

Page 1 of 97

APPLICATION CERTIFICATION FCC Part 15C&RSS-247 On Behalf of Edifier International Limited

Active Noise Cancelling Bluetooth Stereo Headphones

Model No.: W828NB

FCC ID: Z9G-EDF78 IC: 10004A-EDF78

Prepared for : Edifier International Limited

Address : P.O. Box 6264 General Post Office Hong Kong

Prepared by : Shenzhen Accurate Technology Co., Ltd.

Address : 1/F., Building A, Changyuan New Material Port,

Science & Industry Park, Nanshan District, Shenzhen,

Guangdong, P.R. China.

Tel: (0755) 26503290 Fax: (0755) 26503396

Report No. : ATE20181718

Date of Test : Sep. 04, 2018--Sep. 18, 2018

Date of Report: Sep. 19, 2018

Report No.: ATE20181718 Page 2 of 97

TABLE OF CONTENTS

Descri	Description		
Test Re	eport Certification		
	ENERAL INFORMATION	5	
1.1.	Description of Device (EUT)		
1.2.	Accessory and Auxiliary Equipment		
1.3.	Description of Test Facility		
1.4.	Measurement Uncertainty		
2. MI	EASURING DEVICE AND TEST EQUIPMENT	7	
3. OF	PERATION OF EUT DURING TESTING	8	
3.1.	Operating Mode	8	
3.2.	Configuration and peripherals	8	
4. TE	EST PROCEDURES AND RESULTS	9	
5. 201	DB BANDWIDTH TEST	10	
5.1.	Block Diagram of Test Setup	10	
5.2.	The Requirement For Section 15.247(a)(1)	10	
5.3.	The Requirement For RSS-247 Section 5.1	10	
5.4.	EUT Configuration on Measurement		
5.5.	Operating Condition of EUT		
5.6.	Test Procedure	11	
5.7.	Test Result	11	
6. CA	ARRIER FREQUENCY SEPARATION TEST		
6.1.	Block Diagram of Test Setup		
6.2.	The Requirement For Section 15.247(a)(1)		
6.3.	The Requirement For RSS-247 Section 5.1(b)		
6.4.	EUT Configuration on Measurement		
6.5.	Operating Condition of EUT		
6.6.	Test Procedure		
6.7.	Test Result		
	JMBER OF HOPPING FREQUENCY TEST		
7.1.	Block Diagram of Test Setup		
7.2.	The Requirement For Section 15.247(a)(1)(iii)		
7.3.	The Requirement For RSS-247 Section 5.1(d)		
7.4. 7.5.	EUT Configuration on Measurement		
7.5. 7.6.	Operating Condition of EUT Test Procedure		
7.0. 7.7.	Test Result		
	VELL TIME TEST		
8.1.	Block Diagram of Test Setup		
8.2.	The Requirement For Section 15.247(a)(1)(iii)		
8.3.	The Requirement For Section RSS-247 Section 5.1(d)		
8.4.	EUT Configuration on Measurement		
8.5.	Operating Condition of EUT		
8.6.	Test Procedure		
8.7.	Test Result		
9. MA	AXIMUM PEAK OUTPUT POWER TEST	34	

Report No.: ATE20181718 Page 3 of 97

9.1.	Block Diagram of Test Setup	34
9.2.	The Requirement For Section 15.247(b)(1)	
9.3.	The Requirement For RSS-247 Section 5.4(b)	34
9.4.	EUT Configuration on Measurement	34
9.5.	Operating Condition of EUT	34
9.6.	Test Procedure	
9.7.	Test Result	35
10. RA	DIATED EMISSION TEST	39
10.1.	Block Diagram of Test Setup	
10.2.	The Limit For Section 15.247(d)	
10.3.	Restricted bands of operation	
10.4.	Configuration of EUT on Measurement	
10.5.	Test Procedure	
10.6.	Data Sample	
10.7.	The Field Strength of Radiation Emission Measurement Results	
11. BA	ND EDGE COMPLIANCE TEST	
11.1.	Block Diagram of Test Setup	
11.2.	The Requirement For Section 15.247(d)	
11.3.	EUT Configuration on Measurement	
11.4.	Operating Condition of EUT	
11.5.	Test Procedure Test Result	
11.6.		
	POWER LINE CONDUCTED EMISSION FOR FCC PART 15 SECTION	` '
12.1. 12.2.	Block Diagram of Test Setup Power Line Conducted Emission Measurement Limits	
12.2.	Configuration of EUT on Measurement	
12.3.	Operating Condition of EUT	
12.4.	Test Procedure	
12.6.	Data Sample	
12.7.	Power Line Conducted Emission Measurement Results	
13. 999	% OCCUPIED BANDWIDTH	
13.1.	The Requirement for RSS-Gen Clause 6.6	
13.2.	EUT Configuration on Measurement	
13.3.	Operating Condition of EUT	
13.4.	Test Procedure	
13.5.	Measurement Result	88
14. CO	NDUCTED SPURIOUS EMISSION COMPLIANCE TEST	92
14.1.	Block Diagram of Test Setup	92
14.2.	The Requirement For Section 15.247(d)	
14.3.	EUT Configuration on Measurement	
14.4.	Operating Condition of EUT	
14.5.	Test Procedure	
14.6.	Test Result	93
15. AN	TENNA REQUIREMENT	97
15.1.	The Requirement	97



Page 4 of 97

Test Report Certification

Applicant : Edifier International Limited

Address : P.O. Box 6264 General Post Office Hong Kong

Product : Active Noise Cancelling Bluetooth Stereo Headphones

Model No. : W828NB
Trade name : EDIFIER

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247

ANSI C63.10: 2013

RSS-247 Issue 2 February 2017 RSS-Gen Issue 5 April 2018

The device described above is tested by SHENZHEN ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.247 and RSS-247 limits. The measurement results are contained in this test report and SHENZHEN ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of SHENZHEN ACCURATE TECHNOLOGY CO. LTD.

Date of Test :	Sep. 04, 2018Sep. 18, 2018		
Date of Report:	Sep. 19, 2018		
Prepared by :	(Tin shard, Englisher)		
Approved & Authorized Signer :	(Sean Liu, Manager)		



Page 5 of 97

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT : Active Noise Cancelling Bluetooth Stereo Headphones

Model Number : W828NB

Rating : DC 3.7V (Powered by Lithium battery) or

DC 5V (Powered by USB port)

HVIN : W828NB

Frequency Range : 2402MHz-2480MHz

Number of Channels : 79

Antenna Gain(Max) : 2.59dBi

Antenna type : Integral Antenna

Trade Name : EDIFIER

Modulation mode : GFSK, π/4 DQPSK, 8DPSK

Applicant : Edifier International Limited

Address : P.O. Box 6264 General Post Office Hong Kong

Date of sample received: Sep. 03, 2018

Date of Test : Sep. 04, 2018--Sep. 18, 2018

1.2. Accessory and Auxiliary Equipment

1. Iphone6S PLUS Manufacturer: Apple Model: ML6D2 CH/A S/N: C35QJ76JGRWM

2. Notebook PC

Manufacturer: Lenovo M/N: ThinkPad X240

S/N: n.a



Page 6 of 97

1.3.Description of Test Facility

EMC Lab : Recognition of accreditation by Federal

Communications Commission (FCC) The Designation Number is CN1189 The Registration Number is 708358

Listed by Innovation, Science and Economic

Development Canada (ISEDC)
The Registration Number is 5077A-2

Accredited by China National Accreditation Service for Conformity Assessment (CNAS)

The Registration Number is CNAS L3193

Accredited by American Association for Laboratory

Accreditation (A2LA)

The Certificate Number is 4297.01

Name of Firm : Shenzhen Accurate Technology Co., Ltd.

