LTE Band 2

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		18700	18900	19100				Channel		18675	18900	19125	
		Frequency(MHz)		1860	1880	1900				Frequency(MHz)		1857.5	1880	1902.5	
20M	QPSK	1	0	**22.45**	22.27	22.18	0	15M	QPSK	1	0	22.44	22.23	22.10	0
		1	50	22.36	22.18	22.09	0			1	37	22.32	22.15	22.03	0
		1	99	22.32	22.14	22.05	0			1	74	22.30	22.13	22.01	0
		50	0	21.10	20.92	20.83	1			36	0	21.04	20.87	20.82	1
		50	25	21.08	20.90	20.81	1			36	19	21.07	20.88	20.76	1
		50	50	21.03	20.85	20.76	1			36	39	20.95	20.78	20.74	1
		100	0	21.12	20.94	20.85	1			75	0	21.11	20.90	20.82	1
	16QAM	1	0	21.46	21.28	21.19	1		16QAM	1	0	21.43	21.27	21.13	1
		1	50	21.34	21.16	21.07	1			1	37	21.30	21.11	21.05	1
		1	99	21.30	21.12	21.03	1			1	74	21.24	21.10	21.00	1
		50	0	20.10	19.92	19.83	2			36	0	20.08	19.84	19.82	2
		50	25	19.87	19.69	19.60	2			36	19	19.79	19.65	19.55	2
		50	50	19.75	19.57	19.48	2			36	39	19.72	19.51	19.46	2
		100	0	19.90	19.72	19.63	2			75	0	19.89	19.67	19.55	2
	64QAM	1	0	20.09	19.91	19.82	2		64QAM	1	0	20.03	19.88	19.78	2
		1	50	19.67	19.49	19.40	2			1	37	19.65	19.42	19.35	2
		1	99	19.68	19.50	19.41	2			1	74	19.62	19.42	19.39	2
		50	0	18.64	18.46	18.37	3			36	0	18.63	18.44	18.29	3
		50	25	18.41	18.23	18.14	3			36	19	18.34	18.15	18.08	3
		50	50	18.24	18.06	17.97	3			36	39	18.22	18.05	17.93	3
		100	0	18.44	18.26	18.17	3			75	0	18.42	18.18	18.16	3
BW	MCS Index	Channel		18650	18900	19150	3GPP MPR (dB)	BW	MCS Index	Channel		18625	18900	19175	3GPP MPR (dB)
		Frequency(MHz)		1855	1880	1905				Frequency(MHz)		1852.5	1880	1907.5	
10M	QPSK	1	0	22.37	22.23	22.13	0	5M	QPSK	1	0	22.40	22.20	22.13	0
		1	24	22.34	22.10	22.08	0			1	12	22.34	22.10	22.07	0
		1	49	22.24	22.10	22.00	0			1	24	22.27	22.06	22.04	0
		25	0	21.07	20.86	20.81	1			12	0	21.06	20.87	20.78	1
		25	12	21.06	20.83	20.76	1			12	6	21.00	20.89	20.76	1
		25	25	20.97	20.77	20.74	1			12	13	20.99	20.80	20.75	1
		50	0	21.11	20.92	20.77	1			25	0	21.06	20.92	20.80	1
	16QAM	1	0	21.39	21.20	21.13	1		16QAM	1	0	21.39	21.23	21.17	1
		1	24	21.31	21.10	21.05	1			1	12	21.26	21.14	21.02	1
		1	49	21.28	21.05	20.98	1			1	24	21.28	21.04	21.01	1
		25	0	20.04	19.84	19.81	2			12	0	20.02	19.86	19.75	2
		25	12	19.85	19.61	19.59	2			12	6	19.81	19.67	19.54	2
		25	25	19.67	19.53	19.43	2			12	13	19.68	19.52	19.46	2
		50	0	19.88	19.64	19.62	2			25	0	19.84	19.65	19.58	2
	64QAM	1	0	20.01	19.87	19.77	2		64QAM	1	0	20.02	19.86	19.80	2
		1	24	19.64	19.43	19.38	2			1	12	19.59	19.47	19.34	2
		1	49	19.66	19.43	19.36	2			1	24	19.60	19.49	19.39	2
		25	0	18.58	18.38	18.35	3			12	0	18.60	18.41	18.29	3
		25	12	18.40	18.21	18.06	3			12	6	18.33	18.22	18.12	3
		25	25	18.19	17.98	17.91	3			12	13	18.20	18.01	17.89	3
		50	0	18.43	18.20	18.15	3			25	0	18.38	18.24	18.14	3
BW	MCS Index	Channel		18615	18900	19185	3GPP MPR (dB)	BW	MCS Index	Channel		18607	18900	19193	3GPP MPR (dB)
		Frequency(MHz)		1851.5	1880	1908.5				Frequency(MHz)		1850.7	1880	1909.3	
3M	QPSK	1	0	22.39	22.25	22.12	0	1.4M	QPSK	1	0	22.37	22.23	22.13	0
		1	7	22.29	22.13	22.07	0			1	2	22.33	22.12	22.07	0
		1	14	22.26	22.07	22.00	0			1	5	22.30	22.07	22.00	0
		8	0	21.03	20.87	20.81	1			3	0	22.04	21.84	21.81	1
		8	3	21.00	20.88	20.75	1			3	1	22.07	21.88	21.73	1
		8	7	20.95	20.84	20.74	1			3	3	21.98	21.77	21.70	1
		15	0	21.08	20.89	20.77	1			6	0	21.11	20.88	20.83	1
	16QAM	1	0	21.38	21.27	21.17	1		16QAM	1	0	21.41	21.21	21.14	1
		1	7	21.29	21.11	21.03	1			1	2	21.32	21.08	21.05	1
		1	14	21.28	21.04	21.02	1			1	5	21.25	21.04	21.02	1
		8	0	20.02	19.88	19.78	2			3	0	21.06	20.87	20.78	2
		8	3	19.84	19.63	19.58	2			3	1	20.79	20.68	20.55	2
		8	7	19.73	19.50	19.43	2			3	3	20.71	20.52	20.47	2
		15	0	19.84	19.64	19.61	2			6	0	19.84	19.70	19.58	2
	64QAM	1	0	20.08	19.89	19.74	2		64QAM	1	0	20.02	19.86	19.80	2
		1	7	19.62	19.41	19.34	2			1	2	19.59	19.47	19.35	2
		1	14	19.67	19.44	19.39	2			1	5	19.66	19.42	19.39	2
		8	0	18.59	18.44	18.30	3			3	0	19.56	19.40	19.29	3
		8	3	18.39	18.15	18.13	3			3	1	19.35	19.21	19.08	3
		8	7	18.16	18.02	17.92	3			3	3	19.19	18.98	18.96	3
		15	0	18.42	18.18	18.16	3			6	0	18.40	18.21	18.12	3

LTE Band 4

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20050	20175	20300				Channel		20025	20175	20325	
		Frequency(MHz)		1720	1732.5	1745				Frequency(MHz)		1717.5	1732.5	1747.5	
20M	QPSK	1	0	20.76	20.88	**20.91**	0	15M	QPSK	1	0	20.75	20.84	20.83	0
		1	50	20.49	20.61	20.64	0			1	37	20.45	20.58	20.58	0
		1	99	20.52	20.64	20.67	0			1	74	20.50	20.63	20.63	0
		50	0	18.84	18.96	18.99	1			36	0	18.78	18.91	18.98	1
		50	25	18.81	18.93	18.96	1			36	19	18.80	18.91	18.91	1
		50	50	19.24	19.36	19.39	1			36	39	19.16	19.29	19.37	1
		100	0	19.06	19.18	19.21	1			75	0	19.05	19.14	19.18	1
	16QAM	1	0	19.63	19.75	19.78	1		16QAM	1	0	19.60	19.74	19.72	1
		1	50	18.84	18.96	18.99	1			1	37	18.80	18.91	18.97	1
		1	99	19.91	20.03	20.06	1			1	74	19.85	20.01	20.03	1
		50	0	17.89	18.01	18.04	2			36	0	17.87	17.93	18.03	2
		50	25	17.86	17.98	18.01	2			36	19	17.78	17.94	17.96	2
		50	50	18.29	18.41	18.44	2			36	39	18.26	18.35	18.42	2
		100	0	17.91	18.03	18.06	2			75	0	17.90	17.98	17.98	2
	64QAM	1	0	18.38	18.50	18.53	2		64QAM	1	0	18.32	18.47	18.49	2
		1	50	17.96	18.08	18.11	2			1	37	17.94	18.01	18.06	2
		1	99	18.93	19.05	19.08	2			1	74	18.87	18.97	19.06	2
		50	0	16.80	16.92	16.95	3			36	0	16.79	16.90	16.87	3
		50	25	16.76	16.88	16.91	3			36	19	16.69	16.80	16.85	3
		50	50	17.21	17.33	17.36	3			36	39	17.19	17.32	17.32	3
		100	0	16.61	16.73	16.76	3			75	0	16.59	16.65	16.75	3
BW	MCS Index	Channel		20000	20175	20350	3GPP MPR (dB)	BW	MCS Index	Channel		19975	20175	20375	3GPP MPR (dB)
		Frequency(MHz)		1715	1732.5	1750				Frequency(MHz)		1712.5	1732.5	1752.5	
10M	QPSK	1	0	20.68	20.84	20.86	0	5M	QPSK	1	0	20.71	20.81	20.86	0
		1	24	20.47	20.53	20.63	0			1	12	20.47	20.53	20.62	0
		1	49	20.44	20.60	20.62	0			1	24	20.47	20.56	20.66	0
		25	0	18.81	18.90	18.97	1			12	0	18.80	18.91	18.94	1
		25	12	18.79	18.86	18.91	1			12	6	18.73	18.92	18.91	1
		25	25	19.18	19.28	19.37	1			12	13	19.20	19.31	19.38	1
		50	0	19.05	19.16	19.13	1			25	0	19.00	19.16	19.16	1
	16QAM	1	0	19.56	19.67	19.72	1		16QAM	1	0	19.56	19.70	19.76	1
		1	24	18.81	18.90	18.97	1			1	12	18.76	18.94	18.94	1
		1	49	19.89	19.96	20.01	1			1	24	19.89	19.95	20.04	1
		25	0	17.83	17.93	18.02	2			12	0	17.81	17.95	17.96	2
		25	12	17.84	17.90	18.00	2			12	6	17.80	17.96	17.95	2
		25	25	18.21	18.37	18.39	2			12	13	18.22	18.36	18.42	2
		50	0	17.89	17.95	18.05	2			25	0	17.85	17.96	18.01	2
	64QAM	1	0	18.30	18.46	18.48	2		64QAM	1	0	18.31	18.45	18.51	2
		1	24	17.93	18.02	18.09	2			1	12	17.88	18.06	18.05	2
		1	49	18.91	18.98	19.03	2			1	24	18.85	19.04	19.06	2
		25	0	16.74	16.84	16.93	3			12	0	16.76	16.87	16.87	3
		25	12	16.75	16.86	16.83	3			12	6	16.68	16.87	16.89	3
		25	25	17.16	17.25	17.30	3			12	13	17.17	17.28	17.28	3
		50	0	16.60	16.67	16.74	3			25	0	16.55	16.71	16.73	3
BW	MCS Index	Channel		19965	20175	20385	3GPP MPR (dB)	BW	MCS Index	Channel		19957	20175	20393	3GPP MPR (dB)
		Frequency(MHz)		1711.5	1732.5	1753.5				Frequency(MHz)		1710.7	1732.5	1754.3	
3M	QPSK	1	0	20.70	20.86	20.85	0	1.4M	QPSK	1	0	20.68	20.84	20.86	0
		1	7	20.42	20.56	20.62	0			1	2	20.46	20.55	20.62	0
		1	14	20.46	20.57	20.62	0			1	5	20.50	20.57	20.62	0
		8	0	18.77	18.91	18.97	1			3	0	19.78	19.88	19.97	1
		8	3	18.73	18.91	18.90	1			3	1	19.80	19.91	19.88	1
		8	7	19.16	19.35	19.37	1			3	3	20.19	20.28	20.33	1
		15	0	19.02	19.13	19.13	1			6	0	19.05	19.12	19.19	1
	16QAM	1	0	19.55	19.74	19.76	1		16QAM	1	0	19.58	19.68	19.73	1
		1	7	18.79	18.91	18.95	1			1	2	18.82	18.88	18.97	1
		1	14	19.89	19.95	20.05	1			1	5	19.86	19.95	20.05	1
		8	0	17.81	17.97	17.99	2			3	0	18.85	18.96	18.99	2
		8	3	17.83	17.92	17.99	2			3	1	18.78	18.97	18.96	2
		8	7	18.27	18.34	18.39	2			3	3	19.25	19.36	19.43	2
		15	0	17.85	17.95	18.04	2			6	0	17.85	18.01	18.01	2
	64QAM	1	0	18.37	18.48	18.45	2		64QAM	1	0	18.31	18.45	18.51	2
		1	7	17.91	18.00	18.05	2			1	2	17.88	18.06	18.06	2
		1	14	18.92	18.99	19.06	2			1	5	18.91	18.97	19.06	2
		8	0	16.75	16.90	16.88	3			3	0	17.72	16.86	16.87	3
		8	3	16.74	16.80	16.90	3			3	1	17.70	16.86	16.85	3
		8	7	17.13	17.29	17.31	3			3	3	18.16	17.25	17.35	3
		15	0	16.59	16.65	16.75	3			6	0	16.57	16.68	16.71	3

LTE Band 7

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20850	21100	21350				Channel		20825	21100	21375	
		Frequency(MHz)		2510	2535	2560				Frequency(MHz)		2507.5	2535	2562.5	
20M	QPSK	1	0	21.44	21.47	21.39	0	15M	QPSK	1	0	21.43	21.43	21.31	0
		1	50	21.65	21.68	21.60	0			1	37	21.61	21.65	21.54	0
		1	99	21.78	**21.81**	21.73	0			1	74	21.76	21.80	21.69	0
		50	0	20.44	20.47	20.39	1			36	0	20.38	20.42	20.38	1
		50	25	20.53	20.56	20.48	1			36	19	20.52	20.54	20.43	1
		50	50	20.48	20.51	20.43	1			36	39	20.40	20.44	20.41	1
		100	0	20.37	20.40	20.32	1			75	0	20.36	20.36	20.29	1
	16QAM	1	0	20.14	20.17	20.09	1		16QAM	1	0	20.11	20.16	20.03	1
		1	50	20.62	20.65	20.57	1			1	37	20.58	20.60	20.55	1
		1	99	20.51	20.54	20.46	1			1	74	20.45	20.52	20.43	1
		50	0	19.55	19.58	19.50	2			36	0	19.53	19.50	19.49	2
		50	25	19.66	19.69	19.61	2			36	19	19.58	19.65	19.56	2
		50	50	19.95	19.98	19.90	2			36	39	19.92	19.92	19.88	2
		100	0	19.77	19.80	19.72	2			75	0	19.76	19.75	19.64	2
	64QAM	1	0	19.66	19.69	19.61	2		64QAM	1	0	19.60	19.66	19.57	2
		1	50	19.63	19.66	19.58	2			1	37	19.61	19.59	19.53	2
		1	99	19.81	19.84	19.76	2			1	74	19.75	19.76	19.74	2
		50	0	18.34	18.37	18.29	3			36	0	18.33	18.35	18.21	3
		50	25	18.38	18.41	18.33	3			36	19	18.31	18.33	18.27	3
		50	50	18.66	18.69	18.61	3			36	39	18.64	18.68	18.57	3
		100	0	18.52	18.55	18.47	3			75	0	18.50	18.47	18.46	3
BW	MCS Index	Channel		20800	21100	21400	3GPP MPR (dB)	BW	MCS Index	Channel		20775	21100	21425	3GPP MPR (dB)
		Frequency(MHz)		2505	2535	2565				Frequency(MHz)		2502.5	2535	2567.5	
10M	QPSK	1	0	21.36	21.43	21.34	0	5M	QPSK	1	0	21.39	21.40	21.34	0
		1	24	21.63	21.60	21.59	0			1	12	21.63	21.60	21.58	0
		1	49	21.70	21.77	21.68	0			1	24	21.73	21.73	21.72	0
		25	0	20.41	20.41	20.37	1			12	0	20.40	20.42	20.34	1
		25	12	20.51	20.49	20.43	1			12	6	20.45	20.55	20.43	1
		25	25	20.42	20.43	20.41	1			12	13	20.44	20.46	20.42	1
		50	0	20.36	20.38	20.24	1			25	0	20.31	20.38	20.27	1
	16QAM	1	0	20.07	20.09	20.03	1		16QAM	1	0	20.07	20.12	20.07	1
		1	24	20.59	20.59	20.55	1			1	12	20.54	20.63	20.52	1
		1	49	20.49	20.47	20.41	1			1	24	20.49	20.46	20.44	1
		25	0	19.49	19.50	19.48	2			12	0	19.47	19.52	19.42	2
		25	12	19.64	19.61	19.60	2			12	6	19.60	19.67	19.55	2
		25	25	19.87	19.94	19.85	2			12	13	19.88	19.93	19.88	2
		50	0	19.75	19.72	19.71	2			25	0	19.71	19.73	19.67	2
	64QAM	1	0	19.58	19.65	19.56	2		64QAM	1	0	19.59	19.64	19.59	2
		1	24	19.60	19.60	19.56	2			1	12	19.55	19.64	19.52	2
		1	49	19.79	19.77	19.71	2			1	24	19.73	19.83	19.74	2
		25	0	18.28	18.29	18.27	3			12	0	18.30	18.32	18.21	3
		25	12	18.37	18.39	18.25	3			12	6	18.30	18.40	18.31	3
		25	25	18.61	18.61	18.55	3			12	13	18.62	18.64	18.53	3
		50	0	18.51	18.49	18.45	3			25	0	18.46	18.53	18.44	3

