FCC PART 15C TEST REPORT FOR CERTIFICATION On Behalf of

Voxx Accessories Corp.

Wireless Speaker

Model Number: SP251

FCC ID: VIXSP251

Prepared for: Voxx Accessories Corp.

3502 Woodview Trace, Suite 220, Indianapolis,

IN 46268

Prepared By: EST Technology Co., Ltd.

Santun(guantai Road), Houjie Town, DongGuan City,

GuangDong, China.

Tel: 86-769-83081888-808

Report Number: ESTE-R1603025

Date of Test : Feb 29, 2016~ Mar 09, 2016

Date of Report: Mar 10, 2016

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Test Report Verification

| | iest Report verinc | | | | | |
|--|---|--|--|--|--|--|
| Applicant: | Voxx Accessories Corp. | | | | | |
| Address: | 3502 Woodview Trace, Suite 220, In | | | | | |
| Manufacturer | Guangzhou Changjia Electronic Co. | , Ltd. | | | | |
| Address: | Bo-ying Industrial Garden, Taishi In | dustrial Zone, Yuwotou, Dongchong | | | | |
| Address: | Town, Nansha district, Guangzhou, China | | | | | |
| E.U.T: | Wireless Speaker | | | | | |
| | SP251 | | | | | |
| Model Number: | (comes in color variations, but are el | ectrically and mechanically the | | | | |
| | same the only difference is the color |) | | | | |
| | DC 3.7V From Internal Battery |) | | | | |
| Power Supply: DC 5V From USB for Charging | | | | | | |
| Test Voltage: | DC 3.7V | | | | | |
| Trade Name: | 808 Serial N | | | | | |
| Date of Receipt: | | | | | | |
| FCC Rules and Regulations Part 15 Subpart C-2015 | | | | | | |
| Test Specification: | ANSI C63.10:2013 | | | | | |
| | The device described above is tested by EST Technology Co., Ltd The | | | | | |
| Test Result: | measurement results were contained in this test report and EST Technology | | | | | |
| rest result. | | pility for the accuracy and completeness | | | | |
| | of these measurements. Also, this rej | | | | | |
| | | C Rules and Regulations Part 15 Subpart | | | | |
| | C requirements. | | | | | |
| | This report applies to above tested s | ample only and shall not be reproduced | | | | |
| | in part without written approval of E | | | | | |
| | in part without written approval of 2 | Date: Mar 10, 2016 | | | | |
| Prepared by: | Tested by: | Approved by: | | | | |
| , | | | | | | |
| A /2. | | Trementhe | | | | |
| Ran | tom | Liemen | | | | |
| Ada / Assistant | Tony.Tang/ Engineer | IcemanHu / Manager | | | | |
| Other Aspects: None. | | | | | | |
| Abbreviations: OK/P=pass | ed fail/F=failed n.a/N=not applical | ble E.U.T=equipment under tested | | | | |
| | a single evaluation of one sample of above mout written approval of EST Technology Co., L | | | | | |



1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Product Name : Wireless Speaker

Model Number : SP251

FCC ID : VIXSP251

Operation frequency : 2402MHz~2480MHz

Number of channel : 79

Antenna : Internal antenna, 0 dBi gain

Modulation : FHSS (GFSK, $\pi/4$ -DQPSK, 8-DPSK)

Sample Type : Prototype production

2. SUMMARY OF TEST

2.1. Summary of test result

| Description of Test Item | Standard | Results |
|--------------------------------|--|---------|
| Maximum Peak Output Power | FCC Part 15: 15.247(b)(1) DA 00-705 | N/A |
| 20dB Bandwidth | FCC Part 15: 15.215 DA 00-705 | N/A |
| Carrier Frequency Separation | FCC Part 15: 15.247(a)(1) DA 00-705 | N/A |
| Number Of Hopping Channel | FCC Part 15: 15.247(a)(1)(iii) DA 00-705 | N/A |
| Dwell Time | FCC Part 15: 15.247(a)(1)(iii) DA 00-705 | N/A |
| Radiated Emission | FCC Part 15: 15.209 FCC Part 15: 15.247(d) ANSI C63.4: 2003 DA 00-705 | PASS |
| Band Edge Compliance | FCC Part 15: 15.247(d) DA 00-705 | N/A |
| Power Line Conducted Emissions | FCC Part 15: 15.207 ANSI C63.4: 2009 DA 00-705 | N/A |
| Antenna requirement | FCC Part 15: 15.203 | N/A |

Note: Because the transmitter module it self has not changed. So relevant test needn't re-tested, Test data refer to test report "ESTE-R1411001".

EST

2.2. Test Facilities

EMC Lab : Certificated by CNAL, CHINA

Registration No.: L5288

Date of registration: December 07, 2015

Certificated by FCC, USA Registration No.: 989591

Date of registration: November 20, 2013

Certificated by Industry Canada Registration No.: 9405A-1

Date of registration: December 30, 2015

Certificated by VCCI, Japan

Registration No.: R-3663 & C-4103 Date of registration: July 25, 2011

Certificated by TUV Rheinland, Germany Registration No.: UA 50195514 0001 Date of registration: January 07, 2011

Certificated by TUV/PS, Shenzhen

Registration No.: SCN1017

Date of registration: January 27, 2011

Certificated by Intertek ETL SEMKO Registration No.: 2011-RTL-L1-18 Date of registration: April 28, 2011

Certificated by Siemic, Inc. Registration No.: SLCN021

Date of registration: November 8, 2011

Certificated by Nemko, Hong Kong

Registration No.: 175193

Date of registration: May 4, 2011

Name of Firm : EST Technology Co., Ltd.

