

## RADIO TEST REPORT

For

3R SYSTEMS CORP. JAPAN

Bluetooth Earphone

Test Model: 3R-BEF04

Additional Model No.: Please Refer to Page 6

Prepared for : 3R SYSTEMS CORP. JAPAN  
Address : 2-8-30, Takamitsu Daiichi Building 2F, Toko, Hakata Ward,  
Fukuoka City, Fukuoka Pref., JAPAN812-0008

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Date of receipt of test sample : November 28, 2019  
Number of tested samples : 1  
Serial number : Prototype  
Date of Test : November 28, 2019 ~ December 06, 2019  
Date of Report : December 11, 2019

**RADIO TEST REPORT****MIC Notice No.88 Appendix No. 43**

Second-Generation Low-Power Data Communication System/Wireless LAN System

**Report Reference No. .... : LCS191127024AEA**

Date of Issue ..... : December 11, 2019

**Testing Laboratory Name..... : Shenzhen LCS Compliance Testing Laboratory Ltd.**Address ..... : 101, 201 Building A and 301 Building C, Juji Industrial Park,  
Yabianxueziwei, Shajing Street, Baoan District, Shenzhen,  
Guangdong, ChinaTesting Location/ Procedure..... : Full application of Harmonised standards ☒  
Partial application of Harmonised standards ☐  
Other standard testing method ☐**Applicant's Name ..... : 3R SYSTEMS CORP. JAPAN**Address ..... : 2-8-30, Takamitsu Daiichi Building 2F, Toko, Hakata Ward,  
Fukuoka City, Fukuoka Pref., JAPAN812-0008**Test Specification**

Standard ..... : MIC Notice No.88 Appendix No.43

**Test Report Form No. .... : LCSEMC-1.0**

TRF Originator ..... : Shenzhen LCS Compliance Testing Laboratory Ltd.

Master TRF..... : Dated 2011-03

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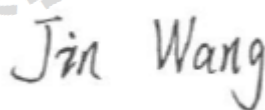
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**Test Item Description. .... : Bluetooth Earphone**

Trade Mark ..... : INOVA

Test Model..... : 3R-BEF04

Ratings ..... : Input: DC 5V  
Output: DC 5V  
Battery: DC 3.7V 19WhResult ..... : **Positive****Compiled by:****Supervised by:****Approved by:**




Ray Yang/ File administrators

Jin Wang/ Technique principal

Gavin Liang/ Manager

**RADIO -- TEST REPORT****Test Report No. : LCS191127024AEA**

December 11, 2019

Date of issue

Test Model..... : 3R-BEF04

EUT..... : Bluetooth Earphone

**Applicant..... : 3R SYSTEMS CORP. JAPAN**Address..... : 2-8-30, Takamitsu Daiichi Building 2F, Toko, Hakata Ward,  
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Telephone..... : /

Fax..... : /

**Manufacturer..... : HONCAM TECHNOLOGY CO., LTD**Address..... : 6/F, Building 1, Zone B, Huafeng First Science and Technology Park,  
Shunchang Road, Hangcheng Avenue, Xixiang, Baoan District,  
Shenzhen

Telephone..... : /

Fax..... : /

**Factory..... : /**

Address..... : /

Telephone..... : /

Fax..... : /

**Test Result****Positive**

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

**Revision History**

Revision	Issue Date	Revisions	Revised By
000	December 11, 2019	Initial Issue	Gavin Liang

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## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

EUT : 3R-BEF04  
Test Model : Bluetooth Earphone  
Additional Model No. : 3R-BEF04BK, 3R-BEF04WT, 3R-BEF04RD, 3R-BEF04BLK  
Model Declaration : PCB board, structure and internal of these model(s) are the same, So no additional models were tested  
Hardware Version : V1.0  
Software Version : V0.1  
Power Supply : Input: DC 5V  
Output: DC 5V  
Battery: DC 3.7V 19Wh

#### Bluetooth

Frequency Range : 2402-2480MHz for Bluetooth  
(79 channels for Bluetooth V5.0(BDR/EDR)  
Channel Frequency=2402+(K-1), K=1, 2, 3 .....79;  
Declared Antenna Power : Bluetooth V5.0(BDR/EDR): 0.05mW/MHz  
Modulation Technology : Bluetooth V5.0(BDR/EDR): GFSK,  $\pi/4$ -DQPSK, 8-DPSK  
Data Rate : Bluetooth V5.0(BDR/EDR): 1/2/3Mbps  
Antenna Description : Internal Antenna, 3.5dBi

## 1.2. Host System Configuration List and Details

Manufacturer	Description	Model	Serial Number	Certificate
--	--	--	--	--

## 1.3. External I/O Cable

I/O Port Description	Quantity	Cable
Type-c USB port	1	N/A

## 1.4. Description of Test Facility

FCC Registration Number is 254912.  
 Industry Canada Registration Number is 9642A-1.  
 EMSD Registration Number is ARCB0108.  
 UL Registration Number is 100571-492.  
 TUV SUD Registration Number is SCN1081.  
 TUV RH Registration Number is UA 50296516-001.  
 NVLAP Accreditation Code is 600167-0.  
 FCC Designation Number is CN5024  
 CAB identifier: CN0071

## 1.5. Test Conditions

<b>Temperature Range</b>	:	21-25℃
<b>Humidity Range</b>	:	45-85%
<b>Pressure Range</b>	:	86-106kPa

## 1.6. Frequency of Channels

**Bluetooth V5.0 (BDR/EDR)**

Channel	Frequency(MHz)	Channel	Frequency(MHz)
1	2402	41	2442
2	2403	42	2443
--	--	--	--
38	2439	78	2479
39	2440	79	2480
40	2441		

## 2. TEST METHODOLOGY

### 2.1. EUT Exercise

The EUT was tested while in a continuous transmitter/receiver mode.

The EUT was tuned to a low, middle, and high channel for the purpose of the measurements.

For all test case pre/scans were completed in all Modes to determine worst case levels.

According to its specifications, the EUT must comply with the requirements of MIC Notice No.88 Appendix No. 43.

### 2.2. Measurement Uncertainty

Test Item		MU	Remark
Bandwidth	:	+/- 0.2 E-6	/
Antenna Power	:	+/-0.33dB	/
Frequency Tolerance	:	+/- 0.3 E-6	/
Conducted spurious emission	:	+/-0.13dB	/
DC Power	:	+/-1%	/

- (1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

### 2.3. Table for Parameters of Test Software Setting

During testing, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Power Parameters:

Test Software Version	RF_Tool_V5.2.1.21		
Frequency	2402MHz	2441MHz	2480MHz
Bluetooth V5.0	Default	Default	Default

### 2.4. Description of Test Modes

Tested channel, Frequency and Modulation Information		
CH1	2402MHz	GFSK(1Mbps), $\pi$ /4-DQPSK(2Mbps), 8-DPSK(3Mbps)
CH40	2441MHz	GFSK(1Mbps), $\pi$ /4-DQPSK(2Mbps), 8-DPSK(3Mbps)
CH79	2480MHz	GFSK(1Mbps), $\pi$ /4-DQPSK(2Mbps), 8-DPSK(3Mbps)
Hopping Mode		GFSK(1Mbps), $\pi$ /4-DQPSK(2Mbps), 8-DPSK(3Mbps)
Note: According exploratory test, EUT has maximum output power for GFSK modulation, All the test modes were tested, but only the worst case was recorded in this report.		

### 2.5. Test Voltage

#### POWER SUPPLY VOLTAGE FLUCTUATION TEST

Environment	Input Voltage(DC)
-10%	DC 3.33V
Normal	DC 3.7V
+10%	DC 4.11V

### 3. SYSTEM TEST CONFIGURATION

#### 3.1. Justification

The system was configured for testing in a typical fashion.

#### 3.2. EUT Exercise Software

N/A.

#### 3.3. Special Accessories

N/A.

#### 3.4. Block Diagram/Schematics

Please refer to the report.

#### 3.5. Equipment Modifications

Shenzhen LCS Compliance Testing Laboratory Ltd. has not done any modification on the EUT.

