



Shenzhen EBO Technology Co., Ltd.

1-4F, Huafeng Science Park, Xin'an Sixth Road, 82th District,
Bao'an, Shenzhen, China.
Telephone: +86-755-29451282,
Fax: +86-755-22639141

Report No.: EBO1506119-E366
Page: 1 of 24

FCC REPORT

Applicant: VISUAL LAND INC.

Address of Applicant: 17785 Center Court Dr. Suite 670, Cerritos, CA 90703

Equipment Under Test (EUT)

Product Name: 10.1INCH TABLET

Trade Mark: VISUAL LAND

Model No.: ME-10QL

FCC ID: SI9PRESTIGE10QL

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.249:2014

Date of sample receipt: July 3, 2015

Date of Test: July 13, 2015 To July 17, 2015

Date of report issued: July 17, 2015

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Kevin Yu
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the EBO product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of EBO International Electrical Approvals or testing done by EBO International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by EBO International Electrical Approvals in writing.

This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only



2 Version

| Version No. | Date | Description |
|-------------|---------------|-------------|
| 00 | July 17, 2015 | Original |
| | | |
| | | |
| | | |
| | | |

Prepared By:

Date:

July 17, 2015

Project Engineer

Check By:

Date:

July 17, 2015

Reviewer

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.eботek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.eботek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



3 Contents

| | Page |
|--|------|
| 1 COVER PAGE..... | 1 |
| 2 VERSION | 2 |
| 3 CONTENTS | 3 |
| 4 TEST SUMMARY | 4 |
| 5 GENERAL INFORMATION | 5 |
| 5.1 CLIENT INFORMATION | 5 |
| 5.2 GENERAL DESCRIPTION OF EUT | 5 |
| 5.3 TEST MODE | 7 |
| 5.4 DESCRIPTION OF SUPPORT UNITS | 7 |
| 5.5 TEST FACILITY..... | 7 |
| 5.6 TEST LOCATION | 7 |
| 5.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER..... | 7 |
| 6 TEST INSTRUMENTS LIST | 8 |
| 7 TEST RESULTS AND MEASUREMENT DATA..... | 10 |
| 7.1 ANTENNA REQUIREMENT:..... | 10 |
| 7.2 CONDUCTED EMISSIONS | 11 |
| 7.3 RADIATED EMISSION METHOD | 14 |
| 7.3.1 Field Strength of The Fundamental Signal | 16 |
| 7.3.2 Spurious emissions..... | 17 |
| 7.3.3 Bandedge emissions..... | 21 |
| 7.4 20dB OCCUPY BANDWIDTH | 22 |
| 8 TEST SETUP PHOTO | 24 |
| 9 EUT CONSTRUCTIONAL DETAILS | 24 |



4 Test Summary

| Test Item | Section in CFR 47 | Result |
|--|-----------------------|--------|
| Antenna requirement | 15.203 | Pass |
| AC Power Line Conducted Emission | 15.207 | Pass |
| Field strength of the fundamental signal | 15.249 (a) | Pass |
| Spurious emissions | 15.249 (a) (d)/15.209 | Pass |
| Band edge | 15.249 (d)/15.205 | Pass |
| 20dB Occupied Bandwidth | 15.215 (c) | Pass |

Pass: The EUT complies with the essential requirements in the standard.

Remark: Test according to ANSI C63.4:2009



5 General Information

5.1 Client Information

| | |
|--------------------------------------|--|
| Applicant: | VISUAL LAND INC. |
| Address of Applicant: | 17785 Center Court Dr. Suite 670, Cerritos, CA 90703 |
| Manufacturer/Factory: | VISUAL LAND INC. |
| Address of Manufacturer/ Factory: | 17785 Center Court Dr. Suite 670, Cerritos, CA 90703 |

5.2 General Description of EUT

| | |
|----------------------|---|
| Product Name: | 10.1INCH TABLET |
| Trade Mark: | VISUAL LAND |
| Model No.: | ME-10QL |
| Operation Frequency: | 2402MHz~2480MHz |
| Channel numbers: | 40 |
| Channel separation: | 2MHz |
| Modulation type: | GFSK |
| Antenna Type: | Integral Antenna |
| Antenna gain: | 0.8dBi (declare by Applicant) |
| Power supply: | 5 V \pm 5%, 2100mA or 3.7V \pm 5%, 4500mAh(Lithium battery), Adapter: Model:SW-050210 Input:100-240V~,50/60Hz,0.68A Output:5Vdc, 2100mA |



| Channel list | | | | | | | |
|--------------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 1 | 2402MHz | 11 | 2422MHz | 21 | 2442MHz | 31 | 2462MHz |
| 2 | 2404MHz | 12 | 2424MHz | 22 | 2444MHz | 32 | 2464MHz |
| ... | ... | ... | ... | ... | ... | ... | ... |
| 9 | 2418MHz | 19 | 2438MHz | 29 | 2458MHz | 39 | 2478MHz |
| 10 | 2420MHz | 20 | 2440MHz | 30 | 2460MHz | 40 | 2480MHz |

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

| Channel | Frequency |
|---------------------|-----------|
| The lowest channel | 2402MHz |
| The middle channel | 2440MHz |
| The Highest channel | 2480MHz |