LTE Band 66

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		132072	132322	132572				Channel		132047	132322	132597	
		Frequency(MHz)		1720	1745	1770				Frequency(MHz)		1717.5	1745	1772.5	
20M	QPSK	1	0	20.85	20.78	**21.09**	0	15M	QPSK	1	0	20.84	20.74	21.01	0
		1	50	20.73	20.66	20.97	0			1	37	20.69	20.63	20.91	0
		1	99	20.68	20.61	20.92	0			1	74	20.66	20.60	20.88	0
		50	0	19.15	19.08	19.39	1			36	0	19.09	19.03	19.38	1
		50	25	18.78	18.71	19.02	1			36	19	18.77	18.69	18.97	1
		50	50	18.67	18.60	18.91	1			36	39	18.59	18.53	18.89	1
		100	0	18.93	18.86	19.17	1			75	0	18.92	18.82	19.14	1
	16QAM	1	0	19.92	19.85	20.16	1		16QAM	1	0	19.89	19.84	20.10	1
		1	50	18.99	18.92	19.23	1			1	37	18.95	18.87	19.21	1
		1	99	18.69	18.62	18.93	1			1	74	18.63	18.60	18.90	1
		50	0	18.31	18.24	18.55	2			36	0	18.29	18.16	18.54	2
		50	25	17.94	17.87	18.18	2			36	19	17.86	17.83	18.13	2
		50	50	17.69	17.62	17.93	2			36	39	17.66	17.56	17.91	2
		100	0	17.89	17.82	18.13	2			75	0	17.88	17.77	18.05	2
	64QAM	1	0	18.66	18.59	18.90	2		64QAM	1	0	18.60	18.56	18.86	2
		1	50	17.81	17.74	18.05	2			1	37	17.79	17.67	18.00	2
		1	99	17.68	17.61	17.92	2			1	74	17.62	17.53	17.90	2
		50	0	17.23	17.16	17.47	3			36	0	17.22	17.14	17.39	3
		50	25	16.75	16.68	16.99	3			36	19	16.68	16.60	16.93	3
		50	50	16.55	16.48	16.79	3			36	39	16.53	16.47	16.75	3
		100	0	16.92	16.85	17.16	3			75	0	16.90	16.77	17.15	3
BW	MCS Index	Channel		132022	132322	132622	3GPP MPR (dB)	BW	MCS Index	Channel		131997	132322	132647	3GPP MPR (dB)
		Frequency(MHz)		1715	1745	1775				Frequency(MHz)		1712.5	1745	1777.5	
10M	QPSK	1	0	20.77	20.74	21.04	0	5M	QPSK	1	0	20.80	20.71	21.04	0
		1	24	20.71	20.58	20.96	0			1	12	20.71	20.58	20.95	0
		1	49	20.60	20.57	20.87	0			1	24	20.63	20.53	20.91	0
		25	0	19.12	19.02	19.37	1			12	0	19.11	19.03	19.34	1
		25	12	18.76	18.64	18.97	1			12	6	18.70	18.70	18.97	1
		25	25	18.61	18.52	18.89	1			12	13	18.63	18.55	18.90	1
		50	0	18.92	18.84	19.09	1			25	0	18.87	18.84	19.12	1
	16QAM	1	0	19.85	19.77	20.10	1		16QAM	1	0	19.85	19.80	20.14	1
		1	24	18.96	18.86	19.21	1			1	12	18.91	18.90	19.18	1
		1	49	18.67	18.55	18.88	1			1	24	18.67	18.54	18.91	1
		25	0	18.25	18.16	18.53	2			12	0	18.23	18.18	18.47	2
		25	12	17.92	17.79	18.17	2			12	6	17.88	17.85	18.12	2
		25	25	17.61	17.58	17.88	2			12	13	17.62	17.57	17.91	2
		50	0	17.87	17.74	18.12	2			25	0	17.83	17.75	18.08	2
	64QAM	1	0	18.58	18.55	18.85	2		64QAM	1	0	18.59	18.54	18.88	2
		1	24	17.78	17.68	18.03	2			1	12	17.73	17.72	17.99	2
		1	49	17.66	17.54	17.87	2			1	24	17.60	17.60	17.90	2
		25	0	17.17	17.08	17.45	3			12	0	17.19	17.11	17.39	3
		25	12	16.74	16.66	16.91	3			12	6	16.67	16.67	16.97	3
		25	25	16.50	16.40	16.73	3			12	13	16.51	16.43	16.71	3
		50	0	16.91	16.79	17.14	3			25	0	16.86	16.83	17.13	3
BW	MCS Index	Channel		131987	132322	132657	3GPP MPR (dB)	BW	MCS Index	Channel		131979	132322	132665	3GPP MPR (dB)
		Frequency(MHz)		1711.5	1745	1778.5				Frequency(MHz)		1710.7	1745	1779.3	
3M	QPSK	1	0	20.79	20.76	21.03	0	1.4M	QPSK	1	0	20.77	20.74	21.04	0
		1	7	20.66	20.61	20.95	0			1	2	20.70	20.60	20.95	0
		1	14	20.62	20.54	20.87	0			1	5	20.66	20.54	20.87	0
		8	0	19.08	19.03	19.37	1			3	0	20.09	20.00	20.37	1
		8	3	18.70	18.69	18.96	1			3	1	19.77	19.69	19.94	1
		8	7	18.59	18.59	18.89	1			3	3	19.62	19.52	19.85	1
		15	0	18.89	18.81	19.09	1			6	0	18.92	18.80	19.15	1
	16QAM	1	0	19.84	19.84	20.14	1		16QAM	1	0	19.87	19.78	20.11	1
		1	7	18.94	18.87	19.19	1			1	2	18.97	18.84	19.21	1
		1	14	18.67	18.54	18.92	1			1	5	18.64	18.54	18.92	1
		8	0	18.23	18.20	18.50	2			3	0	19.27	19.19	19.50	2
		8	3	17.91	17.81	18.16	2			3	1	18.86	18.86	19.13	2
		8	7	17.67	17.55	17.88	2			3	3	18.65	18.57	18.92	2
		15	0	17.83	17.74	18.11	2			6	0	17.83	17.80	18.08	2
	64QAM	1	0	18.65	18.57	18.82	2		64QAM	1	0	18.59	18.54	18.88	2
		1	7	17.76	17.66	17.99	2			1	2	17.73	17.72	18.00	2
		1	14	17.67	17.55	17.90	2			1	5	17.66	17.53	17.90	2
		8	0	17.18	17.14	17.40	3			3	0	18.15	18.10	18.39	3
		8	3	16.73	16.60	16.98	3			3	1	17.69	17.66	17.93	3
		8	7	16.47	16.44	16.74	3			3	3	17.50	17.40	17.78	3
		15	0	16.90	16.77	17.15	3			6	0	16.88	16.80	17.11	3

WLAN / BT

	Mode	Channel	Frequency (MHz)	Average power (dBm)
2.4GHz WLAN	802.11b 1Mbps	1	2412	17.48
		6	2437	17.25
		11	2462	17.53
	802.11g 6Mbps	1	2412	16.37
		6	2437	15.98
		11	2462	16.26
	802.11n-HT20 MCS0	1	2412	13.52
		6	2437	14.46
		11	2462	13.80

	Mode	Channel	Frequency(MHz)	Average power (dBm)
Bluetooth	BR / EDR	0	2402	6.21
		39	2441	6.17
		78	2480	7.40
	BLE 1Mbps	0	2402	1.23
		19	2440	1.80
		39	2480	2.01

4.6 SAR Testing Results

4.6.1 SAR Test Reduction Considerations

<KDB 447498 D01, General RF Exposure Guidance>

Testing of other required channels within the operating mode of a frequency band is not required when the reported SAR for the mid-band or highest output power channel is:

(1) ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz

(2) ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz

(3) ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

<KDB 941225 D01, 3G SAR Measurement Procedures>

The mode tested for SAR is referred to as the primary mode. The equivalent modes considered for SAR test reduction are denoted as secondary modes. Both primary and secondary modes must be in the same frequency band. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ 1/4 dB higher than the primary mode or when 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.

<KDB 941225 D05, SAR Evaluation Considerations for LTE Devices>

(1) QPSK with 1 RB and 50% RB allocation

Start with the largest channel bandwidth and measure SAR, 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. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

(2) QPSK with 100% RB allocation

SAR is not required when the highest maximum output power for 100% RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

(3) Higher order modulations

SAR is required only when the highest maximum output power for the configuration in the higher order modulation is > 1/2 dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

(4) Other channel bandwidth

SAR is required when the highest maximum output power of the smaller channel bandwidth is > 1/2 dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

<KDB 248227 D01, SAR Guidance for Wi-Fi Transmitters>

(1) For handsets operating next to ear, hotspot mode or mini-tablet configurations, the initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When the reported SAR of initial test position is <= 0.4 W/kg, SAR testing for remaining test positions is not required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is <= 0.8 W/kg or all test positions are measured.

(2) For WLAN 2.4 GHz, the highest measured maximum output power channel for DSSS was selected for SAR measurement. When the reported SAR is <= 0.8 W/kg, no further SAR testing is required. Otherwise, SAR is evaluated at the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel. For OFDM modes (802.11g/n), SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is <= 1.2 W/kg.

(3) For WLAN 5 GHz, the initial test configuration was selected according to the transmission mode with the highest maximum output power. When the reported SAR of initial test configuration is > 0.8 W/kg, SAR is required for the subsequent highest measured output power channel until the reported SAR result is <= 1.2 W/kg or all required channels are measured. For other transmission modes, SAR is not required when the highest reported SAR for initial test configuration is adjusted by the ratio of subsequent test configuration to initial test configuration specified maximum output power and it is <= 1.2 W/kg.

(4) For WLAN MIMO mode, the power-based standalone SAR test exclusion or the sum of SAR provision in KDB 447498 to determine simultaneous transmission SAR test exclusion should be applied. Otherwise, SAR for MIMO mode will be measured with all applicable antennas transmitting simultaneously at the specified maximum output power of MIMO operation.