#### 4. SUMMARY OF TEST RESULTS

MIC Notice No.88 Appendix No.43 Article 2 Paragraph 1 Item 19		
Clause	Description of Test (Transmitter Parameters)	Result
6	Antenna Power	PASS
6	Tolerances for Antenna Power	PASS
3	Frequency Tolerance	PASS
4	Transmission Rate	PASS
4	Occupied Frequency Bandwidth	PASS
4	Spread Bandwidth	PASS
13	Dwell Time	PASS
5	Spurious Emissions	PASS
10	Transmission Antenna Gain (EIRP Antenna Power)	PASS
11	Transmission Radiated Angle Width (3dB Beam width)	N/A
12	Interference prevention function	PASS
8	Carrier Sensing function	N/A
Receiver Parameters		
7	Secondary Radiated Emissions	PASS
(1) N/A is an abbreviation for Not Applicable.		

## 5. TEST RESULT

### 5.1. Antenna Power

#### 5.1.1. Standard Applicable

Type	Limit
Antenna Power	3mW/MHz
Tolerance	+20%,-80%

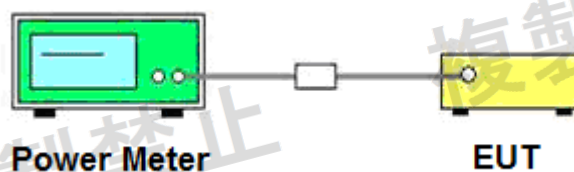
#### 5.1.2. Measuring Instruments

Please refer to section 6 of equipments list in this report.

#### 5.1.2. Test Procedures

- EUT have transmitted continuous maximum power
- Antenna Power Error is definition that actual measure antenna power tolerance between +20% to -80% power range that base on manufacturer declare the conducted power density.

#### 5.1.3. Test Setup



#### 5.1.4. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

## 5.1.5. Test Result

Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Voltage	Normal Voltage

Mode	Declared power	Result	Tolerance	Limit
	(mW/MHz)	(mW/MHz)	/	/
Hopping-Tx (1Mbps)	0.050	0.025	-50.70%	+20%,-80%
Hopping-Tx (2Mbps)	0.050	0.042	-15.79%	+20%,-80%
Hopping-Tx (3Mbps)	0.050	0.048	-4.90%	+20%,-80%
<b>Conclusion: PASS</b>				

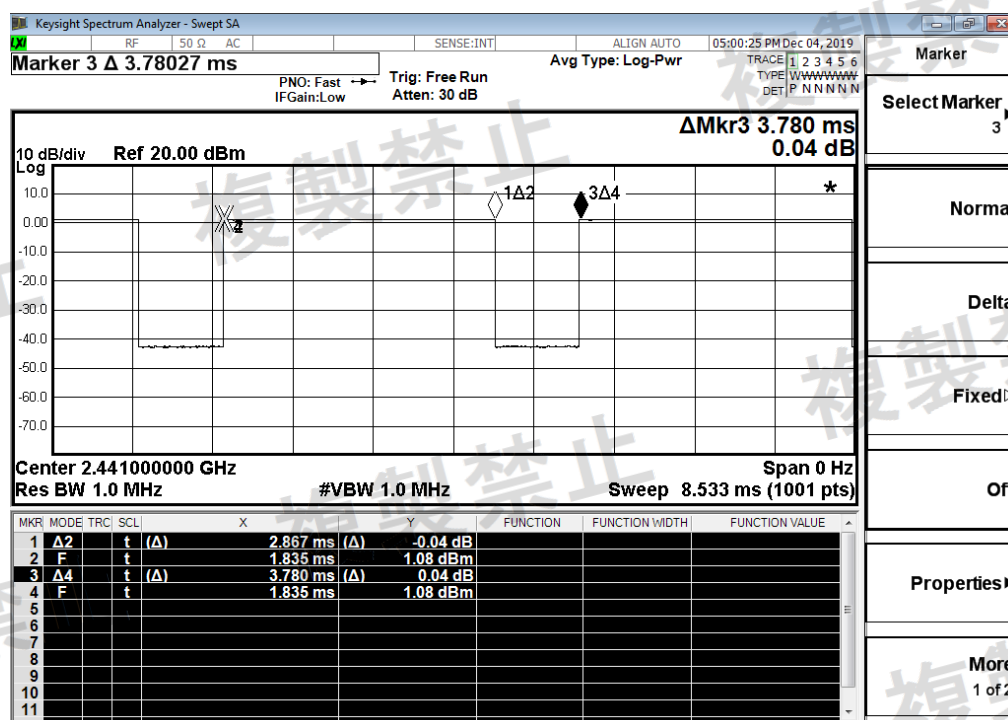
Test Result of EIRP			
Mode	Polarity	Measured EIRP Value(dBm)	Limit (dBm)
Hopping-Tx (1Mbps)	V	3.74	6.91
	H	-0.57	6.91
Hopping-Tx (2Mbps)	V	5.13	6.91
	H	-0.13	6.91
Hopping-Tx (3Mbps)	V	5.72	6.91
	H	0.43	6.91

Result power= Average value / (Duty Cycle \* Spreading bandwidth)

Spread Bandwidth (DH5) =71.145MHz, Spread Bandwidth (2DH5) =71.255MHz,  
Spread Bandwidth (3DH5) =71.287MHz

Duty cycle=75.8%

Duty cycle= [Ton/ (Ton+Toff)]\*100%=2.867/3.780\*100%=75.8%



Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Voltage	Low Voltage

Mode	Declared power	Result	Tolerance	Limit
	(mW/MHz)	(mW/MHz)	/	/
Hopping-Tx (1Mbps)	0.050	0.025	-50.99%	+20%,-80%
Hopping-Tx (2Mbps)	0.050	0.042	-16.71%	+20%,-80%
Hopping-Tx (3Mbps)	0.050	0.046	-7.06%	+20%,-80%
<b>Conclusion: PASS</b>				

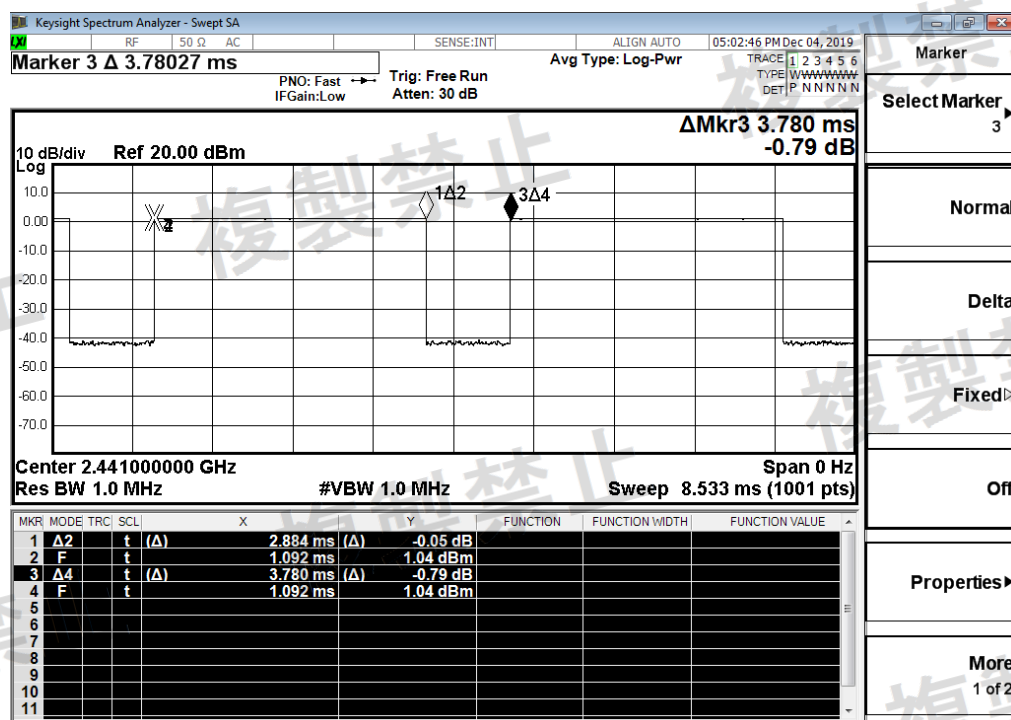
Test Result of EIRP			
Mode	Polarity	Measured EIRP Value(dBm)	Limit (dBm)
Hopping-Tx (1Mbps)	V	3.35	6.91
	H	-0.62	6.91
Hopping-Tx (2Mbps)	V	5.09	6.91
	H	-0.09	6.91
Hopping-Tx (3Mbps)	V	5.78	6.91
	H	0.39	6.91