5.3 Test mode

| | |
|---|--|
| Transmitting mode | Keep the Bluetooth in continuously transmitting mode |
| <i>Remark: 1. During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.</i> | |

5.4 Description of Support Units

| |
|-------|
| None. |
|-------|

5.5 Test Facility

| |
|---|
| <p>The test facility is recognized, certified, or accredited by the following organizations:</p> <ul style="list-style-type: none">● CNAS —Registration No.: CNAS L5775 CNAS has accredited Global United Technology Services Co., Ltd. To ISO/IEC 17025 General Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.● FCC —Registration No.: 600491 Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 600491, June 28, 2013.● Industry Canada (IC) —Registration No.: 9079A-2 The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-2, June 26, 2013. |
|---|

5.6 Test Location

| |
|--|
| All tests were performed at: |
| Global United Technology Services Co., Ltd. Address: 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China |

5.7 Other Information Requested by the Customer

| |
|-------|
| None. |
|-------|

Remark : The EUT was tested on three different polar directions; i.e. X axis, Y axis, Z axis. , only worse case is reported



6 Test Instruments list

| Radiated Emission: | | | | | | |
|--------------------|-------------------------------|--------------------------------|-----------------------------|---------------|---------------------|-------------------------|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1 | 3m Semi- Anechoic Chamber | ZhongYu Electron | 9.2(L)*6.2(W)* 6.4(H) | GTS250 | Mar. 29 2014 | Mar. 28 2016 |
| 2 | Control Room | ZhongYu Electron | 6.2(L)*2.5(W)* 2.4(H) | GTS251 | N/A | N/A |
| 3 | Spectrum Analyzer | Agilent | E4440A | GTS533 | July 08 2015 | July 07 2016 |
| 4 | EMI Test Receiver | Rohde & Schwarz | ESU26 | GTS203 | July 08 2015 | July 07 2016 |
| 5 | BiConiLog Antenna | SCHWARZBECK MESS-ELEKTRONIK | VULB9163 | GTS214 | July 08 2015 | July 07 2016 |
| 6 | Double -ridged waveguide horn | SCHWARZBECK MESS-ELEKTRONIK | 9120D-829 | GTS208 | July 08 2015 | July 07 2016 |
| 7 | Horn Antenna | ETS-LINDGREN | 3160 | GTS217 | Mar. 27 2015 | Mar. 26 2016 |
| 8 | EMI Test Software | AUDIX | E3 | N/A | N/A | N/A |
| 9 | Coaxial Cable | GTS | N/A | GTS213 | Mar. 27 2015 | Mar. 26 2016 |
| 10 | Coaxial Cable | GTS | N/A | GTS211 | Mar. 27 2015 | Mar. 26 2016 |
| 11 | Coaxial Cable | GTS | N/A | GTS210 | Mar. 27 2015 | Mar. 26 2016 |
| 12 | Coaxial Cable | GTS | N/A | GTS212 | Mar. 27 2015 | Mar. 26 2016 |
| 13 | Amplifier(100kHz-3GHz) | HP | 8347A | GTS204 | July 01 2015 | July 01 2016 |
| 14 | Amplifier(2GHz-20GHz) | HP | 8349B | GTS206 | July 01 2015 | July 01 2016 |
| 15 | Amplifier (18-26GHz) | Rohde & Schwarz | AFS33-18002 650-30-8P-44 | GTS218 | July 08 2015 | July 07 2016 |
| 16 | Band filter | Amindeon | 82346 | GTS219 | Mar. 27 2015 | Mar. 26 2016 |
| 17 | Power Meter | Anritsu | ML2495A | GTS540 | July 08 2015 | July 07 2016 |
| 18 | Power Sensor | Anritsu | MA2411B | GTS541 | July 08 2015 | July 07 2016 |

| Conducted Emission: | | | | | | |
|---------------------|-------------------|--------------------------------|----------------------|---------------|---------------------|-------------------------|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1 | Shielding Room | ZhongYu Electron | 7.0(L)x3.0(W)x3.0(H) | GTS264 | July 08 2015 | July 07 2016 |
| 2 | EMI Test Receiver | Rohde & Schwarz | ESCS30 | GTS223 | July 08 2015 | July 07 2016 |
| 3 | 10dB Pulse Limita | Rohde & Schwarz | N/A | GTS224 | July 08 2015 | July 07 2016 |
| 4 | Coaxial Switch | ANRITSU CORP | MP59B | GTS225 | July 08 2015 | July 07 2016 |
| 5 | LISN | SCHWARZBECK MESS-ELEKTRONIK | NSLK 8127 | GTS226 | July 08 2015 | July 07 2016 |
| 6 | Coaxial Cable | GTS | N/A | GTS227 | July 08 2015 | July 07 2016 |
| 7 | EMI Test Software | AUDIX | E3 | N/A | N/A | N/A |

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



| General used equipment: | | | | | | |
|-------------------------|----------------|--------------|-----------|---------------|---------------------|-------------------------|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1 | Barometer | ChangChun | DYM3 | GTS257 | July 08 2015 | July 07 2016 |

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



7 Test results and Measurement Data

7.1 Antenna requirement:

| | |
|--|-----------------------------|
| Standard requirement: | FCC Part15 C Section 15.203 |
| 15.203 requirement: 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. | |
| E.U.T Antenna: | |
| <i>The antenna is Integral antenna, the best case gain of the antenna is 0.8dBi</i> | |



