

8 CONDUCTED RF OUPUT POWER

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8.1 WIFI Output Power

WIFI2.4G-Ant.1						
2.4G	Mode	Channel	Frequency (MHz)	AV power (dBm)	Tune up (dBm)	SAR Test
	11b	1	2412	12.18	13.00	Yes
		6	2437	11.79	13.00	Yes
		11	2462	12.54	13.00	Yes
	11g	1	2412	13.19	14.00	No
		6	2437	13.56	14.00	No
		11	2462	13.10	14.00	No
	11n20	1	2412	12.92	13.00	No
		6	2437	12.86	13.00	No
		11	2462	12.89	13.00	No
	11n40	3	2422	13.29	14.50	Yes
		6	2437	14.09	14.50	Yes
		9	2452	13.82	14.50	Yes
	11ax20	1	2412	10.41	11.00	No
		6	2437	10.80	11.00	No
		11	2462	10.36	11.00	No
	11ax40	3	2422	10.21	11.00	No
		6	2437	10.88	11.00	No
		9	2452	10.05	11.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

- 1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.
- 2) When multiple transmission modes (802.11b/g/n/ax) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n, and 802.11n chosen over 802.11ax.

WIFI5G-Ant.1							
	Mode	Channel	Frequency (MHz)	AV power (dBm)	Tune up (dBm)	SAR Test	
5.2G	11a	36	5180	9.83	11.00	No	
		44	5220	9.83	11.00	No	
		48	5240	9.78	11.00	No	
	11n20	36	5180	9.11	11.00	No	
		44	5220	9.21	11.00	No	
		48	5240	9.11	11.00	No	
	11n40	38	5190	9.11	11.00	No	
		46	5230	9.09	11.00	No	
		36	5180	9.94	11.00	No	
	11ac20	44	5220	9.21	11.00	No	
		48	5240	9.06	11.00	No	
		38	5190	9.13	11.00	No	
	11ac40	46	5230	9.08	11.00	No	
		42	5210	9.96	11.00	No	
		36	5180	9.89	11.00	No	
	11ax20	44	5220	9.05	11.00	No	
		48	5240	9.03	11.00	No	
		38	5190	9.13	11.00	No	
	11ax40	46	5230	9.11	11.00	No	
		42	5210	10.04	11.00	No	
		42	5210	10.04	11.00	No	
5.3G	11a	52	5260	9.75	11.00	No	
		60	5300	9.83	11.00	No	
		64	5320	9.04	11.00	No	
	11n20	52	5260	9.01	11.00	No	
		60	5300	9.19	11.00	No	
		64	5320	9.28	11.00	No	
	11n40	54	5270	9.12	11.00	No	
		62	5310	9.08	11.00	No	
		52	5260	9.13	11.00	No	
	11ac20	60	5300	9.24	11.00	No	
		64	5320	9.28	11.00	No	
		54	5270	9.19	11.00	No	
	11ac40	62	5310	9.25	11.00	No	
		58	5290	10.04	11.00	Yes	
		52	5260	9.96	11.00	No	
	11ac80	60	5300	9.12	11.00	No	
		64	5320	9.15	11.00	No	
		54	5270	9.01	11.00	No	
	11ax40	62	5310	9.14	11.00	No	
		58	5290	10.01	11.00	No	
		58	5290	10.01	11.00	No	
5.6G	11a	100	5500	10.02	11.00	No	
		116	5580	10.26	11.00	No	
		140	5700	10.01	11.00	No	
	11n20	100	5500	10.37	11.00	No	
		116	5580	9.42	11.00	No	
		140	5700	9.31	11.00	No	
	11n40	102	5510	9.07	11.00	No	
		118	5590	9.41	11.00	No	
		134	5670	9.41	11.00	No	
	11ac20	100	5500	9.22	11.00	No	
		116	5580	9.38	11.00	No	
		140	5700	9.31	11.00	No	
	11ac40	102	5510	9.33	11.00	No	
		118	5590	9.46	11.00	No	
		134	5670	9.53	11.00	No	
	11ac80	106	5530	10.42	11.00	Yes	
		122	5610	10.49	11.00	Yes	
		100	5500	10.27	11.00	No	
	11ax20	116	5580	9.34	11.00	No	
		140	5700	9.28	11.00	No	
		102	5510	9.34	11.00	No	
11ax40	118	5590	9.43	11.00	No		
	134	5670	9.46	11.00	No		
	106	5530	9.29	11.00	No		
11ax80	122	5610	9.31	11.00	No		
	149	5745	8.01	10.00	No		
	157	5785	8.53	10.00	No		
5.8G	11a	165	5825	8.34	10.00	No	
		149	5745	8.22	10.00	No	
		157	5785	8.01	10.00	No	
	11n20	165	5825	8.66	10.00	No	
		151	5755	8.21	10.00	No	
		159	5795	8.06	10.00	No	
	11n40	149	5745	8.28	9.50	No	
		157	5785	8.06	9.50	No	
		165	5825	7.66	9.50	No	
	11ac20	151	5755	8.22	8.50	No	
		159	5795	8.05	8.50	No	
		155	5775	9.11	10.00	Yes	
	11ac40	149	5745	8.43	10.00	No	
		157	5785	8.02	10.00	No	
		165	5825	8.64	10.00	No	
	11ax20	151	5755	8.29	10.00	No	
		159	5795	8.89	10.00	No	
		155	5775	9.03	10.00	No	
	11ax80	155	5775	9.03	10.00	No	
	Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially. 1) The largest channel bandwidth configuration is selected among the multiple configurations in a frequency band with the same maximum tune-up output power. 2) When multiple transmission modes (802.11a/n/ac/ax) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11a is chosen over 802.11n, 802.11n is chosen over 802.11ac then 802.11ax.						

8.2 Bluetooth

8.2.1 Bluetooth Output Power

Bluetooth-Ant.1						
Test Mode	Modulation	Channel number	Frequency(MHz)	AV power (dBm)	Tune up (dBm))	SAR Test
BT	DH5	0	2402	3.06	3.50	Yes
		39	2441	2.83	3.50	Yes
		78	2480	2.48	3.50	Yes
	2DH5	0	2402	-1.01	0.00	No
		39	2441	-1.19	0.00	No
		78	2480	-1.44	0.00	No
	3DH5	0	2402	-1.02	0.00	No
		39	2441	-1.20	0.00	No
		78	2480	-1.45	0.00	No
	BLE-1M	0	2402	3.11	3.50	No
		19	2440	2.92	3.50	No
		39	2480	2.54	3.50	No
	BLE-2M	1	2404	3.08	3.50	No
		19	2440	2.88	3.50	No
		38	2478	2.54	3.50	No
Note: Since bluetooth BR mode is the maximum output power mode, SAR measurements were performed with test software using DH5 modulation, and SAR measurement is not required for the EDR and LE. When the secondary mode is ≤ ¼ dB higher than the primary mode.						

8.2.2 Bluetooth Duty Cycle

The Bluetooth duty cycle is 76.61% as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation.

