

**FCC - TEST REPORT**Report Number : **60.792.17.013.01R01** Date of Issue : April 28, 2017Model : **HG02429A, HG02429B**Product Type : **Bluetooth speaker**Applicant : Lidl US Trading, LLCAddress : 3500 S. Clark Street Arlington, Virginia, 22202Production Facility : DIGI MAX TECHNOLOGY LIMITEDAddress : Room 708, Building 3, Xinyuan B area, Jinshan Industrial District,  
Fuzhou, ChinaTest Result :  **Positive**  **Negative**Total pages  
including  
Appendices : 44

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## 2 Description of Equipment Under Test

### Description of the Equipment Under Test

Product:	Bluetooth speaker
Model no.:	HG02429A, HG02429B
FCC ID:	2AJ9O-HG2429
Rating:	1) 3.7VDC (1 x 3.7VDC Rechargeable battery) 2) 5.0VDC (USB port)
Frequency:	2402MHz-2480MHz
Antenna gain:	0 dBi
Number of operated channel:	79
Modulation:	GFSK



### 3 Summary of Test Standards

Test Standards
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FCC Part 15 Subpart C 10-1-16 Edition Federal Communications Commission, PART 15 — Radio Frequency Devices, Subpart C — Unintentional Radiators
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## 4 Details about the Test Laboratory

**Site 1**

Company name: TÜV SÜD Hong Kong Ltd.  
 3/F, West Wing, Lakeside 2,  
 10 Science Park West Avenue,  
 Science Park, Shatin, Hong Kong

**Site 2**

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch  
 Building 12&13 Zhiheng Wisdomland Business Park,  
 Nantou Checkpoint Road 2,  
 Shenzhen 518052, P.R.China  
 FCC Registration Number: 502708

<b>Emission Tests</b>	
Test Item	Test Site
<b>FCC Part 15 Subpart C</b>	
FCC Title 47 Part 15.205, 15.209 & 15.247(d) Spurious Radiated Emission	Site 2
FCC Title 47 Part 15.247(a)(1) 20dB & 99% Bandwidth	Site 2
FCC Title 47 Part 15.247(b) Peak Output Power	Site 2
FCC Title 47 Part 2.1051 & 15.247(d) Spurious Emissions at Antenna Terminals	Site 2
FCC Title 47 Part 15.247(d) 100kHz Bandwidth of band edges	Site 2
FCC Title 47 Part 15.247(a)(1) Minimum Number of Hopping Frequencies	Site 2
FCC Title 47 Part 15.247(a)(1) Minimum Hopping Channel Carrier Frequency Separation	Site 2
FCC Title 47 Part 15.247(a)(1) Average Time of Occupancy	Site 2
FCC Title 47 Part 15.203 & 15.247(b) Antenna Requirement	Site 2

## 4.1 Test Equipment Site List

### Radiated emission Test – Site 2

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	101269	15-July-17
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9163	707	15-July-17
Horn Antenna	Rohde & Schwarz	HF907	102294	15-July-17
Pre-amplifier	Rohde & Schwarz	SCU 18	102230	15-July-17
3m Semi-anechoic chamber	TDK	9X6X6	----	29-May-19

### 20dB & 99% Bandwidth, Peak Output Power, Spurious Emissions at Antenna Terminals, 100kHz Bandwidth of band edges, Min. No. of Hopping Frequencies, Min. Hopping Channel Carrier Frequency Separation and Average Time of Occupancy – Site 2

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Signal Generator	Rohde & Schwarz	SMB100A	108272	15-July-17
Signal Analyzer	Rohde & Schwarz	FSV40	101030	15-July-17
Vector Signal Generator	Rohde & Schwarz	SMU 200A	105324	15-July-17
RF Switch Module	Rohde & Schwarz	OSP120/OSP-B157	101226/100851	15-July-17

## 4.2 Measurement System Uncertainty

### Measurement System Uncertainty Emissions

System Measurement Uncertainty	
Items	Extended Uncertainty
Uncertainty for Radiated Emission in 3m chamber 9kHz-30MHz	4.54dB
Uncertainty for Radiated Emission in 3m chamber 30MHz-1000MHz	Horizontal: 4.83dB; Vertical: 4.91dB;
Uncertainty for Radiated Emission in 3m chamber 1000MHz-25000MHz	Horizontal: 4.89dB; Vertical: 4.88dB;
Uncertainty for Conducted RF test	2.04dB

## 5 Summary of Test Results

Emission Tests				
FCC Part 15 Subpart C				
Test Condition	Pages	Test Result		
		Pass	Fail	N/A
FCC Title 47 Part 15.205, 15.209 & 15.247(d) Spurious Radiated Emission	10-15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.247(a)(2) 6dB & 99% Bandwidth	16-18	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.247(b) Peak Output Power	19-21	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 2.1051 & 15.247(d) Spurious Emissions at Antenna Terminals	22-24	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.247(d) 100kHz Bandwidth of band edges	25-28	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.247(a)(1) Min. No. of Hopping Frequencies	29	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.247(a)(1) Min. of Hopping Channel Carrier Frequency Separation	30	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.247(a)(1) Average Time of Occupancy	31	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.203 & 15.247(b) Antenna Requirement	32	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



## 6 General Remarks

### Remarks

Client informs that the HG02429B have the same technical construction including circuit diagram, PCB Layout, components and component layout, all electrical construction and mechanical construction, with Bluetooth speaker, HG02429A. The difference lies only on different color of the different models. (Client's conformation letter shown at appendix C)

EMC Tests were performed on model: HG02429A.

### SUMMARY:

- All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

- The Equipment Under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

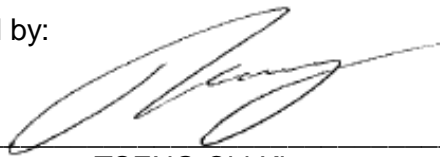
Sample Received Date: March 16, 2017

Testing Start Date: March 17, 2017

Testing End Date: April 19, 2017

- TÜV SÜD HONG KONG LTD. -

Reviewed by:



TSENG Chi Kit  
EMC Project Engineer



Prepared by:



CHAN Kwan Ho Alex  
EMC Project Engineer

## 7 Emission Test Results

### 7.1 Spurious Radiated Emission

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC15.205, 15.209 & 15.247(d) Antenna: Horizontal  
 Comment: 3.7VDC  
 Remark: 9kHz to 25GHz

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Result dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB	Detector
62.225	21.54	40.0	-18.46	Quasi Peak
437.992	20.49	46.0	-25.51	Quasi Peak
875.947	26.11	46.0	-19.89	Quasi Peak
1238.505	38.06	74.0	-35.94	Peak
1238.505	27.24	54.0	-26.76	Average
1599.560	35.10	74.0	-38.90	Peak
1599.560	26.01	54.0	-27.99	Average
4799.531	40.71	74.0	-33.29	Peak
4799.531	29.94	54.0	-24.06	Average
8783.906	40.05	74.0	-33.95	Peak
8783.906	31.28	54.0	-22.72	Average
14997.656	47.73	74.0	-26.27	Peak
14997.656	39.22	54.0	-13.83	Average

## Spurious Radiated Emission

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC15.205, 15.209 & 15.247(d) Antenna: Vertical  
 Comment: 3.7VDC  
 Remark: 9kHz to 25GHz

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Result dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB	Detector
72.150	22.66	40.0	-17.34	Quasi Peak
95.660	23.45	43.5	-20.05	Quasi Peak
280.886	24.81	46.0	-21.19	Quasi Peak
1866.312	29.60	74.0	-44.40	Peak
1866.312	20.68	54.0	-33.32	Average
2248.062	31.86	74.0	-42.14	Peak
2248.062	21.09	54.0	-32.91	Average
2706.750	32.82	74.0	-41.18	Peak
2706.750	29.63	54.0	-24.37	Average
4799.530	41.12	74.0	-32.88	Peak
4799.530	30.95	54.0	-23.05	Average
8731.875	39.77	74.0	-34.23	Peak
8731.875	30.07	54.0	-23.93	Average
12807.185	45.28	74.0	-28.72	Peak
12807.185	36.11	54.0	-17.89	Average

### Spurious Radiated Emission

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2441MHz)  
 Test Specification: FCC15.205, 15.209 & 15.247(d) Antenna: Horizontal  
 Comment: 3.7VDC  
 Remark: 9kHz to 25GHz

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Result dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB	Detector
72.165	21.88	40.0	-18.12	Quasi Peak
125.005	22.07	43.5	-21.43	Quasi Peak
248.350	25.34	46.0	-20.66	Quasi Peak
1241.750	32.41	74.0	-41.59	Peak
1241.750	23.18	54.0	-30.82	Average
1599.375	38.88	74.0	-35.12	Peak
1599.375	27.49	54.0	-26.51	Average
4877.812	39.03	74.0	-34.97	Peak
4877.812	30.11	54.0	-23.89	Average
8730.937	40.69	74.0	-33.31	Peak
8730.937	31.16	54.0	-22.84	Average
13196.718	43.36	74.0	-30.64	Peak
13196.718	33.57	54.0	-20.43	Average
15033.750	46.71	74.0	-27.29	Peak
15033.750	37.22	54.0	-16.78	Average

## Spurious Radiated Emission

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2441MHz)  
 Test Specification: FCC15.205, 15.209 & 15.247(d) Antenna: Vertical  
 Comment: 3.7VDC  
 Remark: 9kHz to 25GHz

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Result dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB	Detector
72.165	21.82	40.0	-18.18	Quasi Peak
120.150	22.07	43.5	-21.43	Quasi Peak
241.225	23.15	46.0	-22.85	Quasi Peak
1246.250	31.32	74.0	-42.68	Peak
1246.250	22.53	54.0	-31.47	Average
1592.062	30.12	74.0	-43.88	Peak
1592.062	21.58	54.0	-32.42	Average
4877.812	38.85	74.0	-35.15	Peak
4877.812	29.14	54.0	-24.86	Average
7491.562	38.87	74.0	-35.13	Peak
7491.562	29.20	54.0	-24.80	Average
8608.593	39.78	74.0	-34.22	Peak
8608.593	30.06	54.0	-23.94	Average
12863.437	43.49	74.0	-30.51	Peak
12863.437	33.84	54.0	-20.16	Average

