

## RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

FCC ID: 2AATL-6252B-PR

### EUT Specification

<b>EUT</b>	WIFI BT module
<b>Frequency band (Operating)</b>	<input checked="" type="checkbox"/> BT: 2.402GHz ~ 2.480GHz <input checked="" type="checkbox"/> WLAN: 2.412GHz ~ 2.462GHz <input checked="" type="checkbox"/> WLAN: 5.18GHz ~ 5.32GHz / 5.50GHz ~ 5.70GHz <input checked="" type="checkbox"/> WLAN: 5.745GHz ~ 5825GHz
<b>Device category</b>	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation)
<b>Exposure classification</b>	<input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm <sup>2</sup> ) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm <sup>2</sup> )
<b>Antenna diversity</b>	<input type="checkbox"/> Single antenna <input checked="" type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input type="checkbox"/> Tx/Rx diversity
<b>Max. output power (peak power)</b>	BLE: 2.87dBm BR+EDR: 5.74 dBm 802.11b: 19.27 dBm 802.11g: 19.48 dBm 802.11n-HT20: 22.19 dBm 802.11n-HT40: 22.11 dBm 802.11ac-VHT20: 21.02 dBm 802.11ac-VHT40: 21.00 dBm 802.11ax-HE20: 21.81 dBm 802.11ax-HE40: 22.46 dBm 5180 MHz to 5240 MHz: 20.99 dBm 5260 MHz to 5320 MHz: 20.85 dBm 5500 MHz to 5700 MHz: 20.29 dBm 5745 MHz to 5825 MHz: 21.23 dBm
<b>Antenna gain (Max)</b>	BT: 2.98dBi 2.4GHz WIFI: ANT0: 2.77dBi, ANT1: 2.77dBi 5.8G WIFI: ANT0: 4.56dBi, ANT1: 4.56dBi
<b>Evaluation applied</b>	<input checked="" type="checkbox"/> MPE Evaluation <input type="checkbox"/> SAR Evaluation

Limits for Maximum Permissible Exposure(MPE)

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density(mW/cm <sup>2</sup> )	Average Time
<b>(A) Limits for Occupational/Control Exposures</b>				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
<b>(B) Limits for General Population/Uncontrol Exposures</b>				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

Mode	Max Measure d Power (dBm)	Tune up Power (dBm)	Max tune up power(dBm)	Power Density(m W/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
BLE	2.87	3±1	4	0.000992	1
BR + EDR	5.74	6±1	7	0.001980	1

**Friis transmission formula:  $P_d = (P_{out} * G) / (4 * \pi * R^2)$**

Where

$P_d$ = Power density in mW/cm<sup>2</sup>,  $P_{out}$ =output power to antenna in Mw

$G$ = gain of antenna in linear scale,  $\pi$ =3.1416

$R$ = distance between observation point and center of the radiator in cm=20cm

$P_d$  the limit of MPE, 1mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

**Measurement Result**

BT:

## 2.4GHz WIFI:

Operation Mode	Channel Number	Channel Frequency (MHz)	Measurement Level (dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Sum		
802.11b	1	2412	18.66	18.83	--	30	PASS
	6	2437	18.88	19.17	--	30	PASS
	11	2462	19.01	19.27	--	30	PASS
802.11g	1	2412	19.45	18.55	--	30	PASS
	6	2437	19.47	18.96	--	30	PASS
	11	2462	19.48	18.89	--	30	PASS
802.11n (HT20)	1	2412	19.45	18.51	22.02	30	PASS
	6	2437	19.47	18.83	22.17	30	PASS
	11	2462	19.48	18.85	22.19	30	PASS
802.11ac (VHT20)	1	2412	17.87	17.68	20.79	30	PASS
	6	2437	17.95	18.04	21.01	30	PASS
	11	2462	17.94	18.08	21.02	30	PASS
802.11ax (HE20)	1	2412	19.42	18.03	21.79	30	PASS
	6	2437	19.44	17.92	21.76	30	PASS
	11	2462	19.46	18.01	21.81	30	PASS
802.11n (HT40)	3	2422	19.44	18.5	22.01	30	PASS
	6	2437	19.45	18.64	22.07	30	PASS
	9	2452	19.47	18.69	22.11	30	PASS
802.11ac (VHT40)	3	2422	17.79	17.68	20.75	30	PASS
	6	2437	17.86	17.83	20.86	30	PASS
	9	2452	17.98	18	21	30	PASS
802.11ax (HE40)	3	2422	19.42	19.42	22.43	30	PASS
	6	2437	19.43	19.44	22.45	30	PASS
	9	2452	19.45	19.45	22.46	30	PASS

