APPLICATION CERTIFICATION FCC Part 15C
On Behalf of
Shenzhen Sowak Electronic Co., Ltd.

True Connect Truly Wireless Earphones

Model No.: MZX635

FCC ID: 2AS3I-MZX635

Prepared for	:	Shenzhen Sowak Electronic Co., Ltd.
Address	:	No.88, Jinkang Road, Jinsha Community, Kengzi Street, Pingshan, Shenzhen, China
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.	:	ATE20190647
Date of Test	:	May 11, 2019--May 21, 2019
Date of Report	:	May 22, 2019

TABLE OF CONTENTS

Description Page

Test Report Certification

1. GENERAL INFORMATION 5
1.1. Description of Device (EUT) 5
1.2. Accessory and Auxiliary Equipment 6
1.3. Description of Test Facility 6
1.4. Measurement Uncertainty 7
2. MEASURING DEVICE AND TEST EQUIPMENT 8
3. OPERATION OF EUT DURING TESTING 9
3.1. Operating Mode 9
3.2. EUT Pseudorandom Frequency Hopping Sequence 9
3.3. Frequency Hopping System 9
3.4. Configuration and peripherals 10
4. TEST PROCEDURES AND RESULTS 11
5. 20DB BANDWIDTH TEST 12
5.1. Block Diagram of Test Setup 12
5.2. The Requirement For Section 15.247(a)(1) 12
5.3. EUT Configuration on Measurement 12
5.4. Operating Condition of EUT 12
5.5. Test Procedure 12
5.6. Test Result 13
6. CARRIER FREQUENCY SEPARATION TEST 18
6.1. Block Diagram of Test Setup 18
6.2. The Requirement For Section 15.247(a)(1) 18
6.3. EUT Configuration on Measurement 18
6.4. Operating Condition of EUT 18
6.5. Test Procedure 19
6.6. Test Result 19
7. NUMBER OF HOPPING FREQUENCY TEST 25
7.1. Block Diagram of Test Setup 25
7.2. The Requirement For Section 15.247(a)(1)(iii) 25
7.3. EUT Configuration on Measurement 25
7.4. Operating Condition of EUT 25
7.5. Test Procedure 25
7.6. Test Result 26
8. DWELL TIME TEST 28
8.1. Block Diagram of Test Setup 28
8.2. The Requirement For Section 15.247(a)(1)(iii) 28
8.3. EUT Configuration on Measurement 28
8.4. Operating Condition of EUT 28
8.5. Test Procedure 28
8.6. Test Result 29
9. MAXIMUM PEAK OUTPUT POWER TEST 45
9.1. Block Diagram of Test Setup 45

9.2. The Requirement For Section 15.247(b)(1) 45
9.3. EUT Configuration on Measurement 45
9.4. Operating Condition of EUT 45
9.5. Test Procedure 45
9.6. Test Result 46
10. RADIATED EMISSION TEST 52
10.1. Block Diagram of Test Setup 52
10.2. The Limit For Section 15.247(d) 54
10.3. Restricted bands of operation 54
10.4. Configuration of EUT on Measurement 55
10.5. Test Procedure 55
10.6. Data Sample 56
10.7. The Field Strength of Radiation Emission Measurement Results 56
11. BAND EDGE COMPLIANCE TEST 71
11.1. Block Diagram of Test Setup 71
11.2. The Requirement For Section 15.247(d) 71
11.3. EUT Configuration on Measurement 71
11.4. Operating Condition of EUT 71
11.5. Test Procedure 72
11.6. Test Result 72
12. AC POWER LINE CONDUCTED EMISSION FOR FCC PART 15 SECTION 15.207(A) .. 95
12.1. Block Diagram of Test Setup 95
12.2. Test System Setup 95
12.3. Power Line Conducted Emission Measurement Limits 96
12.4. Configuration of EUT on Measurement 96
12.5. Operating Condition of EUT 96
12.6. Test Procedure 96
12.7. Data Sample 97
12.8. Power Line Conducted Emission Measurement Results 98
13. ANTENNA REQUIREMENT 101
13.1. The Requirement 101
13.2. Antenna Construction 101
14. PHOTOGRAPHS 102
14.1. Photos of Radiated Emission Measurement 102
14.2. Photo of Conducted Emission Measurement 103
14.3. Photos of EUT 104

Test Report Certification

Applicant	:	Shenzhen Sowak Electronic Co., Ltd.
Address	:	No.88, Jinkang Road, Jinsha Community, Kengzi Street, Pingshan, Shenzhen, China
Manufacturer	:	Shenzhen Sowak Electronic Co., Ltd.
Address	:	No.88, Jinkang Road, Jinsha Community, Kengzi Street, Pingshan, Shenzhen, China
Product	:	True Connect Truly Wireless Earphones
Model No.	:	MZX635
Trade name	:	Altec Lansing

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247
ANSI C63.10: 2013

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 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 : May 11, 2019--May 21, 2019
Date of Report: May 22, 2019

Prepared by :
(Tim Zhang, Engineer)

Approved &
Authorized Signer :
(Sean Liu, Manager)

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT	:	True Connect Truly Wireless Earphones
Model Number	:	MZX635
Rating	:	DC 3.7V (Powered by battery)
Bluetooth version	:	BT V5.0 This report is for BT classic mode
Frequency Range	:	2402MHz-2480MHz
Number of Channels	:	79
Antenna Gain(Max)	:	1.2dBi
Antenna type	:	Integral Antenna
Hardware version	:	IT1-ETA9640-V1.4
Software version	:	V5.0
Trade Name	:	Altec Lansing
Modulation mode	:	GFSK, π/4 DQPSK, 8DPSK
Applicant	:	Shenzhen Sowak Electronic Co., Ltd
Address	:	No.88, Jinkang Road, Jinsha Community, Kengzi Street, Pingshan, Shenzhen, China
Manufacturer	:	Shenzhen Sowak Electronic Co., Ltd
Address	:	No.88, Jinkang Road, Jinsha Community, Kengzi Street, Pingshan, Shenzhen, China
Date of sample received	:	May 07, 2019
Date of Test	:	May 11, 2019--May 21, 2019

1.2.Accessory and Auxiliary Equipment

Adapter information (provided by laboratory)	:	Model: MX12X6-0502000VU
		Input: 100-240V~50/60Hz 0.35A
		Output: DC 5V/1A

PC (provided by laboratory)	:	Manufacturer: LENOVO
		M/N: 4290-RT8
		S/N: R9-FW93G 11/08

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 (9kHz-30MHz)	=	3.08dB, k=2
Radiated emission expanded uncertainty (30MHz-1000MHz)	=	4.42dB, k=2
Radiated emission expanded uncertainty (Above 1GHz)	=	4.06dB, k=2

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated dates	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 05, 2019	1 Year
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 05, 2019	1 Year
Spectrum Analyzer	Rohde&Schwarz	FSV-40	101495	Jan. 05, 2019	1 Year
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 05, 2019	1 Year
Pre-Amplifier	Rohde&Schwarz	CBLU1183540-01	3791	Jan. 05, 2019	1 Year
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 05, 2019	1 Year
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 05, 2019	1 Year
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 05, 2019	1 Year
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 05, 2019	1 Year
Open Switch and Control Unit	Rohde&Schwarz	OSP120 + OSP-B157	101244 + 100866	Jan. 05, 2019	1 Year
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 05, 2019	1 Year
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 05, 2019	1 Year
Highpass Filter	Wainwright Instruments	WHKX3.6/18G-10SS	N/A	Jan. 05, 2019	1 Year
Band Reject Filter	Wainwright Instruments	WRCG2400/2485-2375/2510-60/11SS	N/A	Jan. 05, 2019	1 Year
RF Coaxial Cable (Conducted Emission)	SUHNER	N-2m	No.2	Jan. 05, 2019	1 Year
RF Coaxial Cable (Radiated Emission)	SUHNER	N-5m	NO.3	Jan. 05, 2019	1 Year
RF Coaxial Cable (Radiated Emission)	SUHNER	N-5m	NO.4	Jan. 05, 2019	1 Year
RF Coaxial Cable (Radiated Emission)	SUHNER	N-1m	NO.5	Jan. 05, 2019	1 Year
RF Coaxial Cable (Radiated Emission)	SUHNER	N-1m	NO.6	Jan. 05, 2019	1 Year
Conducted Emission Measurement Software: ES-K1 V1.71					
Radiated Emission Measurement Software: EZ_EMC V1.1.4.2					

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
Note: The Bluetooth has been tested under continuous transmission mode.

3.2.EUT Pseudorandom Frequency Hopping Sequence

Pseudorandom Frequency Hopping Sequence Table as below:
Channel: 08, 24, 40, 56, 34, 51, 72, 09, 01, 64, 22, 33, 41, 32, 47, 65, 73, 53, 69, 06, 17, 04, 20, 36, 52, 38, 66, 70, 78, 68, 76, 21, 29, 10, 26, 49, 00, 58, 44, 59, 75, 13, 03, 14, 11, 35, 43, 37, 50, 61, 77, 55, 71, 02, 23, 07, 27, 39, 54, 46, 48, 15, 63, 62, 67, 25, 31, 12, 28, 19, 60, 42, 57, 74, 16, 05, 18, 30, 45, etc.

The system receiving have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals.

3.3.Frequency Hopping System

This transmitter device is frequency hopping device, and complies with FCC part 15.247 rule.

This device uses Bluetooth radio which operates in 2400-2483.5 MHz band. Bluetooth uses a radio technology called frequency-hopping spread spectrum, which chops up the data being sent and transmits chunks of it on up to 79 bands (1 MHz each; centred from 2402 to 2480 MHz) in the range 2,400-2,483.5MHz. The transmitter switches hop frequencies 1,600 times per second to assure a high degree of data security. All Bluetooth devices participating in a given piconet are synchronized to the frequency-hopping channel for the piconet. The frequency hopping sequence is determined by the master's device address and the phase of the hopping sequence (the frequency to hop at a specific time) is determined by the master's internal clock. Therefore, all slaves in a piconet must know the master's device address and must synchronize their clocks with the master's clock.

Adaptive Frequency Hopping (AFH) was introduced in the Bluetooth specification to provide an effective way for a Bluetooth radio to counteract normal interference. AFH identifies "bad" channels, where either other wireless devices are interfering with the Bluetooth signal or the Bluetooth signal is interfering with another device. The AFH-enabled Bluetooth device will then communicate with other devices within its piconet to share details of any identified bad channels. The devices will then switch to alternative available "good" channels, away

from

the areas of interference, thus having no impact on the bandwidth used.

This device was tested with a bluetooth system receiver to check that the device maintained hopping synchronization, and the device complied with these requirements FCC Part 15.247 rule.

3.4.Configuration and peripherals

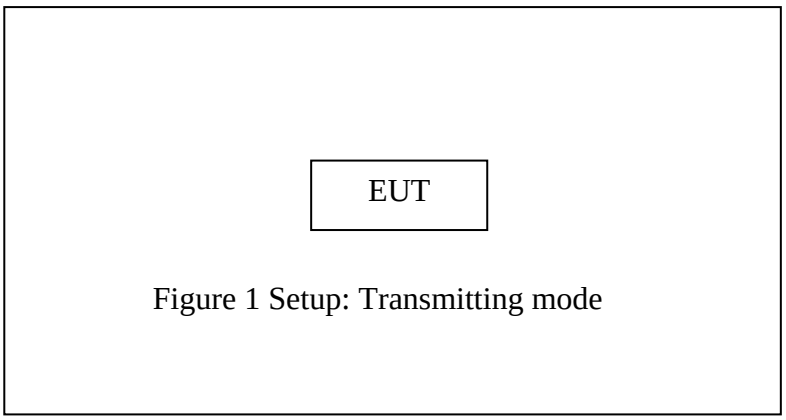


Figure 1 Setup: Transmitting mode

(EUT: Bluetooth earphone)

Note: The power was switched from 85% to 115%, and the worse case data was recorded.

4. TEST PROCEDURES AND RESULTS

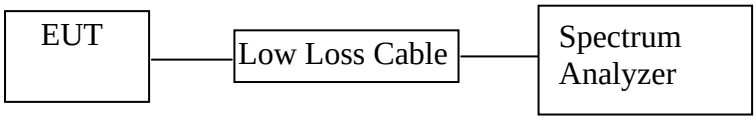
FCC&IC Rules	Description of Test	Result
Section 15.207	AC Power Line Conducted Emission Test	Compliant
Section 15.247(a)(1)	20dB Bandwidth Test	Compliant
Section 15.247(a)(1)	Carrier Frequency Separation Test	Compliant
Section 15.247(a)(1)(iii)	Number Of Hopping Frequency Test	Compliant
Section 15.247(a)(1)(iii)	Dwell Time Test	Compliant
Section 15.247(b)(1)	Maximum Peak Output Power Test	Compliant
Section 15.247(d) Section 15.209	Radiated Emission Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.203	Antenna Requirement	Compliant

Note:

The product is a pair of Bluetooth headphones. They have the same Bluetooth module and antenna, so we only tested one of them.

5. 20DB BANDWIDTH TEST

5.1.Block Diagram of Test Setup



(EUT: True Connect Truly Wireless Earphones)

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.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.

5.4.Operating Condition of EUT

5.4.1.Setup the EUT and simulator as shown as Section 5.1.

5.4.2.Turn on the power of all equipment.

5.4.3.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.

5.5.Test Procedure

5.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.

5.5.2.The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

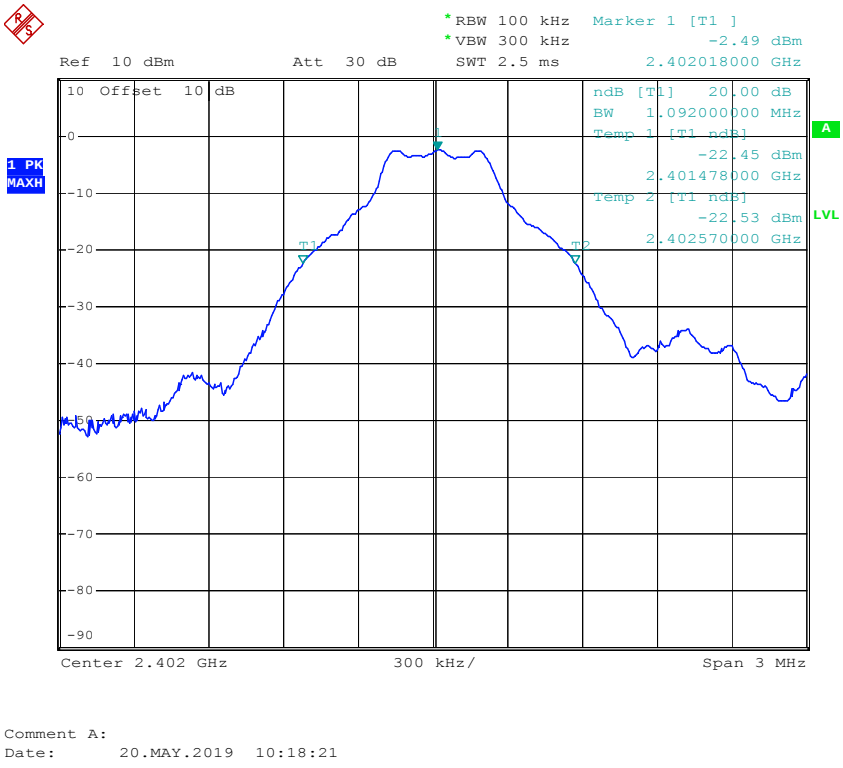
5.6.Test Result

Channel	Frequency (MHz)	GFSK mode 20dB Bandwidth (MHz)	π /4 DQPSK mode 20dB Bandwidth (MHz)	8DPSK mode 20dB Bandwidth (MHz)	Result
Low	2402	1.092	1.350	1.332	Pass
Middle	2441	1.098	1.356	1.344	Pass
High	2480	1.092	1.356	1.344	Pass

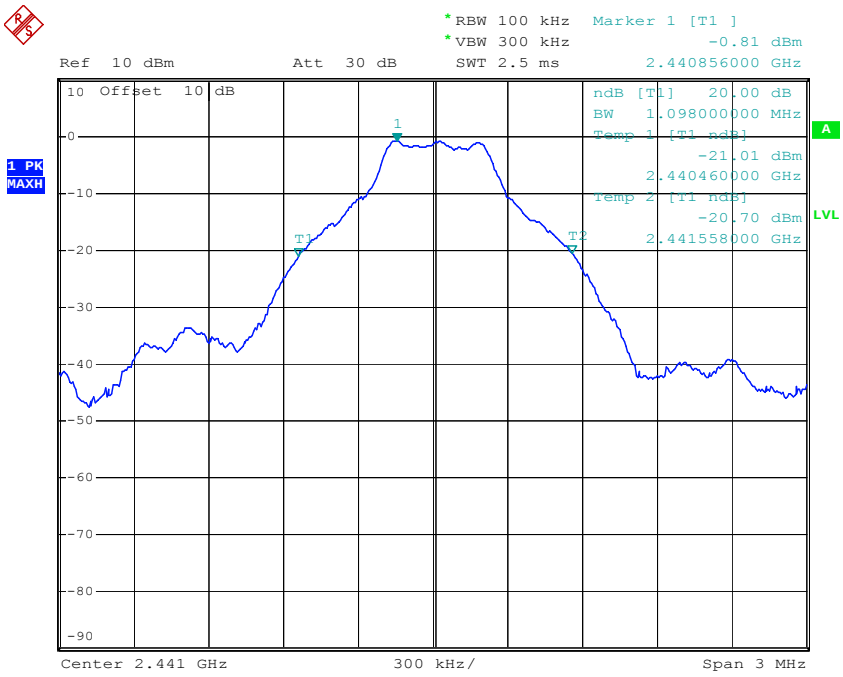
The spectrum analyzer plots are attached as below.

GFSK Mode

Low channel

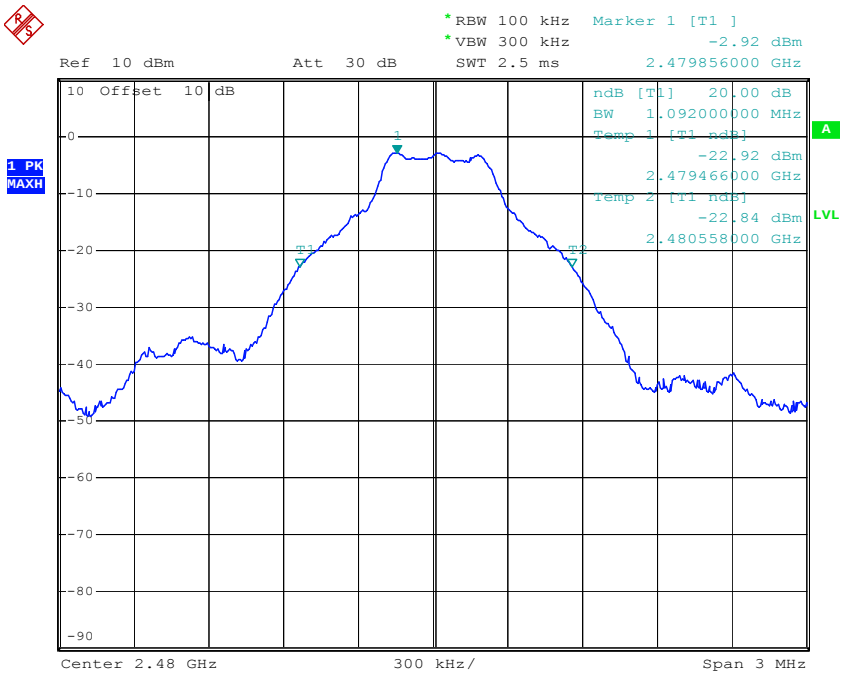


Middle channel



Comment A:
Date: 20.MAY.2019 10:19:13

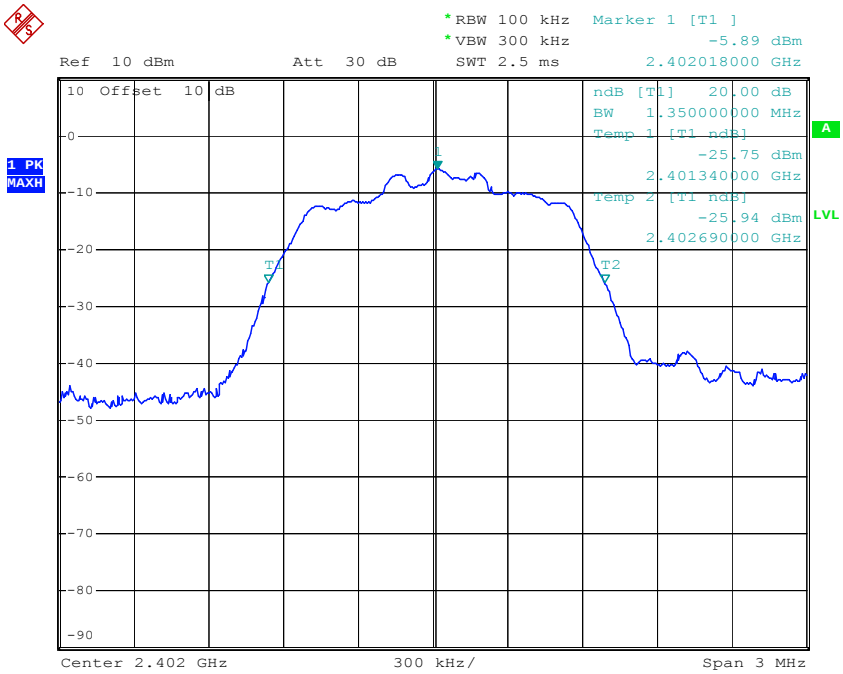
High channel



Comment A:
Date: 20.MAY.2019 10:20:11

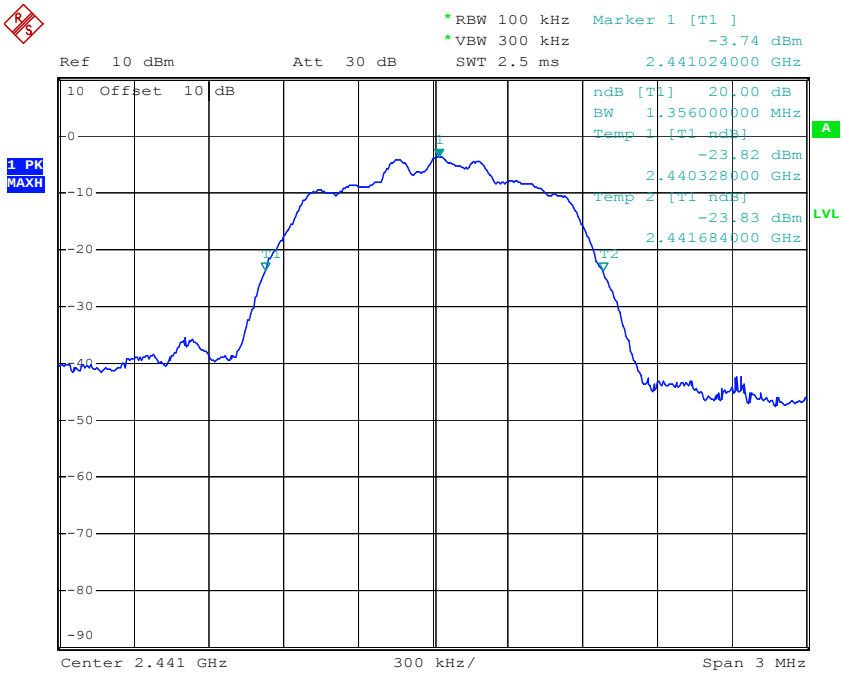
π /4 DQPSK Mode

Low channel



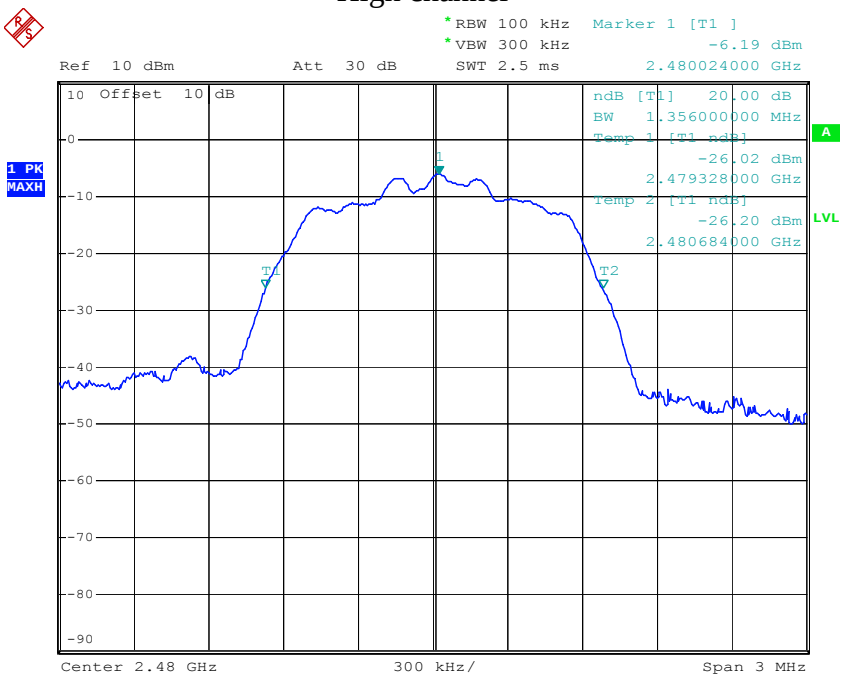
Comment A:
Date: 20.MAY.2019 10:24:28

Middle channel



Comment A:
Date: 20.MAY.2019 10:23:22

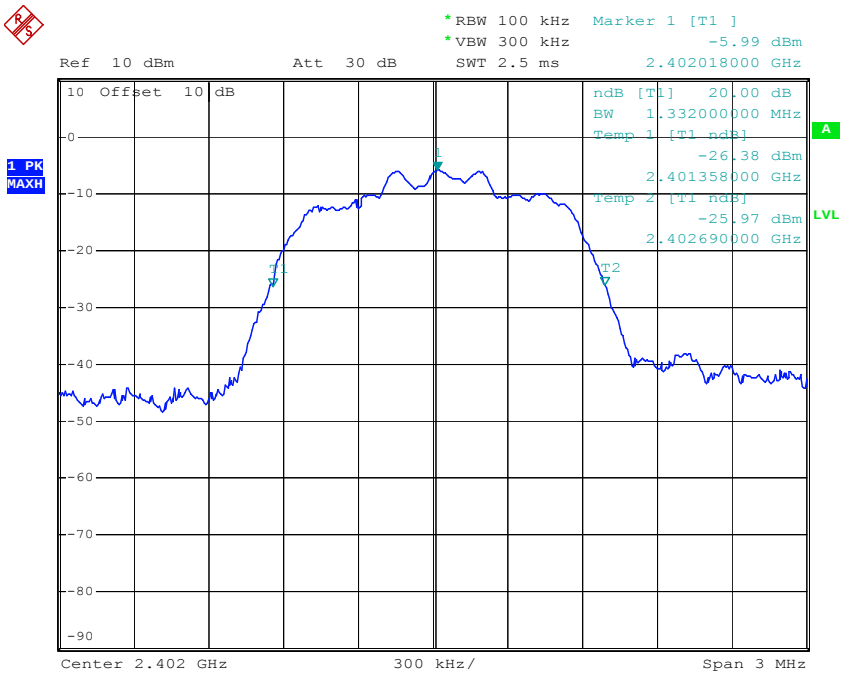
High channel



Comment A:
Date: 20.MAY.2019 10:22:14

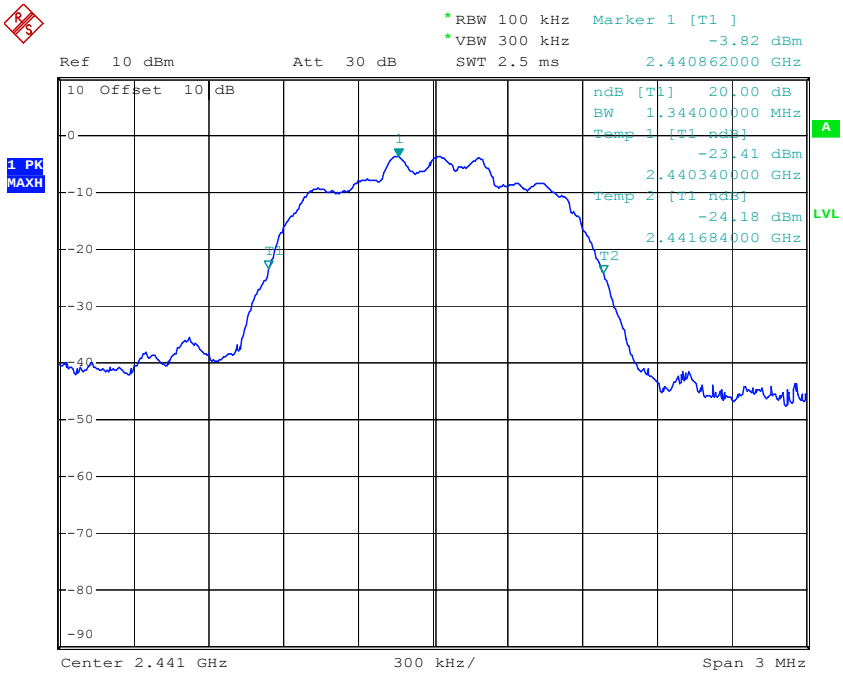
8DPSK Mode

Low channel



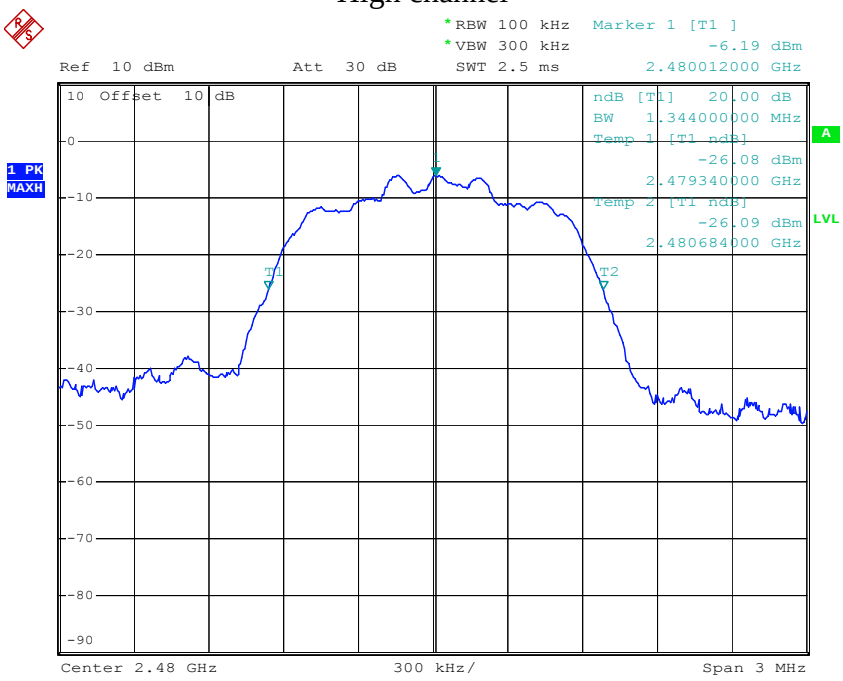
Comment A:
Date: 20.MAY.2019 10:26:03

Middle channel



Comment A:
Date: 20.MAY.2019 10:27:02

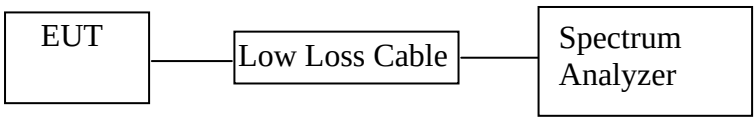
High channel



Comment A:
Date: 20.MAY.2019 10:28:11

6. CARRIER FREQUENCY SEPARATION TEST

6.1.Block Diagram of Test Setup



(EUT: True Connect Truly Wireless Earphones)

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.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.

6.4.Operating Condition of EUT

6.4.1.Setup the EUT and simulator as shown as Section 6.1.

6.4.2.Turn on the power of all equipment.

6.4.3.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.

6.5. Test Procedure

6.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

6.5.2. Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz. Adjust Span to 3MHz.

6.5.3. Set the adjacent channel of the EUT Maxhold another trace.

6.5.4. Measurement the channel separation

6.6. Test Result

GFSK mode

Channel	Frequency (MHz)	Channel Separation(MHz)	Limit	Result
Low	2402	1.002	25KHz or 0.784 MHz	PASS
	2403			
Middle	2440	0.996	25KHz or 0.772 MHz	PASS
	2441			
High	2479	1.002	25KHz or 0.788 MHz	PASS
	2480			

π /4 DQPSK mode

Channel	Frequency (MHz)	Channel Separation(MHz)	Limit	Result
Low	2402	1.008	25KHz or 0.892 MHz	PASS
	2403			
Middle	2440	1.002	25KHz or 0.904 MHz	PASS
	2441			
High	2479	1.002	25KHz or 0.884 MHz	PASS
	2480			

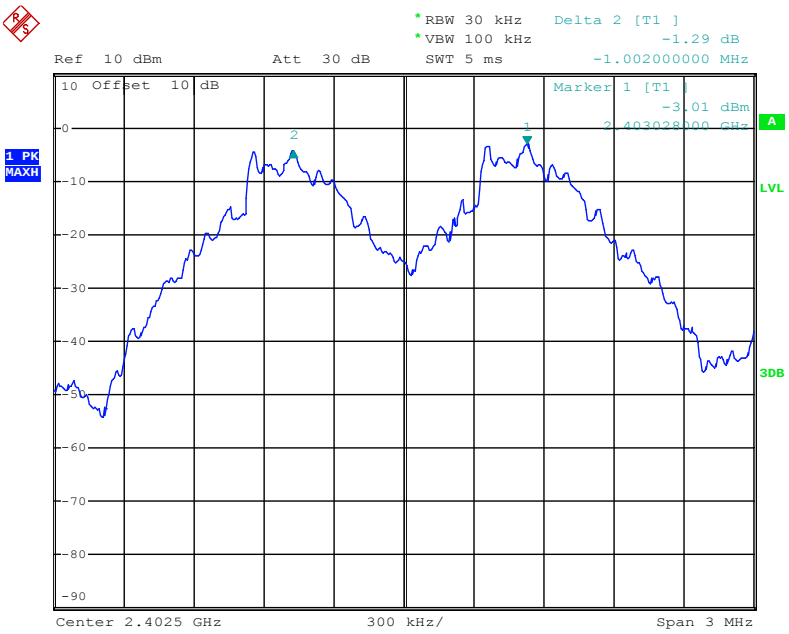
8DPSK mode

Channel	Frequency (MHz)	Channel Separation(MHz)	Limit	Result
Low	2402	1.008	25KHz or 0.928 MHz	PASS
	2403			
Middle	2440	1.002	25KHz or 0.920 MHz	PASS
	2441			
High	2479	0.996	25KHz or 0.936 MHz	PASS
	2480			

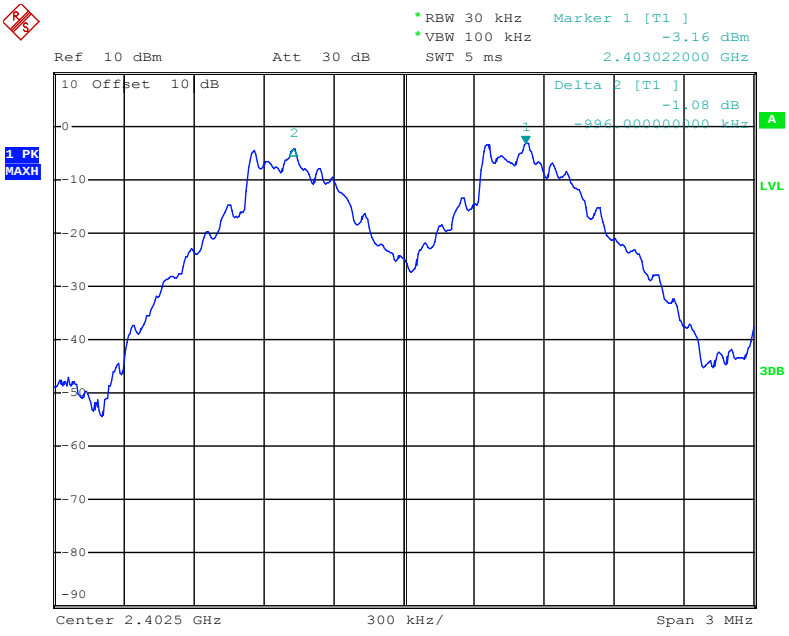
The spectrum analyzer plots are attached as below.

