VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, 5GWLAN (0); Frequency: 5260 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5260 \text{ MHz}$; $\sigma = 4.648 \text{ S/m}$; $\epsilon_r = 35.005$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

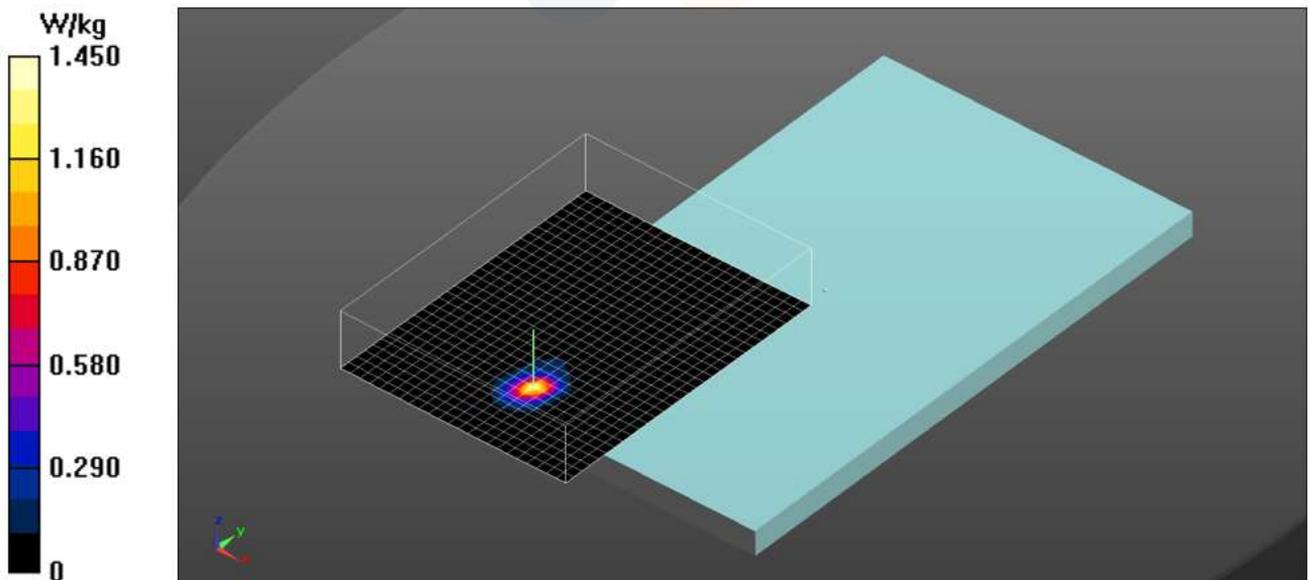
DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(4.8, 4.8, 4.8) @ 5260 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WLAN5GHz_802.11a_Ch52_WIFI2_Rear_0 mm_Grip Sensor On/Volume Scan (24x31x7):

Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$
 Reference Value = 17.90 V/m; Power Drift = 0.09 dB
 Peak SAR (extrapolated) = 4.96 W/kg
SAR(1 g) = 0.435 W/kg; SAR(10 g) = 0.084 W/kg
 Total Absorbed Power = 0.00102 W

Maximum value of SAR (measured) = 1.45 W/kg



Bluetooth Standalone Volume Scan Plot – Rear

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [Bluetooth_BDR_Body_VS.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz; Duty Cycle: 1:1.30167
Medium parameters used (interpolated): $f = 2402$ MHz; $\sigma = 1.731$ S/m; $\epsilon_r = 37.918$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

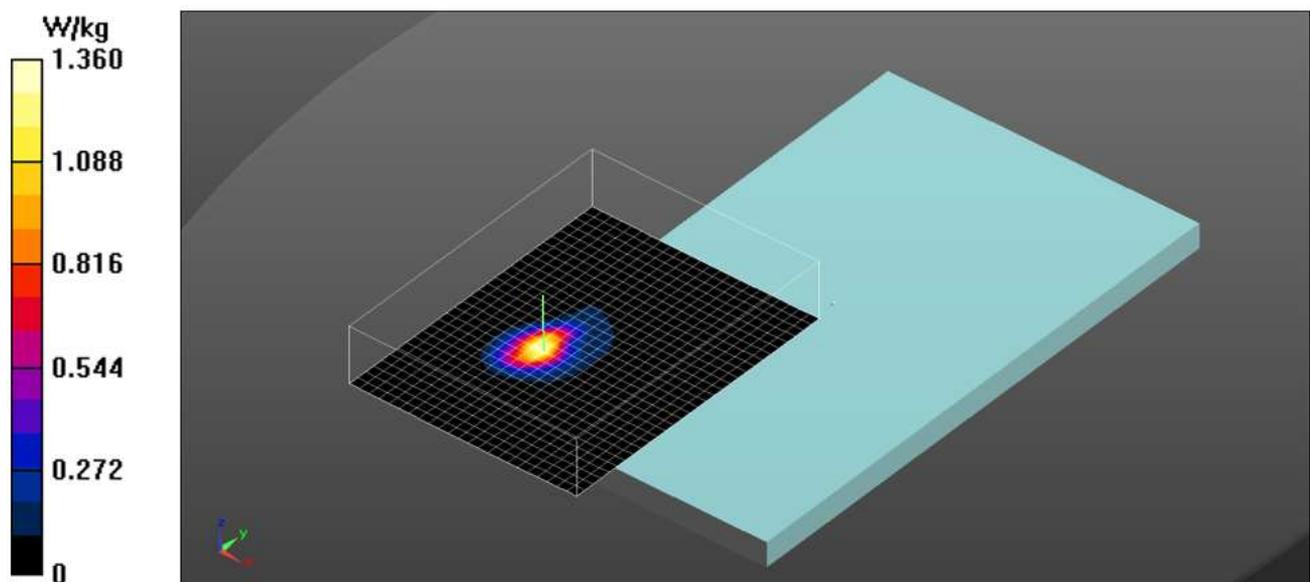
DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.2, 7.2, 7.2) @ 2402 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/Bluetooth_DH5_BDR_Ch0_Rear_0 mm Grip Sensor on VS/Volume Scan (24x31x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 29.23 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 1.98 W/kg
SAR(1 g) = 0.678 W/kg; SAR(10 g) = 0.206 W/kg
Total Absorbed Power = 0.00295 W

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.36 W/kg



No.4 : Volume Scan Scenario : 5G NR n77 SRS#2 + WLAN 5 GHz Ant.2 + Bluetooth

Multi-Band Average SAR
Multi-Band Configurations:

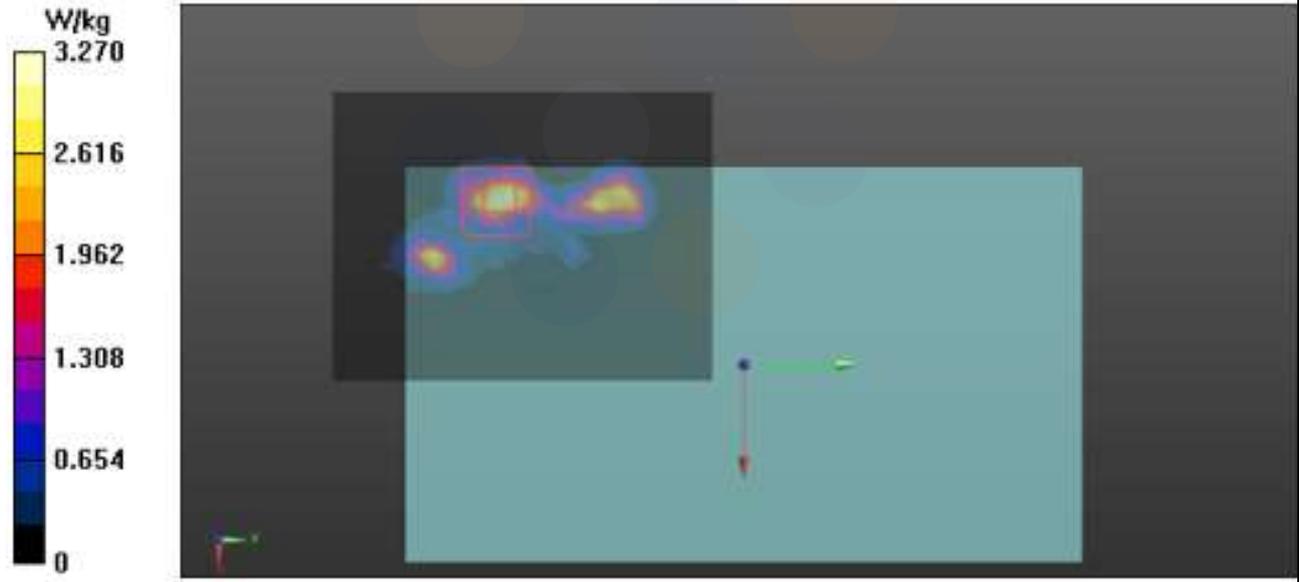
**DASY Configuration for Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100 MHz 1RB
137offset_CH633334_Rear_0 mm Grip Sensor on VS/Volume Scan:**

**DASY Configuration for Configuration/WLAN5GHz_802.11a_Ch52_WIFI2_Rear_0 mm_Grip Sensor
On/Volume Scan:**

**DASY Configuration for Configuration/Bluetooth_DH5_BDR_Ch0_Rear_0 mm Grip Sensor on VS/Volume
Scan:**

Multi Band Result:

SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.367 W/kg
Maximum value of SAR (interpolated) = 3.27 W/kg

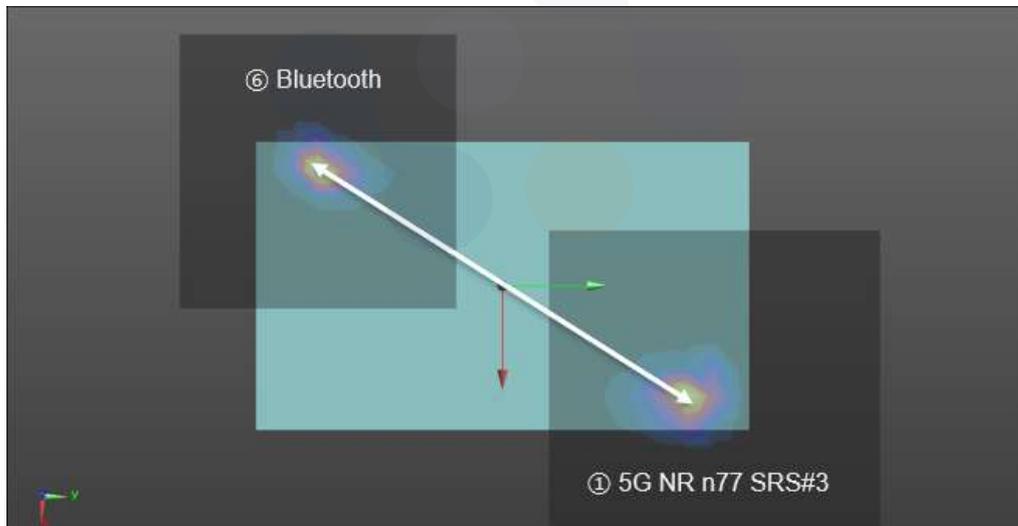


12.3.34 5G NR n77 SRS#3

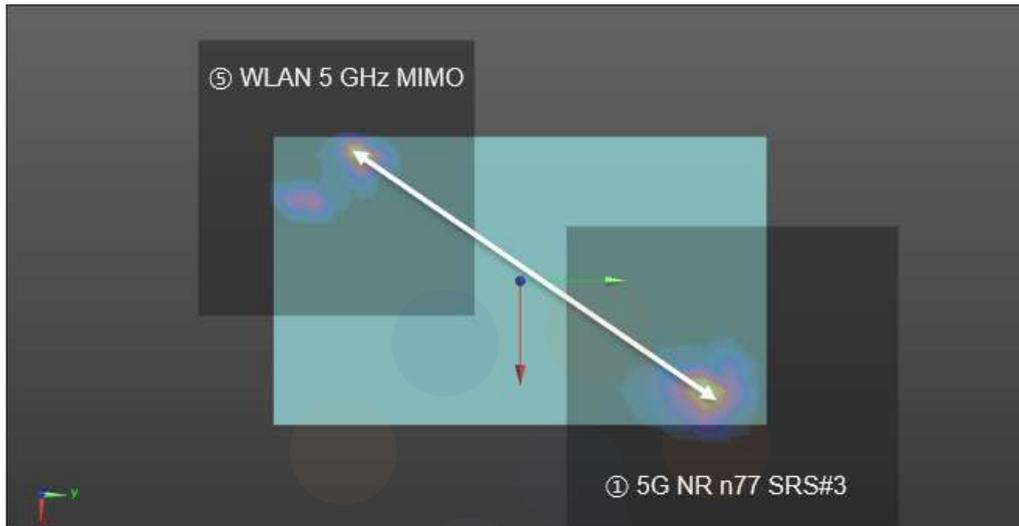
licensed	WLAN 2.4 GHz Ant.1	WLAN 2.4 GHz MIMO	WLAN 5 GHz Ant.2	WLAN 5 GHz MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

5G NR n77 SRS#3 SPLSR – Rear Position			
Scenario No.	No.1	No.5	No.6
Scenario	[①]+[⑥]	[①]+[⑤]	[①]+[④]+[⑥]
Rear	1.654	1.783	2.187
Volume scan	Not Required		

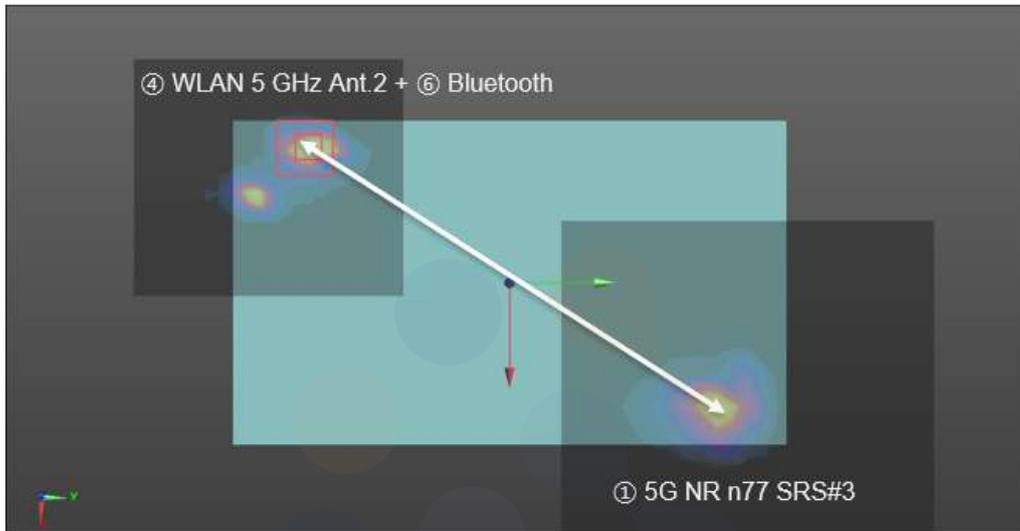
Scenario No.		Scenario		Position			SUM
1		[①]+[⑥]		Rear			1.654
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
186.84	0.01	①	5G NR n77 SRS#3	0.539	0.05420	0.07600	-0.17900
		⑥	Bluetooth	1.115	-0.05320	-0.07680	-0.18400



Scenario No.		Scenario		Position		SUM	
5		[①]+[⑤]		Rear		1.783	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
179.66	0.01	①	5G NR n77 SRS#3	0.539	0.05420	0.07600	-0.17900
		⑤	WLAN 5 GHz MIMO	1.244	-0.05160	-0.06920	-0.17900



Scenario No.		Scenario		Position		SUM	
6		[①]+[④]+[⑥]		Rear		2.187	
Distance [mm]	SPLSR ≤ 0.04 Limit	Numbering	Mode	SAR W/kg	Coordinates		
					X	Y	Z
185.74	0.01	①	5G NR n77 SRS#3	0.539	0.05420	0.07600	-0.17900
		④⑥ (Hybird)	WLAN 5 GHz Ant.2 + Bluetooth	1.140	-0.05100	-0.07700	-0.18400



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/kg, 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 / Ant.	Mode	Frequency (MHz)	EUT Position	Separation Distance (mm)	Measured 1 g SAR (W/kg)	Repeated 1 g SAR (W/kg)	Ratio
Body	5G NR n48 SRS #1	DFT-S-OFDM_QPSK SCS 30 kHz_40 MHz 1RB 1offset	3 624.99	Rear	0	1.010	1.010	1.00
	5G NR n48 SRS #2	DFT-S-OFDM_QPSK SCS 30 kHz_40 MHz 1RB 1offset	3 624.99	Rear	0	0.818	0.802	1.02
	5G NR n77 SRS #1 (PC 2 lower)	DFT-S-OFDM_QPSK SCS 30 kHz_100 MHz 1RB 1offset	3 500.01	Rear	0	0.994	0.971	1.02
	5G NR n77 SRS #1 (PC 2 upper)	DFT-S-OFDM_QPSK SCS 30 kHz_100 MHz 135RB 69offset	3 930.00	Rear	0	1.030	1.010	1.02
	5G NR n77 SRS #2 (PC 2 lower)	DFT-S-OFDM_QPSK SCS 30 kHz_100 MHz 1RB 137offset	3 500.01	Rear	0	0.921	0.918	1.00
	U-NII-2C / MIMO	802.11a	5 620.0	Rear	0	0.980	0.975	1.01

<p>Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-5008-1021 FAX: 82-505-299-8311 www.kctl.co.kr</p>	<p>Report No.: KR23-SPF0043-B Page (520) of (910)</p>	<p> </p>
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15. Measurement Uncertainty

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, 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 $\leq 30\%$, 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.



Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-5008-1021 FAX: 82-505-299-8311 www.kctl.co.kr	Report No.: KR23-SPF0043-B Page (521) of (910)	 KCTL
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16. Test Equipment Information

Test Platform	SPEAG DASY5 System SPEAG DASY8 System			
Version	DASY52: 52.10.4.1535 / SEMCAD: 14.6.14 (7501) DASY8: 16.2.2.1588			
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 - 1	-	-
	-	8F - 2	-	-
	-	8F - 3	-	-
	-	8F - 5	-	-
DASY5 Robot	TX90XL speag	F07/554JA1/A/01	-	-
	TX90XL speag	F12/5L7FA1/A/01	-	-
DASY6 Robot	TX90XL speag	F/18/0004968/A/001	-	-
	TX60 L speag	F/19/0007289/A/001	-	-
Phantom	2mm Oval Phantom ELI5	1178	-	-
	2mm Oval Phantom ELI5	1220	-	-
	2mm Oval Phantom ELI5	2097	-	-
	2mm Oval Phantom ELI5	2098	-	-
Mounting Device	Mounting Device	-	-	-
	Laptop Holder	-	-	-
DAE	DAE4	1586	2023-04-26	2024-04-26
	DAE4	1587	2023-07-17	2024-07-17
	DAE4	1756	2023-09-20	2024-09-20
	DAE4	1758	2023-08-24	2024-08-24
MICROWAVE GENERATOR	SMP02	100295	2022-12-29	2023-12-29
Probe	EX3DV4	3697	2023-04-13	2024-04-13
	EX3DV4	3865	2023-01-22	2024-01-22
	EX3DV4	3928	2023-02-23	2024-02-23
	EX3DV4	7540	2023-05-04	2024-05-04
	EX3DV4	7840	2023-08-25	2024-08-25
ESG Vector Signal Generator	E4438C	MY42080845	2023-02-09	2024-02-09
	E4438C	MY42080486	2023-04-25	2024-04-25
Dual Power Meter	EPM-442A	GB37480680	2023-04-26	2024-04-26
	E4419B	GB43312301	2023-02-09	2024-02-09
	E4419B	GB40202503	2023-11-01	2024-11-01
Power Sensor	8481H	2703A11902	2023-04-26	2024-04-26
	8481H	3318A18090	2023-04-26	2024-04-26
	8481H	3318A19377	2023-02-09	2024-02-09
	8481H	3318A19379	2023-02-09	2024-02-09
Attenuator	PE7005-10	2228-1	2022-12-15	2023-12-15
	PE7005-10	2228-2	2022-12-15	2023-12-15
	PE7005-10	2228-3	2022-12-15	2023-12-15
	PE7005-10	2228-4	2022-12-15	2023-12-15
	PE7005-10	2228-5	2022-12-15	2023-12-15
	PE7005-10	2228-6	2022-12-15	2023-12-15
Dual Directional Coupler	778D	F708102210	2022-12-14	2023-12-14
	772D	2839A160504	2023-04-26	2024-04-26
	772D	2839A00719	2023-02-09	2024-02-09
	778D	16059	2023-02-09	2024-02-09

Equipment	Model	Serial Number	Date of Calibration	Due date of next Calibration
Power Amplifier	AMP2027	10010	2023-04-26	2024-04-26
	AMP2027ADB	10005	2023-04-26	2024-04-26
	GRF5039	1062	2023-02-09	2024-02-09
	2055-BBS3Q7E9I	1005D/C0521	2023-02-09	2024-02-09
	5190FE	1012	2023-02-09	2024-02-09
Low Pass Filter	NLP-1000+	VUU79701846	2023-04-26	2024-04-26
	VLF-3000+	31831	2023-04-26	2024-04-26
	VLF-6000+	31838	2023-04-26	2024-04-26
	LA-30N	40058	2023-02-09	2024-02-09
	LA-60N	40059	2023-02-09	2024-02-09
Dipole Validation Kits	D750V3	1224	2022-10-12	2024-10-12
	D850V2	1030	2022-10-26	2024-10-26
	D1750V2	1195	2022-10-26	2024-10-26
	D1900V2	5d248	2022-10-20	2024-10-20
	D2300V2	1049	2023-01-20	2025-01-20
	D2450V2	895	2023-09-26	2025-09-26
	D2600V2	1050	2023-09-26	2025-09-26
	D2600V2	1200	2022-10-25	2024-10-25
	D3500V2	1065	2023-09-28	2025-09-28
	D3700V2	1027	2022-08-19	2024-08-19
	D3900V2	1043	2022-02-23	2024-02-23
D5GHzV2	1293	2023-01-25	2025-01-25	
Network Analyzer	E5071B	MY42403524	2023-02-09	2024-02-09
Dielectric Assessment Kit	DAK-3.5	1078	2023-05-24	2024-05-24
Humidity/Temp	MHB-382SD	25737	2023-05-03	2024-05-03
	MHB-382SD	46301	2023-02-14	2024-02-14
	MHB-382SD	46307	2023-02-14	2024-02-14
	MHB-382SD	73871	2023-05-10	2024-05-10
Radio Communication Test Station	MT8000A	6261987911	2023-08-07	2024-08-07
	MT8000A	6261987922	2023-02-09	2024-02-09
Radio Communication Analyzer	MT8821C	6201807233	2023-01-19	2024-01-19
	MT8821C	6262170371	2023-11-01	2024-11-01
	MT8821C	6262170372	2323-11-01	2024-11-01
Wideband Radio Communication Tester	CMW500	132120	2023-04-25	2024-04-25
	CMW500	168683	2023-02-09	2024-02-09
Spectrum Analyzer	FSU	200008	2022-12-13	2023-12-13
	FSP7	100289	2022-12-08	2023-12-08
MXA SIGNAL ANALYZER	N9020A	MY520900024	2023-11-01	2024-11-01

17. Test System Verification Results

Eurofins KCTL Co.,Ltd.

Measurement Report for D750V3, FRONT, D750, UID 0 -, Channel 50 (750.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D750V3, Sperg	10.0 x 10.0 x 330.0	1224	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, HSL	FRONT, 15.00	D750	CW, 0--	750.0	9.24	0.865	42.7

Hardware Setup

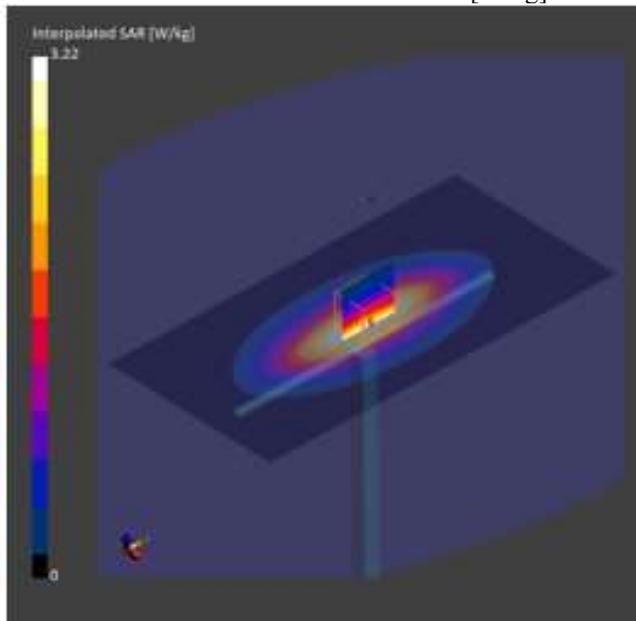
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-10-04	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 240.0	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-04	2023-10-04
psSAR1g [W/kg]	2.06	2.08
psSAR8g [W/kg]	1.46	1.46
psSAR10g [W/kg]	1.38	1.39
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]		3.22



Eurofins KCTL Co.,Ltd.

Measurement Report for D750V3, FRONT, D750, UID 0 -, Channel 50 (750.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D750V3, Sperg	10.0 x 10.0 x 330.0	1224	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, HSL	FRONT, 15.00	D750	CW, 0--	750.0	9.24	0.867	42.6

Hardware Setup

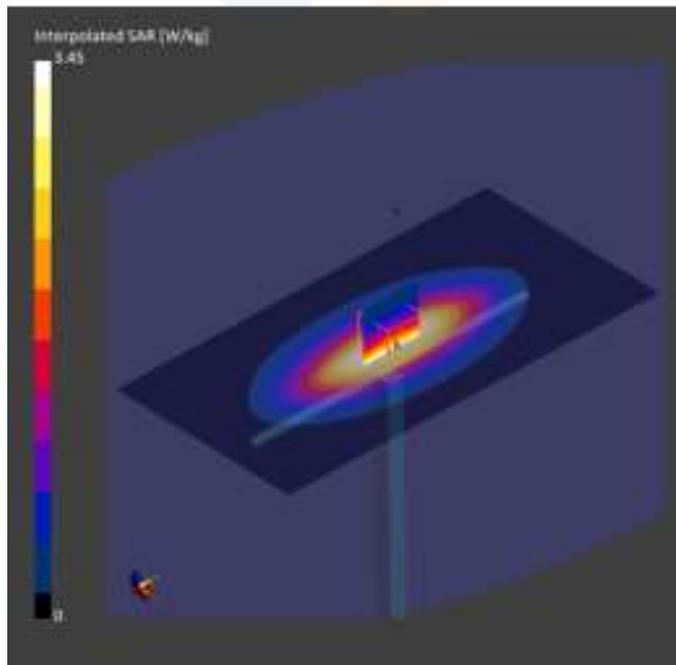
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-05	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 240.0	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-05	2023-10-05
psSAR1g [W/kg]	2.16	2.23
psSAR8g [W/kg]	1.52	1.56
psSAR10g [W/kg]	1.44	1.48
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]		3.45



Eurofins KCTL Co.,Ltd.

Measurement Report for D750V3, FRONT, D750, UID 0 -, Channel 50 (750.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D750V3, Sperg	10.0 x 10.0 x 330.0	1224	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, HSL	FRONT, 15.00	D750	CW, 0--	750.0	9.24	0.917	43.0

Hardware Setup

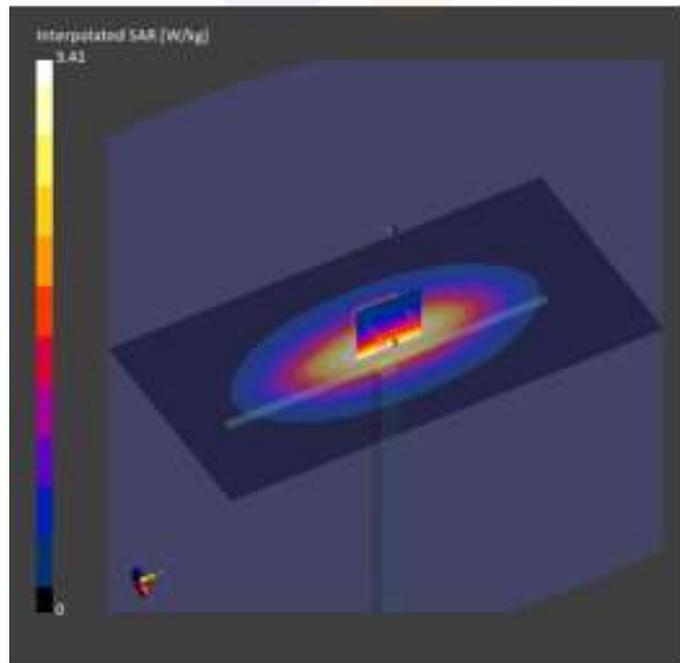
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-11	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 240.0	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-11	2023-10-11
psSAR1g [W/kg]	2.21	2.21
psSAR8g [W/kg]	1.56	1.55
psSAR10g [W/kg]	1.47	1.47
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]		3.41



Eurofins KCTL Co.,Ltd.

Measurement Report for D750V3, FRONT, D750, UID 0 -, Channel 50 (750.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D750V3, Sperg	10.0 x 10.0 x 330.0	1224	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, HSL	FRONT, 15.00	D750	CW, 0--	750.0	9.24	0.896	42.1

Hardware Setup

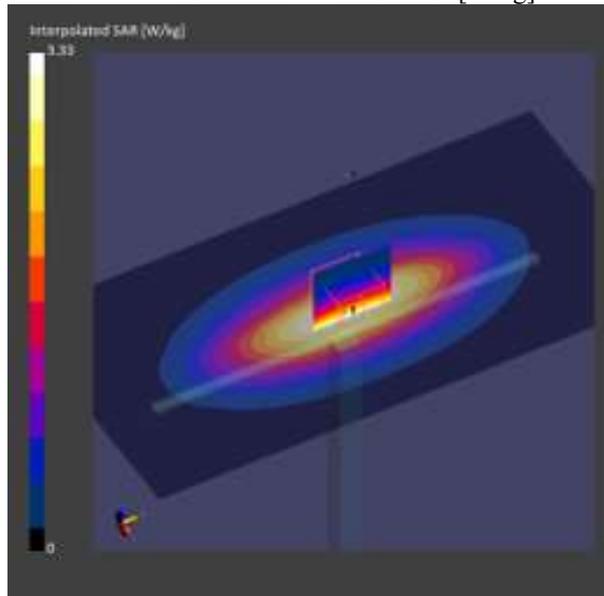
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-19	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 240.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	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 Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

Date	Area Scan	Zoom Scan
2023-10-19	2023-10-19	2023-10-19
	psSAR1g [W/kg]	2.12
	psSAR8g [W/kg]	1.49
	psSAR10g [W/kg]	1.41
	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]	3.33



Eurofins KCTL Co.,Ltd.

Measurement Report for D750V3-SN1224, FRONT, D750, UID 0 -, (750.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D750V3, Speag	10.0 x 10.0 x 330.0	1224	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, HSL	FRONT, 15.00	D750	CW, 0--	750.0	9.24	0.885	42.7

Hardware Setup

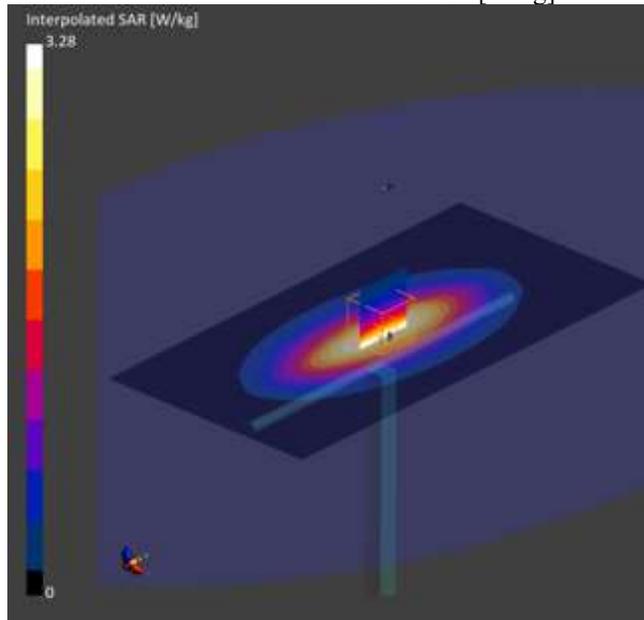
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Dec-07	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 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	VMS + 6p	VMS + 6p
Detection	Measured	Measured
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-12-07	2023-12-07
psSAR1g [W/kg]	2.21	2.18
psSAR8g [W/kg]	1.55	1.51
psSAR10g [W/kg]	1.47	1.43
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]		3.28



Eurofins KCTL Co.,Ltd.

Measurement Report for D850V2 - SN1030, FRONT, D850, UID 0 -, Channel 50 (850.0MHz)

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, HSL	FRONT, 15.00	D850	CW, 0--	850.0	9.59	0.947	40.5

Hardware Setup

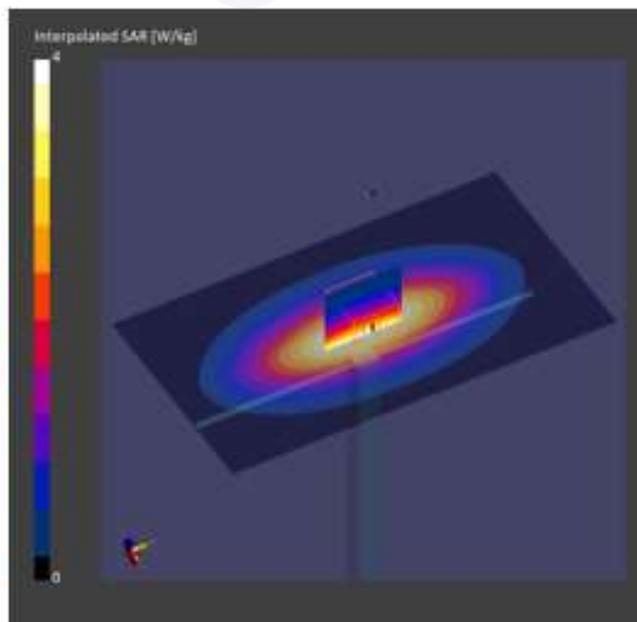
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-10	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 180.0	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-10	2023-10-10
psSAR1g [W/kg]	2.59	2.60
psSAR8g [W/kg]	1.81	1.81
psSAR10g [W/kg]	1.71	1.71
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]		4.00



Eurofins KCTL Co.,Ltd.

