

Maximum Permissible Exposure

FCC ID: AZPT4PX-24G

Product Name: Radio Control

Model No: T4PX

1. According to FCC CFR 47 §1.1310, the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b).

Table 1 Limits for Maximum Permissible Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (Minutes)
(A) Limits For Occupational / Control Exposures (f = frequency)				
30-300	61.4	0.163	1.0	6
300-1500	...	...	f/300	6
1500-100,000	...	...	5.0	6
(B) Limits For General Population / Uncontrolled Exposure (f = frequency)				
30-300	27.5	0.073	0.2	30
300-1500	...	...	f/1500	30
1500-100,000	...	...	1.0	30

2. MPE Calculation

Futaba Corporation declares that the product described above has been evaluated and found to comply with the RF exposure limits for humans, as specified based on ANSI/FCC recommendation.

In Radio Technology: T-FHSS Modulation

Based on safety distance 20cm, the antenna gain is 2.14 dBi, and the power output is 49.705mW, the power density is 0.0162mW/cm²

RF Exposure Calculations:

$$S = (P * G) / (4 * \pi * r^2) \text{ or } r = \sqrt{(P * G) / (4 * \pi * S)}$$

Where S = Power Density in mW/cm²

P=16.964dBm=49.705mw

G =2.14 dBi=1.637 Numerical

r = 20cm

$$S = 49.705 * 1.637 / 4 * \pi * 20^2 = 0.0162 \text{ mW/cm}^2$$

In Radio Technology: S-FHSS Modulation

Based on safety distance 20cm, the antenna gain is 2.14 dBi, and the power output is 38.098mW, the power density is 0.0124mW/cm²

RF Exposure Calculations:

$$S = (P * G) / (4 * \pi * r^2) \text{ or } r = \sqrt{(P * G) / (4 * \pi * S)}$$

Where S = Power Density in mW/cm²

P=15.809dBm=38.098mw

G =2.14 dBi=1.637 Numerical

r = 20cm

$$S = 38.098 * 1.637 / 4 * \pi * 20^2 = 0.0124 \text{ mW/cm}^2$$

In Radio Technology: FASST Modulation

Based on safety distance 20cm, the antenna gain is 2.14 dBi, and the power output is 28.642mW, the power density is 0.0093mW/cm²

RF Exposure Calculations:

$$S = (P * G) / (4 * \pi * r^2) \text{ or } r = \sqrt{(P * G) / (4 * \pi * S)}$$

Where S = Power Density in mW/cm²

P=14.57dBm=28.642mw

G =2.14 dBi=1.637 Numerical

r = 20cm

$$S = 28.642 * 1.637 / 4 * \pi * 20^2 = 0.0093 \text{ mW/cm}^2$$

Sincerely Yours,



Mr. Ben Cheng
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