

TEST REPORT

Application No: AR/2020/C0004
Applicant: Xiaomi Communications Co., Ltd.
Address of Applicant: #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Manufacturer: Xiaomi Communications Co., Ltd.
Address of Manufacturer: #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
EUT Description: Mobile Phone
Model No.: M2010J19SL
Trade Mark: Redmi
FCC ID: 2AFZZJ19SL
Standard(s): 47 CFR Part 15, Subpart B
Date of Receipt: 2020/12/11
Date of Test: 2020/12/11 to 2020/12/31
Date of Issue: 2020/12/31

| | |
|---------------------|--------------|
| Test Result: | Pass* |
|---------------------|--------------|

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

Authorized Signature:

Simon Ling



Wireless Laboratory Manager



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

| <i>Revision Record</i> | | | | |
|------------------------|----------------|-------------|-----------------|--|
| <i>Version</i> | <i>Chapter</i> | <i>Date</i> | <i>Modifier</i> | <i>Remark</i> |
| 01 | | 2020/12/31 | | Original |
| 02 | | 2021/05/28 | Leah Chen | 1. Modify data conversion error of antenna height 2. Updated equipment list |
| | | | | |

*This report supersedes our previous report AR/2020/C000406, issued on 2020-12-31, which is hereby deemed null and void.

| | |
|---------------------------------|--|
| Authorized for issue by: | |
| Prepared By |  <hr/> (Leah Chen) / Engineer |
| Checked By |  <hr/> (Daniel Wang) /Reviewer |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Test Summary

| Emission Part | | | | |
|---|---------------------------|-----------------|-------------|--------|
| Item | Standard | Method | Requirement | Result |
| Conducted Emissions at Mains Terminals (150kHz-30MHz) | 47 CFR Part 15, Subpart B | ANSI C63.4:2014 | Class B | Pass |
| Radiated Emissions (30MHz-1GHz) | 47 CFR Part 15, Subpart B | ANSI C63.4:2014 | Class B | Pass |
| Radiated Emissions (above 1GHz) | 47 CFR Part 15, Subpart B | ANSI C63.4:2014 | Class B | Pass |

| Internal Source | Upper Frequency |
|--------------------|--|
| Below 1.705MHz | 30MHz |
| 1.705MHz to 108MHz | 1GHz |
| 108MHz to 500MHz | 2GHz |
| 500MHz to 1GHz | 5GHz |
| Above 1GHz | 5th harmonic of the highest frequency or 40GHz, whichever is lower |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Contents

| | |
|---|-----------|
| 1 GENERAL INFORMATION..... | 5 |
| 1.1 DESCRIPTION OF SUPPORT UNITS | 6 |
| 1.2 TEST LOCATION..... | 6 |
| 1.3 TEST FACILITY..... | 6 |
| 1.4 DEVIATION FROM STANDARDS | 6 |
| 1.5 ABNORMALITIES FROM STANDARD CONDITIONS..... | 6 |
| 2 EMISSION TEST RESULTS | 7 |
| 2.1 CONDUCTED EMISSIONS AT MAINS TERMINALS (150KHZ-30MHZ) | 7 |
| 2.1.1 E.U.T. Operation..... | 7 |
| 2.1.2 Test Setup Diagram..... | 8 |
| 2.1.3 Measurement Data | 8 |
| 2.2 RADIATED EMISSIONS (30MHZ-1GHZ) | 11 |
| 2.1.4 E.U.T. Operation..... | 11 |
| 2.1.5 Test Setup Diagram..... | 12 |
| 2.1.6 Measurement Data | 12 |
| 2.3 RADIATED EMISSIONS (ABOVE 1GHZ)..... | 15 |
| 2.1.7 E.U.T. Operation..... | 15 |
| 2.1.8 Test Setup Diagram..... | 16 |
| 2.1.9 Measurement Data | 16 |
| 3 EQUIPMENT LIST | 19 |
| 4 MEASUREMENT UNCERTAINTY | 20 |
| 5 PHOTOGRAPHS | 21 |
| 5.1 TEST SETUP..... | 21 |
| 5.2 EUT CONSTRUCTIONAL DETAILS (EUT PHOTOS)..... | 21 |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1 General Information

| | | | |
|-----------------------------------|---------------|-------------|-------------|
| Product Name: | Mobile Phone | | |
| Model No.(EUT): | M2010J19SL | | |
| Trade Mark: | Redmi | | |
| Hardware Version: | P2 | | |
| Software Version: | MIUI12 | | |
| Frequency Bands: | Band | Tx (MHz) | Rx (MHz) |
| | GSM850 | 824~849 | 869~894 |
| | GSM1900 | 1850~1910 | 1930~1990 |
| | WCDMA Band II | 1850~1910 | 1930~1990 |
| | WCDMA Band IV | 1710~1755 | 2110~2155 |
| | WCDMA Band V | 824~849 | 869~894 |
| | LTE Band 2 | 1850~1910 | 1930~1990 |
| | LTE Band 4 | 1710~1755 | 2110~2155 |
| | LTE Band 5 | 824~849 | 869~894 |
| | LTE Band 7 | 2500~2570 | 2620~2690 |
| | LTE Band 12 | 699~716 | 729~746 |
| | LTE Band 17 | 704~716 | 734~746 |
| | LTE Band 38 | 2570~2620 | 2570~2620 |
| | LTE Band 41 | 2496~2690 | 2496~2690 |
| | LTE Band 66 | 1710~1780 | 2110~2200 |
| | Wi-Fi 2.4G | 2400~2483.5 | 2400~2483.5 |
| | Bluetooth | 2400~2483.5 | 2400~2483.5 |
| Wi-Fi 5G | 5150~5850 | 5150~5850 | |
| FM | 87-108 | | |
| GNSS(GPS/Glonass/Bei dou/Galileo) | 1559~1610 | | |

