



# FCC SAR Test Report

Plo t No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	RB#	RB Offset	Power Reduction	Antenna	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	CA_38C	QPSK20M	Bottom Side	1.9	SCC:38048	SCC:0	SCC:0										
	CA_38C	QPSK20M	Bottom Side	1.9	PCC:37901 SCC:38099	PCC:1 SCC:0	PCC:50 SCC:0	Full	Ant0	62.9	25.5	23.91	0.18	0.411	1.01	1.44	0.60
	CA_38C	QPSK20M	Bottom Side	1.9	PCC:37952 SCC:38150	PCC:1 SCC:0	PCC:50 SCC:0	Full	Ant0	62.9	25.5	23.64	0.03	0.423	1.01	1.53	0.65
	LTE 38	QPSK20M	Front Face	1	37850	1	50	Full	Ant1	62.9	25.5	24.14	0.03	0.276	1.01	1.37	0.38
	LTE 38	QPSK20M	Rear Face	1	37850	1	50	Reduce	Ant1	62.9	21	19.79	-0.13	0.155	1.01	1.32	0.21
	LTE 38	QPSK20M	Left Side	1	37850	1	50	Full	Ant1	62.9	25.5	24.14	0.1	0.269	1.01	1.37	0.37
	LTE 38	QPSK20M	Right Side	1	37850	1	50	Full	Ant1	62.9	25.5	24.14	-0.01	0.058	1.01	1.37	0.08
	LTE 38	QPSK20M	Top Side	1	37850	1	50	Reduce	Ant1	62.9	21	19.79	0.12	0.254	1.01	1.32	0.34
	LTE 38	QPSK20M	Rear Face	1.5	37850	1	50	Full	Ant1	62.9	25.5	24.14	0.01	0.214	1.01	1.37	0.29
	LTE 38	QPSK20M	Top Side	1.5	37850	1	50	Full	Ant1	62.9	25.5	24.14	-0.13	0.271	1.01	1.37	0.37
	LTE 38	QPSK20M	Front Face	1	37850	50	25	Full	Ant1	62.9	24.5	23.21	0.09	0.211	1.01	1.35	0.29
	LTE 38	QPSK20M	Rear Face	1	37850	50	25	Reduce	Ant1	62.9	21	19.76	0.12	0.157	1.01	1.33	0.21
	LTE 38	QPSK20M	Left Side	1	37850	50	25	Full	Ant1	62.9	24.5	23.21	0.13	0.204	1.01	1.35	0.28
	LTE 38	QPSK20M	Right Side	1	37850	50	25	Full	Ant1	62.9	24.5	23.21	0.1	0.000	1.01	1.35	0.00
	LTE 38	QPSK20M	Top Side	1	37850	50	25	Reduce	Ant1	62.9	21	19.76	0.07	0.257	1.01	1.33	0.34
	LTE 38	QPSK20M	Rear Face	1.5	37850	50	25	Full	Ant1	62.9	24.5	23.21	0	0.175	1.01	1.35	0.24
	LTE 38	QPSK20M	Top Side	1.5	37850	50	25	Full	Ant1	62.9	24.5	23.21	0.09	0.215	1.01	1.35	0.29
	CA_38C	QPSK20M	Front Face	1	PCC:37850 SCC:38048	PCC:1 SCC:0	PCC:50 SCC:0	Full	Ant1	62.9	25.5	23.96	0.08	0.255	1.01	1.43	0.37
	CA_38C	QPSK20M	Front Face	1	PCC:37901 SCC:38099	PCC:1 SCC:0	PCC:50 SCC:0	Full	Ant1	62.9	25.5	23.98	-0.13	0.260	1.01	1.42	0.37
	CA_38C	QPSK20M	Front Face	1	PCC:37952 SCC:38150	PCC:1 SCC:0	PCC:50 SCC:0	Full	Ant1	62.9	25.5	24.06	-0.01	0.244	1.01	1.39	0.34
	LTE 41	QPSK20M	Front Face	1	40140	1	50	Full	Ant0	62.9	25.5	24.15	0.04	0.445	1.01	1.36	0.61
	LTE 41	QPSK20M	Rear Face	1	40140	1	50	Reduce	Ant0	62.9	22	20.28	0.05	0.449	1.01	1.49	0.67
	LTE 41	QPSK20M	Left Side	1	40140	1	50	Full	Ant0	62.9	25.5	24.15	0.19	0.035	1.01	1.36	0.05
	LTE 41	QPSK20M	Right Side	1	40140	1	50	Full	Ant0	62.9	25.5	24.15	0.02	0.099	1.01	1.36	0.14
43	LTE 41	QPSK20M	Bottom Side	1	40140	1	50	Reduce	Ant0	62.9	22	20.28	0	0.583	1.01	1.49	<b>0.87</b>
	LTE 41	QPSK20M	Rear Face	1.5	40140	1	50	Full	Ant0	62.9	25.5	24.15	-0.07	0.506	1.01	1.36	0.69
	LTE 41	QPSK20M	Bottom Side	1.9	40140	1	50	Full	Ant0	62.9	25.5	24.15	-0.04	0.525	1.01	1.36	0.72
	LTE 41	QPSK20M	Bottom Side	1	40640	1	50	Reduce	Ant0	62.9	22	20.11	0.06	0.555	1.01	1.55	0.86
	LTE 41	QPSK20M	Bottom Side	1	41140	1	50	Reduce	Ant0	62.9	22	19.98	0.07	0.525	1.01	1.59	0.84
	LTE 41	QPSK20M	Front Face	1	40140	50	25	Full	Ant0	62.9	24.5	23.23	0.11	0.373	1.01	1.34	0.50
	LTE 41	QPSK20M	Rear Face	1	40140	50	25	Reduce	Ant0	62.9	22	20.22	0.02	0.451	1.01	1.51	0.68
	LTE 41	QPSK20M	Left Side	1	40140	50	25	Full	Ant0	62.9	24.5	23.23	0	0.028	1.01	1.34	0.04
	LTE 41	QPSK20M	Right Side	1	40140	50	25	Full	Ant0	62.9	24.5	23.23	0.04	0.068	1.01	1.34	0.09
	LTE 41	QPSK20M	Bottom Side	1	40140	50	25	Reduce	Ant0	62.9	22	20.22	-0.13	0.570	1.01	1.51	0.86
	LTE 41	QPSK20M	Rear Face	1.5	40140	50	25	Full	Ant0	62.9	24.5	23.23	-0.03	0.412	1.01	1.34	0.56
	LTE 41	QPSK20M	Bottom Side	1.9	40140	50	25	Full	Ant0	62.9	24.5	23.23	0	0.428	1.01	1.34	0.58
	LTE 41	QPSK20M	Bottom Side	1	40640	50	25	Reduce	Ant0	62.9	22	20.06	0.07	0.543	1.01	1.56	0.85
	LTE 41	QPSK20M	Bottom Side	1	41140	50	25	Reduce	Ant0	62.9	22	19.98	0.08	0.528	1.01	1.59	0.85
	LTE 41	QPSK20M	Bottom Side	1	40140	100	0	Reduce	Ant0	62.9	22	20.26	0.11	0.563	1.01	1.49	0.85
	LTE 41	QPSK20M	Front Face	1	40140	1	50	Full	Ant1	62.9	25.5	24.18	0.02	0.257	1.01	1.36	0.35
	LTE 41	QPSK20M	Rear Face	1	40140	1	50	Reduce	Ant1	62.9	21.5	20.33	0.09	0.162	1.01	1.31	0.21
	LTE 41	QPSK20M	Left Side	1	40140	1	50	Full	Ant1	62.9	25.5	24.18	0.04	0.252	1.01	1.36	0.34
	LTE 41	QPSK20M	Right Side	1	40140	1	50	Full	Ant1	62.9	25.5	24.18	0.03	0.054	1.01	1.36	0.07
	LTE 41	QPSK20M	Top Side	1	40140	1	50	Reduce	Ant1	62.9	21.5	20.33	0.12	0.243	1.01	1.31	0.32
	LTE 41	QPSK20M	Rear Face	1.5	40140	1	50	Full	Ant1	62.9	25.5	24.18	0.09	0.213	1.01	1.36	0.29
	LTE 41	QPSK20M	Top Side	1.5	40140	1	50	Full	Ant1	62.9	25.5	24.18	0.02	0.234	1.01	1.36	0.32
	LTE 41	QPSK20M	Front Face	1	40140	50	25	Full	Ant1	62.9	24.5	23.29	0.02	0.181	1.01	1.32	0.24
	LTE 41	QPSK20M	Rear Face	1	40140	50	25	Reduce	Ant1	62.9	21.5	20.33	0.17	0.156	1.01	1.31	0.21
	LTE 41	QPSK20M	Left Side	1	40140	50	25	Full	Ant1	62.9	24.5	23.29	0	0.175	1.01	1.32	0.23
	LTE 41	QPSK20M	Right Side	1	40140	50	25	Full	Ant1	62.9	24.5	23.29	0.04	0.044	1.01	1.32	0.06
	LTE 41	QPSK20M	Top Side	1	40140	50	25	Reduce	Ant1	62.9	21.5	20.33	0.04	0.221	1.01	1.31	0.29
	LTE 41	QPSK20M	Rear Face	1.5	40140	50	25	Full	Ant1	62.9	24.5	23.29	0.03	0.163	1.01	1.32	0.22
	LTE 41	QPSK20M	Top Side	1.5	40140	50	25	Full	Ant1	62.9	24.5	23.29	0.07	0.197	1.01	1.32	0.26
	WLAN2.4G	802.11b	Front Face	1	11	-	-	Full	-	99.64	19.5	18.01	-0.07	0.061	1.00	1.41	0.09
44	WLAN2.4G	802.11b	Rear Face	1	11	-	-	Full	-	99.64	19.5	18.01	0.07	0.187	1.00	1.41	<b>0.26</b>
	WLAN2.4G	802.11b	Right Side	1	11	-	-	Full	-	99.64	19.5	18.01	0.08	0.161	1.00	1.41	0.23
	WLAN2.4G	802.11b	Top Side	1	11	-	-	Full	-	99.64	19.5	18.01	-0.13	0.107	1.00	1.41	0.15
	WLAN5G	802.11ac80	Front Face	1	42	-	-	Full	-	88.89	15.5	13.52	-0.01	0.111	1.12	1.58	0.20
45	WLAN5G	802.11ac80	Rear Face	1	42	-	-	Full	-	88.89	15.5	13.52	-0.08	0.205	1.12	1.58	<b>0.36</b>
	WLAN5G	802.11ac80	Right Side	1	42	-	-	Full	-	88.89	15.5	13.52	0.04	0.093	1.12	1.58	0.17
	WLAN5G	802.11ac80	Top Side	1	42	-	-	Full	-	88.89	15.5	13.52	-0.05	0.184	1.12	1.58	0.33
	WLAN5G	802.11ac80	Front Face	1	155	-	-	Full	-	88.89	15.5	14.11	0.03	0.126	1.12	1.38	0.20
	WLAN5G	802.11ac80	Rear Face	1	155	-	-	Full	-	88.89	15.5	14.11	0.14	0.252	1.12	1.38	0.39



# FCC SAR Test Report

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	RB#	RB Offset	Power Reduction	Antenna	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	WLAN5G	802.11ac80	Right Side	1	155	-	-	Full	-	88.89	15.5	14.11	-0.01	0.135	1.12	1.38	0.21
46	WLAN5G	802.11ac80	Top Side	1	155	-	-	Full	-	88.89	15.5	14.11	-0.04	0.295	1.12	1.38	<b>0.46</b>
	BT	GFSK	Front Face	1	39	-	-	Full	-	76.8	10.5	9.28	0.03	0.006	1.30	1.32	0.01
47	BT	GFSK	Rear Face	1	39	-	-	Full	-	76.8	10.5	9.28	-0.09	0.018	1.30	1.32	<b>0.03</b>
	BT	GFSK	Right Side	1	39	-	-	Full	-	76.8	10.5	9.28	0.08	0.015	1.30	1.32	0.03
	BT	GFSK	Top Side	1	39	-	-	Full	-	76.8	10.5	9.28	-0.03	0.011	1.30	1.32	0.02

