



FCC SAR Test Report

Report No. : FA572906

	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	132072	1720	18.25	19.70	1.396			-0.07	0.635	0.886	
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	132572	1770	18.44	19.70	1.337			0.16	0.588	0.786	
	LTE Band 66	20M	QPSK	100	0	Back	5mm	Ant6	DSI3	132322	1745	18.29	19.70	1.384			0.06	0.629	0.871	
	LTE Band 66	20M	QPSK	1	0	Front	10mm	Ant6	DSI4	132322	1745	22.75	23.70	1.245			-0.08	0.588	0.732	
	LTE Band 66	20M	QPSK	50	0	Front	10mm	Ant6	DSI4	132322	1745	22.66	23.70	1.271			-0.11	0.613	0.779	
	LTE Band 66	20M	QPSK	1	0	Back	10mm	Ant6	DSI4	132322	1745	22.75	23.70	1.245			-0.05	0.702	0.874	
	LTE Band 66	20M	QPSK	1	0	Back	10mm	Ant6	DSI4	132072	1720	22.63	23.70	1.279			-0.03	0.710	0.908	
	LTE Band 66	20M	QPSK	1	0	Back	10mm	Ant6	DSI4	132572	1770	22.54	23.70	1.306			0.14	0.688	0.899	
	LTE Band 66	20M	QPSK	50	0	Back	10mm	Ant6	DSI4	132322	1745	22.66	23.70	1.271			0.02	0.706	0.897	
	LTE Band 66	20M	QPSK	50	0	Back	10mm	Ant6	DSI4	132072	1720	22.50	23.70	1.318			-0.09	0.701	0.924	
	LTE Band 66	20M	QPSK	50	0	Back	10mm	Ant6	DSI4	132572	1770	22.51	23.70	1.315			0.00	0.649	0.853	
	LTE Band 66	20M	QPSK	100	0	Back	10mm	Ant6	DSI4	132322	1745	22.83	23.70	1.222			0.08	0.695	0.849	
	LTE Band 66	20M	QPSK	1	0	Front	5mm	Ant7	DSI4	132322	1745	17.63	18.40	1.194			0.19	0.462	0.552	
	LTE Band 66	20M	QPSK	50	0	Front	5mm	Ant7	DSI4	132322	1745	17.54	18.40	1.219			0.03	0.546	0.666	
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant7	DSI4	132322	1745	17.63	18.40	1.194			-0.15	0.551	0.658	
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant7	DSI4	132322	1745	17.54	18.40	1.219			-0.03	0.562	0.685	
	LTE Band 71	20M	QPSK	1	0	Front	5mm	Ant0	DSI3	133297	680.5	24.02	24.70	1.169			-0.03	0.180	0.210	
	LTE Band 71	20M	QPSK	50	0	Front	5mm	Ant0	DSI3	133297	680.5	24.10	24.70	1.148			0.15	0.196	0.225	
	LTE Band 71	20M	QPSK	1	0	Back	5mm	Ant0	DSI3	133297	680.5	24.02	24.70	1.169			0.07	0.201	0.235	
	LTE Band 71	20M	QPSK	50	0	Back	5mm	Ant0	DSI3	133297	680.5	24.10	24.70	1.148			0.03	0.221	0.254	
	LTE Band 71	20M	QPSK	1	0	Front	10mm	Ant0	DSI4	133297	680.5	25.07	25.70	1.156			0.17	0.156	0.180	
	LTE Band 71	20M	QPSK	50	0	Front	10mm	Ant0	DSI4	133297	680.5	24.10	24.70	1.148			-0.03	0.141	0.162	
	LTE Band 71	20M	QPSK	1	0	Back	10mm	Ant0	DSI4	133297	680.5	25.07	25.70	1.156			-0.03	0.171	0.198	
	LTE Band 71	20M	QPSK	50	0	Back	10mm	Ant0	DSI4	133297	680.5	24.10	24.70	1.148			-0.04	0.153	0.176	
	LTE Band 71	20M	QPSK	1	0	Front	5mm	Ant1	DSI4	133297	680.5	25.13	25.70	1.14			0.08	0.594	0.677	
	LTE Band 71	20M	QPSK	50	0	Front	5mm	Ant1	DSI4	133297	680.5	24.30	24.70	1.096			0.04	0.782	0.857	
	LTE Band 71	20M	QPSK	100	0	Front	5mm	Ant1	DSI4	133297	680.5	24.32	24.70	1.091			0.04	0.551	0.601	
	LTE Band 71	20M	QPSK	1	0	Back	5mm	Ant1	DSI4	133297	680.5	25.13	25.70	1.14			-0.11	0.597	0.681	
72	LTE Band 71	20M	QPSK	50	0	Back	5mm	Ant1	DSI4	133297	680.5	24.30	24.70	1.096			-0.13	0.850	0.932	
	LTE Band 71	20M	QPSK	100	0	Back	5mm	Ant1	DSI4	133297	680.5	24.32	24.70	1.091			-0.06	0.497	0.542	
	LTE Band 38	20M	QPSK	1	0	Front	5mm	Ant7	DSI4	38000	2595	18.88	19.70	1.208	62.9	1.006	0.07	0.289	0.351	Other PA
	LTE Band 38	20M	QPSK	50	0	Front	5mm	Ant7	DSI4	38000	2595	18.83	19.70	1.222	62.9	1.006	-0.11	0.281	0.345	Other PA
73	LTE Band 38	20M	QPSK	1	0	Back	5mm	Ant7	DSI4	38000	2595	18.88	19.70	1.208	62.9	1.006	-0.03	0.543	0.660	Other PA
	LTE Band 38C	20M	QPSK	1	99	Back	5mm	Ant7	DSI4	37901+ 38099	2585.1+ 2604.9	18.76	19.7	1.242	62.9	1.006	0.11	0.512	0.640	Other PA
	LTE Band 38	20M	QPSK	50	0	Back	5mm	Ant7	DSI4	38000	2595	18.83	19.70	1.222	62.9	1.006	-0.17	0.531	0.653	Other PA
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant4	DSI3	40620	2593	20.48	20.70	1.052	62.9	1.006	0.02	0.491	0.520	Main PA
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant4	DSI3	40620	2593	20.45	20.70	1.059	62.9	1.006	-0.03	0.506	0.539	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant4	DSI3	40620	2593	20.48	20.70	1.052	62.9	1.006	-0.04	0.753	0.797	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant4	DSI3	39750	2506	20.43	20.70	1.064	62.9	1.006	0.07	0.601	0.643	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant4	DSI3	40185	2549.5	20.42	20.70	1.067	62.9	1.006	0.07	0.636	0.683	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant4	DSI3	41055	2636.5	20.40	20.70	1.072	62.9	1.006	0.05	0.666	0.718	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant4	DSI3	41490	2680	20.41	20.70	1.069	62.9	1.006	-0.09	0.536	0.576	Main PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	40620	2593	20.45	20.70	1.059	62.9	1.006	0.16	0.714	0.761	Main PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	39750	2506	20.30	20.70	1.096	62.9	1.006	0.02	0.587	0.647	Main PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	40185	2549.5	20.34	20.70	1.086	62.9	1.006	-0.16	0.639	0.698	Main PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	41055	2636.5	20.26	20.70	1.107	62.9	1.006	0.08	0.702	0.782	Main PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	41490	2680	20.32	20.70	1.091	62.9	1.006	-0.04	0.744	0.817	Main PA
	LTE Band 38C	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	38150+ 37952	2810+ 2590.2	19.6	20.2	1.148	62.9	1.006	0.13	0.704	0.813	Main PA
	LTE Band 41	20M	QPSK	100	0	Back	5mm	Ant4	DSI3	40620	2593	20.43	20.70	1.064	62.9	1.006	-0.13	0.721	0.772	Main PA
	LTE Band 41	20M	QPSK	1	0	Front	10mm	Ant4	DSI4	40620	2593	24.47	24.70	1.054	62.9	1.006	-0.06	0.562	0.596	Main PA
	LTE Band 41	20M	QPSK	50	0	Front	10mm	Ant4	DSI4	40620	2593	24.39	24.70	1.074	62.9	1.006	-0.17	0.469	0.507	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant4	DSI4	40620	2593	24.47	24.70	1.054	62.9	1.006	0.19	0.768	0.814	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant4	DSI4	39750	2506	24.40	24.70	1.072	62.9	1.006	0.18	0.667	0.719	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant4	DSI4	40185	2549.5	24.31	24.70	1.094	62.9	1.006	0.07	0.727	0.800	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant4	DSI4	41055	2636.5	24.41	24.70	1.069	62.9	1.006	-0.15	0.712	0.766	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant4	DSI4	41490	2680	24.39	24.70	1.074	62.9	1.006	-0.03	0.783	0.846	Main PA
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant4	DSI4	40620	2593	24.39	24.70	1.074	62.9	1.006	0.13	0.621	0.671	Main PA
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant4	DSI4	39750	2506	24.28	24.70	1.102	62.9	1.006	-0.16	0.543	0.602	Main PA
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant4	DSI4	40185	2549.5	24.17	24.70	1.13	62.9	1.006	-0.07	0.581	0.660	Main PA
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant4	DSI4	41055	2636.5	24.21	24.70	1.119	62.9	1.006	-0.13	0.585	0.659	Main PA
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant4	DSI4	41490	2680	24.23	24.70	1.114	62.9	1.006	0.00	0.621	0.696	Main PA
	LTE Band 41	20M	QPSK	100	0	Back	10mm	Ant4	DSI4	40620	2593	24.32	24.70	1.091	62.9	1.006	-0.10	0.645	0.708	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant4	DSI 4	41490	2680	22.54	23.20	1.164	62.9	1.006	0.03	0.374	0.438	Other PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant4	DSI 3	41490	2680	20.19	21.20	1.262	62.9	1.006	0.01	0.637	0.809	Other PA
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant5	DSI4	40620	2593	19.26	19.70	1.107	62.9	1.006	0.06	0.485	0.540	Main PA
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant5	DSI4	40620	2593	19.27	19.70	1.104	62.9	1.006	-0.03	0.489	0.543	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant5	DSI4	40620	2593	19.26	19.70	1.107	62.9	1.006	0.02	0.722	0.804	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant5	DSI4	39750	2506	19.20	19.70	1.122	62.9	1.006	0.12	0.693	0.782	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant5	DSI4	40185	2549.5	19.22	19.70	1.117	62.9	1.006	-0.07	0.774	0.870	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant5	DSI4	41055	2636.5	19.11	19.70	1.146	62.9	1.006	-0.17	0.639	0.737	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm													



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	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant5	DSI4	40185	2549.5	19.15	19.70	1.135	62.9	1.006	-0.08	0.782	0.893	Main PA
	LTE Band 38C	20M	QPSK	50	50	Back	5mm	Ant5	DSI4	37850+38048	2580+2599.8	18.56	19.5	1.242	62.9	1.006	-0.11	0.711	0.888	Main PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant5	DSI4	41055	2636.5	19.04	19.70	1.164	62.9	1.006	0.05	0.647	0.758	Main PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant5	DSI4	41490	2680	19.11	19.70	1.146	62.9	1.006	0.05	0.552	0.636	Main PA
	LTE Band 41	20M	QPSK	100	0	Back	5mm	Ant5	DSI4	40620	2593	19.19	19.70	1.125	62.9	1.006	-0.14	0.727	0.823	Main PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant5	DSI 4	40185	2549.5	19.14	20.20	1.276	62.9	1.006	-0.06	0.648	0.832	Other PA
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant6	DSI3	40620	2593	20.82	21.70	1.225	62.9	1.006	-0.09	0.486	0.599	Other PA
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant6	DSI3	40620	2593	20.76	21.70	1.242	62.9	1.006	0.02	0.419	0.524	Other PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	40620	2593	20.82	21.70	1.225	62.9	1.006	0.18	0.752	0.927	Other PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	39750	2506	20.71	21.70	1.256	62.9	1.006	0.18	0.720	0.910	Other PA
74	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	40185	2549.5	20.77	21.70	1.239	62.9	1.006	-0.08	0.808	1.007	Other PA
	LTE Band 38C	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	37850+38048	2580+2599.8	20.57	21.7	1.297	62.9	1.006	0.02	0.723	0.943	Other PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	41055	2636.5	20.63	21.70	1.279	62.9	1.006	-0.17	0.664	0.854	Other PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	41490	2680	20.60	21.70	1.288	62.9	1.006	-0.15	0.576	0.746	Other PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	40620	2593	20.76	21.70	1.242	62.9	1.006	0.14	0.601	0.751	Other PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	39750	2506	20.62	21.70	1.282	62.9	1.006	-0.17	0.658	0.849	Other PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	40185	2549.5	20.67	21.70	1.268	62.9	1.006	-0.15	0.670	0.855	Other PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	41055	2636.5	20.56	21.70	1.3	62.9	1.006	0.13	0.518	0.677	Other PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	41490	2680	20.49	21.70	1.321	62.9	1.006	-0.19	0.457	0.607	Other PA
	LTE Band 41	20M	QPSK	100	0	Back	5mm	Ant6	DSI3	40620	2593	20.58	21.70	1.294	62.9	1.006	0.08	0.594	0.773	Other PA
	LTE Band 41	20M	QPSK	1	0	Front	10mm	Ant6	DSI4	40620	2593	24.20	25.20	1.259	62.9	1.006	-0.18	0.321	0.407	Other PA
	LTE Band 41	20M	QPSK	50	0	Front	10mm	Ant6	DSI4	40620	2593	23.24	24.20	1.247	62.9	1.006	0.08	0.249	0.312	Other PA
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant6	DSI4	40620	2593	24.20	25.20	1.259	62.9	1.006	0.03	0.423	0.536	Other PA
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant6	DSI4	40620	2593	23.24	24.20	1.247	62.9	1.006	-0.14	0.342	0.429	Other PA
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant6	DSI 4	40620	2593	24.48	25.00	1.127	62.9	1.006	0.06	0.447	0.507	Main PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant6	DSI 3	40185	2549.5	20.92	21.50	1.143	62.9	1.006	-0.02	0.561	0.645	Main PA
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant7	DSI4	40620	2593	17.85	18.70	1.216	62.9	1.006	0.05	0.250	0.306	Other PA
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant7	DSI4	40620	2593	17.81	18.70	1.227	62.9	1.006	-0.00	0.273	0.337	Other PA
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant7	DSI4	40620	2593	17.85	18.70	1.216	62.9	1.006	0.03	0.317	0.388	Other PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant7	DSI4	40620	2593	17.81	18.70	1.227	62.9	1.006	0.16	0.316	0.390	Other PA
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant7	DSI 4	40620	2593	17.73	18.20	1.114	62.9	1.006	0.03	0.215	0.241	Main PA
	LTE Band 42	20M	QPSK	1	0	Front	5mm	Ant4	DSI3	42590	3500	18.57	18.70	1.03	62.9	1.006	-0.10	0.316	0.327	
	LTE Band 42	20M	QPSK	50	0	Front	5mm	Ant4	DSI3	42590	3500	18.53	18.70	1.04	62.9	1.006	0.15	0.332	0.347	
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant4	DSI3	42590	3500	18.57	18.70	1.03	62.9	1.006	0.10	0.398	0.412	
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	42590	3500	18.53	18.70	1.04	62.9	1.006	-0.03	0.447	0.468	
	LTE Band 42	20M	QPSK	1	0	Front	10mm	Ant4	DSI4	42590	3500	22.98	23.20	1.052	62.9	1.006	0.18	0.458	0.485	
	LTE Band 42	20M	QPSK	50	0	Front	10mm	Ant4	DSI4	42590	3500	22.91	23.20	1.069	62.9	1.006	-0.04	0.655	0.704	
	LTE Band 42	20M	QPSK	1	0	Back	10mm	Ant4	DSI4	42590	3500	22.98	23.20	1.052	62.9	1.006	0.13	0.712	0.754	
	LTE Band 42	20M	QPSK	50	0	Back	10mm	Ant4	DSI4	42590	3500	22.91	23.20	1.069	62.9	1.006	-0.04	0.824	0.886	
	LTE Band 42	20M	QPSK	50	0	Back	10mm	Ant4	DSI4	42190	3460	22.86	23.20	1.081	62.9	1.006	-0.09	0.699	0.760	
	LTE Band 42	20M	QPSK	50	0	Back	10mm	Ant4	DSI4	42990	3540	22.74	23.20	1.112	62.9	1.006	0.13	0.666	0.745	
	LTE Band 42	20M	QPSK	100	0	Back	10mm	Ant4	DSI4	42590	3500	22.88	23.20	1.076	62.9	1.006	0.09	0.818	0.885	
	LTE Band 42	20M	QPSK	1	0	Front	5mm	Ant5	DSI4	42590	3500	20.55	21.20	1.161	62.9	1.006	0.14	0.520	0.607	
	LTE Band 42	20M	QPSK	50	0	Front	5mm	Ant5	DSI4	42590	3500	20.50	21.20	1.175	62.9	1.006	0.05	0.535	0.632	
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant5	DSI4	42590	3500	20.55	21.20	1.161	62.9	1.006	-0.18	0.824	0.962	
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant5	DSI4	42190	3460	20.50	21.20	1.175	62.9	1.006	0.11	0.798	0.943	
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant5	DSI4	42990	3540	20.48	21.20	1.18	62.9	1.006	0.08	0.792	0.940	
75	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant5	DSI4	42590	3500	20.50	21.20	1.175	62.9	1.006	-0.08	0.848	1.002	
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant5	DSI4	42190	3460	20.36	21.20	1.213	62.9	1.006	0.08	0.811	0.990	
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant5	DSI4	42990	3540	20.32	21.20	1.225	62.9	1.006	-0.06	0.809	0.997	
	LTE Band 42	20M	QPSK	100	0	Back	5mm	Ant5	DSI4	42590	3500	20.37	21.20	1.211	62.9	1.006	0.07	0.802	0.977	
	LTE Band 42	20M	QPSK	1	0	Front	5mm	Ant6	DSI3	42590	3500	19.57	21.20	1.455	62.9	1.006	0.14	0.192	0.281	
	LTE Band 42	20M	QPSK	50	0	Front	5mm	Ant6	DSI3	42590	3500	19.50	21.20	1.479	62.9	1.006	-0.03	0.213	0.317	
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	42590	3500	19.57	21.20	1.455	62.9	1.006	-0.14	0.546	0.799	
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	42590	3500	19.50	21.20	1.479	62.9	1.006	0.01	0.547	0.814	
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	42190	3460	19.43	21.20	1.503	62.9	1.006	0.09	0.531	0.803	
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	42990	3540	19.38	21.20	1.521	62.9	1.006	-0.16	0.529	0.809	
	LTE Band 42	20M	QPSK	100	0	Back	5mm	Ant6	DSI3	42590	3500	19.44	21.20	1.5	62.9	1.006	0.10	0.522	0.788	
	LTE Band 42	20M	QPSK	1	0	Front	10mm	Ant6	DSI4	42590	3500	22.50	24.20	1.479	62.9	1.006	-0.02	0.102	0.152	
	LTE Band 42	20M	QPSK	50	0	Front	10mm	Ant6	DSI4	42590	3500	21.56	23.20	1.459	62.9	1.006	-0.05	0.130	0.191	
	LTE Band 42	20M	QPSK	1	0	Back	10mm	Ant6	DSI4	42590	3500	22.50	24.20	1.479	62.9	1.006	0.07	0.282	0.420	
	LTE Band 42	20M	QPSK	50	0	Back	10mm	Ant6	DSI4	42590	3500	21.56	23.20	1.459	62.9	1.006	0.11	0.312	0.458	
	LTE Band 42	20M	QPSK	1	0	Front	5mm	Ant9	DSI4	42590	3500	20.55	21.80	1.334	62.9	1.006	0.03	0.501	0.672	
	LTE Band 42	20M	QPSK	50	0	Front	5mm	Ant9	DSI4	42590	3500	19.70	20.80	1.288	62.9	1.006	0.04	0.476	0.617	
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant9	DSI4	42590	3500	20.55	21.80	1.334	62.9	1.006	-0.09	0.664	0.891	
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant9	DSI4	42190	3460	20.52	21.80	1.343	62.9	1.006	0.06	0.559	0.755	
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant9	DSI4	42990	3540	20.53	21.80	1.34	62.9	1.006	-0.17	0.549	0.740	
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant9	DSI4	42590	3500	19.70	20.80	1.288	62.9	1.006	-0.05	0.525	0.680	
	LTE Band 42	20M	QPSK	100	0	Back	5mm	Ant9	DSI4	42590	3500	19.65	20.80	1.303	62.9	1.006	0.08	0.		