Result power= Average value / (Duty Cycle \* Spreading bandwidth)

Spread Bandwidth (DH5) =71.144MHz, Spread Bandwidth (2DH5) =71.078MHz,  
Spread Bandwidth (3DH5) =71.092MHz

Duty cycle=76.3%

Duty cycle= [Ton/ (Ton+Toff)]\*100%=2.884/3.780\*100%=76.3%



Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Voltage	High Voltage

Mode	Declared power	Result	Tolerance	Limit
	(mW/MHz)	(mW/MHz)	/	/
Hopping-Tx (1Mbps)	0.050	0.024	-51.08%	+20%,-80%
Hopping-Tx (2Mbps)	0.050	0.041	-17.03%	+20%,-80%
Hopping-Tx (3Mbps)	0.050	0.046	-7.22%	+20%,-80%
<b>Conclusion: PASS</b>				

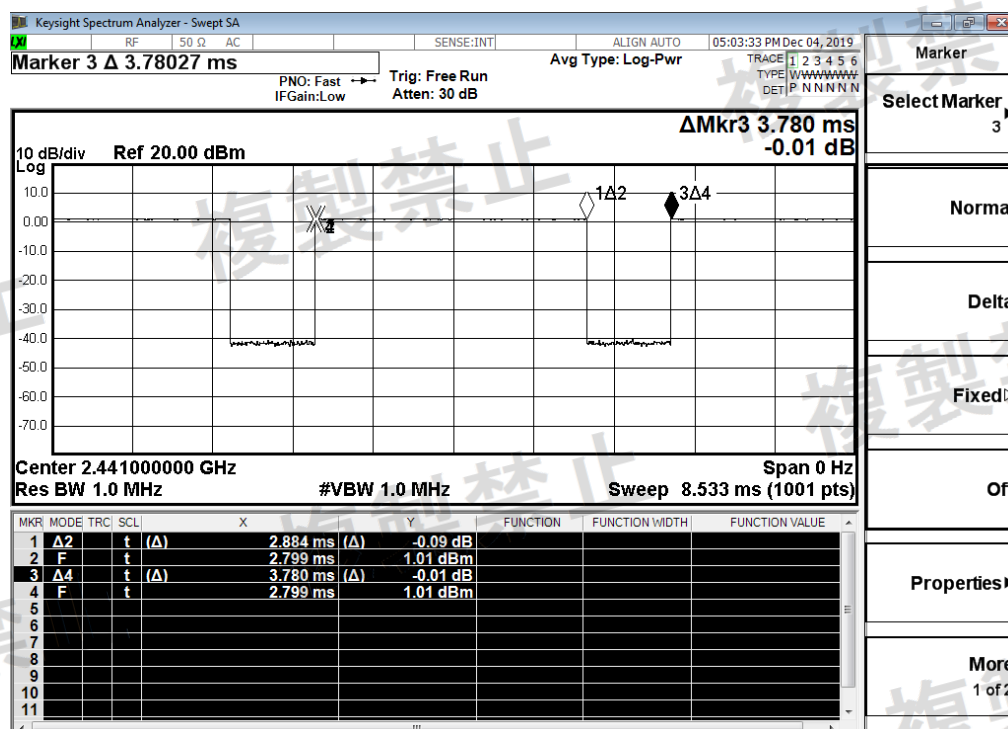
Test Result of EIRP			
Mode	Polarity	Measured EIRP Value(dBm)	Limit (dBm)
Hopping-Tx (1Mbps)	V	3.19	6.91
	H	-0.48	6.91
Hopping-Tx (2Mbps)	V	5.05	6.91
	H	-0.11	6.91
Hopping-Tx (3Mbps)	V	5.66	6.91
	H	0.57	6.91

Result power= Average value / (Duty Cycle \* Spreading bandwidth)

Spread Bandwidth (DH5) =71.178MHz, Spread Bandwidth (2DH5) =71.270MHz,  
Spread Bandwidth (3DH5) =71.055MHz

Duty cycle=76.3%

Duty cycle= [Ton/ (Ton+Toff)]\*100%=2.884/3.780\*100%=76.3%



## 5.2. Frequency Tolerance

### 5.2.1. Standard Applicable

Tolerance of frequency shall be  $\pm 50 \times 10^{-6}$ .

### 5.2.2. Test Procedures

a. Set EUT work in test mode as described in clause 2.4.

b. Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the channel under test.

Resolution BW: 10 KHz.

Video BW: 10 KHz.

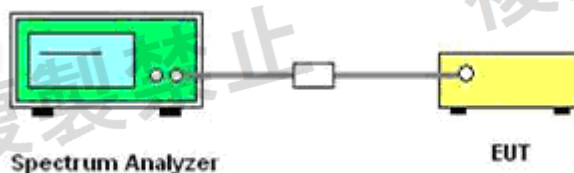
Span: 1MHz.

Detector: Peak.

Trace Mode: Max Hold.

c. When the trace is complete, find the peak value of the power envelope and record.

### 5.2.3. Test Setup Layout



### 5.2.4. EUT Operation during Test

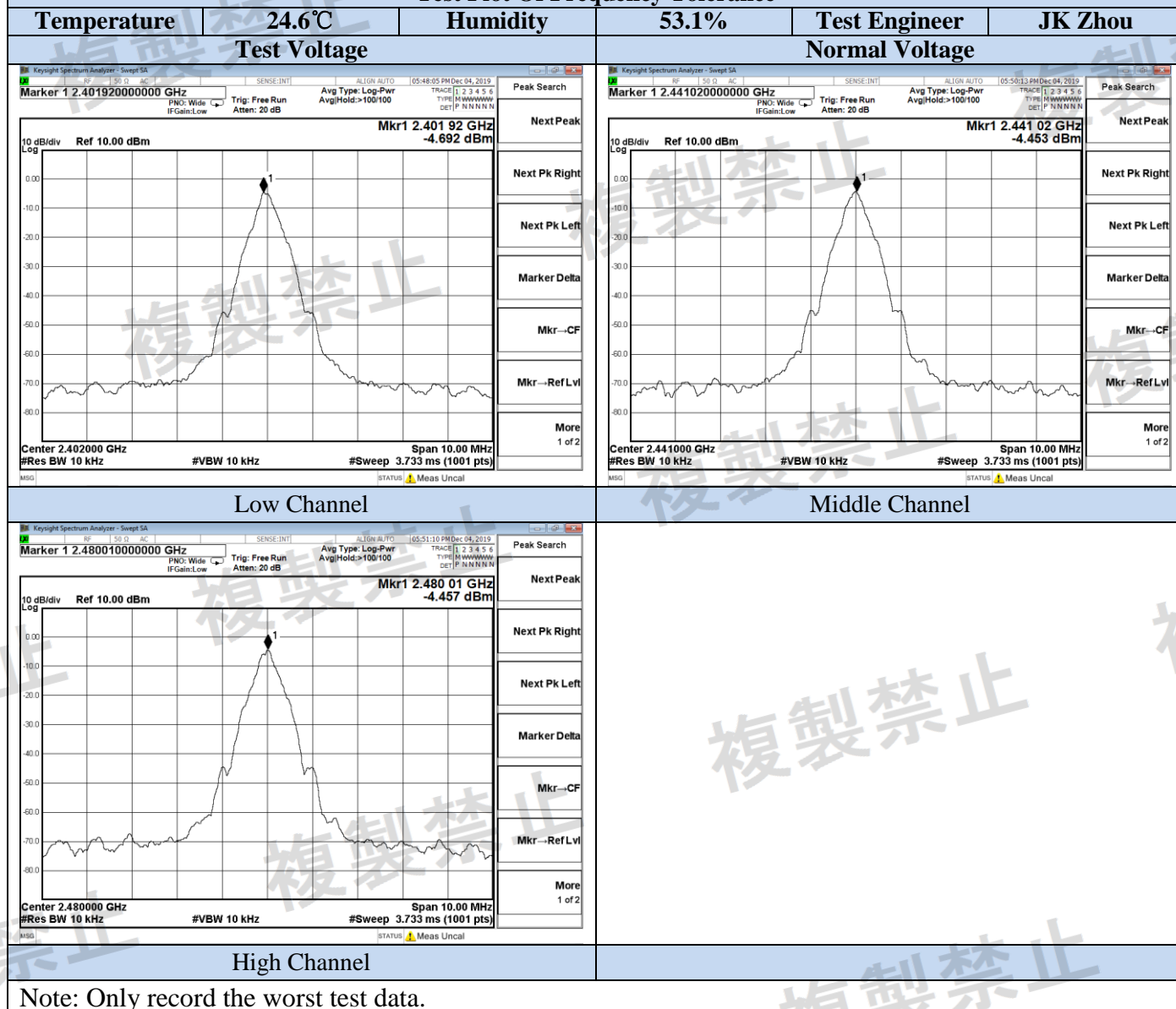
The EUT was programmed to be in continuously transmitting mode.