*EUT 1= 4+128G EUT2=4+64G



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1.1 Description of Support Units

| Description | Manufacturer | Model No. | Inventory No. |
|-------------|--------------|--------------|---------------|
| Router | NETGEAR | R6020 | No.XA1401 |
| Computer | Lenovo | L480 | No.XA1402 |
| Mouse | A4TECH | OP-520NU USB | No.XA1403 |

1.2 Test Location

| | |
|----------------|--|
| Company: | SGS-CSTC STANDARDS TECHNICAL SERVICES (XI 'AN) CO., LTD. |
| Address: | 1/F, Unit D, Building 1, Kanghong Orange Technology Park, No.137, Keyuan 3rd Road, Fengdong New City, Xi'an, Shaanxi China |
| Post code: | 710086 |
| Test engineer: | Ben Huang, Leah Chen |

1.3 Test Facility

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

- **A2LA (Certificate No. 4854.01)**

SGS-CSTC STANDARDS TECHNICAL SERVICES (XI 'AN) CO., LTD. is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 4854.01.

- **FCC –Designation Number: CN1271.**

1.4 Deviation from Standards

None

1.5 Abnormalities from Standard Conditions

None



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd.
Wireless Laboratory

1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, Xi'an, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086

t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

2 Emission Test Results

2.1 Conducted Emissions at Mains Terminals (150kHz-30MHz)

| | |
|-------------------|--|
| Test Requirement: | 47 CFR Part 15, Subpart B |
| Test Method: | ANSI C63.4:2014 |
| Frequency Range: | 150kHz to 30MHz |
| Limit: | |
| 0.15M-0.5MHz | 66dB(μV)-56dB(μV) quasi-peak, 56dB(μV)-46dB(μV) average |
| 0.5M-5MHz | 56dB(μV) quasi-peak, 46dB(μV) average |
| 5M-30MHz | 60dB(μV) quasi-peak, 50dB(μV) average |
| Detector: | Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz |

2.1.1 E.U.T. Operation

Operating Environment:

Temperature: 18.9 °C Humidity: 55.1 % RH Atmospheric Pressure: 1000 mbar

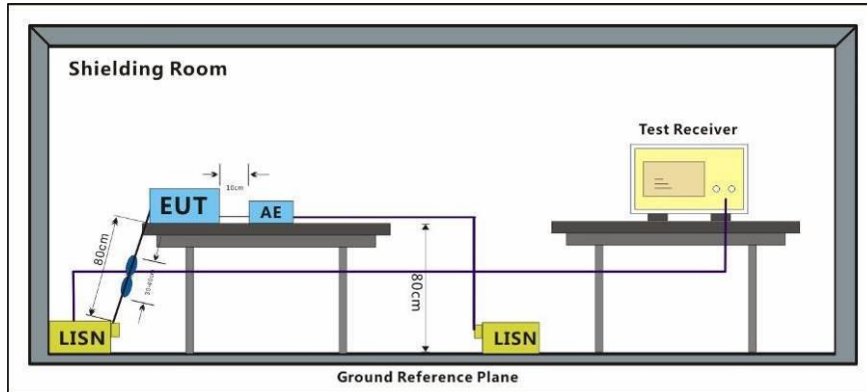
Pretest these modes to find the worst case:

- a: Transfer data between the EUT1 and the PC+USB cable1
 - b: Transfer data between the EUT1 and the PC+USB cable2
 - c: GSM 850 Idle+EUT1+BT+WLAN +GNSS Rx+playing MP4 (SD card) +earphone+battery+Cable1+adapter1
 - d: WCDMA Band V Idle+EUT1+BT+WLAN + GNSS Rx+playing MP4 (SD card) +earphone+battery+ Cable1+adapter1
 - e: LTE Band 5 Idle+EUT1+BT+WLAN +GNSS Rx+camera (Front) +earphone+battery+ Cable1+adapter1
 - f: LTE Band 12 Idle+EUT1+BT+WLAN +GNSS Rx+camera (back) +earphone+battery+ Cable1+adapter1
 - g: LTE Band 17 Idle+EUT1+BT+WLAN +GNSS Rx +FM +earphone+battery+ Cable1+adapter1
 - h: LTE Band 5 Idle+EUT1+BT+WLAN +GNSS Rx+camera (Front) +earphone+battery+ Cable1+adapter2
 - i: LTE Band 5 Idle+EUT2+BT+WLAN +GNSS Rx+camera (Front) +earphone+battery+ Cable1+adapter2
 - j: Transfer data between the EUT2 and the PC+USB cable1
- The worst case for final test: e: LTE Band 5 Idle+EUT1+BT+WLAN +GNSS Rx+camera (Front) +earphone+battery+ Cable1+adapter1