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	LTE Band 48	20M	QPSK	1	0	Front	10mm	Ant4	DSI4	55990	3625	23.32	24.00	1.169	62.9	1.006	0.11	0.429	0.505	
	LTE Band 48	20M	QPSK	50	0	Front	10mm	Ant4	DSI4	55990	3625	23.30	24.00	1.175	62.9	1.006	0.05	0.612	0.723	
	LTE Band 48	20M	QPSK	50	0	Front	10mm	Ant4	DSI4	55340	3560	22.98	24.00	1.265	62.9	1.006	0.15	0.598	0.761	
	LTE Band 48	20M	QPSK	50	0	Front	10mm	Ant4	DSI4	55830	3609	23.18	24.00	1.208	62.9	1.006	-0.04	0.590	0.717	
	LTE Band 48	20M	QPSK	50	0	Front	10mm	Ant4	DSI4	56150	3641	23.19	24.00	1.205	62.9	1.006	-0.04	0.608	0.737	
	LTE Band 48	20M	QPSK	50	0	Front	10mm	Ant4	DSI4	56640	3690	22.91	24.00	1.285	62.9	1.006	0.06	0.615	0.795	
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant4	DSI4	55990	3625	23.32	24.00	1.169	62.9	1.006	-0.13	0.771	0.907	
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant4	DSI4	55340	3560	23.21	24.00	1.199	62.9	1.006	-0.00	0.648	0.782	
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant4	DSI4	55830	3609	23.26	24.00	1.186	62.9	1.006	0.15	0.634	0.756	
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant4	DSI4	56150	3641	23.25	24.00	1.189	62.9	1.006	-0.01	0.662	0.792	
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant4	DSI4	56640	3690	23.23	24.00	1.194	62.9	1.006	-0.11	0.651	0.782	
	LTE Band 48	20M	QPSK	50	0	Back	10mm	Ant4	DSI4	55990	3625	23.30	24.00	1.175	62.9	1.006	-0.02	0.766	0.905	
	LTE Band 48	20M	QPSK	50	0	Back	10mm	Ant4	DSI4	55340	3560	22.98	24.00	1.265	62.9	1.006	0.09	0.688	0.876	
	LTE Band 48	20M	QPSK	50	0	Back	10mm	Ant4	DSI4	55830	3609	23.18	24.00	1.208	62.9	1.006	0.03	0.702	0.853	
	LTE Band 48	20M	QPSK	50	0	Back	10mm	Ant4	DSI4	56150	3641	23.19	24.00	1.205	62.9	1.006	0.01	0.718	0.870	
	LTE Band 48	20M	QPSK	50	0	Back	10mm	Ant4	DSI4	56640	3690	22.91	24.00	1.285	62.9	1.006	0.13	0.698	0.902	
	LTE Band 48	20M	QPSK	100	0	Back	10mm	Ant4	DSI4	55990	3625	23.32	24.00	1.169	62.9	1.006	0.15	0.739	0.869	
	LTE Band 48	20M	QPSK	1	0	Front	5mm	Ant5	DSI4	55990	3625	20.26	21.10	1.213	62.9	1.006	0.14	0.478	0.583	
	LTE Band 48	20M	QPSK	50	0	Front	5mm	Ant5	DSI4	55990	3625	20.16	21.10	1.242	62.9	1.006	0.14	0.483	0.603	
	LTE Band 48	20M	QPSK	50	0	Front	5mm	Ant5	DSI4	55340	3560	19.98	21.10	1.294	62.9	1.006	0.05	0.339	0.441	
	LTE Band 48	20M	QPSK	50	0	Front	5mm	Ant5	DSI4	55830	3609	20.02	21.10	1.282	62.9	1.006	-0.08	0.430	0.555	
	LTE Band 48	20M	QPSK	50	0	Front	5mm	Ant5	DSI4	56150	3641	20.02	21.10	1.282	62.9	1.006	-0.13	0.467	0.602	
	LTE Band 48	20M	QPSK	50	0	Front	5mm	Ant5	DSI4	56640	3690	20.02	21.10	1.282	62.9	1.006	-0.03	0.373	0.481	
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant5	DSI4	55990	3625	20.26	21.10	1.213	62.9	1.006	-0.06	0.676	0.825	
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant5	DSI4	55340	3560	20.21	21.10	1.227	62.9	1.006	-0.18	0.495	0.611	
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant5	DSI4	55830	3609	20.24	21.10	1.219	62.9	1.006	-0.13	0.588	0.721	
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant5	DSI4	56150	3641	20.15	21.10	1.245	62.9	1.006	0.17	0.627	0.785	
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant5	DSI4	56640	3690	20.13	21.10	1.25	62.9	1.006	-0.02	0.504	0.634	
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant5	DSI4	55990	3625	20.16	21.10	1.242	62.9	1.006	-0.01	0.683	0.853	
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant5	DSI4	55340	3560	19.98	21.10	1.294	62.9	1.006	0.14	0.513	0.668	
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant5	DSI4	55830	3609	20.02	21.10	1.282	62.9	1.006	-0.15	0.609	0.785	
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant5	DSI4	56150	3641	20.02	21.10	1.282	62.9	1.006	0.13	0.654	0.843	
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant5	DSI4	56640	3690	20.02	21.10	1.282	62.9	1.006	0.13	0.520	0.671	
	LTE Band 48	20M	QPSK	100	0	Back	5mm	Ant5	DSI4	55990	3625	20.08	21.10	1.265	62.9	1.006	-0.10	0.488	0.621	
	LTE Band 48	20M	QPSK	1	0	Front	5mm	Ant6	DSI3	55990	3625	17.60	18.90	1.349	62.9	1.006	-0.11	0.268	0.364	
	LTE Band 48	20M	QPSK	50	0	Front	5mm	Ant6	DSI3	55990	3625	17.50	18.90	1.38	62.9	1.006	-0.05	0.275	0.382	
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	55990	3625	17.60	18.90	1.349	62.9	1.006	-0.08	0.621	0.843	
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	55340	3560	17.51	18.90	1.377	62.9	1.006	-0.11	0.454	0.629	
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	55830	3609	17.54	18.90	1.368	62.9	1.006	0.03	0.540	0.743	
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	56150	3641	17.50	18.90	1.38	62.9	1.006	0.10	0.575	0.798	
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	56640	3690	17.46	18.90	1.393	62.9	1.006	-0.07	0.463	0.649	
76	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	55990	3625	17.50	18.90	1.38	62.9	1.006	-0.09	0.734	1.019	
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	55340	3560	17.40	18.90	1.413	62.9	1.006	-0.12	0.551	0.783	
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	55830	3609	17.36	18.90	1.426	62.9	1.006	-0.07	0.654	0.938	
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	56150	3641	17.37	18.90	1.422	62.9	1.006	0.16	0.703	1.006	
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	56640	3690	17.27	18.90	1.455	62.9	1.006	-0.19	0.559	0.818	
	LTE Band 48	20M	QPSK	100	0	Back	5mm	Ant6	DSI3	55990	3625	17.47	18.90	1.39	62.9	1.006	0.02	0.525	0.734	
	LTE Band 48	20M	QPSK	1	0	Front	10mm	Ant6	DSI4	55990	3625	20.97	22.40	1.39	62.9	1.006	-0.16	0.145	0.203	
	LTE Band 48	20M	QPSK	50	0	Front	10mm	Ant6	DSI4	55990	3625	20.09	21.40	1.352	62.9	1.006	-0.16	0.111	0.151	
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant6	DSI4	55990	3625	20.97	22.40	1.39	62.9	1.006	-0.00	0.329	0.460	
	LTE Band 48	20M	QPSK	50	0	Back	10mm	Ant6	DSI4	55990	3625	20.09	21.40	1.352	62.9	1.006	0.04	0.257	0.350	
	LTE Band 48	20M	QPSK	1	0	Front	5mm	Ant9	DSI4	55990	3625	18.96	19.90	1.242	62.9	1.006	-0.12	0.267	0.334	
	LTE Band 48	20M	QPSK	50	0	Front	5mm	Ant9	DSI4	55990	3625	18.12	18.90	1.197	62.9	1.006	-0.15	0.239	0.288	
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant9	DSI4	55990	3625	18.96	19.90	1.242	62.9	1.006	0.01	0.396	0.495	
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant9	DSI4	55990	3625	18.12	18.90	1.197	62.9	1.006	-0.02	0.323	0.389	



【FR1 SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Note1
	FR1 n7	50M	BPSK	1	1	Front	5mm	Ant4	DSI3	507000	2535	18.06	18.20	1.033			-0.12	0.267	0.276	
	FR1 n7	50M	BPSK	135	68	Front	5mm	Ant4	DSI3	507000	2535	17.99	18.20	1.05			-0.08	0.334	0.351	
	FR1 n7	50M	BPSK	1	1	Back	5mm	Ant4	DSI3	507000	2535	18.06	18.20	1.033			0.16	0.402	0.415	
	FR1 n7	50M	BPSK	135	68	Back	5mm	Ant4	DSI3	507000	2535	17.99	18.20	1.05			-0.16	0.444	0.466	
	FR1 n7	50M	BPSK	1	1	Front	10mm	Ant4	DSI4	507000	2535	22.58	22.70	1.028			0.04	0.656	0.674	
	FR1 n7	50M	BPSK	135	68	Front	10mm	Ant4	DSI4	507000	2535	22.47	22.70	1.054			0.15	0.686	0.723	
	FR1 n7	50M	BPSK	1	1	Back	10mm	Ant4	DSI4	507000	2535	22.58	22.70	1.028			-0.12	0.805	0.828	
	FR1 n7	50M	BPSK	135	68	Back	10mm	Ant4	DSI4	507000	2535	22.47	22.70	1.054			-0.09	0.859	0.905	
	FR1 n7	50M	BPSK	270	0	Back	10mm	Ant4	DSI4	507000	2535	22.46	22.70	1.057			-0.04	0.764	0.808	
	FR1 n7	50M	BPSK	1	1	Front	5mm	Ant5	DSI4	507000	2535	17.48	18.00	1.127			0.12	0.592	0.667	
	FR1 n7	50M	BPSK	135	68	Front	5mm	Ant5	DSI4	507000	2535	17.44	18.00	1.138			0.12	0.576	0.655	
	FR1 n7	50M	BPSK	1	1	Back	5mm	Ant5	DSI4	507000	2535	17.48	18.00	1.127			0.01	0.697	0.786	
	FR1 n7	50M	BPSK	135	68	Back	5mm	Ant5	DSI4	507000	2535	17.44	18.00	1.138			0.09	0.725	0.825	
	FR1 n7	50M	BPSK	270	0	Back	5mm	Ant5	DSI4	507000	2535	17.68	18.00	1.076			-0.17	0.763	0.821	
	FR1 n7	50M	BPSK	1	1	Front	5mm	Ant6	DSI3	507000	2535	19.62	20.70	1.282			0.02	0.490	0.628	
	FR1 n7	50M	BPSK	135	68	Front	5mm	Ant6	DSI3	507000	2535	19.60	20.70	1.288			-0.07	0.473	0.609	
77	FR1 n7	50M	BPSK	1	1	Back	5mm	Ant6	DSI3	507000	2535	19.62	20.70	1.282			-0.03	0.745	0.955	
	FR1 n7	50M	BPSK	135	68	Back	5mm	Ant6	DSI3	507000	2535	19.60	20.70	1.288			-0.11	0.711	0.916	
	FR1 n7	50M	BPSK	270	0	Back	5mm	Ant6	DSI3	507000	2535	19.50	20.70	1.318			-0.11	0.718	0.946	
	FR1 n7	50M	BPSK	1	1	Front	10mm	Ant6	DSI4	507000	2535	19.62	20.70	1.282			0.13	0.542	0.695	
	FR1 n7	50M	BPSK	135	68	Front	10mm	Ant6	DSI4	507000	2535	19.60	20.70	1.288			0.03	0.436	0.562	
	FR1 n7	50M	BPSK	1	1	Back	10mm	Ant6	DSI4	507000	2535	19.62	20.70	1.282			-0.13	0.627	0.804	
	FR1 n7	50M	BPSK	135	68	Back	10mm	Ant6	DSI4	507000	2535	19.60	20.70	1.288			0.07	0.673	0.867	
	FR1 n7	50M	BPSK	270	0	Back	10mm	Ant6	DSI4	507000	2535	19.50	20.70	1.318			0.03	0.602	0.793	
	FR1 n7	50M	BPSK	1	1	Front	5mm	Ant7	DSI4	507000	2535	16.04	16.70	1.164			0.01	0.296	0.345	
	FR1 n7	50M	BPSK	135	68	Front	5mm	Ant7	DSI4	507000	2535	16.05	16.70	1.161			-0.14	0.258	0.300	
	FR1 n7	50M	BPSK	1	1	Back	5mm	Ant7	DSI4	507000	2535	16.04	16.70	1.164			0.06	0.388	0.452	
	FR1 n7	50M	BPSK	135	68	Back	5mm	Ant7	DSI4	507000	2535	16.05	16.70	1.161			-0.19	0.282	0.327	
	FR1 n12	15M	BPSK	1	1	Front	5mm	Ant0	DSI3	141500	707.5	24.31	24.70	1.094			-0.03	0.251	0.275	
	FR1 n12	15M	BPSK	36	22	Front	5mm	Ant0	DSI3	141500	707.5	24.29	24.70	1.099			0.11	0.233	0.256	
	FR1 n12	15M	BPSK	1	1	Back	5mm	Ant0	DSI3	141500	707.5	24.31	24.70	1.094			-0.12	0.303	0.331	
	FR1 n12	15M	BPSK	36	22	Back	5mm	Ant0	DSI3	141500	707.5	24.29	24.70	1.099			-0.18	0.282	0.310	
	FR1 n12	15M	BPSK	1	1	Front	10mm	Ant0	DSI4	141500	707.5	25.28	25.70	1.102			-0.16	0.187	0.206	
	FR1 n12	15M	BPSK	36	22	Front	10mm	Ant0	DSI4	141500	707.5	24.83	25.70	1.222			0.04	0.233	0.285	
	FR1 n12	15M	BPSK	1	1	Back	10mm	Ant0	DSI4	141500	707.5	25.28	25.70	1.102			-0.17	0.194	0.214	
	FR1 n12	15M	BPSK	36	22	Back	10mm	Ant0	DSI4	141500	707.5	24.83	25.70	1.222			-0.06	0.248	0.303	
	FR1 n12	15M	BPSK	1	1	Front	5mm	Ant1	DSI4	141500	707.5	21.47	21.70	1.054			0.16	0.766	0.807	
	FR1 n12	15M	BPSK	36	22	Front	5mm	Ant1	DSI4	141500	707.5	21.41	21.70	1.069			0.08	0.701	0.749	
	FR1 n12	15M	BPSK	75	0	Front	5mm	Ant1	DSI4	141500	707.5	21.40	21.70	1.072			0.04	0.695	0.745	
78	FR1 n12	15M	BPSK	1	1	Back	5mm	Ant1	DSI4	141500	707.5	21.47	21.70	1.054			-0.19	0.840	0.885	
	FR1 n12	15M	BPSK	36	22	Back	5mm	Ant1	DSI4	141500	707.5	21.41	21.70	1.069			0.04	0.796	0.851	
	FR1 n12	15M	BPSK	75	0	Back	5mm	Ant1	DSI4	141500	707.5	21.40	21.70	1.072			-0.14	0.794	0.851	
	FR1 n25	40M	BPSK	1	1	Front	5mm	Ant4	DSI3	376500	1882.5	20.30	20.70	1.096			-0.03	0.526	0.576	
	FR1 n25	40M	BPSK	108	54	Front	5mm	Ant4	DSI3	376500	1882.5	20.28	20.70	1.102			-0.08	0.511	0.563	
79	FR1 n25	40M	BPSK	1	1	Back	5mm	Ant4	DSI3	376500	1882.5	20.30	20.70	1.096			-0.07	0.901	0.987	
	FR1 n25	40M	BPSK	108	54	Back	5mm	Ant4	DSI3	376500	1882.5	20.28	20.70	1.102			-0.11	0.865	0.953	
	FR1 n25	40M	BPSK	216	0	Back	5mm	Ant4	DSI3	376500	1882.5	20.25	20.70	1.109			-0.01	0.853	0.946	
	FR1 n25	40M	BPSK	1	1	Front	10mm	Ant4	DSI4	376500	1882.5	23.89	24.20	1.074			0.11	0.625	0.671	
	FR1 n25	40M	BPSK	108	54	Front	10mm	Ant4	DSI4	376500	1882.5	23.78	24.20	1.102			0.01	0.574	0.633	
	FR1 n25	40M	BPSK	1	1	Back	10mm	Ant4	DSI4	376500	1882.5	23.89	24.20	1.074			-0.08	0.803	0.862	
	FR1 n25	40M	BPSK	108	54	Back	10mm	Ant4	DSI4	376500	1882.5	23.78	24.20	1.102			-0.01	0.765	0.843	
	FR1 n25	40M	BPSK	216	0	Back	10mm	Ant4	DSI4	376500	1882.5	23.93	24.20	1.064			0.07	0.630	0.670	
	FR1 n25	40M	BPSK	1	1	Front	5mm	Ant5	DSI4	376500	1882.5	18.56	19.00	1.107			0.04	0.628	0.695	
	FR1 n25	40M	BPSK	108	54	Front	5mm	Ant5	DSI4	376500	1882.5	18.53	19.00	1.114			-0.06	0.779	0.868	
	FR1 n25	40M	BPSK	216	0	Front	5mm	Ant5	DSI4	376500	1882.5	18.50	19.00	1.122			0.09	0.600	0.673	
	FR1 n25	40M	BPSK	1	1	Back	5mm	Ant5	DSI4	376500	1882.5	18.56	19.00	1.107			-0.13	0.816	0.903	
	FR1 n25	40M	BPSK	108	54	Back	5mm	Ant5	DSI4	376500	1882.5	18.53	19.00	1.114			-0.00	0.780	0.869	
	FR1 n25	40M	BPSK	216	0	Back	5mm	Ant5	DSI4	376500	1882.5	18.50	19.00	1.122			-0.17	0.600	0.673	
	FR1 n26	20M	BPSK	1	1	Front	5mm	Ant0	DSI3	166300	831.5	25.43	25.70	1.064			-0.14	0.448	0.477	
	FR1 n26	20M	BPSK	50	28	Front	5mm	Ant0	DSI3	166300	831.5	25.40	25.70	1.072			0.15	0.479	0.513	
	FR1 n26	20M	BPSK	1	1	Back	5mm	Ant0	DSI3	166300	831.5	25.43	25.70	1.064			-0.11	0.531	0.565	
	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant0	DSI3	166300	831.5	25.40	25.70	1.072			0.05	0.495	0.531	
	FR1 n26	20M	BPSK	1	1	Front	10mm	Ant0	DSI4	166300	831.5	25.43	25.70	1.064			0.16	0.258	0.275	
	FR1 n26	20M	BPSK	50	28	Front	10mm	Ant0	DSI4	166300	831.5	25.40	25.70	1.072			-0.18	0.293	0.314	
	FR1 n26	20M	BPSK	1	1	Back	10mm	Ant0	DSI4	166300	831.5	25.43	25.70	1.064			-0.08	0.284	0.302	
	FR1 n26	20M	BPSK	50	28	Back	10mm	Ant0	DSI4	166300	831.5	25.40	25.70	1.072			0.09	0.338	0.362	
	FR1 n26	20M	BPSK	1	1	Front	5mm	Ant1	DSI4	166300	831.5	21.95	22.20	1.059			0.03	0.688	0.729	
	FR1 n26	20M	BPSK	50	28	Front	5mm	Ant1	DSI4	166300	831.5	21.91	22.20	1.069			-0.15	0.785	0.839	



