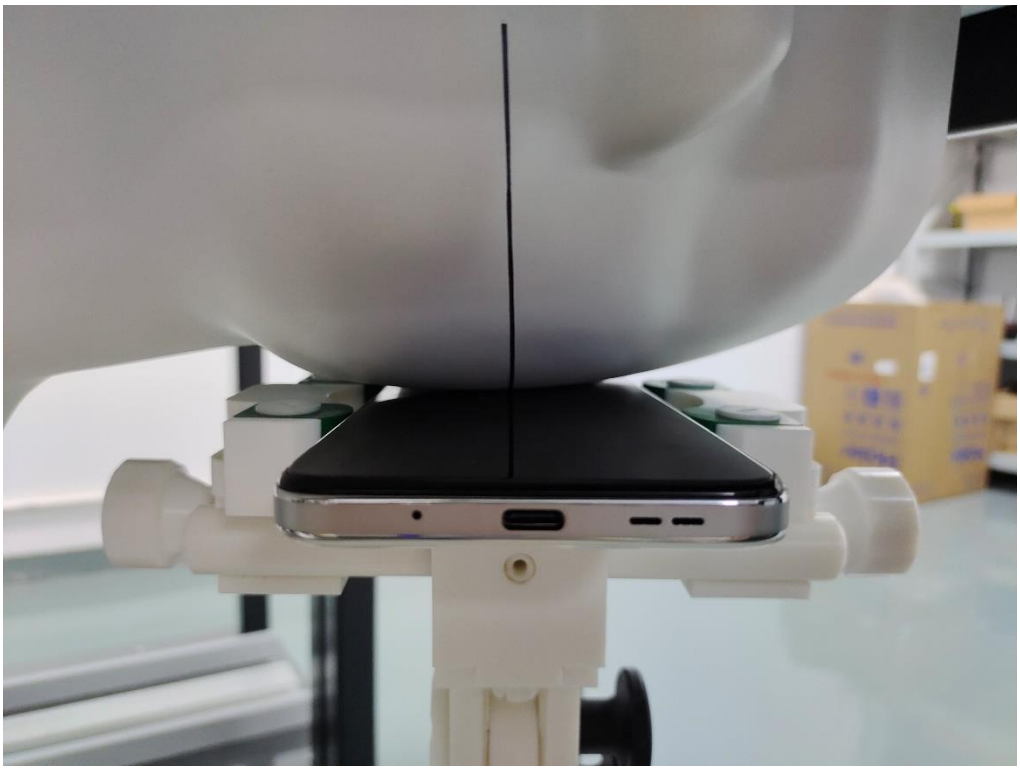
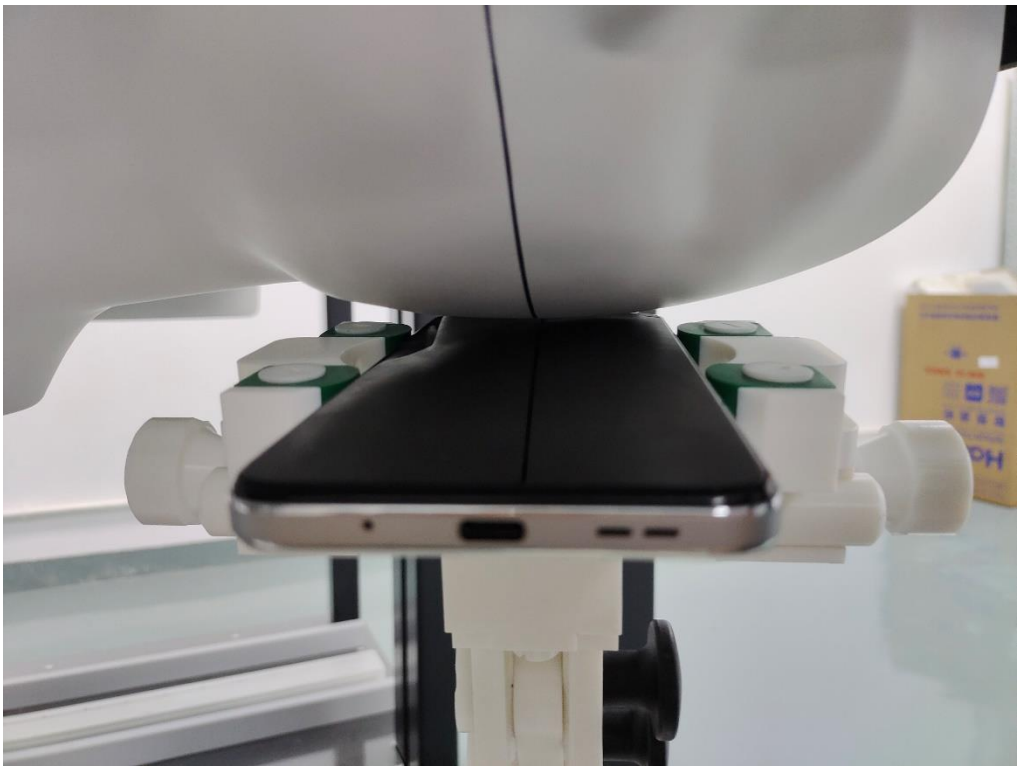
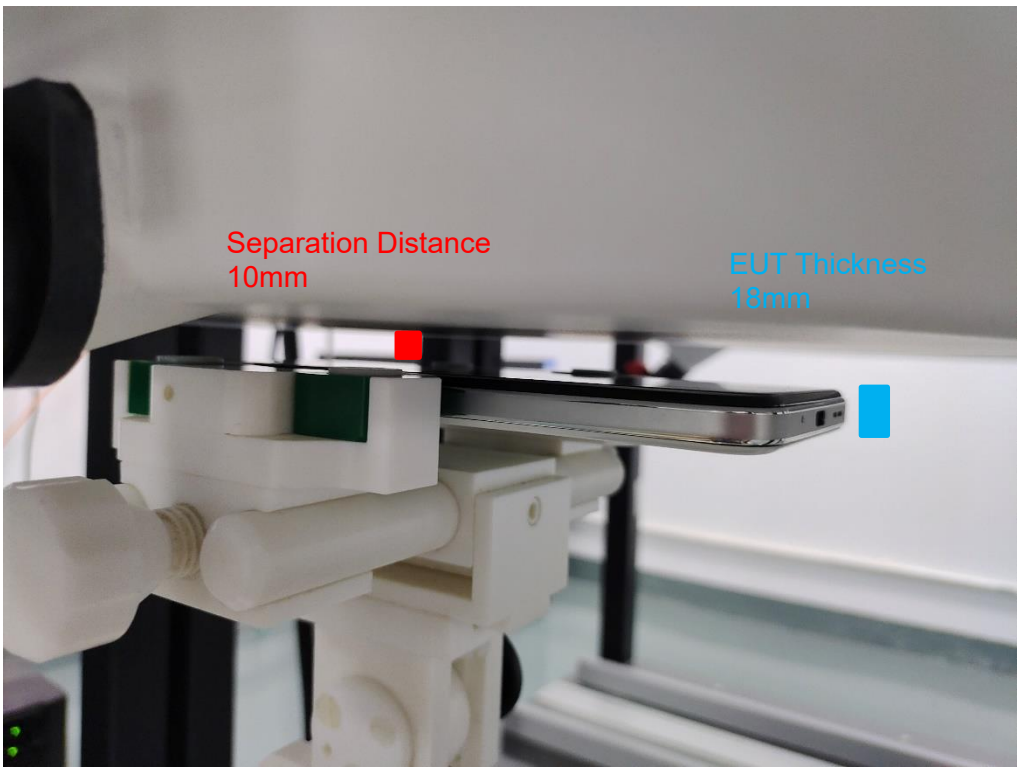
Left Touch



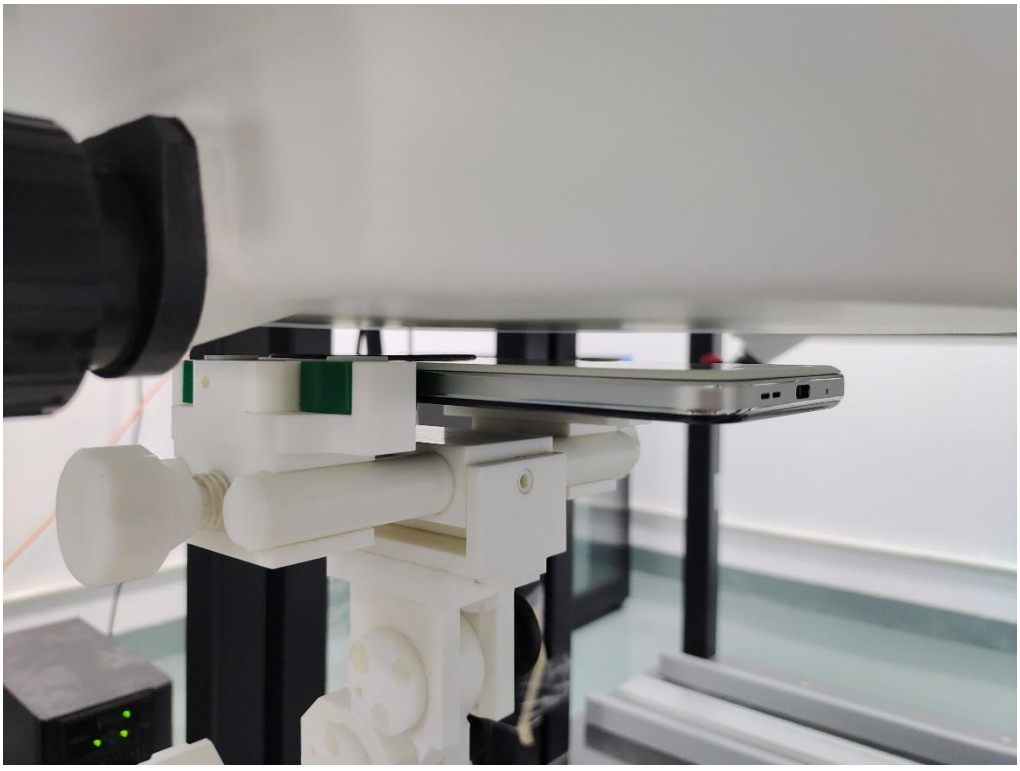
Left Tilt



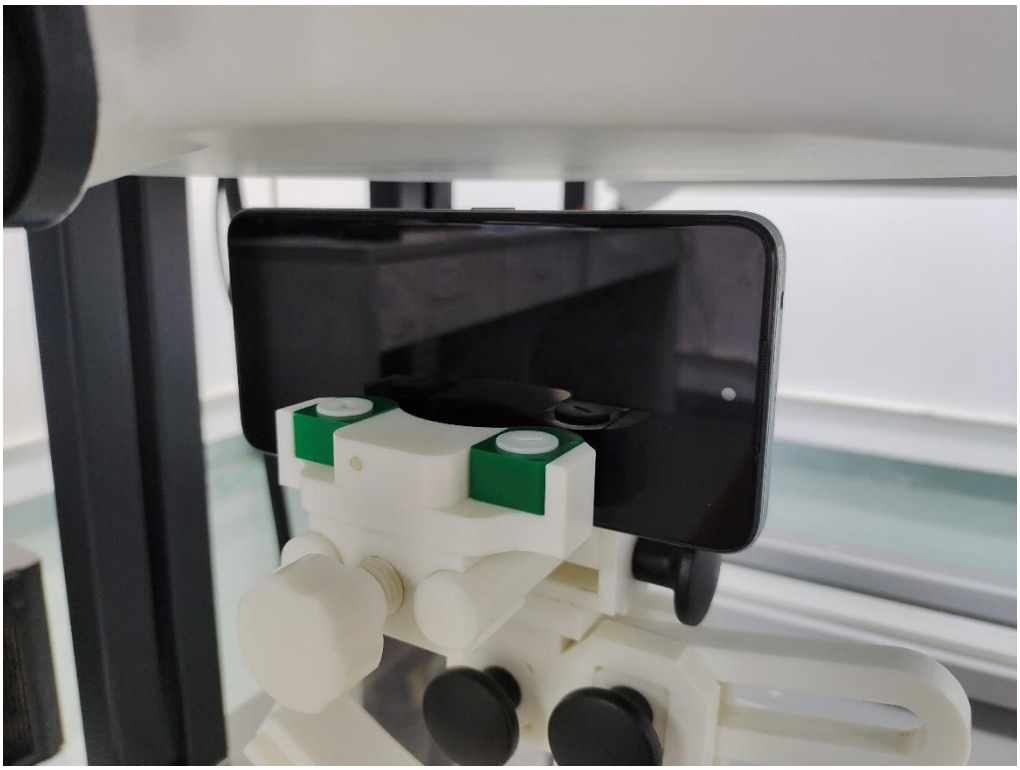
Body Front side (separation distance is 10mm)



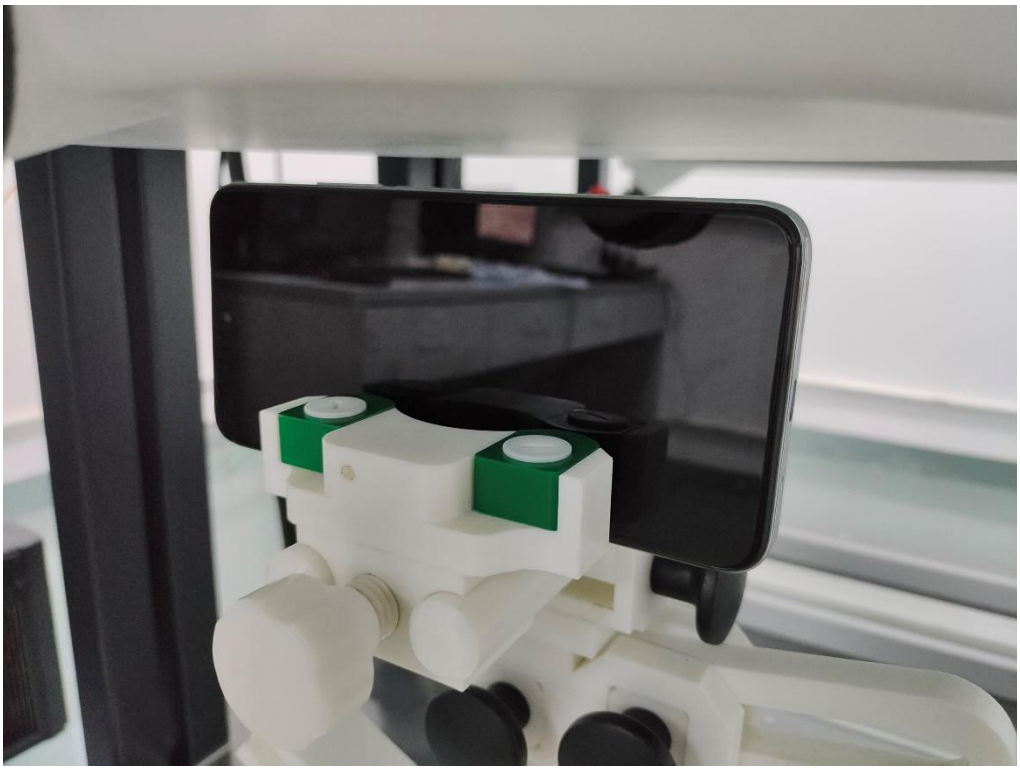
Body Back side (separation distance10mm)



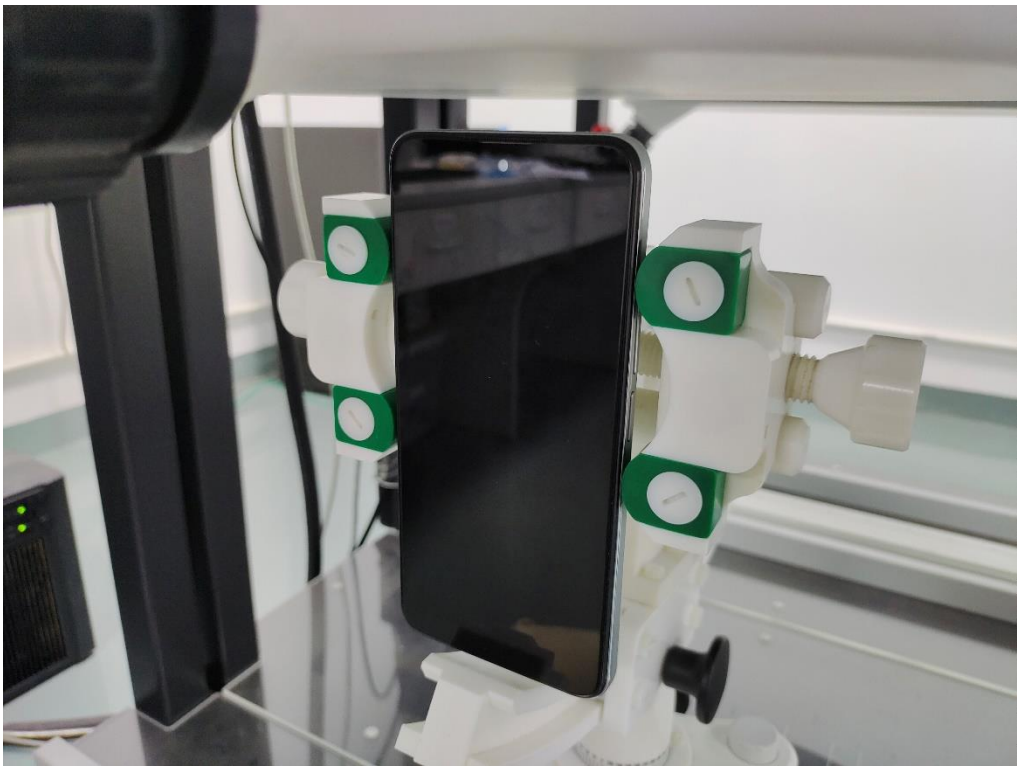
Body Left side (separation distance is 10mm)



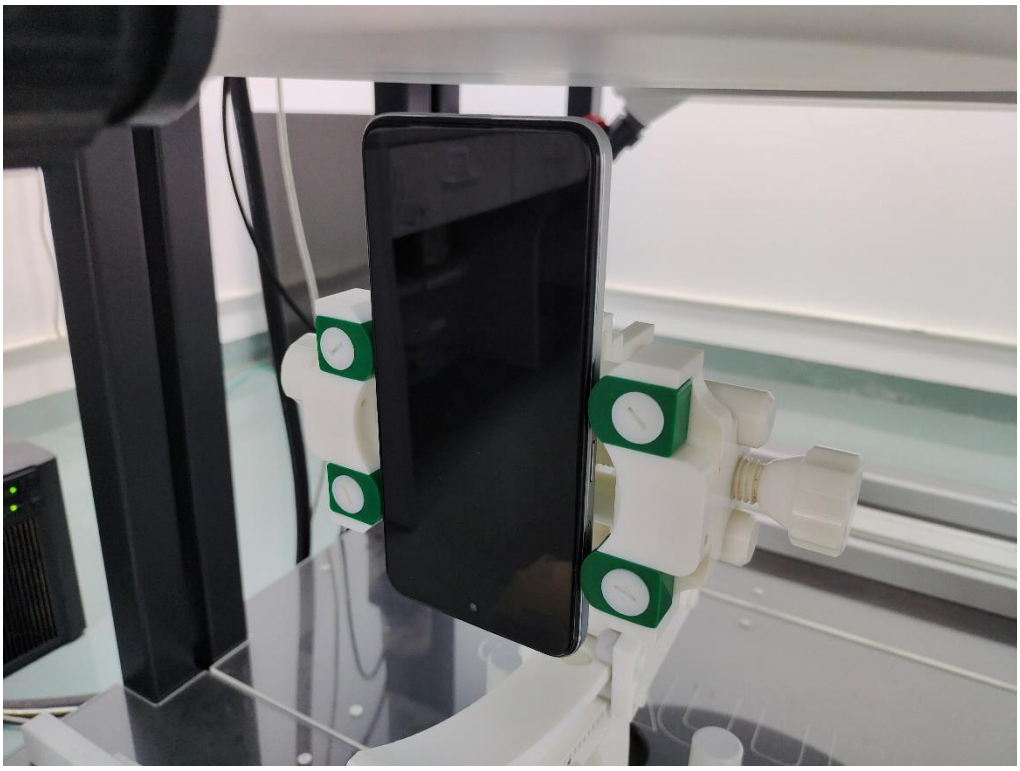
Body Right side (separation distance is 10mm)



Body Top side (separation distance is 10mm)



Body Bottom side (separation distance is 10mm)



12. SAR Result Summary

12.1 Head SAR

Band	Model	Test Position	Freq.	SAR (1g) (W/kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
GSM850	Voice	Right Cheek	848.8	0.202	-1.78	33.00	32.69	**0.217**	**1**
		Right Tilt	848.8	0.107	-3.15	33.00	32.69	0.115	/
		Left Cheek	848.8	0.182	3.04	33.00	32.69	0.195	/
		Left Tilt	848.8	0.108	-2.04	33.00	32.69	0.116	/
GSM1900	Voice	Right Cheek	1909.8	0.165	-0.04	31.00	30.64	0.179	/
		Right Tilt	1909.8	0.102	3.10	31.00	30.64	0.111	/
		Left Cheek	1909.8	0.179	-1.91	31.00	30.64	**0.194**	**3**
		Left Tilt	1909.8	0.100	1.19	31.00	30.64	0.109	/
WCDMA Band II	RMC	Right Cheek	1880	0.271	1.08	24.00	23.61	0.296	/
		Right Tilt	1880	0.159	3.49	24.00	23.61	0.174	/
		Left Cheek	1880	0.319	-0.23	24.00	23.61	**0.349**	**5**
		Left Tilt	1880	0.176	2.44	24.00	23.61	0.193	/
WCDMA Band IV	RMC	Right Cheek	1740	0.223	-0.80	23.50	23.19	**0.239**	**7**
		Right Tilt	1740	0.145	0.54	23.50	23.19	0.156	/
		Left Cheek	1740	0.195	1.78	23.50	23.19	0.209	/
		Left Tilt	1740	0.093	0.01	23.50	23.19	0.100	/
WCDMA Band V	RMC	Right Cheek	826.4	0.184	-2.07	23.50	23.06	0.204	/
		Right Tilt	826.4	0.100	-0.78	23.50	23.06	0.111	/
		Left Cheek	826.4	0.208	1.11	23.50	23.06	**0.230**	**9**
		Left Tilt	826.4	0.121	-2.36	23.50	23.06	0.134	/
2.4G WLAN ANT A	802.11b	Right Cheek	2412	0.083	2.82	15.00	14.59	0.091	/
		Right Tilt	2412	0.141	-2.91	15.00	14.59	**0.155**	**11**
		Left Cheek	2412	0.053	3.78	15.00	14.59	0.058	/
		Left Tilt	2412	0.082	-2.54	15.00	14.59	0.090	/
2.4G WLAN ANT B	802.11b	Right Cheek	2412	0.050	-2.77	15.00	14.68	0.054	/
		Right Tilt	2412	0.073	-0.11	15.00	14.68	0.079	/
		Left Cheek	2412	0.069	-3.43	15.00	14.68	0.074	/
		Left Tilt	2412	0.109	0.24	15.00	14.68	**0.117**	**13**
2.4G WLAN MIMO	802.11 n-HT20	Right Cheek	2412	0.059	0.94	20.00	19.89	0.061	/
		Right Tilt	2412	0.080	-2.15	20.00	19.89	0.082	/
		Left Cheek	2412	0.062	1.81	20.00	19.89	0.064	/
		Left Tilt	2412	0.086	-1.65	20.00	19.89	**0.088**	**15**
5.2G WLAN ANT A	802.11n40	Right Cheek	5190.0	0.133	1.49	10.50	9.98	0.150	/
		Right Tilt	5190.0	0.241	-1.63	10.50	9.98	0.272	/
		Left Cheek	5190.0	0.142	-2.23	10.50	9.98	0.160	/
		Left Tilt	5190.0	0.280	0.49	10.50	9.98	**0.316**	**17**

5.2G WLAN ANT B	802.11n40	Right Cheek	5190.0	0.169	0.72	12.00	11.78	0.178	/
		Right Tilt	5190.0	0.337	-0.84	12.00	11.78	**0.355**	**19**
		Left Cheek	5190.0	0.177	3.94	12.00	11.78	0.186	/
		Left Tilt	5190.0	0.317	1.74	12.00	11.78	0.333	/
5.2G WLAN MIMO	802.11n20	Right Cheek	5190.0	0.185	-0.82	14.50	13.98	0.209	/
		Right Tilt	5190.0	0.345	-1.07	14.50	13.98	0.389	/
		Left Cheek	5190.0	0.209	2.81	14.50	13.98	0.236	/
		Left Tilt	5190.0	0.387	2.60	14.50	13.98	**0.436**	**21**
5.3G WLAN ANT A	802.11a	Right Cheek	5320.0	0.097	-2.32	5.50	5.15	0.105	/
		Right Tilt	5320.0	0.166	0.69	5.50	5.15	0.180	/
		Left Cheek	5320.0	0.134	2.85	5.50	5.15	0.145	/
		Left Tilt	5320.0	0.248	1.59	5.50	5.15	**0.269**	**23**
5.3G WLAN ANT B	802.11a	Right Cheek	5260.0	0.063	1.00	6.50	6.09	0.069	/
		Right Tilt	5260.0	0.112	1.77	6.50	6.09	**0.123**	**25**
		Left Cheek	5260.0	0.021	-2.74	6.50	6.09	0.023	/
		Left Tilt	5260.0	0.029	3.37	6.50	6.09	0.032	/
5.3G WLAN MIMO	802.11n20	Right Cheek	5320.0	0.099	-2.78	9.00	8.41	0.113	/
		Right Tilt	5320.0	0.186	0.67	9.00	8.41	0.213	/
		Left Cheek	5320.0	0.122	-1.72	9.00	8.41	0.140	/
		Left Tilt	5320.0	0.242	-0.19	9.00	8.41	**0.277**	**27**
5.6G WLAN ANT A	802.11n20	Right Cheek	5700.0	0.160	-3.18	5.00	4.55	0.177	/
		Right Tilt	5700.0	0.296	-0.29	5.00	4.55	**0.328**	**29**
		Left Cheek	5700.0	0.106	-3.37	5.00	4.55	0.118	/
		Left Tilt	5700.0	0.194	-2.46	5.00	4.55	0.215	/
5.6G WLAN ANT B	802.11n20	Right Cheek	5700.0	0.114	3.24	7.00	6.58	0.126	/
		Right Tilt	5700.0	0.211	3.42	7.00	6.58	**0.232**	**31**
		Left Cheek	5700.0	0.098	-0.31	7.00	6.58	0.108	/
		Left Tilt	5700.0	0.181	-2.40	7.00	6.58	0.199	/
5.6G WLAN MIMO	802.11n20	Right Cheek	5700.0	0.173	3.56	9.00	8.69	0.186	/
		Right Tilt	5700.0	0.306	1.47	9.00	8.69	0.329	/
		Left Cheek	5700.0	0.252	-0.34	9.00	8.69	0.271	/
		Left Tilt	5700.0	0.396	-2.61	9.00	8.69	**0.425**	**33**
5.8G WLAN ANT A	802.11a	Right Cheek	5745.0	0.167	-0.05	2.00	1.81	0.174	/
		Right Tilt	5745.0	0.298	-2.47	2.00	1.81	**0.311**	**35**
		Left Cheek	5745.0	0.173	-1.33	2.00	1.81	0.181	/
		Left Tilt	5745.0	0.273	-0.69	2.00	1.81	0.285	/
5.8G WLAN ANT B	802.11n20	Right Cheek	5745.0	0.154	-0.41	5.00	4.54	0.171	/
		Right Tilt	5745.0	0.305	-0.43	5.00	4.54	**0.339**	**37**
		Left Cheek	5745.0	0.085	-3.61	5.00	4.54	0.094	/
		Left Tilt	5745.0	0.169	1.93	5.00	4.54	0.188	/

5.8G WLAN MIMO	802.11n20	Right Cheek	5785.0	0.199	1.13	6.50	6.15	0.216	/
		Right Tilt	5785.0	0.373	-2.79	6.50	6.15	0.404	/
		Left Cheek	5785.0	0.193	1.04	6.50	6.15	0.209	/
		Left Tilt	5785.0	0.382	1.68	6.50	6.15	**0.414**	**39**
BT	GFSK	Right Cheek	2441.0	0.018	1.78	7.00	6.42	0.021	/
		Right Tilt	2441.0	0.023	2.01	7.00	6.42	0.026	/
		Left Cheek	2441.0	0.030	2.65	7.00	6.42	0.034	/
		Left Tilt	2441.0	0.044	3.40	7.00	6.42	**0.050**	**41**

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
LTE Band 2	20M	QPSK	1	0	Right Cheek	1860	0.209	0.28	24.80	24.21	0.239	/
			50	0	Right Cheek	1900	0.190	-1.50	24.00	23.71	0.203	/
			1	0	Right Tilt	1860	0.108	2.51	24.80	24.21	0.124	/
			50	0	Right Tilt	1900	0.099	-3.59	24.00	23.71	0.106	/
			1	0	Left Cheek	1860	0.271	-0.88	24.80	24.21	**0.310**	**43**
			50	0	Left Cheek	1900	0.231	-3.11	24.00	23.71	0.247	/
			1	0	Left Tilt	1860	0.146	-2.19	24.80	24.21	0.167	/
			50	0	Left Tilt	1900	0.132	0.05	24.00	23.71	0.141	/
LTE Band 4	20M	QPSK	1	0	Right Cheek	1720	0.181	-0.30	24.50	23.50	0.228	/
			50	0	Right Cheek	1732.5	0.170	-1.02	23.00	22.96	0.172	/
			1	0	Right Tilt	1720	0.094	3.40	24.50	23.50	0.118	/
			50	0	Right Tilt	1732.5	0.086	-3.40	23.00	22.96	0.087	/
			1	0	Left Cheek	1720	0.237	1.58	24.50	23.50	**0.298**	**45**
			50	0	Left Cheek	1732.5	0.219	-3.49	23.00	22.96	0.221	/
			1	0	Left Tilt	1720	0.125	-2.98	24.50	23.50	0.157	/
			50	0	Left Tilt	1732.5	0.118	0.12	23.00	22.96	0.119	/
LTE Band 5	10M	QPSK	1	0	Right Cheek	844	0.236	2.79	24.50	24.02	**0.264**	**47**
			25	0	Right Cheek	844	0.211	0.61	23.00	22.94	0.214	/
			1	0	Right Tilt	844	0.130	-0.78	24.50	24.02	0.145	/
			25	0	Right Tilt	844	0.119	2.71	23.00	22.94	0.121	/
			1	0	Left Cheek	844	0.228	-2.64	24.50	24.02	0.255	/
			25	0	Left Cheek	844	0.207	-3.08	23.00	22.94	0.210	/
			1	0	Left Tilt	844	0.123	-1.09	24.50	24.02	0.137	/
			25	0	Left Tilt	844	0.116	3.11	23.00	22.94	0.118	/
LTE Band 12	10M	QPSK	1	0	Right Cheek	704	0.247	2.98	25.50	25.03	0.275	/
			25	0	Right Cheek	711	0.199	-3.51	24.50	23.99	0.224	/
			1	0	Right Tilt	704	0.130	-2.42	25.50	25.03	0.145	/
			25	0	Right Tilt	711	0.105	-4.00	24.50	23.99	0.118	/
			1	0	Left Cheek	704	0.274	3.52	25.50	25.03	**0.305**	**49**
			25	0	Left Cheek	711	0.244	-2.51	24.50	23.99	0.274	/
			1	0	Left Tilt	704	0.149	-0.14	25.50	25.03	0.166	/
			25	0	Left Tilt	711	0.127	0.93	24.50	23.99	0.143	/
LTE Band 17	10M	QPSK	1	0	Right Cheek	711	0.269	2.90	25.50	25.00	**0.302**	**51**
			25	0	Right Cheek	709	0.244	-1.24	24.00	23.91	0.249	/

