

Testing Appendix

Appendix C. Tissue & System Verification

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

Note:

1. For Section 3.3, the dielectric properties of the tissue simulating liquid have been measured within 24 hours before the SAR testing and within $\pm 10\%$ of the target values. Liquid temperature during the SAR testing has kept within $\pm 2^\circ\text{C}$.
2. For Section 3.3, Comparing to the reference SAR value provided by SPEAG in dipole calibration certificate, the deviation of system check results is within its specification of 10 %. The result indicates the system check can meet the variation criterion and the plots please refer to Appendix A of this report.
3. For Section 3.4, The SAR measurement system was validated according to procedures in KDB 865664 D01. The validation status in tabulated summary is as below.



SAR Test Record - Tissue & System Verification

Tissue Verification									Date	System Validation					Note		
Tissue Type	Frequency (MHz)	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Targeted Conductivity (σ)	Targeted Permittivity (ϵ_r)	Deviation Conductivity (σ)	Deviation Permittivity (ϵ_r)		Frequency (MHz)	Targeted SAR (W/kg)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
H2450	2450	20.7	1.850	38.500	1.80	39.2	2.78	-1.79	20 Oct, 2023	2450	52.60	13.10	52.40	-0.38	716	7300	1397
H5G	5300	22.1	4.780	35.700	4.76	35.9	0.42	-0.56	20 Oct, 2023	5300	80.50	8.37	83.70	3.98	1018	7762	1748
H5G	5300	22.4	4.870	35.400	4.76	35.9	2.31	-1.39	23 Oct, 2023	5300	80.50	7.98	79.80	-0.87	1018	7762	1748
H5G	5600	22.1	5.100	35.100	4.96	35.6	2.82	-1.40	20 Oct, 2023	5600	80.10	8.33	83.30	4.00	1018	7762	1748
H5G	5600	22.4	5.190	34.800	4.96	35.6	4.64	-2.25	23 Oct, 2023	5600	80.10	8.32	83.20	3.87	1018	7762	1748
H5G	5800	22.1	5.310	34.700	5.27	35.3	0.76	-1.70	20 Oct, 2023	5800	79.10	8.22	82.20	3.92	1018	7762	1748
H6500	6500	20.8	6.120	34.600	6.07	34.5	0.82	0.29	19 Oct, 2023	6500	291.00	28.90	289.00	-0.69	1035	7300	1397



PD Test Record - System Verification

Verification								Note			
Frequency (GHz)	Ambient Temp. (°C)	Date	Reference Signal (100mW)	Normalized Targeted SAR (W/m ²) Square_4cm ²	Measured PD (W/m ²)	Normalized PD (W/m ²)	Deviation (%)	Verificaion Source S/N	Probe S/N	DAE S/N	SAR (1cm ² or 4cm ²)
10	22.3	26 Oct, 2023	100	0.62	62.60	0.63	1.58	1057	9671	1748	4cm ²
10	22.4	27 Oct, 2023	100	0.62	60.80	0.61	-1.35	1057	9671	1748	4cm ²
10	22.1	30 Oct, 2023	100	0.62	59.40	0.59	-3.62	1057	9671	1748	4cm ²

Testing Appendix

Appendix D. Maximum Target Conducted Power

The maximum conducted average power (Unit: dBm) including tune-up tolerance is shown as below.

Power (Full)			
WLAN2.4GHz Ant Aux			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11b	1	2412	17
	6	2437	17
	11	2462	17
	12	2467	17
	13	2472	17
802.11g	1	2412	17
	6	2437	17
	11	2462	17
	12	2467	15.5
	13	2472	12.5
802.11n HT20	1	2412	17
	6	2437	17
	11	2462	17
	12	2467	13
	13	2472	9.5
802.11n HT40	3	2422	16.5
	6	2437	17
	9	2452	13.5
	10	2457	13
	11	2462	11.5
802.11ax HE20	1	2412	17
	6	2437	17
	11	2462	16.75
	12	2467	14.5
	13	2472	11.5
802.11ax HE40	3	2422	16.5
	6	2437	17
	9	2452	14
	10	2457	13
	11	2462	11.5

Power (Full)			
WLAN2.4GHz Ant Main			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11b	1	2412	17
	6	2437	17
	11	2462	17
	12	2467	17
	13	2472	16.5
802.11g	1	2412	17
	6	2437	17
	11	2462	17
	12	2467	15.5
	13	2472	12.5
802.11n HT20	1	2412	17
	6	2437	17
	11	2462	17
	12	2467	13.5
	13	2472	10.5
802.11n HT40	3	2422	14
	6	2437	17
	9	2452	14
	10	2457	12.75
	11	2462	10.25
802.11ax HE20	1	2412	17
	6	2437	17
	11	2462	17
	12	2467	14.5
	13	2472	11.5
802.11ax HE40	3	2422	15.75
	6	2437	17
	9	2452	14
	10	2457	12.75
	11	2462	10.25

Power (Full)					
WLAN2.4GHz Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MAX Tune-up Power(dBm) (include tolerance)
802.11g	1	2412	11.5	11.5	14.5
	6	2437	11.5	11.5	14.5
	11	2462	11.5	11.5	14.5
	12	2467	9	9	12
	13	2472	6	6	9
802.11n HT20	1	2412	11.5	11.5	14.5
	6	2437	11.5	11.5	14.5
	11	2462	11.5	11.5	14.5
	12	2467	9	9	12
	13	2472	6	6	9
802.11n HT40	3	2422	10.5	10.5	13.5
	6	2437	11.5	11.5	14.5
	9	2452	11	11	14
	10	2457	7	7	10
	11	2462	5	5	8
802.11ax HE20	1	2412	11.5	11.5	14.5
	6	2437	11.5	11.5	14.5
	11	2462	11	11	14
	12	2467	9	9	12
	13	2472	6	6	9
802.11ax HE40	3	2422	10.5	10.5	13.5
	6	2437	11.5	11.5	14.5
	9	2452	11	11	14
	10	2457	7	7	10
	11	2462	5	5	8

