

11.5.5.4 Max Power setting

- Click “Cell in the bottom of screen.
- Click “UE Power control” than change UE Power control mode to All Up bits.

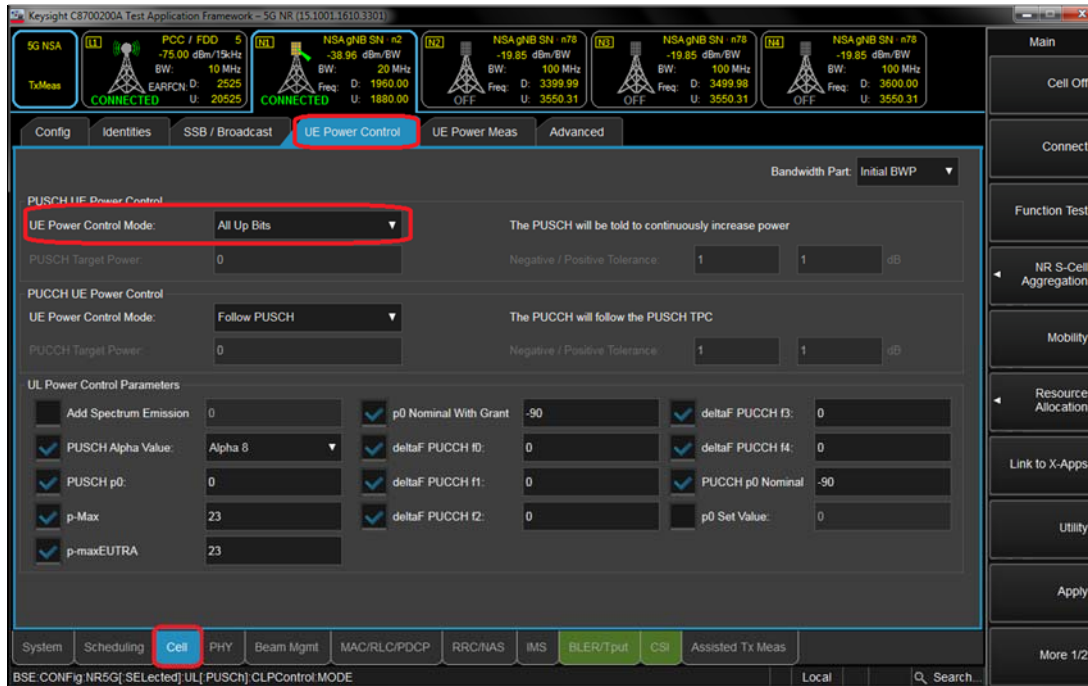


Figure-6

11.5.5.5 Selecting Start RB/Count/MCS

- Select the each test configuring (Start RB, Count, MCS).



Figure-7

11.5.5.6 View Tx Power

- Click “Link to X-Apps.”(Please refer to Figure-7)
- Select “Channel Power”.



Figure-8

11.5.2 NR Band Maximum Conducted Power

DSI = 0,1 PLimit Calculations - 5G Body-Worn, Phablet Max, Head SAR

[NR Band n2 Conducted Power]

NR Band n2 _ 5 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						370500	376000	381500	
						1852.5 MHz	1880 MHz	1907.5 MHz	
5 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.83	24.50	24.24	0
				1	13	24.75	24.58	24.21	0
				1	23	24.69	24.59	24.13	0
				12	0	24.33	24.22	23.86	1
				12	7	24.70	24.57	24.21	0
				12	13	24.29	24.21	23.79	1
				25	0	24.32	24.22	23.85	1
			QPSK	1	1	24.68	24.42	24.10	0
				1	13	24.60	24.50	24.03	0
				1	23	24.53	24.42	24.09	0
				12	0	23.87	23.76	23.37	1
				12	7	24.75	24.64	24.17	0
				12	13	23.85	23.69	23.29	1
				25	0	23.88	23.77	23.33	1
			16QAM	1	1	23.98	23.84	23.57	1
		CP	QPSK	1	1	23.49	23.15	22.86	1.5

NR Band n2 _ 10 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						371000	376000	381000	
						1855 MHz	1880 MHz	1905 MHz	
10 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.89	24.53	24.33	0
				1	26	24.74	24.57	24.27	0
				1	50	24.59	24.47	24.18	0
				25	0	24.46	24.17	23.93	1
				25	14	24.74	24.58	24.34	0
				25	27	24.30	24.18	23.89	1
				50	0	24.33	24.14	23.89	1
			QPSK	1	1	24.76	24.48	24.22	0
				1	26	24.62	24.46	24.16	0
				1	50	24.48	24.40	24.06	0
				25	0	23.98	23.69	23.42	1
				25	14	24.77	24.69	24.36	0
				25	27	23.82	23.73	23.40	1
				50	0	23.90	23.99	23.41	1
			16QAM	1	1	23.99	23.94	23.68	1
		CP	QPSK	1	1	23.49	23.21	22.93	1.5

NR Band n2_ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						371500	376000	380500	
						1857.5 MHz	1880 MHz	1902.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.67	24.60	24.37	0
				1	40	24.41	24.48	24.14	0
				1	77	24.47	24.53	24.17	0
				36	0	24.31	24.34	24.02	1
				36	22	24.53	24.60	24.27	0
				36	43	24.20	24.22	23.89	1
				75	0	24.19	24.25	23.99	1
			QPSK	1	1	24.67	24.65	24.36	0
				1	40	24.32	24.01	24.14	0
				1	77	24.39	24.53	24.12	0
				36	0	23.81	23.86	23.52	1
				36	22	24.51	24.62	24.27	0
				36	43	23.66	23.75	23.39	1
				75	0	23.62	23.83	23.46	1
			16QAM	1	1	23.98	23.89	23.65	1
		CP	QPSK	1	1	23.47	23.29	23.04	1.5

NR Band n2_ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						372000	376000	380000	
						1860 MHz	1880 MHz	1900 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.75	24.57	24.43	0
				1	53	24.36	24.53	24.19	0
				1	104	24.55	24.49	24.13	0
				50	0	24.31	24.26	24.05	1
				50	28	24.59	24.63	24.36	0
				50	56	24.16	24.20	23.93	1
				100	0	24.32	24.32	24.01	1
			QPSK	1	1	24.77	24.66	24.50	0
				1	53	24.39	24.45	24.13	0
				1	104	24.57	24.45	24.14	0
				50	0	23.88	23.80	23.55	1
				50	28	24.61	24.64	24.37	0
				50	56	23.69	23.77	23.43	1
				100	0	23.85	23.74	23.47	1
			16QAM	1	1	23.81	23.87	23.80	1
		CP	QPSK	1	1	23.48	23.26	23.14	1.5

[NR Band n5 Conducted Power All DSI]

NR Band n5 _ 5 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						165300	167300	169300	
						826.5 MHz	836.5 MHz	846.5 MHz	
5 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.65	24.37	23.44	0
				1	13	24.56	24.28	23.79	0
				1	23	24.59	24.07	23.77	0
				12	0	24.30	23.99	23.39	1
				12	7	24.67	24.22	23.75	0
				12	13	24.22	23.67	23.31	1
				25	0	24.28	23.90	23.47	1
			QPSK	1	1	24.53	24.26	23.70	0
				1	13	24.47	24.13	23.63	0
				1	23	24.47	24.04	23.63	0
				12	0	23.77	23.44	22.97	1
				12	7	24.65	24.27	23.82	0
				12	13	23.68	23.32	22.92	1
				25	0	23.74	23.43	22.92	1
			16QAM	1	1	23.88	23.77	22.91	1
		CP	QPSK	1	1	23.25	23.04	22.47	1.5

NR Band n5 _ 10 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						165800		168800	
						829 MHz		844 MHz	
10 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.64		24.07	0
				1	26	24.71		23.75	0
				1	50	24.43		23.74	0
				25	0	24.31		23.67	1
				25	14	24.60		23.87	0
				25	27	24.30		23.44	1
				50	0	24.22		23.56	1
			QPSK	1	1	24.55		23.94	0
				1	26	24.40		23.66	0
				1	50	24.25		23.61	0
				25	0	23.72		23.09	1
				25	14	24.59		23.79	0
				25	27	23.75		22.92	1
				50	0	23.75		23.38	1
			16QAM	1	1	23.79		23.97	1
		CP	QPSK	1	1	23.23		22.66	1.5

NR Band n5 _ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							167300		
							836.5 MHz		
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1		24.58		0
				1	40		24.15		0
				1	77		23.94		0
				36	0		24.22		1
				36	22		24.32		0
				36	43		23.78		1
			QPSK	75	0		23.94		1
				1	1		24.43		0
				1	40		24.04		0
				1	77		23.86		0
				36	0		23.60		1
				36	22		24.28		0
				36	43		23.18		1
				75	0		23.43		1
			16QAM	1	1		23.80		1
		CP	QPSK	1	1		23.31		1.5

NR Band n5 _ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							167300		
							836.5 MHz		
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1		24.28		0
				1	53		24.15		0
				1	104		23.80		0
				50	0		24.20		1
				50	28		23.24		0
				50	56		23.82		1
			QPSK	100	0		23.95		1
				1	1		24.59		0
				1	53		24.13		0
				1	104		23.78		0
				50	0		23.47		1
				50	28		24.12		0
				50	56		23.12		1
				100	0		23.37		1
			16QAM	1	1		23.78		1
		CP	QPSK	1	1		23.25		1.5

NR Band n5 (Cell) at 15 MHz/ 20 MHz Bandwidth does not support three non-overlapping channels. Per FCC Guidance, 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.

[NR Band n66 Conducted Power]

NR Band n66 _5 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)				MPR [dB]
						342500	346820	351160	355500	
						1712.5 MHz	1734.1 MHz	1755.8 MHz	1777.5 MHz	
5 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.76	24.29	24.74	24.58	0
				1	13	24.70	24.25	24.77	24.47	0
				1	23	24.67	24.29	24.74	24.42	0
				12	0	24.32	23.88	24.34	24.14	1
				12	7	24.72	24.20	24.76	24.51	0
				12	13	24.29	23.86	24.41	24.09	1
				25	0	24.32	23.83	24.28	24.10	1
			QPSK	1	1	24.66	24.22	24.65	24.49	0
				1	13	24.63	24.18	24.67	24.38	0
				1	23	24.58	24.21	24.71	24.45	0
				12	0	23.97	23.50	23.87	23.72	1
				12	7	24.81	24.35	23.85	23.62	0
				12	13	23.78	23.48	23.99	23.67	1
				25	0	23.99	23.43	23.94	22.92	1
			16QAM	1	1	23.97	23.68	23.98	23.99	1
		CP	QPSK	1	1	23.49	23.00	23.46	23.32	1.5

NR Band n66 _10 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)				MPR [dB]
						343000	347000	351000	355000	
						1715 MHz	1735 MHz	1755 MHz	1775 MHz	
10 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.75	24.27	24.55	24.63	0
				1	26	24.61	24.28	24.67	24.43	0
				1	50	24.51	24.26	24.83	24.32	0
				25	0	24.36	23.82	24.27	24.16	1
				25	14	24.70	24.27	24.70	24.54	0
				25	27	24.11	23.88	24.36	24.08	1
				50	0	24.25	23.83	24.28	24.13	1
			QPSK	1	1	24.73	24.29	24.54	24.48	0
				1	26	24.57	24.31	24.60	24.38	0
				1	50	24.52	24.33	24.74	24.22	0
				25	0	23.98	23.53	23.86	23.76	1
				25	14	24.80	23.65	24.81	24.59	0
				25	27	23.89	23.50	23.98	23.64	1
				50	0	23.96	23.49	23.39	23.63	1
			16QAM	1	1	23.27	23.95	23.75	23.96	1
		CP	QPSK	1	1	23.47	23.07	23.29	23.37	1.5

NR Band n66 _ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)				MPR [dB]
						343500	347160	350820	354500	
						1717.5 MHz	1735.8 MHz	1754.1 MHz	1772.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.62	24.26	24.40	24.58	0
				1	40	24.43	24.24	24.51	24.35	0
				1	77	24.36	24.47	24.72	24.27	0
				36	0	24.40	23.93	24.25	24.26	1
				36	22	24.64	24.43	24.64	24.59	0
				36	43	24.18	24.10	24.41	24.12	1
				75	0	24.19	23.96	24.23	24.21	1
			QPSK	1	1	24.67	24.34	24.52	24.66	0
				1	40	24.44	24.36	24.58	24.38	0
				1	77	24.35	24.41	24.45	24.45	0
				36	0	23.90	23.52	23.78	23.77	1
				36	22	24.65	24.45	24.69	24.57	0
				36	43	23.70	23.68	23.93	23.60	1
				75	0	23.72	23.56	23.77	23.76	1
			16QAM	1	1	23.98	23.59	23.80	23.98	1
		CP	QPSK	1	1	23.48	23.06	23.37	23.49	1.5

NR Band n66 _ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)				MPR [dB]
						344000	349000		354000	
						1720 MHz	1745 MHz		1770 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.45	24.41		24.74	0
				1	53	24.22	24.37		24.48	0
				1	104	24.11	24.66		24.29	0
				50	0	24.18	24.17		24.41	1
				50	28	24.43	24.61		24.64	0
				50	56	23.91	24.38		24.22	1
				100	0	24.31	24.27		24.26	1
			QPSK	1	1	24.70	24.84		24.75	0
				1	53	24.43	24.47		24.61	0
				1	104	24.24	24.73		24.41	0
				50	0	23.93	23.68		23.95	1
				50	28	24.64	24.76		24.71	0
				50	56	23.62	23.84		23.74	1
				100	0	23.89	23.78		23.88	1
			16QAM	1	1	23.98	23.84		23.97	1
		CP	QPSK	1	1	23.48	23.26		23.49	1.5

11.5.3 NR Band Reduced Conducted Power(Hotspot activated)

DSI = 2 PLimit Calculations - 5G Hotspot SAR

[NR Band n2 Conducted Power]

NR Band n2 _ 5 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						370500	376000	381500	
						1852.5 MHz	1880 MHz	1907.5 MHz	
5 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	19.74	19.66	19.31	0
				1	13	19.68	19.78	19.21	0
				1	23	19.67	19.71	19.18	0
				12	0	19.72	19.77	19.32	0
				12	7	19.74	19.82	19.29	0
				12	13	19.72	19.80	19.24	0
				25	0	19.75	19.80	19.23	0
			QPSK	1	1	19.63	19.62	19.17	0
				1	13	19.69	19.66	19.15	0
				1	23	19.59	19.59	19.10	0
				12	0	19.73	19.83	19.32	0
				12	7	19.74	19.80	19.27	0
				12	13	19.71	19.78	19.27	0
				25	0	19.68	19.77	19.22	0
			16QAM	1	1	19.85	19.78	19.40	0
		CP	QPSK	1	1	19.67	19.75	19.23	0

NR Band n2 _ 10 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371000	376000	381000	
						1855 MHz	1880 MHz	1905 MHz	
10 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	19.67	19.73	19.45	0
				1	26	19.74	19.82	19.80	0
				1	50	19.49	19.67	19.31	0
				25	0	19.64	19.77	19.48	0
				25	14	19.61	19.83	19.41	0
				25	27	19.56	19.79	19.34	0
				50	0	19.64	19.79	19.47	0
			QPSK	1	1	19.66	19.69	19.45	0
				1	26	19.55	19.71	19.44	0
				1	50	19.41	19.61	19.18	0
				25	0	19.68	19.73	19.51	0
				25	14	19.67	19.85	19.42	0
				25	27	19.63	19.82	19.39	0
				50	0	19.64	19.80	19.47	0
			16QAM	1	1	19.82	19.61	19.54	0
		CP	QPSK	1	1	19.64	19.47	19.31	0

NR Band n2_ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371500	376000	380500	
						1857.5 MHz	1880 MHz	1902.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	19.71	19.73	19.55	0
				1	40	19.46	19.65	19.36	0
				1	77	19.54	19.68	19.28	0
				36	0	19.64	19.80	19.54	0
				36	22	19.50	19.72	19.41	0
				36	43	19.62	19.68	19.33	0
				75	0	19.54	19.77	19.48	0
			QPSK	1	1	19.62	19.65	19.47	0
				1	40	19.37	19.55	19.21	0
				1	77	19.46	19.60	19.19	0
				36	0	19.61	19.83	19.55	0
				36	22	19.51	19.73	19.38	0
				36	43	19.61	19.73	19.33	0
				75	0	19.61	19.75	19.47	0
			16QAM	1	1	19.86	19.65	19.66	0
		CP	QPSK	1	1	19.55	19.53	19.41	0

NR Band n2_ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						372000	376000	380000	
						1860 MHz	1880 MHz	1900 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	19.70	19.68	19.64	0
				1	53	19.79	19.90	19.84	0
				1	104	19.68	19.68	19.30	0
				50	0	19.59	19.70	19.62	0
				50	28	19.58	19.78	19.55	0
				50	56	19.63	19.70	19.47	0
				100	0	19.64	19.80	19.55	0
			QPSK	1	1	19.67	19.66	19.54	0
				1	53	19.39	19.60	19.35	0
				1	104	19.56	19.56	19.18	0
				50	0	19.80	19.79	19.61	0
				50	28	19.60	19.78	19.48	0
				50	56	19.64	19.74	19.46	0
				100	0	19.67	19.61	19.55	0
			16QAM	1	1	19.84	19.55	19.83	0
		CP	QPSK	1	1	19.60	19.56	19.56	0

[NR Band n66 Conducted Power]

NR Band n66 _5 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						342500	346820	351160	355500	
						1712.5 MHz	1734.1 MHz	1755.8 MHz	1777.5 MHz	
5 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	21.85	21.48	21.94	21.72	0
				1	13	21.81	21.48	21.98	21.70	0
				1	23	21.81	21.49	21.97	21.53	0
				12	0	21.89	21.54	21.96	21.43	0
				12	7	21.85	21.52	21.99	21.56	0
				12	13	21.79	21.58	21.98	21.66	0
				25	0	21.87	21.50	21.91	21.67	0
			QPSK	1	1	21.74	21.40	21.87	21.65	0
				1	13	21.70	21.39	21.94	21.68	0
				1	23	21.66	21.41	21.86	21.59	0
				12	0	21.89	21.50	21.97	21.56	0
				12	7	21.89	21.51	21.99	21.58	0
				12	13	21.85	21.59	21.97	21.71	0
				25	0	21.92	21.51	21.97	21.72	0
			16QAM	1	1	21.86	21.69	21.98	21.75	0
		CP	QPSK	1	1	21.92	21.52	21.95	21.76	0

NR Band n66 _10 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						343000	347000	351000	355000	
						1715 MHz	1735 MHz	1755 MHz	1775 MHz	
10 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	21.80	21.58	21.81	21.68	0
				1	26	21.80	21.94	21.91	21.82	0
				1	50	21.71	21.59	21.97	21.39	0
				25	0	21.86	21.56	21.89	21.68	0
				25	14	21.85	21.64	21.94	21.58	0
				25	27	21.80	21.65	21.98	21.51	0
				50	0	21.86	21.54	21.83	21.62	0
			QPSK	1	1	21.73	21.48	21.71	21.62	0
				1	26	21.91	21.80	21.98	21.62	0
				1	50	21.61	21.51	21.91	21.33	0
				25	0	21.90	21.57	21.93	21.71	0
				25	14	21.83	21.61	21.99	21.61	0
				25	27	21.86	21.68	21.99	21.56	0
				50	0	21.90	21.51	21.98	21.61	0
			16QAM	1	1	21.97	21.78	21.99	21.91	0
		CP	QPSK	1	1	21.92	21.57	21.81	21.73	0

NR Band n66 _ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						343500	347160	350820	354500	
						1717.5 MHz	1735.8 MHz	1754.1 MHz	1772.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	21.80	21.54	21.80	21.75	0
				1	40	21.67	21.58	21.82	21.51	0
				1	77	21.63	21.85	21.98	21.36	0
				36	0	21.84	21.58	21.83	21.81	0
				36	22	21.74	21.62	21.91	21.61	0
				36	43	21.70	21.73	21.89	21.52	0
				75	0	21.84	21.56	21.84	21.67	0
			QPSK	1	1	21.77	21.46	21.68	21.71	0
				1	40	21.56	21.49	21.72	21.48	0
				1	77	21.57	21.76	21.91	21.31	0
				36	0	21.91	21.54	21.87	21.79	0
				36	22	21.79	21.61	21.90	21.66	0
				36	43	21.72	21.69	21.93	21.56	0
				75	0	21.80	21.60	21.89	21.69	0
			16QAM	1	1	21.99	21.69	21.93	21.98	0
		CP	QPSK	1	1	21.92	21.50	21.78	21.84	0

NR Band n66 _ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						344000	349000		354000	
						1720 MHz	1745 MHz		1770 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	21.88	21.73		21.99	0
				1	53	21.93	21.98		21.94	0
				1	104	21.50	21.94		21.41	0
				50	0	21.88	21.73		21.90	0
				50	28	21.70	21.81		21.78	0
				50	56	21.60	21.90		21.64	0
				100	0	21.77	21.86		21.80	0
			QPSK	1	1	21.84	21.92		21.91	0
				1	53	21.67	21.66		21.57	0
				1	104	21.43	21.87		21.32	0
				50	0	21.87	21.91		21.90	0
				50	28	21.79	21.84		21.75	0
				50	56	21.63	21.88		21.56	0
				100	0	21.87	21.86		21.81	0
			16QAM	1	1	21.99	21.92		21.96	0
		CP	QPSK	1	1	21.96	21.77		21.92	0

11.5.4 NR Band Reduced Conducted Power(Grip-sensor on,EARJACK)

DSI = 2 PLimit Calculations - 5G Phablet Reduced SAR

[NR Band n2 Conducted Power]

NR Band n2 _ 5 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						370500	376000	381500	
						1852.5 MHz	1880 MHz	1907.5 MHz	
5 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	21.85	21.63	21.31	0
				1	13	21.77	21.67	21.27	0
				1	23	21.70	21.59	21.22	0
				12	0	21.82	21.67	21.30	0
				12	7	21.85	21.68	21.26	0
				12	13	21.75	21.64	21.23	0
				25	0	21.82	21.75	21.29	0
			QPSK	1	1	21.71	21.50	21.30	0
				1	13	21.67	21.53	21.09	0
				1	23	21.60	21.55	21.07	0
				12	0	21.86	21.67	21.31	0
				12	7	21.84	21.70	21.28	0
				12	13	21.80	21.70	21.22	0
				25	0	21.80	21.66	21.31	0
			16QAM	1	1	21.99	21.73	21.46	0
		CP	QPSK	1	1	21.85	21.54	21.21	0

NR Band n2 _ 10 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371000	376000	381000	
						1855 MHz	1880 MHz	1905 MHz	
10 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	21.88	21.66	21.42	0
				1	26	21.78	21.65	21.38	0
				1	50	21.79	21.57	21.40	0
				25	0	21.84	21.64	21.38	0
				25	14	21.75	21.64	21.37	0
				25	27	21.76	21.60	21.34	0
				50	0	21.75	21.58	21.40	0
			QPSK	1	1	21.78	21.54	21.33	0
				1	26	21.64	21.58	21.27	0
				1	50	21.54	21.53	21.30	0
				25	0	21.83	21.67	21.37	0
				25	14	21.72	21.68	21.38	0
				25	27	21.79	21.65	21.40	0
				50	0	21.72	21.67	21.38	0
			16QAM	1	1	21.98	21.81	21.62	0
		CP	QPSK	1	1	21.85	21.60	21.30	0

NR Band n2_ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371500	376000	380500	
						1857.5 MHz	1880 MHz	1902.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	21.91	21.69	21.45	0
				1	40	21.59	21.63	21.28	0
				1	77	21.64	21.64	21.28	0
				36	0	21.86	21.77	21.44	0
				36	22	21.64	21.64	21.35	0
				36	43	21.68	21.63	21.28	0
			QPSK	75	0	21.60	21.64	21.39	0
				1	1	21.82	21.60	21.40	0
				1	40	21.49	21.51	21.17	0
				1	77	21.57	21.51	21.17	0
				36	0	21.79	21.73	21.47	0
				36	22	21.66	21.65	21.34	0
				36	43	21.73	21.64	21.30	0
				75	0	21.71	21.69	21.38	0
			16QAM	1	1	21.99	21.73	21.61	0
		CP	QPSK	1	1	21.86	21.68	21.39	0

NR Band n2_ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						372000	376000	380000	
						1860 MHz	1880 MHz	1900 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	21.90	21.67	21.51	0
				1	53	21.55	21.62	21.40	0
				1	104	21.70	21.65	21.23	0
				50	0	21.79	21.68	21.53	0
				50	28	21.69	21.72	21.44	0
				50	56	21.70	21.65	21.43	0
			QPSK	100	0	21.79	21.74	21.51	0
				1	1	21.94	21.68	21.58	0
				1	53	21.38	21.57	21.24	0
				1	104	21.59	21.47	21.17	0
				50	0	21.80	21.76	21.54	0
				50	28	21.71	21.72	21.47	0
				50	56	21.69	21.64	21.39	0
				100	0	21.76	21.72	21.51	0
			16QAM	1	1	21.98	21.71	21.70	0
		CP	QPSK	1	1	21.91	21.64	21.64	0

[NR Band n66 Conducted Power]

NR Band n66 _5 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						342500	346820	351160	355500	
						1712.5 MHz	1734.1 MHz	1755.8 MHz	1777.5 MHz	
5 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	20.90	20.51	20.96	20.87	0
				1	13	20.89	20.47	20.97	20.83	0
				1	23	20.85	20.53	20.99	20.85	0
				12	0	20.95	20.50	20.96	20.81	0
				12	7	20.94	20.55	20.99	20.79	0
				12	13	20.89	20.60	20.97	20.82	0
				25	0	20.96	20.51	20.99	20.81	0
			QPSK	1	1	20.79	20.45	20.89	20.80	0
				1	13	20.80	20.39	20.97	20.79	0
				1	23	20.76	20.47	20.91	20.83	0
				12	0	20.90	20.53	20.97	20.85	0
				12	7	20.95	20.53	20.98	20.86	0
				12	13	20.93	20.63	20.97	20.82	0
				25	0	20.91	20.51	20.99	20.87	0
			16QAM	1	1	20.99	20.67	20.96	20.82	0
		CP	QPSK	1	1	20.91	20.51	20.95	20.81	0

NR Band n66 _10 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						343000	347000	351000	355000	
						1715 MHz	1735 MHz	1755 MHz	1775 MHz	
10 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	20.91	20.63	20.87	20.75	0
				1	26	20.99	20.98	20.99	20.97	0
				1	50	20.80	20.58	20.96	20.43	0
				25	0	20.95	20.66	20.91	20.74	0
				25	14	20.94	20.67	20.92	20.68	0
				25	27	20.88	20.72	20.97	20.59	0
				50	0	20.97	20.54	20.94	20.67	0
			QPSK	1	1	20.88	20.58	20.84	20.66	0
				1	26	20.96	20.91	20.98	20.68	0
				1	50	20.74	20.52	20.99	20.37	0
				25	0	20.97	20.65	20.94	20.76	0
				25	14	20.91	20.68	20.94	20.66	0
				25	27	20.91	20.72	20.93	20.61	0
				50	0	20.99	20.54	20.98	20.66	0
			16QAM	1	1	20.99	20.79	20.91	20.95	0
		CP	QPSK	1	1	20.94	20.58	20.83	20.73	0

NR Band n66 _ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						343500	347160	350820	354500	
						1717.5 MHz	1735.8 MHz	1754.1 MHz	1772.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	20.94	20.61	20.80	20.85	0
				1	40	20.76	20.66	20.89	20.59	0
				1	77	20.68	20.91	20.99	20.43	0
				36	0	20.94	20.67	20.90	20.81	0
				36	22	20.84	20.70	20.97	20.67	0
				36	43	20.78	20.80	20.93	20.61	0
				75	0	20.88	20.63	20.92	20.73	0
			QPSK	1	1	20.86	20.50	20.75	20.80	0
				1	40	20.62	20.59	20.81	20.55	0
				1	77	20.62	20.83	20.95	20.36	0
				36	0	20.94	20.61	20.89	20.85	0
				36	22	20.82	20.71	20.96	20.66	0
				36	43	20.75	20.79	20.92	20.62	0
				75	0	20.87	20.68	20.90	20.74	0
			16QAM	1	1	20.81	20.73	20.99	20.97	0
		CP	QPSK	1	1	20.93	20.54	20.80	20.85	0

NR Band n66 _ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						344000	349000		354000	
						1720 MHz	1745 MHz		1770 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	20.95	20.76		20.98	0
				1	53	20.99	20.93		20.97	0
				1	104	20.52	20.99		20.45	0
				50	0	20.90	20.77		20.94	0
				50	28	20.74	20.84		20.82	0
				50	56	20.63	20.97		20.66	0
				100	0	20.82	20.86		20.84	0
			QPSK	1	1	20.87	20.98		20.96	0
				1	53	20.74	20.70		20.65	0
				1	104	20.49	20.72		20.40	0
				50	0	20.89	20.95		20.92	0
				50	28	20.81	20.89		20.80	0
				50	56	20.72	20.94		20.64	0
				100	0	20.88	20.87		20.81	0
			16QAM	1	1	20.97	20.95		20.99	0
		CP	QPSK	1	1	20.97	20.77		20.92	0

11.6 WIFI Conducted Power measurement method

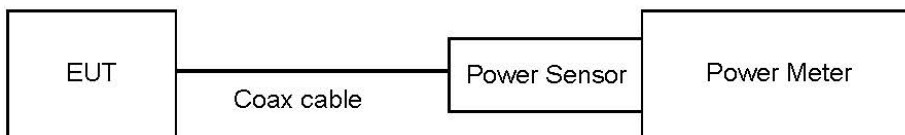
Un-Licensed bands (DTS Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 558074 v05 - Section 8.3.2.3 - ANSI 63.10-2013 - Section 11.9.2.3

Test Procedure

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test setup



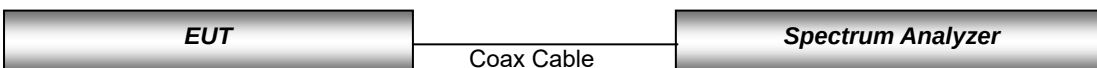
Un-Licensed bands (NII Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 789033 D02 v02r01 - Section E.3.a

Test Procedure

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test setup



11.6.1 IEEE 802.11 (2.4 GHz) Maximum Conducted Power

Mode	Frequency [MHz]	Channel	IEEE 802.11 (2.4 GHz) Average RF Conducted Power [dBm]
802.11b	2 412	1	19.06
	2 437	6	19.05
	2 462	11	19.01
802.11g	2 412	1	16.38
	2 417	6	16.39
	2 437	11	16.19
802.11n (HT20)	2 412	1	16.14
	2 437	6	18.09
	2 462	11	15.81

11.6.2 IEEE 802.11 (2.4 GHz) Reduced Conducted Power (Held to ear VOIP)

Mode	Frequency [MHz]	Channel	IEEE 802.11 (2.4 GHz) Reduced Average Conducted Power [dBm]
802.11b	2 412	1	13.45
	2 437	6	13.25
	2 462	11	13.33
802.11g	2 412	1	12.72
	2 437	6	12.80
	2 462	11	12.64
802.11n (HT20)	2 412	1	12.55
	2 437	6	12.65
	2 462	11	12.43

11.6.3 IEEE 802.11 (5 GHz) Maximum Conducted Power

Mode	Frequency [MHz]	Channel	IEEE 802.11 (5 GHz) Average RF Conducted Power [dBm]
802.11a (20 MHz BW)	5 180	36	17.42
	5 200	40	16.92
	5 220	44	16.63
	5 240	48	16.92
	5 260	52	17.33
	5 280	56	16.84
	5 300	60	16.96
	5 320	64	16.96
	5 500	100	16.22
	5 600	120	16.34
	5 620	124	16.45
	5 720	144	16.29
	5 745	149	17.37
	5 785	157	16.25
	5 825	165	16.88

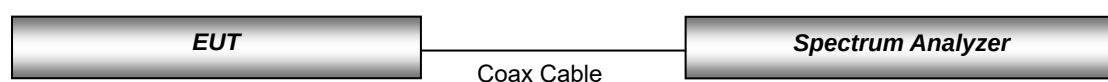
11.6.4 IEEE 802.11 (5 GHz) Reduced Conducted Power

Mode	Frequency [MHz]	Channel	IEEE 802.11 (5 GHz) Reduced Average Conducted Power [dBm]
802.11n (40 MHz BW)	5190	38	14.74
	5230	46	14.46
	5270	54	14.66
	5310	62	14.58
	5510	102	13.63
	5590	118	13.75
	5630	126	13.92
	5710	142	14.17
	5755	151	14.66
	5795	159	14.28

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:

- Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
- For transmission mode with the same maximum output power specification, powers were measured for the largest channel bandwidth, lowest order modulation and lowest data rate.
- For transmission modes with identical maximum specified output power, channel bandwidth, modulation and data rates, power measurements were required for all identical configurations.
- For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-band channels, due to an even number of channels, both channels were measured.