Site Location : San Tun Management Zone, Houjie Town, Dongguan,

Guangdong, China



2.3. Assistant equipment used for test

2.3.1. PC

Manufacturer : DELL

M/N : Laititude E6420 Adapter : M/N: DA90PM111

Input: AC 100-240V~50/60Hz 1.5A

Output: DC 19.5V/4.62A

2.4. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 meter high above ground.EUT was be set into BT test mode by software before test.

EUT

(EUT: Wireless Speaker)

EST

2.5. Test mode

The test software was used to control EUT work in Continuous TX mode, and select test channel, wireless mode

| Mode | Channel | Frequency |
|--------|---------|-----------|
| | Low | 2402MHz |
| GFSK | Middle | 2441MHz |
| | High | 2480MHz |
| | Low | 2402MHz |
| 8-DPSK | Middle | 2441MHz |
| | High | 2480MHz |

2.6. Channel List for Bluetooth

| Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| No. | (MHz) | No. | (MHz) | No. | (MHz) | No. | (MHz) |
| 1 | 2402 | 2 | 2403 | 3 | 2404 | 4 | 2405 |
| 5 | 2406 | 6 | 2407 | 7 | 2408 | 8 | 2409 |
| 9 | 2410 | 10 | 2411 | 11 | 2412 | 12 | 2413 |
| 13 | 2414 | 14 | 2415 | 15 | 2416 | 16 | 2417 |
| 17 | 2418 | 18 | 2419 | 19 | 2420 | 20 | 2421 |
| 21 | 2422 | 22 | 2423 | 23 | 2424 | 24 | 2425 |
| 25 | 2426 | 26 | 2427 | 27 | 2428 | 28 | 2429 |
| 29 | 2430 | 30 | 2431 | 31 | 2432 | 32 | 2433 |
| 33 | 2434 | 34 | 2435 | 35 | 2436 | 36 | 2437 |
| 37 | 2438 | 38 | 2439 | 39 | 2440 | 40 | 2441 |
| 41 | 2442 | 42 | 2443 | 43 | 2444 | 44 | 2445 |
| 45 | 2446 | 46 | 2447 | 47 | 2448 | 48 | 2449 |
| 49 | 2450 | 50 | 2451 | 51 | 2452 | 52 | 2453 |
| 53 | 2454 | 54 | 2455 | 55 | 2456 | 56 | 2457 |
| 57 | 2458 | 58 | 2459 | 59 | 2460 | 60 | 2461 |
| 61 | 2462 | 62 | 2463 | 63 | 2464 | 64 | 2465 |
| 65 | 2466 | 66 | 2467 | 67 | 2468 | 68 | 2469 |
| 69 | 2470 | 70 | 2471 | 71 | 2472 | 72 | 2473 |
| 73 | 2474 | 74 | 2475 | 75 | 2476 | 76 | 2477 |
| 77 | 2478 | 78 | 2479 | 79 | 2480 | _ | _ |



2.7. Test Equipment

2.7.1. For conducted emission test

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|-------------------------|-----------------|-----------|------------|------------|-----------|
| EMI Test Receiver | Rohde & Schwarz | ESHS30 | 832354 | June,28,15 | 1 Year |
| Artificial Mains Networ | Rohde & Schwarz | ENV216 | 101260 | June,28,15 | 1 Year |
| Pulse Limiter | Rohde & Schwarz | ESH3-Z2 | 101100 | June,28,15 | 1 Year |

2.7.2. For radiated emission test(30-1000MHz)

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|-------------------|-----------------|-----------|----------------|------------|-----------|
| EMI Test Receiver | Rohde & Schwarz | ESVS10 | | June,28,15 | |
| Spectrum Analyzer | Agilent | E4411B | MY5014069 7 | June,28,15 | 1 Year |
| Bilog Antenna | Teseq | CBL 6111D | 27090 | June,28,15 | 1 Year |
| Signal Amplifier | Agilent | 310N | 187037 | June,28,15 | 1 Year |

2.7.3. For radiated emission test(above 1GHz)

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|-------------------|-----------------|-------------|------------|----------------|-----------|
| Horn Antenna | SCHWARZB | BBHA 9120 D | BBHA9120D1 | June,28,1 | 1 Year |
| | ECK | | 002 | 5 | 1 Teal |
| Signal Amplifier | SCHWARZB ECK | BBV9718 | 9718-212 | June,28,1 5 | 1 Year |
| Spectrum Analyzer | Agilent | E4408B | MY44211139 | June,28,1 5 | 1 Year |
| RF Cable | Hubersuhner | RG 214/U | 513423 | June,28,1 5 | 1 Year |