Site Location : 1/F., Building A, Changyuan New Material Port,

Science

& Industry Park, Nanshan District, Shenzhen,

Guangdong, P.R. China

1.4. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty = 3.08dB, k=2

(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42dB, k=2

(30MHz-1000MHz)

Radiated emission expanded uncertainty = 4.06dB, k=2

(Above 1GHz)



Report No.: ATE20181718
Page 7 of 97

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Туре	S/N	Calibrated dates	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 06, 2018	Jan. 05, 2019
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 06, 2018	Jan. 05, 2019
Spectrum Analyzer	Rohde&Schwarz	FSV-40	101495	Jan. 06, 2018	Jan. 05, 2019
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 06, 2018	Jan. 05, 2019
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 06, 2018	Jan. 05, 2019
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 06, 2018	Jan. 05, 2019
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 06, 2018	Jan. 05, 2019
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 06, 2018	Jan. 05, 2019
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 06, 2018	Jan. 05, 2019
Open Switch and Control Unit	Rohde&Schwarz	OSP120 + OSP-B157	101244 + 100866	Jan. 06, 2018	Jan. 05, 2019
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 06, 2018	Jan. 05, 2019
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 06, 2018	Jan. 05, 2019
Highpass Filter	Wainwright Instruments	WHKX3.6/18 G-10SS	N/A	Jan. 06, 2018	Jan. 05, 2019
Band Reject Filter	Wainwright Instruments	WRCG2400/2 485-2375/2510 -60/11SS	N/A	Jan. 06, 2018	Jan. 05, 2019



Page 8 of 97

3. OPERATION OF EUT DURING TESTING

3.1. Operating Mode

The mode is used: Transmitting mode

Low Channel: 2402MHz Middle Channel: 2441MHz High Channel: 2480MHz

Hopping

3.2.Configuration and peripherals

EUT
Figure 1 Setup: Transmitting mode



Report No.: ATE20181718 Page 9 of 97

4. TEST PROCEDURES AND RESULTS

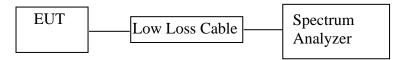
FCC&IC Rules	Description of Test	Result
Section 15.207 RSS-Gen Section 8.8	AC Power Line Conducted Emission Test	Compliant
Section 15.247(a)(1) RSS-247 A5.1	20dB Bandwidth Test	Compliant
Section 15.247(a)(1) RSS-247 A5.1	Carrier Frequency Separation Test	Compliant
Section 15.247(a)(1)(iii) RSS-247 A5.1	Number Of Hopping Frequency Test	Compliant
Section 15.247(a)(1)(iii) RSS-247 A5.1	Dwell Time Test	Compliant
Section 15.247(b)(1) RSS-247 A5.4	Maximum Peak Output Power Test	Compliant
Section 15.247(d) Section 15.209 RSS-247 A5.5 RSS-Gen 6.13	Radiated Emission Test	Compliant
RSS-Gen Section 6.7	99% Occupied Bandwidth	Compliant
Section 15.247(d) RSS-247 A5.5	Band Edge Compliance Test	Compliant
Section RSS-247	Conducted Spurious Emission Test	Compliant
Section 15.203 RSS-Gen 6.8	Antenna Requirement	Compliant



Report No.: ATE20181718 Page 10 of 97

5. 20DB BANDWIDTH TEST

5.1.Block Diagram of Test Setup



(EUT: Active Noise Cancelling Bluetooth Stereo Headphones)

5.2. The Requirement For Section 15.247(a)(1)

Section 15.247(a)(1): Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

5.3. The Requirement For RSS-247 Section 5.1

RSS-247 Section 5.1(a): The bandwidth of a frequency hopping channel is the 20dB emission bandwidth, measured with the hopping stopped. The system's radio frequency (RF) bandwidth is equal to the channel bandwidth multiplied by the number of channels in the hopset. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

5.4.EUT Configuration on Measurement

The equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

5.5.Operating Condition of EUT

- 5.5.1. Setup the EUT and simulator as shown as Section 5.1.
- 5.5.2. Turn on the power of all equipment.
- 5.5.3.Let the EUT work in TX (Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

shenzhen Accurate Technology Co., Ltd.



Report No.: ATE20181718
Page 11 of 97

5.6.Test Procedure

- 5.6.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 5.6.2. The RBW should be 1%~5% of OBW.
- 5.6.3. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

5.7.Test Result

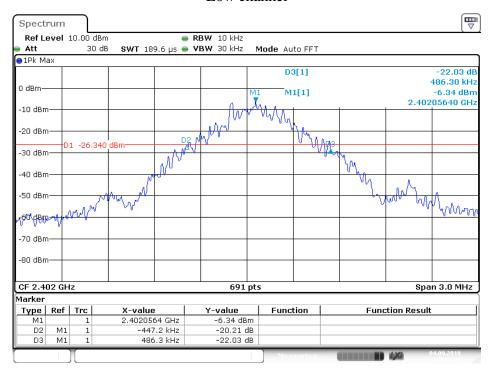
Channel	Frequency (MHz)	BDR mode 20dB Bandwidth (MHz)	EDR mode 20dB Bandwidth (MHz)	Result
Low	2402	0.9335	1.2113	Pass
Middle	2441	0.9422	1.2330	Pass
High	2480	0.9422	1.2373	Pass

The spectrum analyzer plots are attached as below.



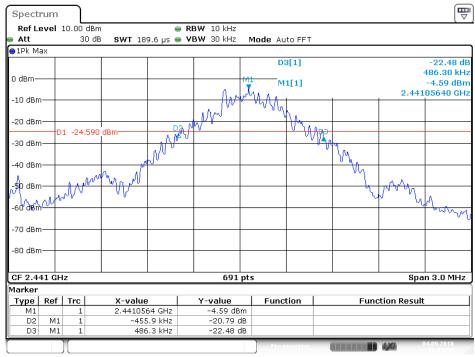
BDR Mode

Low channel



Date: 4.SEP.2018 16:18:25

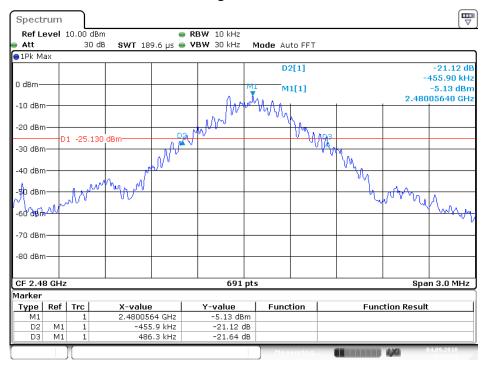
Middle channel



Date: 4.SEP.2018 16:19:57

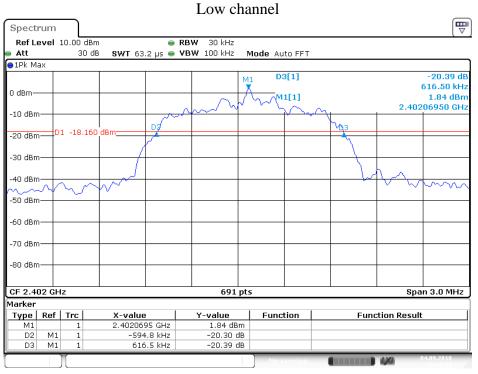


High channel



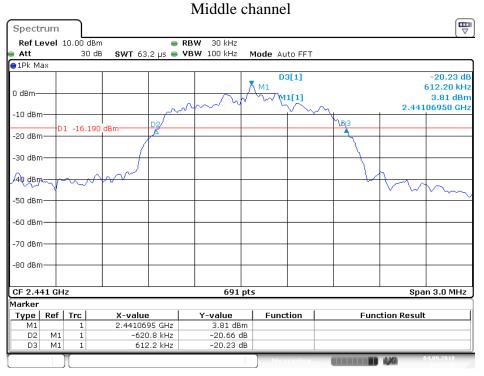
Date: 4.SEP.2018 16:21:08

EDR Mode

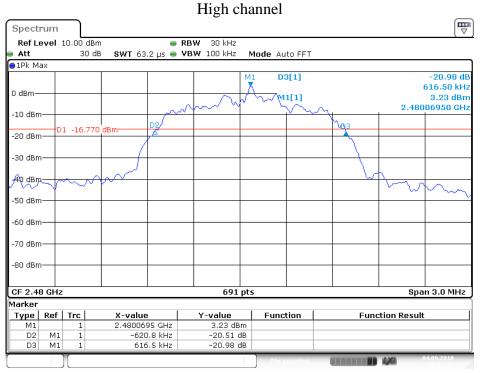


Date: 4.SEP.2018 16:26:21





Date: 4.SEP.2018 16:24:51



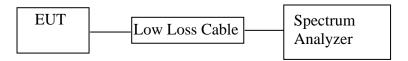
Date: 4.SEP.2018 16:23:16



Page 15 of 97

6. CARRIER FREQUENCY SEPARATION TEST

6.1.Block Diagram of Test Setup



(EUT: Active Noise Cancelling Bluetooth Stereo Headphones)

6.2. The Requirement For Section 15.247(a)(1)

Section 15.247(a)(1): Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudorandomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

6.3. The Requirement For RSS-247 Section 5.1(b)

RSS-247 Section 5.1(b):FHSS shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, FHSs operating in the band 2400-2483.5 MHz may have hopping channel carrier frequencies that are separated by 25 kHz or two thirds of the 20 dB bandwidth of the hopping channel, whichever is greater

6.4.EUT Configuration on Measurement

The equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

Report No.: ATE20181718 Page 16 of 97

6.5. Operating Condition of EUT

- 6.5.1. Setup the EUT and simulator as shown as Section 6.1.
- 6.5.2. Turn on the power of all equipment.
- 6.5.3.Let the EUT work in TX (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

6.6.Test Procedure

- 6.6.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 6.6.2.Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz. Adjust Span to 3MHz.
- 6.6.3. Set the adjacent channel of the EUT Maxhold another trace.
- 6.6.4. Measurement the channel separation