			1	0	Right Tilt	711	0.136	-1.35	25.50	25.00	0.153	/
			25	0	Right Tilt	709	0.136	2.50	24.00	23.91	0.139	/
			1	0	Left Cheek	711	0.245	-1.55	25.50	25.00	0.275	/
			25	0	Left Cheek	709	0.207	-0.48	24.00	23.91	0.211	/
			1	0	Left Tilt	711	0.138	-1.96	25.50	25.00	0.155	/
			25	0	Left Tilt	709	0.110	2.06	24.00	23.91	0.112	/
LTE Band 30	10M	QPSK	1	0	Right Cheek	2310	0.126	-0.07	23.50	23.11	0.138	/
			25	0	Right Cheek	2310	0.103	0.77	22.50	22.18	0.111	/
			1	0	Right Tilt	2310	0.065	2.06	23.50	23.11	0.071	/
			25	0	Right Tilt	2310	0.070	0.50	22.50	22.18	0.075	/
			1	0	Left Cheek	2310	0.158	2.66	23.50	23.11	**0.173**	**53**
			25	0	Left Cheek	2310	0.143	-2.53	22.50	22.18	0.154	/
			1	0	Left Tilt	2310	0.080	-1.77	23.50	23.11	0.088	/
			25	0	Left Tilt	2310	0.074	1.96	22.50	22.18	0.080	/
LTE Band 66	20M	QPSK	1	0	Right Cheek	1745	0.246	-0.57	25.00	23.95	0.313	/
			50	0	Right Cheek	1770	0.234	2.79	24.00	23.53	0.261	/
			1	0	Right Tilt	1745	0.128	2.03	25.00	23.95	0.163	/
			50	0	Right Tilt	1770	0.125	-3.78	24.00	23.53	0.139	/
			1	0	Left Cheek	1745	0.289	3.53	25.00	23.95	**0.368**	**55**
			50	0	Left Cheek	1770	0.243	-0.70	24.00	23.53	0.271	/
			1	0	Left Tilt	1745	0.158	3.99	25.00	23.95	0.201	/
			50	0	Left Tilt	1770	0.132	-0.81	24.00	23.53	0.147	/
LTE Band 71	20M	QPSK	1	0	Right Cheek	680.5	0.154	0.30	24.00	23.63	0.168	/
			50	0	Right Cheek	688	0.145	-3.82	23.00	22.75	0.154	/
			1	0	Right Tilt	680.5	0.084	-0.42	24.00	23.63	0.091	/
			50	0	Right Tilt	688	0.080	-2.74	23.00	22.75	0.085	/
			1	0	Left Cheek	680.5	0.192	-2.09	24.00	23.63	**0.209**	**57**
			50	0	Left Cheek	688	0.168	-0.89	23.00	22.75	0.178	/
			1	0	Left Tilt	680.5	0.097	2.44	24.00	23.63	0.106	/
			50	0	Left Tilt	688	0.089	3.17	23.00	22.75	0.094	/

Band	BW (MHz)	Mod.	RB config	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
SA N5	20M	DFT_QPSK	1 RB	Right Cheek	839	0.092	1.73	22.00	21.74	0.098	/
			Full RB	Right Cheek	844	0.116	-1.07	23.50	23.00	0.130	/
			1 RB	Right Tilt	839	0.051	-2.28	22.00	21.74	0.054	/
			Full RB	Right Tilt	844	0.063	3.33	23.50	23.00	0.071	/
			1 RB	Left Cheek	839	0.117	3.46	22.00	21.74	0.124	/
			Full RB	Left Cheek	844	0.138	3.07	23.50	23.00	**0.155**	**59**
			1 RB	Left Tilt	839	0.071	-2.95	22.00	21.74	0.075	/
			Full RB	Left Tilt	844	0.082	-1.07	23.50	23.00	0.092	/
SA N41	100M	DFT_QPSK	1 RB	Right Cheek	2546.01	0.053	0.49	22.00	21.20	0.064	/
			Full RB	Right Cheek	2592.99	0.060	0.33	23.50	23.20	0.064	/
			1 RB	Right Tilt	2546.01	0.043	-0.33	22.00	21.20	0.052	/
			Full RB	Right Tilt	2592.99	0.035	3.82	23.50	23.20	0.038	/
			1 RB	Left Cheek	2546.01	0.174	-2.30	22.00	21.20	0.209	/
			Full RB	Left Cheek	2592.99	0.196	-2.11	23.50	23.20	**0.210**	**61**
			1 RB	Left Tilt	2546.01	0.106	-2.11	22.00	21.20	0.127	/
			Full RB	Left Tilt	2592.99	0.115	-3.75	23.50	23.20	0.123	/
SA N48	100M	DFT_QPSK	1 RB	Right Cheek	3600	0.463	-1.63	21.00	20.67	0.500	/
			Full RB	Right Cheek	3649.98	0.530	0.56	23.00	22.30	0.623	/
			1 RB	Right Tilt	3600	0.681	-2.17	21.00	20.67	0.735	/
			Full RB	Right Tilt	3600	0.652	3.86	23.00	22.16	0.791	/
			Full RB	Right Tilt	3624.99	0.691	-1.67	23.00	22.23	0.825	/
			Full RB	Right Tilt	3649.98	0.790	0.25	23.00	22.30	0.928	/
			1 RB	Left Cheek	3600	0.482	-2.53	21.00	20.67	0.520	/
			Full RB	Left Cheek	3649.98	0.609	3.75	23.00	22.30	0.716	/
			1 RB	Left Tilt	3600	0.706	1.88	21.00	20.67	0.762	/
			Full RB	Left Tilt	3600	0.693	3.69	23.00	22.16	0.841	/
			Full RB	Left Tilt	3624.99	0.722	-2.36	23.00	22.23	0.862	/
			Full RB	Left Tilt	3649.98	0.844	-1.92	23.00	22.30	**0.992**	**63**

SA N71	100M	DFT_QPSK	1 RB	Right Cheek	688	0.107	1.53	23.00	22.42	0.122	/
			Full RB	Right Cheek	688	0.128	-2.25	24.00	23.67	0.138	/
			1 RB	Right Tilt	688	0.054	2.12	23.00	22.42	0.062	/
			Full RB	Right Tilt	688	0.072	1.66	24.00	23.67	0.078	/
			1 RB	Left Cheek	688	0.122	3.01	23.00	22.42	0.139	/
			Full RB	Left Cheek	688	0.143	1.39	24.00	23.67	**0.154**	**65**
			1 RB	Left Tilt	688	0.074	1.32	23.00	22.42	0.085	/
			Full RB	Left Tilt	688	0.084	-1.17	24.00	23.67	0.091	/
SA N77	100M	DFT_QPSK	1 RB	Right Cheek	4149.99	0.456	-3.62	21.00	20.86	0.471	/
			Full RB	Right Cheek	4149.99	0.572	-1.71	23.50	23.20	0.613	/
			1 RB	Right Tilt	4149.99	0.696	3.89	21.00	20.86	0.719	/
			Full RB	Right Tilt	3350.01	0.547	2.03	23.50	22.38	0.708	/
			Full RB	Right Tilt	3750	0.633	-1.05	23.50	22.77	0.749	/
			Full RB	Right Tilt	4149.99	0.788	-3.98	23.50	23.20	0.844	/
			1 RB	Left Cheek	4149.99	0.485	0.87	21.00	20.86	0.501	/
			Full RB	Left Cheek	4149.99	0.626	2.24	23.50	23.20	0.671	/
			1 RB	Left Tilt	4149.99	0.736	-3.49	21.00	20.86	0.760	/
			Full RB	Left Tilt	3350.01	0.611	-0.81	23.50	22.38	0.791	/
			Full RB	Left Tilt	3750	0.707	-2.60	23.50	22.77	0.836	/
			Full RB	Left Tilt	4149.99	0.883	3.85	23.50	23.20	**0.946**	**67**

NSA

Band	BW (MHz)	Mod.	RB config	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
SA N41	100M	DFT_QPSK	1 RB	Right Cheek	2546.01	0.053	-2.26	22.00	21.20	0.064	/
			Full RB	Right Cheek	2592.99	0.060	-2.41	23.50	23.20	0.064	/
			1 RB	Right Tilt	2546.01	0.043	-3.90	22.00	21.20	0.052	/
			Full RB	Right Tilt	2592.99	0.035	-3.99	23.50	23.20	0.038	/
			1 RB	Left Cheek	2546.01	0.174	-2.20	22.00	21.20	0.209	/
			Full RB	Left Cheek	2592.99	0.196	0.54	23.50	23.20	**0.210**	**61**
			1 RB	Left Tilt	2546.01	0.106	-1.48	22.00	21.20	0.127	/
			Full RB	Left Tilt	2592.99	0.115	3.97	23.50	23.20	0.123	/
LTE Band 2	20M	QPSK	1	Right Cheek	1860	0.209	1.44	24.80	24.21	0.239	/
			50	Right Cheek	1900	0.190	-1.39	24.00	23.71	0.203	/
			1	Right Tilt	1860	0.108	1.06	24.80	24.21	0.124	/
			50	Right Tilt	1900	0.099	-3.20	24.00	23.71	0.106	/
			1	Left Cheek	1860	0.271	-3.72	24.80	24.21	**0.310**	**43**
			50	Left Cheek	1900	0.231	0.02	24.00	23.71	0.247	/
			1	Left Tilt	1860	0.146	-3.08	24.80	24.21	0.167	/
			50	Left Tilt	1900	0.132	2.41	24.00	23.71	0.141	/
LTE Band 66	20M	QPSK	1	Right Cheek	1745	0.246	0.65	25.00	23.95	0.313	/
			50	Right Cheek	1770	0.234	1.15	24.00	23.53	0.261	/
			1	Right Tilt	1745	0.128	3.10	25.00	23.95	0.163	/
			50	Right Tilt	1770	0.125	2.17	24.00	23.53	0.139	/
			1	Left Cheek	1745	0.289	1.59	25.00	23.95	**0.368**	**55**
			50	Left Cheek	1770	0.243	3.00	24.00	23.53	0.271	/
			1	Left Tilt	1745	0.158	-3.15	25.00	23.95	0.201	/
			50	Left Tilt	1770	0.132	-2.14	24.00	23.53	0.147	/

Band	Mode	Max SAR (W/Kg)	NSA N41+ LTE B2
NSA N41+ LTE B2	SA N41	0.210	0.520
	LTE B2	0.310	
Band	Mode	Max SAR (W/Kg)	NSA N41+ LTE B66
NSA N41+ LTE B66	SA N41	0.210	0.578
	LTE B66	0.368	

Band	BW (MHz)	Mod.	RB config	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
SA N71	100M	DFT_QPSK	1 RB	Right Cheek	688	0.107	-3.39	23.00	22.42	0.122	/
			Full RB	Right Cheek	688	0.128	2.13	24.00	23.67	0.138	/
			1 RB	Right Tilt	688	0.054	0.05	23.00	22.42	0.062	/
			Full RB	Right Tilt	688	0.072	-2.36	24.00	23.67	0.078	/
			1 RB	Left Cheek	688	0.122	-3.15	23.00	22.42	0.139	/
			Full RB	Left Cheek	688	0.143	-1.46	24.00	23.67	**0.154**	**65**
			1 RB	Left Tilt	688	0.074	2.79	23.00	22.42	0.085	/
			Full RB	Left Tilt	688	0.084	-3.61	24.00	23.67	0.091	/
LTE Band 2	20M	QPSK	1	Right Cheek	1860	0.209	1.89	24.80	24.21	0.239	/
			50	Right Cheek	1900	0.190	0.07	24.00	23.71	0.203	/
			1	Right Tilt	1860	0.108	0.98	24.80	24.21	0.124	/
			50	Right Tilt	1900	0.099	-1.82	24.00	23.71	0.106	/
			1	Left Cheek	1860	0.271	2.39	24.80	24.21	**0.310**	**43**
			50	Left Cheek	1900	0.231	2.62	24.00	23.71	0.247	/
			1	Left Tilt	1860	0.146	1.24	24.80	24.21	0.167	/
			50	Left Tilt	1900	0.132	-3.87	24.00	23.71	0.141	/
LTE Band 66	20M	QPSK	1	Right Cheek	1745	0.246	2.85	25.00	23.95	0.313	/
			50	Right Cheek	1770	0.234	2.74	24.00	23.53	0.261	/
			1	Right Tilt	1745	0.128	-0.95	25.00	23.95	0.163	/
			50	Right Tilt	1770	0.125	-0.77	24.00	23.53	0.139	/
			1	Left Cheek	1745	0.289	-0.50	25.00	23.95	**0.368**	**55**
			50	Left Cheek	1770	0.243	1.68	24.00	23.53	0.271	/
			1	Left Tilt	1745	0.158	-0.22	25.00	23.95	0.201	/
			50	Left Tilt	1770	0.132	-1.11	24.00	23.53	0.147	/

Band	Mode	Max SAR (W/Kg)	NSA N77+ LTE B2
NSA N77+ LTE B2	SA N77	0.154	0.464
	LTE B2	0.310	
Band	Mode	Max SAR (W/Kg)	NSA N77+ LTE B66
NSA N77+ LTE B66	SA N77	0.154	0.522
	LTE B66	0.368	

Note:
1. Per KDB 447498 D04, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
b. Scaled SAR(W/kg) = Measured SAR(W/kg) *Tune-up Scaling Factor
2. Per KDB 865664 D01, Repeated measurement is not required when the original highest measured SAR is <0.80 W/kg.

12.2 Body-worn and Hotspot SAR

Band	Model	Test Position	Freq.	SAR (1g) (W/kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
GSM850	EGPRS (8PSK, 2-Slot)	Front Side	848.8	0.195	-3.30	27.50	27.39	0.200	/
		Back Side	848.8	0.200	0.78	27.50	27.39	**0.205**	**2**
		Left Side	848.8	0.117	0.57	27.50	27.39	0.120	/
		Right Side	848.8	0.197	-3.55	27.50	27.39	0.202	/
		Top Side	848.8	0.068	0.13	27.50	27.39	0.070	/
		Bottom Side	848.8	0.192	0.99	27.50	27.39	0.197	/
GSM1900	EGPRS (8PSK, 2-Slot)	Front Side	1880	0.339	0.65	27.50	27.36	0.350	/
		Back Side	1880	0.454	3.46	27.50	27.36	0.469	/
		Left Side	1880	0.203	0.84	27.50	27.36	0.210	/
		Right Side	1880	0.078	1.74	27.50	27.36	0.081	/
		Bottom Side	1880	0.499	-0.61	27.50	27.36	**0.515**	**4**
WCDMA Band II	RMC	Front Side	1880	0.303	0.90	24.00	23.61	0.331	/
		Back Side	1880	0.470	3.85	24.00	23.61	0.514	/
		Left Side	1880	0.242	3.20	24.00	23.61	0.265	/
		Right Side	1880	0.097	-3.23	24.00	23.61	0.106	/
		Bottom Side	1880	0.581	-0.83	24.00	23.61	**0.636**	**6**
WCDMA Band IV	RMC	Front Side	1740	0.452	-0.99	23.50	23.19	0.485	/
		Back Side	1740	0.459	-1.90	23.50	23.19	0.493	/
		Left Side	1740	0.226	3.40	23.50	23.19	0.243	/
		Right Side	1740	0.086	-1.87	23.50	23.19	0.092	/
		Bottom Side	1713	0.585	0.50	23.50	22.80	0.687	/
		Bottom Side	1740	0.785	-1.07	23.50	23.19	**0.843**	**8**
		Bottom Side	1752	0.651	-0.34	23.50	23.16	0.704	/
WCDMA Band V	RMC	Front Side	826.4	0.111	1.70	23.50	23.06	0.123	/
		Back Side	826.4	0.204	-2.95	23.50	23.06	**0.226**	**10**
		Left Side	826.4	0.115	-0.39	23.50	23.06	0.127	/
		Right Side	826.4	0.186	-3.03	23.50	23.06	0.206	/
		Bottom Side	826.4	0.195	3.19	23.50	23.06	0.216	/
2.4G WLAN ANT A	802.11b	Front Side	2412	0.073	-3.06	15.00	14.59	0.080	/
		Back Side	2412	0.118	1.17	15.00	14.59	**0.130**	**12**
		Right Side	2412	0.071	-0.83	15.00	14.59	0.078	/
		Top Side	2412	0.064	-3.27	15.00	14.59	0.070	/
2.4G WLAN ANT B	802.11b	Front Side	2412	0.043	-3.05	15.00	14.68	0.046	/
		Back Side	2412	0.049	-3.45	15.00	14.68	0.053	/
		Right Side	2412	0.157	-1.61	15.00	14.68	**0.169**	**14**
		Top Side	2412	0.047	-3.97	15.00	14.68	0.051	/
2.4G WLAN MIMO	802.11 n-HT20	Front Side	2412	0.168	-1.05	20.00	19.89	**0.172**	**16**
		Back Side	2412	0.165	3.27	20.00	19.89	0.169	/
		Left Side	2412	0.111	0.09	20.00	19.89	0.114	/
		Right Side	2412	0.072	3.02	20.00	19.89	0.074	/
		Top Side	2412	0.083	1.80	20.00	19.89	0.085	/
5.2G WLAN ANT A	802.11 n-HT40	Front Side	5190.0	0.184	0.11	10.50	9.98	**0.207**	**18**
		Back Side	5190.0	0.135	-0.73	10.50	9.98	0.152	/
		Right Side	5190.0	0.172	1.32	10.50	9.98	0.194	/
		Top Side	5190.0	0.114	-2.91	10.50	9.98	0.129	/

5.2G WLAN ANT B	802.11 n-HT40	Front Side	5190.0	0.055	-3.59	12.00	11.78	0.058	/
		Back Side	5190.0	0.064	2.74	12.00	11.78	0.067	/
		Right Side	5190.0	0.319	3.92	12.00	11.78	**0.336**	**20**
		Top Side	5190.0	0.137	1.04	12.00	11.78	0.144	/
5.2G WLAN MIMO	802.11 n-HT20	Front Side	5190.0	0.234	2.08	14.50	13.98	0.264	/
		Back Side	5190.0	0.279	-2.46	14.50	13.98	0.314	/
		Left Side	5190.0	0.282	-2.11	14.50	13.98	0.318	/
		Right Side	5190.0	0.309	-1.77	14.50	13.98	**0.348**	**22**
		Top Side	5190.0	0.246	2.35	14.50	13.98	0.277	/
5.3G WLAN ANT A	802.11a	Front Side	5320.0	0.143	3.66	5.50	5.15	0.155	/
		Back Side	5320.0	0.131	-1.05	5.50	5.15	0.142	/
		Right Side	5320.0	0.108	2.56	5.50	5.15	0.117	/
		Top Side	5320.0	0.166	-3.69	5.50	5.15	**0.180**	**24**
5.3G WLAN ANT B	802.11a	Front Side	5260.0	0.060	-2.25	6.50	6.09	0.066	/
		Back Side	5260.0	0.103	3.56	6.50	6.09	0.113	/
		Right Side	5260.0	0.351	2.59	6.50	6.09	**0.386**	**26**
		Top Side	5260.0	0.062	-0.42	6.50	6.09	0.068	/
5.3G WLAN MIMO	802.11 n-HT20	Front Side	5320.0	0.218	1.08	9.00	8.41	0.250	/
		Back Side	5320.0	0.287	-3.13	9.00	8.41	0.329	/
		Left Side	5320.0	0.243	3.48	9.00	8.41	0.278	/
		Right Side	5320.0	0.343	1.92	9.00	8.41	**0.393**	**28**
		Top Side	5320.0	0.273	-0.01	9.00	8.41	0.313	/
5.6G WLAN ANT A	802.11 n-HT20	Front Side	5700.0	0.074	-2.63	5.00	4.55	0.082	/
		Back Side	5700.0	0.172	0.19	5.00	4.55	**0.191**	**30**
		Right Side	5700.0	0.143	-1.52	5.00	4.55	0.159	/
		Top Side	5700.0	0.119	-2.46	5.00	4.55	0.132	/
5.6G WLAN ANT B	802.11 n-HT20	Front Side	5700.0	0.074	-2.35	7.00	6.58	0.082	/
		Back Side	5700.0	0.097	-2.84	7.00	6.58	0.107	/
		Right Side	5700.0	0.284	-1.19	7.00	6.58	**0.313**	**32**
		Top Side	5700.0	0.131	0.24	7.00	6.58	0.144	/
5.6G WLAN MIMO	802.11 n-HT20	Front Side	5700.0	0.245	-3.21	9.00	8.69	0.263	/
		Back Side	5700.0	0.309	0.48	9.00	8.69	0.332	/
		Right Side	5700.0	0.225	1.29	9.00	8.69	0.242	/
		Top Side	5700.0	0.341	3.47	9.00	8.69	**0.366**	**34**
5.8G WLAN ANT A	802.11a	Front Side	5745.0	0.302	0.34	2.00	1.81	0.316	/
		Back Side	5745.0	0.318	-1.10	2.00	1.81	**0.332**	**36**
		Right Side	5745.0	0.239	-1.29	2.00	1.81	0.250	/
		Top Side	5745.0	0.275	-2.34	2.00	1.81	0.287	/
5.8G WLAN ANT B	802.11 n-HT20	Front Side	5745.0	0.130	1.25	5.00	4.54	0.145	/
		Back Side	5745.0	0.174	3.97	5.00	4.54	0.193	/
		Right Side	5745.0	0.296	-2.97	5.00	4.54	**0.329**	**38**
		Top Side	5745.0	0.135	0.88	5.00	4.54	0.150	/
5.8G WLAN MIMO	802.11 n-HT20	Front Side	5785.0	0.234	1.64	6.50	6.15	0.254	/
		Back Side	5785.0	0.312	-0.68	6.50	6.15	0.338	/
		Right Side	5785.0	0.355	1.84	6.50	6.15	**0.385**	**40**
		Top Side	5785.0	0.195	2.96	6.50	6.15	0.211	/
BT	GFSK	Front Side	2441.0	0.030	3.82	7.00	6.42	0.034	/
		Back Side	2441.0	0.085	-3.51	7.00	6.42	**0.097**	**42**
		Right Side	2441.0	0.059	0.43	7.00	6.42	0.067	/
		Top Side	2441.0	0.029	-2.72	7.00	6.42	0.033	/

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
LTE Band 2	20M	QPSK	1	0	Front side	1860	0.347	-3.99	24.00	23.71	0.371	/
			50	0	Front side	1900	0.313	-2.73	24.80	24.21	0.359	/
			1	0	Back Side	1860	0.448	-3.13	25.00	24.21	0.537	/
			50	0	Back Side	1900	0.406	-3.35	24.00	23.71	0.434	/
			1	0	Left Side	1860	0.256	-0.21	25.00	24.21	0.307	/
			50	0	Left Side	1900	0.231	0.83	24.00	23.71	0.247	/
			1	0	Right Side	1860	0.082	0.00	25.00	24.21	0.098	/
			50	0	Right Side	1900	0.061	-0.03	24.00	23.71	0.065	/
			1	0	Bottom Side	1860	0.582	3.60	24.80	24.21	**0.667**	**44**
			1	0	Bottom Side	1880	0.517	-0.62	24.80	24.19	0.595	/
			1	0	Bottom Side	1900	0.483	3.58	24.80	24.04	0.575	/
			50	0	Bottom Side	1900	0.531	0.77	24.00	23.71	0.568	/
LTE Band 4	20M	QPSK	1	0	Front side	1720	0.416	-1.06	24.50	23.50	0.524	/
			50	0	Front side	1732.5	0.357	3.68	23.00	22.96	0.360	/
			1	0	Back Side	1720	0.466	2.45	24.50	23.50	0.587	/
			50	0	Back Side	1732.5	0.423	-2.87	23.00	22.96	0.427	/
			1	0	Left Side	1720	0.248	1.38	24.50	23.50	0.312	/
			50	0	Left Side	1732.5	0.219	-3.73	23.00	22.96	0.221	/
			1	0	Right Side	1720	0.094	-1.69	24.50	23.50	0.118	/
			50	0	Right Side	1732.5	0.094	1.56	23.00	22.96	0.095	/
			1	0	Bottom Side	1720	0.868	3.78	24.50	23.50	**1.093**	**46**
			1	0	Bottom Side	1745	0.770	3.88	24.50	23.46	0.978	/
			1	0	Bottom Side	1745	0.611	-1.90	24.50	22.79	0.906	/
			50	0	Bottom Side	1732.5	0.786	-2.75	23.00	22.96	0.793	/

LTE Band 5	10M	QPSK	1	0	Front side	844	0.141	-0.57	24.50	24.02	0.157	/
			25	0	Front side	844	0.113	-3.10	23.00	22.94	0.115	/
			1	0	Back Side	844	0.201	-0.32	24.50	24.02	**0.224**	**48**
			25	0	Back Side	844	0.185	-1.18	23.00	22.94	0.188	/
			1	0	Left Side	844	0.045	-0.36	24.50	24.02	0.050	/
			25	0	Left Side	844	0.036	2.74	23.00	22.94	0.037	/
			1	0	Right Side	844	0.184	-2.61	24.50	24.02	0.206	/
			25	0	Right Side	844	0.163	-2.03	23.00	22.94	0.165	/
			1	0	Bottom Side	844	0.186	2.26	24.50	24.02	0.208	/
			25	0	Bottom Side	844	0.171	0.66	23.00	22.94	0.173	/
LTE Band 12	10M	QPSK	1	0	Front side	704	0.299	3.54	25.50	25.03	**0.333**	**50**
			25	0	Front side	711	0.265	-3.28	24.50	23.99	0.298	/
			1	0	Back Side	704	0.264	3.38	25.50	25.03	0.294	/
			25	0	Back Side	711	0.238	0.01	24.50	23.99	0.268	/
			1	0	Left Side	704	0.060	2.27	25.50	25.03	0.067	/
			25	0	Left Side	711	0.042	2.55	24.50	23.99	0.047	/
			1	0	Right Side	704	0.249	-0.81	25.50	25.03	0.277	/
			25	0	Right Side	711	0.237	2.55	24.50	23.99	0.267	/
			1	0	Bottom Side	704	0.136	-1.03	25.50	25.03	0.152	/
			25	0	Bottom Side	711	0.110	-2.35	24.50	23.99	0.124	/
LTE Band 17	10M	QPSK	1	0	Front side	711	0.302	-1.99	25.50	25.00	0.339	/
			25	0	Front side	709	0.256	1.58	24.00	23.91	0.261	/
			1	0	Back Side	711	0.310	2.57	25.50	25.00	**0.348**	**52**
			25	0	Back Side	709	0.279	1.91	24.00	23.91	0.285	/
			1	0	Left Side	711	0.067	-3.45	25.50	25.00	0.075	/
			25	0	Left Side	709	0.047	-3.11	24.00	23.91	0.048	/
			1	0	Right Side	711	0.275	3.32	25.50	25.00	0.309	/
			25	0	Right Side	709	0.247	3.93	24.00	23.91	0.252	/
			1	0	Bottom Side	711	0.143	2.89	25.50	25.00	0.160	/
			25	0	Bottom Side	709	0.118	-1.05	24.00	23.91	0.120	/

LTE Band 30	10M	QPSK	1	0	Front side	2310	0.271	-1.40	23.50	23.11	**0.296**	**54**
			25	0	Front side	2310	0.231	-2.28	22.50	22.18	0.249	/
			1	0	Back Side	2310	0.239	2.59	23.50	23.11	0.261	/
			25	0	Back Side	2310	0.203	2.48	22.50	22.18	0.219	/
			1	0	Left Side	2310	0.090	2.20	23.50	23.11	0.098	/
			25	0	Left Side	2310	0.092	-3.75	22.50	22.18	0.099	/
			1	0	Right Side	2310	0.138	1.01	23.50	23.11	0.151	/
			25	0	Right Side	2310	0.120	-1.48	22.50	22.18	0.129	/
			1	0	Bottom Side	2310	0.254	3.08	23.50	23.11	0.278	/
			25	0	Bottom Side	2310	0.214	-2.19	22.50	22.18	0.230	/
LTE Band 66	20M	QPSK	1	0	Front side	1745	0.382	-1.73	25.00	23.95	0.486	/
			50	0	Front side	1770	0.337	-1.28	24.00	23.53	0.376	/
			1	0	Back Side	1745	0.468	2.79	25.00	23.95	0.596	/
			50	0	Back Side	1770	0.425	-1.53	24.00	23.53	0.474	/
			1	0	Left Side	1745	0.129	-2.86	25.00	23.95	0.164	/
			50	0	Left Side	1770	0.100	0.19	24.00	23.53	0.111	/
			1	0	Right Side	1745	0.412	1.19	25.00	23.95	0.525	/
			50	0	Right Side	1770	0.354	2.94	24.00	23.53	0.394	/
			1	0	Bottom Side	1745	0.571	1.64	25.00	23.95	**0.727**	**56**
			50	0	Bottom Side	1770	0.507	-0.81	24.00	23.53	0.565	/
LTE Band 71	20M	QPSK	1	0	Front side	680.5	0.176	1.29	24.00	23.63	0.192	/
			50	0	Front side	688	0.156	3.06	23.00	22.75	0.165	/
			1	0	Back Side	680.5	0.288	0.64	24.00	23.63	**0.314**	**58**
			50	0	Back Side	688	0.258	0.42	23.00	22.75	0.273	/
			1	0	Left Side	680.5	0.210	3.43	24.00	23.63	0.229	/
			50	0	Left Side	688	0.143	2.14	23.00	22.75	0.151	/
			1	0	Right Side	680.5	0.261	-2.77	24.00	23.63	0.284	/
			50	0	Right Side	688	0.218	3.27	23.00	22.75	0.231	/
			1	0	Bottom Side	680.5	0.074	3.33	24.00	23.63	0.081	/
			50	0	Bottom Side	688	0.070	-2.57	23.00	22.75	0.074	/

Band	BW (MHz)	Mod.	RB config	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
SA N5	20M	DFT_QPSK	1 RB	Front Side	839	0.112	-2.07	22.00	21.74	0.119	/
			Full RB	Front Side	844	0.126	-1.85	23.50	23.00	0.141	/
			1 RB	Back Side	839	0.147	-1.68	22.00	21.74	0.156	/
			Full RB	Back Side	844	0.172	2.97	23.50	23.00	**0.193**	**60**
			1 RB	Left Edge	839	0.105	2.33	22.00	21.74	0.111	/
			Full RB	Left Edge	844	0.126	0.88	23.50	23.00	0.141	/
			1 RB	Right Edge	839	0.141	3.96	22.00	21.74	0.150	/
			Full RB	Right Edge	844	0.153	-3.58	23.50	23.00	0.172	/
			1 RB	Bottom Edge	839	0.119	2.42	22.00	21.74	0.126	/
			Full RB	Bottom Edge	844	0.137	-0.23	23.50	23.00	0.154	/
SA N41	100M	DFT_QPSK	1 RB	Front Side	2546.01	0.232	2.91	22.00	21.20	0.279	/
			Full RB	Front Side	2592.99	0.278	-2.01	23.50	23.20	0.298	/
			1 RB	Back Side	2546.01	0.353	0.25	22.00	21.20	0.424	/
			Full RB	Back Side	2592.99	0.430	-0.37	23.50	23.20	**0.461**	**62**
			1 RB	Left Edge	2546.01	0.253	0.04	22.00	21.20	0.304	/
			Full RB	Left Edge	2592.99	0.313	2.21	23.50	23.20	0.335	/
			1 RB	Right Edge	2546.01	0.075	-2.86	22.00	21.20	0.090	/
			Full RB	Right Edge	2592.99	0.097	-1.59	23.50	23.20	0.104	/
			1 RB	Bottom Edge	2546.01	0.254	0.71	22.00	21.20	0.305	/
			Full RB	Bottom Edge	2592.99	0.314	-1.75	23.50	23.20	0.336	/
SA N48	100M	DFT_QPSK	1 RB	Front Side	3600	0.209	-1.12	21.00	20.67	0.225	/
			Full RB	Front Side	3649.98	0.246	3.89	23.00	22.30	0.289	/
			1 RB	Back Side	3600	0.316	2.83	21.00	20.67	0.341	/
			Full RB	Back Side	3649.98	0.373	-3.78	23.00	22.30	0.438	/
			1 RB	Left Edge	3600	0.225	-2.49	21.00	20.67	0.243	/
			Full RB	Left Edge	3649.98	0.275	-1.94	23.00	22.30	0.323	/
			1 RB	Right Edge	3600	0.202	3.07	21.00	20.67	0.218	/
			Full RB	Right Edge	3649.98	0.248	-1.72	23.00	22.30	0.291	/
			1 RB	Top Side	3600	0.467	2.94	21.00	20.67	0.504	/
			Full RB	Top Side	3649.98	0.574	-2.93	23.00	22.30	**0.674**	**64**

SA N71	100M	DFT_QPSK	1 RB	Front Side	688	0.118	-3.09	23.00	22.42	0.135	/
			Full RB	Front Side	688	0.142	0.02	24.00	23.67	0.153	/
			1 RB	Back Side	688	0.124	-0.58	23.00	22.42	0.142	/
			Full RB	Back Side	688	0.155	3.87	24.00	23.67	**0.167**	**66**
			1 RB	Left Edge	688	0.094	-0.64	23.00	22.42	0.107	/
			Full RB	Left Edge	688	0.113	-2.40	24.00	23.67	0.122	/
			1 RB	Right Edge	688	0.129	-1.56	23.00	22.42	0.147	/
			Full RB	Right Edge	688	0.142	1.59	24.00	23.67	0.153	/
			1 RB	Bottom Edge	688	0.113	0.63	23.00	22.42	0.129	/
			Full RB	Bottom Edge	688	0.118	0.89	24.00	23.67	0.127	/
SA N77	100M	DFT_QPSK	1 RB	Front Side	4149.99	0.307	-1.11	21.00	20.86	0.317	/
			Full RB	Front Side	4149.99	0.362	1.27	23.50	23.20	0.388	/
			1 RB	Back Side	4149.99	0.349	1.70	21.00	20.86	0.360	/
			Full RB	Back Side	4149.99	0.413	-1.72	23.50	23.20	0.443	/
			1 RB	Left Edge	4149.99	0.260	2.74	21.00	20.86	0.269	/
			Full RB	Left Edge	4149.99	0.309	1.60	23.50	23.20	0.331	/
			1 RB	Right Edge	4149.99	0.077	0.22	21.00	20.86	0.080	/
			Full RB	Right Edge	4149.99	0.084	-3.71	23.50	23.20	0.090	/
			1 RB	Top Edge	4149.99	0.550	-2.95	21.00	20.86	0.568	/
			Full RB	Top Edge	4149.99	0.684	3.58	23.50	23.20	**0.733**	**68**