### 5.2.5. Test Result

Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Voltage	Normal Voltage

Mode	Channel	Frequency MHz	Measured MHz	Tolerance KHz	Result ppm	Limit ppm
Carrier Tx Mode	1	2402	2401.92	-80	-33.31	$\pm 50$
	40	2441	2441.02	20	8.19	$\pm 50$
	79	2480	2480.01	10	4.03	$\pm 50$

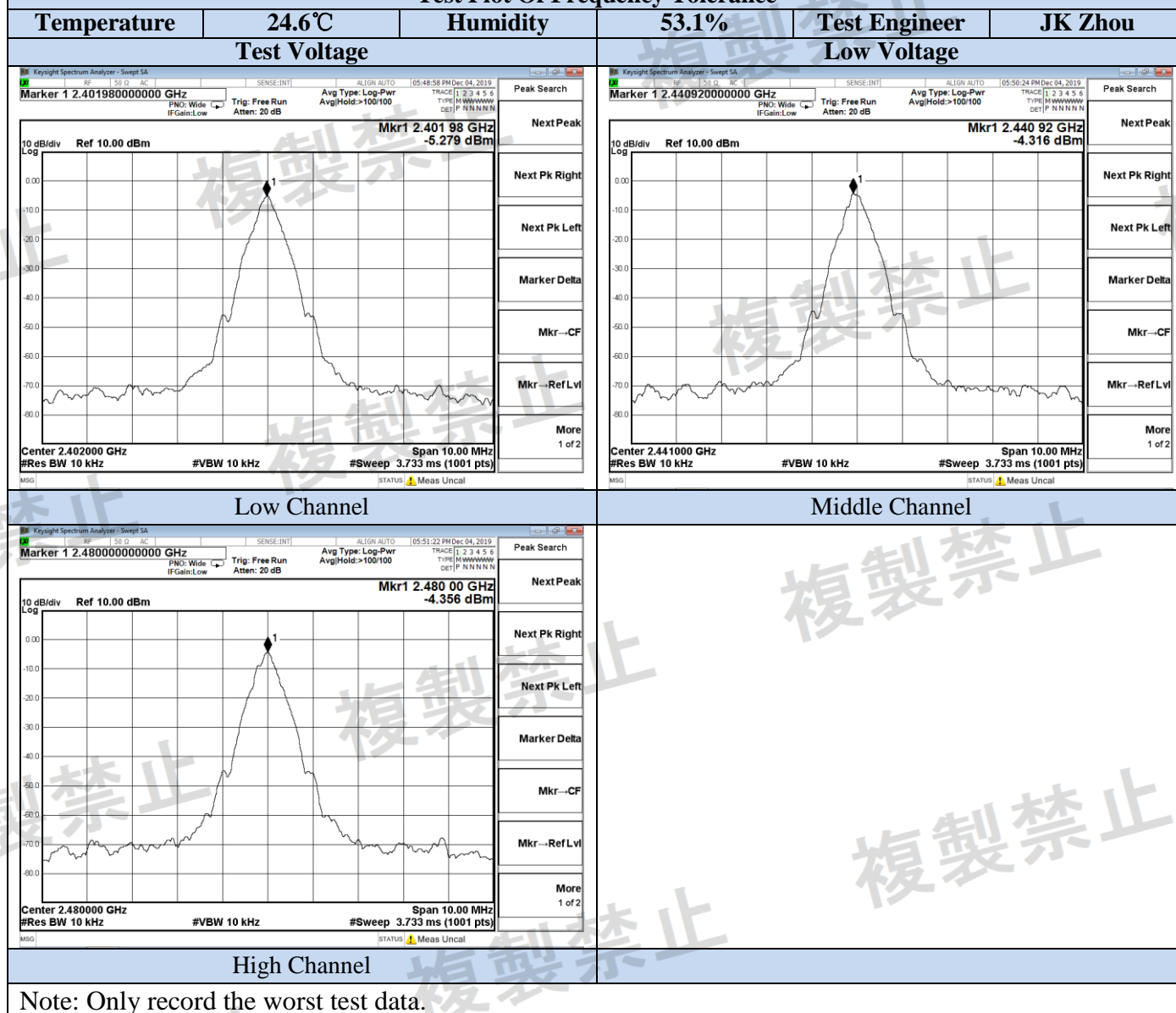
## Test Plot Of Frequency Tolerance



Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Voltage	Low Voltage

Mode	Channel	Frequency MHz	Measured MHz	Tolerance KHz	Result ppm	Limit ppm
Carrier Tx Mode	1	2402	2401.98	-20	-8.33	± 50
	40	2441	2440.92	-80	-32.77	± 50
	79	2480	2480.00	0	0	± 50

