

RF Exposure Report

Applicant: Quanzhou SKYDROID Technology Co., Ltd.

Address of Applicant: 2nd Floor, Building A, Yucheng Base, Fengze District, Quanzhou City, Fujian Province, China

Manufacturer/Factory: Quanzhou SKYDROID Technology Co., Ltd.

Address of Manufacturer/Factory: 2nd Floor, Building A, Yucheng Base, Fengze District, Quanzhou City, Fujian Province, China

Equipment Under Test (EUT)

Product Name: H16 remote control

Model No.: H16, H16PRO

Trade Mark: SKYDROID

Applicable standards: EN 62311:2008

Date of sample receipt: October 21, 2020

Date of Test: October 22, 2020-November 03, 2020

Date of report issue: November 04, 2020

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives. The protection requirements with respect to electromagnetic compatibility contained in Directive 2014/53/EU are considered.



Robinson Luo

Laboratory Manager



This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Version No.	Date	Description
00	November 04, 2020	Original

Prepared By:

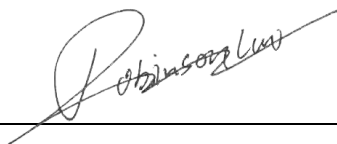


Date:

November 04, 2020

Project Engineer

Check By:



Date:

November 04, 2020

Reviewer

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4 General Information

4.1 General Description of EUT

Product Name:	H16 remote control
Model No.:	H16, H16PRO
Test Model No.:	H16
Remark: All above models are identical in the same PCB layout, interior structure and electrical circuits. The only difference is model name for commercial purpose.	
Power Supply:	ADAPTOR MODEL:KXS-012 INPUT: 110V-240V~50/60Hz 0.5A max OUTPUT: 3.6V-6V 3A or 6V-9V 32A or 9V-12V 31.5A Or DC 3.7V Battery
2.4G WIFI	
Operation Frequency:	2412MHz~2472MHz(802.11b/802.11g/802.11n(HT20))
Channel numbers:	13 for 802.11b/802.11g/802.11n(HT20)
Channel separation:	5MHz
Modulation Technology:	802.11b: DSSS 802.11g/802.11n: OFDM
Antenna Type:	Integral Antenna
Antenna Gain:	0dBi
5G WIFI:	
Operation Frequency:	5180MHz~5240MHz; (802.11a/n/ac(HT20) @ 5G band) 5190MHz~5230MHz; (802.11n/ac(HT40) @ 5G band) 5210MHz; (802.11ac(HT80) @ 5G band)
Channel numbers:	4 channels for 802.11a/n/ac(HT20); 2 channels for 802.11n/ac(HT40) 1 channels for 802.11ac(HT80)
Modulation technology:	802.11a/n/ac: OFDM
Antenna Type:	Integral Antenna
Antenna gain:	0dBi
2.4G	
Operation Frequency:	2410MHz~2470MHz
Channel numbers:	13
Channel separation:	5MHz
Modulation Technology:	DSSS
Antenna Type:	Integral Antenna
Antenna Gain:	3.0dBi

SRD @ 5.8G band:	
Operation Frequency:	5745MHz ~ 5825MHz
Modulation technology:	Orthogonal Frequency Division Multiplexing(OFDM)
Antenna Type:	Integral Antenna
Antenna gain:	ANT 1: 0dBi ANT 2: 0dBi
GPS	
Operation Frequency:	L1: 1559~1610MHz L2: 1215~1300MHz
Modulation technology:	BPSK
Antenna Type:	Integral Antenna
Antenna gain:	ANT: 0dBi
BT	
Operation Frequency:	2402~2480MHz
Channel numbers:	BT EDR:79 BLE: 40
Channel separation:	BT EDR:1MHz BLE: 2MHz
Modulation technology:	BT EDR:GFSK, Pi/4DQPSK, 8DPSK BLE: GFSK
Antenna Type:	Integral Antenna
Antenna gain:	0dBi(declare by applicant)

4.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC —Registration No.: 381383**

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 381383.

- **IC —Registration No.: 9079A**

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A

- **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). LAB CODE:600179-0

4.3 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480

Fax: 0755-27798960

4.4 Description of Support Units

The EUT has been tested as an independent unit.