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3. RADIATED EMISSIONS

3.1. Limit

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

15.205 Restricted frequency band

| MHz | MHz | MHz | GHz |
|----------------------------|-----------------------|-----------------|------------------|
| 0.090 - 0.110 | 16.42 - 16.423 | 399.9 - 410 | 4.5 - 5.15 |
| ¹ 0.495 - 0.505 | 16.69475 - 16.69525 | 608 - 614 | 5.35 - 5.46 |
| 2.1735 - 2.1905 | 16.80425 - 16.80475 | 960 - 1240 | 7.25 - 7.75 |
| 4.125 - 4.128 | 25.5 - 25.67 | 1300 - 1427 | 8.025 - 8.5 |
| 4.17725 - 4.17775 | 37.5 - 38.25 | 1435 - 1626.5 | 9.0 - 9.2 |
| 4.20725 - 4.20775 | 73 - 74.6 | 1645.5 - 1646.5 | 9.3 - 9.5 |
| 6.215 - 6.218 | 74.8 - 75.2 | 1660 - 1710 | 10.6 - 12.7 |
| 6.26775 - 6.26825 | 108 - 121.94 | 1718.8 - 1722.2 | 13.25 - 13.4 |
| 6.31175 - 6.31225 | 123 - 138 | 2200 - 2300 | 14.47 - 14.5 |
| 8.291 - 8.294 | 149.9 - 150.05 | 2310 - 2390 | 15.35 - 16.2 |
| 8.362 - 8.366 | 156.52475 - 156.52525 | 2483.5 - 2500 | 17.7 - 21.4 |
| 8.37625 - 8.38675 | 156.7 - 156.9 | 2690 - 2900 | 22.01 - 23.12 |
| 8.41425 - 8.41475 | 162.0125 - 167.17 | 3260 - 3267 | 23.6 - 24.0 |
| 12.29 - 12.293 | 167.72 - 173.2 | 3332 - 3339 | 31.2 - 31.8 |
| 12.51975 - 12.52025 | 240 - 285 | 3345.8 - 3358 | 36.43 - 36.5 |
| 12.57675 - 12.57725 | 322 - 335.4 | 3600 - 4400 | (²) |

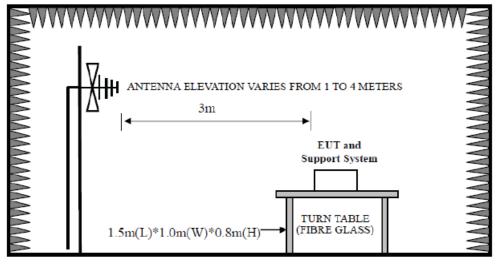
15.209 Limit

| FREQUENCY | | DISTANCE | FIELD STRENGTHS LIMIT | | |
|------------|--|-----------------|-----------------------|-----------------------------|--|
| MHz | | Meters | μV/m | dB(μV)/m | |
| 30 ~ 88 | | 3 | 100 | 40.0 | |
| 88 ~ 216 | | 3 | 150 | 43.5 | |
| 216 ~ 960 | | 960 3 | | 46.0 | |
| 960 ~ 1000 | | 3 | 500 | 54.0 | |
| Above 1000 | | anve 1000 i s i | | /)/m (Peak) /m (Average) | |

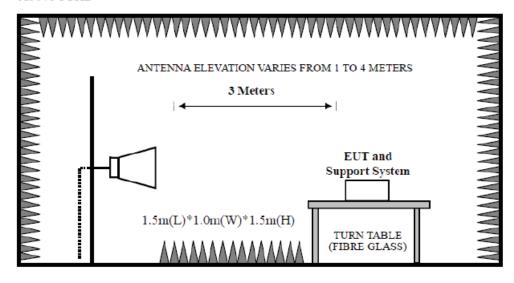
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3.2. Block Diagram of Test setup

30~1000MHz



Above 1GHz



3.3. Test Procedure

EUT was placed on a turn table, which is 0.8 meter high above ground for 30~1000MHz test, and wiich is 1.5 meter high above ground for above 1GHz test. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 1MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

PEAK detector, 1MHz/1MHz for PAEK measurement,

PEAK detector, 1MHz/10Hz for Average measurement

The frequency range from 30MHz to 10th harmonic (25GHz) are checked.



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3.4. Test Result

| 30MHz—25GHz Radiated emissison Test result | | | | |
|--|--|--|--|--|
| EUT: Wireless Speaker | | | | |
| M/N: SP251 | | | | |
| Power: DC 3.7V | | | | |
| Test date: 2016-03-08 Test site: 3m Chamber Tested by: Tony Tang | | | | |
| Test mode: Tx Mode | | | | |
| Pass | | | | |

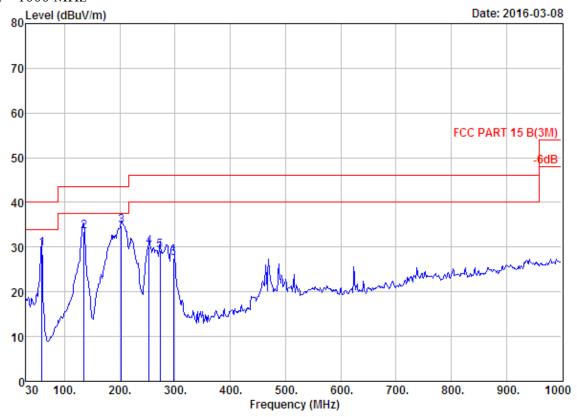
Note: 1. For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

2. The frequency 2402MHz . 2441MHz and 2480MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

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3.5. Test Data

30 MHz - 1000 MHz



Site no. : 966 1# chamber Data no. : 176
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