Test Configuration



11.7 Bluetooth Conducted Power

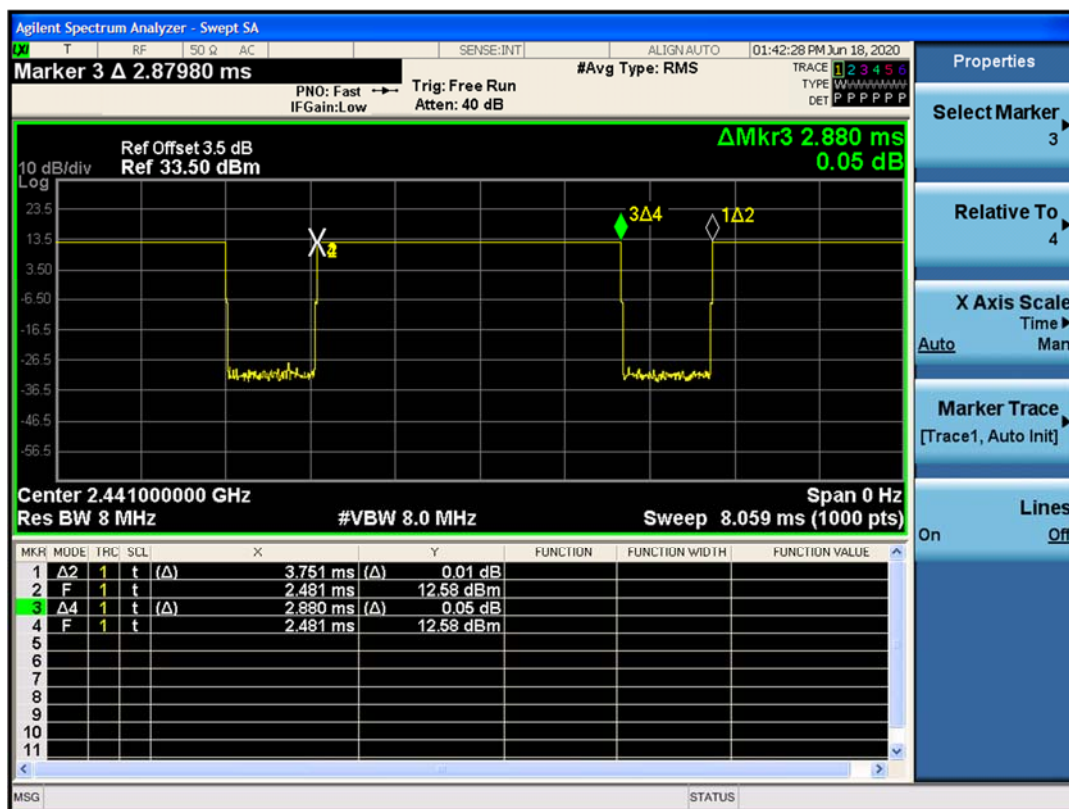
The Burst averaged-conducted power

Mode	Channel	Bluetooth Power [dBm]
DH5	0	11.46
	39	12.78
	78	11.72
2-DH5	0	8.44
	39	9.95
	78	8.64
3-DH5	0	8.43
	39	9.94
	78	8.70

Per October 2016 TCB Workshop Notes:

When call box and Bluetooth protocol are used for Bluetooth SAR measurement, time-domain plot is required to identify duty factor for supporting the test setup and result.

Bluetooth duty cycle was measured using Bluetooth tester equipment (CBT / R&S) with Bluetooth DH5 mode.



Duty Cycle

$$= (\text{BT-On time} / \text{BT-Full time}) = (2.880 / 3.751 = 0.768 \text{ DH5})$$

Duty factor= 1/Duty cycle : 1.300

12. System Verification

12.1 Tissue Verification

The body simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity.

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ϵ_r	Target Conductivity σ (S/m)	Target Dielectric Constant, ϵ_r	% dev σ	% dev ϵ
05/13/2020 (LTE12)	21.5	750H	705	0.853	42.740	0.889	42.174	- 4.05	+ 1.34
			710	0.858	42.612	0.890	42.148	- 3.60	+ 1.10
			750	0.893	42.025	0.893	41.940	+ 0.00	+ 0.20
05/14/2020 LTE13	20.3	750H	750	0.899	42.036	0.893	41.940	+ 0.67	+ 0.23
			785	0.932	41.598	0.896	41.758	+ 4.02	- 0.38
05/15/2020 GSM850	20.4	835H	820	0.910	42.502	0.899	41.577	+ 1.22	+ 2.22
			835	0.927	42.277	0.900	41.500	+ 3.00	+ 1.87
			850	0.935	42.088	0.916	41.500	+ 2.07	+ 1.42
05/19/2020 (W850)	21.7	835H	820	0.902	42.855	0.899	41.577	+ 0.33	+ 3.07
			835	0.917	42.664	0.900	41.500	+ 1.89	+ 2.80
			850	0.930	42.490	0.916	41.500	+ 1.53	+ 2.39
05/12/2020 LTE 5	20.9	835H	820	0.906	42.875	0.899	41.577	+ 0.78	+ 3.12
			835	0.922	42.685	0.900	41.500	+ 2.44	+ 2.86
			850	0.933	42.505	0.916	41.500	+ 1.86	+ 2.42
05/19/2020 (NR5)	21.7	835H	820	0.931	42.986	0.899	41.577	+ 3.56	+ 3.39
			835	0.942	42.800	0.900	41.500	+ 4.6	+ 3.13
			850	0.959	42.620	0.916	41.500	+ 4.69	+ 2.70
05/13/2020 LTE 66	20.1	1800H	1710	1.301	40.445	1.348	40.144	- 3.49	+ 0.75
			1750	1.338	40.379	1.371	40.080	- 2.41	+ 0.75
			1800	1.381	40.226	1.400	40.000	- 1.36	+ 0.56
05/14/2020 LTE 66 part1	20.4	1800H	1710	1.304	40.437	1.348	40.144	- 3.26	+ 0.73
			1750	1.341	40.369	1.371	40.080	- 2.19	+ 0.72
			1800	1.386	40.239	1.400	40.000	- 1.00	+ 0.60
05/14/2020 LTE 66 phablet	20.4	1800H	1710	1.301	40.445	1.348	40.144	- 3.49	+ 0.75
			1750	1.338	40.379	1.371	40.080	- 2.41	+ 0.75
			1800	1.381	40.226	1.400	40.000	- 1.36	+ 0.56
05/11/2020 NR n66	20.0	1800H	1710	1.320	39.977	1.348	40.144	- 2.08	- 0.42
			1750	1.374	39.904	1.371	40.080	+ 0.22	- 0.44
			1800	1.439	39.993	1.400	40.000	+ 2.79	- 0.02
05/26/2020 NR n66 part1	19.8	1800H	1710	1.314	39.954	1.348	40.144	- 2.52	- 0.47
			1750	1.350	39.864	1.371	40.080	- 1.53	- 0.54
			1800	1.399	39.739	1.400	40.000	- 0.07	- 0.65
05/27/2020 NR n66 phablet	21.1	1800H	1710	1.313	40.078	1.348	40.144	- 2.60	- 0.16
			1750	1.350	39.986	1.371	40.080	- 1.53	- 0.23
			1800	1.398	39.832	1.400	40.000	- 0.14	- 0.42
05/11/2020 LTE2	21.3	1900H	1850	1.344	38.472	1.400	40.000	- 4.00	- 3.82
			1900	1.397	38.242	1.400	40.000	- 0.21	- 4.40

			1910	1.406	38.133	1.400	40.000	+ 0.43	- 4.67
05/11/2020 LTE2_Part1	20.9	1900H	1850	1.394	39.346	1.400	40.000	- 0.43	- 1.64
			1900	1.450	39.091	1.400	40.000	+ 3.57	- 2.27
			1910	1.459	39.024	1.400	40.000	+ 4.21	- 2.44
05/12/2020 LTE2_phablet	21.3	1900H	1850	1.333	39.399	1.400	40.000	- 4.79	- 1.50
			1900	1.386	39.176	1.400	40.000	- 1.00	- 2.06
			1910	1.380	39.127	1.400	40.000	- 1.43	- 2.18
05/26/2020 NR n2 part0	20.4	1900H	1850	1.382	38.617	1.400	40.000	- 1.29	- 3.46
			1900	1.435	38.372	1.400	40.000	+ 2.50	- 4.07
			1910	1.444	38.308	1.400	40.000	+ 3.14	- 4.23
05/26/2020 NR n2 body part1	20.4	1900H	1850	1.354	39.983	1.400	40.000	- 3.29	- 0.04
			1900	1.406	39.714	1.400	40.000	+ 0.43	- 0.72
			1910	1.412	39.697	1.400	40.000	+ 0.86	- 0.76
05/26/2020 NR n2_Phablet	20.4	1900H	1850	1.336	40.014	1.400	40.000	- 4.57	+ 0.04
			1900	1.388	39.797	1.400	40.000	- 0.86	- 0.51
			1910	1.400	39.714	1.400	40.000	+ 0.00	- 0.72
05/12/2020 GSM1900	21.3	1900H	1850	1.348	39.396	1.400	40.000	- 3.71	- 1.51
			1900	1.400	39.112	1.400	40.000	+ 0.00	- 2.22
			1910	1.411	39.092	1.400	40.000	+ 0.79	- 2.27
05/11/2020 W1900 part0	20.0	1900H	1850	1.349	39.416	1.400	40.000	- 3.64	- 1.46
			1900	1.400	39.210	1.400	40.000	+ 0.00	- 1.97
			1910	1.410	39.162	1.400	40.000	+ 0.71	- 2.10
05/25/2020 W1900 part1	20.4	1900H	1850	1.336	39.377	1.400	40.000	- 4.57	- 1.56
			1900	1.388	39.144	1.400	40.000	- 0.86	- 2.14
			1910	1.400	39.070	1.400	40.000	+ 0.00	- 2.33
05/25/2020 W1900 phablet	20.4	1900H	1850	1.336	39.377	1.400	40.000	- 4.57	- 1.56
			1900	1.390	39.144	1.400	40.000	- 0.71	- 2.14
			1910	1.400	39.070	1.400	40.000	+ 0.00	- 2.33
05/28/2020 BT	21.5	2450H	2400	1.750	39.946	1.756	39.290	- 0.34	+ 1.67
			2450	1.808	39.780	1.800	39.200	+ 0.44	+ 1.48
			2500	1.859	39.575	1.855	39.140	+ 0.22	+ 1.11
06/11/2020 2.4GHz Head	19.5	2450H	2400	1.746	40.066	1.756	39.290	- 0.57	+ 1.98
			2450	1.808	39.78	1.800	39.200	+ 0.44	+ 1.48
			2500	1.861	39.735	1.855	39.140	+ 0.32	+ 1.52
2020/05/22 2.4GHz Body	20.8	2450H	2400	1.749	40.309	1.756	39.290	- 0.40	+ 2.59
			2450	1.808	40.150	1.800	39.200	+ 0.44	+ 2.42
			2500	1.866	39.954	1.855	39.140	+ 0.59	+ 2.08
05/11/2020 LTE 7 part0	21.7	2600H	2500	1.853	38.252	1.855	39.140	- 0.11	- 2.27
			2600	1.950	37.878	1.964	39.010	- 0.71	- 2.90
			2690	2.051	37.544	2.062	38.894	- 0.53	- 3.47
05/28/2020 LTE7 part1,p	20.9	2600H	2500	1.849	38.259	1.855	39.140	- 0.32	- 2.25
			2600	1.945	37.854	1.964	39.010	- 0.97	- 2.96
			2690	2.054	37.554	2.062	38.894	- 0.39	- 3.45
06/04/2020 5G Head	20.1	5180H- 5825H	5180	4.534	37.177	4.635	36.010	- 2.18	+ 3.24
			5250	4.610	37.028	4.706	35.930	- 2.04	+ 3.06
			5280	4.632	36.990	4.737	35.894	- 2.22	+ 3.05
			5320	4.673	36.927	4.778	35.846	- 2.20	+ 3.02
			5500	4.874	36.669	4.963	35.640	- 1.79	+ 2.89
			5600	5.002	36.540	5.065	35.530	- 1.24	+ 2.84
			5750	5.173	36.294	5.219	35.360	- 0.88	+ 2.64

			5800	5.216	36.222	5.270	35.300	- 1.02	+ 2.61
			5825	5.241	36.179	5.296	35.270	- 1.04	+ 2.58
06/04/2020 5G Body	20.1	5180H- 5825H	5180	4.545	37.203	4.635	36.010	- 1.94	+ 3.31
			5250	4.621	37.082	4.706	35.930	- 1.81	+ 3.21
			5280	4.642	37.049	4.737	35.894	- 2.01	+ 3.22
			5320	4.686	36.993	4.778	35.846	- 1.93	+ 3.20
			5500	4.884	36.744	4.963	35.640	- 1.59	+ 3.10
			5600	5.010	36.600	5.065	35.530	- 1.09	+ 3.01
			5750	5.175	36.359	5.219	35.360	- 0.84	+ 2.83
			5800	5.218	36.289	5.270	35.300	- 0.99	+ 2.80
			5825	5.242	36.254	5.296	35.270	- 1.02	+ 2.79

12.2 System Verification

Input Power: 50 mW

Freq.	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR _{1g} (SPEAG)	50mW Measured SAR _{1g}	1 W Normalized SAR _{1g}	Deviation	Limit	Plot
[MHz]					[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]	
750 (LTE12)	05/13/2020	3076	1014	Head	21.7	21.5	8.39	0.408	8.16	- 2.74	± 10	62
750 (LTE13)	05/14/2020	3076		Head	20.5	20.3	8.39	0.410	8.2	- 2.26	± 10	63
835 (GSM850)	05/15/2020	3076	441	Head	20.6	20.4	9.69	0.492	9.84	+ 1.55	± 10	64
835 (W850)	05/15/2020	3076		Head	20.6	20.4	9.69	0.514	10.28	+ 6.09	± 10	65
835 (LTE5)	05/12/2020	3076		Head	21.1	20.9	9.69	0.490	9.80	+ 1.14	± 10	66
835 (NR n5)	05/19/2020	3968		Head	21.9	21.7	9.69	0.480	9.60	- 0.93	± 10	67
1 800 (LTE66 Head)	05/13/2020	3797	2d015	Head	20.3	20.1	38.5	1.99	39.80	+ 3.38	± 10	68
1 800 (LTE66)phablet	05/14/2020	3797		Head	20.6	20.4	38.5	1.83	36.6	- 4.94	± 10	69
1 800 (LTE66 Body)	05/13/2020	3797		Head	20.2	20.0	38.5	2	40	+ 3.89	± 10	70
1800 (n66)	05/17/2020	3903		Head	20.0	19.8	38.5	1.93	38.60	+ 0.26	± 10	71
1800 (n66)Phablet	05/17/2020	3968		Head	20.2	20.0	38.5	1.93	38.60	+ 0.26	± 10	72
1 900 (LTE2) head	05/11/2020	3797	5d061	Head	21.5	21.3	39.9	1.89	37.80	- 5.26	± 10	73
1 900 (LTE2 part1)	05/11/2020	3076		Head	21.5	21.3	39.9	2.14	42.8	+ 7.27	± 10	73
1 900 LTE2 Body	05/12/2020	3797		Head	20.6	20.4	39.9	1.88	37.6	- 5.76	± 10	74

1 900 (NR n2 part0)	05/26/2020	3967		Head	20.6	20.4	39.9	1.93	38.60	- 3.26	± 10	75
1 900 (NR n2 part1)	05/26/2020	3076		Head	20.6	20.4	39.9	2.09	41.80	+ 4.76	± 10	76
1 900 (NR n2 part1)	05/26/2020	3076		Head	20.6	20.4	39.9	2.07	41.40	+ 3.76	± 10	77
1900 (W1900 part0)	05/11/2020	3903		Head	20.2	20.0	39.9	2.07	41.40	+ 3.76	± 10	77
1900 (GSM1900 part0)	05/12/2020	3903		Head	21.5	21.3	39.9	2.06	41.20	+ 3.26	± 10	78
1900 (GSM1900 part0)	05/12/2020	3903		Head	21.5	21.3	39.9	2.07	41.20	+ 3.76	± 10	79
1900 (W1900 part1)	05/25/2020	3797		Head	20.6	20.4	39.9	1.93	38.60	- 3.26	± 10	80
2 450 (BT)	05/28/2020	3903	965	Head	21.7	21.5	52.3	2.56	51.20	- 2.10	± 10	81
2 450 (2.4GHz Head)	06/11/2020	3968		Head	19.7	19.5	52.3	2.58	51.6	- 1.34	± 10	82
2 450 (2.4GHz Body)	05/22/2020	3903		Head	21.0	20.8	52.3	2.5	50	- 4.40	± 10	83
2 600 (LTE7 part0)	05/11/2020	3968	1106	Head	21.9	21.7	56.5	2.9	58.0	+ 2.65	± 10	84
2 600 (LTE7 part1)	05/28/2020	7370		Head	21.2	20.9	56.5	2.71	54.20	- 4.07	± 10	85
5 250	06/04/2020	3968	1107	Head	20.3	20.1	81.6	3.87	77.4	- 5.15	± 10	86
5 250	06/04/2020	3968		Head	20.3	20.1	81.6	3.75	75.0	- 8.09	± 10	87
5 600	06/04/2020	3968		Head	20.3	20.1	84.0	4.36	87.2	+ 3.81	± 10	88
5 600	06/04/2020	3968		Head	20.3	20.1	84.0	4.21	84.2	+ 0.24	± 10	89
5 750	06/04/2020	3968		Head	20.3	20.1	80.9	3.91	78.2	- 3.34	± 10	90
5 750	06/04/2020	3968		Head	20.3	20.1	80.9	3.91	78.2	- 3.34	± 10	91

System Verification Results – Extremity SAR

Input Power: 50 mW

Freq.	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR _{10g} (SPEAG)	50mW Measured SAR _{10g}	1 W Normalized SAR _{10g}	Deviation	Limit
[MHz]					[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
1 800 (LTE66)	05/14/2020	3797	2d015	Head	20.6	20.4	20.0	1.03	20.6	+ 3.00	± 10
1 800 (n66)	05/27/2020	3968		Head	21.3	21.1	20.0	1.01	20.2	+ 1.00	± 10
1 900 (GSM1900)	05/12/2020	3903	5d061	Head	21.5	21.3	20.7	1.05	21	- 1.41	± 10
1 900 (W1900)	05/25/2020	3797		Head	20.6	20.4	20.7	0.993	19.86	- 4.06	± 10
1 900 (LTE2)	05/12/2020	3797		Head	21.1	20.9	20.7	0.968	19.36	- 6.47	± 10
1 900 (n2)	05/26/2020	3076		Head	20.6	20.4	20.7	1.08	21.6	+ 4.35	± 10
2600 (LTE7)	05/28/2020	7370	1106	Head	21.2	20.9	25.5	1.18	20.6	+ 3.00	± 10
5 250	06/04/2020	3868	1107	Head	20.3	20.1	23.4	1.09	21.8	- 6.84	± 10
5 600	06/04/2020	3968	1107	Head	20.3	20.1	24.0	1.21	24.2	+ 0.83	± 10

12.3 System Verification Procedure

SAR measurement was prior to assessment, the system is verified to the ± 10 % of the specifications at each frequency band by using the system verification kit. (Graphic Plots Attached)

- Cabling the system, using the verification kit equipment.
- Generate about 50 mW Input level from the signal generator to the Dipole Antenna.
- Dipole antenna was placed below the flat phantom.
- The measured one-gram SAR at the surface of the phantom above the dipole feed-point should be within 10 % of the target reference value.
- The results are normalized to 1 W input power.

Note;

SAR Verification was performed according to the FCC KDB 865664 D01v01r04.

13. SAR Test Data Summary

13.1 SAR Measurement Results (DSI = 1)

GSM 850 Head SAR											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
836.6	190	GSM	33.5	32.89	0.17	Left Cheek	1:8.3	0.091	1.151	0.105	-
836.6	190	GSM	33.5	32.89	0.19	Left Tilt	1:8.3	0.059	1.151	0.068	-
836.6	190	GSM	33.5	32.89	-0.12	Right Cheek	1:8.3	0.141	1.151	0.162	-
836.6	190	GSM	33.5	32.89	0.01	Right Tilt	1:8.3	0.063	1.151	0.073	-
824.2	128	GPRS 2Tx	32.5	31.94	0.01	Left Cheek	1:4.15	0.141	1.138	0.160	-
824.2	128	GPRS 2Tx	32.5	31.94	-0.04	Left Tilt	1:4.15	0.114	1.138	0.130	-
824.2	128	GPRS 2Tx	32.5	31.94	0.12	Right Cheek	1:4.15	0.183	1.138	0.208	1
824.2	128	GPRS 2Tx	32.5	31.94	-0.01	Right Tilt	1:4.15	0.096	1.138	0.109	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg Averaged over 1 gram					

GSM 1900 Head SAR											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
1 880	661	GSM	30.5	29.38	0.13	Left Cheek	1:8.3	0.101	1.294	0.131	-
1 880	661	GSM	30.5	29.38	0.12	Left Tilt	1:8.3	0.039	1.294	0.050	-
1 880	661	GSM	30.5	29.38	0.12	Right Cheek	1:8.3	0.052	1.294	0.067	-
1 880	661	GSM	30.5	29.38	-0.04	Right Tilt	1:8.3	0.055	1.294	0.071	-
1 880	661	GPRS 2Tx	29.5	28.20	0.05	Left Cheek	1:4.15	0.140	1.349	0.189	2
1 880	661	GPRS 2Tx	29.5	28.20	0.12	Left Tilt	1:4.15	0.053	1.349	0.071	-
1 880	661	GPRS 2Tx	29.5	28.20	0.17	Right Cheek	1:4.15	0.069	1.349	0.093	-
1 880	661	GPRS 2Tx	29.5	28.20	0.19	Right Tilt	1:4.15	0.077	1.349	0.104	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg Averaged over 1 gram					

WCDMA 850 Head SAR											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
826.4	4132	RMC	25.0	23.79	-0.13	Left Cheek	1:1	0.105	1.321	0.139	-
826.4	4132	RMC	25.0	23.79	0.01	Left Tilt	1:1	0.080	1.321	0.106	-
826.4	4132	RMC	25.0	23.79	0.11	Right Cheek	1:1	0.140	1.321	0.185	3
826.4	4132	RMC	25.0	23.79	0.04	Right Tilt	1:1	0.073	1.321	0.096	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg (mW/g) Averaged over 1 gram					

WCDMA 1900 Head SAR											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
1 880	9400	RMC	24.5	23.64	-0.15	Left Cheek	1:1	0.183	1.219	0.223	4
1 880	9400	RMC	24.5	23.64	0.19	Left Tilt	1:1	0.085	1.219	0.104	-
1 880	9400	RMC	24.5	23.64	-0.11	Right Cheek	1:1	0.136	1.219	0.166	-
1 880	9400	RMC	24.5	23.64	0.09	Right Tilt	1:1	0.069	1.219	0.084	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg (mW/g) Averaged over 1 gram					

LTE Band 2 Head SAR															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.							(dB)				(dB)		(W/kg)	
1860	18700	QPSK	10	25.0	24.15	-0.14	Left Cheek	0	1	0	1:1	0.259	1.216	0.315	5
1880	18900	QPSK	10	24.0	23.26	0.18	Left Cheek	1	50	49	1:1	0.220	1.186	0.261	-
1860	18700	QPSK	10	25.0	24.15	-0.17	Left Tilt	0	1	0	1:1	0.134	1.216	0.163	-
1880	18900	QPSK	10	24.0	23.26	0.10	Left Tilt	1	50	49	1:1	0.101	1.186	0.120	-
1860	18700	QPSK	10	25.0	24.15	-0.11	Right Cheek	0	1	0	1:1	0.148	1.216	0.180	-
1880	18900	QPSK	10	24.0	23.26	0.12	Right Cheek	1	50	49	1:1	0.125	1.186	0.148	-
1860	18700	QPSK	10	25.0	24.15	-0.02	Right Tilt	0	1	0	1:1	0.158	1.216	0.192	-
1880	18900	QPSK	10	24.0	23.26	0.02	Right Tilt	1	50	49	1:1	0.116	1.186	0.138	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 5 Head SAR

Frequency		Mode	Band width (MHz)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	MPR (dB)	RB Size	RB offset	Duty Cycle	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
Mhz	Ch.														
836.5	20525	QPSK	10	25.5	25.21	0.16	Left Cheek	0	1	0	1:1	0.126	1.069	0.135	-
836.5	20525	QPSK	10	24.5	23.93	0.17	Left Cheek	1	25	0	1:1	0.102	1.140	0.116	-
836.5	20525	QPSK	10	25.5	25.21	0.03	Left Tilt	0	1	0	1:1	0.085	1.069	0.091	-
836.5	20525	QPSK	10	24.5	23.93	0.01	Left Tilt	1	25	0	1:1	0.067	1.140	0.076	-
836.5	20525	QPSK	10	25.5	25.21	-0.19	Right Cheek	0	1	0	1:1	0.179	1.069	0.191	6
836.5	20525	QPSK	10	24.5	23.93	0.18	Right Cheek	1	25	0	1:1	0.145	1.140	0.165	-
836.5	20525	QPSK	10	25.5	25.21	0.14	Right Tilt	0	1	0	1:1	0.079	1.069	0.084	-
836.5	20525	QPSK	10	24.5	23.93	0.12	Right Tilt	1	25	0	1:1	0.062	1.140	0.071	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram							

LTE Band 7 Head SAR

Frequency		Mode	Band width (MHz)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	MPR (dB)	RB Size	RB offset	Duty Cycle	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
Mhz	Ch.														
2 560	21350	QPSK	20	24.0	23.41	-0.13	Left Cheek	0	1	49	1:1	0.034	1.146	0.039	7
2 560	21350	QPSK	20	23.0	22.32	-0.14	Left Cheek	1	50	25	1:1	0.028	1.169	0.033	-
2 560	21350	QPSK	20	24.0	23.41	0.13	Left Tilt	0	1	49	1:1	0.012	1.146	0.014	-
2 560	21350	QPSK	20	23.0	22.32	0.12	Left Tilt	1	50	25	1:1	0.012	1.169	0.014	-
2 560	21350	QPSK	20	24.0	23.41	0.01	Right Cheek	0	1	49	1:1	0.024	1.146	0.027	-
2 560	21350	QPSK	20	23.0	22.32	-0.01	Right Cheek	1	50	25	1:1	0.020	1.169	0.023	-
2 560	21350	QPSK	20	24.0	23.41	-0.14	Right Tilt	0	1	49	1:1	0.026	1.146	0.030	-
2 560	21350	QPSK	20	23.0	22.32	0.01	Right Tilt	1	50	25	1:1	0.020	1.169	0.023	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram							