Band	BW (MHz)	Mod.	RB config	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
SA N41	100M	DFT_QPSK	1 RB	Front Side	2546.01	0.232	-0.25	22.00	21.20	0.279	/
			Full RB	Front Side	2592.99	0.278	-1.43	23.50	23.20	0.298	/
			1 RB	Back Side	2546.01	0.353	2.04	22.00	21.20	0.424	/
			Full RB	Back Side	2592.99	0.430	3.12	23.50	23.20	**0.461**	**62**
			1 RB	Left Edge	2546.01	0.253	-1.85	22.00	21.20	0.304	/
			Full RB	Left Edge	2592.99	0.313	1.15	23.50	23.20	0.335	/
			1 RB	Right Edge	2546.01	0.075	-1.63	22.00	21.20	0.090	/
			Full RB	Right Edge	2592.99	0.097	1.02	23.50	23.20	0.104	/
			1 RB	Bottom Edge	2546.01	0.254	2.78	22.00	21.20	0.305	/
			Full RB	Bottom Edge	2592.99	0.314	-0.04	23.50	23.20	0.336	/
LTE Band 2	20M	QPSK	1	Front side	1860	0.347	-0.57	24.00	23.71	0.371	/
			50	Front side	1900	0.313	0.47	24.80	24.21	0.359	/
			1	Back Side	1860	0.448	-3.57	25.00	24.21	0.537	/
			50	Back Side	1900	0.406	1.97	24.00	23.71	0.434	/
			1	Left Side	1860	0.256	-2.06	25.00	24.21	0.307	/
			50	Left Side	1900	0.231	0.99	24.00	23.71	0.247	/
			1	Right Side	1860	0.082	-1.46	25.00	24.21	0.098	/
			50	Right Side	1900	0.061	-3.67	24.00	23.71	0.065	/
			1	Bottom Side	1860	0.582	0.99	24.80	24.21	**0.667**	**44**
			1	Bottom Side	1880	0.517	0.33	24.80	24.19	0.595	/
			1	Bottom Side	1900	0.483	3.98	24.80	24.04	0.575	/
			50	Bottom Side	1900	0.531	-3.38	24.00	23.71	0.568	/

LTE Band 66	20M	QPSK	1	Front side	1745	0.382	0.72	25.00	23.95	0.486	/
			50	Front side	1770	0.337	-2.94	24.00	23.53	0.376	/
			1	Back Side	1745	0.468	-2.52	25.00	23.95	0.596	/
			50	Back Side	1770	0.425	1.76	24.00	23.53	0.474	/
			1	Left Side	1745	0.129	1.02	25.00	23.95	0.164	/
			50	Left Side	1770	0.100	-2.54	24.00	23.53	0.111	/
			1	Right Side	1745	0.412	-3.98	25.00	23.95	0.525	/
			50	Right Side	1770	0.354	4.00	24.00	23.53	0.394	/
			1	Bottom Side	1745	0.571	-3.88	25.00	23.95	**0.727**	**56**
			50	Bottom Side	1770	0.507	-3.49	24.00	23.53	0.565	/

Band	Mode	Max SAR (W/Kg)	NSA N41+ LTE B2
NSA N41+ LTE B2	SA N41	0.461	1.128
	LTE B2	0.667	
Band	Mode	Max SAR (W/Kg)	NSA N41+LTE B66
NSA N41+ LTE B66	SA N41	0.461	1.188
	LTE B66	0.727	

Band	BW (MHz)	Mod.	RB config	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
SA N71	100M	DFT_QPSK	1 RB	Front Side	688	0.118	-2.72	23.00	22.42	0.135	/
			Full RB	Front Side	688	0.142	2.29	24.00	23.67	0.153	/
			1 RB	Back Side	688	0.124	-3.17	23.00	22.42	0.142	/
			Full RB	Back Side	688	0.155	-0.75	24.00	23.67	**0.167**	**66**
			1 RB	Left Edge	688	0.094	3.58	23.00	22.42	0.107	/
			Full RB	Left Edge	688	0.113	3.92	24.00	23.67	0.122	/
			1 RB	Right Edge	688	0.129	1.17	23.00	22.42	0.147	/
			Full RB	Right Edge	688	0.142	-2.79	24.00	23.67	0.153	/
			1 RB	Bottom Edge	688	0.113	-2.93	23.00	22.42	0.129	/
			Full RB	Bottom Edge	688	0.118	-3.56	24.00	23.67	0.127	/
LTE Band 2	20M	QPSK	1	Front side	1860	0.347	-0.78	24.00	23.71	0.371	/
			50	Front side	1900	0.313	-1.42	24.80	24.21	0.359	/
			1	Back Side	1860	0.448	0.98	25.00	24.21	0.537	/
			50	Back Side	1900	0.406	-3.80	24.00	23.71	0.434	/
			1	Left Side	1860	0.256	-1.08	25.00	24.21	0.307	/
			50	Left Side	1900	0.231	-2.61	24.00	23.71	0.247	/
			1	Right Side	1860	0.082	-1.23	25.00	24.21	0.098	/
			50	Right Side	1900	0.061	2.87	24.00	23.71	0.065	/
			1	Bottom Side	1860	0.582	-1.62	24.80	24.21	**0.667**	**44**
			1	Bottom Side	1880	0.517	1.75	24.80	24.19	0.595	/
			1	Bottom Side	1900	0.483	3.73	24.80	24.04	0.575	/
			50	Bottom Side	1900	0.531	1.06	24.00	23.71	0.568	/

LTE Band 66	20M	QPSK	1	Front side	1745	0.382	-1.98	25.00	23.95	0.486	/
			50	Front side	1770	0.337	2.16	24.00	23.53	0.376	/
			1	Back Side	1745	0.468	2.67	25.00	23.95	0.596	/
			50	Back Side	1770	0.425	-2.85	24.00	23.53	0.474	/
			1	Left Side	1745	0.129	-2.37	25.00	23.95	0.164	/
			50	Left Side	1770	0.100	-3.57	24.00	23.53	0.111	/
			1	Right Side	1745	0.412	-0.49	25.00	23.95	0.525	/
			50	Right Side	1770	0.354	-2.56	24.00	23.53	0.394	/
			1	Bottom Side	1745	0.571	-0.50	25.00	23.95	**0.727**	**56**
			50	Bottom Side	1770	0.507	2.13	24.00	23.53	0.565	/

Band	Mode	Max SAR (W/Kg)	NSA N77+ LTE B2
NSA N77+ LTE B2	SA N77	0.167	0.834
	LTE B2	0.667	
Band	Mode	Max SAR (W/Kg)	NSA N77+ LTE B66
NSA N77+ LTE B66	SA N77	0.167	0.894
	LTE B66	0.727	

Note:

1. The test separation of all above table is 10mm.
2. Per KDB 447498 D04, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. Scaled SAR(W/kg) = Measured SAR(W/kg) *Tune-up Scaling Factor
3. When the user enables the personal Wireless router functions for the handsets, actual operations include simultaneous transmission of both the Wi-Fi transmitting frequency and thus cannot be evaluated for SAR under actual use conditions. The “Portable Hotspot” feature on the handset was NOT activated, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal.

12.3 Repeated SAR

Band	Mode	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)
WCDMA Band IV	RMC	Bottom Side	1740	0.783	-2.27	23.5	23.19	0.840

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)
LTE Band 4	20M	QPSK	1	0	Bottom Side	1720	0.850	-2.87	24.5	23.50	1.071
			1	0	Bottom Side	1745	0.762	3.78	24.5	23.46	0.968
			1	0	Bottom Side	1745	0.609	-2.46	24.5	22.79	0.902

Band	BW (MHz)	Mod.	RB config	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)
SA N77	100M	DFT_QPSK	Full RB	Right Tilt	4149.99	0.777	-3.26	23.5	23.2	0.833
			Full RB	Left Tilt	3750	0.687	-2.52	23.5	22.77	0.812
			Full RB	Left Tilt	4149.99	0.844	1.71	23.5	23.2	0.904

12.4 Repeated SAR measurement

Band	Mode	Test Position	Freq.	Original Measured SAR 1g(W/kg)	1 st Repeated SAR 1g	Ratio
WCDMA Band IV	RMC	Bottom Side	1740	0.785	0.783	1.003

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Original Measured SAR 1g (W/Kg)	1 st Repeated SAR 1g	Ratio
LTE Band 4	20M	QPSK	1	0	Bottom Side	1720	0.868	0.850	1.021
			1	0	Bottom Side	1745	0.770	0.762	1.011
			1	0	Bottom Side	1745	0.611	0.609	1.004

Band	BW (MHz)	Mod.	RB config	Test Position	Freq.	Original Measured SAR 1g(W/kg)	1 st Repeated SAR 1g	Ratio
SA N77	100M	DFT_QPSK	Full RB	Right Tilt	4149.99	0.788	0.777	1.014
			Full RB	Left Tilt	3750	0.707	0.687	1.030
			Full RB	Left Tilt	4149.99	0.883	0.844	1.046

Note:

1. Per KDB 865664 D01,for each frequency band ,repeated SAR measurement is required only when the measured SAR is≥0.8W/Kg.
2. Per KDB 865664 D01,if the ratio of largest to smallest SAR for the original and first repeated measurement is≤1.2 and the measured SAR＜1.45W/Kg, only one repeated measurement is required.
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 ≥1.45W/Kg.
4. The ratio is the difference in percentage between original and repeated measured SAR.

12.5 Simultaneous Multi-band Transmission Evaluation:

Application Simultaneous Transmission information:

Position	Simultaneous State
Head	1. GSM + 2.4GHz WLAN/5G WLAN
	2. GSM + Bluetooth
	3. WCDMA + 2.4GHz WLAN/5G WLAN
	4. WCDMA + Bluetooth
	5. LTE + 2.4GHz WLAN/5G WLAN
	6. LTE + Bluetooth
	7.SA + 2.4GHz WLAN/5G WLAN
	8.SA + Bluetooth
	9.NSA + 2.4GHz WLAN/5G WLAN
	10.NSA + Bluetooth
Body	1. GSM + 2.4GHz WLAN/5G WLAN
	2. GSM + Bluetooth
	3. WCDMA + 2.4GHz WLAN/5G WLAN
	4. WCDMA + Bluetooth
	5. LTE + 2.4GHz WLAN/5G WLAN
	6. LTE + Bluetooth
	7.SA + 2.4GHz WLAN/5G WLAN
	8.SA + Bluetooth
	9.NSA + 2.4GHz WLAN/5G WLAN
	10.NSA + Bluetooth

NOTE:

1. Bluetooth and WLAN can't simultaneous transmission at the same time.
2. For simultaneous transmission at head and body exposure position, 2 transmitters simultaneous transmission was the worst state.
3. If the test separation distance is <5mm, 5mm is used for excluded SAR calculation.
4. KDB 447498 Appendix E, when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

SAR_{est} =1.6 · Pant / Pth [W/kg].

Pant is maximum time-averaged power or effective radiated power (ERP), whichever is greater, and Pth is defined in Formula KDB 447498 (B.2). When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR-1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR-1g 1.6 W/kg), SAR test exclusion is determined by the SPLSR.

Simultaneous Mode	Position	Mode	Max. 1-g SAR (W/kg)	1-g Sum SAR (W/kg)
GSM + 2.4G WLAN	Head	GSM	0.217	0.372
		2.4G WLAN	0.155	
	Body	GSM	0.515	0.687
		2.4G WLAN	0.172	
GSM + Bluetooth	Head	GSM	0.217	0.267
		Bluetooth	0.050	
	Body	GSM	0.515	0.612
		Bluetooth	0.097	
GSM + 5G WLAN	Head	GSM	0.217	0.653
		5G WLAN	0.436	
	Body	GSM	0.515	0.908
		5G WLAN	0.393	
WCDMA + 2.4G WLAN	Head	WCDMA	0.349	0.504
		2.4G WLAN	0.155	
	Body	WCDMA	0.843	1.015
		2.4G WLAN	0.172	
WCDMA + Bluetooth	Head	WCDMA	0.349	0.399
		Bluetooth	0.050	
	Body	WCDMA	0.843	0.940
		Bluetooth	0.097	
WCDMA + 5G WLAN	Head	WCDMA	0.349	0.785
		5G WLAN	0.436	
	Body	WCDMA	0.843	1.236
		5G WLAN	0.393	
LTE + 2.4G WLAN	Head	LTE	0.368	0.523
		2.4G WLAN	0.155	
	Body	LTE	1.093	1.265
		2.4G WLAN	0.172	
LTE + Bluetooth	Head	LTE	0.368	0.418
		Bluetooth	0.050	
	Body	LTE	1.093	1.190
		Bluetooth	0.097	
LTE + 5G WLAN	Head	LTE	0.368	0.804
		5G WLAN	0.436	
	Body	LTE	1.093	1.486
		5G WLAN	0.393	
SA + 2.4G WLAN	Head	SA	0.992	1.147
		2.4G WLAN	0.155	
	Body	SA	0.733	0.905
		2.4G WLAN	0.172	
SA + Bluetooth	Head	SA	0.992	1.042
		Bluetooth	0.050	
	Body	SA	0.733	0.830
		Bluetooth	0.097	

SA+ 5G WLAN	Head	SA	0.992	1.428
		5G WLAN	0.436	
	Body	SA	0.733	1.126
		5G WLAN	0.393	
NSA + 2.4G WLAN	Head	NSA	0.578	0.733
		2.4G WLAN	0.155	
	Body	NSA	1.188	1.360
		2.4G WLAN	0.172	
NSA + Bluetooth	Head	NSA	0.578	0.628
		Bluetooth	0.050	
	Body	NSA	1.188	1.285
		Bluetooth	0.097	
NSA+ 5G WLAN	Head	NSA	0.578	1.014
		5G WLAN	0.436	
	Body	NSA	1.188	1.581
		5G WLAN	0.393	

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna.

When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR-1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR-1g 1.6 W/kg), SAR test exclusion is determined by the SPLSR.

13. Equipment List

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
750MHz Dipole	MVG	DIP0G750	SN 06/22 DIP0G750-638	2022.02.11	2025.02.10
835MHz Dipole	MVG	DIP0G835	SN 06/22 DIP0G835-639	2022.02.11	2025.02.10
1800MHz Dipole	MVG	DIP1G800	SN 06/22 DIP1G800-640	2022.02.11	2025.02.10
1900MHz Dipole	MVG	DIP1G900	SN 06/22 DIP1G900-641	2022.02.11	2025.02.10
2300MHz Dipole	MVG	DIP2G300	SN 06/22 DIP2G100-644	2022.02.11	2025.02.10
2450MHz Dipole	MVG	DIP2G450	SN 06/22 DIP2G450-645	2022.02.11	2025.02.10
2600MHz Dipole	MVG	DIP2G600	SN 06/22 DIP2G600-646	2022.02.11	2025.02.10
3500MHz Dipole	MVG	DIP3G500	SN 06/22 DIP3G500-647	2022.02.11	2025.02.10
3700MHz Dipole	MVG	DIP3G700	SN 06/22 DIP3G700-648	2022.02.11	2025.02.10
4200MHz Dipole	MVG	DIP4G200	SN 06/22 DIP4G200-650	2022.02.11	2025.02.10
5000MHz Dipole	MVG	DIP5G000	SN 06/22 DIP5G000-653	2022.02.11	2025.02.10
E-Field Probe	MVG	EPGO364	SN 04/22 EPGO364	2023.02.10	2024.02.09
Liquid Calibration Kit	MVG	OCPG 87	SN 06/22 OCPG87	2023.02.10	2024.02.09
Antenna	MVG	ANTA 73	SN 06/22 ANTA 73	N/A	N/A
Ellipsoid Phantom	MVG	ELLI 51	SN 06/22 ELLI 51	N/A	N/A
Phantom	MVG	SAM 148	SN 06/22 SAM148	N/A	N/A
Phone holder	MVG	MSH 117	SN 06/22 MSH 117	N/A	N/A
Laptop holder	MVG	LSH 36	SN 06/22 LSH 38	N/A	N/A
Directional coupler	SHW	SHWDCP	202203280013	N/A	N/A
Network Analyzer	Agilent	E5071C	MY46418070	2023.03.27	2024.03.26
Multi Meter	Keithley	DMM6500	DMM6500	2023.03.27	2024.03.26
Signal Generator	Keithley	N5182B	MY59100717	2023.04.07	2024.04.06
Wireless Communication Test Set	R&S	CMW500	137737	2023.04.14	2024.04.13
Power Sensor	R&S	Z11	116184	2023.03.27	2024.03.26
Temperature hygrometer	N/A	ST-W2318	N/A	2023.04.24	2024.04.23
Thermograph	N/A	TP101	N/A	2023.04.25	2024.04.24

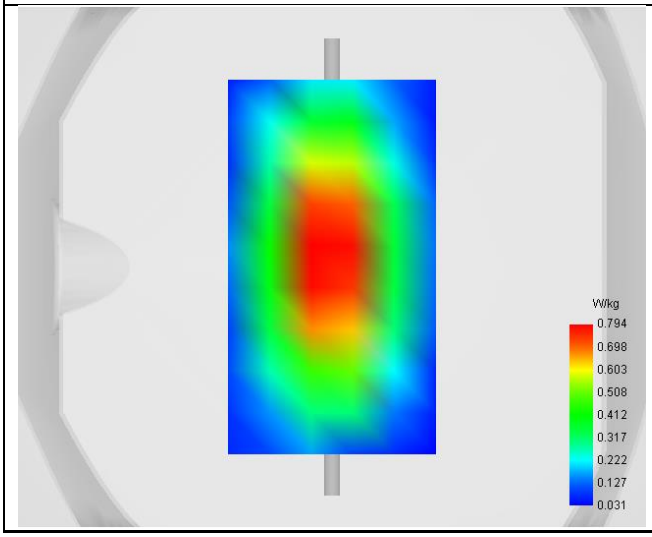
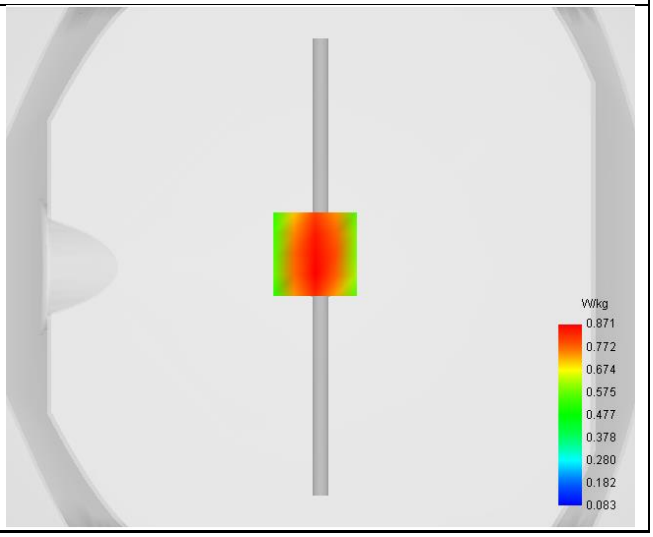
Appendix A. System Validation Plots

System Performance Check Data (750MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-06-21

Experimental conditions.

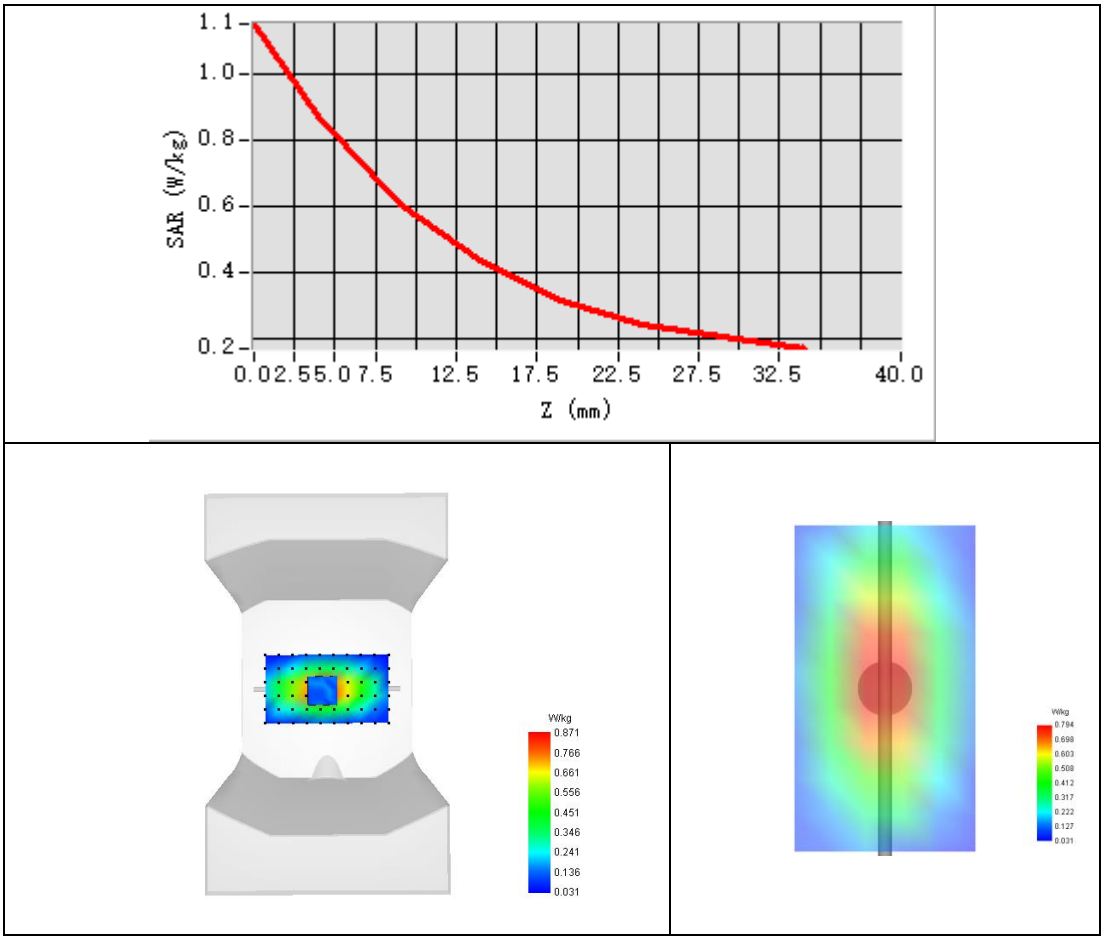
Phantom	Validation plane
Device Position	Dipole
Band	CW750
Channels	Middle
Signal	CW
Frequency (MHz)	750.000
Relative permittivity	42.24
Conductivity (S/m)	0.85
Probe	SN 04/22 EPGO364
ConvF	1.69
Crest factor:	1:1

SURFACE SAR	VOLUME SAR
	

Maximum location: X=-2.00, Y=5.00 ; SAR Peak: 1.20 W/kg

SAR 10g (W/Kg)	0.580
SAR 1g (W/Kg)	0.886

Z Axis Scan

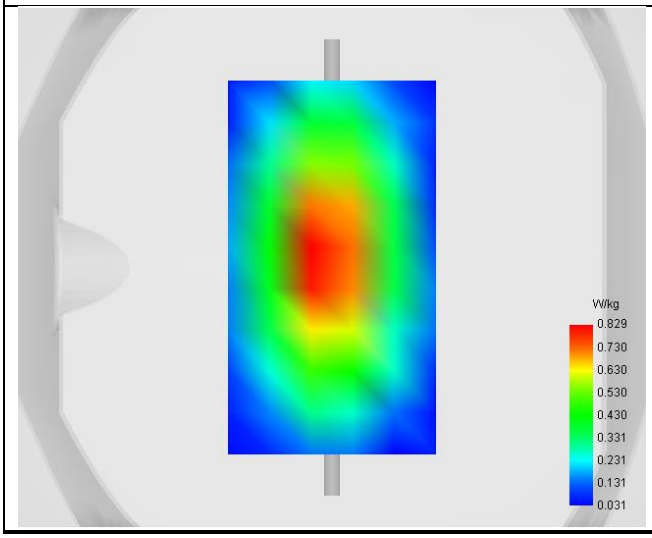
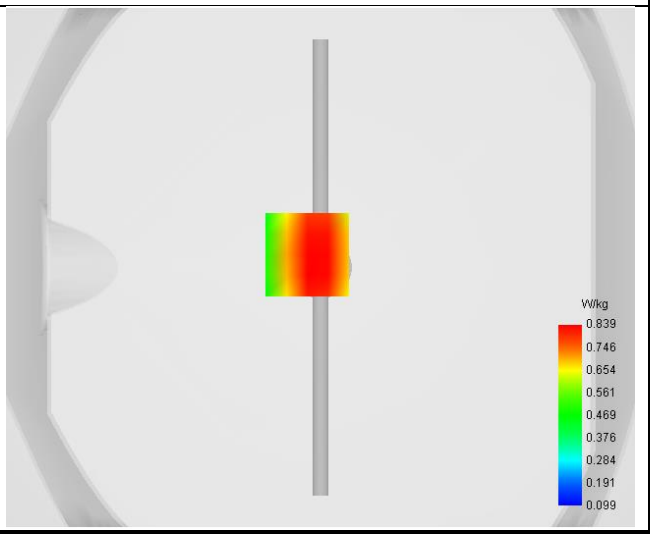

1.1
1.0
0.8
0.6
0.4
0.2
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
0.871
0.766
0.661
0.556
0.451
0.346
0.241
0.136
0.031

System Performance Check Data (750MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-09

Experimental conditions.

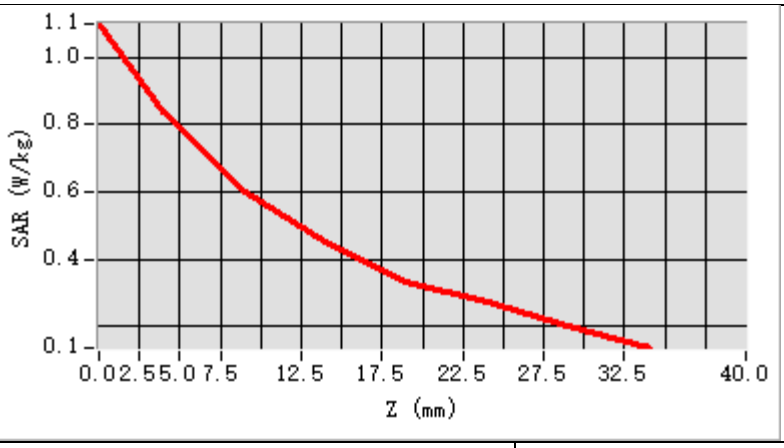
Phantom	Validation plane
Device Position	Dipole
Band	CW750
Channels	Middle
Signal	CW
Frequency (MHz)	750.000
Relative permittivity	42.61
Conductivity (S/m)	0.91
Probe	SN 04/22 EPGO364
ConvF	1.69
Crest factor:	1:1

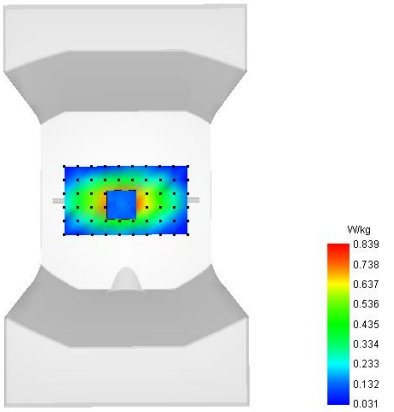
SURFACE SAR	VOLUME SAR
	

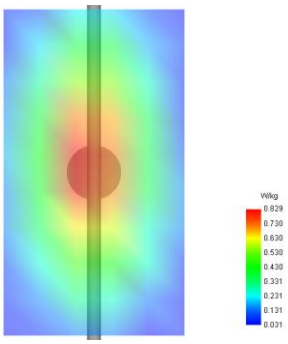
Maximum location: X=-5.00, Y=5.00 ; SAR Peak: 1.17 W/kg

SAR 10g (W/Kg)	0.565
SAR 1g (W/Kg)	0.802

Z Axis Scan


1.1
1.0
0.8
0.6
0.4
0.1
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)


W/kg
0.839
0.738
0.637
0.536
0.435
0.334
0.233
0.132
0.031

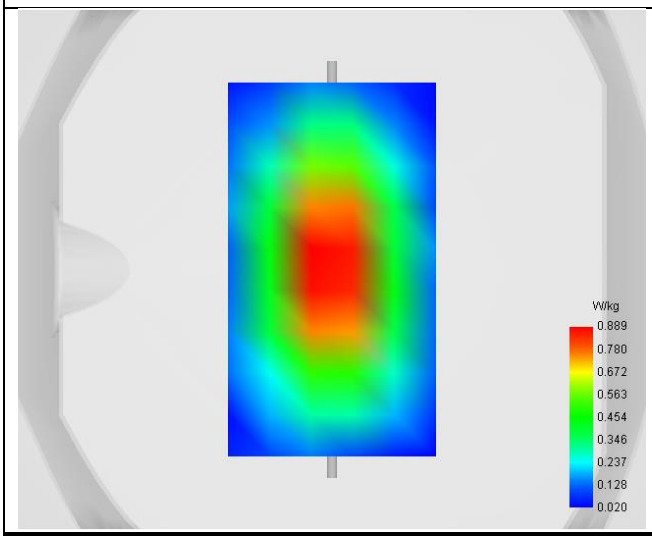
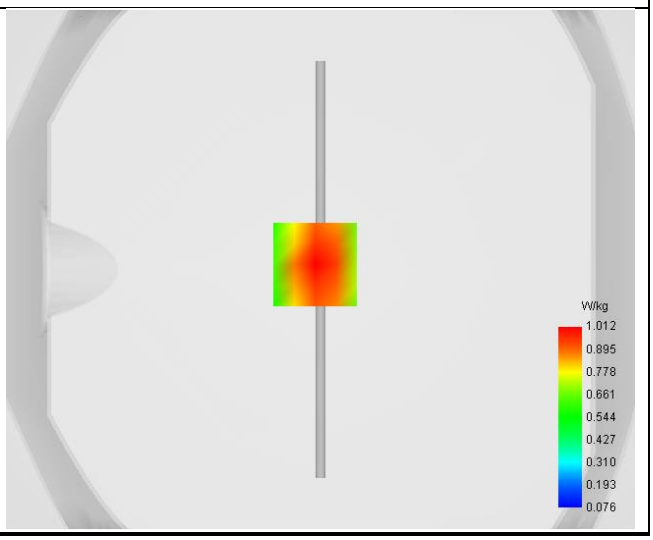


System Performance Check Data (835MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-10

Experimental conditions.

