

MPE

FCC ID: 2AFZC-BX6000

Applicant: Tronxyz Technology Co., Ltd

Exposure category: General population/uncontrolled environment

EUT Type: Production Unit

Device Type: Mobile Device

Refer Standard: FCC Part 2.1091: Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands)

FCC MPE Limited:

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
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
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

Test Data

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

Where: S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Max Conducted Output Power Results

Test mode	Channel	Frequency (MHz)	RF Power(dBm)
WIFI(802.11g)	1	2412	17.41
	6	2437	18.10
	11	2462	18.17
BT	0	2402	5.75
	39	2441	6.11
	78	2480	6.03

Manufacturing tolerance (MAX)

Test mode	Channel	Frequency (MHz)	Tolerance ±(dBm)
WIFI(802.11g)	1	2412	17.5±1
	6	2437	17.5±1
	11	2462	17.5±1
BT	0	2402	6.0±1
	39	2441	6.0±1
	78	2480	6.0±1

Calculation results (for FCC): pass

Test mode	Channel	Frequency (MHz)	Maximum tune up power(dBm)	RF distance(cm)	Result (mW/cm2)	Limit (mW/cm2)
WIFI(802.11g)	1	2412	18.5	20	0.022	1.0
	6	2437	18.5	20	0.022	
	11	2462	18.5	20	0.022	
BT	0	2402	7.0	20	0.0016	
	39	2441	7.0	20	0.0016	
	78	2480	7.0	20	0.0016	

NOTE:

Antenna Gain 2dBi=1.58