Power (Full)			
Bluetooth Ant Aux			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
BR GFSK	0	2402	10.5
	39	2441	10.5
	78	2480	10.5
EDR DQPSK	0	2402	7
	39	2441	7
	78	2480	7
EDR 8DPSK	0	2402	7
	39	2441	7
	78	2480	7
LE-1M	0	2402	10
	19	2440	10
	39	2480	10
LE-2M	0	2402	10
	19	2440	10
	39	2480	10

Power (Full)			
WLAN 5.2GHz Ant Aux			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11a	36	5180	15.5
	40	5200	15.5
	44	5220	15.5
	48	5240	15.5
802.11n HT20	36	5180	15.5
	40	5200	15.5
	44	5220	15.5
	48	5240	15.5
802.11n HT40	38	5190	15.5
	46	5230	15.5
802.11ac VHT20	36	5180	15.5
	40	5200	15.5
	44	5220	15.5
	48	5240	15.5
802.11ac VHT40	38	5190	15.5
	46	5230	15.5
802.11ac VHT80	42	5210	15.5
802.11ax HE20	36	5180	15.5
	40	5200	15.5
	44	5220	15.5
	48	5240	15.5
802.11ax HE40	38	5190	15.5
	46	5230	15.5
802.11ax HE80	42	5210	15.5

Power (Full)			
WLAN 5.2GHz Ant Main			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11a	36	5180	15.5
	40	5200	15.5
	44	5220	15.5
	48	5240	15.5
802.11n HT20	36	5180	15.5
	40	5200	15.5
	44	5220	15.5
	48	5240	15.5
802.11n HT40	38	5190	15.5
	46	5230	15.5
802.11ac VHT20	36	5180	15.5
	40	5200	15.5
	44	5220	15.5
	48	5240	15.5
802.11ac VHT40	38	5190	15.5
	46	5230	15.5
802.11ac VHT80	42	5210	15.5
802.11ax HE20	36	5180	15.5
	40	5200	15.5
	44	5220	15.5
	48	5240	15.5
802.11ax HE40	38	5190	15.5
	46	5230	15.5
802.11ax HE80	42	5210	15.5

Power (Full)					
WLAN 5.2GHz Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MAX Tune-up Power(dBm) (include tolerance)
802.11a	36	5180	10	10	13
	40	5200	10	10	13
	44	5220	10	10	13
	48	5240	10	10	13
802.11n HT20	36	5180	10	10	13
	40	5200	10	10	13
	44	5220	10	10	13
	48	5240	10	10	13
802.11n HT40	38	5190	10	10	13
	46	5230	10	10	13
802.11ac VHT20	36	5180	10	10	13
	40	5200	10	10	13
	44	5220	10	10	13
	48	5240	10	10	13
802.11ac VHT40	38	5190	10	10	13
	46	5230	10	10	13
802.11ac VHT80	42	5210	10	10	13
802.11ax HE20	36	5180	10	10	13
	40	5200	10	10	13
	44	5220	10	10	13
	48	5240	10	10	13
802.11ax HE40	38	5190	10	10	13
	46	5230	10	10	13
802.11ax HE80	42	5210	10	10	13

Power (Full)			
WLAN 5.3GHz Ant Aux			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11a	52	5260	15.5
	56	5280	15.5
	60	5300	15.5
	64	5320	15.5
802.11n HT20	52	5260	15.5
	56	5280	15.5
	60	5300	15.5
	64	5320	15.5
802.11n HT40	54	5270	15.5
	62	5310	15.5
802.11ac VHT20	52	5260	15.5
	56	5280	15.5
	60	5300	15.5
	64	5320	15.5
802.11ac VHT40	54	5270	15.5
	62	5310	15.5
802.11ac VHT80	58	5290	15.5
802.11ac VHT160	50	5250	14
802.11ax HE20	52	5260	15.5
	56	5280	15.5
	60	5300	15.5
	64	5320	15.5
802.11ax HE40	54	5270	15.5
	62	5310	15.5
802.11ax HE80	58	5290	15.5
802.11ax HE160	50	5250	14

Power (Full)			
WLAN 5.3GHz Ant Main			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11a	52	5260	15.5
	56	5280	15.5
	60	5300	15.5
	64	5320	15.5
802.11n HT20	52	5260	15.5
	56	5280	15.5
	60	5300	15.5
	64	5320	15.5
802.11n HT40	54	5270	15.5
	62	5310	15.5
802.11ac VHT20	52	5260	15.5
	56	5280	15.5
	60	5300	15.5
	64	5320	15.5
802.11ac VHT40	54	5270	15.5
	62	5310	15.5
802.11ac VHT80	58	5290	15.5
802.11ac VHT160	50	5250	14
802.11ax HE20	52	5260	15.5
	56	5280	15.5
	60	5300	15.5
	64	5320	15.5
802.11ax HE40	54	5270	15.5
	62	5310	15.5
802.11ax HE80	58	5290	15.5
802.11ax HE160	50	5250	14