4.6.2 SAR Results for Head Exposure Condition

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Power Reduction	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
1	GSM850	GPRS10	Right Cheek	251	-	-	Full	-	32.0	30.24	-0.08	0.259	1.00	1.50	**0.39**
	GSM850	GPRS10	Right Tilted	251	-	-	Full	-	32.0	30.24	0	0.144	1.00	1.50	0.22
	GSM850	GPRS10	Left Cheek	251	-	-	Full	-	32.0	30.24	0.05	0.255	1.00	1.50	0.38
	GSM850	GPRS10	Left Tilted	251	-	-	Full	-	32.0	30.24	0.07	0.134	1.00	1.50	0.20
	GSM1900	GPRS10	Right Cheek	512	-	-	Full	-	29.0	27.19	0.11	0.114	1.00	1.52	0.17
	GSM1900	GPRS10	Right Tilted	512	-	-	Full	-	29.0	27.19	-0.01	0.071	1.00	1.52	0.11
2	GSM1900	GPRS10	Left Cheek	512	-	-	Full	-	29.0	27.19	0.05	0.116	1.00	1.52	**0.18**
	GSM1900	GPRS10	Left Tilted	512	-	-	Full	-	29.0	27.19	0.03	0.073	1.00	1.52	0.11
	WCDMA II	RMC12.2K	Right Cheek	9538	-	-	Full	-	25.0	23.16	0.06	0.140	1.00	1.53	0.21
	WCDMA II	RMC12.2K	Right Tilted	9538	-	-	Full	-	25.0	23.16	0.07	0.123	1.00	1.53	0.19
3	WCDMA II	RMC12.2K	Left Cheek	9538	-	-	Full	-	25.0	23.16	-0.05	0.229	1.00	1.53	**0.35**
	WCDMA II	RMC12.2K	Left Tilted	9538	-	-	Full	-	25.0	23.16	0.13	0.152	1.00	1.53	0.23
	WCDMA IV	RMC12.2K	Right Cheek	1312	-	-	Full	-	25.0	23.14	0.07	0.153	1.00	1.53	0.23
	WCDMA IV	RMC12.2K	Right Tilted	1312	-	-	Full	-	25.0	23.14	-0.12	0.129	1.00	1.53	0.20
4	WCDMA IV	RMC12.2K	Left Cheek	1312	-	-	Full	-	25.0	23.14	0.17	0.187	1.00	1.53	**0.29**
	WCDMA IV	RMC12.2K	Left Tilted	1312	-	-	Full	-	25.0	23.14	0.02	0.132	1.00	1.53	0.20
	WCDMA V	RMC12.2K	Right Cheek	4233	-	-	Full	-	25.0	24.04	0.01	0.250	1.00	1.25	0.31
	WCDMA V	RMC12.2K	Right Tilted	4233	-	-	Full	-	25.0	24.04	0.06	0.133	1.00	1.25	0.17
5	WCDMA V	RMC12.2K	Left Cheek	4233	-	-	Full	-	25.0	24.04	-0.03	0.279	1.00	1.25	**0.35**
	WCDMA V	RMC12.2K	Left Tilted	4233	-	-	Full	-	25.0	24.04	-0.04	0.143	1.00	1.25	0.18
	LTE 2	QPSK20M	Right Cheek	18700	1	0	Full	-	24.5	24.29	0.03	0.215	1.00	1.05	0.23
	LTE 2	QPSK20M	Right Tilted	18700	1	0	Full	-	24.5	24.29	0	0.144	1.00	1.05	0.15
6	LTE 2	QPSK20M	Left Cheek	18700	1	0	Full	-	24.5	24.29	-0.08	0.223	1.00	1.05	**0.23**
	LTE 2	QPSK20M	Left Tilted	18700	1	0	Full	-	24.5	24.29	0	0.214	1.00	1.05	0.22
	LTE 2	QPSK20M	Right Cheek	18700	50	0	Full	-	23.5	23.23	0.07	0.162	1.00	1.06	0.17
	LTE 2	QPSK20M	Right Tilted	18700	50	0	Full	-	23.5	23.23	0.04	0.111	1.00	1.06	0.12
	LTE 2	QPSK20M	Left Cheek	18700	50	0	Full	-	23.5	23.23	0	0.138	1.00	1.06	0.15
	LTE 2	QPSK20M	Left Tilted	18700	50	0	Full	-	23.5	23.23	-0.01	0.136	1.00	1.06	0.14
	LTE 5	QPSK10M	Right Cheek	20600	1	49	Full	-	25.0	23.62	-0.1	0.220	1.00	1.37	0.30
	LTE 5	QPSK10M	Right Tilted	20600	1	49	Full	-	25.0	23.62	0.02	0.129	1.00	1.37	0.18
7	LTE 5	QPSK10M	Left Cheek	20600	1	49	Full	-	25.0	23.62	0	0.243	1.00	1.37	**0.33**
	LTE 5	QPSK10M	Left Tilted	20600	1	49	Full	-	25.0	23.62	-0.07	0.110	1.00	1.37	0.15
	LTE 5	QPSK10M	Right Cheek	20600	25	0	Full	-	24.0	22.60	0.11	0.169	1.00	1.38	0.23
	LTE 5	QPSK10M	Right Tilted	20600	25	0	Full	-	24.0	22.60	-0.04	0.114	1.00	1.38	0.16
	LTE 5	QPSK10M	Left Cheek	20600	25	0	Full	-	24.0	22.60	0.14	0.199	1.00	1.38	0.27
	LTE 5	QPSK10M	Left Tilted	20600	25	0	Full	-	24.0	22.60	0.09	0.098	1.00	1.38	0.14
	LTE 7	QPSK20M	Right Cheek	21100	1	99	Full	-	24.0	23.82	0.02	0.109	1.00	1.04	0.11
	LTE 7	QPSK20M	Right Tilted	21100	1	99	Full	-	24.0	23.82	-0.09	0.107	1.00	1.04	0.11
8	LTE 7	QPSK20M	Left Cheek	21100	1	99	Full	-	24.0	23.82	0.05	0.256	1.00	1.04	**0.27**
	LTE 7	QPSK20M	Left Tilted	21100	1	99	Full	-	24.0	23.82	0.09	0.160	1.00	1.04	0.17
	LTE 7	QPSK20M	Right Cheek	21100	50	25	Full	-	23.0	22.63	-0.07	0.085	1.00	1.09	0.09
	LTE 7	QPSK20M	Right Tilted	21100	50	25	Full	-	23.0	22.63	0.01	0.084	1.00	1.09	0.09
	LTE 7	QPSK20M	Left Cheek	21100	50	25	Full	-	23.0	22.63	0	0.193	1.00	1.09	0.21
	LTE 7	QPSK20M	Left Tilted	21100	50	25	Full	-	23.0	22.63	0	0.101	1.00	1.09	0.11
9	LTE 12	QPSK10M	Right Cheek	23095	1	49	Full	-	25.0	23.54	-0.01	0.176	1.00	1.40	**0.25**
	LTE 12	QPSK10M	Right Tilted	23095	1	49	Full	-	25.0	23.54	-0.08	0.067	1.00	1.40	0.09
	LTE 12	QPSK10M	Left Cheek	23095	1	49	Full	-	25.0	23.54	0.06	0.140	1.00	1.40	0.20
	LTE 12	QPSK10M	Left Tilted	23095	1	49	Full	-	25.0	23.54	0.04	0.081	1.00	1.40	0.11
	LTE 12	QPSK10M	Right Cheek	23095	25	0	Full	-	24.0	22.48	0.09	0.119	1.00	1.42	0.17
	LTE 12	QPSK10M	Right Tilted	23095	25	0	Full	-	24.0	22.48	0.08	0.074	1.00	1.42	0.11
	LTE 12	QPSK10M	Left Cheek	23095	25	0	Full	-	24.0	22.48	-0.09	0.114	1.00	1.42	0.16
	LTE 12	QPSK10M	Left Tilted	23095	25	0	Full	-	24.0	22.48	0.03	0.065	1.00	1.42	0.09
	LTE 13	QPSK10M	Right Cheek	23230	1	0	Full	-	24.0	22.49	-0.08	0.204	1.00	1.42	0.29
	LTE 13	QPSK10M	Right Tilted	23230	1	0	Full	-	24.0	22.49	-0.07	0.145	1.00	1.42	0.21
10	LTE 13	QPSK10M	Left Cheek	23230	1	0	Full	-	24.0	22.49	-0.04	0.211	1.00	1.42	**0.30**
	LTE 13	QPSK10M	Left Tilted	23230	1	0	Full	-	24.0	22.49	0.06	0.128	1.00	1.42	0.18
	LTE 13	QPSK10M	Right Cheek	23230	25	12	Full	-	23.0	21.48	-0.03	0.166	1.00	1.42	0.24
	LTE 13	QPSK10M	Right Tilted	23230	25	12	Full	-	23.0	21.48	0.08	0.109	1.00	1.42	0.15
	LTE 13	QPSK10M	Left Cheek	23230	25	12	Full	-	23.0	21.48	0.11	0.164	1.00	1.42	0.23
	LTE 13	QPSK10M	Left Tilted	23230	25	12	Full	-	23.0	21.48	0.03	0.098	1.00	1.42	0.14
11	LTE 66	QPSK20M	Right Cheek	132572	1	0	Full	-	24.5	24.04	0	0.170	1.00	1.11	**0.19**
	LTE 66	QPSK20M	Right Tilted	132572	1	0	Full	-	24.5	24.04	-0.05	0.108	1.00	1.11	0.12
	LTE 66	QPSK20M	Left Cheek	132572	1	0	Full	-	24.5	24.04	0.01	0.167	1.00	1.11	0.19

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Power Reduction	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	LTE 66	QPSK20M	Left Tilted	132572	1	0	Full	-	24.5	24.04	-0.02	0.135	1.00	1.11	0.15
	LTE 66	QPSK20M	Right Cheek	132572	50	0	Full	-	23.5	22.71	-0.09	0.138	1.00	1.20	0.17
	LTE 66	QPSK20M	Right Tilted	132572	50	0	Full	-	23.5	22.71	0.12	0.085	1.00	1.20	0.10
	LTE 66	QPSK20M	Left Cheek	132572	50	0	Full	-	23.5	22.71	0.04	0.126	1.00	1.20	0.15
	LTE 66	QPSK20M	Left Tilted	132572	50	0	Full	-	23.5	22.71	0.16	0.109	1.00	1.20	0.13
	WLAN2.4G	802.11b	Right Cheek	11	-	-	Full	99.68	18.0	17.53	-0.16	0.237	1.00	1.11	0.26
	WLAN2.4G	802.11b	Right Tilted	11	-	-	Full	99.68	18.0	17.53	0.04	0.257	1.00	1.11	0.29
12	WLAN2.4G	802.11b	Left Cheek	11	-	-	Full	99.68	18.0	17.53	0.13	0.511	1.00	1.11	**0.57**
	WLAN2.4G	802.11b	Left Tilted	11	-	-	Full	99.68	18.0	17.53	0.07	0.458	1.00	1.11	0.51
	BT	GFSK	Right Cheek	78	-	-	Full	77.33	8.0	7.40	0.09	0.024	1.29	1.15	0.04
	BT	GFSK	Right Tilted	78	-	-	Full	77.33	8.0	7.40	0.06	0.027	1.29	1.15	0.04
13	BT	GFSK	Left Cheek	78	-	-	Full	77.33	8.0	7.40	-0.1	0.050	1.29	1.15	**0.07**
	BT	GFSK	Left Tilted	78	-	-	Full	77.33	8.0	7.40	-0.16	0.040	1.29	1.15	0.06

4.6.3 SAR Results for Body-worn Exposure Condition (Separation Distance is 1.0 cm Gap)

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	RB#	RB Offset	Power Reduction	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	GSM850	GPRS10	Front Face	1	251	-	-	Full	-	32.0	30.24	-0.03	0.231	1.00	1.50	0.35
14	GSM850	GPRS10	Rear Face	1	251	-	-	Full	-	32.0	30.24	-0.18	0.360	1.00	1.50	**0.54**
	GSM1900	GPRS10	Front Face	1	512	-	-	Full	-	29.0	27.19	0.01	0.247	1.00	1.52	0.37
15	GSM1900	GPRS10	Rear Face	1	512	-	-	Full	-	29.0	27.19	-0.08	0.370	1.00	1.52	**0.56**
	WCDMA II	RMC12.2K	Front Face	1	9538	-	-	Reduce	-	23.0	21.21	-0.14	0.283	1.00	1.51	0.43
16	WCDMA II	RMC12.2K	Rear Face	1	9538	-	-	Reduce	-	23.0	21.21	0.01	0.433	1.00	1.51	**0.65**
	WCDMA II	RMC12.2K	Front Face	1.3	9538	-	-	Full	-	25.0	23.16	-0.05	0.314	1.00	1.53	0.48
	WCDMA II	RMC12.2K	Rear Face	1.8	9538	-	-	Full	-	25.0	23.16	0.12	0.229	1.00	1.53	0.35
	WCDMA IV	RMC12.2K	Front Face	1	1312	-	-	Reduce	-	22.0	20.13	0.14	0.095	1.00	1.54	0.15
	WCDMA IV	RMC12.2K	Rear Face	1	1312	-	-	Reduce	-	22.0	20.13	0.01	0.167	1.00	1.54	0.26
17	WCDMA IV	RMC12.2K	Front Face	1.3	1312	-	-	Full	-	25.0	23.14	-0.01	0.356	1.00	1.53	**0.55**
	WCDMA IV	RMC12.2K	Rear Face	1.8	1312	-	-	Full	-	25.0	23.14	-0.04	0.309	1.00	1.53	0.47
	WCDMA V	RMC12.2K	Front Face	1	4233	-	-	Full	-	25.0	24.04	0.1	0.260	1.00	1.25	0.32
18	WCDMA V	RMC12.2K	Rear Face	1	4233	-	-	Full	-	25.0	24.04	-0.09	0.353	1.00	1.25	**0.44**
	LTE 2	QPSK20M	Front Face	1	18700	1	0	Reduce	-	22.5	22.45	0.09	0.308	1.00	1.01	0.31
19	LTE 2	QPSK20M	Rear Face	1	18700	1	0	Reduce	-	22.5	22.45	-0.01	0.435	1.00	1.01	**0.44**
	LTE 2	QPSK20M	Front Face	1.3	18700	1	0	Full	-	24.5	24.29	0.19	0.344	1.00	1.05	0.36
	LTE 2	QPSK20M	Rear Face	1.8	18700	1	0	Full	-	24.5	24.29	-0.07	0.251	1.00	1.05	0.26
	LTE 2	QPSK20M	Front Face	1	18700	50	0	Reduce	-	21.5	21.10	0.08	0.405	1.00	1.10	0.44
	LTE 2	QPSK20M	Rear Face	1	18700	50	0	Reduce	-	21.5	21.10	-0.06	0.316	1.00	1.10	0.35
	LTE 2	QPSK20M	Front Face	1.3	18700	50	0	Full	-	23.5	23.23	-0.06	0.264	1.00	1.06	0.28
	LTE 2	QPSK20M	Rear Face	1.8	18700	50	0	Full	-	23.5	23.23	0.09	0.193	1.00	1.06	0.21
	LTE 5	QPSK10M	Front Face	1	20600	1	49	Full	-	25.0	23.62	0.16	0.174	1.00	1.37	0.24
20	LTE 5	QPSK10M	Rear Face	1	20600	1	49	Full	-	25.0	23.62	0.05	0.276	1.00	1.37	**0.38**
	LTE 5	QPSK10M	Front Face	1	20600	25	0	Full	-	24.0	22.60	-0.01	0.156	1.00	1.38	0.22
	LTE 5	QPSK10M	Rear Face	1	20600	25	0	Full	-	24.0	22.60	-0.14	0.234	1.00	1.38	0.32
	LTE 7	QPSK20M	Front Face	1	21100	1	99	Reduce	-	22.0	21.81	-0.02	0.175	1.00	1.04	0.14
	LTE 7	QPSK20M	Rear Face	1	21100	1	99	Reduce	-	22.0	21.81	-0.04	0.298	1.00	1.04	0.24
	LTE 7	QPSK20M	Front Face	1.3	21100	1	99	Full	-	24.0	23.82	0.05	0.328	1.00	1.04	0.34
21	LTE 7	QPSK20M	Rear Face	1.8	21100	1	99	Full	-	24.0	23.82	-0.03	0.364	1.00	1.04	**0.38**
	LTE 7	QPSK20M	Front Face	1	21100	50	25	Reduce	-	21.0	20.56	-0.02	0.131	1.00	1.11	0.14
	LTE 7	QPSK20M	Rear Face	1	21100	50	25	Reduce	-	21.0	20.56	0.15	0.227	1.00	1.11	0.25
	LTE 7	QPSK20M	Front Face	1.3	21100	50	25	Full	-	23.0	22.63	0.03	0.279	1.00	1.09	0.30
	LTE 7	QPSK20M	Rear Face	1.8	21100	50	25	Full	-	23.0	22.63	0.02	0.305	1.00	1.09	0.33
	LTE 12	QPSK10M	Front Face	1	23095	1	49	Full	-	25.0	23.54	-0.15	0.193	1.00	1.40	0.27
22	LTE 12	QPSK10M	Rear Face	1	23095	1	49	Full	-	25.0	23.54	-0.01	0.274	1.00	1.40	**0.38**
	LTE 12	QPSK10M	Front Face	1	23095	25	0	Full	-	24.0	22.48	-0.15	0.153	1.00	1.42	0.22
	LTE 12	QPSK10M	Rear Face	1	23095	25	0	Full	-	24.0	22.48	0.08	0.229	1.00	1.42	0.32
	LTE 13	QPSK10M	Front Face	1	23230	1	0	Full	-	24.0	22.49	-0.11	0.246	1.00	1.42	0.35
23	LTE 13	QPSK10M	Rear Face	1	23230	1	0	Full	-	24.0	22.49	0.05	0.370	1.00	1.42	**0.52**
	LTE 13	QPSK10M	Front Face	1	23230	25	12	Full	-	23.0	21.48	0.05	0.183	1.00	1.42	0.26
	LTE 13	QPSK10M	Rear Face	1	23230	25	12	Full	-	23.0	21.48	0.06	0.281	1.00	1.42	0.40
	LTE 66	QPSK20M	Front Face	1	132572	1	0	Reduce	-	21.5	21.09	0.14	0.142	1.00	1.10	0.16
	LTE 66	QPSK20M	Rear Face	1	132572	1	0	Reduce	-	21.5	21.09	0.05	0.221	1.00	1.10	0.24

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	RB#	RB Offset	Power Reduction	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
24	LTE 66	QPSK20M	Front Face	1.3	132572	1	0	Full	-	24.5	24.04	-0.04	0.383	1.00	1.11	**0.43**
	LTE 66	QPSK20M	Rear Face	1.8	132572	1	0	Full	-	24.5	24.04	0.04	0.288	1.00	1.11	0.32
	LTE 66	QPSK20M	Front Face	1	132572	50	0	Reduce	-	20.5	19.39	-0.06	0.095	1.00	1.29	0.12
	LTE 66	QPSK20M	Rear Face	1	132572	50	0	Reduce	-	20.5	19.39	0.03	0.155	1.00	1.29	0.20
	LTE 66	QPSK20M	Front Face	1.3	132572	50	0	Full	-	23.5	22.71	-0.08	0.282	1.00	1.20	0.34
	LTE 66	QPSK20M	Rear Face	1.8	132572	50	0	Full	-	23.5	22.71	0.13	0.213	1.00	1.20	0.26
	WLAN2.4G	802.11b	Front Face	1	11	-	-	Full	99.68	18.0	17.53	0.06	0.114	1.00	1.11	0.13
25	WLAN2.4G	802.11b	Rear Face	1	11	-	-	Full	99.68	18.0	17.53	-0.02	0.147	1.00	1.11	**0.16**
	BT	GFSK	Front Face	1	78	-	-	Full	77.33	8.0	7.40	-0.04	0.010	1.29	1.15	0.01
26	BT	GFSK	Rear Face	1	78	-	-	Full	77.33	8.0	7.40	-0.01	0.017	1.29	1.15	**0.03**

