

## RF Exposure evaluation report

<b>Applicant:</b>	Guangzhou Juan Intelligent Tech Joint Stock Co.,Ltd
<b>Address of Applicant:</b>	No.2 Plant ,West of Shanxi country , Dashi street, Panyu District, Guangzhou City, China
<b>Manufacturer:</b>	Guangzhou Juan Intelligent Tech Joint Stock Co.,Ltd
<b>Address of Manufacturer:</b>	No.2 Plant ,West of Shanxi country , Dashi street, Panyu District, Guangzhou City, China
<b>Product name:</b>	WNVR
<b>Model:</b>	WNVR-C20-81-JUN, WNVR-C20-8-JUN, WNVR201-44P, WNVR201-84P, WNVR201-88P, WNVR201-88P-B, CAN-WNVR201-44P, WM-WNVR-421, C-WNVR861P-B, WNVR201-86P-B, WNVR201-42P, WNVR201-42P-B, WNVR201-44P-B, WM-WNVR-841, WNVR201-44P-R, CL-2WNC1-82, CL-2WNC1-88, WNC21-82-B, WNVRC20-821, WNVRC20-841
<b>Rating(s):</b>	DC12V 2A
<b>Trademark:</b>	NIGHT OWL
<b>Standards:</b>	47 CFR Part 1.1310 (2013) 47 CFR Part 2.1091 (2013) KDB447498D01 General RF Exposure Guidance v06
<b>FCC ID:</b>	2APRB-WNVR-C20-JUNF
<b>Date of Receipt:</b>	2019-03-27
<b>Date of Test:</b>	2019-03-27~2019-04-26
<b>Date of Issue:</b>	2019-04-26
<b>Test Result</b>	<b>Pass*</b>

\* In the configuration tested, the test item complied with the standards specified above.

**Authorized for issue by:**

**Test by:**

Apr.26, 2019 Galen Xiao

Project Engineer

Date

Name/Position

Signature

**Reviewed by:**

Apr.26, 2019

Pauler Li

Project Manager

Date

Name/Position

Signature

**Possible test case verdicts:**

test case does not apply to the test object ...: N/A

test object does meet the requirement .....: P (Pass)

test object does not meet the requirement ...: F (Fail)

**Testing Laboratory information:**

Testing Laboratory Name .....: ITL Co., Ltd

Address.....: No. 8 Jinqianling Street 5, Huangjiang Town, Dongguan,  
Guangdong, 523757 P.R.C.

Testing location : Same as above

Tel : 0086-769-39001678

Fax : 0086-20-62824387

E-mail : itl@i-testlab.com

**General remarks:**

**The test results presented in this report relate only to the object tested.**

**The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.**

**This report would be invalid test report without all the signatures of testing technician and approver.**

**This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.**

**General product information:**

The models WNVR-C20-81-JUN, WNVR-C20-8-JUN, WNVR201-44P, WNVR201-84P, WNVR201-88P, WNVR201-88P-B, CAN-WNVR201-44P, WM-WNVR-421, C-WNVR861P-B, WNVR201-86P-B, WNVR201-42P, WNVR201-42P-B, WNVR201-44P-B, WM-WNVR-841, WNVR201-44P-R, CL-2WNC1-82, CL-2WNC1-88, WNC21-82-B, WNVRC20-821 and WNVRC20-841 are identical to each other except for model names.

All tests were performed on the model WNVR-C20-81-JUN as representative.

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## 2 General Information

### 2.1 Client Information

Applicant: Guangzhou Juan Intelligent Tech Joint Stock Co.,Ltd  
Address of Applicant: No.2 Plant ,West of Shanxi country , Dashi street, Panyu District, Guangzhou City, China

### 2.2 General Description of E.U.T.

Name: WNVR  
Model No.: WNVR-C20-81-JUN  
Trade Mark: NIGHT OWL  
Operating Frequency: 802.11 b/g/n(HT20): 2412MHz-2462MHz  
Channels: 802.11b, 802.11g, 802.11n(20MHz): 11  
802.11n(40MHz): 7  
Type of Modulation: CCK, OFDM, QPSK, BPSK, 16QAM, 64QAM  
Antenna Reference: SMA-reverse antenna with 5dBi peak Gain  
Function: Network Video Recorder

### 2.3 Details of E.U.T.

EUT Power Supply: 12Vdc, 2A

Test mode for WIFI: The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, and to measure its highest possible emissions level, more detailed description as follows:

Test Mode List		
Test Mode	Description	Remark
TM1	802.11b	2412MHz, 2437MHz, 2462MHz,
TM2	802.11g	2412MHz, 2437MHz, 2462MHz,
TM3	802.11n(HT20)	2412MHz, 2437MHz, 2462MHz,
TM4	802.11n(40MHz)	2422MHz, 2437MHz, 2452MHz,

### 2.4 Description of Support Units

The EUT has been tested as an independent unit for fixed frequency by testing lab.

## 2.5 Test Location

All tests were performed at:

ITL Co., Ltd

No. 8 Jinqianling Street 5, Huangjiang Town, Dongguan, Guangdong, 523757 P.R.C.

0086-769-39001678

itl@i-testlab.com

No tests were sub-contracted.

## 2.6 Deviation from Standards

Biconical and log periodic antennas were used instead of dipole antennas.

## 2.7 Abnormalities from Standard Conditions

None.

## 2.8 Other Information Requested by the Customer

None.

## 2.9 Test Facility

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

- CNAS( Lab code:L9342)
- FCC ( Registration No.: 239076)
- IC (Registration NO.:CN0025)

### 3 SAR Evaluation

#### 3.1 RF Exposure Compliance Requirement

##### 3.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06 and FCC 1.1310  
Radiofrequency radiation exposure limits for General Population/Uncontrolled Exposure

##### 3.1.2 EUT RF Exposure

The Max Output Power is 19.85dBm in 802.11n(HT20) Lowest channel (2.437GHz);

Antenna gain:8.01dBi

R=20cm

$$S = \frac{PG}{4\pi R^2} = 0.122 < 1 (\text{limits})$$