## Spurious Radiated Emission

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC15.205, 15.209 & 15.247(d) Antenna: Horizontal  
 Comment: 3.7VDC  
 Remark: 9kHz to 25GHz

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Result dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB	Detector
54.550	20.85	40.0	-19.15	Quasi Peak
195.207	22.44	43.5	-21.06	Quasi Peak
450.885	23.26	46.0	-22.74	Quasi Peak
1258.550	32.22	74.0	-41.78	Peak
1258.550	21.84	54.0	-32.16	Average
1647.437	30.32	74.0	-43.68	Peak
1647.437	20.25	54.0	-33.75	Average
4955.625	38.65	74.0	-35.35	Peak
4955.625	29.22	54.0	-24.78	Average
7683.281	38.89	74.0	-35.11	Peak
7683.281	29.72	54.0	-24.28	Average
12438.280	42.89	74.0	-31.11	Peak
12438.280	33.18	54.0	-20.82	Average
15028.595	47.21	74.0	-26.79	Peak
15028.595	39.03	54.0	-14.97	Average

## Spurious Radiated Emission

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC15.205, 15.209 & 15.247(d) Antenna: Vertical  
 Comment: 3.7VDC  
 Remark: 9kHz to 25GHz

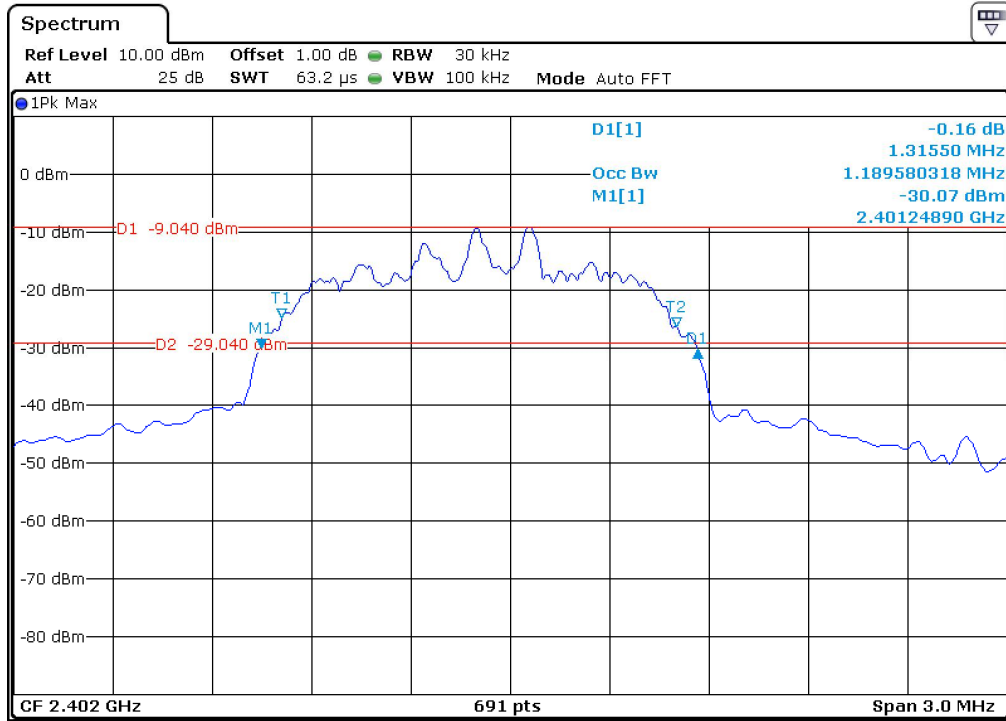
Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Result dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB	Detector
55.940	20.59	40.0	-19.41	Quasi Peak
144.660	21.58	43.5	-21.92	Quasi Peak
305.690	23.59	46.0	-22.41	Quasi Peak
1592.635	30.85	74.0	-43.15	Peak
1592.635	21.28	54.0	-32.72	Average
2248.625	31.19	74.0	-42.81	Peak
2248.625	22.58	54.0	-31.42	Average
4955.625	39.07	74.0	-34.93	Peak
4955.625	28.55	54.0	-25.45	Average
8813.437	39.81	74.0	-34.19	Peak
8813.437	30.25	54.0	-23.75	Average
10825.312	41.73	74.0	-32.27	Peak
10825.312	31.29	54.0	-22.71	Average
14971.875	46.27	74.0	-27.73	Peak
14971.875	37.19	54.0	-16.81	Average

## 7.2 20dB & 99% Bandwidth

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC15.247(a)(2), 20dB Bandwidth & 99% Bandwidth  
 Comment: 3.7VDC

<b>Test Result</b>	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



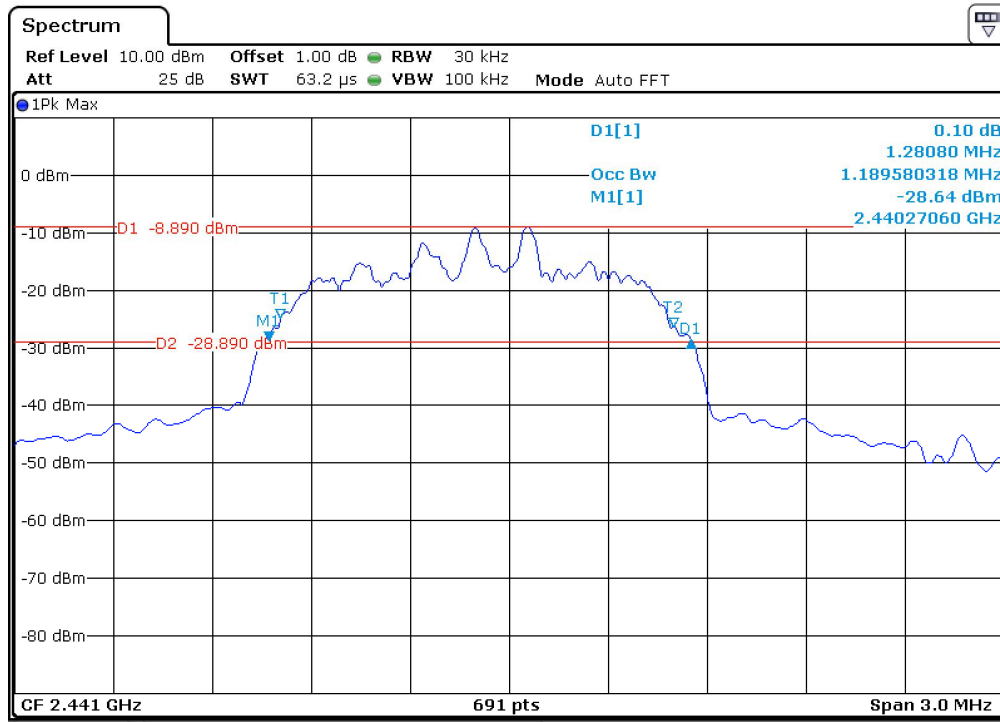
20dB bandwidth	99% bandwidth
1315.500 kHz	1189.580 kHz



**20dB & 99% Bandwidth**

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2441MHz)  
 Test Specification: FCC15.247(a)(2), 20dB Bandwidth & 99% Bandwidth  
 Comment: 3.7VDC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

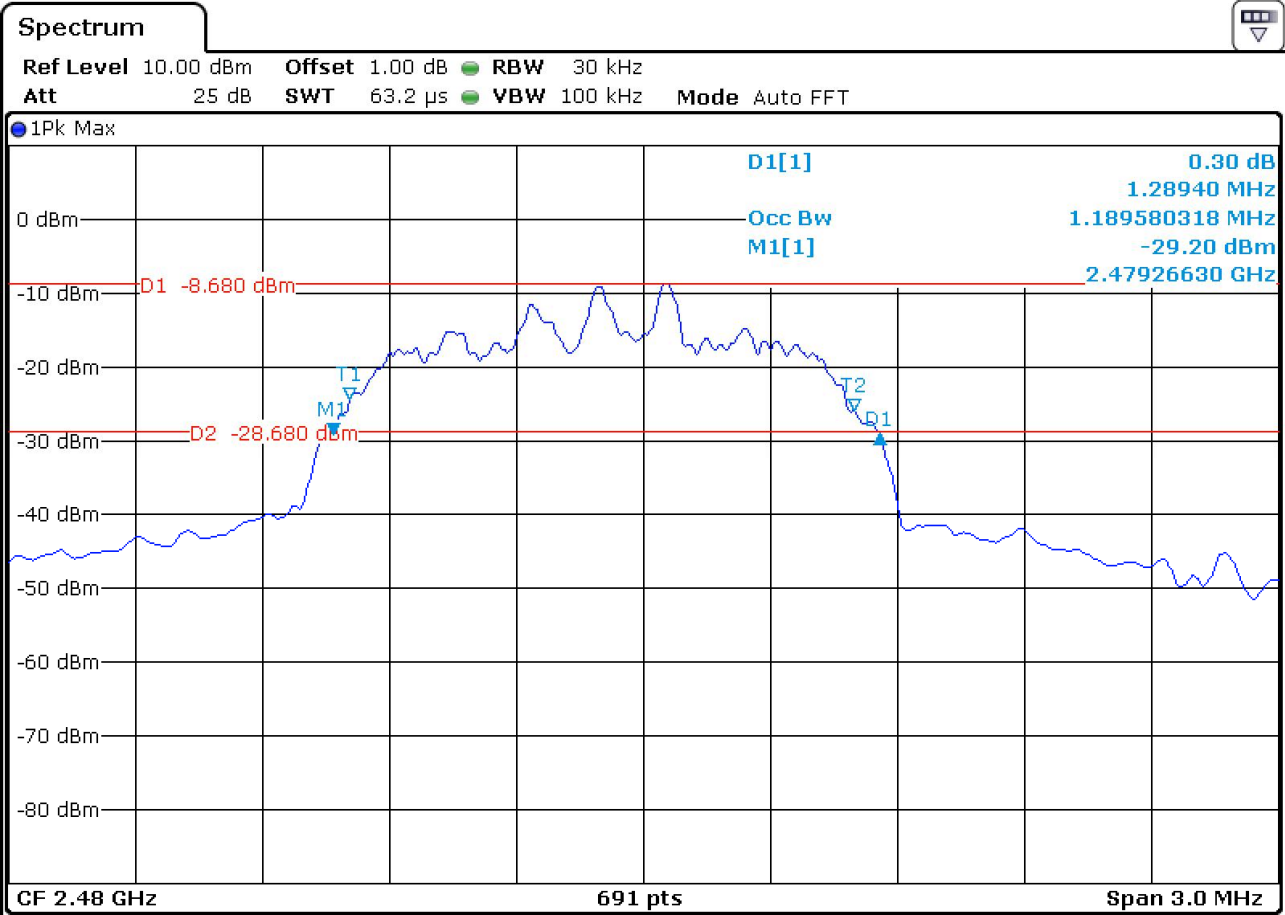


20dB bandwidth	99% bandwidth
1280.800 kHz	1189.580 kHz

**20dB & 99% Bandwidth**

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC15.247(a)(2), 20dB Bandwidth & 99% Bandwidth  
 Comment: 3.7VDC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

