10.3.2.7 LTE Band 66 (Ant.2)

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				132 072	132 322	132 572	
				1 720.0 ㎒	1 745.0 ㎒	1 770.0 ㎒	
20 ㎒	QPSK	1	0	13.82	13.90	13.97	0
		1	49	**13.90**	**13.95**	**14.08**	0
		1	99	13.66	13.88	13.67	0
		50	0	13.81	13.97	13.87	0
		50	24	**13.85**	**13.98**	**14.00**	0
		50	50	13.79	13.91	13.86	0
		100	0	13.66	13.89	**13.91**	0
	16QAM	1	0	13.96	14.12	14.06	0
		1	49	13.94	14.04	13.92	0
		1	99	13.97	13.94	13.97	0
		50	0	13.76	14.01	13.90	0
		50	24	13.85	13.86	14.03	0
		50	50	13.84	13.94	13.98	0
		100	0	13.74	13.85	13.98	0
	64QAM	1	0	13.59	13.89	13.89	0
		1	49	13.95	13.78	13.85	0
		1	99	13.93	13.89	13.99	0
		50	0	13.98	13.59	13.69	0
		50	24	13.76	13.60	13.76	0
		50	50	13.70	13.77	13.90	0
		100	0	13.67	13.88	13.95	0
	256QAM	1	0	13.79	13.75	13.87	0
		1	49	13.79	13.92	13.83	0
		1	99	13.84	13.79	13.79	0
		50	0	13.64	13.93	13.94	0
		50	24	13.73	13.95	13.90	0
		50	50	13.60	13.77	13.91	0
		100	0	13.78	13.64	13.81	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				132 047	132 322	132 597	
				1 717.5 MHz	1 745.0 MHz	1 772.5 MHz	
15 MHz	QPSK	1	0	13.57	13.89	14.00	0
		1	36	14.10	14.01	13.95	0
		1	74	13.57	13.84	13.49	0
		36	0	13.80	13.89	13.81	0
		36	18	13.57	13.96	13.81	0
		36	37	13.78	13.92	13.84	0
		75	0	13.66	13.95	14.07	0
	16QAM	1	0	13.80	13.98	13.91	0
		1	36	13.10	13.94	13.97	0
		1	74	13.60	13.88	13.47	0
		36	0	13.88	13.95	13.98	0
		36	18	13.67	13.92	14.18	0
		36	37	13.74	13.88	13.87	0
		75	0	13.84	14.00	14.19	0
	64QAM	1	0	13.78	13.86	13.79	0
		1	36	14.02	14.08	14.07	0
		1	74	13.84	14.04	14.03	0
		36	0	13.90	13.89	13.90	0
		36	18	13.71	13.86	13.92	0
		36	37	13.63	13.90	14.02	0
		75	0	13.76	13.92	14.02	0
	256QAM	1	0	13.69	13.96	13.98	0
		1	36	13.66	13.99	13.85	0
		1	74	13.30	13.55	13.69	0
		36	0	13.80	13.91	13.81	0
		36	18	13.74	13.85	14.06	0
		36	37	13.70	13.77	13.95	0
		75	0	13.74	13.78	13.99	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				132 022	132 322	132 622	
				1 715.0 MHz	1 745.0 MHz	1 775.0 MHz	
10 MHz	QPSK	1	0	13.89	13.96	13.99	0
		1	25	14.07	14.02	13.99	0
		1	49	13.64	13.98	13.81	0
		25	0	14.04	14.06	14.07	0
		25	12	13.70	14.11	14.06	0
		25	25	13.95	14.01	14.11	0
		50	0	13.87	14.04	14.10	0
	16QAM	1	0	13.94	14.04	14.00	0
		1	25	13.92	14.05	14.07	0
		1	49	13.78	14.08	13.76	0
		25	0	13.84	14.07	14.07	0
		25	12	14.06	14.13	14.15	0
		25	25	13.90	14.13	14.11	0
		50	0	13.93	14.06	14.03	0
	64QAM	1	0	13.58	13.98	14.01	0
		1	25	14.04	14.11	13.96	0
		1	49	14.01	14.07	14.01	0
		25	0	13.80	13.95	14.01	0
		25	12	13.84	14.03	13.94	0
		25	25	13.87	14.00	13.80	0
		50	0	13.74	14.03	14.01	0
	256QAM	1	0	13.66	13.88	13.94	0
		1	25	13.87	13.95	13.72	0
		1	49	13.67	13.89	13.87	0
		25	0	13.96	14.01	14.05	0
		25	12	13.99	14.10	14.25	0
		25	25	13.96	14.01	14.11	0
		50	0	13.85	13.92	14.18	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				131 997	132 322	132 647	
				1 712.5 MHz	1 745.0 MHz	1 777.5 MHz	
5 MHz	QPSK	1	0	13.85	13.98	14.09	0
		1	12	14.03	14.00	13.94	0
		1	24	13.77	14.03	13.92	0
		12	0	13.90	14.01	13.97	0
		12	7	13.65	14.06	13.98	0
		12	13	14.06	14.07	14.08	0
		25	0	13.91	14.01	13.99	0
	16QAM	1	0	13.77	14.08	13.83	0
		1	12	13.30	14.02	14.03	0
		1	24	13.54	14.06	13.56	0
		12	0	13.87	13.97	14.06	0
		12	7	13.79	14.07	14.16	0
		12	13	13.85	14.02	13.88	0
		25	0	13.86	14.04	14.14	0
	64QAM	1	0	13.85	13.98	14.02	0
		1	12	14.12	14.16	14.21	0
		1	24	13.77	13.91	14.15	0
		12	0	13.67	13.85	13.85	0
		12	7	13.88	13.94	14.07	0
		12	13	13.81	14.00	13.97	0
		25	0	13.92	14.01	14.03	0
	256QAM	1	0	13.58	13.91	14.12	0
		1	12	13.76	13.91	13.55	0
		1	24	13.70	13.74	13.91	0
		12	0	13.59	13.72	13.84	0
		12	7	13.84	13.92	14.02	0
		12	13	13.61	13.85	13.87	0
		25	0	13.84	13.79	13.98	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				131 987	132 322	132 657	
				1 711.5 MHz	1 745.0 MHz	1 778.5 MHz	
3 MHz	QPSK	1	0	13.85	13.97	14.05	0
		1	8	13.95	14.04	14.21	0
		1	14	13.69	13.94	13.68	0
		8	0	13.88	13.95	13.88	0
		8	4	13.70	14.01	13.90	0
		8	7	13.92	14.06	14.07	0
		15	0	13.78	14.03	13.94	0
	16QAM	1	0	13.82	13.89	13.86	0
		1	8	13.64	14.02	14.04	0
		1	14	13.44	13.89	13.41	0
		8	0	13.73	13.92	14.07	0
		8	4	13.79	14.03	14.15	0
		8	7	13.82	14.00	13.93	0
		15	0	13.85	14.03	14.07	0
	64QAM	1	0	13.76	14.02	14.08	0
		1	8	13.81	13.95	13.94	0
		1	14	13.83	13.91	13.83	0
		8	0	13.95	13.93	14.02	0
		8	4	13.87	13.96	13.96	0
		8	7	13.84	13.96	13.94	0
		15	0	13.73	14.01	14.17	0
	256QAM	1	0	13.44	13.63	13.66	0
		1	8	13.55	13.71	13.58	0
		1	14	13.69	13.72	13.76	0
		8	0	13.70	13.90	14.04	0
		8	4	13.74	13.88	13.88	0
		8	7	13.96	14.05	14.34	0
		15	0	13.31	13.59	13.84	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				131 979	132 322	132 665	
				1 710.7 ㎒	1 745.0 ㎒	1 779.3 ㎒	
1.4 ㎒	QPSK	1	0	13.69	13.85	13.86	0
		1	3	14.06	13.93	13.95	0
		1	5	13.71	13.99	13.78	0
		3	0	13.87	13.98	13.91	0
		3	1	13.95	14.03	13.86	0
		3	3	13.69	13.94	13.90	0
		6	0	13.42	13.61	13.55	0
	16QAM	1	0	13.73	13.97	13.66	0
		1	3	13.78	14.06	13.93	0
		1	5	13.65	13.88	13.37	0
		3	0	13.78	13.93	13.91	0
		3	1	13.81	14.03	14.11	0
		3	3	13.99	14.27	14.12	0
		6	0	13.87	13.96	14.13	0
	64QAM	1	0	13.73	13.99	14.03	0
		1	3	13.94	14.04	14.03	0
		1	5	13.78	13.92	13.91	0
		3	0	13.83	13.80	13.89	0
		3	1	13.69	13.94	13.97	0
		3	3	13.62	13.83	13.92	0
		6	0	13.43	13.75	13.94	0
	256QAM	1	0	13.51	13.74	13.70	0
		1	3	13.99	14.08	13.83	0
		1	5	13.88	13.71	13.59	0
		3	0	13.69	13.86	13.87	0
		3	1	13.67	13.92	14.15	0
		3	3	13.72	13.83	14.01	0
		6	0	13.47	13.68	13.87	0

10.3.3 5G NR Average Conducted Output Power

10.3.3.1 NR n2(NSA) (Ant.0)

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					372000	376000	380000	
					1 860.0 ㎒	1 880.0㎒	1 900.0㎒	
20 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	13.66	13.65	13.71	0
			1	53	13.67	13.61	13.70	0
			1	104	13.63	13.62	13.65	0
			50	0	13.71	13.76	13.73	0
			50	28	13.74	13.82	13.72	0
			50	56	13.79	13.78	13.66	0
			100	0	13.72	13.71	13.67	0
		QPSK	1	1	**13.70**	**13.75**	**13.69**	0
			1	53	13.67	13.64	13.68	0
			1	104	13.66	13.65	13.61	0
			50	0	**13.79**	**13.83**	**13.76**	0
			50	28	13.76	13.79	13.68	0
			50	56	13.82	13.71	13.69	0
			100	0	13.68	**13.73**	13.71	0
		16QAM	1	1	13.73	13.70	13.68	0
		64QAM	1	1	13.96	14.00	13.88	0
		256QAM	1	1	13.22	13.24	13.31	0
	CP-OFDM	QPSK	1	1	13.76	**13.81**	13.71	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					371500	376000	380500	
					1857.5 ㎒	1 880.0㎒	1 902.5 ㎒	
15 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	13.78	13.74	13.72	0
			1	40	13.84	13.76	13.77	0
			1	77	13.65	13.68	13.81	0
			36	0	13.77	13.82	13.84	0
			36	22	13.81	13.79	13.74	0
			36	43	13.81	13.74	13.56	0
			75	0	13.77	13.79	13.67	0
		QPSK	1	1	13.53	13.61	13.53	0
			1	40	13.60	13.59	13.64	0
			1	77	13.67	13.59	13.46	0
			36	0	13.88	13.81	13.70	0
			36	22	13.66	13.79	13.55	0
			36	43	13.90	13.81	13.76	0
			75	0	13.73	13.75	13.74	0
		16QAM	1	1	13.77	13.71	13.65	0
		64QAM	1	1	13.91	13.99	13.84	0
		256QAM	1	1	13.25	13.30	13.45	0
	CP-OFDM	QPSK	1	1	13.87	13.94	13.83	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					371000	376000	381000	
					1 855.0 MHz	1 880.0MHz	1 905.0 MHz	
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	13.70	13.59	13.74	0
			1	26	13.76	13.66	13.83	0
			1	50	13.66	13.60	13.71	0
			25	0	13.70	13.67	13.69	0
			25	14	13.64	13.65	13.50	0
			25	27	13.67	13.63	13.41	0
			50	0	13.67	13.60	13.59	0
		QPSK	1	1	13.36	13.45	13.42	0
			1	26	13.52	13.51	13.58	0
			1	50	13.55	13.44	13.49	0
			25	0	13.61	13.71	13.73	0
			25	14	13.57	13.60	13.35	0
			25	27	13.64	13.63	13.55	0
			50	0	13.72	13.69	13.76	0
		16QAM	1	1	13.66	13.55	13.53	0
		64QAM	1	1	13.82	13.76	13.65	0
		256QAM	1	1	13.16	13.22	13.28	0
	CP-OFDM	QPSK	1	1	13.43	13.53	13.37	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					370500	376000	381500	
					1 852.5 MHz	1 880.0 MHz	1 907.5 MHz	
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	13.66	13.69	13.65	0
			1	13	13.80	13.72	13.86	0
			1	23	13.57	13.60	13.54	0
			12	0	13.56	13.64	13.68	0
			12	7	13.61	13.67	13.64	0
			12	13	13.56	13.55	13.46	0
			25	0	13.77	13.71	13.57	0
		QPSK	1	1	13.51	13.56	13.47	0
			1	13	13.64	13.51	13.61	0
			1	23	13.56	13.46	13.40	0
			12	0	13.64	13.70	13.67	0
			12	7	13.64	13.63	13.43	0
			12	13	13.67	13.53	13.42	0
			25	0	13.59	13.68	13.69	0
		16QAM	1	1	13.67	13.59	13.58	0
		64QAM	1	1	13.74	13.86	13.73	0
		256QAM	1	1	13.25	13.17	13.33	0
	CP-OFDM	QPSK	1	1	13.66	13.76	13.57	0

10.3.3.2 NR n2(NSA) (Ant.2)

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					372000	376000	380000	
					1 860.0 MHz	1 880.0MHz	1 900.0MHz	
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	13.79	13.75	13.68	0
			1	53	13.75	13.63	13.70	0
			1	104	13.78	13.66	13.77	0
			50	0	13.85	13.79	13.69	0
			50	28	13.79	13.79	13.76	0
			50	56	13.83	13.80	13.64	0
			100	0	13.73	13.78	13.70	0
		QPSK	1	1	13.62	13.79	13.72	0
			1	53	13.75	**13.80**	13.77	0
			1	104	13.70	13.74	13.72	0
			50	0	13.79	13.80	13.67	0
			50	28	13.82	**13.88**	13.69	0
			50	56	13.80	13.75	13.63	0
			100	0	13.76	13.79	13.70	0
		16QAM	1	1	13.69	13.66	13.61	0
		64QAM	1	1	14.02	13.94	13.87	0
		256QAM	1	1	13.28	13.25	13.70	0
	CP-OFDM	QPSK	1	1	13.80	**13.89**	13.76	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					371500	376000	380500	
					1857.5 MHz	1 880.0MHz	1 902.5 MHz	
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	13.78	13.81	13.75	0
			1	40	13.87	13.74	13.77	0
			1	77	13.82	13.79	13.99	0
			36	0	13.77	13.79	13.72	0
			36	22	13.92	13.86	13.91	0
			36	43	13.91	13.80	13.57	0
			75	0	13.70	13.77	13.63	0
		QPSK	1	1	13.74	13.84	13.68	0
			1	40	13.79	13.82	13.80	0
			1	77	13.71	13.76	13.79	0
			36	0	13.89	13.83	13.70	0
			36	22	13.72	13.80	13.68	0
			36	43	13.78	13.78	13.72	0
			75	0	13.77	13.76	13.67	0
		16QAM	1	1	13.72	13.70	13.73	0
		64QAM	1	1	14.02	13.95	13.94	0
		256QAM	1	1	13.25	13.25	13.72	0
	CP-OFDM	QPSK	1	1	13.71	13.82	13.71	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					371000	376000	381000	
					1 855.0 ㎒	1 880.0㎒	1 905.0 ㎒	
10 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	13.55	13.58	13.59	0
			1	26	13.67	13.52	13.69	0
			1	50	13.57	13.49	13.66	0
			25	0	13.81	13.68	13.57	0
			25	14	13.52	13.61	13.51	0
			25	27	13.69	13.63	13.40	0
			50	0	13.58	13.67	13.55	0
		QPSK	1	1	13.39	13.61	13.51	0
			1	26	13.52	13.53	13.44	0
			1	50	13.55	13.50	13.53	0
			25	0	13.73	13.68	13.58	0
			25	14	13.47	13.62	13.33	0
			25	27	13.62	13.62	13.47	0
			50	0	13.67	13.72	13.64	0
		16QAM	1	1	13.65	13.54	13.41	0
		64QAM	1	1	14.03	13.88	13.87	0
		256QAM	1	1	13.10	13.14	13.61	0
	CP-OFDM	QPSK	1	1	13.62	13.73	13.51	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					370500	376000	381500	
					1 852.5 ㎒	1 880.0 ㎒	1 907.5 ㎒	
5 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	13.81	13.69	13.56	0
			1	13	13.85	13.66	13.69	0
			1	23	13.80	13.64	13.70	0
			12	0	13.65	13.68	13.62	0
			12	7	13.63	13.73	13.64	0
			12	13	13.58	13.54	13.38	0
			25	0	13.60	13.67	13.54	0
		QPSK	1	1	13.59	13.75	13.68	0
			1	13	13.54	13.65	13.57	0
			1	23	13.55	13.62	13.65	0
			12	0	13.80	13.76	13.63	0
			12	7	13.70	13.69	13.51	0
			12	13	13.53	13.58	13.40	0
			25	0	13.65	13.65	13.62	0
		16QAM	1	1	13.81	13.69	13.64	0
		64QAM	1	1	13.90	13.84	13.75	0
		256QAM	1	1	13.43	13.32	13.75	0
	CP-OFDM	QPSK	1	1	13.78	13.85	13.81	0

10.3.3.3 NR n5(NSA)

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 167 300 836.5 ㎒	MPR
20 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	20.45	0
			1	53	20.53	0
			1	104	20.43	0
			50	0	20.49	0
			50	28	20.61	0
			50	56	20.60	0
			100	0	20.53	0
		QPSK	1	1	20.50	0
			1	53	**20.60**	0
			1	104	20.43	0
			50	0	20.47	0
			50	28	20.58	0
			50	56	**20.65**	0
			100	0	**20.59**	0
		16QAM	1	1	20.37	0
		64QAM	1	1	20.63	0
		256QAM	1	1	19.62	0.5
	CP-OFDM	QPSK	1	1	**20.56**	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 167 300 836.5 ㎒	MPR
15 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	20.39	0
			1	40	20.54	0
			1	77	20.49	0
			36	0	20.51	0
			36	22	20.62	0
			36	43	20.57	0
			75	0	20.49	0
		QPSK	1	1	20.39	0
			1	40	20.48	0
			1	77	20.47	0
			36	0	20.51	0
			36	22	20.62	0
			36	43	20.54	0
			75	0	20.54	0
		16QAM	1	1	20.41	0
		64QAM	1	1	20.69	0
		256QAM	1	1	19.49	0.5
	CP-OFDM	QPSK	1	1	20.55	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 167 300 836.5 ㎒	MPR
10 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	19.70	0
			1	26	19.84	0
			1	50	19.87	0
			25	0	19.78	0
			25	14	19.85	0
			25	27	19.94	0
			50	0	19.82	0
		QPSK	1	1	19.72	0
			1	26	19.87	0
			1	50	19.99	0
			25	0	19.86	0
			25	14	19.85	0
			25	27	19.88	0
			50	0	19.90	0
		16QAM	1	1	19.76	0
		64QAM	1	1	19.90	0
		256QAM	1	1	18.93	0.5
	CP-OFDM	QPSK	1	1	19.78	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 165300 826.5 ㎒	167300 836.5 ㎒	169300 846.5 ㎒	MPR
5 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	19.86	19.86	19.80	0
			1	13	19.74	19.90	19.84	0
			1	23	19.79	19.91	19.83	0
			12	0	19.77	19.81	19.78	0
			12	7	19.66	19.86	19.94	0
			12	13	19.87	19.87	19.80	0
			25	0	19.82	19.85	19.90	0
		QPSK	1	1	19.71	19.84	19.82	0
			1	13	19.45	19.77	19.63	0
			1	23	19.82	19.85	19.82	0
			12	0	19.78	19.81	19.78	0
			12	7	19.70	19.83	19.89	0
			12	13	19.63	19.86	19.81	0
			25	0	19.71	19.80	19.73	0
		16QAM	1	1	19.82	19.87	19.93	0
		64QAM	1	1	19.96	20.01	20.01	0
		256QAM	1	1	18.85	18.91	18.88	0.5
	CP-OFDM	QPSK	1	1	19.93	20.10	20.06	0

10.3.3.4 NR n66 (NSA) (Ant.0)

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 349000 1 745.0 ㎒	MPR
30 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	13.90	0
			1	80	13.87	0
			1	158	14.00	0
			80	0	14.05	0
			80	40	14.03	0
			80	80	14.01	0
			160	0	13.94	0
		QPSK	1	1	13.95	0
			1	80	14.01	0
			1	158	**14.04**	0
			80	0	**14.09**	0
			80	40	14.02	0
			80	80	14.00	0
			160	0	**14.03**	0
		16QAM	1	1	13.87	0
		64QAM	1	1	14.00	0
		256QAM	1	1	13.50	0
	CP-OFDM	QPSK	1	1	**13.88**	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 344000 1 720.0 ㎒	349000 1 745.0 ㎒	354000 1 770.0 ㎒	MPR
20 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	14.15	14.23	14.16	0
			1	53	14.07	14.16	14.12	0
			1	104	14.01	14.14	14.08	0
			50	0	14.11	14.06	14.11	0
			50	28	14.01	14.04	13.99	0
			50	56	14.16	14.03	14.11	0
			100	0	13.99	14.03	14.01	0
		QPSK	1	1	13.92	14.06	14.06	0
			1	53	14.01	14.05	14.06	0
			1	104	13.95	13.94	13.90	0
			50	0	13.98	14.03	14.05	0
			50	28	13.93	13.99	13.98	0
			50	56	13.89	13.93	13.83	0
			100	0	14.07	14.04	13.94	0
		16QAM	1	1	13.82	14.06	14.04	0
		64QAM	1	1	14.22	14.18	14.25	0
		256QAM	1	1	13.39	13.49	13.62	0
	CP-OFDM	QPSK	1	1	13.92	14.08	14.00	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					343500	349000	354500	
					1 717.5 ㎒	1 745.0 ㎒	1 772.5 ㎒	
15 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	13.96	14.06	14.14	0
			1	40	13.93	13.93	14.03	0
			1	77	13.82	14.00	13.91	0
			36	0	14.01	13.99	13.84	0
			36	22	13.83	14.00	13.91	0
			36	43	13.99	13.99	13.91	0
			75	0	13.88	14.00	13.99	0
		QPSK	1	1	13.93	13.92	13.91	0
			1	40	13.90	13.86	13.79	0
			1	77	13.66	13.82	13.73	0
			36	0	13.99	14.01	14.00	0
			36	22	13.94	14.03	14.14	0
			36	43	13.87	14.00	13.98	0
			75	0	14.10	14.02	13.96	0
		16QAM	1	1	13.86	13.97	13.92	0
		64QAM	1	1	14.24	14.13	14.03	0
		256QAM	1	1	13.42	13.54	13.66	0
	CP-OFDM	QPSK	1	1	13.99	14.04	14.02	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					343000	349000	355000	
					1 715.0 ㎒	1 745.0 ㎒	1 775.0 ㎒	
10 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	14.29	14.37	14.31	0
			1	26	14.18	14.27	14.25	0
			1	50	14.25	14.29	14.20	0
			25	0	14.39	14.35	14.40	0
			25	14	14.28	14.33	14.41	0
			25	27	14.49	14.32	14.28	0
			50	0	14.28	14.39	14.52	0
		QPSK	1	1	14.11	14.19	14.07	0
			1	26	14.25	14.32	14.15	0
			1	50	14.12	14.24	14.15	0
			25	0	14.27	14.35	14.29	0
			25	14	14.24	14.34	14.25	0
			25	27	14.27	14.31	14.17	0
			50	0	14.34	14.36	14.35	0
		16QAM	1	1	14.29	14.39	14.34	0
		64QAM	1	1	14.48	14.51	14.44	0
		256QAM	1	1	13.82	13.84	13.86	0
	CP-OFDM	QPSK	1	1	14.27	14.32	14.26	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					342500	349000	355500	
					1 712.5 ㎒	1 745.0 ㎒	1 777.5 ㎒	
5 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	13.70	13.83	13.85	0
			1	13	13.74	13.90	13.92	0
			1	23	13.72	13.86	13.82	0
			12	0	13.69	13.79	13.77	0
			12	7	13.63	13.75	13.76	0
			12	13	13.94	13.87	13.88	0
			25	0	13.90	13.91	14.04	0
		QPSK	1	1	13.62	13.76	13.67	0
			1	13	13.84	13.81	13.83	0
			1	23	13.73	13.77	13.69	0
			12	0	13.81	13.80	13.76	0
			12	7	13.67	13.77	13.78	0
			12	13	13.86	13.93	13.76	0
			25	0	13.93	13.84	13.78	0
		16QAM	1	1	13.65	13.76	13.79	0
		64QAM	1	1	14.13	14.02	14.05	0
		256QAM	1	1	13.28	13.33	13.45	0
	CP-OFDM	QPSK	1	1	13.71	13.92	13.95	0

10.3.3.5 NR n66 (NSA) (Ant.2)

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 349000 1 745.0 ㎒	MPR
30 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	13.80	0
			1	80	13.79	0
			1	158	13.90	0
			80	0	14.02	0
			80	40	13.89	0
			80	80	14.05	0
			160	0	13.98	0
		QPSK	1	1	**14.04**	0
			1	80	14.00	0
			1	158	13.97	0
			80	0	**14.08**	0
			80	40	13.96	0
			80	80	13.91	0
			160	0	14.02	0
		16QAM	1	1	13.97	0
		64QAM	1	1	14.10	0
		256QAM	1	1	13.55	0
	CP-OFDM	QPSK	1	1	**13.98**	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 344000 1 720.0 ㎒	349000 1 745.0 ㎒	354000 1 770.0 ㎒	MPR
20 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	14.18	14.21	14.19	0
			1	53	14.25	14.30	14.42	0
			1	104	14.34	14.33	14.13	0
			50	0	14.31	14.34	14.37	0
			50	28	14.48	14.37	14.46	0
			50	56	14.37	14.40	14.26	0
			100	0	14.24	14.24	14.11	0
		QPSK	1	1	14.23	14.30	14.32	0
			1	53	14.18	14.30	14.24	0
			1	104	14.51	14.36	14.12	0
			50	0	14.24	14.29	14.21	0
			50	28	14.50	14.38	14.47	0
			50	56	14.32	14.39	14.47	0
			100	0	14.14	14.25	14.21	0
		16QAM	1	1	14.02	14.29	14.24	0
		64QAM	1	1	14.38	14.45	14.29	0
		256QAM	1	1	14.13	13.92	13.83	0
	CP-OFDM	QPSK	1	1	14.25	14.26	14.21	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					343500	349000	354500	
					1 717.5 ㎒	1 745.0 ㎒	1 772.5 ㎒	
15 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	14.42	14.32	14.21	0
			1	40	14.37	14.27	14.43	0
			1	77	14.50	14.37	14.26	0
			36	0	14.29	14.31	14.20	0
			36	22	14.50	14.36	14.49	0
			36	43	14.30	14.36	14.11	0
			75	0	14.16	14.28	14.21	0
		QPSK	1	1	14.22	14.19	14.06	0
			1	40	13.95	14.12	13.99	0
			1	77	14.17	14.21	13.97	0
			36	0	14.21	14.28	14.22	0
			36	22	14.38	14.28	14.22	0
			36	43	14.50	14.34	14.30	0
			75	0	14.18	14.26	14.11	0
		16QAM	1	1	14.01	14.23	14.01	0
		64QAM	1	1	14.24	14.42	14.34	0
		256QAM	1	1	13.96	13.80	13.86	0
	CP-OFDM	QPSK	1	1	14.30	14.44	14.34	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					343000	349000	355000	
					1 715.0 ㎒	1 745.0 ㎒	1 775.0 ㎒	
10 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	13.96	13.89	13.86	0
			1	26	13.96	13.83	13.98	0
			1	50	13.95	13.86	13.61	0
			25	0	13.82	13.89	13.75	0
			25	14	13.99	13.90	14.03	0
			25	27	13.79	13.86	13.61	0
			50	0	13.78	13.85	13.83	0
		QPSK	1	1	13.70	13.74	13.71	0
			1	26	13.72	13.76	13.64	0
			1	50	13.84	13.69	13.53	0
			25	0	13.79	13.86	13.78	0
			25	14	14.06	13.89	13.85	0
			25	27	13.97	13.85	13.86	0
			50	0	13.83	13.82	13.82	0
		16QAM	1	1	13.72	13.83	13.74	0
		64QAM	1	1	13.88	14.01	14.01	0
		256QAM	1	1	13.60	13.47	13.40	0
	CP-OFDM	QPSK	1	1	13.66	13.78	13.63	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					342500	349000	355500	
					1 712.5 ㎒	1 745.0 ㎒	1 777.5 ㎒	
5 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	13.96	13.83	13.72	0
			1	13	14.00	13.86	13.98	0
			1	23	13.86	13.85	13.62	0
			12	0	13.76	13.81	13.67	0
			12	7	14.03	13.79	13.85	0
			12	13	13.70	13.83	13.77	0
			25	0	13.80	13.84	13.76	0
		QPSK	1	1	13.91	13.86	13.68	0
			1	13	13.89	13.90	13.74	0
			1	23	13.88	13.83	13.64	0
			12	0	13.80	13.85	13.82	0
			12	7	13.96	13.79	13.82	0
			12	13	14.07	13.85	13.83	0
			25	0	13.81	13.87	13.79	0
		16QAM	1	1	13.49	13.73	13.70	0
		64QAM	1	1	14.00	14.06	14.08	0
		256QAM	1	1	13.39	13.32	13.28	0
	CP-OFDM	QPSK	1	1	13.79	13.80	13.73	0

10.3.3.6 NR n77 DoD(NSA)

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 633334 3500.01 ㎒	MPR
100 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	6.10	0
			1	137	6.11	0
			1	271	6.14	0
			135	0	6.08	0
			135	69	6.15	0
			135	138	6.08	0
			270	0	6.09	0
		QPSK	1	1	6.15	0
			1	137	6.21	0
			1	271	6.19	0
			135	0	6.06	0
			135	69	6.17	0
			135	138	6.05	0
			270	0	6.14	0
		16QAM	1	1	6.34	0
		64QAM	1	1	6.32	0
		256QAM	1	1	6.09	0
	CP-OFDM	QPSK	1	1	6.05	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 633334 3500.01 ㎒	MPR
80 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	6.08	0
			1	109	6.04	0
			1	215	6.08	0
			108	0	6.11	0
			108	55	6.10	0
			108	109	6.03	0
			216	0	6.10	0
		QPSK	1	1	6.10	0
			1	109	6.08	0
			1	215	6.09	0
			108	0	6.10	0
			108	55	6.06	0
			108	109	6.06	0
			216	0	6.04	0
		16QAM	1	1	6.35	0
		64QAM	1	1	6.28	0
		256QAM	1	1	6.09	0
	CP-OFDM	QPSK	1	1	6.03	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 633334 3500.01 ㎒	MPR
60 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	6.21	0
			1	81	6.24	0
			1	160	6.19	0
			81	0	6.23	0
			81	41	6.10	0
			81	81	6.13	0
			162	0	6.20	0
		QPSK	1	1	6.22	0
			1	81	6.26	0
			1	160	6.23	0
			81	0	6.21	0
			81	41	6.19	0
			81	81	6.14	0
			162	0	6.19	0
		16QAM	1	1	6.42	0
		64QAM	1	1	6.40	0
		256QAM	1	1	6.25	0
	CP-OFDM	QPSK	1	1	6.13	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 631334 3470.01 ㎒	Maximum Average Power 635332 3529.98 ㎒	MPR
40 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	6.39	6.43	0
			1	53	6.28	6.38	0
			1	104	6.38	6.34	0
			50	0	6.36	6.46	0
			50	28	6.28	6.30	0
			50	56	6.27	6.25	0
			100	0	6.31	6.32	0
		QPSK	1	1	6.41	6.54	0
			1	53	6.25	6.22	0
			1	104	6.40	6.44	0
			50	0	6.28	6.31	0
			50	28	6.26	6.28	0
			50	56	6.29	6.38	0
			100	0	6.31	6.30	0
		16QAM	1	1	6.56	6.61	0
		64QAM	1	1	6.53	6.50	0
		256QAM	1	1	6.37	6.51	0
	CP-OFDM	QPSK	1	1	6.39	6.54	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					631000	633334	635666	
					3465.00 MHz	3500.01 MHz	3534.99 MHz	
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	6.38	6.43	6.42	0
			1	39	6.27	6.37	6.32	0
			1	76	6.39	6.58	6.46	0
			36	0	6.29	6.45	6.37	0
			36	21	6.24	6.24	6.22	0
			36	42	6.26	6.39	6.32	0
			75	0	6.30	6.35	6.31	0
		QPSK	1	1	6.41	6.50	6.42	0
			1	39	6.28	6.37	6.31	0
			1	76	6.38	6.55	6.55	0
			36	0	6.31	6.46	6.43	0
			36	21	6.26	6.30	6.27	0
			36	42	6.23	6.31	6.26	0
			75	0	6.28	6.42	6.28	0
		16QAM	1	1	6.52	6.45	6.48	0
		64QAM	1	1	6.53	6.57	6.62	0
		256QAM	1	1	6.38	6.57	6.29	0
	CP-OFDM	QPSK	1	1	6.32	6.43	6.35	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					630668	633334	636000	
					3460.02 MHz	3500.01 MHz	3540.00 MHz	
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	6.37	6.37	6.35	0
			1	26	6.36	6.34	6.40	0
			1	49	6.37	6.36	6.40	0
			25	0	6.35	6.47	6.45	0
			25	13	6.28	6.32	6.27	0
			25	26	6.31	6.30	6.30	0
			50	0	6.34	6.30	6.31	0
		QPSK	1	1	6.35	5.71	6.26	0
			1	26	6.32	6.33	6.28	0
			1	49	6.38	6.40	6.42	0
			25	0	6.37	6.44	6.44	0
			25	13	6.25	6.24	6.25	0
			25	26	6.35	6.31	6.28	0
			50	0	6.33	6.25	6.35	0
		16QAM	1	1	6.57	6.56	6.60	0
		64QAM	1	1	6.56	6.54	6.63	0
		256QAM	1	1	6.38	6.36	6.32	0
	CP-OFDM	QPSK	1	1	6.33	6.37	6.25	0

10.3.3.7 NR n77 (NSA)

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power		MPR
					650000	662000	
					3750.00 ㎒	3930.00 ㎒	
100 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	5.84	5.95	0
			1	137	5.92	6.00	0
			1	271	5.82	6.09	0
			135	0	5.85	6.03	0
			135	69	5.90	5.98	0
			135	138	5.85	6.02	0
			270	0	5.79	5.97	0
		QPSK	1	1	5.91	5.96	0
			1	137	5.95	6.13	0
			1	271	5.86	6.12	0
			135	0	5.84	5.99	0
			135	69	5.92	6.00	0
			135	138	5.78	5.97	0
			270	0	5.78	5.91	0
		16QAM	1	1	6.08	6.20	0
		64QAM	1	1	6.01	6.09	0
		256QAM	1	1	5.81	5.91	0
	CP-OFDM	QPSK	1	1	5.99	6.04	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					649334	656000	662666	
					3740.01 ㎒	3840.00 ㎒	3939.99 ㎒	
80 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	5.92	5.92	5.97	0
			1	109	5.83	5.91	6.00	0
			1	215	5.77	5.83	5.85	0
			108	0	5.89	5.94	6.02	0
			108	55	5.82	5.75	5.92	0
			108	109	5.72	5.68	5.78	0
			216	0	5.83	5.88	5.99	0
		QPSK	1	1	5.98	5.98	6.01	0
			1	109	5.86	5.98	6.02	0
			1	215	5.79	5.87	5.94	0
			108	0	5.80	5.75	6.02	0
			108	55	5.82	5.85	6.05	0
			108	109	5.69	5.66	5.83	0
			216	0	5.71	6.00	5.85	0
		16QAM	1	1	6.20	6.23	6.15	0
		64QAM	1	1	6.15	6.30	6.34	0
		256QAM	1	1	5.96	6.05	5.93	0
	CP-OFDM	QPSK	1	1	6.00	6.05	6.05	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power				MPR
					648668	653556	658444	663332	
					3730.02 MHz	3803.34 MHz	3876.66 MHz	3949.98 MHz	
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	6.04	6.09	5.94	6.08	0
			1	81	5.83	5.85	5.89	5.88	0
			1	160	5.83	5.86	5.82	5.81	0
			81	0	5.91	5.88	5.89	5.91	0
			81	41	5.79	5.83	5.83	5.86	0
			81	81	5.80	5.87	5.84	6.00	0
			162	0	5.86	5.95	5.91	5.89	0
		QPSK	1	1	6.03	6.11	6.09	5.98	0
			1	81	5.87	5.88	6.06	6.15	0
			1	160	5.81	5.90	5.79	5.86	0
			81	0	5.94	6.04	5.99	5.89	0
			81	41	5.88	5.96	5.80	5.87	0
			81	81	5.73	5.80	5.77	5.79	0
			162	0	5.88	5.91	5.92	5.92	0
		16QAM	1	1	6.27	6.17	6.05	6.05	0
		64QAM	1	1	6.13	6.17	6.18	6.04	0
		256QAM	1	1	5.92	5.95	5.84	5.74	0
	CP-OFDM	QPSK	1	1	5.91	6.00	5.89	5.87	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)						MPR
					648000	651200	654400	657600	660800	664000	
					3720.00 MHz	3768.00 MHz	3816.00 MHz	3864.00 MHz	3912.00 MHz	3960.00 MHz	
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	6.23	6.37	6.33	6.31	6.26	6.28	0
			1	53	6.08	6.07	6.09	6.24	6.28	6.10	0
			1	104	6.11	6.07	6.17	6.13	6.19	6.13	0
			50	0	6.06	6.23	6.15	6.14	6.22	6.19	0
			50	28	6.02	6.11	6.02	6.05	6.10	6.05	0
			50	56	5.94	6.10	5.98	6.03	5.99	5.97	0
			100	0	6.01	6.18	6.06	6.01	6.05	5.99	0
		QPSK	1	1	6.26	6.32	6.17	6.25	6.32	6.26	0
			1	53	6.05	5.62	5.55	6.11	6.14	6.16	0
			1	104	6.10	6.08	6.08	6.23	6.14	6.16	0
			50	0	6.07	6.27	6.22	6.15	6.20	6.27	0
			50	28	5.99	6.13	6.10	6.16	6.16	6.12	0
			50	56	6.08	6.31	6.15	6.20	6.11	6.22	0
			100	0	6.02	6.10	6.04	6.05	5.97	6.16	0
		16QAM	1	1	6.37	6.40	6.39	6.33	6.36	6.40	0
		64QAM	1	1	6.32	6.32	6.37	6.32	6.37	6.31	0
		256QAM	1	1	6.25	6.37	6.26	6.23	6.24	6.25	0
	CP-OFDM	QPSK	1	1	6.14	6.27	6.25	6.16	6.13	6.10	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)						MPR
					647668	651000	654334	657666	661000	664332	
					3715.02 MHz	3765.00 MHz	3815.01 MHz	3864.99 MHz	3915.00 MHz	3964.98 MHz	
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	6.07	6.12	6.20	6.22	6.15	6.22	0
			1	39	6.05	6.11	6.16	6.18	6.16	6.07	0
			1	76	6.02	6.13	6.08	6.06	6.16	6.14	0
			36	0	6.04	6.06	6.09	6.06	6.15	6.04	0
			36	21	6.01	6.03	6.08	6.07	6.10	6.04	0
			36	42	6.02	6.15	6.03	6.15	6.04	6.09	0
			75	0	6.05	6.05	6.04	6.04	6.05	6.06	0
		QPSK	1	1	6.13	6.22	6.20	6.22	6.26	6.29	0
			1	39	6.08	6.08	6.15	6.14	5.98	6.11	0
			1	76	6.03	5.94	6.00	6.00	5.92	5.92	0
			36	0	6.05	6.07	6.19	6.15	6.15	6.22	0
			36	21	5.98	6.06	6.04	6.06	6.01	6.10	0
			36	42	5.99	5.97	6.05	5.94	6.08	6.00	0
			75	0	6.02	6.07	6.08	6.01	5.99	6.12	0
		16QAM	1	1	6.28	6.34	6.34	6.21	6.32	6.37	0
		64QAM	1	1	6.18	6.30	6.30	6.23	6.35	6.40	0
		256QAM	1	1	6.13	6.23	6.30	6.23	6.18	6.30	0
	CP-OFDM	QPSK	1	1	6.20	6.19	6.18	6.18	6.28	6.26	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)						MPR
					647334	650800	654266	657734	661200	664666	
					3710.01 MHz	3762.00 MHz	3813.99 MHz	3866.01 MHz	3918.00 MHz	3969.99 MHz	
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	6.11	6.33	6.32	6.20	6.24	6.20	0
			1	26	5.99	5.98	6.01	6.10	6.04	6.14	0
			1	49	6.01	5.93	6.01	6.03	6.01	6.05	0
			25	0	6.05	6.12	6.09	6.13	6.04	6.16	0
			25	13	5.98	6.07	6.08	6.02	6.05	6.09	0
			25	26	5.96	6.04	5.98	5.99	5.99	6.15	0
			50	0	5.98	6.06	6.02	6.04	6.04	6.14	0
		QPSK	1	1	6.08	6.18	6.26	6.20	6.20	6.20	0
			1	26	6.00	6.11	6.10	6.08	6.11	6.02	0
			1	49	5.99	6.00	6.03	6.01	6.03	6.14	0
			25	0	6.03	6.11	6.11	6.09	6.04	6.09	0
			25	13	5.94	5.91	5.87	5.96	6.00	6.03	0
			25	26	5.93	6.00	5.98	5.99	5.99	6.13	0
			50	0	5.98	5.96	6.11	6.09	6.04	6.13	0
		16QAM	1	1	6.29	6.33	6.29	6.29	6.34	6.29	0
		64QAM	1	1	6.24	6.26	6.40	6.25	6.34	6.40	0
		256QAM	1	1	6.04	6.18	6.02	6.01	6.00	5.95	0
	CP-OFDM	QPSK	1	1	6.09	6.14	6.05	6.04	6.09	6.15	0

11. System Verification

11.1 Measurement date and environment

Shield room	Date	Environment	
		Temperature (°C)	Humidity (%)
8F - 4	2023-04-10	21.1 ~ 21.5	49.8
	2023-04-11	21.2 ~ 21.6	48.4
	2023-04-12	20.8 ~ 21.4	50.5
	2023-04-13	20.6 ~ 21.2	51.0
	2023-04-14	20.8 ~ 21.1	49.9
	2023-04-15	20.7 ~ 21.5	48.1
	2023-04-17	20.9 ~ 21.2	52.2
	2023-04-18	20.9 ~ 21.0	51.3
	2023-04-19	20.7 ~ 21.3	49.5
	2023-04-20	21.1 ~ 21.4	52.6
	2023-04-21	20.8 ~ 21.0	49.1
	2023-04-22	21.0 ~ 21.6	51.4
	2023-04-26	21.2 ~ 21.4	50.8
	2023-05-18	20.6 ~ 21.1	49.2
	2023-05-19	20.7 ~ 21.4	49.8
	2023-05-20	21.2 ~ 21.9	50.1
8F - 7	2023-04-13	20.1 ~ 20.3	45.6
	2023-04-17	20.8 ~ 21.1	45.3
	2023-04-19	21.5 ~ 21.8	49.9
	2023-04-20	20.1 ~ 20.3	45.6

11.2 Tissue Verification

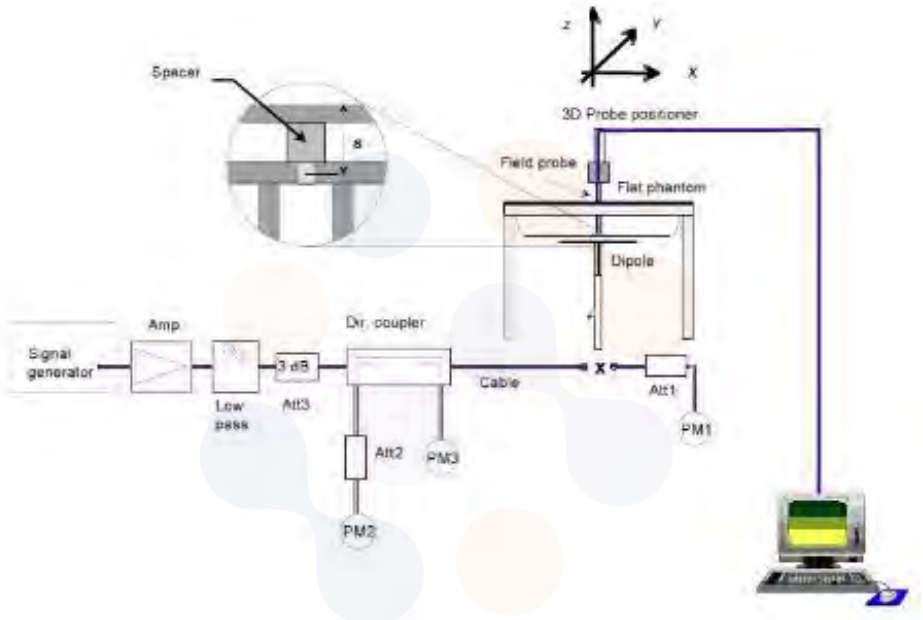
The dielectric properties for this Tissue Simulant Liquids were measured by using the SPEAG Model DAK3.5 Dielectric Probe in conjunction with Agilent E5071B Network Analyzer (300 kHz – 8 500 ㎒). The Conductivity (σ) and Permittivity (ρ) are listed in Table 1.For the SAR measurement given in this report. The temperature variation of the Tissue Simulant Liquids was (22 ± 2) ℃.

Freq. (MHz)	Limit/Measured		Permittivity (ρ)	Conductivity (σ)	Temp. (°C)
750.0	Recommended Limit		41.90 ± 5 % (39.81 ~ 44.00)	0.89 ± 5 % (0.85 ~ 0.93)	22 ± 2
	Measured	2023-04-13	42.98	0.88	20.96
	Measured	2023-04-20	41.34	0.88	20.86
	Measured	2023-04-20	42.00	0.89	20.92
	Measured	2023-05-20	41.23	0.90	20.74
850.0	Recommended Limit		41.50 ± 5 % (39.43 ~ 43.58)	0.92 ± 5 % (0.87 ~ 0.97)	22 ± 2
	Measured	2023-04-10	41.28	0.90	20.91
	Measured	2023-04-13	41.80	0.91	20.89
	Measured	2023-04-19	41.83	0.91	20.89
	Measured	2023-05-20	40.01	0.93	20.74
1 750.0	Recommended Limit		40.07 ± 5 % (38.07 ~ 42.07)	1.37 ± 5 % (1.30 ~ 1.44)	22 ± 2
	Measured	2023-04-12	39.85	1.38	20.83
	Measured	2023-04-15	38.53	1.38	20.95
	Measured	2023-04-18	39.99	1.39	20.94
	Measured	2023-04-19	41.10	1.41	21.11
	Measured	2023-04-22	39.74	1.34	20.75
	Measured	2023-05-19	40.87	1.41	20.88
1 900.0	Recommended Limit		40.00 ± 5 % (38.00 ~ 42.00)	1.40 ± 5 % (1.33 ~ 1.47)	22 ± 2
	Measured	2023-04-11	38.86	1.40	20.76
	Measured	2023-04-14	38.99	1.41	20.95
	Measured	2023-04-17	38.37	1.40	20.87
	Measured	2023-04-17	39.50	1.45	21.23
	Measured	2023-04-21	38.31	1.39	20.88
	Measured	2023-05-18	40.12	1.41	20.91
3 500.0	Recommended Limit		37.90 ± 5 % (36.01~39.80)	2.91 ± 5 % (2.76~3.06)	22 ± 2
	Measured	2023-04-26	36.62	2.82	20.81
3 700.0	Recommended Limit		37.70 ± 5 % (35.82~39.59)	3.12 ± 5 % (2.96~3.28)	22 ± 2
	Measured	2023-04-26	36.29	3.02	20.81
3 900.0	Recommended Limit		37.50 ± 5 % (35.63~39.38)	3.33 ± 5 % (3.16~3.50)	22 ± 2
	Measured	2023-04-26	35.97	3.23	20.81

<Table 1. Measurement result of Tissue electric parameters>

11.3 SAR Test System Verification

The microwave circuit arrangement for system verification is sketched below picture.
The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within ± 10% from the t arget SAR values. The tests were conducted on the same days as the measurement of the EUT. The obtained results from the system accuracy verification are displayed in the Table 2. During the tests, the ambient temperature of the laboratory was in the range (22 ± 2) ℃, th e relative humidity was in the range(50 ± 20)% and the liquid depth Above the ear/grid refer ence points was above 15 cm in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.



Verification Kit	Probe S/N	Frequency (MHz)	Tissue Type	Date		Limit/Measured (Normalized to 1 W)
D750V3 SN: 1183	EX3DV4 SN: 7541	750.0	HSL	Recommended Limit 1g (Normalized)		8.44 ± 10 % (7.60~9.28)
				Measured	2023-04-13	8.56
				Measured	2023-04-20	8.32
	EX3DV4 SN: 3697			Measured	2023-05-20	8.80
D750V3 SN: 1224	EX3DV4 SN: 7770			Recommended Limit 1g (Normalized)		8.55 ± 10 % (7.70 ~ 9.41)
				Measured	2023-04-20	8.84
D850V2 SN: 1030	EX3DV4 SN: 7541	850.0	HSL	Recommended Limit 1g (Normalized)		10.10 ± 10 % (9.09~11.11)
				Measured	2023-04-10	10.20
				Measured	2023-04-19	9.92
	EX3DV4 SN: 7540			Measured	2023-04-13	10.04
	EX3DV4 SN: 3697			Measured	2023-05-20	10.36
D1750V2 SN: 1195	EX3DV4 SN: 7541	1 750.0	HSL	Recommended Limit 1g (Normalized)		36.30 ± 10 % (32.67~39.93)
				Measured	2023-04-12	37.32
				Measured	2023-04-15	37.68
				Measured	2023-04-18	37.88
				Measured	2023-04-22	37.04
	EX3DV4 SN: 7770			Measured	2023-04-19	36.80
	EX3DV4 SN: 3697			Measured	2023-05-19	37.32
D1900V2 SN: 5d248	EX3DV4 SN: 7541	1 900.0	HSL	Recommended Limit 1g (Normalized)		39.70 ± 10 % (35.73~43.67)
				Measured	2023-04-11	40.00
				Measured	2023-04-14	37.80
				Measured	2023-04-17	38.36
				Measured	2023-04-21	38.00
	EX3DV4 SN: 7540			Measured	2023-04-17	40.40
	EX3DV4 SN: 3697			Measured	2023-05-18	40.40
D3500V2 SN: 1146	EX3DV4 SN: 7541	3 500.0	HSL	Recommended Limit 1g (Normalized)		66.00 ± 10 % (59.40~72.60)
				Measured	2023-04-26	64.50
D3700V2 SN: 1027	EX3DV4 SN: 7541	3 700.0	HSL	Recommended Limit 1g (Normalized)		68.50 ± 10 % (61.65~75.35)
				Measured	2023-04-26	67.80
D3900V2 SN: 1037	EX3DV4 SN: 7541	3 900.0	HSL	Recommended Limit 1g (Normalized)		69.30 ± 10 % (62.37~76.23)
				Measured	2023-04-26	70.60

<Table 2. System Verification Result>

12. SAR Test Results

12.1 Standalone Body SAR Test Results(Notebook Mode)

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	12	1 880.0	23.45	25.00	1.429	0.570	0.815	
	Rear	12	1 852.4	23.39	25.00	1.449	0.609	0.882	
	Rear	12	1 907.6	23.44	25.00	1.432	0.527	0.755	
	Grip Sensor on								
	Rear	0	1 880.0	17.02	18.00	1.253	0.809	1.014	
	Rear	0	1 852.4	17.01	18.00	1.256	0.954	**1.198**	1
	Rear	0	1 907.6	16.99	18.00	1.262	0.649	0.819	
	Repeated SAR Test								
	Rear	0	1 852.4	17.01	18.00	1.256	0.950	1.193	

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	12	1 732.4	23.62	25.00	1.374	0.678	0.932	
	Rear	12	1 712.4	23.49	25.00	1.416	0.605	0.857	
	Rear	12	1 752.6	23.63	25.00	1.371	0.684	**0.938**	2
	Grip Sensor on								
	Rear	0	1 732.4	14.93	16.00	1.279	0.651	0.833	
	Rear	0	1 712.4	14.72	16.00	1.343	0.578	0.776	
	Rear	0	1 752.6	14.93	16.00	1.279	0.675	0.863	

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	12	836.6	23.55	25.00	1.396	0.226	0.315	
	Grip Sensor on								
	Rear	0	836.6	22.06	23.00	1.242	0.826	**1.026**	3
	Rear	0	826.4	22.11	23.00	1.227	0.808	0.991	
	Rear	0	846.6	22.16	23.00	1.213	0.804	0.975	
	Repeated SAR Test								
	Rear	0	836.6	22.06	23.00	1.242	0.824	1.023	

LTE Band 2 (Ant.0)									
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 20M 1RB 49Offset	Rear	12	1 860.0	23.79	25.00	1.321	0.645	0.852	
	Rear	12	1 880.0	23.68	25.00	1.355	0.598	0.810	
	Rear	12	1 900.0	23.76	25.00	1.330	0.582	0.774	
QPSK 20M 50RB 24Offset	Rear	12	1 860.0	22.62	24.00	1.374	0.508	0.698	
QPSK 20M 100RB 0Offset	Rear	12	1 860.0	22.61	24.00	1.377	0.504	0.694	
Grip Sensor on									
QPSK 20M 1RB 49Offset	Rear	0	1 860.0	16.70	18.00	1.349	0.882	1.190	
	Rear	0	1 880.0	16.66	18.00	1.361	0.765	1.041	
	Rear	0	1 900.0	16.52	18.00	1.406	0.661	0.929	
QPSK 20M 50RB 24Offset	Rear	0	1 860.0	16.66	18.00	1.361	0.881	**1.199**	4
	Rear	0	1 880.0	16.65	18.00	1.365	0.764	1.043	
	Rear	0	1 900.0	16.58	18.00	1.387	0.671	0.931	
QPSK 20M 100RB 0Offset	Rear	0	1 860.0	16.65	18.00	1.365	0.875	1.194	
Repeated SAR Test									
QPSK 20M 1RB 49Offset	Rear	0	1 860.0	16.70	18.00	1.349	0.862	1.163	

LTE UL CA (2C)											
EUT Position	Distance (㎜)	PCC UL		SCC UL		Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
		Mode	Frequency (㎒)	Mode	Frequency (㎒)						
Grip Sensor on											
Rear	0	QPSK 20M 50RB 24Offset	1 860.0	QPSK 20M 50RB 0Offset	1 879.8	16.41	18.00	1.442	0.779	1.123	

LTE Band 2 (Ant.2)									
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.
QPSK 20M 1RB 49Offset	Rear	12	1 880.0	22.84	24.00	1.306	0.382	**0.499**	5
QPSK 20M 50RB 50Offset	Rear	12	1 880.0	21.85	23.00	1.303	0.325	0.423	
Grip Sensor on									
QPSK 20M 1RB 99Offset	Rear	0	1 880.0	16.91	18.00	1.285	0.353	0.454	
QPSK 20M 50RB 0Offset	Rear	0	1 880.0	16.85	18.00	1.303	0.353	0.460	

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 10M 1RB 25Offset	Rear	12	836.5	23.86	25.00	1.300	0.228	0.296	
QPSK 10M 25RB 25Offset	Rear	12	836.5	22.86	24.00	1.300	0.183	0.238	
Grip Sensor on									
QPSK 10M 1RB 25Offset	Rear	0	836.5	21.92	23.00	1.282	0.786	1.008	
QPSK 10M 25RB 25Offset	Rear	0	836.5	21.94	23.00	1.276	0.794	1.013	
QPSK 10M 50RB 0Offset	Rear	0	836.5	21.89	23.00	1.291	0.786	**1.015**	6

LTE UL CA (5B)											
EUT Position	Distance (㎜)	PCC UL		SCC UL		Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
		Mode	Frequency (㎒)	Mode	Frequency (㎒)						
Grip Sensor on											
Rear	0	QPSK 10M 50RB 0Offset	836.5	QPSK 5M 25RB 0Offset	829.3	21.72	23.00	1.343	0.744	0.999	

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 10M 1RB 0Offset	Rear	12	707.5	23.87	25.00	1.297	0.140	0.182	
QPSK 10M 25RB 25Offset	Rear	12	707.5	22.78	24.00	1.324	0.115	0.152	
Grip Sensor on									
QPSK 10M 1RB 0Offset	Rear	0	707.5	19.90	21.00	1.288	0.398	0.513	
QPSK 10M 25RB 25Offset	Rear	0	707.5	19.89	21.00	1.291	0.434	**0.560**	7

LTE Band 14									
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 10M 1RB 0Offset	Rear	12	793.0	23.93	25.00	1.279	0.229	0.293	
QPSK 10M 25RB 12Offset	Rear	12	793.0	22.88	24.00	1.294	0.179	0.232	
Grip Sensor on									
QPSK 10M 1RB 0Offset	Rear	0	793.0	21.22	22.00	1.197	0.583	**0.698**	8
QPSK 10M 25RB 12Offset	Rear	0	793.0	21.23	22.00	1.194	0.569	0.679	

LTE Band 66 (Ant.0)									
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 20M 1RB 0Offset	Rear	12	1 770.0	23.64	25.00	1.368	0.699	0.956	
	Rear	12	1 720.0	23.63	25.00	1.371	0.641	0.879	
	Rear	12	1 745.0	23.60	25.00	1.380	0.730	**1.007**	9
QPSK 20M 50RB 50Offset	Rear	12	1 770.0	22.60	24.00	1.380	0.568	0.784	
QPSK 20M 100RB 0Offset	Rear	12	1 770.0	22.55	24.00	1.396	0.560	0.782	
Grip Sensor on									
QPSK 20M 1RB 0Offset	Rear	0	1 770.0	14.74	16.00	1.337	0.652	0.872	
	Rear	0	1 720.0	14.61	16.00	1.377	0.547	0.753	
	Rear	0	1 745.0	14.73	16.00	1.340	0.628	0.842	
QPSK 20M 50RB 50Offset	Rear	0	1 770.0	14.70	16.00	1.349	0.653	0.881	
	Rear	0	1 720.0	14.63	16.00	1.371	0.596	0.817	
	Rear	0	1 745.0	14.66	16.00	1.361	0.649	0.883	
QPSK 20M 100RB 0Offset	Rear	0	1 770.0	14.61	16.00	1.377	0.639	0.880	

LTE UL CA (66B)											
EUT Position	**Distance (㎜)**	**PCC UL**		**SCC UL**		**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1g SAR (W/kg)**	**Scaled 1g SAR (W/kg)**	**Plot No.**
		Mode	**Frequency (㎒)**	**Mode**	**Frequency (㎒)**						
Grip Sensor on											
Rear	0	QPSK 15M 1RB 0Offset	1 745.0	QPSK 5M 1RB 24Offset	1 735.7	23.61	25.00	1.377	0.710	0.978	

LTE UL CA (66C)											
EUT Position	**Distance (㎜)**	**PCC UL**		**SCC UL**		**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1g SAR (W/kg)**	**Scaled 1g SAR (W/kg)**	**Plot No.**
		Mode	**Frequency (㎒)**	**Mode**	**Frequency (㎒)**						
Grip Sensor on											
Rear	0	QPSK 20M 1RB 0Offset	1 745.0	QPSK 20M 1RB 99Offset	1 725.2	23.55	25.00	1.396	0.701	0.979	

LTE Band 66 (Ant.2)									
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 20M 1RB 99Offset	Rear	12	1 745.0	22.90	24.00	1.288	0.281	0.362	
QPSK 20M 50RB 24Offset	Rear	12	1 745.0	21.97	23.00	1.268	0.216	0.274	
Grip Sensor on									
QPSK 20M 1RB 99Offset	Rear	0	1 745.0	14.98	16.00	1.265	0.334	0.423	
QPSK 20M 50RB 24Offset	Rear	0	1 745.0	15.00	16.00	1.259	0.346	**0.436**	10