LTE Band 12 Head SAR

Frequency		Mode	Band width (MHz)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	MPR (dB)	RB Size	RB offset	Duty Cycle	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
Mhz	Ch.														
707.5	23095	QPSK	10	25.0	24.62	0.13	Left Cheek	0	1	24	1:1	0.077	1.091	0.084	-
707.5	23095	QPSK	10	24.0	23.54	0.07	Left Cheek	1	25	24	1:1	0.059	1.112	0.067	-
707.5	23095	QPSK	10	25.0	24.62	-0.03	Left Tilt	0	1	24	1:1	0.068	1.091	0.074	-
707.5	23095	QPSK	10	24.0	23.54	-0.01	Left Tilt	1	25	24	1:1	0.055	1.112	0.062	-
707.5	23095	QPSK	10	25.0	24.62	0.16	Right Cheek	0	1	24	1:1	0.120	1.091	0.131	8
707.5	23095	QPSK	10	24.0	23.54	0.17	Right Cheek	1	25	24	1:1	0.093	1.112	0.106	-
707.5	23095	QPSK	10	25.0	24.62	0.08	Right Tilt	0	1	24	1:1	0.075	1.091	0.082	-
707.5	23095	QPSK	10	24.0	23.54	0.12	Right Tilt	1	25	24	1:1	0.057	1.112	0.065	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram							

LTE Band 13 Head SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.											(W/kg)		(W/kg)	
782	23230	QPSK	10	25.0	24.15	0.10	Left Cheek	0	1	24	1:1	0.119	1.216	0.145	-
782	23230	QPSK	10	24.0	23.14	0.17	Left Cheek	1	25	0	1:1	0.093	1.219	0.113	-
782	23230	QPSK	10	25.0	24.15	0.16	Left Tilt	0	1	24	1:1	0.071	1.216	0.086	-
782	23230	QPSK	10	24.0	23.14	0.18	Left Tilt	1	25	0	1:1	0.057	1.219	0.069	-
782	23230	QPSK	10	25.0	24.15	0.17	Right Cheek	0	1	24	1:1	0.163	1.216	0.198	9
782	23230	QPSK	10	24.0	23.14	0.14	Right Cheek	1	25	0	1:1	0.134	1.219	0.163	-
782	23230	QPSK	10	25.0	24.15	0.09	Right Tilt	0	1	24	1:1	0.074	1.216	0.090	-
782	23230	QPSK	10	24.0	23.14	0.12	Right Tilt	1	25	0	1:1	0.061	1.219	0.074	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram							

LTE Band 66 Head SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.											(W/kg)		(W/kg)	
1 770	132572	QPSK	20	25.0	24.31	0.10	Left Cheek	0	1	0	1:1	0.188	1.172	0.220	10
1 770	132572	QPSK	20	24.0	23.95	0.19	Left Cheek	1	50	0	1:1	0.156	1.012	0.158	-
1 770	132572	QPSK	20	25.0	24.31	-0.11	Left Tilt	0	1	0	1:1	0.095	1.172	0.111	-
1 770	132572	QPSK	20	24.0	23.95	0.04	Left Tilt	1	50	0	1:1	0.084	1.012	0.085	-
1 770	132572	QPSK	20	25.0	24.31	0.19	Right Cheek	0	1	0	1:1	0.121	1.172	0.142	-
1 770	132572	QPSK	20	24.0	23.95	0.10	Right Cheek	1	50	0	1:1	0.097	1.012	0.098	-
1 770	132572	QPSK	20	25.0	24.31	0.10	Right Tilt	0	1	0	1:1	0.078	1.172	0.091	-
1 770	132572	QPSK	20	24.0	23.95	-0.06	Right Tilt	1	50	0	1:1	0.046	1.012	0.047	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram							

NR Band n2 (PCS) Head SAR															
Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)	(dB)					(W/kg)	
1860	372000	DFT-s OFDM QPSK	20	25.0	24.77	-0.05	Left Cheek	0	1	1	1:1	0.246	1.054	0.259	11
1880	376000	DFT-s OFDM QPSK	20	25.0	24.64	-0.16	Left Cheek	0	50	28	1:1	0.179	1.086	0.194	-
1880	376000	DFT-s OFDM QPSK	20	25.0	24.77	0.12	Left Tilt	0	1	1	1:1	0.123	1.054	0.130	-
1880	376000	DFT-s OFDM QPSK	20	25.0	24.64	0.11	Left Tilt	0	50	28	1:1	0.089	1.086	0.097	-
1880	376000	DFT-s OFDM QPSK	20	25.0	24.77	-0.12	Right Cheek	0	1	1	1:1	0.149	1.054	0.157	-
1880	376000	DFT-s OFDM QPSK	20	25.0	24.64	-0.15	Right Cheek	0	50	28	1:1	0.141	1.086	0.153	-
1880	376000	DFT-s OFDM QPSK	20	25.0	24.77	0.06	Right Tilt	0	1	1	1:1	0.137	1.054	0.144	-
1880	376000	DFT-s OFDM QPSK	20	25.0	24.64	0.15	Right Tilt	0	50	28	1:1	0.116	1.086	0.126	-
1860	372000	CP QPSK	20	23.5	23.48	-0.10	Left Cheek	1.5	1	1	1:1	0.199	1.005	0.200	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n5 (Cell) Head SAR															
Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.59	-0.11	Left Cheek	0	1	1	1:1	0.127	1.099	0.140	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.12	-0.17	Left Cheek	0	50	28	1:1	0.075	1.225	0.092	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.59	-0.03	Left Tilt	0	1	1	1:1	0.063	1.099	0.069	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.12	0.10	Left Tilt	0	50	28	1:1	0.047	1.225	0.058	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.59	0.14	Right Cheek	0	1	1	1:1	0.149	1.099	0.164	12
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.12	-0.15	Right Cheek	0	50	28	1:1	0.113	1.225	0.138	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.59	-0.15	Right Tilt	0	1	1	1:1	0.076	1.099	0.084	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.12	-0.11	Right Tilt	0	50	28	1:1	0.057	1.225	0.070	-
836.5	167300	CP QPSK	20	23.5	23.25	0.04	Right Cheek	1.5	1	1	1:1	0.149	1.059	0.158	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n66 Head SAR															
Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.														
1745	349000	DFT-s OFDM QPSK	20	25.0	24.84	0.13	Left Cheek	0	1	1	1:1	0.251	1.038	0.260	13
1745	349000	DFT-s OFDM QPSK	20	25.0	24.76	0.10	Left Cheek	0	50	28	1:1	0.157	1.057	0.166	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.84	0.16	Left Tilt	0	1	1	1:1	0.097	1.038	0.101	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.76	0.14	Left Tilt	0	50	28	1:1	0.065	1.057	0.069	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.84	0.19	Right Cheek	0	1	1	1:1	0.135	1.038	0.140	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.76	-0.15	Right Cheek	0	50	28	1:1	0.102	1.057	0.108	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.84	0.12	Right Tilt	0	1	1	1:1	0.090	1.038	0.093	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.76	0.03	Right Tilt	0	50	28	1:1	0.071	1.057	0.075	-
1770	354000	CP QPSK	20	23.5	23.49	0.01	Left Cheek	1.5	1	1	1:1	0.020	1.416	0.028	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram							

DTS Head SAR															
Frequency		Mode	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor (Duty)	Scaled SAR	Plot No.
MHz	Ch.														
2 412	1	802.11b	20	1	14.0	13.45	0.11	Left Cheek	98.8	0.186	0.114	1.135	1.012	0.131	-
2 412	1	802.11b	20	1	14.0	13.45	0.15	Left Tilt	98.8	0.229	0.149	1.135	1.012	0.171	-
2 412	1	802.11b	20	1	14.0	13.45	0.19	Right Cheek	98.8	0.750	0.439	1.135	1.012	0.504	-
2 412	1	802.11b	20	1	14.0	13.45	-0.15	Right Tilt	98.8	0.901	0.511	1.135	1.012	0.587	14
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram							

NII Head SAR															
Frequency		Mode	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor (Duty)	Scaled SAR	Plot No.
MHz	Ch.														
5 270	54	802.11n	40	MCS0	15.0	14.66		Left Cheek	94.9	0.176		1.081	1.054		-
5 270	54	802.11n	40	MCS0	15.0	14.66		Left Tilt	94.9	0.154		1.081	1.054		-
5 270	54	802.11n	40	MCS0	15.0	14.66		Right Cheek	94.9	0.42		1.081	1.054		-
5 270	54	802.11n	40	MCS0	15.0	14.66	-0.16	Right Tilt	94.9	0.456	0.162	1.081	1.054	0.185	-
5 710	142	802.11n	40	MCS0	15.0	14.17		Left Cheek	94.9	0.351		1.211	1.054		-
5 710	142	802.11n	40	MCS0	15.0	14.17	-0.13	Left Tilt	94.9	0.304	0.126	1.211	1.054	0.161	-
5 710	142	802.11n	40	MCS0	15.0	14.17		Right Cheek	94.9	0.525		1.211	1.054		-
5 710	142	802.11n	40	MCS0	15.0	14.17	-0.07	Right Tilt	94.9	0.531	0.183	1.211	1.054	0.233	15
5 755	151	802.11n	40	MCS0	15.0	14.66		Left Cheek	94.9	0.376		1.081	1.054		-
5 755	151	802.11n	40	MCS0	15.0	14.66	-0.15	Left Tilt	94.9	0.333	0.130	1.081	1.054	0.148	-
5 755	151	802.11n	40	MCS0	15.0	14.66	0.13	Right Cheek	94.9	0.453	0.165	1.081	1.054	0.188	-
5 755	151	802.11n	40	MCS0	15.0	14.66	-0.11	Right Tilt	94.9	0.477	0.171	1.081	1.054	0.195	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram							

DSS Head SAR											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(dBm)	(dBm)	(dB)		(W/kg)		(Duty)	(W/kg)	
2 441	39	Bluetooth DH5	13.0	12.78	0.12	Left Cheek	0.072	1.052	1.300	0.098	-
2 441	39	Bluetooth DH5	13.0	12.78	0.07	Left Tilt	0.083	1.052	1.300	0.114	-
2 441	39	Bluetooth DH5	13.0	12.78	0.13	Right Cheek	0.234	1.052	1.300	0.320	-
2 441	39	Bluetooth DH5	13.0	12.78	0.14	Right Tilt	0.280	1.052	1.300	0.383	16
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg (mW/g) Averaged over 1 gram					

13.2 Body-worn SAR Measurement Results(DSI= 0)

GSM/ WCDMA Body-Worn SAR													
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No
Mhz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
836.6	190	GSM 850 Voice		33.5	32.89	0.02	Rear	1:8.3	15	0.217	1.151	0.250	-
836.6	190	GSM 850 Voice		33.5	32.89	0.03	Front	1:8.3	15	0.184	1.151	0.212	-
824.2	128	GSM 850 GPRS 2Tx		32.5	31.94	0.03	Rear	1:4.15	15	0.336	1.138	0.382	17
824.2	128	GSM 850 GPRS 2Tx		32.5	31.94	0.15	Front	1:4.15	15	0.270	1.138	0.307	-
1 880	661	GSM 1900 Voice		30.5	29.38	0.12	Rear	1:8.3	15	0.264	1.294	0.342	-
1 880	661	GSM 1900 Voice		30.5	29.38	0.11	Front	1:8.3	15	0.319	1.294	0.413	-
1 880	661	GSM 1900 GPRS 2Tx		29.5	28.20	0.07	Rear	1:4.15	15	0.409	1.349	0.552	-
1 880	661	GSM 1900 GPRS 2Tx		29.5	28.20	-0.12	Front	1:4.15	15	0.469	1.349	0.633	18
826.4	4132	WCDMA 850	RMC	25.0	23.79	0.08	Rear	1:1	15	0.241	1.321	0.318	19
826.4	4132	WCDMA 850	RMC	25.0	23.79	0.02	Front	1:1	15	0.195	1.321	0.258	-
1 880	9400	WCDMA 1900	RMC	24.5	23.64	0.06	Rear	1:1	15	0.473	1.219	0.577	-
1 880	9400	WCDMA 1900	RMC	24.5	23.64	0.10	Front	1:1	15	0.579	1.219	0.706	20
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

LTE Body-Worn SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(Mhz)	(dBm)	(dBm)	(dB)		(dB)	(dB)							
1860	18700	LTE 2 QPSK	20	25.0	24.15	-0.01	Rear	0	1	0	1:1	15	0.441	1.216	0.536	-
1880	18900		20	24.0	23.26	0.04	Rear	1	50	49	1:1	15	0.397	1.186	0.471	-
1860	18700		20	25.0	24.15	0.07	Front	0	1	0	1:1	15	0.935	1.216	1.137	21
1880	18900		20	25.0	24.04	0.08	Front	0	1	0	1:1	15	0.848	1.247	1.058	-
1900	19100		20	25.0	23.92	-0.17	Front	0	1	0	1:1	15	0.892	1.282	1.144	22
1860	18700		20	24.0	23.18	0.13	Front	1	50	49	1:1	15	0.671	1.208	0.810	-
1880	18900		20	24.0	23.26	-0.15	Front	1	50	49	1:1	15	0.849	1.186	1.007	-
1900	19100		20	24.0	23.06	-0.01	Front	1	50	25	1:1	15	0.750	1.016	0.931	-
1880	18900		20	24.0	23.13	0.01	Front	1	100	0	1:1	15	0.698	1.222	0.853	-
836.5	20525		LTE 5 QPSK	10	25.5	25.21	0.07	Rear	0	1	0	1:1	15	0.274	1.069	0.293
836.5	20525	10		24.5	23.93	0.02	Rear	1	25	0	1:1	15	0.220	1.140	0.251	-
836.5	20525	10		25.5	25.21	-0.02	Front	0	1	0	1:1	15	0.232	1.069	0.248	-
836.5	20525	10		24.5	23.93	0.02	Front	1	25	0	1:1	15	0.190	1.140	0.217	-
2 560	21350	LTE 7 QPSK	20	24.0	23.41	0.14	Rear	0	1	49	1:1	15	0.145	1.146	0.166	24
2 560	21350		20	23.0	22.32	0.13	Rear	1	50	25	1:1	15	0.119	1.169	0.139	-
2 560	21350		20	24.0	23.41	-0.11	Front	0	1	49	1:1	15	0.111	1.146	0.127	-
2 560	21350		20	23.0	22.32	-0.16	Front	1	50	25	1:1	15	0.122	1.169	0.143	-
707.5	23095	LTE 12 QPSK	10	25.0	24.62	-0.01	Rear	0	1	24	1:1	15	0.205	1.091	0.224	25
707.5	23095		10	24.0	23.54	0.06	Rear	1	25	24	1:1	15	0.166	1.112	0.185	-
707.5	23095		10	25.0	24.62	0.01	Front	0	1	24	1:1	15	0.182	1.091	0.199	-
707.5	23095		10	24.0	23.54	0.06	Front	1	25	24	1:1	15	0.143	1.112	0.159	-
782	23230	LTE 13 QPSK	10	25.0	24.15	0.01	Rear	0	1	24	1:1	15	0.281	1.216	0.342	26
782	23230		10	24.0	23.14	0.03	Rear	1	25	0	1:1	15	0.223	1.219	0.272	-
782	23230		10	25.0	24.15	-0.01	Front	0	1	24	1:1	15	0.257	1.216	0.313	-
782	23230		10	24.0	23.14	-0.02	Front	1	25	0	1:1	15	0.201	1.219	0.245	-
1720	132072	LTE 66 QPSK	20	25.0	23.80	-0.04	Rear	0	1	49	1:1	15	0.605	1.318	0.798	-
1 745	132322		20	25.0	24.17	0.04	Rear	0	1	49	1:1	15	0.709	1.211	0.858	-
1 770	132572		20	25.0	24.31	0.10	Rear	0	1	0	1:1	15	0.706	1.172	0.828	-
1 770	132572		20	24.0	23.95	-0.18	Rear	1	50	0	1:1	15	0.573	1.012	0.580	-
1 770	132572		20	24.0	23.39	-0.10	Rear	1	100	0	1:1	15	0.632	1.151	0.727	-
1720	132072		20	25.0	23.80	-0.03	Front	0	1	49	1:1	15	0.577	1.318	0.761	-
1 745	132322		20	25.0	24.17	0.10	Front	0	1	49	1:1	15	0.684	1.211	0.828	-
1 770	132572		20	25.0	24.31	-0.01	Front	0	1	0	1:1	15	0.751	1.172	0.880	27
1 770	132572		20	24.0	23.95	0.03	Front	1	50	0	1:1	15	0.613	1.012	0.620	-
1 770	132572		20	24.0	23.39	0.01	Front	1	100	0	1:1	15	0.615	1.151	0.708	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Body-Worn SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1860	372000	NR n2 DFT-s OFDM QPSK	20	25.0	24.77	0.06	Rear	0	1	1	1:1	15	0.985	1.054	1.039	-
1880	376000		20	25.0	24.66	0.05	Rear	0	1	1	1:1	15	0.971	1.081	1.050	-
1900	380000		20	25.0	24.50	0.10	Rear	0	1	1	1:1	15	0.950	1.122	1.066	-
1860	372000		20	25.0	24.61	0.17	Rear	0	50	28	1:1	15	0.938	1.094	1.026	-
1880	376000		20	25.0	24.64	0.09	Rear	0	50	28	1:1	15	0.900	1.086	0.978	-
1900	380000		20	25.0	24.37	0.12	Rear	0	50	28	1:1	15	0.995	1.156	1.150	-
1860	372000		20	24.0	23.85	-0.14	Rear	1	100	0	1:1	15	0.632	1.035	0.654	-
1860	372000		20	25.0	24.77	-0.09	Front	0	1	1	1:1	15	1.09	1.054	1.149	-
1880	376000		20	25.0	24.66	0.06	Front	0	1	1	1:1	15	1.14	1.081	1.233	-
1900	380000		20	25.0	24.50	0.06	Front	0	1	1	1:1	15	1.13	1.122	1.268	-
1860	372000		20	25.0	24.61	0.05	Front	0	50	28	1:1	15	1.08	1.094	1.181	-
1880	376000		20	25.0	24.64	0.08	Front	0	50	28	1:1	15	1.12	1.086	1.217	-
1900	380000		20	25.0	24.37	0.11	Front	0	50	28	1:1	15	1.14	1.156	1.318	28
1860	372000		20	24.0	23.85	0.16	Front	1	100	0	1:1	15	0.756	1.035	0.783	-
1860	372000	NR n2 CP QPSK	20	23.5	23.48	0.05	Front	1.5	1	1	1:1	15	0.951	1.005	0.955	-
1900	380000		20	25.0	24.37	0.11	Front	0	50	28	1:1	15	1.01	1.156	1.17	#
836.5	167300	NR n5 DFT-s OFDM QPSK	20	25.0	24.59	-0.10	Rear	0	1	1	1:1	15	0.288	1.099	0.317	29
836.5	167300		20	25.0	24.12	-0.10	Rear	0	50	28	1:1	15	0.230	1.225	0.282	-
836.5	167300		20	25.0	24.59	-0.07	Front	0	1	1	1:1	15	0.204	1.099	0.224	-
836.5	167300		20	25.0	24.12	-0.10	Front	0	50	28	1:1	15	0.165	1.225	0.202	-
836.5	167300	NR n5 CP QPSK	20	23.5	23.25	-0.11	Rear	1.5	1	1	1:1	15	0.214	1.059	0.227	-
1745	349000	NR n66 DFT-s OFDM QPSK	20	25.0	24.84	0.04	Rear	0	1	1	1:1	15	0.727	1.038	0.754	-
1745	349000		20	25.0	24.76	0.09	Rear	0	50	28	1:1	15	0.744	1.057	0.786	-
1745	349000		20	25.0	24.84	0.16	Front	0	1	1	1:1	15	0.723	1.038	0.750	-
1720	344000		20	25.0	24.64	0.14	Front	0	50	28	1:1	15	0.609	1.086	0.662	-
1745	349000		20	25.0	24.76	0.09	Front	0	50	28	1:1	15	0.772	1.057	0.816	-
1770	354000		20	25.0	24.71	0.10	Front	0	50	28	1:1	15	0.911	1.069	0.974	30
1720	344000		20	25.0	23.89	0.10	Front	1	100	0	1:1	15	0.645	1.291	0.833	-
1720	354000	NR n66 CP QPSK	20	23.5	23.48	0.07	Front	1.5	1	1	1:1	15	0.548	1.005	0.551	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

Note:

Body worn with earphone

DTS Body-Worn SAR																
Frequency		Mode	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(mm)	(W/kg)	(W/kg)	(Duty)	(W/kg)		
2412	1	802.11b	20	1	20.0	19.06	0.13	Rear	98.8	15	0.233	0.143	1.242	1.012	0.180	31
2412	1	802.11b	20	1	20.0	19.06	0.13	Front	98.8	15	0.205	0.132	1.242	1.012	0.166	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg (mW/g) Averaged over 1 gram								

NII Body-Worn SAR																
Frequency		Mode	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(mm)	(W/kg)	(W/kg)		(Duty)	(W/kg)	
5 260	52	802.11a	20	6	18.0	17.33	0.03	Rear	97.6	15	0.203	0.092	1.167	1.025	0.110	-
5 260	52	802.11a	20	6	18.0	17.33		Front	97.6	15	0.084		1.167	1.025		-
5620	124	802.11a	20	6	18.0	16.45	0.10	Rear	97.6	15	0.69	0.291	1.429	1.025	0.426	32
5620	124	802.11a	20	6	18.0	16.45	0.14	Front	97.6	15	0.145	0.064	1.429	1.025	0.094	-
5 745	149	802.11a	20	6	18.0	17.37	-0.05	Rear	97.6	15	0.574	0.239	1.156	1.025	0.283	-
5 745	149	802.11a	20	6	18.0	17.37	0.16	Front	97.6	15	0.0769	0.034	1.156	1.025	0.040	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg (mW/g) Averaged over 1 gram								

DSS Body-Worn SAR												
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Distance	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dBm)	(dBm)	(dB)		(mm)	(W/kg)		(Duty)	(W/kg)	
2 441	39	Bluetooth DH5	13.0	12.78	-0.16	Rear	15	0.030	1.052	1.3	0.041	33
2 441	39	Bluetooth DH5	13.0	12.78	-0.14	Front	15	0.025	1.052	1.3	0.034	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg (mW/g) Averaged over 1 gram					

13.3 Hotspot SAR Measurement Results (DSI= 2)

GSM 850 Hotspot SAR												
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
824.2	128	GPRS 2Tx	32.5	31.94	0.02	Rear	1:4.15	10	0.632	1.138	0.719	34
824.2	128	GPRS 2Tx	32.5	31.94	0.11	Front	1:4.15	10	0.524	1.138	0.596	-
824.2	128	GPRS 2Tx	32.5	31.94	-0.07	Left	1:4.15	10	0.089	1.138	0.101	-
824.2	128	GPRS 2Tx	32.5	31.94	0.10	Right	1:4.15	10	0.187	1.138	0.213	-
824.2	128	GPRS 2Tx	32.5	31.94	-0.01	Bottom	1:4.15	10	0.344	1.138	0.391	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

GSM 1900 Hotspot SAR												
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880	661	GPRS 2Tx	24.5	24.06	-0.17	Rear	1:4.15	10	0.441	1.107	0.488	-
1 880	661	GPRS 2Tx	24.5	24.06	0.19	Front	1:4.15	10	0.595	1.107	0.658	-
1 880	661	GPRS 2Tx	24.5	24.06	0.14	Left	1:4.15	10	0.061	1.107	0.068	-
1 880	661	GPRS 2Tx	24.5	24.06	-0.15	Right	1:4.15	10	0.095	1.107	0.105	-
1850.2	512	GPRS 2Tx	24.5	23.31	0.03	Bottom	1:4.15	10	1.04	1.315	1.368	-
1 880	661	GPRS 2Tx	24.5	24.06	0.05	Bottom	1:4.15	10	1.07	1.107	1.184	-
1910	810	GPRS 2Tx	24.5	23.88	0.13	Bottom	1:4.15	10	1.19	1.153	1.373	35
1910	810	GPRS 2Tx	24.5	23.88	0.02	Bottom	1:4.15	10	1.15	1.153	1.326	*
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

Note: * Data entry indicate Variability measurement.

WCDMA 850 Hotspot SAR												
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
826.4	4132	RMC	25.0	23.79	0.03	Rear	1:1	10	0.476	1.321	0.629	36
826.4	4132	RMC	25.0	23.79	0.01	Front	1:1	10	0.399	1.321	0.527	-
826.4	4132	RMC	25.0	23.79	0.01	Left	1:1	10	0.058	1.321	0.077	-
826.4	4132	RMC	25.0	23.79	-0.01	Right	1:1	10	0.143	1.321	0.189	-
826.4	4132	RMC	25.0	23.79	-0.13	Bottom	1:1	10	0.274	1.321	0.362	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

WCDMA 1900 Hotspot SAR												
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(dB)	(dB)	(dB)						(W/kg)	
1 880	9400	RMC	19.0	18.61	0.13	Rear	1:1	10	0.517	1.094	0.566	-
1852.4	9262	RMC	19.0	18.13	0.01	Front	1:1	10	0.808	1.222	0.987	-
1 880	9400	RMC	19.0	18.61	-0.01	Front	1:1	10	0.865	1.094	0.946	-
1907.6	9538	RMC	19.0	18.40	0.01	Front	1:1	10	0.943	1.148	1.083	-
1 880	9400	RMC	19.0	18.61	0.19	Left	1:1	10	0.057	1.094	0.062	-
1 880	9400	RMC	19.0	18.61	0.14	Right	1:1	10	0.089	1.094	0.097	-
1852.4	9262	RMC	19.0	18.13	0.08	Bottom	1:1	10	0.819	1.222	1.001	-
1 880	9400	RMC	19.0	18.61	0.17	Bottom	1:1	10	0.868	1.094	0.950	-
1907.6	9538	RMC	19.0	18.40	0.11	Bottom	1:1	10	0.973	1.148	1.117	37
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram					

