

# FCC RF EXPOSURE REPORT

## FCC ID: 2AOHHTURBOXC2290

**Project No.** : 2407C144  
**Equipment** : Smart Module  
**Brand Name** : TurboX  
**Test Model** : TurboX C2290  
**Series Model** : N/A  
**Applicant** : Thundercomm Technology Co., Ltd  
**Address** : No. 107, Middle Datagu Road, Xiantao Street, Yubei District,  
Chongqing, China, 401122  
**Manufacturer** : Thundercomm Technology Co., Ltd  
**Address** : No. 107, Middle Datagu Road, Xiantao Street, Yubei District,  
Chongqing, China, 401122  
**Factory** : MIKI TECHNOLOGY HUIZHOU  
**Address** : 39 Guangtai Road, Huinan Science Park, Huizhou City  
**Date of Receipt** : Jul. 22, 2024  
**Date of Test** : Jul. 24, 2024 ~ Aug. 14, 2024  
**Issued Date** : Aug. 28, 2024  
**Report Version** : R00  
**Test Sample** : Engineering Sample No.: DG2024072344  
**Standard(s)** : FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091  
FCC Title 47 Part 2.1091 & KDB 447498 D01 v06

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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**REPORT ISSUED HISTORY**

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-5-2407C144	R00	Original Report.	Aug. 28, 2024	Valid

## 1. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi R^2} = \frac{EIRP}{4\pi R^2}$$

where:

S = power density


P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna


## 2. ANTENNA SPECIFICATION

For BT&LE&2.4G:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1		TG.55.8113	Monopole	N/A	1.69

Note: The antenna gain is provided by the manufacturer.

For 5G:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1		TG.55.8113	Monopole	N/A	0.7

Note: The antenna gain is provided by the manufacturer.

### 3. CALCULATED RESULT

For BT:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.69	1.4757	10.63	11.5611	0.00340	1	Complies

For LE:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.69	1.4757	6.26	4.2267	0.00124	1	Complies

For 2.4GHz:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
1.69	1.4757	19.06	80.5378	0.02366	1	Complies

For 5GHz:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
0.7	1.1749	17.07	50.9331	0.01191	1	Complies

Note:

- (1) The calculated distance is 20 cm.
- (2) Output power including tune up tolerance(tune up tolerance: 0.5 dB).
- (3) Ratio=Power Density (S) (mW/cm<sup>2</sup>)/Limit of Power Density (S) (mW/cm<sup>2</sup>)
- (4) BT, LE, WLAN 2.4GHz and WLAN 5GHz can not simultaneous transmission.

**End of Test Report**