

# FCC RF EXPOSURE REPORT

FCC ID: 2AFENWK08K

Project No. : 2502C023

Equipment : Projector

Brand Name : XGIMI

Test Model : WK08K

Series Model : N/A

**Applicant**: XGIMI Technology Co., Ltd.

Address : Building No.4, Zone A, No.1129, Shijicheng Road, High-tech Zone, Pilot

Free Trade, Chengdu Sichua, China

**Manufacturer** : XGIMI Technology Co., Ltd.

Address : No. 4, Zone A, No. 1129, Shijicheng Road, Chengdu Hi-tech Zone,

Sichuan Pilot Free Trade Zone, 610041 China

Factory 1 : Yibin XGIMI Optoelectronic Co., Ltd.

Address : No. 2, West Section 4, Changjiang North Road, Lingang Economic

Development Zone, Yibin City, Sichuan P.R. China

Factory 2 : XGIMI VIETNAM TECHNOLOGY COMPANY LIMITED

Address : Lot CN 4-1, My Thuan Industria I Zone,y Thuan Commune,Nam Dinh

City, Nam Dinh Province, Vietnam

Date of Receipt : Feb. 17, 2025

**Date of Test** : Feb. 19, 2025 ~ Mar. 27, 2025

Issued Date : May 30, 2025

Report Version : R01

Test Sample : Engineering Sample No.: SSL20250217382

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. (Dongguan)

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# **REPORT ISSUED HISTORY**

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-6-2502C023	R00	Original Report.	Apr. 14, 2025	Invalid
BTL-FCCP-6-2502C023	R01	Only updated the applicant information and removed the series models.	May 30, 2025	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:

Ant. Brand 1 N/A		Model Name Antenna Type		Connector	Gain (dBi)	
		N/A	PCB	N/A	1.62	

Note: The antenna gain is provided by the manufacturer.

#### For 2.4GHz:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	1 N/A 409-00234-001		FPC	N/A	4.59
2	N/A	409-00235-001	FPC	N/A	0.98

1) This EUT supports CDD, and all antenna gains are not equal, Directional gain = G<sub>ANT</sub>+Array Gain. For power measurements, Array Gain=0dB (N<sub>ANT</sub>≤4), so the Directional gain=4.59. For power spectral density measurements, N<sub>ANT</sub>=2, N<sub>SS</sub> = 1. So the Directional gain=G<sub>ANT</sub>+Array Gain=G<sub>ANT</sub>+10log(N<sub>ANT</sub>/ N<sub>SS</sub>)dBi=4.59+10log(2/1)dBi=7.60. Then, the power spectral density limit is 8-(7.60-6)=6.40.

2) The antenna gain is provided by the manufacturer.

#### For 5GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A 409-00234-001		FPC	N/A	6.07
2	N/A	409-00235-001	FPC	N/A	5.55

 This EUT supports CDD, and all antenna gains are not equal, Directional gain = G<sub>ANT</sub>+Array Gain. For power measurements, Array Gain=0dB (N<sub>ANT</sub>≤4), so the Directional gain=6.07. So, the UNII-1, the UNII-2A, UNII-2C output power limit is 23.98-(6.07-6)=23.91, UNII-3 output power limit is 30-(6.07-6)=23.93.

For power spectral density measurements,  $N_{ANT}$ =2,  $N_{SS}$  = 1. So the Directional gain= $G_{ANT}$ +Array  $G_{ANT}$ +10log( $N_{ANT}$ / $N_{SS}$ )dBi=6.07+10log(2/1)dBi=9.08. Then, the UNII-1, UNII-2A and UNII-2C power spectral density limit is 11-(9.08-6)=7.92, the UNII-3 power spectral density limit is 30-(9.08-6)=26.92.

2) 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/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
1.62	1.4521	8.86	7.6913	0.00222	1	Complies

## For LE:

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	Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
	1.62	1.4521	8.98	7.9068	0.00229	1	Complies

## For 2.4GHz:

Directional Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
4.59	2.8774	27.08	510.5050	0.29238	1	Complies

## For 5GHz:

Directional Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
6.07	4.0458	26.21	417.8304	0.33647	1	Complies

#### For the max simultaneous transmission MPE:

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Ratio			Total	Limit of Ratio	Test Result
LE 2.4GHz		5GHz	TOTAL	Littil Of Natio	rest Result
0.00229	0.29238	0.33647	0.63114	1	Complies

#### Note:

- (1) The calculated distance is 20 cm.(2) Output power including tune up tolerance.

# **End of Test Report**