Measurement Report for D850V2 - SN1030, FRONT, D850, UID 0 -, Channel 50 (850.0MHz)

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, HSL	FRONT, 15.00	D850	CW, 0--	850.0	9.59	0.891	42.6

Hardware Setup

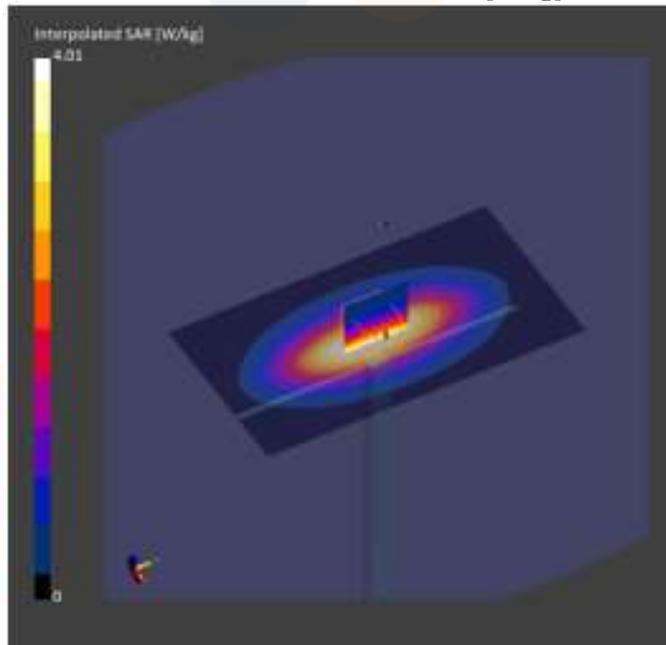
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-12	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 180.0	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-12	2023-10-12
psSAR1g [W/kg]	2.57	2.55
psSAR8g [W/kg]	1.79	1.74
psSAR10g [W/kg]	1.70	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]		4.01



Eurofins KCTL Co.,Ltd.

Measurement Report for D850V2 - SN1030, FRONT, D850, UID 0 -, Channel 50 (850.0MHz)

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, HSL	FRONT, 15.00	D850	CW, 0--	850.0	9.59	0.936	41.0

Hardware Setup

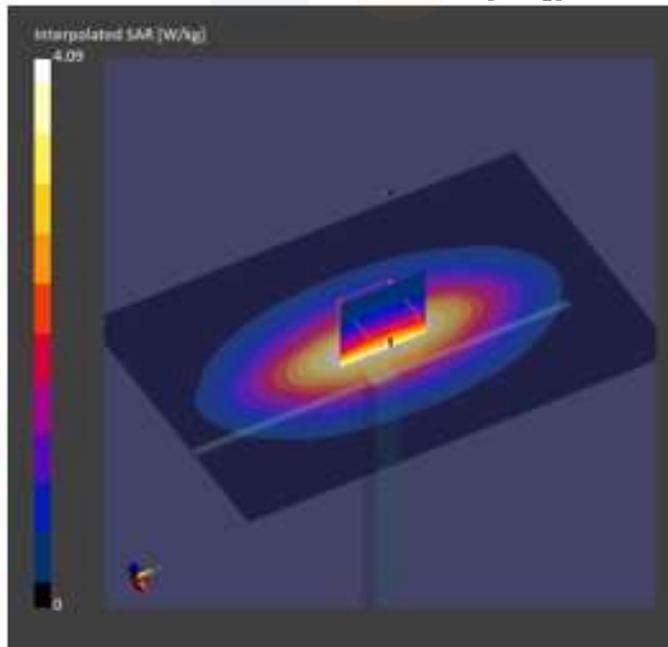
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-18	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

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	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

Date	Area Scan	Zoom Scan
2023-10-18	2023-10-18	2023-10-18
psSAR1g [W/kg]	2.61	2.61
psSAR8g [W/kg]	1.82	1.80
psSAR10g [W/kg]	1.72	1.70
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]		4.09



Eurofins KCTL Co.,Ltd.

Measurement Report for D1750V2 - SN1195, FRONT, D1750, UID 0 -, Channel 50 (1750.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1750V2 - SN1195,	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, HSL	FRONT, 10.00	D1750	CW, 0--	1750.0	8.04	1.37	41.4

Hardware Setup

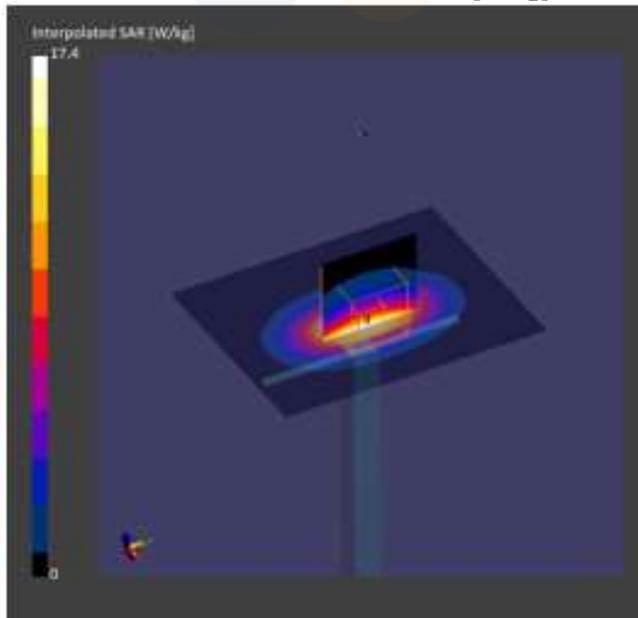
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-06	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-06	2023-10-06
psSAR1g [W/kg]	8.83	9.12
psSAR8g [W/kg]	5.27	5.26
psSAR10g [W/kg]	4.85	4.85
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]		17.4



Eurofins KCTL Co.,Ltd.

Measurement Report for D1750V2 - SN1195, FRONT, D1750, UID 0 -, Channel 50 (1750.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1750V2 - SN1195,	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, HSL	FRONT, 10.00	D1750	CW, 0--	1750.0	8.04	1.35	39.0

Hardware Setup

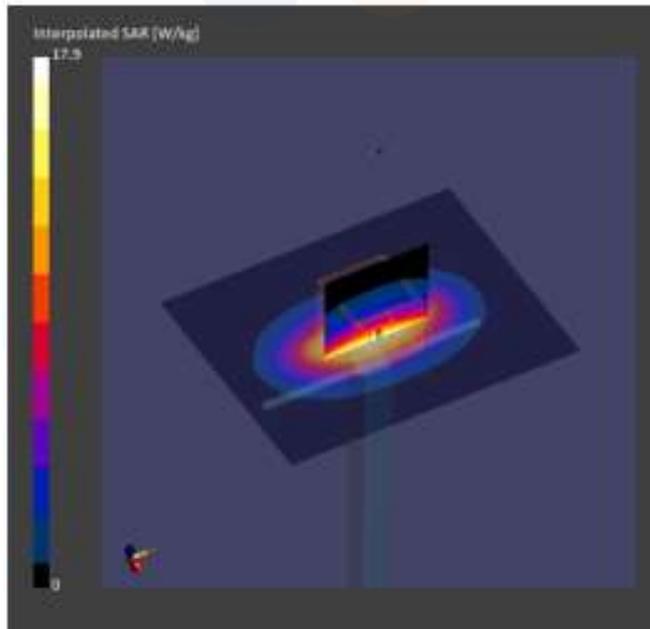
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-14	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

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

Date	Area Scan	Zoom Scan
2023-10-14	2023-10-14	2023-10-14
psSAR1g [W/kg]	9.19	9.27
psSAR8g [W/kg]	5.41	5.33
psSAR10g [W/kg]	4.98	4.92
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]		17.9



Eurofins KCTL Co.,Ltd.

Measurement Report for D1750V2 - SN1195, FRONT, D1750, UID 0 -, Channel 50 (1750.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1750V2 - SN1195,	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, HSL	FRONT, 10.00	D1750	CW, 0--	1750.0	8.04	1.42	38.8

Hardware Setup

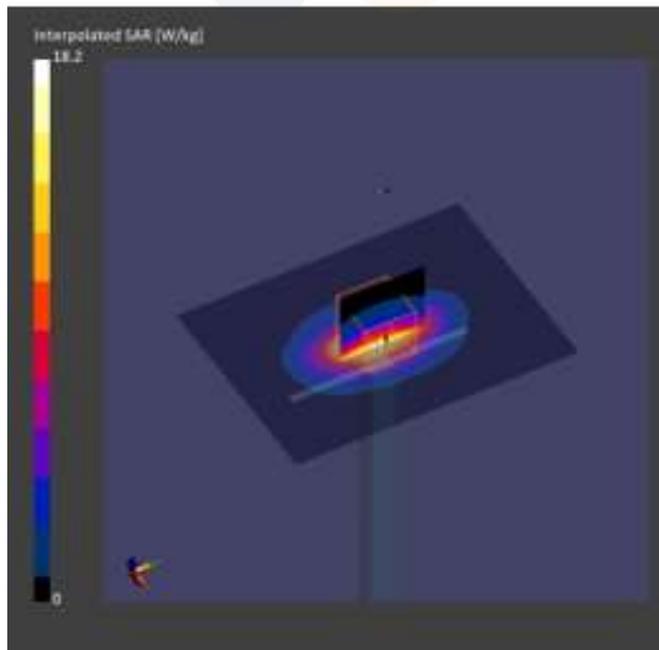
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-17	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

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	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-17	2023-10-17
psSAR1g [W/kg]	9.21	9.43
psSAR8g [W/kg]	5.38	5.43
psSAR10g [W/kg]	4.94	5.00
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]		18.2



Eurofins KCTL Co.,Ltd.

Measurement Report for D1900V2 - SN5d248, FRONT, D1900, UID 0 -, Channel 50 (1900.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1900V2 - SN5d248,	10.0 x 10.0 x 300.0	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, HSL	FRONT, 10.00	D1900	CW, 0--	1900.0	7.64	1.40	41.3

Hardware Setup

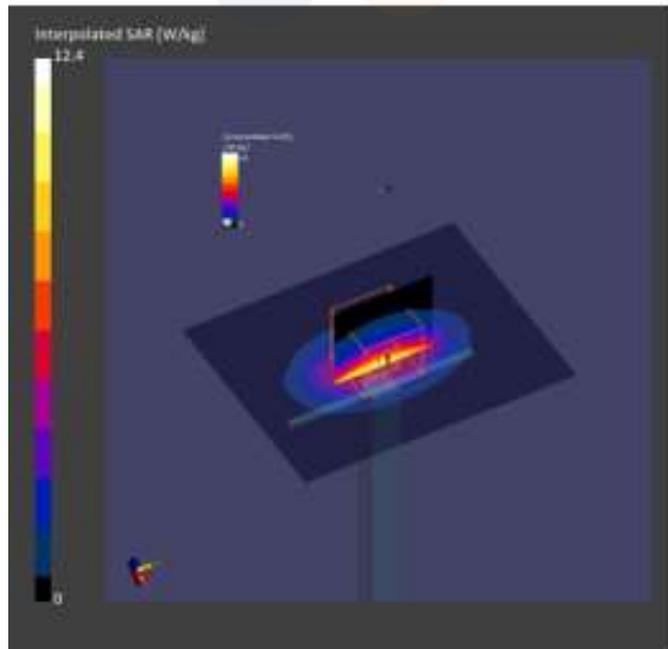
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-10	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-10	2023-10-10
psSAR1g [W/kg]	9.92	10.0
psSAR8g [W/kg]	5.69	5.72
psSAR10g [W/kg]	5.22	5.26
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]		19.0



Eurofins KCTL Co.,Ltd.

Measurement Report for D1900V2 - SN5d248, FRONT, D1900, UID 0 -, Channel 50 (1900.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1900V2 - SN5d248,	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, HSL	FRONT, 10.00	D1900	CW, 0--	1900.0	7.64	1.41	40.1

Hardware Setup

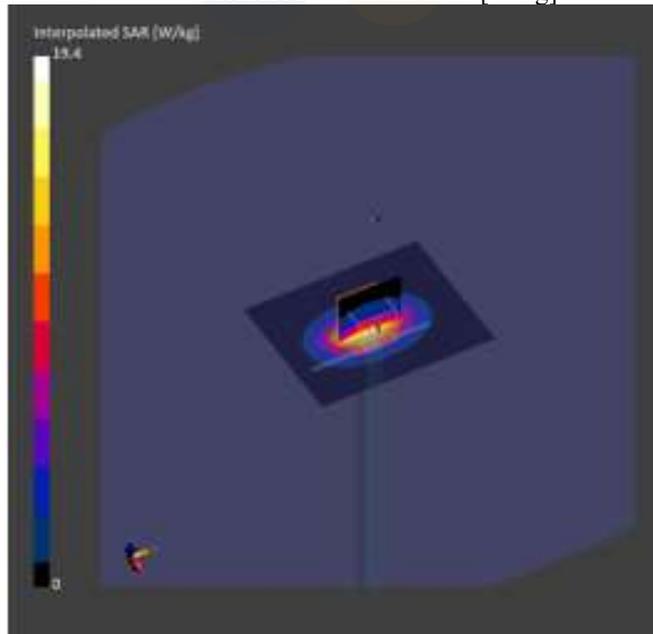
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-13	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-13	2023-10-13
psSAR1g [W/kg]	10.1	10.1
psSAR8g [W/kg]	5.80	5.76
psSAR10g [W/kg]	5.33	5.30
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]		19.4



Eurofins KCTL Co.,Ltd.

Measurement Report for D1900V2 - SN5d248, FRONT, D1900, UID 0 -, Channel 50 (1900.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D1900V2 - SN5d248,	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, HSL	FRONT, 10.00	D1900	CW, 0--	1900.0	7.64	1.42	40.1

Hardware Setup

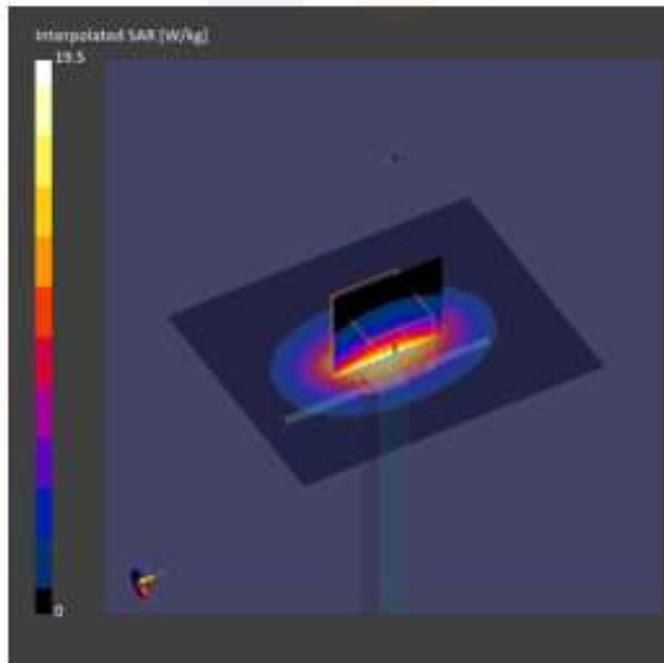
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-15	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

Date	Area Scan	Zoom Scan
	2023-10-15	2023-10-15
psSAR1g [W/kg]	9.93	10.1
psSAR8g [W/kg]	5.72	5.72
psSAR10g [W/kg]	5.26	5.26
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]		19.5



Eurofins KCTL Co.,Ltd.

Measurement Report for D2300V2 - SN1049, FRONT, D2300, UID 0 -, Channel 50 (2300.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D2300V2 - SN1049,	10.0 x 10.0 x 290.0	1049	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, HSL	FRONT, 10.00	D2300	CW, 0--	2300.0	7.51	1.69	38.9

Hardware Setup

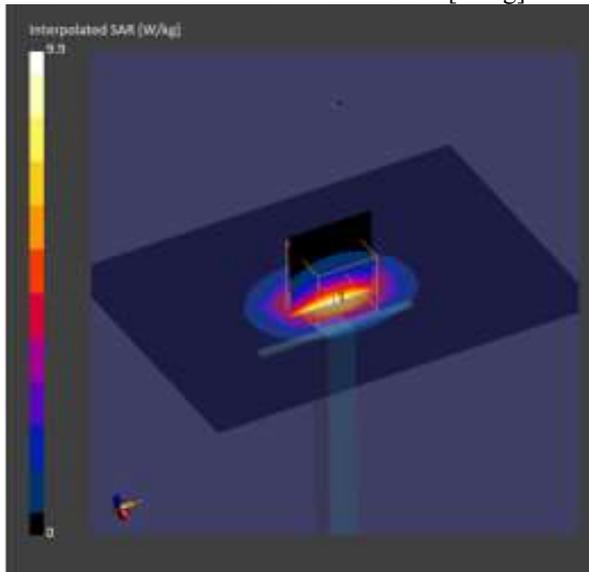
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023- Oct-06	EX3DV4 - SN3928, 2023- 02-23	DAE4 Sn1587, 2023-07- 17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 140.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

Date	Area Scan	Zoom Scan
2023- 10-06	2023- 10-06	2023-10-06
psSAR1g [W/kg]	4.75	4.82
psSAR8g [W/kg]	2.54	2.54
psSAR10g [W/kg]	2.31	2.31
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]		9.90



Eurofins KCTL Co.,Ltd.

Measurement Report for D2300V2 - SN1049, FRONT, D2300, UID 0 -, Channel 50 (2300.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D2300V2 - SN1049,	10.0 x 10.0 x 290.0	1049	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, HSL	FRONT, 10.00	D2300	CW, 0--	2300.0	7.51	1.70	38.3

Hardware Setup

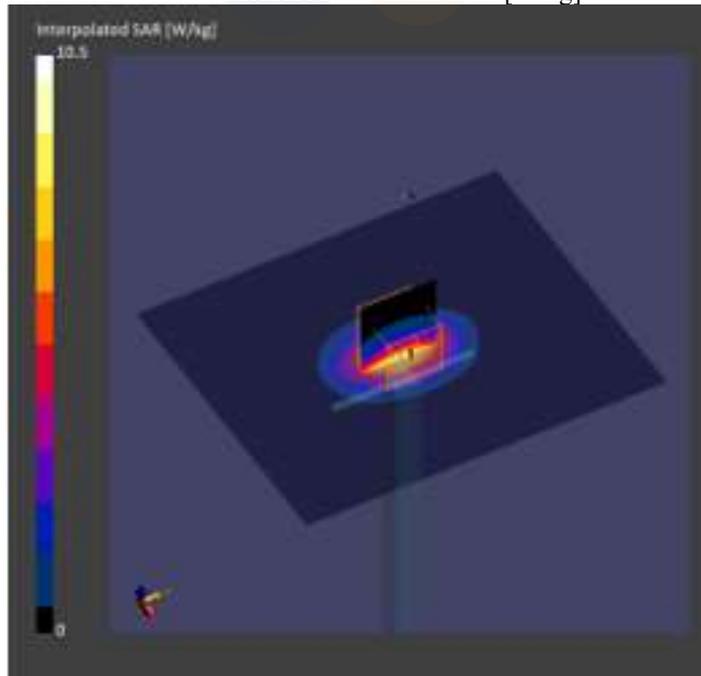
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-16	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

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 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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-16	2023-10-16
psSAR1g [W/kg]	5.06	5.07
psSAR8g [W/kg]	2.67	2.67
psSAR10g [W/kg]	2.42	2.43
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]		10.5



Date: 10/28/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [2300 MHz Verification Input Power 100 mW 2023-10-28.da52:0](#)

DUT: Dipole 2300 MHz D2300V2, Type: D2300V2, Serial: D2300V2 - SN:1049

Communication System: UID 0, CW (0); Frequency: 2300 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2300$ MHz; $\sigma = 1.631$ S/m; $\epsilon_r = 39.038$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

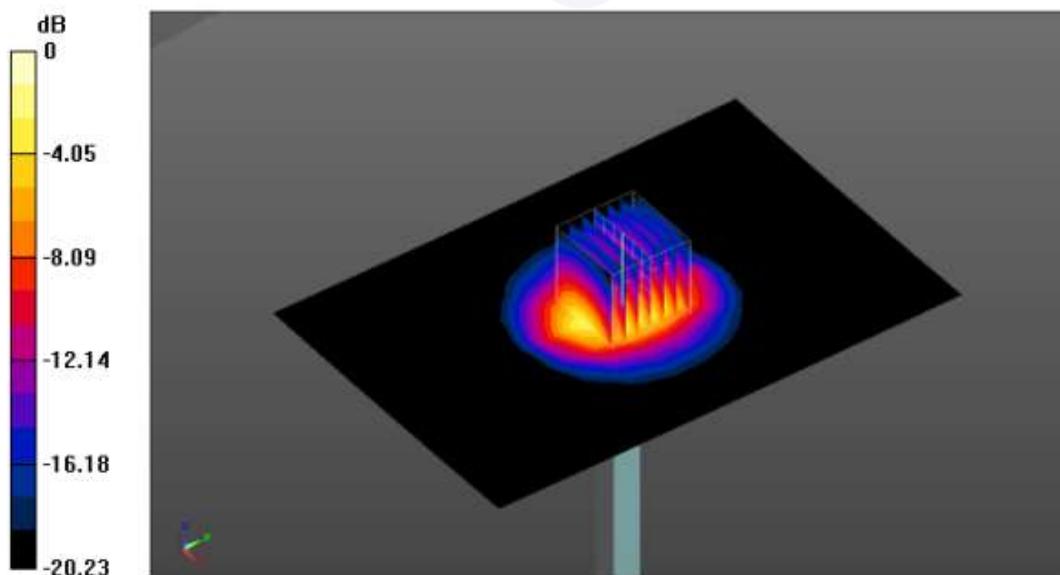
- Probe: EX3DV4 - SN7540;ConvF(7.87, 7.87, 7.87) @ 2300 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/2300 MHz Verification Input Power 100 mW 2023-10-28/Area Scan (11x16x1):

Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 7.56 W/kg

Configuration/2300 MHz Verification Input Power 100 mW 2023-10-28/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 69.93 V/m; Power Drift = -0.15 dB
 Peak SAR (extrapolated) = 9.59 W/kg
SAR(1 g) = 4.9 W/kg; SAR(10 g) = 2.39 W/kg
 Maximum value of SAR (measured) = 7.92 W/kg



0 dB = 7.92 W/kg = 8.99 dBW/kg

Eurofins KCTL Co.,Ltd.

Measurement Report for D2300V2 - SN1049, FRONT, D2300, UID 0 -, Channel 50 (2300.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D2300V2 - SN1049,	10.0 x 10.0 x 290.0	1049	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, HSL	FRONT, 10.00	D2300	CW, 0--	2300.0	7.51	1.72	39.0

Hardware Setup

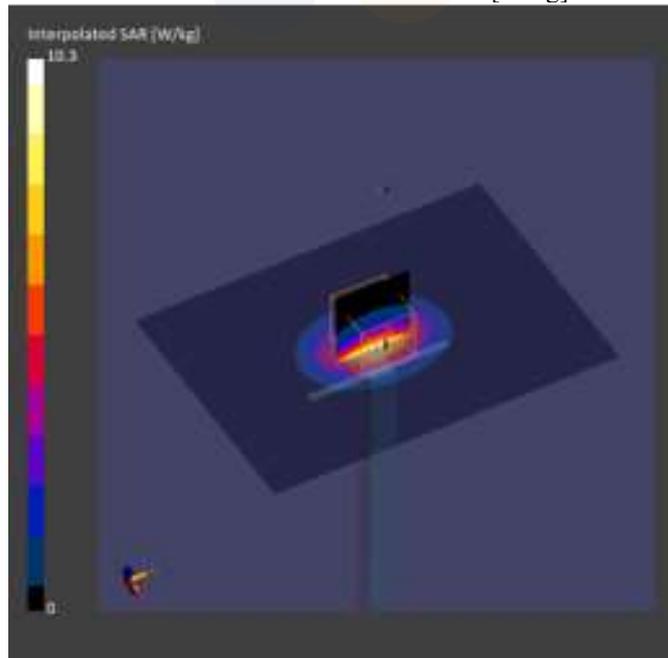
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Nov-10	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 140.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-10	2023-11-10
psSAR1g [W/kg]	5.00	4.98
psSAR8g [W/kg]	2.64	2.62
psSAR10g [W/kg]	2.40	2.38
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



Eurofins KCTL Co.,Ltd.

Measurement Report for D2300V2 - SN1049, FRONT, D2300, UID 0 -, Channel 50 (2300.0MHz)

Device under Test Properties

Model, Manufacturer D2300V2, SPEAG	Dimensions [mm] 10.0 x 10.0 x 290.0	Serial Number 1049	DUT Type Validation Dipole
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Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	FRONT, 10.00	D2300	CW, 0--	2300.0	7.51	1.68	38.2

Hardware Setup

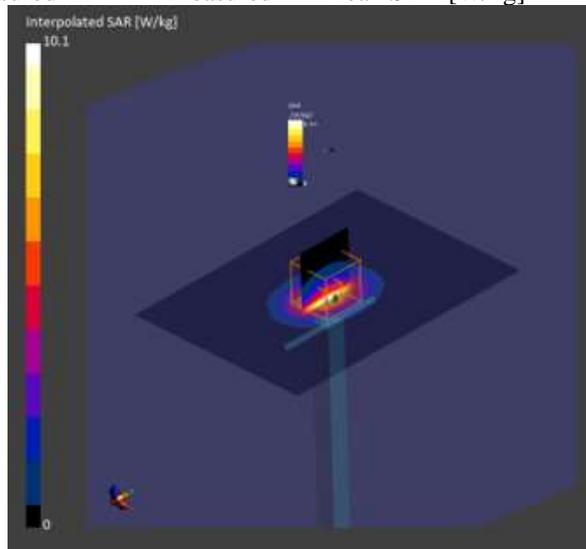
Phantom ELI V8.0 (20deg probe tilt) - 2182	TSL, Measured Date HBBL-600-10000, 2023-11-22	Probe, Calibration Date EX3DV4 - SN3928, 2023-02-23	DAE, Calibration Date DAE4 Sn1587, 2023-07-17
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Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 140.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 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	VMS + 6p	VMS + 6p
Detection	Measured	Measured
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-22	2023-11-22
psSAR1g [W/kg]	4.87	4.83
psSAR8g [W/kg]	2.58	2.54
psSAR10g [W/kg]	2.34	2.31
psAPD (1.0cm ² , sq) [W/m ²]		N/A
psAPD (4.0cm ² , sq) [W/m ²]		N/A
Power Drift [dB]		-0.03
Peak SAR [W/kg]		10.1



Date: 11/9/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [2450 MHz Verification Input Power 100 mW 2023-11-09.da5.da53:0](#)

DUT: Dipole 2450 MHz D2450V2, Type: D2450V2, Serial: D2450V2 - SN:895

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 1.746$ S/m; $\epsilon_r = 38.812$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.2, 7.2, 7.2) @ 2450 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/2450 MHz Verification Input Power 100 mW 2023-11-09/Area Scan (11x11x1):

Measurement grid: dx=12mm, dy=12mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 7.88 W/kg

Configuration/2450 MHz Verification Input Power 100 mW 2023-11-09/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

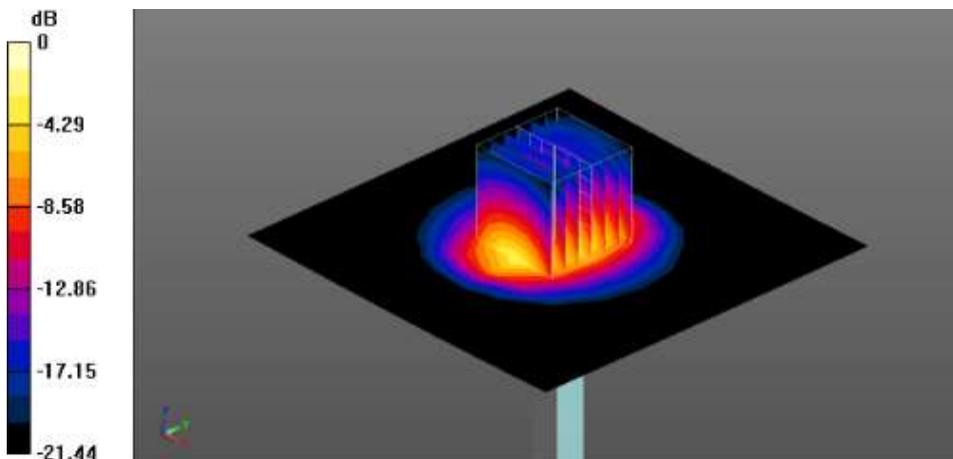
Reference Value = 71.10 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 9.99 W/kg

SAR(1 g) = 4.93 W/kg; SAR(10 g) = 2.32 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 8.14 W/kg



0 dB = 8.14 W/kg = 9.11 dBW/kg

Date: 11/10/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [2450 MHz Verification Input Power 100 mW 2023-11-10.da5.da53:0](#)

DUT: Dipole 2450 MHz D2450V2, Type: D2450V2, Serial: D2450V2 - SN:895

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 1.75$ S/m; $\epsilon_r = 38.951$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.2, 7.2, 7.2) @ 2450 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/2450 MHz Verification Input Power 100 mW 2023-11-10/Area Scan (11x11x1):

Measurement grid: dx=12mm, dy=12mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 8.34 W/kg

Configuration/2450 MHz Verification Input Power 100 mW 2023-11-10/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

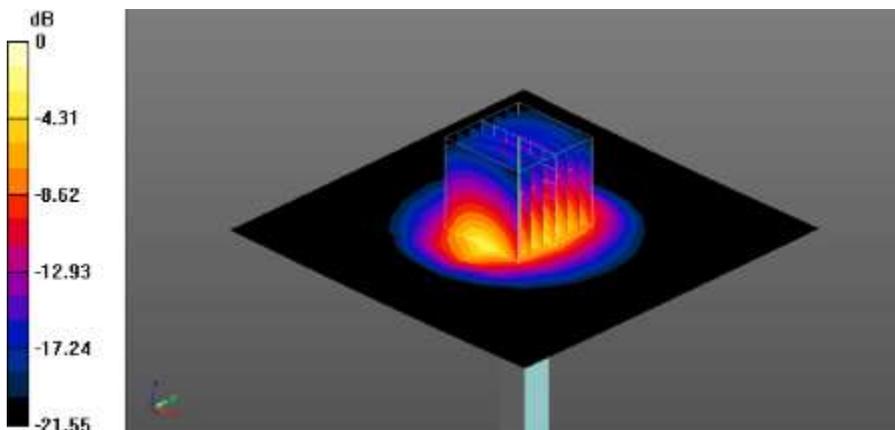
Reference Value = 71.87 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 10.6 W/kg

SAR(1 g) = 5.2 W/kg; SAR(10 g) = 2.44 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 8.63 W/kg



0 dB = 8.63 W/kg = 9.36 dBW/kg

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [2450 MHz Verification Input Power 100 mW 2023-11-15.da5.da53:0](#)

DUT: Dipole 2450 MHz D2450V2, Type: D2450V2, Serial: D2450V2 - SN:895

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 1.762$ S/m; $\epsilon_r = 37.729$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.2, 7.2, 7.2) @ 2450 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/2450 MHz Verification Input Power 100 mW 2023-11-15/Area Scan (10x11x1):

Measurement grid: dx=12mm, dy=12mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 7.48 W/kg

Configuration/2450 MHz Verification Input Power 100 mW 2023-11-15/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

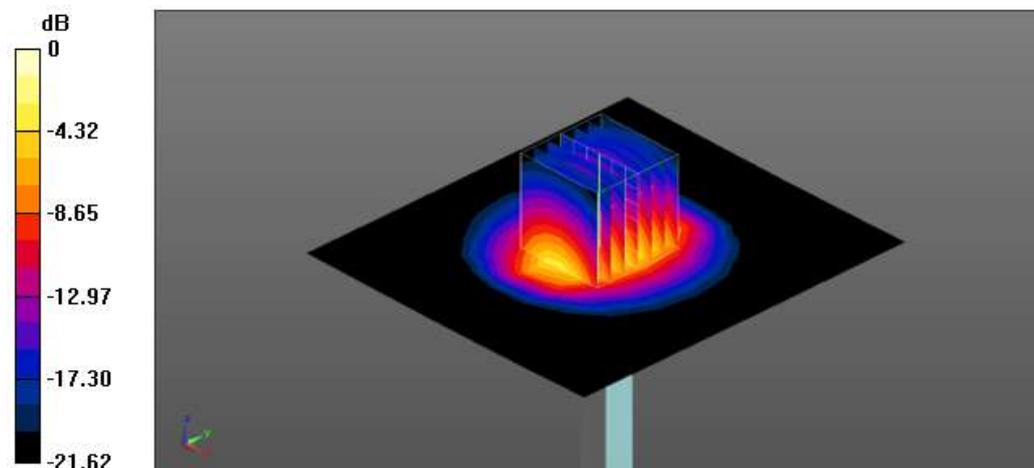
Reference Value = 72.80 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 11.0 W/kg

SAR(1 g) = 5.34 W/kg; SAR(10 g) = 2.51 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 8.92 W/kg



0 dB = 8.92 W/kg = 9.50 dBW/kg

Date: 10/21/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [2600 MHz Verification Input Power 100 mW 2023-10-21.da52:0](#)

