12. SAR Test Results

12.1 Standalone Body SAR Test Results

WCDMA Band II									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
RMC	Grip Sensor off								
	Rear	13	1 880.0	24.09	24.50	1.099	0.585	0.643	
	Grip Sensor on								
	Rear	0	1 880.0	15.79	16.50	1.178	0.905	1.066	
	Rear	0	1 852.4	15.77	16.50	1.183	0.853	1.009	
	Rear	0	1 907.6	15.66	16.50	1.213	0.901	1.093	
	Repeated SAR Test								
	Rear	0	1 880.0	15.66	16.50	1.213	0.908	**1.101**	1

WCDMA Band IV									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
RMC	Grip Sensor off								
	Rear	13	1 732.4	24.43	24.50	1.016	0.723	0.735	
	Grip Sensor on								
	Rear	0	1 732.4	15.75	16.50	1.189	0.814	0.968	
	Rear	0	1 712.4	15.64	16.50	1.219	0.835	1.018	
	Rear	0	1 752.6	15.68	16.50	1.208	0.841	1.016	
	Repeated SAR Test								
	Rear	0	1 752.6	15.68	16.50	1.208	0.845	**1.021**	2

WCDMA Band V									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
RMC	Grip Sensor off								
	Rear	17	836.6	23.74	24.50	1.191	0.237	0.282	
	Grip Sensor on								
	Rear	0	836.6	19.20	20.50	1.349	0.578	**0.780**	3

LTE Band 2 (Main Ant.)									
Mode	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Scaled 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off									
QPSK 20 ㎒ 1RB 0Offset	Rear	13	1 880.0	23.10	24.50	1.380	0.525	0.725	
QPSK 20 ㎒ 50RB 50Offset	Rear	13	1 880.0	22.12	23.50	1.374	0.410	0.563	
Grip Sensor on									
QPSK 20 ㎒ 1RB 0Offset	Rear	0	1 880.0	15.82	16.50	1.169	0.795	0.929	
QPSK 20 ㎒ 1RB 99Offset	Rear	0	1 860.0	15.81	16.50	1.172	0.779	0.913	
QPSK 20 ㎒ 1RB 0Offset	Rear	0	1 900.0	15.70	16.50	1.202	0.816	0.981	
QPSK 20 ㎒ 50RB 50Offset	Rear	0	1 880.0	15.85	16.50	1.161	0.824	0.957	
QPSK 20 ㎒ 50RB 50Offset	Rear	0	1 860.0	15.81	16.50	1.172	0.790	0.926	
QPSK 20 ㎒ 50RB 24Offset	Rear	0	1 900.0	15.77	16.50	1.183	0.831	0.983	
QPSK 20 ㎒ 100RB 0Offset	Rear	0	1 880.0	15.77	16.50	1.183	0.798	0.944	
Repeated SAR Test									
QPSK 20 ㎒ 50RB 24Offset	Rear	0	1 900.0	15.77	16.50	1.183	0.832	**0.984**	4

LTE Band 2 (Sub Ant.)									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
Grip Sensor off									
QPSK 20 ㎒ 1RB 0Offset	Rear	17	1 880.0	23.65	24.50	1.216	0.349	0.424	
QPSK 20 ㎒ 50RB 50Offset	Rear	17	1 880.0	22.75	23.50	1.189	0.314	0.373	
Grip Sensor on									
QPSK 20 ㎒ 1RB 0Offset	Rear	0	1 880.0	16.84	17.00	1.038	1.160	1.204	
QPSK 20 ㎒ 1RB 99Offset	Rear	0	1 860.0	16.67	17.00	1.079	1.080	1.165	
QPSK 20 ㎒ 1RB 0Offset	Rear	0	1 900.0	16.81	17.00	1.045	1.160	1.212	
QPSK 20 ㎒ 50RB 50Offset	Rear	0	1 880.0	16.90	17.00	1.023	1.150	1.176	
QPSK 20 ㎒ 50RB 50Offset	Rear	0	1 860.0	16.86	17.00	1.033	1.020	1.054	
QPSK 20 ㎒ 50RB 24Offset	Rear	0	1 900.0	16.79	17.00	1.050	1.180	**1.239**	5
QPSK 20 ㎒ 100RB 0Offset	Rear	0	1 880.0	16.80	17.00	1.047	1.000	1.047	
Repeated SAR Test									
QPSK 20 ㎒ 50RB 24Offset	Rear	0	1 900.0	16.79	17.00	1.050	1.150	1.208	

LTE Band 5									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
Grip Sensor off									
QPSK 10 ㎒ 1RB 0Offset	Rear	17	836.5	23.34	24.50	1.306	0.287	**0.375**	6
QPSK 10 ㎒ 25RB 12Offset	Rear	17	836.5	22.38	23.50	1.294	0.215	0.278	

LTE Band 12									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
Grip Sensor off									
QPSK 10 ㎒ 1RB 0Offset	Rear	17	707.5	23.11	24.50	1.377	0.306	0.421	
QPSK 10 ㎒ 25RB 12Offset	Rear	17	707.5	22.07	23.50	1.390	0.278	0.386	
Grip Sensor on									
QPSK 10 ㎒ 1RB 0Offset	Rear	0	707.5	18.92	20.50	1.439	0.676	0.973	
QPSK 10 ㎒ 25RB 12Offset	Rear	0	707.5	18.87	20.50	1.455	0.685	**0.997**	7
QPSK 10 ㎒ 50RB 0Offset	Rear	0	707.5	18.81	20.50	1.476	0.663	0.979	

LTE Band 13									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
Grip Sensor off									
QPSK 10 ㎒ 1RB 0Offset	Rear	17	782.0	23.45	24.50	1.274	0.305	0.389	
QPSK 10 ㎒ 25RB 25Offset	Rear	17	782.0	22.46	23.50	1.271	0.238	0.302	
Grip Sensor on									
QPSK 10 ㎒ 1RB 0 Offset	Rear	0	782.0	19.25	20.50	1.334	0.463	0.618	
QPSK 10 ㎒ 25RB 25Offset	Rear	0	782.0	19.35	20.50	1.303	0.486	**0.633**	8

LTE Band 26									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
Grip Sensor off									
QPSK 15 ㎒ 1RB 0Offset	Rear	17	831.5	22.41	23.50	1.285	0.217	0.279	
QPSK 15 ㎒ 36RB 37Offset	Rear	17	831.5	21.18	22.50	1.355	0.176	0.238	
Grip Sensor on									
QPSK 15 ㎒ 1RB 0Offset	Rear	0	831.5	19.02	20.50	1.406	0.477	0.671	
QPSK 15 ㎒ 36RB 37Offset	Rear	0	831.5	19.09	20.50	1.384	0.500	**0.692**	9

LTE Band 41									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
Grip Sensor off									
QPSK 20 ㎒ 1RB 0Offset	Rear	13	2 506.0	22.68	23.50	1.208	0.305	0.368	
QPSK 20 ㎒ 50RB 0Offset	Rear	13	2 506.0	21.88	22.50	1.153	0.247	0.285	
Grip Sensor on									
QPSK 20 ㎒ 1RB 0Offset	Rear	0	2 506.0	16.43	17.50	1.279	0.494	0.632	
QPSK 20 ㎒ 1RB 0Offset	Rear	0	2 549.5	16.19	17.50	1.352	0.600	**0.811**	10
QPSK 20 ㎒ 1RB 0Offset	Rear	0	2 593.0	16.11	17.50	1.377	0.549	0.756	
QPSK 20 ㎒ 1RB 0Offset	Rear	0	2 636.5	16.20	17.50	1.349	0.568	0.766	
QPSK 20 ㎒ 1RB 0Offset	Rear	0	2 680.0	16.03	17.50	1.403	0.532	0.746	
QPSK 20 ㎒ 50RB 0Offset	Rear	0	2 506.0	16.50	17.50	1.259	0.505	0.636	
QPSK 20 ㎒ 50RB 0Offset	Rear	0	2 549.5	16.19	17.50	1.352	0.599	0.810	
QPSK 20 ㎒ 50RB 0Offset	Rear	0	2 593.0	16.30	17.50	1.318	0.596	0.786	
QPSK 20 ㎒ 50RB 0Offset	Rear	0	2 636.5	16.20	17.50	1.349	0.597	0.805	
QPSK 20 ㎒ 50RB 0Offset	Rear	0	2 680.0	15.95	17.50	1.429	0.554	0.792	
QPSK 20 ㎒ 100RB 0Offset	Rear	0	2 506.0	16.42	17.50	1.282	0.512	0.656	

LTE Band 66 (Main Ant.)									
Mode	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Scaled 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off									
QPSK 20 ㎒ 1RB 49Offset	Rear	13	1 745.0	23.61	24.50	1.227	0.610	0.748	
QPSK 20 ㎒ 50RB 24Offset	Rear	13	1 745.0	22.70	23.50	1.202	0.523	0.629	
Grip Sensor on									
QPSK 20 ㎒ 1RB 49Offset	Rear	0	1 745.0	15.91	16.50	1.146	0.786	0.901	
QPSK 20 ㎒ 1RB 49Offset	Rear	0	1 720.0	15.85	16.50	1.161	0.801	**0.930**	11
QPSK 20 ㎒ 1RB 0Offset	Rear	0	1 770.0	15.90	16.50	1.148	0.799	0.917	
QPSK 20 ㎒ 50RB 24Offset	Rear	0	1 745.0	16.05	16.50	1.109	0.821	0.910	
QPSK 20 ㎒ 50RB 50Offset	Rear	0	1 720.0	16.04	16.50	1.112	0.807	0.897	
QPSK 20 ㎒ 50RB 24Offset	Rear	0	1 770.0	15.94	16.50	1.138	0.814	0.926	
QPSK 20 ㎒ 100RB 0Offset	Rear	0	1 745.0	15.96	16.50	1.132	0.810	0.917	
Repeated SAR Test									
QPSK 20 ㎒ 50RB 24Offset	Rear	0	1 745.0	16.05	16.50	1.109	0.826	0.916	

LTE Band 66 (Sub Ant.)									
Mode	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Scaled 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off									
QPSK 20 ㎒ 1RB 49Offset	Rear	17	1 745.0	24.02	24.50	1.117	0.108	0.121	
QPSK 20 ㎒ 50RB 24Offset	Rear	17	1 745.0	23.14	23.50	1.086	0.106	0.115	
Grip Sensor on									
QPSK 20 ㎒ 1RB 49Offset	Rear	0	1 745.0	17.06	17.50	1.107	0.568	0.629	
QPSK 20 ㎒ 50RB 24Offset	Rear	0	1 745.0	17.09	17.50	1.099	0.802	0.881	
QPSK 20 ㎒ 50RB 50Offset	Rear	0	1 720.0	17.07	17.50	1.104	0.645	0.712	
QPSK 20 ㎒ 50RB 24Offset	Rear	0	1 770.0	16.85	17.50	1.161	0.695	0.807	
QPSK 20 ㎒ 100RB 0Offset	Rear	0	1 745.0	17.05	17.50	1.109	0.920	**1.020**	12
Repeated SAR Test									
QPSK 20 ㎒ 100RB 0Offset	Rear	0	1 745.0	17.05	17.50	1.109	0.869	0.964	

5G NR n5										
Modulation/ Band width	**RB Size/ offset**	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Scaled 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off										
DFT-S-OFDM QPSK 20 ㎒	1RB 1 Offset	Rear	17	836.5	24.33	24.50	1.040	0.313	0.326	
DFT-S-OFDM QPSK 20 ㎒	50RB 28 Offset	Rear	17	836.5	24.08	24.50	1.102	0.307	0.338	
CP-OFDM QPSK 20 ㎒	1RB 1 Offset	Rear	17	836.5	22.70	23.00	1.072	0.209	0.224	
Grip Sensor on										
DFT-S-OFDM QPSK 20 ㎒	1RB 104 Offset	Rear	0	836.5	20.35	21.50	1.303	0.732	0.954	
DFT-S-OFDM QPSK 20 ㎒	50RB 0 Offset	Rear	0	836.5	20.17	21.50	1.358	0.722	0.980	
DFT-S-OFDM QPSK 20 ㎒	100RB 0 Offset	Rear	0	836.5	20.13	21.50	1.371	0.726	**0.995**	13
CP-OFDM QPSK 20 ㎒	1RB 1Offset	Rear	0	836.5	20.15	21.50	1.365	0.696	0.950	

5G NR n66										
Modulation/ Band width	**RB Size/ offset**	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Scaled 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off										
DFT-S-OFEM QPSK 20 ㎒	1RB 1 Offset	Rear	13	1 745.0	24.06	24.50	1.107	0.781	0.865	
DFT-S-OFEM QPSK 20 ㎒	1RB 104Offset	Rear	13	1 720.0	23.77	24.50	1.183	0.829	0.981	
DFT-S-OFEM QPSK 20 ㎒	1RB 104Offset	Rear	13	1 770.0	23.74	24.50	1.191	0.829	0.987	
DFT-S-OFEM QPSK 20 ㎒	50RB 28Offset	Rear	13	1 745.0	23.96	24.50	1.132	0.816	0.924	
DFT-S-OFEM QPSK 20 ㎒	50RB 28Offset	Rear	13	1 720.0	23.82	24.50	1.169	0.818	0.956	
DFT-S-OFEM QPSK 20 ㎒	50RB 28Offset	Rear	13	1 770.0	23.82	24.50	1.169	0.843	0.985	
DFT-S-OFEM QPSK 20 ㎒	100RB 0Offset	Rear	13	1 745.0	22.94	23.50	1.138	0.663	0.754	
CP-OFDM QPSK 20 ㎒	1RB 1Offset	Rear	13	1 770.0	22.34	23.00	1.164	0.594	0.691	
Grip Sensor on										
DFT-S-OFDM QPSK 20 ㎒	1RB 1Offset	Rear	0	1 745.0	16.05	17.50	1.396	0.726	1.013	
DFT-S-OFDM QPSK 20 ㎒	1RB 1Offset	Rear	0	1 720.0	15.82	17.50	1.472	0.809	**1.191**	14
DFT-S-OFDM QPSK 20 ㎒	1RB 1Offset	Rear	0	1 770.0	15.83	17.50	1.469	0.747	1.097	
DFT-S-OFDM QPSK 20 ㎒	50RB 0Offset	Rear	0	1 745.0	15.94	17.50	1.432	0.758	1.085	
DFT-S-OFDM QPSK 20 ㎒	50RB 28Offset	Rear	0	1 720.0	15.90	17.50	1.445	0.801	1.157	
DFT-S-OFDM QPSK 20 ㎒	50RB 56Offset	Rear	0	1 770.0	15.87	17.50	1.455	0.769	1.119	
DFT-S-OFDM QPSK 20 ㎒	100RB 0Offset	Rear	0	1 745.0	15.97	17.50	1.422	0.779	1.108	
CP-OFDM QPSK 20 ㎒	1RB 1Offset	Rear	0	1 720.0	15.91	17.50	1.442	0.752	1.084	
Repeated SAR Test										
DFT-S-OFEM QPSK 20 ㎒	50RB 28Offset	Rear	13	1 770.0	23.82	24.50	1.169	0.851	0.995	

WLAN 2.4 GHz Aux										
Mode	EUT Position	Distance (mm)	Frequency (MHz)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
802.11b	Grip Sensor off									
	Rear	4	2 462.0	17.77	18.00	1.054	1.012	0.236	**0.252**	15
	Grip Sensor on									
	Rear	0	2 437.0	12.43	13.00	1.140	1.012	0.140	0.162	

WLAN 2.4 GHz MIMO										
Mode	EUT Position	Distance (mm)	Frequency (MHz)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
802.11b	Grip Sensor off									
	Rear	4	2 437.0	20.77	21.00	1.054	1.011	0.678	**0.722**	16
	Grip Sensor on									
	Rear	0	2 412.0	15.17	16.00	1.211	1.011	0.352	0.431	

U-NII-2A Main										
Mode	EUT Position	Distance (mm)	Frequency (MHz)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
802.11a	Grip Sensor off									
	Rear	9	5 280.0	14.02	14.50	1.117	1.067	0.263	**0.313**	17
	Grip Sensor on									
	Rear	0	5 280.0	8.55	9.00	1.109	1.067	0.195	0.231	

U-NII-2A MIMO										
Mode	EUT Position	Distance (mm)	Frequency (MHz)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
802.11a	Grip Sensor off									
	Rear	4	5 320.0	16.45	17.50	1.274	1.068	0.554	**0.754**	18
	Grip Sensor on									
	Rear	0	5 320.0	11.35	12.00	1.161	1.068	0.329	0.408	

U-NII-2C Main										
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
802.11a	Grip Sensor off									
	Rear	9	5 600.0	13.80	14.50	1.175	1.067	0.235	**0.295**	19
	Grip Sensor on									
	Rear	0	5 500.0	8.79	9.00	1.050	1.067	0.207	0.232	

U-NII-2C MIMO										
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
802.11a	Grip Sensor off									
	Rear	4	5 500.0	16.65	17.50	1.216	1.068	0.647	**0.840**	20
	Rear	4	5 720.0	16.19	17.50	1.352	1.068	0.525	0.758	
	Grip Sensor on									
	Rear	0	5 720.0	11.52	12.00	1.117	1.068	0.332	0.396	

U-NII-3 Main										
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
802.11a	Grip Sensor off									
	Rear	9	5 785.0	13.65	14.50	1.216	1.067	0.247	**0.320**	21
	Grip Sensor on									
	Rear	0	5 745.0	8.91	9.00	1.021	1.067	0.279	0.304	

U-NII-3 MIMO										
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
802.11a	Grip Sensor off									
	Rear	4	5 785.0	16.50	17.50	1.259	1.068	0.515	**0.692**	22
	Grip Sensor on									
	Rear	0	5 785.0	11.79	12.00	1.050	1.068	0.300	0.336	

U-NII-4 Main										
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
802.11a	Grip Sensor off									
	Rear	9	5 865.0	13.44	14.50	1.276	1.067	0.192	**0.261**	23
	Grip Sensor on									
	Rear	0	5 865.0	8.59	9.00	1.099	1.067	0.186	0.218	

U-NII-4 MIMO										
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
802.11a	Grip Sensor off									
	Rear	4	5 885.0	16.98	17.50	1.127	1.068	0.526	**0.633**	24
	Grip Sensor on									
	Rear	0	5 885.0	11.50	12.00	1.122	1.068	0.233	0.279	

Bluetooth										
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
BDR_DH5	Rear	0	2 441.0	12.79	13.50	1.178	1.302	0.488	**0.748**	25

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, and FCC KDB Publication 447498 D01v06.
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings and the standard batteries are the only options.
4. Liquid tissue depth was at least 15 cm.
5. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
6. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v06.

WCDMA Notes:

1. UMTS mode in was tested under RMC 12.2 kbps with HSPA Inactive per KDB Publication 941225 D01v03r01.
2. The highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode. Otherwise, SAR measurement is required for the secondary mode(HSUPA, HSDPA).
3. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s).

LTE Notes:

1. Justification Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel.
2. When the reported SAR is > 0.8 W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel.
3. Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are > 0.8 W/kg. Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation < 1.45 W/kg.
4. Testing for 16-QAM modulation is not required because the reported SAR for QPSK is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of QPSK.
5. Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.
6. A-MPR was disabled for all SAR tests by setting NS=01 and MCC=001 on the base station simulator.
7. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).
8. For LTE bands that do not support at least three non-overlapping channels in certain channel bandwidths, test the available non-overlapping channels instead. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing; therefore, the requirement for H, M and L channels may not fully apply.

5G NR Notes:

1. NR Bands support SA and NSA modes. NR Bands in EN-DC mode operates with the LTE Bands shown in the 5G NR Information acting as anchor bands. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
2. More detailed specifications of the NR bands are contained in the Operation description document.
3. For NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.
4. Simultaneous transmission analysis for EN-DC operations is addressed in the Part 2 Test Report.

WLAN & Bluetooth Notes:

1. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4㎓ WIFI operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 ㎓ 802.11g) was not required due to the maximum allowed powers and the highest reported DSSS SAR.
2. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance.
3. When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n then ac) is selected.
4. When the specified maximum output power is the same for both UNII Band1 and UNII Band 2A, begins SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is ≤ 1.2W/kg, SAR is not required for UNII band1 > 1.2W/kg, both bands should be tested independently for SAR.
5. When the maximum reported 1g averaged SAR is ≤0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg for 1g evaluations or all test channels were measured.
6. During the test, the WLAN transmission was monitored through the spectrum analyzer.
7. WLAN MIMO measurement to meet simultaneous transmission limits.

13. Simultaneous Transmission

13.1 #Simultaneous Transmission Configurations

No.	Scenario	Operation
1)	Licensed + Bluetooth	Yes
2)	Licensed + WLAN 6 ㎓ MIMO + Bluetooth	Yes
3)	Licensed + WLAN 5 ㎓ MIMO + Bluetooth	Yes
4)	Licensed + 2.4 ㎓ Aux + Bluetooth	Yes
5)	Licensed + WLAN 2.4 ㎓ MIMO	Yes
6)	Licensed + WLAN 5 ㎓ Main (Only 802.11a)	Yes
7)	Licensed + WLAN 5 ㎓ MIMO	Yes
8)	Licensed + WLAN 6 ㎓ MIMO	Yes
9)	Licensed + RSDB scenarios	No
10)	EN-DC(LTE+NR) + Bluetooth	Yes
11)	EN-DC(LTE+NR) + WLAN 6 ㎓ MIMO + Bluetooth	Yes
12)	EN-DC(LTE+NR) + WLAN 5 ㎓ MIMO + Bluetooth	Yes
13)	EN-DC(LTE+NR) + 2.4 ㎓ Aux + Bluetooth	Yes
14)	EN-DC(LTE+NR) + WLAN 2.4 ㎓ MIMO	Yes
15)	EN-DC(LTE+NR) + WLAN 5 ㎓ Main (Only 802.11a)	Yes
16)	EN-DC(LTE+NR) + WLAN 5 ㎓ MIMO	Yes
17)	EN-DC(LTE+NR) + WLAN 6 ㎓ MIMO	Yes
18)	EN-DC(LTE+NR) + RSDB scenarios	No

Notes:

- It does not to transmit simultaneously the Bluetooth and WLAN 2.4 ㎓ Main Ant..
- It is to use the Bluetooth and WLAN same antenna path.
- For EN-DC mods, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. Smart Transmit algorithm controls the total RF exposure from both 4G and 5G NR to not exceed FCC limit.
  Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation.

13.2 Simultaneous Transmission Analysis

Band /Position (Rear)	Licensed	WLAN 2.4 GHz		WLAN 5 GHz		WLAN 6 GHz	Bluetooth
		Aux	MIMO	Main	MIMO	MIMO	
	[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]
WCDMA II	1.101	0.252	0.722	0.320	0.840	0.479	0.748
WCDMA IV	1.021	0.252	0.722	0.320	0.840	0.479	0.748
WCDMA V	0.780	0.252	0.722	0.320	0.840	0.479	0.748
LTE 2(Main)	0.984	0.252	0.722	0.320	0.840	0.479	0.748
LTE 2(Sub)	1.239	0.252	0.722	0.320	0.840	0.479	0.748
LTE 5	0.375	0.252	0.722	0.320	0.840	0.479	0.748
LTE 12	0.997	0.252	0.722	0.320	0.840	0.479	0.748
LTE 13	0.633	0.252	0.722	0.320	0.840	0.479	0.748
LTE 26	0.692	0.252	0.722	0.320	0.840	0.479	0.748
LTE 41	0.811	0.252	0.722	0.320	0.840	0.479	0.748
LTE 66 (Main)	0.930	0.252	0.722	0.320	0.840	0.479	0.748
LTE 66 (Sub)	1.020	0.252	0.722	0.320	0.840	0.479	0.748
5G NR n5	0.995	0.252	0.722	0.320	0.840	0.479	0.748
5G NR n66	1.191	0.252	0.722	0.320	0.840	0.479	0.748

Summation

Band	1)	2)	3)	4)	5)	6)	7)	8)
	[①+⑦]	[①+⑥+⑦]	[①+⑤+⑦]	[①+②+⑦]	[①+③]	[①+④]	[①+⑤]	[①+⑥]
WCDMA II	1.849	2.328	2.689	2.101	1.823	1.421	1.941	**1.580**
WCDMA IV	1.769	2.248	2.609	2.021	1.743	1.341	1.861	1.500
WCDMA V	1.528	2.007	2.368	1.780	1.502	1.100	1.620	1.259
LTE 2(Main)	1.732	2.211	2.572	1.984	1.706	1.304	1.824	1.463
LTE 2(Sub)	1.987	2.466	2.827	2.239	1.961	1.559	2.079	1.718
LTE 5	1.123	1.602	1.963	1.375	1.097	0.695	1.215	0.854
LTE 12	1.745	2.224	2.585	1.997	1.719	1.317	1.837	1.476
LTE 13	1.381	1.860	2.221	1.633	1.355	0.953	1.473	1.112
LTE 26	1.440	1.919	2.280	1.692	1.414	1.012	1.532	1.171
LTE 41	1.559	2.038	2.399	1.811	1.533	1.131	1.651	1.290
LTE 66(Main)	1.678	2.157	2.518	1.930	1.652	1.250	1.770	1.409
LTE 66(Sub)	1.768	2.247	2.608	2.020	1.742	1.340	1.860	1.499
5G NR n5	1.743	2.222	2.583	1.995	1.717	1.315	1.835	1.474
5G NR n66	1.939	2.418	2.779	2.191	1.913	1.511	2.031	1.670

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 SAR1g 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.
- For WLAN 6GHz value, refer to report “KR22-SPF0050”
- Yellow entries was verified in section 13.3 by the SPLSR.

13.3 SAR to Peak Location Separation Ratio Analysis

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

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

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

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

The SPLSR is determined by the following formula.

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

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

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

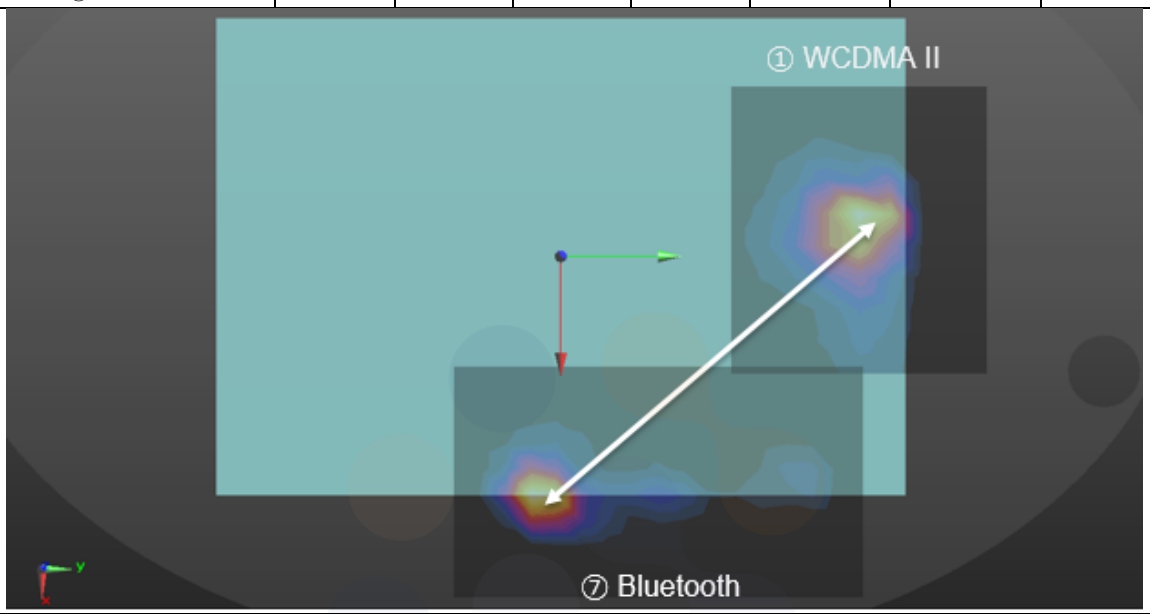
13.3.1 Summary of SPLSR Result

Exposure Condition (Rear) /Position		Licensed	WLAN 2.4 GHz		WLAN 5 GHz		WLAN 6 GHz	Bluetooth	Worst Summation			SPLSR Result
			Aux	MIMO	Main	MIMO	MIMO					
		[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]				
Ratio to Limit	WCDMA II	1.101	-	-	-	-	-	0.748	1)	[①+⑦]	1.849	0.01
			-	-	-	-	0.479	0.748	2)	[①+⑥+⑦]	2.328	0.02
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	2.689	0.03
			0.252	-	-	-	-	0.748	4)	[①+②+⑦]	2.101	0.02
			-	0.722	-	-	-	-	5)	[①+③]	1.823	0.01
			-	-	-	0.840	-	-	7)	[①+⑤]	1.941	0.02
	WCDMA IV	1.021	-	-	-	-		0.748	1)	[①+⑦]	1.769	0.01
			-	-	-	-	0.479	0.748	2)	[①+⑥+⑦]	2.248	0.02
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	2.609	0.03
			0.252	-	-	-	-	0.748	4)	[①+②+⑦]	2.021	0.02
			-	0.722	-	-	-	-	5)	[①+③]	1.743	0.01
			-	-	-	0.840	-	-	7)	[①+⑤]	1.861	0.02
	WCDMA V	0.780	-	-	-	-	0.479	0.748	2)	[①+⑥+⑦]	2.007	0.01
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	2.368	0.02
			0.252	-	-	-	-	0.748	4)	[①+②+⑦]	1.780	0.01
			-	-	-	0.840	-	-	7)	[①+⑤]	1.620	0.01
	LTE 2 (Main)	0.984	-	-	-	-	-	0.748	1)	[①+⑦]	1.732	0.01
			-	-	-	-	0.479	0.748	2)	[①+⑥+⑦]	2.211	0.02
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	2.572	0.03
			0.252	-		-	-	0.748	4)	[①+②+⑦]	1.984	0.02
			-	0.722	-	-	-	-	5)	[①+③]	1.706	0.01
			-	-	-	0.840	-	-	7)	[①+⑤]	1.824	0.02
	LTE 2 (Sub)	1.239	-	-	-	-	-	0.748	1)	[①+⑦]	1.987	0.01
			-	-	-	-	0.479	0.748	2)	[①+⑥+⑦]	2.466	0.02
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	2.827	0.02
			0.252	-		-	-	0.748	4)	[①+②+⑦]	2.239	0.02
			-	0.722	-	-	-	-	5)	[①+③]	1.961	0.01
			-	-	-	0.840	-	-	7)	[①+⑤]	2.079	0.01
			-	-	-	-	0.479	-	8)	[①+⑥]	1.718	0.01
	LTE 5	0.375	-	-	-	-	0.479	0.748	2)	[①+⑥+⑦]	1.602	0.01
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	1.963	0.01
	LTE 12	0.997	-	-	-	-	-	0.748	1)	[①+⑦]	1.745	0.01
			-	-	-		0.479	0.748	2)	[①+⑥+⑦]	2.224	0.01
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	2.585	0.02
			0.252	-	-	-	-	0.748	4)	[①+②+⑦]	1.997	0.01
			-	0.722				-	5)	[①+③]	1.719	0.01
			-	-	-	0.840	-	-	7)	[①+⑤]	1.837	0.01

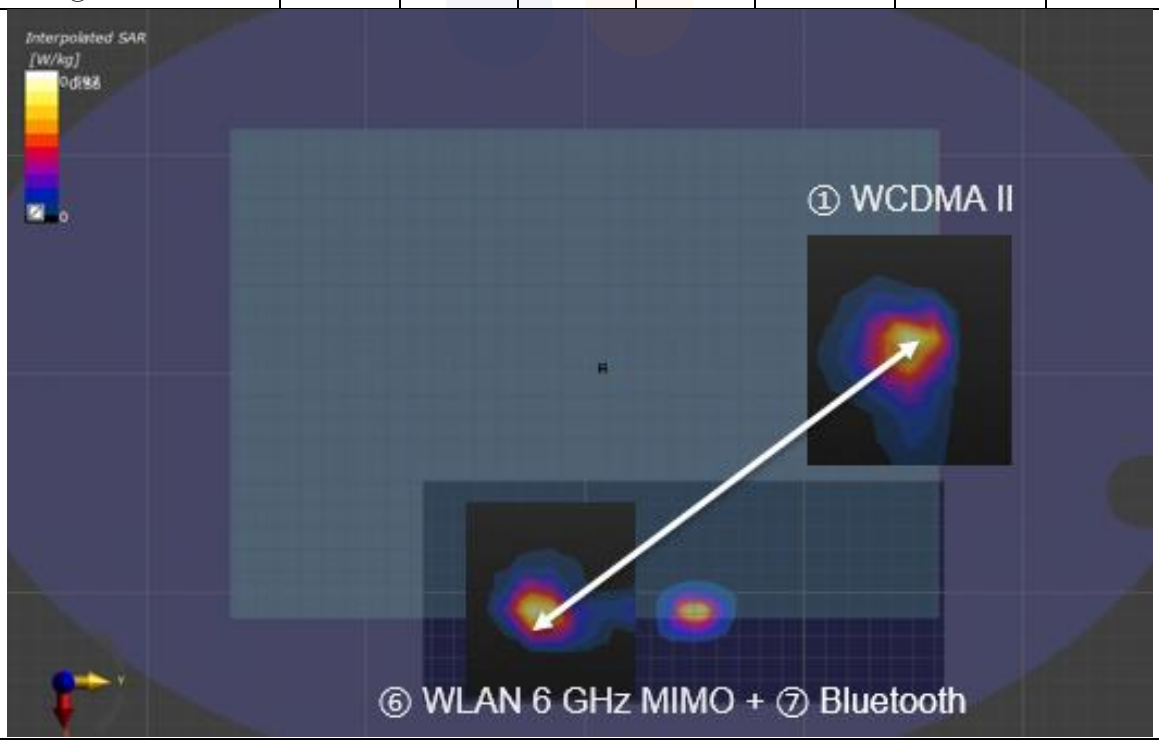
Exposure Condition (Rear) /Position		Licensed	WLAN 2.4 GHz		WLAN 5 GHz		WLAN 6 GHz	Bluetooth	Worst Summation			SPLSR Result
			Aux	MIMO	Main	MIMO	MIMO					
		[①]	[②]	[③]	[④]	[⑤]	[⑥]	[⑦]				
Ratio to Limit	LTE 13	0.633	-	-	-	-	0.479	0.748	2)	[①+⑥+⑦]	1.860	0.01
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	2.221	0.02
			0.252	-	-	-	-	0.748	4)	[①+②+⑦]	1.633	0.01
	LTE 26	0.692	-	-	-	-	0.479	0.748	2)	[①+⑥+⑦]	1.919	0.01
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	2.280	0.02
			0.252	-	-	-	-	0.748	4)	[①+②+⑦]	1.692	0.01
	LTE 41	0.811	-	-	-	-	0.479	0.748	2)	[①+⑥+⑦]	2.038	0.01
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	2.399	0.02
			0.252	-	-	-	-	0.748	4)	[①+②+⑦]	1.811	0.02
			-	-	-	0.840	-	-	7)	[①+⑤]	1.651	0.01
	LTE 66 (Main)	0.930	-	-	-	-	-	0.748	1)	[①+⑦]	1.678	0.01
			-	-	-	-	0.479	0.748	2)	[①+⑥+⑦]	2.157	0.02
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	2.518	0.03
			0.252	-	-	-	-	0.748	4)	[①+②+⑦]	1.930	0.02
			-	0.722	-	-	-	-	5)	[①+③]	1.652	0.01
			-	-	-	0.840	-	-	7)	[①+⑤]	1.770	0.02
	LTE 66 (Sub)	1.020	-	-	-	-	-	0.748	1)	[①+⑦]	1.768	0.01
			-	-	-	-	0.479	0.748	2)	[①+⑥+⑦]	2.247	0.02
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	2.608	0.02
			0.252	-	-	-	-	0.748	4)	[①+②+⑦]	2.020	0.01
			-	0.722	-	-	-	-	5)	[①+③]	1.742	0.01
			-	-	-	0.840	-	-	7)	[①+⑤]	1.860	0.01
	5G NR n5	0.995	-	-	-	-	-	0.748	1)	[①+⑦]	1.743	0.01
			-	-	-	-	0.479	0.748	2)	[①+⑥+⑦]	2.222	0.01
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	2.583	0.02
			0.252	-	-	-	-	0.748	4)	[①+②+⑦]	1.995	0.01
			-	0.722	-	-	-	-	5)	[①+③]	1.717	0.01
			-	-	-	0.840	-	-	7)	[①+⑤]	1.835	0.01
	5G NR n66	1.191	-	-	-	-	-	0.748	1)	[①+⑦]	1.939	0.01
			-	-	-	-	0.479	0.748	2)	[①+⑥+⑦]	2.418	0.02
			-	-	-	0.840	-	0.748	3)	[①+⑤+⑦]	2.779	0.03
			0.252	-	-	-	-	0.748	4)	[①+②+⑦]	2.191	0.02
			-	0.722	-	-	-	-	5)	[①+③]	1.913	0.01
			-	-	-	0.840	-	-	7)	[①+⑤]	2.031	0.02
			-	-	-	-	0.479	-	8)	[①+⑥]	1.670	0.01

13.3.2 SPLSR Analysis

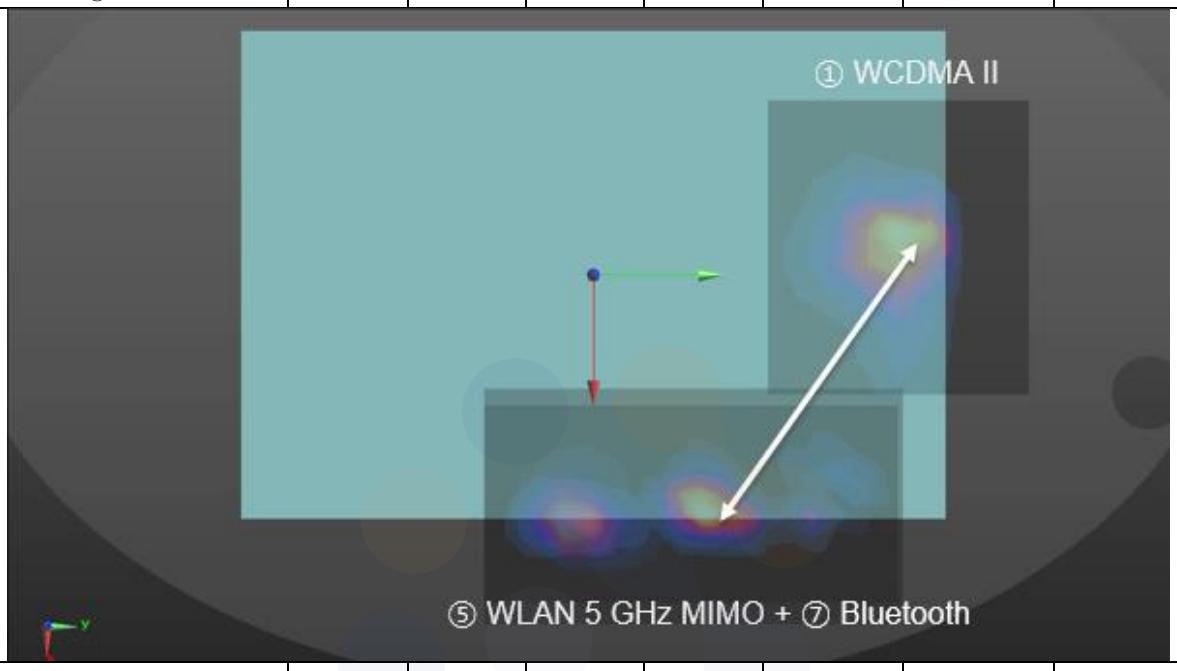
	Mode / Ant.	SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
1)	① WCDMA II	1.101	-0.01390	0.14900	-0.17800	199.30	0.01	Not Required (SPLSR ≤ 0.04)
	⑦ Bluetooth	0.748	0.10600	-0.01020	-0.17800			



2)	① WCDMA II	1.101	-0.01390	0.14900	-0.17800	199.30	0.02	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10600	-0.01020	-0.17800			

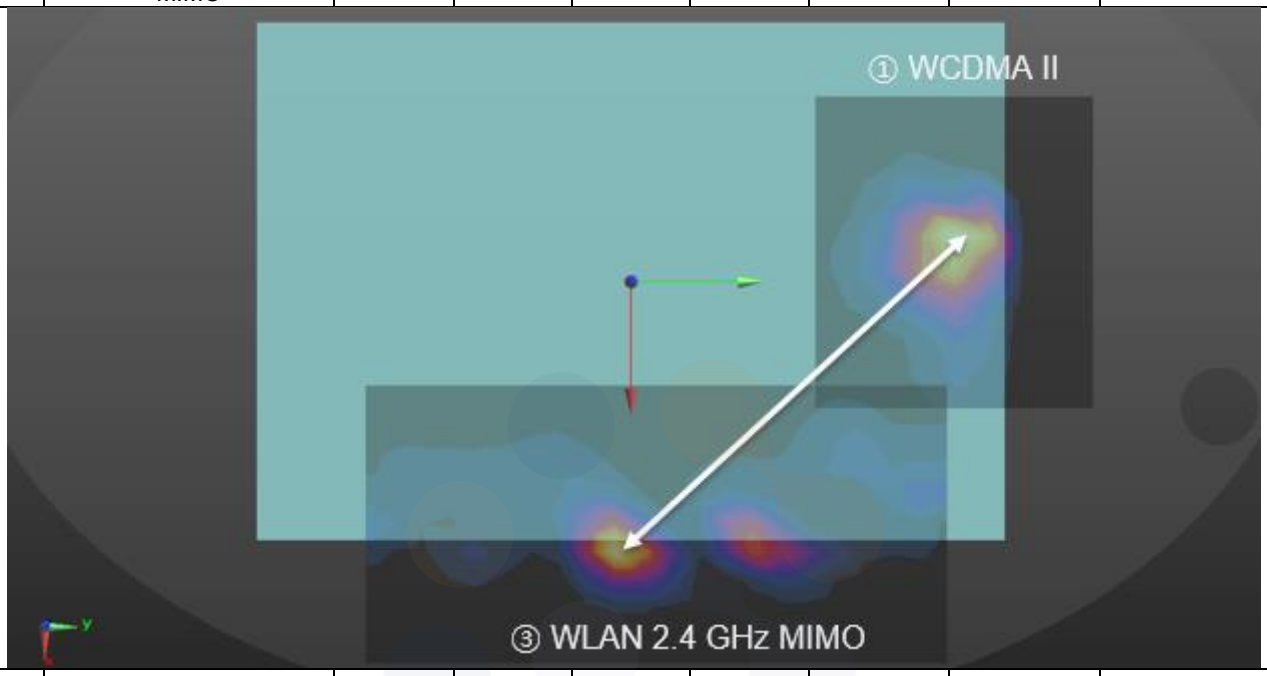


Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
3)	① WCDMA II	1.101	-0.01390	0.14900	-0.17800	155.95	0.03	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10900	0.05300	-0.17800			