Power (Full)					
WLAN 5.3GHz Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MAX Tune-up Power(dBm) (include tolerance)
802.11a	52	5260	10.0	10.0	13
	56	5280	10.0	10.0	13
	60	5300	10.0	10.0	13
	64	5320	10.0	10.0	13
802.11n HT20	52	5260	10.0	10.0	13
	56	5280	10.0	10.0	13
	60	5300	10.0	10.0	13
	64	5320	10.0	10.0	13
802.11n HT40	54	5270	10.0	10.0	13
	62	5310	10.0	10.0	13
802.11ac VHT20	52	5260	10.0	10.0	13
	56	5280	10.0	10.0	13
	60	5300	10.0	10.0	13
	64	5320	10.0	10.0	13
802.11ac VHT40	54	5270	10.0	10.0	13
	62	5310	10.0	10.0	13
802.11ac VHT80	58	5290	10.0	10.0	13
802.11ac VHT160	50	5250	8.5	8.5	11.5
802.11ax HE20	52	5260	10.0	10.0	13
	56	5280	10.0	10.0	13
	60	5300	10.0	10.0	13
	64	5320	10.0	10.0	13
802.11ax HE40	54	5270	10.0	10.0	13
	62	5310	10.0	10.0	13
802.11ax HE80	58	5290	10.0	10.0	13
802.11ax HE160	50	5250	8.5	8.5	11.5

Power (Full)			
WLAN 5.6GHz Ant Aux			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11a	100	5500	14
	116	5580	14
	120	5600	14
	124	5620	14
	132	5660	14
	140	5700	14
	144	5720	14
802.11n HT20	100	5500	14
	116	5580	14
	120	5600	14
	124	5620	14
	128	5640	14
	132	5660	14
	140	5700	14
802.11n HT40	102	5510	14
	110	5550	14
	118	5590	14
	126	5630	14
	128	5640	14
	134	5670	14
	142	5710	14
802.11ac VHT20	100	5500	14
	116	5580	14
	120	5600	14
	124	5620	14
	128	5640	14
	132	5660	14
	140	5700	14
802.11ac VHT40	102	5510	14
	110	5550	14
	118	5590	14
	126	5630	14
	134	5670	14
	142	5710	14
802.11ac VHT80	106	5530	14
	122	5610	14
	138	5690	14
802.11ac VHT160	114	5570	14
802.11ax HE20	100	5500	14
	116	5580	14
	120	5600	14
	124	5620	14
	128	5640	14
	132	5660	14
	140	5700	14
802.11ax HE40	102	5510	14
	110	5550	14
	118	5590	14
	126	5630	14
	134	5670	14
	142	5710	14
802.11ax HE80	106	5530	14
	122	5610	14
	138	5690	14
802.11ax HE160	114	5570	14

Power (Full)			
WLAN 5.6GHz Ant Main			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11a	100	5500	14
	116	5580	14
	120	5600	14
	124	5620	14
	132	5660	14
	140	5700	14
	144	5720	14
802.11n HT20	100	5500	14
	116	5580	14
	120	5600	14
	124	5620	14
	128	5640	14
	132	5660	14
	140	5700	14
802.11n HT40	144	5720	14
	102	5510	14
	110	5550	14
	118	5590	14
	126	5630	14
	128	5640	14
	134	5670	14
802.11ac VHT20	142	5710	14
	100	5500	14
	116	5580	14
	120	5600	14
	124	5620	14
	128	5640	14
	132	5660	14
802.11ac VHT40	140	5700	14
	144	5720	14
	102	5510	14
	110	5550	14
	118	5590	14
	126	5630	14
	134	5670	14
802.11ac VHT80	142	5710	14
	106	5530	14
	122	5610	14
802.11ac VHT160	138	5690	14
	114	5570	14
802.11ax HE20	100	5500	14
	116	5580	14
	120	5600	14
	124	5620	14
	128	5640	14
	132	5660	14
	140	5700	14
802.11ax HE40	144	5720	14
	102	5510	14
	110	5550	14
	118	5590	14
	126	5630	14
	134	5670	14
	142	5710	14
802.11ax HE80	106	5530	14
	122	5610	14
	138	5690	14
802.11ax HE160	114	5570	14

Power (Full)					
WLAN 5.6GHz Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MAX Tune-up Power(dBm) (include tolerance)
802.11a	100	5500	8.5	8.5	11.5
	116	5580	8.5	8.5	11.5
	120	5600	8.5	8.5	11.5
	124	5620	8.5	8.5	11.5
	132	5660	8.5	8.5	11.5
	140	5700	8.5	8.5	11.5
	144	5720	8.5	8.5	11.5
802.11n HT20	100	5500	8.5	8.5	11.5
	116	5580	8.5	8.5	11.5
	120	5600	8.5	8.5	11.5
	124	5620	8.5	8.5	11.5
	128	5640	8.5	8.5	11.5
	132	5660	8.5	8.5	11.5
	140	5700	8.5	8.5	11.5
802.11n HT40	102	5510	8.5	8.5	11.5
	110	5550	8.5	8.5	11.5
	118	5590	8.5	8.5	11.5
	126	5630	8.5	8.5	11.5
	128	5640	8.5	8.5	11.5
	134	5670	8.5	8.5	11.5
	142	5710	8.5	8.5	11.5
802.11ac VHT20	100	5500	8.5	8.5	11.5
	116	5580	8.5	8.5	11.5
	120	5600	8.5	8.5	11.5
	124	5620	8.5	8.5	11.5
	128	5640	8.5	8.5	11.5
	132	5660	8.5	8.5	11.5
	140	5700	8.5	8.5	11.5
802.11ac VHT40	102	5510	8.5	8.5	11.5
	110	5550	8.5	8.5	11.5
	118	5590	8.5	8.5	11.5
	126	5630	8.5	8.5	11.5
	134	5670	8.5	8.5	11.5
	142	5710	8.5	8.5	11.5
802.11ac VHT80	106	5530	8.5	8.5	11.5
	122	5610	8.5	8.5	11.5
	138	5690	8.5	8.5	11.5
802.11ac VHT160	114	5570	8.5	8.5	11.5
802.11ax HE20	100	5500	8.5	8.5	11.5
	116	5580	8.5	8.5	11.5
	120	5600	8.5	8.5	11.5
	124	5620	8.5	8.5	11.5
	128	5640	8.5	8.5	11.5
	132	5660	8.5	8.5	11.5
	140	5700	8.5	8.5	11.5
802.11ax HE40	102	5510	8.5	8.5	11.5
	110	5550	8.5	8.5	11.5
	118	5590	8.5	8.5	11.5
	126	5630	8.5	8.5	11.5
	134	5670	8.5	8.5	11.5
	142	5710	8.5	8.5	11.5
802.11ax HE80	106	5530	8.5	8.5	11.5
	122	5610	8.5	8.5	11.5
	138	5690	8.5	8.5	11.5
802.11ax HE160	114	5570	8.5	8.5	11.5

