

Appendix E. Tissue & System Verification

The measuring results for tissue simulating liquid and system check are shown as below.

Note:

1. For Section 4.3, the dielectric properties of the tissue simulating liquid have been measured within 24 hours before the SAR testing and within $\pm 10\%$ of the target values. Liquid temperature during the SAR testing has kept within $\pm 2^\circ\text{C}$.
2. For Section 4.4, The SAR measurement system was validated according to procedures in KDB 865664 D01. The validation status in tabulated summary is as below.
3. For Section 4.5, Comparing to the reference SAR value provided by SPEAG in dipole calibration certificate, the deviation of system check results is within its specification of 10 %. The result indicates the system check can meet the variation criterion and the plots please refer to Appendix A of this report.

Tissue Verification									System Validation						Note		
Plot No.	Frequency (MHz)	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (εr)	Targeted Conductivity (σ)	Targeted Permittivity (εr)	Deviation Conductivity (σ)	Deviation Permittivity (εr)	Date	Frequency (MHz)	Targeted 1g SAR (W/kg)	Measured 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
S01	1900	23	1.456	39.705	1.4	40	4.00	-0.74	Mar. 23, 2021	1900	40.40	1.97	39.40	-2.48	5d036	7350	679
S02	1750	23	1.32	40.26	1.37	40.1	-3.65	0.40	Mar. 23, 2021	1750	36.00	1.7	34.00	-5.56	1055	7350	679
S03	835	23	0.922	41.397	0.9	41.5	2.44	-0.25	Mar. 23, 2021	835	9.52	0.468	9.36	-1.68	4d121	7350	679
S04	1900	23	1.456	39.705	1.4	40	4.00	-0.74	Mar. 23, 2021	1900	40.40	1.97	39.40	-2.48	5d036	7350	679
S05	1900	23.1	1.448	38.478	1.4	40	3.43	-3.81	Mar. 19, 2021	1900	40.40	2.15	43.00	6.44	5d036	7555	1589
S06	1750	23	1.32	40.26	1.37	40.1	-3.65	0.40	Mar. 23, 2021	1750	36.00	1.7	34.00	-5.56	1055	7350	679
S07	835	23	0.922	41.397	0.9	41.5	2.44	-0.25	Mar. 23, 2021	835	9.52	0.468	9.36	-1.68	4d121	7350	679
S08	2600	23	1.984	38.033	1.96	39	1.22	-2.48	Mar. 22, 2021	2600	55.50	2.62	52.40	-5.59	1020	7350	679
S09	2600	23.1	2.011	38.179	1.96	39	2.60	-2.11	Mar. 19, 2021	2600	55.50	2.9	58.00	4.50	1020	7555	1589
S10	750	23	0.891	42.928	0.89	41.9	0.11	2.45	Mar. 21, 2021	750	8.48	0.396	7.92	-6.60	1013	7350	679
S11	750	23	0.891	42.928	0.89	41.9	0.11	2.45	Mar. 21, 2021	750	8.48	0.396	7.92	-6.60	1013	7350	679
S12	750	23	0.891	42.928	0.89	41.9	0.11	2.45	Mar. 21, 2021	750	8.48	0.396	7.92	-6.60	1013	7350	679
S13	750	23	0.891	42.928	0.89	41.9	0.11	2.45	Mar. 21, 2021	750	8.48	0.396	7.92	-6.60	1013	7350	679
S14	1900	23	1.456	39.705	1.4	40	4.00	-0.74	Mar. 23, 2021	1900	40.40	1.97	39.40	-2.48	5d036	7350	679
S15	835	23	0.919	41.728	0.9	41.5	2.11	0.55	Mar. 20, 2021	835	9.52	0.452	9.04	-5.04	4d121	7350	679
S16	2300	23.1	1.724	39.633	1.67	39.5	3.23	0.34	Mar. 24, 2021	2300	49.20	2.46	49.20	0.00	1004	7555	1589
S17	2600	23	1.984	38.033	1.96	39	1.22	-2.48	Mar. 22, 2021	2600	55.50	2.62	52.40	-5.59	1020	7350	679
S19	2600	23	1.984	38.033	1.96	39	1.22	-2.48	Mar. 22, 2021	2600	55.50	2.62	52.40	-5.59	1020	7350	679
S20	3500	23.1	2.861	38.786	2.91	37.9	-1.68	2.34	Mar. 25, 2021	3500	65.60	3.48	69.60	6.10	1007	7555	1589
S21a	3500	23.1	2.861	38.786	2.91	37.9	-1.68	2.34	Mar. 25, 2021	3500	65.60	3.48	69.60	6.10	1007	7555	1589
S21b	3700	23.1	3.049	38.443	3.12	37.7	-2.28	1.97	Mar. 25, 2021	3700	65.90	3.35	67.00	1.67	1017	7555	1589
S22	1750	23.1	1.33	39.006	1.37	40.1	-2.92	-2.73	Mar. 24, 2021	1750	36.00	1.74	34.80	-3.33	1055	7555	1589
S23	1750	23.1	1.322	38.975	1.37	40.1	-3.50	-2.81	Mar. 19, 2021	1750	36.00	1.87	37.40	3.89	1055	7555	1589
S24	1900	23.1	1.46	38.447	1.4	40	4.29	-3.88	Mar. 25, 2021	1900	40.40	1.94	38.80	-3.96	5d036	7555	1589
S25	1900	23.1	1.46	38.447	1.4	40	4.29	-3.88	Mar. 25, 2021	1900	40.40	1.94	38.80	-3.96	5d036	7555	1589
S26	835	23.1	0.929	41.801	0.9	41.5	3.22	0.73	Mar. 25, 2021	835	9.52	0.492	9.84	3.36	4d121	7555	1589
S27	2600	23.1	2.035	38.574	1.96	39	3.83	-1.09	Mar. 25, 2021	2600	55.50	2.93	58.60	5.59	1020	7555	1589
S28	750	23.1	0.897	42.864	0.89	41.9	0.79	2.30	Mar. 25, 2021	750	8.48	0.407	8.14	-4.01	1013	7555	1589
S29	2600	23.1	2.035	38.574	1.96	39	3.83	-1.09	Mar. 25, 2021	2600	55.50	2.93	58.60	5.59	1020	7555	1589
S30	1750	23.1	1.33	39.012	1.37	40.1	-2.92	-2.71	Mar. 25, 2021	1750	36.00	1.79	35.80	-0.56	1055	7555	1589
S31	1750	23.1	1.33	39.012	1.37	40.1	-2.92	-2.71	Mar. 25, 2021	1750	36.00	1.79	35.80	-0.56	1055	7555	1589
S32	2450	23.1	1.87	39.052	1.8	39.2	3.89	-0.38	Mar. 24, 2021	2450	51.60	2.57	51.40	-0.39	737	7555	1589
S33	5250	23.1	4.724	35.508	4.71	35.9	0.30	-1.09	Mar. 24, 2021	5250	80.60	4	80.00	-0.74	1019	7555	1589
S34	5600	23.1	5.016	35.014	5.07	35.5	-1.07	-1.37	Mar. 24, 2021	5600	82.40	4.33	86.60	5.10	1019	7555	1589
S35	5750	23.1	5.153	34.572	5.22	35.4	-1.28	-2.34	Mar. 24, 2021	5750	79.40	3.77	75.40	-5.04	1019	7555	1589
S36	2450	23.1	1.87	39.052	1.8	39.2	3.89	-0.38	Mar. 24, 2021	2450	51.60	2.57	51.40	-0.39	737	7555	1589
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