

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ϵ	Target Conductivity σ (S/m)	Target Dielectric Constant, ϵ	% dev σ	% dev ϵ
04/01/2023	21.9	1 800H	1 710	1.335	40.553	1.348	40.144	- 0.96	+ 1.02
			1 750	1.372	40.455	1.371	40.080	+ 0.07	+ 0.94
			1 800	1.419	40.298	1.400	40.000	+ 1.36	+ 0.74
04/06/2023	19.6	1 800H	1 710	1.313	39.964	1.348	40.144	- 2.60	- 0.45
			1 750	1.356	39.818	1.371	40.080	- 1.09	- 0.65
			1 800	1.410	39.583	1.400	40.000	+ 0.71	- 1.04
04/07/2023	19.7	1 800H	1 710	1.303	39.771	1.348	40.144	- 3.34	- 0.93
			1 750	1.347	39.618	1.371	40.080	- 1.75	- 1.15
			1 800	1.400	39.386	1.400	40.000	+ 0.00	- 1.54
04/06/2023	19.6	1 800H	1 710	1.322	40.475	1.348	40.144	- 1.93	+ 0.82
			1 750	1.366	40.318	1.371	40.080	- 0.36	+ 0.59
			1 800	1.419	40.086	1.400	40.000	+ 1.36	+ 0.21
04/07/2023	19.7	1 800H	1 710	1.304	40.172	1.348	40.144	- 3.26	+ 0.07
			1 750	1.347	40.023	1.371	40.080	- 1.75	- 0.14
			1 800	1.399	39.786	1.400	40.000	- 0.07	- 0.53
04/03/2023	21.7	1 900H	1 850	1.333	41.442	1.400	40.000	- 4.79	+ 3.60
			1 900	1.383	41.264	1.400	40.000	- 1.21	+ 3.16
			1 910	1.393	41.234	1.400	40.000	- 0.50	+ 3.09
04/03/2023	21.7	1 900H	1 850	1.419	38.551	1.400	40.000	+ 1.36	- 3.62
			1 900	1.420	38.852	1.400	40.000	+ 1.43	- 2.87
			1 910	1.422	38.901	1.400	40.000	+ 1.57	- 2.75
04/04/2023	20.5	1 900H	1 850	1.341	39.376	1.400	40.000	- 4.21	- 1.56
			1 900	1.389	39.170	1.400	40.000	- 0.79	- 2.07
			1 910	1.399	39.124	1.400	40.000	- 0.07	- 2.19
04/05/2023	20.8	1 900H	1 850	1.351	39.374	1.400	40.000	- 3.50	- 1.57
			1 900	1.400	39.170	1.400	40.000	+ 0.00	- 2.07
			1 910	1.410	39.126	1.400	40.000	+ 0.71	- 2.19
04/04/2023	20.5	1 900H	1 850	1.341	39.385	1.400	40.000	- 4.21	- 1.54
			1 900	1.390	39.176	1.400	40.000	- 0.71	- 2.06
			1 910	1.399	39.129	1.400	40.000	- 0.07	- 2.18
04/05/2023	20.8	1 900H	1 850	1.351	39.377	1.400	40.000	- 3.50	- 1.56
			1 900	1.400	39.168	1.400	40.000	+ 0.00	- 2.08
			1 910	1.410	39.122	1.400	40.000	+ 0.71	- 2.20
04/04/2023	21.8	2 450H	2 400	1.798	39.076	1.756	39.290	+ 2.39	- 0.54
			2 450	1.838	39.151	1.800	39.200	+ 2.11	- 0.13
			2 500	1.884	39.259	1.855	39.140	+ 1.56	+ 0.30
04/08/2023	21.1	2 450H	2 400	1.756	38.774	1.756	39.290	+ 0.00	- 1.31
			2 450	1.814	38.563	1.800	39.200	+ 0.78	- 1.63
			2 500	1.872	38.383	1.855	39.140	+ 0.92	- 1.93
04/08/2023	21.1	2 450H	2 400	1.753	38.467	1.756	39.290	- 0.17	- 2.09
			2 450	1.821	38.257	1.800	39.200	+ 1.17	- 2.41
			2 500	1.879	38.075	1.855	39.140	+ 1.29	- 2.72

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04/05/2023	21.6	2 600H	2 500	1.871	40.465	1.866	39.126	+ 0.27	+ 3.42
			2 600	1.999	40.056	1.964	39.010	+ 1.78	+ 2.68
			2 690	2.093	39.630	2.062	38.894	+ 1.50	+ 1.89
04/10/2023	21.6	2 600H	2 500	1.867	38.366	1.866	39.126	+ 0.05	- 1.94
			2 600	1.963	37.929	1.964	39.010	- 0.05	- 2.77
			2 690	2.049	37.511	2.062	38.894	- 0.63	- 3.56
04/06/2023	21.5	2 600H	2 500	1.855	40.356	1.866	39.126	- 0.59	+ 3.14
			2 600	1.988	39.933	1.964	39.010	+ 1.22	+ 2.37
			2 690	2.084	39.504	2.062	38.894	+ 1.07	+ 1.57
04/10/2023	21.6	2 600H	2 500	1.868	38.375	1.866	39.126	+ 0.11	- 1.92
			2 600	1.966	37.944	1.964	39.010	+ 0.10	- 2.73
			2 690	2.049	37.528	2.062	38.894	- 0.63	- 3.51
04/12/2023	20.0	5 180H- 5 320H	5 180	4.508	36.910	4.635	36.010	- 2.74	+ 2.50
			5 250	4.645	36.703	4.706	35.930	- 1.30	+ 2.15
			5 280	4.693	36.677	4.737	35.894	- 0.93	+ 2.18
			5 320	4.747	36.730	4.778	35.846	- 0.65	+ 2.47
04/04/2023	19.3	5 500H- 5 600H	5 500	4.918	36.761	4.963	35.640	- 0.91	+ 3.15
			5 600	4.982	36.473	5.065	35.530	- 1.64	+ 2.65
			5 750	5.184	36.309	5.219	35.360	- 0.67	+ 2.68
04/05/2023	19.5	5 750H- 5 825H	5 750	5.265	36.217	5.219	35.360	+ 0.88	+ 2.42
			5 800	5.232	36.199	5.270	35.300	- 0.72	+ 2.55
			5 825	5.223	36.135	5.296	35.270	- 1.38	+ 2.45
04/06/2023	21.8	5 800H- 5 885H	5 800	5.145	36.165	5.270	35.300	- 2.37	+ 2.45
			5 835	5.142	36.095	5.306	35.258	- 3.09	+ 2.37
			5 855	5.155	36.035	5.326	35.235	- 3.21	+ 2.27
			5 875	5.175	35.961	5.347	35.215	- 3.22	+ 2.12
			5 885	5.186	35.925	5.357	35.205	- 3.19	+ 2.05

- 5G NR SUB 6

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Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ϵ	Target Conductivity σ (S/m)	Target Dielectric Constant, ϵ	% dev σ	% dev ϵ
04/10/2023	22.1	835H	820	0.924	42.805	0.899	41.577	+ 2.78	+ 2.95
			835	0.940	42.599	0.900	41.500	+ 4.44	+ 2.65
			850	0.955	42.396	0.916	41.500	+ 4.26	+ 2.16
04/11/2023	21.2	835H	820	0.924	42.804	0.899	41.577	+ 2.78	+ 2.95
			835	0.940	42.597	0.900	41.500	+ 4.44	+ 2.64
			850	0.956	42.394	0.916	41.500	+ 4.37	+ 2.15
04/10/2023	22.1	835H	820	0.924	42.794	0.899	41.577	+ 2.78	+ 2.93
			835	0.940	42.588	0.900	41.500	+ 4.44	+ 2.62
			850	0.955	42.386	0.916	41.500	+ 4.26	+ 2.13
04/03/2023	23.5	1800H	1 710	1.323	39.774	1.348	40.144	- 1.85	- 0.92
			1 750	1.367	39.623	1.371	40.080	- 0.29	- 1.14
			1 800	1.420	39.389	1.400	40.000	+ 1.43	- 1.53
04/04/2023	21.7	1800H	1 710	1.332	39.859	1.348	40.144	- 1.19	- 0.71
			1 750	1.376	39.715	1.371	40.080	+ 0.36	- 0.91
			1 800	1.430	39.482	1.400	40.000	+ 2.14	- 1.30
04/10/2023	20.7	1800H	1 710	1.313	39.772	1.348	40.144	- 2.60	- 0.93
			1 750	1.356	39.623	1.371	40.080	- 1.09	- 1.14
			1 800	1.410	39.387	1.400	40.000	+ 0.71	- 1.53
04/10/2023	20.7	1800H	1 710	1.314	39.770	1.348	40.144	- 2.52	- 0.93
			1 750	1.357	39.620	1.371	40.080	- 1.02	- 1.15
			1 800	1.410	39.385	1.400	40.000	+ 0.71	- 1.54
04/05/2023	20.0	1 900H	1 850	1.362	39.992	1.400	40.000	- 2.71	- 0.02
			1 900	1.411	39.783	1.400	40.000	+ 0.79	- 0.54
			1 910	1.421	39.738	1.400	40.000	+ 1.50	- 0.66
04/06/2023	20.7	1 900H	1 850	1.361	39.771	1.400	40.000	- 2.79	- 0.57
			1 900	1.411	39.565	1.400	40.000	+ 0.79	- 1.09
			1 910	1.421	39.520	1.400	40.000	+ 1.50	- 1.20
04/05/2023	20.0	1 900H	1 850	1.362	39.972	1.400	40.000	- 2.71	- 0.07
			1 900	1.411	39.765	1.400	40.000	+ 0.79	- 0.59
			1 910	1.421	39.720	1.400	40.000	+ 1.50	- 0.70
04/06/2023	20.7	1 900H	1 850	1.361	39.870	1.400	40.000	- 2.79	- 0.33
			1 900	1.411	39.664	1.400	40.000	+ 0.79	- 0.84
			1 910	1.421	39.619	1.400	40.000	+ 1.50	- 0.95
04/07/2023	20.8	2 600H	2 500	1.936	38.355	1.866	39.126	+ 3.75	- 1.97
			2 600	2.034	37.913	1.964	39.010	+ 3.56	- 2.81
			2 690	2.123	37.499	2.062	38.894	+ 2.96	- 3.59
04/07/2023	21.3	2 600H	2 500	1.935	38.239	1.866	39.126	+ 3.70	- 2.27
			2 600	2.034	37.805	1.964	39.010	+ 3.56	- 3.09
			2 690	2.118	37.396	2.062	38.894	+ 2.72	- 3.85
04/07/2023	20.8	2 600H	2 500	1.936	38.377	1.866	39.126	+ 3.75	- 1.91
			2 600	2.036	37.940	1.964	39.010	+ 3.67	- 2.74
			2 690	2.123	37.510	2.062	38.894	+ 2.96	- 3.56
04/07/2023	21.3	2 600H	2 500	1.938	38.406	1.866	39.126	+ 3.86	- 1.84
			2 600	2.035	37.965	1.964	39.010	+ 3.62	- 2.68
			2 690	2.124	37.558	2.062	38.894	+ 3.01	- 3.43

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ϵ	Target Conductivity σ (S/m)	Target Dielectric Constant, ϵ	% dev σ	% dev ϵ
05/03/2023	21.3	2 600H	2 500	1.920	38.058	1.866	39.126	+ 2.89	- 2.73
			2 600	2.033	37.660	1.964	39.010	+ 3.51	- 3.46
			2 690	2.138	37.305	2.062	38.894	+ 3.69	- 4.09
05/04/2023	21.0	2 600H	2 500	1.920	38.061	1.866	39.126	+ 2.89	- 2.72
			2 600	2.032	37.663	1.964	39.010	+ 3.46	- 3.45
			2 690	2.140	37.307	2.062	38.894	+ 3.78	- 4.08
04/10/2023	20.2	3500H	3 400	2.895	39.354	2.810	38.040	+ 3.02	+ 3.45
			3 500	2.969	39.134	2.913	37.930	+ 1.92	+ 3.17
			3 550	3.016	39.052	2.964	37.870	+ 1.75	+ 3.12
04/10/2023	20.2	3700H~3970	3 700	3.148	38.989	3.118	37.700	+ 0.96	+ 3.42
			3 750	3.201	38.971	3.169	37.640	+ 1.01	+ 3.54
			3 800	3.219	38.951	3.220	37.590	- 0.03	+ 3.62
			3 900	3.298	38.780	3.233	37.470	+ 2.01	+ 3.50
04/11/2023	20.8	3500H	3 400	2.886	39.337	2.810	38.040	+ 2.70	+ 3.41
			3 500	2.955	39.127	2.913	37.930	+ 1.44	+ 3.16
			3 550	2.999	39.040	2.964	37.870	+ 1.18	+ 3.09
04/11/2023	20.8	3700H~3970	3 700	3.141	38.904	3.118	37.700	+ 0.74	+ 3.19
			3 750	3.180	38.890	3.169	37.640	+ 0.35	+ 3.32
			3 800	3.217	38.860	3.220	37.590	- 0.09	+ 3.38
			3 900	3.283	38.683	3.233	37.470	+ 1.55	+ 3.24
			3 970	3.344	38.537	3.394	37.390	- 1.47	+ 3.07
04/26/2023	20.3	3500H	3 400	2.910	39.364	2.810	38.040	+ 3.56	+ 3.48
			3 500	2.969	39.134	2.913	37.930	+ 1.92	+ 3.17
			3 550	3.035	39.056	2.964	37.870	+ 2.40	+ 3.13
04/26/2023	20.3	3700H~3970	3 700	3.151	39.037	3.118	37.700	+ 1.06	+ 3.55
			3 750	3.209	38.983	3.169	37.640	+ 1.26	+ 3.57
			3 800	3.223	38.986	3.220	37.590	+ 0.09	+ 3.71
			3 900	3.308	38.783	3.233	37.470	+ 2.32	+ 3.50
			3 970	3.372	38.700	3.394	37.390	- 0.65	+ 3.50
04/27/2023	19.7	3500H	3 400	2.880	39.311	2.810	38.040	+ 2.49	+ 3.34
			3 500	2.938	39.113	2.913	37.930	+ 0.86	+ 3.12
			3 550	2.994	38.980	2.964	37.870	+ 1.01	+ 2.93
04/27/2023	19.7	3700H~3970	3 700	3.141	38.810	3.118	37.700	+ 0.74	+ 2.94
			3 750	3.176	38.833	3.169	37.640	+ 0.22	+ 3.17
			3 800	3.198	38.780	3.220	37.590	- 0.68	+ 3.17
			3 900	3.271	38.609	3.233	37.470	+ 1.18	+ 3.04
			3 970	3.342	38.511	3.394	37.390	- 1.53	+ 3.00
04/28/2023	20.0	3500H	3 400	2.897	39.401	2.810	38.040	+ 3.10	+ 3.58
			3 500	2.943	39.187	2.913	37.930	+ 1.03	+ 3.31
			3 550	2.995	39.038	2.964	37.870	+ 1.05	+ 3.08
04/28/2023	20.0	3700H~3970	3 700	3.147	38.860	3.118	37.700	+ 0.93	+ 3.08
			3 750	3.182	38.924	3.169	37.640	+ 0.41	+ 3.41
			3 800	3.218	38.823	3.220	37.590	- 0.06	+ 3.28
			3 900	3.273	38.692	3.233	37.470	+ 1.24	+ 3.26
			3 970	3.361	38.538	3.394	37.390	- 0.97	+ 3.07

12.2 System Verification

Input Power: 50 mW

Freq. [MHz]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR _{1g} (SPEAG) [W/kg]	50mW Measured SAR _{1g} [W/kg]	1 W Normalized SAR _{1g} [W/kg]	Deviation [%]	Limit [%]
750	04/01/2023	7751	1014	Head	20.8	21.0	8.71	0.425	8.50	- 2.41	± 10
750	03/31/2023	7751		Head	20.1	20.4	8.71	0.421	8.42	- 3.33	± 10
750	04/01/2023	7751		Head	20.8	21.0	8.71	0.430	8.60	- 1.26	± 10
750	04/02/2023	7751		Head	21.0	21.2	8.71	0.427	8.54	- 1.95	± 10
750	04/02/2023	7751		Head	21.0	21.2	8.71	0.425	8.50	- 2.41	± 10
750	04/02/2023	7751		Head	21.0	21.2	8.71	0.413	8.26	- 5.17	± 10
835	04/02/2023	3076	441	Head	22.1	21.9	9.73	0.500	10.00	+ 2.77	± 10
835	04/02/2023	3076		Head	22.1	21.9	9.73	0.505	10.10	+ 3.80	± 10
835	03/30/2023	3076		Head	21.8	21.5	9.73	0.499	9.98	+ 2.57	± 10
835	03/31/2023	3076		Head	21.0	21.2	9.73	0.502	10.04	+ 3.19	± 10
835	03/30/2023	7751		Head	20.4	20.2	9.73	0.488	9.76	+ 0.31	± 10
835	03/30/2023	7751		Head	20.4	20.2	9.73	0.494	9.88	+ 1.54	± 10
835	03/31/2023	7751		Head	20.1	20.4	9.73	0.488	9.76	+ 0.31	± 10
835	04/03/2023	7751		Head	20.7	21.0	9.73	0.487	9.74	+ 0.10	± 10
835	04/03/2023	7751		Head	20.7	21.0	9.73	0.491	9.82	+ 0.92	± 10
835	04/04/2023	7751		Head	20.0	20.2	9.73	0.482	9.64	- 0.92	± 10
1 800	04/01/2023	3076	2d007	Head	22.0	21.9	38.2	1.790	35.80	- 6.28	± 10
1 800	04/06/2023	3076		Head	20.0	19.6	38.2	1.870	37.40	- 2.09	± 10
1 800	04/07/2023	3076		Head	19.9	19.7	38.2	1.910	38.20	+ 0.00	± 10
1 800	04/06/2023	3076		Head	20.0	19.6	38.2	1.890	37.80	- 1.05	± 10
1 800	04/07/2023	3076		Head	19.9	19.7	38.2	1.910	38.20	+ 0.00	± 10
1 900	04/03/2023	3076	5d061	Head	21.9	21.7	38.9	2.040	40.80	+ 4.88	± 10
1 900	04/03/2023	3076		Head	21.9	21.7	38.9	2.070	41.40	+ 6.43	± 10
1 900	04/04/2023	3076		Head	20.9	20.5	38.9	1.920	38.40	- 1.29	± 10
1 900	04/05/2023	3076		Head	21.0	20.8	38.9	1.990	39.80	+ 2.31	± 10
1 900	04/04/2023	3076		Head	20.9	20.5	38.9	1.930	38.60	- 0.77	± 10
1 900	04/05/2023	3076		Head	21.0	20.8	38.9	2.000	40.00	+ 2.83	± 10
2 450	04/04/2023	7702	743	Head	22.1	21.8	53.2	2.540	50.80	- 4.51	± 10
2 450	04/08/2023	7702		Head	21.2	21.1	53.2	2.500	50.00	- 6.02	± 10
2 450	04/08/2023	7702		Head	21.2	21.1	53.2	2.500	50.00	- 6.02	± 10
2 600	04/05/2023	7702	1015	Head	21.8	21.6	56.3	2.720	54.40	- 3.37	± 10
2 600	04/10/2023	7702		Head	21.5	21.6	56.3	2.880	57.60	+ 2.31	± 10
2 600	04/06/2023	7702		Head	21.8	21.5	56.3	2.700	54.00	- 4.09	± 10
2 600	04/10/2023	7702		Head	21.5	21.6	56.3	2.880	57.60	+ 2.31	± 10
5 250	04/12/2023	7751	1253	Head	20.3	20.0	80.4	3.950	79.00	- 1.74	± 10
5 600	04/04/2023	7679		Head	19.1	19.3	82.1	4.320	86.40	+ 5.24	± 10
5 750	04/05/2023	7679		Head	19.2	19.5	79.9	3.910	78.20	- 2.13	± 10
5 800	04/06/2023	7679	1107	Head	22.0	21.8	81.3	4.160	83.20	+ 2.34	± 10

System Verification Results – Extremity SAR

Input Power: 50 mW

Freq.	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR _{10g} (SPEAG)	50mW Measured SAR _{10g}	1 W Normalized SAR _{10g}	Deviation	Limit
[MHz]					[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
13	04/25/2023	7655	1016	Head	20.3	20.0	0.353	0.018	0.36	+ 1.98	± 10
750	04/01/2023	7751	1014	Head	20.8	21.0	5.70	0.278	5.56	- 2.46	± 10
750	04/02/2023	7751		Head	21.0	21.2	5.70	0.267	5.34	- 6.32	± 10
835	04/02/2023	3076	441	Head	22.1	21.9	6.33	0.335	6.70	+ 5.85	± 10
835	03/30/2023	3076		Head	21.8	21.5	6.33	0.333	6.66	+ 5.21	± 10
835	03/31/2023	7751		Head	20.1	20.4	6.33	0.320	6.40	+ 1.11	± 10
835	04/04/2023	7751		Head	20.0	20.2	6.33	0.316	6.32	- 0.16	± 10
1 800	04/01/2023	3076	2d007	Head	22.0	21.9	19.8	0.934	18.68	- 5.66	± 10
1 800	04/06/2023	3076		Head	20.0	19.6	19.8	0.983	19.66	- 0.71	± 10
1 800	04/07/2023	3076		Head	19.9	19.7	19.8	0.983	19.66	- 0.71	± 10
1 900	04/03/2023	3076	5d061	Head	21.9	21.7	20.3	1.000	20.00	- 1.48	± 10
1 900	04/03/2023	3076		Head	21.9	21.7	20.3	1.020	20.40	+ 0.49	± 10
1 900	04/04/2023	3076		Head	20.9	20.5	20.3	0.983	19.66	- 3.15	± 10
1 900	04/05/2023	3076		Head	21.0	20.8	20.3	1.010	20.20	- 0.49	± 10
2 450	04/04/2023	7702	743	Head	22.1	21.8	24.8	1.150	23.00	- 7.26	± 10
2 450	04/08/2023	7702		Head	21.2	21.1	24.8	1.140	22.80	- 8.06	± 10
2 600	04/06/2023	7702	1015	Head	21.8	21.5	25.2	1.180	23.60	- 6.35	± 10
2 600	04/10/2023	7702		Head	21.5	21.6	25.2	1.270	25.40	+ 0.79	± 10
5 250	04/12/2023	7751	1253	Head	20.3	20.0	22.9	1.220	24.40	+ 6.55	± 10
5 600	04/04/2023	7679		Head	19.1	19.3	23.5	1.170	23.40	- 0.43	± 10
5 750	04/05/2023	7679		Head	19.2	19.5	22.6	1.120	22.40	- 0.88	± 10
5 800	04/06/2023	7679	1107	Head	22.0	21.8	23.0	1.180	23.60	+ 2.61	± 10

5G NR SUB 6

Freq. [MHz]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR _{1g} (SPEAG) [W/kg]	50mW Measured SAR _{1g} [W/kg]	1 W Normalized SAR _{1g} [W/kg]	Deviation [%]	Limit [%]
835	04/10/2023	3076	441	Head	22.0	22.1	9.73	0.497	9.94	+ 2.16	± 10
835	04/11/2023	3076		Head	21.5	21.2	9.73	0.498	9.96	+ 2.36	± 10
835	04/10/2023	3076		Head	22.0	22.1	9.73	0.498	9.96	+ 2.36	± 10
1 800	04/03/2023	7732	2d007	Head	23.6	23.5	38.2	1.910	38.20	+ 0.00	± 10
1 800	04/04/2023	7732		Head	21.8	21.7	38.2	1.920	38.40	+ 0.52	± 10
1 800	04/10/2023	7751		Head	20.8	20.7	38.2	1.880	37.60	- 1.57	± 10
1 800	04/10/2023	7751		Head	20.8	20.7	38.2	1.880	37.60	- 1.57	± 10
1 900	04/05/2023	7751	5d061	Head	20.1	20.0	38.9	1.990	39.80	+ 2.31	± 10
1 900	04/06/2023	7751		Head	20.9	20.7	38.9	1.980	39.60	+ 1.80	± 10
1 900	04/05/2023	7751		Head	20.1	20.0	38.9	1.980	39.60	+ 1.80	± 10
1 900	04/06/2023	7751		Head	20.9	20.7	38.9	1.980	39.60	+ 1.80	± 10
2 600	04/07/2023	7751	1015	Head	21.0	20.8	56.3	3.080	61.60	+ 9.41	± 10
2 600	04/07/2023	7702		Head	21.5	21.3	56.3	2.860	57.20	+ 1.60	± 10
2 600	04/07/2023	7751		Head	21.0	20.8	56.3	2.910	58.20	+ 3.37	± 10
2 600	04/07/2023	7702		Head	21.5	21.3	56.3	2.860	57.20	+ 1.60	± 10
2 600	05/03/2023	7370		Head	21.5	21.3	56.3	2.940	58.80	+ 4.44	± 10
2 600	05/04/2023	7370		Head	21.2	21.0	56.3	2.930	58.60	+ 4.09	± 10
3 500	04/10/2023	7681	1040	Head	20.4	20.2	66.5	3.370	67.40	+ 1.35	± 10
3 500	04/11/2023	7681		Head	20.9	20.8	66.5	3.320	66.40	- 0.15	± 10
3 500	04/26/2023	7681		Head	20.5	20.3	66.5	3.070	61.40	- 7.67	± 10
3 500	04/27/2023	7681		Head	19.9	19.7	66.5	3.290	65.80	- 1.05	± 10
3 700	04/10/2023	7681	1066	Head	20.4	20.2	67.9	3.400	68.00	+ 0.15	± 10
3 700	04/11/2023	7681		Head	20.9	20.8	67.9	3.400	68.00	+ 0.15	± 10
3 700	04/26/2023	7681		Head	20.5	20.3	67.9	3.620	72.40	+ 6.63	± 10
3 700	04/27/2023	7681		Head	19.9	19.7	67.9	3.600	72.00	+ 6.04	± 10
3 900	04/10/2023	7681	1086	Head	20.4	20.2	68.9	3.420	68.40	- 0.73	± 10
3 900	04/11/2023	7681		Head	20.9	20.8	68.9	3.380	67.60	- 1.89	± 10
3 900	04/26/2023	7681		Head	20.5	20.3	68.9	3.560	71.20	+ 3.34	± 10
3 900	04/27/2023	7681		Head	19.9	19.7	68.9	3.570	71.40	+ 3.63	± 10

System Verification Results – NR Extremity SAR

Input Power: 50 mW

Freq.	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR _{10g} (SPEAG)	50mW Measured SAR _{10g}	1 W Normalized SAR _{10g}	Deviation	Limit
[MHz]					[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
835	04/10/2023	3076	441	Head	22.0	22.1	6.33	0.334	6.68	+ 5.53	± 10
1 800	04/04/2023	7732	2d007	Head	21.8	21.7	19.8	1.020	20.40	+ 3.03	± 10
1 800	04/10/2023	7751		Head	20.8	20.7	19.8	0.991	19.82	+ 0.10	± 10
1 900	04/05/2023	7751	5d061	Head	20.1	20.0	20.3	1.030	20.60	+ 1.48	± 10
1 900	04/06/2023	7751		Head	20.9	20.7	20.3	1.030	20.60	+ 1.48	± 10
2 600	04/07/2023	7751	1015	Head	21.0	20.8	25.2	1.350	27.00	+ 7.14	± 10
2 600	04/07/2023	7702		Head	21.5	21.3	25.2	1.250	25.00	- 0.79	± 10
2 600	05/03/2023	7370		Head	21.5	21.3	25.2	1.270	25.40	+ 0.79	± 10
2 600	05/04/2023	7370		Head	21.2	21.0	25.2	1.270	25.40	+ 0.79	± 10
3 500	04/11/2023	7681	1040	Head	20.9	20.8	24.9	1.290	25.80	+ 3.61	± 10
3 500	04/28/2023	7681		Head	20.3	20.0	24.9	1.310	26.20	+ 5.22	± 10
3 700	04/11/2023	7681	1066	Head	20.9	20.8	24.7	1.270	25.40	+ 2.83	± 10
3 700	04/28/2023	7681		Head	20.3	20.0	24.7	1.350	27.00	+ 9.31	± 10
3 900	04/11/2023	7681	1086	Head	20.9	20.8	23.9	1.210	24.20	+ 1.26	± 10
3 900	04/28/2023	7681		Head	20.3	20.0	23.9	1.270	25.40	+ 6.28	± 10

12.3 System Verification Procedure

SAR measurement was prior to assessment; the system is verified to the $\pm 10\%$ of the specifications at each frequency Band by using the system verification kit. (Graphic Plots Attached)

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

Note;

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

13. SAR Test Data Summary

13.1 Head SAR Measurement Results

GSM 850 Head SAR													
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)				(W/kg)		(W/kg)	
848.8	251	GSM	A	33.0	32.57	0.14	Left Cheek	1:8.3	0	0.026	1.104	0.029	-
848.8	251	GSM	A	33.0	32.57	-0.03	Left Tilt	1:8.3	0	0.015	1.104	0.017	-
848.8	251	GSM	A	33.0	32.57	0.11	Right Cheek	1:8.3	0	0.034	1.104	0.038	-
848.8	251	GSM	A	33.0	32.57	-0.13	Right Tilt	1:8.3	0	0.014	1.104	0.015	-
836.6	190	GPRS 2Tx	A	32.5	31.58	0.16	Left Cheek	1:4.15	0	0.032	1.236	0.040	A1
836.6	190	GPRS 2Tx	A	32.5	31.58	0.19	Left Tilt	1:4.15	0	0.017	1.236	0.021	-
836.6	190	GPRS 2Tx	A	32.5	31.58	0.13	Right Cheek	1:4.15	0	0.017	1.236	0.021	-
836.6	190	GPRS 2Tx	A	32.5	31.58	0.10	Right Tilt	1:4.15	0	0.021	1.236	0.026	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram						

GSM 1900 Head SAR													
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)				(W/kg)		(W/kg)	
1 880	661	GSM	B	30.5	29.49	0.13	Left Cheek	1:8.3		0.034	1.262	0.043	-
1 880	661	GSM	B	30.5	29.49	0.14	Left Tilt	1:8.3		0.028	1.262	0.035	-
1 880	661	GSM	B	30.5	29.49	0.02	Right Cheek	1:8.3		0.032	1.262	0.040	-
1 880	661	GSM	B	30.5	29.49	0.11	Right Tilt	1:8.3		0.042	1.262	0.053	-
1 880	661	GPRS 3Tx	B	27.5	25.74	0.06	Left Cheek	1:2.76		0.044	1.500	0.066	-
1 880	661	GPRS 3Tx	B	27.5	25.74	0.15	Left Tilt	1:2.76		0.026	1.500	0.039	-
1 880	661	GPRS 3Tx	B	27.5	25.74	-0.14	Right Cheek	1:2.76		0.040	1.500	0.060	-
1 880	661	GPRS 3Tx	B	27.5	25.74	0.08	Right Tilt	1:2.76		0.055	1.500	0.082	A2
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram						

UMTS Band 5 Head SAR													
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)				(W/kg)		(W/kg)	
836.6	4183	RMC	A	25.5	24.40	0.09	Left Cheek	1:1	18	0.119	1.288	0.153	-
836.6	4183	RMC	A	25.5	24.40	0.01	Left Tilt	1:1	18	0.087	1.288	0.112	-
836.6	4183	RMC	A	25.5	24.40	0.13	Right Cheek	1:1	18	0.128	1.288	0.165	A3
836.6	4183	RMC	A	25.5	24.40	0.07	Right Tilt	1:1	18	0.081	1.288	0.104	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg (mW/g) Averaged over 1 gram						

UMTS Band 4 Head SAR

Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
1 712.4	1312	RMC	B	24.8	24.39	0.03	Left Cheek	1:1	0.091	1.099	0.100	A4
1 712.4	1312	RMC	B	24.8	24.39	0.01	Left Tilt	1:1	0.072	1.099	0.079	-
1 712.4	1312	RMC	B	24.8	24.39	0.06	Right Cheek	1:1	0.053	1.099	0.058	-
1 712.4	1312	RMC	B	24.8	24.39	0.08	Right Tilt	1:1	0.076	1.099	0.084	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg (mW/g) Averaged over 1 gram					

UMTS Band 2 Head SAR

Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
1 880	9400	RMC	B	24.8	23.58	-0.07	Left Cheek	1:1	0.069	1.324	0.091	-
1 880	9400	RMC	B	24.8	23.58	-0.09	Left Tilt	1:1	0.072	1.324	0.095	-
1 880	9400	RMC	B	24.8	23.58	0.01	Right Cheek	1:1	0.079	1.324	0.105	A5
1 880	9400	RMC	B	24.8	23.58	-0.00	Right Tilt	1:1	0.065	1.324	0.086	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg (mW/g) Averaged over 1 gram					

LTE Band 5 Head SAR

Frequency		Mode	Band width	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.				(dBm)	(dBm)	(dB)							(W/kg)		(W/kg)	
836.5	20525	QPSK	10	A	25.5	24.51	-0.12	Left Cheek	0	1	49	1:1	18	0.109	1.256	0.137	A6
836.5	20525	QPSK	10	A	24.5	23.50	0.07	Left Cheek	1	25	24	1:1	18	0.088	1.259	0.111	-
836.5	20525	QPSK	10	A	25.5	24.51	-0.05	Left Tilt	0	1	49	1:1	18	0.055	1.256	0.069	-
836.5	20525	QPSK	10	A	24.5	23.50	0.02	Left Tilt	1	25	24	1:1	18	0.044	1.259	0.055	-
836.5	20525	QPSK	10	A	25.5	24.51	0.02	Right Cheek	0	1	49	1:1	18	0.107	1.256	0.134	-
836.5	20525	QPSK	10	A	24.5	23.50	0.18	Right Cheek	1	25	24	1:1	18	0.088	1.259	0.111	-
836.5	20525	QPSK	10	A	25.5	24.51	0.08	Right Tilt	0	1	49	1:1	18	0.039	1.256	0.049	-
836.5	20525	QPSK	10	A	24.5	23.50	0.17	Right Tilt	1	25	24	1:1	18	0.032	1.259	0.040	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram									