DUT: Dipole 2600 MHz D2600V2, Type: D2600V2, Serial: D2600V2 - SN:1200

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.003$ S/m; $\epsilon_r = 39.243$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

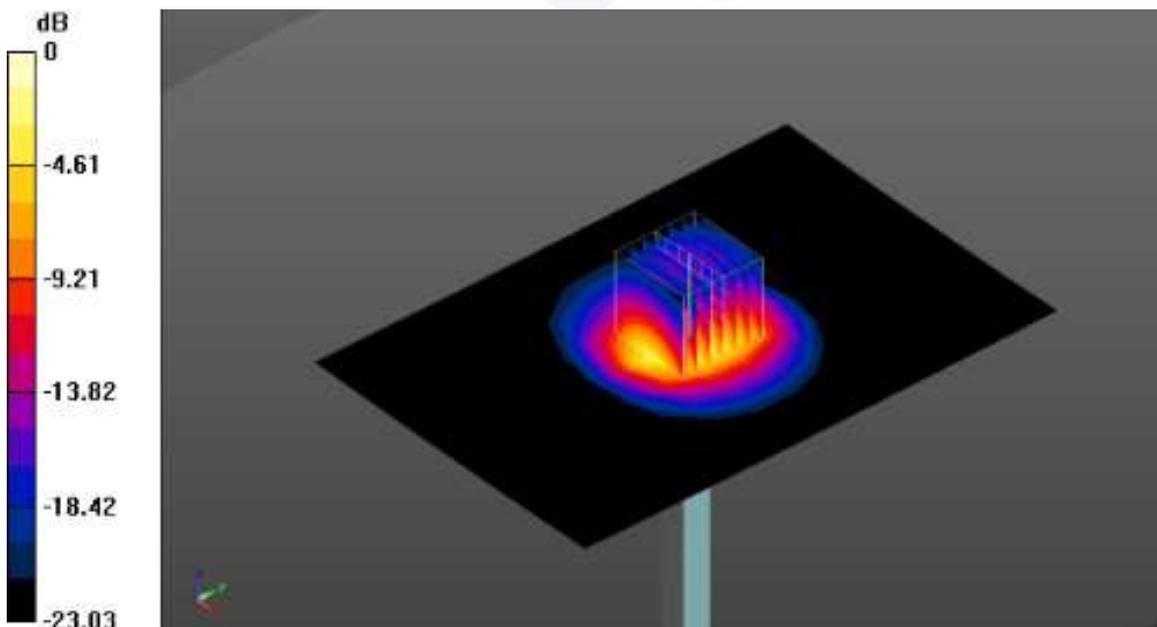
- Probe: EX3DV4 - SN7540;ConvF(7.49, 7.49, 7.49) @ 2600 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/2600 MHz Verification Input Power 100 mW 2023-10-21/Area Scan (11x16x1):

Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 8.54 W/kg

Configuration/2600 MHz Verification Input Power 100 mW 2023-10-21/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 68.22 V/m; Power Drift = -0.09 dB
 Peak SAR (extrapolated) = 11.1 W/kg
SAR(1 g) = 5.21 W/kg; SAR(10 g) = 2.36 W/kg
 Maximum value of SAR (measured) = 8.88 W/kg



0 dB = 8.88 W/kg = 9.48 dBW/kg

Date: 11/2/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [2600 MHz Verification Input Power 100 mW 2023-11-02.da52:0](#)

DUT: Dipole 2600 MHz D2600V2, Type: D2600V2, Serial: D2600V2 - SN:1050

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2600$ MHz; $\sigma = 1.979$ S/m; $\epsilon_r = 37.596$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

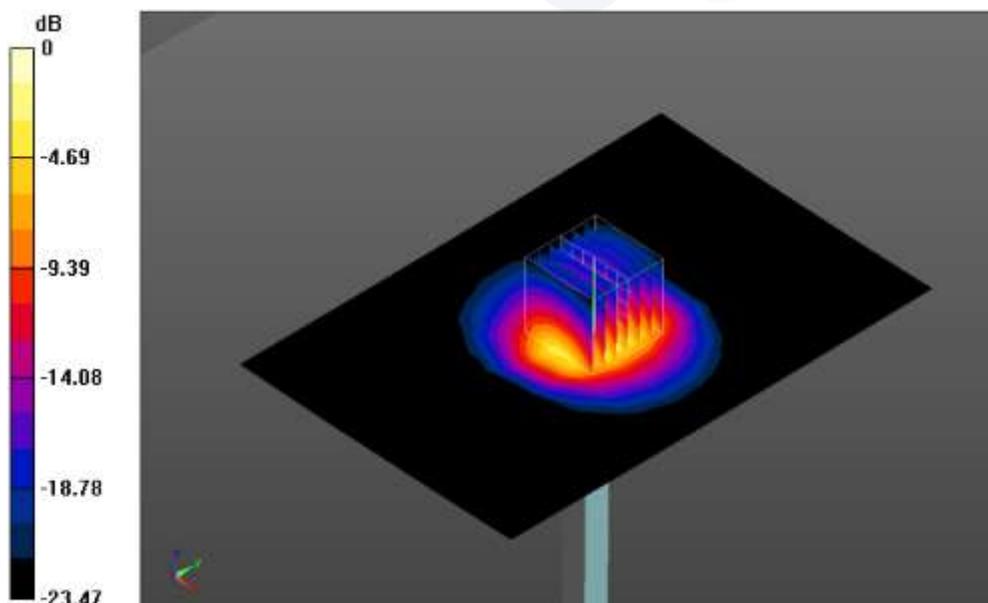
- Probe: EX3DV4 - SN3865;ConvF(7.22, 7.64, 7.61) @ 2600 MHz; Calibrated: 1/22/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration 2/2600 MHz Verification Input Power 100 mW 2023-11-02/Area Scan (11x16x1):

Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 7.39 W/kg

Configuration 2/2600 MHz Verification Input Power 100 mW 2023-11-02/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 63.44 V/m; Power Drift = -0.08 dB
 Peak SAR (extrapolated) = 11.8 W/kg
SAR(1 g) = 5.56 W/kg; SAR(10 g) = 2.49 W/kg
 Maximum value of SAR (measured) = 9.49 W/kg



0 dB = 9.49 W/kg = 9.77 dBW/kg

Date: 11/3/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [2600 MHz Verification Input Power 100 mW 2023-11-03\(system test\).da52:0](#)

DUT: Dipole 2600 MHz D2600V2, Type: D2600V2, Serial: D2600V2 - SN:1050

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.022$ S/m; $\epsilon_r = 37.75$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

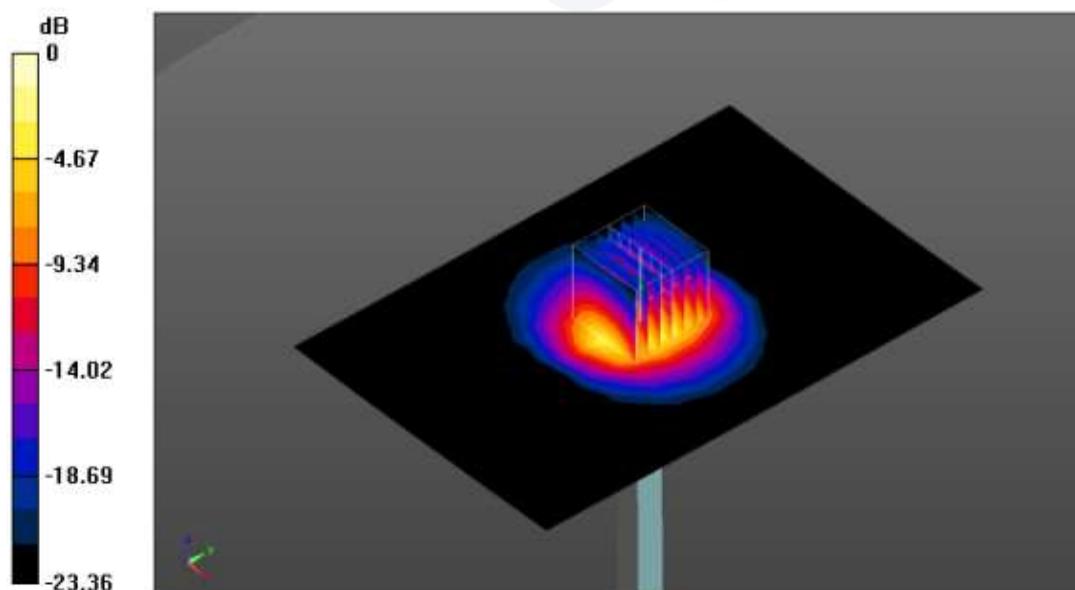
- Probe: EX3DV4 - SN3865;ConvF(7.22, 7.64, 7.61) @ 2600 MHz; Calibrated: 1/22/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/2600 MHz Verification Input Power 100 mW 2023-11-03/Area Scan (11x16x1):

Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 8.63 W/kg

Configuration/2600 MHz Verification Input Power 100 mW 2023-11-03/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 59.38 V/m; Power Drift = -0.06 dB
 Peak SAR (extrapolated) = 11.9 W/kg
SAR(1 g) = 5.65 W/kg; SAR(10 g) = 2.55 W/kg
 Maximum value of SAR (measured) = 9.62 W/kg



0 dB = 9.62 W/kg = 9.83 dBW/kg

Eurofins KCTL Co.,Ltd.

Measurement Report for D2600V2 - SN1200, FRONT, D2600, UID 0 -, Channel 50 (2600.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D2600V2 - SN1200,	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, HSL	FRONT, 10.00	D2600	CW, 0--	2600.0	7.08	1.96	38.5

Hardware Setup

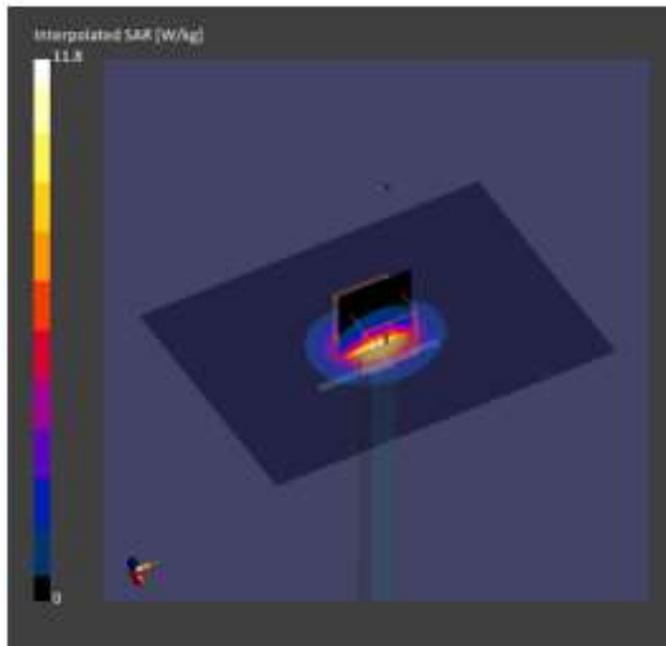
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Nov-08	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 140.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 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	2023-11-08	2023-11-08
psSAR1g [W/kg]	5.47	5.51
psSAR8g [W/kg]	2.78	2.82
psSAR10g [W/kg]	2.51	2.55
psAPD (1.0cm ² , sq) [W/m ²]		N/A
psAPD (4.0cm ² , sq) [W/m ²]		N/A
Power Drift [dB]		0.01
Peak SAR [W/kg]		11.8



Date: 12/7/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [2600 MHz Verification Input Power 100 mW 2023-12-07.da52:0](#)

DUT: Dipole 2600 MHz D2600V2, Type: D2600V2, Serial: D2600V2 - SN:1050

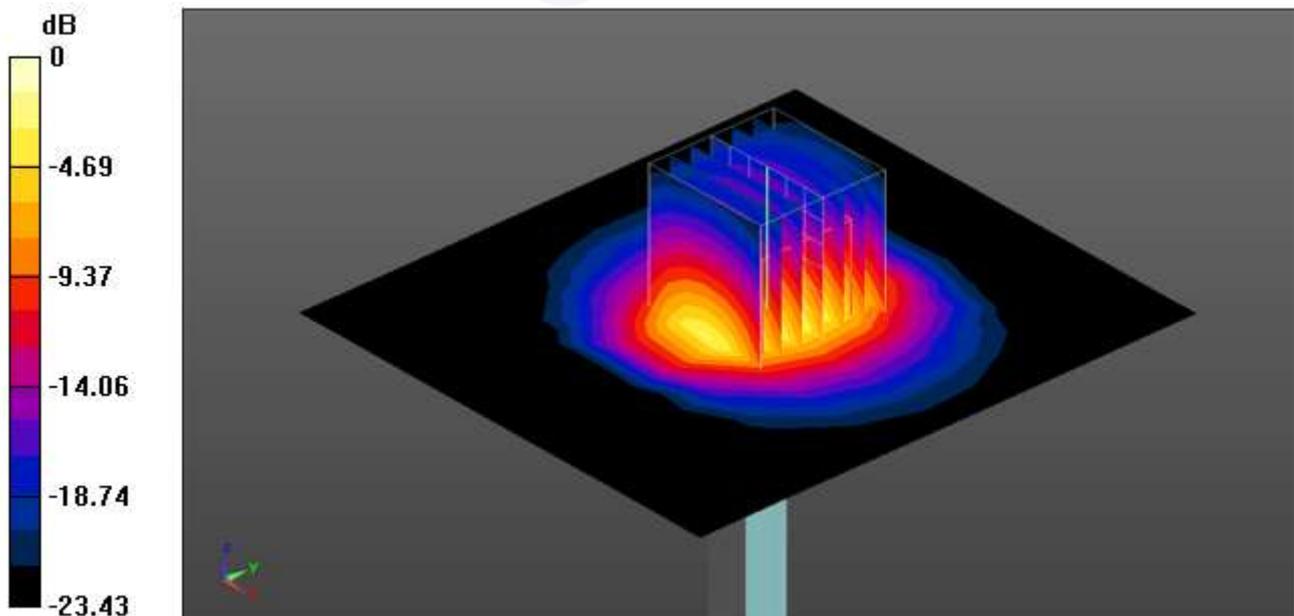
Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2600$ MHz; $\sigma = 1.953$ S/m; $\epsilon_r = 37.491$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7840;ConvF(6.79, 6.78, 6.83) @ 2600 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check/2600 MHz Verification Input Power 100 mW 2023-12-07/Area Scan (10x11x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 8.02 W/kg

System Performance Check/2600 MHz Verification Input Power 100 mW 2023-12-07/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 72.74 V/m; Power Drift = -0.16 dB
 Peak SAR (extrapolated) = 11.6 W/kg
SAR(1 g) = 5.64 W/kg; SAR(10 g) = 2.56 W/kg
 Maximum value of SAR (measured) = 9.44 W/kg



0 dB = 9.44 W/kg = 9.75 dBW/kg

Date: 10/24/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3500 MHz Verification Input Power 100 mW 2023-10-24.da5.da53:0](#)

DUT: Dipole 3500 MHz D3500V2, Type: D3500V2, Serial: D3500V2 - SN:1065

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 3500$ MHz; $\sigma = 2.841$ S/m; $\epsilon_r = 36.979$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

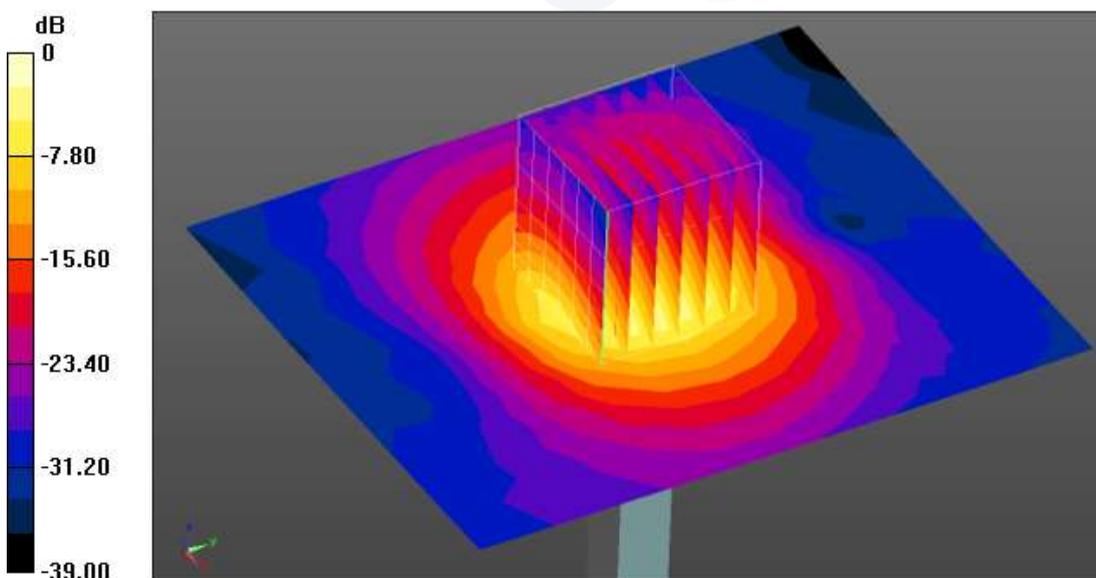
- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3500 MHz Verification Input Power 100 mW 2023-10-24/Area Scan (11x13x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 12.4 W/kg

Configuration/3500 MHz Verification Input Power 100 mW 2023-10-24/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
Reference Value = 68.43 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 15.4 W/kg
SAR(1 g) = 6.38 W/kg; SAR(10 g) = 2.52 W/kg
Maximum value of SAR (measured) = 12.0 W/kg



0 dB = 12.0 W/kg = 10.79 dBW/kg

Date: 11/2/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3500 MHz Verification Input Power 100 mW 2023-11-02.da5.da53:0](#)

DUT: Dipole 3500 MHz D3500V2, Type: D3500V2, Serial: D3500V2 - SN:1065

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3500$ MHz; $\sigma = 2.961$ S/m; $\epsilon_r = 37.344$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

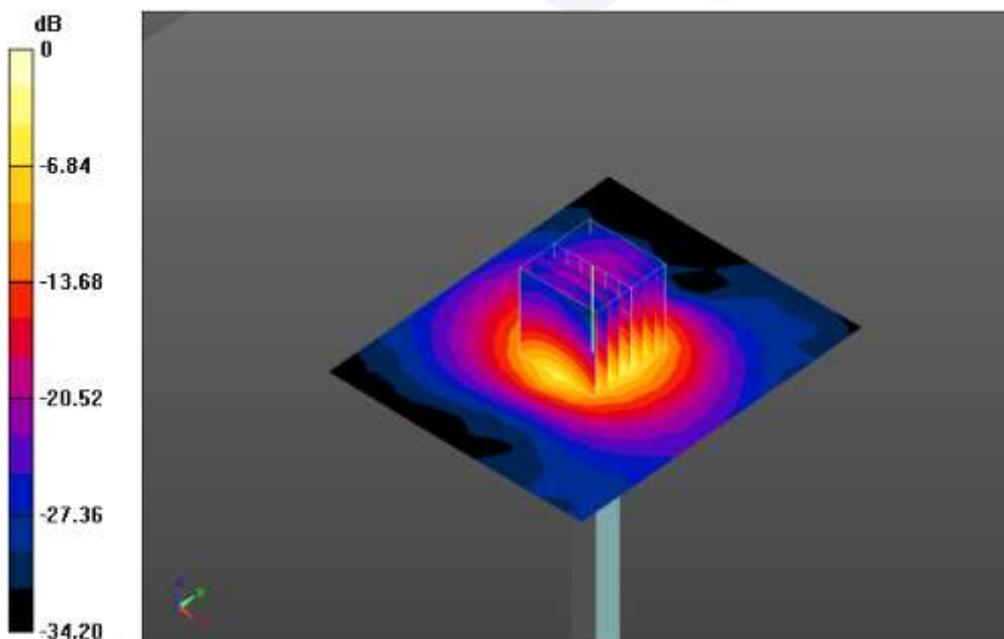
- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3500 MHz Verification Input Power 100 mW 2023-11-02/Area Scan (11x13x1):

Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 12.9 W/kg

Configuration/3500 MHz Verification Input Power 100 mW 2023-11-02/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 68.45 V/m; Power Drift = -0.18 dB
 Peak SAR (extrapolated) = 16.1 W/kg
SAR(1 g) = 6.67 W/kg; SAR(10 g) = 2.63 W/kg
 Maximum value of SAR (measured) = 12.5 W/kg



0 dB = 12.5 W/kg = 10.97 dBW/kg

Date: 11/9/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3500 MHz Verification Input Power 100 mW 2023-11-09\(System Test\).da5.da53:0](#)

DUT: Dipole 3500 MHz D3500V2, Type: D3500V2, Serial: D3500V2 - SN:1065

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3500 \text{ MHz}$; $\sigma = 2.816 \text{ S/m}$; $\epsilon_r = 38.11$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

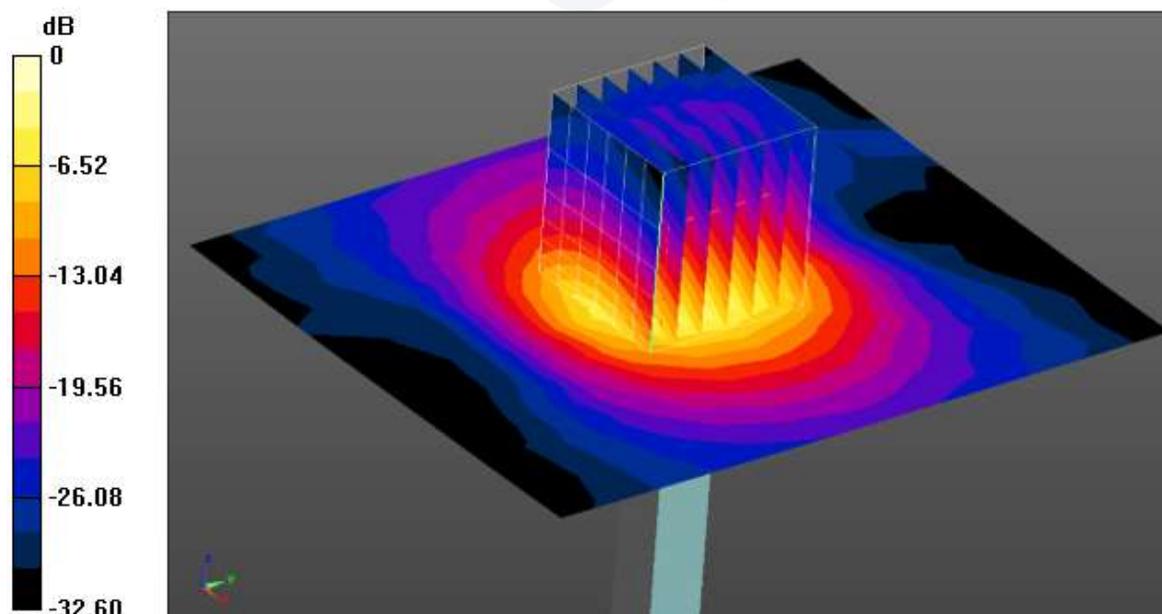
- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3500 MHz Verification Input Power 100 mW 2023-11-09/Area Scan (11x13x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (measured) = 11.9 W/kg

Configuration/3500 MHz Verification Input Power 100 mW 2023-11-09/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=1.4\text{mm}$
 Reference Value = 65.67 V/m; Power Drift = 0.09 dB
 Peak SAR (extrapolated) = 18.2 W/kg
SAR(1 g) = 6.76 W/kg; SAR(10 g) = 2.64 W/kg
 Maximum value of SAR (measured) = 13.2 W/kg



0 dB = 13.2 W/kg = 11.21 dBW/kg

Date: 11/11/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3500 MHz Verification Input Power 100 mW 2023-11-11.da5.da53:0](#)

DUT: Dipole 3500 MHz D3500V2, Type: D3500V2, Serial: D3500V2 - SN:1065

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 3500$ MHz; $\sigma = 2.893$ S/m; $\epsilon_r = 37.872$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

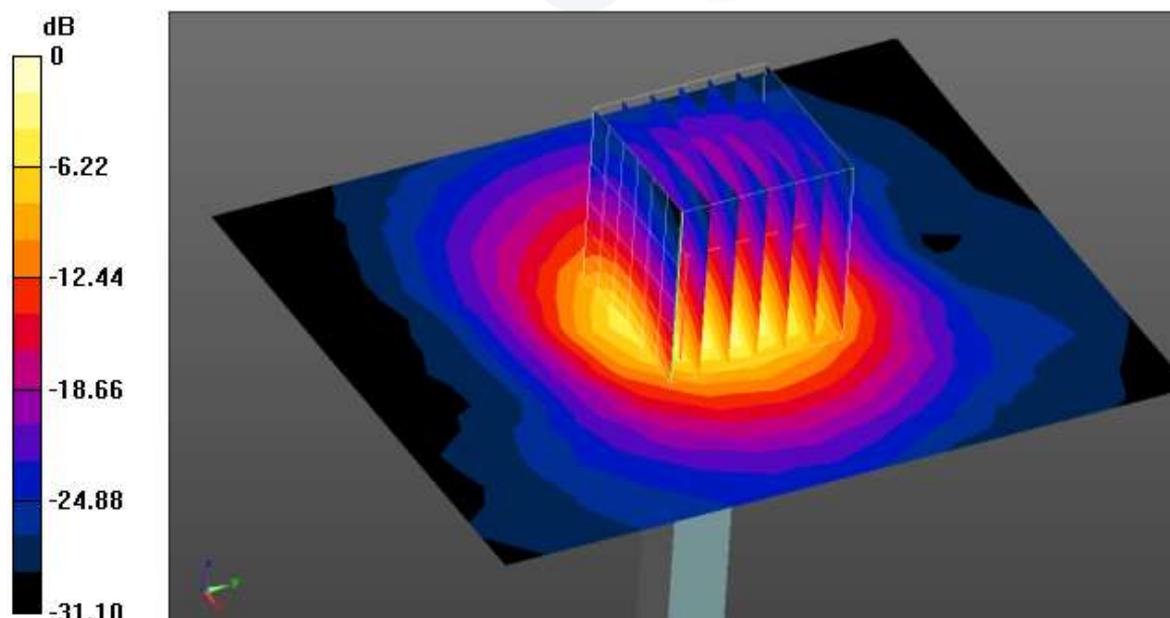
- Probe: EX3DV4 - SN7540; ConvF(7, 7, 7) @ 3500 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3500 MHz Verification Input Power 100 mW 2023-11-11/Area Scan (11x13x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 12.5 W/kg

Configuration/3500 MHz Verification Input Power 100 mW 2023-11-11/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
Reference Value = 66.45 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 15.1 W/kg
SAR(1 g) = 6.19 W/kg; SAR(10 g) = 2.45 W/kg
Maximum value of SAR (measured) = 11.6 W/kg



0 dB = 11.6 W/kg = 10.64 dBW/kg

Date: 11/14/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3500 MHz Verification Input Power 100 mW 2023-11-14.da5.da53:0](#)

DUT: Dipole 3500 MHz D3500V2, Type: D3500V2, Serial: D3500V2 - SN:1065

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 3500$ MHz; $\sigma = 2.881$ S/m; $\epsilon_r = 39.383$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

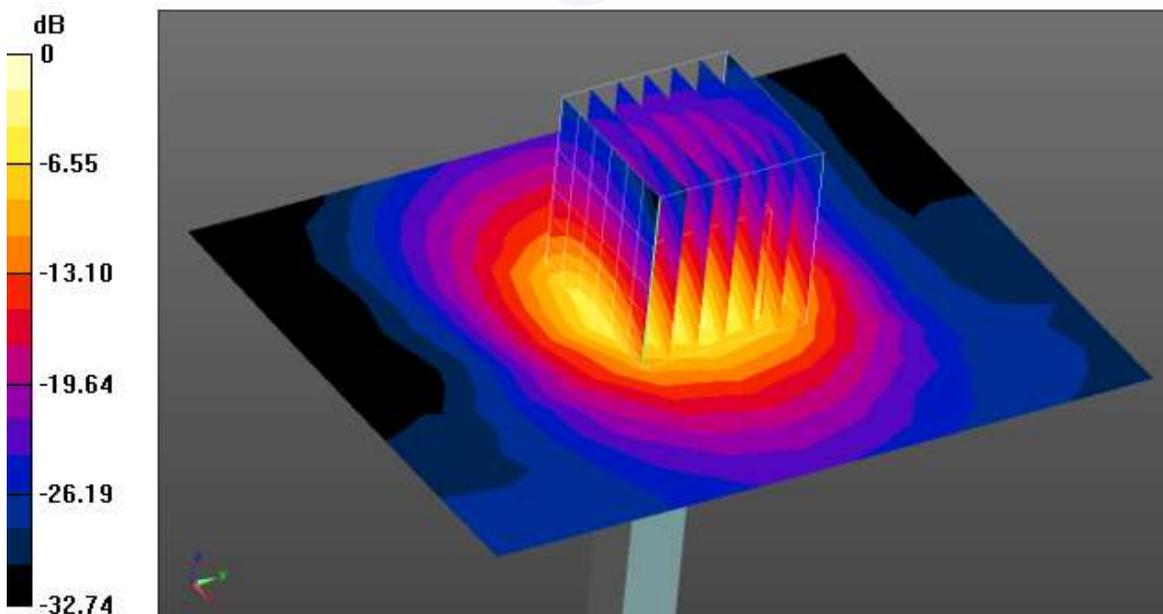
- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3500 MHz Verification Input Power 100 mW 2023-11-14/Area Scan (9x11x1):

Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 11.1 W/kg

Configuration/3500 MHz Verification Input Power 100 mW 2023-11-14/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
Reference Value = 67.13 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 15.8 W/kg
SAR(1 g) = 6.22 W/kg; SAR(10 g) = 2.48 W/kg
Maximum value of SAR (measured) = 11.6 W/kg



0 dB = 11.6 W/kg = 10.64 dBW/kg

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3500 MHz Verification Input Power 100 mW 2023-11-15.da5.da53:0](#)

DUT: Dipole 3500 MHz D3500V2, Type: D3500V2, Serial: D3500V2 - SN:1065

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3500$ MHz; $\sigma = 2.855$ S/m; $\epsilon_r = 37.129$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

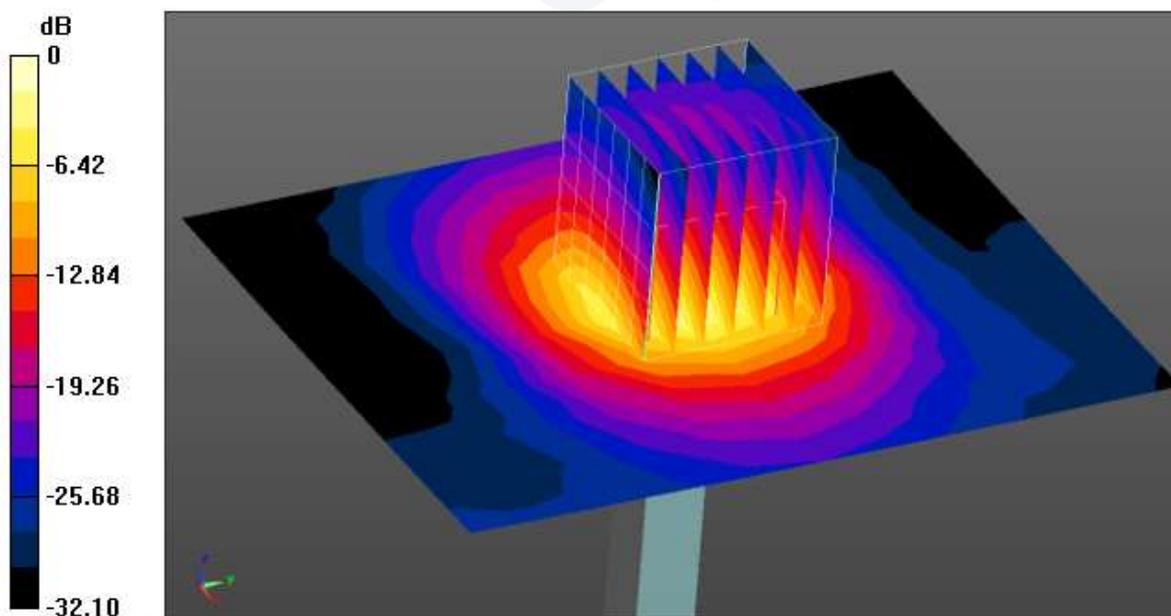
- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3500 MHz Verification Input Power 100 mW 2023-11-15/Area Scan (9x11x1):

Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 10.8 W/kg

Configuration/3500 MHz Verification Input Power 100 mW 2023-11-15/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 67.36 V/m; Power Drift = -0.11 dB
 Peak SAR (extrapolated) = 15.8 W/kg
SAR(1 g) = 6.1 W/kg; SAR(10 g) = 2.42 W/kg
 Maximum value of SAR (measured) = 11.5 W/kg



0 dB = 11.5 W/kg = 10.61 dBW/kg

Date: 11/16/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3500 MHz Verification Input Power 100 mW 2023-11-16.da5.da53:0](#)

DUT: Dipole 3500 MHz D3500V2, Type: D3500V2, Serial: D3500V2 - SN:1065

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3500$ MHz; $\sigma = 2.821$ S/m; $\epsilon_r = 38.79$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