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	FR1 n26	20M	BPSK	100	0	Front	5mm	Ant1	DSI4	166300	831.5	21.65	22.20	1.135			0.03	0.725	0.823	
	FR1 n26	20M	BPSK	1	1	Back	5mm	Ant1	DSI4	166300	831.5	21.95	22.20	1.059			-0.19	0.773	0.819	
	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant1	DSI4	166300	831.5	21.91	22.20	1.069			-0.13	0.851	0.910	
80	FR1 n26	20M	BPSK	100	0	Back	5mm	Ant1	DSI4	166300	831.5	21.65	22.20	1.135			-0.19	0.874	0.992	
	FR1 n66	45M	BPSK	1	1	Front	5mm	Ant4	DSI3	349000	1745	18.52	18.70	1.042			-0.05	0.449	0.468	
	FR1 n66	45M	BPSK	120	60	Front	5mm	Ant4	DSI3	349000	1745	18.49	18.70	1.05			-0.03	0.503	0.528	
	FR1 n66	45M	BPSK	1	1	Back	5mm	Ant4	DSI3	349000	1745	18.52	18.70	1.042			0.08	0.670	0.698	
	FR1 n66	45M	BPSK	120	60	Back	5mm	Ant4	DSI3	349000	1745	18.49	18.70	1.05			-0.14	0.619	0.650	
	FR1 n66	45M	BPSK	1	1	Front	10mm	Ant4	DSI4	349000	1745	23.95	24.20	1.059			-0.16	0.755	0.800	
	FR1 n66	45M	BPSK	120	60	Front	10mm	Ant4	DSI4	349000	1745	23.94	24.20	1.062			-0.11	0.763	0.810	
	FR1 n66	45M	BPSK	240	0	Front	10mm	Ant4	DSI4	349000	1745	24.06	24.20	1.033			0.18	0.676	0.698	
	FR1 n66	45M	BPSK	1	1	Back	10mm	Ant4	DSI4	349000	1745	23.95	24.20	1.059			-0.09	0.905	0.958	
	FR1 n66	45M	BPSK	120	60	Back	10mm	Ant4	DSI4	349000	1745	23.94	24.20	1.062			-0.09	0.868	0.922	
	FR1 n66	45M	BPSK	240	0	Back	10mm	Ant4	DSI4	349000	1745	24.06	24.20	1.033			-0.10	0.793	0.819	
	FR1 n66	45M	BPSK	1	1	Front	5mm	Ant5	DSI4	349000	1745	18.90	19.50	1.148			-0.07	0.585	0.672	
	FR1 n66	45M	BPSK	120	60	Front	5mm	Ant5	DSI4	349000	1745	18.87	19.50	1.156			-0.08	0.527	0.609	
	FR1 n66	45M	BPSK	1	1	Back	5mm	Ant5	DSI4	349000	1745	18.90	19.50	1.148			-0.09	0.707	0.812	
	FR1 n66	45M	BPSK	120	60	Back	5mm	Ant5	DSI4	349000	1745	18.87	19.50	1.156			0.15	0.677	0.783	
	FR1 n66	45M	BPSK	240	0	Back	5mm	Ant5	DSI4	349000	1745	18.87	19.50	1.156			-0.08	0.658	0.761	
	FR1 n66	45M	BPSK	1	1	Front	5mm	Ant6	DSI3	349000	1745	19.26	20.20	1.242			-0.14	0.665	0.826	
	FR1 n66	45M	BPSK	120	60	Front	5mm	Ant6	DSI3	349000	1745	19.24	20.20	1.247			-0.09	0.685	0.854	
	FR1 n66	45M	BPSK	240	0	Front	5mm	Ant6	DSI3	349000	1745	19.20	20.20	1.259			-0.02	0.665	0.837	
	FR1 n66	45M	BPSK	1	1	Back	5mm	Ant6	DSI3	349000	1745	19.26	20.20	1.242			-0.03	0.802	0.996	
	FR1 n66	45M	BPSK	120	60	Back	5mm	Ant6	DSI3	349000	1745	19.24	20.20	1.247			-0.10	0.754	0.940	
	FR1 n66	45M	BPSK	240	0	Back	5mm	Ant6	DSI3	349000	1745	19.20	20.20	1.259			-0.02	0.740	0.932	
	FR1 n66	45M	BPSK	1	1	Front	10mm	Ant6	DSI4	349000	1745	22.82	23.70	1.225			0.14	0.630	0.772	
	FR1 n66	45M	BPSK	120	60	Front	10mm	Ant6	DSI4	349000	1745	22.70	23.70	1.259			0.18	0.681	0.857	
	FR1 n66	45M	BPSK	240	0	Front	10mm	Ant6	DSI4	349000	1745	22.82	23.70	1.225			-0.11	0.606	0.742	
	FR1 n66	45M	BPSK	1	1	Back	10mm	Ant6	DSI4	349000	1745	22.82	23.70	1.225			-0.11	0.760	0.931	
	FR1 n66	45M	BPSK	120	60	Back	10mm	Ant6	DSI4	349000	1745	22.70	23.70	1.259			-0.02	0.787	0.991	
	FR1 n66	45M	BPSK	240	0	Back	10mm	Ant6	DSI4	349000	1745	22.82	23.70	1.225			0.01	0.716	0.877	
	FR1 n66	45M	BPSK	1	1	Front	5mm	Ant7	DSI4	349000	1745	19.54	20.50	1.247			-0.12	0.588	0.733	
	FR1 n66	45M	BPSK	120	60	Front	5mm	Ant7	DSI4	349000	1745	19.47	20.50	1.268			-0.05	0.576	0.730	
	FR1 n66	45M	BPSK	1	1	Back	5mm	Ant7	DSI4	349000	1745	19.54	20.50	1.247			0.09	0.837	1.044	
	FR1 n66	45M	BPSK	120	60	Back	5mm	Ant7	DSI4	349000	1745	19.47	20.50	1.268			-0.15	0.817	1.036	
81	FR1 n66	45M	BPSK	240	0	Back	5mm	Ant7	DSI4	349000	1745	19.45	20.50	1.274			-0.05	0.832	1.060	
	FR1 n38	40M	BPSK	1	1	Front	10mm	Ant4	DSI 4	519000	2595	22.30	23.20	1.23			0.01	0.189	0.232	Other PA
	FR1 n38	40M	BPSK	50	28	Front	10mm	Ant4	DSI 4	519000	2595	22.28	23.20	1.236			0.03	0.187	0.231	Other PA
	FR1 n38	40M	BPSK	1	1	Back	10mm	Ant4	DSI 4	519000	2595	22.30	23.20	1.23			-0.06	0.257	0.316	Other PA
	FR1 n38	40M	BPSK	50	28	Back	10mm	Ant4	DSI 4	519000	2595	22.28	23.20	1.236			0.04	0.255	0.315	Other PA
	FR1 n38	40M	BPSK	1	1	Front	5mm	Ant6	DSI3	519000	2595	20.64	21.70	1.276			-0.10	0.506	0.646	Other PA
	FR1 n38	40M	BPSK	50	28	Front	5mm	Ant6	DSI3	519000	2595	20.60	21.70	1.288			0.04	0.524	0.675	Other PA
82	FR1 n38	40M	BPSK	1	1	Back	5mm	Ant6	DSI3	519000	2595	20.64	21.70	1.276			0.03	0.817	1.042	Other PA
	FR1 n38	40M	BPSK	50	28	Back	5mm	Ant6	DSI3	519000	2595	20.60	21.70	1.288			0.02	0.793	1.021	Other PA
	FR1 n38	40M	BPSK	100	0	Back	5mm	Ant6	DSI3	519000	2595	20.56	21.70	1.3			-0.01	0.782	1.017	Other PA
	FR1 n38	40M	BPSK	1	1	Back	5mm	Ant6	DSI 3	519000	2595	20.59	21.70	1.291			0.06	0.687	0.887	Other PA
	FR1 n41	100M	BPSK	1	1	Front	5mm	Ant4	DSI3	518598	2592.99	17.08	17.70	1.153			0.18	0.461	0.532	Main PA
	FR1 n41	100M	BPSK	135	69	Front	5mm	Ant4	DSI3	518598	2592.99	17.01	17.70	1.172			0.03	0.459	0.538	Main PA
	FR1 n41	100M	BPSK	1	1	Back	5mm	Ant4	DSI3	518598	2592.99	17.08	17.70	1.153			0.10	0.583	0.672	Main PA
	FR1 n41	100M	BPSK	135	69	Back	5mm	Ant4	DSI3	518598	2592.99	17.01	17.70	1.172			-0.01	0.629	0.737	Main PA
	FR1 n41_HPUE	100M	BPSK	135	69	Back	5mm	Ant4	DSI3	518598	2592.99	20.53	21.00	1.114	50.0	1.0	0.01	0.646	0.720	Main PA
	FR1 n41	100M	BPSK	135	69	Back	5mm	Ant4	DSI 3	518598	2592.99	17.30	18.20	1.23			0.02	0.531	0.653	Other PA
	FR1 n41	100M	BPSK	1	1	Front	10mm	Ant4	DSI4	518598	2592.99	22.48	23.20	1.18			0.06	0.683	0.806	Main PA
	FR1 n41	100M	BPSK	135	69	Front	10mm	Ant4	DSI4	518598	2592.99	22.45	23.20	1.189			-0.09	0.683	0.812	Main PA
	FR1 n41	100M	BPSK	270	0	Front	10mm	Ant4	DSI4	518598	2592.99	22.38	23.20	1.208			0.14	0.667	0.806	Main PA
83	FR1 n41	100M	BPSK	1	1	Back	10mm	Ant4	DSI4	518598	2592.99	22.48	23.20	1.18			-0.06	0.926	1.093	Main PA
	FR1 n41	100M	BPSK	135	69	Back	10mm	Ant4	DSI4	518598	2592.99	22.45	23.20	1.189			0.00	0.894	1.063	Main PA
	FR1 n41	100M	BPSK	270	0	Back	10mm	Ant4	DSI4	518598	2592.99	22.38	23.20	1.208			-0.06	0.882	1.065	Main PA
	FR1 n41_HPUE	100M	BPSK	1	1	Back	10mm	Ant4	DSI4	518598	2592.99	25.93	26.50	1.14	50.0	1.0	-0.16	0.932	1.062	Main PA
	FR1 n41	100M	BPSK	1	1	Back	10mm	Ant4	DSI 4	518598	2592.99	21.35	22.20	1.216			0.03	0.656	0.798	Other PA
	FR1 n41	100M	BPSK	1	1	Front	5mm	Ant5	DSI4	518598	2592.99	18.12	18.50	1.091			-0.17	0.498	0.543	Main PA
	FR1 n41	100M	BPSK	135	69	Front	5mm	Ant5	DSI4	518598	2592.99	18.10	18.50	1.096			0.18	0.496	0.544	Main PA
	FR1 n41	100M	BPSK	1	1	Back	5mm	Ant5	DSI4	518598	2592.99	18.12	18.50	1.091			-0.05	0.667	0.728	Main PA
	FR1 n41	100M	BPSK	135	69	Back	5mm	Ant5	DSI4	518598	2592.99	18.10	18.50	1.096			0.16	0.622	0.682	Main PA
	FR1 n41_HPUE	100M	BPSK	1	1	Back	5mm	Ant5	DSI4	518598	2592.99	21.06	21.50	1.107	50.0	1.0	-0.03	0.651	0.721	Main PA
	FR1 n41	100M	BPSK	1	1	Back	5mm	Ant5	DSI 4	518598	2592.99	17.99	18.70	1.178			0.03	0.636	0.749	Other PA
	FR1 n41	100M	BPSK	1	1	Front	5mm	Ant6	DSI3	518598	2592.99	20.24	20.70	1.112			-0.03	0.388	0.431	Other PA
	FR1 n41	100M	BPSK	135	69	Front	5mm	Ant6	DSI3	518598	2592.99	20.08	20.70	1.153			0.17	0.401	0.462	Other PA
	FR1 n41	100M	BPSK	1	1	Back	5mm	Ant6	DSI3	518598	2592.99	20.24	20.70	1.112			-0.12	0.646	0.718	Other PA
	FR1 n41	100M	BPSK	135	69	Back	5mm	Ant6	DSI3	518598	2592.99	20.08	20.70	1.153			0.11	0.608	0.701	Other PA
	FR1 n41_HPUE	100M	BPSK	1	1	Back	5mm	Ant6	DSI3	518598	2592.99	23.12	23.70	1.143	50.0	1.0	-0.08	0.683	0.781	Other PA
	FR1 n41	100M	BPSK	1	1	Back	5mm	Ant6	DSI 3	518598	2592.99	20.16	20.50	1.081			-0.17	0.617	0.667	Main PA
	FR1 n41	100M	BPSK	1	1	Front	10mm</													



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	FR1 n41	100M	BPSK	135	69	Front	10mm	Ant6	DSI4	518598	2592.99	23.48	24.20	1.18			-0.09	0.334	0.394	Other PA
	FR1 n41	100M	BPSK	1	1	Back	10mm	Ant6	DSI4	518598	2592.99	23.67	24.20	1.13			0.13	0.565	0.638	Other PA
	FR1 n41	100M	BPSK	135	69	Back	10mm	Ant6	DSI4	518598	2592.99	23.48	24.20	1.18			0.11	0.514	0.607	Other PA
	FR1 n41_HPUE	100M	BPSK	1	1	Back	10mm	Ant6	DSI4	518598	2592.99	24.52	25.20	1.169	50.0	1.0	-0.06	0.369	0.431	Other PA
	FR1 n41	100M	BPSK	1	1	Back	10mm	Ant6	DSI 4	518598	2592.99	23.58	24.00	1.102			0.03	0.355	0.391	Main PA
	FR1 n41	100M	BPSK	1	1	Front	5mm	Ant7	DSI4	518598	2592.99	20.75	21.70	1.245			-0.13	0.477	0.594	Other PA
	FR1 n41	100M	BPSK	135	69	Front	5mm	Ant7	DSI4	518598	2592.99	20.73	21.70	1.25			0.18	0.384	0.480	Other PA
	FR1 n41	100M	BPSK	1	1	Back	5mm	Ant7	DSI4	518598	2592.99	20.75	21.70	1.245			0.09	0.590	0.735	Other PA
	FR1 n41	100M	BPSK	135	69	Back	5mm	Ant7	DSI4	518598	2592.99	20.73	21.70	1.25			-0.07	0.496	0.620	Other PA
	FR1 n41_HPUE	100M	BPSK	1	1	Back	5mm	Ant7	DSI4	518598	2592.99	22.88	23.70	1.208	50.0	1.0	0.14	0.519	0.627	Other PA
	FR1 n41	100M	BPSK	1	1	Back	5mm	Ant7	DSI 4	518598	2592.99	20.60	21.50	1.23			0.04	0.349	0.429	Main PA
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant4	DSI3	641666	3624.99	16.87	18.00	1.297			0.01	0.567	0.735	
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant4	DSI3	638000	3570	16.84	18.00	1.306			0.04	0.536	0.700	
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant4	DSI3	645332	3679.98	16.81	18.00	1.315			-0.06	0.553	0.727	
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant4	DSI3	641666	3624.99	16.85	18.00	1.303			-0.04	0.545	0.710	
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant4	DSI3	638000	3570	16.80	18.00	1.318			0.01	0.518	0.683	
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant4	DSI3	645332	3679.98	16.77	18.00	1.327			0.05	0.487	0.646	
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant4	DSI3	641666	3624.99	16.87	18.00	1.297			0.06	0.755	0.979	
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant4	DSI3	638000	3570	16.84	18.00	1.306			0.09	0.714	0.932	
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant4	DSI3	645332	3679.98	16.81	18.00	1.315			0.01	0.737	0.969	
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant4	DSI3	641666	3624.99	16.85	18.00	1.303			0.12	0.726	0.946	
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant4	DSI3	638000	3570	16.80	18.00	1.318			0.18	0.690	0.909	
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant4	DSI3	645332	3679.98	16.77	18.00	1.327			-0.01	0.649	0.861	
	FR1 n48	40M	BPSK	100	0	Back	5mm	Ant4	DSI3	641666	3624.99	16.79	18.00	1.321			0.03	0.672	0.888	
	FR1 n48	40M	BPSK	1	1	Front	10mm	Ant4	DSI4	641666	3624.99	20.85	22.00	1.303			-0.04	0.651	0.848	
	FR1 n48	40M	BPSK	1	1	Front	10mm	Ant4	DSI4	638000	3570	20.79	22.00	1.321			0.16	0.616	0.814	
	FR1 n48	40M	BPSK	1	1	Front	10mm	Ant4	DSI4	645332	3679.98	20.73	22.00	1.34			0.17	0.583	0.781	
	FR1 n48	40M	BPSK	50	28	Front	10mm	Ant4	DSI4	641666	3624.99	20.83	22.00	1.309			0.07	0.559	0.732	
	FR1 n48	40M	BPSK	50	28	Front	10mm	Ant4	DSI4	638000	3570	20.67	22.00	1.358			0.04	0.532	0.722	
	FR1 n48	40M	BPSK	50	28	Front	10mm	Ant4	DSI4	645332	3679.98	20.69	22.00	1.352			-0.12	0.500	0.676	
	FR1 n48	40M	BPSK	100	0	Front	10mm	Ant4	DSI4	641666	3624.99	20.68	22.00	1.355			0.00	0.518	0.702	
	FR1 n48	40M	BPSK	1	1	Back	10mm	Ant4	DSI4	641666	3624.99	20.85	22.00	1.303			-0.06	0.758	0.988	
	FR1 n48	40M	BPSK	1	1	Back	10mm	Ant4	DSI4	638000	3570	20.79	22.00	1.321			0.07	0.717	0.947	
	FR1 n48	40M	BPSK	1	1	Back	10mm	Ant4	DSI4	645332	3679.98	20.73	22.00	1.34			0.13	0.740	0.992	
	FR1 n48	40M	BPSK	50	28	Back	10mm	Ant4	DSI4	641666	3624.99	20.83	22.00	1.309			-0.09	0.728	0.953	
	FR1 n48	40M	BPSK	50	28	Back	10mm	Ant4	DSI4	638000	3570	20.67	22.00	1.358			0.04	0.693	0.941	
	FR1 n48	40M	BPSK	50	28	Back	10mm	Ant4	DSI4	645332	3679.98	20.69	22.00	1.352			-0.17	0.651	0.880	
	FR1 n48	40M	BPSK	100	0	Back	10mm	Ant4	DSI4	641666	3624.99	20.68	22.00	1.355			-0.05	0.675	0.915	
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant5	DSI4	641666	3624.99	17.79	18.80	1.262			0.07	0.612	0.772	
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant5	DSI4	638000	3570	17.73	18.80	1.279			-0.09	0.573	0.733	
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant5	DSI4	645332	3679.98	17.69	18.80	1.291			-0.15	0.499	0.644	
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant5	DSI4	641666	3624.99	17.77	18.80	1.268			0.08	0.629	0.798	
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant5	DSI4	638000	3570	17.58	18.80	1.324			-0.00	0.590	0.781	
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant5	DSI4	645332	3679.98	17.63	18.80	1.309			0.13	0.513	0.672	
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant5	DSI4	641666	3624.99	17.79	18.80	1.262			0.10	0.706	0.891	
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant5	DSI4	638000	3570	17.73	18.80	1.279			0.08	0.684	0.875	
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant5	DSI4	645332	3679.98	17.69	18.80	1.291			-0.08	0.637	0.822	
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant5	DSI4	641666	3624.99	17.77	18.80	1.268			-0.04	0.734	0.931	
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant5	DSI4	638000	3570	17.58	18.80	1.324			0.08	0.711	0.941	
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant5	DSI4	645332	3679.98	17.63	18.80	1.309			0.16	0.663	0.868	
	FR1 n48	40M	BPSK	100	0	Back	5mm	Ant5	DSI4	641666	3624.99	17.69	18.80	1.291			-0.05	0.702	0.906	
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant6	DSI3	641666	3624.99	17.60	19.00	1.38			0.14	0.298	0.411	
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant6	DSI3	641666	3624.99	17.59	19.00	1.384			0.04	0.285	0.394	
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant6	DSI3	641666	3624.99	17.60	19.00	1.38			0.03	0.722	0.996	
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant6	DSI3	638000	3570	17.54	19.00	1.4			0.16	0.678	0.949	
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant6	DSI3	645332	3679.98	17.57	19.00	1.39			0.13	0.698	0.970	
84	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant6	DSI3	641666	3624.99	17.59	19.00	1.384			0.04	0.751	1.039	
	FR1 n48	40M	BPSK	50	0	Back	5mm	Ant6	DSI3	638000	3570	17.47	19.00	1.422			0.13	0.717	1.020	
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant6	DSI3	645332	3679.98	17.50	19.00	1.413			0.02	0.706	0.998	
	FR1 n48	40M	BPSK	100	0	Back	5mm	Ant6	DSI3	641666	3624.99	17.56	19.00	1.393			-0.12	0.721	1.004	
	FR1 n48	40M	BPSK	1	1	Front	10mm	Ant6	DSI4	641666	3624.99	21.00	22.50	1.413			0.03	0.236	0.333	
	FR1 n48	40M	BPSK	50	28	Front	10mm	Ant6	DSI4	641666	3624.99	21.63	22.50	1.222			0.01	0.222	0.271	
	FR1 n48	40M	BPSK	1	1	Back	10mm	Ant6	DSI4	641666	3624.99	21.00	22.50	1.413			-0.06	0.512	0.723	
	FR1 n48	40M	BPSK	1	1	Back	10mm	Ant6	DSI4	638000	3570	20.93	22.50	1.435			-0.19	0.472	0.677	
	FR1 n48	40M	BPSK	1	1	Back	10mm	Ant6	DSI4	645332	3679.98	20.99	22.50	1.416			0.12	0.440	0.623	
	FR1 n48	40M	BPSK	50	28	Back	10mm	Ant6	DSI4	641666	3624.99	21.63	22.50	1.222			0.08	0.509	0.622	
	FR1 n48	40M	BPSK	50	28	Back	10mm	Ant6	DSI4	638000	3570	21.53	22.50	1.25			-0.07	0.456	0.570	
	FR1 n48	40M	BPSK	50	28	Back	10mm	Ant6	DSI4	645332	3679.98	21.53	22.50	1.25			-0.18	0.440	0.550	
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant9	DSI4	641666	3624.99	18.25	19.90	1.462			0.07	0.237	0.346	
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant9	DSI4	641666	3624.99	18.24	19.90	1.466			-0.10	0.232	0.340	
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant9	DSI4	641666	3624.99	18.25	19.90	1.462			0.01	0.369	0.539	
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant9	DSI4	641666	3624.99	18.24	19.90	1.466			0.17	0.362	0.531	
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant4	DSI3	633332	3499.98	16.03	16							