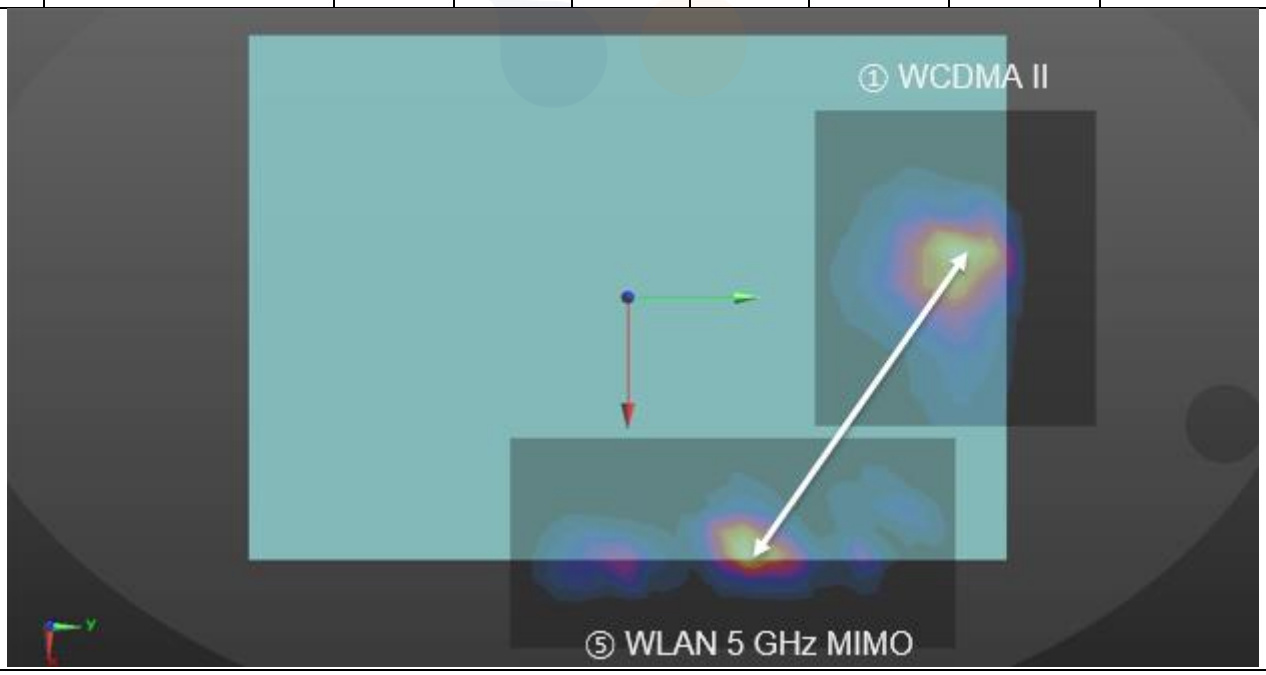


4)	① WCDMA II	1.101	-0.01390	0.14900	-0.17800	135.89	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux + ⑦ Bluetooth	1.000	0.11000	0.09320	-0.17800			

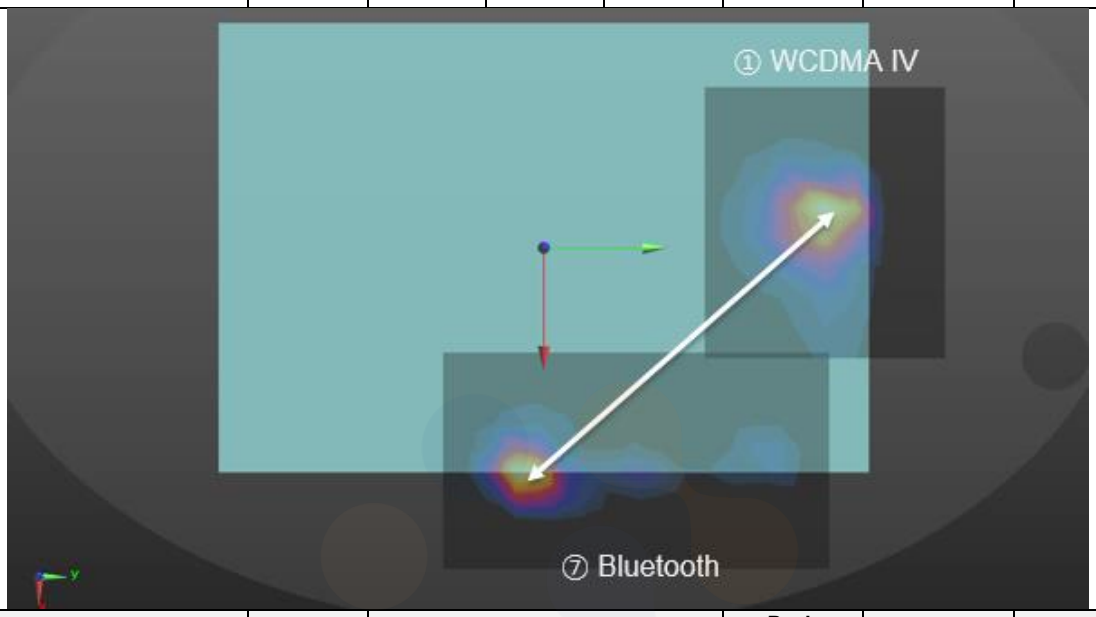
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
5)	① WCDMA II	1.101	-0.01390	0.14900	-0.17800	201.81	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	0.722	0.11700	-0.00460	-0.17800			



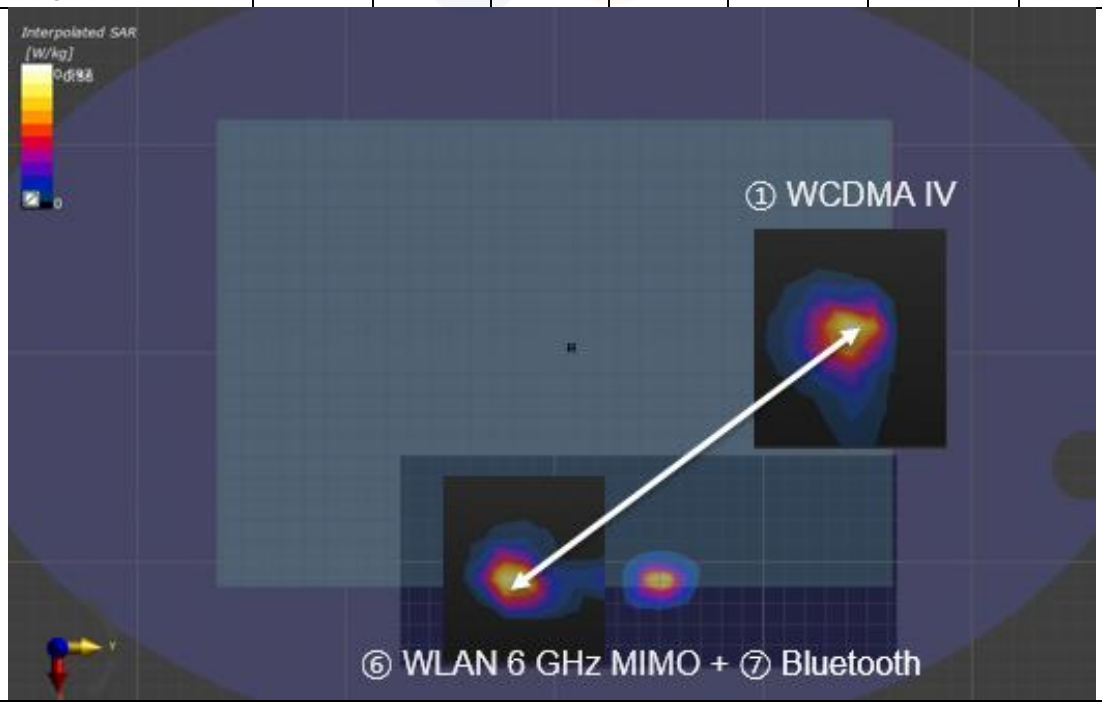
7)	① WCDMA II	1.101	-0.01390	0.14900	-0.17800	155.95	0.02	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO	0.840	0.10900	0.05300	-0.17800			



Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
1)	① WCDMA IV	1.021	-0.01850	0.14900	-0.17800	202.10	0.01	Not Required (SPLSR ≤ 0.04)
	⑦ Bluetooth	0.748	0.10600	-0.01020	-0.17800			

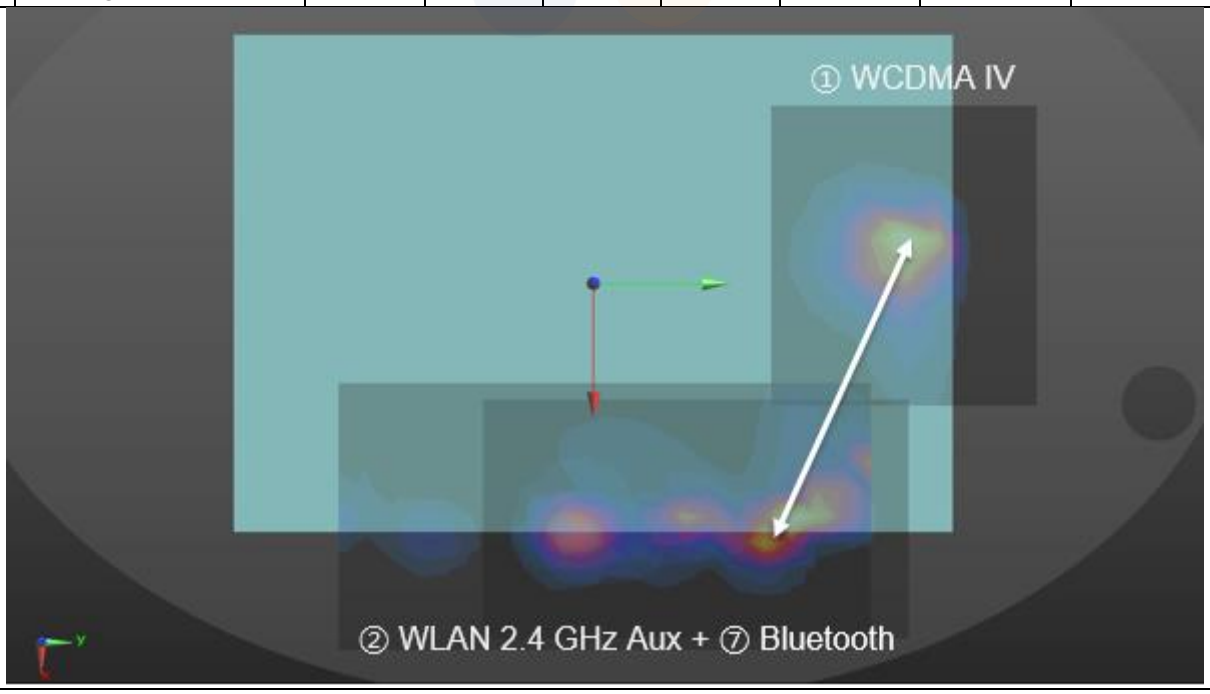


Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
2)	① WCDMA IV	1.021	-0.01850	0.14900	-0.17800	202.10	0.02	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10600	-0.01020	-0.17800			

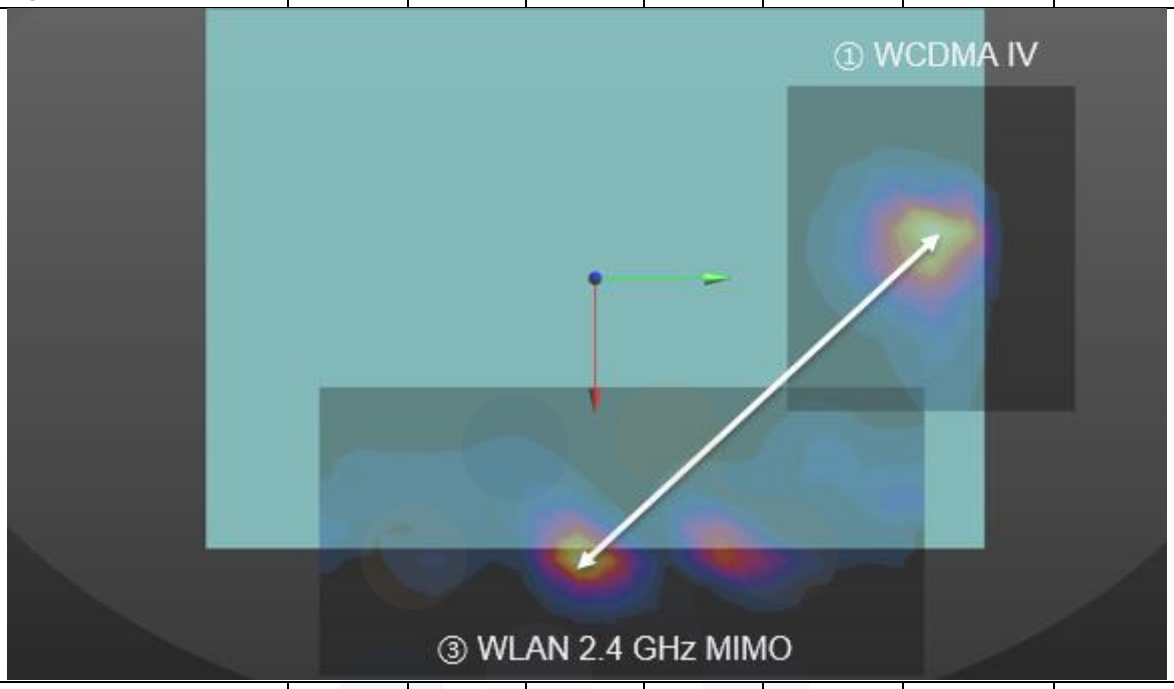


Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
3)	① WCDMA IV	1.021	-0.01850	0.14900	-0.17800	159.60	0.03	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10900	0.05300	-0.17800			

4)	① WCDMA IV	1.021	-0.01850	0.14900	-0.17800	140.09	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux + ⑦ Bluetooth	1.000	0.11000	0.09320	-0.17800			

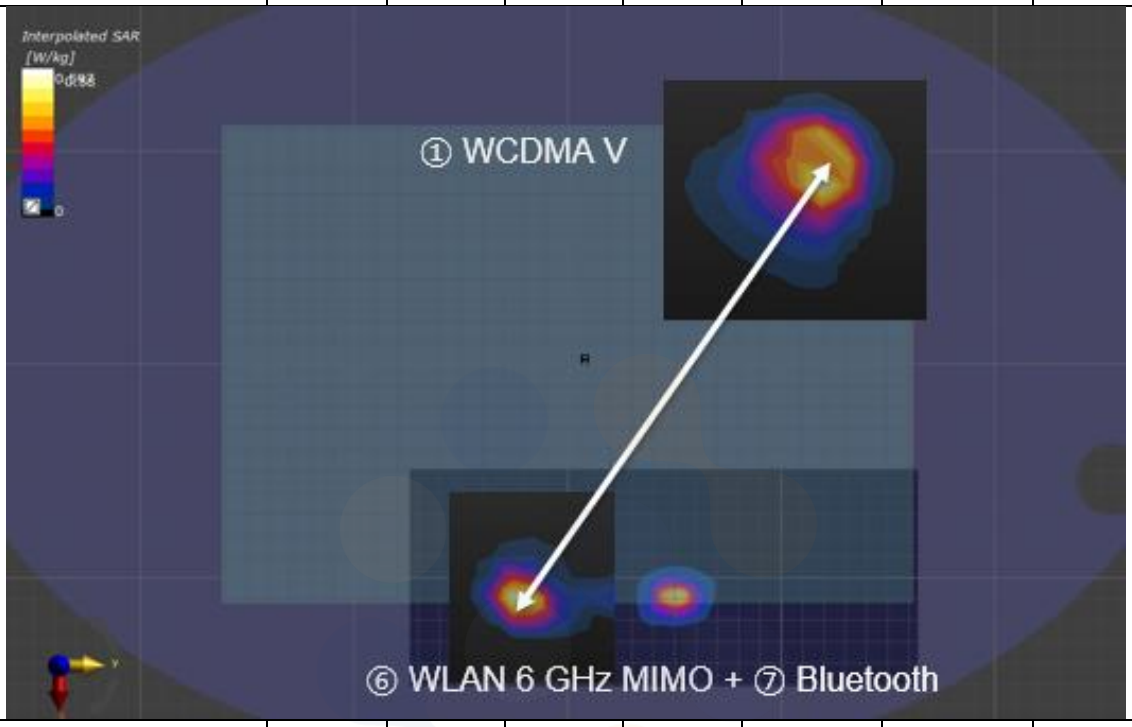


	Mode / Ant.	SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
5)	① WCDMA IV	1.021	-0.01850	0.14900	-0.17800	204.82	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	0.722	0.11700	-0.00460	-0.17800			

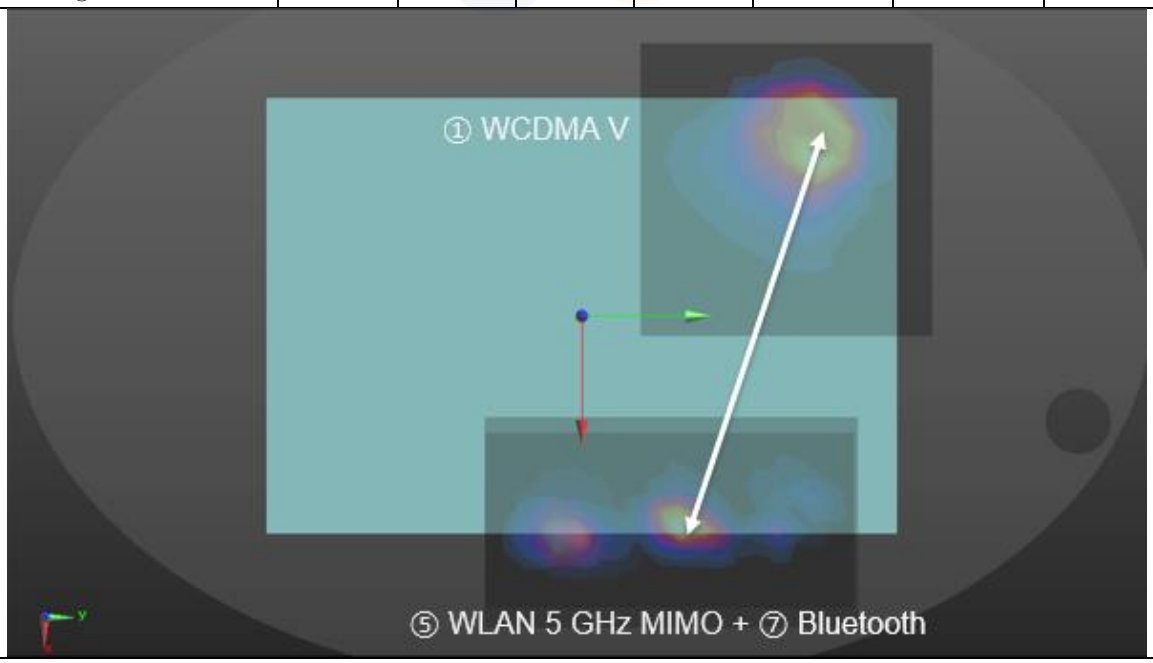


7)	① WCDMA IV	1.021	-0.01850	0.14900	-0.17800	159.60	0.02	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO	0.840	0.10900	0.05300	-0.17800			

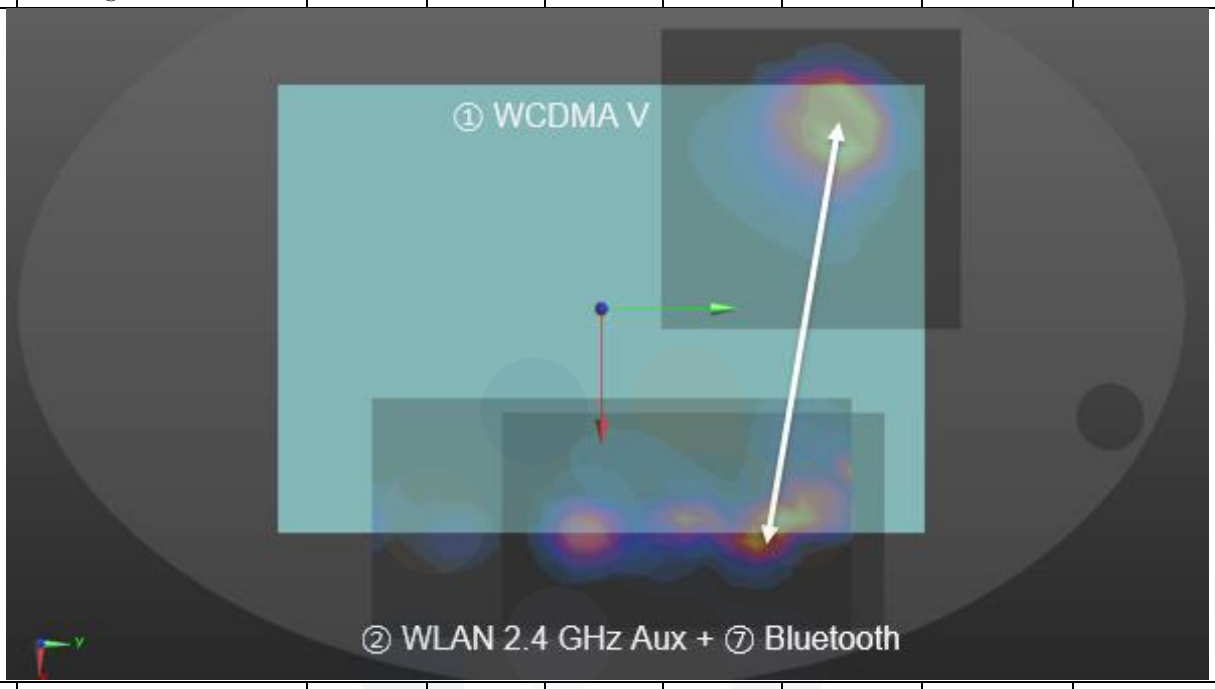
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
2)	① WCDMA V	0.780	-0.08630	0.12500	-0.17700	235.07	0.01	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10600	-0.01020	-0.17800			



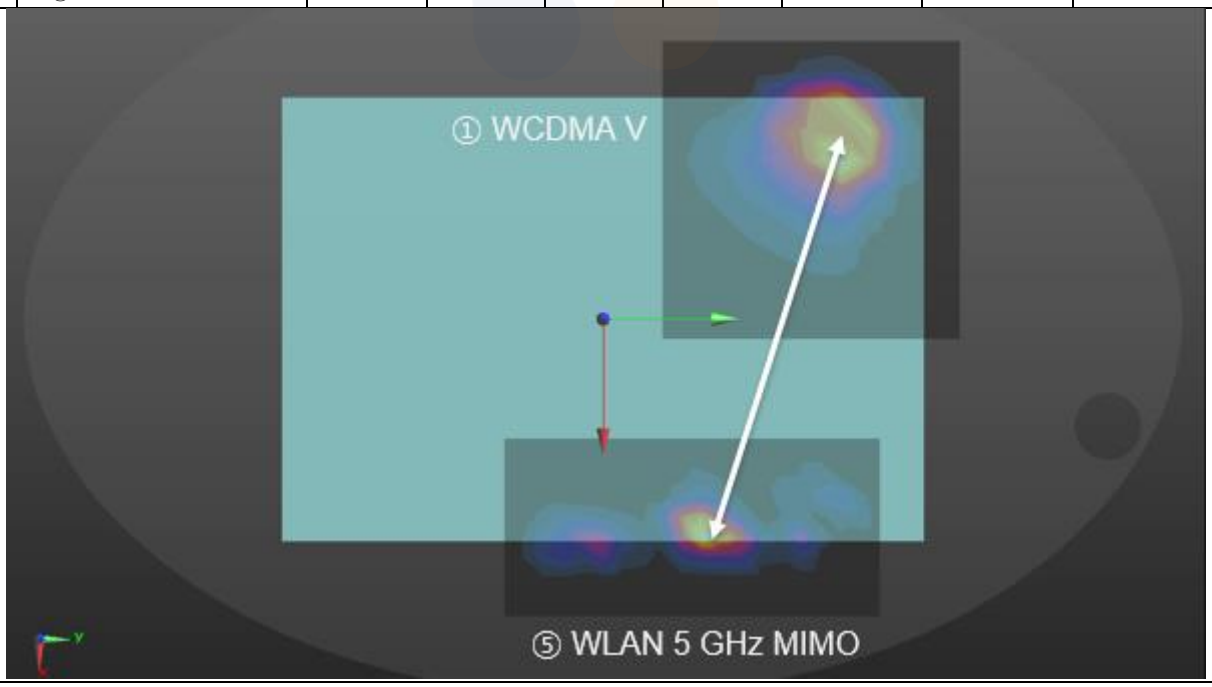
3)	① WCDMA V	0.780	-0.08630	0.12500	-0.17700	208.15	0.02	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10900	0.05300	-0.17800			



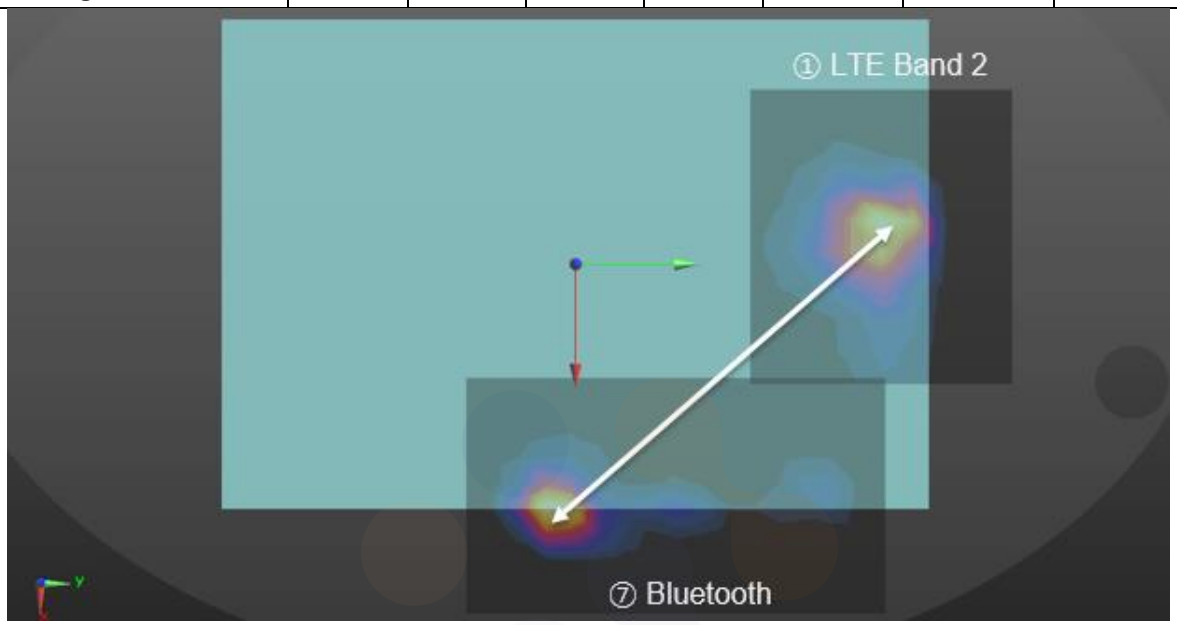
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① WCDMA V	0.780	-0.08630	0.12500	-0.17700	198.86	0.01	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux + ⑦ Bluetooth	1.000	0.11000	0.09320	-0.17800			



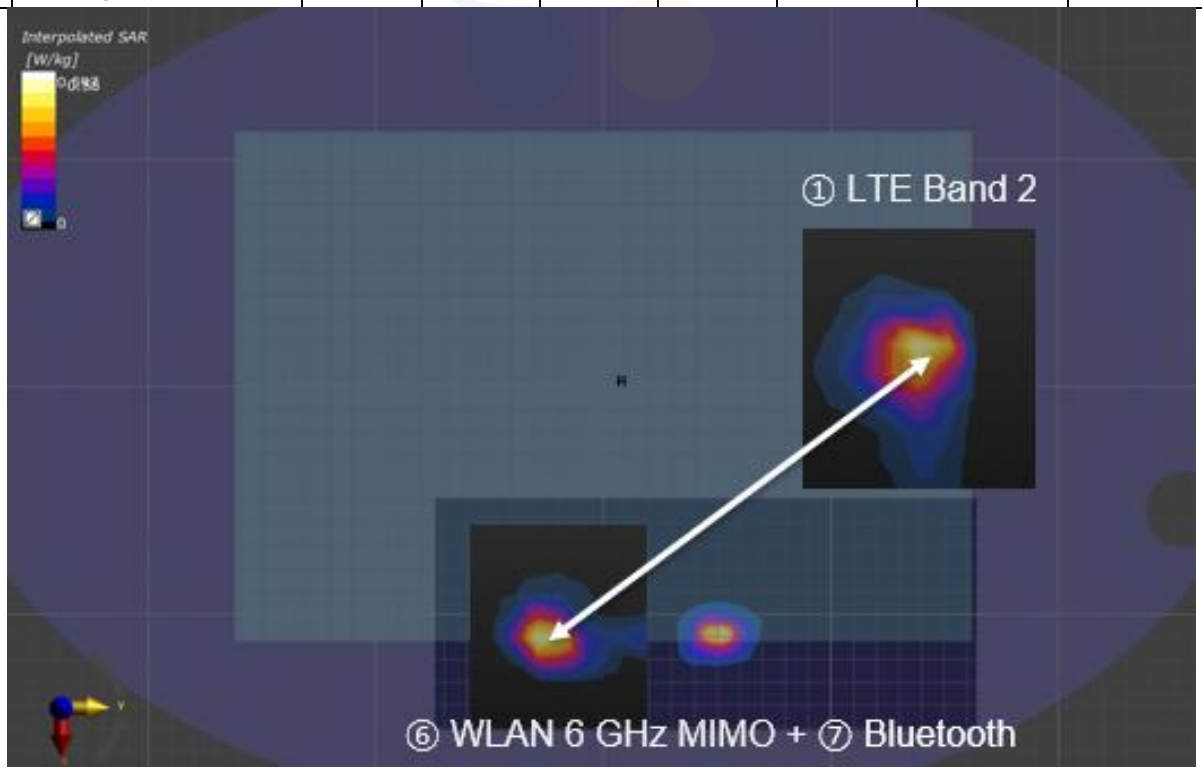
7)	① WCDMA V	0.780	-0.08630	0.12500	-0.17700	208.15	0.01	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO	0.840	0.10900	0.05300	-0.17800			



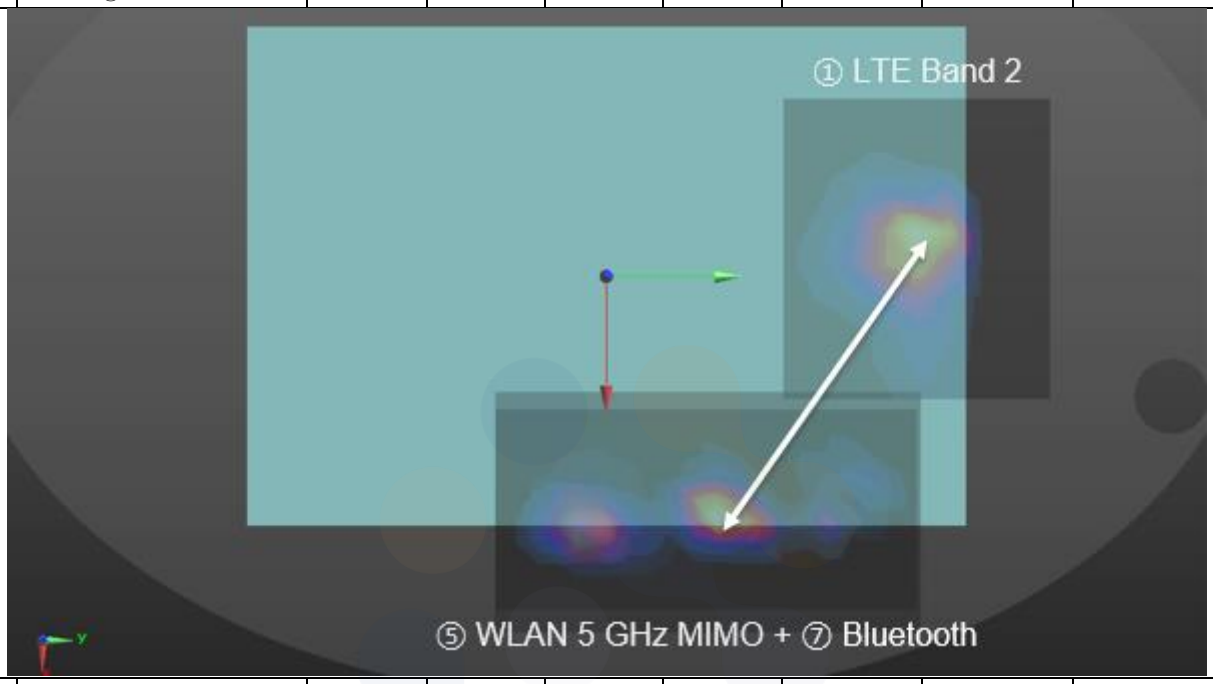
	Mode / Ant.	SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
1)	① LTE Band 2	0.984	-0.01390	0.14900	-0.17800	199.30	0.01	Not Required (SPLSR ≤ 0.04)
	⑦ Bluetooth	0.748	0.10600	-0.01020	-0.17800			



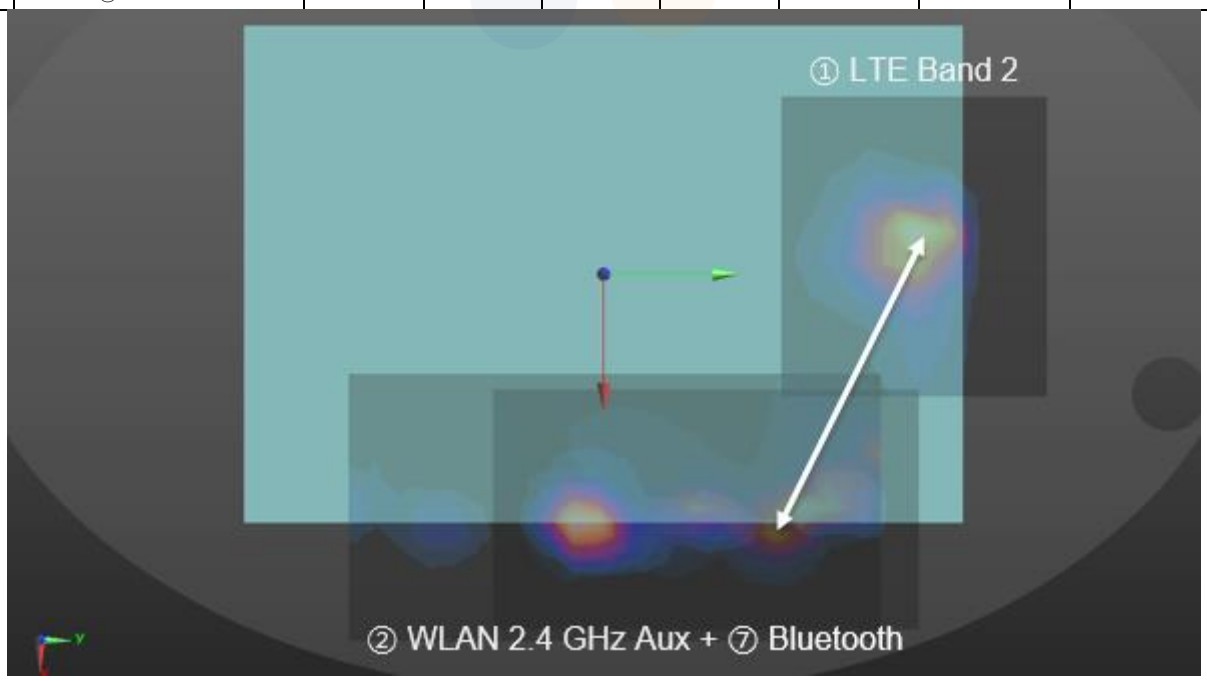
2)	① LTE Band 2	0.984	-0.01390	0.14900	-0.17800	199.30	0.02	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10600	-0.01020	-0.17800			



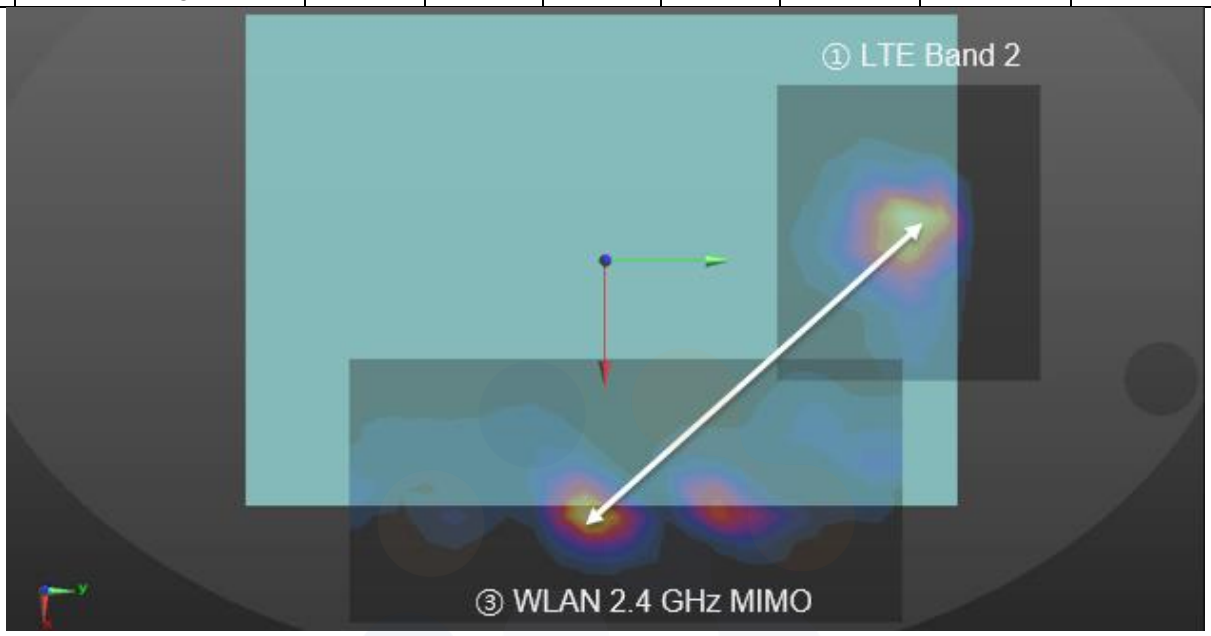
	Mode / Ant.	SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
3)	① LTE Band 2	0.984	-0.01390	0.14900	-0.17800	155.95	0.03	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10900	0.05300	-0.17800			



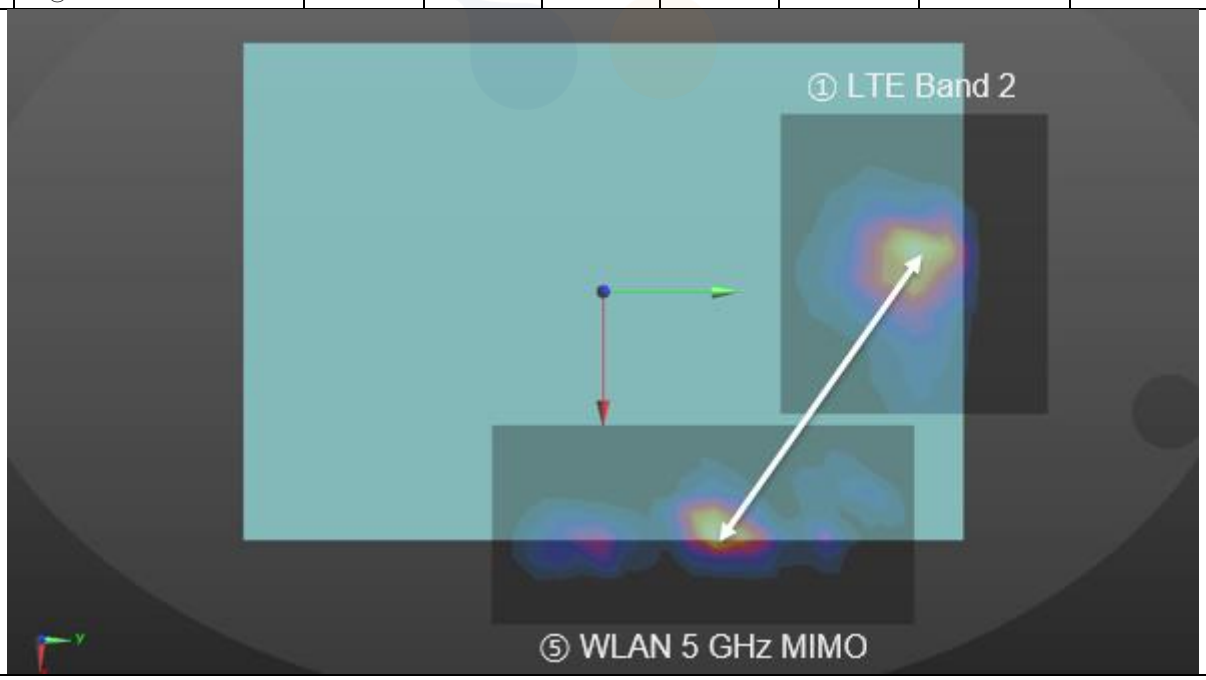
4)	① LTE Band 2	0.984	-0.01390	0.14900	-0.17800	135.89	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux + ⑦ Bluetooth	1.000	0.11000	0.09320	-0.17800			



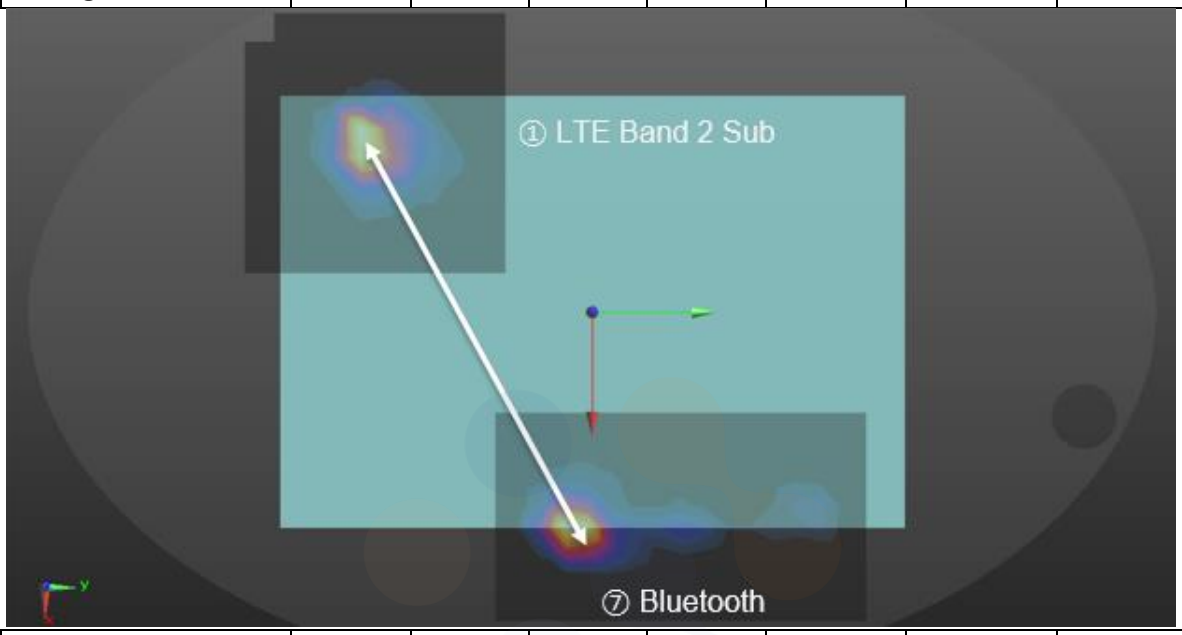
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
5)	① LTE Band 2	0.984	-0.01390	0.14900	-0.17800	201.81	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	0.722	0.11700	-0.00460	-0.17800			