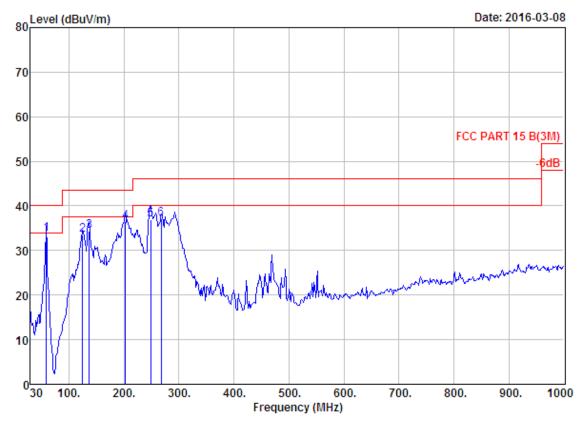
EUT : Wireless Speaker

Power : DC 3.7V M/N : SP251

Test Mode : GFSK TX 2402MHz

| | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|----------------|--------------------------|-----------------------|-------------------|-------------------------------|-----------------|----------------|--------|
| 1 | 59.10 | 4.80 | 1.00 | 23.75 | 29.55 | 40.00 | 10.45 | QP |
| 2 | 134.76 | 11.37 | 1.57 | 20.46 | 33.40 | 43.50 | 10.10 | QP |
| 3 | 202.66 | 7.83 | 1.84 | 25.20 | 34.87 | 43.50 | 8.63 | QP |
| 4 | 253.10 | 12.17 | 2.17 | 15.65 | 29.99 | 46.00 | 16.01 | QP |
| 5 | 272.50 | 12.46 | 2.26 | 14.55 | 29.27 | 46.00 | 16.73 | QP |
| 6 | 296.75 | 12.99 | 2.32 | 12.18 | 27.49 | 46.00 | 18.51 | QP |

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Data no. : 177

Site no. : 966 1# chamber

Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

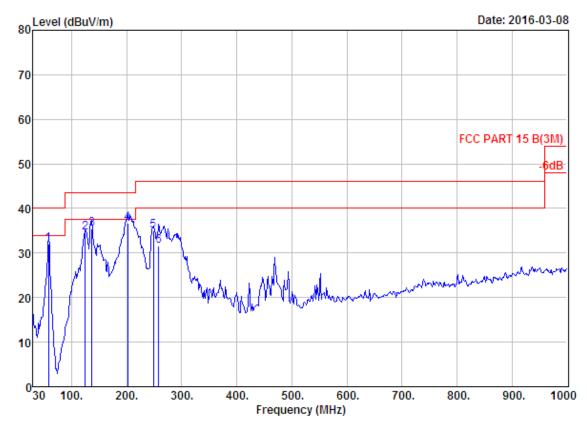
EUT : Wireless Speaker

Power : DC 3.7V M/N : SP251

Test Mode : GFSK TX 2402MHz

| | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-------|----------------|--------------------------|-----------------------|-------------------|-------------------------------|-----------------|----------------|--------|
| 1 | 59.10 | 4.80 | 1.00 | 27.89 | 33.69 | 40.00 | 6.31 | QP |
| 2 | 125.06 | 11.35 | 1.52 | 20.60 | 33.47 | 43.50 | 10.03 | QP |
| 3 | 136.70 | 11.39 | 1.57 | 21.46 | 34.42 | 43.50 | 9.08 | QP |
| 4 | 202.66 | 7.83 | 1.84 | 26.74 | 36.41 | 43.50 | 7.09 | QP |
| 5 | 248.25 | 11.52 | 2.13 | 23.35 | 37.00 | 46.00 | 9.00 | QP |
| 6 | 267.65 | 12.71 | 2.26 | 22.12 | 37.09 | 46.00 | 8.91 | QP |





Site no. : 966 1# chamber

Data no. : 178 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 27137

: FCC PART 15 B (3M) Limit

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

: Tony Engineer

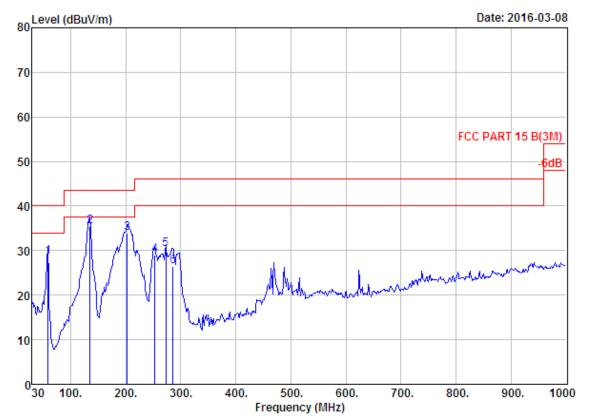
EUT : Wireless Speaker

Power : DC 3.7V M/N : SP251

: GFSK TX 2441MHz Test Mode

| | Freq. | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|--------|--------------------------|-----------------------|-------------------|-------------------------------|-----------------|----------------|--------|
| 1 | 58.13 | 4.91 | 1.03 | 26.12 | 32.06 | 40.00 | 7.94 | QP |
| 2 | 125.06 | 11.35 | 1.52 | 21.60 | 34.47 | 43.50 | 9.03 | QP |
| 3 | 136.70 | 11.39 | 1.57 | 22.46 | 35.42 | 43.50 | 8.08 | QP |
| 4 | 201.69 | 7.79 | 1.77 | 27.17 | 36.73 | 43.50 | 6.77 | QP |
| 5 | 248.25 | 11.52 | 2.13 | 21.35 | 35.00 | 46.00 | 11.00 | QP |
| 6 | 257.95 | 12.75 | 2.19 | 16.56 | 31.50 | 46.00 | 14.50 | QP |





: 966 1# chamber Data no. : 179 Site no. : 3m 27137 : FCC PART 15 B(3M) Dis. / Ant. Ant. pol. : VERTICAL