LTE Band 12 Head SAR																	
Frequency		Mode	Band width	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)		(dBm)	(dBm)	(dB)		(dB)					(W/kg)		(W/kg)	
707.5	23095	QPSK	10	A+B	25.5	24.01	-0.12	Left Cheek	0	1	49	1:1	9	0.075	1.409	0.106	-
707.5	23095	QPSK	10	A+B	24.5	23.04	0.11	Left Cheek	1	25	12	1:1	9	0.068	1.400	0.095	-
707.5	23095	QPSK	10	A+B	25.5	24.01	0.10	Left Tilt	0	1	49	1:1	9	0.042	1.409	0.059	-
707.5	23095	QPSK	10	A+B	24.5	23.04	0.09	Left Tilt	1	25	12	1:1	9	0.035	1.400	0.049	-
707.5	23095	QPSK	10	A+B	25.5	24.01	0.03	Right Cheek	0	1	49	1:1	9	0.142	1.409	0.200	A7
707.5	23095	QPSK	10	A+B	24.5	23.04	0.12	Right Cheek	1	25	12	1:1	9	0.120	1.400	0.168	-
707.5	23095	QPSK	10	A+B	25.5	24.01	0.08	Right Tilt	0	1	49	1:1	9	0.034	1.409	0.048	-
707.5	23095	QPSK	10	A+B	24.5	23.04	0.00	Right Tilt	1	25	12	1:1	9	0.030	1.400	0.042	-
707.5	23095	QPSK	10	A	25.5	24.01	0.03	Left Cheek	0	1	49	1:1	13	0.076	1.409	0.107	-
707.5	23095	QPSK	10	A	24.5	23.04	0.02	Left Cheek	1	25	12	1:1	13	0.063	1.400	0.088	-
707.5	23095	QPSK	10	A	25.5	24.01	-0.08	Left Tilt	0	1	49	1:1	13	0.031	1.409	0.044	-
707.5	23095	QPSK	10	A	24.5	23.04	0.04	Left Tilt	1	25	12	1:1	13	0.027	1.400	0.038	-
707.5	23095	QPSK	10	A	25.5	24.01	0.09	Right Cheek	0	1	49	1:1	13	0.107	1.409	0.151	A8
707.5	23095	QPSK	10	A	24.5	23.04	0.08	Right Cheek	1	25	12	1:1	13	0.091	1.400	0.127	-
707.5	23095	QPSK	10	A	25.5	24.01	0.06	Right Tilt	0	1	49	1:1	13	0.034	1.409	0.048	-
707.5	23095	QPSK	10	A	24.5	23.04	0.14	Right Tilt	1	25	12	1:1	13	0.030	1.400	0.042	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram									

LTE Band 13 Head SAR																	
Frequency		Mode	Band width	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)		(dBm)	(dBm)	(dB)		(dB)					(W/kg)		(W/kg)	
782	23230	QPSK	10	A+B	24.0	23.03	0.04	Left Cheek	0	1	49	1:1	81	0.089	1.250	0.111	-
782	23230	QPSK	10	A+B	23.0	21.96	0.01	Left Cheek	1	25	24	1:1	81	0.074	1.271	0.094	-
782	23230	QPSK	10	A+B	24.0	23.03	0.01	Left Tilt	0	1	49	1:1	81	0.050	1.250	0.063	-
782	23230	QPSK	10	A+B	23.0	21.96	0.08	Left Tilt	1	25	24	1:1	81	0.043	1.271	0.055	-
782	23230	QPSK	10	A+B	24.0	23.03	0.14	Right Cheek	0	1	49	1:1	81	0.141	1.250	0.176	A9
782	23230	QPSK	10	A+B	23.0	21.96	0.08	Right Cheek	1	25	24	1:1	81	0.110	1.271	0.140	-
782	23230	QPSK	10	A+B	24.0	23.03	0.11	Right Tilt	0	1	49	1:1	81	0.066	1.250	0.083	-
782	23230	QPSK	10	A+B	23.0	21.96	-0.07	Right Tilt	1	25	24	1:1	81	0.051	1.271	0.065	-
782	23230	QPSK	10	A	24.0	23.03	-0.14	Left Cheek	0	1	49	1:1	0	0.056	1.250	0.070	-
782	23230	QPSK	10	A	23.0	21.96	0.17	Left Cheek	1	25	24	1:1	0	0.047	1.271	0.060	-
782	23230	QPSK	10	A	24.0	23.03	0.12	Left Tilt	0	1	49	1:1	0	0.031	1.250	0.039	-
782	23230	QPSK	10	A	23.0	21.96	0.10	Left Tilt	1	25	24	1:1	0	0.026	1.271	0.033	-
782	23230	QPSK	10	A	24.0	23.03	-0.11	Right Cheek	0	1	49	1:1	0	0.093	1.250	0.116	A10
782	23230	QPSK	10	A	23.0	21.96	0.12	Right Cheek	1	25	24	1:1	0	0.073	1.271	0.093	-
782	23230	QPSK	10	A	24.0	23.03	0.17	Right Tilt	0	1	49	1:1	0	0.045	1.250	0.056	-
782	23230	QPSK	10	A	23.0	21.96	0.18	Right Tilt	1	25	24	1:1	0	0.035	1.271	0.044	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram									

LTE Band 25 Head SAR																
Frequency		Mode	Band width	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)		(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 905	26590	QPSK	20	B	25.0	23.94	0.08	Left Cheek	0	1	49	1:1	0.052	1.276	0.066	-
1 860	26140	QPSK	20	B	24.0	22.80	0.05	Left Cheek	1	50	25	1:1	0.055	1.318	0.073	-
1 905	26590	QPSK	20	B	25.0	23.94	0.11	Left Tilt	0	1	49	1:1	0.075	1.276	0.096	-
1 860	26140	QPSK	20	B	24.0	22.80	0.17	Left Tilt	1	50	25	1:1	0.044	1.318	0.058	-
1 905	26590	QPSK	20	B	25.0	23.94	-0.15	Right Cheek	0	1	49	1:1	0.104	1.276	0.133	A11
1 860	26140	QPSK	20	B	24.0	22.80	0.12	Right Cheek	1	50	25	1:1	0.071	1.318	0.094	-
1 905	26590	QPSK	20	B	25.0	23.94	-0.07	Right Tilt	0	1	49	1:1	0.082	1.276	0.105	-
1 860	26140	QPSK	20	B	24.0	22.80	0.02	Right Tilt	1	50	25	1:1	0.064	1.318	0.084	-
1 905	26590	QPSK	20	F	23.5	22.70	-0.09	Left Cheek	0	1	99	1:1	0.586	1.202	0.705	-
1 905	26590	QPSK	20	F	23.5	22.43	-0.02	Left Cheek	0	50	25	1:1	0.593	1.279	0.759	-
1 860	26140	QPSK	20	F	23.5	22.28	0.00	Left Tilt	0	1	99	1:1	0.640	1.324	0.848	-
1 882.5	26365	QPSK	20	F	23.5	22.30	0.03	Left Tilt	0	1	99	1:1	0.739	1.318	0.974	-
1 905	26590	QPSK	20	F	23.5	22.70	-0.10	Left Tilt	0	1	99	1:1	0.753	1.202	0.905	-
1 860	26140	QPSK	20	F	23.5	22.12	0.00	Left Tilt	0	50	25	1:1	0.584	1.374	0.802	-
1 882.5	26365	QPSK	20	F	23.5	22.15	0.15	Left Tilt	0	50	25	1:1	0.713	1.365	0.973	-
1 905	26590	QPSK	20	F	23.5	22.43	0.02	Left Tilt	0	50	25	1:1	0.767	1.279	0.981	-
1 905	26590	QPSK	20	F	23.5	22.31	-0.02	Left Tilt	0	100	0	1:1	0.768	1.315	1.010	-
1 905	26590	QPSK	20	F	23.5	22.70	0.03	Right Cheek	0	1	99	1:1	0.609	1.202	0.732	-
1 905	26590	QPSK	20	F	23.5	22.43	0.06	Right Cheek	0	50	25	1:1	0.611	1.279	0.782	-
1 860	26140	QPSK	20	F	23.5	22.28	0.00	Right Tilt	0	1	99	1:1	0.698	1.324	0.924	-
1 882.5	26365	QPSK	20	F	23.5	22.30	0.05	Right Tilt	0	1	99	1:1	0.796	1.318	1.049	-
1 905	26590	QPSK	20	F	23.5	22.70	-0.12	Right Tilt	0	1	99	1:1	0.782	1.202	0.940	-
1 860	26140	QPSK	20	F	23.5	22.12	0.08	Right Tilt	0	50	25	1:1	0.684	1.374	0.940	-
1 882.5	26365	QPSK	20	F	23.5	22.15	-0.07	Right Tilt	0	50	25	1:1	0.786	1.365	1.073	-
1 905	26590	QPSK	20	F	23.5	22.43	0.03	Right Tilt	0	50	25	1:1	0.824	1.279	1.054	-
1 905	26590	QPSK	20	F	23.5	22.31	0.01	Right Tilt	0	100	0	1:1	0.828	1.315	1.089	A12
1 905	26590	QPSK	20	F	23.5	22.31	0.05	Right Tilt	0	100	0	1:1	0.751	1.315	0.988	*
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

Note: * Data entry indicate Variability measurement.

LTE Band 26 Head SAR																	
Frequency		Mode	Band width	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)		(dBm)	(dBm)	(dB)		(dB)					(W/kg)		(W/kg)	
831.5	26865	QPSK	15	A	25.5	24.37	-0.01	Left Cheek	0	1	74	1:1	18	0.108	1.297	0.140	-
831.5	26865	QPSK	15	A	24.5	23.42	0.05	Left Cheek	1	36	0	1:1	18	0.090	1.282	0.115	-
831.5	26865	QPSK	15	A	25.5	24.37	0.19	Left Tilt	0	1	74	1:1	18	0.057	1.297	0.074	-
831.5	26865	QPSK	15	A	24.5	23.42	0.07	Left Tilt	1	36	0	1:1	18	0.047	1.282	0.060	-
831.5	26865	QPSK	15	A	25.5	24.37	0.19	Right Cheek	0	1	74	1:1	18	0.114	1.297	0.148	A13
831.5	26865	QPSK	15	A	24.5	23.42	0.03	Right Cheek	1	36	0	1:1	18	0.099	1.282	0.127	-
831.5	26865	QPSK	15	A	25.5	24.37	0.06	Right Tilt	0	1	74	1:1	18	0.043	1.297	0.056	-
831.5	26865	QPSK	15	A	24.5	23.42	0.13	Right Tilt	1	36	0	1:1	18	0.038	1.282	0.049	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram									

LTE Band 41 Head SAR																
Frequency		Mode	Band width	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)		(dBm)	(dBm)	(dB)		(dB)						(W/kg)	
2 636.5	41055	QPSK	20	B	25.0	23.57	0.04	Left Cheek	0	1	0	1:1.58	0.020	1.390	0.028	-
2 636.5	41055	QPSK	20	B	24.0	22.72	0.11	Left Cheek	1	50	0	1:1.58	0.024	1.343	0.032	-
2 636.5	41055	QPSK	20	B	25.0	23.57	-0.12	Left Tilt	0	1	0	1:1.58	0.018	1.390	0.025	-
2 636.5	41055	QPSK	20	B	24.0	22.72	0.18	Left Tilt	1	50	0	1:1.58	0.014	1.343	0.019	-
2 636.5	41055	QPSK	20	B	25.0	23.57	0.19	Right Cheek	0	1	0	1:1.58	0.051	1.390	0.071	A14
2 636.5	41055	QPSK	20	B	24.0	22.72	0.00	Right Cheek	1	50	0	1:1.58	0.040	1.343	0.054	-
2 636.5	41055	QPSK	20	B	25.0	23.57	0.00	Right Tilt	0	1	0	1:1.58	0.00205	1.390	0.003	-
2 636.5	41055	QPSK	20	B	24.0	22.72	0.00	Right Tilt	1	50	0	1:1.58	0.00145	1.343	0.002	-
2 636.5	41055	QPSK	20	B	26.5	25.57	0.12	Right Tilt	0	1	0	1:2.31	0.048	1.239	0.059	***-
2 593.0	40620	QPSK	20	F	25.0	23.88	-0.04	Left Cheek	0	1	0	1:1.58	0.253	1.294	0.327	-
2 593.0	40620	QPSK	20	F	24.0	23.00	0.18	Left Cheek	1	50	0	1:1.58	0.204	1.259	0.257	-
2 593.0	40620	QPSK	20	F	25.0	23.88	0.08	Left Tilt	0	1	0	1:1.58	0.380	1.294	0.492	A15
2 593.0	40620	QPSK	20	F	24.0	23.00	0.07	Left Tilt	1	50	0	1:1.58	0.309	1.259	0.389	-
2 593.0	40620	QPSK	20	F	25.0	23.88	0.02	Right Cheek	0	1	0	1:1.58	0.246	1.294	0.318	-
2 593.0	40620	QPSK	20	F	24.0	23.00	0.18	Right Cheek	1	50	0	1:1.58	0.198	1.259	0.249	-
2 593.0	40620	QPSK	20	F	25.0	23.88	0.11	Right Tilt	0	1	0	1:1.58	0.304	1.294	0.393	-
2 593.0	40620	QPSK	20	F	24.0	23.00	0.17	Right Tilt	1	50	0	1:1.58	0.242	1.259	0.305	-
2 593.0	40620	QPSK	20	F	26.5	25.30	-0.14	Left Tilt	0	1	0	1:2.31	0.335	1.318	0.442	***
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

Note: * Data entry indicate Variability measurement.
 ** Data entry indicate DoD Test Data.
 *** Data entry indicate PowerClass2 Test Data.



LTE Band 66 Head SAR																
Frequency		Mode	Band width	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)		(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 720	132072	QPSK	20	B	25.0	24.08	0.02	Left Cheek	0	1	99	1:1	0.095	1.236	0.117	-
1 770	132572	QPSK	20	B	24.0	23.02	0.03	Left Cheek	1	50	49	1:1	0.075	1.253	0.094	-
1 720	132072	QPSK	20	B	25.0	24.08	0.10	Left Tilt	0	1	99	1:1	0.081	1.236	0.100	-
1 770	132572	QPSK	20	B	24.0	23.02	0.16	Left Tilt	1	50	49	1:1	0.067	1.253	0.084	-
1 720	132072	QPSK	20	B	25.0	24.08	0.05	Right Cheek	0	1	99	1:1	0.072	1.236	0.089	-
1 770	132572	QPSK	20	B	24.0	23.02	0.18	Right Cheek	1	50	49	1:1	0.059	1.253	0.074	-
1 720	132072	QPSK	20	B	25.0	24.08	0.17	Right Tilt	0	1	99	1:1	0.108	1.236	0.133	A16
1 770	132572	QPSK	20	B	24.0	23.02	0.17	Right Tilt	1	50	49	1:1	0.094	1.253	0.118	-
1 745	132322	QPSK	20	F	23.5	23.05	-0.01	Left Cheek	0	1	0	1:1	0.520	1.109	0.577	-
1 745	132322	QPSK	20	F	23.5	22.82	0.04	Left Cheek	0	50	49	1:1	0.515	1.169	0.602	-
1 720	132072	QPSK	20	F	23.5	22.58	-0.17	Left Tilt	0	1	99	1:1	0.756	1.236	0.934	-
1 745	132322	QPSK	20	F	23.5	23.05	0.03	Left Tilt	0	1	0	1:1	0.769	1.109	0.853	-
1 770	132572	QPSK	20	F	23.5	22.94	0.02	Left Tilt	0	1	0	1:1	0.706	1.138	0.803	-
1 720	132072	QPSK	20	F	23.5	22.44	-0.11	Left Tilt	0	50	49	1:1	0.825	1.276	1.053	-
1 745	132322	QPSK	20	F	23.5	22.82	-0.03	Left Tilt	0	50	49	1:1	0.731	1.169	0.855	-
1 770	132572	QPSK	20	F	23.5	22.72	0.01	Left Tilt	0	50	25	1:1	0.771	1.197	0.923	-
1 770	132572	QPSK	20	F	23.5	22.74	-0.06	Left Tilt	0	100	0	1:1	0.779	1.191	0.928	-
1 745	132322	QPSK	20	F	23.5	23.05	0.06	Right Cheek	0	1	0	1:1	0.589	1.109	0.653	-
1 745	132322	QPSK	20	F	23.5	22.82	-0.06	Right Cheek	0	50	49	1:1	0.592	1.169	0.692	-
1 720	132072	QPSK	20	F	23.5	22.58	0.07	Right Tilt	0	1	99	1:1	0.726	1.236	0.897	-
1 745	132322	QPSK	20	F	23.5	23.05	0.08	Right Tilt	0	1	0	1:1	0.729	1.109	0.809	-
1 770	132572	QPSK	20	F	23.5	22.94	-0.03	Right Tilt	0	1	0	1:1	0.687	1.138	0.782	-
1 720	132072	QPSK	20	F	23.5	22.44	0.03	Right Tilt	0	50	49	1:1	0.743	1.276	0.948	-
1 745	132322	QPSK	20	F	23.5	22.82	-0.04	Right Tilt	0	50	49	1:1	0.729	1.169	0.853	-
1 770	132572	QPSK	20	F	23.5	22.72	0.07	Right Tilt	0	50	25	1:1	0.685	1.197	0.820	-
1 770	132572	QPSK	20	F	23.5	22.74	-0.03	Right Tilt	0	100	0	1:1	0.683	1.191	0.814	-
1 720	132072	QPSK	20	F	23.5	22.44	-0.04	Left Tilt	0	50	49	1:1	0.826	1.276	1.054	A17*
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

Note: * Data entry indicate Variability measurement.



NR Band n5(Cell) Head SAR

Frequency		Modulation	Band width (MHz)	Ant. No.	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	MPR (dB)	RB Size	RB offset	Duty Cycle	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																
836.5	167300	DFT-s OFDM QPSK	20	A	25.0	24.33	0.03	Left Cheek	0	1	53	1:1	2	0.087	1.167	0.102	-
836.5	167300	DFT-s OFDM QPSK	20	A	25.0	24.31	0.10	Left Cheek	0	50	28	1:1	2	0.086	1.172	0.101	-
836.5	167300	DFT-s OFDM QPSK	20	A	25.0	24.33	0.12	Left Tilt	0	1	53	1:1	2	0.045	1.167	0.053	-
836.5	167300	DFT-s OFDM QPSK	20	A	25.0	24.31	-0.09	Left Tilt	0	50	28	1:1	2	0.044	1.172	0.052	-
836.5	167300	DFT-s OFDM QPSK	20	A	25.0	24.33	0.11	Right Cheek	0	1	53	1:1	2	0.092	1.167	0.107	A18
836.5	167300	DFT-s OFDM QPSK	20	A	25.0	24.31	0.11	Right Cheek	0	50	28	1:1	2	0.091	1.172	0.107	-
836.5	167300	DFT-s OFDM QPSK	20	A	25.0	24.33	0.18	Right Tilt	0	1	53	1:1	2	0.056	1.167	0.065	-
836.5	167300	DFT-s OFDM QPSK	20	A	25.0	24.31	0.07	Right Tilt	0	50	28	1:1	2	0.064	1.172	0.075	-
836.5	167300	CP QPSK	20	A	23.5	22.68	0.05	Left Cheek	1.5	1	1	1:1	2	0.065	1.208	0.079	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Head 1.6 W/kg Averaged over 1 gram								

NR Band n25 Head SAR

Frequency		Modulation	Band width	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.															
1 882.5	376500	DFT-s OFDM QPSK	40	B	24.0	23.80	0.07	Left Cheek	0	1	1	1:1	0.075	1.047	0.079	A19
1 882.5	376500	DFT-s OFDM QPSK	40	B	24.0	23.67	-0.07	Left Cheek	0	108	54	1:1	0.057	1.079	0.061	-
1 882.5	376500	DFT-s OFDM QPSK	40	B	24.0	23.80	0.07	Left Tilt	0	1	1	1:1	0.058	1.047	0.061	-
1 882.5	376500	DFT-s OFDM QPSK	40	B	24.0	23.67	0.01	Left Tilt	0	108	54	1:1	0.051	1.079	0.055	-
1 882.5	376500	DFT-s OFDM QPSK	40	B	24.0	23.80	0.05	Right Cheek	0	1	1	1:1	0.052	1.047	0.054	-
1 882.5	376500	DFT-s OFDM QPSK	40	B	24.0	23.67	0.11	Right Cheek	0	108	54	1:1	0.059	1.079	0.064	-
1 882.5	376500	DFT-s OFDM QPSK	40	B	24.0	23.80	0.03	Right Tilt	0	1	1	1:1	0.063	1.047	0.066	-
1 882.5	376500	DFT-s OFDM QPSK	40	B	24.0	23.67	-0.04	Right Tilt	0	108	54	1:1	0.052	1.079	0.056	-
1 882.5	376500	CP QPSK	40	B	22.5	22.33	-0.04	Left Cheek	1.5	1	1	1:1	0.053	1.040	0.055	-
1 882.5	376500	DFT-s OFDM QPSK	40	F	23.5	23.30	-0.14	Left Cheek	0	1	1	1:1	0.614	1.047	0.643	-
1 882.5	376500	DFT-s OFDM QPSK	40	F	23.5	23.18	-0.12	Left Cheek	0	108	54	1:1	0.583	1.076	0.628	-
1 882.5	376500	DFT-s OFDM QPSK	40	F	23.5	23.30	0.03	Left Tilt	0	1	1	1:1	0.756	1.047	0.792	-
1 882.5	376500	DFT-s OFDM QPSK	40	F	23.5	23.18	-0.12	Left Tilt	0	108	54	1:1	0.841	1.076	0.905	A20
1 882.5	376500	DFT-s OFDM QPSK	40	F	23.0	22.97	-0.10	Left Tilt	0.5	216	0	1:1	0.758	1.007	0.763	-
1 882.5	376500	DFT-s OFDM QPSK	40	F	23.5	23.30	0.04	Right Cheek	0	1	1	1:1	0.665	1.047	0.696	-
1 882.5	376500	DFT-s OFDM QPSK	40	F	23.5	23.18	-0.04	Right Cheek	0	108	54	1:1	0.630	1.076	0.678	-
1 882.5	376500	DFT-s OFDM QPSK	40	F	23.5	23.30	0.13	Right Tilt	0	1	1	1:1	0.775	1.047	0.812	-
1 882.5	376500	DFT-s OFDM QPSK	40	F	23.5	23.18	0.09	Right Tilt	0	108	54	1:1	0.779	1.076	0.839	-
1 882.5	376500	DFT-s OFDM QPSK	40	F	23.0	22.97	-0.12	Right Tilt	0.5	216	0	1:1	0.677	1.007	0.682	-
1 882.5	376500	CP QPSK	40	F	22.5	22.23	-0.04	Left Tilt	1	1	1	1:1	0.492	1.064	0.524	-
1 882.5	376500	DFT-s OFDM QPSK	40	F	23.5	23.18	-0.03	Left Tilt	0	108	54	1:1	0.823	1.076	0.886	*
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Head 1.6 W/kg Averaged over 1 gram							

Note: * Data entry indicate Variability measurement.



NR Band n41 Head SAR

Frequency		Modulation	Band width	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.												(MHz)		(dBm)	
2 592.99	518598	DFT-s OFDM QPSK	100	B	23.0	22.11	-0.06	Left Cheek	0	1	271	1:1	0.058	1.227	0.071	-
2 592.99	518598	DFT-s OFDM QPSK	100	B	23.0	21.95	0.00	Left Cheek	0	135	69	1:1	0.024	1.274	0.031	-
2 592.99	518598	DFT-s OFDM QPSK	100	B	23.0	22.11	0.06	Left Tilt	0	1	271	1:1	0.045	1.227	0.055	-
2 592.99	518598	DFT-s OFDM QPSK	100	B	23.0	21.95	-0.07	Left Tilt	0	135	69	1:1	0.023	1.274	0.029	-
2 592.99	518598	DFT-s OFDM QPSK	100	B	23.0	22.11	0.05	Right Cheek	0	1	271	1:1	0.071	1.227	0.087	A21
2 592.99	518598	DFT-s OFDM QPSK	100	B	23.0	21.95	0.04	Right Cheek	0	135	69	1:1	0.035	1.274	0.045	-
2 592.99	518598	DFT-s OFDM QPSK	100	B	23.0	22.11	-0.08	Right Tilt	0	1	271	1:1	0.017	1.227	0.021	-
2 592.99	518598	DFT-s OFDM QPSK	100	B	23.0	21.95	-0.14	Right Tilt	0	135	69	1:1	0.010	1.274	0.013	-
2 592.99	518598	CP QPSK	100	B	23.0	22.03	0.16	Right Cheek	1.5	1	1	1:1	0.029	1.250	0.036	-
2 592.99	518598	DFT-s OFDM QPSK	100	F	21.0	20.08	-0.04	Left Cheek	0	1	271	1:1	0.204	1.236	0.252	-
2 592.99	518598	DFT-s OFDM QPSK	100	F	21.0	20.25	0.13	Left Cheek	0	135	69	1:1	0.274	1.189	0.326	-
2 592.99	518598	DFT-s OFDM QPSK	100	F	21.0	20.08	0.14	Left Tilt	0	1	271	1:1	0.259	1.236	0.320	-
2 592.99	518598	DFT-s OFDM QPSK	100	F	21.0	20.25	0.07	Left Tilt	0	135	69	1:1	0.343	1.189	0.408	-
2 592.99	518598	DFT-s OFDM QPSK	100	F	21.0	20.08	0.11	Right Cheek	0	1	271	1:1	0.195	1.236	0.241	-
2 592.99	518598	DFT-s OFDM QPSK	100	F	21.0	20.25	0.07	Right Cheek	0	135	69	1:1	0.232	1.189	0.276	-
2 592.99	518598	DFT-s OFDM QPSK	100	F	21.0	20.08	-0.11	Right Tilt	0	1	271	1:1	0.319	1.236	0.394	-
2 592.99	518598	DFT-s OFDM QPSK	100	F	21.0	20.25	0.10	Right Tilt	0	135	69	1:1	0.287	1.189	0.341	-
2 592.99	518598	CP QPSK	100	F	21.0	20.12	0.02	Left Tilt	0	1	1	1:1	0.395	1.225	0.484	A22
2 592.99	518598	CW	100	C	13.0	11.83	0.00	Left Cheek	0	-	-	1:1	0	1.303	0.000	-
2 592.99	518598	CW	100	C	13.0	11.83	0.00	Left Tilt	0	-	-	1:1	0	1.303	0.000	-
2 592.99	518598	CW	100	C	13.0	11.83	0.00	Right Cheek	0	-	-	1:1	0	1.303	0.000	-
2 592.99	518598	CW	100	C	13.0	11.83	0.00	Right Tilt	0	-	-	1:1	0	1.303	0.000	-
2 592.99	518598	CW	100	H	13.0	12.13	0.11	Left Cheek	0	-	-	1:1	0.043	1.222	0.053	-
2 592.99	518598	CW	100	H	13.0	12.13	0.13	Left Tilt	0	-	-	1:1	0.028	1.222	0.034	-
2 592.99	518598	CW	100	H	13.0	12.13	0.17	Right Cheek	0	-	-	1:1	0.020	1.222	0.024	-
2 592.99	518598	CW	100	H	13.0	12.13	-0.10	Right Tilt	0	-	-	1:1	0.014	1.222	0.017	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								



NR Band n66 Head SAR

Frequency		Modulation	Band width	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.		(Mhz)		(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 745	349000	DFT-s OFDM QPSK	40	B	24.5	23.93	0.19	Left Cheek	0	1	108	1:1	0.060	1.140	0.068	-
1 745	349000	DFT-s OFDM QPSK	40	B	24.5	23.96	-0.03	Left Cheek	0	108	54	1:1	0.066	1.132	0.075	A23
1 745	349000	DFT-s OFDM QPSK	40	B	24.5	23.93	0.12	Left Tilt	0	1	108	1:1	0.041	1.140	0.047	-
1 745	349000	DFT-s OFDM QPSK	40	B	24.5	23.96	0.06	Left Tilt	0	108	54	1:1	0.037	1.132	0.042	-
1 745	349000	DFT-s OFDM QPSK	40	B	24.5	23.93	0.11	Right Cheek	0	1	108	1:1	0.039	1.140	0.044	-
1 745	349000	DFT-s OFDM QPSK	40	B	24.5	23.96	0.12	Right Cheek	0	108	54	1:1	0.048	1.132	0.054	-
1 745	349000	DFT-s OFDM QPSK	40	B	24.5	23.93	-0.13	Right Tilt	0	1	108	1:1	0.046	1.140	0.052	-
1 745	349000	DFT-s OFDM QPSK	40	B	24.5	23.96	0.17	Right Tilt	0	108	54	1:1	0.052	1.132	0.059	-
1 745	349000	CP QPSK	40	B	23.0	22.24	0.12	Left Cheek	1.5	1	1	1:1	0.050	1.191	0.060	-
1 745	349000	DFT-s OFDM QPSK	40	F	23.5	23.01	0.10	Left Cheek	0	1	1	1:1	0.649	1.119	0.727	-
1 745	349000	DFT-s OFDM QPSK	40	F	23.5	22.83	-0.14	Left Cheek	0	108	54	1:1	0.515	1.167	0.601	-
1 745	349000	DFT-s OFDM QPSK	40	F	23.5	23.01	-0.14	Left Tilt	0	1	1	1:1	0.884	1.119	0.990	-
1 745	349000	DFT-s OFDM QPSK	40	F	23.5	22.83	-0.08	Left Tilt	0	108	54	1:1	0.949	1.167	1.107	A24
1 745	349000	DFT-s OFDM QPSK	40	F	23.0	22.32	-0.09	Left Tilt	0.5	216	0	1:1	0.682	1.169	0.798	
1 745	349000	DFT-s OFDM QPSK	40	F	23.5	23.01	-0.19	Right Cheek	0	1	1	1:1	0.704	1.119	0.788	-
1 745	349000	DFT-s OFDM QPSK	40	F	23.5	22.83	-0.10	Right Cheek	0	108	54	1:1	0.744	1.167	0.868	-
1 745	349000	DFT-s OFDM QPSK	40	F	23.0	22.32	0.01	Right Cheek	0.5	216	0	1:1	0.604	1.169	0.706	
1 745	349000	DFT-s OFDM QPSK	40	F	23.5	23.01	0.01	Right Tilt	0	1	1	1:1	0.919	1.119	1.029	-
1 745	349000	DFT-s OFDM QPSK	40	F	23.5	22.83	-0.01	Right Tilt	0	108	54	1:1	0.948	1.167	1.106	-
1 745	349000	DFT-s OFDM QPSK	40	F	23.0	22.32	-0.12	Right Tilt	0.5	216	0	1:1	0.743	1.169	0.869	
1 745	349000	CP QPSK	40	F	22.5	21.82	-0.04	Left Tilt	1	1	1	1:1	0.593	1.169	0.694	-
1 745	349000	DFT-s OFDM QPSK	40	F	23.5	22.83	-0.18	Left Tilt	0	108	54	1:1	0.897	1.167	1.047	*
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

Note: * Data entry indicate Variability measurement.

NR Band n77 Head SAR- Power class 3

Frequency		Modulation	Band width (MHz)	Ant. No.	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	MPR (dB)	RB Size	RB offset	Duty Cycle	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
Mhz	Ch.															
3 750	650000	DFT-s OFDM QPSK	100	F	18.0	17.40	0.14	Left Cheek	0	1	1	1:1	0.140	1.148	0.161	-
3 750	650000	DFT-s OFDM QPSK	100	F	18.0	17.44	0.18	Left Cheek	0	135	0	1:1	0.150	1.138	0.171	-
3 750	650000	DFT-s OFDM QPSK	100	F	18.0	17.40	0.12	Left Tilt	0	1	1	1:1	0.221	1.148	0.254	-
3 750	650000	DFT-s OFDM QPSK	100	F	18.0	17.44	0.10	Left Tilt	0	135	0	1:1	0.241	1.138	0.274	-
3 750	650000	DFT-s OFDM QPSK	100	F	18.0	17.40	0.16	Right Cheek	0	1	1	1:1	0.215	1.148	0.247	-
3 750	650000	DFT-s OFDM QPSK	100	F	18.0	17.44	-0.18	Right Cheek	0	135	0	1:1	0.254	1.138	0.289	-
3 750	650000	DFT-s OFDM QPSK	100	F	18.0	17.40	0.18	Right Tilt	0	1	1	1:1	0.318	1.148	0.365	-
3 750	650000	DFT-s OFDM QPSK	100	F	18.0	17.44	-0.04	Right Tilt	0	135	0	1:1	0.299	1.138	0.340	-
3 750	650000	CP QPSK	100	F	18.0	17.49	-0.08	Right Tilt	0	1	1	1:1	0.331	1.125	0.372	A25
3 500.01	633334	DFT-s OFDM QPSK	100	F	18.0	17.06	-0.06	Right Tilt	0	1	271	1:1	0.183	1.242	0.227	**
3 500.01	633334	DFT-s OFDM QPSK	100	F	18.0	16.83	0.08	Right Tilt	0	135	138	1:1	0.175	1.309	0.229	**
3 750	650000	CW	100	D	16.0	15.62	0.00	Left Cheek	0	-	-	1:1	0	1.091	0.000	-
3 750	650000	CW	100	D	16.0	15.62	0.00	Left Tilt	0	-	-	1:1	0	1.091	0.000	-
3 750	650000	CW	100	D	16.0	15.62	0.00	Right Cheek	0	-	-	1:1	0	1.091	0.000	-
3 750	650000	CW	100	D	16.0	15.62	0.00	Right Tilt	0	-	-	1:1	0	1.091	0.000	-
3 500.01	633334	CW DoD	100	D	16.0	14.49	0.00	Right Tilt	0	-	-	1:1	0.000353	1.416	0.0005	**
3 750	650000	CW	100	G	16.0	15.92	0.02	Left Cheek	0	-	-	1:1	0.139	1.019	0.135	-
3 750	650000	CW	100	G	16.0	15.92	-0.11	Left Tilt	0	-	-	1:1	0.179	1.019	0.179	-
3 750	650000	CW	100	G	16.0	15.92	-0.17	Right Cheek	0	-	-	1:1	0.116	1.019	0.118	-
3 750	650000	CW	100	G	16.0	15.92	0.10	Right Tilt	0	-	-	1:1	0.152	1.019	0.155	-
3 500.01	633334	CW DoD	100	G	16.0	14.69	-0.08	Left Tilt	0	-	-	1:1	0.127	1.352	0.172	**
3 750	650000	CW	100	A	16.0	15.78	0.00	Left Cheek	0	-	-	1:1	0	1.052	0.000	-
3 750	650000	CW	100	A	16.0	15.78	0.00	Left Tilt	0	-	-	1:1	0	1.052	0.000	-
3 750	650000	CW	100	A	16.0	15.78	0.00	Right Cheek	0	-	-	1:1	0.00937	1.052	0.010	-
3 750	650000	CW	100	A	16.0	15.78	0.00	Right Tilt	0	-	-	1:1	0	1.052	0.000	-
3 500.01	633334	CW DoD	100	A	16.0	15.01	-0.09	Right Cheek	0	-	-	1:1	0.038	1.256	0.048	**

ANSI/ IEEE C95.1 - 2005- Safety Limit

Spatial Peak

Uncontrolled Exposure/ General Population

Head

1.6 W/kg

Averaged over 1 gram

Note: * Data entry indicate Variability measurement.