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

2.1.2 Test Setup Diagram



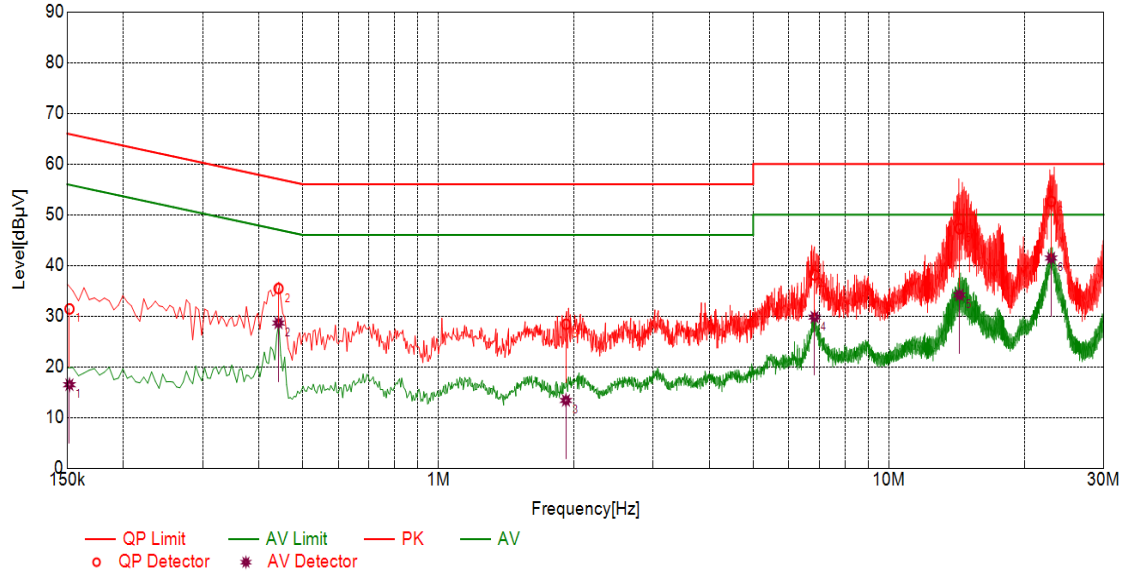
2.1.3 Measurement Data

An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Mode:d; Line:Live Line



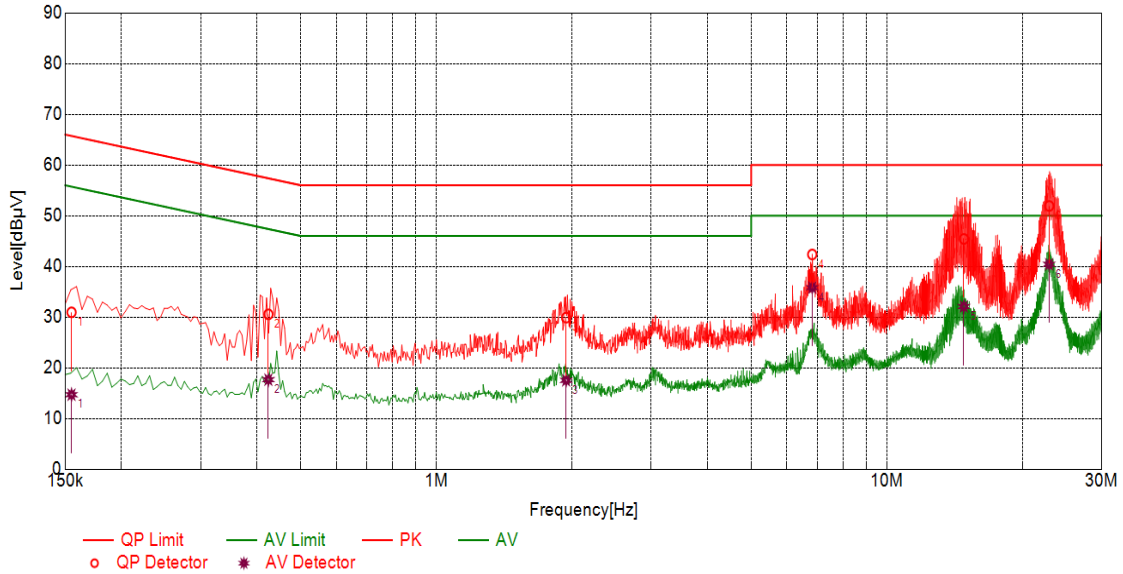
Test Graph

| Final Data List | | | | | | | | |
|-----------------|-------------|-------------|-----------------|-----------------|----------------|-----------------|-----------------|----------------|
| NO. | Freq. [MHz] | Factor [dB] | QP Value [dBµV] | QP Limit [dBµV] | QP Margin [dB] | AV Value [dBµV] | AV Limit [dBµV] | AV Margin [dB] |
| 1 | 0.1518 | 10.10 | 31.42 | 65.90 | 34.48 | 16.47 | 55.90 | 39.43 |
| 2 | 0.4419 | 10.10 | 35.44 | 57.03 | 21.59 | 28.65 | 47.03 | 18.38 |
| 3 | 1.9202 | 10.10 | 28.40 | 56.00 | 27.60 | 13.37 | 46.00 | 32.63 |
| 4 | 6.8420 | 10.10 | 38.12 | 60.00 | 21.88 | 29.81 | 50.00 | 20.19 |
| 5 | 14.3523 | 10.11 | 47.25 | 60.00 | 12.75 | 34.17 | 50.00 | 15.83 |
| 6 | 22.9176 | 10.11 | 52.63 | 60.00 | 7.37 | 41.45 | 50.00 | 8.55 |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Mode:d; Line:Neutral Line