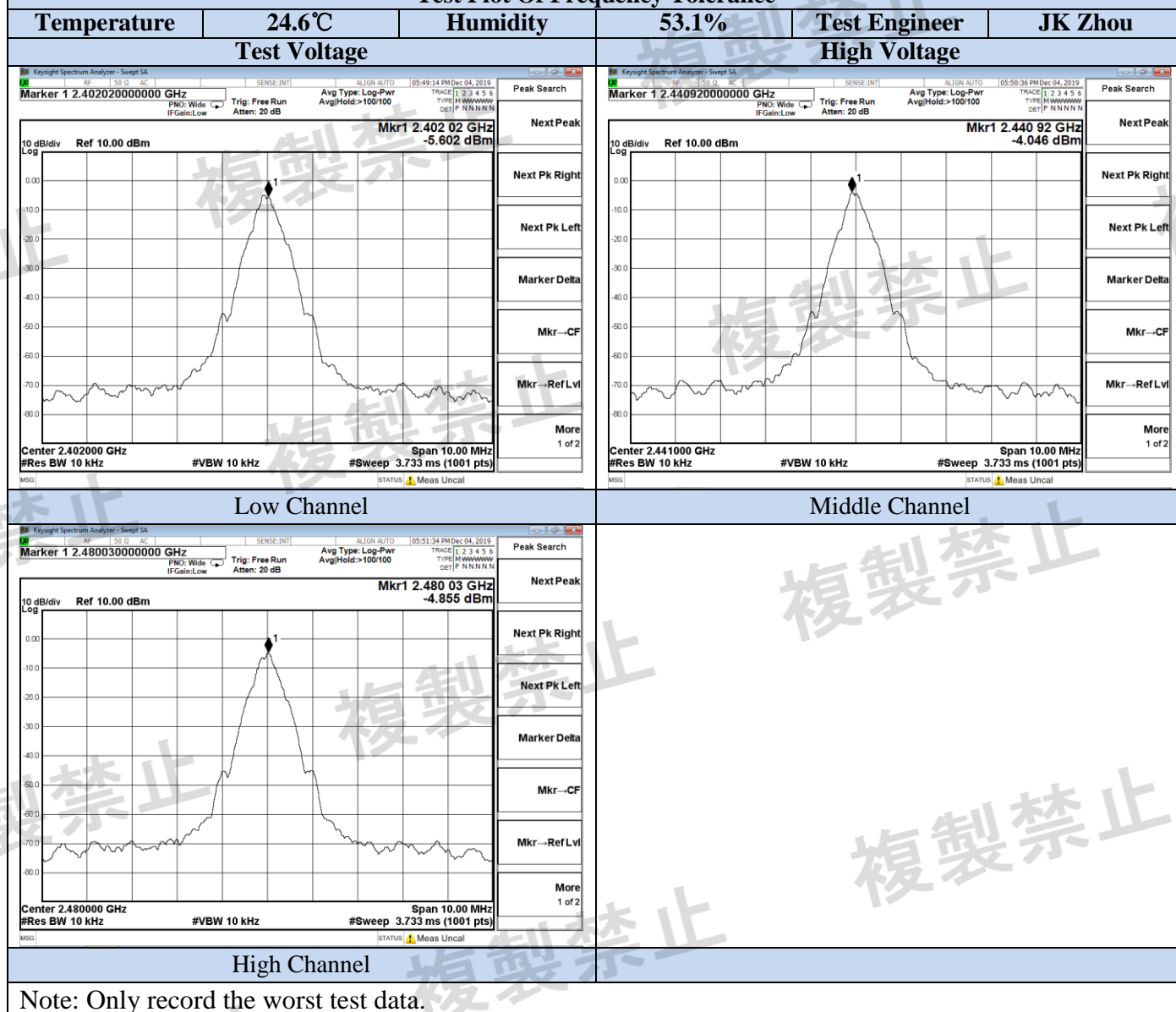
## Test Plot Of Frequency Tolerance



Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Voltage	High Voltage

Mode	Channel	Frequency MHz	Measured MHz	Tolerance KHz	Result ppm	Limit ppm
Carrier Tx Mode	1	2402	2402.02	20	8.33	±50
	40	2441	2440.92	-80	-32.77	±50
	79	2480	2480.03	30	12.10	±50

## Test Plot Of Frequency Tolerance



### 5.3. Occupied Frequency Bandwidth

#### 5.3.1. Standard Applicable

Permissible value for occupied bandwidth using the FH system, a hybrid system combining DS and FH systems, or a hybrid system combining FH and OFDM systems shall be 83.5 MHz or less, while necessary bandwidth (minimum occupied bandwidth sufficient to ensure information transmission of required quality at a required transmission rate for the system used under specified conditions for a given emission type) using a system other than any of the above shall be 26 MHz or less.

#### 5.3.2. Test Procedures

- Set EUT work in test mode as described in clause 2.4.
- Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the channel under test.

Resolution BW: 1MHz.

Video BW: 1MHz.

Span: Wide enough to cover the complete power envelope of the signal of the EUT.

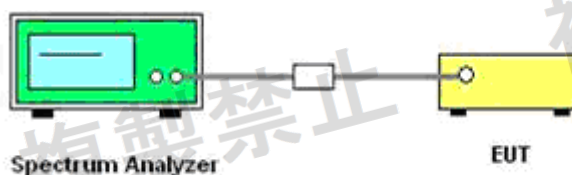
Sweep mode: Continuous sweeping.

Detector: Peak.

Trace Mode: Max Hold.

- When the trace is complete, measure the occupied bandwidth (99% bandwidth) with spectrum analyzer's bandwidth measure function.

#### 5.3.3. Test Setup Layout



#### 5.3.4. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

## 5.3.5. Test Result of Occupied Bandwidth

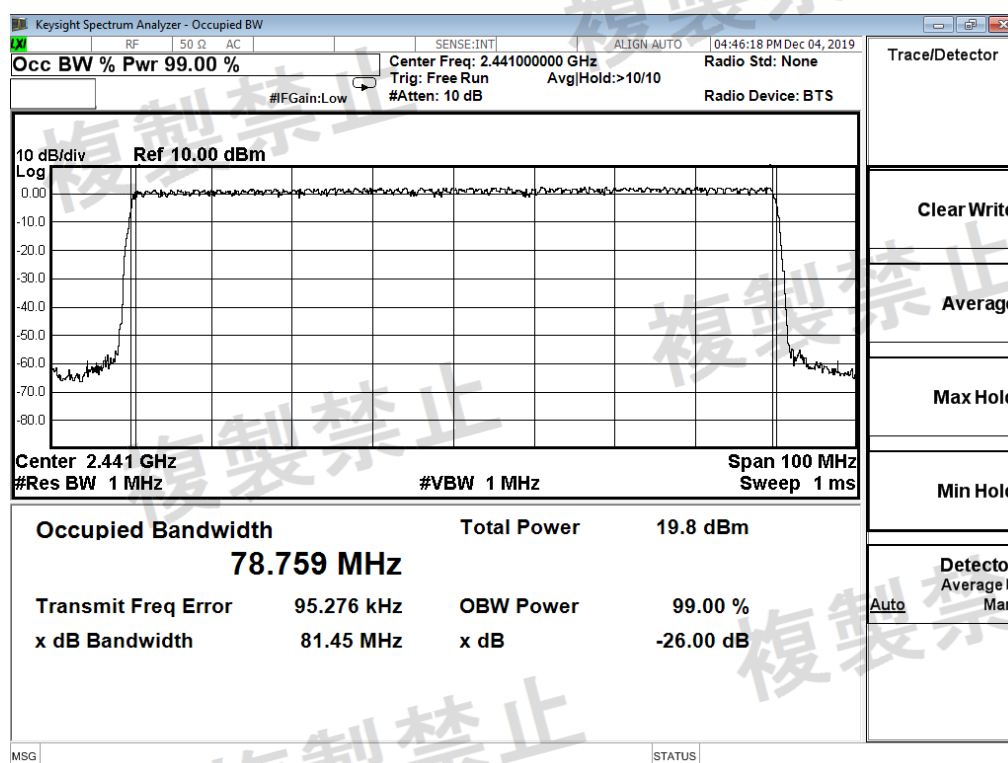
Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Voltage	Normal Voltage

Mode	CH	Frequency MHz	Result (MHz)	Limit (MHz)
Hopping (1Mbps)	All	2402-2480	78.619	$\leq 83.5$
Hopping (2Mbps)	All	2402-2480	78.759	$\leq 83.5$
Hopping (3Mbps)	All	2402-2480	78.747	$\leq 83.5$

**Conclusion: PASS**

Test Plots of Worst case mode

Max Occupied Frequency Bandwidth for 2Mbps, Detail please refers to below plot:



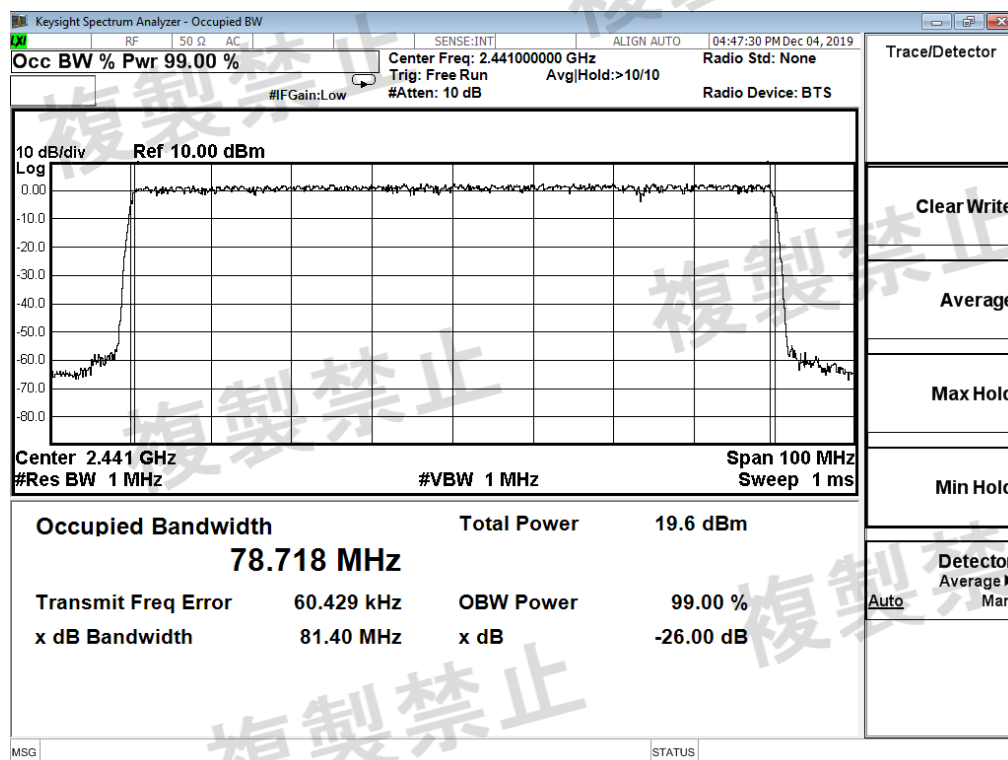
Note: Only record the worst result.

Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Voltage	Low Voltage

Mode	CH	Frequency MHz	Result (MHz)	Limit (MHz)
Hopping (1Mbps)	All	2402-2480	78.586	$\leq 83.5$
Hopping (2Mbps)	All	2402-2480	78.586	$\leq 83.5$
Hopping (3Mbps)	All	2402-2480	78.718	$\leq 83.5$
<b>Conclusion: PASS</b>				

### Test Plots of Worst case mode

Max Occupied Frequency Bandwidth for 3Mbps, Detail please refers to below plot:



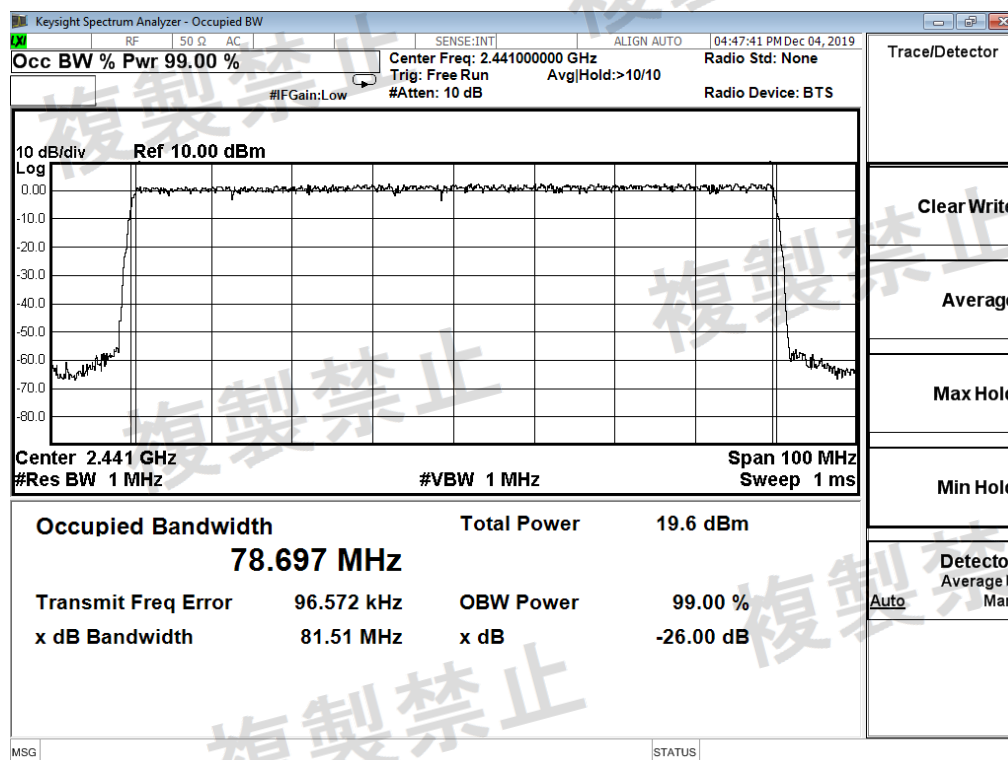
Note: Only record the worst result.

Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Voltage	High Voltage

Mode	CH	Frequency MHz	Result (MHz)	Limit (MHz)
Hopping (1Mbps)	All	2402-2480	78.564	$\leq 83.5$
Hopping (2Mbps)	All	2402-2480	78.630	$\leq 83.5$
Hopping (3Mbps)	All	2402-2480	78.697	$\leq 83.5$
<b>Conclusion: PASS</b>				

### Test Plots of Worst case mode

Max Occupied Frequency Bandwidth for 3Mbps, Detail please refers to below plot:



Note: Only record the worst result.

## 5.4. Spread Bandwidth

### 5.4.1. Standard Applicable

In spread spectrum systems, spread bandwidth (which refers to a frequency bandwidth with an upper limit and lower limit such that each of the mean powers radiated above the upper frequency limit and below the lower frequency limit is equal to 5 % of the total mean power radiated; this also applies hereafter) shall be 500 kHz or more.

The OFDM system shall have one or more carriers per 1 MHz bandwidth.

### 5.4.2. Test Procedures

a. Set EUT work in test mode as described in clause 2.4.

b. Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the channel under test.

Resolution BW: 1MHz.

Video BW: 1MHz.

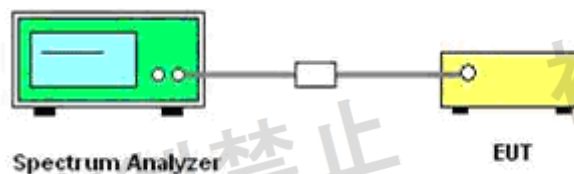
Span: Wide enough to cover the complete power envelope of the signal of the EUT.

Detector: Peak.

Trace Mode: Max Hold.

c. When the trace is complete, measure the spread bandwidth (90% bandwidth) with spectrum analyzer's bandwidth measure function.

### 5.4.3. Test Setup Layout



### 5.4.4. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

## 5.4.5. Test Result of Spectrum Bandwidth

Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Voltage	Normal Voltage

Mode	CH	Frequency MHz	Result	Limit
			(MHz)	(MHz)
Hopping (1Mbps)	All	2402-2480	71.145	>0.5
Hopping (2Mbps)	All	2402-2480	71.255	>0.5
Hopping (3Mbps)	All	2402-2480	71.287	>0.5
<b>Conclusion: PASS</b>				

Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Voltage	Low Voltage

Mode	CH	Frequency MHz	Result	Limit
			(MHz)	(MHz)
Hopping (1Mbps)	All	2402-2480	71.144	>0.5
Hopping (2Mbps)	All	2402-2480	71.078	>0.5
Hopping (3Mbps)	All	2402-2480	71.092	>0.5
<b>Conclusion: PASS</b>				

Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Voltage	High Voltage

Mode	CH	Frequency MHz	Result	Limit
			(MHz)	(MHz)
Hopping (1Mbps)	All	2402-2480	71.178	>0.5
Hopping (2Mbps)	All	2402-2480	71.270	>0.5
Hopping (3Mbps)	All	2402-2480	71.055	>0.5
<b>Conclusion: PASS</b>				

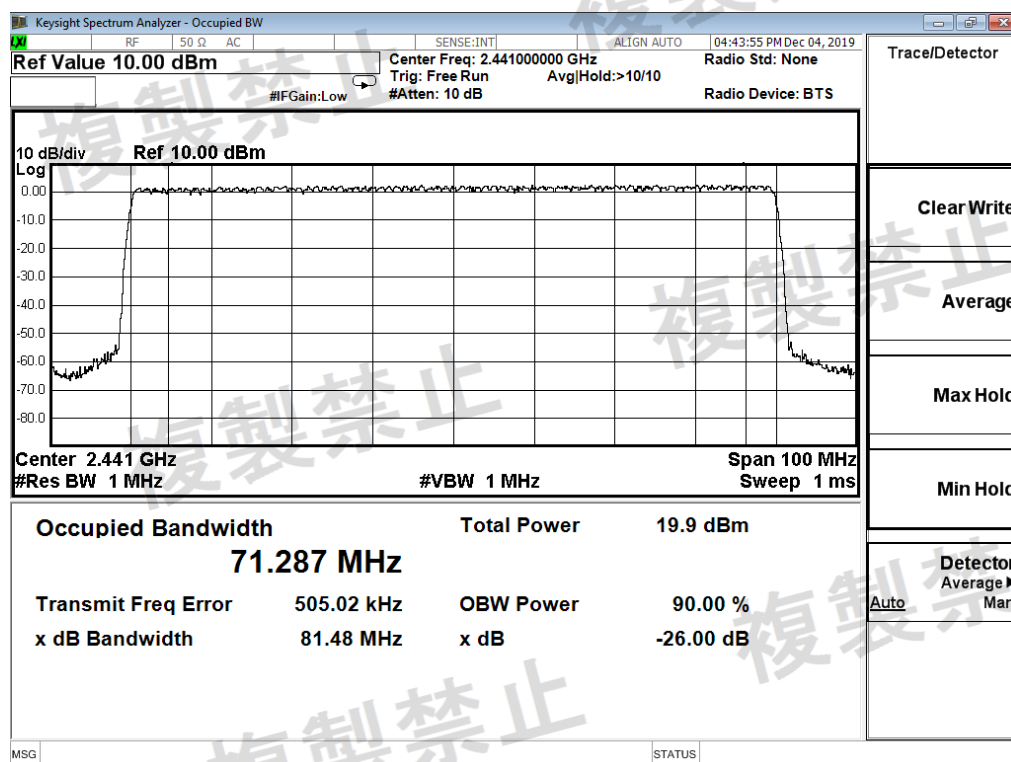
## 5.4.6. Test Result of Spread Spectrum Factor

Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Test Voltage	Normal Voltage

Mode	CH	Result	Modulation Rate	Spread Factor	Limit
		(MHz)	(MHz)		
Hopping (1Mbps)	All	71.145	1.00	71.145	$\geq 5$
Hopping (2Mbps)	All	71.255	2.00	35.628	$\geq 5$
Hopping (3Mbps)	All	71.287	3.00	23.762	$\geq 5$

Test Plots of Worst case mode

Max Spread bandwidth for 3Mbps, Detail please refers to below plot.



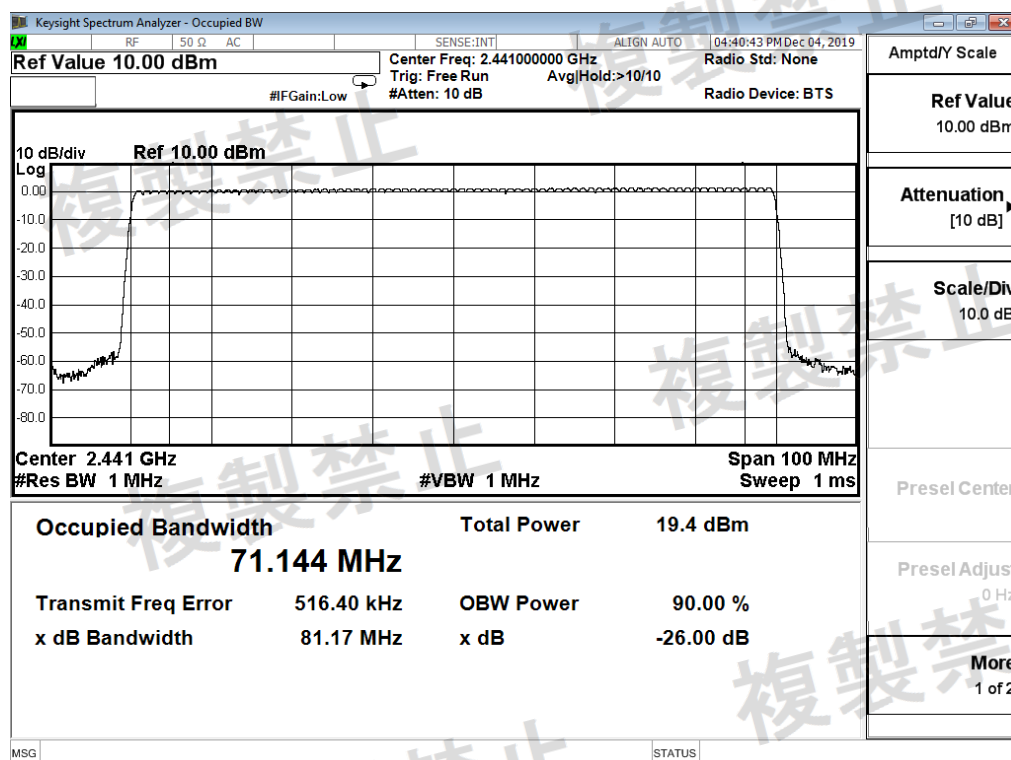
Note: Only record the worst result.

Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Test Voltage	Low Voltage

Mode	CH	Result	Modulation Rate	Spread Factor	Limit
		(MHz)	(MHz)		
Hopping (1Mbps)	All	71.144	1.00	71.144	$\geq 5$
Hopping (2Mbps)	All	71.078	2.00	35.539	$\geq 5$
Hopping (3Mbps)	All	71.092	3.00	23.697	$\geq 5$

### Test Plots of Worst case mode

Max Spread bandwidth for 1Mbps, Detail please refers to below plot.



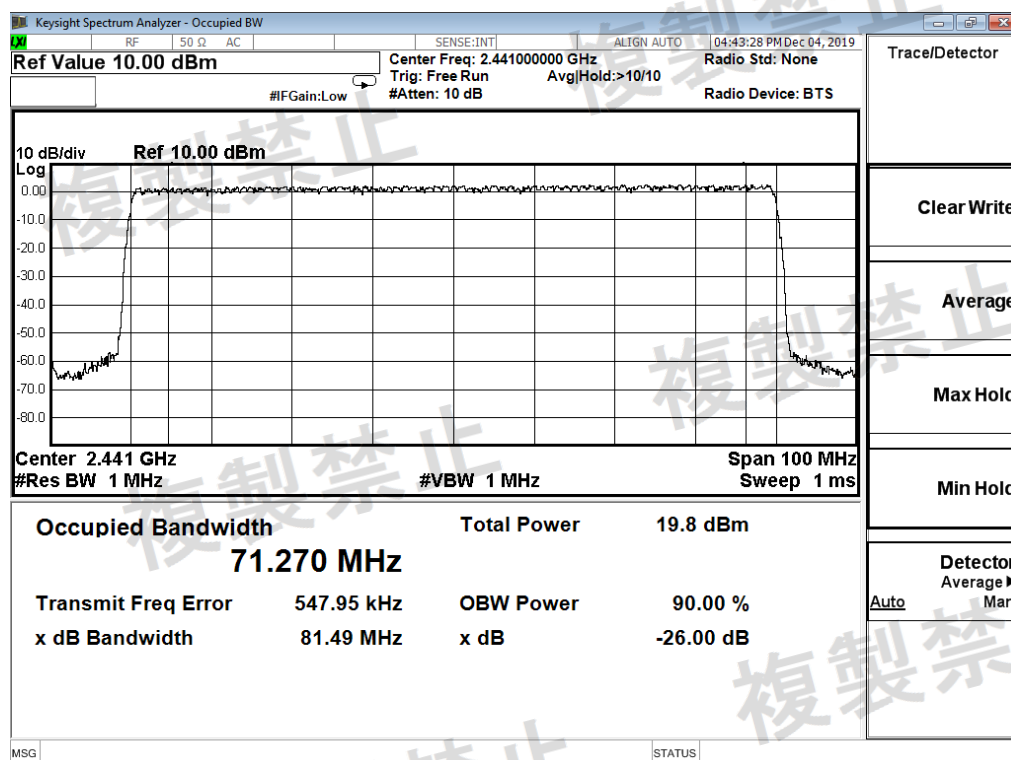
Note: Only record the worst result.

Temperature	24.6℃	Humidity	53.1%
Test Engineer	JK Zhou	Test Voltage	High Voltage

Mode	CH	Result	Modulation Rate	Spread Factor	Limit
		(MHz)	(MHz)		
Hopping (1Mbps)	All	71.178	1.00	71.178	$\geq 5$
Hopping (2Mbps)	All	71.270	2.00	35.635	$\geq 5$
Hopping (3Mbps)	All	71.055	3.00	23.685	$\geq 5$

Test Plots of Worst case mode

Max Spread bandwidth for 2Mbps, Detail please refers to below plot.



Note: Only record the worst result.

## 5.5. Dwell Time

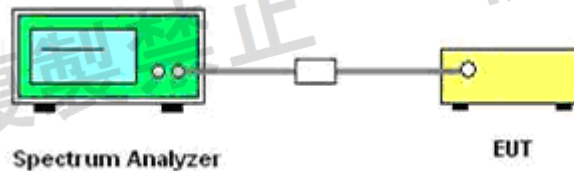
### 5.5.1. Standard Applicable

Frequency dwell time (time during which radio waves continue to be emitted at a specified frequency) of a transmitting equipment using the FH system shall be 0.4 seconds or less.