7.2 Conducted Emissions

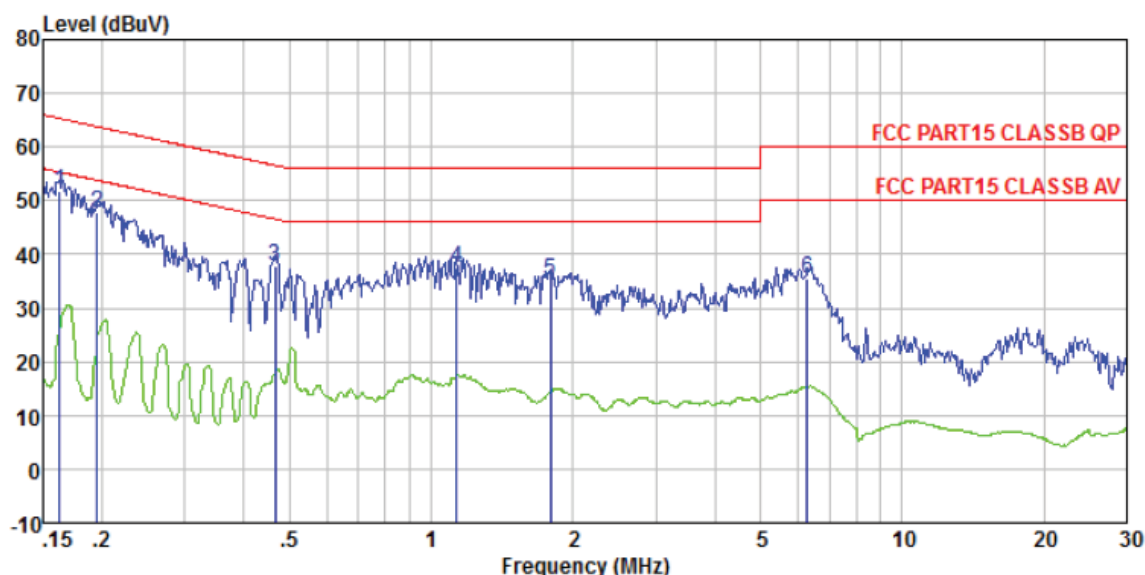
| Test Requirement: | FCC Part15 C Section 15.207 | | | | | | | | | | | | | | | | |
|-----------------------|--|-----------|--|-----------------------|--------------|--|------------|---------|----------|-----------|-----------|-------|----|----|------|----|----|
| Test Method: | ANSI C63.10:2009 | | | | | | | | | | | | | | | | |
| Test Frequency Range: | 150KHz to 30MHz | | | | | | | | | | | | | | | | |
| Class / Severity: | Class B | | | | | | | | | | | | | | | | |
| Receiver setup: | RBW=9KHz, VBW=30KHz, Sweep time=auto | | | | | | | | | | | | | | | | |
| Limit: | <table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBuV)</th></tr><tr><th>Quasi-peak</th><th>Average</th></tr><tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr><tr><td>0.5-5</td><td>56</td><td>46</td></tr><tr><td>5-30</td><td>60</td><td>50</td></tr></table> <p>* Decreases with the logarithm of the frequency.</p> | | | Frequency range (MHz) | Limit (dBuV) | | Quasi-peak | Average | 0.15-0.5 | 66 to 56* | 56 to 46* | 0.5-5 | 56 | 46 | 5-30 | 60 | 50 |
| Frequency range (MHz) | Limit (dBuV) | | | | | | | | | | | | | | | | |
| | Quasi-peak | Average | | | | | | | | | | | | | | | |
| 0.15-0.5 | 66 to 56* | 56 to 46* | | | | | | | | | | | | | | | |
| 0.5-5 | 56 | 46 | | | | | | | | | | | | | | | |
| 5-30 | 60 | 50 | | | | | | | | | | | | | | | |
| Test setup: | <div><p style="text-align: center;">Reference Plane</p><p><i>Remark</i> E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</p></div> | | | | | | | | | | | | | | | | |
| Test procedure: | <div><div></div><div><ol style="list-style-type: none">1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4:2009 on conducted measurement.</div></div> | | | | | | | | | | | | | | | | |
| Test Instruments: | Refer to section 6.0 for details | | | | | | | | | | | | | | | | |
| Test mode: | Refer to section 5.3 for details | | | | | | | | | | | | | | | | |
| Test results: | Pass | | | | | | | | | | | | | | | | |

Measurement data:

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.eботek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.eботek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



| | | | |
|------------|----------------|--|------|
| Test mode: | Bluetooth mode | | LINE |
|------------|----------------|--|------|



