

<b>Prüfbericht-Nr.:</b> <i>Test Report No.:</i>	<b>17044435 001</b>	<b>Auftrags-Nr.:</b> <i>Order No.:</i>	<b>164022911</b>	<b>Seite 1 von 95</b> <i>Page 1 of 95</i>
<b>Kunden-Referenz-Nr.:</b> <i>Client Reference No.:</i>	N/A	<b>Auftragsdatum:</b> <i>Order date:</i>	<b>10.10.2014</b>	
<b>Auftraggeber:</b> <i>Client:</i>	Shenzhen Topband Co., Ltd, Topband Industrial Park, LiYuan Industrial Zone, ShiYan Town, Bao'An District, Shenzhen 518108, China			
<b>Prüfgegenstand:</b> <i>Test item:</i>	wireless jobsite speaker			
<b>Bezeichnung / Typ-Nr.:</b> <i>Identification / Type No.:</i>	2592-20			
<b>Auftrags-Inhalt:</b> <i>Order content:</i>	FCC Certification			
<b>Prüfgrundlage:</b> <i>Test specification:</i>	CFR47 FCC Part 15: Subpart C Section 15.247 CFR47 FCC Part 15: Subpart C Section 15.207 CFR47 FCC Part 15: Subpart C Section 15.209			
<b>Wareneingangsdatum:</b> <i>Date of receipt:</i>	30.10.2014			
<b>Prüfmuster-Nr.:</b> <i>Test sample No.:</i>	A000120647-001, A000120647-002			
<b>Prüfzeitraum:</b> <i>Testing period:</i>	01.11.2014 - 04.11.2014			
<b>Ort der Prüfung:</b> <i>Place of testing:</i>	Accurate Technology Co., Ltd.			
<b>Prüflaboratorium:</b> <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
<b>Prüfergebnis*:</b> <i>Test result*:</i>	Pass			
<b>geprüft von / tested by:</b>		<b>kontrolliert von / reviewed by:</b>		
26.11.2014	Owen Tian/Project Manager	26.11.2014	Winie Hou/Technical Certifier	
<b>Datum</b> <i>Date</i>	<b>Name / Stellung</b> <i>Name / Position</i>	<b>Unterschrift</b> <i>Signature</i>	<b>Datum</b> <i>Date</i>	<b>Name / Stellung</b> <i>Name / Position</i>
				<b>Unterschrift</b> <i>Signature</i>
<b>Sonstiges / Other:</b>				
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>		
<p>* Legende: 1 = sehr gut    2 = gut    3 = befriedigend    4 = ausreichend    5 = mangelhaft  P(ass) = entspricht o.g. Prüfgrundlage(n)    F(ail) = entspricht nicht o.g. Prüfgrundlage(n)    N/A = nicht anwendbar    N/T = nicht getestet</p> <p>Legend: 1 = very good    2 = good    3 = satisfactory    4 = sufficient    5 = poor  P(ass) = passed a.m. test specification(s)    F(ail) = failed a.m. test specification(s)    N/A = not applicable    N/T = not tested</p>				
<p><b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b>  <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i></p>				

V04

## TEST SUMMARY

**5.1.1 ANTENNA REQUIREMENT***RESULT: Pass***5.1.2 PEAK OUTPUT POWER***RESULT: Pass***5.1.3 20dB BANDWIDTH AND 99% BANDWIDTH***RESULT: Pass***5.1.4 6dB BANDWIDTH AND 99% BANDWIDTH***RESULT: Pass***5.1.5 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100KHz BANDWIDTH***RESULT: Pass***5.1.6 POWER SPECTRAL DENSITY***RESULT: Pass***5.1.7 SPURIOUS EMISSION***RESULT: Pass***5.1.8 FREQUENCY SEPARATION***RESULT: Pass***5.1.9 NUMBER OF HOPPING FREQUENCY***RESULT: Pass***5.1.10 TIME OF OCCUPANCY***RESULT: Pass*

## Contents

<b>1.</b>	<b>GENERAL REMARKS .....</b>	<b>4</b>
<b>1.1</b>	<b>COMPLEMENTARY MATERIALS .....</b>	<b>4</b>
<b>2.</b>	<b>TEST SITES .....</b>	<b>4</b>
<b>2.1</b>	<b>TEST FACILITIES .....</b>	<b>4</b>
<b>2.2</b>	<b>LIST OF TEST AND MEASUREMENT INSTRUMENTS.....</b>	<b>5</b>
<b>2.3</b>	<b>TRACEABILITY .....</b>	<b>5</b>
<b>2.4</b>	<b>CALIBRATION .....</b>	<b>5</b>
<b>2.5</b>	<b>MEASUREMENT UNCERTAINTY.....</b>	<b>6</b>
<b>2.6</b>	<b>LOCATION OF ORIGINAL DATA.....</b>	<b>6</b>
<b>2.7</b>	<b>STATUS OF FACILITY USED FOR TESTING.....</b>	<b>6</b>
<b>3.</b>	<b>GENERAL PRODUCT INFORMATION .....</b>	<b>7</b>
<b>3.1</b>	<b>PRODUCT FUNCTION AND INTENDED USE.....</b>	<b>7</b>
<b>3.2</b>	<b>RATINGS AND SYSTEM DETAILS .....</b>	<b>7</b>
<b>3.3</b>	<b>INDEPENDENT OPERATION MODES .....</b>	<b>9</b>
<b>3.4</b>	<b>NOISE GENERATING AND NOISE SUPPRESSING PARTS .....</b>	<b>9</b>
<b>3.5</b>	<b>SUBMITTED DOCUMENTS .....</b>	<b>9</b>
<b>4.</b>	<b>TEST SET-UP AND OPERATION MODES .....</b>	<b>10</b>
<b>4.1</b>	<b>PRINCIPLE OF CONFIGURATION SELECTION.....</b>	<b>10</b>
<b>4.2</b>	<b>TEST OPERATION AND TEST SOFTWARE .....</b>	<b>10</b>
<b>4.3</b>	<b>SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT .....</b>	<b>10</b>
<b>4.4</b>	<b>COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE.....</b>	<b>10</b>
<b>4.5</b>	<b>TEST SETUP DIAGRAM .....</b>	<b>11</b>
<b>5.</b>	<b>TEST RESULTS .....</b>	<b>12</b>
<b>5.1</b>	<b>TRANSMITTER REQUIREMENT &amp; TEST SUITES .....</b>	<b>12</b>
5.1.1	<i>Antenna Requirement .....</i>	<i>12</i>
5.1.2	<i>Peak Output Power .....</i>	<i>13</i>
5.1.3	<i>20dB Bandwidth and 99% Bandwidth .....</i>	<i>14</i>
5.1.4	<i>6dB Bandwidth and 99% Bandwidth .....</i>	<i>15</i>
5.1.5	<i>Conducted Spurious Emissions measured in 100kHz Bandwidth .....</i>	<i>16</i>
5.1.6	<i>Power spectral density .....</i>	<i>26</i>
5.1.7	<i>Spurious Emission .....</i>	<i>27</i>
5.1.8	<i>Frequency Separation.....</i>	<i>90</i>
5.1.9	<i>Number of hopping frequency.....</i>	<i>91</i>
5.1.10	<i>Time of Occupancy.....</i>	<i>92</i>
<b>6.</b>	<b>PHOTOGRAPHS OF THE TEST SET-UP .....</b>	<b>93</b>
<b>7.</b>	<b>LIST OF TABLES .....</b>	<b>95</b>
<b>8.</b>	<b>LIST OF PHOTOGRAPHS .....</b>	<b>95</b>

## 1. General Remarks

### 1.1 Complementary Materials

None.

## 2. Test Sites

### 2.1 Test Facilities

Accurate Technology Co., Ltd.

**(FCC Registration No.: 752051)**

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

The tests at the test site have been conducted under the supervision of a TÜV engineer.

## 2.2 List of Test and Measurement Instruments

**Table 1: List of Test and Measurement Equipment**

Kind of Equipment	Manufacturer	Type	S/N	Calibrated until
<b>Transmitter spurious emissions &amp; Receiver spurious emissions</b>				
Spectrum Analyzer	Agilent	E7405A	MY45115511	2015-01-11
Test Receiver	Rohde&Schwarz	ESCS30	100307	2015-01-11
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	2015-01-11
Loop Antenna	Schwarzbeck	FMZB1516	1516131	2015-01-11
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	2015-01-11
50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	2015-01-11
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	2015-01-11
Temp. & Humid. Chamber	Gongwen	HSD-500	0109	2015-01-11
<b>Radio Spectrum Test</b>				
EMI Test Receiver	Rohde&Schwarz	ESPI-3	100396/003	2015-01-11
Spectrum Analyzer	Rohde & Schwarz	FSV40	101495	2015-06-11
Temp. & Humid. Chamber	Gongwen	HSD-500	0109	2015-01-11
<b>Conducted Emission</b>				
Test Receiver	Rohde&Schwarz	ESCS30	100307	2015-01-11
L.I.S.N.	Schwarzbeck	NLSK8126	8126431	2015-01-11
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100815	2015-01-11
50Ω Coaxial Switch	Anritsu Corp	MP59B	6200283933	2015-01-11

## 2.3 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

## 2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

## 2.5 Measurement Uncertainty

**Table 2: Measurement Uncertainty**

Parameter	Uncertainty
Radio Spectrum	< ± 0.60 dB
Radiated emission of transmitter, valid up to 26.5 GHz	< ± 4.42 dB
Conducted Emission	< ± 2.23 dB
Radiated Emission	< ± 4.42 dB

## 2.6 Location of Original Data

The original copies of all test data taken during actual testing were retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

## 2.7 Status of Facility Used for Testing

Accurate Technology Co., Ltd. test facility located at F1, Bldg. A, Changyuan New Material Port Keyuan Rd., Science & Industry Park, Nanshan, Shenzhen, P.R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

### 3. General Product Information

#### 3.1 Product Function and Intended Use

The EUT is a Bluetooth speaker.  
 For details refer to the User Manual and Circuit Diagram.

#### 3.2 Ratings and System Details

**Table 3: Technical Specification of Bluetooth (BDR & EDR mode)**

Technical Specification	Value
Kind of Equipment	wireless jobsite speaker
Type Designation	2592-20
FCC ID	2AADDWSPEAKER-M12
Operating Frequency band	2402 – 2480MHz
Channel separation	1MHz
Extreme Temperature Range	-20~+60°C
Operation Voltage	DC 12V (via built in battery)
Modulation	FHSS, GFSK, 8DPSK, $\pi/4$ DQPSK
Bluetooth version	4.0, Dual Mode
Antenna Gain	0dBi

**Table 4: RF channel and frequency of Bluetooth (BDR & EDR mode)**

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
0	2402.00	21	2423.00	42	2444.00	63	2465.00
1	2403.00	22	2424.00	43	2445.00	64	2466.00
2	2404.00	23	2425.00	44	2446.00	65	2467.00
3	2405.00	24	2426.00	45	2447.00	66	2468.00
4	2406.00	25	2427.00	46	2448.00	67	2469.00
5	2407.00	26	2428.00	47	2449.00	68	2470.00
6	2408.00	27	2429.00	48	2450.00	69	2471.00
7	2409.00	28	2430.00	49	2451.00	70	2472.00
8	2410.00	29	2431.00	50	2452.00	71	2473.00
9	2411.00	30	2432.00	51	2453.00	72	2474.00
10	2412.00	31	2433.00	52	2454.00	73	2475.00
11	2413.00	32	2434.00	53	2455.00	74	2476.00
12	2414.00	33	2435.00	54	2456.00	75	2477.00
13	2415.00	34	2436.00	55	2457.00	76	2478.00

14	2416.00	35	2437.00	56	2458.00	77	2479.00
15	2417.00	36	2438.00	57	2459.00	78	2480.00
16	2418.00	37	2439.00	58	2460.00		
17	2419.00	38	2440.00	59	2461.00		
18	2420.00	39	2441.00	60	2462.00		
19	2421.00	40	2442.00	61	2463.00		
20	2422.00	41	2443.00	62	2464.00		

**Table 5: Technical Specification of Bluetooth (LE mode)**

Technical Specification	Value
Kind of Equipment	wireless jobsite speaker
Type Designation	2592-20
FCC ID	2AADDWSPEAKER-M12
Operating Frequency band	2402 – 2480MHz
Channel separation	2MHz
Extreme Temperature Range	-20~+60°C
Operation Voltage	DC 12V (via built in battery)
Modulation	GFSK
Bluetooth version	4.0, Dual Mode
Antenna Gain	0dBi

**Table 6: RF channel and frequency of Bluetooth (LE mode)**

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
0	2402.00	11	2424.00	22	2446.00	33	2468.00
1	2404.00	12	2426.00	23	2448.00	34	2470.00
2	2406.00	13	2428.00	24	2450.00	35	2472.00
3	2408.00	14	2430.00	25	2452.00	36	2474.00
4	2410.00	15	2432.00	26	2454.00	37	2476.00
5	2412.00	16	2434.00	27	2456.00	38	2478.00
6	2414.00	17	2436.00	28	2458.00	39	2480.00
7	2416.00	18	2438.00	29	2460.00		
8	2418.00	19	2440.00	30	2462.00		
9	2420.00	20	2442.00	31	2464.00		
10	2422.00	21	2444.00	32	2466.00		



### 3.3 Independent Operation Modes

The basic operation modes are:

- A. On
  - 1. Bluetooth mode (BDR & EDR mode)
    - a. Transmitting
      - i. Low Channel
      - ii. Middle Channel
      - iii. High Channel
    - b. Receiving
  - 2. Bluetooth mode (LE mode)
    - a. Transmitting
      - i. Low Channel
      - ii. Middle Channel
      - iii. High Channel
    - b. Receiving
- B. Standby
- C. Off

### 3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

### 3.5 Submitted Documents

- Bill of Material
- PCB Layout
- Photo Document
- Circuit Diagram
- Instruction Manual
- Rating Label

## 4. Test Set-up and Operation Modes

### 4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level. The test modes were adapted accordingly in reference to the instructions for use.

### 4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.4: 2003.

### 4.3 Special Accessories and Auxiliary Equipment

The EUT was tested together with the following accessories:

Description	Manufacturer	Part No.	S/N
iPod	Apple	A1238	8K039T1Y9ZU
iPad	Apple	MD513CH/A	DMTK58A5F185

### 4.4 Countermeasures to achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

## 4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test

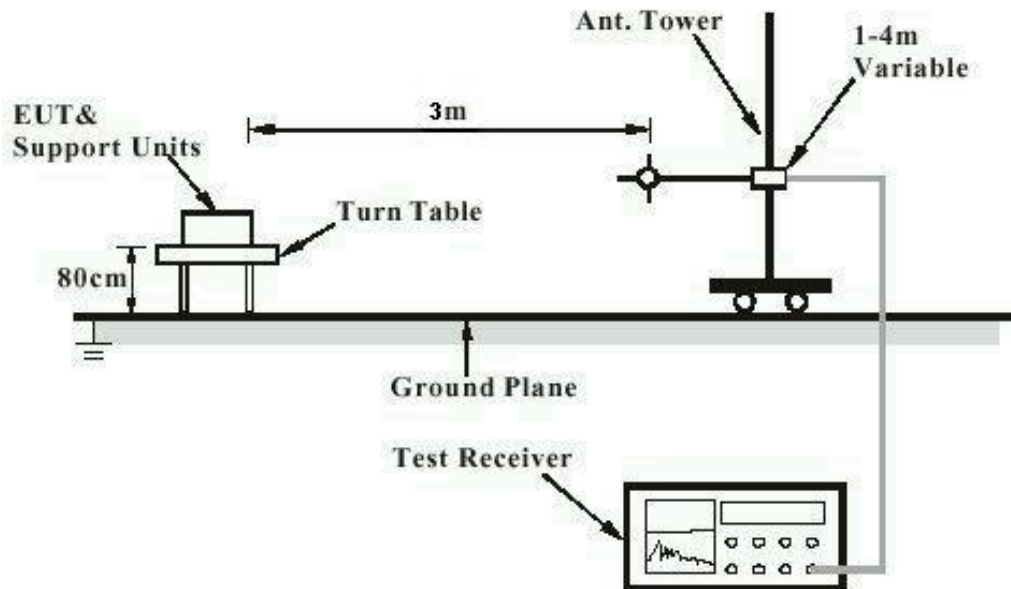
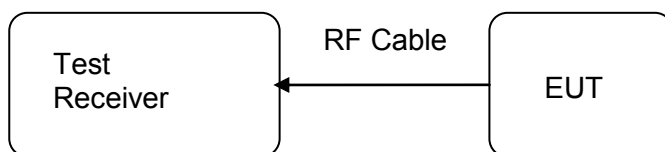


Diagram of Measurement Equipment Configuration for Transmitter Measurement



## 5. Test Results

### 5.1 Transmitter Requirement & Test Suites

#### 5.1.1 Antenna Requirement

**RESULT:****Pass**

Test standard : FCC Part 15.247(b)(4) and Part 15.203  
Limit : The use of antennas with directional gains that do not exceed 6dBi

According to the manufacturer declared, the EUT has an internal antenna, the directional gain of antenna is 0dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

## 5.1.2 Peak Output Power

**RESULT:**
**Pass**

Test date : 2014-11-01  
 Test standard : FCC Part 15.247(b)(1)  
 FCC Part 15.247(b)(3)  
 Basic standard : ANSI C63.4: 2003  
 Clause 9.1 of KDB 558074 v03r01  
 Limit : 125mW, 1W  
 Kind of test site : Shielded room

**Test setup**

Test Channel : Low/ Middle/ High  
 Operation Mode : A.1.a, A.2.a  
 Ambient temperature : 24°C  
 Relative humidity : 48%  
 Atmospheric pressure : 101kPa

**Table 7: Test result of Peak Output Power of Buletooth (BDR mode)**

Channel	Channel Frequency (MHz)	Peak Output Power	Limit
		(dBm)	(dBm)
Low Channel	2402	3.62	21
Middle Channel	2441	5.46	21
High Channel	2480	5.58	21

**Table 8: Test result of Peak Output Power of Bluetooth (EDR mode)**

Channel	Channel Frequency (MHz)	Peak Output Power	Limit
		(dBm)	(dBm)
Low Channel	2402	1.47	21
Middle Channel	2441	3.76	21
High Channel	2480	3.82	21

**Table 9: Test result of Peak Output Power of Bluetooth (LE mode)**

Channel	Channel Frequency (MHz)	Peak Output Power	Limit
		(dBm)	(dBm)
Low Channel	2402	2.48	30
Middle Channel	2440	4.13	30
High Channel	2480	5.59	30

**Prüfbericht - Nr.: 17044435 001**
*Test Report No.*
**Seite 14 von 95**
*Page 14 of 95*

### 5.1.3 20dB Bandwidth and 99% Bandwidth

**RESULT:**
**Pass**

Date of testing : 2014-11-01  
 Test standard : FCC Part 15.247(a)(1)  
 Basic standard : ANSI C63.4: 2003  
 Clause 8 of KDB 558074 v03r01  
 Kind of test site : Shielded room

**Test setup**

Test Channel : Low/ Middle/ High  
 Operation Mode : A.1.a  
 Ambient temperature : 24°C  
 Relative humidity : 48%  
 Atmospheric pressure : 101kPa

**Table 10: Test result of 20dB & 99% Bandwidth of BDR mode**

Channel	Channel Frequency (MHz)	20dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low Channel	2402	0.942	0.936
Mid Channel	2441	0.942	0.936
High Channel	2480	0.942	0.936

**Table 11: Test result of 20dB & 99% Bandwidth of EDR mode**

Channel	Channel Frequency (MHz)	20dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low Channel	2402	1.200	1.194
Mid Channel	2441	1.206	1.200
High Channel	2480	1.210	1.206

**Prüfbericht - Nr.: 17044435 001**

Test Report No.

Seite 15 von 95

Page 15 of 95

**5.1.4 6dB Bandwidth and 99% Bandwidth****RESULT:****Pass**

Date of testing : 2014-11-01  
Test standard : FCC Part 15.247(a)(2)  
Basic standard : ANSI C63.4: 2003  
Clause 8 of KDB 558074 v03r01  
Kind of test site : Shielded room

**Test setup**

Test Channel : Low/ Middle/ High  
Operation Mode : A.2.a  
Ambient temperature : 24°C  
Relative humidity : 48%  
Atmospheric pressure : 101kPa

**Table 12: Test result of 6dB & 99% Bandwidth of Bluetooth, LE mode**

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low Channel	2402	0.634	1.056
Mid Channel	2440	0.641	1.056
High Channel	2480	0.636	1.056

**Prüfbericht - Nr.: 17044435 001**

Test Report No.