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	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant4	DSI3	633332	3499.98	16.06	16.20	1.033			0.17	0.426	0.440	
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant4	DSI3	633332	3499.98	16.03	16.20	1.04			-0.14	0.636	0.661	
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant4	DSI3	633332	3499.98	16.06	16.20	1.033			-0.10	0.540	0.558	
	FR1 n77_HPUE	100M	BPSK	1	1	Back	5mm	Ant4	DSI3	633332	3499.98	19.08	19.50	1.102	50.0	1.0	0.13	0.621	0.684	
	FR1 n77	100M	BPSK	1	1	Front	10mm	Ant4	DSI4	633332	3499.98	22.38	22.70	1.076			-0.17	0.715	0.769	
	FR1 n77	100M	BPSK	135	69	Front	10mm	Ant4	DSI4	633332	3499.98	22.51	22.70	1.045			0.12	0.651	0.680	
	FR1 n77	100M	BPSK	1	1	Back	10mm	Ant4	DSI4	633332	3499.98	22.38	22.70	1.076			-0.03	0.932	1.003	
	FR1 n77	100M	BPSK	135	69	Back	10mm	Ant4	DSI4	633332	3499.98	22.51	22.70	1.045			0.09	0.855	0.893	
	FR1 n77	100M	BPSK	270	0	Back	10mm	Ant4	DSI4	633332	3499.98	22.42	22.70	1.067			-0.08	0.842	0.898	
	FR1 n77_HPUE	100M	BPSK	1	1	Back	10mm	Ant4	DSI4	633332	3499.98	25.50	26.00	1.122	50.0	1.0	0.15	0.886	0.994	
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant5	DSI4	633332	3499.98	17.83	18.70	1.222			-0.16	0.555	0.678	
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant5	DSI4	633332	3499.98	17.80	18.70	1.23			0.15	0.526	0.647	
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant5	DSI4	633332	3499.98	17.83	18.70	1.222			-0.04	0.700	0.855	
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant5	DSI4	633332	3499.98	17.80	18.70	1.23			-0.03	0.668	0.822	
	FR1 n77	100M	BPSK	270	0	Back	5mm	Ant5	DSI4	633332	3499.98	17.56	18.70	1.3			0.16	0.651	0.846	
	FR1 n77_HPUE	100M	BPSK	1	1	Back	5mm	Ant5	DSI4	633332	3499.98	20.80	21.80	1.259	50.0	1.0	0.11	0.669	0.842	
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant6	DSI3	633332	3499.98	17.37	18.90	1.422			0.11	0.245	0.348	
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant6	DSI3	633332	3499.98	17.29	18.90	1.449			-0.14	0.228	0.330	
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant6	DSI3	633332	3499.98	17.37	18.90	1.422			-0.15	0.706	1.004	
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant6	DSI3	633332	3499.98	17.29	18.90	1.449			-0.14	0.688	0.997	
	FR1 n77	100M	BPSK	270	0	Back	5mm	Ant6	DSI3	633332	3499.98	17.30	18.90	1.445			0.03	0.653	0.944	
	FR1 n77_HPUE	100M	BPSK	1	1	Back	5mm	Ant6	DSI3	633332	3499.98	20.78	21.90	1.294	50.0	1.0	0.06	0.701	0.907	
	FR1 n77	100M	BPSK	1	1	Front	10mm	Ant6	DSI4	633332	3499.98	22.41	23.90	1.409			0.06	0.270	0.380	
	FR1 n77	100M	BPSK	135	69	Front	10mm	Ant6	DSI4	633332	3499.98	23.09	23.90	1.205			-0.07	0.256	0.308	
85	FR1 n77	100M	BPSK	1	1	Back	10mm	Ant6	DSI4	633332	3499.98	22.41	23.90	1.409			-0.09	0.768	1.082	
	FR1 n77	100M	BPSK	135	69	Back	10mm	Ant6	DSI4	633332	3499.98	23.09	23.90	1.205			0.15	0.745	0.898	
	FR1 n77	100M	BPSK	270	0	Back	10mm	Ant6	DSI4	633332	3499.98	23.09	23.90	1.205			0.03	0.717	0.864	
	FR1 n77_HPUE	100M	BPSK	1	1	Back	10mm	Ant6	DSI4	633332	3499.98	25.88	26.90	1.265	50.0	1.0	-0.06	0.769	0.973	
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant9	DSI4	633332	3499.98	17.98	18.30	1.076			-0.06	0.422	0.454	
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant9	DSI4	633332	3499.98	17.96	18.30	1.081			0.15	0.418	0.452	
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant9	DSI4	633332	3499.98	17.98	18.30	1.076			-0.08	0.517	0.556	
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant9	DSI4	633332	3499.98	17.96	18.30	1.081			-0.01	0.505	0.546	
	FR1 n77_HPUE	100M	BPSK	1	1	Back	5mm	Ant9	DSI4	633332	3499.98	21.05	21.30	1.059	50.0	1.0	-0.12	0.510	0.540	
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant4	DSI3	656000	3840	15.79	16.20	1.099			0.04	0.362	0.398	
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant4	DSI3	656000	3840	15.71	16.20	1.119			0.04	0.354	0.396	
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant4	DSI3	656000	3840	15.79	16.20	1.099			0.02	0.565	0.621	
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant4	DSI3	656000	3840	15.71	16.20	1.119			-0.12	0.544	0.609	
	FR1 n77_HPUE	100M	BPSK	1	1	Back	5mm	Ant4	DSI3	656000	3840	18.82	19.50	1.169	50.0	1.0	0.08	0.553	0.646	
	FR1 n77	100M	BPSK	1	1	Front	10mm	Ant4	DSI4	656000	3840	22.45	22.70	1.059			-0.11	0.651	0.689	
	FR1 n77	100M	BPSK	135	69	Front	10mm	Ant4	DSI4	656000	3840	22.33	22.70	1.089			-0.04	0.635	0.692	
	FR1 n77	100M	BPSK	1	1	Back	10mm	Ant4	DSI4	656000	3840	22.45	22.70	1.059			-0.08	0.796	0.843	
	FR1 n77	100M	BPSK	135	69	Back	10mm	Ant4	DSI4	656000	3840	22.33	22.70	1.089			0.04	0.748	0.815	
	FR1 n77	100M	BPSK	270	0	Back	10mm	Ant4	DSI4	656000	3840	22.25	22.70	1.109			0.07	0.731	0.811	
	FR1 n77_HPUE	100M	BPSK	1	1	Back	10mm	Ant4	DSI4	656000	3840	25.33	26.00	1.167	50.0	1.0	0.13	0.710	0.829	
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant5	DSI4	656000	3840	17.36	18.70	1.361			0.03	0.321	0.437	
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant5	DSI4	656000	3840	17.51	18.70	1.315			-0.09	0.318	0.418	
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant5	DSI4	656000	3840	17.36	18.70	1.361			0.02	0.452	0.615	
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant5	DSI4	656000	3840	17.51	18.70	1.315			0.16	0.437	0.575	
	FR1 n77_HPUE	100M	BPSK	1	1	Back	5mm	Ant5	DSI4	656000	3840	20.63	21.80	1.309	50.0	1.0	-0.14	0.441	0.577	
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant6	DSI3	656000	3840	17.57	18.90	1.358			-0.16	0.262	0.356	
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant6	DSI3	656000	3840	17.46	18.90	1.393			0.17	0.224	0.312	
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant6	DSI3	656000	3840	17.57	18.90	1.358			0.03	0.599	0.813	
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant6	DSI3	656000	3840	17.46	18.90	1.393			-0.06	0.563	0.784	
	FR1 n77	100M	BPSK	270	0	Back	5mm	Ant6	DSI3	656000	3840	17.27	18.90	1.455			0.06	0.555	0.808	
	FR1 n77_HPUE	100M	BPSK	1	1	Back	5mm	Ant6	DSI3	656000	3840	20.64	21.90	1.337	50.0	1.0	0.02	0.594	0.794	
	FR1 n77	100M	BPSK	1	1	Front	10mm	Ant6	DSI4	656000	3840	22.45	23.90	1.396			0.12	0.348	0.486	
	FR1 n77	100M	BPSK	135	69	Front	10mm	Ant6	DSI4	656000	3840	22.35	23.90	1.429			0.10	0.340	0.486	
	FR1 n77	100M	BPSK	1	1	Back	10mm	Ant6	DSI4	656000	3840	22.45	23.90	1.396			0.09	0.556	0.776	
	FR1 n77	100M	BPSK	135	69	Back	10mm	Ant6	DSI4	656000	3840	22.35	23.90	1.429			-0.14	0.527	0.753	
	FR1 n77_HPUE	100M	BPSK	1	1	Back	10mm	Ant6	DSI4	656000	3840	25.60	26.90	1.349	50.0	1.0	0.05	0.536	0.723	
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant9	DSI4	656000	3840	17.41	18.30	1.227			-0.16	0.221	0.271	
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant9	DSI4	656000	3840	17.18	18.30	1.294			0.07	0.218	0.282	
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant9	DSI4	656000	3840	17.41	18.30	1.227			0.02	0.302	0.371	
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant9	DSI4	656000	3840	17.18	18.30	1.294			-0.13	0.287	0.371	
	FR1 n77_HPUE	100M	BPSK	1	1	Back	5mm	Ant9	DSI4	656000	3840	20.23	21.30	1.279	50.0	1.0	-0.14	0.290	0.371	



Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n71	35M	BPSK	1	1	Front	5mm	Ant0	DSI3	136100	680.5	23.57	24.2	1.156	100	1	0.01	0.167	0.193
	FR1 n71	35M	BPSK	90	45	Front	5mm	Ant0	DSI3	136100	680.5	23.48	24.2	1.18	100	1	-0.02	0.199	0.235
	FR1 n71	35M	BPSK	1	1	Back	5mm	Ant0	DSI3	136100	680.5	23.57	24.2	1.156	100	1	0.03	0.202	0.234
	FR1 n71	35M	BPSK	90	45	Back	5mm	Ant0	DSI3	136100	680.5	23.48	24.2	1.18	100	1	0.11	0.253	0.299
	FR1 n71	35M	BPSK	1	1	Front	10mm	Ant0	DSI4	136100	680.5	25.11	25.7	1.146	100	1	-0.08	0.148	0.170
	FR1 n71	35M	BPSK	90	45	Front	10mm	Ant0	DSI4	136100	680.5	24.92	25.7	1.197	100	1	0.04	0.181	0.217
	FR1 n71	35M	BPSK	1	1	Back	10mm	Ant0	DSI4	136100	680.5	25.11	25.7	1.146	100	1	-0.08	0.168	0.193
	FR1 n71	35M	BPSK	90	45	Back	10mm	Ant0	DSI4	136100	680.5	24.92	25.7	1.197	100	1	0.04	0.201	0.241
	FR1 n71	35M	BPSK	1	1	Front	5mm	Ant1	DSI4	136100	680.5	23.83	24.2	1.089	100	1	-0.08	0.571	0.622
	FR1 n71	35M	BPSK	90	45	Front	5mm	Ant1	DSI4	136100	680.5	23.82	24.2	1.091	100	1	0.03	0.891	0.972
	FR1 n71	35M	BPSK	180	0	Front	5mm	Ant1	DSI4	136100	680.5	23.59	24.2	1.151	100	1	-0.02	0.683	0.786
	FR1 n71	35M	BPSK	1	1	Back	5mm	Ant1	DSI4	136100	680.5	23.83	24.2	1.089	100	1	0.12	0.651	0.709
97	FR1 n71	35M	BPSK	90	45	Back	5mm	Ant1	DSI4	136100	680.5	23.82	24.2	1.091	100	1	-0.1	1	1.091
	FR1 n71	35M	BPSK	180	0	Back	5mm	Ant1	DSI4	136100	680.5	23.59	24.2	1.151	100	1	-0.15	0.893	1.028

【WLAN 2.4GHz_5GHz SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Note1
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant7	Body worn Standalone	1	2412	17.49	18.50	1.262	97.03	1.031	-0.05	0.466	0.606	
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant7	Body worn Standalone	1	2412	17.49	18.50	1.262	97.03	1.031	-0.03	0.535	0.696	
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant10	Body worn Standalone	1	2412	17.65	18.50	1.216	97.05	1.03	-0.01	0.586	0.734	
86	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant10	Body worn Standalone	1	2412	17.65	18.50	1.216	97.05	1.03	-0.02	0.832	1.042	
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant10	Body worn Standalone	6	2437	15.64	16.50	1.219	97.05	1.03	0.12	0.811	1.018	
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant10	Body worn Standalone	11	2462	14.15	15.00	1.216	97.05	1.03	0.02	0.797	0.998	
	WLAN2.4GHz	802.11ax-HE20 MCS0	Front	5mm	Ant 7+10	Body worn Standalone	6	2437	21.12	22.00	1.225	100.0	1.0	0.12	0.490	0.600	
	WLAN2.4GHz	802.11ax-HE20 MCS0	Back	5mm	Ant 7+10	Body worn Standalone	6	2437	21.12	22.00	1.225	100.0	1.0	-0.05	0.727	0.891	
	WLAN2.4GHz	802.11ax-HE20 MCS0	Back	5mm	Ant 7+10	Body worn Standalone	1	2412	21.12	22.00	1.225	100.0	1.0	0.12	0.678	0.831	
	WLAN2.4GHz	802.11ax-HE20 MCS0	Back	5mm	Ant 7+10	Body worn Standalone	11	2462	21.11	22.00	1.227	100.0	1.0	0.04	0.663	0.814	
	WLAN5GHz	802.11n-HT40 MCS0	Front	5mm	Ant 9+11(11)	Body worn Standalone	54	5270	17.86	19.00	1.3	100.0	1.0	-0.15	0.534	0.694	
87	WLAN5GHz	802.11n-HT40 MCS0	Back	5mm	Ant 9+11(11)	Body worn Standalone	54	5270	17.86	19.00	1.3	100.0	1.0	0.02	0.817	1.062	
	WLAN5GHz	802.11n-HT40 MCS0	Back	5mm	Ant 9+11(11)	Body worn Standalone	62	5310	17.86	19.00	1.3	100.0	1.0	0.02	0.78	1.014	
	WLAN5GHz	802.11ax-HE40 MCS0	Front	5mm	Ant 9+11(9)	Body worn Standalone	102	5510	18.09	19.00	1.233	100.0	1.0	-0.15	0.496	0.612	
88	WLAN5GHz	802.11ax-HE40 MCS0	Back	5mm	Ant 9+11(9)	Body worn Standalone	102	5510	18.09	19.00	1.233	100.0	1.0	-0.05	0.842	1.038	
	WLAN5GHz	802.11ax-HE40 MCS0	Back	5mm	Ant 9+11(11)	Body worn Standalone	126	5630	17.51	18.5	1.256	100	1	-0.03	0.748	0.939	
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 9+11(11)	Body worn Standalone	155	5775	15.41	16.50	1.285	100.0	1.0	-0.01	0.377	0.484	
89	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 9+11(11)	Body worn Standalone	155	5775	15.41	16.50	1.285	100.0	1.0	-0.04	0.800	1.028	

【Bluetooth SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Note1
	Bluetooth	1Mbps	Front	5mm	Ant7	Full Power	78	2480	15.78	17.50	1.485	77.02	1.082	0.13	0.221	0.355	
90	Bluetooth	1Mbps	Back	5mm	Ant7	Full Power	78	2480	15.78	17.50	1.485	77.02	1.082	-0.05	0.257	0.413	
	Bluetooth	1Mbps	Front	5mm	Ant10	Full Power	39	2441	16.20	17.50	1.349	76.75	1.085	0.02	0.124	0.181	
	Bluetooth	1Mbps	Back	5mm	Ant10	Full Power	39	2441	16.20	17.50	1.349	76.75	1.085	0.03	0.213	0.312	

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Measured APD (W/m^2)
	WLAN6GHz	802.11be-EHT320 MCS0	Front	5mm	Ant 11+9(9)	Standalone	191	6905	12.82	13.50	1.169	100	1.000	0.05	0.076	0.089	0.565
	WLAN6GHz	802.11be-EHT320 MCS0	Back	5mm	Ant 11+9(9)	Standalone	191	6905	12.82	13.50	1.169	100	1.000	-0.06	0.151	0.177	0.884
91	WLAN6GHz	802.11be-EHT320 MCS0	Back	5mm	Ant 11+9(11)	Standalone	31	6105	11.75	12.50	1.189	100	1.000	0.03	0.320	0.380	1.810
	WLAN6GHz	802.11be-EHT320 MCS0	Back	5mm	Ant 11+9(11)	Standalone	95	6425	13.37	14.50	1.297	100	1.000	0.04	0.148	0.192	0.956
	WLAN6GHz	802.11be-EHT320 MCS0	Back	5mm	Ant 11+9(9)	Standalone	127	6585	12.51	13.50	1.256	100	1.000	-0.07	0.123	0.154	0.782
	WLAN6GHz	802.11be-EHT320 MCS0	Back	5mm	Ant 11+9(9)	Standalone	159	6745	12.62	13.50	1.225	100	1.000	0.03	0.118	0.145	0.682



16.4 Product specific 10g SAR

【WLAN 2.4GHz_5GHz SAR】

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)	Note1
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 9+11(11)	Extremity Standalone	58	5290	16.46	17.50	1.271	100.0	1.0	0.06	1.170	1.487	
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9+11(11)	Extremity Standalone	58	5290	16.46	17.50	1.271	100.0	1.0	0.09	0.266	0.338	
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Edge	0mm	Ant 9+11(11)	Extremity Standalone	58	5290	16.46	17.50	1.271	100.0	1.0	0.01	0.078	0.099	
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Edge	0mm	Ant 9+11(11)	Extremity Standalone	58	5290	16.46	17.50	1.271	100.0	1.0	0.08	0.097	0.123	
92	WLAN5GHz	802.11ac-VHT80 MCS0	Top Edge	0mm	Ant 9+11(11)	Extremity Standalone	58	5290	16.46	17.50	1.271	100.0	1.0	0.05	1.960	2.491	
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Edge	0mm	Ant 9+11(11)	Extremity Standalone	58	5290	16.46	17.50	1.271	100.0	1.0	0.03	0.024	0.031	
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 9+11(9)	Extremity Standalone	122	5610	16.60	17.5	1.23	100.0	1.0	-0.07	1.15	1.415	
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9+11(9)	Extremity Standalone	122	5610	16.60	17.5	1.23	100.0	1.0	-0.13	0.42	0.517	
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Edge	0mm	Ant 9+11(9)	Extremity Standalone	122	5610	16.60	17.5	1.23	100.0	1.0	-0.18	0.088	0.108	
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Edge	0mm	Ant 9+11(9)	Extremity Standalone	122	5610	16.60	17.5	1.23	100.0	1.0	-0.05	1.26	1.55	
93	WLAN5GHz	802.11ac-VHT80 MCS0	Top Edge	0mm	Ant 9+11(9)	Extremity Standalone	122	5610	16.60	17.5	1.23	100.0	1.0	0.05	1.95	2.399	
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Edge	0mm	Ant 9+11(11)	Extremity Standalone	106	5530	16.45	17.5	1.274	100.0	1.0	0.08	1.81	2.306	
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Edge	0mm	Ant 9+11(9)	Extremity Standalone	122	5610	16.60	17.5	1.23	100.0	1.0	-0.16	0.041	0.05	