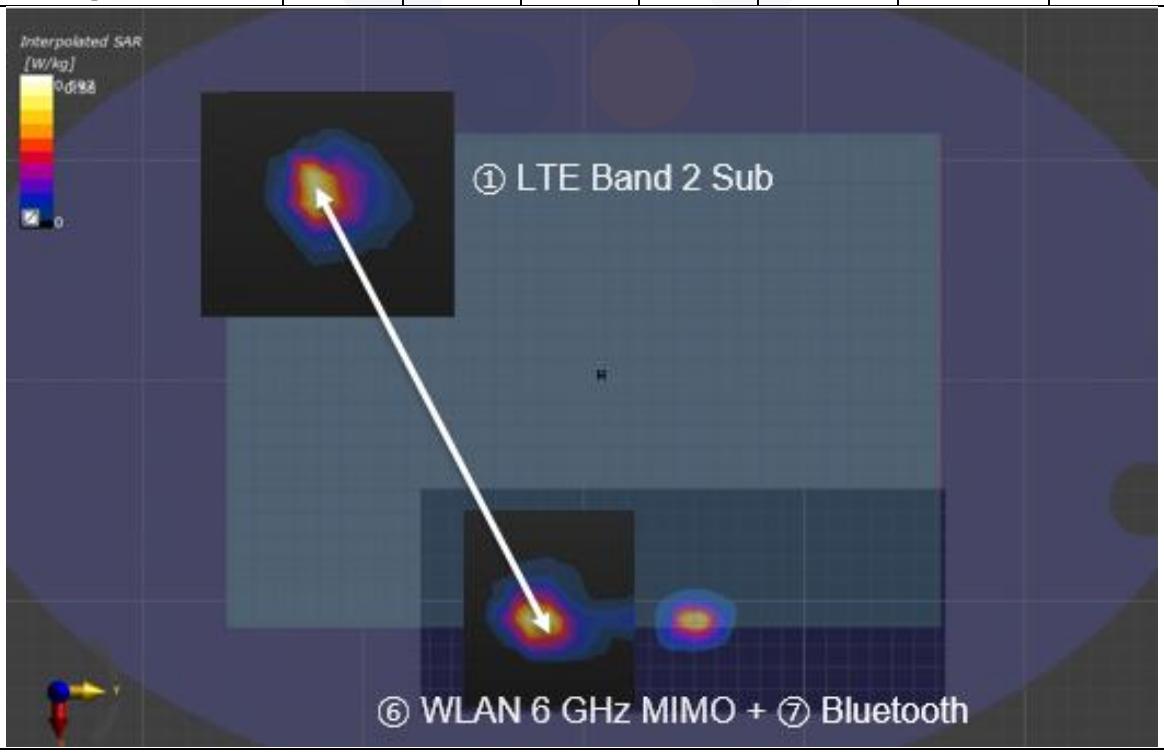
7)	① LTE Band 2	0.984	-0.01390	0.14900	-0.17800	155.95	0.02	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO	0.840	0.10900	0.05300	-0.17800			



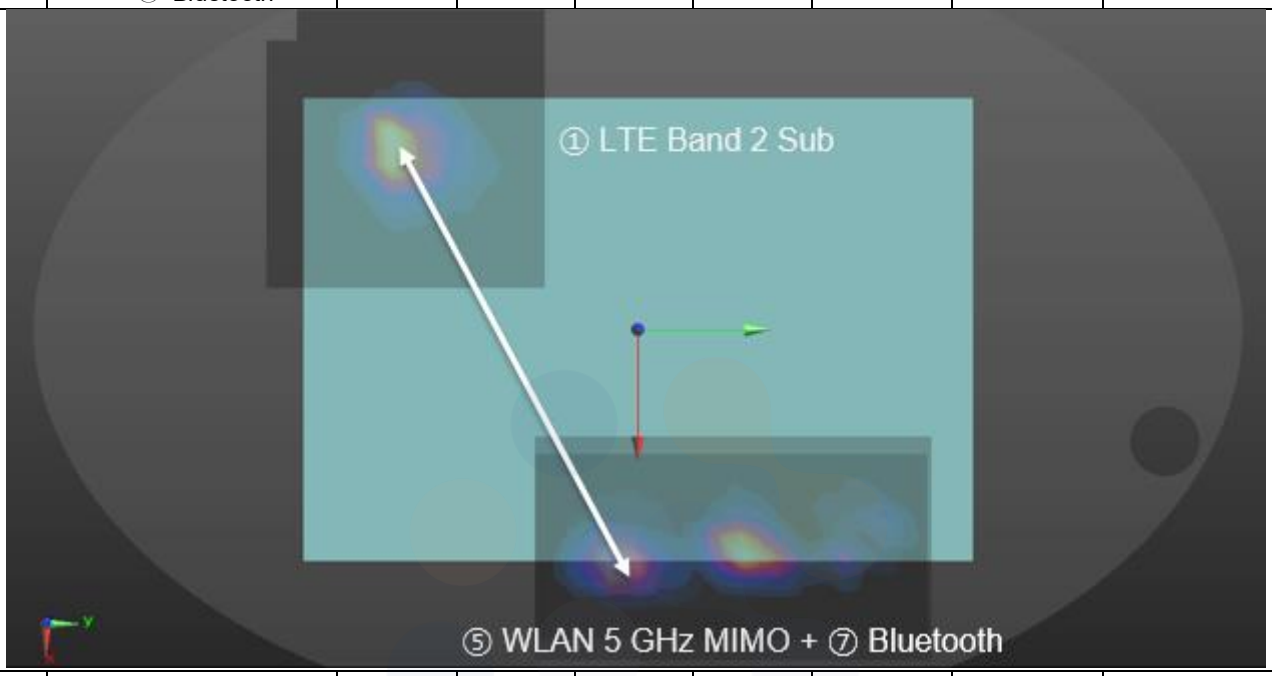
	Mode / Ant.	SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
1)	① LTE Band 2(sub)	1.239	-0.08740	-0.12200	-0.17800	223.39	0.01	Not Required (SPLSR ≤ 0.04)
	⑦ Bluetooth	0.748	0.10600	-0.01020	-0.17800			



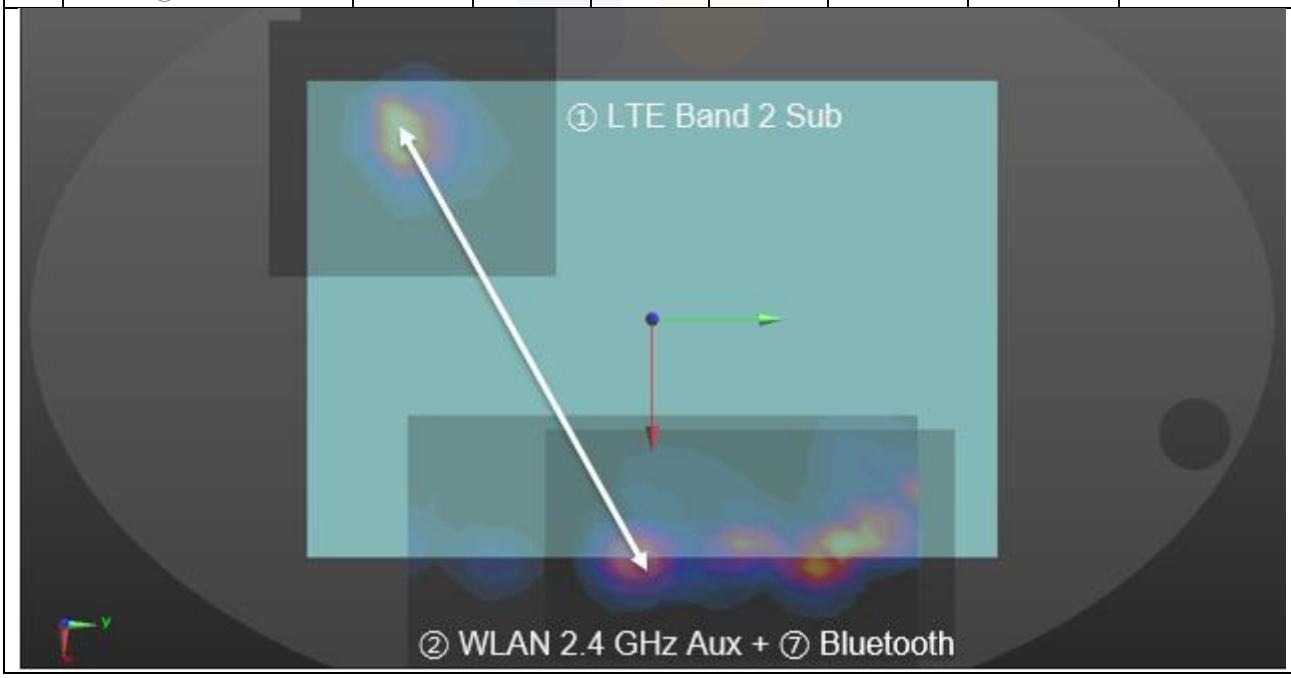
2)	① LTE Band 2(sub)	1.239	-0.08740	-0.12200	-0.17800	220.61	0.02	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10912	-0.02177	-0.17701			



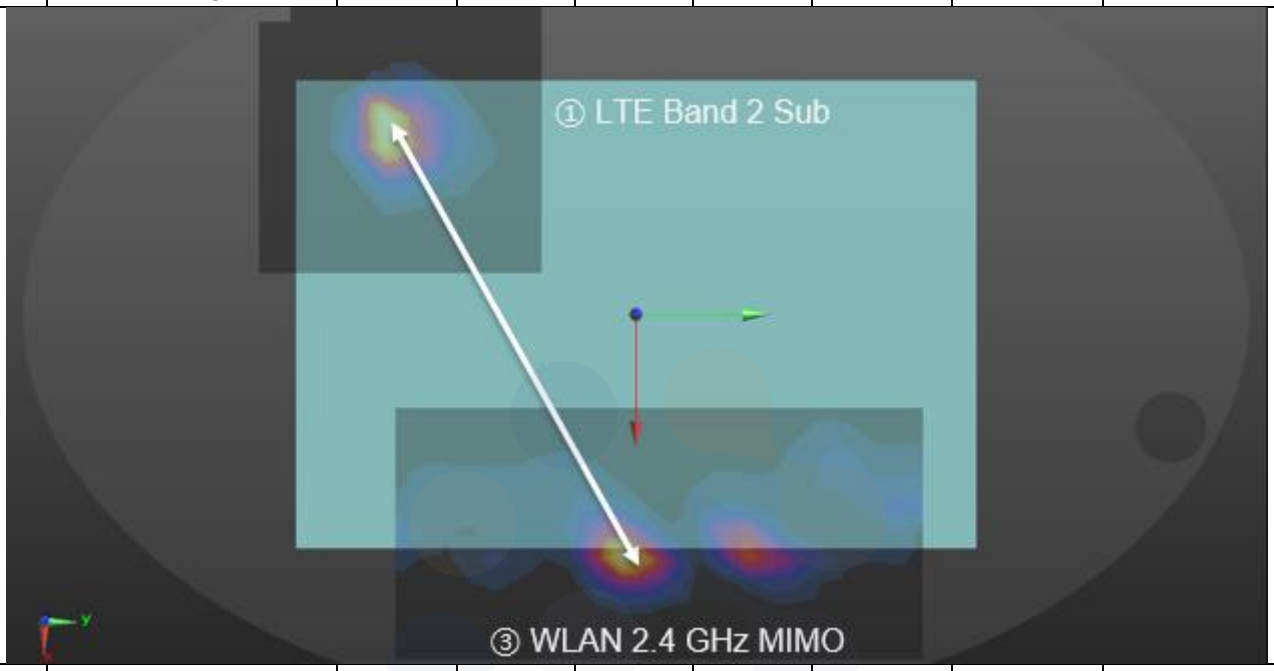
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
3)	① LTE Band 2(sub)	1.239	-0.08740	-0.12200	-0.17800	223.39	0.02	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10600	-0.01020	-0.17800			



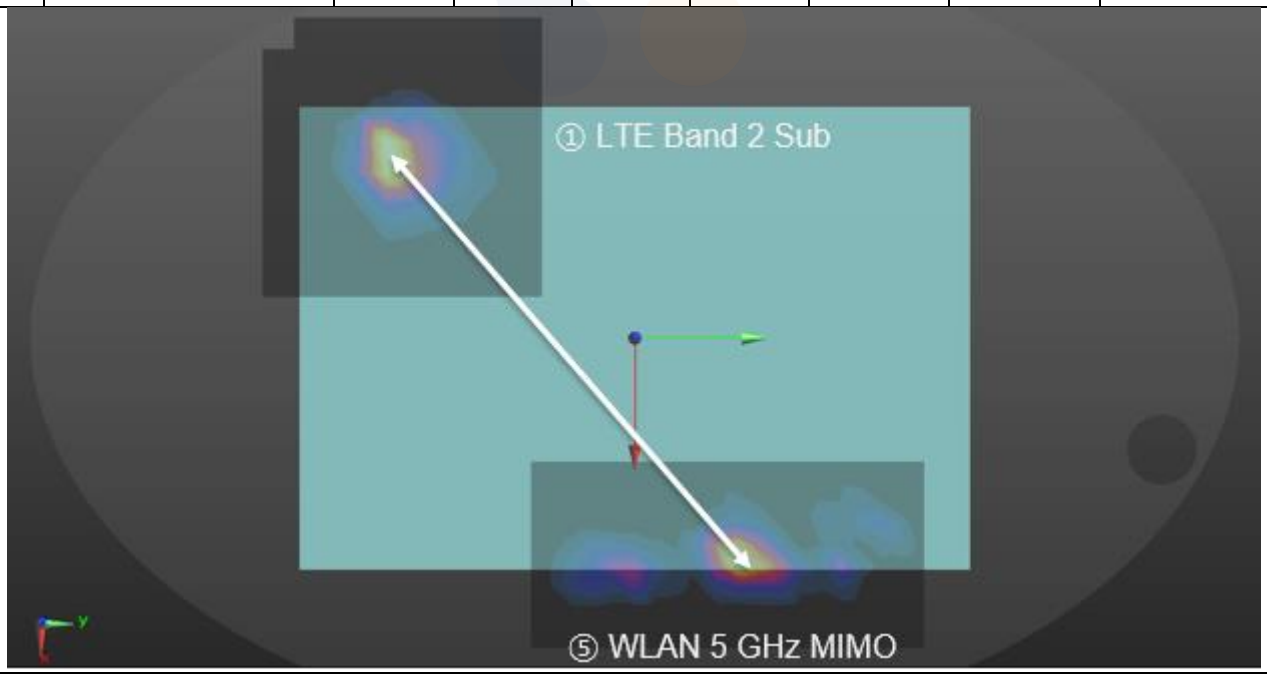
4)	① LTE Band 2(sub)	1.239	-0.08740	-0.12200	-0.17800	223.39	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux + ⑦ Bluetooth	1.000	0.10600	-0.01020	-0.17800			



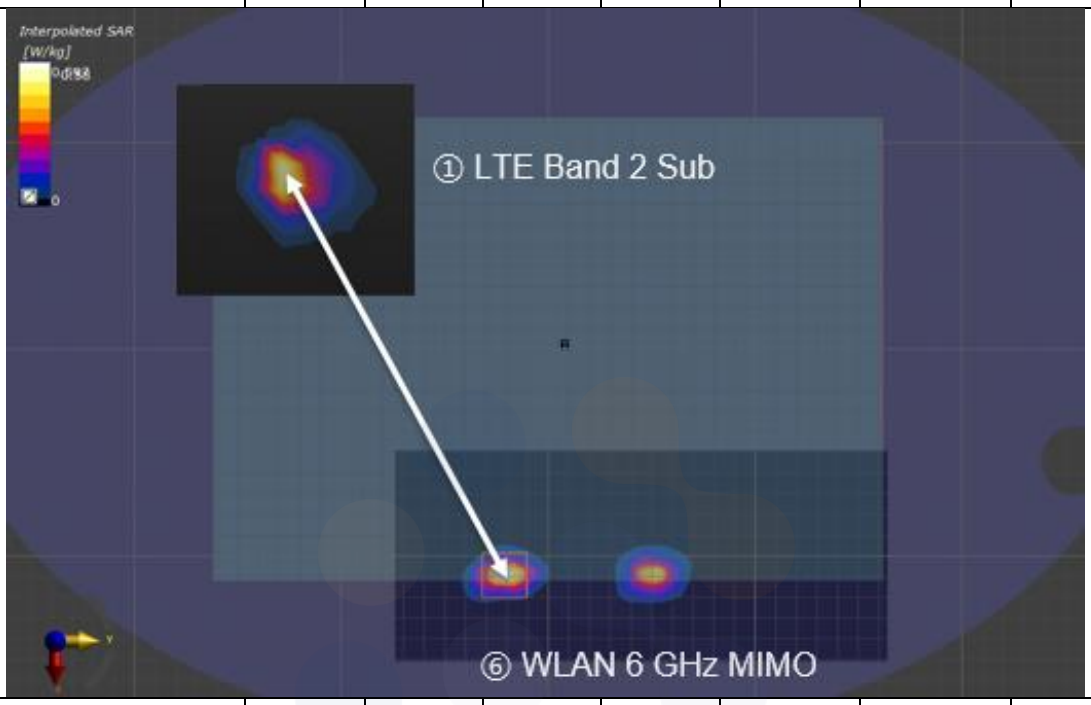
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
5)	① LTE Band 2(sub)	1.239	-0.08740	-0.12200	-0.17800	235.72	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	0.722	0.11700	-0.00460	-0.17800			



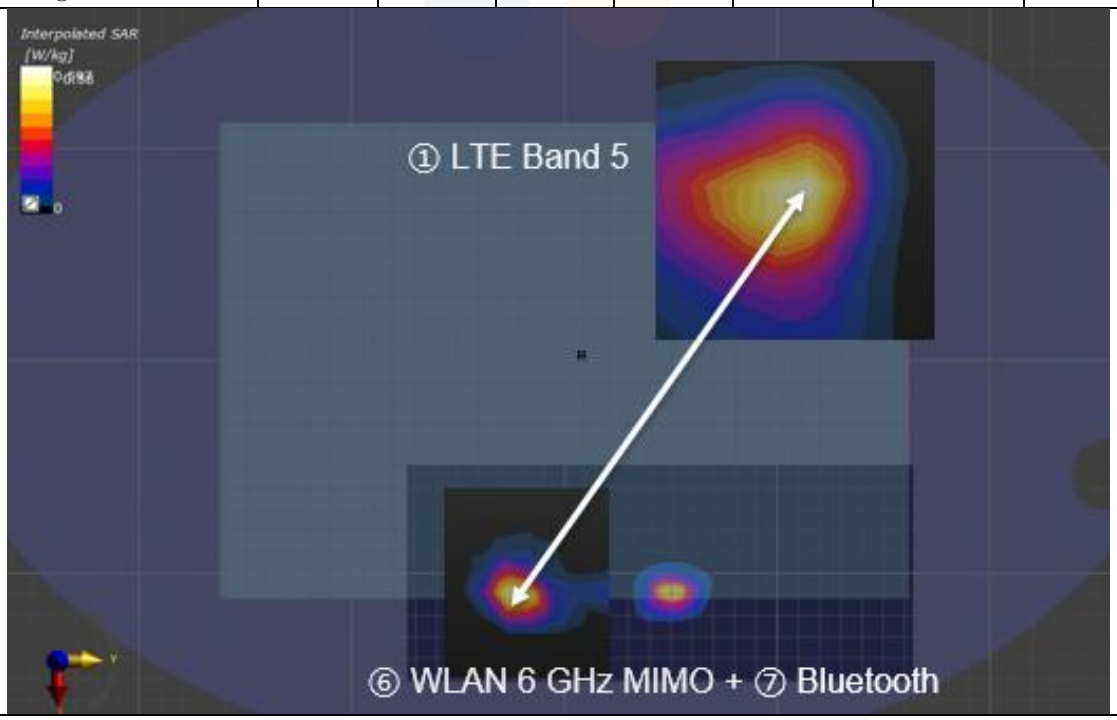
7)	① LTE Band 2(sub)	1.239	-0.08740	-0.12200	-0.17800	263.06	0.01	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO	0.840	0.10900	0.05300	-0.17800			



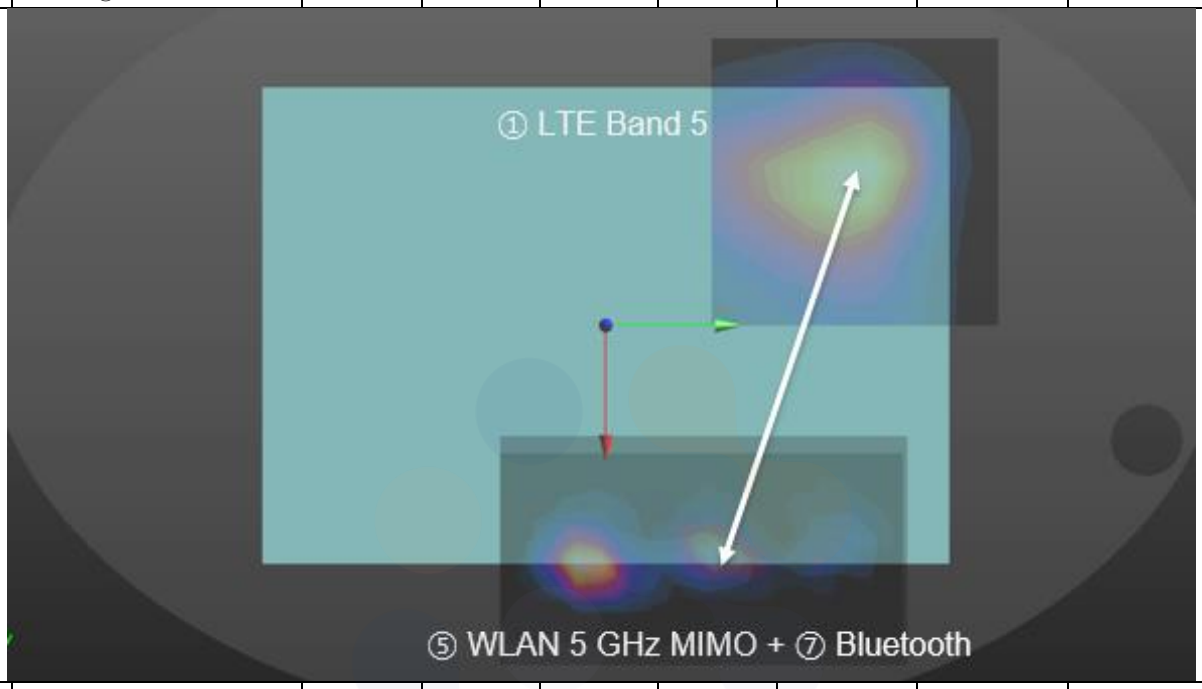
	Mode / Ant.	SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
8)	① LTE Band 2(sub)	1.239	-0.08740	-0.12200	-0.17800	220.61	0.01	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO	0.479	0.10912	-0.02177	-0.17701			



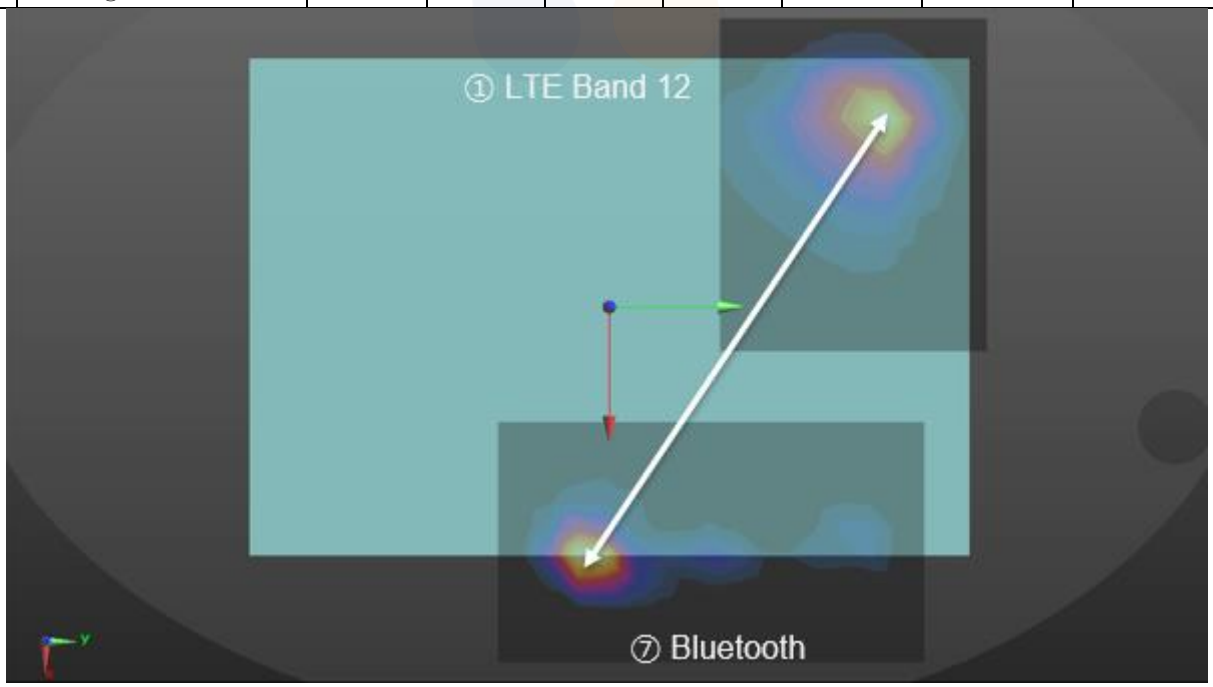
2)	① LTE Band 5	0.375	-0.07040	0.11900	-0.17800	218.65	0.01	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10600	-0.01020	-0.17800			



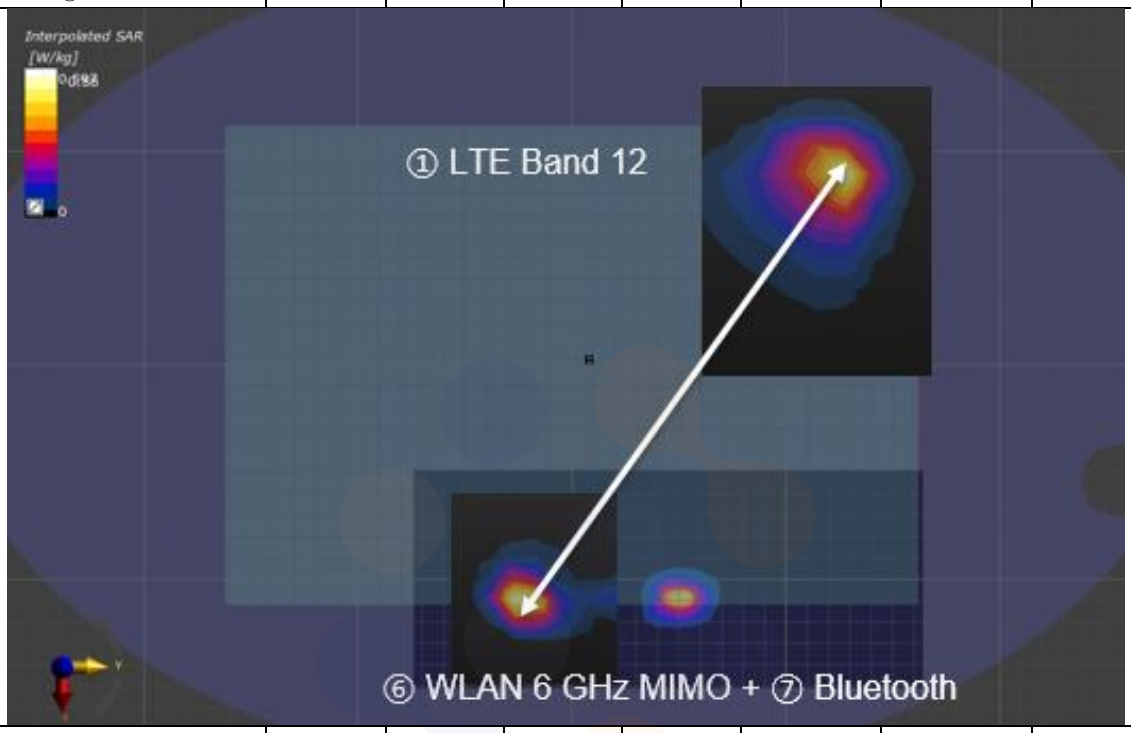
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
3)	① LTE Band 5	0.375	-0.07040	0.11900	-0.17800	191.16	0.01	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10900	0.05300	-0.17800			



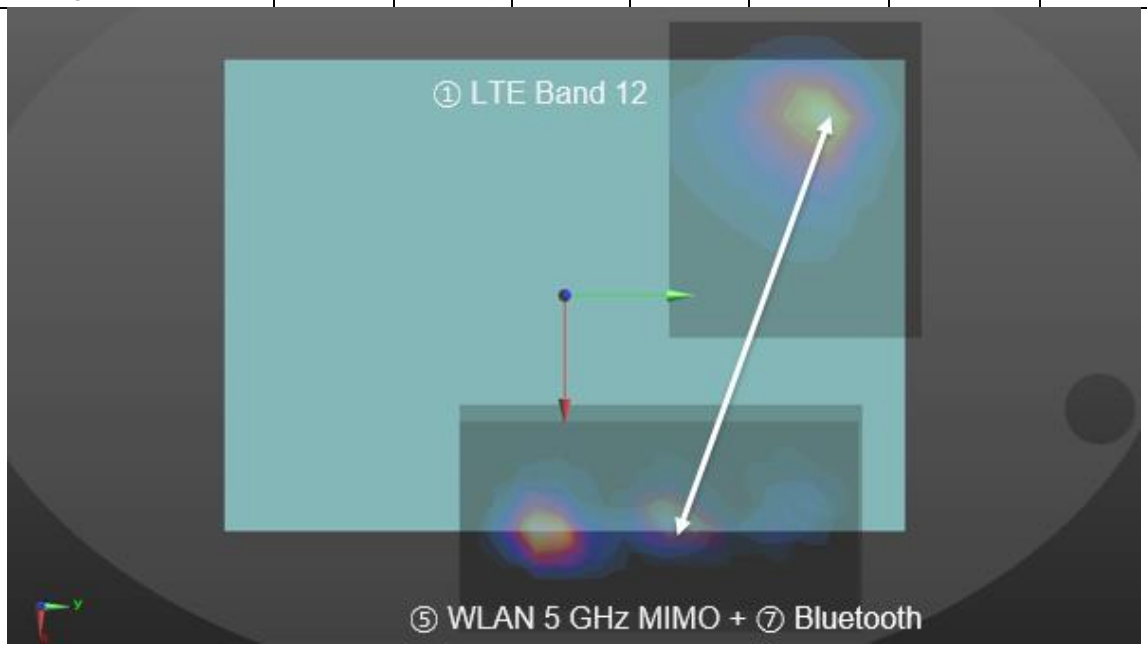
1)	① LTE Band 12	0.997	-0.08340	0.12400	-0.17700	232.13	0.01	Not Required (SPLSR ≤ 0.04)
	⑦ Bluetooth	0.748	0.10600	-0.01020	-0.17800			



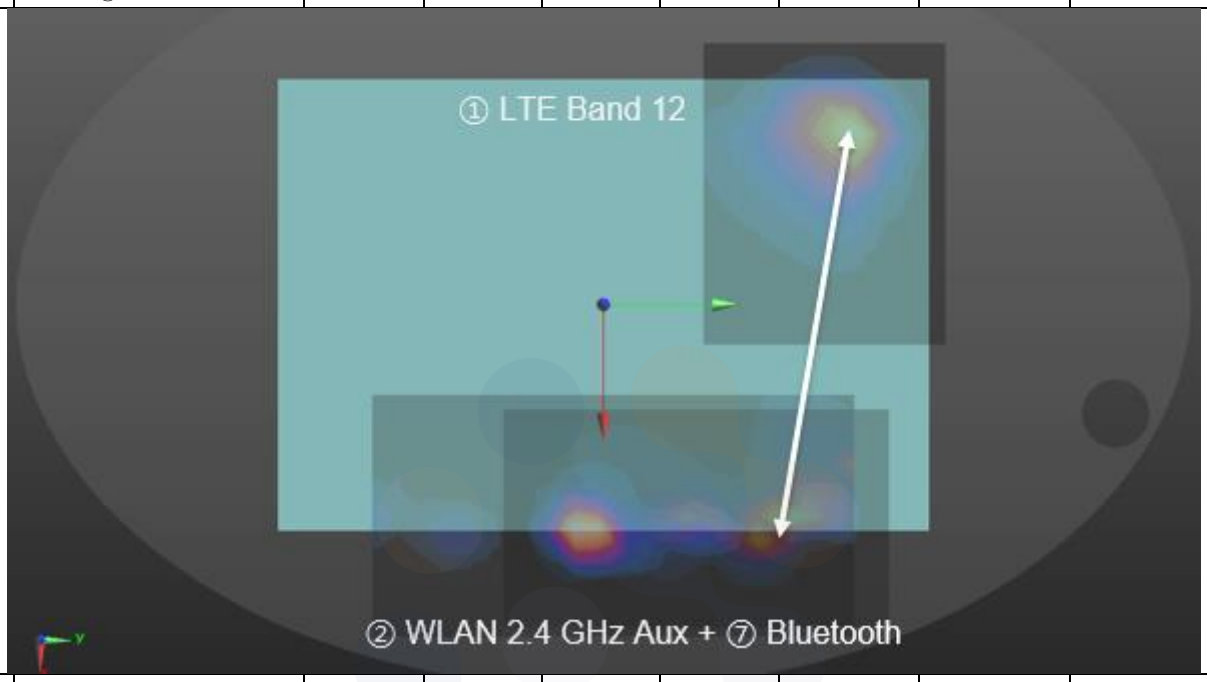
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
2)	① LTE Band 12	0.997	-0.08340	0.12400	-0.17700	232.13	0.01	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10600	-0.01020	-0.17800			



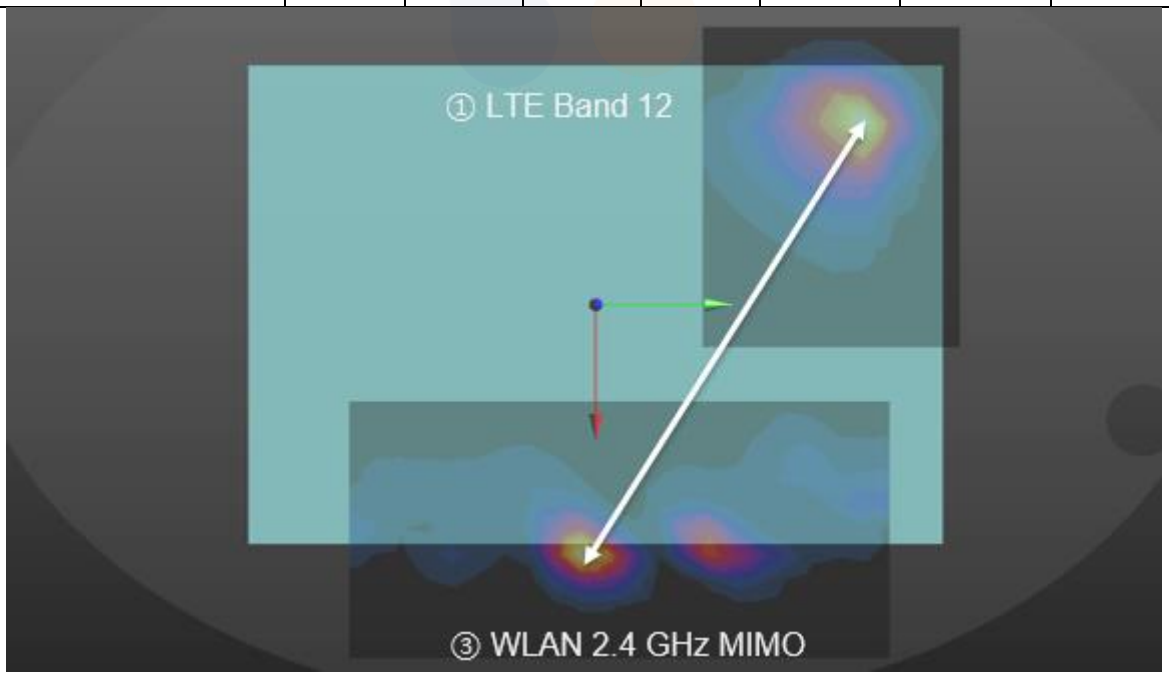
3)	① LTE Band 12	0.997	-0.08340	0.12400	-0.17700	205.08	0.02	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10900	0.05300	-0.17800			



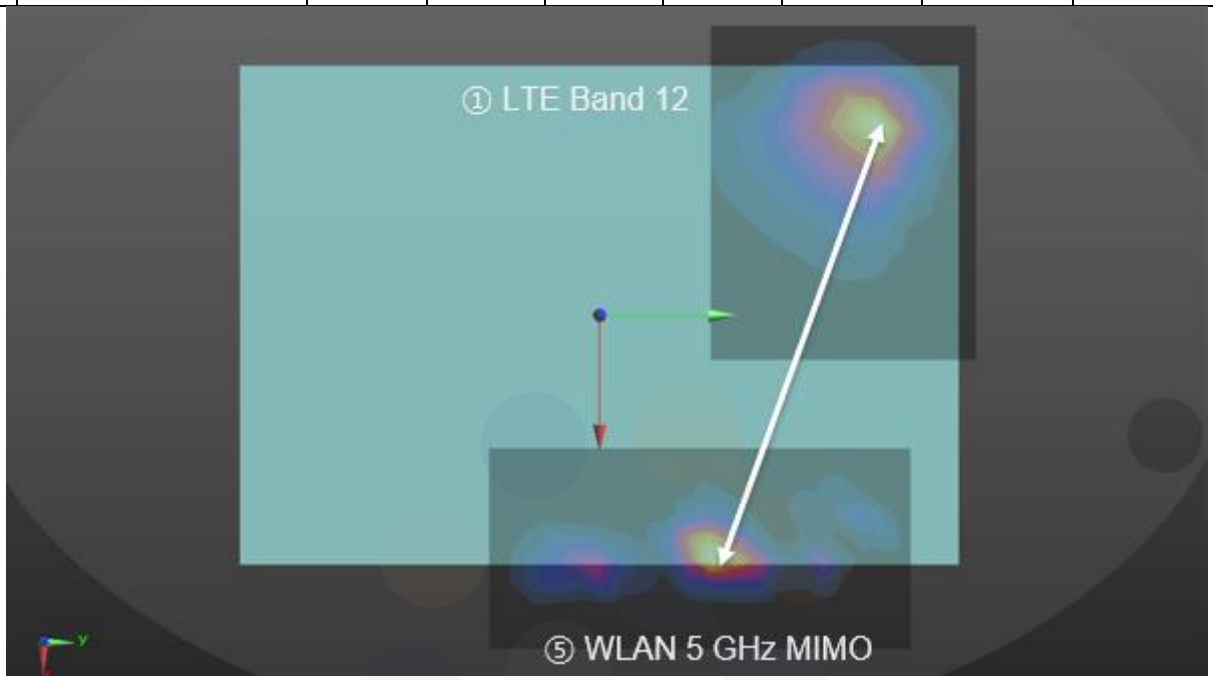
	Mode / Ant.	SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① LTE Band 12	0.997	-0.08340	0.12400	-0.17700	195.84	0.01	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux + ⑦ Bluetooth	1.000	0.11000	0.09320	-0.17800			



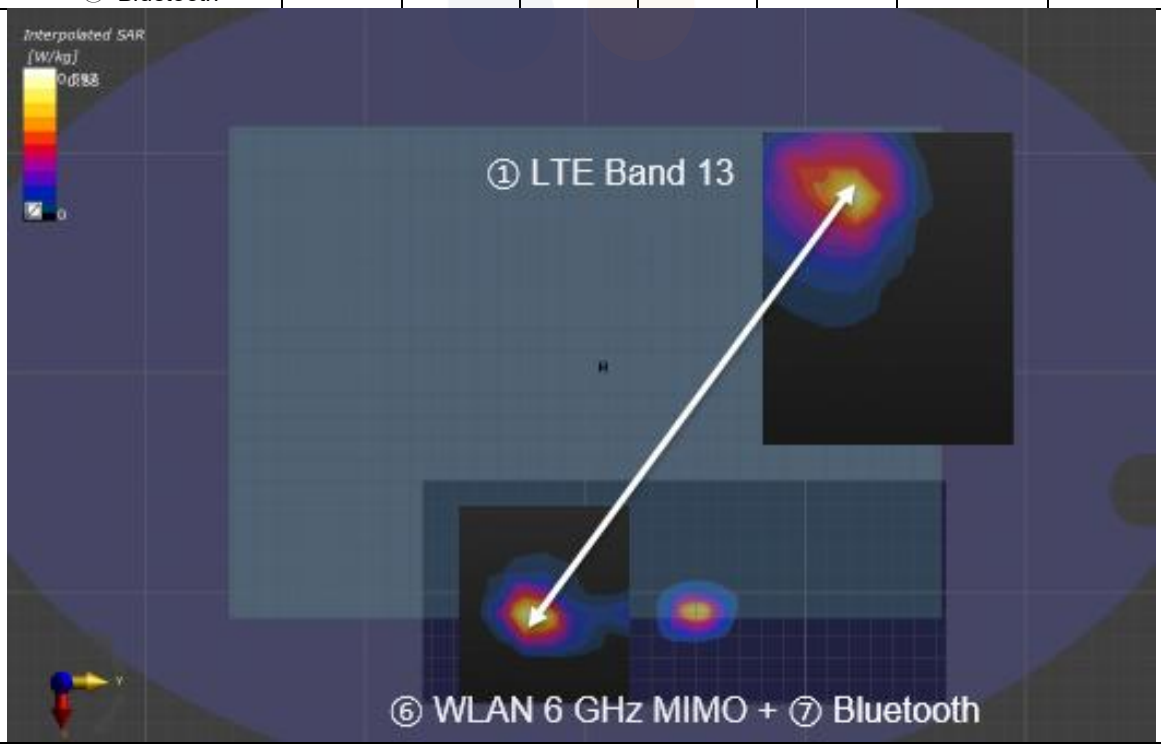
5)	① LTE Band 12	0.997	-0.08340	0.12400	-0.17700	238.12	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	0.722	0.11700	-0.00460	-0.17800			



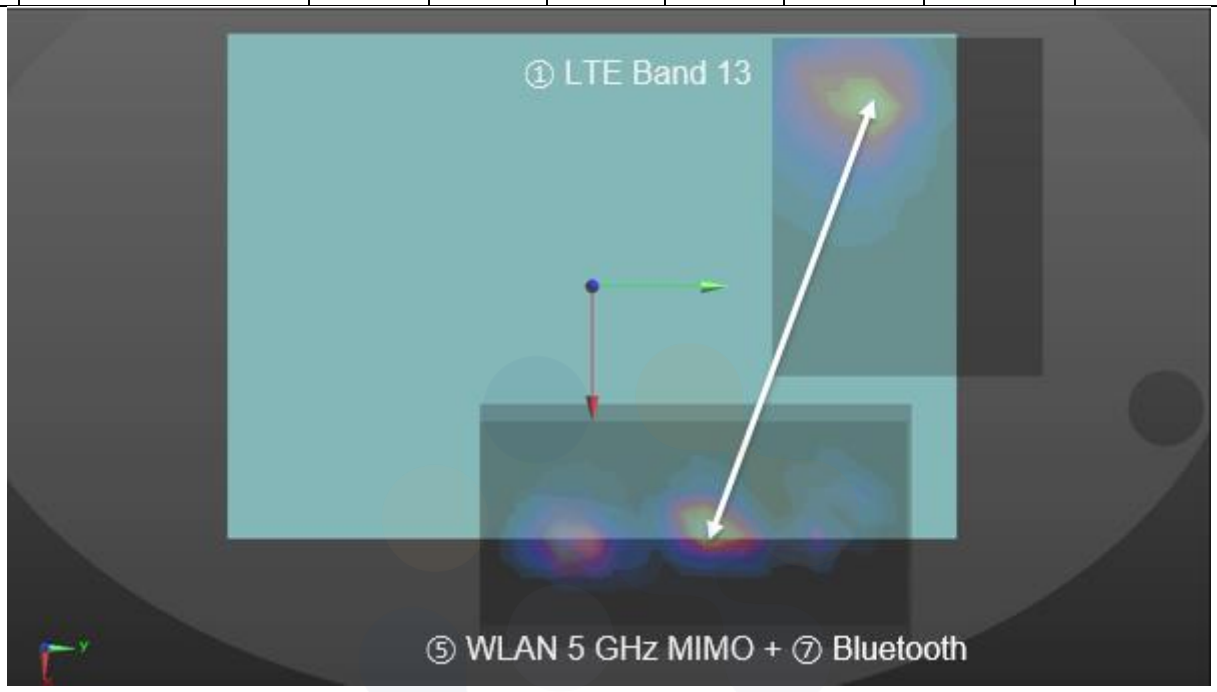
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
7)	① LTE Band 12	0.997	-0.08340	0.12400	-0.17700	205.08	0.01	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO	0.840	0.10900	0.05300	-0.17800			