4.6.4 SAR Results for Hotspot Exposure Condition (Separation Distance is 1.0 cm Gap)

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	RB#	RB Offset	Power Reduction	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	GSM850	GPRS10	Front Face	1	251	-	-	Full	-	32.0	30.24	-0.03	0.231	1.00	1.50	0.35
27	GSM850	GPRS10	Rear Face	1	251	-	-	Full	-	32.0	30.24	-0.18	0.360	1.00	1.50	**0.54**
	GSM850	GPRS10	Left Side	1	251	-	-	Full	-	32.0	30.24	-0.06	0.160	1.00	1.50	0.24
	GSM850	GPRS10	Right Side	1	251	-	-	Full	-	32.0	30.24	-0.01	0.232	1.00	1.50	0.35
	GSM850	GPRS10	Bottom Side	1	251	-	-	Full	-	32.0	30.24	0.06	0.282	1.00	1.50	0.42
	GSM1900	GPRS10	Front Face	1	512	-	-	Full	-	29.0	27.19	0.01	0.247	1.00	1.52	0.37
	GSM1900	GPRS10	Rear Face	1	512	-	-	Full	-	29.0	27.19	-0.08	0.370	1.00	1.52	0.56
	GSM1900	GPRS10	Left Side	1	512	-	-	Full	-	29.0	27.19	0.09	0.121	1.00	1.52	0.18
	GSM1900	GPRS10	Right Side	1	512	-	-	Full	-	29.0	27.19	0.03	0.061	1.00	1.52	0.09
28	GSM1900	GPRS10	Bottom Side	1	512	-	-	Full	-	29.0	27.19	0	0.504	1.00	1.52	**0.76**
	WCDMA II	RMC12.2K	Front Face	1	9538	-	-	Reduce	-	23.0	21.21	-0.14	0.283	1.00	1.51	0.43
	WCDMA II	RMC12.2K	Rear Face	1	9538	-	-	Reduce	-	23.0	21.21	0.01	0.433	1.00	1.51	0.65
	WCDMA II	RMC12.2K	Left Side	1	9538	-	-	Full	-	25.0	23.16	0.03	0.318	1.00	1.53	0.49
	WCDMA II	RMC12.2K	Right Side	1	9538	-	-	Full	-	25.0	23.16	-0.03	0.093	1.00	1.53	0.14
29	WCDMA II	RMC12.2K	Bottom Side	1	9538	-	-	Reduce	-	23.0	21.21	-0.07	0.473	1.00	1.51	**0.71**
	WCDMA II	RMC12.2K	Front Face	1.3	9538	-	-	Full	-	25.0	23.16	-0.05	0.314	1.00	1.53	0.48
	WCDMA II	RMC12.2K	Rear Face	1.8	9538	-	-	Full	-	25.0	23.16	0.12	0.229	1.00	1.53	0.35
	WCDMA II	RMC12.2K	Bottom Side	2	9538	-	-	Full	-	25.0	23.16	0.04	0.262	1.00	1.53	0.40
	WCDMA IV	RMC12.2K	Front Face	1	1312	-	-	Reduce	-	22.0	20.13	0.14	0.095	1.00	1.54	0.15
	WCDMA IV	RMC12.2K	Rear Face	1	1312	-	-	Reduce	-	22.0	20.13	0.01	0.167	1.00	1.54	0.26
	WCDMA IV	RMC12.2K	Left Side	1	1312	-	-	Full	-	25.0	23.14	-0.02	0.217	1.00	1.53	0.33
	WCDMA IV	RMC12.2K	Right Side	1	1312	-	-	Full	-	25.0	23.14	-0.07	0.100	1.00	1.53	0.15
	WCDMA IV	RMC12.2K	Bottom Side	1	1312	-	-	Reduce	-	22.0	20.13	0.05	0.211	1.00	1.54	0.32
30	WCDMA IV	RMC12.2K	Front Face	1.3	1312	-	-	Full	-	25.0	23.14	-0.01	0.356	1.00	1.53	**0.55**
	WCDMA IV	RMC12.2K	Rear Face	1.8	1312	-	-	Full	-	25.0	23.14	-0.04	0.309	1.00	1.53	0.47
	WCDMA IV	RMC12.2K	Bottom Side	2	1312	-	-	Full	-	25.0	23.14	-0.08	0.314	1.00	1.53	0.48
	WCDMA V	RMC12.2K	Front Face	1	4233	-	-	Full	-	25.0	24.04	0.1	0.260	1.00	1.25	0.32
31	WCDMA V	RMC12.2K	Rear Face	1	4233	-	-	Full	-	25.0	24.04	-0.09	0.353	1.00	1.25	**0.44**
	WCDMA V	RMC12.2K	Left Side	1	4233	-	-	Full	-	25.0	24.04	-0.18	0.179	1.00	1.25	0.22
	WCDMA V	RMC12.2K	Right Side	1	4233	-	-	Full	-	25.0	24.04	0.04	0.264	1.00	1.25	0.33
	WCDMA V	RMC12.2K	Bottom Side	1	4233	-	-	Full	-	25.0	24.04	0.02	0.329	1.00	1.25	0.41
	LTE 2	QPSK20M	Front Face	1	18700	1	0	Reduce	-	22.5	22.45	0.09	0.308	1.00	1.01	0.31
	LTE 2	QPSK20M	Rear Face	1	18700	1	0	Reduce	-	22.5	22.45	-0.01	0.435	1.00	1.01	0.44
	LTE 2	QPSK20M	Left Side	1	18700	1	0	Full	-	24.5	24.29	0	0.374	1.00	1.05	0.39
	LTE 2	QPSK20M	Right Side	1	18700	1	0	Full	-	24.5	24.29	0.19	0.346	1.00	1.05	0.36
32	LTE 2	QPSK20M	Bottom Side	1	18700	1	0	Reduce	-	22.5	22.45	-0.08	0.573	1.00	1.01	**0.58**
	LTE 2	QPSK20M	Front Face	1.3	18700	1	0	Full	-	24.5	24.29	0.19	0.344	1.00	1.05	0.36
	LTE 2	QPSK20M	Rear Face	1.8	18700	1	0	Full	-	24.5	24.29	-0.07	0.251	1.00	1.05	0.26
	LTE 2	QPSK20M	Bottom Side	2	18700	1	0	Full	-	24.5	24.29	-0.02	0.311	1.00	1.05	0.33
	LTE 2	QPSK20M	Front Face	1	18700	50	0	Reduce	-	21.5	21.10	0.08	0.405	1.00	1.10	0.44
	LTE 2	QPSK20M	Rear Face	1	18700	50	0	Reduce	-	21.5	21.10	-0.06	0.316	1.00	1.10	0.35
	LTE 2	QPSK20M	Left Side	1	18700	50	0	Full	-	23.5	23.23	-0.16	0.220	1.00	1.06	0.23
	LTE 2	QPSK20M	Right Side	1	18700	50	0	Full	-	23.5	23.23	0.04	0.099	1.00	1.06	0.11
	LTE 2	QPSK20M	Bottom Side	1	18700	50	0	Reduce	-	21.5	21.10	-0.17	0.438	1.00	1.10	0.48
	LTE 2	QPSK20M	Front Face	1.3	18700	50	0	Full	-	23.5	23.23	-0.06	0.264	1.00	1.06	0.28
	LTE 2	QPSK20M	Rear Face	1.8	18700	50	0	Full	-	23.5	23.23	0.09	0.193	1.00	1.06	0.21
	LTE 2	QPSK20M	Bottom Side	2	18700	50	0	Full	-	23.5	23.23	0.02	0.244	1.00	1.06	0.26
	LTE 5	QPSK10M	Front Face	1	20600	1	49	Full	-	25.0	23.62	0.16	0.174	1.00	1.37	0.24

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	RB#	RB Offset	Power Reduction	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
33	LTE 5	QPSK10M	Rear Face	1	20600	1	49	Full	-	25.0	23.62	0.05	0.276	1.00	1.37	**0.38**
	LTE 5	QPSK10M	Left Side	1	20600	1	49	Full	-	25.0	23.62	-0.14	0.126	1.00	1.37	0.17
	LTE 5	QPSK10M	Right Side	1	20600	1	49	Full	-	25.0	23.62	-0.06	0.189	1.00	1.37	0.26
	LTE 5	QPSK10M	Bottom Side	1	20600	1	49	Full	-	25.0	23.62	0.02	0.255	1.00	1.37	0.35
	LTE 5	QPSK10M	Front Face	1	20600	25	0	Full	-	24.0	22.60	-0.01	0.156	1.00	1.38	0.22
	LTE 5	QPSK10M	Rear Face	1	20600	25	0	Full	-	24.0	22.60	-0.14	0.234	1.00	1.38	0.32
	LTE 5	QPSK10M	Left Side	1	20600	25	0	Full	-	24.0	22.60	0.07	0.114	1.00	1.38	0.16
	LTE 5	QPSK10M	Right Side	1	20600	25	0	Full	-	24.0	22.60	0.04	0.170	1.00	1.38	0.23
	LTE 5	QPSK10M	Bottom Side	1	20600	25	0	Full	-	24.0	22.60	0.07	0.218	1.00	1.38	0.30
	LTE 7	QPSK20M	Front Face	1	21100	1	99	Reduce	-	22.0	21.81	-0.02	0.175	1.00	1.04	0.14
	LTE 7	QPSK20M	Rear Face	1	21100	1	99	Reduce	-	22.0	21.81	-0.04	0.298	1.00	1.04	0.24
	LTE 7	QPSK20M	Left Side	1	21100	1	99	Full	-	24.0	23.82	-0.04	0.291	1.00	1.04	0.30
	LTE 7	QPSK20M	Right Side	1	21100	1	99	Full	-	24.0	23.82	-0.06	0.248	1.00	1.04	0.26
	LTE 7	QPSK20M	Bottom Side	1	21100	1	99	Reduce	-	22.0	21.81	-0.16	0.467	1.00	1.04	0.49
	LTE 7	QPSK20M	Front Face	1.3	21100	1	99	Full	-	24.0	23.82	0.05	0.328	1.00	1.04	0.34
	LTE 7	QPSK20M	Rear Face	1.8	21100	1	99	Full	-	24.0	23.82	-0.03	0.364	1.00	1.04	0.38
34	LTE 7	QPSK20M	Bottom Side	2	21100	1	99	Full	-	24.0	23.82	0.09	0.497	1.00	1.04	**0.52**
	LTE 7	QPSK20M	Front Face	1	21100	50	25	Reduce	-	21.0	20.56	-0.02	0.131	1.00	1.11	0.14
	LTE 7	QPSK20M	Rear Face	1	21100	50	25	Reduce	-	21.0	20.56	0.15	0.227	1.00	1.11	0.25
	LTE 7	QPSK20M	Left Side	1	21100	50	25	Full	-	23.0	22.63	-0.01	0.223	1.00	1.09	0.24
	LTE 7	QPSK20M	Right Side	1	21100	50	25	Full	-	23.0	22.63	0.03	0.203	1.00	1.09	0.22
	LTE 7	QPSK20M	Bottom Side	1	21100	50	25	Reduce	-	21.0	20.56	0.11	0.335	1.00	1.11	0.37
	LTE 7	QPSK20M	Front Face	1.3	21100	50	25	Full	-	23.0	22.63	0.03	0.279	1.00	1.09	0.30
	LTE 7	QPSK20M	Rear Face	1.8	21100	50	25	Full	-	23.0	22.63	0.02	0.305	1.00	1.09	0.33
	LTE 7	QPSK20M	Bottom Side	2	21100	50	25	Full	-	23.0	22.63	-0.19	0.394	1.00	1.09	0.43
	LTE 12	QPSK10M	Front Face	1	23095	1	49	Full	-	24.0	23.54	-0.15	0.193	1.00	1.11	0.21
	LTE 12	QPSK10M	Rear Face	1	23095	1	49	Full	-	24.0	23.54	-0.01	0.274	1.00	1.11	0.30
	LTE 12	QPSK10M	Left Side	1	23095	1	49	Full	-	24.0	23.54	0.07	0.195	1.00	1.11	0.22
35	LTE 12	QPSK10M	Right Side	1	23095	1	49	Full	-	24.0	23.54	0.01	0.320	1.00	1.11	**0.36**
	LTE 12	QPSK10M	Bottom Side	1	23095	1	49	Full	-	24.0	23.54	-0.01	0.104	1.00	1.11	0.12
	LTE 12	QPSK10M	Front Face	1	23095	25	0	Full	-	23.0	22.48	-0.15	0.153	1.00	1.13	0.17
	LTE 12	QPSK10M	Rear Face	1	23095	25	0	Full	-	23.0	22.48	0.08	0.229	1.00	1.13	0.26
	LTE 12	QPSK10M	Left Side	1	23095	25	0	Full	-	23.0	22.48	0.01	0.152	1.00	1.13	0.17
	LTE 12	QPSK10M	Right Side	1	23095	25	0	Full	-	23.0	22.48	0.06	0.250	1.00	1.13	0.28
	LTE 12	QPSK10M	Bottom Side	1	23095	25	0	Full	-	23.0	22.48	0.06	0.092	1.00	1.13	0.10
	LTE 13	QPSK10M	Front Face	1	23230	1	0	Full	-	24.0	22.49	-0.11	0.246	1.00	1.42	0.35
36	LTE 13	QPSK10M	Rear Face	1	23230	1	0	Full	-	24.0	22.49	0.05	0.370	1.00	1.42	**0.52**
	LTE 13	QPSK10M	Left Side	1	23230	1	0	Full	-	24.0	22.49	-0.03	0.207	1.00	1.42	0.29
	LTE 13	QPSK10M	Right Side	1	23230	1	0	Full	-	24.0	22.49	0.09	0.305	1.00	1.42	0.43
	LTE 13	QPSK10M	Bottom Side	1	23230	1	0	Full	-	24.0	22.49	-0.03	0.223	1.00	1.42	0.32
	LTE 13	QPSK10M	Front Face	1	23230	25	12	Full	-	23.0	21.48	0.05	0.183	1.00	1.42	0.26
	LTE 13	QPSK10M	Rear Face	1	23230	25	12	Full	-	23.0	21.48	0.06	0.281	1.00	1.42	0.40
	LTE 13	QPSK10M	Left Side	1	23230	25	12	Full	-	23.0	21.48	-0.01	0.157	1.00	1.42	0.22
	LTE 13	QPSK10M	Right Side	1	23230	25	12	Full	-	23.0	21.48	-0.04	0.239	1.00	1.42	0.34
	LTE 13	QPSK10M	Bottom Side	1	23230	25	12	Full	-	23.0	21.48	-0.01	0.184	1.00	1.42	0.26
	LTE 66	QPSK20M	Front Face	1	132572	1	0	Reduce	-	21.5	21.09	0.14	0.142	1.00	1.10	0.16
	LTE 66	QPSK20M	Rear Face	1	132572	1	0	Reduce	-	21.5	21.09	0.05	0.221	1.00	1.10	0.24
	LTE 66	QPSK20M	Left Side	1	132572	1	0	Full	-	24.5	24.04	0.05	0.215	1.00	1.11	0.24
	LTE 66	QPSK20M	Right Side	1	132572	1	0	Full	-	24.5	24.04	0.02	0.126	1.00	1.11	0.14
	LTE 66	QPSK20M	Bottom Side	1	132572	1	0	Reduce	-	21.5	21.09	0	0.321	1.00	1.10	0.35
37	LTE 66	QPSK20M	Front Face	1.3	132572	1	0	Full	-	24.5	24.04	-0.04	0.383	1.00	1.11	**0.43**
	LTE 66	QPSK20M	Rear Face	1.8	132572	1	0	Full	-	24.5	24.04	0.04	0.288	1.00	1.11	0.32
	LTE 66	QPSK20M	Bottom Side	2	132572	1	0	Full	-	24.5	24.04	-0.08	0.349	1.00	1.11	0.39
	LTE 66	QPSK20M	Front Face	1	132572	50	0	Reduce	-	20.5	19.39	-0.06	0.095	1.00	1.29	0.12
	LTE 66	QPSK20M	Rear Face	1	132572	50	0	Reduce	-	20.5	19.39	0.03	0.155	1.00	1.29	0.20
	LTE 66	QPSK20M	Left Side	1	132572	50	0	Full	-	23.5	22.71	-0.09	0.167	1.00	1.20	0.20
	LTE 66	QPSK20M	Right Side	1	132572	50	0	Full	-	23.5	22.71	-0.02	0.095	1.00	1.20	0.11
	LTE 66	QPSK20M	Bottom Side	1	132572	50	0	Reduce	-	20.5	19.39	0.04	0.231	1.00	1.29	0.30
	LTE 66	QPSK20M	Front Face	1.3	132572	50	0	Full	-	23.5	22.71	-0.08	0.282	1.00	1.20	0.34
	LTE 66	QPSK20M	Rear Face	1.8	132572	50	0	Full	-	23.5	22.71	0.13	0.213	1.00	1.20	0.26
	LTE 66	QPSK20M	Bottom Side	2	132572	50	0	Full	-	23.5	22.71	0.06	0.268	1.00	1.20	0.32
	WLAN2.4G	802.11b	Front Face	1	11	-	-	Full	99.68	18.0	17.53	0.06	0.114	1.00	1.11	0.13
38	WLAN2.4G	802.11b	Rear Face	1	11	-	-	Full	99.68	18.0	17.53	-0.02	0.147	1.00	1.11	**0.16**
	WLAN2.4G	802.11b	Right Side	1	11	-	-	Full	99.68	18.0	17.53	-0.05	0.080	1.00	1.11	0.09
	WLAN2.4G	802.11b	Top Side	1	11	-	-	Full	99.68	18.0	17.53	-0.03	0.128	1.00	1.11	0.14
	WLAN2.4G	802.11b	Rear Face	1.8	11	-	-	Full	99.68	18.0	17.53	0.06	0.053	1.03	1.22	0.06

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	RB#	RB Offset	Power Reduction	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	BT	GFSK	Front Face	1	78	-	-	Full	77.33	8.0	7.40	-0.04	0.010	1.29	1.15	0.01
39	BT	GFSK	Rear Face	1	78	-	-	Full	77.33	8.0	7.40	-0.01	0.017	1.29	1.15	**0.03**
	BT	GFSK	Right Side	1	78	-	-	Full	77.33	8.0	7.40	-0.08	0.009	1.29	1.15	0.01
	BT	GFSK	Top Side	1	78	-	-	Full	77.33	8.0	7.40	-0.01	0.011	1.29	1.15	0.02

Note: According to the KDB648474 D04, this report hotspot mode 1-g measured SAR is <1.2 W/kg when scaled to the maximum output power, therefore 10-g extremity SAR is not required.

