# RF Exposure Evaluation Report

| | |
|---|---|
| **Application No.:** | DNT2412020555R4898-07472 |
| **Applicant:** | Shenzhen Cylan Technology Co., Ltd. |
| **Address of Applicant:** | Rm 1B16-1B17-1B18, Folk Culture Industrial Area, Qunli 2nd Rd, Dongxing, Baoan, Shenzhen, China |
| **EUT Description:** | Two-Way Video Camera |
| **Model No.:** | SC398-WBC2,SC398-WBC3,SC398-WBC4,A40,A40L,A40LM, A40M,C40,C30,C40L,C40M,C40LM |
| **FCC ID:** | 2BE7Z-SC398-WBC2 |
| **Power supply** | DC 5V From Adapter Input AC 100-240V, 50/60Hz |
| **Trade Mark:** | N/A |
| **Standards:** | 47 CFR Part 2.1091<br>FCC KDB 447498 D01 v06 |
| **Date of Receipt:** | 2024/12/02 |
| **Date of Test:** | 2024/12/03 to 2024/12/22 |
| **Date of Issue:** | 2024/12/23 |
| **Test Result:** | **PASS** |

**Prepared By:** Wayne.Lin (Testing Engineer)

**Reviewed By:** Pencils.chen (Project Engineer)

**Approved By:** Jesse Zhan (Manager)

Note: If there is any objection to the results in this report, please submit a written inquiry to the company within 15 days from the date of receiving the report. The test report is effective only with both signature and specialized stamp, and is issued by the company in accordance with the requirements of the "Conditions of Issuance of Test Reports" printed in the attached page. Unless otherwise stated, the results presented in this report only apply to the samples tested this time. Partial reproduction of this report is not allowed unless approved by the company in writing.

**Dongguan DN Testing Co., Ltd.**

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**Report Revise Record**

| Report Version | Revise Time | Issued Date | Valid Version | Notes |
|---|---|---|---|---|
| V1.0 | / | Dec.23, 2024 | Valid | Original Report |

# Contents

# 1 General Information

## 1.1 Test Location

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

## 1.2 General Description of EUT

| | |
|---|---|
| Manufacturer: | Shenzhen Cylan Technology Co., Ltd. |
| Address of Manufacturer: | Rm 1B16-1B17-1B18, Folk Culture Industrial Area, Qunli 2nd Rd, Dongxing, Baoan, Shenzhen, China |
| EUT Description:: | Two-Way Video Camera |
| Test Model No.: | SC398-WBC2 |
| Additional Model(s): | SC398-WBC3,SC398-WBC4,A40,A40L,A40LM,A40M,C40,C30, C40L,C40M,C40LM |
| Chip Type: | SV6158M |
| Serial Number | PR2412020555R4898 |
| Power Supply | DC 5V From Adapter Input AC 100-240V, 50/60Hz |
| Trade Mark: | N/A |
| Hardware Version: | V1.0 |
| Software Version: | V1.0 |
| Sample Type: | ☐ Portable Device, ☐ Module, ☒ Mobile Device |
| Antenna Type: | ☐ External, ☒ Integrated |
| Antenna Gain: | ☒ Provided by applicant |
| | 2.78dBi |

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/cm2) | 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/f2) | 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/f2) | 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<br>*=Plane-wave equivalent power density<br>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: Pd = (Pout*G)/(4* Pi * R 2)

Where

Pd = power density in mW/cm2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

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

Pd id 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] |
|---|---|---|---|
| 11B | Ant1 | 2412 | 15.02 |
| | | 2437 | 17.14 |
| | | 2462 | 16.33 |
| 11G | Ant1 | 2412 | 16.81 |
| | | 2437 | 18.30 |
| | | 2462 | 17.92 |
| 11N20SISO | Ant1 | 2412 | 17.08 |
| | | 2437 | 18.51 |
| | | 2462 | 18.15 |
| 11N40SISO | Ant1 | 2422 | 17.42 |
| | | 2437 | 18.50 |
| | | 2452 | 18.72 |

| The Worst Mode | Antenna | Peak output power (dBm) | Target power (dBm) | MAX Target power (dBm) | Antenna gain | | Power Density (S) (mW /cm$^2$) | Limited of Power Density (S) (mW /cm$^2$) | Test Result | Distance (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (dBi) | (Linear) | | | | |
| 2.4G Band | | | | | | | | | | |
| 11 N20 | Ant1 | 18.51 | 18±1 | 19 | 2.78 | 1.897 | 0.0300 | 1 | Complies | 20 |

The End Report