

FCC ID: 2AYJK-STORM

Maximum Permissible Exposure (MPE)

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

$$E \text{ (V/m)} = \frac{\sqrt{30 * P * G}}{d}$$

$$\text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

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

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

Measurement Result

BT:

Operation Frequency: 2402MHz~2480MHz

Antenna gain:0.16dBi;

R=5cm

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density
		(dBm)		tune-up power		Gain		(mW/cm2)	(mW/cm2)
				(dBm)	(mW)	(dBi)	Numeric		
2402	GFSK	-9.65	-9±1	-8	0.158	0.16	1.04	0.000523	1
2441		-9.29	-9±1	-8	0.158	0.16	1.04	0.000523	1
2480		-9.61	-9±1	-8	0.158	0.16	1.04	0.000523	1
2402	π/4-DQPSK	-8.86	-8±1	-7	0.200	0.16	1.04	0.000659	1
2441		-8.53	-8±1	-7	0.200	0.16	1.04	0.000659	1
2480		-9.56	-9±1	-8	0.158	0.16	1.04	0.000523	1
2402	8-DPSK	-8.42	-8±1	-7	0.200	0.16	1.04	0.000659	1
2441		-8.16	-8±1	-7	0.200	0.16	1.04	0.000659	1
2480		-9.27	-9±1	-8	0.158	0.16	1.04	0.000523	1

BLE:

Operation Frequency: 2402MHz~2480MHz

Antenna gain:0.16dBi;

R=5cm

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density
		(dBm)		tune-up power		Gain		(mW/cm2)	(mW/cm2)
				(dBm)	(mW)	(dBi)	Numeric		
2402	BLE 1M	-3.79	-3±1	-2	0.631	0.16	1.04	0.002084	1
2440		-3.93	-3±1	-2	0.631	0.16	1.04	0.002084	1
2480		-4.37	-4±1	-3	0.501	0.16	1.04	0.001655	1
2402	BLE 2M	-3.77	-3±1	-2	0.631	0.16	1.04	0.002084	1
2440		-3.84	-3±1	-2	0.631	0.16	1.04	0.002084	1
2480		-4.31	-4±1	-3	0.501	0.16	1.04	0.001655	1

SRD 2.4G:

Operation Frequency: 2402MHz~2480MHz

Antenna gain:-0.1dBi;

R=5cm

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density
		(dBm)		tune-up power		Gain		(mW/cm2)	(mW/cm2)
				(dBm)	(mW)	(dBi)	Numeric		
2402	SRD 2M	-7.87	-7±1	-6	0.251	-0.10	0.98	0.000781	1
2440		-9	-9±1	-8	0.158	-0.10	0.98	0.000493	1
2480		-9.74	-9±1	-8	0.158	-0.10	0.98	0.000493	1

SIMULTANEOUS TRANSMISSIONS

When a number of sources at different frequencies, and/or broadband sources, contribute to the total exposure, it becomes necessary to weigh each contribution relative to the MPE. To comply with the MPE, the fraction of the MPE in terms of E^2 , H^2 (or power density) incurred within each frequency interval should be determined and the sum of all such fractions should not exceed unity. In order to ensure compliance with the MPE for a controlled environment, the sum of the ratios of the power density to the corresponding MPE should not exceed unity. That is

$$\sum_{i=1}^n \frac{S_i}{MPE_i} \leq 1$$

Band	Antenna	tune-up power	Antenna	Separation distance (cm)	Standalone	Standalone	Simultaneous		Verdict
		(dBm)	Gain		Evaluation result(mW/cm2)	Power density Limits(mW/cm2)	Evaluation result	Limit	
			(dBi)				raio		
BT	1	-7	0.16	5	0.000659	1	0.003524	1	pass
BLE	1	-2	0.16	5	0.002084	1			
SRD 2.4G	1	-6	-0.1	5	0.000781	1			

Conclusion: The device compliance with the FCC MPE-base exemption limit at 5cm distance.

Signature: 

Date: 2026-01-15

NAME AND TITLE (Please print or type): alex li/Manager

COMPANY (Please print or type): Shenzhen NTEK Testing Technology Co., Ltd./ No. 24 Xinfu East Road, Xiangshan Community, Xinqiao Street, Baoan District, Shenzhen, Guangdong, People's Republic of China