11.5 WIFI Conducted Power measurement method

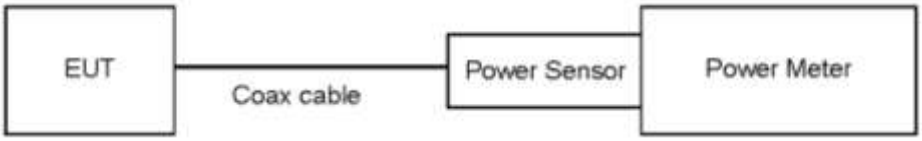
Un-Licensed Bands (DTS Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 558074 v05 - Section 8.3.2.3 - ANSI 63.10-2013 - Section 11.9.2.3

Test Procedure

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test setup



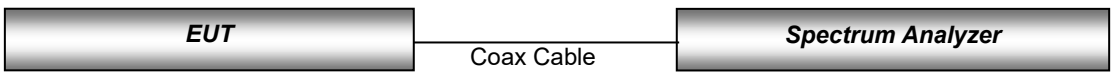
Un-Licensed Bands (NII Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 789033 D02 v02r01 - Section E.3.a

Test Procedure

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test setup



11.5.1 IEEE 802.11 (2.4 ㎓) Maximum Conducted Power

Mode	Frequency [㎒]	Channel	IEEE 802.11 (2.4 ㎓) Average RF Conducted Power [dBm]		
			WIFI 1	WIFI 2	MIMO
802.11b	2 412	1	17.86	17.29	20.59
	2 437	6	17.57	17.59	20.59
	2 462	11	17.56	17.45	20.51
	2 467	12	-0.15	-1.98	1.86
	2 472	13	-0.16	-2.04	1.99

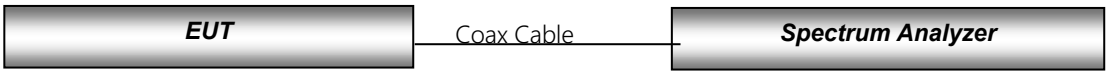
11.5.2 IEEE 802.11 (5 ㎓) Maximum Conducted Power

Mode	Frequency [㎒]	Channel	IEEE 802.11 (5 ㎓) Average RF Conducted Power [dBm]		
			WIFI 1	WIFI 2	MIMO
802.11a (20 ㎒ BW)	5 180	36	15.09	13.42	17.34
	5 200	40	14.81	13.55	17.23
	5 220	44	14.78	13.77	17.31
	5 240	48	14.62	13.84	17.26
	5 260	52	14.17	14.12	17.15
	5 280	56	14.12	14.32	17.23
	5 300	60	13.90	14.20	17.06
	5 320	64	13.63	14.12	16.89
	5 500	100	14.42	14.97	17.71
	5 600	120	15.13	15.90	18.54
	5 620	124	15.23	15.98	18.63
	5 720	144	15.42	15.86	18.65
	5 745	149	14.95	15.42	18.20
	5 785	157	15.03	14.90	17.97
	5 825	165	15.24	14.97	18.12
	5 846	169	15.37	15.22	18.30
	5 865	173	15.42	15.03	18.24
	5 885	177	15.18	14.42	17.82

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:

- Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
- For transmission mode with the same maximum output power specification, powers were measured for the largest channel Bandwidth, lowest order modulation and lowest data rate.
- For transmission modes with identical maximum specified output power, channel Bandwidth, modulation and data rates, power measurements were required for all identical configurations.
- For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-Band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-Band channels, due to an even number of channels, both channels were measured.

Test Configuration



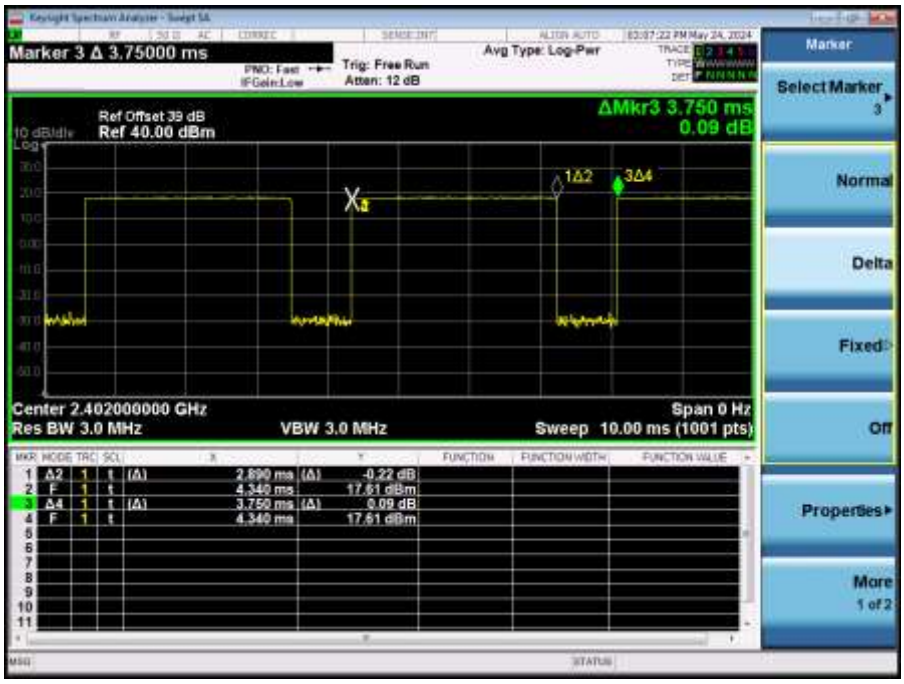
11.6 Bluetooth Maximum Conducted Power

The Burst Averaged-conducted power

Mode	Channel	Max. Average Conducted Power [dBm]	
		Ant.1	Ant.2
DH5	0	18.91	17.38
	39	18.71	17.63
	78	18.07	15.47
2-DH5	0	16.45	13.69
	39	15.46	14.30
	78	15.10	12.56
3-DH5	0	16.42	13.83
	39	15.44	14.31
	78	15.08	12.58

Per October 2016 TCB Workshop Notes:
When call box and Bluetooth protocol are used for Bluetooth SAR measurement, time-domain plot is required to identify duty factor for supporting the test setup and result.
Bluetooth duty cycle was measured using Bluetooth tester equipment (CBT / R&S) with Bluetooth.

Bluetooth DH 5 Mode



Duty Cycle

= (BT-On time /BT-Full time) =(2.890/3.750) = 0.771 (DH5)

BT DH5 Maximum Duty Factor:
The theoretical maximum duty cycle defined by chipset manufacturer is 78.00 % In the ideal theory Duty Cycle, the test error tolerance [1%] of the test equipment was considered and applied to the measurement results.The duty cycle of DH5 measured by DUT was 77.1%, and the duty cycle was compensated by applying test error tolerance 1%. For more information on BT , please refer to the technical description document.

12. System Verification

12.1 Tissue Verification

The head simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity.

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (㎒)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
05/07/2024	19.5	750H	705	0.852	43.739	0.889	42.174	- 4.16	+ 3.71
			710	0.858	43.667	0.890	42.148	- 3.60	+ 3.60
			750	0.902	43.089	0.893	41.940	+ 1.01	+ 2.74
05/08/2024	19.8	750H	705	0.853	43.848	0.889	42.174	- 4.05	+ 3.97
			710	0.858	43.775	0.890	42.148	- 3.60	+ 3.86
			750	0.902	43.195	0.893	41.940	+ 1.01	+ 2.99
05/09/2024	20.1	750H	750	0.873	42.988	0.893	41.940	- 2.24	+ 2.50
			785	0.908	42.490	0.896	41.758	+ 1.34	+ 1.75
05/10/2024	20.4	750H	750	0.873	43.115	0.893	41.940	- 2.24	+ 2.80
			785	0.908	42.615	0.896	41.758	+ 1.34	+ 2.05
05/15/2024	20.9	835H	820	0.922	41.491	0.899	41.577	+ 2.56	- 0.21
			835	0.937	41.279	0.900	41.500	+ 4.11	- 0.53
			850	0.952	41.120	0.916	41.500	+ 3.93	- 0.92
05/14/2024	20.7	835H	820	0.922	41.335	0.899	41.577	+ 2.56	- 0.58
			835	0.936	41.131	0.900	41.500	+ 4.00	- 0.89
			850	0.952	40.921	0.916	41.500	+ 3.93	- 1.40
05/08/2024	19.8	835H	820	0.913	42.119	0.920	42.079	- 0.76	+ 0.10
			835	0.930	41.914	0.936	41.875	- 0.64	+ 0.09
			850	0.944	41.713	0.951	41.674	- 0.74	+ 0.09
05/07/2024	19.5	835H	820	0.918	42.117	0.920	42.079	- 0.22	+ 0.09
			835	0.935	41.913	0.936	41.875	- 0.11	+ 0.09
			850	0.949	41.710	0.951	41.674	- 0.21	+ 0.09
05/15/2024	20.7	1800H	1710	1.299	41.510	1.348	40.144	- 3.64	+ 3.40
			1750	1.339	41.360	1.371	40.080	- 2.33	+ 3.19
			1 800	1.400	39.382	1.400	40.000	+ 0.00	- 1.55
05/11/2024	18.8	1800H	1710	1.301	41.470	1.348	40.144	- 3.49	+ 3.30
			1750	1.342	41.300	1.371	40.080	- 2.12	+ 3.04
			1800	1.405	39.387	1.400	40.000	+ 0.36	- 1.53
05/23/2024	20.9	1800H	1710	1.305	39.765	1.348	40.144	- 3.19	- 0.94
			1750	1.348	39.616	1.371	40.080	- 1.68	- 1.16
			1800	1.400	39.389	1.400	40.000	+ 0.00	- 1.53
05/08/2024	20.7	1800H	1710	1.299	41.640	1.348	40.144	- 3.64	+ 3.73
			1750	1.341	41.480	1.371	40.080	- 2.19	+ 3.49
			1 800	1.396	38.508	1.400	40.000	- 0.29	- 3.73
05/07/2024	20.3	1800H	1710	1.303	41.520	1.348	40.144	- 3.34	+ 3.43
			1750	1.342	41.360	1.371	40.080	- 2.12	+ 3.19
			1800	1.395	38.508	1.400	40.000	- 0.36	- 3.73
05/14/2024	20.5	1800H	1710	1.327	41.285	1.348	40.144	- 1.56	+ 2.84
			1750	1.368	41.157	1.371	40.080	- 0.22	+ 2.69
			1800	1.422	40.933	1.400	40.000	+ 1.57	+ 2.33
05/16/2024	20.1	1900H	1850	1.333	39.369	1.400	40.000	- 4.79	- 1.58
			1900	1.370	39.162	1.400	40.000	- 2.14	- 2.10
			1910	1.379	39.117	1.400	40.000	- 1.50	- 2.21
05/15/2024	20.7	1900H	1850	1.368	39.170	1.400	40.000	- 2.29	- 2.07
			1900	1.421	41.274	1.400	40.000	+ 1.50	+ 3.18
			1910	1.425	38.910	1.400	40.000	+ 1.79	- 2.73
05/11/2024	18.8	1900H	1850	1.373	39.170	1.400	40.000	- 1.93	- 2.07
			1900	1.423	39.147	1.400	40.000	+ 1.64	- 2.13
			1910	1.430	38.910	1.400	40.000	+ 2.14	- 2.73
05/22/2024	20.6	1900H	1850	1.371	41.469	1.400	40.000	- 2.07	+ 3.67
			1900	1.421	41.274	1.400	40.000	+ 1.50	+ 3.18
			1910	1.431	41.245	1.400	40.000	+ 2.21	+ 3.11

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
05/08/2024	20.7	1900H	1850	1.358	39.170	1.400	40.000	- 3.00	- 2.07
			1900	1.412	39.147	1.400	40.000	+ 0.86	- 2.13
			1910	1.415	38.910	1.400	40.000	+ 1.07	- 2.73
05/09/2024	20.6	1900H	1850	1.370	39.170	1.400	40.000	- 2.14	- 2.07
			1900	1.413	39.143	1.400	40.000	+ 0.93	- 2.14
			1910	1.427	38.910	1.400	40.000	+ 1.93	- 2.73
05/14/2024	20.5	1900H	1850	1.370	41.459	1.400	40.000	- 2.14	+ 3.65
			1900	1.421	41.268	1.400	40.000	+ 1.50	+ 3.17
			1910	1.430	41.236	1.400	40.000	+ 2.14	+ 3.09
05/01/2024	21.0	2450H	2400	1.747	40.337	1.756	39.290	- 0.51	+ 2.66
			2450	1.810	40.180	1.800	39.200	+ 0.56	+ 2.50
			2500	1.865	40.014	1.855	39.140	+ 0.54	+ 2.23
05/01/2024	21.0	2450H	2400	1.799	40.755	1.756	39.290	+ 2.45	+ 3.73
			2450	1.868	40.627	1.800	39.200	+ 3.78	+ 3.64
			2500	1.920	40.425	1.855	39.140	+ 3.50	+ 3.28
05/02/2024	21.8	2450H	2400	1.747	40.966	1.756	39.290	- 0.51	+ 4.27
			2450	1.812	40.820	1.800	39.200	+ 0.67	+ 4.13
			2500	1.862	40.649	1.855	39.140	+ 0.38	+ 3.86
05/11/2024	21.0	2450H	2400	1.798	39.080	1.756	39.290	+ 2.39	- 0.53
			2450	1.837	39.156	1.800	39.200	+ 2.06	- 0.11
			2500	1.885	39.266	1.855	39.140	+ 1.62	+ 0.32
05/10/2024	21.1	2450H	2400	1.798	39.070	1.756	39.290	+ 2.39	- 0.56
			2450	1.838	39.141	1.800	39.200	+ 2.11	- 0.15
			2500	1.885	39.250	1.855	39.140	+ 1.62	+ 0.28
05/03/2024	21.1	2600H	2500	1.848	39.170	1.855	39.140	- 0.38	+ 0.08
			2600	1.942	38.739	1.964	39.010	- 1.12	- 0.69
			2690	2.024	38.282	2.062	38.894	- 1.84	- 1.57
05/02/2024	21.1	2600H	2500	1.904	39.309	1.855	39.140	+ 2.64	+ 0.43
			2600	2.001	38.870	1.964	39.010	+ 1.88	- 0.36
			2690	2.084	38.436	2.062	38.894	+ 1.07	- 1.18
05/03/2024	23.5	2600H	2500	1.881	39.323	1.855	39.140	+ 1.40	+ 0.47
			2600	2.007	39.167	1.964	39.010	+ 2.19	+ 0.40
			2690	2.113	38.356	2.062	38.894	+ 2.47	- 1.38
05/02/2024	23.7	2600H	2500	1.883	39.351	1.855	39.140	+ 1.51	+ 0.54
			2600	2.007	39.184	1.964	39.010	+ 2.19	+ 0.45
			2690	2.114	38.378	2.062	38.894	+ 2.52	- 1.33

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
05/03/2024	19.9	5180H-5320H	5 180	4.615	37.109	4.635	36.010	- 0.43	+ 3.05
			5 250	4.748	36.903	4.706	35.930	+ 0.89	+ 2.71
			5 280	4.802	36.908	4.737	35.894	+ 1.37	+ 2.82
			5 320	4.852	36.951	4.778	35.846	+ 1.55	+ 3.08
05/02/2024	23.6	5500H-5600H	5 500	5.043	37.006	4.963	35.640	+ 1.61	+ 3.83
			5 600	5.118	36.747	5.065	35.530	+ 1.05	+ 3.43
			5 750	5.323	36.601	5.219	35.360	+ 1.99	+ 3.51
05/02/2024	23.5	5750H-5825H	5 750	5.350	36.700	5.219	35.360	+ 2.51	+ 3.79
			5 800	5.303	36.648	5.270	35.300	+ 0.63	+ 3.82
			5 825	5.292	36.568	5.296	35.270	- 0.08	+ 3.68
05/03/2024	21.1	5800H-5885H	5 800	5.340	36.400	5.270	35.300	+ 1.33	+ 3.12
			5 835	5.324	36.266	5.306	35.258	+ 0.34	+ 2.86
			5 845	5.326	36.232	5.316	35.246	+ 0.19	+ 2.80
			5 855	5.332	36.198	5.326	35.235	+ 0.11	+ 2.73
			5 865	5.337	36.156	5.337	35.225	+ 0.00	+ 2.64
			5 875	5.345	36.117	5.347	35.215	- 0.04	+ 2.56
			5 885	5.357	36.084	5.357	35.205	+ 0.00	+ 2.50

◆ 5G NR SUB 6

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (℃)	Tissue Type	Freq. (㎒)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
05/18/2024	19.3	835H	820	0.908	41.000	0.899	41.577	+ 1.00	- 1.39
			835	0.914	40.837	0.900	41.500	+ 1.56	- 1.60
			850	0.933	40.480	0.916	41.500	+ 1.86	- 2.46
05/17/2024	18.8	835H	820	0.913	40.970	0.899	41.577	+ 1.56	- 1.46
			835	0.910	42.226	0.900	41.500	+ 1.11	+ 1.75
			850	0.940	40.480	0.916	41.500	+ 2.62	- 2.46
05/17/2024	20.5	1800H	1710	1.301	41.460	1.348	40.144	- 3.49	+ 3.28
			1750	1.342	41.430	1.371	40.080	- 2.12	+ 3.37
			1800	1.422	41.369	1.400	40.000	+ 1.57	+ 3.42
05/23/2024	20.2	1800H	1710	1.328	41.760	1.348	40.144	- 1.48	+ 4.03
			1750	1.368	41.597	1.371	40.080	- 0.22	+ 3.78
			1800	1.423	41.380	1.400	40.000	+ 1.64	+ 3.45
05/18/2024	20.2	1800H	1710	1.291	41.590	1.348	40.144	- 4.23	+ 3.60
			1750	1.333	41.440	1.371	40.080	- 2.77	+ 3.39
			1800	1.423	41.353	1.400	40.000	+ 1.64	+ 3.38
05/18/2024	20.2	1800H	1710	1.299	41.640	1.348	40.144	- 3.64	+ 3.73
			1750	1.341	41.480	1.371	40.080	- 2.19	+ 3.49
			1800	1.445	39.794	1.400	40.000	+ 3.21	- 0.52
05/17/2024	20.9	1800H	1710	1.300	41.650	1.348	40.144	- 3.56	+ 3.75
			1750	1.340	41.520	1.371	40.080	- 2.26	+ 3.59
			1800	1.450	39.383	1.400	40.000	+ 3.57	- 1.54
05/24/2024	21.1	2600H	2500	1.934	38.270	1.855	39.140	+ 4.26	- 2.22
			2600	2.032	37.848	1.964	39.010	+ 3.46	- 2.98
			2690	2.121	37.426	2.062	38.894	+ 2.86	- 3.77
05/23/2024	20.9	2600H	2500	1.934	38.266	1.855	39.140	+ 4.26	- 2.23
			2600	2.031	37.831	1.964	39.010	+ 3.41	- 3.02
			2690	2.117	37.417	2.062	38.894	+ 2.67	- 3.80
05/20/2024	20.8	2600H	2500	1.887	39.365	1.855	39.140	+ 1.73	+ 0.57
			2600	2.013	39.227	1.964	39.010	+ 2.49	+ 0.56
			2690	2.116	38.391	2.062	38.894	+ 2.62	- 1.29
05/19/2024	21.1	2600H	2500	1.889	39.369	1.855	39.140	+ 1.83	+ 0.59
			2600	2.010	39.206	1.964	39.010	+ 2.34	+ 0.50
			2690	2.120	38.398	2.062	38.894	+ 2.81	- 1.28

◆ Extremity

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (㎒)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
05/11/2024	18.8	13H	12	0.730	54.388	0.750	55.000	- 2.67	- 1.11
			13	0.735	54.455	0.750	55.000	- 2.00	- 0.99
			14	0.740	54.432	0.750	55.000	- 1.33	- 1.03
05/23/2024	20.9	1800H	1710	1.299	41.510	1.348	40.144	- 3.64	+ 3.40
			1750	1.339	41.360	1.371	40.080	- 2.33	+ 3.19
			1 800	1.400	39.382	1.400	40.000	+ 0.00	- 1.55
05/14/2024	20.5	1800H	1710	1.327	41.285	1.348	40.144	- 1.56	+ 2.84
			1750	1.368	41.157	1.371	40.080	- 0.22	+ 2.69
			1800	1.422	40.933	1.400	40.000	+ 1.57	+ 2.33
05/23/2024	20.2	1800H	1710	1.328	41.760	1.348	40.144	- 1.48	+ 4.03
			1750	1.368	41.597	1.371	40.080	- 0.22	+ 3.78
			1800	1.423	41.380	1.400	40.000	+ 1.64	+ 3.45
05/18/2024	20.2	1800H	1710	1.299	41.640	1.348	40.144	- 3.64	+ 3.73
			1750	1.341	41.480	1.371	40.080	- 2.19	+ 3.49
			1800	1.445	39.794	1.400	40.000	+ 3.21	- 0.52
05/22/2024	20.6	1900H	1850	1.371	41.469	1.400	40.000	- 2.07	+ 3.67
			1900	1.421	41.274	1.400	40.000	+ 1.50	+ 3.18
			1910	1.431	41.245	1.400	40.000	+ 2.21	+ 3.11
05/14/2024	20.5	1900H	1850	1.370	41.459	1.400	40.000	- 2.14	+ 3.65
			1900	1.421	41.268	1.400	40.000	+ 1.50	+ 3.17
			1910	1.430	41.236	1.400	40.000	+ 2.14	+ 3.09

12.2 System Verification

Input Power: 50 mW

Freq.	Date	Probe	Dipole	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR_{1g} (SPEAG)	50mW Measured SAR_{1g}	1 W Normalized SAR_{1g}	Deviation	Limit
[MHz]		(S/N)	(S/N)		[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
750	05/07/2024	3768	1014	Head	19.5	19.5	8.59	0.428	8.56	- 0.35	± 10
750	05/08/2024	3768		Head	19.9	19.8	8.59	0.426	8.52	- 0.81	± 10
750	05/09/2024	3768		Head	20.1	20.1	8.59	0.415	8.30	- 3.38	± 10
750	05/10/2024	3768		Head	20.4	20.4	8.59	0.413	8.26	- 3.84	± 10
835	05/15/2024	7681	441	Head	20.9	20.9	9.73	0.469	9.38	- 3.60	± 10
835	05/14/2024	7681		Head	20.7	20.7	9.73	0.469	9.38	- 3.60	± 10
835	05/08/2024	3768		Head	19.9	19.8	9.73	0.494	9.88	+ 1.54	± 10
835	05/07/2024	3768		Head	19.5	19.5	9.73	0.495	9.90	+ 1.75	± 10
1 800	05/15/2024	7370	2d007	Head	20.7	20.7	39.0	1.84	36.8	- 5.64	± 10
1 800	05/11/2024	3768		Head	18.8	18.8	39.0	1.90	38.0	- 2.56	± 10
1 800	05/23/2024	7370		Head	20.9	20.9	39.0	1.85	37.0	- 5.13	± 10
1 800	05/08/2024	7370		Head	20.9	20.7	39.0	1.83	36.6	- 6.15	± 10
1 800	05/07/2024	7370		Head	20.4	20.3	39.0	1.83	36.6	- 6.15	± 10
1 900	05/16/2024	7681	5d032	Head	20.2	20.1	40.2	1.95	39.0	- 2.99	± 10
1 900	05/15/2024	7370		Head	20.7	20.7	40.2	2.01	40.2	+ 0.00	± 10
1 900	05/11/2024	3768		Head	18.8	18.8	40.2	2.02	40.4	+ 0.50	± 10
1 900	05/22/2024	7370		Head	20.7	20.6	40.2	1.98	39.6	- 1.49	± 10
1 900	05/08/2024	7370		Head	20.9	20.7	40.2	2.00	40.0	- 0.50	± 10
1 900	05/09/2024	7370		Head	20.7	20.6	40.2	2.00	40.0	- 0.50	± 10
2 450	05/01/2024	7654	743	Head	21.1	21.0	51.8	2.56	51.2	- 1.16	± 10
2 450	05/01/2024	3968		Head	21.1	21.0	51.8	2.72	54.4	+ 5.02	± 10
2 450	05/02/2024	3968		Head	21.9	21.8	51.8	2.64	52.8	+ 1.93	± 10
2 450	05/11/2024	7681		Head	21.0	21.0	51.8	2.62	52.4	+ 1.16	± 10
2 450	05/10/2024	7681		Head	21.1	21.1	51.8	2.61	52.2	+ 0.77	± 10
2 600	05/03/2024	7622	1015	Head	21.3	21.1	56.4	2.92	58.40	+ 3.55	± 10
2 600	05/02/2024	7622		Head	21.1	21.1	56.4	3.02	60.40	+ 7.09	± 10
2 600	05/03/2024	3903		Head	23.6	23.5	56.4	2.78	55.6	- 1.42	± 10
2 600	05/02/2024	3903		Head	23.7	23.7	56.4	2.78	55.6	- 1.42	± 10
5 250	05/03/2024	7751	1107	Head	19.9	19.9	80.2	4.10	82.0	+ 2.24	± 10
5 600	05/02/2024	7751		Head	23.6	23.6	82.1	4.27	85.4	+ 4.02	± 10
5 750	05/02/2024	7732		Head	23.5	23.5	79.9	3.75	75.0	- 6.13	± 10
5 800	05/03/2024	7732		Head	21.1	21.1	79.3	3.79	75.8	- 4.41	± 10

