

RF Exposure Evaluation Report

Product : Hunting Camera
Trade mark : BROWNING
Model/Type reference : BTC-DWPS-ATT, BTC-DWPS-VZW
Serial Number : N/A
Report Number : EED32M00186506
FCC ID : 2ALGTBTC-DWPS-AV
Date of Issue : Jul. 02, 2020
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1091
KDB447498D01v06
Test result : PASS

Prepared for:

Prometheus Group LLC

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Check No.:2447635447



2 Version

Version No.	Date	Description
00	Jul. 02, 2020	Original

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4 General Information

4.1 Client Information

Applicant:	Prometheus Group LLC
Address of Applicant:	P.O. Box 130100 Birmingham, Alabama 35213-0100 USA
Manufacturer:	Hooray Innovation Limited
Address of Manufacturer:	Flat 3, 15/F, Wah Yiu Industrial Building, 30-32 Au Pui Wan Street, Shatin, HK.
Factory:	Hooray Innovation Limited
Address of Factory:	Flat 3, 15/F, Wah Yiu Industrial Building, 30-32 Au Pui Wan Street, Shatin, HK.

4.2 General Description of EUT

Product Name:	Hunting Camera
Model No.(EUT):	BTC-DWPS-ATT, BTC-DWPS-VZW
Test Model No.:	BTC-DWPS-ATT
Trade mark:	BROWNING
EUT Supports Radios application	LTE Band 2: Tx: 1850-1910MHz, Rx: 1930-1990MHz LTE Band 4: Tx: 1710-1755 MHz, Rx: 2110-2155 MHz LTE Band 5: Tx: 824-849 MHz, Rx: 869-894MHz LTE Band 12: Tx: 699-716 MHz, Rx: 729-746 MHz LTE Band 13: Tx: 777-787 MHz, Rx: 746-756 MHz

4.3 Product Specification subjective to this standard

Frequency Range:	LTE Band 2: Tx: 1850 MHz – 1910MHz, Rx: 1930 MHz – 1990MHz LTE Band 4: Tx: 1710 MHz – 1755 MHz, Rx: 2110 MHz – 2155 MHz LTE Band 5: Tx: 824 MHz – 849 MHz, Rx: 869 MHz – 894MHz LTE Band 12: TX: 699 MHz to 716 MHz RX: 729 MHz to 746 MHz LTE Band 13: Tx: 777 MHz – 787 MHz, Rx: 746 MHz – 756 MHz			
Modulation Type:	QPSK, 16QAM			
Test Power Grade:	Default			
Test Software of EUT:	Default			
Antenna Type:	Dipole Antenna			
Antenna Specification	LTE Band 2:	Antenna Gain:	1.65 dBi	(Numeric gain: 1.46)
	LTE Band 4:	Antenna Gain:	1.65 dBi	(Numeric gain: 1.46)
	LTE Band 5:	Antenna Gain:	-0.14 dBi	(Numeric gain: 0.97)
	LTE Band 12:	Antenna Gain:	1.42 dBi	(Numeric gain: 1.39)
	LTE Band 13:	Antenna Gain:	1.42 dBi	(Numeric gain: 1.39)

Maximum tune up power	LTE Band 2:	24.00 dBm	(251.189 mW)
	LTE Band 4:	24.00 dBm	(251.189 mW)
	LTE Band 5:	24.00 dBm	(251.189 mW)
	LTE Band 12:	24.00 dBm	(251.189 mW)
	LTE Band 13:	24.00 dBm	(251.189 mW)
Power Supply:	Battery	AA 1.5V*8	
Sample Received Date:	Jun. 28, 2020		
Sample tested Date:	Jun. 28, 2020 to Jun. 30, 2020		
The tested sample(s) and the sample information are provided by the client. Model No.:BTC-DWPS-ATT, BTC-DWPS-VZW Only the model BTC-DWPS-ATT was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with only model number is different for the marketing requirement. The marketing requirement is as below, BTC-DWPS-ATT operates on the ATT Network BTC-DWPS-VZW operates on the Verizon Network The certified module ID is FCC ID: RI7LE910NAV2, and report numbers of this certified module are 1506FR21-01 and RF exposure analysis dated on 04/14/2016. This certified module will be integrated into a host that is a hunting camera. Therefore, it is the same mobile condition as the original filling. In this report, this certified module is same as the original filling. We have verified the power and test for new radiated emission/exposure evaluation to demonstrate full compliance.			

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

LTE Band 2:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in W / m ²	Limit (W/m ²)
18900	1880	0.251	1.46	20	0.7293	4.526

LTE Band 4:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in W / m ²	Limit (W/m ²)
20050	1720	0.251	1.46	20	0.7293	4.259

LTE Band 5:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in W / m ²	Limit (W/m ²)
20600	844	0.251	0.97	20	0.4845	2.618

LTE Band 12:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in W / m ²	Limit (W/m ²)
23130	711	0.251	1.39	20	0.6943	2.329

LTE Band 13:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in W / m ²	Limit (W/m ²)
23230	782	0.251	1.39	20	0.6943	2.485

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M00186501 for EUT external and internal photos.

*** End of Report ***

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