FCC ID: 2AZKX-PCDOCK

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)

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	$*900/f^2$	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	$*180/f^2$	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

MPE Calculation Method

E (V/m) = $\frac{\sqrt{30 * P * G}}{d}$ Power Density: *Pd* (W/m²) = $\frac{E^2}{377}$

E = Electric field (V/m)

P = Average RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

Pd = $\frac{30 * P * G}{377 * D^2}$

From the EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained.

Measurement Result

BT/BLE

Channel Freq. (MHz)	modulation	conducted power (dBm)	Tune-up power (dBm)	Max		Antenna		Evaluation result (mW/cm2)	Power density (mW/cm2)
				tune-up power		Gain			
				(dBm)	(mW)	(dBi)	Numeric		
2402	GFSK	5.05	5±1	6	3.981	5.41	3.48	0.0028	1
2441		4.26	5±1	6	3.981	5.41	3.48	0.0028	1
2480		5.68	5±1	6	3.981	5.41	3.48	0.0028	1
2402	π/4-DQPSK	2.48	2±1	3	1.995	5.41	3.48	0.0014	1
2441		1.77	2±1	3	1.995	5.41	3.48	0.0014	1
2480		2.55	2±1	3	1.995	5.41	3.48	0.0014	1
2402	8-DPSK	2.88	3±1	4	2.512	5.41	3.48	0.0017	1
2441		2.25	3±1	4	2.512	5.41	3.48	0.0017	1
2480		3.15	3±1	4	2.512	5.41	3.48	0.0017	1
2402	BLE	2.95	3.5±1	4.5	2.818	5.41	3.48	0.0019	1
2440		3.3	3.5±1	4.5	2.818	5.41	3.48	0.0019	1
2480		4.08	3.5±1	4.5	2.818	5.41	3.48	0.0019	1

WIFI 2.4G:

MIMO

Channel Freq. (MHz)	modulation	conducted power (dBm)	Tune-up power (dBm)	Max		Antenna		Evaluation result (mW/cm2)	Power density (mW/cm2)
				tune-up power		Gain			
				(dBm)	(mW)	(dBi)	Numeric		
2412	802.11n20	16.87	16±1	17	50.119	8.89	7.74	0.0772	1
2437		16.96	16±1	17	50.119	8.89	7.74	0.0772	1
2462		16.80	16±1	17	50.119	8.89	7.74	0.0772	1
2422	802.11n40	16.33	16±1	17	50.119	8.89	7.74	0.0772	1
2437		16.20	16±1	17	50.119	8.89	7.74	0.0772	1
2452		16.37	16±1	17	50.119	8.89	7.74	0.0772	1

WIFI 5.2G:

MIMO

Channel Freq. (MHz)	modulation	conducted power (dBm)	Tune-up power (dBm)	Max		Antenna		Evaluation result (mW/cm2)	Power density (mW/cm2)
				tune-up power		Gain			
				(dBm)	(mW)	(dBi)	Numeric		
5180	802.11nHT20	12.84	12±1	13	19.953	8.89	7.74	0.0307	1
5200		12.60	12±1	13	19.953	8.89	7.74	0.0307	1
5240		12.72	12±1	13	19.953	8.89	7.74	0.0307	1
5190	802.11nHT40	12.19	12±1	13	19.953	8.89	7.74	0.0307	1
5230		12.25	12±1	13	19.953	8.89	7.74	0.0307	1
5180	802.11acVHT20	12.78	12±1	13	19.953	8.89	7.74	0.0307	1
5200		12.52	12±1	13	19.953	8.89	7.74	0.0307	1
5240		12.80	12±1	13	19.953	8.89	7.74	0.0307	1
5190	802.11acVHT40	12.60	12±1	13	19.953	8.89	7.74	0.0307	1
5230		12.33	12±1	13	19.953	8.89	7.74	0.0307	1
5210	802.11acVHT80	12.07	12±1	13	19.953	8.89	7.74	0.0307	1

WIFI 5.8G:
MIMO

Channel Freq. (MHz)	modulation	conducted power (dBm)	Tune-up power (dBm)	Max		Antenna		Evaluation result (mW/cm2)	Power density (mW/cm2)
				tune-up power		Gain			
				(dBm)	(mW)	(dBi)	Numeric		
5745	802.11nHT20	12.72	12±1	13	19.953	8.89	7.74	0.0307	1
5785		12.84	12±1	13	19.953	8.89	7.74	0.0307	1
5825		12.35	12±1	13	19.953	8.89	7.74	0.0307	1
5755	802.11nHT40	12.54	12±1	13	19.953	8.89	7.74	0.0307	1
5795		12.19	12±1	13	19.953	8.89	7.74	0.0307	1
5745	802.11acVHT20	12.92	12±1	13	19.953	8.89	7.74	0.0307	1
5785		12.69	12±1	13	19.953	8.89	7.74	0.0307	1
5825		12.81	12±1	13	19.953	8.89	7.74	0.0307	1
5755	802.11acVHT40	12.31	12±1	13	19.953	8.89	7.74	0.0307	1
5795		12.19	12±1	13	19.953	8.89	7.74	0.0307	1
5775	802.11acVHT80	12.19	12±1	13	19.953	8.89	7.74	0.0307	1

This product does not support the requirements under multiple sources.

Conclusion:
For the max result : 0.0307≤1 for Max Power Density, compliance the RF Exposure.

Signature: **Date:** 2021/4/28

NAME AND TITLE (Please print or type): Alex Li/Manager

COMPANY (Please print or type): Shenzhen NTEK Testing Technology Co., Ltd./ 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street Bao'an District, Shenzhen P.R. China.