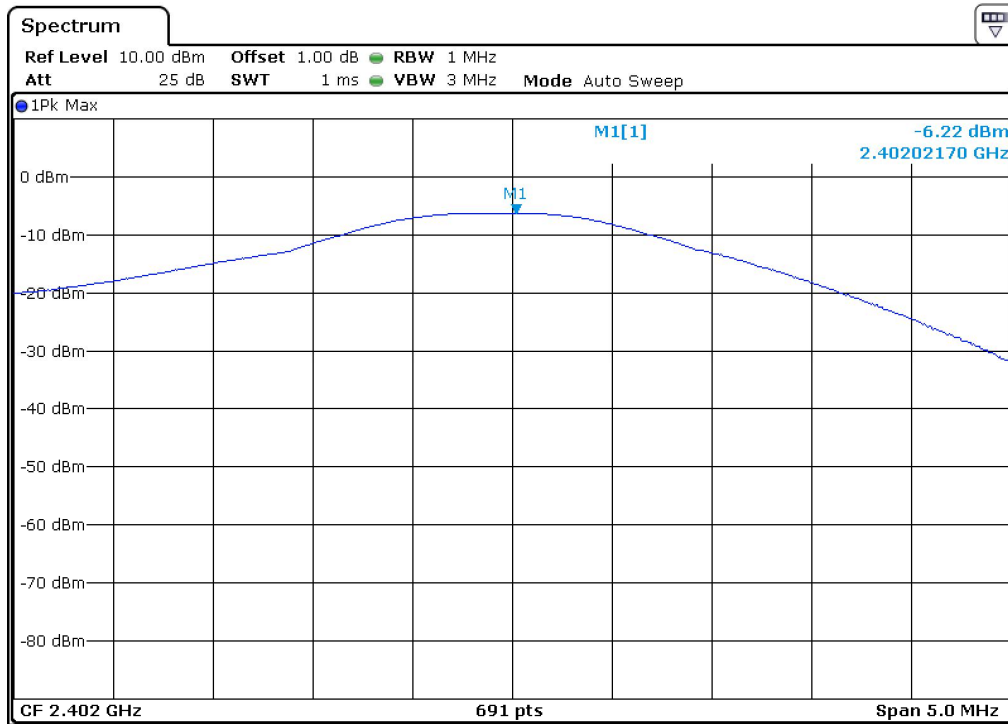


20dB bandwidth	99% bandwidth
1289.400kHz	1189.580 kHz

### 7.3 Peak Output Power

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC15.247(b)  
 Comment: 3.7VDC, Antenna gain: 0 dBi, Cable Loss: 0.5dB

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

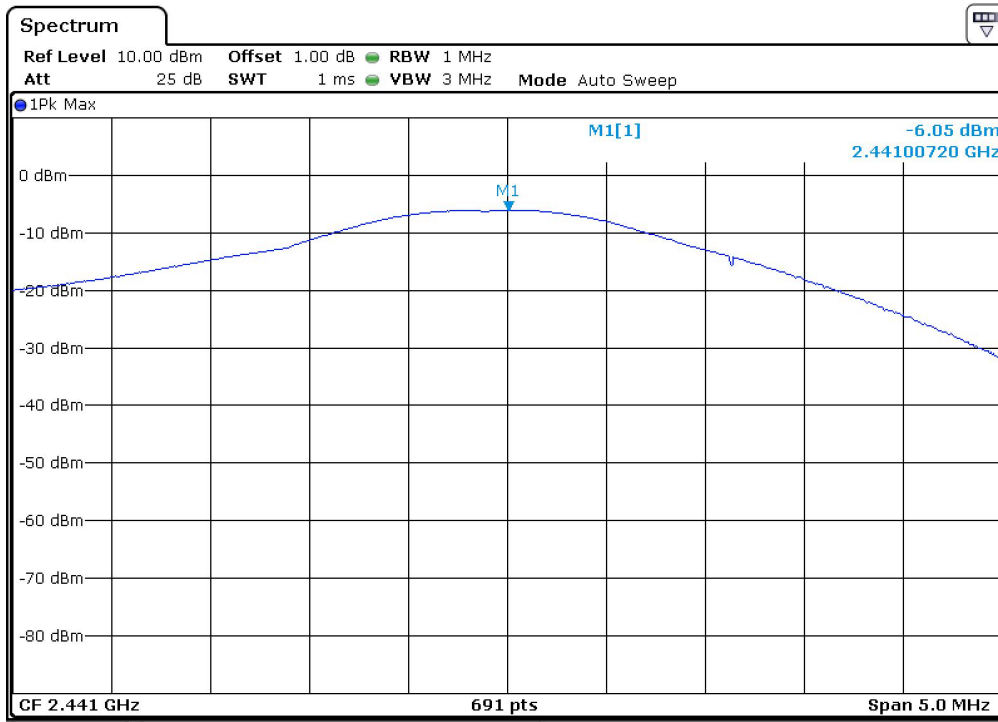


Conducted Output Power (dBm)	Conducted Output Power (mW)	Limit (mW)
-6.22	0.238	125.0

**Peak Output Power**

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2441MHz)  
 Test Specification: FCC15.247(b)  
 Comment: 3.7VDC, Antenna gain: 0 dBi, Cable Loss: 0.5dB

<b>Test Result</b>	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

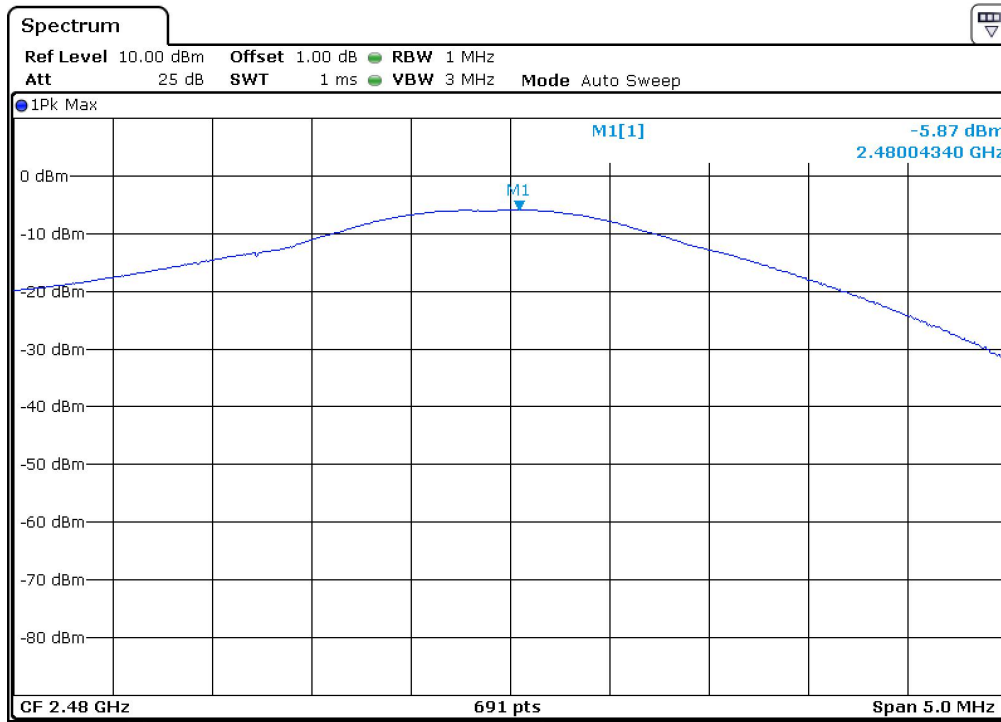


Conducted Output Power (dBm)	Conducted Output Power (mW)	Limit (mW)
-6.05	0.248	125.0

**Peak Output Power**

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC15.247(b)  
 Comment: 3.7VDC, Antenna gain: 0 dBi, Cable Loss: 0.5dB