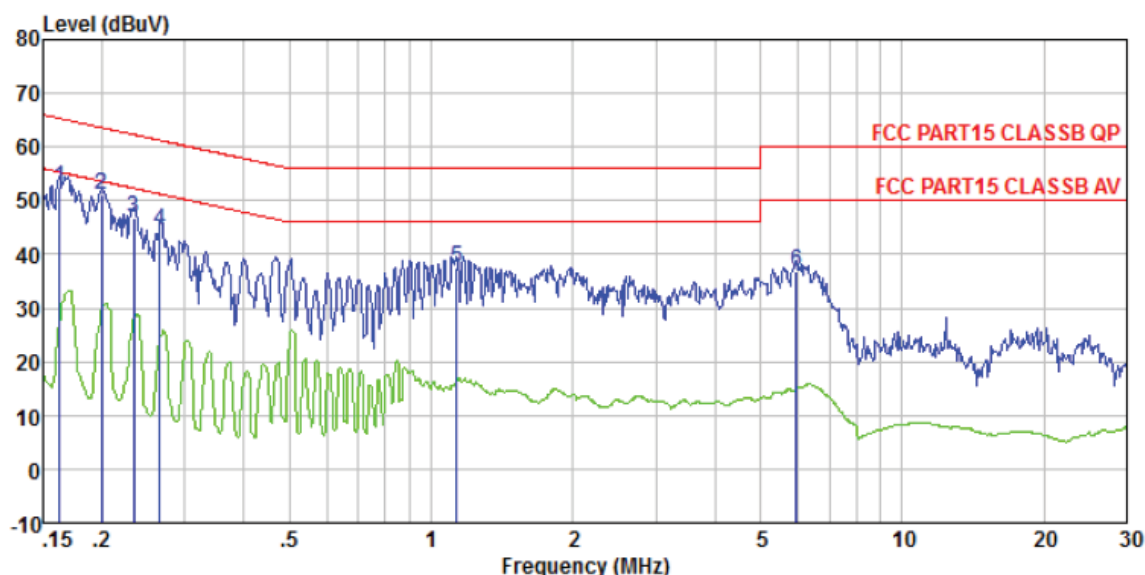
Site : Shielded room

Condition: FCC PART15 CLASSB QP LISN-2013 LINE

| | Freq | Read | Cable | LISN | Limit | Over | |
|---|-------|-------|-------|--------|-------|-------|-----------|
| | MHz | Level | Loss | Factor | Line | Limit | Remark |
| | MHz | dBuV | dB | dB | dBuV | dB | |
| 1 | 0.162 | 51.57 | 0.12 | 0.15 | 51.84 | 65.34 | -13.50 QP |
| 2 | 0.195 | 47.63 | 0.13 | 0.14 | 47.90 | 63.80 | -15.90 QP |
| 3 | 0.466 | 37.64 | 0.11 | 0.12 | 37.87 | 56.58 | -18.71 QP |
| 4 | 1.135 | 37.29 | 0.13 | 0.13 | 37.55 | 56.00 | -18.45 QP |
| 5 | 1.790 | 34.85 | 0.14 | 0.12 | 35.11 | 56.00 | -20.89 QP |
| 6 | 6.285 | 35.15 | 0.16 | 0.23 | 35.54 | 60.00 | -24.46 QP |



| | | |
|------------|----------------|---------|
| Test mode: | Bluetooth mode | NEUTRAL |
|------------|----------------|---------|



Site : Shielded room

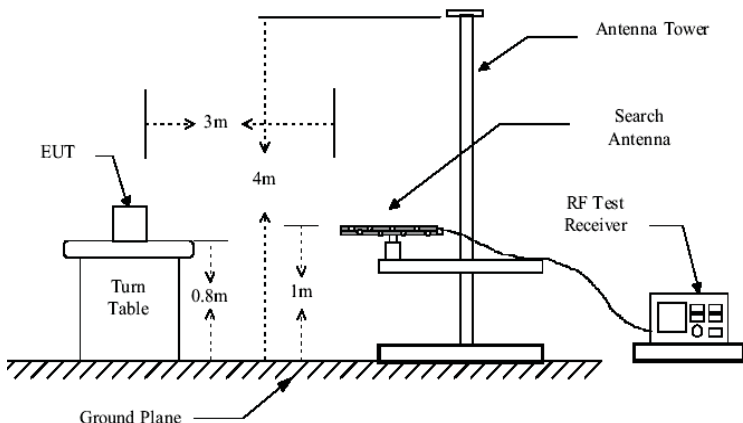
Condition: FCC PART15 CLASSB QP LISN-2013 NEUTRAL

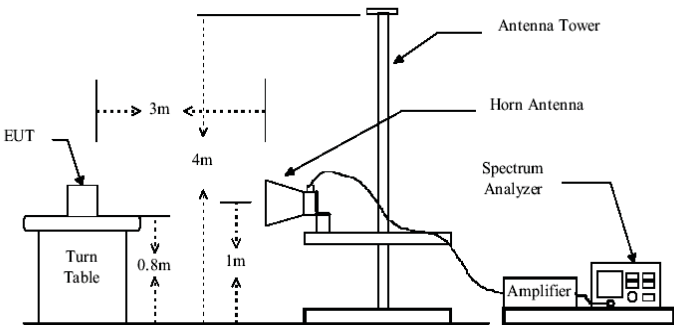
| | Read | Cable | LISN | | Limit | Over | |
|------|-------|-------|--------|-------|-------|-------|-----------|
| Freq | Level | Loss | Factor | Level | Line | Limit | Remark |
| MHz | dBuV | dB | dB | dBuV | dBuV | dB | |
| 1 | 0.162 | 52.18 | 0.12 | 0.07 | 52.37 | 65.34 | -12.97 QP |
| 2 | 0.200 | 51.03 | 0.13 | 0.07 | 51.23 | 63.62 | -12.39 QP |
| 3 | 0.234 | 46.48 | 0.12 | 0.06 | 46.66 | 62.30 | -15.64 QP |
| 4 | 0.266 | 44.36 | 0.11 | 0.06 | 44.53 | 61.25 | -16.72 QP |
| 5 | 1.135 | 37.35 | 0.13 | 0.08 | 37.56 | 56.00 | -18.44 QP |
| 6 | 5.961 | 36.43 | 0.16 | 0.16 | 36.75 | 60.00 | -23.25 QP |

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level =Receiver Read level + LISN Factor + Cable Loss
4. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.