**Antenna 0:**

Operating Mode	Test Channel	Tune up tolerance (dBm)	Max tune up conducted power(dBm)	Output Peak power (mW)	Ant. Gain (dBi)	Ant. Gain (numeric)	Power density at 20cm (mW/cm <sup>2</sup> )	Power density Limits (mW/cm <sup>2</sup> )
802.11b	1	19±1	20	100.000	2.77	1.892	0.037640	1
	6	19±1	20	100.000	2.77	1.892	0.037640	1
	11	19±1	20	100.000	2.77	1.892	0.037640	1
802.11g	1	19±1	20	100.000	2.77	1.892	0.037640	1
	6	19±1	20	100.000	2.77	1.892	0.037640	1
	11	19±1	20	100.000	2.77	1.892	0.037640	1
802.11n (HT20)	1	19±1	20	100.000	2.77	1.892	0.037640	1
	6	19±1	20	100.000	2.77	1.892	0.037640	1
	11	19±1	20	100.000	2.77	1.892	0.037640	1
802.11ac (VHT20)	1	18±1	19	79.433	2.77	1.892	0.029899	1
	6	18±1	19	79.433	2.77	1.892	0.029899	1
	11	18±1	19	79.433	2.77	1.892	0.029899	1
802.11ax (HE20)	1	19±1	20	100.000	2.77	1.892	0.037640	1
	6	19±1	20	100.000	2.77	1.892	0.037640	1
	11	19±1	20	100.000	2.77	1.892	0.037640	1
802.11n (HT40)	3	19±1	20	100.000	2.77	1.892	0.037640	1
	6	19±1	20	100.000	2.77	1.892	0.037640	1
	9	19±1	20	100.000	2.77	1.892	0.037640	1
802.11ac (VHT40)	3	18±1	19	79.433	2.77	1.892	0.029899	1
	6	18±1	19	79.433	2.77	1.892	0.029899	1
	9	18±1	19	79.433	2.77	1.892	0.029899	1
802.11ax (HE40)	3	19±1	20	100.000	2.77	1.892	0.037640	1
	6	19±1	20	100.000	2.77	1.892	0.037640	1
	9	19±1	20	100.000	2.77	1.892	0.037640	1

**Antenna 1:**

Operating Mode	Test Channel	Tune up tolerance (dBm)	Max tune up conducted power(dBm)	Output Peak power (mW)	Ant. Gain (dBi)	Ant. Gain (numeric)	Power density at 20cm (mW/cm <sup>2</sup> )	Power density Limits (mW/cm <sup>2</sup> )
802.11b	1	19±1	20	100.000	2.77	1.892	0.037640	1
	6	19±1	20	100.000	2.77	1.892	0.037640	1
	11	19±1	20	100.000	2.77	1.892	0.037640	1
802.11g	1	19±1	20	100.000	2.77	1.892	0.037640	1
	6	19±1	20	100.000	2.77	1.892	0.037640	1
	11	19±1	20	100.000	2.77	1.892	0.037640	1
802.11n (HT20)	1	19±1	20	100.000	2.77	1.892	0.037640	1
	6	19±1	20	100.000	2.77	1.892	0.037640	1
	11	19±1	20	100.000	2.77	1.892	0.037640	1
802.11ac (VHT20)	1	18±1	19	79.433	2.77	1.892	0.029899	1
	6	18±1	19	79.433	2.77	1.892	0.029899	1
	11	18±1	19	79.433	2.77	1.892	0.029899	1
802.11ax (HE20)	1	18±1	19	79.433	2.77	1.892	0.029899	1
	6	18±1	19	79.433	2.77	1.892	0.029899	1
	11	18±1	19	79.433	2.77	1.892	0.029899	1
802.11n (HT40)	3	19±1	20	100.000	2.77	1.892	0.037640	1
	6	19±1	20	100.000	2.77	1.892	0.037640	1
	9	19±1	20	100.000	2.77	1.892	0.037640	1
802.11ac (VHT40)	3	18±1	19	79.433	2.77	1.892	0.029899	1
	6	18±1	19	79.433	2.77	1.892	0.029899	1
	9	18±1	19	79.433	2.77	1.892	0.029899	1
802.11ax (HE40)	3	19±1	20	100.000	2.77	1.892	0.037640	1
	6	19±1	20	100.000	2.77	1.892	0.037640	1
	9	19±1	20	100.000	2.77	1.892	0.037640	1