## 4.6.5 SAR Results for Extremity Exposure Condition (Separation Distance is 0 cm Gap)

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	RB#	RB Offset	Power Reduction	Antenna	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
48	GSM1900	GPRS8	Rear Face	0	810	-	-	Reduce	Ant1	-	27	25.73	0.02	0.935	1.00	1.34	<b>1.26</b>
	GSM1900	GPRS8	Top Side	0	810	-	-	Reduce	Ant1	-	27	25.73	-0.07	0.663	1.00	1.34	0.89
49	WCDMA II	RMC12.2K	Bottom Side	0	9538	-	-	Reduce	Ant0	-	21.5	20.42	-0.01	1.250	1.00	1.28	<b>1.61</b>
	WCDMA II	RMC12.2K	Rear Face	0	9538	-	-	Reduce	Ant1	-	18	17.34	0.01	0.911	1.00	1.16	1.07
	WCDMA II	RMC12.2K	Top Side	0	9538	-	-	Reduce	Ant1	-	18	17.34	-0.14	0.756	1.00	1.16	0.89
	WCDMA IV	RMC12.2K	Rear Face	0	1312	-	-	Reduce	Ant0	-	21.5	20.23	0.13	1.300	1.00	1.34	1.75
50	WCDMA IV	RMC12.2K	Bottom Side	0	1312	-	-	Reduce	Ant0	-	21.5	20.23	-0.04	1.450	1.00	1.34	<b>1.95</b>
	WCDMA IV	RMC12.2K	Rear Face	0	1312	-	-	Reduce	Ant1	-	18.5	18.17	0.02	1.070	1.00	1.08	1.16
	WCDMA IV	RMC12.2K	Top Side	0	1312	-	-	Reduce	Ant1	-	18.5	18.17	-0.01	1.030	1.00	1.08	1.12
	LTE 2	QPSK20M	Bottom Side	0	18900	1	50	Reduce	Ant0	-	21.5	20.51	0.04	1.110	1.00	1.26	1.40
51	LTE 2	QPSK20M	Bottom Side	0	18900	50	25	Reduce	Ant0	-	21.5	20.22	-0.03	1.170	1.00	1.34	<b>1.58</b>
	LTE 2	QPSK20M	Rear Face	0	18900	1	50	Reduce	Ant1	-	18	17.35	0.06	0.969	1.00	1.16	1.13
	LTE 2	QPSK20M	Top Side	0	18900	1	50	Reduce	Ant1	-	18	17.35	0.08	0.753	1.00	1.16	0.88
	LTE 2	QPSK20M	Rear Face	0	18900	50	25	Reduce	Ant1	-	18	17.11	0.02	0.972	1.00	1.23	1.20
	LTE 2	QPSK20M	Top Side	0	18900	50	25	Reduce	Ant1	-	18	17.11	-0.02	0.758	1.00	1.23	0.94
	LTE 4	QPSK20M	Bottom Side	0	20050	1	50	Reduce	Ant0	-	21.5	20.56	0.04	1.340	1.00	1.24	1.67
52	LTE 4	QPSK20M	Bottom Side	0	20050	50	25	Reduce	Ant0	-	21.5	20.3	0.01	1.380	1.00	1.32	<b>1.83</b>
	LTE 4	QPSK20M	Rear Face	0	20050	1	50	Reduce	Ant1	-	19	18.33	0.1	1.030	1.00	1.17	1.21
	LTE 4	QPSK20M	Top Side	0	20050	1	50	Reduce	Ant1	-	19	18.33	0.05	0.966	1.00	1.17	1.13
	LTE 4	QPSK20M	Rear Face	0	20050	50	25	Reduce	Ant1	-	19	18.04	0.11	1.060	1.00	1.25	1.33
	LTE 4	QPSK20M	Top Side	0	20050	50	25	Reduce	Ant1	-	19	18.04	-0.08	0.968	1.00	1.25	1.21
	LTE 7	QPSK20M	Rear Face	0	21350	1	50	Reduce	Ant0	-	19.5	18.33	-0.01	1.090	1.00	1.31	1.44
	LTE 7	QPSK20M	Bottom Side	0	21350	1	50	Reduce	Ant0	-	19.5	18.33	-0.04	0.995	1.00	1.31	1.31
53	LTE 7	QPSK20M	Rear Face	0	21350	50	25	Reduce	Ant0	-	19.5	18.19	0	1.100	1.00	1.35	<b>1.50</b>
	LTE 7	QPSK20M	Bottom Side	0	21350	50	25	Reduce	Ant0	-	19.5	18.19	-0.13	0.986	1.00	1.35	1.34
	CA_7C	QPSK20M	Rear Face	0	PCC:20850 SCC:21048	PCC:50 SCC:0	PCC:25 SCC:0	Reduce	Ant0	-	19.5	18.27	0.06	1.010	1.00	1.33	1.35
	CA_7C	QPSK20M	Rear Face	0	PCC:21001 SCC:21199	PCC:50 SCC:0	PCC:25 SCC:0	Reduce	Ant0	-	19.5	17.88	-0.06	0.988	1.00	1.45	1.44
	CA_7C	QPSK20M	Rear Face	0	PCC:21152 SCC:21350	PCC:50 SCC:0	PCC:25 SCC:0	Reduce	Ant0	-	19.5	17.94	0.12	1.010	1.00	1.43	1.46
	LTE 38	QPSK20M	Rear Face	0	37850	1	50	Reduce	Ant0	62.9	21	19.73	0.06	1.100	1.01	1.34	1.48
	LTE 38	QPSK20M	Bottom Side	0	37850	1	50	Reduce	Ant0	62.9	21	19.73	0.12	1.000	1.01	1.34	1.35
54	LTE 38	QPSK20M	Rear Face	0	37850	50	25	Reduce	Ant0	62.9	21	19.71	0.00	1.150	1.01	1.35	<b>1.56</b>
	LTE 38	QPSK20M	Bottom Side	0	37850	50	25	Reduce	Ant0	62.9	21	19.71	-0.17	1.030	1.01	1.35	1.39
	CA_38C	QPSK20M	Rear Face	0	PCC:37850 SCC:38048	PCC:50 SCC:0	PCC:25 SCC:0	Reduce	Ant0	62.9	21	19.53	0.08	1.050	1.01	1.40	1.48
	CA_38C	QPSK20M	Rear Face	0	PCC:37901 SCC:38099	PCC:50 SCC:0	PCC:25 SCC:0	Reduce	Ant0	62.9	21	19.63	0.11	0.990	1.01	1.37	1.37
	CA_38C	QPSK20M	Rear Face	0	PCC:37952 SCC:38150	PCC:50 SCC:0	PCC:25 SCC:0	Reduce	Ant0	62.9	21	19.73	0.13	1.070	1.01	1.34	1.44
	LTE 41	QPSK20M	Rear Face	0	40140	1	50	Reduce	Ant0	62.9	22	20.28	0.03	1.220	1.00	1.49	1.82
	LTE 41	QPSK20M	Bottom Side	0	40140	1	50	Reduce	Ant0	62.9	22	20.28	0.07	1.080	1.00	1.49	1.61
55	LTE 41	QPSK20M	Rear Face	0	40140	50	25	Reduce	Ant0	62.9	22	20.22	-0.01	1.260	1.00	1.51	<b>1.91</b>
	LTE 41	QPSK20M	Bottom Side	0	40140	50	25	Reduce	Ant0	62.9	22	20.22	-0.15	1.120	1.00	1.51	1.70
	WLAN5G	802.11ac80	Front Face	0	58	-	-	Full	-	88.89	15.5	13.66	0	0.191	1.12	1.53	0.33
	WLAN5G	802.11ac80	Rear Face	0	58	-	-	Full	-	88.89	15.5	13.66	0.01	0.192	1.12	1.53	0.33
	WLAN5G	802.11ac80	Right Side	0	58	-	-	Full	-	88.89	15.5	13.66	0	0.426	1.12	1.53	0.73
56	WLAN5G	802.11ac80	Top Side	0	58	-	-	Full	-	88.89	15.5	13.66	-0.11	0.564	1.12	1.53	<b>0.97</b>
	WLAN5G	802.11ac80	Front Face	0	106	-	-	Full	-	88.89	15.5	14.03	0	0.219	1.12	1.40	0.35
	WLAN5G	802.11ac80	Rear Face	0	106	-	-	Full	-	88.89	15.5	14.03	0.01	0.222	1.12	1.40	0.35
	WLAN5G	802.11ac80	Right Side	0	106	-	-	Full	-	88.89	15.5	14.03	-0.09	0.547	1.12	1.40	0.86
57	WLAN5G	802.11ac80	Top Side	0	106	-	-	Full	-	88.89	15.5	14.03	0	0.550	1.12	1.40	<b>0.87</b>

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### 4.6.6 SAR Measurement Variability

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

SAR repeated measurement procedure:

1. When the highest measured SAR is  $< 0.80$  W/kg, repeated measurement is not required.
2. When the highest measured SAR is  $\geq 0.80$  W/kg, repeat that measurement once.
3. 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  $\geq 1.45$  W/kg, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ , and the original, first or second repeated measurement is  $\geq 1.5$  W/kg, perform a third repeated measurement.

Band	Test Position	Ch.	Original Measured SAR-1g (W/kg)	1st Repeated SAR-1g (W/kg)	L/S Ratio	2nd Repeated SAR-1g (W/kg)	L/S Ratio	3rd Repeated SAR-1g (W/kg)	L/S Ratio
WCDMA II	Top Side	9400	0.950	0.931	1.02	N/A	N/A	N/A	N/A

# FCC SAR Test Report

## 4.6.7 Simultaneous Multi-band Transmission Evaluation

### <SAR Summation Analysis>

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

### <Head>

WWAN Band	Exposure Position	1	2	3	4	1+2+4 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM850	Right Cheek	0.785	0.202	0.432	0.031	1.02	1.25
	Right Tilted	0.525	0.183	0.471	0.024	0.73	1.02
	Left Cheek	0.753	0.617	0.564	0.082	1.45	1.40
	Left Tilted	0.567	0.451	0.669	0.052	1.07	1.29
GSM1900	Right Cheek	0.954	0.202	0.432	0.031	1.19	1.42
	Right Tilted	1.093	0.183	0.471	0.024	1.30	1.59
	Left Cheek	0.670	0.617	0.564	0.082	1.37	1.32
	Left Tilted	0.741	0.451	0.669	0.052	1.24	1.46
WCDMA II	Right Cheek	0.617	0.202	0.432	0.031	0.85	1.08
	Right Tilted	0.735	0.183	0.471	0.024	0.94	1.23
	Left Cheek	0.218	0.617	0.564	0.082	0.92	0.86
	Left Tilted	0.243	0.451	0.669	0.052	0.75	0.96
WCDMA IV	Right Cheek	0.748	0.202	0.432	0.031	0.98	1.21
	Right Tilted	0.992	0.183	0.471	0.024	1.20	1.49
	Left Cheek	0.477	0.617	0.564	0.082	1.18	1.12
	Left Tilted	0.636	0.451	0.669	0.052	1.14	1.36
WCDMA V	Right Cheek	0.765	0.202	0.432	0.031	1.00	1.23
	Right Tilted	0.548	0.183	0.471	0.024	0.75	1.04
	Left Cheek	0.620	0.617	0.564	0.082	1.32	1.27
	Left Tilted	0.492	0.451	0.669	0.052	0.99	1.21
LTE Band 2	Right Cheek	0.786	0.202	0.432	0.031	1.02	1.25
	Right Tilted	0.953	0.183	0.471	0.024	1.16	1.45
	Left Cheek	0.520	0.617	0.564	0.082	1.22	1.17
	Left Tilted	0.684	0.451	0.669	0.052	1.19	1.40
LTE Band 4	Right Cheek	0.742	0.202	0.432	0.031	0.98	1.20
	Right Tilted	0.975	0.183	0.471	0.024	1.18	1.47
	Left Cheek	0.508	0.617	0.564	0.082	1.21	1.15
	Left Tilted	0.651	0.451	0.669	0.052	1.15	1.37
LTE Band 5	Right Cheek	0.793	0.202	0.432	0.031	1.03	1.26
	Right Tilted	0.588	0.183	0.471	0.024	0.79	1.08

# FCC SAR Test Report

WWAN Band	Exposure Position	1	2	3	4	1+2+4 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
	Left Cheek	0.743	0.617	0.564	0.082	<b>1.44</b>	<b>1.39</b>
	Left Tilted	0.651	0.451	0.669	0.052	<b>1.15</b>	<b>1.37</b>
LTE Band 7	Right Cheek	0.620	0.202	0.432	0.031	<b>0.85</b>	<b>1.08</b>
	Right Tilted	0.715	0.183	0.471	0.024	<b>0.92</b>	<b>1.21</b>
	Left Cheek	0.473	0.617	0.564	0.082	<b>1.17</b>	<b>1.12</b>
	Left Tilted	0.542	0.451	0.669	0.052	<b>1.04</b>	<b>1.26</b>
LTE Band 38	Right Cheek	0.721	0.202	0.432	0.031	<b>0.95</b>	<b>1.18</b>
	Right Tilted	0.866	0.183	0.471	0.024	<b>1.07</b>	<b>1.36</b>
	Left Cheek	0.546	0.617	0.564	0.082	<b>1.25</b>	<b>1.19</b>
	Left Tilted	0.609	0.451	0.669	0.052	<b>1.11</b>	<b>1.33</b>
LTE Band 41	Right Cheek	0.640	0.202	0.432	0.031	<b>0.87</b>	<b>1.10</b>
	Right Tilted	0.717	0.183	0.471	0.024	<b>0.92</b>	<b>1.21</b>
	Left Cheek	0.489	0.617	0.564	0.082	<b>1.19</b>	<b>1.14</b>
	Left Tilted	0.557	0.451	0.669	0.052	<b>1.06</b>	<b>1.28</b>