** Data entry indicate DoD Test Data.

DTS Head SAR RCV-on

Frequency		Mode	Band width	Ant. No.	Data Rate	Tune- Up Limit	Meas. Power	Power Drift	Test Position	Ant. Config.	Duty Cycle	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)		(Mbps)	(dBm)	(dBm)	(dB)				(W/kg)	(W/kg)		(Duty)	(W/kg)	
2 437	6	802.11b	20	G	1	17.0	16.48	-0.16	Left Cheek	WIFI2	98.9	0.615	0.308	1.127	1.011	0.351	A26
2 437	6	802.11b	20	G	1	17.0	16.48	0.10	Left Tilt	WIFI2	98.9	0.629	0.305	1.127	1.011	0.348	-
2 437	6	802.11b	20	G	1	17.0	16.48	0.19	Right Cheek	WIFI2	98.9	0.494	0.258	1.127	1.011	0.294	-
2 437	6	802.11b	20	G	1	17.0	16.48	0.10	Right Tilt	WIFI2	98.9	0.534	0.300	1.127	1.011	0.342	-
2 437	6	802.11b	20	H+G	1	20.0	19.74	-0.15	Left Cheek	MIMO	98.9	0.925	0.569	1.127	1.011	0.648	-
2 437	6	802.11b	20	H+G	1	20.0	19.74	0.00	Left Tilt	MIMO	98.9	1.52	0.659	1.127	1.011	0.751	A27
2 437	6	802.11b	20	H+G	1	20.0	19.74	0.03	Right Cheek	MIMO	98.9	0.834	0.433	1.127	1.011	0.493	-
2 437	6	802.11b	20	H+G	1	20.0	19.74	0.12	Right Tilt	MIMO	98.9	1.03	0.572	1.127	1.011	0.652	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population												Head 1.6 W/kg Averaged over 1 gram					

- For the SAR measurement results of MIMO Ant Mode(802.11b), higher power scaling factor among each SISO ANT was applied.

NII Head SAR

Frequency		Mode	Band width (MHz)	Ant. No.	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant. Config.	Duty Cycle	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.				(Mbps)	(dBm)	(dBm)	(dB)				(W/kg)	(W/kg)		(Duty)	(W/kg)	
5 270	54	802.11n	40	H+J	MCS8	21.0	19.87	-0.12	Left Cheek	MIMO	86.8	0.172	0.053	1.303	1.152	0.080	-
5 270	54	802.11n	40	H+J	MCS8	21.0	19.87	0.00	Left Tilt	MIMO	86.8	0.10	0.033	1.303	1.152	0.050	-
5 270	54	802.11n	40	H+J	MCS8	21.0	19.87	-0.10	Right Cheek	MIMO	86.8	0.242	0.055	1.303	1.152	0.083	-
5 270	54	802.11n	40	H+J	MCS8	21.0	19.87	0.00	Right Tilt	MIMO	86.8	0.0630	0.019	1.303	1.152	0.029	-
5 690	138	802.11ac	80	H+J	MCS0	21.0	20.48	-0.10	Left Cheek	MIMO	86.2	0.593	0.055	1.294	1.160	0.083	-
5 690	138	802.11ac	80	H+J	MCS0	21.0	20.48	0.00	Left Tilt	MIMO	86.2	0	0	1.294	1.160	0.000	-
5 690	138	802.11ac	80	H+J	MCS0	21.0	20.48	-0.10	Right Cheek	MIMO	86.2	0.874	0.086	1.294	1.160	0.129	A28
5 690	138	802.11ac	80	H+J	MCS0	21.0	20.48	0.00	Right Tilt	MIMO	86.2	0	0	1.294	1.160	0.000	-
5 775	155	802.11ac	80	H+J	MCS0	21.0	20.55	-0.09	Left Cheek	MIMO	86.2	0.163	0.050	1.143	1.160	0.066	-
5 775	155	802.11ac	80	H+J	MCS0	21.0	20.55	0.00	Left Tilt	MIMO	86.2	0.0498	0.014	1.143	1.160	0.019	-
5 775	155	802.11ac	80	H+J	MCS0	21.0	20.55	0.00	Right Cheek	MIMO	86.2	0.346	0.074	1.143	1.160	0.098	-
5 775	155	802.11ac	80	H+J	MCS0	21.0	20.55	-0.12	Right Tilt	MIMO	86.2	0.0845	0.015	1.143	1.160	0.020	-
5 855	171	802.11ac	80	H+J	MCS0	21.0	20.30	-0.10	Left Cheek	MIMO	86.2	0.337	0.067	1.309	1.160	0.102	-
5 855	171	802.11ac	80	H+J	MCS0	21.0	20.30	0.00	Left Tilt	MIMO	86.2	0	0	1.309	1.160	0.000	-
5 855	171	802.11ac	80	H+J	MCS0	21.0	20.30	0.00	Right Cheek	MIMO	86.2	0.414	0.080	1.309	1.160	0.121	-
5 855	171	802.11ac	80	H+J	MCS0	21.0	20.30	0.00	Right Tilt	MIMO	86.2	0.00441	0.001	1.309	1.160	0.002	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population												Head 1.6 W/kg Averaged over 1 gram					

- For the SAR measurement results of MIMO Ant Mode(802.11n 40MHz BW, 802.11ac 80MHz BW), higher power scaling factor among each SISO ANT was applied.

DSS Head SAR													
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant Config.	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dBm)	(dBm)	(dB)			(W/kg)			(Duty)	(W/kg)
2 441	39	Bluetooth DH5	H	18.0	17.44	0.06	Left Cheek	Ant.1	0.194	1.138	1.016	0.224	A29
2 441	39	Bluetooth DH5	H	18.0	17.44	0.08	Left Tilt	Ant.1	0.056	1.138	1.016	0.065	-
2 441	39	Bluetooth DH5	H	18.0	17.44	-0.19	Right Cheek	Ant.1	0.152	1.138	1.016	0.176	-
2 441	39	Bluetooth DH5	H	18.0	17.44	0.16	Right Tilt	Ant.1	0.055	1.138	1.016	0.064	-
2 440	19	BluetoothLE 1M(255)	H	18.0	17.00	-0.17	Left Cheek	Ant.1	0.161	1.259	1.000	0.203	-
2 441	39	Bluetooth DH5	G	16.0	15.29	-0.09	Left Cheek	Ant.2	0.129	1.178	1.016	0.154	-
2 441	39	Bluetooth DH5	G	16.0	15.29	-0.01	Left Tilt	Ant.2	0.173	1.178	1.016	0.207	-
2 441	39	Bluetooth DH5	G	16.0	15.29	-0.17	Right Cheek	Ant.2	0.146	1.178	1.016	0.175	-
2 441	39	Bluetooth DH5	G	16.0	15.29	0.06	Right Tilt	Ant.2	0.134	1.178	1.016	0.160	-
2 440	19	BluetoothLE 1M(255)	G	16.0	14.94	0.09	Left Tilt	Ant.2	0.182	1.276	1.000	0.232	A30
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram						

13.2 Hotspot / Body SAR Measurement Results

GSM 850 Hotspot / Body SAR														
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dB)	(dB)	(dB)			(mm)		(W/kg)		(W/kg)	
836.6	190	GPRS 2Tx	A	32.5	31.58	-0.03	Rear	1:4.15	10	0	0.196	1.236	0.242	B1
836.6	190	GPRS 2Tx	A	32.5	31.58	-0.01	Front	1:4.15	10	0	0.051	1.236	0.063	-
836.6	190	GPRS 2Tx	A	32.5	31.58	-0.01	Right	1:4.15	10	0	0.075	1.236	0.093	-
836.6	190	GPRS 2Tx	A	32.5	31.58	0.19	Bottom	1:4.15	10	0	0.064	1.236	0.079	-
848.8	251	GSM	A	33.0	32.57	0.14	Rear	1:8.3	10	0	0.143	1.104	0.158	-
848.8	251	GSM	A	33.0	32.57	-0.12	Front	1:8.3	10	0	0.041	1.104	0.045	-
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram							

GSM 1900 Hotspot / Body SAR													
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 909.8	810	GPRS 4TX	B	22.5	21.50	0.02	Rear	1:2.07	10	0.318	1.259	0.400	-
1 909.8	810	GPRS 4TX	B	22.5	21.50	0.03	Front	1:2.07	10	0.157	1.259	0.198	-
1 909.8	810	GPRS 4TX	B	22.5	21.50	0.02	Left	1:2.07	10	0.028	1.259	0.035	-
1 909.8	810	GPRS 4TX	B	22.5	21.50	0.02	Right	1:2.07	10	0.330	1.259	0.415	-
1 909.8	810	GPRS 4TX	B	22.5	21.50	0.10	Bottom	1:2.07	10	0.499	1.259	0.628	B2
1 880.0	661	GSM	B	28.5	27.21	0.06	Rear	1:8.3	10	0.354	1.346	0.476	-
1 880.0	661	GSM	B	28.5	27.21	0.04	Front	1:8.3	10	0.150	1.346	0.202	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

UMTS Band 5 Hotspot / Body SAR														
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dB)	(dB)	(dB)				(mm)	(W/kg)		(W/kg)	
836.6	4183	RMC	A	25.5	24.40	-0.01	Rear	1:1	18	10	0.441	1.288	0.568	B3
836.6	4183	RMC	A	25.5	24.40	0.03	Front	1:1	18	10	0.201	1.288	0.259	-
836.6	4183	RMC	A	25.5	24.40	0.11	Right	1:1	18	10	0.298	1.288	0.384	-
836.6	4183	RMC	A	25.5	24.40	0.15	Bottom	1:1	18	10	0.166	1.288	0.214	-
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram							

UMTS Band 4 Hotspot / Body SAR													
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 712.4	1312	RMC	B	20.0	19.50	0.10	Rear	1:1	10	0.404	1.122	0.453	-
1 712.4	1312	RMC	B	20.0	19.50	0.10	Front	1:1	10	0.161	1.122	0.181	-
1 712.4	1312	RMC	B	20.0	19.50	0.11	Left	1:1	10	0.048	1.122	0.054	-
1 712.4	1312	RMC	B	20.0	19.50	0.11	Right	1:1	10	0.188	1.122	0.211	-
1 712.4	1312	RMC	B	20.0	19.50	0.17	Bottom	1:1	10	0.659	1.122	0.739	B4
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

UMTS Band 2 Hotspot / Body SAR													
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880.0	9400	RMC	B	20.0	18.71	0.12	Rear	1:1	10	0.269	1.346	0.362	-
1 880.0	9400	RMC	B	20.0	18.71	0.14	Front	1:1	10	0.237	1.346	0.319	-
1 880.0	9400	RMC	B	20.0	18.71	0.19	Left	1:1	10	0.042	1.346	0.057	-
1 880.0	9400	RMC	B	20.0	18.71	0.15	Right	1:1	10	0.161	1.346	0.217	-
1 880.0	9400	RMC	B	20.0	18.71	0.19	Bottom	1:1	10	0.478	1.346	0.643	B5
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

LTE Band 5 Hotspot / Body SAR																		
Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(Mhz)	(dBm)	(dBm)	(dB)		(dB)	(mm)	(W/kg)	(W/kg)						
836.5	20525	QPSK	A	10	25.5	24.51	0.05	Rear	0	1	49	1:1	27	10	0.374	1.256	0.470	B6
836.5	20525	QPSK	A	10	24.5	23.50	0.05	Rear	1	25	24	1:1	27	10	0.301	1.259	0.379	-
836.5	20525	QPSK	A	10	25.5	24.51	-0.03	Front	0	1	49	1:1	27	10	0.156	1.256	0.196	-
836.5	20525	QPSK	A	10	24.5	23.50	0.05	Front	1	25	24	1:1	27	10	0.128	1.259	0.161	-
836.5	20525	QPSK	A	10	25.5	24.51	0.02	Right	0	1	49	1:1	27	10	0.139	1.256	0.175	-
836.5	20525	QPSK	A	10	24.5	23.50	0.10	Right	1	25	24	1:1	27	10	0.115	1.259	0.145	-
836.5	20525	QPSK	A	10	25.5	24.51	-0.04	Bottom	0	1	49	1:1	27	10	0.131	1.256	0.165	-
836.5	20525	QPSK	A	10	24.5	23.50	0.07	Bottom	1	25	24	1:1	27	10	0.103	1.259	0.130	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram										



LTE Band 12 Hotspot / Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.																	
707.5	23095	QPSK	A+B	10	25.5	24.01	0.04	Rear	0	1	49	1:1	9	10	0.216	1.409	0.304	-
707.5	23095	QPSK	A+B	10	24.5	23.04	0.02	Rear	1	25	12	1:1	9	10	0.169	1.400	0.237	-
707.5	23095	QPSK	A+B	10	25.5	24.01	0.00	Front	0	1	49	1:1	9	10	0.120	1.409	0.169	-
707.5	23095	QPSK	A+B	10	24.5	23.04	0.01	Front	1	25	12	1:1	9	10	0.100	1.400	0.140	-
707.5	23095	QPSK	A+B	10	25.5	24.01	0.06	Left	0	1	49	1:1	9	10	0.096	1.409	0.135	-
707.5	23095	QPSK	A+B	10	24.5	23.04	-0.05	Left	1	25	12	1:1	9	10	0.085	1.400	0.119	-
707.5	23095	QPSK	A+B	10	25.5	24.01	0.01	Right	0	1	49	1:1	9	10	0.244	1.409	0.344	B7
707.5	23095	QPSK	A+B	10	24.5	23.04	-0.01	Right	1	25	12	1:1	9	10	0.220	1.400	0.308	-
707.5	23095	QPSK	A+B	10	25.5	24.01	0.09	Bottom	0	1	49	1:1	9	10	0.051	1.409	0.072	-
707.5	23095	QPSK	A+B	10	24.5	23.04	0.14	Bottom	1	25	12	1:1	9	10	0.040	1.400	0.056	-
707.5	23095	QPSK	A	10	25.5	24.01	0.11	Rear	0	1	49	1:1	36	10	0.198	1.409	0.279	B8
707.5	23095	QPSK	A	10	24.5	23.04	0.10	Rear	1	25	12	1:1	36	10	0.161	1.400	0.225	-
707.5	23095	QPSK	A	10	25.5	24.01	0.00	Front	0	1	49	1:1	36	10	0.119	1.409	0.168	-
707.5	23095	QPSK	A	10	24.5	23.04	0.08	Front	1	25	12	1:1	36	10	0.104	1.400	0.146	-
707.5	23095	QPSK	A	10	25.5	24.01	0.10	Right	0	1	49	1:1	36	10	0.098	1.409	0.138	-
707.5	23095	QPSK	A	10	24.5	23.04	0.07	Right	1	25	12	1:1	36	10	0.090	1.400	0.126	-
707.5	23095	QPSK	A	10	25.5	24.01	-0.09	Bottom	0	1	49	1:1	36	10	0.037	1.409	0.052	-
707.5	23095	QPSK	A	10	24.5	23.04	0.02	Bottom	1	25	12	1:1	36	10	0.032	1.400	0.045	-
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram										

LTE Band 13 Hotspot / Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.																	
782	23230	QPSK	A+B	10	24.0	23.03	0.05	Rear	0	1	49	1:1	36	10	0.266	1.250	0.333	B9
782	23230	QPSK	A+B	10	23.0	21.96	0.01	Rear	1	25	24	1:1	36	10	0.235	1.271	0.299	-
782	23230	QPSK	A+B	10	24.0	23.03	0.03	Front	0	1	49	1:1	36	10	0.120	1.250	0.150	-
782	23230	QPSK	A+B	10	23.0	21.96	0.10	Front	1	25	24	1:1	36	10	0.094	1.271	0.119	-
782	23230	QPSK	A+B	10	24.0	23.03	-0.06	Left	0	1	49	1:1	36	10	0.169	1.250	0.211	-
782	23230	QPSK	A+B	10	23.0	21.96	0.01	Left	1	25	24	1:1	36	10	0.134	1.271	0.170	-
782	23230	QPSK	A+B	10	24.0	23.03	0.10	Right	0	1	49	1:1	36	10	0.198	1.250	0.248	-
782	23230	QPSK	A+B	10	23.0	21.96	0.08	Right	1	25	24	1:1	36	10	0.158	1.271	0.201	-
782	23230	QPSK	A+B	10	24.0	23.03	0.10	Bottom	0	1	49	1:1	36	10	0.072	1.250	0.090	-
782	23230	QPSK	A+B	10	23.0	21.96	0.18	Bottom	1	25	24	1:1	36	10	0.058	1.271	0.074	-
782	23230	QPSK	A	10	24.0	23.03	-0.02	Rear	0	1	49	1:1	0	10	0.252	1.250	0.315	B10
782	23230	QPSK	A	10	23.0	21.96	0.04	Rear	1	25	24	1:1	0	10	0.201	1.271	0.255	-
782	23230	QPSK	A	10	24.0	23.03	0.02	Front	0	1	49	1:1	0	10	0.141	1.250	0.176	-
782	23230	QPSK	A	10	23.0	21.96	0.12	Front	1	25	24	1:1	0	10	0.110	1.271	0.140	-
782	23230	QPSK	A	10	24.0	23.03	0.08	Right	0	1	49	1:1	0	10	0.168	1.250	0.210	-
782	23230	QPSK	A	10	23.0	21.96	0.02	Right	1	25	24	1:1	0	10	0.132	1.271	0.168	-
782	23230	QPSK	A	10	24.0	23.03	0.07	Bottom	0	1	49	1:1	0	10	0.058	1.250	0.073	-
782	23230	QPSK	A	10	23.0	21.96	0.05	Bottom	1	25	24	1:1	0	10	0.046	1.271	0.058	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram									

LTE Band 25 Hotspot / Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.																
1 860	26140	QPSK	B	20	20.0	19.01	0.19	Rear	0	1	0	1:1	10	0.187	1.256	0.235	-
1 905	26590	QPSK	B	20	20.0	18.99	0.12	Rear	0	50	49	1:1	10	0.118	1.262	0.149	-
1 860	26140	QPSK	B	20	20.0	19.01	0.12	Front	0	1	0	1:1	10	0.216	1.256	0.271	-
1 905	26590	QPSK	B	20	20.0	18.99	0.17	Front	0	50	49	1:1	10	0.256	1.262	0.323	-
1 860	26140	QPSK	B	20	20.0	19.01	0.13	Left	0	1	0	1:1	10	0.026	1.256	0.033	-
1 905	26590	QPSK	B	20	20.0	18.99	0.15	Left	0	50	49	1:1	10	0.025	1.262	0.032	-
1 860	26140	QPSK	B	20	20.0	19.01	0.10	Right	0	1	0	1:1	10	0.076	1.256	0.095	-
1 905	26590	QPSK	B	20	20.0	18.99	0.11	Right	0	50	49	1:1	10	0.111	1.262	0.140	-
1 860	26140	QPSK	B	20	20.0	19.01	0.14	Bottom	0	1	0	1:1	10	0.521	1.256	0.654	B11
1 905	26590	QPSK	B	20	20.0	18.99	0.13	Bottom	0	50	49	1:1	10	0.496	1.262	0.626	-
1 882.5	26365	QPSK	F	20	21.0	19.85	0.03	Rear	0	1	49	1:1	10	0.338	1.303	0.440	-
1 905	26590	QPSK	F	20	21.0	19.73	0.06	Rear	0	50	25	1:1	10	0.330	1.340	0.442	-
1 882.5	26365	QPSK	F	20	21.0	19.85	0.08	Front	0	1	49	1:1	10	0.125	1.303	0.163	-
1 905	26590	QPSK	F	20	21.0	19.73	0.05	Front	0	50	25	1:1	10	0.136	1.340	0.182	-
1 882.5	26365	QPSK	F	20	21.0	19.85	0.01	Left	0	1	49	1:1	10	0.093	1.303	0.121	-
1 905	26590	QPSK	F	20	21.0	19.73	0.01	Left	0	50	25	1:1	10	0.091	1.340	0.122	-
1 882.5	26365	QPSK	F	20	21.0	19.85	0.03	Top	0	1	49	1:1	10	0.580	1.303	0.756	-
1 905	26590	QPSK	F	20	21.0	19.73	0.05	Top	0	50	25	1:1	10	0.572	1.340	0.766	B12
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

LTE Band 26 Hotspot / Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(Mhz)	(dBm)	(dBm)	(dB)		(dB)					(mm)	(W/kg)		(W/kg)	
831.5	26865	QPSK	A	15	25.5	24.37	-0.14	Rear	0	1	74	1:1	18	10	0.351	1.297	0.455	B13
831.5	26865	QPSK	A	15	24.5	23.42	0.06	Rear	1	36	0	1:1	18	10	0.292	1.282	0.374	-
831.5	26865	QPSK	A	15	25.5	24.37	0.03	Front	0	1	74	1:1	18	10	0.153	1.297	0.198	-
831.5	26865	QPSK	A	15	24.5	23.42	0.00	Front	1	36	0	1:1	18	10	0.126	1.282	0.162	-
831.5	26865	QPSK	A	15	25.5	24.37	0.01	Right	0	1	74	1:1	18	10	0.143	1.297	0.185	-
831.5	26865	QPSK	A	15	24.5	23.42	0.03	Right	1	36	0	1:1	18	10	0.127	1.282	0.163	-
831.5	26865	QPSK	A	15	25.5	24.37	0.05	Bottom	0	1	74	1:1	18	10	0.137	1.297	0.178	-
831.5	26865	QPSK	A	15	24.5	23.42	0.07	Bottom	1	36	0	1:1	18	10	0.105	1.282	0.135	-
ANSI/ IEEE C95.1 - 2005-- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram									

LTE Band 41 Hotspot / Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.																
2 636.5	41055	QPSK	B	20	20.0	19.26	0.00	Rear	0	1	0	1:1.58	10	0.286	1.186	0.339	-
2 636.5	41055	QPSK	B	20	20.0	19.28	0.00	Rear	0	50	0	1:1.58	10	0.288	1.180	0.340	-
2 636.5	41055	QPSK	B	20	20.0	19.26	0.00	Front	0	1	0	1:1.58	10	0.048	1.186	0.057	-
2 636.5	41055	QPSK	B	20	20.0	19.28	0.00	Front	0	50	0	1:1.58	10	0.036	1.180	0.042	-
2 636.5	41055	QPSK	B	20	20.0	19.26	0.07	Left	0	1	0	1:1.58	10	0.012	1.186	0.014	-
2 636.5	41055	QPSK	B	20	20.0	19.28	0.00	Left	0	50	0	1:1.58	10	0.015	1.180	0.018	-
2 636.5	41055	QPSK	B	20	20.0	19.26	-0.12	Right	0	1	0	1:1.58	10	0.065	1.186	0.077	-
2 636.5	41055	QPSK	B	20	20.0	19.28	-0.14	Right	0	50	0	1:1.58	10	0.062	1.180	0.073	-
2 636.5	41055	QPSK	B	20	20.0	19.26	0.17	Bottom	0	1	0	1:1.58	10	0.470	1.186	0.557	-
2 636.5	41055	QPSK	B	20	20.0	19.28	0.13	Bottom	0	50	0	1:1.58	10	0.467	1.180	0.551	-
2 506	39750	QPSK	B	20	21.6	20.37	0.17	Bottom	0	1	49	1:2.31	10	0.434	1.327	0.576	***
2 549.5	40185	QPSK	B	20	21.6	20.10	0.11	Bottom	0	1	0	1:2.31	10	0.485	1.413	0.685	***
2 593	40620	QPSK	B	20	21.6	20.54	0.11	Bottom	0	1	99	1:2.31	10	0.574	1.276	0.733	B14 ***
2 636.5	41055	QPSK	B	20	21.6	21.06	0.13	Bottom	0	1	0	1:2.31	10	0.553	1.132	0.626	***
2 680	41490	QPSK	B	20	21.6	20.72	0.18	Bottom	0	1	0	1:2.31	10	0.490	1.225	0.600	***
2 680	41490	QPSK	F	20	22.0	21.15	0.03	Rear	0	1	0	1:1.58	10	0.157	1.216	0.191	-
2 680	41490	QPSK	F	20	22.0	21.14	-0.05	Rear	0	50	25	1:1.58	10	0.164	1.219	0.200	-
2 680	41490	QPSK	F	20	22.0	21.15	0.12	Front	0	1	0	1:1.58	10	0.040	1.216	0.049	-
2 680	41490	QPSK	F	20	22.0	21.14	0.16	Front	0	50	25	1:1.58	10	0.041	1.219	0.050	-
2 680	41490	QPSK	F	20	22.0	21.15	0.00	Left	0	1	0	1:1.58	10	0.062	1.216	0.075	-
2 680	41490	QPSK	F	20	22.0	21.14	-0.06	Left	0	50	25	1:1.58	10	0.061	1.219	0.074	-
2 680	41490	QPSK	F	20	22.0	21.15	0.09	Top	0	1	0	1:1.58	10	0.270	1.216	0.328	-
2 680	41490	QPSK	F	20	22.0	21.14	0.01	Top	0	50	25	1:1.58	10	0.272	1.219	0.332	B15
2 680	41490	QPSK	F	20	23.6	22.78	0.17	Top	0	1	0	1:2.31	10	0.230	1.208	0.278	***
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									

Note: * Data entry indicate Variability measurement.

** Data entry indicate DoD Test Data.

*** Data entry indicate PowerClass2 Test Data.

LTE Band 66 Hotspot / Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)										
1 770	132572	QPSK	B	20	20.0	19.33	0.19	Rear	0	1	99	1:1	10	0.311	1.167	0.363	-
1 770	132572	QPSK	B	20	20.0	19.26	0.11	Rear	0	50	49	1:1	10	0.319	1.186	0.378	-
1 770	132572	QPSK	B	20	20.0	19.33	0.16	Front	0	1	99	1:1	10	0.223	1.167	0.260	-
1 770	132572	QPSK	B	20	20.0	19.26	0.10	Front	0	50	49	1:1	10	0.241	1.186	0.286	-
1 770	132572	QPSK	B	20	20.0	19.33	0.19	Left	0	1	99	1:1	10	0.036	1.167	0.042	-
1 770	132572	QPSK	B	20	20.0	19.26	0.12	Left	0	50	49	1:1	10	0.037	1.186	0.044	-
1 770	132572	QPSK	B	20	20.0	19.33	0.15	Right	0	1	99	1:1	10	0.120	1.167	0.140	-
1 770	132572	QPSK	B	20	20.0	19.26	0.12	Right	0	50	49	1:1	10	0.120	1.186	0.142	-
1 770	132572	QPSK	B	20	20.0	19.33	0.11	Bottom	0	1	99	1:1	10	0.669	1.167	0.781	-
1 720	132072	QPSK	B	20	20.0	18.97	0.02	Bottom	0	50	25	1:1	10	0.524	1.268	0.664	-
1 745	132322	QPSK	B	20	20.0	19.07	0.05	Bottom	0	50	49	1:1	10	0.659	1.239	0.816	B16
1 770	132572	QPSK	B	20	20.0	19.26	0.12	Bottom	0	50	49	1:1	10	0.683	1.186	0.810	-
1 770	132572	QPSK	B	20	20.0	19.19	0.14	Bottom	0	100	0	1:1	10	0.617	1.205	0.744	-
1 745	132322	QPSK	F	20	21.0	20.22	-0.01	Rear	0	1	99	1:1	10	0.263	1.197	0.315	-
1 770	132572	QPSK	F	20	21.0	20.18	0.12	Rear	0	50	25	1:1	10	0.272	1.208	0.329	-
1 745	132322	QPSK	F	20	21.0	20.22	0.12	Front	0	1	99	1:1	10	0.133	1.197	0.159	-
1 770	132572	QPSK	F	20	21.0	20.18	0.17	Front	0	50	25	1:1	10	0.128	1.208	0.155	-
1 745	132322	QPSK	F	20	21.0	20.22	0.12	Left	0	1	99	1:1	10	0.078	1.197	0.093	-
1 770	132572	QPSK	F	20	21.0	20.18	0.17	Left	0	50	25	1:1	10	0.079	1.208	0.095	-
1 745	132322	QPSK	F	20	21.0	20.22	0.11	Top	0	1	99	1:1	10	0.621	1.197	0.743	-
1 770	132572	QPSK	F	20	21.0	20.18	0.05	Top	0	50	25	1:1	10	0.650	1.208	0.785	B17
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									

NR Band n5 (Cell) Hotspot / Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(Mhz)	(dBm)	(dBm)	(dB)		(dB)	(mm)	(W/kg)			(W/kg)				
836.5	167300	DFT-s OFDM QPSK	A	20	25.0	24.33	0.16	Rear	0	1	53	1:1	2	10	0.292	1.167	0.341	B18
836.5	167300	DFT-s OFDM QPSK	A	20	25.0	24.31	-0.07	Rear	0	50	28	1:1	2	10	0.267	1.172	0.313	-
836.5	167300	DFT-s OFDM QPSK	A	20	25.0	24.33	0.00	Front	0	1	53	1:1	2	10	0.122	1.167	0.142	-
836.5	167300	DFT-s OFDM QPSK	A	20	25.0	24.31	0.03	Front	0	50	28	1:1	2	10	0.117	1.172	0.137	-
836.5	167300	DFT-s OFDM QPSK	A	20	25.0	24.33	0.13	Right	0	1	53	1:1	2	10	0.180	1.167	0.210	-
836.5	167300	DFT-s OFDM QPSK	A	20	25.0	24.31	0.18	Right	0	50	28	1:1	2	10	0.181	1.172	0.212	-
836.5	167300	DFT-s OFDM QPSK	A	20	25.0	24.33	0.03	Bottom	0	1	53	1:1	2	10	0.115	1.167	0.134	-
836.5	167300	DFT-s OFDM QPSK	A	20	25.0	24.31	0.07	Bottom	0	50	28	1:1	2	10	0.113	1.172	0.132	-
836.5	167300	CP QPSK	A	20	23.5	22.68	0.11	Rear	1.5	1	1	1:1	2	10	0.190	1.208	0.229	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram										



NR Band n25 Hotspot / Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.66	0.04	Rear	0	1	1	1:1	10	0.372	1.361	0.506	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.59	-0.14	Rear	0	108	0	1:1	10	0.349	1.384	0.483	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.66	0.06	Front	0	1	1	1:1	10	0.133	1.361	0.181	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.59	0.17	Front	0	108	0	1:1	10	0.133	1.384	0.184	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.66	0.10	Left	0	1	1	1:1	10	0.044	1.361	0.060	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.59	0.04	Left	0	108	0	1:1	10	0.047	1.384	0.065	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.66	0.09	Right	0	1	1	1:1	10	0.133	1.361	0.181	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.59	0.05	Right	0	108	0	1:1	10	0.123	1.384	0.170	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.66	0.14	Bottom	0	1	1	1:1	10	0.571	1.361	0.777	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.59	0.16	Bottom	0	108	0	1:1	10	0.603	1.384	0.834	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.52	0.12	Bottom	0	216	0	1:1	10	0.632	1.406	0.889	B19
1 882.5	376500	CP QPSK	B	40	20.0	18.58	0.12	Bottom	0	1	1	1:1	10	0.571	1.387	0.792	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.97	-0.09	Rear	0	1	108	1:1	10	0.459	1.007	0.462	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.92	-0.04	Rear	0	108	0	1:1	10	0.351	1.019	0.358	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.97	0.08	Front	0	1	108	1:1	10	0.108	1.007	0.109	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.92	0.05	Front	0	108	0	1:1	10	0.095	1.019	0.097	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.97	-0.16	Left	0	1	108	1:1	10	0.075	1.007	0.076	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.92	0.16	Left	0	108	0	1:1	10	0.078	1.019	0.079	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.97	0.13	Top	0	1	108	1:1	10	0.562	1.007	0.566	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.92	0.11	Top	0	108	0	1:1	10	0.538	1.019	0.548	-
1 882.5	376500	CP QPSK	F	40	21.0	20.81	0.18	Rear	0.5	1	1	1:1	10	0.572	1.045	0.598	B20
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									



