



BUREAU
VERITAS

Test Report No.: FM2402WDG0078



Certificate # 2951.01

RF EXPOSURE REPORT

Applicant	Twin-Star International Inc.
Address	12/F Taiwanese Trade Association Building, De Zheng Road, ChangAn Town, Dongguan City, China

Manufacturer or Supplier	Twin-Star International Inc.
Address	12/F Taiwanese Trade Association Building, De Zheng Road, ChangAn Town, Dongguan City, China
Product	Speaker
Brand Name	N/A
Model	TS-4006
Additional Model & Model Difference	TS-0843, TS-2611
Date of tests	Feb. 23, 2024 ~ Mar. 05, 2024

- FCC Part 2 (Section 2.1091)**
- KDB 447498 D01 V06**
- IEEE C95.1**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Andrew Sha Project Engineer / EMC Department	Approved by Glyn He Assistant Manager / EMC Department

Date: Apr. 12, 2024

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.

Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 96, Guantai Road (Houjie Section), Houjie
Town, Dongguan City, Guangdong Province.
523942. People's Republic of China.

Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@bureauveritas.com



BUREAU
VERITAS

Test Report No.: FM2402WDG0078

TABLE OF CONTENTS

RELEASE CONTROL RECORD	3
1. CERTIFICATION.....	4
2. RF EXPOSURE LIMIT	5
3. MPE CALCULATION FORMULA.....	5
4. CLASSIFICATION	5
5. ANTENNA GAIN	6
6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER.....	6



BUREAU
VERITAS

Test Report No.: FM2402WDG0078

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FM2402WDG0078	Original release	Apr. 12, 2024

Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 96, Guantai Road (Houjie Section), Houjie
Town, Dongguan City, Guangdong Province.
523942. People's Republic of China.

Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@bureauveritas.com



BUREAU
VERITAS

Test Report No.: FM2402WDG0078

1. CERTIFICATION

FCC ID:	QCD-TS-S-PL01
PRODUCT:	Speaker
BRAND NAME:	N/A
MODEL NO.:	TS-4006
ADDITIONAL NO.:	TS-0843, TS-2611
APPLICANT:	Twin-Star International Inc.
STANDARDS:	FCC Part 2 (Section 2.1091)
	KDB 447498 D01 V06
	IEEE C95.1

Notes:

1. The additional models TS-0843 and TS-2611 are identical with the test model TS-4006 except the adapter, speaker, power and appearance.

2. The TS-4006 was powered by the following adapter:

ADAPTER	
BRAND:	Guangdong Tiantongjiuheng Technology Co., Ltd
MODEL:	TJ07201Z1504000
INPUT:	100V-240V~, 50/60Hz, 1.5A MAX
OUTPUT:	15V –, 4.0A
DC LINE:	Unshielded, Non-detachable, 1.2m
AC LINE:	Unshielded, Detachable, 1.2m

3. The TS-0843 and TS-2611 were powered by the following adapter:

ADAPTER	
BRAND:	Guangdong Tiantongjiuheng Technology Co., Ltd
MODEL:	TJ04202Z1502500
INPUT:	100V-240V~, 50/60Hz, 1.0A MAX
OUTPUT:	15V –, 2.5A
DC LINE:	Unshielded, Non-detachable, 1.2m
AC LINE:	Unshielded, Detachable, 1.2m



BUREAU
VERITAS

Test Report No.: FM2402WDG0078

4. RF EXPOSURE LIMIT

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				
300-1500	F/1500	30
1500-100,000	1.0	30

F = Frequency in MHz

5. MPE CALCULATION 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

π = 3.1416

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

6. CLASSIFICATION

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

Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 96, Guantai Road (Houjie Section), Houjie
Town, Dongguan City, Guangdong Province.
523942. People's Republic of China.

Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@bureauveritas.com



BUREAU
VERITAS

Test Report No.: FM2402WDG0078

7. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Peak Gain (dBi)	Antenna Type
Chain 0	-1.95	PCB Antenna

8. CALCULATION RESULT OF MAXIMUM CONDUCTED AV POWER

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
GFSK	2402-2480	5.5	+/-1.5	4	7
8DPSK	2402-2480	3.5	+/-1.5	2	5

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
GFSK	2480	6.38
8DPSK	2480	4.10

FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
2402-2480	7	-1.95	20	0.0006364	1.0

--- END ---