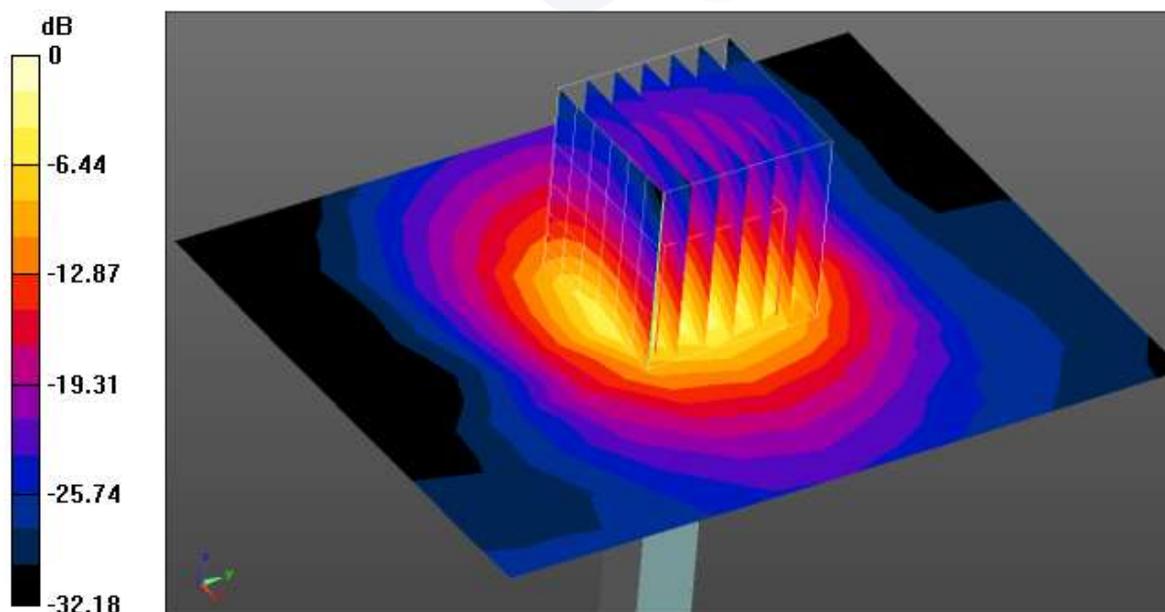
- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3500 MHz Verification Input Power 100 mW 2023-11-16/Area Scan (9x11x1):

Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 10.9 W/kg

Configuration/3500 MHz Verification Input Power 100 mW 2023-11-16/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 67.89 V/m; Power Drift = -0.09 dB
 Peak SAR (extrapolated) = 16.2 W/kg
SAR(1 g) = 6.23 W/kg; SAR(10 g) = 2.47 W/kg
 Maximum value of SAR (measured) = 11.8 W/kg



0 dB = 11.8 W/kg = 10.72 dBW/kg

Date: 12/7/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3500 MHz Verification Input Power 100 mW 2023-12-07.da5.da53:0](#)

DUT: Dipole 3500 MHz D3500V2, Type: D3500V2, Serial: D3500V2 - SN:1065

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3500$ MHz; $\sigma = 2.807$ S/m; $\epsilon_r = 38.244$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

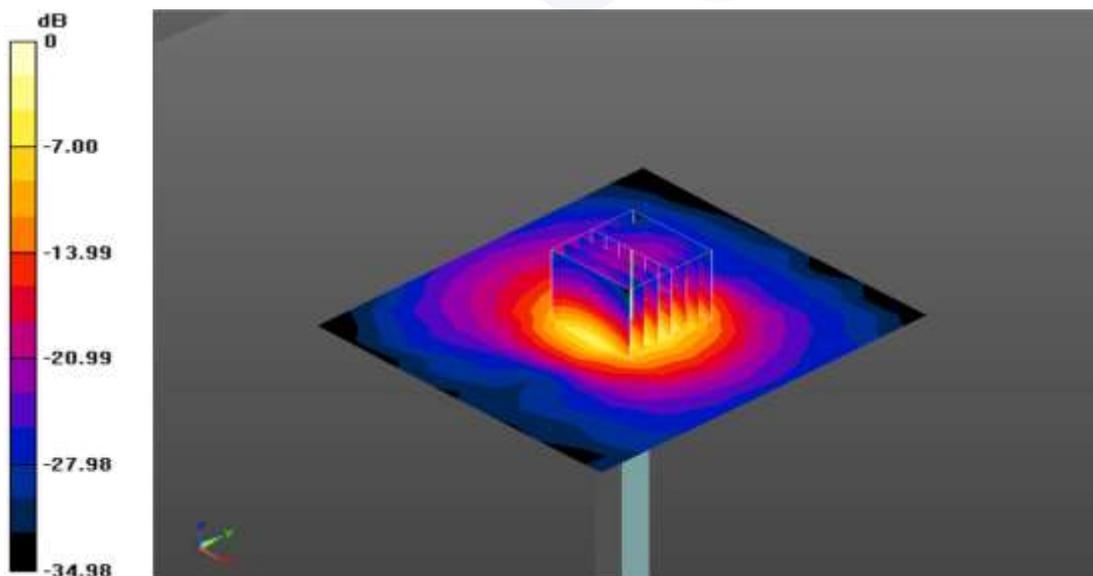
- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3500 MHz Verification Input Power 100 mW 2023-12-07/Area Scan (10x11x1):

Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 9.76 W/kg

Configuration/3500 MHz Verification Input Power 100 mW 2023-12-07/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 69.99 V/m; Power Drift = -0.15 dB
 Peak SAR (extrapolated) = 17.5 W/kg
SAR(1 g) = 6.34 W/kg; SAR(10 g) = 2.45 W/kg
 Maximum value of SAR (measured) = 12.3 W/kg



0 dB = 12.3 W/kg = 10.90 dBW/kg

Date: 10/24/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3700 MHz Verification Input Power 100 mW 2023-10-24.da5.da53:0](#)

DUT: Dipole 3700 MHz D3700V2, Type: D3700V2, Serial: D3700V2 - SN:1027

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3700$ MHz; $\sigma = 3.005$ S/m; $\epsilon_r = 36.62$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

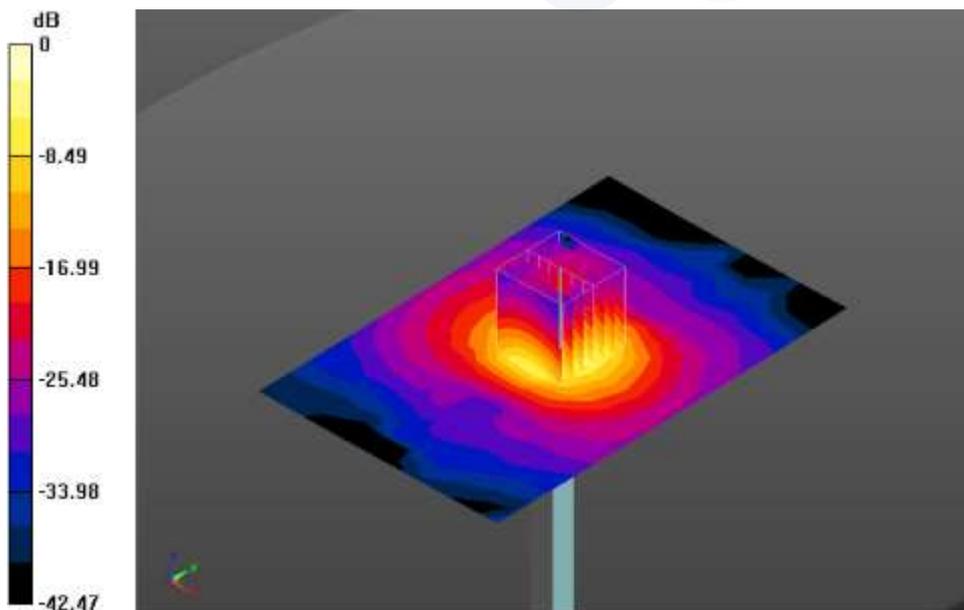
- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3700 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3700 MHz Verification Input Power 100 mW 2023-10-24/Area Scan (10x15x1):

Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 11.5 W/kg

Configuration/3700 MHz Verification Input Power 100 mW 2023-10-24/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 68.46 V/m; Power Drift = -0.16 dB
 Peak SAR (extrapolated) = 18.2 W/kg
SAR(1 g) = 7.04 W/kg; SAR(10 g) = 2.66 W/kg
 Maximum value of SAR (measured) = 13.7 W/kg



0 dB = 13.7 W/kg = 11.37 dBW/kg

Date: 11/2/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3700 MHz Verification Input Power 100 mW 2023-11-02.da5\(System Test\).da53:0](#)

DUT: Dipole 3700 MHz D3700V2, Type: D3700V2, Serial: D3700V2 - SN:1027

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3700$ MHz; $\sigma = 3.165$ S/m; $\epsilon_r = 36.795$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

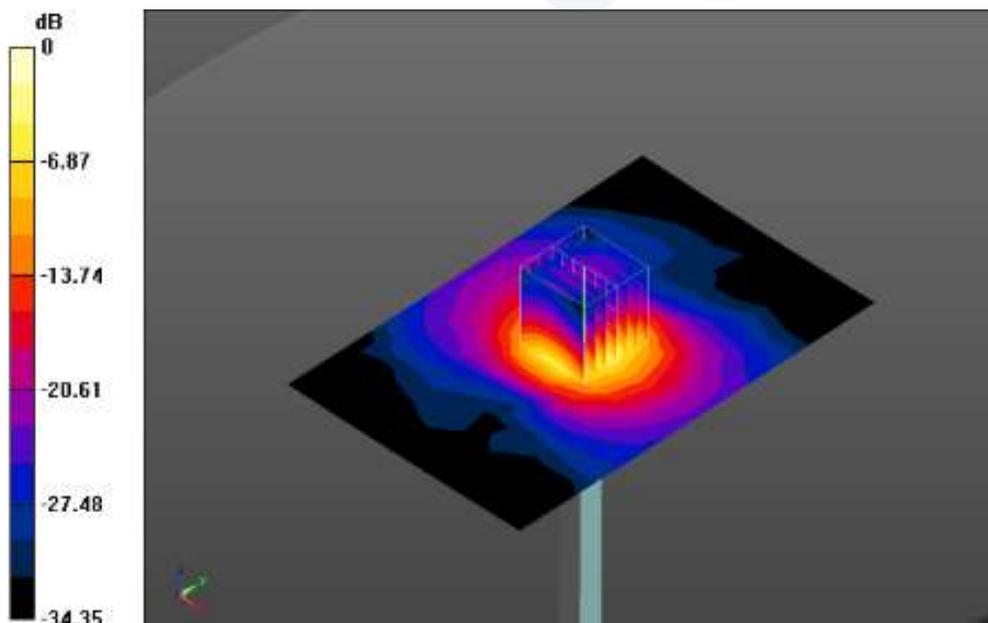
- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3700 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-02/Area Scan (10x15x1):

Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 10.1 W/kg

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-02/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 67.56 V/m; Power Drift = -0.15 dB
 Peak SAR (extrapolated) = 17.7 W/kg
SAR(1 g) = 6.55 W/kg; SAR(10 g) = 2.49 W/kg
 Maximum value of SAR (measured) = 12.9 W/kg



0 dB = 12.9 W/kg = 11.11 dBW/kg

Date: 11/6/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3700 MHz Verification Input Power 100 mW 2023-11-06.da5\(System Test\).da53:0](#)

DUT: Dipole 3700 MHz D3700V2, Type: D3700V2, Serial: D3700V2 - SN:1027

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3700$ MHz; $\sigma = 3.011$ S/m; $\epsilon_r = 38.596$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

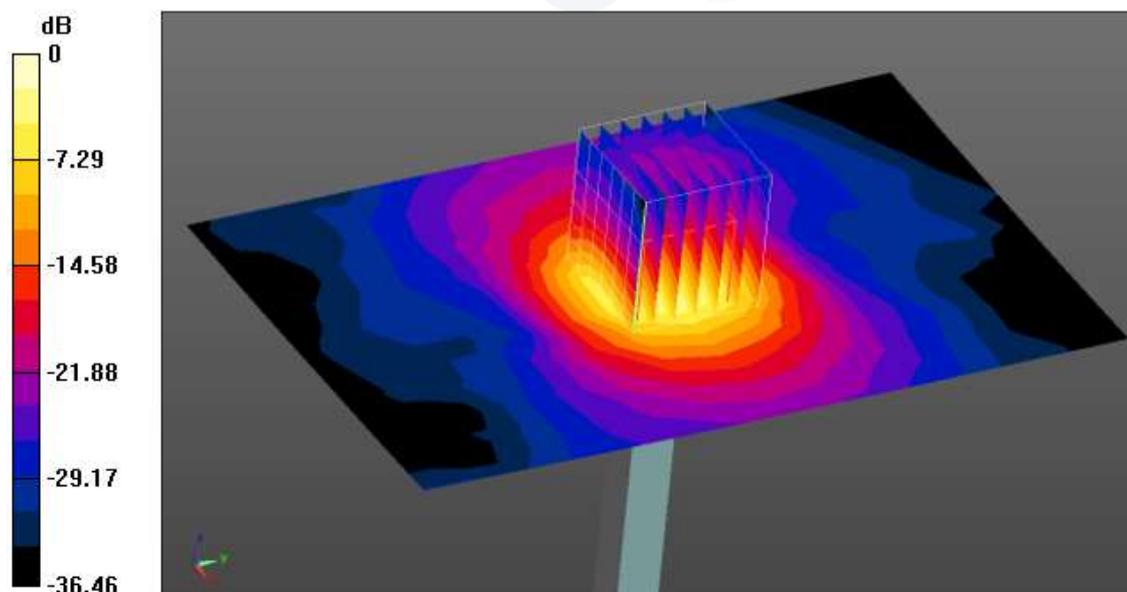
- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3700 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-06/Area Scan (10x15x1):

Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 10.4 W/kg

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-06/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 70.14 V/m; Power Drift = -0.17 dB
 Peak SAR (extrapolated) = 18.3 W/kg
SAR(1 g) = 6.8 W/kg; SAR(10 g) = 2.58 W/kg
 Maximum value of SAR (measured) = 13.4 W/kg



0 dB = 13.4 W/kg = 11.27 dBW/kg

Date: 11/10/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3700 MHz Verification Input Power 100 mW 2023-11-10.da5.da53:0](#)

DUT: Dipole 3700 MHz D3700V2, Type: D3700V2, Serial: D3700V2 - SN:1027

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 3700$ MHz; $\sigma = 3.1$ S/m; $\epsilon_r = 37.322$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

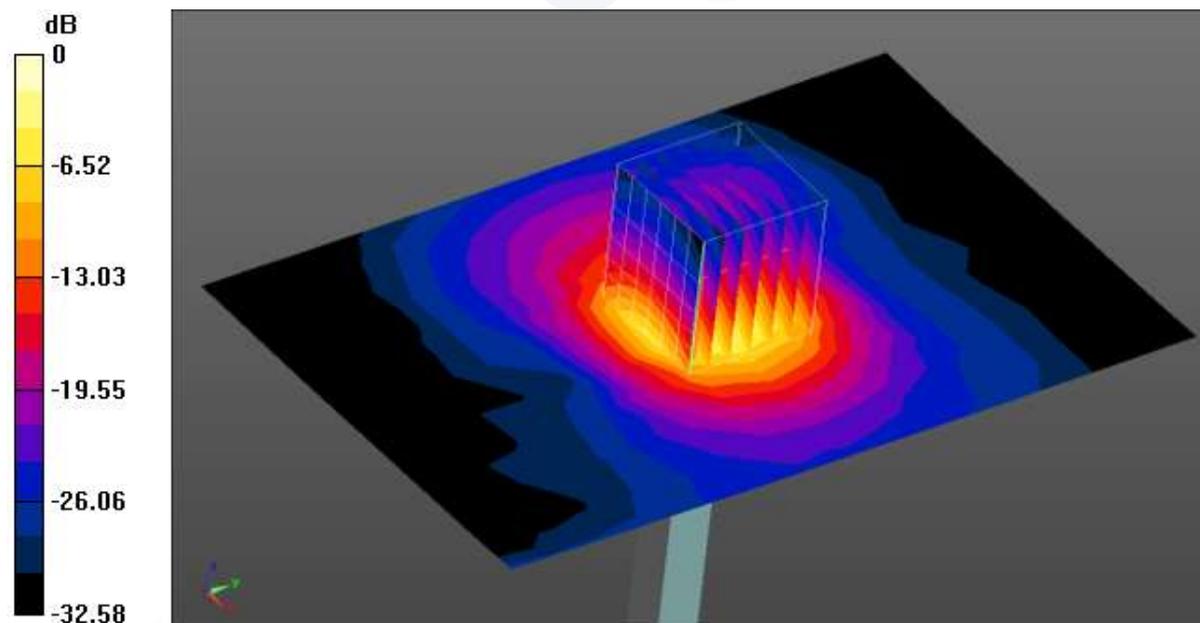
- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3700 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-10/Area Scan (10x15x1):

Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 11.3 W/kg

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-10/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
Reference Value = 69.36 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 18.5 W/kg
SAR(1 g) = 7.04 W/kg; SAR(10 g) = 2.68 W/kg
Maximum value of SAR (measured) = 13.7 W/kg



0 dB = 13.7 W/kg = 11.37 dBW/kg

Date: 11/11/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3700 MHz Verification Input Power 100 mW 2023-11-11.da5.da53:0](#)

DUT: Dipole 3700 MHz D3700V2, Type: D3700V2, Serial: D3700V2 - SN:1027

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3700$ MHz; $\sigma = 3.086$ S/m; $\epsilon_r = 37.502$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

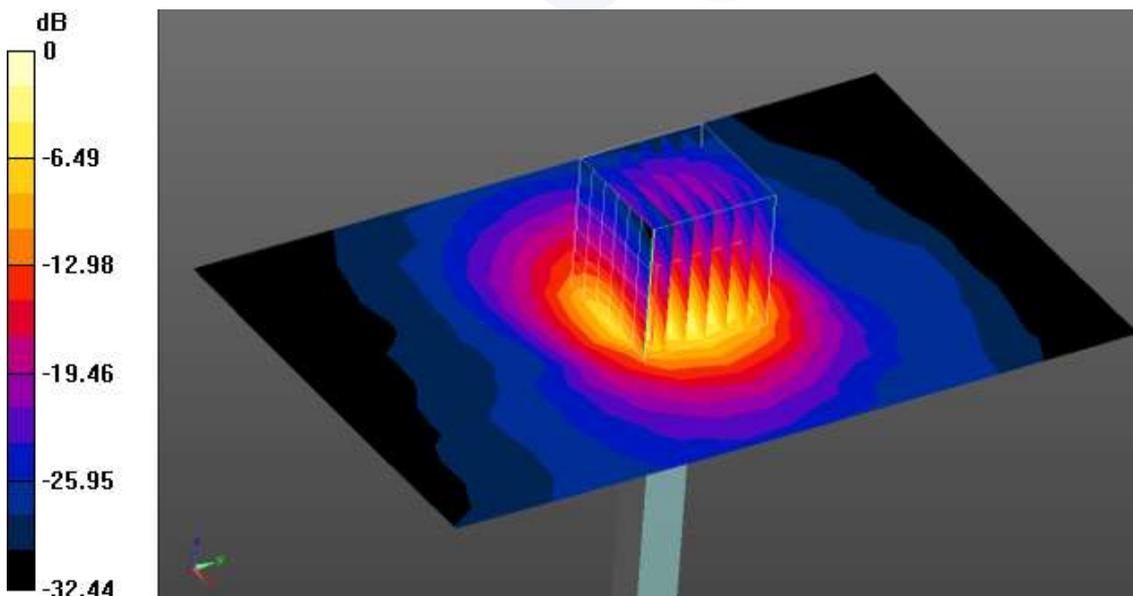
- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3700 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-11/Area Scan (10x15x1):

Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 11.2 W/kg

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-11/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 67.75 V/m; Power Drift = -0.10 dB
 Peak SAR (extrapolated) = 17.3 W/kg
SAR(1 g) = 6.91 W/kg; SAR(10 g) = 2.67 W/kg
 Maximum value of SAR (measured) = 13.2 W/kg



0 dB = 13.2 W/kg = 11.21 dBW/kg

Date: 11/14/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3700 MHz Verification Input Power 100 mW 2023-11-14.da5.da53:0](#)

DUT: Dipole 3700 MHz D3700V2, Type: D3700V2, Serial: D3700V2 - SN:1027

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 3700$ MHz; $\sigma = 3.017$ S/m; $\epsilon_r = 38.822$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

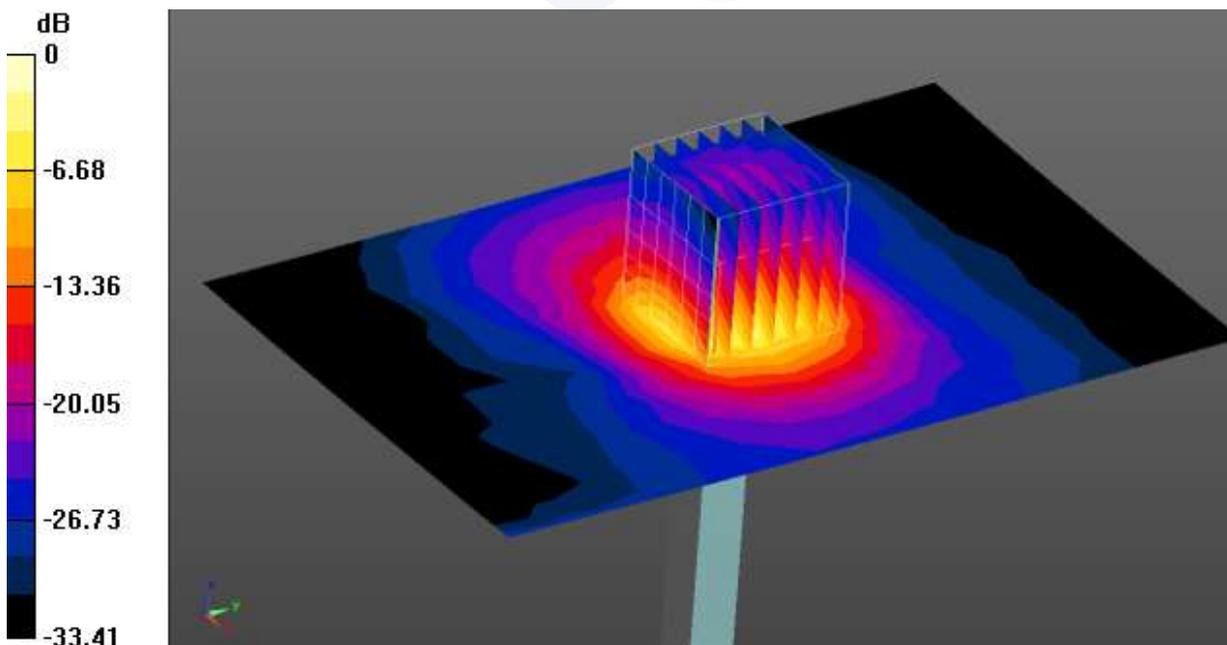
- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3700 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-14/Area Scan (10x15x1):

Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 10.5 W/kg

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-14/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
Reference Value = 68.70 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 18.1 W/kg
SAR(1 g) = 6.79 W/kg; SAR(10 g) = 2.58 W/kg
Maximum value of SAR (measured) = 13.4 W/kg



0 dB = 13.4 W/kg = 11.27 dBW/kg

This test report shall not be reproduced, except in full, without the written approval

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3700 MHz Verification Input Power 100 mW 2023-11-15.da5.da53:0](#)

DUT: Dipole 3700 MHz D3700V2, Type: D3700V2, Serial: D3700V2 - SN:1027

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 3700$ MHz; $\sigma = 3.074$ S/m; $\epsilon_r = 37.108$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

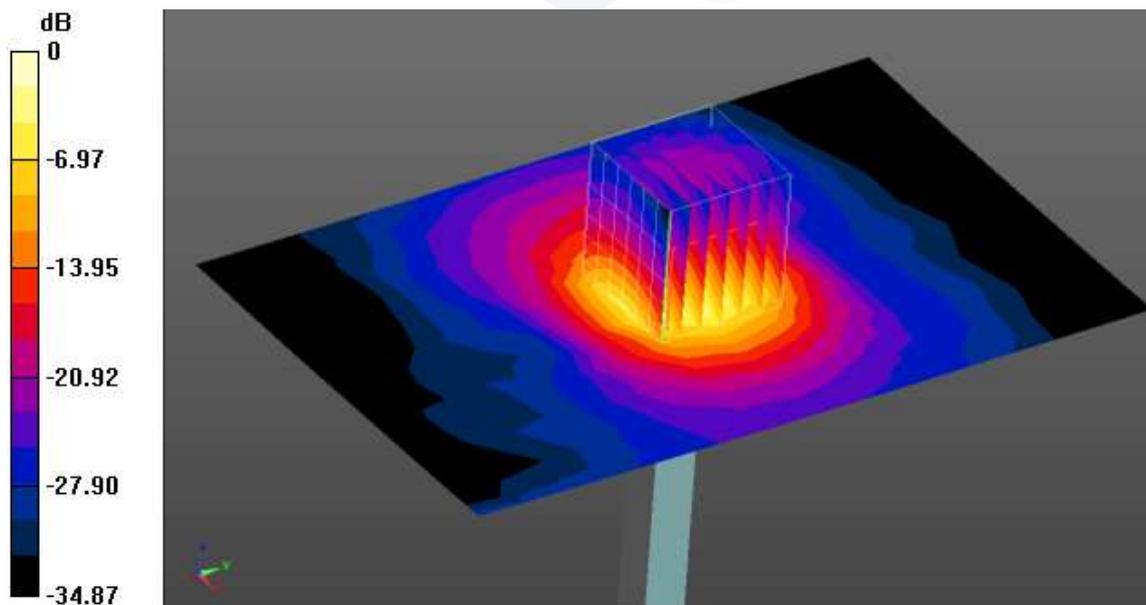
- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3700 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-15/Area Scan (10x15x1):

Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 10.8 W/kg

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-15/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
Reference Value = 69.28 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 18.1 W/kg
SAR(1 g) = 6.89 W/kg; SAR(10 g) = 2.63 W/kg
Maximum value of SAR (measured) = 13.4 W/kg



0 dB = 13.4 W/kg = 11.27 dBW/kg

Date: 11/16/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3700 MHz Verification Input Power 100 mW 2023-11-16.da5.da53:0](#)

DUT: Dipole 3700 MHz D3700V2, Type: D3700V2, Serial: D3700V2 - SN:1027

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3700$ MHz; $\sigma = 3.031$ S/m; $\epsilon_r = 38.553$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

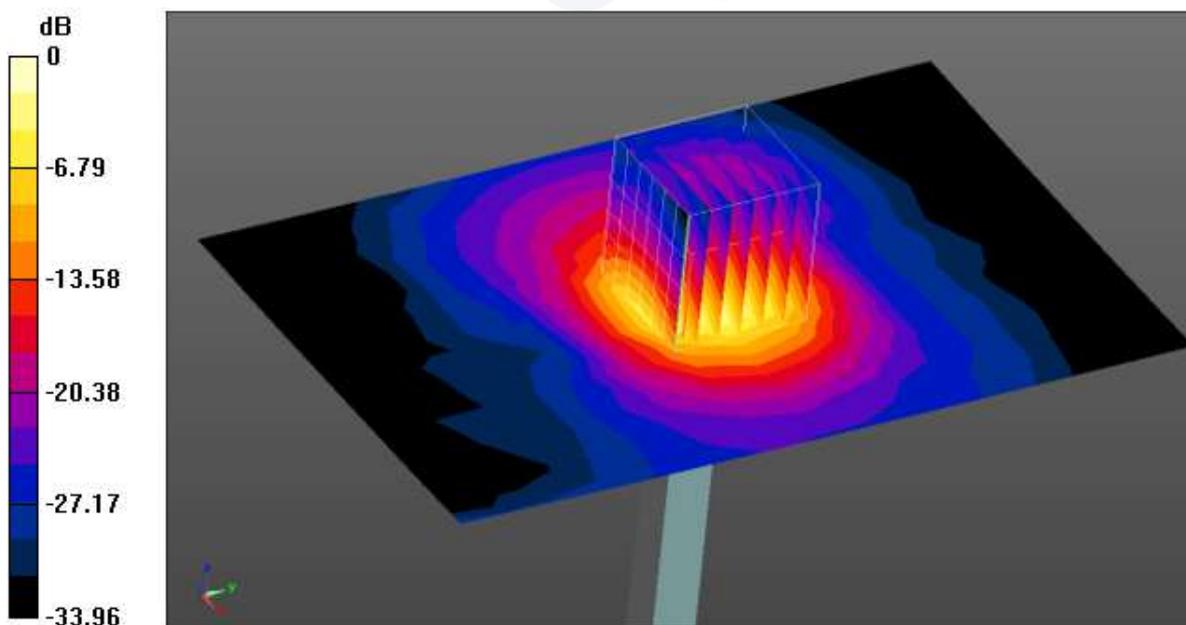
- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3700 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-16/Area Scan (10x15x1):

Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 10.9 W/kg

Configuration/3700 MHz Verification Input Power 100 mW 2023-11-16/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 69.30 V/m; Power Drift = -0.15 dB
 Peak SAR (extrapolated) = 17.9 W/kg
SAR(1 g) = 6.82 W/kg; SAR(10 g) = 2.61 W/kg
 Maximum value of SAR (measured) = 13.3 W/kg



0 dB = 13.3 W/kg = 11.24 dBW/kg

Date: 12/7/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3700 MHz Verification Input Power 100 mW 2023-12-07.da5.da53:0](#)

DUT: Dipole 3700 MHz D3700V2, Type: D3700V2, Serial: D3700V2 - SN:1027

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3700$ MHz; $\sigma = 3.039$ S/m; $\epsilon_r = 38.775$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

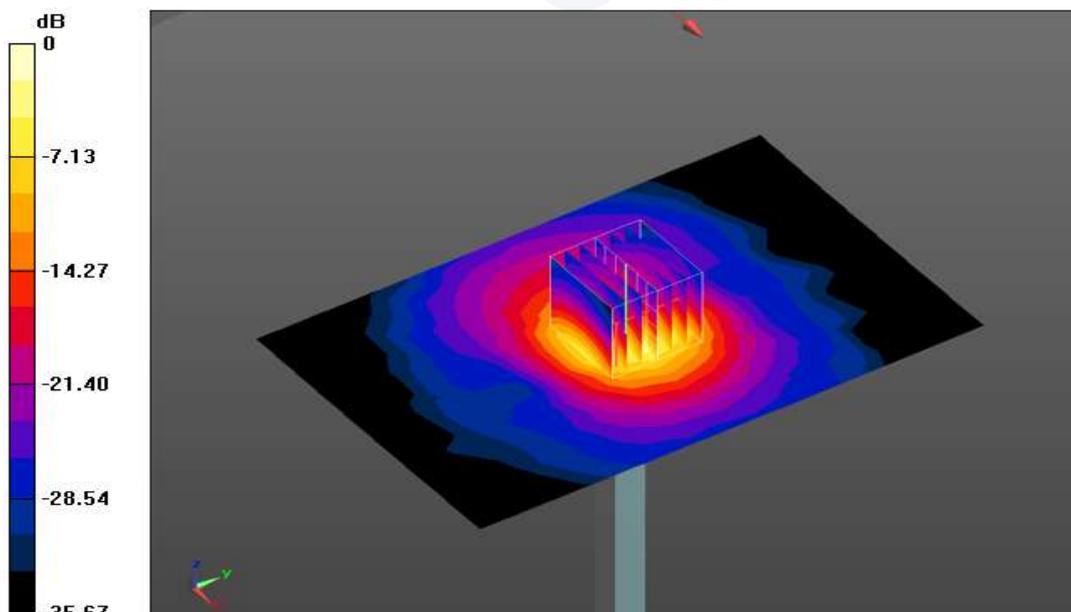
- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3700 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3700 MHz Verification Input Power 100 mW 2023-12-07/Area Scan (10x15x1):

Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 10.5 W/kg

Configuration/3700 MHz Verification Input Power 100 mW 2023-12-07/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 68.77 V/m; Power Drift = -0.15 dB
 Peak SAR (extrapolated) = 18.8 W/kg
SAR(1 g) = 6.8 W/kg; SAR(10 g) = 2.56 W/kg
 Maximum value of SAR (measured) = 13.5 W/kg



0 dB = 13.5 W/kg = 11.30 dBW/kg

Date: 11/6/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3900 MHz Verification Input Power 100 mW 2023-11-06.da5.da53:0](#)

DUT: Dipole 3900 MHz D3900V2, Type: D3900V2, Serial: D3900V2 - SN:1043

Communication System: UID 0, CW (0); Frequency: 3900 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3900 \text{ MHz}$; $\sigma = 3.219 \text{ S/m}$; $\epsilon_r = 38.312$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

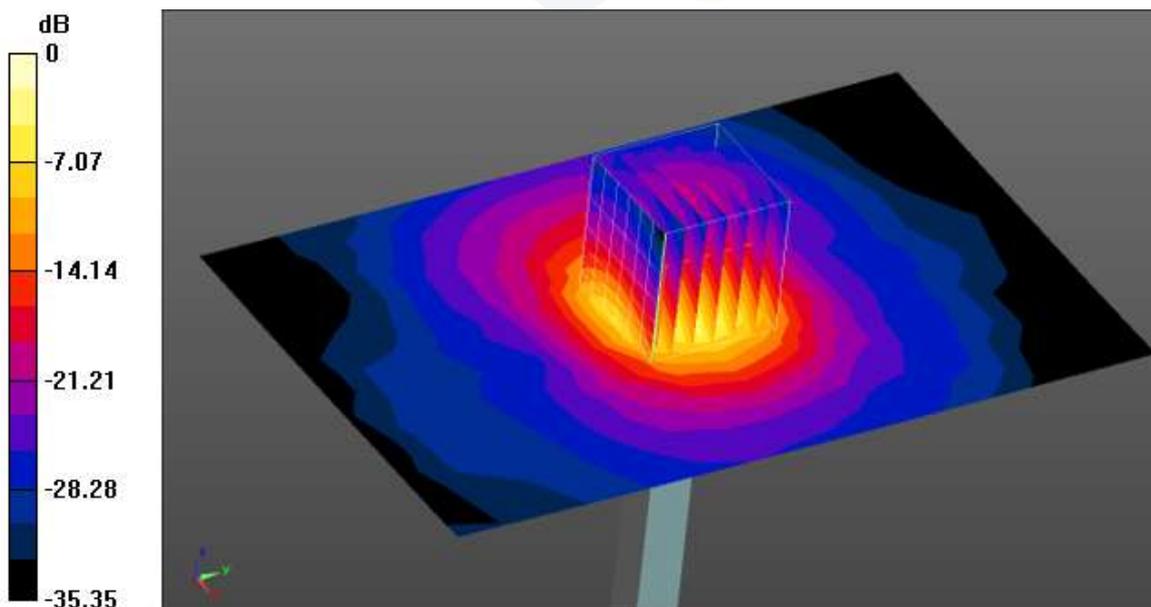
- Probe: EX3DV4 - SN7540;ConvF(6.69, 6.69, 6.69) @ 3900 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3900 MHz Verification Input Power 100 mW 2023-11-06/Area Scan (10x15x1):

Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$
 Maximum value of SAR (measured) = 10.5 W/kg

Configuration/3900 MHz Verification Input Power 100 mW 2023-11-06/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=1.4\text{mm}$
 Reference Value = 71.32 V/m; Power Drift = -0.13 dB
 Peak SAR (extrapolated) = 17.9 W/kg
SAR(1 g) = 7.2 W/kg; SAR(10 g) = 2.68 W/kg
 Maximum value of SAR (measured) = 13.7 W/kg



0 dB = 13.7 W/kg = 11.37 dBW/kg

Date: 11/10/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3900 MHz Verification Input Power 100 mW 2023-11-10.da5.da53:0](#)

DUT: Dipole 3900 MHz D3900V2, Type: D3900V2, Serial: D3900V2 - SN:1043

Communication System: UID 0, CW (0); Frequency: 3900 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3900$ MHz; $\sigma = 3.295$ S/m; $\epsilon_r = 37.001$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

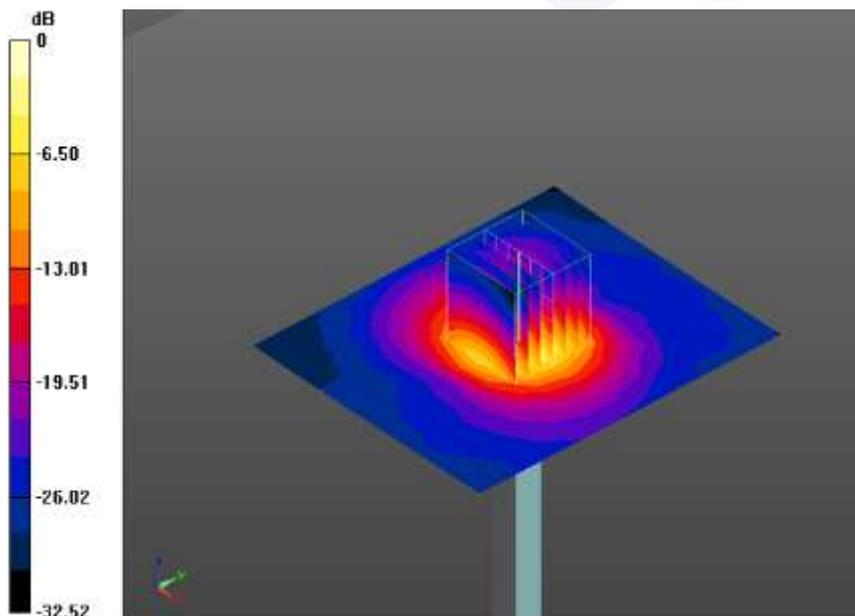
- Probe: EX3DV4 - SN7540;ConvF(6.69, 6.69, 6.69) @ 3900 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3900 MHz Verification Input Power 100 mW 2023-11-10/Area Scan (11x13x1):

Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 13.9 W/kg

Configuration/3900 MHz Verification Input Power 100 mW 2023-11-10/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 70.14 V/m; Power Drift = -0.10 dB
 Peak SAR (extrapolated) = 17.5 W/kg
SAR(1 g) = 7.43 W/kg; SAR(10 g) = 2.83 W/kg
 Maximum value of SAR (measured) = 14.0 W/kg



0 dB = 14.0 W/kg = 11.46 dBW/kg

Date: 11/14/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3900 MHz Verification Input Power 100 mW 2023-11-14.da5.da53:0](#)

DUT: Dipole 3900 MHz D3900V2, Type: D3900V2, Serial: D3900V2 - SN:1043

Communication System: UID 0, CW (0); Frequency: 3900 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3900 \text{ MHz}$; $\sigma = 3.28 \text{ S/m}$; $\epsilon_r = 38.421$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

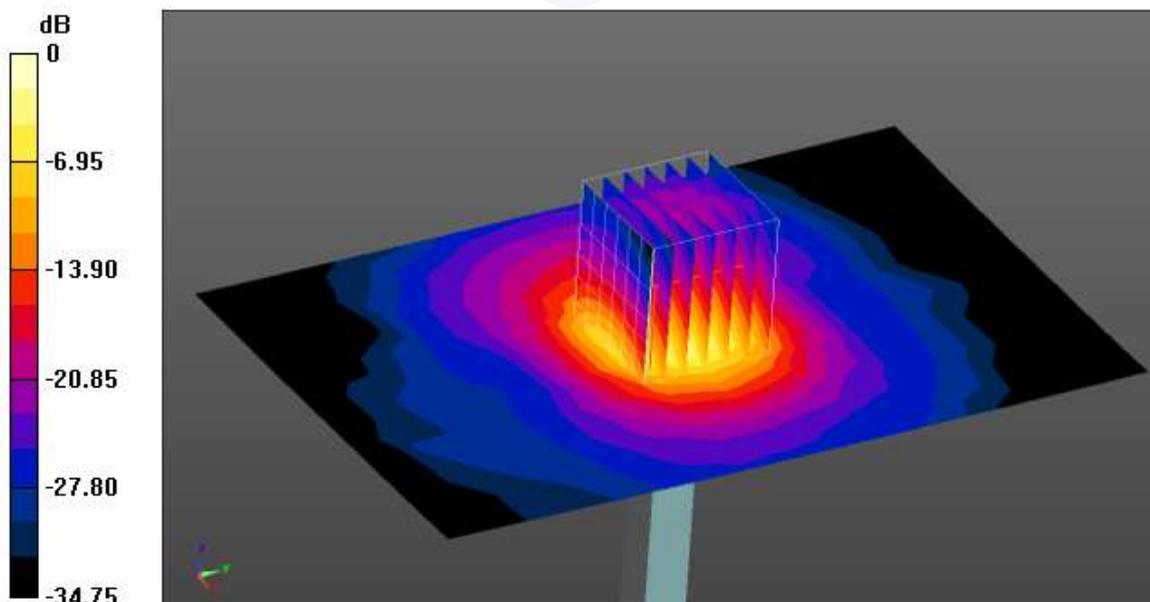
- Probe: EX3DV4 - SN7540;ConvF(6.69, 6.69, 6.69) @ 3900 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3900 MHz Verification Input Power 100 mW 2023-11-14/Area Scan (10x15x1):

Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$
 Maximum value of SAR (measured) = 10.6 W/kg

Configuration/3900 MHz Verification Input Power 100 mW 2023-11-14/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=1.4\text{mm}$
 Reference Value = 71.10 V/m; Power Drift = 0.01 dB
 Peak SAR (extrapolated) = 18.1 W/kg
SAR(1 g) = 7.29 W/kg; SAR(10 g) = 2.72 W/kg
 Maximum value of SAR (measured) = 13.8 W/kg



0 dB = 13.8 W/kg = 11.40 dBW/kg

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3900 MHz Verification Input Power 100 mW 2023-11-15.da5.da53:0](#)

DUT: Dipole 3900 MHz D3900V2, Type: D3900V2, Serial: D3900V2 - SN:1043

Communication System: UID 0, CW (0); Frequency: 3900 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3900 \text{ MHz}$; $\sigma = 3.265 \text{ S/m}$; $\epsilon_r = 36.795$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

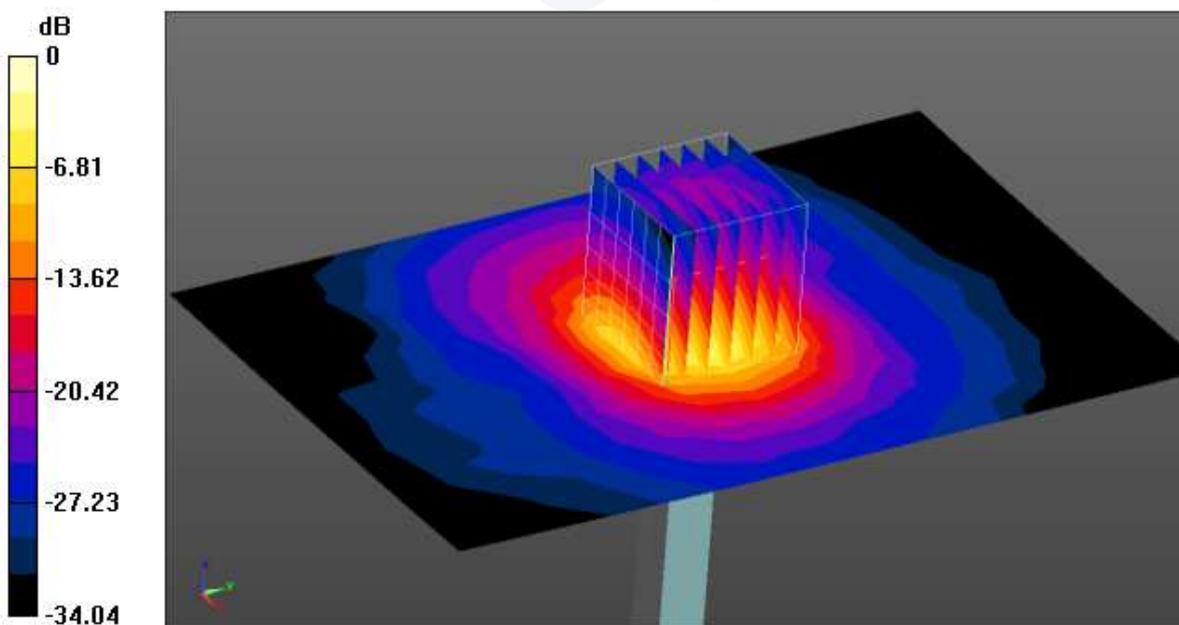
- Probe: EX3DV4 - SN7540;ConvF(6.69, 6.69, 6.69) @ 3900 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3900 MHz Verification Input Power 100 mW 2023-11-15/Area Scan (10x15x1):

Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$
 Maximum value of SAR (measured) = 10.6 W/kg

Configuration/3900 MHz Verification Input Power 100 mW 2023-11-15/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=1.4\text{mm}$
 Reference Value = 71.75 V/m; Power Drift = -0.09 dB
 Peak SAR (extrapolated) = 18.3 W/kg
SAR(1 g) = 7.32 W/kg; SAR(10 g) = 2.73 W/kg
 Maximum value of SAR (measured) = 14.0 W/kg



0 dB = 14.0 W/kg = 11.46 dBW/kg

Date: 12/7/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [3900 MHz Verification Input Power 100 mW 2023-12-07.da5.da53:0](#)

DUT: Dipole 3900 MHz D3900V2, Type: D3900V2, Serial: D3900V2 - SN:1043

Communication System: UID 0, CW (0); Frequency: 3900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 3900 \text{ MHz}$; $\sigma = 3.227 \text{ S/m}$; $\epsilon_r = 38.293$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

DASY5 Configuration:

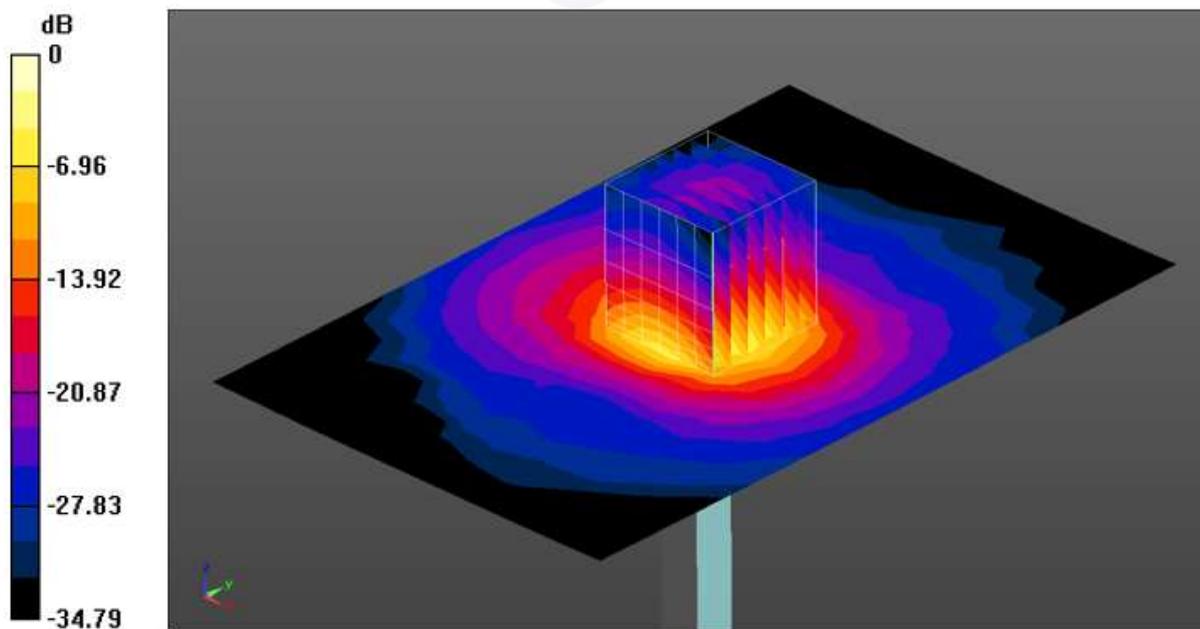
- Probe: EX3DV4 - SN7540;ConvF(6.69, 6.69, 6.69) @ 3900 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3900 MHz Verification Input Power 100 mW 2023-12-07/Area Scan (10x15x1):

Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$
Maximum value of SAR (measured) = 11.2 W/kg

Configuration/3900 MHz Verification Input Power 100 mW 2023-12-07/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=1.4\text{mm}$
Reference Value = 67.37 V/m; Power Drift = -0.51 dB
Peak SAR (extrapolated) = 17.7 W/kg
SAR(1 g) = 6.75 W/kg; SAR(10 g) = 2.47 W/kg
Maximum value of SAR (measured) = 13.2 W/kg



0 dB = 13.2 W/kg = 11.21 dBW/kg

Date: 11/13/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [5250 MHz Verification Input Power 100 mW 2023-11-13.da5:0](#)

DUT: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1293

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 5250$ MHz; $\sigma = 4.561$ S/m; $\epsilon_r = 37.018$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(4.8, 4.8, 4.8) @ 5250 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5250 MHz Verification Input Power 100 mW 2023-11-13/Area Scan (9x11x1):

Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 20.7 W/kg

Configuration/5250 MHz Verification Input Power 100 mW 2023-11-13/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

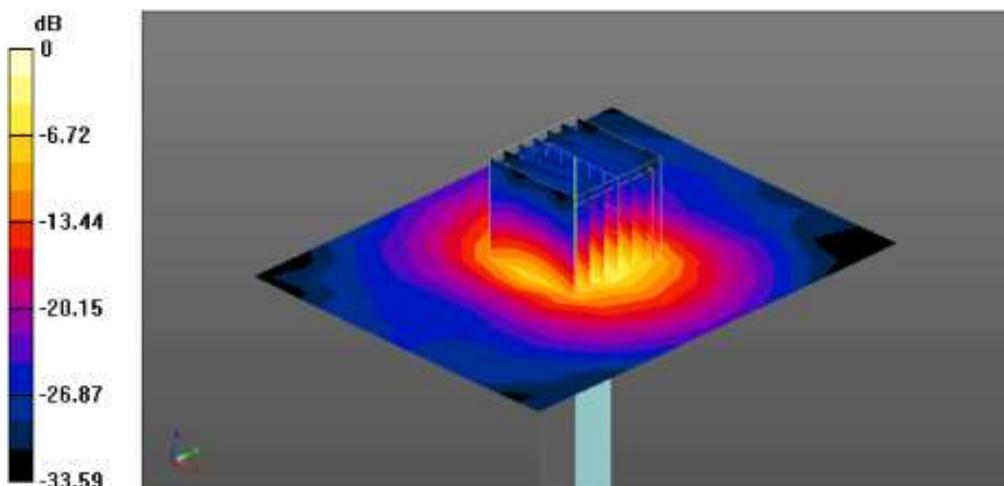
Reference Value = 74.26 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 31.8 W/kg

SAR(1 g) = 8.26 W/kg; SAR(10 g) = 2.41 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 20.6 W/kg



0 dB = 20.6 W/kg = 13.14 dBW/kg

Date: 11/16/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [5250 MHz Verification Input Power 100 mW 2023-11-16.da5:0](#)

DUT: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1293

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 5250$ MHz; $\sigma = 4.637$ S/m; $\epsilon_r = 35.024$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(4.8, 4.8, 4.8) @ 5250 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5250 MHz Verification Input Power 100 mW 2023-11-16/Area Scan (9x9x1):

Measurement grid: dx=10mm, dy=10mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 17.8 W/kg

Configuration/5250 MHz Verification Input Power 100 mW 2023-11-16/Zoom Scan (8x8x7)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

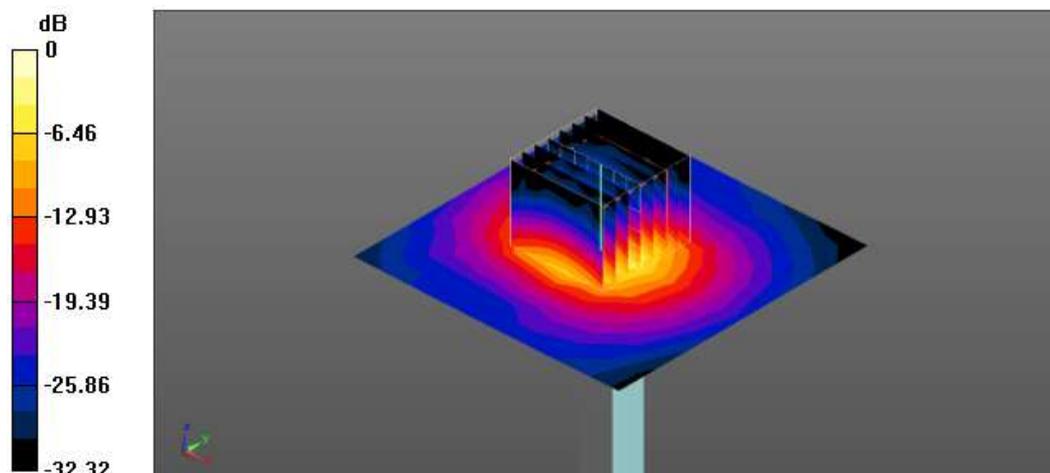
Reference Value = 68.80 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 31.6 W/kg

SAR(1 g) = 8.15 W/kg; SAR(10 g) = 2.37 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 20.0 W/kg



0 dB = 20.0 W/kg = 13.01 dBW/kg

Date: 11/12/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [5600 MHz Verification Input Power 100 mW 2023-11-12.da5:0](#)

DUT: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1293

Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.087$ S/m; $\epsilon_r = 36.135$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

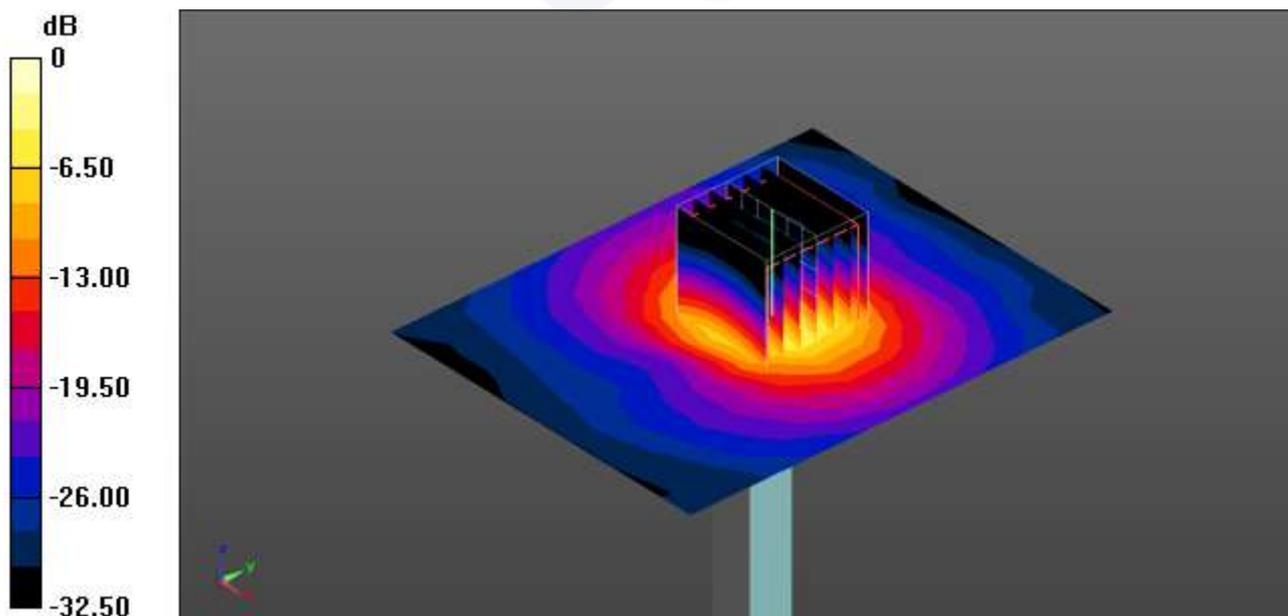
- Probe: EX3DV4 - SN7840;ConvF(4.59, 4.57, 4.57) @ 5600 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5600 MHz Verification Input Power 100 mW 2023-11-12/Area Scan (9x11x1):

Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 17.9 W/kg

Configuration/5600 MHz Verification Input Power 100 mW 2023-11-12/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 65.59 V/m; Power Drift = -0.06 dB
 Peak SAR (extrapolated) = 37.6 W/kg
SAR(1 g) = 8.19 W/kg; SAR(10 g) = 2.37 W/kg
 Maximum value of SAR (measured) = 21.7 W/kg



0 dB = 21.7 W/kg = 13.36 dBW/kg

Date: 11/16/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [5600 MHz Verification Input Power 100 mW 2023-11-16.da5:0](#)

DUT: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1293

Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.03$ S/m; $\epsilon_r = 34.34$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

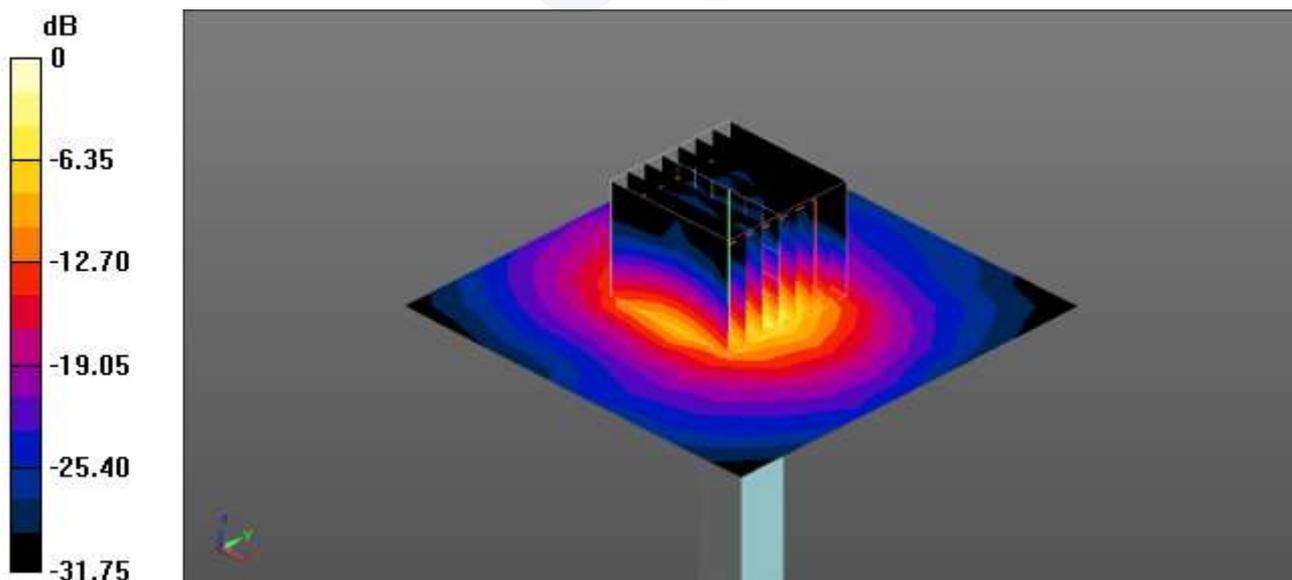
- Probe: EX3DV4 - SN3697;ConvF(4.46, 4.46, 4.46) @ 5600 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5600 MHz Verification Input Power 100 mW 2023-11-16/Area Scan (9x9x1):

Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 19.0 W/kg

Configuration/5600 MHz Verification Input Power 100 mW 2023-11-16/Zoom Scan (8x8x7)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 68.49 V/m; Power Drift = 0.11 dB
 Peak SAR (extrapolated) = 36.2 W/kg
SAR(1 g) = 8.34 W/kg; SAR(10 g) = 2.36 W/kg
 Maximum value of SAR (measured) = 21.5 W/kg



0 dB = 21.5 W/kg = 13.32 dBW/kg

Date: 11/10/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [5800 MHz Verification Input Power 100 mW 2023-11-10.da5:0](#)

DUT: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1293

Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5800$ MHz; $\sigma = 5.301$ S/m; $\epsilon_r = 34.509$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

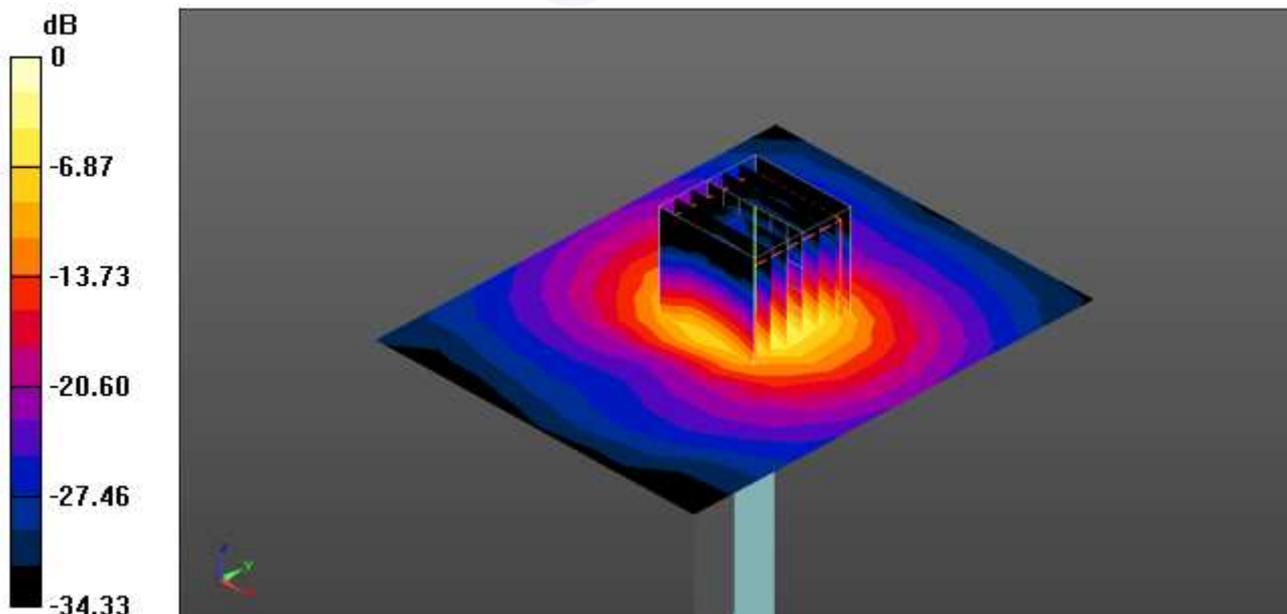
- Probe: EX3DV4 - SN7840;ConvF(4.72, 4.69, 4.74) @ 5800 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5800 MHz Verification Input Power 100 mW 2023-11-10/Area Scan (9x11x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 18.3 W/kg

Configuration/5800 MHz Verification Input Power 100 mW 2023-11-10/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 58.86 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 37.4 W/kg
SAR(1 g) = 8.29 W/kg; SAR(10 g) = 2.39 W/kg
Maximum value of SAR (measured) = 21.7 W/kg



0 dB = 21.7 W/kg = 13.36 dBW/kg

Date: 11/12/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [5800 MHz Verification Input Power 100 mW 2023-11-12.da5:0](#)

DUT: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1293

Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5800 \text{ MHz}$; $\sigma = 5.273 \text{ S/m}$; $\epsilon_r = 36.127$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

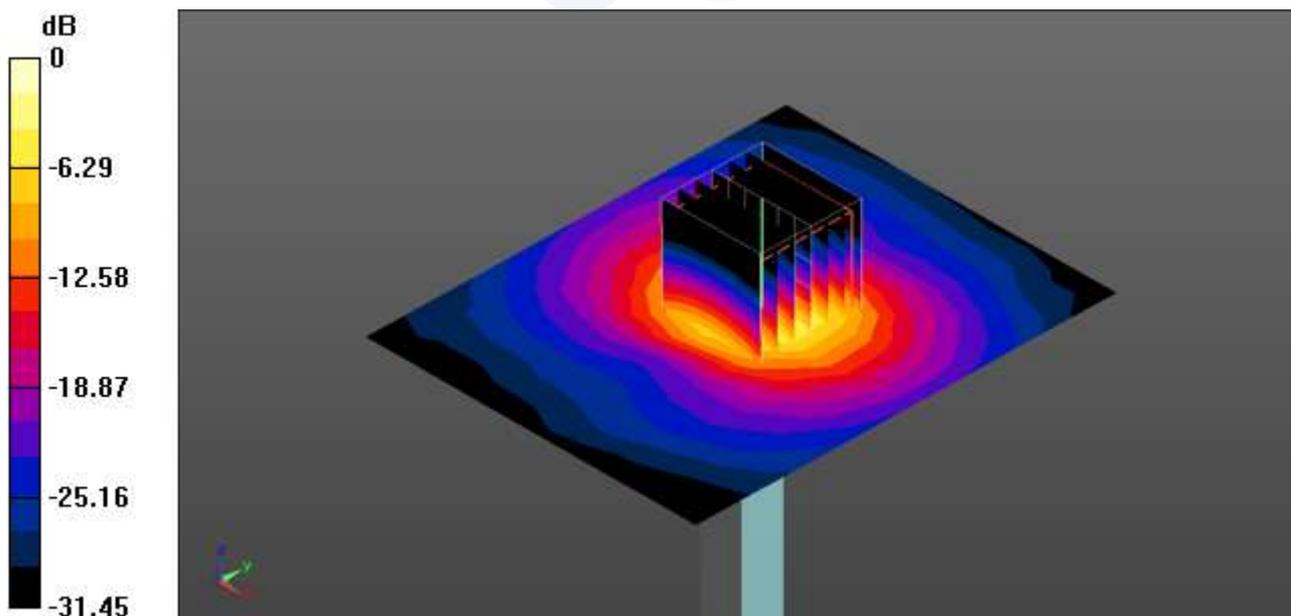
- Probe: EX3DV4 - SN7840;ConvF(4.72, 4.69, 4.74) @ 5800 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5800 MHz Verification Input Power 100 mW 2023-11-12/Area Scan (9x11x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (measured) = 17.3 W/kg

Configuration/5800 MHz Verification Input Power 100 mW 2023-11-12/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$
 Reference Value = 63.25 V/m; Power Drift = 0.08 dB
 Peak SAR (extrapolated) = 37.1 W/kg
SAR(1 g) = 8 W/kg; SAR(10 g) = 2.33 W/kg
 Maximum value of SAR (measured) = 21.1 W/kg



0 dB = 21.1 W/kg = 13.24 dBW/kg

18. Test Results

1)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, D1900, UID 0 -, Channel 9400 (1880.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W90020SH	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, HSL	BACK, 0.00	D1900	CW, 0--	1880.0, 9400	7.64	1.40	40.2

Hardware Setup

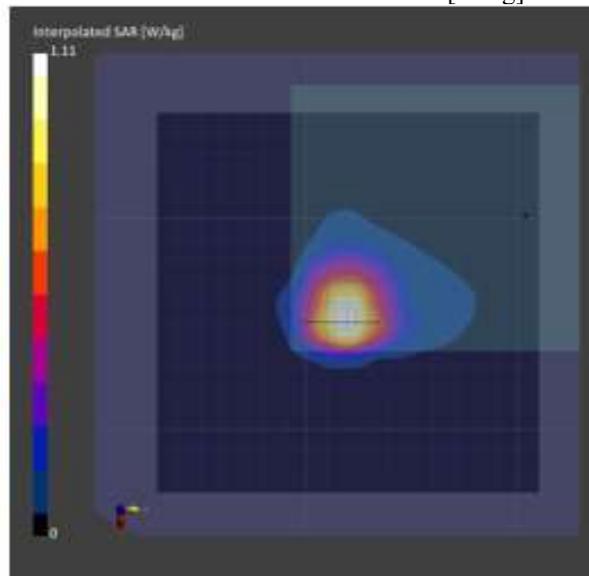
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Oct-13	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

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	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-13	2023-10-13
psSAR1g [W/kg]	0.479	0.512
psSAR8g [W/kg]	0.290	0.301
psSAR10g [W/kg]	0.269	0.279
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]		1.11



