



**ISO/IEC17025 Accredited Lab.**

Report No: EMC1411102-01

File reference No: 2014-12-09

Applicant:

Product: Bluetooth Earphone

Brand Name:

Model No: BTH-040, BTH-042, BTH-026

Test Standards: ETSI EN 300 328 V 1.8.1 (2012-06)

Test result:

The EMC testing has been performed on the submitted samples and found in compliance with council EMC Directive 2004/108/EC and R & TTE Directive 1999/5/EC

Approved By

A handwritten signature in black ink, appearing to read 'Terry Tang'.

Terry Tang

EMC Manager

Dated: December 09, 2014

Results appearing herein relate only to the sample tested

The technical reports is issued errors and omissions exempt and is subject to withdrawal at

**SHENZHEN TIMEWAY TESTING LABORATORIES**

Room 512-519, 5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen, Guangdong, China

Tel (755) 83448688, Fax (755) 83442996, E-Mail: info@timewaytech.com



### **Special Statement:**

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAS. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

#### **CNAS-LAB Code: L2292**

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

#### **FCC-Registration No.: 899988**

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 899988.

#### **IC- Registration No.: IC5205A-02**

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration IC No.: 5205A-02.

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



## Test Report Conclusion

### Content

<b>1.0</b>	<b>General Details</b>	4
1.1	Notes	4
1.2	Test Laboratory	4
1.3	Details of Applicant	4
1.4	Application Details	5
1.5	Test Item	6
1.6	Test Standards	6
1.7	Configuration of The EUT	7
1.8	EUT Modification	7
1.9	Test By	7
<b>2.0</b>	<b>Technical Test</b>	8
2.1	Summary of Test Result	8
2.2	Test Report	8
	Clause 4.3.1.1RF output power	9
	Clause 4.3.1.3Dwell Time, Minimum Frequency Occupation and Hopping Sequence	10
	Clause 4.3.1.4Hopping Frequency Separation	20
	Clause 4.3.1.7Occupied Channel Bandwidth	22
	Clause 4.3.1.8Transmitter unwanted emissions in the out-of-band domain	25
	Clause 4.3.1.9Transmitter unwanted emissions in the spurious domain	27
	Clause 4.3.1.10Receiver Spurious Emissions	28
<b>3.0</b>	<b>CE Label</b>	29
<b>4.0</b>	<b>Test Setup Photos</b>	30
<b>5.0</b>	<b>Photograph-EUT</b>	31
<b>6.0</b>	<b>Test Equipments</b>	37

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertizing. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



## 1. General Information

### 1.1 Notes

The test results of this report relate exclusively to the test item specified in 1.5. The TIMEWAY Lab does not assume Responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the TIMEWAY Lab.

### 1.2 Testing Laboratory

#### SHENZHEN TIMEWAY TESTING LABORATORIES

East 5/Block 4, Anhua Industrial Zone, No.8, Tairan Rd. CheGongMiao, FuTian District, Shenzhen, CHINA

Tel: +86 755 83448688 Fax :+86 755 83442996

Internet: [www.timewaytech.com](http://www.timewaytech.com)

Site on File With the Federal Communications and Commission – United States

Registration Number: 899988

For 3m & 10 m OATS

Site Listed with Industry Canada of Ottawa, Canada

Registration Number: IC: 5205A-02

For 3m & 10 m OATS

### 1.3 Test Data

Date of Receipt of Application: Nov 18, 2014

Date of Receipt of Test Item: Nov 18, 2014

Date of Test: Nov 18, 2014~ Dec 05, 2014

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report, SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



## 1.4 Description of EUT

EUT Type.....:	Bluetooth Earphone	
Applicant.....:		
Manufacturer.....:		
Equipment type.....:	Bluetooth 2 4G	
Bluetooth Version:	3.0+EDR	
Modulation Type (Technology).....:	GFSK, $\pi$ /4DQPSK, 8DPSK for Bluetooth	
Operating Frequency Range.....:	2.402GHz - 2.480GHz	
Modulation used by the equipment.	FHSS	
Maximum e.r.i.p.....:	2.86dBm	
Maximum OCB .....	GFSK	842kHz
	$\pi$ /4DQPSK	1136kHz
Adaptive Mode.....:	Adaptive/non-adaptive equipment:	Adaptive Equipment without the possibility to switch to a non-adaptive mode
	LBT Base DAA:	Yes
	Non-LBT Base DAA:	No
	Number of transmit chain:	1
	Number of receive chain:	1
	Channel Occupancy Time:	0.84ms (worse case)
Antenna Gain.....:	Antenna Type:	Integral Antenna
	Antenna Gain:	0 dBi
Operating voltage.....:	Normal:	3.7V
	Lowest:	3.1V
	Highest:	4.3V
Operating temperature.....:	Normal:	25°C
	Lowest:	-20°C
	Highest:	55°C

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



### 1.5 Setting of test system

Setting	Value	
EUT type:	Bluetooth 2.4G	
	Mode	Data Rate
	GFSK	1Mbps
	11/4DQPSK,	2Mbps
	8DPSK	3Mbps
EUT frequency configurable:	Yes	
Test channel-Low:	2402MHz (GFSK, 11/4DQPSK, 8DPSK)	
Test channel-Middle:	2441MHz (GFSK, 11/4DQPSK, 8DPSK)	
Test channel-High:	2480MHz (GFSK, 11/4DQPSK, 8DPSK)	
Adaptive:	Yes	
With TPC function:	No	
Number of the antenna:	1	
Number of transmission chains:	1	
Beam forming:	No	
Operating frequency range:	2400MHz~2483.5MHz	
Maximum beam forming gain:	N.A	
Antenna gain:	0dBi	

### 1.6 Test Standards

#### ETSI EN 300 328 v 1.8.1 (2012-06)

Electromagnetic compatibility and Radio spectrum Matters(ERM);

Wideband Transmission systems;

Data transmission equipment operating in the 2.4GHz ISM band and using spread spectrum modulation techniques;

Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

Note: All radiated measurements were made in all three orthogonal planes. The values reported are the maximum values.

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



## 1.7 Configuration of The EUT

The EUT was configured according to **CISPR16**. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

### A. EUT

Device	Manufacturer	Model
Bluetooth Earphone	Richen Industrial Co., Ltd.	BTH-040, BTH-042

### B. Internal Devices

Device	Manufacturer	Model
N/A		

### C. Peripherals

Device	Manufacturer	Model	Cable
N/A			


### D. EUT Exercise

The EUT (Transmitter) was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements.

## 1.8 EUT Modifications

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

## 1.9 Tests or Witness Test Engineering

Test By:   
Printing Name: Terry Tang

The report refers only to the sample tested and does not apply to the bulk.  
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.  
In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



## 2. Technical Test

### 2.1 Summary of Test Results

No deviations from the technical specification(s) were ascertained in the course of the tests Performed	
Final Verdict: (Only "Passed" if all Measurements are "Passed")	<b>Pass</b>

### 2.2 Test Report

#### Test Report Reference

List of Measurements		
Parameter to be measured	Clause	Result
<b>Transmitter Parameters</b>		
RF output power	Clause 4.3.1.1	Pass
Duty Cycle, Tx-sequence, Tx-gap	Clause 4.3.1.2	N/A
Dwell Time, Minimum Frequency Occupation and Hopping Sequence	Clause 4.3.1.3	Pass
Hopping Frequency Separation	Clause 4.3.1.4	Pass
Medium Utilisation (MU) Factpr	Clause 4.3.1.5	N/A
Adaptivity (Adaptive Frequency Hopping)	Clause 4.3.1.6	N/A
Occupied Channel Bandwidth	Clause 4.3.1.7	Pass
Transmitter unwanted emissions in the out-of-band domain	Clause 4.3.1.8	Pass
Transmitter unwanted emissions in the spurious domain	Clause 4.3.1.9	Pass
<b>Receiver Parameters</b>		
Receiver Spurious Emissions	Clause 4.3.1.10	Pass
Receiver Blocking	Clause 4.3.1.11	N/A

Note: The clause numbers are referenced to ETSI EN 300 328 V 1.8.1(2012-06)

**Note: N/A= Not applicable. Because these requirements do not apply for equipment with a maximum declared RF Output power of less than 10 dBm e.i.r.p. or for equipment when operating in a mode where the RF Output power is less than 10 dBm e.i.r.p. For the EUT, the RF output power less than 10dBm.**

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it . or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.





### Clause 4.3.1.1 RF output Power (Conducted)

#### Test Method according to clause 5.3.2.2.1

##### GFSK Mode

Test Conditions	Transmitter Power (dBm) EIRP				
	T <sub>nom</sub> (25°C)	T <sub>min</sub> (-20°C)		T <sub>max</sub> (55°C)	
	DC3.7V	DC3.1V	DC4.3V	DC3.1V	DC4.3V
Low Freq.2402MHz	2.36	2.42	2.42	2.40	2.37
Mid Freq.2441MHz	2.62	2.59	2.65	2.56	2.63
High Freq.2480MHz	2.86	2.73	2.82	2.69	2.77

##### 11/4DQPSK Mode

Test Conditions	Transmitter Power (dBm) EIRP				
	T <sub>nom</sub> (25°C)	T <sub>min</sub> (-20°C)		T <sub>max</sub> (55°C)	
	DC3.7V	DC3.1V	DC4.3V	DC3.1V	DC4.3V
Low Freq.2402MHz	1.12	1.19	1.20	1.40	1.31
Mid Freq.2441MHz	1.20	1.16	1.23	1.33	1.37
High Freq.2480MHz	1.38	1.36	1.32	1.46	1.49

##### 8DPSK Mode

Test Conditions	Transmitter Power (dBm) EIRP				
	T <sub>nom</sub> (25°C)	T <sub>min</sub> (-20°C)		T <sub>max</sub> (55°C)	
	DC3.7V	DC3.1V	DC4.3V	DC3.1V	DC4.3V
Low Freq.2402MHz	1.14	1.07	1.02	1.03	1.09
Mid Freq.2441MHz	1.08	1.13	1.08	1.06	1.16
High Freq.2480MHz	1.36	1.31	1.22	1.31	1.28

#### Limits: Clause 4.3.1.1.2

The maximum RF output power for adaptive Frequency Hopping equipment shall be equal to or less than 20 dBm.