## <Body worn>

WWAN Band	Exposure Position	1	2	3	4	1+2+4 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM850	Front at 10mm	0.180	0.086	0.203	0.010	<b>0.28</b>	<b>0.39</b>
	Back at 10mm	0.278	0.264	0.458	0.031	<b>0.57</b>	<b>0.77</b>
GSM1900	Front at 10mm	0.560	0.086	0.203	0.010	<b>0.66</b>	<b>0.77</b>
	Back at 10mm	0.651	0.264	0.458	0.031	<b>0.95</b>	<b>1.14</b>
	Back at 15mm	0.532	0.264	0.458	0.031	<b>0.83</b>	<b>1.02</b>
WCDMA II	Front at 10mm	0.984	0.086	0.203	0.010	<b>1.08</b>	<b>1.20</b>
	Back at 10mm	0.478	0.264	0.458	0.031	<b>0.77</b>	<b>0.97</b>
	Back at 15mm	0.705	0.264	0.458	0.031	<b>1.00</b>	<b>1.19</b>
WCDMA IV	Front at 10mm	0.746	0.086	0.203	0.010	<b>0.84</b>	<b>0.96</b>
	Back at 10mm	0.500	0.264	0.458	0.031	<b>0.80</b>	<b>0.99</b>
	Back at 15mm	0.686	0.264	0.458	0.031	<b>0.98</b>	<b>1.17</b>
WCDMA V	Front at 10mm	0.273	0.086	0.203	0.010	<b>0.37</b>	<b>0.49</b>
	Back at 10mm	0.320	0.264	0.458	0.031	<b>0.62</b>	<b>0.81</b>
LTE Band 2	Front at 10mm	0.976	0.086	0.203	0.010	<b>1.07</b>	<b>1.19</b>
	Back at 10mm	0.560	0.264	0.458	0.031	<b>0.86</b>	<b>1.05</b>
	Back at 15mm	0.931	0.264	0.458	0.031	<b>1.23</b>	<b>1.42</b>
LTE Band 4	Front at 10mm	0.795	0.086	0.203	0.010	<b>0.89</b>	<b>1.01</b>
	Back at 10mm	0.505	0.264	0.458	0.031	<b>0.80</b>	<b>0.99</b>

# FCC SAR Test Report

WWAN Band	Exposure Position	1	2	3	4	1+2+4 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
	Back at 15mm	0.777	0.264	0.458	0.031	1.07	1.27
LTE Band 5	Front at 10mm	0.267	0.086	0.203	0.010	0.36	0.48
	Back at 10mm	0.310	0.264	0.458	0.031	0.61	0.80
LTE Band 7	Front at 10mm	0.988	0.086	0.203	0.010	1.08	1.20
	Back at 10mm	0.480	0.264	0.458	0.031	0.78	0.97
	Back at 15mm	1.048	0.264	0.458	0.031	1.34	1.54
LTE Band 38	Front at 10mm	0.719	0.086	0.203	0.010	0.82	0.93
	Back at 10mm	0.588	0.264	0.458	0.031	0.88	1.08
	Back at 15mm	0.651	0.264	0.458	0.031	0.95	1.14
LTE Band 41	Front at 10mm	0.611	0.086	0.203	0.010	0.71	0.82
	Back at 10mm	0.684	0.264	0.458	0.031	0.98	1.17
	Back at 15mm	0.695	0.264	0.458	0.031	0.99	1.18

## <Hotspot>

WWAN Band	Exposure Position	1	2	3	4	1+2+4 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM850	Front at 10mm	0.180	0.086	0.195	0.010	0.28	0.39
	Back at 10mm	0.278	0.264	0.390	0.031	0.57	0.70
	Left side at 10mm	0.129				0.13	0.13
	Right side at 10mm	0.176	0.228	0.209	0.026	0.43	0.41
	Top side at 10mm	0.169	0.151	0.457	0.019	0.34	0.65
	Bottom side at 10mm	0.230				0.23	0.23
GSM1900	Front at 10mm	0.560	0.086	0.195	0.010	0.66	0.77
	Back at 10mm	0.651	0.264	0.390	0.031	0.95	1.07
	Left side at 10mm	0.181				0.18	0.18
	Right side at 10mm	0.097	0.228	0.209	0.026	0.35	0.33
	Top side at 10mm	0.742	0.151	0.457	0.019	0.91	1.22
	Bottom side at 10mm	0.293				0.29	0.29
	Back at 15mm	0.532	0.264	0.390	0.031	0.83	0.95
	Top Side at 15mm	0.551	0.151	0.457	0.019	0.72	1.03
Bottom side at 19mm	0.269				0.27	0.27	
WCDMA II	Front at 10mm	0.984	0.086	0.195	0.010	1.08	1.19
	Back at 10mm	0.478	0.264	0.390	0.031	0.77	0.90
	Left side at 10mm	0.303				0.30	0.30
	Right side at 10mm	0.167	0.228	0.209	0.026	0.42	0.40
	Top side at 10mm	0.523	0.151	0.457	0.019	0.69	1.00

# FCC SAR Test Report

WWAN Band	Exposure Position	1	2	3	4	1+2+4 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
	Bottom side at 10mm	0.523				0.52	0.52
	Back at 15mm	0.705	0.264	0.390	0.031	1.00	1.13
	Top Side at 15mm	1.088	0.151	0.457	0.019	1.26	1.56
	Bottom side at 19mm	0.507				0.51	0.51
WCDMA IV	Front at 10mm	0.746	0.086	0.195	0.010	0.84	0.95
	Back at 10mm	0.500	0.264	0.390	0.031	0.80	0.92
	Left side at 10mm	0.229				0.23	0.23
	Right side at 10mm	0.164	0.228	0.209	0.026	0.42	0.40
	Top side at 10mm	0.429	0.151	0.457	0.019	0.60	0.91
	Bottom side at 10mm	0.757				0.76	0.76
	Back at 15mm	0.686	0.264	0.390	0.031	0.98	1.11
	Top Side at 15mm	0.793	0.151	0.457	0.019	0.96	1.27
	Bottom side at 19mm	0.575				0.57	0.57
WCDMA V	Front at 10mm	0.273	0.086	0.195	0.010	0.37	0.48
	Back at 10mm	0.320	0.264	0.390	0.031	0.62	0.74
	Left side at 10mm	0.195				0.19	0.19
	Right side at 10mm	0.201	0.228	0.209	0.026	0.45	0.44
	Top side at 10mm	0.270	0.151	0.457	0.019	0.44	0.75
	Bottom side at 10mm	0.281				0.28	0.28
LTE Band 2	Front at 10mm	0.976	0.086	0.195	0.010	1.07	1.18
	Back at 10mm	0.560	0.264	0.390	0.031	0.86	0.98
	Left side at 10mm	0.319				0.32	0.32
	Right side at 10mm	0.166	0.228	0.209	0.026	0.42	0.40
	Top side at 10mm	0.601	0.151	0.457	0.019	0.77	1.08
	Bottom side at 10mm	0.579				0.58	0.58
	Back at 15mm	0.931	0.264	0.390	0.031	1.23	1.35
	Top Side at 15mm	1.095	0.151	0.457	0.019	1.27	1.57
	Bottom side at 19mm	0.587				0.59	0.59
LTE Band 4	Front at 10mm	0.795	0.086	0.195	0.010	0.89	1.00
	Back at 10mm	0.505	0.264	0.390	0.031	0.80	0.93
	Left side at 10mm	0.232				0.23	0.23
	Right side at 10mm	0.156	0.228	0.209	0.026	0.41	0.39
	Top side at 10mm	0.535	0.151	0.457	0.019	0.71	1.01
	Bottom side at 10mm	0.730				0.73	0.73
	Back at 15mm	0.777	0.264	0.390	0.031	1.07	1.20
	Top Side at 15mm	1.036	0.151	0.457	0.019	1.21	1.51
	Bottom side at 19mm	0.551				0.55	0.55
LTE Band 5	Front at 10mm	0.267	0.086	0.195	0.010	0.36	0.47
	Back at 10mm	0.310	0.264	0.390	0.031	0.61	0.73

# FCC SAR Test Report

WWAN Band	Exposure Position	1	2	3	4	1+2+4 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
	Left side at 10mm	0.230				<b>0.23</b>	<b>0.23</b>
	Right side at 10mm	0.208	0.228	0.209	0.026	<b>0.46</b>	<b>0.44</b>
	Top side at 10mm	0.283	0.151	0.457	0.019	<b>0.45</b>	<b>0.76</b>
	Bottom side at 10mm	0.220				<b>0.22</b>	<b>0.22</b>
LTE Band 7	Front at 10mm	0.988	0.086	0.195	0.010	<b>1.08</b>	<b>1.19</b>
	Back at 10mm	0.480	0.264	0.390	0.031	<b>0.78</b>	<b>0.90</b>
	Left side at 10mm	0.399				<b>0.40</b>	<b>0.40</b>
	Right side at 10mm	0.203	0.228	0.209	0.026	<b>0.46</b>	<b>0.44</b>
	Top side at 10mm	0.237	0.151	0.457	0.019	<b>0.41</b>	<b>0.71</b>
	Bottom side at 10mm	0.628				<b>0.63</b>	<b>0.63</b>
	Back at 15mm	1.048	0.264	0.390	0.031	<b>1.34</b>	<b>1.47</b>
	Top Side at 15mm	0.582	0.151	0.457	0.019	<b>0.75</b>	<b>1.06</b>
	Bottom side at 19mm	1.084				<b>1.08</b>	<b>1.08</b>
LTE Band 38	Front at 10mm	0.719	0.086	0.195	0.010	<b>0.81</b>	<b>0.92</b>
	Back at 10mm	0.588	0.264	0.390	0.031	<b>0.88</b>	<b>1.01</b>
	Left side at 10mm	0.370				<b>0.37</b>	<b>0.37</b>
	Right side at 10mm	0.126	0.228	0.209	0.026	<b>0.38</b>	<b>0.36</b>
	Top side at 10mm	0.344	0.151	0.457	0.019	<b>0.51</b>	<b>0.82</b>
	Bottom side at 10mm	0.681				<b>0.68</b>	<b>0.68</b>
	Back at 15mm	0.651	0.264	0.390	0.031	<b>0.95</b>	<b>1.07</b>
	Top Side at 15mm	0.373	0.151	0.457	0.019	<b>0.54</b>	<b>0.85</b>
	Bottom side at 19mm	0.719				<b>0.72</b>	<b>0.72</b>
LTE Band 41	Front at 10mm	0.611	0.086	0.195	0.010	<b>0.71</b>	<b>0.82</b>
	Back at 10mm	0.684	0.264	0.390	0.031	<b>0.98</b>	<b>1.11</b>
	Left side at 10mm	0.344				<b>0.34</b>	<b>0.34</b>
	Right side at 10mm	0.074	0.228	0.209	0.026	<b>0.33</b>	<b>0.31</b>
	Top side at 10mm	0.320	0.151	0.457	0.019	<b>0.49</b>	<b>0.80</b>
	Bottom side at 10mm	0.871				<b>0.87</b>	<b>0.87</b>
	Back at 15mm	0.695	0.264	0.390	0.031	<b>0.99</b>	<b>1.12</b>
	Top Side at 15mm	0.319	0.151	0.457	0.019	<b>0.49</b>	<b>0.80</b>
	Bottom side at 19mm	0.721				<b>0.72</b>	<b>0.72</b>



# FCC SAR Test Report

## <Extremity>

WWAN Band	Exposure Position	1	2	3	4	1+2+4 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM1900	Front at 0mm			0.346		0.00	0.35
	Back at 0mm	1.260		0.350		1.26	1.61
	Right side at 0mm			0.863		0.00	0.86
	Top side at 0mm	0.894		0.868		0.89	1.76
	Bottom side at 0mm					0.00	0.00
WCDMA II	Front at 0mm			0.346		0.00	0.35
	Back at 0mm	1.067		0.350		1.07	1.42
	Right side at 0mm			0.863		0.00	0.86
	Top side at 0mm	0.885		0.868		0.89	1.75
	Bottom side at 0mm	1.613				1.61	1.61
WCDMA IV	Front at 0mm			0.346		0.00	0.35
	Back at 0mm	1.752		0.350		1.75	2.10
	Right side at 0mm			0.863		0.00	0.86
	Top side at 0mm	1.118		0.868		1.12	1.99
	Bottom side at 0mm	1.954				1.95	1.95
LTE Band 2	Front at 0mm			0.346		0.00	0.35
	Back at 0mm	1.200		0.350		1.20	1.55
	Right side at 0mm			0.863		0.00	0.86
	Top side at 0mm	0.936		0.868		0.94	1.80
	Bottom side at 0mm	1.580				1.58	1.58
LTE Band 4	Front at 0mm			0.346		0.00	0.35
	Back at 0mm	1.330		0.350		1.33	1.68
	Right side at 0mm			0.863		0.00	0.86
	Top side at 0mm	1.215		0.868		1.21	2.08
	Bottom side at 0mm	1.830				1.83	1.83
LTE Band 7	Front at 0mm			0.346		0.00	0.35
	Back at 0mm	1.496		0.350		1.50	1.85
	Right side at 0mm			0.863		0.00	0.86
	Top side at 0mm			0.868		0.00	0.87
	Bottom side at 0mm	1.341				1.34	1.34
LTE Band 38	Front at 0mm			0.346		0.00	0.35
	Back at 0mm	1.557		0.350		1.56	1.91
	Right side at 0mm			0.863		0.00	0.86
	Top side at 0mm			0.868		0.00	0.87
	Bottom side at 0mm	1.395				1.39	1.39
LTE Band 41	Front at 0mm			0.346		0.00	0.35
	Back at 0mm	1.910		0.350		1.91	2.26

# FCC SAR Test Report

WWAN Band	Exposure Position	1	2	3	4	1+2+4 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
	Right side at 0mm			0.863		0.00	0.86
	Top side at 0mm			0.868		0.00	0.87
	Bottom side at 0mm	1.698				1.70	1.70

**Note:** 1. Summed 1+2+4 covers Summed 1+2 / 1+4 / 2+4.

2. Summed 1+3+4 covers Summed 1+3 / 1+4 / 3+4.

**Test Engineer :** Jerry Chen, and Gengdong Deng

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## 5. Calibration of Test Equipment

Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D835V2	4d139	Sep. 17, 2021	1 Year
System Validation Dipole	SPEAG	D1750V2	1071	Sep. 18, 2021	1 Year
System Validation Dipole	SPEAG	D1900V2	5d159	Sep. 16, 2021	1 Year
System Validation Dipole	SPEAG	D2450V2	893	Sep. 18, 2021	1 Year
System Validation Dipole	SPEAG	D2600V2	1110	Sep. 16, 2021	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1133	Sep. 14, 2021	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1389	Oct. 26, 2021	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3873	Aug. 25, 2021	1 Year
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 25, 2021	1 Year
Wireless Communication Test Set	Agilent	E5515C	MY50260600	Jun. 02, 2021	1 Year
ENA Series Network Analyzer	Agilent	E5071C	MY46214638	Jun. 03, 2021	1 Year
Spectrum Analyzer	KEYSIGHT	N9010A	MY54510355	Jun. 03, 2021	1Year
MXG Analog Signal Generator	KEYSIGHT	N5183A	MY50143024	Mar. 09, 2021	1 Year
Power Meter	Agilent	N1914A	MY52180044	Mar. 02, 2021	1 Year
Power Sensor	Agilent	E9304A H18	MY52050011	Feb. 25, 2021	1 Year
Power Meter	ANRITSU	ML2495A	1506002	Apr. 07, 2021	1 Year
Power Sensor	ANRITSU	MA2411B	1339353	May. 07, 2021	1 Year
Temp. & Humi. Recorder	CLOCK	HTC-1	157248	Jun. 02, 2021	1 Year
Electronic Thermometer	YONGFA	YF-160A	120100323	Jun. 02, 2021	1 Year
Coupler	Woken	0110A056020-10	COM27RW1A 3	Jun. 02, 2021	1 Year

## 6. Measurement Uncertainty

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

Uncertainty budget for frequency range 30 MHz to 3 GHz

# FCC SAR Test Report

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

## Uncertainty budget for frequency range 3 GHz to 6 GHz

## **7. Information on the Testing Laboratories**

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

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

Add: No. B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industry Park, Nanshan District, Shenzhen, Guangdong, China

Tel: 86-755-8869-6566

Fax: 86-755-8869-6577

**Email:** [customerservice.sw@cn.bureauveritas.com](mailto:customerservice.sw@cn.bureauveritas.com)

**Web Site:** [www.bureauveritas.com](http://www.bureauveritas.com)

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

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## Appendix A. SAR Plots of System Verification

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

## System Check\_HSL835\_211116

**DUT: Dipole:835 MHz;Type:D835V2**

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium: HSL835\_1116 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.919 \text{ S/m}$ ;  $\epsilon_r = 43.197$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.5^\circ\text{C}$ ; Liquid Temperature :  $22.6^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.36, 9.36, 9.36); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (71x121x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $3.49 \text{ W/kg}$

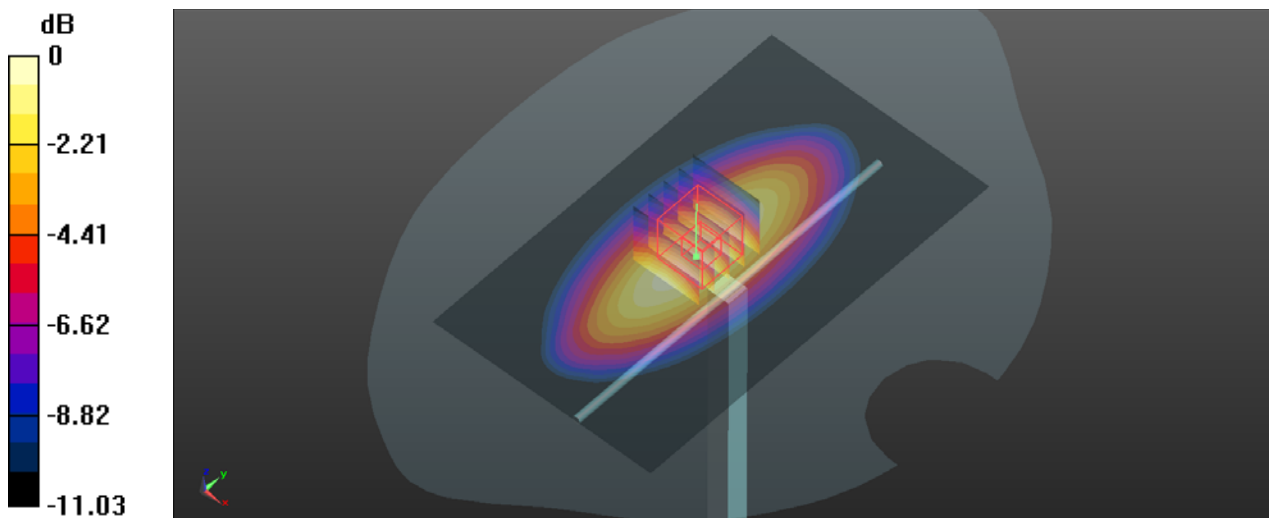
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $59.71 \text{ V/m}$ ; Power Drift =  $0.04 \text{ dB}$

Peak SAR (extrapolated) =  $4.06 \text{ W/kg}$

**SAR(1 g) =  $2.5 \text{ W/kg}$ ; SAR(10 g) =  $1.69 \text{ W/kg}$**

Maximum value of SAR (measured) =  $3.53 \text{ W/kg}$



0 dB =  $3.53 \text{ W/kg}$



## System Check\_HSL835\_211117

**DUT: Dipole:835 MHz;Type:D835V2**

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium: HSL835\_1117 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.89 \text{ S/m}$ ;  $\epsilon_r = 41.41$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.5^\circ\text{C}$ ; Liquid Temperature :  $22.8^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.36, 9.36, 9.36); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (71x121x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $3.36 \text{ W/kg}$

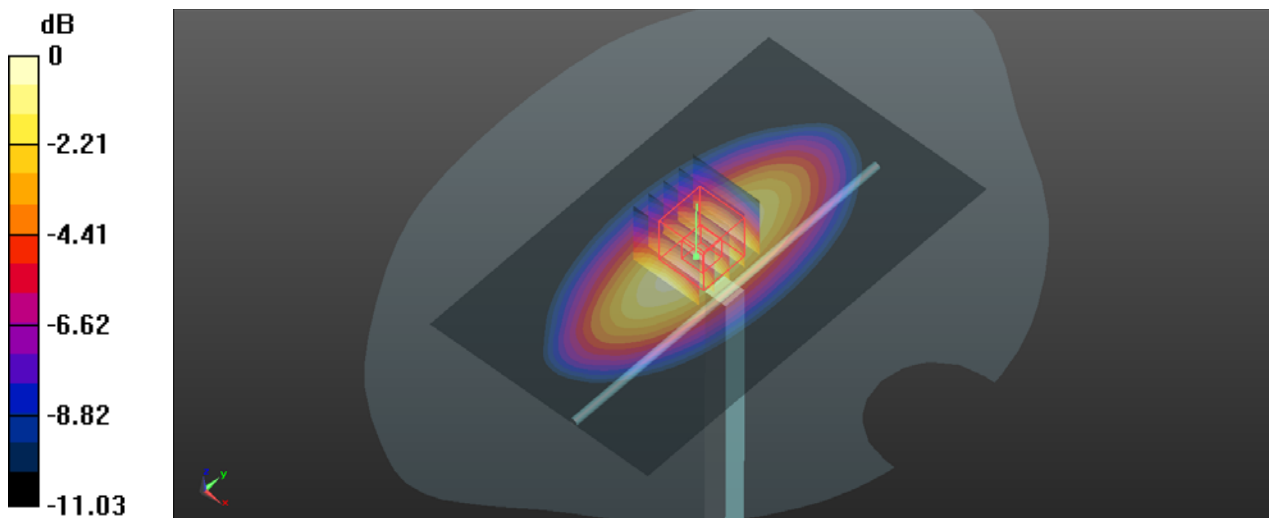
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $60.54 \text{ V/m}$ ; Power Drift =  $0.05 \text{ dB}$

Peak SAR (extrapolated) =  $3.89 \text{ W/kg}$

**SAR(1 g) =  $2.54 \text{ W/kg}$ ; SAR(10 g) =  $1.65 \text{ W/kg}$**

Maximum value of SAR (measured) =  $3.42 \text{ W/kg}$



0 dB =  $3.42 \text{ W/kg}$

## System Check\_HSL1750\_211118

**DUT: Dipole:1750 MHz;Type:D1750V2**

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1

Medium: HSL1750\_1118 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.38$  S/m;  $\epsilon_r = 39.361$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4°C; Liquid Temperature : 22.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.19, 8.19, 8.19); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (71x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 14.8 W/kg

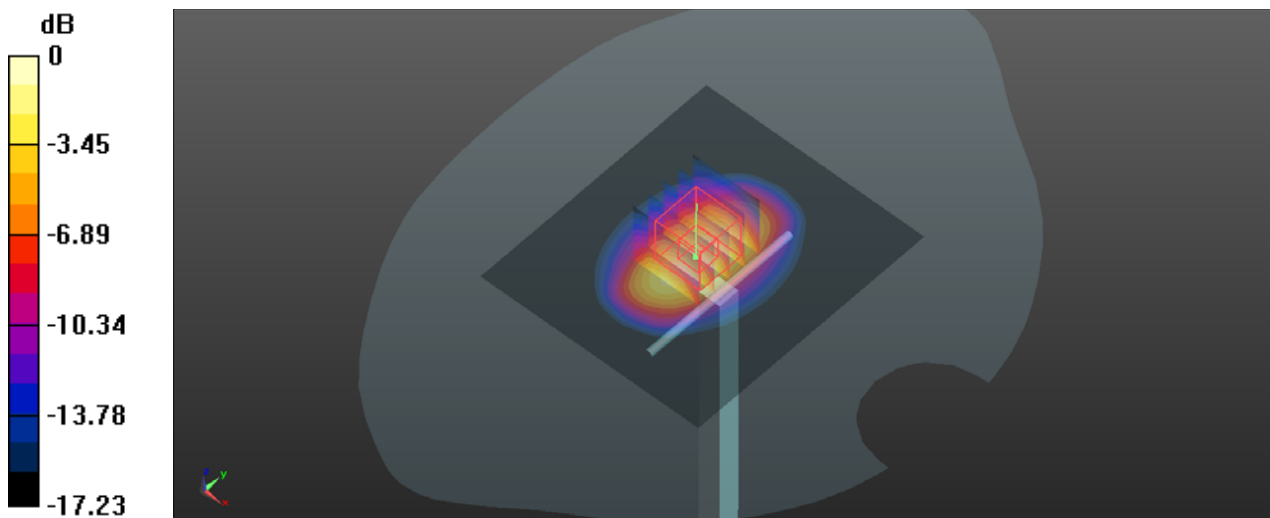
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 106.9 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 18.2 W/kg

**SAR(1 g) = 9.65 W/kg; SAR(10 g) = 5.13 W/kg**

Maximum value of SAR (measured) = 15.1 W/kg



## System Check\_HSL1750\_211119

**DUT: Dipole:1750 MHz;Type:D1750V2**

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1

Medium: HSL1750\_1119 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.371$  S/m;  $\epsilon_r = 41.142$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.19, 8.19, 8.19); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (71x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 14.1 W/kg

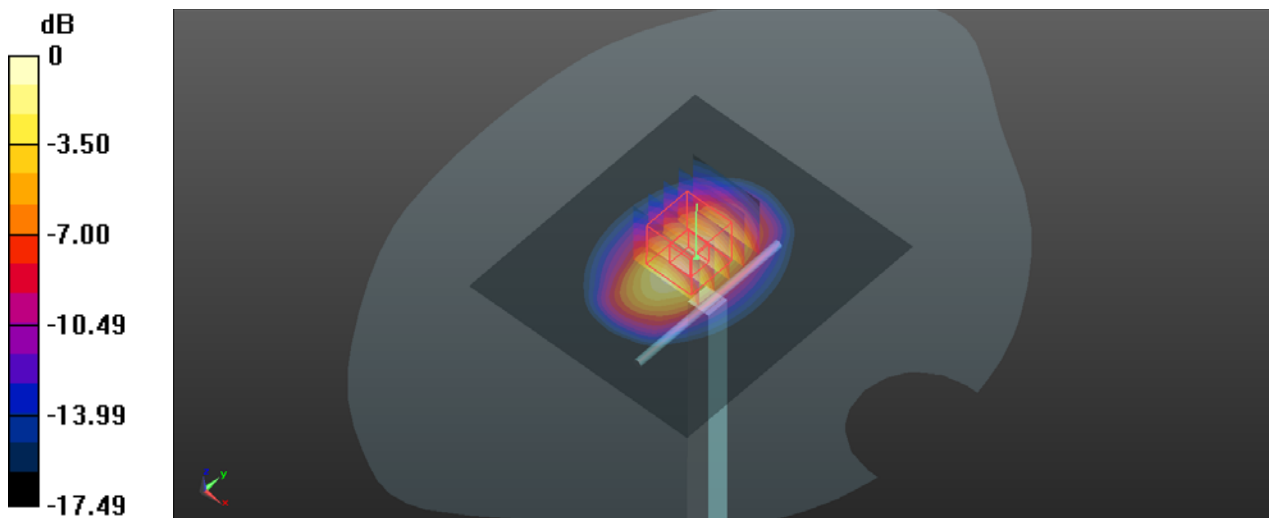
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 102.7 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 17.2 W/kg

**SAR(1 g) = 9.36 W/kg; SAR(10 g) = 5 W/kg**

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



## System Check\_HSL1900\_211120

### DUT: Dipole:1900MHz;Type:D1900V2

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900\_1120 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.436$  S/m;  $\epsilon_r = 40.996$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.8°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8, 8, 8); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (71x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 15.3 W/kg