Power (Full)			
WLAN 5.8GHz Ant Aux			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11a	149	5745	14
	153	5765	14
	157	5785	14
	161	5805	14
	165	5825	14
802.11n HT20	149	5745	14
	153	5765	14
	157	5785	14
	161	5805	14
	165	5825	14
802.11n HT40	151	5755	14
	159	5795	14
802.11ac VHT20	149	5745	14
	153	5765	14
	157	5785	14
	161	5805	14
	165	5825	14
802.11ac VHT40	151	5755	14
	159	5795	14
802.11ac VHT80	155	5775	14
802.11ax HE20	149	5745	14
	153	5765	14
	157	5785	14
	161	5805	14
	165	5825	14
802.11ax HE40	151	5755	14
	159	5795	14
802.11ax HE80	155	5775	14

Power (Full)			
WLAN 5.8GHz Ant Main			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11a	149	5745	14
	153	5765	14
	157	5785	14
	161	5805	14
	165	5825	14
802.11n HT20	149	5745	14
	153	5765	14
	157	5785	14
	161	5805	14
	165	5825	14
802.11n HT40	151	5755	14
	159	5795	14
802.11ac VHT20	149	5745	14
	153	5765	14
	157	5785	14
	161	5805	14
	165	5825	14
802.11ac VHT40	151	5755	14
	159	5795	14
802.11ac VHT80	155	5775	14
802.11ax HE20	149	5745	14
	153	5765	14
	157	5785	14
	161	5805	14
	165	5825	14
802.11ax HE40	151	5755	14
	159	5795	14
802.11ax HE80	155	5775	14

Power (Full)					
WLAN 5.8GHz Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MAX Tune-up Power(dBm) (include tolerance)
802.11a	149	5745	8.5	8.5	11.5
	153	5765	8.5	8.5	11.5
	157	5785	8.5	8.5	11.5
	161	5805	8.5	8.5	11.5
	165	5825	8.5	8.5	11.5
802.11n HT20	149	5745	8.5	8.5	11.5
	153	5765	8.5	8.5	11.5
	157	5785	8.5	8.5	11.5
	161	5805	8.5	8.5	11.5
	165	5825	8.5	8.5	11.5
802.11n HT40	151	5755	8.5	8.5	11.5
	159	5795	8.5	8.5	11.5
802.11ac VHT20	149	5745	8.5	8.5	11.5
	153	5765	8.5	8.5	11.5
	157	5785	8.5	8.5	11.5
	161	5805	8.5	8.5	11.5
	165	5825	8.5	8.5	11.5
802.11ac VHT40	151	5755	8.5	8.5	11.5
	159	5795	8.5	8.5	11.5
802.11ac VHT80	155	5775	8.5	8.5	11.5
802.11ax HE20	149	5745	8.5	8.5	11.5
	153	5765	8.5	8.5	11.5
	157	5785	8.5	8.5	11.5
	161	5805	8.5	8.5	11.5
	165	5825	8.5	8.5	11.5
802.11ax HE40	151	5755	8.5	8.5	11.5
	159	5795	8.5	8.5	11.5
802.11ax HE80	155	5775	8.5	8.5	11.5

Power (Full)			
UNII-5 Ant Aux			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11ax HE160	15	6025	10
	47	6185	10
	79	6345	10

Power (Full)			
UNII-6 Ant Aux			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11ax HE160	111	6505	10

Power (Full)			
UNII-7 Ant Aux			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11ax HE160	143	6665	9.75
	175	6825	9.75

Power (Full)			
UNII-8 Ant Aux			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11ax HE160	207	6985	9.75

Power (Full)			
UNII-5 Ant Main			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11ax HE160	15	6025	10
	47	6185	10
	79	6345	10

Power (Full)			
UNII-6 Ant Main			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11ax HE160	111	6505	10

Power (Full)			
UNII-7 Ant Main			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11ax HE160	143	6665	9.75
	175	6825	9.75

Power (Full)			
UNII-8 Ant Main			
Mode	Channel	Frequency	MAX Tune-up Power(dBm) (include tolerance)
802.11ax HE160	207	6985	9.75

Power (Full)					
UNII-5 Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MAX Tune-up Power(dBm) (include tolerance)
802.11ax HE160	15	6025	4.5	4.5	7.5
	47	6185	4.5	4.5	7.5
	79	6345	4.5	4.5	7.5

Power (Full)					
UNII-6 Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MAX Tune-up Power(dBm) (include tolerance)
802.11ax HE160	111	6505	4.5	4.5	7.5

Power (Full)					
UNII-7 Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MAX Tune-up Power(dBm) (include tolerance)
802.11ax HE160	143	6665	3.75	3.75	6.75
	175	6825	3.75	3.75	6.75

Power (Full)					
UNII-8 Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant 0 Tune up	MIMO Ant 1 Tune up	MAX Tune-up Power(dBm) (include tolerance)
802.11ax HE160	207	6985	3.75	3.75	6.75

Testing Appendix

Appendix E. Measured Conducted Power Results

The measuring conducted power (Unit: dBm) are shown as below.