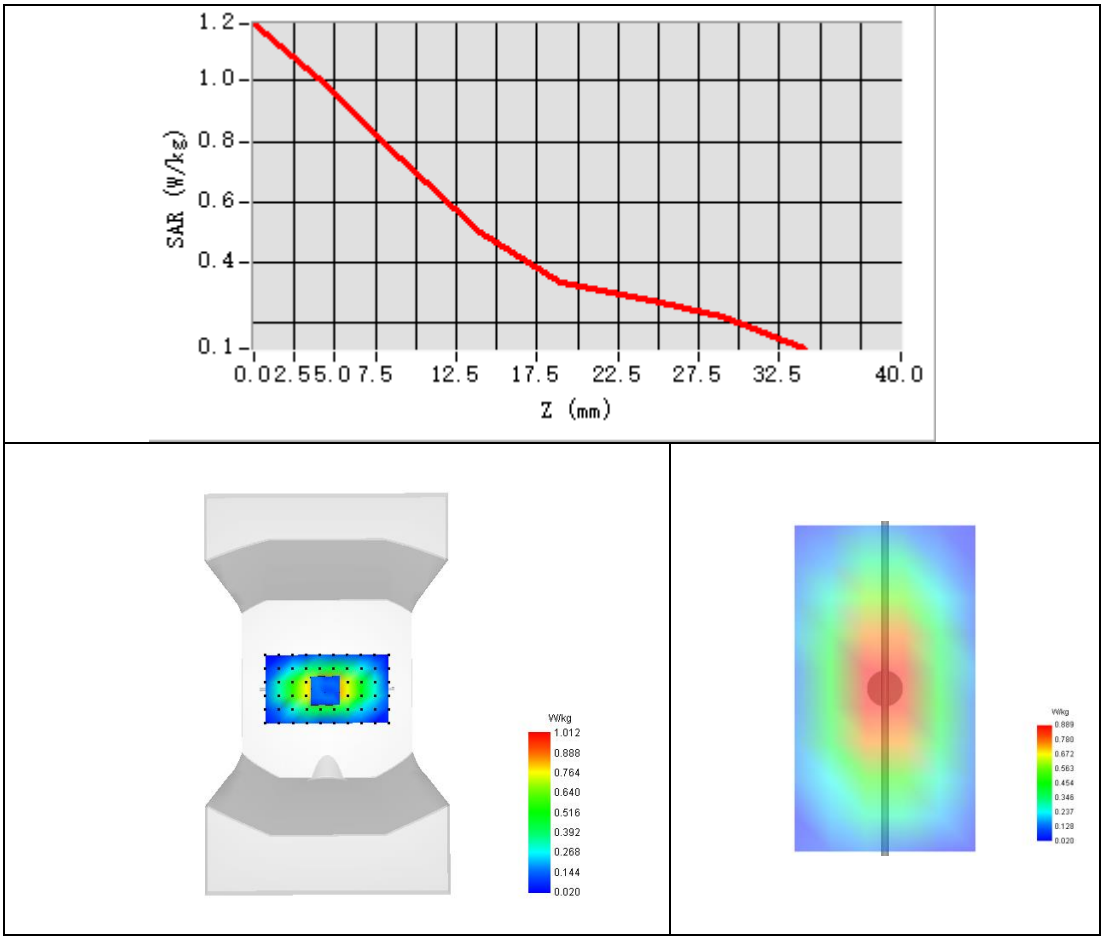
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW
Frequency (MHz)	835.000
Relative permittivity	41.69
Conductivity (S/m)	0.88
Probe	SN 04/22 EPGO364
ConvF	1.72
Crest factor:	1:1

SURFACE SAR	VOLUME SAR
	

Maximum location: X=-2.00, Y=2.00 ; SAR Peak: 1.37 W/kg

SAR 10g (W/Kg)	0.655
0.991SAR 1g (W/Kg)	0.991

Z Axis Scan

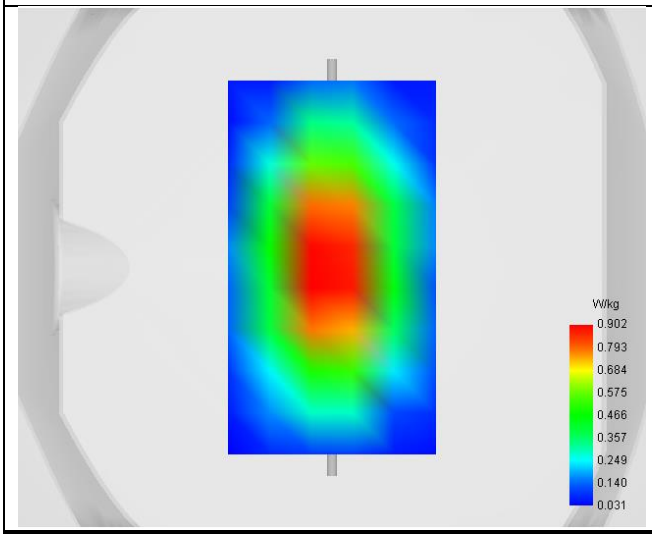
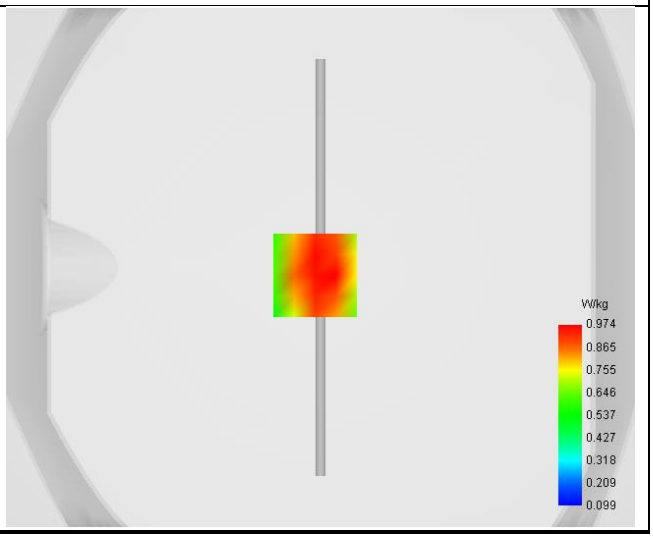

1.2
1.0
0.8
0.6
0.4
0.1
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
1.012
0.888
0.764
0.640
0.516
0.392
0.268
0.144
0.020

System Performance Check Data (835MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-17

Experimental conditions.

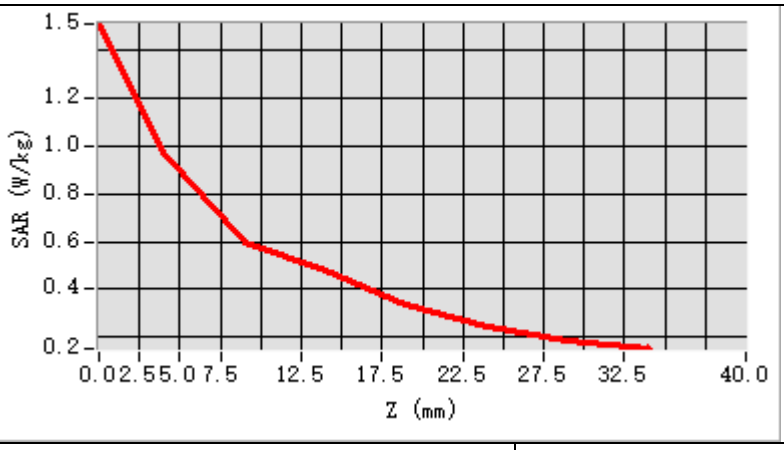
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW
Frequency (MHz)	835.000
Relative permittivity	41.66
Conductivity (S/m)	0.92
Probe	SN 04/22 EPGO364
ConvF	1.72
Crest factor:	1:1

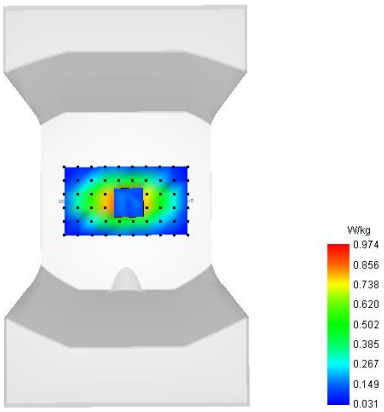
SURFACE SAR	VOLUME SAR
	

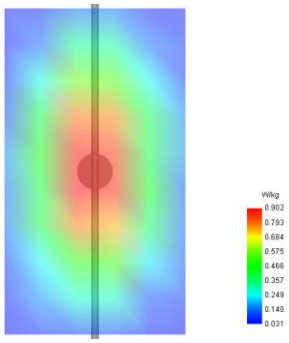
Maximum location: X=-2.00, Y=-3.00 ; SAR Peak: 1.36 W/kg

SAR 10g (W/Kg)	0.636
SAR 1g (W/Kg)	0.969

Z Axis Scan


1.5
1.2
1.0
0.8
0.6
0.4
0.2
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)


W/kg
0.974
0.856
0.738
0.620
0.502
0.385
0.267
0.149
0.031

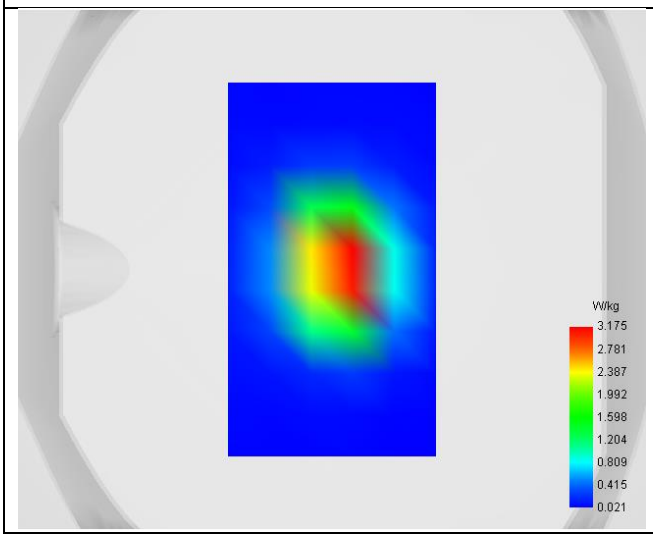
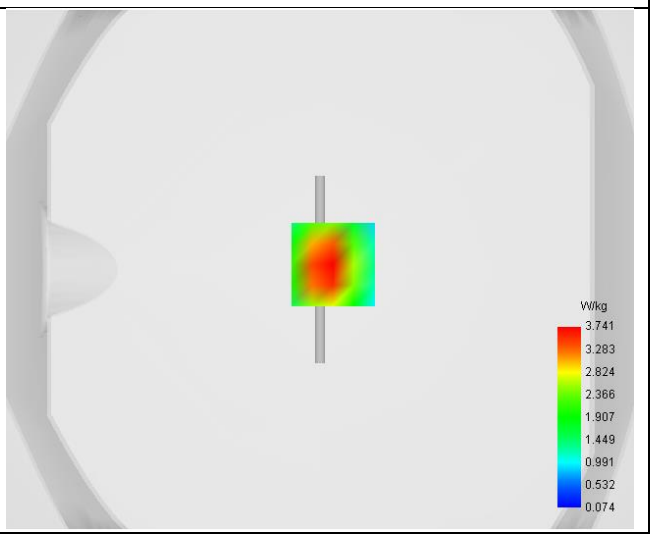


System Performance Check Data (1800MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-11

Experimental conditions.

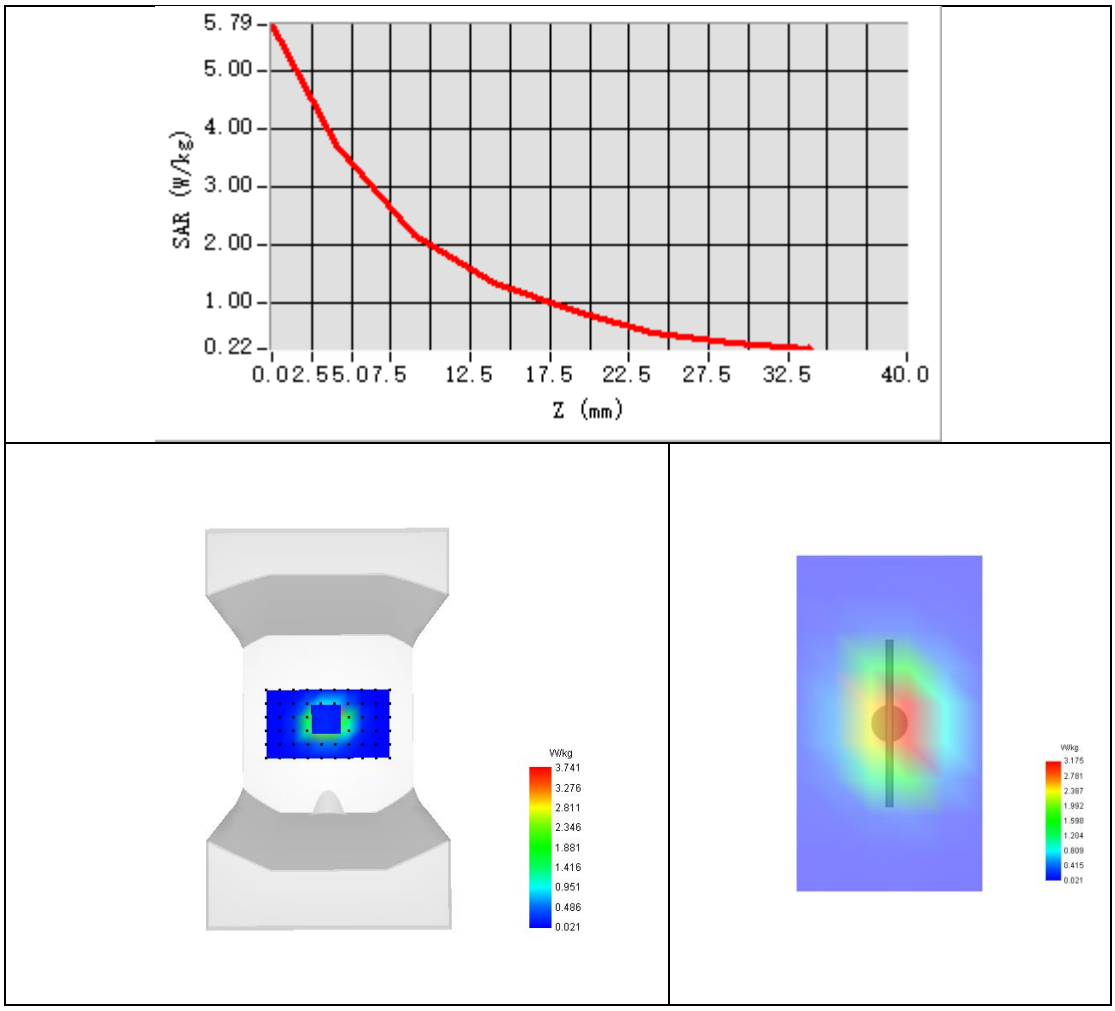
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Channels	Middle
Signal	CW
Frequency (MHz)	1800.000
Relative permittivity	40.86
Conductivity (S/m)	1.44
Probe	SN 04/22 EPGO364
ConvF	1.95
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=5.00, Y=3.00 ; SAR Peak: 5.94 W/kg

SAR 10g (W/Kg)	2.009
SAR 1g (W/Kg)	3.910

Z Axis Scan

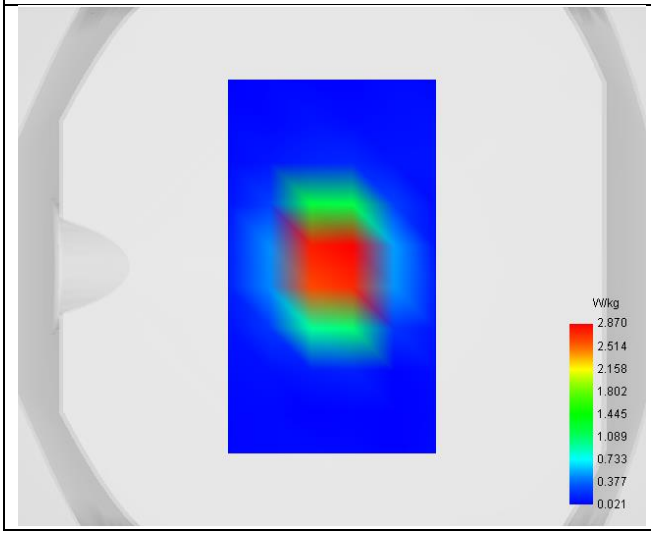
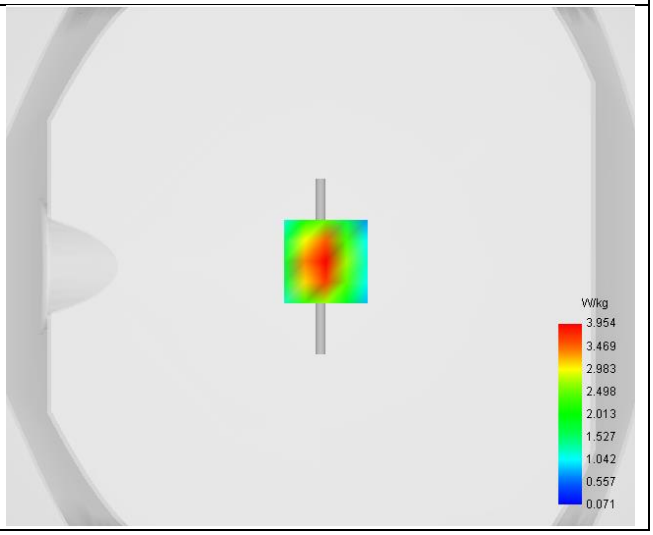

5.79
5.00
4.00
3.00
2.00
1.00
0.22
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
3.741
3.276
2.811
2.346
1.881
1.416
0.951
0.486
0.021
W/kg
3.175
2.781
2.387
1.992
1.598
1.204
0.809
0.415
0.021

System Performance Check Data (1900MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-12

Experimental conditions.

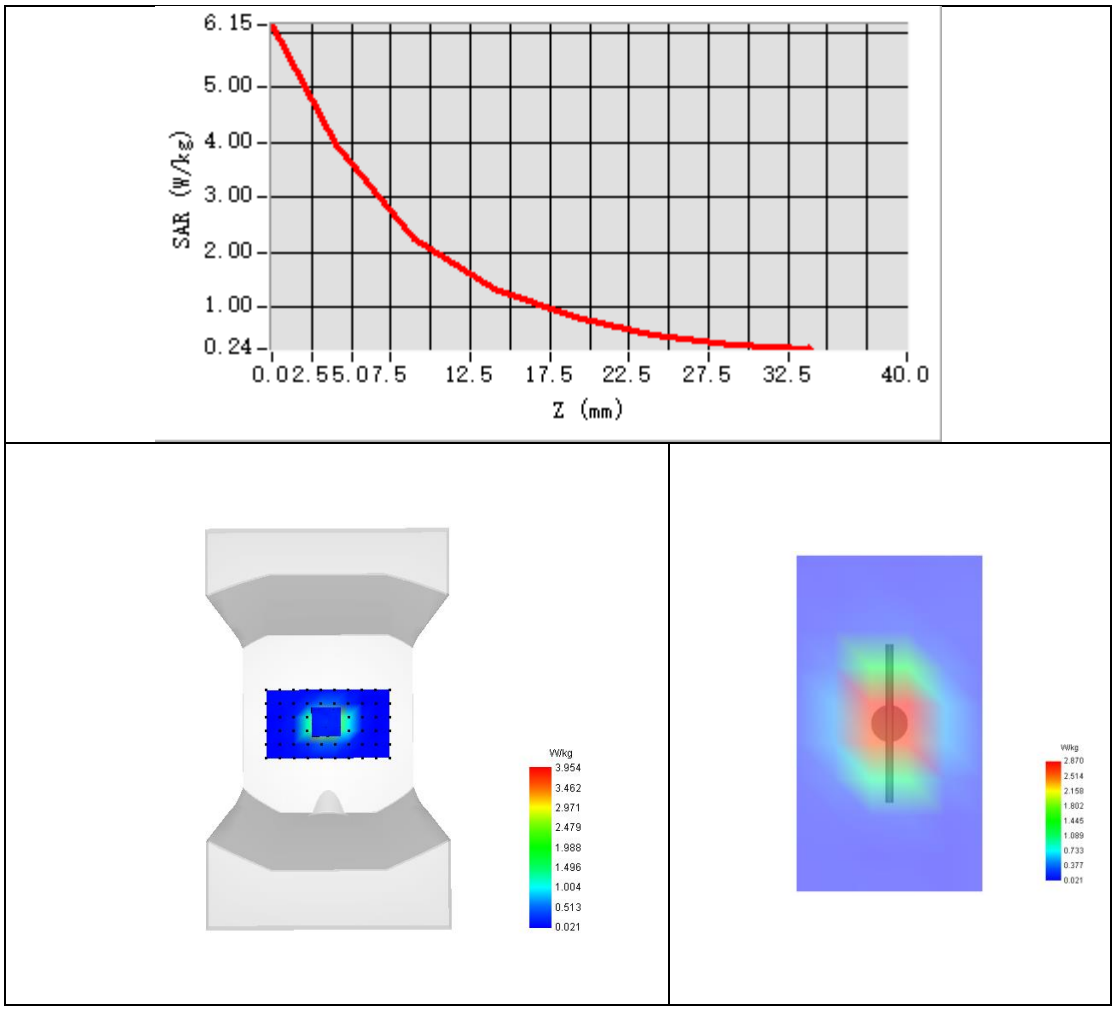
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW
Frequency (MHz)	1900.000
Relative permittivity	40.57
Conductivity (S/m)	1.39
Probe	SN 04/22 EPGO364
ConvF	2.25
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=2.00, Y=2.00 ; SAR Peak: 6.20 W/kg

SAR 10g (W/Kg)	2.070
SAR 1g (W/Kg)	4.094

Z Axis Scan

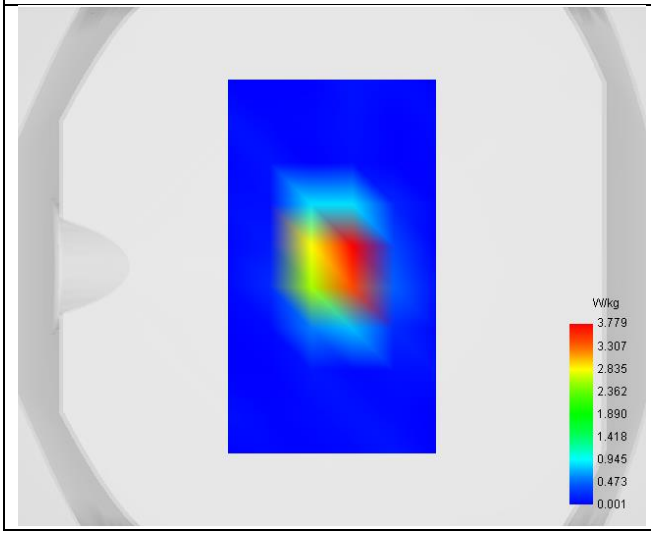
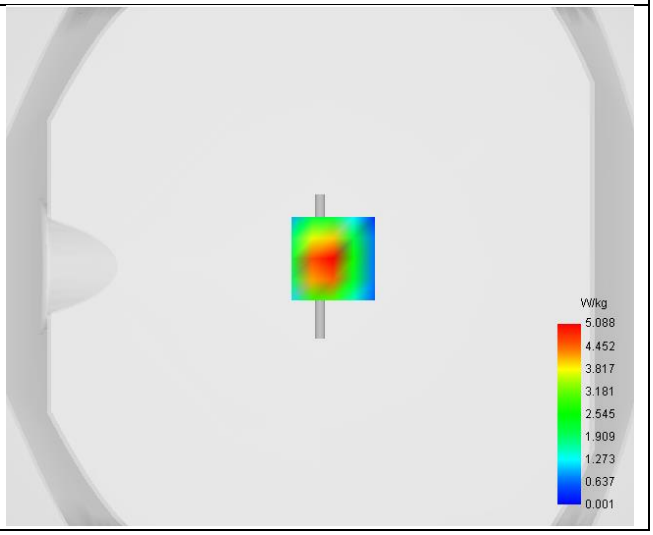

6.15
5.00
4.00
3.00
2.00
1.00
0.24
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
3.954
3.462
2.971
2.479
1.988
1.496
1.004
0.513
0.021
W/kg
2.870
2.514
2.158
1.802
1.445
1.089
0.733
0.377
0.021

System Performance Check Data (2300MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-13

Experimental conditions.

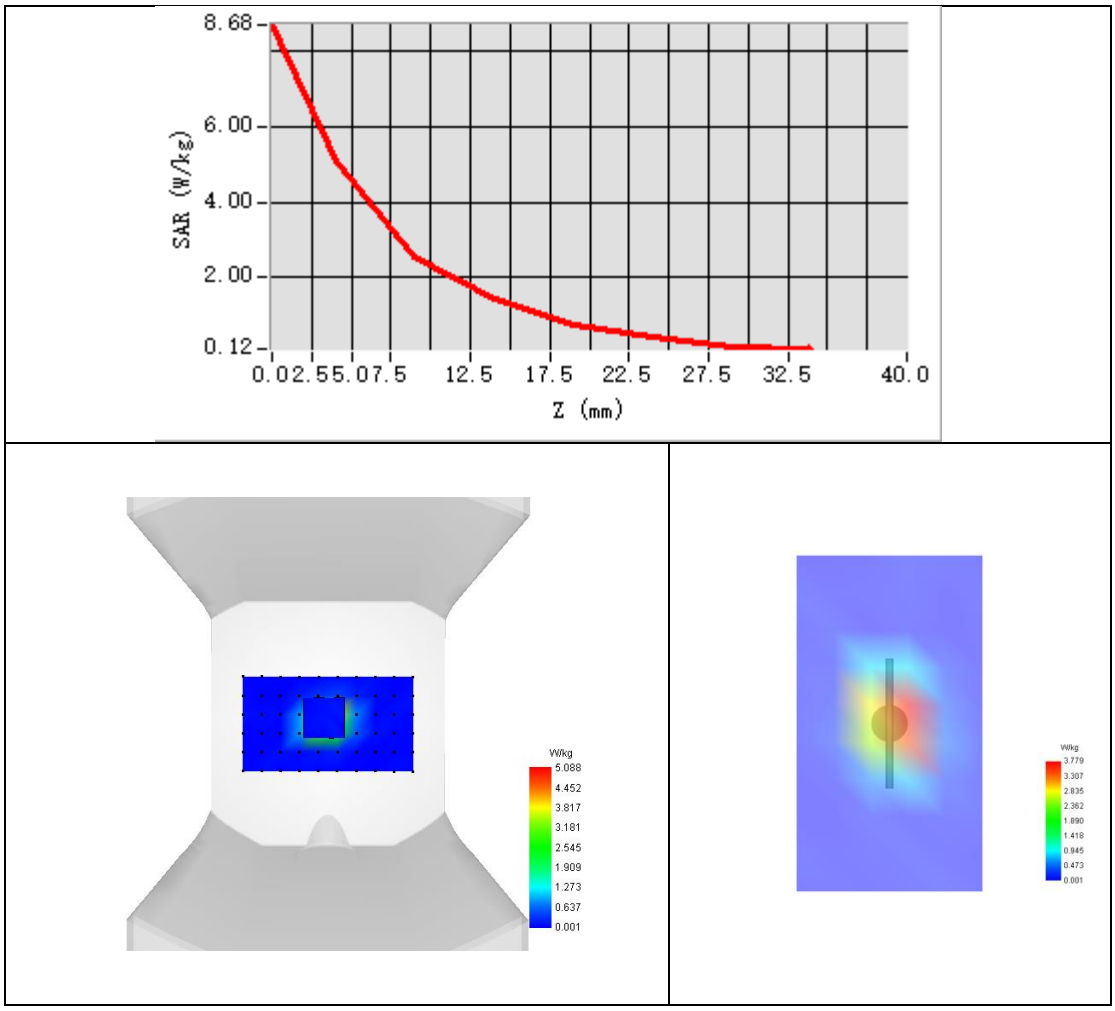
Phantom	Validation plane
Device Position	Dipole
Band	CW2300
Channels	Middle
Signal	CW
Frequency (MHz)	2300.000
Relative permittivity	39.79
Conductivity (S/m)	1.71
Probe	SN 04/22 EPGO364
ConvF	2.32
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=5.00, Y=2.00 ; SAR Peak: 8.58 W/kg

SAR 10g (W/Kg)	2.332
SAR 1g (W/Kg)	5.131

Z Axis Scan

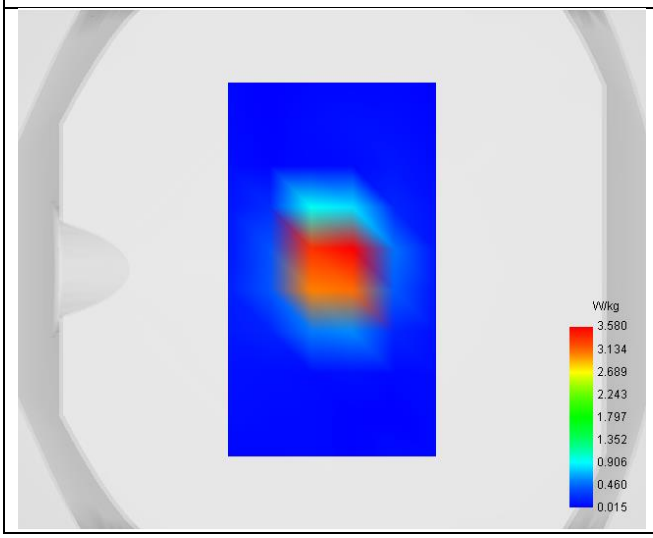
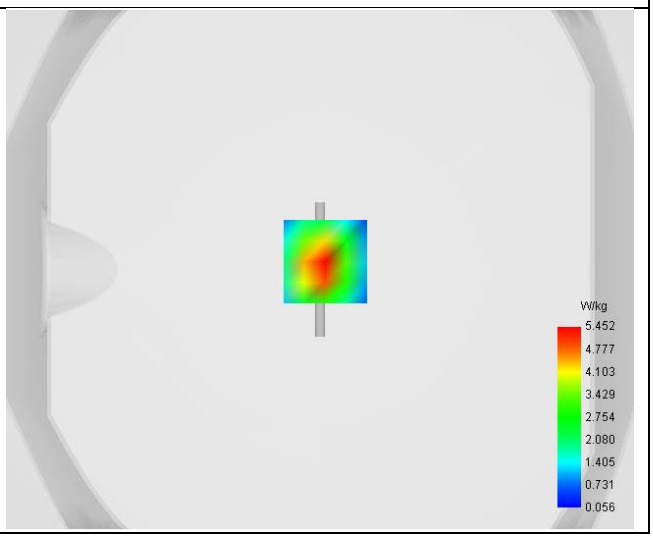

8.68
6.00
4.00
2.00
0.12
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
5.088
4.452
3.817
3.181
2.545
1.909
1.273
0.637
0.001
W/kg
3.779
3.307
2.835
2.362
1.890
1.418
0.945
0.473
0.001

System Performance Check Data (2450MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-14

Experimental conditions.