**MPE Result:**

Operation Mode	Channel Number	Channel Frequency (MHz)	Power density at 20cm (mW/ cm <sup>2</sup> )			Power density Limits (mW/cm <sup>2</sup> )	Verdict
			Ant0	Ant1	Sum		
802.11b	1	2412	0.037640	0.037640	--	1	PASS
	6	2437	0.037640	0.037640	--	1	PASS
	11	2462	0.037640	0.037640	--	1	PASS
802.11g	1	2412	0.037640	0.037640	--	1	PASS
	6	2437	0.037640	0.037640	--	1	PASS
	11	2462	0.037640	0.037640	--	1	PASS
802.11n (HT20)	1	2412	0.037640	0.037640	0.07528	1	PASS
	6	2437	0.037640	0.037640	0.07528	1	PASS
	11	2462	0.037640	0.037640	0.07528	1	PASS
802.11ac (VHT20)	1	2412	0.029899	0.029899	0.05980	1	PASS
	6	2437	0.029899	0.029899	0.05980	1	PASS
	11	2462	0.029899	0.029899	0.05980	1	PASS
802.11ax (HE20)	1	2412	0.037640	0.029899	0.06754	1	PASS
	6	2437	0.037640	0.029899	0.06754	1	PASS
	11	2462	0.037640	0.029899	0.06754	1	PASS
802.11n (HT40)	3	2422	0.037640	0.037640	0.07528	1	PASS
	6	2437	0.037640	0.037640	0.07528	1	PASS
	9	2452	0.037640	0.037640	0.07528	1	PASS
802.11ac (VHT40)	3	2422	0.029899	0.029899	0.05980	1	PASS
	6	2437	0.029899	0.029899	0.05980	1	PASS
	9	2452	0.029899	0.029899	0.05980	1	PASS
802.11ax (HE40)	3	2422	0.037640	0.037640	0.07528	1	PASS
	6	2437	0.037640	0.037640	0.07528	1	PASS
	9	2452	0.037640	0.037640	0.07528	1	PASS

### 5.8GHz WIFI:

Operation Mode	Channel Number	Channel Frequency (MHz)	Measurement Level (dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Sum		
802.11a	CH36	5180	17.44	17.17	--	22.43	PASS
	CH40	5200	17.37	17.8	--	22.43	PASS
	CH48	5240	17.7	17.94	--	22.43	PASS
	CH52	5260	17.77	18.74	--	22.43	PASS
	CH60	5300	17.66	17.49	--	22.11	PASS
	CH64	5320	16.42	17.32	--	22.14	PASS
	CH100	5500	17.24	17.53	--	22.43	PASS
	CH120	5600	17.11	17.34	--	22.14	PASS
	CH140	5700	15.76	17.16	--	22.13	PASS
	CH149	5745	17.93	18.37	--	28.43	PASS
	CH157	5785	18.17	18.25	--	28.43	PASS
CH165	5825	18.09	18.24	--	28.43	PASS	
802.11n (HT20)	CH36	5180	16.08	17.41	19.81	22.43	PASS
	CH40	5200	16.04	17.95	20.11	22.43	PASS
	CH48	5240	16.48	18.1	20.38	22.43	PASS
	CH52	5260	17.16	18.35	20.81	22.43	PASS
	CH60	5300	17.04	18.07	20.6	22.43	PASS
	CH64	5320	16.31	16.97	19.66	22.43	PASS
	CH100	5500	16.66	17.83	20.29	22.43	PASS
	CH120	5600	16.51	17.72	20.17	22.38	PASS
	CH140	5700	15.27	17.91	19.8	22.36	PASS
	CH149	5745	18.08	18.16	21.13	28.43	PASS
	CH157	5785	18.22	18.21	21.23	28.43	PASS
CH165	5825	18.17	18.19	21.19	28.43	PASS	
802.11ac (VHT20)	CH36	5180	16.91	18.04	20.52	22.43	PASS
	CH40	5200	16.91	16.56	19.75	22.43	PASS
	CH48	5240	17.28	16.68	20	22.43	PASS
	CH52	5260	17.31	18.31	20.85	22.43	PASS
	CH60	5300	17.17	18.07	20.65	22.43	PASS
	CH64	5320	17.18	16.91	20.06	22.43	PASS
	CH100	5500	16.49	17.14	19.84	22.43	PASS
	CH120	5600	16.4	16.99	19.72	22.43	PASS
	CH140	5700	15.05	16.14	18.64	22.36	PASS
	CH149	5745	17.6	18.15	20.89	28.43	PASS
	CH157	5785	17.87	18.18	21.04	28.43	PASS
CH165	5825	17.81	18.2	21.02	28.43	PASS	
802.11ax (HE20)	CH36	5180	16.81	16.44	19.64	22.43	PASS
	CH40	5200	16.87	16.31	19.61	22.43	PASS