Seite 16 von 95

Page 16 of 95

**5.1.5 Conducted Spurious Emissions measured in 100kHz Bandwidth****RESULT:****Pass**

Date of testing : 2014-11-03  
Test standard : FCC part 15.247(d)  
Basic standard : ANSI C63.4: 2003  
Limit : 20dB (below that in the 100kHz bandwidth within  
the band that contains the highest level of the  
desired power);  
Kind of test site : Shield room

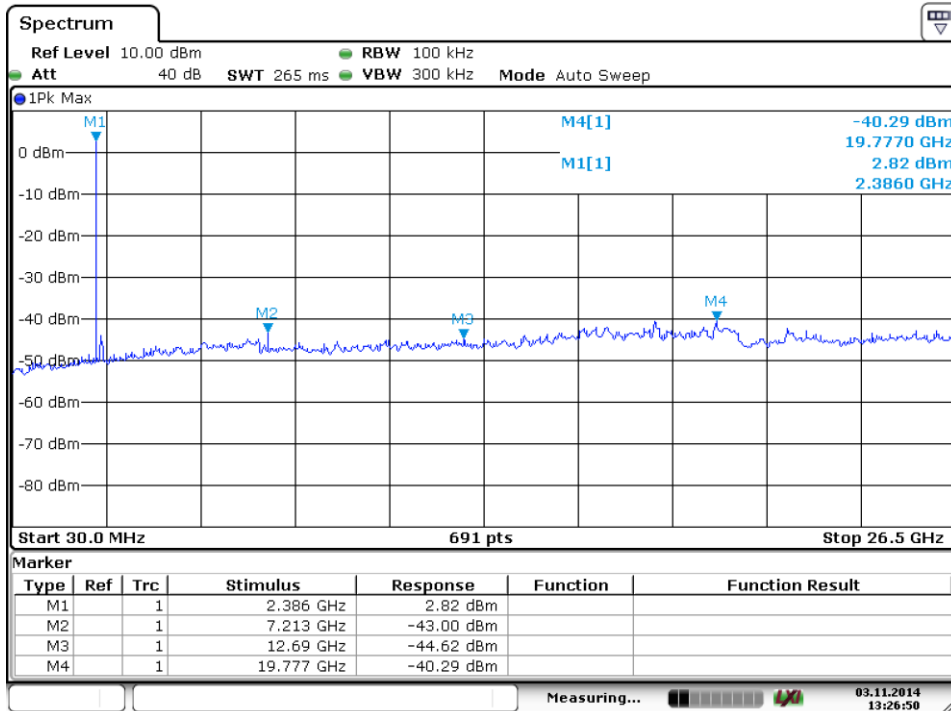
**Test setup**

Test Channel : Low/ Middle/ High  
Operation mode : A.1.a, A.2.a  
Ambient temperature : 24°C  
Relative humidity : 48%  
Atmospheric pressure : 101kPa

For details refer to following test plot.

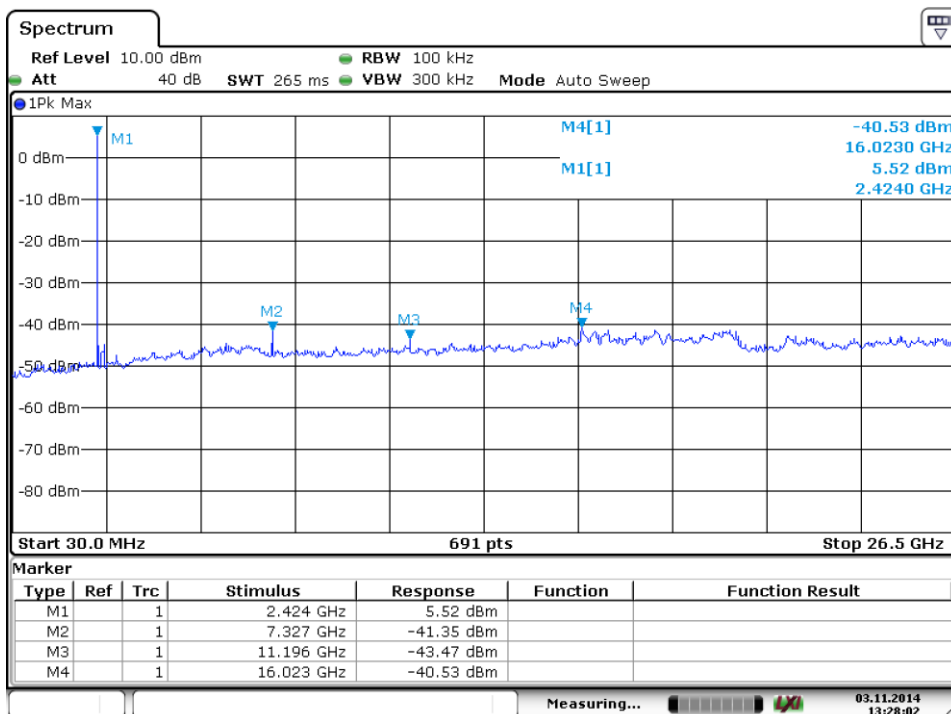


## Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of BDR mode Low Channel

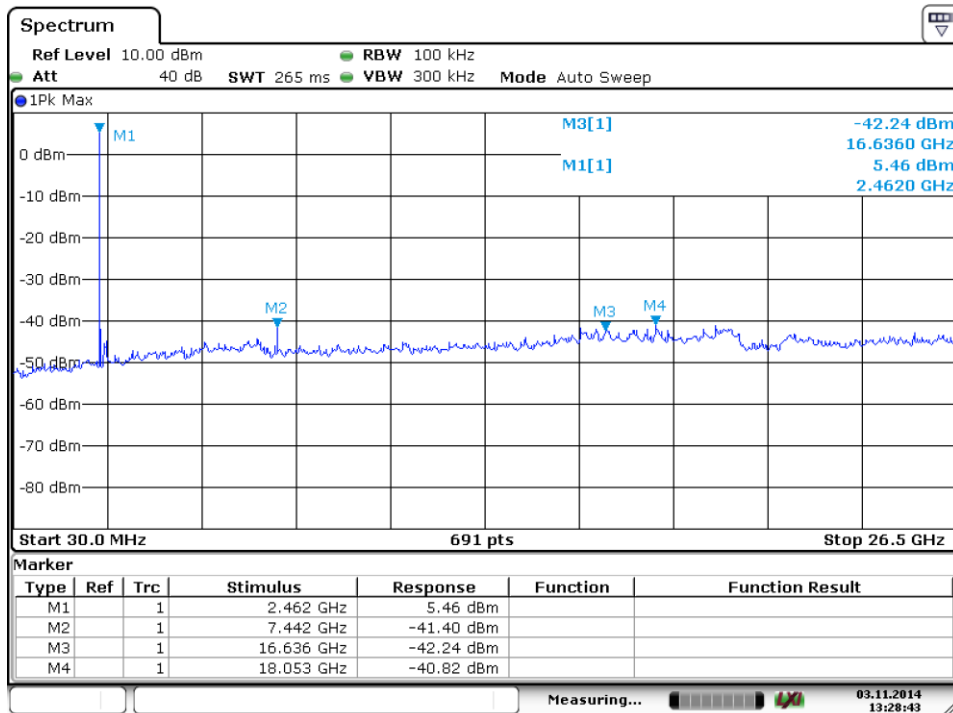


Date: 3.NOV.2014 13:26:50

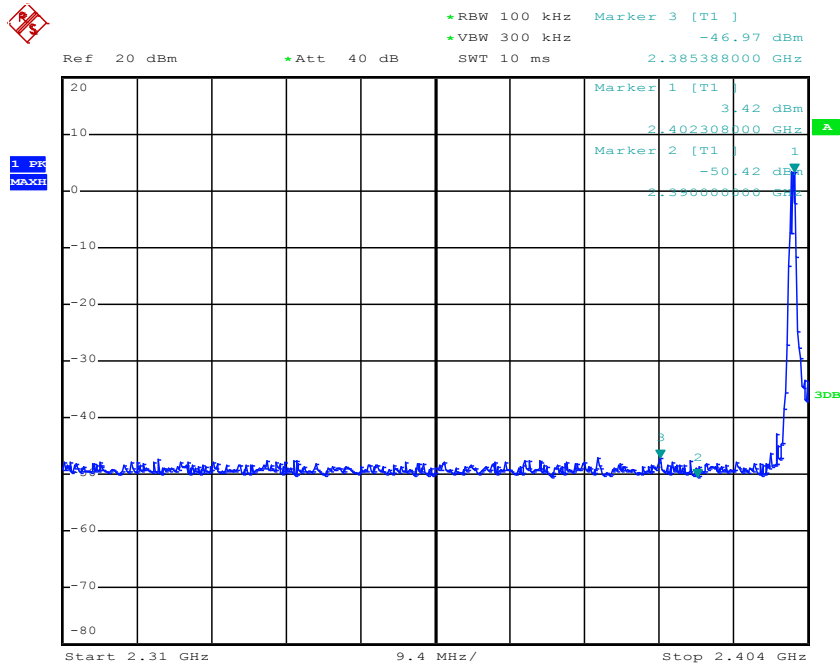
## Middle Channel



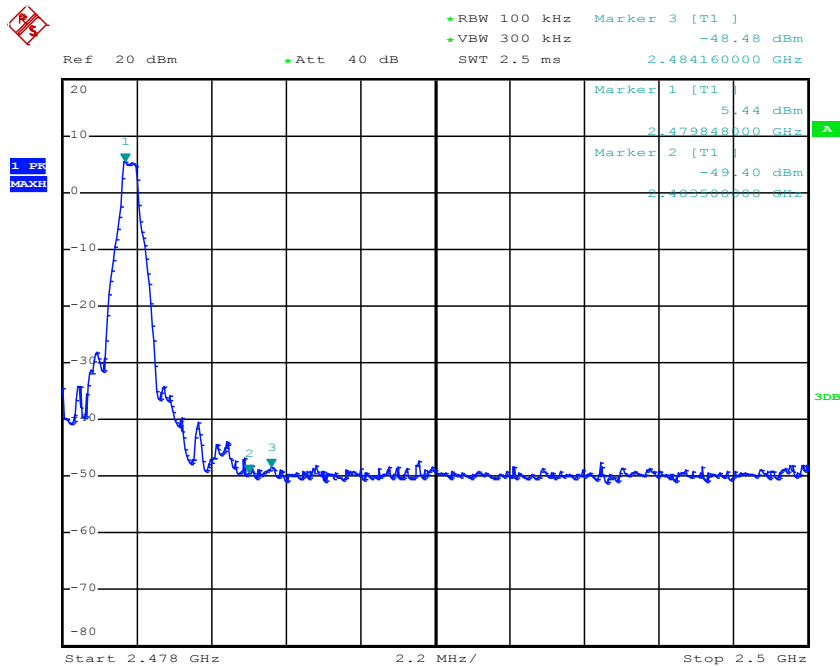
Date: 3.NOV.2014 13:28:02

**High Channel**


Date: 3.NOV.2014 13:28:43

**Band Edge**


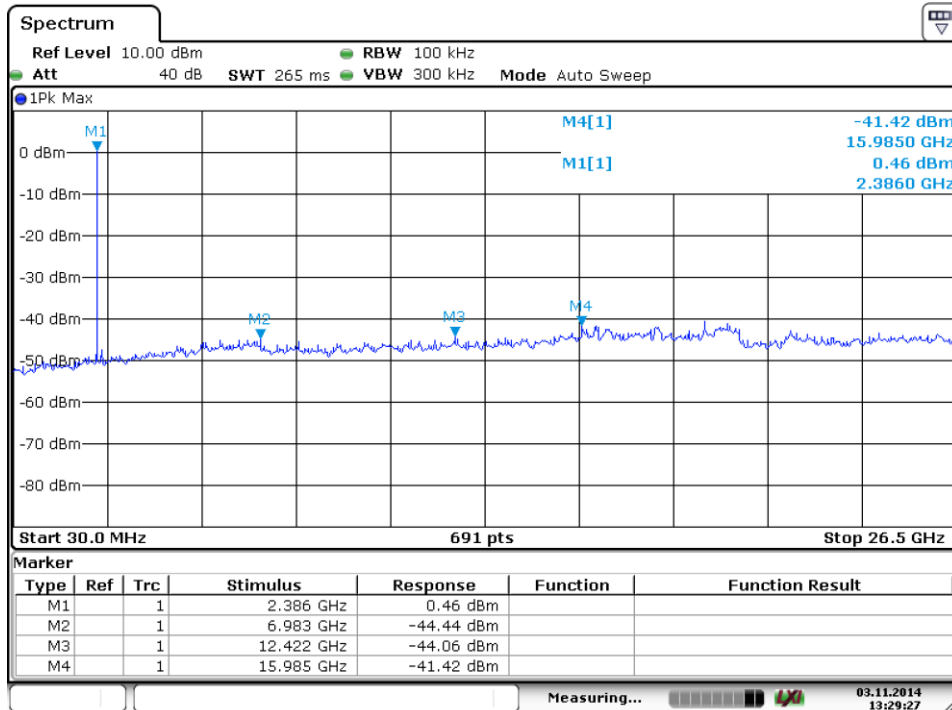
Date: 1.NOV.2014 10:53:35



Date: 1.NOV.2014 10:54:32

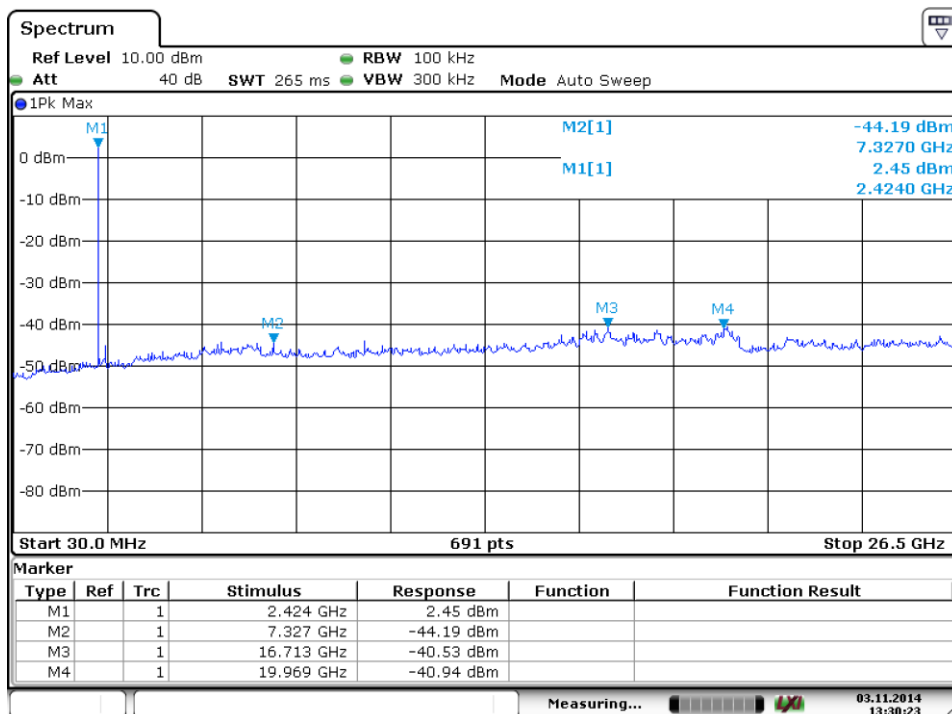
## Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of EDR mode