Limit

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

: Tony Engineer

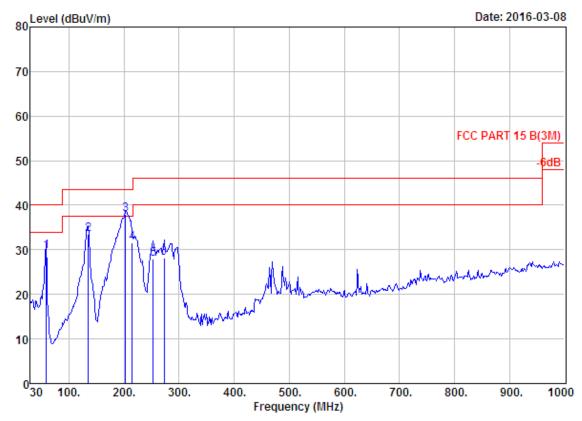
: Wireless Speaker EUT

Power : DC 3.7V M/N : SP251

: GFSK TX 2441MHz Test Mode

| | Freq. | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|--------|--------------------------|-----------------------|-------------------|-------------------------------|-----------------|----------------|--------|
| 1 | 59.10 | 4.80 | 1.00 | 22.75 | 28.55 | 40.00 | 11.45 | QP |
| 2 | 134.76 | 11.37 | 1.57 | 22.46 | 35.40 | 43.50 | 8.10 | QP |
| 3 | 202.66 | 7.83 | 1.84 | 24.20 | 33.87 | 43.50 | 9.63 | QP |
| 4 | 253.10 | 12.17 | 2.17 | 14.65 | 28.99 | 46.00 | 17.01 | QP |
| 5 | 272.50 | 12.46 | 2.26 | 15.55 | 30.27 | 46.00 | 15.73 | QP |
| 6 | 286.08 | 12.59 | 2.32 | 11.52 | 26.43 | 46.00 | 19.57 | QP |





Site no. : 966 1# chamber Data no. : 180
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Speaker

Power : DC 3.7V M/N : SP251

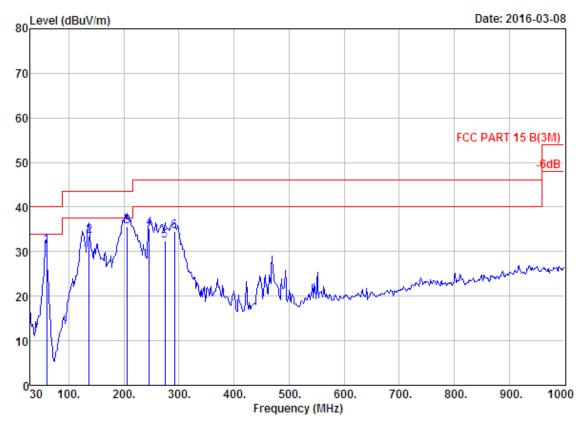
Test Mode : GFSK TX 2480MHz

| | Freq. | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|--------|--------------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1 | 59.10 | 4.80 | 1.00 | 23.75 | 29.55 | 40.00 | 10.45 | QP |
| 2 | 134.76 | 11.37 | 1.57 | 20.46 | 33.40 | 43.50 | 10.10 | QP |
| 3 | 202.66 | 7.83 | 1.84 | 28.20 | 37.87 | 43.50 | 5.63 | QP |
| 4 | 215.27 | 8.70 | 1.96 | 20.90 | 31.56 | 43.50 | 11.94 | QP |
| 5 | 253.10 | 12.17 | 2.17 | 13.65 | 27.99 | 46.00 | 18.01 | QP |
| 6 | 272.50 | 12.46 | 2.26 | 13.55 | 28.27 | 46.00 | 17.73 | QP |



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: 966 1# chamber Data no. : 181 Site no. Dis. / Ant. Ant. pol. : HORIZONTAL

: 3m 27137 : FCC PART 15 B(3M) Limit

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

: Tony Engineer

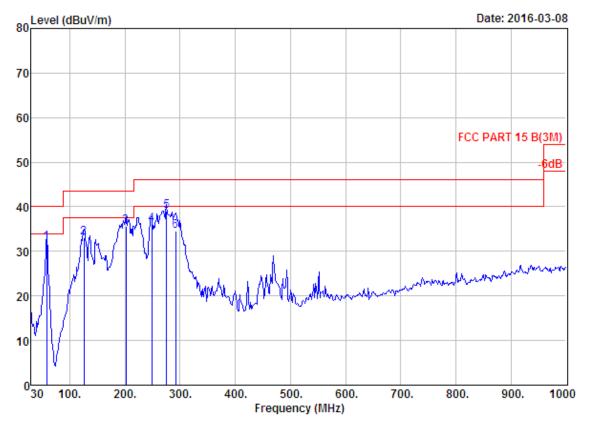
: Wireless Speaker EUT

Power : DC 3.7V M/N : SP251

Test Mode : GFSK TX 2480MHz

| | Freq. | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|--------|--------------------------|-----------------------|-------------------|-------------------------------|-----------------|----------------|--------|
| 1 | 60.07 | 4.69 | 0.97 | 25.77 | 31.43 | 40.00 | 8.57 | QP |
| 2 | 136.70 | 11.39 | 1.57 | 20.46 | 33.42 | 43.50 | 10.08 | QP |
| 3 | 206.54 | 8.09 | 1.81 | 25.72 | 35.62 | 43.50 | 7.88 | QP |
| 4 | 246.31 | 11.21 | 2.12 | 21.90 | 35.23 | 46.00 | 10.77 | QP |
| 5 | 274.44 | 12.39 | 2.22 | 17.87 | 32.48 | 46.00 | 13.52 | QP |
| 6 | 291.90 | 12.83 | 2.33 | 19.38 | 34.54 | 46.00 | 11.46 | QP |