6.7.Test Result

BDR mode

Channel	Frequency (MHz)	Channel Separation(MHz)	Limit (MHz)	Result	
Low	2402	1.0029	25KHz or 20dB	PASS	
Low	2403	1.0029	bandwidth	PASS	
Middle	2440	1.0029	25KHz or20dB	PASS	
Mildule	2441	1.0029	bandwidth	rass	
High	2479	1.0029	25KHz or 20dB	PASS	
High	2480	1.0029	bandwidth	PASS	

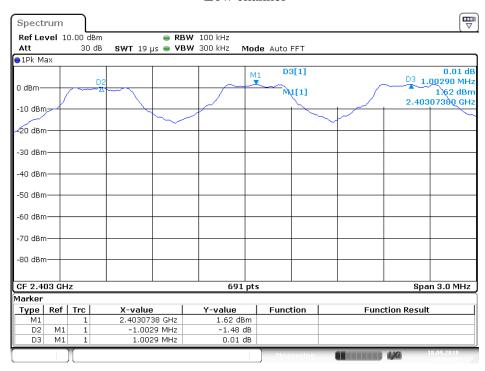
EDR mode

Channel	Frequency (MHz)	Channel Separation(MHz)	Limit (MHz)	Result	
Low	2402	1.0029	25KHz or 20dB	PASS	
Low	2403	1.0029	bandwidth	1 700	
Middle	2440	1.0029	25KHz or20dB	PASS	
Middle	2441	1.0029	bandwidth	rass	
High	2479	1.0029	25KHz or 20dB	PASS	
High	2480	1.0029	bandwidth	PASS	



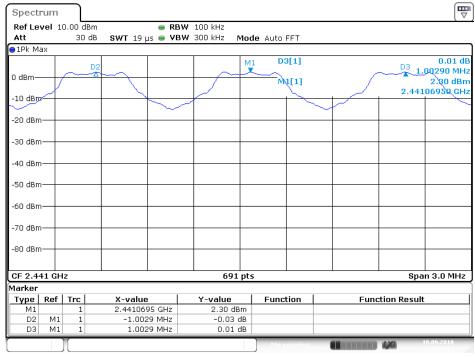
The spectrum analyzer plots are attached as below. BDR Mode

Low channel



Date: 18.SEP.2018 14:32:25

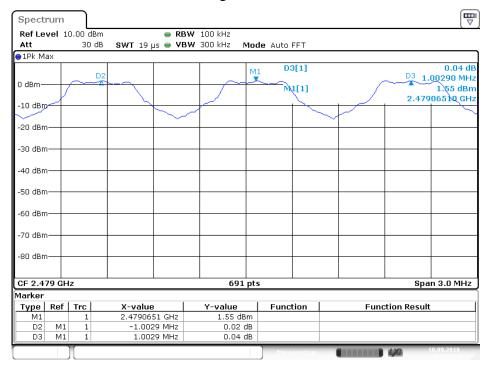
Middle channel



Date: 18.SEP.2018 14:33:34



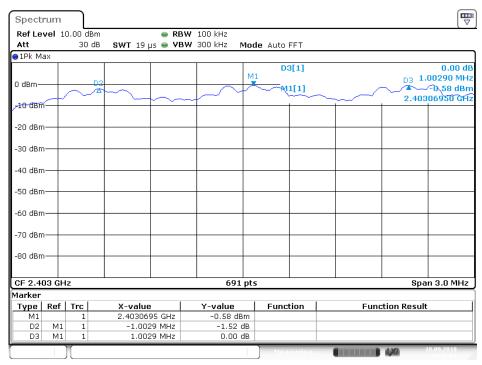
High channel



Date: 18.SEP.2018 14:34:25

EDR Mode

Low channel

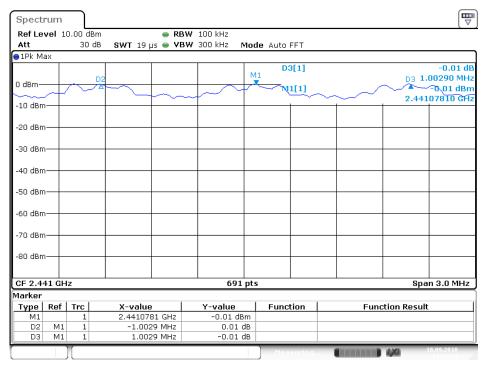


Date: 18.SEP.2018 14:41:01

shenzhen Accurate Technology Co., Ltd.

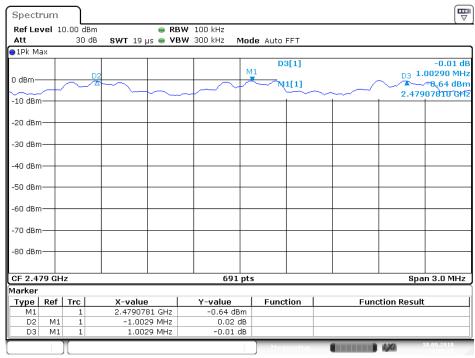


Middle channel



Date: 18.SEP.2018 14:39:21

High channel



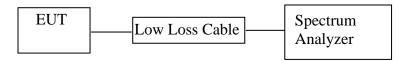
Date: 18.SEP.2018 14:38:15



Report No.: ATE20181718 Page 20 of 97

7. NUMBER OF HOPPING FREQUENCY TEST

7.1.Block Diagram of Test Setup



(EUT: Active Noise Cancelling Bluetooth Stereo Headphones)

7.2. The Requirement For Section 15.247(a)(1)(iii)

Section 15.247(a)(1)(iii): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

7.3. The Requirement For RSS-247 Section 5.1(d)

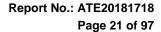
RSS-247 Section 5.1(d): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

7.4.EUT Configuration on Measurement

The equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.5. Operating Condition of EUT

- 7.5.1. Setup the EUT and simulator as shown as Section 7.1.
- 7.5.2. Turn on the power of all equipment.
- 7.5.3.Let the EUT work in TX (Hopping on) modes measure it.





7.6.Test Procedure

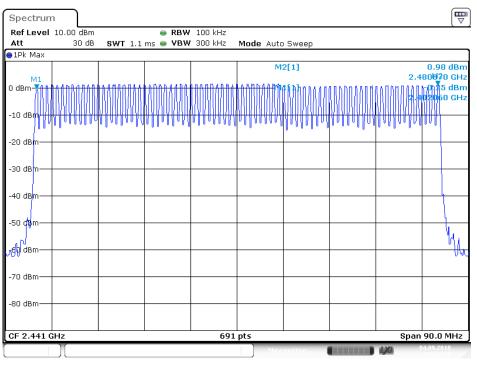
- 7.6.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 7.6.2.Set the spectrum analyzer as Span=90MHz, RBW=100 kHz, VBW=300 kHz.
- 7.6.3.Max hold, view and count how many channel in the band.

7.7.Test Result

Total number of	Measurement result(CH)	Limit(CH)
hopping channel	79	≥ 15

The spectrum analyzer plots are attached as below.

Number of hopping channels(GFSK)



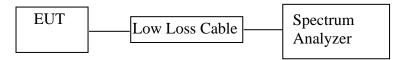
Date: 4.SEP.2018 15:27:58



Page 22 of 97

8. DWELL TIME TEST

8.1.Block Diagram of Test Setup



(EUT: Active Noise Cancelling Bluetooth Stereo Headphones)

8.2. The Requirement For Section 15.247(a)(1)(iii)

Section 15.247(a)(1)(iii): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

8.3. The Requirement For Section RSS-247 Section 5.1(d)

RSS-247 Section 5.1(d): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

8.4.EUT Configuration on Measurement

The equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

Report No.: ATE20181718 Page 23 of 97

8.5. Operating Condition of EUT

- 8.5.1. Setup the EUT and simulator as shown as Section 8.1.
- 8.5.2. Turn on the power of all equipment.
- 8.5.3.Let the EUT work in TX (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

8.6.Test Procedure

- 8.6.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 8.6.2.Set center frequency of spectrum analyzer = operating frequency.
- 8.6.3.Set the spectrum analyzer as RBW=1MHz, VBW=3MHz, Span=0Hz, Adjust Sweep=5ms, 10ms, 15ms. Get the pulse time.
- 8.6.4.Repeat above procedures until all frequency measured were complete.