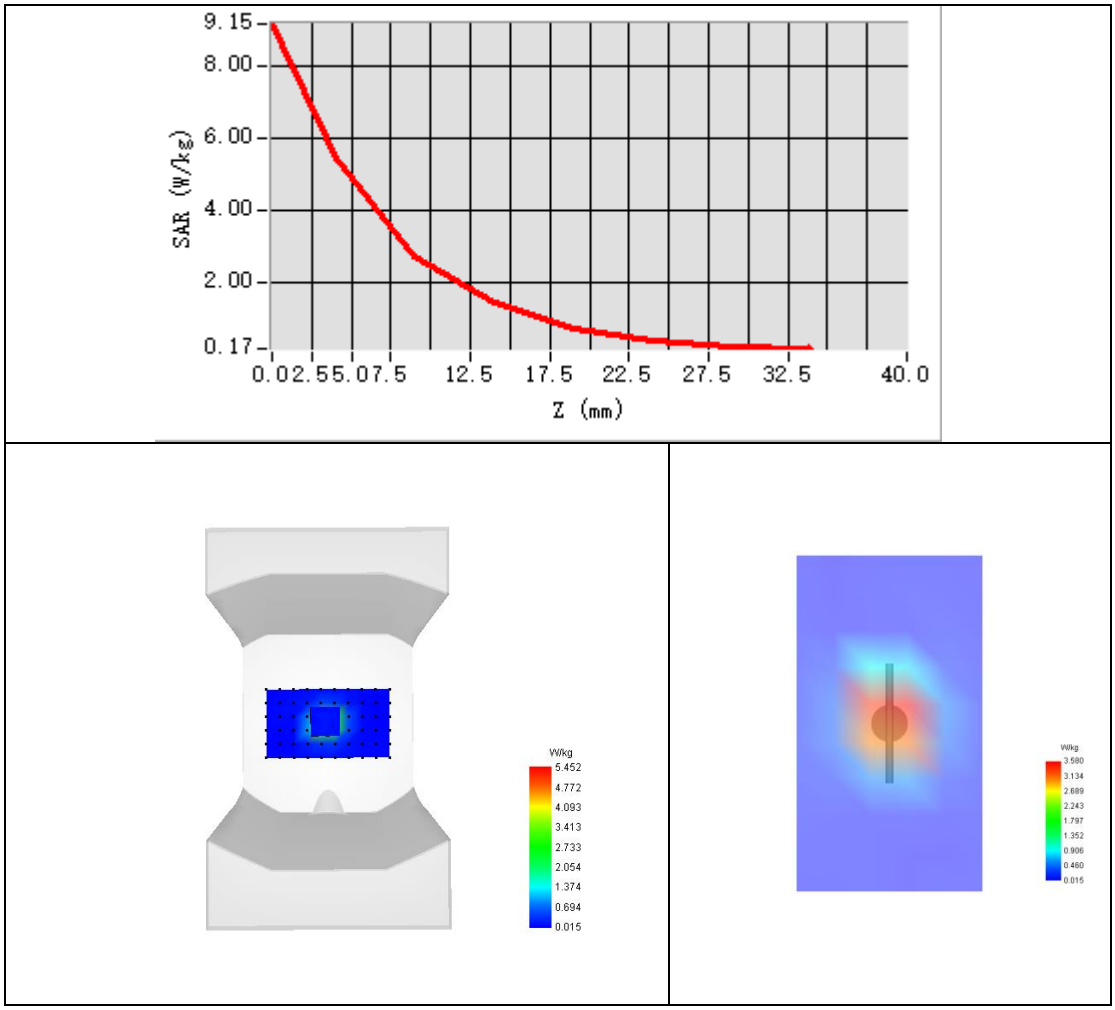
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels	Middle
Signal	CW
Frequency (MHz)	2450.000
Relative permittivity	39.76
Conductivity (S/m)	1.85
Probe	SN 04/22 EPGO364
ConvF	2.33
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=2.00, Y=3.00 ; SAR Peak: 9.30 W/kg

SAR 10g (W/Kg)	2.363
SAR 1g (W/Kg)	5.461

Z Axis Scan

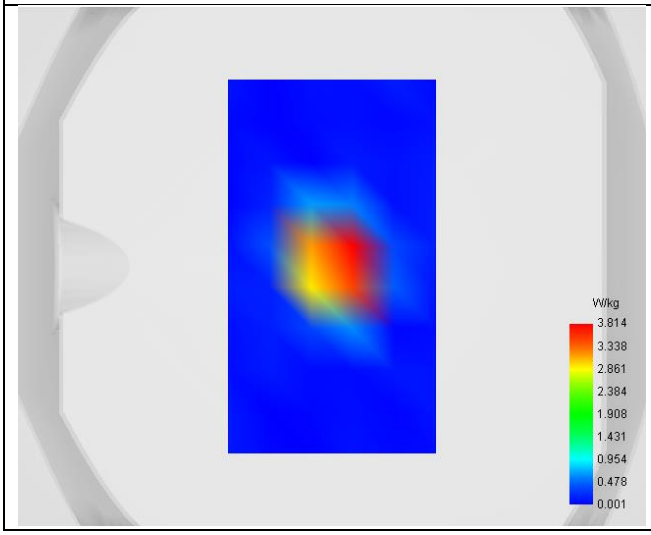
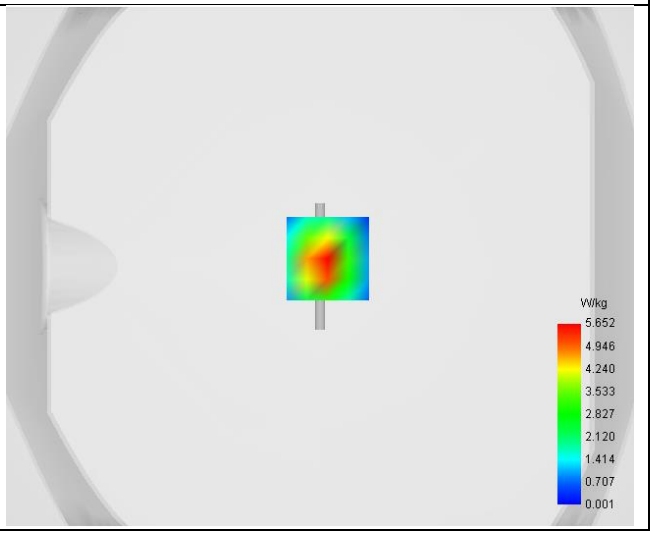

9.15
8.00
6.00
4.00
2.00
0.17
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
5.452
4.772
4.093
3.413
2.733
2.054
1.374
0.694
0.015
W/kg
3.580
3.134
2.689
2.243
1.797
1.352
0.906
0.460
0.015

System Performance Check Data (2600MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-13

Experimental conditions.

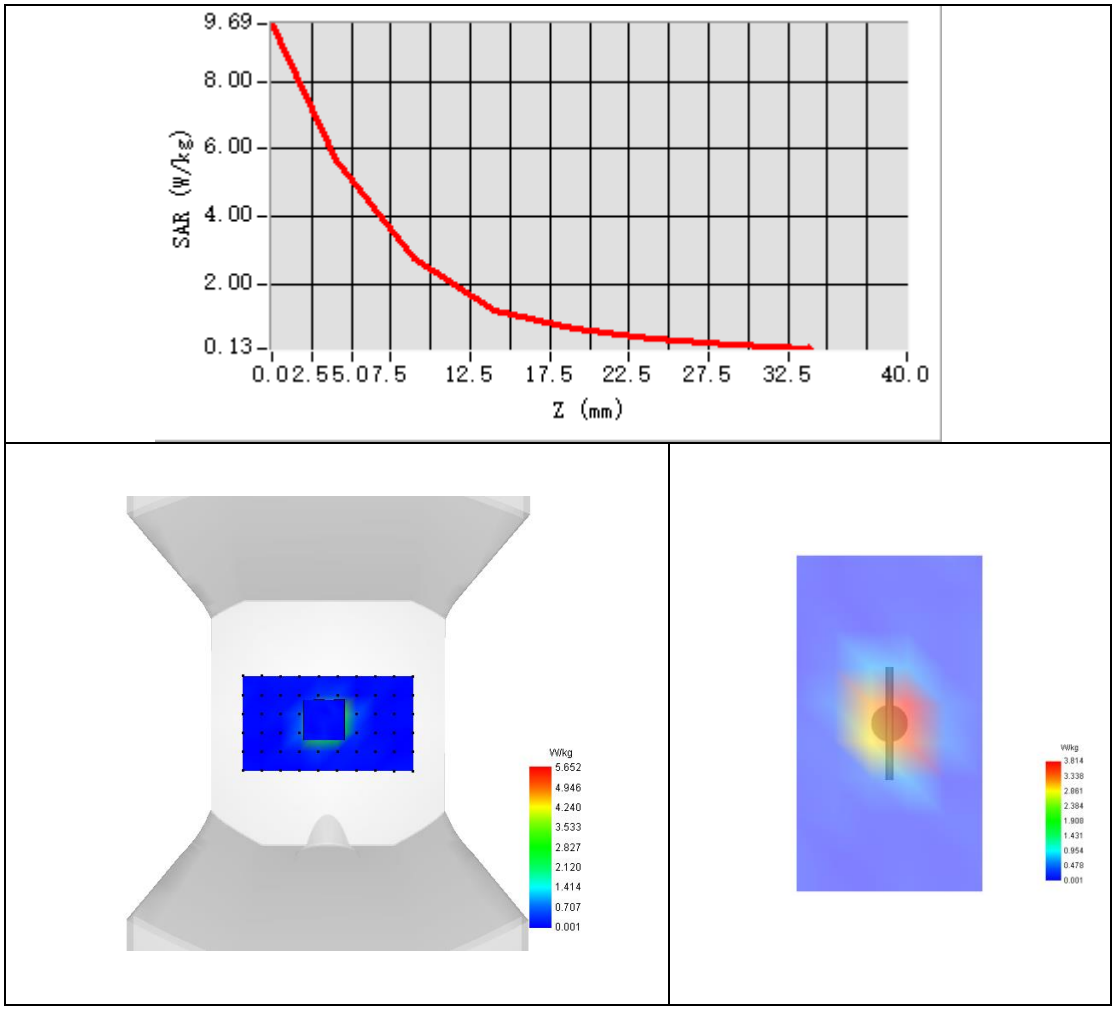
Phantom	Validation plane
Device Position	Dipole
Band	CW2600
Channels	Middle
Signal	CW
Frequency (MHz)	2600.000
Relative permittivity	40.58
Conductivity (S/m)	1.92
Probe	SN 04/22 EPGO364
ConvF	2.36
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=3.00, Y=3.00 ; SAR Peak: 9.85 W/kg

SAR 10g (W/Kg)	2.390
SAR 1g (W/Kg)	5.657

Z Axis Scan

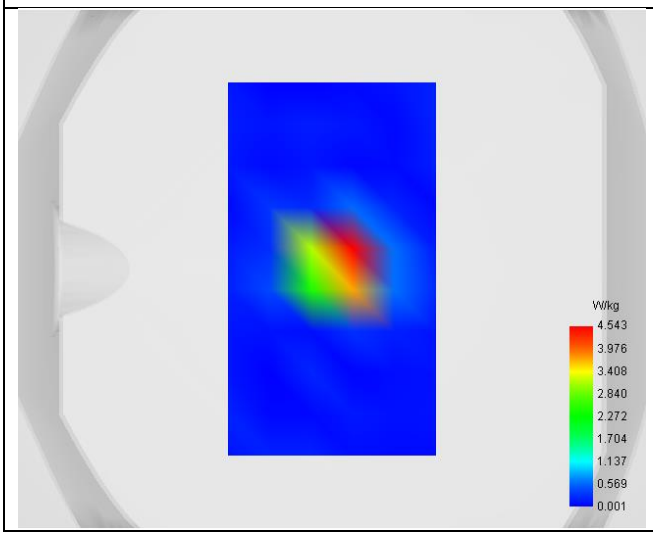
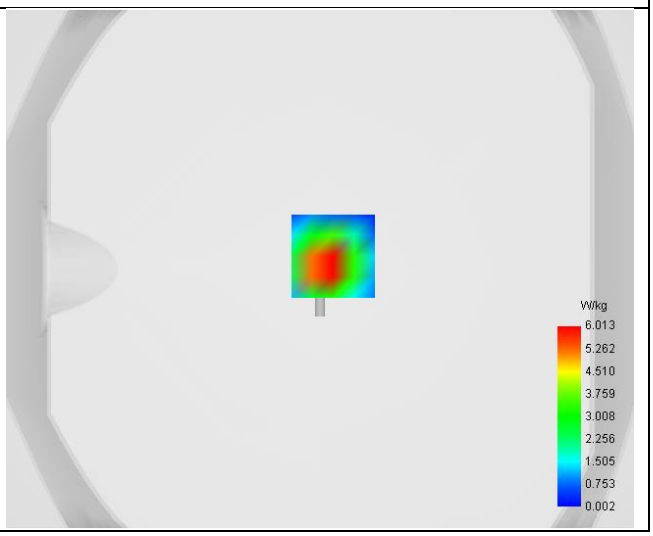

9.69
8.00
6.00
4.00
2.00
0.13
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
5.652
4.946
4.240
3.533
2.827
2.120
1.414
0.707
0.001

System Performance Check Data (3500MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-09

Experimental conditions.

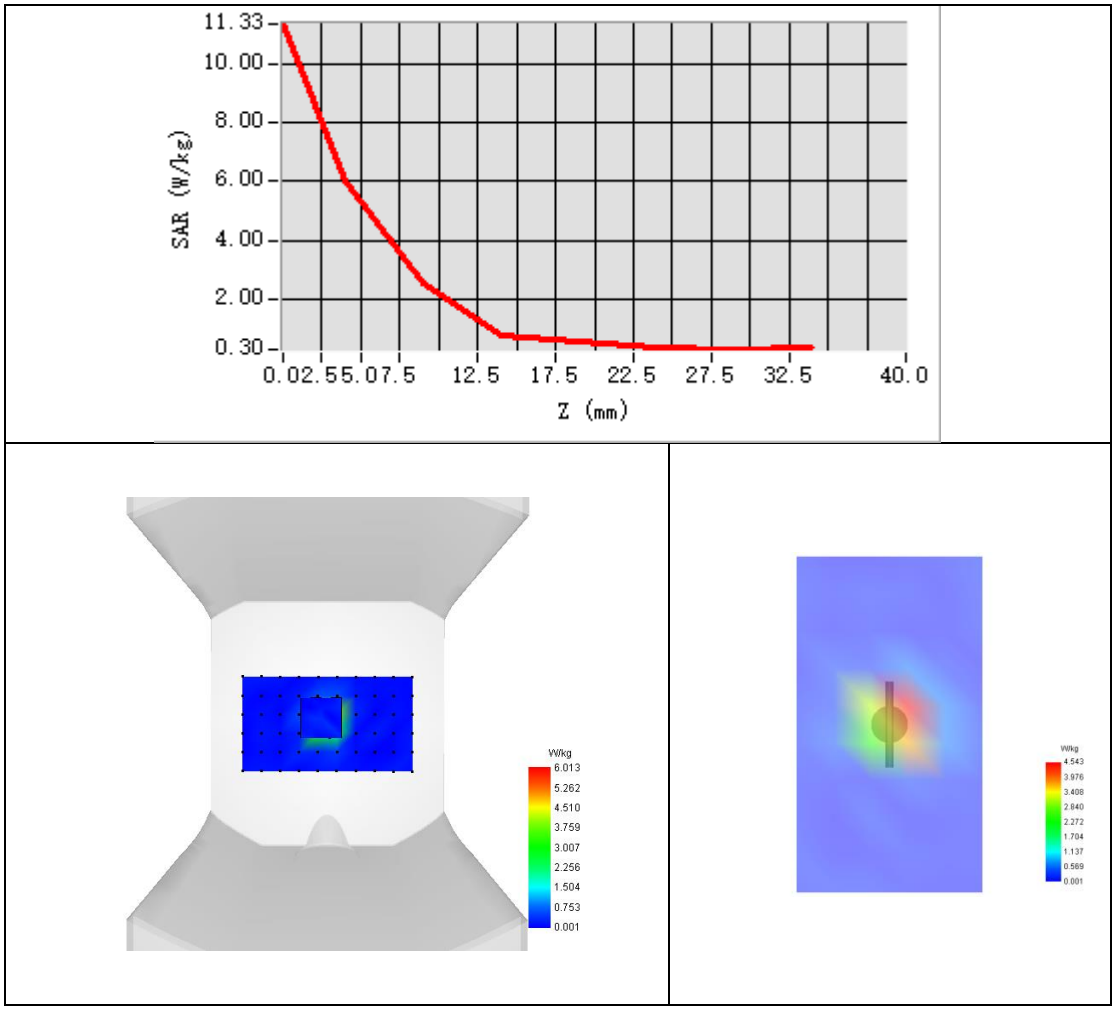
Phantom	Validation plane
Device Position	Dipole
Band	CW3500
Channels	Middle
Signal	CW
Frequency (MHz)	3500.000
Relative permittivity	38.13
Conductivity (S/m)	2.96
Probe	SN 04/22 EPGO364
ConvF	1.85
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=5.00, Y=5.00 ; SAR Peak: 12.88 W/kg

SAR 10g (W/Kg)	2.405
SAR 1g (W/Kg)	6.627

Z Axis Scan

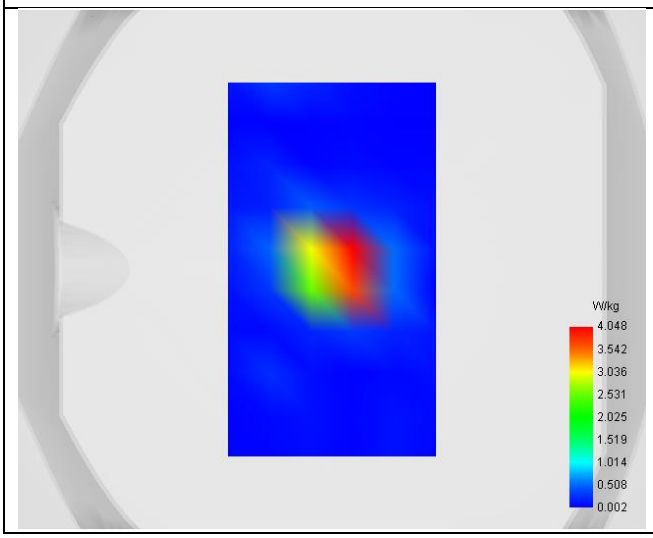
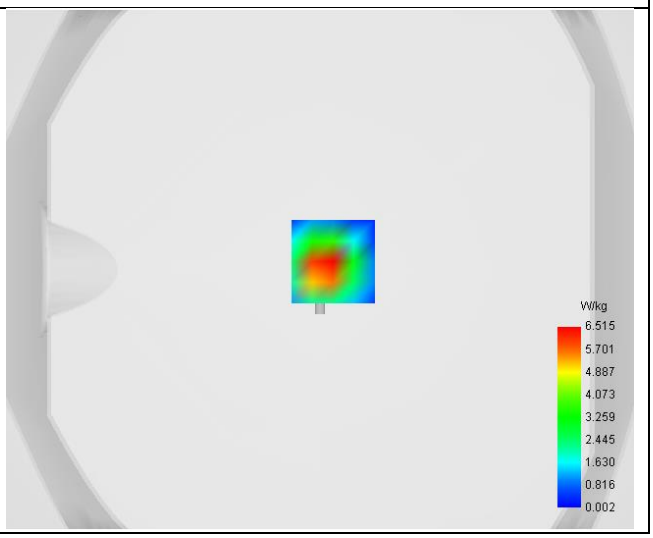

11.33
10.00
8.00
6.00
4.00
2.00
0.30
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
6.013
5.262
4.510
3.759
3.007
2.256
1.504
0.753
0.001
W/kg
4.543
3.976
3.408
2.840
2.272
1.704
1.137
0.569
0.001

System Performance Check Data (3700MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-15

Experimental conditions.

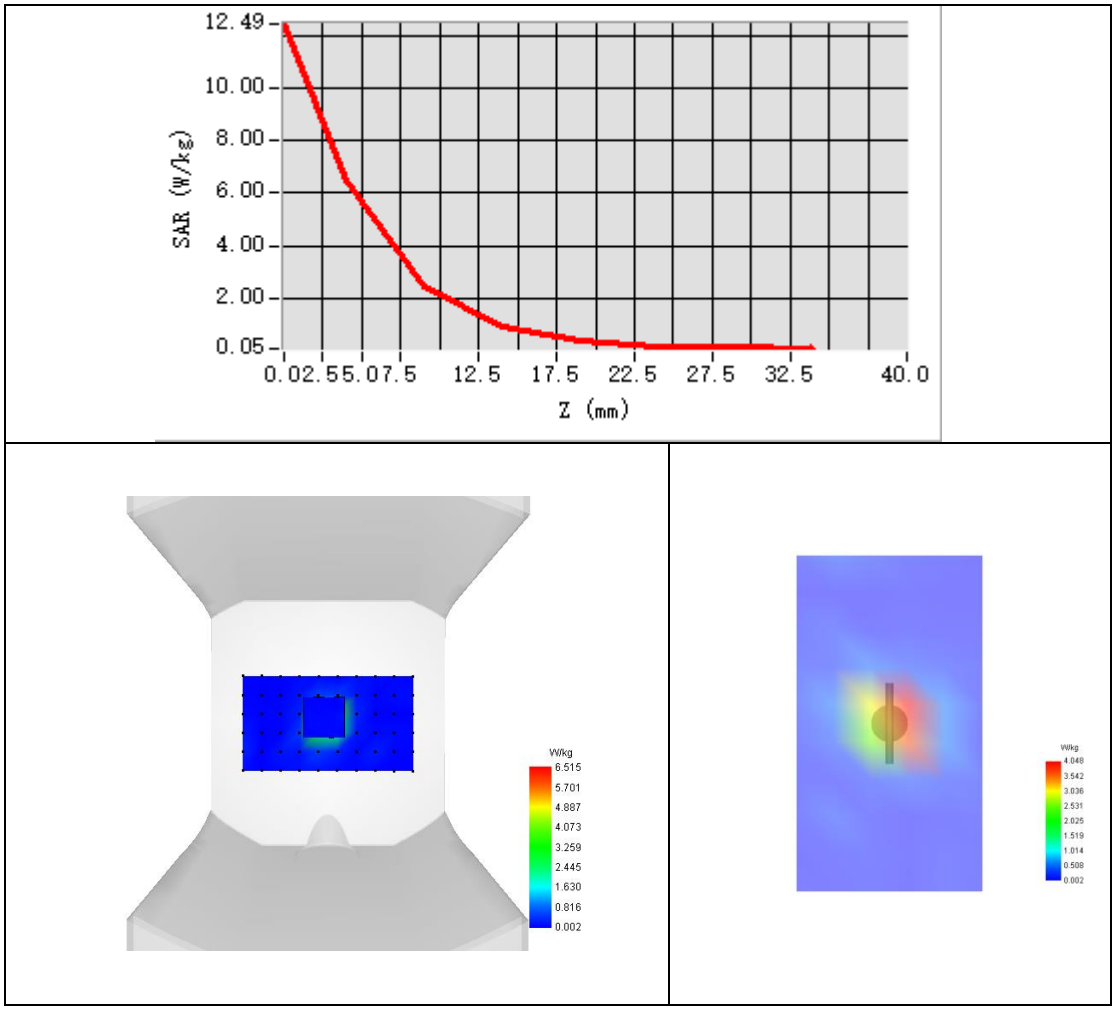
Phantom	Validation plane
Device Position	Dipole
Band	CW3700
Channels	Middle
Signal	CW
Frequency (MHz)	3700.000
Relative permittivity	38.52
Conductivity (S/m)	3.20
Probe	SN 04/22 EPGO364
ConvF	1.82
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=5.00, Y=3.00 ; SAR Peak: 14.04 W/kg

SAR 10g (W/Kg)	2.368
SAR 1g (W/Kg)	6.598

Z Axis Scan

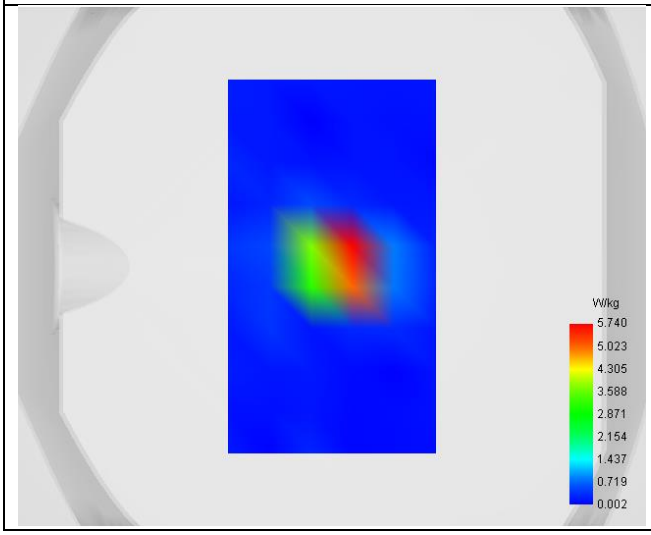
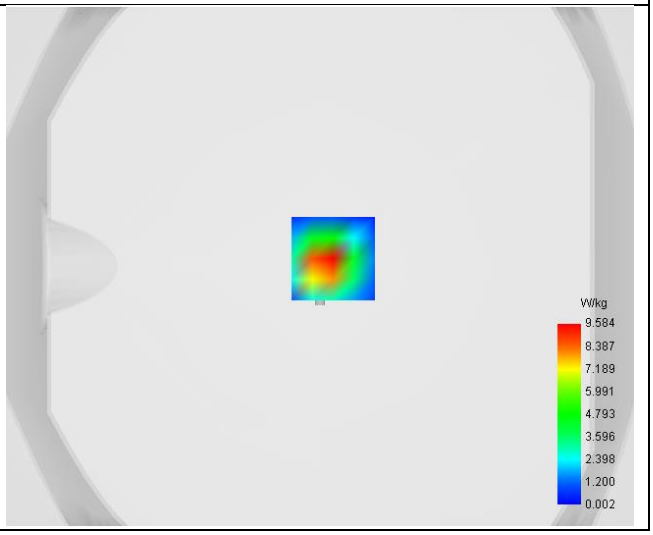

12.49
10.00
8.00
6.00
4.00
2.00
0.05
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
6.515
5.701
4.887
4.073
3.259
2.445
1.630
0.816
0.002
W/kg
4.048
3.542
3.036
2.531
2.025
1.519
1.014
0.508
0.002

System Performance Check Data (4200MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-17

Experimental conditions.

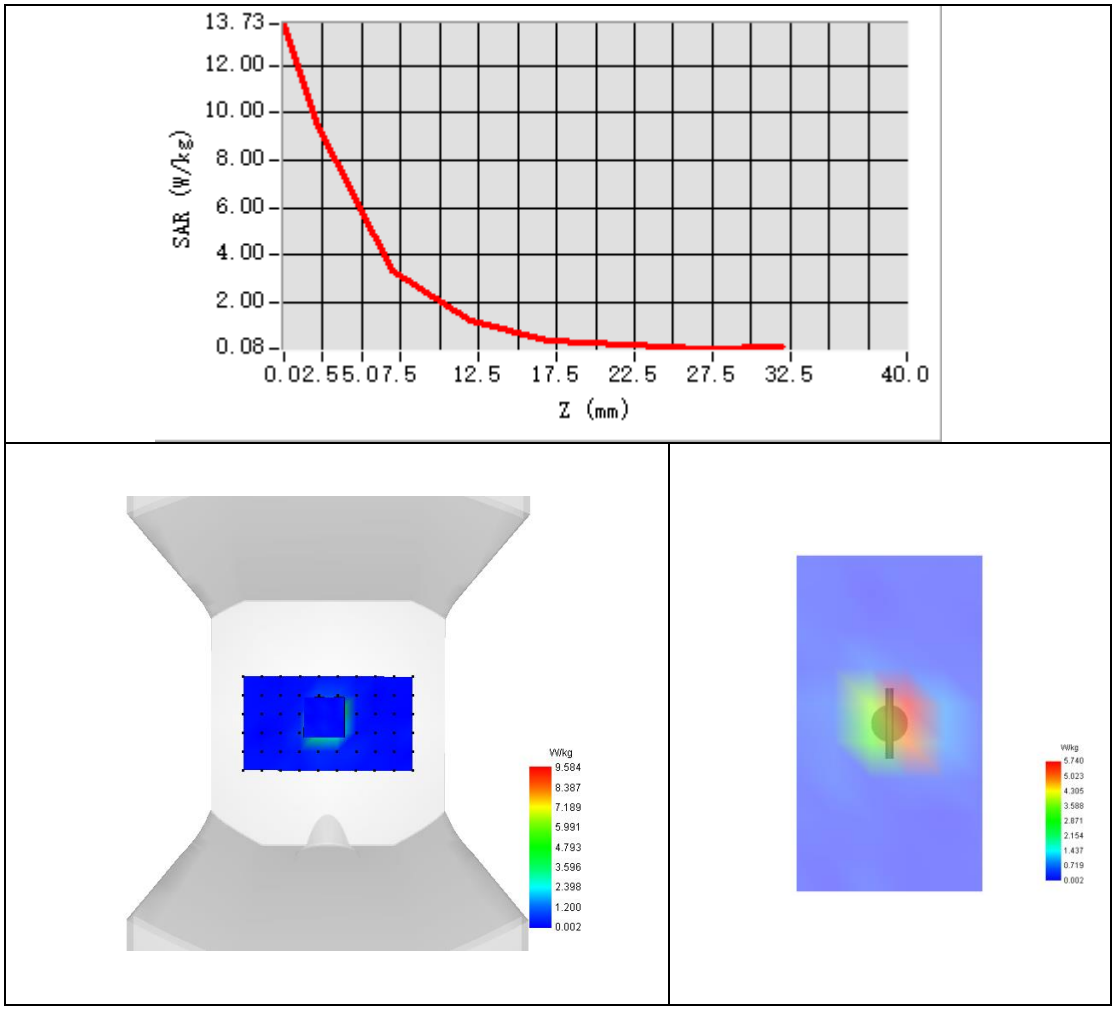
Phantom	Validation plane
Device Position	Dipole
Band	CW4200
Channels	Middle
Signal	CW
Frequency (MHz)	4200.000
Relative permittivity	37.42
Conductivity (S/m)	3.76
Probe	SN 04/22 EPGO364
ConvF	2.17
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=5.00, Y=3.00 ; SAR Peak: 15.87 W/kg

SAR 10g (W/Kg)	2.280
SAR 1g (W/Kg)	6.696

Z Axis Scan

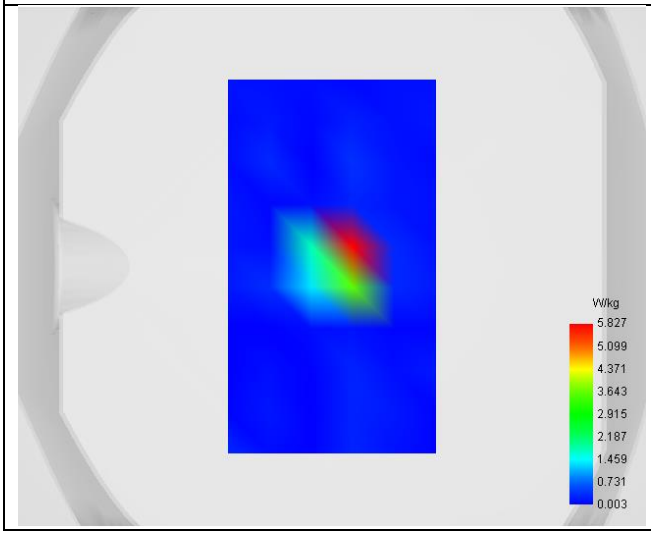
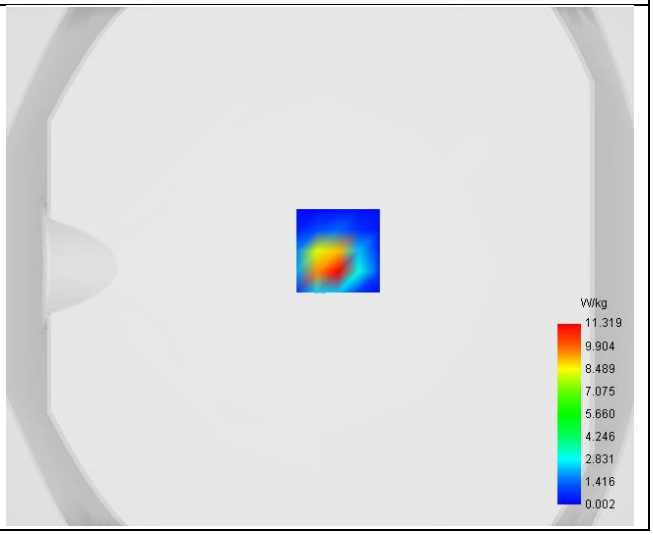

13.73
12.00
10.00
8.00
6.00
4.00
2.00
0.08
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
9.584
8.387
7.189
5.991
4.793
3.596
2.398
1.200
0.002
W/kg
5.740
5.023
4.305
3.588
2.871
2.154
1.437
0.719
0.002

System Performance Check Data (5200MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-18

Experimental conditions.