7.3 Radiated Emission Method

| | | | | | |
|--|--|------------|--------------------|--------|------------------|
| Test Requirement: | FCC Part15 C Section 15.209 | | | | |
| Test Method: | ANSI C63.10:2009 | | | | |
| Test Frequency Range: | 30MHz to 25GHz | | | | |
| Test site: | Measurement Distance: 3m | | | | |
| Receiver setup: | Frequency | Detector | RBW | VBW | Remark |
| | 30MHz-1GHz | Quasi-peak | 120KHz | 300KHz | Quasi-peak Value |
| | Above 1GHz | Peak | 1MHz | 3MHz | Peak Value |
| | | Peak | 1MHz | 10Hz | Average Value |
| Limit: (Field strength of the fundamental signal) | Frequency | | Limit (dBuV/m @3m) | | Remark |
| | 2400MHz-2483.5MHz | | 94.00 | | Average Value |
| | | | 114.00 | | Peak Value |
| | During the test, the RBW and VBW were set to 3MHz and 10MHz. Peak detector for peak value, Average detector for average value. | | | | |
| Limit: (Spurious Emissions) | Frequency | | Limit (dBuV/m @3m) | | Remark |
| | 30MHz-88MHz | | 40.00 | | Quasi-peak Value |
| | 88MHz-216MHz | | 43.50 | | Quasi-peak Value |
| | 216MHz-960MHz | | 46.00 | | Quasi-peak Value |
| | 960MHz-1GHz | | 54.00 | | Quasi-peak Value |
| | Above 1GHz | | 54.00 | | Average Value |
| | | | 74.00 | | Peak Value |
| Limit: (band edge) | Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation. | | | | |
| Test setup: | Below 1GHz | | | | |
| |  | | | | |
| | Above 1GHz | | | | |

| | |
|--------------------------|---|
| |  |
| <p>Test Procedure:</p> | <ol style="list-style-type: none"> 1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. 7. The radiation measurements are performed in X, Y, Z axis positioning. And found the Y axis positioning which it is worse case, only the test worst case mode is recorded in the report. |
| <p>Test Instruments:</p> | <p>Refer to section 6.0 for details</p> |
| <p>Test mode:</p> | <p>Refer to section 5.3 for details</p> |
| <p>Test results:</p> | <p>Pass</p> |

Measurement data:



7.3.1 Field Strength of The Fundamental Signal

Peak value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2402.00 | 92.51 | 27.58 | 5.39 | 30.18 | 95.30 | 114.00 | -18.70 | Vertical |
| 2402.00 | 89.69 | 27.58 | 5.39 | 30.18 | 92.48 | 114.00 | -21.52 | Horizontal |
| 2440.00 | 91.29 | 27.55 | 5.43 | 30.06 | 94.21 | 114.00 | -19.79 | Vertical |
| 2440.00 | 88.32 | 27.55 | 5.43 | 30.06 | 91.24 | 114.00 | -22.76 | Horizontal |
| 2480.00 | 90.63 | 27.52 | 5.47 | 29.93 | 93.69 | 114.00 | -20.31 | Vertical |
| 2480.00 | 87.97 | 27.52 | 5.47 | 29.93 | 91.03 | 114.00 | -22.97 | Horizontal |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2402.00 | 80.82 | 27.58 | 5.39 | 30.18 | 83.61 | 94.00 | -10.39 | Vertical |
| 2402.00 | 78.17 | 27.58 | 5.39 | 30.18 | 80.96 | 94.00 | -13.04 | Horizontal |
| 2440.00 | 79.56 | 27.55 | 5.43 | 30.06 | 82.48 | 94.00 | -11.52 | Vertical |
| 2440.00 | 76.79 | 27.55 | 5.43 | 30.06 | 79.71 | 94.00 | -14.29 | Horizontal |
| 2480.00 | 78.38 | 27.52 | 5.47 | 29.93 | 81.44 | 94.00 | -12.56 | Vertical |
| 2480.00 | 75.62 | 27.52 | 5.47 | 29.93 | 78.68 | 94.00 | -15.32 | Horizontal |

Remark: RBW 3MHz, VBW 10MHz , peak detector for PK value, RBW 3MHz, VBW 10MHz AV detector for AV value



