RF Exposure Evaluation Declaration

FCC ID:	2ACS5-E90
APPLICANT:	Yuneec Technology Co., Limited

Application Type:	Certification
Product:	3-Axis Gimbal Camera
Model No.:	E90
Brand Name:	YUNEEC
FCC Classification:	Unlicensed National Information Infrastructure (UNII)

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Testing Laboratory
3261

Revision History

Report No.	Version	Description	Issue Date	Note
1704TW0101-U2	Rev. 01	Initial report	04-20-2017	Invalid
1704TW0101-U2	Rev. 02	Revised the power level	05-10-2017	Valid

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name	3-Axis Gimbal Camera
Model No.	E90
Power Type	DC 12V
Wi-Fi Specification:	802.11a
Type of Modulation	802.11a: OFDM

1.2. Antenna Description

Antenna Type	Manufacturer	Frequency Band (GHz)	Max Peak Gain (dBi)
Omni-directional Antenna	Yuneec International (China) Co., Ltd.	5.8	-3.66

2. RF Exposure Evaluation

2.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of 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)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

Calculation Formula: $Pd = (Pout*G)/(4*pi*r^2)$

Where
Pd = power density in mW/cm^2
Pout = 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

Pd is the limit of MPE, $1mW/cm^2$. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.2. Test Result of RF Exposure Evaluation

Product	3-Axis Gimbal Camera
Test Item	RF Exposure Evaluation

Antenna Gain: Refer to Clause 1.2 of antenna description.

Test Mode	Frequency Band (MHz)	Maximum Average Output Power (dBm)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)
802.11a	5745 ~ 5825	25.00	0.0271	1

CONCULISON:

The Max Power Density at R (20 cm) = 0.0271mW/cm^2 < 1mW/cm^2. So the EUT complies with the requirement.

The End