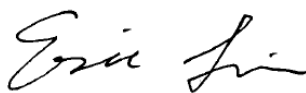


# TEST REPORT

**Application No.:** KSCR2205000816AT  
**FCC ID:** 2AC8UA2166  
**IC:** 21806-A2166  
**Applicant:** Anhui Huami Information Technology Co., Ltd.  
**Address of Applicant:** 7/F, Building B2, Huami Global Innovation Center, No. 900, Wangjiang West Road, High-tech Zone, Hefei City, China (Anhui) Pilot Free Trade Zone(230088)  
**Manufacturer:** Anhui Huami Information Technology Co., Ltd.  
**Address of Manufacturer:** 7/F, Building B2, Huami Global Innovation Center, No. 900, Wangjiang West Road, High-tech Zone, Hefei City, China (Anhui) Pilot Free Trade Zone(230088)  
**Equipment Under Test (EUT):**  
**EUT Name:** Smart Watch  
**Model No.:** A2166  
**Trade Mark:** AMAZFIT  
**Standard(s) :** 47 CFR Part 15, Subpart C 15.247  
 RSS-247 Issue 2, February 2017  
 RSS-Gen Issue 5 Amendment 2 (February 2021)  
**Date of Receipt:** 2022-06-07  
**Date of Test:** 2022-06-20 to 2022-06-23  
**Date of Issue:** 2022-06-27

|                     |              |
|---------------------|--------------|
| <b>Test Result:</b> | <b>Pass*</b> |
|---------------------|--------------|

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



Eric Lin  
EMC 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 and certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN.Doccheck@sgs.com](mailto:CN.Doccheck@sgs.com)  
 No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
 中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300  
 t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
 t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

| Revision Record |         |            |          |          |
|-----------------|---------|------------|----------|----------|
| Version         | Chapter | Date       | Modifier | Remark   |
| 01              |         | 2022-06-27 |          | Original |
|                 |         |            |          |          |
|                 |         |            |          |          |

|                          |  |                             |  |  |
|--------------------------|--|-----------------------------|--|--|
| Authorized for issue by: |  |                             |  |  |
|                          |  | Damon Zhou                  |  |  |
|                          |  | Damon_Zhou/Project Engineer |  |  |
|                          |  | Eric Lin                    |  |  |
|                          |  | Eric Lin/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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

## 2 Test Summary

| Radio Spectrum Technical Requirement |                                              |                    |        |                      |
|--------------------------------------|----------------------------------------------|--------------------|--------|----------------------|
| Item                                 | FCC Requirement                              | IC Requirement     | Method | Result               |
| Antenna Requirement                  | 47 CFR Part 15, Subpart C 15.203 & 15.247(c) | RSS-Gen Clause 6.8 | N/A    | Customer Declaration |

N/A: Not applicable

| Radio Spectrum Matter Part                            |                                              |                                           |                                        |        |
|-------------------------------------------------------|----------------------------------------------|-------------------------------------------|----------------------------------------|--------|
| Item                                                  | FCC Requirement                              | IC Requirement                            | Method                                 | Result |
| Minimum 6dB Bandwidth                                 | 47 CFR Part 15, Subpart C 15.247a(2)         | RSS-247 Clause 5.2(a)                     | ANSI C63.10 (2013) Section 11.8.1      | Pass   |
| Conducted Peak Output Power                           | 47 CFR Part 15, Subpart C 15.247(b)(3)       | RSS-247 Clause 5.4(d)                     | ANSI C63.10 (2013) Section 11.9.1      | Pass   |
| Power Spectrum Density                                | 47 CFR Part 15, Subpart C 15.247(e)          | RSS-247 Clause 5.2(b)                     | ANSI C63.10 (2013) Section 11.10.2     | Pass   |
| Conducted Band Edges Measurement                      | 47 CFR Part 15, Subpart C 15.247(d)          | RSS-247 Clause 5.5                        | ANSI C63.10 (2013) Section 11.13.3.2   | Pass   |
| Conducted Spurious Emissions                          | 47 CFR Part 15, Subpart C 15.247(d)          | RSS-247 Clause 5.5                        | ANSI C63.10 (2013) Section 11.11       | Pass   |
| Radiated Emissions which fall in the restricted bands | 47 CFR Part 15, Subpart C 15.209 & 15.247(d) | RSS-247 Section 3.3 & RSS-Gen Section 8.9 | ANSI C63.10 (2013) Section 6.10.5      | Pass   |
| Radiated Spurious Emissions                           | 47 CFR Part 15, Subpart C 15.209 & 15.247(d) | RSS-247 Section 3.3 & RSS-Gen Section 8.9 | ANSI C63.10 (2013) Section 6.4,6.5,6.6 | Pass   |
| 99% Bandwidth                                         | -                                            | RSS-Gen Section 6.7                       | ANSI C63.10 Section 6.9.3              | Pass   |