### Low Channel

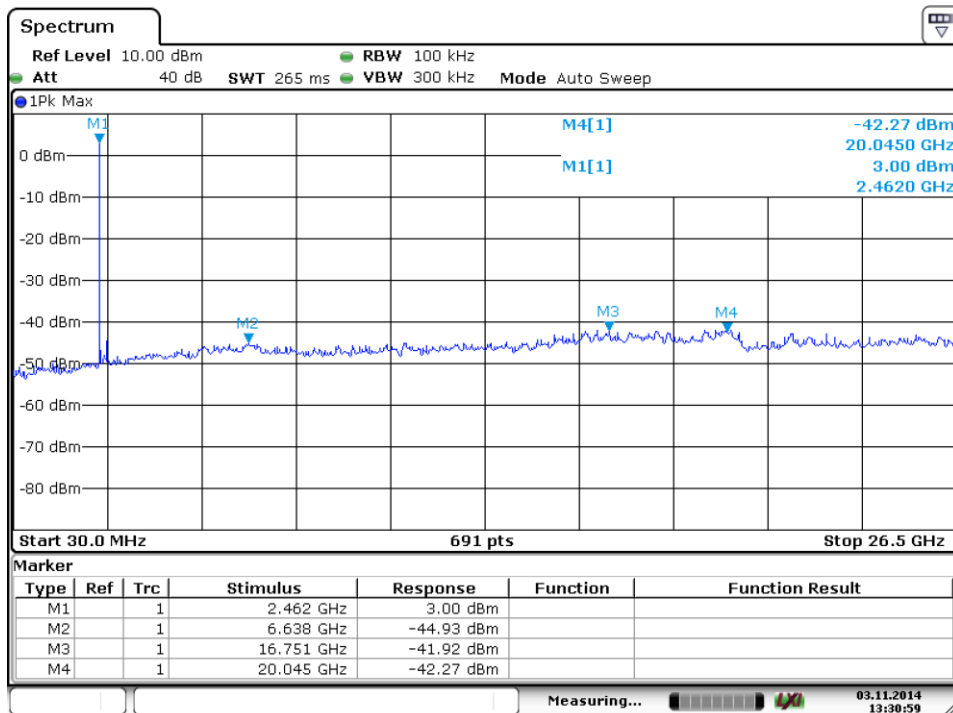


Date: 3.NOV.2014 13:29:28

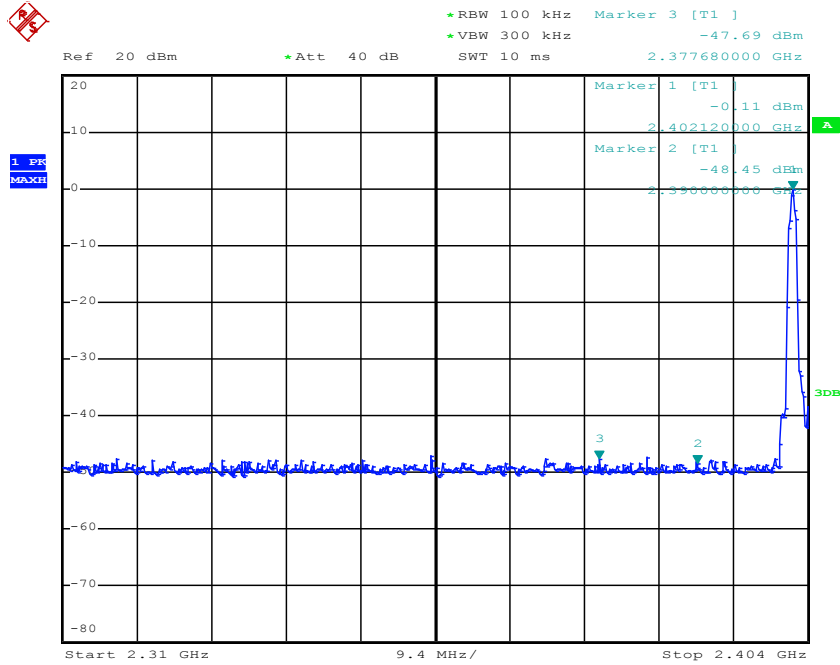
### Middle Channel



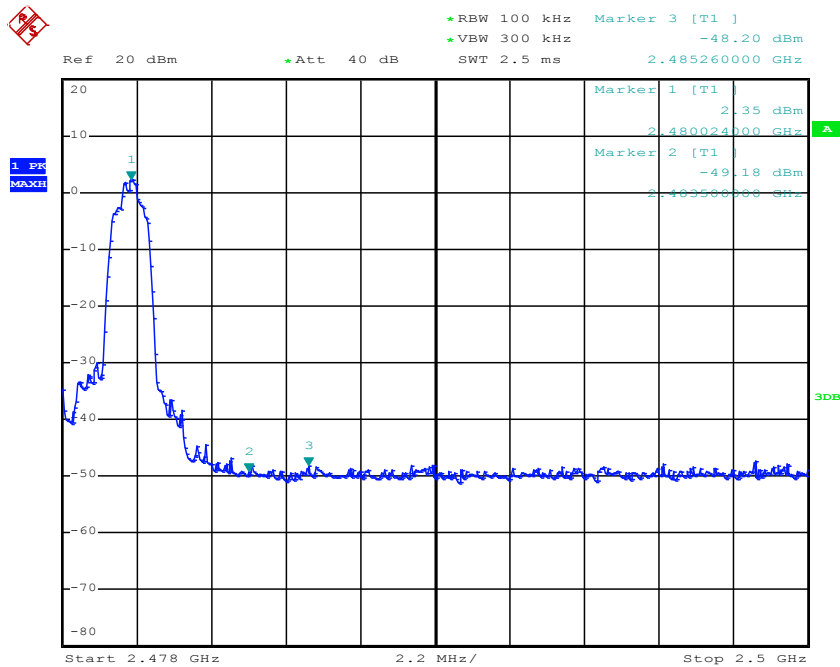
Date: 3.NOV.2014 13:30:24

**High Channel**


Date: 3.NOV.2014 13:31:00

**Band Edge**


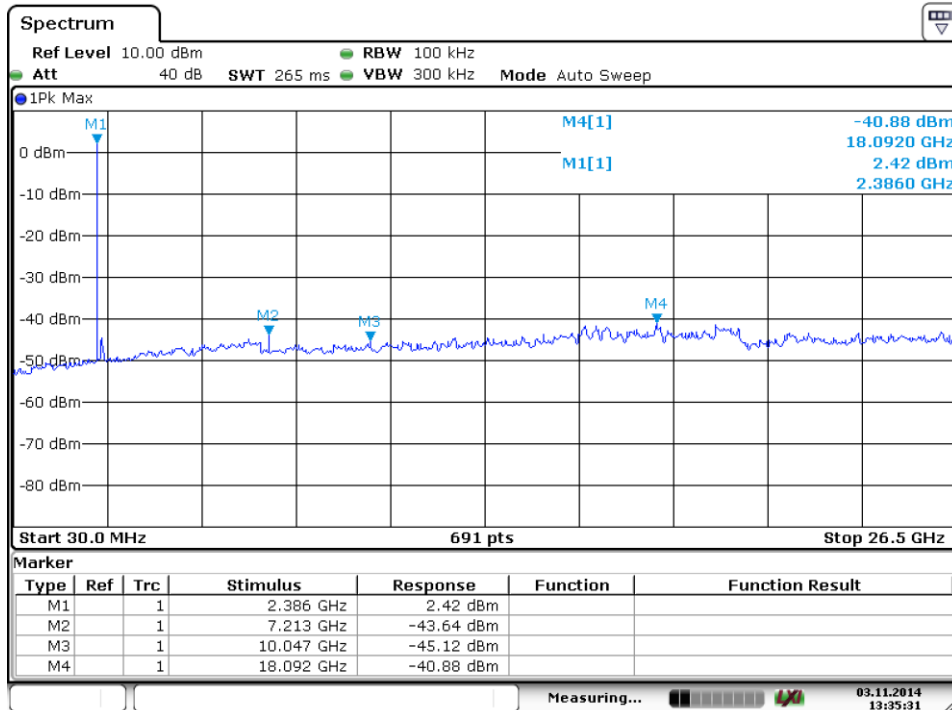
Date: 1.NOV.2014 10:55:58



Date: 1.NOV.2014 10:55:17

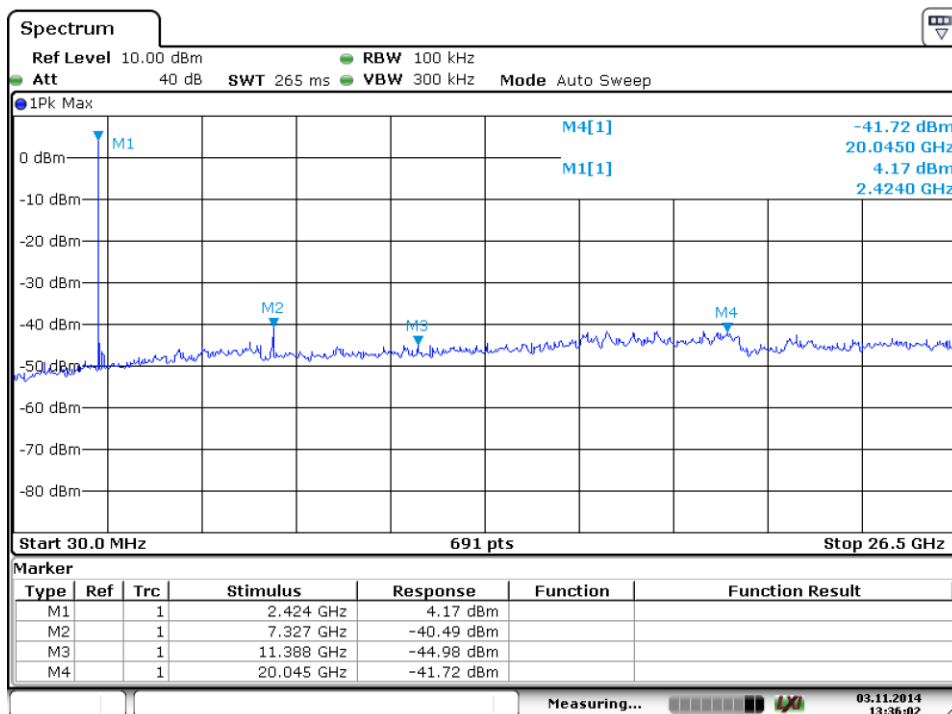
## Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of LE mode

### Low Channel

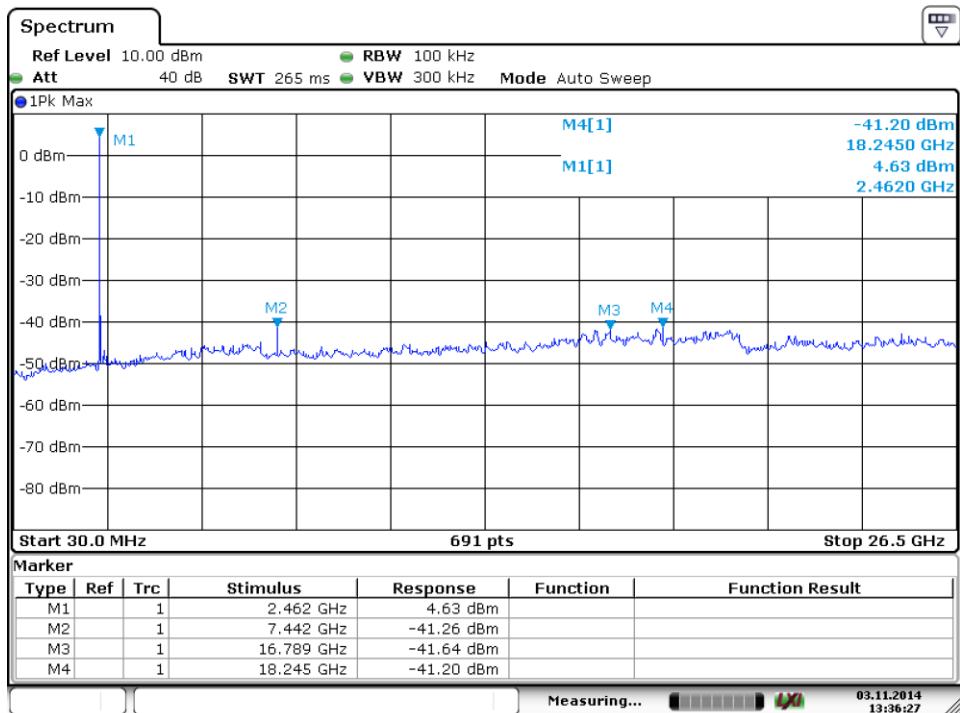


Date: 3.NOV.2014 13:35:31

### Middle Channel

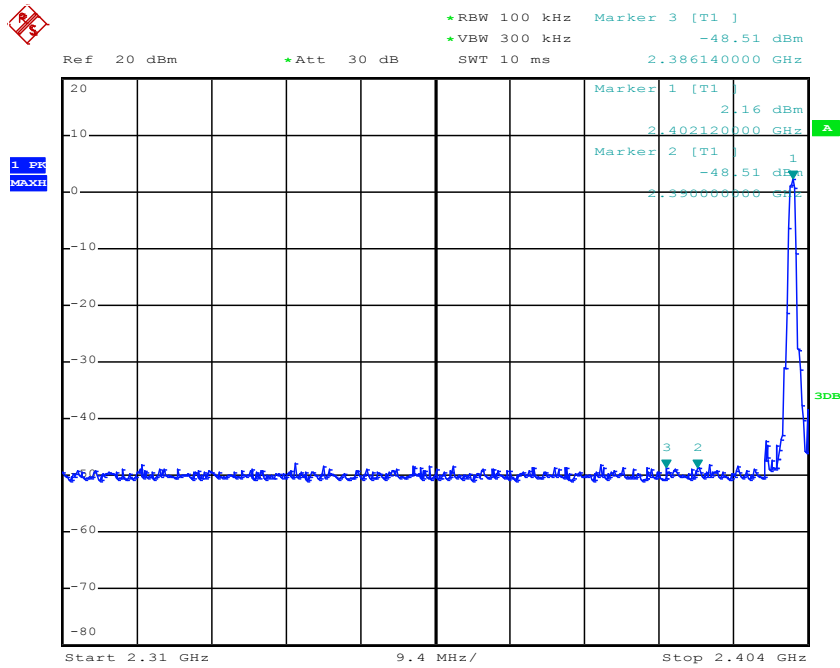


Date: 3.NOV.2014 13:36:02

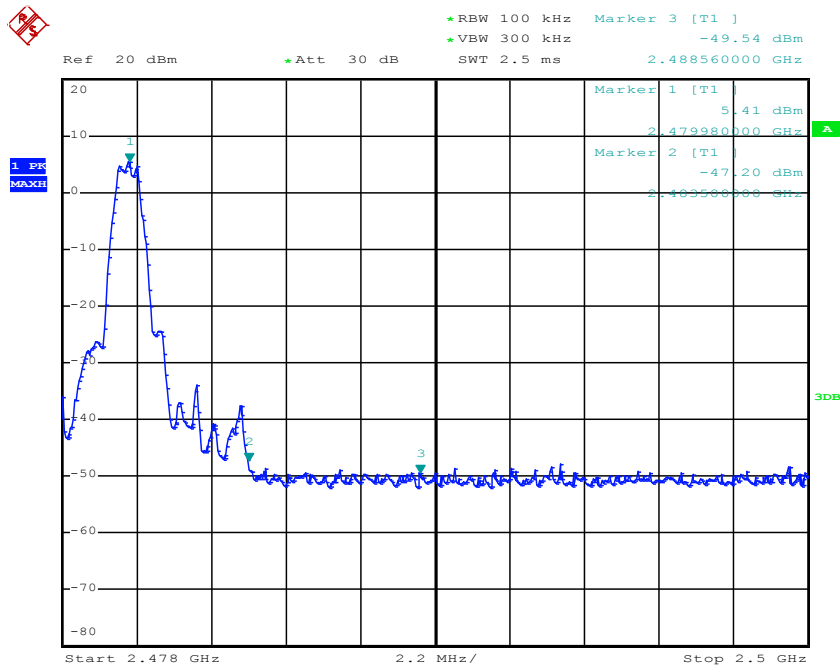
**High Channel**


Date: 3.NOV.2014 13:36:28



**Band Edge**


Date: 1.NOV.2014 10:16:18



Date: 1.NOV.2014 10:17:31



**Prüfbericht - Nr.: 17044435 001**  
*Test Report No.***Seite 27 von 95**  
*Page 27 of 95*

### 5.1.7 Spurious Emission

**RESULT:****Pass**

Date of testing : 2014-11-04  
Test standard : FCC part 15.247(d)  
Basic standard : ANSI C63.4: 2003  
Clause 11 of KDB 558074 v03r01  
Limits : FCC part 15.209(a)  
Kind of test site : 3m Semi-Anechoic Chamber

**Test setup**

Test Channel : Low/ Middle/ High  
Operation mode : A.1.a, A.2.a  
Ambient temperature : 23°C  
Relative humidity : 48%  
Atmospheric pressure : 101kPa

For details refer to following test plot.

## Test Plot of Spurious Emission of transmitting

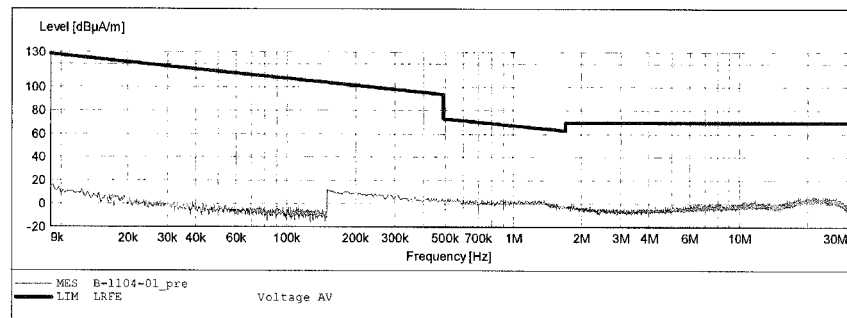
**ACCURATE TECHNOLOGY CO.,LTD**

**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2402MHz  
 Test Site: 2#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: X  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

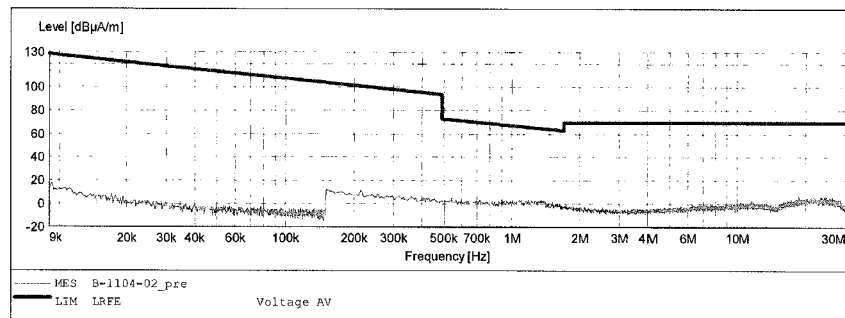


**ACCURATE TECHNOLOGY CO., LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2402MHz  
 Test Site: 2#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: Y  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Short Description:			_SUB_STD_VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

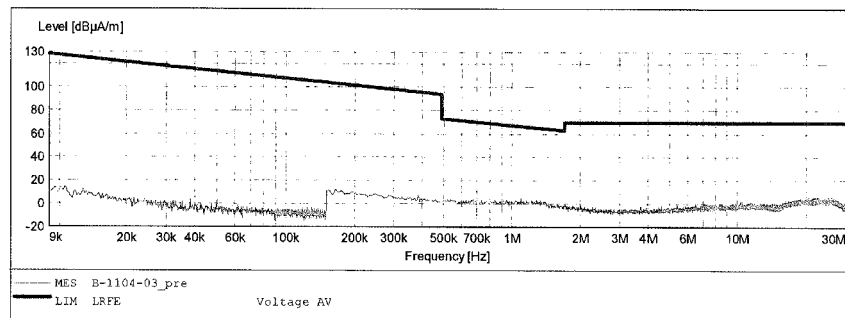


**ACCURATE TECHNOLOGY CO.,LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2402MHz  
 Test Site: 2#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: Z  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

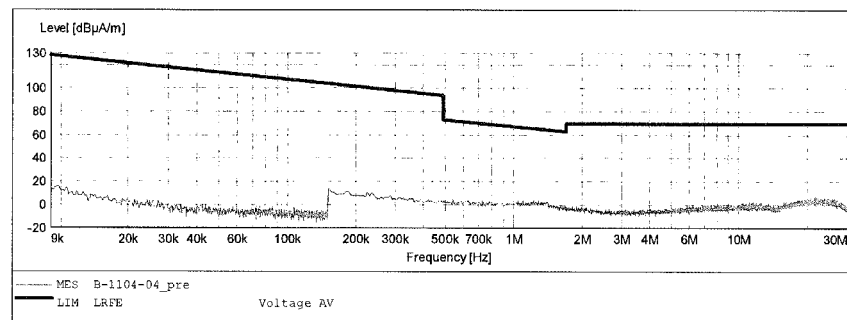


**ACCURATE TECHNOLOGY CO.,LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2441MHz  
 Test Site: 2#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: X  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

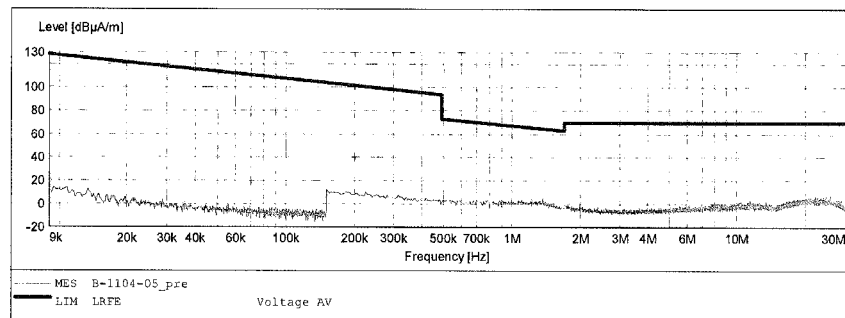


**ACCURATE TECHNOLOGY CO.,LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2441MHz  
 Test Site: 2#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: Y  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M



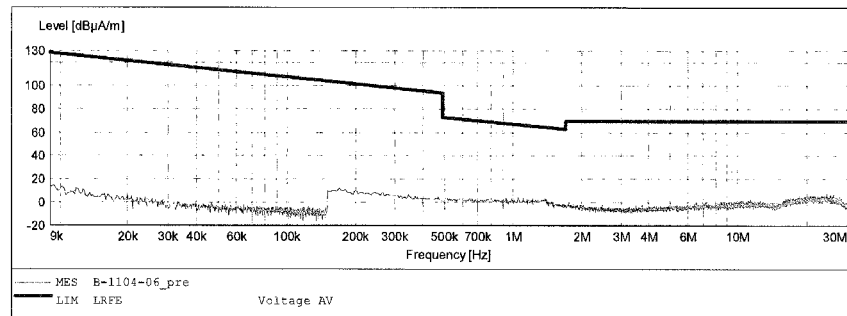


**ACCURATE TECHNOLOGY CO., LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2441MHz  
 Test Site: 2#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: Z  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Short Description:		_SUB_STD_VTERM2 1.70				
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

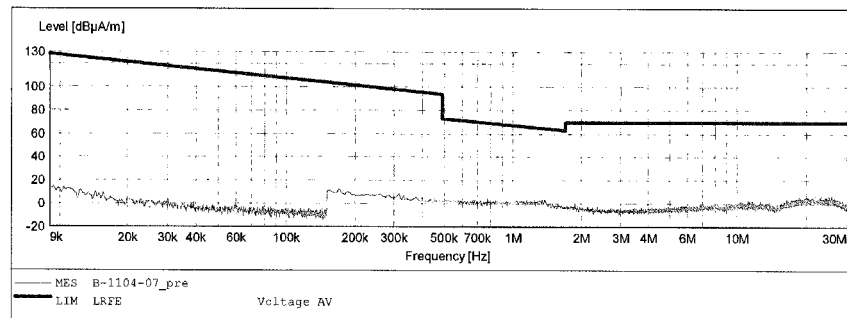


**ACCURATE TECHNOLOGY CO.,LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2480MHz  
 Test Site: 2#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: X  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Short Description:		_SUB_STD_VTERM2 1.70				
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

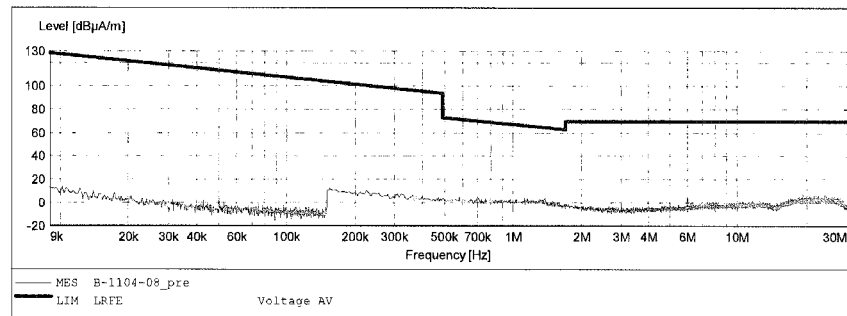


**ACCURATE TECHNOLOGY CO.,LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2480MHz  
 Test Site: 2#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: Y  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