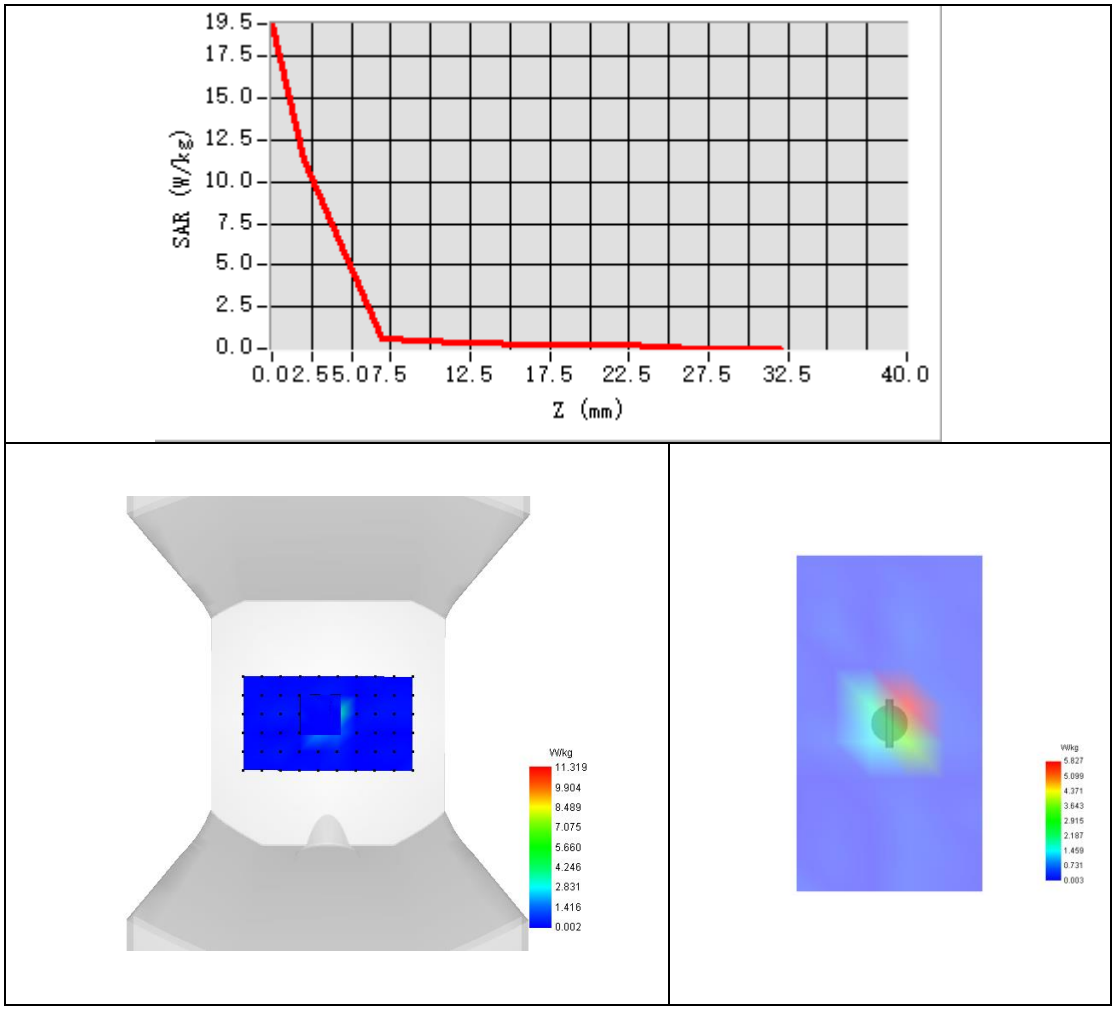
Phantom	Validation plane
Device Position	Dipole
Band	CW5200
Channels	Middle
Signal	CW
Frequency (MHz)	5200.000
Relative permittivity	36.37
Conductivity (S/m)	4.68
Probe	SN 04/22 EPGO364
ConvF	1.95
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=7.00, Y=6.00 ; SAR Peak: 21.88 W/kg

SAR 10g (W/Kg)	2.198
SAR 1g (W/Kg)	7.773

Z Axis Scan

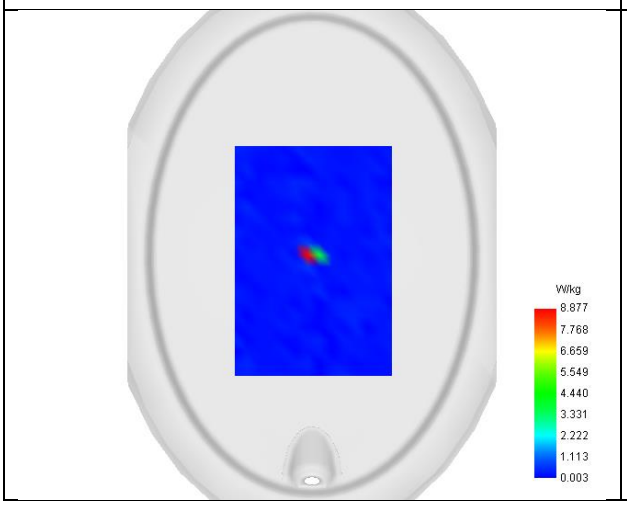
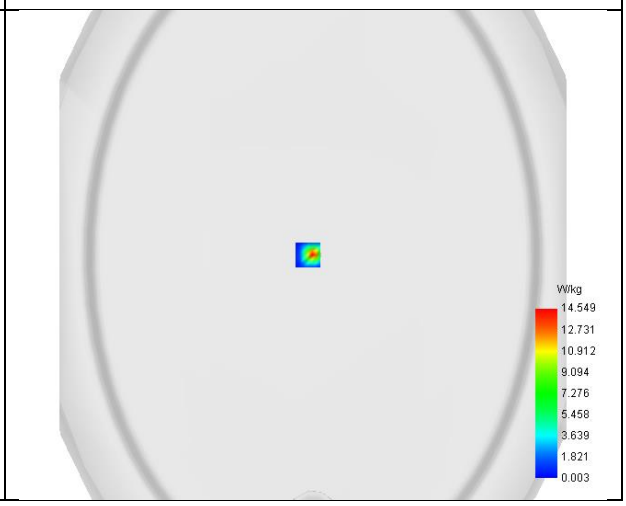

19.5
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
11.319
9.904
8.489
7.075
5.660
4.246
2.831
1.416
0.002
W/kg
5.827
5.099
4.371
3.643
2.915
2.187
1.459
0.731
0.003

System Performance Check Data (5200MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-21

Experimental conditions.

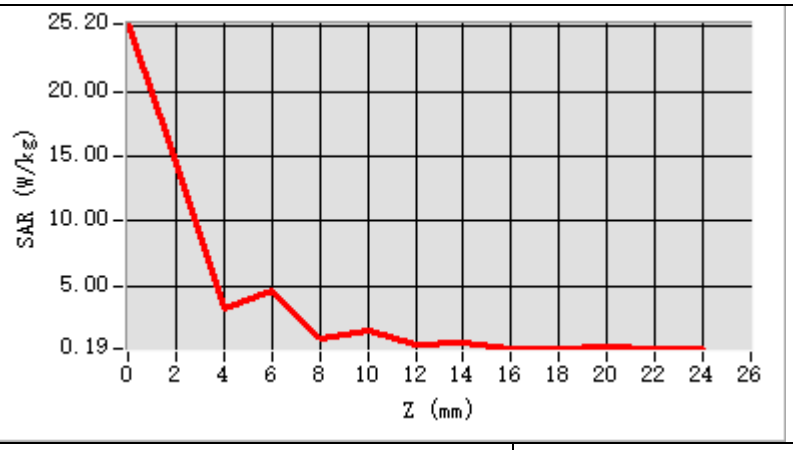
Phantom	Validation plane
Device Position	Dipole
Band	CW5200
Channels	Middle
Signal	CW
Frequency (MHz)	5200.000
Relative permittivity	37.16
Conductivity (S/m)	4.68
Probe	SN 04/22 EPGO364
ConvF	1.91
Crest factor:	1:1

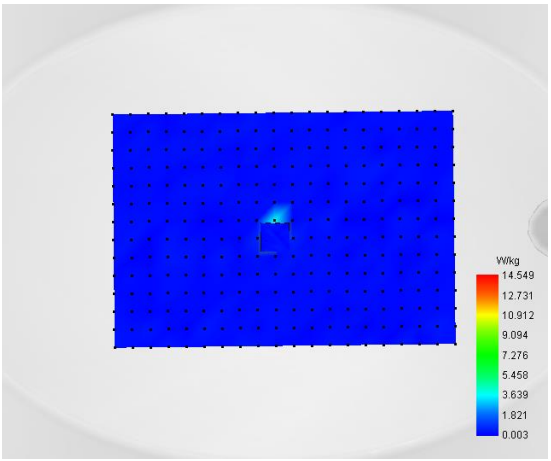
SURFACE	VOLUME SAR
	

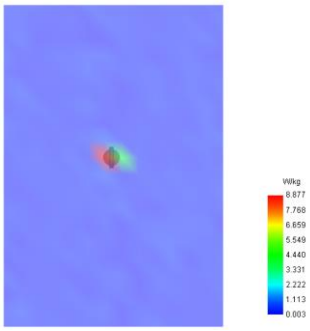
Maximum location: X=7.00, Y=6.00 ; SAR Peak: 21.88 W/kg

SAR 10g (W/Kg)	1.883
SAR 1g (W/Kg)	7.275

Z Axis Scan


25.20
20.00
15.00
10.00
5.00
0.19
SAR (W/kg)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
Z (mm)


W/kg
14.549
12.731
10.912
9.094
7.276
5.458
3.639
1.821
0.003

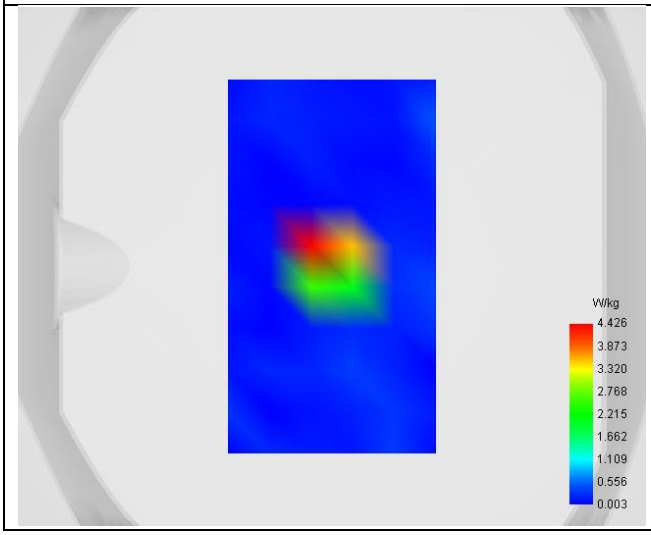
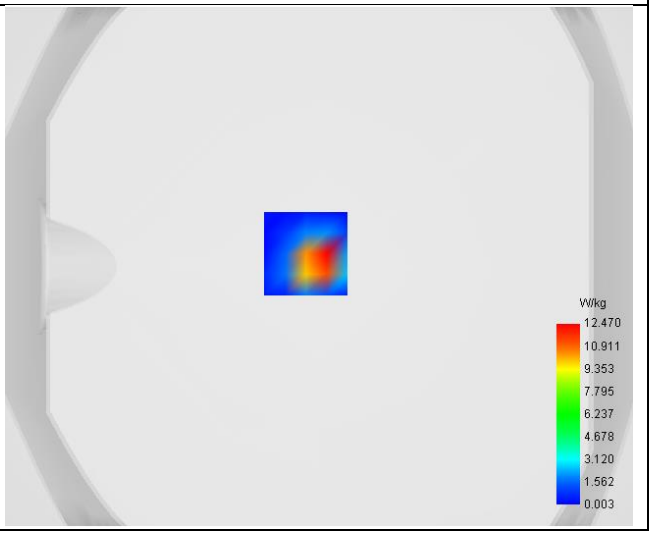

W/kg
8.877
7.768
6.659
5.549
4.440
3.331
2.222
1.113
0.003

System Performance Check Data (5300MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-21

Experimental conditions.

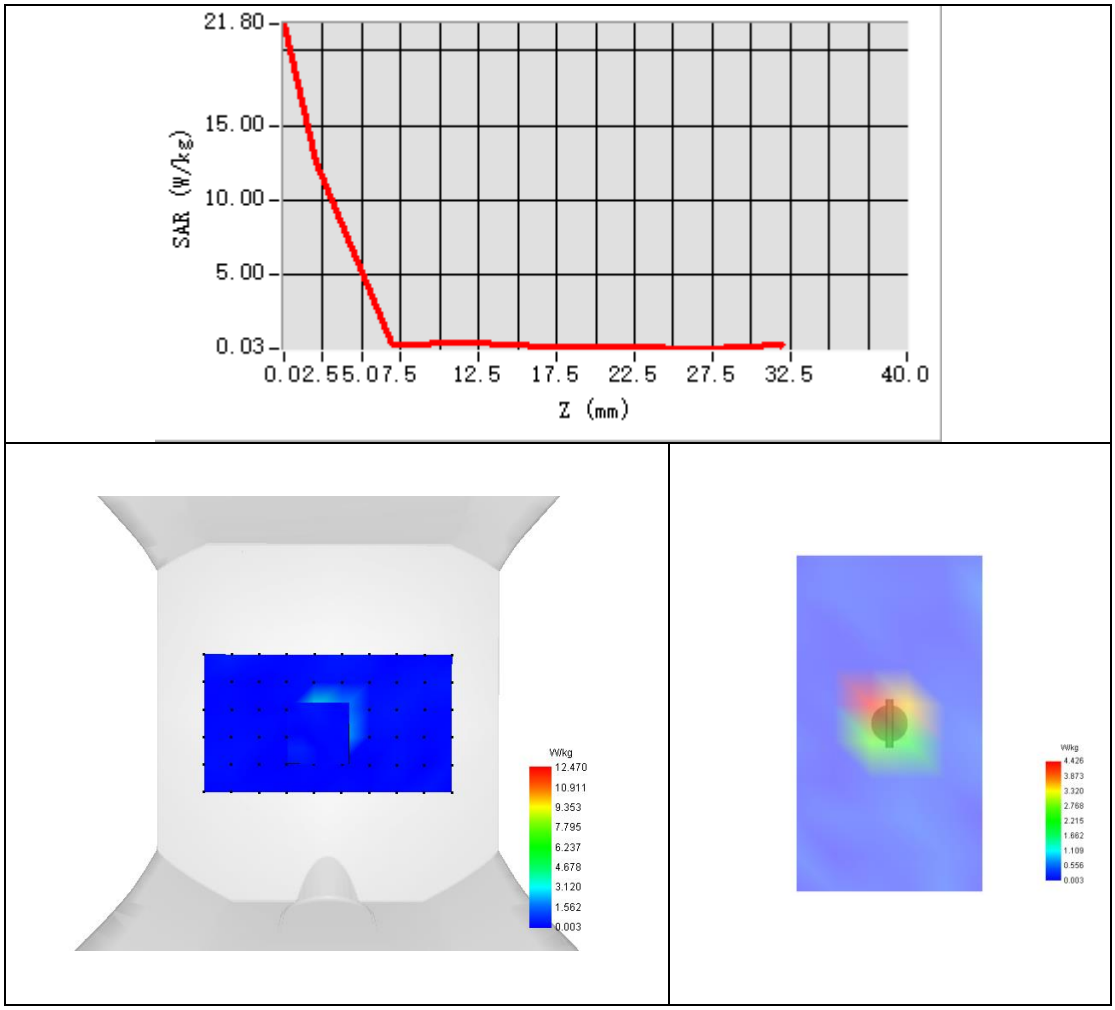
Phantom	Validation plane
Device Position	Dipole
Band	CW5300
Channels	Middle
Signal	CW
Frequency (MHz)	5300.000
Relative permittivity	36.31
Conductivity (S/m)	4.81
Probe	SN 04/22 EPGO364
ConvF	1.85
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=-5.00, Y=5.00 ; SAR Peak: 25.45 W/kg

SAR 10g (W/Kg)	2.224
SAR 1g (W/Kg)	8.048

Z Axis Scan

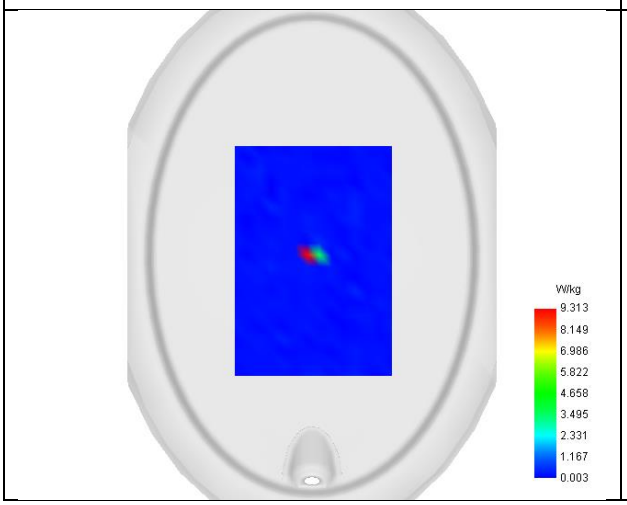
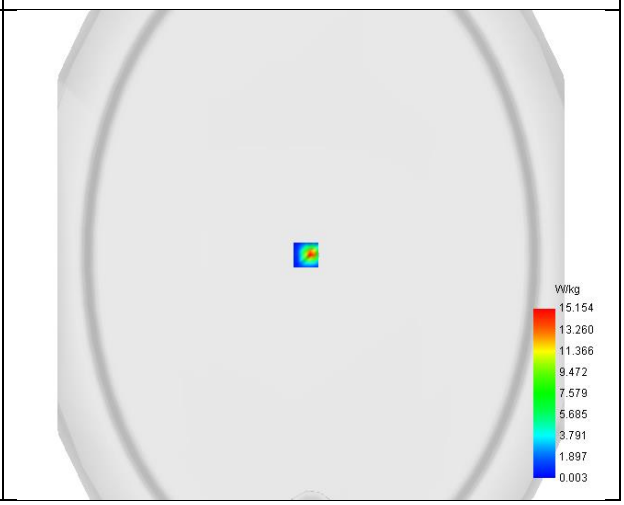

21.80
15.00
10.00
5.00
0.03
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
12.470
10.911
9.353
7.795
6.237
4.678
3.120
1.562
0.003
W/kg
4.426
3.873
3.320
2.768
2.215
1.662
1.109
0.556
0.003

System Performance Check Data (5300MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-22

Experimental conditions.

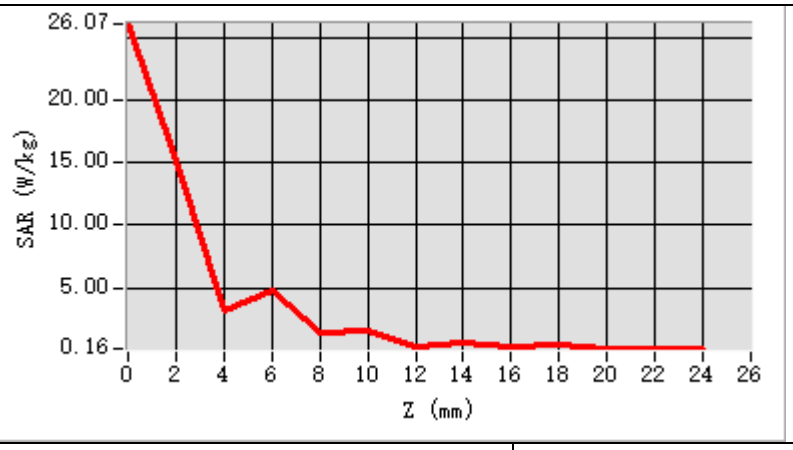
Phantom	Validation plane
Device Position	Dipole
Band	CW5300
Channels	Middle
Signal	CW
Frequency (MHz)	5300.000
Relative permittivity	37.13
Conductivity (S/m)	4.78
Probe	SN 04/22 EPGO364
ConvF	1.80
Crest factor:	1:1

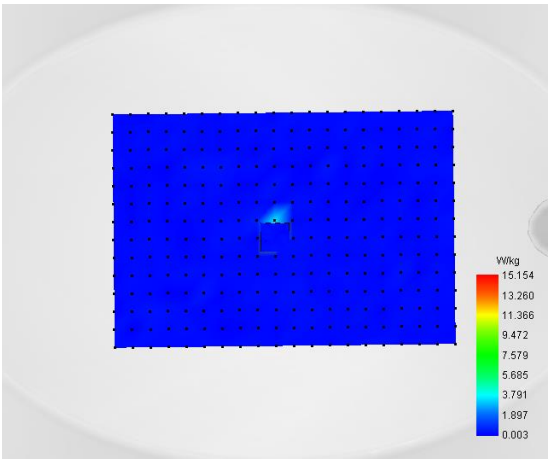
SURFACE	VOLUME SAR
	

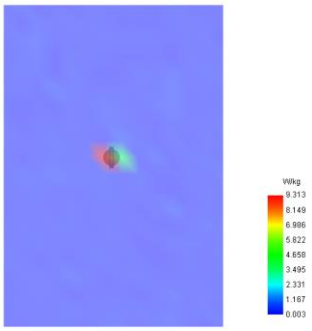
Maximum location: X=6.00, Y=5.00 ; SAR Peak: 24.70 W/kg

SAR 10g (W/Kg)	1.930
SAR 1g (W/Kg)	7.790

Z Axis Scan


26.07
20.00
15.00
10.00
5.00
0.16
SAR (W/kg)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
Z (mm)


W/kg
15.154
13.260
11.366
9.472
7.579
5.685
3.791
1.897
0.003

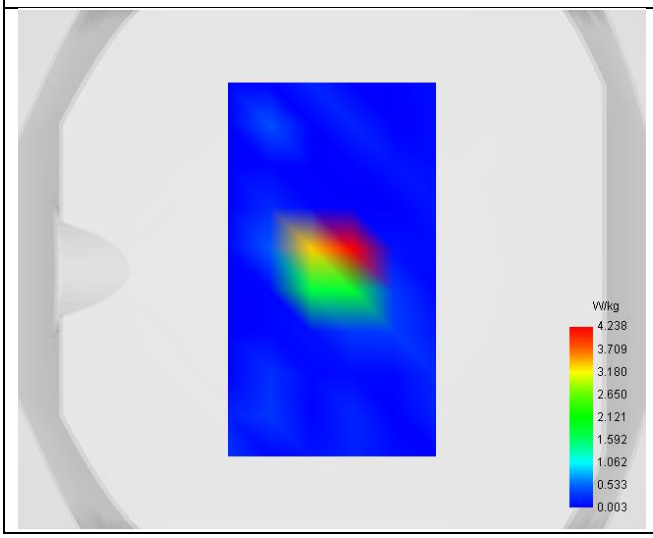
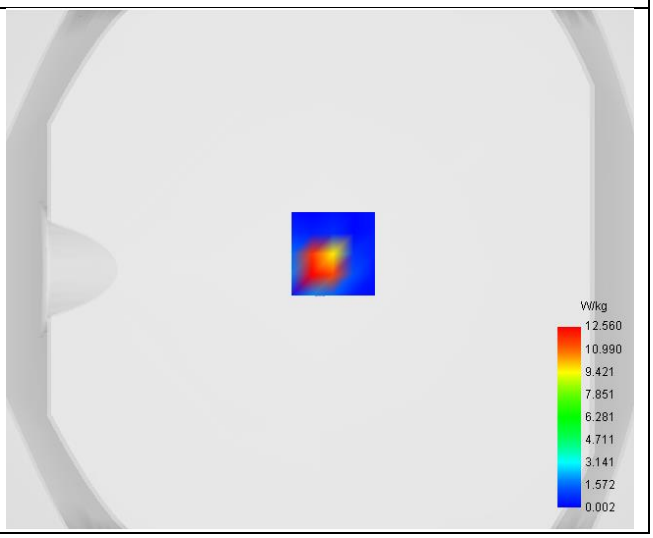

W/kg
9.313
8.149
6.986
5.822
4.658
3.495
2.331
1.167
0.003

System Performance Check Data (5600MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-24

Experimental conditions.

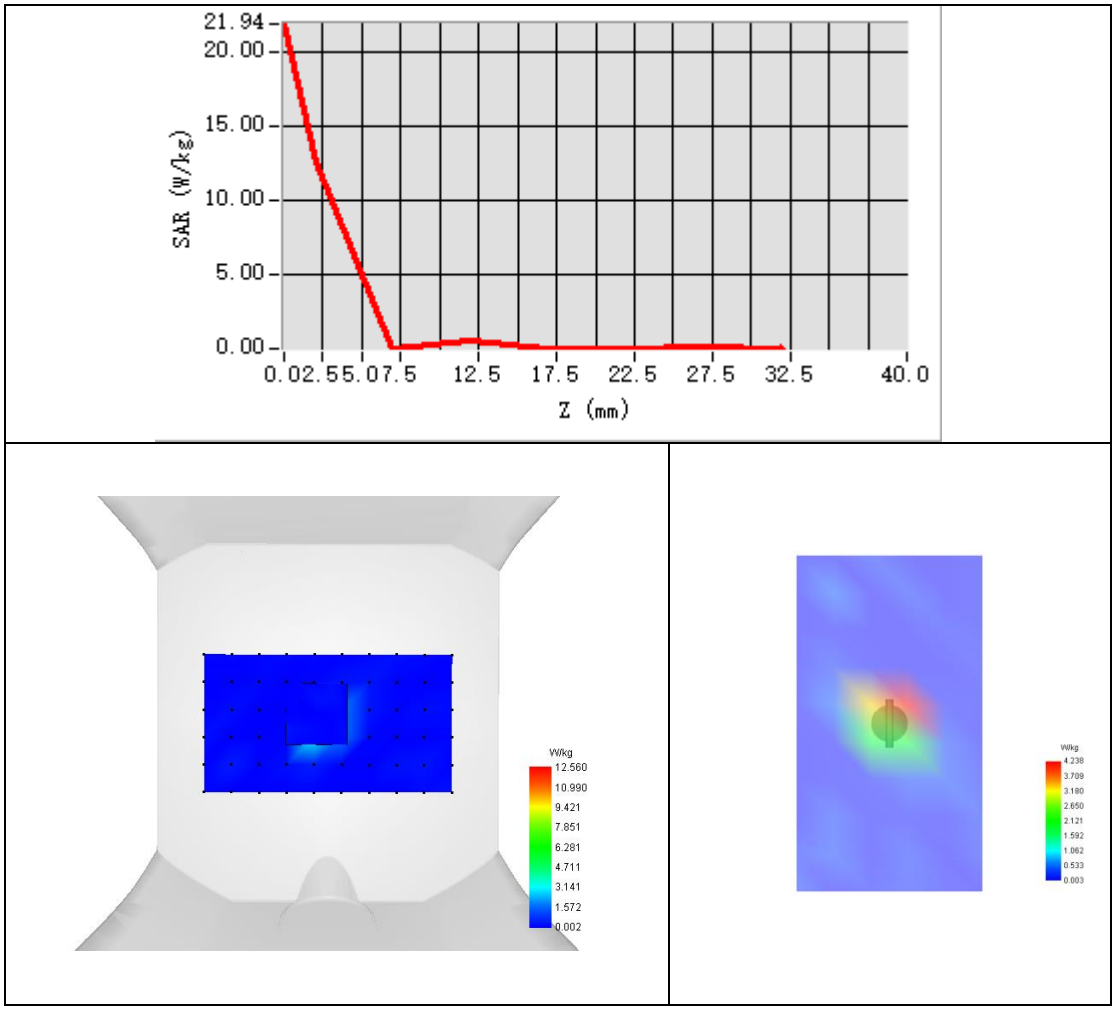
Phantom	Validation plane
Device Position	Dipole
Band	CW5600
Channels	Middle
Signal	CW
Frequency (MHz)	5600.000
Relative permittivity	36.73
Conductivity (S/m)	5.09
Probe	SN 04/22 EPGO364
ConvF	1.86
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=5.00, Y=6.00 ; SAR Peak: 27.34 W/kg

SAR 10g (W/Kg)	2.257
SAR 1g (W/Kg)	7.857

Z Axis Scan

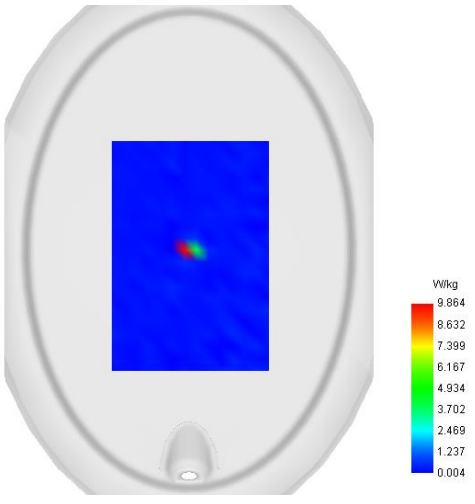
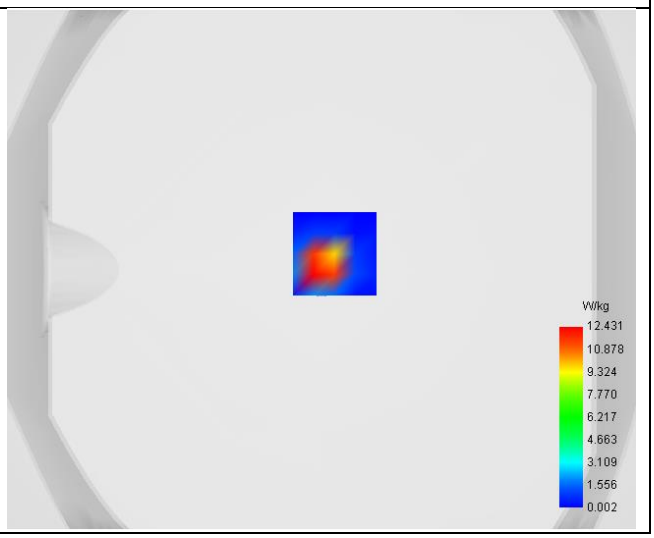

21.94
20.00
15.00
10.00
5.00
0.00
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
12.560
10.990
9.421
7.851
6.281
4.711
3.141
1.572
0.002
W/kg
4.238
3.709
3.180
2.650
2.121
1.592
1.062
0.533
0.003

System Performance Check Data (5600MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-25

Experimental conditions.

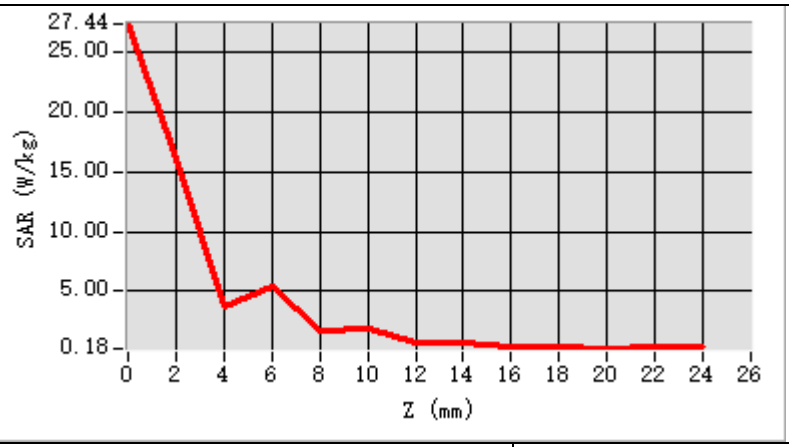
Phantom	Validation plane
Device Position	Dipole
Band	CW5600
Channels	Middle
Signal	CW
Frequency (MHz)	5600.000
Relative permittivity	36.09
Conductivity (S/m)	5.06
Probe	SN 04/22 EPGO364
ConvF	1.76
Crest factor:	1:1

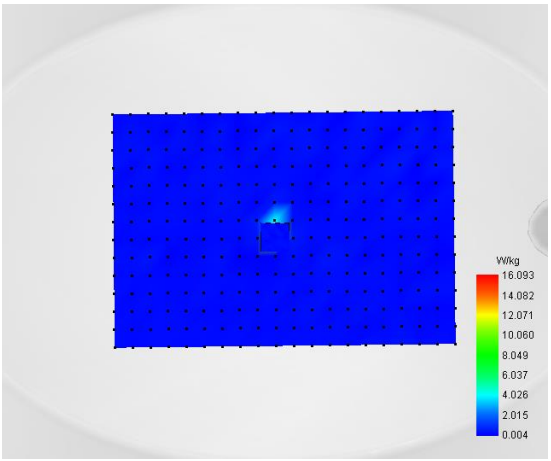
SURFACE	VOLUME SAR
	

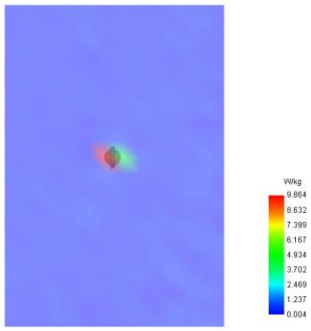
Maximum location: X=5.00, Y=6.00 ; SAR Peak: 27.24 W/kg

SAR 10g (W/Kg)	2.094
SAR 1g (W/Kg)	8.306

Z Axis Scan


27.44
25.00
20.00
15.00
10.00
5.00
0.18
SAR (W/kg)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
Z (mm)


W/kg
16.093
14.082
12.071
10.060
8.049
6.037
4.026
2.015
0.004

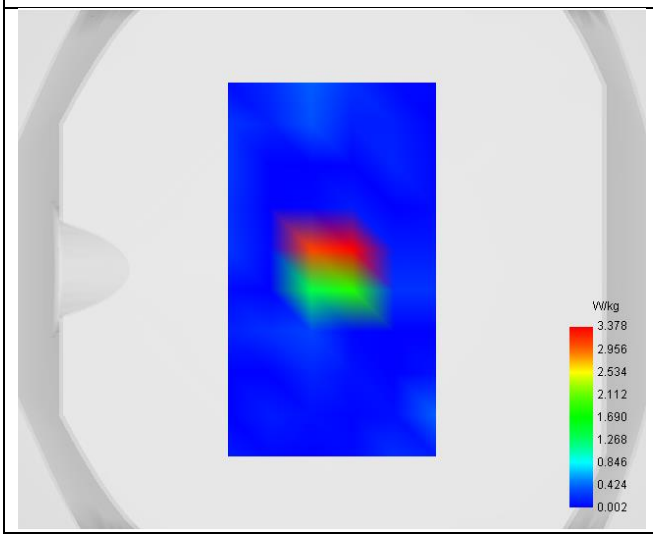
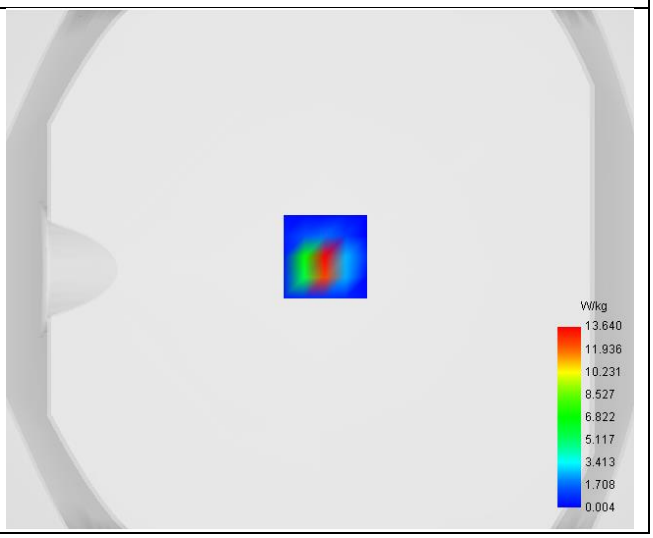

W/kg
9.864
8.632
7.399
6.167
4.934
3.702
2.469
1.237
0.004

System Performance Check Data (5800MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-26

Experimental conditions.