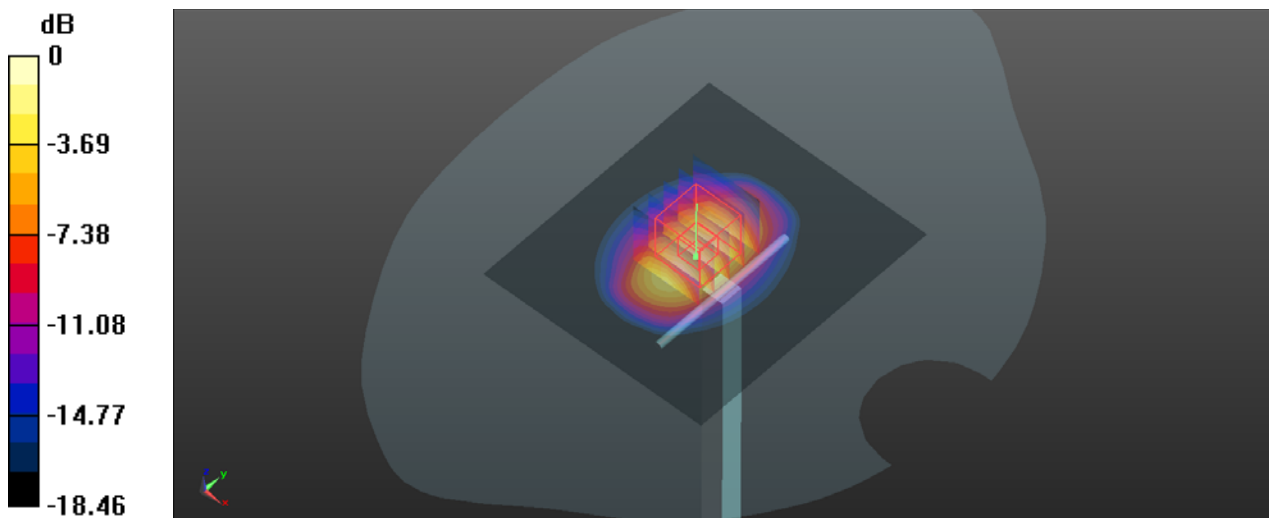
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 98.54 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 18.5 W/kg

**SAR(1 g) = 9.92 W/kg; SAR(10 g) = 5.17 W/kg**

Maximum value of SAR (measured) = 15.4 W/kg



0 dB = 15.4 W/kg

## System Check\_HSL1900\_211121

### DUT: Dipole:1900MHz;Type:D1900V2

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1

Medium: HSL1900\_1121 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.459$  S/m;  $\epsilon_r = 41.517$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8, 8, 8); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (71x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 15.1 W/kg

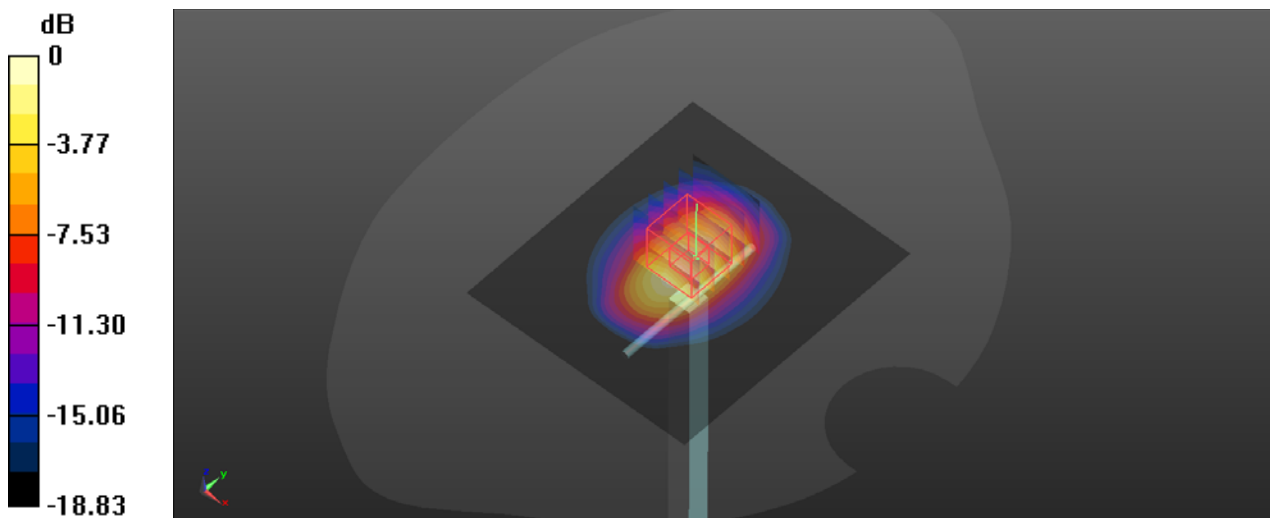
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 92.94 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 17.7 W/kg

**SAR(1 g) = 9.52 W/kg; SAR(10 g) = 4.95 W/kg**

Maximum value of SAR (measured) = 14.7 W/kg



0 dB = 14.7 W/kg

## System Check\_HSL2450\_211122

**DUT: Dipole:2450 MHz;Type:D2450V2**

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1

Medium: HSL2450\_1122 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.787$  S/m;  $\epsilon_r = 39.598$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3°C; Liquid Temperature : 22.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.88, 7.88, 7.88); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (91x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 21.7 W/kg

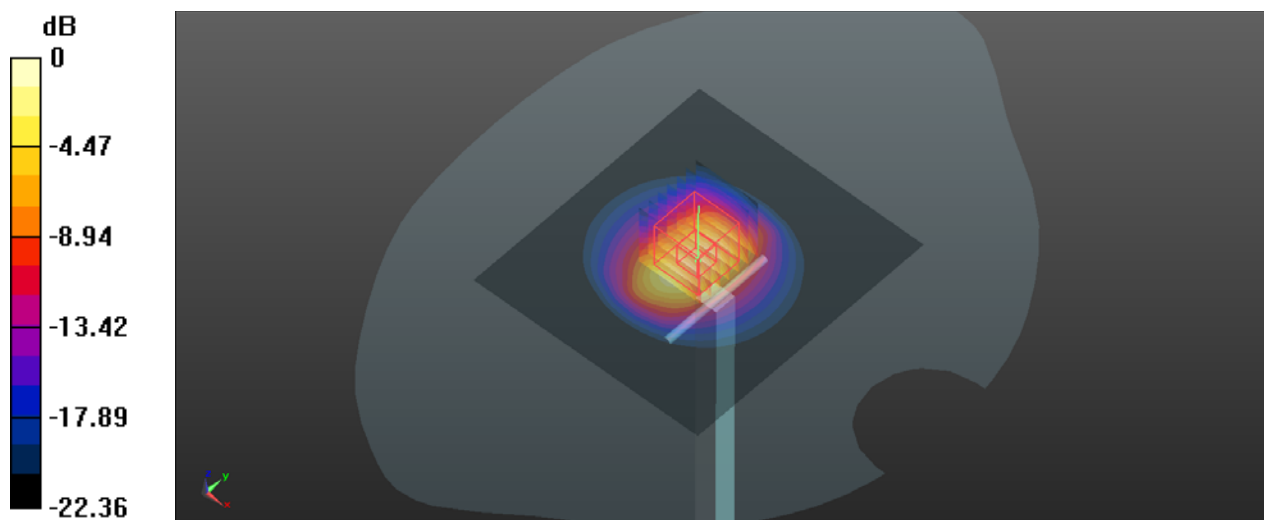
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 112.5 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 27.1 W/kg

**SAR(1 g) = 12.7 W/kg; SAR(10 g) = 5.89 W/kg**

Maximum value of SAR (measured) = 21.6 W/kg



0 dB = 21.6 W/kg

## System Check\_HSL2600\_211123

### DUT: Dipole:2600 MHz;Type:D2600V2

Communication System: CW; Frequency: 2600 MHz;Duty Cycle: 1:1

Medium: HSL2600\_1123 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.9$  S/m;  $\epsilon_r = 39.359$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4°C; Liquid Temperature : 22.8°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.66, 7.66, 7.66); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (81x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 21.4 W/kg

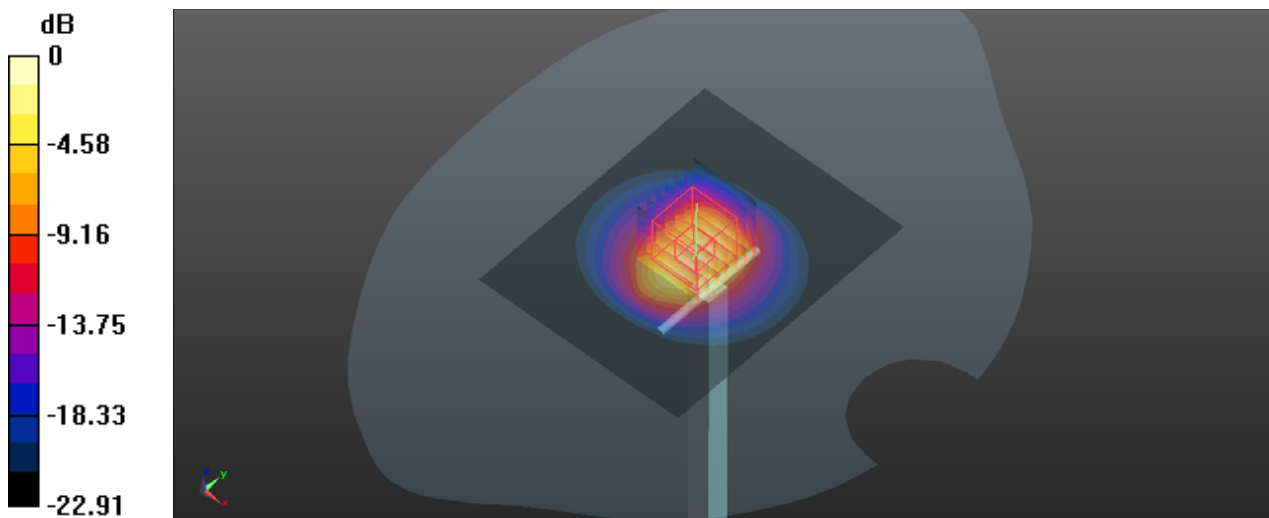
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 109.8 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 26.6 W/kg

**SAR(1 g) = 12.9 W/kg; SAR(10 g) = 5.78 W/kg**

Maximum value of SAR (measured) = 21.4 W/kg



0 dB = 21.4 W/kg

## System Check\_HSL2600\_211124

### DUT: Dipole:2600 MHz;Type:D2600V2

Communication System: CW; Frequency: 2600 MHz;Duty Cycle: 1:1

Medium: HSL2600\_1124 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.894$  S/m;  $\epsilon_r = 39.127$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.7°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.66, 7.66, 7.66); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (81x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 22.1 W/kg

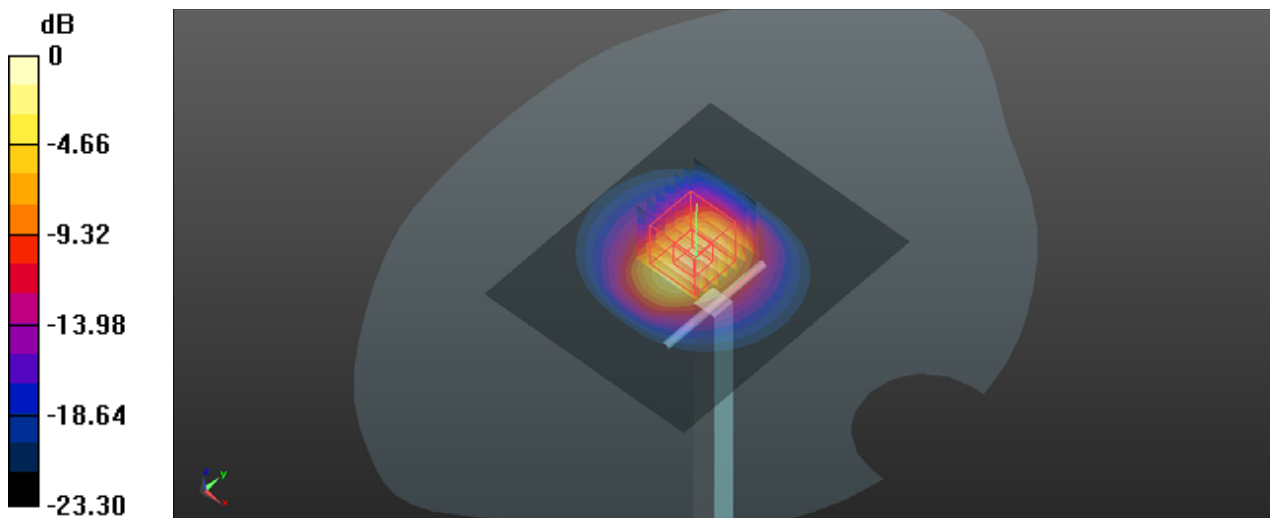
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 104.7 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 27.0 W/kg

**SAR(1 g) = 13 W/kg; SAR(10 g) = 5.82 W/kg**

Maximum value of SAR (measured) = 21.6 W/kg



0 dB = 21.6 W/kg



## System Check\_HSL5250\_211125

### DUT: Dipole 5GHzV2;Type:D5GHzV2

Communication System: CW; Frequency: 5250 MHz;Duty Cycle: 1:1

Medium: HSL5G\_1125 Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.703$  S/m;  $\epsilon_r = 36.115$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.6°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.8, 4.8, 4.8); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 19.3 W/kg