	CH48	5240	17.15	16.43	19.82	22.43	PASS
	CH52	5260	17.01	16.52	19.78	22.43	PASS
	CH60	5300	16.71	16.48	19.61	22.43	PASS
	CH64	5320	16.79	16.35	19.59	22.43	PASS
	CH100	5500	17.2	16.4	19.83	22.43	PASS
	CH120	5600	17.23	16.23	19.77	22.43	PASS
	CH140	5700	15.63	15	18.34	22.36	PASS
	CH149	5745	17.51	18.03	20.79	28.43	PASS
	CH157	5785	17.92	18.06	21	28.43	PASS
	CH165	5825	17.67	18.03	20.86	28.43	PASS
802.11n (HT40)	CH38	5190	14.75	14.89	17.83	22.43	PASS
	CH46	5230	15.05	15.63	18.36	22.43	PASS
	CH54	5270	17.13	15.86	19.55	22.43	PASS
	CH62	5310	13.7	14.66	17.22	22.43	PASS
	CH102	5510	13.82	14.72	17.3	22.43	PASS
	CH118	5590	13.95	15.64	17.89	22.43	PASS
	CH134	5670	13.55	15.85	17.86	22.43	PASS
	CH151	5755	16.59	18.02	20.37	28.43	PASS
	CH159	5795	16.8	18.01	20.46	28.43	PASS
802.11ac (VHT40)	CH38	5190	15.59	15.47	18.54	22.43	PASS
	CH46	5230	16.05	15.51	18.8	22.43	PASS
	CH54	5270	16.01	15.81	18.92	22.43	PASS
	CH62	5310	15.04	14.76	17.91	22.43	PASS
	CH102	5510	15.12	15.82	18.49	22.43	PASS
	CH118	5590	15.17	15.31	18.25	22.43	PASS
	CH134	5670	14.76	15.67	18.25	22.43	PASS
	CH151	5755	17.1	17.14	20.13	28.43	PASS
	CH159	5795	17.4	17.11	20.27	28.43	PASS
802.11ax (HE40)	CH38	5190	14.76	14.67	17.73	22.43	PASS
	CH46	5230	15.13	14.65	17.91	22.43	PASS
	CH54	5270	14.71	14.84	17.79	22.43	PASS
	CH62	5310	14.51	14.71	17.62	22.43	PASS
	CH102	5510	15.45	14.84	18.17	22.43	PASS
	CH118	5590	15.54	14.39	18.01	22.43	PASS
	CH134	5670	15.07	14.47	17.79	22.43	PASS
	CH151	5755	14.81	14.75	17.79	28.43	PASS
	CH159	5795	15.19	14.73	17.98	28.43	PASS
802.11ac (VHT80)	CH42	5210	17.01	18.64	20.91	22.43	PASS
	CH58	5290	17.07	18.73	20.99	22.43	PASS
	CH106	5530	14.36	14.99	17.7	22.43	PASS
	CH122	5610	14.73	14.58	17.67	22.43	PASS
	CH155	5775	17.42	14.76	19.3	28.43	PASS



802.11ax (HE80)	CH42	5210	17.63	14.98	19.51	22.43	PASS
	CH58	5290	17.33	15.31	19.45	22.43	PASS
	CH106	5530	15.4	15.3	18.36	22.43	PASS
	CH122	5610	15.43	15.09	18.27	22.43	PASS
	CH155	5775	15.19	15.49	18.35	28.43	PASS

**Antenna 0:**

Operating Mode	Test Channel	Tune up tolerance (dBm)	Max tune up conducted power (dBm)	Output Peak power (mW)	Ant. Gain (dBi)	Ant. Gain (numeric)	Power density at 20cm (mW/cm <sup>2</sup> )	Power density Limits (mW/cm <sup>2</sup> )
802.11a	CH36	17±1	18	63.096	4.56	2.858	0.035875	1
	CH40	17±1	18	63.096	4.56	2.858	0.035875	1
	CH48	18±1	19	79.433	4.56	2.858	0.045164	1
	CH52	18±1	19	79.433	4.56	2.858	0.045164	1
	CH60	18±1	19	79.433	4.56	2.858	0.045164	1
	CH64	16±1	17	50.119	4.56	2.858	0.028497	1
	CH100	17±1	18	63.096	4.56	2.858	0.035875	1
	CH120	17±1	18	63.096	4.56	2.858	0.035875	1
	CH140	16±1	17	50.119	4.56	2.858	0.028497	1
	CH149	18±1	19	79.433	4.56	2.858	0.045164	1
	CH157	18±1	19	79.433	4.56	2.858	0.045164	1
	CH165	18±1	19	79.433	4.56	2.858	0.045164	1
802.11n (VHT20)	CH36	16±1	17	50.119	4.56	2.858	0.028497	1
	CH40	16±1	17	50.119	4.56	2.858	0.028497	1
	CH48	16±1	17	50.119	4.56	2.858	0.028497	1
	CH52	17±1	18	63.096	4.56	2.858	0.035875	1
	CH60	17±1	18	63.096	4.56	2.858	0.035875	1
	CH64	16±1	17	50.119	4.56	2.858	0.028497	1
	CH100	17±1	18	63.096	4.56	2.858	0.035875	1
	CH120	17±1	18	63.096	4.56	2.858	0.035875	1
	CH140	15±1	16	39.811	4.56	2.858	0.022636	1
	CH149	18±1	19	79.433	4.56	2.858	0.045164	1
	CH157	18±1	19	79.433	4.56	2.858	0.045164	1
	CH165	18±1	19	79.433	4.56	2.858	0.045164	1
802.11ac (VHT20)	CH36	17±1	18	63.096	4.56	2.858	0.035875	1
	CH40	17±1	18	63.096	4.56	2.858	0.035875	1
	CH48	17±1	18	63.096	4.56	2.858	0.035875	1
	CH52	17±1	18	63.096	4.56	2.858	0.035875	1
	CH60	17±1	18	63.096	4.56	2.858	0.035875	1
	CH64	17±1	18	63.096	4.56	2.858	0.035875	1
	CH100	16±1	17	50.119	4.56	2.858	0.028497	1
	CH120	16±1	17	50.119	4.56	2.858	0.028497	1
	CH140	15±1	16	39.811	4.56	2.858	0.022636	1
	CH149	18±1	19	79.433	4.56	2.858	0.045164	1
	CH157	18±1	19	79.433	4.56	2.858	0.045164	1