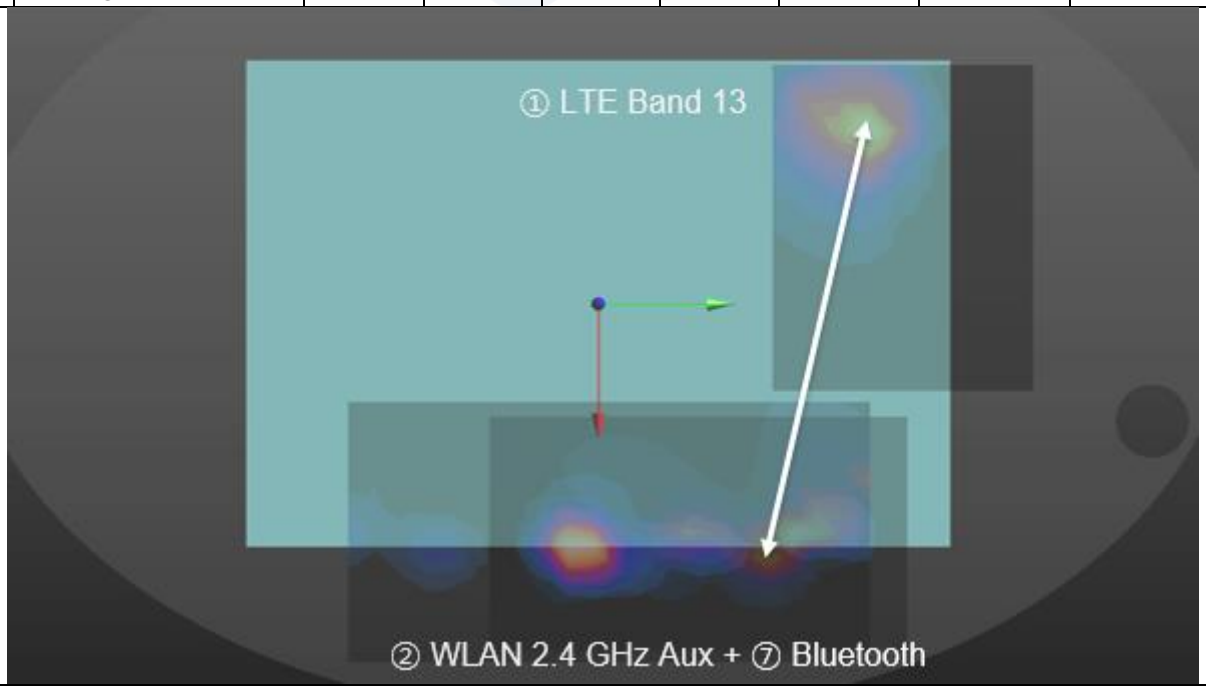
2)	① LTE Band 13	0.633	-0.08320	0.12700	-0.17700	233.71	0.01	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10600	-0.01020	-0.17800			



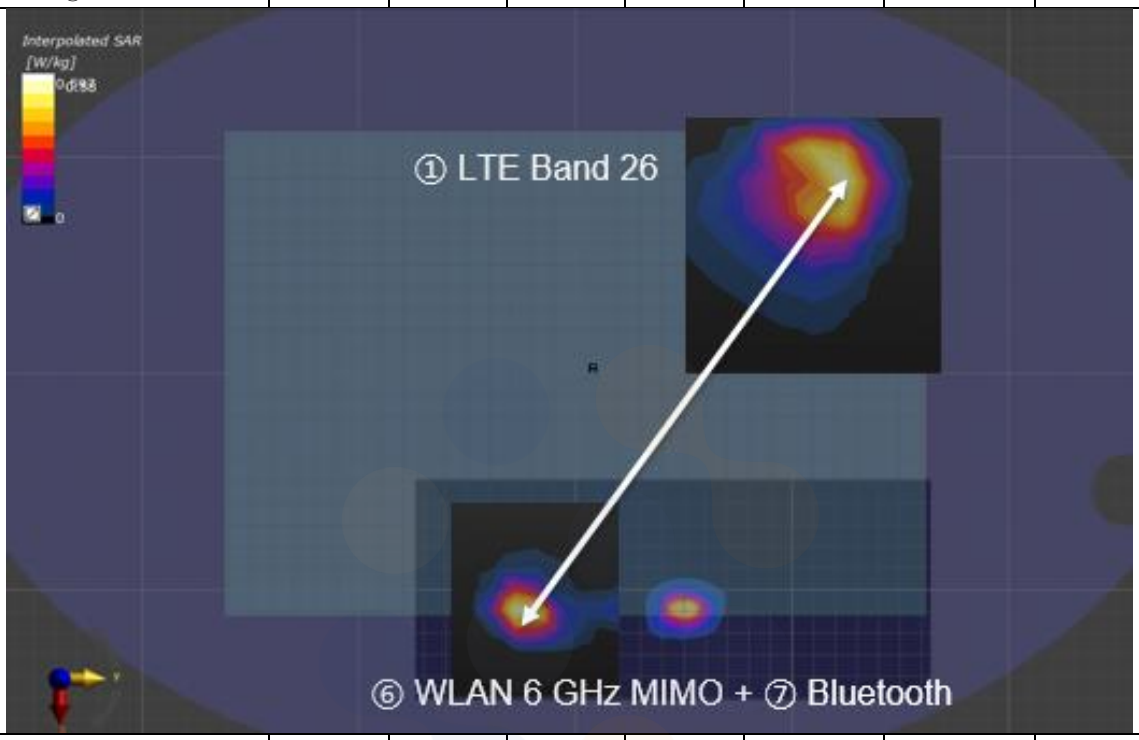
	Mode / Ant.	SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
3)	① LTE Band 13	0.633	-0.08320	0.12700	-0.17700	205.96	0.02	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10900	0.05300	-0.17800			



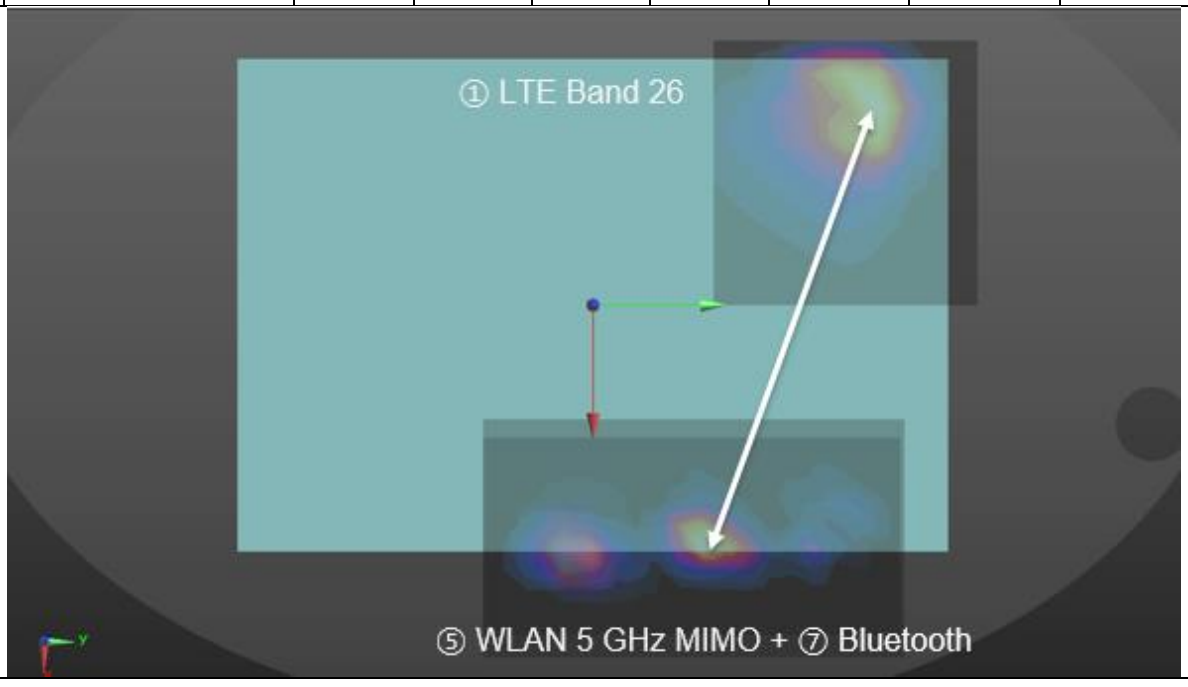
4)	① LTE Band 13	0.633	-0.08320	0.12700	-0.17700	196.14	0.01	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux + ⑦ Bluetooth	1.000	0.11000	0.09320	-0.17800			



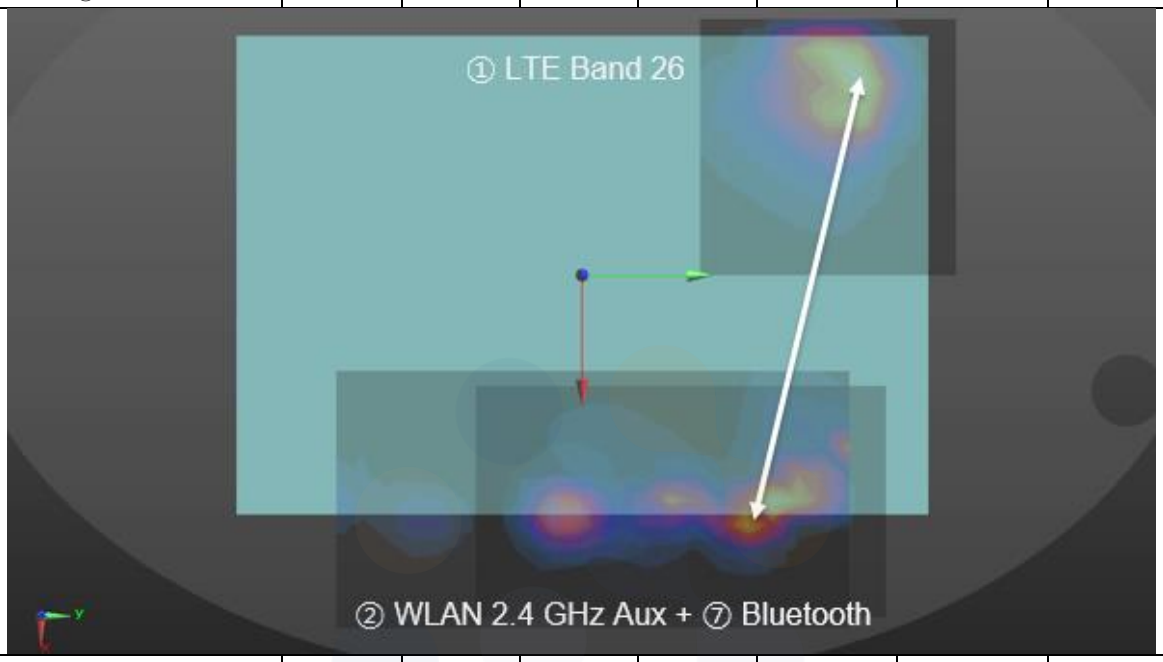
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
2)	① LTE Band 26	0.692	-0.08200	0.12700	-0.17700	232.74	0.01	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10600	-0.01020	-0.17800			



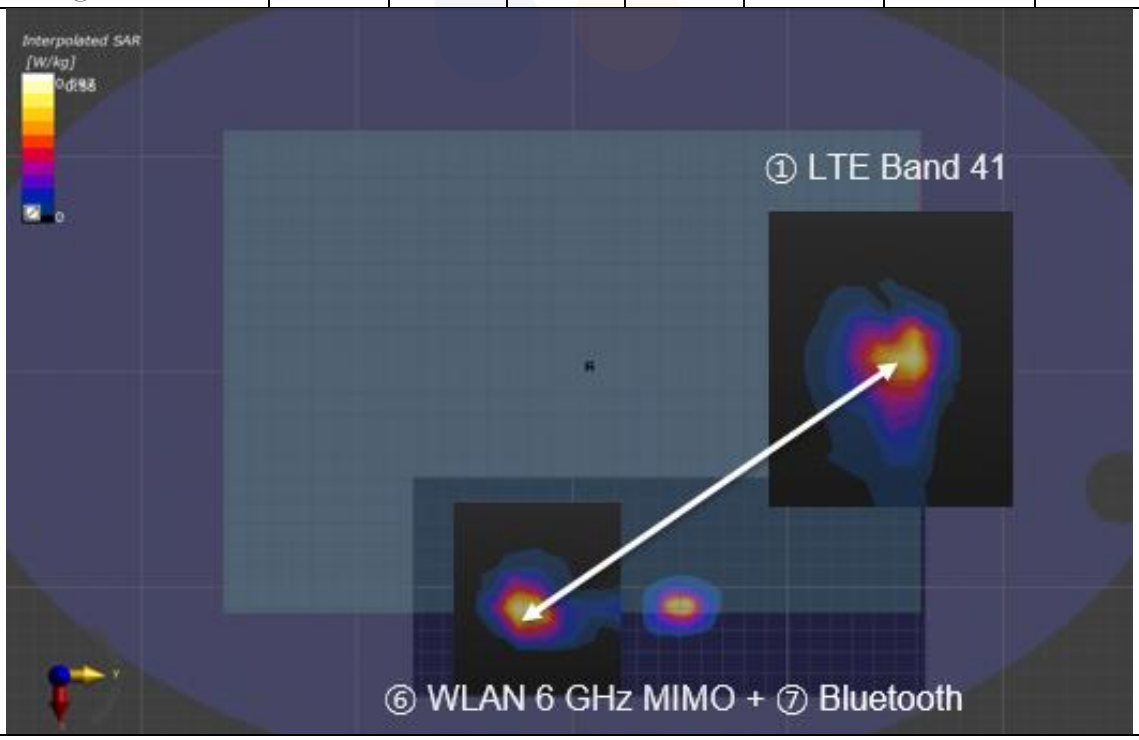
3)	① LTE Band 26	0.692	-0.08200	0.12700	-0.17700	204.84	0.02	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10900	0.05300	-0.17800			



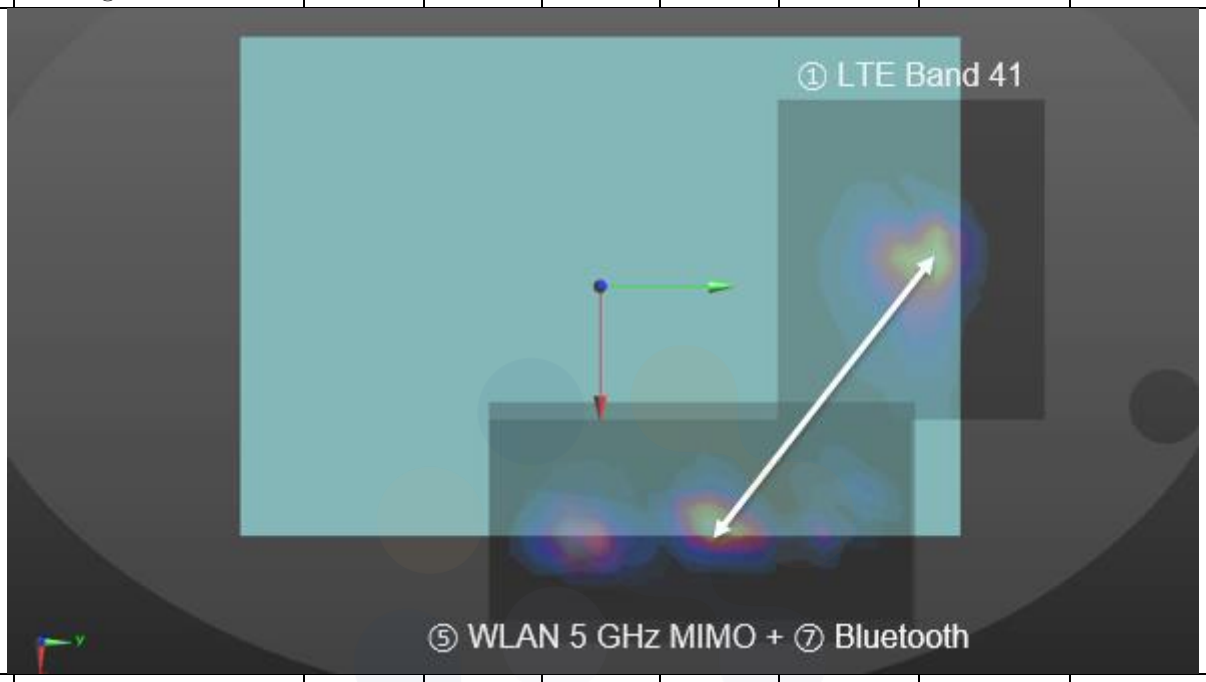
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① LTE Band 26	0.692	-0.08200	0.12700	-0.17700	194.95	0.01	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux + ⑦ Bluetooth	1.000	0.11000	0.09320	-0.17800			



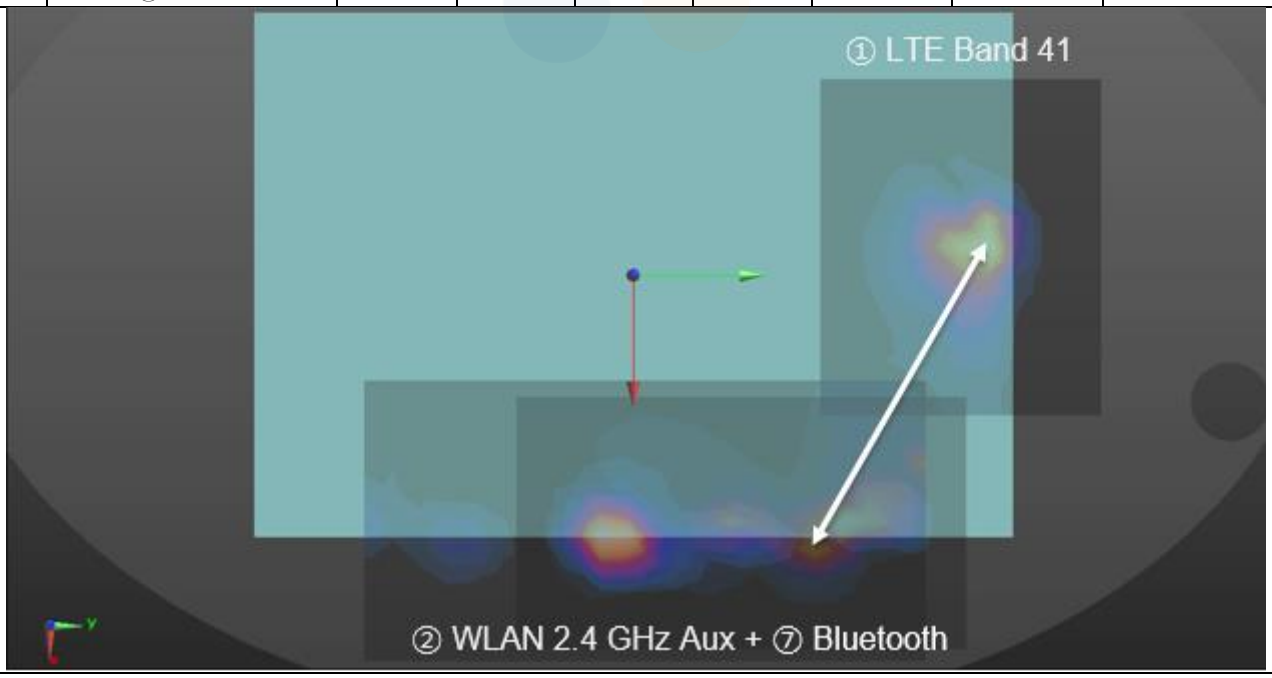
2)	① LTE Band 41	0.811	-0.01540	0.15200	-0.17800	202.60	0.01	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10600	-0.01020	-0.17800			



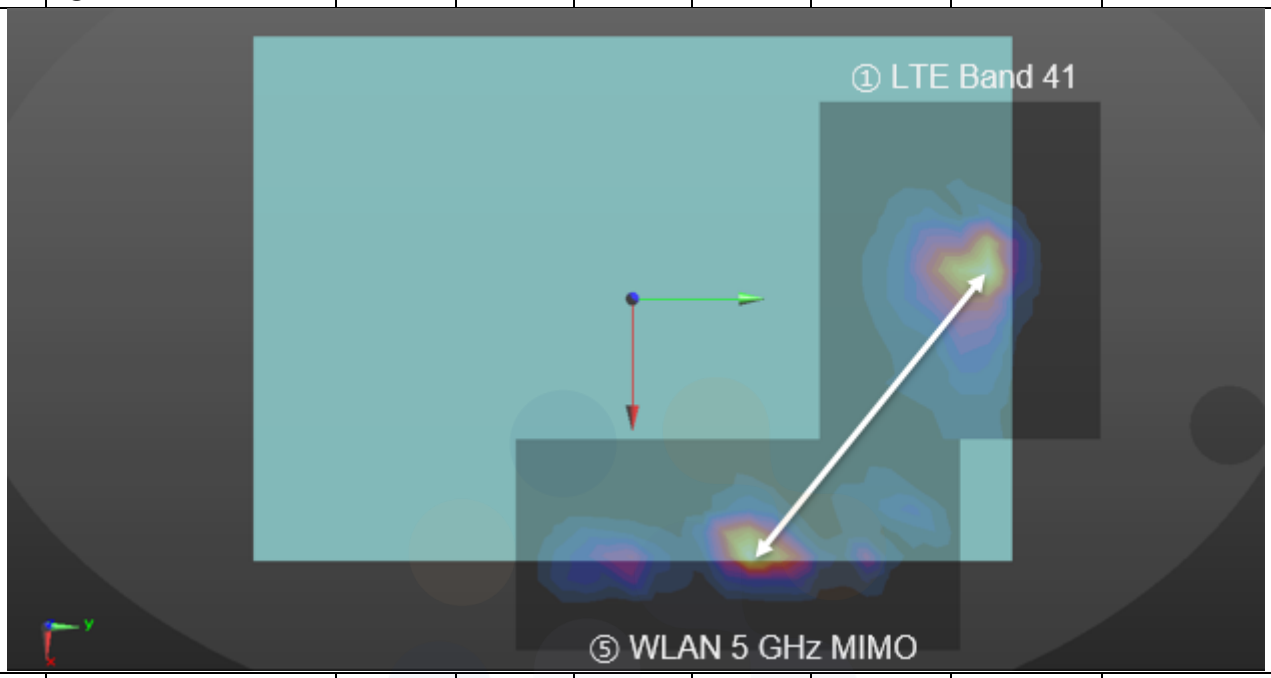
	Mode / Ant.	SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
3)	① LTE Band 41	0.811	-0.01540	0.15200	-0.17800	158.99	0.02	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10900	0.05300	-0.17800			



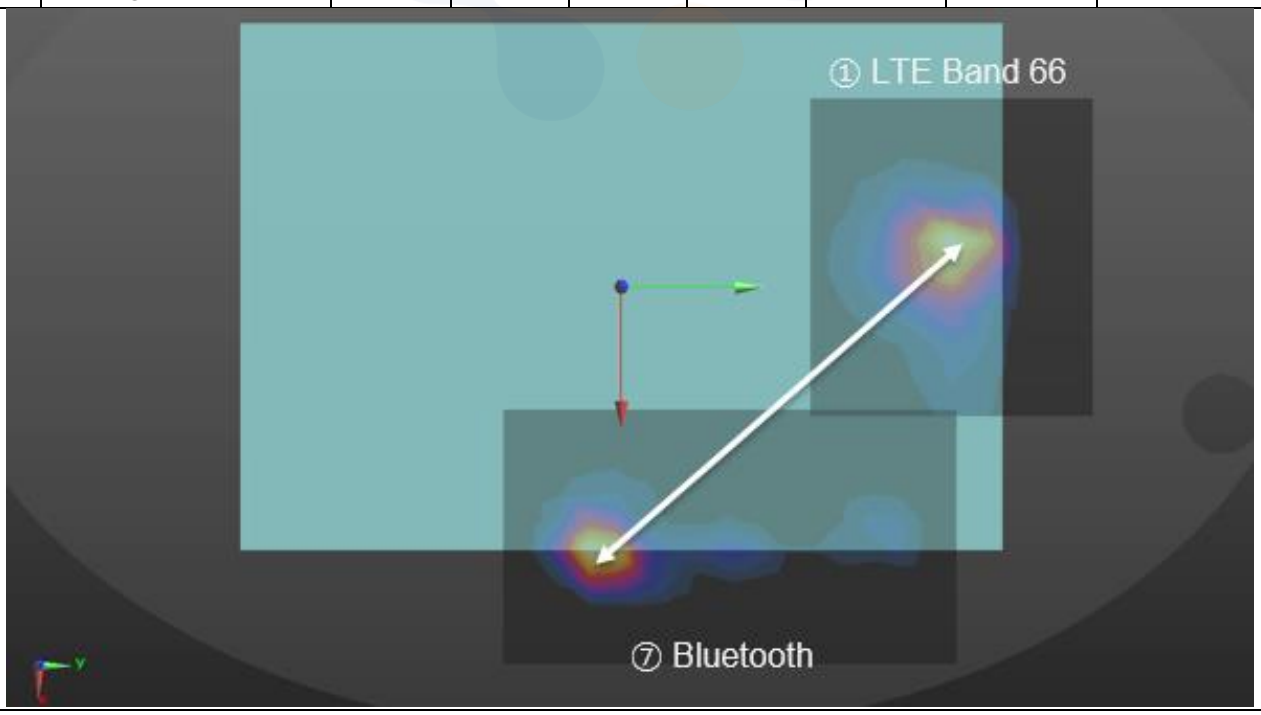
4)	① LTE Band 41	0.811	-0.01540	0.15200	-0.17800	138.50	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux + ⑦ Bluetooth	1.000	0.11000	0.09320	-0.17800			



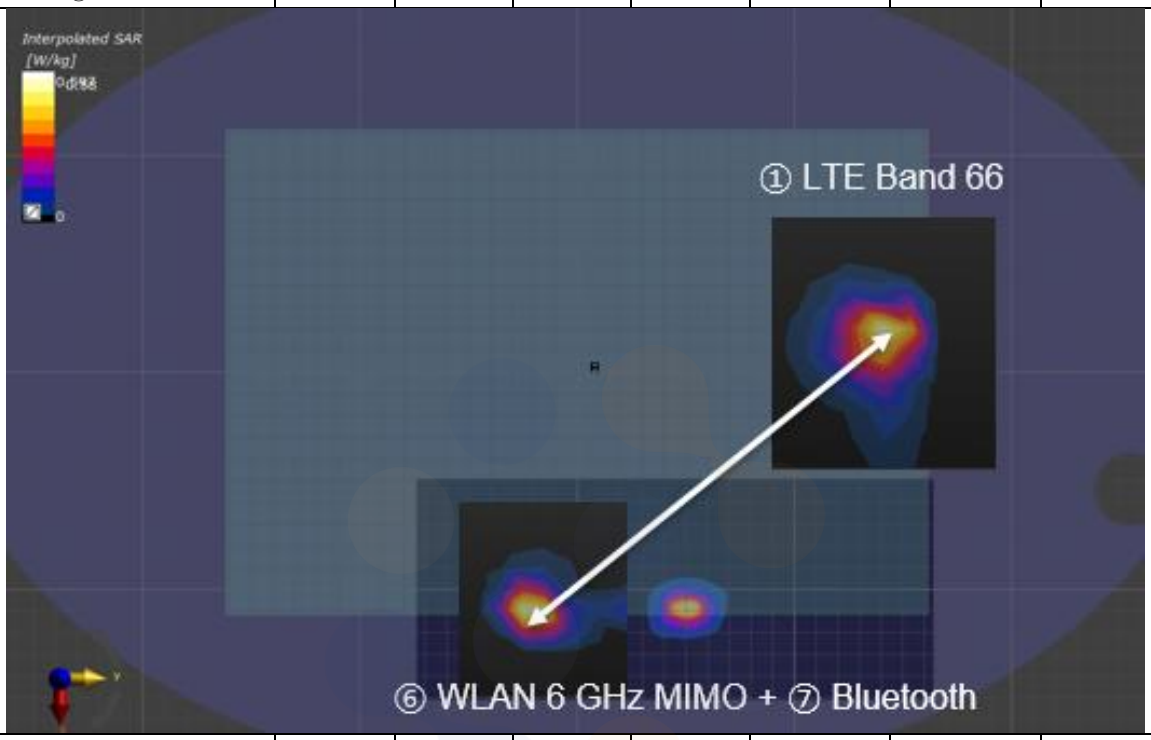
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
7)	① LTE Band 41	0.811	-0.01540	0.15200	-0.17800	158.99	0.01	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO	0.840	0.10900	0.05300	-0.17800			



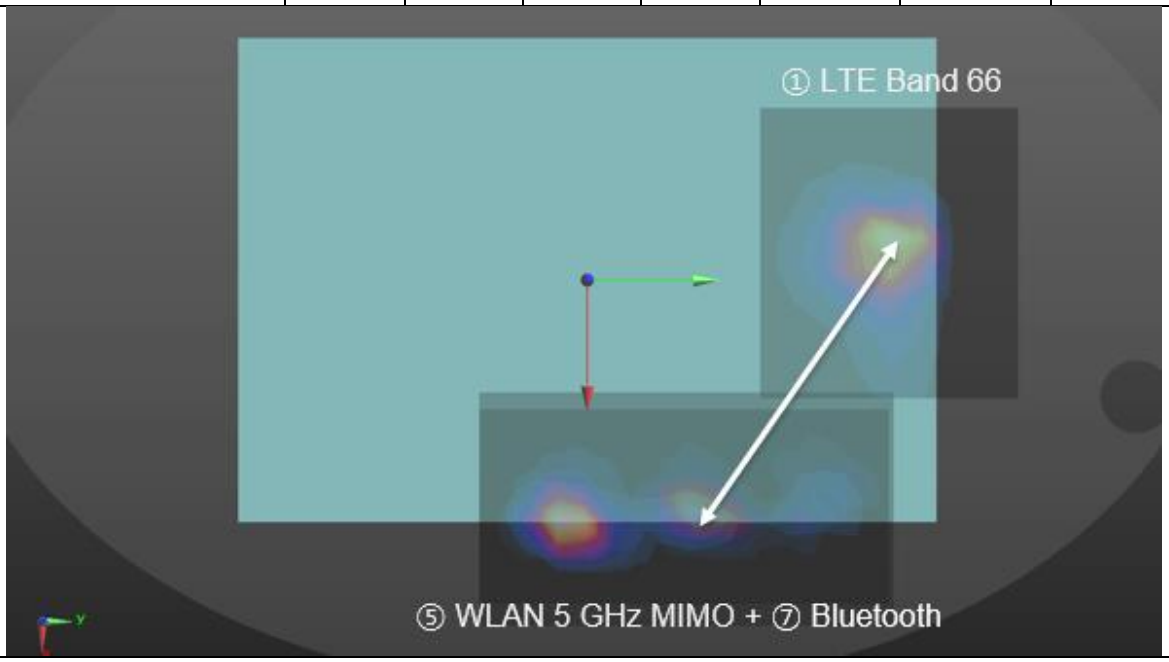
1)	① LTE Band 66	0.930	-0.02010	0.14900	-0.17800	203.09	0.01	Not Required (SPLSR ≤ 0.04)
	⑦ Bluetooth	0.748	0.10600	-0.01020	-0.17800			



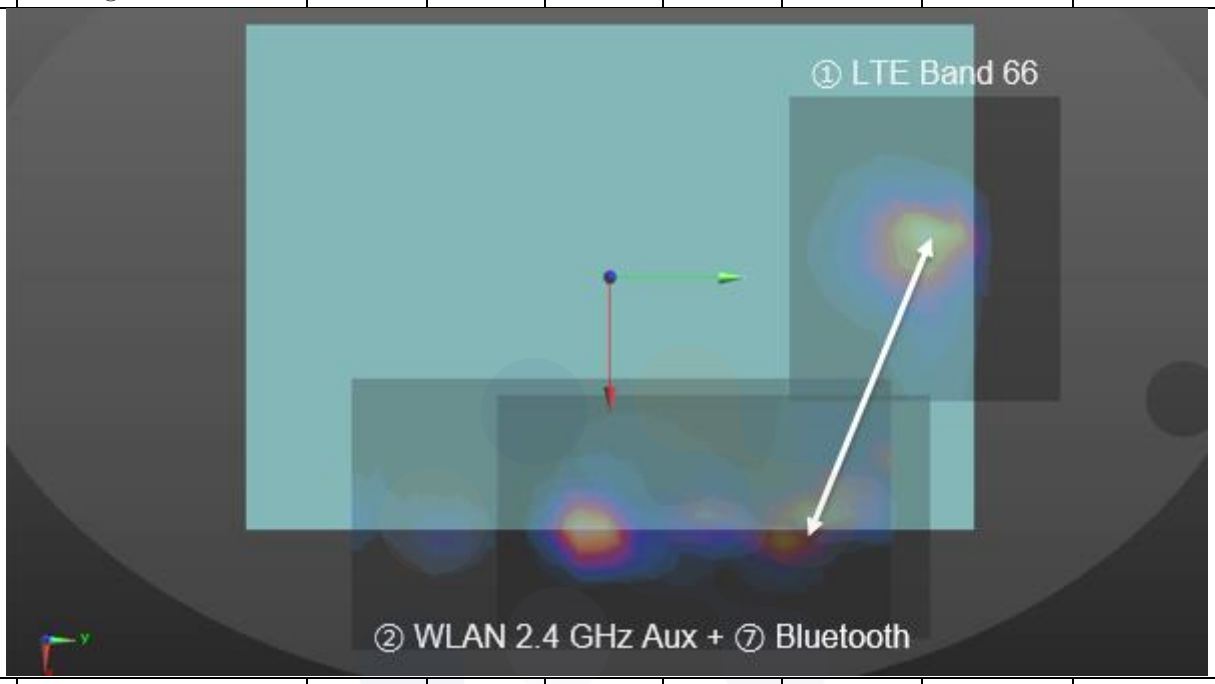
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
2)	① LTE Band 66	0.930	-0.02010	0.14900	-0.17800	203.09	0.02	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10600	-0.01020	-0.17800			



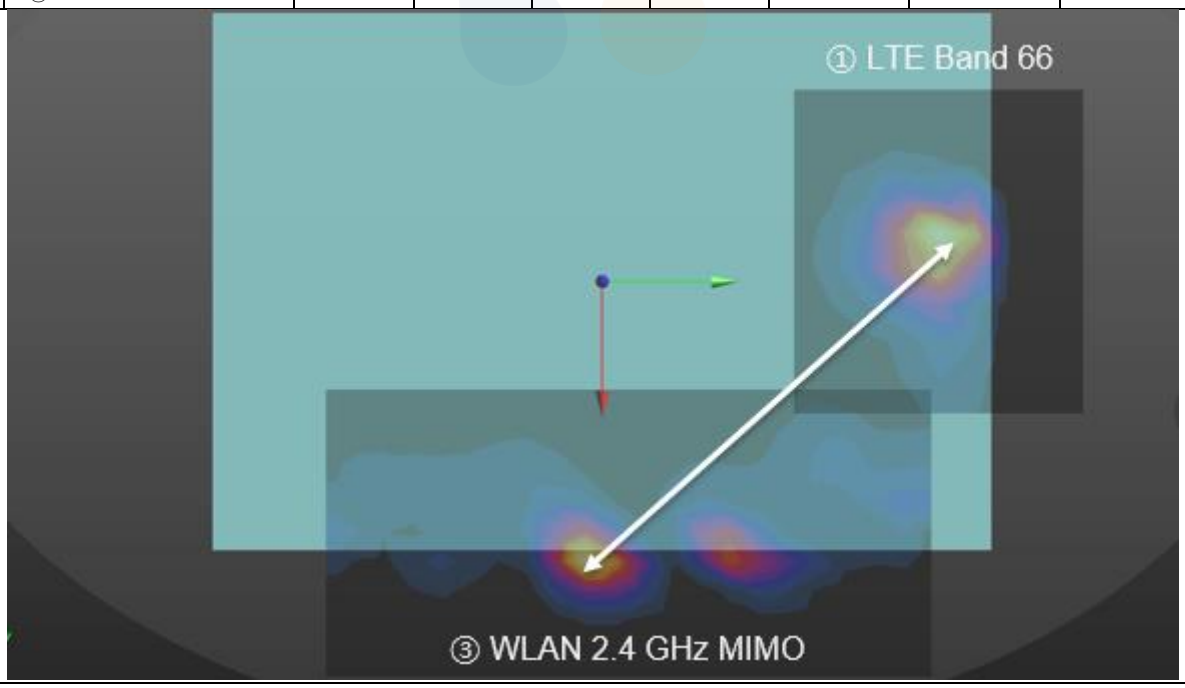
3)	① LTE Band 66	0.930	-0.02010	0.14900	-0.17800	160.88	0.03	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10900	0.05300	-0.17800			



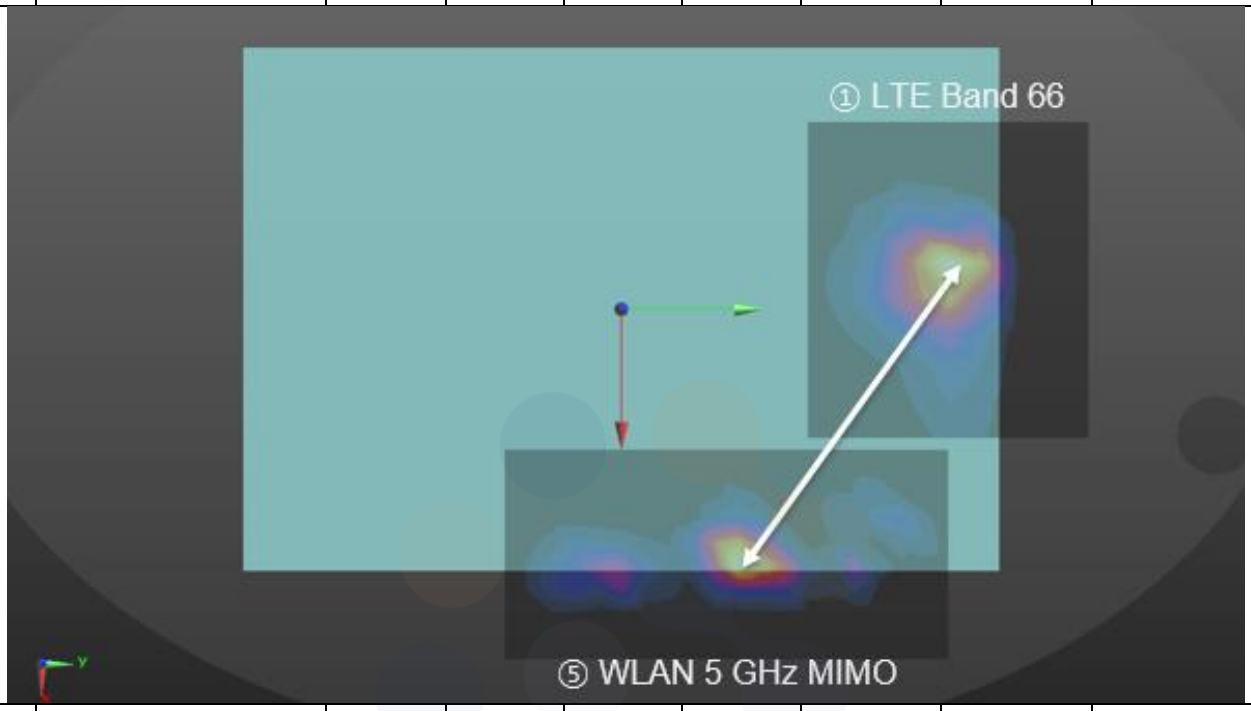
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① LTE Band 66	0.930	-0.02010	0.14900	-0.17800	141.56	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux + ⑦ Bluetooth	1.000	0.11000	0.09320	-0.17800			



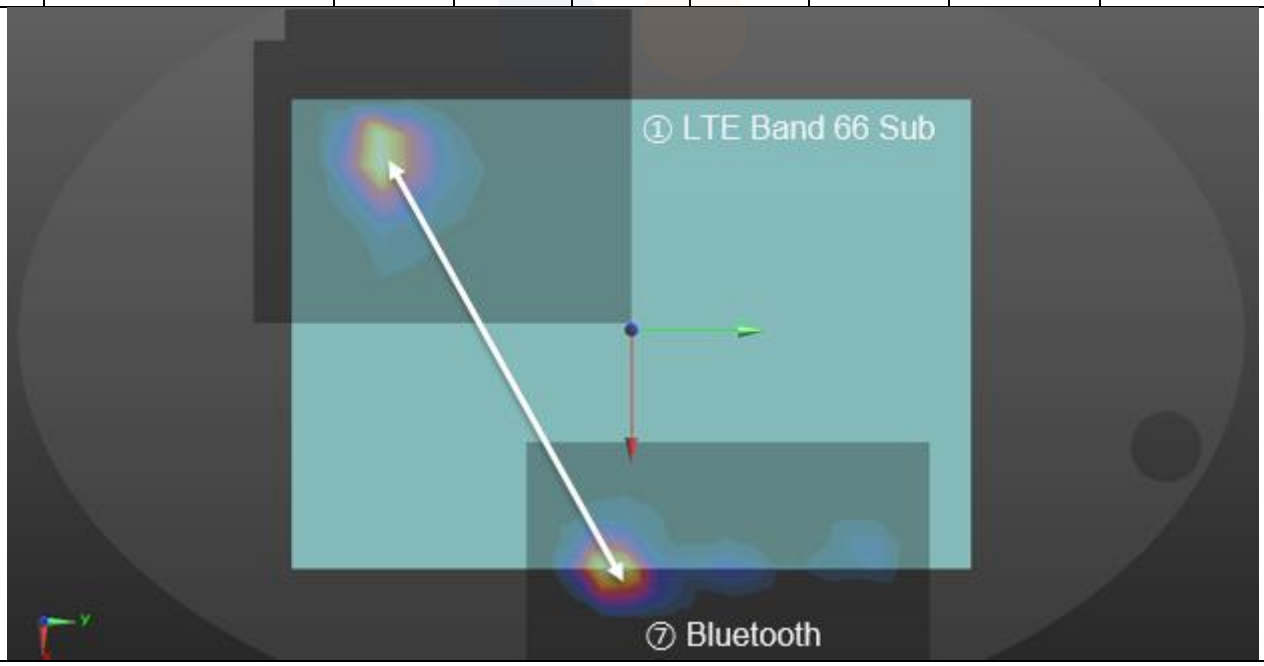
5)	① LTE Band 66	0.930	-0.02010	0.14900	-0.17800	205.89	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	0.722	0.11700	-0.00460	-0.17800			