Site no. : 966 1# chamber Data no. : 182

Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

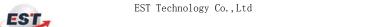
Engineer : Tony

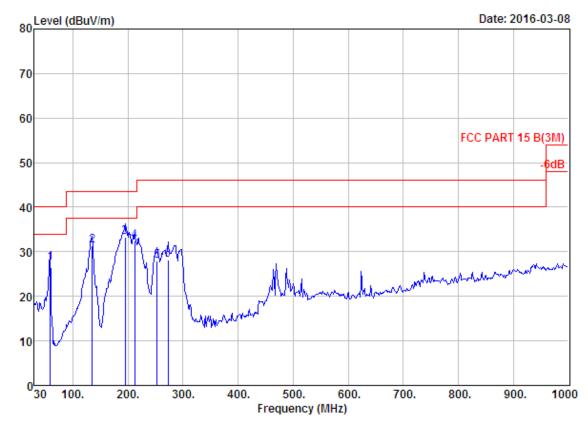
EUT : Wireless Speaker

Power : DC 3.7V M/N : SP251

Test Mode : 8-DPSK TX 2402MHz

| | Freq. | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | | Margin (dB) | Remark |
|-------|--------|--------------------------|-----------------------|-------------------|-------------------------------|-------|----------------|--------|
| 1 | 58.13 | 4.91 | 1.03 | 26.12 | 32.06 | 40.00 | 7.94 | QP |
| 2 | 126.03 | 11.34 | 1.52 | 20.11 | 32.97 | 43.50 | 10.53 | QP |
| 3 | 201.69 | 7.79 | 1.77 | 26.17 | 35.73 | 43.50 | 7.77 | QP |
| 4 | 248.25 | 11.52 | 2.13 | 22.35 | 36.00 | 46.00 | 10.00 | QP |
| 5 | 275.41 | 12.36 | 2.24 | 24.48 | 39.08 | 46.00 | 6.92 | QP |
| 6 | 291.90 | 12.83 | 2.33 | 19.38 | 34.54 | 46.00 | 11.46 | OP |





Site no. : 966 1# chamber Data no. : 183
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

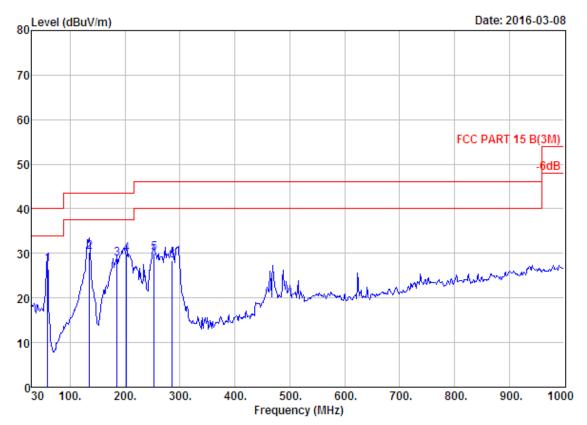
EUT : Wireless Speaker

Power : DC 3.7V M/N : SP251

Test Mode : 8-DPSK TX 2402MHz

| | Freq. | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|--------|--------------------------|-----------------------|-------------------|-------------------------------|-----------------|----------------|--------|
| 1 | 59.10 | 4.80 | 1.00 | 21.75 | 27.55 | 40.00 | 12.45 | QP |
| 2 | 134.76 | 11.37 | 1.57 | 18.46 | 31.40 | 43.50 | 12.10 | QP |
| 3 | 194.90 | 7.72 | 1.78 | 23.68 | 33.18 | 43.50 | 10.32 | QP |
| 4 | 212.36 | 8.56 | 1.91 | 21.92 | 32.39 | 43.50 | 11.11 | QP |
| 5 | 253.10 | 12.17 | 2.17 | 13.65 | 27.99 | 46.00 | 18.01 | QP |
| 6 | 272.50 | 12.46 | 2.26 | 13.55 | 28.27 | 46.00 | 17.73 | QP |





Site no. : 966 1# chamber Data no. : 184
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

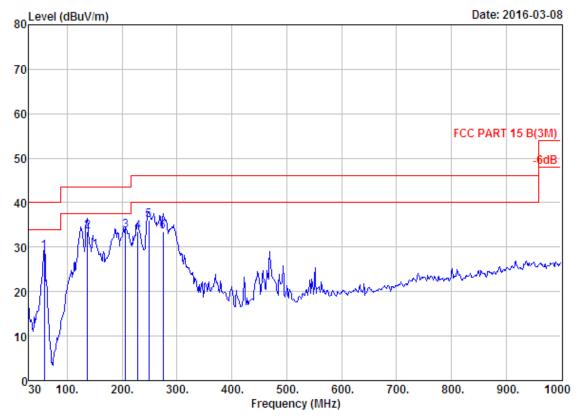
EUT : Wireless Speaker

Power : DC 3.7V M/N : SP251

Test Mode : 8-DPSK TX 2441MHz

| | Freq. | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|--------|--------------------------|-----------------------|-------------------|-------------------------------|-----------------|----------------|--------|
| 1 | 59.10 | 4.80 | 1.00 | 21.75 | 27.55 | 40.00 | 12.45 | QP |
| 2 | 134.76 | 11.37 | 1.57 | 17.46 | 30.40 | 43.50 | 13.10 | QP |
| 3 | 185.20 | 8.48 | 1.75 | 18.48 | 28.71 | 43.50 | 14.79 | QP |
| 4 | 202.66 | 7.83 | 1.84 | 20.20 | 29.87 | 43.50 | 13.63 | QP |
| 5 | 253.10 | 12.17 | 2.17 | 15.65 | 29.99 | 46.00 | 16.01 | QP |
| 6 | 286.08 | 12.59 | 2.32 | 13.52 | 28.43 | 46.00 | 17.57 | OP |





Site no. : 966 1# chamber Data no. : 185
Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