◆ System Verification Results - 5G NR SUB 6

Input Power: 50 ㎽

Freq.	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR_{1g} (SPEAG)	50mW Measured SAR_{1g}	1 W Normalized SAR_{1g}	Deviation	Limit
[㎒]					[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
835	05/18/2024	7309	441	Head	19.3	19.3	9.73	0.515	10.3	+ 5.86	± 10
835	05/17/2024	7309		Head	18.9	18.8	9.73	0.512	10.24	+ 5.24	± 10
1 800	05/17/2024	7681	2d007	Head	20.5	20.5	39.0	1.91	38.2	- 2.05	± 10
1 800	05/23/2024	7681		Head	20.4	20.2	39.0	1.84	36.8	- 5.64	± 10
1 800	05/18/2024	7681		Head	20.2	20.2	39.0	1.91	38.2	- 2.05	± 10
1 800	05/18/2024	7370		Head	20.3	20.2	39.0	1.98	39.6	+ 1.54	± 10
1 800	05/17/2024	7370		Head	20.9	20.9	39.0	1.99	39.8	+ 2.05	± 10
2 600	05/24/2024	7370	1015	Head	21.2	21.1	56.4	2.77	55.4	- 1.77	± 10
2 600	05/23/2024	7370		Head	20.9	20.9	56.4	2.79	55.8	- 1.06	± 10
2 600	05/20/2024	7370		Head	20.9	20.8	56.4	2.81	56.2	- 0.35	± 10
2 600	05/19/2024	7370		Head	21.1	21.1	56.4	2.80	56.0	- 0.71	± 10

◆ System Verification Results – Extremity SAR

Input Power: 50 ㎽

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
[㎒]					[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
13	05/11/2024	3076	1016	Head	18.8	18.8	0.343	0.018	0.36	+ 4.96	± 10
1 800	05/23/2024	7370	2d007	Head	20.9	20.9	20.4	0.962	19.24	- 5.69	± 10
1 800	05/14/2024	7370		Head	20.6	20.5	20.4	0.975	19.5	- 4.41	± 10
1 800	05/23/2024	7681		Head	20.4	20.2	20.4	1.02	20.4	+ 0.00	± 10
1 800	05/18/2024	7370		Head	20.3	20.2	20.4	1.04	20.8	+ 1.96	± 10
1 900	05/22/2024	7370	5d032	Head	20.7	20.6	21.0	1.01	20.2	- 3.81	± 10
1 900	05/14/2024	7370		Head	20.6	20.5	21.0	1.02	20.4	- 2.86	± 10
2 450	05/10/2024	7681	743	Head	21.1	21.1	24.2	1.25	25.0	+ 3.31	± 10
5 250	05/03/2024	7751	1107	Head	19.9	19.9	23.1	1.20	24.0	+ 3.90	± 10
5 600	05/02/2024	7751		Head	23.6	23.6	23.5	1.22	24.4	+ 3.83	± 10
5 800	05/03/2024	7732		Head	21.1	21.1	22.5	1.08	21.6	- 4.00	± 10

12.3 System Verification Procedure

SAR measurement was prior to assessment the system is verified to the ± 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 ㎽ 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 SAR Measurement Results

GSM 850 Head SAR													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)				(W/kg)		(W/kg)	
836.6	190	GSM Voice	A	31.0	30.38	-0.17	Left Touch	1:8.3		0.068	1.153	0.078	-
836.6	190	GSM Voice	A	31.0	30.38	0.12	Left Tilt	1:8.3		0.047	1.153	0.054	-
836.6	190	GSM Voice	A	31.0	30.38	0.15	Right Touch	1:8.3		0.123	1.153	**0.142**	**A1**
836.6	190	GSM Voice	A	31.0	30.38	0.15	Right Tilt	1:8.3		0.048	1.153	0.055	-
836.6	190	GPRS 4Tx	A	27.0	26.23	-0.18	Left Touch	1:2.07		0.069	1.194	0.082	-
836.6	190	GPRS 4Tx	A	27.0	26.23	0.07	Left Tilt	1:2.07		0.039	1.194	0.047	-
836.6	190	GPRS 4Tx	A	27.0	26.23	0.17	Right Touch	1:2.07		0.099	1.194	0.118	-
836.6	190	GPRS 4Tx	A	27.0	26.23	-0.03	Right Tilt	1:2.07		0.039	1.194	0.047	-
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.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)				(W/kg)		(W/kg)	
1 880	661	GSM	A	29.0	28.41	0.00	Left Touch	1:8.3		0.00998	1.146	0.011	-
1 880	661	GSM	A	29.0	28.41	0.14	Left Tilt	1:8.3		0.00757	1.146	0.009	-
1 880	661	GSM	A	29.0	28.41	-	Right Touch	1:8.3		0	1.146	0.000	-
1 880	661	GSM	A	29.0	28.41	0.12	Right Tilt	1:8.3		0.00723	1.146	0.008	-
1 880	661	GPRS 4Tx	A	24.5	23.69	0.00	Left Touch	1:2.07		0.00964	1.205	**0.012**	**A2**
1 880	661	GPRS 4Tx	A	24.5	23.69	-0.18	Left Tilt	1:2.07		0.01	1.205	0.012	-
1 880	661	GPRS 4Tx	A	24.5	23.69	-	Right Touch	1:2.07		0	1.205	0.000	-
1 880	661	GPRS 4Tx	A	24.5	23.69	0.17	Right Tilt	1:2.07		0.00888	1.205	0.011	-
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.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)				(W/kg)		(W/kg)	
836.6	4183	RMC	A	23.4	22.22	-0.18	Left Touch	1:1		0.083	1.312	0.109	-
836.6	4183	RMC	A	23.4	22.22	0.14	Left Tilt	1:1		0.046	1.312	0.060	-
836.6	4183	RMC	A	23.4	22.22	0.10	Right Touch	1:1		0.139	1.312	**0.182**	**A3**
836.6	4183	RMC	A	23.4	22.22	-0.15	Right Tilt	1:1		0.041	1.312	0.054	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram						

LTE FDD Band 2 Head SAR

Frequency		Mode	Ant.	Band width	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)	
1 860	18700	QPSK	A	20	22.5	22.00	0.11	Left Touch	0	1	0	1:1		0.064	1.122	0.072	-
1 860	18700	QPSK	A	20	21.5	20.87	0.00	Left Touch	1	50	0	1:1		0.045	1.156	0.052	-
1 860	18700	QPSK	A	20	22.5	22.00	0.11	Left Tilt	0	1	0	1:1		0.017	1.122	0.019	-
1 860	18700	QPSK	A	20	21.5	20.87	0.19	Left Tilt	1	50	0	1:1		0.00859	1.156	0.010	-
1 860	18700	QPSK	A	20	22.5	22.00	0.00	Right Touch	0	1	0	1:1		0.025	1.122	0.028	-
1 860	18700	QPSK	A	20	21.5	20.87	0.00	Right Touch	1	50	0	1:1		0.016	1.156	0.018	-
1 860	18700	QPSK	A	20	22.5	22.00	-0.12	Right Tilt	0	1	0	1:1		0.01	1.122	0.011	-
1 860	18700	QPSK	A	20	21.5	20.87	0.18	Right Tilt	1	50	0	1:1		0.01	1.156	0.012	-
1 880	18900	QPSK	I	20	16.0	15.42	-0.01	Left Touch	0	1	0	1:1		0.567	1.143	0.648	-
1 860	18700	QPSK	I	20	16.0	15.19	0.17	Left Touch	0	50	25	1:1		0.544	1.205	**0.656**	**A4**
1 880	18900	QPSK	I	20	16.0	15.42	0.03	Left Tilt	0	1	0	1:1		0.118	1.143	0.135	-
1 860	18700	QPSK	I	20	16.0	15.19	0.12	Left Tilt	0	50	25	1:1		0.116	1.205	0.140	-
1 880	18900	QPSK	I	20	16.0	15.42	0.06	Right Touch	0	1	0	1:1		0.224	1.143	0.256	-
1 860	18700	QPSK	I	20	16.0	15.19	0.06	Right Touch	0	50	25	1:1		0.237	1.205	0.286	-
1 880	18900	QPSK	I	20	16.0	15.42	-0.15	Right Tilt	0	1	0	1:1		0.063	1.143	0.072	-
1 860	18700	QPSK	I	20	16.0	15.19	0.14	Right Tilt	0	50	25	1:1		0.064	1.205	0.077	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

LTE FDD Band 5 (Cell) Head SAR

Frequency		Mode	Ant.	Band width	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)	
836.5	20525	QPSK	A	10	23.5	22.44	-0.06	Left Touch	0	1	0	1:1		0.110	1.276	0.140	-
836.5	20525	QPSK	A	10	22.5	21.40	0.02	Left Touch	1	25	24	1:1		0.078	1.288	0.100	-
836.5	20525	QPSK	A	10	23.5	22.44	0.11	Left Tilt	0	1	0	1:1		0.065	1.276	0.083	-
836.5	20525	QPSK	A	10	22.5	21.40	-0.02	Left Tilt	1	25	24	1:1		0.044	1.288	0.057	-
836.5	20525	QPSK	A	10	23.5	22.44	0.18	Right Touch	0	1	0	1:1		0.116	1.276	**0.148**	**A5**
836.5	20525	QPSK	A	10	22.5	21.40	-0.07	Right Touch	1	25	24	1:1		0.089	1.288	0.115	-
836.5	20525	QPSK	A	10	23.5	22.44	-0.14	Right Tilt	0	1	0	1:1		0.079	1.276	0.101	-
836.5	20525	QPSK	A	10	22.5	21.40	0.13	Right Tilt	1	25	24	1:1		0.062	1.288	0.080	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

LTE FDD Band 12 Head SAR

Frequency		Mode	Ant.	Band width	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	A	10	23.5	22.93	-0.07	Left Touch	0	1	24	1:1		0.100	1.140	0.114	-
707.5	23095	QPSK	A	10	22.5	21.90	-0.17	Left Touch	1	25	24	1:1		0.067	1.148	0.077	-
707.5	23095	QPSK	A	10	23.5	22.93	0.00	Left Tilt	0	1	24	1:1		0.062	1.140	0.071	-
707.5	23095	QPSK	A	10	22.5	21.90	0.03	Left Tilt	1	25	24	1:1		0.042	1.148	0.048	-
707.5	23095	QPSK	A	10	23.5	22.93	0.02	Right Touch	0	1	24	1:1		0.105	1.140	**0.120**	**A6**
707.5	23095	QPSK	A	10	22.5	21.90	0.07	Right Touch	1	25	24	1:1		0.070	1.148	0.080	-
707.5	23095	QPSK	A	10	23.5	22.93	-0.02	Right Tilt	0	1	24	1:1		0.057	1.140	0.065	-
707.5	23095	QPSK	A	10	22.5	21.90	0.03	Right Tilt	1	25	24	1:1		0.052	1.148	0.060	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

LTE FDD Band 13 Head SAR

Frequency		Mode	Ant.	Band width	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	A	10	23.5	22.57	0.11	Left Touch	0	1	0	1:1		0.096	1.239	0.119	-
782	23230	QPSK	A	10	22.5	21.46	0.19	Left Touch	1	25	12	1:1		0.077	1.271	0.098	-
782	23230	QPSK	A	10	23.5	22.57	0.15	Left Tilt	0	1	0	1:1		0.061	1.239	0.076	-
782	23230	QPSK	A	10	22.5	21.46	0.19	Left Tilt	1	25	12	1:1		0.050	1.271	0.064	-
782	23230	QPSK	A	10	23.5	22.57	0.11	Right Touch	0	1	0	1:1		0.098	1.239	**0.121**	A7
782	23230	QPSK	A	10	22.5	21.46	0.10	Right Touch	1	25	12	1:1		0.076	1.271	0.097	-
782	23230	QPSK	A	10	23.5	22.57	0.14	Right Tilt	0	1	0	1:1		0.055	1.239	0.068	-
782	23230	QPSK	A	10	22.5	21.46	0.03	Right Tilt	1	25	12	1:1		0.058	1.271	0.074	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram									

LTE TDD Band 41 Head SAR

Frequency		Mode	Ant.	Band width	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)	
2 506	39750	QPSK	B	20	22.0	20.77	-	Left Touch	0	1	0	1:1.58		0	1.327	0.000	-
2 506	39750	QPSK	B	20	21.0	19.84	-	Left Touch	1	50	0	1:1.58		0	1.306	0.000	-
2 506	39750	QPSK	B	20	22.0	20.77	-	Left Tilt	0	1	0	1:1.58		0	1.327	0.000	-
2 506	39750	QPSK	B	20	21.0	19.84	-	Left Tilt	1	50	0	1:1.58		0	1.306	0.000	-
2 506	39750	QPSK	B	20	22.0	20.77	-	Right Touch	0	1	0	1:1.58		0	1.327	0.000	-
2 506	39750	QPSK	B	20	21.0	19.84	-	Right Touch	1	50	0	1:1.58		0	1.306	0.000	-
2 506	39750	QPSK	B	20	22.0	20.77	0.00	Right Tilt	0	1	0	1:1.58		0.00435	1.327	0.006	-
2 506	39750	QPSK	B	20	21.0	19.84	-	Right Tilt	1	50	0	1:1.58		0	1.306	0.000	-
2 506	39750	QPSK	B	20	22.0	20.63	0.00	Right Tilt	0	1	99	1:1.58		0.00306	1.371	0.004	-
PCC 2 506	39750	QPSK	B	20	22.0	20.85	0.00	Right Tilt	0	1	99	1:1.58		0.00178	1.303	0.002	•
SCC 2 525.8	39948	QPSK	B	20					0	1	0						
2 680	41490	QPSK	I	20	16.8	15.61	0.18	Left Touch	0	1	0	1:1.58		0.689	1.315	0.906	-
2 506	39750	QPSK	I	20	16.8	15.41	0.00	Left Touch	0	1	0	1:1.58		0.357	1.377	0.492	-
2 549.5	40185	QPSK	I	20	16.8	15.50	0.14	Left Touch	0	1	0	1:1.58		0.413	1.349	0.557	-
2 593	40620	QPSK	I	20	16.8	15.46	0.11	Left Touch	0	1	0	1:1.58		0.524	1.361	0.713	-
2 636.5	41055	QPSK	I	20	16.8	15.50	0.11	Left Touch	0	1	0	1:1.58		0.626	1.349	0.844	-
2 680	41490	QPSK	I	20	16.8	15.56	0.07	Left Touch	0	50	0	1:1.58		0.693	1.324	**0.918**	A8
2 506	39750	QPSK	I	20	16.8	15.51	0.16	Left Touch	0	50	49	1:1.58		0.351	1.346	0.472	-
2 549.5	40185	QPSK	I	20	16.8	15.57	0.05	Left Touch	0	50	25	1:1.58		0.419	1.327	0.556	-
2 593	40620	QPSK	I	20	16.8	15.44	0.06	Left Touch	0	50	25	1:1.58		0.537	1.368	0.735	-
2 636.5	41055	QPSK	I	20	16.8	15.51	0.09	Left Touch	0	50	0	1:1.58		0.619	1.346	0.833	-
2 680	41490	QPSK	I	20	16.8	15.51	0.15	Left Touch	0	100	0	1:1.58		0.676	1.346	0.910	-
2 680	41490	QPSK	I	20	16.8	15.61	-0.02	Left Tilt	0	1	0	1:1.58		0.115	1.315	0.151	-
2 680	41490	QPSK	I	20	16.8	15.56	-0.04	Left Tilt	0	50	0	1:1.58		0.112	1.324	0.148	-
2 680	41490	QPSK	I	20	16.8	15.61	-0.12	Right Touch	0	1	0	1:1.58		0.213	1.315	0.280	-
2 680	41490	QPSK	I	20	16.8	15.56	0.00	Right Touch	0	50	0	1:1.58		0.215	1.324	0.285	-
2 680	41490	QPSK	I	20	16.8	15.61	0.11	Right Tilt	0	1	0	1:1.58		0.032	1.315	0.042	-
2 680	41490	QPSK	I	20	16.8	15.56	-0.15	Right Tilt	0	50	0	1:1.58		0.032	1.324	0.042	-
PCC 2 680	41490	QPSK	I	20	16.8	16.06	-0.15	Left Touch	0	50	0	1:1.58		0.669	1.186	0.793	•
SCC 2 660.2	41292	QPSK	I	20					0	50	0						
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram									

• Up-link Carrier Aggregation Power Class 3 (41C)

LTE FDD Band 66 (AWS) Head SAR

Frequency		Mode	Ant.	Band width	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)	
1 770	132572	QPSK	A	20	23.0	22.19	0.12	Left Touch	0	1	49	1:1		0.043	1.205	0.052	-
1 745	132322	QPSK	A	20	22.0	21.27	0.00	Left Touch	1	50	25	1:1		0.039	1.183	0.046	-
1 770	132572	QPSK	A	20	23.0	22.19	0.10	Left Tilt	0	1	49	1:1		0.024	1.205	0.029	-
1 745	132322	QPSK	A	20	22.0	21.27	0.15	Left Tilt	1	50	25	1:1		0.015	1.183	0.018	-
1 770	132572	QPSK	A	20	23.0	22.19	0.13	Right Touch	0	1	49	1:1		0.046	1.205	0.055	-
1 745	132322	QPSK	A	20	22.0	21.27	0.00	Right Touch	1	50	25	1:1		0.042	1.183	0.050	-
1 770	132572	QPSK	A	20	23.0	22.19	0.13	Right Tilt	0	1	49	1:1		0.024	1.205	0.029	-
1 745	132322	QPSK	A	20	22.0	21.27	0.18	Right Tilt	1	50	25	1:1		0.019	1.183	0.022	-
1 745	132322	QPSK	I	20	17.5	16.88	0.08	Left Touch	0	1	0	1:1		0.675	1.153	0.778	-
1 745	132322	QPSK	I	20	17.5	16.75	0.13	Left Touch	0	50	25	1:1		0.684	1.189	0.813	-
1 720	132072	QPSK	I	20	17.5	16.68	-0.13	Left Touch	0	50	49	1:1		0.664	1.208	0.802	-
1 770	132572	QPSK	I	20	17.5	16.60	0.17	Left Touch	0	50	49	1:1		0.764	1.230	**0.940**	**A9**
1 720	132072	QPSK	I	20	17.5	16.78	0.12	Left Touch	0	100	0	1:1		0.656	1.180	0.774	-
1 745	132322	QPSK	I	20	17.5	16.88	0.07	Left Tilt	0	1	0	1:1		0.153	1.153	0.176	-
1 745	132322	QPSK	I	20	17.5	16.75	0.12	Left Tilt	0	50	25	1:1		0.157	1.189	0.187	-
1 745	132322	QPSK	I	20	17.5	16.88	0.05	Right Touch	0	1	0	1:1		0.346	1.153	0.399	-
1 745	132322	QPSK	I	20	17.5	16.75	0.10	Right Touch	0	50	25	1:1		0.368	1.189	0.438	-
1 745	132322	QPSK	I	20	17.5	16.88	-0.04	Right Tilt	0	1	0	1:1		0.09	1.153	0.104	-
1 745	132322	QPSK	I	20	17.5	16.75	0.07	Right Tilt	0	50	25	1:1		0.085	1.189	0.101	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

NR FDD Band n5 Head SAR

Frequency		Mode	Ant.	Band width	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)	
836.5	167300	DFT-s OFDM QPSK	A	20	23.5	22.75	-0.19	Left Touch	0	1	1	1:1		0.136	1.189	0.162	-
836.5	167300	DFT-s OFDM QPSK	A	20	23.5	22.74	0.19	Left Touch	0	50	28	1:1		0.146	1.191	0.174	-
836.5	167300	DFT-s OFDM QPSK	A	20	23.5	22.75	0.07	Left Tilt	0	1	1	1:1		0.078	1.189	0.093	-
836.5	167300	DFT-s OFDM QPSK	A	20	23.5	22.74	0.14	Left Tilt	0	50	28	1:1		0.084	1.191	0.100	-
836.5	167300	DFT-s OFDM QPSK	A	20	23.5	22.75	-0.11	Right Touch	0	1	1	1:1		0.166	1.189	**0.197**	**A10**
836.5	167300	DFT-s OFDM QPSK	A	20	23.5	22.74	0.18	Right Touch	0	50	28	1:1		0.142	1.191	0.169	-
836.5	167300	DFT-s OFDM QPSK	A	20	23.5	22.75	0.19	Right Tilt	0	1	1	1:1		0.065	1.189	0.077	-
836.5	167300	DFT-s OFDM QPSK	A	20	23.5	22.74	0.14	Right Tilt	0	50	28	1:1		0.081	1.191	0.096	-
836.5	167300	CP QPSK	A	20	22.0	21.22	-0.05	Right Touch	1.5	1	1	1:1		0.095	1.197	0.114	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

TDD Band n41 Head SAR

Frequency		Mode	Ant.	Band width	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)	
2 592.99	518598	DFT-s OFDM QPSK	B	100	22.0	21.40	0.09	Left Cheek	0	1	271	1:1		0.056	1.148	0.064	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	22.0	21.00	0.00	Left Cheek	0	135	69	1:1		0.036	1.259	0.045	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	22.0	21.40	0.01	Left Tilt	0	1	271	1:1		0.028	1.148	0.032	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	22.0	21.00	-0.03	Left Tilt	0	135	69	1:1		0.02	1.259	0.025	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	22.0	21.40	0.00	Right Cheek	0	1	271	1:1		0.028	1.148	0.032	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	22.0	21.00	0.00	Right Cheek	0	135	69	1:1		0.021	1.259	0.026	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	22.0	21.40	-0.11	Right Tilt	0	1	271	1:1		0.049	1.148	0.056	-
2 592.99	518598	DFT-s OFDM QPSK	B	100	22.0	21.00	0.10	Right Tilt	0	135	69	1:1		0.038	1.259	0.048	-
2 592.99	518598	CP OFDM QPSK	B	100	20.5	19.47	0.00	Left Cheek	1.5	1	1	1:1		0.038	1.268	0.048	-
2 592.99	518598	DFT-s OFDM QPSK	I	100	15.3	14.76	-0.12	Left Cheek	0	1	1	1:1		0.663	1.132	**0.751**	A11
2 592.99	518598	DFT-s OFDM QPSK	I	100	15.3	14.68	-0.12	Left Cheek	0	135	0	1:1		0.571	1.153	0.658	-
2 592.99	518598	DFT-s OFDM QPSK	I	100	15.3	14.58	-0.12	Left Cheek	0	270	0	1:1		0.533	1.180	0.629	-
2 592.99	518598	DFT-s OFDM QPSK	I	100	15.3	14.76	0.17	Left Tilt	0	1	1	1:1		0.112	1.132	0.127	-
2 592.99	518598	DFT-s OFDM QPSK	I	100	15.3	14.68	-0.16	Left Tilt	0	135	0	1:1		0.106	1.153	0.122	-
2 592.99	518598	DFT-s OFDM QPSK	I	100	15.3	14.76	-0.13	Right Cheek	0	1	1	1:1		0.15	1.132	0.170	-
2 592.99	518598	DFT-s OFDM QPSK	I	100	15.3	14.68	-0.06	Right Cheek	d	135	0	1:1		0.188	1.153	0.217	-
2 592.99	518598	DFT-s OFDM QPSK	I	100	15.3	14.76	-0.05	Right Tilt	0	1	1	1:1		0.035	1.132	0.040	-
2 592.99	518598	DFT-s OFDM QPSK	I	100	15.3	14.68	-0.14	Right Tilt	0	135	0	1:1		0.038	1.153	0.044	-
2 592.99	518598	CP OFDM QPSK	I	100	15.3	14.80	-0.17	Left Cheek	0	1	1	1:1		0.486	1.122	0.545	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