5G NR n2(Ant.0)									
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									
DFT-S-OFDM QPSK 20 MHz 1RB 53Offset	Rear	12	1 880.0	23.92	25.00	1.282	0.635	0.814	
	Rear	12	1 860.0	23.85	25.00	1.303	0.648	0.844	
	Rear	12	1 900.0	23.71	25.00	1.346	0.622	0.837	
DFT-S-OFDM QPSK 20 MHz 50RB 28Offset	Rear	12	1 880.0	23.85	25.00	1.303	0.663	0.864	
	Rear	12	1 860.0	23.73	25.00	1.340	0.671	**0.899**	
	Rear	12	1 900.0	23.81	25.00	1.315	0.644	0.847	
DFT-S-OFDM QPSK 20 MHz 100RB 0Offset	Rear	12	1 880.0	22.79	24.00	1.321	0.529	0.699	
Grip Sensor on									
DFT-S-OFDM QPSK 20 MHz 1RB 53Offset	Rear	0	1 860.0	16.76	18.00	1.330	0.886	1.178	
	Rear	0	1 880.0	16.74	18.00	1.337	0.760	1.016	
	Rear	0	1 900.0	16.75	18.00	1.334	0.642	0.856	
DFT-S-OFDM QPSK 20 MHz 50RB 28Offset	Rear	0	1 860.0	16.79	18.00	1.321	0.907	1.198	
	Rear	0	1 880.0	16.78	18.00	1.324	0.772	1.022	
	Rear	0	1 900.0	16.76	18.00	1.330	0.653	0.868	
DFT-S-OFDM QPSK 20 MHz 100RB 0Offset	Rear	0	1 860.0	16.75	18.00	1.334	0.908	1.211	
CP-OFDM QPSK 20MHz 1RB 1Offset	Rear	0	1 860.0	16.82	18.00	1.312	0.933	**1.224**	11
Repeated SAR Test									
CP-OFDM QPSK 20MHz 1RB 1Offset	Rear	0	1 860.0	16.82	18.00	1.312	0.929	1.219	

5G NR n2(Ant.2)									
Mode	**EUT Position**	**Distance (mm)**	**Frequency (MHz)**	**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 20MHz 1RB 53Offset	Rear	12	1 880.0	23.76	25.00	1.330	0.250	0.333	
DFT-S-OFDM QPSK 20MHz 50RB 28Offset	Rear	12	1 880.0	23.89	25.00	1.291	0.263	0.340	
Grip Sensor on									
DFT-S-OFDM QPSK 20 MHz 1RB 53Offset	Rear	0	1 860.0	16.83	18.00	1.309	0.414	0.542	
DFT-S-OFDM QPSK 20 MHz 50RB 28Offset	Rear	0	1 860.0	16.86	18.00	1.300	0.422	**0.549**	12
CP-OFDM QPSK 20MHz 1RB 1Offset	Rear	0	1 860.0	16.79	18.00	1.321	0.398	0.526	

5G NR n5									
Mode	**EUT Position**	**Distance (mm)**	**Frequency (MHz)**	**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 MHz 1RB 53Offset	Rear	12	836.5	24.53	25.00	1.114	0.265	0.295	
DFT-S-OFDM QPSK 20 MHz 50RB 28Offset	Rear	12	836.5	24.61	25.00	1.094	0.283	0.310	
Grip Sensor on									
DFT-S-OFDM QPSK 20 MHz 1RB 53Offset	Rear	0	836.5	22.55	23.00	1.109	0.894	**0.991**	13
DFT-S-OFDM QPSK 20 MHz 50RB 28Offset	Rear	0	836.5	22.63	23.00	1.089	0.908	0.989	
DFT-S-OFDM QPSK 20 MHz 100RB 0Offset	Rear	0	836.5	22.53	23.00	1.114	0.886	0.987	
CP-OFDM QPSK 20MHz 1RB 1Offset	Rear	0	836.5	22.41	23.00	1.146	0.839	0.961	
Repeated SAR Test									
DFT-S-OFDM QPSK 20 MHz 50RB 28Offset	Rear	0	836.5	22.63	23.00	1.089	0.901	0.981	

5G NR n66(Ant.0)									
Mode	**EUT Position**	**Distance (mm)**	**Frequency (MHz)**	**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 30 MHz 1RB 158Offset	Rear	12	1 745.0	23.98	25.00	1.265	0.695	0.879	
DFT-S-OFDM QPSK 30 MHz 80RB 40Offset	Rear	12	1 745.0	23.99	25.00	1.262	0.761	**0.960**	14
DFT-S-OFDM QPSK 30 MHz 160RB 0Offset	Rear	12	1 745.0	23.05	24.00	1.245	0.603	0.751	
CP-OFDM QPSK 30MHz 1RB 1Offset	Rear	12	1 745.0	22.40	23.50	1.288	0.531	0.684	
Grip Sensor on									
DFT-S-OFDM QPSK 30 MHz 1RB 158Offset	Rear	0	1 745.0	14.94	16.00	1.276	0.633	0.808	
DFT-S-OFDM QPSK 30 MHz 80RB 0Offset	Rear	0	1 745.0	15.06	16.00	1.242	0.662	0.822	
DFT-S-OFDM QPSK 30 MHz 160RB 0Offset	Rear	0	1 745.0	14.92	16.00	1.282	0.654	0.838	

5G NR n66(Ant.2)									
Mode	**EUT Position**	**Distance (mm)**	**Frequency (MHz)**	**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 30 MHz 1RB 158Offset	Rear	12	1 745.0	23.90	25.00	1.288	0.340	0.438	
DFT-S-OFDM QPSK 30 MHz 80RB 40Offset	Rear	12	1 745.0	23.98	25.00	1.265	0.352	**0.445**	15
CP-OFDM QPSK 30MHz 1RB 1Offset	Rear	12	1 745.0	22.29	23.50	1.321	0.251	0.332	
Grip Sensor on									
DFT-S-OFDM QPSK 30 MHz 1RB 80Offset	Rear	0	1 745.0	15.04	16.00	1.247	0.324	0.404	
DFT-S-OFDM QPSK 30 MHz 80RB 0Offset	Rear	0	1 745.0	15.06	16.00	1.242	0.336	0.417	

5G NR n77									
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									
DFT-S-OFDM QPSK 100 MHz 1RB 137Offset	Rear	12	3 930.0	24.73	26.00	1.340	0.903	1.210	
	Rear	12	3 750.0	24.63	26.00	1.371	0.904	1.239	
DFT-S-OFDM QPSK 100 MHz 135RB 69Offset	Rear	12	3 930.0	24.67	26.00	1.358	0.949	**1.289**	16
	Rear	12	3 750.0	24.54	26.00	1.400	0.849	1.189	
DFT-S-OFDM QPSK 100 MHz 270RB 0Offset	Rear	12	3 930.0	24.64	26.00	1.368	0.921	1.260	
CP-OFDM QPSK 100 MHz 1RB 1Offset	Rear	12	3 930.0	23.85	25.50	1.462	0.809	1.183	
DFT-S-OFDM QPSK 100 MHz 1RB 137Offset	Rear	12	3 500.01	24.77	26.00	1.327	0.758	1.006	
Grip Sensor on									
DFT-S-OFDM QPSK 100 MHz 1RB 137Offset	Rear	0	3 930.0	11.15	12.50	1.365	0.399	0.545	
	Rear	0	3 750.0	10.98	12.50	1.419	0.350	0.497	
DFT-S-OFDM QPSK 100 MHz 135RB 69Offset	Rear	0	3 930.0	11.10	12.50	1.380	0.395	0.545	
	Rear	0	3 750.0	10.97	12.50	1.422	0.335	0.476	
Repeated SAR Test									
DFT-S-OFDM QPSK 100 MHz 135RB 69Offset	Rear	12	3 930.0	24.67	26.00	1.358	0.942	1.279	

12.2 Standalone Body SAR Test Results(Tablet Mode)

WCDMA Band II									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
RMC	Rear	0	1 880.0	13.88	15.00	1.294	0.714	0.924	
	Rear	0	1 852.4	13.84	15.00	1.306	0.733	0.957	
	Rear	0	1 907.6	13.83	15.00	1.309	0.737	**0.965**	17
	Left	0	1 880.0	13.88	15.00	1.294	0.230	0.298	
	Top	0	1 880.0	13.88	15.00	1.294	0.110	0.142	

WCDMA Band IV									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
RMC	Rear	0	1 732.4	13.89	15.00	1.291	0.508	0.656	
	Left	0	1 732.4	13.89	15.00	1.291	0.516	**0.666**	18
	Top	0	1 732.4	13.89	15.00	1.291	0.120	0.155	

WCDMA Band V									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
RMC	Rear	0	836.6	20.11	21.00	1.227	0.961	**1.179**	19
	Rear	0	826.4	20.12	21.00	1.225	0.952	1.166	
	Rear	0	846.6	20.13	21.00	1.222	0.888	1.085	
	Left	0	836.6	20.11	21.00	1.227	0.581	0.713	
	Top	0	836.6	20.11	21.00	1.227	0.343	0.421	
	Repeated SAR Test								
	Rear	0	836.6	20.11	21.00	1.227	0.931	1.142	

LTE Band 2(Ant.0)									
Mode	**EUT Position**	**Distance (㎜)**	**Frequency (㎒)**	**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Scaled 1 g SAR (W/kg)**	**Plot No.**
QPSK 20M 1RB 49Offset	Rear	0	1 860.0	13.75	15.00	1.334	0.686	0.915	
	Rear	0	1 880.0	13.69	15.00	1.352	0.670	0.906	
	Rear	0	1 900.0	13.73	15.00	1.340	0.678	0.909	
QPSK 20M 50RB 24Offset	Rear	0	1 860.0	13.76	15.00	1.330	0.691	0.919	
	Rear	0	1 880.0	13.72	15.00	1.343	0.668	0.897	
	Rear	0	1 900.0	13.70	15.00	1.349	0.694	**0.936**	20
QPSK 20M 100RB 0Offset	Rear	0	1 860.0	13.72	15.00	1.343	0.676	0.908	
QPSK 20M 1RB 49Offset	Left	0	1 860.0	13.75	15.00	1.334	0.214	0.285	
QPSK 20M 50RB 24Offset	Left	0	1 860.0	13.76	15.00	1.330	0.213	0.283	
QPSK 20M 1RB 49Offset	Top	0	1 860.0	13.75	15.00	1.334	0.104	0.139	
QPSK 20M 50RB 24Offset	Top	0	1 860.0	13.76	15.00	1.330	0.105	0.140	

LTE UL CA (2C)											
EUT Position	**Distance (㎜)**	**PCC UL**		**SCC UL**		**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1g SAR (W/kg)**	**Scaled 1g SAR (W/kg)**	**Plot No.**
		Mode	**Frequency (㎒)**	**Mode**	**Frequency (㎒)**						
Grip Sensor on											
Rear	0	QPSK 20M 50RB 24Offset	1 900.0	QPSK 20M 50RB 50Offset	1 880.2	13.67	15.00	1.358	0.670	0.910	

LTE Band 2(Ant.2)									
Mode	**EUT Position**	**Distance (㎜)**	**Frequency (㎒)**	**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Scaled 1 g SAR (W/kg)**	**Plot No.**
QPSK 20M 1RB 0Offset	Rear	0	1 880.0	14.13	15.00	1.222	0.357	0.436	
QPSK 20M 50RB 0Offset	Rear	0	1 880.0	14.11	15.00	1.227	0.379	**0.465**	21
QPSK 20M 1RB 0Offset	Right	0	1 880.0	14.13	15.00	1.222	0.166	0.203	
QPSK 20M 50RB 0Offset	Right	0	1 880.0	14.11	15.00	1.227	0.170	0.209	

LTE Band 5									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
QPSK 10M 1RB 25Offset	Rear	0	836.5	20.00	21.00	1.259	0.991	1.248	
QPSK 10M 25RB 25Offset	Rear	0	836.5	19.96	21.00	1.271	0.999	**1.270**	22
QPSK 10M 50RB 0Offset	Rear	0	836.5	19.93	21.00	1.279	0.990	1.266	
QPSK 10M 1RB 25Offset	Left	0	836.5	20.00	21.00	1.259	0.557	0.701	
QPSK 10M 25RB 25Offset	Left	0	836.5	19.96	21.00	1.271	0.564	0.717	
QPSK 10M 1RB 25Offset	Top	0	836.5	20.00	21.00	1.259	0.318	0.400	
QPSK 10M 25RB 25Offset	Top	0	836.5	19.96	21.00	1.271	0.319	0.405	
Repeated SAR Test									
QPSK 10M 25RB 25Offset	Rear	0	836.5	19.96	21.00	1.271	0.996	1.266	

LTE UL CA (5B)											
EUT Position	Distance (㎜)	PCC UL		SCC UL		Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
		Mode	Frequency (㎒)	Mode	Frequency (㎒)						
Grip Sensor on											
Rear	0	QPSK 10M 25RB 25Offset	836.5	QPSK 5M 12RB 0Offset	843.7	20.03	21.00	1.250	0.995	1.244	

LTE Band 12									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
QPSK 10M 1RB 0Offset	Rear	0	707.5	14.98	16.00	1.265	0.335	**0.424**	23
QPSK 10M 25RB 25Offset	Rear	0	707.5	14.92	16.00	1.282	0.329	0.422	
QPSK 10M 1RB 0Offset	Left	0	707.5	14.98	16.00	1.265	0.145	0.183	
QPSK 10M 25RB 25Offset	Left	0	707.5	14.92	16.00	1.282	0.140	0.179	
QPSK 10M 1RB 0Offset	Top	0	707.5	14.98	16.00	1.265	0.055	0.070	
QPSK 10M 25RB 25Offset	Top	0	707.5	14.92	16.00	1.282	0.055	0.071	

LTE Band 14									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
QPSK 10M 1RB 0Offset	Rear	0	793.0	19.23	20.00	1.194	0.845	1.009	
QPSK 10M 25RB 12Offset	Rear	0	793.0	19.20	20.00	1.202	0.840	1.010	
QPSK 10M 50RB 0Offset	Rear	0	793.0	19.18	20.00	1.208	0.839	**1.014**	24
QPSK 10M 1RB 49Offset	Left	0	793.0	19.23	20.00	1.194	0.402	0.480	
QPSK 10M 25RB 12Offset	Left	0	793.0	19.20	20.00	1.202	0.406	0.488	
QPSK 10M 1RB 49Offset	Top	0	793.0	19.23	20.00	1.194	0.213	0.254	
QPSK 10M 25RB 12Offset	Top	0	793.0	19.20	20.00	1.202	0.214	0.257	
Repeated SAR Test									
QPSK 10M 1RB 0Offset	Rear	0	793.0	19.23	20.00	1.194	0.834	0.996	

LTE Band 66(Ant.0)									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
QPSK 20M 1RB 0Offset	Rear	0	1 770.0	13.78	15.00	1.324	0.694	**0.919**	25
	Rear	0	1 720.0	13.75	15.00	1.334	0.531	0.708	
	Rear	0	1 745.0	13.77	15.00	1.327	0.568	0.754	
QPSK 20M 50RB 50Offset	Rear	0	1 770.0	13.77	15.00	1.327	0.651	0.864	
	Rear	0	1 720.0	13.75	15.00	1.334	0.536	0.715	
	Rear	0	1 745.0	13.76	15.00	1.330	0.598	0.795	
QPSK 20M 100RB 0Offset	Rear	0	1 770.0	13.73	15.00	1.340	0.658	0.882	
QPSK 20M 1RB 0Offset	Left	0	1 770.0	13.78	15.00	1.324	0.484	0.641	
QPSK 20M 50RB 50Offset	Left	0	1 770.0	13.77	15.00	1.327	0.459	0.609	
QPSK 20M 1RB 0Offset	Top	0	1 770.0	13.78	15.00	1.324	0.115	0.152	
QPSK 20M 50RB 50Offset	Top	0	1 770.0	13.77	15.00	1.327	0.130	0.173	

LTE UL CA (66B)											
EUT Position	Distance (mm)	PCC UL		SCC UL		Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
		Mode	Frequency (MHz)	Mode	Frequency (MHz)						
Grip Sensor on											
Rear	0	QPSK 15M 1RB 0Offset	1 772.5	QPSK 5M 1RB 24Offset	1 763.2	13.81	15.00	1.315	0.688	0.905	

LTE UL CA (66C)											
EUT Position	Distance (mm)	PCC UL		SCC UL		Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Plot No.
		Mode	Frequency (MHz)	Mode	Frequency (MHz)						
Grip Sensor on											
Rear	0	QPSK 20M 1RB 0Offset	1 770.0	QPSK 20M 1RB 99Offset	1 750.2	13.72	15.00	1.343	0.683	0.917	

LTE Band 66(Ant.2)									
Mode	EUT Position	Distance (mm)	Frequency (MHz)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Scaled 1 g SAR (W/kg)	Plot No.
QPSK 20M 1RB 49Offset	Rear	0	1 770.0	14.08	15.00	1.236	0.656	0.811	
	Rear	0	1 720.0	13.90	15.00	1.288	0.636	0.819	
	Rear	0	1 745.0	13.95	15.00	1.274	0.675	0.860	
QPSK 20M 50RB 24Offset	Rear	0	1 770.0	14.00	15.00	1.259	0.682	0.859	
	Rear	0	1 720.0	13.85	15.00	1.303	0.639	0.833	
	Rear	0	1 745.0	13.98	15.00	1.265	0.598	0.756	
QPSK 20M 100RB 0Offset	Rear	0	1 770.0	13.91	15.00	1.285	0.676	**0.869**	26
QPSK 20M 1RB 49Offset	Right	0	1 770.0	14.08	15.00	1.236	0.241	0.298	
QPSK 20M 50RB 24Offset	Right	0	1 770.0	14.00	15.00	1.259	0.244	0.307	

5G NR n2(Ant.0)									
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.
DFT-S-OFDM QPSK 20 MHz 1RB 1Offset	Rear	0	1 880.0	13.75	15.00	1.334	0.828	1.105	
	Rear	0	1 860.0	13.70	15.00	1.349	0.802	1.082	
	Rear	0	1 900.0	13.69	15.00	1.352	0.824	**1.114**	27
DFT-S-OFDM QPSK 20 MHz 50RB 0Offset	Rear	0	1 880.0	13.83	15.00	1.309	0.821	1.075	
	Rear	0	1 860.0	13.79	15.00	1.321	0.820	1.083	
	Rear	0	1 900.0	13.76	15.00	1.330	0.807	1.073	
DFT-S-OFDM QPSK 20 MHz 100RB 0Offset	Rear	0	1 880.0	13.73	15.00	1.340	0.809	1.084	
CP-OFDM QPSK 20MHz 1RB 1Offset	Rear	0	1 880.0	13.81	15.00	1.315	0.812	1.068	
DFT-S-OFDM QPSK 20 MHz 1RB 1Offset	Left	0	1 880.0	13.75	15.00	1.334	0.226	0.301	
DFT-S-OFDM QPSK 20 MHz 50RB 0Offset	Left	0	1 880.0	13.83	15.00	1.309	0.220	0.288	
DFT-S-OFDM QPSK 20 MHz 1RB 1Offset	Top	0	1 880.0	13.75	15.00	1.334	0.135	0.180	
DFT-S-OFDM QPSK 20 MHz 50RB 0Offset	Top	0	1 880.0	13.83	15.00	1.309	0.132	0.173	
Repeated SAR Test									
DFT-S-OFDM QPSK 20 MHz 1RB 1Offset	Rear	0	1 900.0	13.75	15.00	1.334	0.785	1.047	

5G NR n2(Ant.2)									
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.
DFT-S-OFDM QPSK 20 MHz 1RB 53Offset	Rear	0	1 880.0	13.80	15.00	1.318	0.386	0.509	
DFT-S-OFDM QPSK 20 MHz 50RB 28Offset	Rear	0	1 880.0	13.88	15.00	1.294	0.397	0.514	
CP-OFDM QPSK 20MHz 1RB 1Offset	Rear	0	1 880.0	13.89	15.00	1.291	0.419	**0.541**	28
DFT-S-OFDM QPSK 20 MHz 1RB 53Offset	Right	0	1 880.0	13.80	15.00	1.318	0.163	0.215	
DFT-S-OFDM QPSK 20 MHz 50RB 28Offset	Right	0	1 880.0	13.88	15.00	1.294	0.169	0.219	

5G NR n5(Ant.0)									
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.
DFT-S-OFDM QPSK 20 MHz 1RB 53Offset	Rear	0	836.5	20.60	21.00	1.096	1.180	1.293	
DFT-S-OFDM QPSK 20 MHz 50RB 56Offset	Rear	0	836.5	20.65	21.00	1.084	1.180	1.279	
DFT-S-OFDM QPSK 20 MHz 100RB 0Offset	Rear	0	836.5	20.59	21.00	1.099	1.240	**1.363**	29
CP-OFDM QPSK 20MHz 1RB 1Offset	Rear	0	836.5	20.56	21.00	1.107	1.200	1.328	
DFT-S-OFDM QPSK 20 MHz 1RB 53Offset	Left	0	836.5	20.60	21.00	1.096	0.605	0.663	
DFT-S-OFDM QPSK 20 MHz 50RB 56Offset	Left	0	836.5	20.65	21.00	1.084	0.594	0.644	
DFT-S-OFDM QPSK 20 MHz 1RB 53Offset	Top	0	836.5	20.60	21.00	1.096	0.497	0.545	
DFT-S-OFDM QPSK 20 MHz 50RB 56Offset	Top	0	836.5	20.65	21.00	1.084	0.507	0.550	
Repeated SAR Test									
DFT-S-OFDM QPSK 20 MHz 100RB 0Offset	Rear	0	836.5	20.59	21.00	1.099	1.220	1.341	

5G NR n66(Ant.0)									
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.
DFT-S-OFDM QPSK 30 MHz 1RB 158Offset	Rear	0	1 745.0	14.04	15.00	1.247	0.894	**1.115**	30
DFT-S-OFDM QPSK 30 MHz 80RB 0Offset	Rear	0	1 745.0	14.09	15.00	1.233	0.812	1.001	
DFT-S-OFDM QPSK 30 MHz 160RB 0Offset	Rear	0	1 745.0	14.03	15.00	1.250	0.844	1.055	
CP-OFDM QPSK 30MHz 1RB 1Offset	Rear	0	1 745.0	13.88	15.00	1.294	0.769	0.995	
DFT-S-OFDM QPSK 30 MHz 1RB 158Offset	Left	0	1 745.0	14.04	15.00	1.247	0.427	0.532	
DFT-S-OFDM QPSK 30 MHz 80RB 0Offset	Left	0	1 745.0	14.09	15.00	1.233	0.451	0.556	
DFT-S-OFDM QPSK 30 MHz 1RB 158Offset	Top	0	1 745.0	14.04	15.00	1.247	0.158	0.197	
DFT-S-OFDM QPSK 30 MHz 80RB 0Offset	Top	0	1 745.0	14.09	15.00	1.233	0.156	0.192	
Repeated SAR Test									
DFT-S-OFDM QPSK 30 MHz 1RB 158Offset	Rear	0	1 745.0	14.04	15.00	1.247	0.871	1.086	

5G NR n66(Ant.2)									
Mode	EUT Position	Distance (mm)	Frequency (MHz)	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.
DFT-S-OFDM QPSK 30 MHz 1RB 1Offset	Rear	0	1 745.0	14.04	15.00	1.247	0.541	0.675	
DFT-S-OFDM QPSK 30 MHz 80RB 0Offset	Rear	0	1 745.0	14.08	15.00	1.236	0.543	0.671	
CP-OFDM QPSK 30MHz 1RB 1Offset	Rear	0	1 745.0	13.98	15.00	1.265	0.537	**0.679**	31
DFT-S-OFDM QPSK 30 MHz 1RB 1Offset	Right	0	1 745.0	14.04	15.00	1.247	0.276	0.344	
DFT-S-OFDM QPSK 30 MHz 80RB 0Offset	Right	0	1 745.0	14.08	15.00	1.236	0.272	0.336	

5G NR n77(Ant.2)									
Mode	EUT Position	Distance (mm)	Frequency (MHz)	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.
DFT-S-OFDM QPSK 100 MHz 1RB 137Offset	Rear	0	3 930.0	6.13	7.50	1.371	0.506	**0.694**	32
	Rear	0	3 750.0	5.95	7.50	1.429	0.462	0.660	
DFT-S-OFDM QPSK 100MHz 135RB 69Offset	Rear	0	3 930.0	6.00	7.50	1.413	0.474	0.670	
	Rear	0	3 750.0	5.92	7.50	1.439	0.454	0.653	
DFT-S-OFDM QPSK 100 MHz 270RB 0Offset	Rear	0	3 930.0	5.91	7.50	1.442	0.467	0.673	
CP-OFDM QPSK 30MHz 1RB 1Offset	Rear	0	3 930.0	6.04	7.50	1.400	0.478	0.669	
DFT-S-OFDM QPSK 100 MHz 1RB 137Offset	Rear	0	3 500.01	6.21	7.50	1.346	0.410	0.552	
DFT-S-OFDM QPSK 100 MHz 1RB 137Offset	Right	0	3 930.0	6.13	7.50	1.371	0.245	0.336	
DFT-S-OFDM QPSK 100MHz 135RB 69Offset	Right	0	3 930.0	6.00	7.50	1.413	0.235	0.332	

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 D04v01.
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 D04v01.

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 D04v01, 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 only support 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.

13. Simultaneous Transmission

13.1 #Simultaneous Transmission Configurations

No.	Scenario	Operation
1	Licensed / UL CA / EN- DC + WLAN 2.4 ㎓ Aux	Yes
2	Licensed / UL CA / EN- DC + Bluetooth Aux	Yes
3	Licensed / UL CA / EN- DC + WLAN 2.4 ㎓ MIMO	Yes
4	Licensed / UL CA / EN- DC + WLAN 5 ㎓ MIMO	Yes
5	Licensed / UL CA / EN- DC + WLAN 5 ㎓ MIMO + Bluetooth Aux	Yes

Notes:
- It does not transmit simultaneously the Bluetooth and WLAN 2.4 ㎓.
- 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.
- Refer to the WLAN and Bluetooth report for the WLAN & Bluetooth value. (FCC ID: A3LNP935QNA, Report No: KR23-SPF0027)

LTE UL CA Configuration

No	CA Configuration	UL CA Band / Antenna				Operation
		PCC		SCC		
		Band	Antenna	Band	Antenna	
1	CA_2A-4A	B2	Ant.0	B4	Ant.2	Yes
2	CA_2A-4A	B4	Ant.2	B2	Ant.0	Yes
3	CA_2A-5A	B5	Ant.0	B2	Ant.2	Yes
4	CA_2A-12A	B12	Ant.0	B2	Ant.2	Yes
5	CA_2A-66A	B2	Ant.0	B66	Ant.2	Yes
6	CA_2A-66A	B2	Ant.0	B66	Ant.2	Yes
7	CA_4A-12A	B12	Ant.0	B4	Ant.2	Yes
8	CA_4A-5A	B5	Ant.0	B4	Ant.2	Yes
9	CA_5A-66A	B5	Ant.0	B66	Ant.2	Yes
10	CA_12A-66A	B12	Ant.0	B66	Ant.2	Yes

13.2 Estimated SAR

When standalone SAR is not required to be measured, SAR must also be estimated to determine simultaneous transmission SAR test exclusion.
[Tablet Mode]

Band	Ant.	Freq. [MHz]	Output Power			Separation distances [mm]					Estimated 1g SAR Value (W/kg)				
			dBm	mW	ERP [mW]	Rear	Left	Right	Top	Bottom	Rear	Left	Right	Top	Bottom
WCDMA Band II		1907.6	15.00	32	24	5	5	270	5	89	Measure	Measure	0.004	Measure	0.019
WCDMA Band IV		1752.6	15.00	32	24	5	5	270	5	89	Measure	Measure	0.004	Measure	0.018
WCDMA Band V		846.6	21.00	126	78	5	5	270	5	89	Measure	Measure	0.029	Measure	0.092
LTE Band 2	Ant.0	1909.3	15.00	32	24	5	5	270	5	89	Measure	Measure	0.004	Measure	0.019
	Ant.2	1909.3	15.00	32	22	5	272	5	93	70	Measure	0.004	Measure	0.017	0.029
LTE Band 4	Ant.0	1754.3	15.00	32	24	5	5	270	5	89	Measure	Measure	0.004	Measure	0.018
	Ant.2	1754.3	15.00	32	22	5	272	5	93	70	Measure	0.004	Measure	0.017	0.029
LTE Band 5		848.3	21.00	126	78	5	5	270	5	89	Measure	Measure	0.029	Measure	0.092
LTE Band 12		715.3	16.00	40	28	5	5	270	5	89	Measure	Measure	0.011	Measure	0.032
LTE Band 14		793.0	20.00	100	69	5	5	270	5	89	Measure	Measure	0.025	Measure	0.076
LTE Band 66	Ant.0	1779.3	15.00	32	24	32	5	5	270	5	Measure	Measure	0.004	Measure	0.018
	Ant.2	1779.3	15.00	32	22	32	5	272	5	93	Measure	0.004	Measure	0.017	0.029
5G NR n2	Ant.0	1907.5	15.00	32	24	32	5	5	270	5	Measure	Measure	0.004	Measure	0.019
	Ant.2	1907.5	15.00	32	22	32	5	272	5	93	Measure	0.004	Measure	0.017	0.029
5G NR n5		846.5	21.00	126	78	126	5	5	270	5	Measure	Measure	0.029	Measure	0.092
5G NR n66	Ant.0	1777.5	15.00	32	24	32	5	5	270	5	Measure	Measure	0.004	Measure	0.018
	Ant.2	1777.5	15.00	32	22	32	5	272	5	93	Measure	0.004	Measure	0.017	0.029
5G NR n77		3969.99	7.50	6	5	6	5	272	5	93	Measure	0.001	Measure	0.004	0.006

Notes:
- For distances < 5mm, a distance of 5mm is used to determine SAR exclusion and estimated SAR value.
- Output power is the worst of the maximum rated power (including tune-up or manufacturing tolerances) and ERP(E.I.R.P − 2.15 dB).
- Estimated SAR values were calculated as $SAR_{est} = 0.4 * P_{ant}/P_{th}$ $[W/kg]$ according to the April, 2022 TCB workshop.(P_{th} is Section 2.5.2 Value, P_{ant} is Maximum Output power.)
- Formulas round separation distance to nearest mm and power to nearest mW before calculating estimated SAR or determining if SAR is excluded.

13.3 Simultaneous Transmission Analysis(standalone)

Exposure Condition (Body) /Position		WCDMA			LTE							5G NR	
		II	IV	V	2 (Ant.0)	2 (Ant.2)	5	12	14	66 (Ant.0)	66 (Ant.2)	n2 (Ant.0)	n2 (Ant.2)
		[①]											
Notebook	Rear	1.198	0.938	1.026	1.199	0.499	1.015	0.560	0.698	1.007	0.436	1.224	0.549
Tablet	Rear	0.965	0.656	1.179	0.936	0.465	1.270	0.424	1.014	0.919	0.869	1.114	0.541
	Left	0.298	0.666	0.713	0.285	0.004	0.717	0.183	0.488	0.641	0.004	0.301	0.004
	Right	0.004	0.004	0.029	0.004	0.209	0.029	0.011	0.025	0.004	0.307	0.004	0.219
	Top	0.142	0.155	0.421	0.140	0.017	0.405	0.071	0.257	0.173	0.017	0.180	0.017
	Bottom	0.019	0.018	0.092	0.019	0.029	0.092	0.032	0.076	0.018	0.029	0.019	0.029

Exposure Condition (Body) /Position		5G NR				WLAN 2.4 GHz		WLAN 5 GHz	WLAN 6 GHz	Bluetooth
		n5	n66 (Ant.0)	n66 (Ant.2)	N77	Aux	MIMO	MIMO	MIMO	
		[①]				[②]	[③]	[④]	[⑤]	[⑥]
Notebook	Rear	0.991	0.960	0.445	1.289	0.211	0.494	0.269	0.205	0.034
Tablet	Rear	1.363	1.115	0.679	0.694	0.991	1.092	0.783	0.886	0.611
	Left	0.663	0.556	0.004	0.001	0.070	0.070	0.107	0.137	0.017
	Right	0.029	0.004	0.344	0.336	0.012	0.017	0.025	0.031	0.003
	Top	0.550	0.197	0.017	0.004	0.013	0.013	0.018	0.023	0.003
	Bottom	0.092	0.018	0.029	0.006	0.198	0.292	1.183	0.277	0.149

Summation

WCDMA II

Exposure Condition /Position		[①+②]	[①+⑥]	[①+③]	[①+④]	[①+④+⑥]
Body (Notebook)	Rear	1.409	1.232	1.692	1.467	1.501
Body (Tablet)	Rear	1.956	**1.576**	2.057	1.748	2.359
	Left	0.368	0.315	0.368	0.405	0.422
	Right	0.016	0.007	0.021	0.029	0.032
	Top	0.155	0.145	0.155	0.160	0.163
	Bottom	0.217	0.168	0.311	1.202	1.351

WCDMA IV

Exposure Condition /Position		[①+②]	[①+⑥]	[①+③]	[①+④]	[①+④+⑥]
Body (Notebook)	Rear	1.149	0.972	1.432	1.207	1.241
Body (Tablet)	Rear	1.647	1.267	1.748	1.439	2.050
	Left	0.736	0.683	0.736	0.773	0.790
	Right	0.016	0.007	0.021	0.029	0.032
	Top	0.168	0.158	0.168	0.173	0.176
	Bottom	0.216	0.167	0.310	1.201	1.350

Summation						
WCDMA V						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	1.237	1.060	1.520	1.295	1.329
Body (Tablet)	Rear	2.170	1.790	2.271	1.962	2.573
	Left	0.783	0.730	0.783	0.820	0.837
	Right	0.041	0.032	0.046	0.054	0.057
	Top	0.434	0.424	0.434	0.439	0.442
	Bottom	0.290	0.241	0.384	1.275	1.424
LTE band 2 (Ant.0)						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	1.410	1.233	1.693	1.468	1.502
Body (Tablet)	Rear	1.927	1.547	2.028	1.719	2.330
	Left	0.355	0.302	0.355	0.392	0.409
	Right	0.016	0.007	0.021	0.029	0.032
	Top	0.153	0.143	0.153	0.158	0.161
	Bottom	0.217	0.168	0.311	1.202	1.351
LTE band 2 (Ant.2)						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	0.710	0.533	0.993	0.768	0.802
Body (Tablet)	Rear	1.456	1.076	1.557	1.248	1.859
	Left	0.074	0.021	0.074	0.111	0.128
	Right	0.221	0.212	0.226	0.234	0.237
	Top	0.030	0.020	0.030	0.035	0.038
	Bottom	0.227	0.178	0.321	1.212	1.361
LTE band 5						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	1.226	1.049	1.509	1.284	1.318
Body (Tablet)	Rear	2.261	1.881	2.362	2.053	2.664
	Left	0.787	0.734	0.787	0.824	0.841
	Right	0.041	0.032	0.046	0.054	0.057
	Top	0.418	0.408	0.418	0.423	0.426
	Bottom	0.290	0.241	0.384	1.275	1.424
LTE band 12						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	0.771	0.594	1.054	0.829	0.863
Body (Tablet)	Rear	1.415	1.035	1.516	1.207	1.818
	Left	0.253	0.200	0.253	0.290	0.307
	Right	0.023	0.014	0.028	0.036	0.039
	Top	0.084	0.074	0.084	0.089	0.092
	Bottom	0.230	0.181	0.324	1.215	1.364

Summation						
LTE band 14						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	0.909	0.732	1.192	0.967	1.001
Body (Tablet)	Rear	2.005	1.625	2.106	1.797	2.408
	Left	0.558	0.505	0.558	0.595	0.612
	Right	0.037	0.028	0.042	0.050	0.053
	Top	0.270	0.260	0.270	0.275	0.278
	Bottom	0.274	0.225	0.368	1.259	1.408
LTE band 66 (Ant.0)						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	1.218	1.041	1.501	1.276	1.310
Body (Tablet)	Rear	1.910	1.530	2.011	1.702	2.313
	Left	0.711	0.658	0.711	0.748	0.765
	Right	0.016	0.007	0.021	0.029	0.032
	Top	0.186	0.176	0.186	0.191	0.194
	Bottom	0.216	0.167	0.310	1.201	1.350
LTE band 66 (Ant.2)						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	0.647	0.470	0.930	0.705	0.739
Body (Tablet)	Rear	1.860	1.480	1.961	1.652	2.263
	Left	0.074	0.021	0.074	0.111	0.128
	Right	0.319	0.310	0.324	0.332	0.335
	Top	0.030	0.020	0.030	0.035	0.038
	Bottom	0.227	0.178	0.321	1.212	1.361
5G NR n2 (Ant.0)						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	1.435	1.258	1.718	1.493	1.527
Body (Tablet)	Rear	2.105	1.725	2.206	1.897	2.508
	Left	0.371	0.318	0.371	0.408	0.425
	Right	0.016	0.007	0.021	0.029	0.032
	Top	0.193	0.183	0.193	0.198	0.201
	Bottom	0.217	0.168	0.311	1.202	1.351
5G NR n2 (Ant.2)						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	0.760	0.583	1.043	0.818	0.852
Body (Tablet)	Rear	1.532	1.152	1.633	1.324	1.935
	Left	0.074	0.021	0.074	0.111	0.128
	Right	0.231	0.222	0.236	0.244	0.247
	Top	0.030	0.020	0.030	0.035	0.038
	Bottom	0.227	0.178	0.321	1.212	1.361

Summation						
5G NR n5						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	1.202	1.025	1.485	1.260	1.294
Body (Tablet)	Rear	2.354	1.974	2.455	2.146	2.757
	Left	0.733	0.680	0.733	0.770	0.787
	Right	0.041	0.032	0.046	0.054	0.057
	Top	0.563	0.553	0.563	0.568	0.571
	Bottom	0.290	0.241	0.384	1.275	1.424
5G NR n66 (Ant.0)						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	1.171	0.994	1.454	1.229	1.263
Body (Tablet)	Rear	2.106	1.726	2.207	1.898	2.509
	Left	0.626	0.573	0.626	0.663	0.680
	Right	0.016	0.007	0.021	0.029	0.032
	Top	0.210	0.200	0.210	0.215	0.218
	Bottom	0.216	0.167	0.310	1.201	1.350
5G NR n66 (Ant.2)						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	0.656	0.479	0.939	0.714	0.748
Body (Tablet)	Rear	1.670	1.290	1.771	1.462	2.073
	Left	0.074	0.021	0.074	0.111	0.128
	Right	0.356	0.347	0.361	0.369	0.372
	Top	0.030	0.020	0.030	0.035	0.038
	Bottom	0.227	0.178	0.321	1.212	1.361
5G NR n77						
Exposure Condition /Position		**[①+②]**	**[①+⑥]**	**[①+③]**	**[①+④]**	**[①+④+⑥]**
Body (Notebook)	Rear	1.500	1.323	1.783	1.558	**1.592**
Body (Tablet)	Rear	1.685	1.305	1.786	1.477	2.088
	Left	0.071	0.018	0.071	0.108	0.125
	Right	0.348	0.339	0.353	0.361	0.364
	Top	0.017	0.007	0.017	0.022	0.025
	Bottom	0.204	0.155	0.298	1.189	1.338

13.4 Simultaneous Transmission Analysis (UL CA)

Band / Position		Licensed		WLAN				Bluetooth
		LTE B12 (Ant.0)	LTE B66 (Ant.2)	2.4 ㎓ Aux	2.4 ㎓ MIMO	5 ㎓ MIMO	6 ㎓ MIMO	
		[①]		[②]	[③]	[④]	[⑤]	[⑥]
Notebook	Rear	0.560	0.436	0.211	0.494	0.269	0.205	0.034
Tablet	Rear	0.424	0.869	0.991	1.092	0.783	0.886	0.611
	Left	0.183	0.004	0.070	0.070	0.107	0.137	0.017
	Right	0.011	0.307	0.012	0.017	0.025	0.031	0.003
	Top	0.071	0.017	0.013	0.013	0.018	0.023	0.003
	Bottom	0.032	0.029	0.198	0.292	1.183	0.277	0.149

Summation

LTE UL CA_12A-66A

Band / Position		1)	2)	3)	4)	5)
		[①+②]	[①+⑥]	[①+③]	[①+④]	[①+④+⑥]
Notebook	Rear	1.207	1.030	1.490	1.265	1.299
Tablet	Rear	2.284	1.904	2.385	2.076	2.687
	Left	0.257	0.204	0.257	0.294	0.311
	Right	0.330	0.321	0.335	0.343	0.346
	Top	0.101	0.091	0.101	0.106	0.109
	Bottom	0.259	0.210	0.353	1.244	1.393

Band / Position		Licensed		WLAN				Bluetooth
		LTE B12 (Ant.0)	LTE B2 (Ant.2)	2.4 ㎓ Aux	2.4 ㎓ MIMO	5 ㎓ MIMO	6 ㎓ MIMO	
		[①]		[②]	[③]	[④]	[⑤]	[⑥]
Notebook	Rear	0.560	0.499	0.211	0.494	0.269	0.205	0.034
Tablet	Rear	0.424	0.465	0.991	1.092	0.783	0.886	0.611
	Left	0.183	0.004	0.070	0.070	0.107	0.137	0.017
	Right	0.011	0.209	0.012	0.017	0.025	0.031	0.003
	Top	0.071	0.017	0.013	0.013	0.018	0.023	0.003
	Bottom	0.032	0.029	0.198	0.292	1.183	0.277	0.149

Summation

LTE UL CA_2A-12A

Band / Position		1)	2)	3)	4)	5)
		[①+②]	[①+⑥]	[①+③]	[①+④]	[①+④+⑥]
Notebook	Rear	1.270	1.093	**1.553**	1.328	1.362
Tablet	Rear	1.880	**1.500**	1.981	1.672	2.283
	Left	0.257	0.204	0.257	0.294	0.311
	Right	0.232	0.223	0.237	0.245	0.248
	Top	0.101	0.091	0.101	0.106	0.109
	Bottom	0.259	0.210	0.353	1.244	1.393

Band / Position		Licensed		WLAN				Bluetooth
		LTE B2 (Ant.0)	LTE B66 (Ant.2)	2.4 ㎓ Aux	2.4 ㎓ MIMO	5 ㎓ MIMO	6 ㎓ MIMO	
		[①]		[②]	[③]	[④]	[⑤]	[⑥]
Notebook	Rear	1.199	0.436	0.211	0.494	0.269	0.205	0.034
Tablet	Rear	0.936	0.869	0.991	1.092	0.783	0.886	0.611
	Left	0.285	0.004	0.070	0.070	0.107	0.137	0.017
	Right	0.004	0.307	0.012	0.017	0.025	0.031	0.003
	Top	0.140	0.017	0.013	0.013	0.018	0.023	0.003
	Bottom	0.019	0.029	0.198	0.292	1.183	0.277	0.149

Summation

LTE UL 2A-66A(4A)

Band / Position		1)	2)	3)	4)	5)
		[①+②]	[①+⑥]	[①+③]	[①+④]	[①+④+⑥]
Notebook	Rear	1.846	1.669	2.129	1.904	1.938
Tablet	Rear	2.796	2.416	2.897	2.588	3.199
	Left	0.359	0.306	0.359	0.396	0.413
	Right	0.323	0.314	0.328	0.336	0.339
	Top	0.170	0.160	0.170	0.175	0.178
	Bottom	0.246	0.197	0.340	1.231	1.380

Band / Position		Licensed		WLAN				Bluetooth
		LTE B5 (Ant.0)	LTE B2 (Ant.2)	2.4 ㎓ Aux	2.4 ㎓ MIMO	5 ㎓ MIMO	6 ㎓ MIMO	
		[①]		[②]	[③]	[④]	[⑤]	[⑥]
Notebook	Rear	1.015	0.499	0.211	0.494	0.269	0.205	0.034
Tablet	Rear	1.270	0.465	0.991	1.092	0.783	0.886	0.611
	Left	0.717	0.004	0.070	0.070	0.107	0.137	0.017
	Right	0.029	0.209	0.012	0.017	0.025	0.031	0.003
	Top	0.405	0.017	0.013	0.013	0.018	0.023	0.003
	Bottom	0.092	0.029	0.198	0.292	1.183	0.277	0.149

Summation

LTE UL CA_2A-5A

Band / Position		1)	2)	3)	4)	5)
		[①+②]	[①+⑥]	[①+③]	[①+④]	[①+④+⑥]
Notebook	Rear	1.725	1.548	2.008	1.783	1.817
Tablet	Rear	2.726	2.346	2.827	2.518	3.129
	Left	0.791	0.738	0.791	0.828	0.845
	Right	0.250	0.241	0.255	0.263	0.266
	Top	0.435	0.425	0.435	0.440	0.443
	Bottom	0.319	0.270	0.413	1.304	1.453

Band / Position		Licensed		WLAN				Bluetooth
		LTE B5 (Ant.0)	LTE B66 (Ant.2)	2.4 ㎓ Aux	2.4 ㎓ MIMO	5 ㎓ MIMO	6 ㎓ MIMO	
		[①]		[②]	[③]	[④]	[⑤]	[⑥]
Notebook	Rear	1.015	0.436	0.211	0.494	0.269	0.205	0.034
Tablet	Rear	1.270	0.869	0.991	1.092	0.783	0.886	0.611
	Left	0.717	0.004	0.070	0.070	0.107	0.137	0.017
	Right	0.029	0.307	0.012	0.017	0.025	0.031	0.003
	Top	0.405	0.017	0.013	0.013	0.018	0.023	0.003
	Bottom	0.092	0.029	0.198	0.292	1.183	0.277	0.149

Summation

LTE UL CA_4A(66A)-5A

Band / Position		1)	2)	3)	4)	5)
		[①+②]	[①+⑥]	[①+③]	[①+④]	[①+④+⑥]
Notebook	Rear	1.662	1.485	1.945	1.720	1.754
Tablet	Rear	3.130	2.750	3.231	2.922	3.533
	Left	0.791	0.738	0.791	0.828	0.845
	Right	0.348	0.339	0.353	0.361	0.364
	Top	0.435	0.425	0.435	0.440	0.443
	Bottom	0.319	0.270	0.413	1.304	1.453

Notes:
- Simultaneous transmission SAR test exclusion considerations
  Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneously transmitting antenna. When the sum of 1-g or 10-g SAR of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit, SAR test exclusion applies to that simultaneous transmission configuration. Per KDB Publication 447498 D04v01.
- When the sum of 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.
- In the case of UL CA, redundant configuration according to PCC and SCC is excluded.
- Yellow entries was verified in section 13.5 by the SPLSR.

13.5 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.

13.5.1 Summary of SPLSR Result(Standalone)

13.5.1.1 Summary of SPLSR Result_Notebook Mode

Exposure Condition (Rear) /Position		Licensed	WLAN 2.4 GHz		WLAN 5 GHz	WLAN 6 GHz	Bluetooth	Worst Summation			SPLSR Result
			Aux	MIMO	MIMO	MIMO					
		[①]	[②]	[③]	[④]	[⑤]	[⑥]				
Ratio to Limit	WCDMA II	1.198	-	0.494	-	-	-	3)	[①+③]	1.692	0.01
	LTE 2 (Ant.0)	1.199	-	0.494	-	-	-	3)	[①+③]	1.693	0.01
	5G NR n2 (Ant.0)	1.224	-	0.494	-	-	-	3)	[①+③]	1.718	0.01
	5G NR n77	1.289	-	0.494	-	-	-	3)	[①+③]	1.783	0.01

13.5.1.2 Summary of SPLSR Result_Tablet Mode

Exposure Condition (Rear) /Position		Licensed	WLAN 2.4 GHz		WLAN 5 GHz	WLAN 6 GHz	Bluetooth	Worst Summation			SPLSR Result
			Aux	MIMO	MIMO	MIMO					
		[①]	[②]	[③]	[④]	[⑤]	[⑥]				
Ratio to Limit	WCDMA II	0.965	0.991	-	-	-	-	1)	[①+②]	1.956	0.02
			-	1.092		-	-	3)	[①+③]	2.057	0.02
			-	-	0.783	-	-	4)	[①+④]	1.748	0.01
			-	-	0.783	-	0.611	5)	[①+④+⑥]	2.359	0.02
	WCDMA IV	0.656	0.991	-	-	-	-	1)	[①+②]	1.647	0.01
			-	1.092	-	-	-	3)	[①+③]	1.748	0.01
			-	-	0.783	-	0.611	5)	[①+④+⑥]	2.050	0.02
	WCDMA V	1.179	0.991	-	-	-	-	1)	[①+②]	2.170	0.02
			-	-	-	-	0.611	2)	[①+⑥]	1.790	0.02
			-	1.092	-	-	-	3)	[①+③]	2.271	0.02
			-	-	0.783	-	-	4)	[①+④]	1.962	0.01
			-	-	0.783	-	0.611	5)	[①+④+⑥]	2.573	0.03
	LTE 2 (Ant.0)	0.936	0.991	-	-	-	-	1)	[①+②]	1.927	0.02
			-	1.092	-	-	-	3)	[①+③]	2.028	0.01
			-	-	0.783	-	-	4)	[①+④]	1.719	0.01
			-	-	0.783	-	0.611	5)	[①+④+⑥]	2.330	0.02
	LTE 2 (Ant.2)	0.465	-	-	0.783	-	0.611	5)	[①+④+⑥]	1.859	0.01
	LTE 5	1.270	0.991	-	-	-	-	1)	[①+②]	2.261	0.02
			-	-	-	-	0.611	2)	[①+⑥]	1.881	0.02
			-	1.092	-	-	-	3)	[①+③]	2.362	0.02
			-	-	0.783	-	-	4)	[①+④]	2.053	0.02
			-	-	0.783	-	0.611	5)	[①+④+⑥]	2.664	0.03
	LTE 12	0.424	-	-	0.783	-	0.611	5)	[①+④+⑥]	1.818	0..01

Exposure Condition (Rear) /Position		Licensed	WLAN 2.4 GHz		WLAN 5 GHz	WLAN 6 GHz	Bluetooth	Worst Summation			SPLSR Result
			Aux	MIMO	MIMO	MIMO					
		[①]	[②]	[③]	[④]	[⑤]	[⑥]				
Ratio to Limit	LTE 14	1.014	0.991	-	-	-	-	1)	[①+②]	2.005	0.02
			-	-	-	-	0.611	2)	[①+⑥]	1.625	0.01
			-	1.092		-	-	3)	[①+③]	2.106	0.02
			-	-	0.783	-	-	4)	[①+④]	1.797	0.01
			-	-	0.783	-	0.611	5)	[①+④+⑥]	2.408	0.02
	LTE 66 (Ant.0)	0.919	0.991	-	-	-	-	1)	[①+②]	1.910	0.02
			-	1.092	-	-	-	3)	[①+③]	2.011	0.02
			-	-	0.783	-	-	4)	[①+④]	1.702	0.01
			-	-	0.783	-	0.611	5)	[①+④+⑥]	2.313	0.02
	LTE 66 (Ant.2)	0.869	0.991	-	-	-	-	1)	[①+②]	1.860	0.01
			-	1.092	-	-	-	3)	[①+③]	1.961	0.01
			-		0.783	-	-	4)	[①+④]	1.652	0.01
			-		0.783	-	0.611	5)	[①+④+⑥]	2.263	0.02
	5G NR n2 (Ant.0)	1.114	0.991	-	-	-	-	1)	[①+②]	2.105	0.02
			-	-	-	-	0.611	2)	[①+⑥]	1.725	0.01
			-	1.092	-	-	-	3)	[①+③]	2.206	0.02
			-	-	0.783	-	-	4)	[①+④]	1.897	0.01
			-	-	0.783	-	0.611	5)	[①+④+⑥]	2.508	0.03
	5G NR n2 (Ant.2)	0.541	-	1.092	-	-	-	3)	[①+③]	1.633	0.01
			-	-	0.783	-	0.611	5)	[①+④+⑥]	1.935	0.01
	5G NR n5	1.363	0.991	-	-	-	-	1)	[①+②]	2.354	0.02
			-	-	-	-	0.611	2)	[①+⑥]	1.974	0.02
			-	1.092	-	-	-	3)	[①+③]	2.455	0.02
			-		0.783	-	-	4)	[①+④]	2.146	0.02
			-		0.783	-	0.611	5)	[①+④+⑥]	2.757	0.03
	5G NR n66 (Ant.0)	1.115	0.991	-	-	-	-	1)	[①+②]	2.106	0.02
			-	-	-	-	0.611	2)	[①+⑥]	1.726	0.01
			-	1.092	-	-	-	3)	[①+③]	2.207	0.02
			-	-	0.783	-	-	4)	[①+④]	1.898	0.01
			-	-	0.783	-	0.611	5)	[①+④+⑥]	2.509	0.03
	5G NR n66 (Ant.2)	0.679	0.991	-	-	-	-	1)	[①+②]	1.670	0.01
			-	1.092	-	-	-	3)	[①+③]	1.771	0.01
			-	-	0.783	-	0.611	5)	[①+④+⑥]	2.073	0.02
	5G NR n77	0.694	0.991	-	-	-	-	1)	[①+②]	1.685	0.01
			-	1.092	-	-	-	3)	[①+③]	1.786	0.01
			-	-	0.783	-	0.611	5)	[①+④+⑥]	2.088	0.02

13.5.2 Summary of SPLSR Result(UL CA)

13.5.2.1 Summary of SPLSR Result_Notebook Mode

Exposure Condition (Rear) /Position		Licensed		WLAN 2.4 GHz		WLAN 5 GHz	WLAN 6 GHz	Bluetooth	Worst Summation			SPLSR Result
		Ant.0	Ant.2	Aux	MIMO	MIMO	MIMO					
		[①-1]	[①-2]	[②]	[③]	[④]	[⑤]	[⑥]				
Ratio to Limit	LTE UL 2A-66A(4A)	1.199	0.436	0.211	-	-	-	-	1)	[①-1+①-2]	1.846	0.01
					-	-	-	-		[①-1+2]		0.01
					-	-	-	-		[①-2+2]		0.00
				-	-	-	-	0.034	2)	[①-1+①-2]	1.669	0.01
				-	-	-	-			[①-1+⑥]		0.01
				-	-	-	-			[①-2+⑥]		0.00
				-	0.494	-	-	-	3)	[①-1+①-2]	2.129	0.01
				-		-	-	-		[①-1+③]		0.01
				-		-	-	-		[①-2+③]		0.00
				-	-	0.269	-	-	4)	[①-1+①-2]	1.904	0.01
				-	-		-	-		[①-1+④]		0.01
				-	-		-	-		[①-2+④]		0.00
				-	-	0.269	-	0.034	5)	[①-1+①-2]	1.938	0.01
				-	-		-			[①-1+④+⑥]		0.01
				-	-		-			[①-2+④+⑥]		0.00
	LTE UL CA_2A-5A	1.015	0.499	0.211	-	-	-	-	1)	[①-1+①-2]	1.725	0.01
					-	-	-	-		[①-1+②]		0.01
					-	-	-	-		[①-2+②]		0.00
				-	0.494	-	-	-	3)	[①-1+①-2]	2.008	0.01
				-		-	-	-		[①-1+③]		0.01
				-		-	-	-		[①-2+③]		0.01
				-	-	0.269	-	-	4)	[①-1+①-2]	1.783	0.01
				-	-		-	-		[①-1+④]		0.01
				-	-		-	-		[①-2+④]		0.00
				-	-	0.269	-	0.034	5)	[①-1+①-2]	1.817	0.01
				-	-		-			[①-1+④+⑥]		0.01
				-	-		-			[①-2+④+⑥]		0.00

Exposure Condition (Rear) /Position		Licensed		WLAN 2.4 GHz		WLAN 5 GHz	WLAN 6 GHz	Bluetooth	Worst Summation			SPLSR Result
		Ant.0	Ant.2	Aux	MIMO	MIMO	MIMO					
		[①-1]	[①-2]	[②]	[③]	[④]	[⑤]	[⑥]				
Ratio to Limit	LTE UL 4A(66A)-5A	1.015	0.436	0.211	-	-	-	-	1)	[①-1+①-2]	1.662	0.01
					-	-	-	-		[①-1+②]		0.01
					-	-	-	-		[①-2+②]		0.00
				-	0.494	-	-	-	3)	[①-1+①-2]	1.945	0.01
				-		-	-	-		[①-1+③]		0.01
				-		-	-	-		[①-2+③]		0.00
				-	-	0.269	-	-	4)	[①-1+①-2]	1.720	0.01
				-	-		-	-		[①-1+④]		0.01
				-	-		-	-		[①-2+④]		0.00
				-	-	0.269	-	0.034	5)	[①-1+①-2]	1.754	0.01
				-	-		-			[①-1+④+⑥]		0.01
				-	-		-			[①-2+④+⑥]		0.00

13.5.2.2 Summary of SPLSR Result_Tablet Mode

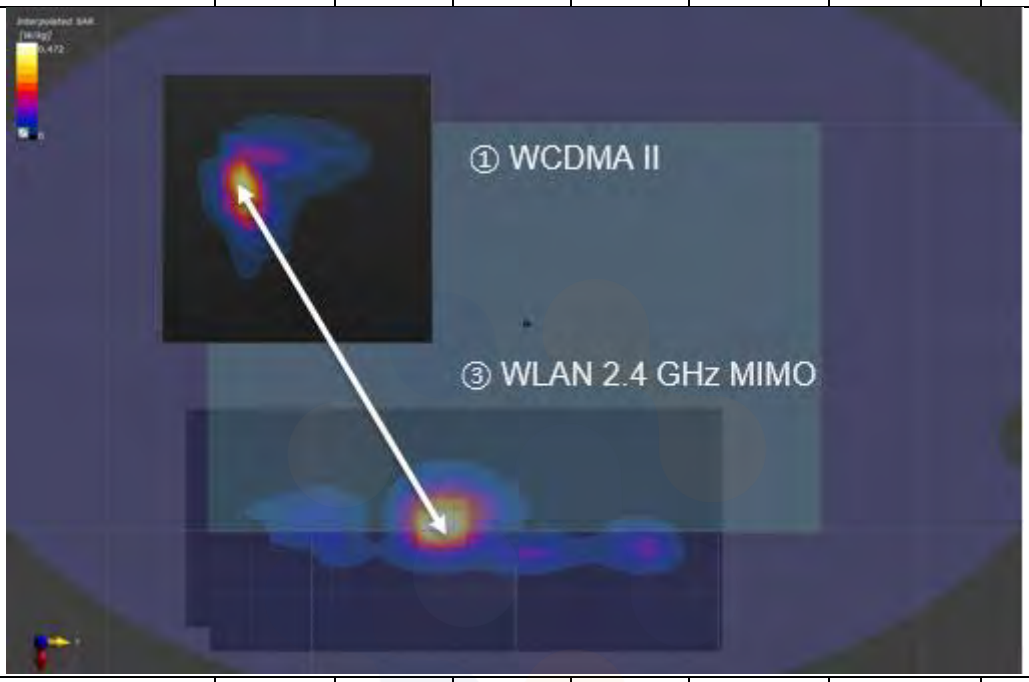
Exposure Condition (Rear) /Position		Licensed		WLAN 2.4 GHz		WLAN 5 GHz	WLAN 6 GHz	Bluetooth	Worst Summation			SPLSR Result
		Ant.0	Ant.2	Aux	MIMO	MIMO	MIMO					
		[①-1]	[①-2]	[②]	[③]	[④]	[⑤]	[⑥]				
Ratio to Limit	LTE UL CA_12A-66A	0.424	0.869	0.991	-	-	-	-	1)	[①-1+①-2]	2.284	0.01
					-	-	-	-		[①-1+2]		0.01
					-	-	-	-		[①-2+2]		0.01
				-	-	-	-	0.611	2)	[①-1+①-2]	1.904	0.01
				-	-	-	-			[①-1+⑥]		0.01
				-	-	-	-			[①-2+⑥]		0.01
				-	1.092	-	-	-	3)	[①-1+①-2]	2.385	0.01
				-		-	-	-		[①-1+③]		0.01
				-		-	-	-		[①-2+③]		0.01
				-	-	0.783	-	-	4)	[①-1+①-2]	2.076	0.01
				-	-		-	-		[①-1+④]		0.01
				-	-		-	-		[①-2+④]		0.01
				-	-	0.783	-	0.611	5)	[①-1+①-2]	2.687	0.01
				-	-		-			[①-1+④+⑥]		0.01
				-	-		-			[①-2+④+⑥]		0.02
	LTE UL CA_2A-12A	0.424	0.465	0.991	-	-	-	-	1)	[①-1+①-2]	1.880	0.00
					-	-	-	-		[①-1+2]		0.01
					-	-	-	-		[①-2+2]		0.01
				-	1.092	-	-	-	3)	[①-1+①-2]	1.981	0.00
				-		-	-	-		[①-1+③]		0.01
				-		-	-	-		[①-2+③]		0.01
				-	-	0.783	-	-	4)	[①-1+①-2]	1.672	0.00
				-	-		-	-		[①-1+④]		0.01
				-	-		-	-		[①-2+④]		0.01
				-	-	0.783	-	0.611	5)	[①-1+①-2]	2.283	0.00
				-	-		-			[①-1+④+⑥]		0.01
				-	-		-			[①-2+④+⑥]		0.01
	LTE UL 2A-66A(4A)	0.936	0.869	0.991	-	-	-	-	1)	[①-1+①-2]	2.796	0.01
					-	-	-	-		[①-1+2]		0.02
					-	-	-	-		[①-2+2]		0.01
				-	-	-	-	0.611	2)	[①-1+①-2]	2.416	0.01
				-	-	-	-			[①-1+⑥]		0.01
				-	-	-	-			[①-2+⑥]		0.01
				-	1.092	-	-	-	3)	[①-1+①-2]	2.897	0.01
				-		-	-	-		[①-1+③]		0.02
				-		-	-	-		[①-2+③]		0.01