GFSK Mode

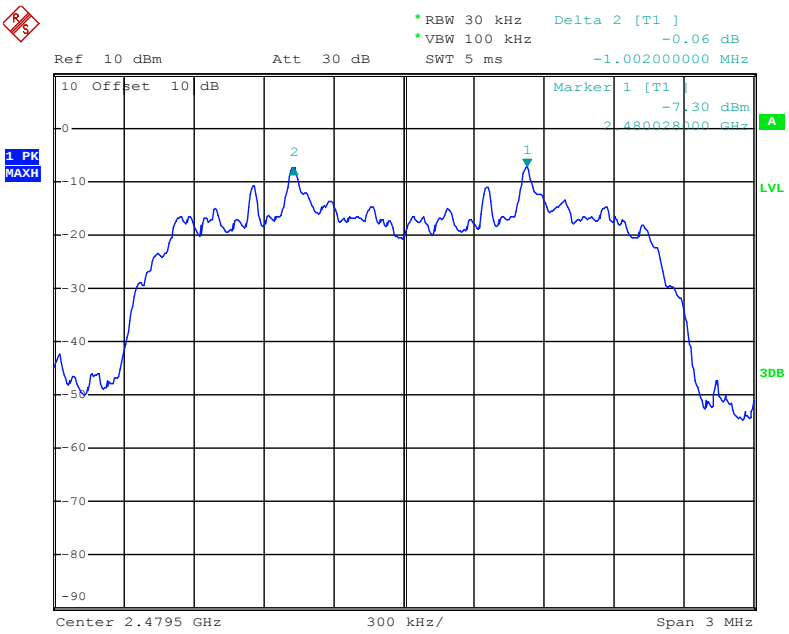
Low channel



Middle channel



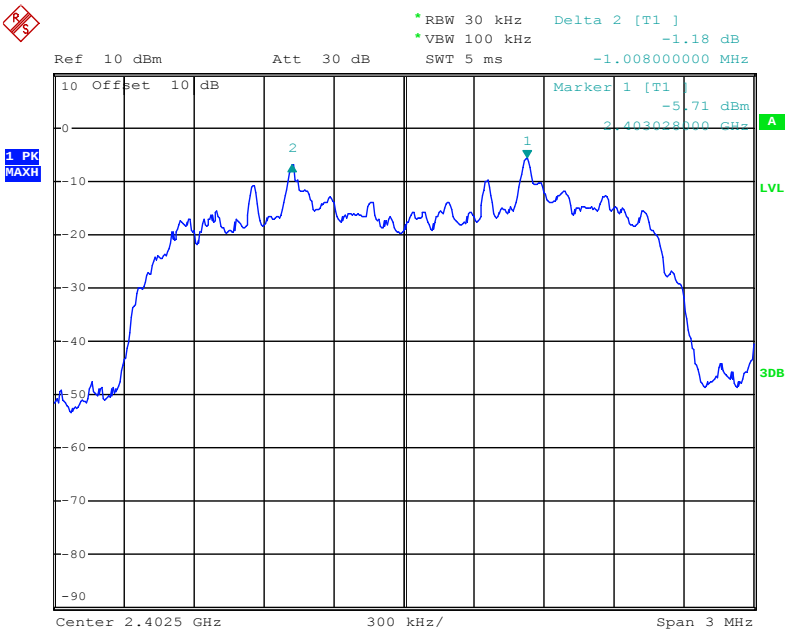
High channel



Date: 20.MAY.2019 09:16:38

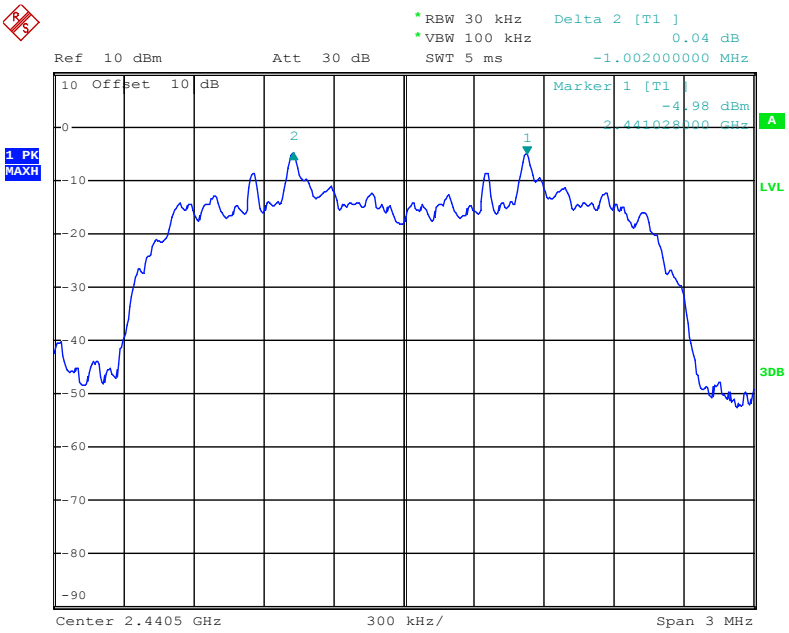
π /4 DQPSK Mode

Low channel



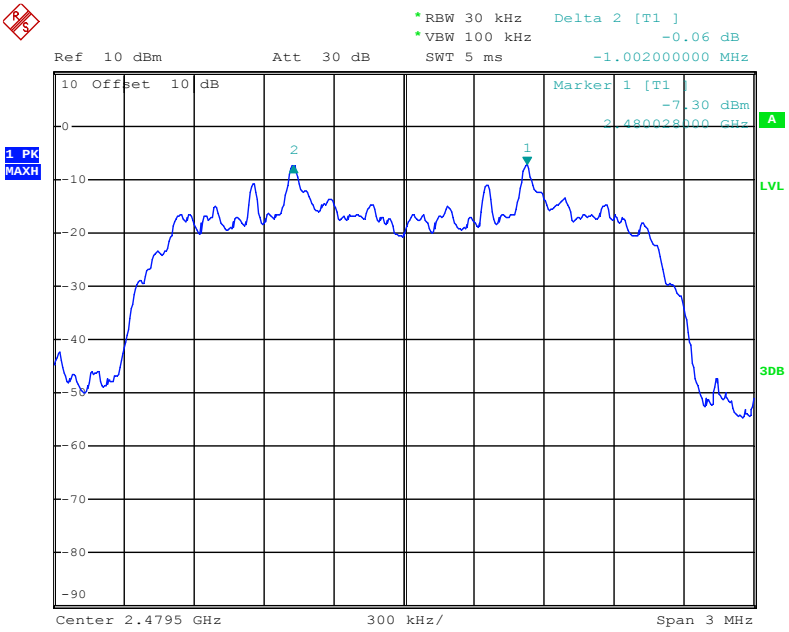
Date: 20.MAY.2019 09:18:34

Middle channel



Date: 20.MAY.2019 09:17:42

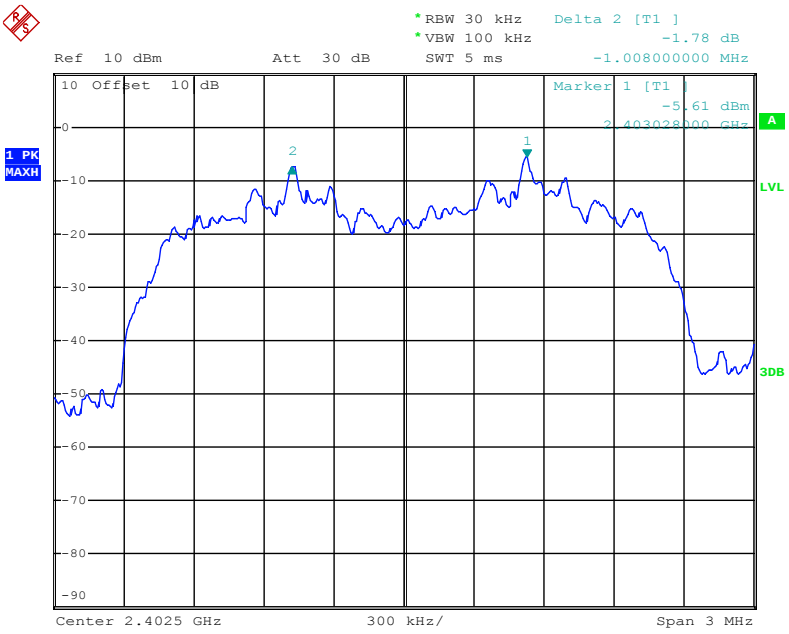
High channel



Date: 20.MAY.2019 09:16:38

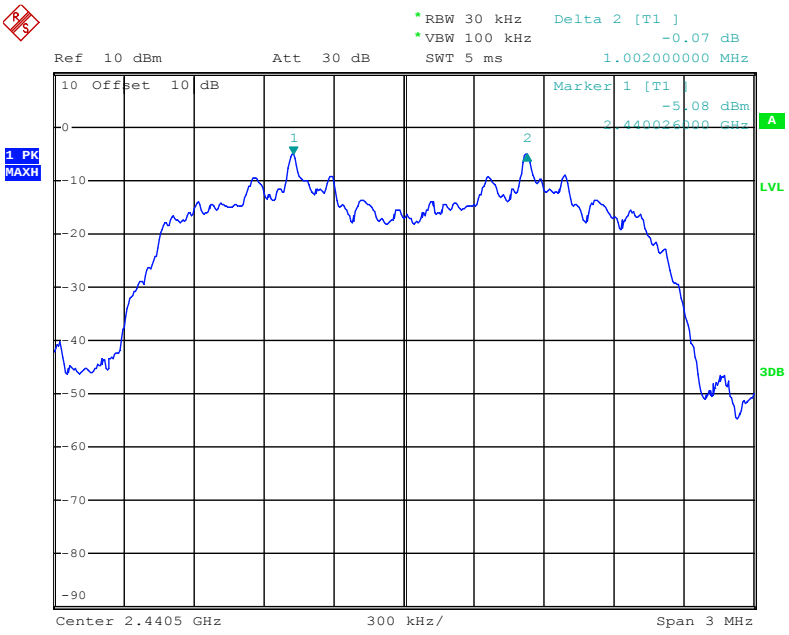
8DPSK Mode

Low channel



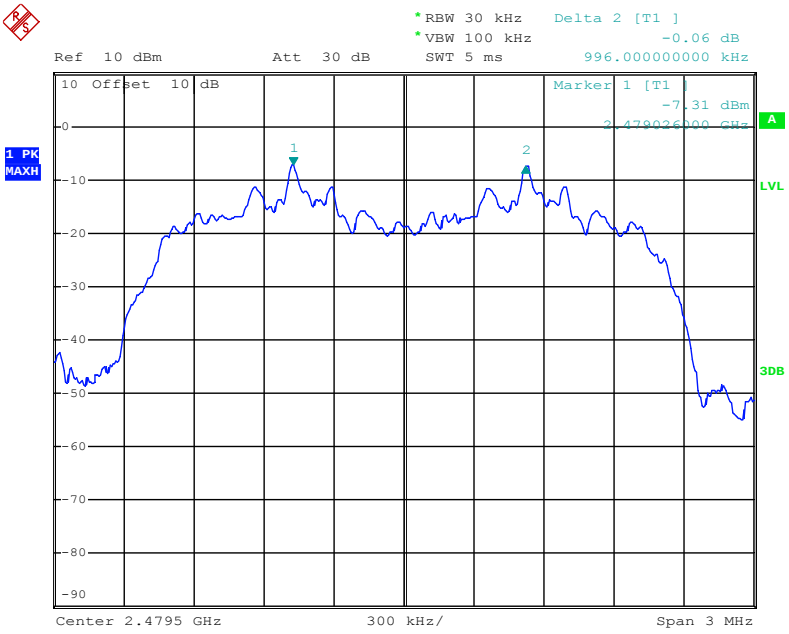
Date: 20.MAY.2019 09:20:19

Middle channel



Date: 20.MAY.2019 09:21:17

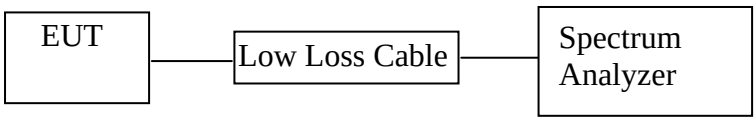
High channel



Date: 20.MAY.2019 09:22:24

7. NUMBER OF HOPPING FREQUENCY TEST

7.1.Block Diagram of Test Setup



(EUT: True Connect Truly Wireless Earphones)

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.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.

7.4.Operating Condition of EUT

7.4.1.Setup the EUT and simulator as shown as Section 7.1.

7.4.2.Turn on the power of all equipment.

7.4.3.Let the EUT work in TX (Hopping on) modes measure it.

7.5.Test Procedure

7.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.

7.5.2.Set the spectrum analyzer as Span=85MHz, RBW=100 kHz, VBW=300 kHz.

7.5.3.Max hold, view and count how many channel in the band.

7.6.Test Result

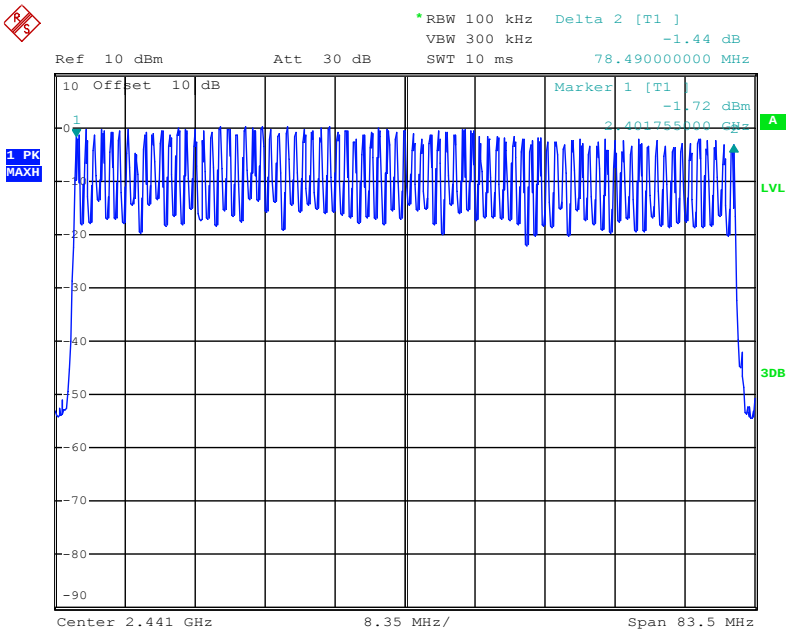
Total number of hopping channel (GFSK mode)	Measurement result(CH)	Limit(CH)
	79	≥ 15

Total number of hopping channel (π /4 DQPSK mode)	Measurement result(CH)	Limit(CH)
	79	≥ 15

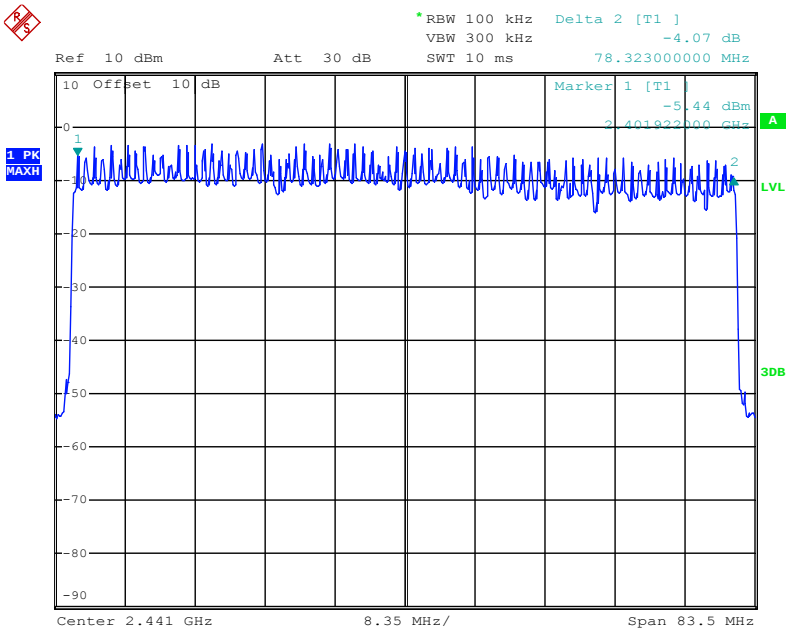
Total number of hopping channel (8DPSK mode)	Measurement result(CH)	Limit(CH)
	79	≥ 15

The spectrum analyzer plots are attached as below.

Number of hopping channels(GFSK)

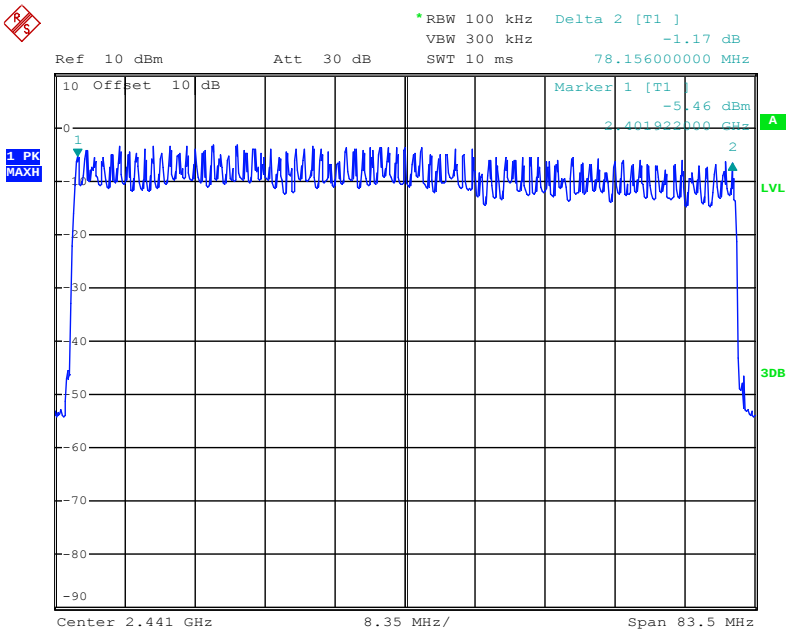


Number of hopping channels(π /4 DQPSK)



Date: 20.MAY.2019 13:53:09

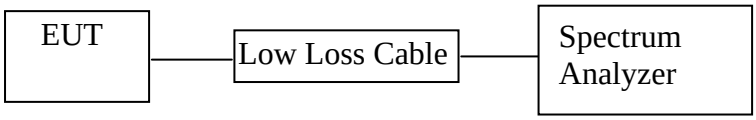
Number of hopping channels(8DPSK)



Date: 20.MAY.2019 13:55:04

8. DWELL TIME TEST

8.1.Block Diagram of Test Setup



(EUT: True Connect Truly Wireless Earphones)

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.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.

8.4.Operating Condition of EUT

8.4.1.Setup the EUT and simulator as shown as Section 8.1.

8.4.2.Turn on the power of all equipment.

8.4.3.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.

8.5.Test Procedure

8.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.

8.5.2.Set center frequency of spectrum analyzer = operating frequency.

8.5.3.Set the spectrum analyzer as RBW=1MHz, VBW=3MHz, Span=0Hz, Adjust

Sweep=5ms, 10ms, 15ms. Get the pulse time.

8.5.4.Repeat above procedures until all frequency measured were complete.

8.6.Test Result

GFSK Mode

Mode	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
DH1	2402	0.430	137.60	400
	2441	0.430	137.60	400
	2480	0.430	137.60	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(2*79))×31.6				
DH3	2402	1.710	273.60	400
	2441	1.690	270.40	400
	2480	1.710	273.60	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(4*79))×31.6				
DH5	2402	2.980	317.87	400
	2441	2.980	317.87	400
	2480	2.960	315.73	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(6*79))×31.6				

π /4 DQPSK Mode

Mode	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
2DH1	2402	0.440	140.80	400
	2441	0.450	144.00	400
	2480	0.450	144.00	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(2*79))×31.6				
2DH3	2402	1.730	276.80	400
	2441	1.730	276.80	400
	2480	1.730	276.80	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(4*79))×31.6				
2DH5	2402	3.020	322.13	400
	2441	2.990	318.93	400
	2480	3.000	320.00	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(6*79))×31.6				

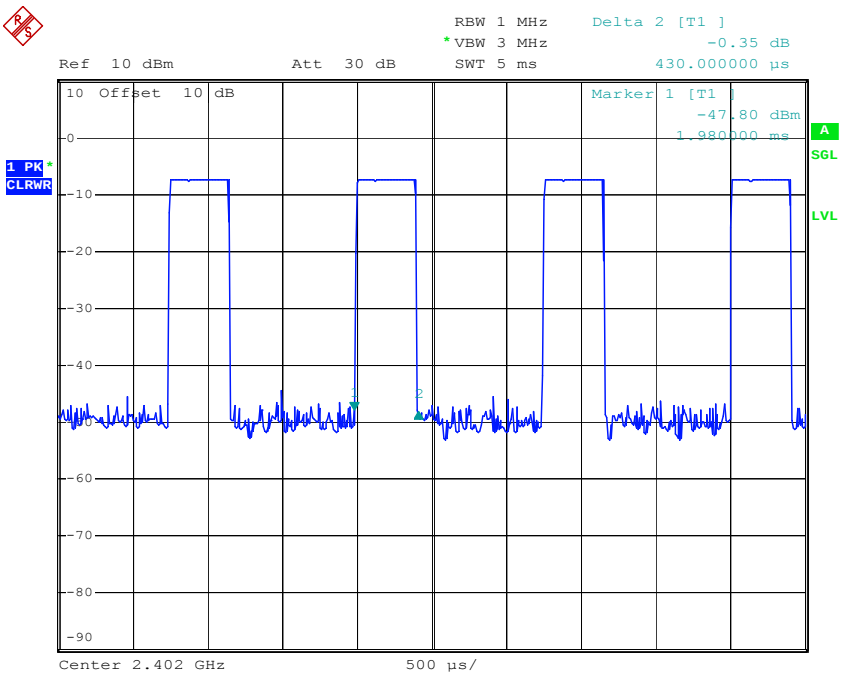
8DPSK Mode

Mode	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
3DH1	2402	0.440	140.80	400
	2441	0.450	144.00	400
	2480	0.450	144.00	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(2*79))×31.6				
3DH3	2402	1.710	273.60	400
	2441	1.670	267.20	400
	2480	1.720	275.20	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(4*79))×31.6				
3DH5	2402	3.000	320.00	400
	2441	2.950	314.67	400
	2480	2.990	318.93	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(6*79))×31.6				

The spectrum analyzer plots are attached as below.