NR Band n41 Hotspot / Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.11	0.05	Rear	0	1	1	1:1	10	0.523	1.227	0.642	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.00	Rear	0	135	69	1:1	10	0.301	1.180	0.355	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.11	0.17	Front	0	1	1	1:1	10	0.071	1.227	0.087	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.17	Front	0	135	69	1:1	10	0.046	1.180	0.054	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.11	0.10	Left	0	1	1	1:1	10	0.046	1.227	0.056	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.08	Left	0	135	69	1:1	10	0.033	1.180	0.039	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.11	0.00	Right	0	1	1	1:1	10	0.110	1.227	0.135	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.13	Right	0	135	69	1:1	10	0.124	1.180	0.146	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.11	0.14	Bottom	0	1	1	1:1	10	0.682	1.227	0.837	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.10	Bottom	0	135	69	1:1	10	0.564	1.180	0.666	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.05	0.03	Bottom	0	270	0	1:1	10	0.659	1.245	0.820	
2 592.99	518598	CP QPSK	B	100	18.0	16.89	0.18	Bottom	0	1	1	1:1	10	0.678	1.291	0.875	B21
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.23	-0.03	Rear	0	1	271	1:1	10	0.205	1.194	0.245	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.14	0.12	Rear	0	135	69	1:1	10	0.210	1.219	0.256	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.23	0.14	Front	0	1	271	1:1	10	0.053	1.194	0.063	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.14	-0.19	Front	0	135	69	1:1	10	0.071	1.219	0.087	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.23	-0.04	Left	0	1	271	1:1	10	0.069	1.194	0.082	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.14	-0.03	Left	0	135	69	1:1	10	0.058	1.219	0.071	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.23	0.19	Top	0	1	271	1:1	10	0.277	1.194	0.331	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.14	0.01	Top	0	135	69	1:1	10	0.316	1.219	0.385	-
2 592.99	518598	CP QPSK	F	100	20.0	19.28	0.00	Top	0	1	1	1:1	10	0.381	1.180	0.450	B22
2 592.99	518598	CW	C	100	13.0	11.83	0.00	Rear	0	-	-	1:1	10	0.011	1.309	0.014	-
2 592.99	518598	CW	C	100	13.0	11.83	0.00	Front	0	-	-	1:1	10	0	1.309	0.000	-
2 592.99	518598	CW	C	100	13.0	11.83	0.00	Left	0	-	-	1:1	10	0	1.309	0.000	-
2 592.99	518598	CW	C	100	13.0	11.83	0.10	Bottom	0	-	-	1:1	10	0.012	1.309	0.016	-
2 592.99	518598	CW	H	100	13.0	12.13	0.19	Rear	0	-	-	1:1	10	0.028	1.222	0.034	-
2 592.99	518598	CW	H	100	13.0	12.13	0.00	Front	0	-	-	1:1	10	0.012	1.222	0.015	-
2 592.99	518598	CW	H	100	13.0	12.13	-0.10	Right	0	-	-	1:1	10	0.034	1.222	0.042	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									



NR Band n66 Hotspot / Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.38	0.06	Rear	0	1	108	1:1	10	0.400	1.153	0.461	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.37	0.09	Rear	0	108	54	1:1	10	0.320	1.156	0.370	
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.38	0.00	Front	0	1	108	1:1	10	0.098	1.153	0.113	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.37	0.10	Front	0	108	54	1:1	10	0.092	1.156	0.106	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.38	0.05	Left	0	1	108	1:1	10	0.045	1.153	0.052	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.37	0.14	Left	0	108	54	1:1	10	0.036	1.156	0.042	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.38	-0.09	Right	0	1	108	1:1	10	0.163	1.153	0.188	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.37	-0.04	Right	0	108	54	1:1	10	0.188	1.156	0.217	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.38	0.13	Bottom	0	1	108	1:1	10	0.526	1.153	0.607	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.37	0.10	Bottom	0	108	54	1:1	10	0.516	1.156	0.597	-
1 745	349000	CP QPSK	B	40	20.0	19.37	0.15	Bottom	1.5	1	1	1:1	10	0.667	1.156	0.771	B23
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.16	-0.19	Rear	0	1	1	1:1	10	0.318	1.213	0.386	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.13	0.05	Rear	0	108	0	1:1	10	0.313	1.222	0.382	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.16	0.10	Front	0	1	1	1:1	10	0.114	1.213	0.138	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.13	0.11	Front	0	108	0	1:1	10	0.127	1.222	0.155	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.16	0.14	Left	0	1	1	1:1	10	0.074	1.213	0.090	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.13	0.10	Left	0	108	0	1:1	10	0.081	1.222	0.099	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.16	-0.03	Top	0	1	1	1:1	10	0.559	1.213	0.678	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.13	0.15	Top	0	108	0	1:1	10	0.596	1.222	0.728	B24
1 745	349000	CP QPSK	F	40	21.0	20.11	0.16	Top	0	1	1	1:1	10	0.571	1.227	0.701	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									

NR Band n77 Hotspot / Body SAR																	
Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distan ce	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.87	-0.12	Rear	0	1	1	1:1	10	0.267	1.156	0.309	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.79	-0.10	Rear	0	135	0	1:1	10	0.270	1.178	0.318	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.87	0.00	Front	0	1	1	1:1	10	0.055	1.156	0.064	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.79	0.00	Front	0	135	0	1:1	10	0.065	1.178	0.077	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.87	0.10	Left	0	1	1	1:1	10	0.060	1.156	0.069	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.79	-0.04	Left	0	135	0	1:1	10	0.073	1.178	0.086	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.87	0.04	Top	0	1	1	1:1	10	0.313	1.156	0.362	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.79	0.01	Top	0	135	0	1:1	10	0.327	1.178	0.385	B25
3 750	650000	CP QPSK	F	100	18.5	17.72	0.11	Top	0	1	1	1:1	10	0.302	1.197	0.361	-
3 500.01	633334	DFT-s OFDM QPSK	F	100	18.5	17.47	0.12	Top	0	1	271	1:1	10	0.218	1.268	0.276	**
3 500.01	633334	DFT-s OFDM QPSK	F	100	18.5	17.24	0.11	Top	0	135	138	1:1	10	0.220	1.337	0.294	**
3 750	650000	CW	D	100	16.0	15.62	-0.10	Rear	0	-	-	1:1	10	0.109	1.091	0.119	-
3 750	650000	CW	D	100	16.0	15.62	0.00	Front	0	-	-	1:1	10	0.00743	1.091	0.008	-
3 750	650000	CW	D	100	16.0	15.62	0.00	Left	0	-	-	1:1	10	0	1.091	0.000	-
3 750	650000	CW	D	100	16.0	15.62	0.19	Bottom	0	-	-	1:1	10	0.140	1.091	0.153	-
3 500.01	633334	CW	D	100	16.0	14.49	0.13	Bottom	0	-	-	1:1	10	0.220	1.416	0.311	**
3 750	650000	CW	G	100	16.0	15.92	0.00	Rear	0	-	-	1:1	10	0.126	1.019	0.128	-
3 750	650000	CW	G	100	16.0	15.92	0.00	Front	0	-	-	1:1	10	0.041	1.019	0.042	-
3 750	650000	CW	G	100	16.0	15.92	0.00	Left	0	-	-	1:1	10	0.00532	1.019	0.005	-
3 750	650000	CW	G	100	16.0	15.92	0.00	Right	0	-	-	1:1	10	0.019	1.019	0.019	-
3 750	650000	CW	G	100	16.0	15.92	-0.05	Top	0	-	-	1:1	10	0.128	1.019	0.130	-
3 500.01	633334	CW	G	100	16.0	14.69	0.16	Top	0	-	-	1:1	10	0.085	1.352	0.115	**
3 750	650000	CW	A	100	16.0	15.78	0.00	Rear	0	-	-	1:1	10	0.130	1.052	0.137	-
3 750	650000	CW	A	100	16.0	15.78	0.00	Front	0	-	-	1:1	10	0.035	1.052	0.037	-
3 750	650000	CW	A	100	16.0	15.78	0.00	Right	0	-	-	1:1	10	0.024	1.052	0.025	-
3 750	650000	CW	A	100	16.0	15.78	-0.11	Bottom	0	-	-	1:1	10	0.078	1.052	0.082	-
3 500.01	633334	CW	A	100	16.0	15.01	-0.10	Rear	0	-	-	1:1	10	0.115	1.256	0.144	**
ANSI/ IEEE C95.1 - 2005-- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									

Note: * Data entry indicate Variability measurement.

** Data entry indicate DoD Test Data.

DTS Hotspot / Body SAR

Frequency		Mode	Ant. No.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant Config.	Duty Cycle	Distance	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Reported SAR	Plot No.
MHz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)				(mm)	(W/kg)	(W/kg)		(Duty)	(W/kg)	
2 462	6	802.11b	G	20	1	19.0	17.95	0.14	Rear	WIFI2	98.9	10	0.322	0.195	1.274	1.011	0.251	-
2 462	6	802.11b	G	20	1	19.0	17.95	0.18	Front	WIFI2	98.9	10	0.175	0.106	1.274	1.011	0.136	-
2 462	6	802.11b	G	20	1	19.0	17.95	-0.15	Left	WIFI2	98.9	10	0.028	0.014	1.274	1.011	0.018	-
2 462	6	802.11b	G	20	1	19.0	17.95	0.14	Right	WIFI2	98.9	10	0.305	0.159	1.274	1.011	0.205	-
2 462	6	802.11b	G	20	1	19.0	17.95	0.11	Top	WIFI2	98.9	10	0.728	0.438	1.274	1.011	0.564	B26
2 462	11	802.11b	H+G	20	1	22.0	21.14	0.12	Rear	MIMO	98.9	10	0.385	0.220	1.387	1.011	0.308	-
2 462	11	802.11b	H+G	20	1	22.0	21.14	0.12	Front	MIMO	98.9	10	0.300	0.194	1.387	1.011	0.272	-
2 462	11	802.11b	H+G	20	1	22.0	21.14	0.11	Left	MIMO	98.9	10	0.0316	0.020	1.387	1.011	0.028	-
2 462	11	802.11b	H+G	20	1	22.0	21.14	-0.09	Right	MIMO	98.9	10	0.613	0.344	1.387	1.011	0.482	-
2 462	11	802.11b	H+G	20	1	22.0	21.14	-0.04	Top	MIMO	98.9	10	1.00	0.592	1.387	1.011	0.830	B27
2 462	6	802.11b	H+G	20	1	22.0	21.09	0.09	Top	MIMO	98.9	10	1.02	0.602	1.274	1.011	0.775	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population													Body 1.6 W/kg Averaged over 1 gram					

- For the SAR measurement results of MIMO Ant Mode(802.11b), higher power scaling factor among each SISO ANT was applied.

NII Hotspot / Body SAR

Frequency		Mode	Ant. No.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant Config.	Duty Cycle	Distance	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Reported SAR	Plot No.
MHz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)				(mm)	(W/kg)	(W/kg)		(Duty)	(W/kg)	
5 270	54	802.11n40	H+J	40	MCS8	21.0	18.96	0.12	Rear	MIMO	86.8	10	1.56	0.693	1.279	1.152	1.021	B28
5 310	62	802.11n40	H+J	40	MCS8	20.0	18.22	0.16	Rear	MIMO	86.8	10	1.23	0.499	1.222	1.153	0.702	-
5 270	54	802.11n40	H+J	40	MCS8	21.0	18.96	0.00	Front	MIMO	86.8	10	0.0809	0.019	1.279	1.152	0.028	-
5 690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	0.00	Rear	MIMO	86.2	10	1.53	0.606	1.300	1.160	0.910	-
5 610	122	802.11ac80	H+J	80	MCS0	21.0	19.08	-0.14	Rear	MIMO	86.2	10	1.09	0.463	1.274	1.160	0.716	-
5 690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	0.00	Front	MIMO	86.2	10	0.185	0.011	1.300	1.160	0.017	-
5 775	155	802.11ac80	H+J	80	MCS0	21.0	19.57	-0.13	Rear	MIMO	86.2	10	1.55	0.604	1.161	1.160	0.814	-
5 775	155	802.11ac80	H+J	80	MCS0	21.0	19.57	0.00	Front	MIMO	86.2	10	0.0424	0.00813	1.161	1.160	0.011	-
5 775	155	802.11ac80	H+J	80	MCS0	21.0	19.57	0.00	Left	MIMO	86.2	10	0.191	0.026	1.161	1.160	0.035	-
5 775	155	802.11ac80	H+J	80	MCS0	21.0	19.57	-0.10	Right	MIMO	86.2	10	0.415	0.131	1.161	1.160	0.176	-
5 775	155	802.11ac80	H+J	80	MCS0	21.0	19.57	0.10	Top	MIMO	86.2	10	0.430	0.187	1.161	1.160	0.252	-
5 775	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.11	Rear	MIMO	86.2	10	0.841	0.281	1.268	1.160	0.413	-
5 775	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.00	Front	MIMO	86.2	10	0	0	1.268	1.160	0.000	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population													Body 1.6 W/kg Averaged over 1 gram					

- For the SAR measurement results of MIMO Ant Mode(802.11n 40MHz BW ,802.11ac 80MHz BW), higher power scaling factor among each SISO ANT was applied.



DSS Hotspot / Body SAR

Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant Config.	Distance	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(Duty)	(W/kg)	
2 441	39	Bluetooth DH5	H	18.0	17.44	0.06	Rear	Ant.1	10	0.032	1.138	1.016	0.037	-
2 441	39	Bluetooth DH5	H	18.0	17.44	0.17	Front	Ant.1	10	0.036	1.138	1.016	0.042	-
2 441	39	Bluetooth DH5	H	18.0	17.44	-0.18	Right	Ant.1	10	0.089	1.138	1.016	0.103	-
2 440	19	BluetoothLE 1M(255)	H	18.0	17.00	-0.17	Right	Ant.1	10	0.114	1.259	1.000	0.144	B29
2 441	39	Bluetooth DH5	G	16.0	15.29	0.00	Rear	Ant.2	10	0.066	1.178	1.016	0.079	-
2 441	39	Bluetooth DH5	G	16.0	15.29	-0.12	Front	Ant.2	10	0.032	1.178	1.016	0.038	-
2 441	39	Bluetooth DH5	G	16.0	15.29	-0.11	Left	Ant.2	10	0.00441	1.178	1.016	0.005	-
2 441	39	Bluetooth DH5	G	16.0	15.29	0.14	Right	Ant.2	10	0.057	1.178	1.016	0.068	-
2 441	39	Bluetooth DH5	G	16.0	15.29	-0.01	Top	Ant.2	10	0.151	1.178	1.016	0.181	-
2 440	19	BluetoothLE 1M(255)	G	16.0	14.94	-0.11	Top	Ant.2	10	0.170	1.276	1.000	0.217	B30
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram							

13.3 Phablet SAR Measurement Considerations

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

13.4 Phablet SAR Measurement Results

NII Phablet SAR																		
Frequency		Mode	Ant. No.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant Config.	Duty Cycle	Distance	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Reported SAR	Plot No.
MHz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)				(mm)	(W/kg)	(W/kg)		(Duty)	(W/kg)	
5 270	54	802.11n40	H+J	80	MCS8	21.0	18.96	-0.08	Rear	MIMO	86.8	0	13.4	1.040	1.279	1.153	1.533	-
5 270	54	802.11n40	H+J	80	MCS8	21.0	18.96	0.00	Front	MIMO	86.8	0	0.852	0.041	1.279	1.153	0.060	-
5 270	54	802.11n40	H+J	80	MCS8	21.0	18.96	0.00	Left	MIMO	86.8	0	0.309	0.021	1.279	1.153	0.029	-
5 270	54	802.11n40	H+J	80	MCS8	21.0	18.96	0.19	Right	MIMO	86.8	0	4.98	0.585	1.279	1.153	0.862	-
5 270	54	802.11n40	H+J	80	MCS8	21.0	18.96	0.07	Top	MIMO	86.8	0	0.849	0.123	1.279	1.153	0.185	-
5690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	0.12	Rear	MIMO	86.2	0	8.50	0.945	1.300	1.160	1.425	-
5690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	0.00	Front	MIMO	86.2	0	0.844	0.055	1.300	1.160	0.083	-
5690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	0.00	Left	MIMO	86.2	0	0.174	0.0079	1.300	1.160	0.012	-
5690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	-0.11	Right	MIMO	86.2	0	4.88	0.553	1.300	1.160	0.834	-
5690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	0.16	Top	MIMO	86.2	0	1.13	0.097	1.300	1.160	0.146	-
5 775	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.00	Rear	MIMO	86.2	0	12.8	1.100	1.268	1.160	1.618	B31
5 775	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.00	Front	MIMO	86.2	0	0.422	0.033	1.268	1.160	0.049	-
5 775	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.00	Left	MIMO	86.2	0	0	0	1.268	1.160	0.000	-
5 775	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.00	Right	MIMO	86.2	0	2.12	0.206	1.268	1.160	0.303	-
5 775	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.10	Top	MIMO	86.2	0	1.32	0.129	1.268	1.160	0.190	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population													Hand 4.0 W/kg Averaged over 10 gram					

NFC Phablet SAR								
Frequency	Mode	Data Rate	Power Drift	Test Position	Ant Config.	Distance	Meas. SAR	Plot No.
Mhz		(kbps)	(dB)			(mm)	(W/kg)	
13.56	NFC(Type B)	106	0.05	Rear	NFC	0	0.017	B32
13.56	NFC(Type B)	106	0.00	Front	NFC	0	0.000	-
13.56	NFC(Type B)	106	0.00	Left	NFC	0	0.000	-
13.56	NFC(Type B)	106	0.00	Right	NFC	0	0.000	-
13.56	NFC(Type B)	106	0.00	Bottom	NFC	0	0.000	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Hand 4.0 W/kg Averaged over 10 gram		

13.5 UMPC Body SAR Measurement Results

GSM 850 UMPC Body SAR														
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dB)	(dB)	(dB)			(mm)		(W/kg)		(W/kg)	
836.6	190	GPRS 2Tx	A+B	32.5	31.58	0.01	Rear	1:4.15	10	36	0.441	1.236	0.545	C1
836.6	190	GPRS 2Tx	A+B	32.5	31.58	0.19	Front	1:4.15	10	36	0.326	1.236	0.403	-
836.6	190	GPRS 2Tx	A+B	32.5	31.58	-0.03	Right	1:4.15	10	36	0.193	1.236	0.239	-
836.6	190	GPRS 2Tx	A+B	32.5	31.58	0.00	Bottom	1:4.15	10	36	0.424	1.236	0.524	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram							

GSM 1900 UMPC Body SAR													
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 909.8	810	GPRS 4TX	B	22.5	21.50	0.05	Rear	1:2.07	10	0.361	1.259	0.454	-
1 909.8	810	GPRS 4TX	B	22.5	21.50	0.05	Front	1:2.07	10	0.284	1.259	0.358	-
1 909.8	810	GPRS 4TX	B	22.5	21.50	0.04	Right	1:2.07	10	0.163	1.259	0.205	-
1 909.8	810	GPRS 4TX	B	22.5	21.50	0.05	Bottom	1:2.07	10	0.424	1.259	0.534	C2
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

UMTS Band 5 UMPC Body SAR														
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dB)	(dB)	(dB)				(mm)	(W/kg)		(W/kg)	
836.6	4183	RMC	A+B	25.5	24.40	-0.04	Rear	1:1	4	10	0.497	1.288	0.640	C3
836.6	4183	RMC	A+B	25.5	24.40	0.01	Front	1:1	4	10	0.385	1.288	0.496	-
836.6	4183	RMC	A+B	25.5	24.40	0.06	Right	1:1	4	10	0.227	1.288	0.292	-
836.6	4183	RMC	A+B	25.5	24.40	0.04	Bottom	1:1	4	10	0.465	1.288	0.599	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram							

UMTS Band 4 UMPC Body SAR

Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 712.4	1312	RMC	B	20.0	19.50	0.05	Rear	1:1	10	0.393	1.122	0.441	-
1 712.4	1312	RMC	B	20.0	19.50	0.11	Front	1:1	10	0.222	1.122	0.249	-
1 712.4	1312	RMC	B	20.0	19.50	0.11	Right	1:1	10	0.122	1.122	0.137	-
1 712.4	1312	RMC	B	20.0	19.50	0.12	Bottom	1:1	10	0.413	1.122	0.463	C4
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

UMTS Band 2 UMPC Body SAR

Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880.0	9400	RMC	B	20.0	18.71	0.16	Rear	1:1	10	0.400	1.346	0.538	-
1 880.0	9400	RMC	B	20.0	18.71	0.12	Front	1:1	10	0.247	1.346	0.332	-
1 880.0	9400	RMC	B	20.0	18.71	0.11	Right	1:1	10	0.084	1.346	0.113	-
1 880.0	9400	RMC	B	20.0	18.71	0.16	Bottom	1:1	10	0.508	1.346	0.684	C5
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

LTE Band 5 UMPC Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(Mhz)	(dBm)	(dBm)	(dB)		(dB)					(mm)	(W/kg)		(W/kg)	
836.5	20525	QPSK	A+B	10	25.5	24.51	0.04	Rear	0	1	49	1:1	1	10	0.386	1.256	0.485	C6
836.5	20525	QPSK	A+B	10	24.5	23.50	0.03	Rear	1	25	24	1:1	1	10	0.309	1.259	0.389	-
836.5	20525	QPSK	A+B	10	25.5	24.51	0.02	Front	0	1	49	1:1	1	10	0.352	1.256	0.442	-
836.5	20525	QPSK	A+B	10	24.5	23.50	0.07	Front	1	25	24	1:1	1	10	0.281	1.259	0.354	-
836.5	20525	QPSK	A+B	10	25.5	24.51	0.11	Right	0	1	49	1:1	1	10	0.136	1.256	0.171	-
836.5	20525	QPSK	A+B	10	24.5	23.50	0.14	Right	1	25	24	1:1	1	10	0.116	1.259	0.146	-
836.5	20525	QPSK	A+B	10	25.5	24.51	0.02	Bottom	0	1	49	1:1	1	10	0.321	1.256	0.403	-
836.5	20525	QPSK	A+B	10	24.5	23.50	0.10	Bottom	1	25	24	1:1	1	10	0.273	1.259	0.344	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram										

LTE Band 12 UMPC Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.																	
707.5	23095	QPSK	A+B	10	25.5	24.01	-0.15	Rear	0	1	49	1:1	9	10	0.289	1.409	0.407	C7
707.5	23095	QPSK	A+B	10	24.5	23.04	0.01	Rear	1	25	12	1:1	9	10	0.241	1.400	0.337	-
707.5	23095	QPSK	A+B	10	25.5	24.01	0.00	Front	0	1	49	1:1	9	10	0.287	1.409	0.404	-
707.5	23095	QPSK	A+B	10	24.5	23.04	-0.03	Front	1	25	12	1:1	9	10	0.242	1.400	0.339	-
707.5	23095	QPSK	A+B	10	25.5	24.01	-0.01	Right	0	1	49	1:1	9	10	0.191	1.409	0.269	-
707.5	23095	QPSK	A+B	10	24.5	23.04	0.04	Right	1	25	12	1:1	9	10	0.165	1.400	0.231	-
707.5	23095	QPSK	A+B	10	25.5	24.01	0.04	Bottom	0	1	49	1:1	9	10	0.137	1.409	0.193	-
707.5	23095	QPSK	A+B	10	24.5	23.04	0.06	Bottom	1	25	12	1:1	9	10	0.123	1.400	0.172	-
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram									

LTE Band 13 UMPC Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.																	
782	23230	QPSK	A+B	10	24.0	23.03	0.02	Rear	0	1	49	1:1	36	10	0.283	1.250	0.354	C8
782	23230	QPSK	A+B	10	23.0	21.96	0.06	Rear	1	25	24	1:1	36	10	0.225	1.271	0.286	-
782	23230	QPSK	A+B	10	24.0	23.03	0.03	Front	0	1	49	1:1	36	10	0.209	1.250	0.261	-
782	23230	QPSK	A+B	10	23.0	21.96	0.05	Front	1	25	24	1:1	36	10	0.164	1.271	0.208	-
782	23230	QPSK	A+B	10	24.0	23.03	0.09	Right	0	1	49	1:1	36	10	0.158	1.250	0.198	-
782	23230	QPSK	A+B	10	23.0	21.96	0.06	Right	1	25	24	1:1	36	10	0.126	1.271	0.160	-
782	23230	QPSK	A+B	10	24.0	23.03	0.07	Bottom	0	1	49	1:1	36	10	0.195	1.250	0.244	-
782	23230	QPSK	A+B	10	23.0	21.96	0.03	Bottom	1	25	24	1:1	36	10	0.150	1.271	0.191	-
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram									

LTE Band 25 UMPC Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.																
1 860	26140	QPSK	B	20	20.0	19.01	0.05	Rear	0	1	0	1:1	10	0.295	1.256	0.371	-
1 905	26590	QPSK	B	20	20.0	18.99	0.08	Rear	0	50	49	1:1	10	0.400	1.262	0.505	-
1 860	26140	QPSK	B	20	20.0	19.01	0.14	Front	0	1	0	1:1	10	0.228	1.256	0.286	-
1 905	26590	QPSK	B	20	20.0	18.99	0.12	Front	0	50	49	1:1	10	0.273	1.262	0.344	-
1 860	26140	QPSK	B	20	20.0	19.01	0.10	Right	0	1	0	1:1	10	0.083	1.256	0.104	-
1 905	26590	QPSK	B	20	20.0	18.99	0.13	Right	0	50	49	1:1	10	0.080	1.262	0.101	-
1 860	26140	QPSK	B	20	20.0	19.01	0.16	Bottom	0	1	0	1:1	10	0.442	1.256	0.555	-
1 905	26590	QPSK	B	20	20.0	18.99	0.03	Bottom	0	50	49	1:1	10	0.557	1.262	0.703	C9
1 882.5	26365	QPSK	F	20	21.0	19.85	0.02	Rear	0	1	49	1:1	10	0.386	1.303	0.503	-
1 905	26590	QPSK	F	20	21.0	19.73	0.12	Rear	0	50	25	1:1	10	0.388	1.340	0.520	-
1 882.5	26365	QPSK	F	20	21.0	19.85	0.12	Front	0	1	49	1:1	10	0.312	1.303	0.407	-
1 905	26590	QPSK	F	20	21.0	19.73	0.18	Front	0	50	25	1:1	10	0.303	1.340	0.406	-
1 882.5	26365	QPSK	F	20	21.0	19.85	0.11	Top	0	1	49	1:1	10	0.567	1.303	0.739	-
1 905	26590	QPSK	F	20	21.0	19.73	0.07	Top	0	50	25	1:1	10	0.587	1.340	0.786	C10
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									

LTE Band 26 UMPC Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(Mhz)	(dBm)	(dBm)	(dB)		(dB)					(mm)	(W/kg)		(W/kg)	
831.5	26865	QPSK	A+B	15	25.5	24.37	0.02	Rear	0	1	74	1:1	1	10	0.571	1.297	0.741	C11
831.5	26865	QPSK	A+B	15	24.5	23.42	0.02	Rear	1	36	0	1:1	1	10	0.477	1.282	0.612	-
831.5	26865	QPSK	A+B	15	25.5	24.37	-0.08	Front	0	1	74	1:1	1	10	0.381	1.297	0.494	-
831.5	26865	QPSK	A+B	15	24.5	23.42	0.02	Front	1	36	0	1:1	1	10	0.308	1.282	0.395	-
831.5	26865	QPSK	A+B	15	25.5	24.37	0.18	Right	0	1	74	1:1	1	10	0.144	1.297	0.187	-
831.5	26865	QPSK	A+B	15	24.5	23.42	0.09	Right	1	36	0	1:1	1	10	0.131	1.282	0.168	-
831.5	26865	QPSK	A+B	15	25.5	24.37	-0.05	Bottom	0	1	74	1:1	1	10	0.335	1.297	0.435	-
831.5	26865	QPSK	A+B	15	24.5	23.42	0.01	Bottom	1	36	0	1:1	1	10	0.274	1.282	0.351	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram										

LTE Band 41 UMPC Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.																
2 636.5	41055	QPSK	B	20	20.0	19.26	0.00	Rear	0	1	0	1:1.58	10	0.323	1.186	0.383	-
2 636.5	41055	QPSK	B	20	20.0	19.28	0.00	Rear	0	50	0	1:1.58	10	0.320	1.180	0.378	-
2 636.5	41055	QPSK	B	20	20.0	19.26	0.00	Front	0	1	0	1:1.58	10	0.251	1.186	0.298	-
2 636.5	41055	QPSK	B	20	20.0	19.28	0.00	Front	0	50	0	1:1.58	10	0.248	1.180	0.293	-
2 636.5	41055	QPSK	B	20	20.0	19.26	0.14	Right	0	1	0	1:1.58	10	0.067	1.186	0.079	-
2 636.5	41055	QPSK	B	20	20.0	19.28	0.06	Right	0	50	0	1:1.58	10	0.066	1.180	0.078	-
2 506	39750	QPSK	B	20	20.0	18.65	-0.01	Bottom	0	1	49	1:1.58	10	0.499	1.365	0.681	-
2 549.5	40185	QPSK	B	20	20.0	18.22	0.04	Bottom	0	1	0	1:1.58	10	0.557	1.507	0.839	-
2 593	40620	QPSK	B	20	20.0	18.83	0.10	Bottom	0	1	99	1:1.58	10	0.611	1.309	0.800	-
2 636.5	41055	QPSK	B	20	20.0	19.26	0.14	Bottom	0	1	0	1:1.58	10	0.592	1.186	0.702	-
2 680	41490	QPSK	B	20	20.0	19.02	0.19	Bottom	0	1	0	1:1.58	10	0.518	1.253	0.649	-
2 506	39750	QPSK	B	20	20.0	18.71	0.07	Bottom	0	50	0	1:1.58	10	0.580	1.346	0.781	-
2 549.5	40185	QPSK	B	20	20.0	18.34	0.09	Bottom	0	50	0	1:1.58	10	0.550	1.466	0.806	-
2 593	40620	QPSK	B	20	20.0	18.83	0.11	Bottom	0	50	49	1:1.58	10	0.639	1.309	0.837	-
2 636.5	41055	QPSK	B	20	20.0	19.28	0.11	Bottom	0	50	0	1:1.58	10	0.590	1.180	0.696	-
2 680	41490	QPSK	B	20	20.0	18.99	0.12	Bottom	0	50	0	1:1.58	10	0.526	1.262	0.664	-
2 636.5	41055	QPSK	B	20	20.0	19.25	0.05	Bottom	0	100	0	1:1.58	10	0.626	1.189	0.744	-
2 506	39750	QPSK	B	20	21.6	20.37	0.01	Bottom	0	1	49	1:2.31	10	0.618	1.327	0.820	***
2 549.5	40185	QPSK	B	20	21.6	20.10	0.04	Bottom	0	1	0	1:2.31	10	0.627	1.413	0.886	***
2 593	40620	QPSK	B	20	21.6	20.54	0.03	Bottom	0	1	99	1:2.31	10	0.774	1.276	0.988	C12 ***
2 636.5	41055	QPSK	B	20	21.6	21.06	0.16	Bottom	0	1	0	1:2.31	10	0.693	1.132	0.785	***
2 680	41490	QPSK	B	20	21.6	20.72	0.16	Bottom	0	1	0	1:2.31	10	0.628	1.225	0.769	***
2 636.5	41055	QPSK	B	20	21.6	20.89	0.07	Bottom	0	100	0	1:2.31	10	0.699	1.178	0.823	***
2 680	41490	QPSK	F	20	22.0	21.15	0.15	Rear	0	1	0	1:1.58	10	0.177	1.216	0.215	-
2 680	41490	QPSK	F	20	22.0	21.14	0.16	Rear	0	50	25	1:1.58	10	0.171	1.219	0.208	-
2 680	41490	QPSK	F	20	22.0	21.15	0.12	Front	0	1	0	1:1.58	10	0.143	1.216	0.174	-
2 680	41490	QPSK	F	20	22.0	21.14	-0.13	Front	0	50	25	1:1.58	10	0.143	1.219	0.174	-
2 680	41490	QPSK	F	20	22.0	21.15	-0.06	Top	0	1	0	1:1.58	10	0.394	1.216	0.479	-
2 680	41490	QPSK	F	20	22.0	21.14	-0.13	Top	0	50	25	1:1.58	10	0.400	1.219	0.488	C13
2 680	41490	QPSK	F	20	23.6	22.78	-0.15	Top	0	50	25	1:2.31	10	0.330	1.178	0.400	***
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									

Note: * Data entry indicate Variability measurement.

