

TEST REPORT



Applicant	SHENZHEN HUBSAN TECHNOLOGY CO., LTD
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Manufacturer or Supplier	SHENZHEN HUBSAN TECHNOLOGY CO., LTD	
Address	13th Floor, Bldg 1C, Shenzhen Software Industry Base, Xuefu Road, Nanshan District, Shenzhen, China 518054	
Product	Hubsan Zino	
Brand Name	Hubsan	
Model	Zino	
Additional Model & Model Difference	N/A	
Date of tests	Dec. 19, 2018 ~ Jan. 07, 2019	

The submitted sample of the above equipment has been tested according to the requirements of the following standard:

☒ **EN 62311:2008**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Andy Zhu Project Engineer / EMC Department	Approved by Glyn He Supervisor / EMC Department
	 Date: Jan. 22, 2019

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Test Report No.: SE181219N054-2

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SE181219N054-2	Original release	Jan. 22, 2019

1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Hubsan Zino
MODEL NO.	Zino
ADDITIONAL MODELS	N/A
NOMINAL VOLTAGE	DC 11.4V from battery(Charging from adapter)
OPERATING TEMPERATURE RANGE	-10 ~ +55°C
MODULATION TECHNOLOGY	OFDM
MODULATION TYPE	64QAM, 16QAM, QPSK, BPSK for OFDM
OPERATING FREQUENCY	5745MHz ~ 5825MHz
EIRP POWER	13.21dBm (Measured Max.)
ANTENNA TYPE	ANT1: FPC Antenna, 2.95dBi Gain ANT2: FPC Antenna, 2.95dBi Gain

NOTE:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- For the test results, the EUT had been tested with all conditions, but only the worst case was shown in test report.
- Please refer to the EUT photo document (Reference No.: 181219N054-2) for detailed product photo.
- The battery was charging from the following adapter:

Adapter	
BRAND:	N/A
MODEL:	P150W1000U
INPUT:	AC 100-240V, 50/60Hz 0.25A
OUTPUT:	DC 15V, 1000mA
DC LINE:	Unshielded, Non-detachable, 1.2m

- The EUT have SISO function, provides 1 completed transmitter and 1 receiver.

MODULATION MODE	FUNCTION
802.11a	2TX/2RX
802.11n (HT20) 802.1ac (VHT20)	2TX/2RX
802.11n (HT40) 802.1ac (VHT40)	2TX/2RX

Only support SISO mode

2. RF EXPOSURE MEASUREMENT

2.1 INTRODUCTION

This International Standard applies to electronic and electrical equipment for which no dedicated product- or product family standard regarding human exposure to electromagnetic fields applies.

The frequency range covered is 0 Hz to 300 GHz.

The object of this generic standard is to provide assessment methods and criteria to evaluate such equipment against basic restrictions or reference levels on exposure of the general public related to electric, magnetic and electromagnetic fields and induced and contact current.

2.2 LIMIT

According to EN 62311: 2008, the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified 1999/519/EC.

FREQUENCY RANGE (GHz)	E-FIELD STRENGTH (V/m)
2 ~ 300	61

2.3 CLASSIFICATION OF THE ASSESSMENT METHODS

The antenna of the product, under normal use condition is at least 20 cm away from the body of the user. Warning statement to the user for keeping at least 20cm separation distance and the prohibition of operating to a person has been printed on the WLAN easy install sheet. So, this product under normal use is located on electromagnetic far field between the human body.

Far Field Calculation Formula

$$E = \eta_0 H = \frac{\sqrt{30PG(\theta, \phi)}}{r}$$

G = antenna gain relative to an isotropic antenna
 θ, ϕ = elevation and azimuth angles to point of investigation
r = distance from observation point to the antenna
 η_0 = Characteristic impedance of free space

2.4 TEST RESULTS

CALCULATION FOR MAXIMUM E.I.R.P.

Output Power E.I.R.P. (dBm)	Output Power E.I.R.P. (mW)	E-Field Strength (V/m)	E-Field Strength Limit (V/m)	PASS / FAIL
13.21	20.94	3.96	61.00	PASS