



RF Exposure Evaluation Report

Application No.:	DNT230309R0393-0593
Applicant:	ShenZhen GatoCam Technology Co., Ltd.
Address of Applicant:	Plant 201,NO.42, Zhangbei Road,LongCheng Street, Longgang District, Shenzhen, China.
Manufacturer:	ShenZhen GatoCam Technology Co., Ltd.
Address of Manufacturer:	Plant 201,NO.42, Zhangbei Road,LongCheng Street, Longgang District, Shenzhen, China.
EUT Description:	Home WIFI Camera
Model No.:	GA-M2061
FCC ID:	2BCEU-M2061
serial model No.	GA-M6022Y,GA-M2026W,GA-M2026X,GA-M5021X,GA-M5023W,GA-M5023X,GA-M5026W,GA-M5026Y,GA-M6022W,GA-M6023W,GA-M6023X,GA-M6023Y,GA-M6025W,GA-M6025X,GA-M6026WZ,GA-M6026XZ,GA-M7012WZ,GA-M7016WZ,GA-M9021W,GA-M9022X,GA-M9022X,GA-M9023Y,GA-M9025Y,GA-M9026Y,GA-M9024X,GA-M1026P,GA-M1027X,GA-M1027XA,GA-M1027P,GA-M1029P,GA-M8016X,GA-M8016P,GA-M8017X,GA-M8017P,GA-M8018X,GA-M8019X,GA-M8019P,D6022
Power supply	AC 100-240V, 50/60Hz, 0.5A
Standards:	47 CFR Part 2.1091 FCC KDB 447498 D01 v06
Trade Mark:	N/A
Date of Receipt:	2023/8/8
Date of Test:	2023/8/12 to 2023/8/15
Date of Issue:	2023/8/17
Test Result :	PASS *



Prepared By:	Test Supervisor (Lin wenwei)	<i>Penrils.chen</i>
Checked By	Reviewer (Feng nianwei)	<i>Wick.feng</i>
Approved By:	Laboratory Manager (Yang juhui)	<i>joise yang</i>
*	In the configuration tested, the EUT detailed in this report complied with the standards specified above. All models are just name differences, motherboard, PCB circuit board, chip, electronic components, appearance is all the same.	



Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Aug.17, 2023	Valid	Original Report



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1 General Information

1.1 Test Location

Company:	Dongguan DN Testing Co., Ltd
Address:	No. 1, West Fourth Street, South Xinfu Road, Wusha Liwu, Chang 'an Town, Dongguan City, Guangdong P.R.China
Test engineer:	Wayne Lin

1.2 General Description of EUT

EUT Description::	Home WIFI Camera
Model No.:	GA-M2061
Trade Mark:	N/A
Hardware Version:	V1.0
Software Version:	V1.0
Serial number	yy1161b3761b5d6a77c3
Sample Type:	☐ Portable Device, ☒ Module
Antenna Type:	☐ External, ☒ Integrated
Antenna Gain:	☒ Provided by applicant
	0dBi

Remark:

*Since the above data and/or information is provided by the applicant relevant results or conclusions of this report are only made for these data and/or information , DNT is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.

2 RF Exposure Evaluation

2.1 RF Exposure Compliance Requirement

2.1.1 Limits

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

F=frequency in MHz
*=Plane-wave equivalent power density
RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

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

P_d is the limit of MPE, 1 mW/cm². 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.

2.1.2 Test Procedure

Software provided by client enabled the EUT to transmit data at lowest, middle and highest channel individually

2.1.3 EUT RF Exposure Evaluation

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 2.0 / 2.0 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

This confirmed that the device comply with MPE limit.

Test Mode	Antenna	Freq(MHz)	Power [dBm]
IEEE 802.11b	Ant1	2412	12.55
		2437	11.57
		2462	11.85
IEEE 802.11g	Ant1	2412	13.57
		2437	12.90
		2462	13.43
IEEE 802.11n HT20	Ant1	2412	13.39
		2437	13.46
		2462	13.63
IEEE 802.11n HT40	Ant1	2422	14.24
		2437	14.02
		2452	14.10

The Worst Mode	Antenna	Peak output power (dBm)	Target power (dBm)	MAX Target power (dBm)	Antenna gain		Power Density (S) (mW /cm²)	Limited of Power Density (S) (mW /cm²)	Test Result
					(dBi)	(Linear)			
2.4G Band									
IEEE 802.11n HT40	Ant1	14.24	14±1	15	0	1	0.0053	1	Complies

The End Report