Test Graph

| Final Data List | | | | | | | | |
|-----------------|-------------|-------------|-----------------|-----------------|----------------|-----------------|-----------------|----------------|
| NO. | Freq. [MHz] | Factor [dB] | QP Value [dBμV] | QP Limit [dBμV] | QP Margin [dB] | AV Value [dBμV] | AV Limit [dBμV] | AV Margin [dB] |
| 1 | 0.1550 | 10.10 | 30.95 | 65.73 | 34.78 | 14.70 | 55.73 | 41.03 |
| 2 | 0.4239 | 10.10 | 30.55 | 57.37 | 26.82 | 17.66 | 47.37 | 29.71 |
| 3 | 1.9416 | 10.10 | 29.90 | 56.00 | 26.10 | 17.53 | 46.00 | 28.47 |
| 4 | 6.8291 | 10.10 | 42.36 | 60.00 | 17.64 | 35.82 | 50.00 | 14.18 |
| 5 | 14.8222 | 10.11 | 45.42 | 60.00 | 14.58 | 32.08 | 50.00 | 17.92 |
| 6 | 22.9201 | 10.11 | 51.93 | 60.00 | 8.07 | 40.41 | 50.00 | 9.59 |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

2.2 Radiated Emissions (30MHz-1GHz)

| | |
|-----------------------|---|
| Test Requirement: | 47 CFR Part 15, Subpart B |
| Test Method: | ANSI C63.4:2014 |
| Frequency Range: | 30MHz to 1GHz |
| Measurement Distance: | 3m |
| Limit: | |
| 30MHz -88MHz | 40.0(dBμV/m) quasi-peak |
| 88MHz-216MHz | 43.5(dBμV/m) quasi-peak |
| 216MHz-960MHz | 46.0(dBμV/m) quasi-peak |
| 960MHz-1000MHz | 54.0(dBμV/m) quasi-peak |
| Detector: | Peak for pre-scan (120kHz resolution bandwidth) 30M to1000MHz |

2.1.4 E.U.T. Operation

Operating Environment:

Temperature: 25 °C Humidity: 66.5 % RH Atmospheric Pressure: 1010 mbar

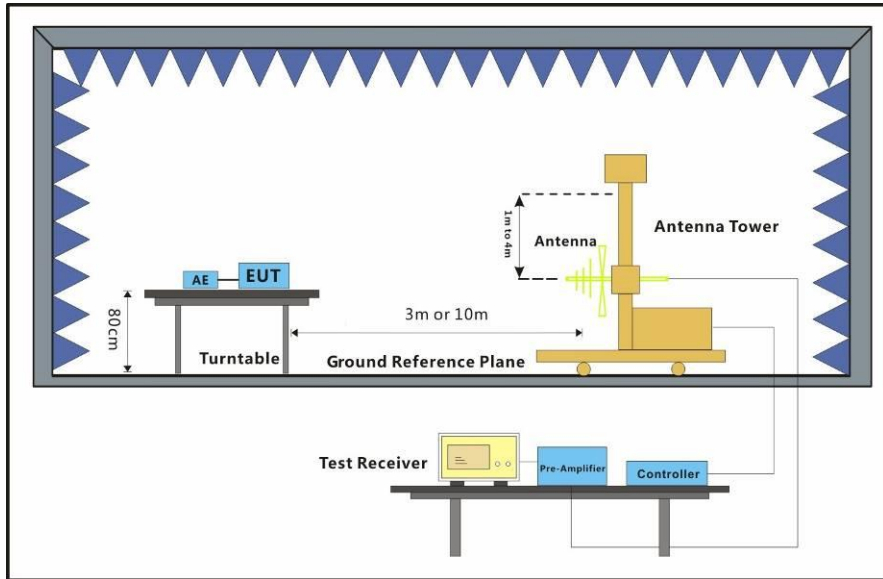
Pretest these modes to find the worst case:

- a: Transfer data between the EUT1 and the PC+USB cable1
 - b: Transfer data between the EUT1 and the PC+USB cable2
 - c: GSM 850 Idle+EUT1+BT+WLAN +GNSS Rx+playing MP4 (SD card) +earphone+battery+Cable1+adapter1
 - d: WCDMA Band V Idle+EUT1+BT+WLAN +GNSS Rx+playing MP4 (SD card) +earphone+battery+ Cable1+adapter1
 - e: LTE Band 5 Idle+EUT1+BT+WLAN +GNSS Rx+camera (Front) +earphone+battery+ Cable1+adapter1
 - f: LTE Band 12 Idle+EUT1+BT+WLAN +GNSS Rx+camera (back) +earphone+battery+ Cable1+adapter1
 - g: LTE Band 17 Idle+EUT1+BT+WLAN +GNSS Rx +FM +earphone+battery+ Cable1+adapter1
 - h: LTE Band 5 Idle+EUT1+BT+WLAN +GNSS Rx+camera (Front) +earphone+battery+ Cable1+adapter2
 - i: LTE Band 5 Idle+EUT2+BT+WLAN +GNSS Rx+camera (Front) +earphone+battery+ Cable1+adapter2
 - j: Transfer data between the EUT2 and the PC+USB cable1
- The worst case for final test:
- b: Transfer data between the EUT1 and the PC+USB cable2



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

2.1.5 Test Setup Diagram



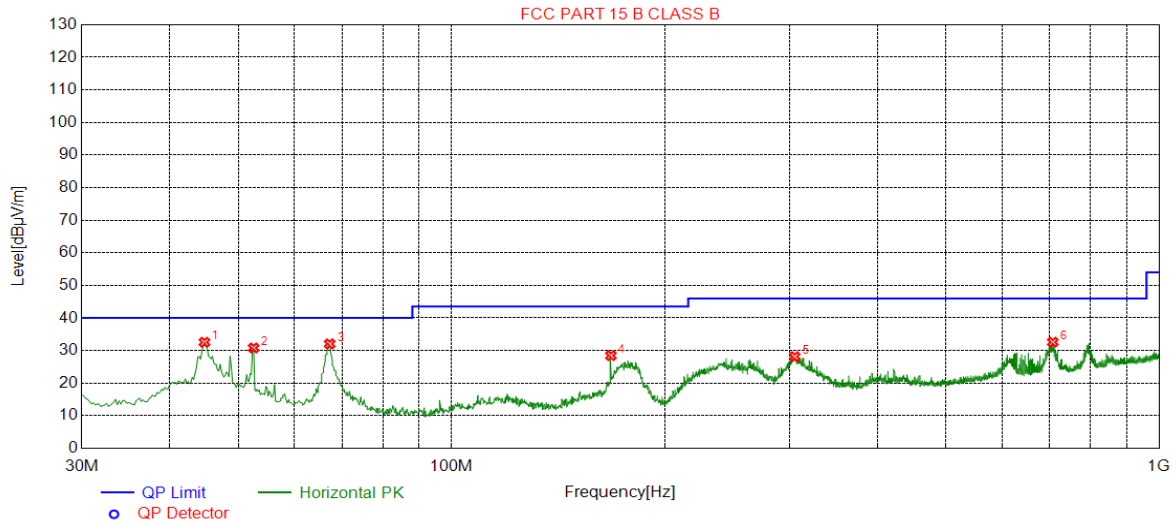
2.1.6 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Mode:b; Polarization:Horizontal



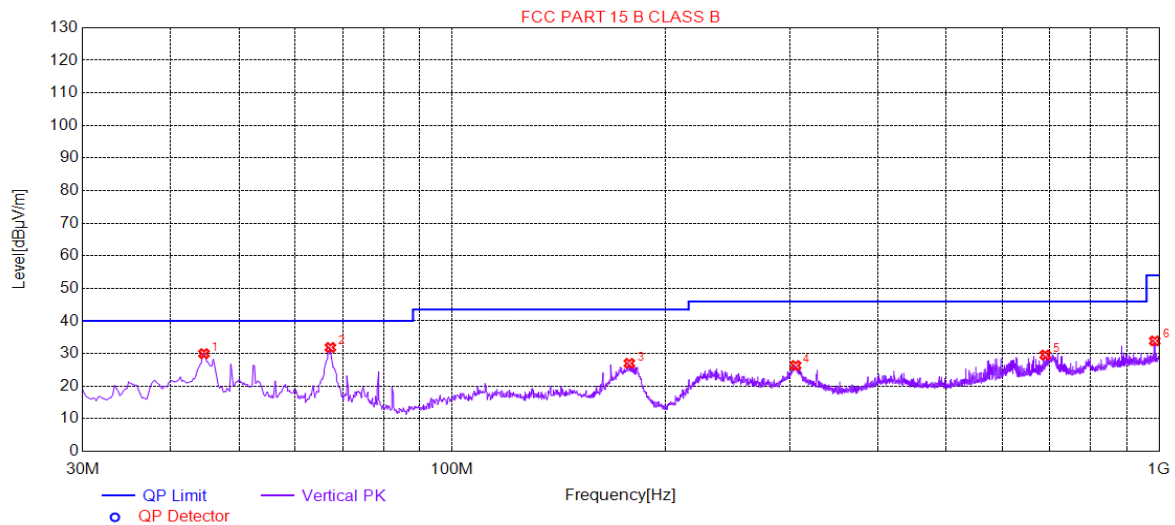
Suspected List

| Suspected List | | | | | | | |
|----------------|-------------|----------------|----------------|-------------|-------------|-----------|------------|
| NO. | Freq. [MHz] | Level [dBµV/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1 | 44.7469 | 32.56 | 40.00 | 7.44 | 178 | 138 | Horizontal |
| 2 | 52.5085 | 30.80 | 40.00 | 9.20 | 123 | 98 | Horizontal |
| 3 | 67.2555 | 32.06 | 40.00 | 7.94 | 249 | 17 | Horizontal |
| 4 | 167.9616 | 28.46 | 43.50 | 15.04 | 204 | 22 | Horizontal |
| 5 | 305.5351 | 28.13 | 46.00 | 17.87 | 214 | 274 | Horizontal |
| 6 | 707.7776 | 32.59 | 46.00 | 13.41 | 128 | 323 | Horizontal |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Mode:b; Polarization:Vertical