NR FDD Band n66 Head SAR

Frequency		Mode	Ant.	Band width	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)	
1 745	349000	DFT-s OFDM QPSK	A	40	22.5	22.35	-0.05	Left Touch	0	1	1	1:1		0.067	1.035	0.069	-
1 745	349000	DFT-s OFDM QPSK	A	40	22.5	22.27	0.02	Left Touch	0	108	54	1:1		0.051	1.054	0.054	-
1 745	349000	DFT-s OFDM QPSK	A	40	22.5	22.35	0.05	Left Tilt	0	1	1	1:1		0.045	1.035	0.047	-
1 745	349000	DFT-s OFDM QPSK	A	40	22.5	22.27	-0.01	Left Tilt	0	108	54	1:1		0.038	1.054	0.040	-
1 745	349000	DFT-s OFDM QPSK	A	40	22.5	22.35	-0.12	Right Touch	0	1	1	1:1		0.045	1.035	0.047	-
1 745	349000	DFT-s OFDM QPSK	A	40	22.5	22.27	0.15	Right Touch	0	108	54	1:1		0.055	1.054	0.058	-
1 745	349000	DFT-s OFDM QPSK	A	40	22.5	22.35	0.16	Right Tilt	0	1	1	1:1		0.034	1.035	0.035	-
1 745	349000	DFT-s OFDM QPSK	A	40	22.5	22.27	0.13	Right Tilt	0	108	54	1:1		0.043	1.054	0.045	-
1 745	349000	CP QPSK	A	40	21.0	21.07	-0.13	Left Touch	1.5	1	1	1:1		0.024	0.984	0.024	-
1 745	349000	DFT-s OFDM QPSK	I	40	18.0	17.21	-0.03	Left Touch	0	1	214	1:1		0.748	1.199	**0.897**	A12
1 745	349000	DFT-s OFDM QPSK	I	40	18.0	17.26	-0.02	Left Touch	0	108	0	1:1		0.748	1.186	0.887	-
1 745	349000	DFT-s OFDM QPSK	I	40	18.0	17.32	0.06	Left Touch	0	216	0	1:1		0.763	1.169	0.892	-
1 745	349000	DFT-s OFDM QPSK	I	40	18.0	17.21	0.18	Left Tilt	0	1	214	1:1		0.166	1.199	0.199	-
1 745	349000	DFT-s OFDM QPSK	I	40	18.0	17.26	0.13	Left Tilt	0	108	0	1:1		0.175	1.186	0.208	-
1 745	349000	DFT-s OFDM QPSK	I	40	18.0	17.21	0.02	Right Touch	0	1	214	1:1		0.503	1.199	0.603	-
1 745	349000	DFT-s OFDM QPSK	I	40	18.0	17.26	0.14	Right Touch	0	108	0	1:1		0.536	1.186	0.636	-
1 745	349000	DFT-s OFDM QPSK	I	40	18.0	17.21	0.10	Right Tilt	0	1	214	1:1		0.09	1.199	0.108	-
1 745	349000	DFT-s OFDM QPSK	I	40	18.0	17.26	0.12	Right Tilt	0	108	0	1:1		0.094	1.186	0.111	-
1 745	349000	CP QPSK	I	40	18.0	17.35	0.12	Left Touch	1.5	1	1	1:1		0.753	1.161	0.874	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg I Averaged over 1 gram

DTS Head SAR

Frequency		Mode	Ant.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	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)	
2 412	1	802.11b	Ant.1	20	1Mbps	19.0	17.86	-0.16	Left Touch	98.9	0.22	0.150	1.300	1.011	0.197	-
2 412	1	802.11b	Ant.1	20	1Mbps	19.0	17.86	-0.07	Left Tilt	98.9	0.128	0.087	1.300	1.011	0.114	-
2 412	1	802.11b	Ant.1	20	1Mbps	19.0	17.86	-0.10	Right Touch	98.9	1.19	0.686	1.300	1.011	**0.902**	**A13**
2 437	6	802.11b	Ant.1	20	1Mbps	19.0	17.57	-0.15	Right Touch	98.9	1.22	0.605	1.390	1.011	0.850	-
2 412	1	802.11b	Ant.1	20	1Mbps	19.0	17.86	0.02	Right Tilt	98.9	0.773	0.390	1.300	1.011	0.513	-
2 437	6	802.11b	Ant.2	20	1Mbps	19.0	17.59	0.03	Left Touch	98.9	0.915	0.606	1.384	1.011	0.848	-
2 462	11	802.11b	Ant.2	20	1Mbps	19.0	17.45	0.01	Left Touch	98.9	0.934	0.615	1.429	1.011	0.889	
2 437	6	802.11b	Ant.2	20	1Mbps	19.0	17.59	-0.07	Left Tilt	98.9	0.628	0.365	1.384	1.011	0.511	-
2 437	6	802.11b	Ant.2	20	1Mbps	19.0	17.59	-0.10	Right Touch	98.9	0.45	0.317	1.384	1.011	0.444	-
2 437	6	802.11b	Ant.2	20	1Mbps	19.0	17.59	0.07	Right Tilt	98.9	0.346	0.229	1.384	1.011	0.320	-

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

NII Head SAR

Frequency		Mode	Ant.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	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)	
5 260	52	802.11a	Ant.1	20	6Mbps	16.0	14.17	-0.01	Left Touch	93.4	0.639	0.130	1.524	1.071	0.212	-
5 260	52	802.11a	Ant.1	20	6Mbps	16.0	14.17	0.10	Left Tilt	93.4	0.348	0.125	1.524	1.071	0.204	-
5 260	52	802.11a	Ant.1	20	6Mbps	16.0	14.17	-0.05	Right Touch	93.4	1.22	0.512	1.524	1.071	**0.835**	**A14**
5 280	56	802.11a	Ant.1	20	6Mbps	16.0	14.12	0.12	Right Touch	93.4	1.24	0.504	1.542	1.071	0.832	-
5 260	52	802.11a	Ant.1	20	6Mbps	16.0	14.17	0.07	Right Tilt	93.4	0.791	0.341	1.524	1.071	0.556	-
5 720	144	802.11a	Ant.1	20	6Mbps	16.0	15.42		Left Touch	93.4	0.753		1.143	1.071		-
5 720	144	802.11a	Ant.1	20	6Mbps	16.0	15.42		Left Tilt	93.4	0.669		1.143	1.071		-
5 720	144	802.11a	Ant.1	20	6Mbps	16.0	15.42	-0.17	Right Touch	93.4	1.48	0.611	1.143	1.071	0.748	-
5 720	144	802.11a	Ant.1	20	6Mbps	16.0	15.42	0.17	Right Tilt	93.4	1.18	0.440	1.143	1.071	0.538	-
5 825	165	802.11a	Ant.1	20	6Mbps	16.0	15.24	0.11	Left Touch	93.4	0.326	0.212	1.191	1.071	0.270	-
5 825	165	802.11a	Ant.1	20	6Mbps	16.0	15.24	-0.05	Left Tilt	93.4	0.364	0.251	1.191	1.071	0.320	-
5 825	165	802.11a	Ant.1	20	6Mbps	16.0	15.24	0.09	Right Touch	93.4	0.685	0.572	1.191	1.071	0.729	-
5 825	165	802.11a	Ant.1	20	6Mbps	16.0	15.24	0.18	Right Tilt	93.4	0.541	0.445	1.191	1.071	0.567	-
5 865	173	802.11a	Ant.1	20	6Mbps	16.0	15.42	-0.16	Left Touch	93.4	0.293	0.220	1.143	1.071	0.269	-
5 865	173	802.11a	Ant.1	20	6Mbps	16.0	15.42	-0.12	Left Tilt	93.4	0.343	0.234	1.143	1.071	0.286	-
5 865	173	802.11a	Ant.1	20	6Mbps	16.0	15.42	-0.19	Right Touch	93.4	0.728	0.668	1.143	1.071	0.817	-
5 865	173	802.11a	Ant.1	20	6Mbps	16.0	15.42	-0.10	Right Touch	93.4	0.797	0.529	1.143	1.071	0.647	-
5 845	169	802.11a	Ant.1	20	6Mbps	16.0	15.37	0.13	Right Tilt	93.4	0.706	0.657	1.156	1.071	0.813	-
5 280	56	802.11a	Ant.2	20	6Mbps	16.0	14.32	0.04	Left Touch	93.4	1.14	0.383	1.472	1.071	0.604	-
5 280	56	802.11a	Ant.2	20	6Mbps	16.0	14.32	-0.19	Left Tilt	93.4	0.715	0.324	1.472	1.071	0.511	-
5 280	56	802.11a	Ant.2	20	6Mbps	16.0	14.32		Right Touch	93.4	0.49		1.472	1.071		-
5 280	56	802.11a	Ant.2	20	6Mbps	16.0	14.32		Right Tilt	93.4	0.34		1.472	1.071		-
5 620	124	802.11a	Ant.2	20	6Mbps	16.0	15.98	0.16	Left Touch	93.4	1.46	0.567	1.005	1.071	0.610	-
5 620	124	802.11a	Ant.2	20	6Mbps	16.0	15.98	0.14	Left Tilt	93.4	1.08	0.462	1.005	1.071	0.497	-
5 620	124	802.11a	Ant.2	20	6Mbps	16.0	15.98		Right Touch	93.4	0.835		1.005	1.071		-
5 620	124	802.11a	Ant.2	20	6Mbps	16.0	15.98		Right Tilt	93.4	0.482		1.005	1.071		-
5 745	149	802.11a	Ant.2	20	6Mbps	16.0	15.42	0.06	Left Touch	93.4	0.55	0.388	1.143	1.071	0.475	-
5 745	149	802.11a	Ant.2	20	6Mbps	16.0	15.42	0.14	Left Tilt	93.4	0.429	0.300	1.143	1.071	0.367	-
5 745	149	802.11a	Ant.2	20	6Mbps	16.0	15.42	-0.05	Right Touch	93.4	0.292	0.197	1.143	1.071	0.241	-
5 745	149	802.11a	Ant.2	20	6Mbps	16.0	15.42	0.11	Right Tilt	93.4	0.243	0.152	1.143	1.071	0.186	-
5 845	169	802.11a	Ant.2	20	6Mbps	16.0	15.22	-0.12	Left Touch	93.4	0.59	0.412	1.197	1.071	0.528	-
5 845	169	802.11a	Ant.2	20	6Mbps	16.0	15.22	-0.15	Left Tilt	93.4	0.344	0.285	1.197	1.071	0.365	-
5 845	169	802.11a	Ant.2	20	6Mbps	16.0	15.22	-0.10	Right Touch	93.4	0.177	0.125	1.197	1.071	0.160	-
5 845	169	802.11a	Ant.2	20	6Mbps	16.0	15.22	-0.15	Right Tilt	93.4	0.212	0.120	1.197	1.071	0.154	-

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DSS Head SAR												
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)		(W/kg)		(Duty)	(W/kg)	
2 402	0	Bluetooth DH5	Ant.1	19.0	18.91	0.12	Left Touch	0.151	1.021	1.012	0.156	-
2 402	0	Bluetooth DH5	Ant.1	19.0	18.91	0.05	Left Tilt	0.104	1.021	1.012	0.107	-
2 402	0	Bluetooth DH5	Ant.1	19.0	18.91	-0.15	Right Touch	0.635	1.021	1.012	0.656	-
2 402	0	Bluetooth DH5	Ant.1	19.0	18.91	0.11	Right Tilt	0.342	1.021	1.012	0.353	-
2 441	39	Bluetooth DH5	Ant.2	18.0	17.63	0.14	Left Touch	0.599	1.089	1.012	**0.660**	**A15**
2 441	39	Bluetooth DH5	Ant.2	18.0	17.63	-0.02	Left Tilt	0.316	1.089	1.012	0.348	-
2 441	39	Bluetooth DH5	Ant.2	18.0	17.63	-0.12	Right Touch	0.272	1.089	1.012	0.300	-
2 441	39	Bluetooth DH5	Ant.2	18.0	17.63	-0.10	Right Tilt	0.196	1.089	1.012	0.216	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram					

13.2 Body-worn SAR Measurement Results

GSM Band Body-Worn SAR															
Frequency		Mode	Ant.	Form Factor	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.				(dBm)	(dBm)	(dB)			(mm)		(W/kg)		(W/kg)	
836.6	190	GSM 850 Voice	A	Open	31.0	30.38	0.17	Rear	1:8.3	10		0.273	1.153	0.315	-
836.6	190	GSM 850 Voice	A	Open	31.0	30.38	-0.01	Front	1:8.3	10		0.196	1.153	0.226	-
836.6	190	GSM 850 GPRS 4Tx	A	Open	27.0	26.23	-0.06	Rear	1:2.07	10		0.304	1.194	0.363	-
836.6	190	GSM 850 GPRS 4Tx	A	Open	27.0	26.23	-0.12	Front	1:2.07	10		0.223	1.194	0.266	-
836.6	190	GSM 850 Voice	A	Close	31.0	30.38	0.06	Rear	1:8.3	10		0.382	1.153	0.440	-
836.6	190	GSM 850 Voice	A	Close	31.0	30.38	0.06	Front	1:8.3	10		0.147	1.153	0.169	-
836.6	190	GSM 850 GPRS 4Tx	A	Close	27.0	26.23	-0.10	Rear	1:2.07	10		0.522	1.194	**0.623**	**B1**
836.6	190	GSM 850 GPRS 4Tx	A	Close	27.0	26.23	0.16	Front	1:2.07	10		0.211	1.194	0.252	-
1 880	661	GSM1900 Voice	A	Open	27.5	26.59	0.18	Rear	1:8.3	10		0.664	1.233	**0.819**	**B2**
1 850.2	512	GSM1900 Voice	A	Open	27.5	26.98	0.10	Rear	1:8.3	10		0.507	1.127	0.571	-
1 909.8	810	GSM1900 Voice	A	Open	27.5	26.72	0.15	Rear	1:8.3	10		0.646	1.197	0.773	-
1 880	661	GSM1900 Voice	A	Open	27.5	26.59	0.18	Front	1:8.3	10		0.368	1.233	0.454	-
1 880	661	GSM1900 GPRS 4Tx	A	Open	21.5	20.26	0.13	Rear	1:2.07	10		0.506	1.330	0.673	-
1 880	661	GSM1900 GPRS 4Tx	A	Open	21.5	20.26	-0.15	Front	1:2.07	10		0.325	1.330	0.432	-
1 880	661	GSM1900 Voice	A	Close	27.5	26.59	0.02	Rear	1:8.3	10		0.412	1.233	0.508	-
1 880	661	GSM1900 Voice	A	Close	27.5	26.59	0.07	Front	1:8.3	10		0.023	1.233	0.028	-
1 880	661	GSM1900 GPRS 4Tx	A	Close	21.5	20.26	-0.05	Rear	1:2.07	10		0.421	1.330	0.560	-
1 880	661	GSM1900 GPRS 4Tx	A	Close	21.5	20.26	0.02	Front	1:2.07	10		0.013	1.330	0.017	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram							

UMTS Band Body-Worn SAR															
Frequency		Mode	Ant.	Form Factor	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.				(dBm)	(dBm)	(dB)			(mm)		(W/kg)		(W/kg)	
836.6	4183	UMTS Band 5 RMC	A	Open	24.0	23.04	0.04	Rear	1:1	10		0.504	1.247	**0.628**	**B3**
836.6	4183	UMTS Band 5 RMC	A	Open	24.0	23.04	0.16	Front	1:1	10		0.281	1.247	0.350	-
836.6	4183	UMTS Band 5 RMC	A	Close	24.0	23.04	-0.09	Rear	1:1	10		0.437	1.247	0.545	-
836.6	4183	UMTS Band 5 RMC	A	Close	24.0	23.04	-0.09	Front	1:1	10		0.214	1.247	0.267	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram							

LTE FDD Band Body-Worn SAR

Frequency		Band	Mode	Ant.	Form Factor	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)	
1 860	18700	LTE 2	QPSK	A	Open	20	20.3	19.33	-0.15	Rear	0	1	0	1:1		10	0.853	1.250	1.066	-
1 880	18900	LTE 2	QPSK	A	Open	20	20.3	19.27	0.09	Rear	0	1	49	1:1		10	0.809	1.268	1.026	-
1 900	19100	LTE 2	QPSK	A	Open	20	20.3	19.32	-0.05	Rear	0	1	99	1:1		10	0.884	1.253	1.108	-
1 860	18700	LTE 2	QPSK	A	Open	20	20.3	19.34	-0.02	Rear	0	50	25	1:1		10	0.837	1.247	1.044	-
1 880	18900	LTE 2	QPSK	A	Open	20	20.3	19.30	-0.02	Rear	0	50	49	1:1		10	0.808	1.259	1.017	-
1 900	19100	LTE 2	QPSK	A	Open	20	20.3	19.21	0.00	Rear	0	50	49	1:1		10	0.875	1.285	**1.124**	**B4**
1 880	18900	LTE 2	QPSK	A	Open	20	20.3	19.22	0.11	Rear	0	100	0	1:1		10	0.803	1.282	1.029	-
1 860	18700	LTE 2	QPSK	A	Open	20	20.3	19.33	0.11	Front	0	1	49	1:1		10	0.551	1.250	0.689	-
1 860	18700	LTE 2	QPSK	A	Open	20	20.3	19.34	0.19	Front	0	50	25	1:1		10	0.538	1.247	0.671	-
1 900	19100	LTE 2	QPSK	A	Open	20	20.3	19.32	-0.01	Rear	0	1	99	1:1		10	0.886	1.253	1.110	#
1 860	18700	LTE 2	QPSK	A	Close	20	20.3	19.33	-0.18	Rear	0	1	0	1:1		10	0.599	1.250	0.749	-
1 860	18700	LTE 2	QPSK	A	Close	20	20.3	19.34	-0.09	Rear	0	50	25	1:1		10	0.618	1.247	0.771	-
1 860	18700	LTE 2	QPSK	A	Close	20	20.3	19.33	0.13	Front	0	1	0	1:1		10	0.051	1.250	0.064	-
1 860	18700	LTE 2	QPSK	A	Close	20	20.3	19.34	0.17	Front	0	50	25	1:1		10	0.042	1.247	0.052	-
1 900	19100	LTE 2	QPSK	I	Open	20	21.5	20.87	-0.03	Rear	0	1	99	1:1		10	0.718	1.156	0.830	-
1 860	18700	LTE 2	QPSK	I	Open	20	21.5	20.81	0.11	Rear	0	1	0	1:1		10	0.789	1.172	0.925	-
1 880	18900	LTE 2	QPSK	I	Open	20	21.5	20.67	0.14	Rear	0	1	99	1:1		10	0.747	1.211	0.905	-
1 900	19100	LTE 2	QPSK	I	Open	20	21.5	20.70	0.18	Rear	0	50	25	1:1		10	0.744	1.202	0.894	-
1 860	18700	LTE 2	QPSK	I	Open	20	21.5	20.69	0.19	Rear	0	50	49	1:1		10	0.751	1.205	0.905	-
1 880	18900	LTE 2	QPSK	I	Open	20	21.5	20.65	0.16	Rear	0	50	49	1:1		10	0.769	1.216	0.935	-
1 900	19100	LTE 2	QPSK	I	Open	20	21.5	20.65	0.13	Rear	0	100	0	1:1		10	0.783	1.216	0.952	-
1 900	19100	LTE 2	QPSK	I	Open	20	21.5	20.87	-0.01	Front	0	1	99	1:1		10	0.485	1.156	0.561	-
1 900	19100	LTE 2	QPSK	I	Open	20	21.5	20.70	0.07	Front	0	50	25	1:1		10	0.515	1.202	0.619	-
1 900	19100	LTE 2	QPSK	I	Close	20	21.5	20.87	-0.12	Rear	0	1	99	1:1		10	0.090	1.156	0.104	-
1 900	19100	LTE 2	QPSK	I	Close	20	21.5	20.70	-0.12	Rear	0	50	25	1:1		10	0.095	1.202	0.114	-
1 900	19100	LTE 2	QPSK	I	Close	20	21.5	20.87	-0.17	Front	0	1	99	1:1		10	0.553	1.156	0.639	-
1 900	19100	LTE 2	QPSK	I	Close	20	21.5	20.70	-0.16	Front	0	50	25	1:1		10	0.597	1.202	0.718	-
836.5	20525	LTE 5	QPSK	A	Open	10	23.5	22.44	-0.14	Rear	0	1	0	1:1		10	0.426	1.276	**0.544**	**B5**
836.5	20525	LTE 5	QPSK	A	Open	10	22.5	21.40	-0.04	Rear	1	25	24	1:1		10	0.340	1.288	0.438	-
836.5	20525	LTE 5	QPSK	A	Open	10	23.5	22.44	-0.18	Front	0	1	0	1:1		10	0.081	1.276	0.103	-
836.5	20525	LTE 5	QPSK	A	Open	10	22.5	21.40	-0.08	Front	1	25	24	1:1		10	0.080	1.288	0.103	-
836.5	20525	LTE 5	QPSK	A	Close	10	23.5	22.44	-0.05	Rear	0	1	0	1:1		10	0.419	1.276	0.535	-
836.5	20525	LTE 5	QPSK	A	Close	10	22.5	21.40	0.02	Rear	1	25	24	1:1		10	0.323	1.288	0.416	-
836.5	20525	LTE 5	QPSK	A	Close	10	23.5	22.44	-0.03	Front	0	1	0	1:1		10	0.144	1.276	0.184	-
836.5	20525	LTE 5	QPSK	A	Close	10	22.5	21.40	-0.03	Front	1	25	24	1:1		10	0.104	1.288	0.134	-
707.5	23095	LTE 12	QPSK	A	Open	10	23.0	22.28	-0.01	Rear	0	1	24	1:1		10	0.199	1.180	0.235	-
707.5	23095	LTE 12	QPSK	A	Open	10	22.5	21.90	-0.01	Rear	0.5	25	0	1:1		10	0.187	1.148	0.215	-
707.5	23095	LTE 12	QPSK	A	Open	10	23.0	22.28	0.08	Front	0	1	24	1:1		10	0.114	1.180	0.135	-
707.5	23095	LTE 12	QPSK	A	Open	10	22.5	21.90	0.08	Front	0.5	25	0	1:1		10	0.110	1.148	0.126	-
707.5	23095	LTE 12	QPSK	A	Close	10	23.0	22.28	-0.04	Rear	0	1	24	1:1		10	0.248	1.180	**0.291**	**B6**
707.5	23095	LTE 12	QPSK	A	Close	10	22.5	21.90	-0.01	Rear	0.5	25	0	1:1		10	0.231	1.148	0.265	-
707.5	23095	LTE 12	QPSK	A	Close	10	23.0	22.28	0.05	Front	0	1	24	1:1		10	0.071	1.180	0.083	-
707.5	23095	LTE 12	QPSK	A	Close	10	22.5	21.90	0.11	Front	0.5	25	0	1:1		10	0.065	1.148	0.075	-
782	23230	LTE 13	QPSK	A	Open	10	23.0	21.72	0.07	Rear	0	1	0	1:1		10	0.287	1.343	0.385	-
782	23230	LTE 13	QPSK	A	Open	10	22.5	21.46	0.02	Rear	0.5	25	12	1:1		10	0.271	1.271	0.344	-
782	23230	LTE 13	QPSK	A	Open	10	23.0	21.72	0.08	Front	0	1	0	1:1		10	0.142	1.343	0.191	-
782	23230	LTE 13	QPSK	A	Open	10	22.5	21.46	0.06	Front	0.5	25	12	1:1		10	0.127	1.271	0.161	-
782	23230	LTE 13	QPSK	A	Close	10	23.0	21.72	0.00	Rear	0	1	0	1:1		10	0.336	1.343	**0.451**	**B7**
782	23230	LTE 13	QPSK	A	Close	10	22.5	21.46	-0.02	Rear	0.5	25	12	1:1		10	0.335	1.271	0.426	-
782	23230	LTE 13	QPSK	A	Close	10	23.0	21.72	0.05	Front	0	1	0	1:1		10	0.112	1.343	0.150	-
782	23230	LTE 13	QPSK	A	Close	10	22.5	21.46	-0.01	Front	0.5	25	12	1:1		10	0.107	1.271	0.136	-

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Note: # Data entry indicate Variability measurement.