8.7.Test Result

BDR Mode

Mode	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
	2402	0.44203	141.450	400
DH1	2441	0.44203	141.450	400
	2480	0.44203	141.450	400
A period to	ransmit time = $0.4 \times 79 =$	31.6 Dwell time = pt	alse time \times (1600/(2*)	79))×31.6
	2402	1.7246	275.936	400
DH3	2441	1.7101	273.616	400
	2480	1.7246	275.936	400
A period to	ransmit time = $0.4 \times 79 =$	31.6 Dwell time = pt	alse time \times (1600/(4*)	79))×31.6
	2402	2.9783	317.685	400
DH5	2441	2.9783	317.685	400
	2480	2.9783	317.685	400
A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(6*79)) \times 31.6$				



Page 24 of 97

EDR Mode

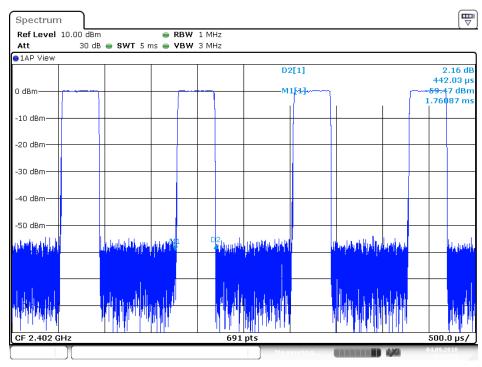
Mode	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
	2402	0.45652	146.086	400
3DH1	2441	0.45652	146.086	400
	2480	0.45652	146.086	400
A period to	ransmit time = $0.4 \times 79 =$	31.6 Dwell time = pv	alse time \times (1600/(2*)	79))×31.6
	2402	1.7246	275.936	400
3DH3	2441	1.7246	275.936	400
	2480	1.7101	273.616	400
A period to	ransmit time = $0.4 \times 79 =$	31.6 Dwell time = pt	alse time \times (1600/(4*)	79))×31.6
	2402	3.0000	320.000	400
3DH5	2441	3.0000	320.000	400
	2480	2.9783	317.685	400
A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(6*79)) \times 31.6$				

The spectrum analyzer plots are attached as below.



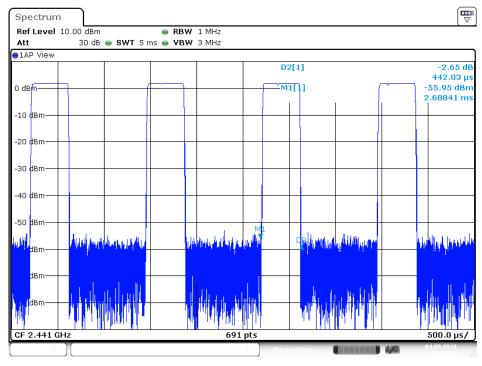
BDR Mode

DH1 Low channel



Date: 4.SEP.2018 16:02:35

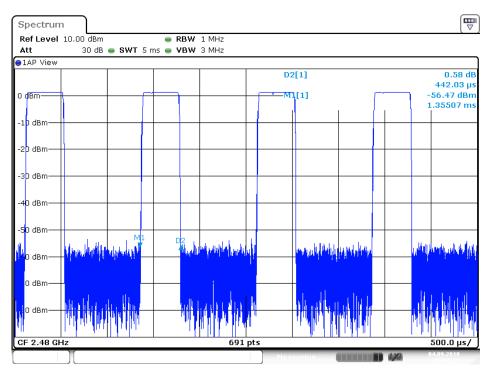
DH1 Middle channel



Date: 4.SEP.2018 16:01:58

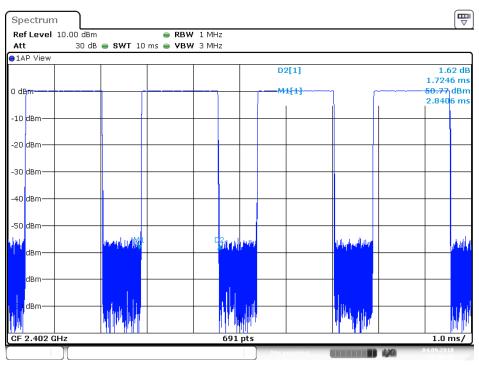


DH1 High channel



Date: 4.SEP.2018 16:01:16

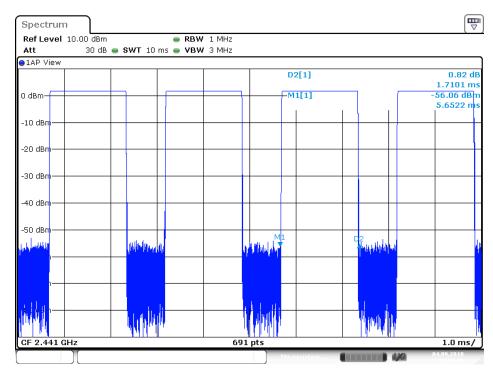
DH3 Low channel



Date: 4.SEP.2018 15:58:50

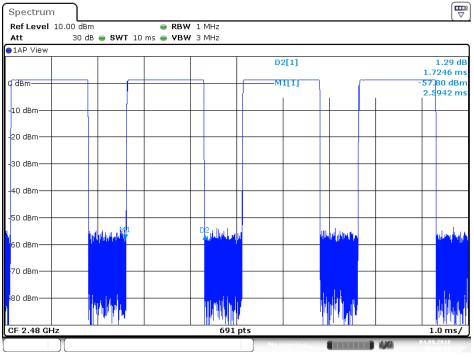


DH3 Middle channel



Date: 4.SEP.2018 15:59:39

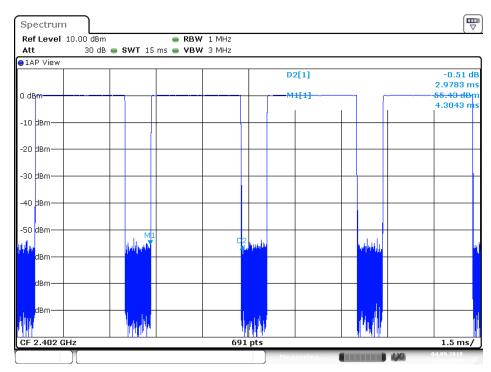
DH3 High channel



Date: 4.SEP.2018 16:00:28

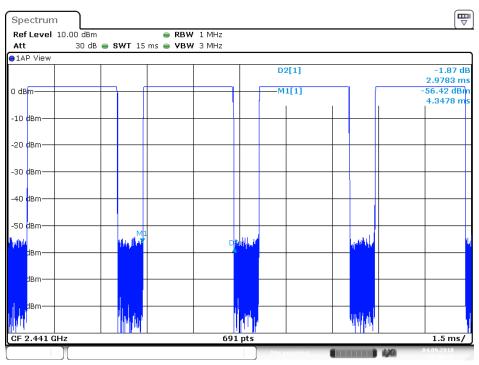


DH5 Low channel



Date: 4.SEP.2018 15:57:49

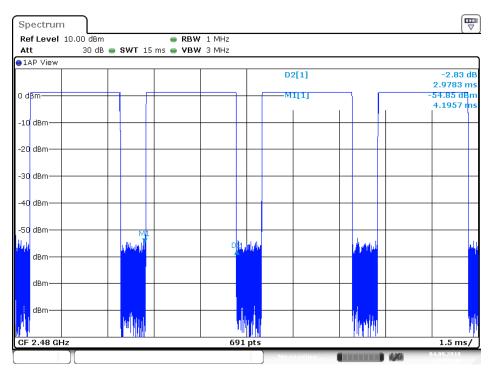
DH5 Middle channel



Date: 4.SEP.2018 15:56:58



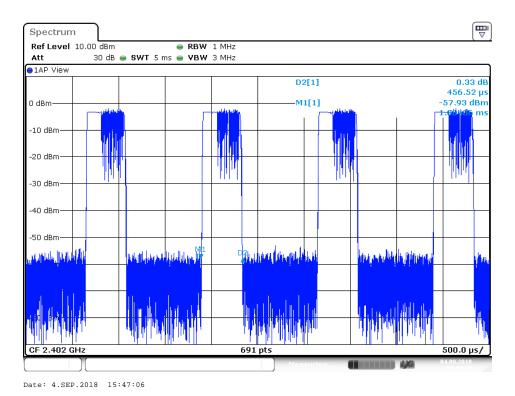
DH5 High channel



Date: 4.SEP.2018 15:55:49

EDR Mode

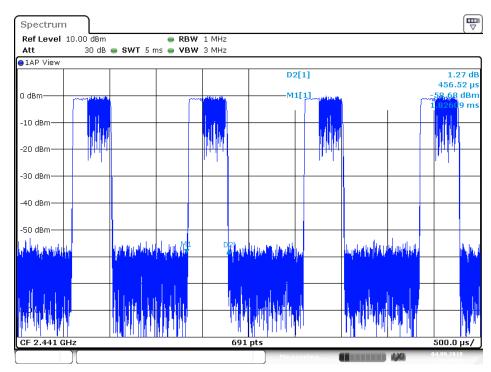
3DH1 Low channel



shenzhen Accurate Technology Co., Ltd.