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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 www.sgsgroup.com.cn  
t/(86-512)57355888 f/(86-512)57370818 sgs.china@sgs.com

### 3 Contents

|                                                  | Page |
|--------------------------------------------------|------|
| 1 COVER PAGE .....                               | 1    |
| 2 TEST SUMMARY .....                             | 3    |
| 3 CONTENTS .....                                 | 4    |
| 4 GENERAL INFORMATION .....                      | 6    |
| 4.1 DETAILS OF E.U.T. ....                       | 6    |
| 4.2 POWER LEVEL SETTING USING IN TEST: .....     | 6    |
| 4.3 DESCRIPTION OF SUPPORT UNITS .....           | 6    |
| 4.4 MEASUREMENT UNCERTAINTY .....                | 7    |
| 4.5 TEST LOCATION.....                           | 8    |
| 4.6 TEST FACILITY.....                           | 8    |
| 4.7 DEVIATION FROM STANDARDS .....               | 8    |
| 4.8 ABNORMALITIES FROM STANDARD CONDITIONS ..... | 9    |
| 5 EQUIPMENT LIST .....                           | 10   |
| 6 RADIO SPECTRUM TECHNICAL REQUIREMENT .....     | 12   |
| 6.1 ANTENNA REQUIREMENT .....                    | 12   |
| 6.1.1 Test Requirement: .....                    | 12   |
| 6.1.2 Conclusion .....                           | 12   |
| 7 RADIO SPECTRUM MATTER TEST RESULTS .....       | 13   |
| 7.1 CONDUCTED PEAK OUTPUT POWER .....            | 13   |
| 7.1.1 E.U.T. Operation .....                     | 13   |
| 7.1.2 Test Mode Description .....                | 13   |
| 7.1.3 Test Setup Diagram .....                   | 14   |
| 7.1.4 Measurement Procedure and Data .....       | 14   |
| 7.2 MINIMUM 6DB BANDWIDTH .....                  | 15   |
| 7.2.1 E.U.T. Operation .....                     | 15   |
| 7.2.2 Test Mode Description .....                | 15   |
| 7.2.3 Test Setup Diagram .....                   | 15   |
| 7.2.4 Measurement Procedure and Data .....       | 15   |
| 7.3 POWER SPECTRUM DENSITY .....                 | 16   |
| 7.3.1 E.U.T. Operation .....                     | 16   |
| 7.3.2 Test Mode Description .....                | 16   |
| 7.3.3 Test Setup Diagram .....                   | 16   |
| 7.3.4 Measurement Procedure and Data .....       | 16   |
| 7.4 CONDUCTED BAND EDGES MEASUREMENT .....       | 17   |
| 7.4.1 E.U.T. Operation .....                     | 17   |
| 7.4.2 Test Mode Description .....                | 17   |
| 7.4.3 Test Setup Diagram .....                   | 18   |
| 7.4.4 Measurement Procedure and Data .....       | 18   |
| 7.5 CONDUCTED SPURIOUS EMISSIONS .....           | 19   |
| 7.5.1 E.U.T. Operation .....                     | 19   |



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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

|       |                                                             |    |
|-------|-------------------------------------------------------------|----|
| 7.5.2 | Test Mode Description .....                                 | 19 |
| 7.5.3 | Test Setup Diagram .....                                    | 20 |
| 7.5.4 | Measurement Procedure and Data .....                        | 20 |
| 7.6   | RADIATED EMISSIONS WHICH FALL IN THE RESTRICTED BANDS ..... | 21 |
| 7.6.1 | E.U.T. Operation .....                                      | 21 |
| 7.6.2 | Test Mode Description .....                                 | 21 |
| 7.6.3 | Test Setup Diagram .....                                    | 22 |
| 7.6.4 | Measurement Procedure and Data .....                        | 23 |
| 7.7   | RADIATED SPURIOUS EMISSIONS BELOW 1GHz .....                | 32 |
| 7.7.1 | E.U.T. Operation .....                                      | 32 |
| 7.7.2 | Test Mode Description .....                                 | 32 |
| 7.7.3 | Test Setup Diagram .....                                    | 33 |
| 7.7.4 | Measurement Procedure and Data .....                        | 33 |
| 7.8   | RADIATED SPURIOUS EMISSIONS ABOVE 1GHz .....                | 36 |
| 7.8.1 | E.U.T. Operation .....                                      | 36 |
| 7.8.2 | Test Mode Description .....                                 | 36 |
| 7.8.3 | Test Setup Diagram .....                                    | 36 |
| 7.8.4 | Measurement Procedure and Data .....                        | 37 |
| 7.9   | 99% BANDWIDTH .....                                         | 50 |
| 7.9.1 | E.U.T. Operation .....                                      | 50 |
| 7.9.2 | Test Mode Description .....                                 | 50 |
| 7.9.3 | Test Setup Diagram .....                                    | 50 |
| 7.9.4 | Measurement Procedure and Data .....                        | 50 |
| 8     | TEST SETUP PHOTO .....                                      | 51 |
| 9     | EUT CONSTRUCTIONAL DETAILS (EUT PHOTOS) .....               | 51 |