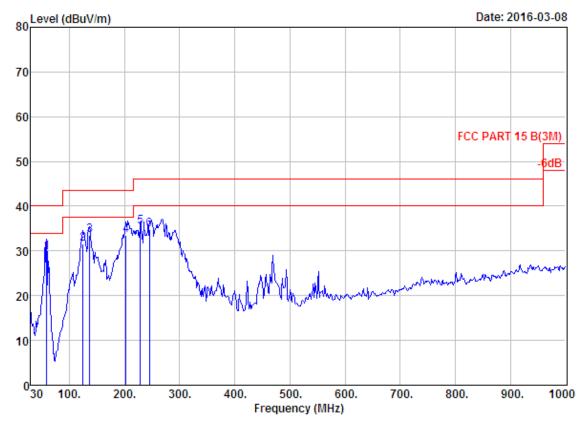
EUT : Wireless Speaker

Power : DC 3.7V M/N : SP251

Test Mode : 8-DPSK TX 2441MHz

| | Freq. | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|--------|--------------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1 | 58.13 | 4.91 | 1.03 | 23.12 | 29.06 | 40.00 | 10.94 | QP |
| 2 | 136.70 | 11.39 | 1.57 | 20.46 | 33.42 | 43.50 | 10.08 | QP |
| 3 | 206.54 | 8.09 | 1.81 | 23.72 | 33.62 | 43.50 | 9.88 | QP |
| 4 | 228.85 | 9.45 | 2.08 | 21.89 | 33.42 | 46.00 | 12.58 | QP |
| 5 | 248.25 | 11.52 | 2.13 | 22.35 | 36.00 | 46.00 | 10.00 | QP |
| 6 | 274.44 | 12.39 | 2.22 | 18.87 | 33.48 | 46.00 | 12.52 | QP |





Site no. : 966 1# chamber Data no. : 186
Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

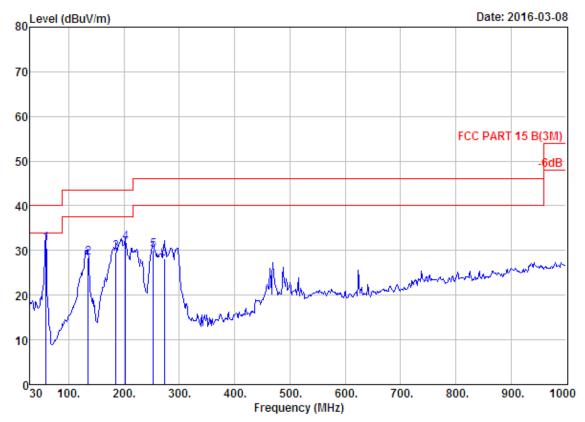
EUT : Wireless Speaker

Power : DC 3.7V M/N : SP251

Test Mode : 8-DPSK TX 2480MHz

| | Freq. | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|--------|--------------------------|-----------------------|-------------------|-------------------------------|-----------------|----------------|--------|
| 1 | 59.10 | 4.80 | 1.00 | 23.89 | 29.69 | 40.00 | 10.31 | QP |
| 2 | 125.06 | 11.35 | 1.52 | 18.60 | 31.47 | 43.50 | 12.03 | QP |
| 3 | 136.70 | 11.39 | 1.57 | 20.46 | 33.42 | 43.50 | 10.08 | QP |
| 4 | 202.66 | 7.83 | 1.84 | 23.74 | 33.41 | 43.50 | 10.09 | QP |
| 5 | 228.85 | 9.45 | 2.08 | 23.89 | 35.42 | 46.00 | 10.58 | QP |
| 6 | 245.34 | 11.06 | 2.10 | 21.61 | 34.77 | 46.00 | 11.23 | QP |





Site no. : 966 1# chamber Data no. : 187
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Speaker

Power : DC 3.7V M/N : SP251

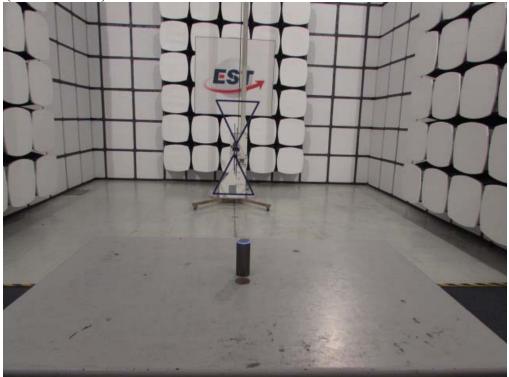
Test Mode : 8-DPSK TX 2480MHz

| | Freq. | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|--------|--------------------------|-----------------------|-------------------|-------------------------------|-----------------|----------------|--------|
| 1 | 59.10 | 4.80 | 1.00 | 25.75 | 31.55 | 40.00 | 8.45 | QP |
| 2 | 134.76 | 11.37 | 1.57 | 15.46 | 28.40 | 43.50 | 15.10 | QP |
| 3 | 185.20 | 8.48 | 1.75 | 19.48 | 29.71 | 43.50 | 13.79 | QP |
| 4 | 202.66 | 7.83 | 1.84 | 22.20 | 31.87 | 43.50 | 11.63 | QP |
| 5 | 253.10 | 12.17 | 2.17 | 15.65 | 29.99 | 46.00 | 16.01 | QP |
| 6 | 272.50 | 12.46 | 2.26 | 13.55 | 28.27 | 46.00 | 17.73 | QP |



4. TEST SETUP PHOTO

Radiated Test (30-1000 MHz)