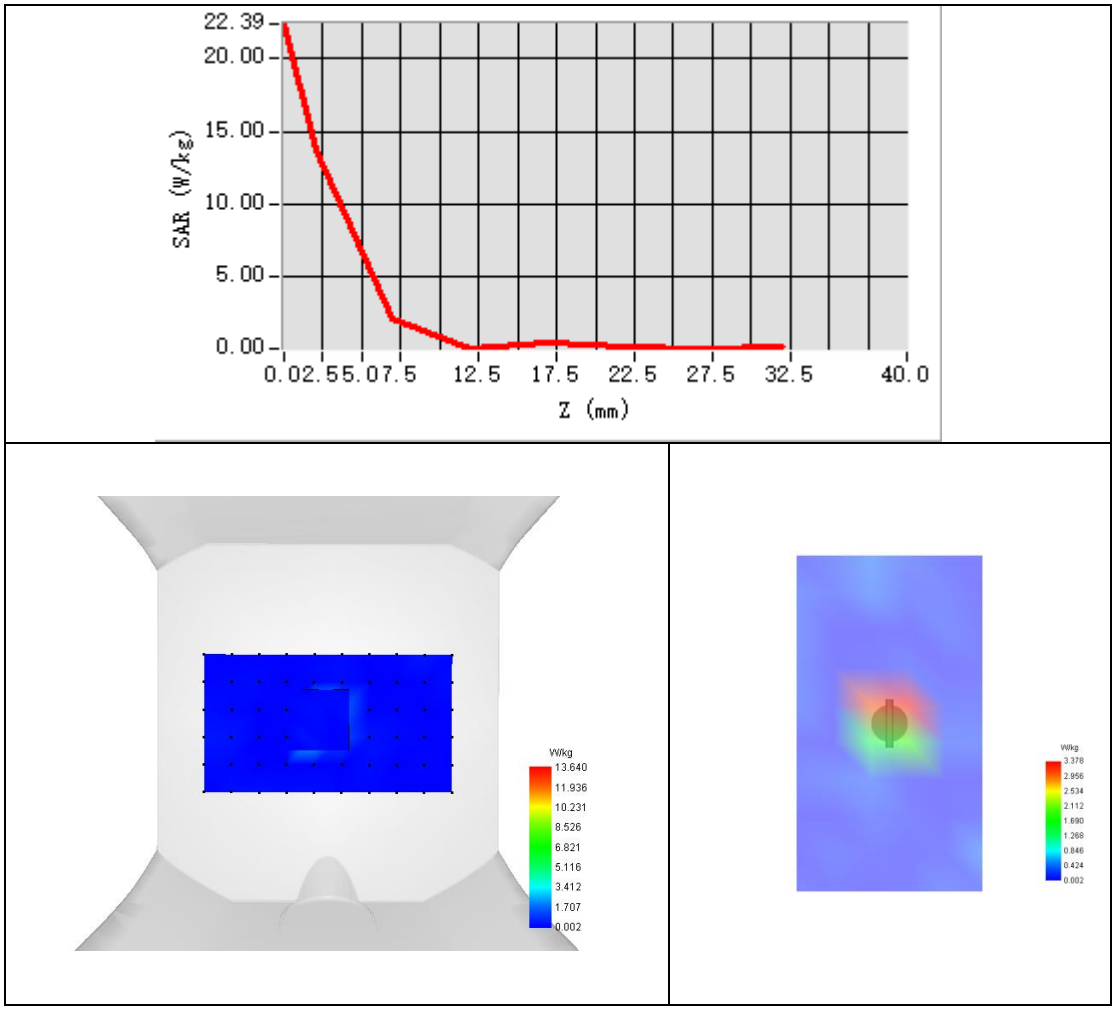
Phantom	Validation plane
Device Position	Dipole
Band	CW5800
Channels	Middle
Signal	CW
Frequency (MHz)	5800.000
Relative permittivity	35.87
Conductivity (S/m)	5.23
Probe	SN 04/22 EPGO364
ConvF	1.73
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=2.00, Y=5.00 ; SAR Peak: 27.22 W/kg

SAR 10g (W/Kg)	2.110
SAR 1g (W/Kg)	7.503

Z Axis Scan

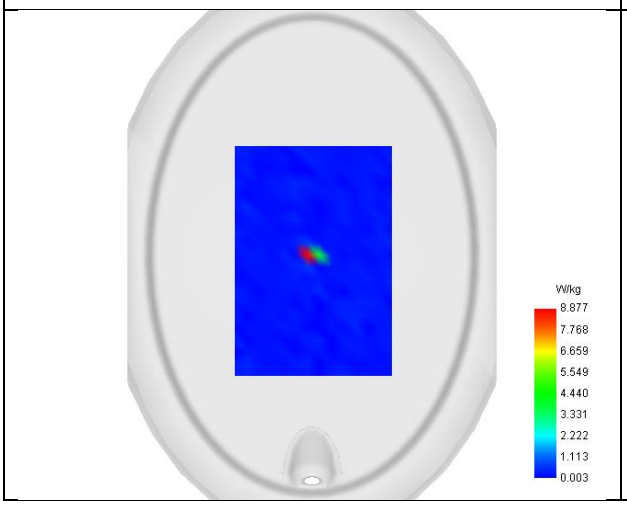
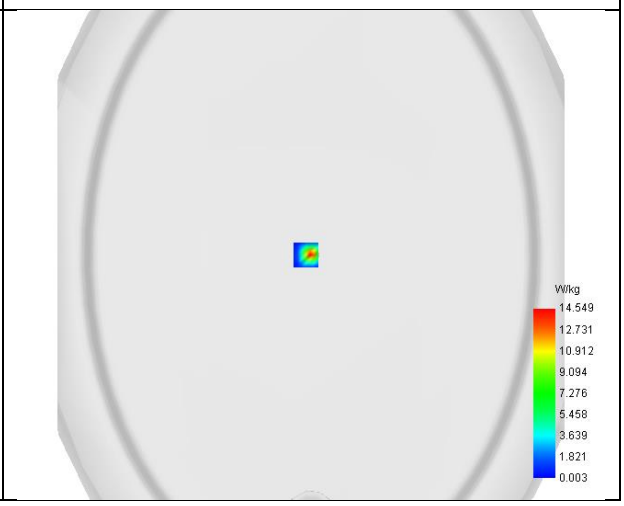

22.39
20.00
15.00
10.00
5.00
0.00
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
13.640
11.936
10.231
8.526
6.821
5.116
3.412
1.707
0.002
W/kg
3.378
2.956
2.534
2.112
1.690
1.268
0.846
0.424
0.002

System Performance Check Data (5800MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-07-25

Experimental conditions.

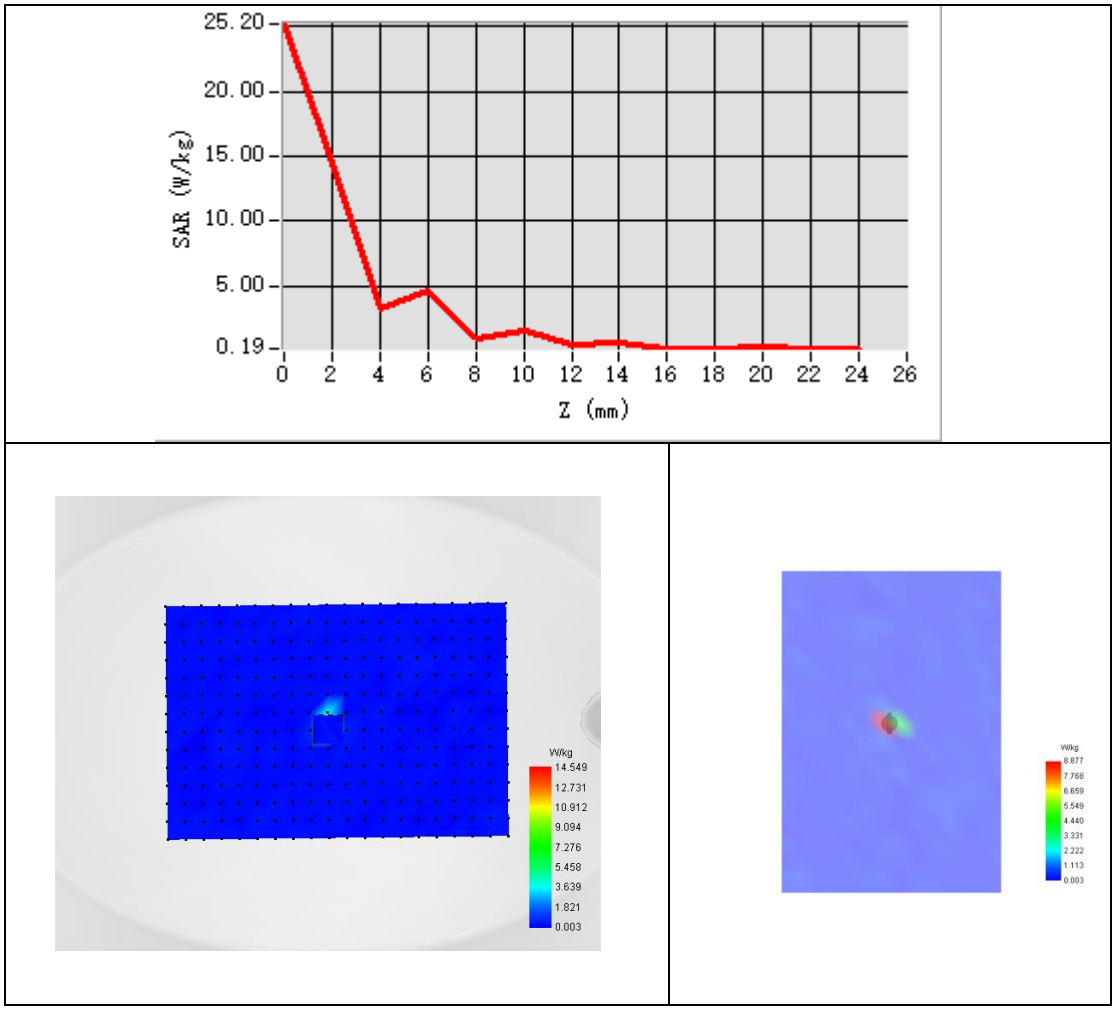
Phantom	Validation plane
Device Position	Dipole
Band	CW5800
Channels	Middle
Signal	CW
Frequency (MHz)	5800.000
Relative permittivity	35.61
Conductivity (S/m)	5.30
Probe	SN 04/22 EPGO364
ConvF	1.70
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=-5.00, Y=0.00 ; SAR Peak: 24.50 W/kg

SAR 10g (W/Kg)	1.883
SAR 1g (W/Kg)	7.275

Z Axis Scan


25.20
20.00
15.00
10.00
5.00
0.19
SAR (W/kg)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
Z (mm)
W/kg
14.549
12.731
10.912
9.094
7.276
5.458
3.639
1.821
0.003
W/kg
8.877
7.768
6.659
5.549
4.440
3.331
2.222
1.113
0.003

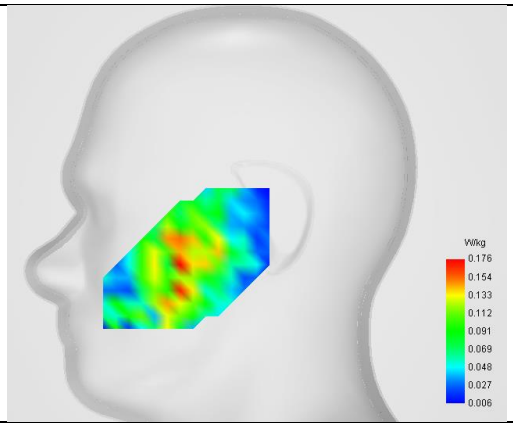
Appendix B. SAR Test Plots

Plot 1:

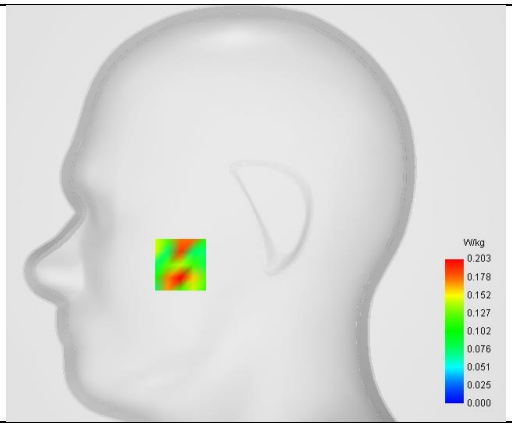
Test Date	2023-07-17
Area Scan	sam_direct_droit2_surf8mm.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right Cheek
Device Position	Cheek
Band	GSM850
Signal	TDMA (GSM)
Frequency	848.8
SAR 10g (W/Kg)	0.098
SAR 1g (W/Kg)	0.202

Maximum location: X=-47.00, Y=-32.00 ; SAR Peak: 0.52 W/kg

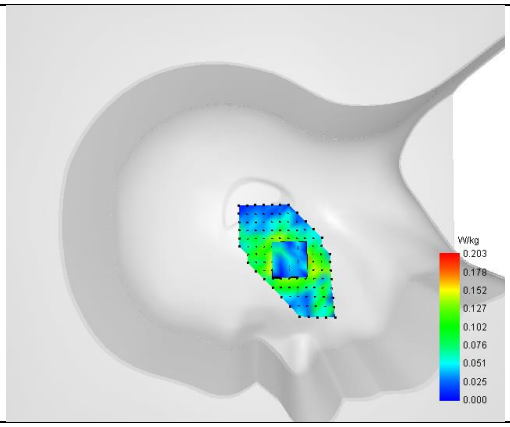
SURFACE SAR



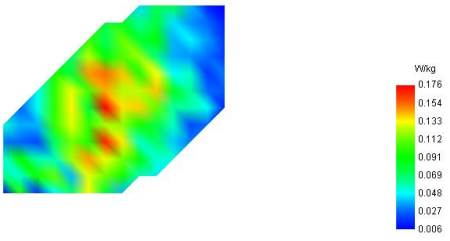
VOLUME SAR

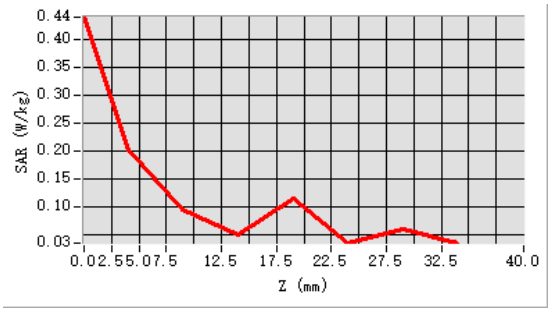


3D screen shot



Hot spot position

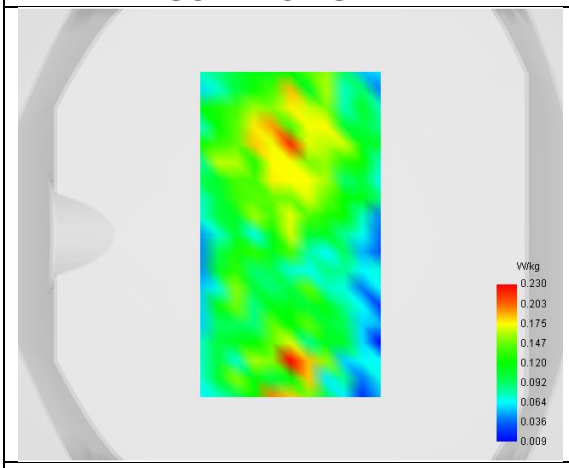
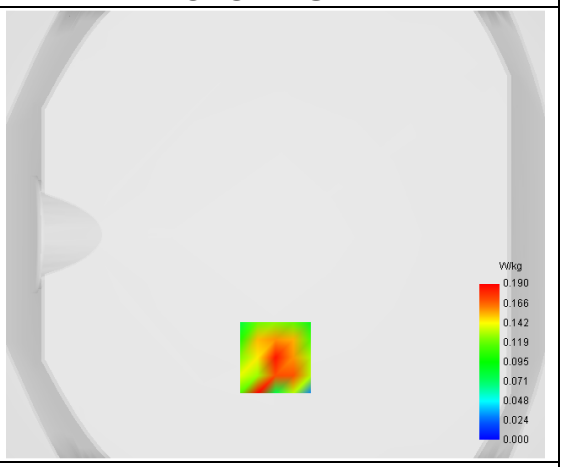
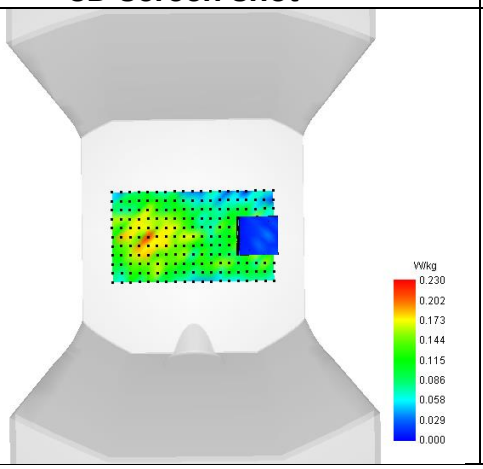
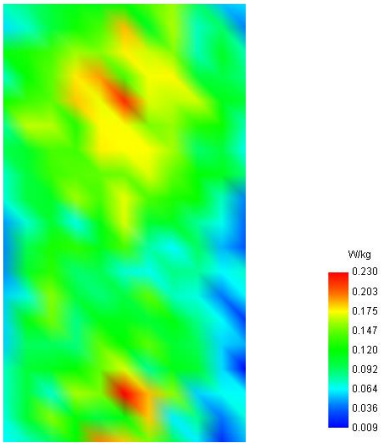
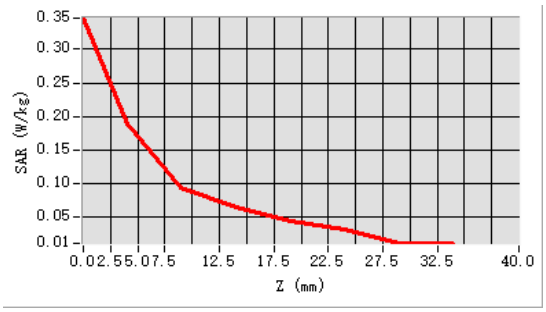




Plot 2:

Test Date	2023-07-17
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	GPRS850
Signal	TDMA (EGPRS)
Frequency	848.8
SAR 10g (W/Kg)	0.102
SAR 1g (W/Kg)	0.200

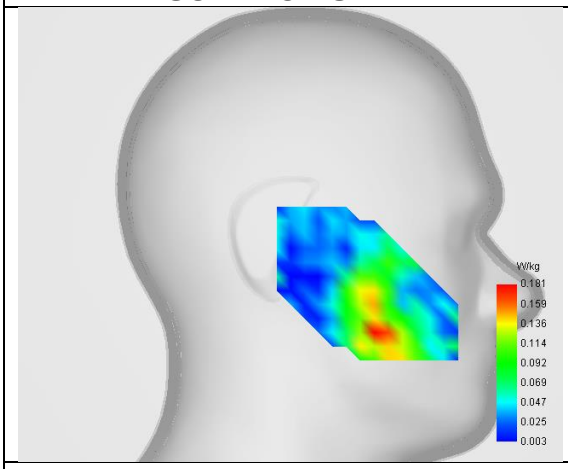
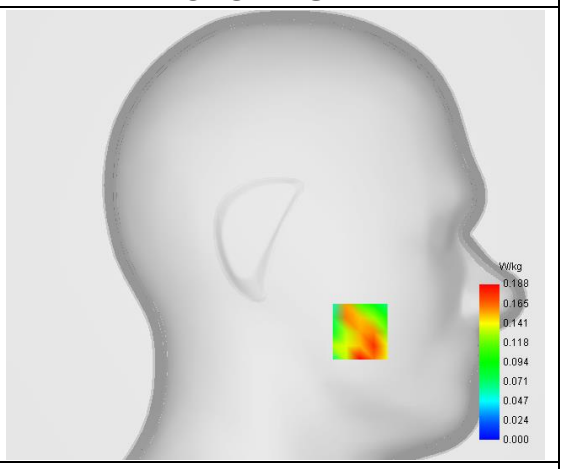
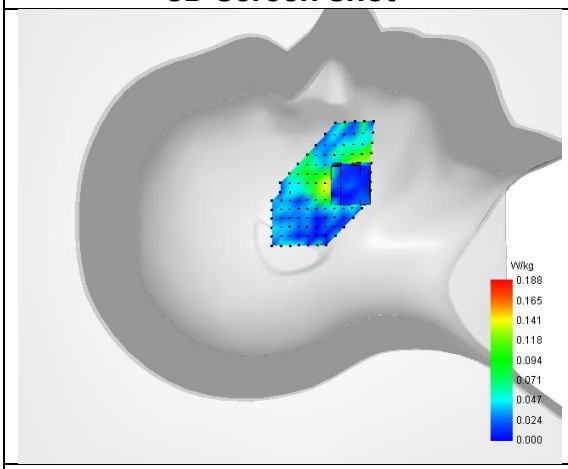
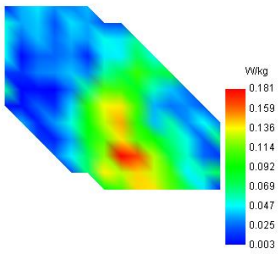
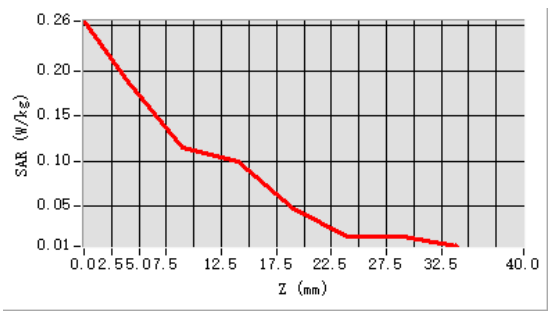
Maximum location: X=0.00, Y=-55.00 ; SAR Peak: 0.37 W/kg

SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 3:

Test Date	2023-07-12
Area Scan	sam_direct_droit2_surf8mm.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Signal	TDMA (GSM)
Frequency	1909.8
SAR 10g (W/Kg)	0.083
SAR 1g (W/Kg)	0.179

Maximum location: X=-49.00, Y=-56.00 ; SAR Peak: 0.42 W/kg

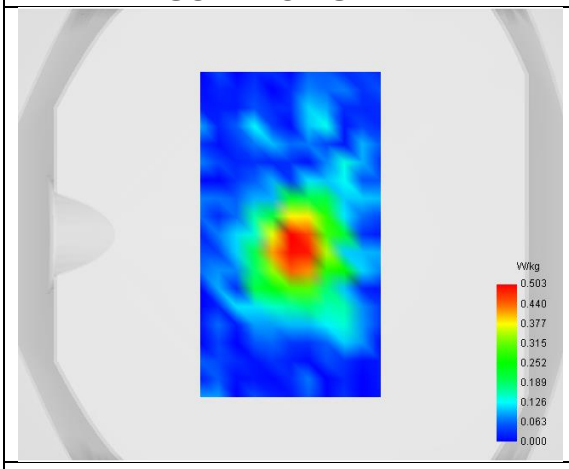
SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 4:

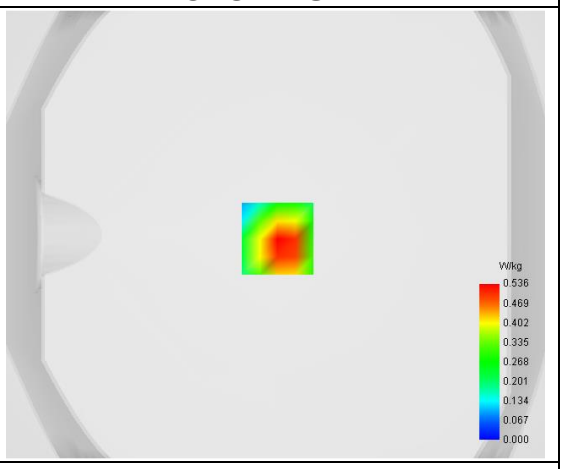
Test Date	2023-07-12
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Bottom Side
Band	GPRS1900
Signal	TDMA (EGPRS)
Frequency	1880
SAR 10g (W/Kg)	0.267
SAR 1g (W/Kg)	0.499

Maximum location: X=1.00, Y=-2.00 ; SAR Peak: 0.88 W/kg

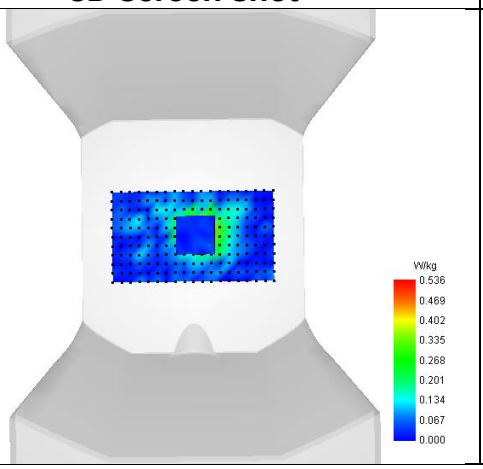
SURFACE SAR



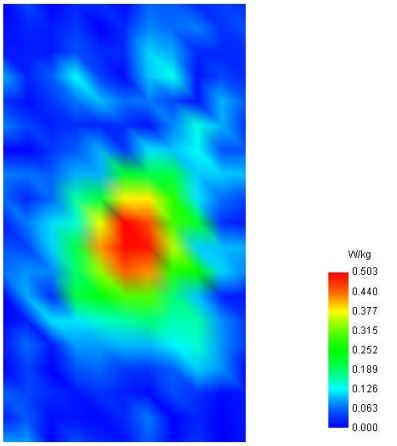
VOLUME SAR

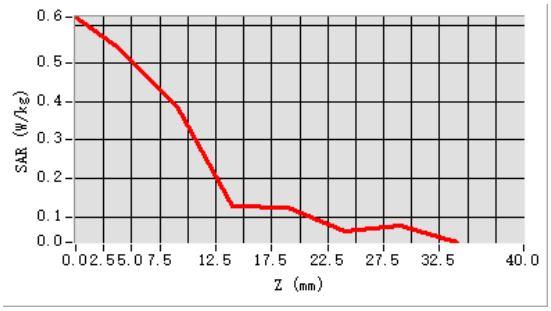


3D screen shot



Hot spot position

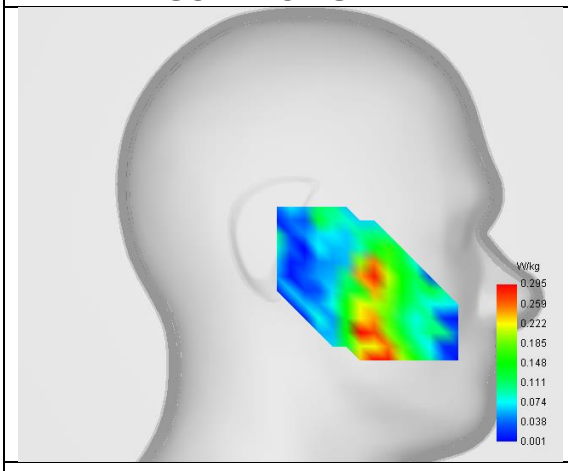
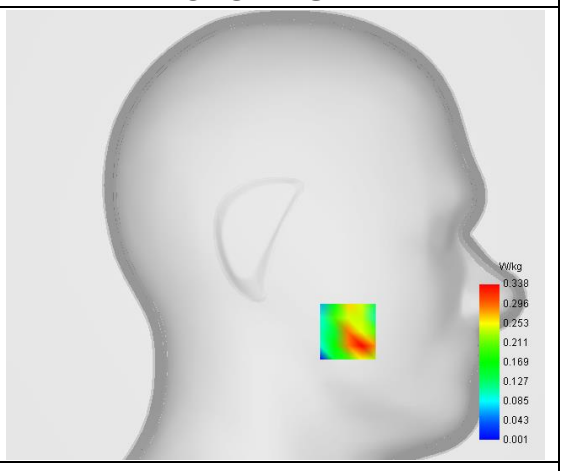
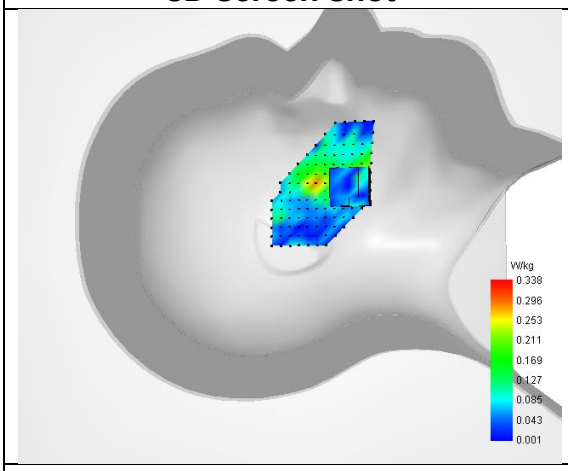
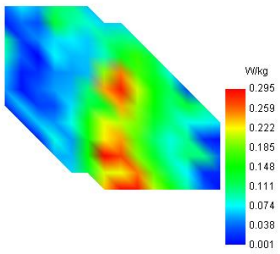


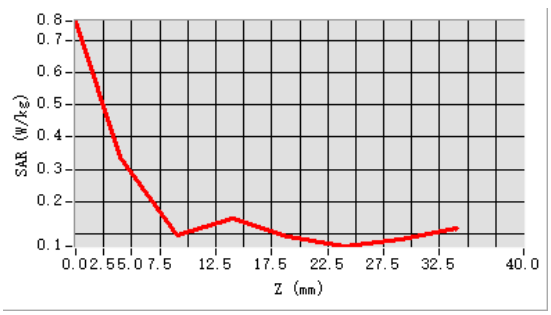


Plot 5:

Test Date	2023-07-12
Area Scan	sam_direct_droit2_surf8mm.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	Band 2 (1900)
Signal	WCDMA
Frequency	1880
SAR 10g (W/Kg)	0.148
SAR 1g (W/Kg)	0.319

Maximum location: X=-42.00, Y=-56.00 ; SAR Peak: 0.62 W/kg

SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	

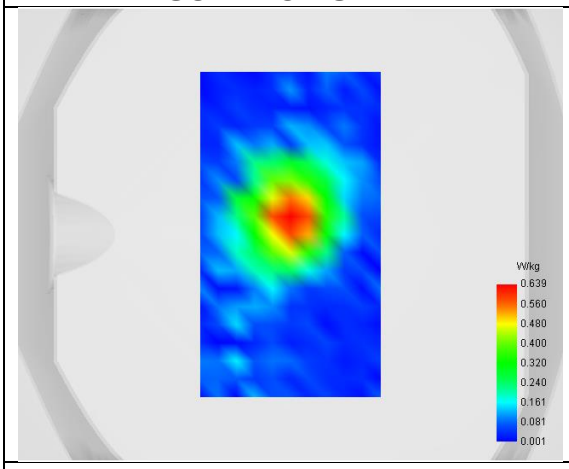


Plot 6:

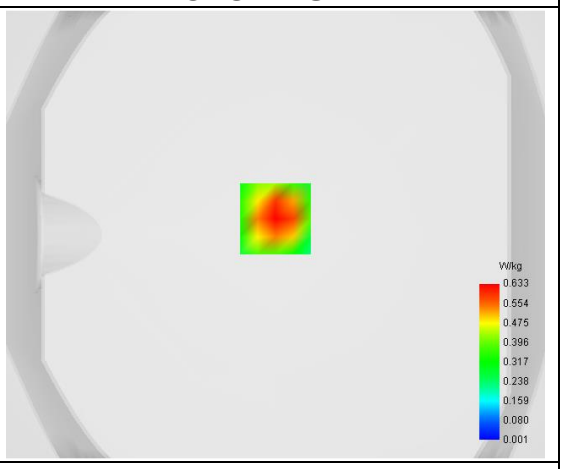
Test Date	2023-07-12
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Bottom Side
Band	Band 2 (1900)
Signal	WCDMA
Frequency	1880
SAR 10g (W/Kg)	0.327
SAR 1g (W/Kg)	0.581