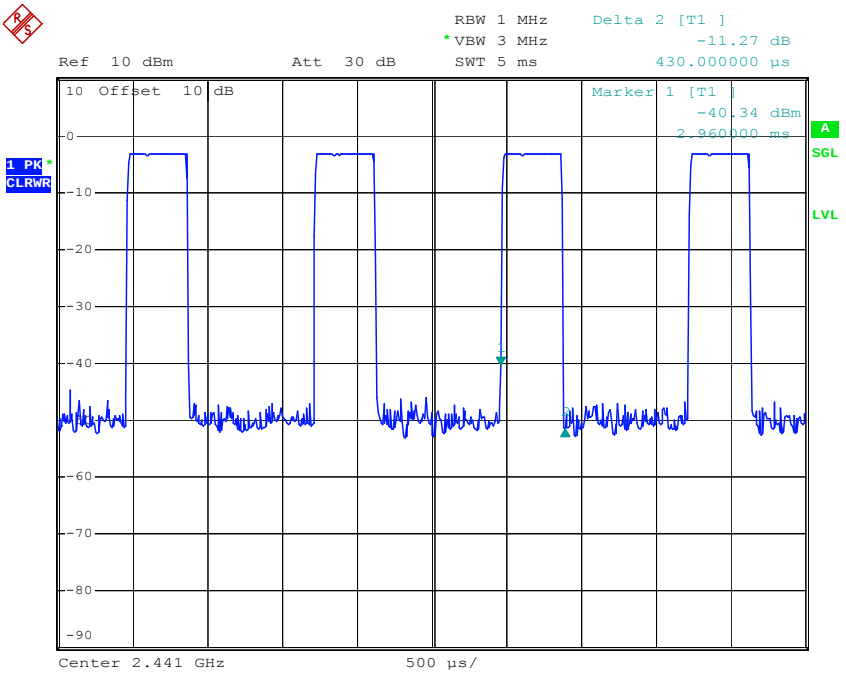
GFSK Mode

DH1 Low channel



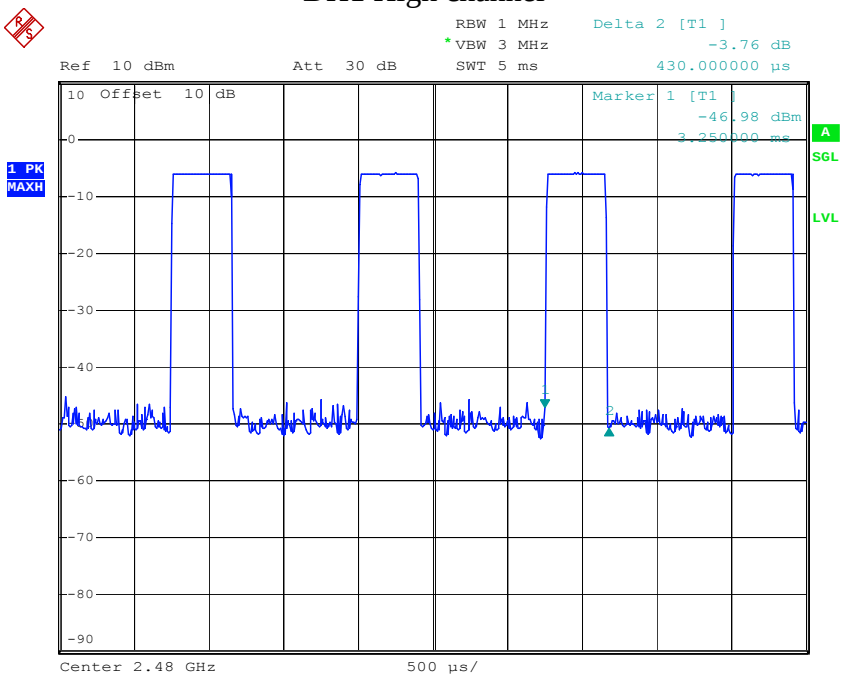
Comment A:
Date: 20.MAY.2019 16:36:56

DH1 Middle channel



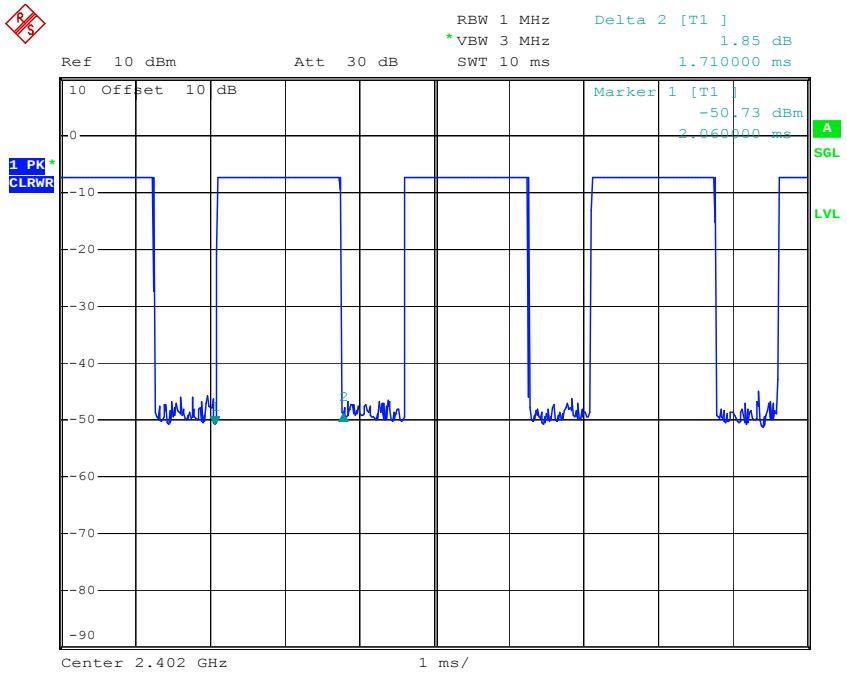
Comment A:
Date: 20.MAY.2019 16:48:33

DH1 High channel



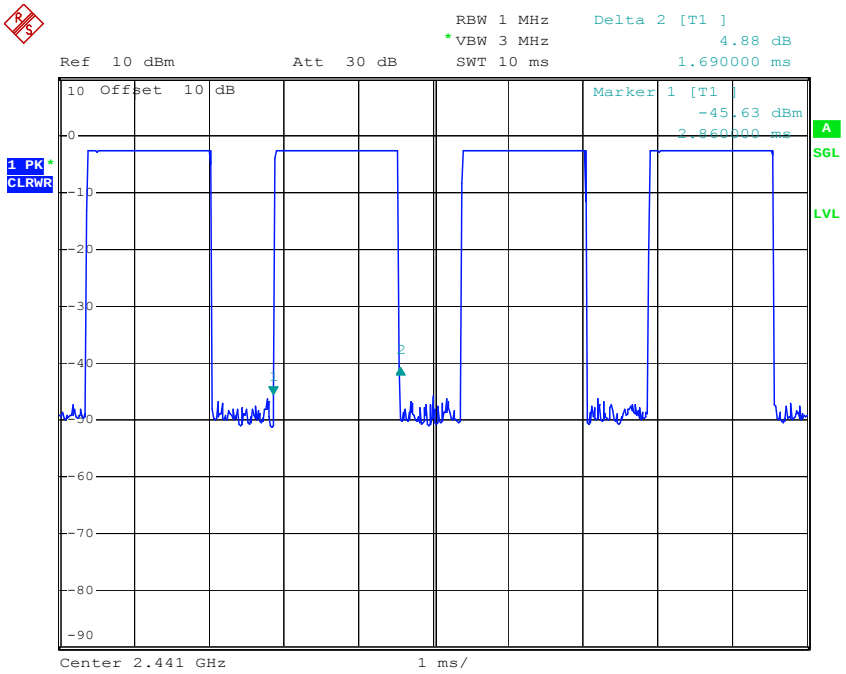
Comment A:
Date: 20.MAY.2019 17:17:22

DH3 Low channel



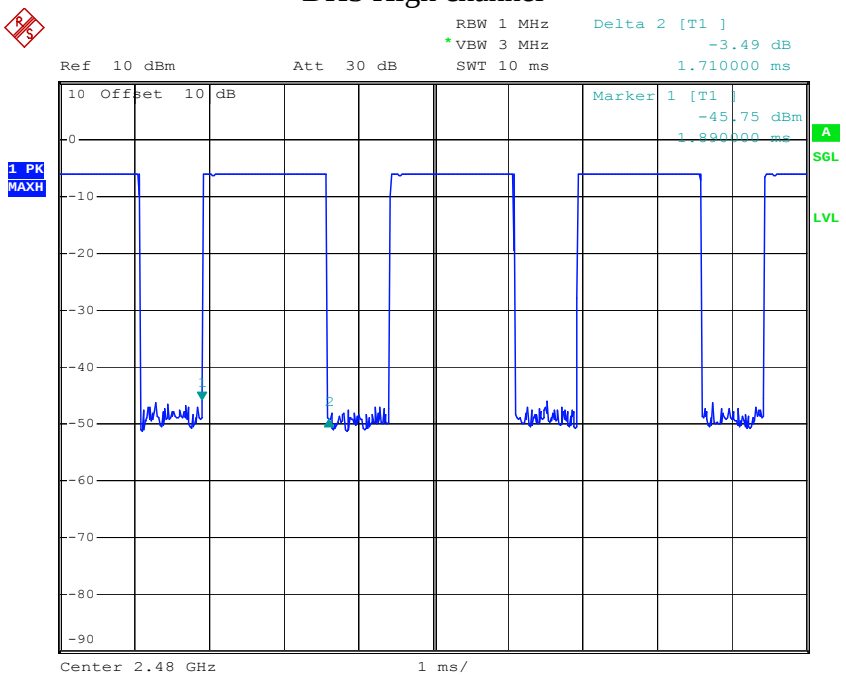
Comment A:
Date: 20.MAY.2019 16:38:05

DH3 Middle channel



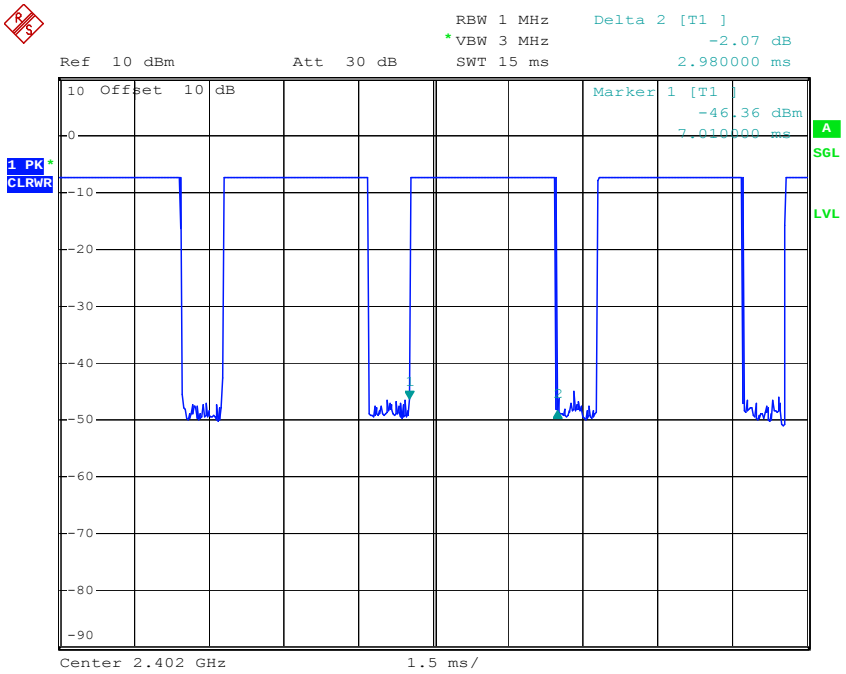
Comment A:
Date: 20.MAY.2019 16:50:10

DH3 High channel



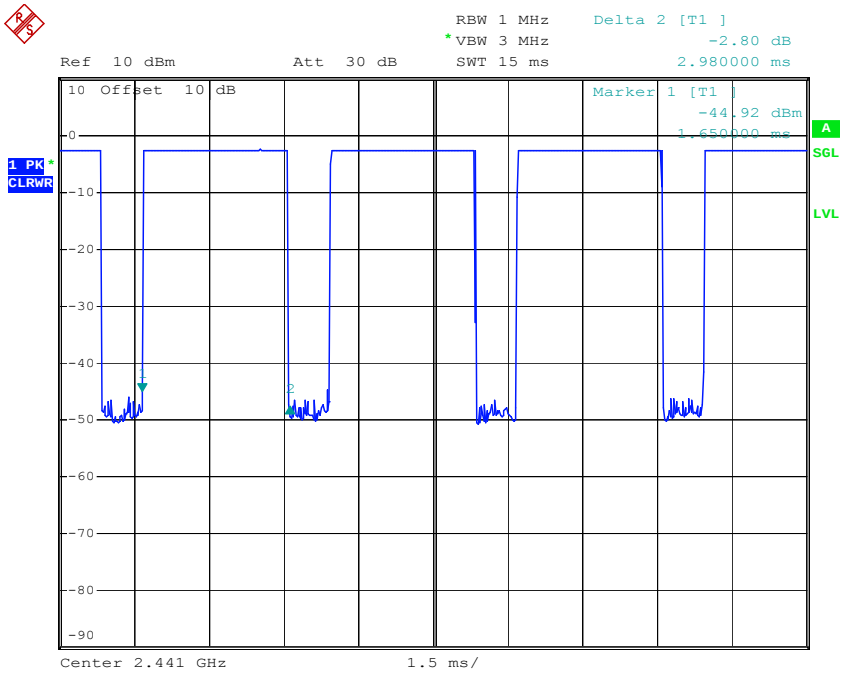
Comment A:
Date: 20.MAY.2019 17:18:20

DH5 Low channel



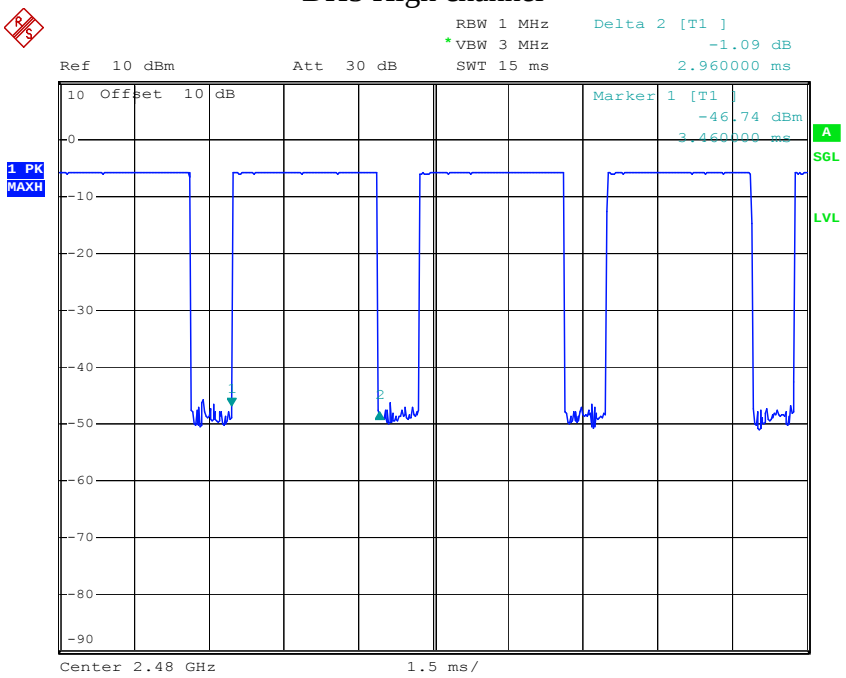
Comment A:
Date: 20.MAY.2019 16:39:08

DH5 Middle channel



Comment A:
Date: 20.MAY.2019 16:51:07

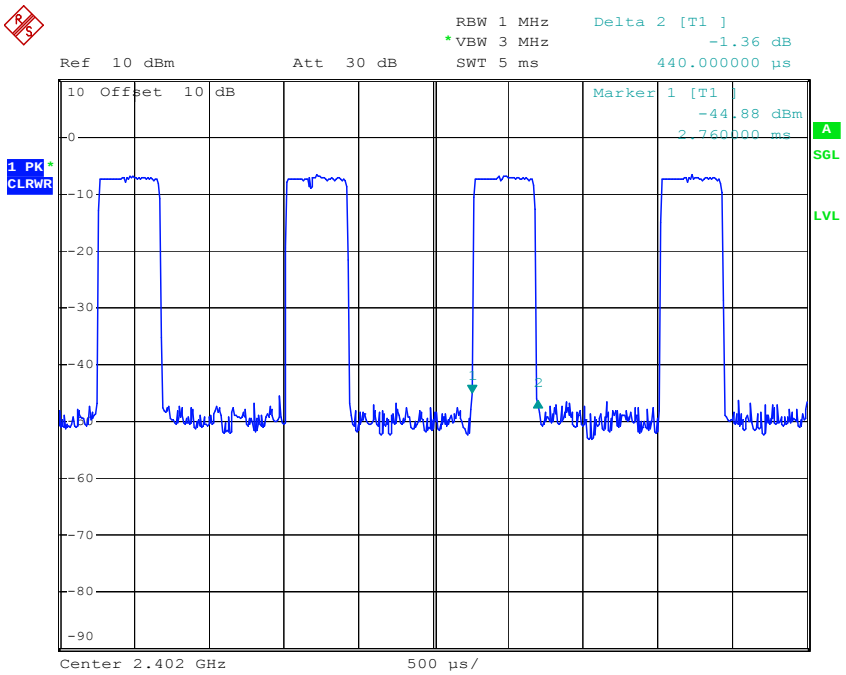
DH5 High channel



Comment A:
Date: 20.MAY.2019 17:19:17

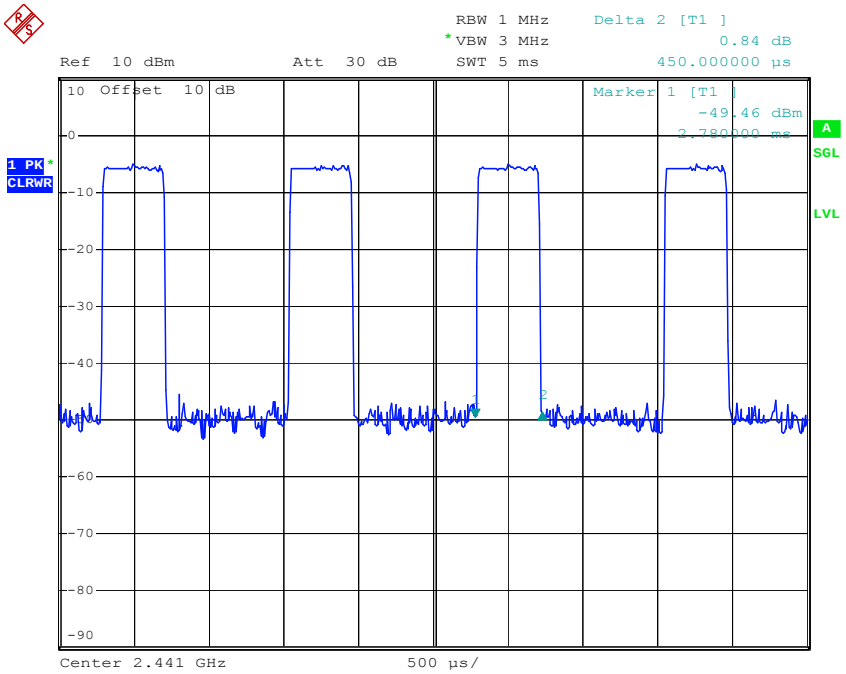
π /4 DQPSK Mode

2DH1 Low channel



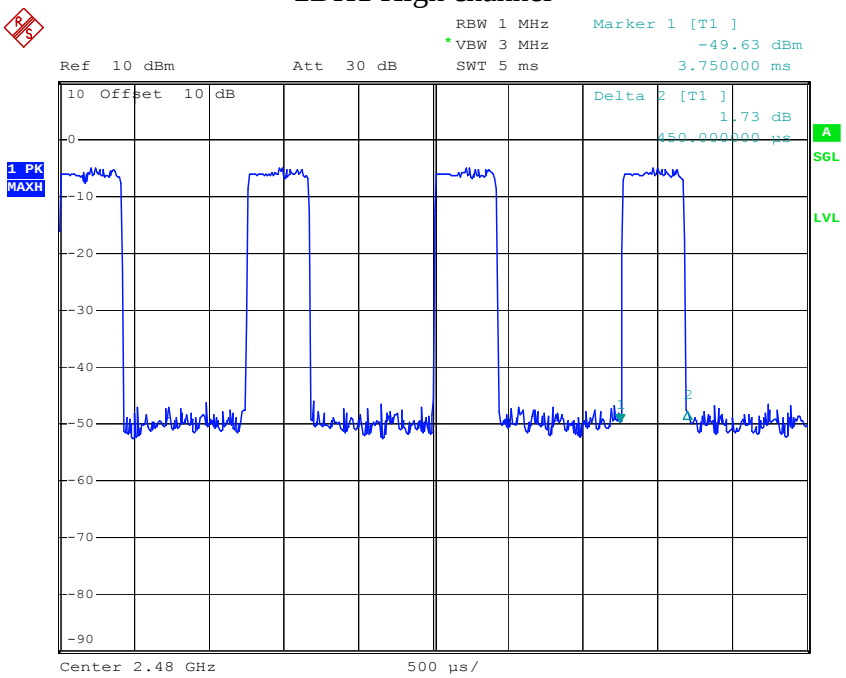
Comment A:
Date: 20.MAY.2019 16:40:40

2DH1 Middle channel



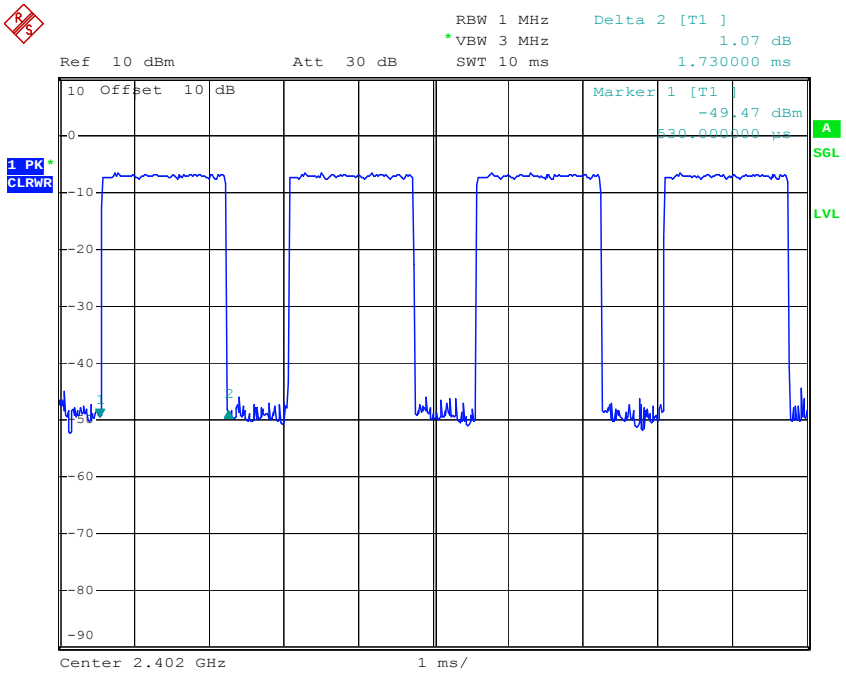
Comment A:
Date: 20.MAY.2019 16:52:06

2DH1 High channel



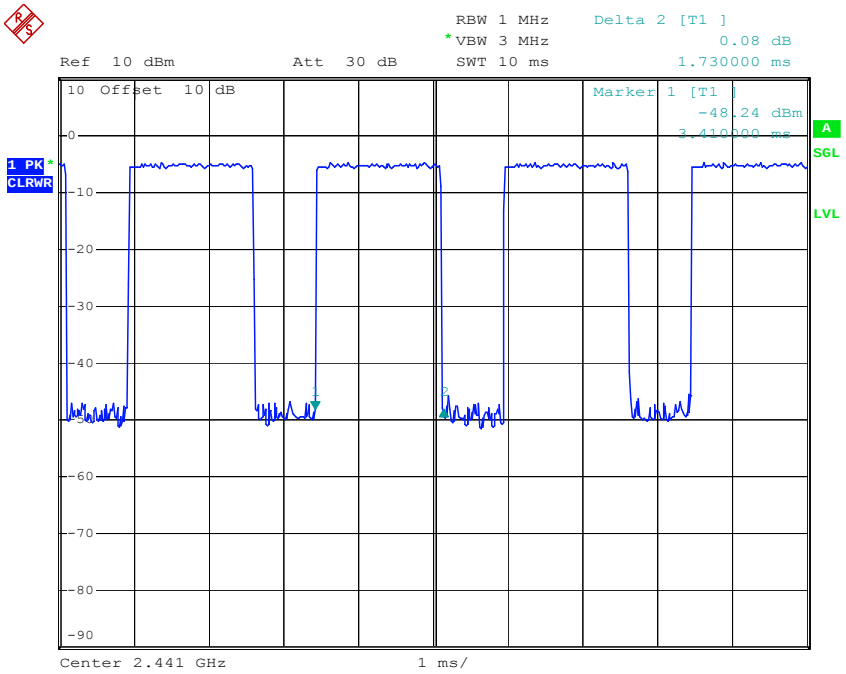
Comment A:
Date: 20.MAY.2019 17:15:09

2DH3 Low channel



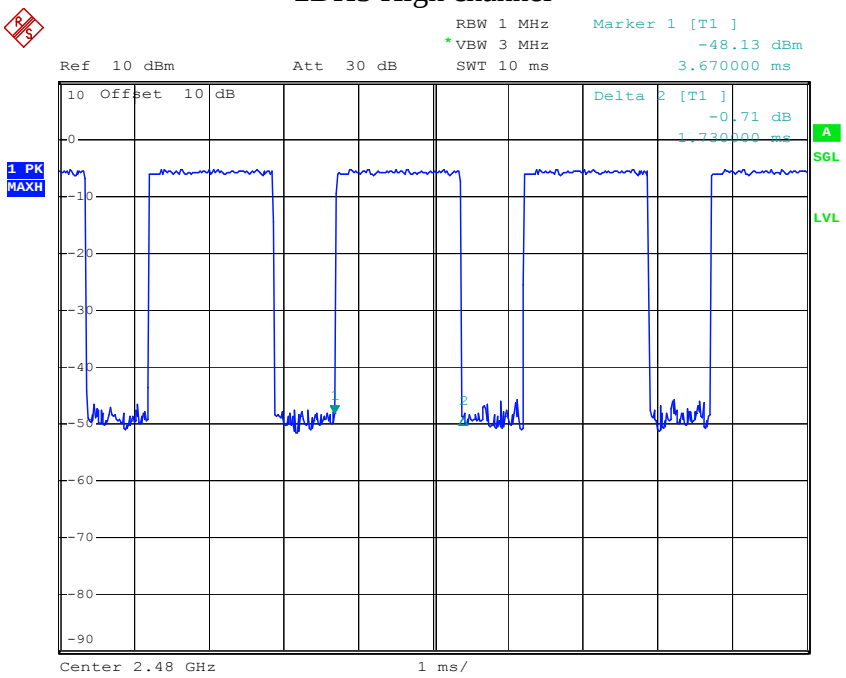
Comment A:
Date: 20.MAY.2019 16:41:38

2DH3 Middle channel



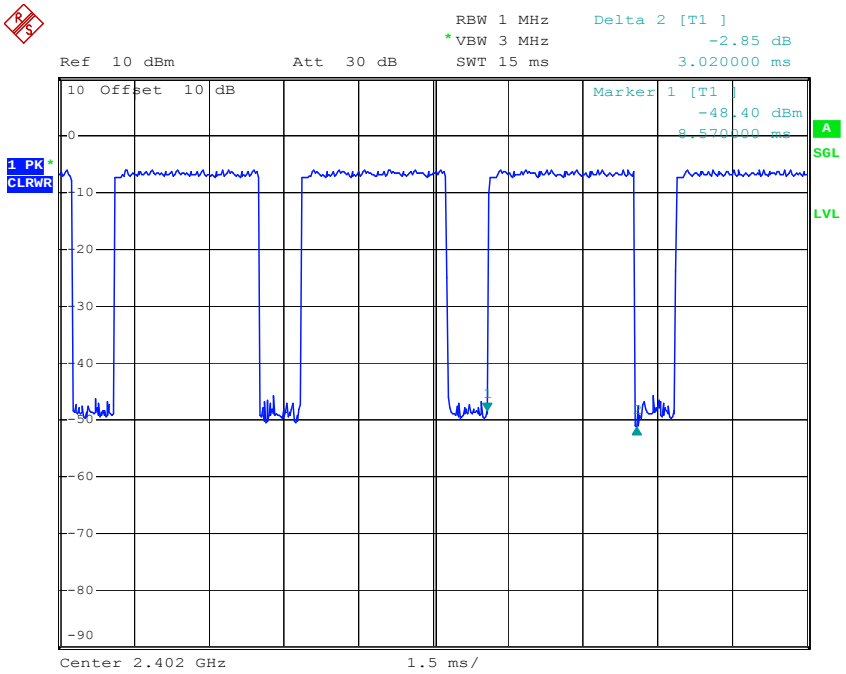
Comment A:
Date: 20.MAY.2019 16:52:59

2DH3 High channel



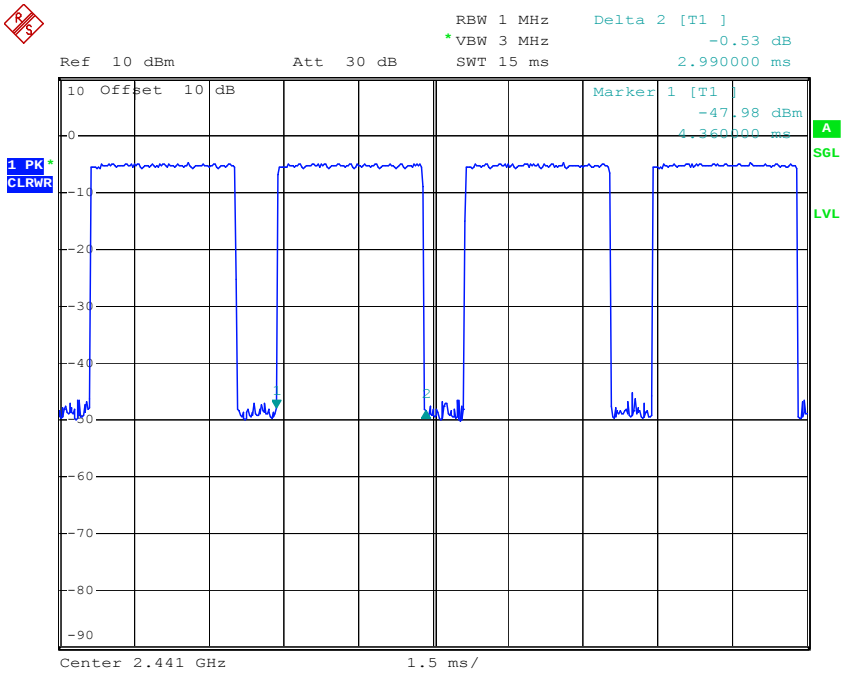
Comment A:
Date: 20.MAY.2019 17:14:15

2DH5 Low channel



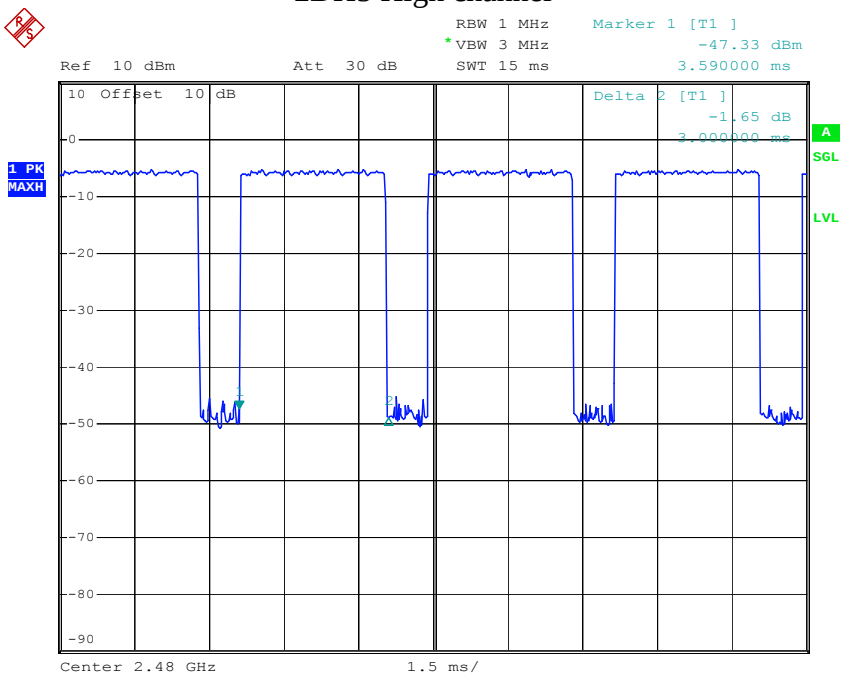
Comment A:
Date: 20.MAY.2019 16:42:59

2DH5 Middle channel



Comment A:
Date: 20.MAY.2019 16:54:03

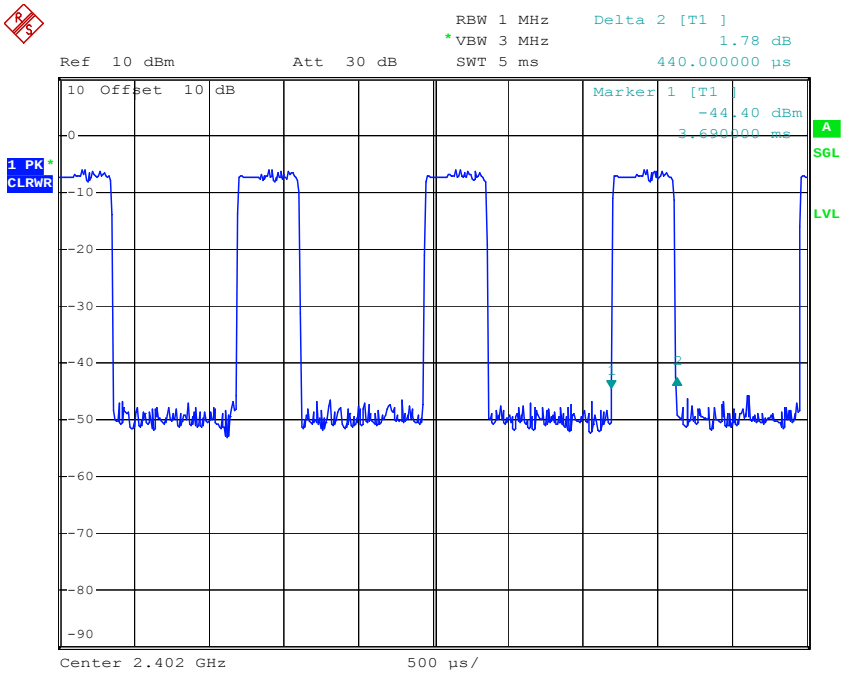
2DH5 High channel



Comment A:
Date: 20.MAY.2019 17:13:18

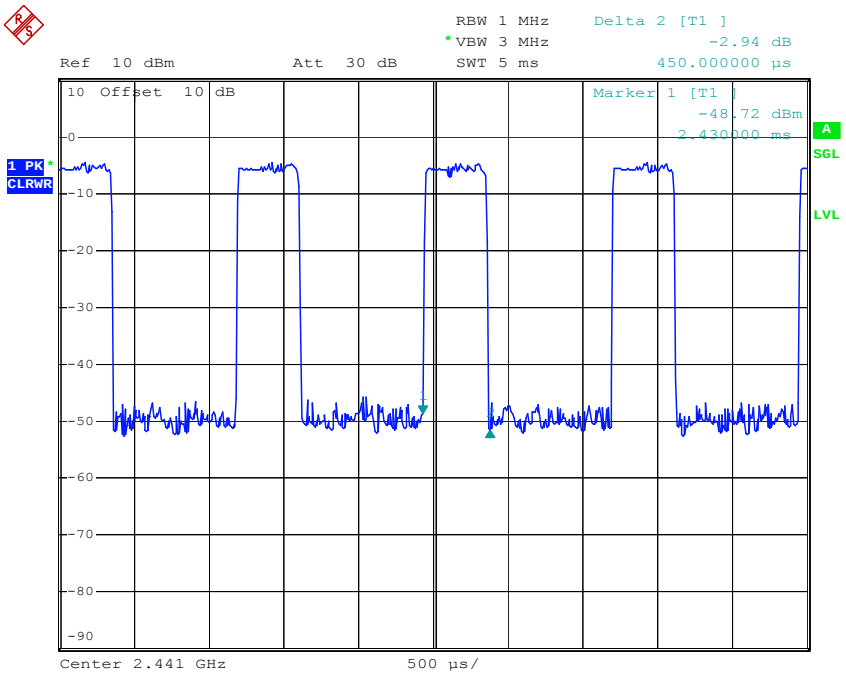
8DPSK Mode

3DH1 Low channel



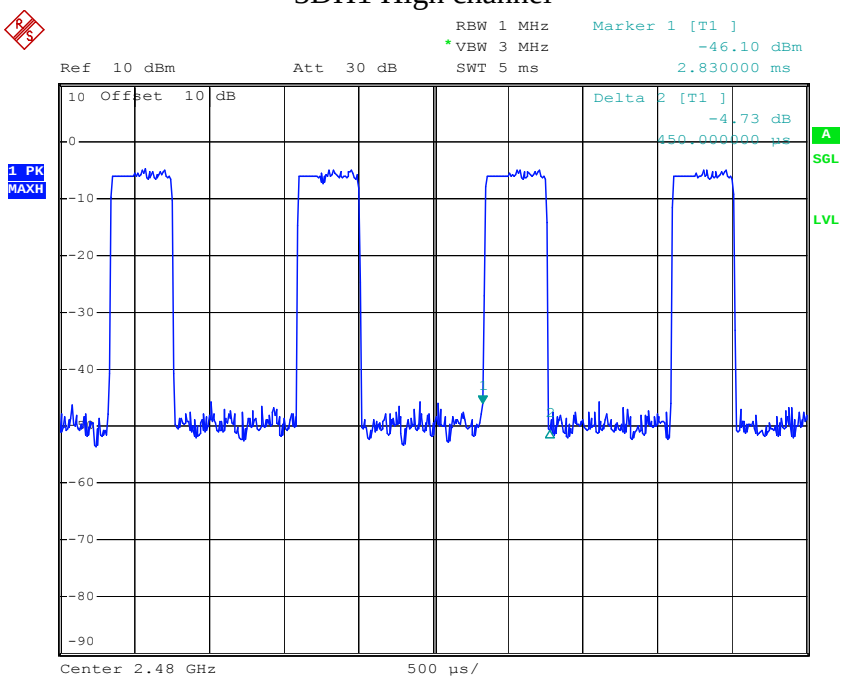
Comment A:
Date: 20.MAY.2019 16:43:54

3DH1 Middle channel



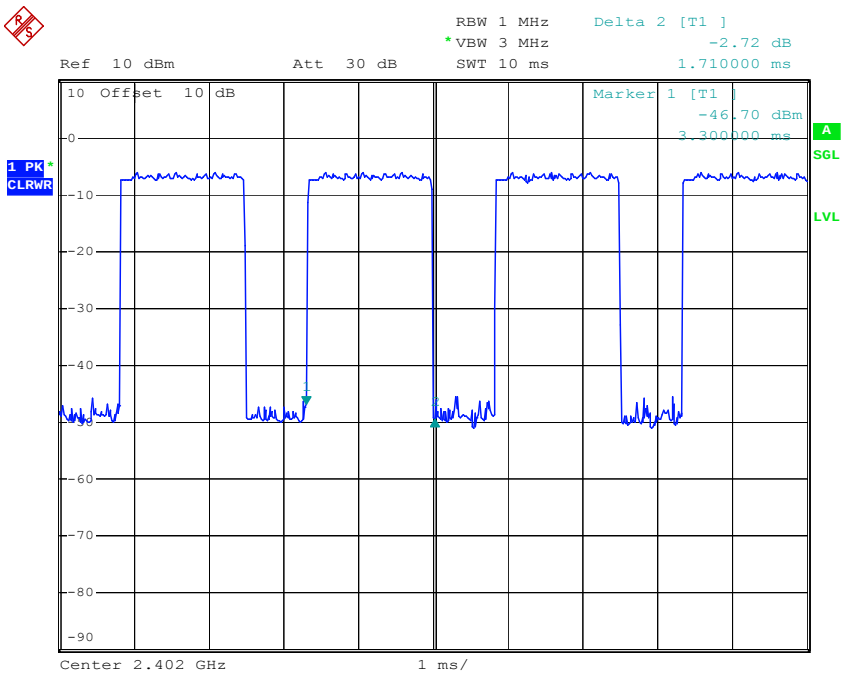
Comment A:
Date: 20.MAY.2019 16:55:04

3DH1 High channel



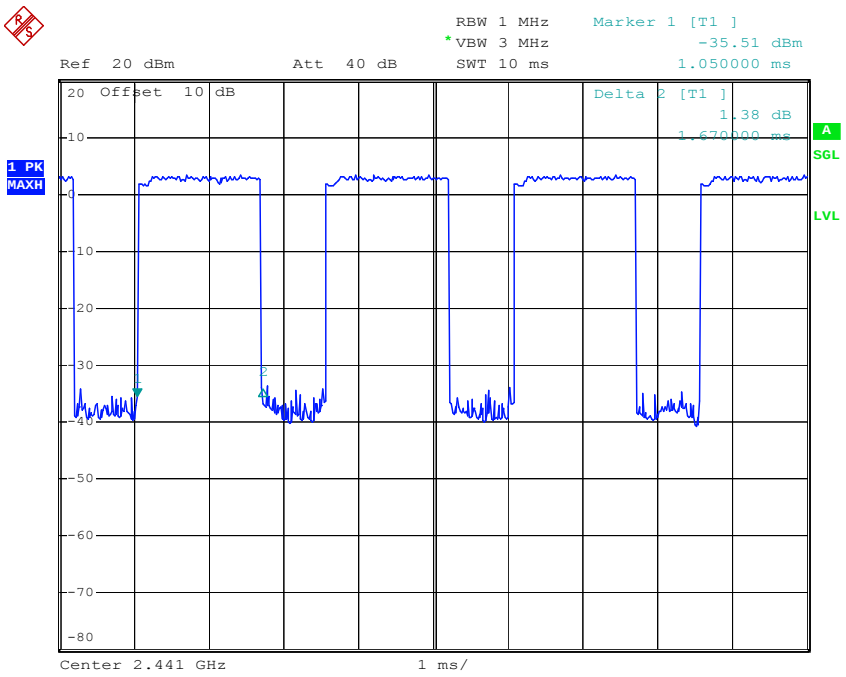
Comment A:
Date: 20.MAY.2019 17:12:02

3DH3 Low channel



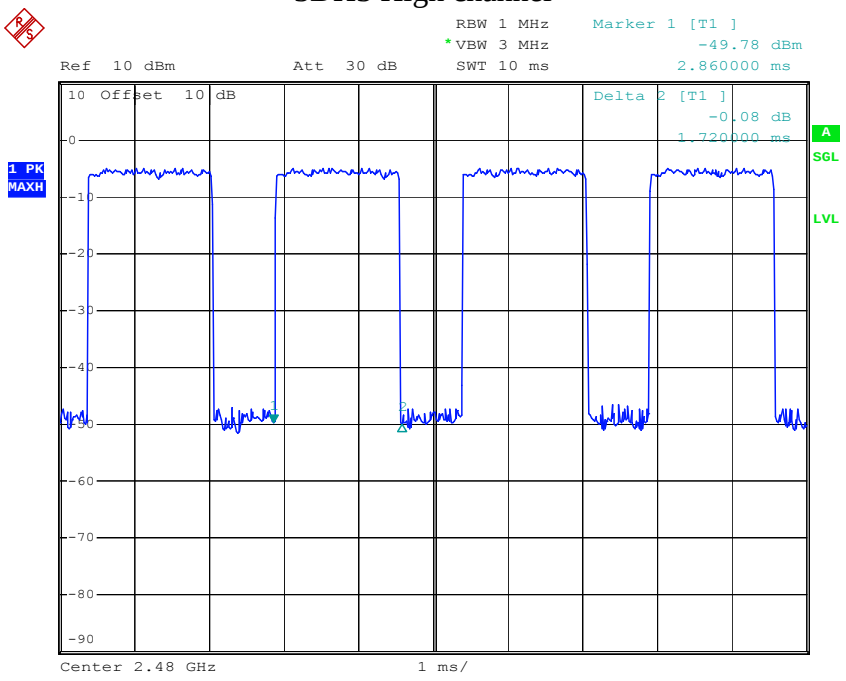
Comment A:
Date: 20.MAY.2019 16:44:45

3DH3 Middle channel



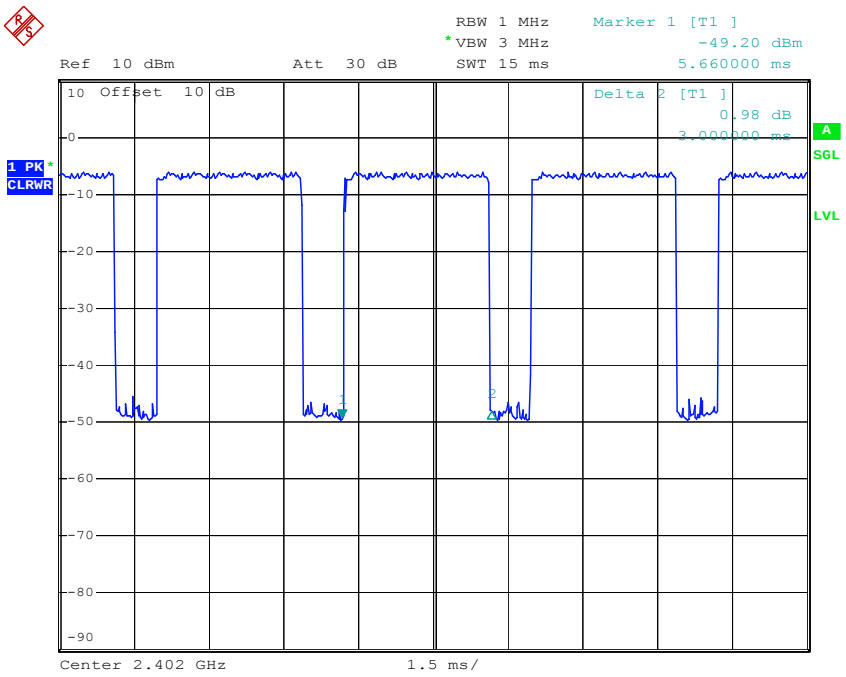
Comment A:
Date: 20.MAY.2019 20:14:46

3DH3 High channel



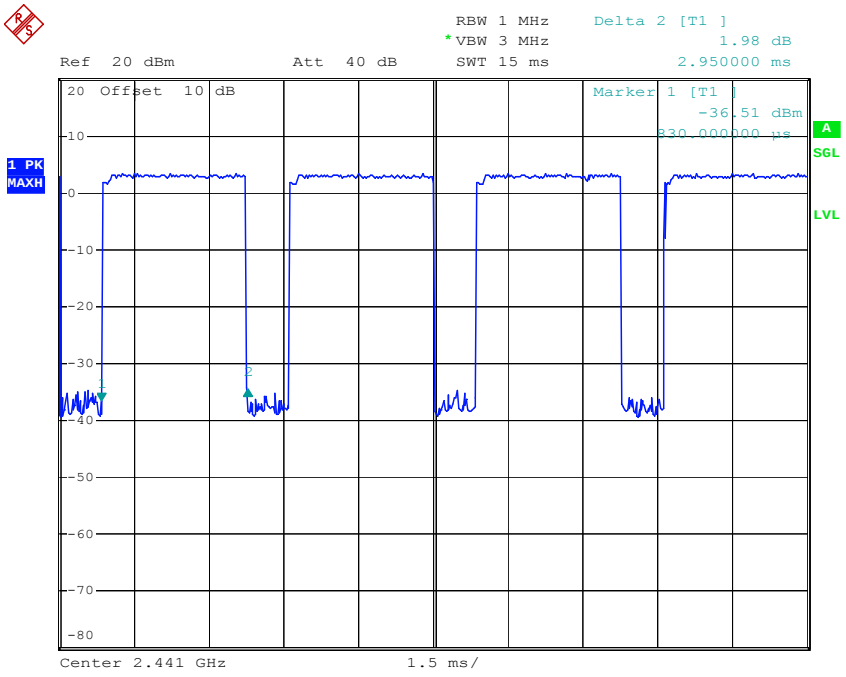
Comment A:
Date: 20.MAY.2019 17:11:09

3DH5 Low channel



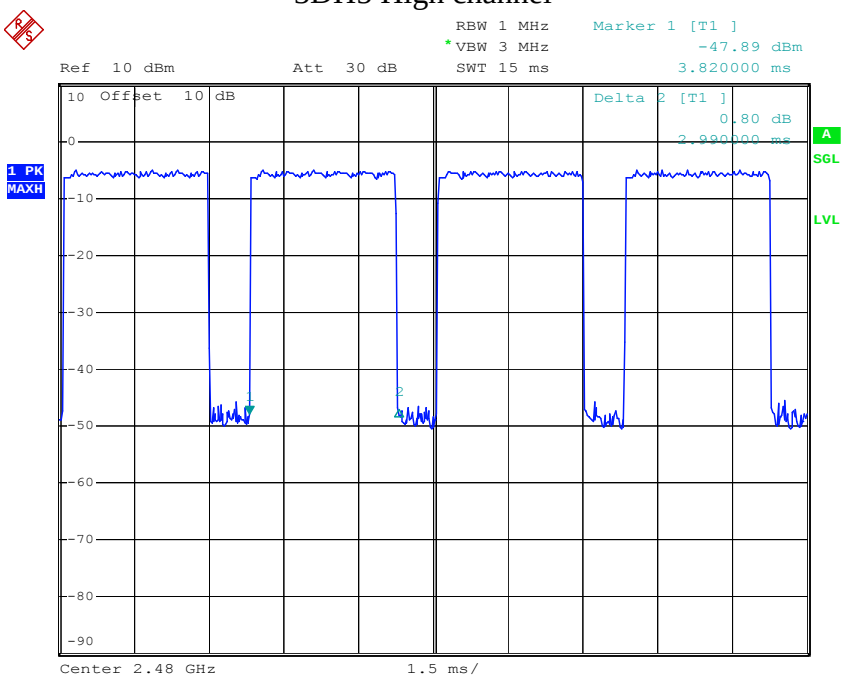
Comment A:
Date: 20.MAY.2019 16:46:00

3DH5 Middle channel



Comment A:
Date: 20.MAY.2019 20:14:17

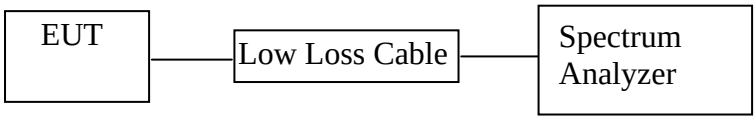
3DH5 High channel



Comment A:
Date: 20.MAY.2019 17:09:36

9. MAXIMUM PEAK OUTPUT POWER TEST

9.1.Block Diagram of Test Setup



(EUT: True Connect Truly Wireless Earphones)

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.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.