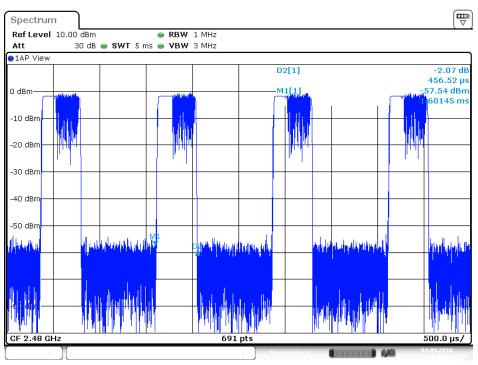


3DH1 Middle channel



Date: 4.SEP.2018 15:47:43

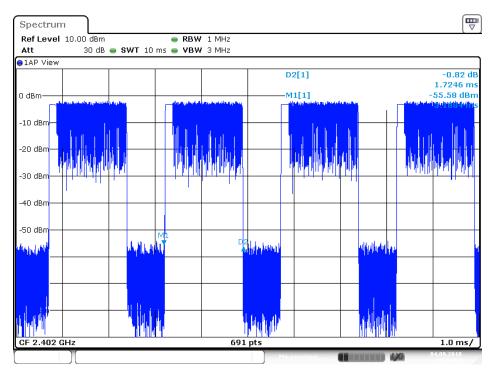
3DH1 High channel



Date: 4.SEP.2018 15:48:12

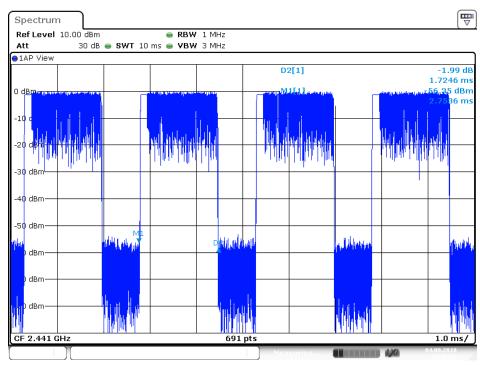


3DH3 Low channel



Date: 4.SEP.2018 15:50:53

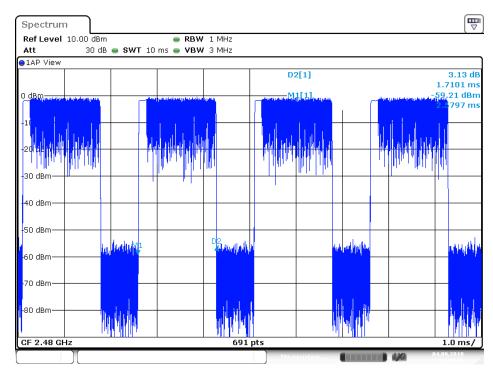
3DH3 Middle channel



Date: 4.SEP.2018 15:50:03

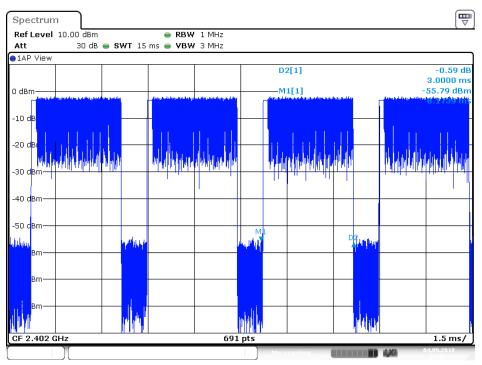


3DH3 High channel



Date: 4.SEP.2018 15:49:17

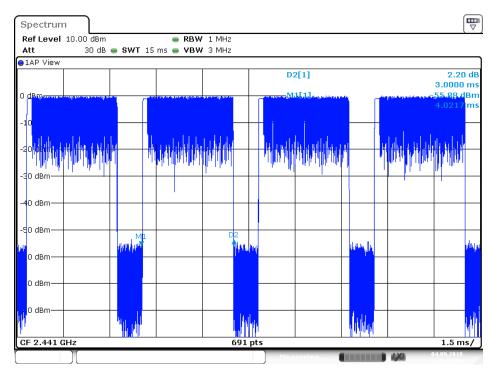
3DH5 Low channel



Date: 4.SEP.2018 15:52:11

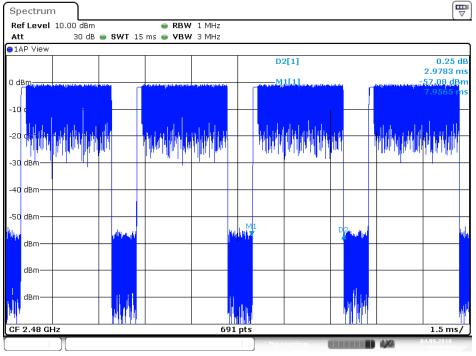


3DH5 Middle channel



Date: 4.SEP.2018 15:53:01

3DH5 High channel



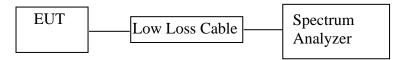
Date: 4.SEP.2018 15:53:53



Page 34 of 97

9. MAXIMUM PEAK OUTPUT POWER TEST

9.1.Block Diagram of Test Setup



(EUT: Active Noise Cancelling Bluetooth Stereo Headphones)

9.2. The Requirement For Section 15.247(b)(1)

Section 15.247(b)(1): For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

9.3. The Requirement For RSS-247 Section 5.4(b)

RSS-247 Section 5.4(b): For FHSS operating in the band 2400-2483.5MHz, the maximum peak conducted output power shall not exceed 1.0 W if the hopset uses 75 or more hopping channels; the maximum peak conducted output power shall not exceed 0.125 W if the hopset uses less than 75 hopping channels.

The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e).

9.4.EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

9.5. Operating Condition of EUT

- 9.5.1. Setup the EUT and simulator as shown as Section 9.1.
- 9.5.2. Turn on the power of all equipment.
- 9.5.3.Let the EUT work in TX (Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

Report No.: ATE20181718 Page 35 of 97

9.6.Test Procedure

- 9.6.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 9.6.2.Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz for BDR mode
- 9.6.3.Set RBW of spectrum analyzer to 3MHz and VBW to 10MHz for EDR mode
- 9.6.4. Measurement the maximum peak output power.

9.7.Test Result

BDR Mode

Frequency (MHz)	Maximum peak conducted output power (dBm/W)	e.i.r.p. (dBm/W)	Limits dBm/W
2402	0.75/0.00119	3.34/0.00216	30 / 1.0
2441	0.89/0.00123	3.48/0.00223	30 / 1.0
2480	0.65/0.00116	3.24/0.00211	30 / 1.0

EDR Mode

Frequency (MHz)	Maximum peak conducted output power (dBm/W)	e.i.r.p. (dBm/W)	Limits dBm / W
2402	1.35/0.00136	3.94/0.00248	21 / 0.125
2441	1.20/0.00132	3.79/0.00239	21 / 0.125
2480	1.09/0.00129	3.68/0.00233	21 / 0.125

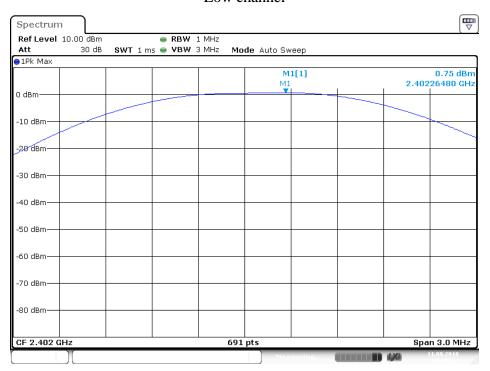
Note: e.i.r.p= Maximum peak conducted output power+Antenna gain(2.59dBi)

The spectrum analyzer plots are attached as below.