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



#### Clause 4.3.1.3 Dwell Time, Minimum Frequency Occupation and Hopping Sequence

For Adaptive frequency hopping system

#### Test method according to Clause 5.3.4.2.1

##### GFSK Mode

Dwell Time								
Mode	Number of Hopping Channel	Number of transmission in a period (Channel Number * 0.4sec)				Length of transmissions Time (ms)	Result (ms)	Limit (ms)
		Period (Sec)	Sweep Time (Sec)	Times in a sweep	Times in a period			
DH1	79	31.6	4	40	316.0	0.481	152.00	400
DH3	79	31.6	4	22	173.8	1.784	310.06	400
DH5	79	31.6	4	16	126.4	3.006	379.96	400

##### J1/4DQPSK Mode

Dwell Time								
Mode	Number of Hopping Channel	Number of transmission in a period (Channel Number * 0.4sec)				Length of transmissions Time (ms)	Result (ms)	Limit (ms)
		Period (Sec)	Sweep Time (Sec)	Times in a sweep	Times in a period			
DH1	79	31.6	4	40	316.0	0.461	145.68	400
DH3	79	31.6	4	21	165.9	1.703	282.53	400
DH5	79	31.6	4	15	118.5	2.966	351.47	400

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



#### GFSK Mode

Minimum Frequency Occupation Time					
Mode	Number of Hopping Channel	Number of transmission in a period of 4* Dwell * number of hopping channel	Length of transmissions Time (ms)	Result (ms)	Minimum Limit (ms)
DH1	79	2	0.481	0.962	0.481
DH3	79	3	1.784	5.352	1.784
DH5	79	3	3.006	9.018	3.006

#### π/4DQPSK Mode

Minimum Frequency Occupation Time					
Mode	Number of Hopping Channel	Number of transmission in a period of 4* Dwell * number of hopping channel	Length of transmissions Time (ms)	Result (ms)	Minimum Limit (ms)
DH1	79	2	0.461	1.383	0.461
DH3	79	3	1.703	5.109	1.703
DH5	79	3	2.966	8.898	2.966

Note: Note: GFSK and π/4DQPSK Mode was the worse case

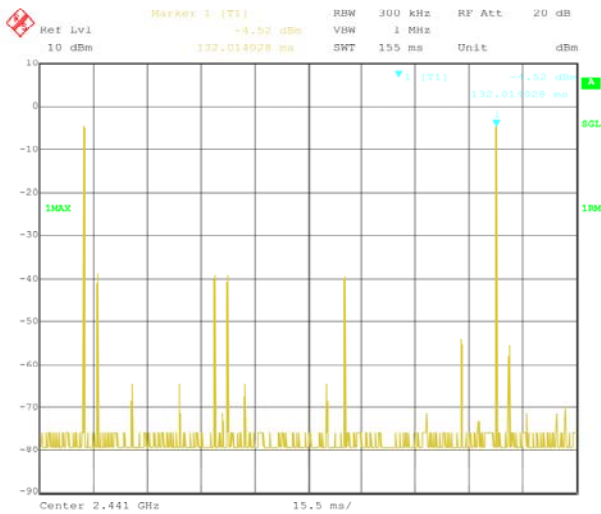
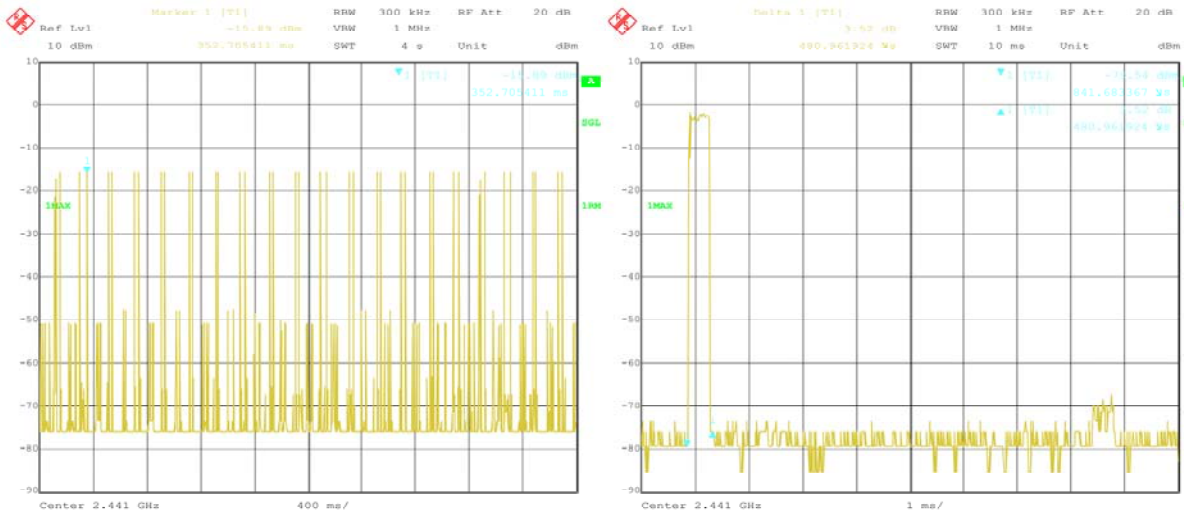
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer, supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report, SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

## GFSK Mode

### DH1

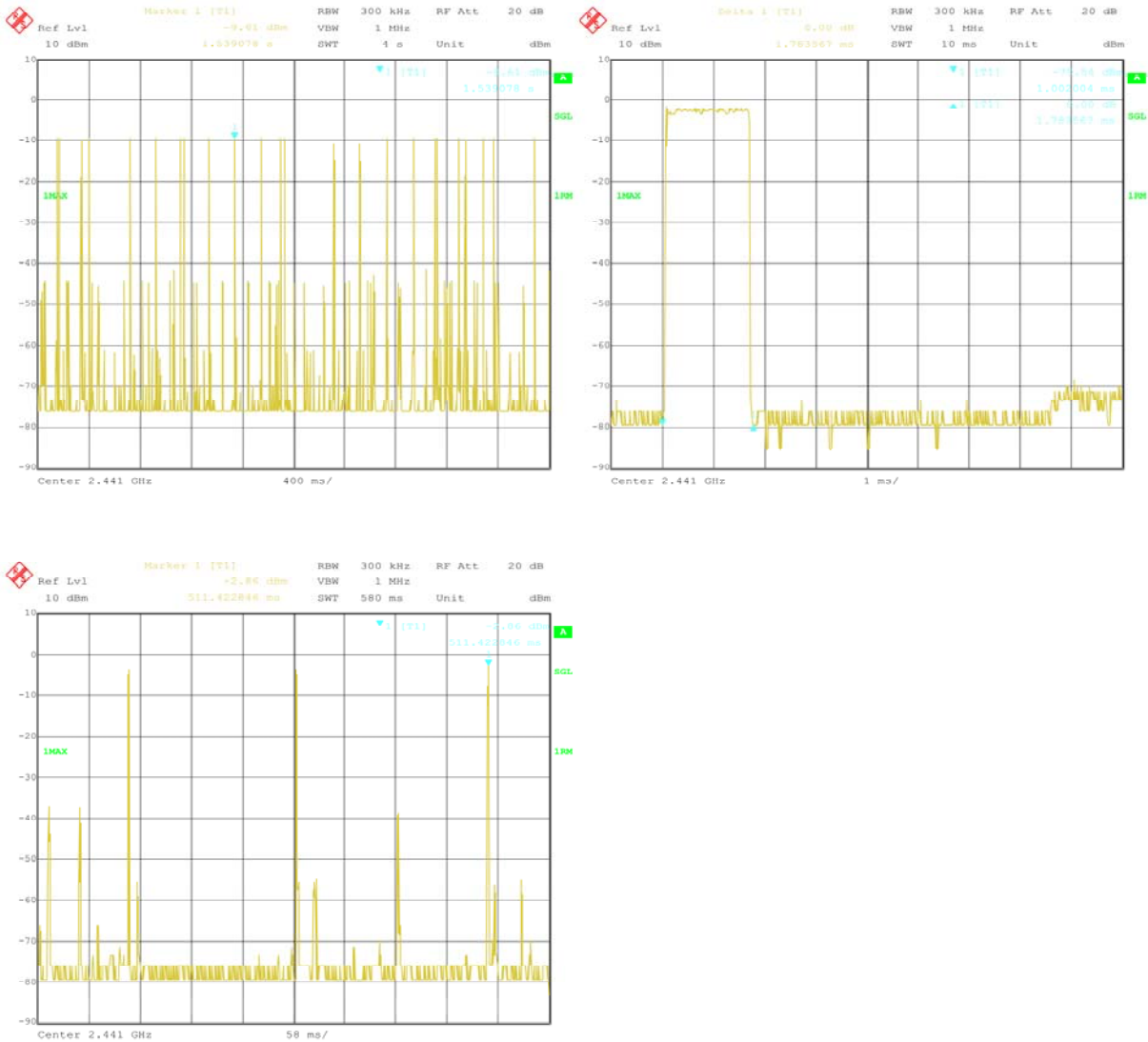


The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report, SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