9.4.Operating Condition of EUT

9.4.1.Setup the EUT and simulator as shown as Section 9.1.

9.4.2.Turn on the power of all equipment.

9.4.3.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.

9.5.Test Procedure

9.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.

9.5.2.Set RBW of spectrum analyzer to 3MHz and VBW to 10MHz for BDR mode

9.5.3.Set RBW of spectrum analyzer to 3MHz and VBW to 10MHz for EDR mode

9.5.4.Measurement the maximum peak output power.

9.6.Test Result

GFSK Mode

Frequency (MHz)	Maximum peak conducted output power (dBm)	Maximum peak conducted output power (W)	Limits dBm / W
2402	-2.08	0.00062	21 / 0.125
2441	-0.43	0.00091	21 / 0.125
2480	-2.63	0.00055	21 / 0.125

π /4 DQPSK Mode

Frequency (MHz)	Maximum peak conducted output power (dBm)	Maximum peak conducted output power (W)	Limits dBm / W
2402	-4.46	0.00036	21 / 0.125
2441	-2.63	0.00055	21 / 0.125
2480	-5.05	0.00031	21 / 0.125

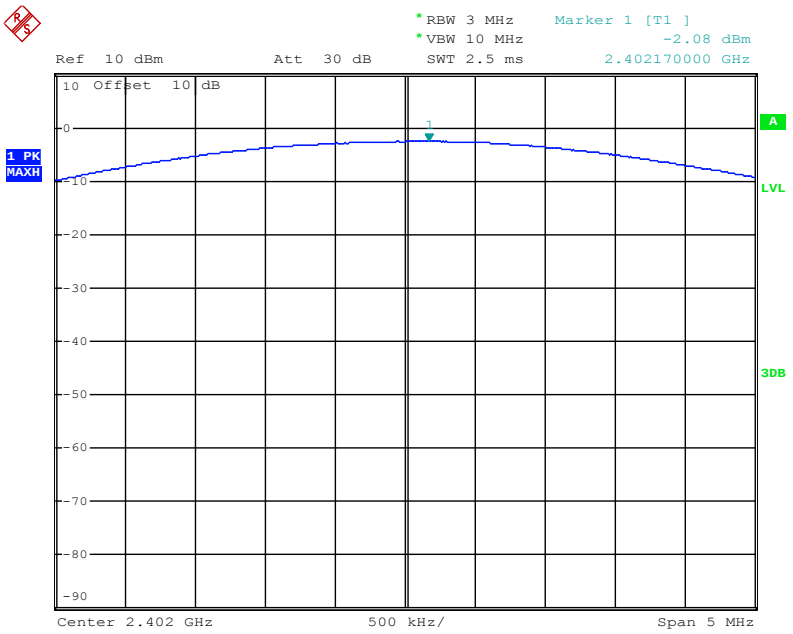
8DPSK Mode

Frequency (MHz)	Maximum peak conducted output power (dBm)	Maximum peak conducted output power (W)	Limits dBm / W
2402	-3.76	0.00042	21 / 0.125
2441	-2.08	0.00062	21 / 0.125
2480	-4.64	0.00034	21 / 0.125

The spectrum analyzer plots are attached as below.

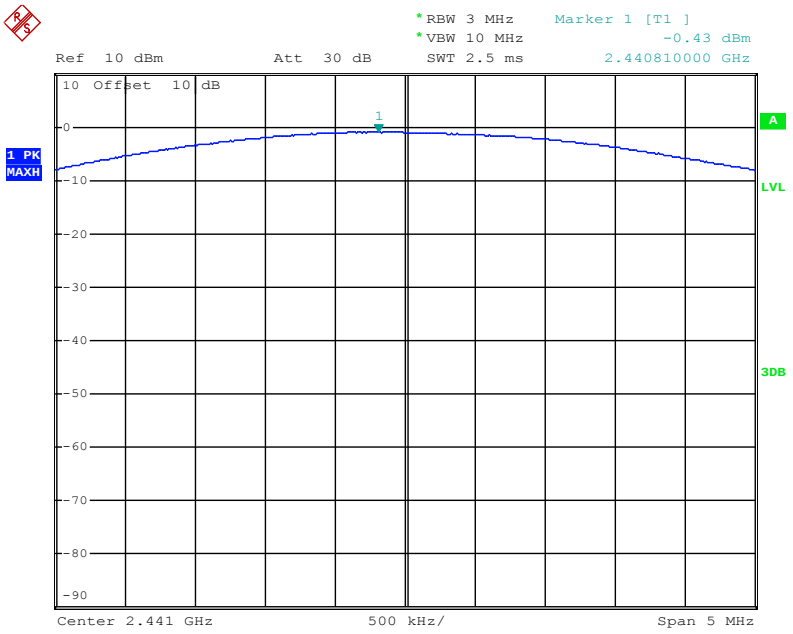
GFSK Mode

Low channel



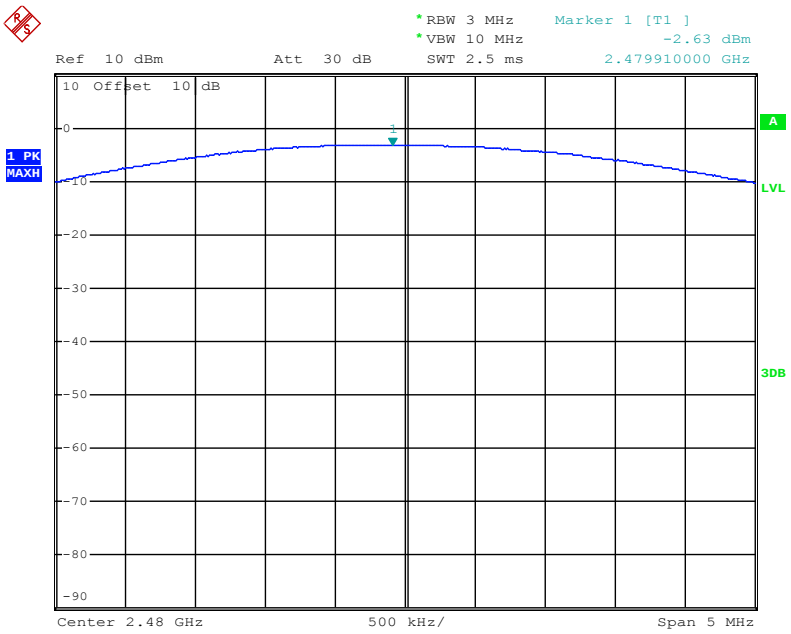
Date: 20.MAY.2019 08:57:15

Middle channel



Date: 20.MAY.2019 08:58:01

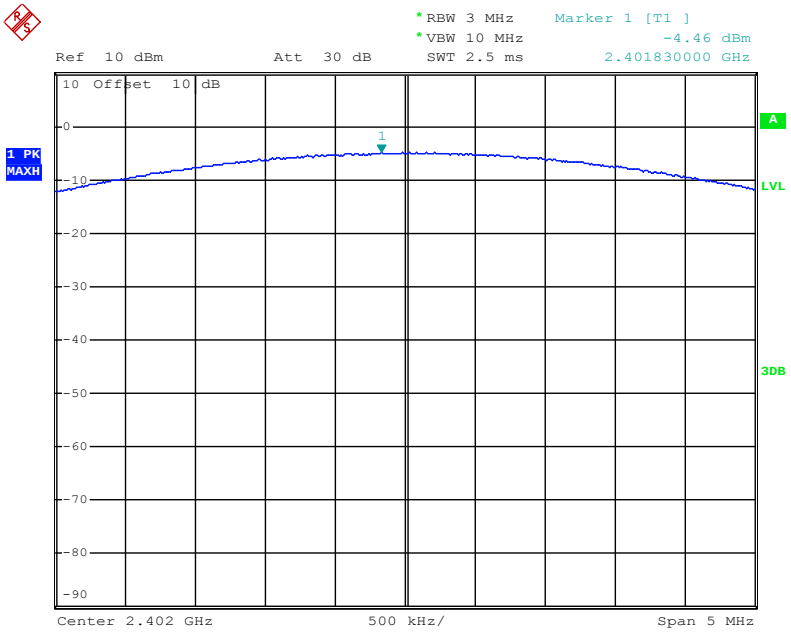
High channel



Date: 20.MAY.2019 08:58:40

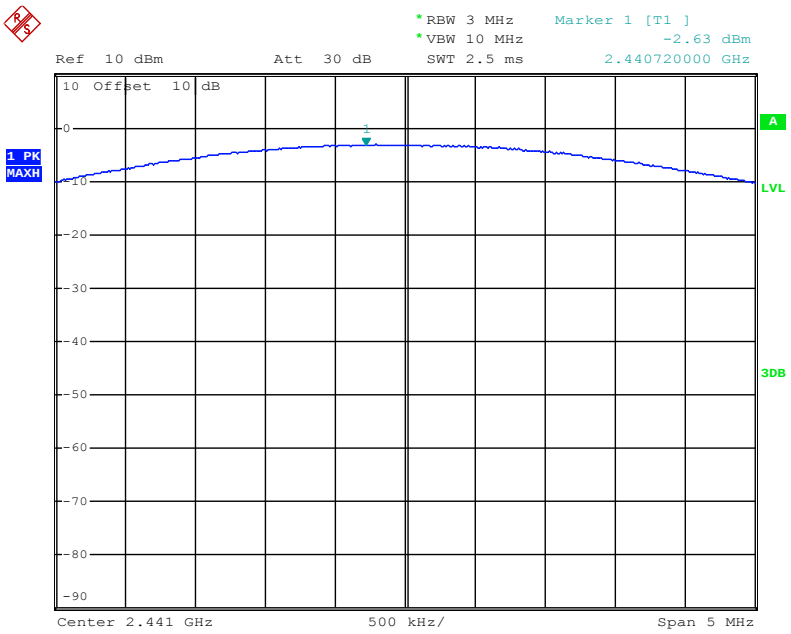
π /4 DQPSK Mode

Low channel



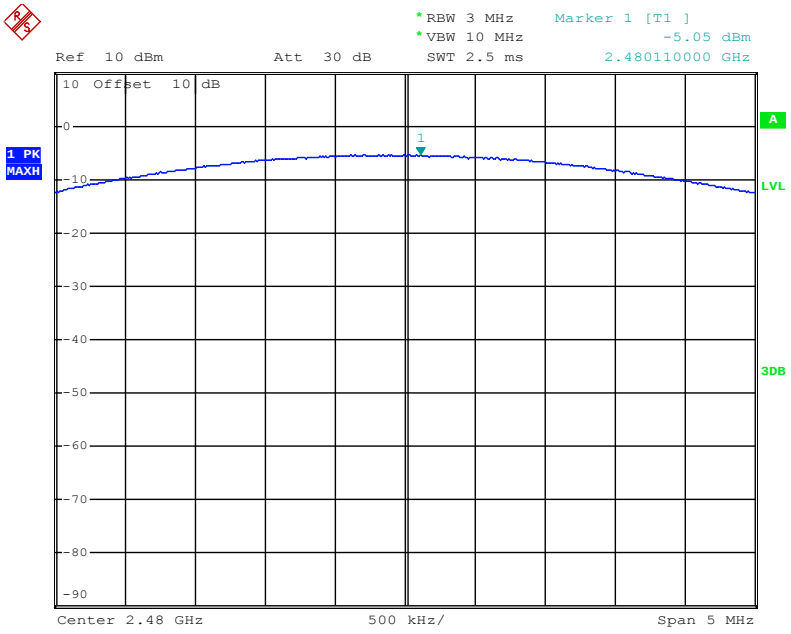
Date: 20.MAY.2019 09:00:38

Middle channel



Date: 20.MAY.2019 09:00:09

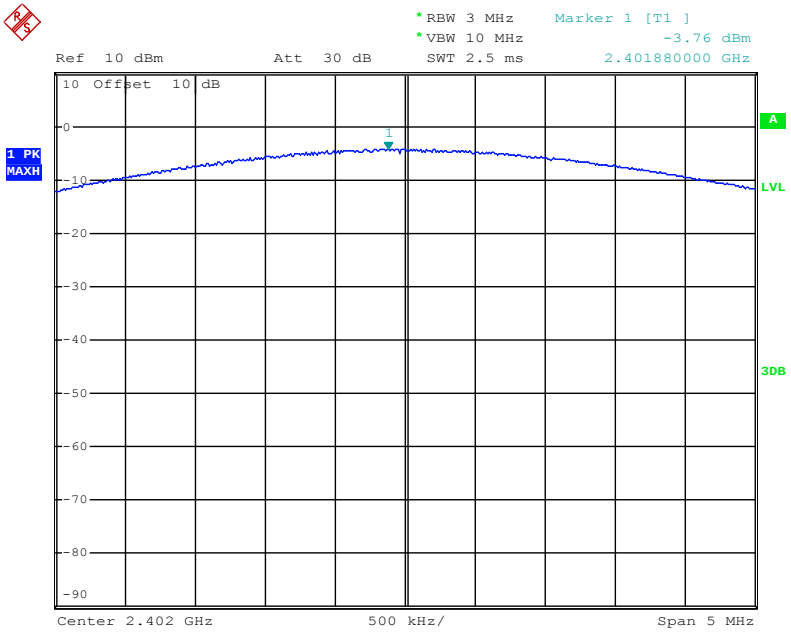
High channel



Date: 20.MAY.2019 08:59:33

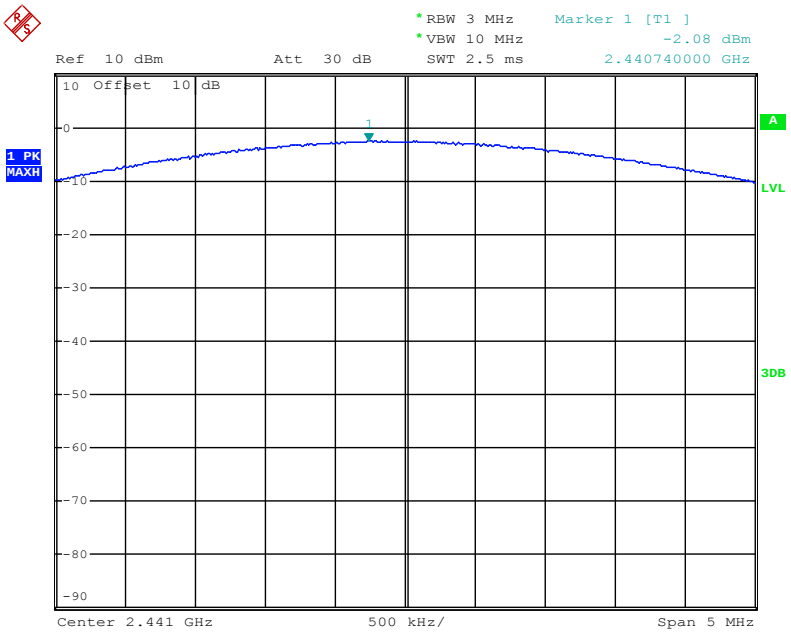
8DPSK Mode

Low channel



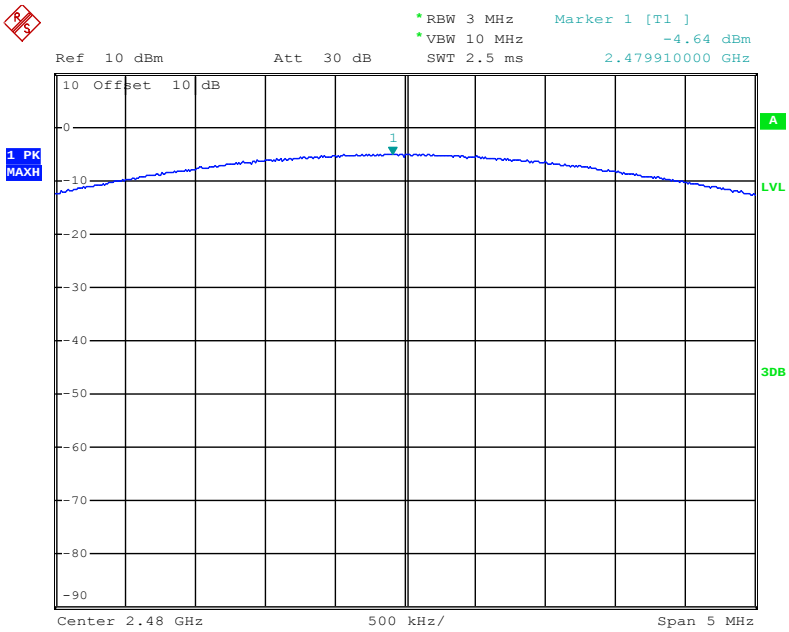
Date: 20.MAY.2019 09:01:38

Middle channel



Date: 20.MAY.2019 09:02:12

High channel



Date: 20.MAY.2019 09:03:42

10.RADIATED EMISSION TEST

10.1.Block Diagram of Test Setup

10.1.1.Block diagram of connection between the EUT and peripherals

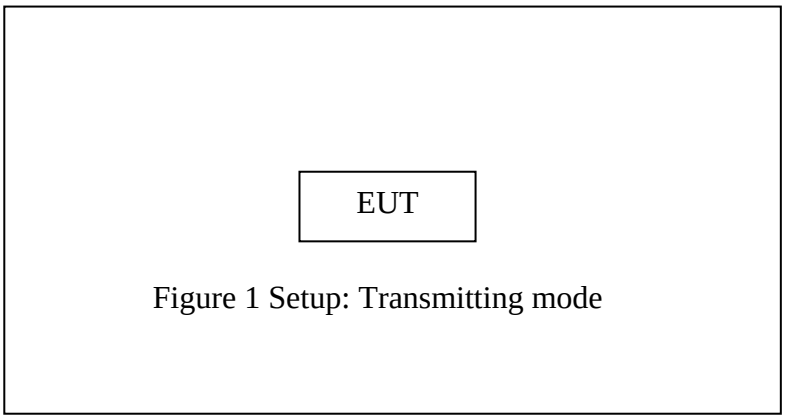
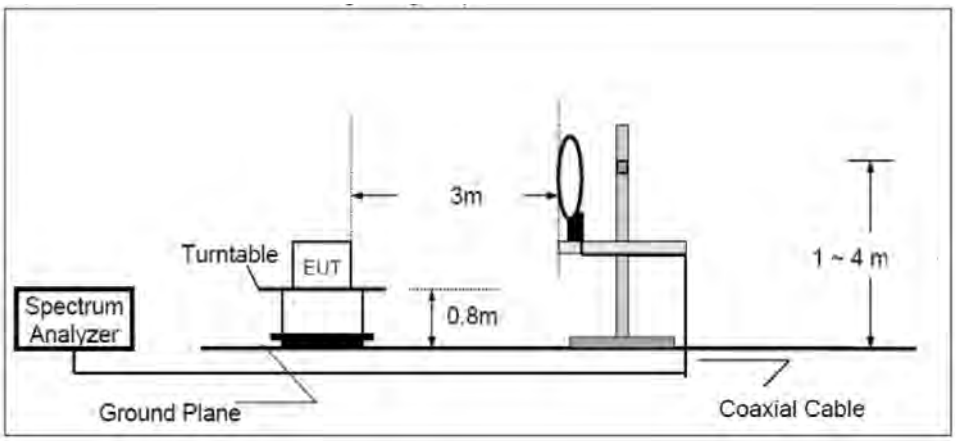


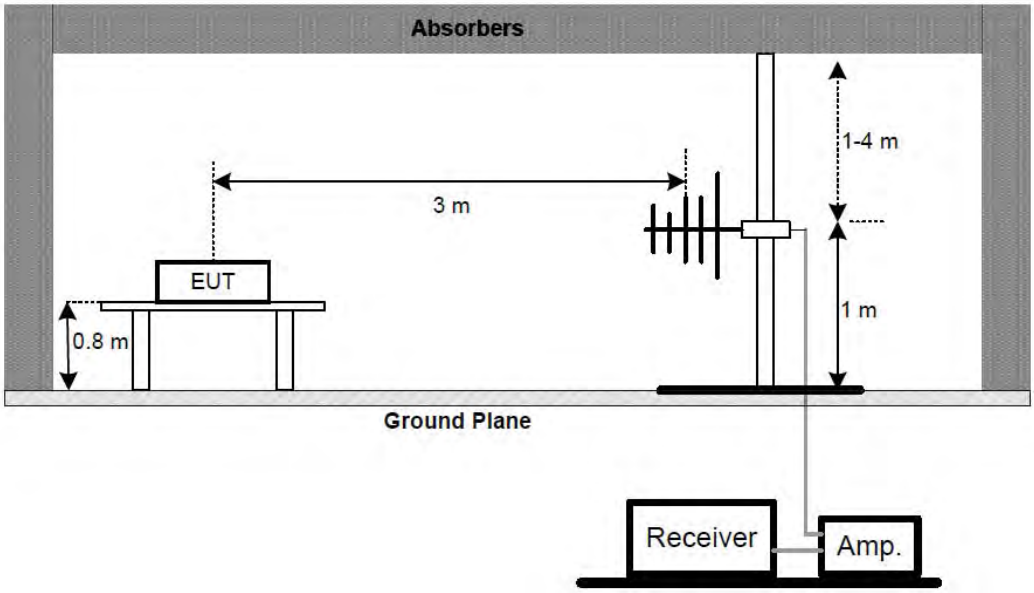
Figure 1 Setup: Transmitting mode

10.1.2.Semi-Anechoic Chamber Test Setup Diagram

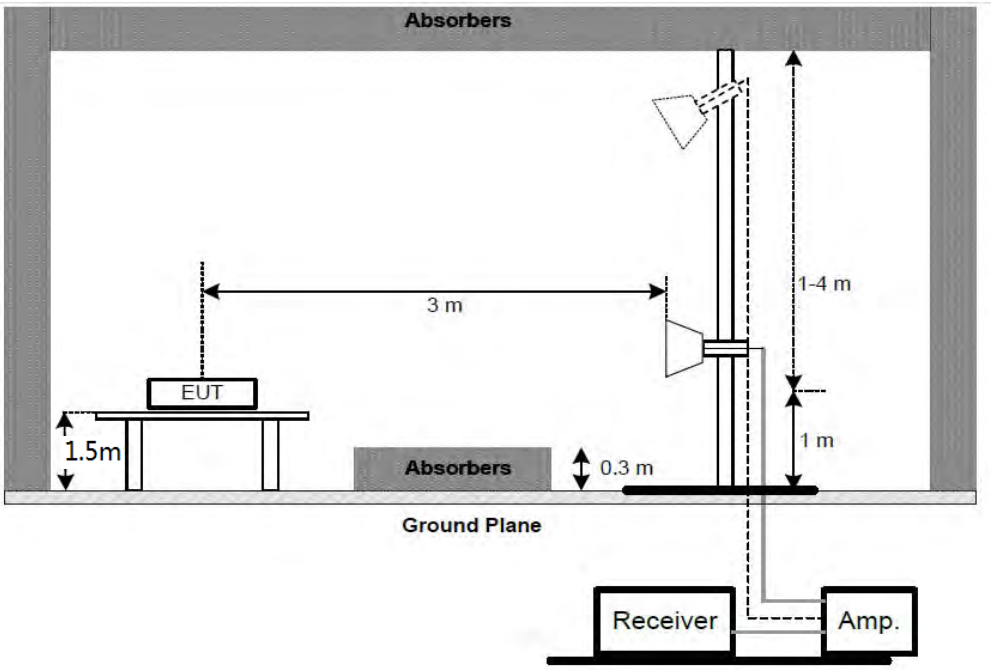
(A) Radiated Emission Test Set-Up, Frequency below 30MHz



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



Above 1GHz:



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:

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	([2])
13.36-13.41			

[1]Until February 1, 1999, this restricted band shall be 0.490-0.510
[2]Above 38.6

(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

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.

10.6.Data Sample

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

Frequency(MHz) = Emission frequency in MHz
Reading(dBμv) = Uncorrected Analyzer/Receiver reading
Factor (dB/m) = Antenna factor + Cable Loss – Amplifier gain
Result(dBμv/m) = Reading(dBμv) + Factor(dB/m)
Limit (dBμv/m) = Limit stated in standard
Margin (dB) = Result(dBμv/m) - Limit (dBμv/m)
QP = Quasi-peak Reading
Calculation Formula:
Margin(dB) = Result (dBμV/m)–Limit(dBμV/m)
Result(dBμV/m)= Reading(dBμV)+ 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, Π/4-DQPSK Mode, 8DPSK mode and recorded the worst case data (GFSK mode) for all test mode.

2.The radiation emissions from 9kHz-30MHz and l8-25GHz are not reported, because the test values lower than the limits of 20dB.

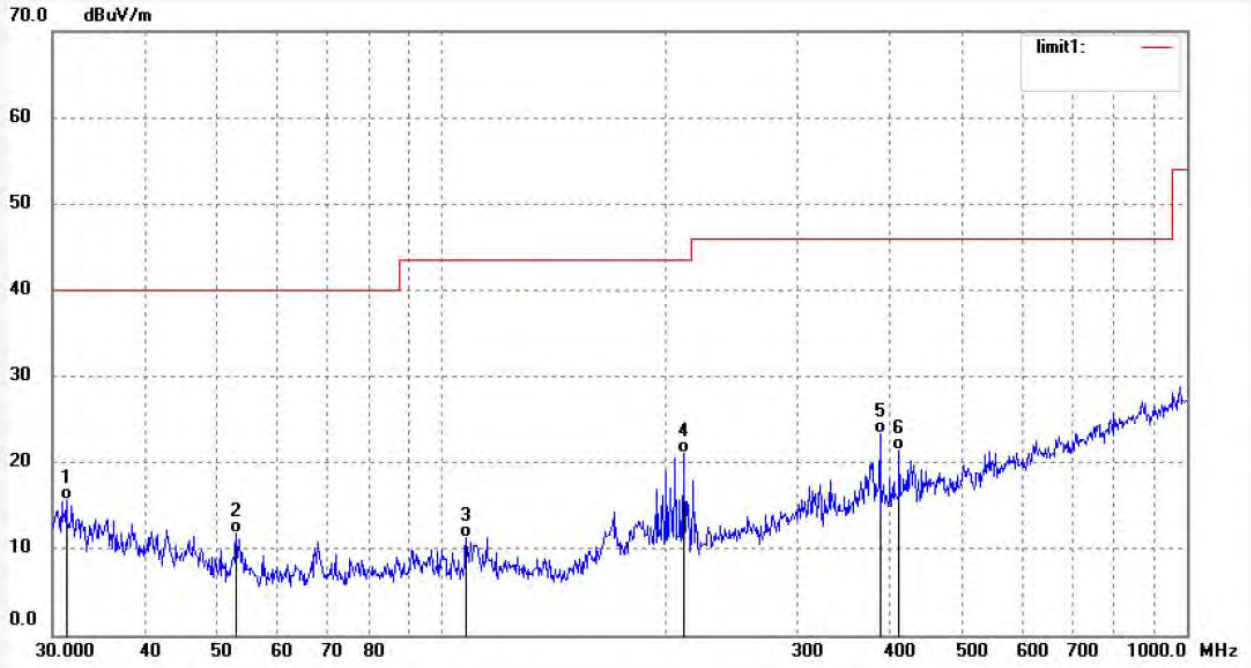
30MHz-1000MHz test data

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #2
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: Charging
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/05/18/
Time: 8/53/52
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647

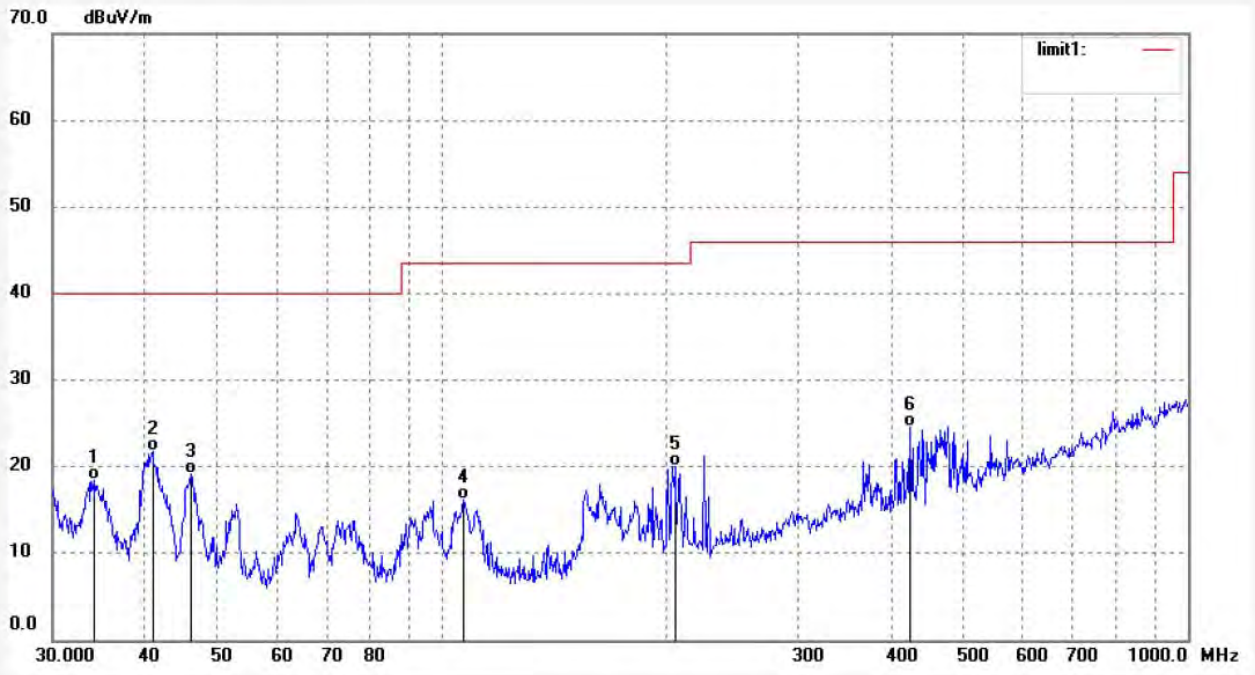


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	31.2918	36.24	-20.53	15.71	40.00	-24.29	QP	200	103	
2	53.0056	38.56	-26.69	11.87	40.00	-28.13	QP	200	229	
3	107.7853	38.92	-27.66	11.26	43.50	-32.24	QP	200	96	
4	210.8689	45.12	-24.10	21.02	43.50	-22.48	QP	200	110	
5	387.2565	41.98	-18.53	23.45	46.00	-22.55	QP	200	136	
6	411.0924	39.62	-18.11	21.51	46.00	-24.49	QP	200	331	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #1	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 19/05/18/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 8/52/35
EUT: True Connect Truly Wireless Earphones	Engineer Signature:
Mode: Charging	Distance: 3m
Model: MZX635	
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.	

Note: Report NO.:ATE20190647

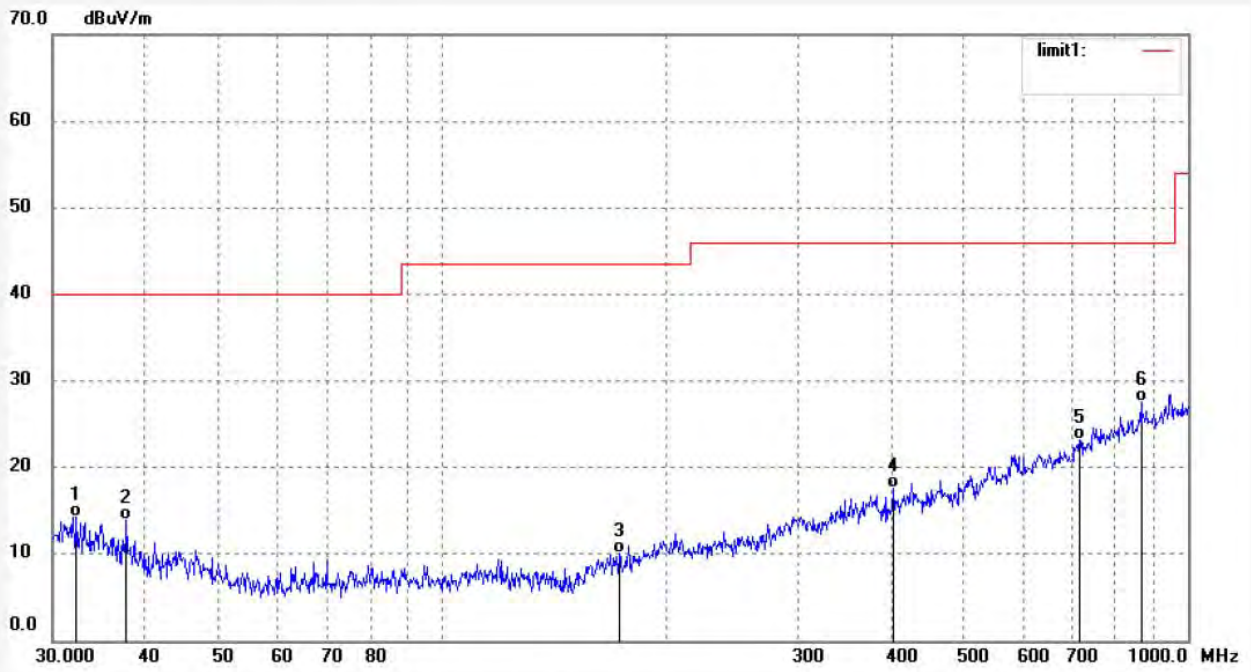


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	34.0449	39.67	-21.22	18.45	40.00	-21.55	QP	100	233	
2	40.8699	45.58	-23.73	21.85	40.00	-18.15	QP	100	201	
3	46.0557	43.91	-24.80	19.11	40.00	-20.89	QP	100	92	
4	106.6551	43.99	-27.86	16.13	43.50	-27.37	QP	100	119	
5	205.0243	44.26	-24.16	20.10	43.50	-23.40	QP	100	63	
6	424.2998	42.61	-17.94	24.67	46.00	-21.33	QP	100	123	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #6	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 19/05/18/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 8/57/56
EUT: True Connect Truly Wireless Earphones	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: MZX635	
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.	