<b>Test Result</b>	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

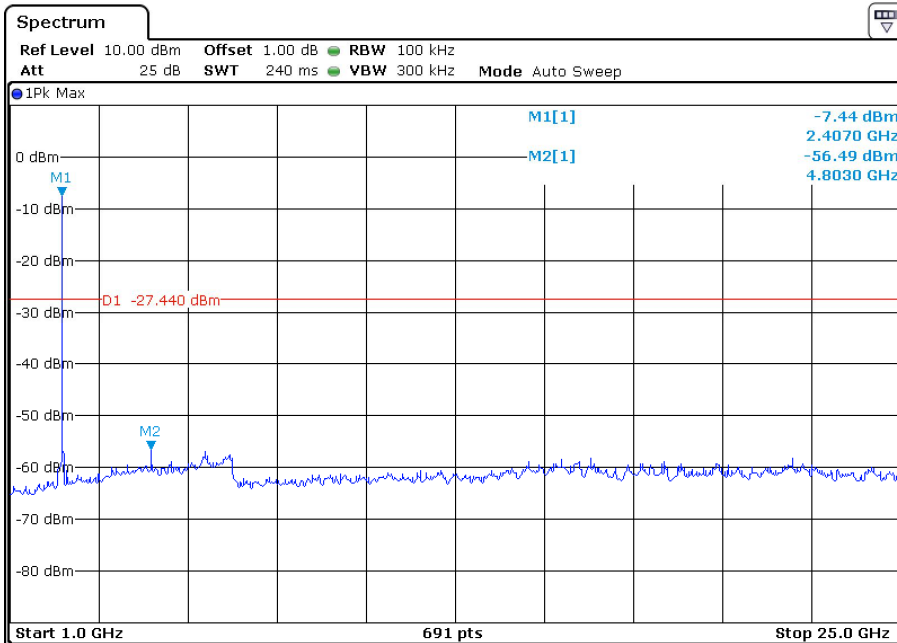
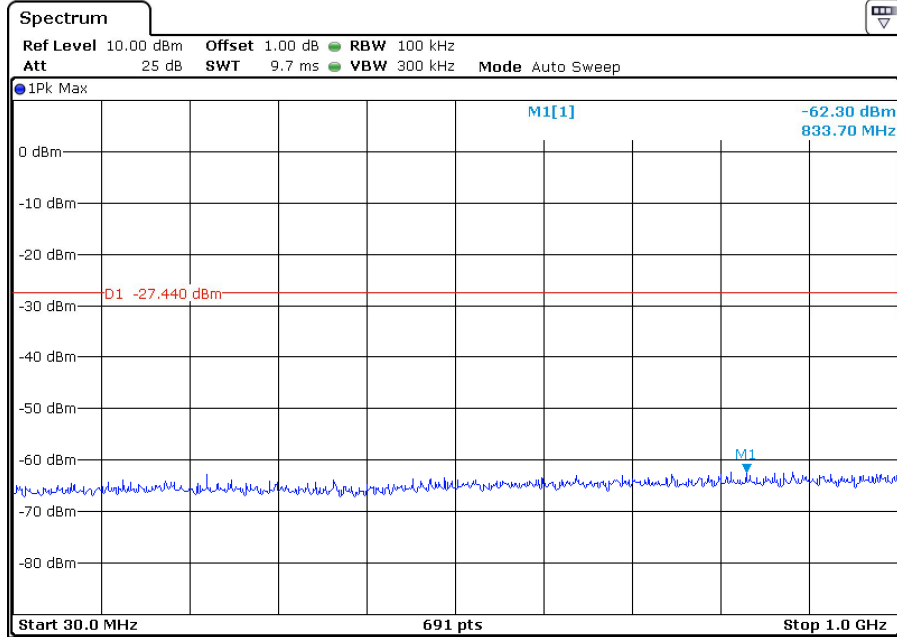


Conducted Output Power (dBm)	Conducted Output Power (mW)	Limit (mW)
-5.87	0.259	125.0

## 7.4 Spurious Emissions at Antenna Terminals

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC2.1051 & 15.247(d)  
 Comment: 3.7VDC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

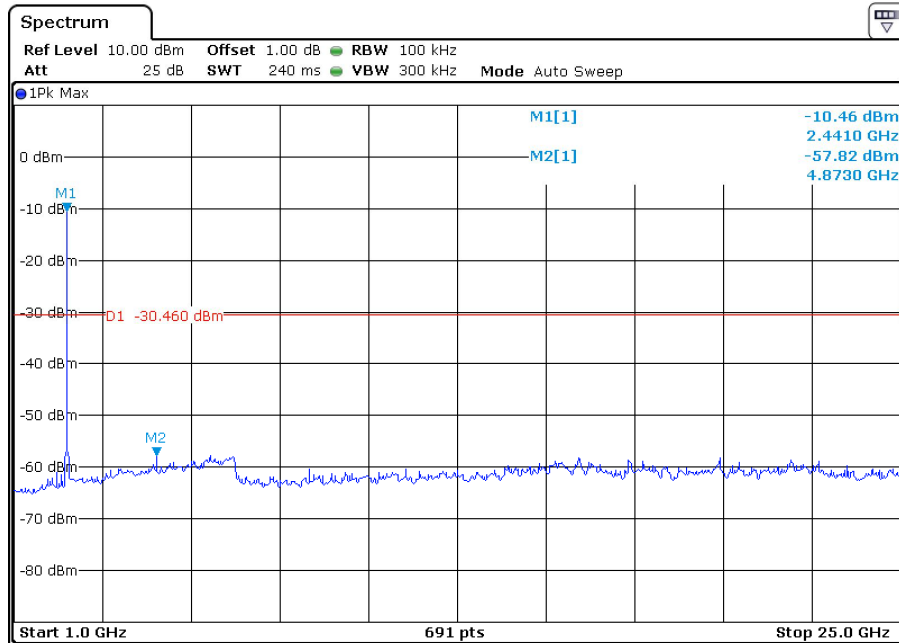
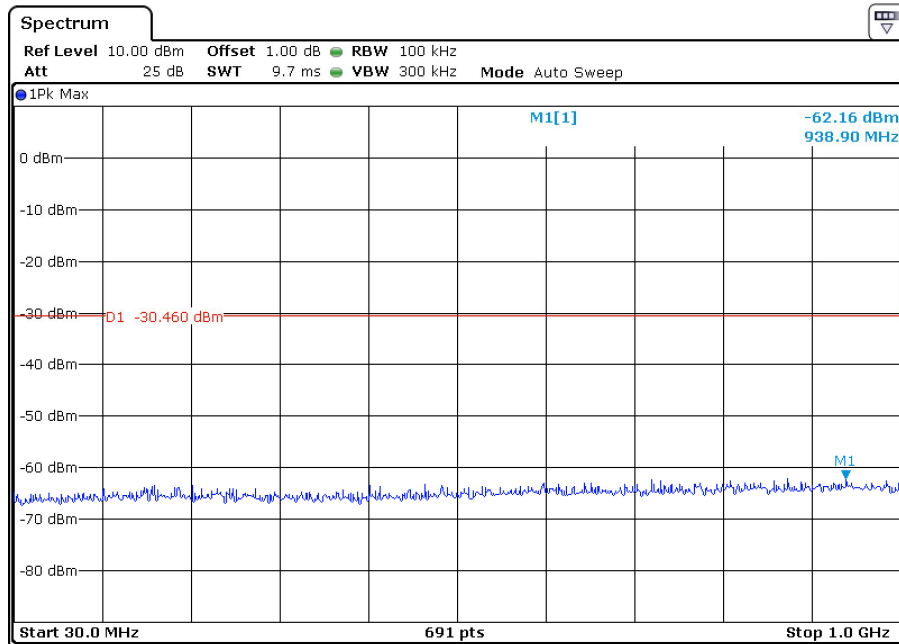


Limit: 20dB below the highest level of the desired power in the passband

### Spurious Emissions at Antenna Terminals

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2441MHz)  
 Test Specification: FCC2.1051 & 15.247(d)  
 Comment: 3.7VDC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

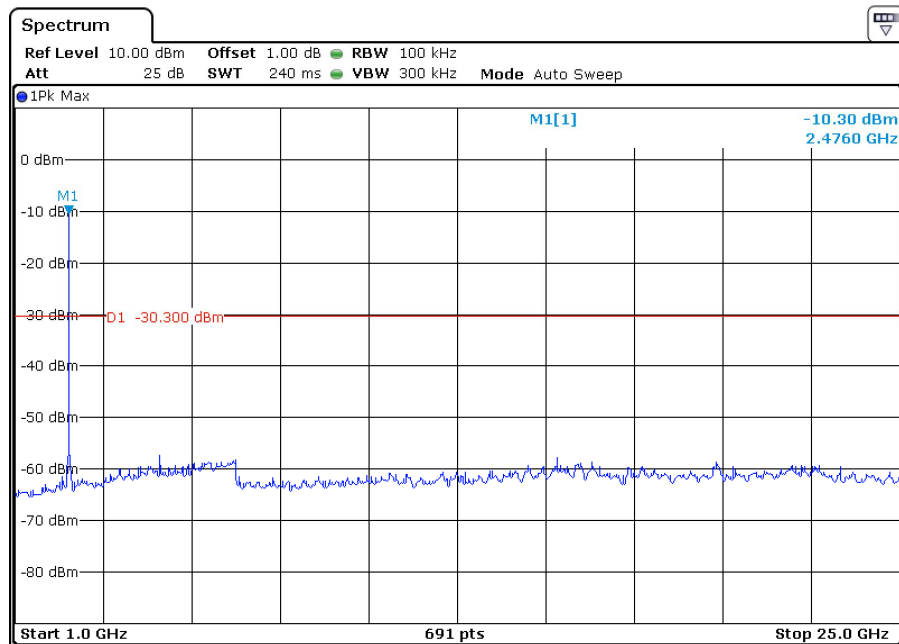
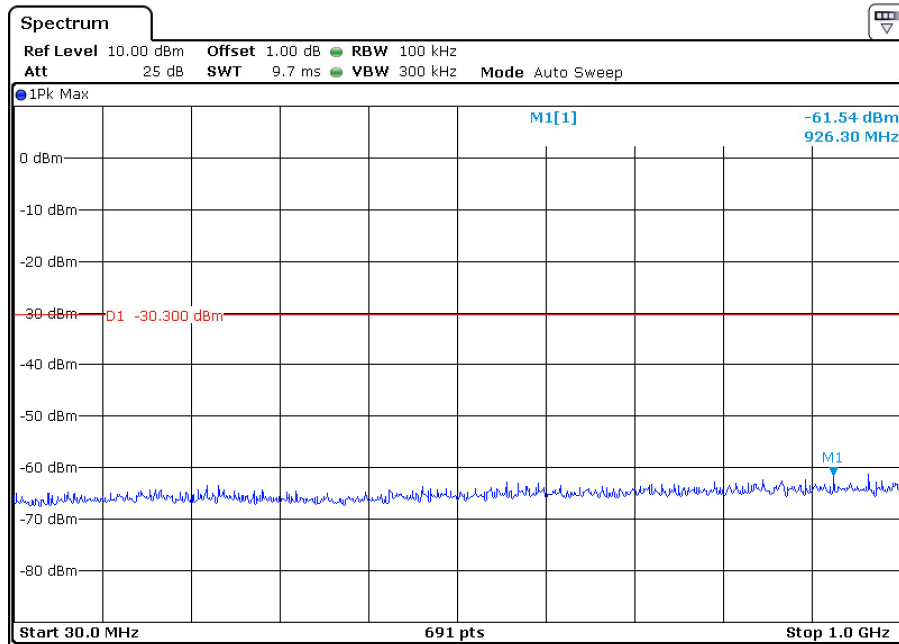