** Data entry indicate DoD Test Data.

*** Data entry indicate PowerClass2 Test Data.

LTE Band 66 UMPC Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)						(mm)	(W/kg)		(W/kg)	
1 770	132572	QPSK	B	20	20.0	19.33	0.01	Rear	0	1	99	1:1	10	0.406	1.167	0.474	-
1 770	132572	QPSK	B	20	20.0	19.26	0.07	Rear	0	50	49	1:1	10	0.418	1.186	0.496	-
1 770	132572	QPSK	B	20	20.0	19.33	0.14	Front	0	1	99	1:1	10	0.288	1.167	0.336	-
1 770	132572	QPSK	B	20	20.0	19.26	0.01	Front	0	50	49	1:1	10	0.294	1.186	0.349	-
1 770	132572	QPSK	B	20	20.0	19.33	0.15	Right	0	1	99	1:1	10	0.130	1.167	0.152	-
1 770	132572	QPSK	B	20	20.0	19.26	0.19	Right	0	50	49	1:1	10	0.133	1.186	0.158	-
1 770	132572	QPSK	B	20	20.0	19.33	0.19	Bottom	0	1	99	1:1	10	0.595	1.167	0.694	-
1 770	132572	QPSK	B	20	20.0	19.26	0.11	Bottom	0	50	49	1:1	10	0.602	1.186	0.714	C14
1 745	132322	QPSK	F	20	21.0	20.22	0.19	Rear	0	1	99	1:1	10	0.459	1.197	0.549	-
1 770	132572	QPSK	F	20	21.0	20.18	0.12	Rear	0	50	25	1:1	10	0.454	1.208	0.548	-
1 745	132322	QPSK	F	20	21.0	20.22	0.15	Front	0	1	99	1:1	10	0.301	1.197	0.360	-
1 770	132572	QPSK	F	20	21.0	20.18	0.19	Front	0	50	25	1:1	10	0.291	1.208	0.351	-
1 745	132322	QPSK	F	20	21.0	20.22	0.14	Top	0	1	99	1:1	10	0.540	1.197	0.646	C15
1 770	132572	QPSK	F	20	21.0	20.18	0.10	Top	0	50	25	1:1	10	0.521	1.208	0.629	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									

NR Band n5(Cell) UMPC Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(Mhz)	(dBm)	(dBm)	(dB)		(dB)	(mm)	(W/kg)			(W/kg)				
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.33	0.04	Rear	0	1	53	1:1	1	10	0.445	1.167	0.519	-
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.31	0.04	Rear	0	50	28	1:1	1	10	0.472	1.172	0.553	C16
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.33	0.04	Front	0	1	53	1:1	1	10	0.241	1.167	0.281	-
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.31	0.04	Front	0	50	28	1:1	1	10	0.206	1.172	0.241	-
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.33	0.05	Right	0	1	53	1:1	1	10	0.213	1.167	0.249	-
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.31	0.16	Right	0	50	28	1:1	1	10	0.182	1.172	0.213	-
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.33	0.07	Bottom	0	1	53	1:1	1	10	0.260	1.167	0.303	-
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.31	0.02	Bottom	0	50	28	1:1	1	10	0.204	1.172	0.239	-
836.5	167300	CP QPSK	A+B	20	23.5	22.68	0.11	Rear	1.5	1	1	1:1	1	10	0.347	1.208	0.419	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram										

NR Band n25 UMPC Body SAR																	
Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)	(mm)	(W/kg)			(W/kg)			
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.66	0.11	Rear	0	1	1	1:1	10	0.351	1.361	0.478	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.59	0.02	Rear	0	108	0	1:1	10	0.360	1.384	0.498	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.66	0.15	Front	0	1	1	1:1	10	0.296	1.361	0.403	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.59	0.16	Front	0	108	0	1:1	10	0.238	1.384	0.329	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.66	-0.17	Right	0	1	1	1:1	10	0.086	1.361	0.117	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.59	0.19	Right	0	108	0	1:1	10	0.087	1.384	0.120	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.66	0.05	Bottom	0	1	1	1:1	10	0.629	1.361	0.856	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.59	0.11	Bottom	0	108	0	1:1	10	0.592	1.384	0.819	-
1 882.5	376500	CP QPSK	B	40	20.0	18.58	0.07	Bottom	0	1	1	1:1	10	0.678	1.387	0.940	C17
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.97	-0.10	Rear	0	1	108	1:1	10	0.406	1.007	0.409	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.92	0.11	Rear	0	108	0	1:1	10	0.400	1.019	0.407	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.97	-0.18	Front	0	1	108	1:1	10	0.333	1.007	0.335	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.92	0.19	Front	0	108	0	1:1	10	0.282	1.019	0.287	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.97	0.14	Top	0	1	108	1:1	10	0.608	1.007	0.612	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.92	0.16	Top	0	108	0	1:1	10	0.673	1.019	0.686	-
1 882.5	376500	CP QPSK	F	40	21.0	20.81	0.18	Top	0.5	1	1	1:1	10	0.801	1.045	0.837	C18
1 882.5	376500	CP QPSK	F	40	21.0	20.81	0.19	Top	0.5	1	1	1:1	10	0.687	1.045	0.718	*
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									

Note: * Data entry indicate Variability measurement.

NR Band n41 UMPC Body SAR																	
Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distan ce	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.11	-0.10	Rear	0	1	1	1:1	10	0.467	1.227	0.573	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.00	Rear	0	135	69	1:1	10	0.327	1.180	0.386	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.11	0.19	Front	0	1	1	1:1	10	0.255	1.227	0.313	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.14	Front	0	135	69	1:1	10	0.261	1.180	0.308	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.11	0.04	Right	0	1	1	1:1	10	0.105	1.227	0.129	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.13	Right	0	135	69	1:1	10	0.085	1.180	0.100	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.11	-0.09	Bottom	0	1	1	1:1	10	0.906	1.227	1.112	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.14	Bottom	0	135	69	1:1	10	0.977	1.180	1.153	C19
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.05	0.15	Bottom	0	270	0	1:1	10	0.744	1.245	0.926	-
2 592.99	518598	CP QPSK	B	100	18.0	16.89	0.01	Bottom	0	1	1	1:1	10	0.643	1.291	0.830	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.14	Bottom	0	135	69	1:1	10	0.890	1.180	1.050	*
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.23	-0.08	Rear	0	1	271	1:1	10	0.255	1.194	0.304	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.14	0.07	Rear	0	135	69	1:1	10	0.363	1.219	0.442	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.23	0.07	Front	0	1	271	1:1	10	0.236	1.194	0.282	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.14	0.05	Front	0	135	69	1:1	10	0.256	1.219	0.312	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.23	-0.16	Top	0	1	271	1:1	10	0.659	1.194	0.787	C20
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.14	-0.04	Top	0	135	69	1:1	10	0.609	1.219	0.742	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.12	-0.10	Top	0	270	0	1:1	10	0.537	1.225	0.658	-
2 592.99	518598	CP QPSK	F	100	20.0	19.28	0.18	Top	0	1	1	1:1	10	0.460	1.180	0.543	-
2 592.99	518598	CW	C	100	13.0	11.83	0.00	Rear	0	-	-	1:1	10	0.011	1.309	0.014	-
2 592.99	518598	CW	C	100	13.0	11.83	0.00	Front	0	-	-	1:1	10	0.00428	1.309	0.006	-
2 592.99	518598	CW	C	100	13.0	11.83	0.14	Bottom	0	-	-	1:1	10	0.019	1.309	0.025	-
2 592.99	518598	CW	H	100	13.0	12.13	-0.17	Rear	0	-	-	1:1	10	0.024	1.222	0.029	-
2 592.99	518598	CW	H	100	13.0	12.13	0.06	Front	0	-	-	1:1	10	0.067	1.222	0.082	-
2 592.99	518598	CW	H	100	13.0	12.13	0.06	Right	0	-	-	1:1	10	0.074	1.222	0.090	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									

Note: * Data entry indicate Variability measurement.

NR Band n66 UMPC Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.38	0.13	Rear	0	1	108	1:1	10	0.384	1.153	0.443	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.37	0.19	Rear	0	108	54	1:1	10	0.285	1.156	0.329	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.38	0.11	Front	0	1	108	1:1	10	0.281	1.153	0.324	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.37	0.18	Front	0	108	54	1:1	10	0.251	1.156	0.290	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.38	0.16	Right	0	1	108	1:1	10	0.174	1.153	0.201	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.37	0.12	Right	0	108	54	1:1	10	0.175	1.156	0.202	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.38	0.13	Bottom	0	1	108	1:1	10	0.535	1.153	0.617	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.37	0.13	Bottom	0	108	54	1:1	10	0.467	1.156	0.540	-
1 745	349000	CP QPSK	B	40	20.0	19.37	0.09	Rear	0	1	1	1:1	10	0.537	1.156	0.621	C21
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.16	0.13	Rear	0	1	1	1:1	10	0.381	1.213	0.462	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.13	-0.12	Rear	0	108	0	1:1	10	0.365	1.222	0.446	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.16	0.10	Front	0	1	1	1:1	10	0.281	1.213	0.341	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.13	0.17	Front	0	108	0	1:1	10	0.291	1.222	0.356	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.16	0.19	Top	0	1	1	1:1	10	0.634	1.213	0.769	C22
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.13	0.13	Top	0	108	0	1:1	10	0.619	1.222	0.756	-
1 745	349000	CP QPSK	F	40	21.0	20.11	0.17	Top	0	1	1	1:1	10	0.512	1.227	0.628	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									



NR Band n77 UMPC Body SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(Mhz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.87	0.02	Rear	0	1	1	1:1	10	0.230	1.156	0.266	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.79	-0.12	Rear	0	135	0	1:1	10	0.150	1.178	0.177	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.87	-0.08	Front	0	1	1	1:1	10	0.131	1.156	0.151	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.79	0.19	Front	0	135	0	1:1	10	0.108	1.178	0.127	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.87	0.04	Top	0	1	1	1:1	10	0.261	1.156	0.302	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.79	0.01	Top	0	135	0	1:1	10	0.350	1.178	0.412	-
3 930	662000	DFT-s OFDM QPSK	F	100	18.5	17.71	0.12	Top	0	135	138	1:1	10	0.588	1.199	0.705	C23
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.74	0.12	Top	0	270	0	1:1	10	0.430	1.191	0.512	-
3 750	650000	CP QPSK	F	100	18.5	17.72	0.05	Top	0	1	1	1:1	10	0.254	1.197	0.304	-
3 500.01	633334	DFT-s OFDM QPSK	F	100	18.5	17.47	0.10	Top	0	1	271	1:1	10	0.204	1.268	0.259	**
3 750	650000	CW	D	100	16.0	15.62	0.00	Rear	0	-	-	1:1	10	0.154	1.091	0.168	-
3 750	650000	CW	D	100	16.0	15.62	0.00	Front	0	-	-	1:1	10	0.133	1.091	0.145	-
3 750	650000	CW	D	100	16.0	15.62	0.17	Bottom	0	-	-	1:1	10	0.338	1.091	0.369	-
3 500.01	633334	CW	D	100	16.0	14.49	0.18	Bottom	0	-	-	1:1	10	0.494	1.416	0.699	**
3 750	650000	CW	G	100	16.0	15.92	-0.13	Rear	0	-	-	1:1	10	0.117	1.019	0.119	-
3 750	650000	CW	G	100	16.0	15.92	0.00	Front	0	-	-	1:1	10	0.068	1.019	0.069	-
3 750	650000	CW	G	100	16.0	15.92	-0.14	Right	0	-	-	1:1	10	0.03	1.019	0.031	-
3 750	650000	CW	G	100	16.0	15.92	-0.19	Top	0	-	-	1:1	10	0.183	1.019	0.186	-
3 500.01	633334	CW	G	100	16.0	14.69	0.14	Top	0	-	-	1:1	10	0.230	1.352	0.311	**
3 750	650000	CW	A	100	16.0	15.78	0.00	Rear	0	-	-	1:1	10	0.075	1.052	0.079	-
3 750	650000	CW	A	100	16.0	15.78	0.00	Front	0	-	-	1:1	10	0.068	1.052	0.072	-
3 750	650000	CW	A	100	16.0	15.78	0.00	Right	0	-	-	1:1	10	0.131	1.052	0.138	-
3 750	650000	CW	A	100	16.0	15.78	0.14	Bottom	0	-	-	1:1	10	0.066	1.052	0.069	-
3 500.01	633334	CW	A	100	16.0	15.01	-0.16	Right	0	-	-	1:1	10	0.158	1.256	0.198	**
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									

Note: * Data entry indicate Variability measurement.

** Data entry indicate DoD Test Data.

DTS UMPC Body 1g SAR

Frequency		Mode	Ant. No.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant Config.	Duty Cycle	Distance	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Reported SAR	Plot No.
MHz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)				(mm)	(W/kg)	(W/kg)		(Duty)	(W/kg)	
2 437	6	802.11b	G	20	1	19.0	17.95	0.13	Rear	WIFI2	98.9	10	0.372	0.231	1.274	1.011	0.297	-
2 437	6	802.11b	G	20	1	19.0	17.95	0.00	Front	WIFI2	98.9	10	0.300	0.177	1.274	1.011	0.228	-
2 437	6	802.11b	G	20	1	19.0	17.95	-0.14	Right	WIFI2	98.9	10	0.535	0.279	1.274	1.011	0.359	-
2 437	6	802.11b	G	20	1	19.0	17.95	-0.17	Top	WIFI2	98.9	10	0.968	0.562	1.274	1.011	0.724	C24
2 462	11	802.11b	H+G	20	1	22.0	21.14	-0.13	Rear	MIMO	98.9	10	0.683	0.422	1.387	1.011	0.592	-
2 462	11	802.11b	H+G	20	1	22.0	21.14	-0.16	Front	MIMO	98.9	10	0.506	0.358	1.387	1.011	0.502	-
2 462	11	802.11b	H+G	20	1	22.0	21.14	0.10	Right	MIMO	98.9	10	1.10	0.668	1.387	1.011	0.937	-
2 437	6	802.11b	H+G	20	1	22.0	21.08	0.15	Right	MIMO	98.9	10	1.35	0.786	1.274	1.011	1.012	C25
2 462	11	802.11b	H+G	20	1	22.0	21.14	0.03	Top	MIMO	98.9	10	0.835	0.452	1.387	1.011	0.634	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population													Body 1.6 W/kg Averaged over 1 gram					

- For the SAR measurement results of MIMO Ant Mode(802.11b), higher power scaling factor among each SISO ANT was applied.

NII UMPC Body SAR

Frequency		Mode	Ant. No.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant Config.	Duty Cycle	Distance	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Reported SAR	Plot No.
Mhz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)				(mm)	(W/kg)	(W/kg)		(Duty)	(W/kg)	
5 270	54	802.11n40	H+J	40	MCS8	21.0	18.96	0.15	Rear	MIMO	86.8	10	1.37	0.600	1.279	1.153	0.884	C26
5 310	62	802.11n40	H+J	40	MCS8	20.0	18.22	0.18	Rear	MIMO	86.8	10	1.13	0.477	1.222	1.153	0.671	-
5 270	54	802.11n40	H+J	40	MCS8	21.0	18.96	0.00	Front	MIMO	86.8	10	2.05	0.084	1.279	1.153	0.126	-
5 270	54	802.11n40	H+J	40	MCS8	21.0	18.96	0.12	Right	MIMO	86.8	10	0.358	0.153	1.279	1.153	0.230	-
5 270	54	802.11n40	H+J	40	MCS8	21.0	18.96	0.14	Top	MIMO	86.8	10	0.283	0.122	1.279	1.153	0.183	-
5 690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	0.00	Rear	MIMO	86.2	10	1.41	0.553	1.300	1.160	0.834	-
5 610	122	802.11ac80	H+J	80	MCS0	21.0	19.08	0.00	Rear	MIMO	86.2	10	1.19	0.465	1.274	1.160	0.687	-
5 690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	0.00	Front	MIMO	86.2	10	0.522	0.090	1.300	1.160	0.136	-
5 690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	0.19	Right	MIMO	86.2	10	0.577	0.174	1.300	1.160	0.262	-
5 690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	-0.10	Top	MIMO	86.2	10	0.278	0.101	1.300	1.160	0.152	-
5 775	155	802.11ac80	H+J	80	MCS0	21.0	19.57	0.14	Rear	MIMO	86.2	10	1.89	0.626	1.161	1.160	0.843	-
5 775	155	802.11ac80	H+J	80	MCS0	21.0	19.57	0.00	Front	MIMO	86.2	10	0.486	0.099	1.161	1.160	0.133	-
5 775	155	802.11ac80	H+J	80	MCS0	21.0	19.57	0.19	Right	MIMO	86.2	10	0.501	0.160	1.161	1.160	0.216	-
5 775	155	802.11ac80	H+J	80	MCS0	21.0	19.57	0.15	Top	MIMO	86.2	10	0.452	0.201	1.161	1.160	0.271	-
5 855	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.17	Rear	MIMO	86.2	10	0.944	0.358	1.268	1.160	0.526	-
5 855	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.00	Front	MIMO	86.2	10	0.217	0.036	1.268	1.160	0.053	-
5 855	171	802.11ac80	H+J	80	MCS0	21.0	19.43	-0.17	Right	MIMO	86.2	10	0.344	0.070	1.268	1.160	0.103	-
5 855	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.18	Top	MIMO	86.2	10	0.354	0.140	1.268	1.160	0.206	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population													Body 1.6 W/kg Averaged over 1 gram					

DSS UMPC Body 1g SAR

Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant Config.	Distance	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(Duty)	(W/kg)	
2 441	39	Bluetooth DH5	H	18.0	17.44	0.12	Rear	Ant.1	10	0.060	1.138	1.016	0.069	-
2 441	39	Bluetooth DH5	H	18.0	17.44	-0.01	Front	Ant.1	10	0.077	1.138	1.016	0.089	-
2 441	39	Bluetooth DH5	H	18.0	17.44	-0.15	Right	Ant.1	10	0.113	1.138	1.016	0.131	-
2 440	19	BluetoothLE 1M(255)	H	18.0	17.00	0.07	Right	Ant.1	10	0.134	1.259	1.000	0.169	C27
2 441	39	Bluetooth DH5	G	16.0	15.29	-0.13	Rear	Ant.2	10	0.079	1.178	1.016	0.095	-
2 441	39	Bluetooth DH5	G	16.0	15.29	0.00	Front	Ant.2	10	0.053	1.178	1.016	0.063	-
2 441	39	Bluetooth DH5	G	16.0	15.29	0.05	Right	Ant.2	10	0.099	1.178	1.016	0.118	-
2 441	39	Bluetooth DH5	G	16.0	15.29	0.15	Top	Ant.2	10	0.143	1.178	1.016	0.171	-
2 440	19	BluetoothLE 1M(255)	G	16.0	14.94	0.08	Top	Ant.2	10	0.160	1.276	1.000	0.204	C28
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram					

13.6 UMPC Extremity SAR Measurement Results

GSM 850 UMPC Extremity SAR														
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dB)	(dB)	(dB)			(mm)		(W/kg)		(W/kg)	
836.6	190	GPRS 2Tx	A+B	32.5	31.58	0.19	Rear	1:4.15	0	36	0.940	1.236	1.162	-
836.6	190	GPRS 2Tx	A+B	32.5	31.58	-0.06	Front	1:4.15	0	36	0.945	1.236	1.168	D1
836.6	190	GPRS 2Tx	A+B	32.5	31.58	0.17	Right	1:4.15	0	36	0.716	1.236	0.885	-
836.6	190	GPRS 2Tx	A+B	32.5	31.58	0.02	Bottom	1:4.15	0	36	0.897	1.236	1.109	-
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Extremity 4.0 W/kg Averaged over 10 gram							

GSM 1900 UMPC Extremity 10g SAR													
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 909.8	810	GPRS 4TX	B	22.5	21.50	0.11	Rear	1:2.07	10	1.130	1.259	1.423	-
1 909.8	810	GPRS 4TX	B	22.5	21.50	0.10	Front	1:2.07	10	0.618	1.259	0.778	-
1 909.8	810	GPRS 4TX	B	22.5	21.50	0.07	Right	1:2.07	10	0.397	1.259	0.500	-
1 909.8	810	GPRS 4TX	B	22.5	21.50	0.12	Bottom	1:2.07	10	1.730	1.259	2.178	-
1 850.2	512	GPRS 4TX	B	22.5	21.17	0.02	Bottom	1:2.07	10	1.370	1.358	1.861	-
1 880	661	GPRS 4TX	B	22.5	20.91	0.09	Bottom	1:2.07	10	1.670	1.442	2.408	D2
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Extremity 4.0 W/kg Averaged over 10 gram						

UMTS Band 5 UMPC Extremity 10g SAR														
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dB)	(dB)	(dB)				(mm)	(W/kg)		(W/kg)	
836.6	4183	RMC	A+B	25.5	24.40	0.09	Rear	1:1	4	0	1.200	1.288	1.546	-
836.6	4183	RMC	A+B	25.5	24.40	-0.03	Front	1:1	4	0	1.100	1.288	1.417	-
836.6	4183	RMC	A+B	25.5	24.40	0.15	Right	1:1	4	0	1.200	1.288	1.546	-
836.6	4183	RMC	A+B	25.5	24.40	0.13	Bottom	1:1	4	0	1.220	1.288	1.572	D3
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Extremity 4.0 W/kg Averaged over 10 gram							

UMTS Band 4 UMPC Extremity 10g SAR													
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 712.4	1312	RMC	B	20.0	19.50	0.12	Rear	1:1	0	1.230	1.380	1.380	-
1 712.4	1312	RMC	B	20.0	19.50	0.14	Front	1:1	0	0.913	1.024	1.024	-
1 712.4	1312	RMC	B	20.0	19.50	0.19	Right	1:1	0	0.322	0.361	0.361	-
1 712.4	1312	RMC	B	20.0	19.50	0.11	Bottom	1:1	0	1.970	2.210	2.210	-
1 732.4	1412	RMC	B	20.0	18.75	0.10	Bottom	1:1	0	1.970	2.627	2.627	D4
1 752.6	1513	RMC	B	20.0	18.88	0.11	Bottom	1:1	0	1.970	2.550	2.550	-
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Extremity 4.0 W/kg Averaged over 10 gram						

UMTS Band 2 UMPC Extremity 10g SAR													
Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880.0	9400	RMC	B	20.0	18.71	0.11	Rear	1:1	0	1.180	1.346	1.588	-
1 880.0	9400	RMC	B	20.0	18.71	0.06	Front	1:1	0	0.921	1.346	1.240	-
1 880.0	9400	RMC	B	20.0	18.71	0.13	Right	1:1	0	0.201	1.346	0.271	-
1 880.0	9400	RMC	B	20.0	18.71	0.11	Bottom	1:1	0	2.160	1.346	2.907	-
1 852.4	9262	RMC	B	20.0	18.82	0.02	Bottom	1:1	0	1.940	1.312	2.546	-
1 907.6	9538	RMC	B	20.0	18.69	0.07	Bottom	1:1	0	2.270	1.352	3.069	-
1 907.6	9538	RMC	B	20.0	18.69	0.01	Bottom	1:1	0	2.320	1.352	3.137	D5*
1 907.6	9538	RMC	B	20.0	18.69	0.12	Bottom	1:1	0	2.100	1.352	2.839	****
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Extremity 4.0 W/kg Averaged over 10 gram						

Note: * Data entry indicate Variability measurement.

**** Device holder perturbation .

LTE Band 5 UMPC Extremity 10g SAR																		
Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)	(mm)	(W/kg)	(W/kg)						
836.5	20525	QPSK	A+B	10	25.5	24.51	-0.12	Rear	0	1	49	1:1	1	0	0.967	1.256	1.215	-
836.5	20525	QPSK	A+B	10	24.5	23.50	-0.07	Rear	1	25	24	1:1	1	0	0.782	1.259	0.984	-
836.5	20525	QPSK	A+B	10	25.5	24.51	-0.10	Front	0	1	49	1:1	1	0	1.000	1.256	1.256	-
836.5	20525	QPSK	A+B	10	24.5	23.50	-0.07	Front	1	25	24	1:1	1	0	0.751	1.259	0.945	-
836.5	20525	QPSK	A+B	10	25.5	24.51	-0.09	Right	0	1	49	1:1	1	0	1.130	1.256	1.419	D6
836.5	20525	QPSK	A+B	10	24.5	23.50	0.05	Right	1	25	24	1:1	1	0	0.752	1.259	0.947	-
836.5	20525	QPSK	A+B	10	25.5	24.51	0.02	Bottom	0	1	49	1:1	1	0	1.030	1.256	1.294	-
836.5	20525	QPSK	A+B	10	24.5	23.50	0.02	Bottom	1	25	24	1:1	1	0	0.830	1.259	1.045	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Extremity 4.0 W/kg Averaged over 10 gram										

LTE Band 12 UMPC Extremity 10g SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.																	
707.5	23095	QPSK	A+B	10	25.5	24.01	0.07	Rear	0	1	49	1:1	9	0	0.791	1.409	1.115	-
707.5	23095	QPSK	A+B	10	24.5	23.04	0.09	Rear	1	25	12	1:1	9	0	0.678	1.400	0.949	-
707.5	23095	QPSK	A+B	10	25.5	24.01	-0.18	Front	0	1	49	1:1	9	0	0.670	1.409	0.944	-
707.5	23095	QPSK	A+B	10	24.5	23.04	-0.02	Front	1	25	12	1:1	9	0	0.563	1.400	0.788	-
707.5	23095	QPSK	A+B	10	25.5	24.01	0.07	Right	0	1	49	1:1	9	0	0.890	1.409	1.254	D7
707.5	23095	QPSK	A+B	10	24.5	23.04	-0.05	Right	1	25	12	1:1	9	0	0.647	1.400	0.906	-
707.5	23095	QPSK	A+B	10	25.5	24.01	0.06	Bottom	0	1	49	1:1	9	0	0.687	1.409	0.968	-
707.5	23095	QPSK	A+B	10	24.5	23.04	0.17	Bottom	1	25	12	1:1	9	0	0.609	1.400	0.852	-
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Extremity 4.0 W/kg Averaged over 10 gram										

LTE Band 13 UMPC Extremity 10g SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.																	
782	23230	QPSK	A+B	10	24.0	23.03	-0.02	Rear	0	1	49	1:1	36	0	0.683	1.250	0.854	-
782	23230	QPSK	A+B	10	23.0	21.96	0.14	Rear	1	25	24	1:1	36	0	0.555	1.271	0.705	-
782	23230	QPSK	A+B	10	24.0	23.03	-0.15	Front	0	1	49	1:1	36	0	0.675	1.250	0.844	-
782	23230	QPSK	A+B	10	23.0	21.96	0.05	Front	1	25	24	1:1	36	0	0.542	1.271	0.689	-
782	23230	QPSK	A+B	10	24.0	23.03	0.08	Right	0	1	49	1:1	36	0	0.725	1.250	0.906	-
782	23230	QPSK	A+B	10	23.0	21.96	0.01	Right	1	25	24	1:1	36	0	0.580	1.271	0.737	-
782	23230	QPSK	A+B	10	24.0	23.03	0.11	Bottom	0	1	49	1:1	36	0	0.790	1.250	0.988	D8
782	23230	QPSK	A+B	10	23.0	21.96	0.02	Bottom	1	25	24	1:1	36	0	0.631	1.271	0.802	-
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Extremity 4.0 W/kg Averaged over 10 gram										

LTE Band 25 UMPC Extremity 10g SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.																
1 860	26140	QPSK	B	20	20.0	19.01	0.01	Rear	0	1	0	1:1	0	0.889	1.256	1.117	-
1 905	26590	QPSK	B	20	20.0	18.99	0.02	Rear	0	50	49	1:1	0	1.180	1.262	1.489	-
1 860	26140	QPSK	B	20	20.0	19.01	0.00	Front	0	1	0	1:1	0	0.780	1.256	0.980	-
1 905	26590	QPSK	B	20	20.0	18.99	0.00	Front	0	50	49	1:1	0	0.961	1.262	1.213	-
1 860	26140	QPSK	B	20	20.0	19.01	0.18	Right	0	1	0	1:1	0	0.175	1.256	0.220	-
1 905	26590	QPSK	B	20	20.0	18.99	0.18	Right	0	50	49	1:1	0	0.201	1.262	0.254	-
1 860	26140	QPSK	B	20	20.0	19.01	0.14	Bottom	0	1	0	1:1	0	1.710	1.256	2.148	-
1 882.5	26365	QPSK	B	20	20.0	18.91	0.13	Bottom	0	1	99	1:1	0	1.950	1.285	2.506	-
1 905	26590	QPSK	B	20	20.0	18.87	0.16	Bottom	0	1	0	1:1	0	2.050	1.297	2.659	-
1 860	26140	QPSK	B	20	20.0	18.98	0.14	Bottom	0	50	49	1:1	0	1.900	1.265	2.403	-
1 882.5	26365	QPSK	B	20	20.0	18.95	0.05	Bottom	0	50	25	1:1	0	2.040	1.274	2.598	-
1 905	26590	QPSK	B	20	20.0	18.99	0.17	Bottom	0	50	49	1:1	0	2.170	1.262	2.738	-
1 860	26140	QPSK	B	20	20.0	18.97	0.04	Bottom	0	100	0	1:1	0	1.870	1.268	2.371	-
1 905	26590	QPSK	B	20	20.0	18.99	0.19	Bottom	0	50	49	1:1	0	2.180	1.262	2.751	D9*
1 882.5	26365	QPSK	F	20	21.0	19.85	0.16	Rear	0	1	49	1:1	0	0.996	1.303	1.298	-
1 905	26590	QPSK	F	20	21.0	19.73	0.02	Rear	0	50	25	1:1	0	0.969	1.340	1.298	-
1 882.5	26365	QPSK	F	20	21.0	19.85	0.18	Front	0	1	49	1:1	0	0.907	1.303	1.182	-
1 905	26590	QPSK	F	20	21.0	19.73	0.00	Front	0	50	25	1:1	0	0.878	1.340	1.176	-
1 860	26140	QPSK	F	20	21.0	19.47	0.08	Top	0	1	49	1:1	0	1.860	1.422	2.646	-
1 882.5	26365	QPSK	F	20	21.0	19.85	0.10	Top	0	1	49	1:1	0	1.920	1.303	2.502	-
1 905	26590	QPSK	F	20	21.0	19.68	0.16	Top	0	1	99	1:1	0	1.910	1.355	2.588	-
1 860	26140	QPSK	F	20	21.0	19.52	0.17	Top	0	50	49	1:1	0	1.960	1.406	2.756	-
1 882.5	26365	QPSK	F	20	21.0	19.57	0.12	Top	0	50	49	1:1	0	2.020	1.390	2.808	D10
1 905	26590	QPSK	F	20	21.0	19.73	0.14	Top	0	50	25	1:1	0	1.950	1.340	2.612	-
1 905	26590	QPSK	F	20	21.0	19.71	0.18	Top	0	100	0	1:1	0	2.000	1.346	2.692	-
1 882.5	26365	QPSK	F	20	21.0	19.57	0.09	Top	0	50	49	1:1	0	1.970	1.390	2.738	*
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Extremity 4.0 W/kg Averaged over 10 gram								

Note: * Data entry indicate Variability measurement.

LTE Band 26 UMPC Extremity 10g SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.																	
831.5	26865	QPSK	A+B	15	25.5	24.37	-0.03	Rear	0	1	74	1:1	1	0	0.928	1.297	1.204	-
831.5	26865	QPSK	A+B	15	24.5	23.42	-0.04	Rear	1	36	0	1:1	1	0	0.868	1.282	1.113	-
831.5	26865	QPSK	A+B	15	25.5	24.37	-0.05	Front	0	1	74	1:1	1	0	0.896	1.297	1.162	-
831.5	26865	QPSK	A+B	15	24.5	23.42	-0.02	Front	1	36	0	1:1	1	0	0.752	1.282	0.964	-
831.5	26865	QPSK	A+B	15	25.5	24.37	0.02	Right	0	1	74	1:1	1	0	0.912	1.297	1.183	-
831.5	26865	QPSK	A+B	15	24.5	23.42	0.06	Right	1	36	0	1:1	1	0	0.781	1.282	1.002	-
831.5	26865	QPSK	A+B	15	25.5	24.37	0.13	Bottom	0	1	74	1:1	1	0	0.981	1.297	1.273	D11
831.5	26865	QPSK	A+B	15	24.5	23.42	0.09	Bottom	1	36	0	1:1	1	0	0.843	1.282	1.081	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Extremity 4.0 W/kg Averaged over 10 gram									

LTE Band 41 UMPC Extremity 10g SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.																
2 636.5	41055	QPSK	B	20	20.0	19.26	0.00	Rear	0	1	0	1:1.58	0	1.020	1.186	1.209	-
2 636.5	41055	QPSK	B	20	20.0	19.28	0.0	Rear	0	50	0	1:1.58	0	1.040	1.180	1.228	-
2 636.5	41055	QPSK	B	20	20.0	19.26	0.00	Front	0	1	0	1:1.58	0	0.693	1.186	0.822	-
2 636.5	41055	QPSK	B	20	20.0	19.28	0.00	Front	0	50	0	1:1.58	0	0.702	1.180	0.829	-
2 636.5	41055	QPSK	B	20	20.0	19.26	0.00	Right	0	1	0	1:1.58	0	0.144	1.186	0.171	-
2 636.5	41055	QPSK	B	20	20.0	19.28	0.00	Right	0	50	0	1:1.58	0	0.145	1.180	0.171	-
2 506	39750	QPSK	B	20	20.0	18.65	0.19	Bottom	0	1	49	1:1.58	0	1.480	1.365	2.020	-
2 549.5	40185	QPSK	B	20	20.0	18.22	0.10	Bottom	0	1	0	1:1.58	0	1.520	1.507	2.290	-
2 593	40620	QPSK	B	20	20.0	18.83	-0.14	Bottom	0	1	99	1:1.58	0	1.590	1.309	2.082	-
2 636.5	41055	QPSK	B	20	20.0	19.26	0.13	Bottom	0	1	0	1:1.58	0	1.830	1.186	2.170	-
2 680	41490	QPSK	B	20	20.0	19.02	0.14	Bottom	0	1	0	1:1.58	0	1.750	1.253	2.193	-
2 506	39750	QPSK	B	20	20.0	18.71	0.15	Bottom	0	50	0	1:1.58	0	1.550	1.346	2.086	-
2 549.5	40185	QPSK	B	20	20.0	18.34	0.10	Bottom	0	50	0	1:1.58	0	1.570	1.466	2.301	-
2 593	40620	QPSK	B	20	20.0	18.83	0.19	Bottom	0	50	49	1:1.58	0	1.660	1.309	2.173	-
2 636.5	41055	QPSK	B	20	20.0	19.28	-0.01	Bottom	0	50	0	1:1.58	0	1.870	1.180	2.207	-
2 680	41490	QPSK	B	20	20.0	18.99	0.19	Bottom	0	50	0	1:1.58	0	1.800	1.262	2.271	-
2 636.5	41055	QPSK	B	20	20.0	19.25	0.02	Bottom	0	100	0	1:1.58	0	1.900	1.189	2.258	-
2 506	39750	QPSK	B	20	21.6	20.28	0.00	Bottom	0	50	0	1:2.31	0	1.550	1.355	2.101	***
2 549.5	40185	QPSK	B	20	21.6	19.96	0.07	Bottom	0	50	0	1:2.31	0	1.530	1.459	2.232	***
2 593	40620	QPSK	B	20	21.6	20.42	0.04	Bottom	0	50	49	1:2.31	0	1.680	1.312	2.204	***
2 636.5	41055	QPSK	B	20	21.6	20.90	0.07	Bottom	0	50	25	1:2.31	0	1.940	1.175	2.279	***
2 680	41490	QPSK	B	20	21.6	20.61	0.04	Bottom	0	50	0	1:2.31	0	1.750	1.256	2.198	***
2 636.5	41055	QPSK	B	20	21.6	20.89	0.06	Bottom	0	100	0	1:2.31	0	1.960	1.178	2.308	D12 ***
2 680	41490	QPSK	F	20	22.0	21.15	-0.15	Rear	0	1	0	1:1.58	0	0.398	1.216	0.484	-
2 680	41490	QPSK	F	20	22.0	21.14	-0.12	Rear	0	50	25	1:1.58	0	0.394	1.219	0.480	-
2 680	41490	QPSK	F	20	22.0	21.15	0.00	Front	0	1	0	1:1.58	0	0.579	1.216	0.704	-
2 680	41490	QPSK	F	20	22.0	21.14	0.00	Front	0	50	25	1:1.58	0	0.578	1.219	0.705	-
2 680	41490	QPSK	F	20	22.0	21.15	-0.16	Top	0	1	0	1:1.58	0	0.906	1.216	1.102	-
2 680	41490	QPSK	F	20	22.0	21.14	-0.10	Top	0	50	25	1:1.58	0	0.936	1.219	1.141	D13
2 680	41490	QPSK	F	20	23.6	22.78	-0.13	Top	0	50	25	1:2.31	0	0.911	1.208	1.100	***
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Extremity 4.0 W/kg Averaged over 10 gram									

Note: * Data entry indicate Variability measurement.