Power (Full)			
WLAN2.4GHz Ant Aux			
Mode	Channel	Frequency	SISO Ant Aux Avg. Power
802.11b	1	2412	16.99
	6	2437	16.89
	11	2462	16.91
	12	2467	16.96
	13	2472	16.97
802.11g	1	2412	16.98
	6	2437	16.97
	11	2462	16.90
	12	2467	15.41
	13	2472	12.39
802.11n HT20	1	2412	16.65
	6	2437	16.95
	11	2462	15.43
	12	2467	12.71
	13	2472	9.46
802.11n HT40	3	2422	15.41
	6	2437	16.86
	9	2452	13.42
	10	2457	12.91
	11	2462	11.36
802.11ax HE20	1	2412	16.72
	6	2437	16.98
	11	2462	15.60
	12	2467	12.80
	13	2472	9.62
802.11ax HE40	3	2422	15.51
	6	2437	16.89
	9	2452	13.55
	10	2457	12.94
	11	2462	11.40

Power (Full)			
WLAN2.4GHz Ant Main			
Mode	Channel	Frequency	SISO Ant Main Avg. Power
802.11b	1	2412	16.94
	6	2437	16.98
	11	2462	16.97
	12	2467	16.99
	13	2472	16.49
802.11g	1	2412	16.97
	6	2437	16.89
	11	2462	16.90
	12	2467	15.42
	13	2472	12.41
802.11n HT20	1	2412	15.02
	6	2437	16.85
	11	2462	15.77
	12	2467	13.01
	13	2472	10.22
802.11n HT40	3	2422	13.76
	6	2437	16.87
	9	2452	13.64
	10	2457	12.70
	11	2462	10.14
802.11ax HE20	1	2412	15.11
	6	2437	16.89
	11	2462	15.89
	12	2467	13.10
	13	2472	10.36
802.11ax HE40	3	2422	13.92
	6	2437	16.90
	9	2452	13.73
	10	2457	12.72
	11	2462	10.18

Power (Full)					
WLAN2.4GHz Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant Aux Avg. Power	MIMO Ant Main Avg. Power	MIMO Ant Aux+Main Avg. Power
802.11g	1	2412	11.45	11.41	14.44
	6	2437	11.39	11.50	14.46
	11	2462	10.89	10.99	13.95
	12	2467	9.00	8.98	12.00
	13	2472	6.00	5.95	8.99
802.11n HT20	1	2412	11.43	11.45	14.45
	6	2437	11.45	11.49	14.48
	11	2462	10.93	10.94	13.95
	12	2467	8.96	8.89	11.94
	13	2472	5.04	5.00	8.03
802.11n HT40	3	2422	10.41	10.39	13.41
	6	2437	11.46	11.42	14.45
	9	2452	10.94	10.96	13.96
	10	2457	6.89	6.90	9.91
	11	2462	4.87	4.93	7.91
802.11ax HE20	1	2412	11.43	11.47	14.46
	6	2437	11.44	11.49	14.48
	11	2462	10.96	10.97	13.98
	12	2467	8.98	8.93	11.97
	13	2472	5.15	5.14	8.16
802.11ax HE40	3	2422	10.43	10.42	13.44
	6	2437	11.44	11.45	14.46
	9	2452	10.96	10.98	13.98
	10	2457	6.92	6.93	9.94
	11	2462	4.90	4.97	7.95

Power (Full)			
Bluetooth Ant Aux			
Mode	Channel	Frequency	SISO Ant Aux Avg. Power
BR GFSK	0	2402	9.96
	39	2441	10.15
	78	2480	10.32
EDR DQPSK	0	2402	6.42
	39	2441	6.39
	78	2480	6.45
EDR 8DPSK	0	2402	6.40
	39	2441	6.38
	78	2480	6.44
LE-1M	0	2402	9.70
	19	2440	9.86
	39	2480	9.85
LE-2M	0	2402	9.68
	19	2440	9.73
	39	2480	9.81

Power (Full)			
WLAN 5.2GHz Ant Aux			
Mode	Channel	Frequency	SISO Ant Aux Avg. Power
802.11a	36	5180	15.42
	40	5200	15.48
	44	5220	15.40
	48	5240	15.42
802.11n HT20	36	5180	15.34
	40	5200	15.39
	44	5220	15.37
	48	5240	15.36
802.11n HT40	38	5190	15.44
	46	5230	15.41
802.11ac VHT20	36	5180	15.37
	40	5200	15.42
	44	5220	15.40
	48	5240	15.38
802.11ac VHT40	38	5190	15.47
	46	5230	15.44
802.11ac VHT80	42	5210	15.42
802.11ax HE20	36	5180	15.40
	40	5200	15.45
	44	5220	15.40
	48	5240	15.41
802.11ax HE40	38	5190	15.48
	46	5230	15.47
802.11ax HE80	42	5210	15.49

Power (Full)			
WLAN 5.2GHz Ant Main			
Mode	Channel	Frequency	SISO Ant Main Avg. Power
802.11a	36	5180	15.40
	40	5200	15.40
	44	5220	15.39
	48	5240	15.46
802.11n HT20	36	5180	15.43
	40	5200	15.44
	44	5220	15.40
	48	5240	15.36
802.11n HT40	38	5190	15.42
	46	5230	15.33
802.11ac VHT20	36	5180	15.46
	40	5200	15.47
	44	5220	15.41
	48	5240	15.39
802.11ac VHT40	38	5190	15.46
	46	5230	15.36
802.11ac VHT80	42	5210	15.46
802.11ax HE20	36	5180	15.47
	40	5200	15.50
	44	5220	15.43
	48	5240	15.42
802.11ax HE40	38	5190	15.48
	46	5230	15.40
802.11ax HE80	42	5210	15.49