Limit: 20dB below the highest level of the desired power in the passband

### Spurious Emissions at Antenna Terminals

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC2.1051 & 15.247(d)  
 Comment: 3.7VDC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



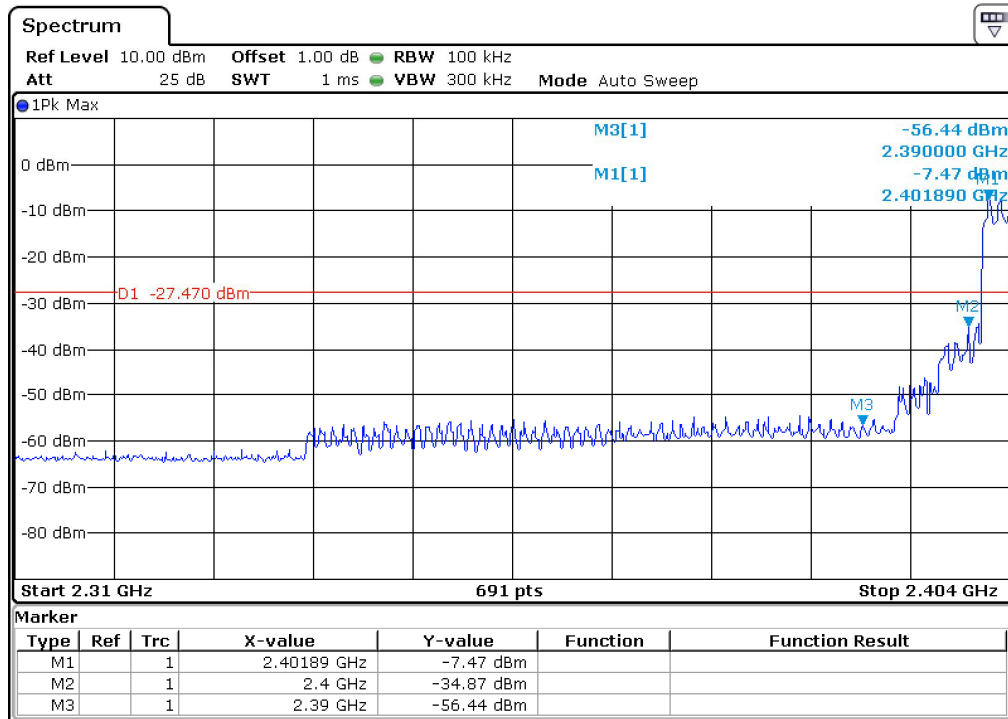
Limit: 20dB below the highest level of the desired power in the passband



## 7.5 100kHz Bandwidth of band edges

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC15.247(d), Conducted  
 Comment: 3.7VDC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



Band edges	Limit
27.40 dB	> 20dB

**100kHz Bandwidth of band edges**

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC15.247(d), Radiated  
 Comment: 3.7VDC

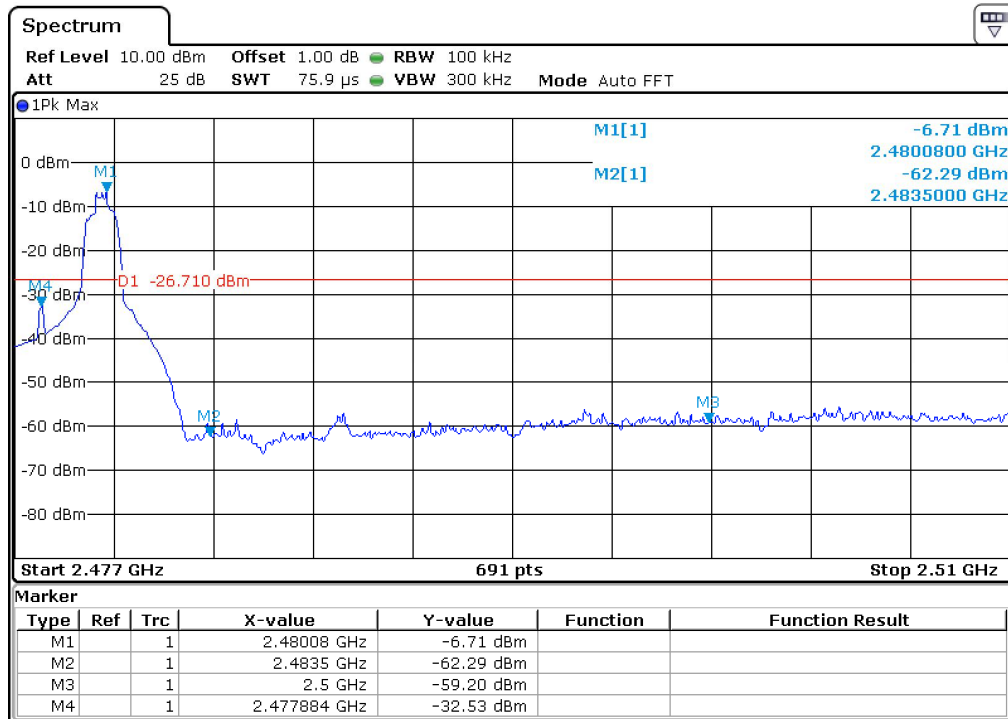
Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Result dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB	Detector
2390.000	40.04	74	-33.96	Peak
2390.000	30.68	54	-23.32	Average

**100kHz Bandwidth of band edges**

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC15.247(d), Conducted  
 Comment: 3.7VDC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



Band edges	Limit
55.58 dB	> 20dB

**100kHz Bandwidth of band edges**

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2480MHz)  
 Test Specification: FCC15.247(d), Radiated  
 Comment: 3.7VDC

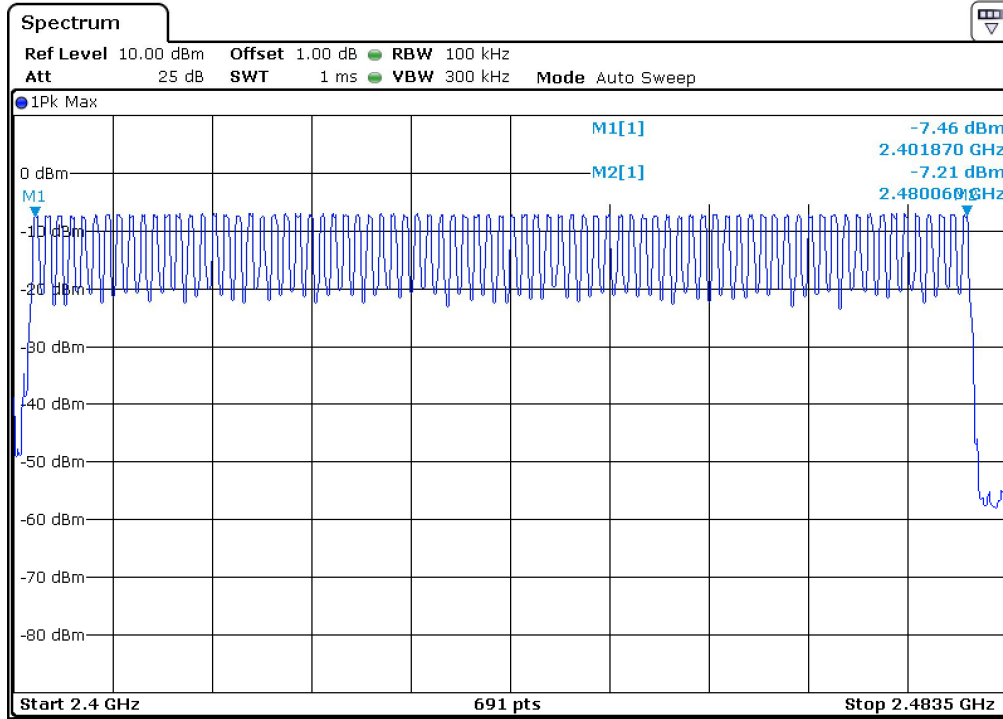
Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Result dBµV/m	Limit dBµV/m	Margin dB	Detector
2483.500	34.62	74	-39.38	Peak
2483.500	23.94	54	-30.06	Average

## 7.6 Minimum. Number of Hopping Frequencies

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2402-2480MHz)  
 Test Specification: FCC15.247(a)(1)  
 Comment: 3.7VDC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

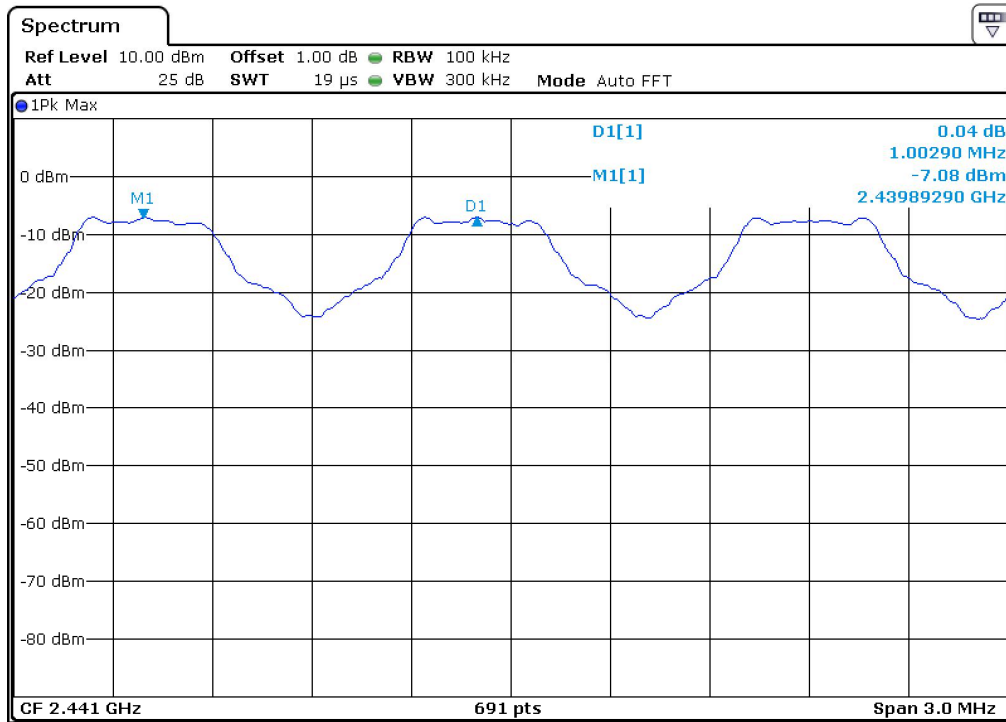


Hopping Channels	Limit
79	≥ 15

## 7.7 Minimum Hopping Channel Carrier Frequency Separation

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2402-2480MHz)  
 Test Specification: FCC15.247(a)(1)  
 Comment: 3.7VDC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