### DH3

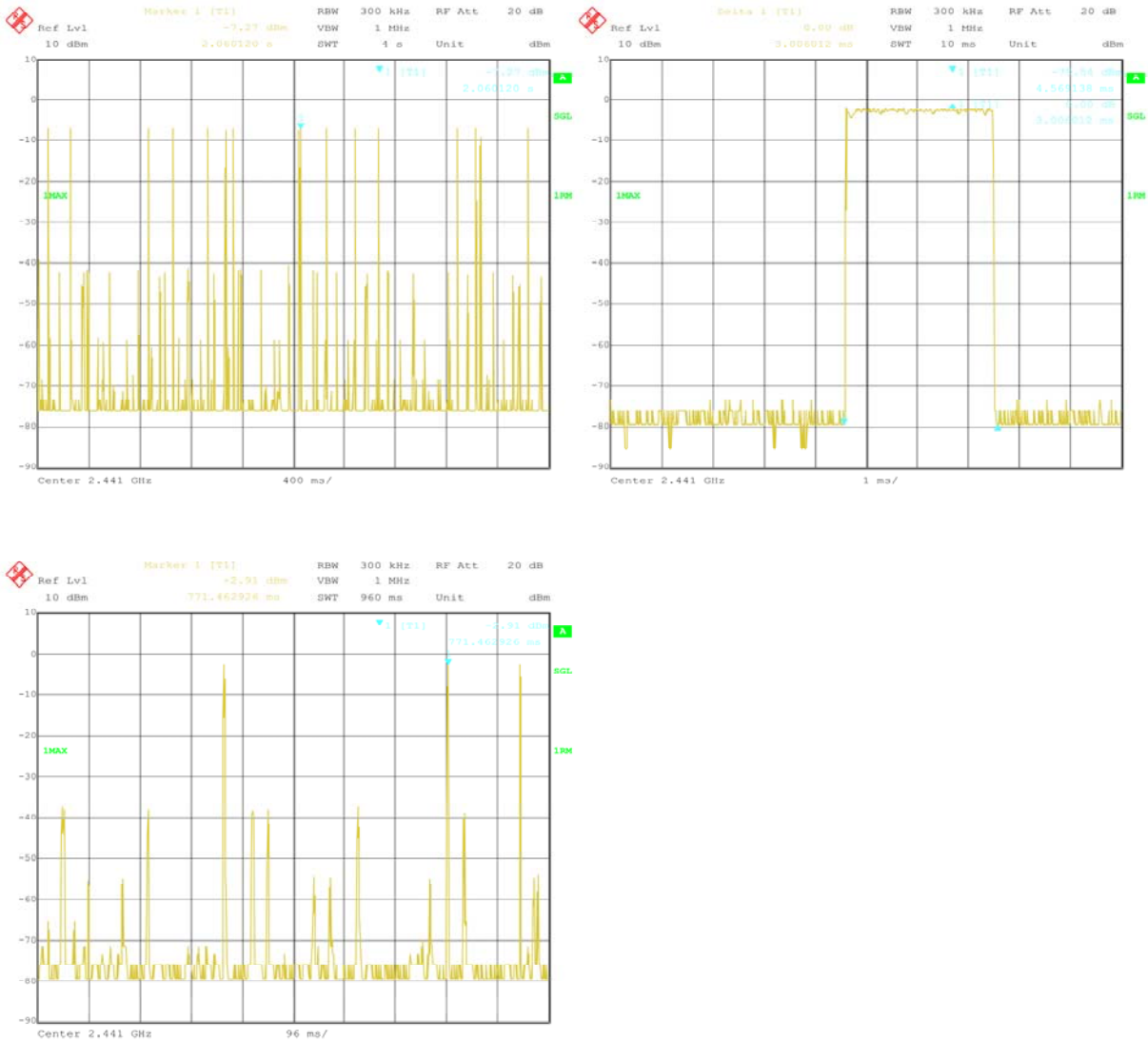


The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report, SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

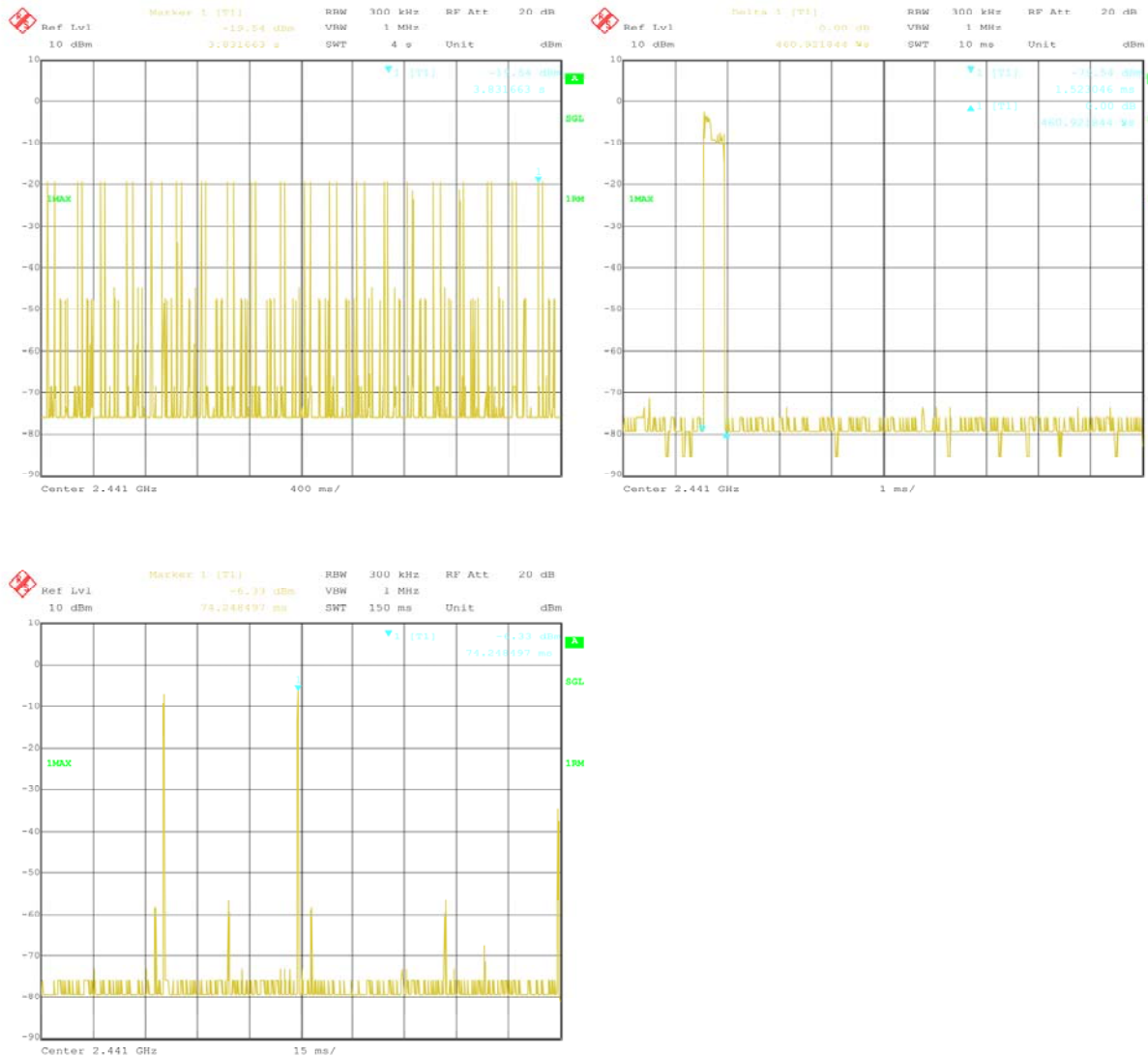
DH5



The report refers only to the sample tested and does not apply to the bulk.  
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.  
In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

## 11/4DQPSK Mode

### DH1

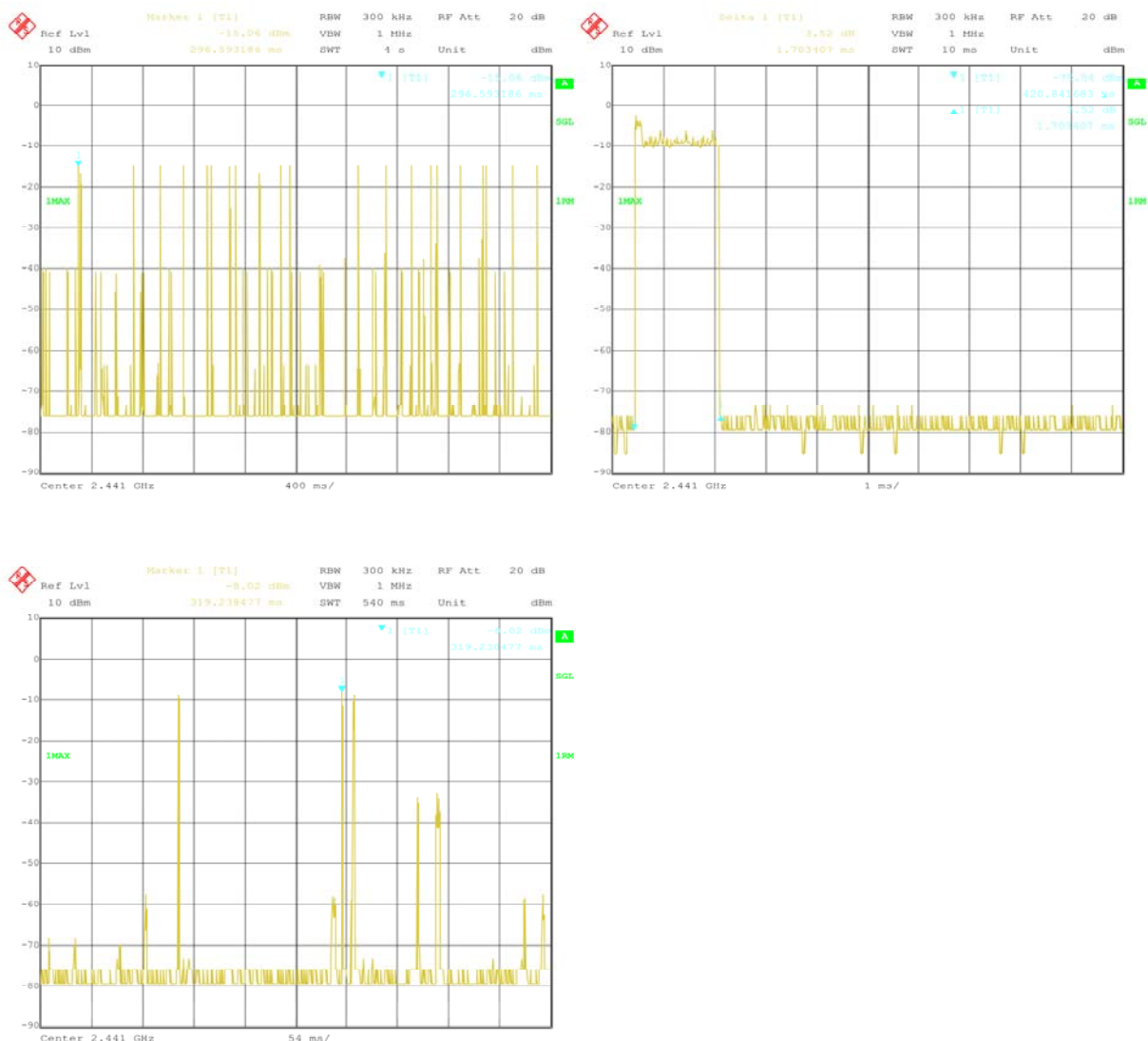


The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMESWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMESWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMESWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report, SHENZHEN TIMESWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

### DH3



The report refers only to the sample tested and does not apply to the bulk.