2)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, Custom Band, UID 0 -, Channel 1412 (1732.4MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W900213M	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, HSL	BACK, 0.00	Custom Band	CW, 0--	1732.4, 1412	8.04	1.34	39.1

Hardware Setup

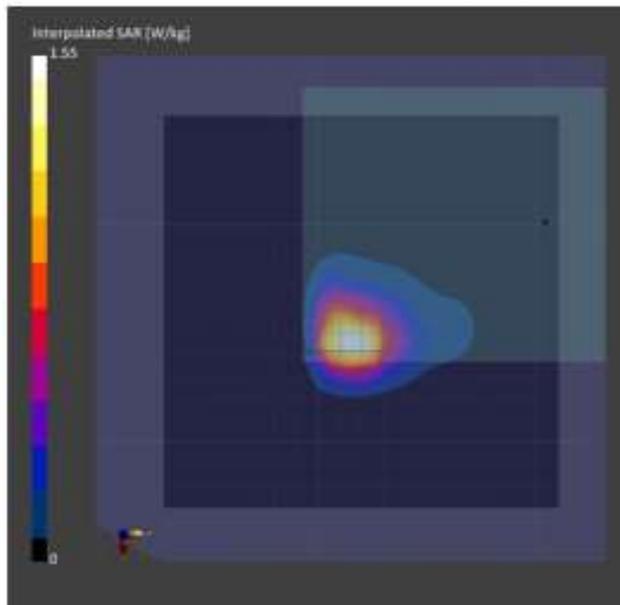
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-14	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

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	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-14	2023-10-14
psSAR1g [W/kg]	0.677	0.690
psSAR8g [W/kg]	0.403	0.396
psSAR10g [W/kg]	0.371	0.364
psAPD (1.0cm ² , sq) [W/m ²]		N/A
psAPD (4.0cm ² , sq) [W/m ²]		N/A
Power Drift [dB]		-0.06
Peak SAR [W/kg]		1.55



3)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, Custom Band, UID 0 -, Channel 4183 (836.6MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W90020SH	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, HSL	BACK, 19.00	Custom Band	CW, 0--	836.6, 4183	9.59	0.883	42.7

Hardware Setup

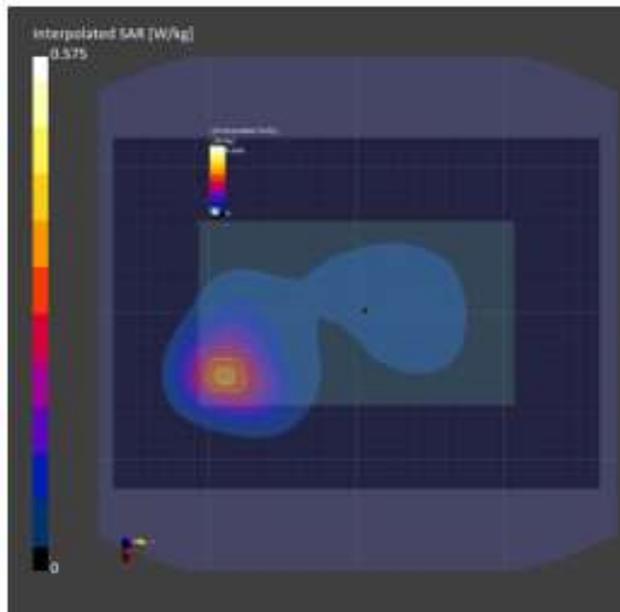
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-12	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	240.0 x 330.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-12	2023-10-12
psSAR1g [W/kg]	0.496	0.528
psSAR8g [W/kg]	0.348	0.368
psSAR10g [W/kg]	0.329	0.349
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]		0.899



4)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, Custom Band, UID 0 -, Channel 18700 (1860.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W90020SH	Tablet, Sub Ant

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0--	1860.0, 18700	7.64	1.39	40.2

Hardware Setup

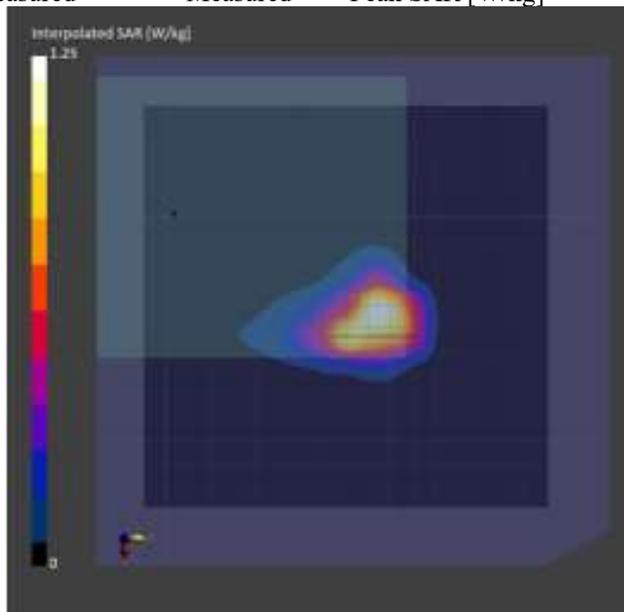
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-13	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

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	4.8 x 4.8 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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-13	2023-10-13
psSAR1g [W/kg]	0.488	0.458
psSAR8g [W/kg]	0.294	0.250
psSAR10g [W/kg]	0.272	0.232
psAPD (1.0cm ² , sq) [W/m ²]		N/A
psAPD (4.0cm ² , sq) [W/m ²]		N/A
Power Drift [dB]		-0.01
Peak SAR [W/kg]		1.25



5)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, Custom Band, UID 0 -, Channel 20525 (836.5MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W900213M	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, HSL	BACK, 19.00	Custom Band	CW, 0--	836.5, 20525	9.59	0.883	42.7

Hardware Setup

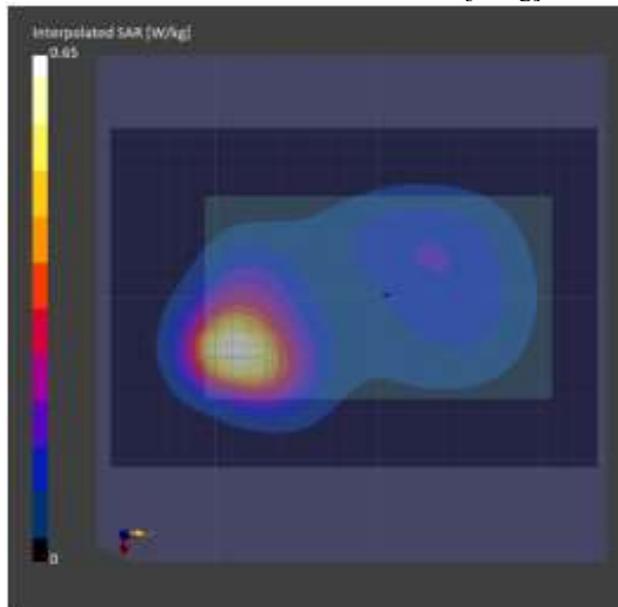
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-12	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	210.0 x 300.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-12	2023-10-12
psSAR1g [W/kg]	0.368	0.385
psSAR8g [W/kg]	0.260	0.274
psSAR10g [W/kg]	0.246	0.261
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]		0.650



6)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, Custom Band, UID 0 -, Channel 20850 (2510.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W90020SH	Tablet, Main Ant

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0--	2510.0, 20850	7.08	1.88	38.6

Hardware Setup

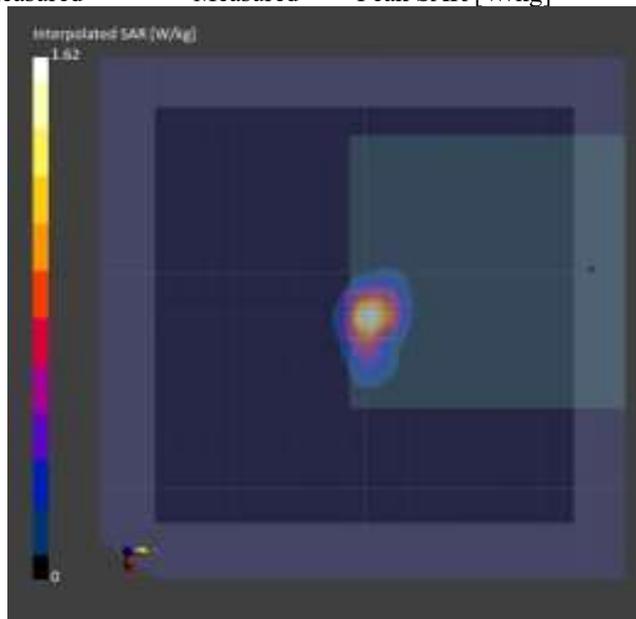
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Nov-08	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	192.0 x 192.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	4.6 x 4.6 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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-08	2023-11-08
psSAR1g [W/kg]	0.437	0.487
psSAR8g [W/kg]	0.204	0.196
psSAR10g [W/kg]	0.182	0.172
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]		1.62



7)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, Custom Band, UID 0 -, Channel 21350 (2560.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W90020SH	Tablet, Sub Ant

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0--	2560.0, 21350	7.08	1.93	38.5

Hardware Setup

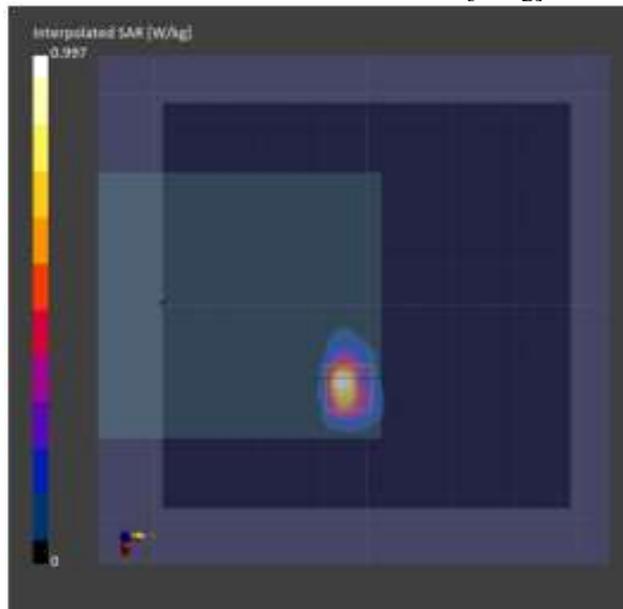
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-11-08	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	192.0 x 192.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	4.8 x 4.8 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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-08	2023-11-08
psSAR1g [W/kg]	0.367	0.399
psSAR8g [W/kg]	0.163	0.169
psSAR10g [W/kg]	0.144	0.149
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]		0.997



8)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, Custom Band, UID 0 -, Channel 23095 (707.5MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W900213M	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, HSL	BACK, 0.00	Custom Band	CW, 0--	707.5, 23095	9.24	0.875	44.0

Hardware Setup

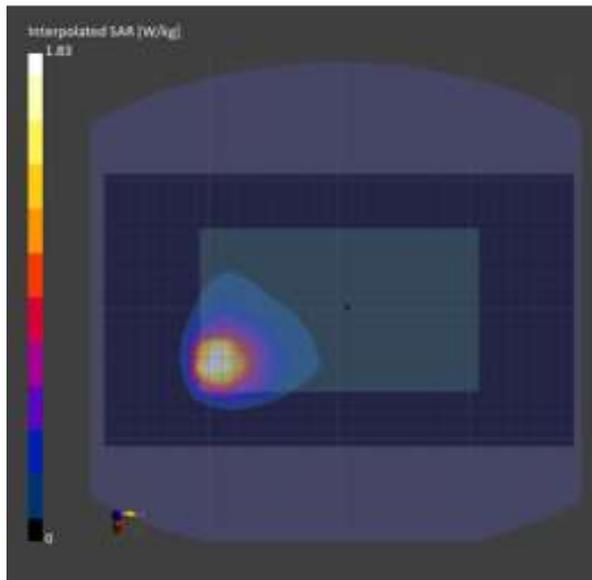
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-04	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	210.0 x 360.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	5.2 x 5.2 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	2023-10-04	2023-10-04
psSAR1g [W/kg]	0.305	0.431
psSAR8g [W/kg]	0.213	0.214
psSAR10g [W/kg]	0.201	0.198
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]		1.83



9)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, Custom Band, UID 0 -, Channel 23230 (782.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W900213M	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, HSL	BACK, 19.00	Custom Band	CW, 0--	782.0, 23230	9.24	0.880	42.0

Hardware Setup

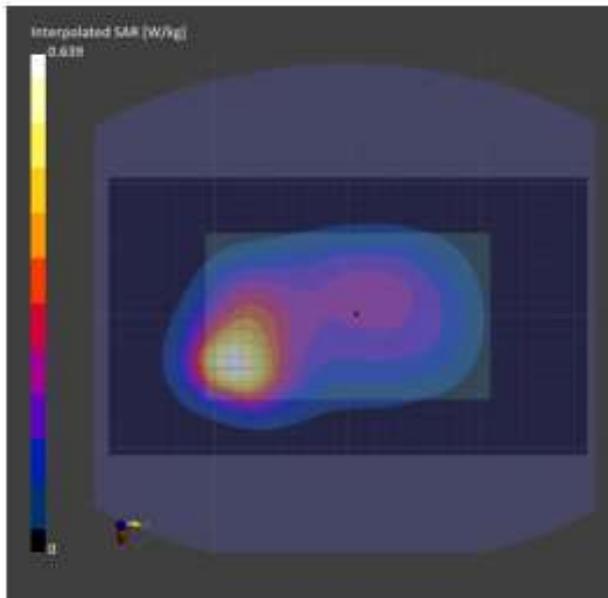
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-04	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	210.0 x 360.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-04	2023-10-04
psSAR1g [W/kg]	0.358	0.368
psSAR8g [W/kg]	0.257	0.268
psSAR10g [W/kg]	0.245	0.255
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]		0.639



10)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, D750, UID 0 -, Channel 23330 (793.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W900213M	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, HSL	BACK, 19.00	D750	CW, 0--	793.0, 23330	9.24	0.885	42.5

Hardware Setup

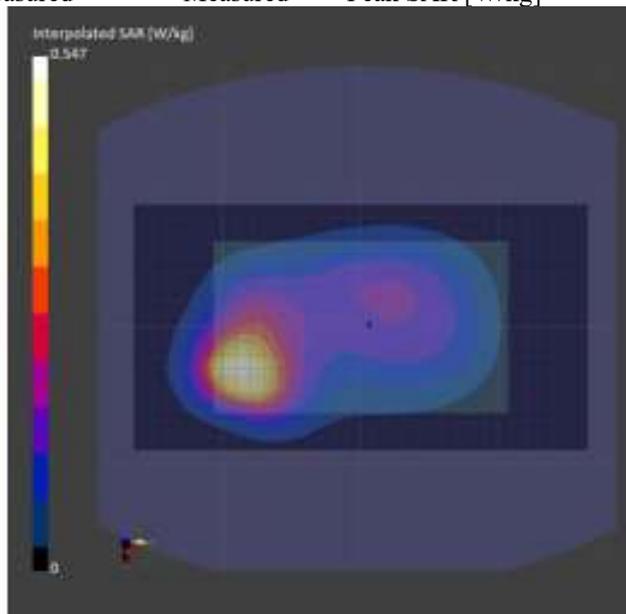
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-05	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	180.0 x 330.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

Date	Area Scan	Zoom Scan
	2023-10-05	2023-10-05
psSAR1g [W/kg]	0.297	0.319
psSAR8g [W/kg]	0.211	0.228
psSAR10g [W/kg]	0.200	0.217
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.07
Peak SAR [W/kg]		0.548



11)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, D1900, UID 0 -, Channel 26590 (1905.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W900213M	Phone

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	D1900	CW, 0--	1905.0, 26590	7.64	1.40	41.3

Hardware Setup

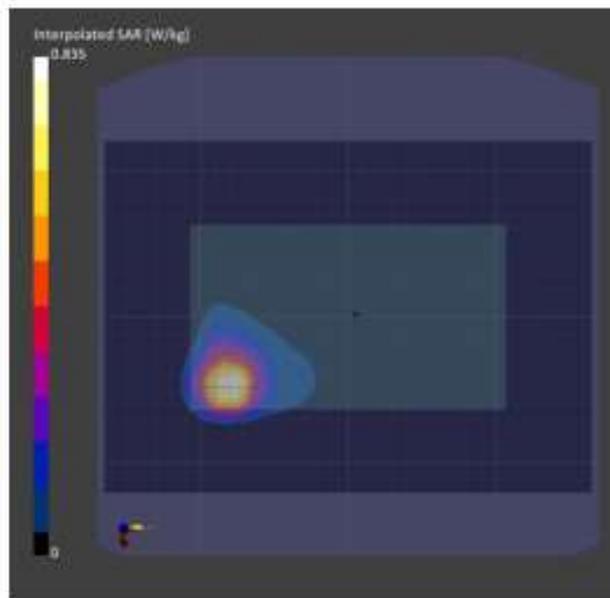
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-10	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	240.0 x 330.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-10	2023-10-10
psSAR1g [W/kg]	0.345	0.387
psSAR8g [W/kg]	0.212	0.224
psSAR10g [W/kg]	0.196	0.206
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]		0.835



12)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, Custom Band, UID 0 -, Channel 26885 (831.5MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W90020SH	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, HSL	BACK, 19.00	Custom Band	CW, 0--	831.5, 26885	9.59	0.940	40.5

Hardware Setup

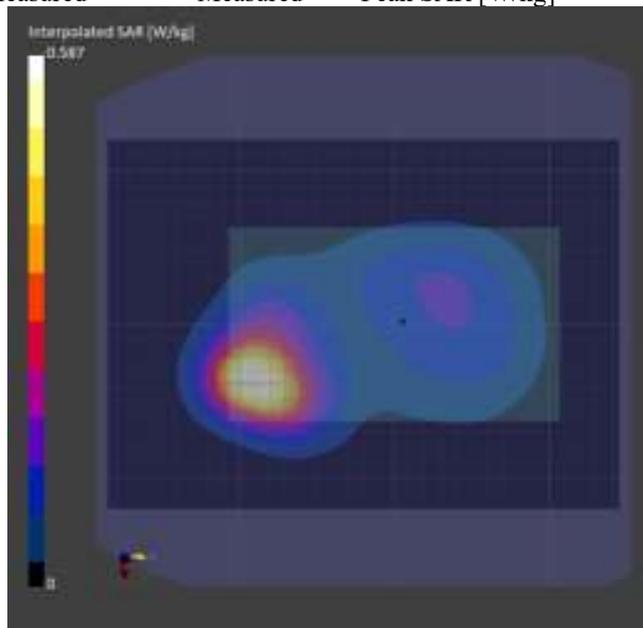
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-10	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	240.0 x 330.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-10	2023-10-10
psSAR1g [W/kg]	0.329	0.351
psSAR8g [W/kg]	0.234	0.246
psSAR10g [W/kg]	0.222	0.234
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]		0.587



13)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, D2300, UID 0 -, Channel 27710 (2310.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W900213M	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, HSL	BACK, 0.00	D2300	CW, 0--	2310.0, 27710	7.51	1.70	38.9

Hardware Setup

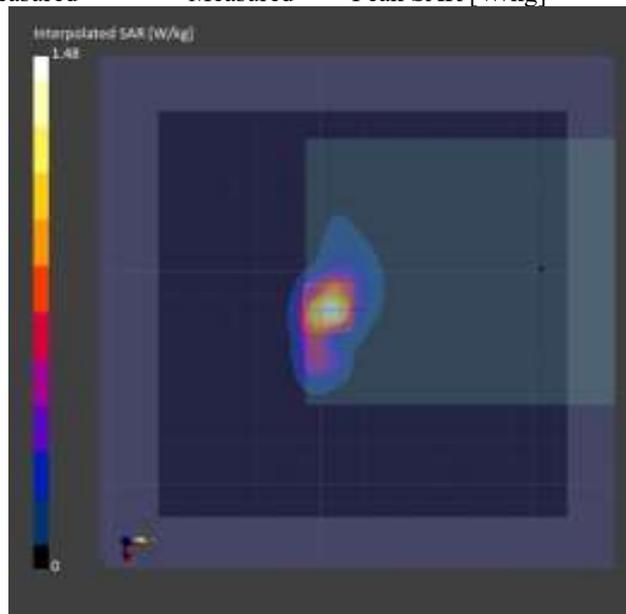
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-06	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	192.0 x 192.0	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	VMS + 6p	VMS + 6p
Detection	Measured	Measured
Scan Method	Measured	Measured

Measurement Results

Date	Area Scan	Zoom Scan
2023-10-06	0.570	0.612
	0.288	0.275
	0.259	0.245
		N/A
		N/A
		N/A
		0.01
		1.48



14)

Date: 10/28/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: 1. LTE Band 40 QPSK 10 MHz (Lower).da53:0

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

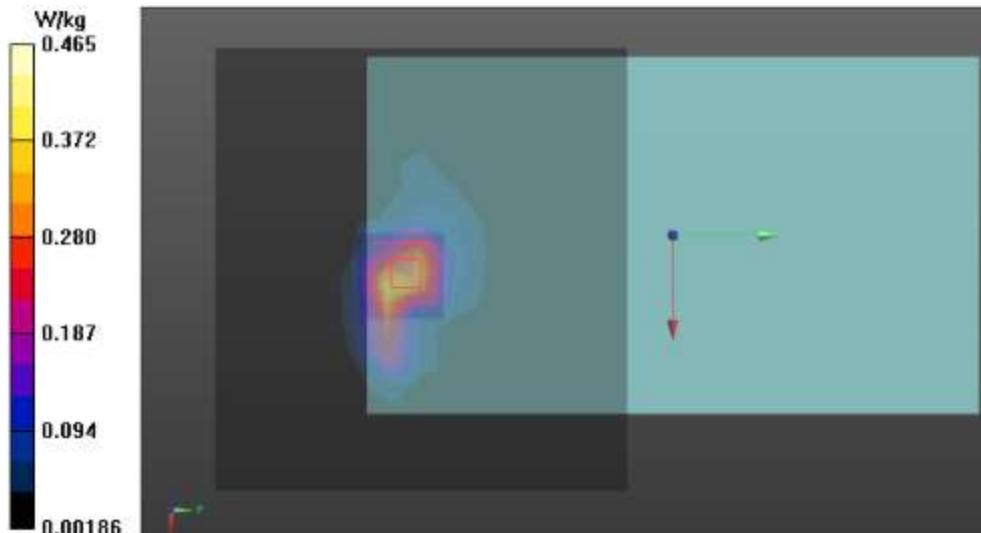
Communication System: UID 0, LTE Band 40 (0); Frequency: 2310 MHz; Duty Cycle: 1:1.58016
Medium parameters used: $f = 2310$ MHz; $\sigma = 1.638$ S/m; $\epsilon_r = 39.015$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(7.87, 7.87, 7.87) @ 2310 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 40_QPSK_10 MHz_1 RB_0 Offset_CH38750_Rear_0 mm Grip Sensor on/Area Scan (14x13x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.381 W/kg

Configuration/LTE Band 40_QPSK_10 MHz_1 RB_0 Offset_CH38750_Rear_0 mm Grip Sensor on/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.30 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.601 W/kg
SAR(1 g) = 0.269 W/kg; SAR(10 g) = 0.115 W/kg
Maximum value of SAR (measured) = 0.465 W/kg



15)

Date: 10/28/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [1. LTE Band 40 QPSK 10 MHz \(Upper\).da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, LTE Band 40 (0); Frequency: 2355 MHz; Duty Cycle: 1:1.58016

Medium parameters used: $f = 2355 \text{ MHz}$; $\sigma = 1.677 \text{ S/m}$; $\epsilon_r = 38.924$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(7.87, 7.87, 7.87) @ 2355 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 40_QPSK_10 MHz_25RB_0 Offset_CH39200_Rear_0 mm Grip Sensor on/Area Scan (14x13x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.360 W/kg

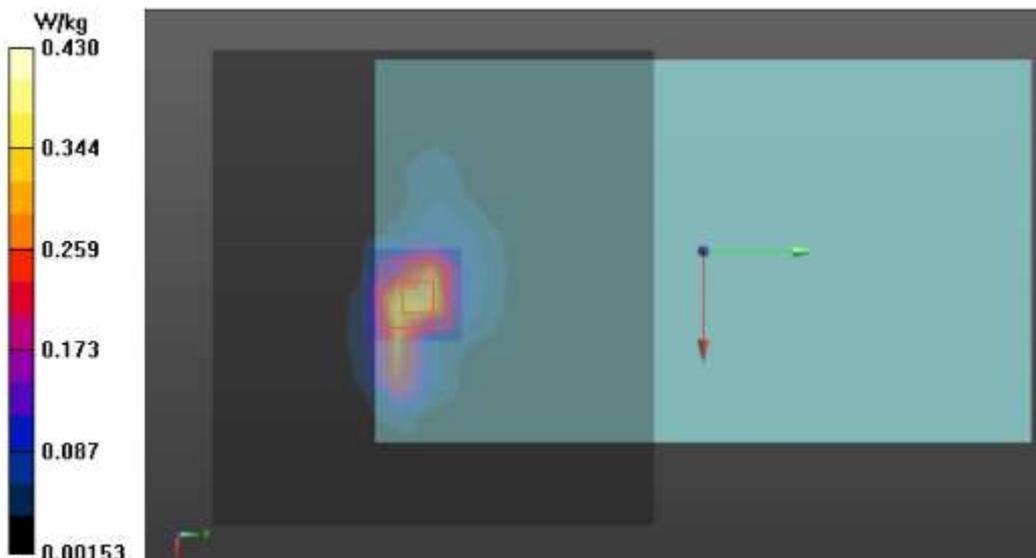
Configuration/LTE Band 40_QPSK_10 MHz_25RB_0 Offset_CH39200_Rear_0 mm Grip Sensor on/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.47 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.572 W/kg

SAR(1 g) = 0.261 W/kg; SAR(10 g) = 0.111 W/kg

Maximum value of SAR (measured) = 0.430 W/kg



16)

Date: 12/7/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [1. LTE Band 41 QPSK 20 MHz Body.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, LTE Band 41 (0); Frequency: 2636.5 MHz; Duty Cycle: 1:1.58016
 Medium parameters used (interpolated): $f = 2636.5$ MHz; $\sigma = 2.018$ S/m; $\epsilon_r = 37.456$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7840;ConvF(6.79, 6.78, 6.83) @ 2636.5 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 41_QPSK_20 MHz_50RB 0Offset_CH41055_Rear_0 mm_Grip Sensor On/Area Scan (11x10x1): Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.22 W/kg

Configuration/LTE Band 41_QPSK_20 MHz_50RB 0Offset_CH41055_Rear_0 mm_Grip Sensor On/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

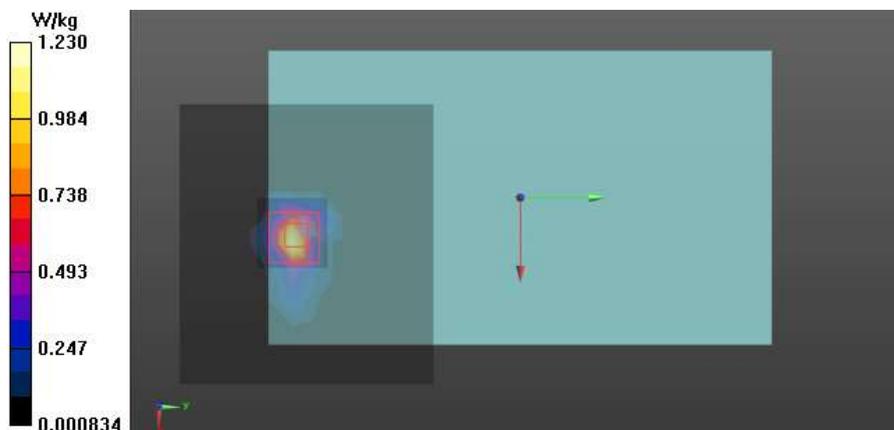
Reference Value = 26.02 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.88 W/kg

SAR(1 g) = 0.651 W/kg; SAR(10 g) = 0.234 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.23 W/kg



17)

Date: 10/24/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [1. LTE Band 48 QPSK 20 MHz.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, LTE Band 48 (0); Frequency: 3690 MHz; Duty Cycle: 1:1.58016
Medium parameters used (interpolated): $f = 3690$ MHz; $\sigma = 2.996$ S/m; $\epsilon_r = 36.639$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3690 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 48_QPSK_20 MHz_1 RB_49 Offset_CH56640_Rear_0 mm Grip Sensor on/Area Scan (14x12x1): Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.775 W/kg

Configuration/LTE Band 48_QPSK_20 MHz_1 RB_49 Offset_CH56640_Rear_0 mm Grip Sensor on/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm

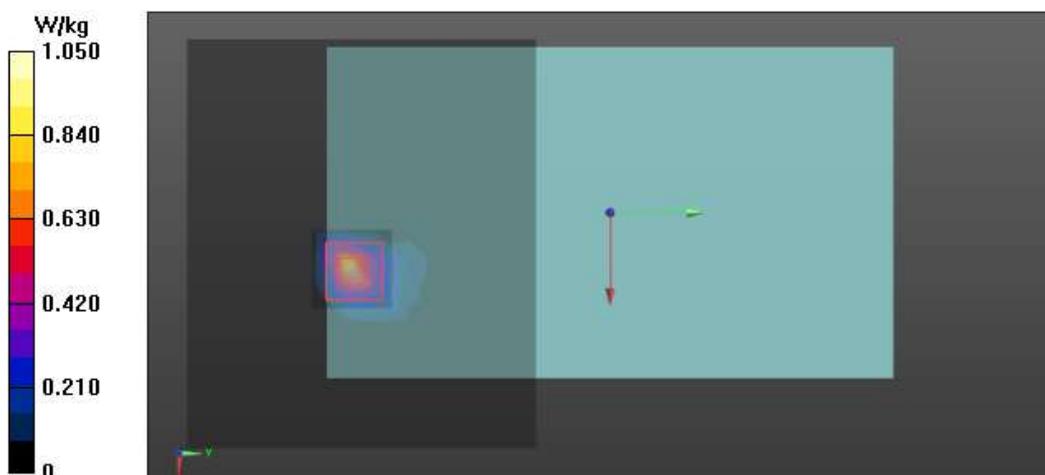
Reference Value = 18.93 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 1.62 W/kg

SAR(1 g) = 0.470 W/kg; SAR(10 g) = 0.141 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.05 W/kg



18)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, EDGE RIGHT, D1750, UID 0 -, Channel 132322 (1745.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W900213M	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, HSL	EDGE RIGHT, 7.00	D1750	CW, 0--	1745.0, 132322	8.04	1.37	41.4

Hardware Setup

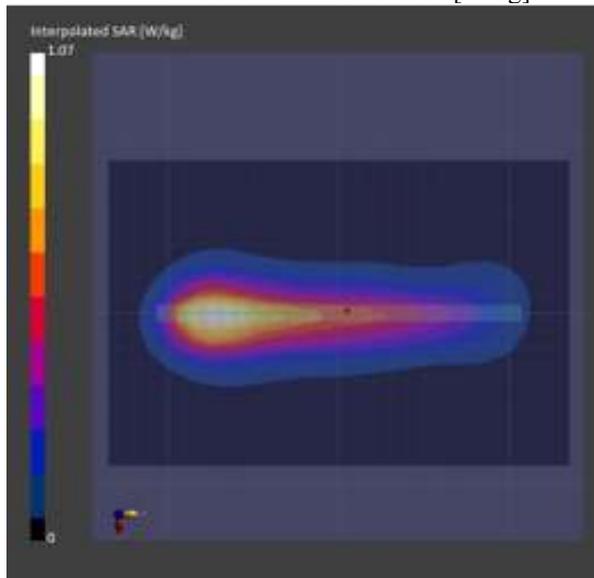
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-06	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	180.0 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 Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-06	2023-10-06
psSAR1g [W/kg]	0.590	0.639
psSAR8g [W/kg]	0.374	0.411
psSAR10g [W/kg]	0.350	0.385
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]		1.07



19)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, D1750, UID 0 -, Channel 132322 (1745.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W90020SH	Tablet, Sub Ant

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	D1750	CW, 0--	1745.0, 132322	8.04	1.35	39.1

Hardware Setup

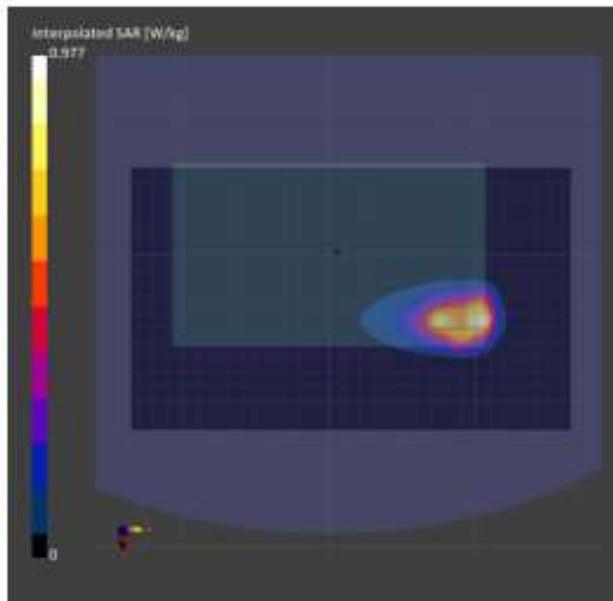
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-14	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	180.0 x 300.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	4.8 x 4.8 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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-14	2023-10-14
psSAR1g [W/kg]	0.337	0.373
psSAR8g [W/kg]	0.195	0.203
psSAR10g [W/kg]	0.181	0.189
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]		0.977



20)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, Custom Band, UID 0 -, Channel 133297 (680.5MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W90020SH	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, HSL	BACK, 0.00	Custom Band	CW, 0--	680.5, 133297	9.24	0.869	42.8

