

### MIPRO ELECTRONICS CO., LTD.



Federal Communications Commission Authorization and Evaluation Division Equipment Authorization Branch 7435 Oakland Mills Road Columbia, MD 21046

## Applicant's declaration concerning RF Radiation Exposure

We hereby indicate that the product Product description: Wireless Transmitter

Model No: MTM-24, MXX-2XXXXX (X=0~9,a~z,A~Z or Blank)

The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The integral antennas used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter within the host device.

A safety statement concerning minimum separation distances from enclosure of the Product : Wireless Transmitter

will be integrated in the user's manual to provide end-users with transmitter operating conditions for satisfying RF exposure compliance.

The appropriate information can be drawn from the test report no: W6M22104-20821-C-54 and the accompanying calculations.

Company: MIPRO Electronics Co., Ltd.

Address: 814, Beigang Rd., Chiayi City 60096, Taiwan

Date: 2021-05-21

MIPRO ELECTRONICS CO., LTD.

Registration number: W6M22104-20821-C-1

FCC ID: M5X-MTM24

### 3.2 Equivalent Isotropic Radiated Power (EIRP)

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain

EIRP = 7.98 dBm + 0 dBi [antenna gain claimed by manufacturer] = 7.98 dBm = 6.2806 mW

# 3.3 Exemption Limits for Routine Evaluation according to 47 CFR FCC Part 2 Subpart J, section 2.1091

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a "worst case" or conservative prediction.

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 20 cm normally can be maintained between the user and the device.

#### **MPE Calculation Method**

#### (A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time $ E ^2$ , $ H ^2$ or S (minutes)
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
300-1500			f/300	6
1500-100,000			5	6

#### (B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time $ E ^2$ , $ H ^2$ or S (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

f = frequency in MHz

<sup>\*</sup>Plane-wave equivalent power density



## Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22104-20821-C-1

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E = Electric field (V/m) P = output power (W) G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to mW/m2.

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

Established separation distance is 20 cm.

Operating frequency band: 2402.5~2480 MHz The product meets RF exposure requirement.

Because the power density of 0.0013 mW/cm<sup>2</sup> at 2402.5 MHz is below the power density limit of 1 mW/cm<sup>2</sup>.