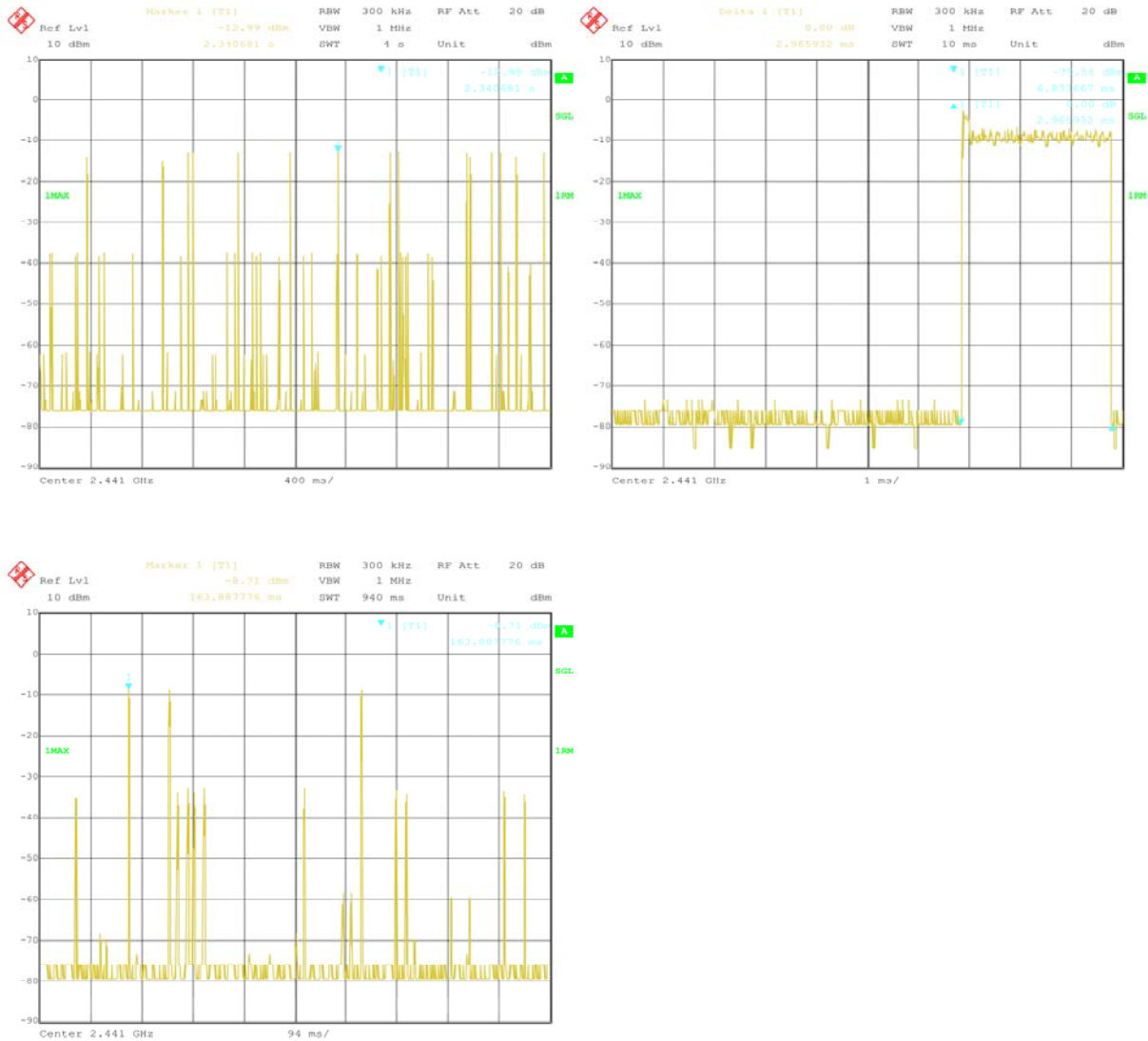
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.





## DH5



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

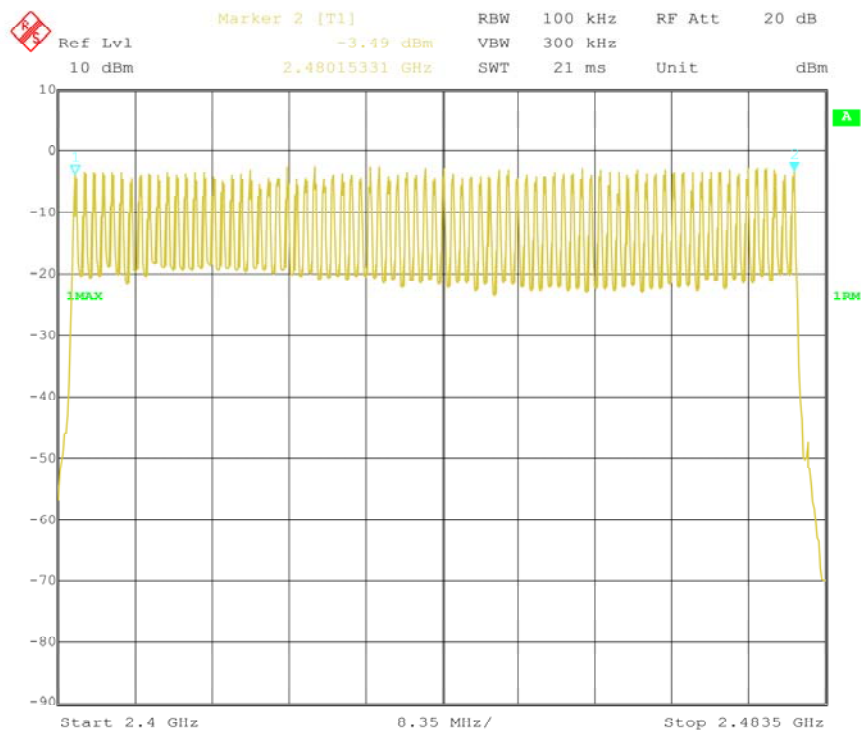
In the event of the improper use of the report, SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



Hopping sequence

GFSK

EUT	Bluetooth Speaker	Model	BTH-040, BTH-042
Mode	Hopping On	Input Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Operating Frequency	Number of hopping channels	Limit	Pass/ Fail
2402-2480MHz	79	≥ 15	Pass

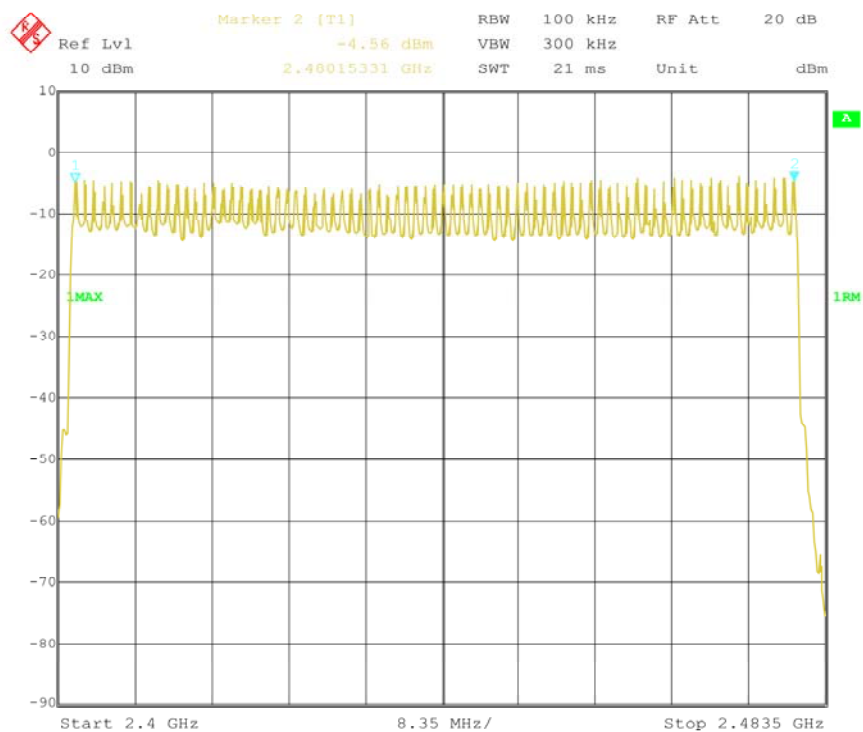


The report refers only to the sample tested and does not apply to the bulk.  
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.  
In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



JI/4DQPSK Mode

EUT	Bluetooth Speaker		Model	BTH-040, BTH-042
Mode	Hopping On		Input Voltage	DC3.7V
Temperature	24 deg. C,		Humidity	56% RH
Operating Frequency		Number of hopping channels	Limit	Pass/ Fail
2402-2480MHz		79	≥ 15	Pass