** Data entry indicate DoD Test Data.

*** Data entry indicate PowerClass2 Test Data.

LTE Band 66 UMPC Extremity 10g SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 770	132572	QPSK	B	20	20.0	19.33	0.12	Rear	0	1	99	1:1	0	1.310	1.167	1.529	-
1 770	132572	QPSK	B	20	20.0	19.26	0.13	Rear	0	50	49	1:1	0	1.360	1.186	1.613	-
1 770	132572	QPSK	B	20	20.0	19.33	0.00	Front	0	1	99	1:1	0	1.010	1.167	1.178	-
1 770	132572	QPSK	B	20	20.0	19.26	0.05	Front	0	50	49	1:1	0	1.070	1.186	1.269	-
1 770	132572	QPSK	B	20	20.0	19.33	0.13	Right	0	1	99	1:1	0	0.409	1.167	0.477	-
1 770	132572	QPSK	B	20	20.0	19.26	0.14	Right	0	50	49	1:1	0	0.402	1.186	0.477	-
1 720	132072	QPSK	B	20	20.0	19.10	0.11	Bottom	0	1	99	1:1	0	2.070	1.230	2.547	-
1 745	132322	QPSK	B	20	20.0	19.06	-0.06	Bottom	0	1	99	1:1	0	1.750	1.242	2.173	-
1 770	132572	QPSK	B	20	20.0	19.33	0.17	Bottom	0	1	99	1:1	0	2.230	1.167	2.602	-
1 720	132072	QPSK	B	20	20.0	18.97	0.13	Bottom	0	50	25	1:1	0	2.130	1.268	2.700	-
1 745	132322	QPSK	B	20	20.0	19.07	-0.19	Bottom	0	50	49	1:1	0	1.760	1.239	2.180	-
1 770	132572	QPSK	B	20	20.0	19.26	0.11	Bottom	0	50	49	1:1	0	2.330	1.186	2.763	D13
1 770	132572	QPSK	B	20	20.0	19.19	0.14	Bottom	0	100	0	1:1	0	2.110	1.205	2.543	-
1 770	132572	QPSK	B	20	20.0	19.26	0.04	Bottom	0	50	49	1:1	0	2.300	1.186	2.727	*
1 745	132322	QPSK	F	20	21.0	20.14	0.19	Rear	0	1	99	1:1	0	1.040	1.219	1.268	-
1 770	132572	QPSK	F	20	21.0	20.18	0.15	Rear	0	50	0	1:1	0	1.030	1.208	1.244	-
1 745	132322	QPSK	F	20	21.0	20.14	0.00	Front	0	1	99	1:1	0	0.919	1.219	1.120	-
1 770	132572	QPSK	F	20	21.0	20.18	0.00	Front	0	50	0	1:1	0	0.906	1.208	1.094	-
1 745	132322	QPSK	F	20	21.0	20.14	0.19	Top	0	1	99	1:1	0	1.510	1.219	1.841	-
1 770	132572	QPSK	F	20	21.0	20.18	0.14	Top	0	50	0	1:1	0	1.530	1.208	1.848	D15
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Extremity 4.0 W/kg Averaged over 10 gram									

Note: * Data entry indicate Variability measurement.

NR Band n5(Cell) UMPC Extremity 10g SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Ant. State	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(Mhz)	(dBm)	(dBm)	(dB)		(dB)					(mm)	(W/kg)		(W/kg)	
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.33	0.12	Rear	0	1	53	1:1	1	0	1.400	1.167	1.634	D16
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.31	0.18	Rear	0	50	28	1:1	1	0	1.030	1.172	1.207	-
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.33	-0.07	Front	0	1	53	1:1	1	0	1.000	1.167	1.167	-
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.31	-0.11	Front	0	50	28	1:1	1	0	1.090	1.172	1.278	-
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.33	0.10	Right	0	1	53	1:1	1	0	1.190	1.167	1.389	-
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.31	0.10	Right	0	50	28	1:1	1	0	0.949	1.172	1.112	-
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.33	0.19	Bottom	0	1	53	1:1	1	0	0.972	1.167	1.134	-
836.5	167300	DFT-s OFDM QPSK	A+B	20	25.0	24.31	0.11	Bottom	0	50	28	1:1	1	0	0.868	1.172	1.017	-
836.5	167300	CP QPSK	A+B	20	23.5	22.68	0.11	Rear	1.5	1	1	1:1	1	0	0.723	1.208	0.873	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Extremity 4.0 W/kg Averaged over 10 gram										

NR Band n25 UMPC Extremity 10g SAR																	
Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(Mhz)	(dBm)	(dBm)	(dB)		(dB)	(mm)	(W/kg)			(W/kg)			
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.66	-0.10	Rear	0	1	1	1:1	0	1.370	1.361	1.865	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.59	0.00	Rear	0	108	0	1:1	0	1.440	1.384	1.992	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.66	0.00	Front	0	1	1	1:1	0	0.794	1.361	1.081	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.59	0.00	Front	0	108	0	1:1	0	0.816	1.384	1.129	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.66	-0.10	Right	0	1	1	1:1	0	0.238	1.361	0.324	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.59	0.13	Right	0	108	0	1:1	0	0.253	1.384	0.350	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.66	0.10	Bottom	0	1	1	1:1	0	1.920	1.361	2.614	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.59	0.16	Bottom	0	108	0	1:1	0	2.140	1.384	2.961	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.52	0.02	Bottom	0	216	0	1:1	0	2.190	1.406	3.079	D17
1 882.5	376500	CP QPSK	B	40	20.0	18.58	0.05	Bottom	0	1	1	1:1	0	2.060	1.387	2.857	-
1 882.5	376500	DFT-s OFDM QPSK	B	40	20.0	18.52	0.07	Bottom	0	216	0	1:1	0	2.080	1.406	2.925	*
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.97	0.13	Rear	0	1	108	1:1	0	1.020	1.007	1.027	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.92	0.17	Rear	0	108	0	1:1	0	1.030	1.019	1.049	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.97	-0.13	Front	0	1	108	1:1	0	1.080	1.007	1.087	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.92	-0.11	Front	0	108	0	1:1	0	1.160	1.019	1.182	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.97	0.14	Top	0	1	108	1:1	0	2.120	1.007	2.135	D18
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.92	0.16	Top	0	108	0	1:1	0	2.060	1.019	2.098	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.97	0.17	Top	0	216	0	1:1	0	2.110	1.007	2.125	-
1 882.5	376500	CP QPSK	F	40	21.0	20.81	0.15	Top	0	1	1	1:1	0	2.040	1.045	2.131	-
1 882.5	376500	DFT-s OFDM QPSK	F	40	21.0	20.97	0.18	Top	0	1	108	1:1	0	2.090	1.007	2.104	*
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Extremity 4.0 W/kg Averaged over 10 gram									

Note: * Data entry indicate Variability measurement.

NR Band n41 UMPC Extremity 10g SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)						(mm)	(W/kg)			
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.11	0.10	Rear	0	1	1	1:1	0	1.520	1.227	1.866	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.00	Rear	0	135	69	1:1	0	1.530	1.180	1.806	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.11	0.00	Front	0	1	1	1:1	0	0.816	1.227	1.002	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.00	Front	0	135	69	1:1	0	0.912	1.180	1.076	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.11	0.00	Right	0	1	1	1:1	0	0.216	1.227	0.265	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.00	Right	0	135	69	1:1	0	0.179	1.180	0.211	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.11	-0.07	Bottom	0	1	1	1:1	0	2.100	1.227	2.578	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.28	0.11	Bottom	0	135	69	1:1	0	2.400	1.180	2.833	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.05	-0.18	Bottom	0	270	0	1:1	0	2.410	1.245	2.999	D19
2 592.99	518598	CP QPSK	B	100	18.0	16.89	0.01	Bottom	0	1	1	1:1	0	1.670	1.291	2.156	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	18.0	17.05	0.01	Bottom	0	270	0	1:1	0	2.380	1.245	2.808	*
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.23	0.12	Rear	0	1	271	1:1	0	0.511	1.194	0.610	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.14	0.04	Rear	0	135	69	1:1	0	0.507	1.219	0.618	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.23	0.00	Front	0	1	271	1:1	0	0.727	1.194	0.868	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.14	0.00	Front	0	135	69	1:1	0	0.812	1.219	0.990	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.23	-0.03	Top	0	1	271	1:1	0	1.350	1.194	1.612	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.14	-0.07	Top	0	135	69	1:1	0	1.770	1.219	2.158	-
2 592.99	518598	DFT-s OFDM QPSK	F	100	20.0	19.12	-0.15	Top	0	270	0	1:1	0	1.760	1.225	2.155	-
2 592.99	518598	CP QPSK	F	100	20.0	19.28	0.08	Top	0	1	1	1:1	0	1.870	1.180	2.207	D20
2 592.99	518598	CW	C	100	13.0	11.83	0.00	Rear	0	-	-	1:1	0	0.080	1.309	0.105	-
2 592.99	518598	CW	C	100	13.0	11.83	0.00	Front	0	-	-	1:1	0	0.044	1.309	0.058	-
2 592.99	518598	CW	C	100	13.0	11.83	0.10	Bottom	0	-	-	1:1	0	0.117	1.309	0.153	-
2 592.99	518598	CW	H	100	13.0	12.13	-0.14	Rear	0	-	-	1:1	0	0.114	1.222	0.139	-
2 592.99	518598	CW	H	100	13.0	12.13	0.00	Front	0	-	-	1:1	0	0.329	1.222	0.402	-
2 592.99	518598	CW	H	100	13.0	12.13	0.11	Right	0	-	-	1:1	0	0.268	1.222	0.327	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Extremity 4.0 W/kg Averaged over 10 gram									

Note: * Data entry indicate Variability measurement.

NR Band n66 UMPC Extremity 10g SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.38	0.16	Rear	0	1	108	1:1	0	0.886	1.153	1.022	
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.37	0.15	Rear	0	108	54	1:1	0	0.841	1.156	0.972	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.38	0.00	Front	0	1	108	1:1	0	0.867	1.153	1.000	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.37	0.00	Front	0	108	54	1:1	0	0.900	1.156	1.041	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.38	0.08	Right	0	1	108	1:1	0	0.352	1.153	0.406	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.37	0.14	Right	0	108	54	1:1	0	0.414	1.156	0.479	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.38	0.19	Bottom	0	1	108	1:1	0	1.570	1.153	1.811	-
1 745	349000	DFT-s OFDM QPSK	B	40	20.0	19.37	0.11	Bottom	0	108	54	1:1	0	1.710	1.156	1.977	-
1 745	349000	CP QPSK	B	40	20.0	19.37	0.14	Bottom	0	1	1	1:1	0	1.780	1.156	2.058	D21
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.16	0.14	Rear	0	1	1	1:1	0	0.857	1.213	1.040	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.13	0.15	Rear	0	108	0	1:1	0	0.837	1.222	1.023	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.16	0.00	Front	0	1	1	1:1	0	1.020	1.213	1.238	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.13	0.00	Front	0	108	0	1:1	0	1.060	1.222	1.295	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.16	0.13	Top	0	1	1	1:1	0	1.540	1.213	1.869	-
1 745	349000	DFT-s OFDM QPSK	F	40	21.0	20.13	0.11	Top	0	108	0	1:1	0	1.600	1.222	1.955	D22
1 745	349000	CP QPSK	F	40	21.0	20.11	0.17	Top	0	1	1	1:1	0	1.460	1.227	1.792	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Extremity 4.0 W/kg Averaged over 10 gram									



NR Band n77 UMPC Extremity 10g SAR

Frequency		Mode	Ant. No.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(Mhz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.87	-0.04	Rear	0	1	1	1:1	0	0.499	1.156	0.577	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.79	0.18	Rear	0	135	0	1:1	0	0.502	1.178	0.591	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.87	0.00	Front	0	1	1	1:1	0	0.688	1.156	0.795	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.79	0.00	Front	0	135	0	1:1	0	0.731	1.178	0.861	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.87	0.09	Top	0	1	1	1:1	0	1.670	1.156	1.931	-
3 930	662000	DFT-s OFDM QPSK	F	100	18.5	17.85	0.13	Top	0	1	271	1:1	0	1.850	1.161	2.149	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.79	0.12	Top	0	135	0	1:1	0	1.800	1.178	2.120	-
3 930	662000	DFT-s OFDM QPSK	F	100	18.5	17.71	0.19	Top	0	135	138	1:1	0	2.280	1.199	2.735	-
3 750	650000	DFT-s OFDM QPSK	F	100	18.5	17.74	0.02	Top	0	270	0	1:1	0	1.910	1.191	2.275	-
3 750	650000	CP QPSK	F	100	18.5	17.72	0.17	Top	0	1	1	1:1	0	1.890	1.197	2.262	-
3 930	662000	CP QPSK	F	100	18.5	17.70	0.14	Top	0	1	1	1:1	0	1.930	1.202	2.320	-
3 500.01	633334	DFT-s OFDM QPSK	F	100	18.5	17.47	0.13	Top	0	1	271	1:1	0	1.420	1.268	1.800	**
3 500.01	633334	DFT-s OFDM QPSK	F	100	18.5	17.24	-0.12	Top	0	135	138	1:1	0	1.500	1.337	2.005	**
3 500.01	633334	DFT-s OFDM QPSK	F	100	18.5	17.13	0.11	Top	0	270	0	1:1	0	1.420	1.371	1.947	**
3 930	662000	DFT-s OFDM QPSK	F	100	18.5	17.71	0.07	Top	0	135	138	1:1	0	2.350	1.199	2.819	D23*
3 750	650000	CW	D	100	16.0	15.62	0.15	Rear	0	-	-	1:1	0	0.588	1.091	0.642	-
3 750	650000	CW	D	100	16.0	15.62	0.00	Front	0	-	-	1:1	0	0.424	1.091	0.463	-
3 750	650000	CW	D	100	16.0	15.62	0.18	Bottom	0	-	-	1:1	0	0.644	1.091	0.703	-
3 500.01	633334	CW	D	100	16.0	14.49	0.19	Bottom	0	-	-	1:1	0	0.833	1.416	1.179	**
3 750	650000	CW	G	100	16.0	15.92	0.00	Rear	0	-	-	1:1	0	0.367	1.019	0.393	-
3 750	650000	CW	G	100	16.0	15.92	0.00	Front	0	-	-	1:1	0	0.319	1.019	0.341	-
3 750	650000	CW	G	100	16.0	15.92	0.00	Right	0	-	-	1:1	0	0.040	1.019	0.043	-
3 750	650000	CW	G	100	16.0	15.92	0.13	Top	0	-	-	1:1	0	0.784	1.019	0.840	-
3 500.01	633334	CW	G	100	16.0	14.69	0.15	Top	0	-	-	1:1	0	1.040	1.352	1.406	**
3 750	650000	CW	A	100	16.0	15.78	0.00	Rear	0	-	-	1:1	0	0.341	1.052	0.359	-
3 750	650000	CW	A	100	16.0	15.78	0.00	Front	0	-	-	1:1	0	0.385	1.052	0.405	-
3 750	650000	CW	A	100	16.0	15.78	0.17	Right	0	-	-	1:1	0	0.325	1.052	0.342	-
3 750	650000	CW	A	100	16.0	15.78	0.16	Bottom	0	-	-	1:1	0	0.254	1.052	0.267	-
3 500.01	633334	CW	A	100	16.0	15.01	0.00	Front	0	-	-	1:1	0	0.853	1.256	1.071	**
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Extremity 4.0 W/kg Averaged over 10 gram									

Note: * Data entry indicate Variability measurement.

** Data entry indicate DoD Test Data.

DTS UMPC Extremity 10g SAR

Frequency		Mode	Ant. No.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant Config.	Duty Cycle	Distance	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Reported SAR	Plot No.
MHz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)				(mm)	(W/kg)	(W/kg)		(Duty)	(W/kg)	
2 437	6	802.11b	G	20	1	19.0	17.95	0.04	Rear	WIFI2	98.9	0	3.94	0.762	1.274	1.011	0.981	-
2 437	6	802.11b	G	20	1	19.0	17.95	0.00	Front	WIFI2	98.9	0	3.18	0.767	1.274	1.011	0.988	-
2 437	6	802.11b	G	20	1	19.0	17.95	-0.12	Right	WIFI2	98.9	0	3.88	0.574	1.274	1.011	0.739	-
2 437	6	802.11b	G	20	1	19.0	17.95	0.15	Top	WIFI2	98.9	0	13.1	1.830	1.274	1.011	2.356	-
2462	11	802.11b	G	20	1	19.0	17.58	0.16	Top	WIFI2	98.9	0	13.3	1.740	1.387	1.011	2.439	D24
2 462	11	802.11b	H+G	20	1	22.0	21.14	0.17	Rear	MIMO	98.9	0	5.27	1.110	1.387	1.011	1.556	-
2 462	11	802.11b	H+G	20	1	22.0	21.14	0.00	Front	MIMO	98.9	0	4.05	1.040	1.387	1.011	1.458	-
2 462	11	802.11b	H+G	20	1	22.0	21.14	0.07	Right	MIMO	98.9	0	9.84	1.710	1.387	1.011	2.397	D25
2 437	6	802.11b	H+G	20	1	22.0	21.08	0.08	Right	MIMO	98.9	0	9.26	1.480	1.274	1.011	1.906	-
2 462	11	802.11b	H+G	20	1	22.0	21.14	-0.07	Top	MIMO	98.9	0	8.68	1.460	1.387	1.011	2.047	-
2 437	6	802.11b	H+G	20	1	22.0	21.08	0.00	Top	MIMO	98.9	0	9.57	1.710	1.274	1.011	2.202	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population													Extremity 4.0 W/kg Averaged over 10 gram					

- For the SAR measurement results of MIMO Ant Mode(802.11b), higher power scaling factor among each SISO ANT was applied.

NII UMPC Extremity 10g SAR

Frequency		Mode	Ant. No.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant Config.	Duty Cycle	Distance	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Reported SAR	Plot No.
MHz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)				(mm)	(W/kg)	(W/kg)		(Duty)	(W/kg)	
5 270	54	802.11n40	H+J	40	MCS8	21.0	18.96	-0.06	Rear	MIMO	86.8	0	16.0	1.230	1.279	1.153	1.813	D26
5 310	62	802.11n40	H+J	40	MCS8	20.0	18.22	0.00	Rear	MIMO	86.8	0	15.2	1.080	1.222	1.153	1.520	-
5 270	54	802.11n40	H+J	40	MCS8	21.0	18.96	0.00	Front	MIMO	86.8	0	11.9	0.899	1.279	1.153	1.325	-
5 270	54	802.11n40	H+J	40	MCS8	21.0	18.96	0.12	Right	MIMO	86.8	0	6.01	0.497	1.279	1.153	0.733	-
5 270	54	802.11n40	H+J	40	MCS8	21.0	18.96	0.13	Top	MIMO	86.8	0	2.17	0.176	1.279	1.153	0.259	-
5690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	0.15	Rear	MIMO	86.2	0	7.96	0.768	1.300	1.16	1.158	-
5690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	0.00	Front	MIMO	86.2	0	9.96	0.661	1.300	1.16	0.997	-
5690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	-0.11	Right	MIMO	86.2	0	8.75	0.452	1.300	1.16	0.682	-
5690	138	802.11ac80	H+J	80	MCS0	21.0	19.48	0.00	Top	MIMO	86.2	0	1.21	0.108	1.300	1.16	0.163	-
5 775	155	802.11ac80	H+J	80	MCS0	21.0	19.57	0.00	Rear	MIMO	86.2	0	8.17	0.872	1.161	1.16	1.175	-
5 775	155	802.11ac80	H+J	80	MCS0	21.0	19.57	0.00	Front	MIMO	86.2	0	10.7	0.575	1.161	1.16	0.775	-
5 775	155	802.11ac80	H+J	80	MCS0	21.0	19.57	0.15	Right	MIMO	86.2	0	3.76	0.322	1.161	1.16	0.434	-
5 775	155	802.11ac80	H+J	80	MCS0	21.0	19.57	-0.11	Top	MIMO	86.2	0	1.68	0.149	1.161	1.16	0.201	-
5 855	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.12	Rear	MIMO	86.2	0	7.45	0.656	1.268	1.16	0.965	-
5 855	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.00	Front	MIMO	86.2	0	3.39	0.397	1.268	1.16	0.584	-
5 855	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.19	Right	MIMO	86.2	0	4.77	0.256	1.268	1.16	0.376	-
5 855	171	802.11ac80	H+J	80	MCS0	21.0	19.43	0.09	Top	MIMO	86.2	0	1.35	0.127	1.268	1.16	0.187	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population													Extremity 4.0 W/kg Averaged over 10 gram					

DSS UMPC Extremity 10g SAR W/kg

Frequency		Mode	Ant. No.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant Config.	Distance	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(Duty)	(W/kg)	
2 441	39	Bluetooth DH5	H	18.0	17.44	0.00	Rear	Ant.1	0	0.159	1.138	1.016	0.184	-
2 441	39	Bluetooth DH5	H	18.0	17.44	0.00	Front	Ant.1	0	0.319	1.138	1.016	0.369	-
2 441	39	Bluetooth DH5	H	18.0	17.44	-0.03	Right	Ant.1	0	0.298	1.138	1.016	0.344	-
2 440	19	BluetoothLE 1M(255)	H	18.0	17.00	0.00	Front	Ant.1	0	0.362	1.259	1.000	0.456	D27
2 441	39	Bluetooth DH5	G	16.0	15.29	0.00	Rear	Ant.2	0	0.240	1.178	1.016	0.287	-
2 441	39	Bluetooth DH5	G	16.0	15.29	0.00	Front	Ant.2	0	0.230	1.178	1.016	0.275	-
2 441	39	Bluetooth DH5	G	16.0	15.29	0.19	Right	Ant.2	0	0.174	1.178	1.016	0.208	-
2 441	39	Bluetooth DH5	G	16.0	15.29	-0.11	Top	Ant.2	0	0.585	1.178	1.016	0.700	-
2 440	19	BluetoothLE 1M(255)	G	16.0	14.94	0.00	Top	Ant.2	0	0.669	1.276	1.000	0.854	D28
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Extremity 4.0 W/kg Averaged over 10 gram					

**NFC UMPC Extremity 10g SAR W/kg**

Frequency	Mode	Data Rate	Power Drift	Test Position	Ant Config.	Distance	Meas. SAR	Plot No.
MHz		(kbps)	(dB)			(mm)	(W/kg)	
13.56	NFC(Type B)	106	0.00	Rear	NFC	0	0.000	D29
13.56	NFC(Type B)	106	0.00	Front	NFC	0	0.000	-
13.56	NFC(Type B)	106	0.00	Left	NFC	0	0.000	-
13.56	NFC(Type B)	106	0.00	Right	NFC	0	0.000	-
13.56	NFC(Type B)	106	0.00	Bottom	NFC	0	0.000	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Extremity 4.0 W/kg Averaged over 10 gram	

13.7 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, FCC KDB Procedure.
2. Batteries are fully charged at the beginning of the SAR measurements. A standard battery was used for all SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB 447498 D04v01.
6. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 15 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
7. Per FCC KDB 648474 D04v01r03, SAR was evaluated without a headset connected to the device. Since the standalone reported SAR was 1.2 W/kg, no additional SAR evaluation using a headset cable were required.
8. Per KDB 648474 D04v01r03, this device is considered a "Phablet" since the diagonal dimension is > 160 mm and < 200 mm. When hotspot mode applies, extremity SAR is required only for the surfaces and edges with hotspot mode scaled to the maximum output power (with tolerance) is 1 g SAR > 1.2 W/kg.
9. Per FCC KDB 865664 D01v01r04, variability SAR measurement were performed when the measured SAR results for a frequency Band were greater than or equal to 0.8 W/kg for 1g SAR and >2 for 10g SAR Please see Section 15 for variability analysis.
10. This device utilizes power reduction for some wireless mode and technologies, as outlined in sec. 4 The maximum output power allowed for each transmitter and exposure condition was evaluated for SAR compliance based on expected use conditions and simultaneous scenarios.
11. During SAR testing for the Hotspot conditions per KDB 941225 D06v02r01, the actual portable hotspotoperation (with actual simultaneous transmission of a transmitter with WiFi) was not activated.

GSM/GPRS Test Notes:

1. This EUT'S GSM and GPRS device class is B.
2. This device supports GPRS VOIP in the head and the body-worn configurations therefore GPRS was additionally evaluated for head and body-worn compliance.
3. Justification for reduced test configurations per KDB 941225 D01v03r01: The source-based time-averaged output power was evaluated for all multi-slot operations. The multi-slot configuration with the highest frame averaged output power including tolerance was evaluated for SAR.
4. Per FCC KDB 447498 D04v01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is 0.8 W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is 1/2 dB, instead of the middle channel, the highest output power channel must be used.

UMTS Notes:

1. The 12.2 kbps RMC mode is the primary mode per KDB 941225 D01v03r01.
2. UMTS SAR was tested under RMC 12.2 kbps with HSPA inactive per KDB publication 941225 D01v03r01. AMR and HSPA SAR was not required per the 3G Test Reduction Procedure in KDB Publication 941225 D01v03r01.
3. Per FCC KDB 447498 D04v01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is 0.8 W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the channel highest output power channel was used.

LTE Notes:

1. LTE Considerations: LTE test configurations are determined according to SAR Evaluation Consideration for LTE Devices in FCC KDB 941225 D05v02r05.
2. According to FCC KDB 941225 D05v02r05:
When the reported SAR is 0.8 W/kg, testing of the 100% RB allocation and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the 1RB, 50%RB and 100%RB allocation with highest output power for that channel.
Only one channel, and as reported SAR values for 1RB allocation and 50%RB allocation were less than 1.45W/Kg only the highest power RB offset for each allocation was required.
3. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to target MPR is indicated alongside the SAR results.
4. When Power reduction is applied, MPR is 0 for some modes.
5. A-MPR was disabled for all SAR tests by setting NS=01 on the base station simulator.
6. Per FCC KDB Publication 447498 D04v01, if the reported (scaled) LTE TDD Band 41 SAR measured at the highest output power channel for each test configuration is 0.6 W/kg then testing at the other channels is not required for such test configurations.
7. TDD LTE (Power Class 3) was tested using UL-DL configuration 0 with 6 UL sub frames and 2S subframes using extended cyclic prefix only and special sub frame configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Sec. 4, the duty factor using extended cyclic prefix is 0.633(cf=1.58).
8. Per KDB 941225 D05Av01r02, SAR for LTE Carrier Aggregation operations was not needed because the maximum average output power in LTE CA mode was not > 0.25 dB higher than the maximum output power when downlink CA was not activated.
9. This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The Highest available duty cycle for Power Class 2 operations is 43.3% using UL-DL configuration 1. Per May TCB Workshop notes, all SAR tests were performed using Power Class 3. SAR with power class 2 at the available duty factor was additionally performed for the power class 3 configuration with the highest SAR configuration for each exposure conditions.
10. SAR test reduction is applied using the following criteria:
Start with the largest channel Bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is >0.8 W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel. Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are >0.8 W/kg, testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation <1.45 W/kg. Testing for 16-QAM modulation is not required because the reported SAR for QPSK is <1.45 W/kg and its output power is not more than 0.5 dB higher than that a QPSK. Testing for the other channel Bandwidths is not required because the reported SAR for the highest channel Bandwidth is <1.45 W/kg and its output power is not more than 0.5 dB higher than that of the highest channel Bandwidth.

NR Notes:

1. This device supports SA and NSA mode for NR implementation. In EN-DC Mode, NR operate with the LTE Bands shown in the NR FR1 checklist acting as anchor Bands.
2. Due to Limitations of the SAR measurement equipment, SAR testing for NR and LTE anchor Bands was performed separately using test mode (FTM) software.
3. More detailed specifications of the NR Bands are contained in the Technical description document.
4. This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only.
5. For NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power was evaluated for SAR tests.
6. SRS was tested with CW signal per Qualcomm guidance in 80-w2112-4.
7. For implementation, NR Band n41/77 slot configuration is synchronized using maximum duty cycle of 100%. SAR testing was performed using FTM(Factory Test Mode) with 100% duty cycle applied to match final duty cycle.

WLAN Notes:

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

Bluetooth Notes:

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

14. Simultaneous SAR Analysis

This device is containing transmitters that may operate simultaneously. Therefore, simultaneous transmission analysis is required. Per KDB Publication 447498 D04v01 4.3.2, simultaneous transmission SAR test exclusion may be applied when the sum of 1g SAR and 10g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is $\leq 1.6 \text{ W/kg}$ for 1g SAR and $\leq 4 \text{ W/kg}$ for 10g SAR. The different test positions in an exposure condition may be considered collectively to determine SAR exclusion according to the sum of 1g or 10g SAR.

This device contains transmitters that may operate simultaneously. Therefore, simultaneous transmission analysis is required. Per FCC KDB Publication 447498 D04v01 4.3.2 and IEEE 1528-2013 Section 6.3.4.1.2, simultaneous transmission SAR test exclusion may be applied when the sum of the 1g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is $\leq 1.6 \text{ W/kg}$. The different test positions in an exposure condition may be considered collectively to determine SAR test exclusion according to the sum of 1g or 10g SAR.

This device is enabled with Qualcomm® Smart Transmit Gen2 with pre-defined sub6 antenna groups (AG0 and AG1). Simultaneous transmission analysis is performed per antenna groups. Section 14.2 contains analysis to demonstrate the AG0 and AG1 are operate mutually exclusive. Additional analysis is provided below to show compliance between AG0 and BT/WLAN and AG1 BT/WLAN.

When operating in the same antenna group, Qualcomm Smart Transmit algorithm in WWAN directly adds the time-averaged RF exposure from 4G, PCC and time-averaged RF exposure from 5G NR, SCC. Smart Transmit algorithm controls the total RF exposure from both 4G, PCC and 5G NR, SCC to not exceed FCC limit. Therefore, simultaneous transmission compliance between 4G+5G(PCC+SCC) operations within an antenna group is demonstrated in the Part 2 Report during algorithm validation.

14.1 Sub6 Antenna Groups

The 2nd generation of Smart Transmit (GEN2) 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 either of below conditions for all exposure scenarios:

- a) Sum of SAR of one antenna from each of the sub6 AGs and the RF exposure from radios outside Smart Transmit is less than regulatory limits. This condition must be demonstrated for all antenna combinations of sub6 AGs.

(or)

- b) Every antenna from each sub6 AG meets SPLSR criteria (Section 4.3.2(c) in FCC KDB 447498 D04v01) with every antenna from another sub6 AG. These criteria must be demonstrated for all antenna combinations for each pair of AGs.

This device supports two sub6 AG: AG0 and AG1, with AG0 having 4 antennas (Main1, Main2, Main3, Main4) and AG1 having 4 antennas (Sub1, Sub2, Sub3), and two WIFI/BT antennas outside of Smart Transmit. The conditions are verified through the following criterias:

i) (Condition#1 Sum of SAR): If SPLSR criteria is not used, then the highest reported SAR at Plimit (or Pmax when Plimit > Pmax) 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 (or Pmax when Plimit > Pmax) 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:

$$\{ [\text{max.SAR.AG0} + \text{max.SAR.AG1}] + \text{WIFI/BT Ant 1} + \text{WIFI/BT Ant 2} \} \leq 1.6 \text{ (for 1g, or 4.0 for 10g).}$$

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:
{antenna (Main1, Main2, Main3, Main4) in AG0; antenna (Sub1, Sub2, Sub5) in AG1.
As it can be seen, these include all combinations of antenna groups, antennas, and frequency bands.

iii) (combination of SPLSR & SAR1+SAR2 criteria): If SPLSR criteria for all the combinations of sub6 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: $\{ \text{max.SAR.AG0} + \text{WIFI/BT Ant 1} + \text{WIFI/BT Ant 2} \} \leq 1.6$ and $\{ \text{max.SAR.AG1} + \text{WIFI/BT Ant 1} + \text{WIFI/BT Ant 2} \} \leq 1.6$ for compliance demonstration (for 1g, or 4.0 for 10g).