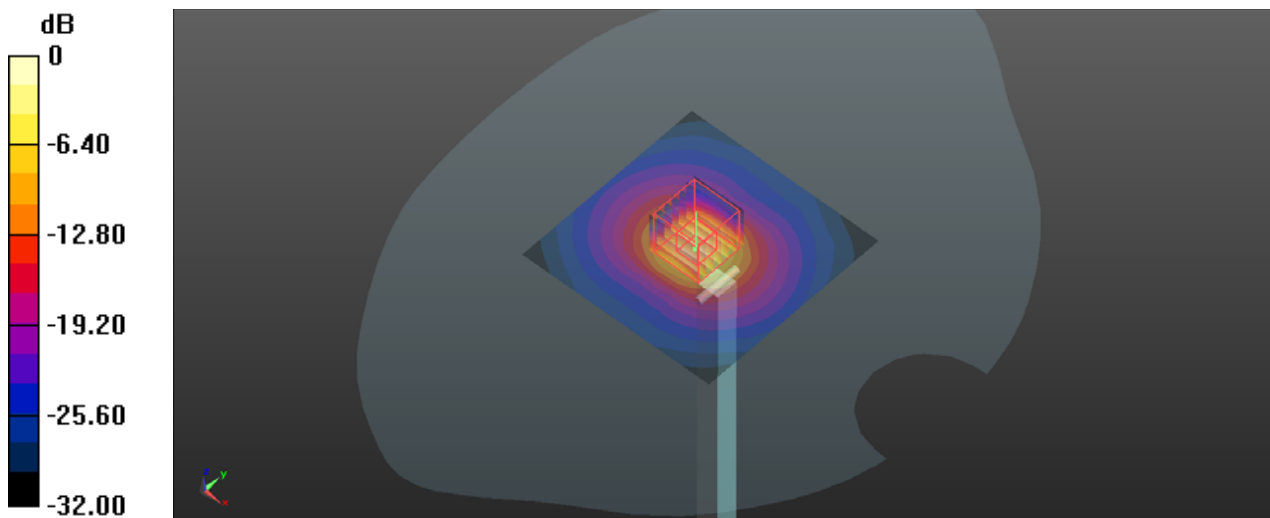
**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 64.07 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 33.6 W/kg

**SAR(1 g) = 8.3 W/kg; SAR(10 g) = 2.39 W/kg**

Maximum value of SAR (measured) = 20.9 W/kg



0 dB = 20.9 W/kg

## System Check\_HSL5600\_211125

### DUT: Dipole 5GHzV2;Type:D5GHzV2

Communication System: CW; Frequency: 5600 MHz;Duty Cycle: 1:1

Medium: HSL5G\_1125 Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.129$  S/m;  $\epsilon_r = 35.495$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.6°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.5, 4.5, 4.5); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 22.7 W/kg

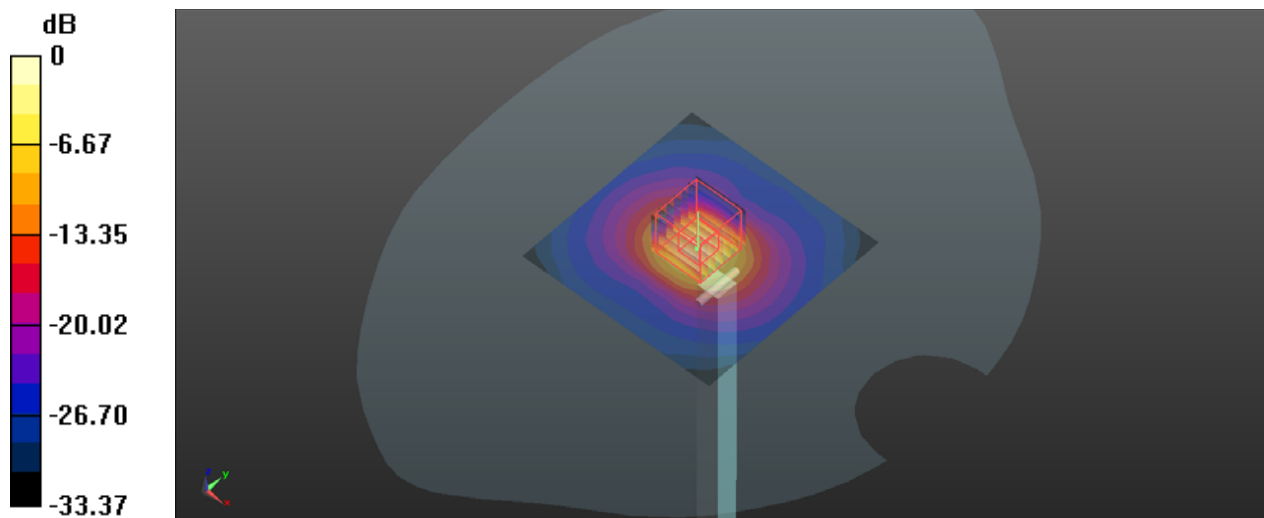
**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 65.53 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 40.5 W/kg

**SAR(1 g) = 8.65 W/kg; SAR(10 g) = 2.41 W/kg**

Maximum value of SAR (measured) = 23.7 W/kg



0 dB = 23.7 W/kg

## System Check\_HSL5800\_211125

### DUT: Dipole 5GHzV2;Type:D5GHzV2

Communication System: CW; Frequency: 5800 MHz;Duty Cycle: 1:1

Medium: HSL5G\_1125 Medium parameters used:  $f = 5800$  MHz;  $\sigma = 5.358$  S/m;  $\epsilon_r = 35.122$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.6°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.49, 4.49, 4.49); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 19.7 W/kg

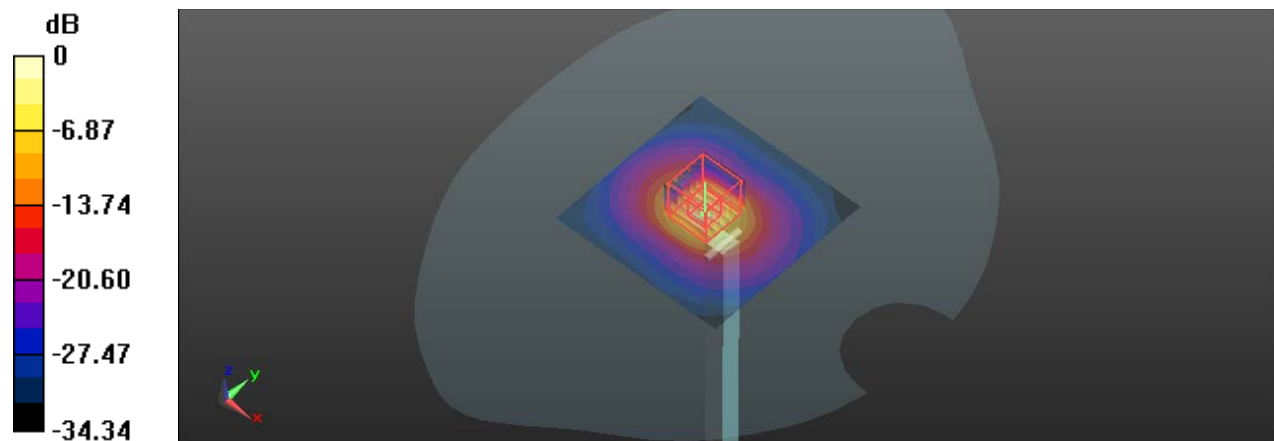
**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 59.86 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 37.4 W/kg

**SAR(1 g) = 8.09 W/kg; SAR(10 g) = 2.3 W/kg**

Maximum value of SAR (measured) = 21.3 W/kg



0 dB = 21.3 W/kg

## Appendix B. SAR Plots of SAR Measurement

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

### P01 GSM850\_GPRS11\_Right Cheek\_Ch189\_Ant1

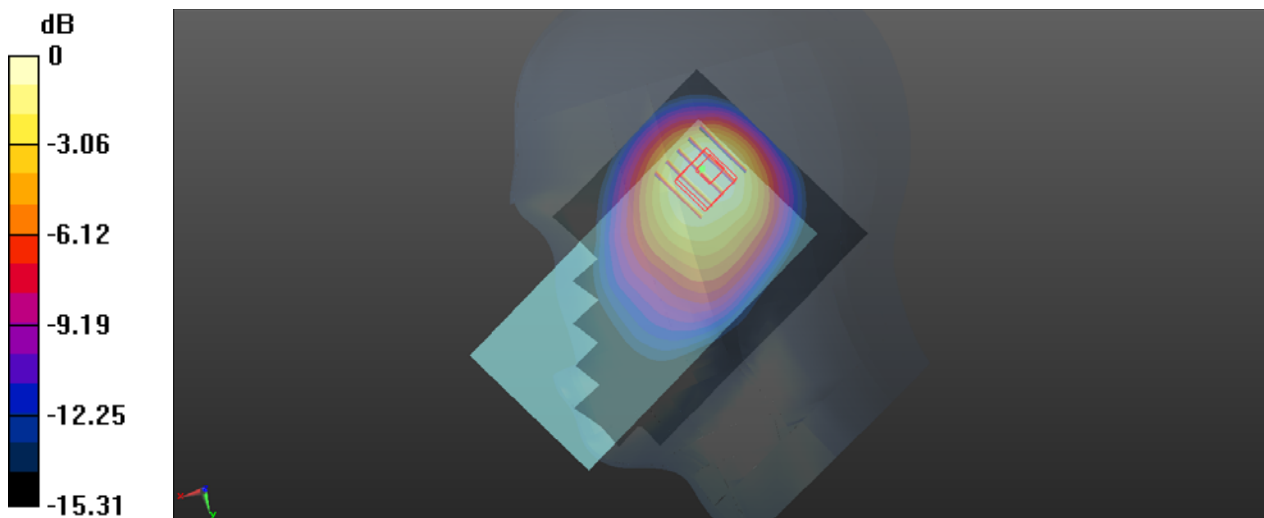
Communication System: GPRS11; Frequency: 836.4 MHz; Duty Cycle: 1:2.77  
Medium: HSL835\_1116 Medium parameters used:  $f = 836.4$  MHz;  $\sigma = 0.915$  S/m;  $\epsilon_r = 42.089$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5°C; Liquid Temperature : 22.6°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.36, 9.36, 9.36); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x131x1)**: Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.992 W/kg

- **Zoom Scan (5x5x7)/Cube 0**: Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 27.27 V/m; Power Drift = -0.02 dB  
Peak SAR (extrapolated) = 1.28 W/kg  
**SAR(1 g) = 0.762 W/kg; SAR(10 g) = 0.502 W/kg**  
Maximum value of SAR (measured) = 0.881 W/kg



0 dB = 0.881 W/kg

## P02 GSM1900\_GPRS10\_Right Tilted\_Ch810\_Ant1

Communication System: GPRS10; Frequency: 1909.8 MHz; Duty Cycle: 1:4.15

Medium: HSL1900\_1120 Medium parameters used:  $f = 1910$  MHz;  $\sigma = 1.447$  S/m;  $\epsilon_r = 40.954$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8, 8, 8); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.40 W/kg

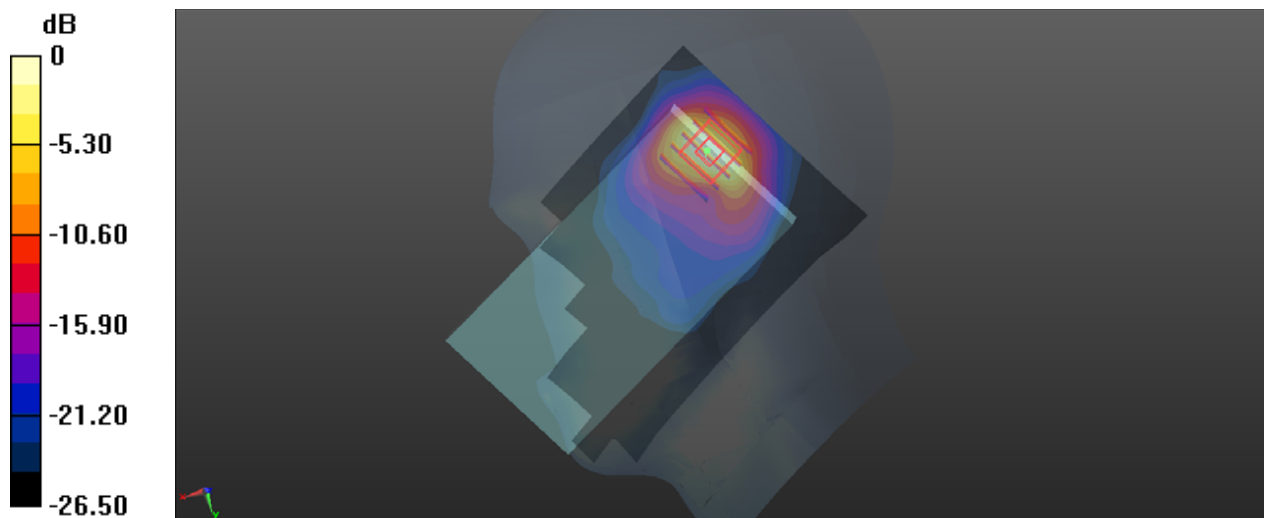
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.07 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.66 W/kg