4.6.5 SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are ≤ 1.45 W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is ≤ 1.10, the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

Since all the measured SAR are less than 0.8 W/kg, the repeated measurement is not required.

4.6.6 Simultaneous Multi-band Transmission Evaluation

<SAR Summation Analysis>

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. When the sum of SAR_{1g} of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR_{1g} 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR_{1g} is greater than the SAR limit (SAR_{1g} 1.6 W/kg), SAR test exclusion is determined by the SPLSR.

<Head>

WWAN Band	Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM850	Right Cheek	0.388	0.265	0.036	**0.65**	**0.42**
	Right Tilted	0.216	0.287	0.040	**0.50**	**0.26**
	Left Cheek	0.382	0.571	0.074	**0.95**	**0.46**
	Left Tilted	0.201	0.512	0.059	**0.71**	**0.26**
GSM1900	Right Cheek	0.173	0.265	0.036	**0.44**	**0.21**
	Right Tilted	0.108	0.287	0.040	**0.40**	**0.15**
	Left Cheek	0.176	0.571	0.074	**0.75**	**0.25**
	Left Tilted	0.111	0.512	0.059	**0.62**	**0.17**
WCDMA II	Right Cheek	0.214	0.265	0.036	**0.48**	**0.25**
	Right Tilted	0.188	0.287	0.040	**0.48**	**0.23**
	Left Cheek	0.350	0.571	0.074	**0.92**	**0.42**
	Left Tilted	0.232	0.512	0.059	**0.74**	**0.29**
WCDMA IV	Right Cheek	0.235	0.265	0.036	**0.50**	**0.27**
	Right Tilted	0.198	0.287	0.040	**0.49**	**0.24**
	Left Cheek	0.287	0.571	0.074	**0.86**	**0.36**
	Left Tilted	0.203	0.512	0.059	**0.71**	**0.26**
WCDMA V	Right Cheek	0.312	0.265	0.036	**0.58**	**0.35**
	Right Tilted	0.166	0.287	0.040	**0.45**	**0.21**
	Left Cheek	0.348	0.571	0.074	**0.92**	**0.42**
	Left Tilted	0.178	0.512	0.059	**0.69**	**0.24**
LTE Band 2	Right Cheek	0.226	0.265	0.036	**0.49**	**0.26**
	Right Tilted	0.151	0.287	0.040	**0.44**	**0.19**
	Left Cheek	0.234	0.571	0.074	**0.81**	**0.31**
	Left Tilted	0.225	0.512	0.059	**0.74**	**0.28**
LTE Band 5	Right Cheek	0.302	0.265	0.036	**0.57**	**0.34**
	Right Tilted	0.177	0.287	0.040	**0.46**	**0.22**
	Left Cheek	0.334	0.571	0.074	**0.91**	**0.41**
	Left Tilted	0.151	0.512	0.059	**0.66**	**0.21**
LTE Band 7	Right Cheek	0.114	0.265	0.036	**0.38**	**0.15**
	Right Tilted	0.112	0.287	0.040	**0.40**	**0.15**

WWAN Band	Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
	Left Cheek	0.267	0.571	0.074	**0.84**	**0.34**
	Left Tilted	0.167	0.512	0.059	**0.68**	**0.23**
LTE Band12	Right Cheek	0.246	0.265	0.036	**0.51**	**0.28**
	Right Tilted	0.094	0.287	0.040	**0.38**	**0.13**
	Left Cheek	0.196	0.571	0.074	**0.77**	**0.27**
	Left Tilted	0.113	0.512	0.059	**0.63**	**0.17**
LTE Band 13	Right Cheek	0.289	0.265	0.036	**0.55**	**0.32**
	Right Tilted	0.205	0.287	0.040	**0.49**	**0.25**
	Left Cheek	0.299	0.571	0.074	**0.87**	**0.37**
	Left Tilted	0.181	0.512	0.059	**0.69**	**0.24**
LTE Band 66	Right Cheek	0.189	0.265	0.036	**0.45**	**0.22**
	Right Tilted	0.120	0.287	0.040	**0.41**	**0.16**
	Left Cheek	0.186	0.571	0.074	**0.76**	**0.26**
	Left Tilted	0.150	0.512	0.059	**0.66**	**0.21**

<Body worn>

WWAN Band	Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM850	Front at 10mm -	0.346	0.127	0.015	**0.47**	**0.36**
	Back at 10mm -	0.540	0.164	0.025	**0.70**	**0.57**
GSM1900	Front at 10mm -	0.375	0.127	0.015	**0.50**	**0.39**
	Back at 10mm -	0.561	0.164	0.025	**0.73**	**0.59**
WCDMA II	Front at 10mm -	0.427	0.127	0.015	**0.55**	**0.44**
	Back at 10mm -	0.654	0.164	0.025	**0.82**	**0.68**
	Front at 13mm -	0.480	0.127	0.015	**0.61**	**0.49**
	Back at 18mm -	0.350	0.059	0.000	**0.41**	**0.35**
WCDMA IV	Front at 10mm -	0.146	0.127	0.015	**0.27**	**0.16**
	Back at 10mm -	0.257	0.164	0.025	**0.42**	**0.28**
	Front at 13mm -	0.546	0.127	0.015	**0.67**	**0.56**
	Back at 18mm -	0.474	0.059	0.000	**0.53**	**0.47**
WCDMA V	Front at 10mm -	0.324	0.127	0.015	**0.45**	**0.34**
	Back at 10mm -	0.440	0.164	0.025	**0.60**	**0.47**
LTE Band 2	Front at 10mm -	0.444	0.127	0.015	**0.57**	**0.46**
	Back at 10mm -	0.440	0.164	0.025	**0.60**	**0.47**
	Front at 13mm -	0.361	0.127	0.015	**0.49**	**0.38**
	Back at 18mm -	0.263	0.059	0.000	**0.32**	**0.26**

WWAN Band	Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE Band 5	Front at 10mm -	0.239	0.127	0.015	**0.37**	**0.25**
	Back at 10mm -	0.379	0.164	0.025	**0.54**	**0.40**
LTE Band 7	Front at 10mm -	0.145	0.127	0.015	**0.27**	**0.16**
	Back at 10mm -	0.251	0.164	0.025	**0.42**	**0.28**
	Front at 13mm -	0.342	0.127	0.015	**0.47**	**0.36**
	Back at 18mm -	0.379	0.059	0.000	**0.44**	**0.38**
LTE Band 12	Front at 10mm -	0.215	0.127	0.015	**0.34**	**0.23**
	Back at 10mm -	0.305	0.164	0.025	**0.47**	**0.33**
LTE Band 13	Front at 10mm -	0.348	0.127	0.015	**0.48**	**0.36**
	Back at 10mm -	0.524	0.164	0.025	**0.69**	**0.55**
LTE Band 66	Front at 10mm -	0.156	0.127	0.015	**0.28**	**0.17**
	Back at 10mm -	0.243	0.164	0.025	**0.41**	**0.27**
	Front at 13mm -	0.426	0.127	0.015	**0.55**	**0.44**
	Back at 18mm -	0.320	0.059	0.000	**0.38**	**0.32**

<Hotspot>

WWAN Band	Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM850	Front at 10mm -	0.346	0.127	0.015	**0.47**	**0.36**
	Back at 10mm -	0.540	0.164	0.025	**0.70**	**0.57**
	Left side at 10mm -	0.240			**0.24**	**0.24**
	Right side at 10mm -	0.348	0.089	0.013	**0.44**	**0.36**
	Top side at 10mm -		0.143	0.016	**0.14**	**0.02**
	Bottom side at 10mm -	0.423			**0.42**	**0.42**
GSM1900	Front at 10mm -	0.375	0.127	0.015	**0.50**	**0.39**
	Back at 10mm -	0.561	0.164	0.025	**0.73**	**0.59**
	Left side at 10mm -	0.184			**0.18**	**0.18**
	Right side at 10mm -	0.093	0.089	0.013	**0.18**	**0.11**
	Top side at 10mm -		0.143	0.016	**0.14**	**0.02**
	Bottom side at 10mm -	0.765			**0.76**	**0.76**
WCDMA II	Front at 10mm -	0.427	0.127	0.015	**0.55**	**0.44**
	Back at 10mm -	0.654	0.164	0.025	**0.82**	**0.68**
	Left side at 10mm -	0.486			**0.49**	**0.49**
	Right side at 10mm -	0.142	0.089	0.013	**0.23**	**0.16**
	Top side at 10mm -		0.143	0.016	**0.14**	**0.02**
	Bottom side at 10mm -	0.714			**0.71**	**0.71**

WWAN Band	Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
	Front at 13mm -	0.480	0.127	0.015	**0.61**	**0.49**
	Back at 18mm -	0.350	0.059	0.000	**0.41**	**0.35**
	Bottom side at 20mm -	0.400			**0.40**	**0.40**
WCDMA IV	Front at 10mm -	0.146	0.127	0.015	**0.27**	**0.16**
	Back at 10mm -	0.257	0.164	0.025	**0.42**	**0.28**
	Left side at 10mm -	0.333			**0.33**	**0.33**
	Right side at 10mm -	0.153	0.089	0.013	**0.24**	**0.17**
	Top side at 10mm -		0.143	0.016	**0.14**	**0.02**
	Bottom side at 10mm -	0.325			**0.32**	**0.32**
	Front at 13mm -	0.546	0.127	0.015	**0.67**	**0.56**
	Back at 18mm -	0.474	0.059	0.000	**0.53**	**0.47**
	Bottom side at 20mm -	0.482			**0.48**	**0.48**
WCDMA V	Front at 10mm -	0.324	0.127	0.015	**0.45**	**0.34**
	Back at 10mm -	0.440	0.164	0.025	**0.60**	**0.47**
	Left side at 10mm -	0.223			**0.22**	**0.22**
	Right side at 10mm -	0.329	0.089	0.013	**0.42**	**0.34**
	Top side at 10mm -		0.143	0.016	**0.14**	**0.02**
	Bottom side at 10mm -	0.410			**0.41**	**0.41**
LTE Band 2	Front at 10mm -	0.444	0.127	0.015	**0.57**	**0.46**
	Back at 10mm -	0.440	0.164	0.025	**0.60**	**0.47**
	Left side at 10mm -	0.393			**0.39**	**0.39**
	Right side at 10mm -	0.363	0.089	0.013	**0.45**	**0.38**
	Top side at 10mm -		0.143	0.016	**0.14**	**0.02**
	Bottom side at 10mm -	0.580			**0.58**	**0.58**
	Front at 13mm -	0.361	0.127	0.015	**0.49**	**0.38**
	Back at 18mm -	0.263	0.059	0.000	**0.32**	**0.26**
	Bottom side at 20mm -	0.326			**0.33**	**0.33**
LTE Band 5	Front at 10mm -	0.239	0.127	0.015	**0.37**	**0.25**
	Back at 10mm -	0.379	0.164	0.025	**0.54**	**0.40**
	Left side at 10mm -	0.173			**0.17**	**0.17**
	Right side at 10mm -	0.260	0.089	0.013	**0.35**	**0.27**
	Top side at 10mm -		0.143	0.016	**0.14**	**0.02**
	Bottom side at 10mm -	0.350			**0.35**	**0.35**
LTE Band 7	Front at 10mm -	0.145	0.127	0.015	**0.27**	**0.16**
	Back at 10mm -	0.251	0.164	0.025	**0.42**	**0.28**
	Left side at 10mm -	0.303			**0.30**	**0.30**
	Right side at 10mm -	0.258	0.089	0.013	**0.35**	**0.27**
	Top side at 10mm -		0.143	0.016	**0.14**	**0.02**
	Bottom side at 10mm -	0.488			**0.49**	**0.49**

WWAN Band	Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
	Front at 13mm -	0.342	0.127	0.015	**0.47**	**0.36**
	Back at 18mm -	0.379	0.059	0.000	**0.44**	**0.38**
	Bottom side at 20mm -	0.518			**0.52**	**0.52**
LTE Band 12	Front at 10mm -	0.215	0.127	0.015	**0.34**	**0.23**
	Back at 10mm -	0.305	0.164	0.025	**0.47**	**0.33**
	Left side at 10mm -	0.217			**0.22**	**0.22**
	Right side at 10mm -	0.356	0.089	0.013	**0.45**	**0.37**
	Top side at 10mm -		0.143	0.016	**0.14**	**0.02**
	Bottom side at 10mm -	0.116			**0.12**	**0.12**
LTE Band 13	Front at 10mm -	0.348	0.127	0.015	**0.48**	**0.36**
	Back at 10mm -	0.524	0.164	0.025	**0.69**	**0.55**
	Left side at 10mm -	0.293			**0.29**	**0.29**
	Right side at 10mm -	0.432	0.089	0.013	**0.52**	**0.45**
	Top side at 10mm -		0.143	0.016	**0.14**	**0.02**
	Bottom side at 10mm -	0.316			**0.32**	**0.32**
LTE Band 66	Front at 10mm -	0.156	0.127	0.015	**0.28**	**0.17**
	Back at 10mm -	0.243	0.164	0.025	**0.41**	**0.27**
	Left side at 10mm -	0.239			**0.24**	**0.24**
	Right side at 10mm -	0.140	0.089	0.013	**0.23**	**0.15**
	Top side at 10mm -		0.143	0.016	**0.14**	**0.02**
	Bottom side at 10mm -	0.353			**0.35**	**0.35**
	Front at 13mm -	0.426	0.127	0.015	**0.55**	**0.44**
	Back at 18mm -	0.320	0.059	0.000	**0.38**	**0.32**
	Bottom side at 20mm -	0.388			**0.39**	**0.39**

Test Engineer： Dennis Ye, and Rikou Lu

5. Calibration of Test Equipment

Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D750V3	1067	Sep. 16, 2021	1 Year
System Validation Dipole	SPEAG	D835V2	4d139	Sep. 17, 2021	1 Year
System Validation Dipole	SPEAG	D1750V2	1071	Sep. 18, 2021	1 Year
System Validation Dipole	SPEAG	D1900V2	5d159	Sep. 16, 2021	1 Year
System Validation Dipole	SPEAG	D2450V2	893	Sep. 18, 2021	1 Year
System Validation Dipole	SPEAG	D2600V2	1110	Sep. 16, 2021	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1389	Oct. 26, 2021	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3873	Aug. 25, 2021	1 Year
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 25, 2021	1 Year
Wireless Communication Test Set	Agilent	E5515C	MY50260600	Jun. 02, 2021	1 Year
ENA Series Network Analyzer	Agilent	E5071C	MY46214638	Jun. 03, 2021	1 Year
Spectrum Analyzer	KEYSIGHT	N9010A	MY54510355	Jun. 03, 2021	1Year
MXG Analog Signal Generator	KEYSIGHT	N5183A	MY50143024	Mar. 09, 2021	1 Year
Power Meter	Agilent	N1914A	MY52180044	Mar. 02, 2021	1 Year
Power Sensor	Agilent	E9304A H18	MY52050011	Feb. 25, 2021	1 Year
Power Meter	ANRITSU	ML2495A	1506002	Apr. 07, 2021	1 Year
Power Sensor	ANRITSU	MA2411B	1339353	May. 07, 2021	1 Year
Temp. & Humi. Recorder	CLOCK	HTC-1	157248	Jun. 02, 2021	1 Year
Electronic Thermometer	YONGFA	YF-160A	120100323	Jun. 02, 2021	1 Year
Coupler	Woken	0110A056020-10	COM27RW1A3	Jun. 02, 2021	1 Year