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)	Measured APD (W/m^2)
	WLAN6GHz	802.11be-EHT320 MCS0	Front	0mm	Ant 11+9(9)	Standalone	191	6905	12.82	13.50	1.169	100	1.000	0.01	0.179	0.209	2.94
	WLAN6GHz	802.11be-EHT320 MCS0	Back	0mm	Ant 11+9(9)	Standalone	191	6905	12.82	13.50	1.169	100	1.000	0.06	0.062	0.073	1.02
	WLAN6GHz	802.11be-EHT320 MCS0	Left Side	0mm	Ant 11+9(9)	Standalone	191	6905	12.82	13.50	1.169	100	1.000	-0.04	0.019	0.022	0.327
	WLAN6GHz	802.11be-EHT320 MCS0	Right Side	0mm	Ant 11+9(9)	Standalone	191	6905	12.82	13.50	1.169	100	1.000	0.08	0.084	0.098	1.37
	WLAN6GHz	802.11be-EHT320 MCS0	Top Side	0mm	Ant 11+9(9)	Standalone	191	6905	12.82	13.50	1.169	100	1.000	-0.12	0.377	0.441	6.35
94	WLAN6GHz	802.11be-EHT320 MCS0	Top Side	0mm	Ant 11+9(11)	Standalone	31	6105	11.75	12.50	1.189	100	1.000	-0.02	0.616	0.732	10.2
	WLAN6GHz	802.11be-EHT320 MCS0	Top Side	0mm	Ant 11+9(11)	Standalone	95	6425	13.37	14.50	1.297	100	1.000	0.06	0.463	0.601	7.74
	WLAN6GHz	802.11be-EHT320 MCS0	Top Side	0mm	Ant 11+9(9)	Standalone	127	6585	12.51	13.50	1.256	100	1.000	0.01	0.368	0.462	6.17
	WLAN6GHz	802.11be-EHT320 MCS0	Top Side	0mm	Ant 11+9(9)	Standalone	159	6745	12.62	13.50	1.225	100	1.000	-0.07	0.398	0.487	6.7

16.5 6GHz PD Test Result

WLAN PD

Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Grid Step (A)	iPDn	iPD ratio (≥ -1)	Normal psPD (W/m ²)	Total psPD (W/m ²)
WLAN6GHz	802.11be-EHT320 MCS0	Top Side	2mm	Ant 11+9(11)	Standalone	31	6105	11.75	0.0625	1.64	-0.16	3.170	3.940
WLAN6GHz	802.11be-EHT320 MCS0	Top Side	10mm	Ant 11+9(11)	Standalone	31	6105	11.75	0.15	1.7		1.230	1.340
WLAN6GHz	802.11be-EHT320 MCS0	Top Side	2mm	Ant 11+9(9)	Standalone	191	6905	12.82	0.0625	0.805	-0.33	1.020	2.250
WLAN6GHz	802.11be-EHT320 MCS0	Top Side	8.59mm	Ant 11+9(9)	Standalone	191	6905	12.82	0.15	0.869		0.649	0.826

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Grid Step (A)	Scaling Factor for measurement uncertainty	Power Drift (dB)	Normal psPD (W/m ²)	Scaled Normal psPD (W/m ²)	Total psPD (W/m ²)	Scaled Total psPD (W/m ²)
01	WLAN6GHz	802.11be-EHT320 MCS0	Top Side	2mm	Ant 11+9(11)	Standalone	31	6105	11.75	12.50	1.189	100	1.000	0.0625	1.5535	-0.01	3.170	5.85	3.940	7.27
	WLAN6GHz	802.11be-EHT320 MCS0	Top Side	2mm	Ant 11+9(11)	Standalone	95	6425	13.37	14.50	1.297	100	1.000	0.0625	1.5535	-0.15	2.830	5.70	3.720	7.50
	WLAN6GHz	802.11be-EHT320 MCS0	Top Side	2mm	Ant 11+9(9)	Standalone	127	6585	12.51	13.50	1.256	100	1.000	0.0625	1.5535	-0.07	1.910	3.73	2.640	5.15
	WLAN6GHz	802.11be-EHT320 MCS0	Top Side	2mm	Ant 11+9(9)	Standalone	159	6745	12.62	13.50	1.225	100	1.000	0.0625	1.5535	0.06	2.080	3.96	2.630	5.00
	WLAN6GHz	802.11be-EHT320 MCS0	Top Side	2mm	Ant 11+9(9)	Standalone	191	6905	12.82	13.50	1.169	100	1.000	0.0625	1.5535	-0.14	1.020	1.85	2.250	4.09
02	WLAN6GHz	802.11be-EHT160 MCS0	Front	2mm	Ant 11+9(9)	Standalone	15	6025	14.23	15.00	1.194	100	1.000	0.0625	1.5535	0.03	1.970	3.65	2.970	5.51
	WLAN6GHz	802.11be-EHT160 MCS0	Front	2mm	Ant 11+9(11)	Standalone	47	6185	14.81	15.50	1.172	100	1.000	0.0625	1.5535	-0.03	3.200	5.83	4.180	7.61
	WLAN6GHz	802.11be-EHT160 MCS0	Front	2mm	Ant 11+9(11)	Standalone	111	6505	16.09	17.00	1.233	100	1.000	0.0625	1.5535	0.06	1.800	3.45	2.520	4.83
	WLAN6GHz	802.11be-EHT160 MCS0	Front	2mm	Ant 11+9(9)	Standalone	143	6665	15.61	16.50	1.227	100	1.000	0.0625	1.5535	0.04	1.160	2.21	1.940	3.70
	WLAN6GHz	802.11be-EHT160 MCS0	Front	2mm	Ant 11+9(9)	Standalone	207	6985	16.01	17.00	1.256	100	1.000	0.0625	1.5535	0.03	0.732	1.43	1.200	2.34

16.6 Repeated SAR Measurement

【Repeat SAR 1g - FCC】

No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Ratio
1st	FR1 n71	35M_BPSK_90_45	Back	5.0	Ant1	DSI4	136100	680.5	23.82	24.20	1.091			-0.10	1.000	1.091	-
2nd	FR1 n71	35M_BPSK_90_45	Back	5.0	Ant1	DSI4	136100	680.5	23.82	24.20	1.091			0.03	0.968	1.056	1.03
1st	LTE Band 26	15M_QPSK_1_0	Back	5.0	Ant1	DSI4	26865	831.5	22.01	22.70	1.172			-0.07	0.901	1.056	-
2nd	LTE Band 26	15M_QPSK_1_0	Back	5.0	Ant1	DSI4	26865	831.5	22.01	22.70	1.172			0.06	0.853	1.000	1.06
1st	LTE Band 66	20M_QPSK_100_0	Front	10.0	Ant4	DSI4	132322	1745	24.15	24.70	1.135			-0.10	0.906	1.028	-
2nd	LTE Band 66	20M_QPSK_100_0	Front	10.0	Ant4	DSI4	132322	1745	24.15	24.70	1.135			0.07	0.829	0.941	1.09
1st	FR1 n25	40M_BPSK_1_1	Back	5.0	Ant4	DSI3	376500	1882.5	20.30	20.70	1.096			-0.07	0.901	0.987	-
2nd	FR1 n25	40M_BPSK_1_1	Back	5.0	Ant4	DSI3	376500	1882.5	20.30	20.70	1.096			-0.06	0.848	0.929	1.06
1st	WLAN2.4GHz	802.11b 1Mbps	Back	5.0	Ant10	Body worn Standalone	1	2412	17.65	18.50	1.216	97.05	1.03	-0.02	0.832	1.042	-
2nd	WLAN2.4GHz	802.11b 1Mbps	Back	5.0	Ant10	Body worn Standalone	1	2412	17.65	18.50	1.216	97.05	1.03	0.02	0.811	1.016	1.03
1st	FR1 n41_HPUE	100M_BPSK_1_1	Back	10.0	Ant4	DSI4	518598	2592.99	25.93	26.50	1.14	50.0	1.0	-0.16	0.932	1.062	-
2nd	FR1 n41_HPUE	100M_BPSK_1_1	Back	10.0	Ant4	DSI4	518598	2592.99	25.93	26.50	1.14	50.0	1.0	0.01	0.914	1.042	1.02
1st	FR1 n77	100M_BPSK_1_1	Back	10.0	Ant4	DSI4	633332	3499.98	22.38	22.70	1.076			-0.03	0.932	1.003	-
2nd	FR1 n77	100M_BPSK_1_1	Back	10.0	Ant4	DSI4	633332	3499.98	22.38	22.70	1.076			-0.07	0.885	0.952	1.05
1st	WLAN5GHz	802.11n-HT40 MCS0	Back	5.0	Ant 9+11(11)	Body worn Standalone	54	5270	17.86	19.00	1.3	100.0	1.0	0.02	0.817	1.062	-
2nd	WLAN5GHz	802.11n-HT40 MCS0	Back	5.0	Ant 9+11(11)	Body worn Standalone	54	5270	17.86	19.00	1.3	100.0	1.0	0.06	0.768	0.998	1.06
1st	WLAN5GHz	802.11ax-HE40 MCS0	Back	5.0	Ant 9+11(9)	Body worn Standalone	102	5510	18.09	19.00	1.233	100.0	1.0	-0.05	0.842	1.038	-
2nd	WLAN5GHz	802.11ax-HE40 MCS0	Back	5.0	Ant 9+11(9)	Body worn Standalone	102	5510	18.09	19.00	1.233	100.0	1.0	0.07	0.824	1.016	1.02
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0.0	Ant 9+11(11)	Head Standalone	155	5775	12.11	13.00	1.227	100.0	1.0	0.04	0.816	1.001	-
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0.0	Ant 9+11(11)	Head Standalone	155	5775	12.11	13.00	1.227	100.0	1.0	-0.08	0.796	0.977	1.03
1st	WLAN6GHz	802.11be-EHT160 MCS0	Left Tilted	0.0	Ant 11+9(9)	Head Standalone	15	6025	14.23	15.00	1.194	100.0	1.0	0.02	0.906	1.082	-
2nd	WLAN6GHz	802.11be-EHT160 MCS0	Left Tilted	0.0	Ant 11+9(9)	Head Standalone	15	6025	14.23	15.00	1.194	100.0	1.0	0.01	0.883	1.054	1.03

General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is $\geq 0.8\text{W/kg}$.
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR 1.45W/kg , only one repeated measurement is required.
3. The ratio is the difference in percentage between original and repeated *measured SAR*.
4. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

16.7 NR Linearity Data Analysis

General Note:

This device support Power Class 2 and Power Class 3 operations for 5GNR n41/n77/n78. The highest available duty cycle for Power Class 2 operation is 50% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each 5GNR configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with < 10% discrepancy between power classes and all reported SAR are <1.4 W/kg for 1g and < 3.5 W/kg for 10g, Separate SAR testing for Power Class 2 is not required.

FR1 n41 HPUE (HPUE)-Linearity Data for Head Ant4			FR1 n41 HPUE (HPUE)-Linearity Data for Head Ant5		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	16.70	20.00	Maximum Tune up Power (dBm)	16.50	19.50
Reported 1g SAR (W/kg)	0.873	0.851	Reported 1g SAR (W/kg)	0.834	0.821
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	46.77	50.00	Frame Averaged (mW)	44.67	44.56
Linearity SAR (W/kg)	0.933		Linearity SAR (W/kg)	0.832	
% deviation from expected linearity		-8.81%	% deviation from expected linearity		-1.33%
FR1 n41 HPUE (HPUE)-Linearity Data for Body-worn Ant4			FR1 n41 HPUE (HPUE)-Linearity Data for Body-worn Ant5		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	17.70	21.00	Maximum Tune up Power (dBm)	18.50	21.50
Reported 1g SAR (W/kg)	0.737	0.720	Reported 1g SAR (W/kg)	0.728	0.721
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	58.88	62.95	Frame Averaged (mW)	70.79	70.63
Linearity SAR (W/kg)	0.788		Linearity SAR (W/kg)	0.726	
% deviation from expected linearity		-8.61%	% deviation from expected linearity		-0.73%
FR1 n41 HPUE (HPUE)-Linearity Data for Body-worn Ant4_N-1					
	NR n41 (Power Class 3)	NR n41 (Power Class 2)			
Maximum Tune up Power (dBm)	23.20	26.50			
Reported 1g SAR (W/kg)	1.093	1.062			
Duty Cycle	100.00%	50.00%			
Frame Averaged (mW)	208.93	223.34			
Linearity SAR (W/kg)	1.168				
% deviation from expected linearity		-9.11%			
FR1 n41 HPUE (HPUE)-Linearity Data for Hotspot Ant4			FR1 n41 HPUE (HPUE)-Linearity Data for Hotspot Ant5		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	16.70	20.00	Maximum Tune up Power (dBm)	16.50	19.50
Reported 1g SAR (W/kg)	0.401	0.403	Reported 1g SAR (W/kg)	0.293	0.284
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	46.77	50.00	Frame Averaged (mW)	44.67	44.56
Linearity SAR (W/kg)	0.429		Linearity SAR (W/kg)	0.292	
% deviation from expected linearity		-5.99%	% deviation from expected linearity		-2.84%
FR1 n41 HPUE (HPUE)-Linearity Data for Head Ant6			FR1 n41 HPUE (HPUE)-Linearity Data for Head Ant7		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	24.20	25.20	Maximum Tune up Power (dBm)	18.20	21.20
Reported 1g SAR (W/kg)	0.214	0.144	Reported 1g SAR (W/kg)	0.897	0.810
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	263.03	165.57	Frame Averaged (mW)	66.07	65.91
Linearity SAR (W/kg)	0.135		Linearity SAR (W/kg)	0.895	
% deviation from expected linearity		6.90%	% deviation from expected linearity		-9.48%
FR1 n41 HPUE (HPUE)-Linearity Data for Body-worn Ant6			FR1 n41 HPUE (HPUE)-Linearity Data for Body-worn Ant7		



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	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	20.70	23.70	Maximum Tune up Power (dBm)	21.70	23.70
Reported 1g SAR (W/kg)	0.718	0.781	Reported 1g SAR (W/kg)	0.735	0.627
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	117.49	117.21	Frame Averaged (mW)	147.91	117.21
Linearity SAR (W/kg)	0.716		Linearity SAR (W/kg)	0.582	
% deviation from expected linearity		9.03%	% deviation from expected linearity		7.65%

FR1 n41 HPUE (HPUE)-Linearity Data for Body-worn Ant6_N-1

	NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	24.20	25.20
Reported 1g SAR (W/kg)	0.638	0.431
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	263.03	165.57
Linearity SAR (W/kg)	0.402	
% deviation from expected linearity		7.32%

FR1 n41 HPUE (HPUE)-Linearity Data for Hotspot Ant6

	NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	20.70	23.70
Reported 1g SAR (W/kg)	0.374	0.390
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	117.49	117.21
Linearity SAR (W/kg)	0.373	
% deviation from expected linearity		4.53%

FR1 n41 HPUE (HPUE)-Linearity Data for Hotspot Ant7

	NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	18.20	21.20
Reported 1g SAR (W/kg)	0.358	0.327
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	66.07	65.91
Linearity SAR (W/kg)	0.357	
% deviation from expected linearity		-8.44%

NR n77 Part27Q (HPUE)-Linearity Data for Head Ant4

	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	14.70	18.00
Reported 1g SAR (W/kg)	0.828	0.829
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	29.51	31.55
Linearity SAR (W/kg)	0.885	
% deviation from expected linearity		-6.34%

NR n77 Part27Q (HPUE)-Linearity Data for Head Ant5

	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	17.20	20.30
Reported 1g SAR (W/kg)	0.915	0.895
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	52.48	53.58
Linearity SAR (W/kg)	0.934	
% deviation from expected linearity		-4.19%

NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant4

	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	16.20	19.50
Reported 1g SAR (W/kg)	0.661	0.684
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	41.69	44.56
Linearity SAR (W/kg)	0.707	
% deviation from expected linearity		-3.20%

NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant5

	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	18.70	21.80
Reported 1g SAR (W/kg)	0.855	0.842
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	74.13	75.68
Linearity SAR (W/kg)	0.873	
% deviation from expected linearity		-3.53%

NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant4_N-1

	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	22.70	26.00
Reported 1g SAR (W/kg)	1.003	0.994
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	186.21	199.05
Linearity SAR (W/kg)	1.072	
% deviation from expected linearity		-7.29%

NR n77 Part27Q (HPUE)-Linearity Data for Hotspot Ant4

	NR n77 (Power Class 3)	NR n77 (Power Class 2)
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NR n77 Part27Q (HPUE)-Linearity Data for Hotspot Ant5

	NR n77 (Power Class 3)	NR n77 (Power Class 2)
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Maximum Tune up Power (dBm)	14.70	18.00	Maximum Tune up Power (dBm)	17.20	20.30
Reported 1g SAR (W/kg)	0.250	0.276	Reported 1g SAR (W/kg)	0.441	0.449
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	29.51	31.55	Frame Averaged (mW)	52.48	53.58
Linearity SAR (W/kg)	0.267		Linearity SAR (W/kg)	0.450	
% deviation from expected linearity		3.28%	% deviation from expected linearity		-0.27%

NR n77 Part27Q (HPUE)-Linearity Data for Head Ant6			NR n77 Part27Q (HPUE)-Linearity Data for Head Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	23.90	26.90	Maximum Tune up Power (dBm)	16.30	19.30
Reported 1g SAR (W/kg)	0.083	0.075	Reported 1g SAR (W/kg)	0.809	0.759
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	245.47	244.89	Frame Averaged (mW)	42.66	42.56
Linearity SAR (W/kg)	0.083		Linearity SAR (W/kg)	0.807	
% deviation from expected linearity		-9.42%	% deviation from expected linearity		-5.96%

NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant6			NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	18.90	21.90	Maximum Tune up Power (dBm)	18.30	21.30
Reported 1g SAR (W/kg)	1.004	0.907	Reported 1g SAR (W/kg)	0.556	0.540
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	77.62	77.44	Frame Averaged (mW)	67.61	67.45
Linearity SAR (W/kg)	1.002		Linearity SAR (W/kg)	0.555	
% deviation from expected linearity		-9.45%	% deviation from expected linearity		-2.65%

NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant6_N-1		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	23.90	26.90
Reported 1g SAR (W/kg)	1.082	0.973
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	245.47	244.89
Linearity SAR (W/kg)	1.079	
% deviation from expected linearity		-9.86%

NR n77 Part27Q (HPUE)-Linearity Data for Hotspot Ant6			NR n77 Part27Q (HPUE)-Linearity Data for Hotspot Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	18.90	21.90	Maximum Tune up Power (dBm)	16.30	19.30
Reported 1g SAR (W/kg)	0.370	0.334	Reported 1g SAR (W/kg)	0.257	0.249
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	77.62	77.44	Frame Averaged (mW)	42.66	42.56
Linearity SAR (W/kg)	0.369		Linearity SAR (W/kg)	0.256	
% deviation from expected linearity		-9.52%	% deviation from expected linearity		-2.88%