LTE Band 2 Hotspot SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(Mhz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1880	18900	QPSK	10	19.5	18.59	0.16	Rear	0	1	49	1:1	10	0.446	1.233	0.550	-
1880	18900	QPSK	10	19.5	18.54	0.18	Rear	0	50	25	1:1	10	0.459	1.247	0.573	-
1880	18900	QPSK	10	19.5	18.59	0.19	Front	0	1	49	1:1	10	0.591	1.233	0.729	-
1880	18900	QPSK	10	19.5	18.54	0.16	Front	0	50	25	1:1	10	0.599	1.247	0.747	-
1880	18900	QPSK	10	19.5	18.59	0.19	Left	0	1	49	1:1	10	0.069	1.233	0.085	-
1880	18900	QPSK	10	19.5	18.54	0.19	Left	0	50	25	1:1	10	0.071	1.247	0.089	-
1880	18900	QPSK	10	19.5	18.59	0.19	Right	0	1	49	1:1	10	0.084	1.233	0.104	-
1880	18900	QPSK	10	19.5	18.54	0.12	Right	0	50	25	1:1	10	0.086	1.247	0.107	-
1860	18700	QPSK	10	19.5	18.39	-0.04	Bottom	0	1	0	1:1	10	0.873	1.233	1.077	-
1880	18900	QPSK	10	19.5	18.59	-0.06	Bottom	0	1	49	1:1	10	0.884	1.247	1.103	-
1900	19100	QPSK	10	19.5	18.39	-0.04	Bottom	0	1	0	1:1	10	0.970	1.233	1.196	-
1860	18700	QPSK	10	19.5	18.48	-0.12	Bottom	0	50	49	1:1	10	0.863	1.247	1.076	-
1880	18900	QPSK	10	19.5	18.54	-0.04	Bottom	0	50	25	1:1	10	0.933	1.233	1.150	-
1900	19100	QPSK	10	19.5	18.40	0.01	Bottom	0	50	25	1:1	10	0.999	1.247	1.246	38
1880	18900	QPSK	10	19.5	18.57	-0.11	Bottom	0	100	0	1:1	10	0.917	1.233	1.131	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 5 Hotspot SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(Mhz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
836.5	20525	QPSK	10	25.5	25.21	-0.04	Rear	0	1	0	1:1	10	0.536	1.069	0.573	39
836.5	20525	QPSK	10	24.5	23.93	0.01	Rear	1	25	0	1:1	10	0.427	1.140	0.487	-
836.5	20525	QPSK	10	25.5	25.21	-0.02	Front	0	1	0	1:1	10	0.426	1.069	0.455	-
836.5	20525	QPSK	10	24.5	23.93	0.02	Front	1	25	0	1:1	10	0.340	1.140	0.388	-
836.5	20525	QPSK	10	25.5	25.21	-0.01	Left	0	1	0	1:1	10	0.074	1.069	0.079	-
836.5	20525	QPSK	10	24.5	23.93	0.04	Left	1	25	0	1:1	10	0.057	1.140	0.065	-
836.5	20525	QPSK	10	25.5	25.21	0.01	Right	0	1	0	1:1	10	0.217	1.069	0.232	-
836.5	20525	QPSK	10	24.5	23.93	-0.04	Right	1	25	0	1:1	10	0.188	1.140	0.214	-
836.5	20525	QPSK	10	25.5	25.21	-0.08	Bottom	0	1	0	1:1	10	0.305	1.069	0.326	-
836.5	20525	QPSK	10	24.5	23.93	-0.05	Bottom	1	25	0	1:1	10	0.244	1.140	0.278	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 7 Hotspot SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(Mhz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2560	21350	QPSK	20	21.7	21.28	-0.13	Rear	0	1	49	1:1	10	0.124	1.102	0.137	-
2560	21350	QPSK	20	21.7	21.13	0.11	Rear	0	50	49	1:1	10	0.121	1.140	0.138	-
2560	21350	QPSK	20	21.7	21.28	0.15	Front	0	1	49	1:1	10	0.101	1.102	0.111	-
2560	21350	QPSK	20	21.7	21.13	0.11	Front	0	50	49	1:1	10	0.099	1.140	0.113	-
2560	21350	QPSK	20	21.7	21.28	0.09	Left	0	1	49	1:1	10	0.100	1.102	0.110	-
2560	21350	QPSK	20	21.7	21.13	-0.17	Left	0	50	49	1:1	10	0.199	1.140	0.227	40
2560	21350	QPSK	20	21.7	21.28	0.16	Bottom	0	1	49	1:1	10	0.174	1.102	0.192	-
2560	21350	QPSK	20	21.7	21.13	0.01	Bottom	0	50	49	1:1	10	0.150	1.140	0.171	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 12 Hotspot SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
707.5	23095	QPSK	10	25.0	24.62	0.04	Rear	0	1	24	1:1	10	0.421	1.091	0.459	41
707.5	23095	QPSK	10	24.0	23.54	0.04	Rear	1	25	24	1:1	10	0.339	1.112	0.377	-
707.5	23095	QPSK	10	25.0	24.62	-0.01	Front	0	1	24	1:1	10	0.290	1.091	0.317	-
707.5	23095	QPSK	10	24.0	23.54	-0.03	Front	1	25	24	1:1	10	0.232	1.112	0.258	-
707.5	23095	QPSK	10	25.0	24.62	0.03	Left	0	1	24	1:1	10	0.086	1.091	0.094	-
707.5	23095	QPSK	10	24.0	23.54	0.03	Left	1	25	24	1:1	10	0.062	1.112	0.069	-
707.5	23095	QPSK	10	25.0	24.62	0.02	Right	0	1	24	1:1	10	0.168	1.091	0.183	-
707.5	23095	QPSK	10	24.0	23.54	-0.03	Right	1	25	24	1:1	10	0.128	1.112	0.142	-
707.5	23095	QPSK	10	25.0	24.62	-0.15	Bottom	0	1	24	1:1	10	0.257	1.091	0.281	-
707.5	23095	QPSK	10	24.0	23.54	-0.04	Bottom	1	25	24	1:1	10	0.209	1.112	0.232	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram								

LTE Band 13 Hotspot SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
782	23230	QPSK	10	25.0	24.15	0.05	Rear	0	1	24	1:1	10	0.491	1.216	0.597	42
782	23230	QPSK	10	24.0	23.14	0.06	Rear	1	25	0	1:1	10	0.393	1.219	0.479	-
782	23230	QPSK	10	25.0	24.15	-0.02	Front	0	1	24	1:1	10	0.379	1.216	0.461	-
782	23230	QPSK	10	24.0	23.14	0.01	Front	1	25	0	1:1	10	0.300	1.219	0.366	-
782	23230	QPSK	10	25.0	24.15	-0.05	Left	0	1	24	1:1	10	0.144	1.216	0.175	-
782	23230	QPSK	10	24.0	23.14	-0.03	Left	1	25	0	1:1	10	0.119	1.219	0.145	-
782	23230	QPSK	10	25.0	24.15	-0.03	Right	0	1	24	1:1	10	0.374	1.216	0.455	-
782	23230	QPSK	10	24.0	23.14	-0.02	Right	1	25	0	1:1	10	0.295	1.219	0.360	-
782	23230	QPSK	10	25.0	24.15	-0.11	Bottom	0	1	24	1:1	10	0.295	1.216	0.359	-
782	23230	QPSK	10	24.0	23.14	-0.05	Bottom	1	25	0	1:1	10	0.232	1.219	0.283	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram								

LTE Band 66 Hotspot SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB	RB	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)	Size	offset		(mm)	(W/kg)		(W/kg)	
1 770	132572	QPSK	20	20.0	19.57	-0.05	Rear	0	1	0	1:1	10	0.550	1.104	0.607	-
1 770	132572	QPSK	20	20.0	19.80	-0.04	Rear	0	50	25	1:1	10	0.578	1.047	0.605	-
1 770	132572	QPSK	20	20.0	19.57	0.18	Front	0	1	0	1:1	10	0.607	1.104	0.670	-
1 770	132572	QPSK	20	20.0	19.80	0.06	Front	0	50	25	1:1	10	0.640	1.047	0.670	-
1 770	132572	QPSK	20	20.0	19.57	-0.14	Left	0	1	0	1:1	10	0.129	1.104	0.142	-
1 770	132572	QPSK	20	20.0	19.80	0.17	Left	0	50	25	1:1	10	0.133	1.047	0.139	-
1 770	132572	QPSK	20	20.0	19.57	0.19	Right	0	1	0	1:1	10	0.121	1.104	0.134	-
1 770	132572	QPSK	20	20.0	19.80	0.11	Right	0	50	25	1:1	10	0.126	1.047	0.132	-
1720	132072	QPSK	20	20.0	19.14	-0.05	Bottom	0	1	49	1:1	10	0.798	1.219	0.973	-
1745	132322	QPSK	20	20.0	19.37	-0.04	Bottom	0	1	99	1:1	10	0.850	1.156	0.983	-
1 770	132572	QPSK	20	20.0	19.57	0.12	Bottom	0	1	0	1:1	10	0.963	1.104	1.063	43
1720	132072	QPSK	20	20.0	19.37	-0.04	Bottom	0	50	25	1:1	10	0.838	1.156	0.969	-
1745	132322	QPSK	20	20.0	19.51	-0.04	Bottom	0	50	25	1:1	10	0.912	1.119	1.021	-
1 770	132572	QPSK	20	20.0	19.80	0.12	Bottom	0	50	25	1:1	10	1.01	1.047	1.058	44
1770	132572	QPSK	20	20.0	19.70	-0.06	Bottom	0	100	0	1:1	10	0.973	1.072	1.043	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram								

NR Band n2 (PCS) Hotspot SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB	RB	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)	Size	offset		(mm)	(W/kg)		(W/kg)	
1860	372000	DFT-s OFDM QPSK	20	20.0	19.67	0.13	Rear	0	1	1	1:1	10	0.454	1.079	0.490	-
1860	372000	DFT-s OFDM QPSK	20	20.0	19.80	0.18	Rear	0	50	0	1:1	10	0.445	1.047	0.466	-
1860	372000	DFT-s OFDM QPSK	20	20.0	19.67	0.18	Front	0	1	1	1:1	10	0.612	1.079	0.660	-
1860	372000	DFT-s OFDM QPSK	20	20.0	19.80	0.10	Front	0	50	0	1:1	10	0.577	1.047	0.604	-
1860	372000	DFT-s OFDM QPSK	20	20.0	19.67	0.18	Left	0	1	1	1:1	10	0.095	1.079	0.102	-
1860	372000	DFT-s OFDM QPSK	20	20.0	19.80	0.16	Left	0	50	0	1:1	10	0.071	1.047	0.074	-
1860	372000	DFT-s OFDM QPSK	20	20.0	19.67	0.16	Right	0	1	1	1:1	10	0.111	1.079	0.120	-
1860	372000	DFT-s OFDM QPSK	20	20.0	19.80	0.19	Right	0	50	0	1:1	10	0.096	1.047	0.101	-
1860	372000	DFT-s OFDM QPSK	20	20.0	19.67	0.12	Bottom	0	1	1	1:1	10	0.880	1.079	0.949	-
1880	376000	DFT-s OFDM QPSK	20	20.0	19.66	0.07	Bottom	0	1	1	1:1	10	0.860	1.081	0.930	-
1900	380000	DFT-s OFDM QPSK	20	20.0	19.54	-0.04	Bottom	0	1	1	1:1	10	0.981	1.112	1.091	45
1860	372000	DFT-s OFDM QPSK	20	20.0	19.80	0.04	Bottom	0	50	0	1:1	10	0.840	1.047	0.880	-
1880	376000	DFT-s OFDM QPSK	20	20.0	19.79	0.11	Bottom	0	50	0	1:1	10	0.975	1.050	1.023	-
1900	380000	DFT-s OFDM QPSK	20	20.0	19.61	0.02	Bottom	0	50	0	1:1	10	0.964	1.094	1.055	-
1860	372000	DFT-s OFDM QPSK	20	20.0	19.67	0.09	Bottom	0	100	0	1:1	10	0.966	1.079	1.042	-
1860	372000	CP QPSK	20	20.0	19.60	-0.04	Bottom	0	1	1	1:1	10	0.951	1.096	1.043	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram								

NR Band n5 (Cell) Hotspot SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB	RB	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)	Size	offset		(mm)	(W/kg)		(W/kg)	
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.59	-0.12	Rear	0	1	1	1:1	10	0.621	1.099	0.682	46
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.12	-0.17	Rear	0	50	28	1:1	10	0.491	1.225	0.601	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.59	-0.10	Front	0	1	1	1:1	10	0.507	1.099	0.557	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.12	-0.04	Front	0	50	28	1:1	10	0.399	1.225	0.489	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.59	-0.04	Left	0	1	1	1:1	10	0.084	1.099	0.092	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.12	-0.11	Left	0	50	28	1:1	10	0.057	1.225	0.070	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.59	-0.09	Right	0	1	1	1:1	10	0.174	1.099	0.191	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.12	-0.07	Right	0	50	28	1:1	10	0.141	1.225	0.173	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.59	-0.15	Bottom	0	1	1	1:1	10	0.304	1.099	0.334	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.12	-0.07	Bottom	0	50	28	1:1	10	0.243	1.225	0.298	-
836.5	167300	CP QPSK	20	23.5	23.25	-0.14	Rear	1.5	1	1	1:1	10	0.414	1.059	0.439	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram								

NR Band n66 Hotspot SAR

Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB	RB	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)	Size	offset		(mm)	(W/kg)		(W/kg)	
1745	349000	DFT-s OFDM QPSK	20	22.0	21.92	0.10	Rear	0	1	1	1:1	10	0.499	1.019	0.508	-
1745	349000	DFT-s OFDM QPSK	20	22.0	21.91	0.03	Rear	0	50	0	1:1	10	0.498	1.021	0.508	-
1745	349000	DFT-s OFDM QPSK	20	22.0	21.92	0.18	Front	0	1	1	1:1	10	0.599	1.019	0.610	-
1745	349000	DFT-s OFDM QPSK	20	22.0	21.91	0.09	Front	0	50	0	1:1	10	0.565	1.021	0.577	-
1745	349000	DFT-s OFDM QPSK	20	22.0	21.92	0.10	Left	0	1	1	1:1	10	0.128	1.019	0.130	-
1745	349000	DFT-s OFDM QPSK	20	22.0	21.91	0.19	Left	0	50	0	1:1	10	0.127	1.021	0.130	-
1745	349000	DFT-s OFDM QPSK	20	22.0	21.92	0.08	Right	0	1	1	1:1	10	0.109	1.019	0.111	-
1745	349000	DFT-s OFDM QPSK	20	22.0	21.91	-0.02	Right	0	50	0	1:1	10	0.110	1.021	0.112	-
1720	344000	DFT-s OFDM QPSK	20	22.0	21.84	0.06	Bottom	0	1	1	1:1	10	0.963	1.038	0.999	-
1745	349000	DFT-s OFDM QPSK	20	22.0	21.92	0.07	Bottom	0	1	1	1:1	10	0.955	1.019	0.973	-
1770	354000	DFT-s OFDM QPSK	20	22.0	21.91	-0.02	Bottom	0	1	1	1:1	10	1.06	1.021	1.082	-
1720	344000	DFT-s OFDM QPSK	20	22.0	21.87	0.06	Bottom	0	50	0	1:1	10	1.02	1.030	1.051	-
1745	349000	DFT-s OFDM QPSK	20	22.0	21.91	0.07	Bottom	0	50	0	1:1	10	0.968	1.021	0.988	-
1770	354000	DFT-s OFDM QPSK	20	22.0	21.90	0.03	Bottom	0	50	0	1:1	10	1.07	1.023	1.095	47
1720	344000	DFT-s OFDM QPSK	20	22.0	21.99	-0.01	Bottom	0	100	0	1:1	10	0.995	1.002	0.997	-
1720	344000	CP QPSK	20	22.0	21.87	-0.03	Bottom	0	1	1	1:1	10	1.05	1.030	1.082	-
1770	354000	DFT-s OFDM QPSK	20	22.0	21.92	-0.02	Bottom	0	50	0	1:1	10	1.02	1.023	1.019	*
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

Note: * Data entry indicate Variability measurement.

DTS Hotspot SAR																
Frequency		Mode	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(mm)	(W/kg)	(W/kg)	(Duty)	(Duty)	(W/kg)	
2412	1	802.11b	20	1	20.0	19.06	0.02	Rear	98.8	10	0.468	0.301	1.219	1.012	0.378	-
2412	1	802.11b	20	1	20.0	19.06	-0.08	Front	98.8	10	0.513	0.294	1.219	1.012	0.369	-
2412	1	802.11b	20	1	20.0	19.06	-0.04	Left	98.8	10	0.490	0.292	1.219	1.012	0.367	-
2412	1	802.11b	20	1	20.0	19.06	-0.01	Top	98.8	10	0.577	0.333	1.219	1.012	0.418	48
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram							

5 GHz WLAN Hotspot SAR																
Frequency		Mode	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(mm)	(W/kg)	(W/kg)	(Duty)	(Duty)	(W/kg)	
5 745	149	802.11a	20	6	18.0	17.37	-0.16	Rear	97.6	10	0.940	0.386	1.156	1.025	0.457	49
5 745	149	802.11a	20	6	18.0	17.37	0.11	Front	97.6	10	0.150	0.064	1.156	1.025	0.076	-
5 745	149	802.11a	20	6	18.0	17.37		Left	97.6	10	0.710	0.308	1.156	1.025	0.356	-
5 745	149	802.11a	20	6	18.0	17.37	-0.16	Top	97.6	10	0.216	0.089	1.156	1.025	0.103	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram							

DSS Tethering SAR

Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Distance	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(dBm)	(dBm)	(dB)		(mm)	(W/kg)		(Duty)	(W/kg)	
2441	39	Bluetooth DH5	13	12.78	-0.19	Rear	10	0.062	1.052	1.300	0.085	-
2 480	78	Bluetooth DH5	13	12.78	-0.19	Front	10	0.057	1.052	1.300	0.078	-
2 480	78	Bluetooth DH5	13	12.78	-0.15	Left	10	0.078	1.052	1.300	0.107	50
2 480	78	Bluetooth DH5	13	12.78	-0.01	Top	10	0.068	1.052	1.300	0.093	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg (mW/g) Averaged over 1 gram					

13.4 Phablet SAR Measurement Considerations(DSI=0,3)

Per FCC KDB 648474 D04v01r03, this device is considered a “Phablet” since the diagonal dimension is greater than 160 mm and less than 200 mm. Therefore, extremity SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR >1.2 W/kg. When hotspot mode applies, 10g SAR required only for the surfaces and edges with hotspot mode scaled to the maximum output power (including tolerance) is 1g SAR > 1.2 W/kg.

13.5 Phablet SAR Measurement Results

GSM 1900 Phablet SAR 10g													
Frequency		Mode	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.												
1 880	661	GPRS 2Tx	29.5	28.20	-0.03	Rear	OFF	1:4.15	9	0.468	1.349	0.631	-
1 880	661	GPRS 2Tx	29.5	28.20	0.18	Front	OFF	1:4.15	6	0.874	1.349	1.179	-
1 880	661	GPRS 2Tx	29.5	28.20	-0.02	Bottom	OFF	1:4.15	11	0.771	1.349	1.040	-
1 880	661	GPRS 2Tx	29.5	28.20	0.12	Left	N/A	1:4.15	0	0.257	1.349	0.347	-
1 880	661	GPRS 2Tx	29.5	28.20	0.03	Right	N/A	1:4.15	0	0.237	1.349	0.320	-
1 880	661	GPRS 2Tx	25.5	25.18	0.11	Rear	ON	1:4.15	0	1.23	1.076	1.324	-
1 880	661	GPRS 2Tx	25.5	25.18	-0.17	Front	ON	1:4.15	0	1.58	1.076	1.701	-
1 880	661	GPRS 2Tx	25.5	25.18	0.19	Bottom	ON	1:4.15	0	1.62	1.076	1.744	51
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Hand 4.0 W/kg Averaged over 10 gram						

WCDMA 1900 Phablet SAR 10g													
Frequency		Mode	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.												
1 880.0	9400	RMC	24.5	23.64	-0.01	Rear	OFF	1:1	9	0.874	1.219	1.065	-
1 880.0	9400	RMC	24.5	23.64	0.01	Front	OFF	1:1	6	1.2	1.219	1.463	-
1 880.0	9400	RMC	24.5	23.64	0.16	Bottom	OFF	1:1	11	1.48	1.219	1.804	-
1 880.0	9400	RMC	24.5	23.64	0.14	Left	N/A	1:1	0	0.419	1.219	0.511	-
1 880.0	9400	RMC	24.5	23.64	0.17	Right	N/A	1:1	0	0.500	1.219	0.609	-
1 880.0	9400	RMC	21.0	20.60	-0.14	Rear	ON	1:1	0	1.62	1.096	1.776	-
1 852.4	9262	RMC	21.0	20.11	0.11	Front	ON	1:1	0	2.02	1.227	2.479	52
1 880.0	9400	RMC	21.0	20.60	0.11	Front	ON	1:1	0	1.94	1.096	2.127	-
1 907.6	9538	RMC	21.0	20.38	-0.17	Front	ON	1:1	0	2.13	1.153	2.457	53
1 880.0	9400	RMC	21.0	20.60	0.10	Bottom	ON	1:1	0	1.73	1.096	1.897	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Hand 4.0 W/kg Averaged over 10 gram						

LTE Band 2 Phablet SAR 10g																	
Frequency		Mode	Band Width	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																
1860	18700	QPSK	20	25.0	24.15	0.04	Rear	OFF	0	1	0	1:1	9	0.906	1.216	1.102	-
1880	18900	QPSK	20	24.0	23.26	0.03	Rear	OFF	1	50	49	1:1	9	0.827	1.186	0.981	-
1860	18700	QPSK	20	25.0	24.15	-0.10	Front	OFF	0	1	0	1:1	6	0.917	1.216	1.115	-
1880	18900	QPSK	20	24.0	23.26	-0.01	Front	OFF	1	50	49	1:1	6	0.742	1.186	0.880	-
1860	18700	QPSK	20	25.0	24.15	0.12	Bottom	OFF	0	1	0	1:1	11	1.55	1.216	1.885	-
1880	18900	QPSK	20	24.0	23.26	0.12	Bottom	OFF	1	50	49	1:1	11	1.4	1.186	1.660	-
1860	18700	QPSK	20	25.0	24.15	0.12	Left	N/A	0	1	0	1:1	0	0.485	1.216	0.590	-
1880	18900	QPSK	20	24.0	23.26	0.16	Left	N/A	1	50	49	1:1	0	0.388	1.186	0.460	-
1860	18700	QPSK	20	25.0	24.15	0.18	Right	N/A	0	1	0	1:1	0	0.575	1.216	0.699	-
1880	18900	QPSK	20	24.0	23.26	0.15	Right	N/A	1	50	49	1:1	0	0.48	1.186	0.569	-
1860	18700	QPSK	20	22.0	21.14	0.16	Rear	ON	0	1	49	1:1	0	1.45	1.219	1.768	-
1880	18900	QPSK	20	22.0	21.27	-0.04	Rear	ON	0	50	25	1:1	0	1.54	1.183	1.822	-
1860	18700	QPSK	20	22.0	21.14	0.15	Front	ON	0	1	0	1:1	0	2.31	1.219	2.816	-
1880	18900	QPSK	20	22.0	21.18	0.02	Front	ON	0	1	49	1:1	0	2.29	1.208	2.766	-
1900	19100	QPSK	20	22.0	21.03	0.17	Front	ON	0	1	0	1:1	0	2.39	1.250	2.988	-
1860	18700	QPSK	20	22.0	21.19	0.15	Front	ON	0	50	25	1:1	0	2.28	1.205	2.747	-
1880	18900	QPSK	20	22.0	21.27	0.12	Front	ON	0	50	25	1:1	0	2.42	1.183	2.863	-
1900	19100	QPSK	20	22.0	21.16	0.11	Front	ON	0	50	25	1:1	0	2.47	1.213	2.997	54
1860	18700	QPSK	20	22.0	21.19	0.15	Front	ON	0	100	0	1:1	0	2.33	1.205	2.808	-
1860	18700	QPSK	20	22.0	21.14	0.13	Bottom	ON	0	1	0	1:1	0	2.26	1.219	2.755	-
1880	18900	QPSK	20	22.0	21.18	0.13	Bottom	ON	0	1	49	1:1	0	1.97	1.208	2.379	-
1900	19100	QPSK	20	22.0	21.03	0.17	Bottom	ON	0	1	0	1:1	0	1.99	1.250	2.488	-
1860	18700	QPSK	20	22.0	21.19	0.11	Bottom	ON	0	50	25	1:1	0	2.19	1.205	2.639	
1880	18900	QPSK	20	22.0	21.27	0.10	Bottom	ON	0	50	25	1:1	0	2.06	1.183	2.437	
1900	19100	QPSK	20	22.0	21.16	0.15	Bottom	ON	0	50	25	1:1	0	1.97	1.213	2.452	
1860	18700	QPSK	20	22.0	21.19	0.11	Bottom	ON	0	100	0	1:1	0	2.17	1.205	2.615	
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Hand 4.0 W/kg Averaged over 10 gram									

LTE Band 7 Phablet SAR 10g																	
Frequency		Mode	Band Width	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																
2560	21350	QPSK	20	24.0	23.41	-0.15	Rear	OFF	0	1	49	1:1	9	0.080	1.146	0.092	-
2560	21350	QPSK	20	23.0	22.32	-0.16	Rear	OFF	1	50	25	1:1	9	0.146	1.169	0.171	-
2560	21350	QPSK	20	24.0	23.41	0.02	Front	OFF	0	1	49	1:1	6	0.141	1.146	0.162	-
2560	21350	QPSK	20	23.0	22.32	-0.11	Front	OFF	1	50	25	1:1	6	0.113	1.169	0.132	-
2560	21350	QPSK	20	24.0	23.41	0.09	Bottom	OFF	0	1	49	1:1	11	0.124	1.146	0.142	-
2560	21350	QPSK	20	23.0	22.32	0.14	Bottom	OFF	1	50	25	1:1	11	0.099	1.169	0.116	-
2560	21350	QPSK	20	24.0	23.41	0.03	Left	N/A	0	1	49	1:1	0	0.590	1.146	0.676	-
2560	21350	QPSK	20	23.0	22.32	-0.10	Left	N/A	1	50	25	1:1	0	0.493	1.169	0.577	-
2560	21350	QPSK	20	21.7	21.23	-0.01	Rear	ON	0	1	99	1:1	0	0.433	1.114	0.482	-
2560	21350	QPSK	20	21.7	21.24	0.17	Rear	ON	0	50	49	1:1	0	0.450	1.112	0.500	-
2560	21350	QPSK	20	21.7	21.23	0.12	Front	ON	0	1	99	1:1	0	0.391	1.114	0.436	-
2560	21350	QPSK	20	21.7	21.24	0.16	Front	ON	0	50	49	1:1	0	0.418	1.112	0.465	-
2560	21350	QPSK	20	21.7	21.23	-0.07	Bottom	ON	0	1	99	1:1	0	0.650	1.114	0.724	-
2560	21350	QPSK	20	21.7	21.24	0.04	Bottom	ON	0	50	49	1:1	0	0.694	1.112	0.772	55
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Hand 4.0 W/kg Averaged over 10 gram								

LTE Band 66 Phablet SAR 10g																	
Frequency		Mode	Band Width	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																
1770	132572	QPSK	20	25.0	24.31	0.02	Rear	OFF	0	1	0	1:1	9	0.909	1.172	1.066	-
1770	132572	QPSK	20	24.0	23.95	0.07	Rear	OFF	1	50	0	1:1	9	0.729	1.012	0.737	-
1770	132572	QPSK	20	25.0	24.31	-0.13	Front	OFF	0	1	0	1:1	6	0.751	1.172	0.880	-
1770	132572	QPSK	20	24.0	23.95	0.02	Front	OFF	1	50	0	1:1	6	0.614	1.012	0.621	-
1770	132572	QPSK	20	25.0	24.31	0.11	Bottom	OFF	0	1	0	1:1	11	1.15	1.172	1.348	-
1770	132572	QPSK	20	24.0	23.95	0.16	Bottom	OFF	1	50	0	1:1	11	0.920	1.012	0.931	-
1770	132572	QPSK	20	25.0	24.31	0.17	Left	N/A	0	1	0	1:1	0	0.515	1.172	0.604	-
1770	132572	QPSK	20	24.0	23.95	0.15	Left	N/A	1	50	0	1:1	0	0.410	1.012	0.415	-
1770	132572	QPSK	20	25.0	24.31	0.12	Right	N/A	0	1	0	1:1	0	0.466	1.172	0.546	-
1770	132572	QPSK	20	24.0	23.95	0.19	Right	N/A	1	50	0	1:1	0	0.376	1.012	0.380	-
1770	132572	QPSK	20	20.0	19.64	0.19	Rear	ON	0	1	0	1:1	0	0.954	1.086	1.036	-
1770	132572	QPSK	20	20.0	19.78	0.14	Rear	ON	0	50	25	1:1	0	0.996	1.052	1.048	-
1770	132572	QPSK	20	20.0	19.64	0.17	Front	ON	0	1	0	1:1	0	1.4	1.086	1.521	-
1770	132572	QPSK	20	20.0	19.78	0.16	Front	ON	0	50	25	1:1	0	1.49	1.052	1.567	-
1720	132072	QPSK	20	20.0	19.10	0.15	Bottom	ON	0	1	49	1:1	0	1.9	1.230	2.338	-
1745	132322	QPSK	20	20.0	19.27	0.18	Bottom	ON	0	1	49	1:1	0	2.04	1.183	2.413	56
1770	132572	QPSK	20	20.0	19.64	0.05	Bottom	ON	0	1	0	1:1	0	2.12	1.086	2.303	-
1720	132072	QPSK	20	20.0	19.33	0.12	Bottom	ON	0	50	25	1:1	0	2	1.167	2.334	-
1745	132322	QPSK	20	20.0	19.47	0.13	Bottom	ON	0	50	49	1:1	0	2.05	1.130	2.316	-
1770	132572	QPSK	20	20.0	19.78	0.16	Bottom	ON	0	50	25	1:1	0	2.12	1.052	2.230	57
1770	132572	QPSK	20	20.0	19.74	0.13	Bottom	ON	0	100	0	1:1	0	2.12	1.062	2.251	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Hand 4.0 W/kg Averaged over 10 gram								

