

RF Exposure Evaluation Report

Product : projector
Trade mark : N/A
Model/Type reference : GC003,GC005,GC007,GC333,GC555,GC777,GC111,GC135,GC355,GC357,GC222,GC666,GC888,GC999,GC003A,GC005A,GC007A,GC333A,GC555A,GC777A,GC111A,GC135A,GC355A,GC357A,GC222A,GC666A,GC888A,GC999A,GC003B,GC005B,GC007B,GC333B,GC555B,GC777B,GC111B,GC135B,GC355B,GC357B,GC222B,GC666B,GC888B,GC999B, Macow I , Macow II ,Parrot II ,ParrotIII,Leisure 430,Leisure 430W,Leisure 1,Leisure 1W
Serial Number : N/A
Report Number : EED32M00113902
FCC ID : 2AW9Q-JZHAGC3
Date of Issue : Sep. 24, 2020
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1091
KDB447498D01v06
Test result : PASS

Prepared for:

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2 Version

Version No.	Date	Description
00	Sep. 24, 2020	Original

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4 General Information

4.1 Client Information

Applicant:	Golden Coast Technology (shenzhen) Co., Ltd
Address of Applicant:	Room 401, Buildina F Innovation Industrial Park, Guanhu Street, Lonahua District
Manufacturer:	Golden Coast Technology (shenzhen) Co., Ltd
Address of Manufacturer:	Room 401, Buildina F Innovation Industrial Park, Guanhu Street, Lonahua District
Factory:	Golden Coast Technology (shenzhen) Co., Ltd
Address of Factory:	Room 401, Buildina F Innovation Industrial Park, Guanhu Street, Lonahua District

4.2 General Description of EUT

Product Name:	projector
Model No.(EUT):	GC003,GC005,GC007,GC333,GC555,GC777,GC111,GC135,GC355,GC357,GC222,GC666,GC888,GC999,GC003A,GC005A,GC007A,GC333A,GC555A,GC777A,GC111A,GC135A,GC355A,GC357A,GC222A,GC666A,GC888A,GC999A,GC003B,GC005B,GC007B,GC333B,GC555B,GC777B,GC111B,GC135B,GC355B,GC357B,GC222B,GC666B,GC888B,GC999B, Macow I , Macow II ,Parrot II ,ParrotIII, Leisure 430,Leisure 430W,Leisure 1,Leisure 1W
Test Model No.:	GC003
Trade Mark:	N/A
Frequency Range of Operation:	IEEE 802.11 b/g/n(HT20)(HT40): 2400MHz to 2483.5MHz

4.3 Product Specification subjective to this standard

Operating Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz IEEE 802.11n(HT40): 2422MHz to 2452MHz		
Modulation Type:	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g :OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20 and HT40) : OFDM (64QAM, 16QAM,QPSK,BPSK)		
Test Power Grade:	Default		
Test Software of EUT:	MP_Kit_RTL11n_8188FU_USB_v1.17_20160616(BETA)		
Antenna Type:	Monopole Antenna		
Antenna Specification:	2.4GHz	Antenna Gain :	2.00 dBi (Numeric gain: 1.58)
Maximum tune up power	IEEE 802.11b Mode:	16.00 dBm	(39.811 mW)
	IEEE 802.11g Mode:	17.00 dBm	(50.119 mW)
	IEEE 802.11n HT 20 Mode:	16.00 dBm	(39.811 mW)
	IEEE 802.11n HT 40 Mode:	16.00 dBm	(39.811 mW)
Power Supply:	DC 5V		

Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

Model No.:GC003,GC005,GC007,GC333,GC555,GC777,GC111,GC135,GC355,GC357,GC222,GC666,GC888,GC999,GC003A,GC005A,GC007A,GC333A,GC555A,GC777A,GC111A,GC135A,GC355A,GC357A,GC222A,GC666A,GC888A,GC999A,GC003B,GC005B,GC007B,GC333B,GC555B,GC777B,GC111B,GC135B,GC355B,GC357B,GC222B,GC666B,GC888B,GC999B,Macow I , Macow II ,Parrot II ,ParrotIII,Leisure 430,Leisure 430W,Leisure 1,Leisure 1W

Only the model GC003 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with difference of model name.

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{377}$

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{377 d^2}$$

Changing to units of mW and cm, using:

$$P \text{ (mW)} = P \text{ (W)} / 1000 \text{ and}$$

$$d \text{ (cm)} = d \text{ (m)} / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

5.2 Maximum Permissible Exposure

Substituting the MPE safe distance using $d = 20$ cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

2.4G WIFI

IEEE 802.11b mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
6	2437	39.811	1.58	20	0.0125	1

IEEE 802.11g mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
6	2437	50.119	1.58	20	0.0158	1

IEEE 802.11n HT20 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
6	2437	39.811	1.58	20	0.0125	1

IEEE 802.11n HT40 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
6	2437	39.811	1.58	20	0.0125	1

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M00113901 for EUT external and internal photos.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***