

# RF EXPOSURE REPORT

Applicant	SWANN COMMUNICATIONS LIMITED
Address	13D, Eton Building, No.288 Des Voeux Road Central, Sheung Wan, Hong Kong



Manufacturer or Supplier	SHENZHEN AONI ELECTRONIC CO., LTD
Address	building 5, Honghui Industrial Park, Baoan District, Shenzhen, China
Product	IP Camera
Brand Name	Swann
Model	SWIFI-SPOTCAM
Additional Model & Model Difference	E97D, See items 1
Date of tests	Jun. 24, 2019 ~ Jul. 18, 2019

☒ **FCC Part 2 (Section 2.1091)**

☒ **KDB 447498 D01**

☒ **IEEE C95.1**

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

Tested by Ryan Lu Project Engineer / EMC Department	Approved by Glyn He Supervisor / EMC Department
	 Date: Sep. 05, 2019

This report is governed by, and incorporates by reference, CPS Conditions of Service as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

## TABLE OF CONTENTS

RELEASE CONTROL RECORD .....	3
1. CERTIFICATION.....	4
2. RF EXPOSURE LIMIT .....	5
3. MPE CALCULATION FORMULA.....	5
4. CLASSIFICATION .....	5
5. ANTENNA GAIN .....	6
6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER.....	6



Test Report No.: FM190624N022

## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FM190624N022	Original release	Sep. 05, 2019

## 1. CERTIFICATION

<b>FCC ID:</b>	2AKPISPOTCAM
<b>PRODUCT:</b>	IP Camera
<b>BRAND NAME:</b>	Swann
<b>MODEL NO.:</b>	SWIFI-SPOTCAM
<b>ADDITIONAL NO.:</b>	E97D
<b>TEST SAMPLE:</b>	Engineering Sample
<b>APPLICANT:</b>	SWANN COMMUNICATIONS LIMITED
<b>STANDARDS:</b>	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1

NOTES: 1. Additional model E97D is identical with the test model SWIFI-SPOTCAM except the model number for marketing purpose.

## 2. RF EXPOSURE LIMIT

### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm <sup>2</sup> )	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

## 3. MPE CALCULATION FORMULA

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = gain of antenna in linear scale

$\pi$  = 3.1416

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

## 4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

## 5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Peak Gain (dBi)	Antenna Type
Chain 0	3	FPC Antenna

## 6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
802.11b	2412-2462	15	+2	13	17
802.11g	2412-2462	13	+2	11	15
802.11n(HT20)	2412-2462	12	+2	10	14
802.11n(HT40)	2422-2452	11	+2	9	13

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
802.11b	2412	15.45
802.11g	2412	13.14
802.11n(HT20)	2412	12.95
802.11n(HT40)	2422	11.31

FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
2412-2462	17	3	20	0.019894	1.0

--- END ---