	CH165	18±1	19	79.433	4.56	2.858	0.045164	1
802.11 ax (HE20)	CH36	17±1	18	63.096	4.56	2.858	0.035875	1
	CH40	17±1	18	63.096	4.56	2.858	0.035875	1
	CH48	17±1	18	63.096	4.56	2.858	0.035875	1
	CH52	17±1	18	63.096	4.56	2.858	0.035875	1
	CH60	17±1	18	63.096	4.56	2.858	0.035875	1
	CH64	17±1	18	63.096	4.56	2.858	0.035875	1
	CH100	17±1	18	63.096	4.56	2.858	0.035875	1
	CH120	17±1	18	63.096	4.56	2.858	0.035875	1
	CH140	16±1	17	50.119	4.56	2.858	0.028497	1
	CH149	18±1	19	79.433	4.56	2.858	0.045164	1
	CH157	18±1	19	79.433	4.56	2.858	0.045164	1
	CH165	18±1	19	79.433	4.56	2.858	0.045164	1
802.11n (VHT40 )	CH38	15±1	16	39.811	4.56	2.858	0.022636	1
	CH46	15±1	16	39.811	4.56	2.858	0.022636	1
	CH54	17±1	18	63.096	4.56	2.858	0.035875	1
	CH62	14±1	15	31.623	4.56	2.858	0.017980	1
	CH102	14±1	15	31.623	4.56	2.858	0.017980	1
	CH118	14±1	15	31.623	4.56	2.858	0.017980	1
	CH134	14±1	15	31.623	4.56	2.858	0.017980	1
	CH151	17±1	18	63.096	4.56	2.858	0.035875	1
CH159	17±1	18	63.096	4.56	2.858	0.035875	1	
802.11 ac (VHT40 )	CH38	16±1	17	50.119	4.56	2.858	0.028497	1
	CH46	16±1	17	50.119	4.56	2.858	0.028497	1
	CH54	16±1	17	50.119	4.56	2.858	0.028497	1
	CH62	15±1	16	39.811	4.56	2.858	0.022636	1
	CH102	15±1	16	39.811	4.56	2.858	0.022636	1
	CH118	15±1	16	39.811	4.56	2.858	0.022636	1
	CH134	15±1	16	39.811	4.56	2.858	0.022636	1
	CH151	17±1	18	63.096	4.56	2.858	0.035875	1
	CH159	17±1	18	63.096	4.56	2.858	0.035875	1
802.11 ax (HE40)	CH38	15±1	16	39.811	4.56	2.858	0.022636	1
	CH46	15±1	16	39.811	4.56	2.858	0.022636	1
	CH54	15±1	16	39.811	4.56	2.858	0.022636	1
	CH62	15±1	16	39.811	4.56	2.858	0.022636	1
	CH102	15±1	16	39.811	4.56	2.858	0.022636	1
	CH118	16±1	17	50.119	4.56	2.858	0.028497	1
	CH134	15±1	16	39.811	4.56	2.858	0.022636	1
	CH151	15±1	16	39.811	4.56	2.858	0.022636	1
	CH159	15±1	16	39.811	4.56	2.858	0.022636	1
802.11 ac	CH42	17±1	18	63.096	4.56	2.858	0.035875	1
	CH58	17±1	18	63.096	4.56	2.858	0.035875	1