NR Band n2 (PCS) Phablet SAR 10g

Frequency		Mode	Band Width	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																
1860	372000	DFT-s OFDM QPSK	20	25.0	24.77	0.09	Rear	OFF	0	1	1	1:1	9	1.05	1.054	1.107	-
1880	376000	DFT-s OFDM QPSK	20	25.0	24.64	0.19	Rear	OFF	0	50	28	1:1	9	0.976	1.086	1.060	-
1860	372000	DFT-s OFDM QPSK	20	25.0	24.77	0.18	Front	OFF	0	1	1	1:1	6	2.13	1.054	2.246	-
1880	376000	DFT-s OFDM QPSK	20	25.0	24.66	0.10	Front	OFF	0	1	1	1:1	6	1.82	1.081	1.968	-
1900	380000	DFT-s OFDM QPSK	20	25.0	24.50	0.06	Front	OFF	0	1	1	1:1	6	1.99	1.122	2.233	-
1860	372000	DFT-s OFDM QPSK	20	25.0	24.61	0.1	Front	OFF	0	50	28	1:1	6	1.83	1.094	2.002	-
1880	376000	DFT-s OFDM QPSK	20	25.0	24.64	0.09	Front	OFF	0	50	28	1:1	6	1.98	1.086	2.151	-
1900	380000	DFT-s OFDM QPSK	20	25.0	24.37	0.14	Front	OFF	0	50	28	1:1	6	1.73	1.156	2.000	-
1860	372000	DFT-s OFDM QPSK	20	24.0	23.85	0.06	Front	OFF	1	100	0	1:1	6	1.61	1.035	1.667	-
1860	372000	DFT-s OFDM QPSK	20	25.0	24.77	-0.15	Bottom	OFF	0	1	1	1:1	11	2.13	1.054	2.246	-
1880	376000	DFT-s OFDM QPSK	20	25.0	24.66	0.02	Bottom	OFF	0	1	1	1:1	11	1.84	1.081	1.990	-
1900	380000	DFT-s OFDM QPSK	20	25.0	24.50	-0.01	Bottom	OFF	0	1	1	1:1	11	2.09	1.122	2.345	-
1880	376000	DFT-s OFDM QPSK	20	25.0	24.64	0.02	Bottom	OFF	1	50	28	1:1	11	1.77	1.086	1.923	-
1860	372000	DFT-s OFDM QPSK	20	24.0	23.85	0.08	Bottom	OFF	0	100	0	1:1	11	1.61	1.035	1.667	-
1860	372000	DFT-s OFDM QPSK	20	25.0	24.77	-0.05	Left	N/A	0	1	1	1:1	0	0.641	1.054	0.676	-
1880	376000	DFT-s OFDM QPSK	20	25.0	24.64	-0.14	Left	N/A	0	50	28	1:1	0	0.483	1.086	0.525	-
1860	372000	DFT-s OFDM QPSK	20	25.0	24.77	-0.04	Right	N/A	0	1	1	1:1	0	0.694	1.054	0.732	-
1880	376000	DFT-s OFDM QPSK	20	25.0	24.64	0.13	Right	N/A	0	50	28	1:1	0	0.541	1.086	0.588	-
1860	372000	DFT-s OFDM QPSK	20	22.0	21.94	0.17	Rear	ON	0	1	1	1:1	0	1.99	1.014	2.018	-
1880	376000	DFT-s OFDM QPSK	20	22.0	21.68	0.10	Rear	ON	0	1	1	1:1	0	1.89	1.076	2.035	-
1900	380000	DFT-s OFDM QPSK	20	22.0	21.58	0.16	Rear	ON	0	1	1	1:1	0	2.1	1.102	2.313	-
1860	372000	DFT-s OFDM QPSK	20	22.0	21.80	0.11	Rear	ON	0	50	0	1:1	0	1.79	1.047	1.874	-
1860	372000	DFT-s OFDM QPSK	20	22.0	21.76	0.11	Rear	ON	0	100	0	1:1	0	1.86	1.057	1.966	-
1860	372000	DFT-s OFDM QPSK	20	22.0	21.94	0.10	Front	ON	0	1	1	1:1	0	2.4	1.014	2.433	-
1880	376000	DFT-s OFDM QPSK	20	22.0	21.68	0.15	Front	ON	0	1	1	1:1	0	2.37	1.076	2.551	-
1900	380000	DFT-s OFDM QPSK	20	22.0	21.58	0.18	Front	ON	0	1	1	1:1	0	2.28	1.102	2.512	-
1860	372000	DFT-s OFDM QPSK	20	22.0	21.80	0.15	Front	ON	0	50	0	1:1	0	2.46	1.047	2.576	-
1880	376000	DFT-s OFDM QPSK	20	22.0	21.76	0.12	Front	ON	0	50	0	1:1	0	2.42	1.057	2.557	-
1900	380000	DFT-s OFDM QPSK	20	22.0	21.54	0.17	Front	ON	0	50	0	1:1	0	2.51	1.112	2.790	58
1860	372000	DFT-s OFDM QPSK	20	22.0	21.76	0.19	Front	ON	0	100	0	1:1	0	2.52	1.057	2.663	59
1860	372000	DFT-s OFDM QPSK	20	22.0	21.94	0.10	Bottom	ON	0	1	1	1:1	0	2.33	1.014	2.362	-
1880	376000	DFT-s OFDM QPSK	20	22.0	21.68	0.12	Bottom	ON	0	1	1	1:1	0	1.89	1.076	2.035	-
1900	380000	DFT-s OFDM QPSK	20	22.0	21.58	-0.18	Bottom	ON	0	1	1	1:1	0	1.65	1.102	1.818	-
1860	372000	DFT-s OFDM QPSK	20	22.0	21.80	0.07	Bottom	ON	0	50	0	1:1	0	2.26	1.047	2.367	-
1880	376000	DFT-s OFDM QPSK	20	22.0	21.76	0.10	Bottom	ON	0	50	0	1:1	0	1.93	1.057	2.040	-
1900	380000	DFT-s OFDM QPSK	20	22.0	21.54	-0.09	Bottom	ON	0	50	0	1:1	0	2.15	1.112	2.390	-
1860	372000	DFT-s OFDM QPSK	20	22.0	21.76	-0.13	Bottom	ON	0	100	0	1:1	0	2	1.057	2.114	-
1860	372000	CP QPSK	20	22.0	21.91	-0.11	Bottom	ON	0	1	1	1:1	0	1.29	0.631	0.814	
1860	372000	DFT-s OFDM QPSK	20	22.0	21.76	0.04	Front	ON	0	100	0	1:1	0	2.38	1.057	2.515	*
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Hand-4.0 W/kg Averaged over 10 gram								

Note: * Data entry indicate Variability measurement

NR Band n66 Phablet SAR 10g

Frequency		Mode	Band Width	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																
1745	349000	DFT-s OFDM QPSK	20	25.0	24.84	0.05	Rear	OFF	0	1	1	1:1	9	0.826	1.038	0.857	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.76	0.09	Rear	OFF	0	50	28	1:1	9	0.739	1.057	0.781	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.84	0.12	Front	OFF	0	1	1	1:1	6	1.39	1.038	1.442	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.76	0.18	Front	OFF	0	50	28	1:1	6	1.19	1.057	1.258	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.84	-0.01	Bottom	OFF	0	1	1	1:1	11	1.15	1.038	1.193	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.76	0.11	Bottom	OFF	0	50	28	1:1	11	0.557	1.057	0.589	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.84	-0.15	Left	N/A	0	1	1	1:1	0	0.471	1.038	0.489	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.76	-0.11	Left	N/A	0	50	28	1:1	0	0.527	1.057	0.557	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.84	-0.14	Right	N/A	0	1	1	1:1	0	0.435	1.038	0.451	-
1745	349000	DFT-s OFDM QPSK	20	25.0	24.76	-0.15	Right	N/A	0	50	28	1:1	0	0.209	1.057	0.221	-
1745	349000	DFT-s OFDM QPSK	20	22.0	20.98	-0.01	Rear	ON	0	1	1	1:1	0	1.35	1.265	1.707	-
1745	349000	DFT-s OFDM QPSK	20	22.0	20.95	-0.12	Rear	ON	0	50	0	1:1	0	1.49	1.274	1.898	-
1720	344000	DFT-s OFDM QPSK	20	22.0	20.87	0.01	Front	ON	0	1	1	1:1	0	1.92	1.297	2.491	-
1745	349000	DFT-s OFDM QPSK	20	22.0	20.98	0.01	Front	ON	0	1	1	1:1	0	2.08	1.265	2.631	-
1770	345400	DFT-s OFDM QPSK	20	22.0	20.96	0.18	Front	ON	0	1	1	1:1	0	1.92	1.271	2.440	-
1720	344000	DFT-s OFDM QPSK	20	22.0	20.88	0.01	Front	ON	0	50	0	1:1	0	2.09	1.294	2.705	-
1745	349000	DFT-s OFDM QPSK	20	22.0	20.95	0.13	Front	ON	0	50	0	1:1	0	2.17	1.274	2.764	-
1770	345400	DFT-s OFDM QPSK	20	22.0	20.92	0.13	Front	ON	0	50	0	1:1	0	1.33	1.282	1.705	-
1720	344000	DFT-s OFDM QPSK	20	22.0	20.88	0.18	Front	ON	0	100	0	1:1	0	1.7	1.294	2.200	-
1720	344000	DFT-s OFDM QPSK	20	22.0	20.87	-0.02	Bottom	ON	0	1	1	1:1	0	2.32	1.297	3.009	60
1745	349000	DFT-s OFDM QPSK	20	22.0	20.98	0.00	Bottom	ON	0	1	1	1:1	0	2.13	1.265	2.694	-
1770	345400	DFT-s OFDM QPSK	20	22.0	20.96	0.05	Bottom	ON	0	1	1	1:1	0	2.14	1.271	2.719	-
1720	344000	DFT-s OFDM QPSK	20	22.0	20.89	-0.19	Bottom	ON	0	50	0	1:1	0	2.32	1.291	2.996	-
1745	349000	DFT-s OFDM QPSK	20	22.0	20.95	0.03	Bottom	ON	0	50	0	1:1	0	2.06	1.274	2.623	-
1770	345400	DFT-s OFDM QPSK	20	22.0	20.92	0.01	Bottom	ON	0	50	0	1:1	0	0.914	1.282	1.172	-
1720	344000	DFT-s OFDM QPSK	20	22.0	20.88	0.02	Bottom	ON	0	100	0	1:1	0	2.18	1.294	2.821	-
1720	344000	CP QPSK	20	22.0	20.97	0.04	Bottom	ON	0	1	1	11:1	0	0.797	1.268	1.010	
1745	349000	DFT-s OFDM QPSK	20	22.0	20.95	-0.05	Bottom	ON	0	50	0	1:1	0	2.08	1.274	2.649	*
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Hand 4.0 W/kg Averaged over 10 gram								

Note: * Data entry indicate Variability measurement

5 GHz WLAN Phablet SAR 10g																
Frequency		Mode	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor (Duty)	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(mm)	(W/kg)	(W/kg)				
5 260	52	802.11a	20	6	18.00	17.33	0.19	Rear	97.6	0	1.50	0.198	1.167	1.025	0.237	-
5 260	52	802.11a	20	6	18.00	17.33	0.01	Front	97.6	0	6.09	0.429	1.167	1.025	0.513	-
5 260	52	802.11a	20	6	18.00	17.33	0.19	Left	97.6	0	9.39	0.603	1.167	1.025	0.721	-
5 260	52	802.11a	20	6	18.00	17.33		Top	97.6	0	2.12		1.167	1.025		-
5620	124	802.11a	20	6	18.00	16.45	0.13	Rear	97.6	0	3.86	0.674	1.429	1.025	0.987	61
5620	124	802.11a	20	6	18.00	16.45	0.01	Front	97.6	0	7.28	0.574	1.429	1.025	0.840	-
5620	124	802.11a	20	6	18.00	16.45		Left	97.6	0	6.38		1.429	1.025		-
5620	124	802.11a	20	6	18.00	16.45		Top	97.6	0	5.53		1.429	1.025		-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population										Hand 4.0 W/kg Averaged over 10 gram						

13.6 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, FCC KDB Procedure.
2. Batteries are fully charged at the beginning of the SAR measurements. A standard battery was used for all SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. 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.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB 447498 D01v06.
6. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 15 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
7. Per FCC KDB 648474 D04v01r03, SAR was evaluated without a headset connected to the device. Since the standalone reported SAR was ≤ 1.2 W/kg, no additional SAR evaluation using a headset cable were required.
8. Per KDB 648474 D04v01r03, this device is considered a "Phablet" since the diagonal dimension is > 160 mm and < 200 mm. When hotspot mode applies, extremity SAR is required only for the surfaces and edges with hotspot mode scaled to the maximum output power (with tolerance) is 1 g SAR > 1.2 W/kg.
9. Per FCC KDB 865664 D01v01r04, variability SAR measurement were performed when the measured SAR results for a frequency band were greater than or equal to 0.8 W/kg for 1g SAR and >2 for 10g SAR Please see Section 15 for variability analysis.
10. This device utilizes power reduction for some wireless mode and technologies, as outlined in sec. 4.4 The maximum output power allowed for each transmitter and exposure condition was evaluated for SAR compliance based on expected use conditions and simultaneous scenarios.
11. During SAR testing for the Hotspot conditions per KDB 941225 D06v02r01, the actual portable hotspot operation (with actual simultaneous transmission of a transmitter with WiFi) was not activated.

GSM/GPRS Test Notes:

1. This EUT'S GSM and GPRS device class is B.
2. This device supports GPRS VOIP in the head and the body-worn configurations therefore GPRS was additionally evaluated for head and body-worn compliance.
3. Body-Worn accessory testing is typically associated with voice operations. Therefore, GSM voice was evaluated for body-worn SAR.
4. Justification for reduced test configurations per KDB 941225 D01v03r01: The source-based time-averaged output power was evaluated for all multi-slot operations. The multi-slot configuration with the highest frame averaged output power including tolerance was evaluated for SAR.
5. Per FCC KDB 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is 1/2 dB, instead of the middle channel, the highest output power channel must be used.
6. Justification for reduced test configurations per KDB Publication 941225 D01v03r01 and October 2013 TCB Workshop Notes: The source-based frame-averaged output power was evaluated for all GPRS/EDGE slot configurations. The configuration with the highest target frame averaged output power was evaluated for hotspot SAR. When the maximum frame-averaged powers are equivalent across two or more slots (within 0.25 dB), the configuration with the most number of time slots was tested.

WCDMA Notes:

1. The 12.2 kbps RMC mode is the primary mode per KDB 941225 D01v03r01.
2. WCDMA SAR was tested under RMC 12.2 kbps with HSPA inactive per KDB publication 941225 D01v03r01. AMR and HSPA SAR was not required per the 3G Test Reduction Procedure in KDB Publication 941225 D01v03r01.
3. Per FCC KDB 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the channel highest output power channel was used.

LTE Notes:

1. LTE Considerations: LTE test configurations are determined according to SAR Evaluation Consideration for LTE Devices in FCC KDB 941225 D05v02r05.
2. According to FCC KDB 941225 D05v02r05:
When the reported SAR is ≤ 0.8 W/kg, testing of the 100% RB allocation and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the 1RB, 50%RB and 100%RB allocation with highest output power for that channel.
Only one channel, and as reported SAR values for 1RB allocation and 50%RB allocation were less than 1.45W/Kg only the highest power RB offset for each allocation was required.
3. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to target MPR is indicated alongside the SAR results.
4. When Power reduction is applied, MPR is 0
5. A-MPR was disabled for all SAR tests by setting NS=01 on the base station simulator.
6. Per KDB 941225 D05Av01r02, SAR for LTE Carrier Aggregation operations was not needed because the maximum average output power in LTE CA mode was not > 0.25 dB higher than the maximum output power when downlink CA was not activated.
7. SAR test reduction is applied using the following criteria:
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. 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. 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. 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 a QPSK. 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.

NR Notes:

1. NR implementation of n2, n5 and n66 is limited to EN-DC operations only, with LTE Bands 2/5/13/66 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. Due to test setup limitations, SAR testing for NR was performed using test mode software to establish the connection.

3. Simultaneous transmission analysis for EN-DC operations is addressed in the Part 2 Test Report (HCT-SR-2006-FC012). This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only.
4. NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.

WLAN Notes:

1. For held-to-ear and hotspot operations, the initial test position procedures were applied. For initial test position, the highest extrapolated peak SAR will be used. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g SAR and ≤ 1.0 W/kg for 10g SAR, no additional testing for the remaining test positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR results is ≤ 0.8 W/kg for 1g SAR and ≤ 2.0 W/kg for 10g SAR or all test position are measured.
2. Per KDB 2482227 D01v02r02 justification for test configurations of 2.4 GHz WiFi Single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11 g/n) was not required due to the maximum allowed powers and the highest reported DSSS SAR.
3. Per KDB 2482227 D01v02r02 justification for test configurations of 5 GHz WiFi Single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission mode were not investigated since the highest reported SAR for initial test configuration adjusted by the ration of maximum output powers is less than 1.2 W/kg for 1g SAR and less than 3.0 W/kg for 10 g SAR.
4. When the maximum reported 1g averaged SAR is ≤ 0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg or all test channels were measured.
5. The device was configured to transmit continuously at the required data rated, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated WLAN test reports.

Bluetooth Notes:

1. Bluetooth SAR was measured with the device connected to a call box with hopping disabled with DH5 operation and Tx Tests mode type. Per October 2016 TCBC Workshop Notes, the reported SAR was scaled to 100% transmission duty factor to determine compliance. Please see sec.11 for the time-domain plot and calculation for duty factor of the device.
2. Head and Bluetooth tethering SAR were evaluated for BT BR tethering applications.

14. Simultaneous SAR Analysis

This device contains transmitters that may operate simultaneously. Therefore, simultaneous transmission analysis is required. Per KDB Publication 447498 D01v06 4.3.2, simultaneous transmission SAR test exclusion may be applied when the sum of 1g SAR and 10g SAR for all the simultaneous transmitting antennas in a specific physical test configuration is $\leq 1.6\text{W/kg}$ for 1g SAR and $\leq 4\text{W/kg}$ for 10g SAR. The different test positions in an exposure condition may be considered collectively to determine SAR exclusion according to the sum of 1g or 10g SAR.

14.1 Head SAR Simultaneous Transmission Analysis.

Simultaneous Transmission Summation Scenario with 2.4 GHz WLAN				
Exposure condition	Band	WWAN SAR	2.4 GHz WLAN SAR	$\sum$ 1-g SAR
		(W/kg)	(W/kg)	(W/kg)
Head SAR	GSM 850	0.162	0.587	0.749
	GPRS 850	0.208	0.587	0.795
	GSM 1900	0.131	0.587	0.718
	GPRS 1900	0.189	0.587	0.776
	WCDMA 850	0.185	0.587	0.772
	WCDMA 1900	0.223	0.587	0.810
	LTE Band 2	0.315	0.587	0.902
	LTE Band 5	0.191	0.587	0.778
	LTE Band 7	0.039	0.587	0.626
	LTE Band 12	0.131	0.587	0.718
	LTE Band 13	0.198	0.587	0.785
	LTE Band 66	0.220	0.587	0.807
	NR Band n2	0.259	0.587	0.846
	NR Band n5	0.164	0.587	0.751
	NR Band n66	0.260	0.587	0.847

Simultaneous Transmission Summation Scenario with 5 GHz WLAN				
Exposure condition	Band	WWAN SAR	5 GHz WLAN SAR	$\sum$ 1-g SAR
		(W/kg)	(W/kg)	(W/kg)
Head SAR	GSM 850	0.162	0.233	0.395
	GPRS 850	0.208	0.233	0.441
	GSM 1900	0.131	0.233	0.364
	GPRS 1900	0.189	0.233	0.422
	WCDMA 850	0.185	0.233	0.418
	WCDMA 1900	0.223	0.233	0.456
	LTE Band 2	0.315	0.233	0.548
	LTE Band 5	0.191	0.233	0.424
	LTE Band 7	0.039	0.233	0.272
	LTE Band 12	0.131	0.233	0.364
	LTE Band 13	0.198	0.233	0.431
	LTE Band 66	0.220	0.233	0.453
	NR Band n2	0.259	0.233	0.492
	NR Band n5	0.164	0.233	0.397
	NR Band n66	0.260	0.233	0.493

Simultaneous Transmission Summation Scenario with Bluetooth				
Exposure condition	Band	WWAN SAR	Bluetooth SAR	Σ 1-g SAR
		(W/kg)	(W/kg)	(W/kg)
Head SAR	GSM 850	0.162	0.383	0.545
	GPRS 850	0.208	0.383	0.591
	GSM 1900	0.131	0.383	0.514
	GPRS 1900	0.189	0.383	0.572
	WCDMA 850	0.185	0.383	0.568
	WCDMA 1900	0.223	0.383	0.606
	LTE Band 2	0.315	0.383	0.698
	LTE Band 5	0.191	0.383	0.574
	LTE Band 7	0.039	0.383	0.422
	LTE Band 12	0.131	0.383	0.514
	LTE Band 13	0.198	0.383	0.581
	LTE Band 66	0.220	0.383	0.603
	NR Band n2	0.259	0.383	0.642
	NR Band n5	0.164	0.383	0.547
	NR Band n66	0.260	0.383	0.643

14.2 Body-Worn SAR Simultaneous Transmission Analysis.

Simultaneous Transmission Summation Scenario with 2.4 GHz WLAN					
Exposure condition	Distance	Band	WWAN SAR	2.4 GHz WLAN SAR	Σ 1-g SAR
	(mm)		(W/kg)	(W/kg)	(W/kg)
Body-worn	15	GSM 850	0.250	0.180	0.430
		GPRS 850	0.382	0.180	0.562
		GSM 1900	0.413	0.180	0.593
		GPRS 1900	0.633	0.180	0.813
		WCDMA 850	0.318	0.180	0.498
		WCDMA 1900	0.706	0.180	0.886
		LTE Band 2	1.144	0.180	1.324
		LTE Band 5	0.293	0.180	0.473
		LTE Band 7	0.166	0.180	0.346
		LTE Band 12	0.224	0.180	0.404
		LTE Band 13	0.342	0.180	0.522
		LTE Band 66	0.880	0.180	1.060
		NR Band n2	1.318	0.180	0.497
		NR Band n5	0.317	0.180	0.497
		NR Band n66	0.974	0.180	1.154

Simultaneous Transmission Scenario with 5GHz WLAN							
Exposure condition	Distance	Band		WWAN SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ 1-g SAR (W/kg)	SPLSR
	(mm)			1	2	1+2	(Yes/No)
Body-worn	15	GSM 850	Rear	0.250	0.426	0.676	No
			Front	0.212	0.094	0.306	No
		GSM 1900	Rear	0.382	0.426	0.808	No
			Front	0.307	0.094	0.401	No
		UMTS 850	Rear	0.342	0.426	0.768	No
			Front	0.413	0.094	0.507	No
		UMTS 1900	Rear	0.552	0.426	0.978	No
			Front	0.633	0.094	0.727	No
		LTE Band 2	Rear	0.536	0.426	0.962	No
			Front	1.144	0.094	1.238	No
		LTE Band 5	Rear	0.293	0.426	0.719	No
			Front	0.248	0.094	0.342	No
		LTE Band 7	Rear	0.166	0.426	0.592	No
			Front	0.143	0.094	0.237	No
		LTE Band 12	Rear	0.224	0.426	0.650	No
			Front	0.199	0.094	0.293	No
		LTE Band 13	Rear	0.342	0.426	0.768	No
			Front	0.313	0.094	0.407	No
		LTE Band 66	Rear	0.858	0.426	1.284	No
			Front	0.880	0.094	0.974	No
		NR Band n2	Rear	1.150	0.426	1.576	No
			Front	1.318	0.094	1.412	No
		NR Band n5	Rear	0.317	0.426	0.743	No
			Front	0.224	0.094	0.318	No
		NR Band n66	Rear	0.928	0.426	1.354	No
			Front	0.974	0.094	1.068	No

Simultaneous Transmission Summation Scenario with Bluetooth					
Exposure condition	Distance	Band	WWAN SAR	Bluetooth SAR	Σ 1-g SAR
	(mm)		(W/kg)	(W/kg)	(W/kg)
Body-worn	15	GSM 850	0.250	0.041	0.291
		GPRS 850	0.382	0.041	0.423
		GSM 1900	0.413	0.041	0.454
		GPRS 1900	0.633	0.041	0.674
		WCDMA 850	0.318	0.041	0.359
		WCDMA 1900	0.706	0.041	0.747
		LTE Band 4	1.144	0.041	1.185
		LTE Band 5	0.293	0.041	0.334
		LTE Band 7	0.166	0.041	0.207
		LTE Band 12	0.224	0.041	0.265
		LTE Band 13	0.342	0.041	0.383
		LTE Band 66	0.880	0.041	0.921
		NR Band n2	1.318	0.041	1.359
		NR Band n5	0.317	0.041	0.358
		NR Band n66	0.974	0.041	1.015

14.3 Hotspot SAR Simultaneous Transmission Analysis.

Simultaneous Transmission Scenario with 2.4G WLAN (10 mm)					
Band		WWAN SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ 1-g SAR (W/kg)	SPLSR
		1	2	1+2	(Yes/No)
GSM 850	Rear	0.719	0.378	1.097	No
	Front	0.596	0.369	0.965	No
	Left	0.101	0.367	0.468	No
	Right	0.213		0.213	No
	Top		0.418	0.418	No
	Bottom	0.391		0.391	No
GSM 1900	Rear	0.488	0.378	0.866	No
	Front	0.658	0.369	1.027	No
	Left	0.068	0.367	0.435	No
	Right	0.105		0.105	No
	Top		0.418	0.418	No
	Bottom	1.373		1.373	No
UMTS 850	Rear	0.629	0.378	1.007	No
	Front	0.527	0.369	0.896	No
	Left	0.077	0.367	0.444	No
	Right	0.189		0.189	No
	Top		0.418	0.418	No
	Bottom	0.362		0.362	No
UMTS 1900	Rear	0.566	0.378	0.944	No
	Front	1.083	0.369	1.452	No
	Left	0.062	0.367	0.429	No
	Right	0.097		0.097	No
	Top		0.418	0.418	No
	Bottom	1.117		1.117	No
LTE Band 2	Rear	0.510	0.378	0.888	No
	Front	0.666	0.369	1.035	No
	Left	0.079	0.367	0.446	No
	Right	0.096		0.096	No
	Top		0.418	0.418	No
	Bottom	1.246		1.246	No
LTE Band 5	Rear	0.573	0.378	0.951	No
	Front	0.455	0.369	0.824	No
	Left	0.079	0.367	0.446	No
	Right	0.232		0.232	No
	Top		0.418	0.418	No
	Bottom	0.326		0.326	No
LTE Band 7	Rear	0.138	0.378	0.516	No
	Front	0.113	0.369	0.482	No
	Left	0.227	0.367	0.594	No
	Top		0.418	0.418	No
	Bottom	0.192		0.192	No

Simultaneous Transmission Scenario with 2.4G WLAN (10 mm)					
Band		WWAN SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ 1-g SAR (W/kg)	SPLSR
		1	2	1+2	(Yes/No)
LTE Band 12	Rear	0.459	0.378	0.837	No
	Front	0.317	0.369	0.686	No
	Left	0.094	0.367	0.461	No
	Right	0.183		0.183	No
	Top		0.418	0.418	No
	Bottom	0.281		0.281	No
LTE Band 13	Rear	0.597	0.378	0.975	No
	Front	0.461	0.369	0.83	No
	Left	0.175	0.367	0.542	No
	Right	0.455		0.455	No
	Top		0.418	0.418	No
	Bottom	0.359		0.359	No
LTE Band 66	Rear	0.607	0.378	0.985	No
	Front	0.670	0.369	1.039	No
	Left	0.142	0.367	0.509	No
	Right	0.134		0.134	No
	Top		0.418	0.418	No
	Bottom	1.063		1.063	No
NR Band n2	Rear	0.490	0.378	0.868	No
	Front	0.660	0.369	1.029	No
	Left	0.102	0.367	0.469	No
	Right	0.120		0.12	No
	Top		0.418	0.418	No
	Bottom	1.091		1.091	No
NR Band n5	Rear	0.682	0.378	1.06	No
	Front	0.557	0.369	0.926	No
	Left	0.092	0.367	0.459	No
	Right	0.191		0.191	No
	Top		0.418	0.418	No
	Bottom	0.334		0.334	No
NR Band n66	Rear	0.508	0.378	0.886	No
	Front	0.610	0.369	0.979	No
	Left	0.130	0.367	0.497	No
	Right	0.112		0.112	No
	Top		0.418	0.418	No
	Bottom	1.095		1.095	No

Simultaneous Transmission Scenario with 5G WLAN (10 mm)					
Band		WWAN SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ 1-g SAR (W/kg)	SPLSR
		1	2	1+2	(Yes/No)
GSM 850	Rear	0.719	0.457	1.176	No
	Front	0.596	0.076	0.672	No
	Left	0.101	0.356	0.457	No
	Right	0.213		0.213	No
	Top		0.103	0.103	No
	Bottom	0.391		0.391	No
GSM 1900	Rear	0.488	0.457	0.945	No
	Front	0.658	0.076	0.734	No
	Left	0.068	0.356	0.424	No
	Right	0.105		0.105	No
	Top		0.103	0.103	No
	Bottom	1.373		1.373	No
UMTS 850	Rear	0.629	0.457	1.086	No
	Front	0.527	0.076	0.603	No
	Left	0.077	0.356	0.433	No
	Right	0.189		0.189	No
	Top		0.103	0.103	No
	Bottom	0.362		0.362	No
UMTS 1900	Rear	0.566	0.457	1.023	No
	Front	1.083	0.076	1.159	No
	Left	0.062	0.356	0.418	No
	Right	0.097		0.097	No
	Top		0.103	0.103	No
	Bottom	1.117		1.117	No
LTE Band 2	Rear	0.510	0.457	0.967	No
	Front	0.666	0.076	0.742	No
	Left	0.079	0.356	0.435	No
	Right	0.096		0.096	No
	Top		0.103	0.103	No
	Bottom	1.246		1.246	No
LTE Band 5	Rear	0.573	0.457	1.03	No
	Front	0.455	0.076	0.531	No
	Left	0.079	0.356	0.435	No
	Right	0.232		0.232	No
	Top		0.103	0.103	No
	Bottom	0.326		0.326	No
LTE Band 7	Rear	0.138	0.457	0.595	No
	Front	0.113	0.076	0.189	No
	Left	0.227	0.356	0.583	No
	Top		0.103	0.103	No
	Bottom	0.192		0.192	No

Simultaneous Transmission Scenario with 5G WLAN (10 mm)					
Band		WWAN SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ 1-g SAR (W/kg)	SPLSR
		1	2	1+2	(Yes/No)
LTE Band 12	Rear	0.459	0.457	0.916	No
	Front	0.317	0.076	0.393	No
	Left	0.094	0.356	0.450	No
	Right	0.183		0.183	No
	Top		0.103	0.103	No
	Bottom	0.281		0.281	No
LTE Band 13	Rear	0.597	0.457	1.054	No
	Front	0.461	0.076	0.537	No
	Left	0.175	0.356	0.531	No
	Right	0.455		0.455	No
	Top		0.103	0.103	No
	Bottom	0.359		0.359	No
LTE Band 66	Rear	0.607	0.457	1.064	No
	Front	0.67	0.076	0.746	No
	Left	0.142	0.356	0.498	No
	Right	0.134		0.134	No
	Top		0.103	0.103	No
	Bottom	1.063		1.063	No
NR Band n2	Rear	0.490	0.457	0.947	No
	Front	0.660	0.076	0.736	No
	Left	0.102	0.356	0.458	No
	Right	0.120		0.120	No
	Top		0.103	0.103	No
	Bottom	1.091		1.091	No
NR Band n5	Rear	0.682	0.457	1.139	No
	Front	0.557	0.076	0.633	No
	Left	0.092	0.356	0.448	No
	Right	0.191		0.191	No
	Top		0.103	0.103	No
	Bottom	0.334		0.334	No
NR Band n66	Rear	0.508	0.457	0.965	No
	Front	0.610	0.076	0.686	No
	Left	0.130	0.356	0.486	No
	Right	0.112		0.112	No
	Top		0.103	0.103	No
	Bottom	1.095		1.095	No

Simultaneous Transmission Summation Scenario with Bluetooth					
Exposure condition	Distance	Band	WWAN SAR	Bluetooth SAR	Σ 1-g SAR
	(mm)		(W/kg)	(W/kg)	(W/kg)
Hotspot	10	GPRS 850	0.719	0.107	0.826
		GPRS 1900	1.373	0.107	1.480
		WCDMA 850	0.629	0.107	0.736
		WCDMA 1900	1.117	0.107	1.224
		LTE Band 2	1.246	0.107	1.353
		LTE Band 5	0.573	0.107	0.680
		LTE Band 7	0.227	0.107	0.334
		LTE Band 12	0.459	0.107	0.566
		LTE Band 13	0.597	0.107	0.704
		LTE Band 66	1.063	0.107	1.170
		NR Band n2	1.091	0.107	1.198
		NR Band n5	0.682	0.107	0.789
		NR Band n66	1.095	0.107	1.202

14.4 Phablet SAR Simultaneous Transmission Analysis

Phablet 10g SAR Simultaneous Transmission Scenario with 5 GHz WLAN MIMO					
Band		WWAN SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ 10-g SAR (W/kg)	SPLSR
		1	2	1+2	(Yes/No)
GSM 1900	Rear	1.324	0.987	2.311	No
	Front	1.701	0.840	2.541	No
	Left	0.347	0.721	1.068	No
	Right	0.320		0.320	No
	Top		0.987	0.987	No
	Bottom	1.744		1.744	No
UMTS 1900	Rear	1.776	0.987	2.763	No
	Front	2.479	0.840	3.319	No
	Left	0.551	0.721	1.272	No
	Right	0.609		0.609	No
	Top		0.987	0.987	No
	Bottom	1.897		1.897	No
LTE Band 2	Rear	1.102	0.987	2.089	No
	Front	3.074	0.840	3.914	No
	Left	0.590	0.721	1.311	No
	Right	0.699		0.699	No
	Top		0.987	0.987	No
	Bottom	2.755		2.755	No
LTE Band 7	Rear	0.500	0.987	1.487	No
	Front	0.465	0.840	1.305	No
	Left	0.676	0.721	1.397	No
	Top		0.987	0.987	No
	Bottom	0.772		0.772	No
LTE Band 66	Rear	1.066	0.987	2.053	No
	Front	1.567	0.840	2.407	No
	Left	0.604	0.721	1.325	No
	Right	0.546		0.546	No
	Top		0.987	0.987	No
	Bottom	2.413		2.413	No
NR Band n2	Rear	1.874	0.987	2.861	No
	Front	2.790	0.840	3.630	No
	Left	0.676	0.721	1.397	No
	Right	0.732		0.732	No
	Top		0.987	0.987	No
	Bottom	2.390		2.390	No
NR Band n66	Rear	1.898	0.987	2.885	No
	Front	2.764	0.840	3.604	No
	Left	0.557	0.721	1.278	No
	Right	0.451		0.451	No
	Top		0.987	0.987	No
	Bottom	3.009		3.009	No

14.5 Simultaneous Transmission Conclusion

The above numerical summed SAR Results are sufficient to determine that simultaneous transmission cases will not exceed the SAR Limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE1528-2013.