6. Measurement Uncertainty

DASY5 Uncertainty Budget								
Error Description	**Uncertainty Value (±%)**	**Probability**	**Divisor**	**(Ci) 1g**	**(Ci) 10g**	**Standard Uncertainty (1g) (±%)**	**Standard Uncertainty (10g) (±%)**	**(Vi) Veff**
Measurement System								
Probe Calibration	6.0	N	1	1	1	6.0	6.0	∞
Axial Isotropy	4.7	R	1.732	0.7	0.7	1.9	1.9	∞
Hemispherical Isotropy	9.6	R	1.732	0.7	0.7	3.9	3.9	∞
Boundary Effects	1.0	R	1.732	1	1	0.6	0.6	∞
Linearity	4.7	R	1.732	1	1	2.7	2.7	∞
System Detection Limits	1.0	R	1.732	1	1	0.6	0.6	∞
Modulation Response	3.2	R	1.732	1	1	1.8	1.8	∞
Readout Electronics	0.3	N	1	1	1	0.3	0.3	∞
Response Time	0.0	R	1.732	1	1	0.0	0.0	∞
Integration Time	2.6	R	1.732	1	1	1.5	1.5	∞
RF Ambient Noise	3.0	R	1.732	1	1	1.7	1.7	∞
RF Ambient Reflections	3.0	R	1.732	1	1	1.7	1.7	∞
Probe Positioner	0.4	R	1.732	1	1	0.2	0.2	∞
Probe Positioning	2.9	R	1.732	1	1	1.7	1.7	∞
Max. SAR Eval.	2.0	R	1.732	1	1	1.2	1.2	∞
Test Sample Related								
Device Positioning	3.0	N	1	1	1	3.0	3.0	35
Device Holder	3.6	N	1	1	1	3.6	3.6	12
Power Drift	5.0	R	1.732	1	1	2.9	2.9	∞
Power Scaling	0.0	R	1.732	1	1	0.0	0.0	∞
Phantom and Setup								
Phantom Uncertainty	6.1	R	1.732	1	1	3.5	3.5	∞
SAR correction	0.0	R	1.732	1	0.84	0.0	0.0	∞
Liquid Conductivity Repeatability	0.2	N	1	0.78	0.71	0.1	0.1	5
Liquid Conductivity (target)	5.0	R	1.732	0.78	0.71	2.3	2.0	∞
Liquid Conductivity (mea.)	2.5	R	1.732	0.78	0.71	1.1	1.0	∞
Temp. unc. - Conductivity	3.4	R	1.732	0.78	0.71	1.5	1.4	∞
Liquid Permittivity Repeatability	0.15	N	1	0.23	0.26	0.0	0.0	5
Liquid Permittivity (target)	5.0	R	1.732	0.23	0.26	0.7	0.8	∞
Liquid Permittivity (mea.)	2.5	R	1.732	0.23	0.26	0.3	0.4	∞
Temp. unc. - Permittivity	0.83	R	1.732	0.23	0.26	0.1	0.1	∞
Combined Std. Uncertainty						11.4%	11.4%	1013
Coverage Factor for 95 %						K=2	K=2	
Expanded STD Uncertainty						22.9%	22.7%	

Uncertainty budget for frequency range 30 MHz to 3 GHz

DASY5 Uncertainty Budget								
Error Description	**Uncertainty Value (±%)**	**Probability**	**Divisor**	**(Ci) 1g**	**(Ci) 10g**	**Standard Uncertainty (1g) (±%)**	**Standard Uncertainty (10g) (±%)**	**(Vi) Veff**
Measurement System								
Probe Calibration	6.55	N	1	1	1	6.5	6.5	∞
Axial Isotropy	4.7	R	1.732	0.7	0.7	1.9	1.9	∞
Hemispherical Isotropy	9.6	R	1.732	0.7	0.7	3.9	3.9	∞
Boundary Effects	2.0	R	1.732	1	1	1.2	1.2	∞
Linearity	4.7	R	1.732	1	1	2.7	2.7	∞
System Detection Limits	1.0	R	1.732	1	1	0.6	0.6	∞
Modulation Response	3.2	R	1.732	1	1	1.8	1.8	∞
Readout Electronics	0.3	N	1	1	1	0.3	0.3	∞
Response Time	0.0	R	1.732	1	1	0.0	0.0	∞
Integration Time	2.6	R	1.732	1	1	1.5	1.5	∞
RF Ambient Noise	3.0	R	1.732	1	1	1.7	1.7	∞
RF Ambient Reflections	3.0	R	1.732	1	1	1.7	1.7	∞
Probe Positioner	0.4	R	1.732	1	1	0.2	0.2	∞
Probe Positioning	6.7	R	1.732	1	1	3.9	3.9	∞
Max. SAR Eval.	4.0	R	1.732	1	1	2.3	2.3	∞
Test Sample Related								
Device Positioning	3.0	N	1	1	1	3.0	3.0	35
Device Holder	3.6	N	1	1	1	3.6	3.6	12
Power Drift	5.0	R	1.732	1	1	2.9	2.9	∞
Power Scaling	0.0	R	1.732	1	1	0.0	0.0	∞
Phantom and Setup								
Phantom Uncertainty	6.6	R	1.732	1	1	3.8	3.8	∞
SAR correction	0.0	R	1.732	1	0.84	0.0	0.0	∞
Liquid Conductivity Repeatability	0.2	N	1	0.78	0.71	0.1	0.1	5
Liquid Conductivity (target)	5.0	R	1.732	0.78	0.71	2.3	2.0	∞
Liquid Conductivity (mea.)	2.5	R	1.732	0.78	0.71	1.1	1.0	∞
Temp. unc. - Conductivity	3.4	R	1.732	0.78	0.71	1.5	1.4	∞
Liquid Permittivity Repeatability	0.15	N	1	0.23	0.26	0.0	0.0	5
Liquid Permittivity (target)	5.0	R	1.732	0.23	0.26	0.7	0.8	∞
Liquid Permittivity (mea.)	2.5	R	1.732	0.23	0.26	0.3	0.4	∞
Temp. unc. - Permittivity	0.83	R	1.732	0.23	0.26	0.1	0.1	∞
Combined Std. Uncertainty						12.5%	12.5%	1458
Coverage Factor for 95 %						K=2	K=2	
Expanded STD Uncertainty						25.0%	24.9%	

Uncertainty budget for frequency range 3 GHz to 6 GHz

7. Information on the Testing Laboratories

We, BV 7LAYERS COMMUNICATIONS TECHNOLOGY (SHENZHEN) CO. LTD., were founded in 2015 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Add: No. B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industry Park, Nanshan District, Shenzhen, Guangdong, China
Tel: 86-755-8869-6566
Fax: 86-755-8869-6577

Email: customerservice.sw@cn.bureauveritas.com
Web Site: www.bureauveritas.com

The road map of all our labs can be found in our web site also.

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Appendix A. SAR Plots of System Verification

The plots for system verification with largest deviation for each SAR system combination are shown as follows.

Test Laboratory: BV 7LAYERS SAR/HAC Testing Lab Date: 2022/1/24

System Check_HSL750_20220124

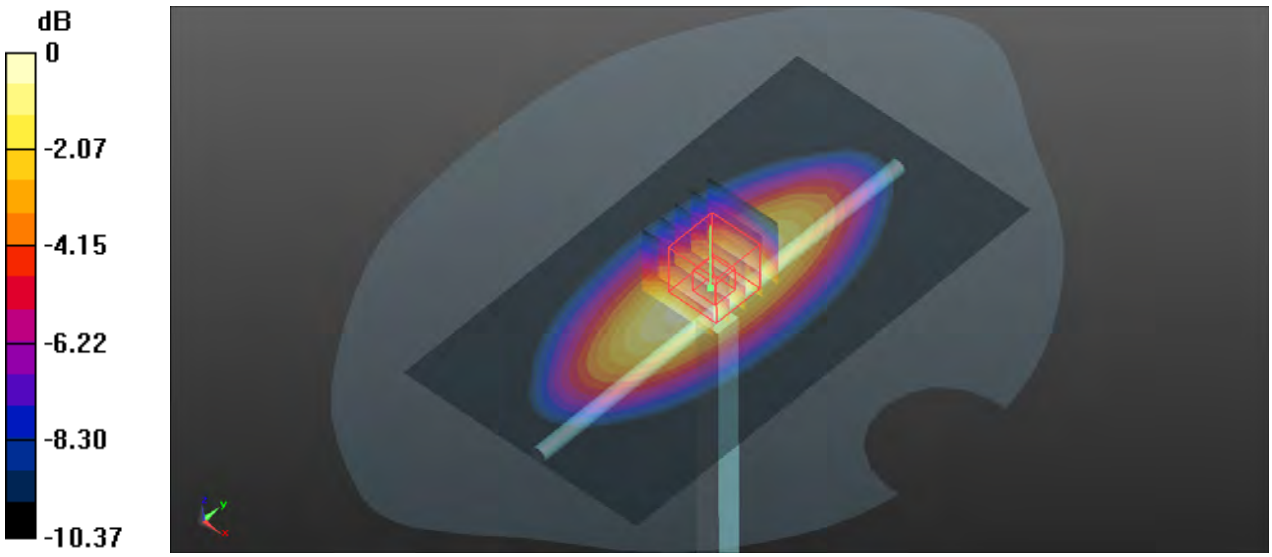
DUT: Dipole:750 MHz;Type:D750V3

Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: HSL750_0124 Medium parameters used: f = 750 MHz; σ = 0.885 S/m; ε_r = 42.93; ρ = 1000 kg/m^3
Ambient Temperature：23.4℃； Liquid Temperature：22.6℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.57, 9.57, 9.57); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Pin=250mW/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.64 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 54.473 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.02 W/kg
SAR(1 g) = 2.03 W/kg; SAR(10 g) = 1.34 W/kg
Maximum value of SAR (measured) = 2.70 W/kg



0 dB = 2.70 W/kg

System Check_HSL835_20220125

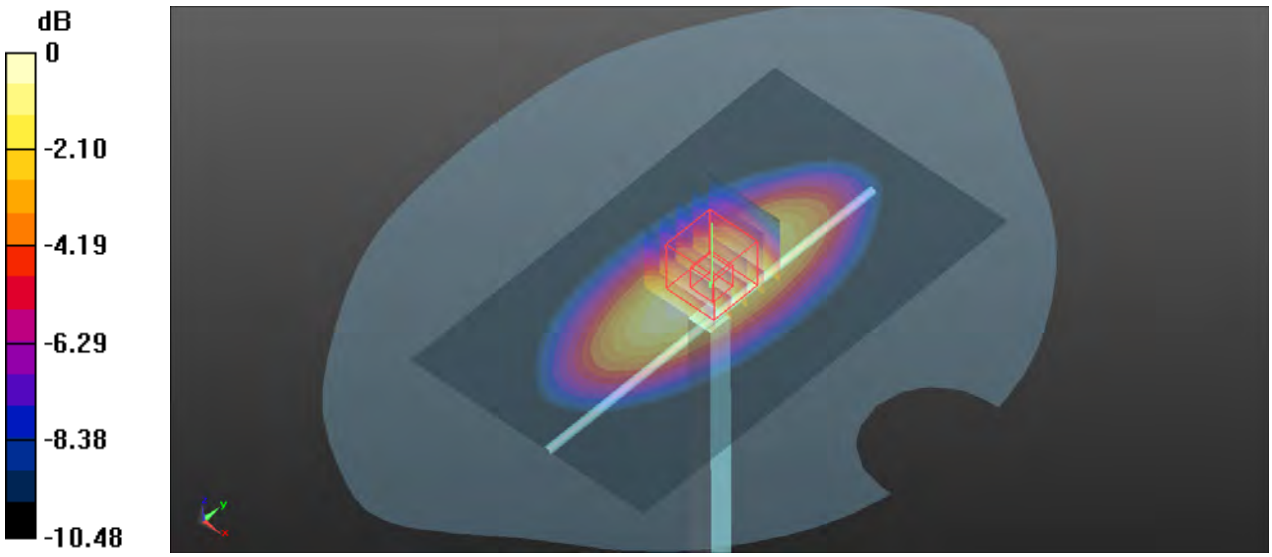
DUT: Dipole:835 MHz;Type:D835V2

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: HSL835_0125 Medium parameters used: f = 835 MHz; σ = 0.912 S/m; ε_r = 41.883; ρ = 1000 kg/m^3
Ambient Temperature：23.3℃； Liquid Temperature：22.5℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.36, 9.36, 9.36); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Pin=250mW/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.28 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 59.717 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 3.71 W/kg
SAR(1 g) = 2.49 W/kg; SAR(10 g) = 1.65 W/kg
Maximum value of SAR (measured) = 3.31 W/kg



0 dB = 3.31 W/kg

System Check_HSL1750_20220126

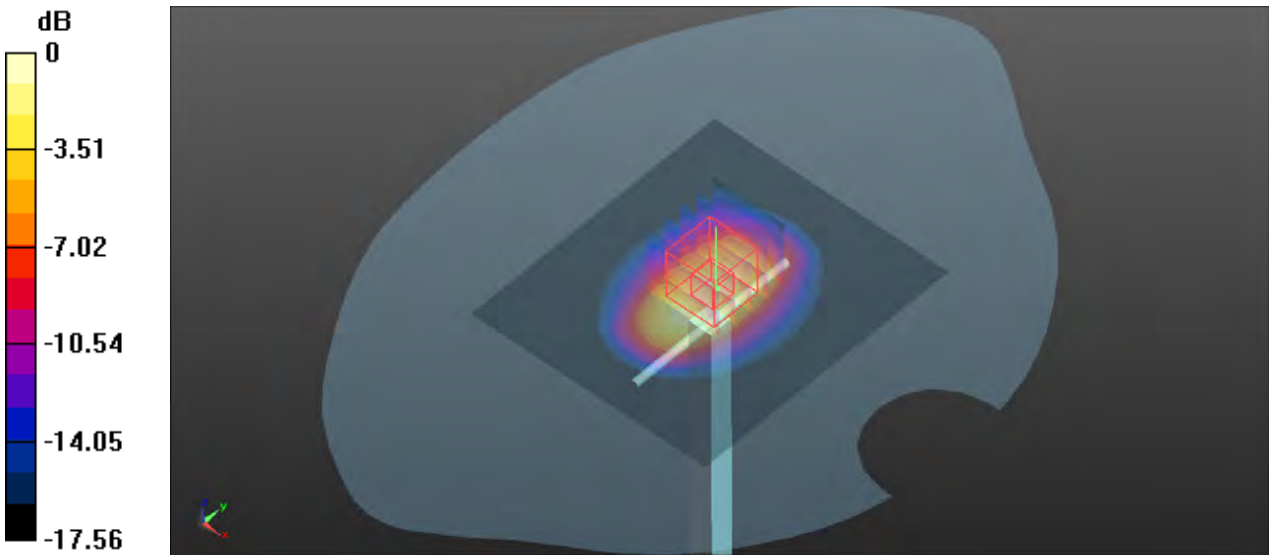
DUT: Dipole:1750 MHz;Type:D1750V2

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: HSL1750_0126 Medium parameters used: f = 1750 MHz; σ = 1.334 S/m; ε_r = 40.077; ρ = 1000 kg/m^3
Ambient Temperature：23.5℃； Liquid Temperature：22.3℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(8.19, 8.19, 8.19); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Pin=250mW/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 13.2 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 102.9 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 16.1 W/kg
SAR(1 g) = 8.55 W/kg; SAR(10 g) = 4.52 W/kg
Maximum value of SAR (measured) = 13.3 W/kg