**SAR(1 g) = 0.801 W/kg; SAR(10 g) = 0.361 W/kg**

Maximum value of SAR (measured) = 1.39 W/kg



### P03 WCDMA II\_RMC12.2K\_Right Tilted\_Ch9538\_Ant1

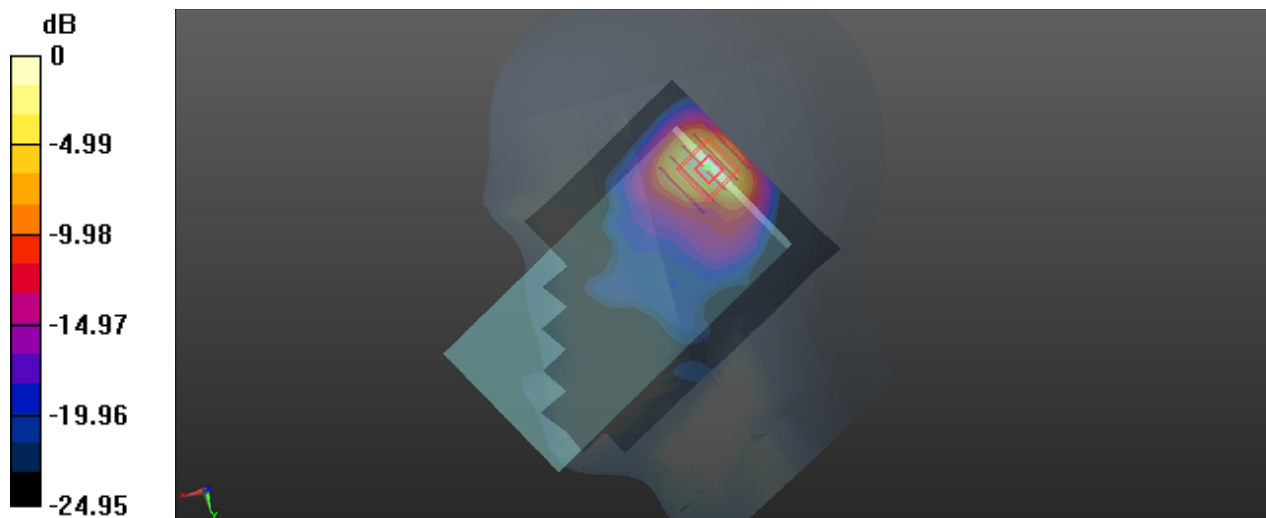
Communication System: WCDMA; Frequency: 1907.6 MHz; Duty Cycle: 1:1  
 Medium: HSL1900\_1120 Medium parameters used:  $f = 1908 \text{ MHz}$ ;  $\sigma = 1.444 \text{ S/m}$ ;  $\epsilon_r = 40.959$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Ambient Temperature :  $23.5^\circ\text{C}$ ; Liquid Temperature :  $22.8^\circ\text{C}$

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3873; ConvF(8, 8, 8); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x131x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
 Maximum value of SAR (interpolated) =  $0.704 \text{ W/kg}$

- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value =  $11.43 \text{ V/m}$ ; Power Drift =  $0.18 \text{ dB}$   
 Peak SAR (extrapolated) =  $1.30 \text{ W/kg}$   
**SAR(1 g) =  $0.624 \text{ W/kg}$ ; SAR(10 g) =  $0.282 \text{ W/kg}$**   
 Maximum value of SAR (measured) =  $0.729 \text{ W/kg}$



0 dB =  $0.729 \text{ W/kg}$

## P04 WCDMA IV\_RMC12.2K\_Right Tilted\_Ch1513\_Ant1

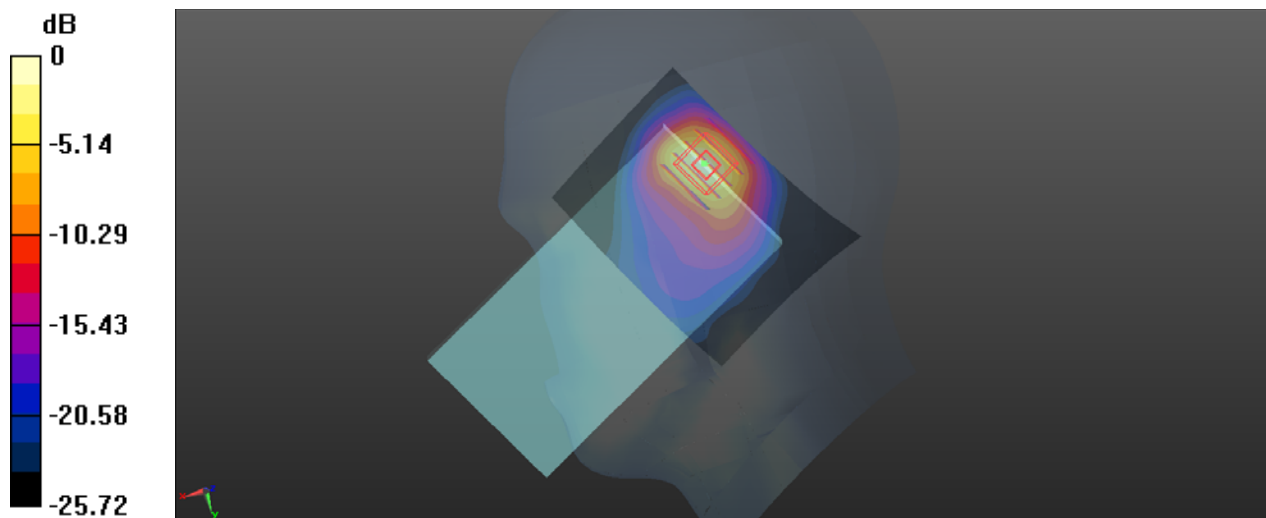
Communication System: WCDMA; Frequency: 1752.6 MHz; Duty Cycle: 1:1  
 Medium: HSL1750\_1118 Medium parameters used:  $f = 1753 \text{ MHz}$ ;  $\sigma = 1.383 \text{ S/m}$ ;  $\epsilon_r = 39.349$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Ambient Temperature :  $23.4^\circ\text{C}$ ; Liquid Temperature :  $22.7^\circ\text{C}$

### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.19, 8.19, 8.19); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x61x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
 Maximum value of SAR (interpolated) =  $1.04 \text{ W/kg}$

- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value =  $13.28 \text{ V/m}$ ; Power Drift =  $0.03 \text{ dB}$   
 Peak SAR (extrapolated) =  $1.61 \text{ W/kg}$   
**SAR(1 g) =  $0.770 \text{ W/kg}$ ; SAR(10 g) =  $0.349 \text{ W/kg}$**   
 Maximum value of SAR (measured) =  $1.34 \text{ W/kg}$



0 dB =  $1.34 \text{ W/kg}$



## P05 WCDMA V\_RMC12.2K\_Right Cheek\_Ch4132\_Ant1

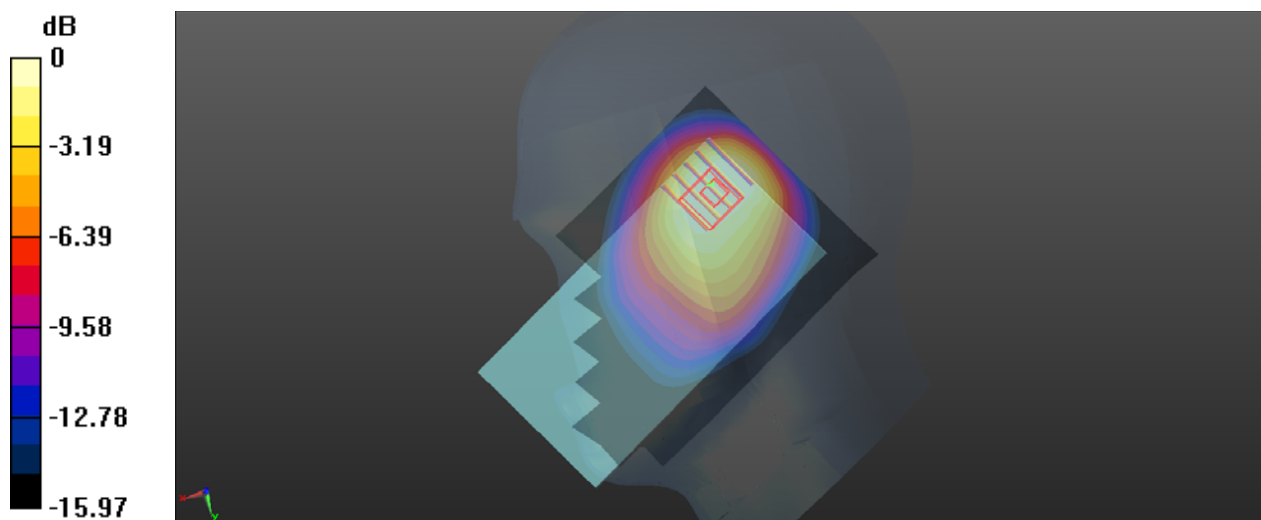
Communication System: WCDMA; Frequency: 826.4 MHz; Duty Cycle: 1:1  
Medium: HSL835\_1116 Medium parameters used:  $f = 826.4$  MHz;  $\sigma = 0.911$  S/m;  $\epsilon_r = 43.301$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5°C; Liquid Temperature : 22.6°C

### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.36, 9.36, 9.36); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x131x1)**: Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.818 W/kg

- **Zoom Scan (5x5x7)/Cube 0**: Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 21.21 V/m; Power Drift = -0.02 dB  
Peak SAR (extrapolated) = 0.841 W/kg  
**SAR(1 g) = 0.574 W/kg; SAR(10 g) = 0.392 W/kg**  
Maximum value of SAR (measured) = 0.712 W/kg



## P06 LTE 2\_QPSK20M\_Right Tilted\_Ch18700\_50RB\_OS25\_Ant1

Communication System: LTE; Frequency: 1860 MHz; Duty Cycle: 1:1

Medium: HSL1900\_1120 Medium parameters used:  $f = 1860$  MHz;  $\sigma = 1.396$  S/m;  $\epsilon_r = 41.133$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8, 8, 8); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.33 W/kg

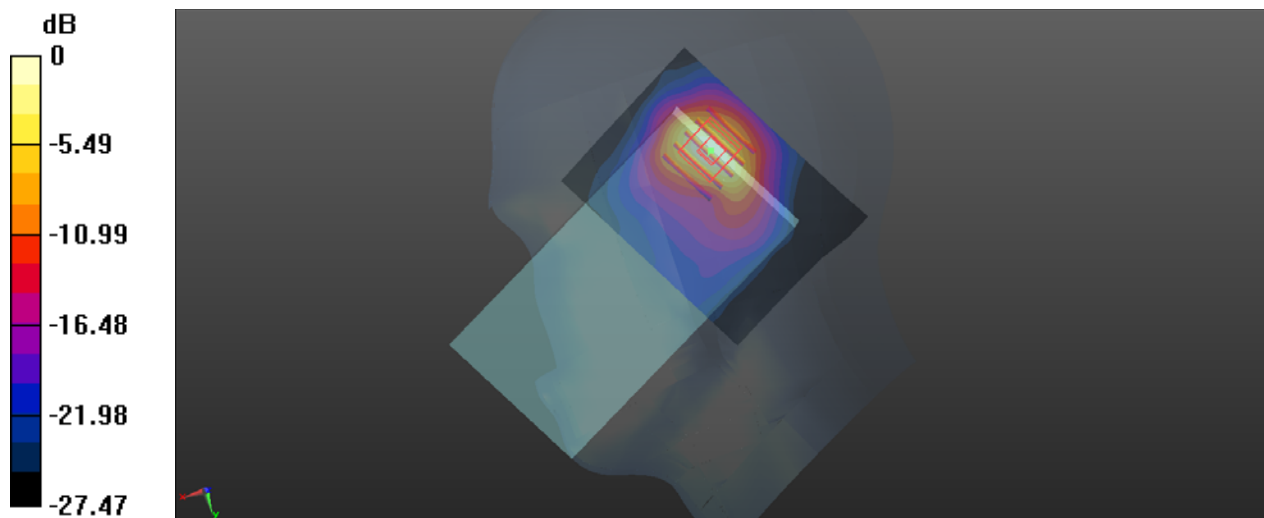
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.98 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.58 W/kg

**SAR(1 g) = 0.745 W/kg; SAR(10 g) = 0.334 W/kg**

Maximum value of SAR (measured) = 1.32 W/kg



### P07 LTE 4\_QPSK20M\_Right Tilted\_Ch20300\_50RB\_OS25\_Ant1

Communication System: LTE; Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: HSL1750\_1119 Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.375$  S/m;  $\epsilon_r = 39.381$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.19, 8.19, 8.19); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.34 W/kg