If SPLSR criteria evaluation and analysis is needed to determine compliance for a certain DSI configuration, SPLSR is performed by taking the highest reported SAR for each of the supported technologies and bands per antenna, along with the peak SAR locations. Per Qualcomm guidance, only Y-axis coordinates are recorded in the analysis for calculation simplicity (assumes all 0mm of separation on the x-axis).

For this device, AG0 is located at the bottom of the device, AG1 is located at the Top of the device. Per April 2022 TCB Workshop Notes, AG1 was summed algebraically with the BT/WIFI Antenna for the purposes of hybrid SPLSR combination, identified in this report as the “Top set”.

The minimum distance when considering all transmissions between the top set groups and AG0 was considered when calculating the SPLSR.

The sum of the transmissions within set are less than the SAR limit

For top set (AG1+BT/WIFI Ant), Y_min coordinate represents the worst case hotspot location that is closest to the AG0.

The following formula is used to calculate the SPLSR between the AG0 and top sets for each exposure configuration:

$$\text{SPLSR} = \frac{(\text{Max SAR AG0} + \text{Max SAR Top Set})^{1.5}}{|Y_{\text{max}} - Y_{\text{Min}}|}$$

14.2 SAR Antenna Group Analysis

14.2.1 Head SAR Antenna Group Analysis

14.2.2 AG0 Highest Reported SAR

Position	AG0 1g SAR (W/kg)					
	Ant A+B	Ant A	Ant B	Ant C	Ant D	Max
Left Touch	0.179	0.153	0.117	0.000	0.000	0.179
Left Tilt	0.112	0.112	0.100	0.000	0.000	0.112
Right Touch	0.200	0.165	0.133	0.000	0.000	0.200
Right Tilt	0.126	0.104	0.133	0.000	0.000	0.133

14.2.3 AG0 Highest Reported SAR

Position	AG0 1g SAR (W/kg)					
	Ant F	Ant H	Ant G	Ant H+G	Ant H+J	Max
Left Touch	0.759	0.224	0.351	0.648	0.102	0.759
Left Tilt	1.107	0.065	0.348	0.751	0.05	1.107
Right Touch	0.868	0.176	0.294	0.493	0.121	0.868
Right Tilt	1.106	0.064	0.342	0.652	0.029	1.106

14.2.4 Head AG Verification

Position	AG0	AG1	AG0+AG1	SPLSR
	1g SAR	1g SAR	1g SAR	
	(W/kg)	(W/kg)	(W/kg)	
Left Touch	0.179	0.759	0.938	N/A
Left Tilt	0.112	1.107	1.219	N/A
Right Touch	0.200	0.868	1.068	N/A
Right Tilt	0.133	1.106	1.239	N/A

14.3 Fold Close Body SAR Antenna Group Analysis

14.3.1 AG0 Highest Reported SAR

Position	AG0 1g SAR (W/kg)					
	Ant A+B	Ant A	Ant B	Ant C	Ant D	Max
Rear	0.468	0.568	0.642	0.014	0.119	0.642
Front	0.169	0.259	0.323	0.000	0.008	0.323
Left	0.211	0.000	0.065	0.000	0.000	0.211
Right	0.344	0.384	0.415	0.000	0.000	0.415
Top	0.000	0.000	0.000	0.000	0.000	0.000
Bottom	0.204	0.214	0.889	0.016	0.311	0.889

14.3.2 AG1 Highest Reported SAR

Position	AG1 1g SAR (W/kg)					
	Ant F	Ant G	Ant H	Ant G+H	Ant H+J	Max
Rear	0.462	0.251	0.037	0.308	1.021	1.021
Front	0.182	0.136	0.042	0.272	0.028	0.272
Left	0.122	0.005	0.000	0.028	0.035	0.122
Right	0.000	0.205	0.144	0.482	0.176	0.482
Top	0.785	0.564	0.000	0.83	0.252	0.830
Bottom	0.000	0.000	0.000	0.000	0.000	0.000

14.3.3 Fold Close Body AG Verification

Position	AG0	AG1	AG0+AG1	SPLSR
	1g SAR	1g SAR	1g SAR	
	(W/kg)	(W/kg)	(W/kg)	
Rear	0.642	1.021	Refer to below table	Yes
Front	0.323	0.272	0.595	N/A
Left	0.211	0.122	0.333	N/A
Right	0.415	0.482	0.897	N/A
Top	0.000	0.830	0.830	N/A
Bottom	0.889	0.000	0.889	N/A

14.3.4 Fold Close Body AG SPLSR

Position	AG0		AG1		SPLSR
	Y-Coordinates	1g SAR(W/kg)	Y-Coordinates	1g SAR(W/kg)	
	mm	W/kg	mm	W/kg	
Rear	-61.2	0.642	17.2	1.021	0.029

14.4 Fold Open Body SAR Antenna Group Analysis

14.4.1 AG0 Highest Reported SAR

Position	AG0 1g SAR (W/kg)					
	Ant A	Ant A+B	Ant B	Ant C	Ant D	Max
Rear	0.079	0.741	0.573	0.014	0.168	0.741
Front	0.072	0.496	0.496	0.006	0.145	0.496
Left	0.000	0.000	0.000	0.000	0.000	0.000
Right	0.198	0.292	0.205	0.000	0.000	0.292
Top	0.000	0.000	0.000	0.000	0.000	0.000
Bottom	0.069	0.599	1.153	0.025	0.699	1.153

14.4.2 AG1 Highest Reported SAR

Position	AG1 1g SAR (W/kg)					
	Ant F	Ant G	Ant H	Ant G+H	Ant H+J	Max
Rear	0.549	0.297	0.069	0.592	0.884	0.884
Front	0.407	0.228	0.089	0.502	0.136	0.502
Left	0.000	0.000	0.000	0.000	0.000	0.000
Right	0.000	0.359	0.169	1.012	0.262	1.012
Top	0.837	0.724	0.000	0.634	0.271	0.837
Bottom	0.000	0.000	0.000	0.000	0.000	0.000

14.4.3 Fold Open Body AG Verification

Position	AG0	AG1	AG0+AG1	SPLSR
	1g SAR	1g SAR	1g SAR	
	(W/kg)	(W/kg)	(W/kg)	
Rear	0.741	0.884	Refer to below table	Yes
Front	0.496	0.502	0.998	N/A
Left	0.000	0.000	0.000	N/A
Right	0.292	1.012	1.304	N/A
Top	0.000	0.837	0.837	N/A
Bottom	1.153	0.000	1.153	N/A

14.3.4 Fold Open Body AG SPLSR

Position	AG0		AG1		SPLSR
	Y-Coordinates	1g SAR(W/kg)	Y-Coordinates	1g SAR(W/kg)	
	mm	W/kg	mm	W/kg	
Rear	-57	0.741	23.2	0.884	0.027

14.5 Fold Open Extremity SAR Antenna Group Analysis

14.5.1 AG0 Highest Reported SAR

Position	AG0 10g SAR (W/kg)					
	Ant A	Ant A+B	Ant B	Ant C	Ant D	Max
Rear	0.359	1.634	1.992	0.105	0.642	1.992
Front	1.071	1.417	1.240	0.058	0.463	1.417
Left	0.000	0.000	0.000	0.000	0.000	0.000
Right	0.342	1.546	0.500	0.000	0.000	1.546
Top	0.000	0.000	0.000	0.000	0.000	0.000
Bottom	0.267	1.572	3.151	0.153	1.179	3.151

14.5.2 AG1 Highest Reported SAR

Position	AG1 10g SAR (W/kg)					
	Ant F	Ant G	Ant H	Ant G+H	Ant H+J	Max
Rear	1.298	0.981	0.184	1.556	1.813	1.813
Front	1.295	0.988	0.402	1.458	1.325	1.458
Left	0.000	0.000	0.000	0.000	0.000	0.000
Right	0.000	0.739	0.344	2.397	0.733	2.397
Top	2.819	2.439	0.000	2.202	0.259	2.819
Bottom	0.000	0.000	0.000	0.000	0.000	0.000

14.5.3 UWB/NFC Highest Reported SAR

Position	UWB/NFC
	10g SAR
	(W/kg)
Rear	0.017
Front	0.003
Left	0.003
Right	0.000
Top	0.000
Bottom	0.000

14.5.4 Fold Open Extremity AG Verification

Position	AG0	AG1	UWB/NFC	AG0+AG1	SPLSR	FCC Limit for Extremity 10g [W/kg]
	10g SAR	10g SAR	10g SAR	10g SAR		
	(W/kg)	(W/kg)	(W/kg)	(W/kg)		
Rear	1.992	1.813	0.017	3.822	N/A	4.0W/kg
Front	1.417	1.458	0.003	2.878	N/A	
Left	0.000	0.000	0.003	0.003	N/A	
Right	1.546	2.397	0.000	3.943	N/A	
Top	0.000	2.819	0.000	2.819	N/A	
Bottom	3.151	0.000	0.000	3.151	N/A	

14.6 Highest Reported SAR and SAR Locations

14.6.1 Fold Close Body SAR

Position	Mode/Band	AG0 Reported SAR and Y Coordinate									
		Ant A+B		Ant A		Ant B		Ant C		Ant D	
		mm	W/kg	mm	W/kg	mm	W/kg	mm	W/kg	mm	W/kg
Rear	GSM 850	-68.5	0.206	-64.0	0.242						
	GSM 1900					-71.5	0.400				
	UMTS B5	-67.0	0.468	-68.5	0.568						
	UMTS B4					-76.5	0.453				
	UMTS B2					-78.0	0.362				
	LTE Band 5	-70.5	0.428	-69	0.47						
	LTE Band 12	-70.5	0.344	-67.5	0.279						
	LTE Band 13	-72.5	0.333	-66.5	0.315						
	LTE Band 25					-88.0	0.235				
	LTE Band 26	-70.5	0.42	-69	0.455						
	LTE Band 41					-82.0	0.34				
	LTE Band 66					-86.5	0.378				
	NR Band n5	-65.5	0.251	-62.5	0.341						
	NR Band n25					-75.5	0.506				
	NR Band n41					-81.8	0.642				
	NR Band n66					-65.0	0.461				
	n77 SRS #1									-76.2	0.119
	n77 SRS #3			-76.2	0.137						
	n41 SRS #3							-61.2	0.014		

Position	Mode/Band	AG1 Reported SAR and Y Coordiante									
		Ant F		Ant G		Ant H		Ant G+H		Ant H+J	
		mm	W/kg	mm	W/kg	mm	W/kg	mm	W/kg	mm	W/kg
Rear	LTE Band 25	59.0	0.442								
	LTE Band 41	74.6	0.200								
	LTE Band 66	77.0	0.329								
	n25	84.0	0.462								
	n41	70.0	0.256								
	n66	76.5	0.386								
	n77	77.0	0.318								
	2.4G WLAN			78.4	0.251			79.6	0.308		
	5G WLAN									57.0	1.021
	6E									67.2	0.165
	BT			77.2	0.079	17.2	0.037				
	n77 SRS #2			75.6	0.128						
	n41 SRS #2					24.0	0.034				

14.6.2 Fold Open Body SAR

Position	Mode/Band	AG0 Reported SAR and Y Coordinate									
		Ant A		Ant A+B		Ant B		Ant C		Ant D	
		mm	W/kg	mm	W/kg	mm	W/kg	mm	W/kg	mm	W/kg
Rear	GSM 850			-65.5	0.545						
	GSM 1900					-82.0	0.454				
	UMTS B5			-67.0	0.640						
	UMTS B4					-80.5	0.441				
	UMTS B2					-80.5	0.538				
	LTE Band 5			-61.5	0.485						
	LTE Band 12			-64.5	0.407						
	LTE Band 13			-66.5	0.354						
	LTE Band 25					-82.0	0.505				
	LTE Band 26			-57.0	0.741						
	LTE Band 41					-79.6	0.383				
	LTE Band 66					-82	0.496				
	NR Band n5			-67.0	0.553						
	NR Band n25					-82.5	0.498				
	NR Band n41					-83.2	0.573				
	NR Band n66					-78.5	0.443				
	n77 SRS #1									-64.2	0.168
	n77 SRS #3	-64.2	0.079								
	n41 SRS #3							-78.2	0.014		

Position	Mode/Band	AG1 Reported SAR and Y Coordiante									
		Ant F		Ant G		Ant H		Ant G+H		Ant H+J	
		mm	W/kg	mm	W/kg	mm	W/kg	mm	W/kg	mm	W/kg
Rear	LTE Band 25	78.0	0.520								
	LTE Band 41	78.2	0.215								
	LTE Band 66	83.5	0.549								
	n25	79.0	0.409								
	n41	77.2	0.442								
	n66	76.5	0.462								
	n77	79.2	0.266								
	2.4G WLAN			76.0	0.297			50.8	0.592		
	5G WLAN									61.0	0.843
	6E									66.3	0.552
	BT			82.4	0.095	23.2	0.069				
	n77 SRS #2			67.4	0.119						
	n41 SRS #2					26.4	0.029				

14.6.3 Fold Open Extremity SAR

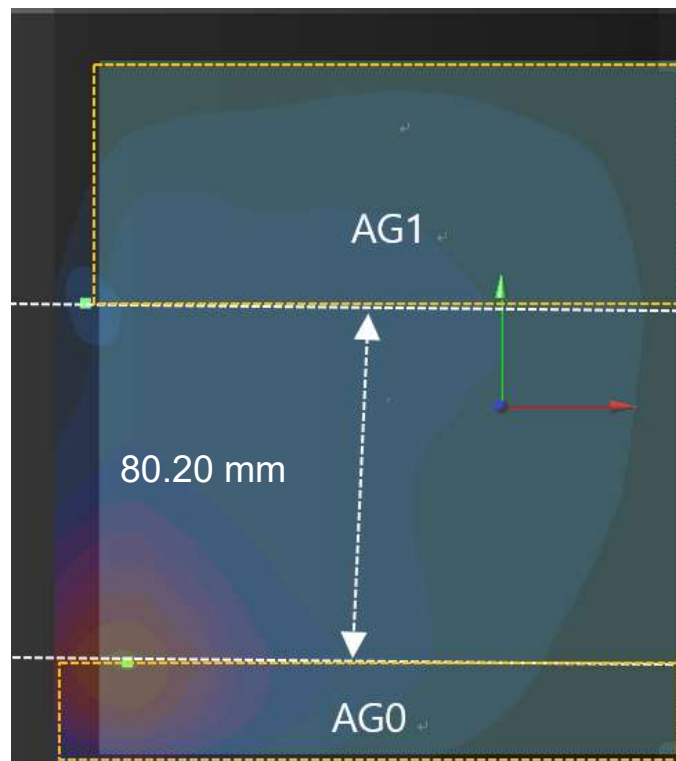
Position	Mode/Band	AG0 Reported SAR and Y Coordinate									
		Ant A		Ant A+B		Ant B		Ant C		Ant D	
		mm	W/kg	mm	W/kg	mm	W/kg	mm	W/kg	mm	W/kg
Rear	GSM 850			-65.5	1.162						
	GSM 1900					-71.5	1.423				
	UMTS B5			-67.0	1.546						
	UMTS B4					-77.5	1.38				
	UMTS B2					-77.5	1.588				
	LTE Band 5			-71.0	1.215						
	LTE Band 12			-74.0	1.115						
	LTE Band 13			-72.5	0.854						
	LTE Band 25					-73.0	1.489				
	LTE Band 26			-72.5	1.204						
	LTE Band 41					-86.0	1.228				
	LTE Band 66					-73.0	1.613				
	NR Band n5			-67.0	1.634						
	NR Band n25					-78.0	1.992				
	NR Band n41					-80.8	1.866				
	NR Band n66					-77.0	1.022				
	n77 SRS #1									-66.6	0.642
	n77 SRS #3	-66.6	0.359								
	n41 SRS #3							-77.0	0.105		

Position	Mode/Band	AG1 Reported SAR and Y Coordiante									
		Ant F		Ant G		Ant H		Ant G+H		Ant H+J	
		mm	W/kg	mm	W/kg	mm	W/kg	mm	W/kg	mm	W/kg
Rear	LTE Band 25	79.0	1.298								
	LTE Band 41	80.6	0.484								
	LTE Band 66	83.5	1.268								
	n25	77.5	1.049								
	n41	74.8	0.618								
	n66	79.5	1.04								
	n77	79.2	0.591								
	2.4G WLAN			77.2	0.981			79.6	1.556		
	5G WLAN									62.0	1.813
	6E									67.2	0.533
	BT			74.0	0.287	42.8	0.184				
	n77 SRS #2			69.8	0.393						
	n41 SRS #2					34.8	0.139				

Position	Mode/Band	UWB/NFC Reported SAR and Y Coordinate			
		UWB Ant		NFC Ant	
		mm	W/kg	mm	W/kg
Rear	UWB	114.5	0.003		
	NFC			-35.5	0.017

Notes.

1. No evaluation was performed to determine the aggregate 1g SAR for these configurations as the SPLSR between the antenna pairs was not greater than 0.04 per FCC KDB 447498 D04v01. Please see Section 14.7 for Y-axis peak locatuons.
2. The sum of AG0+AG1 is less than 1.6 W/kg(1g SAR), 4.0 W/kg(10g SAR) there's no further analysis required for compliance demonstration.
3. No evaluation was performed to determine the aggregate 1g SAR for these configurations as the SPLSR between the antenna pairs was not greater than 0.04 per FCC KDB 447498 D04v01. Please see Section 14.7 for Y-axis peak locatuons.
4. The sum of AG0+AG1 is less than 1.6 W/kg(1g SAR), 4.0 W/kg(10g SAR) there's no further analysis required for compliance demonstration.



14.7 Conclusion

The above numerical summed SAR results and SPLSR for 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 D04v01 and IEEE 1528- 2013 Section 6.3.4.1.

15. SAR Measurement Variability and Uncertainty

In accordance with KDB procedure 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz, SAR additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency Band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

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

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg for 1g SAR or < 2.0 W/kg for 10g SAR; steps 2) through 4) do not apply.

2) When the original highest measured 1g SAR is ≥ 0.80 W/kg or 10g SAR ≥ 2.0 W/kg, repeat that measurement once.

3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg for 1g SAR or ≥ 3.625 W/kg for 10g SAR ($\sim 10\%$ from the 1-g SAR limit).

4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg for 1g SAR or ≥ 3.75 W/kg for 10g SAR and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

Head SAR measurement variability Results

Frequency		Mode/Band	Configuration	Measured SAR (W/kg)	Repeated SAR (W/kg)	SAR Ratio
MHz	Channel					
1 905.0	26590	LTE Band 25	Right Tilt (100RB, 0Offset)	0.828	0.751	1.10
1 720.0	132072	LTE Band 66	Left Tilt (50RB, 49Offset)	0.825	0.826	1.00
1 882.5	376500	NR Band n25	Left Tilt (108RB, 54Offset)	0.841	0.823	1.02
1 745.0	349000	NR Band n66	Left Tilt (108RB, 54Offset)	0.949	0.897	1.06

UMPC Body SAR measurement variability Results

Frequency		Mode/Band	Configuration	Measured SAR (W/kg)	Repeated SAR (W/kg)	SAR Ratio
MHz	Channel					
1 882.5	376500	NR Band n25	Top (1RB, 1Offset)	0.801	0.687	1.17
2 592.99	518598	NR Band n41	Bottom (135RB, 69offset)	0.977	0.890	1.09

UMPC Extremity SAR measurement variability Results

Frequency		Mode/Band	Configuration	Measured SAR (W/kg)	Repeated SAR (W/kg)	SAR Ratio
MHz	Channel					
1 907.6	9538	UMTS Band 2	Bottom (RMC)	2.27	2.32	1.02
1 905.0	26590	LTE Band 25	Bottom (50RB, 49Ooffset)	2.17	2.18	1.00
1 882.5	26365	LTE Band 25	Top (50RB, 49Ooffset)	2.02	1.97	1.03
1 770.0	132572	LTE Band 66	Bottom (50RB, 49Ooffset)	2.33	2.30	1.01
1 882.5	376500	NR Band n25	Bottom (216RB, 0Ooffset)	2.19	2.08	1.05
1 882.5	376500	NR Band n25	Top (1RB, 108Ooffset)	2.12	2.09	1.01
2 592.99	518598	NR Band n41	Bottom (270RB, 0offset)	2.41	2.38	1.01
3 930.0	662000	NR Band n77	Top (135RB, 138offset)	2.28	2.35	1.03

16. Antenna Impedance tuner testing

Per April 2019 TCB Workshop Notes, the following test procedures were followed to demonstrate that the SAR results in Section 11 represented the appropriate SAR test conditions. For bands with dynamic tuning implemented, SAR was measured according to the required FCC SAR test procedures with the dynamic tuner active to allow the device to automatically tune to the antenna state for the respective RF exposure test configurations. Per FCC Guidance, during NR testing the device was configured with the tuner state selected by the device in LTE mode with auto-tune active at the same frequency. Additional single point SAR time-sweep measurements were evaluated for other tuner states to determine that the other tuner configurations would result in equivalent or lower SAR values. The additional tuner hardware has no influence on the antenna characteristics, other than impedance matching.

To evaluate all the tuner states, the 60 tuner states were divided among the aggregate band, mode and exposure combinations. Single point time-sweep measurements were performed at the peak SAR location determined by the zoom scan of the configuration with the highest reported SAR for each combination. The tuner state was able to be established remotely so that the device was not moved for the entire series of single point SAR for the tuner states in each combination. The SAR probe remained stationary at the same position throughout the entire series of single point measurements for each combination. When the single point SAR or 1g SAR was > 1.2 W/kg for a particular band/mode/exposure condition, point SAR measurements were made for all 60 states.

The operational description contains more information about the design and implementation of the dynamic antenna tuning.

16.1 Head SAR Configuration

GSM850 Ant A		GSM850 Ant A + B	
GPRS GMSK 2Tx		GPRS GMSK 2Tx	
Test Position	Left Cheek	Test Position	Left Cheek
Frequency (MHz)	836.5	Frequency (MHz)	836.5
Channel	190	Channel	190
Measured 1g SAR (W/kg)	0.032	Measured 1g SAR (W/kg)	0.123
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 0)	0.082	Auto-tune (State 0)	0.100
Default (State 0)	0.083	Default (State 0)	0.098
State 1	0.076	State 18	0
State 26	0	State 33	0
State 66	0	State 43	0
State 67	0	State 48	0
State 84	0.053	State 56	0
State 85	0.055	State 64	0
State 102	0	State 74	0.054
State 110	0.061	State 77	0.046
State 106	0	State 89	0
State 127	0.048	State 91	0
State 143	0	State 120	0

UMTS Band 5 Ant A		UMTS Band 5 Ant A + B	
RMC		RMC	
Test Position	Right Cheek	Test Position	Left Cheek
Frequency (MHz)	836.6	Frequency (MHz)	836.6
Channel	4183	Channel	4183
Measured 1g SAR (W/kg)	0.128	Measured 1g SAR (W/kg)	0.139
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 18)	0.121	Auto-tune (State 0)	0.129
Default (State 0)	0.094	Default (State 0)	0.130
State 02	0.085	State 40	0.099
State 17	0	State 46	0.095
State 22	0.098	State 50	0.110
State 30	0.109	State 70	0
State 49	0.090	State 73	0.114
State 61	0	State 95	0.087
State 71	0	State 99	0.049
State 104	0.095	State 108	0.120
State 123	0	State 113	0.077
State 126	0.109	State 131	0.086

LTE Band 5 Ant A		LTE Band 5 Ant A + B		LTE Band 12 Ant A		LTE Band 12 Ant A + B	
QPSK, 10 MHz, 1 RB, 49 Offset		QPSK, 10 MHz, 1 RB, 49 Offset		QPSK, 10 MHz, 1 RB, 49 Offset		QPSK, 10 MHz, 1 RB, 49 Offset	
Test Position	Left Cheek	Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek
Frequency (MHz)	836.5	Frequency (MHz)	836.5	Frequency (MHz)	707.5	Frequency (MHz)	707.5
Channel	20525	Channel	20525	Channel	23095	Channel	23095
Measured 1g SAR (W/kg)	0.109	Measured 1g SAR (W/kg)	0.125	Measured 1g SAR (W/kg)	0.107	Measured 1g SAR (W/kg)	0.142
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 18)	0.114	Auto-tune (State 10)	0.108	Auto-tune (State 13)	0.084	Auto-tune (State 9)	0.132
Default (State 0)	0.096	Default (State 0)	0.108	Default (State 0)	0.073	Default (State 0)	0.139
State 04	0.069	State 12	0.092	State 24	0	State 09	0.127
State 08	0	State 13	0.096	State 34	0	State 14	0.103
State 07	0	State 29	0.053	State 36	0.073	State 15	0.047
State 32	0.096	State 37	0.102	State 62	0	State 38	0.118
State 42	0	State 78	0	State 90	0.056	State 76	0.087
State 55	0.102	State 88	0	State 115	0	State 79	0
State 65	0.109	State 92	0.086	State 122	0.068	State 86	0.095
State 68	0.095	State 94	0.088	State 125	0	State 87	0.043
State 69	0.067	State 100	0.052	State 134	0	State 97	0
State 114	0	State 119	0.096	State 136	0.059	State 132	0

LTE Band 13 Ant A		LTE Band 13 Ant A + B		LTE Band 26 Ant A		LTE Band 26 Ant A + B	
QPSK, 10 MHz, 1 RB, 49 Offset		QPSK, 10 MHz, 1 RB, 49 Offset		QPSK, 15 MHz, 1 RB, 74 Offset		QPSK, 15 MHz, 1 RB, 74 Offset	
Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek
Frequency (MHz)	782	Frequency (MHz)	782	Frequency (MHz)	831.5	Frequency (MHz)	831.5
Channel	23230	Channel	23230	Channel	26865	Channel	26865
Measured 1g SAR (W/kg)	0.093	Measured 1g SAR (W/kg)	0.141	Measured 1g SAR (W/kg)	0.114	Measured 1g SAR (W/kg)	0.125
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 0)	0.070	Auto-tune (State 81)	0.093	Auto-tune (State 18)	0.102	Auto-tune (State 12)	0.096
Default (State 0)	0.068	Default (State 0)	0.073	Default (State 0)	0.085	Default (State 0)	0.099
State 6	0	State 25	0	State 10	0.098	State 05	0.078
State 11	0.056	State 35	0	State 16	0	State 27	0.062
State 21	0.061	State 44	0	State 20	0.099	State 45	0.090
State 39	0.049	State 52	0	State 31	0.097	State 47	0.096
State 41	0	State 72	0.063	State 53	0	State 51	0.047
State 58	0.064	State 111	0	State 98	0	State 54	0.085
State 81	0.056	State 121	0.060	State 116	0	State 96	0
State 101	0.044	State 130	0	State 117	0.096	State 107	0
State 103	0.045	State 133	0	State 138	0.094	State 139	0.061
State 105	0	State 142	0	State 141	0.057	State 140	0.053

NR Band n5 Ant A 240		NR Band n5 Ant A + B 240	
DFT-s-OFDM, QPSK, 20 MHz, 1 RB, 53 Offset		DFT-s-OFDM, QPSK, 20 MHz, 50 RB, 28 Offset	
Test Position	Right Cheek	Test Position	Right Cheek
Frequency (MHz)	836.5	Frequency (MHz)	836.5
Channel	167300	Channel	167300
Measured 1g SAR (W/kg)	0.092	Measured 1g SAR (W/kg)	0.071
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 2)	0.085	Auto-tune (State 2)	0.063
Default (State 0)	0.082	Default (State 0)	0
State 03	0.060	State 19	0
State 57	0.082	State 23	0
State 59	0.067	State 28	0
State 63	0.087	State 60	0
State 75	0	State 93	0
State 80	0	State 109	0.069
State 83	0.077	State 124	0
State 112	0	State 129	0
State 118	0.075	State 135	0
State 128	0.077	State 137	0

16.2 Body SAR Configuration

GSM850 Ant A Closed		GSM850 Ant A + B Open	
GPRS GMSK 2Tx		GPRS GMSK 2Tx	
Test Position	Back	Test Position	Back
Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	836.5	Frequency (MHz)	190
Channel	190	Channel	836.5
Measured 1g SAR (W/kg)	0.196	Measured 1g SAR (W/kg)	0.441
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 0)	0.188	Auto-tune (State 36)	0.449
Default (State 0)	0.185	Default (State 0)	0.327
State 07	0.151	State 10	0.240
State 09	0.064	State 12	0.232
State 16	0.049	State 13	0.252
State 25	0.042	State 26	0.072
State 31	0.053	State 33	0.087
State 45	0.076	State 53	0.105
State 50	0.122	State 58	0.270
State 61	0	State 69	0.128
State 97	0	State 79	0.265
State 107	0	State 105	0.098
State 134	0	State 141	0.082

UMTS Band 5 Ant A Closed		UMTS Band 5 Ant A + B Open	
RMC		RMC	
Test Position	Back	Test Position	Back
Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	836.6	Frequency (MHz)	836.6
Channel	4183	Channel	4183
Measured 1g SAR (W/kg)	0.441	Measured 1g SAR (W/kg)	0.497
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 18)	0.447	Auto-tune (State 4)	0.497
Default (State 0)	0.391	Default (State 0)	0.476
State 20	0.422	State 19	0.360
State 35	0.098	State 29	0.259
State 42	0.085	State 49	0.414
State 77	0.136	State 56	0.379
State 87	0.147	State 63	0.202
State 119	0.296	State 66	0.249
State 128	0.360	State 114	0.220
State 129	0.284	State 121	0.385
State 142	0.133	State 132	0.188
State 143	0.093	State 140	0.196

LTE Band 5 Ant A Closed		LTE Band 5 Ant A + B Open		LTE Band 12 Ant A Closed		LTE Band 12 Ant A + B Open	
QPSK, 10 MHz, 1 RB, 49 Offset		QPSK, 10 MHz, 1 RB, 49 Offset		QPSK, 10 MHz, 1 RB, 49 Offset		QPSK, 10 MHz, 1 RB, 49 Offset	
Test Position	Back	Test Position	Back	Test Position	Back	Test Position	Back
Spacing	10mm	Spacing	10mm	Spacing	10mm	Spacing	10mm
Frequency (MHz)	836.5	Frequency (MHz)	836.5	Frequency (MHz)	707.5	Frequency (MHz)	707.5
Channel	20525	Channel	20525	Channel	23095	Channel	23095
Measured 1g SAR (W/kg)	0.374	Measured 1g SAR (W/kg)	0.386	Measured 1g SAR (W/kg)	0.198	Measured 1g SAR (W/kg)	0.289
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 27)	0.362	Auto-tune (State 1)	0.383	Auto-tune (State 36)	0.182	Auto-tune (State 9)	0.286
Default (State 0)	0.312	Default (State 0)	0.380	Default (State 0)	0.179	Default (State 0)	0.281
State 01	0.307	State 04	0.385	State 43	0.045	State 08	0
State 22	0.349	State 17	0.085	State 47	0.180	State 21	0.271
State 34	0.130	State 32	0.228	State 55	0.172	State 28	0.283
State 41	0.146	State 52	0.107	State 57	0.181	State 37	0.215
State 65	0.354	State 99	0.199	State 59	0.154	State 92	0.289
State 70	0.138	State 116	0.072	State 72	0.175	State 101	0.282
State 84	0.268	State 117	0.356	State 80	0	State 109	0.186
State 86	0.216	State 120	0.337	State 94	0.178	State 115	0
State 110	0.190	State 137	0.218	State 96	0.089	State 118	0.290
State 139	0.315	State 138	0.207	State 98	0	State 126	0.282

LTE Band 13 Ant A Closed		LTE Band 13 Ant A + B Open		LTE Band 26 Ant A Closed		LTE Band 26 Ant A + B Open	
QPSK, 10 MHz, 1 RB, 49 Offset		QPSK, 10 MHz, 1 RB, 49 Offset		QPSK, 15 MHz, 1 RB, 74 Offset		QPSK, 15 MHz, 1 RB, 74 Offset	
Test Position	Back	Test Position	Back	Test Position	Back	Test Position	Back
Spacing	10mm	Spacing	10mm	Spacing	10mm	Spacing	10mm
Frequency (MHz)	782	Frequency (MHz)	782	Frequency (MHz)	831.5	Frequency (MHz)	831.5
Channel	23230	Channel	23230	Channel	26865	Channel	26865
Measured 1g SAR (W/kg)	0.252	Measured 1g SAR (W/kg)	0.283	Measured 1g SAR (W/kg)	0.351	Measured 1g SAR (W/kg)	0.571
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 0)	0.254	Auto-tune (State 36)	0.297	Auto-tune (State 18)	0.340	Auto-tune (State 1)	0.536
Default (State 0)	0.248	Default (State 0)	0.297	Default (State 0)	0.277	Default (State 0)	0.512
State 36	0.230	State 05	0.198	State 04	0.198	State 23	0.449
State 46	0.231	State 14	0.239	State 11	0.325	State 40	0.495
State 76	0.141	State 45	0.240	State 27	0.305	State 48	0.470
State 85	0.207	State 73	0.278	State 30	0.331	State 67	0.335
State 88	0.092	State 74	0.268	State 54	0.336	State 81	0.439
State 93	0.224	State 83	0.276	State 64	0.331	State 90	0.422
State 95	0.203	State 104	0.138	State 68	0.289	State 108	0.521
State 106	0.083	State 122	0.204	State 71	0.085	State 111	0.467
State 135	0.174	State 124	0.055	State 78	0.066	State 112	0.445
State 136	0.191	State 130	0.236	State 102	0.294	State 131	0.365

NR Band n5 Ant A Closed 240		NR Band n5 Ant A + B Open 240	
DFT-s-OFDM, QPSK, 20 MHz, 1 RB, 53 Offset		DFT-s-OFDM, QPSK, 20 MHz, 50 RB, 28 Offset	
Test Position	Back	Test Position	Back
Spacing	10mm	Spacing	10mm
Frequency (MHz)	836.5	Frequency (MHz)	836.5
Channel	167300	Channel	167300
Measured 1g SAR (W/kg)	0.292	Measured 1g SAR (W/kg)	0.472
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 2)	0.293	Auto-tune (State 1)	0.454
Default (State 0)	0.287	Default (State 0)	0.460
State 06	0.082	State 02	0.452
State 15	0.146	State 10	0.425
State 24	0.157	State 20	0.412
State 39	0.180	State 35	0
State 51	0.142	State 56	0.415
State 60	0.151	State 65	0.314
State 62	0.063	State 99	0.296
State 75	0.141	State 103	0.300
State 89	0.054	State 116	0.109
State 125	0.047	State 133	0.102

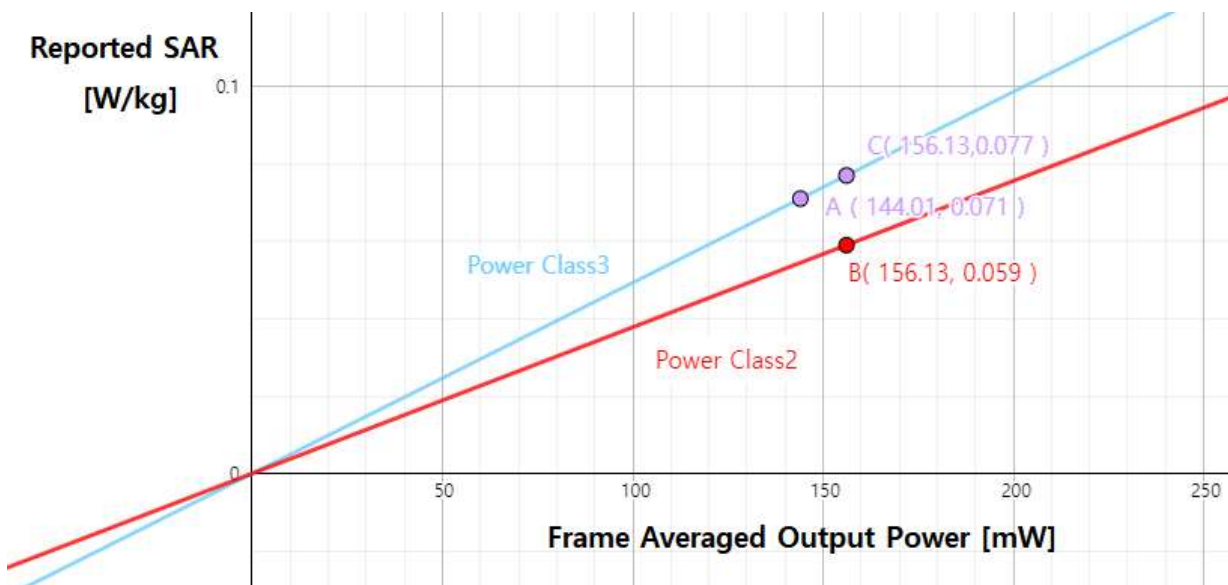
17. LTE TDD Band 41 Power Class 2 and Power class 3 Linearity

This Device Supports Power Class 2 and Power Class 3 operations for LTE Band 41. The Highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL Configuration 1. Per May 2017 TCB Workshop Notes based on the device behavior, all SAR tests were performed using Power class 3. SAR with power class 2 at the highest power and available duty factor was additionally performed for the power class 2 configuration with the Highest SAR for each exposure condition.