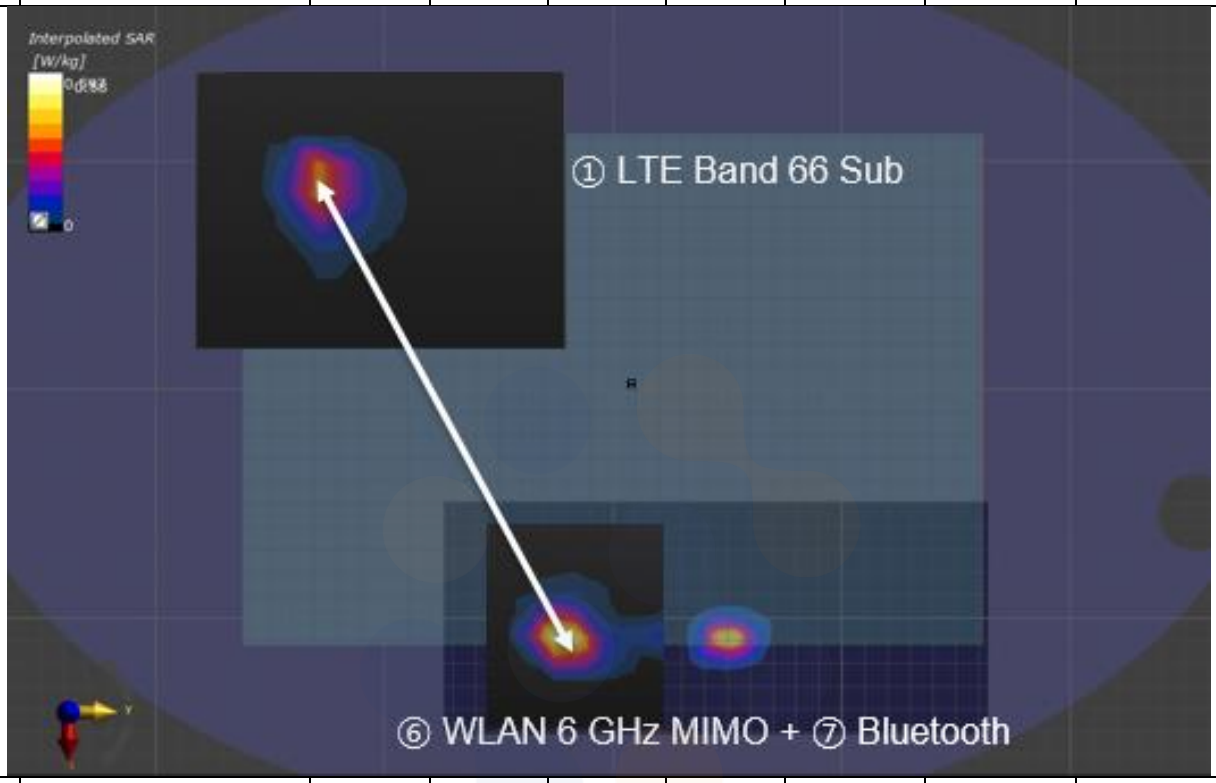
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
7)	① LTE Band 66	0.930	-0.02010	0.14900	-0.17800	160.88	0.02	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO	0.840	0.10900	0.05300	-0.17800			



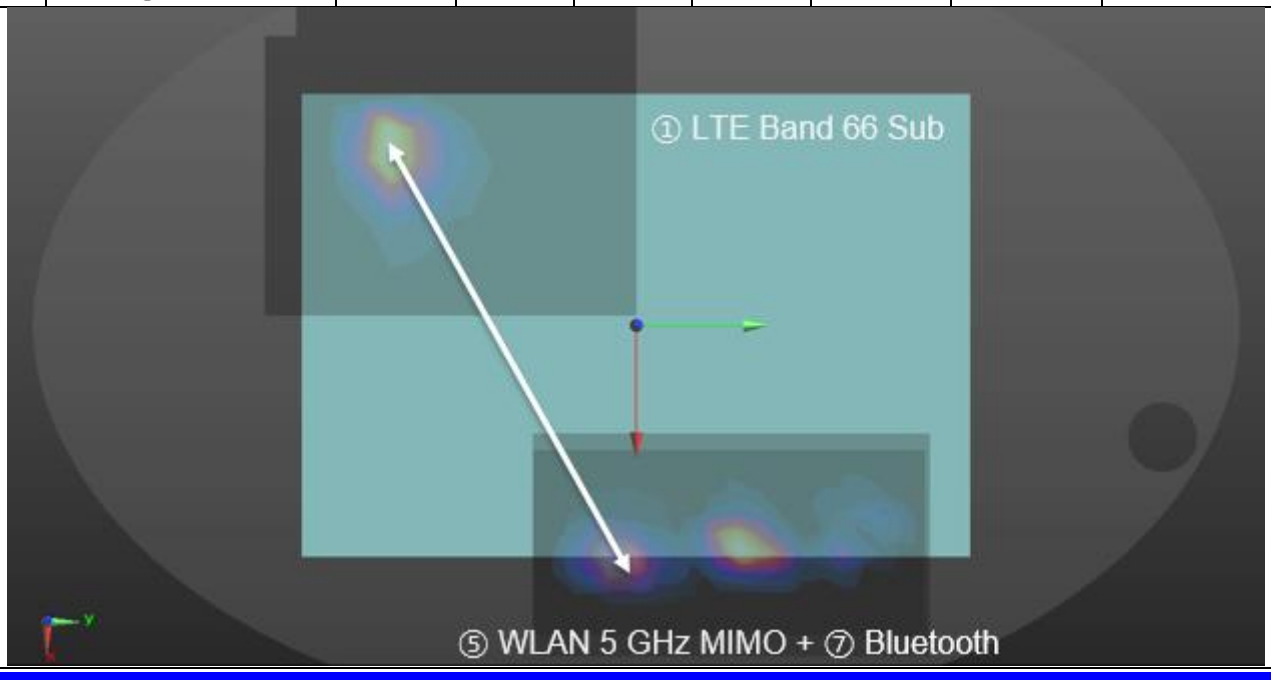
1)	① LTE Band 66(sub)	1.020	-0.08740	-0.12300	-0.17900	223.89	0.01	Not Required (SPLSR ≤ 0.04)
	⑦ Bluetooth	0.748	0.10600	-0.01020	-0.17800			



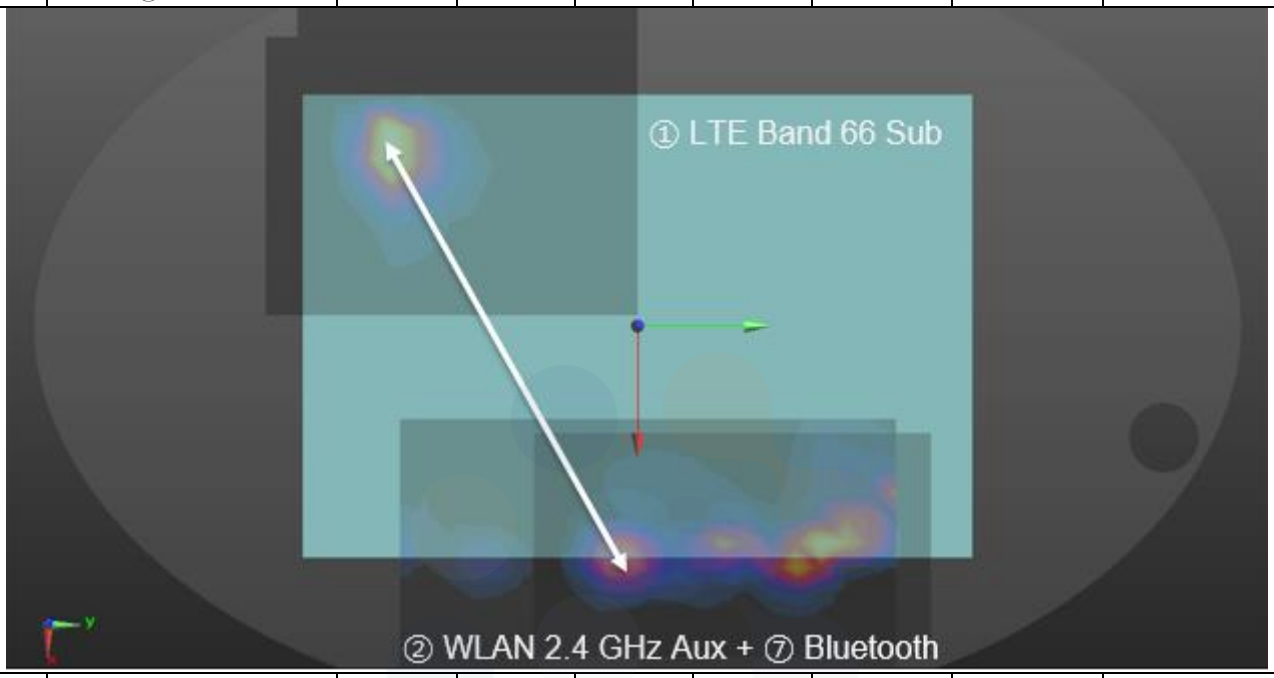
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
2)	① LTE Band 66(sub)	1.020	-0.08740	-0.12300	-0.17900	221.07	0.02	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10912	-0.02177	-0.17701			



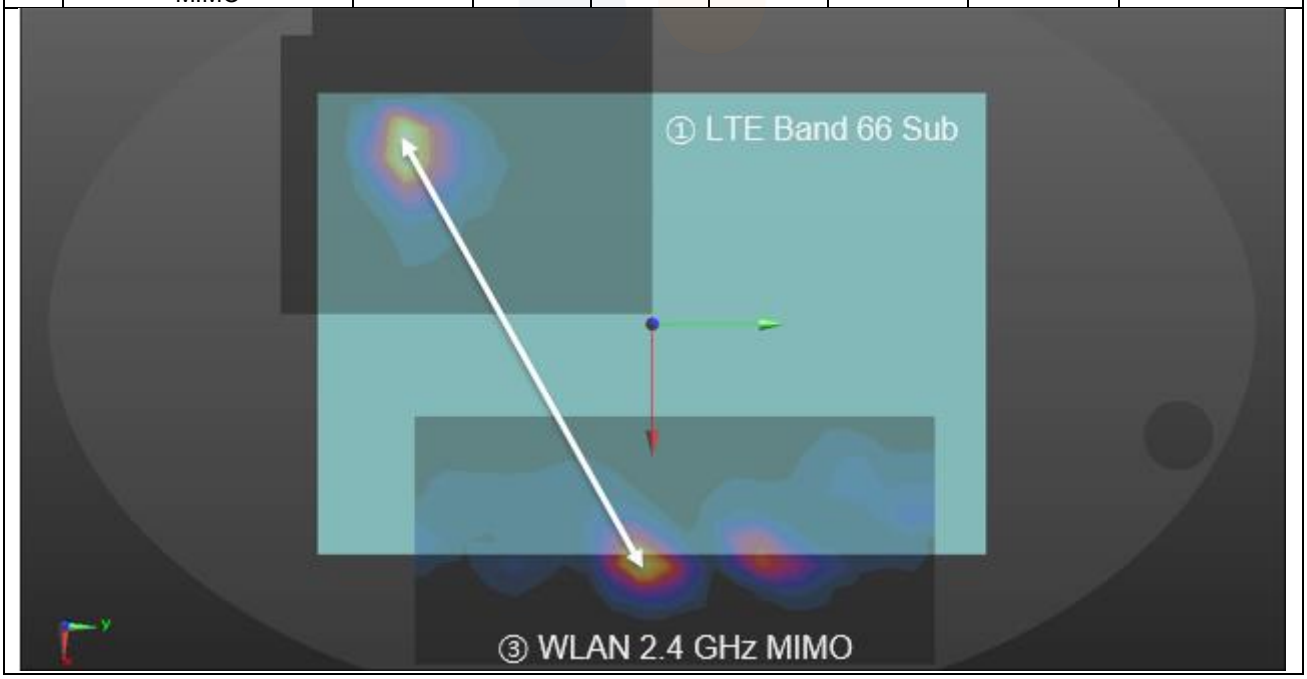
3)	① LTE Band 66(sub)	1.020	-0.08740	-0.12300	-0.17900	223.89	0.02	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10600	-0.01020	-0.17800			



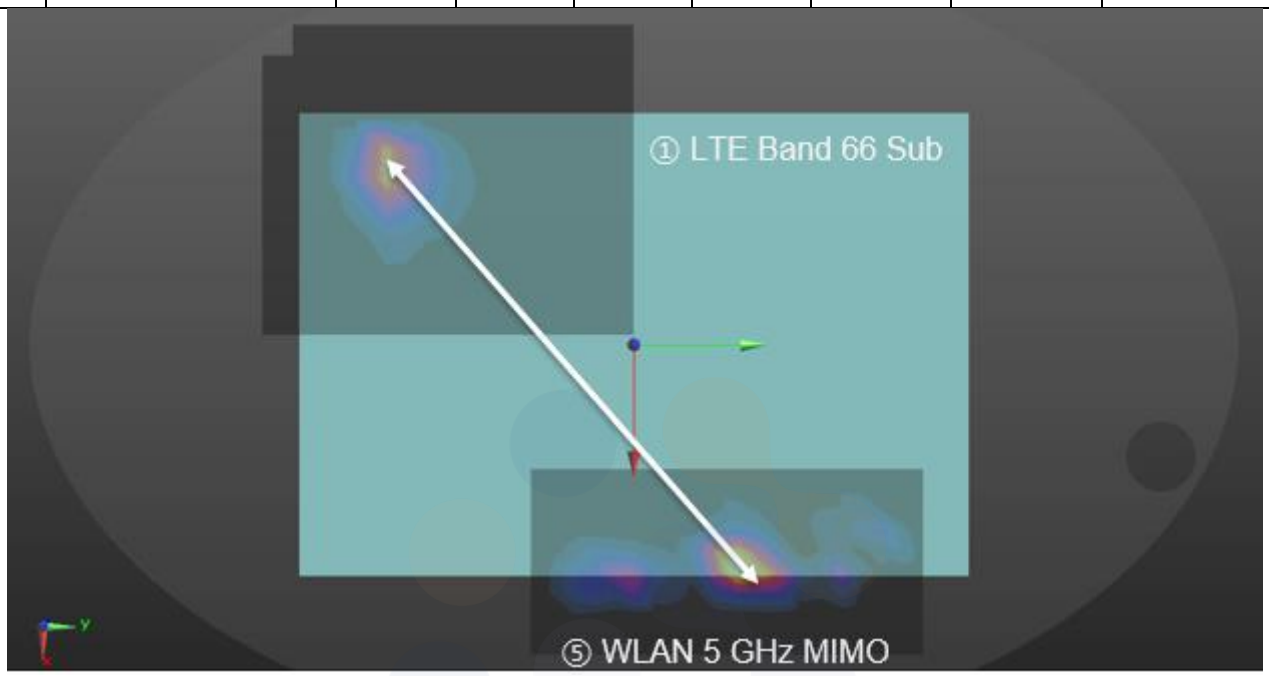
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① LTE Band 66(sub)	1.020	-0.08740	-0.12300	-0.17900	223.89	0.01	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux + ⑦ Bluetooth	1.000	0.10600	-0.01020	-0.17800			



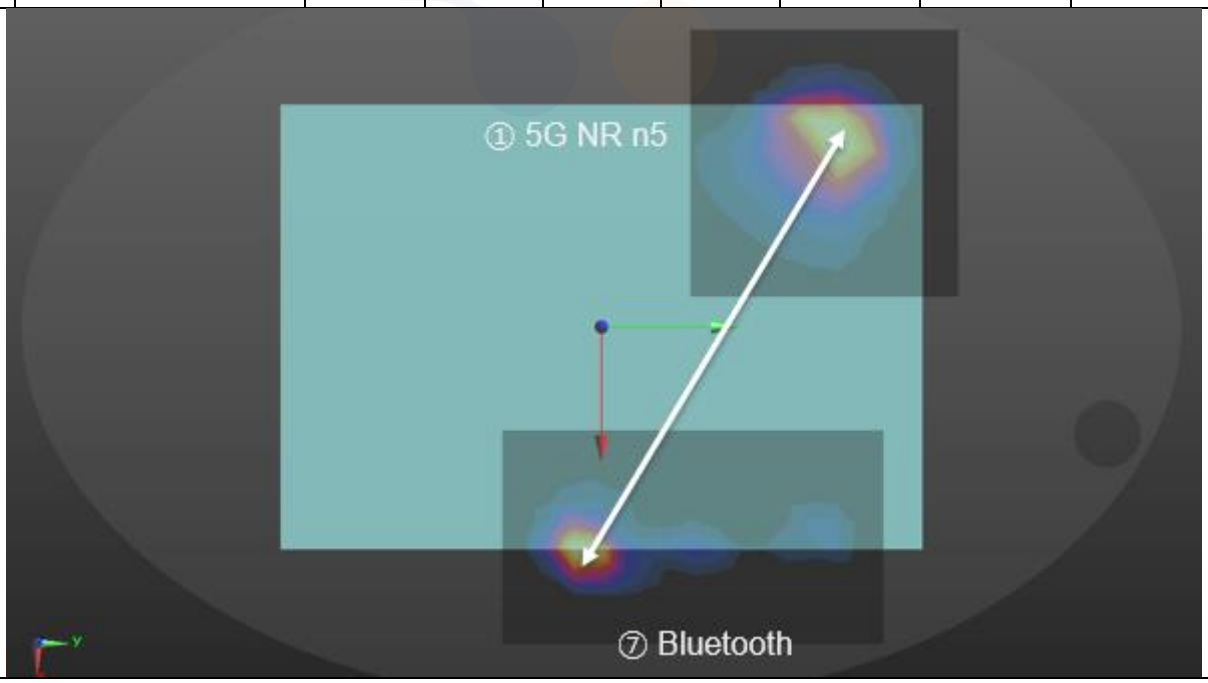
5)	① LTE Band 66(sub)	1.020	-0.08740	-0.12300	-0.17900	236.22	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	0.722	0.11700	-0.00460	-0.17800			



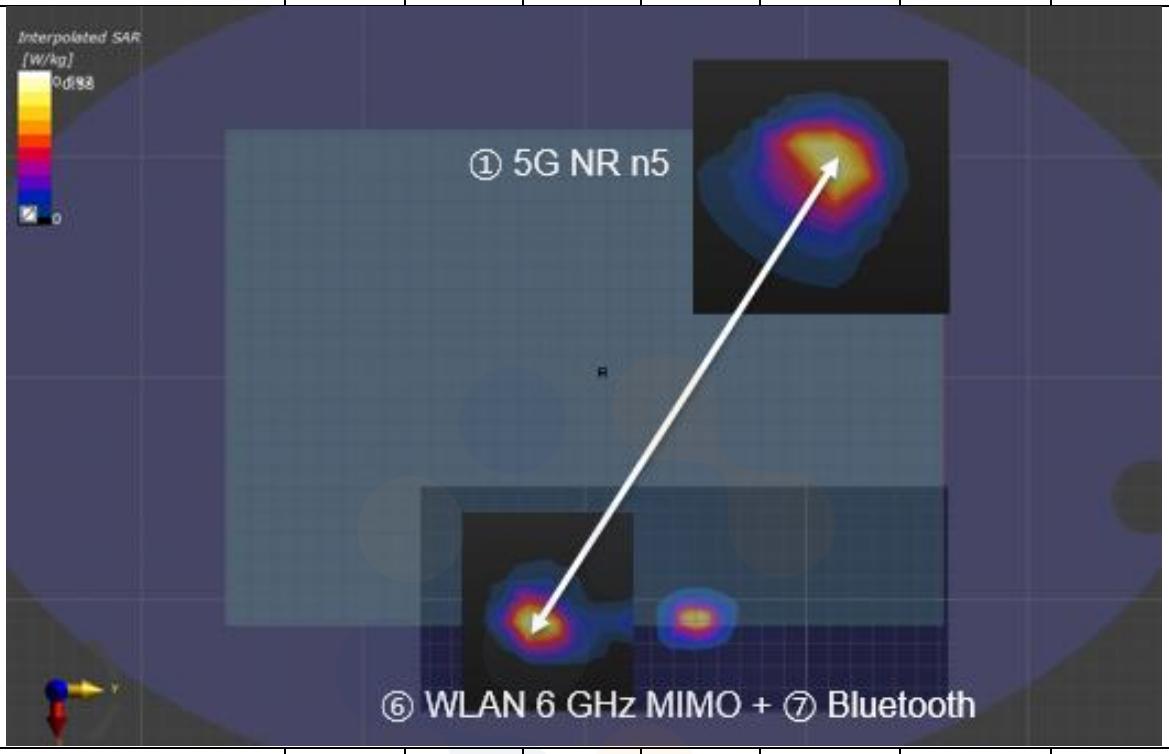
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
7)	① LTE Band 66(sub)	1.020	-0.08740	-0.12300	-0.17900	263.72	0.01	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO	0.840	0.10900	0.05300	-0.17800			



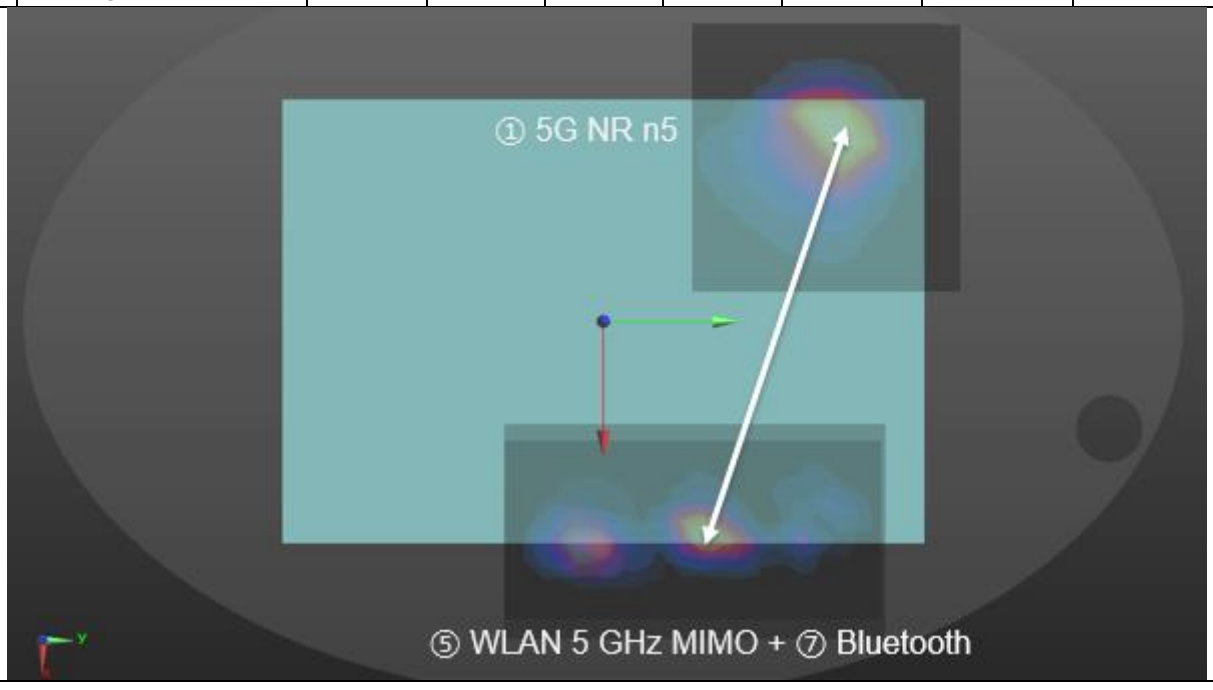
1)	① 5G NR n5	0.995	-0.08790	0.12500	-0.17700	236.38	0.01	Not Required (SPLSR ≤ 0.04)
	⑦ Bluetooth	0.748	0.10600	-0.01020	-0.17800			



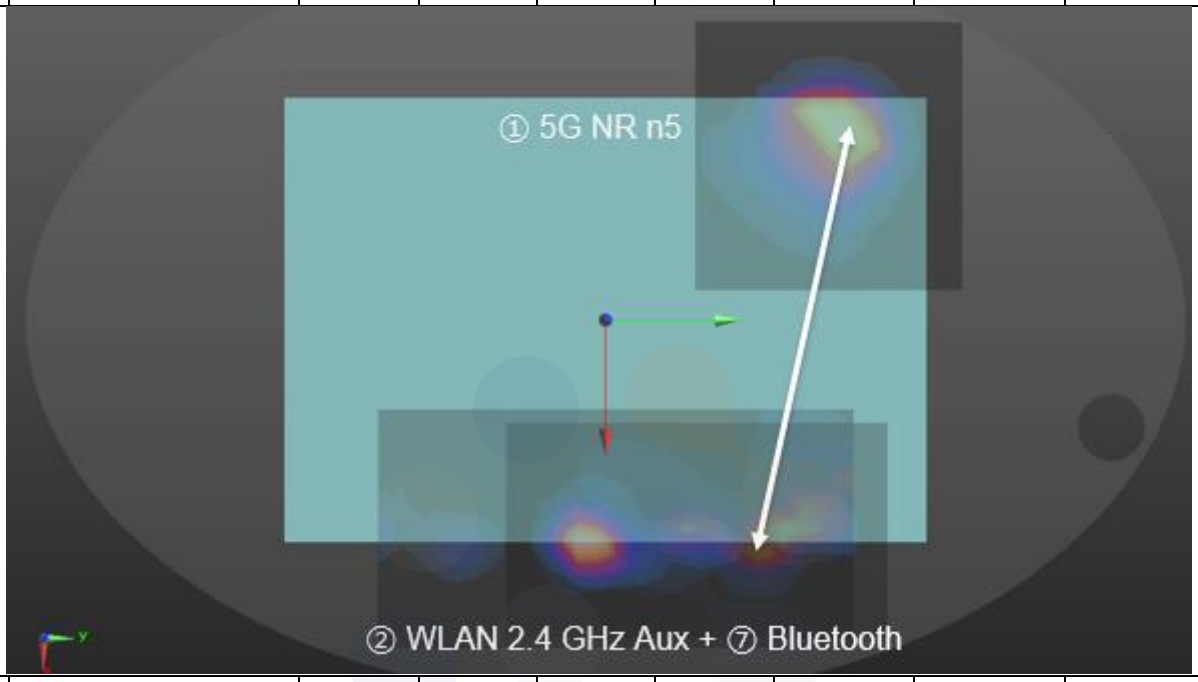
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
2)	① 5G NR n5	0.995	-0.08790	0.12500	-0.17700	236.38	0.01	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10600	-0.01020	-0.17800			



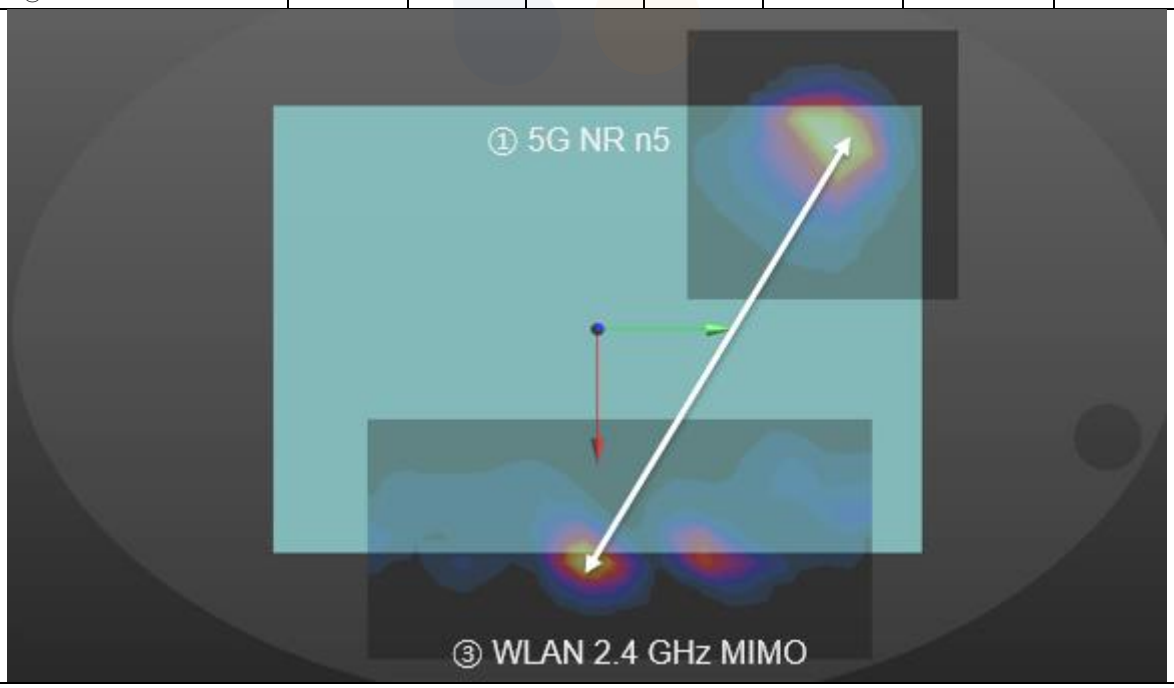
3)	① 5G NR n5	0.995	-0.08790	0.12500	-0.17700	209.65	0.02	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10900	0.05300	-0.17800			



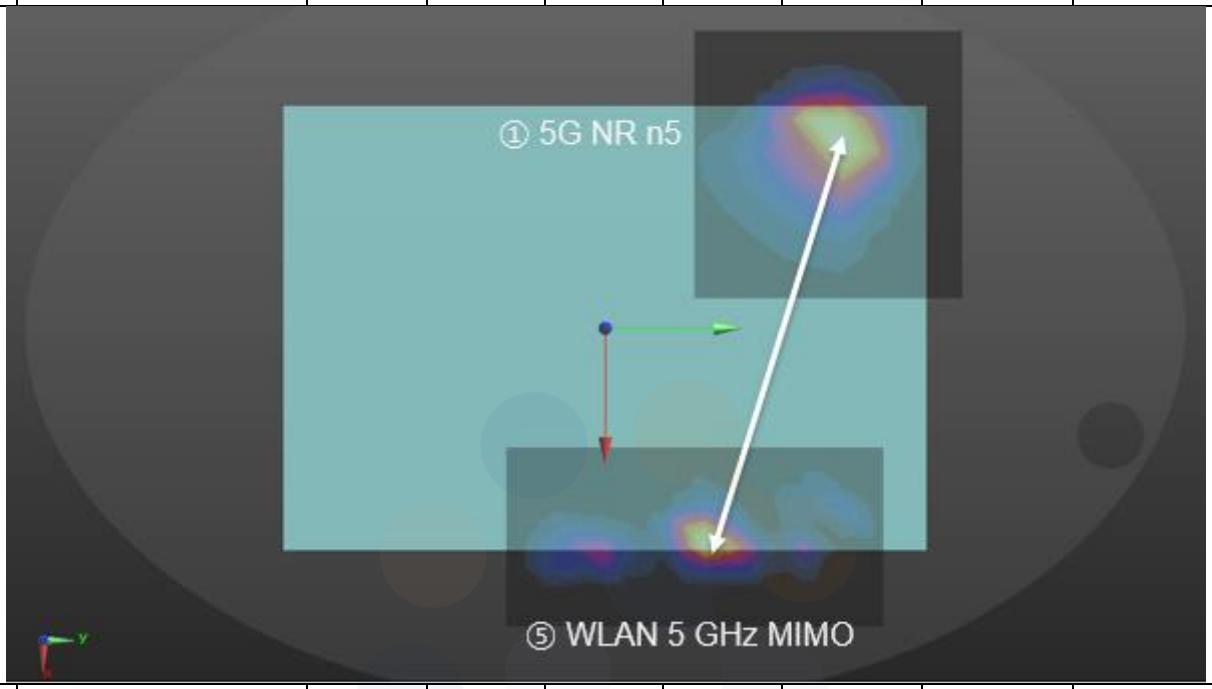
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① 5G NR n5	0.995	-0.08790	0.12500	-0.17700	200.44	0.01	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux + ⑦ Bluetooth	1.000	0.11000	0.09320	-0.17800			



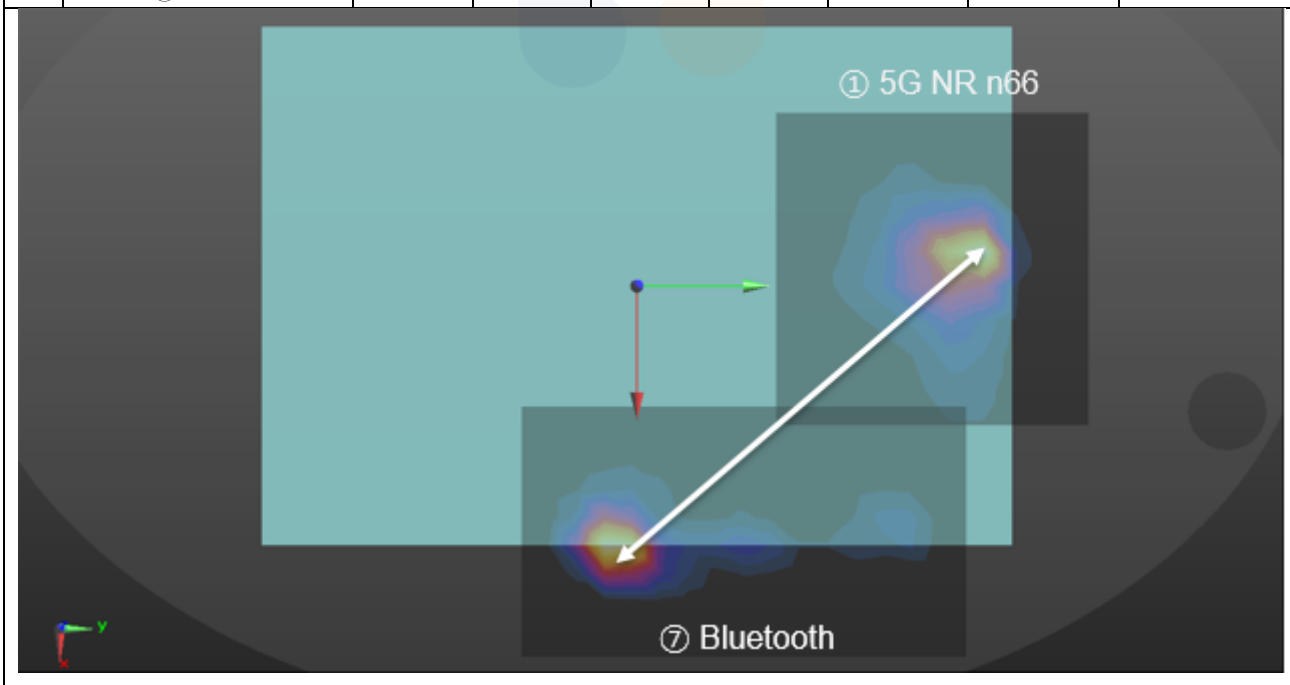
5)	① 5G NR n5	0.995	-0.08790	0.12500	-0.17700	242.45	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	0.722	0.11700	-0.00460	-0.17800			



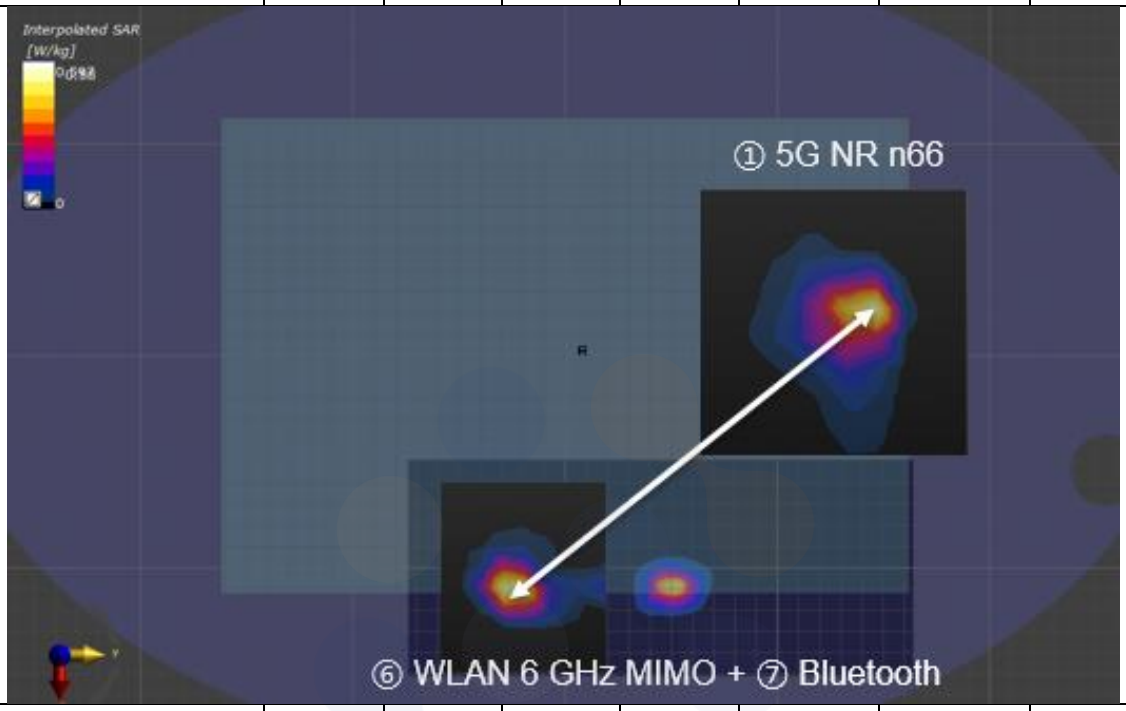
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
7)	① 5G NR n5	0.995	-0.08790	0.12500	-0.17700	209.65	0.01	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO	0.840	0.10900	0.05300	-0.17800			



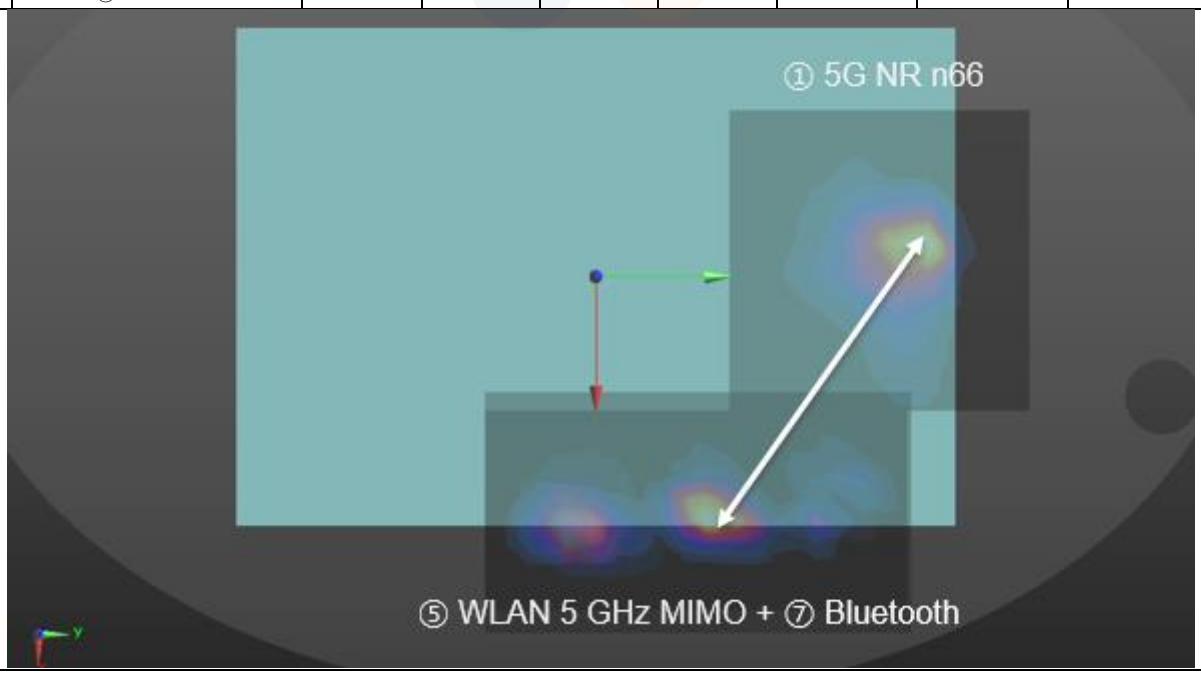
1)	① 5G NR n66	1.191	-0.02110	0.15000	-0.17800	204.50	0.02	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10600	-0.01020	-0.17800			



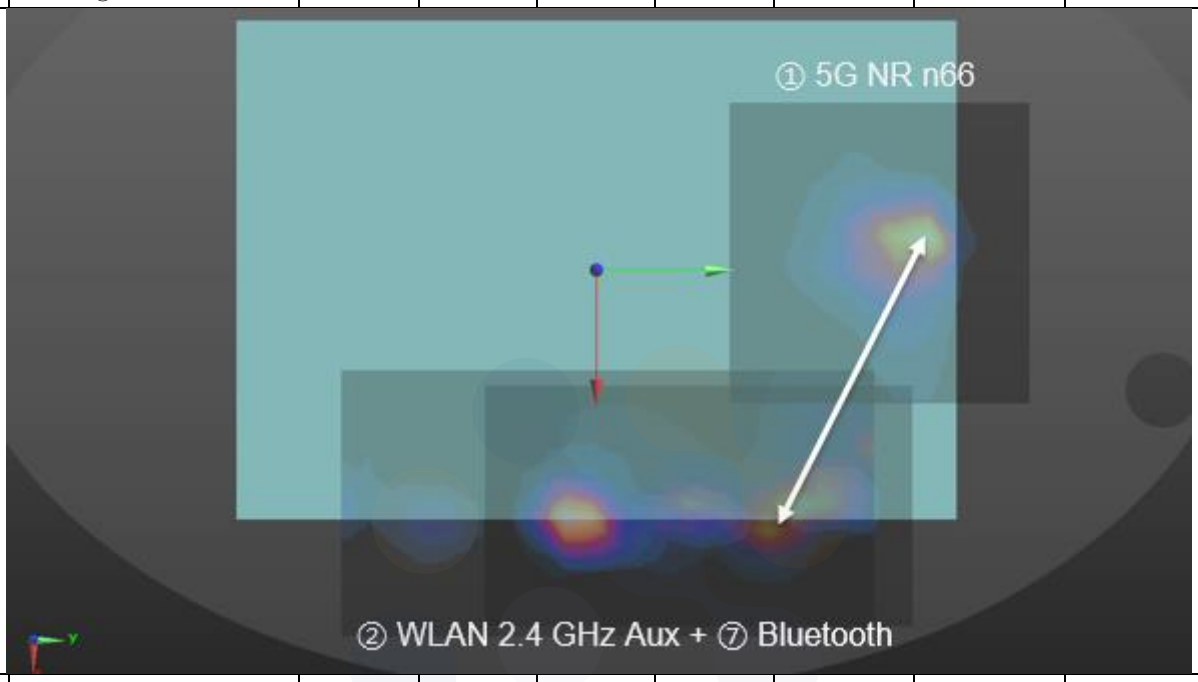
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
2)	① 5G NR n66	1.191	-0.02110	0.15000	-0.17800	204.50	0.02	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO + ⑦ Bluetooth	1.227	0.10600	-0.01020	-0.17800			