Note: Note: GFSK and JI/4DQPSK Mode was the worse case

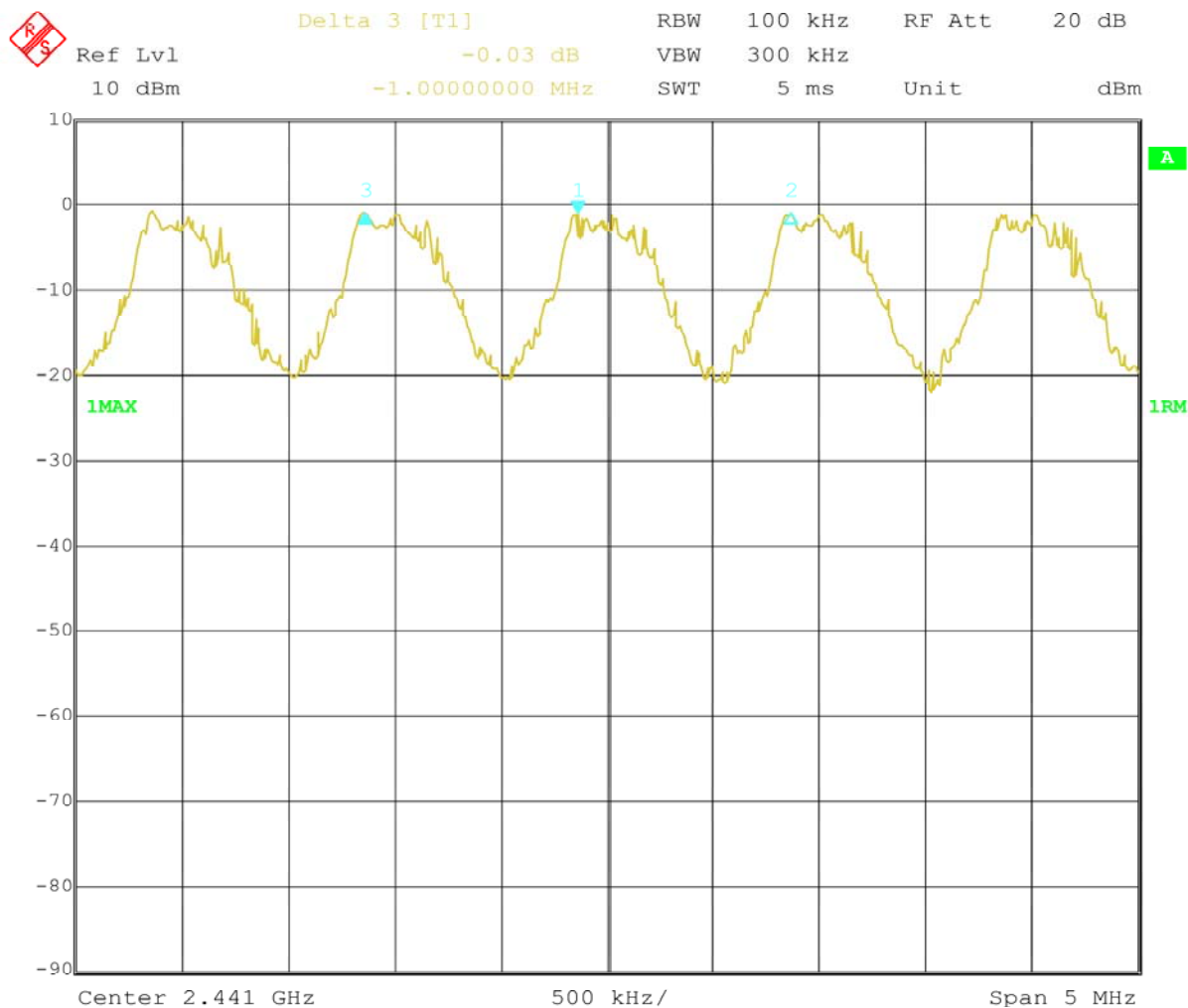
The report refers only to the sample tested and does not apply to the bulk.  
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertizing. The client to whom the report is issued may, however, show or send it , or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.  
In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

#### Clause 4.3.1.4 Hopping Frequency Separation

#### Test method according to Clause 5.3.5.2.1.2

#### GFSK Mode

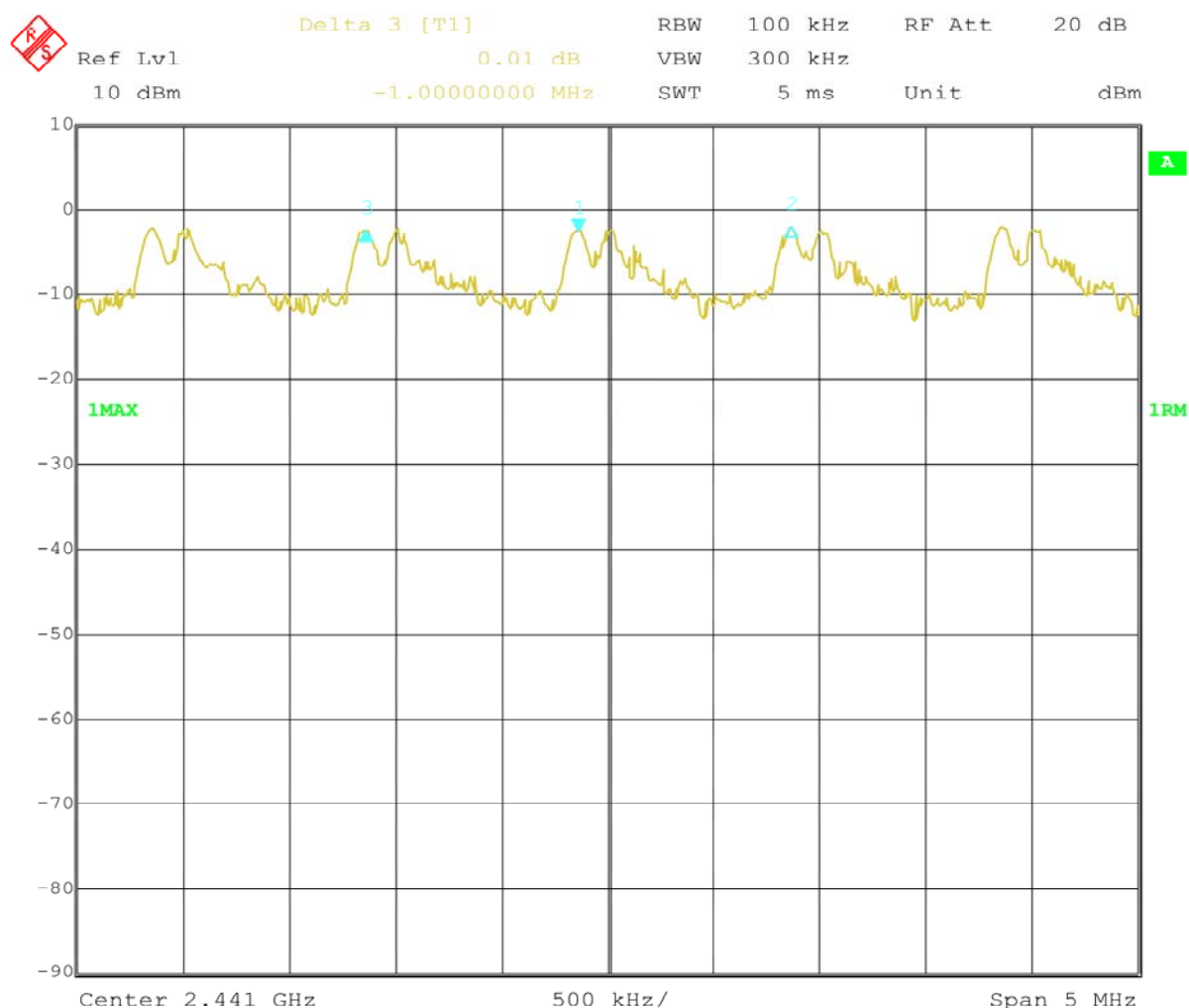
EUT	Bluetooth Speaker		Model	BTH-040, BTH-042	
Mode	Hopping On		Input Voltage	DC3.7V	
Temperature	24 deg. C,		Humidity	56% RH	
Channel	Channel Frequency (MHz)	Carrier Frequency Separation	Limit	Pass/ Fail	
Middle	2441	1.002MHz	$\geq 100\text{kHz}$	Pass	



The report refers only to the sample tested and does not apply to the bulk.  
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.  
In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

JI/4DQPSK Mode

EUT	Bluetooth Speaker		Model	BTH-040, BTH-042
Mode	Hopping On		Input Voltage	DC3.7V
Temperature	24 deg. C,		Humidity	56% RH
Channel	Channel Frequency (MHz)	Carrier Frequency Separation	Limit	Pass/ Fail
Middle	2441	1.002MHz	≥100kHz	Pass



Note: Note: GFSK and JI/4DQPSK Mode was the worse case

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

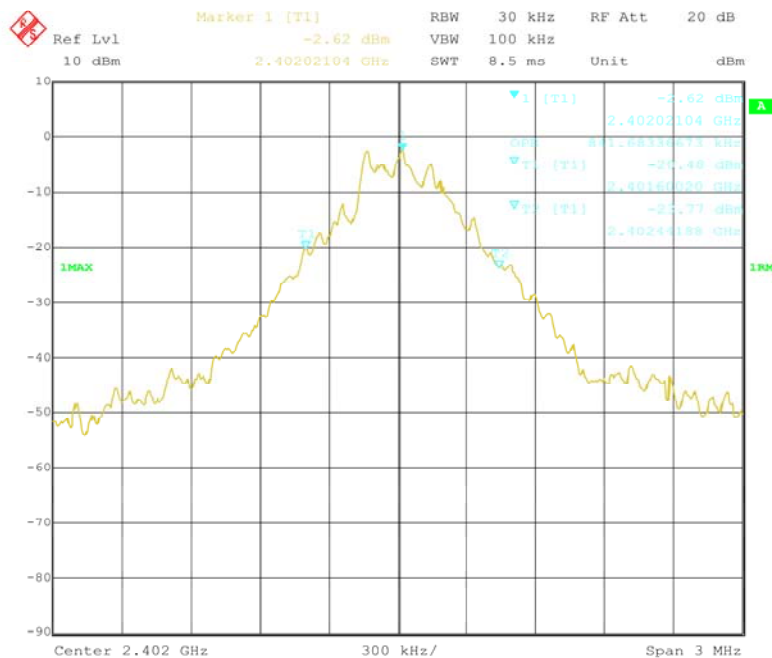
#### Clause 4.3.1.7 Occupied Channel Bandwidth

#### Test method according to Clause 5.3.8.2.1

#### GFSK Mode

EUT	Bluetooth Speaker		Model	BTH-040, BTH-042
Mode	Hopping On		Input Voltage	DC3.7V
Temperature	24 deg. C,		Humidity	56% RH
Channel	Channel Frequency (MHz)	99% Channel Bandwidth (kHz)	Measured Frequency (MHz)	Limit(MHz)
Low	2402	842	2401.598	$\geq 2400$
High	2480	830	2480.438	$\leq 2483.5$
Result: Pass				

#### Low Channel



The report refers only to the sample tested and does not apply to the bulk.