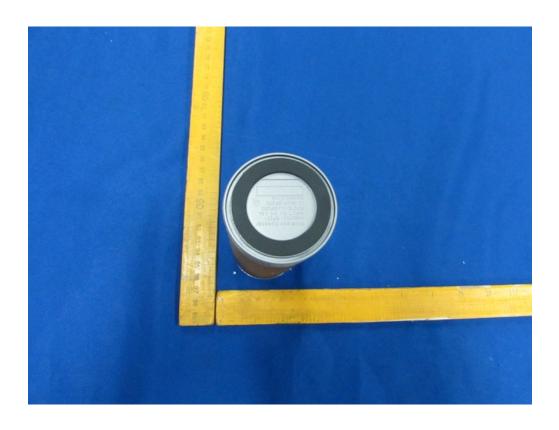


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5. PHOTOS OF EUT

External Photos M/N: SP251

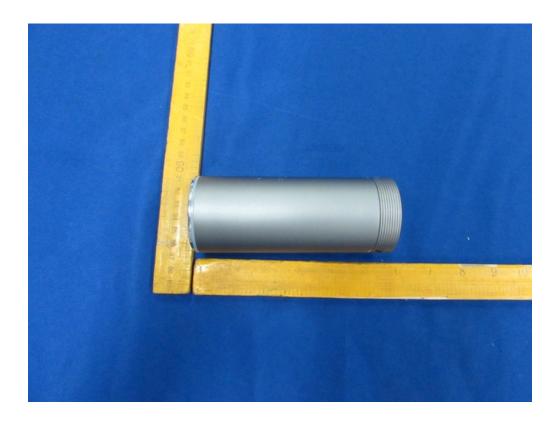




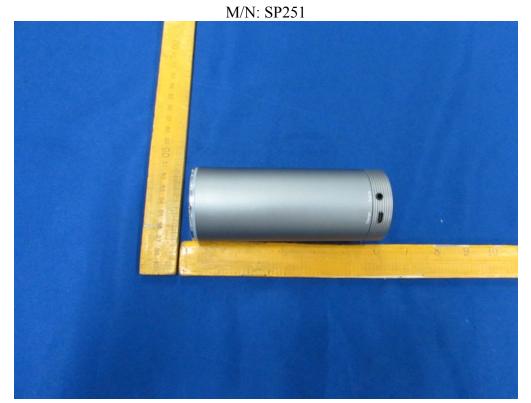
EST Technology Co., Ltd

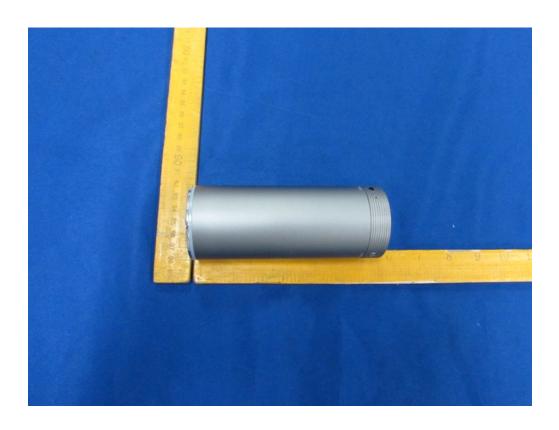
External Photos



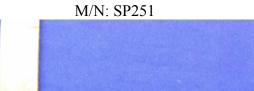


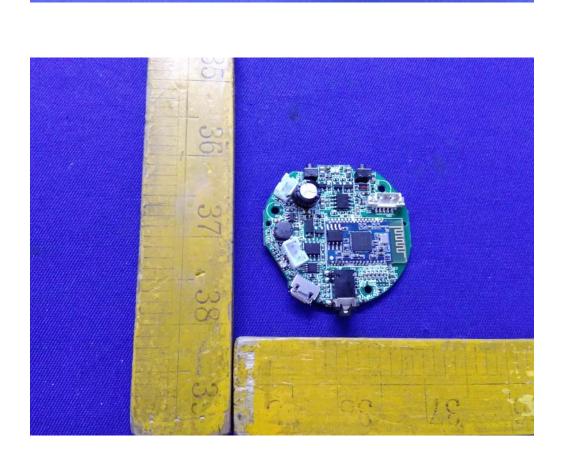
External Photos





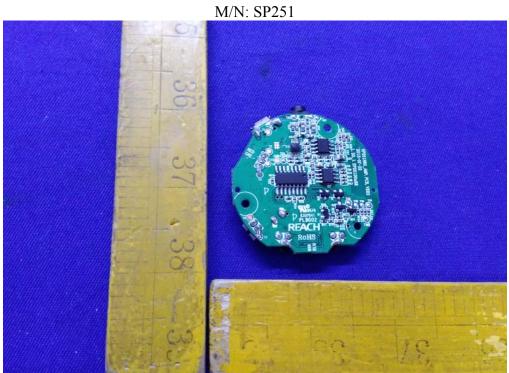
Internal Photos

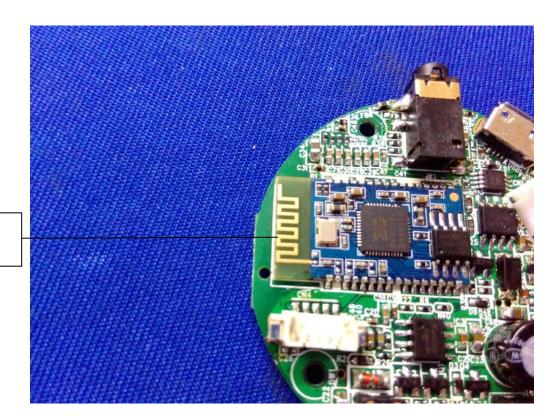






Internal Photos





Bluetooth Antenna



Internal Photos