Exposure Condition (Rear) /Position		Licensed		WLAN 2.4 GHz		WLAN 5 GHz	WLAN 6 GHz	Bluetooth	Worst Summation			SPLSR Result
		Ant.0	Ant.2	Aux	MIMO	MIMO	MIMO					
		[①]		[②]	[③]	[④]	[⑤]	[⑥]				
Ratio to Limit	LTE UL 2A-66A(4A)	0.936	0.869	-	-	0.783	-	-	4)	[①-1+①-2]	2.588	0.01
				-	-		-	-		[①-1+④]		0.01
				-	-		-	-		[①-2+④]		0.01
				-	-	0.783	-	0.611	5)	[①-1+①-2]	3.199	0.01
				-	-		-			[①-1+④+⑥]		0.02
				-	-		-			[①-2+④+⑥]		0.02
	LTE UL CA_2A-5A	1.270	0.465	0.991	-	-	-	-	1)	[①-1+①-2]	2.726	0.01
					-	-	-	-		[①-1+2]		0.02
					-	-	-	-		[①-2+2]		0.01
				-	-	-	-	0.611	2)	[①-1+①-2]	2.346	0.01
				-	-	-	-			[①-1+⑥]		0.02
				-	-	-	-			[①-2+⑥]		0.01
				-	1.092	-	-	-	3)	[①-1+①-2]	2.827	0.01
				-		-	-	-		[①-1+③]		0.02
				-		-	-	-		[①-2+③]		0.01
				-	-	0.783	-	-	4)	[①-1+①-2]	2.518	0.01
				-	-		-	-		[①-1+④]		0.02
				-	-		-	-		[①-2+④]		0.01
				-	-	0.783	-	0.611	5)	[①-1+①-2]	3.129	0.01
				-	-					[①-1+④+⑥]		0.03
				-	-					[①-2+④+⑥]		0.01
	TE UL CA_4A (66A)-5A	1.270	0.869	0.991	-	-	-	-	1)	[①-1+①-2]	3.130	0.01
					-	-	-	-		[①-1+2]		0.02
					-	-	-	-		[①-2+2]		0.01
				-	-	-	-	0.611	2)	[①-1+①-2]	2.750	0.01
				-	-	-	-			[①-1+⑥]		0.02
				-	-	-	-			[①-2+⑥]		0.01
				-	1.092	-	-	-	3)	[①-1+①-2]	3.231	0.01
				-		-	-	-		[①-1+③]		0.02
				-		-	-	-		[①-2+③]		0.01
				-	-	0.783	-	-	4)	[①-1+①-2]	2.922	0.01
				-	-		-	-		[①-1+④]		0.02
				-	-		-	-		[①-2+④]		0.01
				-	-	0.783	-	0.611	5)	[①-1+①-2]	3.533	0.01
				-	-		-			[①-1+④+⑥]		0.03
				-	-		-			[①-2+④+⑥]		0.02

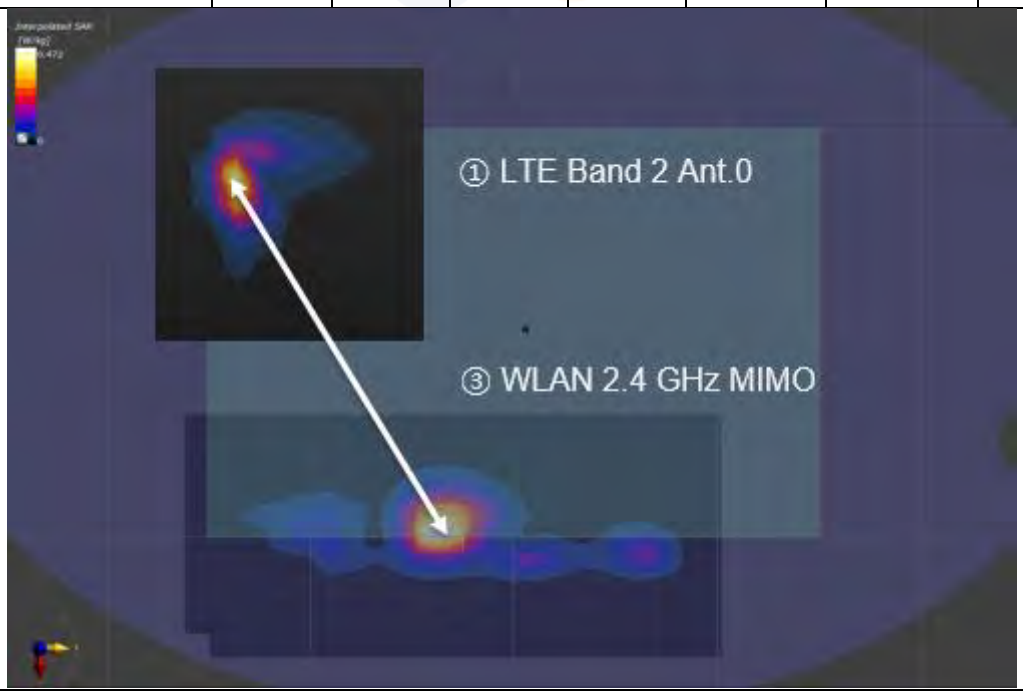
13.5.3 SPLSR Analysis(Standalone)

13.5.3.1 SPLSR Analysis(Standalone)_Notebook Mode

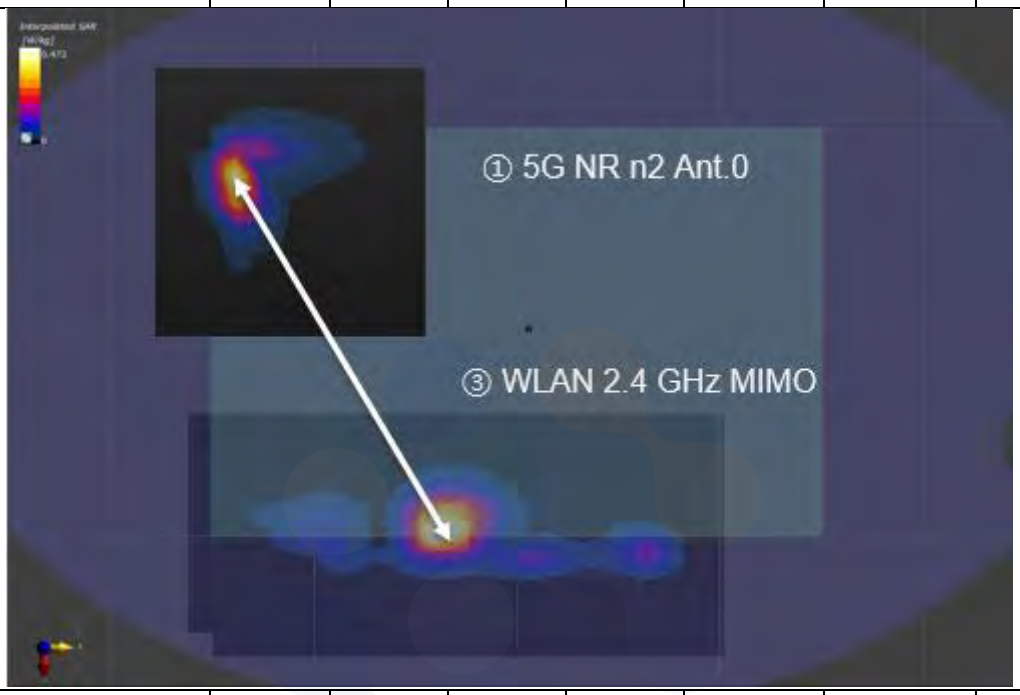
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
3)	① WCDMA II	1.198	-0.06530	-0.14700	-0.17700	196.51	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	0.494	0.09760	-0.03710	-0.17700			



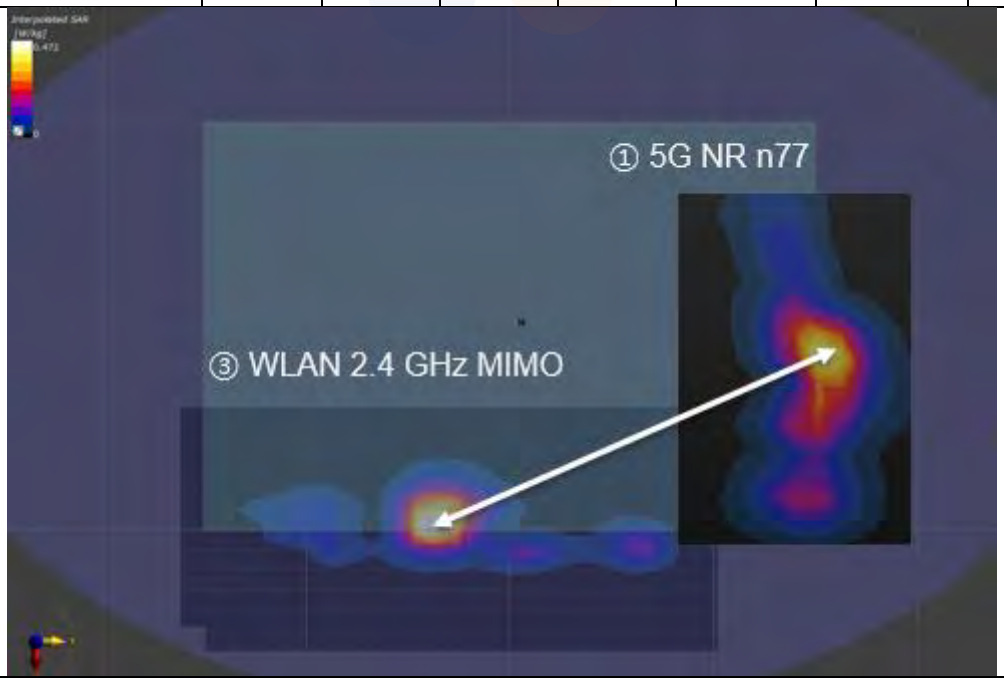
3)	① LTE Band 2 Ant.0	1.199	-0.06530	-0.14700	-0.17700	196.51	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	0.494	0.09760	-0.03710	-0.17700			



Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
3)	① 5G NR n2 Ant.0	1.224	-0.06530	-0.14700	-0.17700	196.51	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	0.494	0.09760	-0.03710	-0.17700			

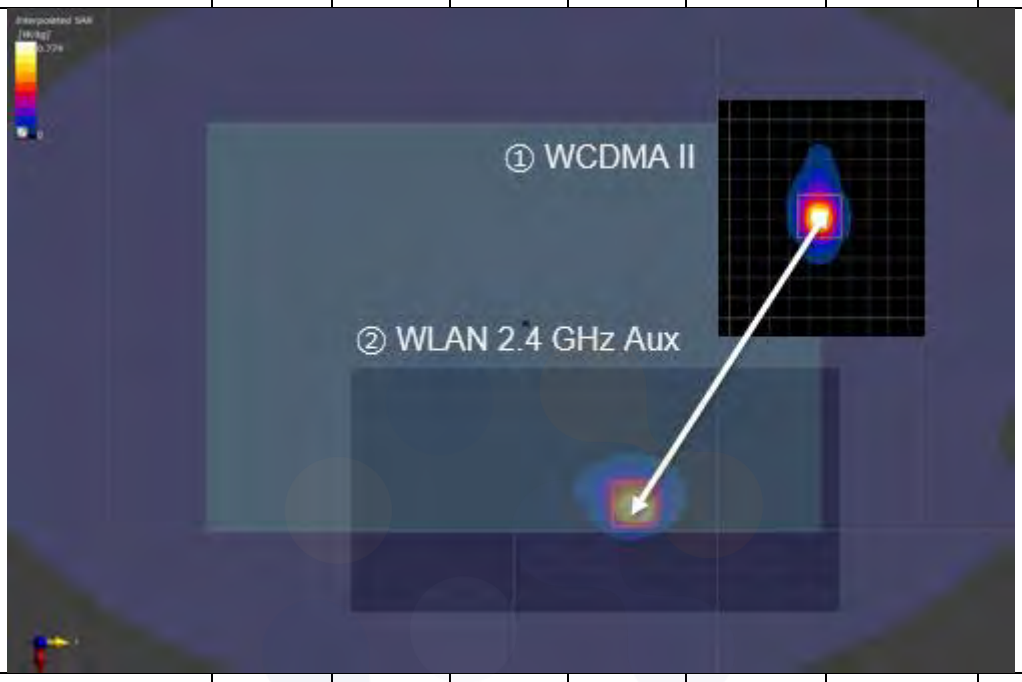


3)	① 5G NR n77	1.289	0.01280	0.15600	-0.17700	210.90	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	0.494	0.09760	-0.03710	-0.17700			



13.5.3.2 SPLSR Analysis_Tablet Mode

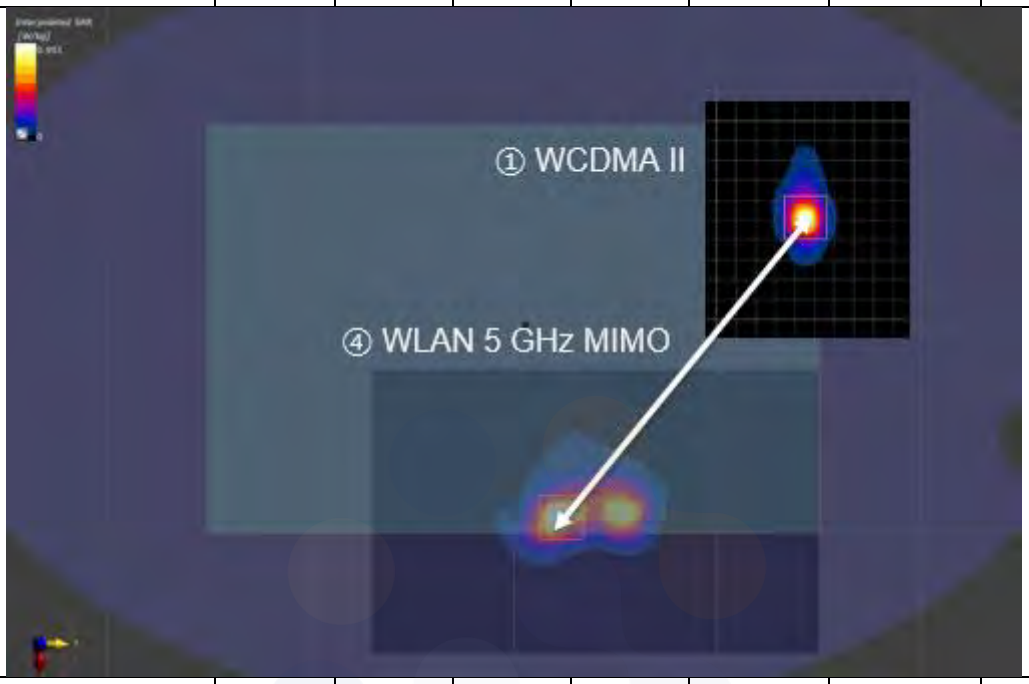
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
1)	① WCDMA II	0.965	-0.05000	0.14500	-0.17700	162.80	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



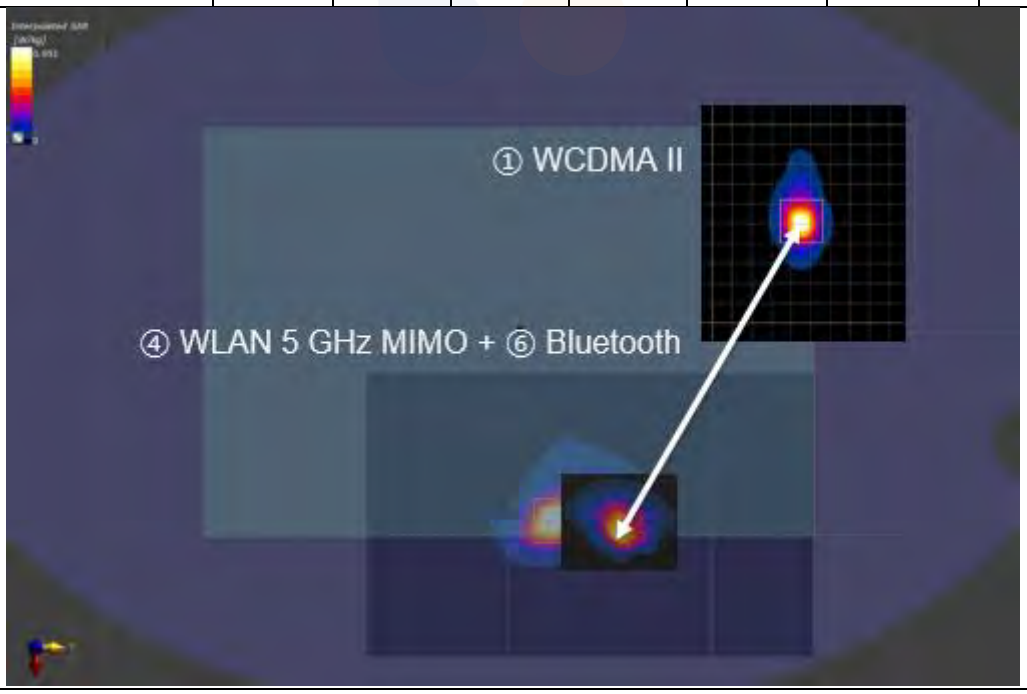
3)	① WCDMA II	0.965	-0.05000	0.14500	-0.17700	162.60	0.02	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			

Mode / Ant.	SAR	Coordinates	Peak	SPLSR	

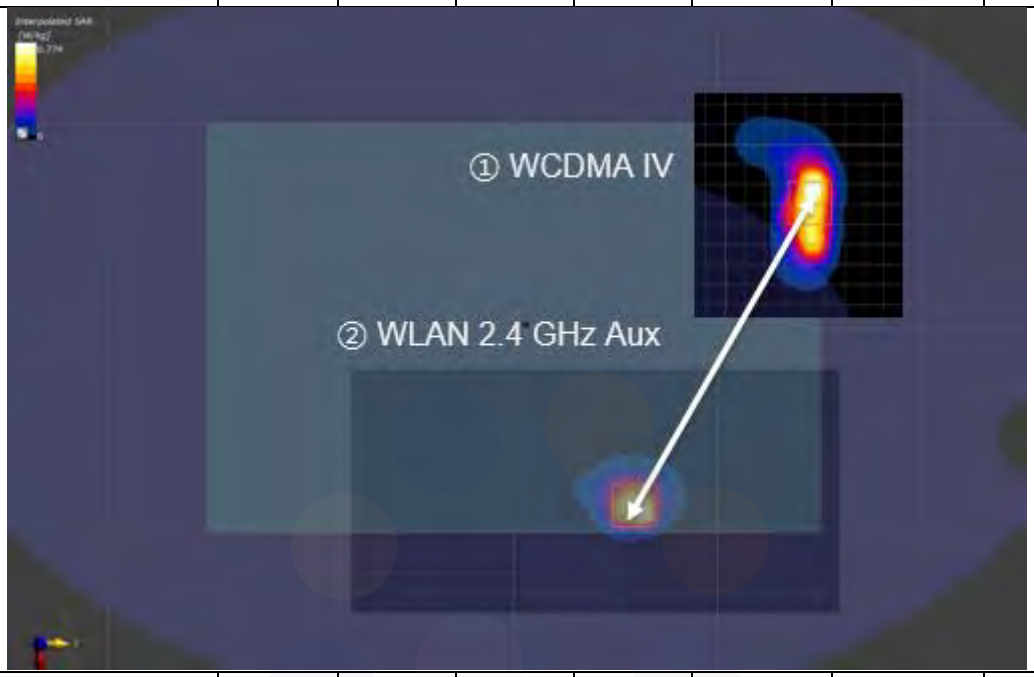
		Ratio	X	Y	Z	Location Separation Distance (㎜)	Result	Simultaneous Transmission SAR
4)	① WCDMA II	0.965	-0.05000	0.14500	-0.17700	190.10	0.01	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			



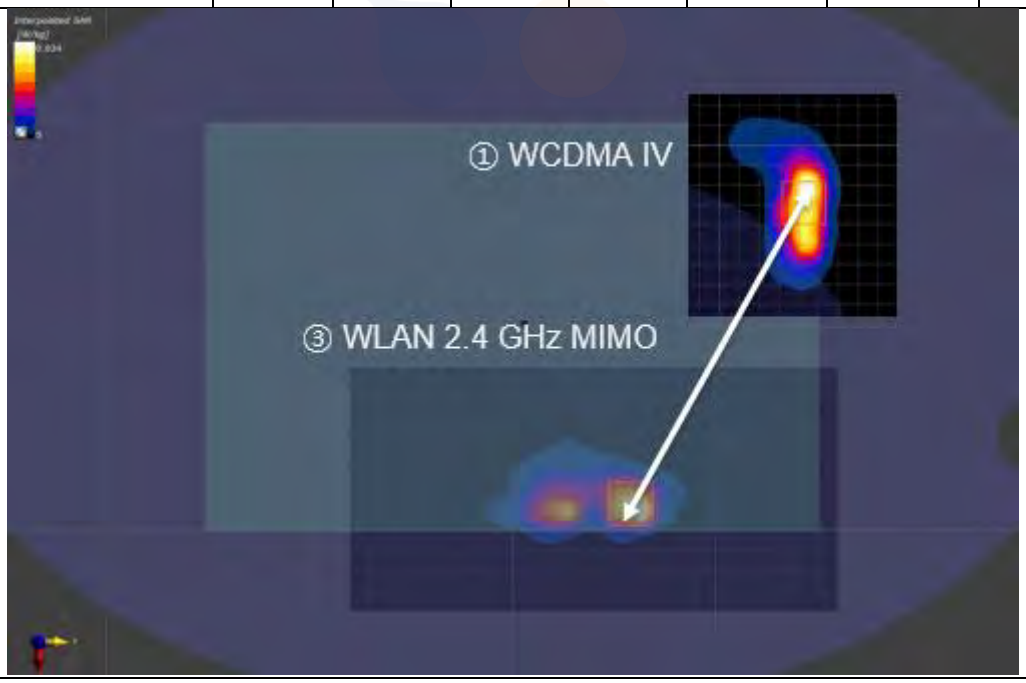
5)	① WCDMA II	0.965	-0.05000	0.14500	-0.17700	160.34	0.02	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			



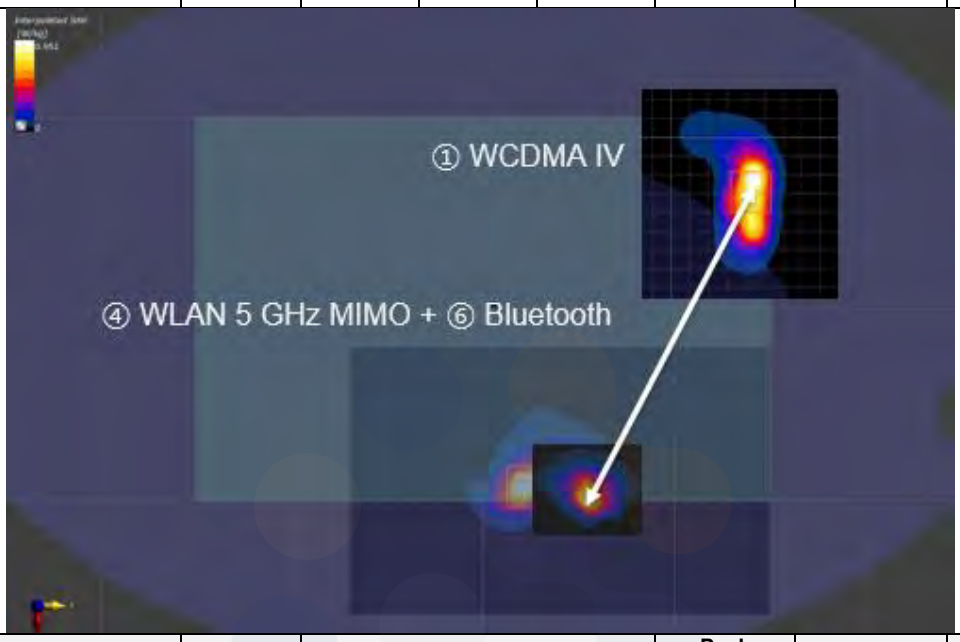
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
1)	① WCDMA IV	0.656	-0.07690	0.14350	-0.17940	185.57	0.01	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



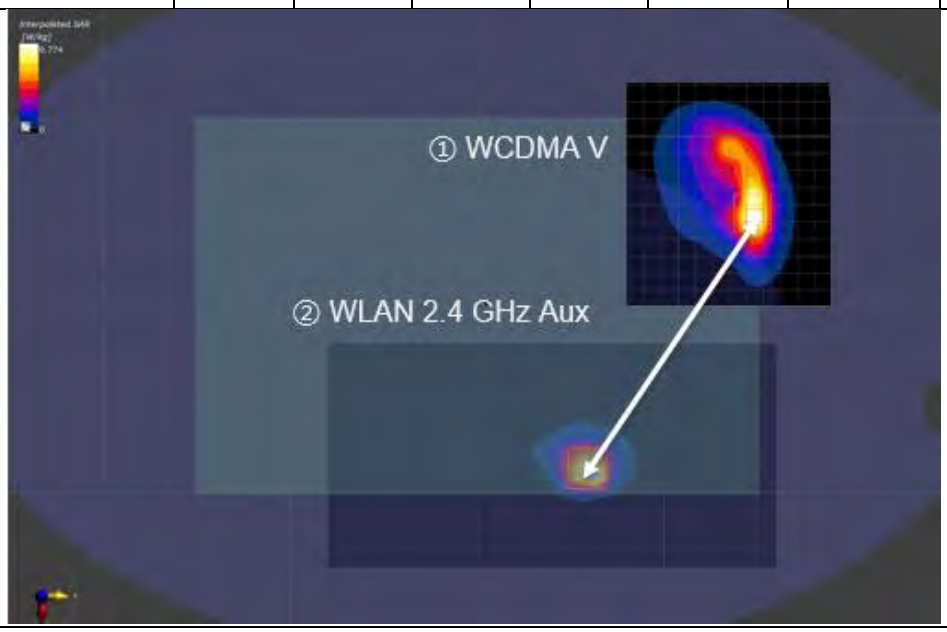
3)	① WCDMA IV	0.656	-0.07690	0.14350	-0.17940	185.43	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



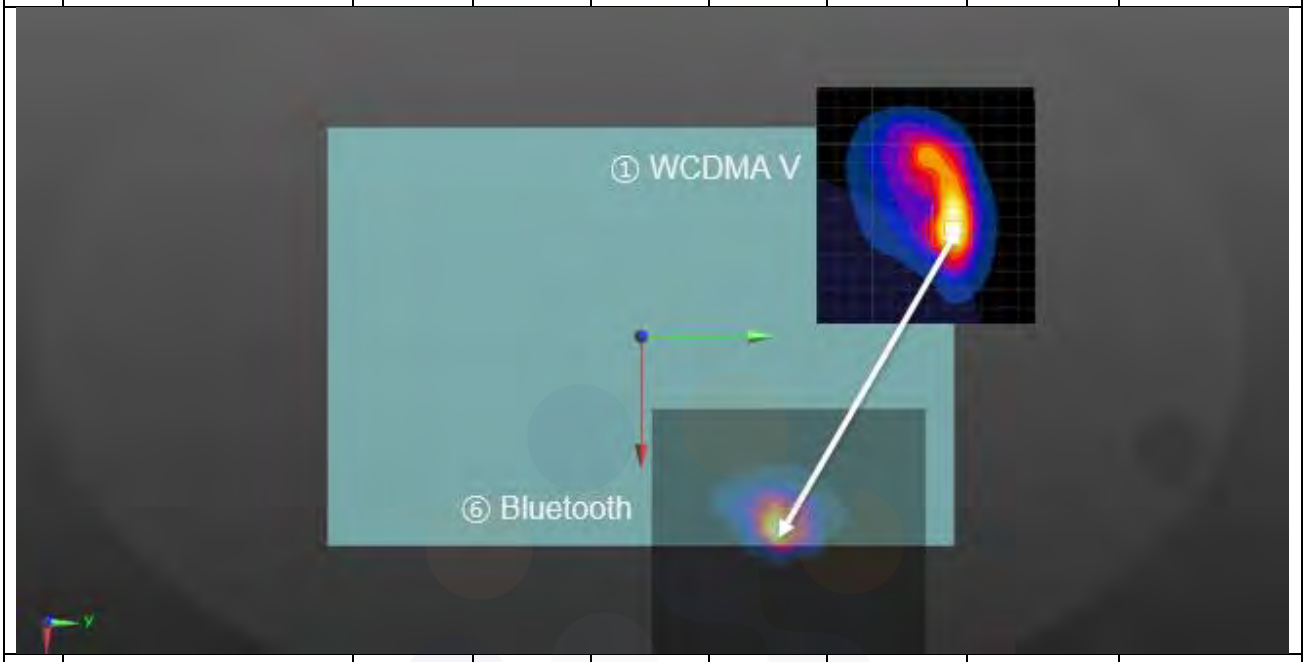
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
5)	① WCDMA IV	0.656	-0.07690	0.14350	-0.17940	183.91	0.02	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			



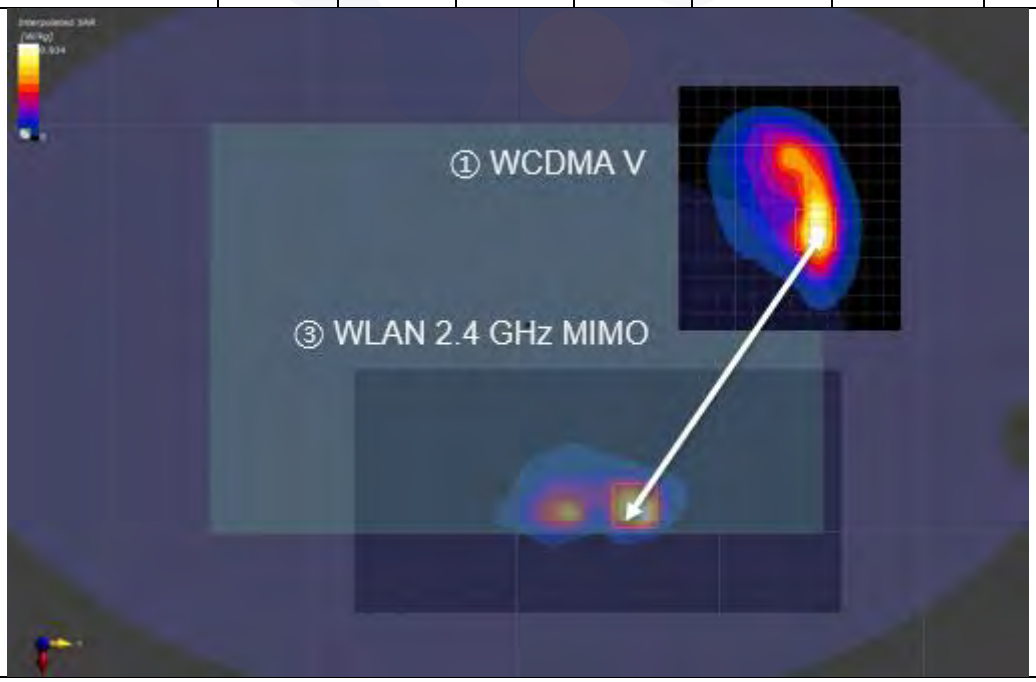
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
1)	① WCDMA V	1.179	-0.05550	0.14350	-0.17970	166.77	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



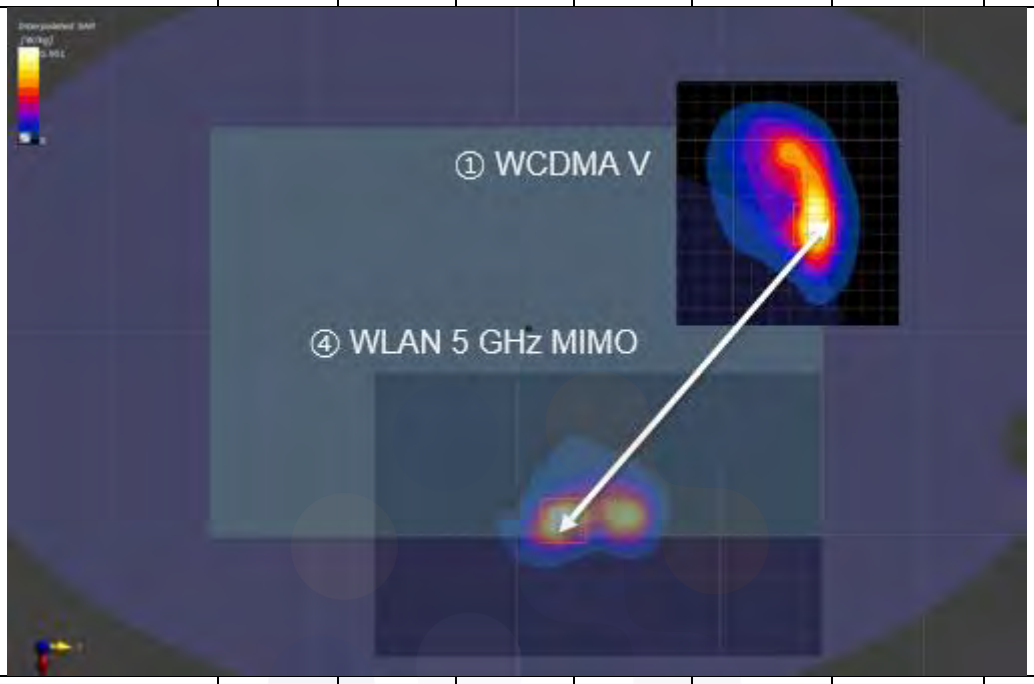
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
2)	① WCDMA V	1.179	-0.05550	0.14350	-0.17970	164.55	0.02	Not Required (SPLSR ≤ 0.04)
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			



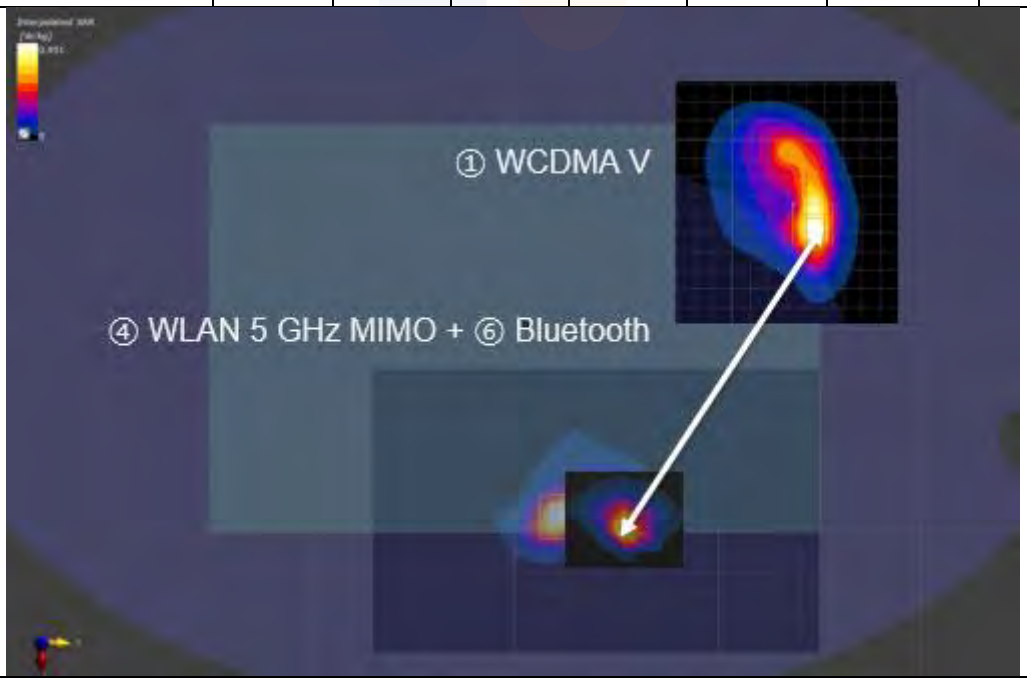
3)	① WCDMA V	1.179	-0.05550	0.14350	-0.17970	166.59	0.02	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



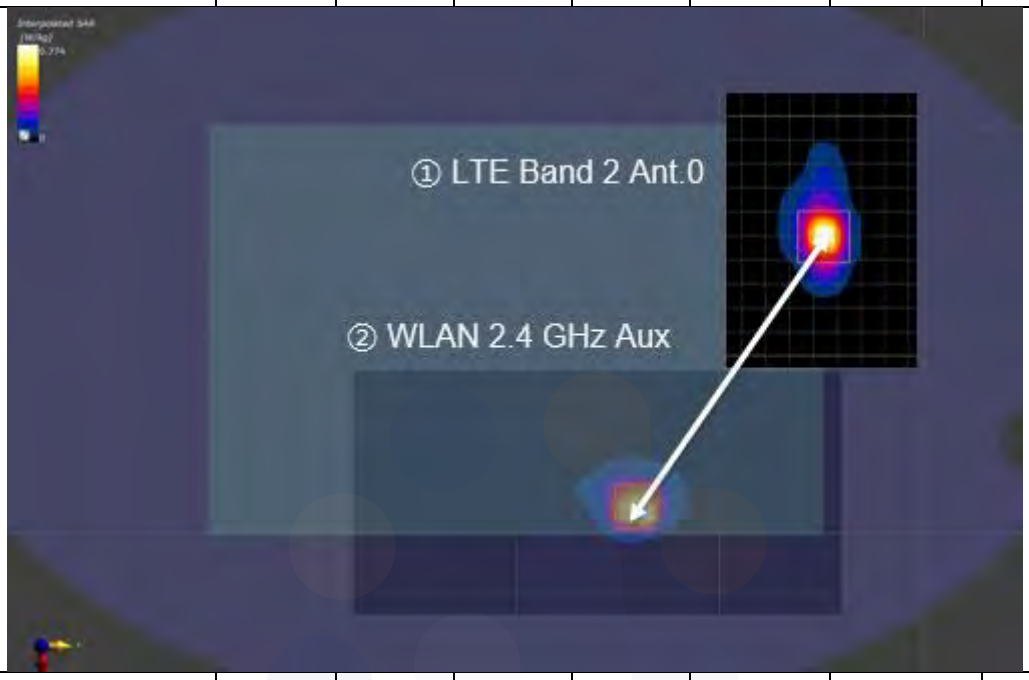
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① WCDMA V	1.179	-0.05550	0.14350	-0.17970	193.34	0.01	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			



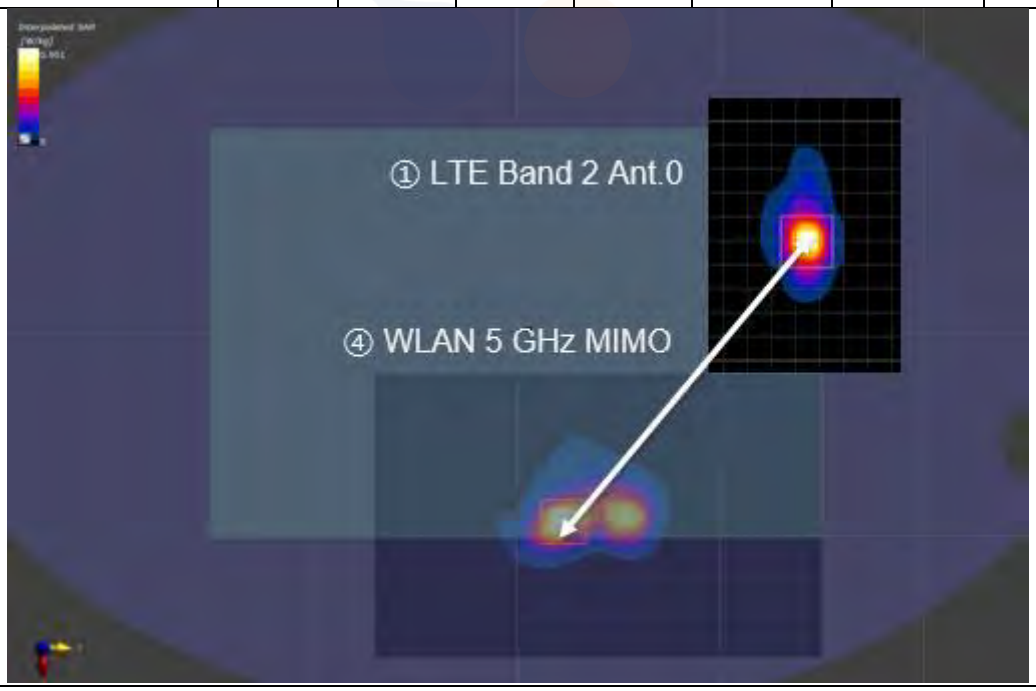
5)	① WCDMA V	1.179	-0.05550	0.14350	-0.17970	164.55	0.03	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			



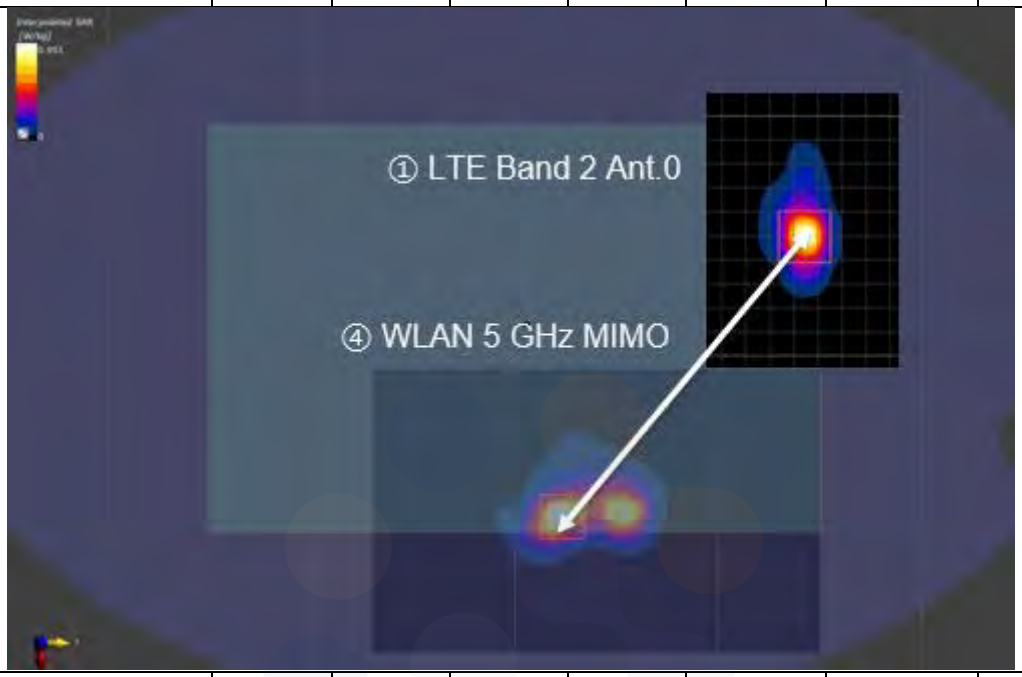
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
1)	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	161.99	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



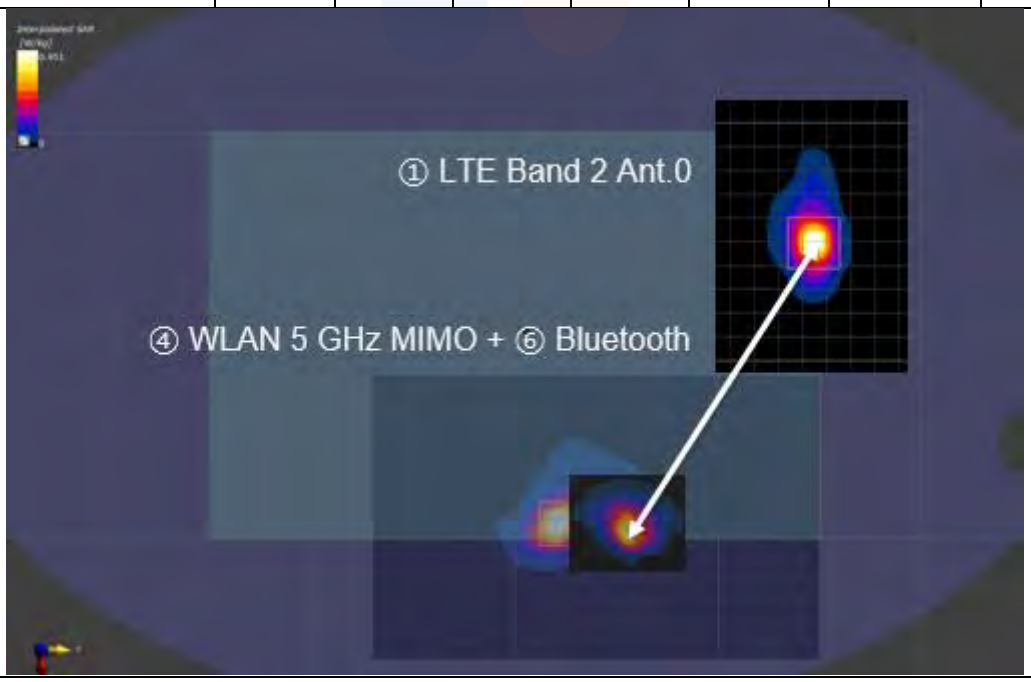
3)	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	189.07	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	189.07	0.01	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			

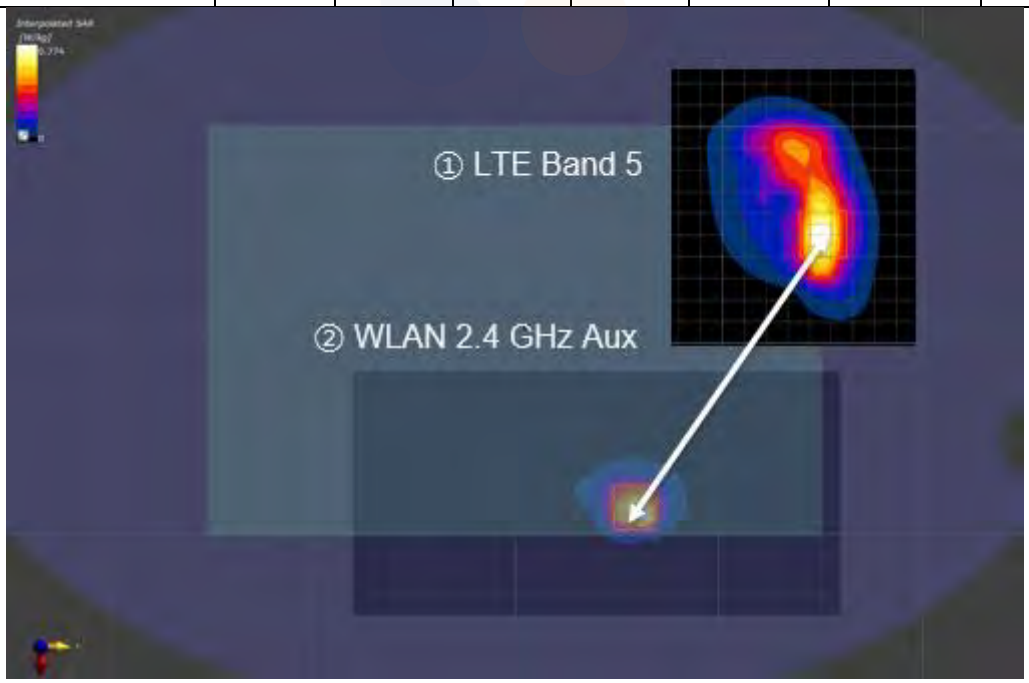


5)	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	159.62	0.02	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			

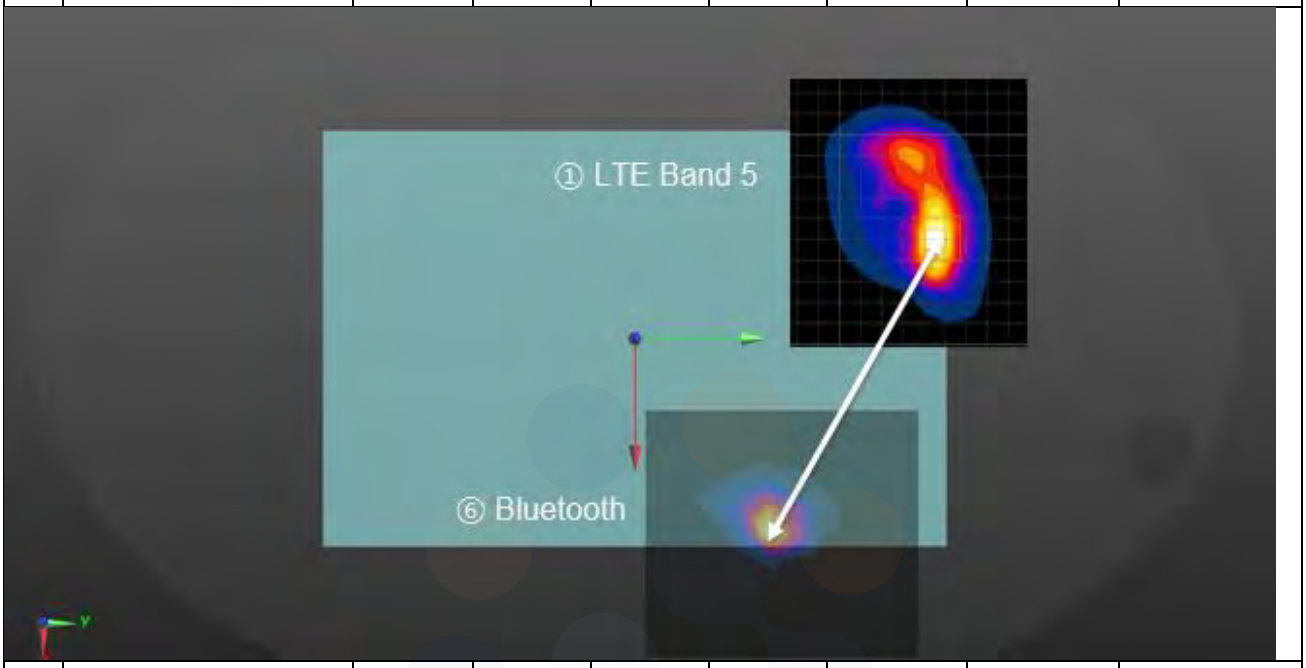


Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
5)	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700	186.34	0.01	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09340	0.02020	-0.17700			

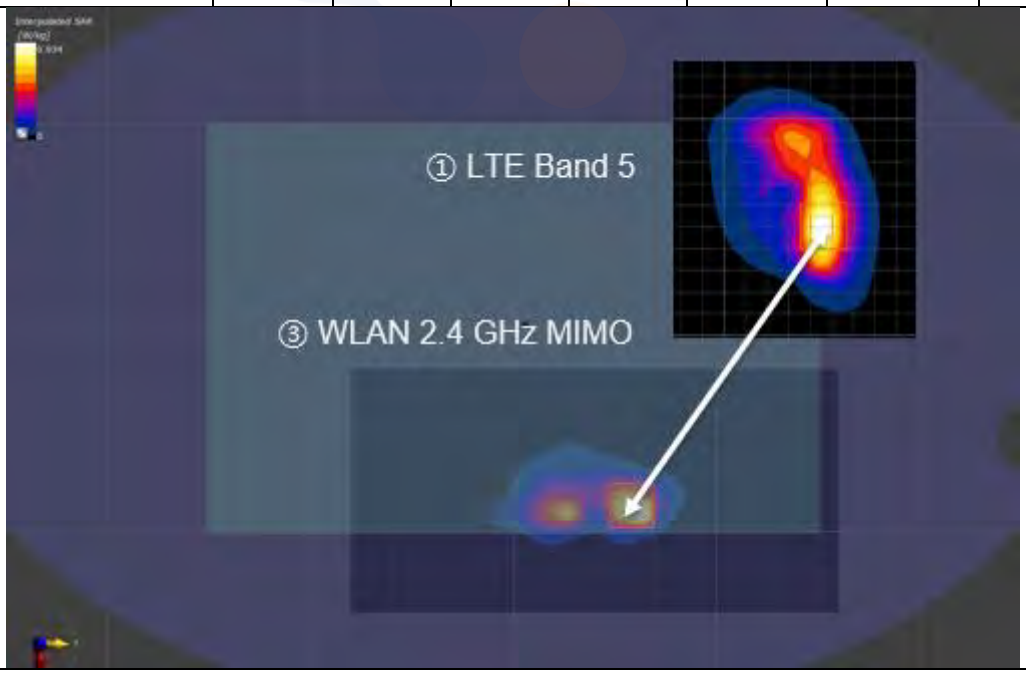
1)	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	162.31	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



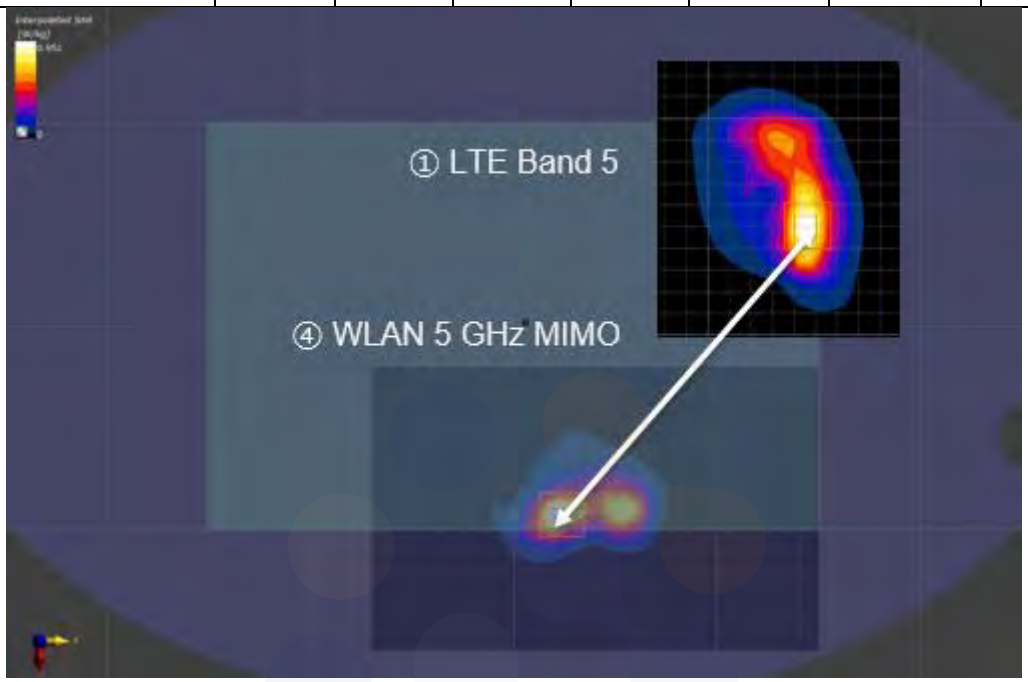
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
2)	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	159.72	0.02	Not Required (SPLSR ≤ 0.04)
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			



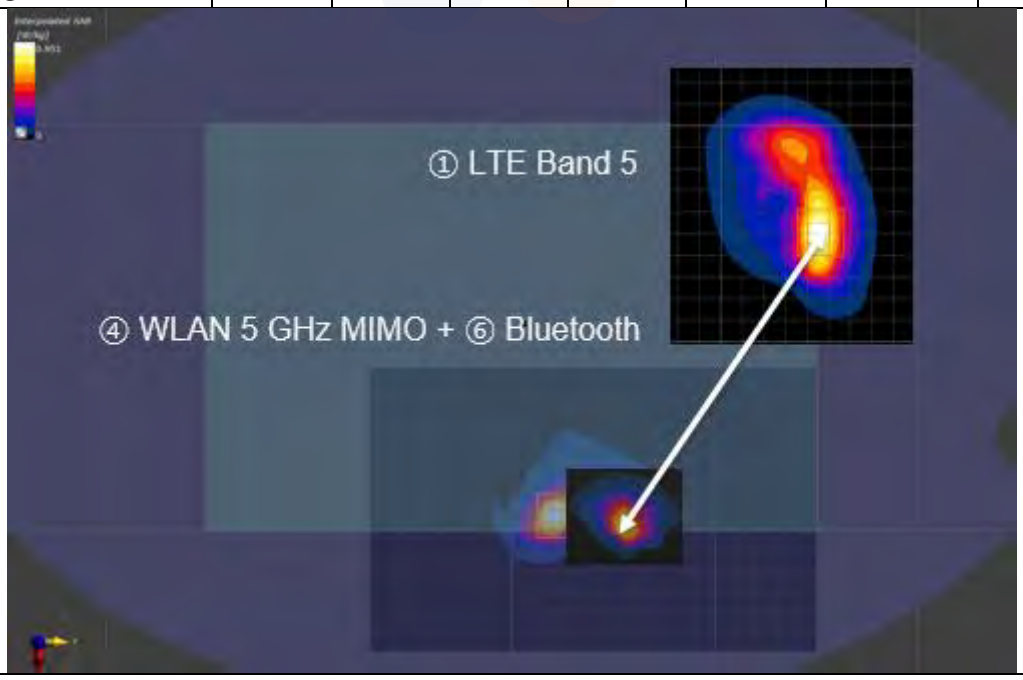
3)	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	162.11	0.02	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