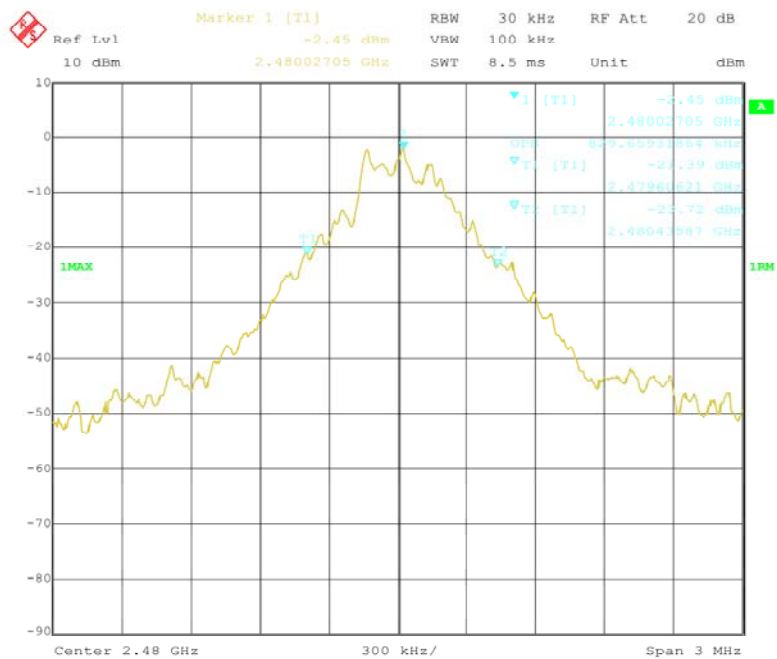
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.





High Channel



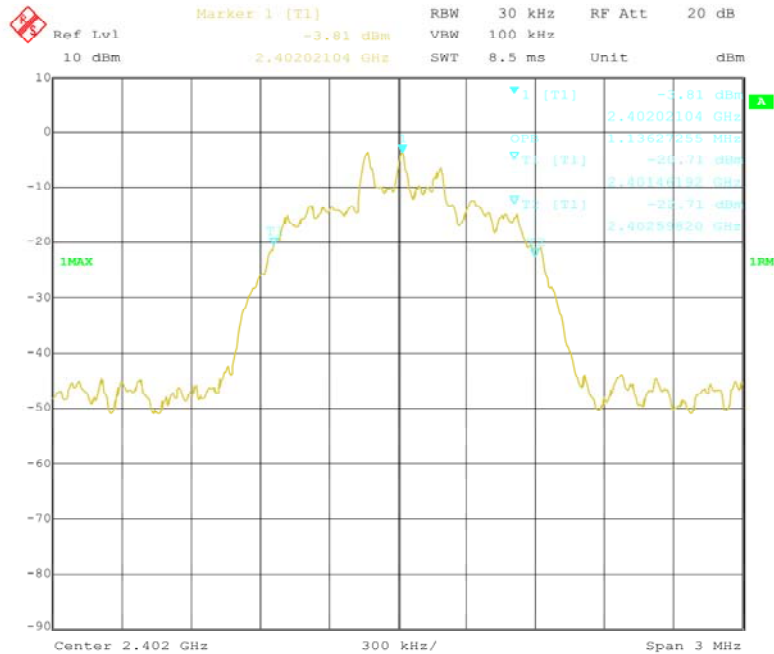
J1/4DQPSK Mode

EUT		Bluetooth Speaker		Model	BTH-040, BTH-042
Mode		Hopping On		Input Voltage	DC3.7V
Temperature		24 deg. C,		Humidity	56% RH
Channel	Channel Frequency (MHz)	99% Channel Bandwidth (kHz)	Measured Frequency (MHz)		Limit(MHz)
Low	2402	1136	2401.442		≥2400
High	2480	1124	2480.594		≤2483.5
Result: Pass					

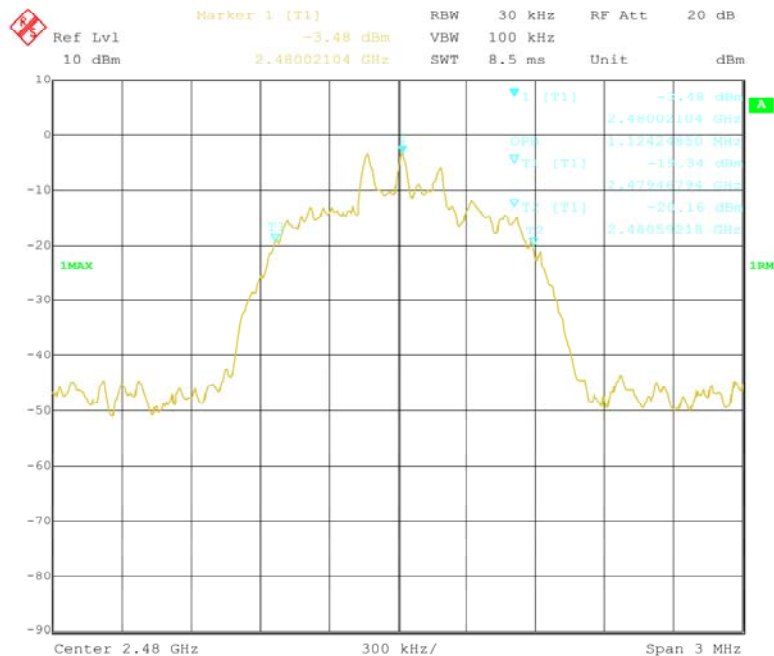
The report refers only to the sample tested and does not apply to the bulk.  
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.  
In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



Low Channel



High Channel



Note: Note: GFSK and  $\pi/4$ QPSK Mode was the worse case

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report. In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.





#### Clause 4.3.1.8 Transmitter unwanted emissions in the out-of-band domain

##### Test method according to Clause 5.3.9.2.1

EUT	Bluetooth Speaker	Model	BTH-040, BTH-042
Mode	Hopping On	Input Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH

##### GFSK Mode

Channel Frequency		2402MHz (OCB:0.842MHz)		2480MHz (OCB: 0.83MHz)	
Test Condition		OOB Emission (MHz)		OOB Emission (MHz)	
		2399.158-2400	2398.316-2399.158	2483.5-2484.33	2484.33-2485.16
		Max. Power (dBm/MHz)	Max. Power (dBm/MHz)	Max. Power (dBm/MHz)	Max. Power (dBm/MHz)
T <sub>nor</sub> 25℃	V <sub>nor</sub> (V)	-44.33	-50.76	-45.34	-51.33
T <sub>min</sub> -20℃	V <sub>min</sub> (V)	-43.75	-50.59	-45.28	-51.27
T <sub>max</sub> 55℃	V <sub>min</sub> (V)	-44.12	-50.56	-45.51	-51.50
T <sub>min</sub> -20℃	V <sub>max</sub> (V)	-43.82	-50.32	-45.36	-51.22
T <sub>max</sub> 55℃	V <sub>max</sub> (V)	-44.02	-50.28	-45.45	-51.31
Limit (dBm)		-10	-20	-10	-20
Pass/Fail		Pass	Pass	Pass	Pass

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



11/4DQPSK Mode

Channel Frequency		2402MHz (OCB:1.136MHz)		2480MHz (OCB: 1.142MHz)	
Test Condition		OOB Emission (MHz)		OOB Emission (MHz)	
		2398.864-2400	2397.728-2398.864	2483.5-2484.642	2484.642-2485.784
		Max. Power (dBm/MHz)	Max. Power (dBm/MHz)	Max. Power (dBm/MHz)	Max. Power (dBm/MHz)
T <sub>nor</sub> 25℃	V <sub>nor</sub> (V)	-49.77	-52.12	-49.76	-54.21
T <sub>min</sub> -20℃	V <sub>min</sub> (V)	-49.08	-52.18	-49.35	-54.39
T <sub>max</sub> 50℃	V <sub>min</sub> (V)	-49.12	-52.35	-49.41	-54.51
T <sub>min</sub> -20℃	V <sub>max</sub> (V)	-48.92	-51.65	-49.29	-54.07
T <sub>max</sub> 55℃	V <sub>max</sub> (V)	-48.76	-52.03	-49.16	-54.24
Limit (dBm)		-10	-20	-10	-20
Pass/Fail		Pass	Pass	Pass	Pass

Note: Note: GFSK and 11/4DQPSK Mode was the worse case

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report, SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



#### Clause 4.3.1.9 Transmitter unwanted emissions in the spurious domain

(Radiated)

##### Transmitter Operating

Note:

1. Measurements were done on low & high channels, but depicting the worst case are submitted in the report.
2. The spurious emissions were done with different settings, using the relevant pre-amplifiers for the relevant frequency ranges.
3. The test frequency range is from 30M-12.75G and please see clause 5.3.10.2.2 of EN 300 328 for the test method.