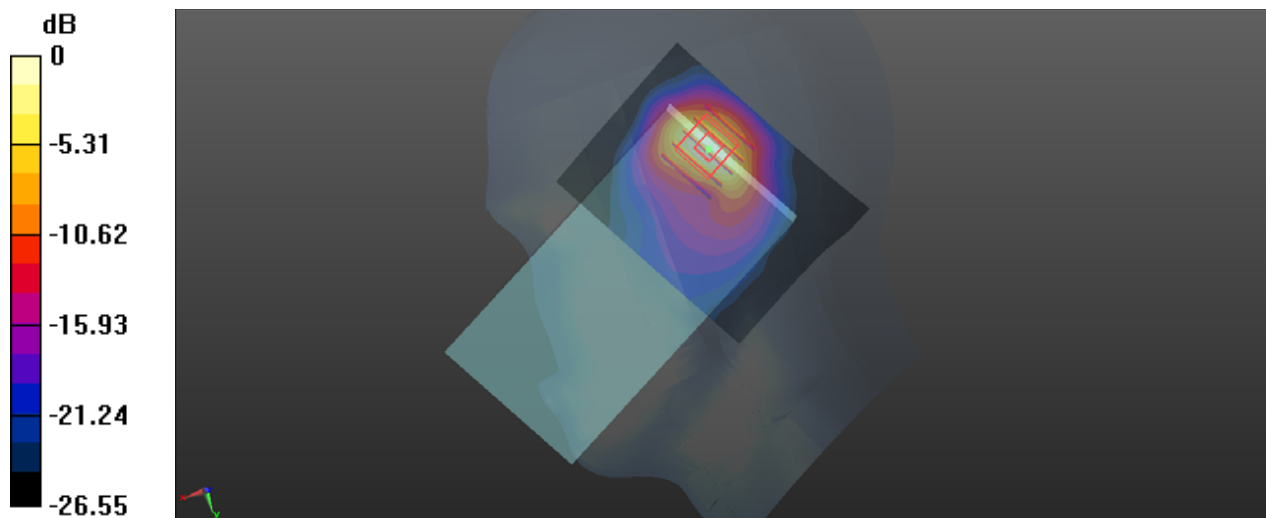
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.89 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.63 W/kg

**SAR(1 g) = 0.748 W/kg; SAR(10 g) = 0.334 W/kg**

Maximum value of SAR (measured) = 1.35 W/kg



0 dB = 1.35 W/kg

**P08 LTE 5\_QPSK10M\_Right Cheek\_Ch20525\_1RB\_OS24\_Ant1**

Communication System: LTE; Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium: HSL835\_1116 Medium parameters used:  $f = 836.5$  MHz;  $\sigma = 0.921$  S/m;  $\epsilon_r = 43.18$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.36, 9.36, 9.36); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x131x1)**: Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.902 W/kg

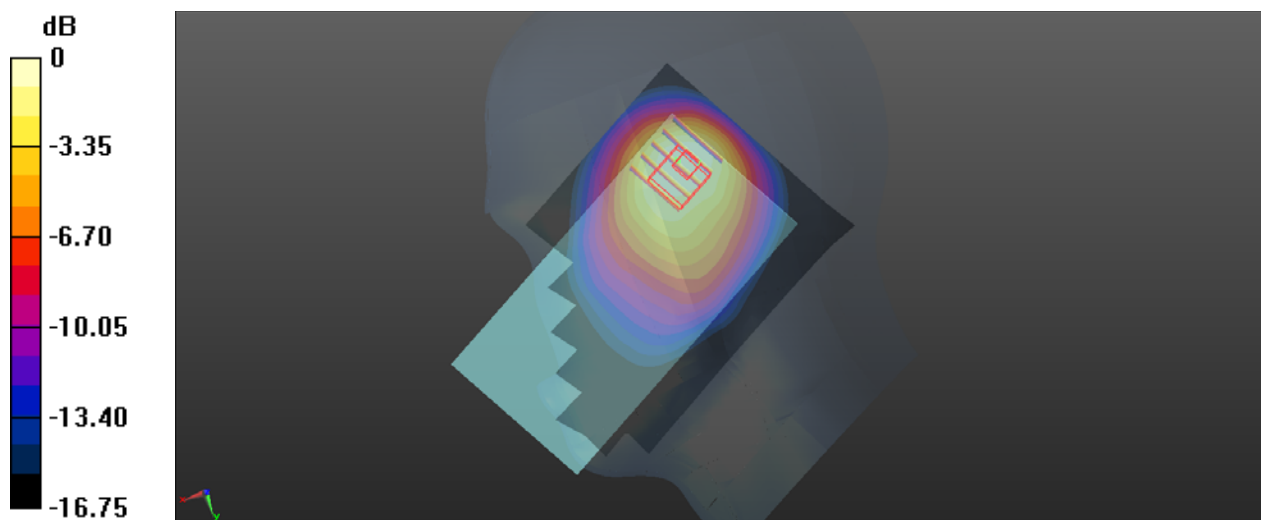
- **Zoom Scan (5x5x7)/Cube 0**: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.81 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.00 W/kg

**SAR(1 g) = 0.611 W/kg; SAR(10 g) = 0.411 W/kg**

Maximum value of SAR (measured) = 0.839 W/kg



### P09 LTE 7\_QPSK20M\_Right Tilted\_Ch21350\_50RB\_OS25\_Ant1

Communication System: LTE; Frequency: 2560 MHz; Duty Cycle: 1:1

Medium: HSL2600\_1123 Medium parameters used:  $f = 2560$  MHz;  $\sigma = 1.87$  S/m;  $\epsilon_r = 39.425$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.66, 7.66, 7.66); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (101x81x1)**: Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.823 W/kg

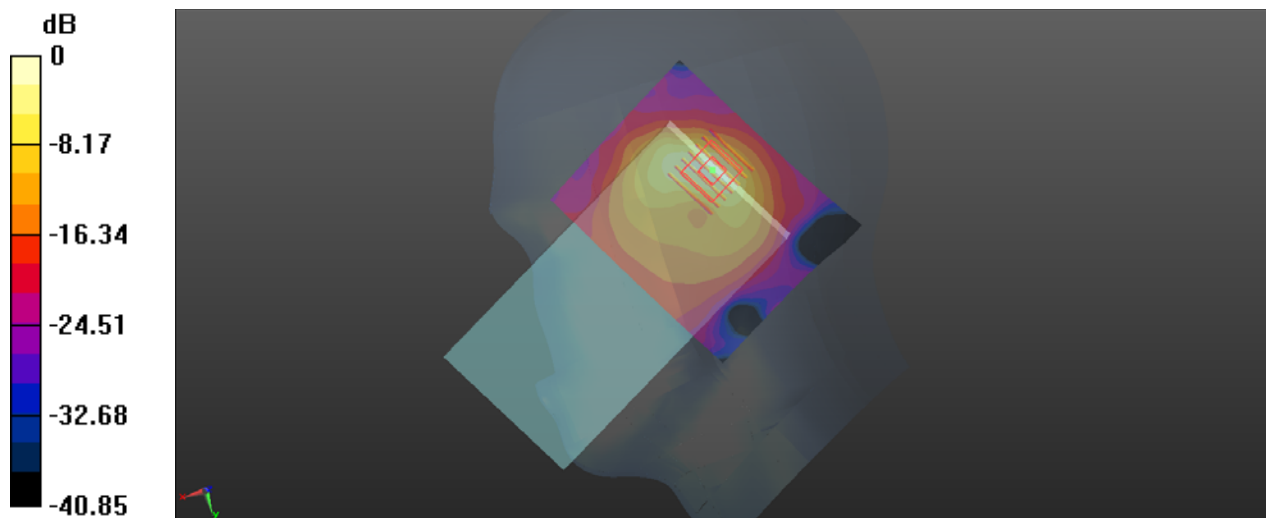
- **Zoom Scan (7x7x7)/Cube 0**: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.55 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.35 W/kg

**SAR(1 g) = 0.541 W/kg; SAR(10 g) = 0.207 W/kg**

Maximum value of SAR (measured) = 1.04 W/kg



0 dB = 1.04 W/kg

## P10 LTE 38\_QPSK20M\_Right Tilted\_Ch38150\_1RB\_OS50\_Ant1

Communication System: LTE TDD; Frequency: 2610 MHz; Duty Cycle: 1:1.59

Medium: HSL2600\_1123 Medium parameters used:  $f = 2610$  MHz;  $\sigma = 1.908$  S/m;  $\epsilon_r = 39.341$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.66, 7.66, 7.66); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (101x71x1)**: Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.949 W/kg

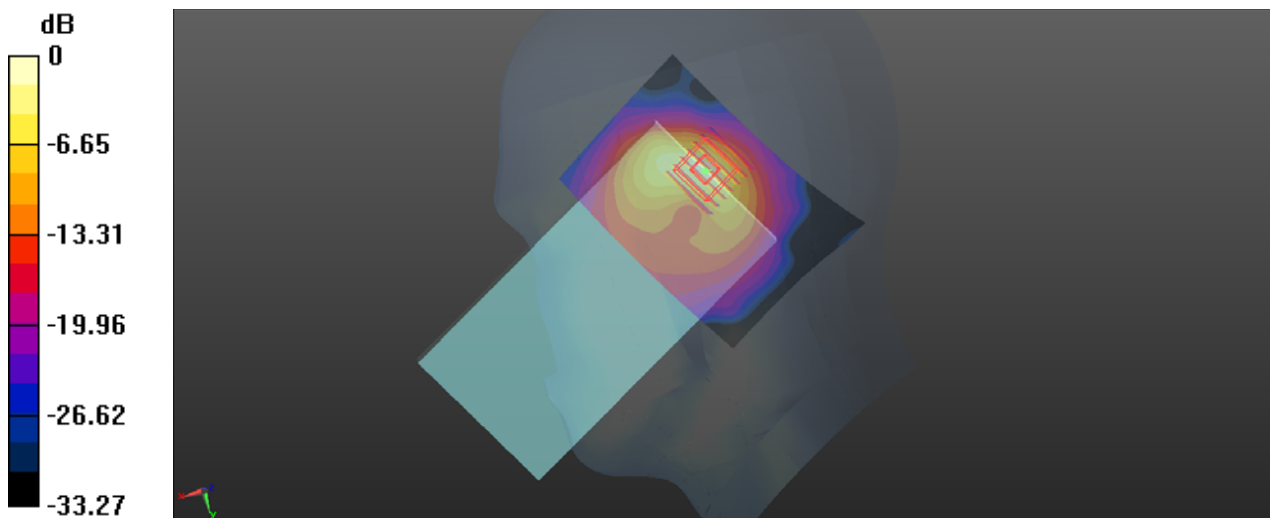
- **Zoom Scan (7x7x7)/Cube 0**: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.36 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.56 W/kg

**SAR(1 g) = 0.632 W/kg; SAR(10 g) = 0.244 W/kg**

Maximum value of SAR (measured) = 1.21 W/kg



0 dB = 1.21 W/kg

## P11 LTE 41\_QPSK20M\_Right Tilted\_Ch40140\_1RB\_OS50\_Ant1

Communication System: LTE TDD; Frequency: 2545 MHz; Duty Cycle: 1:1.59

Medium: HSL2600\_1123 Medium parameters used:  $f = 2545$  MHz;  $\sigma = 1.857$  S/m;  $\epsilon_r = 39.454$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.66, 7.66, 7.66); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (101x161x1)**: Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 0.818 W/kg

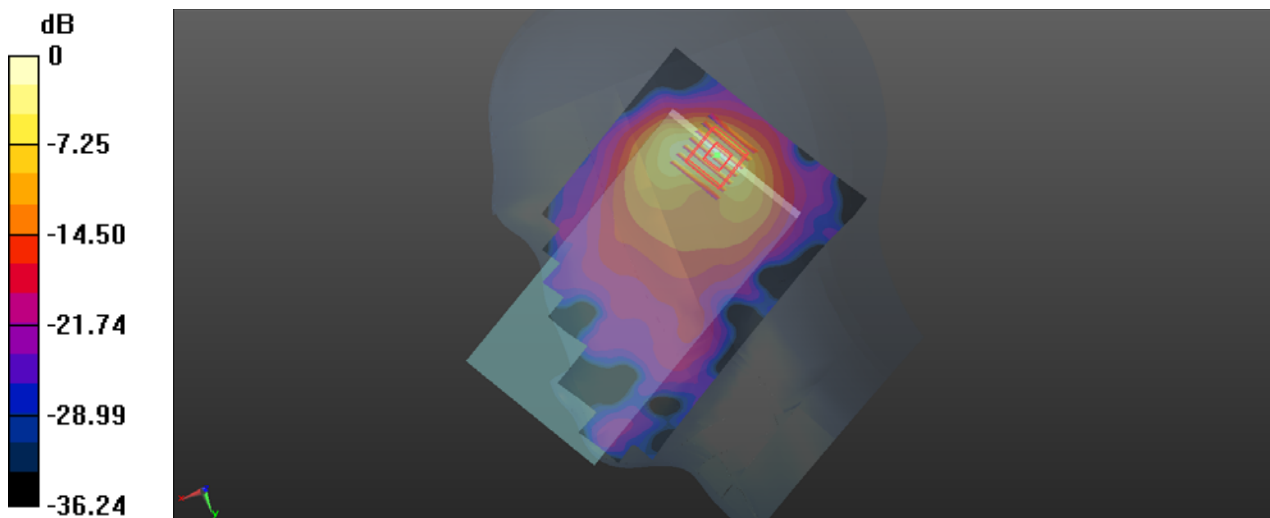
- **Zoom Scan (7x7x7)/Cube 0**: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.36 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.34 W/kg

**SAR(1 g) = 0.543 W/kg; SAR(10 g) = 0.208 W/kg**

Maximum value of SAR (measured) = 1.02 W/kg



## P12 WLAN2.4G\_802.11b\_Left Cheek\_Ch11

Communication System: 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: HSL2450\_1122 Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.796$  S/m;  $\epsilon_r = 39.584$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3°C; Liquid Temperature : 22.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.88, 7.88, 7.88); Calibrated: 2021/8/25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2021/10/26
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1610
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (101x161x1)**: Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 0.748 W/kg

- **Zoom Scan (7x7x7)/Cube 0**: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.328 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.928 W/kg

**SAR(1 g) = 0.473 W/kg; SAR(10 g) = 0.241 W/kg**

Maximum value of SAR (measured) = 0.715 W/kg