0 dB = 13.3 W/kg

System Check_HSL1900_20220127

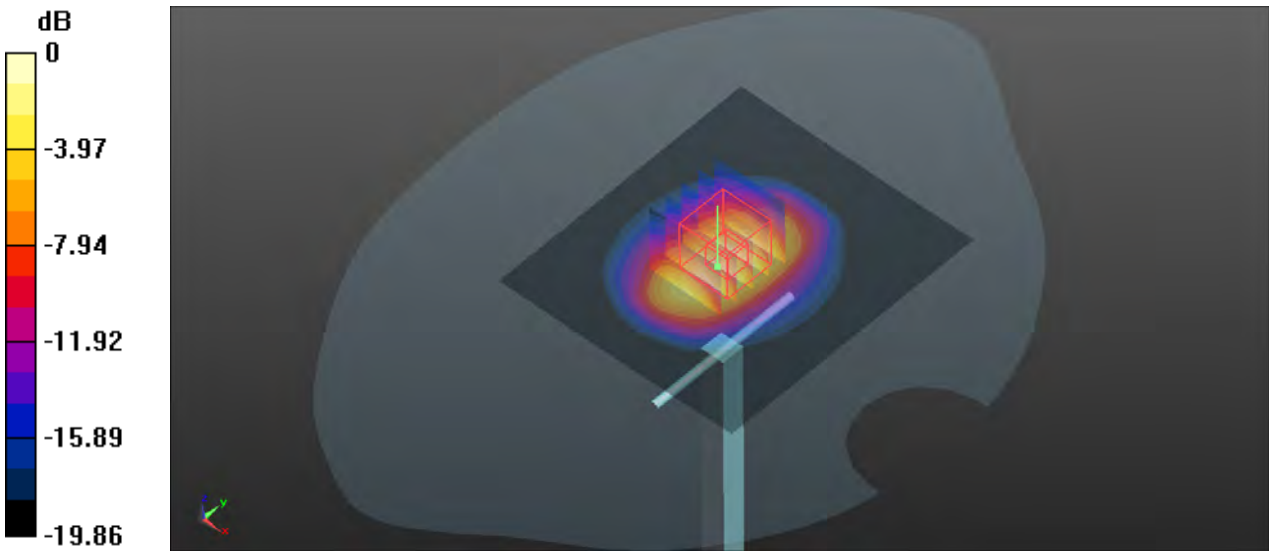
DUT: Dipole:1900MHz;Type:D1900V2

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL1900_0127 Medium parameters used: f = 1900 MHz; σ = 1.434 S/m; ε_r = 40.145; ρ = 1000 kg/m^3
Ambient Temperature：23.3℃； Liquid Temperature：22.7℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(8, 8, 8); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Pin=250mW/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 14.7 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 95.145 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 17.7 W/kg
SAR(1 g) = 9.77 W/kg; SAR(10 g) = 4.64 W/kg
Maximum value of SAR (measured) = 14.4 W/kg



0 dB = 14.4 W/kg

Test Laboratory: BV 7LAYERS SAR/HAC Testing Lab Date: 2022/1/28

System Check_HSL2450_20220128

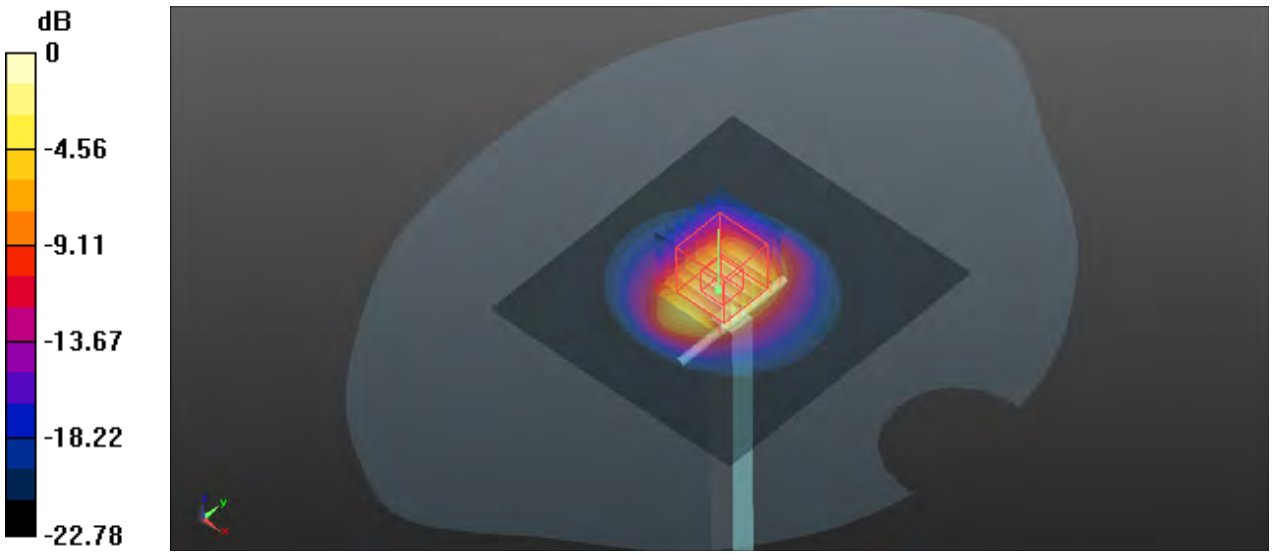
DUT: Dipole:2450 MHz;Type:D2450V2

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: HSL2450_0128 Medium parameters used: f = 2450 MHz; σ = 1.766 S/m; ε_r = 39.265; ρ = 1000 kg/m^3
Ambient Temperature：23.5℃； Liquid Temperature：22.5℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.88, 7.88, 7.88); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Pin=250mW/Area Scan (91x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 22.2 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 108.0 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 28.3 W/kg
SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.18 W/kg
Maximum value of SAR (measured) = 22.7 W/kg



0 dB = 22.7 W/kg

Test Laboratory: BV 7LAYERS SAR/HAC Testing Lab Date: 2022/1/29

System Check_HSL2600_20220129

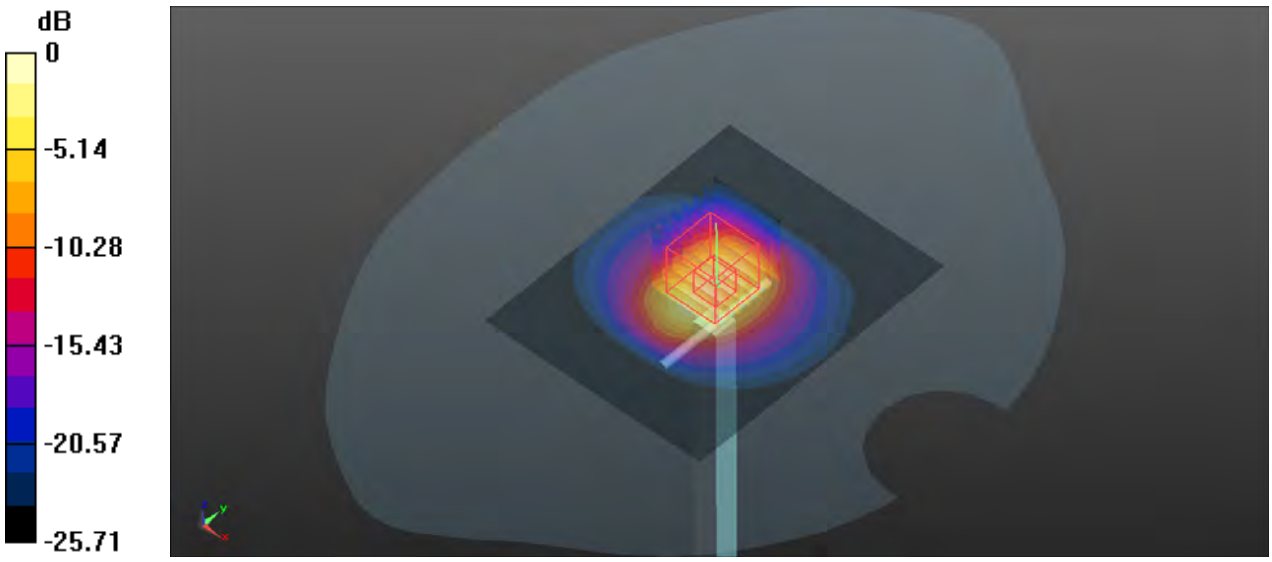
DUT: Dipole:2600 MHz;Type:D2600V2

Communication System: CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium: HSL2600_0129 Medium parameters used: f = 2600 MHz; σ = 1.964 S/m; ε_r = 39.403; ρ = 1000 kg/m^3
Ambient Temperature：23.6℃； Liquid Temperature：22.4℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.66, 7.66, 7.66); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Pin=250mW/Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 25.9 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 115.8 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 32.7 W/kg
SAR(1 g) = 14.6 W/kg; SAR(10 g) = 6.38 W/kg
Maximum value of SAR (measured) = 25.7 W/kg



0 dB = 25.7 W/kg

Appendix B. SAR Plots of SAR Measurement

The SAR plots for highest measured SAR in each exposure configuration, wireless mode and frequency band combination, and measured SAR > 1.5 W/kg are shown as follows.

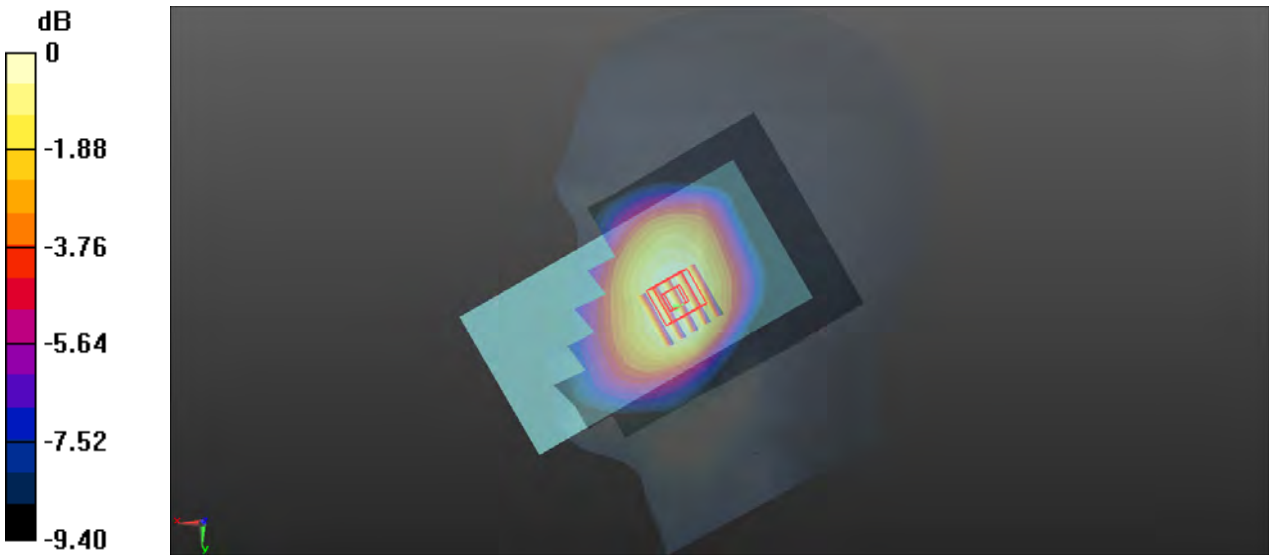
P01 GSM850_GPRS10_Right Cheek_Ch251

Communication System: GPRS10; Frequency: 848.8 MHz;Duty Cycle: 1:4.15
Medium: HSL835_0125 Medium parameters used: f = 849 MHz; σ = 0.917 S/m; ε_r = 41.847; ρ = 1000 kg/m^3
Ambient Temperature：23.3℃； Liquid Temperature：22.5℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.36, 9.36, 9.36); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

- Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.302 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.050 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.322 W/kg
SAR(1 g) = 0.259 W/kg; SAR(10 g) = 0.198 W/kg
Maximum value of SAR (measured) = 0.300 W/kg



0 dB = 0.300 W/kg

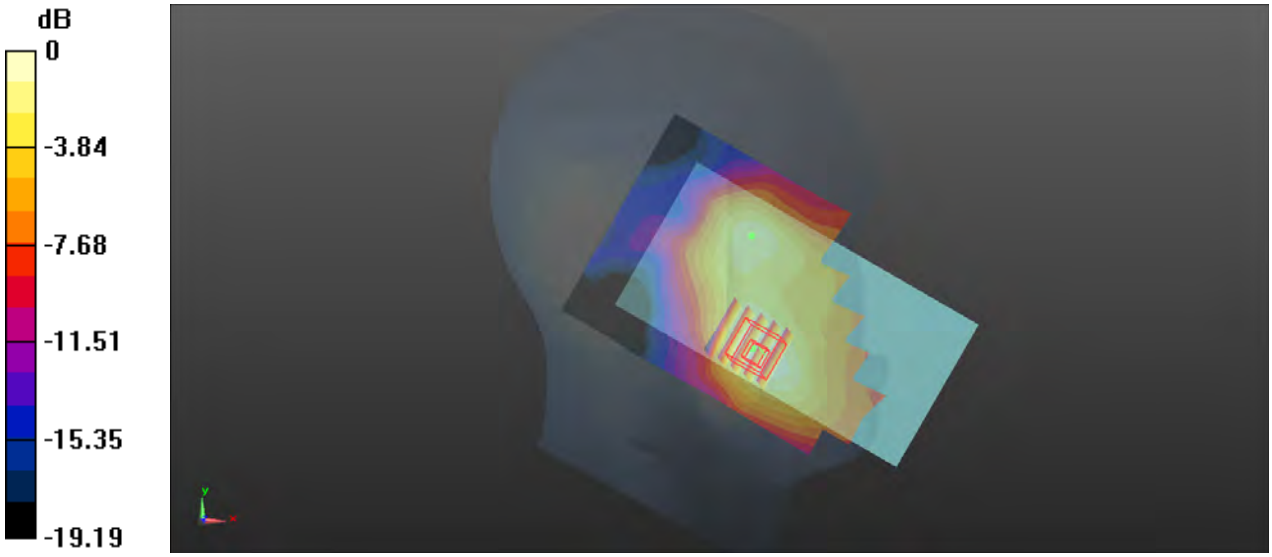
P02 GSM1900_GPRS10_Left Cheek_Ch512

Communication System: GPRS10; Frequency: 1850.2 MHz;Duty Cycle: 1:4.15
Medium: HSL1900_0127 Medium parameters used: f = 1850.2 MHz; σ = 1.399 S/m; ε_r = 40.213; ρ = 1000 kg/m^3
Ambient Temperature：23.3℃； Liquid Temperature：22.7℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(8, 8, 8); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

- Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.162 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.316 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.178 W/kg
SAR(1 g) = 0.116 W/kg; SAR(10 g) = 0.075 W/kg
Maximum value of SAR (measured) = 0.152 W/kg