NR n77 Part270 (HPUE)-Linearity Data for Head Ant4			NR n77 Part270 (HPUE)-Linearity Data for Head Ant5		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	14.70	18.00	Maximum Tune up Power (dBm)	17.20	20.30
Reported 1g SAR (W/kg)	0.726	0.735	Reported 1g SAR (W/kg)	0.758	0.762
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	29.51	31.55	Frame Averaged (mW)	52.48	53.58
Linearity SAR (W/kg)	0.776		Linearity SAR (W/kg)	0.774	
% deviation from expected linearity		-5.29%	% deviation from expected linearity		-1.53%
NR n77 Part270 (HPUE)-Linearity Data for Body-worn Ant4			NR n77 Part270 (HPUE)-Linearity Data for Body-worn Ant5		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	16.20	19.50	Maximum Tune up Power (dBm)	18.70	21.80
Reported 1g SAR (W/kg)	0.621	0.646	Reported 1g SAR (W/kg)	0.615	0.577
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	41.69	44.56	Frame Averaged (mW)	74.13	75.68
Linearity SAR (W/kg)	0.664		Linearity SAR (W/kg)	0.628	
% deviation from expected linearity		-2.69%	% deviation from expected linearity		-8.10%
NR n77 Part270 (HPUE)-Linearity Data for Body-worn Ant4_N-1					
	NR n77 (Power Class 3)	NR n77 (Power Class 2)			
Maximum Tune up Power (dBm)	22.70	26.00			
Reported 1g SAR (W/kg)	0.843	0.829			
Duty Cycle	100.00%	50.00%			
Frame Averaged (mW)	186.21	199.05			
Linearity SAR (W/kg)	0.901				
% deviation from expected linearity		-8.01%			
NR n77 Part270 (HPUE)-Linearity Data for Hotspot Ant4			NR n77 Part270 (HPUE)-Linearity Data for Hotspot Ant5		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	14.70	18.00	Maximum Tune up Power (dBm)	17.20	20.30
Reported 1g SAR (W/kg)	0.190	0.196	Reported 1g SAR (W/kg)	0.288	0.269
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	29.51	31.55	Frame Averaged (mW)	52.48	53.58
Linearity SAR (W/kg)	0.203		Linearity SAR (W/kg)	0.294	
% deviation from expected linearity		-3.50%	% deviation from expected linearity		-8.51%
NR n77 Part270 (HPUE)-Linearity Data for Head Ant6			NR n77 Part270 (HPUE)-Linearity Data for Head Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	23.90	26.90	Maximum Tune up Power (dBm)	16.30	19.30
Reported 1g SAR (W/kg)	0.113	0.104	Reported 1g SAR (W/kg)	0.297	0.278
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	245.47	244.89	Frame Averaged (mW)	42.66	42.56
Linearity SAR (W/kg)	0.113		Linearity SAR (W/kg)	0.296	
% deviation from expected linearity		-7.75%	% deviation from expected linearity		-6.18%
NR n77 Part270 (HPUE)-Linearity Data for Body-worn Ant6			NR n77 Part270 (HPUE)-Linearity Data for Body-worn Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	18.90	21.90	Maximum Tune up Power (dBm)	18.30	21.30
Reported 1g SAR (W/kg)	0.813	0.794	Reported 1g SAR (W/kg)	0.371	0.371
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	77.62	77.44	Frame Averaged (mW)	67.61	67.45
Linearity SAR (W/kg)	0.811		Linearity SAR (W/kg)	0.370	
% deviation from expected linearity		-2.11%	% deviation from expected linearity		0.24%
NR n77 Part270 (HPUE)-Linearity Data for Body-worn Ant6_N-1					

	NR n77 (Power Class 3)	NR n77 (Power Class 2)			
Maximum Tune up Power (dBm)	23.90	26.90			
Reported 1g SAR (W/kg)	0.776	0.723			
Duty Cycle	100.00%	50.00%			
Frame Averaged (mW)	245.47	244.89			
Linearity SAR (W/kg)	0.774				
% deviation from expected linearity		-6.61%			
NR n77 Part270 (HPUE)-Linearity Data for Hotspot Ant6			NR n77 Part270 (HPUE)-Linearity Data for Hotspot Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	18.90	21.90	Maximum Tune up Power (dBm)	16.30	19.30
Reported 1g SAR (W/kg)	0.528	0.507	Reported 1g SAR (W/kg)	0.115	0.120
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	77.62	77.44	Frame Averaged (mW)	42.66	42.56
Linearity SAR (W/kg)	0.527		Linearity SAR (W/kg)	0.115	
% deviation from expected linearity		-3.75%	% deviation from expected linearity		4.60%

17. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + WLAN 2.4GHz	Yes	Yes	Yes	Yes
2.	WWAN + WLAN 5GHz	Yes	Yes	Yes	Yes
3.	WWAN + WLAN 6GHz	Yes	Yes		Yes
4.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
5.	5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
6.	6GHz WLAN + Bluetooth	Yes	Yes		Yes
7.	5GHz WLAN + 2.4GHz WLAN	Yes	Yes	Yes	Yes
8.	6GHz WLAN + 2.4GHz WLAN	Yes	Yes		Yes
9.	WWAN +5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
10.	WWAN +6GHz WLAN + Bluetooth	Yes	Yes		Yes
11.	WWAN +5GHz WLAN + 2.4GHz WLAN	Yes	Yes	Yes	Yes
12.	WWAN +6GHz WLAN + 2.4GHz WLAN	Yes	Yes		Yes
13.	WWAN + WLAN 2.4GHz+ NFC				Yes
14.	WWAN + WLAN 5GHz+ NFC				Yes
15.	WWAN + WLAN 6GHz+ NFC				Yes
16.	WWAN + Bluetooth+ NFC				Yes
17.	5GHz WLAN + Bluetooth+ NFC				Yes
18.	6GHz WLAN + Bluetooth+ NFC				Yes
19.	5GHz WLAN + 2.4GHz WLAN+ NFC				Yes
20.	6GHz WLAN + 2.4GHz WLAN+ NFC				Yes
21.	WWAN +5GHz WLAN + Bluetooth+ NFC				Yes
22.	WWAN +6GHz WLAN + Bluetooth+ NFC				Yes
23.	WWAN +5GHz WLAN + 2.4GHz WLAN+ NFC				Yes
24.	WWAN +6GHz WLAN + 2.4GHz WLAN+ NFC				Yes

General Note:

1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. WWAN above includes 5G NR bands and EN-DC combination.
3. WLAN2.4GHz/WLAN5GHz/6GHz MIMO SAR can represent SISO SAR to do co-located SAR analysis.
4. EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
5. For EN-DC mode, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. Smart Transmit algorithm controls the total RF exposure from both 4G and 5G NR to not exceed SAR exposure limit. Therefore, simultaneous transmission compliance between 4G+5G NR operations within an antenna group is demonstrated in the Part 2 Report during algorithm validation.
6. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
7. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only). WLAN 6GHz has no hotspot function.
8. According to the EUT characteristic, WLAN 5GHz/6GHz and Bluetooth can transmit simultaneously.
9. According to the EUT characteristic, WLAN 5GHz/6GHz and WLAN 2.4GHz can transmit simultaneously.
10. According to the EUT characteristic, when WLAN 2.4GHz and Bluetooth share the same antenna and cannot transmit simultaneously.
11. According to the EUT characteristic, WLAN 5GHz and WLAN 6GHz can't transmit simultaneously.
12. Bluetooth BR/EDR supports Beamforming mode, so Bluetooth BR/EDR standalone SAR summed together as Bluetooth BR/EDR Beamforming SAR.
13. NFC can transmit simultaneously with other Radios in extremity exposure condition.
14. The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
15. When stand-alone SAR is not required for a transmitter or antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.

16. For standalone WWAN, always choose the highest SAR among all WWAN bands within the selected antenna for each exposure position to perform simultaneous transmission analysis with WLAN/BT. This is the worst co-located analysis and can represent each band.
17. The equipment under test (EUT) contains the Qualcomm modems supporting 2G/3G/4G/5G technologies and WLAN/BT technologies. these modems are always enabled with Qualcomm Smart Transmit feature to control and manage transmitting power in real time and to ensure the time-averaged RF exposure follows the FCC requirement. Smart Transmit algorithm controls the total RF exposure from all WWAN/WLAN/BT to not exceed FCC limit and each antenna group has controlled the total RF exposure from all transmitter to not exceed FCC limit. Therefore, in Part.1 report, it is evaluated whether the sum of the groups of each antenna does not exceed FCC limit or spatial separation is applied. In addition, each antenna needs to satisfy simultaneous transmission analysis with External radios (NFC) in this report at extremity exposure condition.
18. The maximum SAR summation is calculated based on the same configuration and test position.
19. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
 - ii) $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - iii) If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
 - iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR 4.0W/kg.
 - v) The SPLSR calculated results please refer to section 17.8.
20. Since the WPT will only operate on body condition, therefore, WPT transmit with WWAN/WLAN/BT only consider at hotspot / body-worn/extremity conditions, the further Sim-Tx analysis include in section 17.7.

17.1 MIMO SAR Test condition and verification

General Note:

- Smart Transmit EFS v20 (or lower) uses SISO Plimit to calculate RF exposure from MIMO transmission scenario. Therefore, if MIMO is supported for WWAN technologies (including 5G sub6 NR), below procedure should be performed for validity of Smart Transmit operation:
 - Below procedure should also be performed for Smart Transmit EFS v21 (or higher) if MIMO Plimit is not populated in the EFS but MIMO operation is supported for antennas belonging to the same antenna group (refer to Section 4.2.5 of Qualcomm's document 80-W2112-4).
- Measure SAR for supported MIMO scenarios in FTM mode with each of the MIMO antennas set to transmit continuously at $P_{test} = \text{minimum} \{Plimit(i), P_{max}(i); i=1 \text{ to } n \text{ MIMO antennas}\}$, where $Plimit(i)$ is the power level entered in the Smart Transmit EFS for antenna i under the corresponding tech/band/DSI. For Smart Transmit to ensure the compliance in MIMO transmission scenario, the below criteria should be met for measured MIMO SAR (i.e., highest peak spatial-average SAR from the measurement):

$$\text{reported } SAR_{MIMO} = \text{Measured MIMO } SAR_{MIMO} \text{ at } (P_{test} + \text{device total uncertainty}) \leq \text{calc. SAR}$$

$$\text{Where } \text{calc. SAR} = \sum_{i=1}^n \left[SAR_{design_target} * 10^{\left(\frac{\text{total uncertainty} + P_{test} - Plimit(i) - \text{backoff}(i)}{10} \right)} \right]$$

Here,

- n is number of MIMO antennas (in case of 2x2MIMO, $n=2$).
 - $Plimit(i)$ is EFS $Plimit$ for antenna $i \in$ MIMO for a given tech/band/DSI. $Plimit$ corresponds to SAR_{design_target} .
 - $backoff(i)$ is backoff from SAR_{design_target} used for the i th antenna's $Plimit$ to meet TER with external radios (i.e., radios outside of Smart Transmit control). If EFS $Plimit$ of antenna i corresponds to SAR_{design_target} , then $backoff(i) = 0$ in the above equation.
 - P_{test} (i.e., power level used for MIMO SAR measurement, $MIMO.SAR @ P_{test}$) = $\min \{Plimit(i), P_{max}(i), i = 1 \text{ to } n \text{ MIMO antenna}\}$. To further clarify, $P_{test} = \min \{Plimit(i), SISO.P_{max}(i), MIMO.P_{max}, i = 1 \text{ to } n \text{ antenna} \in MIMO\}$, where, $Plimit$ corresponds to SAR_{design_target} ; $SISO.P_{max}$ and $MIMO.P_{max}$ correspond to the maximum output power (nominal levels without device uncertainty) that device is capable; here, P_{test} is nominal power level, not measured level.
- If the $\text{reported } SAR_{MIMO}$ does not meet the above condition, then $Plimit(i)$ for each of the MIMO antenna in the Smart Transmit EFS should be reduced by $10 * \log_{10}[\text{reported } SAR_{MIMO} / \text{calc. SAR}]$ dB.
 - Per Qualcomm's document guideline, WLAN MIMO Plimit is configured in the EFS and WLAN MIMO antennas belong to the same antenna group, then SAR measurement results at MIMO Plimit for the corresponding WLAN MIMO transmission scenario can be referred to section 16 in this report.
 - Per Qualcomm's document guideline, FR1/BT MIMO Plimit is not populated in the EFS file, but MIMO operation is supported for antennas belonging to the same antenna group, the detail FR1/BT MIMO analysis results please referred to appendix H.

17.2 Sub6 Antenna Groups

The Qualcomm® Smart Transmit™ Plus of Smart Transmit (GEN2) Feature operates based on pre-defined sub6 antenna groups (AG). Sub6 Tx antennas in the device are grouped based on spatial variation of RF exposure distributions, where the RF exposure of one AG is mutually exclusive from other AG. This is accomplished by demonstrating below conditions for all exposure positions under each DSI for a given exposure category.

- 1) Case 1: Demonstrate that Sum of maximum reported SAR from each of the sub6 AGs and the reported normalized SAR values from radios outside Smart Transmit should be less than regulatory limits for each supported DSI. This condition must be demonstrated for all antenna combinations of sub6 AGs.
 - i. For a given DSI, obtain the highest *reported* SAR for each antenna out of all supported technologies and frequency bands. Obtain the maximum *reported* SAR for each AG by taking the maximum out of *reported* SAR for all antennas belonging to each AG.
 - ii. Demonstrate that the sum of maximum reported SAR (normalized to regulatory limit) from each of the sub6 AGs and the sum of reported SAR (normalized to regulatory limit) from all supported radios outside of Smart Transmit should be less than 1.0
- 2) Case 2: If the Case 1 is NOT met, then for a given antenna grouping scheme plus external radios/antennas (ERs) (referred to as 'configuration'), demonstrate all AG pairs, all ER pairs and all (AG, ER) pairs in the configuration meet SPLSR criteria (Section 4.3.2 (c) in FCC KDB 447498 D01 v06) for each exposure position under each supported DSI. For a given exposure position under a given DSI, prove all AG pairs, all ER pairs and all (AG, ER) pairs (if there are external radios outside Smart Transmit) in the configuration meet SPLSR.

This device supports two sub6 AG: AG0 and AG1, the detailed please refer to the below table:

Antenna Group 0 (AG0)	ANT1 & ANT4 & ANT5 & ANT7 & ANT9 & ANT10 & ANT11
Antenna Group 1 (AG1)	ANT0 & ANT6

- 3) This model's multi_Tx_factor is 1.0.

The conditions are verified through the following criterias:

- i) (SAR1 + SAR2 criteria): If SPLSR criteria is not used, then the highest reported SAR at *Plimit* for each antenna should be obtained out of all supported technologies and frequency bands for each DSI. Demonstrate that the sum of reported SAR of one antenna from each of the sub6 AGs and the sum of RF exposure from all supported radios outside of Smart Transmit should be less than the regulatory limit as given below for each DSI.
 1. Obtain the worst-case reported SAR for each antenna group (i.e., maximum *reported* SAR at *Plimit* out of all supported technologies, frequency bands and antennas in AG0 and AG1), denoted as max.SAR.AG0 and max.SAR.AG1, and obtain the worst-case RF exposure for each external radio, and demonstrate that the sum of these RF exposures meets: $\{ [\text{max.SAR.AG0} + \text{max.SAR.AG1}] + \text{each external radio worst-case reported SAR (ex: NFC)} \} \leq 1.6$ (for 1g, or 4.0 for 10g). (each external radio worst-case reported SAR is the worst SAR in all combinations of each external radio simultaneous transmission).
- ii) (SPLSR criteria): For each antenna, obtain the highest reported SAR value at *Plimit* out of all supported technologies for each frequency band. Using these values, demonstrate for a given DSI that every antenna from one sub6 AG meets SPLSR criteria with every antenna in another sub6 AG for all frequency bands. This criteria must be demonstrated for all antenna pair combinations irrespective of supported simultaneous transmission scenarios as given below for each DSI:
 - a. SPLSR criteria should be met for all antenna pair combinations of AG0 and AG1. As it can be seen, these include all combinations of antenna groups, antennas, and frequency bands.
 - b. Obtain combined SAR per AG: Obtain the worst-case conservative combined SAR and its peak location for each AG.
 - c. Use the 'closest' peak location out of all antennas of AGj to evaluate SPLSR with other AGs in the configuration. Note, by 'closest', select the peak location out of all antennas (ϵ AGj) that is closest to the peak location of other AG where SPLSR is evaluated.
- iii) (combination of SPLSR SAR1+SAR2 criteria): If SPLSR criteria for all the combinations of sub6g antenna groups in (i) is demonstrated to show that each AG is mutually exclusive from other AGs, and if the WIFI/BT antennas supported outside of Smart Transmit do not meet SPLSR criteria, then the condition in (ii) reduces to: $\{\text{max.SAR.AG0} + \text{worst-case reported SAR}\} \leq 1.6$ and $\{\text{max.SAR.AG1} + \text{worst-case reported SAR}\} \leq 1.6$ for compliance demonstration (for 1g, or 4.0 for 10g).
- iv) Obtain the worst-case reported SAR for each antenna group, (i.e., maximum *reported* SAR at *Plimit* out of all supported technologies, frequency bands and antennas in AG0 and AG1), denoted as max.SAR.AG0 and max.SAR.AG1, and WIFI/BT antennas supported Smart Transmit technology and there is no other radios in this report, and demonstrate that the sum of these RF exposures meets: $\{ [\text{max.SAR.AG0} + \text{max.SAR.AG1}] \} \leq 1.6$ (for 1g, or 4.0 for 10g).

For summed SAR results and SPLSR detailed analysis please refer to section 17.3 / 17.4 / 17.5 / 17.6/ 17.7/ 17.8 of this report. All of the combinations of sub6 antenna groups are sufficient to show that AG0 is mutually exclusive from AG1

and that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE 1528- 2013 Section 6.3.4.1.

17.3 Head Exposure Conditions

General Note: The unit of SAR evaluation is W/kg.

Simultaneous Transmission Evaluation of WWAN+WLAN+BT:

<AG0 maximum reported SAR>:

Test Position	Ant1	Ant4	Ant5	Ant7	Ant9	WLAN2.4GHz Ant7	WLAN2.4GHz Ant10	WLAN2.4GHz Ant7+10	WLAN5GHz Ant9+11	WLAN6GHz Ant9+11	Bluetooth Ant7	Bluetooth Ant10	MAX
Right Cheek	0.615	1.079	1.055	0.663	0.155	0.915	0.632	0.678	0.437	0.374	0.405	0.448	1.079
Right Tilted	0.167	0.985	0.423	0.149	0.122	0.330	0.756	0.763	0.537	0.475	0.087	0.508	0.985
Left Cheek	1.026	0.656	0.291	1.084	1.002	0.631	0.612	0.606	0.901	0.590	0.593	0.432	1.084
Left Tilted	0.209	0.843	0.190	0.349	0.334	0.133	0.967	0.880	1.001	1.082	0.201	0.473	1.082

<AG1 maximum reported SAR>:

Test Position	Ant0	Ant6	MAX
Right Cheek	0.501	0.240	0.501
Right Tilted	0.193	0.171	0.193
Left Cheek	0.297	0.387	0.387
Left Tilted	0.166	0.128	0.166

<Simultaneous Transmission analysis of AG0 + AG1 Worse-case>:

Test Position	AG0	AG1	AG0+AG1
Right Cheek	1.079	0.501	1.58
Right Tilted	0.985	0.193	1.18
Left Cheek	1.084	0.387	1.47
Left Tilted	1.082	0.166	1.25

17.4 Hotspot Exposure Conditions

General Note: The unit of SAR evaluation is W/kg.

Simultaneous Transmission Evaluation of WWAN+WLAN+BT:

<AG0 maximum reported SAR>:

Test Position	Ant1	Ant4	Ant5	Ant7	Ant9	WLAN2.4GHz Ant7	WLAN2.4GHz Ant10	WLAN2.4GHz Ant7+10	WLAN5GHz Ant9+11	Bluetooth Ant7	Bluetooth Ant10	MAX
Front	0.682	0.292	0.348	0.442	0.216	0.262	0.294	0.312	0.282	0.153	0.094	0.682
Back	0.735	0.371	0.348	0.568	0.324	0.310	0.387	0.434	0.431	0.206	0.142	0.735
Left Edge	0.868	0.190	0.562	0.005	0.075	0.001	0.085	0.087	0.113	0.003	0.001	0.868
Right Edge	0.156	0.054	0.085	0.875	0.593	0.476	0.001	0.515	0.505	0.223	0.001	0.875
Top Edge	0.002	0.455	0.101	0.277	0.107	0.075	0.679	0.679	0.827	0.003	0.243	0.827
Bottom Edge	0.002	0.002	0.093	0.005	0.003	0.001	0.055	0.001	0.001	0.003	0.001	0.093

<AG1 maximum reported SAR>:

Test Position	Ant0	Ant6	MAX
Front	0.369	0.532	0.532
Back	0.457	0.704	0.704
Left Edge	0.336	0.225	0.336
Right Edge	0.713	0.183	0.713
Top Edge	0.001	0.001	0.001
Bottom Edge	0.239	0.836	0.836

<Simultaneous Transmission analysis of AG0 + AG1 Worse-case>:

Test Position	AG0	AG1	AG0+AG1
Front	0.682	0.532	1.21
Back	0.735	0.704	1.44
Left Edge	0.868	0.336	1.20
Right Edge	0.875	0.713	1.59
Top Edge	0.827	0.001	0.83
Bottom Edge	0.093	0.836	0.93

17.5 Body-Worn Accessory Exposure Conditions

General Note: The unit of SAR evaluation is W/kg.

