

MPE Test Report

Report No.: CIDG-ESH-P23020103B-3-A2

FCC ID: 2A789SC053

Product: Smart Camera

Model: SC053-WQ2, SC053-WQ2A, SC053-WQ2B, SC053-WQ2C,
SC053-WQ1, SC053-WQ1A, SC053-WQ1B, SC053-WQ1C,
SC053-WQ3, SC053-WQ3A, SC053-WQ3B, SC053-WQ3C,
SC053-WQ2D, SC053-WQ2E

Received Date: Jun.11, 2025

Test Date: Jun.11 to Jun.28, 2025

Issued Date: Jun.30, 2025

Applicant: Ningbo Lingzhu Technology CO., Ltd.

Address: No.578,Building 7,No.535 Kangqiao South Road, Jiangbei District, Ningbo City, Zhejiang Province, China

Manufacturer: Ningbo Lingzhu Technology CO., Ltd.

Address: No.578,Building 7,No.535 Kangqiao South Road, Jiangbei District, Ningbo City, Zhejiang Province, China

Issued By: BUREAU VERITAS ADT (Shanghai) Corporation

Lab Address: No. 829, Xinzhuan Road, Shanghai, P.R.China (201612)

**FCC Registration /
Designation Number:** 176467/ CN1213



This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 General Information	5
2.1 General Description of EUT	5
3 RF Exposure	6
3.1 Limits for Maximum Permissible Exposure (MPE)	6
3.2 MPE Calculation Formula	6
3.3 MPE Calculation Formula	6
3.4 Calculation Result of Maximum Permissible Exposure	6



Release Control Record

Issue No.	Description	Date Issued
CIDG-ESH-P23020103B-3	Original release	Mar.08, 2023
CIDG-ESH-P23020103B-3-A1	Updating charging port form Micro USB to Type-C and updating new antenna	Nov.04, 2024
CIDG-ESH-P23020103B-3-A2	Adding alternative light board, alternative battery, new antenna and new models	Jun.30, 2025

1 Certificate of Conformity

Product: Smart Camera

Brand: --

Test Model: SC053-WQ2, SC053-WQ2A, SC053-WQ2B, SC053-WQ2C,
SC053-WQ1, SC053-WQ1A, SC053-WQ1B, SC053-WQ1C,
SC053-WQ3, SC053-WQ3A, SC053-WQ3B, SC053-WQ3C,
SC053-WQ2D, SC053-WQ2E

Applicant: Ningbo Lingzhu Technology CO., Ltd.

Test Date: Jun.11 to Jun.28, 2025

Standards: FCC Part 2 (Section 2.1091)
KDB 447498 D01 General RF Exposure Guidance v06
IEEE C95.1-1992

The above equipment has been tested by **BUREAU VERITAS ADT (Shanghai) Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by :

Yuan Zhang

, Date:

Jun.30, 2025

Yuan ZHANG

Project Engineer

Approved by :



Sean YU

RF Supervisor

, Date:

Jun.30, 2025

2 General Information

2.1 General Description of EUT

Product	Smart Camera
Brand	--
Model	SC053-WQ2, SC053-WQ2A, SC053-WQ2B, SC053-WQ2C, SC053-WQ1, SC053-WQ1A, SC053-WQ1B, SC053-WQ1C, SC053-WQ3, SC053-WQ3A, SC053-WQ3B, SC053-WQ3C, SC053-WQ2D, SC053-WQ2E
Difference	sensor, color and tiny enclosure difference, such as different chamfering These differences are not related to the radio frequency function. 1, 2, 3 in model name for different sensor and A, B, C, D, E in model name for different color and tiny enclosure difference.
Power Rating	DC 5V 1A
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Operating Frequency	2412MHz ~ 2462MHz
Number of Channel	802.11b, 802.11g and 802.11n (HT20):11
Output Power	15.21dBm
Antenna Type	FPC Antenna
Antenna Connector	--
Antenna Gain	0.5dBi

Note:

1. For more details, please refer to the User's manual of the EUT.

3 RF Exposure

3.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
300-1,500	-	-	F/1500	30
1,500-100,000	-	-	1.0	30

F = Frequency in MHz

3.2 MPE Calculation Formula

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

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

Where S = power density in mW/cm²

P = transmit power in mW

G = numeric gain of transmit antenna (numeric gain=Log-1(dB antenna gain/10))

R = distance (cm)

3.3 MPE Calculation Formula

The antenna of this product, under normal use condition, is at least 20cm from the body of the user. So the device is classified as **Mobile Device**.

3.4 Calculation Result of Maximum Permissible Exposure

The tuned conducted Power (declared by client)

Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
2412-2462	15	±1	14	16

The measured conducted Power

Mode	Frequency (MHz)	Max. Conducted Output power(dBm)
11b	2412	15.21

Frequency Band (MHz)	Max. Conducted output power(dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WLAN 2.4GHz					
2412-2462	16	0.5	20	0.008891	1

Conclusion: The calculation result of MPE is less than the limit.

--- END ---