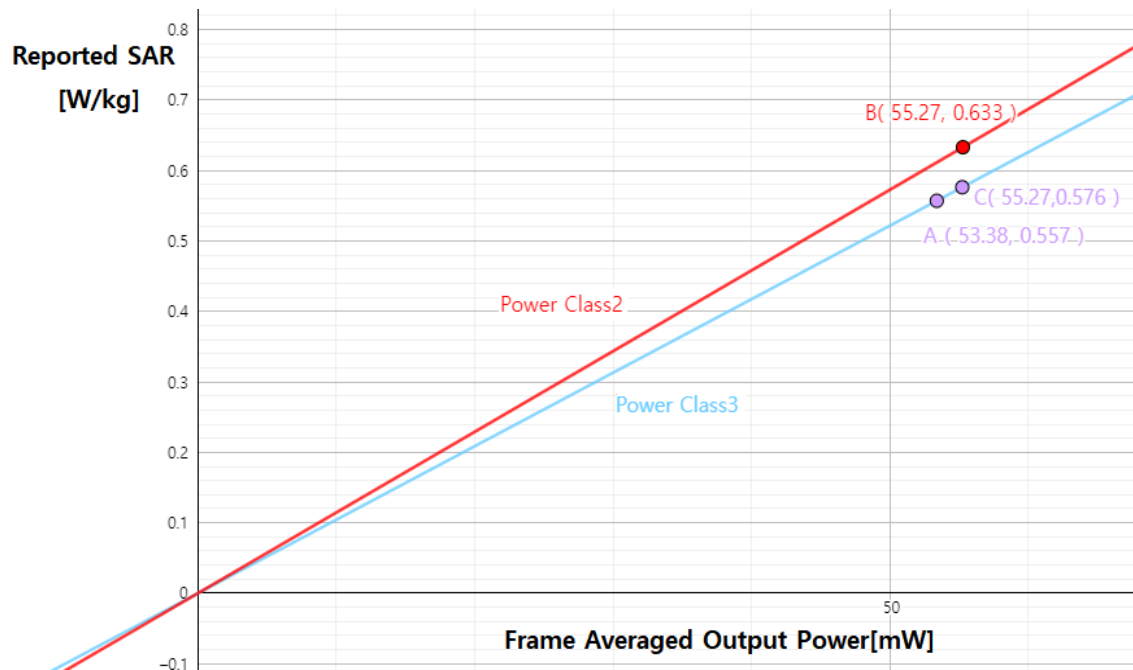
The linearity between the power class 3 and Power class 2 SAR Results and the respective frame averaged powers was calculated to determine the results were linear.

Per May 2017 TCB Workshop, no additional SAR measurements were required since the linearity between power classes as less than 10 % and all reported SAR values were < 1.4 W/kg.

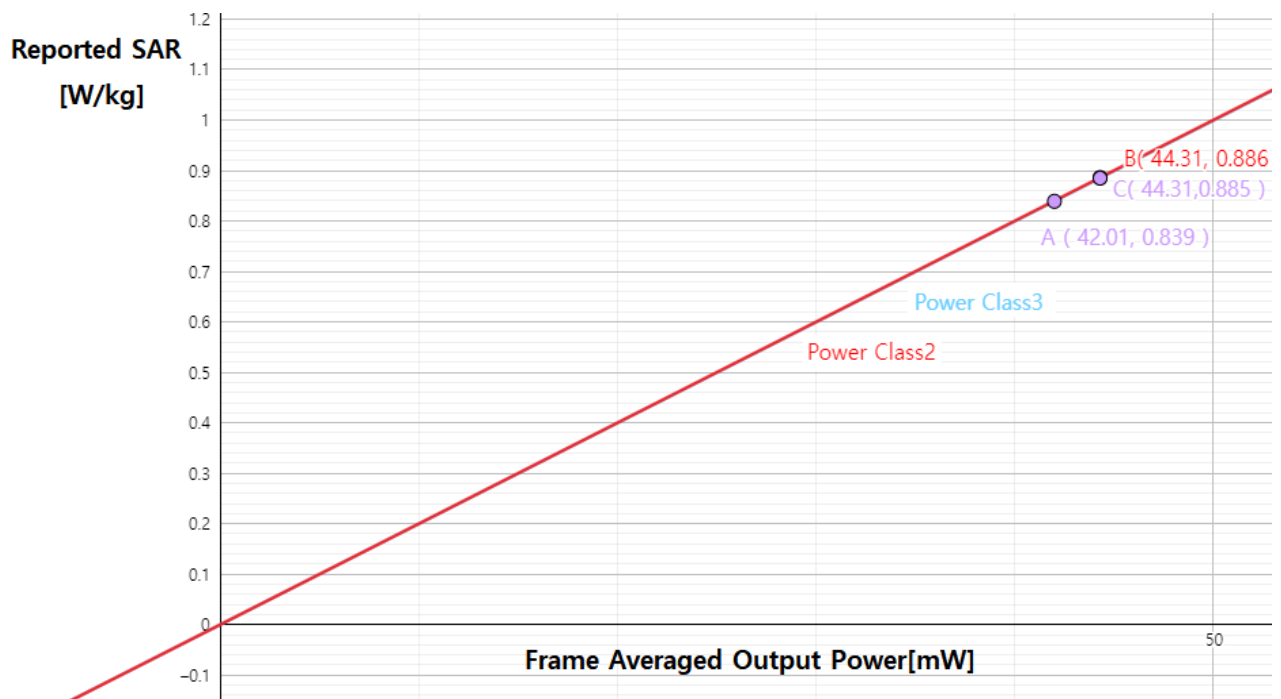
LTE TDD Band 41 Ant. B Head Linearity Data Table		
	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	25.0	26.5
Measured Output Power[dBm]	23.57	25.57
Measured SAR[W/kg]	0.071	0.059
Measured Power[mW]	227.51	360.58
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	144.01	156.13
% deviation from expected linearity		-23.35



LTE TDD Band 41 Ant.B Closed Body Linearity Data Table		
	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	20.0	21.6
Measured Output Power[dBm]	19.26	21.06
Measured SAR[W/kg]	0.557	0.633
Measured Power[mW]	84.33	127.64
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	53.38	55.27
% deviation from expected linearity		9.76

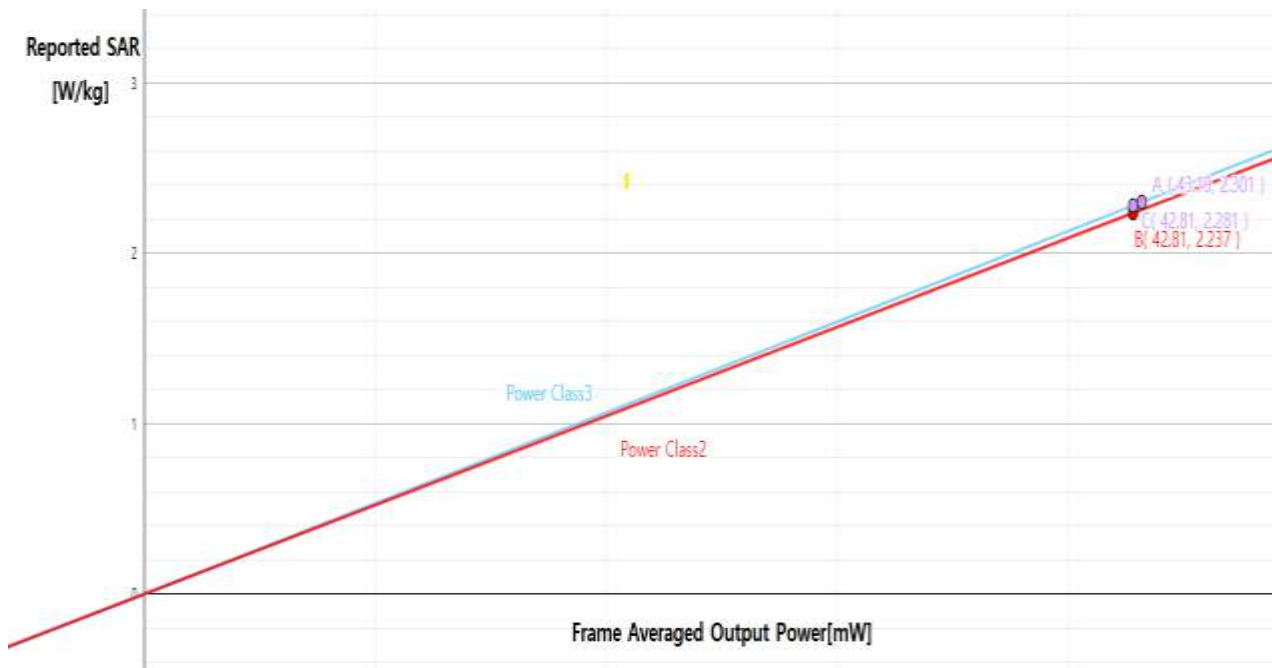


LTE TDD Band 41 Ant. B Open Body Linearity Data Table		
	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	20.0	21.6
Measured Output Power[dBm]	18.22	20.1
Measured SAR[W/kg]	0.839	0.886
Measured Power[mW]	66.37	102.33
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	42.01	44.31
% deviation from expected linearity		0.12

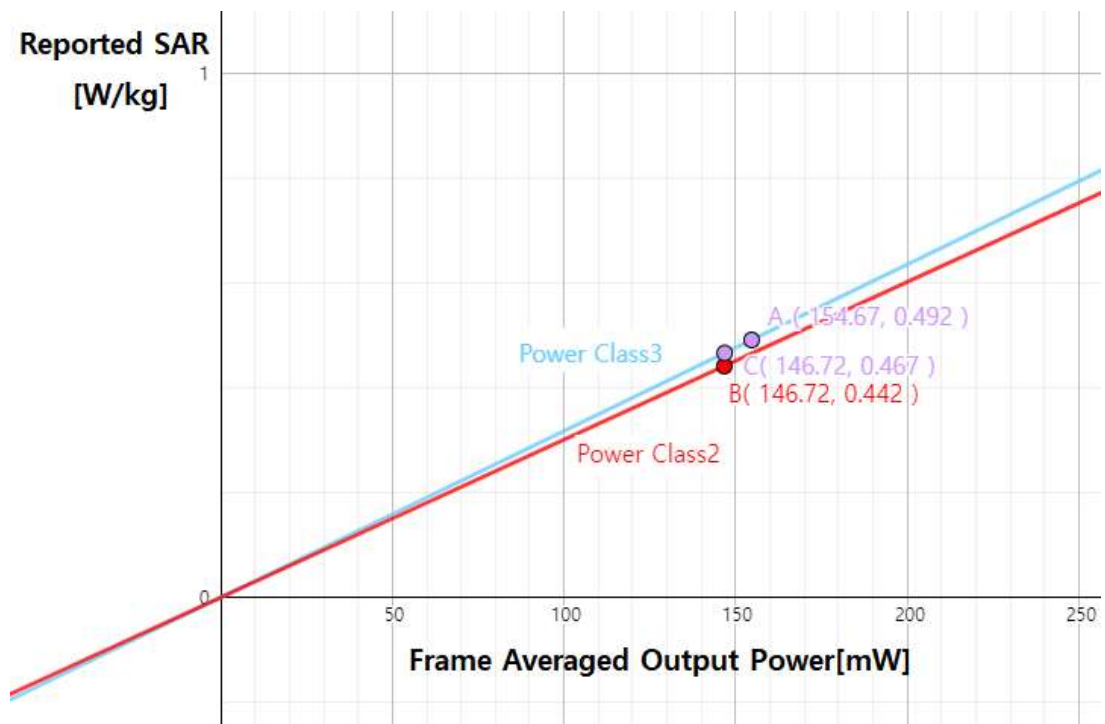


LTE TDD Band 41 Ant. B Open Extremity Linearity Data Table

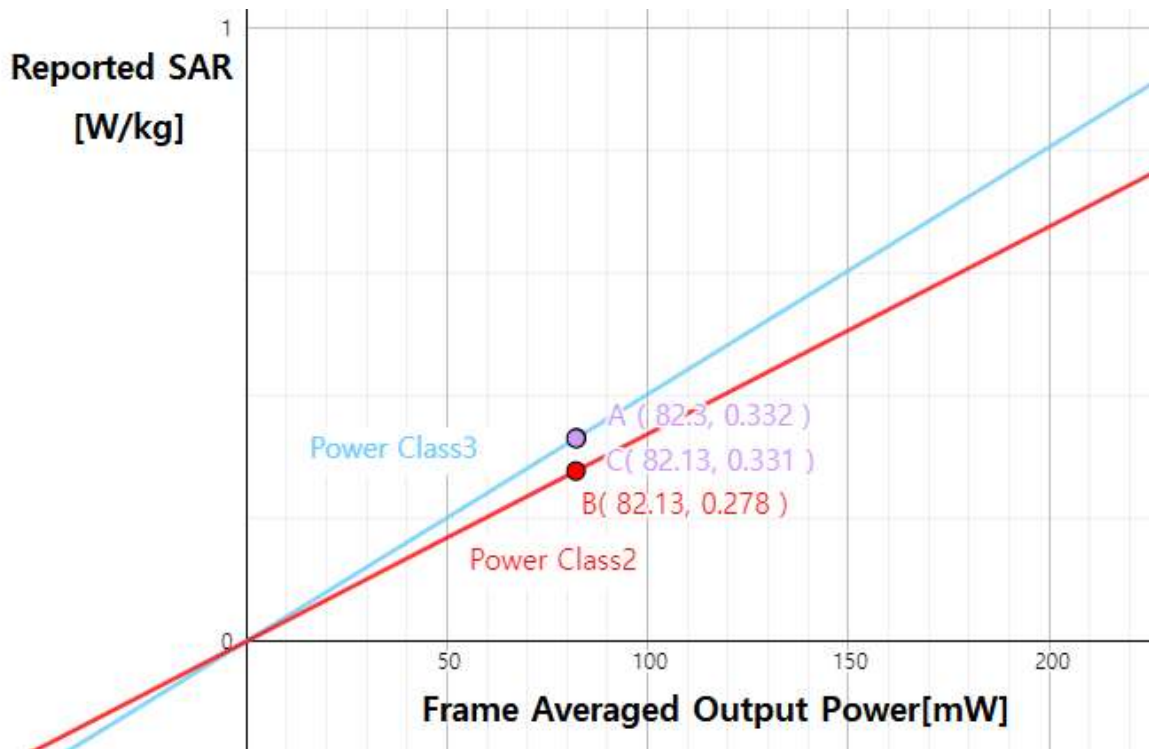
	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	20.0	21.6
Measured Output Power[dBm]	18.34	19.95
Measured SAR[W/kg]	2.301	2.237
Measured Power[mW]	68.23	98.86
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	43.19	42.81
% deviation from expected linearity		-1.92



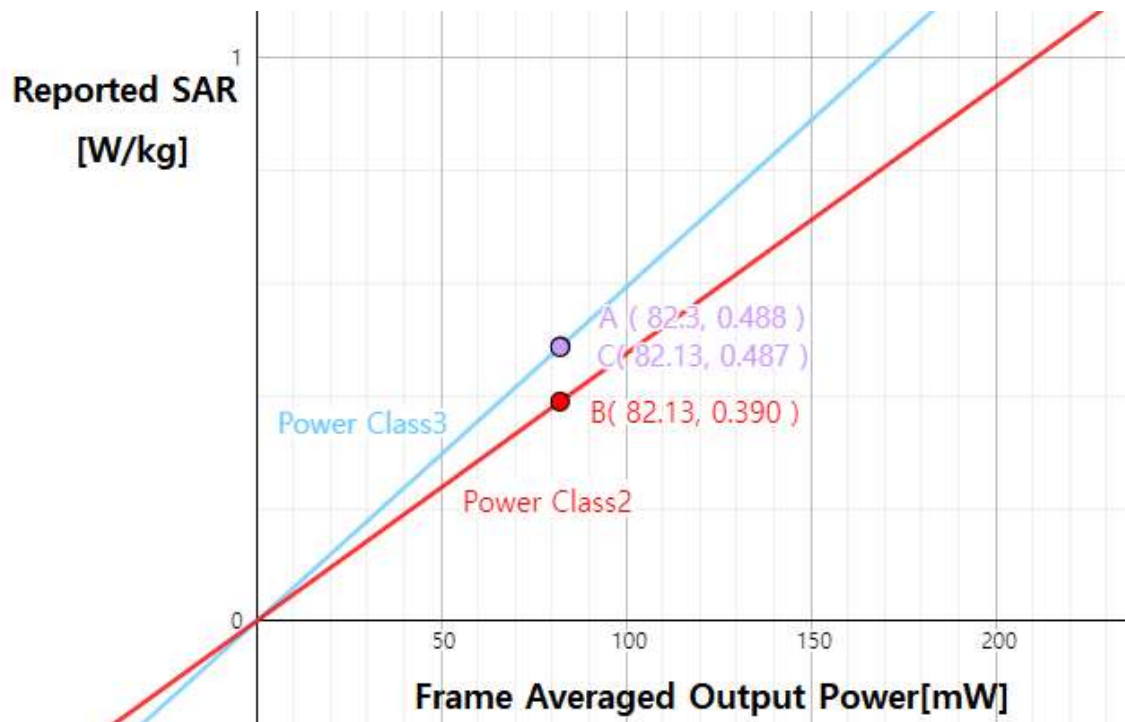
LTE TDD Band 41 Ant. F Head Linearity Data Table		
	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	25.0	26.5
Measured Output Power[dBm]	23.88	25.3
Measured SAR[W/kg]	0.492	0.442
Measured Power[mW]	244.34	338.84
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	154.67	146.72
% deviation from expected linearity		-5.29



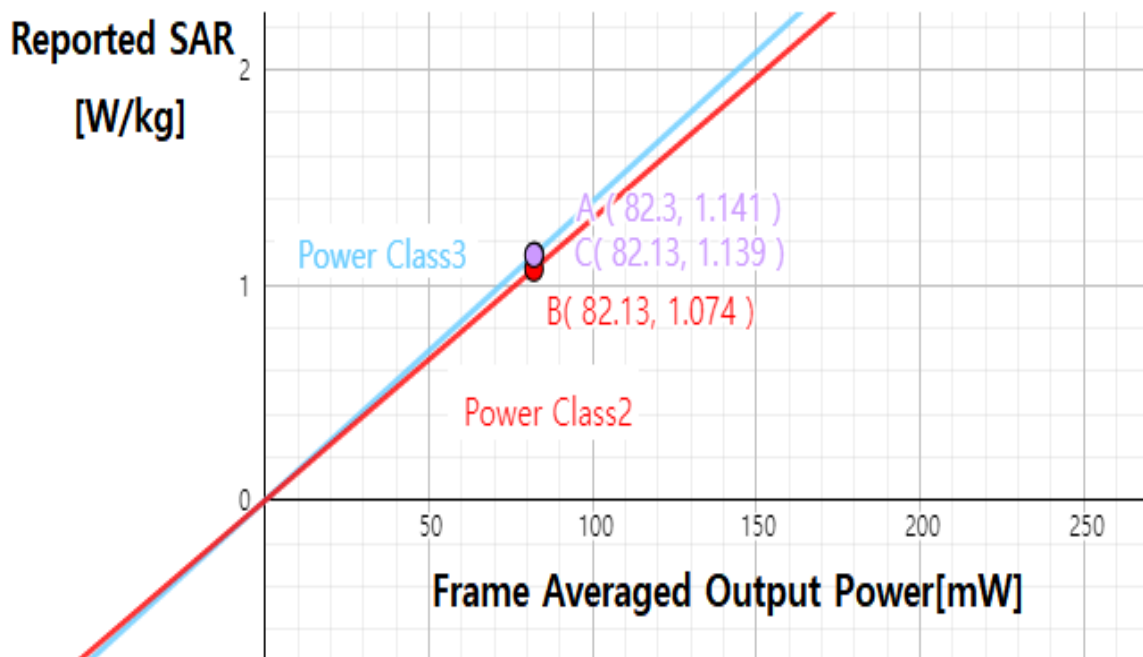
LTE TDD Band 41 Ant. F Closed Body Linearity Data Table		
	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	22.0	23.6
Measured Output Power[dBm]	21.14	22.78
Measured SAR[W/kg]	0.332	0.278
Measured Power[mW]	130.02	189.67
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	82.3	82.13
% deviation from expected linearity		-16.09



LTE TDD Band 41 Ant. F Open Body Linearity Data Table		
	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	22.0	23.6
Measured Output Power[dBm]	21.14	22.78
Measured SAR[W/kg]	0.488	0.39
Measured Power[mW]	130.02	189.67
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	82.3	82.13
% deviation from expected linearity		-19.92



LTE TDD Band 41 Ant. F Open Extremity Linearity Data Table		
	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	22.0	23.6
Measured Output Power[dBm]	21.14	22.78
Measured SAR[W/kg]	1.141	1.074
Measured Power[mW]	130.02	189.67
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	82.3	82.13
% deviation from expected linearity		-5.68



18. Measurement Uncertainty

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

19. SAR Test Equipment

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	SAM Phantom	-	N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/ 5R4XF1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F17/ 59RAA1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F08/5AJ0A1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F07/55B8A1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F11/ 5K3RA1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX60L	F10/5D1CA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F07/55W9A1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/ 5SD0A1/ C/ 01	N/A	N/A	N/A
Staubli	TX90 XLSpeag	F13/ 5R4XF1/ A/ 01	N/A	N/A	N/A
Staubli	TX90 XLSpeag	F17/ 59RAA1/ A/ 01	N/A	N/A	N/A
Staubli	TX90 XLSpeag	F07/56W9A1/A/01	N/A	N/A	N/A
Staubli	TX90 XLSpeag	F07/55B8A1/A/01	N/A	N/A	N/A
Staubli	TX90 Lspeag	F11/ 5K3RA1/ A/ 01	N/A	N/A	N/A
Staubli	TX60 XLSpeag	F10/5D1CA1/A/01	N/A	N/A	N/A
Staubli	TX90 XLSpeag	F07/55B8A1/A/01	N/A	N/A	N/A
Staubli	TX90 XLSpeag	F13/ 5SD0A1/ A/ 01	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1338 1332	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	011578	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0008	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0306	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1203 0309	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0123	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0602	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	001729	N/A	N/A	N/A
TESTO	175-H1/Thermometer	40332651310	12/29/2022	Annual	12/09/2023
TESTO	175-H1/Thermometer	40331922309	12/29/2022	Annual	12/09/2023
TESTO	175-H1/Thermometer	40331949309	12/29/2022	Annual	12/09/2023
TESTO	608-H1/Thermometer	83348021	03/27/2023	Annual	03/27/2024
TESTO	175-H1/Thermometer	40331936309	12/29/2022	Annual	12/29/2023
TESTO	175-H1/Thermometer	44606559906	03/27/2023	Annual	03/27/2024
TESTO	608-H1/Thermometer	83406789	07/07/2022	Annual	07/07/2023
TESTO	608-H1/Thermometer	83348029	04/29/2022	Annual	04/29/2023
SPEAG	DAE4	1422	08/18/2022	Annual	08/18/2023
SPEAG	DAE4	1225	03/06/2023	Annual	03/06/2024
SPEAG	DAE4	652	01/20/2023	Annual	01/20/2024
SPEAG	DAE4	446	11/16/2022	Annual	11/16/2023
SPEAG	DAE4	1687	07/18/2022	Annual	07/18/2023
SPEAG	DAE4	1464	06/15/2022	Annual	06/15/2023
SPEAG	DAE4	1720	05/09/2022	Annual	05/09/2023
SPEAG	DAE4	1750	10/10/2022	Annual	10/10/2023
SPEAG	E-Field Probe ES3DV3	3076	07/20/2022	Annual	07/20/2023
SPEAG	E-Field Probe EX3DV4	7751	10/07/2022	Annual	10/07/2023
SPEAG	E-Field Probe EX3DV4	7370	08/19/2022	Annual	08/19/2023
SPEAG	E-Field Probe EX3DV4	7732	06/30/2022	Annual	06/30/2023
SPEAG	E-Field Probe EX3DV4	7679	08/19/2022	Annual	08/19/2023
SPEAG	E-Field Probe EX3DV4	7702	01/26/2023	Annual	01/26/2024
SPEAG	E-Field Probe EX3DV4	7655	06/20/2022	Annual	06/20/2023
SPEAG	E-Field Probe EX3DV4	7681	11/21/2022	Annual	11/21/2023

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	CLA13	1016	11/16/2022	Annual	11/16/2023
SPEAG	Dipole D750V3	1014	05/25/2022	Annual	05/25/2023
SPEAG	Dipole D835V2	441	07/15/2022	Annual	07/15/2023
SPEAG	Dipole D1800V2	2d007	07/18/2022	Annual	07/18/2023
SPEAG	Dipole D1900V2	5d061	01/23/2023	Annual	01/23/2024
SPEAG	Dipole D2450V2	743	05/31/2022	Annual	05/31/2023
SPEAG	Dipole D2600V2	1015	07/15/2022	Annual	07/15/2023
SPEAG	Dipole D3500V2	1140	01/22/2023	Annual	01/22/2024
SPEAG	Dipole D3700V2	1066	11/14/2022	Annual	11/14/2023
SPEAG	Dipole D3900V2	1086	05/25/2022	Annual	05/25/2023
SPEAG	Dipole D5GHzV2	1253	05/31/2022	Annual	05/31/2023
SPEAG	Dipole D5GHzV2	1107	07/19/2022	Annual	07/19/2023
Agilent	Power Meter E4419B	MY41291386	09/27/2022	Annual	09/27/2023
Agilent	Power Meter N1911A	MY45101406	06/27/2022	Annual	06/27/2023
Agilent	Power Sensor 8481A	SG1091286	09/27/2022	Annual	09/27/2023
H.P	Power Sensor 8481A	MY41090873	01/27/2023	Annual	01/27/2024
Agilent	Power Sensor 8481A	MY41090675	09/27/2022	Annual	09/27/2023
Agilent	Wideband Power Sensor N1921A	MY55220026	08/02/2022	Annual	08/02/2023
Agilent	11636B/Power Divider	58698	01/26/2023	Annual	01/26/2024
SPEAG	DAKS 3.5	1038	01/25/2023	Annual	01/25/2024
SPEAG	DAKS-VNA R140	0141013	02/13/2023	Annual	02/13/2024
SPEAG	DAKS-VNA R60(NFC)	21393001	03/30/2023	Annual	03/30/2024
SPEAG	DAKS-12(NFC)	1048	03/29/2023	Annual	03/29/2024
H.P	Network Analyzer /8753ES	JP39240221	01/02/2023	Annual	01/02/2024
Agilent	WIRELESS COMMUNICATION E5515C	MY48361100	09/27/2022	Annual	09/27/2023
Agilent	WIRELESS COMMUNICATION E5515C	MY48360252	08/08/2022	Annual	08/08/2023
R&S	Wireless Communication Test Set CMW500	115733	04/14/2022	Annual	04/14/2023
R&S	Wireless Communication Test Set CMW500	115733	03/23/2023	Annual	03/23/2024
Agilent	SIGNAL GENERATOR N5182A	MY47070230	04/28/2022	Annual	04/28/2023
Agilent	SIGNAL GENERATOR N5182A	MY47070230	03/23/2023	Annual	03/23/2024
AR	RF Power Amplifier	0349583	08/11/2022	Annual	08/11/2023
EMPOWER	RF Power Amplifier	1084	06/20/2022	Annual	06/20/2023
EMPOWER	RF Power Amplifier	1041D/C0508	06/20/2022	Annual	06/20/2023
EMPOWER	RF Power Amplifier	1011	09/27/2022	Annual	09/27/2023
MICRO LAB	LP Filter / LA-15N	10453	09/27/2022	Annual	09/27/2023
MICRO LAB	LP Filter / LA-30N	-	09/27/2022	Annual	09/27/2023
MICRO LAB	LP Filter / LA-60N	32011	09/27/2022	Annual	09/27/2023
MICRO LAB	LP Filter / LA-60N	32011	09/27/2022	Annual	09/27/2023
Agilent	Attenuator (3dB) 8693B	MY39260298	08/25/2022	Annual	08/25/2023
HP	Attenuator (3dB) 33340A	02427	08/25/2022	Annual	08/25/2023
HP	Attenuator (20dB) 8493C	09271	08/25/2022	Annual	08/25/2023
Agilent	Directional Bridge 86205A	3140A04581	05/26/2022	Annual	05/26/2023
OSI	Power Divider	#3	06/17/2022	Annual	06/17/2023
Narda	DIRECTIONAL COUPLER	07066	01/05/2023	Annual	01/05/2024
Agilent	MXA Signal Analyzer N9020A	MY50510407	06/07/2022	Annual	06/07/2023
Anritsu	Radio Communication Test Station MT8000A	6262036812	12/08/2022	Annual	12/08/2023
Anritsu	Radio Communication Tester MT8820C	6201074225	01/25/2023	Annual	01/25/2024
Anritsu	Radio Communication Tester MT8820C	6200695605	03/23/2023	Annual	03/23/2024
Anritsu	Radio Communication Tester MT8821C	6201502997	06/27/2022	Annual	06/27/2023
Anritsu	Radio Communication Tester MT8821C	6262044720	12/07/2022	Annual	12/07/2023
Anritsu	Radio Communication Tester MT8821C	6201664725	01/25/2023	Annual	01/25/2024
Agilent	WIRELESS COMMUNICATION E5515C	MY50260992	06/27/2022	Annual	06/27/2023
ROHDE&SCHWARZ	BLUETOOTH TESTER CBT	100272	01/25/2023	Annual	01/25/2024

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

20. Conclusion

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

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

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

21. References

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- [2] ANSI/IEEE C95.1 - 2005 , American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 300 kHz to 300 GHz, New York: IEEE, Sept. 1992
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- [4] ANSI/IEEE C95.3 - 2002, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave, New York: December 2002.
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Appendix A. DUT Ant. Information & SETUP PHOTO

Please refer to test DUT Ant. Information & setup photo file no. as follows:

Report No.
HCT-SR-2305-FC014-P