(VHT8 0)	CH106	14±1	15	31.623	4.56	2.858	0.017980	1
	CH122	15±1	16	39.811	4.56	2.858	0.022636	1
	CH155	17±1	18	63.096	4.56	2.858	0.035875	1
802.11 ax (HE80)	CH42	18±1	19	79.433	4.56	2.858	0.045164	1
	CH58	17±1	18	63.096	4.56	2.858	0.035875	1
	CH106	15±1	16	39.811	4.56	2.858	0.022636	1
	CH122	15±1	16	39.811	4.56	2.858	0.022636	1
	CH155	15±1	16	39.811	4.56	2.858	0.022636	1

**Antenna 1:**

Operating Mode	Test Channel	Tune up tolerance (dBm)	Max tune up conducted power(dBm)	Output Peak power (mW)	Ant. Gain (dBi)	Ant. Gain (numeric)	Power density at 20cm (mW/cm <sup>2</sup> )	Power density Limits (mW/cm <sup>2</sup> )
802.11a	CH36	17±1	18	63.096	4.56	2.858	0.035875	1
	CH40	18±1	19	79.433	4.56	2.858	0.045164	1
	CH48	18±1	19	79.433	4.56	2.858	0.045164	1
	CH52	19±1	20	100.000	4.56	2.858	0.056858	1
	CH60	17±1	18	63.096	4.56	2.858	0.035875	1
	CH64	17±1	18	63.096	4.56	2.858	0.035875	1
	CH100	18±1	19	79.433	4.56	2.858	0.045164	1
	CH120	17±1	18	63.096	4.56	2.858	0.035875	1
	CH140	17±1	18	63.096	4.56	2.858	0.035875	1
	CH149	18±1	19	79.433	4.56	2.858	0.045164	1
	CH157	18±1	19	79.433	4.56	2.858	0.045164	1
CH165	18±1	19	79.433	4.56	2.858	0.045164	1	
802.11n (VHT20)	CH36	17±1	18	63.096	4.56	2.858	0.035875	1
	CH40	18±1	19	79.433	4.56	2.858	0.045164	1
	CH48	18±1	19	79.433	4.56	2.858	0.045164	1
	CH52	18±1	19	79.433	4.56	2.858	0.045164	1
	CH60	18±1	19	79.433	4.56	2.858	0.045164	1
	CH64	17±1	18	63.096	4.56	2.858	0.035875	1
	CH100	18±1	19	79.433	4.56	2.858	0.045164	1
	CH120	18±1	19	79.433	4.56	2.858	0.045164	1
	CH140	18±1	19	79.433	4.56	2.858	0.045164	1
	CH149	18±1	19	79.433	4.56	2.858	0.045164	1
	CH157	18±1	19	79.433	4.56	2.858	0.045164	1
CH165	18±1	19	79.433	4.56	2.858	0.045164	1	
802.11ac (VHT20)	CH36	18±1	19	79.433	4.56	2.858	0.045164	1
	CH40	17±1	18	63.096	4.56	2.858	0.035875	1
	CH48	17±1	18	63.096	4.56	2.858	0.035875	1
	CH52	18±1	19	79.433	4.56	2.858	0.045164	1
	CH60	18±1	19	79.433	4.56	2.858	0.045164	1
	CH64	17±1	18	63.096	4.56	2.858	0.035875	1
	CH100	17±1	18	63.096	4.56	2.858	0.035875	1
	CH120	17±1	18	63.096	4.56	2.858	0.035875	1
	CH140	16±1	17	50.119	4.56	2.858	0.028497	1
	CH149	18±1	19	79.433	4.56	2.858	0.045164	1
	CH157	18±1	19	79.433	4.56	2.858	0.045164	1
CH165	18±1	19	79.433	4.56	2.858	0.045164	1	

