

Maximum Permissive Exposure

FCC ID: 2AHVL-IEITB1DYACO

Product Name: ENT CONSOLE

Model No: (1)WT002 (2)WB001

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

Dyaco International Inc. 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.

2. MPE Calculation

2.1 WM-BAN-BM-04 Module (WIFI 2.4G MPE)

Based on safety distance (r) **20cm**, the antenna gain (G) is **1.545 Numerical**, and the highest power output (P) is **150.314mW**, the power density (S) is **0.046202mW/cm²**.

RF Exposure Calculations:

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

Where :

Based on safety distance (r)=	20 cm
Highest Power Output (P)=	21.77 dBm = 150.314 mW
Antenna Gain (G)=	1.89 dBi = 1.545 Numerical
MPE (S) = (P*G) / (4*π*r ²) =	= (150.314*1.545)/(4*π*20²)= 0.046202 mW/cm²

2.2 WM-BAN-BM-04 Module (BT MPE)

Based on safety distance (r) **20cm**, the antenna gain (G) is **1.545 Numerical**, and the highest power output (P) is **1.117mW**, the power density (S) is **0.005911mW/cm²**.

RF Exposure Calculations:

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

Where :

Based on safety distance (r)=	20 cm		
Highest Power Output (P)=	0.48 dBm =	1.117 mW	
Antenna Gain (G)=	1.89 dBi =	1.545 Numerical	
MPE (S) = (P*G) / (4*π*r ²) =	= (1.117*1.545)/(4*π*20²)=		0.005911 mW/cm²

2.3 WM-BAN-BM-04 Module (BLE MPE)

Based on safety distance (r) **20cm**, the antenna gain (G) is **1.545 Numerical**, and the highest power output (P) is **2.864mW**, the power density (S) is **0.00088mW/cm²**.

RF Exposure Calculations:

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

Where :

Based on safety distance (r)=	20 cm		
Highest Power Output (P)=	4.57 dBm =	2.864 mW	
Antenna Gain (G)=	1.89 dBi =	1.545 Numerical	
MPE (S) = (P*G) / (4*π*r ²) =	= (2.864*1.545)/(4*π*20²)=		0.000880 mW/cm²

MPE			
WM-BAN-BM-04 Module WIFI 2.4G (mW/cm ²)	WM-BAN-BM-04 Module BT 2.4G (mW/cm ²)	Total (mW/cm ²)	Limit (mW/cm ²)
0.046202	0.005911	0.052113	1

MPE			
WM-BAN-BM-04 Module WIFI 2.4G (mW/cm ²)	WM-BAN-BM-04 Module BLE (mW/cm ²)	Total (mW/cm ²)	Limit (mW/cm ²)
0.046202	0.00088	0.047082	1

Sincerely Yours,



Mr. Ben Cheng
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