Note: Report NO.:ATE20190647



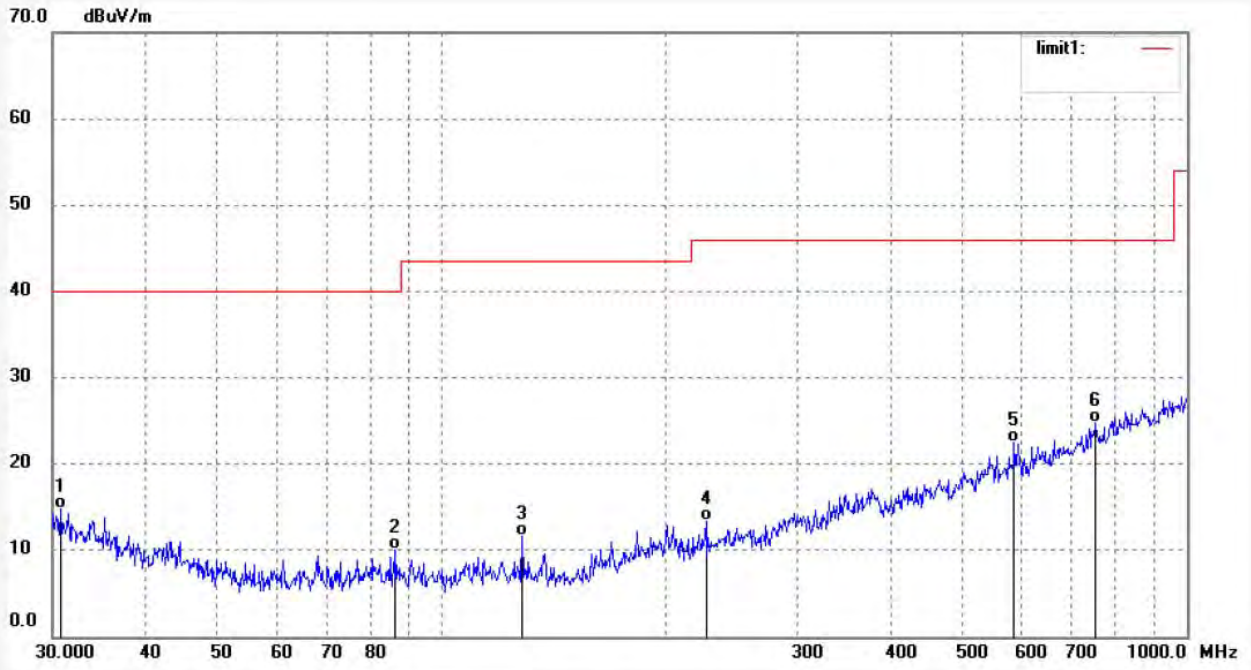
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	32.2972	35.04	-20.78	14.26	40.00	-25.74	QP	200	221	
2	37.6970	36.48	-22.60	13.88	40.00	-26.12	QP	200	66	
3	172.5975	36.40	-26.27	10.13	43.50	-33.37	QP	200	115	
4	402.5167	35.88	-18.26	17.62	46.00	-28.38	QP	200	93	
5	716.2038	34.31	-11.09	23.22	46.00	-22.78	QP	200	221	
6	865.8383	35.27	-7.75	27.52	46.00	-18.48	QP	200	103	

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

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #5	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 19/05/18/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 8/57/26
EUT: True Connect Truly Wireless Earphones	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: MZX635	
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.	

Note: Report NO.:ATE20190647

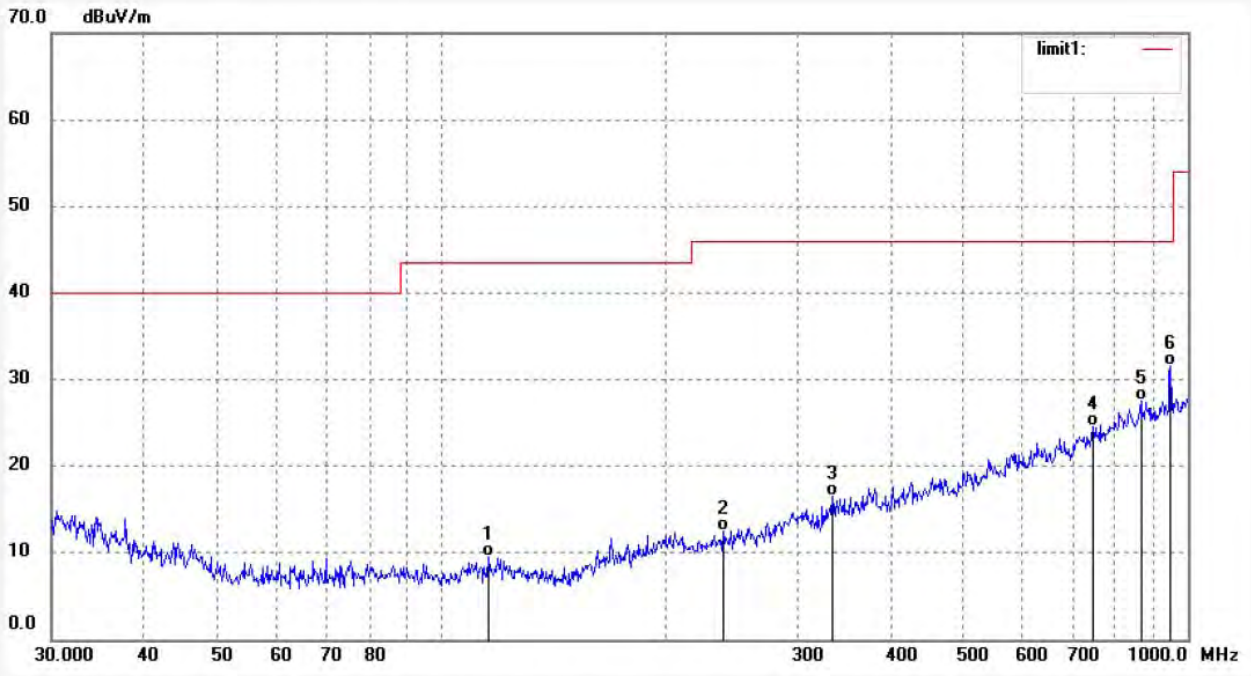


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	30.7469	35.20	-20.39	14.81	40.00	-25.19	QP	100	213	
2	86.6867	37.52	-27.45	10.07	40.00	-29.93	QP	100	52	
3	128.0355	39.26	-27.66	11.60	43.50	-31.90	QP	100	331	
4	226.2202	37.40	-23.93	13.47	46.00	-32.53	QP	100	93	
5	586.2172	36.42	-13.98	22.44	46.00	-23.56	QP	100	221	
6	754.9628	35.00	-10.19	24.81	46.00	-21.19	QP	100	103	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #7	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 19/05/18/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 8/58/28
EUT: True Connect Truly Wireless Earphones	Engineer Signature:
Mode: TX 2441MHz	Distance: 3m
Model: MZX635	
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.	

Note: Report NO.:ATE20190647



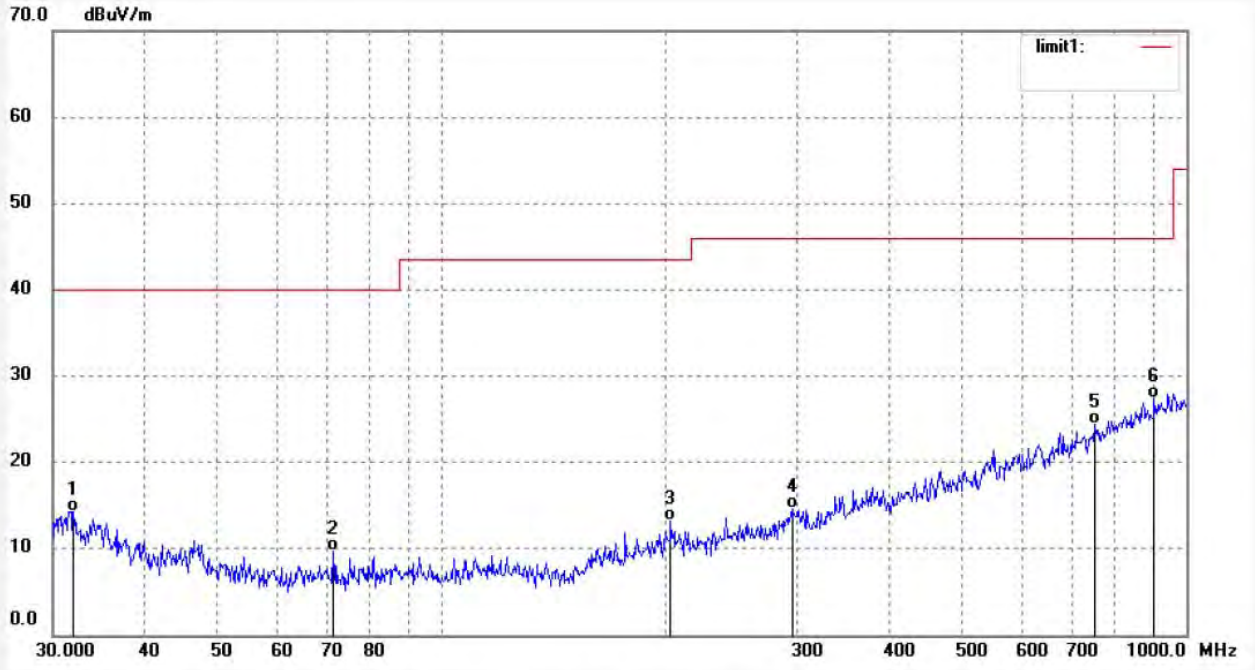
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	115.6321	36.92	-27.36	9.56	43.50	-33.94	QP	200	52	
2	238.4626	36.26	-23.75	12.51	46.00	-33.49	QP	200	321	
3	334.1254	36.44	-19.94	16.50	46.00	-29.50	QP	200	115	
4	747.0465	35.07	-10.40	24.67	46.00	-21.33	QP	200	92	
5	865.8383	35.27	-7.75	27.52	46.00	-18.48	QP	200	36	
6	948.6609	37.92	-6.35	31.57	46.00	-14.43	QP	200	103	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #8
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2441MHz
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Vertical
Power Source: DC 3.7V
Date: 19/05/18/
Time: 8/59/09
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



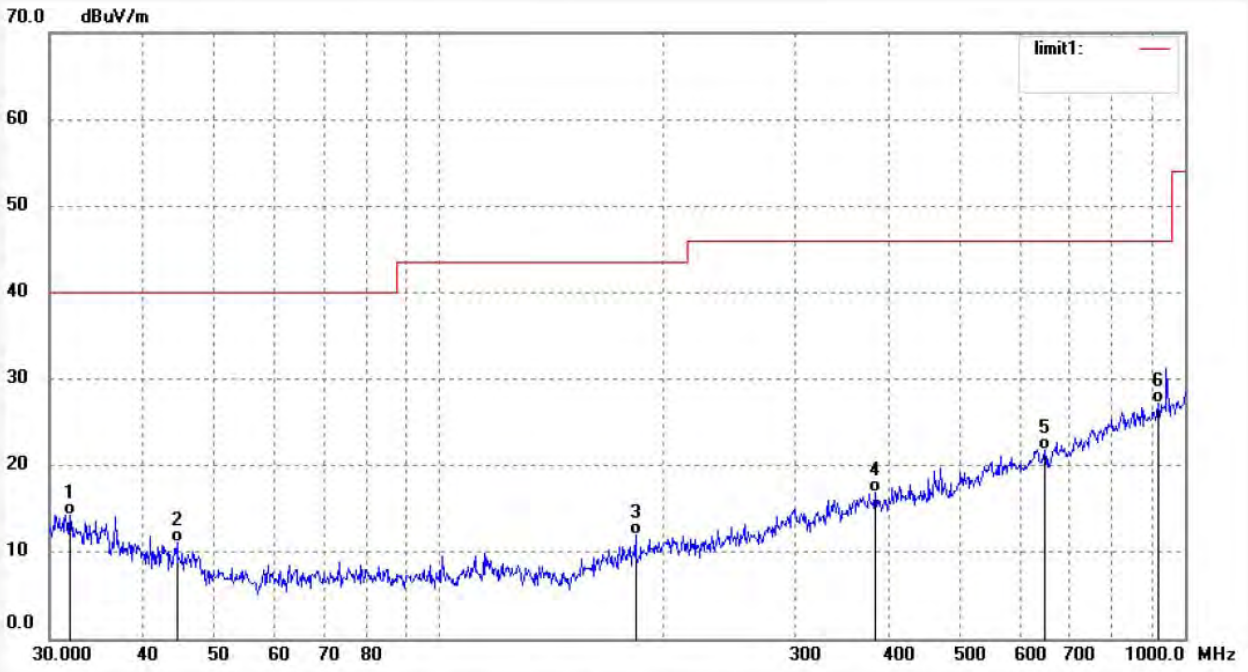
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	31.9586	34.98	-20.69	14.29	40.00	-25.71	QP	100	89	
2	71.4539	37.23	-27.54	9.69	40.00	-30.31	QP	100	201	
3	202.8745	37.47	-24.25	13.22	43.50	-30.28	QP	100	331	
4	295.4623	36.02	-21.39	14.63	46.00	-31.37	QP	100	63	
5	752.3147	34.69	-10.28	24.41	46.00	-21.59	QP	100	221	
6	906.3040	34.40	-7.08	27.32	46.00	-18.68	QP	100	193	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #10
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2480MHz
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Horizontal
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/00/12
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647

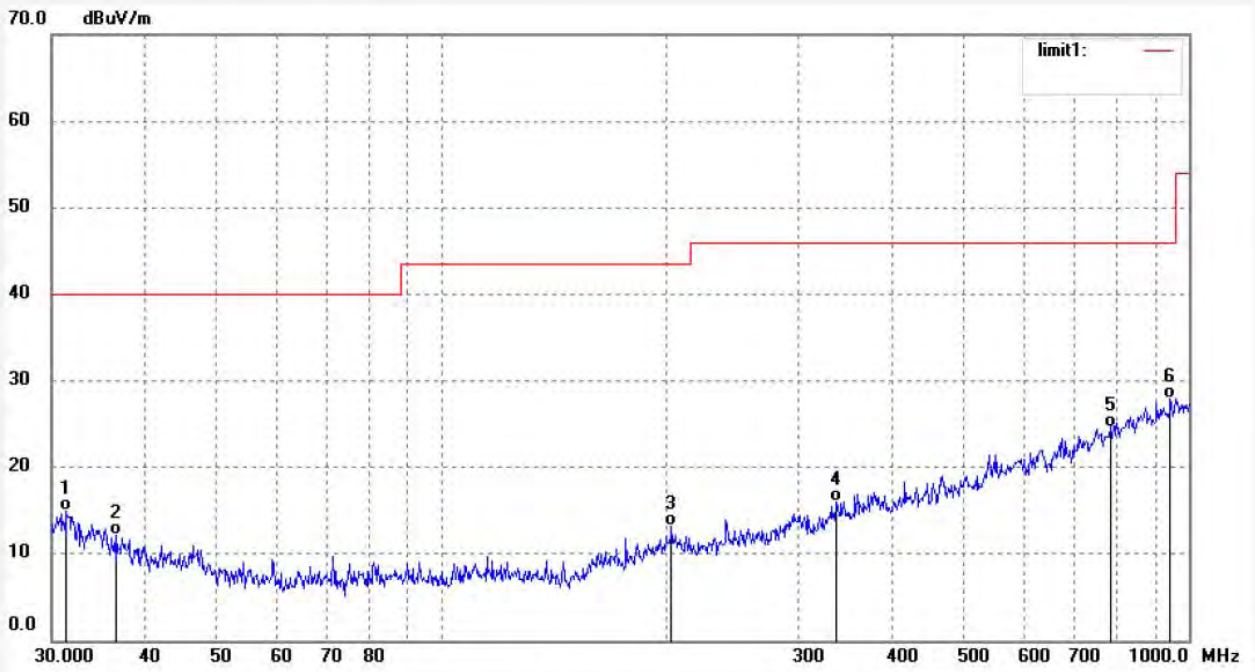


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	31.9586	35.04	-20.69	14.35	40.00	-25.65	QP	200	116	
2	44.4656	35.46	-24.34	11.12	40.00	-28.88	QP	200	51	
3	183.2211	37.67	-25.71	11.96	43.50	-31.54	QP	200	252	
4	384.5446	35.42	-18.57	16.85	46.00	-29.15	QP	200	96	
5	649.0983	34.50	-12.67	21.83	46.00	-24.17	QP	200	221	
6	922.3667	33.99	-6.81	27.18	46.00	-18.82	QP	200	103	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #9	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 19/05/18/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 8/59/23
EUT: True Connect Truly Wireless Earphones	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: MZX635	
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.	

Note: Report NO.:ATE20190647



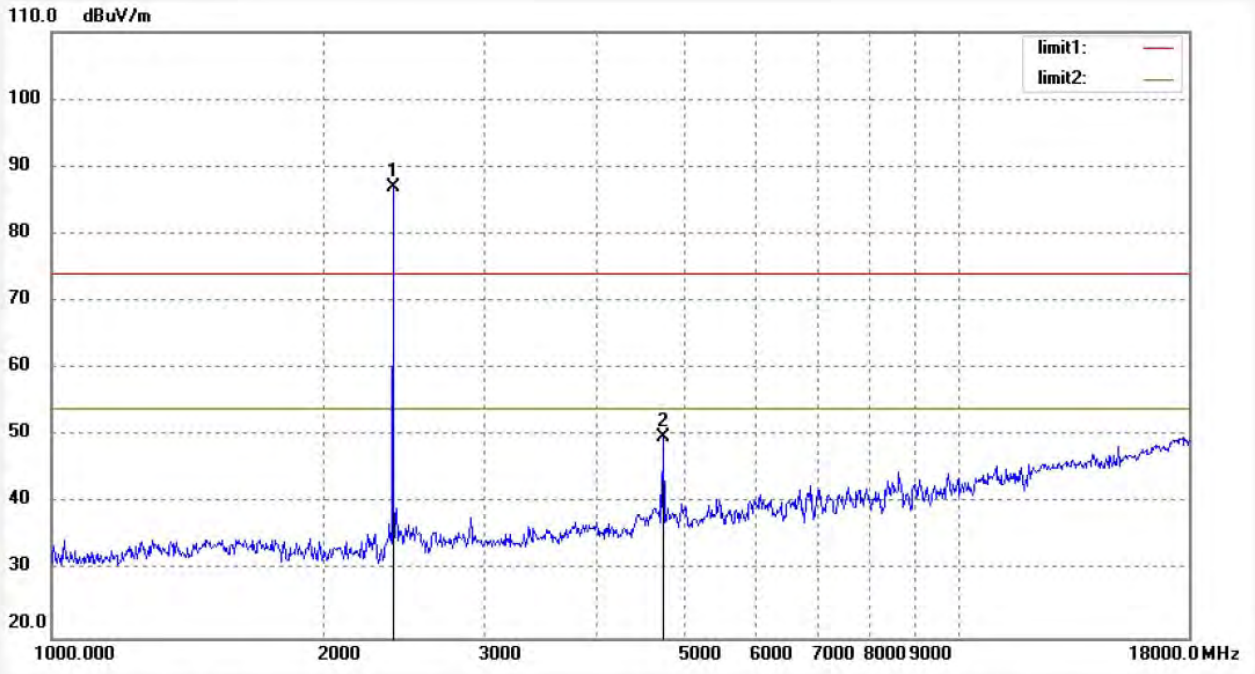
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	31.4021	35.52	-20.55	14.97	40.00	-25.03	QP	100	219	
2	36.6520	34.35	-22.16	12.19	40.00	-27.81	QP	100	110	
3	202.8745	37.47	-24.25	13.22	43.50	-30.28	QP	100	24	
4	337.6660	35.86	-19.81	16.05	46.00	-29.95	QP	100	93	
5	784.7128	33.92	-9.40	24.52	46.00	-21.48	QP	100	224	
6	945.3336	34.32	-6.41	27.91	46.00	-18.09	QP	100	103	

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
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #11	Polarization: Horizontal
Standard: FCC PK	Power Source: DC 3.7V
Test item: Radiation Test	Date: 19/05/18/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 9/25/43
EUT: True Connect Truly Wireless Earphones	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: MZX635	
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.	

Note: Report NO.:ATE20190647



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.419	93.40	-6.37	87.03			peak	200	65	
2	4804.957	49.00	0.70	49.70	74.00	-24.30	peak	200	109	

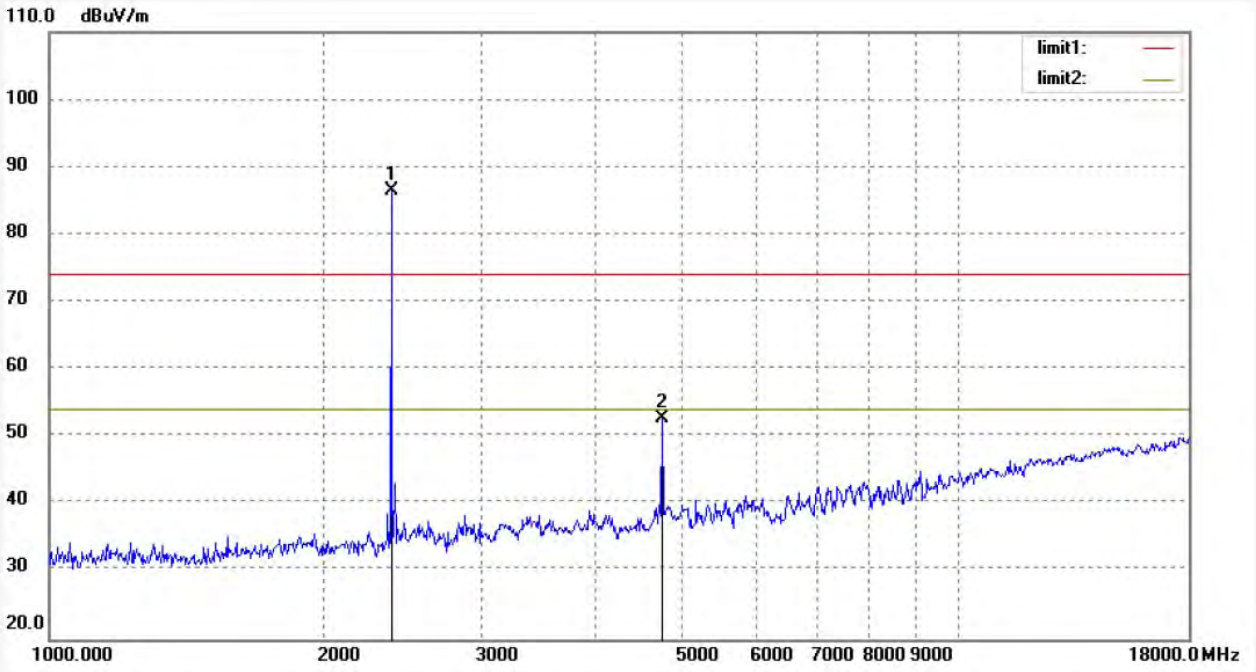
ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #12
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2402MHz
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Vertical
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/26/43
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



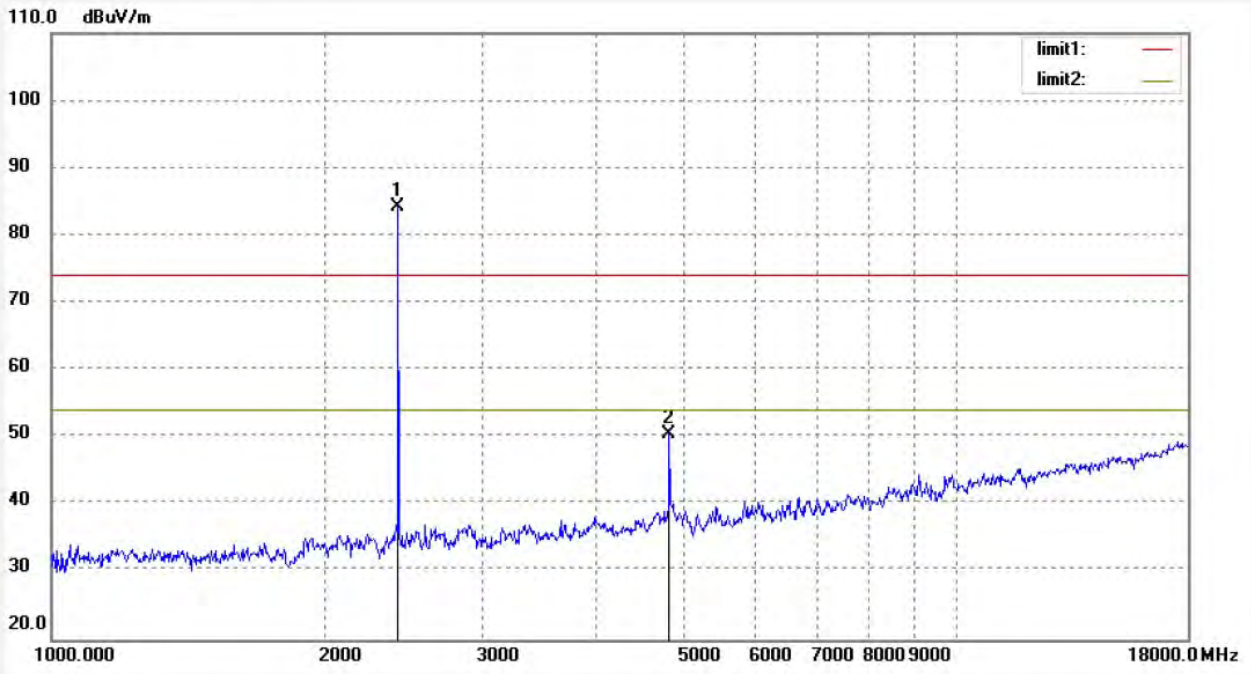
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.419	92.87	-6.37	86.50			peak	150	331	
2	4804.957	52.06	0.70	52.76	74.00	-21.24	peak	150	106	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #14
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2441MHz
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Horizontal
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/33/04
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.121	90.41	-6.20	84.21			peak	200	66	
2	4882.324	49.38	1.07	50.45	74.00	-23.55	peak	200	109	

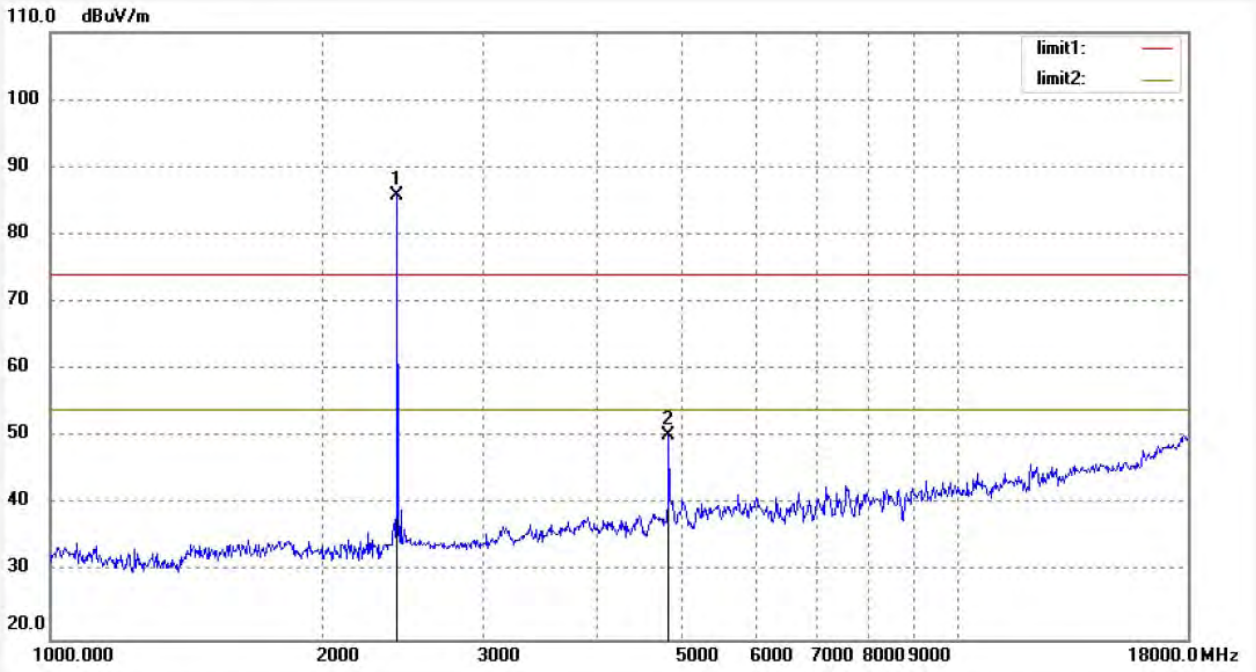
ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #13
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2441MHz
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Vertical
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/28/03
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



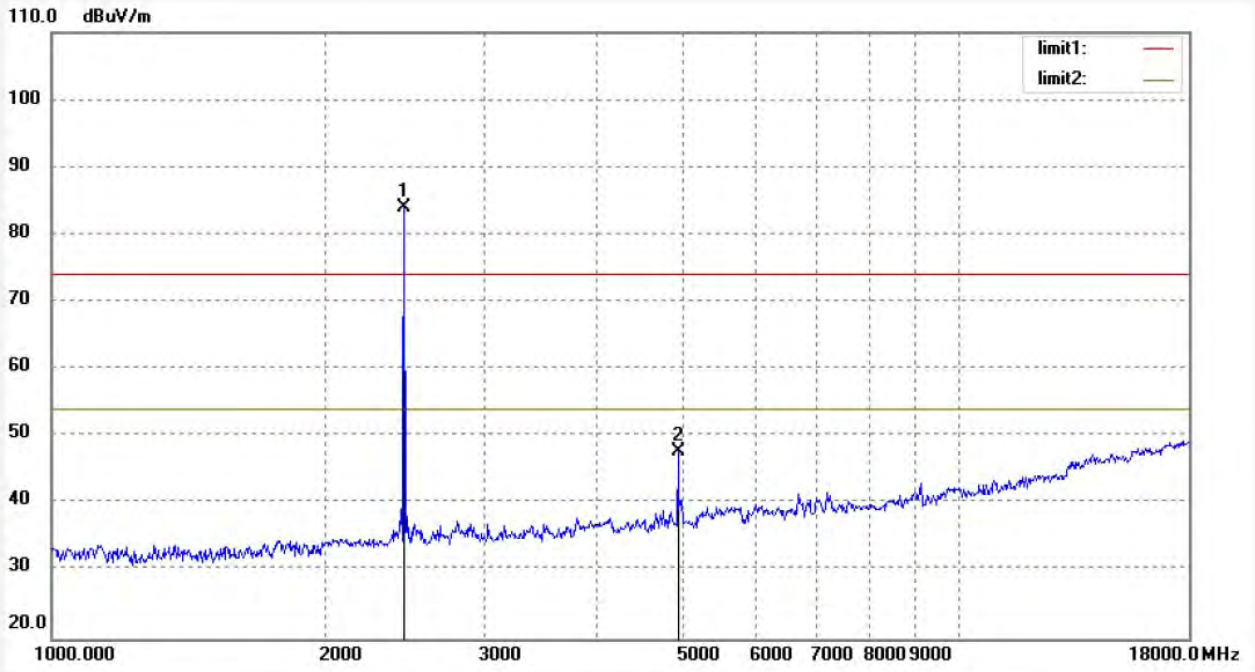
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.121	91.98	-6.20	85.78			peak	150	166	
2	4882.324	49.27	1.07	50.34	74.00	-23.66	peak	150	109	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #15
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2480MHz
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Horizontal
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/34/25
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647

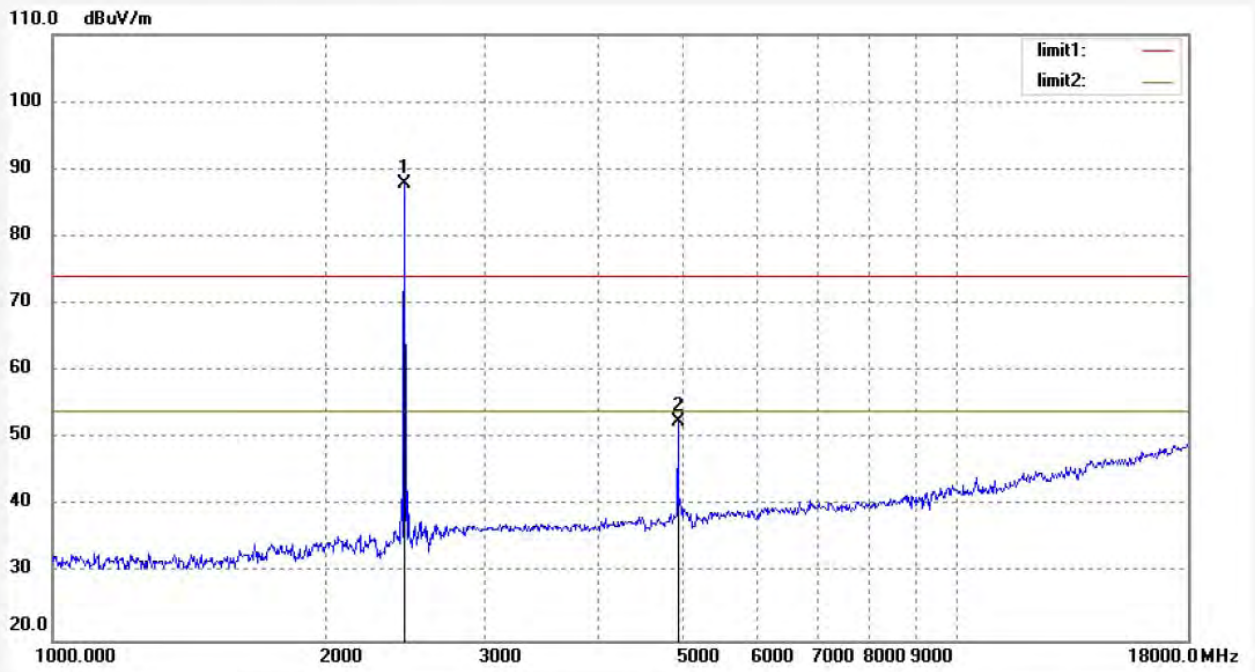


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.034	89.99	-6.04	83.95			peak	200	66	
2	4960.444	46.20	1.50	47.70	74.00	-26.30	peak	200	103	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #16	Polarization: Vertical
Standard: FCC PK	Power Source: DC 3.7V
Test item: Radiation Test	Date: 19/05/18/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 9/35/39
EUT: True Connect Truly Wireless Earphones	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: MZX635	
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.	

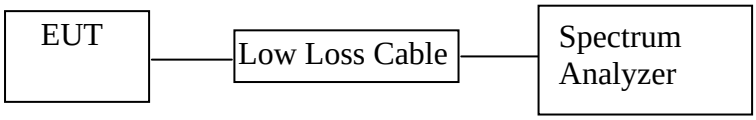
Note: Report NO.:ATE20190647



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.034	93.94	-6.04	87.90			peak	150	96	
2	4960.444	50.91	1.50	52.41	74.00	-21.59	peak	150	136	

11.BAND EDGE COMPLIANCE TEST

11.1.Block Diagram of Test Setup



(EUT: True Connect Truly Wireless Earphones)

11.2.The Requirement 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).

11.3.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.

11.4.Operating Condition of EUT

11.4.1.Setup the EUT and simulator as shown as Section 11.1.

11.4.2.Turn on the power of all equipment.

11.4.3.Let the EUT work in TX (Hopping off, Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2480MHz TX frequency to transmit.

11.5.Test Procedure

11.5.1.The transmitter output was connected to the spectrum analyzer via a low loss cable.

11.5.2.Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz with convenient frequency span including 100 kHz bandwidth from band edge.

11.5.3.The band edges was measured and recorded.

