

# Nello Technology (Shenzhen) Co., Ltd

## MPE ASSESSMENT REPORT

**Report Type:**  
FCC MPE assessment report

**Model:**  
88-83007

**REPORT NUMBER:**  
220401645SHA-002

**ISSUE DATE:**  
May 20, 2022

**DOCUMENT CONTROL NUMBER:**  
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**Manufacturer:** Nello Technology (Shenzhen) Co., Ltd  
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Guangdong Province, China

**FCC ID:** 2A25G-268036

## SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

KDB447498 D01 General RF Exposure Guidance v06

FCC Part2.1091, FCC Part2.1093 FCC Part1.1307(b)

## PREPARED BY:



Project Engineer  
Teddy Yin

## REVIEWED BY:



Reviewer  
Daniel Zhao

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## Revision History

Report No.	Version	Description	Issued Date
220401645SHA-002	Rev. 01	Initial issue of report	May 20, 2022

## 1 GENERAL INFORMATION

### 1.1 Description of Equipment Under Test (EUT)

Product name:	WIFI HD Action camera
Type/Model:	88-83007
Description of EUT:	EUT is a WIFI HD Action camera and has only one model. EUT supports WIFI function.
Rating:	DC 5V
Category of EUT:	Class B
EUT type:	<input checked="" type="checkbox"/> Table top <input type="checkbox"/> Floor standing
Software Version:	20220425V1.0
Hardware Version:	D802-4247F-V1
Sample No.:	0220425-07-001
Sample received date:	Apr 25, 2022
Date of test:	Apr 28~May 6, 2022

### 1.2 Technical Specification

Frequency Range:	2412MHz ~ 2462MHz
Support Standards:	IEEE 802.11b, IEEE 802.11g, IEEE 802.11n-HT20
Type of Modulation:	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11n-HT20: OFDM (64-QAM, 16-QAM, QPSK, BPSK)
Channel Number:	11 Channels for 802.11b, 802.11g and 802.11n(HT20)
Data Rate:	IEEE 802.11b: Up to 11 Mbps IEEE 802.11g: Up to 54 Mbps IEEE 802.11n-HT20: Up to MCS7
Channel Separation:	5 MHz
Antenna Information:	2.5dBi, PCB antenna

**TEST REPORT****1.3 Description of Test Facility**

<b>Name:</b>	Shenzhen LCS Compliance Testing Laboratory Ltd.
<b>Address:</b>	101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
<b>FCC Designation Number</b>	CN5024

## 2 MPE Assessment

Test result: Pass

### 2.1 MPE Assessment Limit

Mobile device exposure for standalone operations:

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (uT)	Equivalent plane wave power density $S_{eq}$ (W/m <sup>2</sup> )
0-1 Hz	-	$3,2 \times 10^4$	$4 \times 10^4$	-
1-8 Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	-
8-25 Hz	10 000	$4\,000/f$	$5\,000/f$	-
0,025-0,8 kHz	$250/f$	$4/f$	$5/f$	-
0,8-3 kHz	$250/f$	5	6,25	-
3-150 kHz	87	5	6,25	-
0,15-1 MHz	87	$0,73/f$	$0,92/f$	-
1-10 MHz	$87/f^{1/2}$	$0,73/f$	$0,92/f$	-
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375 f^{1/2}$	$0,0037 f^{1/2}$	$0,0046 f^{1/2}$	$f/200$
2-300 GHz	61	0,16	0,20	10

Mobile device exposure for simultaneous transmission operations: **the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is  $\leq 1.0$**

## 2.2 Assessment Results

Power density (S) is calculated according to the formula:

$$S = PG / (4\pi R^2)$$

Where S = power density in mW/cm<sup>2</sup>

P = Radiated transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

As we can see from the test report 220401645SHA-001:

The maximum radiated power = 9.38+2.5=11.88dBm = 15.42 mW;

Here R is chosen to be 20cm,

$$S = PG / (4\pi R^2) = 15.42 / (4 * 3.14 * 20 * 20) = 0.0031\text{mW/cm}^2 < 1 \text{ mW/cm}^2$$

**Appendix I**

Definition below must be outlined in the User Manual:

To satisfy FCC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.

To ensure compliance, operations at closer than this distance is not recommended.

\*\*\*\*\* END \*\*\*\*\*