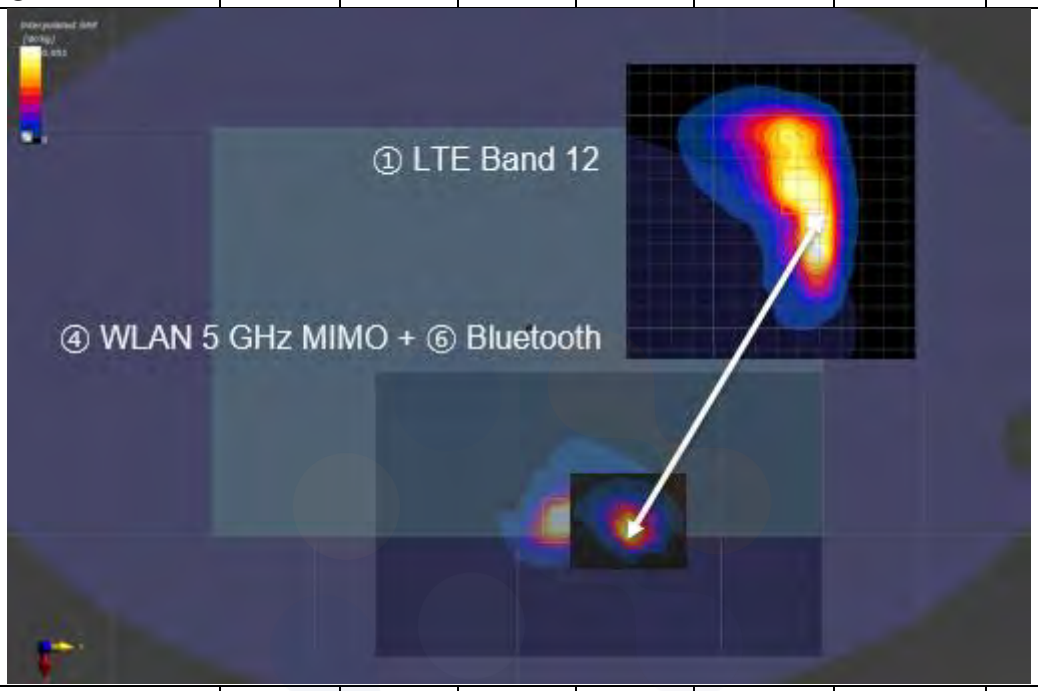
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	189.98	0.02	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			



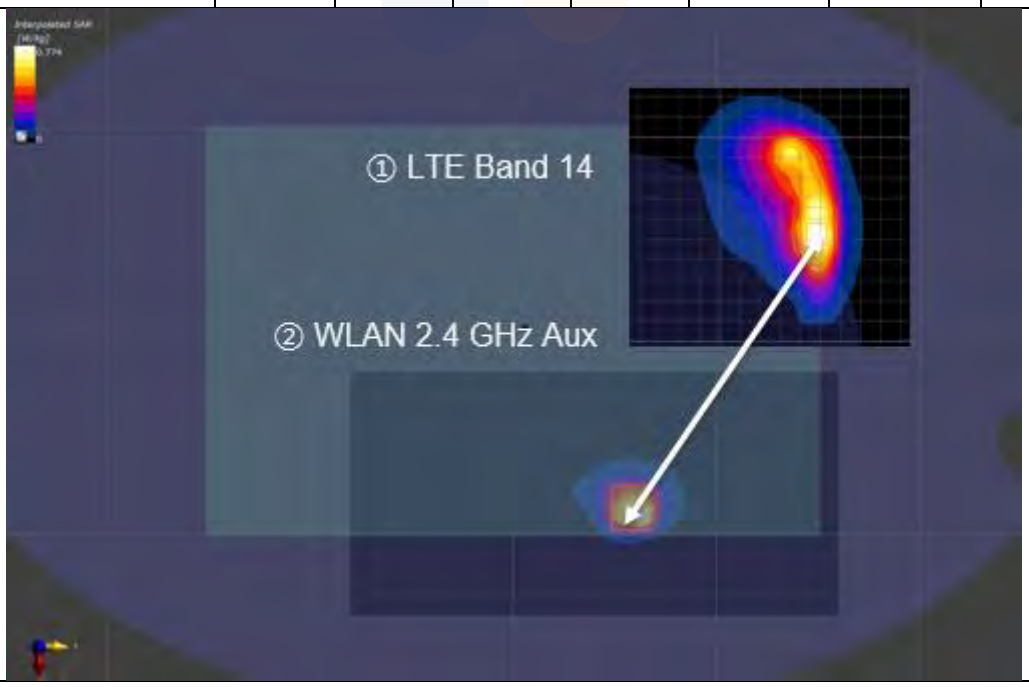
5)	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	159.72	0.03	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			



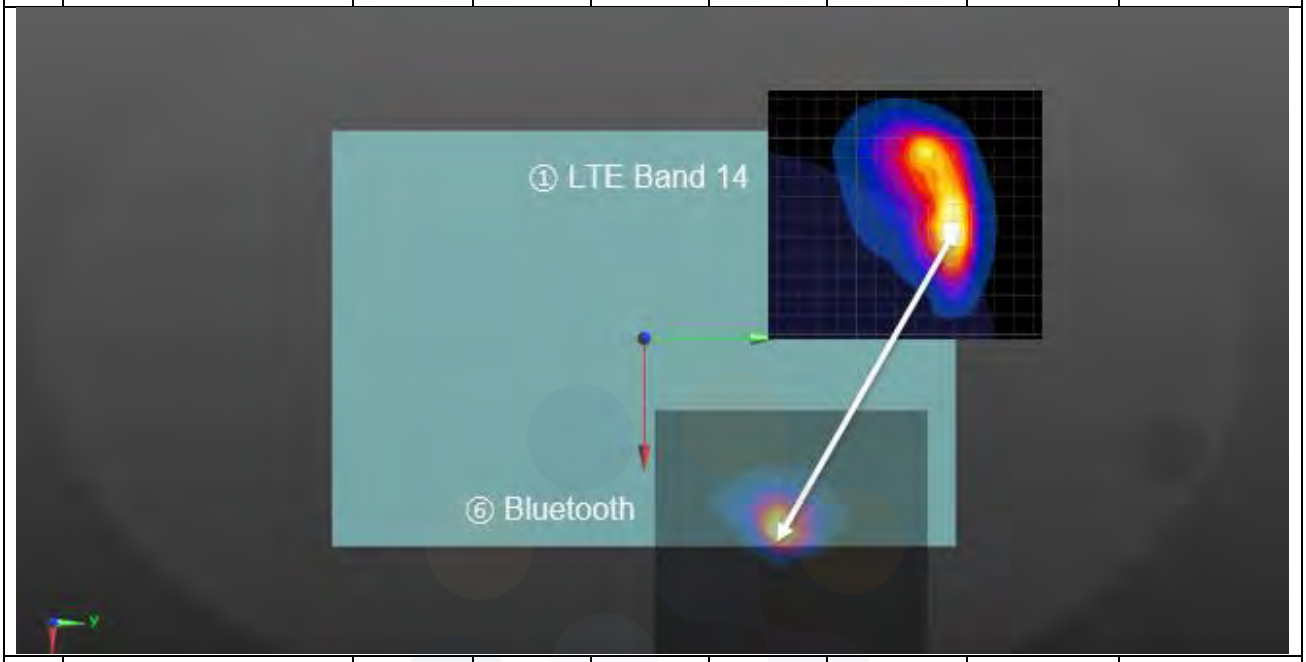
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
7)	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	171.28	0.01	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			



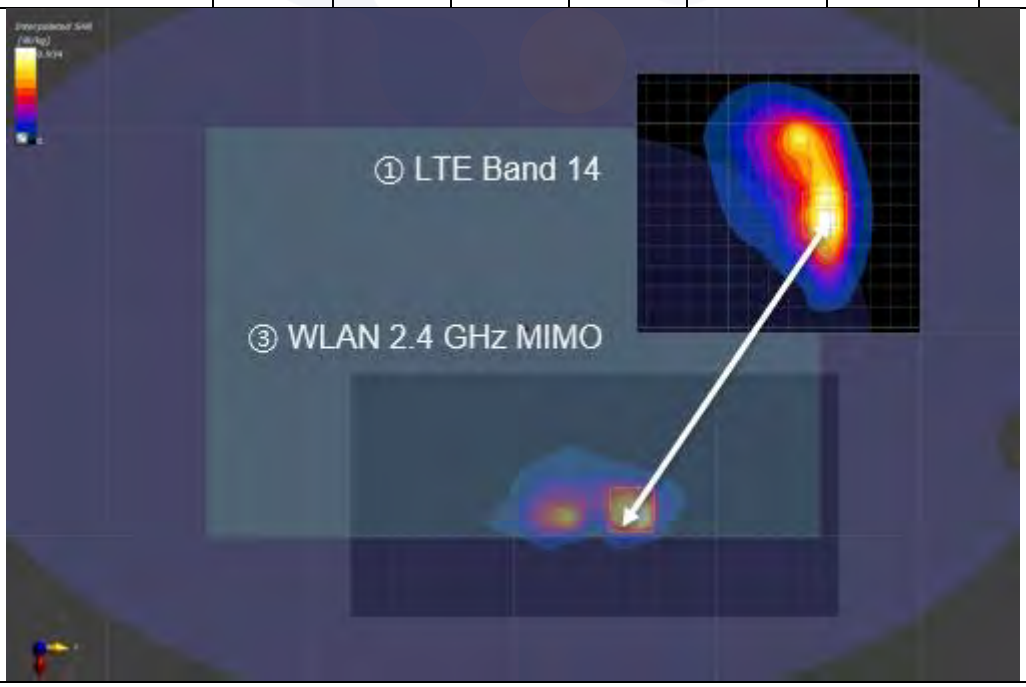
1)	① LTE Band 14	1.014	-0.05390	0.14690	-0.17980	167.14	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



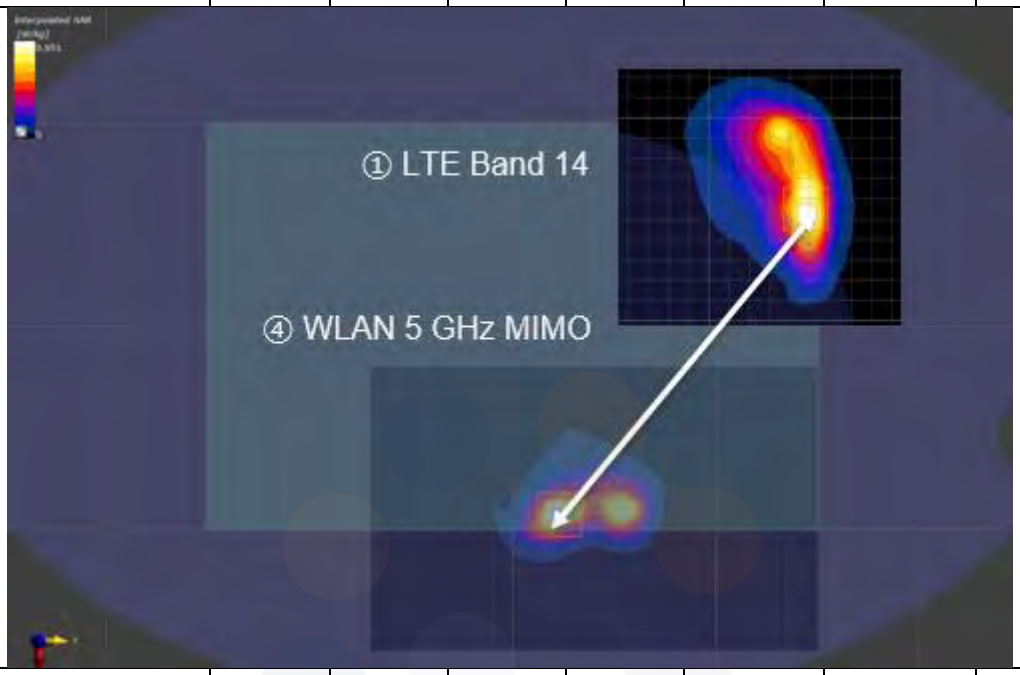
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
2)	① LTE Band 14	1.014	-0.05390	0.14690	-0.17980	164.70	0.01	Not Required (SPLSR ≤ 0.04)
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			



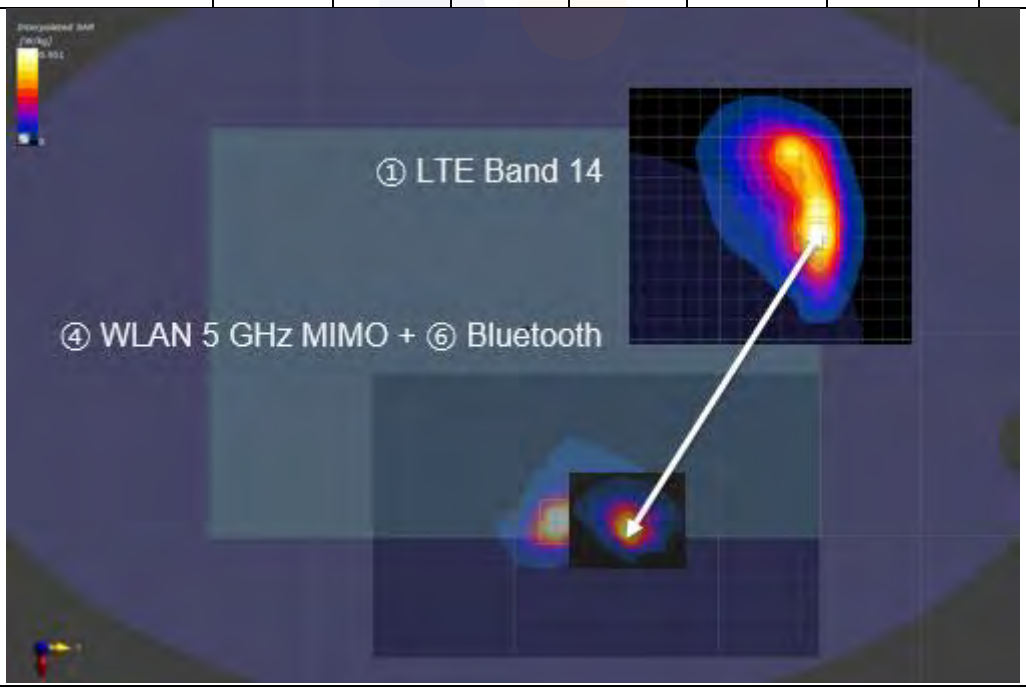
3)	① LTE Band 14	1.014	-0.05390	0.14690	-0.17980	166.95	0.02	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



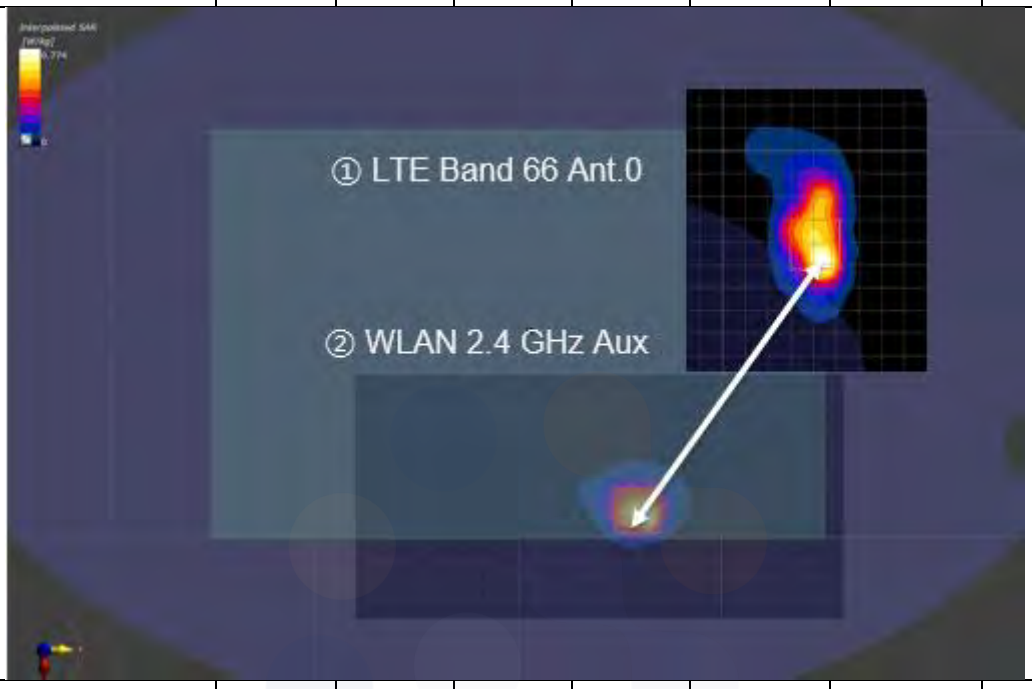
	Mode / Ant.	SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① LTE Band 14	1.014	-0.05390	0.14690	-0.17980	194.31	0.01	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			



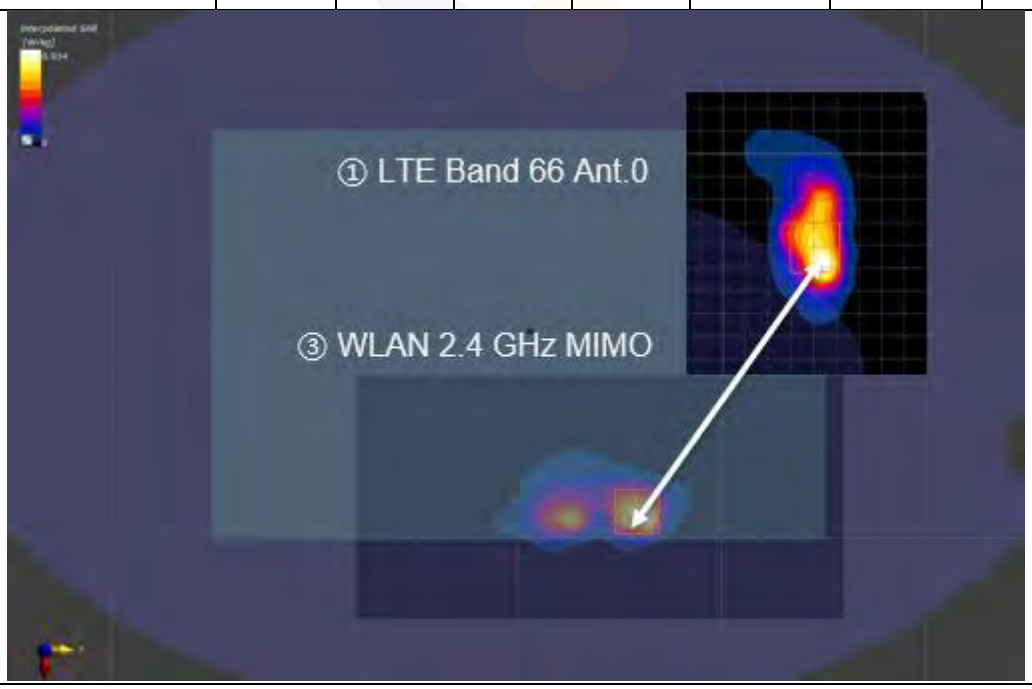
5)	① LTE Band 14	1.014	-0.05390	0.14690	-0.17980	164.70	0.02	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			



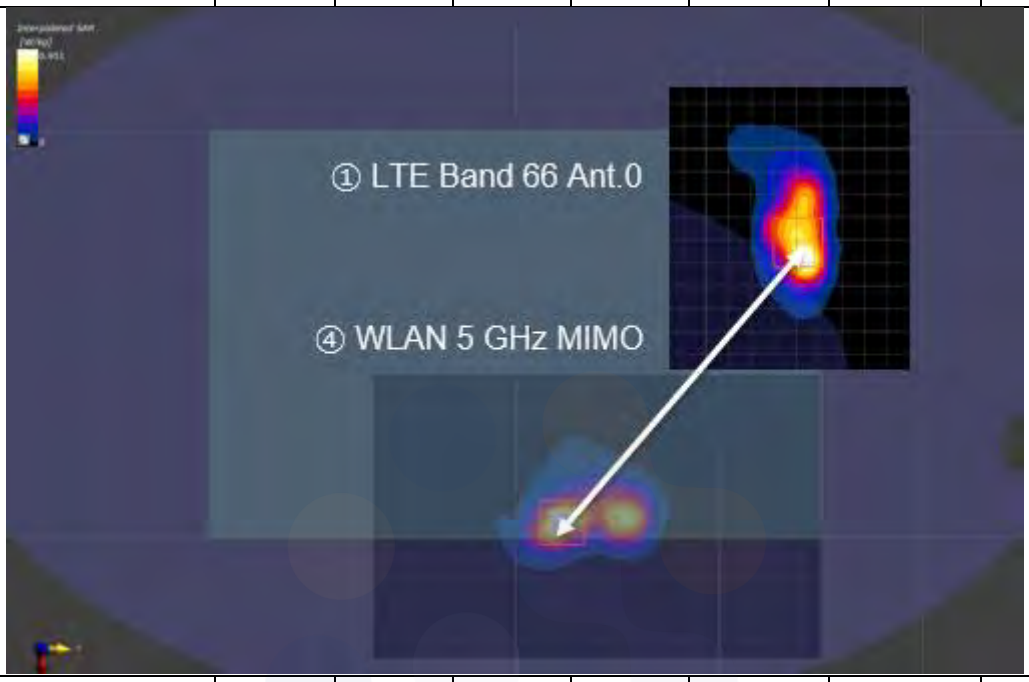
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
1)	① LTE Band 66 Ant.0	0.919	-0.05950	0.13710	-0.17980	167.18	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



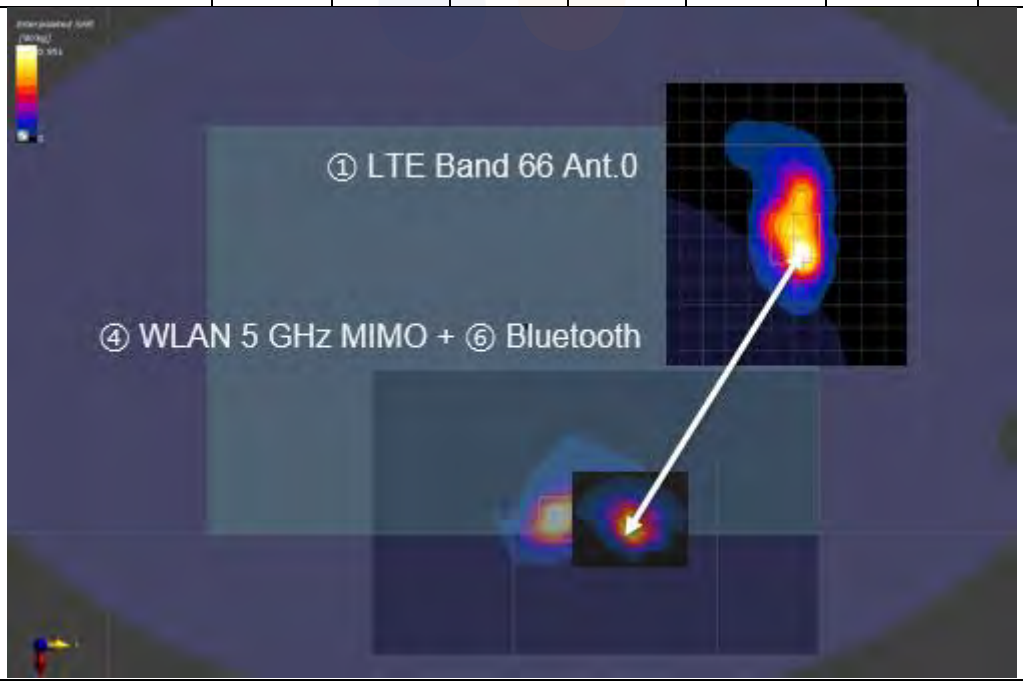
3)	① LTE Band 66 Ant.0	0.919	-0.05950	0.13710	-0.17980	167.03	0.02	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



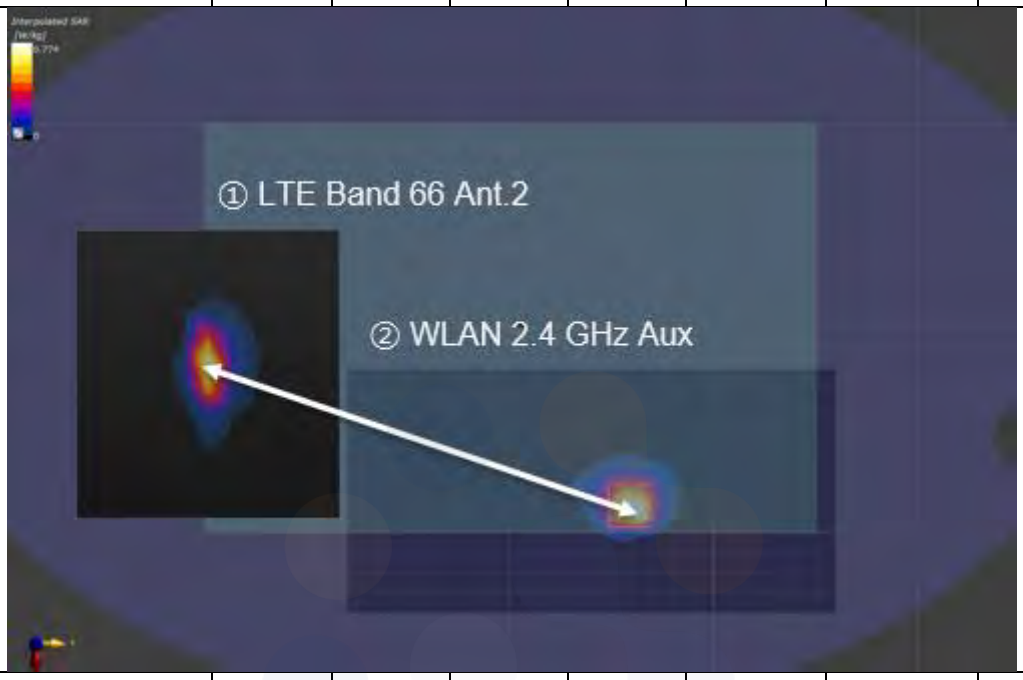
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① LTE Band 66 Ant.0	0.919	-0.05950	0.13710	-0.17980	192.49	0.01	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			



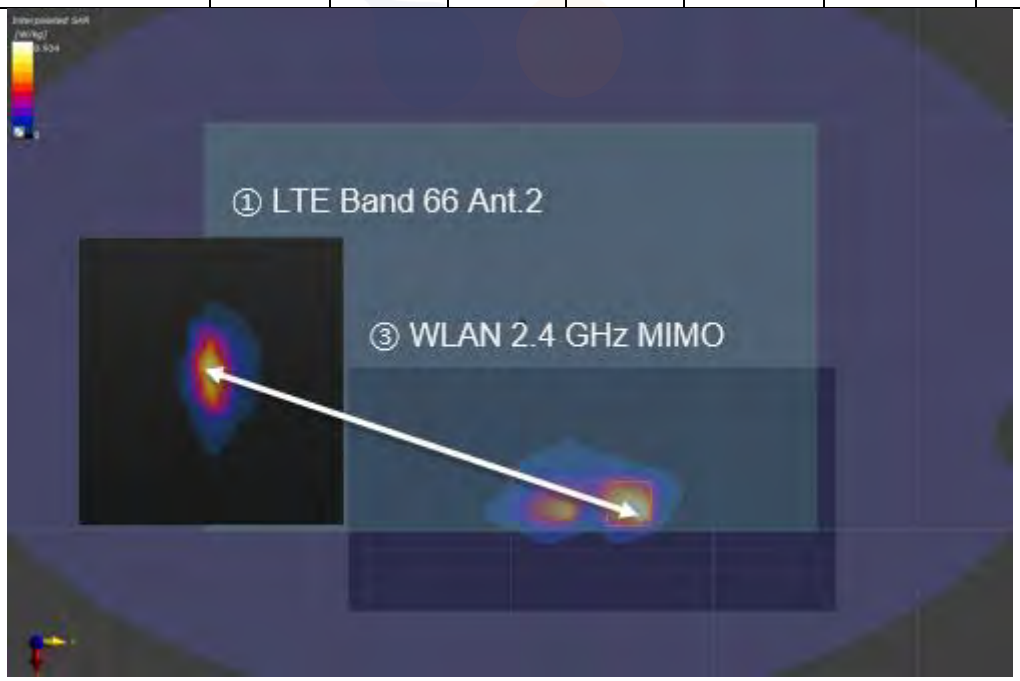
5)	① LTE Band 66 Ant.0	0.919	-0.05950	0.13710	-0.17980	165.41	0.02	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			



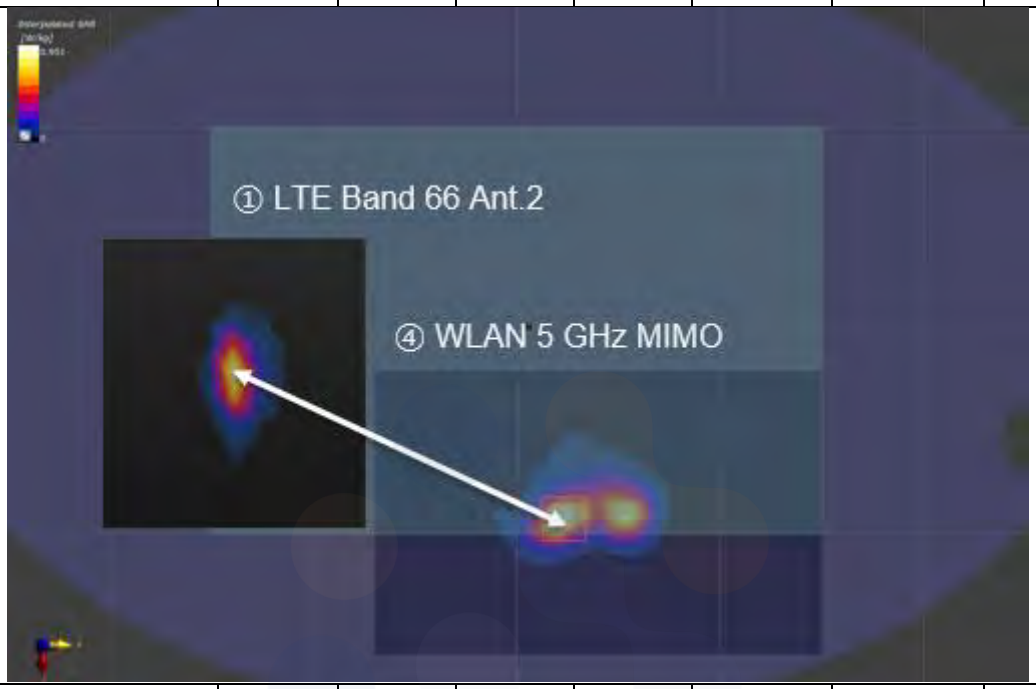
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
1)	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	220.87	0.01	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



3)	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	221.59	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			

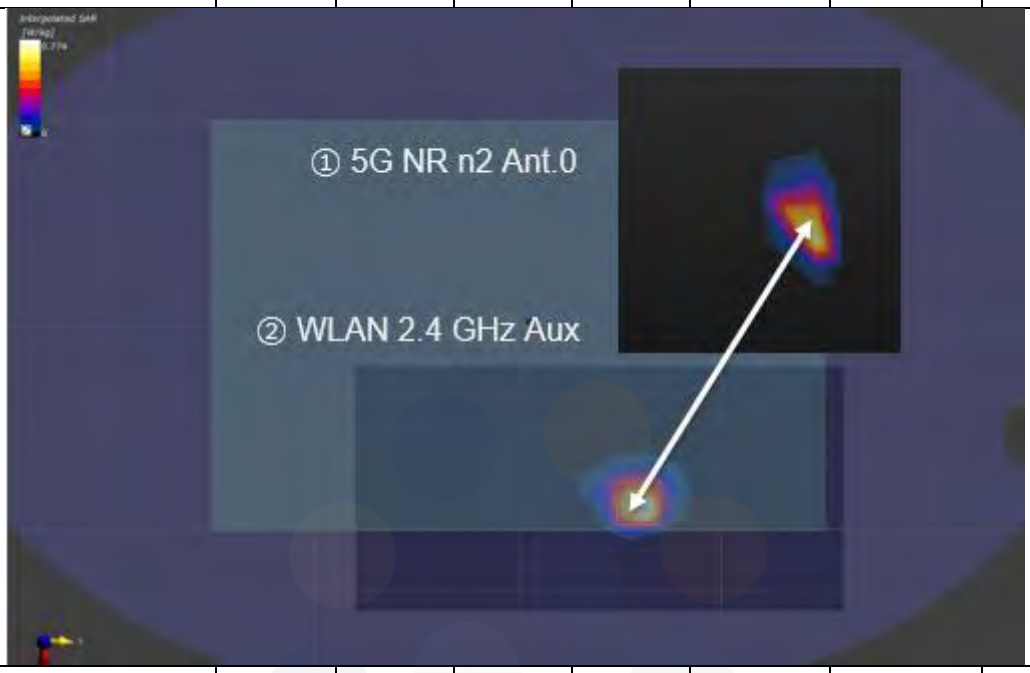


Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	186.34	0.01	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			

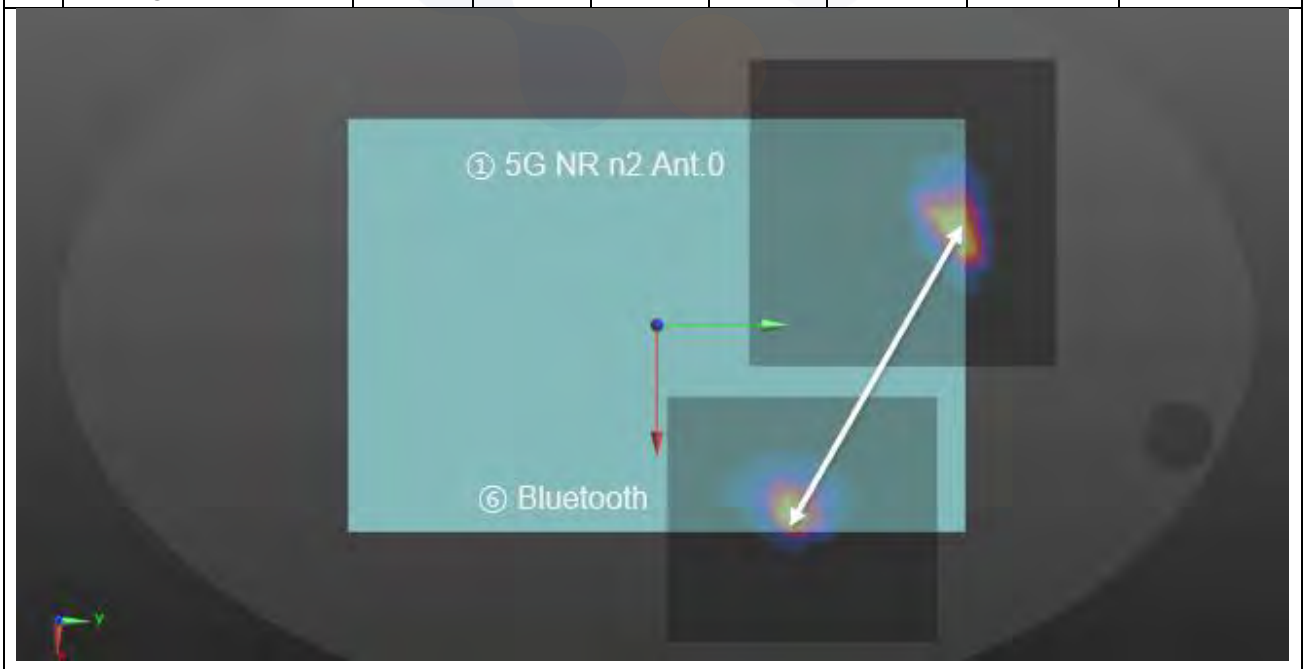


5)	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	186.34	0.02	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09340	0.02020	-0.17700			

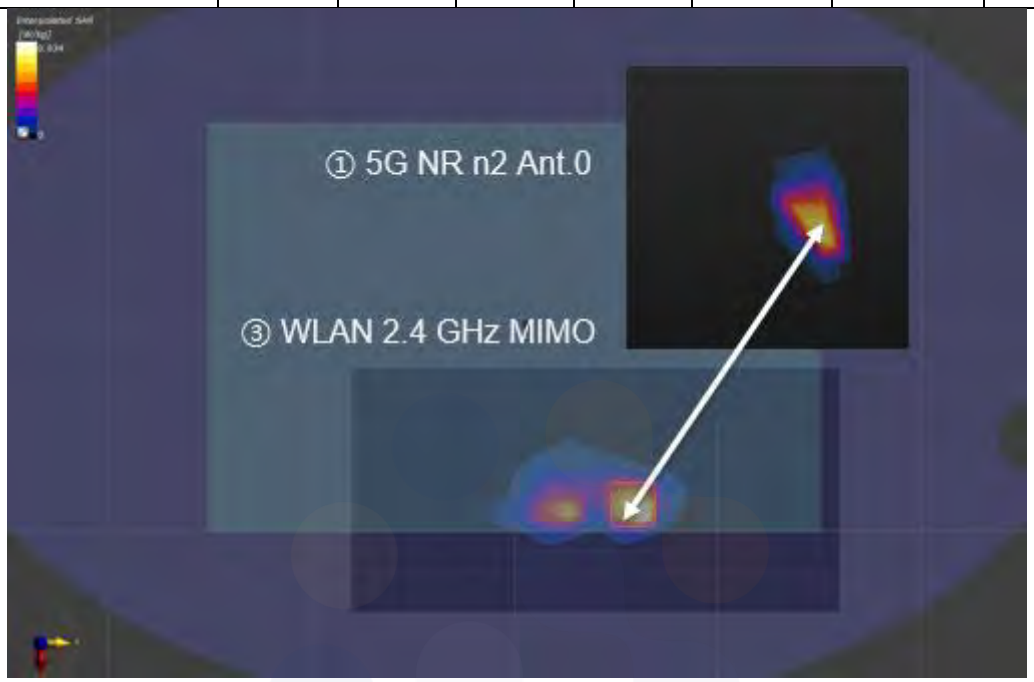
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
1)	① 5G NR n2 Ant.0	1.114	-0.05090	0.14200	-0.17700	162.02	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



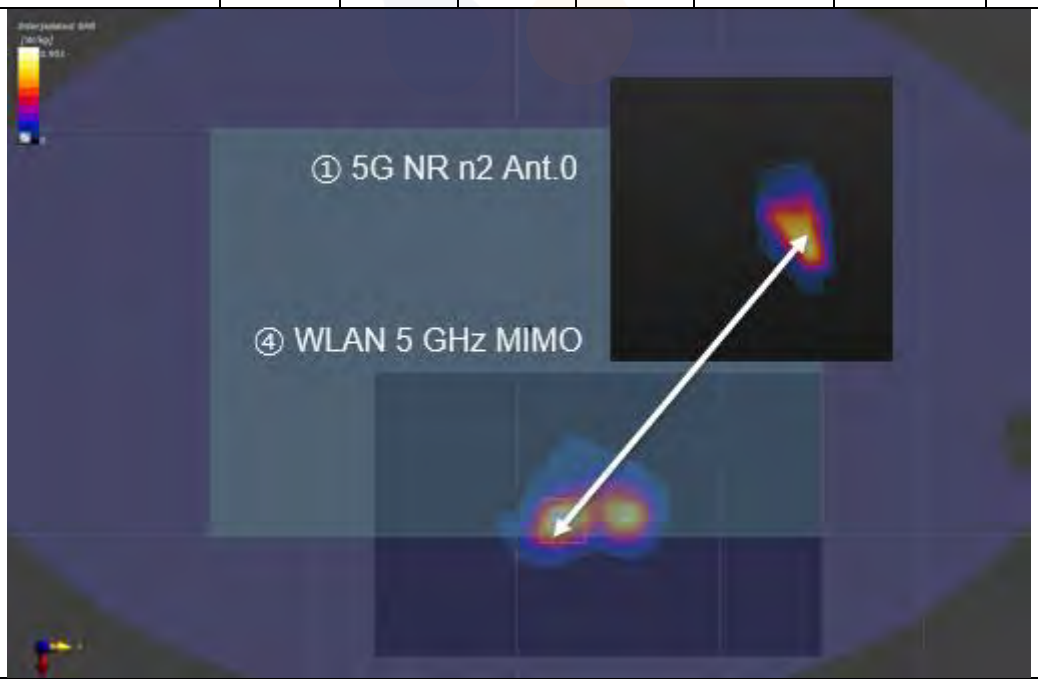
2)	① 5G NR n2 Ant.0	1.114	-0.05090	0.14200	-0.17700	159.75	0.01	Not Required (SPLSR ≤ 0.04)
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			



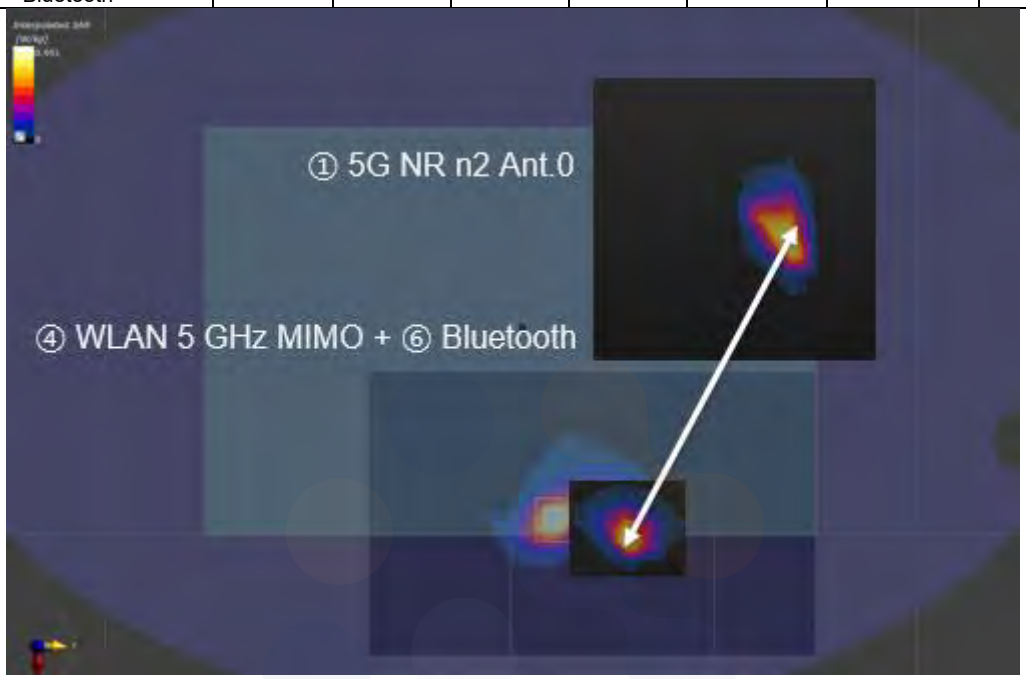
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
3)	① 5G NR n2 Ant.0	1.114	-0.05090	0.14200	-0.17700	161.84	0.02	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



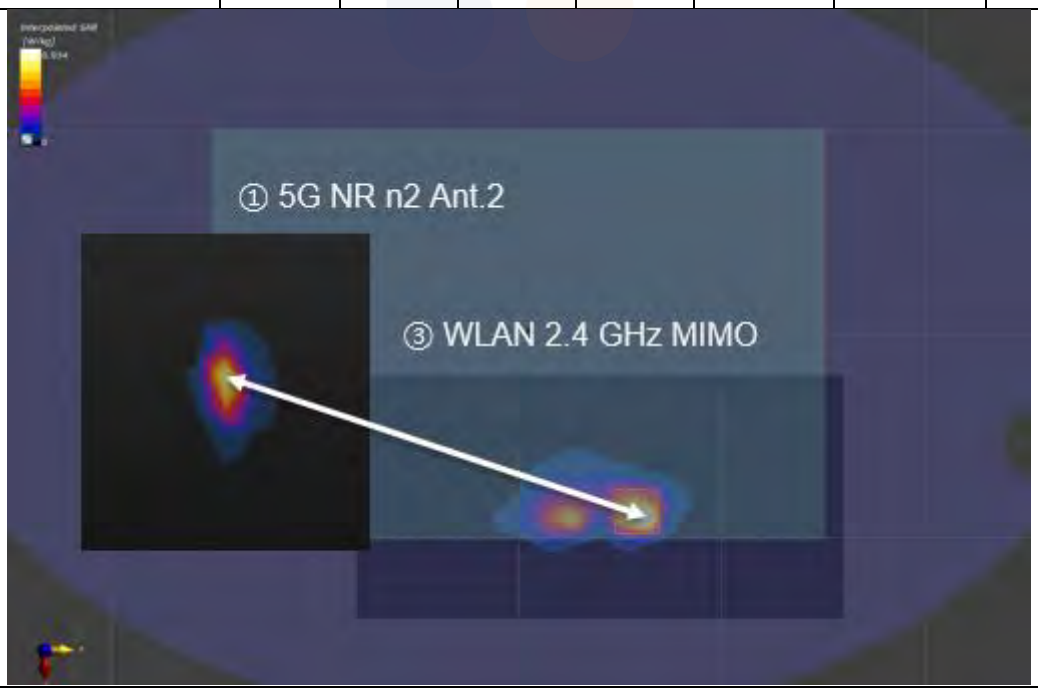
4)	① 5G NR n2 Ant.0	1.114	-0.05090	0.14200	-0.17700	188.83	0.01	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			



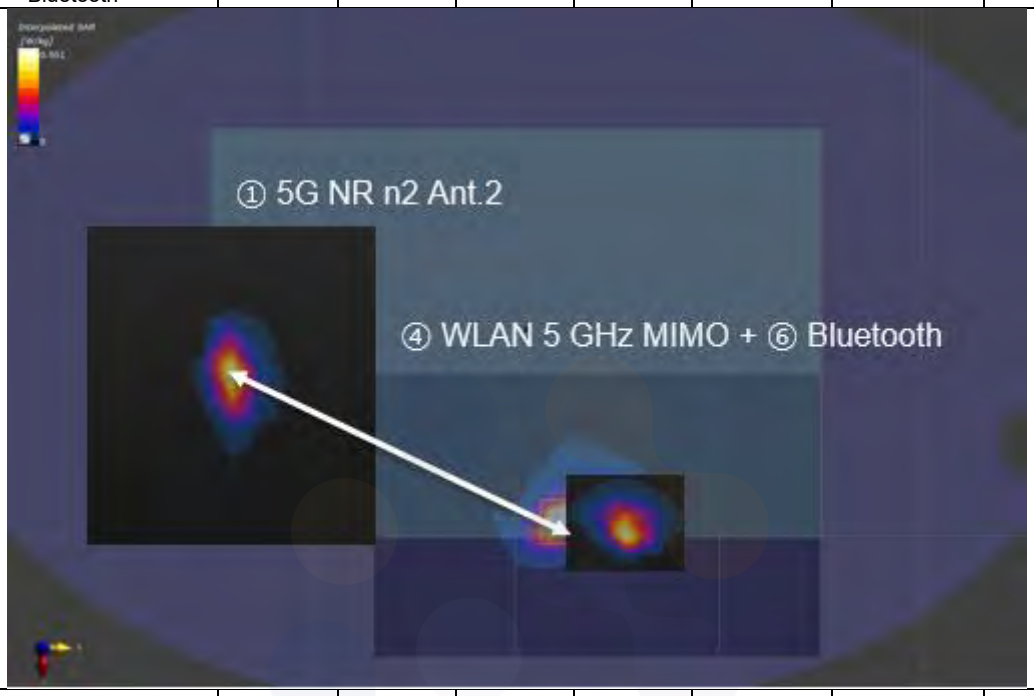
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
5)	① 5G NR n2 Ant.0	1.114	-0.05090	0.14200	-0.17700	159.75	0.03	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			



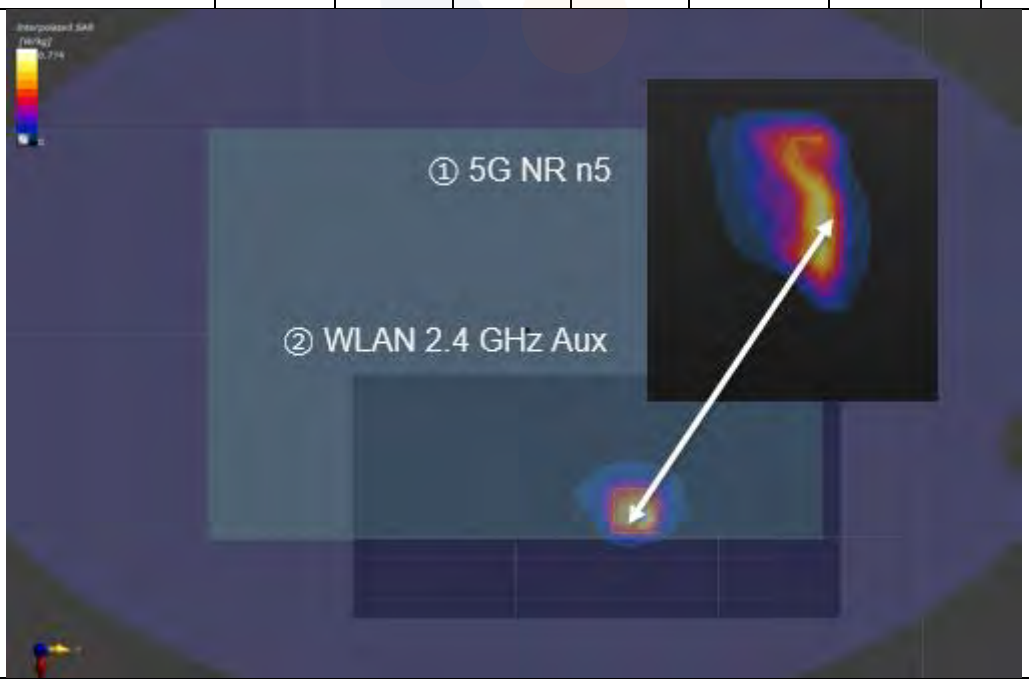
3)	① 5G NR n2 Ant.2	0.541	0.01470	-0.14800	-0.17700	221.09	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



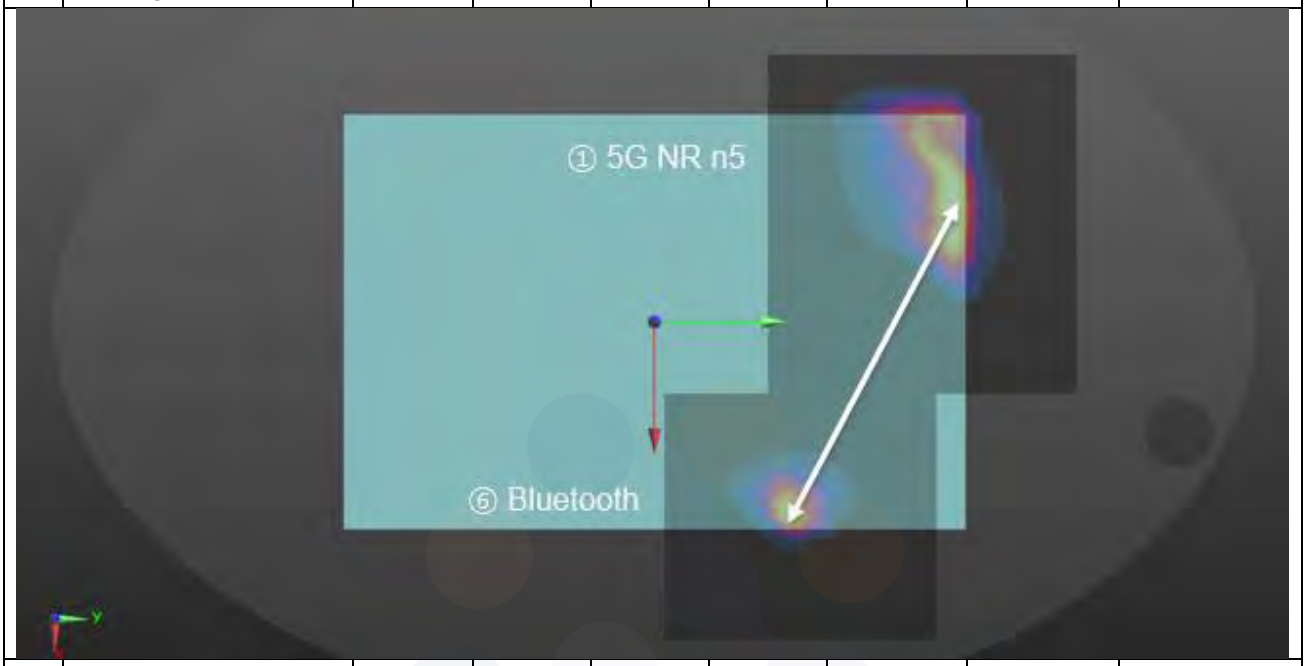
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
5)	① 5G NR n2 Ant.2	0.541	0.01470	-0.14800	-0.17700	185.70	0.01	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09340	0.02020	-0.17700			



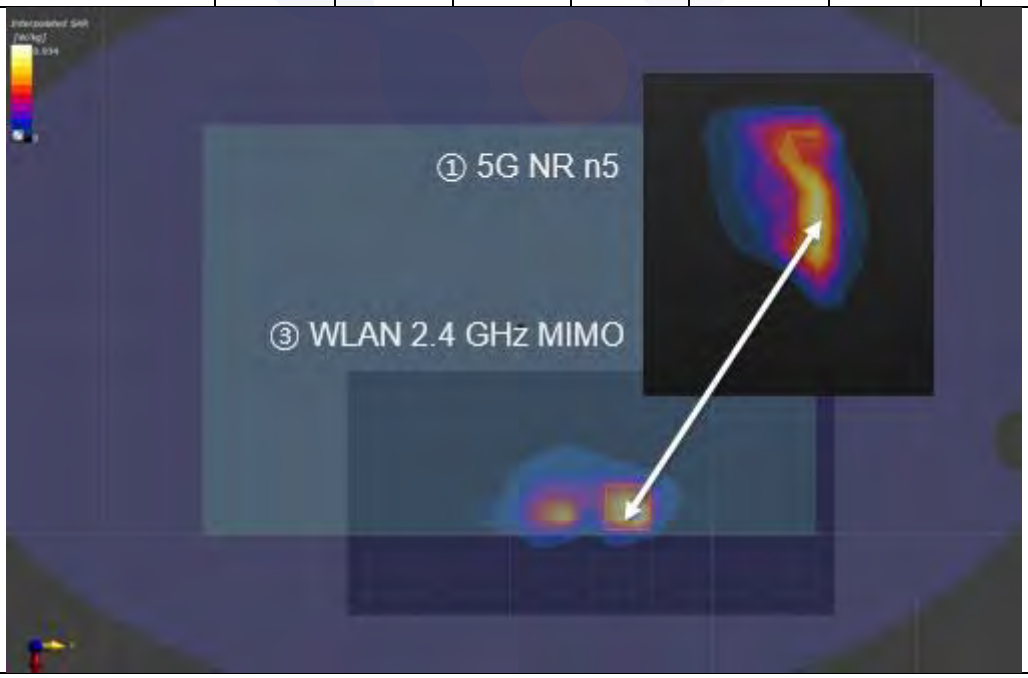
1)	① 5G NR n5	1.363	-0.04600	0.14200	-0.17700	157.82	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



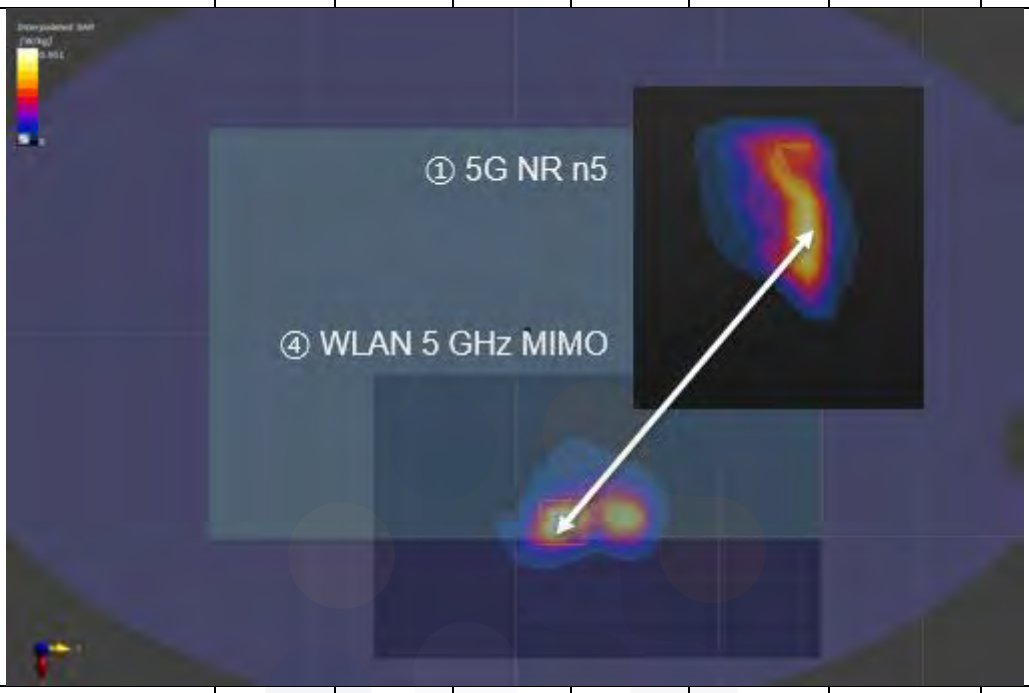
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
2)	① 5G NR n5	1.363	-0.04600	0.14200	-0.17700	155.40	0.02	Not Required (SPLSR ≤ 0.04)
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			



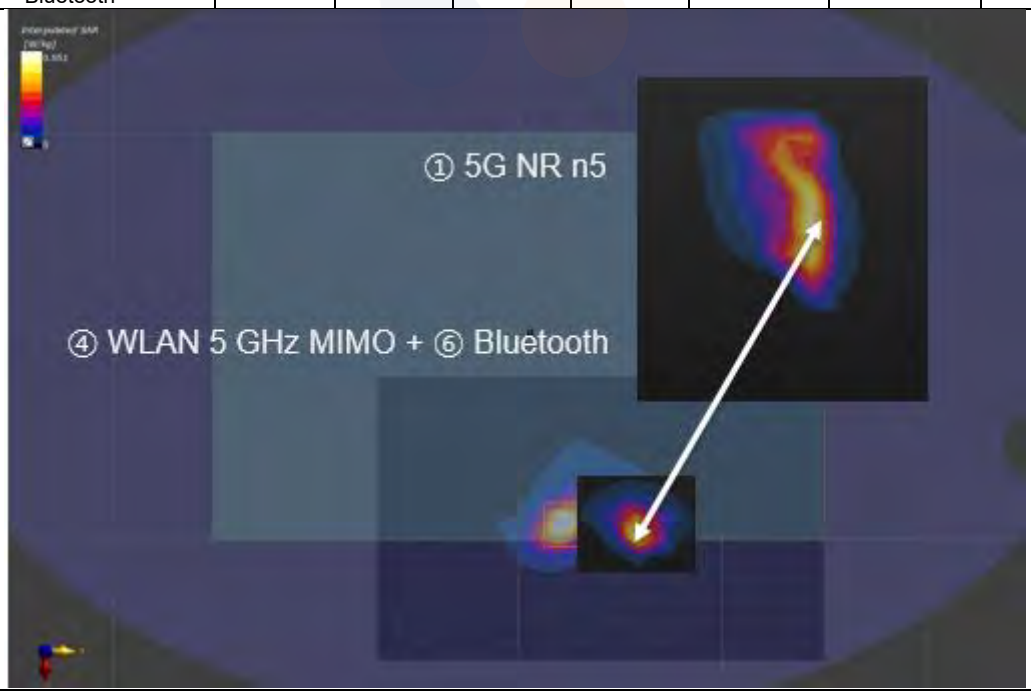
3)	① 5G NR n5	1.363	-0.04600	0.14200	-0.17700	157.63	0.02	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