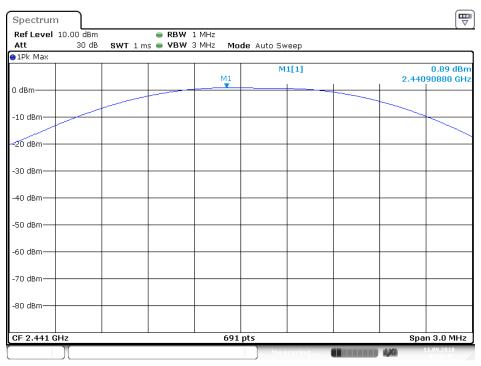
BDR Mode

Low channel



Date: 11.SEP.2018 08:40:23

Middle channel



Date: 11.SEP.2018 08:48:07



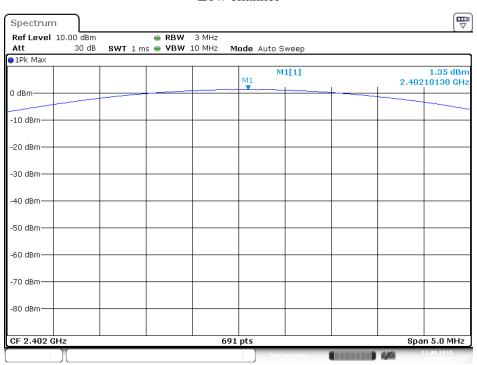
High channel



Date: 11.SEP.2018 08:44:41

EDR Mode

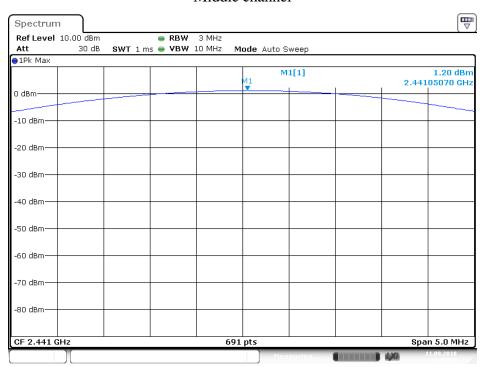
Low channel



Date: 11.SEP.2018 08:50:40

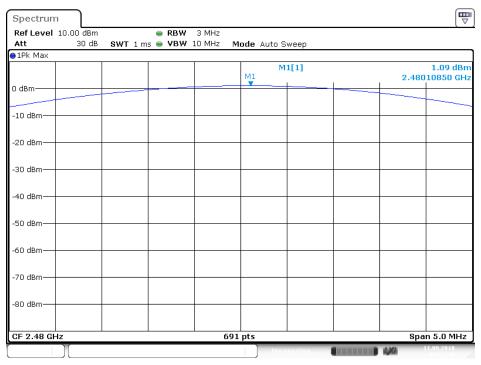


Middle channel



Date: 11.SEP.2018 08:52:54

High channel



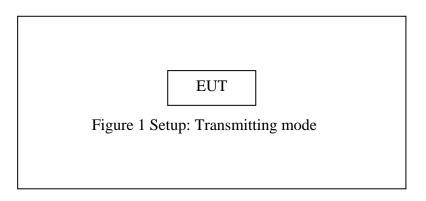
Date: 11.SEP.2018 08:53:39



10. RADIATED EMISSION TEST

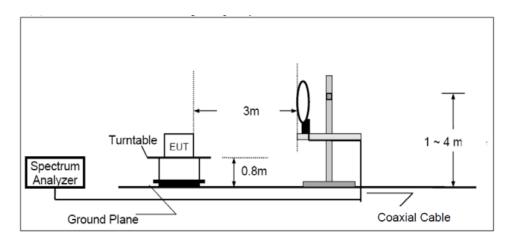
10.1.Block Diagram of Test Setup

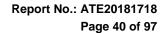
10.1.1.Block diagram of connection between the EUT and peripherals



10.1.2.Semi-Anechoic Chamber Test Setup Diagram

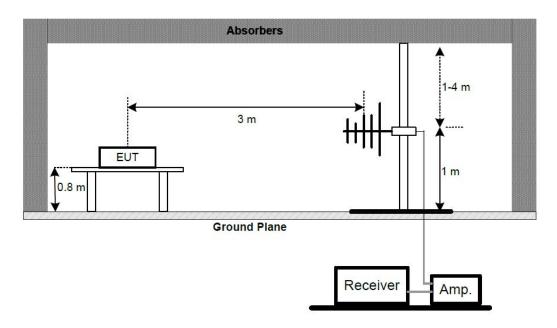
(A) Radiated Emission Test Set-Up, Frequency below 30MHz



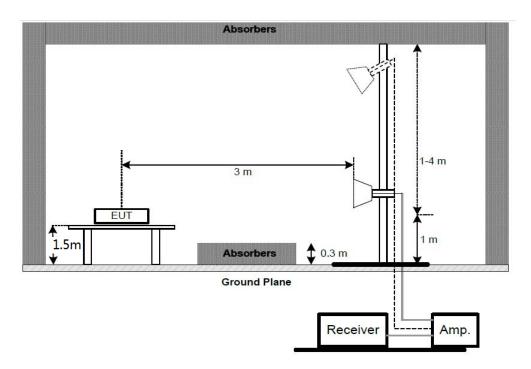


ATC

(B) Radiated Emission Test Set-Up, Frequency below 1GHz



Above 1GHz:



Address: 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China Tel: +86-755-26503290 Fax: +86-755-26503396 E-mail: webmaster@atc-lab.com Http://www.atc-lab.com



10.2. The Limit For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

10.3. Restricted bands of operation

10.3.1.FCC Part 15.205 Restricted bands of operation

(a) Except as shown in paragraph (d) of this section, Only spurious emissions are permitted in any of the frequency bands listed below:

pern	nitted in any of the freque	ncy bands listed below:	
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	$\binom{2}{}$
13.36-13.41			

¹Until February 1, 1999, this restricted band shall be 0.490-0.510

(b) Except as provided in paragraphs (d) and (e), the field strength of emission appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000MHz, Compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000MHz, compliance with the emission limits in Section15.209 shall be demonstrated

Address: 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China Tel: +86-755-26503290 Fax: +86-755-26503396 E-mail: webmaster@atc-lab.com Http://www.atc-lab.com

²Above 38.6



Report No.: ATE20181718 Page 42 of 97

based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

10.4. Configuration of EUT on Measurement

The equipment is installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

10.5.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground(Below 1GHz). The EUT and its simulators are placed on a turntable, which is 1.5 meter high above ground(Above 1GHz). The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bi-log antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the EUT location must be manipulated according to ANSI C63.10:2013 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

During the radiated emission test, the spectrum analyzer was set with the following configurations:

- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak at frequency below 1GHz.
- 2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for peak measurement with peak detector at frequency above 1GHz.
- 3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average measurement with peak detection at frequency above 1GHz.
- 4. All modes of operation were investigated and the worst-case emissions are reported.



Page 43 of 97

10.6.Data Sample

Frequency	Reading	Factor	Result	Limit	Margin	Remark
(MHz)	(dBµv)	(dB/m)	(dBµv/m)	(dBµv/m)	(dB)	
X.XX	48.69	-13.35	35.34	46	-10.66	QP

Frequency(MHz) = Emission frequency in MHz

Reading(dBuv) = Uncorrected Analyzer/Receiver reading

Factor (dB/m) = Antenna factor + Cable Loss - Amplifier gain

Result($dB\mu v/m$) = Reading($dB\mu v$) + Factor(dB/m)

Limit $(dB\mu v/m) = Limit$ stated in standard

Margin (dB) = Result(dB μ v/m) - Limit (dB μ v/m)

QP = Quasi-peak Reading

Calculation Formula:

 $Margin(dB) = Result (dB\mu V/m) - Limit(dB\mu V/m)$

Result($dB\mu V/m$)= Reading($dB\mu V$)+ Factor(dB/m)

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the limit.

10.7. The Field Strength of Radiation Emission Measurement Results

Note: 1.We tested GFSK mode, $\Pi/4$ -DQPSK Mode & 8QPSK mode and recorded the worst case data (EDR mode) for all test mode.



Page 44 of 97

9kHz-30MHz test data

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

EUT: Active Noise Cancelling Bluetooth Stereo Headphones M/N:W828NB

Applicant: Edifier International Limited

Operating Condition: TX 2402MHz
Test Site: 2# Chamber
Operator: WADE
Test Specification: DC 3.7V

Comment: X

Start of Test: 2018-09-11 /

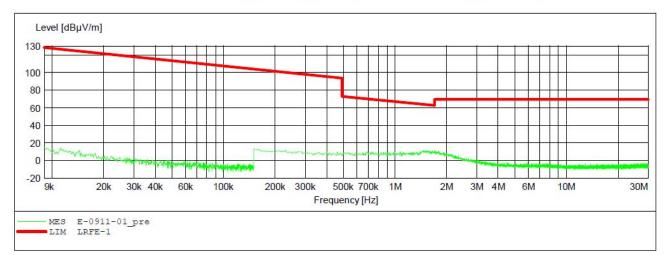
SCAN TABLE: "LFRE Fin"

Short Description: SUB STD VTERM2 1.70

Start Stop Step Detector Meas. IF Transducer

Frequency Frequency Width Time Bandw.

9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz 1516M 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz 1516M





Page 45 of 97

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

EUT: Active Noise Cancelling Bluetooth Stereo Headphones M/N:W828NB

Applicant: Edifier International Limited

Operating Condition: TX 2402MHz Test Site: 2# Chamber WADE Operator: Test Specification: DC 3.7V

Comment: Υ

Start of Test: 2018-09-11 /

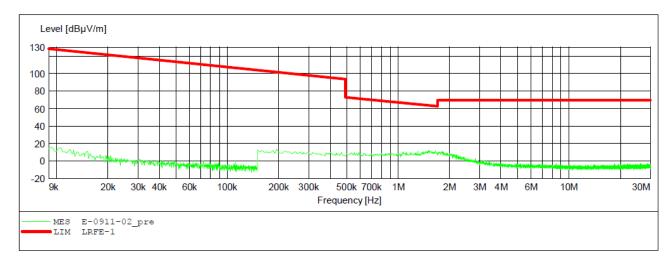
SCAN TABLE: "LFRE Fin"

Short Description: SUB STD VTERM2 1.70

Start Stop Step Detector Meas. ΙF Transducer

Frequency Frequency Width Time Bandw.

