

FCC RF EXPOSURE REPORT

FCC ID: 2AUTE-IQ4

Project No.	:	2503C328
Equipment	:	1) Thermal Transfer Barcode Printer 2) Barcode Printer
Brand Name	:	HPRT, iDPRT
Test Model	:	iQ4
Model Name	:	iQ4, iQ4 PLUS, Q400, Q410, Q420, Q430, iQ400, iQ410, iQ420, iQ430, TT4210, Neo, QT400, QT410, QT231, QT230, QT430, QT240, QS40, QS410, QS231, QS400, QS240, QE40, QE410, QE231, QE400, QE240, QN40, QN410, QN231, QN400, QN240, QW40, QW410, QW231, QW400, QW240, TT400, TT410, TT231, TT230, TT430, XQ400, XQ410, XQ420, XQ430, XQ231, XQ240
Hardware Version	:	IQ4PLUS-MBA
Software Version	:	iQ4_V1.00.00_BETA31
Applicant	:	Xiamen Hanin Co., Ltd.
Address	:	Room 305A, Angye Building, Pioneering Park,Torch High-tech Zone,Xiamen,China
Manufacturer	:	Xiamen Hanin Co., Ltd.
Address	:	Room 305A, Angye Building, Pioneering Park,Torch High-tech Zone,Xiamen,China
Factory	:	Xiamen Hanin Co., Ltd.
Address	:	96# Rongyuan Road,Tong'an District, 361000 Xiamen,China
Date of Receipt	:	Apr. 01, 2025
Date of Test	:	Apr. 08, 2025 ~ Aug. 21, 2025
Issued Date	:	Sep. 01, 2025
Test Sample	:	Engineering Sample No.: DG2025040127 & DG2025040127-24
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)

Prepared by

:

Antony Liang

Antony Liang

Approved by

:

Steven Lu

Steven Lu

No.3, Jinshagang 1st Road, Dalang, Dongguan, Guangdong People's Republic of China.

Tel: +86-769-8318-3000

Web: www.newbtl.com

Service mail: btl_qa@newbtl.com

REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-6-2503C328	R00	Original Report.	Sep. 01, 2025	Valid

1. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

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

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(EDR+LE):

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	 蝙蝠无线 BAT WIRELESS	BW2.4FND35-10B1L400	PCB	IPEX-1	3.09

Note: The antenna gain is provided by the manufacturer.

For WLAN 2.4G:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	LGY	IQ4	Dipole	IPEX	4.81
2	LGY	IQ4	Dipole	IPEX	3.31

Note:

- 1) This EUT supports CDD, and all antenna gains are not equal Directional gain = $G_{ANT} + \text{Array Gain}$.
For power measurements, Array Gain=0dB ($N_{ANT} \leq 4$), so the Directional gain=4.81.
For power spectral density measurements, $N_{ANT}=2$, $N_{SS} = 1$.
So the Directional gain= $G_{ANT} + \text{Array Gain} = G_{ANT} + 10\log(N_{ANT}/N_{SS})\text{dBi} = 4.81 + 10\log(2/1)\text{dBi} = 7.82$.
- 2) The antenna gain is provided by the manufacturer.

For WLAN 5GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	LGY	IQ4	Dipole	IPEX	9.57
2	LGY	IQ4	Dipole	IPEX	6.86

Note:

- 1) This EUT supports CDD, all antenna gains are not equal, Directional gain = $G_{ANT} + \text{Array Gain}$.
For power measurements, Array Gain=0dB ($N_{ANT} \leq 4$), so the Directional gain=9.57.
For power spectral density measurements, $N_{ANT}=2$, $N_{SS} = 1$. So the Directional gain= $G_{ANT} + \text{Array Gain} = G_{ANT} + 10\log(N_{ANT}/N_{SS})\text{dBi} = 9.57 + 10\log(2/1)\text{dBi} = 12.58$.
- 2) The antenna gain is provided by the manufacturer.

3. CALCULATED RESULT

For BT EDR:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3.09	2.0370	6.10	4.0738	0.00165	1	Pass

For BT LE:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3.09	2.0370	6.10	4.0738	0.00165	1	Pass

For WLAN 2.4GHz:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Average Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
4.81	3.0269	21.75	149.6236	0.09015	1	Pass

For WLAN 5GHz:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Average Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
9.57	9.0573	16.72	46.9894	0.08471	1	Pass

For the max simultaneous transmission MPE:

Ratio		Total	Limit of Ratio	Test Result
BT EDR	WLAN 2.4GHz			
0.00165	0.09015	0.09180	1	Pass

Note:

(1) The calculated distance is 20 cm.

(2) Ratio=Power Density (S) (mW/cm²)/Limit of Power Density (S) (mW/cm²)

End of Test Report