11.6.Test Result

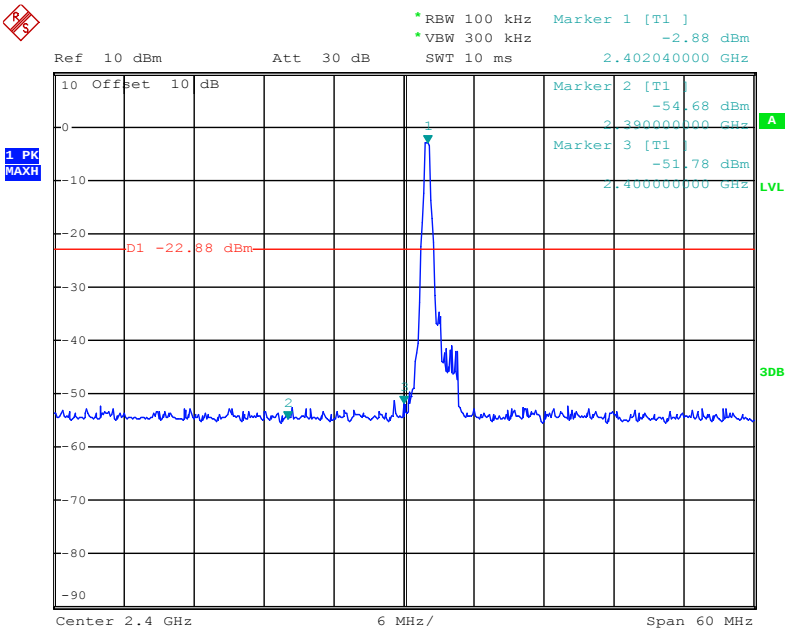
Non-hopping mode

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
GFSK mode		
2400.00	48.90	> 20dBc
2483.50	50.79	> 20dBc
π /4 DQPSK		
2400.00	48.45	> 20dBc
2483.5	48.00	> 20dBc
8DPSK mode		
2400.00	47.12	> 20dBc
2483.5	47.15	> 20dBc

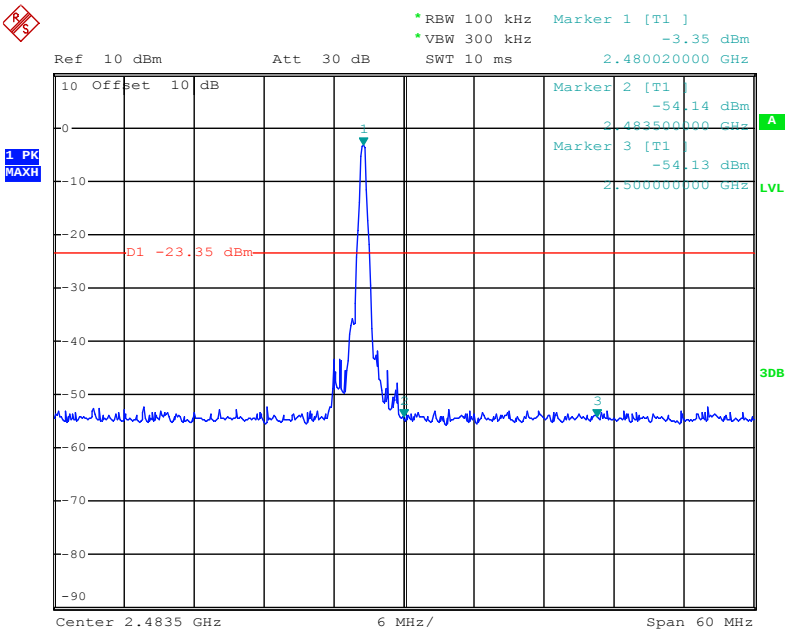
The spectrum analyzer plots are attached as below.

Non-hopping mode

GFSK mode

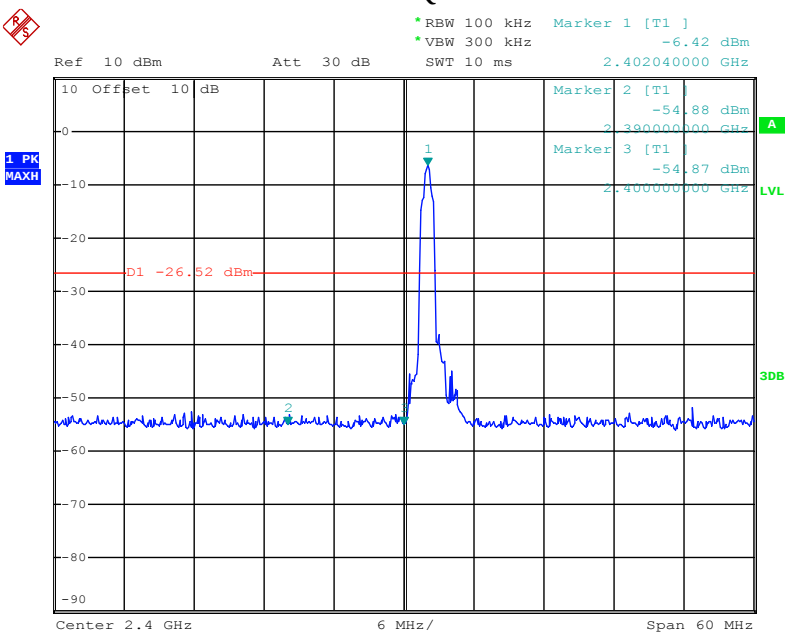


Date: 20.MAY.2019 09:11:32

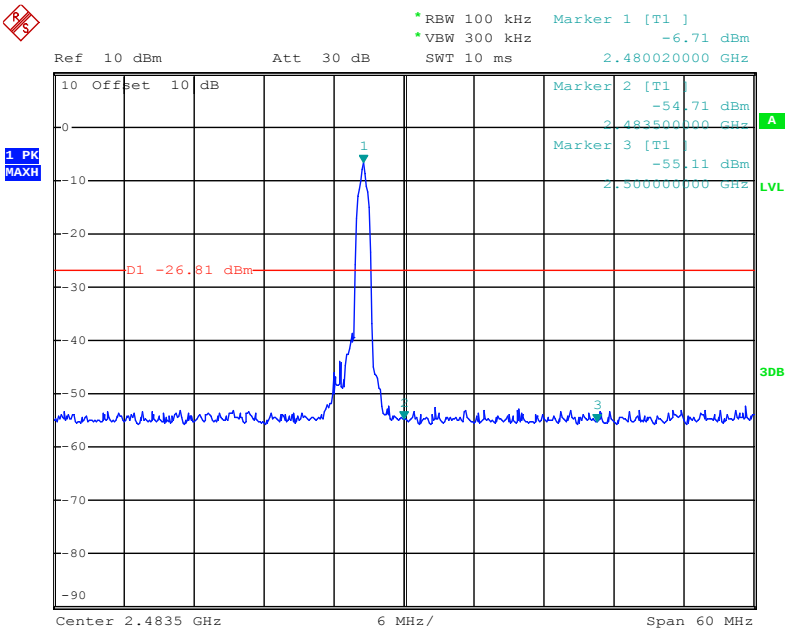


Date: 20.MAY.2019 09:10:10

π /4 DQPSK mode

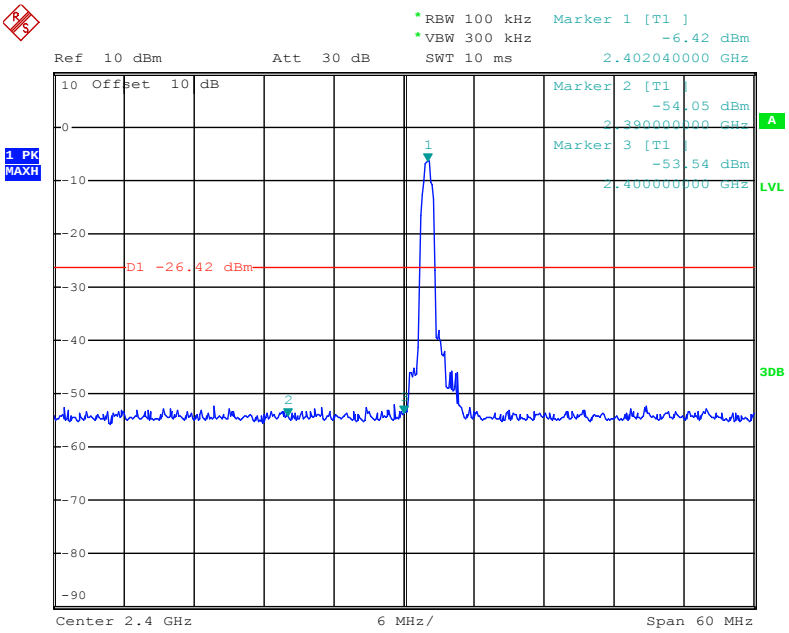


Date: 20.MAY.2019 09:08:16

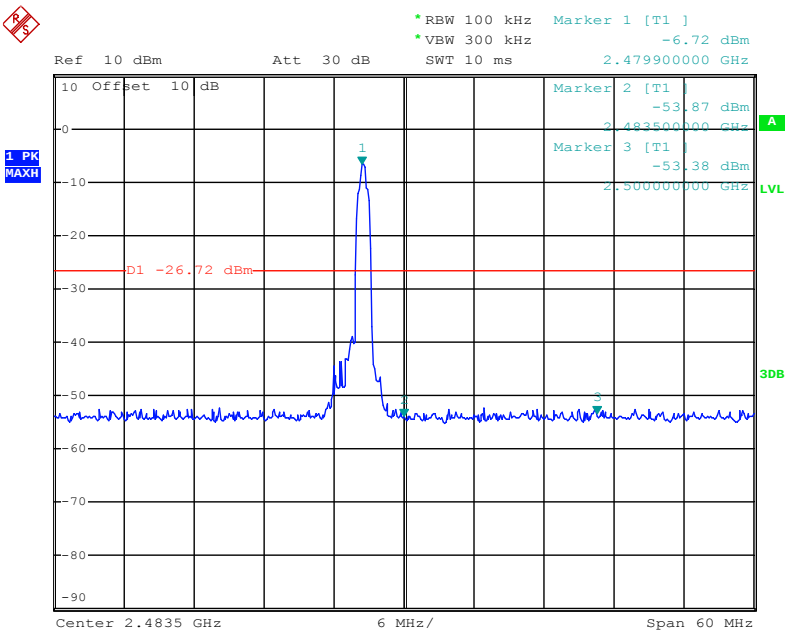


Date: 20.MAY.2019 09:09:16

8DPSK mode



Date: 20.MAY.2019 09:06:42



Date: 20.MAY.2019 09:05:32

Radiated Band Edge Result

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

   Result = Reading + Corrected Factor
3. Display the measurement of peak values.

Test Procedure:

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.

Let the EUT work in TX (Hopping off, Hopping on) modes measure it.
We select 2402MHz, 2480MHz TX frequency to transmit(Hopping off mode).
We select 2402-2480MHz TX frequency to transmit(Hopping on mode).

During the radiated emission test, the spectrum analyzer was set with the following configurations:
1.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.
2.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.
3.All modes of operation were investigated and the worst-case emissions are reported.

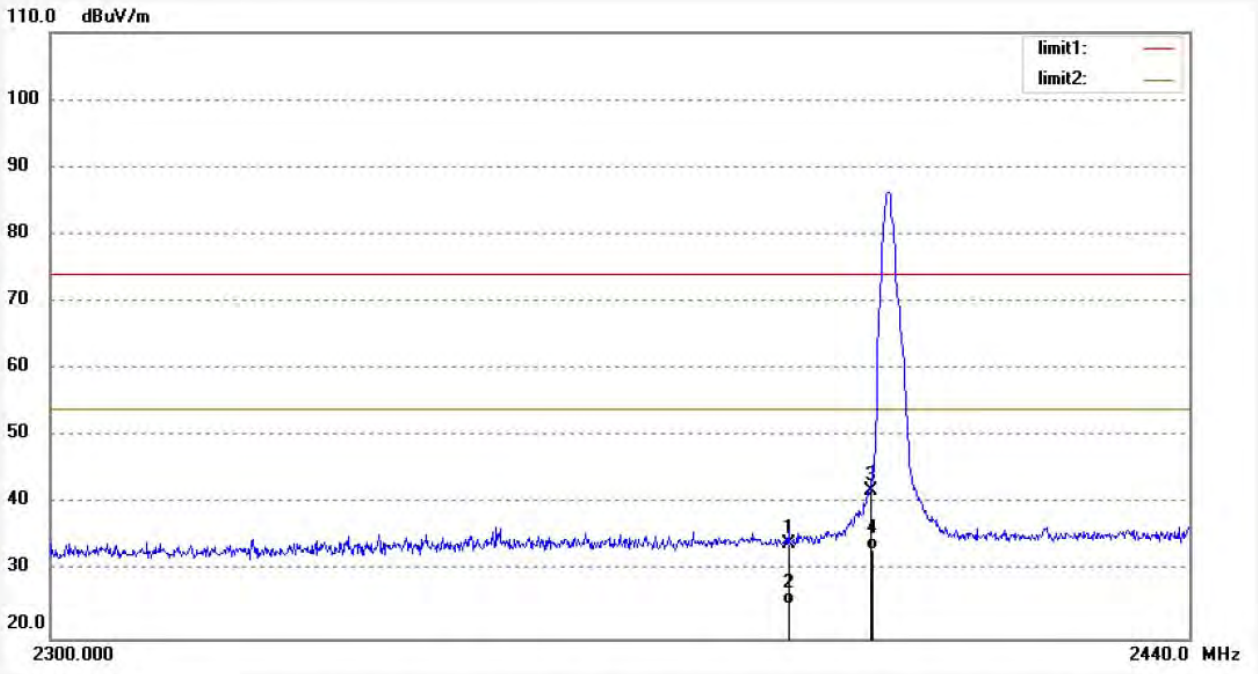
Non-hopping mode(GFSK)

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #27
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2402MHz(GFSK)
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Horizontal
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/53/24
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647

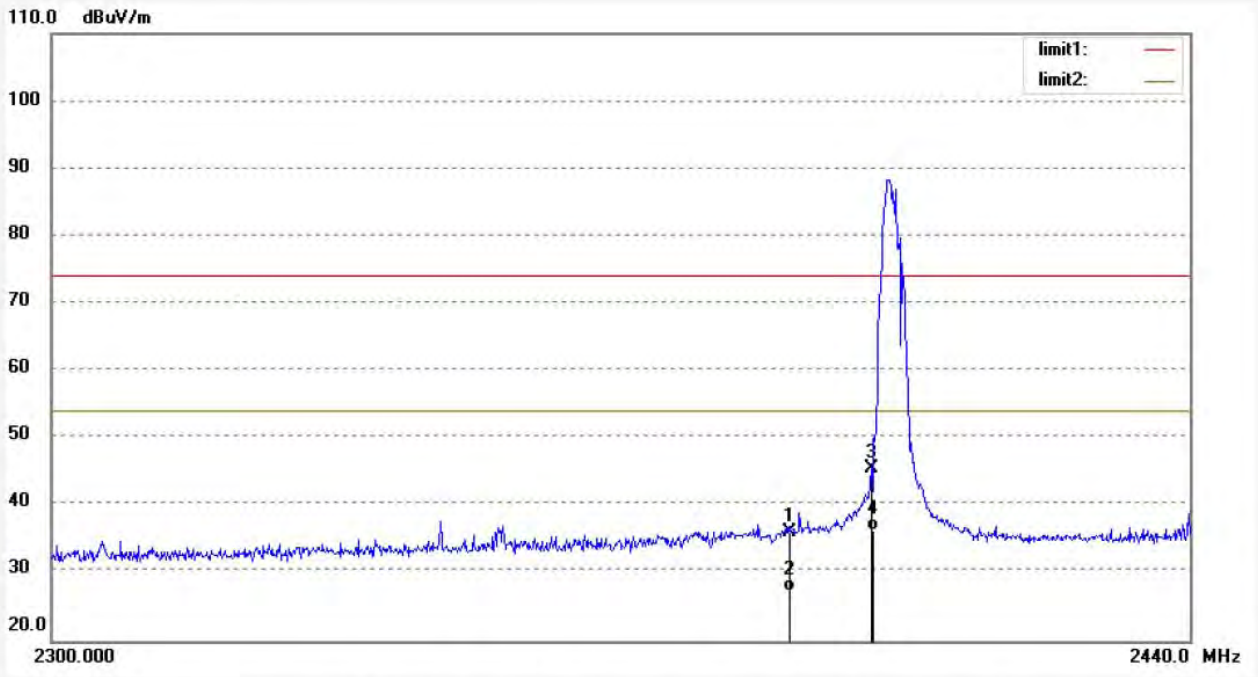


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	40.35	-6.32	34.03	74.00	-39.97	peak	200	193	
2	2390.000	31.48	-6.32	25.16	54.00	-28.84	AVG	200	321	
3	2400.000	48.18	-6.27	41.91	74.00	-32.09	peak	200	201	
4	2400.000	39.48	-6.27	33.21	54.00	-20.79	AVG	200	96	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #28	Polarization: Vertical
Standard: FCC PK	Power Source: DC 3.7V
Test item: Radiation Test	Date: 19/05/18/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 9/54/59
EUT: True Connect Truly Wireless Earphones	Engineer Signature:
Mode: TX 2402MHz(GFSK)	Distance: 3m
Model: MZX635	
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.	

Note: Report NO.:ATE20190647

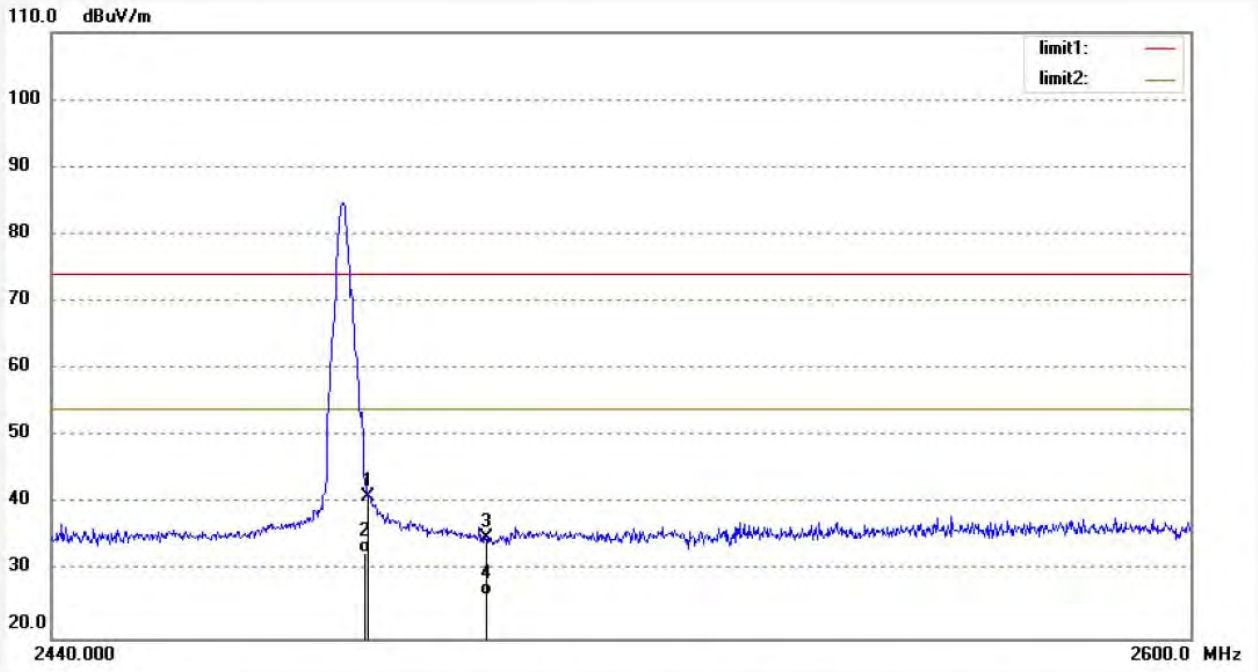


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	42.37	-6.32	36.05	74.00	-37.95	peak	150	103	
2	2390.000	33.54	-6.32	27.22	54.00	-26.78	AVG	150	92	
3	2400.000	51.72	-6.27	45.45	74.00	-28.55	peak	150	63	
4	2400.000	42.65	-6.27	36.38	54.00	-17.62	AVG	150	165	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #18	Polarization: Horizontal
Standard: FCC PK	Power Source: DC 3.7V
Test item: Radiation Test	Date: 19/05/18/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 9/38/30
EUT: True Connect Truly Wireless Earphones	Engineer Signature:
Mode: TX 2480MHz(GSFK)	Distance: 3m
Model: MZX635	
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.	

Note: Report NO.:ATE20190647



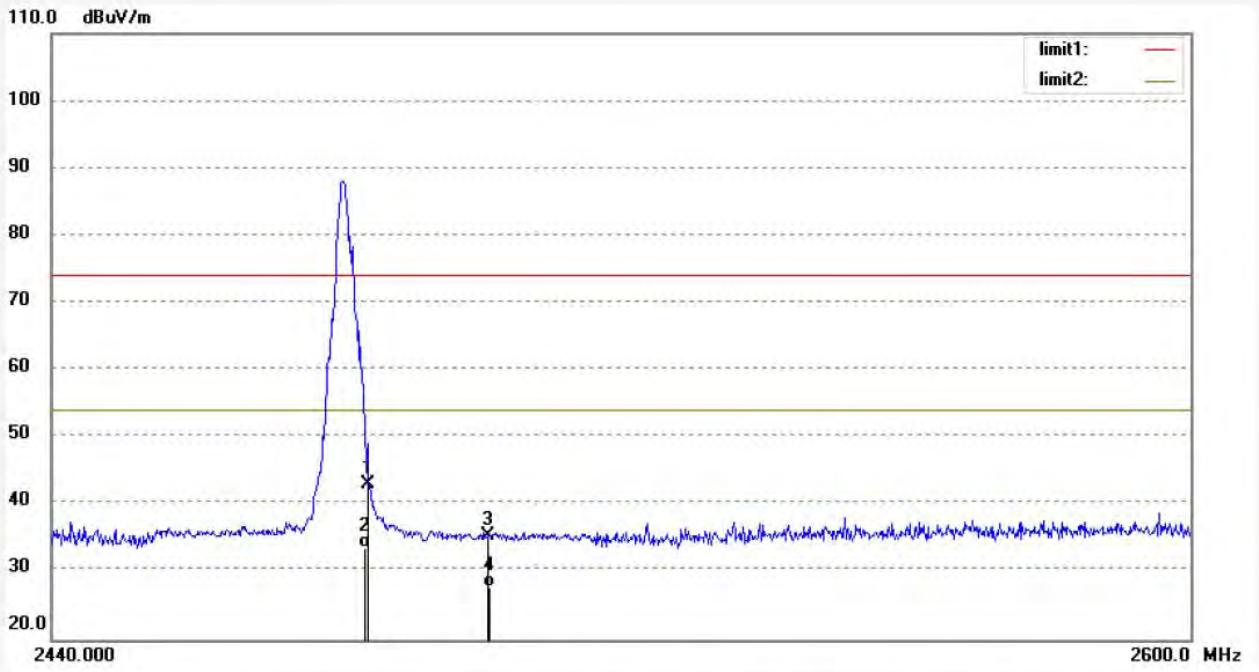
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	46.82	-5.89	40.93	74.00	-33.07	peak	200	103	
2	2483.500	38.49	-5.89	32.60	54.00	-21.40	AVG	200	66	
3	2500.000	40.68	-5.81	34.87	74.00	-39.13	peak	200	218	
4	2500.000	32.22	-5.81	26.41	54.00	-27.59	AVG	200	73	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #17
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2480MHz(GSFK)
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Vertical
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/36/59
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	48.92	-5.89	43.03	74.00	-30.97	peak	150	139	
2	2483.500	39.48	-5.89	33.59	54.00	-20.41	AVG	150	69	
3	2500.000	41.24	-5.81	35.43	74.00	-38.57	peak	150	215	
4	2500.000	33.49	-5.81	27.68	54.00	-26.32	AVG	150	331	

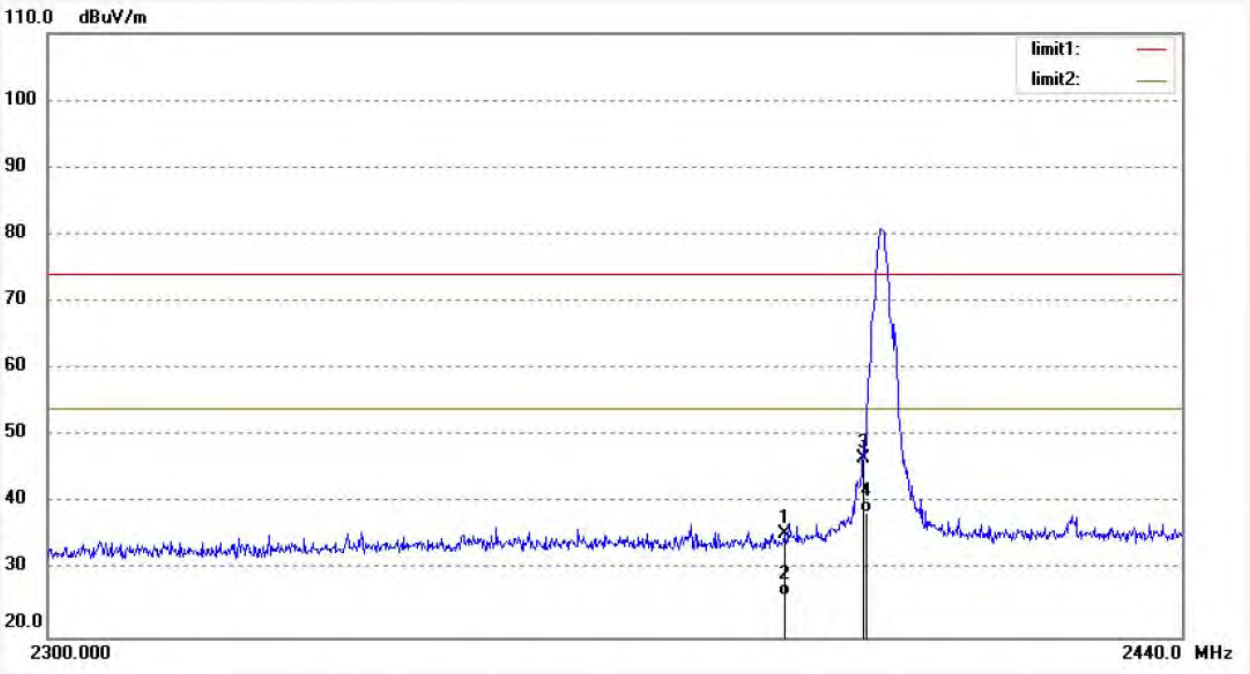
Non-hopping mode(π /4 DQPSK)

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #26
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2402MHz(π/4 DQPSK)
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Horizontal
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/51/34
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



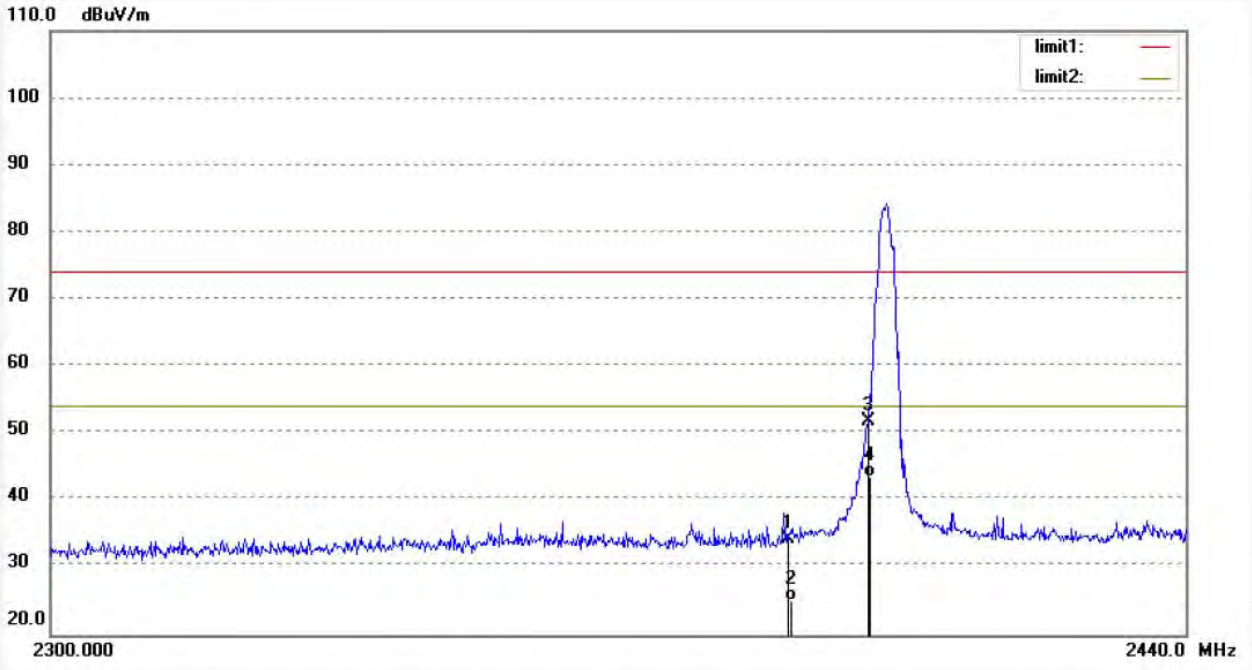
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	41.71	-6.32	35.39	74.00	-38.61	peak	200	116	
2	2390.000	32.49	-6.32	26.17	54.00	-27.83	AVG	200	52	
3	2400.000	53.01	-6.27	46.74	74.00	-27.26	peak	200	324	
4	2400.000	44.90	-6.27	38.63	54.00	-15.37	AVG	200	93	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #25
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2402MHz(π/4 DQPSK)
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Vertical
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/49/07
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



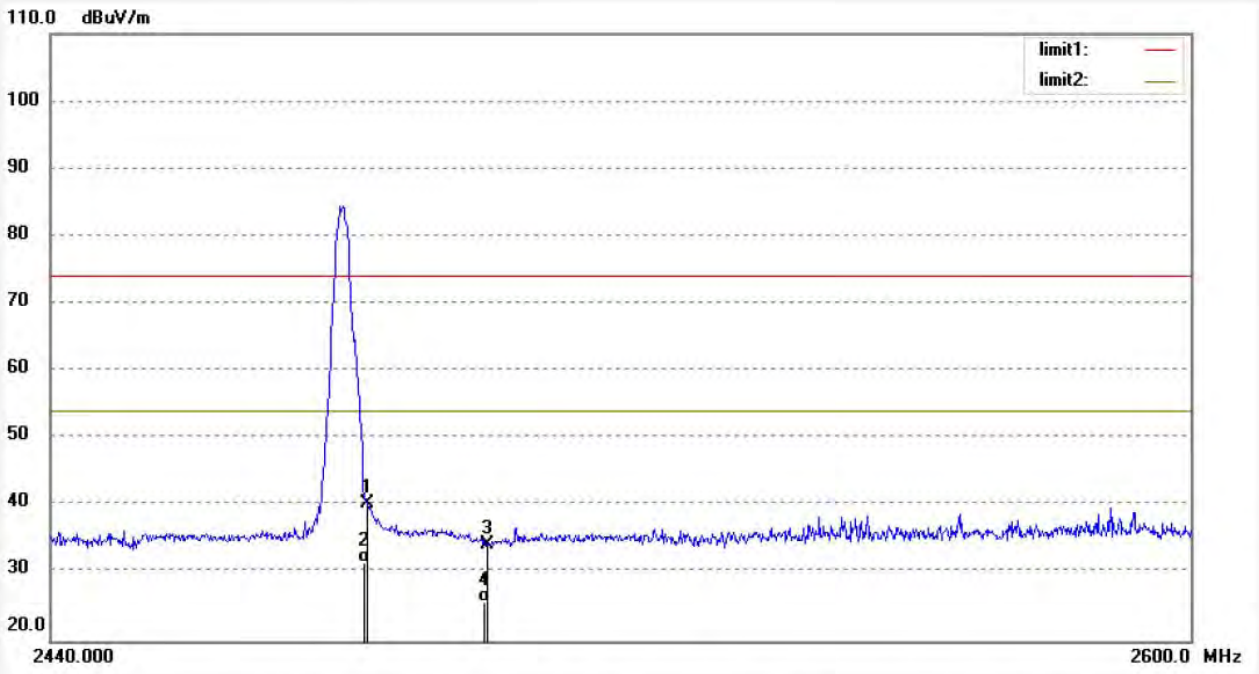
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	40.71	-6.32	34.39	74.00	-39.61	peak	150	196	
2	2390.000	31.45	-6.32	25.13	54.00	-28.87	AVG	150	310	
3	2400.000	58.03	-6.27	51.76	74.00	-22.24	peak	150	212	
4	2400.000	49.85	-6.27	43.58	54.00	-10.42	AVG	150	204	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #19
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2480MHz(π/4 DQPSK)
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Horizontal
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/40/25
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



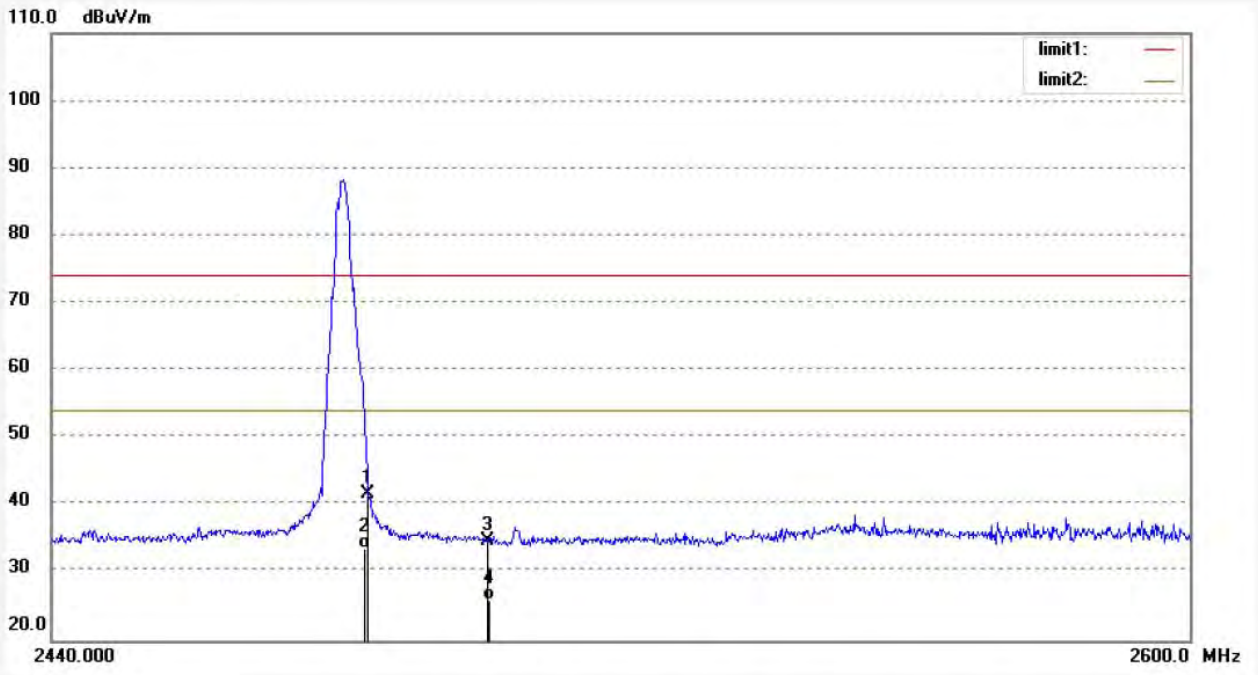
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	46.21	-5.89	40.32	74.00	-33.68	peak	200	66	
2	2483.500	37.46	-5.89	31.57	54.00	-22.43	AVG	200	106	
3	2500.000	40.15	-5.81	34.34	74.00	-39.66	peak	200	96	
4	2500.000	31.49	-5.81	25.68	54.00	-28.32	AVG	200	156	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #20
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2480MHz(π/4 DQPSK)
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Vertical
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/41/28
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



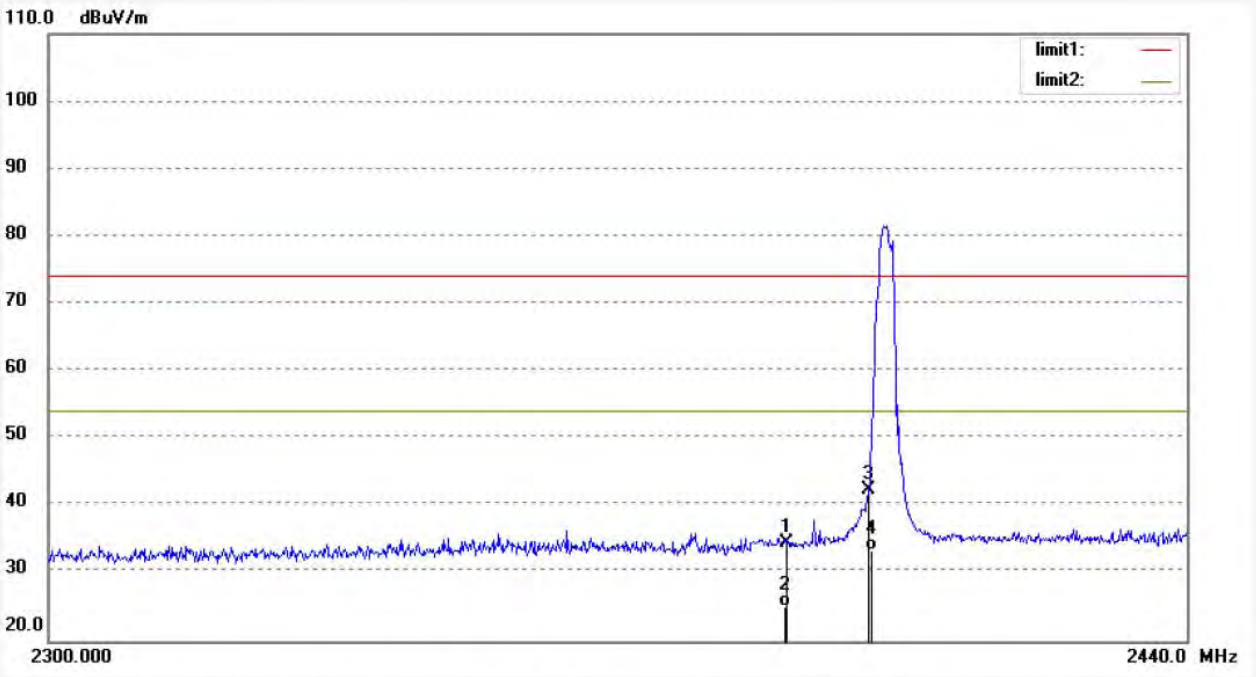
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	47.55	-5.89	41.66	74.00	-32.34	peak	150	63	
2	2483.500	39.49	-5.89	33.60	54.00	-20.40	AVG	150	165	
3	2500.000	40.53	-5.81	34.72	74.00	-39.28	peak	150	58	
4	2500.000	31.78	-5.81	25.97	54.00	-28.03	AVG	150	163	

Non-hopping mode(8DPSK)

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #23	Polarization: Horizontal
Standard: FCC PK	Power Source: DC 3.7V
Test item: Radiation Test	Date: 19/05/18/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 9/46/06
EUT: True Connect Truly Wireless Earphones	Engineer Signature:
Mode: TX 2402MHz(8DPSK)	Distance: 3m
Model: MZX635	
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.	