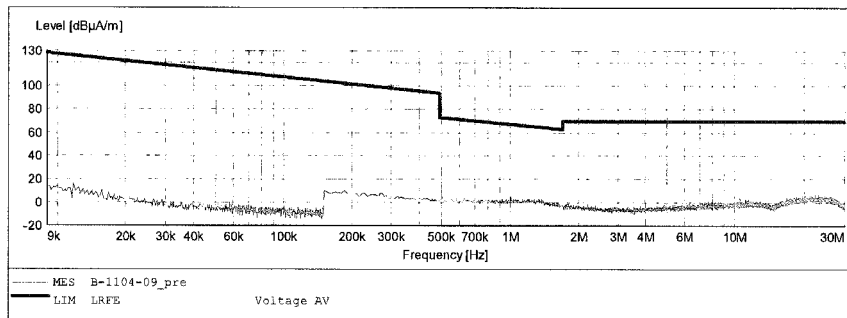


**ACCURATE TECHNOLOGY CO.,LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2480MHz  
 Test Site: 2#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: Z  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Short Description:			_SUB_STD VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M




**ACCURATE TECHNOLOGY CO., LTD.**

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

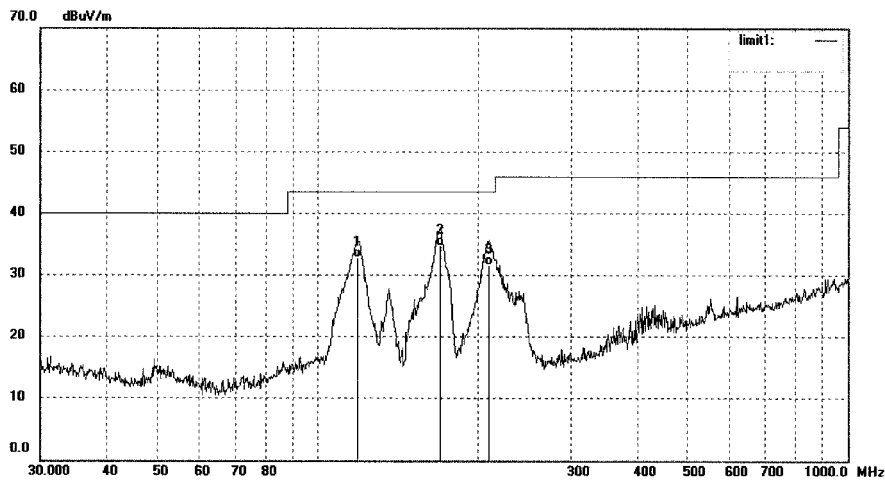
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #1194	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	118.6012	45.87	-13.14	32.73	43.50	-10.77	QP			
2	170.1947	48.38	-13.68	34.70	43.50	-8.80	QP			
3	210.0482	43.73	-12.18	31.55	43.50	-11.95	QP			


**ACCURATE TECHNOLOGY CO., LTD.**

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

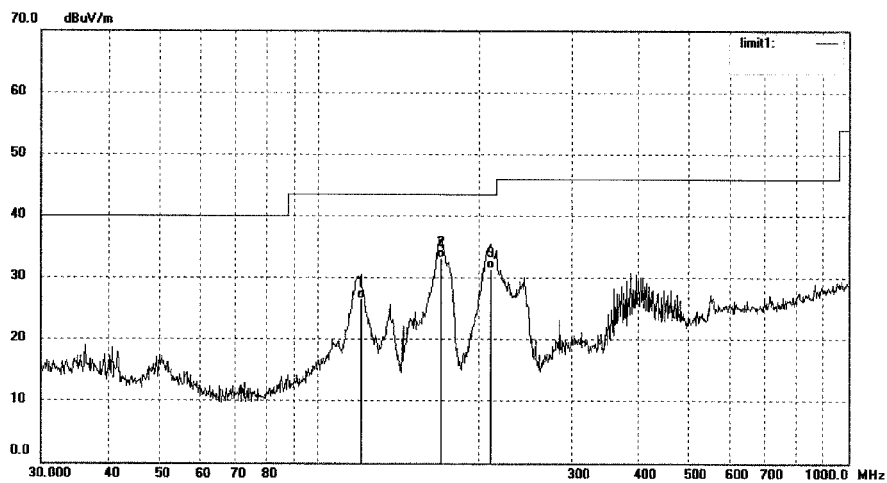
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #1195	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	120.2766	39.67	-13.18	26.49	43.50	-17.01	QP			
2	170.1947	46.92	-13.68	33.24	43.50	-10.26	QP			
3	210.7860	43.52	-12.13	31.39	43.50	-12.11	QP			


**ACCURATE TECHNOLOGY CO., LTD.**

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

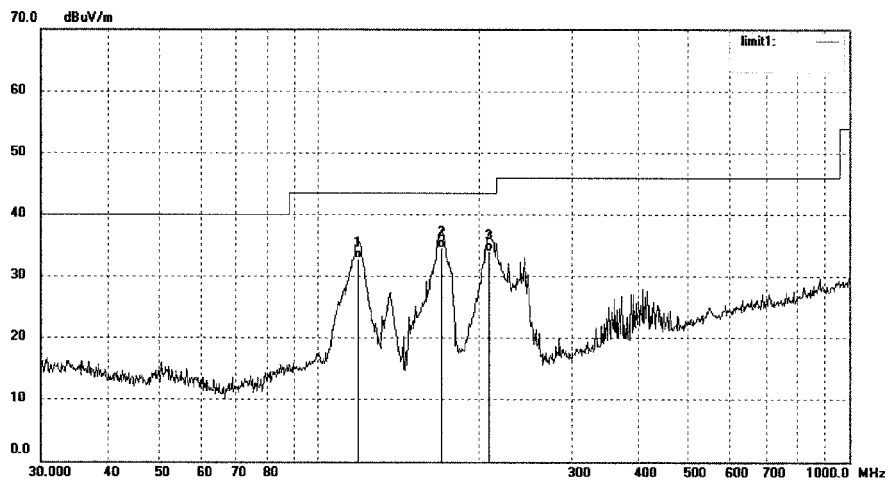
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #1197	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2441MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



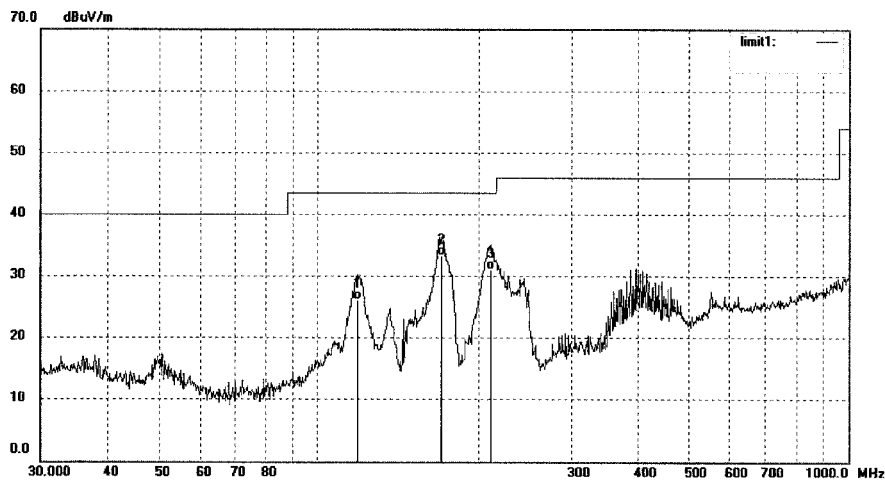
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	119.0180	46.05	-13.15	32.90	43.50	-10.60	QP			
2	170.1947	48.16	-13.68	34.48	43.50	-9.02	QP			
3	209.3129	46.30	-12.20	34.10	43.50	-9.40	QP			


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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN2014 #1196	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2441MHz	Distance: 3m
Model: 2592-202592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	118.6013	39.35	-13.14	26.21	43.50	-17.29	QP			
2	170.1947	46.94	-13.68	33.26	43.50	-10.24	QP			
3	211.5264	43.24	-12.09	31.15	43.50	-12.35	QP			




**ACCURATE TECHNOLOGY CO., LTD.**

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

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #1198

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Wireless jobsite speaker

Mode: TX 2480MHz

Model: 2592-20

Manufacturer: Topband

Polarization: Horizontal

Power Source: DC 12V

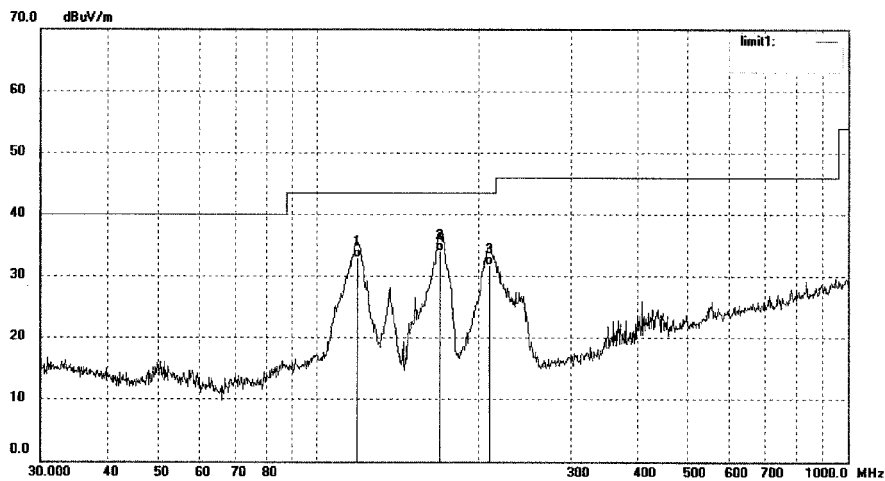
Date: 14/11/04/

Time:

Engineer Signature:

Distance: 3m

Note: Bluetooth



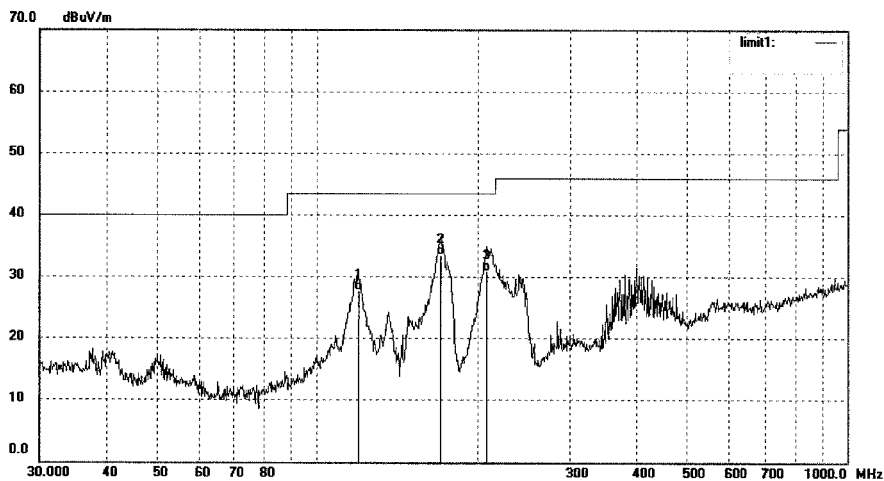
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	119.0180	46.16	-13.15	33.01	43.50	-10.49	QP			
2	169.5989	47.81	-13.74	34.07	43.50	-9.43	QP			
3	210.0482	43.86	-12.18	31.68	43.50	-11.82	QP			


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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN2014 #1199	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	119.8555	40.84	-13.15	27.69	43.50	-15.81	QP			
2	170.1947	47.12	-13.68	33.44	43.50	-10.06	QP			
3	207.8500	43.06	-12.23	30.83	43.50	-12.67	QP			


**ACCURATE TECHNOLOGY CO., LTD.**

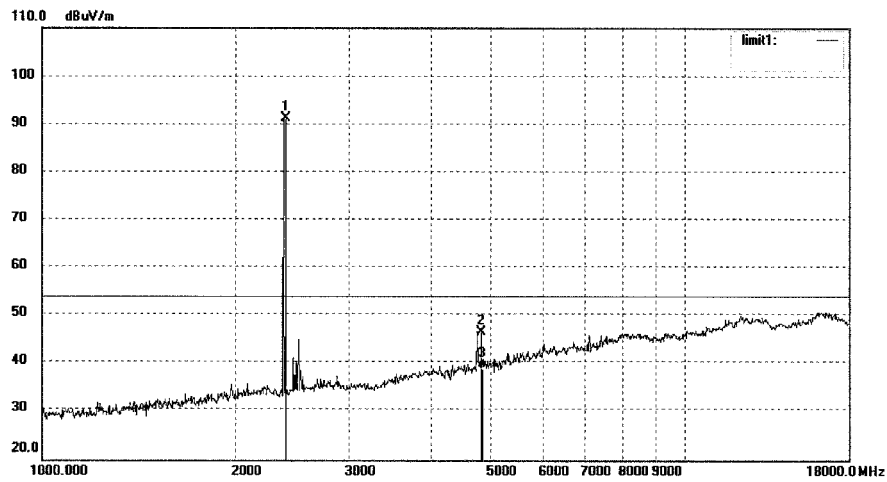
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN #1072	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.000	98.68	-7.49	91.19	/	/	peak			
2	4804.012	46.49	0.25	46.74	74.00	-27.26	peak			
3	4804.012	38.76	0.25	39.01	54.00	-14.99	AVG			


**ACCURATE TECHNOLOGY CO., LTD.**

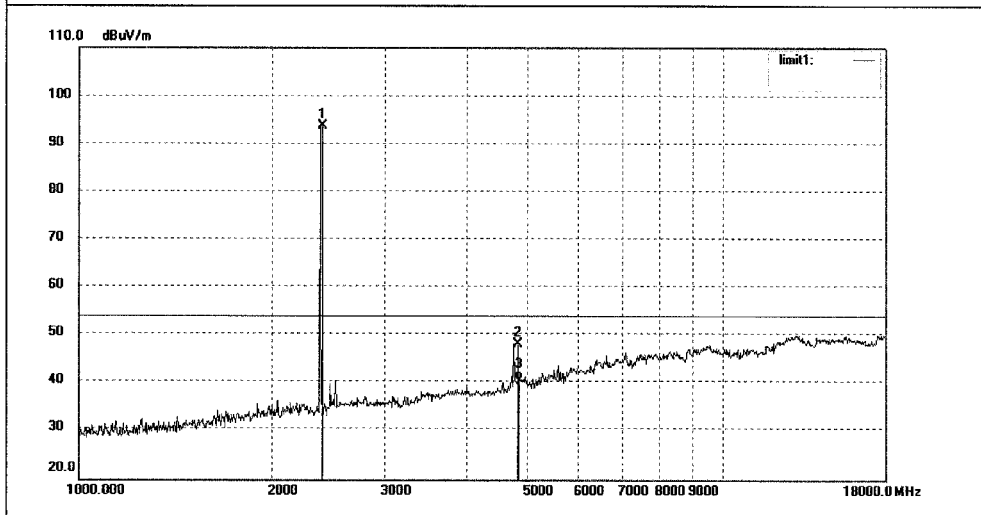
 F1,Bldg.A,Changyuan New Material Port Keyuan Rd,  
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN #1071	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.000	101.08	-7.49	93.59	/	/	peak			
2	4804.032	48.08	0.25	48.33	74.00	-25.67	peak			
3	4804.032	40.52	0.25	40.77	54.00	-13.23	AVG			


**ACCURATE TECHNOLOGY CO., LTD.**

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

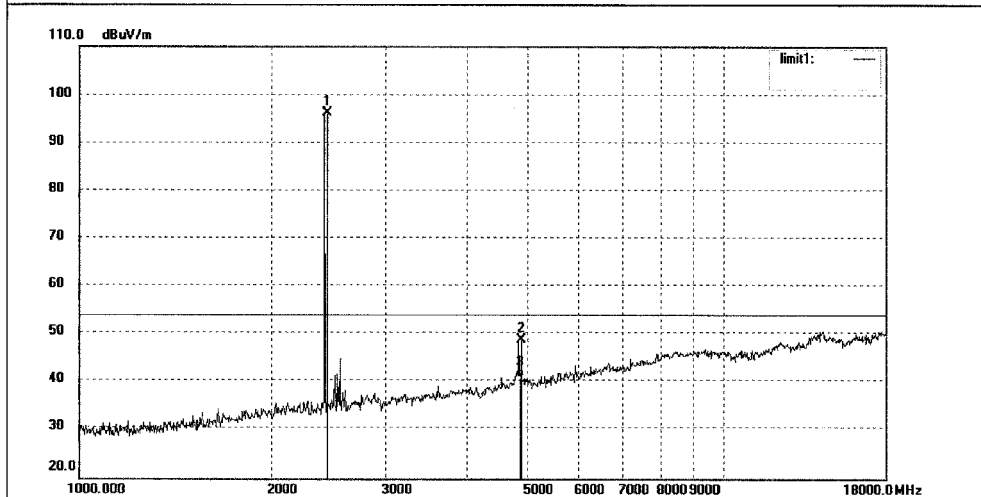
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN #1076	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2441MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.000	103.64	-7.37	96.27	/	/	peak			
2	4882.013	47.99	0.91	48.90	74.00	-25.10	peak			
3	4882.013	40.08	0.91	40.99	54.00	-13.01	AVG			

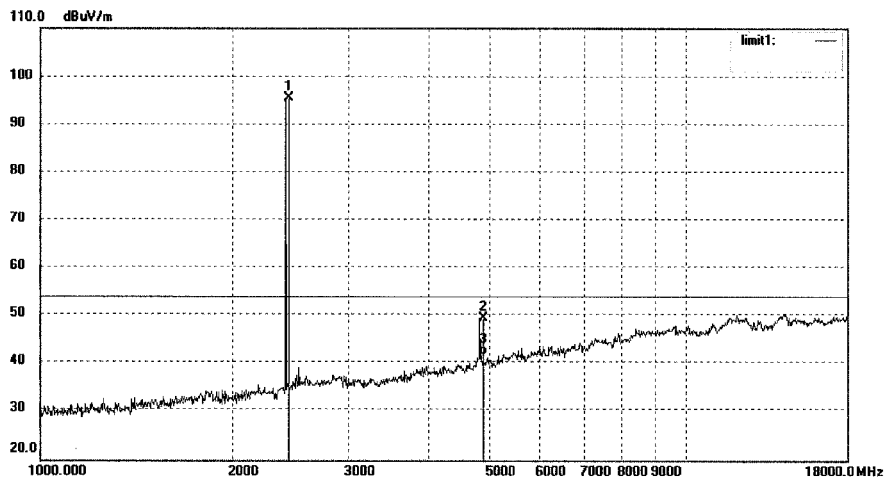

**ACCURATE TECHNOLOGY CO., LTD.**

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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN #1075	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2441MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.000	102.76	-7.37	95.39	/	/	peak			
2	4882.024	48.65	0.91	49.56	74.00	-24.44	peak			
3	4882.024	41.07	0.91	41.98	54.00	-12.02	AVG			


**ACCURATE TECHNOLOGY CO., LTD.**

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

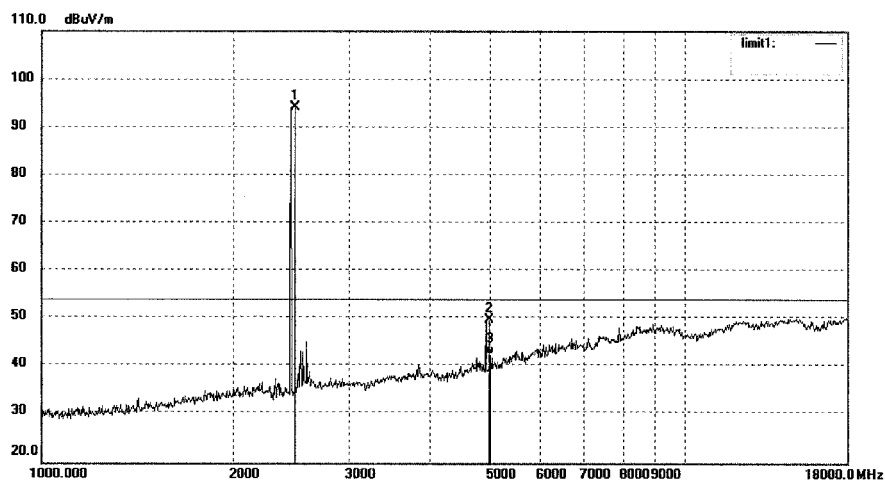
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN #1077	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.000	101.44	-7.38	94.06	/	/	peak			
2	4960.034	48.42	1.33	49.75	74.00	-24.25	peak			
3	4960.034	41.37	1.33	42.70	54.00	-11.30	AVG			