Hardware Setup

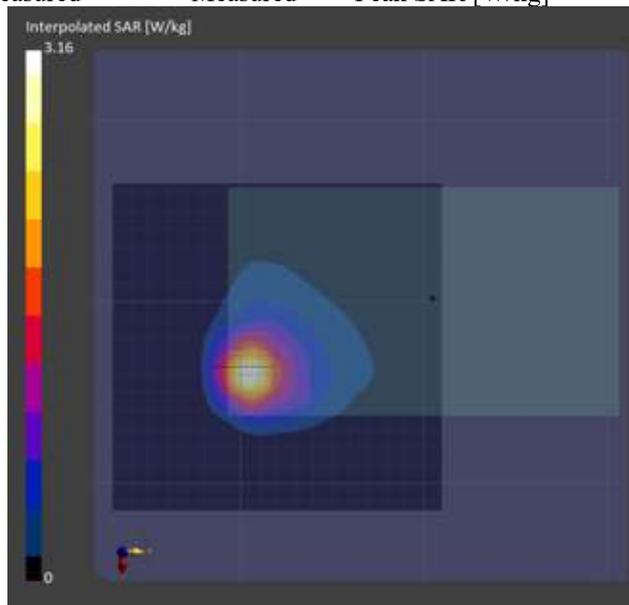
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023- Dec-07	EX3DV4 - SN3928, 2023- 02-23	DAE4 Sn1587, 2023-07- 17

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	4.8 x 4.8 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 VMS + 6p	VMS + 6p
Detection Measured	Measured

Measurement Results

Date	Area Scan	Zoom Scan
2023-12-07	2023-12-07	2023-12-07
psSAR1g [W/kg]	0.506	0.699
psSAR8g [W/kg]	0.328	0.314
psSAR10g [W/kg]	0.306	0.287
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]		3.16



21)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, Custom Band, UID 0 -, Channel 167300 (836.5MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	81	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, HSL	BACK, 19.00	Custom Band	CW, 0--	836.5, 167300	9.59	0.929	41.1

Hardware Setup

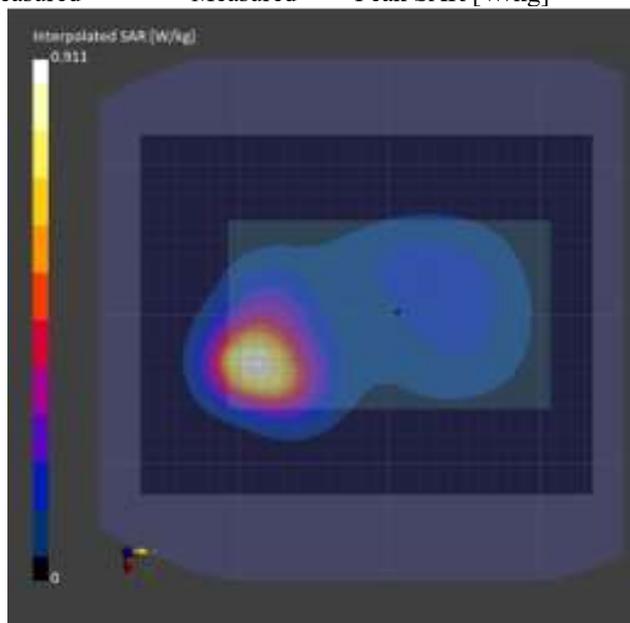
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-18	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	240.0 x 300.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-18	2023-10-18
psSAR1g [W/kg]	0.502	0.526
psSAR8g [W/kg]	0.354	0.365
psSAR10g [W/kg]	0.336	0.346
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]		0.911



22)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, Custom Band, UID 0 -, Channel 141500 (707.5MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W90020SH	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, HSL	BACK, 0.00	Custom Band	CW, 0--	707.5, 141500	9.24	0.882	42.3

Hardware Setup

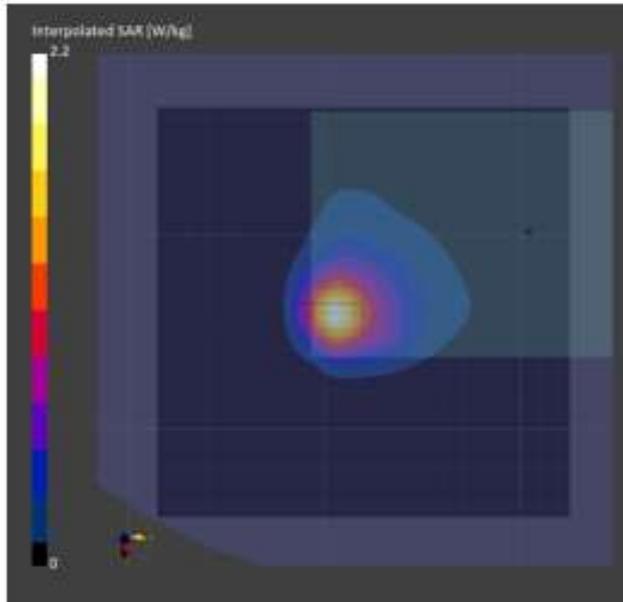
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-19	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	210.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	4.6 x 4.6 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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-19	2023-10-19
psSAR1g [W/kg]	0.417	0.503
psSAR8g [W/kg]	0.267	0.236
psSAR10g [W/kg]	0.248	0.216
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]		2.20



23)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, D1900, UID 0 -, Channel 381000 (1905.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W90020SH	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, HSL	BACK, 0.00	D1900	CW, 0--	1905.0, 381000	7.64	1.42	40.1

Hardware Setup

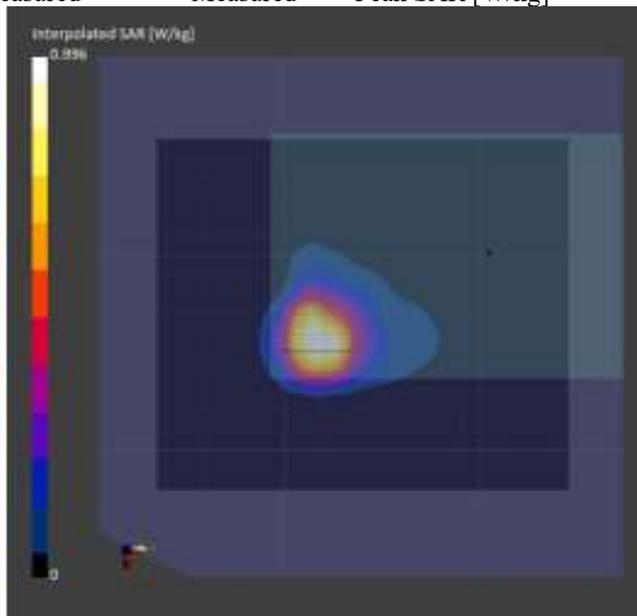
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-15	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

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	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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-15	2023-10-15
psSAR1g [W/kg]	0.400	0.428
psSAR8g [W/kg]	0.248	0.249
psSAR10g [W/kg]	0.230	0.230
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]		0.995



24)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, D2300, UID 0 -, Channel 462000 (2310.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W90020SH	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, HSL	BACK, 0.00	D2300	CW, 0--	2310.0, 462000	7.51	1.73	38.9

Hardware Setup

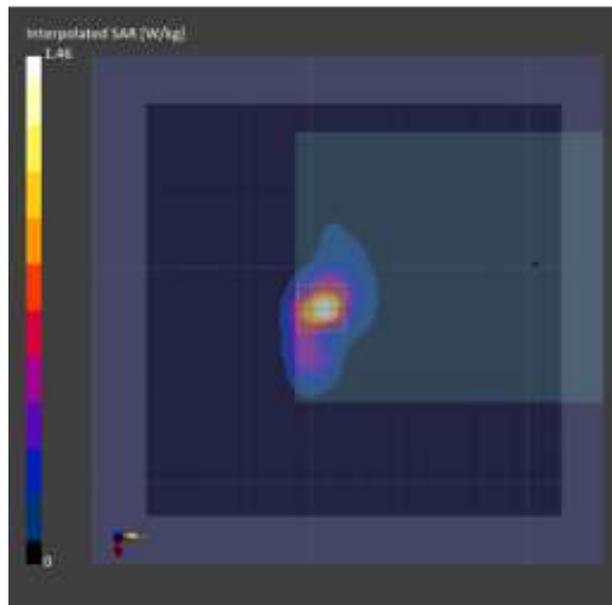
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Nov-10	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	192.0 x 192.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 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	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-10	2023-11-10
psSAR1g [W/kg]	0.527	0.558
psSAR8g [W/kg]	0.252	0.251
psSAR10g [W/kg]	0.226	0.224
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]		1.46



25)

Date: 12/7/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 3. 5G NR n41 Body.da53:0

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, 5G Sub6 n41 (0); Frequency: 2592.99 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2593$ MHz; $\sigma = 1.941$ S/m; $\epsilon_r = 37.521$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7840;ConvF(6.79, 6.78, 6.83) @ 2592.99 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n41 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 1RB

137offset_CH518598_Rear_0 mm_Grip Sensor On/Area Scan (11x10x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.13 W/kg

Configuration/5G NR n41 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 1RB

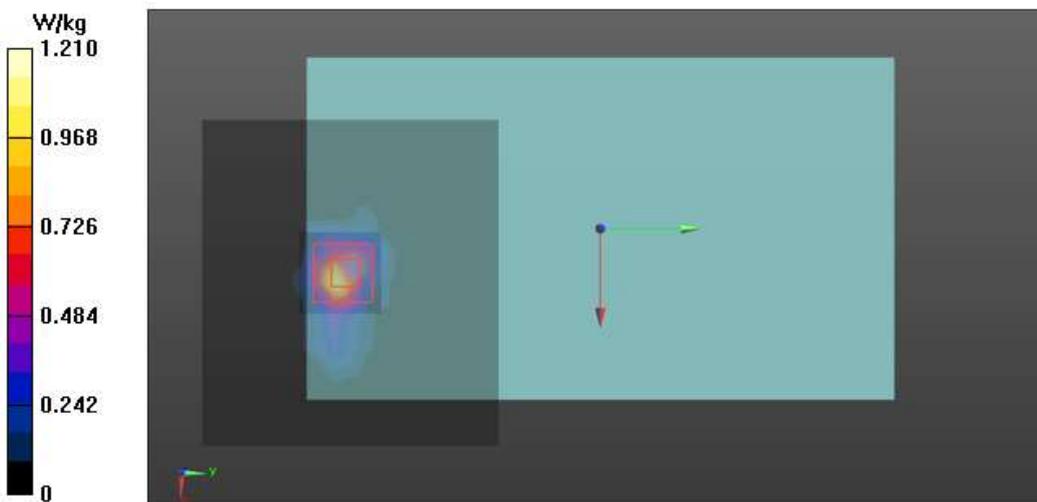
137offset_CH518598_Rear_0 mm_Grip Sensor On/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.17 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.87 W/kg

SAR(1 g) = 0.649 W/kg; SAR(10 g) = 0.224 W/kg

Maximum value of SAR (measured) = 1.21 W/kg



26)

Date: 11/2/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [5G NR n48 Body.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

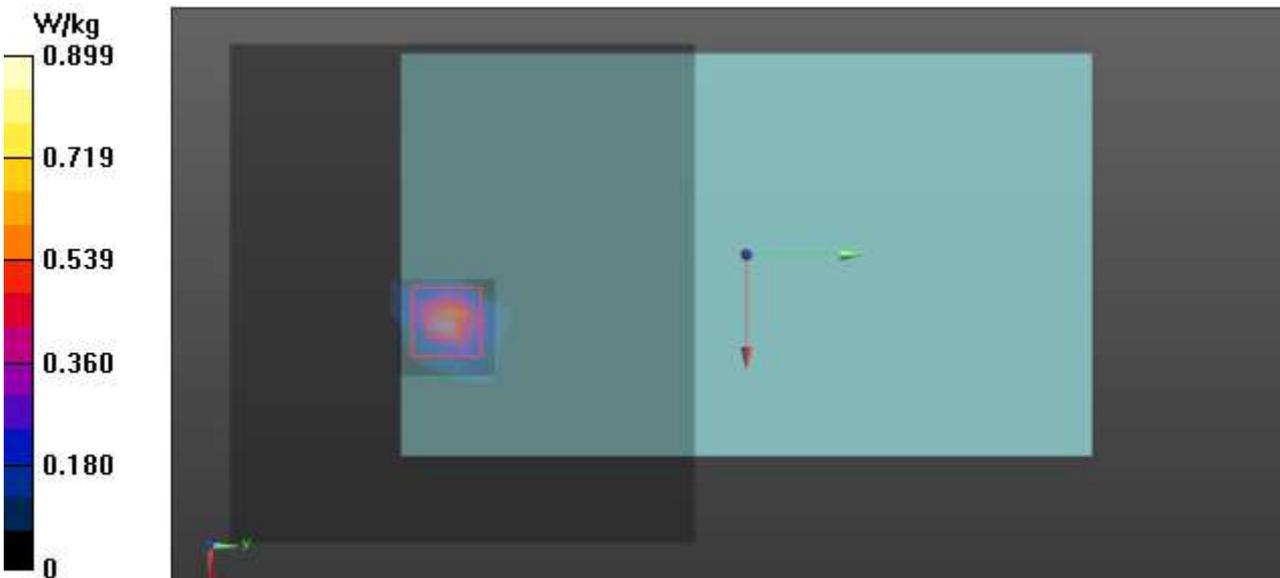
Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3679.98 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3680$ MHz; $\sigma = 3.144$ S/m; $\epsilon_r = 36.847$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3679.98 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n48 DFT-S-OFDM_QPSK_SCS 30kHz_40MHz 1RB 1offset_CH645332_Rear_0 mm Grip Sensor on/Area Scan (14x13x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 0.569 W/kg

Configuration/5G NR n48 DFT-S-OFDM_QPSK_SCS 30kHz_40MHz 1RB 1offset_CH645332_Rear_0 mm Grip Sensor on/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 15.04 V/m; Power Drift = -0.12 dB
 Peak SAR (extrapolated) = 1.36 W/kg
SAR(1 g) = 0.375 W/kg; SAR(10 g) = 0.108 W/kg
 Maximum value of SAR (measured) = 0.899 W/kg



27)

Date: 11/16/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [5G NR n48 SRS #1 Body.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3624.99 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 3624.99$ MHz; $\sigma = 2.942$ S/m; $\epsilon_r = 38.623$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3624.99 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n48 DFT-S-OFDM_QPSK_SCS 30kHz_40MHz 1RB 1offset_CH641666_Rear_0 mm/Area Scan (13x12x1): Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.887 W/kg

Configuration/5G NR n48 DFT-S-OFDM_QPSK_SCS 30kHz_40MHz 1RB 1offset_CH641666_Rear_0 mm/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm

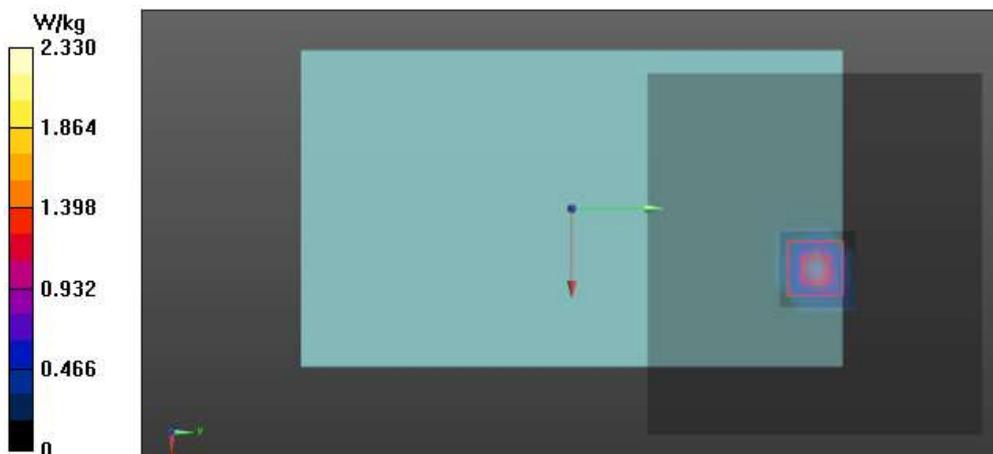
Reference Value = 21.10 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 3.32 W/kg

SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.274 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 2.33 W/kg



28)

Date: 11/16/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [5G NR n48 SRS #2 Body.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3624.99 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 3624.99$ MHz; $\sigma = 2.942$ S/m; $\epsilon_r = 38.623$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3624.99 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n48 DFT-S-OFDM_QPSK_SCS 30kHz_40MHz 1RB 1offset_CH641666_Rear_0 mm/Area Scan (12x12x1): Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.859 W/kg

Configuration/5G NR n48 DFT-S-OFDM_QPSK_SCS 30kHz_40MHz 1RB 1offset_CH641666_Rear_0 mm/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm

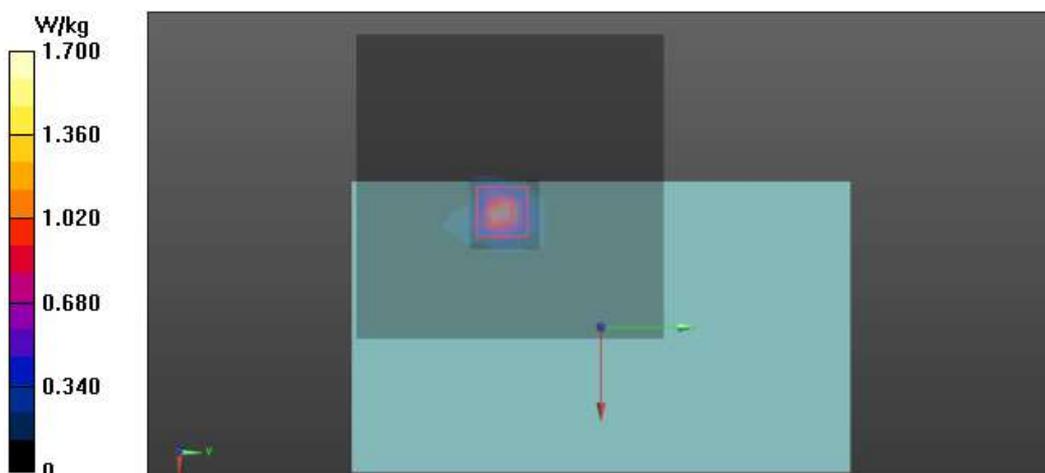
Reference Value = 21.43 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 2.49 W/kg

SAR(1 g) = 0.818 W/kg; SAR(10 g) = 0.234 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.70 W/kg



29)

Date: 11/11/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [5G NR n48 SRS#3 Body.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

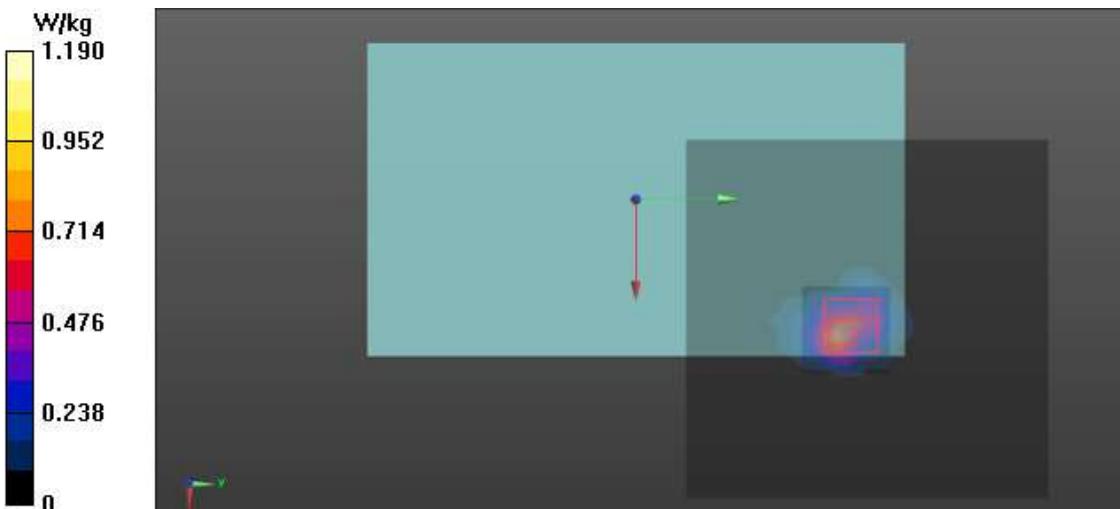
Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3679.98 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3679.98 \text{ MHz}$; $\sigma = 3.064 \text{ S/m}$; $\epsilon_r = 37.53$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3679.98 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n48 SRS#3 DFT-S-OFDM_QPSK_SCS 30kHz_40MHz 50RB
56offset_CH645332_Rear_0 mm Grip Sensor on/Area Scan (13x13x1): Measurement grid: $dx=12\text{mm}$,
 $dy=12\text{mm}$
 Maximum value of SAR (measured) = 0.721 W/kg

Configuration/5G NR n48 SRS#3 DFT-S-OFDM_QPSK_SCS 30kHz_40MHz 50RB
56offset_CH645332_Rear_0 mm Grip Sensor on/Zoom Scan (8x8x8)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=1.4\text{mm}$
 Reference Value = 16.92 V/m; Power Drift = 0.15 dB
 Peak SAR (extrapolated) = 1.76 W/kg
SAR(1 g) = 0.523 W/kg; SAR(10 g) = 0.186 W/kg
 Maximum value of SAR (measured) = 1.19 W/kg



30)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, EDGE RIGHT, D1750, UID 0 -, Channel 349000 (1745.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W90020SH	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, HSL	EDGE RIGHT, 7.00	D1750	CW, 0--	1745.0, 349000	8.04	1.42	38.8

Hardware Setup

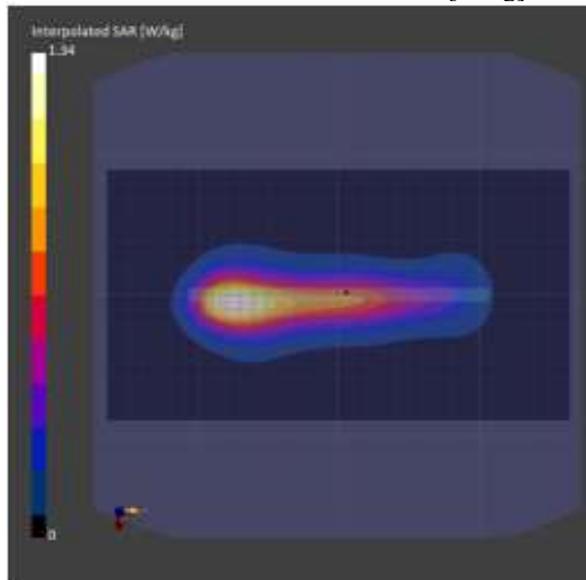
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000, 2023-Oct-17	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	180.0 x 330.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	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 Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-17	2023-10-17
psSAR1g [W/kg]	0.687	0.726
psSAR8g [W/kg]	0.441	0.468
psSAR10g [W/kg]	0.412	0.438
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]		1.34



31)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X308U, BACK, Custom Band, UID 0 -, Channel 136100 (680.5MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X308U, SAMSUNG	214.0 x 126.0 x 10.0	R32W90020SH	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, HSL	BACK, 0.00	Custom Band	CW, 0--	680.5, 136100	9.24	0.869	42.8

Hardware Setup

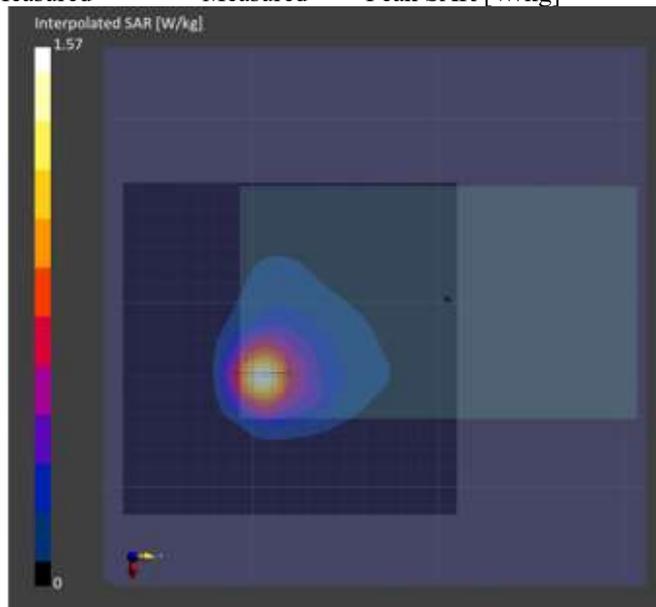
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2182	HBBL-600-10000 , 2023-Dec-07	EX3DV4 - SN3928, 2023-02-23	DAE4 Sn1587, 2023-07-17

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	VMS + 6p	VMS + 6p
Detection	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-12-07	2023-12-07
psSAR1g [W/kg]	0.534	0.595
psSAR8g [W/kg]	0.339	0.296
psSAR10g [W/kg]	0.315	0.272
psAPD (1.0cm ² , sq) [W/m ²]		N/A
psAPD (4.0cm ² , sq) [W/m ²]		N/A
Power Drift [dB]		0.01
Peak SAR [W/kg]		1.57



32)

Date: 12/7/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [5G NR n77 Body Lower.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3500.01 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 3500.01$ MHz; $\sigma = 2.808$ S/m; $\epsilon_r = 38.242$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500.01 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n77 CP-OFDM_QPSK_SCS 30kHz_100MHz 1RB 1offset_CH633334_Rear_0 mm Grip Sensor on/Area Scan (14x13x1): Measurement grid: dx=12mm, dy=12mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.11 W/kg

Configuration/5G NR n77 CP-OFDM_QPSK_SCS 30kHz_100MHz 1RB 1offset_CH633334_Rear_0 mm Grip Sensor on/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm

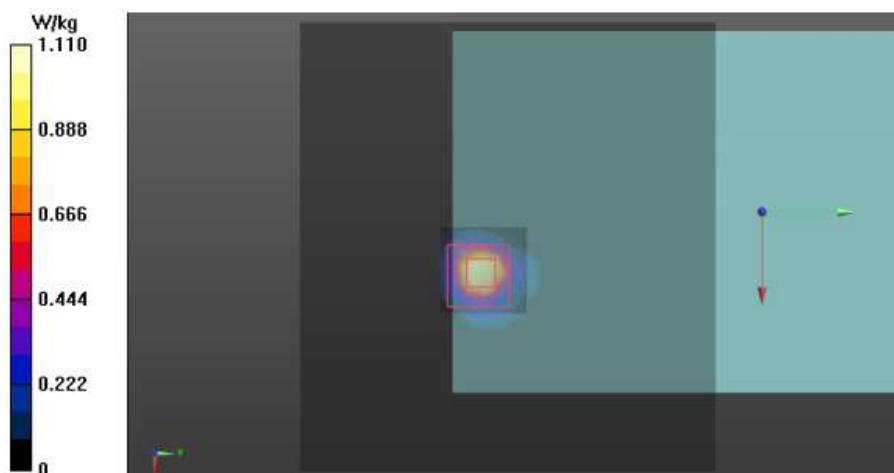
Reference Value = 21.08 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 2.71 W/kg

SAR(1 g) = 0.691 W/kg; SAR(10 g) = 0.188 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.54 W/kg



33)

Date: 12/7/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [5G NR n77 Body Upper.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

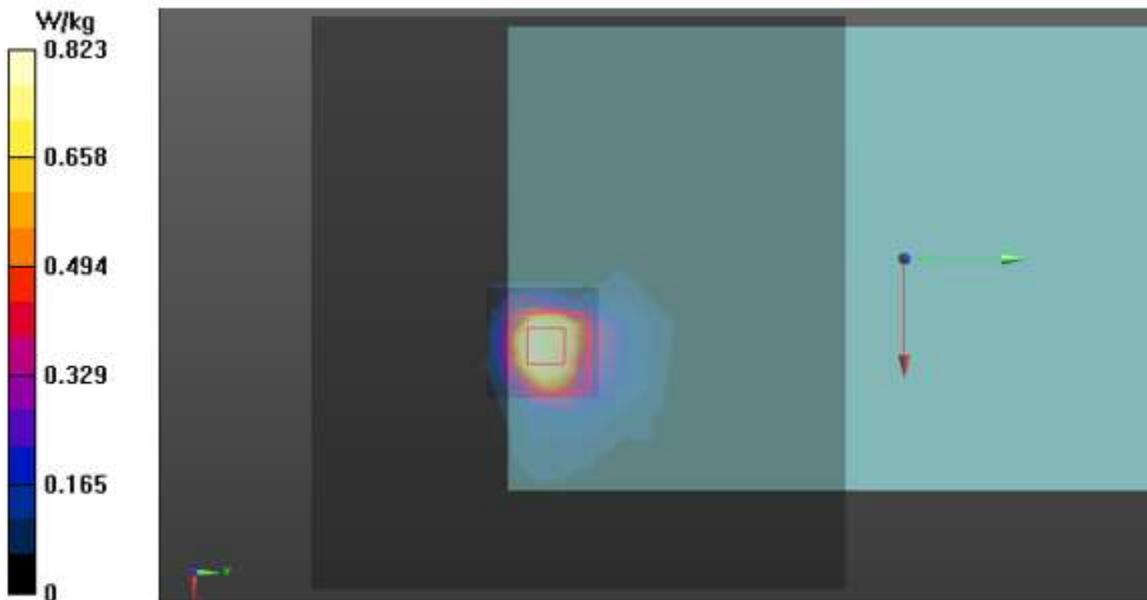
Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3750 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3750 \text{ MHz}$; $\sigma = 3.078 \text{ S/m}$; $\epsilon_r = 38.391$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(6.97, 6.97, 6.97) @ 3750 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 1RB 1offset_CH650000_Rear_0 mm Grip Sensor on 2/Area Scan (14x13x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 0.823 W/kg

Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 1RB 1offset_CH650000_Rear_0 mm Grip Sensor on 2/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 21.15 V/m; Power Drift = 0.10 dB
 Peak SAR (extrapolated) = 2.72 W/kg
SAR(1 g) = 0.717 W/kg; SAR(10 g) = 0.209 W/kg
 Maximum value of SAR (measured) = 1.71 W/kg



34)

Date: 11/14/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [5G NR n77 SRS #1 Body FCC Lower.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G Sub6 n77 (0); Frequency: 3500.01 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 3500.01$ MHz; $\sigma = 2.88$ S/m; $\epsilon_r = 39.382$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500.01 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 1RB 1offset_CH633334_Rear_0 mm/Area Scan (11x11x1): Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.11 W/kg

Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 1RB 1offset_CH633334_Rear_0 mm/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm

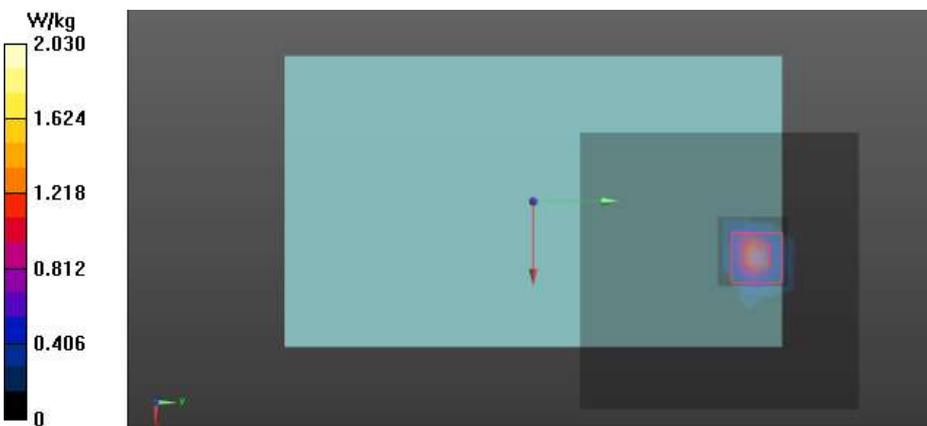
Reference Value = 4.954 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 3.40 W/kg

SAR(1 g) = 0.994 W/kg; SAR(10 g) = 0.267 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 2.03 W/kg



35)

Date: 11/14/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [5G NR n77 SRS #1 Body FCC Upper.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G Sub6 n77 (0); Frequency: 3930 MHz; Duty Cycle: 1:1
 Medium parameters used (extrapolated): $f = 3930$ MHz; $\sigma = 3.298$ S/m; $\epsilon_r = 38.361$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(6.69, 6.69, 6.69) @ 3930 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 135RB
69offset_CH662000_Rear_0 mm/Area Scan (11x11x1): Measurement grid: dx=12mm, dy=12mm

[Info: Extrapolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.52 W/kg

Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 135RB
69offset_CH662000_Rear_0 mm/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm

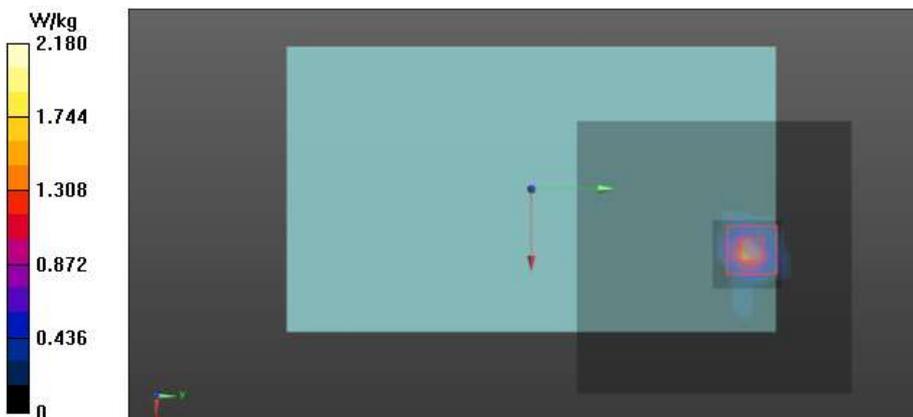
Reference Value = 5.699 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.18 W/kg

SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.280 W/kg

[Info: Extrapolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 2.18 W/kg



36)

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [5G NR n77 SRS #2 Body FCC VS Lower.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G Sub6 n77 (0); Frequency: 3500.01 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 3500.01$ MHz; $\sigma = 2.855$ S/m; $\epsilon_r = 37.135$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500.01 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

**Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 1RB
 137offset_CH633334_Rear_0 mm/Area Scan (10x12x1):** Measurement grid: dx=12mm, dy=12mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.23 W/kg

**Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 1RB
 137offset_CH633334_Rear_0 mm/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=5mm, dy=5mm,
 dz=1.4mm

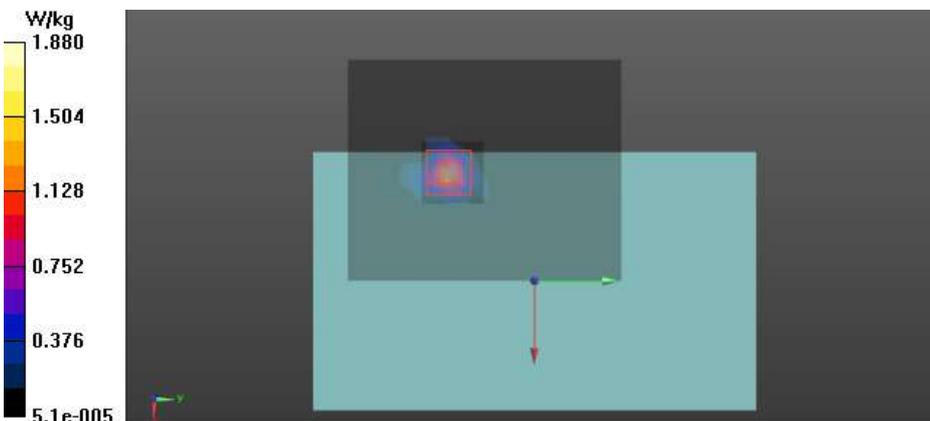
Reference Value = 22.60 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 2.82 W/kg

SAR(1 g) = 0.921 W/kg; SAR(10 g) = 0.263 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.88 W/kg



37)

Date: 11/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: 5G NR n77 SRS #2 Body FCC Upper 2.da53:0

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G Sub6 n77 (0); Frequency: 3930 MHz; Duty Cycle: 1:1
 Medium parameters used (extrapolated): $f = 3930$ MHz; $\sigma = 3.293$ S/m; $\epsilon_r = 36.711$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(6.69, 6.69, 6.69) @ 3930 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 135RB
69offset_CH662000_Rear_0 mm/Area Scan (11x13x1): Measurement grid: dx=12mm, dy=12mm

[Info: Extrapolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.46 W/kg

Configuration/5G NR n77 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 135RB
69offset_CH662000_Rear_0 mm/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm

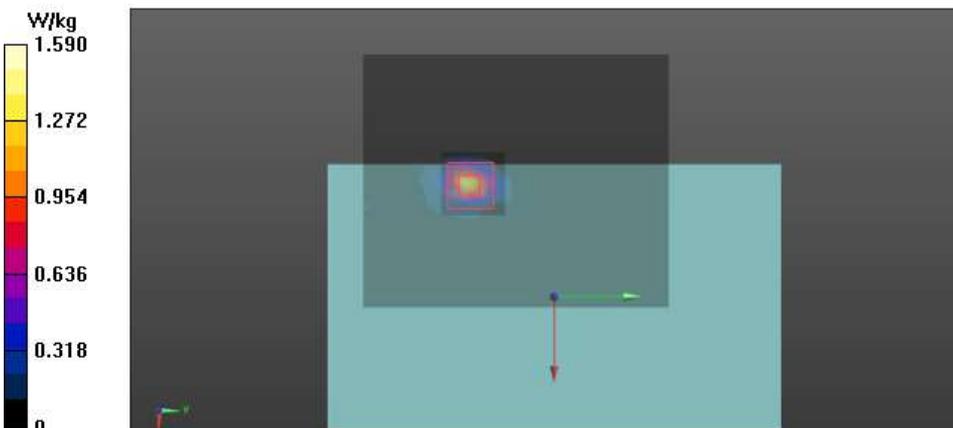
Reference Value = 20.68 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 2.61 W/kg

SAR(1 g) = 0.781 W/kg; SAR(10 g) = 0.222 W/kg

[Info: Extrapolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.59 W/kg



38)

Date: 11/9/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [5G NR n77 SRS#3 Body Lower.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3500.01 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 3500.01$ MHz; $\sigma = 2.816$ S/m; $\epsilon_r = 38.111$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(7, 7, 7) @ 3500.01 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n77 SRS#3 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 135RB
69offset_CH633334_Rear_0 mm Grip Sensor on/Area Scan (13x13x1): Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.879 W/kg

Configuration/5G NR n77 SRS#3 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 135RB
69offset_CH633334_Rear_0 mm Grip Sensor on/Zoom Scan (7x7x8)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=1.4mm

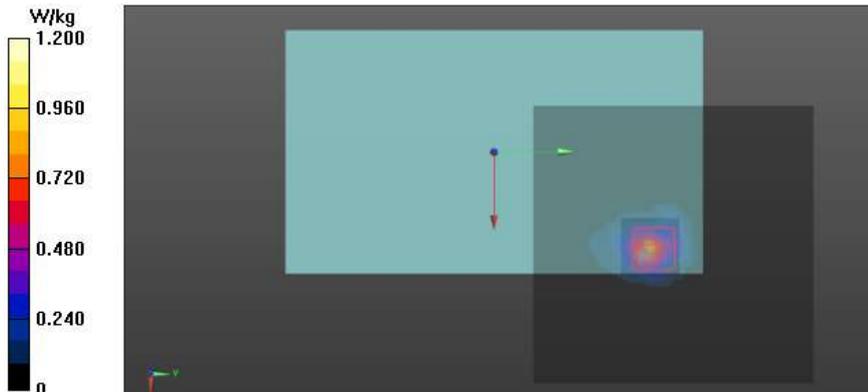
Reference Value = 20.89 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 1.89 W/kg

SAR(1 g) = 0.528 W/kg; SAR(10 g) = 0.179 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.20 W/kg



39)

Date: 11/10/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 5G NR n77 SRS#3 Body Upper.da53:0

DUT: SM-X308U, Type: Tablet, Serial: R32W900213M

Communication System: UID 0, 5G NR(FTM Mode) (0); Frequency: 3930 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 3930$ MHz; $\sigma = 3.338$ S/m; $\epsilon_r = 36.952$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(6.69, 6.69, 6.69) @ 3930 MHz; Calibrated: 5/4/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1586; Calibrated: 4/26/2023
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: 1220
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n77 SRS#3 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 135RB
69offset_CH662000_Rear_0 mm Grip Sensor on/Area Scan (13x13x1): Measurement grid: dx=12mm, dy=12mm

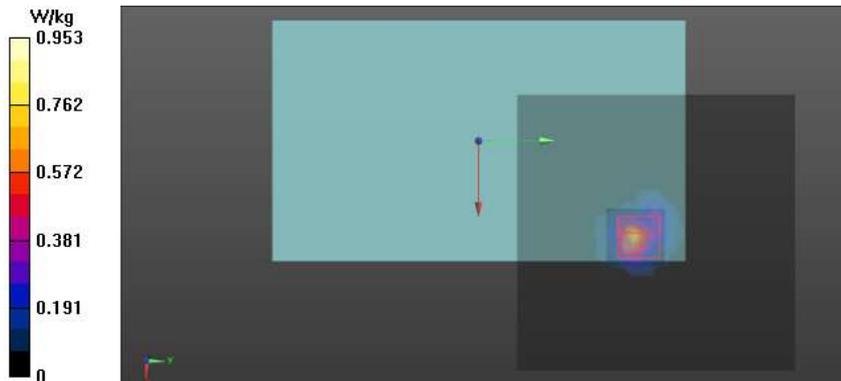
Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.750 W/kg

Configuration/5G NR n77 SRS#3 DFT-S-OFDM_QPSK_SCS 30kHz_100MHz 135RB
69offset_CH662000_Rear_0 mm Grip Sensor on/Zoom Scan (7x7x8)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=1.4mm
 Reference Value = 18.15 V/m; Power Drift = -0.03 dB
 Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.447 W/kg; SAR(10 g) = 0.138 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.953 W/kg



40)

Date: 11/9/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [1. WLAN 2.4 GHz WIFI1 Body.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019PJ

Communication System: UID 0, 2.4GWLAN (0); Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.756$ S/m; $\epsilon_r = 38.795$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.2, 7.2, 7.2) @ 2462 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/802.11 b_Ant1_CH11_Rear_0 mm_Grip Sensor On/Area Scan (11x13x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.752 W/kg

Configuration/802.11 b_Ant1_CH11_Rear_0 mm_Grip Sensor On/Zoom Scan (7x7x7)/Cube 0:

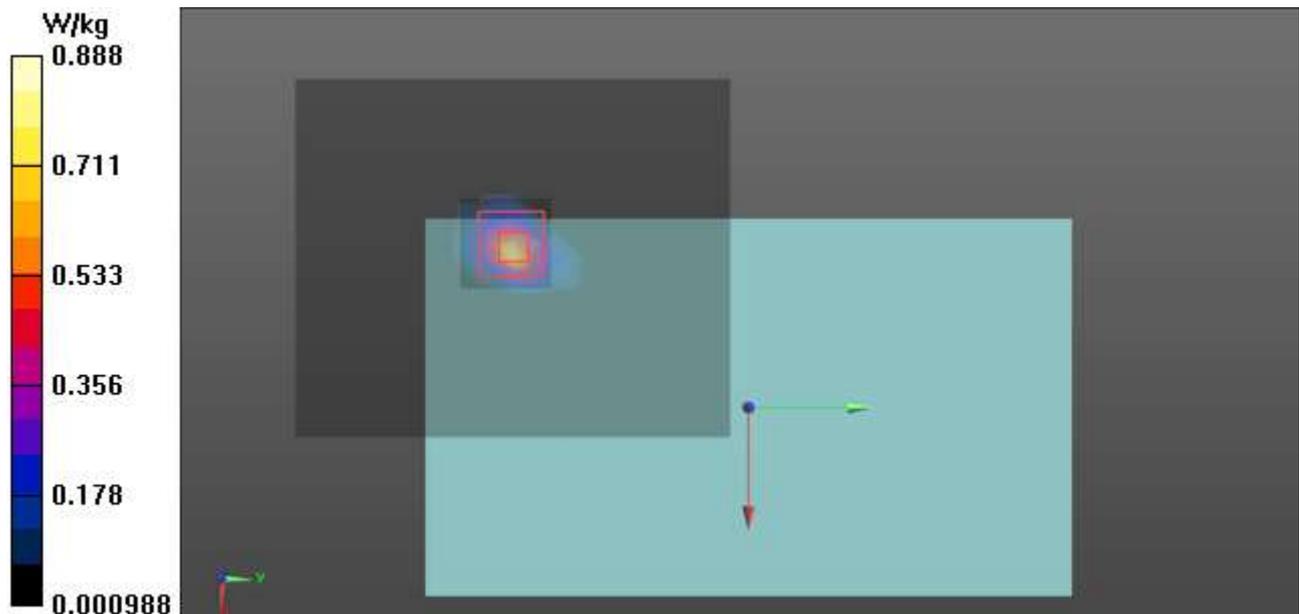
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.81 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 1.29 W/kg

SAR(1 g) = 0.439 W/kg; SAR(10 g) = 0.144 W/kg

Maximum value of SAR (measured) = 0.888 W/kg



41)

Date: 11/9/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [2. WLAN 2.4 GHz MIMO Body.da53:0](#)

DUT: SM-X308U, **Type:** Tablet, **Serial:** R32WA0019PJ

Communication System: UID 0, 2.4GWLAN (0); Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.756$ S/m; $\epsilon_r = 38.795$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.2, 7.2, 7.2) @ 2462 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/802.11 b_MIMO_CH11_Rear_0 mm_Grip Sensor On/Area Scan (11x11x1):

Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.18 W/kg

Configuration/802.11 b_MIMO_CH11_Rear_0 mm_Grip Sensor On/Zoom Scan (7x7x7)/Cube 0:

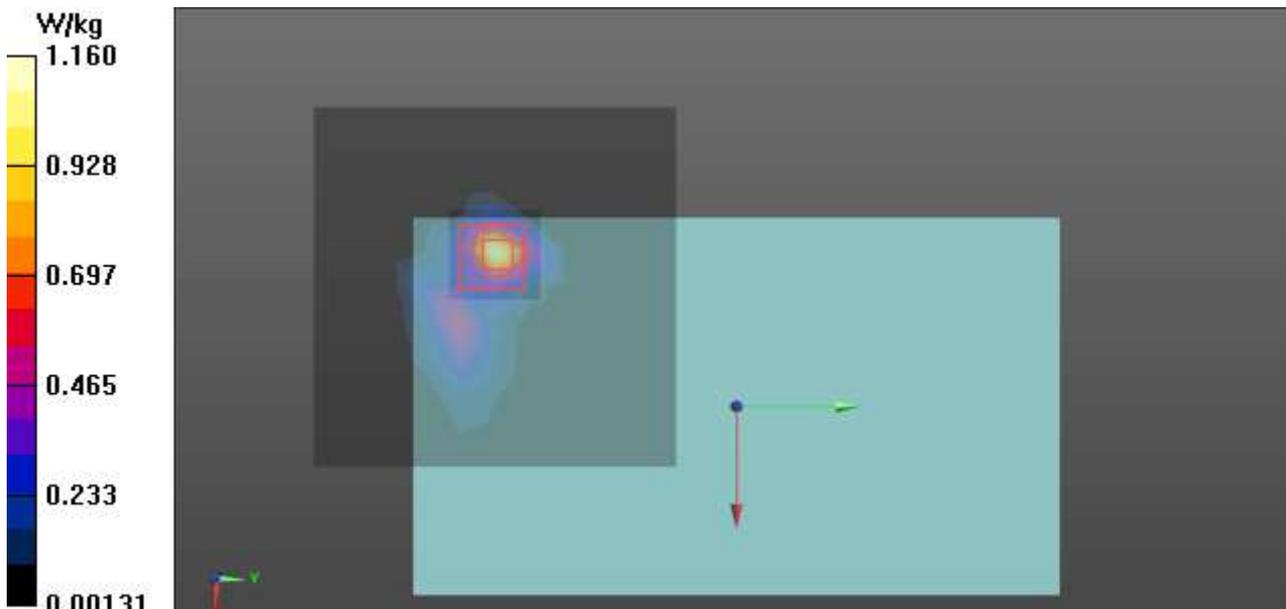
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.90 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 1.64 W/kg

SAR(1 g) = 0.606 W/kg; SAR(10 g) = 0.242 W/kg

Maximum value of SAR (measured) = 1.16 W/kg



42)

Date: 11/13/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [1. WLAN 5.3GHz WIFI2 Body.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, 5GWLAN (0); Frequency: 5260 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5260 \text{ MHz}$; $\sigma = 4.577 \text{ S/m}$; $\epsilon_r = 36.983$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(4.8, 4.8, 4.8) @ 5260 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WLAN5GHz_802.11a_Ch52_WIFI2_Rear_0 mm_Grip Sensor On/Area Scan (12x13x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 1.26 W/kg

Configuration/WLAN5GHz_802.11a_Ch52_WIFI2_Rear_0 mm_Grip Sensor On/Zoom Scan

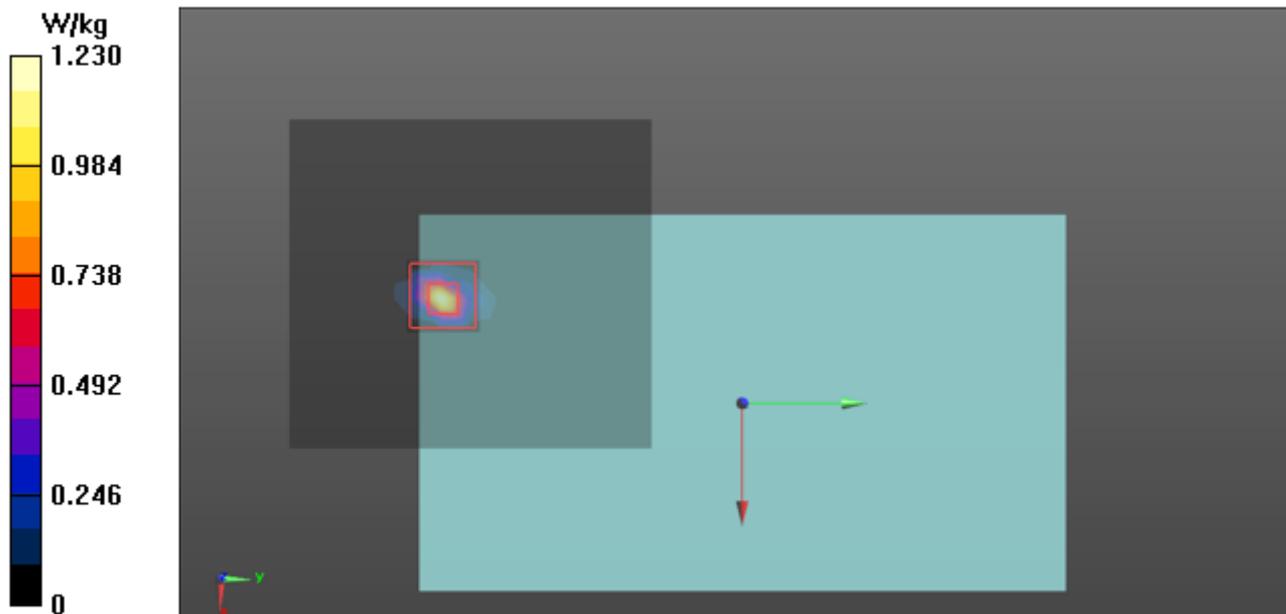
(7x7x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 18.69 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 2.34 W/kg

SAR(1 g) = 0.426 W/kg; SAR(10 g) = 0.083 W/kg

Maximum value of SAR (measured) = 1.23 W/kg



43)

Date: 11/13/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [2. WLAN 5.3GHz MIMO Body.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, 5GWLAN (0); Frequency: 5320 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5320 \text{ MHz}$; $\sigma = 4.679 \text{ S/m}$; $\epsilon_r = 36.743$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(4.8, 4.8, 4.8) @ 5320 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WLAN5GHz_802.11a_Ch64_MIMO_Rear_0 mm_Grip Sensor On/Area Scan (13x13x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 1.35 W/kg

Configuration/WLAN5GHz_802.11a_Ch64_MIMO_Rear_0 mm_Grip Sensor On/Zoom Scan

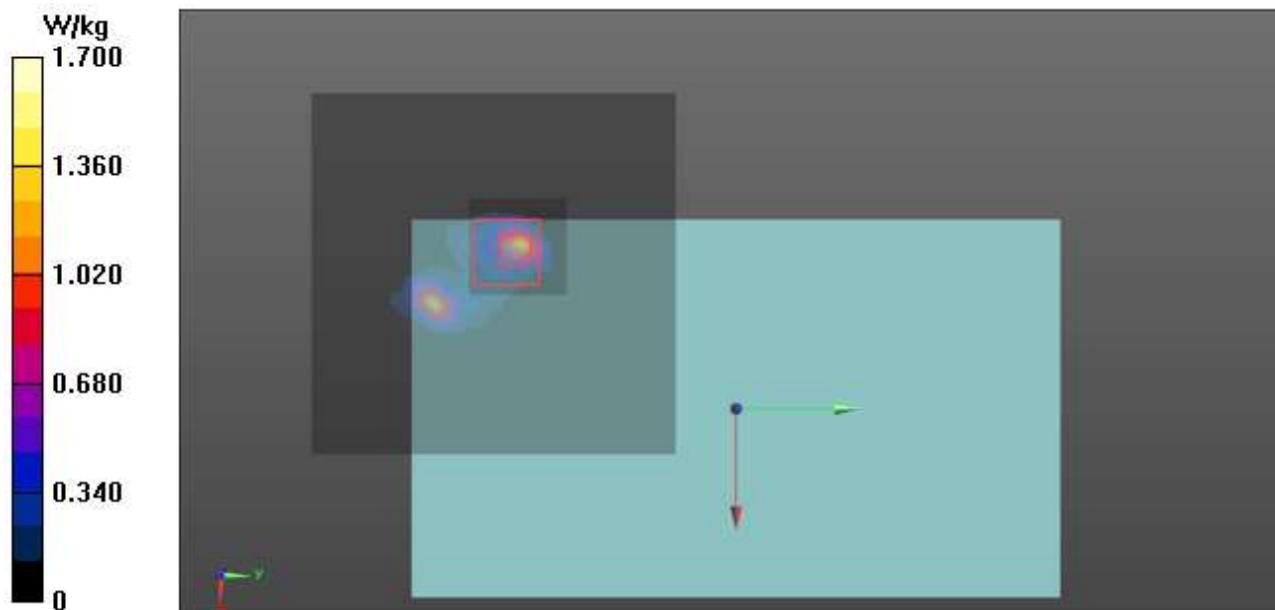
(9x9x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 20.96 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 3.08 W/kg

SAR(1 g) = 0.526 W/kg; SAR(10 g) = 0.104 W/kg

Maximum value of SAR (measured) = 1.70 W/kg



44)

Date: 11/12/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [1. WLAN 5.6GHz WIFI2 Body.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019PJ

Communication System: UID 0, 5GWLAN (0); Frequency: 5620 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 5620$ MHz; $\sigma = 5.109$ S/m; $\epsilon_r = 36.134$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7840;ConvF(4.59, 4.57, 4.57) @ 5620 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WLAN5GHz_802.11a_Ch124_WIFI2_Rear_0 mm_Grip Sensor On/Area Scan (12x13x1): Measurement grid: dx=10mm, dy=10mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.827 W/kg

Configuration/WLAN5GHz_802.11a_Ch124_WIFI2_Rear_0 mm_Grip Sensor On/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

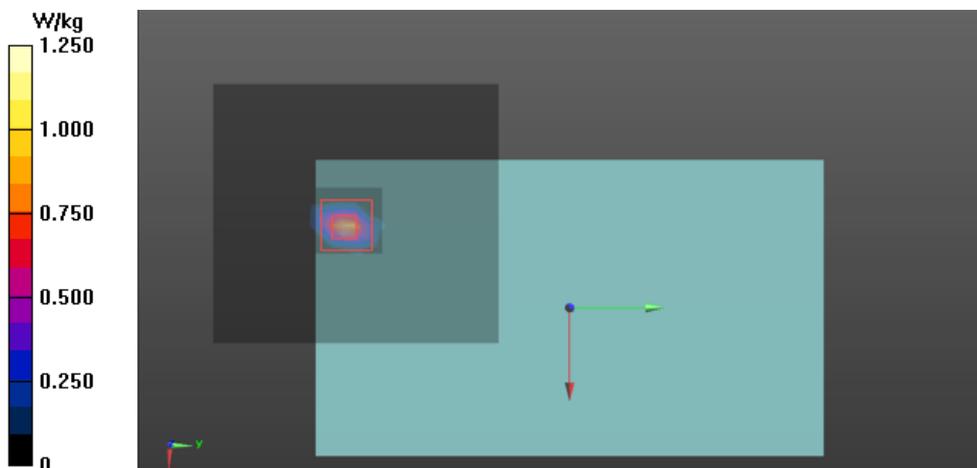
Reference Value = 16.91 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 2.04 W/kg

SAR(1 g) = 0.382 W/kg; SAR(10 g) = 0.068 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.25 W/kg



45)

Date: 11/12/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [2. WLAN 5.6GHz MIMO Body.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019PJ

Communication System: UID 0, 5GWLAN (0); Frequency: 5620 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 5620$ MHz; $\sigma = 5.109$ S/m; $\epsilon_r = 36.134$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7840;ConvF(4.59, 4.57, 4.57) @ 5620 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WLAN5GHz_802.11a_Ch124_MIMO_Rear_0 mm_Grip Sensor On/Area Scan (13x13x1): Measurement grid: dx=10mm, dy=10mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 2.10 W/kg

Configuration/WLAN5GHz_802.11a_Ch124_MIMO_Rear_0 mm_Grip Sensor On/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

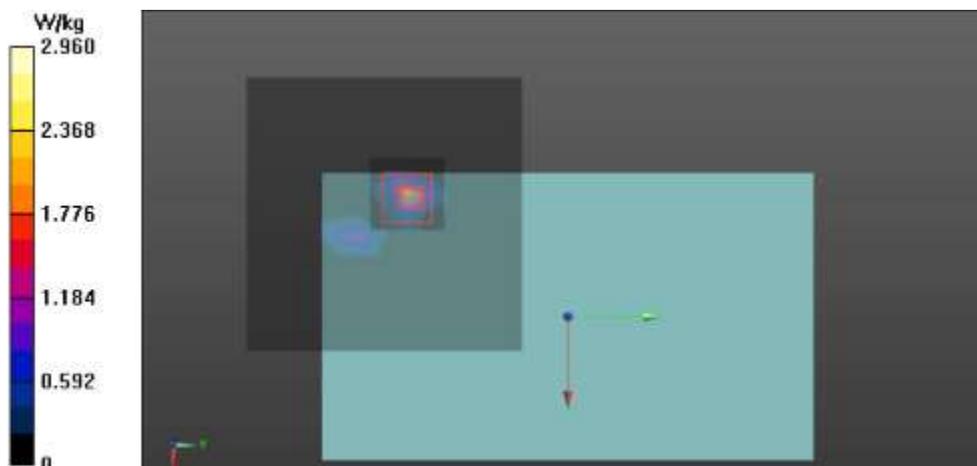
Reference Value = 23.38 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 5.30 W/kg

SAR(1 g) = 0.980 W/kg; SAR(10 g) = 0.173 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 2.96 W/kg



46)

Date: 11/10/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [1. WLAN 5.8GHz WIFI2 Body.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, 5GWLAN (0); Frequency: 5825 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 5825$ MHz; $\sigma = 5.289$ S/m; $\epsilon_r = 34.339$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7840;ConvF(4.72, 4.69, 4.74) @ 5825 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WLAN5GHz_802.11a_Ch165_WIFI2_Rear_14 mm/Area Scan (12x13x1): Measurement grid: dx=10mm, dy=10mm

Info: Interpolated medium parameters used for SAR evaluation.

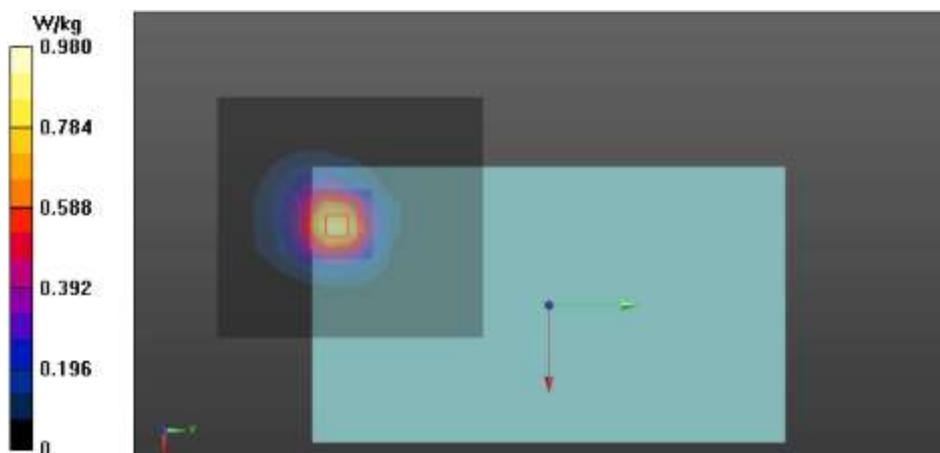
Maximum value of SAR (measured) = 0.893 W/kg

Configuration/WLAN5GHz_802.11a_Ch165_WIFI2_Rear_14 mm/Zoom Scan (9x9x7)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 15.31 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.77 W/kg
SAR(1 g) = 0.425 W/kg; SAR(10 g) = 0.162 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.980 W/kg



47)

Date: 11/10/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.

File Name: [2. WLAN 5.8GHz MIMO Body.da53:0](#)

DUT: SM-X308U, **Type:** Tablet, **Serial:** R32WA0019HM

Communication System: UID 0, 5GWLAN (0); Frequency: 5825 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 5825$ MHz; $\sigma = 5.289$ S/m; $\epsilon_r = 34.339$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7840;ConvF(4.72, 4.69, 4.74) @ 5825 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WLAN5GHz_802.11a_Ch165_MIMO_Rear_0 mm_Grip Sensor On/Area Scan (13x13x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.83 W/kg

Configuration/WLAN5GHz_802.11a_Ch165_MIMO_Rear_0 mm_Grip Sensor On/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

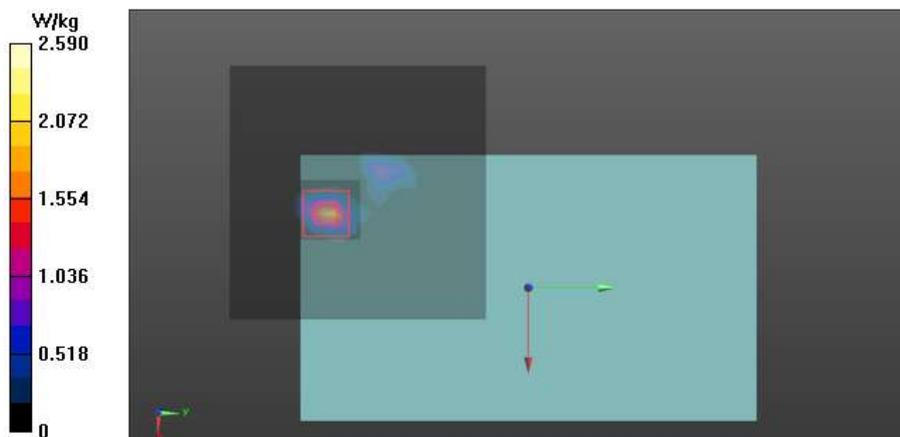
Reference Value = 23.79 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 4.80 W/kg

SAR(1 g) = 0.798 W/kg; SAR(10 g) = 0.162 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 2.59 W/kg



48)

Date: 11/10/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: [1. Bluetooth BDR Body.da53:0](#)

DUT: SM-X308U, Type: Tablet, Serial: R32WA0019HM

Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz; Duty Cycle: 1:1.30167
Medium parameters used (interpolated): $f = 2402$ MHz; $\sigma = 1.714$ S/m; $\epsilon_r = 39.033$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.2, 7.2, 7.2) @ 2402 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1756; Calibrated: 9/20/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/Bluetooth_DH5_BDR_Ch0_Rear_0 mm Grip Sensor on/Area Scan (11x11x1):
Measurement grid: dx=12mm, dy=12mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

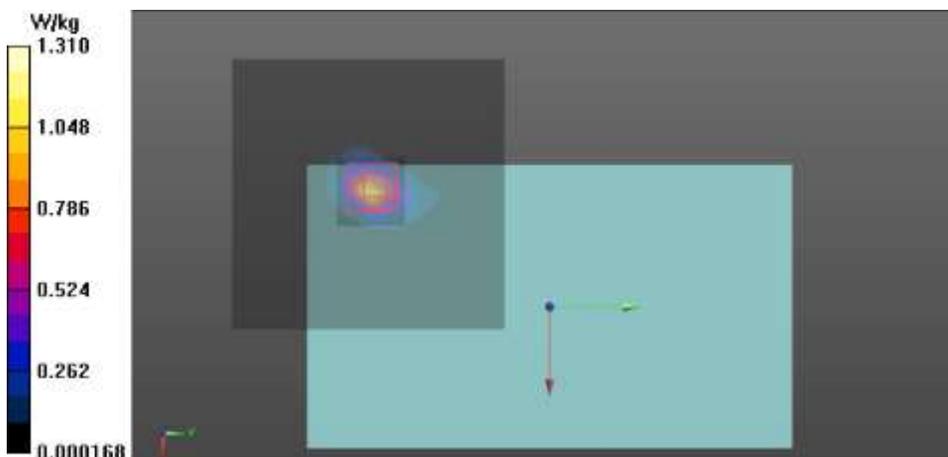
Maximum value of SAR (measured) = 1.14 W/kg

Configuration/Bluetooth_DH5_BDR_Ch0_Rear_0 mm Grip Sensor on/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 28.98 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.97 W/kg
SAR(1 g) = 0.657 W/kg; SAR(10 g) = 0.223 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.31 W/kg



Appendixes List

<p>Appendix A</p>	<p>A.1 Probe Calibration certificate (EX3DV4_SN3697) A.2 Probe Calibration certificate (EX3DV4_SN3865) A.3 Probe Calibration certificate (EX3DV4_SN3928) A.4 Probe Calibration certificate (EX3DV4_SN7540) A.5 Probe Calibration certificate (EX3DV4_SN7840) A.6 Dipole Calibration certificate (D750V3_SN1224) A.7 Dipole Calibration certificate (D850V2_SN1030) A.8 Dipole Calibration certificate (D1750V2_SN1195) A.9 Dipole Calibration certificate (D1900V2_SN5d248) A.10 Dipole Calibration certificate (D2300V2_SN1049) A.11 Dipole Calibration certificate (D2450V2_SN895) A.12 Dipole Calibration certificate (D2600V2_SN1050) A.13 Dipole Calibration certificate (D2600V2_SN1200) A.14 Dipole Calibration certificate (D3500V2_SN1065) A.15 Dipole Calibration certificate (D3700V2_SN1027) A.16 Dipole Calibration certificate (D3900V2_SN1043) A.17 Dipole Calibration certificate (D5GHzV2_SN1293) A.18 Justification for Extended SAR Dipole Calibrations</p>
<p>Appendix B</p>	<p>SAR Tissue Specification</p>
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<p>Appendix F</p>	<p>EUT Photo</p>
<p>Appendix G</p>	<p>Test Setup Photo</p>