Maximum location: X=0.00, Y=7.00 ; SAR Peak: 0.93 W/kg

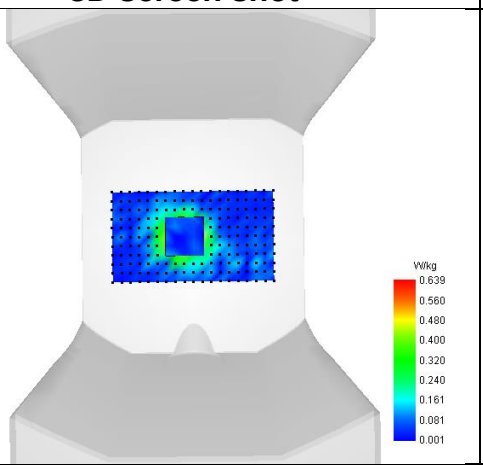
SURFACE SAR



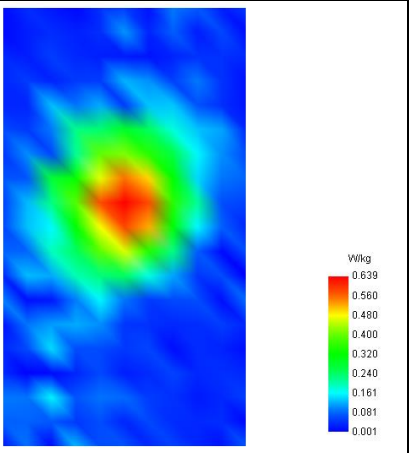
VOLUME SAR

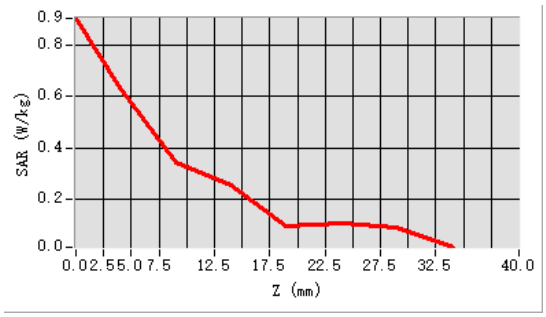


3D screen shot



Hot spot position



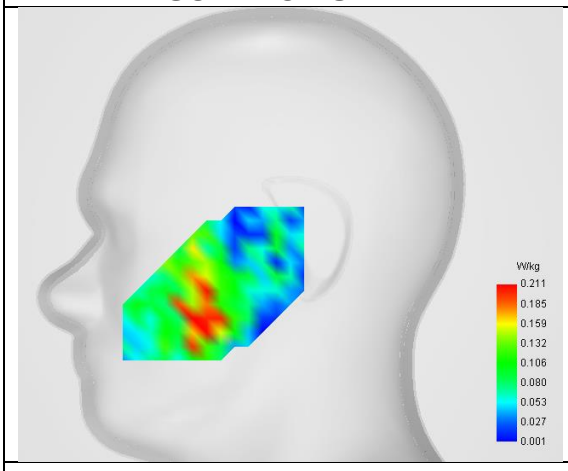


Plot 7:

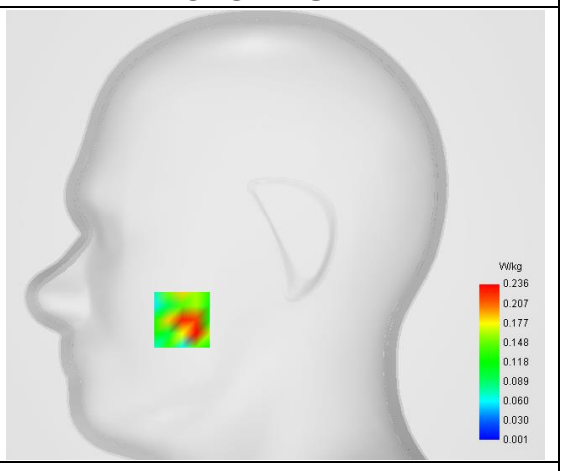
Test Date	2023-07-11
Area Scan	sam_direct_droit2_surf8mm.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right Cheek
Device Position	Cheek
Band	Band 4 (1700)
Signal	WCDMA
Frequency	1740
SAR 10g (W/Kg)	0.117
SAR 1g (W/Kg)	0.223

Maximum location: X=-54.00, Y=-49.00 ; SAR Peak: 0.41 W/kg

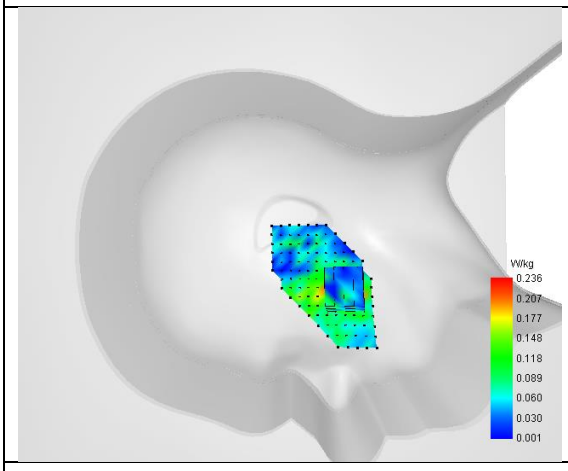
SURFACE SAR



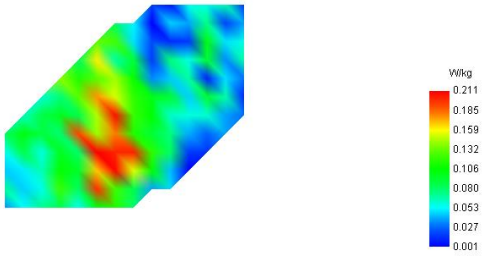
VOLUME SAR

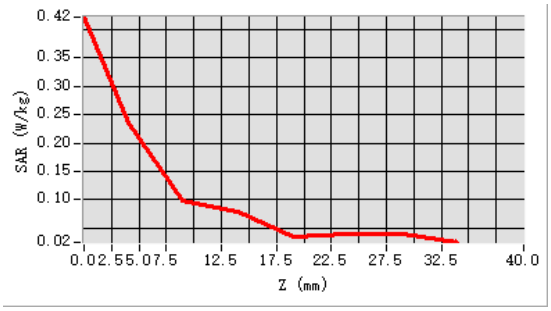


3D screen shot



Hot spot position

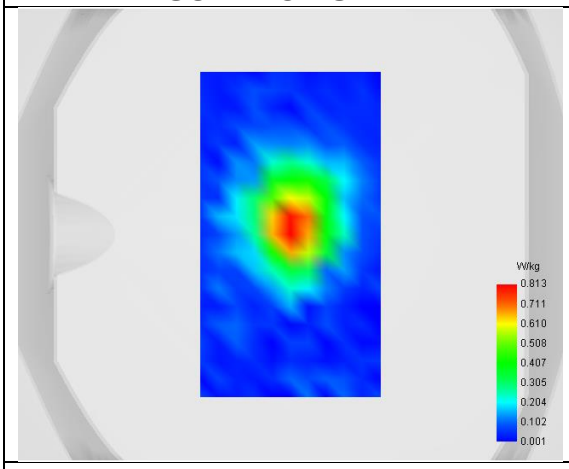
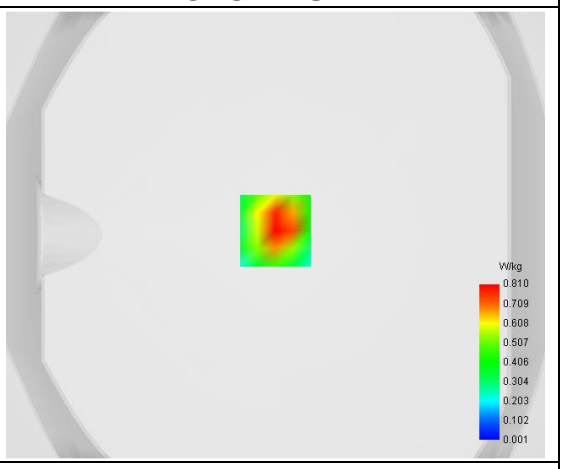
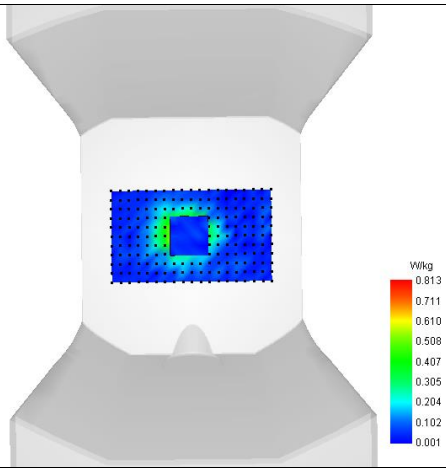
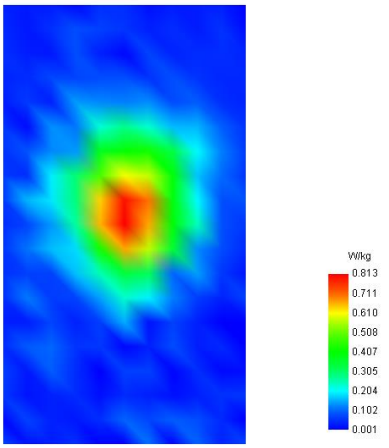
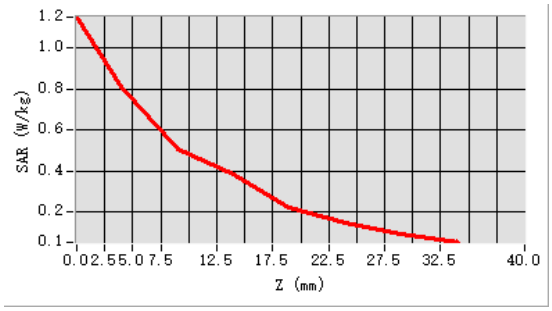




Plot 8:

Test Date	2023-07-11
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Bottom Side
Band	Band 4 (1700)
Signal	WCDMA
Frequency	1740
SAR 10g (W/Kg)	0.420
SAR 1g (W/Kg)	0.785

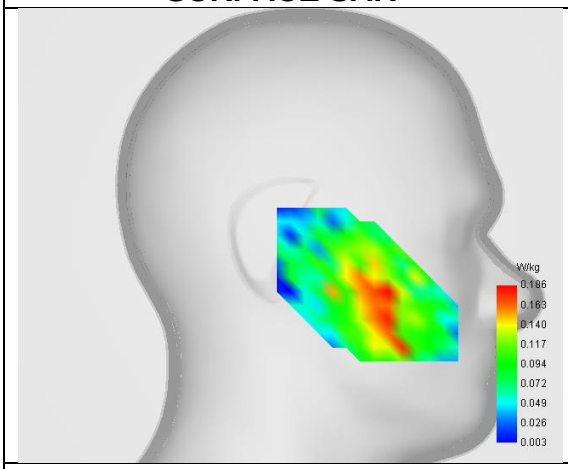
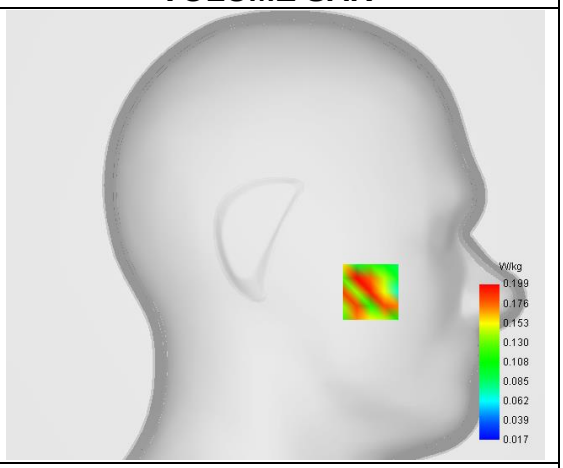
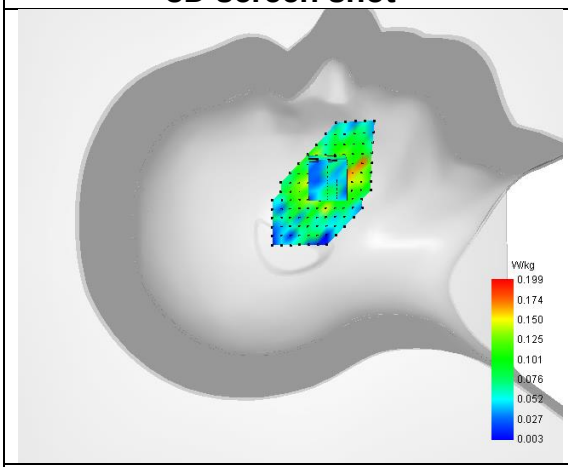
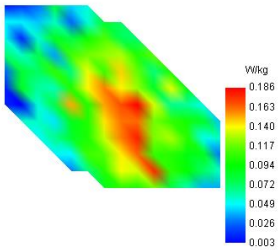
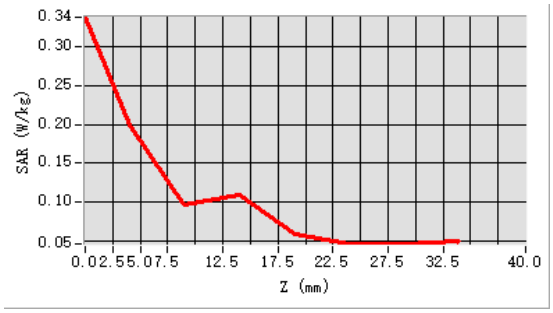
Maximum location: X=0.00, Y=2.00 ; SAR Peak: 1.34 W/kg

SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 9:

Test Date	2022-12-05
Area Scan	sam_direct_droit2_surf8mm.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	Band 5 (850)
Signal	WCDMA
Frequency	826.4
SAR 10g (W/Kg)	0.120
SAR 1g (W/Kg)	0.208

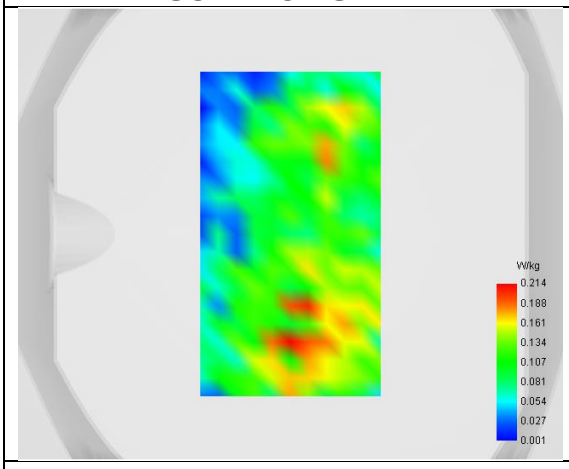
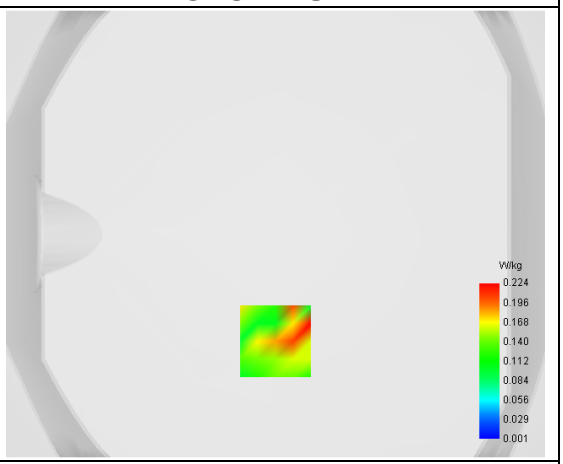
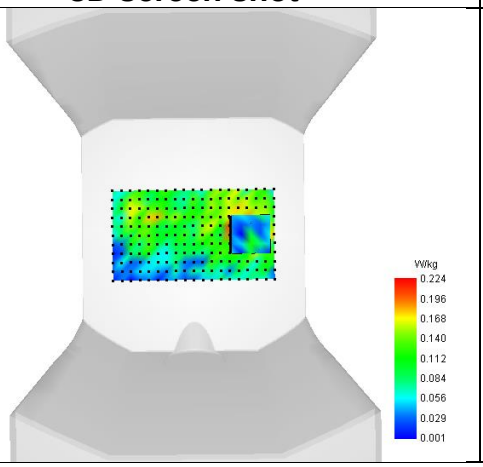
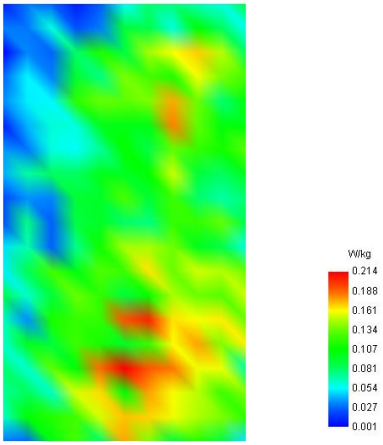
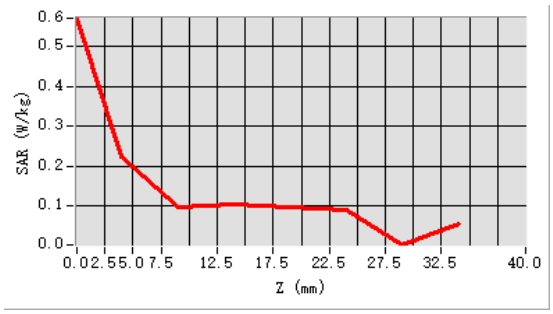
Maximum location: X=-55.00, Y=-33.00 ; SAR Peak: 0.43 W/kg

SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 10:

Test Date	2023-07-10
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	Band 5 (850)
Signal	WCDMA
Frequency	826.4
SAR 10g (W/Kg)	0.104
SAR 1g (W/Kg)	0.204

Maximum location: X=0.00, Y=-48.00 ; SAR Peak: 0.44 W/kg

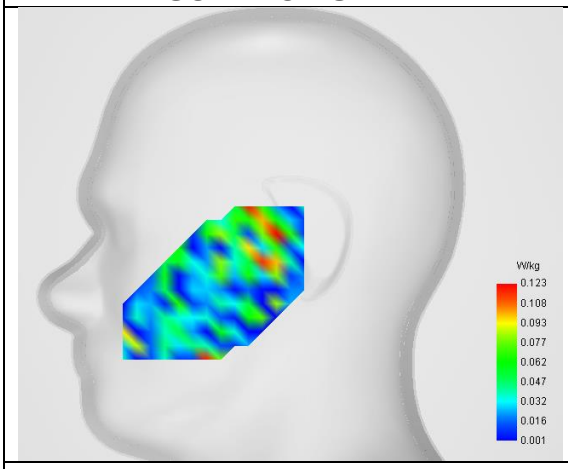
SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 11:

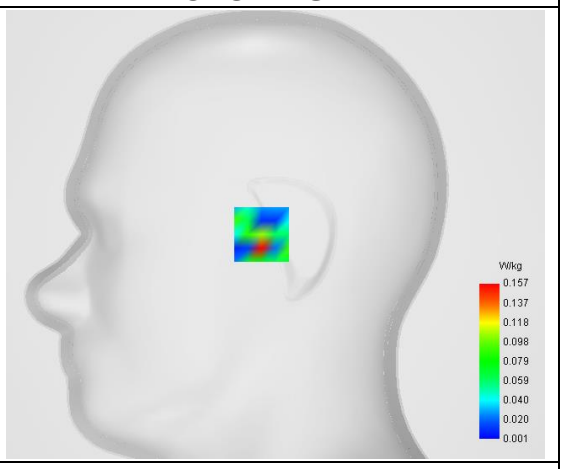
Test Date	2023-07-14
Area Scan	sam_direct_droit2_surf8mm.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right
Device Position	Tilt
Band	IEEE 802.11b ISM ANT A
Signal	IEEE 802.11
Frequency	2412
SAR 10g (W/Kg)	0.052
SAR 1g (W/Kg)	0.141

Maximum location: X=-8.00, Y=0.00 ; SAR Peak: 0.44 W/kg

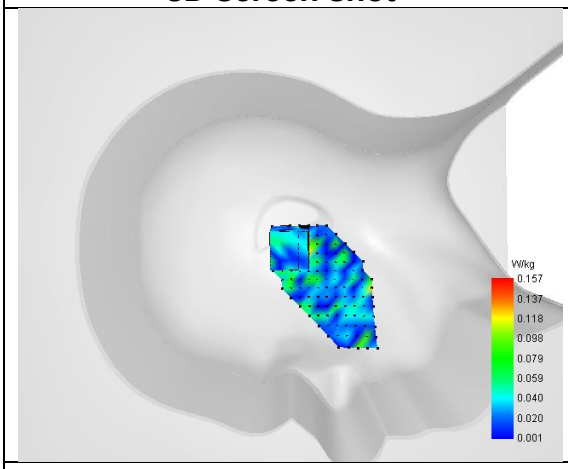
SURFACE SAR



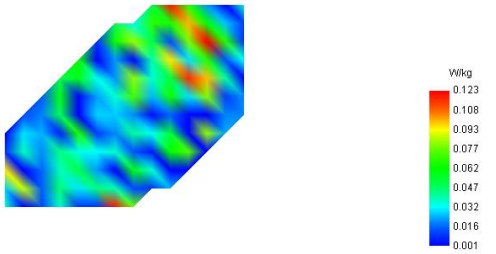
VOLUME SAR

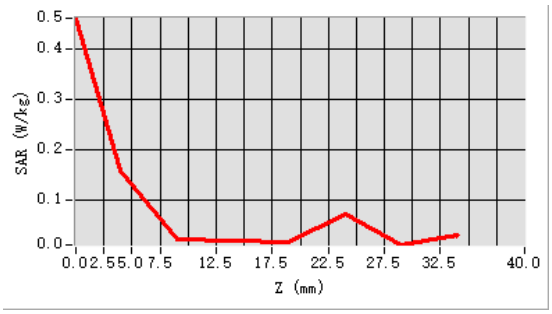


3D screen shot



Hot spot position



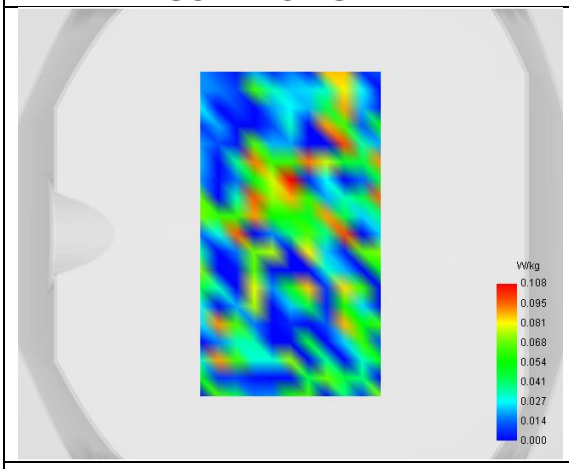


Plot 12:

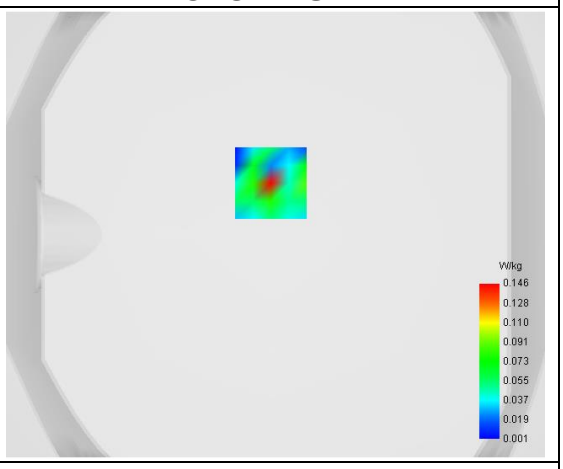
Test Date	2023-07-14
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11b ISM ANT A
Signal	IEEE 802.11
Frequency	2412
SAR 10g (W/Kg)	0.050
SAR 1g (W/Kg)	0.118

Maximum location: X=-2.00, Y=23.00 ; SAR Peak: 0.26 W/kg

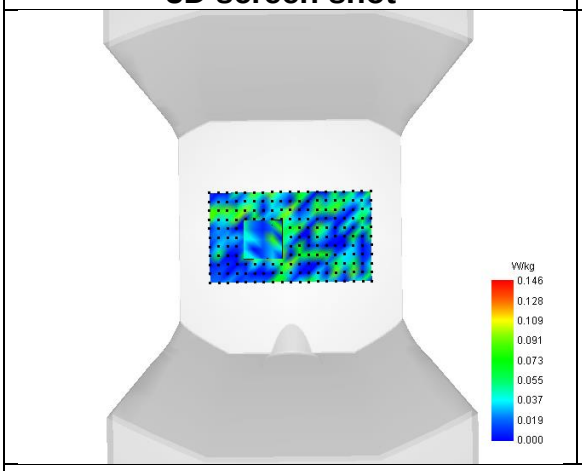
SURFACE SAR



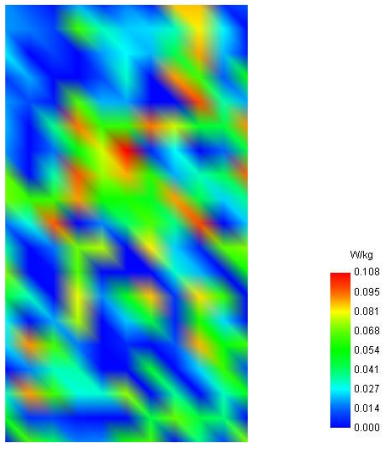
VOLUME SAR

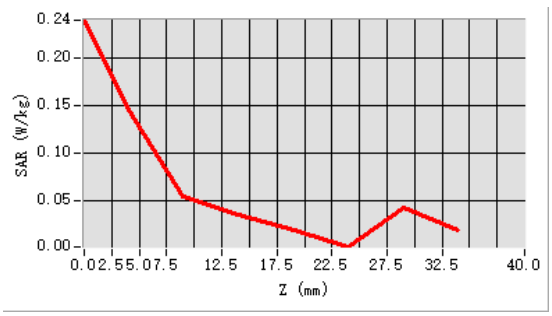


3D screen shot



Hot spot position

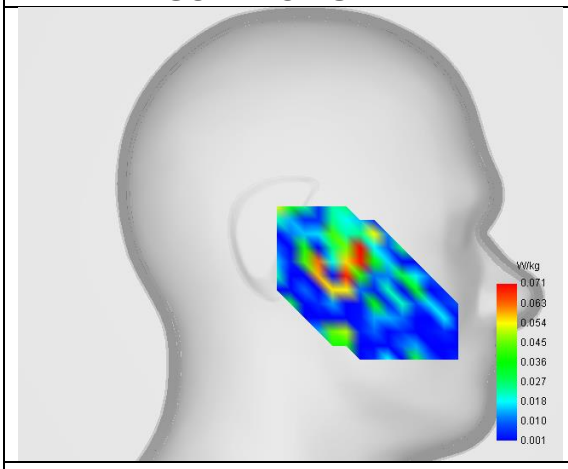
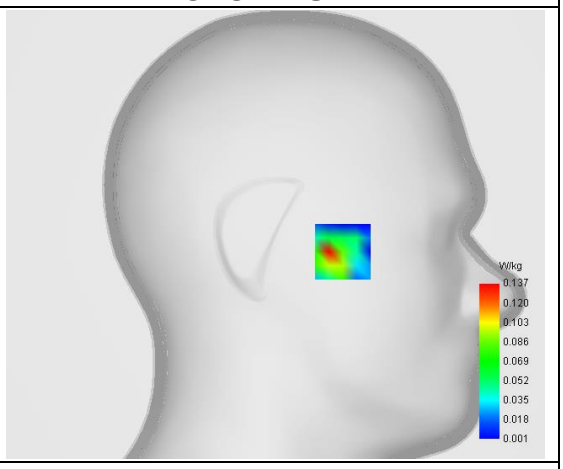
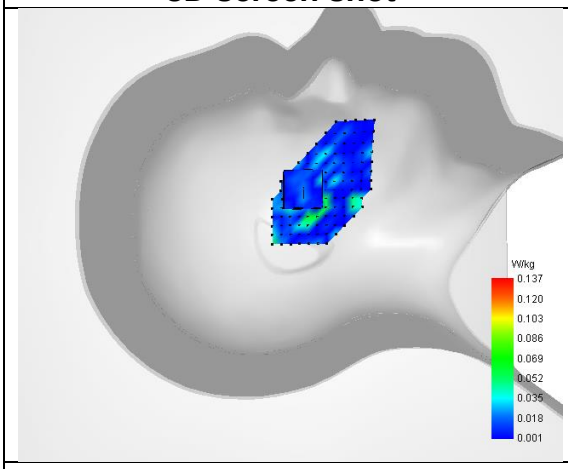
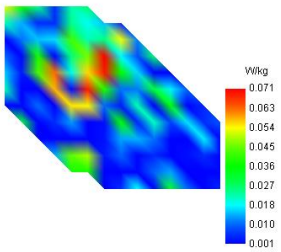
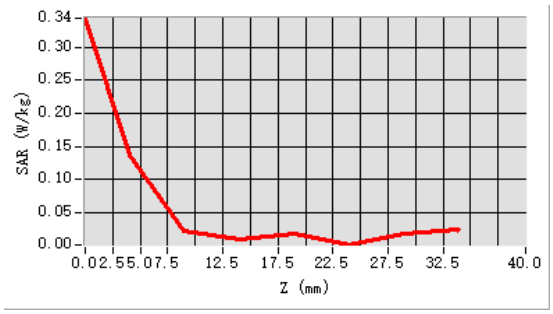




Plot 13:

Test Date	2023-07-14
Area Scan	sam_direct_droit2_surf8mm.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Tilt
Band	IEEE 802.11b ISM ANT B
Signal	IEEE 802.11
Frequency	2412
SAR 10g (W/Kg)	0.044
SAR 1g (W/Kg)	0.109

Maximum location: X=-39.00, Y=-10.00 ; SAR Peak: 0.21 W/kg

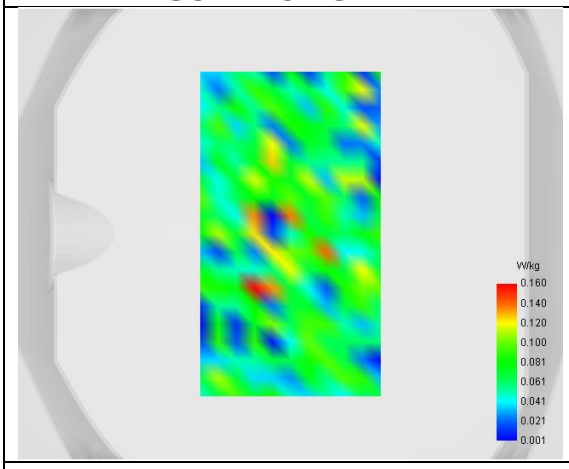
SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 14:

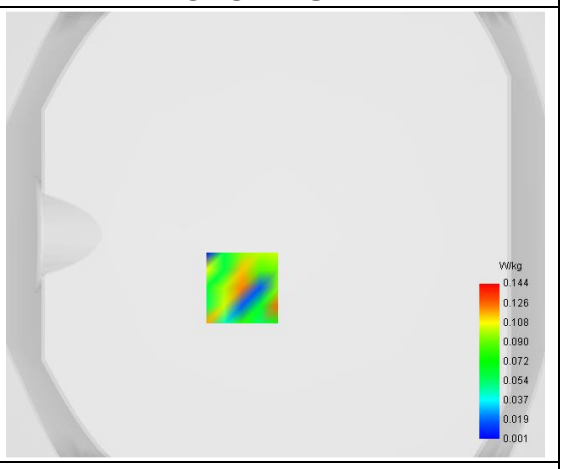
Test Date	2023-07-14
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Right Side
Band	IEEE 802.11b ISM ANT B
Signal	IEEE 802.11
Frequency	2412
SAR 10g (W/Kg)	0.069
SAR 1g (W/Kg)	0.157

Maximum location: X=-15.00, Y=-24.00 ; SAR Peak: 0.41 W/kg

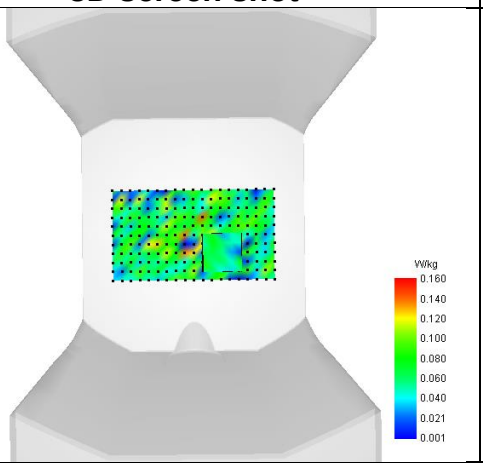
SURFACE SAR



VOLUME SAR



3D screen shot



Hot spot position