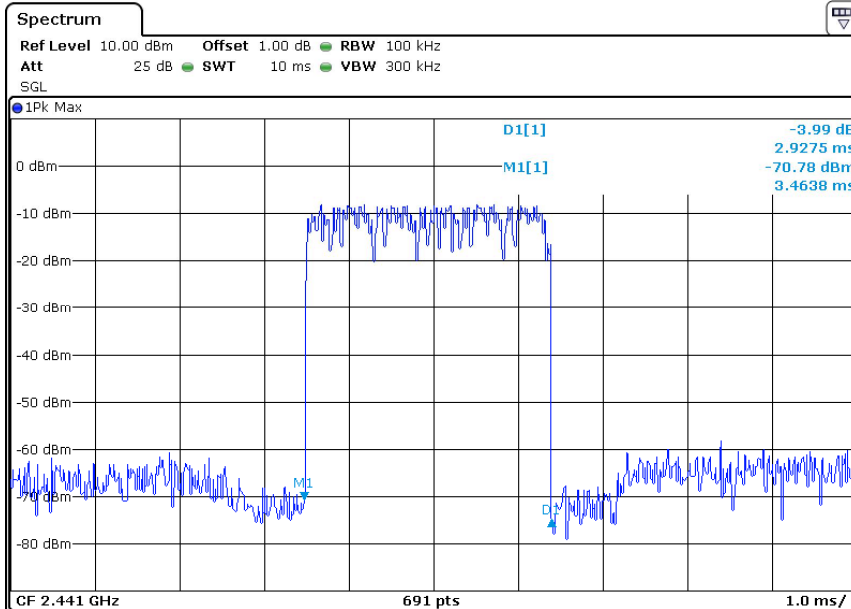
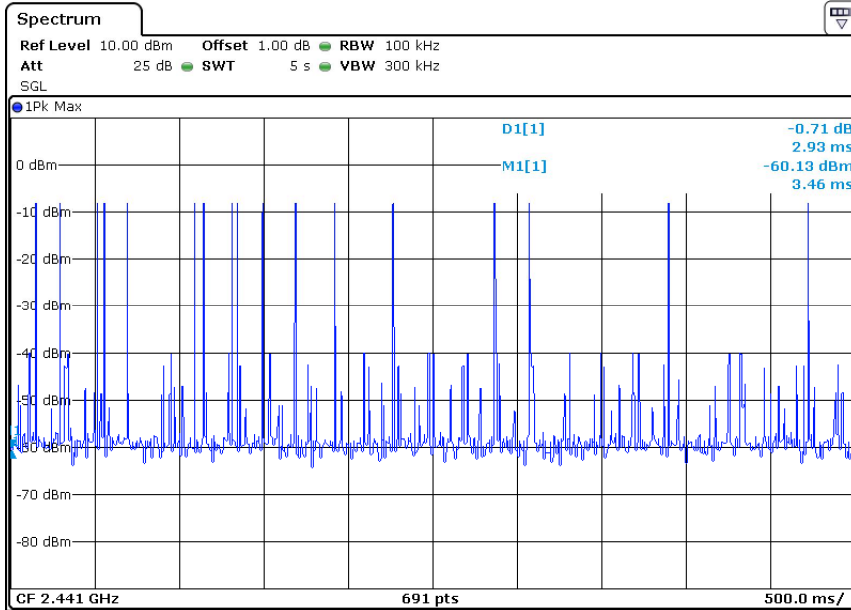
Chanel Separation	Limit
1002.90 kHz	853.867 kHz

Limit: 2/3 of 20dB bandwidth of hopping channel

## 7.8 Average Channel Occupancy Time

EUT: HG02429A  
 Op Condition: Operated, TX Mode (2402MHz)  
 Test Specification: FCC15.247(a)(1)  
 Comment: 3.7VDC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



Average time of occupancy	Limit
Number of hops in 5 sec.: 17 Period: 0.4 x 79 Ch. = 31.6 sec. Total number of hops in 31.6 sec.: (17/5)*31.6=108 Time of single pulse: 2.928 ms Average time of occupancy: 2.928 ms x 108 = 0.3162 sec.	0.4 Seconds

## 7.9 Antenna Requirement

EUT: HG02429A  
Op Condition: Operated, TX Mode  
Test Specification: FCC15.203 & 15.247(b)  
Comment: 3.7VDC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

### Limit

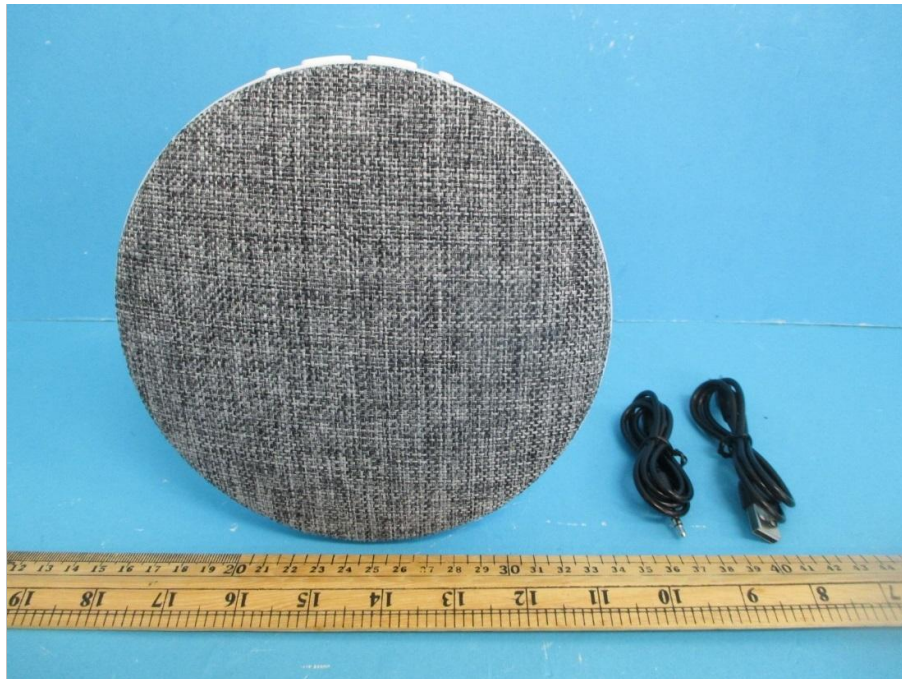
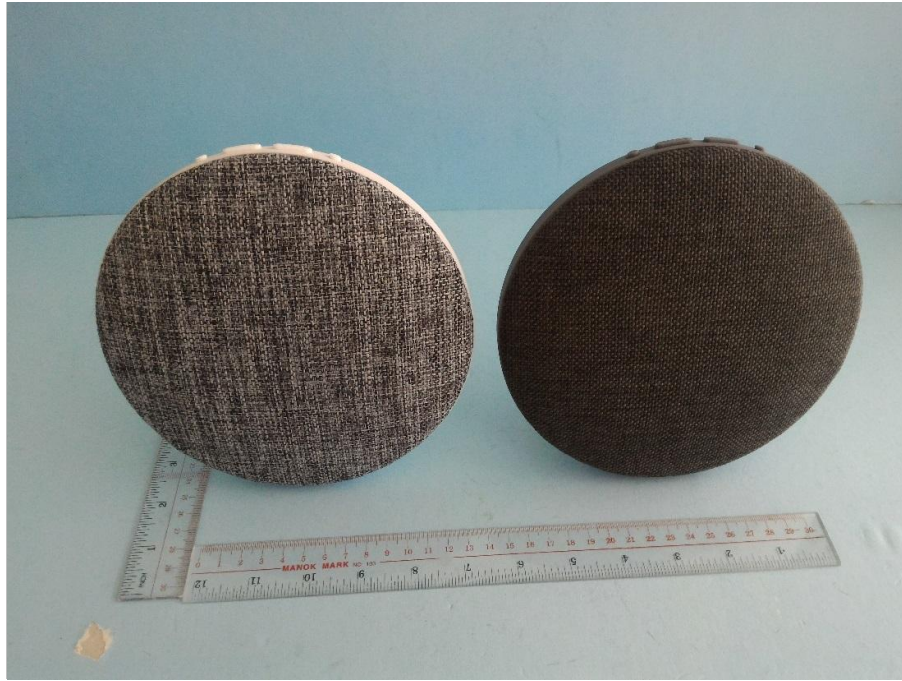
For intentional device, according to FCC Title 47 Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC Title 47 Part 15.247(b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### Antenna Connector Construction

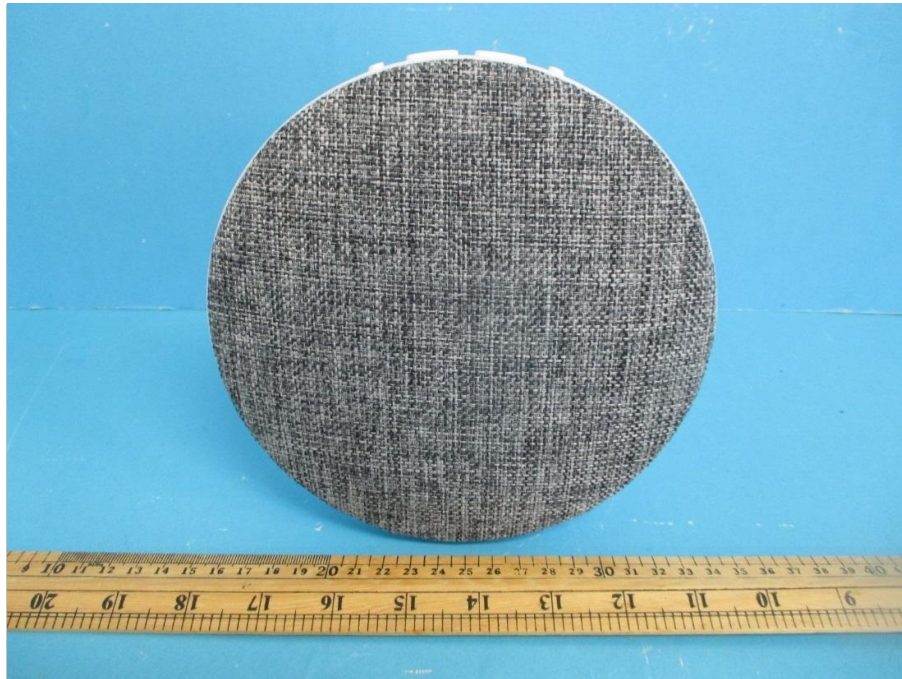
The antenna used in this product is PCB antenna, and the maximum gain of this antenna is 0.0 dBi.