LTE FDD Band Body-Worn SAR

Frequency		Band	Mode	Ant.	Form Factor	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)	
1 770	132572	LTE 66	QPSK	A	Open	20	20.3	19.30	0.07	Rear	0	1	49	1:1		10	0.821	1.259	**1.034**	**B8**
1 720	132072	LTE 66	QPSK	A	Open	20	20.3	19.22	0.12	Rear	0	1	99	1:1		10	0.633	1.282	0.812	-
1 745	132322	LTE 66	QPSK	A	Open	20	20.3	19.21	0.04	Rear	0	1	0	1:1		10	0.748	1.285	0.961	-
1 745	132322	LTE 66	QPSK	A	Open	20	20.3	19.14	-0.06	Rear	0	50	25	1:1		10	0.749	1.306	0.978	-
1 720	132072	LTE 66	QPSK	A	Open	20	20.3	19.05	0.07	Rear	0	50	0	1:1		10	0.633	1.334	0.844	-
1 770	132572	LTE 66	QPSK	A	Open	20	20.3	19.11	0.01	Rear	0	50	49	1:1		10	0.667	1.315	0.877	-
1 720	132072	LTE 66	QPSK	A	Open	20	20.3	19.24	-0.07	Rear	0	100	0	1:1		10	0.631	1.276	0.805	-
1 770	132572	LTE 66	QPSK	A	Open	20	20.3	19.30	0.05	Front	0	1	49	1:1		10	0.547	1.259	0.689	-
1 745	132322	LTE 66	QPSK	A	Open	20	20.3	19.14	0.19	Front	0	50	25	1:1		10	0.513	1.306	0.670	-
1 770	132572	LTE 66	QPSK	A	Open	20	20.3	19.30	0.01	Rear	0	1	49	1:1		10	0.810	1.259	1.020	#
1 770	132572	LTE 66	QPSK	A	Close	20	20.3	19.30	-0.16	Rear	0	1	49	1:1		10	0.248	1.259	0.312	-
1 745	132322	LTE 66	QPSK	A	Close	20	20.3	19.14	-0.12	Rear	0	50	25	1:1		10	0.250	1.306	0.327	-
1 770	132572	LTE 66	QPSK	A	Close	20	20.3	19.30	0.13	Front	0	1	49	1:1		10	0.108	1.259	0.136	-
1 745	132322	LTE 66	QPSK	A	Close	20	20.3	19.14	0.17	Front	0	50	25	1:1		10	0.114	1.306	0.149	-
1 745	132322	LTE 66	QPSK	I	Open	20	21.5	21.00	0.17	Rear	0	1	0	1:1		10	0.791	1.122	0.888	-
1 720	132072	LTE 66	QPSK	I	Open	20	21.5	20.86	0.13	Rear	0	1	49	1:1		10	0.765	1.159	0.887	-
1 770	132572	LTE 66	QPSK	I	Open	20	21.5	20.75	0.19	Rear	0	1	49	1:1		10	0.820	1.189	0.975	-
1 745	132322	LTE 66	QPSK	I	Open	20	21.5	20.84	0.18	Rear	0	50	25	1:1		10	0.809	1.164	0.942	-
1 720	132072	LTE 66	QPSK	I	Open	20	21.5	20.80	0.13	Rear	0	50	49	1:1		10	0.767	1.175	0.901	-
1 770	132572	LTE 66	QPSK	I	Open	20	21.5	20.69	-0.03	Rear	0	50	49	1:1		10	0.800	1.205	0.964	-
1 720	132072	LTE 66	QPSK	I	Open	20	21.5	20.82	0.17	Rear	0	100	0	1:1		10	0.771	1.169	0.901	-
1 745	132322	LTE 66	QPSK	I	Open	20	21.5	21.00	-0.19	Front	0	1	0	1:1		10	0.586	1.122	0.657	-
1 745	132322	LTE 66	QPSK	I	Open	20	21.5	20.84	-0.07	Front	0	50	25	1:1		10	0.590	1.164	0.687	-
1 770	132572	LTE 66	QPSK	I	Open	20	21.5	20.75	0.13	Rear	0	1	49	1:1		10	0.808	1.189	0.961	#
1 745	132322	LTE 66	QPSK	I	Close	20	21.5	21.00	0.00	Rear	0	1	0	1:1		10	0.051	1.122	0.057	-
1 745	132322	LTE 66	QPSK	I	Close	20	21.5	20.84	0.00	Rear	0	50	25	1:1		10	0.059	1.164	0.069	-
1 745	132322	LTE 66	QPSK	I	Close	20	21.5	21.00	-0.18	Front	0	1	0	1:1		10	0.398	1.122	0.447	-
1 745	132322	LTE 66	QPSK	I	Close	20	21.5	20.84	-0.12	Front	0	50	25	1:1		10	0.421	1.164	0.490	-

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.

LTE TDD Band Body-Worn SAR

Frequency		Band	Mode	Ant.	Form Factor	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)	
2 506	39750	LTE 41(PC3)	QPSK	B	Open	20	22.0	20.77	0.00	Rear	0	1	0	1:1.58		10	0.472	1.327	0.626	-
2 549.5	40185	LTE 41(PC3)	QPSK	B	Open	20	22.0	20.69	0.00	Rear	0	1	0	1:1.58		10	0.413	1.352	0.558	-
2 593	40620	LTE 41(PC3)	QPSK	B	Open	20	22.0	20.49	-0.11	Rear	0	1	0	1:1.58		10	0.398	1.416	0.564	-
2 636.5	41055	LTE 41(PC3)	QPSK	B	Open	20	22.0	20.62	0.07	Rear	0	1	0	1:1.58		10	0.272	1.374	0.374	-
2 680	41490	LTE 41(PC3)	QPSK	B	Open	20	22.0	20.57	-0.19	Rear	0	1	0	1:1.58		10	0.226	1.390	0.314	-
2 506	39750	LTE 41(PC3)	QPSK	B	Open	20	21.0	19.84	0.00	Rear	1	50	0	1:1.58		10	0.371	1.306	0.485	-
2 506	39750	LTE 41(PC3)	QPSK	B	Open	20	21.0	19.78	0.00	Rear	1	100	0	1:1.58		10	0.352	1.324	0.466	-
2 506	39750	LTE 41(PC3)	QPSK	B	Open	20	22.0	20.77	-0.12	Front	0	1	0	1:1.58		10	0.324	1.327	0.430	-
2 506	39750	LTE 41(PC3)	QPSK	B	Open	20	21.0	19.84	0.17	Front	1	50	0	1:1.58		10	0.254	1.306	0.332	-
2 506	39750	LTE 41(PC3)	QPSK	B	Open	20	22.0	20.63	0.00	Rear	0	1	99	1:1.58		10	0.436	1.371	0.598	-
PCC 2 506	39750	LTE 41(PC2)	QPSK	B	Open	20	22.0	20.85	0.00	Rear	0	1	99	1:1.58		10	0.406	1.303	0.529	•
SCC 2 525.8	39948		QPSK			20					0	1	0							
2 506	39750	LTE 41(PC3)	QPSK	B	Close	20	22.0	20.77	-0.03	Rear	0	1	0	1:1.58		10	0.298	1.327	0.395	-
2 506	39750	LTE 41(PC3)	QPSK	B	Close	20	21.0	19.84	0.05	Rear	1	50	0	1:1.58		10	0.230	1.306	0.300	-
2 506	39750	LTE 41(PC3)	QPSK	B	Close	20	22.0	20.77	0.10	Front	0	1	0	1:1.58		10	0.033	1.327	0.044	-
2 506	39750	LTE 41(PC3)	QPSK	B	Close	20	21.0	19.84	-0.08	Front	1	50	0	1:1.58		10	0.027	1.306	0.035	-
2 506	39750	LTE 41(PC3)	QPSK	B	Close	20	22.0	20.63	0.00	Rear	0	1	99	1:1.58		10	0.280	1.371	0.384	
PCC 2 506	39750	LTE 41(PC2)	QPSK	B	Close	20	22.0	20.85	-0.03	Rear	0	1	99	1:1.58		10	0.265	1.303	0.345	•
SCC 2 525.8	39948		QPSK			20					0	1	0							
2 680	41490	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.59	0.11	Rear	0	1	0	1:1.58		10	0.557	1.233	0.687	-
2 506	39750	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.42	-0.07	Rear	0	1	49	1:1.58		10	0.436	1.282	0.559	-
2 549.5	40185	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.53	0.04	Rear	0	1	49	1:1.58		10	0.494	1.250	0.618	-
2 593	40620	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.48	0.11	Rear	0	1	0	1:1.58		10	0.537	1.265	0.679	-
2 636.5	41055	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.47	0.16	Rear	0	1	0	1:1.58		10	0.492	1.268	0.624	-
2 680	41490	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.69	0.11	Rear	0	50	0	1:1.58		10	0.587	1.205	0.707	-
2 506	39750	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.55	0.13	Rear	0	50	25	1:1.58		10	0.462	1.245	0.575	-
2 549.5	40185	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.66	0.16	Rear	0	50	25	1:1.58		10	0.501	1.213	0.608	-
2 593	40620	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.49	-0.15	Rear	0	50	25	1:1.58		10	0.619	1.262	0.781	-
2 636.5	41055	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.60	0.14	Rear	0	50	0	1:1.58		10	0.683	1.230	0.840	-
2 680	41490	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.60	0.14	Rear	0	100	0	1:1.58		10	0.687	1.230	**0.845**	**B9**
2 680	41490	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.59	0.07	Front	0	1	0	1:1.58		10	0.415	1.233	0.512	-
2 680	41490	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.69	0.14	Front	0	50	0	1:1.58		10	0.417	1.205	0.502	-
PCC 2 680	41490	LTE 41(PC3)	QPSK	I	Open	20	23.5	22.78	-0.04	Rear	0	100	0	1:1.58		10	0.486	1.180	0.573	•
SCC 2 660.2	41292		QPSK			20					0	100	0							
2 680	41490	LTE 41(PC3)	QPSK	I	Close	20	23.5	22.59	-0.00	Rear	0	1	0	1:1.58		10	0.170	1.233	0.210	-
2 680	41490	LTE 41(PC3)	QPSK	I	Close	20	23.5	22.69	-0.04	Rear	0	50	0	1:1.58		10	0.173	1.205	0.208	-
2 680	41490	LTE 41(PC3)	QPSK	I	Close	20	23.5	22.59	0.12	Front	0	1	0	1:1.58		10	0.382	1.233	0.471	-
2 680	41490	LTE 41(PC3)	QPSK	I	Close	20	23.5	22.69	-0.13	Front	0	50	0	1:1.58		10	0.370	1.205	0.446	-
PCC 2 680	41490	LTE 41(PC2)	QPSK	I	Close	20	23.5	22.77	0.11	Front	0	1	0	1:1.58		10	0.363	1.183	0.429	•
SCC 2 660.2	41292					20					0	1	99							

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

• Up-link Carrier Aggregation Power Class 3 (41C)

NR FDD Band Body-Worn SAR

Frequency		Band	Mode	Ant.	Form Factor	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	NR n5	DFT-s OFDM QPSK	A	Open	20	23.5	22.75	0.10	Rear	0	1	1	1:1		10	0.418	1.189	0.497	-
836.5	167300	NR n5	DFT-s OFDM QPSK	A	Open	20	23.5	22.74	0.00	Rear	0	50	28	1:1		10	0.427	1.191	**0.509**	**B10**
836.5	167300	NR n5	DFT-s OFDM QPSK	A	Open	20	23.5	22.75	-0.10	Front	0	1	1	1:1		10	0.22	1.189	0.262	-
836.5	167300	NR n5	DFT-s OFDM QPSK	A	Open	20	23.5	22.74	0.00	Front	0	50	28	1:1		10	0.252	1.191	0.300	-
836.5	167300	NR n5	CP QPSK	A	Open	20	22.0	21.22	0.15	Rear	1.5	1	1	1:1		10	0.236	1.197	0.282	-
836.5	167300	NR n5	DFT-s OFDM QPSK	A	Close	20	23.5	22.75	-0.01	Rear	0	1	1	1:1		10	0.393	1.189	0.467	-
836.5	167300	NR n5	DFT-s OFDM QPSK	A	Close	20	23.5	22.74	0.01	Rear	0	50	28	1:1		10	0.411	1.191	0.490	-
836.5	167300	NR n5	DFT-s OFDM QPSK	A	Close	20	23.5	22.75	0.04	Front	0	1	1	1:1		10	0.173	1.189	0.206	-
836.5	167300	NR n5	DFT-s OFDM QPSK	A	Close	20	23.5	22.74	0.01	Front	0	50	28	1:1		10	0.181	1.191	0.216	-
836.5	167300	NR n5	CP QPSK	A	Close	20	22.0	21.22	0.02	Rear	1.5	1	1	1:1		10	0.278	1.197	0.333	-
1 745	349000	NR n66	DFT-s OFDM QPSK	A	Open	40	20.3	19.32	-0.10	Rear	0	1	108	1:1		10	0.851	1.253	1.066	-
1 745	349000	NR n66	DFT-s OFDM QPSK	A	Open	40	20.3	19.38	-0.14	Rear	0	108	0	1:1		10	0.862	1.236	1.065	-
1 745	349000	NR n66	DFT-s OFDM QPSK	A	Open	40	20.3	19.29	-0.01	Rear	0	216	0	1:1		10	0.885	1.262	1.117	-
1 745	349000	NR n66	DFT-s OFDM QPSK	A	Open	40	20.3	19.32	-0.09	Front	0	1	108	1:1		10	0.600	1.253	0.752	-
1 745	349000	NR n66	DFT-s OFDM QPSK	A	Open	40	20.3	19.38	-0.11	Front	0	108	0	1:1		10	0.617	1.236	0.763	-
1 745	349000	NR n66	CP QPSK	A	Open	40	20.3	19.36	-0.13	Rear	0	1	1	1:1		10	0.947	1.242	1.176	-
1 745	349000	NR n66	CP QPSK	A	Open	40	20.3	19.36	-0.06	Rear	0	1	1	1:1		10	0.952	1.242	**1.182**	**B11#**
1 745	349000	NR n66	DFT-s OFDM QPSK	A	Close	40	20.3	19.32	-0.19	Rear	0	1	108	1:1		10	0.295	1.253	0.370	-
1 745	349000	NR n66	DFT-s OFDM QPSK	A	Close	40	20.3	19.38	-0.10	Rear	0	108	0	1:1		10	0.302	1.236	0.373	-
1 745	349000	NR n66	DFT-s OFDM QPSK	A	Close	40	20.3	19.32	-0.14	Front	0	1	108	1:1		10	0.108	1.253	0.135	-
1 745	349000	NR n66	DFT-s OFDM QPSK	A	Close	40	20.3	19.38	-0.01	Front	0	108	0	1:1		10	0.112	1.236	0.138	-
1 745	349000	NR n66	CP QPSK	A	Close	40	20.3	19.36	-0.19	Rear	0	1	1	1:1		10	0.285	1.242	0.354	-
1 745	349000	NR n66	DFT-s OFDM QPSK	I	Open	40	21.5	21.27	-0.03	Rear	0	1	1	1:1		10	0.92	1.054	0.970	-
1 745	349000	NR n66	DFT-s OFDM QPSK	I	Open	40	21.5	21.36	0.18	Rear	0	108	54	1:1		10	0.932	1.033	0.963	-
1 745	349000	NR n66	DFT-s OFDM QPSK	I	Open	40	21.5	21.32	0.17	Rear	0	216	0	1:1		10	0.936	1.042	0.975	-
1 745	349000	NR n66	DFT-s OFDM QPSK	I	Open	40	21.5	21.27	0.19	Front	0	1	1	1:1		10	0.639	1.054	0.674	-
1 745	349000	NR n66	DFT-s OFDM QPSK	I	Open	40	21.5	21.36	-0.10	Front	0	108	54	1:1		10	0.641	1.033	0.662	-
1 745	349000	NR n66	CP QPSK	I	Open	40	21.5	21.22	0.13	Rear	0	1	1	1:1		10	0.959	1.067	1.023	**-**
1 745	349000	NR n66	CP QPSK	I	Open	40	21.5	21.22	0.13	Rear	0	1	1	1:1		10	0.956	1.067	1.020	**#**
1 745	349000	NR n66	DFT-s OFDM QPSK	I	Close	40	21.5	21.27	-0.11	Rear	0	1	1	1:1		10	0.053	1.054	0.056	-
1 745	349000	NR n66	DFT-s OFDM QPSK	I	Close	40	21.5	21.36	0.00	Rear	0	108	54	1:1		10	0.054	1.033	0.056	-
1 745	349000	NR n66	DFT-s OFDM QPSK	I	Close	40	21.5	21.27	-0.18	Front	0	1	1	1:1		10	0.513	1.054	0.541	-
1 745	349000	NR n66	DFT-s OFDM QPSK	I	Close	40	21.5	21.36	0.13	Front	0	108	54	1:1		10	0.595	1.033	0.615	-
1 745	349000	NR n66	CP QPSK	I	Close	40	21.5	21.22	-0.12	Front	0	1	1	1:1		10	0.491	1.067	0.524	-

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 TDD Band Body-Worn SAR

Frequency		Band	Mode	Ant.	Form Factor	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)	
2 592.99	518598	NR n41	DFT-s OFDM QPSK	B	Open	100	20.5	20.18	-0.17	Rear	0	1	271	1:1		10	0.36	1.076	0.387	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	B	Open	100	20.5	19.97	-0.16	Rear	0	135	138	1:1		10	0.38	1.130	0.429	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	B	Open	100	20.5	20.18	-0.13	Front	0	1	271	1:1		10	0.283	1.076	0.305	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	B	Open	100	20.5	19.97	0.18	Front	0	135	138	1:1		10	0.315	1.130	0.356	-
2 592.99	518598	NR n41	CP QPSK	B	Open	100	20.5	19.24	0.11	Rear	0	1	1	1:1		10	0.539	1.337	**0.721**	**B12**
2 592.99	518598	NR n41	DFT-s OFDM QPSK	B	Close	100	20.5	20.18	0.00	Rear	0	1	271	1:1		10	0.220	1.076	0.237	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	B	Close	100	20.5	19.97	-0.18	Rear	0	135	138	1:1		10	0.207	1.130	0.234	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	B	Close	100	20.5	20.18	0.00	Front	0	1	271	1:1		10	0.031	1.076	0.033	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	B	Close	100	20.5	19.97	0.00	Front	0	135	138	1:1		10	0.020	1.130	0.023	-
2 592.99	518598	NR n41	CP QPSK	B	Close	100	20.5	19.24	-0.10	Rear	0	1	1	1:1		10	0.404	1.337	0.540	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	I	Open	100	22.0	21.67	0.14	Rear	0	1	1	1:1		10	0.577	1.079	0.623	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	I	Open	100	22.0	21.63	0.10	Rear	0	135	0	1:1		10	0.543	1.089	0.591	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	I	Open	100	22.0	21.69	0.13	Rear	0	270	0	1:1		10	0.452	1.074	0.485	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	I	Open	100	22.0	21.67	-0.12	Front	0	1	1	1:1		10	0.495	1.079	0.534	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	I	Open	100	22.0	21.63	-0.14	Front	0	135	0	1:1		10	0.54	1.089	0.588	-
2 592.99	518598	NR n41	CP QPSK	I	Open	100	22.0	21.93	0.16	Rear	0	1	1	1:1		10	0.617	1.016	0.627	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	I	Close	100	22.0	21.67	0.13	Rear	0	1	1	1:1		10	0.177	1.079	0.191	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	I	Close	100	22.0	21.63	0.12	Rear	0	135	0	1:1		10	0.132	1.089	0.144	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	I	Close	100	22.0	21.67	-0.05	Front	0	1	1	1:1		10	0.611	1.079	0.659	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	I	Close	100	22.0	21.63	-0.13	Front	0	135	0	1:1		10	0.604	1.089	0.658	-
2 592.99	518598	NR n41	DFT-s OFDM QPSK	I	Close	100	22.0	21.69	-0.12	Front	0	270	0	1:1		10	0.535	1.074	0.575	-
2 592.99	518598	NR n41	CP QPSK	I	Close	100	22.0	21.93	-0.18	Front	0	1	1	1:1		10	0.542	1.016	0.551	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

DTS Body-Worn SAR

Frequency		Mode	Ant.	Form Factor	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
2 412	1	802.11b	Ant.1	Open	20	1	19.0	17.86	-0.17	Rear	98.8	10	0.235	0.158	1.300	1.011	0.208	-
2 412	1	802.11b	Ant.1	Open	20	1	19.0	17.86	0.13	Front	98.8	10	0.223	0.147	1.300	1.011	0.193	-
2 412	1	802.11b	Ant.1	Close	20	1	19.0	17.86	-0.17	Rear	98.8	10	0.0405	0.026	1.300	1.011	0.034	-
2 412	1	802.11b	Ant.1	Close	20	1	19.0	17.86	-0.01	Front	98.8	10	0.301	0.178	1.300	1.011	**0.234**	**B13**
2 437	6	802.11b	Ant.2	Open	20	1	19.0	17.59	-0.16	Rear	98.8	10	0.188	0.123	1.384	1.011	0.172	-
2 437	6	802.11b	Ant.2	Open	20	1	19.0	17.59	0.11	Front	98.8	10	0.124	0.085	1.384	1.011	0.119	-
2 437	6	802.11b	Ant.2	Close	20	1	19.0	17.59	0.00	Rear	98.8	10	0.0667	0.037	1.384	1.011	0.052	-
2 437	6	802.11b	Ant.2	Close	20	1	19.0	17.59	0.14	Front	98.8	10	0.116	0.075	1.384	1.011	0.105	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

