

Maximum Permissive Exposure

FCC ID: BJM-IOT3352

Product Name: IOT Gateway

Model No: IOT-3352

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

Tatung Company 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.

RF Exposure Calculations:

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

2.1 WIFI 2.4G MPE

Where :

Based on safety distance (r)=	20	cm		
Highest Power Output (P)=	23.04	dBm =	201.372	mW
Antenna Gain (G)=	2.2	dBi =	1.660	Numerical
MPE (S) = (P*G) / (4*π*r ²) =	= (201.372*1.660)/(4*π*20 ²)=		0.066502	mW/cm ²

Based on safety distance (r) **20cm**, the antenna gain (G) is **1.660 Numerical**, and the highest power output (P) is **201.372mW**, the power density (S) is **0.066502mW/cm²**.

2.2 BT MPE

Where :

Based on safety distance (r)=	20	cm		
Highest Power Output (P)=	5.699	dBm =	3.714	mW
Antenna Gain (G)=	2.2	dBi =	1.660	Numerical
MPE (S) = $(P \cdot G) / (4 \cdot \pi \cdot r^2) =$	$= (3.714 \cdot 1.660) / (4 \cdot \pi \cdot 20^2) =$		0.001227	mW/cm ²

Based on safety distance (r) **20cm**, the antenna gain (G) is **1.660 Numerical**, and the highest power output (P) is **3.714mW**, the power density (S) is **0.001227mW/cm²**.

Sincerely Yours,



Mr. Ben Cheng
Manager
AUDIX Technology Corporation