### 5.5.2. Test Procedures

- a. Set EUT work in test mode as described in clause 2.4.
- b. Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:  
 Centre Frequency: The centre frequency of the channel under test.  
 Resolution BW: 1MHz.  
 Video BW: 1MHz.  
 Span: Zero MHz  
 Detector: Peak.  
 Trace Mode: Max Hold.
- c. When the trace is complete, measure the sending time of 1 burst and the duty cycle of 1 burst cycle.

### 5.5.3. Test Setup Layout



### 5.5.4. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

### 5.5.5. Test Results

Worst test result of Low Channel for GFSK(1Mbps) Modulation								
Mode	Frequency	Hopping number	Spreading Bandwidth	On time (ms)	Cycle Time (ms)	Dwell time (second)	Limit (second)	result
1DH1	2441	79	71.262	0.380	2.530	0.0542	0.4	Pass
1DH3	2441	79	71.284	1.620	2.530	0.2311		
1DH5	2441	79	71.145	2.880	3.880	0.2674		

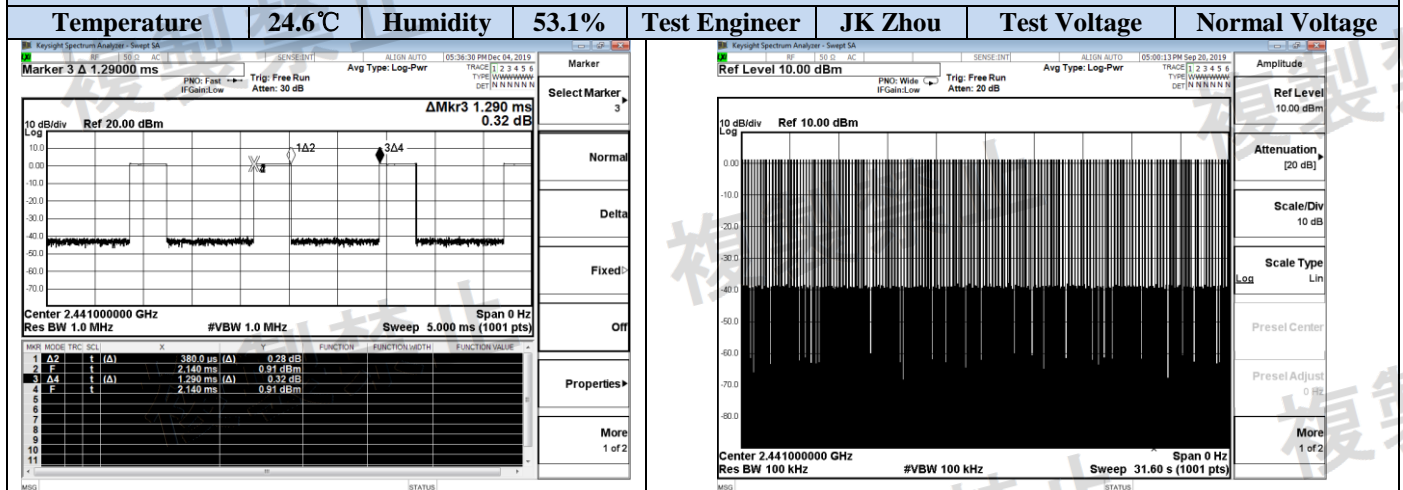
\*Note 1: \*Note 1: Dwell time= (0.4(s) x spreading rate x sending time of 1burst (s))/(burst cycle(s) x No. of hopping channel)

Spreading rate: Spreading Bandwidth/transmission rate

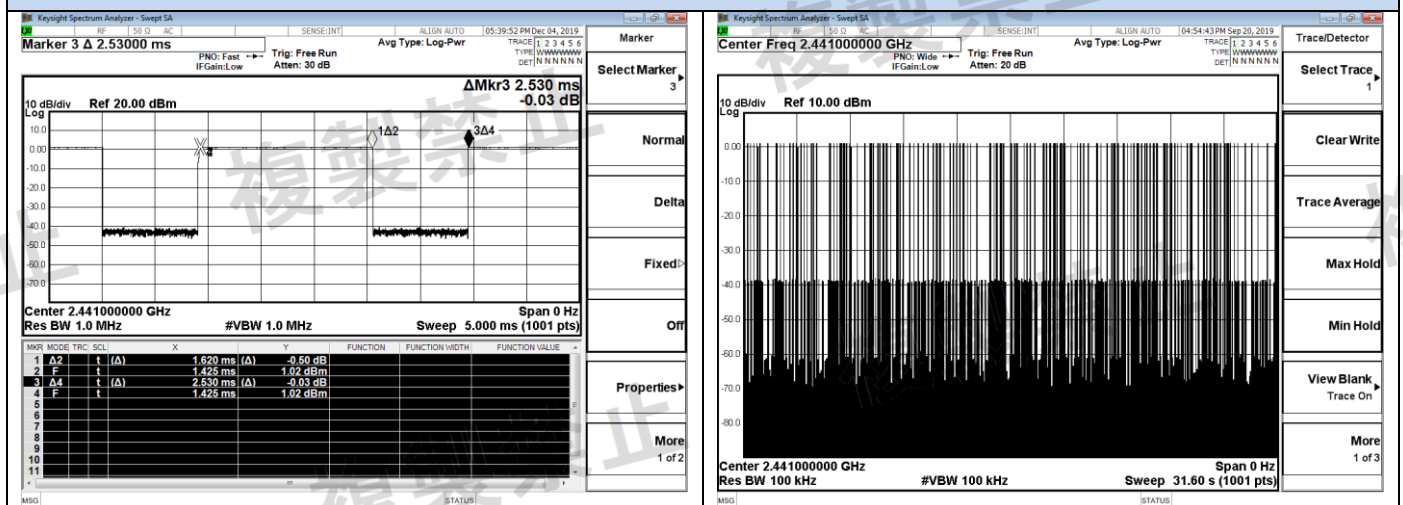
Note 2: Only record the worst result.

The test data refer to the following:

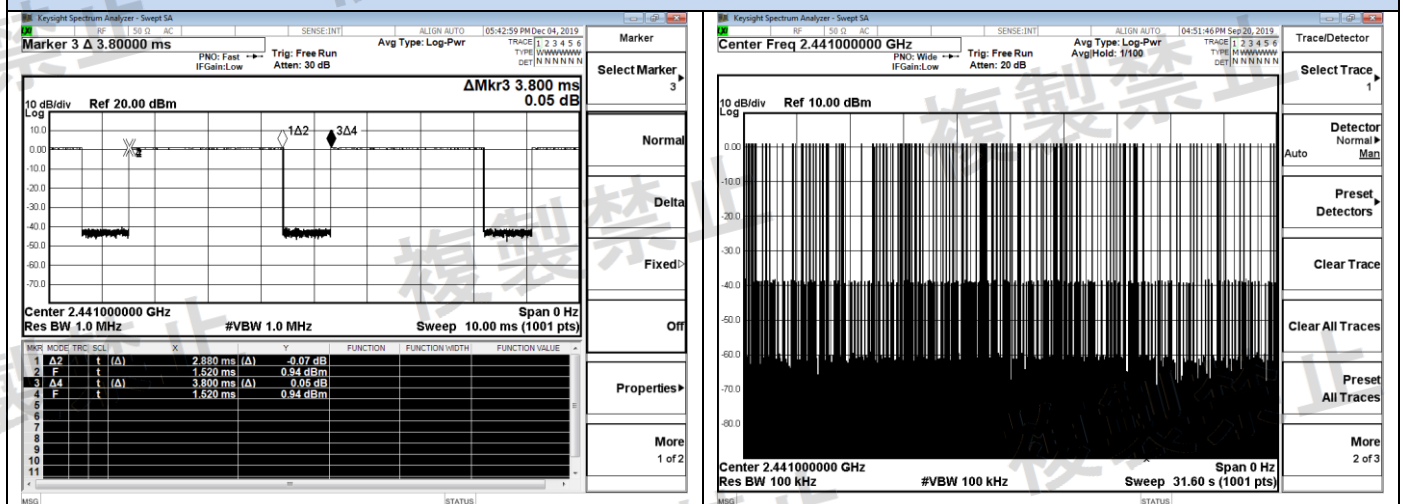
## Test Plot Of Dwell Time



DH1



DH3



DH5