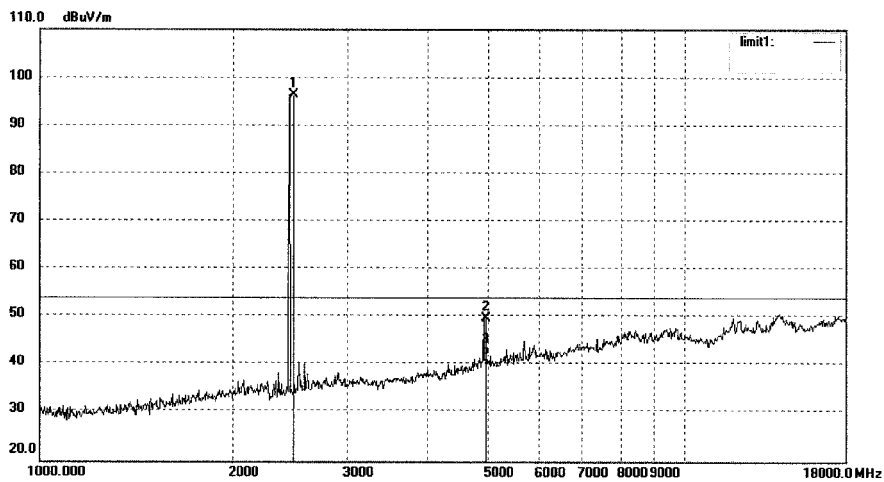

**ACCURATE TECHNOLOGY CO., LTD.**

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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN #1078	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.000	103.67	-7.38	96.29	/	/	peak			
2	4960.015	48.49	1.33	49.82	74.00	-24.18	peak			
3	4960.015	40.87	1.33	42.20	54.00	-11.80	AVG			




**ACCURATE TECHNOLOGY CO., LTD.**

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

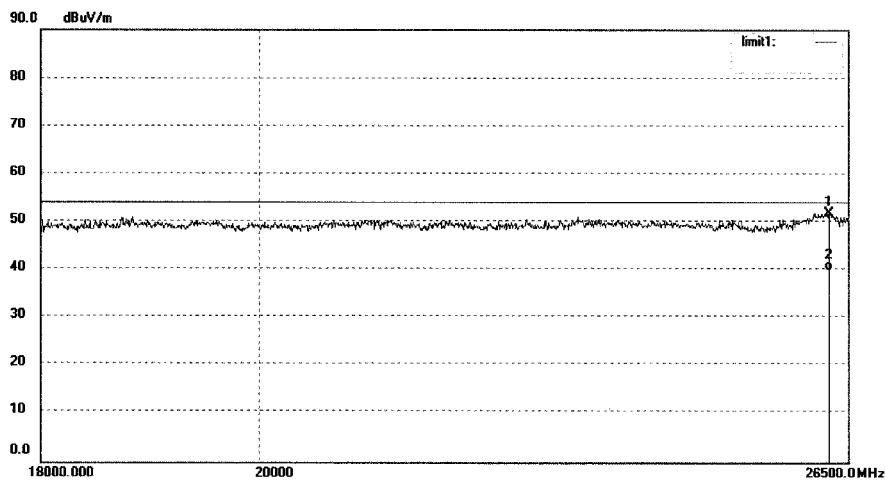
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2 #483	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



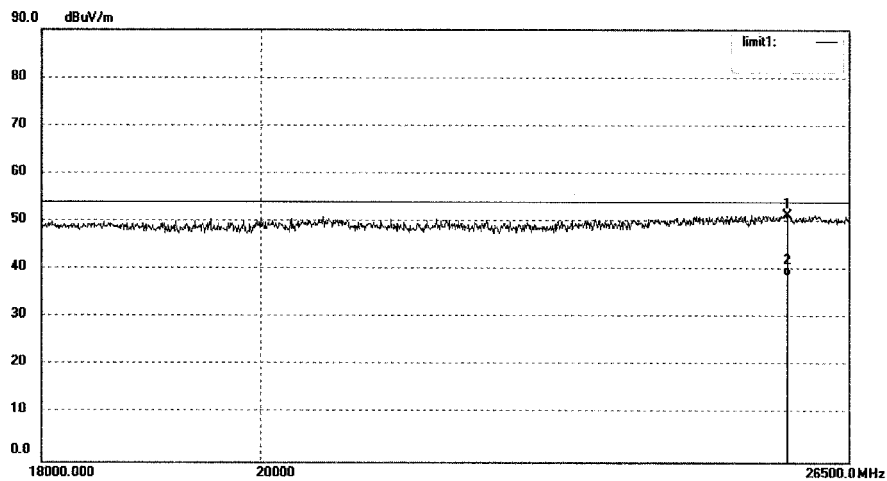
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26264.839	32.98	18.82	51.80	74.00	-22.20	peak			
2	26264.839	21.04	18.82	39.86	54.00	-14.14	AVG			


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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN2 #482	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



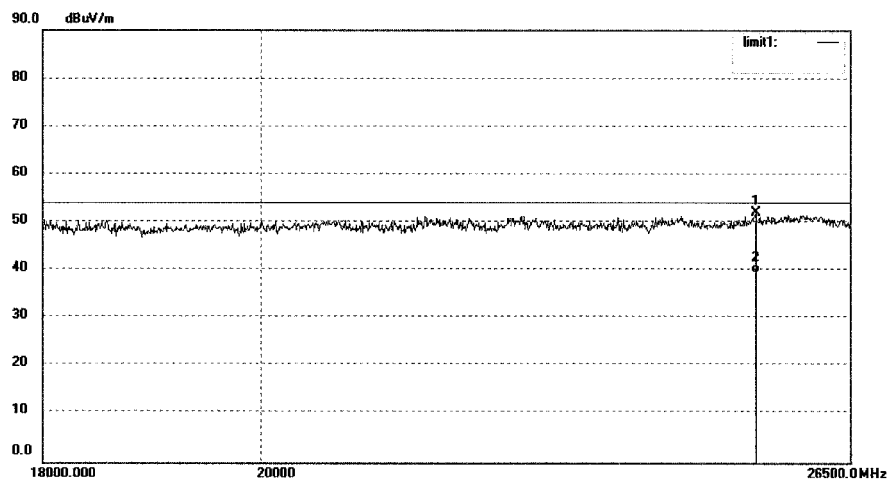
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	25740.835	32.81	18.63	51.44	74.00	-22.56	peak			
2	25740.835	20.10	18.63	38.73	54.00	-15.27	AVG			


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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN2 #484	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2441MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



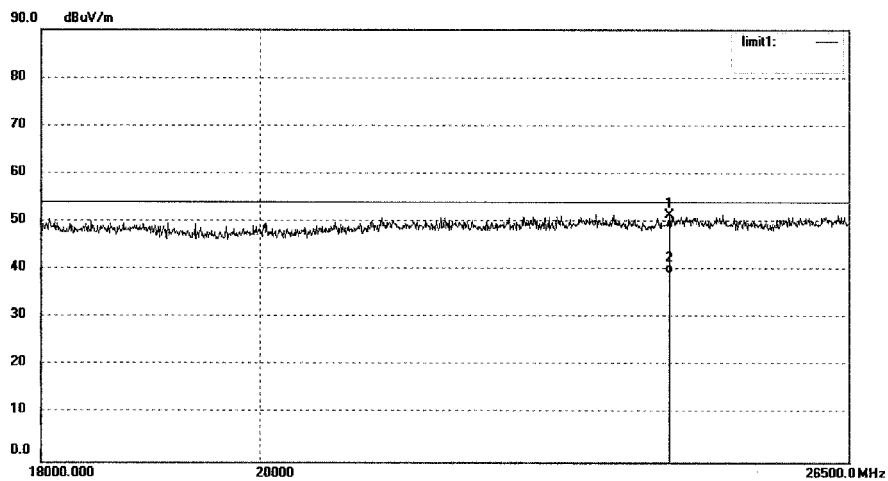
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	25325.242	33.49	18.49	51.98	74.00	-22.02	peak			
2	25325.242	21.07	18.49	39.56	54.00	-14.44	AVG			


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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN2 #485	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2441MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24305.958	33.69	17.73	51.42	74.00	-22.58	peak			
2	24305.958	21.57	17.73	39.30	54.00	-14.70	AVG			

**Prüfbericht - Nr.: 17044435 001**  
*Test Report No.*
**Seite 53 von 95**  
*Page 53 of 95*

**ACCURATE TECHNOLOGY CO., LTD.**

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

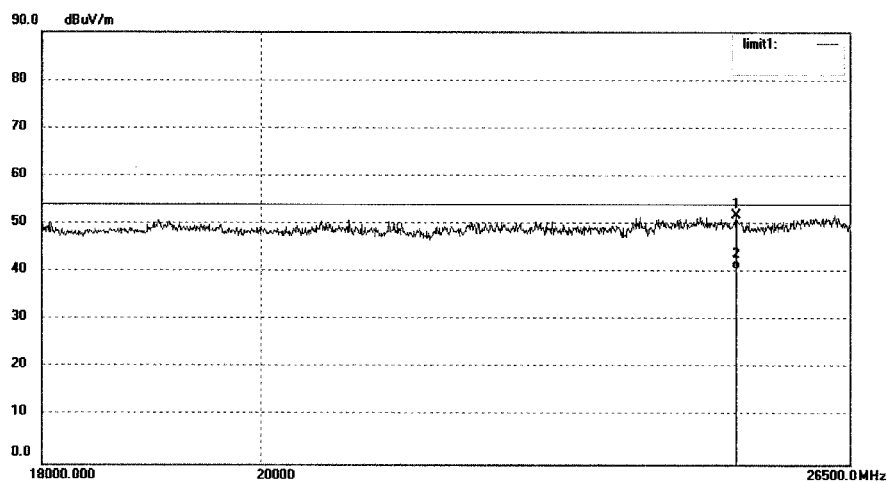
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2 #487	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	25090.780	33.56	18.41	51.97	74.00	-22.03	peak			
2	25090.780	22.14	18.41	40.55	54.00	-13.45	AVG			


**ACCURATE TECHNOLOGY CO., LTD.**

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

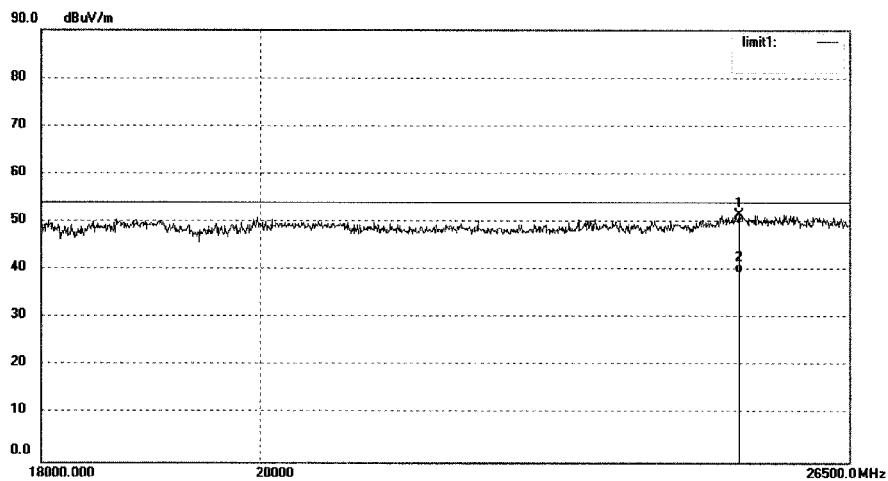
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2 #486	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



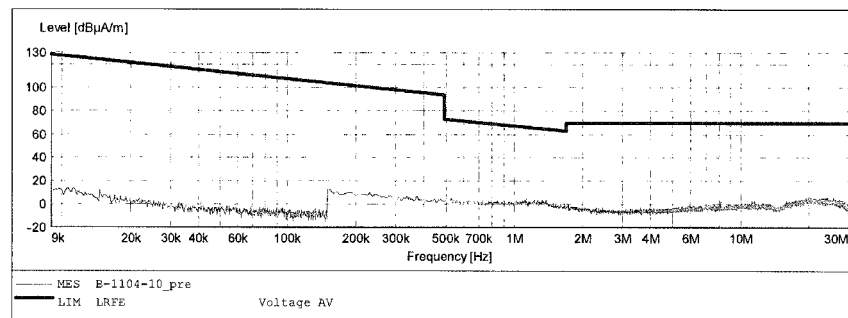
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	25129.706	33.21	18.42	51.63	74.00	-22.37	peak			
2	25129.706	21.10	18.42	39.52	54.00	-14.48	AVG			

**ACCURATE TECHNOLOGY CO.,LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2402MHz  
 Test Site: 1#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: X  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Short Description:			_SUB_STD_VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

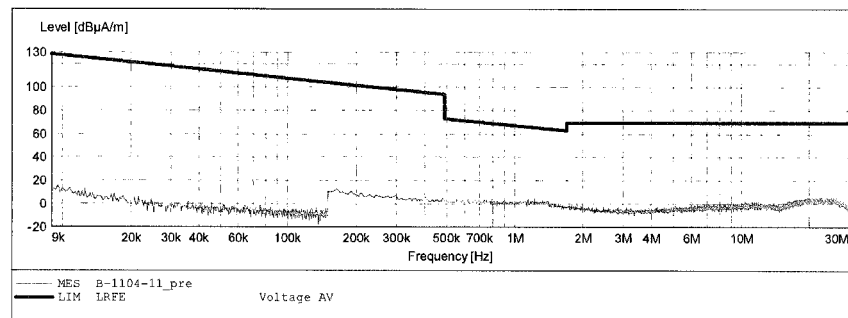


**ACCURATE TECHNOLOGY CO., LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2402MHz  
 Test Site: 1#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: Y  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Short Description:			_SUB_STD VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M



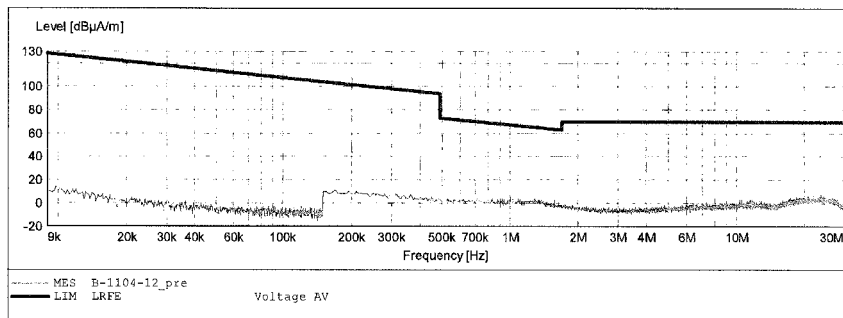


**ACCURATE TECHNOLOGY CO.,LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2402MHz  
 Test Site: 1#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: Z  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Short Description:			_SUB_STD VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

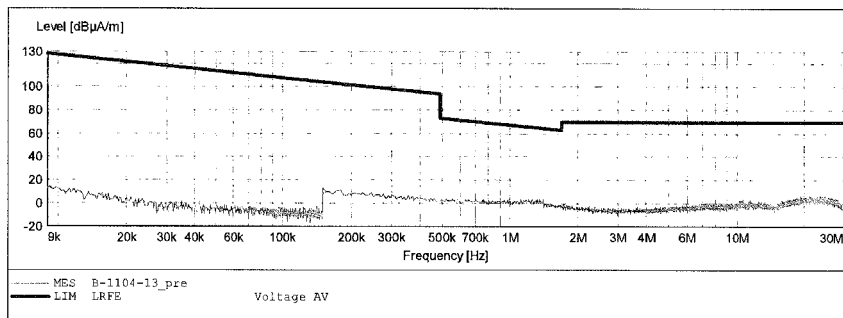


**ACCURATE TECHNOLOGY CO.,LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2440MHz  
 Test Site: 1#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: X  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Short Description:			_SUB_STD VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

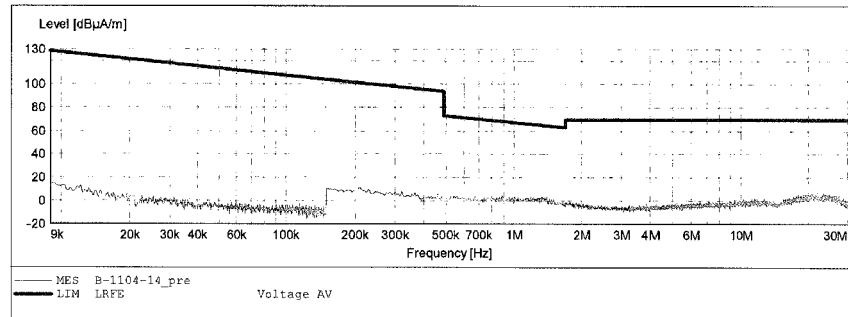


**ACCURATE TECHNOLOGY CO.,LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2440MHz  
 Test Site: 1#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: Y  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Short Description: _SUB_STD VTERM2 1.70			Detector	Meas. Time	IF Bandw.	Transducer
Start Frequency	Stop Frequency	Step Width				
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

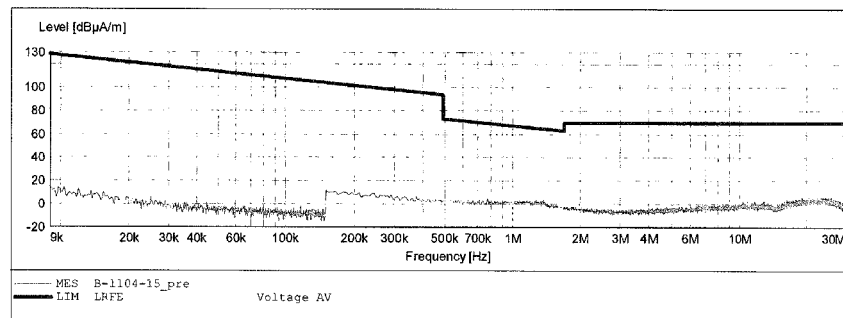


**ACCURATE TECHNOLOGY CO., LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2440MHz  
 Test Site: 1#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: Z  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

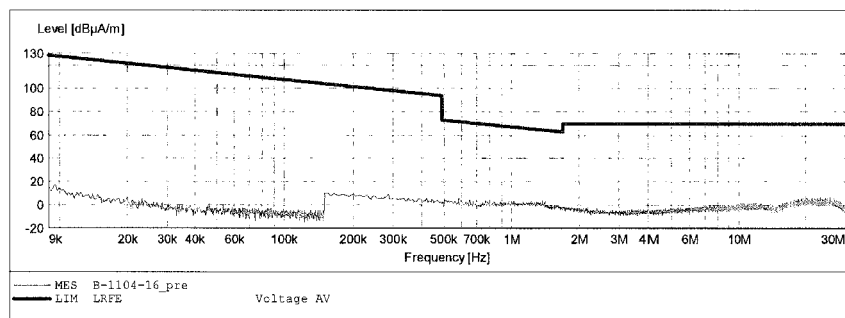


**ACCURATE TECHNOLOGY CO.,LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2480MHz  
 Test Site: 1#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: X  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

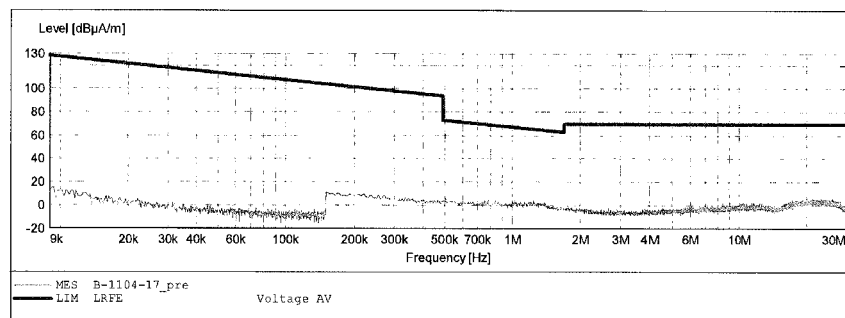


**ACCURATE TECHNOLOGY CO., LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2480MHz  
 Test Site: 1#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: Y  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Short Description:			_SUB_STD_VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