802.11ax (HE20)	CH36	16±1	17	50.119	4.56	2.858	0.028497	1
	CH40	16±1	17	50.119	4.56	2.858	0.028497	1
	CH48	16±1	17	50.119	4.56	2.858	0.028497	1
	CH52	17±1	18	63.096	4.56	2.858	0.035875	1
	CH60	16±1	17	50.119	4.56	2.858	0.028497	1
	CH64	16±1	17	50.119	4.56	2.858	0.028497	1
	CH100	16±1	17	50.119	4.56	2.858	0.028497	1
	CH120	16±1	17	50.119	4.56	2.858	0.028497	1
	CH140	15±1	16	39.811	4.56	2.858	0.022636	1
	CH149	18±1	19	79.433	4.56	2.858	0.045164	1
	CH157	18±1	19	79.433	4.56	2.858	0.045164	1
	CH165	18±1	19	79.433	4.56	2.858	0.045164	1
802.11n (VHT40)	CH38	15±1	16	39.811	4.56	2.858	0.022636	1
	CH46	16±1	17	50.119	4.56	2.858	0.028497	1
	CH54	16±1	17	50.119	4.56	2.858	0.028497	1
	CH62	15±1	16	39.811	4.56	2.858	0.022636	1
	CH102	15±1	16	39.811	4.56	2.858	0.022636	1
	CH118	16±1	17	50.119	4.56	2.858	0.028497	1
	CH134	16±1	17	50.119	4.56	2.858	0.028497	1
	CH151	18±1	19	79.433	4.56	2.858	0.045164	1
	CH159	18±1	19	79.433	4.56	2.858	0.045164	1
802.11ac (VHT40)	CH38	15±1	16	39.811	4.56	2.858	0.022636	1
	CH46	16±1	17	50.119	4.56	2.858	0.028497	1
	CH54	16±1	17	50.119	4.56	2.858	0.028497	1
	CH62	15±1	16	39.811	4.56	2.858	0.022636	1
	CH102	16±1	17	50.119	4.56	2.858	0.028497	1
	CH118	15±1	16	39.811	4.56	2.858	0.022636	1
	CH134	16±1	17	50.119	4.56	2.858	0.028497	1
	CH151	17±1	18	63.096	4.56	2.858	0.035875	1
	CH159	17±1	18	63.096	4.56	2.858	0.035875	1
802.11ax (HE40)	CH38	15±1	16	39.811	4.56	2.858	0.022636	1
	CH46	15±1	16	39.811	4.56	2.858	0.022636	1
	CH54	15±1	16	39.811	4.56	2.858	0.022636	1
	CH62	15±1	16	39.811	4.56	2.858	0.022636	1
	CH102	15±1	16	39.811	4.56	2.858	0.022636	1
	CH118	14±1	15	31.623	4.56	2.858	0.017980	1
	CH134	14±1	15	31.623	4.56	2.858	0.017980	1
	CH151	15±1	16	39.811	4.56	2.858	0.022636	1
	CH159	15±1	16	39.811	4.56	2.858	0.022636	1
802.11ac (VHT80)	CH42	19±1	20	100.000	4.56	2.858	0.056858	1
	CH58	19±1	20	100.000	4.56	2.858	0.056858	1
	CH106	15±1	16	39.811	4.56	2.858	0.022636	1

	CH122	15±1	16	39.811	4.56	2.858	0.022636	1
	CH155	15±1	16	39.811	4.56	2.858	0.022636	1
802.11ax (HE80)	CH42	15±1	16	39.811	4.56	2.858	0.022636	1
	CH58	15±1	16	39.811	4.56	2.858	0.022636	1
	CH106	15±1	16	39.811	4.56	2.858	0.022636	1
	CH122	15±1	16	39.811	4.56	2.858	0.022636	1
	CH155	15±1	16	39.811	4.56	2.858	0.022636	1

MPE Result:

Operation Mode	Channel Number	Channel Frequency (MHz)	Power density at 20cm (mW/cm <sup>2</sup> )			Power density Limits (mW/cm <sup>2</sup> )	Verdict
			Ant0	Ant1	Sum		
802.11a	CH36	5180	0.035875	0.035875	--	1	PASS
	CH40	5200	0.035875	0.045164	--	1	PASS
	CH48	5240	0.045164	0.045164	--	1	PASS
	CH52	5260	0.045164	0.056858	--	1	PASS
	CH60	5300	0.045164	0.035875	--	1	PASS
	CH64	5320	0.028497	0.035875	--	1	PASS
	CH100	5500	0.035875	0.045164	--	1	PASS
	CH120	5600	0.035875	0.035875	--	1	PASS
	CH140	5700	0.028497	0.035875	--	1	PASS
	CH149	5745	0.045164	0.045164	--	1	PASS
	CH157	5785	0.045164	0.045164	--	1	PASS
	CH165	5825	0.045164	0.045164	--	1	PASS
802.11n (HT20)	CH36	5180	0.028497	0.035875	0.028497	1	PASS
	CH40	5200	0.028497	0.045164	0.028497	1	PASS
	CH48	5240	0.028497	0.045164	0.028497	1	PASS
	CH52	5260	0.035875	0.045164	0.035875	1	PASS
	CH60	5300	0.035875	0.045164	0.035875	1	PASS
	CH64	5320	0.028497	0.035875	0.028497	1	PASS
	CH100	5500	0.035875	0.045164	0.035875	1	PASS
	CH120	5600	0.035875	0.045164	0.035875	1	PASS
	CH140	5700	0.022636	0.045164	0.022636	1	PASS
	CH149	5745	0.045164	0.045164	0.045164	1	PASS
	CH157	5785	0.045164	0.045164	0.045164	1	PASS
	CH165	5825	0.045164	0.045164	0.045164	1	PASS
802.11ac (VHT20)	CH36	5180	0.035875	0.045164	0.035875	1	PASS
	CH40	5200	0.035875	0.035875	0.035875	1	PASS
	CH48	5240	0.035875	0.035875	0.035875	1	PASS
	CH52	5260	0.035875	0.045164	0.035875	1	PASS
	CH60	5300	0.035875	0.045164	0.035875	1	PASS
	CH64	5320	0.035875	0.035875	0.035875	1	PASS
	CH100	5500	0.028497	0.035875	0.028497	1	PASS
	CH120	5600	0.028497	0.035875	0.028497	1	PASS
	CH140	5700	0.022636	0.028497	0.022636	1	PASS
	CH149	5745	0.045164	0.045164	0.045164	1	PASS
	CH157	5785	0.045164	0.045164	0.045164	1	PASS
	CH165	5825	0.045164	0.045164	0.045164	1	PASS