Power (Full)					
WLAN 5.2GHz Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant Aux Avg. Power	MIMO Ant Main Avg. Power	MIMO Ant Aux+Main Avg. Power
802.11a	36	5180	9.91	9.93	12.93
	40	5200	9.90	9.91	12.92
	44	5220	9.91	9.90	12.92
	48	5240	9.89	9.93	12.92
802.11n HT20	36	5180	9.90	9.90	12.91
	40	5200	9.90	9.89	12.91
	44	5220	9.86	9.92	12.90
	48	5240	9.84	9.90	12.88
802.11n HT40	38	5190	9.95	9.84	12.91
	46	5230	9.86	9.83	12.86
802.11ac VHT20	36	5180	9.92	9.90	12.92
	40	5200	9.93	9.89	12.92
	44	5220	9.90	9.91	12.92
	48	5240	9.87	9.93	12.91
802.11ac VHT40	38	5190	9.95	9.86	12.92
	46	5230	9.89	9.87	12.89
802.11ac VHT80	42	5210	9.94	9.89	12.93
802.11ax HE20	36	5180	9.94	9.90	12.93
	40	5200	9.93	9.91	12.93
	44	5220	9.89	9.90	12.91
	48	5240	9.90	9.92	12.92
802.11ax HE40	38	5190	9.95	9.89	12.93
	46	5230	9.92	9.90	12.92
802.11ax HE80	42	5210	9.95	9.91	12.94

Power (Full)			
WLAN 5.3GHz Ant Aux			
Mode	Channel	Frequency	SISO Ant Aux Avg. Power
802.11a	52	5260	15.41
	56	5280	15.42
	60	5300	15.49
	64	5320	15.49
802.11n HT20	52	5260	15.34
	56	5280	15.36
	60	5300	15.42
	64	5320	15.43
802.11n HT40	54	5270	15.44
	62	5310	15.39
802.11ac VHT20	52	5260	15.36
	56	5280	15.36
	60	5300	15.44
	64	5320	15.46
802.11ac VHT40	54	5270	15.46
	62	5310	15.41
802.11ac VHT80	58	5290	15.47
802.11ac VHT160	50	5250	13.92
802.11ax HE20	52	5260	15.39
	56	5280	15.42
	60	5300	15.47
	64	5320	15.48
802.11ax HE40	54	5270	15.48
	62	5310	15.44
802.11ax HE80	58	5290	15.49
802.11ax HE160	50	5250	13.94

Power (Full)			
WLAN 5.3GHz Ant Main			
Mode	Channel	Frequency	SISO Ant Main Avg. Power
802.11a	52	5260	15.48
	56	5280	15.42
	60	5300	15.39
	64	5320	15.47
802.11n HT20	52	5260	15.42
	56	5280	15.37
	60	5300	15.42
	64	5320	15.39
802.11n HT40	54	5270	15.41
	62	5310	15.34
802.11ac VHT20	52	5260	15.46
	56	5280	15.40
	60	5300	15.45
	64	5320	15.42
802.11ac VHT40	54	5270	15.44
	62	5310	15.37
802.11ac VHT80	58	5290	15.38
802.11ac VHT160	50	5250	13.89
802.11ax HE20	52	5260	15.46
	56	5280	15.41
	60	5300	15.47
	64	5320	15.45
802.11ax HE40	54	5270	15.47
	62	5310	15.40
802.11ax HE80	58	5290	15.49
802.11ax HE160	50	5250	13.92

Power (Full)					
WLAN 5.3GHz Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant Aux Avg. Power	MIMO Ant Main Avg. Power	MIMO Ant Aux+Main Avg. Power
802.11a	52	5260	9.95	9.96	12.97
	56	5280	9.91	9.87	12.90
	60	5300	9.90	9.99	12.96
	64	5320	9.97	9.93	12.96
802.11n HT20	52	5260	9.92	9.89	12.92
	56	5280	9.85	9.91	12.89
	60	5300	9.84	9.92	12.89
	64	5320	9.89	9.86	12.89
802.11n HT40	54	5270	9.92	9.89	12.92
	62	5310	9.93	9.94	12.95
802.11ac VHT20	52	5260	9.94	9.91	12.94
	56	5280	9.92	9.86	12.90
	60	5300	9.86	9.94	12.91
	64	5320	9.91	9.89	12.91
802.11ac VHT40	54	5270	9.94	9.92	12.94
	62	5310	9.95	9.92	12.95
802.11ac VHT80	58	5290	9.95	9.90	12.94
802.11ac VHT160	50	5250	8.40	8.46	11.44
802.11ax HE20	52	5260	9.98	9.94	12.97
	56	5280	9.91	9.92	12.93
	60	5300	9.89	9.97	12.94
	64	5320	9.94	9.91	12.94
802.11ax HE40	54	5270	9.97	9.94	12.97
	62	5310	9.98	9.94	12.97
802.11ax HE80	58	5290	9.98	9.97	12.99
802.11ax HE160	50	5250	8.42	8.49	11.47

Power (Full)			
WLAN 5.6GHz Ant Aux			
Mode	Channel	Frequency	SISO Ant Aux Avg. Power
802.11a	100	5500	13.94
	116	5580	13.95
	120	5600	13.93
	124	5620	13.91
	132	5660	13.94
	140	5700	13.97
	144	5720	13.93
802.11n HT20	100	5500	13.86
	116	5580	13.85
	120	5600	13.90
	124	5620	13.88
	128	5640	13.92
	132	5660	13.94
	140	5700	13.88
802.11n HT40	144	5720	13.87
	102	5510	13.90
	110	5550	13.94
	118	5590	13.90
	126	5630	13.86
	128	5640	13.93
	134	5670	13.95
802.11ac VHT20	142	5710	13.92
	100	5500	13.89
	116	5580	13.87
	120	5600	13.90
	124	5620	13.88
	128	5640	13.94
	132	5660	13.92
802.11ac VHT40	140	5700	13.91
	144	5720	13.89
	102	5510	13.93
	110	5550	13.96
	118	5590	13.92
	126	5630	13.89
	134	5670	13.97
802.11ac VHT80	142	5710	13.95
	106	5530	13.90
	122	5610	13.91
802.11ac VHT160	138	5690	13.95
	114	5570	13.93
802.11ax HE20	100	5500	13.91
	116	5580	13.91
	120	5600	13.88
	124	5620	13.95
	128	5640	13.86
	132	5660	13.89
	140	5700	13.94
802.11ax HE40	144	5720	13.91
	102	5510	13.96
	110	5550	13.97
	118	5590	13.91
	126	5630	13.93
	134	5670	13.97
802.11ax HE80	142	5710	13.96
	106	5530	13.92
	122	5610	13.94
802.11ax HE160	138	5690	13.97
	114	5570	13.98

