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# RF Exposure Evaluation Report

Lightweight TWS Earphones **Product** 

Trade mark **MINISO** Model/Type reference X16 : N/A **Serial Number** 

: EED32N80941102 **Report Number** 

FCC ID : 2AS5O-X16 Date of Issue : Oct. 28, 2021

> : 47 CFR Part 1.1307 47 CFR Part 2.1093

**Test Standards** KDB447498D01 General RF

Exposure Guidance v06

Test result : PASS

Prepared for:

**China Etech Groups Ltd** 16/F, Block C, 2nd Phase of Central Avenue, Haihong Industrial Area, Xixiang Road, Baoan District, Shenzhen, China

Prepared by:

Centre Testing International Group Co., Ltd. Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China

> TEL: +86-755-3368 3668 FAX: +86-755-3368 3385



rvantin bel Reviewed by: Martin Lee

David Wany

David Wang

Auron Ma Aaron Ma

Date:

Oct. 28, 2021

Check No.: 8310260921



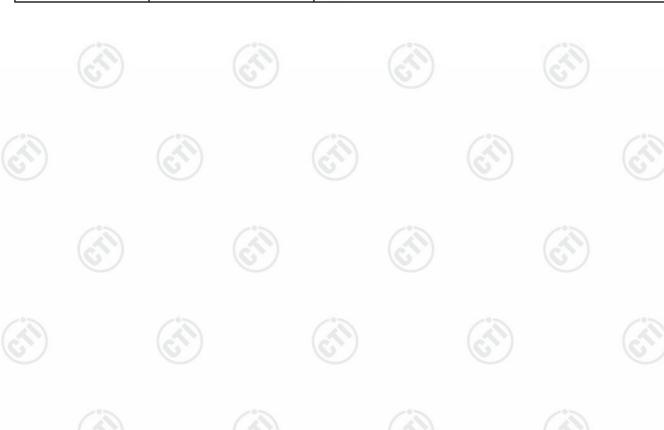
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## 1 Version

Version No.	Date	6	Description			
00	Oct. 28, 2021		Original			
100	(3)	(2)		(3)		
5)	0	(C)	(6.)	(0)		











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## **General Information**

#### 3.1 Client Information

Applicant:	China Etech Groups Ltd
Address of Applicant:	16/F, Block C, 2nd Phase of Central Avenue, Haihong Industrial Area, Xixiang Road, Baoan District, Shenzhen, China
Manufacturer:	China Etech Groups Ltd
Address of Manufacturer:	16/F, Block C, 2nd Phase of Central Avenue, Haihong Industrial Area, Xixiang Road, Baoan District, Shenzhen, China
Factory:	Dongguan China ETECH GROUPS CO.,LTD.
Address of Factory:	Room 501, Building 6, No.2 Hong Jin Road, Li Zhou Jiao Village, Hongmei Town, Dongguan City

## 3.2 General Description of EUT

K16 MINISO		(20)
MINISO		
***************************************		
/5.0		
2402MHz~2480MHz	-0-	
Frequency Hopping Spread Spectrum(FHSS)	(27)	
GFSK, π/4DQPSK, 8DPSK		
79		
Adaptive Frequency Hopping systems		
☐ Mobile   ☑ Portable   ☐ Fix Location		
PCB antenna		(0)
)dBi		
ithium battery: DC 3.7V, Charge by DC 5.0V		
DC 3.7V		
Sep. 27, 2021	(0,)	
Sep. 27, 2021 to Oct. 12, 2021		
	Frequency Hopping Spread Spectrum(FHSS)  Frequency Hopping Spread Spectrum(FHSS)  Frequency Hopping Systems  Adaptive Frequency Hopping systems  Compared to Portable Fix Location  Compared to Portable Spectrum(FHSS)  Frequency Hopping Systems  Compared to Portable Spectrum(FHSS)  Frequency Hopping Systems  Frequency Hopping Systems  Frequency Hopping Systems  Frequency Hopping Systems  Frequency Hopping Spread Spectrum(FHSS)  Frequency Hopping Spread S	Frequency Hopping Spread Spectrum(FHSS)  FSK, π/4DQPSK, 8DPSK  Sep. 27, 2021

Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

Note: Since the RF parameters of the left and right earplugs are the same, only the left ear was tested in this report.





