802.11ax (HE20)	CH36	5180	0.035875	0.028497	0.035875	1	PASS
	CH40	5200	0.035875	0.028497	0.035875	1	PASS
	CH48	5240	0.035875	0.028497	0.035875	1	PASS
	CH52	5260	0.035875	0.035875	0.035875	1	PASS
	CH60	5300	0.035875	0.028497	0.035875	1	PASS
	CH64	5320	0.035875	0.028497	0.035875	1	PASS
	CH100	5500	0.035875	0.028497	0.035875	1	PASS
	CH120	5600	0.035875	0.028497	0.035875	1	PASS
	CH140	5700	0.028497	0.022636	0.028497	1	PASS
	CH149	5745	0.045164	0.045164	0.045164	1	PASS
	CH157	5785	0.045164	0.045164	0.045164	1	PASS
	CH165	5825	0.045164	0.045164	0.045164	1	PASS
802.11n (HT40)	CH38	5190	0.022636	0.022636	0.022636	1	PASS
	CH46	5230	0.022636	0.028497	0.022636	1	PASS
	CH54	5270	0.035875	0.028497	0.035875	1	PASS
	CH62	5310	0.017980	0.022636	0.017980	1	PASS
	CH102	5510	0.017980	0.022636	0.017980	1	PASS
	CH118	5590	0.017980	0.028497	0.017980	1	PASS
	CH134	5670	0.017980	0.028497	0.017980	1	PASS
	CH151	5755	0.035875	0.045164	0.035875	1	PASS
	CH159	5795	0.035875	0.045164	0.035875	1	PASS
802.11ac (VHT40)	CH38	5190	0.028497	0.022636	0.028497	1	PASS
	CH46	5230	0.028497	0.028497	0.028497	1	PASS
	CH54	5270	0.028497	0.028497	0.028497	1	PASS
	CH62	5310	0.022636	0.022636	0.022636	1	PASS
	CH102	5510	0.022636	0.028497	0.022636	1	PASS
	CH118	5590	0.022636	0.022636	0.022636	1	PASS
	CH134	5670	0.022636	0.028497	0.022636	1	PASS
	CH151	5755	0.035875	0.035875	0.035875	1	PASS
	CH159	5795	0.035875	0.035875	0.035875	1	PASS
802.11ax (HE40)	CH38	5190	0.022636	0.022636	0.022636	1	PASS
	CH46	5230	0.022636	0.022636	0.022636	1	PASS
	CH54	5270	0.022636	0.022636	0.022636	1	PASS
	CH62	5310	0.022636	0.022636	0.022636	1	PASS
	CH102	5510	0.022636	0.022636	0.022636	1	PASS
	CH118	5590	0.028497	0.017980	0.028497	1	PASS
	CH134	5670	0.022636	0.017980	0.022636	1	PASS
	CH151	5755	0.022636	0.022636	0.022636	1	PASS
	CH159	5795	0.022636	0.022636	0.022636	1	PASS
802.11ac (VHT80)	CH42	5210	0.035875	0.056858	0.035875	1	PASS
	CH58	5290	0.035875	0.056858	0.035875	1	PASS
	CH106	5530	0.017980	0.022636	0.017980	1	PASS

	CH122	5610	0.022636	0.022636	0.022636	1	PASS
	CH155	5775	0.035875	0.022636	0.035875	1	PASS
802.11ax (HE80)	CH42	5210	0.045164	0.022636	0.045164	1	PASS
	CH58	5290	0.035875	0.022636	0.035875	1	PASS
	CH106	5530	0.022636	0.022636	0.022636	1	PASS
	CH122	5610	0.022636	0.022636	0.022636	1	PASS
	CH155	5775	0.022636	0.022636	0.022636	1	PASS

The Product unsupported at the same time to Transmitting. According to KDB 447498, and no simultaneous SAR measurement is required.

Signature:



Tiger Xu

Date: 2023-05-15