Simultaneous Transmission Evaluation of WWAN+WLAN+BT:

<AG0 maximum reported SAR>:

Test Position	Ant1	Ant4	Ant5	Ant7	Ant9	WLAN2.4GHz Ant7	WLAN2.4GHz Ant10	WLAN2.4GHz Ant7+10	WLAN5GHz Ant9+11	WLAN6GHz Ant9+11	Bluetooth Ant7	Bluetooth Ant10	MAX
Front	1.002	0.735	0.868	0.733	0.672	0.606	0.734	0.600	0.694	0.089	0.355	0.181	1.002
Back	1.091	1.084	1.002	1.060	0.891	0.696	1.042	0.891	1.062	0.380	0.413	0.312	1.091

<AG1 maximum reported SAR>:

Test Position	Ant0	Ant6	MAX
Front	0.513	0.854	0.854
Back	0.588	1.089	1.089

<Simultaneous Transmission analysis of AG0 + AG1 Worse-case>:

Test Position	AG0	AG1	AG0+AG1
Front	1.002	0.854	1.86
Back	1.091	1.089	2.18

Note: The results marked yellow in above table refers to the detailed analysis corresponding to each position below tables.

Front 5mm				
Ant combination	AG1	AG0	AG0+AG1	SPLSR
	SAR	SAR		
Ant0-Ant1	0.513	1.002	1.52	
Ant0-Ant4	0.513	0.735	1.25	
Ant0-Ant5	0.513	0.868	1.38	
Ant0-Ant7	0.513	0.733	1.25	
Ant0-Ant9	0.513	0.672	1.19	
Ant0-WLAN2.4GHz Ant7	0.513	0.606	1.12	
Ant0-WLAN2.4GHz Ant10	0.513	0.734	1.25	
Ant0-WLAN2.4GHz Ant7+10	0.513	0.600	1.11	
Ant0-WLAN5GHz Ant9+11	0.513	0.694	1.21	
Ant0-WLAN6GHz Ant9+11	0.513	0.089	0.60	
Ant0-BT Ant7	0.513	0.355	0.87	
Ant0-BT Ant10	0.513	0.181	0.69	
Ant6-Ant1	0.854	1.002	1.86	1
Ant6-Ant4	0.854	0.735	1.59	
Ant6-Ant5	0.854	0.868	1.72	2
Ant6-Ant7	0.854	0.733	1.59	
Ant6-Ant9	0.854	0.672	1.53	
Ant0-WLAN2.4GHz Ant7	0.854	0.606	1.46	
Ant0-WLAN2.4GHz Ant10	0.854	0.734	1.59	
Ant0-WLAN2.4GHz Ant7+10	0.854	0.600	1.45	
Ant0-WLAN5GHz Ant9+11	0.854	0.694	1.55	
Ant0-WLAN6GHz Ant9+11	0.854	0.089	0.94	
Ant6-BT Ant7	0.854	0.355	1.21	
Ant6-BT Ant10	0.854	0.181	1.04	

Back 5mm				
Ant combination	AG1	AG0	AG0+AG1	SPLSR
	SAR	SAR		
Ant0-Ant1	0.588	1.091	1.68	3
Ant0-Ant4	0.588	1.084	1.67	4
Ant0-Ant5	0.588	1.002	1.59	
Ant0-Ant7	0.588	1.060	1.65	5
Ant0-Ant9	0.588	0.891	1.48	
Ant0-WLAN2.4GHz Ant7	0.588	0.696	1.28	
Ant0-WLAN2.4GHz Ant10	0.588	1.042	1.63	6
Ant0-WLAN2.4GHz Ant7+10	0.588	0.891	1.48	
Ant0-WLAN5GHz Ant9+11	0.588	1.062	1.65	7
Ant0-WLAN6GHz Ant9+11	0.588	0.380	0.97	
Ant0-BT Ant7	0.588	0.413	1.00	
Ant0-BT Ant10	0.588	0.312	0.90	
Ant6-Ant1	1.089	1.091	2.18	8
Ant6-Ant4	1.089	1.084	2.17	9
Ant6-Ant5	1.089	1.002	2.09	10
Ant6-Ant7	1.089	1.060	2.15	11
Ant6-Ant9	1.089	0.891	1.98	12
Ant0-WLAN2.4GHz Ant7	1.089	0.696	1.79	13
Ant0-WLAN2.4GHz Ant10	1.089	1.042	2.13	14
Ant0-WLAN2.4GHz Ant7+10	1.089	0.891	1.98	15
Ant0-WLAN5GHz Ant9+11	1.089	1.062	2.15	16
Ant0-WLAN6GHz Ant9+11	1.089	0.380	1.47	
Ant6-BT Ant7	1.089	0.413	1.50	
Ant6-BT Ant10	1.089	0.312	1.40	

<Sensor Off>

General Note: The unit of SAR evaluation is W/kg.

Simultaneous Transmission Evaluation of WWAN+WLAN+BT:

<AG0 maximum reported SAR>:

Test Position	Ant1	Ant4	Ant5	Ant7	Ant9	WLAN2.4GHz Ant7	WLAN2.4GHz Ant10	WLAN2.4GHz Ant7+10	WLAN5GHz Ant9+11	WLAN6GHz Ant9+11	Bluetooth Ant7	Bluetooth Ant10	MAX
Front		1.028											1.028
Back		1.093											1.093

<AG1 maximum reported SAR>:

Test Position	Ant0	Ant6	MAX
Front	0.314	0.857	0.857
Back	0.362	1.082	1.082

<Simultaneous Transmission analysis of AG0 + AG1 Worse-case>:

Test Position	AG0	AG1	AG0+AG1
Front	1.028	0.857	1.89
Back	1.093	1.082	2.18

Note: The results marked yellow in above table refers to the detailed analysis corresponding to each position below tables.

Front 10mm				
Ant combination	AG1	AG0	AG0+AG1	Combined
	SAR	SAR		
Ant0-Ant4	0.314	1.028	1.34	
Ant6-Ant4	0.857	1.028	1.89	17

Back 10mm				
Ant combination	AG1	AG0	AG0+AG1	Combined
	SAR	SAR		
Ant0-Ant1	0.362	1.093	1.46	
Ant6-Ant4	1.082	1.093	2.18	18

17.6 Product specific 10g SAR Exposure Conditions

General Note: The unit of SAR evaluation is W/kg.

Simultaneous Transmission Evaluation of WWAN+WLAN+BT + NFC:

<AG0 maximum reported SAR>:

Test Position	WLAN5GHz Ant9+11	WLAN6GHz Ant9+11	MAX
Front	1.487	0.209	1.487
Back	0.517	0.073	0.517
Left Edge	0.108	0.022	0.108
Right Edge	1.550	0.098	1.550
Top Edge	2.491	0.732	2.491
Bottom Edge	0.050	0.000	0.050

<Simultaneous Transmission analysis of AG0 + AG1 + NFC Worse-case>:

Test Position	AG0	AG1	NFC	AG0+AG1+NFC
Front	1.487		0.001	1.49
Back	0.517		0.015	0.53
Left Edge	0.108		0.001	0.11
Right Edge	1.550		0.001	1.55
Top Edge	2.491		0.001	2.49
Bottom Edge	0.050		0.001	0.05

17.7 Total Exposure Ratio

<Total exposure ratio>

Max 1g SAR	WPT SAR	TER
(W/Kg)	(W/Kg)	Reported SAR/1.6 + WPT SAR /1.6 Summation
1.59	0.00000128	0.99

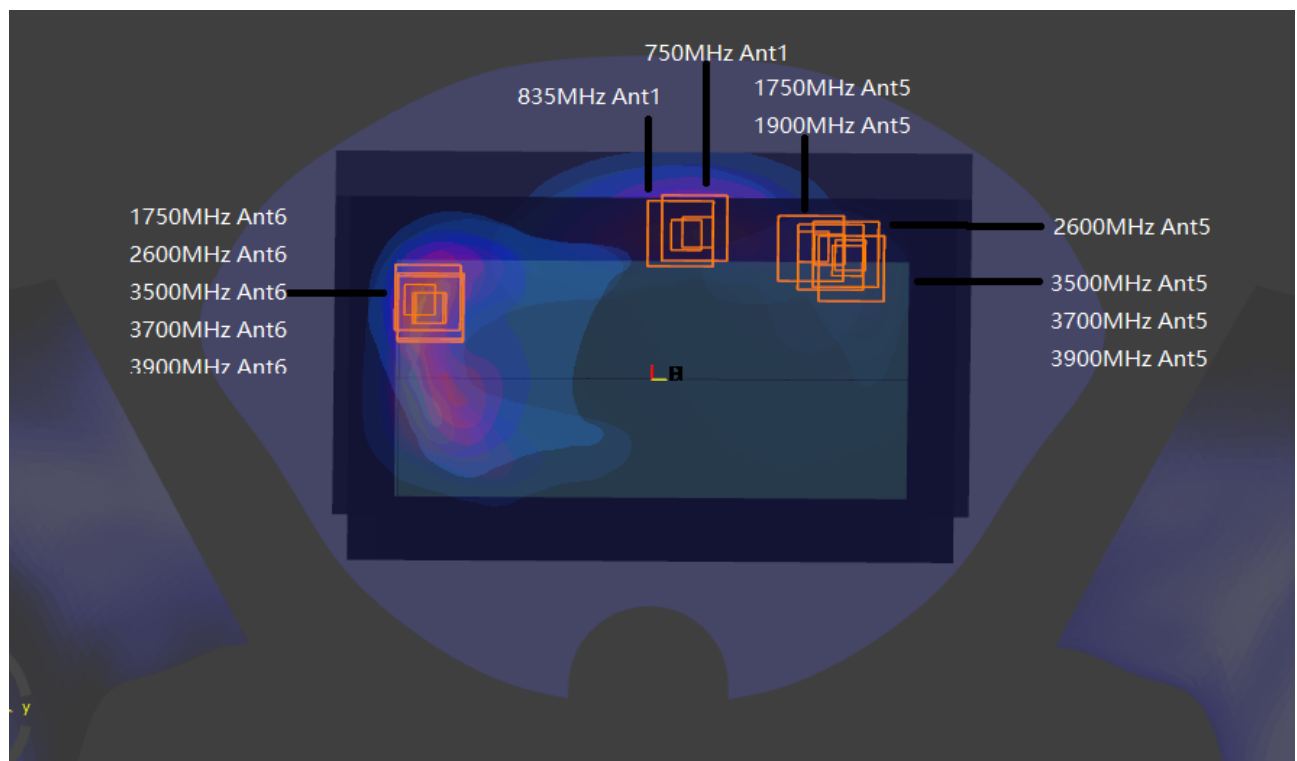
Max 10g SAR	WPT SAR	TER
(W/Kg)	(W/Kg)	Reported SAR/4.0 + WPT SAR /4.0 Summation
2.49	0.000000704	0.62

Remark: WPT SAR value is from another WPT SAR report which is submitted separately.

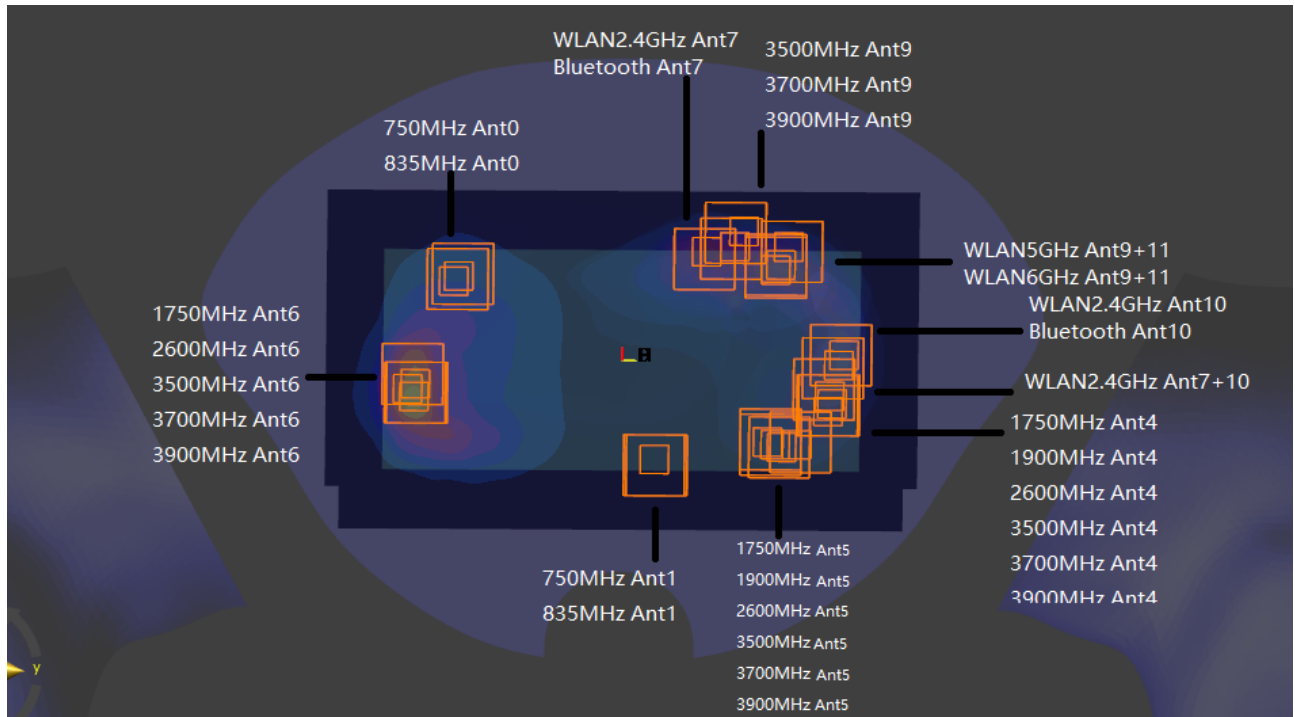
17.8 SPLSR Evaluation and Analysis

General Note:

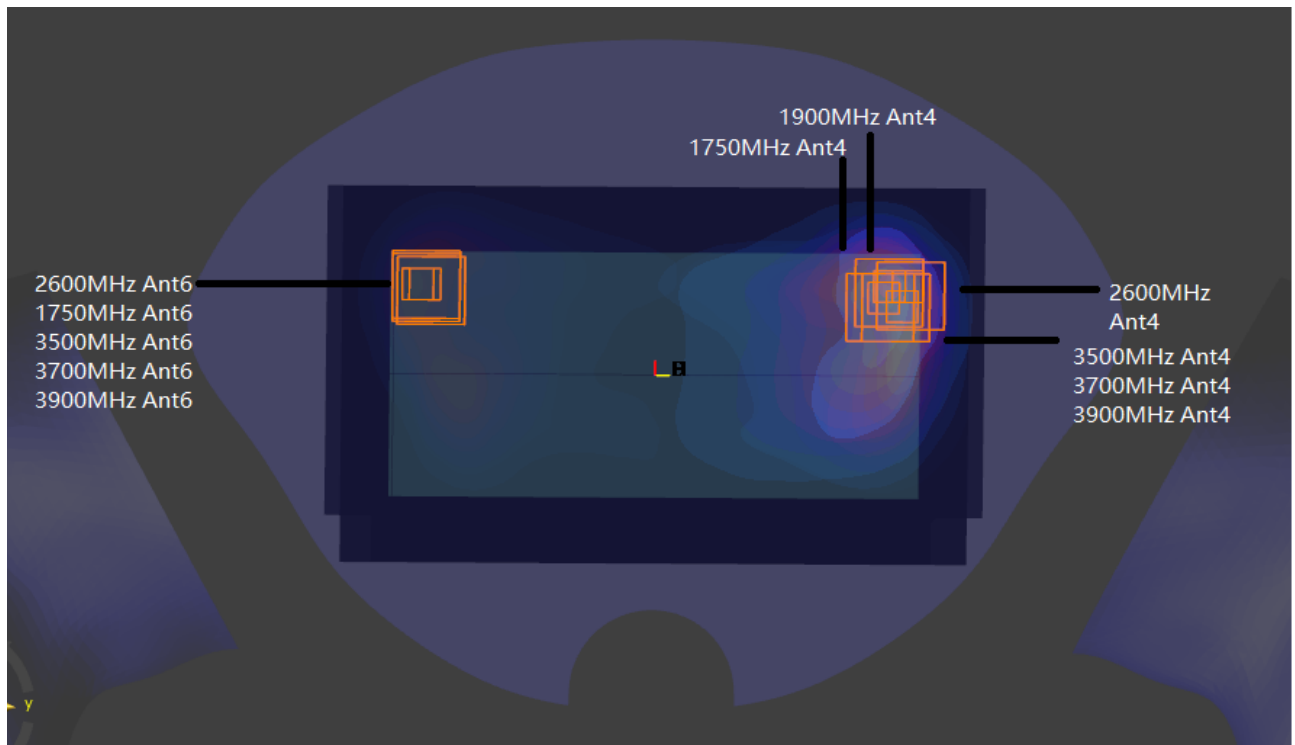
1. When standalone SAR is measured for both antennas in the pair, the peak location separation distance is computed by the square root of $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$, where (x_1, y_1, z_1) and (x_2, y_2, z_2) are the coordinates in the area scans or extrapolated peak SAR locations in the zoom scans, as appropriate.
2. $SPLSR = (SAR_1 + SAR_2)1.5 / (\text{min. separation distance, mm})$. If $SPLSR \leq 0.04$ for 1g SAR, simultaneously transmission SAR measurement is not necessary.
3. Per April 2022 TCB Workshop Notes, AG0 was summed algebraically with the WIFI Antenna 10/11/7/9 for the purposes of hybrid SPLSR combination and they are located at the top of the device.
4. Per April 2022 TCB Workshop, instead of doing a small volume scan over a co-located antenna pair, used summing the SAR values of the co-located pair and using that value in SPLSR calculation. In the calculation used the minimum distance between the spatially separated antenna and the closest antenna of the co-located antenna pair to be conservative.
5. The detail hotspot point for each transmitter in each exposure condition are showing as below figure and the minimum 3D distance for each sum combination is used for SPLSR analysis.
6. The axis peak locations refer to Section 17.9.