15. SAR Measurement Variability and Uncertainty

In accordance with KDB procedure 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz, SAR 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.

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

- 1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg for 1g SAR or < 2.0 W/kg for 10g SAR; steps 2) through 4) do not apply.
- 2) When the original highest measured 1g SAR is ≥ 0.80 W/kg or 10g SAR ≥ 2.0 W/kg, repeat that measurement once.
- 3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg for 1g SAR or ≥ 3.625 W/kg for 10g SAR (~ 10% from the 1-g SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg for 1g SAR or ≥ 3.75 W/kg for 10g SAR and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Hotspot SAR measurement variability Results

Frequency		Mode/Band	Configuration	Measured SAR (W/kg)	Repeated SAR (W/kg)	SAR Ratio
MHz	Channel					
1910	810	GSM 1900	Bottom	1.19	1.15	1.04
1770	354000	NR Band n66	Bottom	1.07	1.02	1.05

Phablet SAR measurement variability Results

Frequency		Mode/Band	Configuration	Measured SAR (W/kg)	Repeated SAR (W/kg)	SAR Ratio
MHz	Channel					
1900	380000	NR Band n2	Front	2.52	2.38	1.06
1745	349000	NR Band n66	Bottom	2.32	2.08	1.16

16. Device Holder Perturbation Verification.

In accordance with published DUT Holder Perturbations in Oct.2016 TCB Workshop.

When Highest reported SAR is over 1.2 W/kg, Holder Perturbation Verification is required for each antenna, using the highest configuration among all applicable frequency bands.

Body-Worn SAR 1g						
Frequency		Mode/Band	Configuration	Highest Reported SAR		Deviation (%)
				(without Device Holder)	(with Device Holder)	
MHz	Channel					
1900	380000	NR n2	Front	1.295	1.318	-1.07

17. Measurement Uncertainty

The measured SAR was <1.5 W/Kg for 1g SAR and <3.75 W/Kg For 10g SAR for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE1528-2013 was not required.

18. SAR Test Equipment

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	Triple Modular Phantom	-	N/A	N/A	N/A
SPEAG	SAM Phantom	-	N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F12/5K9GA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F17/59CHA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F17/59RAA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/5R4XF1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F11/5K3RA1/C/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F12/5K9GA1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F17/59CHA1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F17/59RAA1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F13/5R4XF1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F11/5K3RA1/A/01	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1206 0513	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	010963	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	011578	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1338 1332	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1203 0309	N/A	N/A	N/A
SPEAG	DAE4	1225	11/18/2019	Annual	11/18/2020
SPEAG	DAE3	446	07/18/2019	Annual	07/18/2020
SPEAG	DAE4	1417	02/26/2020	Annual	02/26/2021
SPEAG	DAE4	466	04/22/2020	Annual	04/22/2021
SPEAG	DAE4	869	09/19/2019	Annual	09/19/2020
SPEAG	DAE4	652	02/03/2020	Annual	02/03/2021
SPEAG	E-Field Probe EX3DV4	3797	11/28/2019	Annual	11/28/2020
SPEAG	E-Field Probe EX3DV4	3863	05/27/2020	Annual	05/27/2021
SPEAG	E-Field Probe EX3DV4	7370	08/29/2019	Annual	08/29/2020
SPEAG	E-Field Probe EX3DV4	3903	03/25/2020	Annual	03/25/2021
SPEAG	E-Field Probe EX3DV4	3968	09/27/2019	Annual	09/27/2020
SPEAG	E-Field Probe EX3DV4	3967	02/25/2020	Annual	02/25/2021
SPEAG	E-Field Probe ES3DV3	3076	07/23/2019	Annual	07/23/2020
SPEAG	Dipole D750V3	1014	05/27/2019	Annual	05/27/2020
SPEAG	Dipole D835V2	441	08/23/2019	Annual	08/23/2020
SPEAG	Dipole D1800V2	2d015	09/19/2019	Annual	09/19/2020
SPEAG	Dipole D1900V2	5d061	01/21/2020	Annual	01/21/2021
SPEAG	Dipole D2300V2	1010	08/26/2019	Annual	08/26/2020
SPEAG	Dipole D2450V2	965	11/21/2019	Annual	11/21/2020
SPEAG	Dipole D2600V2	1106	09/19/2019	Annual	09/19/2020
SPEAG	Dipole D5GHzV2	1107	09/26/2019	Annual	09/26/2020
Agilent	Power Meter E4419B	MY41291386	10/07/2019	Annual	10/07/2020
Agilent	Power Meter N1911A	MY45101406	09/10/2019	Annual	09/10/2020
Agilent	Power Sensor 8481A	SG1091286	10/07/2019	Annual	10/07/2020
Agilent	Power Sensor 8481A	MY41090873	10/07/2019	Annual	10/07/2020
Agilent	Power Sensor N1921A	MY55220026	09/06/2019	Annual	09/06/2020
SPEAG	DAKS 3.5	1038	03/24/2020	Annual	03/24/2021
H.P	Network Analyzer /8753ES	JP39240221	01/28/2020	Annual	01/28/2021
Agilent	WIRELESS COMMUNICATION E5515C	MY48361100	10/07/2019	Annual	10/07/2020

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
Agilent	Signal Generator N5182A	MY47070230	05/08/2019	Annual	05/08/2020
Agilent	Signal Generator N5182A	MY47070230	05/06/2020	Annual	05/06/2021
Agilent	11636B/Power Divider	58698	02/28/2020	Annual	02/28/2021
TESTO	175-H1/Thermometer	40331915309	01/29/2020	Annual	01/29/2021
TESTO	175-H1/Thermometer	40331922309	01/29/2020	Annual	01/29/2021
TESTO	175-H1/Thermometer	40332651310	01/29/2020	Annual	01/29/2021
TESTO	175-H1/Thermometer	40331949309	01/29/2020	Annual	01/29/2021
TESTO	175-H1/Thermometer	40331939309	01/29/2020	Annual	01/29/2021
EMPOWER	RF Power Amplifier	1084	07/23/2019	Annual	07/23/2020
EMPOWER	RF Power Amplifier	1011	10/08/2019	Annual	10/08/2020
MICRO LAB	LP Filter / LA-15N	10453	10/07/2019	Annual	10/07/2020
MICRO LAB	LP Filter / LA-30N	-	10/07/2019	Annual	10/07/2020
MICRO LAB	LP Filter / LA-60N	32011	10/07/2019	Annual	10/07/2020
Agilent	Attenuator (3dB) 8693B	MY39260298	09/18/2019	Annual	09/18/2020
HP	Attenuator (20dB) 8493C	09271	09/18/2019	Annual	09/18/2020
Agilent	Directional Bridge	3140A03878	06/12/2019	Annual	06/12/2020
Agilent	MXA Signal Analyzer N9020A	MY50510407	10/29/2019	Annual	10/29/2020
HP	Dual Directional Coupler	16072	10/07/2019	Annual	10/07/2020
Anritsu	Radio Communication Tester MT8820C	6201074225	03/02/2020	Annual	03/02/2021
Anritsu	Radio Communication Tester MT8821C	6201502997	08/09/2019	Annual	08/09/2020
Anritsu	Radio Communication Test Station MT8000A	6262036812	01/06/2020	Annual	01/06/2021
R&S	Bluetooth CBT	100272	03/02/2020	Annual	03/02/2021

* The E-field probe was calibrated by SPEAG, by the waveguide technique procedure. Dipole Verification measurement is performed by HCT Lab. before each test. The brain/body simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity (dielectric constant) of the brain/body-equivalent material.

19. Conclusion

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the ANSI/IEEE C95.1 - 2005.

These measurements were taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

20. References

- [1] Federal Communications Commission, ET Docket 93-62, Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation, Aug. 1996.
- [2] ANSI/IEEE C95.1 - 2005 , American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 300 kHz to 300 GHz, New York: IEEE, Sept. 1992
- [3] ANSI/IEEE C 95.1 - 2005, American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 3 kHz to 300 GHz, New York: IEEE, 2006
- [4] ANSI/IEEE C95.3 - 2002, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave, New York: December 2002.
- [5] IEEE Standards Coordinating Committee 34 – IEEE Std. 1528-2013, IEEE Recommended Practice or Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices
- [6] NCRP, National Council on Radiation Protection and Measurements, Biological Effects and Exposure Criteria for Radio Frequency Electromagnetic Fields, NCRP Report No. 86, 1986. Reprinted Feb. 1995.
- [7] T. Schmid, O. Egger, N. Kuster, Automated E-field scanning system for dosimetric assessments, IEEE Transaction on Microwave Theory and Techniques, vol. 44, Jan. 1996, pp. 105-113.
- [8] K. Pokovic, T. Schmid, N. Kuster, Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequencies, ICECOM97, Oct. 1997, pp. 120-124.
- [9] K. Pokovic, T. Schmid, and N. Kuster, E-field Probe with improved isotropy in brain simulating liquids, Proceedings of the ELMAR, Zadar, Croatia, June 23-25, 1996, pp. 172-175.
- [10] Schmid & Partner Engineering AG, Application Note: Data Storage and Evaluation, June 1998, p2.
- [11] V. Hombach, K. Meier, M. Burkhardt, E. Kuhn, N. Kuster, The Dependence of EM Energy Absorption upon Human Head Modeling at 900 MHz, IEEE Transaction on Microwave Theory and Techniques, vol. 44 no. 10, Oct. 1996, pp. 1865-1873.
- [12] N. Kuster and Q. Balzano, Energy absorption mechanism by biological bodies in the near field of dipole antennas above 300 MHz, IEEE Transaction on Vehicular Technology, vol. 41, no. 1, Feb. 1992, pp. 17-23.
- [13] G. Hartsgrove, A. Kraszewski, A. Surowiec, Simulated Biological Materials for Electromagnetic Radiation Absorption Studies, University of Ottawa, Bioelectro magnetics, Canada: 1987, pp. 29-36.
- [14] Q. Balzano, O. Garay, T. Manning Jr., Electromagnetic Energy Exposure of Simulated Users of Portable Cellular Telephones, IEEE Transactions on Vehicular Technology, vol. 44, no.3, Aug. 1995.
- [15] W. Gander, Computer mathematick, Birkhaeuser, Basel, 1992.
- [16] W.H. Press, S.A. Teukolsky, W.T. Vetterling, and B.P. Flannery, Numerical Recepies in C, The Art of Scientific Computing, Second edition, Cambridge University Press, 1992.
- [17] N. Kuster, R. Kastle, T. Schmid, Dosimetric evaluation of mobile communications equipment with known precision, IEEE Transaction on Communications, vol. E80-B, no. 5, May 1997, pp. 645-652.
- [18] CENELEC CLC/SC111B, European Prestandard (prENV 50166-2), Human Exposure to Electromagnetic Fields High-frequency: 10 kHz-300 GHz, Jan. 1995.
- [19] Prof. Dr. Niels Kuster, ETH, EidgenØssische Technische Hochschule ZØrich, Dosimetric Evaluation of the Cellular Phone.
- [20] IEC 62209-1, Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation and procedures – Part 1:Procedure to determine the

specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz), July. 2016..

[21] IEC 62209-2, Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures – Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz) Mar. 2010.

[22] Industry Canada RSS-102 Radio Frequency Exposure Compliance of Radio Communication Apparatus (All Frequency Band) Issue 5, March 2015.

[23] Health Canada Safety Code 6 Limits of Human Exposure to Radio Frequency Electromagnetic Fields in the Frequency Range from 3 kHz – 300 GHz, 2009

[24] FCC SAR Test procedures for 2G-3G Devices, Mobile Hotspot and UMPC Device KDB 941225 D01.

[25] SAR Measurement Guidance for IEEE 802.11 transmitters, KDB 248227 D01v02r02

[26] SAR Evaluation of Handsets with Multiple Transmitters and Antennas KDB 648474 D03, D04.

[27] SAR Evaluation for Laptop, Notebook, Netbook and Tablet computers KDB 616217 D04.

[28] SAR Measurement and Reporting Requirements for 100 MHz – 6 GHz, KDB 865664 D01, D02.

[29] FCC General RF Exposure Guidance and SAR procedures for Dongles, KDB 447498 D01,D02.

Appendix

Please refer to test setup photo file no. as follows.

Appendix A. DUT Ant. Information & Test SETUP PHOTO

Appendix B. SAR Test Plots

Appendix C. Dipole Verification Plots

Appendix D. SAR Tissue Characterization

Appendix E. SAR System Validation

Appendix F. Probe Calibration Data

Appendix G. Dipole Calibration Data

Appendix H. Power reduction verification

End of Report

Appendix B. – SAR Test Plots

Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 20.4 °C
Ambient Temperature: 20.6 °C
Test Date: 05/15/2020
Plot No.: 1

DUT: SM-A516V; Type: Bar

Communication System: UID 0, GSM850 GPRS 2TX (0); Frequency: 824.2 MHz; Duty Cycle: 1:4.14954
Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.916$ S/m; $\epsilon_r = 42.417$; $\rho = 1000$ kg/m³
Phantom section: Right Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.22, 6.22, 6.22) @ 824.2 MHz; Calibrated: 2019-07-23
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: SAM with CRP v5.0_Right
- Measurement SW: DASY52, Version 52.10 (4);

GSM850 Head Right Touch 2Tx 128ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.195 W/kg

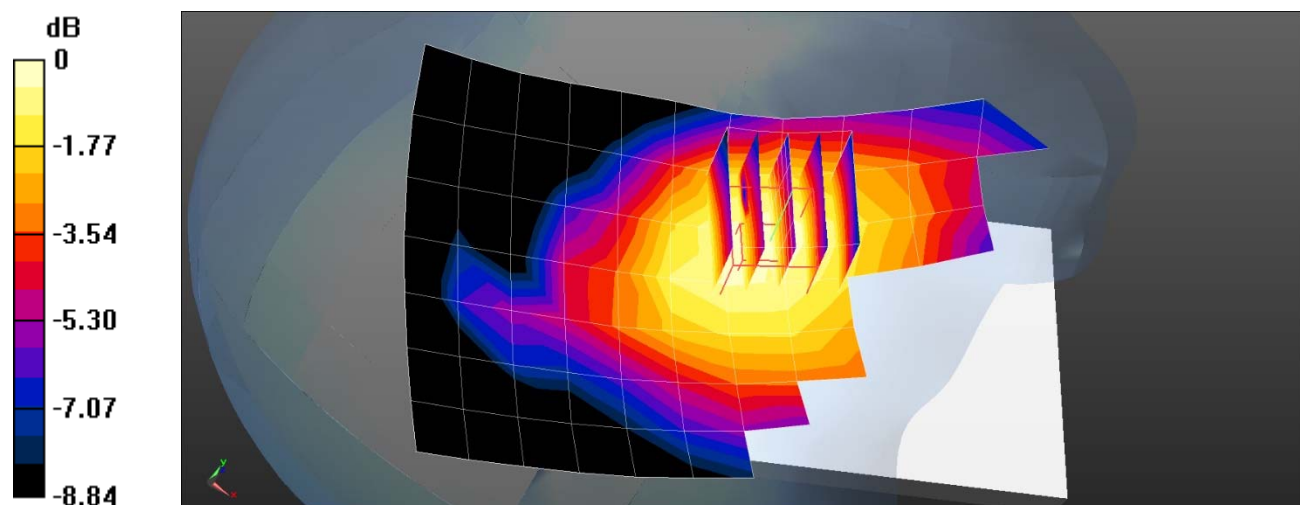
GSM850 Head Right Touch 2Tx 128ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.762 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.221 W/kg

SAR(1 g) = 0.183 W/kg; SAR(10 g) = 0.140 W/kg

Maximum value of SAR (measured) = 0.199 W/kg



0 dB = 0.199 W/kg = -7.01 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 21.3 °C
 Ambient Temperature: 21.5 °C
 Test Date: 05/12/2020
 Plot No.: 2

DUT: SM-A516V; Type: Bar

Communication System: UID 0, GSM 1900 2Tx (0); Frequency: 1880 MHz; Duty Cycle: 1:4.14954
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.381$ S/m; $\epsilon_r = 39.266$; $\rho = 1000$ kg/m³
 Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3903; ConvF(8.31, 8.31, 8.31) @ 1880 MHz; Calibrated: 2020-03-25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2019-09-19
- Phantom: Twin-SAM V8.0_20171017 (Right1)
- Measurement SW: DASY52, Version 52.10 (4);

GSM1900 Head Left Touch 2Tx 661ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.183 W/kg

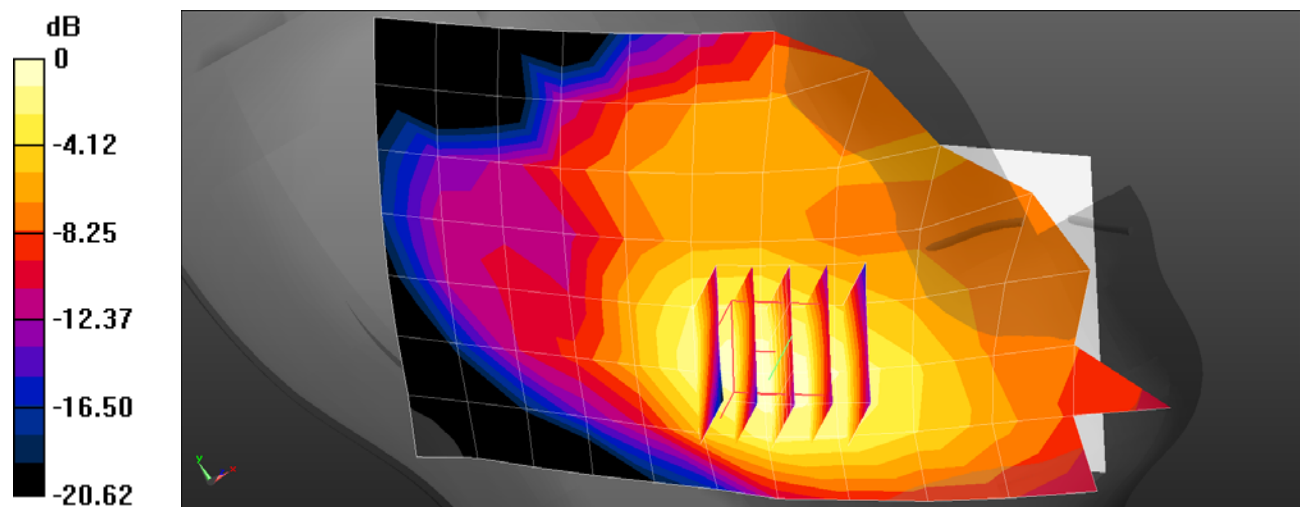
GSM1900 Head Left Touch 2Tx 661ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.773 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.220 W/kg

SAR(1 g) = 0.140 W/kg; SAR(10 g) = 0.088 W/kg

Maximum value of SAR (measured) = 0.187 W/kg



0 dB = 0.187 W/kg = -7.28 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 20.4 °C
 Ambient Temperature: 20.6 °C
 Test Date: 05/15/2020
 Plot No.: 3

DUT: SM-A516V; Type: Bar

Communication System: UID 0, WCDMA850 (0); Frequency: 826.4 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.909$ S/m; $\epsilon_r = 42.772$; $\rho = 1000$ kg/m³
 Phantom section: Right Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.22, 6.22, 6.22) @ 826.4 MHz; Calibrated: 2019-07-23
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: SAM with CRP v5.0_Right
- Measurement SW: DASY52, Version 52.10 (4);

WCDMA Band 5 Head Right Touch 4132ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.148 W/kg

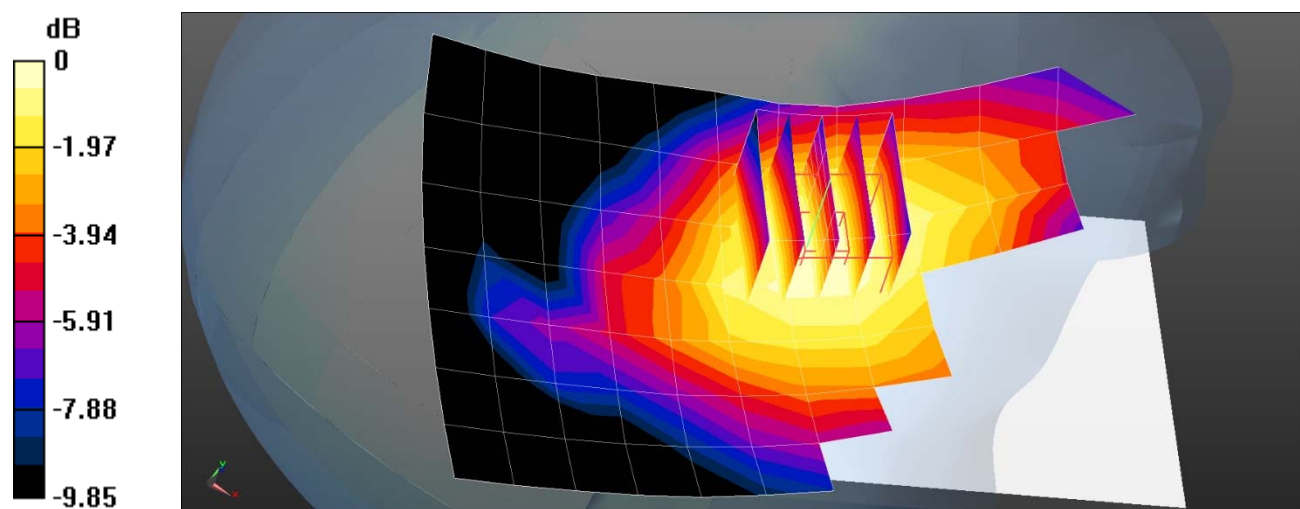
WCDMA Band 5 Head Right Touch 4132ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.327 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.179 W/kg

SAR(1 g) = 0.140 W/kg; SAR(10 g) = 0.107 W/kg

Maximum value of SAR (measured) = 0.153 W/kg



0 dB = 0.153 W/kg = -8.15 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 20.0 °C
 Ambient Temperature: 20.2 °C
 Test Date: 05/11/2020
 Plot No.: 4

DUT: SM-A516V; Type: Bar

Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.379 \text{ S/m}$; $\epsilon_r = 39.363$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3903; ConvF(8.31, 8.31, 8.31) @ 1880 MHz; Calibrated: 2020-03-25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2019-09-19
- Phantom: Twin-SAM V8.0_20171017 (Right1)
- Measurement SW: DASY52, Version 52.10 (4);

WCDMA1900 Head Left Touch 9400ch/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.241 W/kg

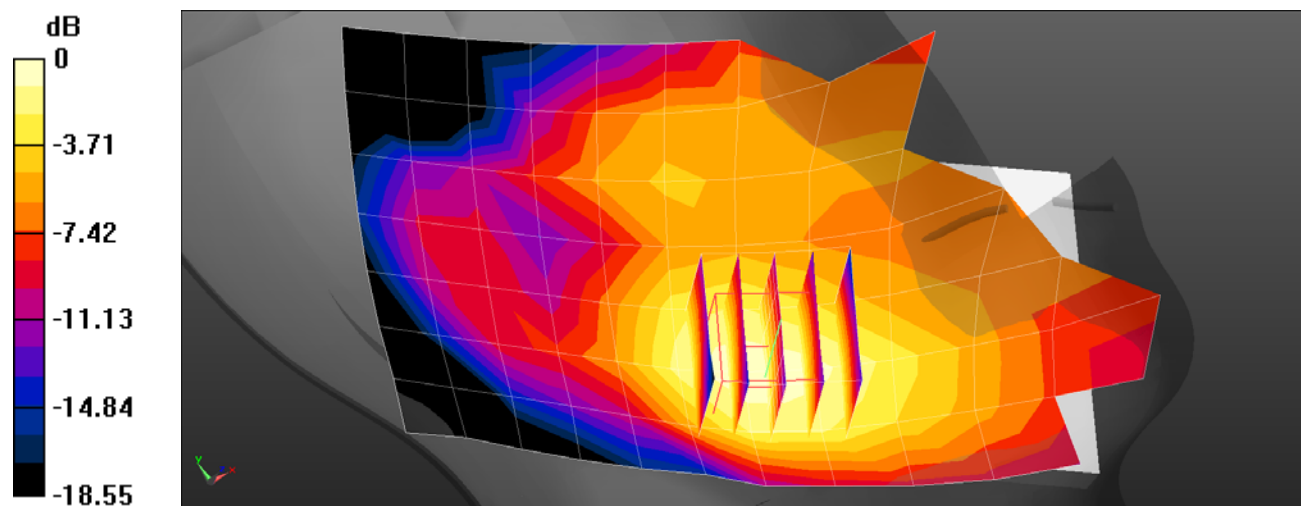
WCDMA1900 Head Left Touch 9400ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 5.848 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.285 W/kg

SAR(1 g) = 0.183 W/kg; SAR(10 g) = 0.114 W/kg

Maximum value of SAR (measured) = 0.244 W/kg



0 dB = 0.244 W/kg = -6.13 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 21.3 °C
 Ambient Temperature: 21.5 °C
 Test Date: 05/11/2020
 Plot No.: 5

DUT: SM-A516V; Type: Bar

Communication System: UID 0, LTE Band 2 (0); Frequency: 1860 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1860 \text{ MHz}$; $\sigma = 1.353 \text{ S/m}$; $\epsilon_r = 38.431$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3797; ConvF(7.75, 7.75, 7.75) @ 1860 MHz; Calibrated: 2019-11-28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2019-07-18
- Phantom: SAM_Left_20170913
- Measurement SW: DASY52, Version 52.10 (4);

LTE 2 Head Left Touch QPSK 20MHz 1RB 0offset 18700ch/Area Scan (8x13x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.316 W/kg

LTE 2 Head Left Touch QPSK 20MHz 1RB 0offset 18700ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