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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

## 4 General Information

### 4.1 Details of E.U.T.

|                      |                                                                                                                                                                 |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power supply:        | DC 3.87V by Rechargeable Li-ion battery<br>Battery model:PL412631 1ICP4/26/31<br>Rated Capacity:475mAh/1.84Wh<br>Nominal Voltage:3.87V<br>Limit of Charge:4.45V |
| Operation Frequency: | 2402MHz to 2480MHz                                                                                                                                              |
| Bluetooth Version:   | V5.0 Dual mode                                                                                                                                                  |
| Modulation Type:     | GFSK                                                                                                                                                            |
| Number of Channels:  | 40                                                                                                                                                              |
| Channel Spacing:     | 2MHz                                                                                                                                                            |
| Data rate:           | 1Mbps,2Mbps                                                                                                                                                     |
| Antenna Type:        | Slot Antenna                                                                                                                                                    |
| Antenna Gain:        | -4.29dBi (Provided by the manufacturer)                                                                                                                         |
| SN:                  | E1130043                                                                                                                                                        |
| Firmware Version:    | 1.0.15.1                                                                                                                                                        |

### 4.2 Power level setting using in test:

| Channel | BLE 1M  | BLE 2M  |
|---------|---------|---------|
|         | Ant 1   | Ant 1   |
| 0       | default | default |
| 19      | default | default |
| 39      | default | default |

### 4.3 Description of Support Units

| Description | Manufacturer | Model No. | Serial No. |
|-------------|--------------|-----------|------------|
| Notebook    | Lenovo       | /         | /          |



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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
t(86-512)57355888 f(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

#### 4.4 Measurement Uncertainty

| No. | Item                            | Measurement Uncertainty                                                                |
|-----|---------------------------------|----------------------------------------------------------------------------------------|
| 1   | Radio Frequency                 | $8.4 \times 10^{-8}$                                                                   |
| 2   | Timeout                         | 2s                                                                                     |
| 3   | Duty Cycle                      | 0.37%                                                                                  |
| 4   | Occupied Bandwidth              | 3%                                                                                     |
| 5   | RF Conducted Power              | 0.6dB                                                                                  |
| 6   | RF Power Density                | 2.9dB                                                                                  |
| 7   | Conducted Spurious Emissions    | 0.75dB                                                                                 |
| 8   | RF Radiated Power               | 5.2dB (Below 1GHz)<br>5.9dB (Above 1GHz)                                               |
| 9   | Radiated Spurious Emission Test | 4.2dB (Below 30MHz)<br>4.5dB (30MHz-1GHz)<br>5.1dB (1GHz-18GHz)<br>5.4dB (Above 18GHz) |
| 10  | Temperature Test                | 1°C                                                                                    |
| 11  | Humidity Test                   | 3%                                                                                     |
| 12  | Supply Voltages                 | 1.5%                                                                                   |
| 13  | Time                            | 3%                                                                                     |

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
t(86-512)57355888 f(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

#### 4.5 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

- 1.SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc ) is provided by the applicant. (if applicable).
- 2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).

#### 4.6 Test Facility

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

• **CNAS (No. CNAS L4354)**

CNAS has accredited Compliance Certification Services (Kunshan) Inc. to ISO/IEC 17025:2017 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.

• **A2LA (Certificate No. 2541.01)**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

• **FCC (Designation Number: CN1172)**

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory.

Designation Number: CN1172.

• **ISED (CAB identifier: CN0072)**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.

Company Number: 2324E

• **VCCI (Member No.: 1938)**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

#### 4.7 Deviation from Standards

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 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 www.sgsgroup.com.cn  
t/(86-512)57355888 f/(86-512)57370818 sgs.china@sgs.com

#### 4.8 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-Document.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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
t(86-512)57355888 f(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