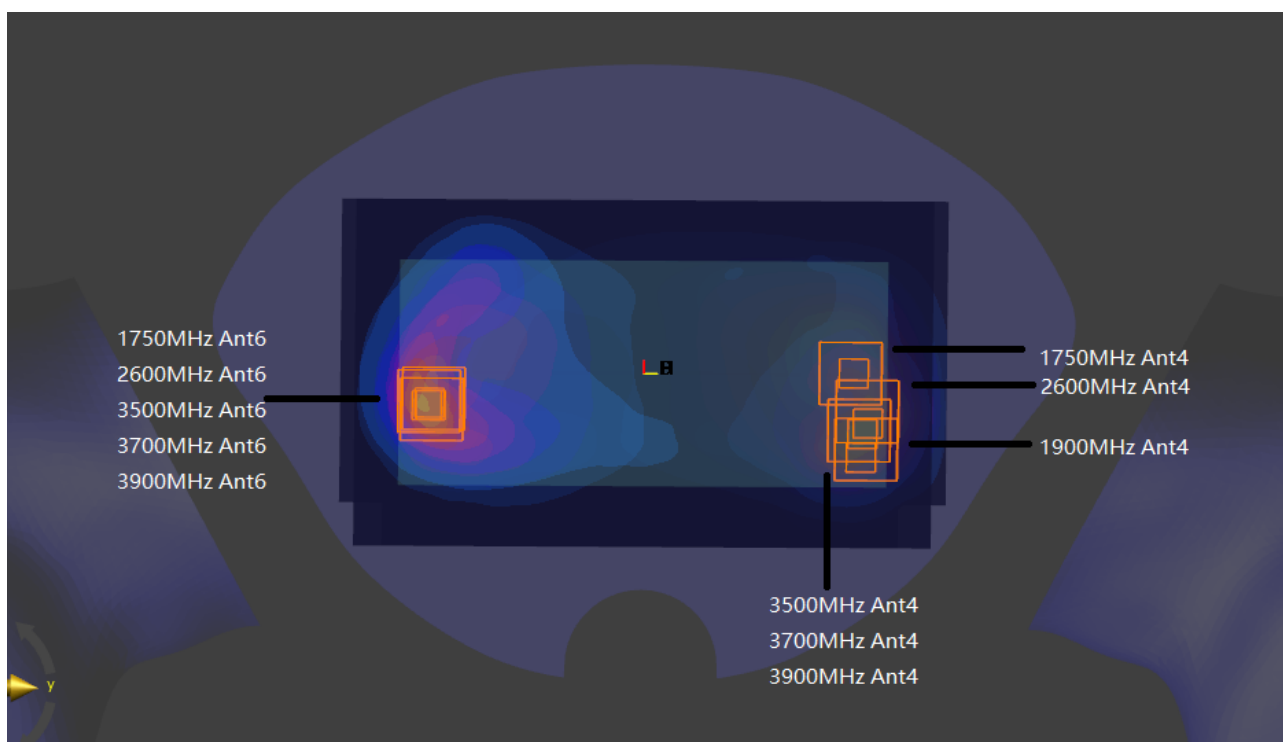
Body-worn WWAN+WWAN Front 5mm



Body-worn WWAN+WWAN Back 5mm



Body-worn WWAN+WWAN Front 10mm



Body-worn WWAN+WWAN Back 10mm

<Body-worn>

No.1	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant6	Front	0.854	1.856	5mm	-52	-71	-204	86.7	1.86	0.03	Not required
Ant1		1.002		5mm	-71.5	13.5	-204				
No.2	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant6	Front	0.854	1.722	5mm	-52	-71	-204	128.9	1.72	0.02	Not required
Ant5		0.868		5mm	-67	57	-204				

No.3	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Back	0.588	1.68	5mm	-70	-20	-204	85.8	1.68	0.03	Not required
Ant1		1.091		5mm	9.2	13	-204				
No.4	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Back	0.588	1.672	5mm	-70	-20	-204	93.0	1.67	0.02	Not required
Ant4		1.084		5mm	-6.5	48	-204				
No.5	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Back	0.588	1.648	5mm	-70	-20	-204	60.2	1.65	0.04	Not required
Ant7		1.060		5mm	-65	40	-204				
No.6	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Back	0.588	1.630	5mm	-70	-20	-204	107.8	1.63	0.02	Not required
WLAN2.4GHz Ant10		1.042		5mm	-25	78	-204				
No.7	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Back	0.588	1.650	5mm	-70	-20	-204	102.1	1.65	0.02	Not required

WLAN5GHz Ant9+11		1.062		5mm	-45	79	-204				
No.8	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant6	Back	1.089	2.18	5mm	-11.5	-73.5	-204	89.4	2.18	0.04	Not required
Ant1		1.091		5mm	11	13	-204				
No.9	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant6	Back	1.089	2.173	5mm	-11.5	-73.5	-204	121.6	2.17	0.03	Not required
Ant4		1.084		5mm	-6.5	48	-204				
No.10	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant6	Back	1.089	2.091	5mm	-11.5	-73.5	-204	122.4	2.09	0.02	Not required
Ant5		1.002		5mm	3.5	48	-204				
No.11	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant6	Back	1.089	2.149	5mm	-24	-78	-204	124.9	2.15	0.03	Not required
Ant7		1.060		5mm	-65	40	-204				
No.12	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant6	Back	1.089	1.980	5mm	-24	-78	-204	143.3	1.98	0.02	Not required
Ant9		0.891		5mm	-66	59	-204				
No.13	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant6	Back	1.089	1.785	5mm	-24	-78	-204	127.1	1.79	0.02	Not required
WLAN2.4GHz Ant7		0.696		5mm	-63	43	-204				
No.14	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant6	Back	1.089	2.131	5mm	-11.5	-73.5	-204	152.1	2.13	0.02	Not required
WLAN2.4GHz Ant10		1.042		5mm	-25	78	-204				
No.15	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant6	Back	1.089	1.980	5mm	-11.5	-73.5	-204	152.1	1.98	0.02	Not required
WLAN2.4GHz Ant7+10		0.891		5mm	-25	78	-204				
No.16	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant6	Back	1.089	2.151	5mm	-11.5	-73.5	-204	156.1	2.15	0.02	Not required
WLAN5GHz Ant9+11		1.062		5mm	-45	79	-204				

<Sensor Off>

No.17	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant6	Front	0.857	1.885	5mm	-53.5	-73.5	-204	144.6	1.89	0.02	Not required
Ant4		1.028		5mm	-49.5	71	-204				

No.18	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant6	Back	1.082	2.175	5mm	-11	-73	-204	144.0	2.18	0.02	Not required
Ant4		1.093		5mm	6	70	-204				

17.9 Maximum Reported SAR and SAR Peak Locations

General Note:

1. The maximum reported SAR and SAR Peak Locations corresponding to each position of each frequency band of each antenna in the below tables are as follows.
2. The unit of SAR evaluation is W/kg. The unit of x, y, z with Axis evaluation is mm.

		Front 5mm							
Band		Ant1			Ant5			Ant6	
GSM850	SAR		0.863						
	Axis	-71.5	13.5	-204.0					
GSM1900	SAR					0.256			
	Axis				-67.0	57.0	-204.0		
WCDMA II	SAR					0.533			
	Axis				-68.5	57.0	-204.0		
WCDMA IV	SAR					0.769			
	Axis				-67.5	72.0	-204.0		
WCDMA V	SAR		0.932						
	Axis	-72.5	15.0	-204.0					
LTE Band 12	SAR		0.978						
	Axis	-73.0	15.5	-204.0					
LTE Band 13	SAR		0.945						
	Axis	-73.0	15.0	-204.0					
LTE Band 26	SAR		1.002						
	Axis	-73.0	15.0	-204.0					
LTE Band 71	SAR		0.857						
	Axis	-73.5	15.0	-204.0					
LTE Band 7	SAR					0.721		0.749	
	Axis				-65.5	68.0	-204.0	-53.0	-75.5
LTE Band 25	SAR					0.587			
	Axis				-68.0	60.0	-204.0		
LTE Band 66	SAR					0.768		0.740	
	Axis				-67.0	72.0	-204.0	-52.5	-77.0
LTE Band 41	SAR					0.543		0.599	
	Axis				-66.0	69.0	-204.0	-53.0	-76.0
LTE Band 42	SAR					0.632		0.317	
	Axis				-65.0	70.0	-204.0	-53.0	-75.5
LTE Band 48	SAR					0.603		0.382	
	Axis				-65.0	70.0	-204.0	-52.0	-75.0
FR1 n12	SAR		0.807						
	Axis	-73.0	15.0	-204.0					
FR1 n26	SAR		0.839						
	Axis	-73.5	15.5	-204.0					
FR1 n7	SAR					0.667		0.628	
	Axis				-65.0	68.0	-204.0	-53.0	-77.0
FR1 n25	SAR					0.868			
	Axis				-66.0	71.0	-204.0		
FR1 n66	SAR					0.672		0.854	
	Axis				-68.5	60.0	-204.0	-52.0	-76.0
FR1 n71	SAR		0.972						
	Axis	-73.6	15.2	-204.0					
FR1 n38	SAR							0.675	
	Axis							-53.0	-77.0
FR1 n41	SAR					0.544		0.462	
	Axis				-67.0	70.0	-204.0	-53.0	-77.0
FR1 n48	SAR					0.798		0.411	
	Axis				-65.0	61.0	-204.0	-52.5	-76.5
FR1 n77	SAR					0.678		0.356	
	Axis				-65.0	61.0	-204.0	-52.0	-71.0



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WLAN2.4GHz Ant7	SAR	0.696			Bluetooth Ant7	SAR	0.414			Bluetooth Ant10	SAR	0.157		
	Axis	-63.000	43.000	-204.000		Axis	-63.500	44.000	-204.000		Axis	-25.000	79.000	-204.000

WLAN2.4GHz Ant7+10	SAR	1.042		
	Axis	-25.000	78.000	-204.000

WLAN5GHz Ant9+11	SAR	1.062			WLAN6GHz Ant9+11	SAR	0.380		
	Axis	-45.000	79.000	-204.000		Axis	-43.000	80.000	-204.000

<Sensor Off>

Front 10mm							
Band		Ant4			Ant6		
GSM1900	SAR		0.250				
	Axis	-53.500	75.000	-204.000			
WCDMA II	SAR		0.596				
	Axis	-53.000	76.000	-204.000			
WCDMA IV	SAR		0.639				
	Axis	-49.000	75.000	-204.000			
LTE Band 7	SAR		0.620			0.833	
	Axis	-45.000	79.000	-204.000	-54.000	-77.000	-204.000
LTE Band 25	SAR		0.616				
	Axis	-49.000	73.500	-204.000			
LTE Band 66	SAR		1.028			0.779	
	Axis	-50.500	72.000	-204.000	-53.500	-73.500	-204.000
LTE Band 41	SAR		0.596			0.407	
	Axis	-45.000	79.000	-204.000	-54.000	-77.000	-204.000
LTE Band 42	SAR		0.704			0.191	
	Axis	-54.000	80.000	-204.000	-24.000	-77.000	-204.000
LTE Band 48	SAR		0.795			0.203	
	Axis	-54.000	80.000	-204.000	-54.000	-77.000	-204.000
FR1 n7	SAR		0.723			0.695	
	Axis	-49.000	78.000	-20.400	-54.000	-78.000	-204.000
FR1 n25	SAR		0.710				
	Axis	-50.000	74.000	-204.000			
FR1 n66	SAR		0.810			0.857	
	Axis	-49.500	71.000	-204.000	-54.000	-75.000	-204.000
FR1 n38	SAR		0.323				
	Axis	-46.000	80.000	-204.000			
FR1 n41	SAR		0.812			0.421	
	Axis	-45.500	78.000	-204.000	-53.000	-78.000	-204.000
FR1 n48	SAR		0.848			0.333	
	Axis	-52.000	79.000	-204.000	-54.500	-77.500	-204.000
FR1 n77	SAR		0.769			0.486	
	Axis	-51.000	78.000	-204.000	-55.000	-78.000	-204.000

Back 10mm							
Band		Ant4			Ant6		
GSM1900	SAR		0.335				
	Axis	-10.000	79.000	-204.000			
WCDMA II	SAR		0.928				
	Axis	-3.100	78.000	-204.000			
WCDMA IV	SAR		0.792				
	Axis	-23.000	73.000	-204.000			
LTE Band 7	SAR		0.766			0.983	
	Axis	6.000	70.000	-204.000	-15.000	-77.000	-204.000
LTE Band 25	SAR		0.870				
	Axis	-23.000	72.000	-204.000			
LTE Band 66	SAR		0.939			0.924	
	Axis	-20.000	72.000	-204.000	-16.000	-78.000	-204.000
LTE Band 41	SAR		0.846			0.836	
	Axis	-22.000	71.000	-204.000	-13.000	-75.000	-204.000
LTE Band 42	SAR		0.886			0.458	
	Axis	-5.000	71.000	-204.000	-15.500	-76.000	-204.000
LTE Band 48	SAR		0.907			0.460	
	Axis	-6.000	78.000	-204.000	-18.500	-75.500	-204.000
FR1 n7	SAR		0.905			0.867	
	Axis	-15.000	79.000	-204.000	-16.000	-76.000	-204.000
FR1 n25	SAR		0.862				
	Axis	-25.000	73.500	-204.000			
FR1 n66	SAR		0.958			0.991	
	Axis	-23.000	73.500	-204.000	-11.000	-73.000	-204.000
FR1 n38	SAR		0.316				
	Axis	-15.000	76.000	-204.000			
FR1 n41	SAR		1.093			0.638	
	Axis	-23.000	87.000	-204.000	-12.500	-78.000	-204.000
FR1 n48	SAR		0.992			0.723	
	Axis	-23.000	71.000	-204.000	-15.000	-77.000	-204.000
FR1 n77	SAR		1.003			1.082	
	Axis	-4.000	74.000	-204.000	-14.000	-73.000	-204.000

Test Engineer : Martin Li, Varus Wang, Light Wang, Ricky Gu

18. Uncertainty Assessment

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be $\leq 30\%$, for a confidence interval of $k = 2$. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg and highest measured 10-g SAR is less 3.75W/kg. Therefore, the measurement uncertainty table is not required in this report.

Declaration of Conformity:

The test results with all measurement uncertainty excluded is presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

The component of uncertainty may generally be categorized according to the methods used to evaluate them. The evaluation of uncertainty by the statistical analysis of a series of observations is termed a Type A evaluation of uncertainty. The evaluation of uncertainty by means other than the statistical analysis of a series of observation is termed a Type B evaluation of uncertainty. Each component of uncertainty, however evaluated, is represented by an estimated standard deviation, termed standard uncertainty, which is determined by the positive square root of the estimated variance.

A Type A evaluation of standard uncertainty may be based on any valid statistical method for treating data. This includes calculating the standard deviation of the mean of a series of independent observations; using the method of least squares to fit a curve to the data in order to estimate the parameter of the curve and their standard deviations; or carrying out an analysis of variance in order to identify and quantify random effects in certain kinds of measurement.

A type B evaluation of standard uncertainty is typically based on scientific judgment using all of the relevant information available. These may include previous measurement data, experience, and knowledge of the behavior and properties of relevant materials and instruments, manufacture's specification, data provided in calibration reports and uncertainties assigned to reference data taken from handbooks. Broadly speaking, the uncertainty is either obtained from an outdoor source or obtained from an assumed distribution, such as the normal distribution, rectangular or triangular distributions indicated in table below.

Uncertainty Distributions	Normal	Rectangular	Triangular	U-Shape
Multi-plying Factor ^(a)	$1/k^{(b)}$	$1/\sqrt{3}$	$1/\sqrt{6}$	$1/\sqrt{2}$

(a) standard uncertainty is determined as the product of the multiplying factor and the estimated range of variations in the measured quantity

(b) k is the coverage factor

Standard Uncertainty for Assumed Distribution

The combined standard uncertainty of the measurement result represents the estimated standard deviation of the result. It is obtained by combining the individual standard uncertainties of both Type A and Type B evaluation using the usual "root-sum-squares" (RSS) methods of combining standard deviations by taking the positive square root of the estimated variances.

Expanded uncertainty is a measure of uncertainty that defines an interval about the measurement result within which the measured value is confidently believed to lie. It is obtained by multiplying the combined standard uncertainty by a coverage factor. Typically, the coverage factor ranges from 2 to 3. Using a coverage factor allows the true value of a measured quantity to be specified with a defined probability within the specified uncertainty range. For purpose of this document, a coverage factor two is used, which corresponds to confidence interval of about 95 %. The DASY uncertainty Budget is shown in the following tables.

The judgment of conformity in the report is based on the measurement results excluding the measurement uncertainty.

Uncertainty Budget According to IEC/IEEE 62209-1528 (Frequency band: 4 MHz - 10 GHz range)							
Error Description	Uncert. Value (±%)	Prob. Dist.	Div.	(Ci) 1g	(Ci) 10g	Standard Uncertainty (1g) (±%)	Standard Uncertainty (10g) (±%)
Measurement System errors							
Probe calibration	18.6	N	2	1	1	9.3	9.3
Probe calibration drift	1.7	R	1.732	1	1	1.0	1.0
Probe linearity and detection Limit	4.7	R	1.732	1	1	2.7	2.7
Broadband signal	2.8	R	1.732	1	1	1.6	1.6
Probe isotropy	7.6	R	1.732	1	1	4.4	4.4
Other probe and data acquisition errors	2.4	N	1	1	1	2.4	2.4
RF ambient and noise	1.8	N	1	1	1	1.8	1.8
Probe positioning errors	0.006	N	1	0.5	0.5	0.0	0.0
Data processing errors	4.0	N	1	1	1	4.0	4.0
Phantom and Device Errors							
Measurement of phantom conductivity (σ)	2.5	N	1	0.78	0.71	2.0	1.8
Temperature effects (medium)	5.4	R	1.732	0.78	0.71	2.4	2.2
Shell permittivity	14.0	R	1.732	0.5	0.5	4.0	4.0
Distance between the radiating element of the DUT and the phantom medium	2.0	N	1	2	2	4.0	4.0
Repeatability of positioning the DUT or source against the phantom	1.0	N	1	1	1	1.0	1.0
Device holder effects	3.6	N	1	1	1	3.6	3.6
Effect of operating mode on probe sensitivity	2.4	R	1.732	1	1	1.4	1.4
Time-average SAR	1.7	R	1.732	1	1	1.0	1.0
Variation in SAR due to drift in output of DUT	2.5	N	1	1	1	2.5	2.5
Validation antenna uncertainty (validation measurement only)	0.0	N	1	1	1	0.0	0.0
Uncertainty in accepted power (validation measurement only)	0.0	N	1	1	1	0.0	0.0
Correction to the SAR results							
Phantom deviation from target (ϵ' , σ)	1.9	N	1	1	0.84	1.9	1.6
SAR scaling	0.0	R	1.732	1	1	0.0	0.0
Combined Std. Uncertainty						14.5%	14.4%
Coverage Factor for 95 %						K=2	K=2
Expanded STD Uncertainty						29.0%	28.8%

SAR Uncertainty Budget for frequency range 4MHz to 10GHz

cDASY6 Module mmWave Uncertainty Budget Evaluation Distances to the Antennas $\lambda/2\pi$ In Compliance with IEC TR 63170					
Error Description	Uncertainty Value (±dB)	Probability	Divisor	(Ci)	Standard Uncertainty (±dB)
Uncertainty terms dependent on the measurement system					
Probe Calibration	0.49	N	1	1	0.49
Probe correction	0.00	R	1.732	1	0.00
Frequency response	0.20	R	1.732	1	0.12
Sensor cross coupling	0.00	R	1.732	1	0.00
Isotropy	0.50	R	1.732	1	0.29
Linearity	0.20	R	1.732	1	0.12
Probe scattering	0.00	R	1.732	1	0.00
Probe positioning offset	0.30	R	1.732	1	0.17
Probe positioning repeatability	0.04	R	1.732	1	0.02
Sensor mechanical offset	0.00	R	1.732	1	0.00
Probe spatial resolution	0.00	R	1.732	1	0.00
Field impedance dependence	0.00	R	1.732	1	0.00
Amplitude and phase drift	0.00	R	1.732	1	0.00
Amplitude and phase noise	0.04	R	1.732	1	0.02
Measurement area truncation	0.00	R	1.732	1	0.00
Data acquisition	0.03	N	1	1	0.03
Sampling	0.00	R	1.732	1	0.00
Field reconstruction	2.00	R	1.732	1	1.15
Forward transformation	0.00	R	1.732	1	0.00
Power density scaling	0.00	R	1.732	1	0.00
Spatial averaging	0.10	R	1.732	1	0.06
System detection limit	0.04	R	1.732	1	0.02
Uncertainty terms dependent on the DUT and environmental factors					
Probe coupling with DUT	0.00	R	1.732	1	0.0
Modulation response	0.40	R	1.732	1	0.2
Integration time	0.00	R	1.732	1	0.0
Response time	0.00	R	1.732	1	0.0
Device holder influence	0.10	R	1.732	1	0.1
DUT alignment	0.00	R	1.732	1	0.0
RF ambient conditions	0.04	R	1.732	1	0.0
Ambient reflections	0.04	R	1.732	1	0.0
Immunity / secondary reception	0.00	R	1.732	1	0.0
Drift of the DUT		R	1.732	1	
Combined Std. Uncertainty					1.34
Expanded STD Uncertainty (95%)					2.68
PD Uncertainty Budget					

19. References

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- [17] IEC TR 63170: 2018 Measurement procedure for the evaluation of power density related to human exposure to radio frequency fields from wireless communication devices operating between 6 GHz and 100 GHz
- [18] SPEAG DASY6 Application Note (Interim Procedures for Devices Operating at 6-10 GHz)

Appendixes

Please refer to separated files for the following appendixes

Appendix A. Plots of System Performance Check

Appendix B. Plots of High SAR Measurement

Appendix C. DASY Calibration Certificate

Appendix D. Test Setup Photos

Appendix E. Conducted RF Output Power Table

Appendix F. Power measurement connection diagram and CA Conducted RF Output Power Table

Appendix G. Power reduction mechanism verification

Appendix H. Verify MIMO SAR analysis results

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