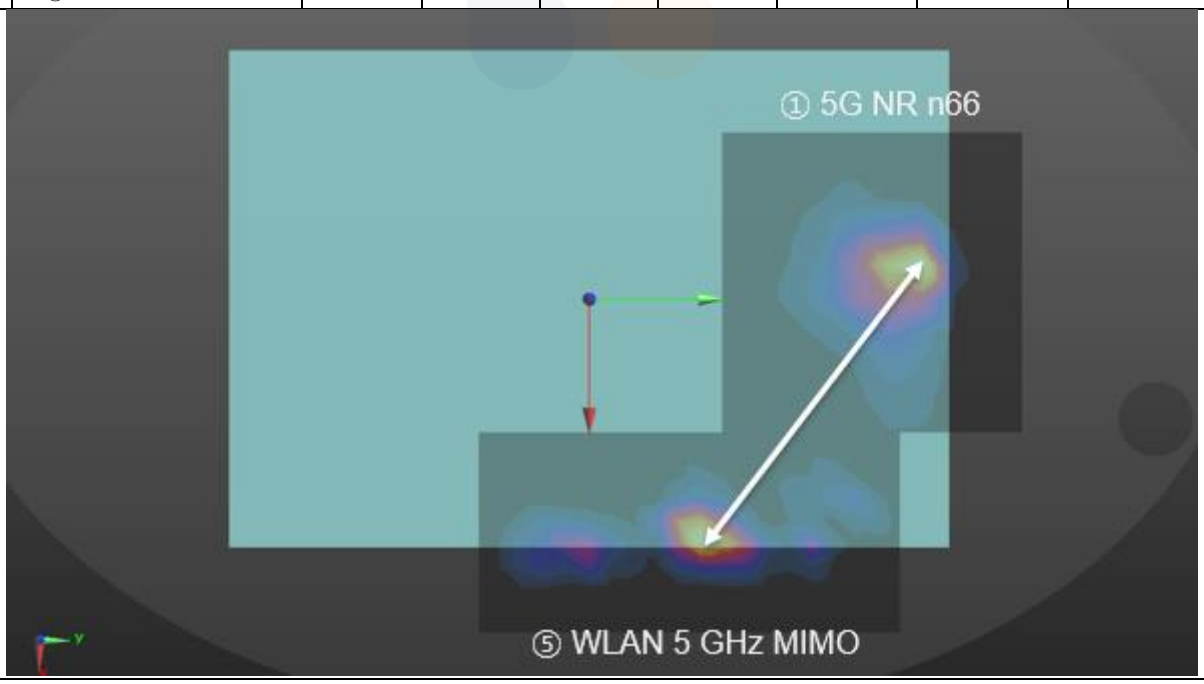
3)	① 5G NR n66	1.191	-0.02110	0.15000	-0.17800	162.28	0.03	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO + ⑦ Bluetooth	1.588	0.10900	0.05300	-0.17800			



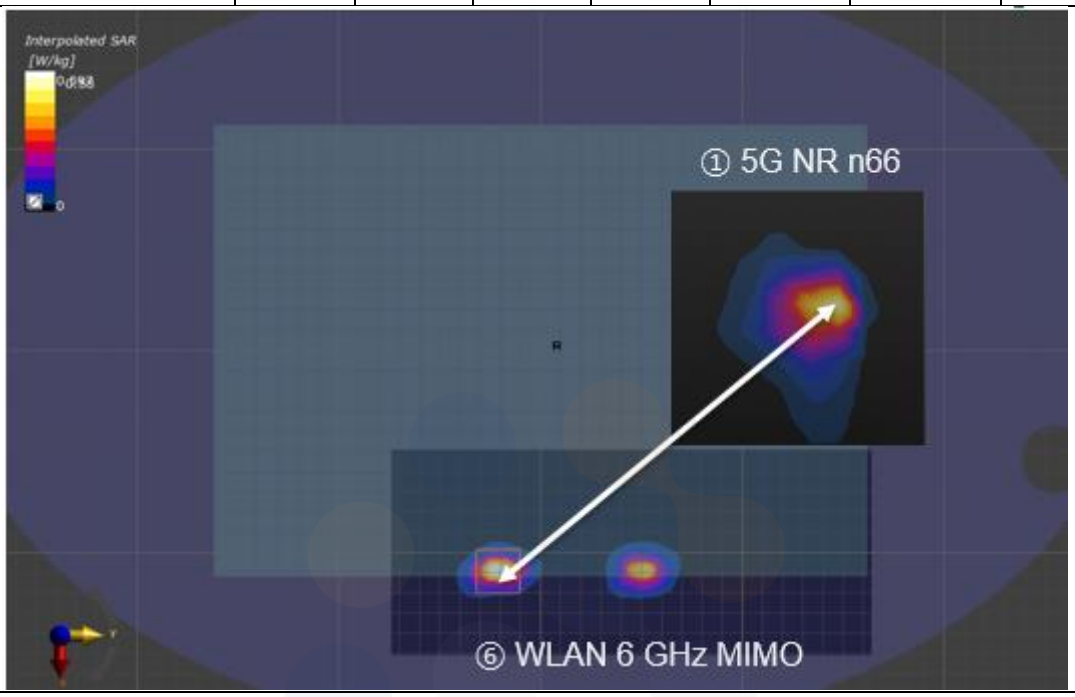
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① 5G NR n66	1.191	-0.02110	0.15000	-0.17800	142.88	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux + ⑦ Bluetooth	1.000	0.11000	0.09320	-0.17800			



7)	① 5G NR n66	1.191	-0.02110	0.15000	-0.17800	162.28	0.02	Not Required (SPLSR ≤ 0.04)
	⑤ WLAN 5 GHz MIMO	0.840	0.10900	0.05300	-0.17800			



Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
8)	① 5G NR n66	1.191	-0.02110	0.15000	-0.17800	215.55	0.01	Not Required (SPLSR ≤ 0.04)
	⑥ WLAN 6 GHz MIMO	0.479	0.10912	-0.02177	-0.17701			



14. SAR Measurement Variability

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

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

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

Band / Ant.	Mode	Frequency (㎒)	EUT Position	Separation Distance (㎜)	Measured 1 g SAR (W/kg)	Repeated 1 g SAR (W/kg)	Ratio
WCDMA II	RMC	1 880.0	Rear	0	0.905	0.908	1.00
WCDMA IV	RMC	1 752.6	Rear	0	0.841	0.845	1.00
LTE Band 2 (Main Ant.)	QPSK 20 ㎒ 50RB 24Offset	1 900.0	Rear	0	0.831	0.832	1.00
LTE Band 2 (Sub Ant.)	QPSK 20 ㎒ 50RB 24Offset	1 900.0	Rear	0	1.180	1.150	1.03
LTE Band 66 (Main Ant.)	QPSK 20 ㎒ 50RB 24Offset	1 745.0	Rear	0	0.821	0.826	1.01
LTE Band 66 (Sub Ant.)	QPSK 20 ㎒ 100RB 0Offset	1 745.0	Rear	0	0.920	0.869	1.06
5G NR n66	DFT-S-OFEM QPSK 20 ㎒ 50RB 28Offset	1 770.0	Rear	13	0.843	0.851	1.01

15. Measurement Uncertainty

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

16. Test Equipment Information

Test Platform	SPEAG DASY5 System			
Version	DASY52: 52.10.4.1535 / SEMCAD: 14.6.14 (7501)			
Location	Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Korea			
Manufacture	SPEAG			
Hardware Reference				
Equipment	Model	Serial Number	Date of Calibration	Due date of next Calibration
Shield Room	-	8F - 3	-	-
Shield Room	-	8F - 4	-	-
DASY6 Robot	TX90XL speag	F/18/0004968/A/001	-	-
DASY6 Robot	TX60 Lspeag	F/19/0007289/A/001	-	-
Phantom	2mm Oval Phantom ELI5	2097	-	-
Phantom	2mm Oval Phantom ELI5	2098	-	-
Mounting Device	Mounting Device	-	-	-
Mounting Device	Laptop Holder	-	-	-
DAE	DAE4	666	2022-01-26	2023-01-26
DAE	DAE4	1342	2022-05-31	2023-05-31
Probe	EX3DV4	7540	2022-04-29	2023-04-29
Probe	EX3DV4	7541	2022-07-22	2023-07-22
ESG Vector Signal Generator	E4438C	MY42080486	2022-05-02	2023-05-02
ESG Vector Signal Generator	E4438C	MY42080845	2022-02-24	2023-02-24
Dual Power Meter	E4419B	GB43312301	2022-05-02	2023-05-02
Dual Power Meter	EPM-442A	GB37480680	2022-05-02	2023-05-02
Power Sensor	8481H	3318A 19379	2022-05-02	2023-05-02
Power Sensor	8481H	3318A 19377	2022-05-02	2023-05-02
Power Sensor	8481H	2703A11902	2022-05-02	2023-05-02
Power Sensor	8481H	3318A18090	2022-05-02	2023-05-02
Attenuator	8491B 3dB	17387	2022-05-02	2023-05-02
Attenuator	8491B-6dB	MY39270294	2022-05-02	2023-05-02
Attenuator	8491B 10dB	29425	2022-05-02	2023-05-02
Attenuator	8491A	21552	2022-05-02	2023-05-02
Attenuator	8491A	35560	2022-05-02	2023-05-02
Attenuator	8491A	35934	2022-05-02	2023-05-02
Power Amplifier	GRF5039	1062	2022-05-02	2023-05-02
Power Amplifier	2055-BBS3Q7E9I	1005D/C0521	2022-02-24	2023-02-24
Power Amplifier	5190FE	1012	2022-05-02	2023-05-02
Power Amplifier	AMP2027	10010	2022-05-02	2023-05-02

Equipment	Model	Serial Number	Date of Calibration	Due date of next Calibration
Dual Directional Coupler	778D	16059	2022-05-02	2023-05-02
Dual Directional Coupler	772D	2839A00719	2022-05-02	2023-05-02
Dual Directional Coupler	778D	17236	2022-05-02	2023-05-02
Dual Directional Coupler	772D	2839A160504	2022-05-02	2023-05-02
Low Pass Filter	NLP-1000+	VUU86701432	2022-05-02	2023-05-02
Low Pass Filter	LA-15N	36543	2022-05-02	2023-05-02
Low Pass Filter	LA-30N	40058	2022-05-02	2023-05-02
Low Pass Filter	LA-60N	40059	2022-05-02	2023-05-02
Low Pass Filter	VLF-3000+	31831	2022-05-02	2023-05-02
Low Pass Filter	VLF-6000+	31838	2022-05-02	2023-05-02
Dipole Validation Kits	D750V3	1217	2022-05-03	2024-05-03
Dipole Validation Kits	D850V2	1006	2022-04-26	2024-04-26
Dipole Validation Kits	D1750V2	1072	2022-04-27	2024-04-27
Dipole Validation Kits	D1900V2	5d160	2022-04-29	2024-04-29
Dipole Validation Kits	D2450V2	895	2022-07-15	2024-07-15
Dipole Validation Kits	D2600V2	1050	2022-07-15	2024-07-15
Dipole Validation Kits	D5GHzV2	1134	2022-01-27	2024-01-27
Network Analyzer	E5071B	MY42403524	2022-02-15	2023-02-15
Radio Communication Test Station	MT8000A	6261987922	2022-02-11	2023-02-11
Radio Communication Analyzer	MT8821C	6201807233	2022-01-19	2023-01-19
Radio Communication Analyzer	MT8821C	6262170371	2021-11-09	2022-11-09
Radio Communication Analyzer	MT8821C	6262170372	2021-11-09	2022-11-09
Wideband Radio Communication Tester	CMW500	132120	2022-05-02	2023-05-02
Dielectric Assessment Kit	DAK-3.5	1078	2022-05-30	2023-05-30
Humidity/Temp	MHB-382SD	46301	2022-02-25	2023-02-25
Humidity/Temp	MHB-382SD	46307	2022-03-17	2023-03-17
Spectrum Analyzer	FSQ40	200062	2022-05-02	2023-05-02

17. Test System Verification Results

Date: 9/26/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 750 MHz Verification Input Power 250 mW 2022-09-26.da52:0

DUT: Dipole 750 MHz D750V3, Type: D750V3, Serial: D750V3 - SN:1217

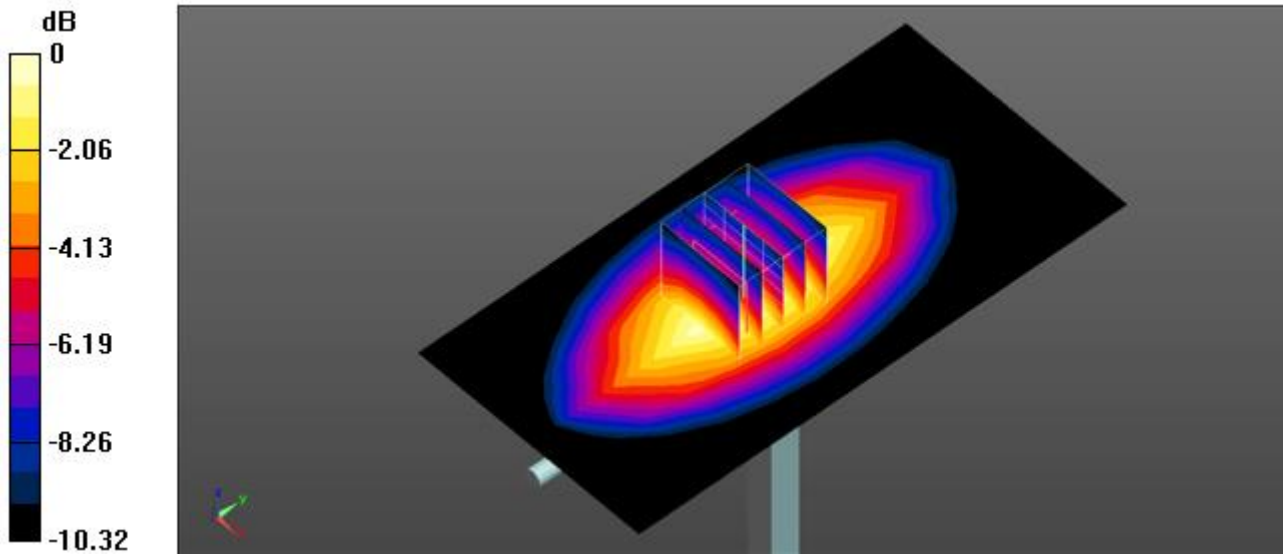
Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.882 S/m; ε_r = 42.705; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(10.25, 10.25, 10.25) @ 750 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/750 MHz Verification Input Power 250 mW 2022-09-26/Area Scan (7x13x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.99 W/kg

Configuration/750 MHz Verification Input Power 250 mW 2022-09-26/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 57.83 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 3.17 W/kg
SAR(1 g) = 2.18 W/kg; SAR(10 g) = 1.45 W/kg
Maximum value of SAR (measured) = 2.85 W/kg



0 dB = 2.85 W/kg = 4.55 dBW/kg

Date: 9/30/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 750 MHz Verification Input Power 250 mW 2022-09-30.da52:0

DUT: Dipole 750 MHz D750V3, Type: D750V3, Serial: D750V3 - SN:1217

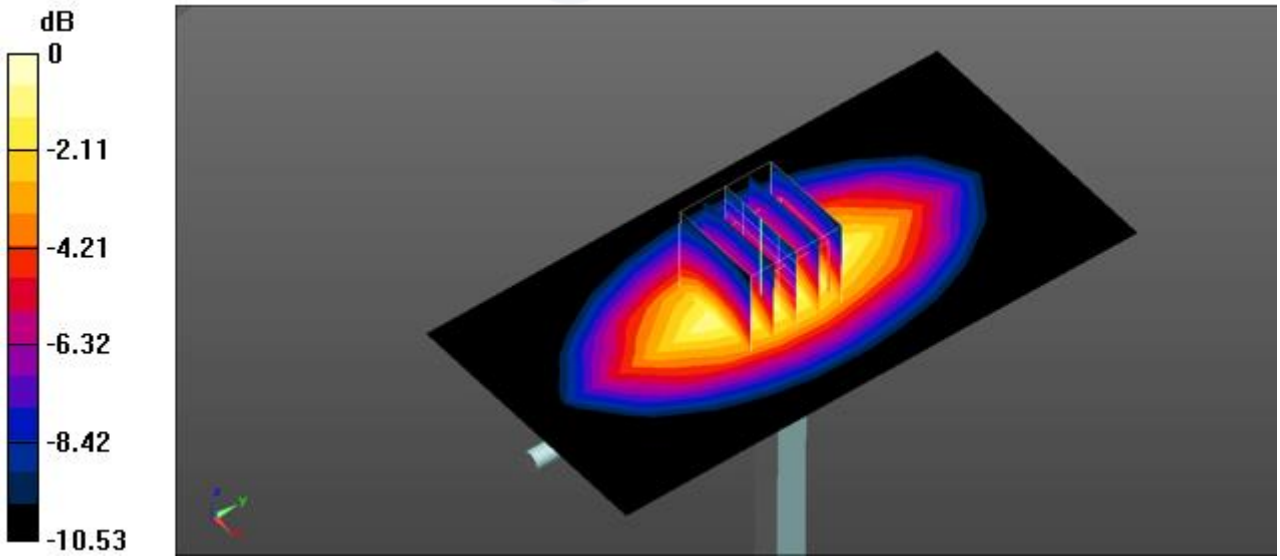
Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.915 S/m; ε_r = 40.058; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(10.25, 10.25, 10.25) @ 750 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/750 MHz Verification Input Power 250 mW 2022-09-30/Area Scan (7x13x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.73 W/kg

Configuration/750 MHz Verification Input Power 250 mW 2022-09-30/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 56.86 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 3.15 W/kg
SAR(1 g) = 2.13 W/kg; SAR(10 g) = 1.42 W/kg
Maximum value of SAR (measured) = 2.80 W/kg



0 dB = 2.80 W/kg = 4.47 dBW/kg

Date: 9/26/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 850 MHz Verification Input Power 250 mW 2022-09-26.da52:0

DUT: Dipole 850 MHz D850V2, Type: D850V2, Serial: D850V2 - SN:1006

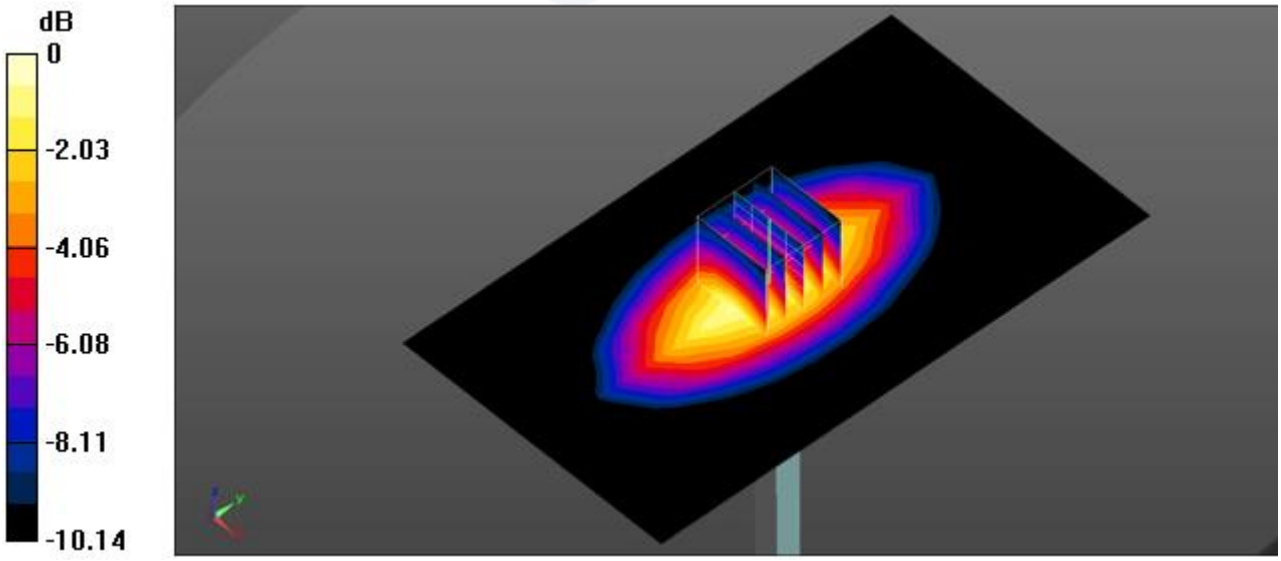
Communication System: UID 0, CW (0); Frequency: 850 MHz; Duty Cycle: 1:1
Medium parameters used: f = 850 MHz; σ = 0.92 S/m; ε_r = 40.678; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(9.73, 9.73, 9.73) @ 850 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check (without Area Scan)/850 MHz Verification Input Power 250 mW 2022-09-26/Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.13 W/kg

System Performance Check (without Area Scan)/850 MHz Verification Input Power 250 mW 2022-09-26/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 59.73 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 3.50 W/kg
SAR(1 g) = 2.4 W/kg; SAR(10 g) = 1.6 W/kg
Maximum value of SAR (measured) = 3.12 W/kg



0 dB = 3.12 W/kg = 4.94 dBW/kg

Date: 9/30/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 850 MHz Verification Input Power 250 mW 2022-09-30.da52:0

DUT: Dipole 850 MHz D850V2, Type: D850V2, Serial: D850V2 - SN:1006

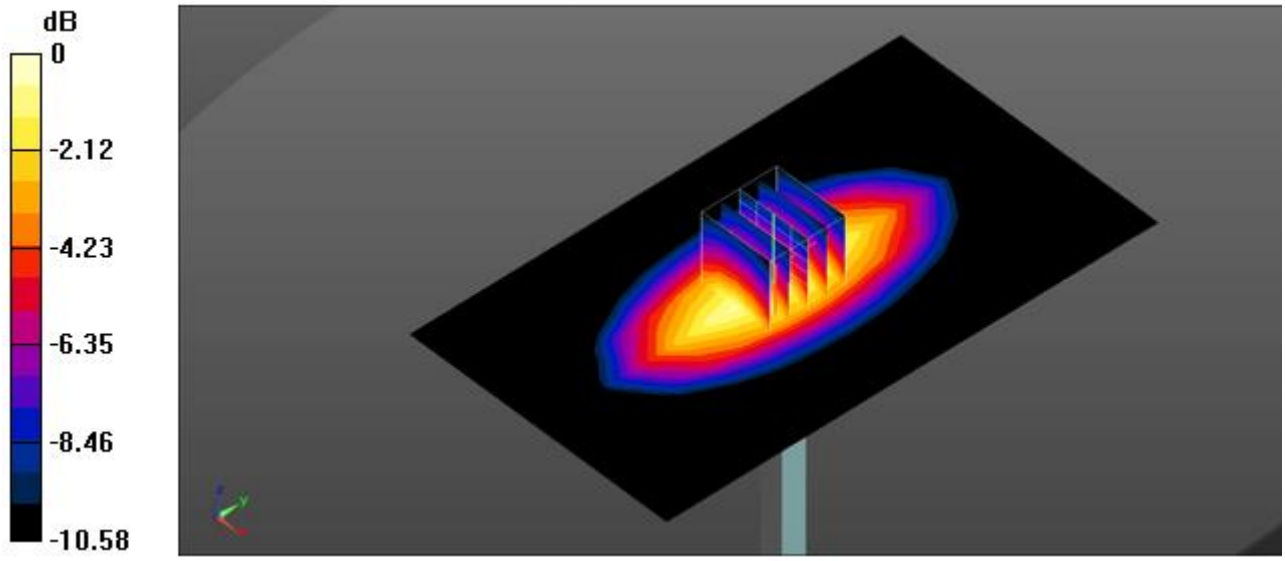
Communication System: UID 0, CW (0); Frequency: 850 MHz; Duty Cycle: 1:1
Medium parameters used: f = 850 MHz; σ = 0.948 S/m; ε_r = 39.822; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(9.73, 9.73, 9.73) @ 850 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check (without Area Scan)/850 MHz Verification Input Power 250 mW 2022-09-30/Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.37 W/kg

System Performance Check (without Area Scan)/850 MHz Verification Input Power 250 mW 2022-09-30/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 61.44 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 3.77 W/kg
SAR(1 g) = 2.55 W/kg; SAR(10 g) = 1.68 W/kg
Maximum value of SAR (measured) = 3.38 W/kg



0 dB = 3.38 W/kg = 5.29 dBW/kg

Date: 10/11/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 850 MHz Verification Input Power 250 mW 2022-10-11.da52:0

DUT: Dipole 850 MHz D850V2, Type: D850V2, Serial: D850V2 - SN:1006

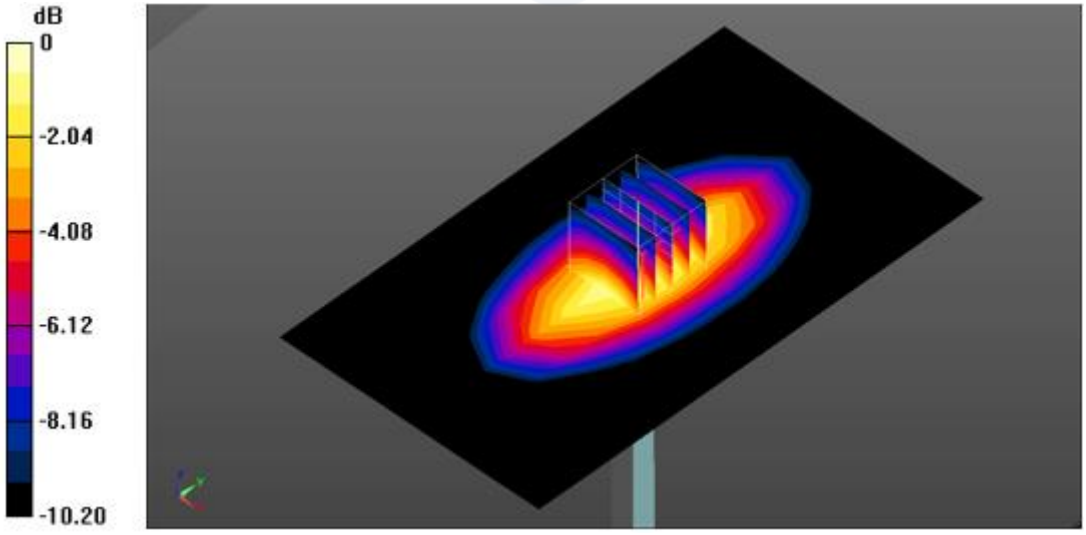
Communication System: UID 0, CW (0); Frequency: 850 MHz; Duty Cycle: 1:1
Medium parameters used: f = 850 MHz; σ = 0.944 S/m; ε_r = 41.391; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(9.73, 9.73, 9.73) @ 850 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check (without Area Scan)/850 MHz Verification Input Power 250 mW 2022-10-11/Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.34 W/kg

System Performance Check (without Area Scan)/850 MHz Verification Input Power 250 mW 2022-10-11/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 59.97 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 3.70 W/kg
SAR(1 g) = 2.6 W/kg; SAR(10 g) = 1.73 W/kg
Maximum value of SAR (measured) = 3.37 W/kg



0 dB = 3.37 W/kg = 5.28 dBW/kg

Date: 9/23/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1750 MHz Verification Input Power 250 mW 2022-09-23.da52:0

DUT: Dipole 1750 MHz D1750V2, Type: D1750V2, Serial: D1750V2 - SN:1116

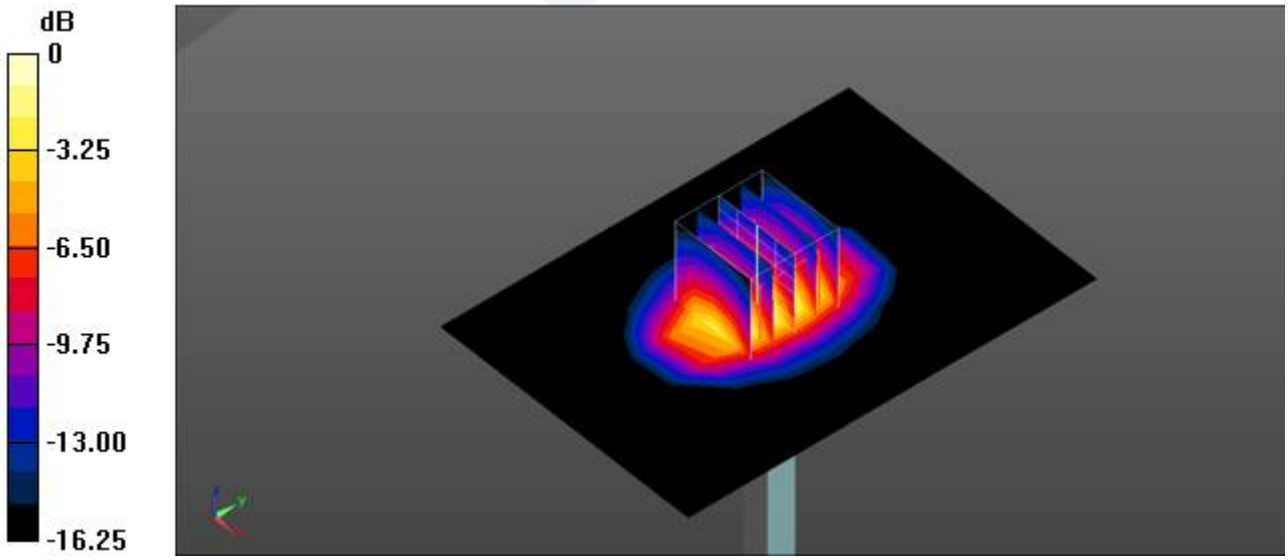
Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.359 S/m; ε_r = 39.942; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(8.62, 8.62, 8.62) @ 1750 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/1750 MHz Verification Input Power 250 mW 2022-09-23/Area Scan (8x11x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.4 W/kg

Configuration/1750 MHz Verification Input Power 250 mW 2022-09-23/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 103.3 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 16.3 W/kg
SAR(1 g) = 9.4 W/kg; SAR(10 g) = 5.11 W/kg
Maximum value of SAR (measured) = 14.0 W/kg



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

Date: 10/21/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1750 MHz Verification Input Power 250 mW 2022-10-21.da52:0

DUT: Dipole 1750 MHz D1750V2, Type: D1750V2, Serial: D1750V2 - SN:1072

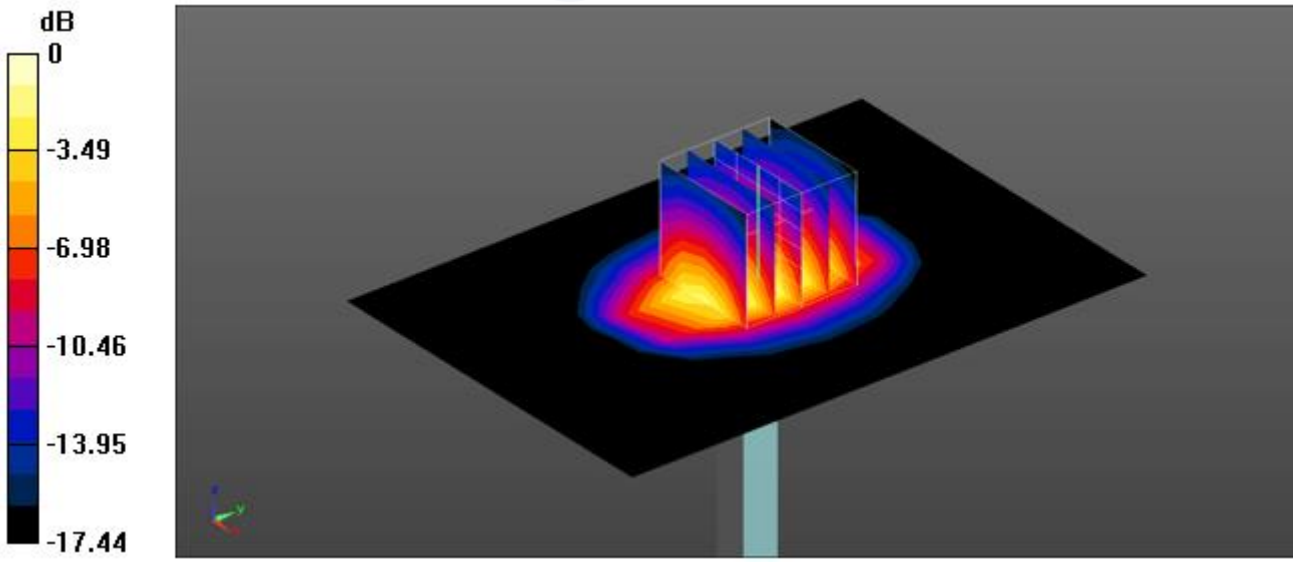
Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.348 S/m; ε_r = 40.149; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.83, 8.83, 8.83) @ 1750 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/1750 MHz Verification Input Power 250 mW 2022-10-21/Area Scan (8x11x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.7 W/kg

Configuration/1750 MHz Verification Input Power 250 mW 2022-10-21/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 101.0 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 16.2 W/kg
SAR(1 g) = 8.78 W/kg; SAR(10 g) = 4.66 W/kg
Maximum value of SAR (measured) = 13.6 W/kg



0 dB = 13.6 W/kg = 11.34 dBW/kg

Date: 10/26/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1750 MHz Verification Input Power 250 mW 2022-10-26.da52:0

DUT: Dipole 1750 MHz D1750V2, Type: D1750V2, Serial: D1750V2 - SN:1072

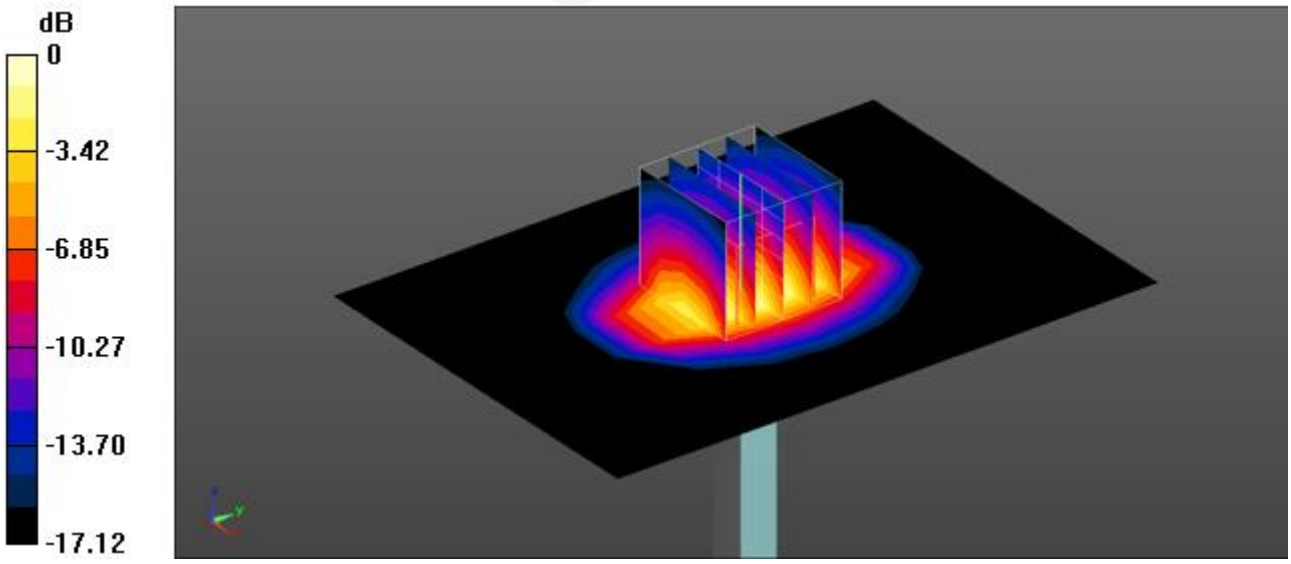
Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.4 S/m; ε_r = 40.55; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.83, 8.83, 8.83) @ 1750 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check (without Area Scan)/1750 MHz Verification Input Power 250 mW 2022-10-26/Area Scan (8x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.1 W/kg

System Performance Check (without Area Scan)/1750 MHz Verification Input Power 250 mW 2022-10-26/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 106.3 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 16.8 W/kg
SAR(1 g) = 9.2 W/kg; SAR(10 g) = 4.91 W/kg
Maximum value of SAR (measured) = 14.1 W/kg



0 dB = 14.1 W/kg = 11.49 dBW/kg

Date: 9/23/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1900 MHz Verification Input Power 250 mW 2022-09-23.da52:0

DUT: Dipole 1900 MHz D1900V2, Type: D1900V2, Serial: D1900V2 - SN:5d160

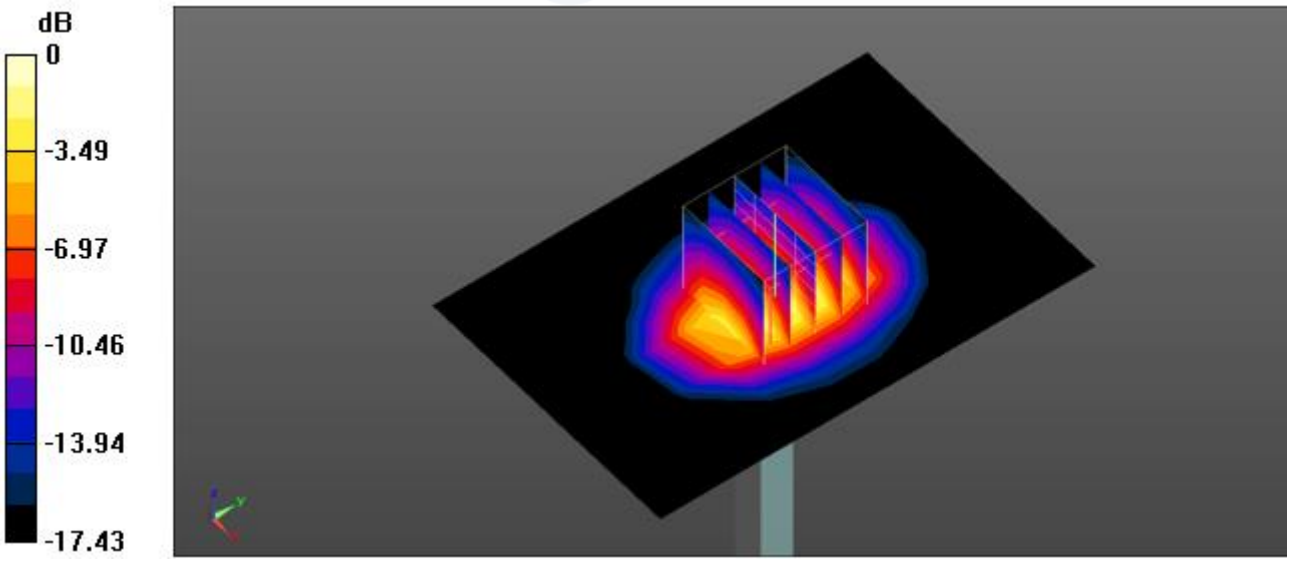
Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.419 S/m; ε_r = 41.139; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(8.55, 8.55, 8.55) @ 1900 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/1900 MHz Verification Input Power 250 mW 2022-09-23/Area Scan (7x10x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.3 W/kg

Configuration/1900 MHz Verification Input Power 250 mW 2022-09-23/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 89.89 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 16.7 W/kg
SAR(1 g) = 9.09 W/kg; SAR(10 g) = 4.86 W/kg
Maximum value of SAR (measured) = 14.1 W/kg



0 dB = 14.1 W/kg = 11.49 dBW/kg

Date: 10/26/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1900 MHz Verification Input Power 250 mW 2022-10-26.da52:0

DUT: Dipole 1900 MHz D1900V2, Type: D1900V2, Serial: D1900V2 - SN:5d160

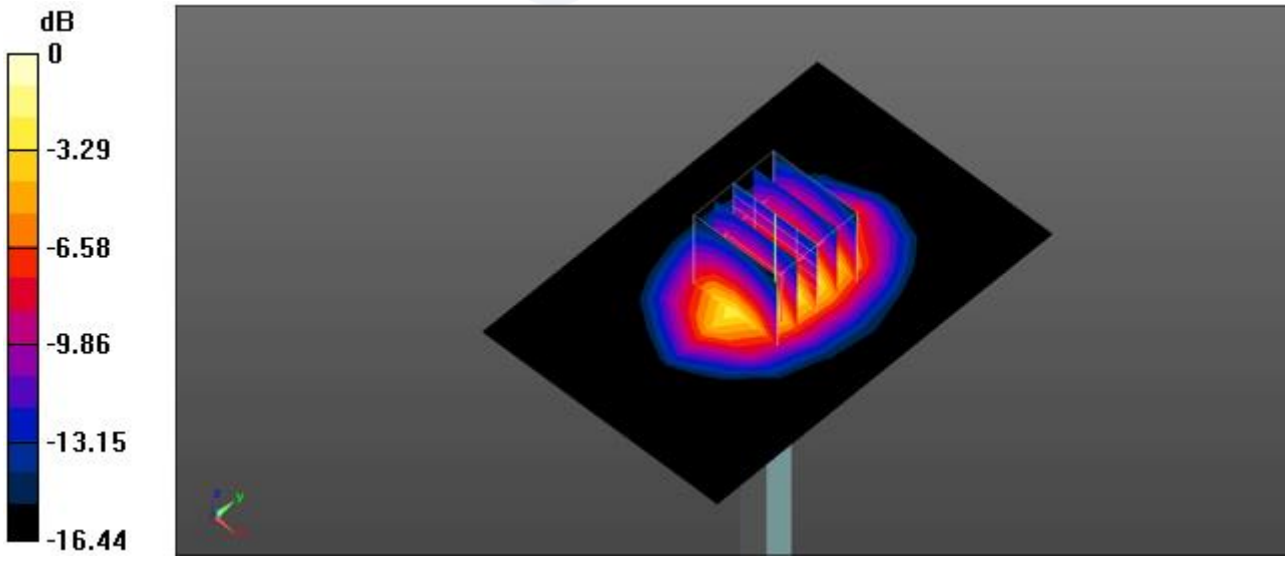
Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.397 S/m; ε_r = 40.095; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(8.55, 8.55, 8.55) @ 1900 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/1900 MHz Verification Input Power 250 mW 2022-10-26/Area Scan (7x10x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 13.7 W/kg

Configuration/1900 MHz Verification Input Power 250 mW 2022-10-26/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 100.9 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 16.6 W/kg
SAR(1 g) = 9.51 W/kg; SAR(10 g) = 5.23 W/kg
Maximum value of SAR (measured) = 14.2 W/kg



0 dB = 14.2 W/kg = 11.52 dBW/kg

Date: 10/27/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1900 MHz Verification Input Power 250 mW 2022-10-27.da52:0

DUT: Dipole 1900 MHz D1900V2, Type: D1900V2, Serial: D1900V2 - SN:5d160

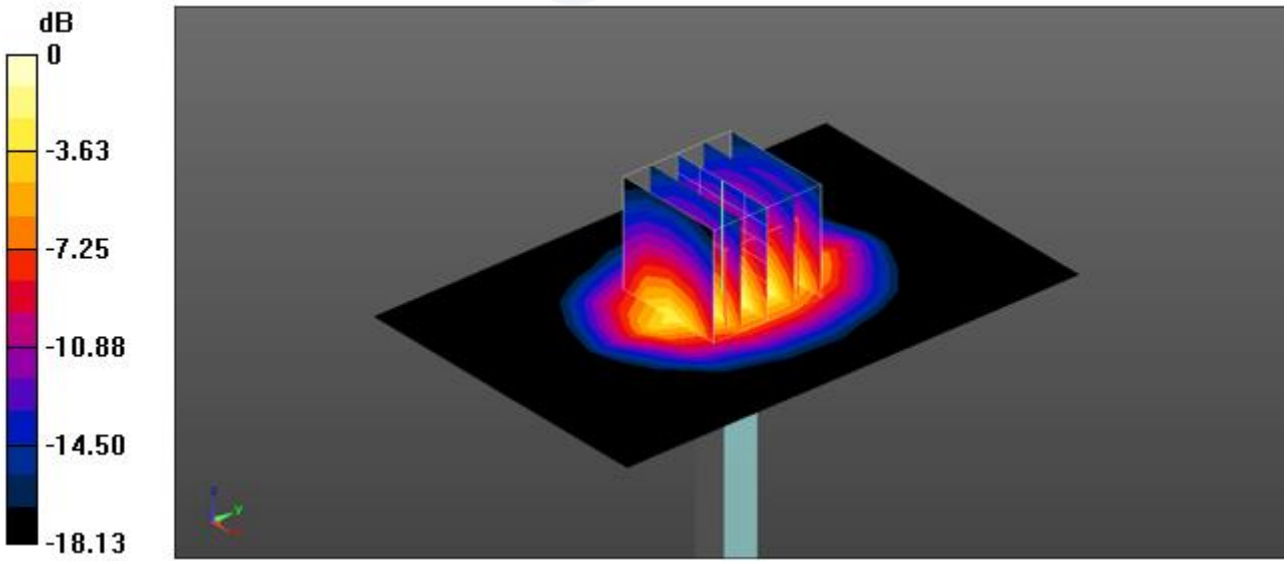
Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.4 S/m; ε_r = 38.308; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.33, 8.33, 8.33) @ 1900 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/1900 MHz Verification Input Power 250 mW 2022-10-27/Area Scan (7x10x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 14.2 W/kg