Lowest Frequency (2402MHz)			Highest Frequency (2480MHz)		
f(MHz)	Band-Width (kHz)	Level ( dBm)	f(MHz)	Band-Width (kHz)	Level ( dBm)
NF	--	--	NF	--	--
NF	--	--	NF	--	--
Measurement Uncertainty		± 6dB			

Limits Clause 4.3.1.9.2

**Table 1: Transmitter limits for spurious emissions**

Frequency range	Maximum power, e.r.p. (≤ 1 GHz) e.i.r.p. (> 1 GHz)	Bandwidth
30 MHz to 47 MHz	-36 dBm	100 kHz
47 MHz to 74 MHz	-54 dBm	100 kHz
74 MHz to 87,5 MHz	-36 dBm	100 kHz
87,5 MHz to 118 MHz	-54 dBm	100 kHz
118 MHz to 174 MHz	-36 dBm	100 kHz
174 MHz to 230 MHz	-54 dBm	100 kHz
230 MHz to 470 MHz	-36 dBm	100 kHz
470 MHz to 862 MHz	-54 dBm	100 kHz
862 MHz to 1 GHz	-36 dBm	100 kHz
1 GHz to 12,75 GHz	-30 dBm	1 MHz

Note: GFSK was the worse case

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it . or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



#### Clause 4.3.1.10 Receiver Spurious Emissions (Radiated)

Note:

1. Measurements were done on low & high channels, but depicting the worst case are submitted in the report.
2. The receiver spurious emissions were done with different settings, using the relevant and pre-amplifiers for the relevant frequency ranges.
3. The test frequency range is from 30M-12.75G and please see clause 5.3.11.2.2 of EN 300 328 for the test method.

Low Channel			High Channel		
f(MHz)	Band-Width (kHz)	Level ( dBm)	f(MHz)	Band-Width (kHz)	Level ( dBm)
NF	--	--	NF	--	--
NF	--	--	NF	--	-
Measurement Uncertainty		$\pm 6\text{dB}$			

Limits Clause 4.3.1.10.2

**Table 2: Spurious emission limits for receivers**

Frequency range	Maximum power e.r.p. ( $\leq 1$ GHz) e.i.r.p. ( $> 1$ GHz)	Measurement bandwidth
30 MHz to 1 GHz	-57 dBm	100 kHz
1 GHz to 12,75 GHz	-47 dBm	1 MHz

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



### 3.0 Product Labelling

CE Mark label specification

Text of the mark is black or white in color and is left justified. Labels are printed in indelible ink on permanent adhesive backing and shall be affixed at a conspicuous location on the EUT or silk-screened onto the EUT.



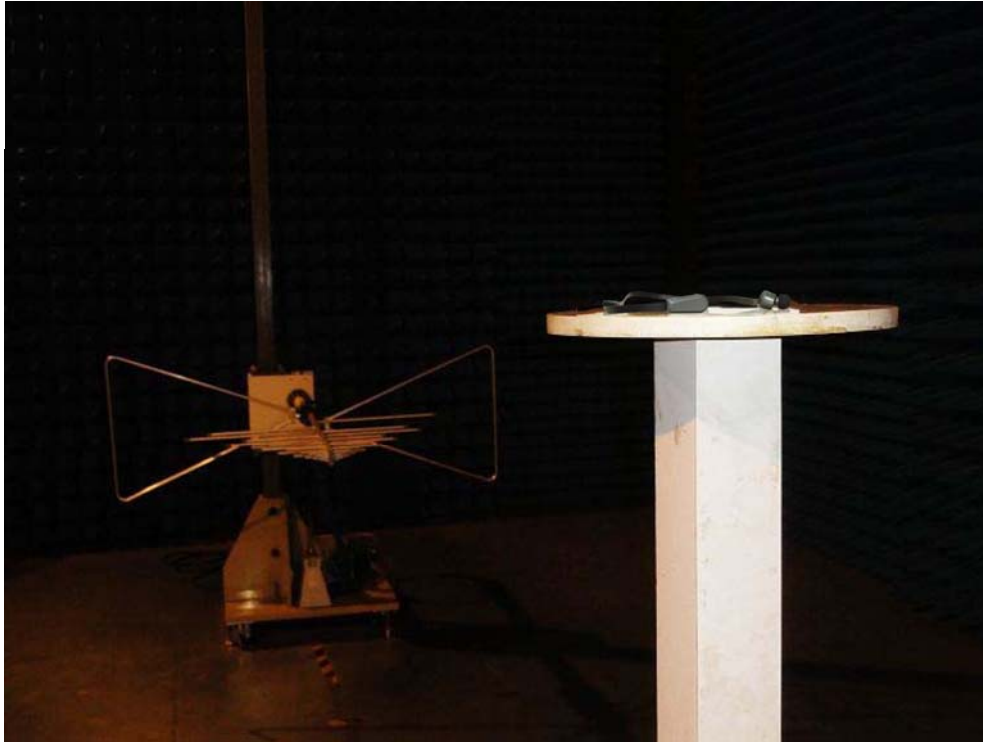
Mark Location: Rear enclosure

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report, SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

#### 4.0 Spurious Radiated emission test view



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer, supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report, SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

## 5.0 Photos of EUT

### Outside view



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer, supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report, SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



Outside view



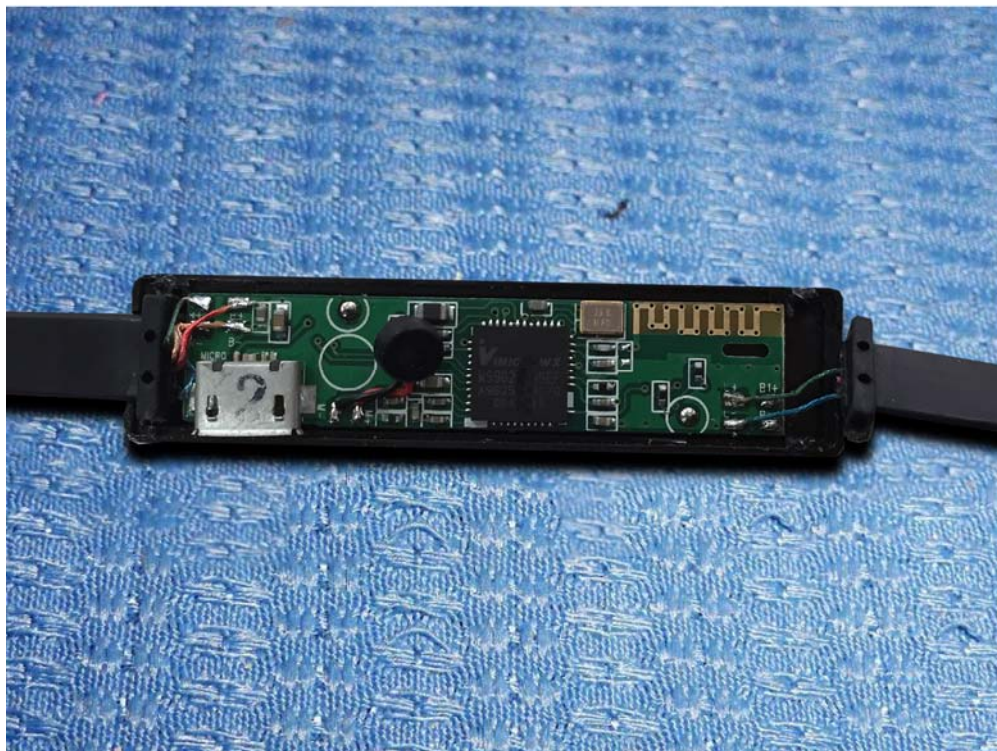
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer, supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report, SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



Inside view

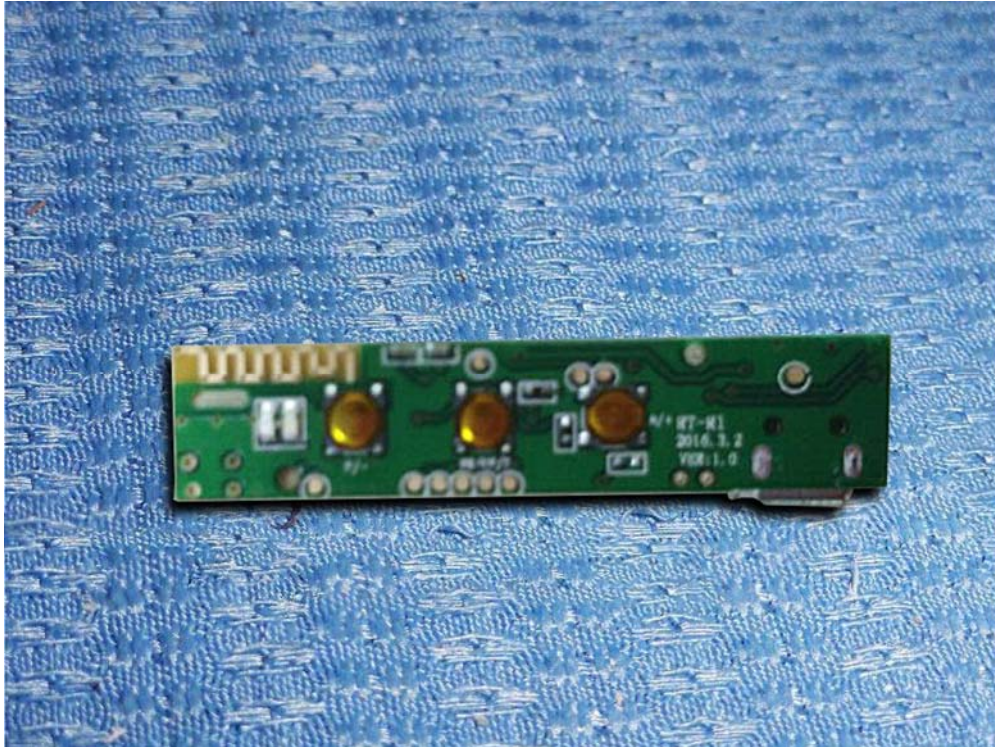


The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer, supplier or other persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client, enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report, SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Inside view