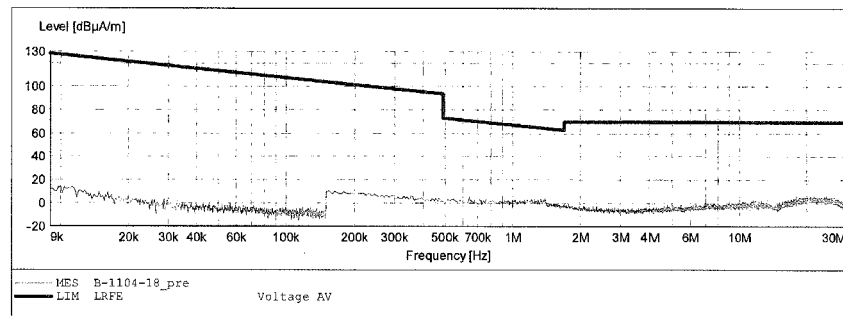


**ACCURATE TECHNOLOGY CO.,LTD**
**FCC Class B 3M Radiated**

EUT: Wireless jobsite speaker M/N:2592-20  
 Manufacturer: Topband  
 Operating Condition: TX 2480MHz  
 Test Site: 1#Shielding Room  
 Operator: LAN  
 Test Specification: DC 12V  
 Comment: Z  
 Start of Test: 2014-11-04 /

**SCAN TABLE: "LFRE Fin"**

Short Description:			_SUB_STD VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

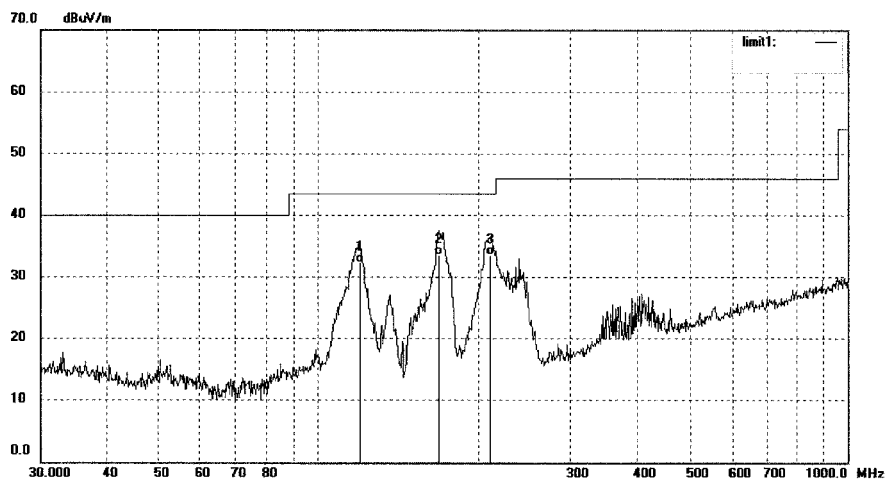



**ACCURATE TECHNOLOGY CO., LTD.**  
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
 Science & Industry Park,Nanshan Shenzhen,P.R.China

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN2014 #1201	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	119.8555	45.44	-13.15	32.29	43.50	-11.21	QP			
2	168.4138	47.45	-13.93	33.52	43.50	-9.98	QP			
3	210.7860	45.58	-12.13	33.45	43.50	-10.05	QP			




**ACCURATE TECHNOLOGY CO., LTD.**

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

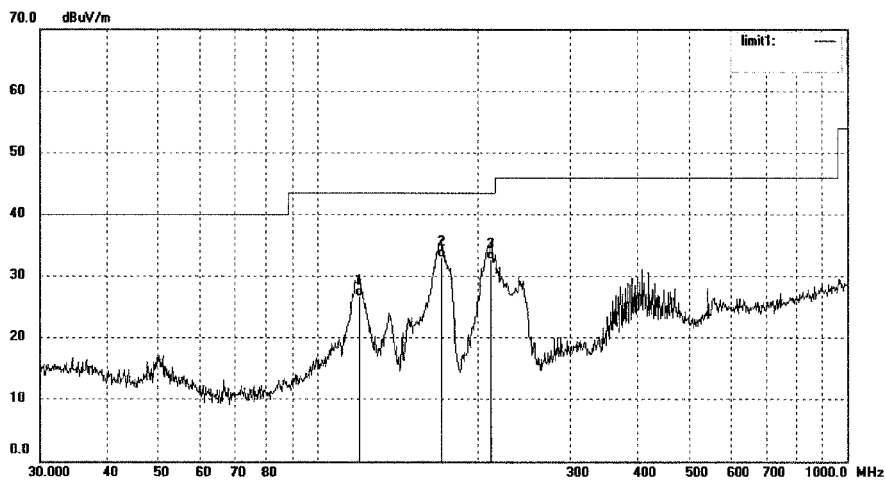
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #1200	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



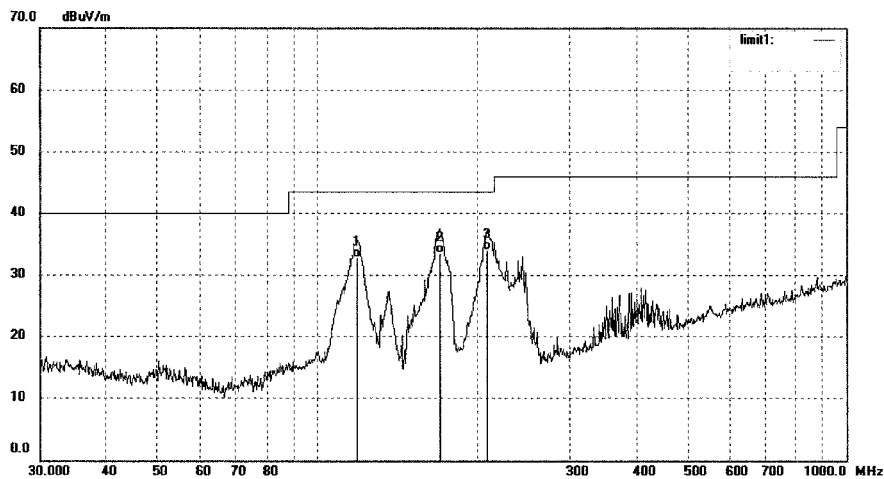
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	119.8555	39.78	-13.15	26.63	43.50	-16.87	QP			
2	170.7925	46.63	-13.68	32.95	43.50	-10.55	QP			
3	212.2694	44.73	-12.04	32.69	43.50	-10.81	QP			


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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN2014 #1203	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2440MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



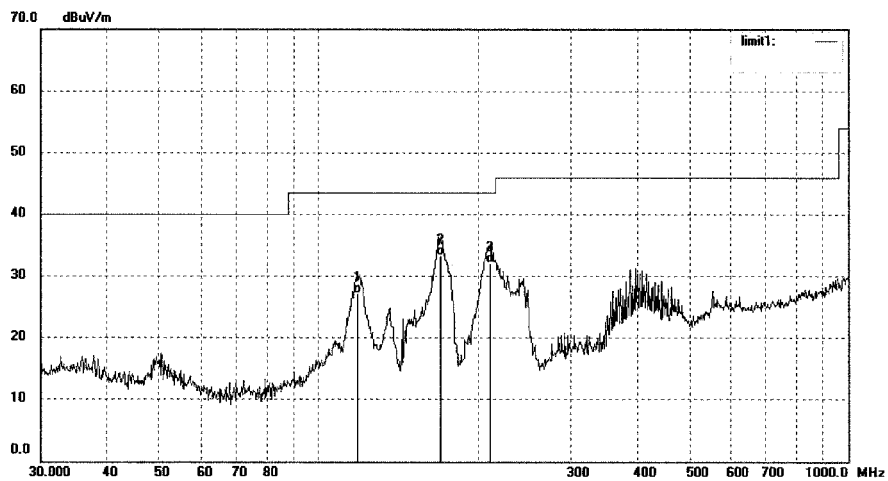
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	119.0180	46.05	-13.15	32.90	43.50	-10.60	QP			
2	170.1947	47.16	-13.68	33.48	43.50	-10.02	QP			
3	209.3129	46.30	-12.20	34.10	43.50	-9.40	QP			


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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN2014 #1202	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2440MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



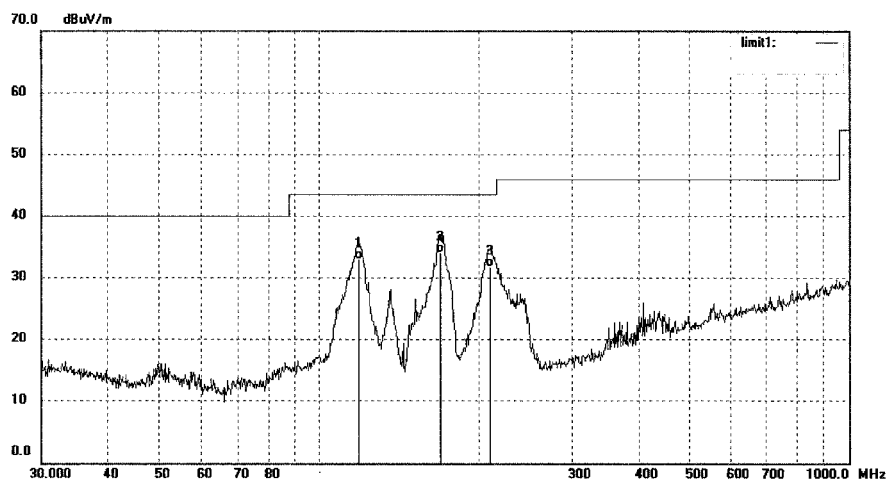
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	118.6012	40.35	-13.14	27.21	43.50	-16.29	QP			
2	170.1947	46.94	-13.68	33.26	43.50	-10.24	QP			
3	211.5261	44.24	-12.09	32.15	43.50	-11.35	QP			


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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN2014 #1204	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	119.0180	46.16	-13.15	33.01	43.50	-10.49	QP			
2	169.5988	47.81	-13.74	34.07	43.50	-9.43	QP			
3	210.0482	43.86	-12.18	31.68	43.50	-11.82	QP			


**ACCURATE TECHNOLOGY CO., LTD.**

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

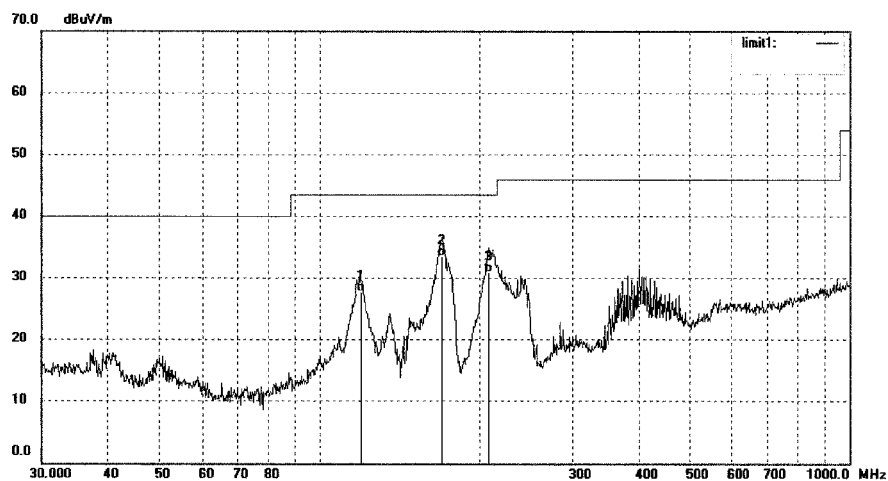
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #1205	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	119.8555	40.84	-13.15	27.69	43.50	-15.81	QP			
2	170.1947	47.12	-13.68	33.44	43.50	-10.06	QP			
3	207.8498	43.06	-12.23	30.83	43.50	-12.67	QP			


**ACCURATE TECHNOLOGY CO., LTD.**

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

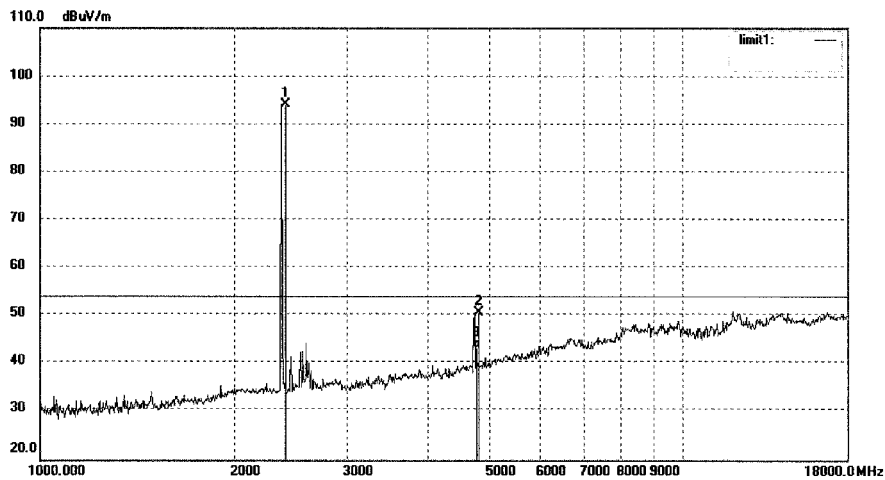
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN #1081	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.000	101.55	-7.49	94.06	/	/	peak			
2	4804.026	50.48	0.25	50.73	74.00	-23.27	peak			
3	4804.026	42.97	0.25	43.22	54.00	-10.78	AVG			


**ACCURATE TECHNOLOGY CO., LTD.**

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

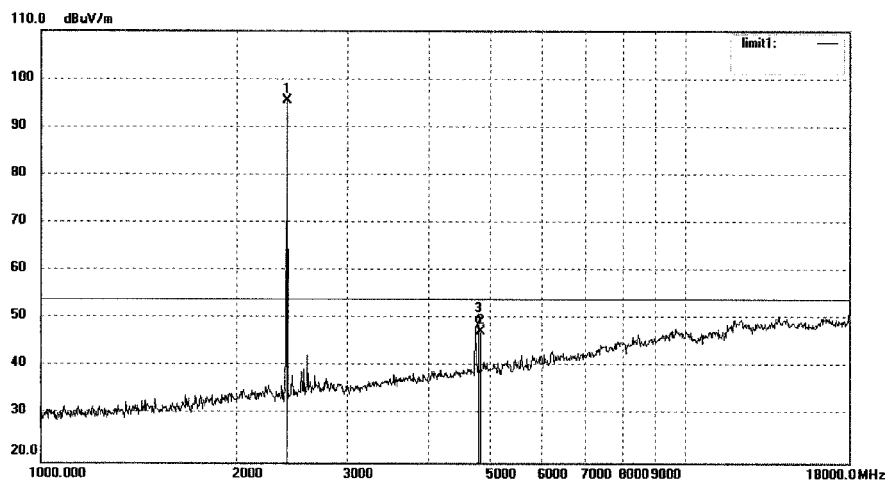
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN #1082	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.000	102.87	-7.49	95.38	/	/	peak			
2	4804.013	47.08	0.25	47.33	74.00	-26.67	peak			
3	4804.013	48.60	0.25	48.85	54.00	-5.15	AVG			

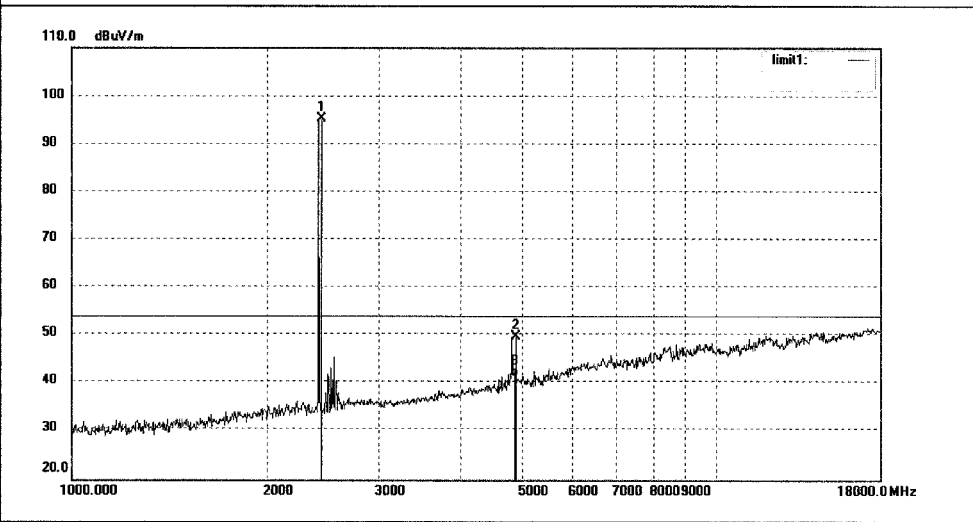

**ACCURATE TECHNOLOGY CO., LTD.**

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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN #1085	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2440MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.000	102.61	-7.38	95.23	/	/	peak			
2	4880.024	48.96	0.89	49.85	74.00	-24.15	peak			
3	4880.024	40.52	0.89	41.41	54.00	-12.59	AVG			



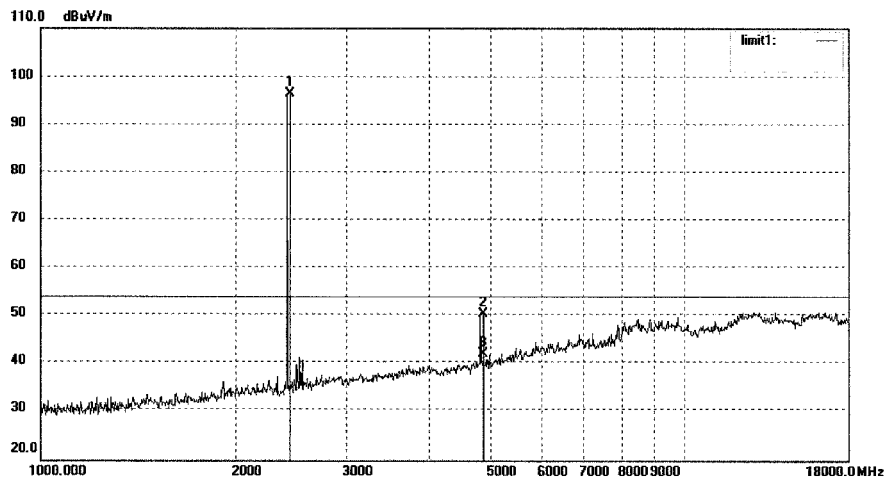

**ACCURATE TECHNOLOGY CO., LTD.**

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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN #1086	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2440MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.000	103.73	-7.38	96.35	/	/	peak			
2	4880.017	49.49	0.89	50.38	74.00	-23.62	peak			
3	4880.017	41.37	0.89	42.26	54.00	-11.74	peak			


**ACCURATE TECHNOLOGY CO., LTD.**

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

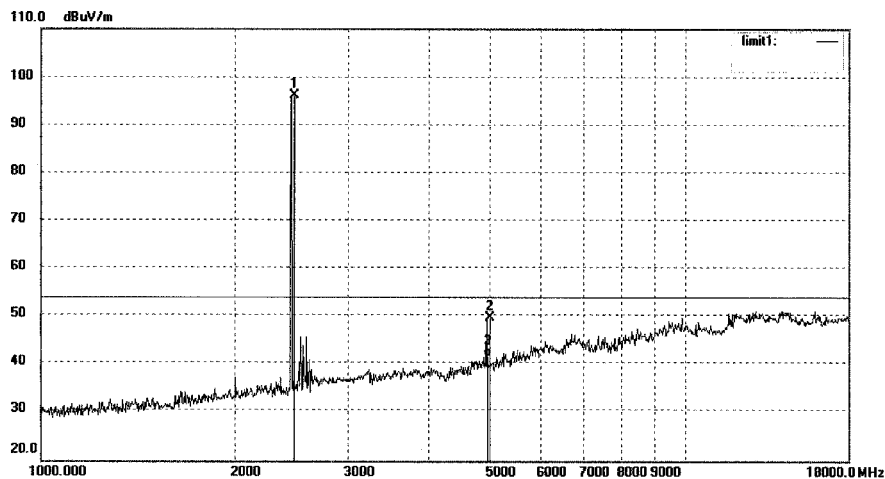
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN #1088	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