Configuration/1900 MHz Verification Input Power 250 mW 2022-10-27/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 107.5 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 17.8 W/kg
SAR(1 g) = 9.64 W/kg; SAR(10 g) = 5.05 W/kg
Maximum value of SAR (measured) = 14.9 W/kg



0 dB = 14.9 W/kg = 11.73 dBW/kg

Date: 10/5/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2450 MHz Verification Input Power 100 mW 2022-10-05.da5:0

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; σ = 1.792 S/m; ε_r = 38.253; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

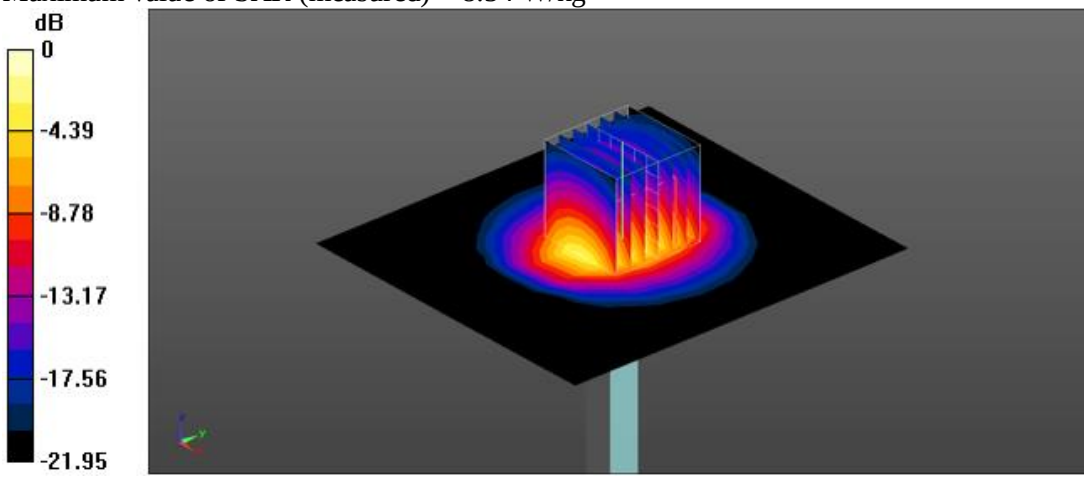
- Probe: EX3DV4 - SN7541;ConvF(7.69, 7.69, 7.69) @ 2450 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/2450 MHz Verification Input Power 100 mW 2022-10-05/Area Scan (10x11x1):
Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 6.71 W/kg

Configuration/2450 MHz Verification Input Power 100 mW 2022-10-05/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 68.98 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 10.6 W/kg
SAR(1 g) = 5.09 W/kg; SAR(10 g) = 2.38 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 8.54 W/kg



0 dB = 8.54 W/kg = 9.31 dBW/kg

Date: 10/24/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2450 MHz Verification Input Power 100 mW 2022-10-24.da5:0

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; σ = 1.864 S/m; ε_r = 38.327; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

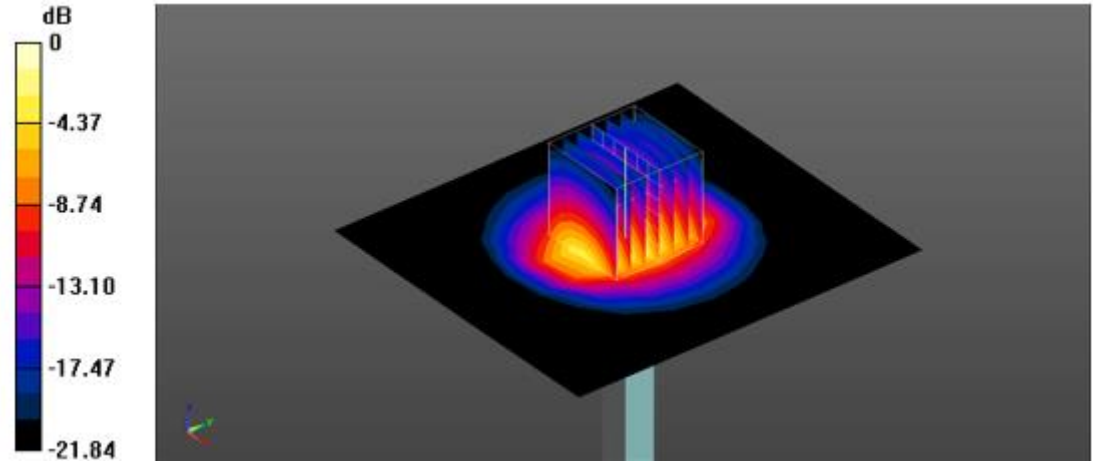
- Probe: EX3DV4 - SN7541;ConvF(7.69, 7.69, 7.69) @ 2450 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/2450 MHz Verification Input Power 100 mW 2022-10-24/Area Scan (10x11x1):
Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 7.87 W/kg

Configuration/2450 MHz Verification Input Power 100 mW 2022-10-24/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 71.99 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 11.5 W/kg
SAR(1 g) = 5.44 W/kg; SAR(10 g) = 2.55 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 9.17 W/kg



0 dB = 9.17 W/kg = 9.62 dBW/kg

Date: 10/27/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2600 MHz Verification Iuput Power 100 mW 2022-10-27.da52:0

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

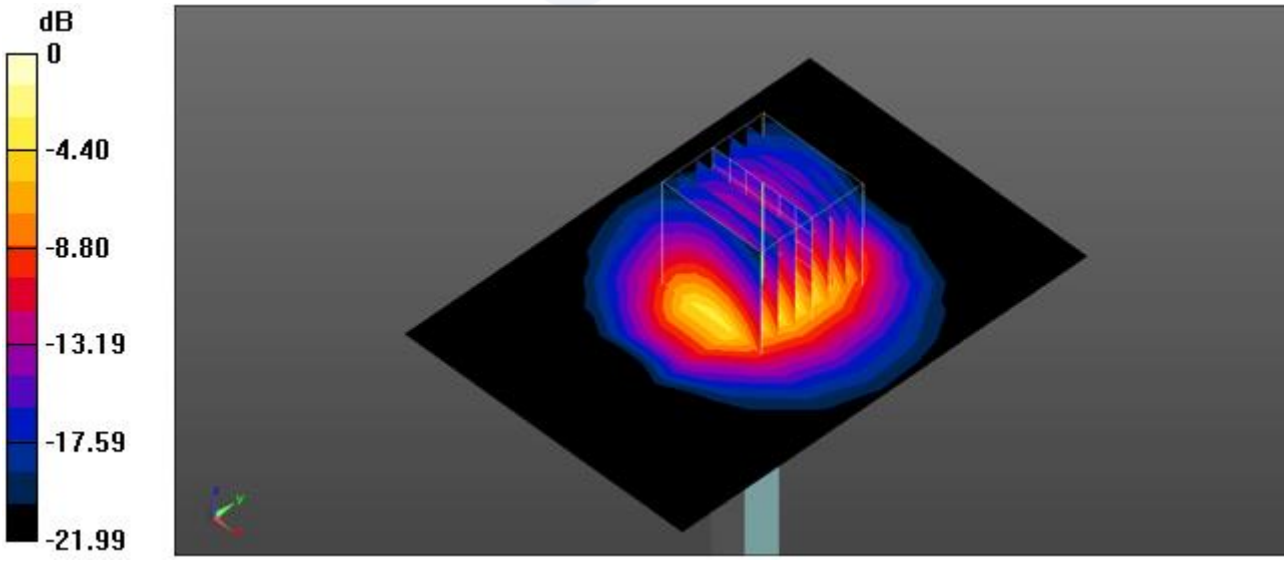
Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 1.964 S/m; ε_r = 37.786; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(7.33, 7.33, 7.33) @ 2600 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- 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 2022-10-27/Area Scan (8x11x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 6.94 W/kg

System Performance Check/2600 MHz Verification Input Power 100 mW 2022-10-27/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 70.40 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 11.7 W/kg
SAR(1 g) = 5.93 W/kg; SAR(10 g) = 2.76 W/kg
Maximum value of SAR (measured) = 9.67 W/kg



0 dB = 9.67 W/kg = 9.85 dBW/kg

Date: 10/19/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 5250 MHz Verification Input Power 100 mW 2022-10-19.da5:0

DUT: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1134

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5250 MHz; σ = 4.785 S/m; ε_r = 35.397; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

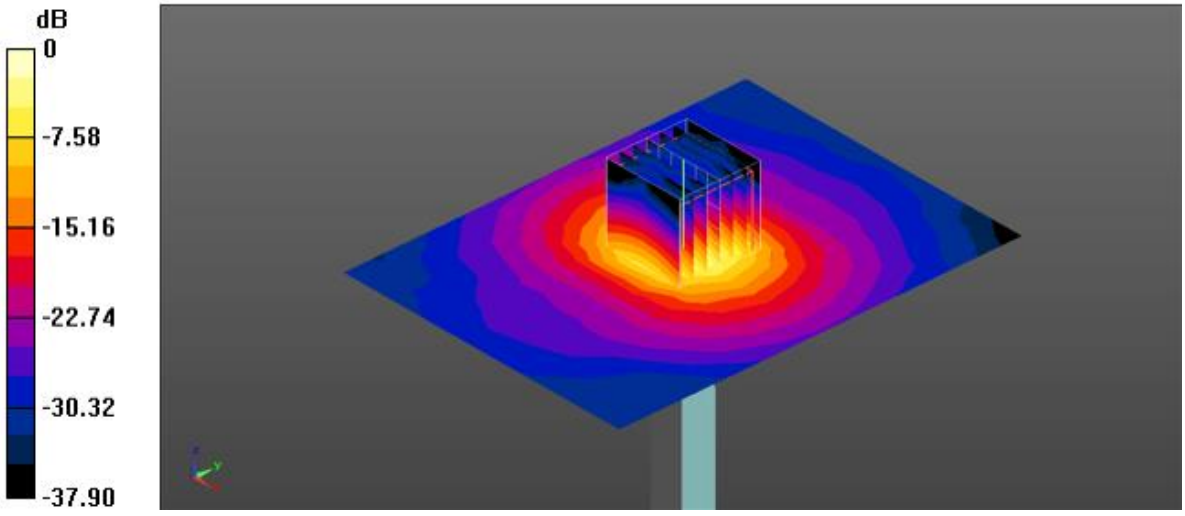
- Probe: EX3DV4 - SN7541;ConvF(5.43, 5.43, 5.43) @ 5250 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5250 MHz Verification Input Power 100 mW 2022-10-19/Area Scan (10x13x1):
Measurement grid: dx=10mm, dy=10mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 16.4 W/kg

Configuration/5250 MHz Verification Input Power 100 mW 2022-10-19/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 69.05 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 32.3 W/kg
SAR(1 g) = 7.7 W/kg; SAR(10 g) = 2.23 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 19.7 W/kg



0 dB = 19.7 W/kg = 12.94 dBW/kg

Date: 10/19/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 5600 MHz Verification Input Power 100 mW 2022-10-19.da5:0

DUT: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1134

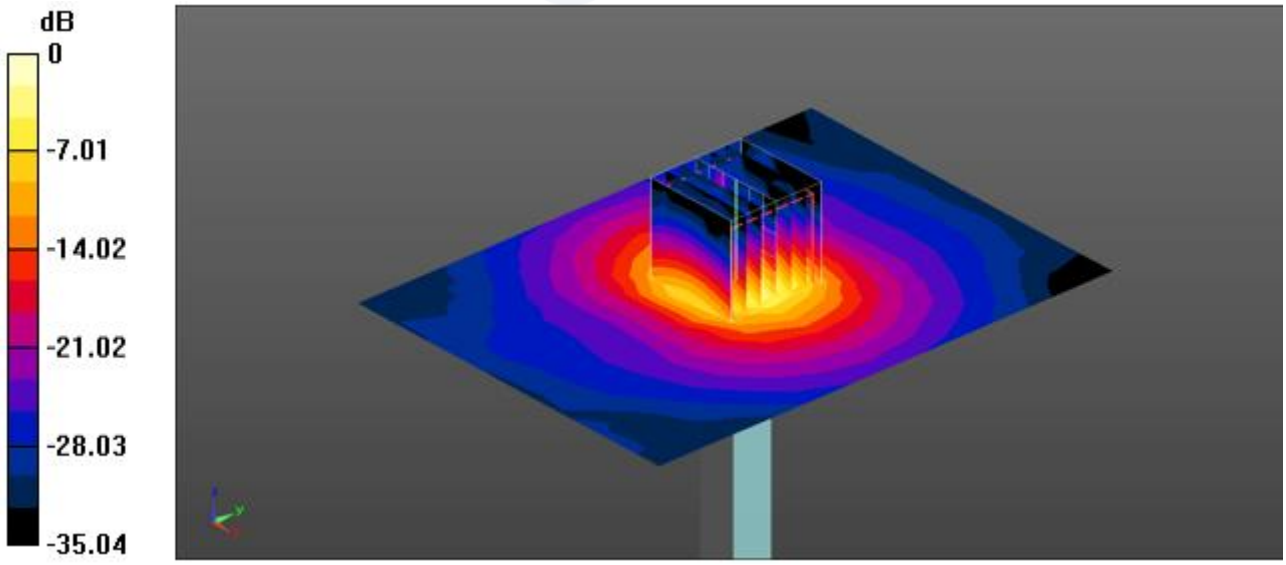
Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 5.171 S/m; ε_r = 34.729; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(4.68, 4.68, 4.68) @ 5600 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5600 MHz Verification Input Power 100 mW 2022-10-19/Area Scan (10x13x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 17.4 W/kg

Configuration/5600 MHz Verification Input Power 100 mW 2022-10-19/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 67.57 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 33.8 W/kg
SAR(1 g) = 8.1 W/kg; SAR(10 g) = 2.34 W/kg
Maximum value of SAR (measured) = 20.6 W/kg



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

Date: 10/19/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 5800 MHz Verification Input Power 100 mW 2022-10-19.da5:0

DUT: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1134

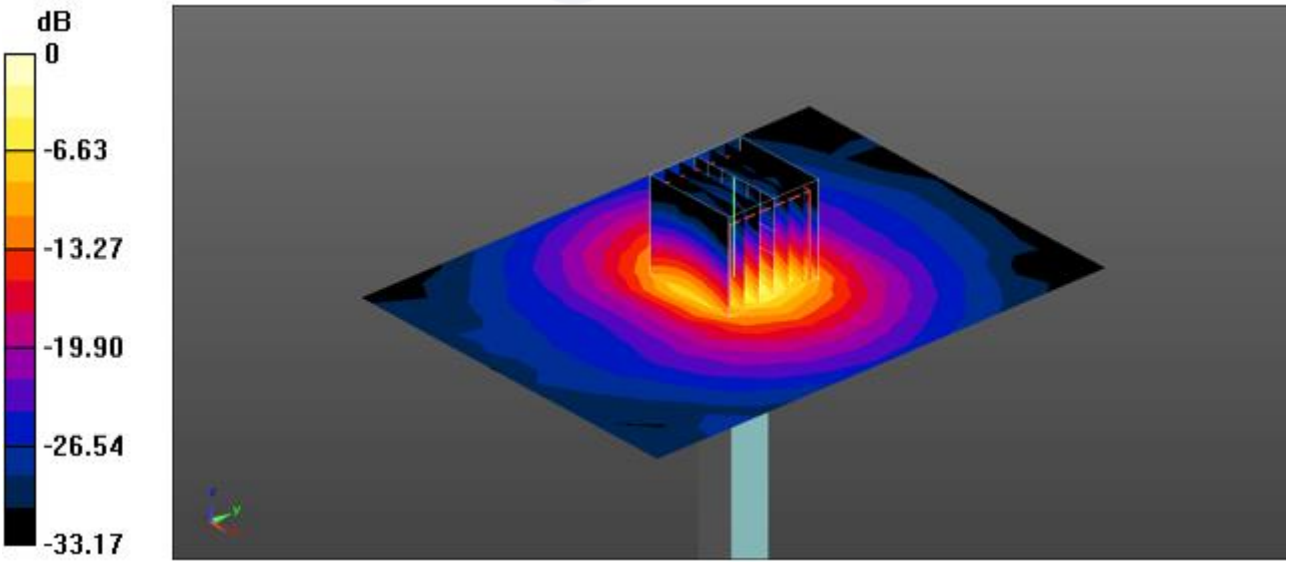
Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.404 S/m; ε_r = 34.308; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(4.71, 4.71, 4.71) @ 5800 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5800 MHz Verification Input Power 100 mW 2022-10-19/Area Scan (10x13x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 18.0 W/kg

Configuration/5800 MHz Verification Input Power 100 mW 2022-10-19/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 66.73 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 35.3 W/kg
SAR(1 g) = 8.34 W/kg; SAR(10 g) = 2.41 W/kg
Maximum value of SAR (measured) = 21.5 W/kg



0 dB = 21.5 W/kg = 13.32 dBW/kg

18. Test Results

1)

Date: 10/26/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. WCDMA Band II_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900723J

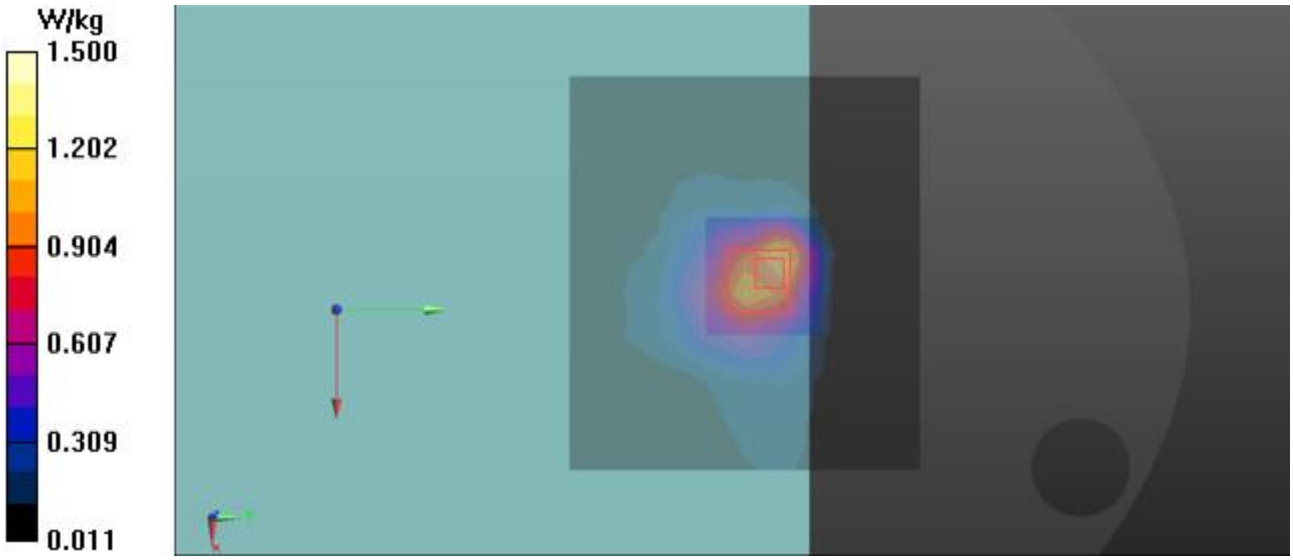
Communication System: UID 0, W-CDMA 1900 (Band 2) (0); Frequency: 1880 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.374 S/m; ε_r = 40.157; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(8.55, 8.55, 8.55) @ 1880 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WCDMA II_CH9400_Rear_0 mm _Repeated/Area Scan (10x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.14 W/kg

Configuration/WCDMA II_CH9400_Rear_0 mm _Repeated/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.34 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.88 W/kg
SAR(1 g) = 0.908 W/kg; SAR(10 g) = 0.487 W/kg
Maximum value of SAR (measured) = 1.50 W/kg



2)

Date: 10/26/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. WCDMA Band IV_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900769Z

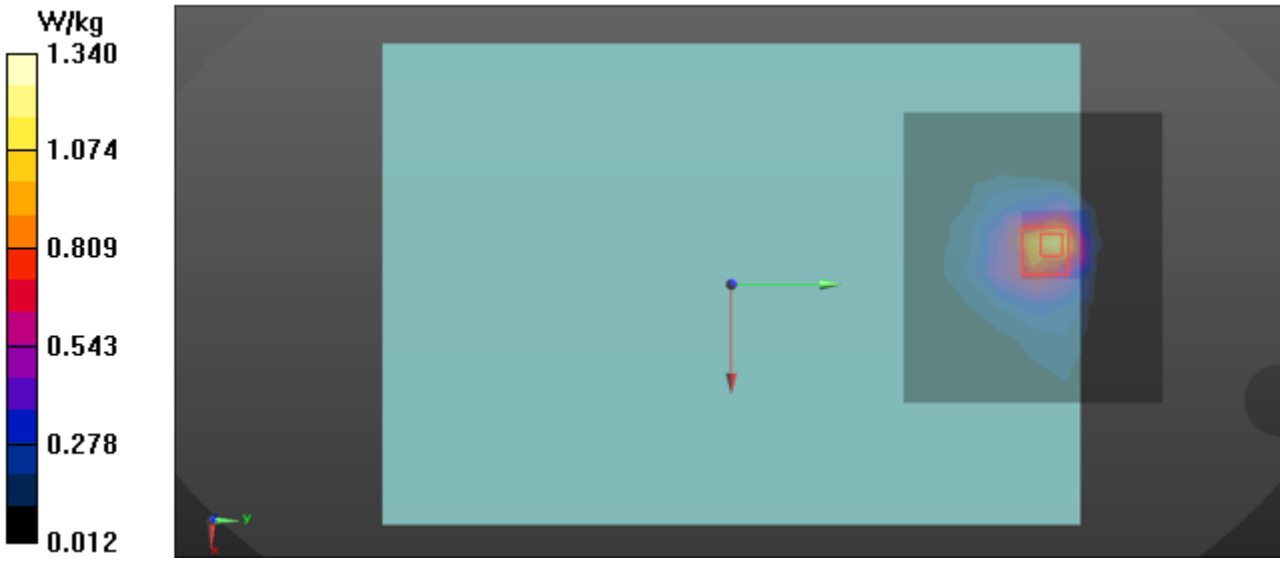
Communication System: UID 0, W-CDMA 1750 (Band 4) (0); Frequency: 1752.6 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1752.6 MHz; σ = 1.402 S/m; ε_r = 40.526; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.83, 8.83, 8.83) @ 1752.6 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WCDMA IV_CH1513_Rear_0 mm Repeated/Area Scan (10x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.11 W/kg

Configuration/WCDMA IV_CH1513_Rear_0 mm Repeated/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.87 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.65 W/kg
SAR(1 g) = 0.845 W/kg; SAR(10 g) = 0.458 W/kg
Maximum value of SAR (measured) = 1.34 W/kg



3)

Date: 9/30/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. WCDMA Band V _Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900429H

Communication System: UID 0, W-CDMA 850 (Band 5) (0); Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium parameters used: f = 836.6 MHz; σ = 0.946 S/m; ε_r = 39.834; ρ = 1000 kg/m^3
Phantom section: Flat Section

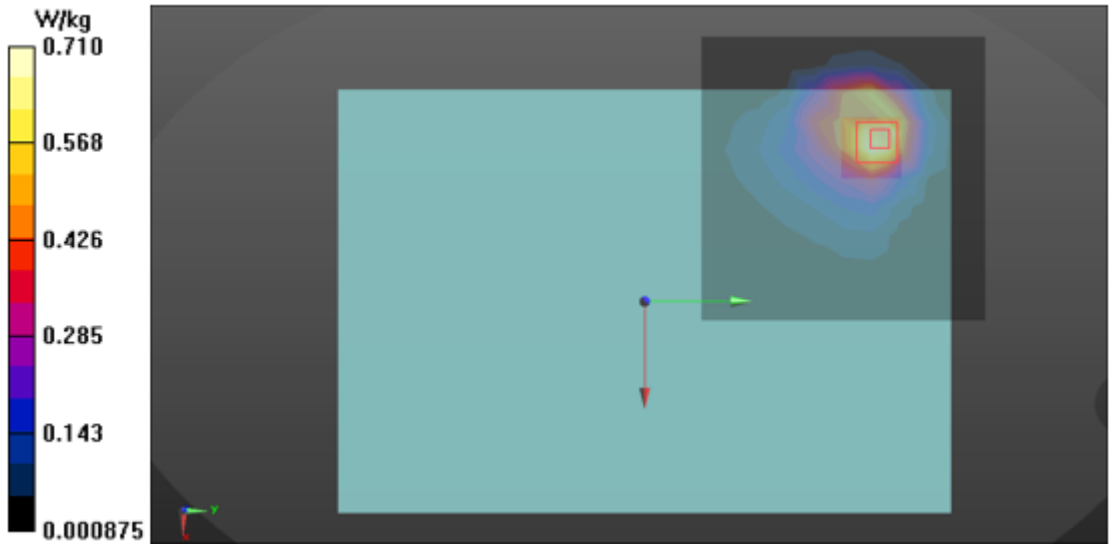
DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(9.73, 9.73, 9.73) @ 836.6 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WCDMA V_CH4183_Rear_0 mm/Area Scan (11x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.710 W/kg

Configuration/WCDMA V_CH4183_Rear_0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.89 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.04 W/kg
SAR(1 g) = 0.578 W/kg; SAR(10 g) = 0.323 W/kg

Maximum value of SAR (measured) = 0.822 W/kg



4)

Date: 10/26/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2. LTE Band 2_QPSK_20 MHz_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900723J

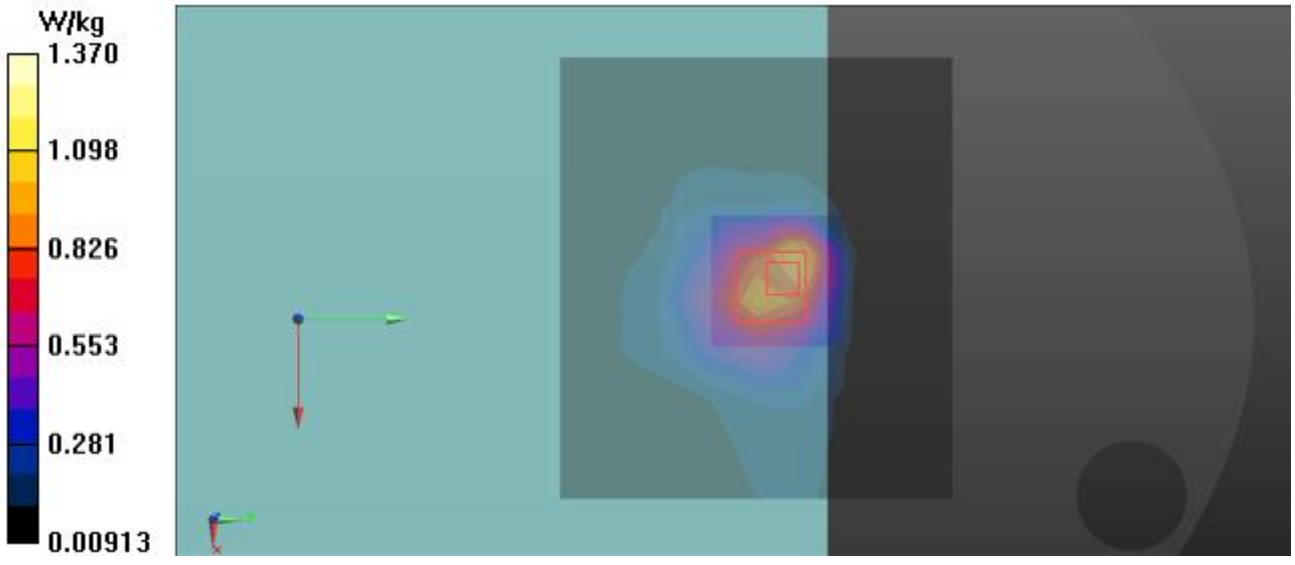
Communication System: UID 0, LTE Band 2 (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.397 S/m; ε_r = 40.095; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(8.55, 8.55, 8.55) @ 1900 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 2_QPSK_20MHz_50RB_24offset_CH19100_Rear 0 mm Repeated/Area Scan (10x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.05 W/kg

Configuration/LTE Band 2_QPSK_20MHz_50RB_24offset_CH19100_Rear 0 mm Repeated/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.62 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.72 W/kg
SAR(1 g) = 0.832 W/kg; SAR(10 g) = 0.445 W/kg
Maximum value of SAR (measured) = 1.37 W/kg



5)

Date: 10/27/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. LTE Anchor Band 2_QPSK_20 MHz_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900769Z

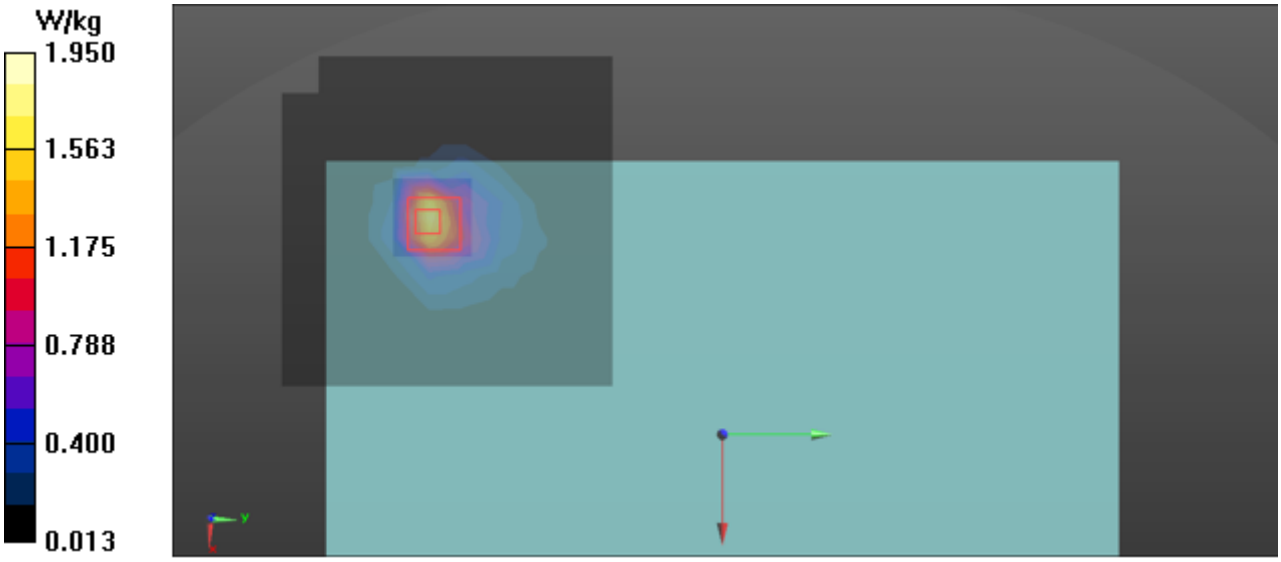
Communication System: UID 0, LTE Band 2 (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.4 S/m; ε_r = 38.308; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.33, 8.33, 8.33) @ 1900 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 2_QPSK_20MHz_50RB_24offset_CH19100_Rear 0 mm/Area Scan (10x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.59 W/kg

Configuration/LTE Band 2_QPSK_20MHz_50RB_24offset_CH19100_Rear 0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.20 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.58 W/kg
SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.563 W/kg
Maximum value of SAR (measured) = 1.95 W/kg



6)

Date: 10/11/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 4. LTE Band 5_QPSK_10 MHz_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900429H

Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.932 S/m; ε_r = 41.462; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

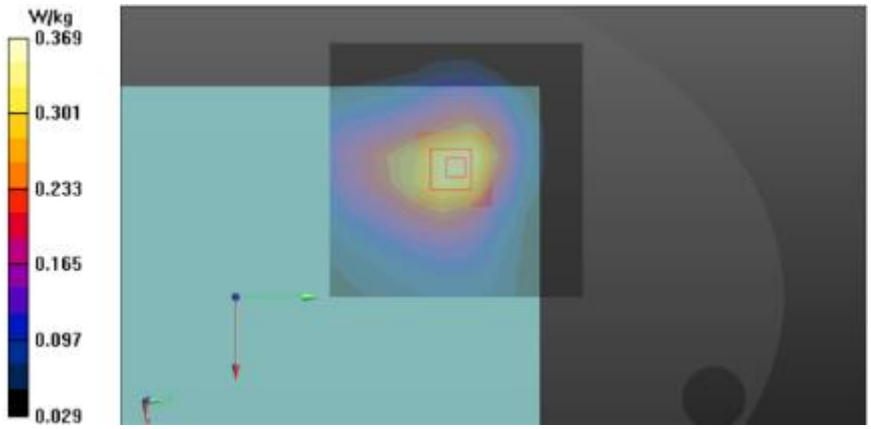
- Probe: EX3DV4 - SN7540;ConvF(9.73, 9.73, 9.73) @ 836.5 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 5_QPSK_10MHz_1RB_0offset_CH20525_Rear 17 mm/Area Scan (10x10x1):
Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.356 W/kg

Configuration/LTE Band 5_QPSK_10MHz_1RB_0offset_CH20525_Rear 17 mm/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.339 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.414 W/kg
SAR(1 g) = 0.287 W/kg; SAR(10 g) = 0.199 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.369 W/kg



7)

Date: 9/30/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2. LTE Band 12_QPSK_10 MHz_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900429H

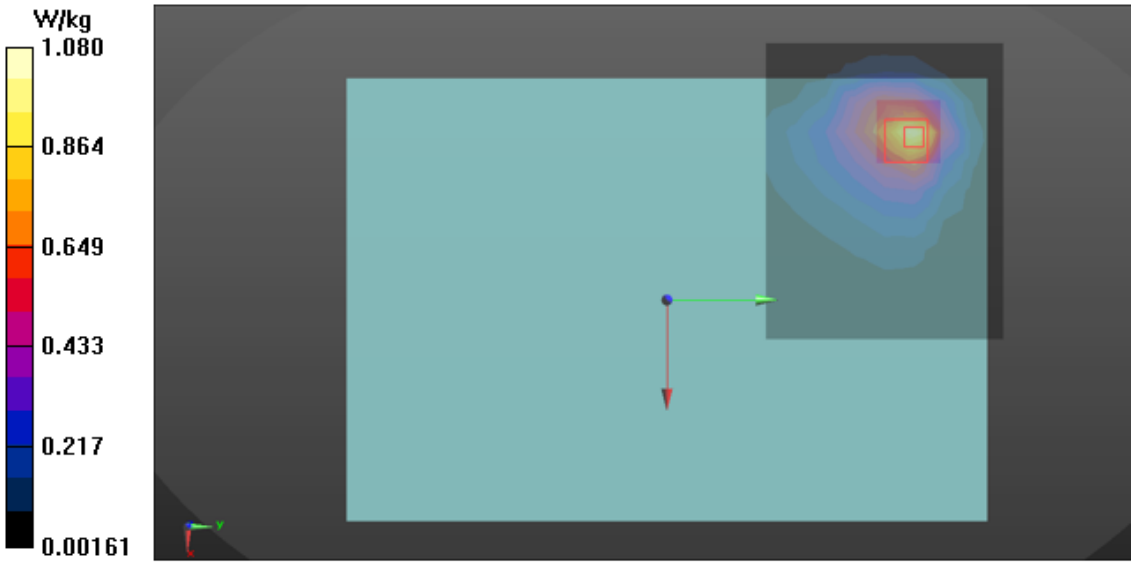
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium parameters used: f = 707.5 MHz; σ = 0.902 S/m; ε_r = 40.197; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(10.25, 10.25, 10.25) @ 707.5 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 12_QPSK_10MHz_25RB_12offset_CH23095_Rear 0 mm/Area Scan (11x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.08 W/kg

Configuration/LTE Band 12_QPSK_10MHz_25RB_12offset_CH23095_Rear 0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.019 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.21 W/kg
SAR(1 g) = 0.685 W/kg; SAR(10 g) = 0.402 W/kg
Maximum value of SAR (measured) = 1.02 W/kg



8)

Date: 9/30/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 3. LTE Band 13_QPSK_10 MHz_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900429H

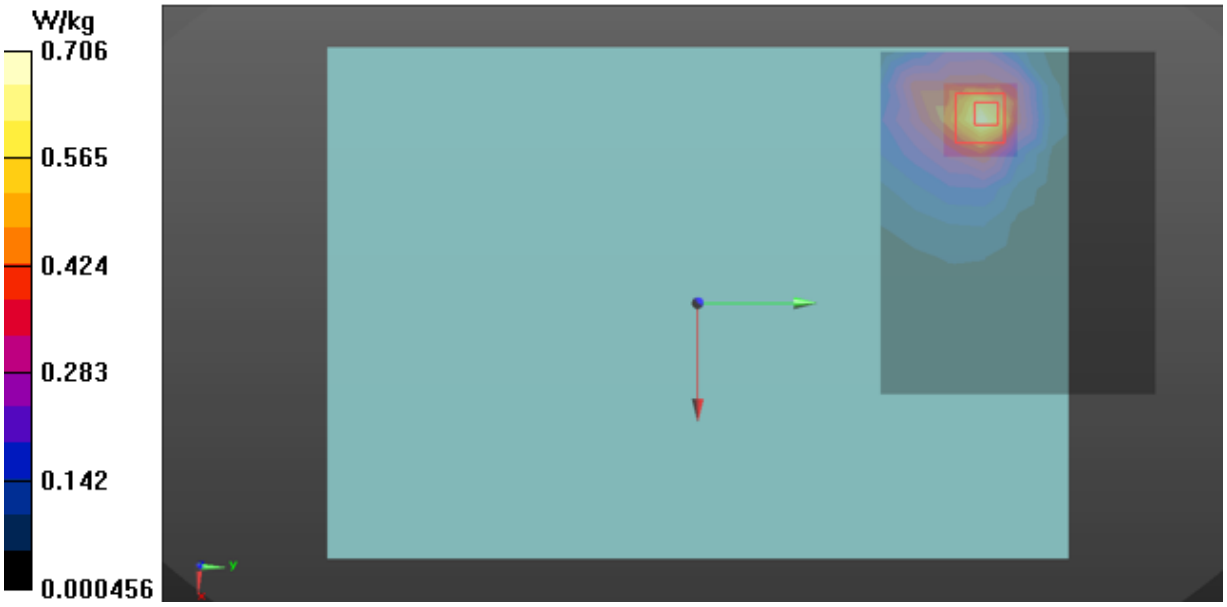
Communication System: UID 0, LTE Band 13 (0); Frequency: 782 MHz; Duty Cycle: 1:1
Medium parameters used: f = 782 MHz; σ = 0.928 S/m; ε_r = 39.959; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(10.25, 10.25, 10.25) @ 782 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 13_QPSK_10MHz_25RB_25offset_CH23230_Rear 0 mm/Area Scan (11x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.706 W/kg

Configuration/LTE Band 13_QPSK_10MHz_25RB_25offset_CH23230_Rear 0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.040 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.847 W/kg
SAR(1 g) = 0.486 W/kg; SAR(10 g) = 0.281 W/kg
Maximum value of SAR (measured) = 0.697 W/kg



9)

Date: 9/30/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 4. LTE Band 26_QPSK_15 MHz_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900429H

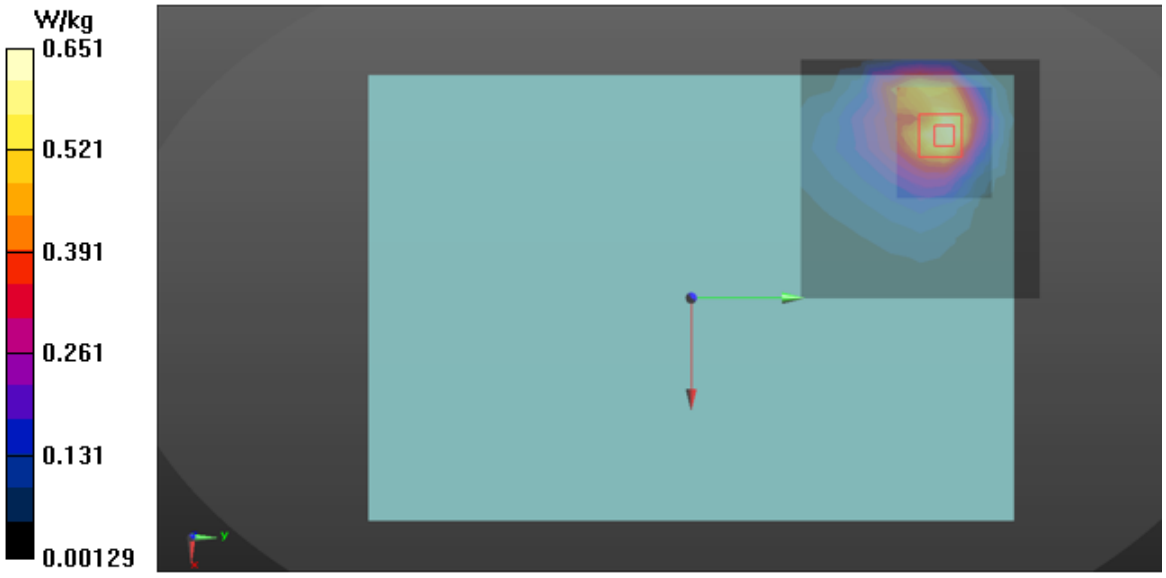
Communication System: UID 0, LTE Band 26 (0); Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium parameters used: f = 831.5 MHz; σ = 0.944 S/m; ε_r = 39.824; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7540;ConvF(9.73, 9.73, 9.73) @ 831.5 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 26_QPSK_15MHz_36RB_37offset_CH26865_Rear 0 mm/Area Scan (9x9x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.651 W/kg

Configuration/LTE Band 26_QPSK_15MHz_36RB_37offset_CH26865_Rear 0 mm/Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.762 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.906 W/kg
SAR(1 g) = 0.500 W/kg; SAR(10 g) = 0.281 W/kg
Maximum value of SAR (measured) = 0.784 W/kg



10)

Date: 10/27/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. LTE Band 41 QPSK_20 MHz_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900723J

Communication System: UID 0, LTE Band 41 (0); Frequency: 2549.5 MHz; Duty Cycle: 1:1.58016
Medium parameters used (interpolated): f = 2549.5 MHz; σ = 1.904 S/m; ε_r = 37.984; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

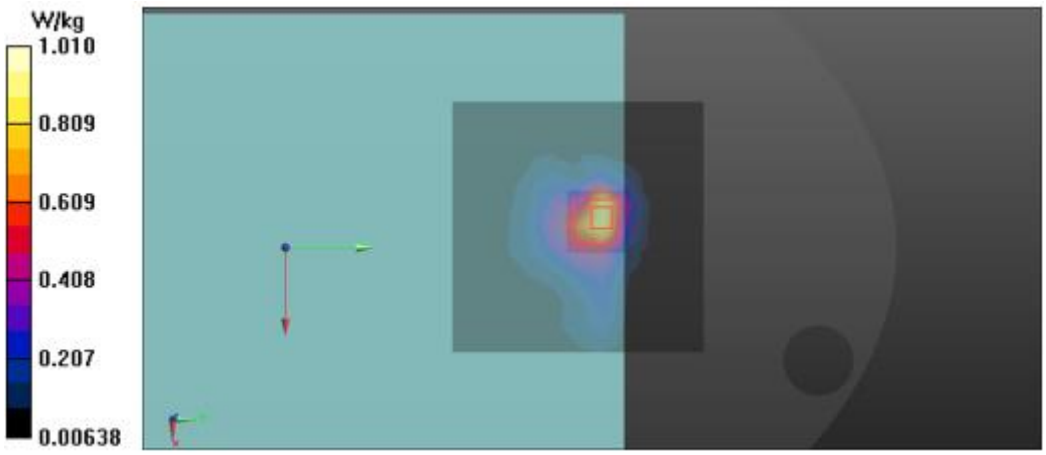
- Probe: EX3DV4 - SN7540;ConvF(7.33, 7.33, 7.33) @ 2549.5 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Grip On/LTE Band 41_QPSK_20MHz_1RB_0offset_CH40185_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) = 0.912 W/kg