200 Hz 9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 1516M 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz 1516M





Page 46 of 97

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

Active Noise Cancelling Bluetooth Stereo Headphones M/N:W828NB

Edifier International Limited Applicant:

Operating Condition: TX 2402MHz Test Site: 2# Chamber Operator: WADE Test Specification: DC 3.7V

Comment: 7

Start of Test: 2018-09-11 /

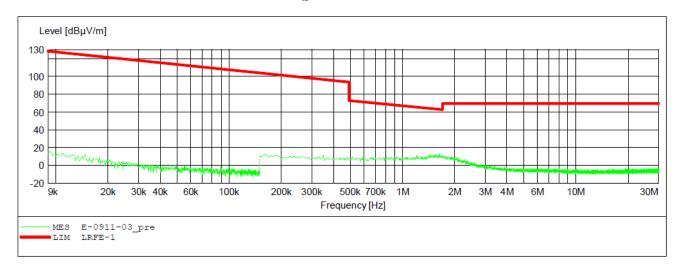
SCAN TABLE: "LFRE Fin"

Short Description: SUB STD VTERM2 1.70

Start Stop Step Detector Meas. ΙF Transducer

Frequency Frequency Width Time Bandw.

9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz 1516M 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz 1516M





Page 47 of 97

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

EUT: Active Noise Cancelling Bluetooth Stereo Headphones M/N:W828NB

Edifier International Limited Applicant:

Operating Condition: TX 2441MHz Test Site: 2# Chamber Operator: WADE Test Specification: DC 3.7V

Comment:

2018-09-11 / Start of Test:

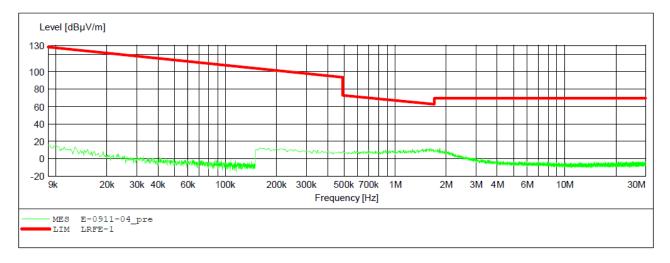
SCAN TABLE: "LFRE Fin"

SUB STD VTERM2 1.70 Short Description:

Stop Start Step Detector Meas. ΙF Transducer

Frequency Frequency Width Time Bandw.

9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz 1516M 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz 1516M





Page 48 of 97

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

EUT: Active Noise Cancelling Bluetooth Stereo Headphones M/N:W828NB

Applicant: Edifier International Limited

Operating Condition: TX 2441MHz Test Site: 2# Chamber Operator: WADE Test Specification: DC 3.7V

Comment:

Start of Test: 2018-09-11 /

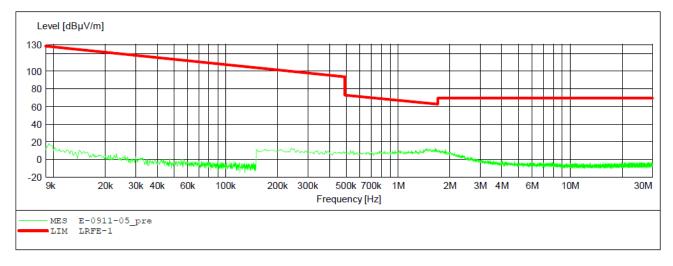
SCAN TABLE: "LFRE Fin"

Short Description: SUB STD VTERM2 1.70

ΙF Start Stop Step Detector Meas. Transducer

Frequency Frequency Width Time Bandw.

9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz 1516M 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz 1516M





Page 49 of 97

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

Active Noise Cancelling Bluetooth Stereo Headphones M/N:W828NB

Edifier International Limited Applicant:

Operating Condition: TX 2441MHz 2# Chamber Test Site: Operator: WADE Test Specification: DC 3.7V

Comment:

Start of Test: 2018-09-11 /

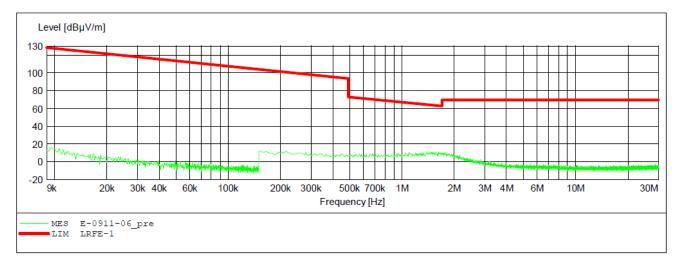
SCAN TABLE: "LFRE Fin"

SUB STD VTERM2 1.70 Short Description:

Stop Start Step Detector Meas. ΙF Transducer

Frequency Frequency Width Time Bandw.

150.0 kHz 100.0 Hz 9.0 kHz 200 Hz 1516M QuasiPeak 1.0 s 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz 1516M



Tel: +86-755-26503290 Fax: +86-755-26503396 E-mail: webmaster@atc-lab.com Http://www.atc-lab.com



Page 50 of 97

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

EUT: Active Noise Cancelling Bluetooth Stereo Headphones M/N:W828NB

Applicant: Edifier International Limited

Operating Condition: TX 2480MHz
Test Site: 2# Chamber
Operator: WADE
Test Specification: DC 3.7V

Comment: X

Start of Test: 2018-09-11 /

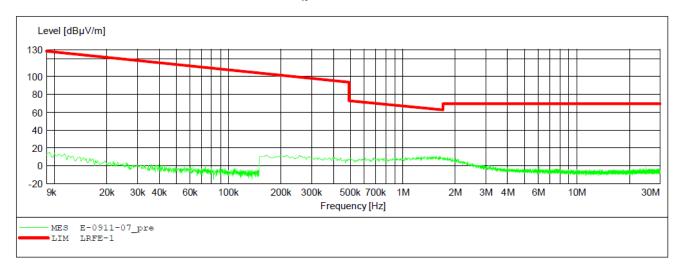
SCAN TABLE: "LFRE Fin"

Short Description: SUB STD VTERM2 1.70

Start Stop Step Detector Meas. IF Transducer

Frequency Frequency Width Time Bandw.

9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz 1516M 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz 1516M





Page 51 of 97

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

Active Noise Cancelling Bluetooth Stereo Headphones M/N: W828NB

Edifier International Limited Applicant:

Operating Condition: TX 2480MHz Test Site: 2# Chamber Operator: WADE Test Specification: DC 3.7V

Comment: Υ

Start of Test: 2018-09-11 /

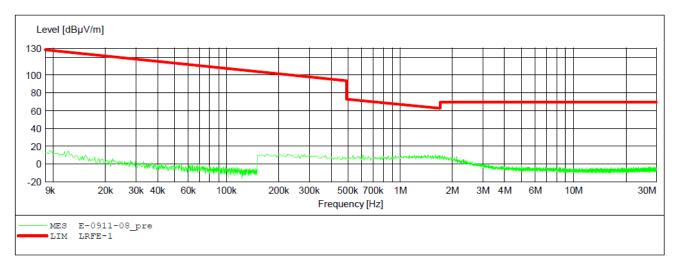
SCAN TABLE: "LFRE Fin" Short Description:

SUB STD VTERM2 1.70

Stop Start Detector Meas. IF Transducer Step

Frequency Frequency Width Time Bandw.

200 Hz 1516M 9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz 1516M





Page 52 of 97

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

Active Noise Cancelling Bluetooth Stereo Headphones M/N:W828NB

Edifier International Limited Applicant:

Operating Condition: TX 2480MHz 2# Chamber Test Site: Operator: WADE Test Specification: DC 3.7V

Comment:

2018-09-11 / Start of Test:

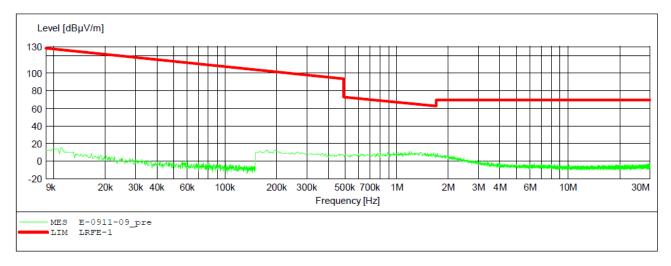
SCAN TABLE: "LFRE Fin"

SUB STD VTERM2 1.70 Short Description:

Stop Step ΙF Transducer Start Detector Meas.

Frequency Frequency Width Time Bandw.