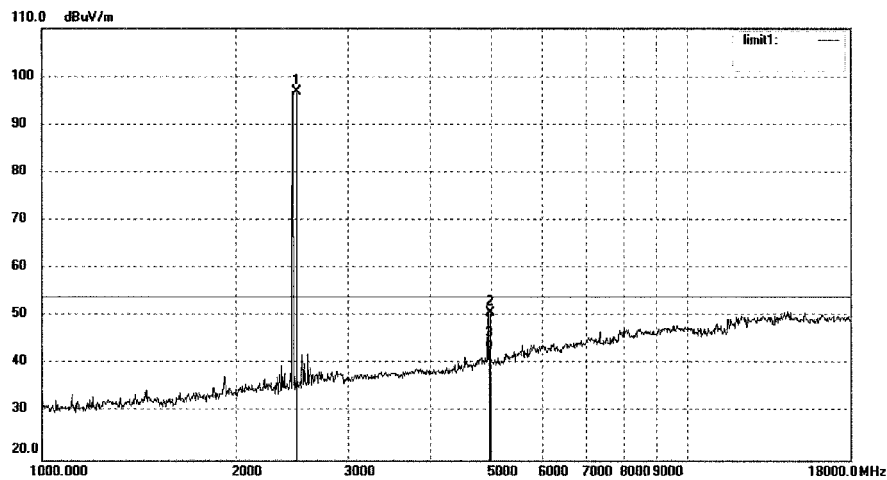
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.000	103.50	-7.38	96.12	/	/	peak			
2	4960.037	48.53	1.33	49.86	74.00	-24.14	peak			
3	4960.037	40.29	1.33	41.62	54.00	-12.38	AVG			


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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN #1087	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.000	104.21	-7.38	96.83	/	/	peak			
2	4960.033	49.31	1.33	50.64	74.00	-23.36	peak			
3	4960.033	42.05	1.33	43.38	54.00	-10.62	AVG			


**ACCURATE TECHNOLOGY CO., LTD.**

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

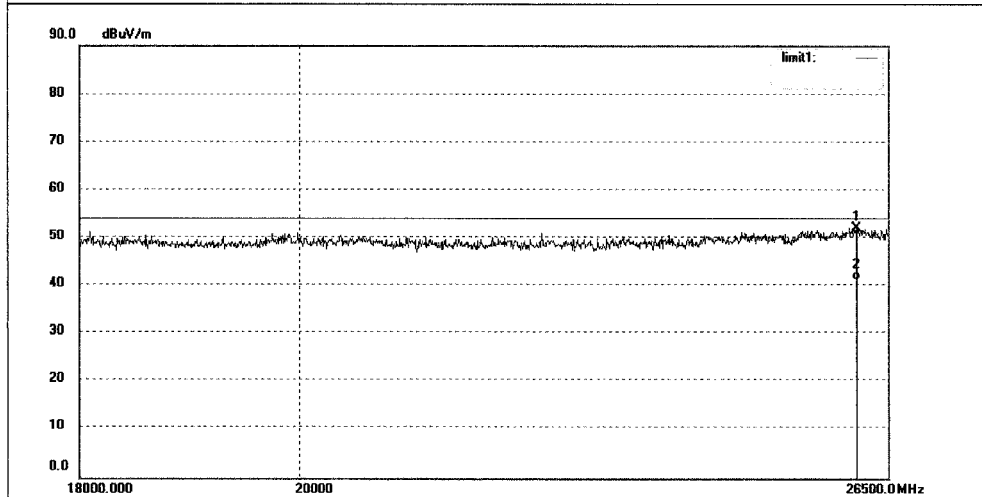
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2 #488	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26102.481	33.40	18.76	52.16	74.00	-21.84	peak			
2	26102.481	22.55	18.76	41.31	54.00	-12.69	AVG			


**ACCURATE TECHNOLOGY CO., LTD.**

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

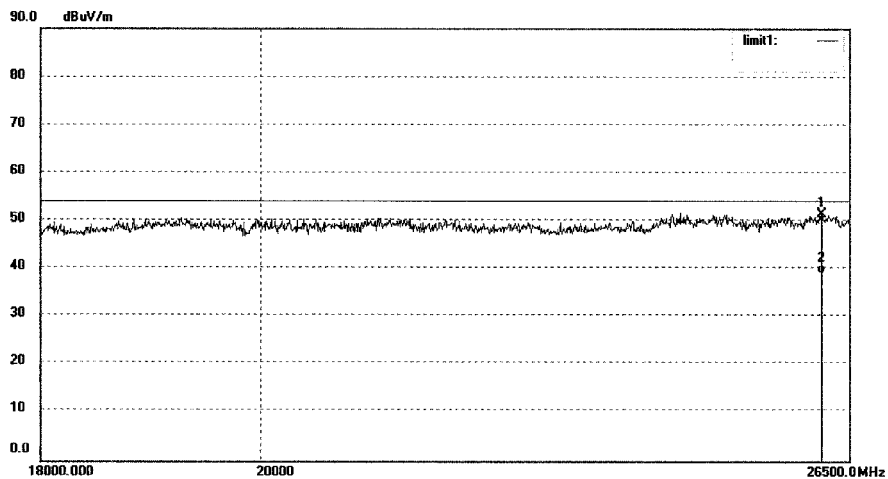
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2 #489	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26153.109	32.71	18.78	51.49	74.00	-22.51	peak			
2	26153.109	20.37	18.78	39.15	54.00	-14.85	AVG			

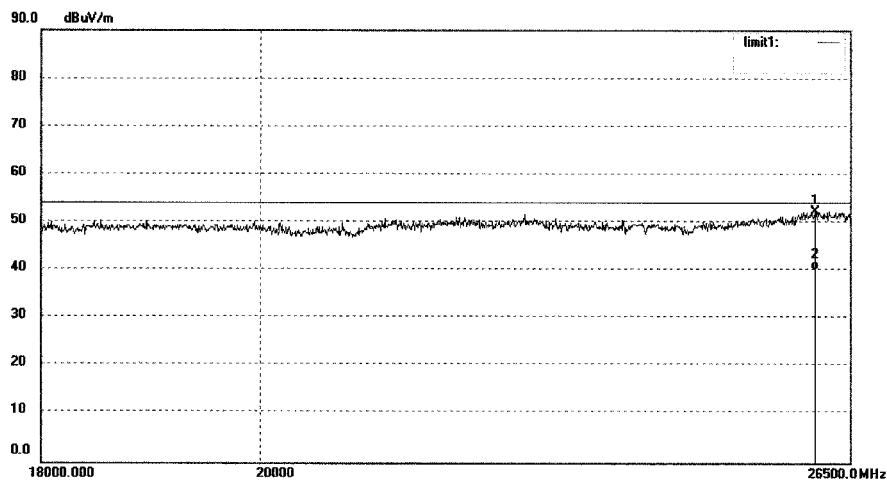

**ACCURATE TECHNOLOGY CO., LTD.**

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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN2 #491	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2440MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26062.048	33.48	18.75	52.23	74.00	-21.77	peak			
2	26062.048	21.45	18.75	40.20	54.00	-13.80	AVG			


**ACCURATE TECHNOLOGY CO., LTD.**

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

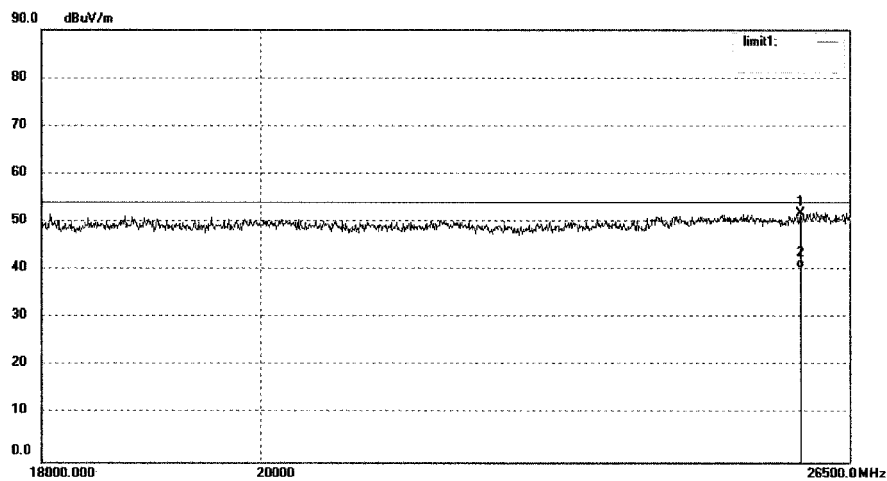
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2 #490	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2440MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	25880.875	33.27	18.68	51.95	74.00	-22.05	peak			
2	25880.875	21.79	18.68	40.47	54.00	-13.53	AVG			

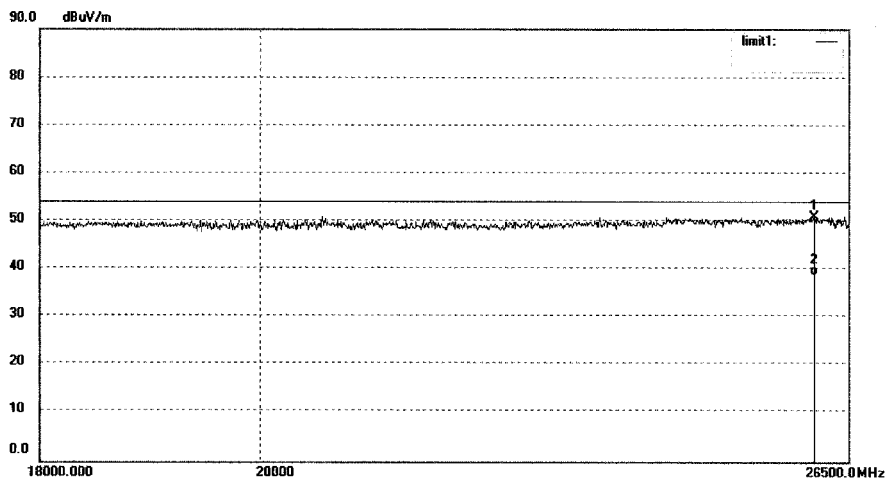

**ACCURATE TECHNOLOGY CO., LTD.**

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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN2 #492	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26072.150	32.25	18.75	51.00	74.00	-23.00	peak			
2	26072.150	20.01	18.75	38.76	54.00	-15.24	AVG			




**ACCURATE TECHNOLOGY CO., LTD.**

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

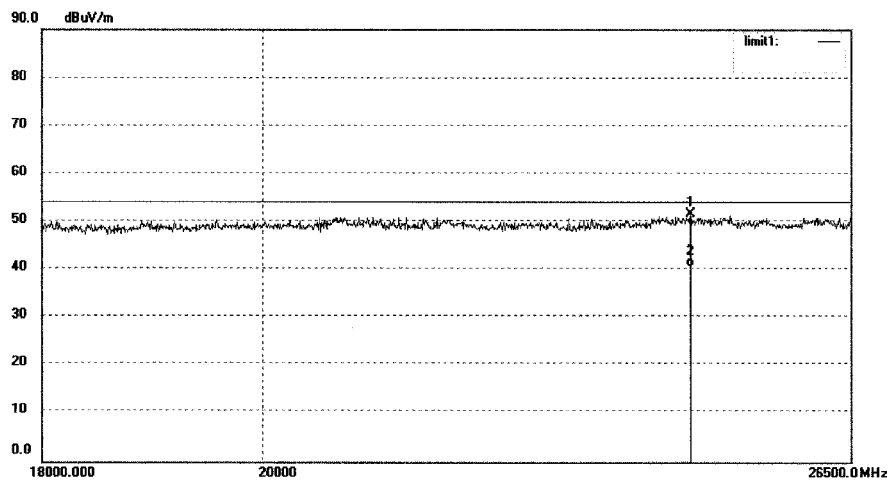
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2 #493	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 23 C / 48 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24533.086	33.46	18.21	51.67	74.00	-22.33	peak			
2	24533.086	22.48	18.21	40.69	54.00	-13.31	AVG			

## Test Plot of Frequency Band Edge


**ACCURATE TECHNOLOGY CO., LTD.**

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

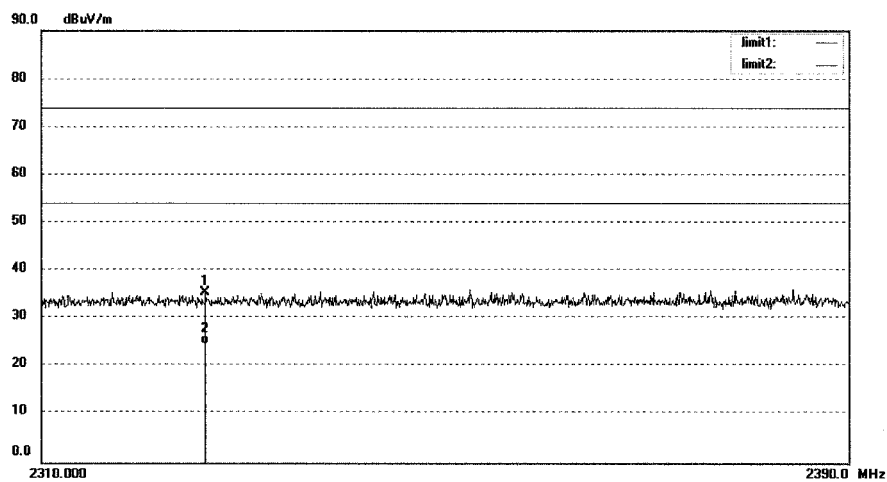
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN #1073	Polarization: Horizontal
Standard: FCC (Band Edge)	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2325.973	43.31	-7.82	35.49	74.00	-38.51	peak			
2	2325.973	32.43	-7.82	24.61	54.00	-29.39	AVG			


**ACCURATE TECHNOLOGY CO., LTD.**

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

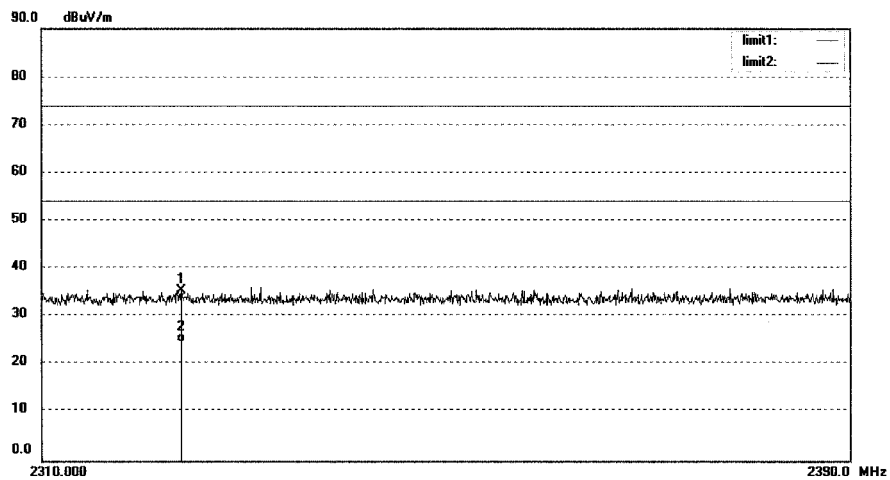
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN #1074	Polarization: Vertical
Standard: FCC (Band Edge)	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2323.515	43.28	-7.82	35.46	74.00	-38.54	peak			
2	2323.515	32.55	-7.82	24.73	54.00	-29.27	AVG			


**ACCURATE TECHNOLOGY CO., LTD.**

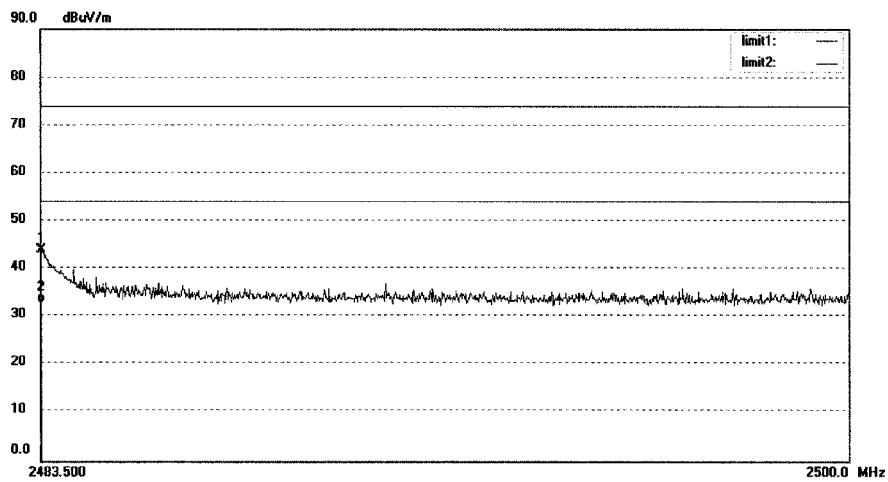
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN #1080	Polarization: Horizontal
Standard: FCC (Band Edge)	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



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	51.37	-7.38	43.99	74.00	-30.01	peak			
2	2483.500	40.39	-7.38	33.01	54.00	-20.99	AVG			

**Prüfbericht - Nr.: 17044435 001**  
*Test Report No.*
**Seite 85 von 95**  
*Page 85 of 95*

**ACCURATE TECHNOLOGY CO., LTD.**

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

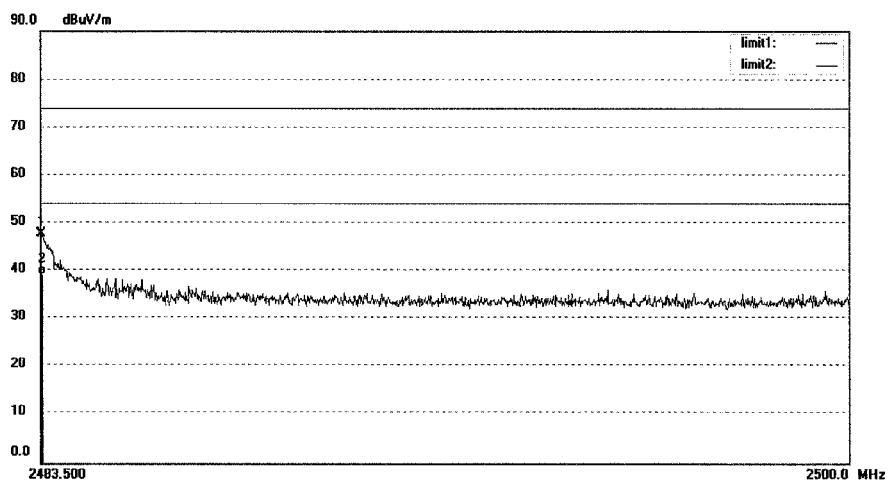
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN #1079	Polarization: Vertical
Standard: FCC (Band Edge)	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth



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	55.27	-7.38	47.89	74.00	-26.11	peak			
2	2483.500	46.62	-7.38	39.24	54.00	-14.76	AVG			

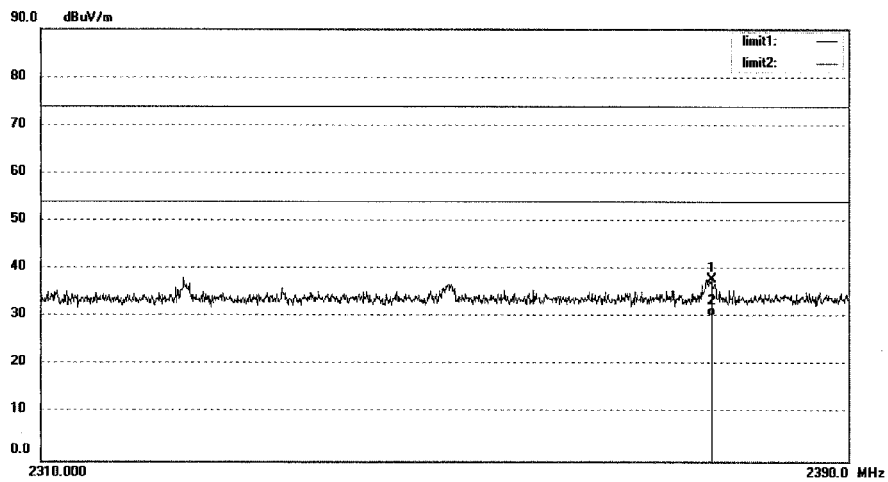

**ACCURATE TECHNOLOGY CO., LTD.**

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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN #1084	Polarization: Horizontal
Standard: FCC (Band Edge)	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2376.180	45.65	-7.67	37.98	74.00	-36.02	peak			
2	2376.180	37.94	-7.67	30.27	74.00	-43.73	QP			