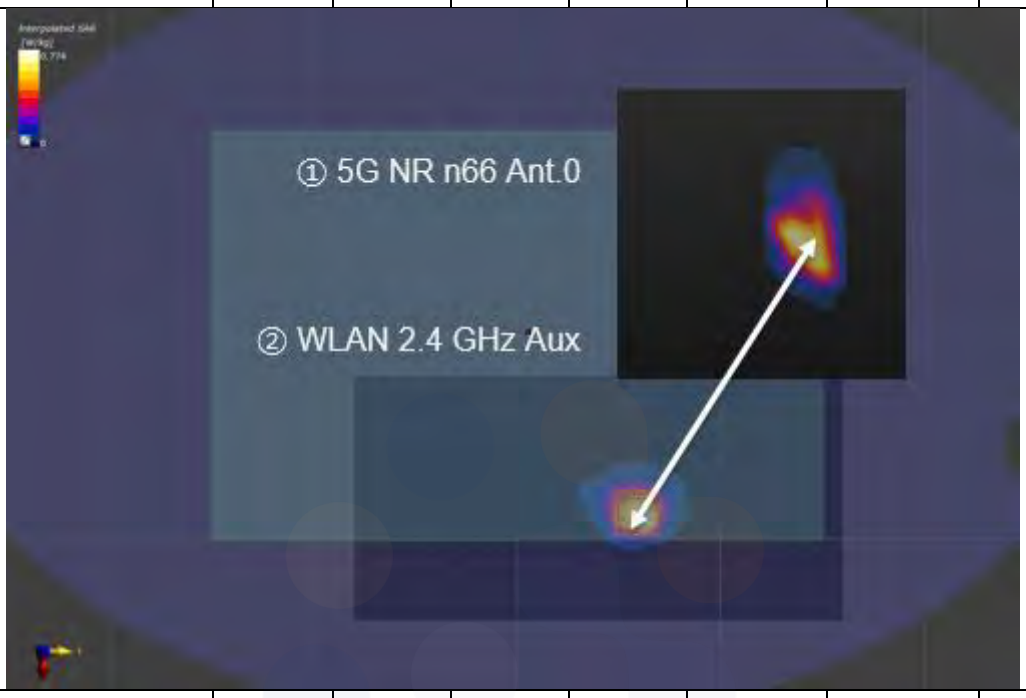
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
4)	① 5G NR n5	1.363	-0.04600	0.14200	-0.17700	185.12	0.02	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			



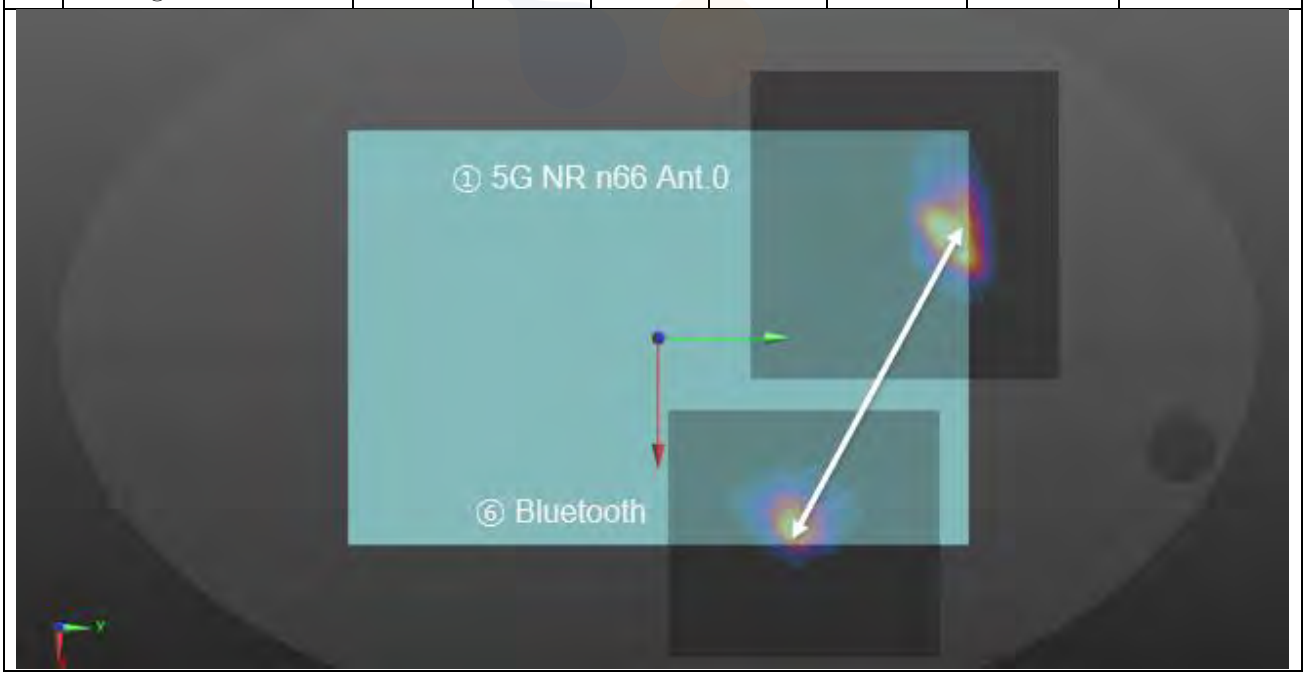
5)	① 5G NR n5	1.363	-0.04600	0.14200	-0.17700	155.40	0.03	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			



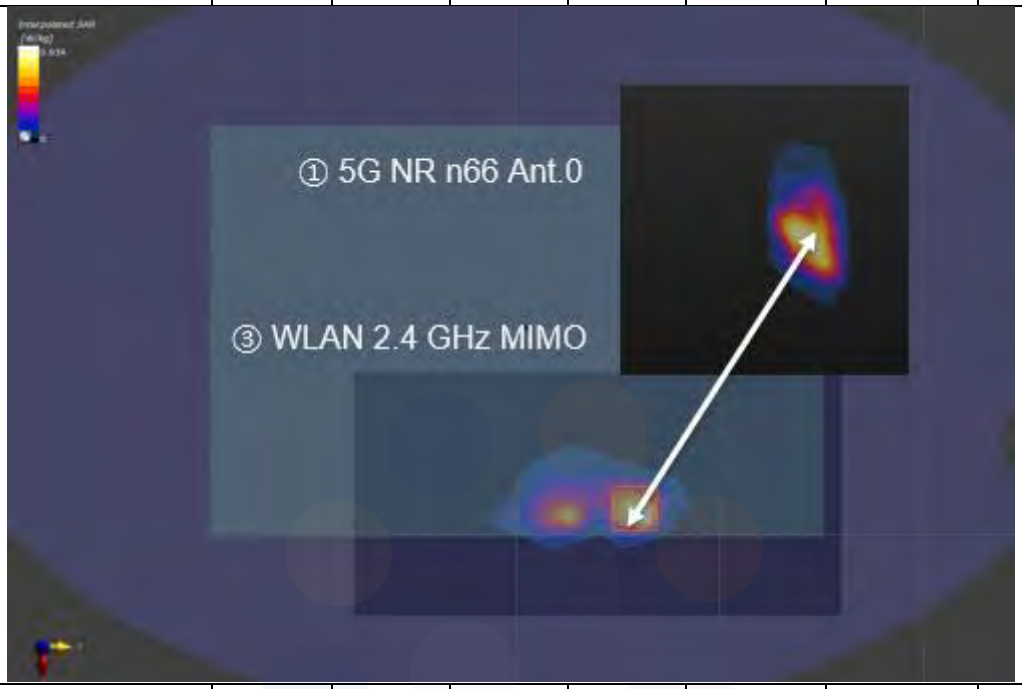
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
1)	① 5G NR n66 Ant.0	1.115	-0.05050	0.14300	-0.17700	162.19	0.02	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



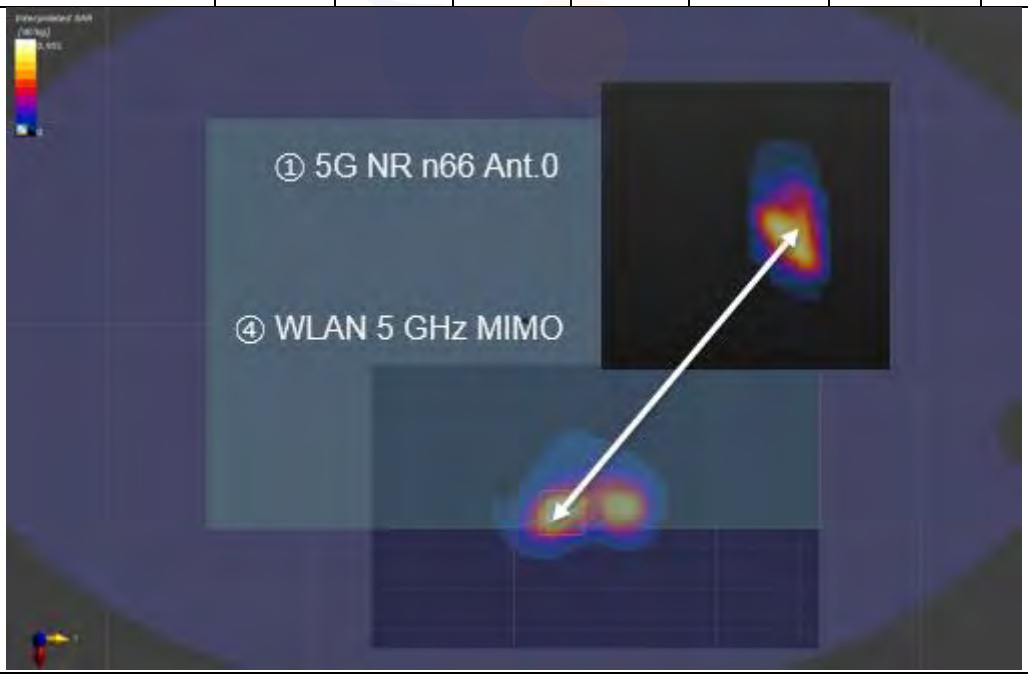
2)	① 5G NR n66 Ant.0	1.115	-0.05050	0.14300	-0.17700	159.85	0.01	Not Required (SPLSR ≤ 0.04)
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			



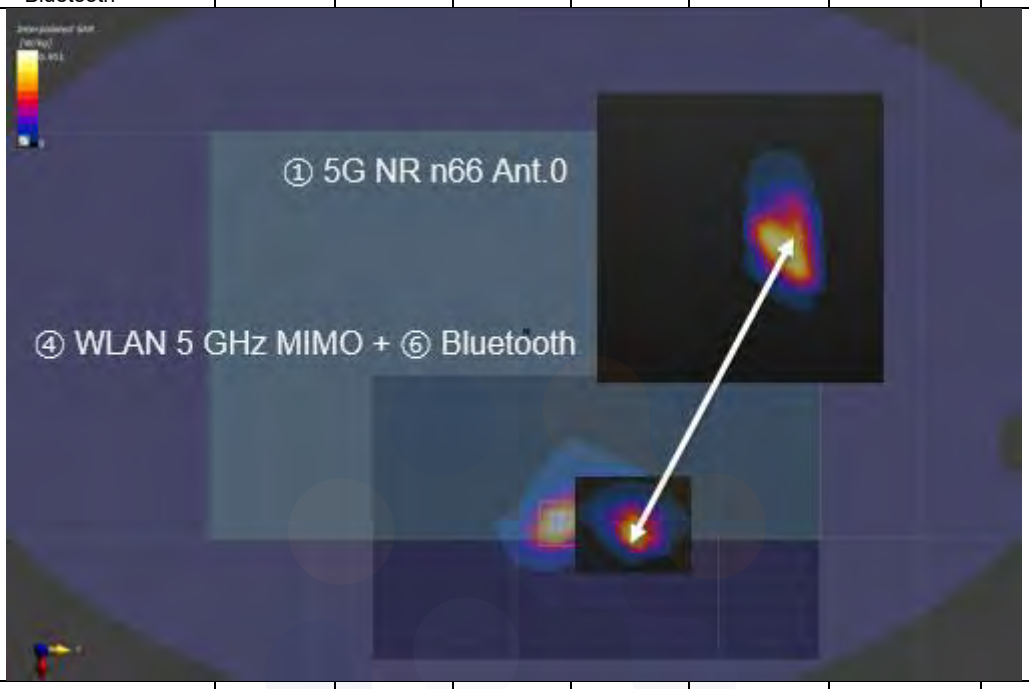
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
3)	① 5G NR n66 Ant.0	1.115	-0.05050	0.14300	-0.17700	162.00	0.02	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



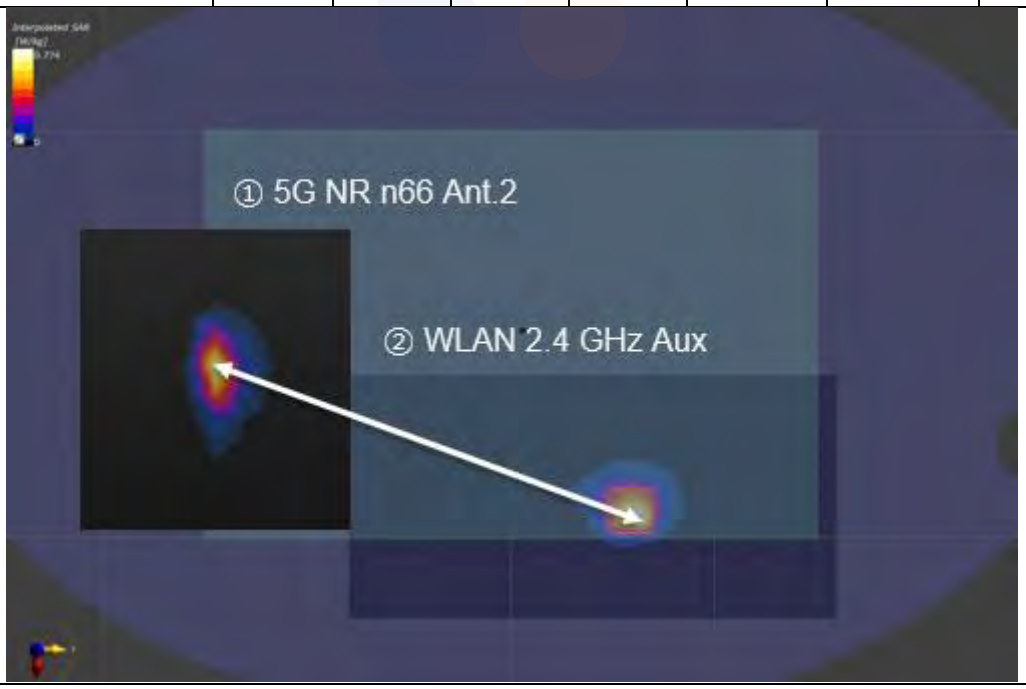
4)	① 5G NR n66 Ant.0	1.115	-0.05050	0.14300	-0.17700	189.17	0.01	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			



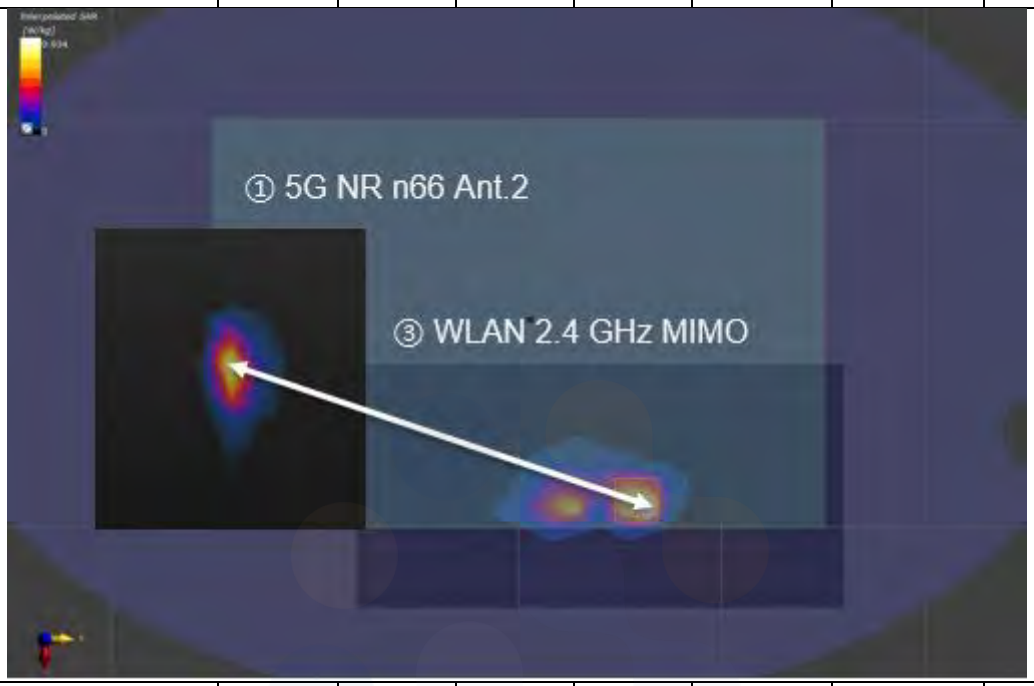
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
5)	① 5G NR n66 Ant.0	1.115	-0.05050	0.14300	-0.17700	159.85	0.03	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			



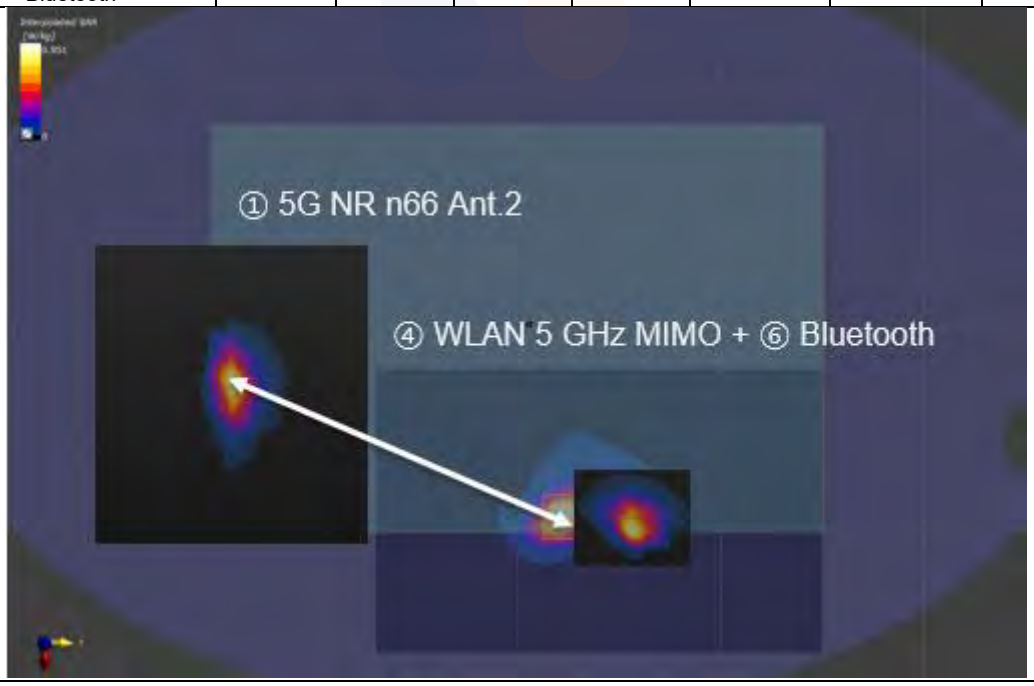
1)	① 5G NR n66 Ant.2	0.679	0.01320	-0.14800	-0.17700	220.87	0.01	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



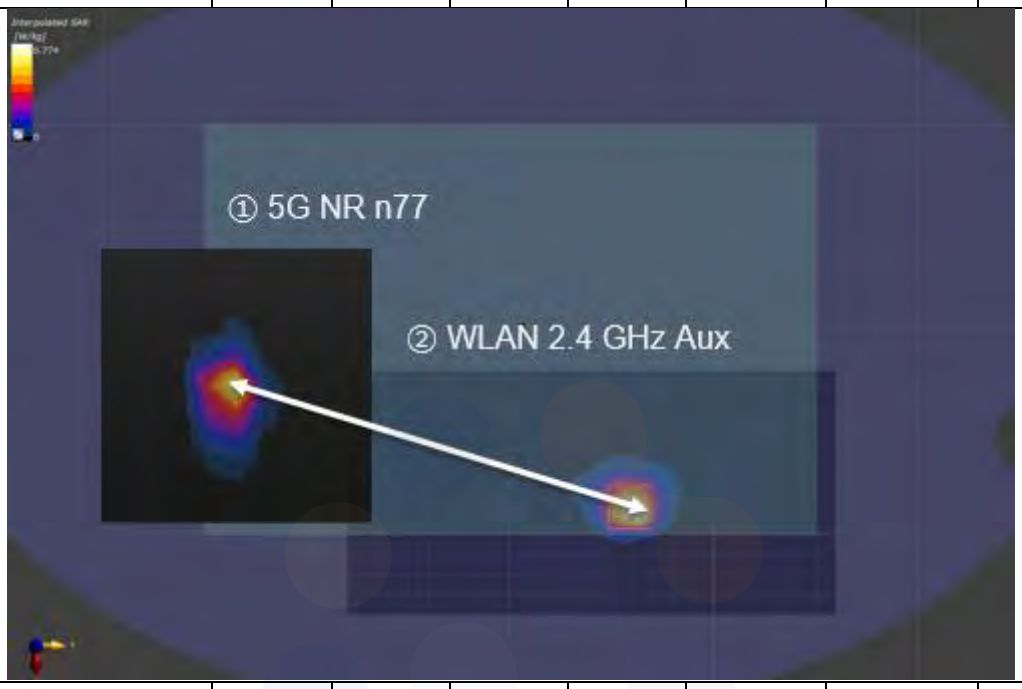
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
3)	① 5G NR n66 Ant.2	0.679	0.01320	-0.14800	-0.17700	221.59	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



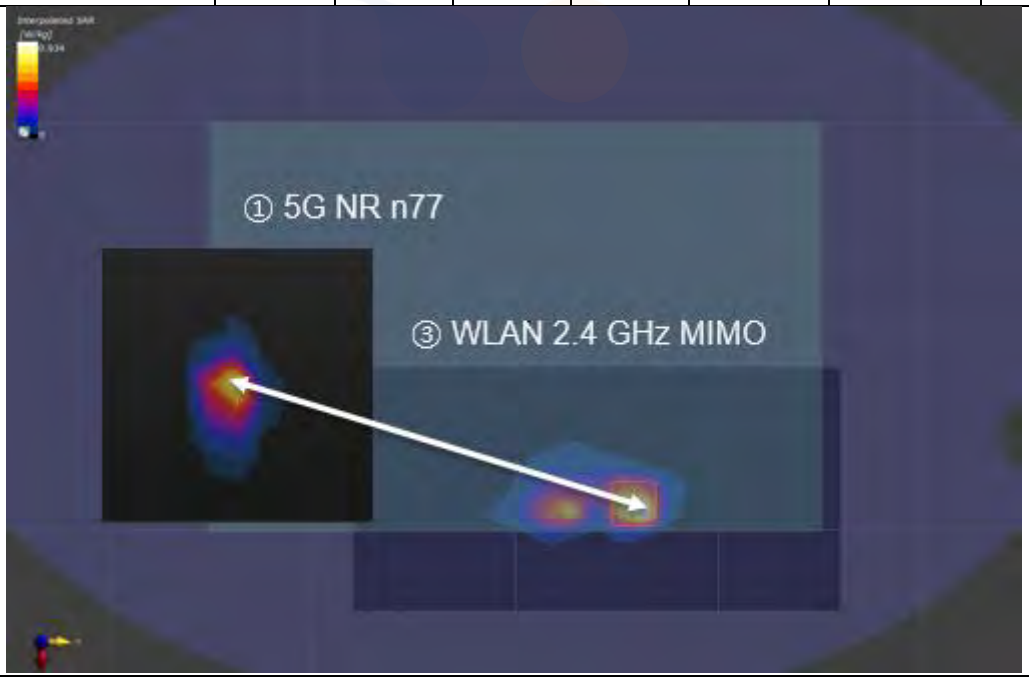
5)	① 5G NR n66 Ant.2	0.679	0.01320	-0.14800	-0.17700	186.34	0.02	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09340	0.02020	-0.17700			



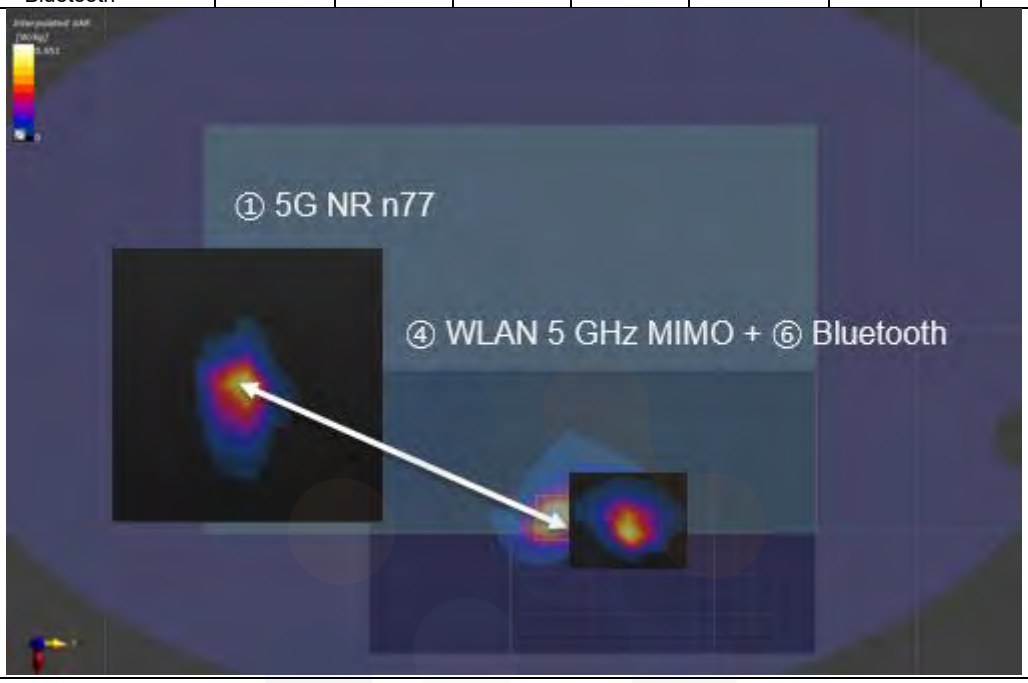
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
1)	① 5G NR n77	0.694	0.02440	-0.14700	-0.17700	216.35	0.01	Not Required (SPLSR ≤ 0.04)
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



3)	① 5G NR n77	0.694	0.02440	-0.14700	-0.17700	217.07	0.01	Not Required (SPLSR ≤ 0.04)
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



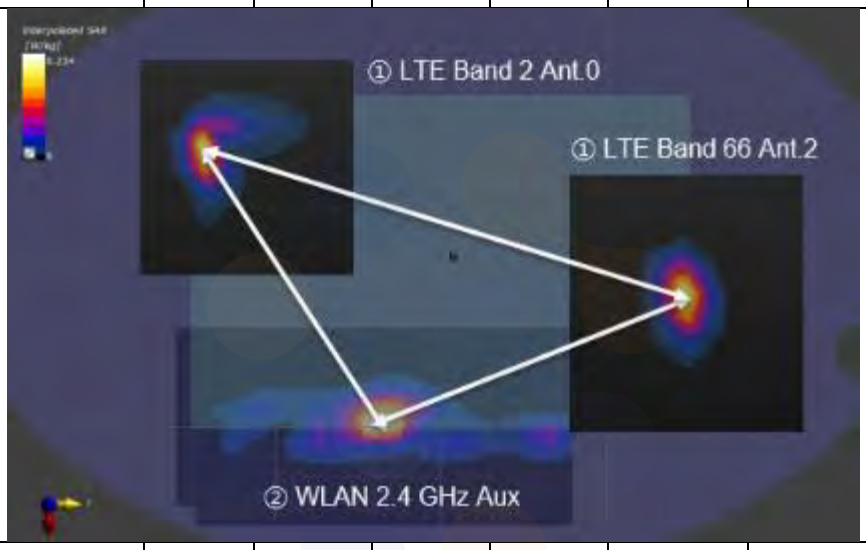
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
5)	① 5G NR n77	0.694	0.02440	-0.14700	-0.17700	180.88	0.02	Not Required (SPLSR ≤ 0.04)
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09340	0.02020	-0.17700			



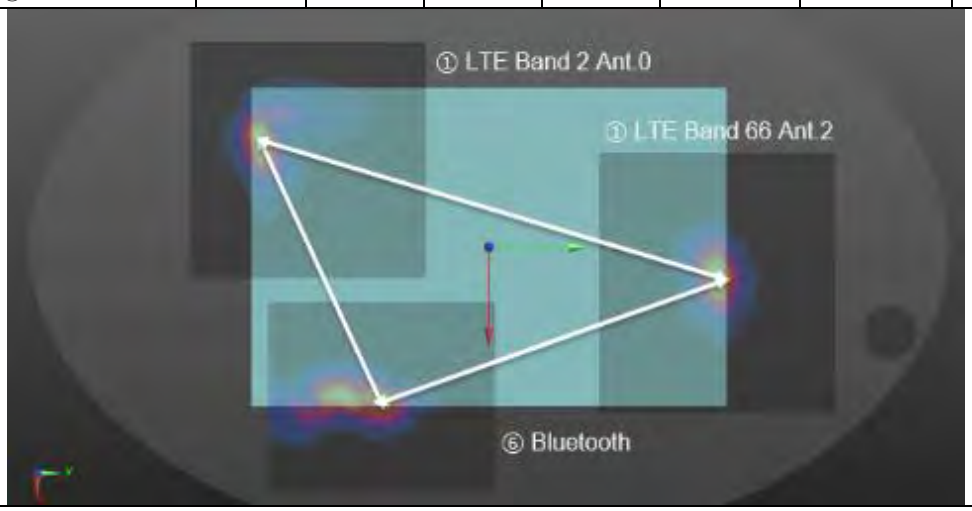
13.5.4 SPLSR Analysis(UL CA)

13.5.4.1 SPLSR Analysis_Notebook Mode

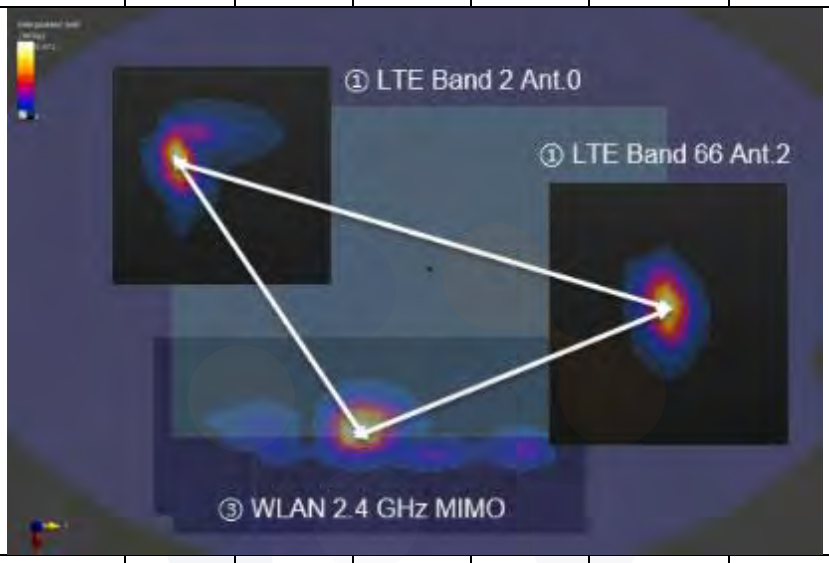
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 2A-66A (4A) 1	① LTE Band 2 Ant.0	1.199	-0.06530	-0.14700	-0.17700	305.12	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600			
	① LTE Band 2 Ant.0	1.199	-0.06530	-0.14700	-0.17700	196.56	0.01	
	② WLAN 2.4 GHz Aux	0.211	0.09780	-0.03730	-0.17700			
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600	201.52	0.00	
	② WLAN 2.4 GHz Aux	0.211	0.09780	-0.03730	-0.17700			



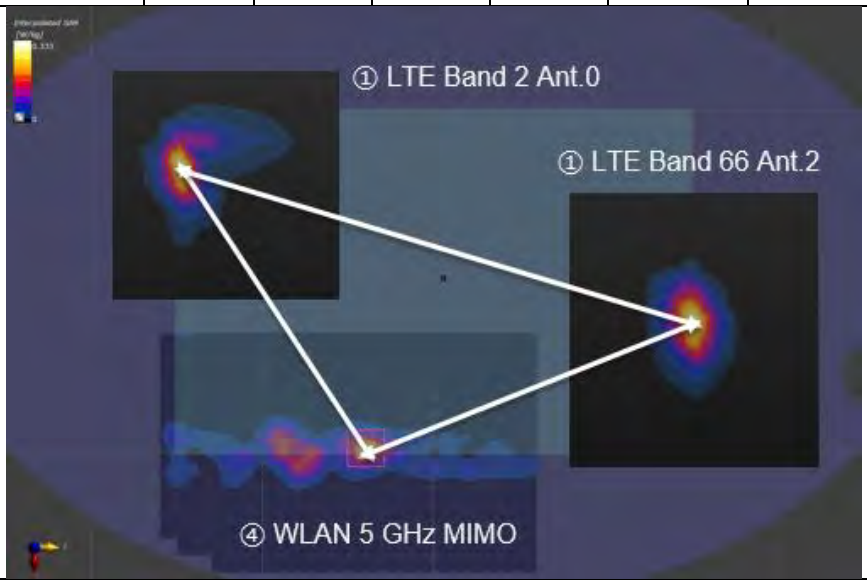
CA 2A-66A (4A) 2	① LTE Band 2 Ant.0	1.199	-0.06530	-0.14700	-0.17700	305.12	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600			
	① LTE Band 2 Ant.0	1.199	-0.06530	-0.14700	-0.17700	186.31	0.01	
	⑥ Bluetooth	0.034	0.10100	-0.06300	-0.17600			
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600	226.44	0.00	
	⑥ Bluetooth	0.034	0.10100	-0.06300	-0.17600			



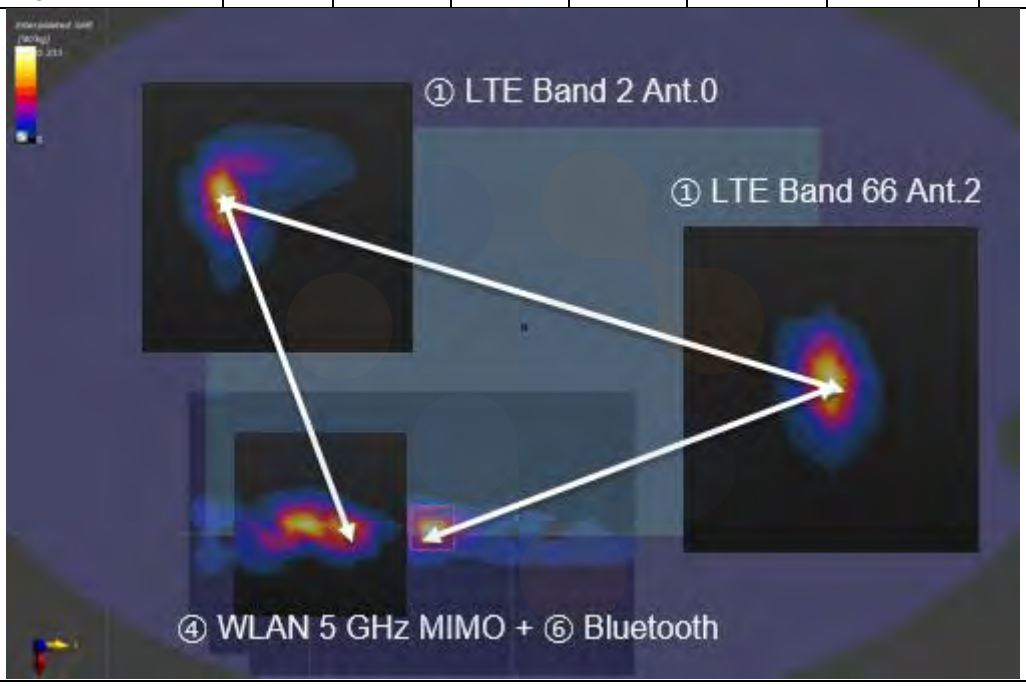
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 2A-66A (4A) 3	① LTE Band 2 Ant.0	1.199	-0.06530	-0.14700	-0.17700	305.12	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600			
	① LTE Band 2 Ant.0	1.199	-0.06530	-0.14700	-0.17700	196.51	0.01	
	③ WLAN 2.4 GHz MIMO	0.494	0.09760	-0.03710	-0.17700			
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600	201.25	0.00	
	③ WLAN 2.4 GHz MIMO	0.494	0.09760	-0.03710	-0.17700			



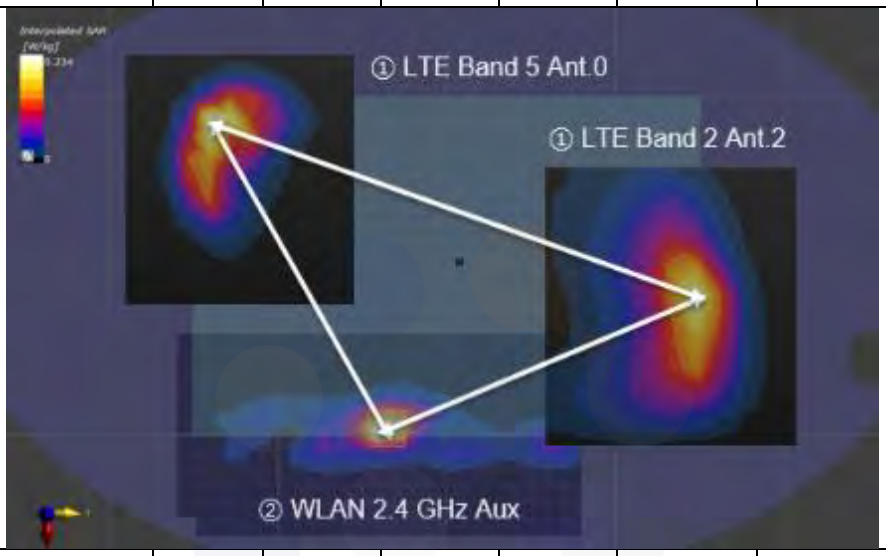
CA 2A-66A (4A) 4	① LTE Band 2 Ant.0	1.199	-0.06530	-0.14700	-0.17700	305.12	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600			
	① LTE Band 2 Ant.0	1.199	-0.06530	-0.14700	-0.17700	197.62	0.01	
	④ WLAN 5 GHz MIMO	0.269	0.09980	-0.03840	-0.17700			
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600	203.34	0.00	
	④ WLAN 5 GHz MIMO	0.269	0.09980	-0.03840	-0.17700			



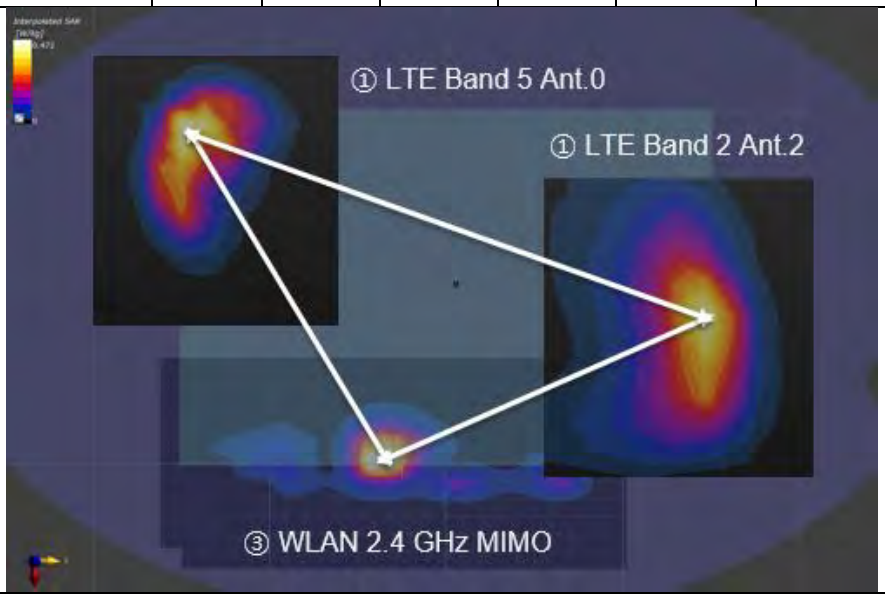
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 2A-66A (4A) 5	① LTE Band 2 Ant.0	1.199	-0.06530	-0.14700	-0.17700	305.12	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600			
	① LTE Band 2 Ant.0	1.199	-0.06530	-0.14700	-0.17700	186.31	0.01	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	0.303	0.10100	-0.06300	-0.17600			
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600	203.34	0.00	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	0.303	0.09980	-0.03840	-0.17700			



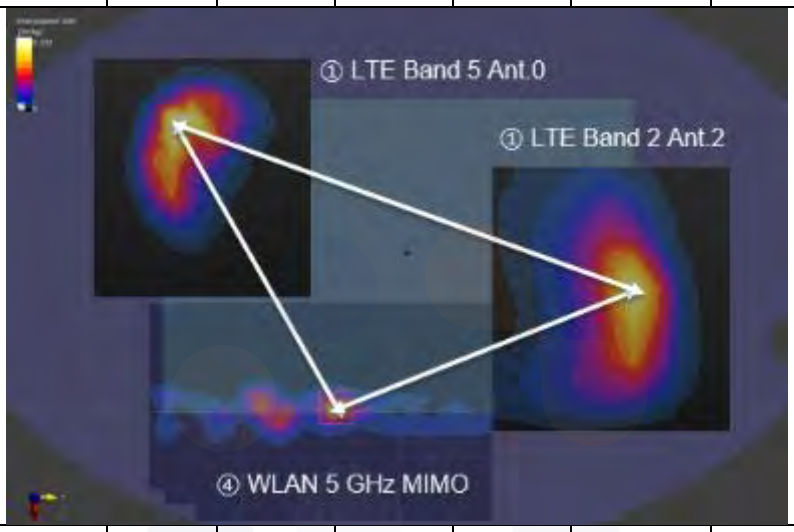
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 2A-5A 1	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	301.69	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 2 Ant.2	0.499	0.01480	0.14700	-0.17700			
	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	209.98	0.01	
	② WLAN 2.4 GHz Aux	0.211	0.09780	-0.03730	-0.17700			
	① LTE Band 2 Ant.2	0.499	0.01480	0.14700	-0.17700	202.13	0.00	
	② WLAN 2.4 GHz Aux	0.211	0.09780	-0.03730	-0.17700			



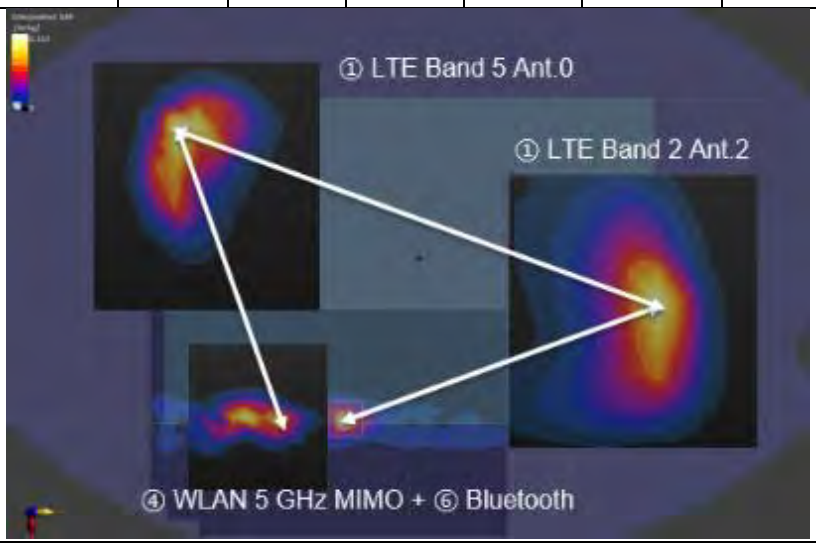
CA 2A-5A 3	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	301.69	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 2 Ant.2	0.499	0.01480	0.14700	-0.17700			
	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	209.90	0.01	
	③ WLAN 2.4 GHz MIMO	0.494	0.09760	-0.03710	-0.17700			
	① LTE Band 2 Ant.2	0.499	0.01480	0.14700	-0.17700	201.86	0.01	
	③ WLAN 2.4 GHz MIMO	0.494	0.09760	-0.03710	-0.17700			



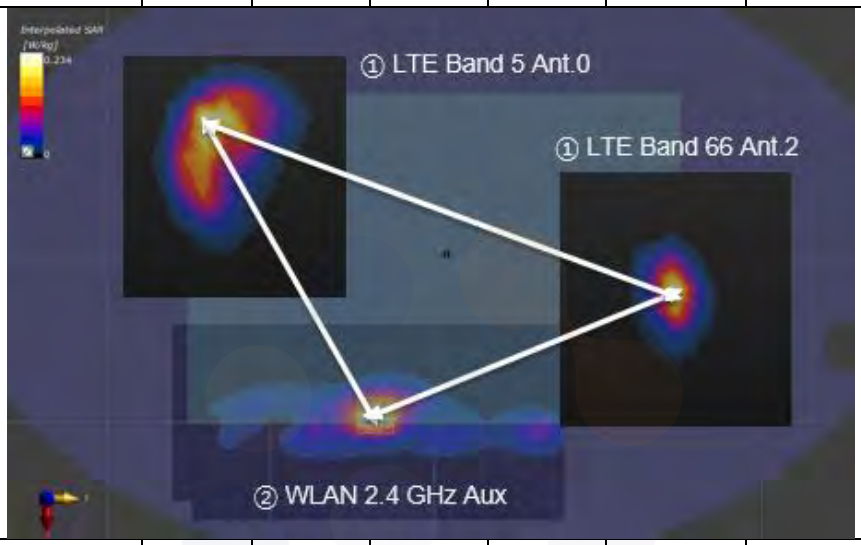
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 2A-5A 4	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	301.69	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 2 Ant.2	0.499	0.01480	0.14700	-0.17700			
	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	211.23	0.01	
	④ WLAN 5 GHz MIMO	0.269	0.09980	-0.03840	-0.17700			
	① LTE Band 2 Ant.2	0.499	0.01480	0.14700	-0.17700	203.96	0.00	
	④ WLAN 5 GHz MIMO	0.269	0.09980	-0.03840	-0.17700			



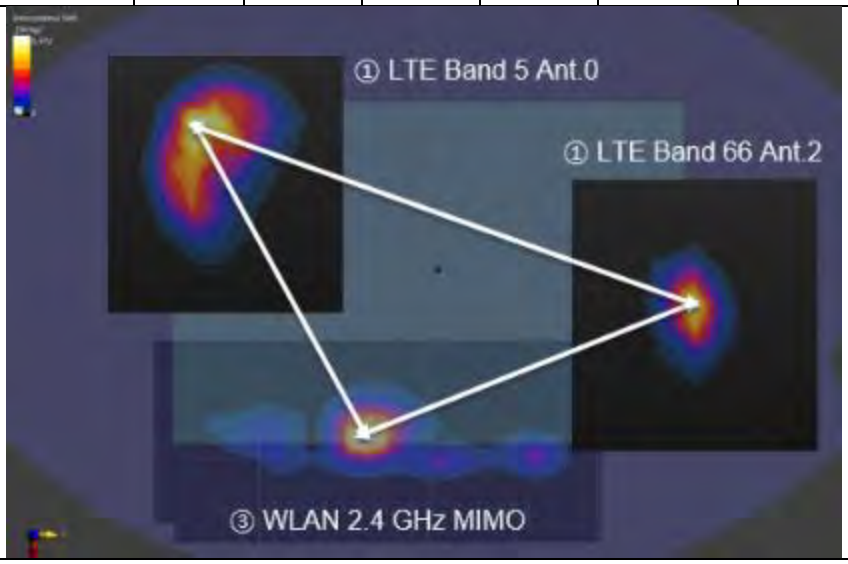
CA 2A-5A 5	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	301.69	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 2 Ant.2	0.499	0.01480	0.14700	-0.17700			
	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	202.04	0.01	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	0.303	0.10100	-0.06300	-0.17600			
	① LTE Band 2 Ant.2	0.499	0.01480	0.14700	-0.17700	203.96	0.00	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	0.303	0.09980	-0.03840	-0.17700			



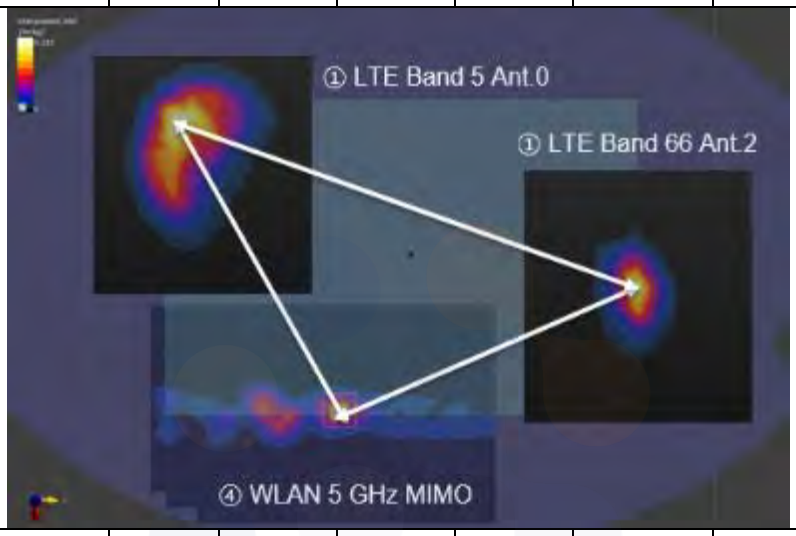
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 4A(66A)-5A 1	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	302.21	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600			
	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	209.98	0.01	
	② WLAN 2.4 GHz Aux	0.211	0.09780	-0.03730	-0.17700			
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600	201.52	0.00	
	② WLAN 2.4 GHz Aux	0.211	0.09780	-0.03730	-0.17700			



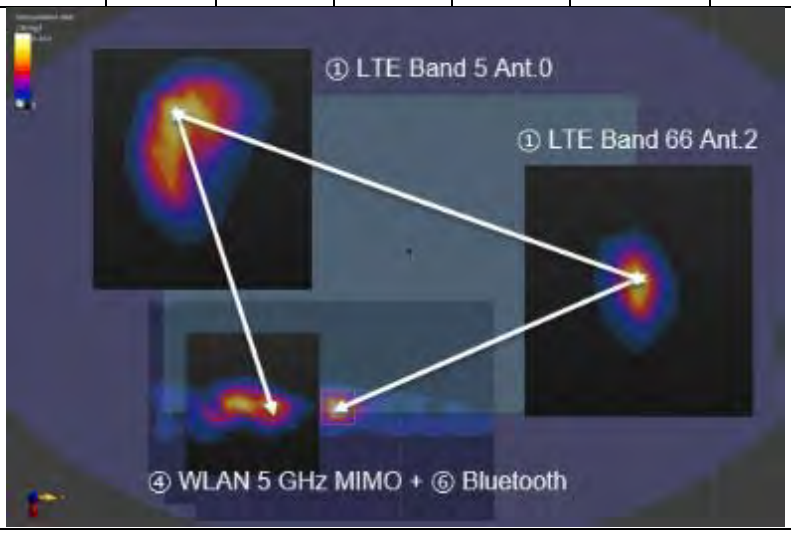
CA 4A(66A)-5A 3	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	302.21	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600			
	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	209.90	0.01	
	③ WLAN 2.4 GHz MIMO	0.494	0.09760	-0.03710	-0.17700			
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600	201.25	0.00	
	③ WLAN 2.4 GHz MIMO	0.494	0.09760	-0.03710	-0.17700			



Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 4A(66A)-5A 4	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	302.21	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600			
	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	211.23	0.01	
	④ WLAN 5 GHz MIMO	0.269	0.09980	-0.03840	-0.17700			
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600	203.34	0.00	
	④ WLAN 5 GHz MIMO	0.269	0.09980	-0.03840	-0.17700			

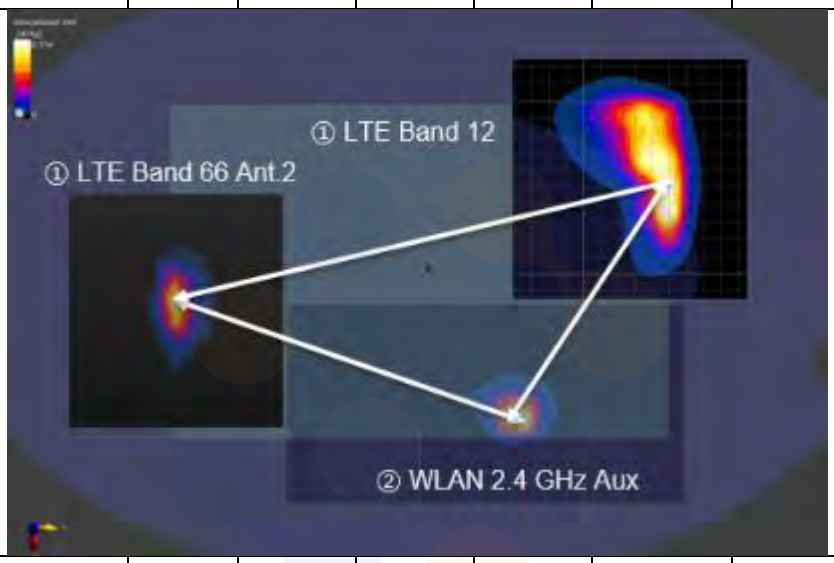


CA 4A(66A)-5A 5	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	302.21	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600			
	① LTE Band 5 Ant.0	1.015	-0.08700	-0.13700	-0.17700	202.04	0.01	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	0.303	0.10100	-0.06300	-0.17600			
	① LTE Band 66 Ant.2	0.436	0.01630	0.14700	-0.17600	203.34	0.00	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	0.303	0.09980	-0.03840	-0.17700			

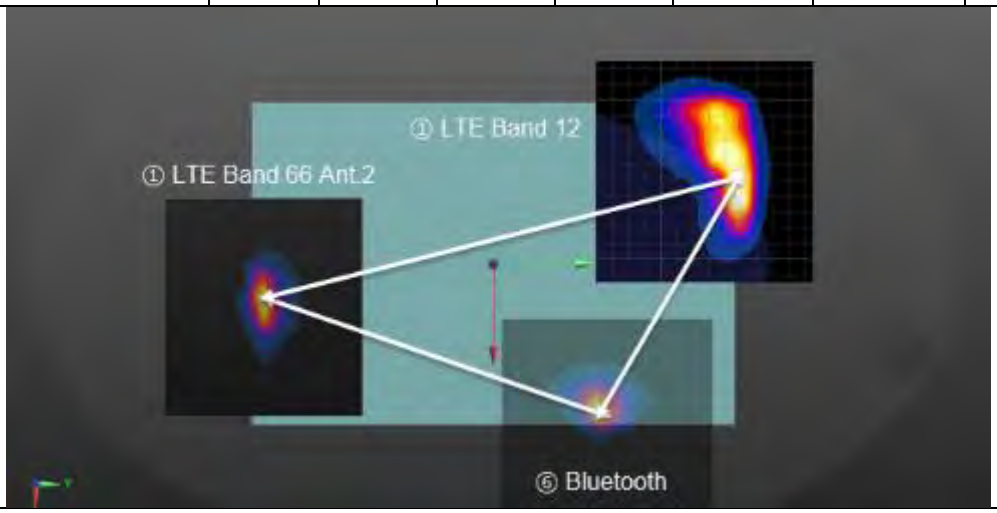


13.5.4.2 SPLSR Analysis_Tablet Mode

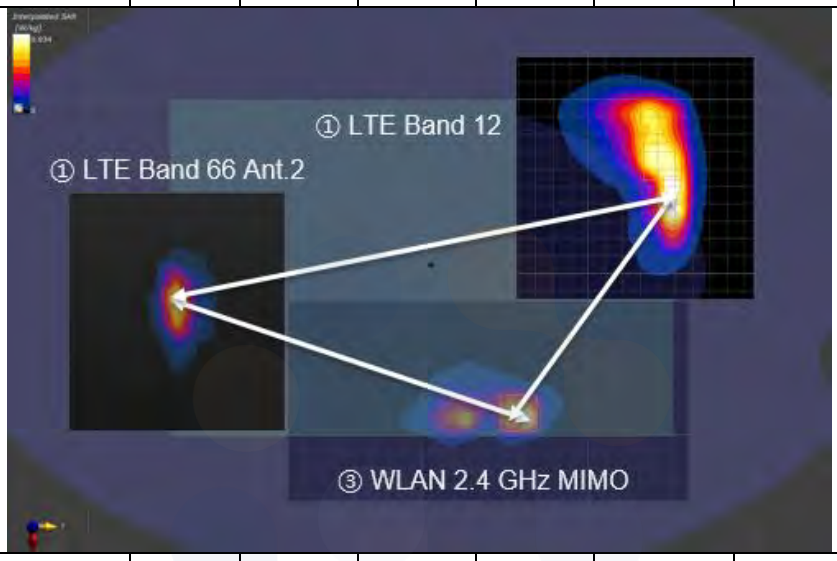
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 12A-66A (4A) 1	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	298.74	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.869	0.01310	-0.14800	-0.17700			
	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	173.09	0.01	
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			
	① LTE Band 66 Ant.2	0.869	0.01310	-0.14800	-0.17700	220.90	0.01	
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



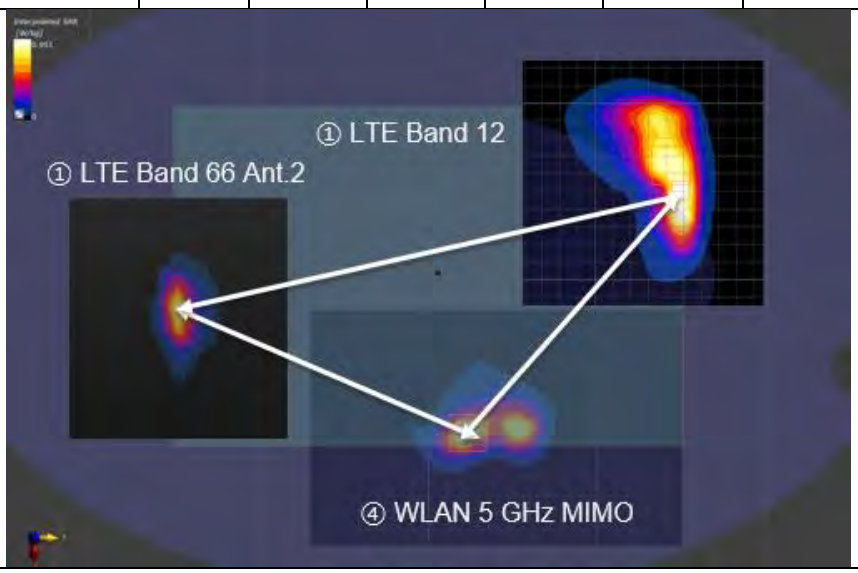
CA 12A-66A (4A) 2	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	298.74	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.869	0.01310	-0.14800	-0.17700			
	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	171.28	0.01	
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			
	① LTE Band 66 Ant.2	0.869	0.01310	-0.14800	-0.17700	231.07	0.01	
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			