Power (Full)			
WLAN 5.6GHz Ant Main			
Mode	Channel	Frequency	SISO Ant Main Avg. Power
802.11a	100	5500	13.94
	116	5580	13.96
	120	5600	13.91
	124	5620	13.89
	132	5660	13.92
	140	5700	13.93
	144	5720	13.93
802.11n HT20	100	5500	13.85
	116	5580	13.89
	120	5600	13.90
	124	5620	13.88
	128	5640	13.85
	132	5660	13.92
	140	5700	13.84
802.11n HT40	144	5720	13.82
	102	5510	13.87
	110	5550	13.89
	118	5590	13.94
	126	5630	13.92
	128	5640	13.88
	134	5670	13.86
802.11ac VHT20	142	5710	13.81
	100	5500	13.88
	116	5580	13.92
	120	5600	13.89
	124	5620	13.94
	128	5640	13.91
	132	5660	13.88
802.11ac VHT40	140	5700	13.87
	144	5720	13.86
	102	5510	13.90
	110	5550	13.92
	118	5590	13.89
	126	5630	13.86
	134	5670	13.89
802.11ac VHT80	142	5710	13.84
	106	5530	13.95
	122	5610	13.94
802.11ac VHT160	138	5690	13.97
	114	5570	13.94
802.11ax HE20	100	5500	13.91
	116	5580	13.94
	120	5600	13.92
	124	5620	13.94
	128	5640	13.89
	132	5660	13.85
	140	5700	13.90
802.11ax HE40	144	5720	13.89
	102	5510	13.93
	110	5550	13.95
	118	5590	13.87
	126	5630	13.90
	134	5670	13.91
802.11ax HE80	142	5710	13.89
	106	5530	13.97
	122	5610	13.96
802.11ax HE160	138	5690	13.97
	114	5570	13.98

Power (Full)					
WLAN 5.6GHz Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant Aux Avg. Power	MIMO Ant Main Avg. Power	MIMO Ant Aux+Main Avg. Power
802.11a	100	5500	8.46	8.48	11.48
	116	5580	8.42	8.48	11.46
	120	5600	8.40	8.42	11.42
	124	5620	8.41	8.41	11.42
	132	5660	8.42	8.38	11.41
	140	5700	8.45	8.41	11.44
	144	5720	8.45	8.45	11.46
802.11n HT20	100	5500	8.36	8.41	11.40
	116	5580	8.34	8.40	11.38
	120	5600	8.35	8.42	11.40
	124	5620	8.37	8.43	11.41
	128	5640	8.41	8.36	11.40
	132	5660	8.46	8.34	11.41
	140	5700	8.38	8.33	11.37
802.11n HT40	144	5720	8.36	8.37	11.38
	102	5510	8.42	8.37	11.41
	110	5550	8.36	8.42	11.40
	118	5590	8.38	8.41	11.41
	126	5630	8.32	8.36	11.35
	128	5640	8.36	8.41	11.40
	134	5670	8.41	8.45	11.44
802.11ac VHT20	142	5710	8.33	8.36	11.36
	100	5500	8.39	8.42	11.42
	116	5580	8.36	8.43	11.41
	120	5600	8.37	8.44	11.42
	124	5620	8.35	8.41	11.39
	128	5640	8.39	8.36	11.39
	132	5660	8.38	8.38	11.39
802.11ac VHT40	140	5700	8.41	8.36	11.40
	144	5720	8.40	8.40	11.41
	102	5510	8.45	8.42	11.45
	110	5550	8.39	8.46	11.44
	118	5590	8.35	8.41	11.39
	126	5630	8.42	8.42	11.43
	134	5670	8.45	8.44	11.46
802.11ac VHT80	142	5710	8.36	8.39	11.39
	106	5530	8.45	8.39	11.43
	122	5610	8.39	8.45	11.43
802.11ac VHT160	138	5690	8.38	8.46	11.43
	114	5570	8.45	8.48	11.48
802.11ax HE20	100	5500	8.42	8.46	11.45
	116	5580	8.40	8.45	11.44
	120	5600	8.37	8.41	11.40
	124	5620	8.35	8.39	11.38
	128	5640	8.36	8.43	11.41
	132	5660	8.41	8.41	11.42
	140	5700	8.43	8.39	11.42
802.11ax HE40	144	5720	8.43	8.42	11.44
	102	5510	8.47	8.46	11.48
	110	5550	8.41	8.49	11.46
	118	5590	8.39	8.46	11.44
	126	5630	8.41	8.41	11.42
	134	5670	8.47	8.46	11.48
	142	5710	8.40	8.41	11.42
802.11ax HE80	106	5530	8.47	8.42	11.46
	122	5610	8.42	8.47	11.46
	138	5690	8.45	8.49	11.48
802.11ax HE160	114	5570	8.47	8.49	11.49