7.3.2 Spurious emissions

■ Below 1GHz

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 30.00 | 46.42 | 14.33 | 0.55 | 32.06 | 29.24 | 40.00 | -10.76 | Vertical |
| 53.88 | 48.61 | 15.07 | 0.81 | 31.95 | 32.54 | 40.00 | -7.46 | Vertical |
| 150.01 | 55.09 | 10.26 | 1.57 | 31.98 | 34.94 | 43.50 | -8.56 | Vertical |
| 176.89 | 54.48 | 11.49 | 1.72 | 32.07 | 35.62 | 43.50 | -7.88 | Vertical |
| 250.30 | 53.31 | 14.07 | 2.12 | 32.16 | 37.34 | 46.00 | -8.66 | Vertical |
| 300.37 | 50.35 | 15.06 | 2.36 | 32.17 | 35.60 | 46.00 | -10.40 | Vertical |
| 56.79 | 46.77 | 14.89 | 0.83 | 31.95 | 30.54 | 40.00 | -9.46 | Horizontal |
| 86.20 | 46.76 | 12.74 | 1.08 | 31.73 | 28.85 | 40.00 | -11.15 | Horizontal |
| 150.01 | 54.92 | 10.26 | 1.57 | 31.98 | 34.77 | 43.50 | -8.73 | Horizontal |
| 250.30 | 58.05 | 14.07 | 2.12 | 32.16 | 42.08 | 46.00 | -3.92 | Horizontal |
| 300.37 | 54.89 | 15.06 | 2.36 | 32.17 | 40.14 | 46.00 | -5.86 | Horizontal |
| 350.48 | 54.23 | 16.27 | 2.62 | 32.02 | 41.10 | 46.00 | -4.90 | Horizontal |



■ Above 1GHz

| | |
|---------------|--------|
| Test channel: | Lowest |
|---------------|--------|

Peak value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 4804.00 | 45.08 | 31.78 | 8.60 | 32.09 | 53.37 | 74.00 | -20.63 | Vertical |
| 7206.00 | 32.27 | 36.15 | 11.65 | 32.00 | 48.07 | 74.00 | -25.93 | Vertical |
| 9608.00 | 31.86 | 37.95 | 14.14 | 31.62 | 52.33 | 74.00 | -21.67 | Vertical |
| 12010.00 | * | | | | | 74.00 | | Vertical |
| 14412.00 | * | | | | | 74.00 | | Vertical |
| 4804.00 | 47.51 | 31.78 | 8.60 | 32.09 | 55.80 | 74.00 | -18.20 | Horizontal |
| 7206.00 | 34.09 | 36.15 | 11.65 | 32.00 | 49.89 | 74.00 | -24.11 | Horizontal |
| 9608.00 | 31.35 | 37.95 | 14.14 | 31.62 | 51.82 | 74.00 | -22.18 | Horizontal |
| 12010.00 | * | | | | | 74.00 | | Horizontal |
| 14412.00 | * | | | | | 74.00 | | Horizontal |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 4804.00 | 33.58 | 31.78 | 8.60 | 32.09 | 41.87 | 54.00 | -12.13 | Vertical |
| 7206.00 | 20.88 | 36.15 | 11.65 | 32.00 | 36.68 | 54.00 | -17.32 | Vertical |
| 9608.00 | 19.92 | 37.95 | 14.14 | 31.62 | 40.39 | 54.00 | -13.61 | Vertical |
| 12010.00 | * | | | | | 54.00 | | Vertical |
| 14412.00 | * | | | | | 54.00 | | Vertical |
| 4804.00 | 36.02 | 31.78 | 8.60 | 32.09 | 44.31 | 54.00 | -9.69 | Horizontal |
| 7206.00 | 23.10 | 36.15 | 11.65 | 32.00 | 38.90 | 54.00 | -15.10 | Horizontal |
| 9608.00 | 19.70 | 37.95 | 14.14 | 31.62 | 40.17 | 54.00 | -13.83 | Horizontal |
| 12010.00 | * | | | | | 54.00 | | Horizontal |
| 14412.00 | * | | | | | 54.00 | | Horizontal |

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *“*” , means this data is the too weak instrument of signal is unable to test.*



| | |
|---------------|--------|
| Test channel: | Middle |
|---------------|--------|

Peak value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 4880.00 | 43.82 | 31.85 | 8.67 | 32.12 | 52.22 | 74.00 | -21.78 | Vertical |
| 7320.00 | 31.43 | 36.37 | 11.72 | 31.89 | 47.63 | 74.00 | -26.37 | Vertical |
| 9760.00 | 31.12 | 38.35 | 14.25 | 31.62 | 52.10 | 74.00 | -21.90 | Vertical |
| 12200.00 | * | | | | | 74.00 | | Vertical |
| 14640.00 | * | | | | | 74.00 | | Vertical |
| 4880.00 | 45.99 | 31.85 | 8.67 | 32.12 | 54.39 | 74.00 | -19.61 | Horizontal |
| 7320.00 | 33.14 | 36.37 | 11.72 | 31.89 | 49.34 | 74.00 | -24.66 | Horizontal |
| 9760.00 | 30.48 | 38.35 | 14.25 | 31.62 | 51.46 | 74.00 | -22.54 | Horizontal |
| 12200.00 | * | | | | | 74.00 | | Horizontal |
| 14640.00 | * | | | | | 74.00 | | Horizontal |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 4880.00 | 32.56 | 31.85 | 8.67 | 32.12 | 40.96 | 54.00 | -13.04 | Vertical |
| 7320.00 | 20.19 | 36.37 | 11.72 | 31.89 | 36.39 | 54.00 | -17.61 | Vertical |
| 9760.00 | 19.31 | 38.35 | 14.25 | 31.62 | 40.29 | 54.00 | -13.71 | Vertical |
| 12200.00 | * | | | | | 54.00 | | Vertical |
| 14640.00 | * | | | | | 54.00 | | Vertical |
| 4880.00 | 34.87 | 31.85 | 8.67 | 32.12 | 43.27 | 54.00 | -10.73 | Horizontal |
| 7320.00 | 22.33 | 36.37 | 11.72 | 31.89 | 38.53 | 54.00 | -15.47 | Horizontal |
| 9760.00 | 18.99 | 38.35 | 14.25 | 31.62 | 39.97 | 54.00 | -14.03 | Horizontal |
| 12200.00 | * | | | | | 54.00 | | Horizontal |
| 14640.00 | * | | | | | 54.00 | | Horizontal |