9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz 1516M 30.0 MHz 150.0 kHz 5.0 kHz QuasiPeak 1.0 s 9 kHz 1516M





Page 53 of 97

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

30MHz-1000MHz test data



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

> Polarization: Horizontal Power Source: DC 3.7V

Date: 2018/09/07

Time:

Engineer Signature: WADE

Distance: 3m

Job No.: LGW2018 #2481 Standard: FCC 15.247 3M Radiated

Test item: Radiation Test

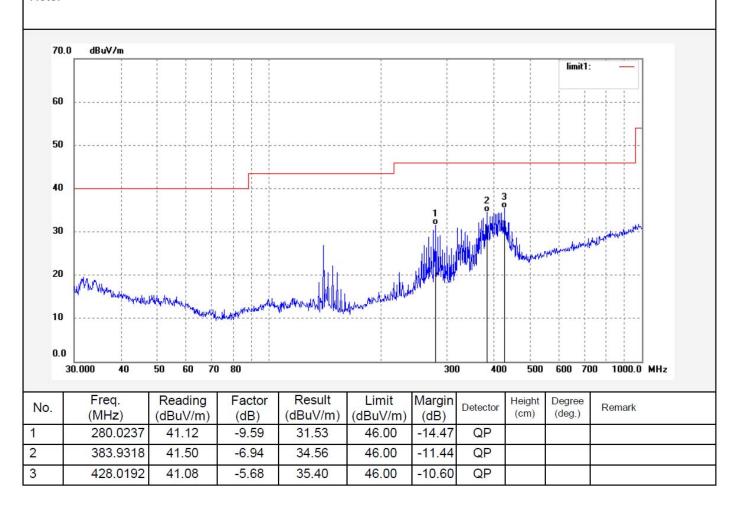
Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Active Noise Cancelling Bluetooth Stereo Headphones

Mode: TX 2402MHz Model: **W828NB**

Applicant: **Edifier International Limited**

Note:







Report No.: ATE20181718
Page 54 of 97

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: LGW2018 #2480

Standard: FCC 15.247 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Active Noise Cancelling Bluetooth Stereo Headphones

Mode: TX 2402MHz

Model: W828NB

Applicant: Edifier International Limited

Note:

Polarization: Vertical
Power Source: DC 3.7V

Date: 2018/09/07

Time:

Engineer Signature: WADE

Distance: 3m

									limit1:	-	
60											
50											
40											
30							2 0		3	MARINDAMANIA	
20	hinder of the market of the second of the se	nisham.	M	na ani ang kabupatan kana ng palak	and the Marie light	naigh-al-late group dies	John wood alpha ball	he present a service			
10		A CONTRACTOR OF THE PARTY OF TH	Walthalama	was a season of the solution	NW.						
0.0											
	0.000 40	50 60 70	80			30	D 400	500	600 70	00 1000.0	MHz
				Result	Limit	Margin	Detector	Height (cm)	Degree (deg.)	Remark	
3	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	(dBuV/m)	(dBuV/m)	(dB)		(CIII)	(deg.)		
					(dBuV/m) 43.50	(dB) -27.36	QP	(CIII)	(deg.)	,	





Report No.: ATE20181718 Page 55 of 97

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: LGW2018 #2482

Standard: FCC 15.247 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Active Noise Cancelling Bluetooth Stereo Headphones

Mode: TX 2441MHz

Model: W828NB

Applicant: Edifier International Limited

Note:

en,P.R.China Fax:+86-0755-2 Polarization: Horizontal

Power Source: DC 3.7V

Time:

Engineer Signature: WADE

Distance: 3m

Date: 2018/09/07

								1	limit1:	<u> </u>
60										
50										
40							3			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
30				1 9		2		W.	and the lands of the	and specialization
20	y hadrands becample you	white was	MAN CO	and production of the last of	Lange beriefelt gellens		histo.	Million		
10		aur wond	water and the second	was din de chh	Moren.					
10		1 1 1								
0.0			1 1 1	- 1	1	1 2				
0.0	0.000 40	50 60 70	80		- 1	30	D 400	500	600 70	0 1000.0 MH
0.0 30	7.000 40 Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	0 1000.0 MH Remark
0.0	Freq.	Reading	Factor			Margin	Detector	Height	Degree	



ATC[®]

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Report No.: ATE20181718

Page 56 of 97

Job No.: LGW2018 #2483

Standard: FCC 15.247 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Active Noise Cancelling Bluetooth Stereo Headphones

Mode: TX 2441MHz

Model: W828NB

Applicant: Edifier International Limited

Note:

Polarization: Vertical
Power Source: DC 3.7V

Date: 2018/09/07

Time:

Engineer Signature: WADE

Distance: 3m

	dBuV/m						1		limit1	: -	
60											
50											
40											
30							3			Mary Mary Mary	
	1		1 1 1				P	L	matthe matterial	War	
20	and proposably polyhodd had	n Maria	J. À N		have the the standard	2 mally light	Aphic Mark Mark Mark	maranihi	Marina	, , ,	
10	art generally gold head have	and Marphone May be see	White was to have	And a special second	Johnson Market State of the Sta	2 0 ~~,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Allow-the land	4-1960-4-1	And Miles and Miles		
10	.000 40	50 GO 70		And will with the state of the	where and the same of the same	30		1			
10 0.0				Result (dBuV/m)	Limit (dBuV/m)	1 1 1 1 1 1	0 400	1			





Report No.: ATE20181718 Page 57 of 97

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: LGW2018 #2485 Standard: FCC 15.247 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Active Noise Cancelling Bluetooth Stereo Headphones

Mode: TX 2480MHz

Model: W828NB

Applicant: Edifier International Limited

Note:

Polarization: Horizontal

Power Source: DC 3.7V

Date: 2018/09/07

Time:

Engineer Signature: WADE

Distance: 3m

70.0 dBuV/m limit1: 60 50 40 30 20 10 0.0 30.000 300 600 700 1000.0 MHz Freq. Result Reading Factor Limit Margin Height Degree No. Detector Remark (deg.) (cm) (MHz) (dBuV/m) (dBuV/m) (dB) (dBuV/m) (dB) 1 139.8507 41.69 -15.0926.60 43.50 -16.90QP QP 2 280.0237 40.25 -9.59 30.66 46.00 -15.34 3 383.9318 42.12 -6.9435.18 46.00 -10.82QP





ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Report No.: ATE20181718

Page 58 of 97

Job No.: LGW2018 #2484

Standard: FCC 15.247 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Active Noise Cancelling Bluetooth Stereo Headphones

Mode: TX 2480MHz

Model: W828NB

Applicant: Edifier International Limited

Note:

Polarization: Vertical

Power Source: DC 3.7V

Date: 2018/09/07

Time:

Engineer Signature: WADE

Distance: 3m

- 1	dBuV/m	1 1 1	1 1 1				- :	- :	limit1:	
60										
50										
40										
30									antique de la companya	w/philipson all and a second an
20 10	the whole the same the species of	rahridaanna vaid	hampara Ma	hopeopher de dominal place en de	howholesten	Makedalaphism	N. A. SHIPARE YOU BEAUTY	MWIN		
0.0										
30	.000 40	50 60 70	80			300	D 400	500	600 70	00 1000.0 MHz
	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
	102.0014	28.62	-13.38	15.24	43.50	-28.26	QP			
	416.1791	27.68	-5.95	21.73	46.00	-24.27	QP			
	410.1/91	21.00	A 7 (10 A 7 1) TO 1							



Report No.: ATE20181718 Page 59 of 97

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

1GHz-18GHz test data



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Polarization: Horizontal Power Source: DC 3.7V

Date: 2018/09/07

Time:

Engineer Signature: WADE

Distance: 3m

Job No.: LGW2018 #2457 Standard: FCC 15.247 3M Radiated

Test item: Radiation Test

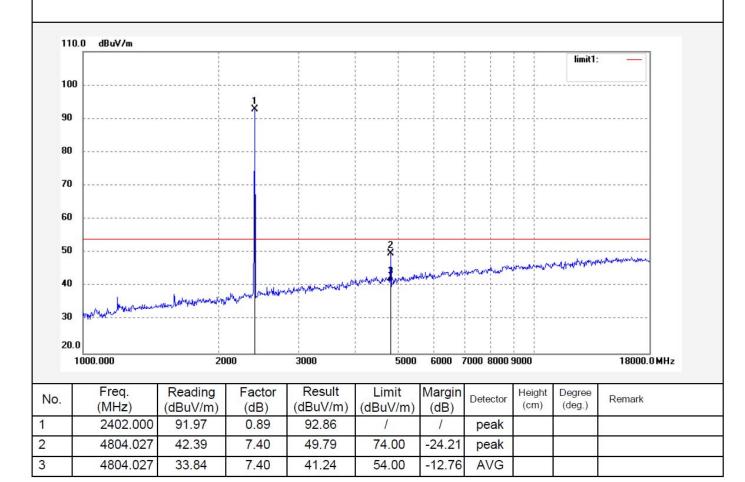
Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Active Noise Cancelling Bluetooth Stereo Headphones

Mode: TX 2402MHz Model: W828NB

Applicant: Edifier International Limited

Note:





ATC[®]

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Report No.: ATE20181718

Page 60 of 97

Job No.: LGW2018 #2456

Standard: FCC 15.247 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Active Noise Cancelling Bluetooth Stereo Headphones

Mode: TX 2402MHz Model: W828NB

Applicant: Edifier International Limited

Note:

Polarization: Vertical Power Source: DC 3.7V

Date: 2018/09/07

Time:

Engineer Signature: WADE

Distance: 3m

