

8 CONDUCTED RF OUPUT POWER

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8.1 WIFI Output Power

WIFI2.4G-Ant.2						
2.4G	Mode	Channel	Frequency (MHz)	AV power (dBm)	Tune up (dBm)	SAR Test
	11b	1	2412	15.89	16.00	Yes
		6	2437	15.22	16.00	Yes
		11	2462	9.25	10.00	Yes
	11g	1	2412	16.13	16.50	No
		6	2437	14.72	16.50	No
		11	2462	9.23	11.00	No
	11n20	1	2412	16.37	17.00	No
		6	2437	16.78	17.00	No
		11	2462	9.46	11.00	No
	11n40	3	2422	16.14	17.00	Yes
		6	2437	16.78	17.00	Yes
		9	2452	12.74	13.00	Yes
	11ax20	1	2412	16.20	17.00	No
		6	2437	16.62	17.00	No
		11	2462	10.46	11.00	No
	11ax40	3	2422	16.06	17.00	No
		6	2437	16.68	17.00	No
		9	2452	12.61	13.00	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.2						
5.2G	Mode	Channel	Frequency (MHz)	AV power (dBm)	Tune up (dBm)	SAR Test
	11a	36	5180	17.77	18.50	No
		44	5220	18.03	18.50	No
		48	5240	17.89	18.50	No
	11n20	36	5180	18.22	18.50	No
		44	5220	18.20	18.50	No
		48	5240	18.07	18.50	No
	11n40	38	5190	16.88	18.50	No
		46	5230	18.78	19.00	No
		36	5180	18.23	18.50	No
	11ac20	44	5220	18.28	18.50	No
		48	5240	18.07	18.50	No
		38	5190	17.18	18.50	No
	11ac40	46	5230	18.08	18.50	No
		11ac80	42	5210	15.07	16.00
	11ax20	36	5180	18.12	18.50	No
		44	5220	18.17	18.50	No
		48	5240	17.95	18.50	No
		38	5190	16.19	18.00	No
		46	5230	18.06	18.50	No
		11ax80	42	5210	16.01	17.00
5.3G	Mode	Channel	Frequency (MHz)	AV power (dBm)	Tune up (dBm)	SAR Test
	11a	52	5260	18.68	19.00	No
		60	5300	18.33	19.00	No
		64	5320	18.08	19.00	No
	11n20	52	5260	18.86	19.00	No
		60	5300	18.79	19.00	No
		64	5320	16.73	18.50	No
	11n40	54	5270	18.04	19.00	Yes
		62	5310	15.72	17.00	Yes
	11ac20	52	5260	18.24	18.50	No
		60	5300	17.89	18.50	No
		64	5320	16.68	18.00	No
	11ac40	54	5270	18.04	18.50	No
		62	5310	15.78	17.00	No
	11ac80	58	5290	14.85	16.00	No
		52	5260	18.19	18.50	No
	11ax20	60	5300	17.91	18.50	No
		64	5320	16.61	18.50	No
		54	5270	18.02	18.50	No
	11ax40	62	5310	15.54	16.00	No
		11ax80	58	5290	14.75	16.00
5.6G	11a	100	5500	15.22	16.00	No
		116	5580	17.91	18.50	No
		140	5700	14.59	16.00	No
	11n20	100	5500	13.20	14.00	No
		116	5580	18.23	18.50	No
		140	5700	14.38	15.00	No
	11n40	102	5510	14.67	15.00	No
		118	5590	18.15	18.50	No
		134	5670	17.66	18.50	No
	11ac20	100	5500	14.59	15.50	No
		116	5580	17.75	18.50	No
		140	5700	15.45	16.00	No
	11ac40	102	5510	14.62	15.00	No
		118	5590	17.70	18.50	No
		134	5670	17.61	18.50	No
	11ac80	106	5530	13.62	14.50	Yes
		122	5610	18.41	18.50	Yes
	11ax20	100	5500	14.54	15.50	No
		116	5580	17.75	18.50	No
		140	5700	14.41	15.50	No
	11ax40	102	5510	14.72	15.50	No
118		5590	18.26	18.50	No	
134		5670	16.57	17.50	No	
5.8G	11a	106	5530	14.56	15.50	No
		122	5610	18.47	18.50	No
		149	5745	18.21	18.50	No
	11n20	157	5785	17.85	18.50	No
		165	5825	17.56	18.50	No
		149	5745	18.48	18.50	No
	11n40	157	5785	18.14	18.50	No
		165	5825	17.82	18.50	No
		151	5755	18.44	18.50	No
	11ac20	159	5795	18.09	18.50	No
		149	5745	18.45	18.50	No
		157	5785	18.14	18.50	No
	11ac40	165	5825	17.90	18.50	No
		151	5755	18.45	18.50	No
		159	5795	18.12	18.50	No
	11ac80	155	5775	18.19	18.50	Yes
		149	5745	18.47	18.50	No
	11ax20	157	5785	18.16	18.50	No
		165	5825	17.90	18.50	No
		151	5755	18.44	18.50	No
	11ax40	159	5795	18.16	18.50	No
11ax80		155	5775	18.27	18.50	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	-4.97	-3.00	Yes
		39	2441	-4.73	-3.00	Yes
		78	2480	-4.39	-3.00	Yes
	2DH5	0	2402	-8.38	-7.00	No
		39	2441	-8.12	-7.00	No
		78	2480	-7.86	-7.00	No
	3DH5	0	2402	-8.48	-7.00	No
		39	2441	-8.22	-7.00	No
		78	2480	-7.96	-7.00	No
	BLE-1M	0	2402	-4.80	-3.50	No
		19	2440	-4.59	-3.50	No
		39	2480	-4.26	-3.50	No
	BLE-2M	1	2404	-4.82	-3.50	No
		19	2440	-4.60	-3.50	No
		38	2478	-4.27	-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.

Duty Cycle