Suspected List

| Suspected List | | | | | | | |
|----------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| NO. | Freq. [MHz] | Level [dBµV/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1 | 44.5529 | 29.99 | 40.00 | 10.01 | 159 | 245 | Vertical |
| 2 | 67.2555 | 31.88 | 40.00 | 8.12 | 157 | 131 | Vertical |
| 3 | 178.0516 | 27.01 | 43.50 | 16.49 | 208 | 58 | Vertical |
| 4 | 306.1172 | 26.34 | 46.00 | 19.66 | 299 | 356 | Vertical |
| 5 | 690.1200 | 29.58 | 46.00 | 16.42 | 243 | 172 | Vertical |
| 6 | 986.0292 | 33.89 | 54.00 | 20.11 | 186 | 346 | Vertical |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

2.3 Radiated Emissions (above 1GHz)

| | |
|-----------------------|--|
| Test Requirement: | 47 CFR Part 15, Subpart B |
| Test Method: | ANSI C63.4:2014 |
| Frequency Range: | Above 1GHz |
| Measurement Distance: | 3m |
| Limit: | |
| Above 1GHz | 74(dB μ V/m) peak, 54(dB μ V/m) average |
| Detector: | Peak for pre-scan (1000kHz resolution bandwidth) 100M to18000MHz |

2.1.7 E.U.T. Operation

Operating Environment:

Temperature: 21.7 °C Humidity: 56.4 % RH Atmospheric Pressure: 1010 mbar

Pretest these modes to find the worst case:

- a: Transfer data between the EUT1 and the PC+USB cable1
- b: Transfer data between the EUT1 and the PC+USB cable2
- c: GSM 850 Idle+EUT1+BT+WLAN +GNSS Rx+playing MP4 (SD card) +earphone+battery+Cable1+adapter1
- d: WCDMA Band V Idle+EUT1+BT+WLAN +GNSS Rx+playing MP4 (SD card) +earphone+battery+ Cable1+adapter1
- e: LTE Band 5 Idle+EUT1+BT+WLAN +GNSS Rx+camera (Front) +earphone+battery+ Cable1+adapter1
- f: LTE Band 12 Idle+EUT1+BT+WLAN +GNSS Rx+camera (back) +earphone+battery+ Cable1+adapter1
- g: LTE Band 17 Idle+EUT1+BT+WLAN +GNSS Rx +FM +earphone+battery+ Cable1+adapter1
- h: LTE Band 5 Idle+EUT1+BT+WLAN +GNSS Rx+camera (Front) +earphone+battery+ Cable1+adapter2
- i: LTE Band 5 Idle+EUT2+BT+WLAN +GNSS Rx+camera (Front) +earphone+battery+ Cable1+adapter2
- j: Transfer data between the EUT2 and the PC+USB cable1

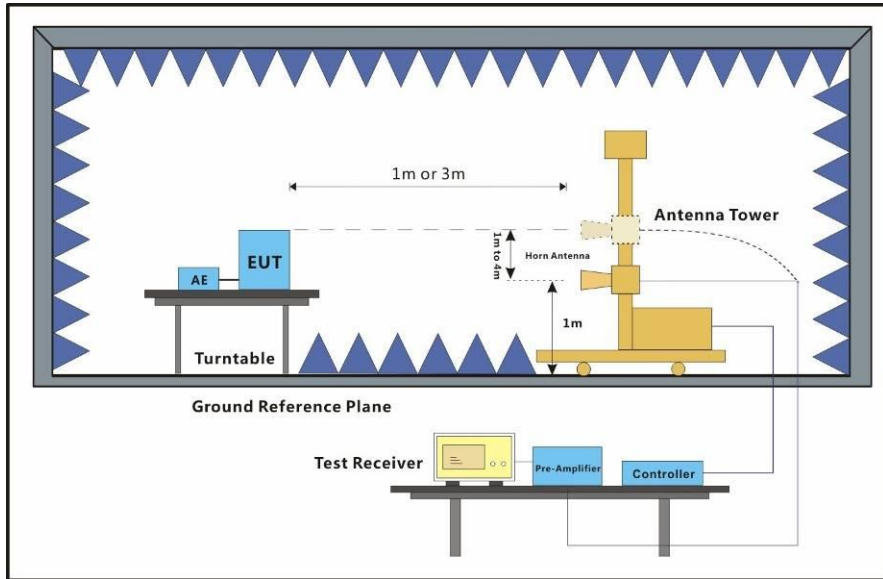
The worst case for final test:

- d: WCDMA Band V Idle+EUT1+BT+WLAN +GNSS Rx+playing MP4 (SD card) +earphone+battery+ Cable1+adapter1



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

2.1.8 Test Setup Diagram



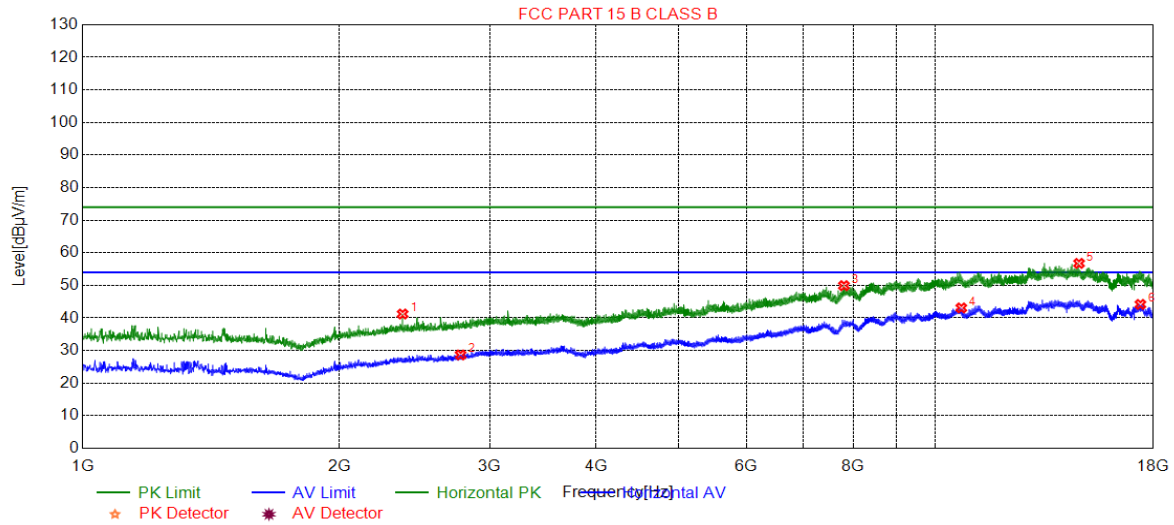
2.1.9 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Mode:d; Polarization:Horizontal



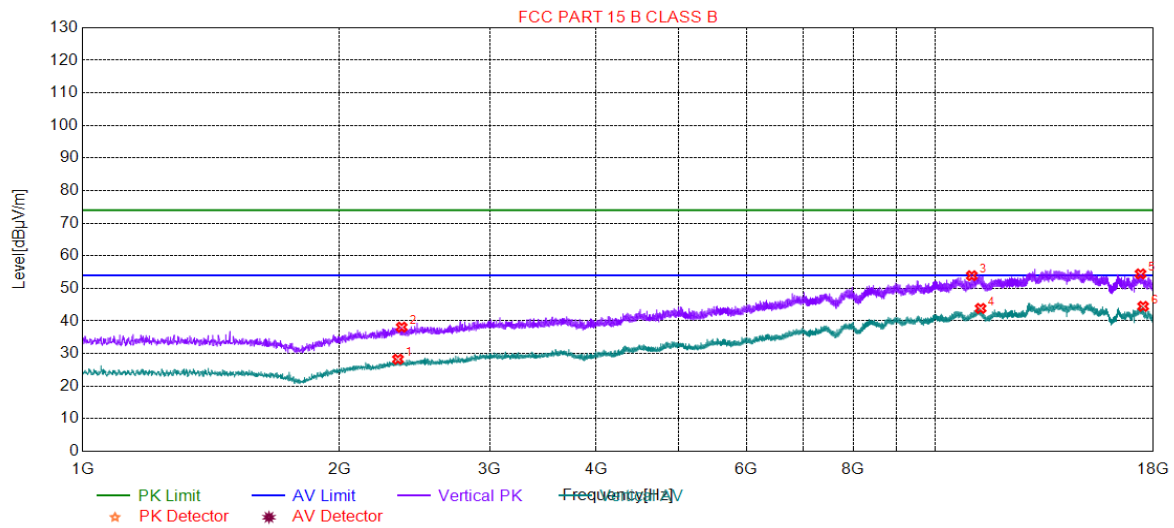
Suspected List

| Suspected List | | | | | | | |
|----------------|-------------|----------------|----------------|-------------|-------------|-----------|------------|
| NO. | Freq. [MHz] | Level [dBµV/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1 | 2371.968 | 41.23 | 74.00 | 32.77 | 129 | 301 | Horizontal |
| 2 | 2774.038 | 28.67 | 54.00 | 25.33 | 170 | 20 | Horizontal |
| 3 | 7806.290 | 49.92 | 74.00 | 24.08 | 214 | 276 | Horizontal |
| 4 | 10716.83 | 43.09 | 54.00 | 10.91 | 136 | 193 | Horizontal |
| 5 | 14724.78 | 56.76 | 74.00 | 17.24 | 161 | 42 | Horizontal |
| 6 | 17376.91 | 44.18 | 54.00 | 9.82 | 225 | 59 | Horizontal |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only. Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Mode:d; Polarization:Vertical