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *“*”*, means this data is the too weak instrument of signal is unable to test.



| | |
|---------------|---------|
| Test channel: | Highest |
|---------------|---------|

Peak value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 4960.00 | 42.21 | 31.93 | 8.73 | 32.16 | 50.71 | 74.00 | -23.29 | Vertical |
| 7440.00 | 30.37 | 36.59 | 11.79 | 31.78 | 46.97 | 74.00 | -27.03 | Vertical |
| 9920.00 | 30.17 | 38.81 | 14.38 | 31.88 | 51.48 | 74.00 | -22.52 | Vertical |
| 12400.00 | * | | | | | 74.00 | | Vertical |
| 14880.00 | * | | | | | 74.00 | | Vertical |
| 4960.00 | 44.06 | 31.93 | 8.73 | 32.16 | 52.56 | 74.00 | -21.44 | Horizontal |
| 7440.00 | 31.93 | 36.59 | 11.79 | 31.78 | 48.53 | 74.00 | -25.47 | Horizontal |
| 9920.00 | 29.38 | 38.81 | 14.38 | 31.88 | 50.69 | 74.00 | -23.31 | Horizontal |
| 12400.00 | * | | | | | 74.00 | | Horizontal |
| 14880.00 | * | | | | | 74.00 | | Horizontal |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 4960.00 | 31.27 | 31.93 | 8.73 | 32.16 | 39.77 | 54.00 | -14.23 | Vertical |
| 7440.00 | 19.32 | 36.59 | 11.79 | 31.78 | 35.92 | 54.00 | -18.08 | Vertical |
| 9920.00 | 18.53 | 38.81 | 14.38 | 31.88 | 39.84 | 54.00 | -14.16 | Vertical |
| 12400.00 | * | | | | | 54.00 | | Vertical |
| 14880.00 | * | | | | | 54.00 | | Vertical |
| 4960.00 | 33.40 | 31.93 | 8.73 | 32.16 | 41.90 | 54.00 | -12.10 | Horizontal |
| 7440.00 | 21.35 | 36.59 | 11.79 | 31.78 | 37.95 | 54.00 | -16.05 | Horizontal |
| 9920.00 | 18.08 | 38.81 | 14.38 | 31.88 | 39.39 | 54.00 | -14.61 | Horizontal |
| 12400.00 | * | | | | | 54.00 | | Horizontal |
| 14880.00 | * | | | | | 54.00 | | Horizontal |

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*
3. *“*” , means this data is the too weak instrument of signal is unable to test.*



7.3.3 Bandedge emissions

All of the restriction bands were tested, and only the data of worst case was exhibited.

| | |
|---------------|----------------|
| Test channel: | Lowest channel |
|---------------|----------------|

Peak value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2390.00 | 43.90 | 27.59 | 5.38 | 30.18 | 46.69 | 74.00 | -27.31 | Horizontal |
| 2400.00 | 55.83 | 27.58 | 5.39 | 30.18 | 58.62 | 74.00 | -15.38 | Horizontal |
| 2390.00 | 44.54 | 27.59 | 5.38 | 30.18 | 47.33 | 74.00 | -26.67 | Vertical |
| 2400.00 | 57.98 | 27.58 | 5.39 | 30.18 | 60.77 | 74.00 | -13.23 | Vertical |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2390.00 | 34.22 | 27.59 | 5.38 | 30.18 | 37.01 | 54.00 | -16.99 | Horizontal |
| 2400.00 | 40.52 | 27.58 | 5.39 | 30.18 | 43.31 | 54.00 | -10.70 | Horizontal |
| 2390.00 | 34.23 | 27.59 | 5.38 | 30.18 | 37.02 | 54.00 | -16.98 | Vertical |
| 2400.00 | 42.26 | 27.58 | 5.39 | 30.18 | 45.05 | 54.00 | -8.95 | Vertical |

| | |
|---------------|---------|
| Test channel: | Highest |
|---------------|---------|

Peak value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2483.50 | 46.12 | 27.53 | 5.47 | 29.93 | 49.19 | 74.00 | -24.81 | Vertical |
| 2500.00 | 45.10 | 27.55 | 5.49 | 29.93 | 48.21 | 74.00 | -25.79 | Vertical |
| 2483.50 | 47.14 | 27.53 | 5.47 | 29.93 | 50.21 | 74.00 | -23.79 | Horizontal |
| 2500.00 | 46.20 | 27.55 | 5.49 | 29.93 | 49.31 | 74.00 | -24.69 | Horizontal |

Average value:

