

# RF Exposure Evaluation Report

**Product** : Headtracker wireless module Tx Pro  
**Trade mark** : N/A  
**Model/Type reference** : HT Tx Pro  
**Serial Number** : N/A  
**Report Number** : EED32R80340202  
**FCC ID** : 2BPLYXF-HT-TX0020  
**Date of Issue** : Jun. 04, 2025  
**Test Standards** : 47 CFR Part 1.1307  
47 CFR Part 1.1310  
47 CFR Part 2.1091  
47 CFR Part 2.1093  
KDB 447498 D04 Interim General RF  
Exposure Guidance v01  
**Test result** : PASS

Prepared for:

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1 Version

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### 3 General Information

#### 3.1 Client Information

Applicant:	Nanjing Xianfei Robot Technology Co., Ltd
Address of Applicant:	6th Floor, Building 7, Artificial Intelligence Industrial Park, No. 266 Chuangyan Road, Jiangning District, Nanjing City, Jiangsu Province
Manufacturer:	Nanjing Xianfei Robot Technology Co., Ltd
Address of Manufacturer:	6th Floor, Building 7, Artificial Intelligence Industrial Park, No. 266 Chuangyan Road, Jiangning District, Nanjing City, Jiangsu Province
Factory:	Nanjing Xianfei Robot Technology Co., Ltd
Address of Factory:	6th Floor, Building 7, Artificial Intelligence Industrial Park, No. 266 Chuangyan Road, Jiangning District, Nanjing City, Jiangsu Province

#### 3.2 General Description of EUT

Product Name:	Headtracker wireless module Tx Pro
Model No.(EUT):	HT Tx Pro
Trade Mark:	N/A

#### 3.3 Product Specification subjective to this standard

Frequency Range:	2400MHz~2480MHz
Modulation Type:	GFSK
Test Power Grade:	Default
Test Software of EUT:	FreeFlightIAP_V3.0.exe
Antenna Type:	Dipole Antenna
Antenna Gain:	3.26dBi
Power Supply:	DC 3.3V
Sample Received Date:	Mar. 25, 2025
Sample tested Date:	Mar. 25, 2025 to Apr. 08, 2025

### 3.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd  
Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China  
Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385  
No tests were sub-contracted.  
FCC Designation No.: CN1164

### 3.5 Deviation from Standards

None.

### 3.6 Abnormalities from Standard Conditions

None.

### 3.7 Other Information Requested by the Customer

None.

## 4 SAR Evaluation

### 4.1 RF Exposure Compliance Requirement

#### 4.1.1 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold  $P_{th}$  (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive).  $P_{th}$  is given by Formula

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10} \left( \frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and  $f$  is in GHz,  $d$  is the separation distance (cm), and  $ERP_{20 \text{ cm}}$  is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

#### 4.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.



## 4.1.3 EUT RF Exposure Evaluation

For Stand alone:

Frequency (MHz)	Estimation distance (cm)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	MPE ratio	Result
@2.4GHz	20	21.79	3.26	22.90	194.9845	3060	0.0637	Pass

**Note:**

① EIRP=conducted power+antenna gain;

② ERP=EIRP-2.15;

③  $EIRP(dBm) = \text{Field strength of the fundamental signal}(dBuV/m@3m) - 95.23$ ;

④  $ERP(mW) = 10^{(ERP(dBm)/10)}$ ;

⑤ The estimation distance is 20cm;

⑥ The test data please refer to the report of EED32R80340201 and only the worst case data was recorded in the report.

## Statement

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule stated in ILAC-G8:09/2019/CNAS-GL015:2022;
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\*\*\* End of Report \*\*\*