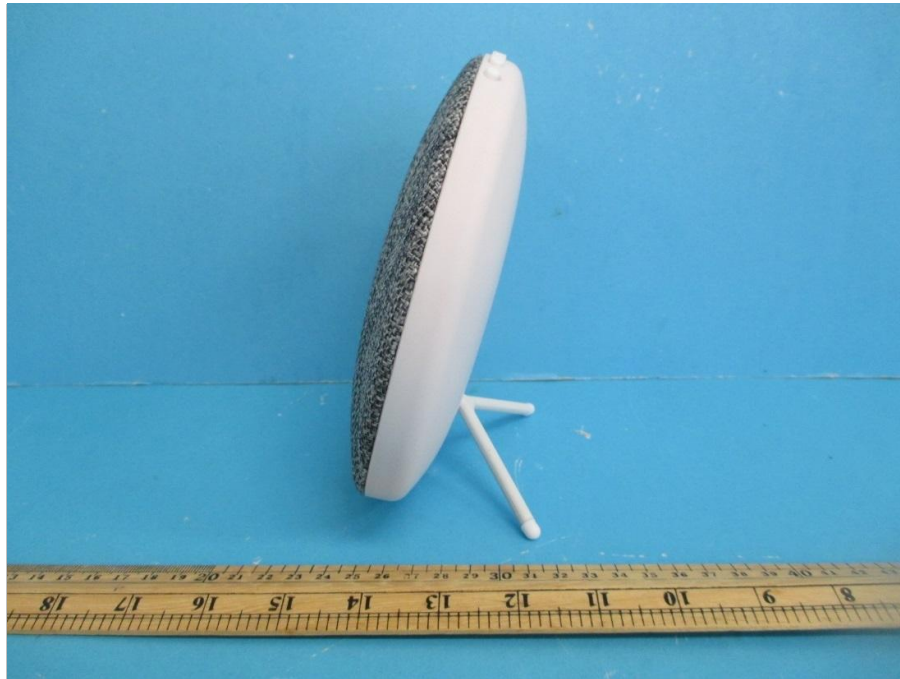
## 8 Appendix A - Photographs of EUT



## Appendix A



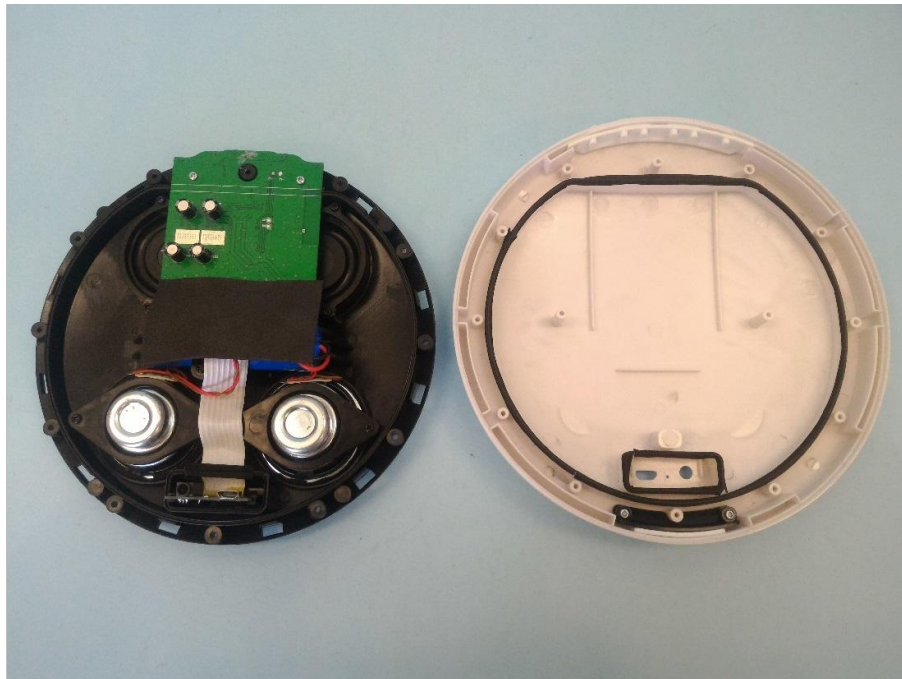
## Appendix A



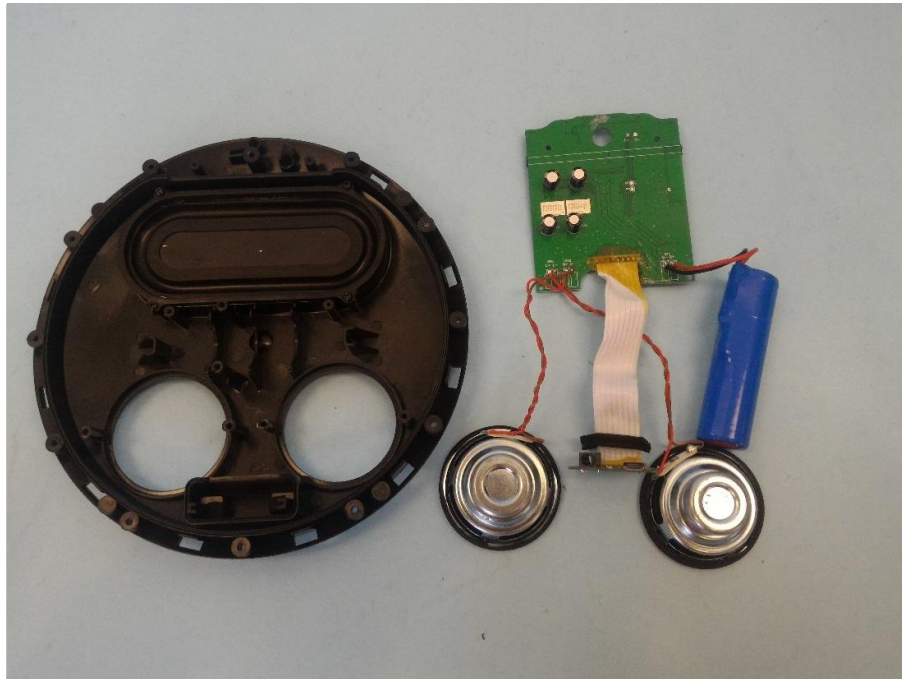
Appendix A



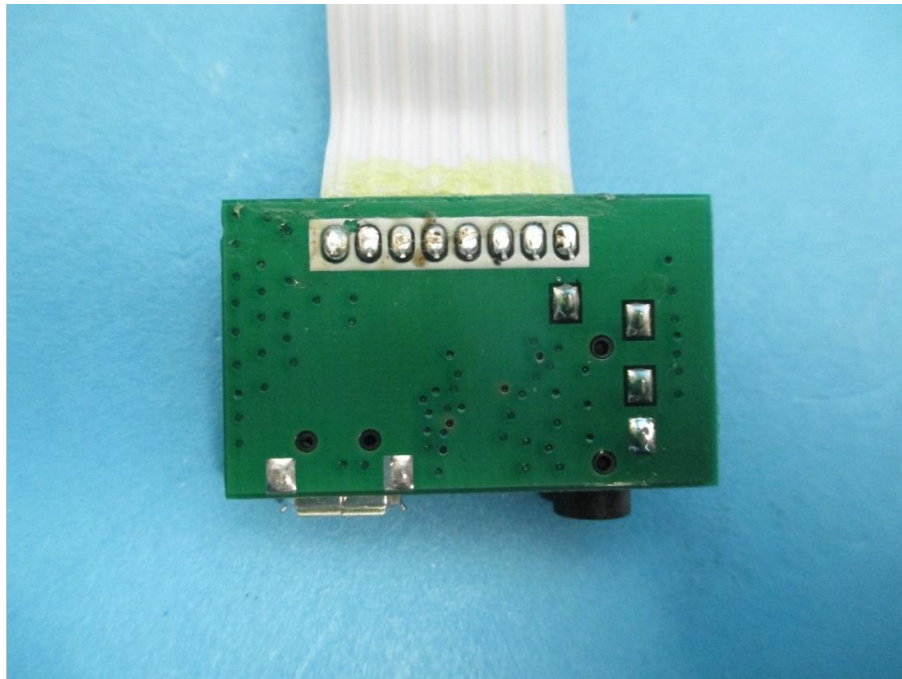
## Appendix A



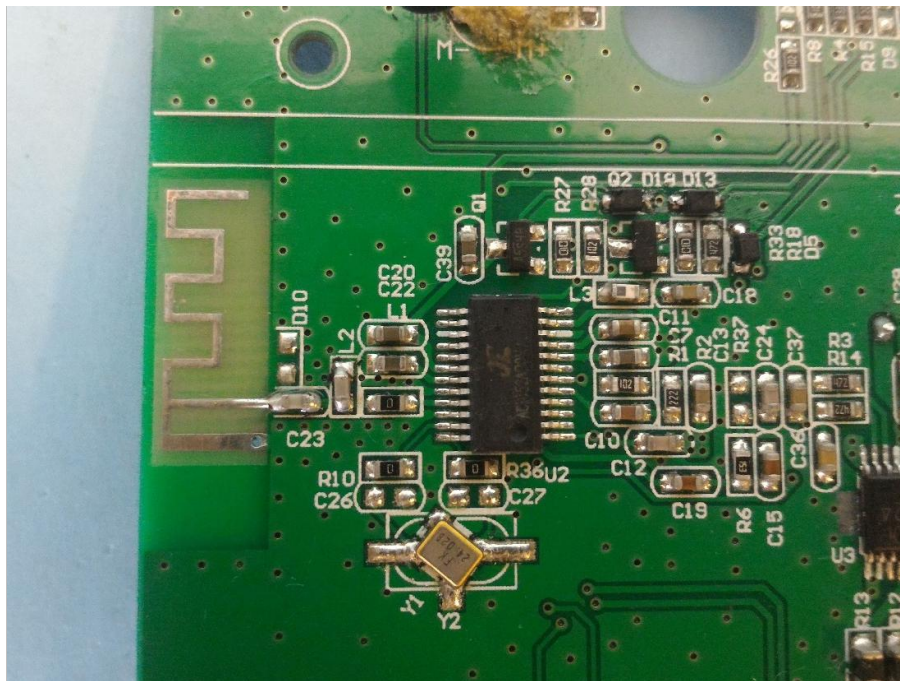
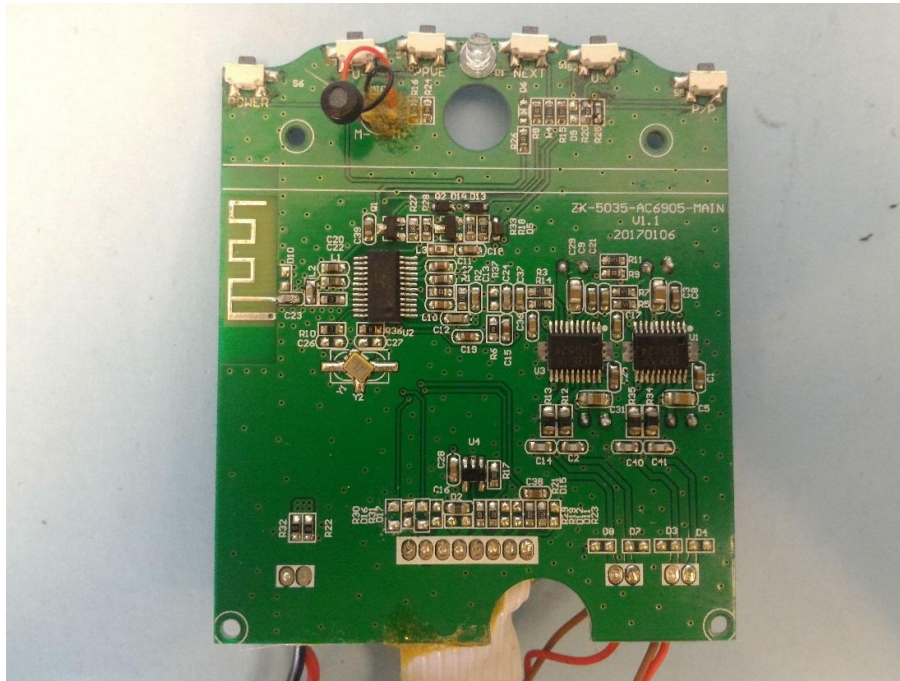
Appendix A



Appendix A

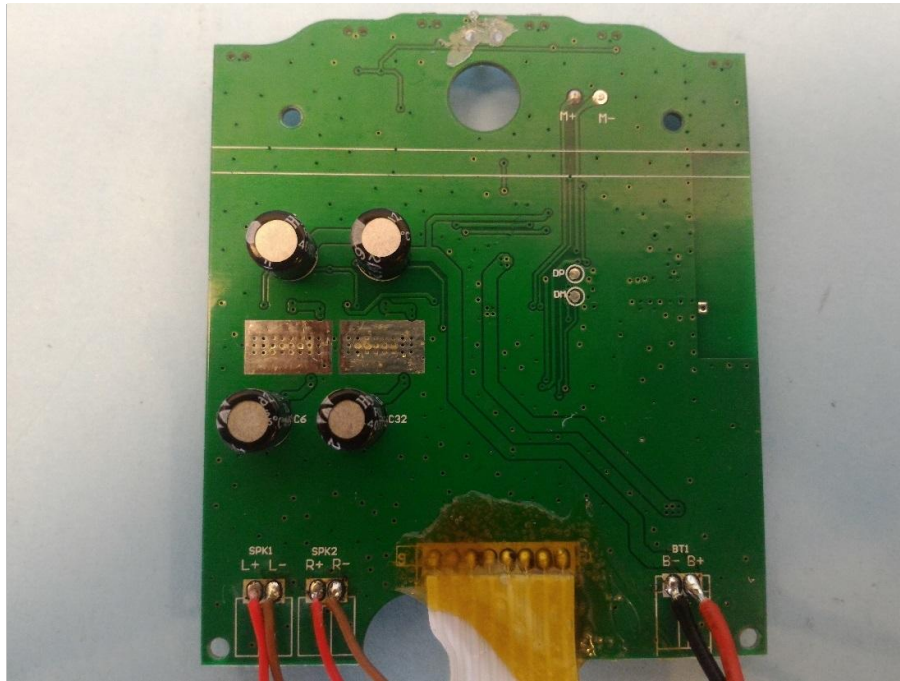


Appendix A





## Appendix A

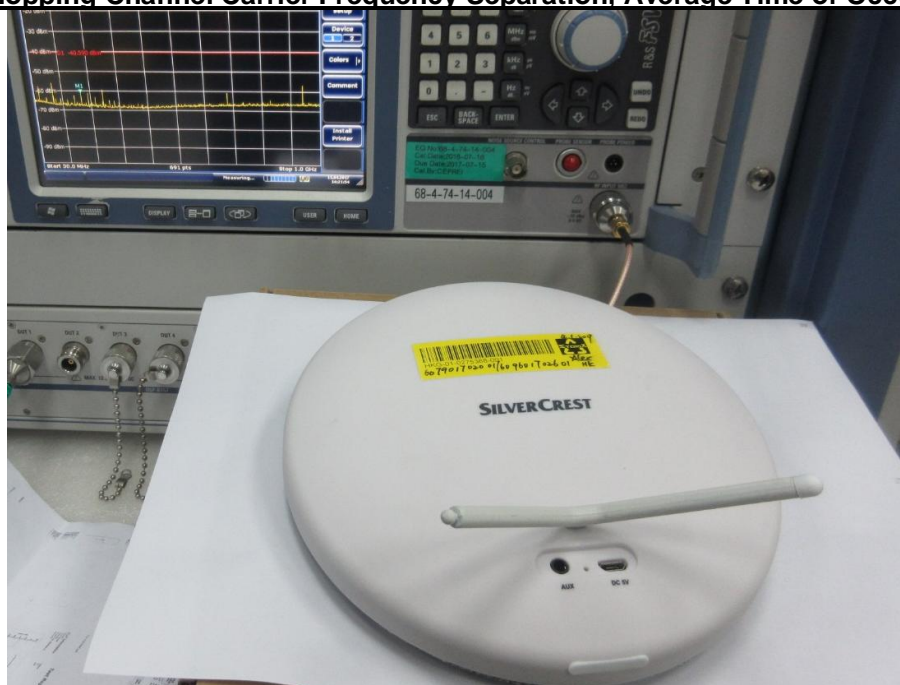


## 9 Appendix B - Setup Photographs of EUT

### Spurious Radiated Emission



**20dB & 99% Bandwidth, Peak Output Power,  
Spurious Emissions at Antenna Terminals,  
100kHz Bandwidth of band edges, Min. No. of Hopping Frequencies,  
Min. Hopping Channel Carrier Frequency Separation, Average Time of Occupancy**



## 10 Appendix C - General Product Information

### Radiofrequency radiation exposure evaluation

According to KDB 447498 D01v06 section 4.3.1, For frequencies between 100 MHz to 6GHz and test separation distances  $\leq 50$  mm, the Numeric threshold is determined as

Step a)

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR

>> The fundamental frequency of the EUT is 2402-2480MHz,  
the test separation distance is  $\leq 50$ mm.  
(Manufacturer specified the separation distance is: 5mm)

Step a)

>> Numeric threshold (2402MHz),  $\text{mW} / 5\text{mm} \cdot \sqrt{2.402\text{GHz}} \leq 3.0$   
Numeric threshold (2402MHz)  $\leq 9.678\text{mW}$

>> Numeric threshold (2440MHz),  $\text{mW} / 5\text{mm} \cdot \sqrt{2.441\text{GHz}} \leq 3.0$   