Power (Full)			
WLAN 5.8GHz Ant Aux			
Mode	Channel	Frequency	SISO Ant Aux Avg. Power
802.11a	149	5745	13.93
	153	5765	13.89
	157	5785	13.95
	161	5805	13.81
	165	5825	13.95
802.11n HT20	149	5745	13.85
	153	5765	13.89
	157	5785	13.90
	161	5805	13.87
	165	5825	13.88
802.11n HT40	151	5755	13.84
	159	5795	13.88
802.11ac VHT20	149	5745	13.88
	153	5765	13.86
	157	5785	13.92
	161	5805	13.89
	165	5825	13.91
802.11ac VHT40	151	5755	13.87
	159	5795	13.91
802.11ac VHT80	155	5775	13.92
802.11ax HE20	149	5745	13.89
	153	5765	13.87
	157	5785	13.95
	161	5805	13.88
	165	5825	13.94
802.11ax HE40	151	5755	13.89
	159	5795	13.95
802.11ax HE80	155	5775	13.96

Power (Full)			
WLAN 5.8GHz Ant Main			
Mode	Channel	Frequency	SISO Ant Main Avg. Power
802.11a	149	5745	13.90
	153	5765	13.89
	157	5785	13.94
	161	5805	13.91
	165	5825	13.92
802.11n HT20	149	5745	13.93
	153	5765	13.89
	157	5785	13.92
	161	5805	13.88
	165	5825	13.92
802.11n HT40	151	5755	13.84
	159	5795	13.89
802.11ac VHT20	149	5745	13.91
	153	5765	13.86
	157	5785	13.92
	161	5805	13.87
	165	5825	13.92
802.11ac VHT40	151	5755	13.86
	159	5795	13.91
802.11ac VHT80	155	5775	13.91
802.11ax HE20	149	5745	13.95
	153	5765	13.92
	157	5785	13.93
	161	5805	13.87
	165	5825	13.94
802.11ax HE40	151	5755	13.90
	159	5795	13.95
802.11ax HE80	155	5775	13.96

Power (Full)					
WLAN 5.8GHz Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant Aux Avg. Power	MIMO Ant Main Avg. Power	MIMO Ant Aux+Main Avg. Power
802.11a	149	5745	8.40	8.45	11.44
	153	5765	8.37	8.41	11.40
	157	5785	8.39	8.44	11.43
	161	5805	8.41	8.39	11.41
	165	5825	8.44	8.41	11.44
802.11n HT20	149	5745	8.42	8.43	11.44
	153	5765	8.36	8.37	11.38
	157	5785	8.41	8.41	11.42
	161	5805	8.38	8.38	11.39
	165	5825	8.42	8.44	11.44
802.11n HT40	151	5755	8.37	8.42	11.41
	159	5795	8.40	8.37	11.40
802.11ac VHT20	149	5745	8.44	8.42	11.44
	153	5765	8.39	8.39	11.40
	157	5785	8.43	8.41	11.43
	161	5805	8.36	8.36	11.37
	165	5825	8.42	8.40	11.42
802.11ac VHT40	151	5755	8.40	8.46	11.44
	159	5795	8.43	8.41	11.43
802.11ac VHT80	155	5775	8.37	8.47	11.43
802.11ax HE20	149	5745	8.47	8.40	11.45
	153	5765	8.41	8.41	11.42
	157	5785	8.45	8.41	11.44
	161	5805	8.38	8.37	11.39
	165	5825	8.43	8.40	11.43
802.11ax HE40	151	5755	8.41	8.47	11.45
	159	5795	8.46	8.42	11.45
802.11ax HE80	155	5775	8.41	8.49	11.46

Power (Full)			
UNII-5 Ant Aux			
Mode	Channel	Frequency	SISO Ant Aux Avg. Power
802.11ax HE160	15	6025	9.95
	47	6185	9.94
	79	6345	9.82

Power (Full)			
UNII-6 Ant Aux			
Mode	Channel	Frequency	SISO Ant Aux Avg. Power
802.11ax HE160	111	6505	9.94

Power (Full)			
UNII-7 Ant Aux			
Mode	Channel	Frequency	SISO Ant Aux Avg. Power
802.11ax HE160	143	6665	9.72
	175	6825	9.75

Power (Full)			
UNII-8 Ant Aux			
Mode	Channel	Frequency	SISO Ant Aux Avg. Power
802.11ax HE160	207	6985	9.74

Power (Full)			
UNII-5 Ant Main			
Mode	Channel	Frequency	SISO Ant Main Avg. Power
802.11ax HE160	15	6025	9.90
	47	6185	9.96
	79	6345	9.97

Power (Full)			
UNII-6 Ant Main			
Mode	Channel	Frequency	SISO Ant Main Avg. Power
802.11ax HE160	111	6505	9.98

Power (Full)			
UNII-7 Ant Main			
Mode	Channel	Frequency	SISO Ant Main Avg. Power
802.11ax HE160	143	6665	9.74
	175	6825	9.74

Power (Full)			
UNII-8 Ant Main			
Mode	Channel	Frequency	SISO Ant Main Avg. Power
802.11ax HE160	207	6985	9.70

Power (Full)					
UNII-5 Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant Aux Avg. Power	MIMO Ant Main Avg. Power	MIMO Ant Aux+Main Avg. Power
802.11ax HE160	15	6025	4.49	4.45	7.48
	47	6185	4.43	4.45	7.45
	79	6345	4.43	4.46	7.46

Power (Full)					
UNII-6 Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant Aux Avg. Power	MIMO Ant Main Avg. Power	MIMO Ant Aux+Main Avg. Power
802.11ax HE160	111	6505	4.40	4.45	7.44

Power (Full)					
UNII-7 Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant Aux Avg. Power	MIMO Ant Main Avg. Power	MIMO Ant Aux+Main Avg. Power
802.11ax HE160	143	6665	3.74	3.70	6.73
	175	6825	3.70	3.68	6.70

Power (Full)					
UNII-8 Ant Aux + Main					
Mode	Channel	Frequency	MIMO Ant Aux Avg. Power	MIMO Ant Main Avg. Power	MIMO Ant Aux+Main Avg. Power
802.11ax HE160	207	6985	3.68	3.66	6.68