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 Technical Requirements Specification in EN 62311

Test Requirement:	EN 62311																																																												
Test Method:	EN 62311																																																												
General Description of Applied Standards	EN 62311 Generic standard to demonstrate the compliance of electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (0 Hz–300 GHz) is to demonstrate the compliance of apparatus with the basic restrictions or reference levels on exposure of the general public related to electric, magnetic, electromagnetic fields as well as induced and contact current.																																																												
Limit:	According to EN 62311, the criteria listed in the below table shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified table 2 of Council Recommendation 1999/519/EC. Reference levels for electric, magnetic and electromagnetic fields (0 Hz to 300 GHz, unperturbed rms values) <table><tr><th>Frequency range</th><th>E-field strength (V/m)</th><th>H-field strength (A/m)</th><th>B-field (μT)</th><th>Equivalent plane wave power density S_{eq} (W/m²)</th></tr><tr><td>0-1 Hz</td><td>—</td><td>3,2 × 10⁴</td><td>4 × 10⁴</td><td>—</td></tr><tr><td>1-8 Hz</td><td>10 000</td><td>3,2 × 10⁴/f²</td><td>4 × 10⁴/f²</td><td>—</td></tr><tr><td>8-25 Hz</td><td>10 000</td><td>4 000/f</td><td>5 000/f</td><td>—</td></tr><tr><td>0,025-0,8 kHz</td><td>250/f</td><td>4/f</td><td>5/f</td><td>—</td></tr><tr><td>0,8-3 kHz</td><td>250/f</td><td>5</td><td>6,25</td><td>—</td></tr><tr><td>3-150 kHz</td><td>87</td><td>5</td><td>6,25</td><td>—</td></tr><tr><td>0,15-1 MHz</td><td>87</td><td>0,73/f</td><td>0,92/f</td><td>—</td></tr><tr><td>1-10 MHz</td><td>87/f^{1/2}</td><td>0,73/f</td><td>0,92/f</td><td>—</td></tr><tr><td>10-400 MHz</td><td>28</td><td>0,073</td><td>0,092</td><td>2</td></tr><tr><td>400-2 000 MHz</td><td>1,375 f^{1/2}</td><td>0,0037 f^{1/2}</td><td>0,0046 f^{1/2}</td><td>f/200</td></tr><tr><td>2-300 GHz</td><td>61</td><td>0,16</td><td>0,20</td><td>10</td></tr></table> Notes: 1. <i>f</i> as indicated in the frequency range column.	Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μT)	Equivalent plane wave power density S _{eq} (W/m ²)	0-1 Hz	—	3,2 × 10 ⁴	4 × 10 ⁴	—	1-8 Hz	10 000	3,2 × 10 ⁴ /f ²	4 × 10 ⁴ /f ²	—	8-25 Hz	10 000	4 000/f	5 000/f	—	0,025-0,8 kHz	250/f	4/f	5/f	—	0,8-3 kHz	250/f	5	6,25	—	3-150 kHz	87	5	6,25	—	0,15-1 MHz	87	0,73/f	0,92/f	—	1-10 MHz	87/f ^{1/2}	0,73/f	0,92/f	—	10-400 MHz	28	0,073	0,092	2	400-2 000 MHz	1,375 f ^{1/2}	0,0037 f ^{1/2}	0,0046 f ^{1/2}	f/200	2-300 GHz	61	0,16	0,20	10
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Test method:	According to the Far field calculation formula: Far Field Calculation Formula $E = \frac{\sqrt{30PG(\theta, \phi)}}{r}$ 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 The antenna of the product, under normal use condition is at least 20cm away from the body of the user. Warning statement of the user for keeing 30cm separation distance and the prohibition of operating to a person has been printed on the user manual. So, this product under normal use is located on electromagnetic far field between the human body.																																																												
Result:	Pass																																																												

Measurement Data:

Distance to human body: 20cm

WIFI 2.4G mode					
Frequency Range (MHz)	Maximum Output Power (dBm)	Maximum Output Power (mW)	E Field Strength (V/m)	Limit (V/m)	Result
2412~2472	17.41	88.08	6.43	61.00	Pass
WIFI 5G mode					
Frequency Range (MHz)	Maximum Output Power (dBm)	Maximum Output Power (mW)	E Field Strength (V/m)	Limit (V/m)	Result
5180~5240	14.81	30.27	4.76	61.00	Pass
5.8G SRD mode					
Frequency Range (MHz)	Maximum Output Power (dBm)	Maximum Output Power (mW)	E Field Strength (V/m)	Limit (V/m)	Result
5745~5825	13.6	22.91	4.15	61.00	Pass
2.4G mode					
Frequency Range (MHz)	Maximum Output Power (dBm)	Maximum Output Power (mW)	E Field Strength (V/m)	Limit (V/m)	Result
2410~2470	16.98	49.888	8.64	61.00	Pass
BT mode					
Frequency Range (MHz)	Maximum Output Power (dBm)	Maximum Output Power (mW)	E Field Strength (V/m)	Limit (V/m)	Result
2402~2480	4.31	2.698	1.422	61.00	Pass
BLE mode					
Frequency Range (MHz)	Maximum Output Power (dBm)	Maximum Output Power (mW)	E Field Strength (V/m)	Limit (V/m)	Result
2402~2480	4.15	2.6	1.396	61.00	Pass

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