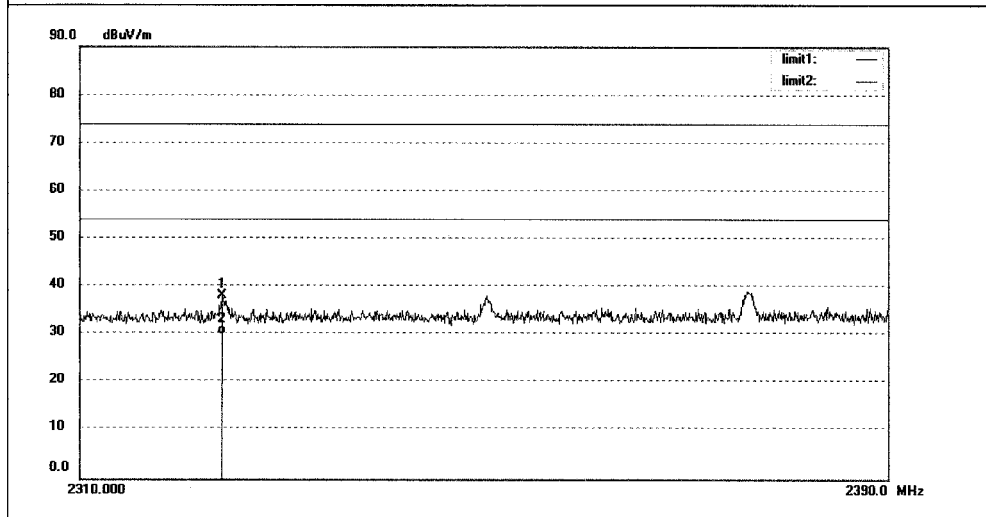

**ACCURATE TECHNOLOGY CO., LTD.**

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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN #1083	Polarization: Vertical
Standard: FCC (Band Edge)	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



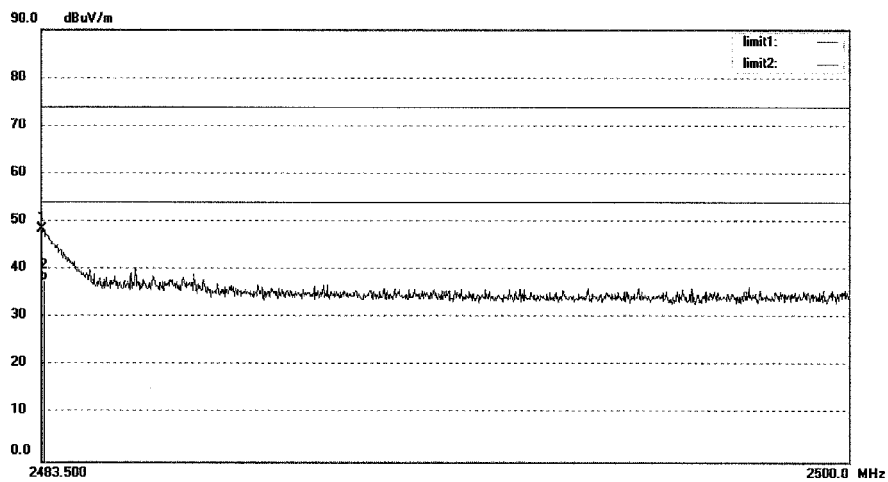
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2323.673	45.94	-7.82	38.12	74.00	-35.88	peak			
2	2323.673	37.81	-7.82	29.99	54.00	-24.01	AVG			


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

 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: LAN #1089	Polarization: Horizontal
Standard: FCC (Band Edge)	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



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	55.93	-7.38	48.55	74.00	-25.45	peak			
2	2483.500	45.02	-7.38	37.64	54.00	-16.36	AVG			




**ACCURATE TECHNOLOGY CO., LTD.**

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

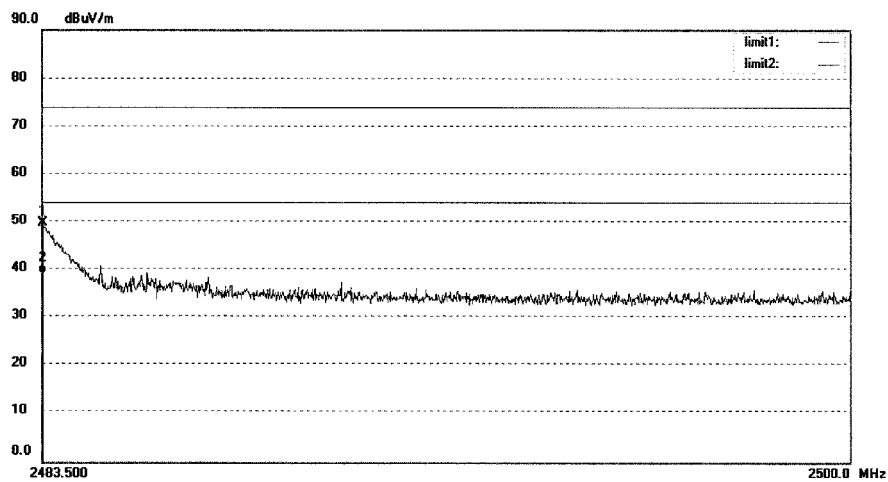
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN #1090	Polarization: Vertical
Standard: FCC (Band Edge)	Power Source: DC 12V
Test item: Radiation Test	Date: 14/11/04/
Temp.( C)/Hum.(%) 25 C / 55 %	Time:
EUT: Wireless jobsite speaker	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: 2592-20	
Manufacturer: Topband	

Note: Bluetooth 4.0



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	57.17	-7.38	49.79	74.00	-24.21	peak			
2	2483.500	46.60	-7.38	39.22	54.00	-14.78	AVG			

### 5.1.8 Frequency Separation

**RESULT:**
**Pass**

Date of testing : 2014-11-01  
 Test standard : FCC part 15.247(a)(1)  
 Basic standard : ANSI C63.4: 2003  
 Limit :  $\geq 25\text{kHz}$  or two-thirds of 20dB bandwidth,  
 whichever is greater  
 Kind of test site : Shield room

**Test setup**

Test Channel : Low/ Middle/ High  
 Operation Mode : A.1.a  
 Ambient temperature : 24°C  
 Relative humidity : 48%  
 Atmospheric pressure : 101kPa

**Table 14: Test result of Frequency Separation**

Channel	Channel Frequency (MHz)	Measured Channel Separation (MHz)	Limit (kHz)	Result
Low Channel	2402	1.002	$\geq 25\text{kHz}$ or two-thirds of 20dB bandwidth	Pass
Adjacency Channel	2403			
Mid Channel	2441	1.002	$\geq 25\text{kHz}$ or two-thirds of 20dB bandwidth	Pass
Adjacency Channel	2442			
High Channel	2479	1.002	$\geq 25\text{kHz}$ or two-thirds of 20dB bandwidth	Pass
Adjacency Channel	2480			

**Prüfbericht - Nr.: 17044435 001**  
*Test Report No.***Seite 91 von 95**  
*Page 91 of 95*

### 5.1.9 Number of hopping frequency

**RESULT:****Pass**

Date of testing : 2014-11-01  
Test standard : FCC part 15.247(a)(1)(iii)  
Basic standard : ANSI C63.4: 2003  
Limits :  $\geq 15$  non-overlapping channels  
Kind of test site : Shield room

**Test setup**

Test Channel : Low/ Middle/ High  
Operation Mode : A.1.a  
Ambient temperature : 24°C  
Relative humidity : 48%  
Atmospheric pressure : 101kPa

**Table 15: Test result of Number of hopping frequency**

Frequency Range	Measured Quantity of Hopping Channel	Limit	Result
2402 to 2480MHz	79	$\geq 15$	Pass

### 5.1.10 Time of Occupancy

**RESULT:**
**Pass**

Date of testing : 2014-11-01  
 Test standard : FCC part 15.247(a)(1)(iii)  
 Basic standard : ANSI C63.4: 2003  
 Limits : 0.4s  
 Kind of test site : Shield room

**Test setup**

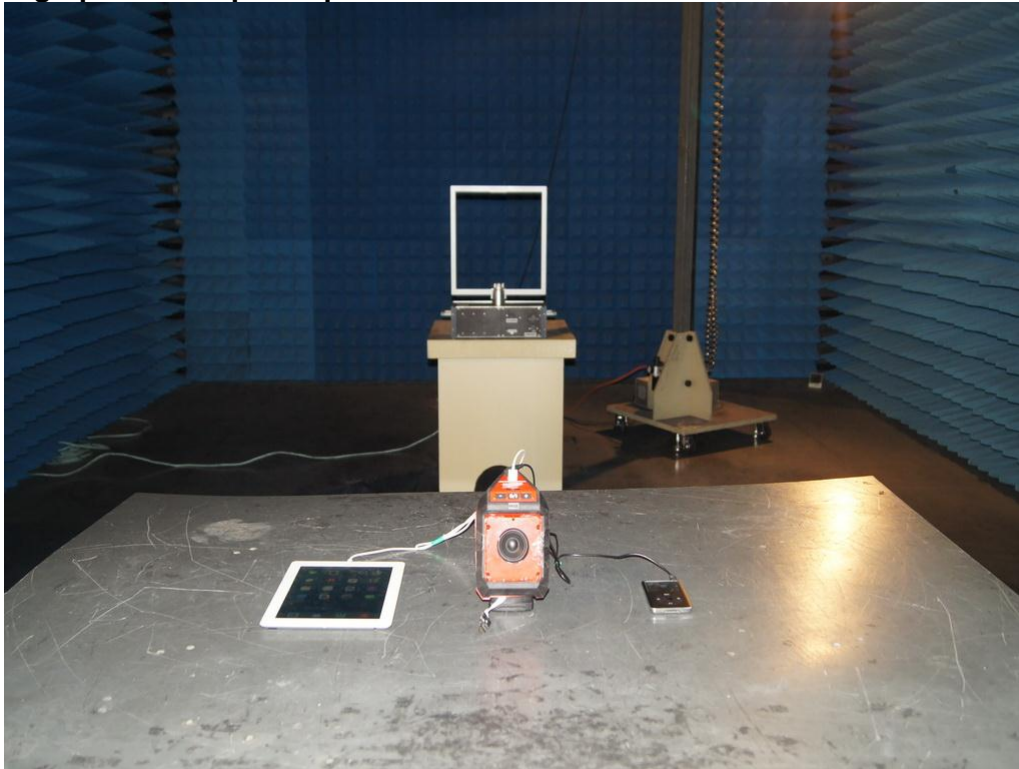
Test Channel : Low/ Middle/ High  
 Operation Mode : A.1.a  
 Ambient temperature : 24°C  
 Relative humidity : 48%  
 Atmospheric pressure : 101kPa

**Table 16: Test result of Time of Occupancy**

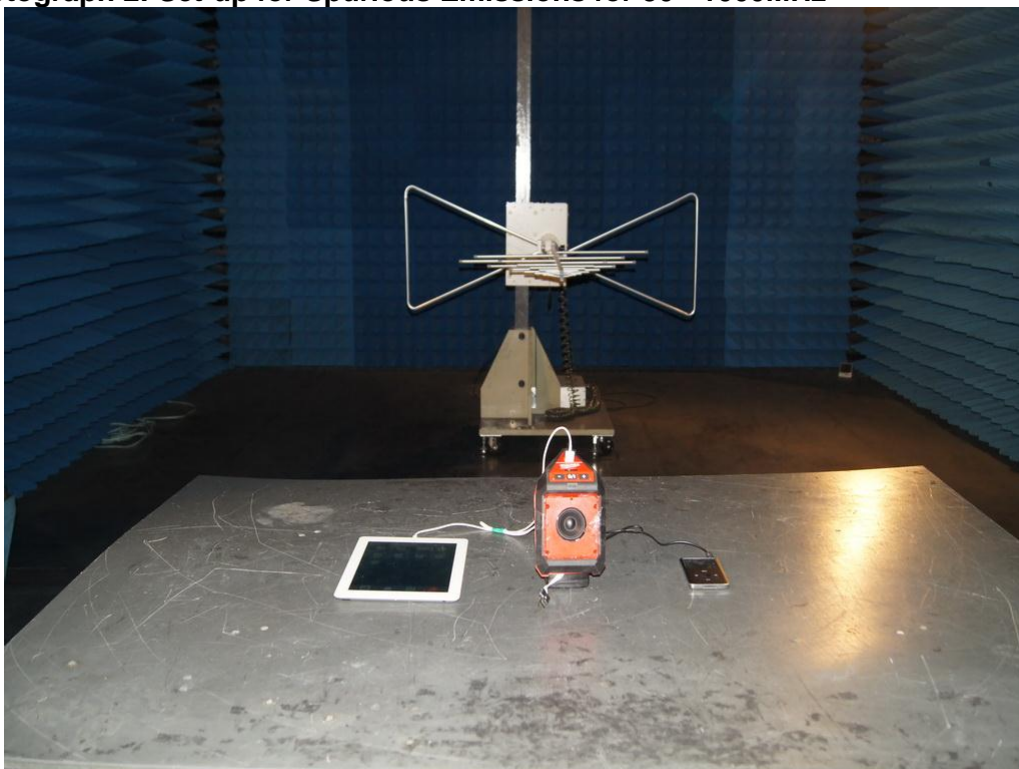
Mode	Packet Type	Channel Frequency (MHz)	Packet Duration [ms]	Number of Hops per Channel	Dwell Time (ms)	Limit [ms]
BDR	DH1	2402	0.44	322	141.68	400
		2441	0.44	321	141.24	400
		2480	0.44	322	141.68	400
	DH3	2402	1.72	168	288.96	400
		2441	1.72	167	287.24	400
		2480	1.72	168	288.96	400
	DH5	2402	3.01	111	334.11	400
		2441	3.01	111	334.11	400
		2480	3.01	112	337.12	400
EDR	DH1	2402	0.46	322	148.12	400
		2441	0.46	322	148.12	400
		2480	0.46	321	147.66	400
	DH3	2402	1.74	168	292.32	400
		2441	1.74	167	290.58	400
		2480	1.74	168	292.32	400
	DH5	2402	3.00	112	336.00	400
		2441	3.00	111	333.00	400
		2480	3.00	111	333.00	400

## 6. Photographs of the Test Set-Up

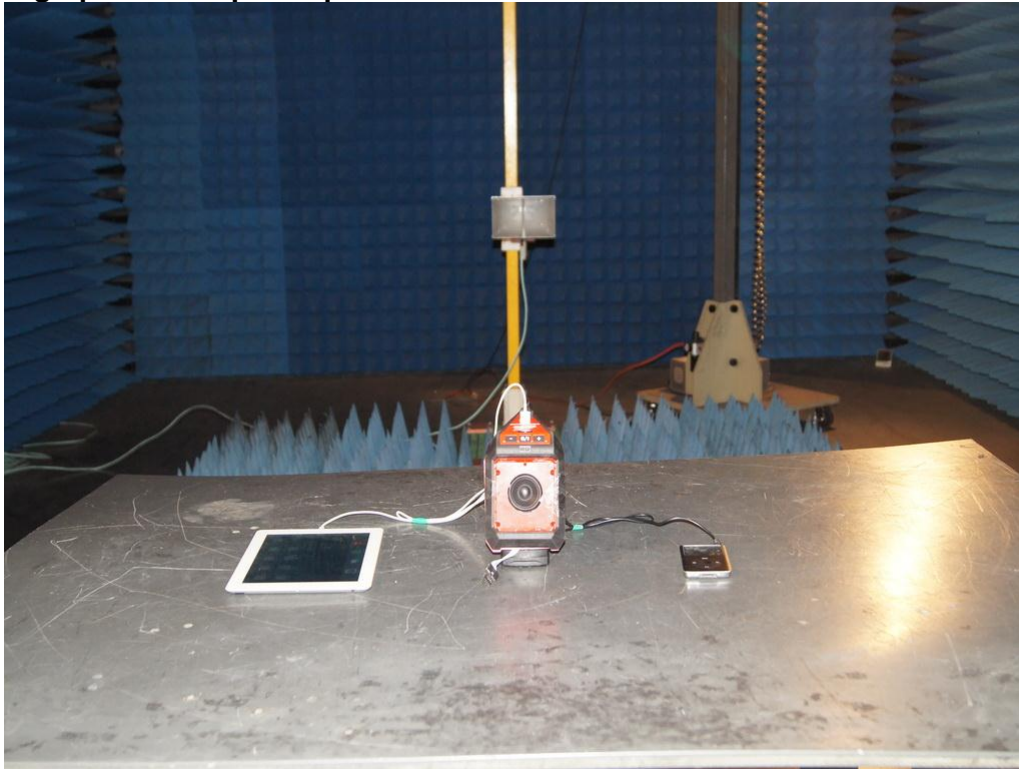
Photograph 1: Set-up for Spurious Emissions for below 30MHz



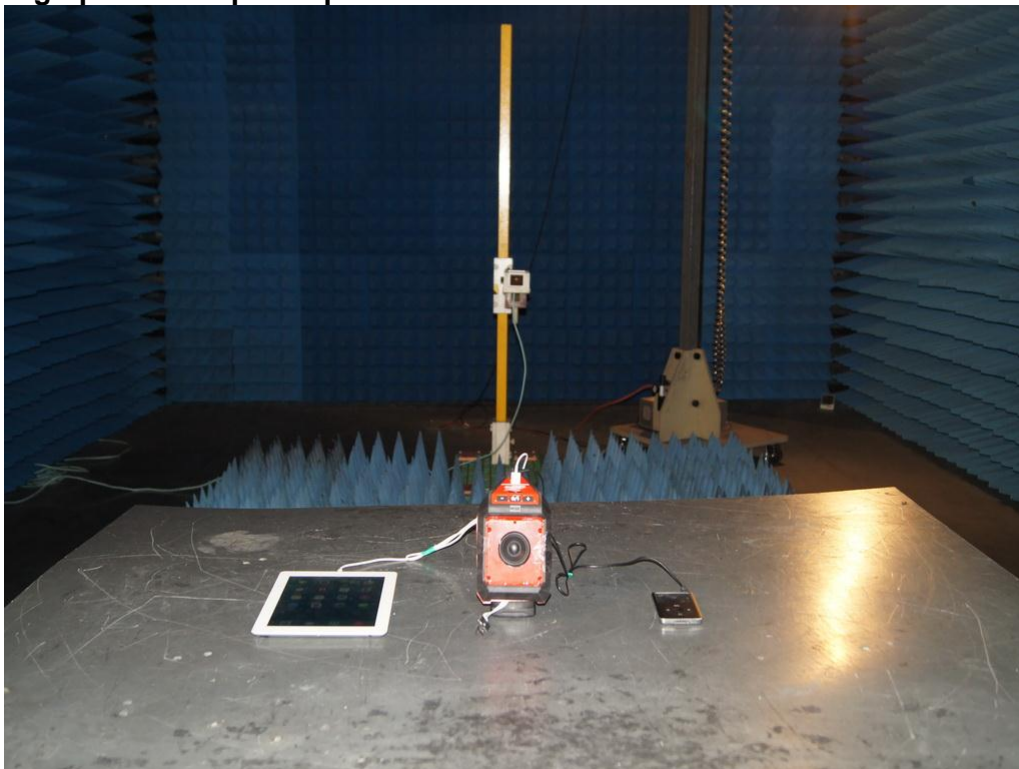
Photograph 2: Set-up for Spurious Emissions for 30 - 1000MHz



**Photograph 3: Set-up for Spurious Emissions for 1 - 18GHz**



**Photograph 4: Set-up for Spurious Emissions for 18 - 26.5GHz**



## 7. List of Tables

Table 1: List of Test and Measurement Equipment .....	5
Table 2: Measurement Uncertainty .....	6
Table 3: Technical Specification of Bluetooth (BDR & EDR mode) .....	7
Table 4: RF channel and frequency of Bluetooth (BDR & EDR mode).....	7
Table 5: Technical Specification of Bluetooth (LE mode) .....	8
Table 6: RF channel and frequency of Bluetooth (LE mode).....	8
Table 7: Test result of Peak Output Power of Bluetooth (BDR mode).....	13
Table 8: Test result of Peak Output Power of Bluetooth (EDR mode).....	13
Table 9: Test result of Peak Output Power of Bluetooth (LE mode) .....	13
Table 10: Test result of 20dB & 99% Bandwidth of BDR mode .....	14
Table 11: Test result of 20dB & 99% Bandwidth of EDR mode .....	14
Table 12: Test result of 6dB & 99% Bandwidth of Bluetooth, LE mode .....	15
Table 13: Test result of power spectral density:.....	26
Table 14: Test result of Frequency Separation .....	90
Table 15: Test result of Number of hopping frequency .....	91
Table 16: Test result of Time of Occupancy.....	92

## 8. List of Photographs

Photograph 1: Set-up for Spurious Emissions for below 30MHz .....	93
Photograph 2: Set-up for Spurious Emissions for 30 - 1000MHz .....	93
Photograph 3: Set-up for Spurious Emissions for 1 - 18GHz.....	94
Photograph 4: Set-up for Spurious Emissions for 18 - 26.5GHz.....	94