Numeric threshold (2440MHz)  $\leq 9.601\text{mW}$

>> Numeric threshold (2480MHz),  $\text{mW} / 5\text{mm} \cdot \sqrt{2.480\text{GHz}} \leq 3.0$   
Numeric threshold (2480MHz)  $\leq 9.525\text{mW}$

>> The power of EUT measured (2402MHz) is:  $-6.22\text{dBm} = 0.239\text{mW}$   
The power of EUT measured (2440MHz) is:  $-6.05\text{dBm} = 0.248\text{mW}$   
The power of EUT measured (2480MHz) is:  $-5.87\text{dBm} = 0.259\text{mW}$   
Which is smaller than the Numeric threshold.  
Therefore, the device is exempt from stand-alone SAR test requirements.

## Appendix C



LIDL US LLC, 3500 S Clark Street, Arlington, VA 22202

To: TÜV SÜD HKG Ltd.

Attention: **Mr. Edmond Fung**

From: **David Matter**

Date: April 12, 2017

Fax No:

Total Page (Cover Included): 1

### Declaration Letter

Subject:

We:

Officially notify TÜV SÜD HKG Ltd. that the <<Additional Model>> have the same technical construction including circuit diagram, PCB Layout, components and component layout, all electrical construction and mechanical construction, with <<PRODUCT>>, <<Main Test Model>>. The difference lies only on different color of the different models.

<<Additional Model >>: HG02429B

<<Main Test Model >>: HG02429A

<<Product>>: Bluetooth Speaker

Applicant:

04/12/2017

(Date)

**Matter** Digitally signed by Matter  
DN: cn=Matter, o=LIDL, ou=LLC,  
email=david.matter@lidl.us, c=US  
Date: 2017.04.05 19:23:56 -04'00'

(Applicant's authorized signature and company Chop)