

# 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:**

TTRFFCCMPE-01\_V1 © 2018 Intertek





Intertek Testing Services Shanghai Building No.86, 1198 Qinzhou Road (North) Caohejing Development Zone Shanghai 200233, China

Telephone: 86 21 6127 8200

www.intertek.com

Report no.: 220401645SHA-002

Applicant: Nello Technology (Shenzhen) Co., Ltd

301, Building 2, Qiyu Electronics Co., East District, Baishixia Community, Fuyong Street, Bao'an District, Shenzhen City,

Guangdong Province, China

Manufacturer: Nello Technology (Shenzhen) Co., Ltd

301, Building 2, Qiyu Electronics Co., East District, Baishixia Community, Fuyong Street, Bao'an District, Shenzhen City,

Guangdong Province, China

**FCC ID:** 2A25G-268036

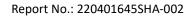
#### **SUMMARY:**

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:     | REVIEWED BY: |  |  |
|------------------|--------------|--|--|
| Teddy yin        | Damed 2how   |  |  |
| Project Engineer |              |  |  |
| Teddy Yin        | Daniel Zhao  |  |  |

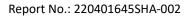
This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.





# **Revision History**

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





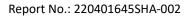
## **1 GENERAL INFORMATION**

# 1.1 Description of Equipment Under Test (EUT)

| Product name:         | WIFI HD Action camera   |  |  |
|-----------------------|---|--|--|
| Type/Model:           | 88-83007  |  |  |
|                       | EUT is a WIFI HD Action camera and has only one model. EUT supports |  |  |
| Description of EUT:   | WIFI function.  |  |  |
| Rating:               | DC 5V   |  |  |
| Category of EUT:      | Class B   |  |  |
| EUT type:             | ☐ Table top ☐ 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

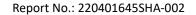
| Frequency Range:     | 2412MHz ~ 2462MHz                                    |  |  |
|----------------------|--|--|--|
| Support Standards:   | IEEE 802.11b, IEEE 802.11g, IEEE 802.11n-HT20        |  |  |
|                      | IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK)               |  |  |
|       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





# 1.3 Description of Test Facility

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





## 2 MPE Assessment

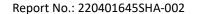
Test result: Pass

## 2.1 MPE Assessment Limit

Mobile device exposure for standalone operations:

| Frequency range | E-field strength       | H-field strength        | B-field                 | Equivalent plane wave        |
|-----------------|------------------------|-------------------------|-------------------------|------------------------------|
|                 | (V/m)                  | (A/m)                   | (uT)                    | 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 <sup>1/2</sup>    | 0,73/f                  | 0,92/f                  | -                            |
| 10-400 MHz      | 28                     | 0,073                   | 0,092                   | 2                            |
| 400-2 000 MHz   | 1,375 f <sup>1/2</sup> | 0,0037 f <sup>1/2</sup> | 0,0046 f <sup>1/2</sup> | 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  $S = power density in mW/cm^2$ 

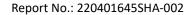
P = Radiated transmit power in mW

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,

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





# 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.