5 GHz WLAN Body-Worn SAR

Frequency		Mode	Ant.	Form Factor	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
5 260	52	802.11a	Ant.1	Open	20	6	16.0	14.17	0.18	Rear	93.4	10	0.305	0.124	1.524	1.071	0.202	-
5 260	52	802.11a	Ant.1	Open	20	6	16.0	14.17	0.00	Front	93.4	10	0.157	0.056	1.524	1.071	0.091	-
5 720	144	802.11a	Ant.1	Open	20	6	16.0	15.42	0.10	Rear	93.4	10	0.521	0.214	1.143	1.071	0.262	-
5 720	144	802.11a	Ant.1	Open	20	6	16.0	15.42	-0.10	Front	93.4	10	0.363	0.142	1.143	1.071	0.174	-
5 825	165	802.11a	Ant.1	Open	20	6	16.0	15.24	0.12	Rear	93.4	10	0.256	0.201	1.191	1.071	0.256	-
5 825	165	802.11a	Ant.1	Open	20	6	16.0	15.24	0.17	Front	93.4	10	0.147	0.121	1.191	1.071	0.154	-
5 865	173	802.11a	Ant.1	Open	20	6	16.0	15.42	0.03	Rear	93.4	10	0.235	0.172	1.143	1.071	0.210	-
5 865	173	802.11a	Ant.1	Open	20	6	16.0	15.42	0.01	Front	93.4	10	0.135	0.093	1.143	1.071	0.114	-
5 260	52	802.11a	Ant.1	Close	20	6	16.0	14.17	0.00	Rear	93.4	10	0.065	0.000	1.524	1.071	0.000	-
5 260	52	802.11a	Ant.1	Close	20	6	16.0	14.17	0.00	Front	93.4	10	0.561	0.249	1.524	1.071	**0.406**	**B14**
5 720	144	802.11a	Ant.1	Close	20	6	16.0	15.42	0.06	Rear	93.4	10	0.0734	0.032	1.143	1.071	0.039	-
5 720	144	802.11a	Ant.1	Close	20	6	16.0	15.42	-0.03	Front	93.4	10	0.496	0.208	1.143	1.071	0.255	-
5 825	165	802.11a	Ant.1	Close	20	6	16.0	15.24	0.02	Rear	93.4	10	0.039	0.025	1.191	1.071	0.032	-
5 825	165	802.11a	Ant.1	Close	20	6	16.0	15.24	0.06	Front	93.4	10	0.131	0.105	1.191	1.071	0.134	-
5 865	173	802.11a	Ant.1	Close	20	6	16.0	15.42	-0.07	Rear	93.4	10	0.043	0.028	1.143	1.071	0.034	-
5 865	173	802.11a	Ant.1	Close	20	6	16.0	15.42	-0.17	Front	93.4	10	0.153	0.114	1.143	1.071	0.140	-
5 280	56	802.11a	Ant.2	Open	20	6	16.0	14.32	-0.18	Rear	93.4	10	0.512	0.221	1.472	1.071	0.348	-
5 280	56	802.11a	Ant.2	Open	20	6	16.0	14.32	0.19	Front	93.4	10	0.101	0.045	1.472	1.071	0.071	-
5 620	124	802.11a	Ant.2	Open	20	6	16.0	15.98	0.10	Rear	93.4	10	0.644	0.261	1.005	1.071	0.281	-
5 620	124	802.11a	Ant.2	Open	20	6	16.0	15.98	0.00	Front	93.4	10	0.229	0.096	1.005	1.071	0.103	-
5 745	149	802.11a	Ant.2	Open	20	6	16.0	15.42	-0.13	Rear	93.4	10	0.238	0.174	1.143	1.071	0.213	-
5 745	149	802.11a	Ant.2	Open	20	6	16.0	15.42	0.18	Front	93.4	10	0.139	0.105	1.143	1.071	0.128	-
5 845	169	802.11a	Ant.2	Open	20	6	16.0	15.22	-0.14	Rear	93.4	10	0.162	0.115	1.197	1.071	0.147	-
5 845	169	802.11a	Ant.2	Open	20	6	16.0	15.22	0.11	Front	93.4	10	0.287	0.065	1.197	1.071	0.083	-
5 280	56	802.11a	Ant.2	Close	20	6	16.0	14.32	0.00	Rear	93.4	10	0.0286	0.011	1.472	1.071	0.017	-
5 280	56	802.11a	Ant.2	Close	20	6	16.0	14.32	-0.12	Front	93.4	10	0.583	0.238	1.472	1.071	0.375	-
5 620	124	802.11a	Ant.2	Close	20	6	16.0	15.98	-0.19	Rear	93.4	10	0.0978	0.025	1.005	1.071	0.027	-
5 620	124	802.11a	Ant.2	Close	20	6	16.0	15.98	-0.10	Front	93.4	10	0.476	0.198	1.005	1.071	0.213	-
5 745	149	802.11a	Ant.2	Close	20	6	16.0	15.42	-0.11	Rear	93.4	10	0.042	0.023	1.143	1.071	0.028	-
5 745	149	802.11a	Ant.2	Close	20	6	16.0	15.42	0.06	Front	93.4	10	0.217	0.153	1.143	1.071	0.187	-
5 845	169	802.11a	Ant.2	Close	20	6	16.0	15.22	0.12	Rear	93.4	10	0.096	0.018	1.197	1.071	0.023	-
5 845	169	802.11a	Ant.2	Close	20	6	16.0	15.22	0.10	Front	93.4	10	0.104	0.069	1.197	1.071	0.088	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

DSS Body-Worn SAR

Frequency		Mode	Ant.	Form Factor	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Distance	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.				(dBm)	(dBm)	(dB)		(mm)	(W/kg)		(Duty)	(W/kg)	
2 402	0	Bluetooth DH5	Ant.1	Open	19.0	18.91	0.16	Rear	10	0.270	1.021	1.012	**0.279**	**B15**
2 402	0	Bluetooth DH5	Ant.1	Open	19.0	18.91	-0.11	Front	10	0.178	1.021	1.012	0.184	-
2 402	0	Bluetooth DH5	Ant.1	Close	19.0	18.91	-0.01	Rear	10	0.038	1.021	1.012	0.039	-
2 402	0	Bluetooth DH5	Ant.1	Close	19.0	18.91	0.10	Front	10	0.143	1.021	1.012	0.148	-
2 441	39	Bluetooth DH5	Ant.2	Open	18.0	17.63	-0.15	Rear	10	0.121	1.089	1.012	0.121	
2 441	39	Bluetooth DH5	Ant.2	Open	18.0	17.63	-0.16	Front	10	0.086	1.089	1.012	0.086	
2 441	39	Bluetooth DH5	Ant.2	Close	18.0	17.63	0.11	Rear	10	0.031	1.089	1.012	0.031	
2 441	39	Bluetooth DH5	Ant.2	Close	18.0	17.63	0.15	Front	10	0.072	1.089	1.012	0.072	

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

13.3 Hotspot SAR Measurement Results

GSM 850 Hotspot SAR

Frequency		Mode	Ant.	Form Factor	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.				(dBm)	(dBm)	(dB)			(mm)		(W/kg)		(W/kg)	
836.6	190	GPRS 4Tx	A	Open	23.5	22.76	0.05	Rear	1:2.07	10		0.142	1.186	0.168	-
836.6	190	GPRS 4Tx	A	Open	23.5	22.76	-0.05	Front	1:2.07	10		0.129	1.186	0.153	-
836.6	190	GPRS 4Tx	A	Open	23.5	22.76	0.02	Left	1:2.07	10		0.032	1.186	0.038	-
836.6	190	GPRS 4Tx	A	Open	23.5	22.76	0.10	Right	1:2.07	10		0.074	1.186	0.088	-
836.6	190	GPRS 4Tx	A	Open	23.5	22.76	0.04	Bottom	1:2.07	10		0.053	1.186	0.063	-
836.6	190	GPRS 4Tx	A	Close	23.5	22.76	-0.12	Rear	1:2.07	5		0.326	1.186	**0.387**	C1
836.6	190	GPRS 4Tx	A	Close	23.5	22.76	-0.04	Front	1:2.07	5		0.100	1.186	0.119	-
836.6	190	GPRS 4Tx	A	Close	23.5	22.76	-0.16	Left	1:2.07	5		0.093	1.186	0.110	-
836.6	190	GPRS 4Tx	A	Close	23.5	22.76	-0.17	Right	1:2.07	5		0.060	1.186	0.071	-
836.6	190	GPRS 4Tx	A	Close	23.5	22.76	0.15	Bottom	1:2.07	5		0.092	1.186	0.109	-
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 SAR

Frequency		Mode	Ant.	Form Factor	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.				(dBm)	(dBm)	(dB)			(mm)		(W/kg)		(W/kg)	
1909.8	810	GPRS 3Tx	A	Open	21.0	20.54	-0.07	Rear	1:2.77	10		0.357	1.112	0.397	-
1909.8	810	GPRS 3Tx	A	Open	21.0	20.54	0.10	Front	1:2.77	10		0.217	1.112	0.241	-
1909.8	810	GPRS 3Tx	A	Open	21.0	20.54	0.19	Left	1:2.77	10		0.022	1.112	0.024	-
1909.8	810	GPRS 3Tx	A	Open	21.0	20.54	-0.12	Right	1:2.77	10		0.022	1.112	0.024	-
1909.8	810	GPRS 3Tx	A	Open	21.0	20.54	0.12	Bottom	1:2.77	10		0.490	1.112	0.545	-
1909.8	810	GPRS 3Tx	A	Close	21.0	20.54	-0.16	Rear	1:2.77	5		0.533	1.112	0.593	-
1909.8	810	GPRS 3Tx	A	Close	21.0	20.54	0.00	Front	1:2.77	5		0.018	1.112	0.020	-
1909.8	810	GPRS 3Tx	A	Close	21.0	20.54	0.09	Left	1:2.77	5		0.025	1.112	0.028	-
1909.8	810	GPRS 3Tx	A	Close	21.0	20.54	-0.06	Right	1:2.77	5		0.020	1.112	0.022	-
1909.8	810	GPRS 3Tx	A	Close	21.0	20.54	0.08	Bottom	1:2.77	5		0.655	1.112	**0.728**	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 Hotspot SAR

Frequency		Mode	Ant.	Form Factor	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Ant. State	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.				(dBm)	(dBm)	(dB)			(mm)		(W/kg)		(W/kg)	
836.6	4183	RMC	A	Open	22.5	21.27	0.17	Rear	1:1	10		0.287	1.327	0.381	-
836.6	4183	RMC	A	Open	22.5	21.27	-0.05	Front	1:1	10		0.215	1.327	0.285	-
836.6	4183	RMC	A	Open	22.5	21.27	0.07	Left	1:1	10		0.133	1.327	0.176	-
836.6	4183	RMC	A	Open	22.5	21.27	0.05	Right	1:1	10		0.28	1.327	0.372	-
836.6	4183	RMC	A	Open	22.5	21.27	0.12	Bottom	1:1	10		0.231	1.327	0.307	-
836.6	4183	RMC	A	Close	22.5	21.27	-0.17	Rear	1:1	5		0.488	1.327	**0.648**	C3
836.6	4183	RMC	A	Close	22.5	21.27	0.00	Front	1:1	5		0.170	1.327	0.226	-
836.6	4183	RMC	A	Close	22.5	21.27	0.01	Left	1:1	5		0.095	1.327	0.126	-
836.6	4183	RMC	A	Close	22.5	21.27	0.09	Right	1:1	5		0.085	1.327	0.113	-
836.6	4183	RMC	A	Close	22.5	21.27	0.17	Bottom	1:1	5		0.252	1.327	0.334	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram							

LTE FDD Band 2 Hotspot SAR

Frequency		Mode	Ant.	Form Factor	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)	
1 860	18700	QPSK	A	Open	20	16.3	15.53	0.08	Rear	0	1	49	1:1		10	0.396	1.194	0.473	-
1 860	18700	QPSK	A	Open	20	16.3	15.58	-0.09	Rear	0	50	25	1:1		10	0.406	1.180	0.479	-
1 860	18700	QPSK	A	Open	20	16.3	15.53	0.03	Front	0	1	49	1:1		10	0.246	1.194	0.294	-
1 860	18700	QPSK	A	Open	20	16.3	15.58	0.01	Front	0	50	25	1:1		10	0.250	1.180	0.295	-
1 860	18700	QPSK	A	Open	20	16.3	15.53	0.17	Left	0	1	49	1:1		10	0.030	1.194	0.036	-
1 860	18700	QPSK	A	Open	20	16.3	15.58	-0.16	Left	0	50	25	1:1		10	0.027	1.180	0.032	-
1 860	18700	QPSK	A	Open	20	16.3	15.53	0.13	Right	0	1	49	1:1		10	0.022	1.194	0.026	-
1 860	18700	QPSK	A	Open	20	16.3	15.58	-0.11	Right	0	50	25	1:1		10	0.021	1.180	0.025	-
1 860	18700	QPSK	A	Open	20	16.3	15.53	0.00	Bottom	0	1	49	1:1		10	0.464	1.194	0.554	-
1 860	18700	QPSK	A	Open	20	16.3	15.58	-0.04	Bottom	0	50	25	1:1		10	0.469	1.180	0.553	-
1 860	18700	QPSK	A	Close	20	16.3	15.53	-0.11	Rear	0	1	49	1:1		5	0.666	1.084	0.795	-
1 860	18700	QPSK	A	Close	20	16.3	15.58	-0.09	Rear	0	50	25	1:1		5	0.671	1.159	0.792	-
1 860	18700	QPSK	A	Close	20	16.3	15.53	0.00	Front	0	1	49	1:1		5	0.036	1.084	0.043	-
1 860	18700	QPSK	A	Close	20	16.3	15.58	0.13	Front	0	50	25	1:1		5	0.036	1.159	0.042	-
1 860	18700	QPSK	A	Close	20	16.3	15.53	0.16	Left	0	1	49	1:1		5	0.043	1.084	0.051	-
1 860	18700	QPSK	A	Close	20	16.3	15.58	0.18	Left	0	50	25	1:1		5	0.042	1.159	0.050	-
1 860	18700	QPSK	A	Close	20	16.3	15.53	-0.07	Right	0	1	49	1:1		5	0.024	1.084	0.029	-
1 860	18700	QPSK	A	Close	20	16.3	15.58	-0.03	Right	0	50	25	1:1		5	0.024	1.159	0.028	-
1 860	18700	QPSK	A	Close	20	16.3	15.53	0.13	Bottom	0	1	49	1:1		5	0.847	1.084	1.011	-
1 880	18900	QPSK	A	Close	20	16.3	15.43	0.13	Bottom	0	1	99	1:1		5	0.954	1.250	1.166	-
1 900	19100	QPSK	A	Close	20	16.3	15.38	0.08	Bottom	0	1	0	1:1		5	0.965	1.340	1.193	-
1 860	18700	QPSK	A	Close	20	16.3	15.58	0.12	Bottom	0	50	25	1:1		5	0.849	1.159	1.002	-
1 880	18900	QPSK	A	Close	20	16.3	15.31	0.01	Bottom	0	50	0	1:1		5	0.910	1.265	1.143	-
1 900	19100	QPSK	A	Close	20	16.3	15.43	0.02	Bottom	0	50	0	1:1		5	0.979	1.371	**1.196**	**C4**
1 860	18700	QPSK	A	Close	20	16.3	15.31	0.19	Bottom	0	100	0	1:1		5	0.835	1.186	1.049	-
1 900	19100	QPSK	A	Close	20	16.3	15.43	0.08	Bottom	0	50	0	1:1		5	0.972	1.371	1.188	#
1 880	18900	QPSK	I	Open	20	16.5	15.72	-0.01	Rear	0	1	49	1:1		10	0.175	1.197	0.209	-
1 880	18900	QPSK	I	Open	20	16.5	15.51	-0.03	Rear	0	50	25	1:1		10	0.176	1.256	0.221	-
1 880	18900	QPSK	I	Open	20	16.5	15.72	-0.15	Front	0	1	49	1:1		10	0.153	1.197	0.183	-
1 880	18900	QPSK	I	Open	20	16.5	15.51	-0.15	Front	0	50	25	1:1		10	0.155	1.256	0.195	-
1 880	18900	QPSK	I	Open	20	16.5	15.72	0.19	Right	0	1	49	1:1		10	0.452	1.197	0.541	-
1 880	18900	QPSK	I	Open	20	16.5	15.51	0.13	Right	0	50	25	1:1		10	0.458	1.256	0.575	-
1 880	18900	QPSK	I	Open	20	16.5	15.72	0.17	Top	0	1	49	1:1		10	0.054	1.197	0.065	-
1 880	18900	QPSK	I	Open	20	16.5	15.51	0.13	Top	0	50	25	1:1		10	0.054	1.256	0.068	-
1 880	18900	QPSK	I	Close	20	16.5	15.72	-0.09	Rear	0	1	49	1:1		5	0.049	1.197	0.059	-
1 880	18900	QPSK	I	Close	20	16.5	15.51	-0.06	Rear	0	50	25	1:1		5	0.050	1.256	0.063	-
1 880	18900	QPSK	I	Close	20	16.5	15.72	-0.16	Front	0	1	49	1:1		5	0.468	1.197	0.560	-
1 880	18900	QPSK	I	Close	20	16.5	15.51	0.06	Front	0	50	25	1:1		5	0.473	1.256	0.594	-
1 880	18900	QPSK	I	Close	20	16.5	15.72	0.19	Right	0	1	49	1:1		5	0.892	1.197	1.068	-
1 860	18700	QPSK	I	Close	20	16.5	15.53	0.18	Right	0	1	49	1:1		5	0.876	1.250	1.095	-
1 900	19100	QPSK	I	Close	20	16.5	15.51	0.11	Right	0	1	0	1:1		5	0.901	1.256	1.132	-
1 880	18900	QPSK	I	Close	20	16.5	15.51	0.12	Right	0	50	25	1:1		5	0.892	1.256	1.120	-
1 860	18700	QPSK	I	Close	20	16.5	15.47	0.02	Right	0	50	25	1:1		5	0.879	1.268	1.115	-
1 900	19100	QPSK	I	Close	20	16.5	15.50	0.17	Right	0	50	49	1:1		5	0.882	1.259	1.110	-
1 880	18900	QPSK	I	Close	20	16.5	15.51	0.16	Right	0	100	0	1:1		5	0.882	1.256	1.108	-
1 880	18900	QPSK	I	Close	20	16.5	15.72	0.13	Top	0	1	49	1:1		5	0.017	1.197	0.020	-
1 880	18900	QPSK	I	Close	20	16.5	15.51	0.10	Top	0	50	25	1:1		5	0.017	1.256	0.021	-
1 880	18900	QPSK	I	Close	20	16.5	15.72	0.00	Bottom	0	1	49	1:1		5	0.038	1.197	0.045	-
1 880	18900	QPSK	I	Close	20	16.5	15.51	-0.19	Bottom	0	50	25	1:1		5	0.037	1.256	0.046	-
1 900	19100	QPSK	I	Close	20	16.5	15.51	0.18	Right	0	1	0	1:1		5	0.899	1.256	1.129	#

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Note: # Data entry indicate Variability measurement.

LTE FDD Band 5 (Cell) Hotspot SAR

Frequency		Mode	Ant.	Form Factor	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	Open	10	23.5	22.44	-0.14	Rear	0	1	0	1:1		10	0.426	1.276	0.544	-
836.5	20525	QPSK	A	Open	10	22.5	21.40	-0.04	Rear	1	25	24	1:1		10	0.340	1.288	0.438	-
836.5	20525	QPSK	A	Open	10	23.5	22.44	-0.18	Front	0	1	0	1:1		10	0.081	1.276	0.103	-
836.5	20525	QPSK	A	Open	10	22.5	21.40	-0.08	Front	1	25	24	1:1		10	0.080	1.288	0.103	-
836.5	20525	QPSK	A	Open	10	23.5	22.44	0.08	Left	0	1	0	1:1		10	0.136	1.276	0.174	-
836.5	20525	QPSK	A	Open	10	22.5	21.40	-0.01	Left	1	25	24	1:1		10	0.110	1.288	0.142	-
836.5	20525	QPSK	A	Open	10	23.5	22.44	0.12	Right	0	1	0	1:1		10	0.199	1.276	0.254	-
836.5	20525	QPSK	A	Open	10	22.5	21.40	-0.03	Right	1	25	24	1:1		10	0.173	1.288	0.223	-
836.5	20525	QPSK	A	Open	10	23.5	22.44	0.06	Bottom	0	1	0	1:1		10	0.154	1.276	0.197	-
836.5	20525	QPSK	A	Open	10	22.5	21.40	0.09	Bottom	1	25	24	1:1		10	0.125	1.288	0.161	-
836.5	20525	QPSK	A	Close	10	23.5	22.44	-0.05	Rear	0	1	0	1:1		5	0.490	1.276	**0.625**	C5
836.5	20525	QPSK	A	Close	10	22.5	21.40	-0.05	Rear	1	25	24	1:1		5	0.356	1.288	0.459	-
836.5	20525	QPSK	A	Close	10	23.5	22.44	0.04	Front	0	1	0	1:1		5	0.223	1.276	0.285	-
836.5	20525	QPSK	A	Close	10	22.5	21.40	0.08	Front	1	25	24	1:1		5	0.169	1.288	0.218	-
836.5	20525	QPSK	A	Close	10	23.5	22.44	0.06	Left	0	1	0	1:1		5	0.208	1.276	0.265	-
836.5	20525	QPSK	A	Close	10	22.5	21.40	0.07	Left	1	25	24	1:1		5	0.154	1.288	0.198	-
836.5	20525	QPSK	A	Close	10	23.5	22.44	-0.06	Right	0	1	0	1:1		5	0.192	1.276	0.245	-
836.5	20525	QPSK	A	Close	10	22.5	21.40	-0.08	Right	1	25	24	1:1		5	0.139	1.288	0.179	-
836.5	20525	QPSK	A	Close	10	23.5	22.44	0.11	Bottom	0	1	0	1:1		5	0.281	1.276	0.359	-
836.5	20525	QPSK	A	Close	10	22.5	21.40	0.02	Bottom	1	25	24	1:1		5	0.225	1.288	0.290	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

LTE FDD Band 12 Hotspot SAR

Frequency		Mode	Ant.	Form Factor	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)	
707.5	23095	QPSK	A	Open	10	23.0	22.28	-0.01	Rear	0	1	24	1:1		10	0.199	1.180	0.235	-
707.5	23095	QPSK	A	Open	10	22.5	21.90	-0.01	Rear	0.5	25	0	1:1		10	0.187	1.148	0.215	-
707.5	23095	QPSK	A	Open	10	23.0	22.28	0.08	Front	0	1	24	1:1		10	0.114	1.180	0.135	-
707.5	23095	QPSK	A	Open	10	22.5	21.90	0.08	Front	0.5	25	0	1:1		10	0.110	1.148	0.126	-
707.5	23095	QPSK	A	Open	10	23.0	22.28	0.03	Left	0	1	24	1:1		10	0.130	1.180	0.153	-
707.5	23095	QPSK	A	Open	10	22.5	21.90	0.01	Left	0.5	25	0	1:1		10	0.129	1.148	0.148	-
707.5	23095	QPSK	A	Open	10	23.0	22.28	-0.01	Right	0	1	24	1:1		10	0.177	1.180	0.209	-
707.5	23095	QPSK	A	Open	10	22.5	21.90	-0.01	Right	0.5	25	0	1:1		10	0.170	1.148	0.195	-
707.5	23095	QPSK	A	Open	10	23.0	22.28	0.02	Bottom	0	1	24	1:1		10	0.061	1.180	0.072	-
707.5	23095	QPSK	A	Open	10	22.5	21.90	0.10	Bottom	0.5	25	0	1:1		10	0.058	1.148	0.067	-
707.5	23095	QPSK	A	Close	10	23.0	22.28	-0.01	Rear	0	1	24	1:1		5	0.295	1.180	**0.348**	C6
707.5	23095	QPSK	A	Close	10	22.5	21.90	0.03	Rear	0.5	25	0	1:1		5	0.275	1.148	0.316	-
707.5	23095	QPSK	A	Close	10	23.0	22.28	0.13	Front	0	1	24	1:1		5	0.089	1.180	0.105	-
707.5	23095	QPSK	A	Close	10	22.5	21.90	0.07	Front	0.5	25	0	1:1		5	0.082	1.148	0.094	-
707.5	23095	QPSK	A	Close	10	23.0	22.28	0.05	Left	0	1	24	1:1		5	0.128	1.180	0.151	-
707.5	23095	QPSK	A	Close	10	22.5	21.90	0.04	Left	0.5	25	0	1:1		5	0.118	1.148	0.135	-
707.5	23095	QPSK	A	Close	10	23.0	22.28	0.01	Right	0	1	24	1:1		5	0.045	1.180	0.053	-
707.5	23095	QPSK	A	Close	10	22.5	21.90	-0.10	Right	0.5	25	0	1:1		5	0.041	1.148	0.047	-
707.5	23095	QPSK	A	Close	10	23.0	22.28	0.12	Bottom	0	1	24	1:1		5	0.122	1.180	0.144	-
707.5	23095	QPSK	A	Close	10	22.5	21.90	0.12	Bottom	0.5	25	0	1:1		5	0.116	1.148	0.133	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