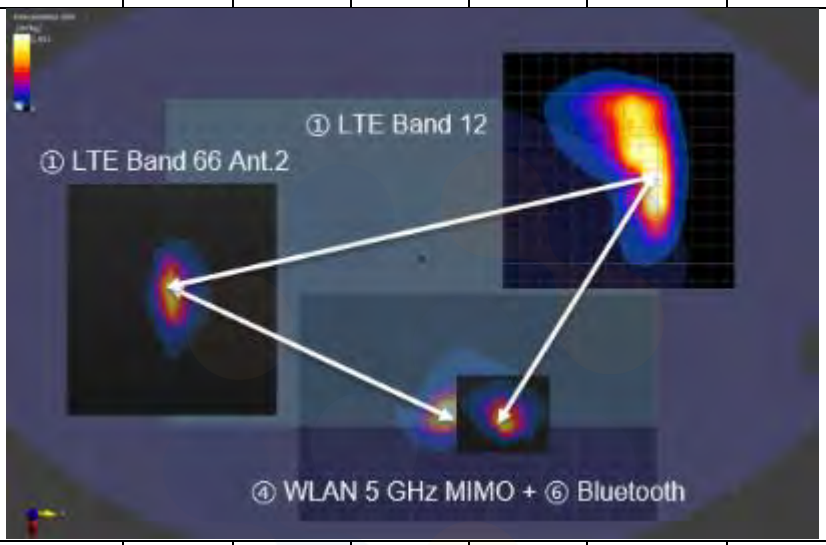
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 12A-66A (4A) 3	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	298.74	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.869	0.01310	-0.14800	-0.17700			
	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	172.95	0.01	
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			
	① LTE Band 66 Ant.2	0.869	0.01310	-0.14800	-0.17700	221.63	0.01	
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



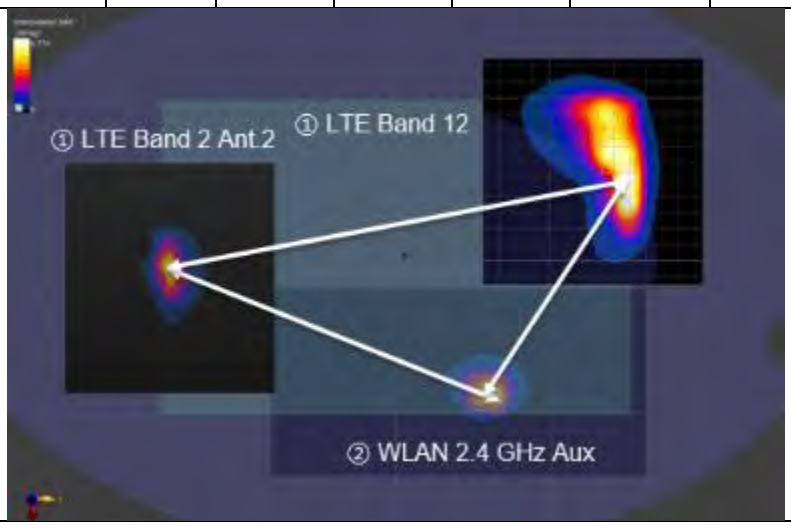
CA 12A-66A (4A) 4	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	298.74	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.869	0.01310	-0.14800	-0.17700			
	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	198.45	0.01	
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			
	① LTE Band 66 Ant.2	0.869	0.01310	-0.14800	-0.17700	186.38	0.01	
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			



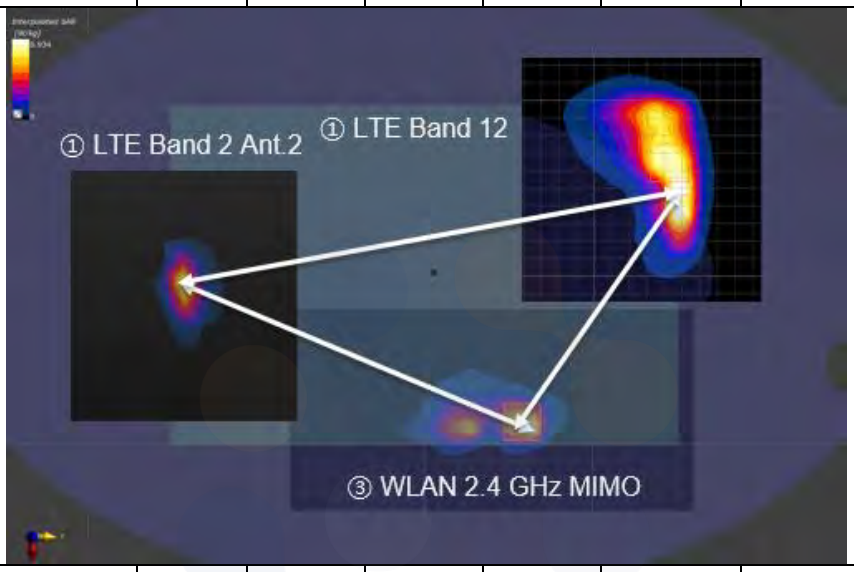
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 12A-66A (4A) 5	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	298.74	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.869	0.01310	-0.14800	-0.17700			
	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	171.28	0.01	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			
	① LTE Band 66 Ant.2	0.869	0.01310	-0.14800	-0.17700	186.38	0.02	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09340	0.02020	-0.17700			



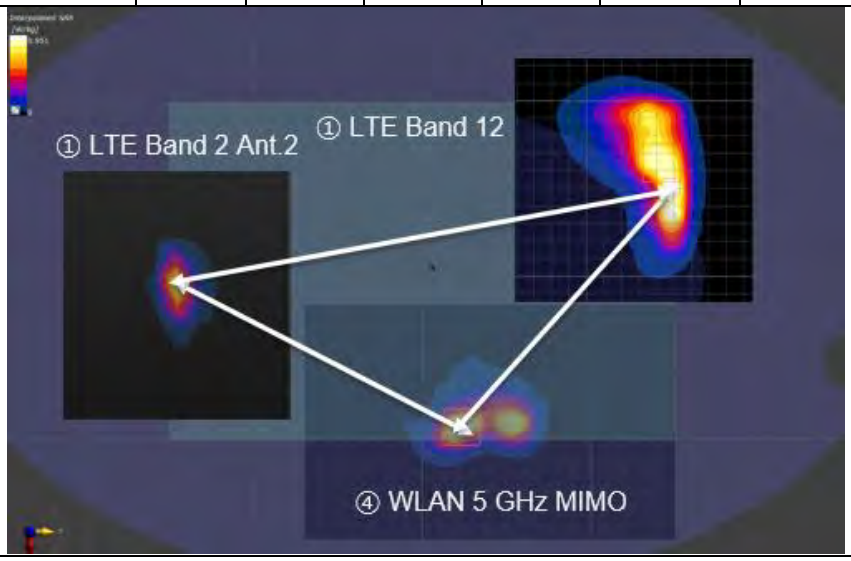
CA 2A-12A 1	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	298.77	0.00	Not Required (SPLSR ≤ 0.04)
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700			
	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	173.09	0.01	
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700	220.87	0.01	
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



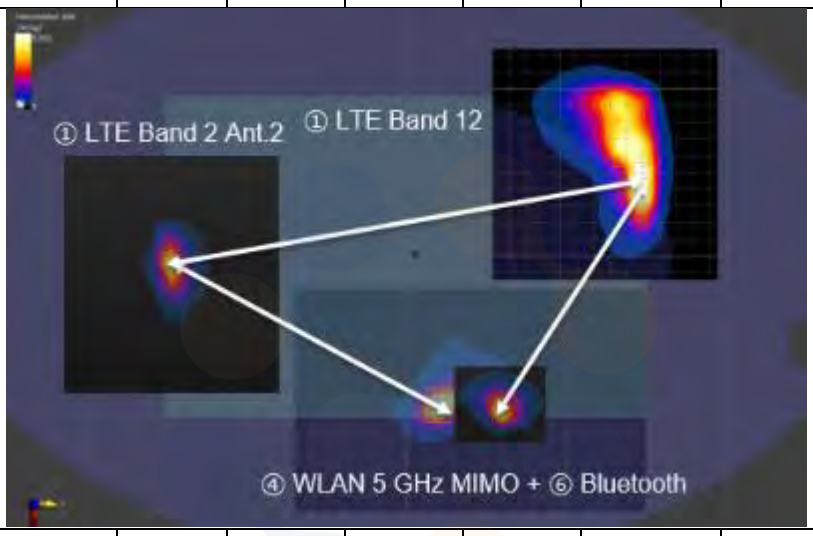
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 2A-12A 3	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	298.77	0.00	Not Required (SPLSR ≤ 0.04)
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700			
	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	172.95	0.01	
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700	221.59	0.01	
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



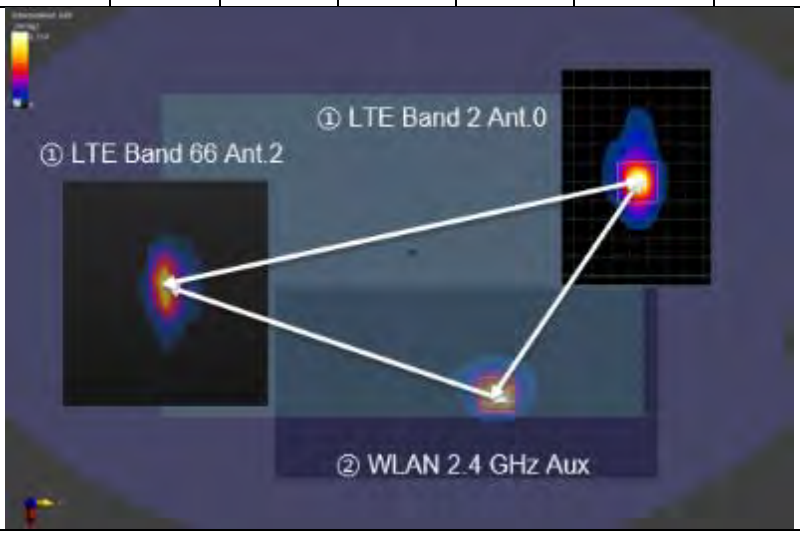
CA 2A-12A 4	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	298.77	0.00	Not Required (SPLSR ≤ 0.04)
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700			
	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	198.45	0.01	
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700	186.34	0.01	
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			



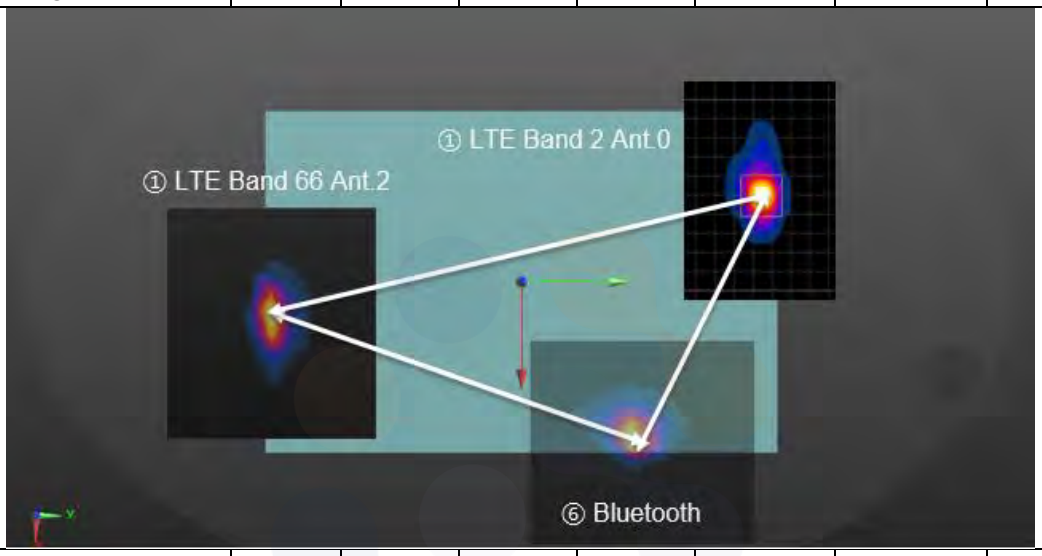
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 2A-12A 5	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	298.77	0.00	Not Required (SPLSR ≤ 0.04)
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700			
	① LTE Band 12	0.424	-0.06440	0.14050	-0.17980	171.28	0.01	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700	186.34	0.01	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09340	0.02020	-0.17700			



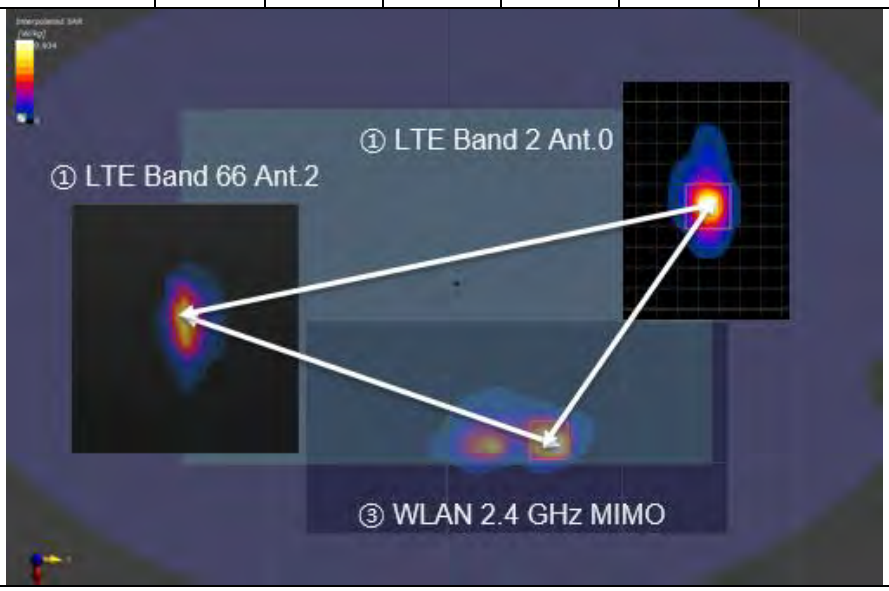
CA 2A-66A (4A) 1	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	298.19	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700			
	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	161.99	0.02	
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	220.87	0.01	
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



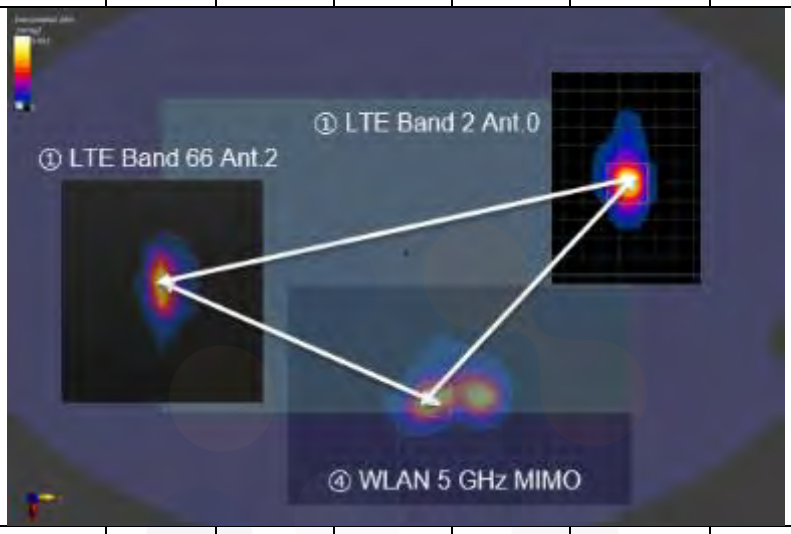
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 2A-66A (4A) 2	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	298.19	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700			
	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	159.62	0.01	
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	231.04	0.01	
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			



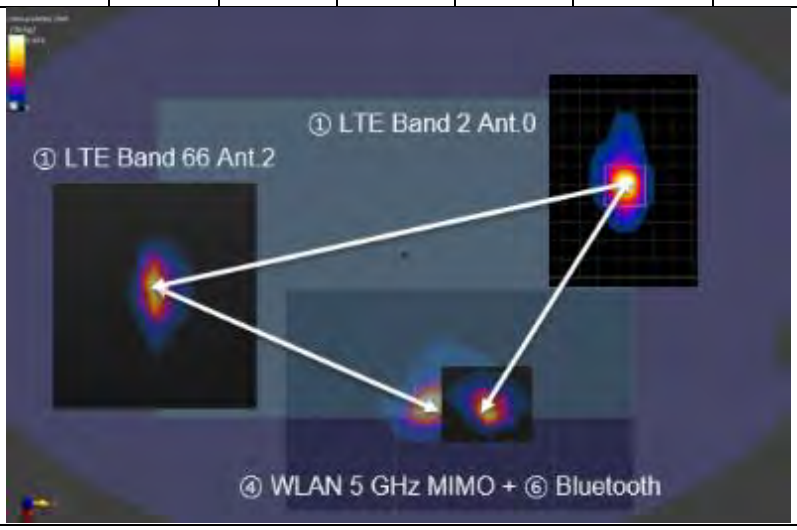
CA 2A-66A (4A) 3	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	298.19	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700			
	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	161.80	0.02	
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	221.59	0.01	
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



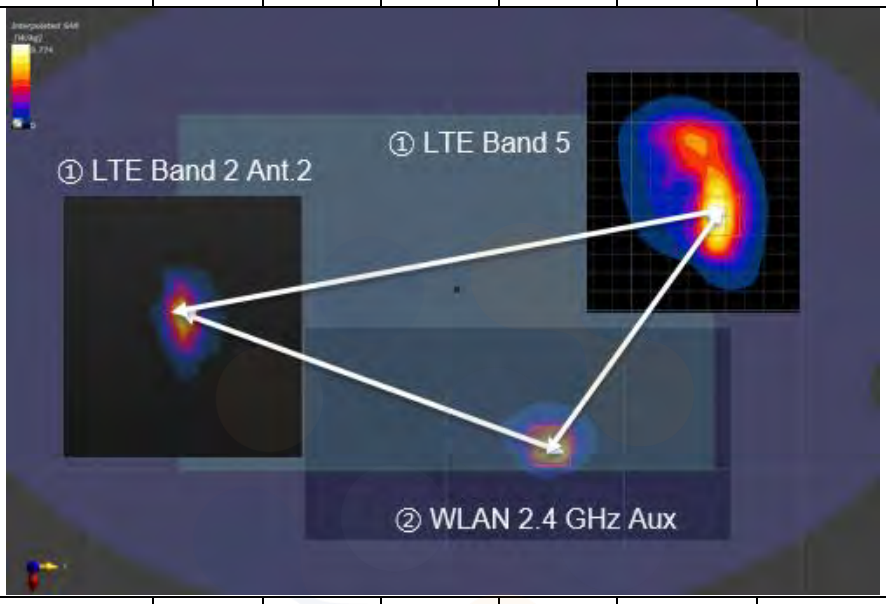
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 2A-66A (4A) 4	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	298.19	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700			
	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	189.07	0.01	
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	186.34	0.01	
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			



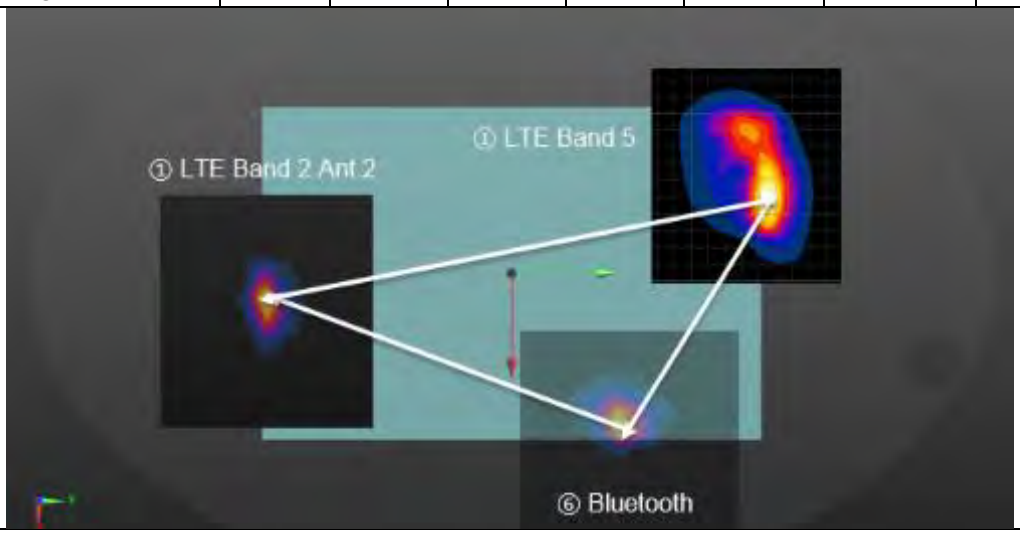
CA 2A-66A (4A) 5	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	298.19	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700			
	① LTE Band 2 Ant.0	0.936	-0.05000	0.14340	-0.17970	159.62	0.02	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	186.34	0.02	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09340	0.02020	-0.17700			



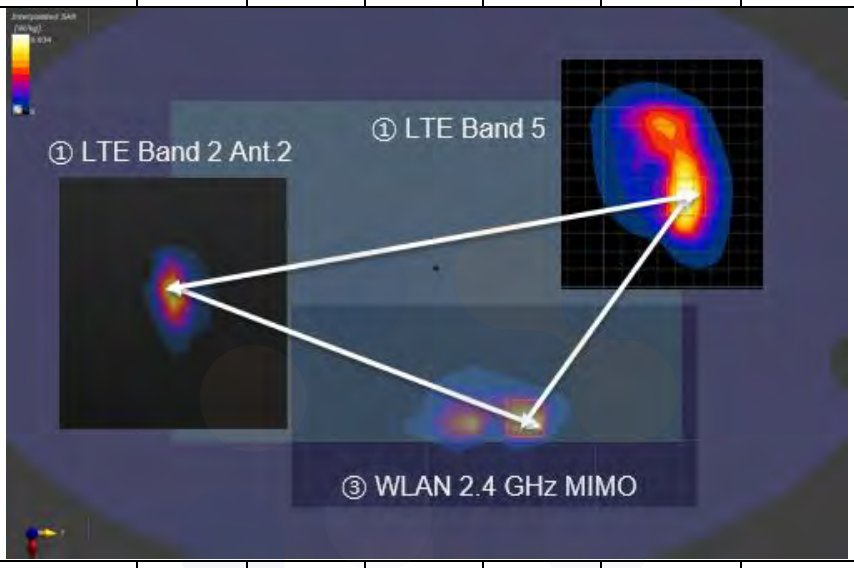
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 2A-5A 1	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	300.98	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700			
	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	162.31	0.02	
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700	220.87	0.01	
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



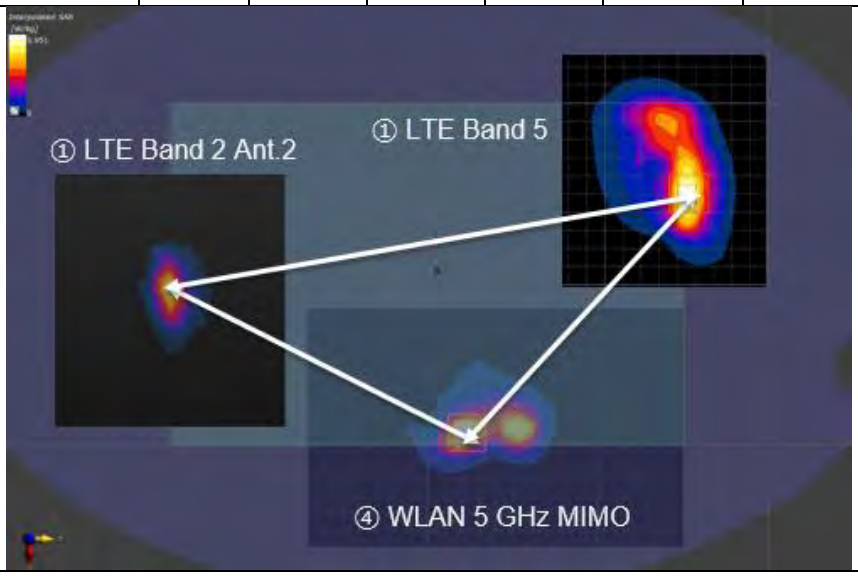
CA 2A-5A 2	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	300.98	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700			
	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	159.72	0.02	
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700	231.04	0.01	
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			



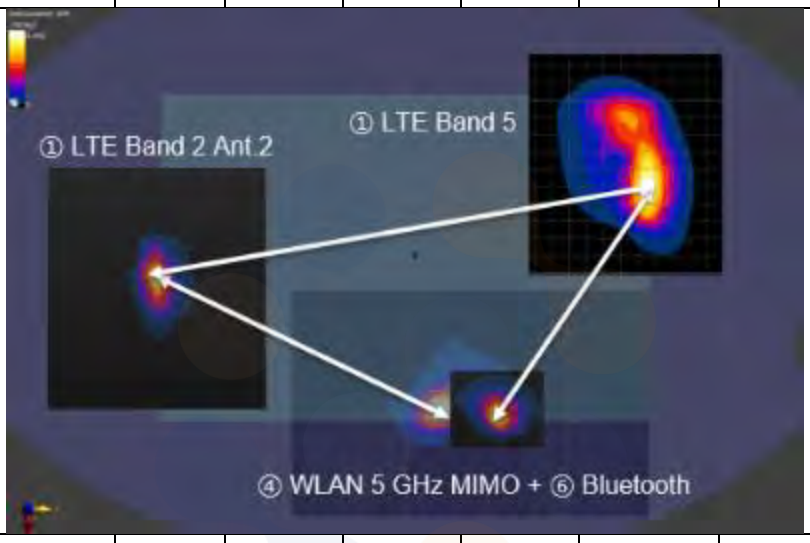
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 2A-5A 3	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	300.98	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700			
	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	162.11	0.02	
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700	221.59	0.01	
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



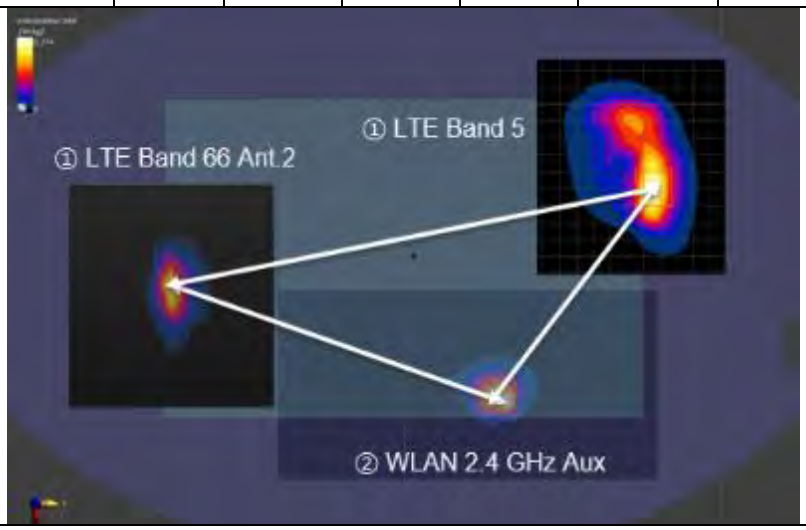
CA 2A-5A 4	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	300.98	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700			
	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	189.98	0.02	
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700	186.34	0.01	
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			



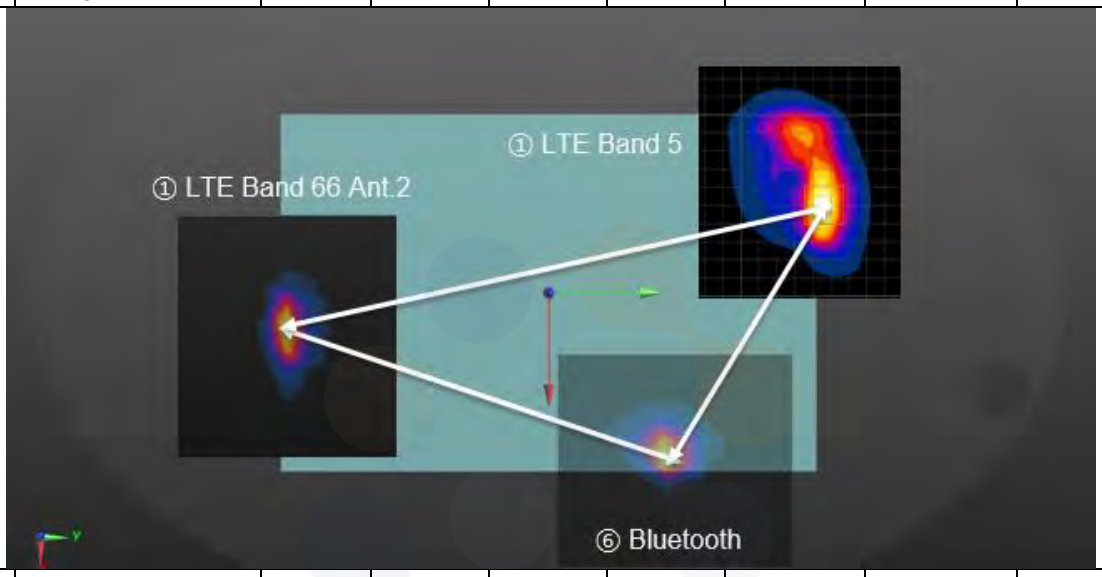
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 2A-5A 5	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	300.98	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700			
	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	159.72	0.03	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			
	① LTE Band 2 Ant.2	0.465	0.01320	-0.14800	-0.17700	186.34	0.01	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09340	0.02020	-0.17700			



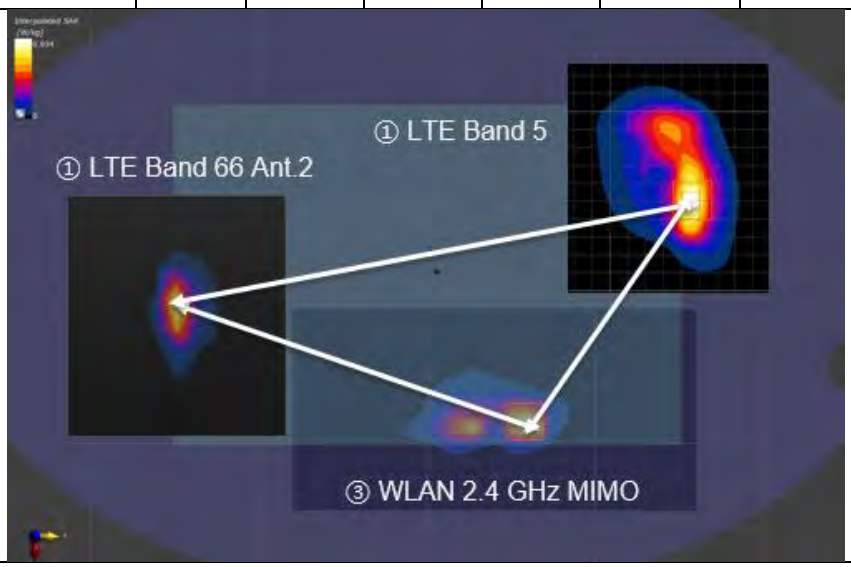
CA 66A(4A)-5A 1	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	300.98	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700			
	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	162.31	0.02	
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	220.87	0.01	
	② WLAN 2.4 GHz Aux	0.991	0.08860	0.05960	-0.17700			



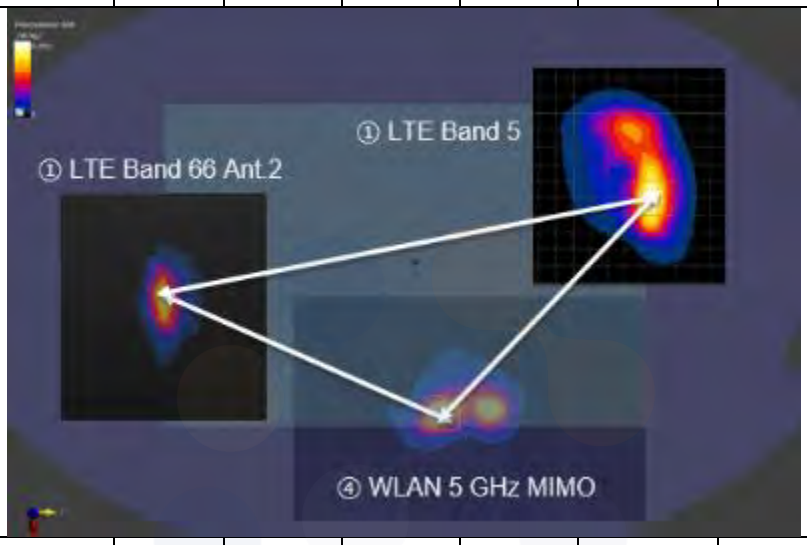
Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 66A(4A)-5A 2	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	300.98	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700			
	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	159.72	0.02	
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	231.04	0.01	
	⑥ Bluetooth	0.611	0.09140	0.06940	-0.17700			



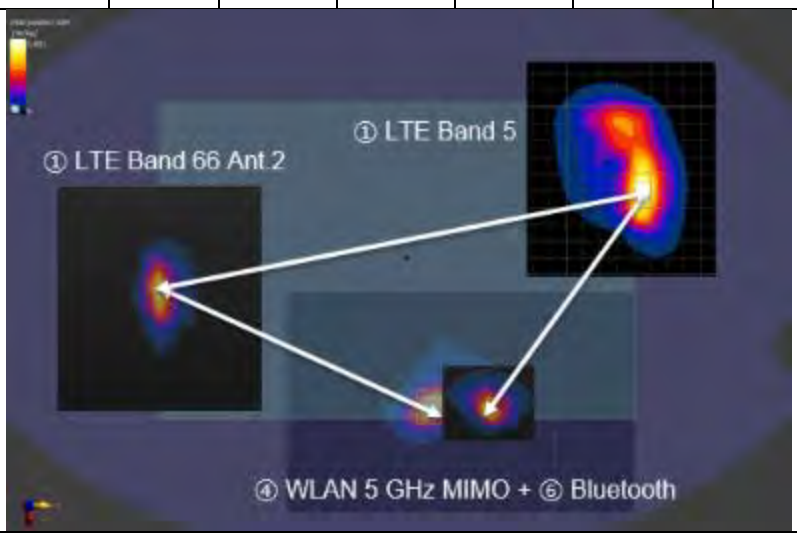
CA 66A(4A)-5A 3	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	300.98	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700			
	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	162.11	0.02	
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	221.59	0.01	
	③ WLAN 2.4 GHz MIMO	1.092	0.08880	0.06030	-0.17700			



Mode / Ant.		SAR Ratio	Coordinates			Peak Location Separation Distance (㎜)	SPLSR Result	Simultaneous Transmission SAR
			X	Y	Z			
CA 66A(4A)-5A 4	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	300.98	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700			
	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	189.98	0.02	
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	186.34	0.01	
	④ WLAN 5 GHz MIMO	0.783	0.09340	0.02020	-0.17700			



CA 66A(4A)-5A 5	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	300.98	0.01	Not Required (SPLSR ≤ 0.04)
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700			
	① LTE Band 5	1.270	-0.04840	0.14660	-0.17970	159.72	0.03	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09140	0.06940	-0.17700			
	① LTE Band 66 Ant.2	0.679	0.01320	-0.14800	-0.17700	186.34	0.02	
	④ WLAN 5 GHz MIMO + ⑥ Bluetooth	1.394	0.09340	0.02020	-0.17700			



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
Notebook	WCDMA II	RMC	1 852.4	Rear	0	0.954	0.950	1.00
	WCDMA V	RMC	836.6	Rear	0	0.826	0.824	1.00
	LTE Band 2 / Ant.0	QPSK 20M 1RB 49Offset	1 860.0	Rear	0	0.881	0.862	1.02
	5G NR n2 / Ant.0	CP-OFDM QPSK 20MHz 1RB 1Offset	1 860.0	Rear	0	0.933	0.929	1.00
	5G NR n5	DFT-S-OFDM QPSK 20 MHz 50RB 28Offset	836.5	Rear	0	0.908	0.901	1.01
	5G NR n77	DFT-S-OFDM QPSK 100MHz 135RB 69Offset	3 930.0	Rear	12	0.949	0.942	1.01

Band / Ant.		Mode	Frequency (㎒)	EUT Position	Separation Distance (㎜)	Measured 1 g SAR (W/kg)	Repeated 1 g SAR (W/kg)	Ratio
Tablet	WCDMA V	RMC	836.6	Rear	0	0.961	0.931	1.03
	LTE Band 5	QPSK 10M 25RB 25Offset	836.5	Rear	0	0.999	0.996	1.00
	LTE Band 14	QPSK 10M 1RB 0Offset	793.0	Rear	0	0.845	0.834	1.01
	5G NR n2 / Ant.0	"DFT-S-OFDM QPSK 20 MHz 1RB 1Offset"	1 900.0	Rear	0	0.828	0.785	1.05
	5G NR n5	"DFT-S-OFDM QPSK 20 MHz 100RB 0Offset"	836.5	Rear	0	1.240	1.220	1.02
	5G NR n66 / Ant.0	"DFT-S-OFDM QPSK 30 MHz 1RB 158Offset"	1 745.0	Rear	0	0.894	0.871	1.03

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 / DASY8 System			
Version	DASY52: 52.10.4.1535 / SEMCAD: 14.6.14 (7501) DASY8: 16.2.2.1588			
Location	Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Korea			
Manufacture	SPEAG			
Hardware Reference				
Equipment	Model	Serial Number	Date of Calibration	Due date of next Calibration
Shield Room	-	8F - 4	-	-
	-	8F - 7	-	-
DASY6 Robot	TX60 Lspeag	F/19/0007289/A/001	-	-
DASY8 Robot	TX2-60L	F/22/0040787/A/001	-	-
Phantom	2mm Oval Phantom ELI5	1173	-	-
	2mm Oval Phantom ELI5	2098	-	-
Mounting Device	Laptop Holder	-	-	-
DAE	DAE4	666	2023-01-23	2024-01-23
	DAE4	1759	2022-11-07	2023-11-07
Probe	EX3DV4	7540	2022-04-29	2023-04-29
	EX3DV4	7541	2022-07-22	2023-07-22
	EX3DV4	7770	2022-11-18	2023-11-18
	EX3DV4	3697	2023-04-13	2024-04-13
ESG Vector Signal Generator	E4438C	MY42080845	2023-02-09	2024-02-09
MXA SIGNAL ANALYZER	N9020A	MY520900024	2022-11-22	2023-11-22
Dual Power Meter	E4419B	GB40202503	2022-11-21	2023-11-21
	E4419B	GB40202622	2022-11-21	2023-11-21
Power Sensor	E9301A	US39210857	2022-11-21	2023-11-21
	E9301A	US39212236	2022-11-21	2023-11-21
	E9301A	MY41497231	2022-11-21	2023-11-21
	E9301A	MY41499102	2022-11-21	2023-11-21
Attenuator	PE7005-10	2228-4	2022-12-15	2023-12-15
	PE7005-10	2228-5	2022-12-15	2023-12-15
	PE7005-10	2228-6	2022-12-15	2023-12-15
	PE7005-10	2228-7	2022-12-15	2023-12-15
	PE7005-10	2228-8	2022-12-15	2023-12-15
	PE7005-10	2228-9	2022-12-15	2023-12-15
Dual Directional Coupler	778D	16059	2023-02-09	2024-02-09
	772D	2839A00719	2023-02-09	2024-02-09
Directional Coupler	778D	17185	2022-11-21	2023-11-21

Equipment	Model	Serial Number	Date of Calibration	Due date of next Calibration
Power Amplifier	AMP2027ADB	10005	2022-07-06	2023-07-06
	AMP2027	10010	2022-05-02	2023-05-02
Low Pass Filter	NLP-1000+	VUU79701846	2022-05-02	2023-05-02
			2023-04-26	2024-04-26
	PE8721	2205	2022-12-14	2023-12-14
	LA-60N	40059	2023-02-09	2024-02-09
Dipole Validation Kits	D750V3	1183	2022-09-21	2024-09-21
	D750V3	1224	2022-10-12	2024-10-12
	D850V2	1030	2022-10-26	2024-10-26
	D1750V2	1195	2022-10-26	2024-10-26
	D1900V2	5d248	2022-10-20	2024-10-20
	D3500V2	1146	2022-11-01	2024-11-01
	D3700V2	1027	2022-08-19	2024-08-19
	D3900V2	1037	2023-02-27	2025-02-27
ENA Series Network Analyzer	E5071B	MY42403524	2023-02-09	2024-02-09
Dielectric Assessment Kit	DAK-3.5	1078	2022-05-30	2023-05-30
Dielectric Assessment Kit	DAKS-3.5	1165	2022-12-14	2023-12-14
VECTOR REFLECTOMETER	R140B	22420003	2023-01-03	2024-01-03
Humidity/Temp	PC-5400TRH	PC-5400TRH-3	2022-11-21	2023-11-21
	MHB-382SD	46301	2023-02-14	2024-02-14
Wideband Radio Communication Tester	CMW500	132423	2023-02-09	2024-02-09
Wideband Radio Communication Tester	CMW500	168683	2023-02-09	2024-02-09
Radio Communication Analyzer	MT8821C	6201807233	2023-01-19	2024-01-19
Radio Communication Analyzer	MT8821C	6262170371	2022-11-03	2023-11-03
Radio Communication Analyzer	MT8821C	6262170372	2022-11-03	2023-11-03
Radio Communication Test Station	MT8000A	6261987922	2023-02-09	2024-02-09
MXA SIGNAL ANALYZER	N9020A	MY520900024	2022-11-22	2023-11-22

17. Test System Verification Results

Date: 4/13/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 750 MHz Verification Input Power 250 mW 2023-04-13.da53:0

DUT: Dipole 750 MHz D750V3, Type: D750V3, Serial: D750V3 - SN:1183

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.881 S/m; ε_r = 42.981; ρ = 1000 kg/m^3
Phantom section: Flat Section

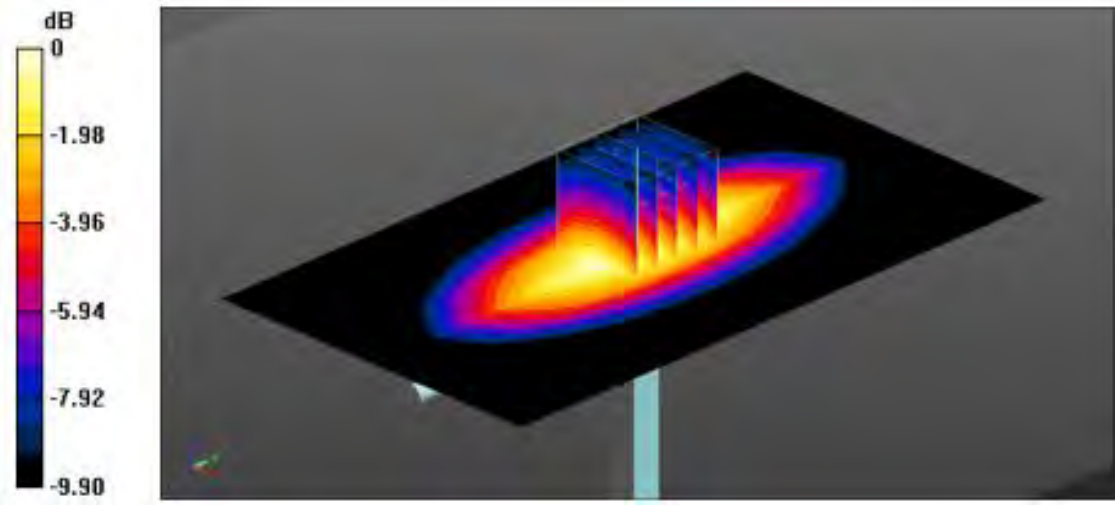
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(10.3, 10.3, 10.3) @ 750 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/750 MHz Verification Input Power 250 mW 2023-04-13/Area Scan (9x15x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.91 W/kg

Configuration/750 MHz Verification Input Power 250 mW 2023-04-13/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 59.76 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 3.23 W/kg
SAR(1 g) = 2.14 W/kg; SAR(10 g) = 1.43 W/kg

Maximum value of SAR (measured) = 2.85 W/kg



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

Date: 4/20/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 750 MHz Verification Input Power 250 mW 2023-04-20.da53:0

DUT: Dipole 750 MHz D750V3, Type: D750V3, Serial: D750V3 - SN:1183

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.88 S/m; ε_r = 41.34; ρ = 1000 kg/m^3
Phantom section: Flat Section

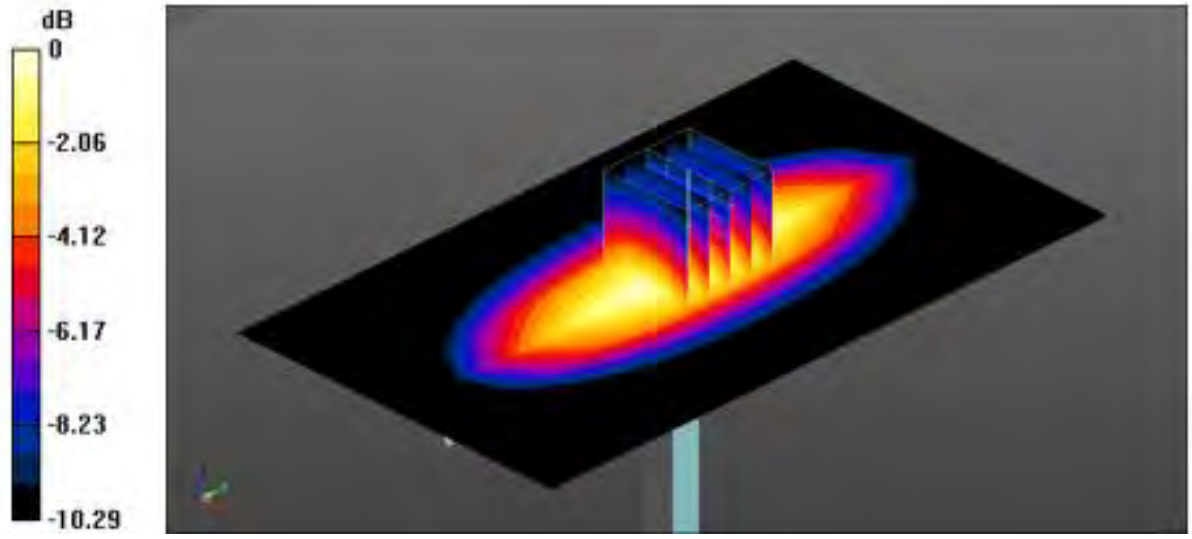
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(10.3, 10.3, 10.3) @ 750 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/750 MHz Verification Input Power 250 mW 2023-04-20/Area Scan (9x15x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.76 W/kg

Configuration/750 MHz Verification Input Power 250 mW 2023-04-20/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 59.32 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.10 W/kg
SAR(1 g) = 2.08 W/kg; SAR(10 g) = 1.38 W/kg

Maximum value of SAR (measured) = 2.76 W/kg



0 dB = 2.76 W/kg = 4.41 dBW/kg

Eurofins KCTL Co.,Ltd.

Measurement Report for D750V3 - SN1224, FRONT, D750, UID 0 -, Channel 50 (750.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D750V3 - SN1224, Speag	10.0 x 10.0 x 330.0	1224	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	FRONT, 15.00	D750	CW, 0--	750.0, 50	8.92	0.888	42.0

Hardware Setup

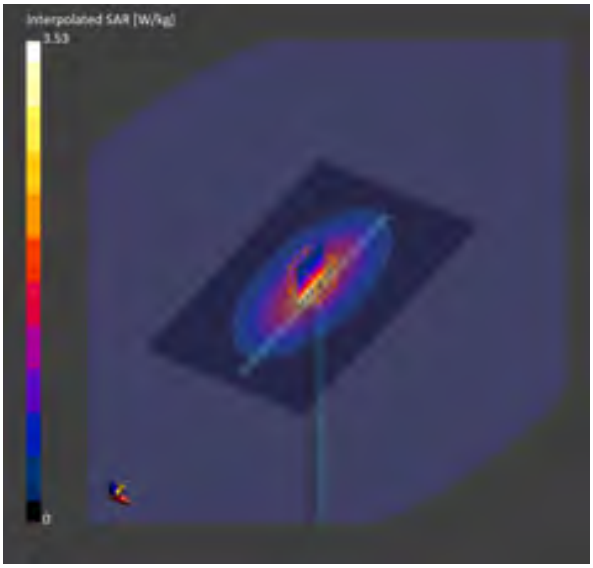
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1173	HBBL-600-10000 , 2023-Apr-20	EX3DV4 - SN7770, 2022-11-18	DAE4 Sn666, 2023-01-23

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2023-04-20	2023-04-20
psSAR1g [W/kg]	2.14	2.21
psSAR8g [W/kg]	1.51	1.53
psSAR10g [W/kg]	1.43	1.45
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.01



Date: 5/20/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 750 MHz Verification Input Power 250 mW 2023-05-20.da53:0

DUT: Dipole 750 MHz D750V3, Type: D750V3, Serial: D750V3 - SN:1183

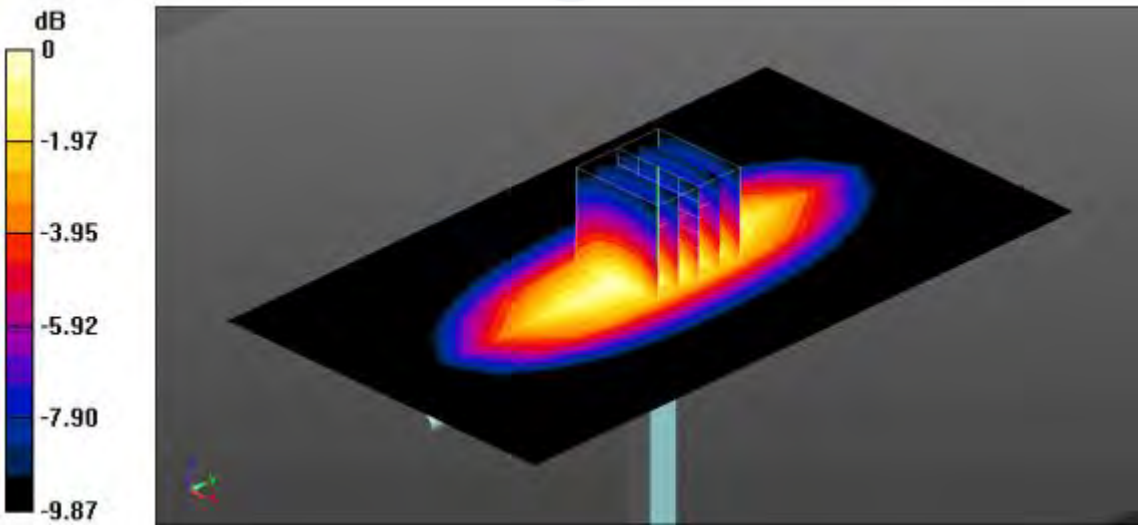
Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.896 S/m; ε_r = 41.227; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(9.36, 9.36, 9.36) @ 750 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/750 MHz Verification Input Power 250 mW 2023-05-20/Area Scan (9x15x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.91 W/kg

Configuration/750 MHz Verification Input Power 250 mW 2023-05-20/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 59.99 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 3.30 W/kg
SAR(1 g) = 2.2 W/kg; SAR(10 g) = 1.47 W/kg
Maximum value of SAR (measured) = 2.92 W/kg



0 dB = 2.92 W/kg = 4.65 dBW/kg

Date: 4/10/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 850 MHz Verification Input Power 250 mW 2023-04-10.da52:0

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

Communication System: UID 0, CW (0); Frequency: 850 MHz; Duty Cycle: 1:1
Medium parameters used: f = 850 MHz; σ = 0.9 S/m; ε_r = 41.275; ρ = 1000 kg/m^3
Phantom section: Flat Section

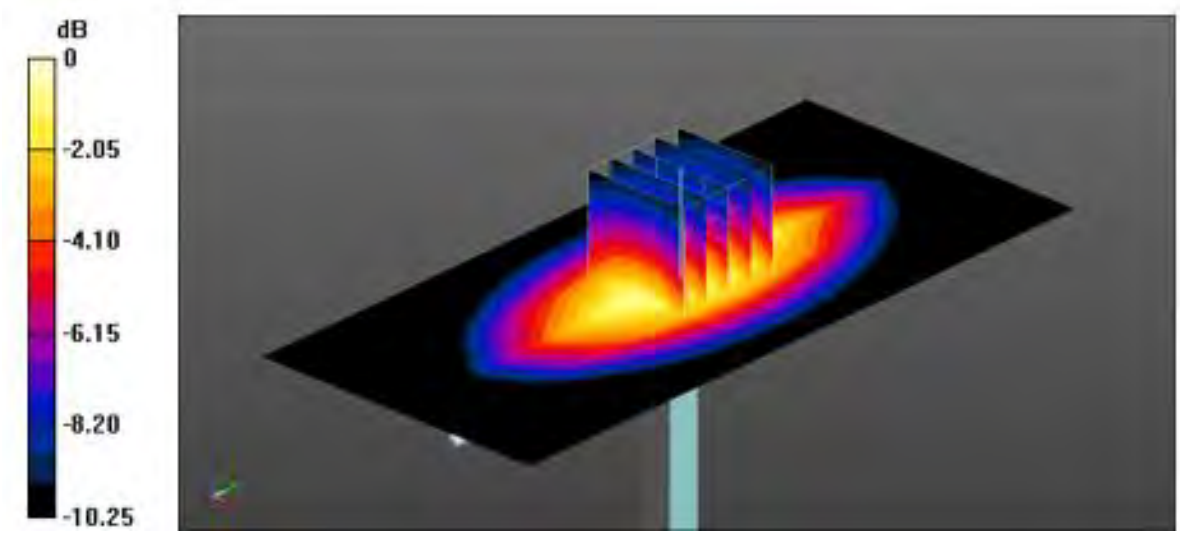
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(9.95, 9.95, 9.95) @ 850 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check/850 MHz Verification Input Power 250 mW 2023-04-10/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.44 W/kg

System Performance Check/850 MHz Verification Input Power 250 mW 2023-04-10/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 64.01 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.96 W/kg
SAR(1 g) = 2.55 W/kg; SAR(10 g) = 1.69 W/kg

Maximum value of SAR (measured) = 3.44 W/kg



0 dB = 3.44 W/kg = 5.37 dBW/kg

Eurofins KCTL Co.,Ltd.