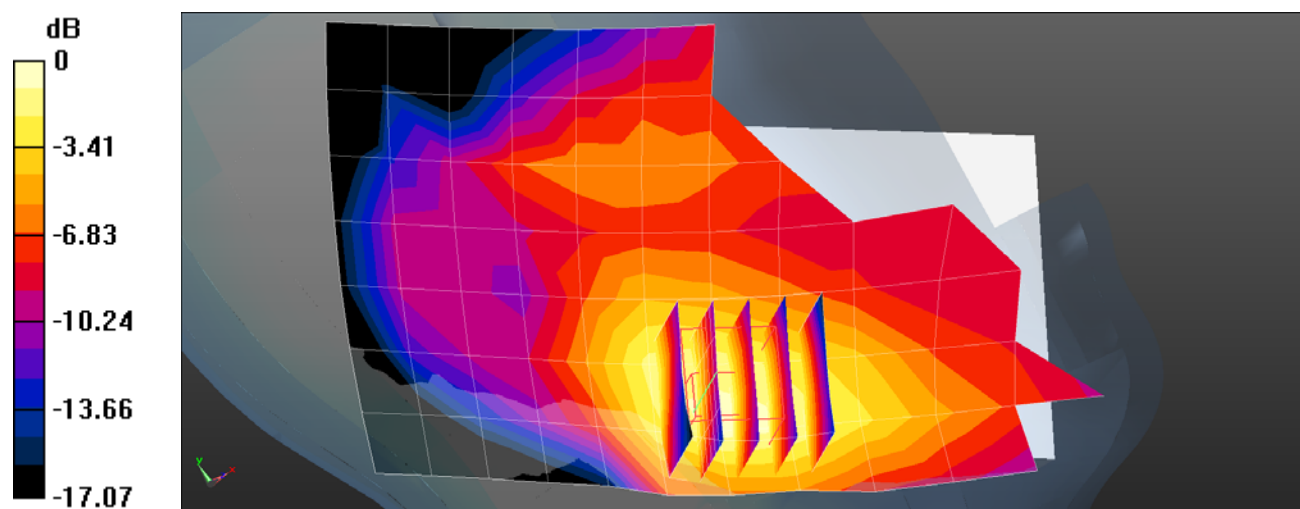
$dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.584 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.428 W/kg

SAR(1 g) = 0.259 W/kg; SAR(10 g) = 0.159 W/kg

Maximum value of SAR (measured) = 0.359 W/kg



0 dB = 0.359 W/kg = -4.45 dBW/kg

Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 20.9 °C
Ambient Temperature: 21.1 °C
Test Date: 05/12/2020
Plot No.: 6

DUT: SM-A516V; Type: Bar

Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.923$ S/m; $\epsilon_r = 42.666$; $\rho = 1000$ kg/m³
Phantom section: Right Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.22, 6.22, 6.22) @ 836.5 MHz; Calibrated: 2019-07-23
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: SAM with CRP v5.0_Right
- Measurement SW: DASY52, Version 52.10 (4);

LTE Band 5 Head Right Touch QPSK 10MHz 1RB 0offset 20525ch/Area Scan (8x13x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.188 W/kg

LTE Band 5 Head Right Touch QPSK 10MHz 1RB 0offset 20525ch/Zoom Scan (5x5x7)/Cube 0:

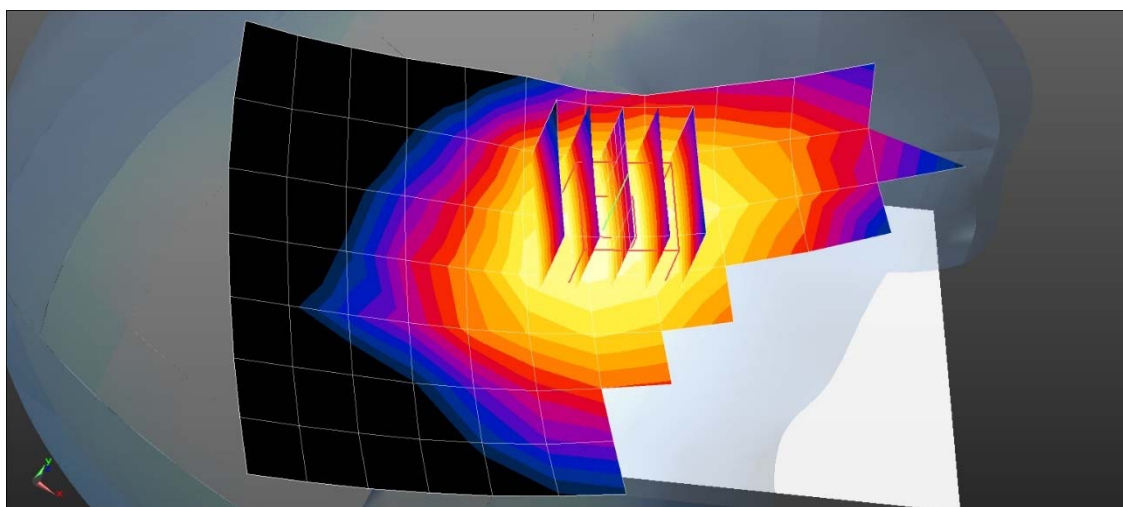
Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.261 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 0.228 W/kg

SAR(1 g) = 0.179 W/kg; SAR(10 g) = 0.136 W/kg

Maximum value of SAR (measured) = 0.197 W/kg



0 dB = 0.197 W/kg = -7.06 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 21.7 °C
 Ambient Temperature: 21.9 °C
 Test Date: 05/11/2020
 Plot No.: 7

DUT: SM-A516V; Type: Bar

Communication System: UID 0, LTE Band7 (0); Frequency: 2560 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2560 \text{ MHz}$; $\sigma = 1.911 \text{ S/m}$; $\epsilon_r = 37.951$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3968; ConvF(7.41, 7.41, 7.41) @ 2560 MHz; Calibrated: 2019-09-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 (20deg probe tilt)_1588_20200429
- Measurement SW: DASY52, Version 52.10 (4);

LTE Band 7 Head Left Touch QPSK 20MHz 1RB 49offset 21350ch/Area Scan (9x16x1): Measurement grid:
 $dx=12\text{mm}$, $dy=12\text{mm}$

Maximum value of SAR (measured) = 0.0515 W/kg

LTE Band 7 Head Left Touch QPSK 20MHz 1RB 49offset 21350ch/Zoom Scan (7x7x7)/Cube 0:

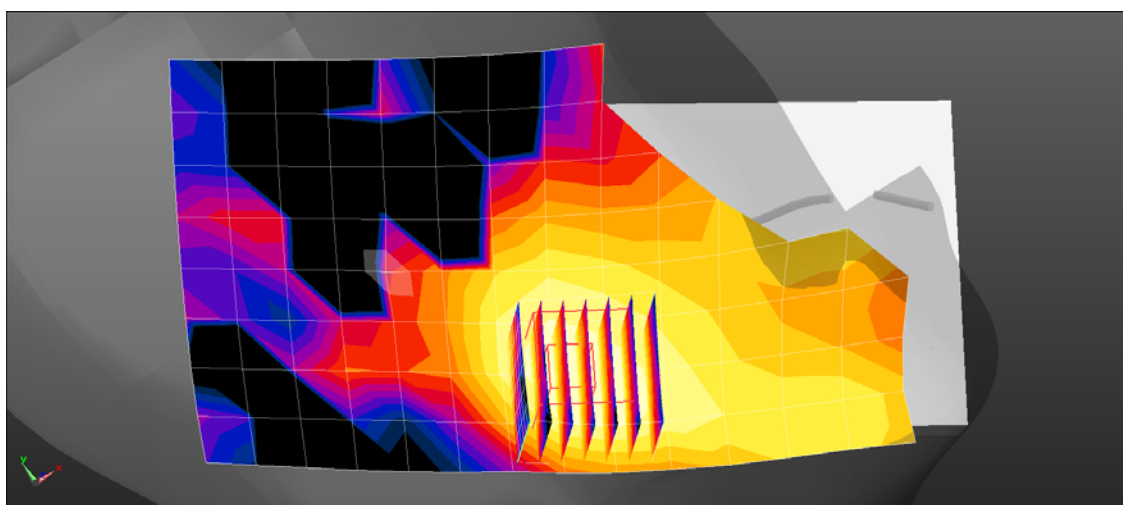
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.324 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.0650 W/kg

SAR(1 g) = 0.034 W/kg; SAR(10 g) = 0.018 W/kg

Maximum value of SAR (measured) = 0.0525 W/kg



0 dB = 0.0525 W/kg = -12.80 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 21.5 °C
 Ambient Temperature: 21.7 °C
 Test Date: 05/13/2020
 Plot No.: 8

DUT: SM-A516V; Type: Bar

Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 707.5 \text{ MHz}$; $\sigma = 0.857 \text{ S/m}$; $\epsilon_r = 42.676$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Right Section

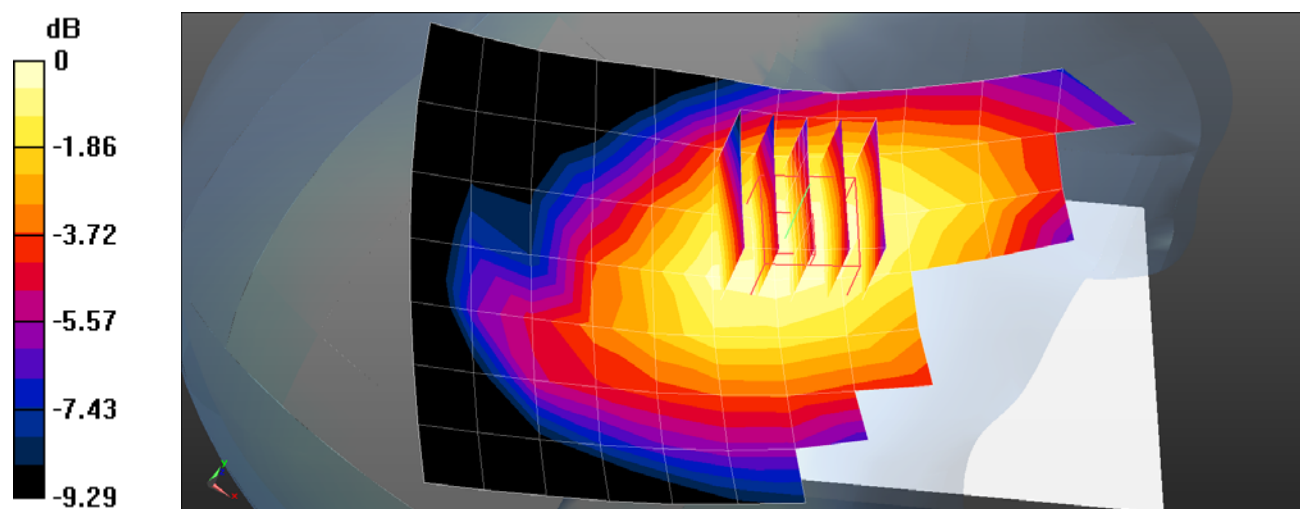
DASY5 Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.52, 6.52, 6.52) @ 707.5 MHz; Calibrated: 2019-07-23
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: SAM with CRP v5.0_Right
- Measurement SW: DASY52, Version 52.10 (4);

LTE Band 12 Head Right Touch QPSK 10MHz 1RB 24offset 23095ch/Area Scan (8x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.126 W/kg

LTE Band 12 Head Right Touch QPSK 10MHz 1RB 24offset 23095ch/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 6.005 V/m; Power Drift = 0.16 dB
 Peak SAR (extrapolated) = 0.148 W/kg
SAR(1 g) = 0.120 W/kg; SAR(10 g) = 0.095 W/kg
 Maximum value of SAR (measured) = 0.129 W/kg



0 dB = 0.129 W/kg = -8.89 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 20.3 °C
 Ambient Temperature: 20.5 °C
 Test Date: 05/14/2020
 Plot No.: 9

DUT: SM-A516V; Type: Bar

Communication System: UID 0, LTE Band 13 (0); Frequency: 782 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.93 \text{ S/m}$; $\epsilon_r = 41.649$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Right Section

DASY5 Configuration:

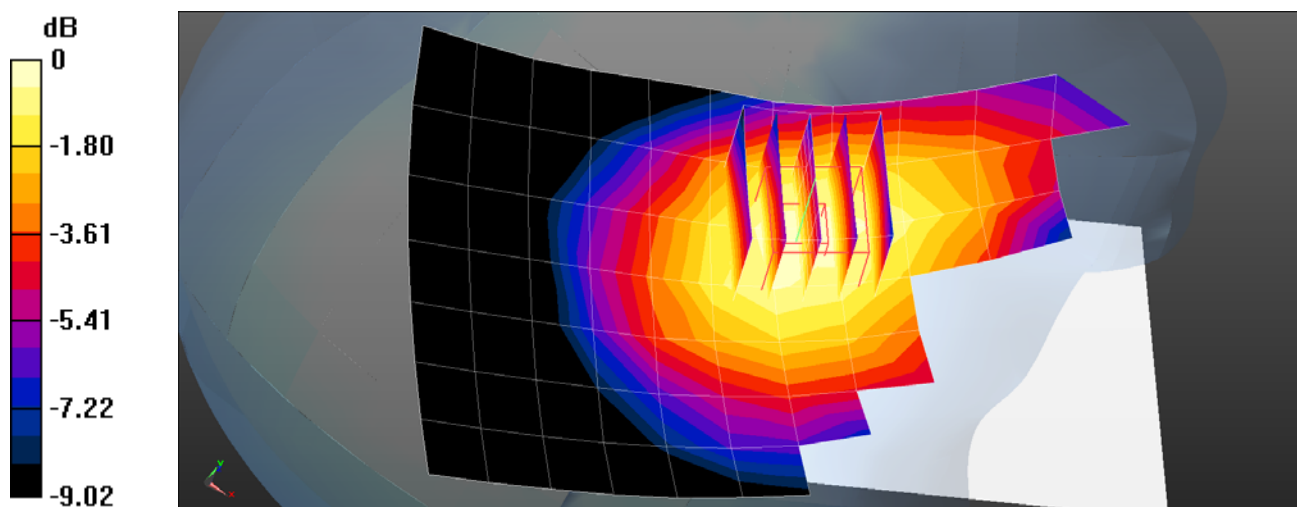
- Probe: ES3DV3 - SN3076; ConvF(6.52, 6.52, 6.52) @ 782 MHz; Calibrated: 2019-07-23
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: SAM with CRP v5.0_Right
- Measurement SW: DASY52, Version 52.10 (4);

LTE Band 13 Head Right Touch QPSK 10MHz 1RB 24offset 23230ch/Area Scan (8x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.173 W/kg

LTE Band 13 Head Right Touch QPSK 10MHz 1RB 24offset 23230ch/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 3.562 V/m; Power Drift = 0.17 dB
 Peak SAR (extrapolated) = 0.206 W/kg
SAR(1 g) = 0.163 W/kg; SAR(10 g) = 0.126 W/kg
 Maximum value of SAR (measured) = 0.179 W/kg



0 dB = 0.179 W/kg = -7.47 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 20.1 °C
 Ambient Temperature: 20.3 °C
 Test Date: 05/13/2020
 Plot No.: 10

DUT: SM-A516V; Type: Bar

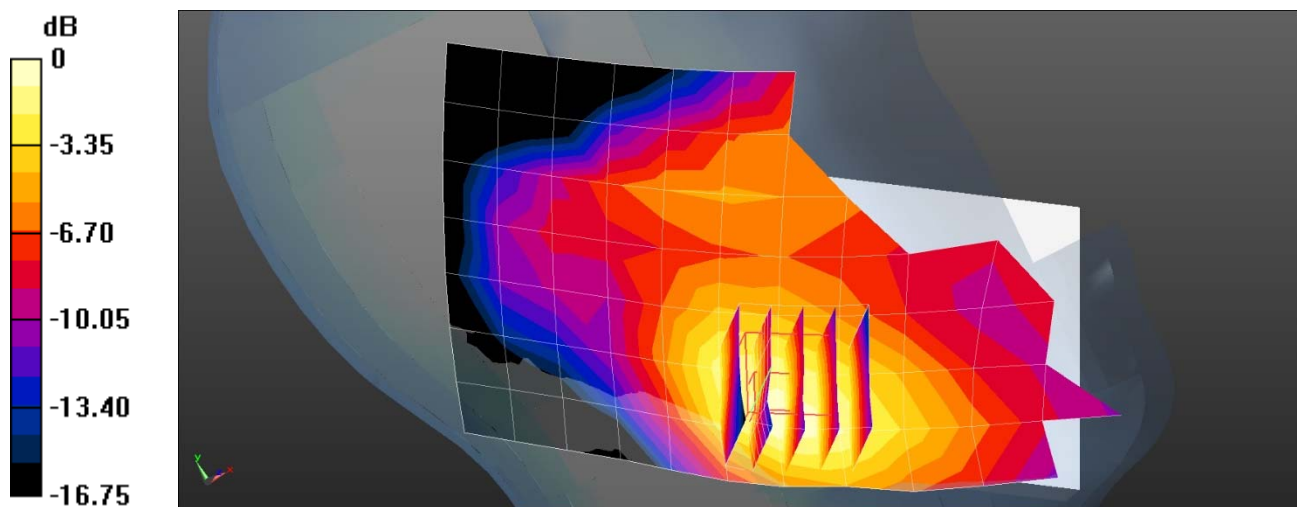
Communication System: UID 0, LTE 66 (0); Frequency: 1770 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1770$ MHz; $\sigma = 1.354$ S/m; $\epsilon_r = 40.276$; $\rho = 1000$ kg/m³
 Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3797; ConvF(8.14, 8.14, 8.14) @ 1770 MHz; Calibrated: 2019-11-28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2019-07-18
- Phantom: SAM_Left_20170913
- Measurement SW: DASY52, Version 52.10 (4);

LTE 66 Head Left Touch QPSK 20MHz 1RB 0offset 132572ch/Area Scan (8x13x1): Measurement grid:
 $dx=15$ mm, $dy=15$ mm
 Maximum value of SAR (measured) = 0.224 W/kg

LTE 66 Head Left Touch QPSK 20MHz 1RB 0offset 132572ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
 Reference Value = 4.896 V/m; Power Drift = 0.10 dB
 Peak SAR (extrapolated) = 0.304 W/kg
SAR(1 g) = 0.188 W/kg; SAR(10 g) = 0.118 W/kg
 Maximum value of SAR (measured) = 0.252 W/kg



0 dB = 0.252 W/kg = -5.99 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 20.6 °C
 Ambient Temperature: 20.4 °C
 Test Date: 05/26/2020
 Plot No.: 11

DUT: SM-A516V; Type: Bar

Communication System: UID 0, 5G NR (0); Frequency: 1860 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1860$ MHz; $\sigma = 1.391$ S/m; $\epsilon_r = 38.58$; $\rho = 1000$ kg/m³
 Phantom section: Right Section

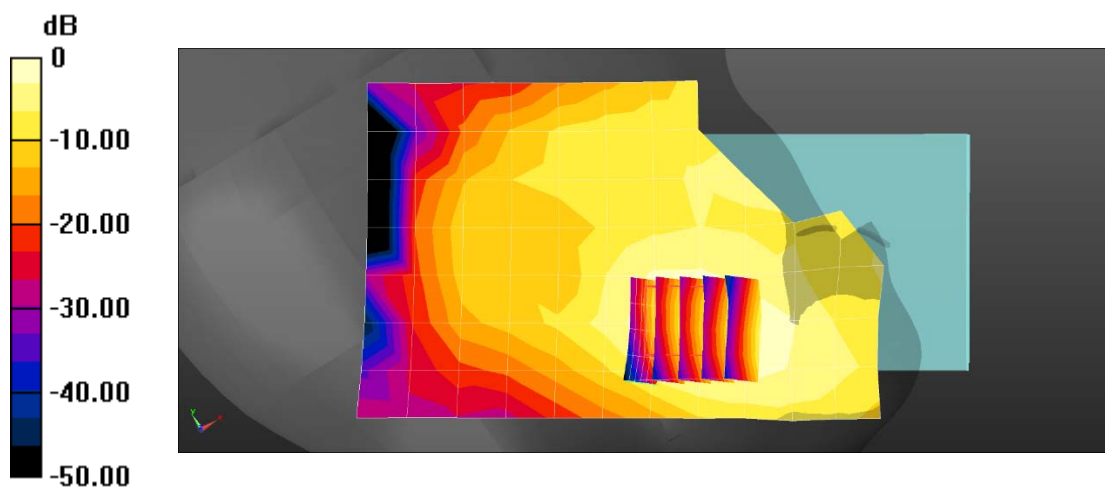
DASY Configuration:

- Probe: EX3DV4 - SN3967; ConvF(8.34, 8.34, 8.34); Calibrated: 2020-02-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

NR n2 Head Left Touch DFT-s QPSK 20MHz 1RB 1offset 372000ch/Area Scan (8x14x1): Measurement
 grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.321 W/kg

NR n2 Head Left Touch DFT-s QPSK 20MHz 1RB 1offset 372000ch/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 4.081 V/m; Power Drift = -0.05 dB
 Peak SAR (extrapolated) = 0.233 W/kg
SAR(1 g) = 0.246 W/kg; SAR(10 g) = 0.154 W/kg
 Maximum value of SAR (measured) = 0.204 W/kg



0 dB = 0.321 W/kg = -4.93 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 21.7 °C
 Ambient Temperature: 21.9 °C
 Test Date: 05/19/2020
 Plot No.: 12

DUT: SM-A516V; Type: Bar

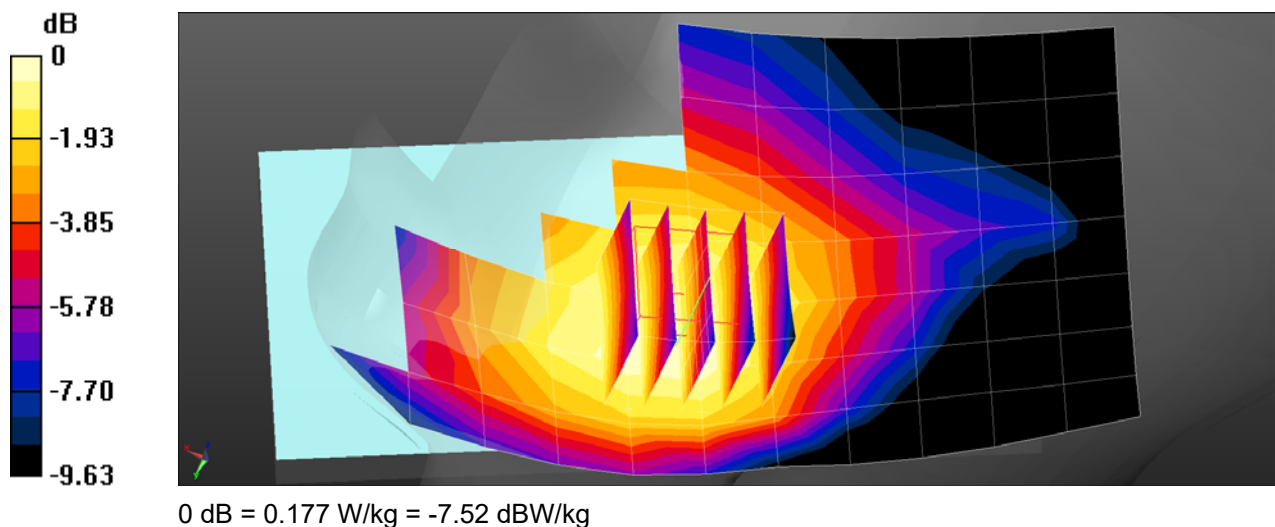
Communication System: UID 0, 5G nr (0); Frequency: 836.5 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 836.5 \text{ MHz}$; $\sigma = 0.948 \text{ S/m}$; $\epsilon_r = 42.782$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(9.85, 9.85, 9.85); Calibrated: 2019-09-27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V5.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

NR n5 Head Right Touch DFT-s QPSK 20MHz 1RB 1offset 167300ch/Area Scan (8x13x1): Measurement
 grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.170 W/kg

NR n5 Head Right Touch DFT-s QPSK 20MHz 1RB 1offset 167300ch/Zoom Scan (5x5x7)/Cube
0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 3.380 V/m; Power Drift = 0.14 dB
 Peak SAR (extrapolated) = 0.190 W/kg
SAR(1 g) = 0.149 W/kg; SAR(10 g) = 0.117 W/kg
 Maximum value of SAR (measured) = 0.177 W/kg



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 20.0 °C
 Ambient Temperature: 20.2 °C
 Test Date: 05/20/2020
 Plot No.: 13

DUT: SM-A516V; Type: Bar

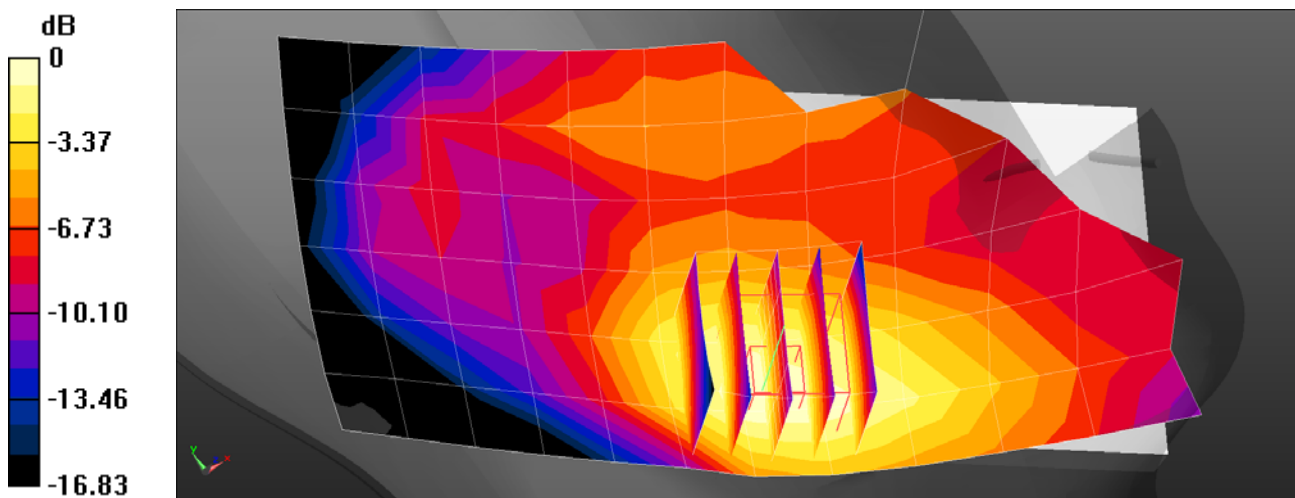
Communication System: UID 0, 5G NR (0); Frequency: 1745 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 1745 \text{ MHz}$; $\sigma = 1.368 \text{ S/m}$; $\epsilon_r = 39.915$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(8.62, 8.62, 8.62) @ 1745 MHz;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2019-09-19
- Phantom: Twin-SAM V8.0_20171017 (Right1)
- Measurement SW: DASY52, Version 52.10 (4);

NR n66 Head Left Touch DFT-s QPSK 20MHz 1RB 1offset 349000ch/Area Scan (7x13x1): Measurement
 grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.313 W/kg

NR n66 Head Left Touch DFT-s QPSK 20MHz 1RB 1offset 349000ch/Zoom Scan (5x5x7)/Cube 0:
 Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 5.641 V/m; Power Drift = 0.13 dB
 Peak SAR (extrapolated) = 0.384 W/kg
SAR(1 g) = 0.251 W/kg; SAR(10 g) = 0.161 W/kg
 Maximum value of SAR (measured) = 0.338 W/kg



0 dB = 0.338 W/kg = -4.71 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 19.7 °C
 Ambient Temperature: 19.5 °C
 Test Date: 06/112020
 Plot No.: 14

DUT: SM-A516V; Type: Bar

Communication System: UID 0, 2450MHz FCC (0); Frequency: 2412 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.761$ S/m; $\epsilon_r = 40.029$; $\rho = 1000$ kg/m³
 Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(7.6, 7.6, 7.6); Calibrated: 2019-09-27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0(Left-Left)
- Measurement SW: DASY52, Version 52.10 (2);

802.11b Head Right Tilt 1Mbps 1ch/Area Scan (9x17x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 0.794 W/kg

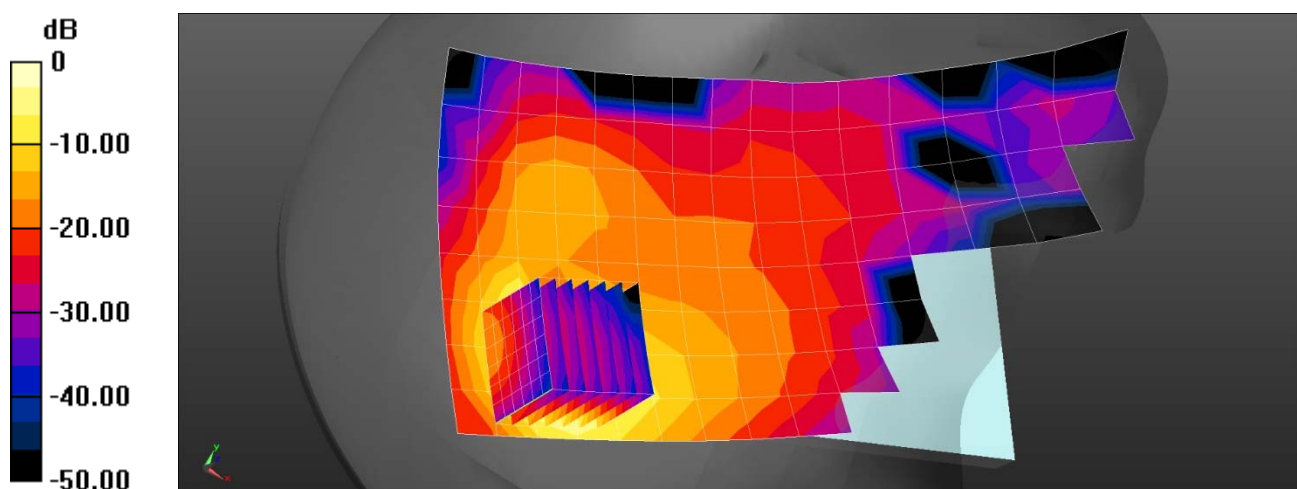
802.11b Head Right Tilt 1Mbps 1ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.799 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 0.511 W/kg; SAR(10 g) = 0.192 W/kg

