



RF EXPOSURE Test Report

Report No.: MTi210805005-02E2

Date of issue: Aug. 27, 2021

Applicant: China Etech Groups Ltd
STELLARIS WIRELESS

Product name: SPEAKER + STARLIGHT
PROJECTOR

Model(s): MI-S071B

FCC ID: 2AS5O-S071B

Shenzhen Microtest Co., Ltd.

<http://www.mtitest.com>



Instructions

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TEST RESULT CERTIFICATION

Applicant's name.....	China Etech Groups Ltd
Address.....	16/F, Block C, 2nd Phase of Central Avenue, Haihong Industrial Area, Xixiang Road, Baoan District, Shenzhen, China
Manufacturer's Name	China Etech Groups Ltd
Address.....	16/F, Block C, 2nd Phase of Central Avenue, Haihong Industrial Area, Xixiang Road, Baoan District, Shenzhen, China

Product description

Product name	STELLARIS WIRELESS SPEAKER + STARLIGHT PROJECTOR
Trademark	ETECH
Model Name	MI-S071B
Serial Model	N/A
Standards.....	N/A
Test procedure	KDB 447498 D01 v06

Date of Test

Date (s) of performance of tests	Aug. 17, 2021 ~Aug. 23, 2021
Test Result.....	Pass

This device described above has been tested by Shenzhen Microtest Co., Ltd. and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

Testing Engineer

:

Danny Xu

(Danny Xu)

Technical Manager

:

Leon Chen

(Leon Chen)

Authorized Signatory

:

Tom Xue

(Tom Xue)



RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) Radiation as specified in §1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			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/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

MPE Calculation Method

Friis transmission formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot R^2)$

Where

P_d = Power density in mW/cm²

P_{out} = output power to antenna in mW

G = Numeric gain of the antenna relative to isotropic antenna

π = 3.1415926

R = distance between observation point and center of the radiator in cm(20cm)

P_d the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.



Measurement Result

BT:

Operation Frequency: GFSK, $\pi/4$ -DQPSK, 8DPSK: 2402-2480MHz

Power density limited: 1mW/ cm²

Antenna Type: BT Antenna: PCB Antenna;

BT antenna gain: 0dBi

R=20cm

$mW=10^{(dBm/10)}$

antenna gain Numeric= $10^{(0dBi/10)}=10^{(0/10)}=1.00$

BR+EDR:

Chann el Freq. (MHz)	modulation n	conducte d power	Tune- up powe r (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain			
				(dBm)	(dBm)	(mW)	(dBi)	Nume ric	(mW/cm2)
2402	GFSK	-0.776	0±1	1	1.259	0	1.00	0.0003	1
2441		-0.419	0±1	1	1.259	0	1.00	0.0003	1
2480		-0.309	0±1	1	1.259	0	1.00	0.0003	1
2402	π/4- DQPSK	0.227	0±1	1	1.259	0	1.00	0.0003	1
2441		0.565	0±1	1	1.259	0	1.00	0.0003	1
2480		0.641	0±1	1	1.259	0	1.00	0.0003	1
2402	8DPSK	0.606	0±1	1	1.259	0	1.00	0.0003	1
2441		0.963	0±1	1	1.259	0	1.00	0.0003	1
2480		1.055	1±1	2	1.585	0	1.00	0.0003	1

Conclusion:

For the max result: 0.0003≤ 1.0 for 1g SAR, No SAR is required.

----END OF REPORT----