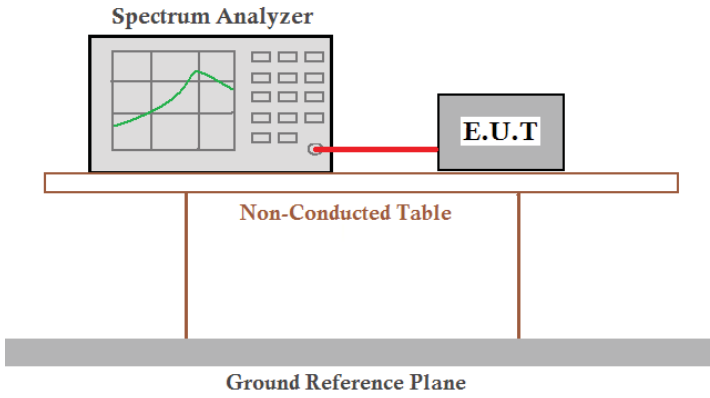
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2483.50 | 37.06 | 27.53 | 5.47 | 29.93 | 40.13 | 54.00 | -13.87 | Vertical |
| 2500.00 | 34.91 | 27.55 | 5.49 | 29.93 | 38.02 | 54.00 | -15.98 | Vertical |
| 2483.50 | 38.35 | 27.53 | 5.47 | 29.93 | 41.42 | 54.00 | -12.58 | Horizontal |
| 2500.00 | 34.92 | 27.55 | 5.49 | 29.93 | 38.03 | 54.00 | -15.97 | Horizontal |

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*



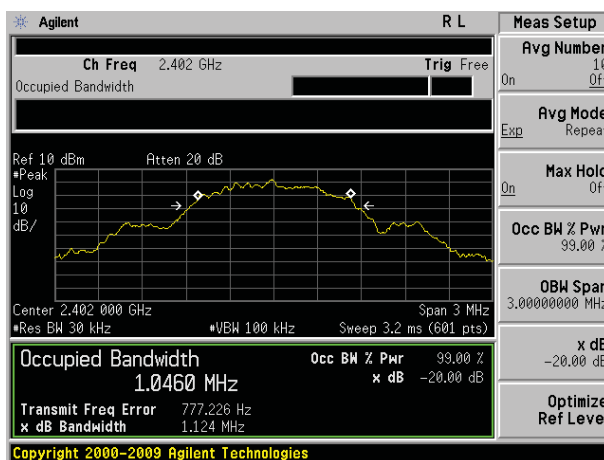
7.4 20dB Occupy Bandwidth

| | |
|-------------------|--|
| Test Requirement: | FCC Part15 C Section 15.249/15.215 |
| Test Method: | ANSI C63.10:2009 |
| Limit: | Operation Frequency range 2400MHz~2483.5MHz |
| Test setup: |  |
| Test Instruments: | Refer to section 6.0 for details |
| Test mode: | Refer to section 5.3 for details |
| Test results: | Pass |

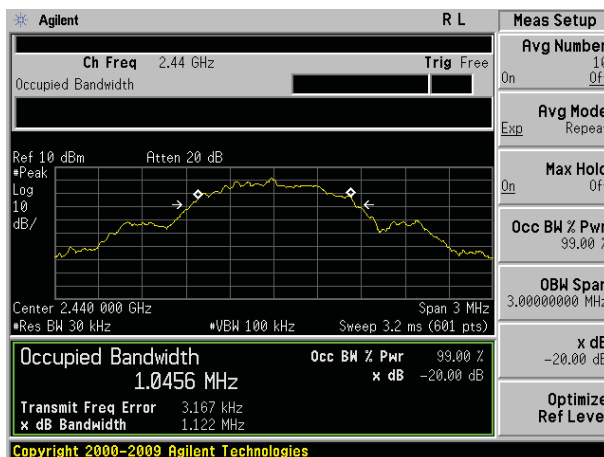
Measurement Data

| Test channel | 20dB bandwidth(MHz) | Result |
|--------------|---------------------|--------|
| Lowest | 1.124 | Pass |
| Middle | 1.122 | Pass |
| Highest | 1.115 | Pass |

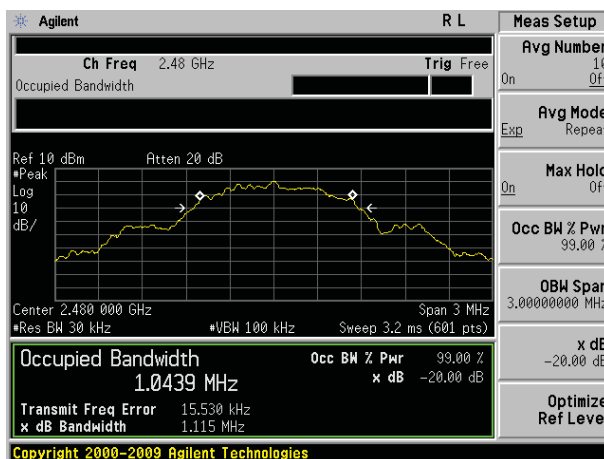
Test plot as follows:



Lowest channel



Middle channel



Highest channel



8 Test Setup Photo

Refer to test setup photos.

9 EUT Constructional Details

Refer to EUT external and internal photos.

-----End-----