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#### 3.3 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385 No tests were sub-contracted. FCC Designation No.: CN1164

### 3.4 Deviation from Standards

## 3.5 Abnormalities from Standard Conditions





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#### 4 SAR Evaluation

## 4.1 RF Exposure Compliance Requirement

#### 4.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06 Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

#### Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

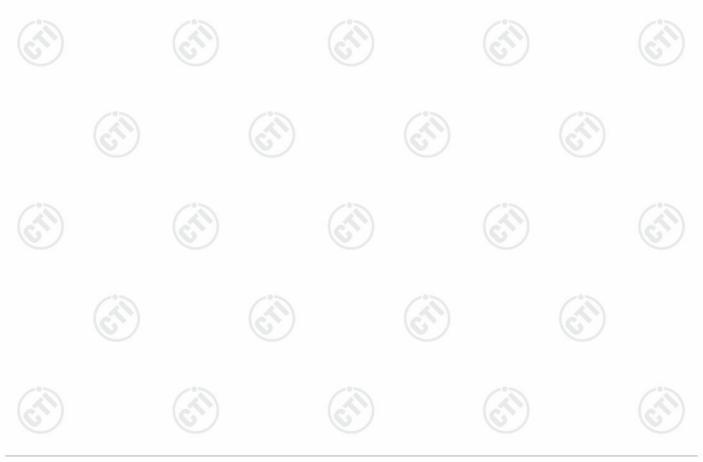
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation 17

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq$  50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $\leq$  5 mm, a distance of 5 mm is applied to determine SAR test exclusion





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### 4.1.2 EUT RF Exposure

#### 1) For BT Classic Measurement Data

	GFSK n	node		
Test channel	Peak Output Power	Tune up tolerance	Maximum tune-up Power	
	(dBm)	(dBm)	(dBm)	(mW)
Lowest(2402MHz)	1.25	0.5±1	1.5	1.413
Middle(2441MHz)	1.98	1.0±1	2.0	1.585
Highest(2480MHz)	1.84	1.0±1	2.0	1.585
	π/4DQPSI	K mode		
Test channel	Peak Output Power	Tune up tolerance	Maximum tune-up Power	
	(dBm)	(dBm)	(dBm)	(mW)
Lowest(2402MHz)	1.49	0.5±1	1.5	1.413
Middle(2441MHz)	2.52	2.0±1	3.0	1.995
Highest(2480MHz)	2.42	1.5±1	2.5	1.778
	8DPSK	mode		
Test channel	Peak Output Power	Tune up tolerance	Maximum tune-up Power	
	(dBm)	(dBm)	(dBm)	(mW)
Lowest(2402MHz)	1.79	1.0±1	2.0	1.585
Middle(2441MHz)	3.01	2.5±1	3.5	2.239
Highest(2480MHz)	2.83	2.0±1	3.0	1.995

Channel	Maximum Peak Conducted	Tune up	Maximum tune- up Power		Calculated	Exclusion
	Output Power (dBm)	(dBm)	(dBm)	(mW)	value	threshold
Lowest (2402MHz)	1.79	1.0±1	2.0	1.585	0.491	
Middle (2441MHz)	3.01	2.5±1	3.5	2.239	0.700	3.0
Highest (2480MHz)	2.83	2.0±1	3.0	1.995	0.628	

Remark: The Max Conducted Peak Output Power data refer to report Report No.: EED32N80941101.



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## **PHOTOGRAPHS OF EUT Constructional Details**

Refer to Report No. EED32N80941101 for EUT external and internal photos.

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