LTE FDD Band 13 Hotspot SAR																		
Frequency		Mode	Ant.	Form Factor	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)	
782	23230	QPSK	A	Open	10	23.0	21.72	0.07	Rear	0	1	0	1:1		10	0.287	1.343	0.385	-
782	23230	QPSK	A	Open	10	22.5	21.46	0.02	Rear	0.5	25	12	1:1		10	0.271	1.271	0.344	-
782	23230	QPSK	A	Open	10	23.0	21.72	0.08	Front	0	1	0	1:1		10	0.142	1.343	0.191	-
782	23230	QPSK	A	Open	10	22.5	21.46	0.06	Front	0.5	25	12	1:1		10	0.127	1.271	0.161	-
782	23230	QPSK	A	Open	10	23.0	21.72	0.10	Left	0	1	0	1:1		10	0.129	1.343	0.173	-
782	23230	QPSK	A	Open	10	22.5	21.46	0.03	Left	0.5	25	12	1:1		10	0.105	1.271	0.133	-
782	23230	QPSK	A	Open	10	23.0	21.72	-0.00	Right	0	1	0	1:1		10	0.235	1.343	0.316	-
782	23230	QPSK	A	Open	10	22.5	21.46	-0.01	Right	0.5	25	12	1:1		10	0.220	1.271	0.280	-
782	23230	QPSK	A	Open	10	23.0	21.72	0.05	Bottom	0	1	0	1:1		10	0.099	1.343	0.133	-
782	23230	QPSK	A	Open	10	22.5	21.46	0.08	Bottom	0.5	25	12	1:1		10	0.094	1.271	0.119	-
782	23230	QPSK	A	Close	10	23.0	21.72	-0.01	Rear	0	1	0	1:1		5	0.410	1.343	**0.551**	C7
782	23230	QPSK	A	Close	10	22.5	21.46	-0.02	Rear	0.5	25	12	1:1		5	0.387	1.271	0.492	-
782	23230	QPSK	A	Close	10	23.0	21.72	0.07	Front	0	1	0	1:1		5	0.152	1.343	0.204	-
782	23230	QPSK	A	Close	10	22.5	21.46	-0.12	Front	0.5	25	12	1:1		5	0.139	1.271	0.177	-
782	23230	QPSK	A	Close	10	23.0	21.72	0.07	Left	0	1	0	1:1		5	0.145	1.343	0.195	-
782	23230	QPSK	A	Close	10	22.5	21.46	0.11	Left	0.5	25	12	1:1		5	0.141	1.271	0.179	-
782	23230	QPSK	A	Close	10	23.0	21.72	0.08	Right	0	1	0	1:1		5	0.079	1.343	0.106	-
782	23230	QPSK	A	Close	10	22.5	21.46	-0.02	Right	0.5	25	12	1:1		5	0.085	1.271	0.108	-
782	23230	QPSK	A	Close	10	23.0	21.72	0.12	Bottom	0	1	0	1:1		5	0.200	1.343	0.269	-
782	23230	QPSK	A	Close	10	22.5	21.46	0.13	Bottom	0.5	25	12	1:1		5	0.198	1.271	0.252	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram										

LTE TDD Band 41 Hotspot SAR

Frequency		Mode	Form Factor	Ant.	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)	
2 506	39750	QPSK	Open	B	20	18.0	16.71	0.00	Rear	0	1	0	1:1.58		10	0.163	1.346	0.219	-
2 506	39750	QPSK	Open	B	20	18.0	16.81	0.00	Rear	0	50	0	1:1.58		10	0.164	1.315	0.216	-
2 506	39750	QPSK	Open	B	20	18.0	16.71	0.00	Front	0	1	0	1:1.58		10	0.118	1.346	0.159	-
2 506	39750	QPSK	Open	B	20	18.0	16.81	-0.00	Front	0	50	0	1:1.58		10	0.119	1.315	0.156	-
2 506	39750	QPSK	Open	B	20	18.0	16.71	-0.11	Left	0	1	0	1:1.58		10	0.020	1.346	0.027	-
2 506	39750	QPSK	Open	B	20	18.0	16.81	-0.14	Left	0	50	0	1:1.58		10	0.026	1.315	0.034	-
2 506	39750	QPSK	Open	B	20	18.0	16.71	0.11	Bottom	0	1	0	1:1.58		10	0.343	1.346	0.462	-
2 506	39750	QPSK	Open	B	20	18.0	16.81	0.13	Bottom	0	50	0	1:1.58		10	0.346	1.315	0.455	-
2 506	39750	QPSK	Open	B	20	18.0	16.57	0.14	Bottom	0	1	99	1:1.58		10	0.352	1.390	0.489	-
PCC 2 506	39750	QPSK	Open	B	20	18.0	16.47	0.13	Bottom	0	1	99	1:1.58		10	0.307	1.422	0.437	•
SCC 2 525.8	39948	QPSK			20					0	1	0							
2 506	39750	QPSK	Close	B	20	18.0	16.71	-0.15	Rear	0	1	0	1:1.58		5	0.263	1.346	0.354	-
2 506	39750	QPSK	Close	B	20	18.0	16.81	0.00	Rear	0	50	0	1:1.58		5	0.348	1.315	0.458	-
2 506	39750	QPSK	Close	B	20	18.0	16.71	0.00	Front	0	1	0	1:1.58		5	0.023	1.346	0.031	-
2 506	39750	QPSK	Close	B	20	18.0	16.81	0.00	Front	0	50	0	1:1.58		5	0.024	1.315	0.032	-
2 506	39750	QPSK	Close	B	20	18.0	16.71	0.00	Left	0	1	0	1:1.58		5	0.065	1.346	0.087	-
2 506	39750	QPSK	Close	B	20	18.0	16.81	0.00	Left	0	50	0	1:1.58		5	0.068	1.315	0.089	-
2 506	39750	QPSK	Close	B	20	18.0	16.71	0.14	Bottom	0	1	0	1:1.58		5	0.628	1.346	0.845	-
2 549.5	40185	QPSK	Close	B	20	18.0	16.45	0.13	Bottom	0	1	0	1:1.58		5	0.506	1.429	0.723	-
2 593	40620	QPSK	Close	B	20	18.0	16.46	0.11	Bottom	0	1	0	1:1.58		5	0.514	1.426	0.733	-
2 636.5	41055	QPSK	Close	B	20	18.0	16.45	0.18	Bottom	0	1	0	1:1.58		5	0.440	1.429	0.629	-
2 680	41490	QPSK	Close	B	20	18.0	16.48	0.12	Bottom	0	1	0	1:1.58		5	0.362	1.419	0.514	-
2 506	39750	QPSK	Close	B	20	18.0	16.81	0.17	Bottom	0	50	0	1:1.58		5	0.622	1.315	0.818	-
2 549.5	40185	QPSK	Close	B	20	18.0	16.67	0.13	Bottom	0	50	0	1:1.58		5	0.512	1.358	0.695	-
2 593	40620	QPSK	Close	B	20	18.0	16.47	0.15	Bottom	0	50	0	1:1.58		5	0.511	1.422	0.727	-
2 636.5	41055	QPSK	Close	B	20	18.0	16.64	0.11	Bottom	0	50	0	1:1.58		5	0.434	1.368	0.594	-
2 680	41490	QPSK	Close	B	20	18.0	16.58	0.14	Bottom	0	50	0	1:1.58		5	0.367	1.387	0.509	-
2 506	39750	QPSK	Close	B	20	18.0	16.73	0.19	Bottom	0	100	0	1:1.58		5	0.589	1.340	0.789	-
2 506	39750	QPSK	Close	B	20	18.0	16.57	0.11	Bottom	0	1	99	1:1.58		5	0.530	1.390	0.737	-
PCC 2 506	39750	QPSK	Close	B	20	18.0	16.47	0.18	Bottom	0	1	99	1:1.58		5	0.508	1.422	0.722	•
SCC 2 525.8	39948	QPSK			20					0	1	0							
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak (Uncontrolled Exposure/ General Population)										Body 1.6 W/kg (Averaged over 1 gram)									

• Up-link Carrier Aggregation Power Class 3 (41C)

LTE TDD Band 41 Hotspot SAR

Frequency		Mode	Form Factor	Ant.	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)	
2 680	41490	QPSK	Open	I	20	19.5	18.59	0.13	Rear	0	1	0	1:1.58		10	0.221	1.233	0.272	-
2 680	41490	QPSK	Open	I	20	19.5	18.56	0.05	Rear	0	50	0	1:1.58		10	0.220	1.242	0.273	-
2 680	41490	QPSK	Open	I	20	19.5	18.59	0.16	Front	0	1	0	1:1.58		10	0.142	1.233	0.175	-
2 680	41490	QPSK	Open	I	20	19.5	18.56	-0.11	Front	0	50	0	1:1.58		10	0.140	1.242	0.174	-
2 680	41490	QPSK	Open	I	20	19.5	18.59	0.10	Right	0	1	0	1:1.58		10	0.328	1.233	0.404	-
2 680	41490	QPSK	Open	I	20	19.5	18.56	0.11	Right	0	50	0	1:1.58		10	0.329	1.242	0.409	-
2 680	41490	QPSK	Open	I	20	19.5	18.59	0.00	Top	0	1	0	1:1.58		10	0.046	1.233	0.057	-
2 680	41490	QPSK	Open	I	20	19.5	18.56	0.19	Top	0	50	0	1:1.58		10	0.042	1.242	0.052	-
PCC 2 680	41490	QPSK	Open	I	20	19.5	18.53	0.06	Right	0	50	0	1:1.58		10	0.304	1.250	0.380	•
SCC 2 660.2	41292	QPSK			20					0	50	49							
2 680	41490	QPSK	Close	I	20	19.5	18.59	0.19	Rear	0	1	0	1:1.58		5	0.202	1.233	0.249	-
2 680	41490	QPSK	Close	I	20	19.5	18.56	0.19	Rear	0	50	0	1:1.58		5	0.205	1.242	0.255	-
2 680	41490	QPSK	Close	I	20	19.5	18.59	-0.09	Front	0	1	0	1:1.58		5	0.444	1.233	0.547	-
2 680	41490	QPSK	Close	I	20	19.5	18.56	0.01	Front	0	50	0	1:1.58		5	0.444	1.242	0.551	-
2 680	41490	QPSK	Close	I	20	19.5	18.59	0.02	Right	0	1	0	1:1.58		5	0.815	1.233	1.005	-
2 506	39750	QPSK	Close	I	20	19.5	18.36	0.15	Right	0	1	49	1:1.58		5	0.478	1.300	0.621	-
2 549.5	40185	QPSK	Close	I	20	19.5	18.45	-0.07	Right	0	1	0	1:1.58		5	0.505	1.274	0.643	-
2 593	40620	QPSK	Close	I	20	19.5	18.43	0.13	Right	0	1	0	1:1.58		5	0.602	1.279	0.770	-
2 636.5	41055	QPSK	Close	I	20	19.5	18.42	0.13	Right	0	1	0	1:1.58		5	0.712	1.282	0.913	-
2 680	41490	QPSK	Close	I	20	19.5	18.56	0.16	Right	0	50	0	1:1.58		5	0.823	1.242	1.022	-
2 506	39750	QPSK	Close	I	20	19.5	18.39	0.15	Right	0	50	25	1:1.58		5	0.461	1.291	0.595	-
2 549.5	40185	QPSK	Close	I	20	19.5	18.50	-0.16	Right	0	50	25	1:1.58		5	0.523	1.259	0.658	-
2 593	40620	QPSK	Close	I	20	19.5	18.41	-0.02	Right	0	50	0	1:1.58		5	0.632	1.285	0.812	-
2 636.5	41055	QPSK	Close	I	20	19.5	18.40	-0.03	Right	0	50	0	1:1.58		5	0.782	1.288	1.007	-
2 680	41490	QPSK	Close	I	20	19.5	18.48	-0.10	Right	0	100	0	1:1.58		5	0.895	1.265	**1.132**	C8
2 680	41490	QPSK	Close	I	20	19.5	18.59	0.13	Top	0	1	0	1:1.58		5	0.036	1.233	0.044	-
2 680	41490	QPSK	Close	I	20	19.5	18.56	-0.04	Top	0	50	0	1:1.58		5	0.037	1.242	0.046	-
2 680	41490	QPSK	Close	I	20	19.5	18.59	-0.07	Bottom	0	1	0	1:1.58		5	0.057	1.233	0.070	-
2 680	41490	QPSK	Close	I	20	19.5	18.56	0.11	Bottom	0	50	0	1:1.58		5	0.055	1.242	0.068	-
2 680	41490	QPSK	Close	I	20	19.5	18.48	-0.05	Right	0	100	0	1:1.58		5	0.814	1.265	1.030	#
PCC 2 680	41490	QPSK	Close	I	20	19.5	18.87	0.06	Right	0	100	0	1:1.58		5	0.851	1.156	0.984	•
SCC 2 660.2	41292	QPSK			20					0	100	0							

ANSI/ IEEE C95.1 - 2005– Safety Limit	Body
Spatial Peak (Uncontrolled Exposure/ General Population)	1.6 W/kg (Averaged over 1 gram)

Note: # Data entry indicate Variability measurement.

• Up-link Carrier Aggregation Power Class 3 (41C)

LTE FDD Band 66 (AWS) Hotspot SAR

Frequency		Mode	Ant.	Form Factor	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)	
1745	132322	QPSK	A	Open	20	17.8	16.99	0.16	Rear	0	1	0	1:1		10	0.516	1.205	0.622	-
1745	132322	QPSK	A	Open	20	17.8	16.73	0.04	Rear	0	50	49	1:1		10	0.539	1.279	0.689	-
1745	132322	QPSK	A	Open	20	17.8	16.99	0.14	Front	0	1	0	1:1		10	0.311	1.205	0.375	-
1745	132322	QPSK	A	Open	20	17.8	16.73	0.18	Front	0	50	49	1:1		10	0.320	1.279	0.409	-
1745	132322	QPSK	A	Open	20	17.8	16.99	-0.17	Left	0	1	0	1:1		10	0.042	1.205	0.051	-
1745	132322	QPSK	A	Open	20	17.8	16.73	-0.18	Left	0	50	49	1:1		10	0.039	1.279	0.050	-
1745	132322	QPSK	A	Open	20	17.8	16.99	0.13	Right	0	1	0	1:1		10	0.037	1.205	0.045	-
1745	132322	QPSK	A	Open	20	17.8	16.73	-0.06	Right	0	50	49	1:1		10	0.038	1.279	0.049	-
1745	132322	QPSK	A	Open	20	17.8	16.99	0.04	Bottom	0	1	0	1:1		10	0.566	1.205	0.682	-
1745	132322	QPSK	A	Open	20	17.8	16.73	-0.03	Bottom	0	50	49	1:1		10	0.577	1.279	0.738	-
1745	132322	QPSK	A	Close	20	17.8	16.99	-0.16	Rear	0	1	0	1:1		5	0.388	1.205	0.468	-
1745	132322	QPSK	A	Close	20	17.8	16.73	-0.10	Rear	0	50	49	1:1		5	0.419	1.279	0.536	-
1745	132322	QPSK	A	Close	20	17.8	16.99	0.08	Front	0	1	0	1:1		5	0.165	1.205	0.199	-
1745	132322	QPSK	A	Close	20	17.8	16.73	0.04	Front	0	50	49	1:1		5	0.167	1.279	0.214	-
1745	132322	QPSK	A	Close	20	17.8	16.99	0.14	Left	0	1	0	1:1		5	0.077	1.205	0.093	-
1745	132322	QPSK	A	Close	20	17.8	16.73	0.18	Left	0	50	49	1:1		5	0.078	1.279	0.100	-
1745	132322	QPSK	A	Close	20	17.8	16.99	0.04	Right	0	1	0	1:1		5	0.012	1.205	0.014	-
1745	132322	QPSK	A	Close	20	17.8	16.73	0.12	Right	0	50	49	1:1		5	0.010	1.279	0.013	-
1745	132322	QPSK	A	Close	20	17.8	16.99	0.12	Bottom	0	1	0	1:1		5	0.507	1.205	0.611	-
1745	132322	QPSK	A	Close	20	17.8	16.73	0.10	Bottom	0	50	49	1:1		5	0.505	1.279	0.646	-
1745	132322	QPSK	I	Open	20	17.5	16.88	0.12	Rear	0	1	0	1:1		10	0.239	1.153	0.276	-
1745	132322	QPSK	I	Open	20	17.5	16.75	-0.19	Rear	0	50	25	1:1		10	0.240	1.189	0.285	-
1745	132322	QPSK	I	Open	20	17.5	16.88	0.07	Front	0	1	0	1:1		10	0.216	1.153	0.249	-
1745	132322	QPSK	I	Open	20	17.5	16.75	0.14	Front	0	50	25	1:1		10	0.220	1.189	0.262	-
1745	132322	QPSK	I	Open	20	17.5	16.88	0.16	Right	0	1	0	1:1		10	0.475	1.153	0.548	-
1745	132322	QPSK	I	Open	20	17.5	16.75	0.15	Right	0	50	25	1:1		10	0.501	1.189	0.596	-
1745	132322	QPSK	I	Open	20	17.5	16.88	0.15	Top	0	1	0	1:1		10	0.037	1.153	0.043	-
1745	132322	QPSK	I	Open	20	17.5	16.75	0.10	Top	0	50	25	1:1		10	0.040	1.189	0.048	-
1745	132322	QPSK	I	Close	20	17.5	16.88	0.00	Rear	0	1	0	1:1		5	0.031	1.153	0.036	-
1745	132322	QPSK	I	Close	20	17.5	16.75	0.00	Rear	0	50	25	1:1		5	0.035	1.189	0.042	-
1745	132322	QPSK	I	Close	20	17.5	16.88	-0.19	Front	0	1	0	1:1		5	0.379	1.153	0.437	-
1745	132322	QPSK	I	Close	20	17.5	16.75	-0.11	Front	0	50	25	1:1		5	0.409	1.189	0.486	-
1745	132322	QPSK	I	Close	20	17.5	16.88	0.04	Right	0	1	0	1:1		5	0.707	1.153	0.815	-
1720	132072	QPSK	I	Close	20	17.5	16.66	0.17	Right	0	1	49	1:1		5	0.647	1.213	0.785	-
1770	132572	QPSK	I	Close	20	17.5	16.79	0.19	Right	0	1	0	1:1		5	0.844	1.178	0.994	-
1745	132322	QPSK	I	Close	20	17.5	16.75	0.10	Right	0	50	25	1:1		5	0.753	1.189	0.895	-
1720	132072	QPSK	I	Close	20	17.5	16.68	0.04	Right	0	50	49	1:1		5	0.649	1.208	0.784	-
1770	132572	QPSK	I	Close	20	17.5	16.60	0.18	Right	0	50	49	1:1		5	0.911	1.230	1.121	-
1720	132072	QPSK	I	Close	20	17.5	16.78	0.06	Right	0	100	0	1:1		5	0.634	1.180	0.748	-
1745	132322	QPSK	I	Close	20	17.5	16.88	0.00	Top	0	1	0	1:1		5	0.00835	1.153	0.010	-
1745	132322	QPSK	I	Close	20	17.5	16.75	0.13	Top	0	50	25	1:1		5	0.00788	1.189	0.009	-
1745	132322	QPSK	I	Close	20	17.5	16.88	-0.02	Bottom	0	1	0	1:1		5	0.043	1.153	0.050	-
1745	132322	QPSK	I	Close	20	17.5	16.75	0.12	Bottom	0	50	25	1:1		5	0.047	1.189	0.056	-
1770	132572	QPSK	I	Close	20	17.5	16.60	0.13	Right	0	50	49	1:1		5	0.911	1.230	**1.121**	**C9#**

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 FDD Band n5 Body Hotspot SAR																			
Frequency		Mode	Ant.	Form Factor	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	Open	20	23.5	22.75	0.10	Rear	0	1	1	1:1		10	0.418	1.189	0.497	-
836.5	167300	DFT-s OFDM QPSK	A	Open	20	23.5	22.74	0.00	Rear	0	50	28	1:1		10	0.427	1.191	0.509	-
836.5	167300	DFT-s OFDM QPSK	A	Open	20	23.5	22.75	-0.10	Front	0	1	1	1:1		10	0.220	1.189	0.262	-
836.5	167300	DFT-s OFDM QPSK	A	Open	20	23.5	22.74	0.00	Front	0	50	28	1:1		10	0.252	1.191	0.300	-
836.5	167300	DFT-s OFDM QPSK	A	Open	20	23.5	22.75	0.19	Left	0	1	1	1:1		10	0.150	1.189	0.178	-
836.5	167300	DFT-s OFDM QPSK	A	Open	20	23.5	22.74	-0.19	Left	0	50	28	1:1		10	0.054	1.191	0.064	-
836.5	167300	DFT-s OFDM QPSK	A	Open	20	23.5	22.75	0.00	Right	0	1	1	1:1		10	0.263	1.189	0.313	-
836.5	167300	DFT-s OFDM QPSK	A	Open	20	23.5	22.74	0.01	Right	0	50	28	1:1		10	0.244	1.191	0.291	-
836.5	167300	DFT-s OFDM QPSK	A	Open	20	23.5	22.75	0.16	Bottom	0	1	1	1:1		10	0.090	1.189	0.107	-
836.5	167300	DFT-s OFDM QPSK	A	Open	20	23.5	22.74	-0.05	Bottom	0	50	28	1:1		10	0.089	1.191	0.106	-
836.5	167300	CP QPSK	A	Open	20	22.0	21.22	0.15	Rear	1.5	1	1	1:1		10	0.236	1.197	0.282	-
836.5	167300	DFT-s OFDM QPSK	A	Close	20	23.5	22.75	0.00	Rear	0	1	1	1:1		5	0.668	1.189	0.794	-
836.5	167300	DFT-s OFDM QPSK	A	Close	20	23.5	22.74	-0.11	Rear	0	50	28	1:1		5	0.670	1.191	**0.798**	C10
836.5	167300	DFT-s OFDM QPSK	A	Close	20	23.5	22.75	0.05	Front	0	1	1	1:1		5	0.230	1.189	0.273	-
836.5	167300	DFT-s OFDM QPSK	A	Close	20	23.5	22.74	-0.04	Front	0	50	28	1:1		5	0.236	1.191	0.281	-
836.5	167300	DFT-s OFDM QPSK	A	Close	20	23.5	22.75	-0.03	Left	0	1	1	1:1		5	0.222	1.189	0.264	-
836.5	167300	DFT-s OFDM QPSK	A	Close	20	23.5	22.74	0.04	Left	0	50	28	1:1		5	0.229	1.191	0.273	-
836.5	167300	DFT-s OFDM QPSK	A	Close	20	23.5	22.75	-0.13	Right	0	1	1	1:1		5	0.158	1.189	0.188	-
836.5	167300	DFT-s OFDM QPSK	A	Close	20	23.5	22.74	-0.02	Right	0	50	28	1:1		5	0.171	1.191	0.204	-
836.5	167300	DFT-s OFDM QPSK	A	Close	20	23.5	22.75	0.17	Bottom	0	1	1	1:1		5	0.225	1.189	0.268	-
836.5	167300	DFT-s OFDM QPSK	A	Close	20	23.5	22.74	0.19	Bottom	0	50	28	1:1		5	0.228	1.191	0.272	-
836.5	167300	CP QPSK	A	Close	20	22.0	21.22	0.02	Rear	1.5	1	1	1:1		5	0.432	1.197	0.517	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram										