Suspected List

| Suspected List | | | | | | | |
|----------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| NO. | Freq. [MHz] | Level [dBµV/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1 | 2342.217 | 28.27 | 54.00 | 25.73 | 226 | 80 | Vertical |
| 2 | 2366.018 | 38.12 | 74.00 | 35.88 | 264 | 338 | Vertical |
| 3 | 11024.55 | 53.91 | 74.00 | 20.09 | 280 | 145 | Vertical |
| 4 | 11289.76 | 43.86 | 54.00 | 10.14 | 176 | 16 | Vertical |
| 5 | 17384.56 | 54.46 | 74.00 | 19.54 | 247 | 150 | Vertical |
| 6 | 17506.12 | 44.50 | 54.00 | 9.50 | 270 | 194 | Vertical |

Remark:

1) Scan from 1GHz to 30GHz, The disturbance above 18GHz was very low and all noise floor. The above radiated emissions were the highest point could be found when testing, so only the above radiated emissions had been displayed



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

3 Equipment List

| CE Test System | | | | | |
|--------------------------------|---------------|-------------|---------------|------------|--------------|
| Equipment | Manufacturer | Model No. | Inventory No. | Cal Date | Cal Due Date |
| Shielding Room | Brilliant-emc | N/A | XAW03-35-01 | 2019-09-11 | 2022-09-10 |
| Test receiver | ROHDE&SCHWARZ | ESR | XAW01-08-01 | 2020-09-11 | 2021-09-10 |
| Artificial network | ROHDE&SCHWARZ | ENV216 | XAW01-04-01 | 2020-08-04 | 2021-08-03 |
| Temperature and humidity meter | MingGao | TH101B | XAW01-01-01 | 2020-11-06 | 2021-11-05 |
| Measurement Software | Tonscend | TS+ CE V2.5 | XAW02-05-02 | NCR | NCR |
| Radio communication analyzer | ROHDE&SCHWARZ | CMW 500 | XAW01-03-02 | 2020-04-02 | 2021-04-01 |

| RSE Test System | | | | | |
|-------------------------------------|----------------|------------------|---------------|------------|--------------|
| Equipment | Manufacturer | Model No. | Inventory No. | Cal Date | Cal Due Date |
| Semi-Anechoic Chamber | Brilliant-emc | N/A | XAW03-35-01 | 2019-09-11 | 2022-09-10 |
| MXA signal analyzer | Keysight | N9020A | XAW01-06-01 | 2020-04-02 | 2021-04-01 |
| Test receiver | ROHDE&SCHWARZ | ESR | XAW01-08-01 | 2020-09-11 | 2021-09-10 |
| Receiving antenna (30MHz-3GHz) | Schwarzbeck | VULB 9163 | XAW01-09-01 | 2019-10-13 | 2021-10-12 |
| Receiving antenna (1GHz~18GHz) | Schwarzbeck | BBHA 9120D | XAW01-09-02 | 2019-10-13 | 2021-10-12 |
| Receiving antenna (15GHz~40GHz) | Schwarzbeck | BBHA 9170 | XAW01-09-03 | 2019-10-13 | 2021-10-12 |
| Directional antenna rack controller | Max-Full | MF-7802BS | XAW03-03-01 | NCR | NCR |
| High-speed antenna rack controller | Max-Full | MF-7802 | XAW03-04-01 | NCR | NCR |
| Filter bank | Tonscend | JS0806-F | XAW03-05-01 | NCR | NCR |
| Filter bank | Tonscend | JS0806s | XAW03-05-02 | NCR | NCR |
| Amplifier | Tonscend | TAP00903040 | XAW01-41-01 | 2020-10-26 | 2021-10-25 |
| Amplifier | Tonscend | TAP01018048 | XAW01-41-02 | 2020-10-26 | 2021-10-25 |
| Amplifier | Tonscend | TAP18040048 | XAW01-41-03 | 2020-10-27 | 2021-10-26 |
| Amplifier | Shanghai Steed | YX28980930 | XAW01-41-06 | 2020-10-26 | 2021-10-25 |
| Temperature and humidity meter | MingGao | TH101B | XAW01-01-01 | 2020-11-06 | 2021-11-05 |
| Measurement Software | Tonscend | TS+ RSE V3.0.0.2 | XAW02-05-01 | NCR | NCR |
| Radio communication analyzer | ROHDE&SCHWARZ | CMW 500 | XAW01-03-02 | 2020-04-02 | 2021-04-01 |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

4 Measurement Uncertainty

| No. | Item | Measurement Uncertainty |
|-----|---------------------|---------------------------|
| 1 | Conduction Emission | ± 3.0dB (150kHz to 30MHz) |
| 2 | Radiated Emission | ± 4.8dB (Below 1GHz) |
| | | ± 4.8dB (1GHz to 6GHz) |
| | | ± 4.5dB (6GHz to 18GHz) |
| | | ± 5.02dB (Above 18GHz) |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

5 Photographs

5.1 Test Setup

Refer to Appendix A - Photographs of Set-Up for AR/2020/C0004.

5.2 EUT Constructional Details (EUT Photos)

Refer to Photographs of EUT Constructional Details

- End of the Report -