Maximum value of SAR (measured) = 1.03 W/kg



0 dB = 0.794 W/kg = -1.00 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 20.3 °C
 Ambient Temperature: 20.1 °C
 Test Date: 06/04/2020
 Plot No.: 15

DUT: SM-A516V; Type: Bar

Communication System: UID 0, WIFI 5GHz (0); Frequency: 5710 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5710 \text{ MHz}$; $\sigma = 5.126 \text{ S/m}$; $\epsilon_r = 36.354$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(5.1, 5.1, 5.1); Calibrated: 2019-09-27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 (Left-Right)
- Measurement SW: DASY52, Version 52.10 (4);

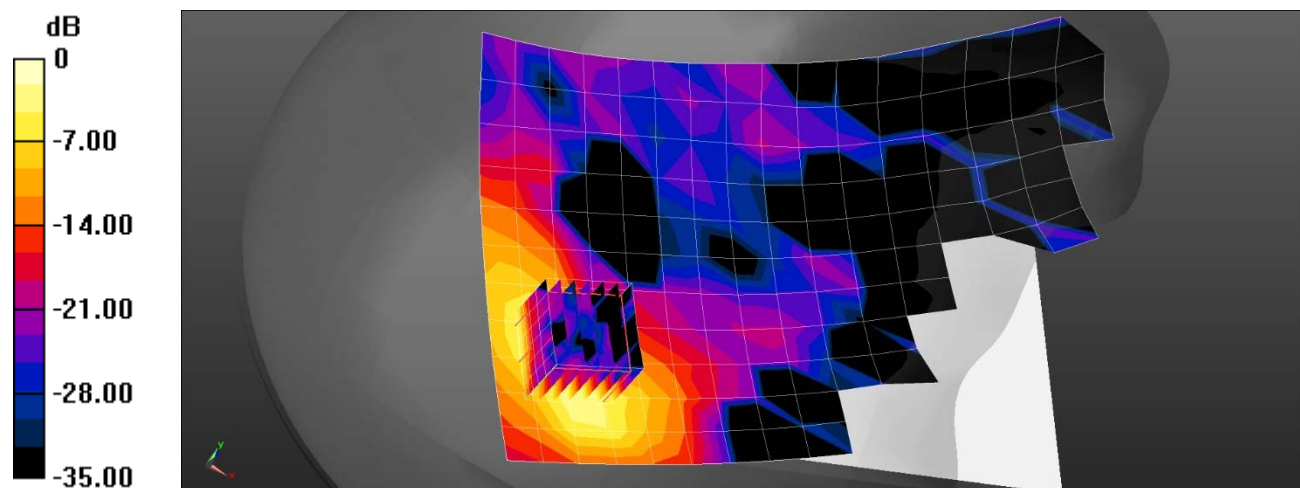
802.11n Head Right Tilt MCS0 142ch/Area Scan (12x19x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (measured) = 0.509 W/kg

802.11n Head Right Tilt MCS0 142ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 2.510 V/m; Power Drift = -0.07 dB
 Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.183 W/kg; SAR(10 g) = 0.044 W/kg

Maximum value of SAR (measured) = 0.492 W/kg



0 dB = 0.492 W/kg = -3.08 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 21.5 °C
 Ambient Temperature: 21.7 °C
 Test Date: 05/28/2020
 Plot No.: 16

DUT: SM-A516V; Type: Bar

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2441$ MHz; $\sigma = 1.799$ S/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³
 Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.65, 7.65, 7.65) @ 2441 MHz;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2019-09-19
- Phantom: Twin-SAM V4.0 (20deg probe tilt)_1588_20200429
- Measurement SW: DASY52, Version 52.10 (4);

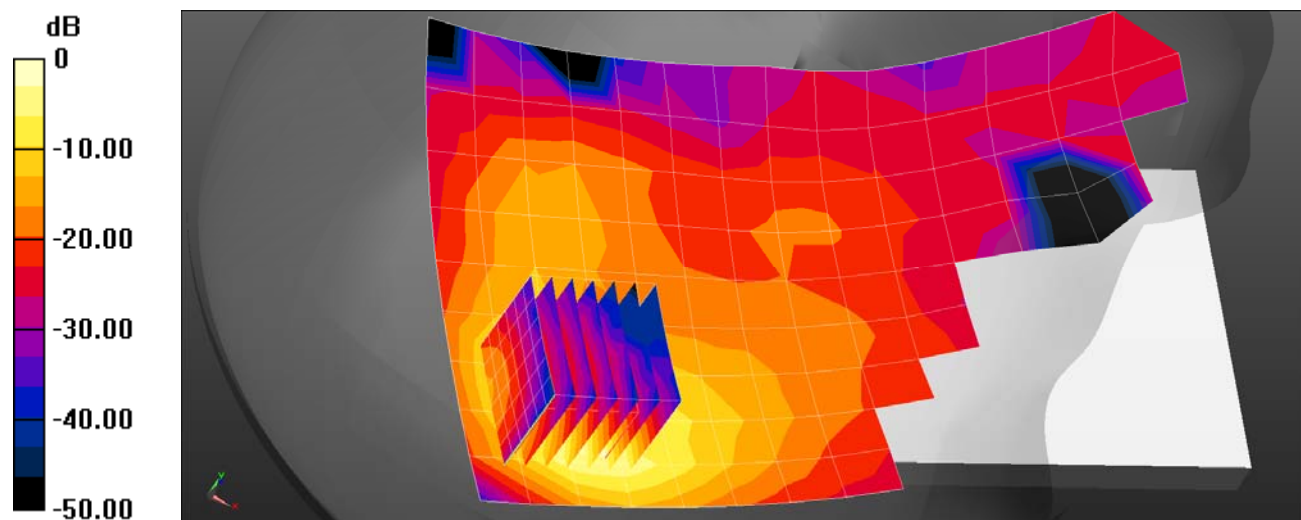
Bluetooth Head Right Tilt DH5 39ch/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 0.557 W/kg

Bluetooth Head Right Tilt DH5 39ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.110 V/m; Power Drift = 0.14 dB
 Peak SAR (extrapolated) = 0.756 W/kg

SAR(1 g) = 0.280 W/kg; SAR(10 g) = 0.103 W/kg

Maximum value of SAR (measured) = 0.564 W/kg



0 dB = 0.557 W/kg = -2.54 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 20.4 °C
 Ambient Temperature: 20.6 °C
 Test Date: 05/15/2020
 Plot No.: 17

DUT: SM-A516V; Type: Bar

Communication System: UID 0, GSM850 GPRS 2TX (0); Frequency: 824.2 MHz; Duty Cycle: 1:4.14954
 Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.916$ S/m; $\epsilon_r = 42.417$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.22, 6.22, 6.22) @ 824.2 MHz; Calibrated: 2019-07-23
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: SAM with CRP v5.0_Right
- Measurement SW: DASY52, Version 52.10 (4);

GSM850 Body Rear 2Tx 128ch Bodyworn/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.393 W/kg

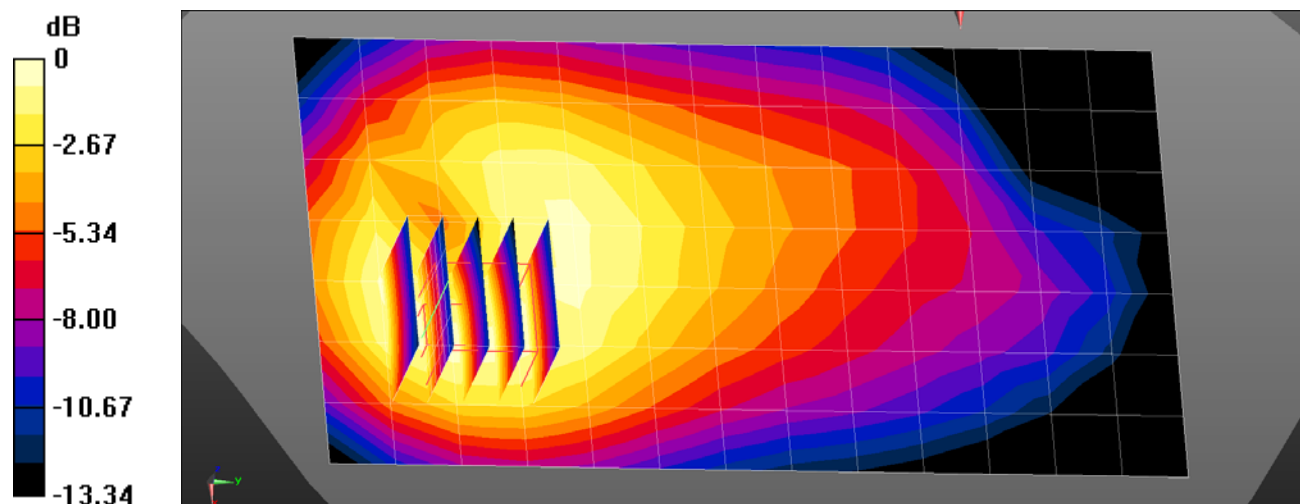
GSM850 Body Rear 2Tx 128ch Bodyworn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.28 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.548 W/kg

SAR(1 g) = 0.336 W/kg; SAR(10 g) = 0.210 W/kg

Maximum value of SAR (measured) = 0.399 W/kg



0 dB = 0.399 W/kg = -3.99 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 21.3 °C
 Ambient Temperature: 21.5 °C
 Test Date: 05/12/2020
 Plot No.: 18

DUT: SM-A516V; Type: Bar

Communication System: UID 0, GSM 1900 2Tx (0); Frequency: 1880 MHz; Duty Cycle: 1:4.14954
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.381$ S/m; $\epsilon_r = 39.266$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(8.31, 8.31, 8.31) @ 1880 MHz;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2019-09-19
- Phantom: Twin-SAM V8.0_20171017 (Right1)
- Measurement SW: DASY52, Version 52.10 (4);

GSM1900 Body Front 2Tx 661ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.634 W/kg

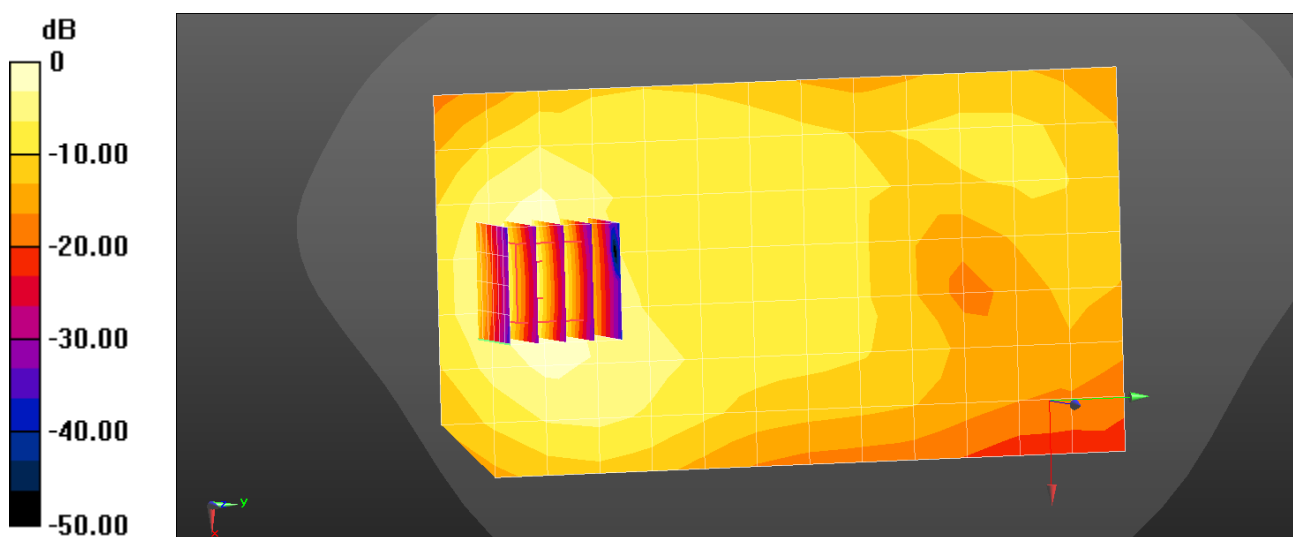
GSM1900 Body Front 2Tx 661ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.911 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.794 W/kg

SAR(1 g) = 0.469 W/kg; SAR(10 g) = 0.265 W/kg

Maximum value of SAR (measured) = 0.681 W/kg



0 dB = 0.634 W/kg = -1.98 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 20.4 °C
 Ambient Temperature: 20.6 °C
 Test Date: 05/15/2020
 Plot No.: 19

DUT: SM-A516V; Type: Bar

Communication System: UID 0, WCDMA850 (0); Frequency: 826.4 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.909$ S/m; $\epsilon_r = 42.772$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.22, 6.22, 6.22) @ 826.4 MHz; Calibrated: 2019-07-23
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: SAM with CRP v5.0_Right
- Measurement SW: DASY52, Version 52.10 (4);

WCDMA Band 5 Body Rear 4132ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.267 W/kg

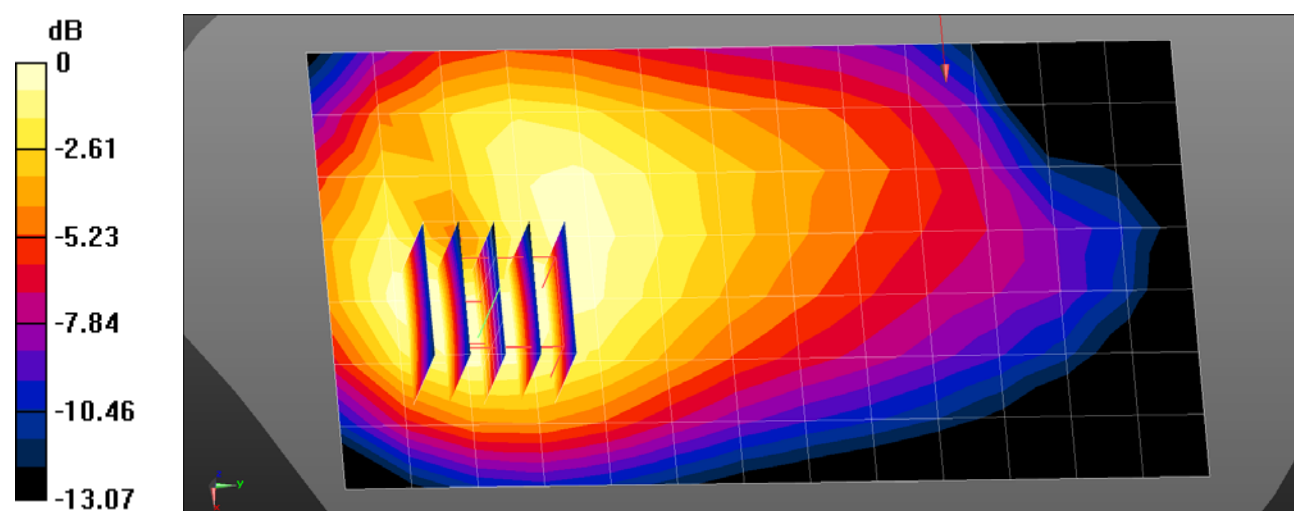
WCDMA Band 5 Body Rear 4132ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.21 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.383 W/kg

SAR(1 g) = 0.241 W/kg; SAR(10 g) = 0.153 W/kg

Maximum value of SAR (measured) = 0.284 W/kg



0 dB = 0.284 W/kg = -5.47 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 20.0 °C
 Ambient Temperature: 20.2 °C
 Test Date: 05/11/2020
 Plot No.: 20

DUT: SM-A516V; Type: Bar

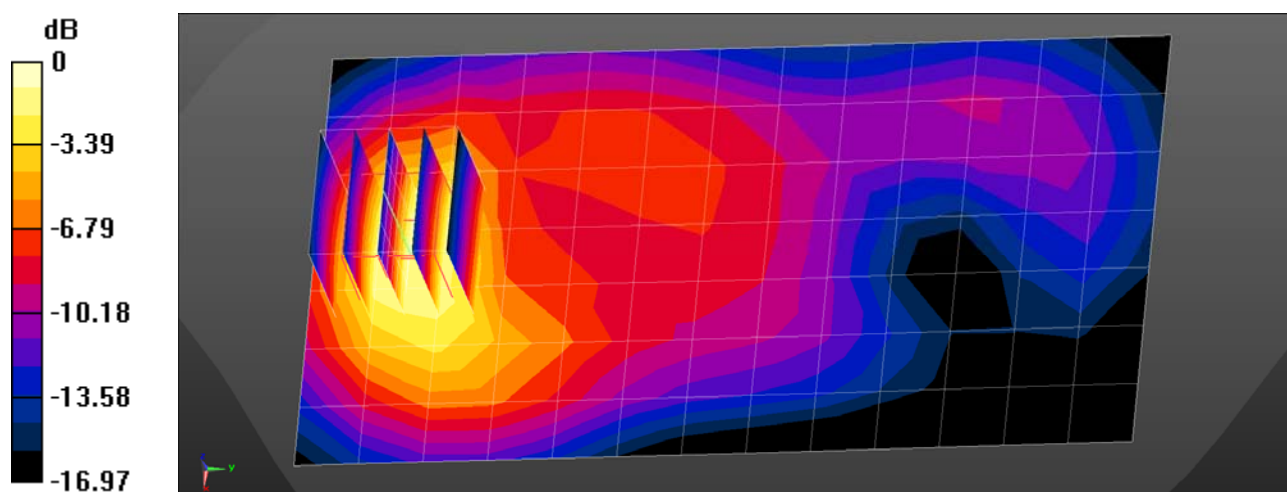
Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.379 \text{ S/m}$; $\epsilon_r = 39.363$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(8.31, 8.31, 8.31); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2019-09-19
- Phantom: Twin-SAM V8.0_20171017 (Right1)
- Measurement SW: DASY52, Version 52.10 (4);

WCDMA1900 Body Front 9400ch body worn/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.636 W/kg

WCDMA1900 Body Front 9400ch body worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 9.347 V/m; Power Drift = 0.10 dB
 Peak SAR (extrapolated) = 0.986 W/kg
SAR(1 g) = 0.579 W/kg; SAR(10 g) = 0.322 W/kg
 Maximum value of SAR (measured) = 0.846 W/kg



0 dB = 0.846 W/kg = -0.73 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 21.3 °C
 Ambient Temperature: 21.5 °C
 Test Date: 05/11/2020
 Plot No.: 21

DUT: SM-A516V; Type: Bar

Communication System: UID 0, LTE Band 2 (0); Frequency: 1860 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1860 \text{ MHz}$; $\sigma = 1.353 \text{ S/m}$; $\epsilon_r = 38.431$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3797; ConvF(7.75, 7.75, 7.75) @ 1860 MHz; Calibrated: 2019-11-28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2019-07-18
- Phantom: SAM_Left_20170913
- Measurement SW: DASY52, Version 52.10 (4);

LTE 2 Body Front QPSK 20MHz 1RB 0offset 18700ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.09 W/kg

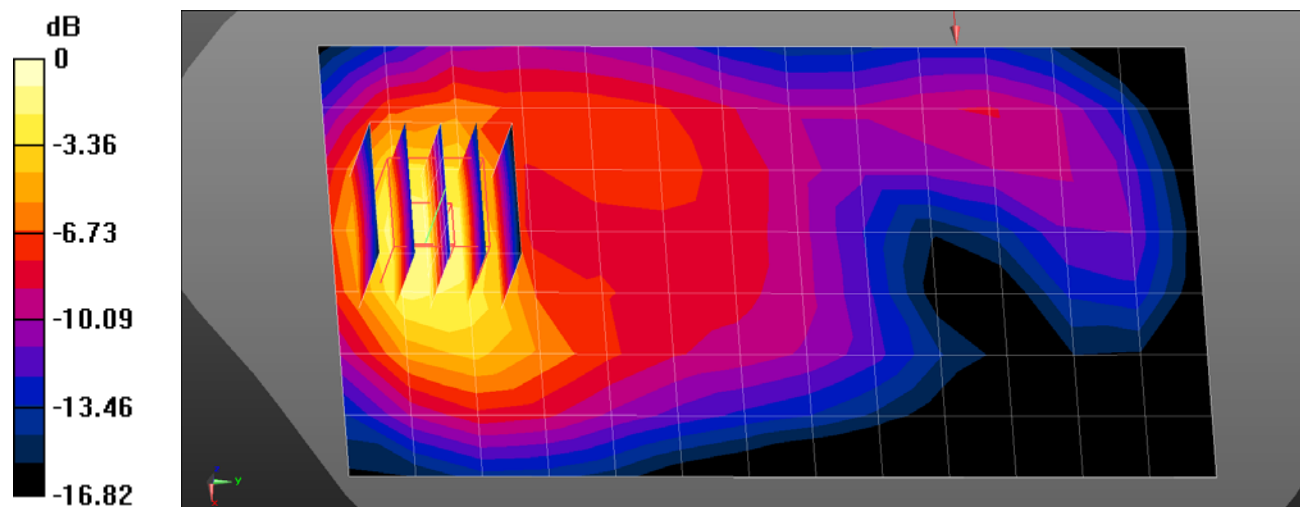
LTE 2 Body Front QPSK 20MHz 1RB 0offset 18700ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.69 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 0.935 W/kg; SAR(10 g) = 0.520 W/kg

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



0 dB = 1.37 W/kg = 1.37 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 21.3 °C
 Ambient Temperature: 21.5 °C
 Test Date: 05/11/2020
 Plot No.: 22

DUT: SM-A516V; Type: Bar

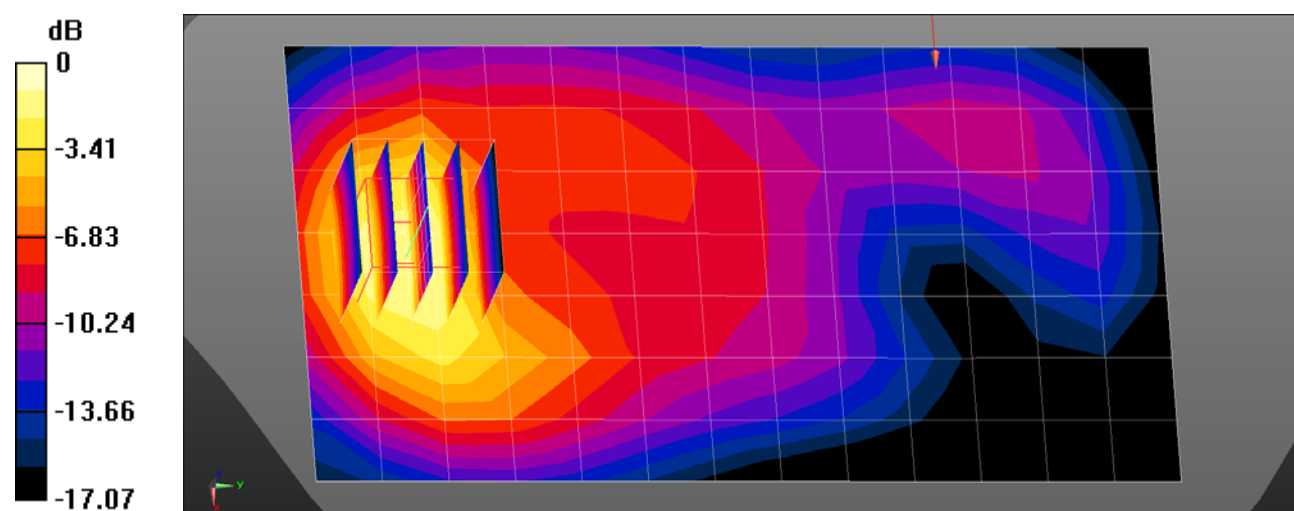
Communication System: UID 0, LTE2 (20MHz) (0); Frequency: 1900 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.397$ S/m; $\epsilon_r = 38.242$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3797; ConvF(7.75, 7.75, 7.75) @ 1900 MHz; Calibrated: 2019-11-28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2019-07-18
- Phantom: SAM_Left_20170913
- Measurement SW: DASY52, Version 52.10 (4);

LTE 2 Body Front QPSK 20MHz 1RB 0offset 19100ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 1.05 W/kg

LTE 2 Body Front QPSK 20MHz 1RB 0offset 19100ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 11.83 V/m; Power Drift = -0.17 dB
 Peak SAR (extrapolated) = 1.56 W/kg
SAR(1 g) = 0.892 W/kg; SAR(10 g) = 0.496 W/kg
 Maximum value of SAR (measured) = 1.32 W/kg



0 dB = 1.32 W/kg = 1.21 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 20.9 °C
 Ambient Temperature: 21.1 °C
 Test Date: 05/12/2020
 Plot No.: 23

UT: SM-A516V; Type: Bar

Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 836.5 \text{ MHz}$; $\sigma = 0.923 \text{ S/m}$; $\epsilon_r = 42.666$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.22, 6.22, 6.22) @ 836.5 MHz; Calibrated: 2019-07-23
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: SAM with CRP v5.0_Right
- Measurement SW: DASY52, Version 52.10 (4);

LTE Band 5 Body Rear QPSK 10MHz 1RB 0offset 20525ch/Area Scan (8x14x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.309 W/kg

LTE Band 5 Body Rear QPSK 10MHz 1RB 0offset 20525ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

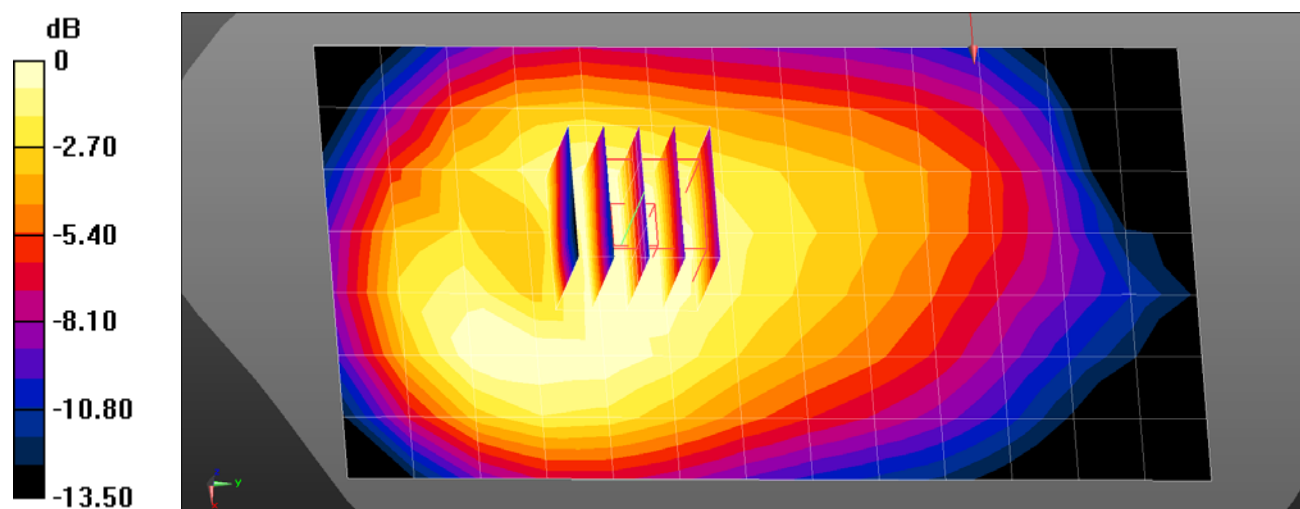
$dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.00 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.396 W/kg

SAR(1 g) = 0.274 W/kg; SAR(10 g) = 0.191 W/kg

Maximum value of SAR (measured) = 0.312 W/kg



0 dB = 0.312 W/kg = -5.06 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Liquid Temperature: 21.7 °C
 Ambient Temperature: 21.9 °C
 Test Date: 05/11/2020
 Plot No.: 24

DUT: SM-A516V; Type: Bar

Communication System: UID 0, LTE Band7 (0); Frequency: 2560 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2560$ MHz; $\sigma = 1.911$ S/m; $\epsilon_r = 37.951$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3968; ConvF(7.41, 7.41, 7.41) @ 2560 MHz; Calibrated: 2019-09-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 (20deg probe tilt)_1588_20200429
- Measurement SW: DASY52, Version 52.10 (4);

LTE Band 7 Bodyworn Rear QPSK 20MHz 1RB 49offset 21350ch/Area Scan (10x16x1): Measurement grid:
 $dx=12$ mm, $dy=12$ mm
 Maximum value of SAR (measured) = 0.229 W/kg

LTE Band 7 Bodyworn Rear QPSK 20MHz 1RB 49offset 21350ch/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
 Reference Value = 2.422 V/m; Power Drift = 0.14 dB
 Peak SAR (extrapolated) = 0.279 W/kg
SAR(1 g) = 0.145 W/kg; SAR(10 g) = 0.078 W/kg
 Maximum value of SAR (measured) = 0.226 W/kg