TDD Band n41 Hotspot SAR

Frequency		Mode	Ant	Form Factor	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)	
2 592.99	518598	DFT-s OFDM QPSK	B	Open	100	16.0	15.58	-0.10	Rear	0	1	271	1:1		10	0.123	1.102	0.136	-
2 592.99	518598	DFT-s OFDM QPSK	B	Open	100	16.0	15.54	0.10	Rear	0	135	138	1:1		10	0.126	1.112	0.140	-
2 592.99	518598	DFT-s OFDM QPSK	B	Open	100	16.0	15.58	0.12	Front	0	1	271	1:1		10	0.107	1.102	0.118	-
2 592.99	518598	DFT-s OFDM QPSK	B	Open	100	16.0	15.54	0.19	Front	0	135	138	1:1		10	0.108	1.112	0.120	-
2 592.99	518598	DFT-s OFDM QPSK	B	Open	100	16.0	15.58	0.15	Left	0	1	271	1:1		10	0.05	1.102	0.055	-
2 592.99	518598	DFT-s OFDM QPSK	B	Open	100	16.0	15.54	0.18	Left	0	135	138	1:1		10	0.043	1.112	0.048	-
2 592.99	518598	DFT-s OFDM QPSK	B	Open	100	16.0	15.58	0.10	Bottom	0	1	271	1:1		10	0.297	1.102	0.327	-
2 592.99	518598	DFT-s OFDM QPSK	B	Open	100	16.0	15.54	0.12	Bottom	0	135	138	1:1		10	0.305	1.112	0.339	-
2 592.99	518598	CP QPSK	B	Open	100	16.0	15.47	0.14	Bottom	0	1	1	1:1		10	0.436	1.130	0.493	-
2 592.99	518598	DFT-s OFDM QPSK	B	Close	100	16.0	15.58	0.05	Rear	0	1	271	1:1		5	0.18	1.102	0.198	-
2 592.99	518598	DFT-s OFDM QPSK	B	Close	100	16.0	15.54	0.00	Rear	0	135	138	1:1		5	0.189	1.112	0.210	-
2 592.99	518598	DFT-s OFDM QPSK	B	Close	100	16.0	15.58	-0.08	Front	0	1	271	1:1		5	0.018	1.102	0.020	-
2 592.99	518598	DFT-s OFDM QPSK	B	Close	100	16.0	15.54	0.00	Front	0	135	138	1:1		5	0.013	1.112	0.014	-
2 592.99	518598	DFT-s OFDM QPSK	B	Close	100	16.0	15.58	0.18	Left	0	1	271	1:1		5	0.096	1.102	0.106	-
2 592.99	518598	DFT-s OFDM QPSK	B	Close	100	16.0	15.54	0.10	Left	0	135	138	1:1		5	0.093	1.112	0.103	-
2 592.99	518598	DFT-s OFDM QPSK	B	Close	100	16.0	15.58	0.01	Bottom	0	1	271	1:1		5	0.422	1.102	0.465	-
2 592.99	518598	DFT-s OFDM QPSK	B	Close	100	16.0	15.54	0.16	Bottom	0	135	138	1:1		5	0.458	1.112	0.509	-
2 592.99	518598	CP QPSK	B	Close	100	16.0	15.47	0.02	Bottom	0	1	1	1:1		5	0.568	1.130	0.642	-
2 592.99	518598	DFT-s OFDM QPSK	I	Open	100	18.0	17.21	0.10	Rear	0	1	1	1:1		10	0.213	1.199	0.255	-
2 592.99	518598	DFT-s OFDM QPSK	I	Open	100	18.0	17.04	0.19	Rear	0	135	0	1:1		10	0.181	1.247	0.226	-
2 592.99	518598	DFT-s OFDM QPSK	I	Open	100	18.0	17.21	-0.15	Front	0	1	1	1:1		10	0.185	1.199	0.222	-
2 592.99	518598	DFT-s OFDM QPSK	I	Open	100	18.0	17.04	0.02	Front	0	135	0	1:1		10	0.171	1.247	0.213	-
2 592.99	518598	DFT-s OFDM QPSK	I	Open	100	18.0	17.21	0.12	Right	0	1	1	1:1		10	0.301	1.199	0.361	-
2 592.99	518598	DFT-s OFDM QPSK	I	Open	100	18.0	17.04	0.16	Right	0	135	0	1:1		10	0.293	1.247	0.365	-
2 592.99	518598	DFT-s OFDM QPSK	I	Open	100	18.0	17.21	0.18	Top	0	1	1	1:1		10	0.067	1.199	0.080	-
2 592.99	518598	DFT-s OFDM QPSK	I	Open	100	18.0	17.04	0.11	Top	0	135	0	1:1		10	0.065	1.247	0.081	-
2 592.99	518598	CP QPSK	I	Open	100	18.0	17.19	0.17	Right	0	1	1	1:1		10	0.335	1.205	0.404	-
2 592.99	518598	DFT-s OFDM QPSK	I	Close	100	18.0	17.21	0.04	Rear	0	1	1	1:1		5	0.130	1.199	0.156	-
2 592.99	518598	DFT-s OFDM QPSK	I	Close	100	18.0	17.04	0.11	Rear	0	135	0	1:1		5	0.119	1.247	0.148	-
2 592.99	518598	DFT-s OFDM QPSK	I	Close	100	18.0	17.21	-0.12	Front	0	1	1	1:1		5	0.556	1.199	0.667	-
2 592.99	518598	DFT-s OFDM QPSK	I	Close	100	18.0	17.04	-0.13	Front	0	135	0	1:1		5	0.540	1.247	0.673	-
2 592.99	518598	DFT-s OFDM QPSK	I	Close	100	18.0	16.97	-0.19	Front	0	270	0	1:1		5	0.479	1.268	0.607	-
2 592.99	518598	DFT-s OFDM QPSK	I	Close	100	18.0	17.21	0.14	Right	0	1	1	1:1		5	0.724	1.199	0.868	-
2 592.99	518598	DFT-s OFDM QPSK	I	Close	100	18.0	17.04	0.18	Right	0	135	0	1:1		5	0.698	1.247	0.870	-
2 592.99	518598	DFT-s OFDM QPSK	I	Close	100	18.0	16.97	0.11	Right	0	270	0	1:1		5	0.675	1.268	0.856	-
2 592.99	518598	DFT-s OFDM QPSK	I	Close	100	18.0	17.21	0.12	Top	0	1	1	1:1		5	0.021	1.199	0.025	-
2 592.99	518598	DFT-s OFDM QPSK	I	Close	100	18.0	17.04	0.14	Top	0	135	0	1:1		5	0.024	1.247	0.030	-
2 592.99	518598	DFT-s OFDM QPSK	I	Close	100	18.0	17.21	-0.19	Bottom	0	1	1	1:1		5	0.080	1.199	0.096	-
2 592.99	518598	DFT-s OFDM QPSK	I	Close	100	18.0	17.04	-0.11	Bottom	0	135	0	1:1		5	0.075	1.247	0.094	-
2 592.99	518598	CP QPSK	I	Close	100	18.0	17.19	0.18	Right	0	1	1	1:1		5	0.739	1.205	**0.890**	C11

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

NR FDD Band n66 Body Hotspot SAR

Frequency		Mode	Ant.	Form Factor	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)	
1 745	349000	DFT-s OFDM QPSK	A	Open	40	18.3	17.05	0.03	Rear	0	1	1	1:1		10	0.476	1.334	0.635	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	18.3	17.09	0.11	Rear	0	108	0	1:1		10	0.527	1.321	0.696	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	18.3	17.05	-0.12	Front	0	1	1	1:1		10	0.325	1.334	0.434	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	18.3	17.09	-0.04	Front	0	108	0	1:1		10	0.357	1.321	0.472	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	18.3	17.05	0.17	Left	0	1	1	1:1		10	0.047	1.334	0.063	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	18.3	17.09	0.10	Left	0	108	0	1:1		10	0.048	1.321	0.063	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	18.3	17.05	-0.03	Right	0	1	1	1:1		10	0.043	1.334	0.057	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	18.3	17.09	0.07	Right	0	108	0	1:1		10	0.045	1.321	0.059	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	18.3	17.05	0.12	Bottom	0	1	1	1:1		10	0.581	1.334	0.775	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	18.3	17.09	0.16	Bottom	0	108	0	1:1		10	0.593	1.321	0.783	-
1 745	349000	CP OFDM QPSK	A	Open	40	18.3	17.15	0.16	Bottom	0	1	1	1:1		10	0.639	1.303	0.833	-
1 745	349000	DFT-s OFDM QPSK	A	Close	40	18.3	17.05	-0.10	Rear	0	1	1	1:1		5	0.489	1.334	0.652	-
1 745	349000	DFT-s OFDM QPSK	A	Close	40	18.3	17.09	-0.02	Rear	0	108	0	1:1		5	0.466	1.321	0.616	-
1 745	349000	DFT-s OFDM QPSK	A	Close	40	18.3	17.05	0.00	Front	0	1	1	1:1		5	0.187	1.334	0.249	-
1 745	349000	DFT-s OFDM QPSK	A	Close	40	18.3	17.09	0.15	Front	0	108	0	1:1		5	0.183	1.321	0.242	-
1 745	349000	DFT-s OFDM QPSK	A	Close	40	18.3	17.05	0.11	Left	0	1	1	1:1		5	0.086	1.334	0.115	-
1 745	349000	DFT-s OFDM QPSK	A	Close	40	18.3	17.09	0.15	Left	0	108	0	1:1		5	0.088	1.321	0.116	-
1 745	349000	DFT-s OFDM QPSK	A	Close	40	18.3	17.05	-0.11	Right	0	1	1	1:1		5	0.016	1.334	0.021	-
1 745	349000	DFT-s OFDM QPSK	A	Close	40	18.3	17.09	0.17	Right	0	108	0	1:1		5	0.013	1.321	0.017	-
1 745	349000	DFT-s OFDM QPSK	A	Close	40	18.3	17.05	0.19	Bottom	0	1	1	1:1		5	0.514	1.334	0.686	-
1 745	349000	DFT-s OFDM QPSK	A	Close	40	18.3	17.09	0.10	Bottom	0	108	0	1:1		5	0.532	1.321	0.703	-
1 745	349000	CP OFDM QPSK	A	Close	40	18.3	17.15	0.11	Bottom	0	1	1	1:1		5	0.532	1.303	0.693	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	18.0	17.21	0.12	Rear	0	1	214	1:1		10	0.342	1.199	0.410	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	18.0	17.26	0.03	Rear	0	108	0	1:1		10	0.347	1.186	0.412	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	18.0	17.21	0.10	Front	0	1	214	1:1		10	0.198	1.199	0.237	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	18.0	17.26	0.18	Front	0	108	0	1:1		10	0.230	1.186	0.273	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	18.0	17.21	0.18	Right	0	1	214	1:1		10	0.511	1.199	0.613	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	18.0	17.26	0.16	Right	0	108	0	1:1		10	0.485	1.186	0.575	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	18.0	17.21	0.13	Top	0	1	214	1:1		10	0.064	1.199	0.077	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	18.0	17.26	0.11	Top	0	108	0	1:1		10	0.054	1.186	0.064	-
1 745	349000	CP OFDM QPSK	I	Open	40	18.0	17.35	0.14	Right	0	1	1	1:1		10	0.486	1.161	0.564	-
1 745	349000	DFT-s OFDM QPSK	I	Close	40	18.0	17.21	-0.11	Rear	0	1	214	1:1		5	0.161	1.199	0.193	-
1 745	349000	DFT-s OFDM QPSK	I	Close	40	18.0	17.26	0.12	Rear	0	108	0	1:1		5	0.149	1.186	0.177	-
1 745	349000	DFT-s OFDM QPSK	I	Close	40	18.0	17.21	0.11	Front	0	1	214	1:1		5	0.454	1.199	0.544	-
1 745	349000	DFT-s OFDM QPSK	I	Close	40	18.0	17.26	-0.12	Front	0	108	0	1:1		5	0.375	1.186	0.445	-
1 745	349000	DFT-s OFDM QPSK	I	Close	40	18.0	17.21	0.09	Right	0	1	214	1:1		5	0.980	1.199	**1.175**	C12
1 745	349000	DFT-s OFDM QPSK	I	Close	40	18.0	17.26	0.11	Right	0	108	0	1:1		5	0.842	1.186	0.999	-
1 745	349000	DFT-s OFDM QPSK	I	Close	40	18.0	17.32	0.18	Right	0	216	0	1:1		5	0.885	1.169	1.035	-
1 745	349000	DFT-s OFDM QPSK	I	Close	40	18.0	17.21	0.11	Top	0	1	214	1:1		5	0.014	1.199	0.017	-
1 745	349000	DFT-s OFDM QPSK	I	Close	40	18.0	17.26	0.18	Top	0	108	0	1:1		5	0.011	1.186	0.013	-
1 745	349000	DFT-s OFDM QPSK	I	Close	40	18.0	17.21	-0.10	Bottom	0	1	214	1:1		5	0.039	1.199	0.047	-
1 745	349000	DFT-s OFDM QPSK	I	Close	40	18.0	17.26	-0.10	Bottom	0	108	0	1:1		5	0.054	1.186	0.064	-
1 745	349000	CP OFDM QPSK	I	Close	40	18.0	17.35	0.10	Right	0	1	1	1:1		5	0.773	1.161	0.897	-
1 745	349000	DFT-s OFDM QPSK	I	Close	40	18.0	17.21	0.13	Right	0	1	214			5	0.976	1.199	1.170	#

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.

DTS Hotspot SAR

Frequency		Mode	Form Factor	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
2 412	1	802.11b	Open	Ant.1	20	1	19.0	17.86	-0.17	Rear	98.9	10	0.235	0.158	1.300	1.011	0.208	-
2 412	1	802.11b	Open	Ant.1	20	1	19.0	17.86	0.13	Front	98.9	10	0.223	0.147	1.300	1.011	0.193	-
2 412	1	802.11b	Open	Ant.1	20	1	19.0	17.86	-0.04	Left	98.9	10	0.343	0.22	1.300	1.011	0.289	-
2 412	1	802.11b	Open	Ant.1	20	1	19.0	17.86	0.11	Top	98.9	10	0.112	0.066	1.300	1.011	0.087	-
2 412	1	802.11b	Close	Ant.1	20	1	19.0	17.86	-0.11	Rear	98.9	5	0.0869	0.056	1.300	1.011	0.074	-
2 412	1	802.11b	Close	Ant.1	20	1	19.0	17.86	-0.13	Front	98.9	5	1.12	0.552	1.300	1.011	0.726	-
2 412	1	802.11b	Close	Ant.1	20	1	19.0	17.86	0.06	Left	98.9	5	0.994	0.564	1.300	1.011	**0.741**	C13
2 412	1	802.11b	Close	Ant.1	20	1	19.0	17.86	-0.19	Bottom	98.9	5	0.197	0.137	1.300	1.011	0.180	-
2 437	6	802.11b	Open	Ant.2	20	1	19.0	17.59	-0.16	Rear	98.9	10	0.188	0.123	1.384	1.011	0.172	-
2 437	6	802.11b	Open	Ant.2	20	1	19.0	17.59	0.11	Front	98.9	10	0.124	0.085	1.384	1.011	0.119	-
2 437	6	802.11b	Open	Ant.2	20	1	19.0	17.59	-0.16	Right	98.9	10	0.0206	0.013	1.384	1.011	0.018	-
2 437	6	802.11b	Open	Ant.2	20	1	19.0	17.59	0.08	Top	98.9	10	0.133	0.087	1.384	1.011	0.122	-
2 437	6	802.11b	Close	Ant.2	20	1	19.0	17.59	0.13	Rear	98.9	5	0.0906	0.059	1.384	1.011	0.083	-
2 437	6	802.11b	Close	Ant.2	20	1	19.0	17.59	0.16	Front	98.9	5	0.468	0.266	1.384	1.011	0.372	-
2 437	6	802.11b	Close	Ant.2	20	1	19.0	17.59	-0.07	Right	98.9	5	0.139	0.058	1.384	1.011	0.081	-
2 437	6	802.11b	Close	Ant.2	20	1	19.0	17.59	0.16	Bottom	98.9	5	0.153	0.099	1.384	1.011	0.139	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

5 GHz WLAN Hotspot SAR

Frequency		Mode	Form Factor	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
5 825	165	802.11a	Open	Ant.1	20	6	16.0	15.24	0.12	Rear	93.4	10	0.256	0.201	1.191	1.071	0.256	-
5 825	165	802.11a	Open	Ant.1	20	6	16.0	15.24	0.17	Front	93.4	10	0.147	0.121	1.191	1.071	0.154	-
5 825	165	802.11a	Open	Ant.1	20	6	16.0	15.24	-0.14	Left	93.4	10	0.246	0.174	1.191	1.071	0.222	-
5 825	165	802.11a	Open	Ant.1	20	6	16.0	15.24	-0.10	Top	93.4	10	0.094	0.069	1.191	1.071	0.088	-
5 825	165	802.11a	Close	Ant.1	20	6	16.0	15.24	0.05	Rear	93.4	5	0.075	0.051	1.191	1.071	0.065	-
5 825	165	802.11a	Close	Ant.1	20	6	16.0	15.24	-0.16	Front	93.4	5	0.314	0.247	1.191	1.071	0.315	-
5 825	165	802.11a	Close	Ant.1	20	6	16.0	15.24	-0.12	Left	93.4	5	0.149	0.124	1.191	1.071	0.158	-
5 825	165	802.11a	Close	Ant.1	20	6	16.0	15.24	-0.12	Bottom	93.4	5	0.199	0.133	1.191	1.071	0.170	-
5 745	149	802.11a	Open	Ant.2	20	6	16.0	15.42	-0.13	Rear	93.4	10	0.238	0.174	1.143	1.071	0.213	-
5 745	149	802.11a	Open	Ant.2	20	6	16.0	15.42	0.18	Front	93.4	10	0.139	0.105	1.143	1.071	0.128	-
5 745	149	802.11a	Open	Ant.2	20	6	16.0	15.42	-0.09	Right	93.4	10	0.072	0.046	1.143	1.071	0.056	-
5 745	149	802.11a	Open	Ant.2	20	6	16.0	15.42	0.06	Top	93.4	10	0.097	0.077	1.143	1.071	0.094	-
5 745	149	802.11a	Close	Ant.2	20	6	16.0	15.42	-0.15	Rear	93.4	5	0.071	0.048	1.143	1.071	0.059	-
5 745	149	802.11a	Close	Ant.2	20	6	16.0	15.42	0.14	Front	93.4	5	0.522	0.373	1.143	1.071	**0.456**	C14
5 745	149	802.11a	Close	Ant.2	20	6	16.0	15.42	-0.10	Right	93.4	5	0.125	0.105	1.143	1.071	0.128	-
5 745	149	802.11a	Close	Ant.2	20	6	16.0	15.42	-0.19	Bottom	93.4	5	0.176	0.129	1.143	1.071	0.158	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

DSS Tethering SAR													
Frequency		Mode	Form Factor	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Distance	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.				(dBm)	(dBm)	(dB)		(mm)	(W/kg)		(Duty)	(W/kg)	
2 402	0	Bluetooth DH5	Open	Ant.1	19.0	18.91	0.16	Rear	10	0.27	1.021	1.012	0.279	-
2 402	0	Bluetooth DH5	Open	Ant.1	19.0	18.91	-0.11	Front	10	0.178	1.021	1.012	0.184	-
2 402	0	Bluetooth DH5	Open	Ant.1	19.0	18.91	0.09	Left	10	0.221	1.021	1.012	0.228	-
2 402	0	Bluetooth DH5	Open	Ant.1	19.0	18.91	0.10	Top	10	0.073	1.021	1.012	0.075	-
2 402	0	Bluetooth DH5	Close	Ant.1	19.0	18.91	-0.13	Rear	5	0.061	1.021	1.012	0.063	-
2 402	0	Bluetooth DH5	Close	Ant.1	19.0	18.91	-0.03	Front	5	0.516	1.021	1.012	0.533	-
2 402	0	Bluetooth DH5	Close	Ant.1	19.0	18.91	-0.19	Left	5	0.604	1.021	1.012	**0.624**	C15
2 402	0	Bluetooth DH5	Close	Ant.1	19.0	18.91	-0.13	Bottom	5	0.140	1.021	1.012	0.145	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram						

13.4 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.

13.4.1 Phablet SAR Measurement Results

LTE FDD Band 2 Phablet SAR 10g																		
Frequency		Mode	Ant.	Form Factor	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)	
1 860	18700	QPSK	A	Open	20	20.3	19.33	-0.10	Rear	0	1	0	1:1		0	1.400	1.250	1.750	-
1 860	18700	QPSK	A	Open	20	20.3	19.34	0.09	Rear	0	50	25	1:1		0	1.410	1.247	1.758	-
1 860	18700	QPSK	A	Open	20	20.3	19.33	0.00	Front	0	1	49	1:1		0	1.460	1.250	1.825	-
1 860	18700	QPSK	A	Open	20	20.3	19.34	0.00	Front	0	50	25	1:1		0	1.350	1.247	1.683	-
1 860	18700	QPSK	A	Open	20	20.3	19.33	-0.13	Left	0	1	49	1:1		0	0.218	1.250	0.273	-
1 860	18700	QPSK	A	Open	20	20.3	19.34	-0.12	Left	0	50	25	1:1		0	0.202	1.247	0.252	-
1 860	18700	QPSK	A	Open	20	20.3	19.33	0.13	Right	0	1	49	1:1		0	0.113	1.250	0.141	-
1 860	18700	QPSK	A	Open	20	20.3	19.34	0.16	Right	0	50	25	1:1		0	0.104	1.247	0.130	-
1 860	18700	QPSK	A	Open	20	20.3	19.33	0.19	Bottom	0	1	49	1:1		0	1.100	1.250	1.375	-
1 860	18700	QPSK	A	Open	20	20.3	19.34	0.15	Bottom	0	50	25	1:1		0	1.030	1.247	1.284	-
1 900	19100	QPSK	I	Open	20	21.5	20.87	0.17	Rear	0	1	99	1:1		0	1.510	1.156	1.746	-
1 900	19100	QPSK	I	Open	20	21.5	20.70	0.14	Rear	0	50	25	1:1		0	1.610	1.202	1.935	-
1 900	19100	QPSK	I	Open	20	21.5	20.87	-0.12	Front	0	1	99	1:1		0	1.280	1.156	1.480	-
1 900	19100	QPSK	I	Open	20	21.5	20.70	0.11	Front	0	50	25	1:1		0	1.360	1.202	1.635	-
1 900	19100	QPSK	I	Open	20	21.5	20.87	0.10	Right	0	1	99	1:1		0	1.560	1.156	1.803	-
1 900	19100	QPSK	I	Open	20	21.5	20.70	0.11	Right	0	50	25	1:1		0	1.670	1.202	2.007	-
1 860	18700	QPSK	I	Open	20	21.5	20.69	0.12	Right	0	50	49	1:1		0	1.720	1.205	**2.073**	D1
1 880	18900	QPSK	I	Open	20	21.5	20.65	0.12	Right	0	50	49	1:1		0	1.670	1.216	2.031	-
1 900	19100	QPSK	I	Open	20	21.5	20.65	0.13	Right	0	100	0	1:1		0	1.660	1.216	2.019	-
1 900	19100	QPSK	I	Open	20	21.5	20.87	0.12	Top	0	1	99	1:1		0	0.102	1.156	0.118	-
1 900	19100	QPSK	I	Open	20	21.5	20.70	0.10	Top	0	50	25	1:1		0	0.107	1.202	0.129	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Hand 4.0 W/kg Averaged over 10 gram										

Note: # Data entry indicate Variability measurement.