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

Device under Test Properties

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

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	FRONT, 15.00	D850	CW, 0--	850.0, 50	9.73	0.908	41.8

Hardware Setup

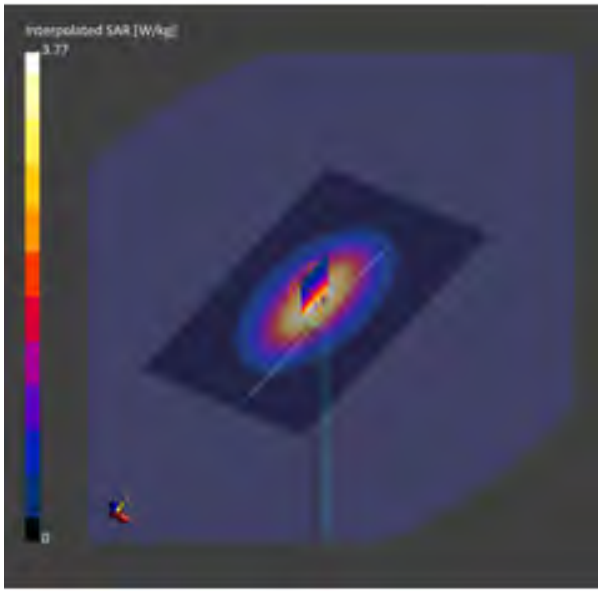
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1173	HBBL-600-10000 , 2023-Apr-13	EX3DV4 - SN7540, 2022-04-29	DAE4 Sn666, 2023-01-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 220.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-04-13	2023-04-13
psSAR1g [W/kg]	2.47	2.51
psSAR8g [W/kg]	1.72	1.74
psSAR10g [W/kg]	1.63	1.65
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01



Date: 4/19/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 850 MHz Verification Input Power 250 mW 2023-04-19.da52:0

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

Communication System: UID 0, CW (0); Frequency: 850 MHz; Duty Cycle: 1:1
Medium parameters used: f = 850 MHz; σ = 0.912 S/m; ε_r = 41.825; ρ = 1000 kg/m^3
Phantom section: Flat Section

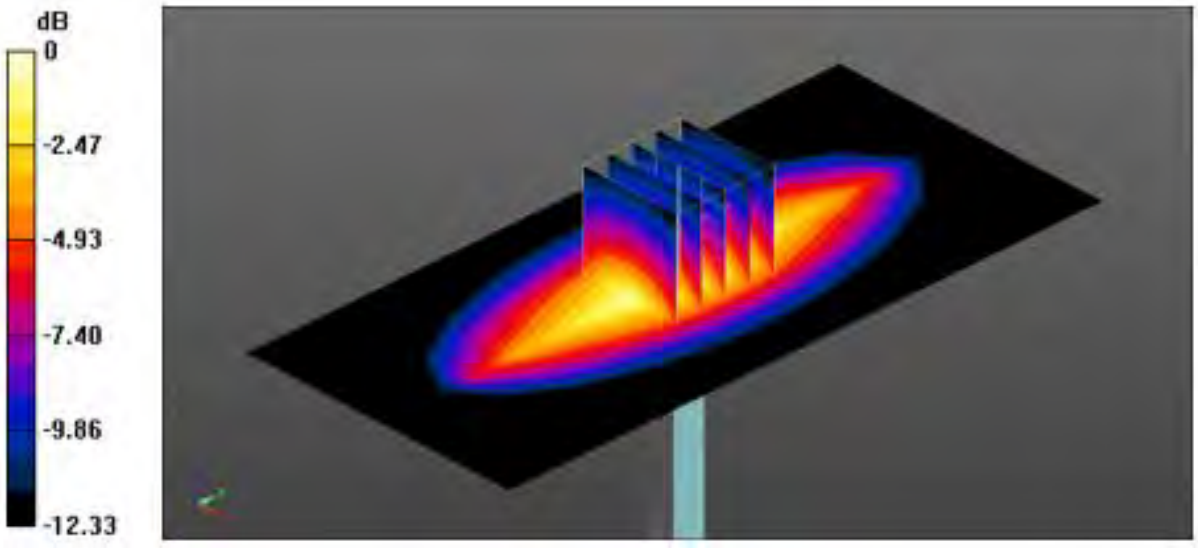
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(9.95, 9.95, 9.95) @ 850 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check/850 MHz Verification Input Power 250 mW 2023-04-19/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.56 W/kg

System Performance Check/850 MHz Verification Input Power 250 mW 2023-04-19/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 66.45 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 4.35 W/kg
SAR(1 g) = 2.48 W/kg; SAR(10 g) = 1.49 W/kg

Maximum value of SAR (measured) = 3.69 W/kg



0 dB = 3.69 W/kg = 5.67 dBW/kg

Date: 5/20/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 850 MHz Verification Input Power 250 mW 2023-05-20.da52:0

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

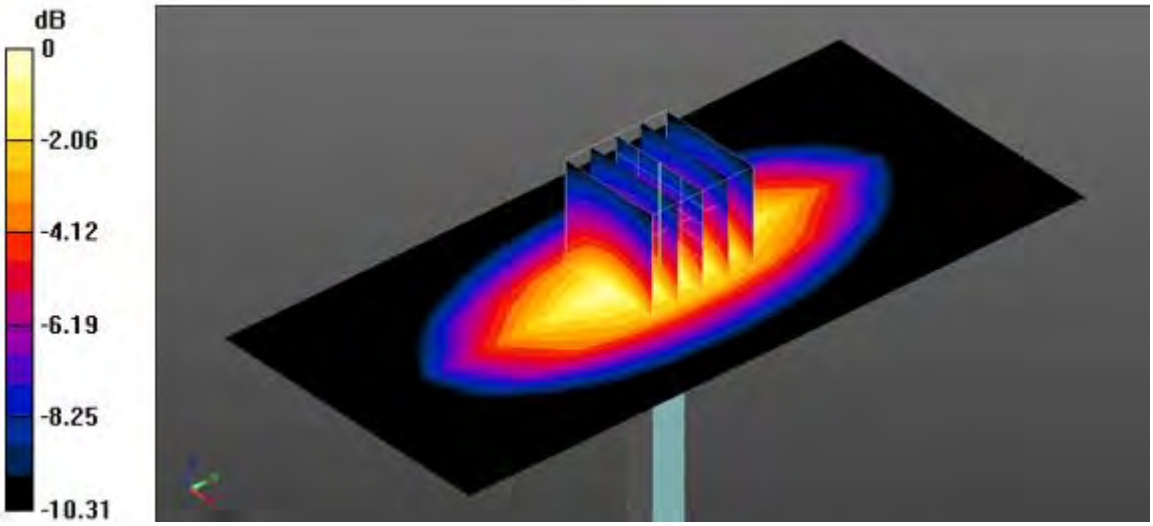
Communication System: UID 0, CW (0); Frequency: 850 MHz; Duty Cycle: 1:1
Medium parameters used: f = 850 MHz; σ = 0.93 S/m; ε_r = 40.011; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(8.82, 8.82, 8.82) @ 850 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check/850 MHz Verification Input Power 250 mW 2023-05-20/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.44 W/kg

System Performance Check/850 MHz Verification Input Power 250 mW 2023-05-20/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 64.50 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 4.08 W/kg
SAR(1 g) = 2.59 W/kg; SAR(10 g) = 1.72 W/kg
Maximum value of SAR (measured) = 3.53 W/kg



0 dB = 3.53 W/kg = 5.48 dBW/kg

Date: 4/12/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1750 MHz Verification Input Power 250 mW 2023-04-12.da52:0

DUT: Dipole 1750 MHz D1750V2, Type: D1750V2, Serial: D1750V2 - SN:1195

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.38 S/m; ε_r = 39.852; ρ = 1000 kg/m^3
Phantom section: Flat Section

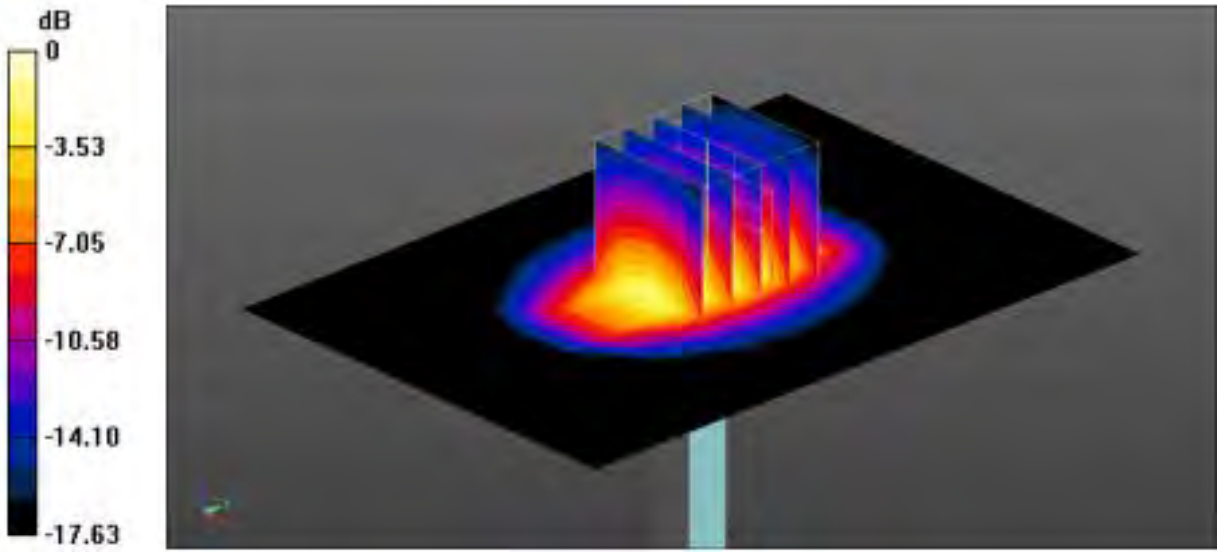
DASY5 Configuration:

- 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 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/1750 MHz Verification Input Power 250 mW 2023-04-12/Area Scan (8x11x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 9.99 W/kg

Configuration/1750 MHz Verification Input Power 250 mW 2023-04-12/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 105.3 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 17.3 W/kg
SAR(1 g) = 9.33 W/kg; SAR(10 g) = 4.98 W/kg

Maximum value of SAR (measured) = 14.3 W/kg



Date: 4/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1750 MHz Verification Input Power 250 mW 2023-04-15.da52:0

DUT: Dipole 1750 MHz D1750V2, Type: D1750V2, Serial: D1750V2 - SN:1195

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.384 S/m; ε_r = 38.525; ρ = 1000 kg/m^3
Phantom section: Flat Section

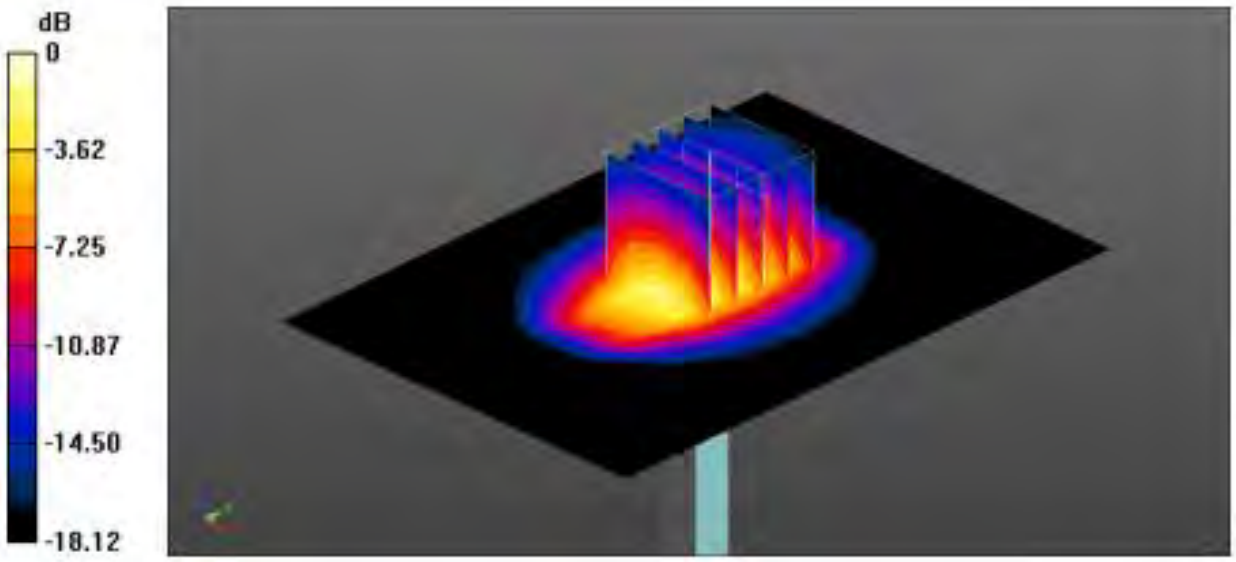
DASY5 Configuration:

- 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 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/1750 MHz Verification Input Power 250 mW 2023-04-15/Area Scan (8x11x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.9 W/kg

Configuration/1750 MHz Verification Input Power 250 mW 2023-04-15/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 106.0 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 17.6 W/kg
SAR(1 g) = 9.42 W/kg; SAR(10 g) = 5 W/kg

Maximum value of SAR (measured) = 14.5 W/kg



0 dB = 14.5 W/kg = 11.61 dBW/kg

Date: 4/18/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1750 MHz Verification Input Power 250 mW 2023-04-18.da52:0

DUT: Dipole 1750 MHz D1750V2, Type: D1750V2, Serial: D1750V2 - SN:1195

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.391 S/m; ε_r = 39.991; ρ = 1000 kg/m^3
Phantom section: Flat Section

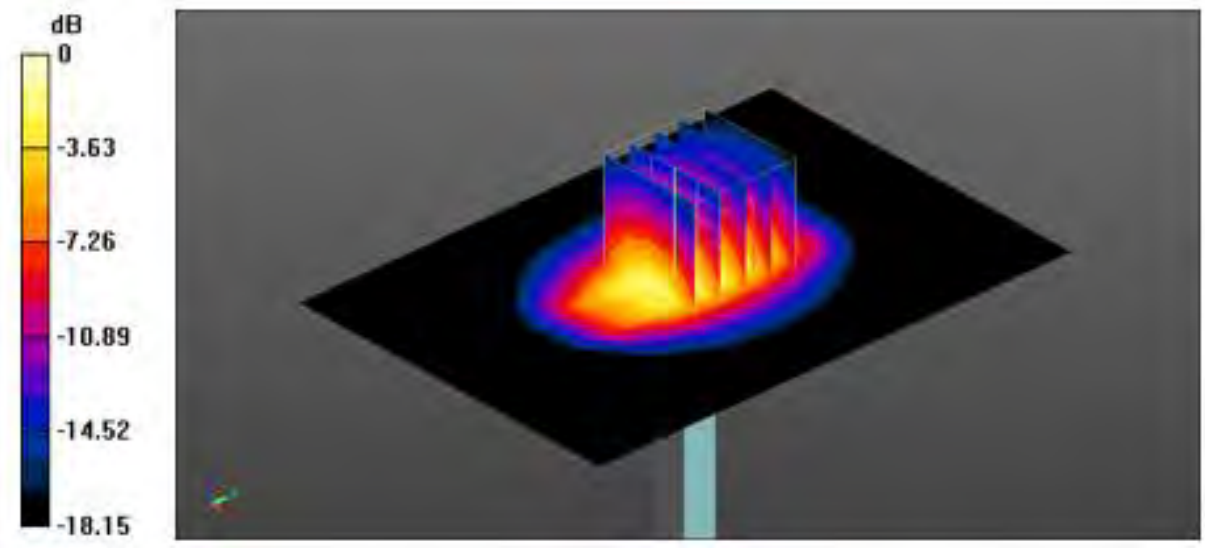
DASY5 Configuration:

- 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 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/1750 MHz Verification Input Power 250 mW 2023-04-18/Area Scan (8x11x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 11.0 W/kg

Configuration/1750 MHz Verification Input Power 250 mW 2023-04-18/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 105.5 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 17.7 W/kg
SAR(1 g) = 9.47 W/kg; SAR(10 g) = 5.02 W/kg

Maximum value of SAR (measured) = 14.6 W/kg



0 dB = 14.6 W/kg = 11.64 dBW/kg

Eurofins KCTL Co.,Ltd.

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

Device under Test Properties

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

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	FRONT, 10.00	D1750	CW, 0--	1750.0, 50	7.99	1.41	41.1

Hardware Setup

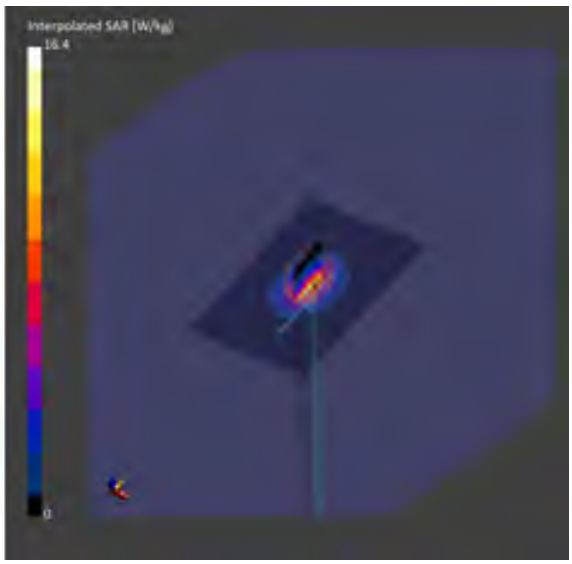
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1173	HBBL-600-10000 , 2023-Apr-19	EX3DV4 - SN7770, 2022-11-18	DAE4 Sn666, 2023-01-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 150.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-04-19	2023-04-19
psSAR1g [W/kg]	9.17	9.20
psSAR8g [W/kg]	5.34	5.36
psSAR10g [W/kg]	4.90	4.96
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.02



Date: 4/22/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1750 MHz Verification Input Power 250 mW 2023-04-22.da52:0

DUT: Dipole 1750 MHz D1750V2, Type: D1750V2, Serial: D1750V2 - SN:1195

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.341 S/m; ε_r = 39.736; ρ = 1000 kg/m^3
Phantom section: Flat Section

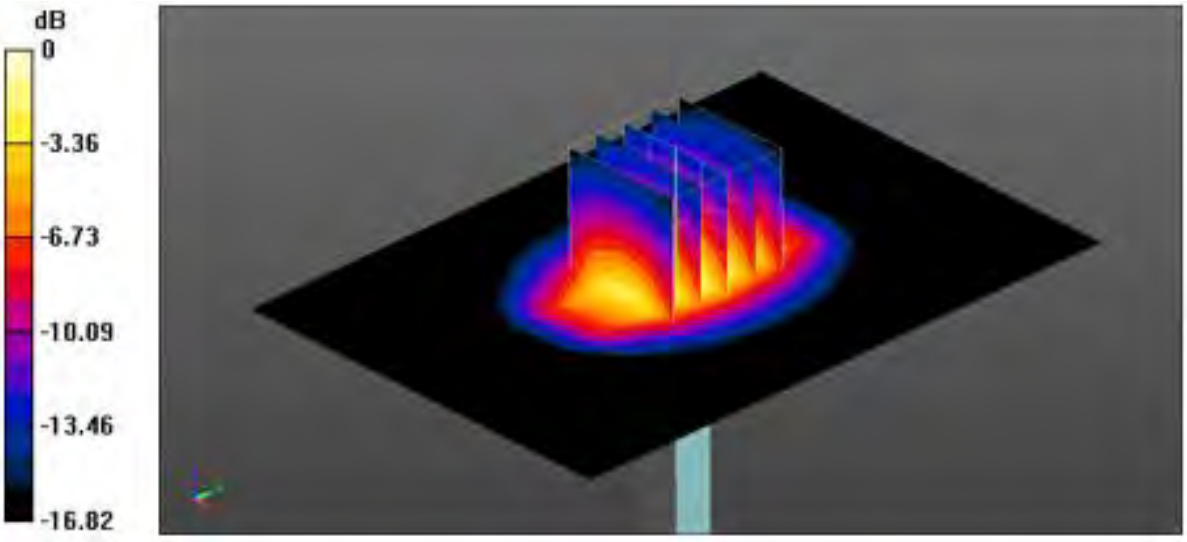
DASY5 Configuration:

- 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 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/1750 MHz Verification Input Power 250 mW 2023-04-22/Area Scan (8x11x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.5 W/kg

Configuration/1750 MHz Verification Input Power 250 mW 2023-04-22/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 106.4 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 16.9 W/kg
SAR(1 g) = 9.26 W/kg; SAR(10 g) = 4.96 W/kg

Maximum value of SAR (measured) = 14.3 W/kg



0 dB = 14.3 W/kg = 11.55 dBW/kg

Date: 5/19/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1750 MHz Verification Input Power 250 mW 2023-05-19.da52:0

DUT: Dipole 1750 MHz D1750V2, Type: D1750V2, Serial: D1750V2 - SN:1195

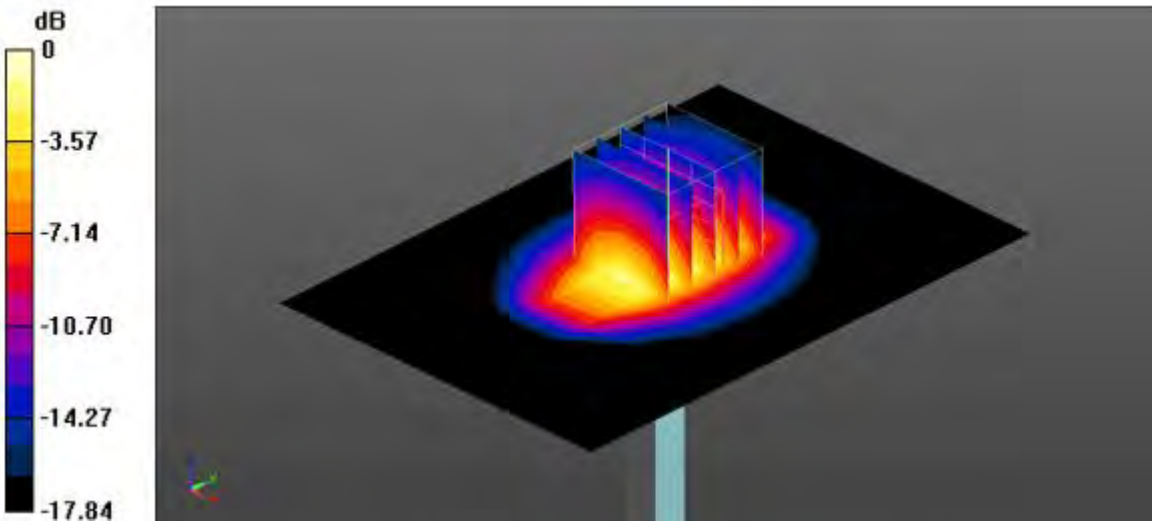
Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.412 S/m; ε_r = 40.872; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.97, 7.97, 7.97) @ 1750 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/1750 MHz Verification Input Power 250 mW 2023-05-19/Area Scan (8x11x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.3 W/kg

Configuration/1750 MHz Verification Input Power 250 mW 2023-05-19/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 104.7 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 17.3 W/kg
SAR(1 g) = 9.43 W/kg; SAR(10 g) = 5.05 W/kg
Maximum value of SAR (measured) = 14.3 W/kg



0 dB = 14.3 W/kg = 11.55 dBW/kg

Date: 4/11/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1900 MHz Verification Input Power 250 mW 2023-04-11.da52:0

DUT: Dipole 1900 MHz D1900V2, Type: D1900V2, Serial: D1900V2 - SN:5d248

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.396 S/m; ε_r = 38.855; ρ = 1000 kg/m^3
Phantom section: Flat Section

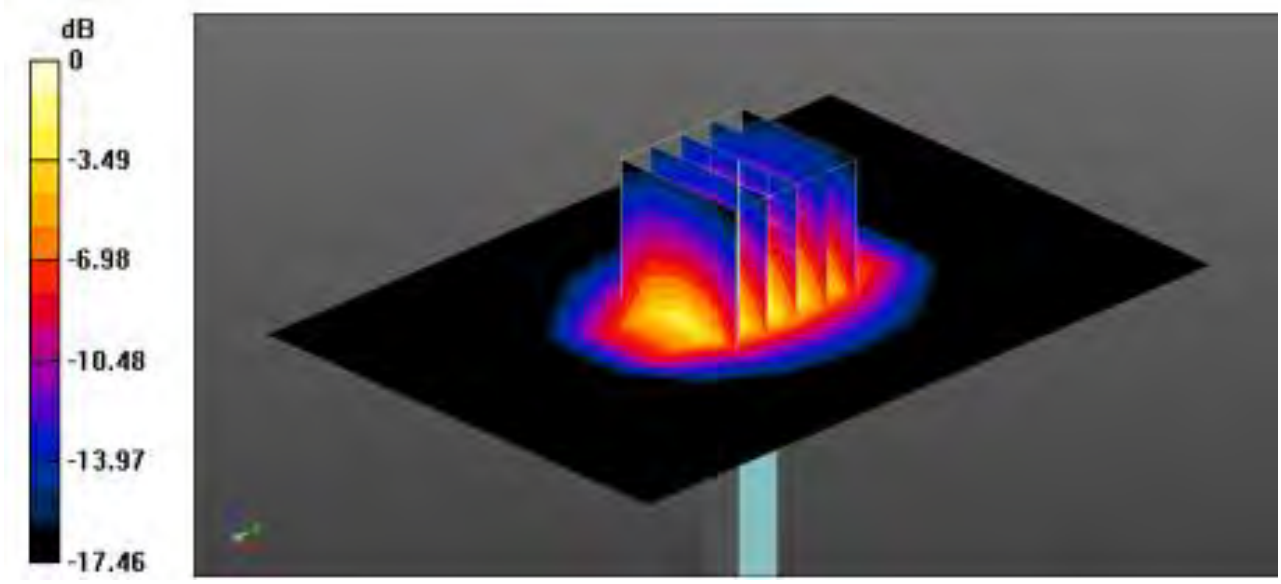
DASY5 Configuration:

- 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 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check/1900 MHz Verification Input Power 250 mW 2023-04-11/Area Scan (8x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.3 W/kg

System Performance Check/1900 MHz Verification Input Power 250 mW 2023-04-11/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 109.5 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 18.4 W/kg
SAR(1 g) = 10 W/kg; SAR(10 g) = 5.27 W/kg

Maximum value of SAR (measured) = 15.5 W/kg



0 dB = 15.5 W/kg = 11.90 dBW/kg

Date: 4/14/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1900 MHz Verification Input Power 250 mW 2023-04-14.da52:0

DUT: Dipole 1900 MHz D1900V2, Type: D1900V2, Serial: D1900V2 - SN:5d248

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.412 S/m; ε_r = 38.991; ρ = 1000 kg/m^3
Phantom section: Flat Section

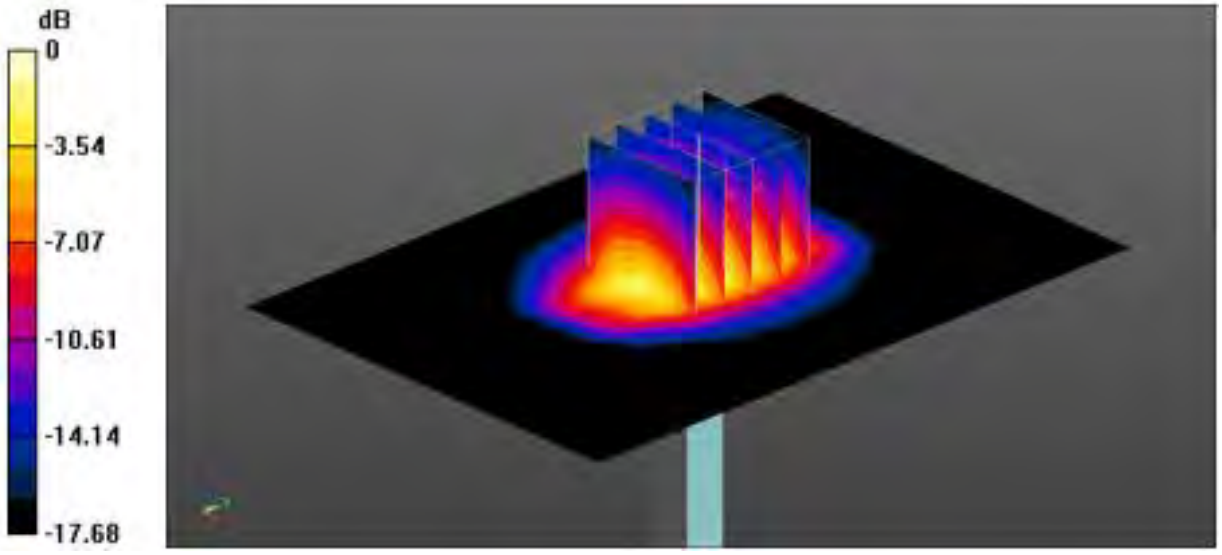
DASY5 Configuration:

- 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 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check/1900 MHz Verification Input Power 250 mW 2023-04-14/Area Scan (8x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 11.4 W/kg

System Performance Check/1900 MHz Verification Input Power 250 mW 2023-04-14/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 103.7 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 17.2 W/kg
SAR(1 g) = 9.45 W/kg; SAR(10 g) = 5 W/kg

Maximum value of SAR (measured) = 14.4 W/kg



0 dB = 14.4 W/kg = 11.58 dBW/kg

Date: 4/17/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1900 MHz Verification Input Power 250 mW 2023-04-17.da52:0

DUT: Dipole 1900 MHz D1900V2, Type: D1900V2, Serial: D1900V2 - SN:5d248

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.403 S/m; ε_r = 38.365; ρ = 1000 kg/m^3
Phantom section: Flat Section

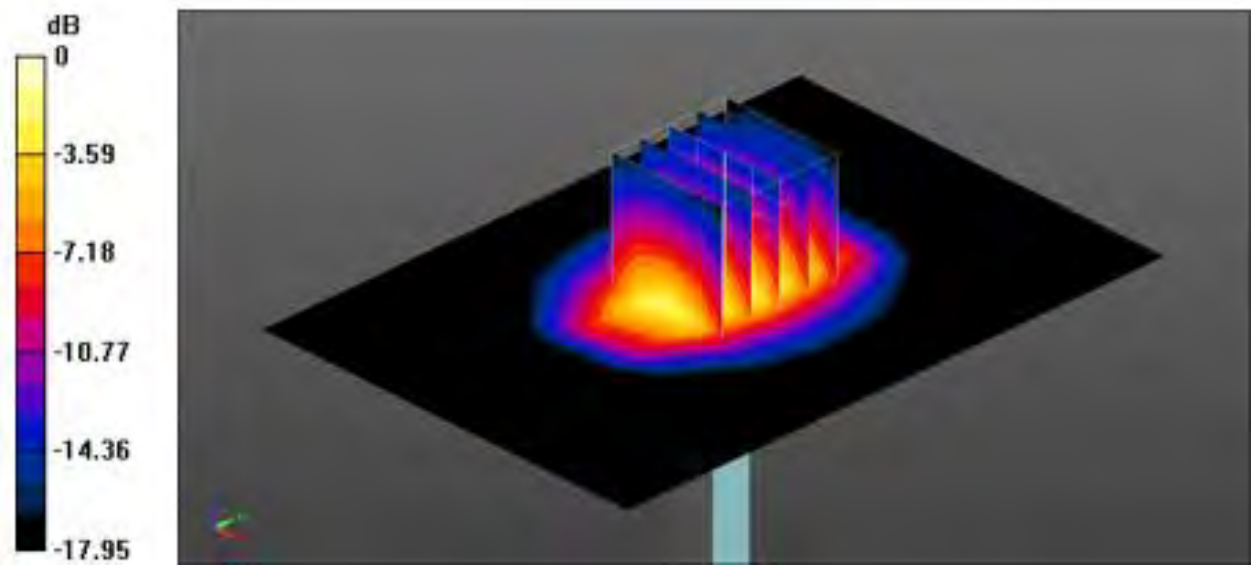
DASY5 Configuration:

- 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 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check/1900 MHz Verification Input Power 250 mW 2023-04-17/Area Scan (8x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 11.4 W/kg

System Performance Check/1900 MHz Verification Input Power 250 mW 2023-04-17/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 107.2 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 17.7 W/kg
SAR(1 g) = 9.59 W/kg; SAR(10 g) = 5.03 W/kg

Maximum value of SAR (measured) = 14.9 W/kg



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

Eurofins KCTL Co.,Ltd.

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

Device under Test Properties

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

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	FRONT, 10.00	D1900	CW, 0--	1900.0, 50	8.55	1.45	39.5

Hardware Setup

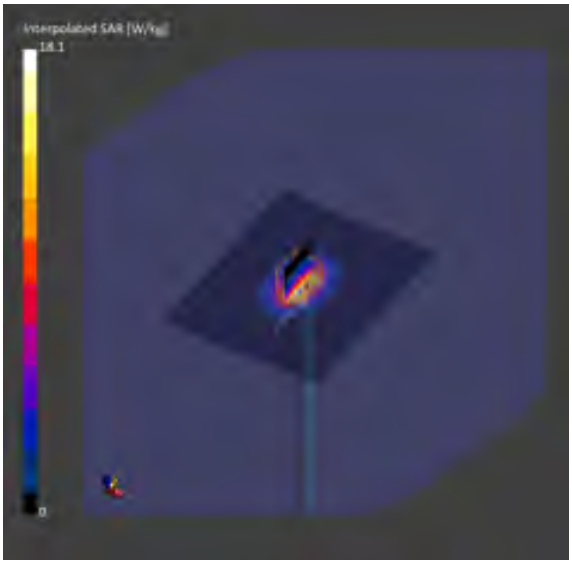
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1173	HBBL-600-10000 , 2023-Apr-17	EX3DV4 - SN7540, 2022-04-29	DAE4 Sn666, 2023-01-23

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2023-04-17	2023-04-17
psSAR1g [W/kg]	9.95	10.1
psSAR8g [W/kg]	5.62	5.77
psSAR10g [W/kg]	5.14	5.32
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01



Date: 4/21/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1900 MHz Verification Input Power 250 mW 2023-04-21.da52:0

DUT: Dipole 1900 MHz D1900V2, Type: D1900V2, Serial: D1900V2 - SN:5d248

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.392 S/m; ε_r = 38.312; ρ = 1000 kg/m^3
Phantom section: Flat Section

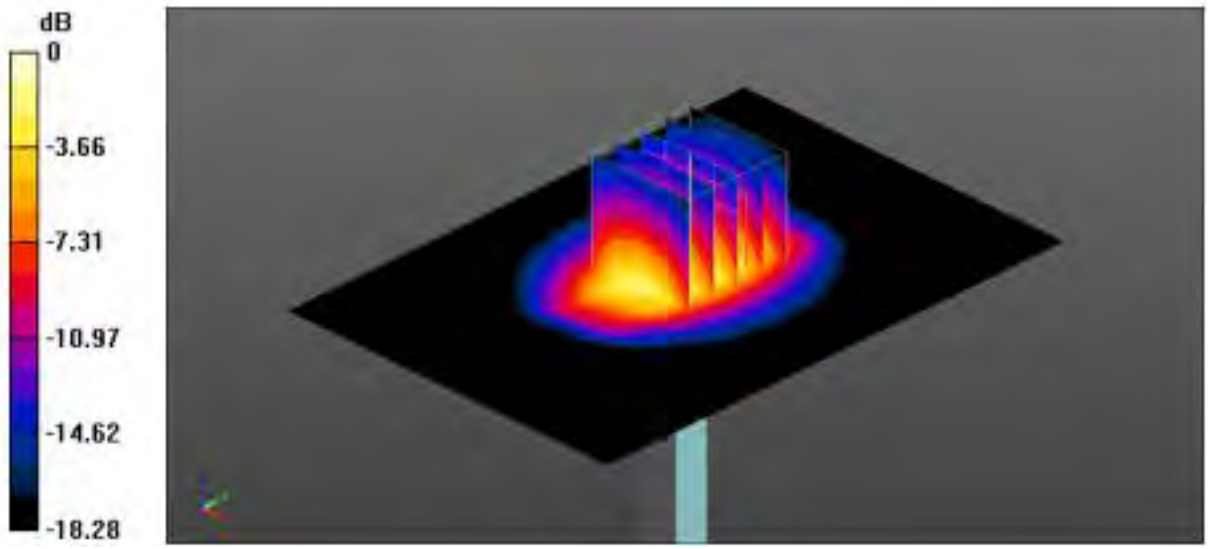
DASY5 Configuration:

- 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 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check/1900 MHz Verification Input Power 250 mW 2023-04-21/Area Scan (8x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 11.1 W/kg

System Performance Check/1900 MHz Verification Input Power 250 mW 2023-04-21/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 105.5 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 17.6 W/kg
SAR(1 g) = 9.5 W/kg; SAR(10 g) = 4.98 W/kg

Maximum value of SAR (measured) = 14.5 W/kg



0 dB = 14.5 W/kg = 11.61 dBW/kg

Date: 5/18/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1900 MHz Verification Input Power 250 mW 2023-05-18.da52:0

DUT: Dipole 1900 MHz D1900V2, Type: D1900V2, Serial: D1900V2 - SN:5d248

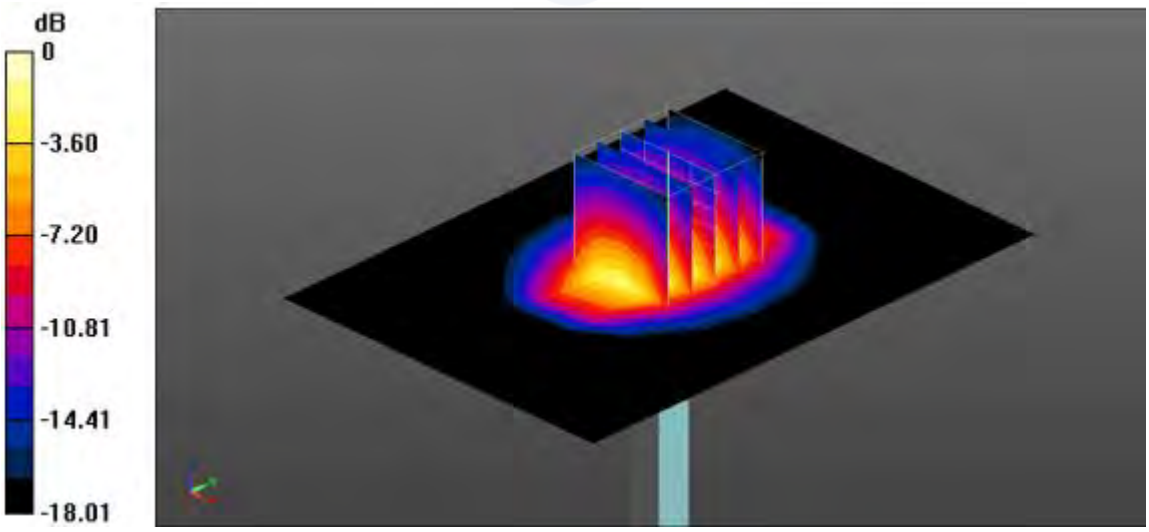
Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.408 S/m; ε_r = 40.119; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.59, 7.59, 7.59) @ 1900 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

System Performance Check/1900 MHz Verification Input Power 250 mW 2023-05-18/Area Scan (8x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 11.3 W/kg

System Performance Check/1900 MHz Verification Input Power 250 mW 2023-05-18/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 109.3 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 18.8 W/kg
SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.34 W/kg
Maximum value of SAR (measured) = 15.6 W/kg



0 dB = 15.6 W/kg = 11.93 dBW/kg

Date: 4/26/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 3500 MHz Verification Input Power 100 mW 2023-04-26.da52:0

DUT: Dipole 3500 MHz D3500V2, Type: D3500V2, Serial: D3500V2 - SN:1146

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1
Medium parameters used: f = 3500 MHz; σ = 2.821 S/m; ε_r = 36.623; ρ = 1000 kg/m^3
Phantom section: Flat Section

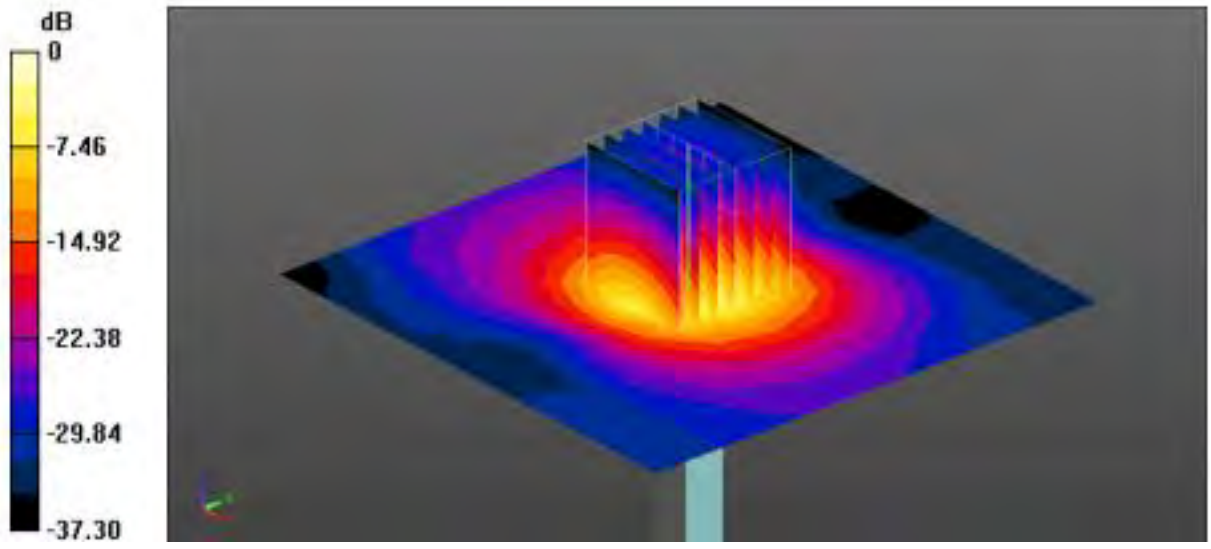
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(6.7, 6.7, 6.7) @ 3500 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3500 MHz Verification Input Power 100 mW 2023-04-26/Area Scan (11x11x1):
Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 12.8 W/kg

Configuration/3500 MHz Verification Input Power 100 mW 2023-04-26/Zoom Scan (7x7x8)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
Reference Value = 71.97 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 17.0 W/kg
SAR(1 g) = 6.45 W/kg; SAR(10 g) = 2.42 W/kg

Maximum value of SAR (measured) = 12.7 W/kg



0 dB = 12.7 W/kg = 11.04 dBW/kg

Date: 4/26/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 3700 MHz Verification Input Power 100 mW 2023-04-26.da52:0

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

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1
Medium parameters used: f = 3700 MHz; σ = 3.022 S/m; ε_r = 36.293; ρ = 1000 kg/m^3
Phantom section: Flat Section

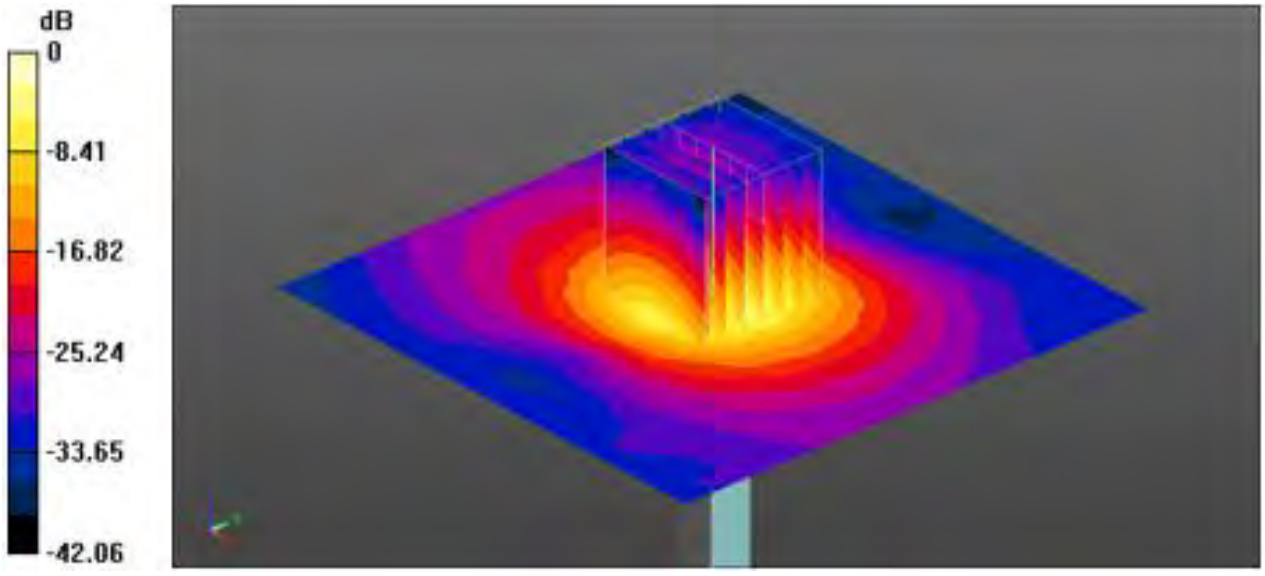
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(6.54, 6.54, 6.54) @ 3700 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3700 MHz Verification Input Power 100 mW 2023-04-26/Area Scan (11x11x1):
Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 13.4 W/kg

Configuration/3700 MHz Verification Input Power 100 mW 2023-04-26/Zoom Scan (7x7x8)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
Reference Value = 70.85 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 17.9 W/kg
SAR(1 g) = 6.78 W/kg; SAR(10 g) = 2.54 W/kg

Maximum value of SAR (measured) = 13.2 W/kg



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

Date: 4/26/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 3900 MHz Verification Input Power 100 mW 2023-04-26.da52:0

DUT: Dipole 3900 MHz D3900V2, Type: D3900V2, Serial: D3900V2 - SN:1037

Communication System: UID 0, CW (0); Frequency: 3900 MHz; Duty Cycle: 1:1
Medium parameters used: f = 3900 MHz; σ = 3.227 S/m; ε_r = 35.966; ρ = 1000 kg/m^3
Phantom section: Flat Section

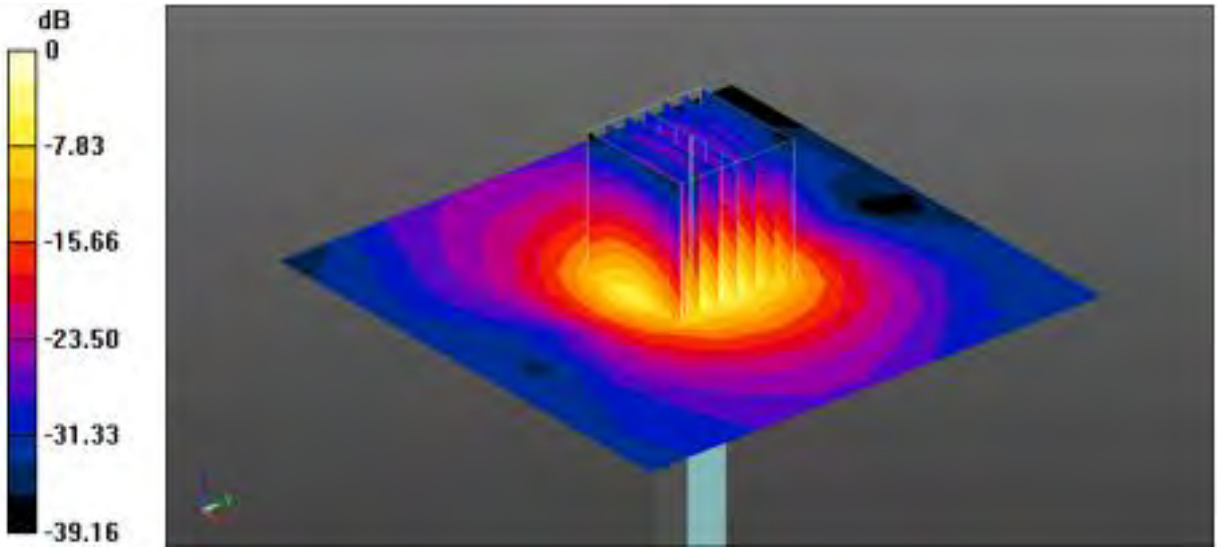
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(6.51, 6.51, 6.51) @ 3900 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/3900 MHz Verification Input Power 100 mW 2023-04-26/Area Scan (11x11x1):
Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 13.7 W/kg

Configuration/3900 MHz Verification Input Power 100 mW 2023-04-26/Zoom Scan (7x7x8)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
Reference Value = 70.84 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 17.7 W/kg
SAR(1 g) = 7.06 W/kg; SAR(10 g) = 2.65 W/kg

Maximum value of SAR (measured) = 13.5 W/kg



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

18. Test Results

1)

Date: 4/11/2023

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

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

Communication System: UID 0, W-CDMA 1900 (Band 2) (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1852.4 MHz; σ = 1.348 S/m; ε_r = 39.045; ρ = 1000 kg/m^3
Phantom section: Flat Section

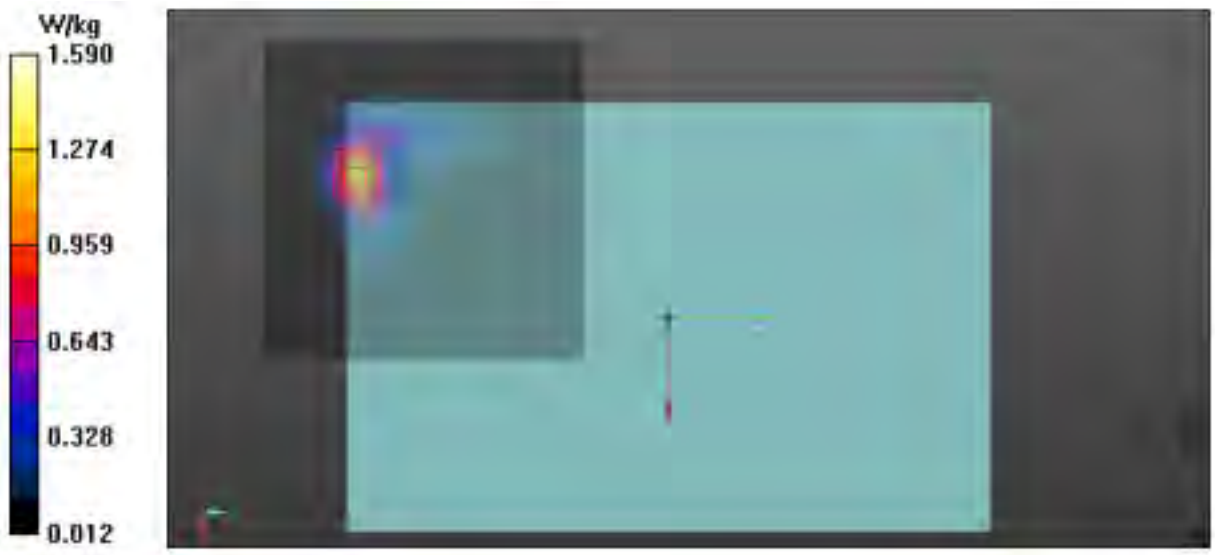
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.33, 8.33, 8.33) @ 1852.4 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WCDMA_FDD II_CH9262_Rear_0 mm/Area Scan (11x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.51 W/kg

Configuration/WCDMA_FDD II_CH9262_Rear_0 mm/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.91 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 2.12 W/kg
SAR(1 g) = 0.954 W/kg; SAR(10 g) = 0.441 W/kg

Maximum value of SAR (measured) = 1.59 W/kg



2)

Date: 5/19/2023

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

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

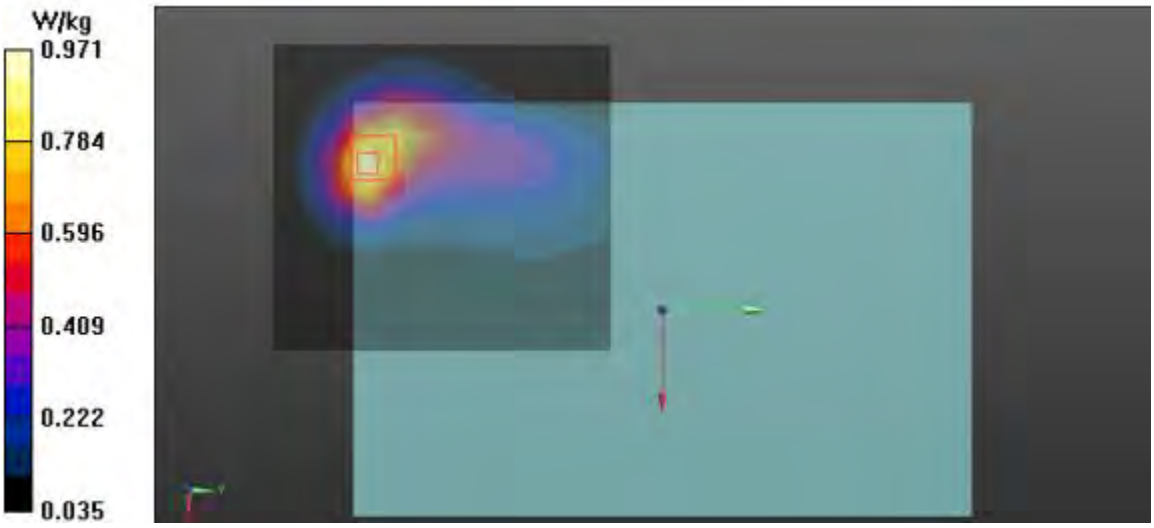
Communication System: UID 0, W-CDMA 1700 (Band 4) (0); Frequency: 1752.6 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1752.6 MHz; σ = 1.412 S/m; ε_r = 40.871; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.97, 7.97, 7.97) @ 1752.6 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WCDMA_FDD IV_CH1513_Rear_12 mm/Area Scan (11x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.986 W/kg

Configuration/WCDMA_FDD IV_CH1513_Rear_12 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.71 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.15 W/kg
SAR(1 g) = 0.684 W/kg; SAR(10 g) = 0.418 W/kg
Maximum value of SAR (measured) = 0.971 W/kg



3)

Date: 4/10/2023

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

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

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 = 0.885 S/m; ε_r = 41.352; ρ = 1000 kg/m^3
Phantom section: Flat Section

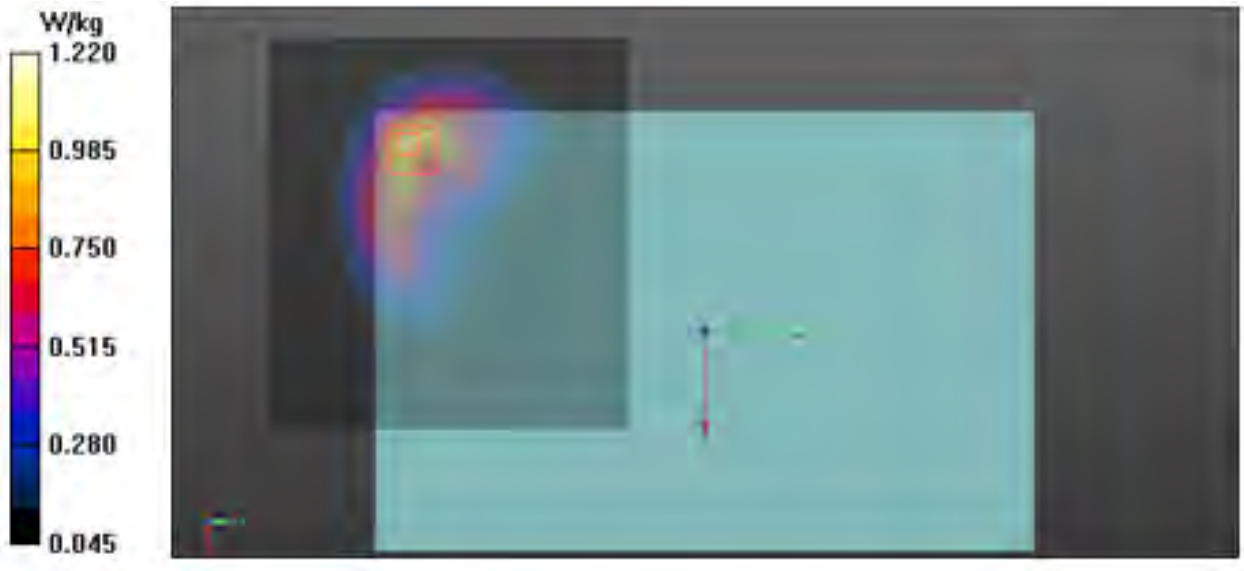
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(9.95, 9.95, 9.95) @ 836.6 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WCDMA_FDD V_CH4183_Rear_0 mm/Area Scan (13x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.04 W/kg

Configuration/WCDMA_FDD V_CH4183_Rear_0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.54 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.44 W/kg
SAR(1 g) = 0.826 W/kg; SAR(10 g) = 0.518 W/kg

Maximum value of SAR (measured) = 1.22 W/kg



4)

Date: 4/11/2023

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

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

Communication System: UID 0, LTE Band 2 (0); Frequency: 1860 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1860 MHz; σ = 1.357 S/m; ε_r = 40.861; ρ = 1000 kg/m^3
Phantom section: Flat Section

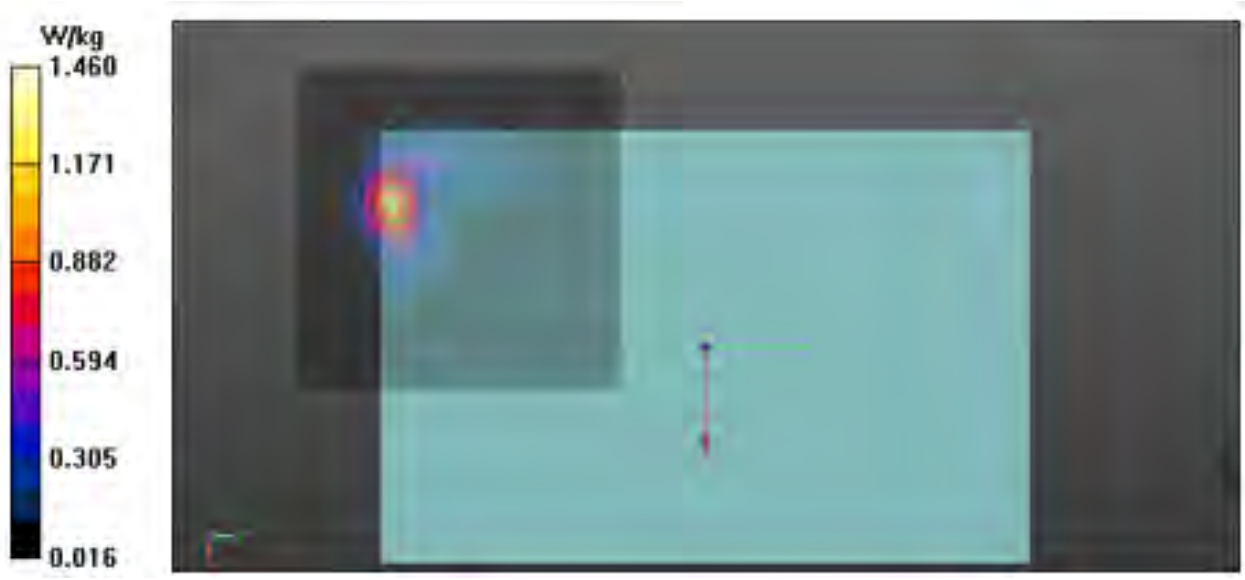
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.33, 8.33, 8.33) @ 1860 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 2_QPSK_20MHz_50RB_24offset_CH18700_Rear 0 mm/Area Scan (11x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.41 W/kg

Configuration/LTE Band 2_QPSK_20MHz_50RB_24offset_CH18700_Rear 0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.67 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.98 W/kg
SAR(1 g) = 0.881 W/kg; SAR(10 g) = 0.409 W/kg

Maximum value of SAR (measured) = 1.46 W/kg



5)

Date: 4/21/2023

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

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

Communication System: UID 0, LTE Band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.371 S/m; ε_r = 38.38; ρ = 1000 kg/m^3
Phantom section: Flat Section

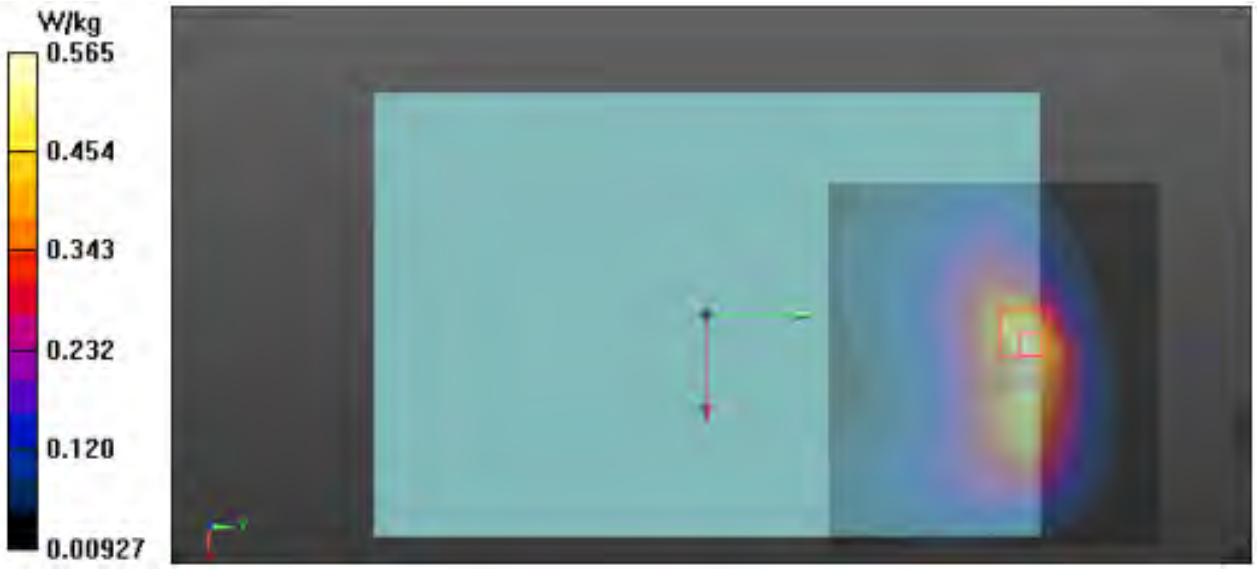
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.33, 8.33, 8.33) @ 1880 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 2_QPSK_20MHz_1RB_49offset_CH18900_Rear 12 mm/Area Scan (12x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.609 W/kg

Configuration/LTE Band 2_QPSK_20MHz_1RB_49offset_CH18900_Rear 12 mm/Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.58 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.747 W/kg
SAR(1 g) = 0.382 W/kg; SAR(10 g) = 0.208 W/kg

Maximum value of SAR (measured) = 0.565 W/kg



6)

Date: 4/10/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2. LTE Band 5_QPSK_10 MHz_Notebook.da53:0

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

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 = 0.885 S/m; ε_r = 41.353; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

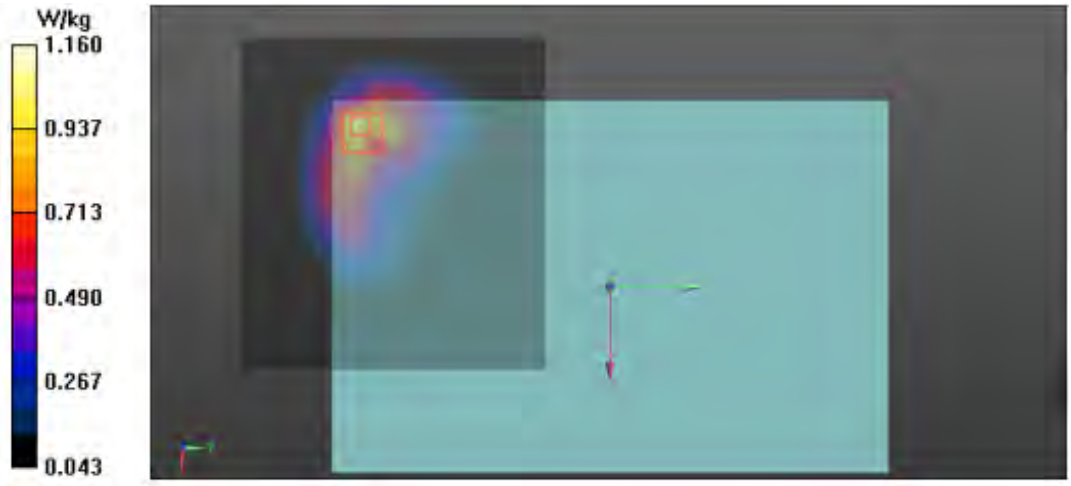
- Probe: EX3DV4 - SN7541;ConvF(9.95, 9.95, 9.95) @ 836.5 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 5_QPSK_10MHz_50RB_0offset_CH20525_Rear 0 mm/Area Scan (13x12x1):
Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.997 W/kg

Configuration/LTE Band 5_QPSK_10MHz_50RB_0offset_CH20525_Rear 0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.71 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.36 W/kg
SAR(1 g) = 0.786 W/kg; SAR(10 g) = 0.493 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.16 W/kg



7)

Date: 4/13/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. LTE Band 12_QPSK_10 MHz_Notebook.da53:0

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium parameters used: f = 707.5 MHz; σ = 0.868 S/m; ε_r = 43.206; ρ = 1000 kg/m^3
Phantom section: Flat Section