Note: Report NO.:ATE20190647



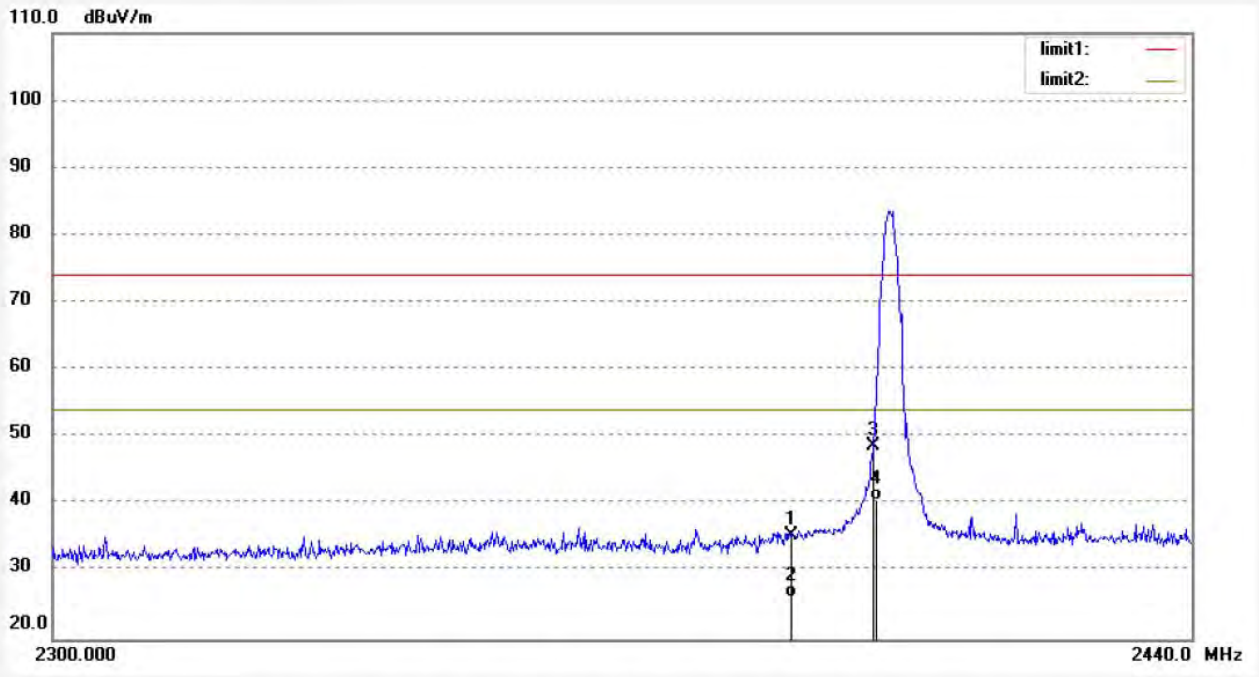
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	40.93	-6.32	34.61	74.00	-39.39	peak	200	52	
2	2390.000	31.49	-6.32	25.17	54.00	-28.83	AVG	250	321	
3	2400.000	48.72	-6.27	42.45	74.00	-31.55	peak	200	64	
4	2400.000	39.75	-6.27	33.48	54.00	-20.52	AVG	250	196	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #24
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2402MHz(8DPSK)
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Vertical
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/47/20
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647

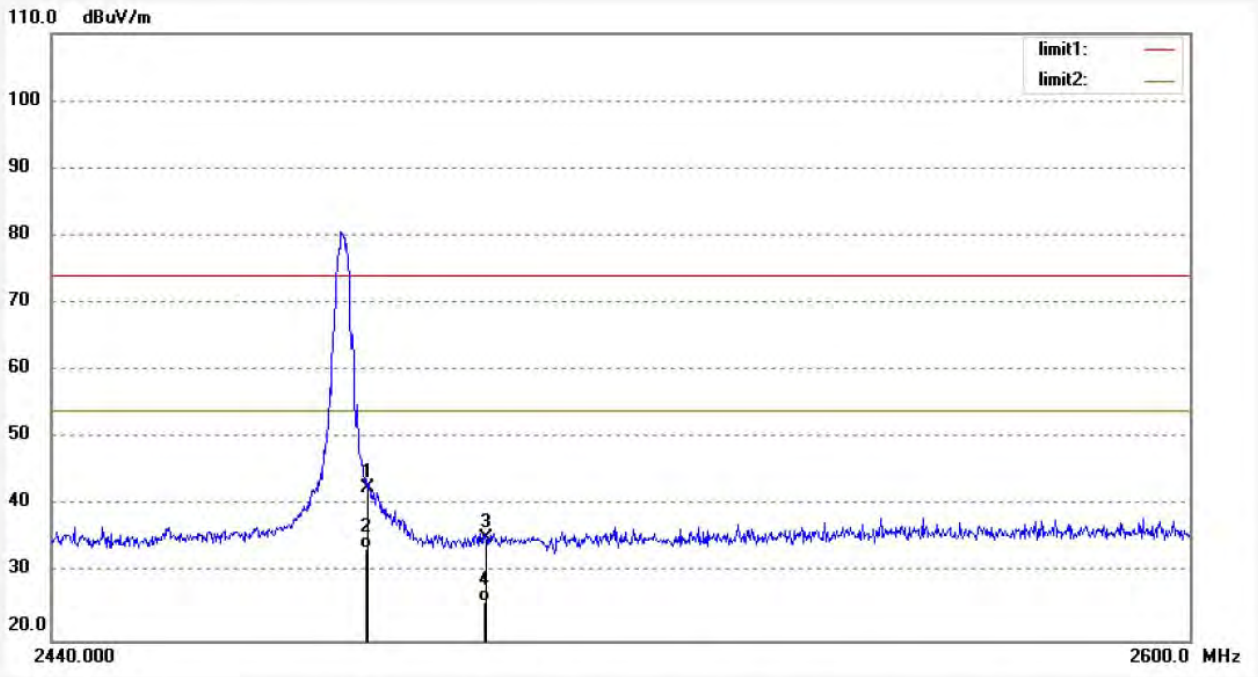


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	41.63	-6.32	35.31	74.00	-38.69	peak	150	332	
2	2390.000	32.49	-6.32	26.17	54.00	-27.83	AVG	150	66	
3	2400.000	54.86	-6.27	48.59	74.00	-25.41	peak	150	159	
4	2400.000	46.78	-6.27	40.51	54.00	-13.49	AVG	150	102	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #22	Polarization: Horizontal
Standard: FCC PK	Power Source: DC 3.7V
Test item: Radiation Test	Date: 19/05/18/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 9/44/38
EUT: True Connect Truly Wireless Earphones	Engineer Signature:
Mode: TX 2480MHz(8DPSK)	Distance: 3m
Model: MZX635	
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.	

Note: Report NO.:ATE20190647



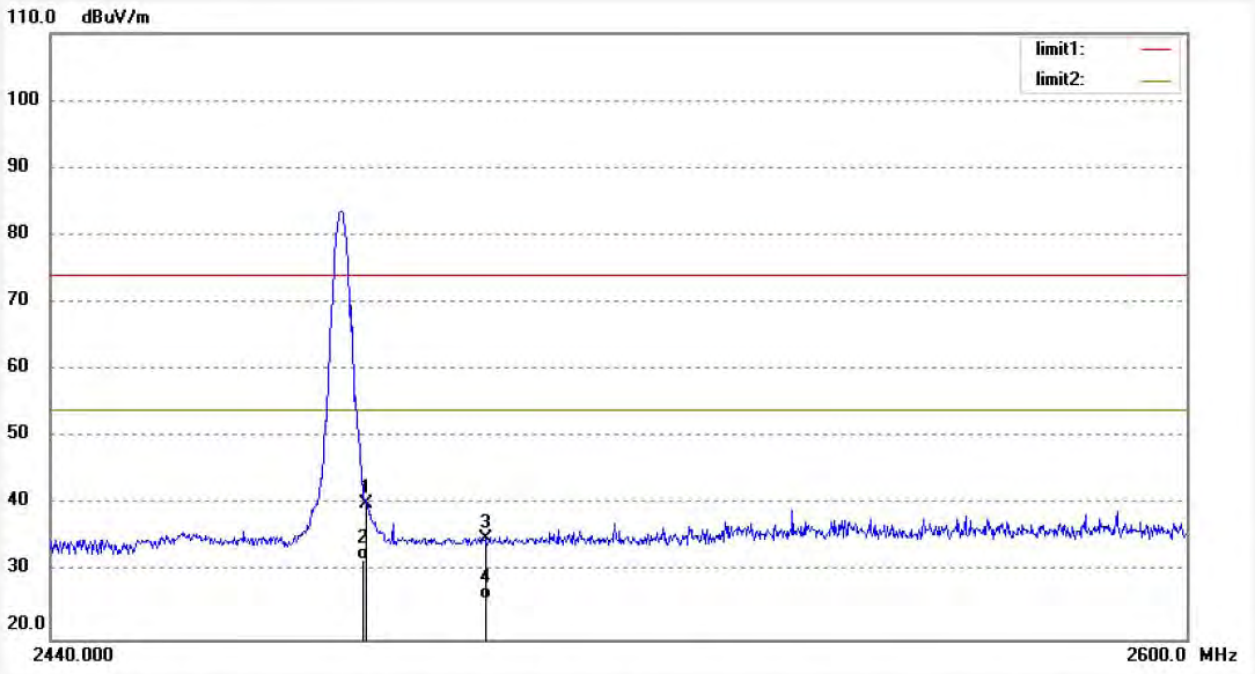
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	48.61	-5.89	42.72	74.00	-31.28	peak	200	120	
2	2483.500	39.45	-5.89	33.56	54.00	-20.44	AVG	250	320	
3	2500.000	40.94	-5.81	35.13	74.00	-38.87	peak	200	214	
4	2500.000	31.45	-5.81	25.64	54.00	-28.36	AVG	250	302	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #21
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: TX 2480MHz(8DPSK)
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Vertical
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/43/11
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	46.14	-5.89	40.25	74.00	-33.75	peak	150	96	
2	2483.500	37.68	-5.89	31.79	54.00	-22.21	AVG	150	210	
3	2500.000	40.85	-5.81	35.04	74.00	-38.96	peak	150	332	
4	2500.000	31.78	-5.81	25.97	54.00	-28.03	AVG	150	126	

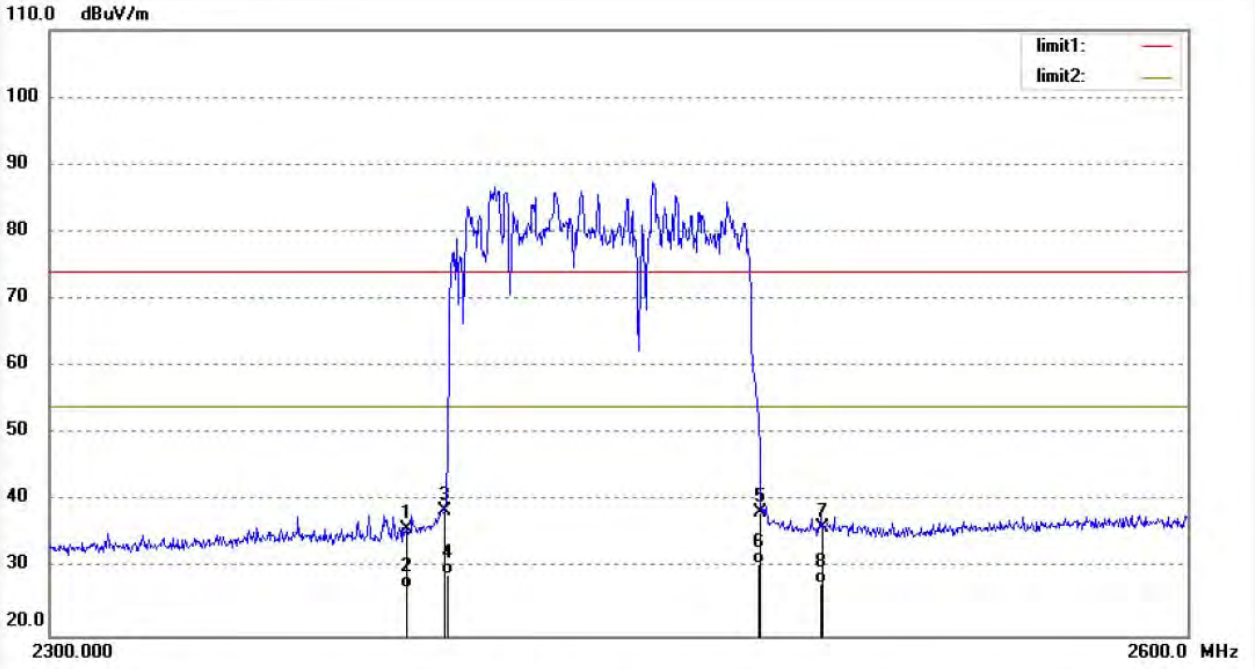
Hopping mode(GFSK)

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #30
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: HOPPING(GFSK)
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Horizontal
Power Source: DC 3.7V
Date: 19/05/18/
Time: 10/01/54
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	42.28	-6.32	35.96	74.00	-38.04	peak	200	89	
2	2390.000	33.45	-6.32	27.13	54.00	-26.87	AVG	200	201	
3	2400.000	44.88	-6.27	38.61	74.00	-35.39	peak	200	210	
4	2400.000	35.48	-6.27	29.21	54.00	-24.79	AVG	200	332	
5	2483.500	44.18	-5.89	38.29	74.00	-35.71	peak	200	93	
6	2483.500	36.48	-5.89	30.59	54.00	-23.41	AVG	200	211	
7	2500.000	41.89	-5.81	36.08	74.00	-37.92	peak	200	52	
8	2500.000	33.49	-5.81	27.68	54.00	-26.32	AVG	200	146	

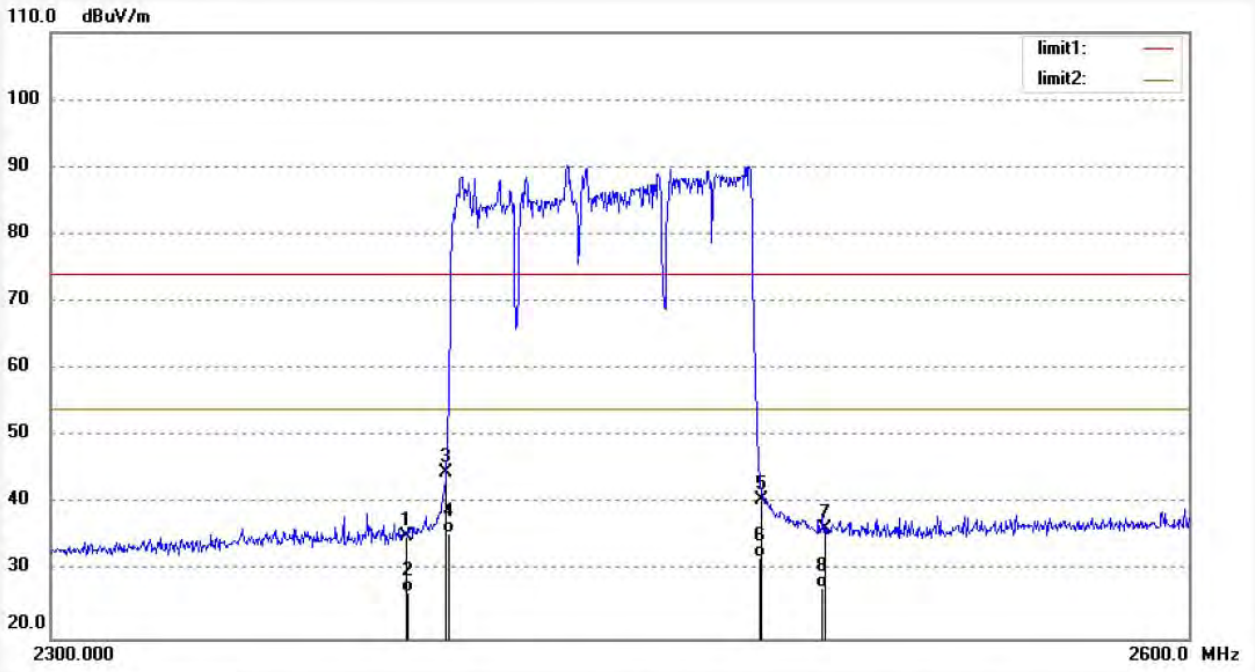
ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #29
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: HOPPING(GFSK)
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Vertical
Power Source: DC 3.7V
Date: 19/05/18/
Time: 9/59/13
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	41.62	-6.32	35.30	74.00	-38.70	peak	150	115	
2	2390.000	33.16	-6.32	26.84	54.00	-27.16	AVG	150	320	
3	2400.000	50.90	-6.27	44.63	74.00	-29.37	peak	150	213	
4	2400.000	41.97	-6.27	35.70	54.00	-18.30	AVG	150	63	
5	2483.500	46.46	-5.89	40.57	74.00	-33.43	peak	150	115	
6	2483.500	37.98	-5.89	32.09	54.00	-21.91	AVG	150	92	
7	2500.000	42.07	-5.81	36.26	74.00	-37.74	peak	150	322	
8	2500.000	33.42	-5.81	27.61	54.00	-26.39	AVG	150	166	

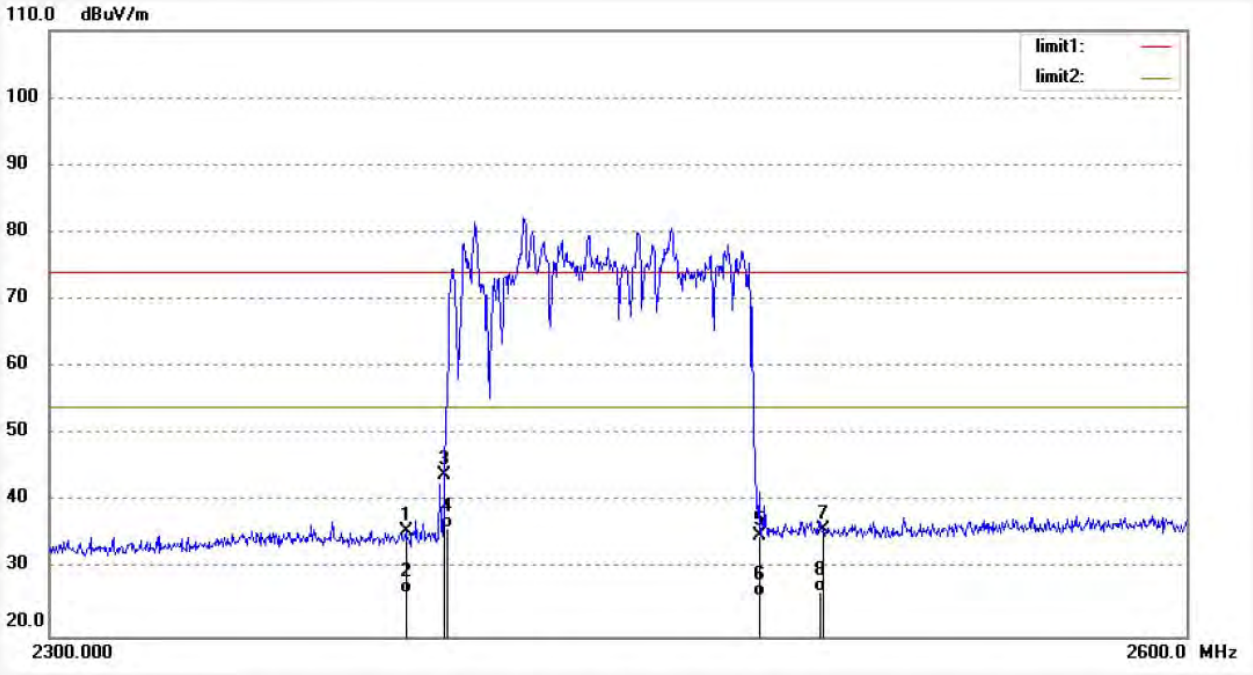
Hopping mode(π /4 DQPSK)

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #31
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: HOPPING(π/4 DQPSK)
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Horizontal
Power Source: DC 3.7V
Date: 19/05/18/
Time: 10/04/28
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



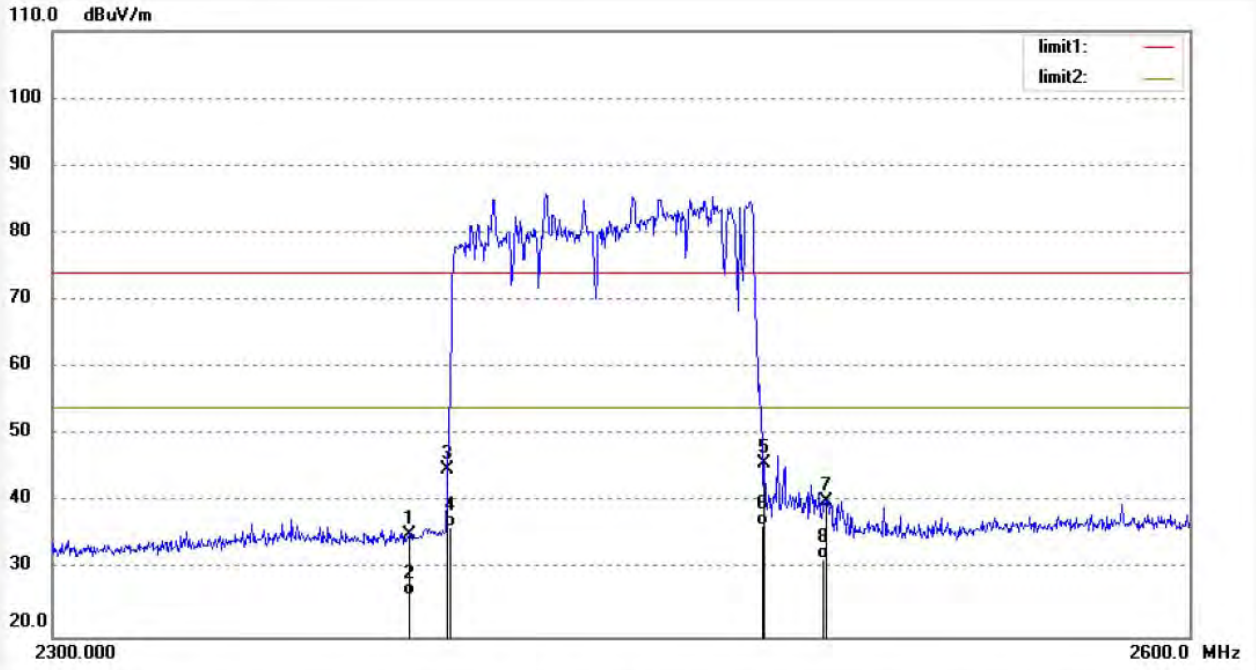
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	41.93	-6.32	35.61	74.00	-38.39	peak	200	195	
2	2390.000	32.78	-6.32	26.46	54.00	-27.54	AVG	200	332	
3	2400.000	50.24	-6.27	43.97	74.00	-30.03	peak	200	102	
4	2400.000	42.45	-6.27	36.18	54.00	-17.82	AVG	200	119	
5	2483.500	40.78	-5.89	34.89	74.00	-39.11	peak	200	96	
6	2483.500	31.78	-5.89	25.89	54.00	-28.11	AVG	200	324	
7	2500.000	41.63	-5.81	35.82	74.00	-38.18	peak	200	56	
8	2500.000	32.45	-5.81	26.64	54.00	-27.36	AVG	200	201	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #32
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: HOPPING(π/4 DQPSK)
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Vertical
Power Source: DC 3.7V
Date: 19/05/18/
Time: 10/06/46
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	41.48	-6.32	35.16	74.00	-38.84	peak	150	10	
2	2390.000	32.48	-6.32	26.16	54.00	-27.84	AVG	150	293	
3	2400.000	51.07	-6.27	44.80	74.00	-29.20	peak	150	331	
4	2400.000	42.64	-6.27	36.37	54.00	-17.63	AVG	150	47	
5	2483.500	51.66	-5.89	45.77	74.00	-28.23	peak	150	82	
6	2483.500	42.45	-5.89	36.56	54.00	-17.44	AVG	150	111	
7	2500.000	46.00	-5.81	40.19	74.00	-33.81	peak	150	321	
8	2500.000	37.45	-5.81	31.64	54.00	-22.36	AVG	150	66	

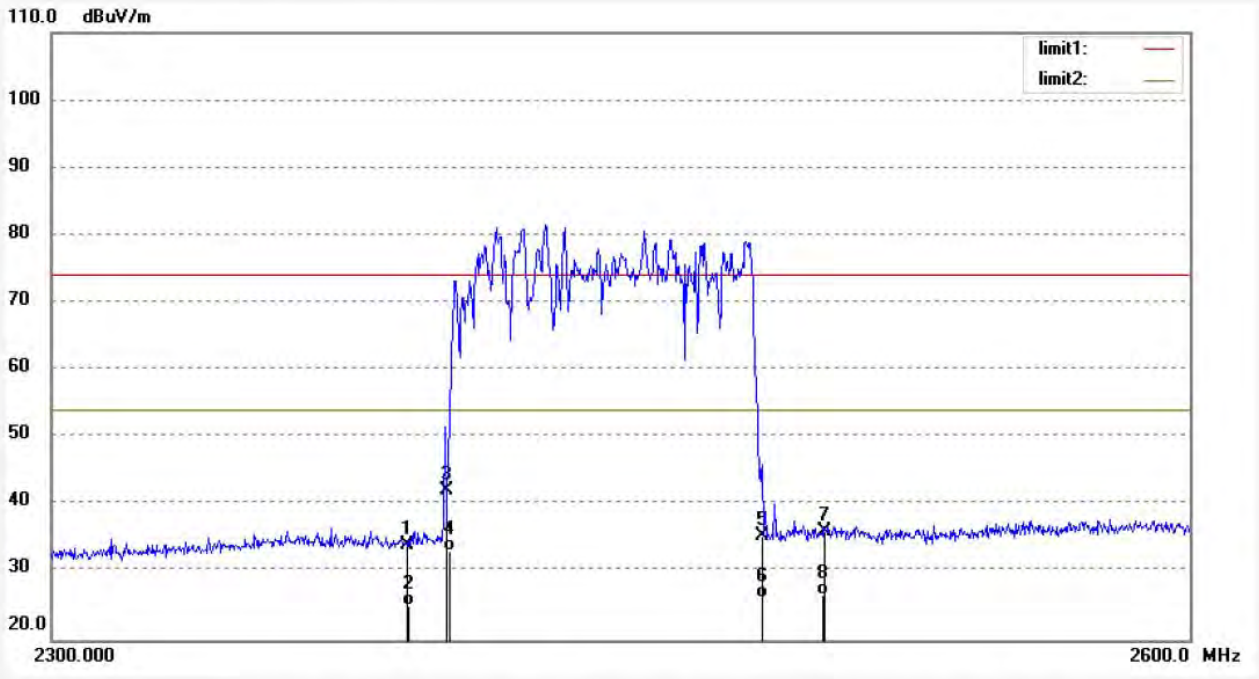
Hopping mode(8DPSK)

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #34
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: True Connect Truly Wireless Earphones
Mode: HOPPING(8DPSK)
Model: MZX635
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.

Polarization: Horizontal
Power Source: DC 3.7V
Date: 19/05/18/
Time: 10/11/28
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190647



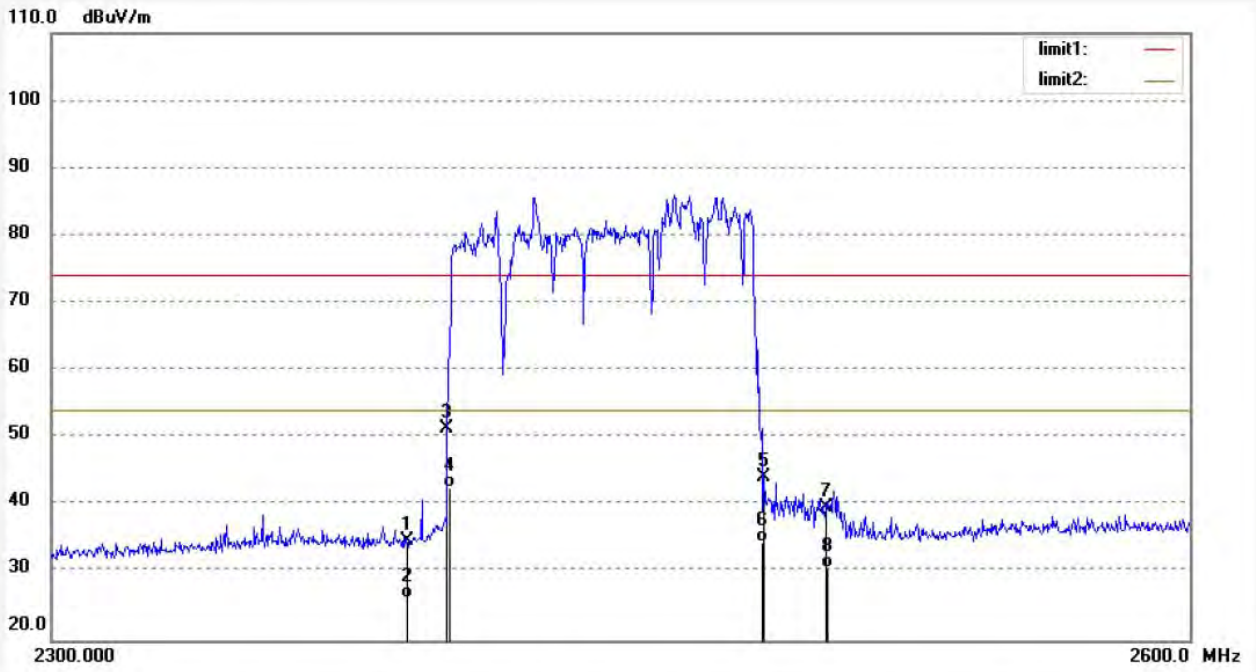
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	40.27	-6.32	33.95	74.00	-40.05	peak	200	210	
2	2390.000	31.48	-6.32	25.16	54.00	-28.84	AVG	200	96	
3	2400.000	48.36	-6.27	42.09	74.00	-31.91	peak	200	311	
4	2400.000	39.49	-6.27	33.22	54.00	-20.78	AVG	200	201	
5	2483.500	41.34	-5.89	35.45	74.00	-38.55	peak	200	99	
6	2483.500	32.10	-5.89	26.21	54.00	-27.79	AVG	250	331	
7	2500.000	41.81	-5.81	36.00	74.00	-38.00	peak	250	211	
8	2500.000	32.45	-5.81	26.64	54.00	-27.36	AVG	250	85	

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

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2019-BT #33	Polarization: Vertical
Standard: FCC PK	Power Source: DC 3.7V
Test item: Radiation Test	Date: 19/05/18/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 10/09/20
EUT: True Connect Truly Wireless Earphones	Engineer Signature:
Mode: HOPPING(8DPSK)	Distance: 3m
Model: MZX635	
Manufacturer: Shenzhen Sowak Electronic Co., Ltd.	