LTE FDD Band 66 Phablet SAR 10g

Frequency		Mode	Ant.	Form Factor	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)	.
1 770	132572	QPSK	A	Open	20	20.3	19.30	0.14	Rear	1	49	20.3	1:1		0	1.720	1.259	2.165	-
1 720	132072	QPSK	A	Open	20	20.3	19.22	0.11	Rear	1	99	20.3	1:1		0	1.380	1.282	1.769	-
1 745	132322	QPSK	A	Open	20	20.3	19.21	0.18	Rear	1	0	20.3	1:1		0	1.600	1.285	2.056	-
1 745	132322	QPSK	A	Open	20	20.3	19.14	0.18	Rear	50	25	20.3	1:1		0	1.650	1.306	2.155	-
1 720	132072	QPSK	A	Open	20	20.3	19.05	0.13	Rear	50	0	20.3	1:1		0	1.400	1.334	1.868	-
1 770	132572	QPSK	A	Open	20	20.3	19.11	0.12	Rear	50	49	20.3	1:1		0	1.730	1.315	2.275	-
1 720	132072	QPSK	A	Open	20	20.3	19.24	0.15	Rear	100	0	20.3	1:1		0	1.410	1.276	1.799	-
1 770	132572	QPSK	A	Open	20	20.3	19.30	0.00	Front	1	49	20.3	1:1		0	1.580	1.259	1.989	-
1 745	132322	QPSK	A	Open	20	20.3	19.14	0.00	Front	50	25	20.3	1:1		0	1.520	1.306	1.985	-
1 770	132572	QPSK	A	Open	20	20.3	19.30	0.10	Left	1	49	20.3	1:1		0	0.108	1.259	0.136	-
1 745	132322	QPSK	A	Open	20	20.3	19.14	0.17	Left	50	25	20.3	1:1		0	0.129	1.306	0.168	-
1 770	132572	QPSK	A	Open	20	20.3	19.30	0.15	Right	1	49	20.3	1:1		0	0.113	1.259	0.142	-
1 745	132322	QPSK	A	Open	20	20.3	19.14	0.15	Right	50	25	20.3	1:1		0	0.127	1.306	0.166	-
1 770	132572	QPSK	A	Open	20	20.3	19.30	0.15	Bottom	1	49	20.3	1:1		0	1.310	1.259	1.649	-
1 745	132322	QPSK	A	Open	20	20.3	19.14	0.16	Bottom	50	25	20.3	1:1		0	1.400	1.306	1.828	-
1 745	132322	QPSK	I	Open	20	21.5	21.00	0.05	Rear	0	1	0	1:1		0	1.660	1.122	1.863	-
1 745	132322	QPSK	I	Open	20	21.5	20.84	0.19	Rear	0	50	25	1:1		0	1.700	1.164	1.979	-
1 745	132322	QPSK	I	Open	20	21.5	21.00	0.12	Front	0	1	0	1:1		0	1.470	1.122	1.649	-
1 745	132322	QPSK	I	Open	20	21.5	20.84	0.00	Front	0	50	25	1:1		0	1.470	1.164	1.711	-
1 745	132322	QPSK	I	Open	20	21.5	21.00	0.10	Right	0	1	0	1:1		0	2.270	1.122	2.547	-
1 720	132072	QPSK	I	Open	20	21.5	20.86	0.15	Right	0	1	49	1:1		0	2.340	1.159	2.712	-
1 770	132572	QPSK	I	Open	20	21.5	20.75	0.09	Right	0	1	49	1:1		0	2.310	1.189	2.747	-
1 745	132322	QPSK	I	Open	20	21.5	20.84	0.19	Right	0	50	25	1:1		0	2.260	1.164	2.631	-
1 720	132072	QPSK	I	Open	20	21.5	20.80	0.17	Right	0	50	49	1:1		0	2.410	1.175	2.832	-
1 770	132572	QPSK	I	Open	20	21.5	20.69	0.11	Right	0	50	49	1:1		0	2.370	1.205	**2.856**	D2
1 720	132072	QPSK	I	Open	20	21.5	20.82	0.13	Right	0	100	0	1:1		0	2.430	1.169	2.841	-
1 745	132322	QPSK	I	Open	20	21.5	21.00	0.12	Top	0	1	0	1:1		0	0.123	1.122	0.138	-
1 745	132322	QPSK	I	Open	20	21.5	20.84	0.10	Top	0	50	25	1:1		0	0.121	1.164	0.141	-
1 720	132072	QPSK	I	Open	20	21.5	20.82	0.10	Right	0	100	0	1:1		0	2.420	1.169	2.829	#

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Hand 4.0 W/kg Averaged over 10 gram

Note: # Data entry indicate Variability measurement.

NR FDD Band n66 Phablet SAR 10g																			
Frequency		Mode	Ant.	Form Factor	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)	
1 745	349000	DFT-s OFDM QPSK	A	Open	40	20.3	19.32	0.05	Rear	0	1	108	1:1		0	1.91	1.253	2.393	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	20.3	19.38	0.00	Rear	0	108	0	1:1		0	2.02	1.236	**2.497**	**D3**
1 745	349000	DFT-s OFDM QPSK	A	Open	40	20.3	19.29	0.00	Rear	0	216	0	1:1		0	1.97	1.262	2.486	**-**
1 745	349000	DFT-s OFDM QPSK	A	Open	40	20.3	19.32	-0.10	Front	0	1	108	1:1		0	1.39	1.253	1.742	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	20.3	19.38	0.00	Front	0	108	0	1:1		0	1.47	1.236	1.817	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	20.3	19.32	0.10	Left	0	1	108	1:1		0	0.2	1.253	0.251	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	20.3	19.38	0.10	Left	0	108	0	1:1		0	0.197	1.236	0.243	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	20.3	19.32	0.19	Right	0	1	108	1:1		0	0.14	1.253	0.175	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	20.3	19.38	0.17	Right	0	108	0	1:1		0	0.136	1.236	0.168	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	20.3	19.32	0.04	Bottom	0	1	108	1:1		0	1.46	1.253	1.829	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	20.3	19.38	0.17	Bottom	0	108	0	1:1		0	1.61	1.236	1.990	-
1 745	349000	CP OFDM QPSK	A	Open	40	20.3	19.36	-0.10	Rear	0	1	1	1:1		0	1.75	1.242	2.174	-
1 745	349000	DFT-s OFDM QPSK	A	Open	40	20.3	19.38	0.16	Rear	0	108	0	1:1		0	1.92	1.236	2.373	#
1 745	349000	DFT-s OFDM QPSK	I	Open	40	21.5	21.27	0.00	Rear	0	1	1	1:1		0	1.58	1.054	1.665	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	21.5	21.36	0.00	Rear	0	108	54	1:1		0	1.62	1.033	1.673	**-**
1 745	349000	DFT-s OFDM QPSK	I	Open	40	21.5	21.27	0.12	Front	0	1	1	1:1		0	1.57	1.054	1.655	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	21.5	21.36	0.00	Front	0	108	54	1:1		0	1.58	1.033	1.632	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	21.5	21.27	0.12	Right	0	1	1	1:1		0	2.11	1.054	2.224	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	21.5	21.36	0.11	Right	0	108	54	1:1		0	2.04	1.033	2.107	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	21.5	21.32	0.10	Right	0	216	0	1:1		0	2.07	1.042	2.157	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	21.5	21.27	0.18	Top	0	1	1	1:1		0	0.126	1.054	0.133	-
1 745	349000	DFT-s OFDM QPSK	I	Open	40	21.5	21.36	0.17	Top	0	108	54	1:1		0	0.12	1.033	0.124	-
1 745	349000	CP OFDM QPSK	I	Open	40	21.5	21.22	0.15	Right	0	1	1	1:1		0	2.15	1.067	2.294	-
1 745	349000	CP OFDM QPSK	I	Open	40	21.5	21.22	0.10	Right	0	1	1	1:1		0	2.12	1.067	2.262	#

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Hand 4.0 W/kg Averaged over 10 gram

Note: # Data entry indicate Variability measurement.

5 GHz WLAN Phablet SAR _10g																	
Frequency		Mode	Form Factor	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																	
5 260	52	802.11a	Open	Ant.1	20	6	16.0	14.17	0.00	Rear	93.4	0	4.63	0.344	1.524	1.071	0.561	-
5 260	52	802.11a	Open	Ant.1	20	6	16.0	14.17		Front	93.4	0	4.54		1.524	1.071		-
5 260	52	802.11a	Open	Ant.1	20	6	16.0	14.17	0.17	Left	93.4	0	7.23	0.613	1.524	1.071	1.000	-
5 280	56	802.11a	Open	Ant.1	20	6	16.0	14.12	0.11	Left	93.4	0	8.06	0.630	1.542	1.071	**1.040**	**D4**
5 260	52	802.11a	Open	Ant.1	20	6	16.0	14.17	0.17	Top	93.4	0	1.22	0.137	1.524	1.071	0.224	-
5 720	144	802.11a	Open	Ant.1	20	6	16.0	15.42	0.00	Rear	93.4	0	4.09	0.310	1.143	1.071	0.379	-
5 720	144	802.11a	Open	Ant.1	20	6	16.0	15.42	0.00	Front	93.4	0	3.33	0.304	1.143	1.071	0.372	-
5 720	144	802.11a	Open	Ant.1	20	6	16.0	15.42	0.08	Left	93.4	0	6.96	0.600	1.143	1.071	0.734	-
5 720	144	802.11a	Open	Ant.1	20	6	16.0	15.42		Top	93.4	0	1.84		1.143	1.071		-
5 865	173	802.11a	Open	Ant.1	20	6	16.0	15.42	-0.01	Rear	93.4	0	2.26	0.378	1.143	1.071	0.463	-
5 865	173	802.11a	Open	Ant.1	20	6	16.0	15.42	0.11	Front	93.4	0	1.21	0.309	1.143	1.071	0.378	-
5 865	173	802.11a	Open	Ant.1	20	6	16.0	15.42	0.08	Left	93.4	0	3.33	0.552	1.143	1.071	0.676	-
5 865	173	802.11a	Open	Ant.1	20	6	16.0	15.42	0.05	Top	93.4	0	1.04	0.152	1.143	1.071	0.186	-
5 280	56	802.11a	Open	Ant.2	20	6	16.0	14.32	-0.11	Rear	93.4	0	3.07	0.537	1.472	1.071	0.846	-
5 280	56	802.11a	Open	Ant.2	20	6	16.0	14.32		Front	93.4	0	2.91		1.472	1.071		-
5 280	56	802.11a	Open	Ant.2	20	6	16.0	14.32		Right	93.4	0	2.01		1.472	1.071		-
5 280	56	802.11a	Open	Ant.2	20	6	16.0	14.32	0.11	Top	93.4	0	3.2	0.281	1.472	1.071	0.443	-
5 620	124	802.11a	Open	Ant.2	20	6	16.0	15.98		Rear	93.4	0	5.98		1.005	1.071		-
5 620	124	802.11a	Open	Ant.2	20	6	16.0	15.98	0.00	Front	93.4	0	6.22	0.370	1.005	1.071	0.398	-
5 620	124	802.11a	Open	Ant.2	20	6	16.0	15.98		Right	93.4	0	1.53		1.005	1.071		-
5 620	124	802.11a	Open	Ant.2	20	6	16.0	15.98		Top	93.4	0	2.56		1.005	1.071		-
5 845	169	802.11a	Open	Ant.2	20	6	16.0	15.22	0.12	Rear	93.4	0	5.57	0.368	1.197	1.071	0.472	-
5 845	169	802.11a	Open	Ant.2	20	6	16.0	15.22	0.11	Front	93.4	0	7.32	0.362	1.197	1.071	0.464	-
5 845	169	802.11a	Open	Ant.2	20	6	16.0	15.22	0.12	Left	93.4	0	0.117	0.008	1.197	1.071	0.010	-
5 845	169	802.11a	Open	Ant.2	20	6	16.0	15.22	0.15	Top	93.4	0	5.54	0.166	1.197	1.071	0.213	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population													Hand 4.0 W/kg Averaged over 10 gram					

DSS Phablet SAR _10g													
Frequency		Mode	Form Factor	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	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	Open	Ant.2	18.0	17.63	0.16	Rear	0	0.143	1.089	1.012	0.158	-
2 441	39	Bluetooth DH5	Open	Ant.2	18.0	17.63	0.17	Front	0	0.498	1.089	1.012	**0.549**	**D5**
2 441	39	Bluetooth DH5	Open	Ant.2	18.0	17.63	-0.18	Right	0	0.475	1.089	1.012	0.523	-
2 441	39	Bluetooth DH5	Open	Ant.2	18.0	17.63	0.15	Top	0	0.159	1.089	1.012	0.175	-
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 _10g							
Frequency	Mode	Data Rate	Power Drift	Test Position	Distance	Meas. SAR	Plot No.
MHz		(Kbps)	(dB)		(mm)	(W/kg)	
13.56	NFC (Type A)	106	0.00	Rear	0	0.00638	-
13.56	NFC (Type B)	106	0.00	Rear	0	**0.007**	**D6**
13.56	NFC (Type F)	106	0.00	Rear	0	0.00000116	-
13.56	NFC (Type B)	106	-	Front	0	0	-
13.56	NFC (Type B)	106	0.00	Left	0	0	-
13.56	NFC (Type B)	106	0.00	Right	0	0	-
13.56	NFC (Type B)	106	0.00	Top	0	0	-
13.56	NFC (Type B)	106	0.00	Bottom	0	0	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population				Hand 4.0 W/kg Averaged over 10 gram			

13.5 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 D04v06.
6. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 10 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 hotspot operation (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 D04v06, 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 D04v06, 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 D04v06, 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. 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 implemeatation. 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.

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 GHzWiFi 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 GHzWiFi 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 ration 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 rated, 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 D01v06 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 ≤1.6W/kg for 1g SAR and ≤4 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 D01v06 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 ≤1.6 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 the Qualcomm® Smart Transmit Gen2 feature with no antenna grouping. This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time, therefore simultaneous transmission compliance between WWAN Sub6/WLAN/Bluetooth operation is demonstrated in the Part 2 Report during algorithm validation.

When operating in the same antenna group, Qualcomm Smart Transmit algorithm in WWAN/WLAN directly adds the time-averaged RF exposure(LTE+ sub6 NR, Inter-band ULCA, WLAN DBS). Smart Transmit algorithm controls the total RF exposure(LTE+ sub6 NR, Inter-band ULCA, WLAN DBS) to not exceed FCC limit. Therefore, simultaneous transmission compliance between SARradio1 + SAR radio2 operations within an antenna group is demonstrated in the Part 2 Report during algorithm validation.

14.1 Phablet (DSI = 0) Simultaneous Transmission Analysis

Per FCC KDB Publication 648474 D04 Handset SAR, Phablet SAR tests were not required if wireless router reported 1g SAR < 1.2W/kg. Therefore, no further analysis beyond tables included in this section was required to determine that possible simultaneous transmission analysis would not exceed the SAR limit.

Position	Main/WLAN/ Bluetooth 10g SAR[W/kg	NFC 10g SAR[W/kg]	SUM 10g SAR [W/kg]
Rear	2.497	0.007	2.504
Front	1.989	0	1.989
Left	1.040	0	1.040
Right	2.856	0	**2.856**
Top	0.443	0	0.443
Bottom	1.990	0	1.990

Table 14.1 Phablet (DSI=0) Simultaneous Scenario with NFC

14.2 Conclusion

The above numerical summed SAR results is sufficient to show that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01V06 and IEEE 1528-2013 Section 6.3.4.1

15. SAR Measurement Variability and Uncertainty

In accordance with KDB procedure 865664 D01v01r04 SAR measurement 100 ㎒ to 6 ㎓, 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 ≥ 2.0W/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 (~ 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

Body-Worn SAR measurement variability Results

Frequency		Mode/Band	Configuration	Measured SAR (W/kg)	Repeated SAR (W/kg)	SAR Ratio
㎒	Channel					
1 900	19100	LTE Band 2 Ant A Open	Rear	0.884	0.886	1.00
1 770	132572	LTE Band 66 Ant A Open	Rear	0.821	0.810	1.01
1 770	132572	LTE Band 66 Ant I Open	Rear	0.820	0.808	1.01
1 745	349000	NR Band n66 Ant A Open	Rear	0.947	0.952	1.00
1 745	349000	NR Band n66 Ant I Open	Rear	0.959	0.956	1.00

Hotspot SAR measurement variability Results

Frequency		Mode/Band	Configuration	Measured SAR (W/kg)	Repeated SAR (W/kg)	SAR Ratio
㎒	Channel					
1 900	19100	LTE Band 2 Ant A Close	Bottom	0.979	0.972	1.00
1 900	19100	LTE Band 2 Ant I Close	Right	0.901	0.899	1.00
2 680	41490	LTE Band 41 Ant I Close	Right	0.895	0.814	1.10
1 770	132572	LTE Band 66 Ant I Close	Right	0.911	0.911	1.00
1 745	349000	Nr Band n66 Ant I Close	Right	0.980	0.976	1.00

Phablet SAR measurement variability Results

Frequency		Mode/Band	Configuration	Measured SAR (W/kg)	Repeated SAR (W/kg)	SAR Ratio
㎒	Channel					
1 720	132072	LTE Band 66 Ant I Open	Right	2.43	2.42	1.00
1 745	349000	NR Band n66 Ant A Oepn	Rear	2.02	1.92	1.05
1 745	349000	NR Band n66 Ant I Open	Right	2.15	2.12	1.01

16. 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.

17. SAR Test Equipment

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	SAM Phantom	-	N/A	N/A	N/A
SPEAG	ELI Phantom	-	N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F11/5K3RA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F12/5K9GA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F17/59RAA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/5R4XF1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F08/5AJ0A1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX60L	F/20/0018446/C/001	N/A	N/A	N/A
Staubli	CS8Cspeag-TX60L	F10/5D1CA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/5SD0A1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F07/55B8A1/C/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F11/5K3RA1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F12/5K9GA1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F17/59RAA1/A/01	N/A	N/A	N/A
Staubli	TX90 Xlspeag	F13/5R4XF1/A/01	N/A	N/A	N/A
Staubli	TX90 Xlspeag	F08/5AJ0A1/A/01	N/A	N/A	N/A
Staubli	TX60 Xlspeag	F/20/0018446/A/001	N/A	N/A	N/A
Staubli	TX60 Xlspeag	F10/5D1CA1/A/01	N/A	N/A	N/A
Staubli	TX90 Xl speag	F13/ 5SD0A1/A/01	N/A	N/A	N/A
Staubli	TX90 Xl speag	F07/55B8A1/A/01	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1203 0309	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1206 0513	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	011578	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1338 1332	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0008	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	020885	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0123	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	001729	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0306	N/A	N/A	N/A
TESTO	175-H1/Thermometer	40331922309	12/26/2023	Annual	12/26/2024
TESTO	175-H1/Thermometer	40331939309	12/26/2023	Annual	12/26/2024
TESTO	175-H1/Thermometer	40331922309	12/26/2023	Annual	12/26/2024
TESTO	175-H1/Thermometer	40332651310	12/26/2023	Annual	12/26/2024
TESTO	175-H1/Thermometer	40331949309	12/26/2023	Annual	12/26/2024
TESTO	175-H1/Thermometer	44606611906	03/20/2024	Annual	03/20/2025
TESTO	175-H1/Thermometer	44606559906	03/20/2024	Annual	03/20/2025
TESTO	608-H1/Thermometer	83348029	03/20/2024	Annual	03/20/2025
TESTO	608-H1/Thermometer	83348021	03/20/2024	Annual	03/20/2025
SPEAG	DAE4	1720	04/19/2024	Annual	04/19/2025
SPEAG	DAE4	868	09/20/2023	Annual	09/20/2024
SPEAG	DAE4	780	07/04/2023	Annual	07/04/2024
SPEAG	DAE4	1417	02/16/2024	Annual	02/16/2025
SPEAG	DAE4	446	11/16/2023	Annual	11/16/2024
SPEAG	DAE4	504	01/30/2024	Annual	01/30/2025
SPEAG	DAE4	652	01/17/2024	Annual	01/17/2025
SPEAG	DAE4	1464	06/16/2023	Annual	06/16/2024
SPEAG	DAE4	1629	08/21/2023	Annual	08/21/2024

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	E-Field Probe EX3DV4	3968	09/27/2023	Annual	09/27/2024
SPEAG	E-Field Probe EX3DV4	3903	07/19/2023	Annual	07/19/2024
SPEAG	E-Field Probe ES3DV3	3076	07/18/2023	Annual	07/18/2024
SPEAG	E-Field Probe EX3DV4	7654	05/24/2023	Annual	05/24/2024
SPEAG	E-Field Probe EX3DV4	7681	11/27/2023	Annual	11/27/2024
SPEAG	E-Field Probe EX3DV4	7370	08/24/2023	Annual	08/24/2024
SPEAG	E-Field Probe EX3DV4	3768	07/18/2023	Annual	07/18/2024
SPEAG	E-Field Probe EX3DV4	7751	10/06/2023	Annual	10/06/2024
SPEAG	E-Field Probe EX3DV4	7732	06/20/2023	Annual	06/20/2024
SPEAG	E-Field Probe EX3DV4	7309	06/19/2023	Annual	06/19/2024
SPEAG	E-Field Probe EX3DV4	7622	11/24/2023	Annual	11/24/2024
SPEAG	CLA13	1016	09/21/2023	Annual	09/21/2024
SPEAG	Dipole D750V3	1014	05/23/2023	Annual	05/23/2024
SPEAG	Dipole D835V2	441	04/18/2024	Annual	04/18/2025
SPEAG	Dipole D1800V2	2d007	04/15/2024	Annual	04/15/2025
SPEAG	Dipole D1900V2	5d032	01/18/2024	Annual	01/18/2025
SPEAG	Dipole D2450V2	743	03/14/2024	Annual	03/14/2025
SPEAG	Dipole D2600V2	1015	04/22/2024	Annual	04/22/2025
SPEAG	Dipole D5GHzV2	1107	04/19/2024	Annual	04/19/2025
Agilent	Power Meter E4419B	MY41291386	09/21/2023	Annual	09/21/2024
Agilent	Power Meter N1911A	MY45101406	05/26/2023	Annual	05/26/2024
Agilent	Power Sensor 8481A	SG1091286	09/21/2023	Annual	09/21/2024
H.P	Power Sensor 8481A	MY41090675	09/21/2023	Annual	09/21/2024
Agilent	Wideband Power Sensor N1921A	MY55220026	07/28/2023	Annual	07/28/2024
Agilent	11636B/Power Divider	58698	01/15/2024	Annual	01/15/2025
SPEAG	DAKS 3.5	1038	01/22/2024	Annual	01/22/2025
SPEAG	DAKS VAN R140	0141013	01/11/2024	Annual	01/11/2025
SPEAG	Vector Reflectometer	21393001	03/21/2024	Annual	03/21/2025
SPEAG	MXA Signal Analyzer	MY49100108	01/09/2024	Annual	01/09/2025
H.P	Network Analyzer /8753ES	JP39240221	12/26/2023	Annual	12/26/2024
Protek	NETWORK ANALYZER	X11-15305	02/15/2024	Annual	02/15/2025
Agilent	WIRELESS COMMUNICATION E5515C	MY48361100	09/21/2023	Annual	09/21/2024
Agilent	WIRELESS COMMUNICATION E5515C	MY48360252	07/27/2023	Annual	07/27/2024
R&S	Wireless Communication Test Set CMW500	115733	03/19/2024	Annual	03/19/2025
R&S	Wireless Communication Test Set CMW500	139333	12/13/2023	Annual	12/13/2024
Agilent	SIGNAL GENERATOR N5182A	MY47070230	03/19/2024	Annual	03/19/2025
Keysight	PSG Vector Signal Generator	MY50350097	03/05/2024	Annual	03/05/2025
EMPOWER	RF Power Amplifier	1084	05/26/2023	Annual	05/26/2024
EMPOWER	RF Power Amplifier	1041D/C0508	05/26/2023	Annual	05/26/2024
EMPOWER	RF Power Amplifier	1011	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-15N	10453	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-30N	-	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-60N	32011	09/21/2023	Annual	09/21/2024
Agilent	Attenuator (3dB) 8693B	MY39260298	08/22/2023	Annual	08/22/2024
HP	Attenuator (3dB) 33340A	02427	08/22/2023	Annual	08/22/2024
HP	Attenuator (20dB) 8493C	09271	08/22/2023	Annual	08/22/2024
Narda	DIRECTIONAL COUPLER	07066	01/08/2024	Annual	01/08/2025

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
OSI	Power Divider	#1	05/26/2023	Annual	05/26/2024
OSI	Power Divider	#2	05/26/2023	Annual	05/26/2024
OSI	Power Divider	#3	05/26/2023	Annual	05/26/2024
OSI	Power Divider	#4	05/26/2023	Annual	05/26/2024
Agilent	MXA Signal Analyzer N9020A	MY50510407	06/07/2023	Annual	06/07/2024
HP	Dual Directional Coupler	16072	09/21/2023	Annual	09/21/2024
Anritsu	Radio Communication Test Station MT8000A	6261987928	01/18/2024	Annual	01/18/2025
Anritsu	Radio Communication Test Station MT8000A	6262036812	11/28/2023	Annual	11/28/2024
Anritsu	Radio Communication Test Station MT8000A	6262148305	12/21/2023	Annual	12/21/2024
Anritsu	Radio Communication Tester MT8820C	6201074225	01/17/2024	Annual	01/17/2025
Anritsu	Radio Communication Tester MT8820C	6200695605	03/19/2024	Annual	03/19/2025
Anritsu	Radio Communication Tester MT8821C	6201502997	05/26/2023	Annual	05/26/2024
Anritsu	Radio Communication Tester MT8821C	6262044720	11/28/2023	Annual	11/28/2024
Anritsu	Radio Communication Tester MT8821C	6201664725	01/17/2024	Annual	01/17/2025
Agilent	WIRELESS COMMUNICATION E5515C	MY50260992	05/26/2023	Annual	05/26/2024
ROHDE&SCHWARZ	BLUETOOTH TESTER CBT	100272	01/16/2024	Annual	01/16/2025

* 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.

18. 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 abortion and distribution of electromagnetic energy in the body are very complex phenomena the 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.

19 References

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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-2405-FC010-P