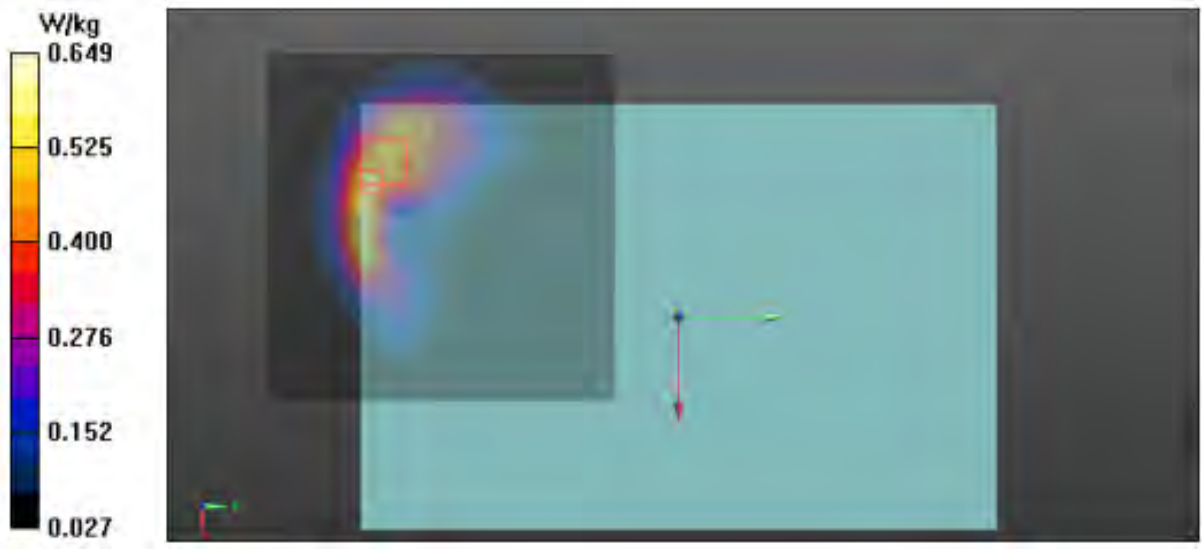
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(10.3, 10.3, 10.3) @ 707.5 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 12_QPSK_10MHz_25RB_25offset_CH23095_Rear 0 mm/Area Scan (12x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.599 W/kg

Configuration/LTE Band 12_QPSK_10MHz_25RB_25offset_CH23095_Rear 0 mm/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.50 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.780 W/kg
SAR(1 g) = 0.434 W/kg; SAR(10 g) = 0.269 W/kg

Maximum value of SAR (measured) = 0.649 W/kg



8)

Date: 4/20/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. LTE Band 14_QPSK_10 MHz_Notebook.da53:1

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300355W

Communication System: UID 0, LTE Band 14 (0); Frequency: 793 MHz; Duty Cycle: 1:1
Medium parameters used: f = 793 MHz; σ = 0.894 S/m; ε_r = 41.223; ρ = 1000 kg/m^3
Phantom section: Flat Section

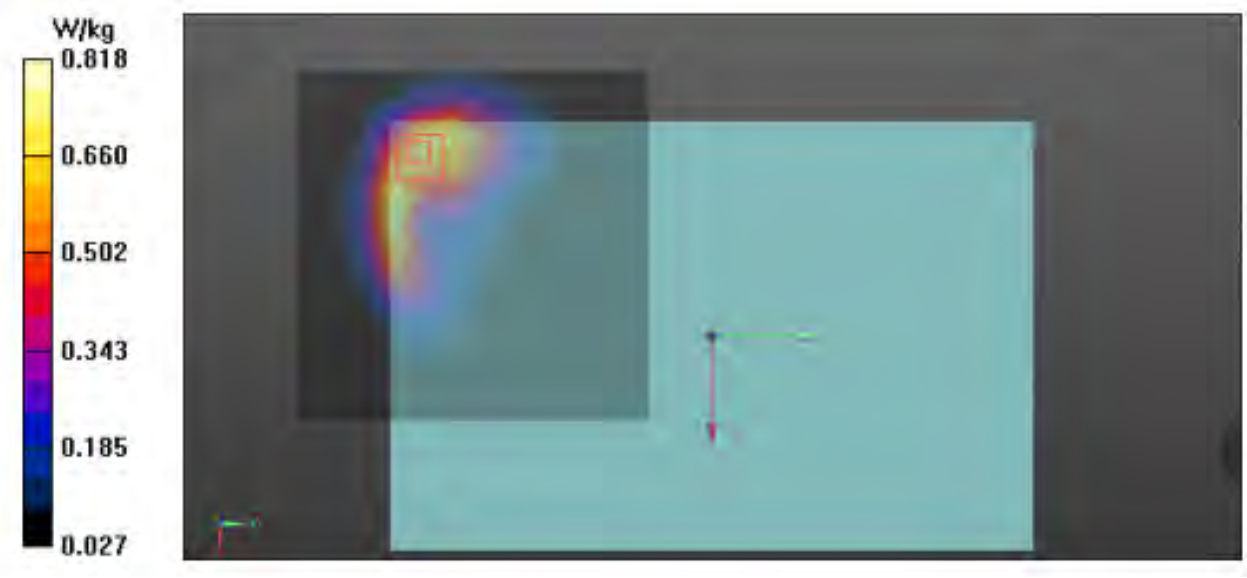
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(10.3, 10.3, 10.3) @ 793 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration 2/LTE Band 14_QPSK_10MHz_1RB_0offset_CH23330_Rear 0 mm/Area Scan (12x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.763 W/kg

Configuration 2/LTE Band 14_QPSK_10MHz_1RB_0offset_CH23330_Rear 0 mm/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.25 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.985 W/kg
SAR(1 g) = 0.583 W/kg; SAR(10 g) = 0.360 W/kg

Maximum value of SAR (measured) = 0.818 W/kg



9)

Date: 5/19/2023

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

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

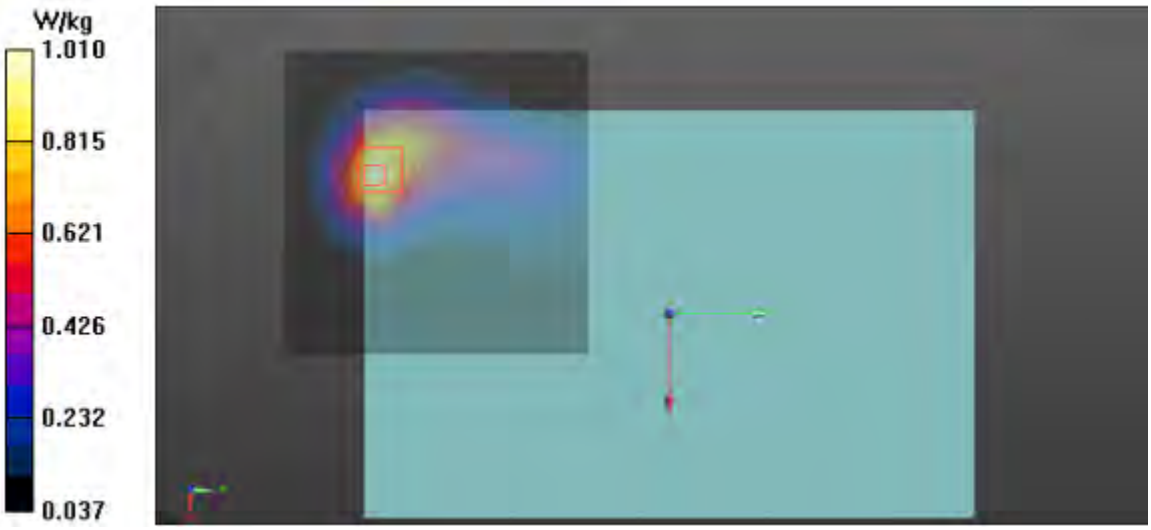
Communication System: UID 0, LTE Band 66 (0); Frequency: 1745 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.41 S/m; ε_r = 40.872; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.97, 7.97, 7.97) @ 1745 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 66_QPSK_20MHz_1RB_0offset_CH132322_Rear 12 mm/Area Scan (11x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.03 W/kg

Configuration/LTE Band 66_QPSK_20MHz_1RB_0offset_CH132322_Rear 12 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.97 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.24 W/kg
SAR(1 g) = 0.730 W/kg; SAR(10 g) = 0.443 W/kg
Maximum value of SAR (measured) = 1.01 W/kg



10)

Date: 4/22/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. LTE Band 66_QPSK_20 MHz_Ant.2_Notebook.da53:1

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

Communication System: UID 0, LTE Band 66 (0); Frequency: 1745 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.335 S/m; ε_r = 39.766; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

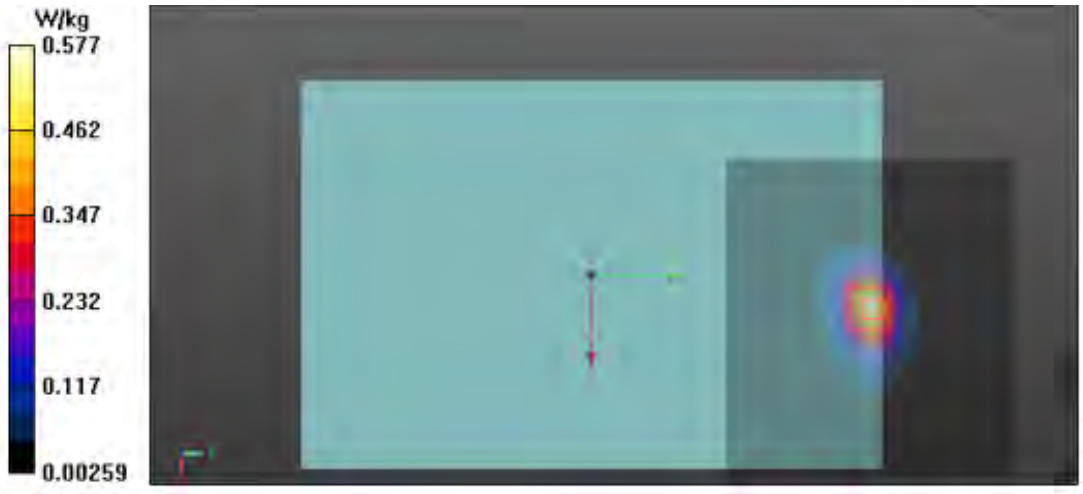
- Probe: EX3DV4 - SN7541;ConvF(8.83, 8.83, 8.83) @ 1745 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration 2/LTE Band 66_QPSK_20MHz_50RB_24offset_CH132322_Rear 0 mm/Area Scan (12x11x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.583 W/kg

Configuration 2/LTE Band 66_QPSK_20MHz_50RB_24offset_CH132322_Rear 0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.23 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.774 W/kg
SAR(1 g) = 0.346 W/kg; SAR(10 g) = 0.175 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.577 W/kg



11)

Date: 4/14/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. 5G NR n2_Ant.0_Notebook.da53:0

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

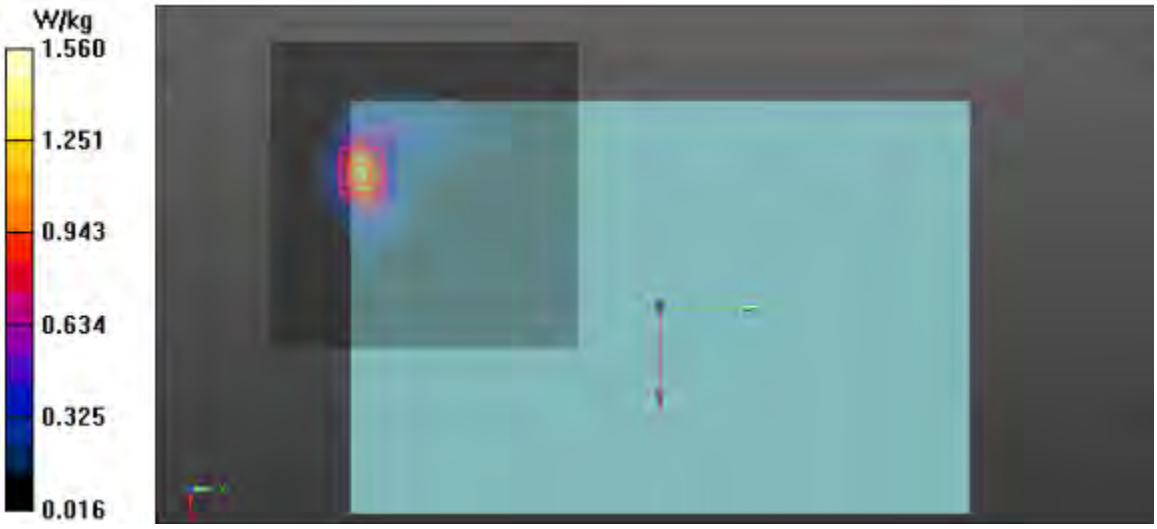
Communication System: UID 0, 5G Sub6 n2 (0); Frequency: 1860 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1860 MHz; σ = 1.385 S/m; ε_r = 38.965; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.33, 8.33, 8.33) @ 1860 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n2 CP-OFDM_QPSK_SCS 15kHz_20MHz 1RB 1offset_CH372000_Rear_0 mm/Area Scan (11x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.48 W/kg

Configuration/5G NR n2 CP-OFDM_QPSK_SCS 15kHz_20MHz 1RB 1offset_CH372000_Rear_0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.61 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 2.08 W/kg
SAR(1 g) = 0.933 W/kg; SAR(10 g) = 0.431 W/kg
Maximum value of SAR (measured) = 1.56 W/kg



12)

Date: 4/14/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2. 5G NR n2_Ant.2_Notebook.da53:0

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

Communication System: UID 0, 5G Sub6 n2 (0); Frequency: 1860 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1860 MHz; σ = 1.385 S/m; ε_r = 38.965; ρ = 1000 kg/m^3
Phantom section: Flat Section

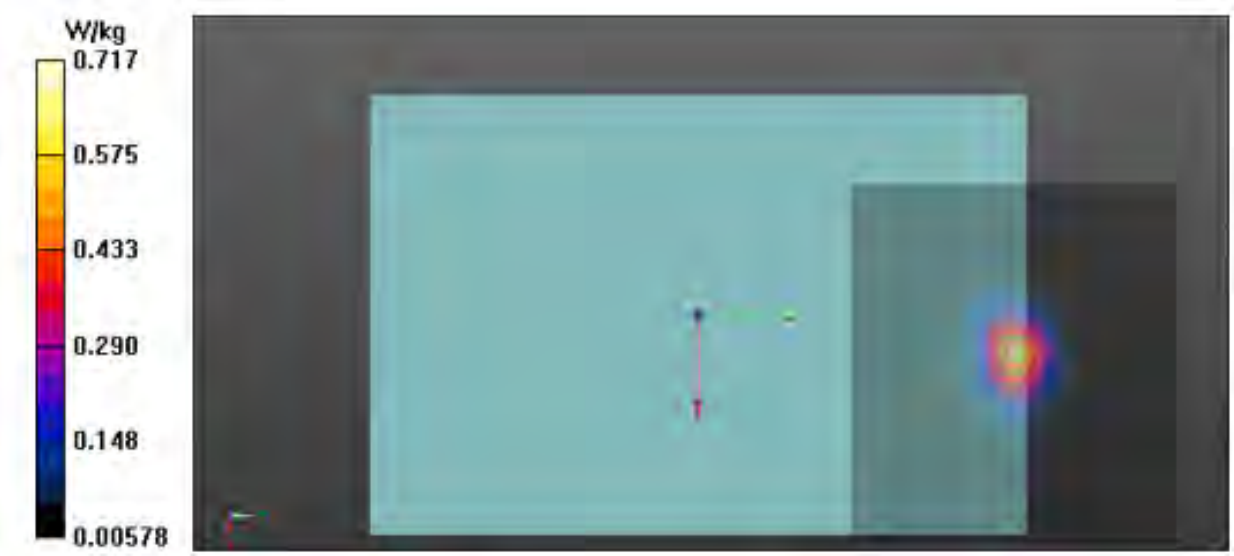
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.33, 8.33, 8.33) @ 1860 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n2 DFT-S-OFDM_QPSK_SCS 15kHz_20MHz 50RB 28offset_CH372000_Rear_0 mm/Area Scan (12x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.662 W/kg

Configuration/5G NR n2 DFT-S-OFDM_QPSK_SCS 15kHz_20MHz 50RB 28offset_CH372000_Rear_0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.66 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.917 W/kg
SAR(1 g) = 0.422 W/kg; SAR(10 g) = 0.210 W/kg

Maximum value of SAR (measured) = 0.717 W/kg



13)

Date: 4/10/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 3. 5G NR n5_Ant.0_Notebook.da53:0

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

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 = 0.885 S/m; ε_r = 41.353; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

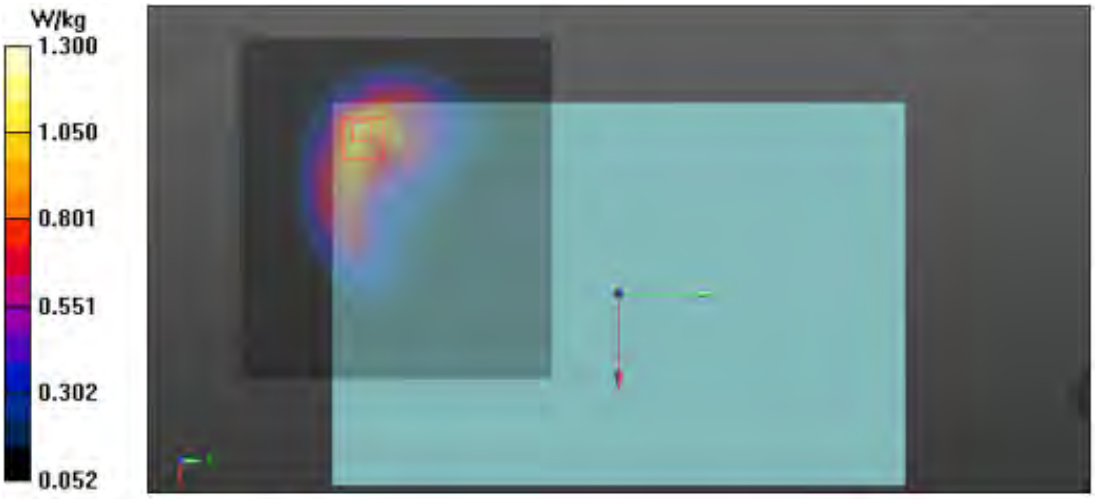
- Probe: EX3DV4 - SN7541;ConvF(9.95, 9.95, 9.95) @ 836.5 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n5 DFT-S-OFDM_QPSK_SCS 15kHz_20MHz 1RB 53offset_CH167300_Rear_0 mm/Area Scan (13x12x1): Measurement grid: dx=15mm, dy=15mm

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

Configuration/5G NR n5 DFT-S-OFDM_QPSK_SCS 15kHz_20MHz 1RB 53offset_CH167300_Rear_0 mm/Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 36.72 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.51 W/kg
SAR(1 g) = 0.894 W/kg; SAR(10 g) = 0.571 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.30 W/kg



14)

Date: 5/19/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 3. 5G NR n66_Ant.0_Notebook.da53:0

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

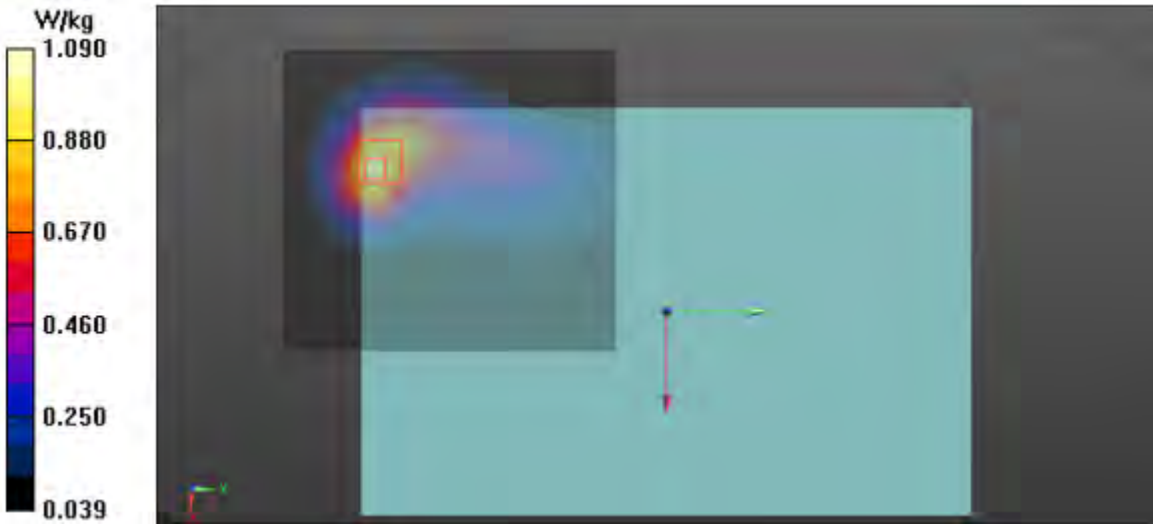
Communication System: UID 0, 5G Sub6 n66 (0); Frequency: 1745 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.41 S/m; ε_r = 40.872; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3697;ConvF(7.97, 7.97, 7.97) @ 1745 MHz; Calibrated: 4/13/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n66 DFT-S-OFDM_QPSK_SCS 15kHz_30MHz 80RB 40offset_CH349000_Rear_12 mm/Area Scan (11x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.07 W/kg

Configuration/5G NR n66 DFT-S-OFDM_QPSK_SCS 15kHz_30MHz 80RB 40offset_CH349000_Rear_12 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.10 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 1.28 W/kg
SAR(1 g) = 0.761 W/kg; SAR(10 g) = 0.466 W/kg
Maximum value of SAR (measured) = 1.09 W/kg



15)

Date: 4/15/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2. 5G NR n66_Ant.2_Notebook.da53:1

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

Communication System: UID 0, 5G Sub6 n66 (0); Frequency: 1745 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.38 S/m; ε_r = 38.547; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

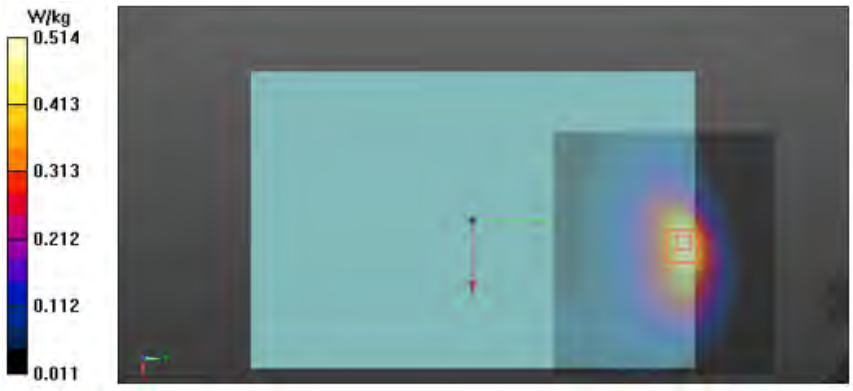
- Probe: EX3DV4 - SN7541;ConvF(8.83, 8.83, 8.83) @ 1745 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration 2/5G NR n66 DFT-S-OFDM_QPSK_SCS 15kHz_30MHz 80RB 40offset_CH349000_Rear_12 mm/Area Scan (12x11x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.517 W/kg

Configuration 2/5G NR n66 DFT-S-OFDM_QPSK_SCS 15kHz_30MHz 80RB 40offset_CH349000_Rear_12 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.89 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.623 W/kg
SAR(1 g) = 0.352 W/kg; SAR(10 g) = 0.214 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.514 W/kg



16)

Date: 4/26/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. 5G NR n77_Notebook.da53:1

DUT: NP935QNA, Type: Notebook, Serial: KQZZ930W300218X

Communication System: UID 0, 5G Sub6 n77 (0); Frequency: 3930 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 3930 MHz; σ = 3.259 S/m; ε_r = 35.921; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

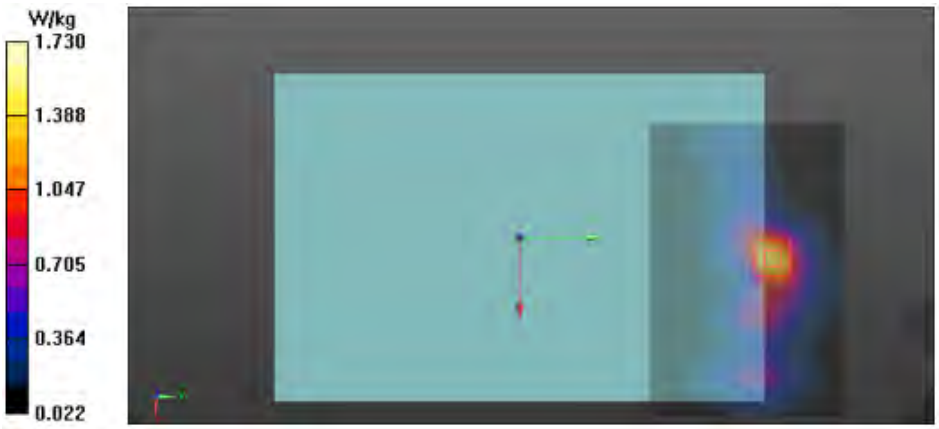
- Probe: EX3DV4 - SN7541;ConvF(6.51, 6.51, 6.51) @ 3930 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration 2/5G NR n77_DFT-S-OFDM_QPSK_100MHz_135RB_69offset_CH662000_Rear_12 mm/Area Scan (16x11x1): Measurement grid: dx=12mm, dy=12mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.56 W/kg

Configuration 2/5G NR n77_DFT-S-OFDM_QPSK_100MHz_135RB_69offset_CH662000_Rear_12 mm/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
Reference Value = 23.03 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 2.35 W/kg
SAR(1 g) = 0.949 W/kg; SAR(10 g) = 0.427 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.73 W/kg



17)

Eurofins KCTL Co.,Ltd.

Measurement Report for NP935QNA, BACK, Custom Band, UID 0 -, Channel 9538 (1907.6MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
NP935QNA, SAMSUNG	302.0 x 202.0 x 11.0	KQZZ930W300355W	Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0--	1907.6, 9538	8.55	1.45	39.4

Hardware Setup

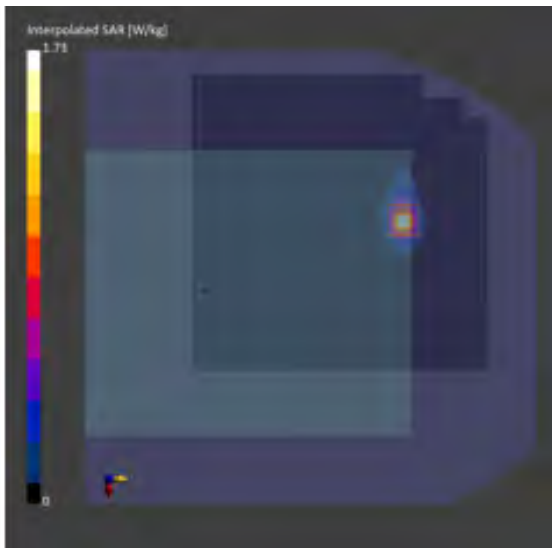
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1173	HBBL-600-10000 , 2023-Apr-17	EX3DV4 - SN7540, 2022-04-29	DAE4 Sn666, 2023-01-23

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2023-04-17	2023-04-17
psSAR1g [W/kg]	0.733	0.737
psSAR8g [W/kg]	0.342	0.334
psSAR10g [W/kg]	0.302	0.299
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.04



18)

Eurofins KCTL Co.,Ltd.

Measurement Report for NP935QNA, EDGE LEFT, Custom Band, UID 0 -, Channel 1412 (1732.4MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
NP935QNA, SAMSUNG	202.0 x 302.0 x 11.0	KQZZ930W300355W	Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE LEFT, 0.00	Custom Band	CW, 0--	1732.4, 1412	7.99	1.40	41.1

Hardware Setup

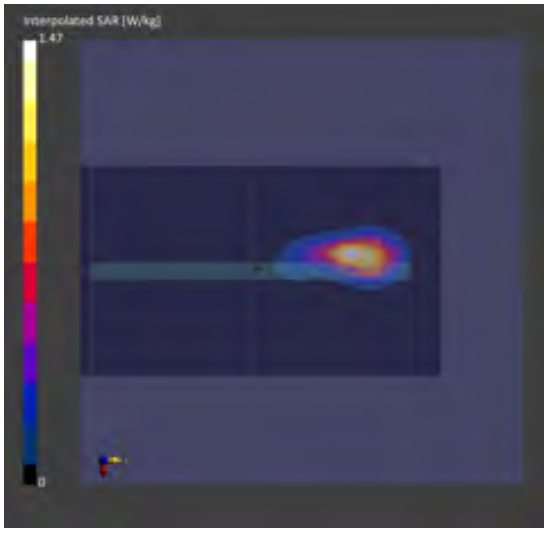
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1173	HBBL-600-10000 , 2023-Apr-19	EX3DV4 - SN7770, 2022-11-18	DAE4 Sn666, 2023-01-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	132.0 x 240.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	11.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-04-19	2023-04-19
psSAR1g [W/kg]	0.501	0.516
psSAR8g [W/kg]	0.274	0.259
psSAR10g [W/kg]	0.250	0.237
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01



19)

Eurofins KCTL Co.,Ltd.

Measurement Report for NP935QNAA, BACK, Custom Band, UID 0 -, Channel 4183 (836.6MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
NP935QNA, SAMSUNG	302.0 x 202.0 x 11.0	KQZZ930W300355W	Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0--	836.6, 4183	9.73	0.899	41.9

Hardware Setup

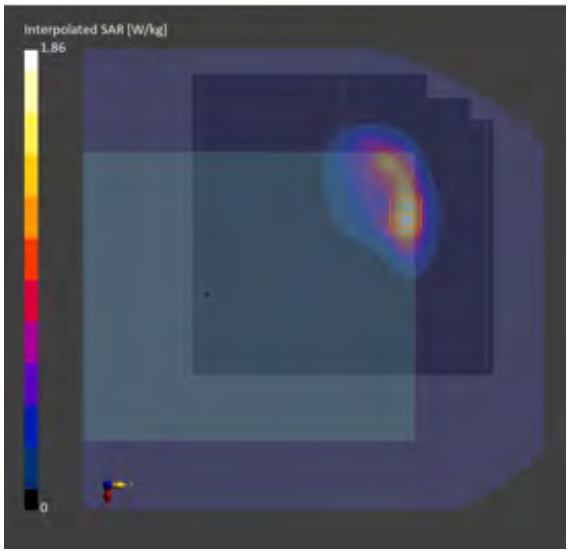
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1173	HBBL-600-10000 , 2023-Apr-13	EX3DV4 - SN7540, 2022-04-29	DAE4 Sn666, 2023-01-23

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2023-04-13	2023-04-13
psSAR1g [W/kg]	0.949	0.961
psSAR8g [W/kg]	0.590	0.549
psSAR10g [W/kg]	0.546	0.509
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.02



20)
Eurofins KCTL Co.,Ltd.

Measurement Report for NP935QNA, BACK, Custom Band, UID 0 -, Channel 19100 (1900.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
NP935QNA, SAMSUNG	302.0 x 202.0 x 11.0	KQZZ930W300355W	Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0--	1900.0, 19100	8.55	1.45	39.5

Hardware Setup

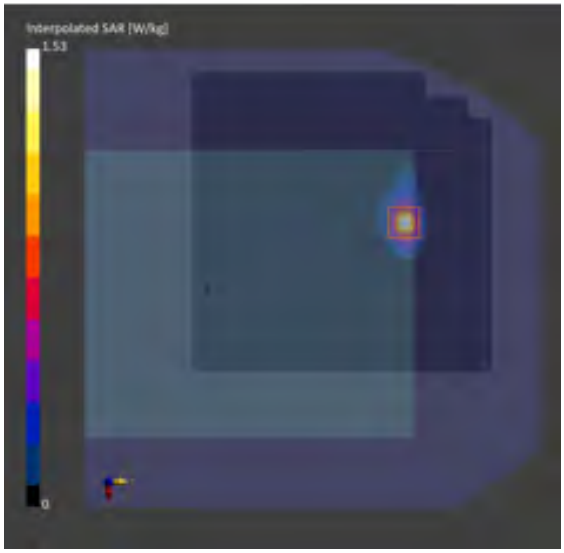
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1173	HBBL-600-10000 , 2023-Apr-17	EX3DV4 - SN7540, 2022-04-29	DAE4 Sn666, 2023-01-23

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2023-04-17	2023-04-17
psSAR1g [W/kg]	0.663	0.694
psSAR8g [W/kg]	0.315	0.324
psSAR10g [W/kg]	0.279	0.291
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.05



21)

Date: 4/21/2023

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

DUT: NP935QNA, Type: Tablet, Serial: KQZZ930W300218X

Communication System: UID 0, LTE Band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.371 S/m; ε_r = 38.38; ρ = 1000 kg/m^3
Phantom section: Flat Section

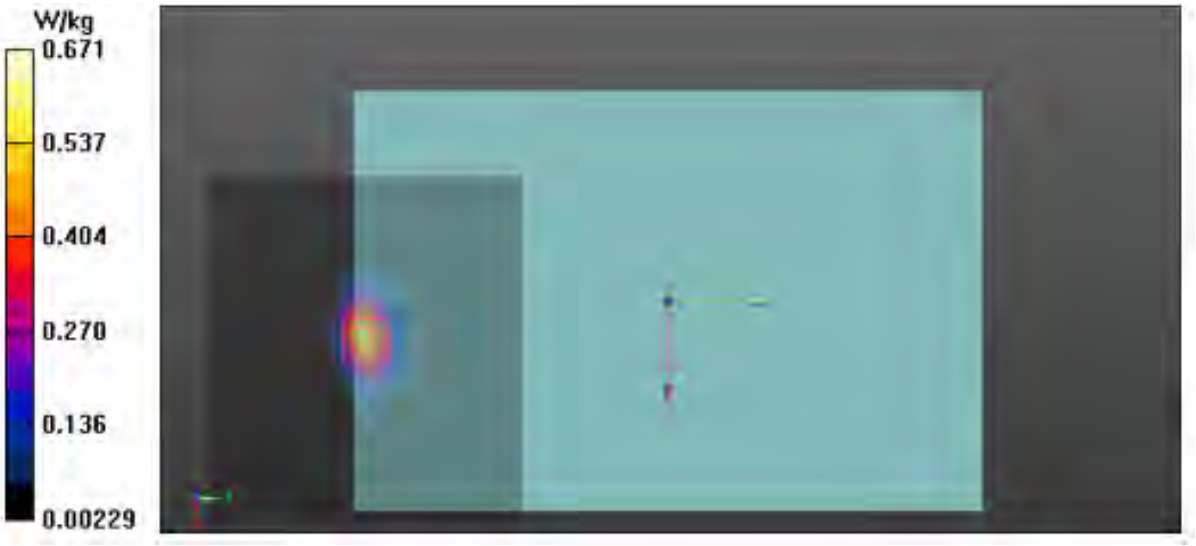
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.33, 8.33, 8.33) @ 1880 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 2_QPSK_20MHz_50RB_0offset_CH18900_Rear 0 mm/Area Scan (12x11x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.686 W/kg

Configuration/LTE Band 2_QPSK_20MHz_50RB_0offset_CH18900_Rear 0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.14 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.981 W/kg
SAR(1 g) = 0.379 W/kg; SAR(10 g) = 0.162 W/kg

Maximum value of SAR (measured) = 0.671 W/kg



22)

Eurofins KCTL Co.,Ltd.

Measurement Report for NP935QNA, BACK, Custom Band, UID 0 -, Channel 20525 (836.5MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
NP935QNA, SAMSUNG	302.0 x 202.0 x 11.0	KQZZ930W300355W	Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0--	836.5, 20525	9.73	0.899	41.9

Hardware Setup

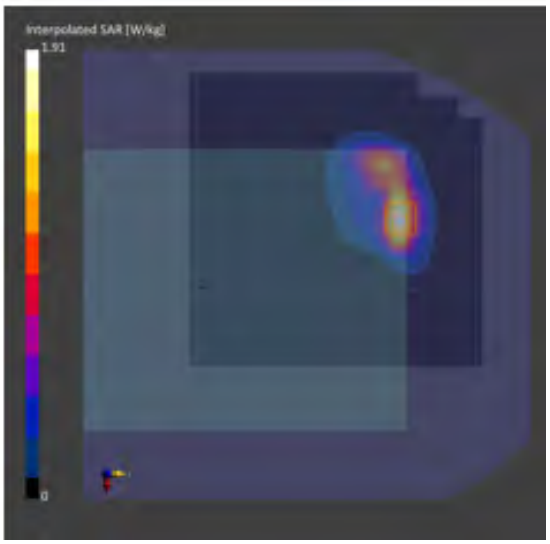
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1173	HBBL-600-10000 , 2023-Apr-13	EX3DV4 - SN7540, 2022-04-29	DAE4 Sn666, 2023-01-23

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2023-04-13	2023-04-13
psSAR1g [W/kg]	0.974	0.999
psSAR8g [W/kg]	0.609	0.573
psSAR10g [W/kg]	0.564	0.531
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.00



23)

Eurofins KCTL Co.,Ltd.

Measurement Report for NP935QNA, BACK, Custom Band, UID 0 -, Channel 23095 (707.5MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
NP935QNA, SAMSUNG	302.0 x 202.0 x 11.0	KQZZ930W300355W	Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0--	707.5, 23095	8.92	0.875	42.1

Hardware Setup

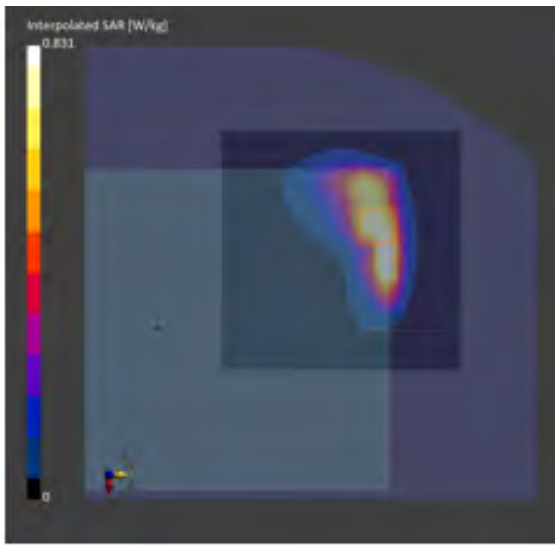
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1173	HBBL-600-10000 , 2023-Apr-20	EX3DV4 - SN7770, 2022-11-18	DAE4 Sn666, 2023-01-23

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2023-04-20	2023-04-20
psSAR1g [W/kg]	0.241	0.335
psSAR8g [W/kg]	0.164	0.179
psSAR10g [W/kg]	0.155	0.165
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.02



24)

Eurofins KCTL Co.,Ltd.

Measurement Report for NP935QNA, BACK, Custom Band, UID 0 -, Channel 23330 (793.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
NP935QNA, SAMSUNG	302.0 x 202.0 x 11.0	KQZZ930W300355W	Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0--	793.0, 23330	8.92	0.899	41.9

Hardware Setup

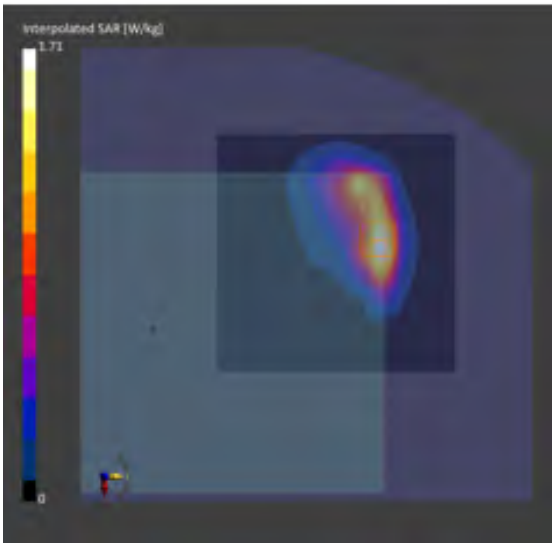
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1173	HBBL-600-10000 , 2023-Apr-20	EX3DV4 - SN7770, 2022-11-18	DAE4 Sn666, 2023-01-23

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2023-04-20	2023-04-20
psSAR1g [W/kg]	0.744	0.839
psSAR8g [W/kg]	0.474	0.481
psSAR10g [W/kg]	0.441	0.447
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		0.01



25)

Eurofins KCTL Co.,Ltd.

Measurement Report for NP935QNA, BACK, Custom Band, UID 0 -, Channel 132572 (1770.0MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
NP935QNA, SAMSUNG	302.0 x 202.0 x 11.0	KQZZ930W300355W	Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0--	1770.0, 132572	7.99	1.42	41.1

Hardware Setup

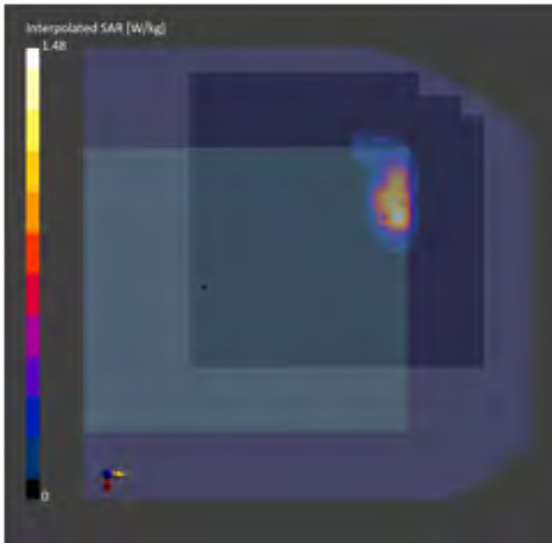
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1173	HBBL-600-10000 , 2023-Apr-19	EX3DV4 - SN7770, 2022-11-18	DAE4 Sn666, 2023-01-23

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2023-04-19	2023-04-19
psSAR1g [W/kg]	0.534	0.694
psSAR8g [W/kg]	0.300	0.341
psSAR10g [W/kg]	0.275	0.307
psAPD (1.0cm2, sq) [W/m2]		N/A
psAPD (4.0cm2, sq) [W/m2]		N/A
Power Drift [dB]		-0.03



26)

Date: 4/22/2023

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

DUT: NP935QNA, Type: Tablet, Serial: KQZZ930W300218X

Communication System: UID 0, LTE Band 66 (0); Frequency: 1770 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1770 MHz; σ = 1.361 S/m; ε_r = 39.642; ρ = 1000 kg/m^3
Phantom section: Flat Section

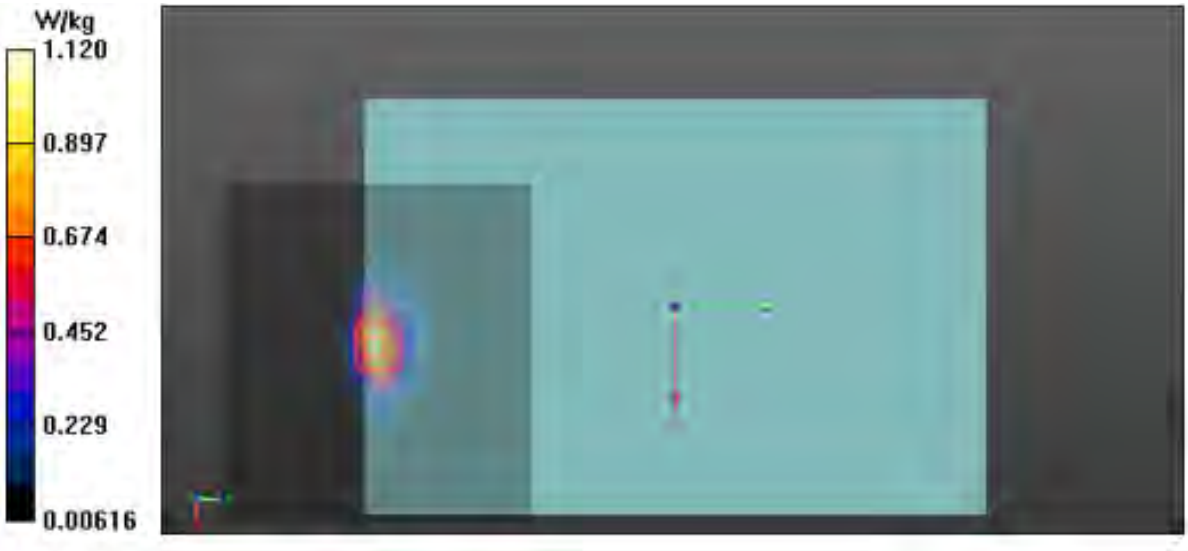
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.83, 8.83, 8.83) @ 1770 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/LTE Band 66_QPSK_20MHz_100RB_0offset_CH132572_Rear 0 mm/Area Scan (12x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.17 W/kg

Configuration/LTE Band 66_QPSK_20MHz_100RB_0offset_CH132572_Rear 0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.02 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.85 W/kg
SAR(1 g) = 0.676 W/kg; SAR(10 g) = 0.302 W/kg

Maximum value of SAR (measured) = 1.12 W/kg



27)

Date: 4/17/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. 5G NR n2_Ant.0_Tablet.da53:0

DUT: NP935QNA, Type: Tablet, Serial: KQZZ930W300218X

Communication System: UID 0, 5G Sub6 n2 (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.403 S/m; ε_r = 38.365; ρ = 1000 kg/m^3
Phantom section: Flat Section

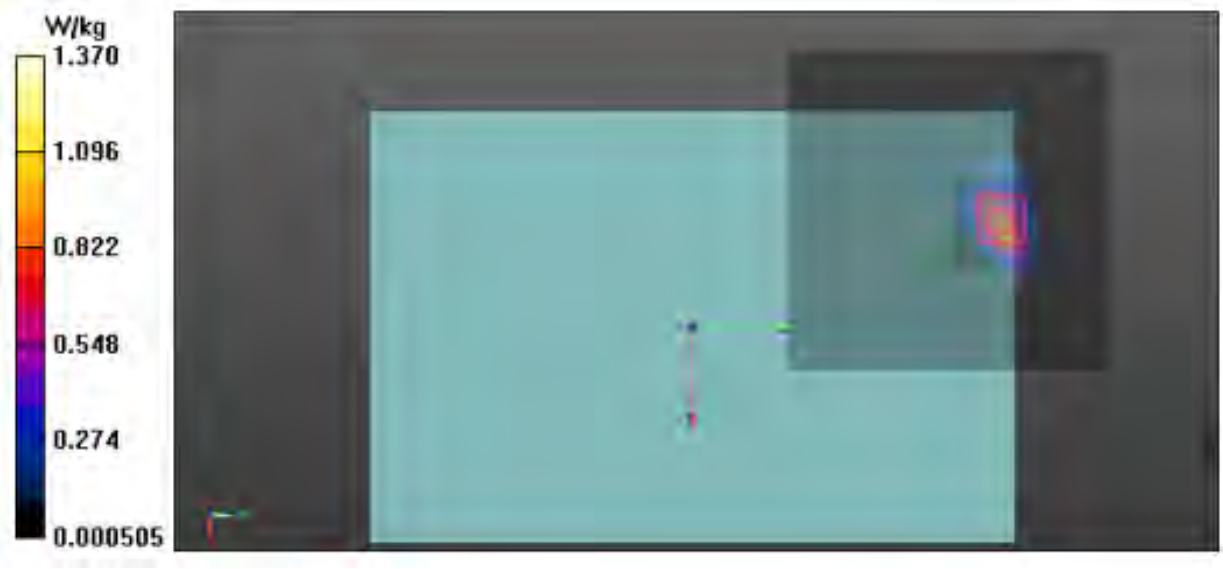
DASY5 Configuration:

- 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 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n2 DFT-S-OFDM_QPSK_SCS 15kHz_20MHz 1RB 1offset_CH380000_Rear_0 mm/Area Scan (11x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.914 W/kg

Configuration/5G NR n2 DFT-S-OFDM_QPSK_SCS 15kHz_20MHz 1RB 1offset_CH380000_Rear_0 mm/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 36.08 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 2.12 W/kg
SAR(1 g) = 0.824 W/kg; SAR(10 g) = 0.325 W/kg

Maximum value of SAR (measured) = 1.37 W/kg



28)

Date: 4/17/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2. 5G NR n2_Ant.2_Tablet.da53:0

DUT: NP935QNA, Type: Tablet, Serial: KQZZ930W300218X

Communication System: UID 0, 5G Sub6 n2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.381 S/m; ε_r = 38.434; ρ = 1000 kg/m^3
Phantom section: Flat Section

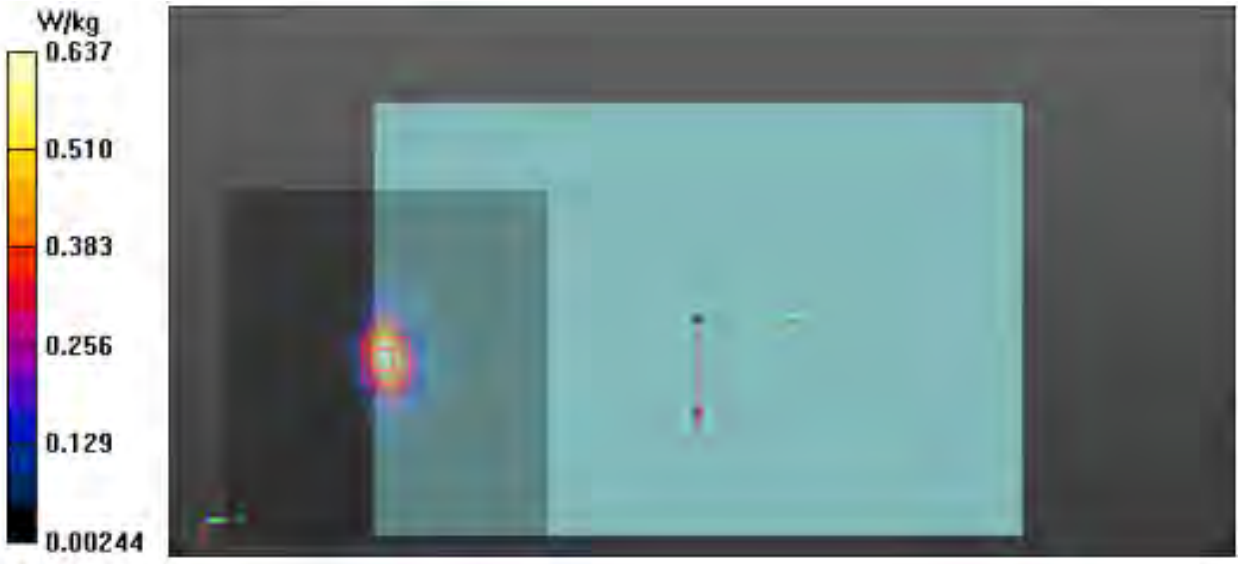
DASY5 Configuration:

- Probe: EX3DV4 - SN7541;ConvF(8.33, 8.33, 8.33) @ 1880 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n2 CP-OFDM_QPSK_SCS 15kHz_20MHz 1RB 1offset_CH376000_Rear_0 mm/Area Scan (12x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.743 W/kg

Configuration/5G NR n2 CP-OFDM_QPSK_SCS 15kHz_20MHz 1RB 1offset_CH376000_Rear_0 mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.30 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.419 W/kg; SAR(10 g) = 0.177 W/kg

Maximum value of SAR (measured) = 0.637 W/kg



29)

Date: 4/19/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. 5G NR n5_Ant.0_Tablet.da53:0

DUT: NP935QNA, Type: Tablet, Serial: KQZZ930W300218X

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 = 0.907 S/m; ε_r = 41.746; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

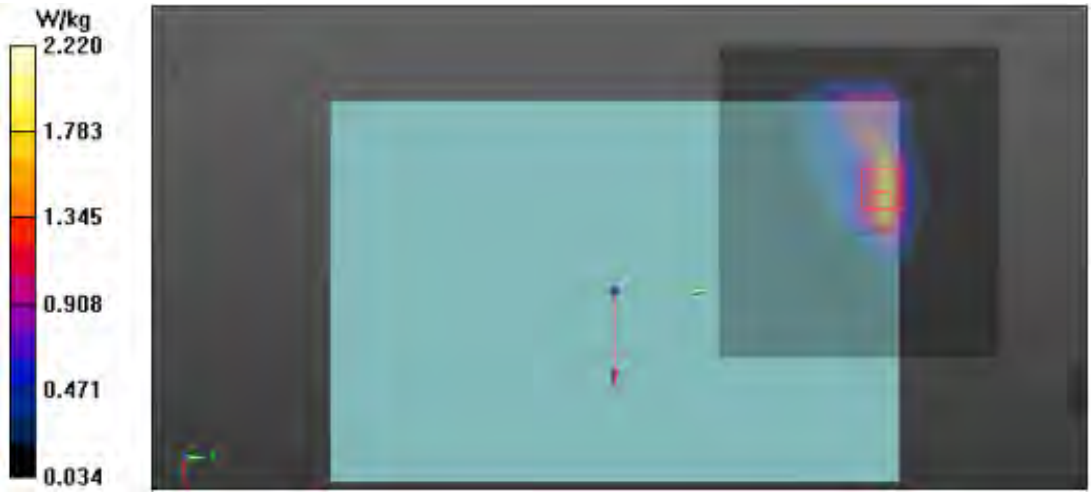
- Probe: EX3DV4 - SN7541;ConvF(9.95, 9.95, 9.95) @ 836.5 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n5 DFT-S-OFDM_QPSK_SCS 15kHz_20MHz 100RB 0offset_CH167300_Rear_0 mm/Area Scan (12x11x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.76 W/kg

Configuration/5G NR n5 DFT-S-OFDM_QPSK_SCS 15kHz_20MHz 100RB 0offset_CH167300_Rear_0 mm/Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 49.26 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 2.83 W/kg
SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.658 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.22 W/kg



30)

Date: 4/18/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 1. 5G NR n66_Ant.0_Tablet.da53:0

DUT: NP935QNA, Type: Tablet, Serial: KQZZ930W300218X

Communication System: UID 0, 5G Sub6 n66 (0); Frequency: 1745 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.388 S/m; ε_r = 40.006; 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 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n66 DFT-S-OFDM_QPSK_SCS 15kHz_30MHz 1RB 158offset_CH349000_Rear_0mm/Area Scan (11x11x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.873 W/kg

Configuration/5G NR n66 DFT-S-OFDM_QPSK_SCS 15kHz_30MHz 1RB 158offset_CH349000_Rear_0mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.92 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 2.21 W/kg
SAR(1 g) = 0.894 W/kg; SAR(10 g) = 0.369 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.72 W/kg

31)

Date: 4/18/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2. 5G NR n66_Ant.2_Tablet.da53:0

DUT: NP935QNA, Type: Tablet, Serial: KQZZ930W300218X

Communication System: UID 0, 5G Sub6 n66 (0); Frequency: 1745 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.388 S/m; ε_r = 40.006; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

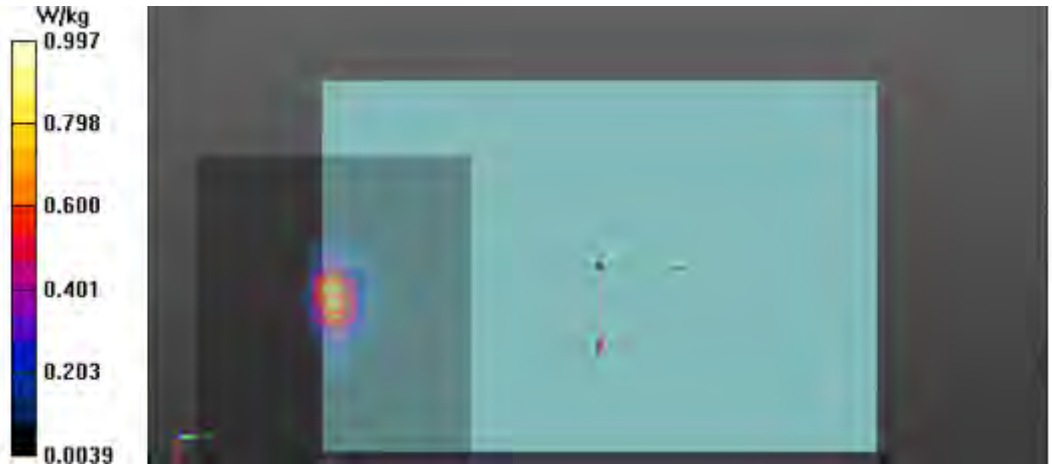
- Probe: EX3DV4 - SN7541;ConvF(8.83, 8.83, 8.83) @ 1745 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n66 CP-OFDM_QPSK_SCS 15kHz_30MHz 1RB 1offset_CH349000_Rear_0mm/Area Scan (12x11x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.991 W/kg

Configuration/5G NR n66 CP-OFDM_QPSK_SCS 15kHz_30MHz 1RB 1offset_CH349000_Rear_0mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.37 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.39 W/kg
SAR(1 g) = 0.537 W/kg; SAR(10 g) = 0.237 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.997 W/kg



32)

Date: 4/26/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: 2. 5G NR n77_Tablet.da53:0

DUT: NP935QNA, Type: Tablet, Serial: KQZZ930W300218X

Communication System: UID 0, 5G Sub6 n77 (0); Frequency: 3930 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 3930 MHz; σ = 3.259 S/m; ε_r = 35.921; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

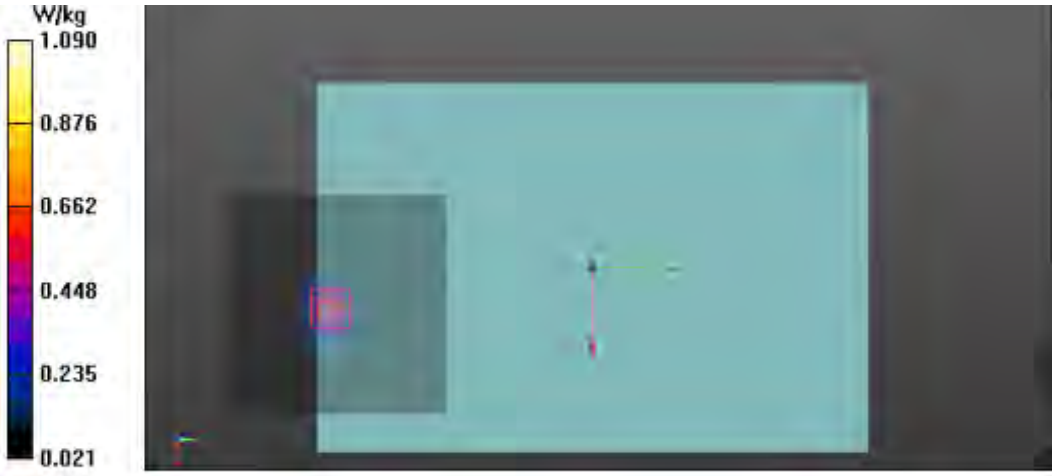
- Probe: EX3DV4 - SN7541;ConvF(6.51, 6.51, 6.51) @ 3930 MHz; Calibrated: 7/22/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1759; Calibrated: 11/7/2022
- Phantom: ELI V8.0_Left; Type: QD OVA 004 Ax; Serial: 2098
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/5G NR n77_DFT-S-OFDM_QPSK_100MHz_1RB_137offset_CH662000_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) = 0.690 W/kg

Configuration/5G NR n77_DFT-S-OFDM_QPSK_100MHz_1RB_137offset_CH662000_Rear_0 mm/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm
Reference Value = 19.14 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 2.44 W/kg
SAR(1 g) = 0.506 W/kg; SAR(10 g) = 0.169 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.09 W/kg



Appendixes List

Appendix A	A.1 Probe Calibration certificate (EX3DV4_SN7540) A.2 Probe Calibration certificate (EX3DV4_SN7541) A.3 Probe Calibration certificate (EX3DV4_SN7770) A.4 Probe Calibration certificate (EX3DV4_SN3697) A.5 Dipole Calibration certificate (D750V3_SN1183) A.6 Dipole Calibration certificate (D750V3_SN1224) A.7 Dipole Calibration certificate (D850V2_SN1030) A.8 Dipole Calibration certificate (D1750V2_SN1195) A.9 Dipole Calibration certificate (D1900V2_SN5d248) A.10 Dipole Calibration certificate (D3500V2_SN1146) A.11 Dipole Calibration certificate (D3700V2_SN1027) A.12 Dipole Calibration certificate (D3900V2_SN1037)
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