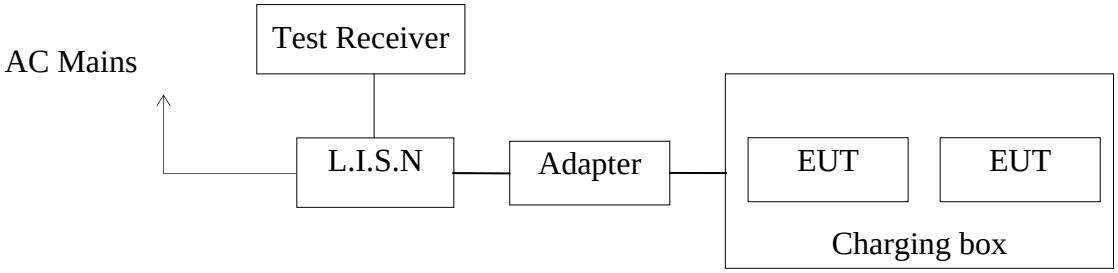
Note: Report NO.:ATE20190647



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	41.03	-6.32	34.71	74.00	-39.29	peak	150	103	
2	2390.000	32.48	-6.32	26.16	54.00	-27.84	AVG	150	219	
3	2400.000	57.63	-6.27	51.36	74.00	-22.64	peak	150	66	
4	2400.000	48.88	-6.27	42.61	54.00	-11.39	AVG	150	116	
5	2483.500	50.10	-5.89	44.21	74.00	-29.79	peak	150	63	
6	2483.500	40.48	-5.89	34.59	54.00	-19.41	AVG	150	215	
7	2500.000	45.40	-5.81	39.59	74.00	-34.41	peak	150	54	
8	2500.000	36.45	-5.81	30.64	54.00	-23.36	AVG	150	117	

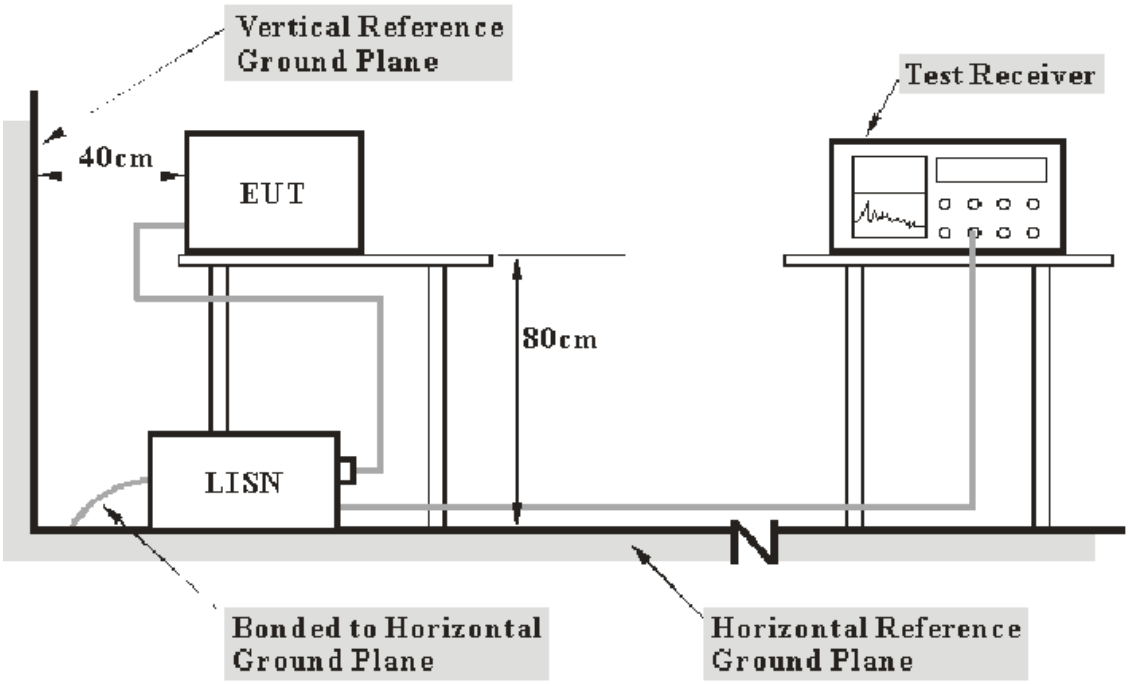
12.AC POWER LINE CONDUCTED EMISSION FOR FCC PART 15 SECTION 15.207(A)

12.1.Block Diagram of Test Setup



(EUT: True Connect Truly Wireless Earphones)

12.2.Test System Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

12.3.Power Line Conducted Emission Measurement Limits

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0
NOTE1: The lower limit shall apply at the transition frequencies. NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.		

12.4.Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

12.5.Operating Condition of EUT

12.5.1.Setup the EUT and simulator as shown as Section 12.1.

12.5.2.Turn on the power of all equipment.

12.5.3.Let the EUT work in test mode and measure it.

12.6.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2013 on Conducted Emission Measurement.
The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

12.7.Data Sample

Frequency (MHz)	Transducer value (dB)	QuasiPeak Level (dBμV)	Average Level (dBμV)	QuasiPeak Limit (dBμV)	Average Limit (dBμV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
X.XX	10.6	25.3	17.0	59.0	49.0	33.4	31.7	Pass

Frequency(MHz) = Emission frequency in MHz
Transducer value(dB) = Insertion loss of LISN + Cable Loss
Level(dBμV) = Quasi-peak Reading/Average Reading + Transducer value
Limit (dBμV) = Limit stated in standard
Margin = Limit (dBμV) - Level (dBμV)

Calculation Formula:
Margin = Limit (dBμV) - Level (dBμV)

12.8.Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.
Maximizing procedure was performed on the six (6) highest emissions of the EUT.
Emissions attenuated more than 20 dB below the permissible value are not reported.
We tested the conducted emission of high and low voltage mode and recorded the worst mode data. All data was recorded in the Quasi-peak and average detection mode.
The wireless function of EUT will be inactive while charging, so we perform the charging mode test in the AC power line conducted test.

Test mode : CHARGING (AC 120V/60Hz)

MEASUREMENT RESULT: "F-0647-2_fin"

2019-5-13 14:54

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	50.60	10.8	66	15.4	QP	N	GND
0.438000	38.70	11.0	57	18.4	QP	N	GND
1.734000	30.90	11.2	56	25.1	QP	N	GND
2.472000	30.60	11.3	56	25.4	QP	N	GND
5.401500	28.00	11.5	60	32.0	QP	N	GND
15.342000	22.30	11.7	60	37.7	QP	N	GND

MEASUREMENT RESULT: "F-0647-2_fin2"

2019-5-13 14:54

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	45.90	10.8	56	10.1	AV	N	GND
0.438000	28.80	11.0	47	18.3	AV	N	GND
1.792500	22.90	11.2	46	23.1	AV	N	GND
3.187500	17.30	11.4	46	28.7	AV	N	GND
5.343000	16.50	11.5	50	33.5	AV	N	GND
15.301500	13.40	11.7	50	36.6	AV	N	GND

MEASUREMENT RESULT: "F-0647-1_fin"

2019-5-13 14:51

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.325500	34.70	10.9	60	24.9	QP	L1	GND
0.433500	32.90	11.0	57	24.3	QP	L1	GND
1.851000	22.30	11.2	56	33.7	QP	L1	GND
2.341500	25.00	11.3	56	31.0	QP	L1	GND
5.496000	23.20	11.5	60	36.8	QP	L1	GND
16.633500	11.00	11.7	60	49.0	QP	L1	GND

MEASUREMENT RESULT: "F-0647-1_fin2"

2019-5-13 14:51

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	36.40	10.8	56	19.6	AV	L1	GND
0.433500	26.80	11.0	47	20.4	AV	L1	GND
1.851000	16.70	11.2	46	29.3	AV	L1	GND
3.156000	11.90	11.4	46	34.1	AV	L1	GND
5.383500	16.60	11.5	50	33.4	AV	L1	GND
14.406000	3.10	11.6	50	46.9	AV	L1	GND

The spectral diagrams are attached as below.

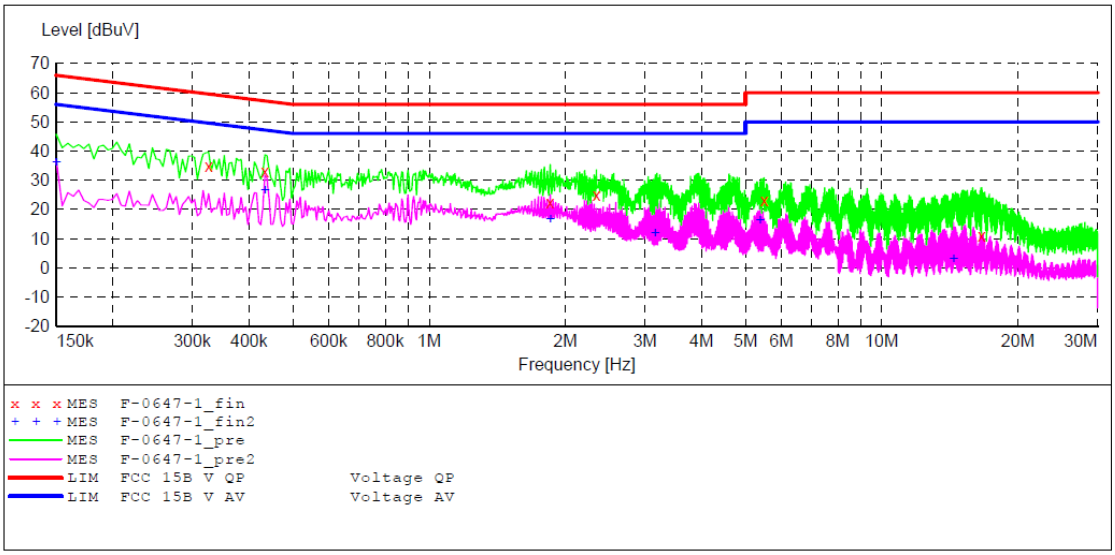
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

```
EUT:                    True Connect Truly Wireless Earphones  M/N:MZX635
Manufacturer:           Shenzhen Sowak Electronic Co.,Ltd.
Operating Condition:    CHARGING
Test Site:              1#Shielding Room
Operator:               Frank
Test Specification:     L   120V 60Hz
Comment:                Report NO.:ATE20190647
Start of Test:          2019-5-13 / 14:49:05
```

SCAN TABLE: "V 150K-30MHz fin"

```
  Short Description:              SUB STD VTERM2 1.70
  Start      Stop       Step      Detector  Meas.     IF       Transducer
  Frequency  Frequency  Width               Time      Bandw.
  150.0 kHz  30.0 MHz   4.5 kHz   QuasiPeak 1.0 s     9 kHz    NSLK8126 2008
                                  Average
```



MEASUREMENT RESULT: "F-0647-1_fin"

2019-5-13 14:51

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.325500	34.70	10.9	60	24.9	QP	L1	GND
0.433500	32.90	11.0	57	24.3	QP	L1	GND
1.851000	22.30	11.2	56	33.7	QP	L1	GND
2.341500	25.00	11.3	56	31.0	QP	L1	GND
5.496000	23.20	11.5	60	36.8	QP	L1	GND
16.633500	11.00	11.7	60	49.0	QP	L1	GND

MEASUREMENT RESULT: "F-0647-1_fin2"

2019-5-13 14:51

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	36.40	10.8	56	19.6	AV	L1	GND
0.433500	26.80	11.0	47	20.4	AV	L1	GND
1.851000	16.70	11.2	46	29.3	AV	L1	GND
3.156000	11.90	11.4	46	34.1	AV	L1	GND
5.383500	16.60	11.5	50	33.4	AV	L1	GND
14.406000	3.10	11.6	50	46.9	AV	L1	GND

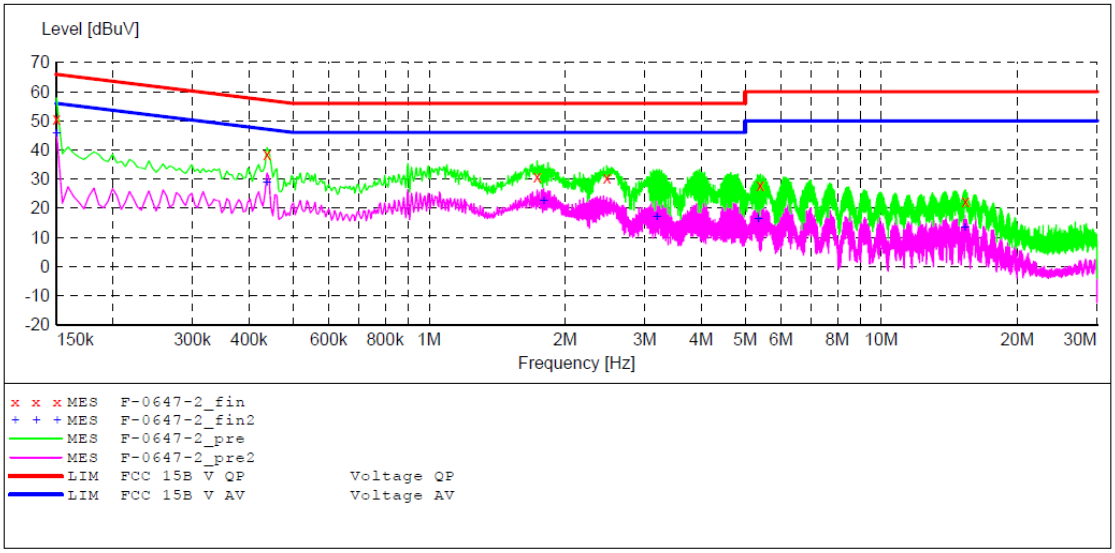
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

```
EUT:                  True Connect Truly Wireless Earphones  M/N:MZX635
Manufacturer:         Shenzhen Sowak Electronic Co.,Ltd.
Operating Condition:  CHARGING
Test Site:            1#Shielding Room
Operator:             Frank
Test Specification:   N   120V 60Hz
Comment:              Report NO.:ATE20190647
Start of Test:        2019-5-13 / 14:52:01
```

SCAN TABLE: "V 150K-30MHz fin"

```
  Short Description:              SUB STD VTERM2 1.70
  Start      Stop       Step      Detector  Meas.     IF       Transducer
  Frequency  Frequency  Width               Time      Bandw.
  150.0 kHz  30.0 MHz   4.5 kHz   QuasiPeak 1.0 s     9 kHz    NSLK8126 2008
                                  Average
```



MEASUREMENT RESULT: "F-0647-2_fin"

2019-5-13 14:54

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	50.60	10.8	66	15.4	QP	N	GND
0.438000	38.70	11.0	57	18.4	QP	N	GND
1.734000	30.90	11.2	56	25.1	QP	N	GND
2.472000	30.60	11.3	56	25.4	QP	N	GND
5.401500	28.00	11.5	60	32.0	QP	N	GND
15.342000	22.30	11.7	60	37.7	QP	N	GND

MEASUREMENT RESULT: "F-0647-2_fin2"

2019-5-13 14:54

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	45.90	10.8	56	10.1	AV	N	GND
0.438000	28.80	11.0	47	18.3	AV	N	GND
1.792500	22.90	11.2	46	23.1	AV	N	GND
3.187500	17.30	11.4	46	28.7	AV	N	GND
5.343000	16.50	11.5	50	33.5	AV	N	GND
15.301500	13.40	11.7	50	36.6	AV	N	GND

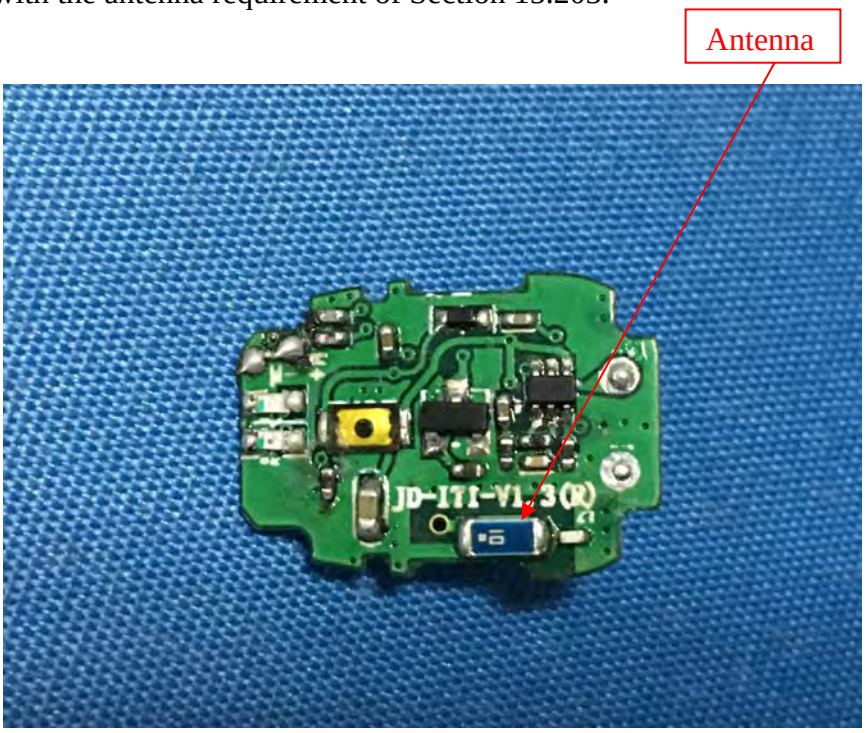
13. ANTENNA REQUIREMENT

13.1. The Requirement

According to Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

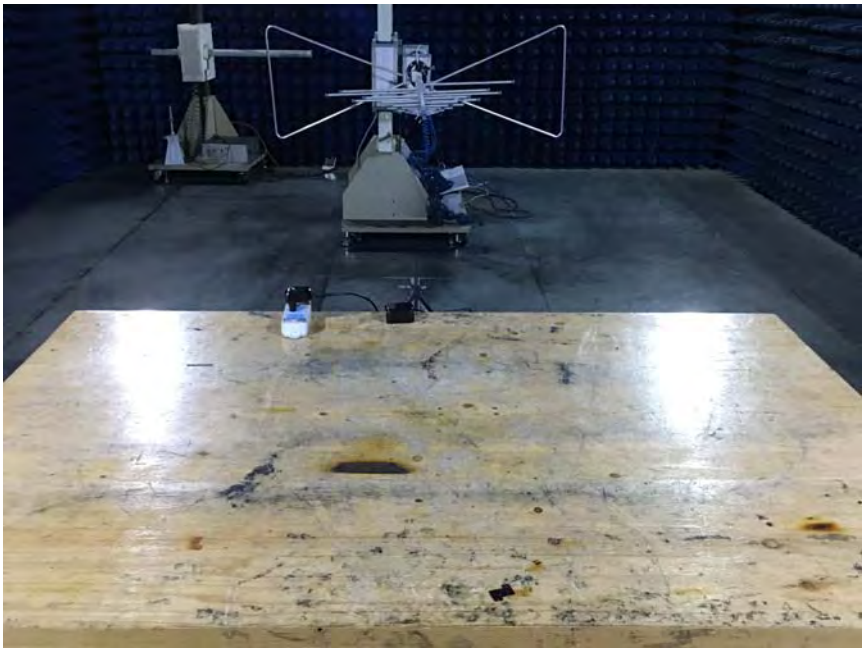
13.2. Antenna Construction

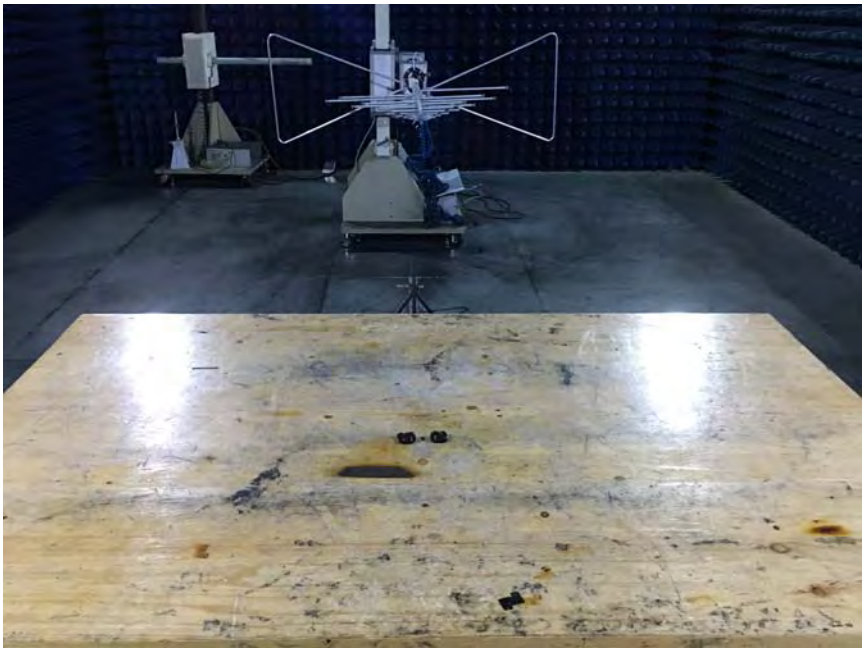
Device is equipped with permanent attached antenna, which isn't displaced by other antenna. The Max Antenna gain of EUT is 1.2dBi. Therefore, the equipment complies with the antenna requirement of Section 15.203.

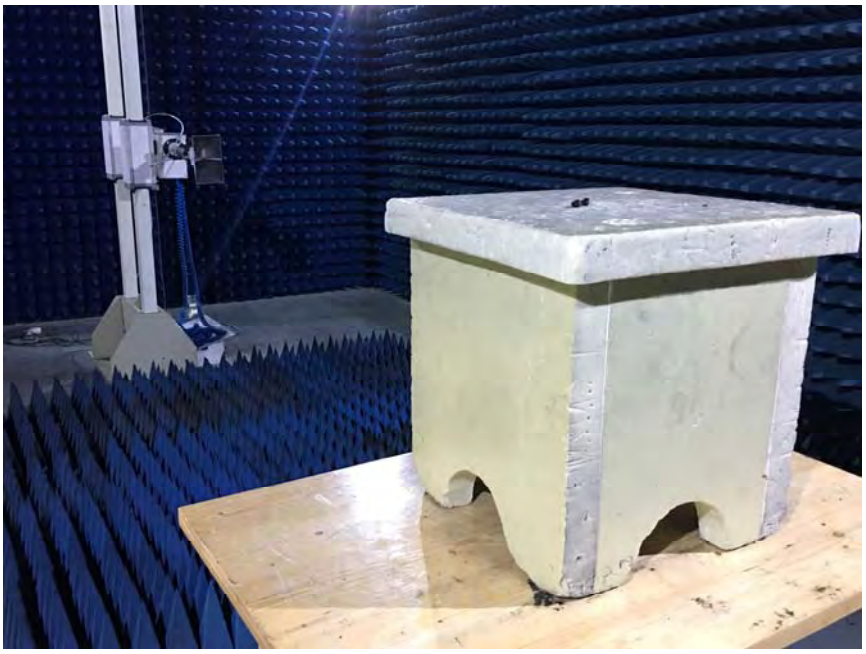


14.PHOTOGRAPHS

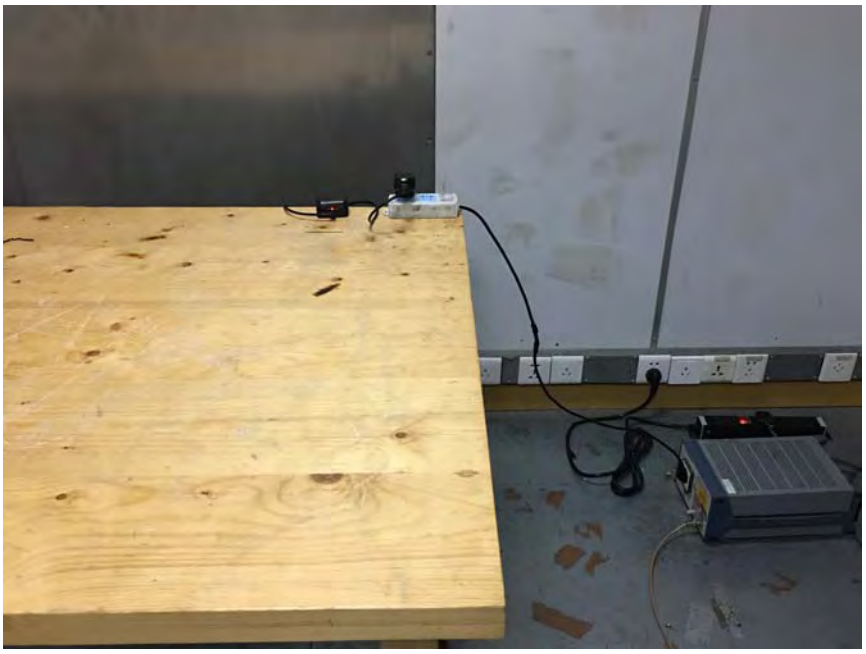
14.1.Photos of Radiated Emission Measurement







14.2.Photo of Conducted Emission Measurement



14.3.Photos of EUT

Made in China
《撸尺》

Made in China
《撸尺》

Made in China
《撸尺》

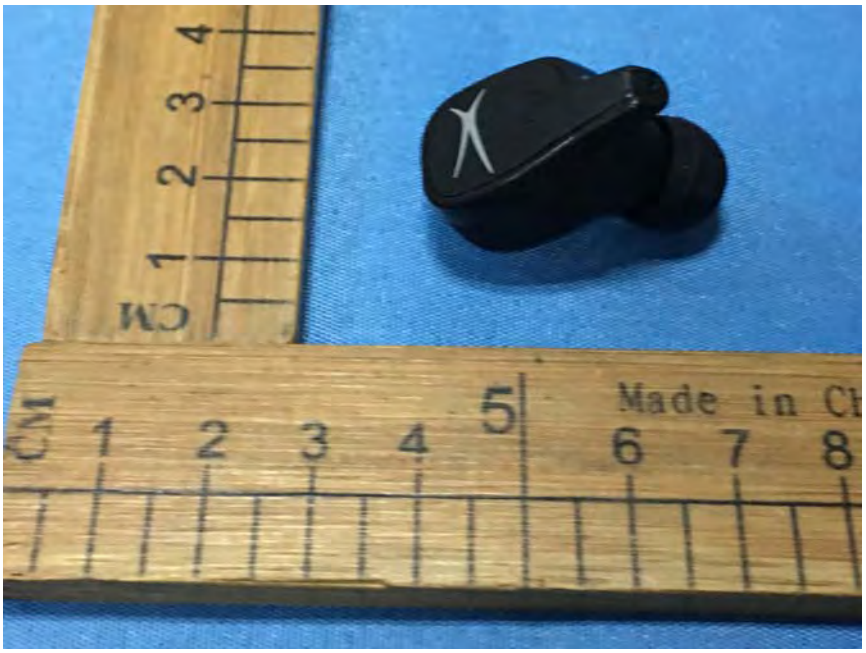
Made in China
《撸尺》

Made in China
《撸尺》

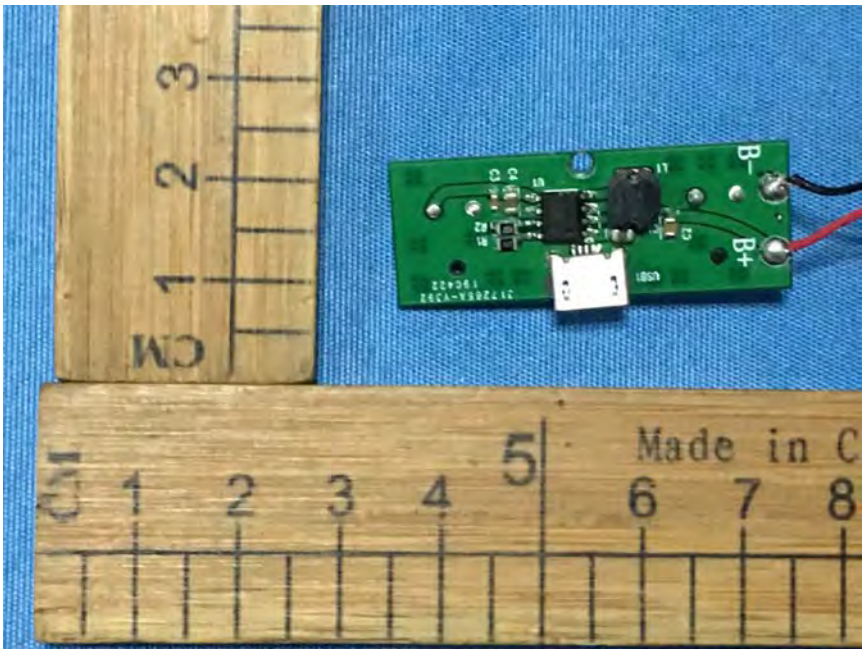
Made in China

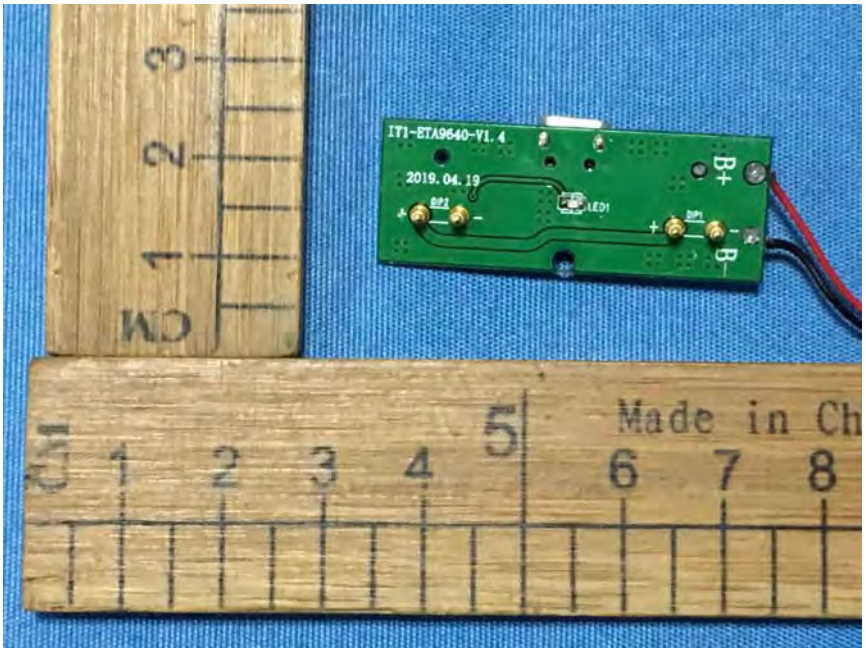
Made in China

Made in China


Made in

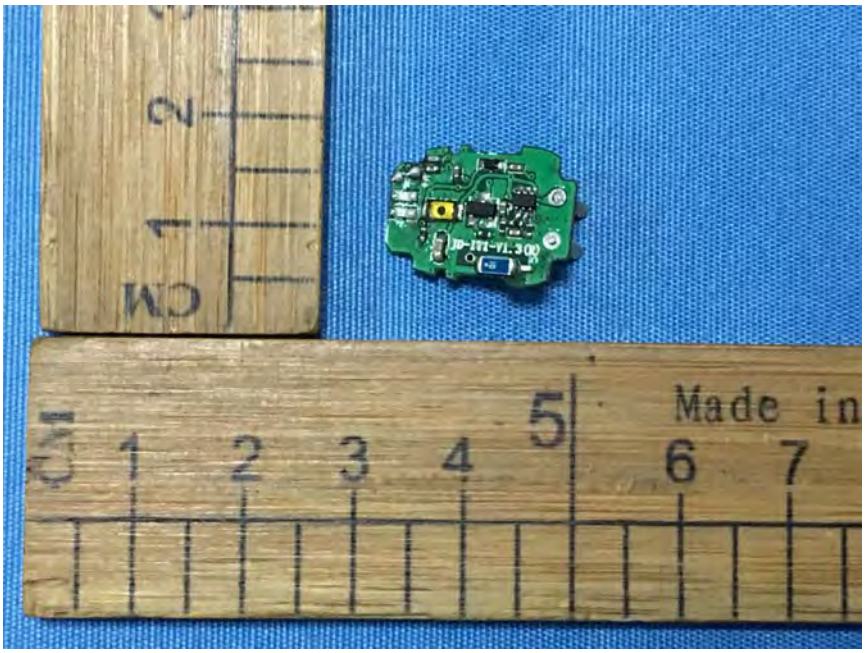
Made in China

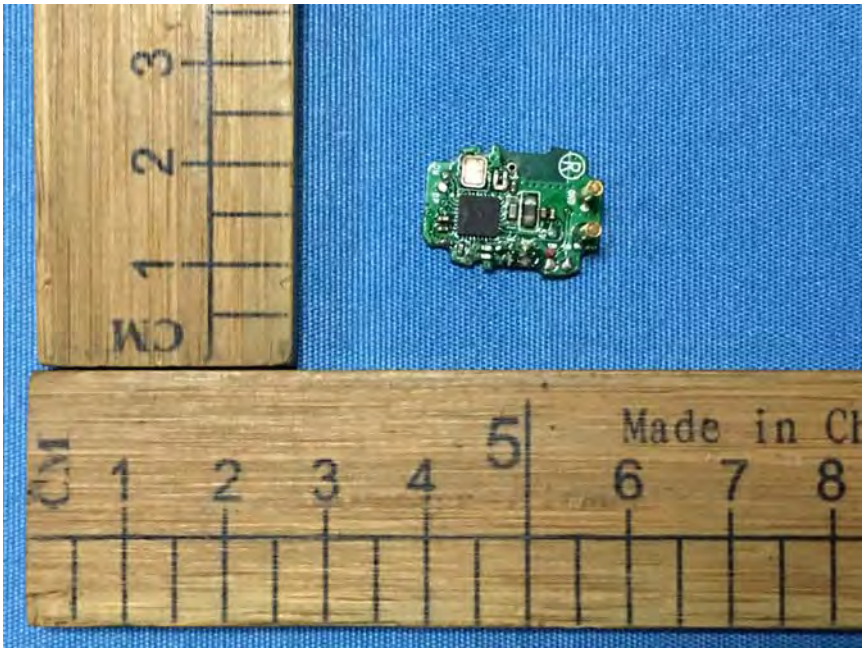

B-
B+
Made in C

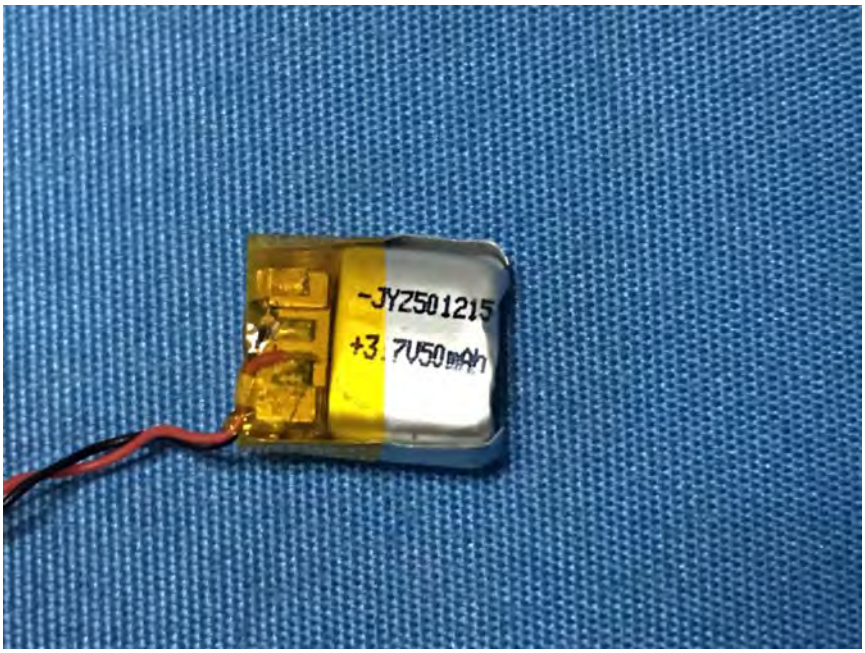

IT1-ETA9640-V1.4
2019.04.19
B+
B-
Made in Ch

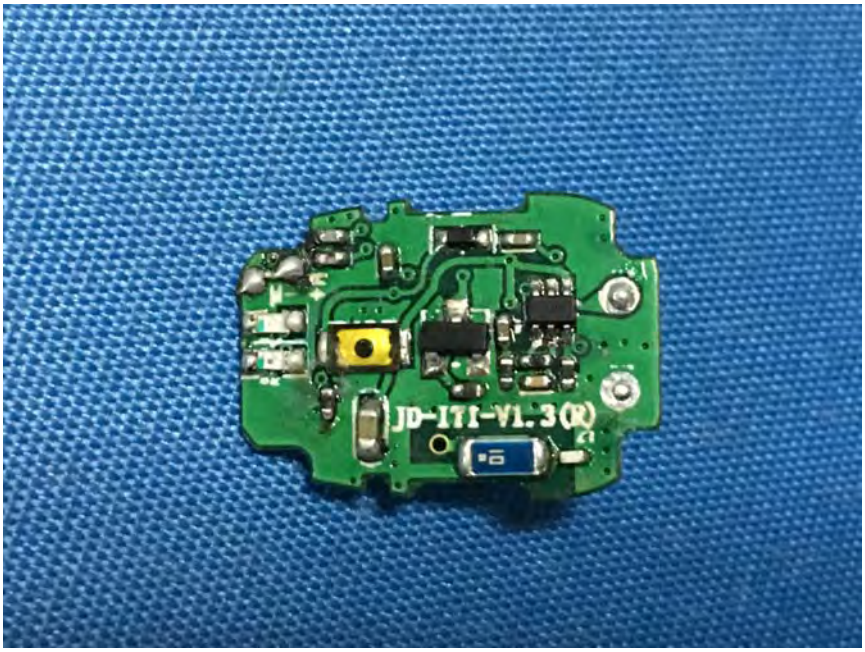
- JYZ 802050
+ 3.7V 800mAh

Made in China
《撸尺》


Made in


CM
1
2
3
4
5
6
7
8
Made in


-JYZ501215
+3.7V50mAh



******* End of Test Report *******