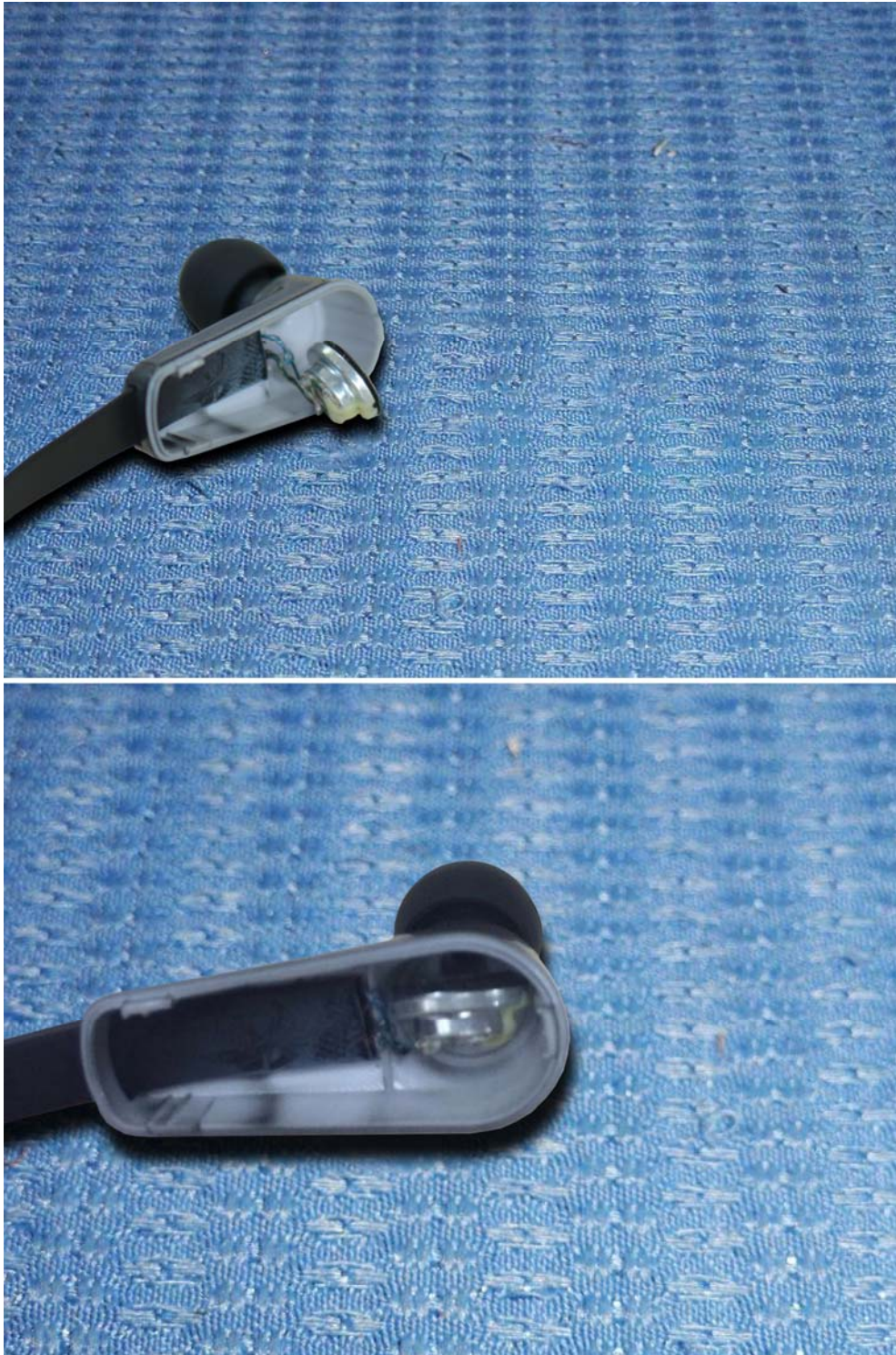
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertizing. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



Inside view

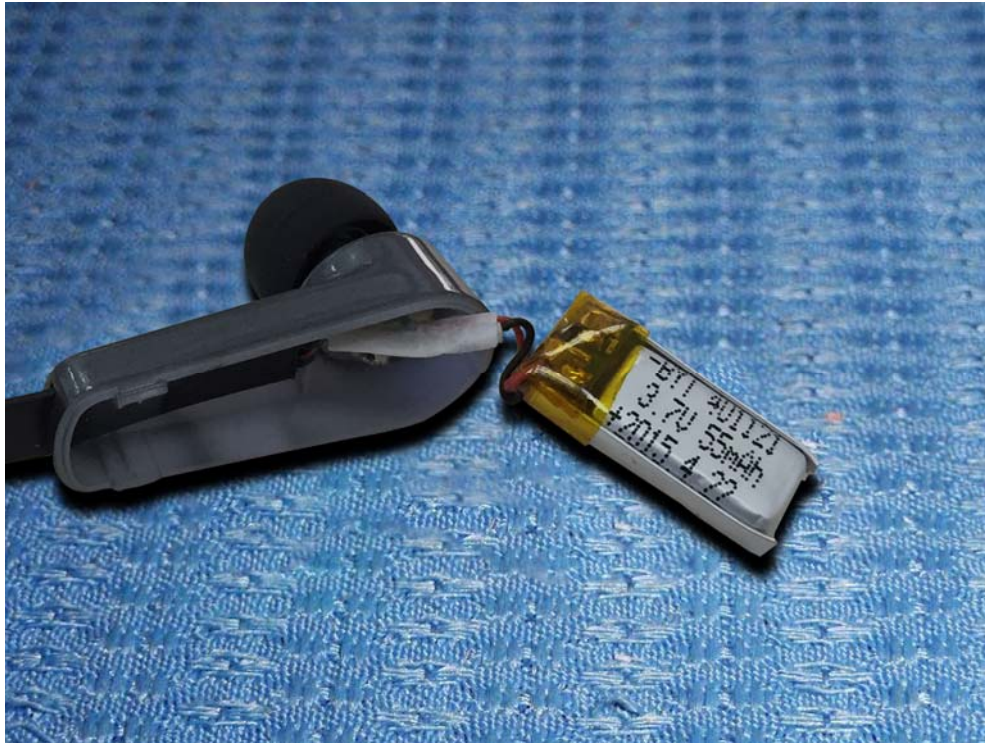


The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer, supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report, SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Inside view



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer, supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report, SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



6.0	Test Equipments				
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	ROHDE&SCHWARZ	ESPI 3	100379	2014-08-21	2015-08-20
Absorbing Clamp	ROHDE&SCHWARZ	MDS-21	100126	2014-08-22	2015-08-21
TWO Line-V-NETW	ROHDE&SCHWARZ	EZH3-Z5	100294	2014-08-22	2015-08-21
TWO Line-V-NETW	ROHDE&SCHWARZ	EZH3-Z5	100253	2014-08-23	2015-08-22
Ultra Broadband ANT	ROHDE&SCHWARZ	HL562	100157	2014-08-22	2015-08-21
ESDV Test Receiver	ROHDE&SCHWARZ	ESDV	100008	2014-08-21	2015-08-20
4-WIRE ISN	ROHDE&SCHWARZ	ENY 41	830663/044	2014-08-22	2015-08-21
GG ENY22 Double 2-Wire ISN	ROHDE&SCHWARZ	ENY22	83066/016	2014-08-22	2015-08-21
Impuls-Begrenzer	ROHDE&SCHWARZ	ESH3-Z2	100281	2014-08-21	2015-08-20
System Controller	CT	SC100	-	2014-08-23	2015-08-22
Oscillator	KENWOOD	AG-203D	3070002	2014-08-21	2015-08-20
Spectrum Analyzer	HAMEG	HM5012	-	2014-08-22	2015-08-21
Power Supply	LW	APS1502	-	2014-08-21	2015-08-20
5K VA AC Power Source	California Instruments	5001iX	56060	2014-08-22	2015-08-21
CDN	EM TEST	CDN M2/M3	-	2014-08-22	2015-08-21
Attenuation	EM TEST	ATT6/75	-	2014-08-22	2015-08-21
Resistance	EM TEST	R100	-	2014-08-21	2015-08-20
Electromagnetic Injection Clamp	LITTHI	EM101	35708	2014-08-24	2015-08-23
Inductive Components	EM TEST	MC2630	-	2014-08-21	2015-08-20
Antenna	EM TEST	MS100	-	2014-08-23	2015-08-22
Signal Generator	ROHDE&SCHWARZ	SMT03	100029	2014-08-23	2015-08-22
Power Amplifier	AR	150W1000	300999	2014-08-22	2015-08-21

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.





Field probe	Holaday	HI-6005	105152	2014-08-21	2015-08-20
Bilog Antenna	Chase	CBL6111C	2576	2014-08-21	2015-08-20
Loop Antenna	EMCO	6502	00042960	2014-08-22	2015-08-21
ESPI Test Receiver	ROHDE&SCHWARZ	ESI26	838786/013	2014-08-21	2015-08-20
3m OATS	--	--	N/A	2014-08-25	2015-08-24
Vector Signal Generator	AGILENT	E4438C	MY49070163	2014.01.19	2015.01.18
Splitter	Mini-Circuits	ZAP-50W	NN256400424	2014.01.19	2015.01.18
Directional Coupler	AGILENT	87300C	MY44300299	2014.01.19	2015.01.18
vector Signal Generator	AGILENT	E4438C	US44271917	2014.01.19	2015.01.18
4 Ch.Simultaneous Sampling 14 Bits 2 MS/s	AGILENT	U2531A	TW54063507	2014.01.19	2015.01.18
4 Ch.Simultaneous Sampling 14 Bits 2 MS/s	AGILENT	U2531A	TW54063513	2014.01.19	2015.01.18
Splitter	Mini	PS3-7	4463	2014.01.19	2015.01.18
Spectrum Analyzer	AGILENT	E7405A	US44210471	2014.02.26	2015.02.25
Attenuator	Resnet	20dB	(n.a)	2014.02.26	2015.02.25
Signal Analyzer	AGILENT	N9010A	MY48030494	2014.01.19	2015.01.18

## End of the Report

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for advertizing. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. SHENZHEN TIMEWAY TESTING LABORATORIES reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.