



RF TEST REPORT

Product Name: TRACKER

Model Name: HYN100P

FCC ID: 2BO2A-HYN100P

Issued For : SHENZHEN HUIYE IOT TECHNOLOGY CO.,LTD.

No.39,Zhulongtian Road,Shuitian Community,Shiyan
Street,Baoan · Shenzhen, Guangdong, China

Issued By : Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Zhenxiong Industrial Park,
No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan
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TEST REPORT CERTIFICATION

Applicant: SHENZHEN HUIYE IOT TECHNOLOGY CO.,LTD.

Address: No.39,Zhulongtian Road,Shuitian Community,Shiyan Street,Baoan · Shenzhen, Guangdong, China

Manufacturer: Chongqing Huiye IoT Technology Co.,Ltd

Address: No.6-4, Zong bao Avenue, Shapingba District, Chongqing City, P.R.China

Product Name: TRACKER

Trademark: Huiye

Model Name: HYN100P

Sample Status: Normal

APPLICABLE STANDARDS

STANDARD	TEST RESULTS
FCC 47 CFR §2.1091 KDB 447498 D01 General RF Exposure Guidance v06	PASS

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Revision History

Rev.	Issue Date	Revisions
00	May 07, 2025	Initial Issue



1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF THE EUT

Product Name:	TRACKER	
Trademark:	Huiye	
Model Name:	HYN100P	
Series Model:	N/A	
Model Difference:	N/A	
Frequency Bands:	Bluetooth	2402-2480MHz
	GSM	850: 824 MHz ~ 849MHz 1900: 1850 MHz ~ 1910MHz
	LTE	LTE Band 2:1850~1910MHz LTE Band 4:1710~1755MHz LTE Band 5: 824~849MHz LTE Band 7:2500~2570MHz LTE Band 66: 1710-1780MHz
Rating:	Input: DC 10-90V 2A	
Battery:	Capacity: 190mAh Rated Voltage: 3.7V	
Hardware Version:	V1.02	
Software Version:	N/A	

1.2 TEST LABORATORY

Company Name:	Shenzhen LGT Test Service Co., Ltd.
Address:	Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China
Accreditation Certificate:	A2LA Certificate No.: 6727.01
	FCC Registration No.: 746540
	CAB ID: CN0136



2. FCC 47CFR §2.1091 REQUIREMENT

2.1 TEST STANDARDS

The limit for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached.

Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

2.2 LIMIT

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environmental impact of the human exposure to radio-frequency (RF) radiation as specified in 1.1307 (b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)
Limits for Occupational / controlled Exposures			
0.3-3.0	614	1.63	*(100)
3.0-30	1842/f	4.89/f	*(900/f ²)
30-300	61.4	0.163	1.0
300 - 1500	--	--	F/300
1500 – 100000	--	--	5.0
Limits for General population / Uncontrolled Exposure			
0.3-1.34	614	1.63	*(100)
1.34-30	824/f	2.19/f	*(180/f ²)
30-300	27.5	0.073	0.2
300 - 1500	--	--	F/1500
1500 – 100000	--	--	1.0

F= Frequency in MHz

* = Plane-wave equivalent power density.

Friis Formula

Friis Transmission Formula: $P_d = (P_{out} * G) / (4\pi r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = Distance between observation point and the center of radiator in cm

If we know the maximum gain of the antenna and the total output power to the antenna, through calculation, we will know MPE value at distance 20cm.



2.3 EUT OPERATION CONDITION

EUT was enabled to transmit and receive at lowest, middle and highest channels.

2.4 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. Warning statement to the user for keeping at least 20cm or more separation distance from the antenna should be included in the User manual. So, this device is classified as Mobile device.



2.5 TEST RESULT

Turn up Result

Mode	Turn up Power
BLE 1M-GFSK	5±1dBm
BLE 2M-GFSK	5±1dBm

The MPE result of BT mode:

RF Function	Frequency (MHz)	Max Turn up Power (dBm)	Max Turn up Power (mW)	ANT Gain (dBi)	ANT Gain (gain of antenna in linear scale)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Ratio
BLE	2440	6.00	3.98	1.4	1.38	0.001	1	0.001

The MPE result of WWAN mode

Test Mode	Frequency Band (MHz)	Maximum Conducted Power (dBm)	Antenna Gain (dBi)	ERP (EIRP) (dBm)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)	Ratio
GSM850	824 ~ 849	27.00	6.00	33.00	0.3969	0.5493	0.72
PCS1900	1850 ~ 1910	23.00	10.00	33.00	0.3969	1.0000	0.40
LTE B2	1850 ~ 1910	25.70	6.30	32.00	0.3153	1.0000	0.32
LTE B4	1710 ~ 1755	25.70	6.30	32.00	0.3153	1.0000	0.32
LTE B5	824 ~ 849	25.70	6.30	32.00	0.3153	0.5493	0.57
LTE B7	2500 ~ 2570	25.70	6.30	32.00	0.3153	0.4660	0.68
LTE B66	1710 ~ 1780	25.70	6.30	32.00	0.3153	1.0000	0.32

Simultaneous Transmission Evaluation

$$\text{WWAN}(0.72) + \text{BLE}(0.001) = 0.721$$

Note:

1. The Maximum Power Density is less than the limit, complies with the exemption requirements.

*** END OF THE REPORT ***