Grip On/LTE Band 41_QPSK_20MHz_1RB_0offset_CH40185_Rear 0 mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.00 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.35 W/kg
SAR(1 g) = 0.600 W/kg; SAR(10 g) = 0.281 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.01 W/kg



11)

Date: 10/26/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2. LTE Band 66_QPSK_20 MHz_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900769Z

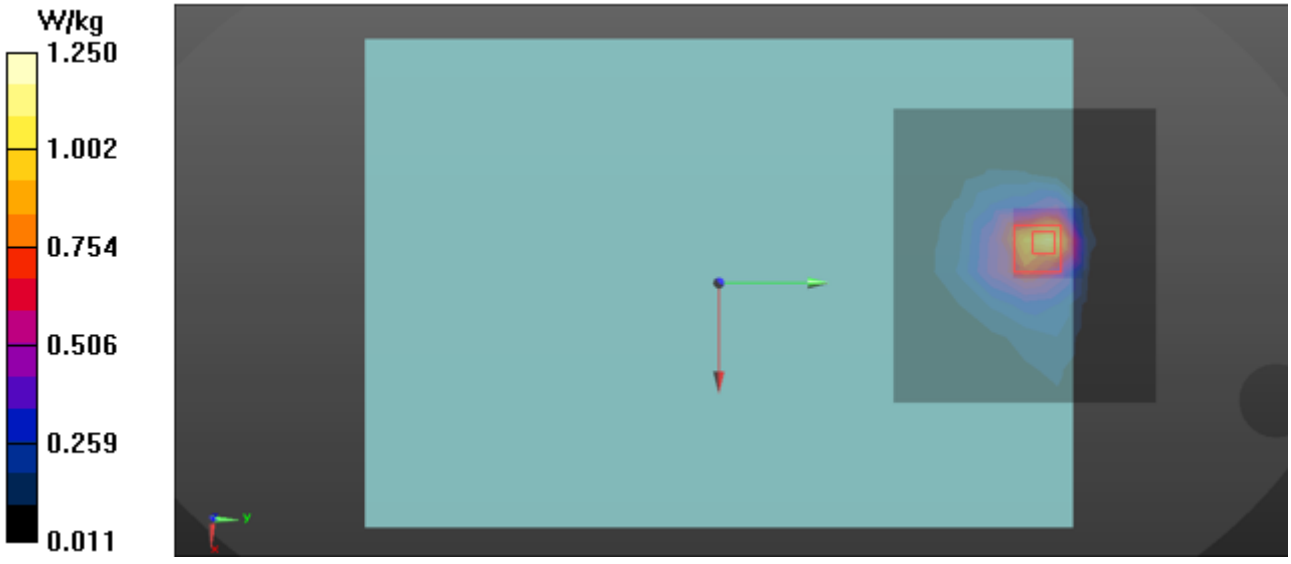
Communication System: UID 0, LTE Band 66 (0); Frequency: 1720 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.366 S/m; ε_r = 40.802; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.83, 8.83, 8.83) @ 1720 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 66_QPSK_20MHz_1RB_49offset_CH132072_Rear 0 mm/Area Scan (10x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.06 W/kg

Configuration/LTE Band 66_QPSK_20MHz_1RB_49offset_CH132072_Rear 0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.34 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.55 W/kg
SAR(1 g) = 0.801 W/kg; SAR(10 g) = 0.437 W/kg
Maximum value of SAR (measured) = 1.25 W/kg



12)

Date: 10/21/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. LTE Anchor Band 66_QPSK_20 MHz_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUA930T900429H

Communication System: UID 0, LTE Band 66 (0); Frequency: 1745 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.343 S/m; ε_r = 40.17; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

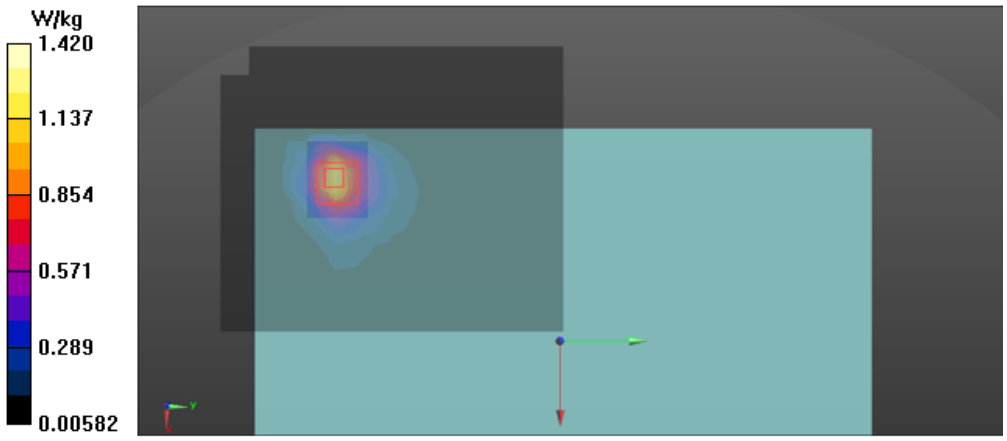
- Probe: EX3DV4 - SN7541;ConvF(8.83, 8.83, 8.83) @ 1745 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 66_QPSK_20MHz_100RB_0offset_CH132322_Rear 0 mm/Area Scan (11x13x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.10 W/kg

Configuration/LTE Band 66_QPSK_20MHz_100RB_0offset_CH132322_Rear 0 mm/Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.33 V/m; Power Drift = -0.21 dB
Peak SAR (extrapolated) = 1.95 W/kg
SAR(1 g) = 0.920 W/kg; SAR(10 g) = 0.454 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.42 W/kg



13)

Date: 9/26/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 5.5G NR n5_Notebook.da53:1

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T800425L

Communication System: UID 0, 5G sub6 n5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.918 S/m; ε_r = 41.161; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

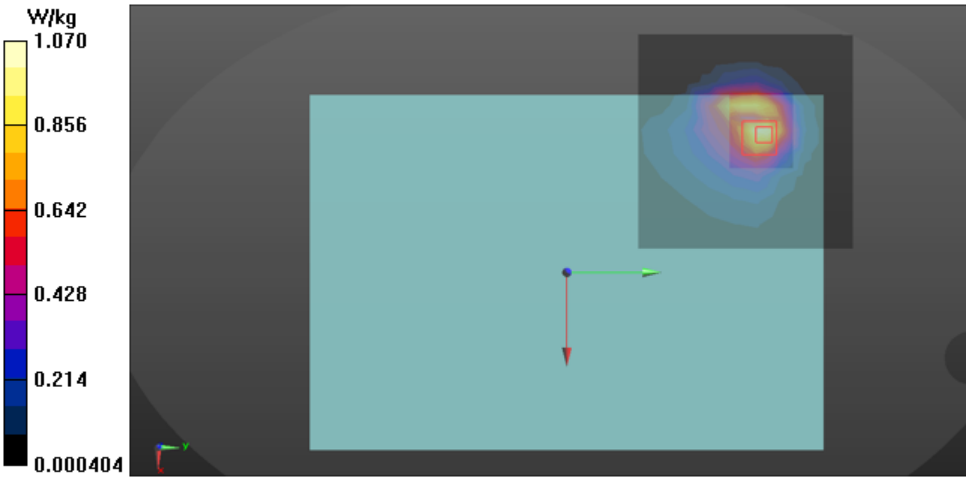
- Probe: EX3DV4 - SN7540;ConvF(9.73, 9.73, 9.73) @ 836.5 MHz; Calibrated: 4/29/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn666; Calibrated: 1/26/2022
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2097
- Measurement SW: DASY52, Version 52.10 (4);

Configuration 2/5G NR n5 DFT-S-OFDM_QPSK_SCS 15kHz_20MHz 100RB 0offset_Rear_0mm/Area Scan (10x10x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.07 W/kg

Configuration 2/5G NR n5 DFT-S-OFDM_QPSK_SCS 15kHz_20MHz 100RB 0offset_Rear_0mm/Zoom Scan (7x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 36.23 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.726 W/kg; SAR(10 g) = 0.400 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.11 W/kg



14)

Date: 10/26/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 3. 5G NR n66_Notebook.da53:1

DUT: NP345XNA, Type: Notebook, Serial: KCUQ90T900769Z

Communication System: UID 0, 5G sub6 n66 (0); Frequency: 1720 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.366 S/m; ε_r = 40.802; ρ = 1000 kg/m^3
Phantom section: Flat Section

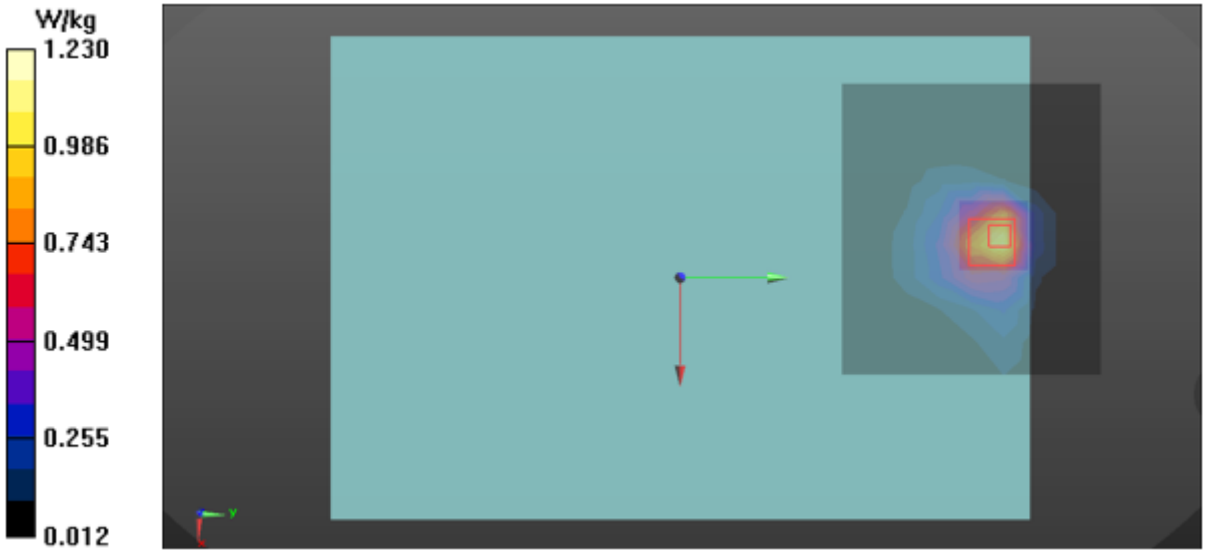
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.83, 8.83, 8.83) @ 1720 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration 2/5G NR n66 DFT-S-OFDM_QPSK_SCS 15kHz_20MHz 1RB 1offset_CH344000_Rear_0mm/Area Scan (10x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.11 W/kg

Configuration 2/5G NR n66 DFT-S-OFDM_QPSK_SCS 15kHz_20MHz 1RB 1offset_CH344000_Rear_0mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.55 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.55 W/kg
SAR(1 g) = 0.809 W/kg; SAR(10 g) = 0.439 W/kg

Maximum value of SAR (measured) = 1.23 W/kg



15)

Date: 10/24/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. WLAN 2.4 GHz_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900408T

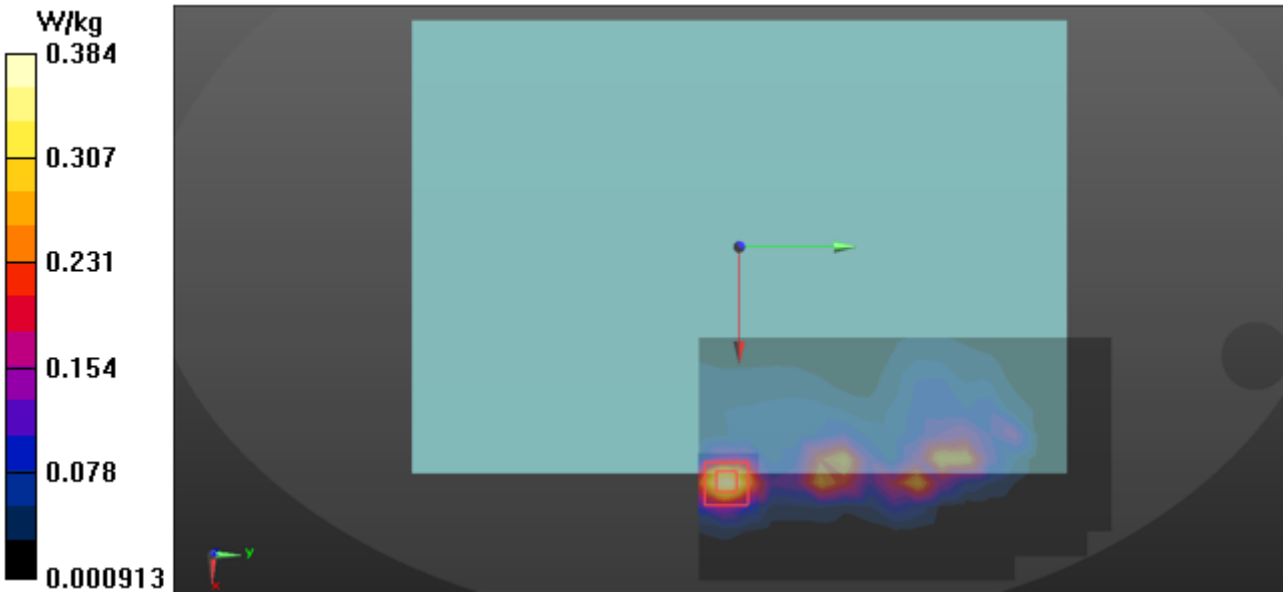
Communication System: UID 0, 2.4GWLAN (0); Frequency: 2462 MHz; Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.874 S/m; ε_r = 38.304; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(7.69, 7.69, 7.69) @ 2462 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/802.11_b_Aux_CH11_Rear_4 mm Grip Sensor off/Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.444 W/kg

Configuration/802.11_b_Aux_CH11_Rear_4 mm Grip Sensor off/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.89 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.474 W/kg
SAR(1 g) = 0.236 W/kg; SAR(10 g) = 0.111 W/kg
Maximum value of SAR (measured) = 0.384 W/kg



16)

Date: 10/24/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. WLAN 2.4 GHz_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900653Z

Communication System: UID 0, 2.4GWLAN (0); Frequency: 2437 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.854 S/m; ε_r = 38.334; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

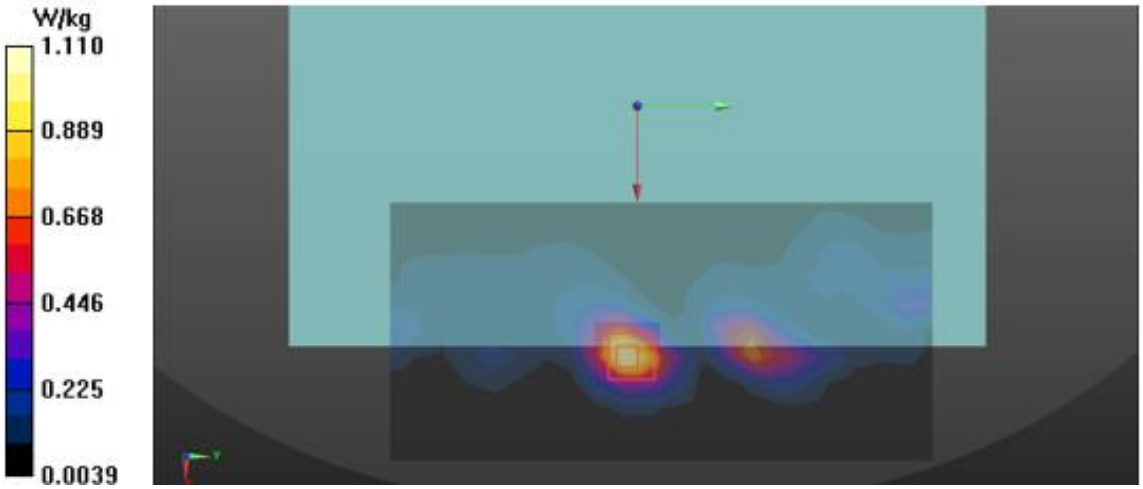
- Probe: EX3DV4 - SN7541;ConvF(7.69, 7.69, 7.69) @ 2437 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/802.11_b_MIMO_CH6_Rear_4 mm Grip Sensor off/Area Scan (11x22x1): Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.25 W/kg

Configuration/802.11_b_MIMO_CH6_Rear_4 mm Grip Sensor off/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.89 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 1.37 W/kg
SAR(1 g) = 0.678 W/kg; SAR(10 g) = 0.330 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.11 W/kg



17)

Date: 10/19/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. WLAN 5.3 GHz_Notebook_Grip Sensor off.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900408T

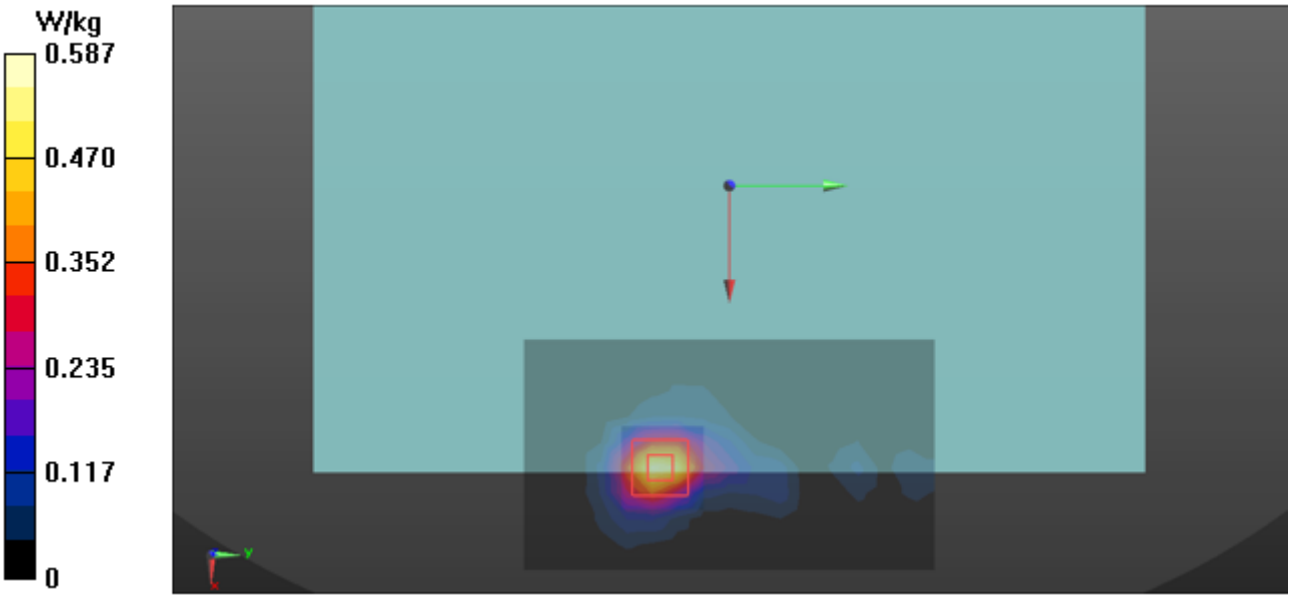
Communication System: UID 0, 5GWLAN (0); Frequency: 5280 MHz; Duty Cycle: 1:1
Medium parameters used: f = 5280 MHz; σ = 4.82 S/m; ε_r = 35.338; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(5.43, 5.43, 5.43) @ 5280 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/802.11_a_Main_CH56_Rear_9 mm Grip Sensor off/Area Scan (10x17x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.566 W/kg

Configuration/802.11_a_Main_CH56_Rear_9 mm Grip Sensor off/Zoom Scan (9x9x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 3.786 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.949 W/kg
SAR(1 g) = 0.263 W/kg; SAR(10 g) = 0.098 W/kg
Maximum value of SAR (measured) = 0.587 W/kg



18)

Date: 10/19/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. WLAN 5.3 GHz_Notebook_Grip Sensor off.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900408T

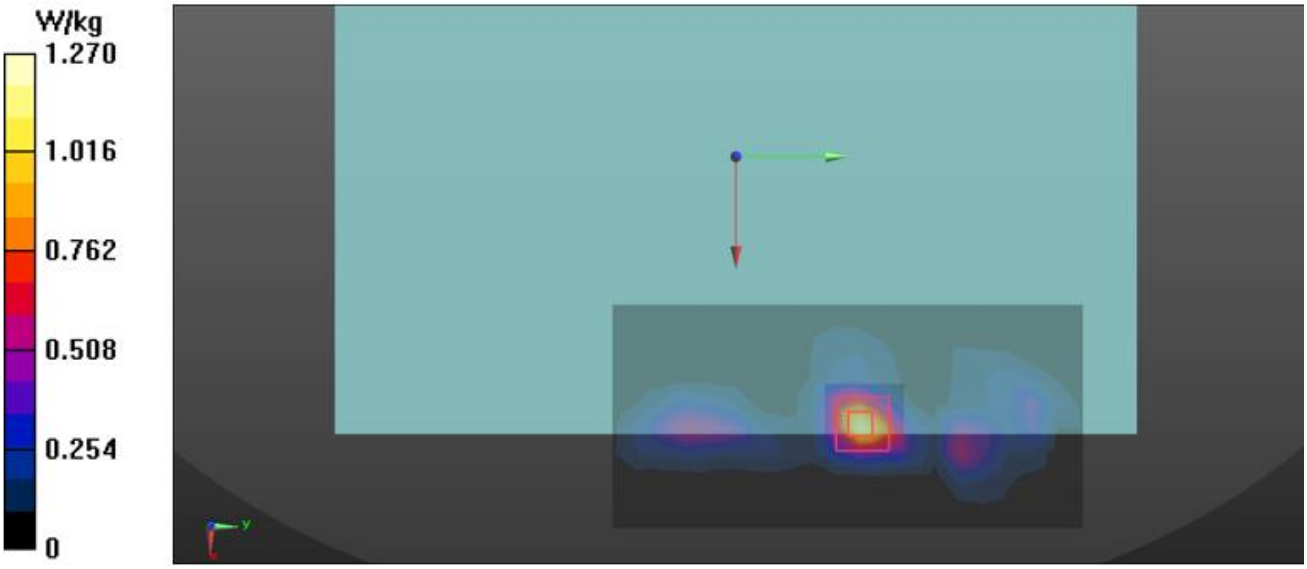
Communication System: UID 0, 5GWLAN (0); Frequency: 5320 MHz; Duty Cycle: 1:1
Medium parameters used: f = 5320 MHz; σ = 4.865 S/m; ε_r = 35.264; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(5.43, 5.43, 5.43) @ 5320 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/802.11_a_MIMO_CH64_Rear_4 mm Grip Sensor off/Area Scan (10x20x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.26 W/kg

Configuration/802.11_a_MIMO_CH64_Rear_4 mm Grip Sensor off/Zoom Scan (9x9x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 17.29 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 2.07 W/kg
SAR(1 g) = 0.554 W/kg; SAR(10 g) = 0.188 W/kg
Maximum value of SAR (measured) = 1.27 W/kg



19)

Date: 10/19/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. WLAN 5.6 GHz_Notebook_Grip Sensor off.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900408T

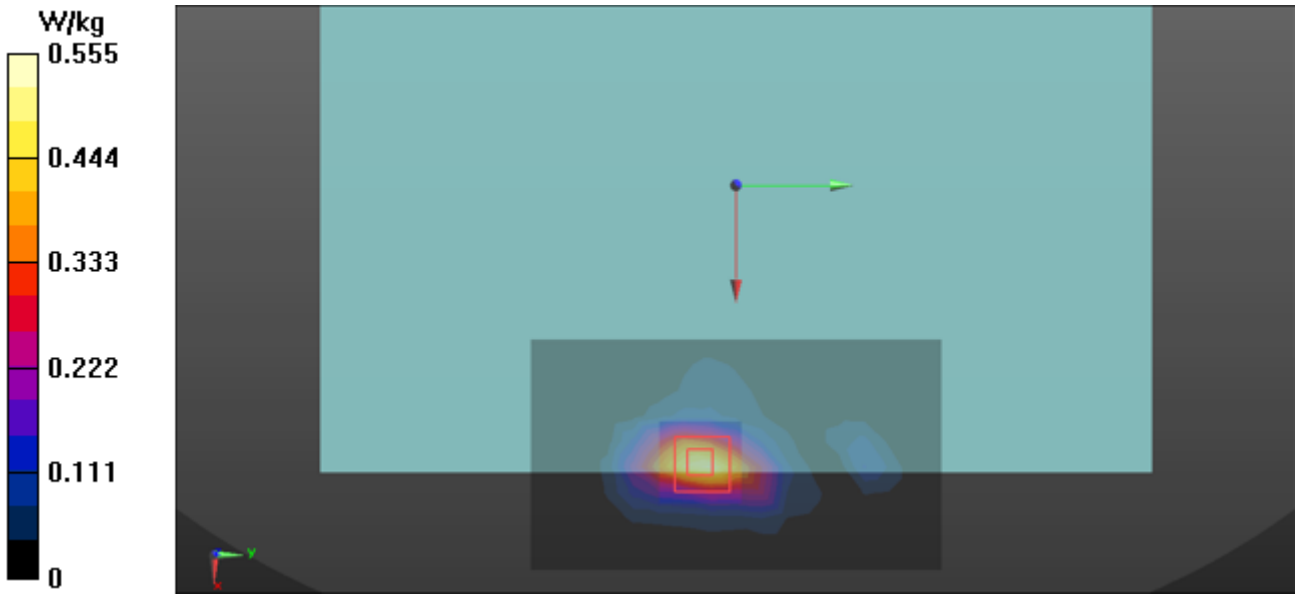
Communication System: UID 0, 5GWLAN (0); Frequency: 5600 MHz; Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 5.171 S/m; ε_r = 34.729; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(4.68, 4.68, 4.68) @ 5600 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/802.11_a_Main_CH120_Rear_9 mm Grip Sensor off/Area Scan (10x17x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.530 W/kg

Configuration/802.11_a_Main_CH120_Rear_9 mm Grip Sensor off/Zoom Scan (9x9x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 5.273 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.961 W/kg
SAR(1 g) = 0.235 W/kg; SAR(10 g) = 0.088 W/kg
Maximum value of SAR (measured) = 0.555 W/kg



20)

Date: 10/19/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. WLAN 5.6 GHz_Notebook_Grip Sensor off.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900408T

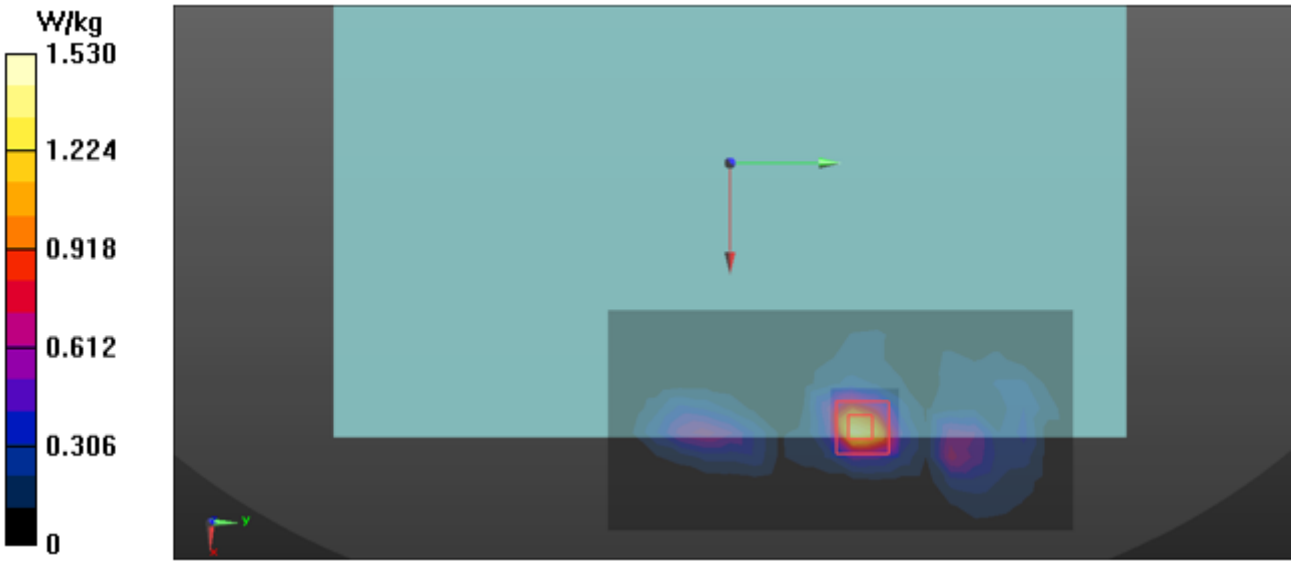
Communication System: UID 0, 5GWLAN (0); Frequency: 5500 MHz; Duty Cycle: 1:1
Medium parameters used: f = 5500 MHz; σ = 5.058 S/m; ε_r = 34.931; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(4.68, 4.68, 4.68) @ 5500 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/802.11_a_MIMO_CH100_Rear_4 mm Grip Sensor off/Area Scan (10x20x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.41 W/kg

Configuration/802.11_a_MIMO_CH100_Rear_4 mm Grip Sensor off/Zoom Scan (8x8x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 18.95 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 2.55 W/kg
SAR(1 g) = 0.647 W/kg; SAR(10 g) = 0.221 W/kg
Maximum value of SAR (measured) = 1.53 W/kg



21)

Date: 10/19/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. WLAN 5.8 GHz_Notebook_Grip Sensor off.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900408T

Communication System: UID 0, 5GWLAN (0); Frequency: 5785 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5785 MHz; σ = 5.388 S/m; ε_r = 34.345; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

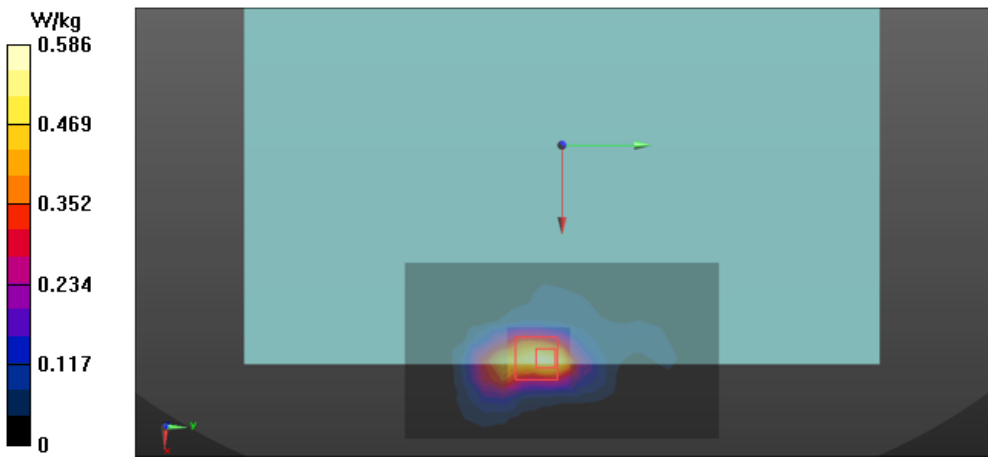
- Probe: EX3DV4 - SN7541;ConvF(4.71, 4.71, 4.71) @ 5785 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/802.11_a_Main_CH157_Rear_9 mm Grip Sensor off/Area Scan (10x17x1): Measurement grid: dx=10mm, dy=10mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.576 W/kg

Configuration/802.11_a_Main_CH157_Rear_9 mm Grip Sensor off/Zoom Scan (9x9x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 3.843 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.247 W/kg; SAR(10 g) = 0.095 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.586 W/kg



22)

Date: 10/19/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. WLAN 5.8 GHz_Notebook_Grip Sensor off.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900408T

Communication System: UID 0, 5GWLAN (0); Frequency: 5785 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5785 MHz; σ = 5.388 S/m; ε_r = 34.345; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

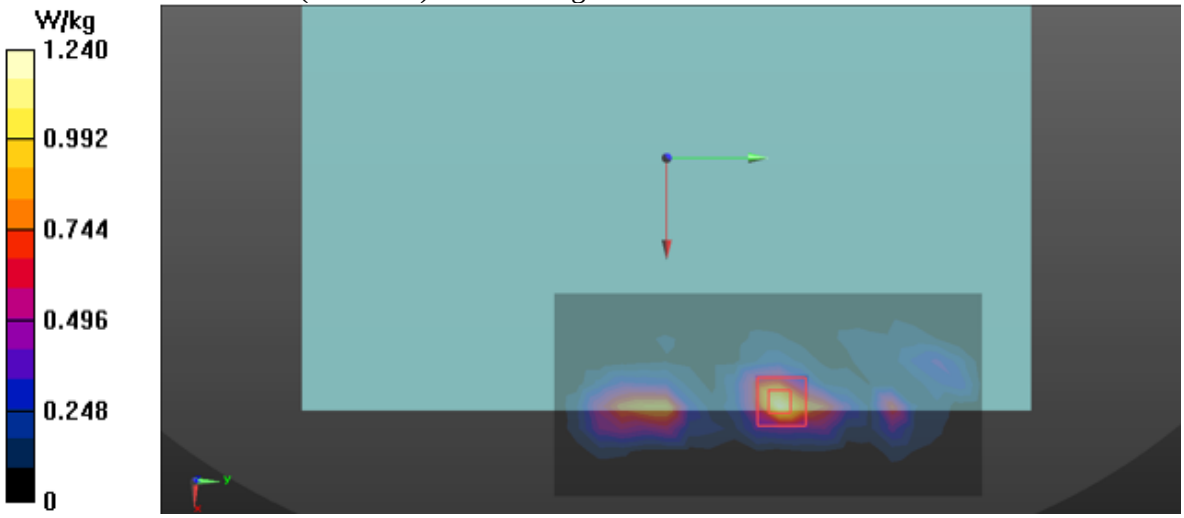
- Probe: EX3DV4 - SN7541;ConvF(4.71, 4.71, 4.71) @ 5785 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/802.11_a_MIMO_CH157_Rear_4 mm Grip Sensor off/Area Scan (10x20x1):
Measurement grid: dx=10mm, dy=10mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.22 W/kg

Configuration/802.11_a_MIMO_CH157_Rear_4 mm Grip Sensor off/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 16.10 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 2.18 W/kg
SAR(1 g) = 0.515 W/kg; SAR(10 g) = 0.178 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.24 W/kg



23)

Date: 10/19/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. WLAN 5.9 GHz_Notebook_Grip Sensor off.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900408T

Communication System: UID 0, 5GWLAN (0); Frequency: 5865 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5865 MHz; σ = 5.488 S/m; ε_r = 34.148; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

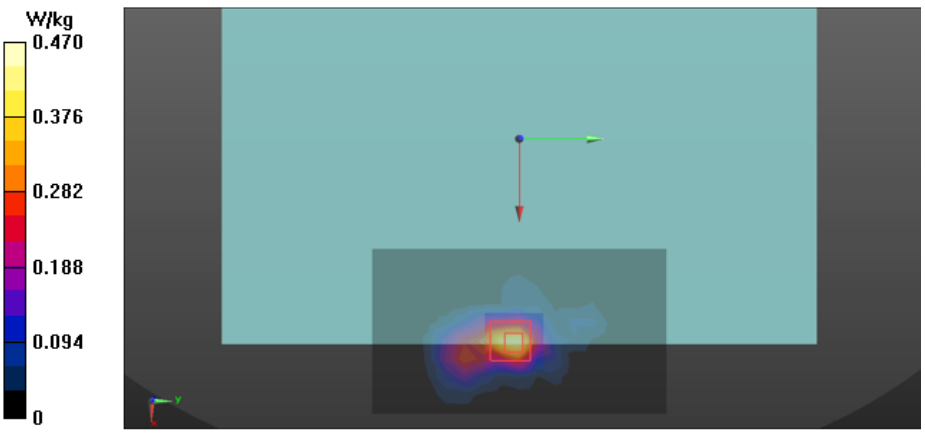
- Probe: EX3DV4 - SN7541;ConvF(4.71, 4.71, 4.71) @ 5865 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/802.11_a_Main_CH173_Rear_9 mm Grip Sensor off/Area Scan (10x17x1): Measurement grid: dx=10mm, dy=10mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.449 W/kg

Configuration/802.11_a_Main_CH173_Rear_9 mm Grip Sensor off/Zoom Scan (9x9x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 9.381 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.848 W/kg
SAR(1 g) = 0.192 W/kg; SAR(10 g) = 0.069 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.470 W/kg



24)

Date: 10/19/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. WLAN 5.9 GHz_Notebook_Grip Sensor off.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900408T

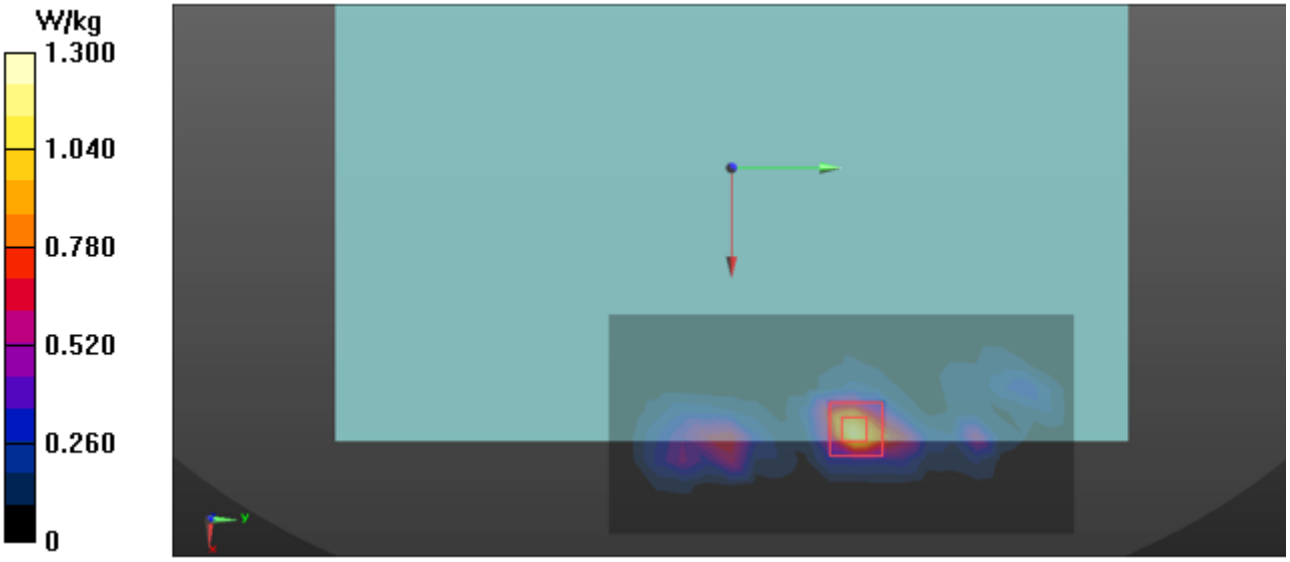
Communication System: UID 0, 5GWLAN (0); Frequency: 5885 MHz; Duty Cycle: 1:1
Medium parameters used: f = 5885 MHz; σ = 5.516 S/m; ε_r = 34.101; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(4.71, 4.71, 4.71) @ 5885 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/802.11_a_MIMO_CH177_Rear_4 mm Grip Sensor off/Area Scan (10x20x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.20 W/kg

Configuration/802.11_a_MIMO_CH177_Rear_4 mm Grip Sensor off/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 16.58 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 2.33 W/kg
SAR(1 g) = 0.526 W/kg; SAR(10 g) = 0.177 W/kg
Maximum value of SAR (measured) = 1.30 W/kg



25)

Date: 10/5/2022

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. Bluetooth_BDR_DH5_Notebook.da53:0

DUT: NP345XNA, Type: Notebook, Serial: KCUQ930T900442A

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz; Duty Cycle: 1:1.30167
Medium parameters used (interpolated): f = 2441 MHz; σ = 1.78 S/m; ε_r = 38.284; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

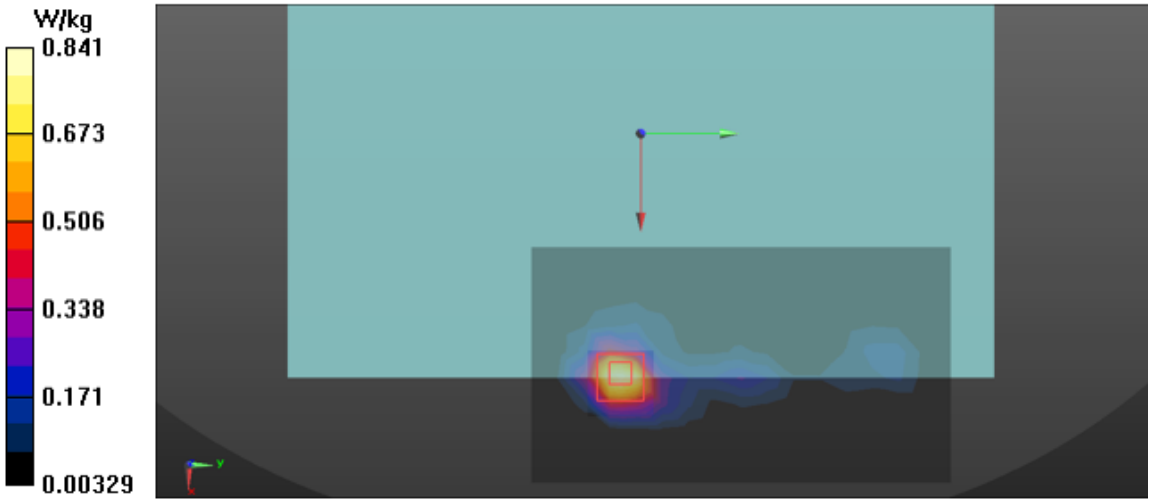
- Probe: EX3DV4 - SN7541;ConvF(7.69, 7.69, 7.69) @ 2441 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1342; Calibrated: 5/31/2022
- Phantom: ELI V8.0_Right; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/Bluetooth_BDR_DH5_CH39_Rear 0 mm/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.885 W/kg

Configuration/Bluetooth_BDR_DH5_CH39_Rear 0 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.31 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.488 W/kg; SAR(10 g) = 0.231 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.841 W/kg



Appendixes List

Appendix A	A.1 Probe Calibration certificate (EX3DV4_7540) A.2 Probe Calibration certificate (EX3DV4_7541) A.3 Dipole Calibration certificate (D750V3_1217) A.4 Dipole Calibration certificate (D850V2_1006) A.5 Dipole Calibration certificate (D1750V2_1072) A.6 Dipole Calibration certificate (D1900V2_5d160) A.7 Dipole Calibration certificate (D2450V2_895) A.8 Dipole Calibration certificate (D2600V2_1050) A.9 Dipole Calibration certificate (D5GHzV2_1134)
Appendix B	SAR Tissue Specification
Appendix C	Downlink LTE CA RF Conducted Power
Appendix D	Power Reduction Verification
Appendix E	#Antenna Location & Distance
Appendix F	EUT Photo
Appendix G	Test Setup Photo