0 dB = 0.152 W/kg

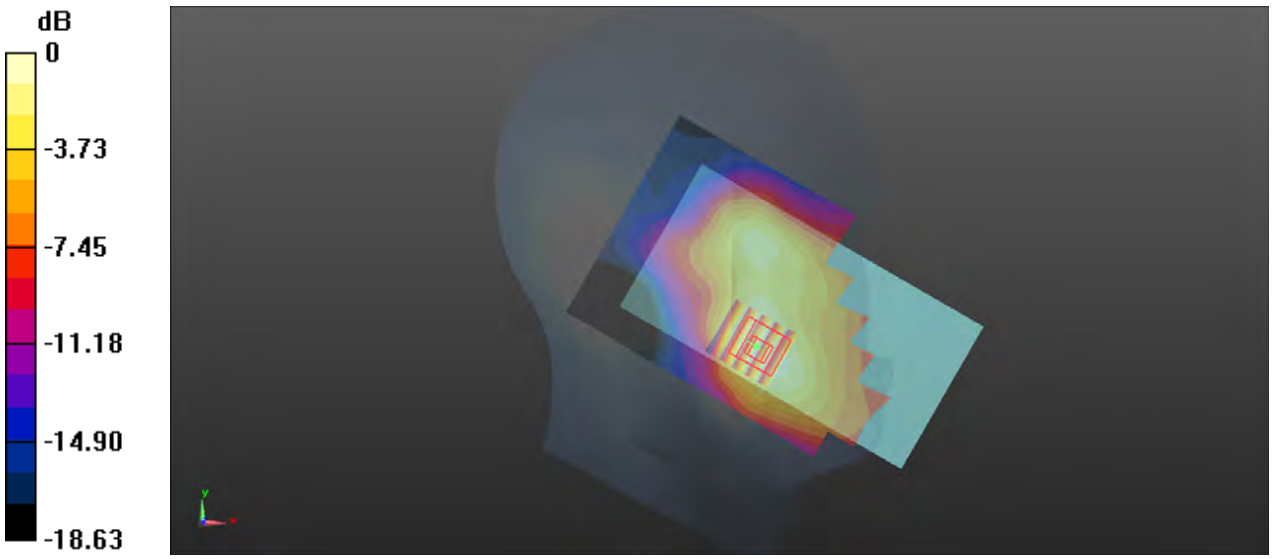
P03 WCDMA II_RMC12.2K_Left Cheek_Ch9538

Communication System: WCDMA; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: HSL1900_0127 Medium parameters used: f = 1908 MHz; σ = 1.44 S/m; ε_r = 40.148; ρ = 1000 kg/m^3
Ambient Temperature：23.3℃； Liquid Temperature：22.7℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(8, 8, 8); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

- Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.349 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.068 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.374 W/kg
SAR(1 g) = 0.245 W/kg; SAR(10 g) = 0.158 W/kg
Maximum value of SAR (measured) = 0.322 W/kg



0 dB = 0.322 W/kg

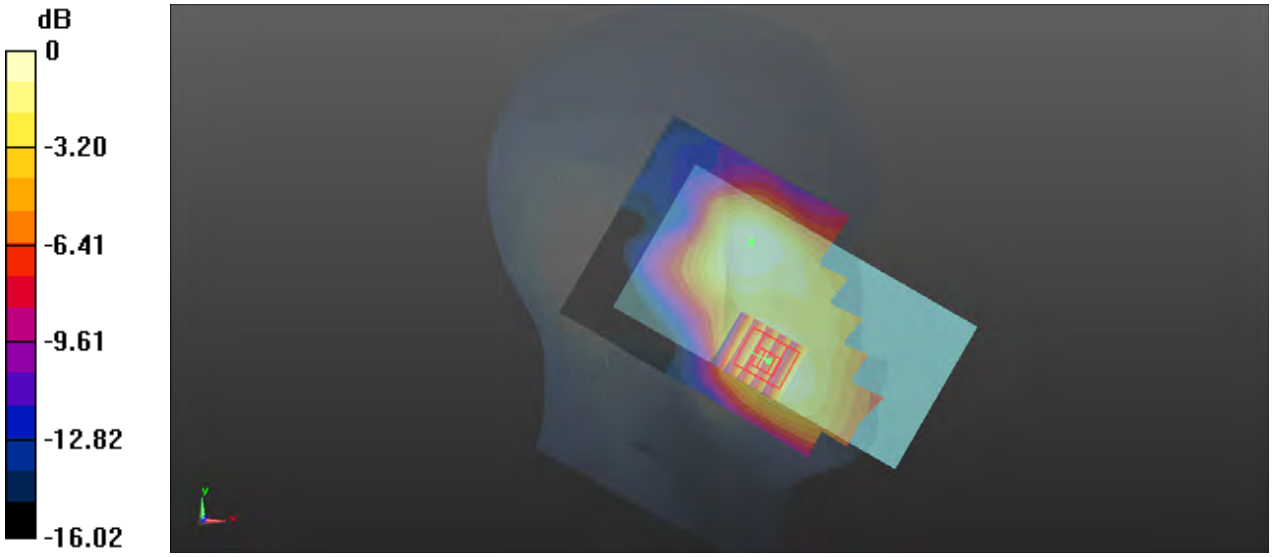
P04 WCDMA IV_RMC12.2K_Left Cheek_Ch1312

Communication System: WCDMA; Frequency: 1712.4 MHz;Duty Cycle: 1:1
Medium: HSL1750_0126 Medium parameters used: f = 1712.4 MHz; σ = 1.324 S/m; ε_r = 40.199; ρ = 1000 kg/m^3
Ambient Temperature：23.5℃； Liquid Temperature：22.3℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(8.19, 8.19, 8.19); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

- Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.222 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.923 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.233 W/kg
SAR(1 g) = 0.154 W/kg; SAR(10 g) = 0.102 W/kg
Maximum value of SAR (measured) = 0.202 W/kg



0 dB = 0.202 W/kg

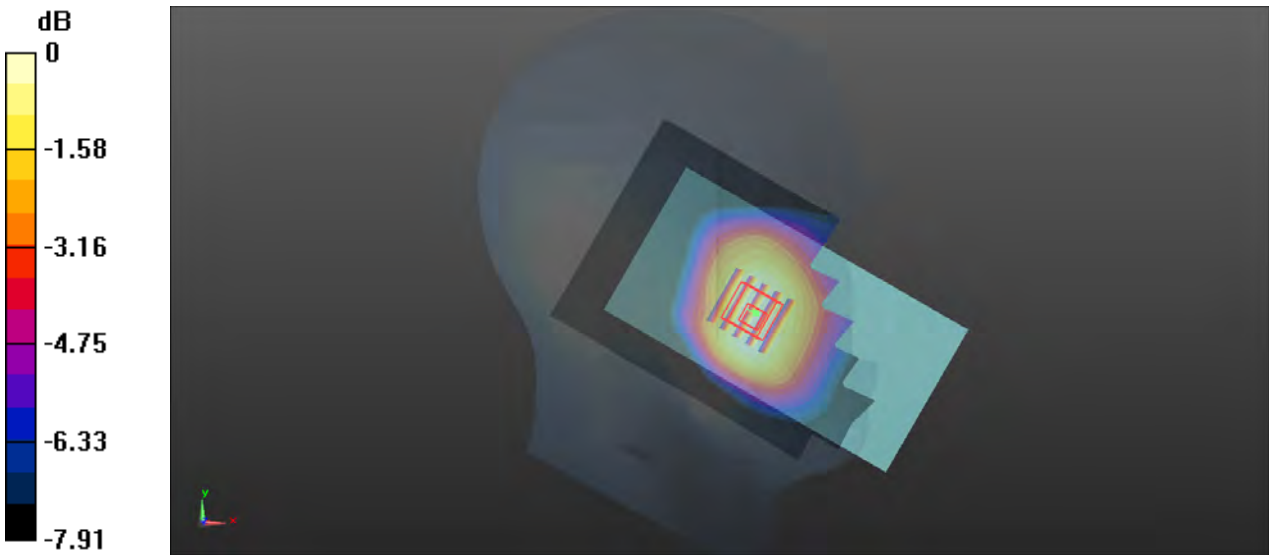
P05 WCDMA V_RMC12.2K_Left Cheek_Ch4233

Communication System: WCDMA; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium: HSL835_0125 Medium parameters used: f = 847 MHz; σ = 0.917 S/m; ε_r = 41.85; ρ = 1000 kg/m^3
Ambient Temperature：23.3℃； Liquid Temperature：22.5℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.36, 9.36, 9.36); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

- Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.275 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.125 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.295 W/kg
SAR(1 g) = 0.238 W/kg; SAR(10 g) = 0.186 W/kg
Maximum value of SAR (measured) = 0.276 W/kg



0 dB = 0.276 W/kg

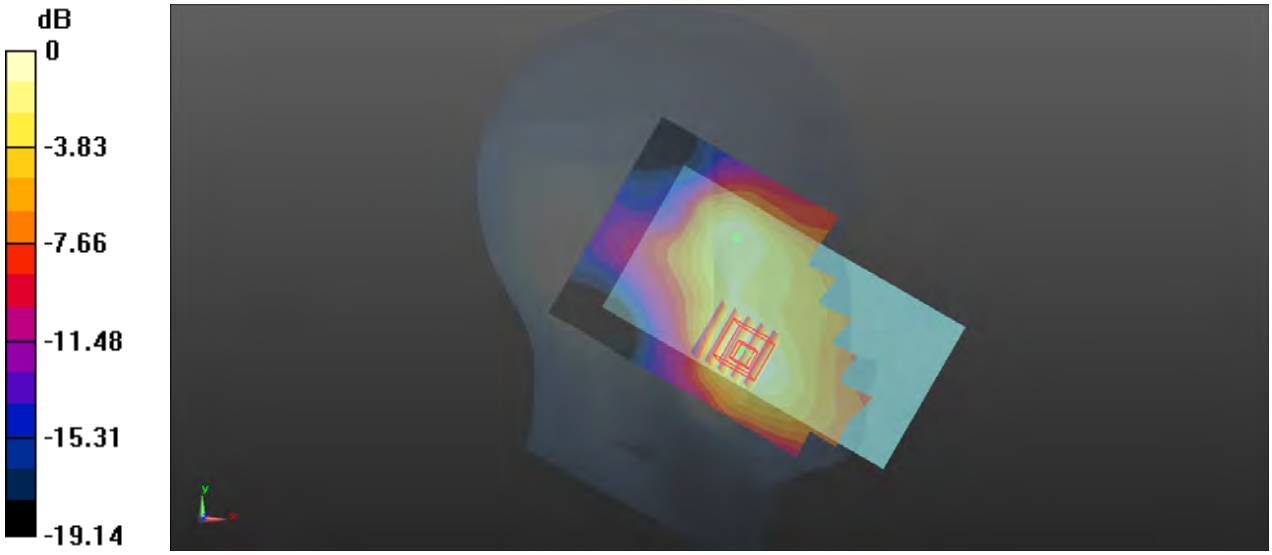
P06 LTE 2_QPSK20M_Left Cheek_Ch18700_1RB_OS0

Communication System: LTE; Frequency: 1860 MHz;Duty Cycle: 1:1
Medium: HSL1900_0127 Medium parameters used: f = 1860 MHz; σ = 1.403 S/m; ε_r = 40.185; ρ = 1000 kg/m^3
Ambient Temperature：23.3℃； Liquid Temperature：22.7℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(8, 8, 8); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

- Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.307 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.008 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.338 W/kg
SAR(1 g) = 0.223 W/kg; SAR(10 g) = 0.145 W/kg
Maximum value of SAR (measured) = 0.290 W/kg



0 dB = 0.290 W/kg

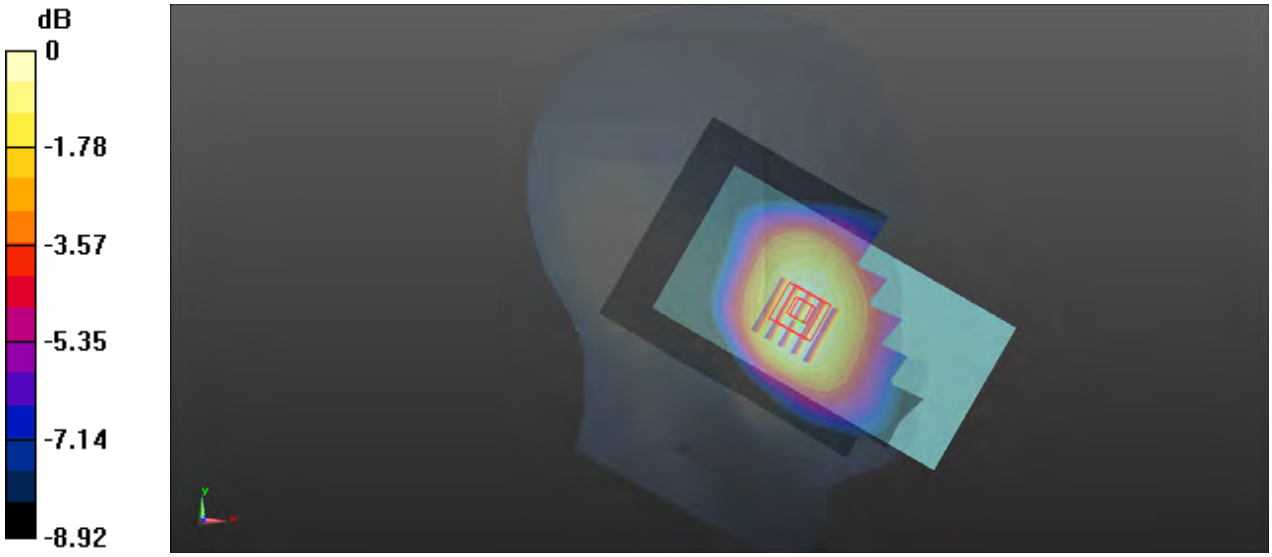
P07 LTE 5_QPSK10M_Left Cheek_Ch20600_1RB_OS49

Communication System: LTE; Frequency: 844 MHz;Duty Cycle: 1:1
Medium: HSL835_0125 Medium parameters used: f = 844 MHz; σ = 0.916 S/m; ε_r = 41.86; ρ = 1000 kg/m^3
Ambient Temperature：23.3℃； Liquid Temperature：22.5℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(9.36, 9.36, 9.36); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

- Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.286 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.603 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 0.305 W/kg
SAR(1 g) = 0.243 W/kg; SAR(10 g) = 0.190 W/kg
Maximum value of SAR (measured) = 0.282 W/kg



0 dB = 0.282 W/kg

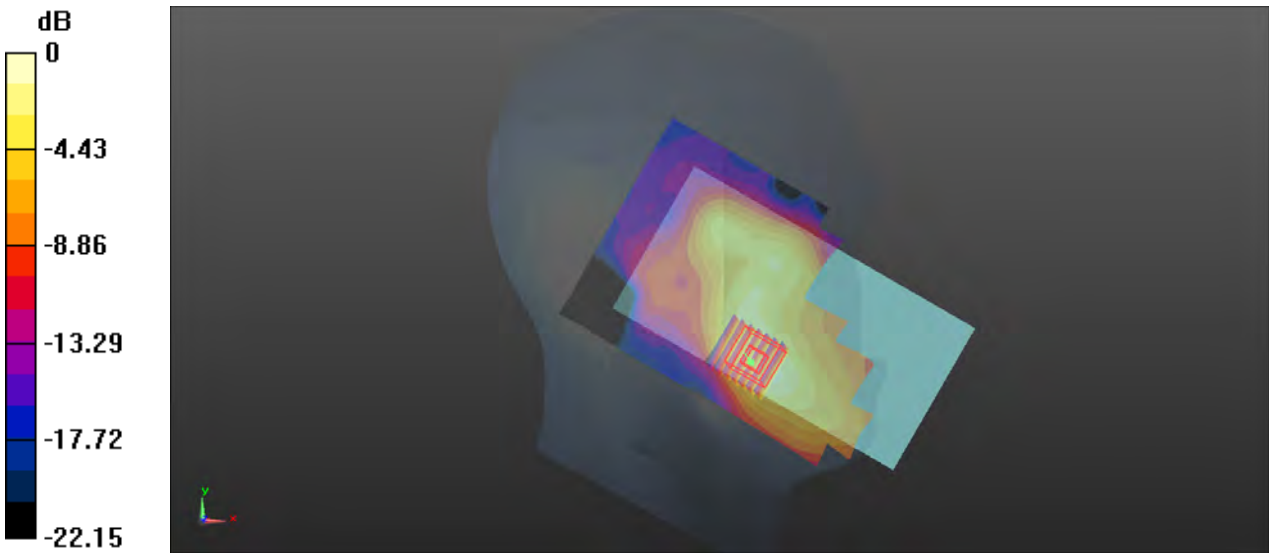
P08 LTE 7_QPSK20M_Left Cheek_Ch21100_1RB_OS99

Communication System: LTE; Frequency: 2535 MHz;Duty Cycle: 1:1
Medium: HSL2600_0129 Medium parameters used: f = 2535 MHz; σ = 1.896 S/m; ε_r = 39.677; ρ = 1000 kg/m^3
Ambient Temperature：23.6℃； Liquid Temperature：22.4℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3873; ConvF(7.66, 7.66, 7.66); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

- Area Scan (101x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.442 W/kg

- Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.061 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.483 W/kg
SAR(1 g) = 0.256 W/kg; SAR(10 g) = 0.137 W/kg
Maximum value of SAR (measured) = 0.393 W/kg



0 dB = 0.393 W/kg