## 5 Equipment List

| Item                                                        | Equipment                            | Manufacturer  | Model        | Inventory No      | Cal Date   | Cal. Due Date |
|-------------------------------------------------------------|--------------------------------------|---------------|--------------|-------------------|------------|---------------|
| <b>Conducted Emission at Mains Terminals (150kHz-30MHz)</b> |                                      |               |              |                   |            |               |
| 1                                                           | EMI Test Receive                     | R&S           | ESCI         | KS301101          | 01/22/2022 | 01/21/2023    |
| 2                                                           | LISN                                 | R&S           | ENV216       | KS301197          | 01/22/2022 | 01/21/2023    |
| 3                                                           | LISN                                 | Schwarzbeck   | NNLK 8129    | KS301091          | 01/22/2022 | 01/21/2023    |
| 4                                                           | Pulse Limiter                        | R&S           | ESH3-Z2      | KUS1902E001       | 01/22/2022 | 01/21/2023    |
| 5                                                           | CE test Cable                        | Thermax       | /            | CZ301102          | 11/14/2021 | 11/13/2022    |
| 6                                                           | Test Software                        | Farad         | EZ-EMC       | /                 | N.C.R      | N.C.R         |
| <b>RF Conducted Test</b>                                    |                                      |               |              |                   |            |               |
| 1                                                           | Spectrum Analyzer                    | Keysight      | N9020A       | KUS1911E004-2     | 10/11/2021 | 10/10/2022    |
| 2                                                           | Spectrum Analyzer                    | Keysight      | N9020A       | KUS2001M001-2     | 09/17/2021 | 09/16/2022    |
| 3                                                           | Spectrum Analyzer                    | Keysight      | N9030B       | KSEM021-1         | 01/22/2022 | 01/21/2023    |
| 4                                                           | Signal Generator                     | R&S           | SMW200A      | KSEM020-1         | 10/12/2021 | 10/11/2022    |
| 5                                                           | Signal Generator                     | Agilent       | N5182A       | KUS2001M001-1     | 08/27/2021 | 08/26/2022    |
| 6                                                           | Radio Communication Test Station     | Anritsu       | MT8000A      | KSEM001-1         | 09/23/2021 | 09/22/2022    |
| 7                                                           | Radio Communication Analyzer         | Anritsu       | MT8821C      | KSEM002-1         | 04/01/2022 | 03/31/2023    |
| 8                                                           | Universal Radio Communication Tester | R&S           | CMW500       | KUS1911E004-1     | 10/12/2021 | 10/11/2022    |
| 9                                                           | Switcher                             | CCSRF         | FY562        | KUS2001M001-3     | 10/12/2021 | 10/11/2022    |
| 10                                                          | AC Power Source                      | EXTECH        | 6605         | KS301178          | N.C.R      | N.C.R         |
| 11                                                          | DC Power Supply                      | Aglient       | E3632A       | KS301180          | N.C.R      | N.C.R         |
| 12                                                          | Conducted Test Cable                 | Thermax       | RF01-RF04    | CZ301111-CZ301120 | 01/16/2022 | 01/15/2023    |
| 13                                                          | Temp. / Humidity Chamber             | TERCHY        | MHK-120AK    | KS301190          | 04/01/2021 | 03/31/2023    |
| 14                                                          | Temperature & Humidity Recorder      | Renke Control | RS-WS-N01-6J | KSEM024-5         | 04/01/2021 | 03/31/2023    |
| 15                                                          | Software                             | BST           | TST-PASS     | /                 | N/A        | N/A           |
| <b>RF Radiated Test</b>                                     |                                      |               |              |                   |            |               |
| 1                                                           | Spectrum Analyzer                    | R&S           | FSV40        | KUS1806E003       | 10/11/2021 | 10/10/2022    |
| 2                                                           | Universal Radio Communication Tester | R&S           | CMW500       | KSEM009-1         | 04/01/2022 | 03/31/2023    |
| 3                                                           | Signal Generator                     | Agilent       | E8257C       | KS301066          | 10/18/2021 | 10/17/2022    |
| 4                                                           | Loop Antenna                         | COM-POWER     | AL-130R      | KUS1806E001       | 04/13/2021 | 04/12/2023    |
| 5                                                           | Bilog Antenna                        | TESEQ         | CBL 6112D    | KUS1806E005       | 06/29/2021 | 06/28/2023    |
| 6                                                           | Bilog Antenna                        | SCHWARZBECK   | VULB9160     | CZ301016          | 04/13/2021 | 04/12/2024    |
| 7                                                           | Horn-antenna(1-18GHz)                | Schwarzbeck   | BBHA9120D    | KS301079          | 10/26/2020 | 10/25/2022    |
| 8                                                           | Horn-antenna(1-18GHz)                | ETS-LINDGREN  | 3117         | KS301186          | 02/22/2021 | 02/21/2023    |



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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 www.sgsgroup.com.cn  
t/(86-512)57355888 f/(86-512)57370818 sgs.china@sgs.com

|    |                                 |                    |              |             |            |            |
|----|---------------------------------|--------------------|--------------|-------------|------------|------------|
| 9  | Horn Antenna(18-40GHz)          | Schwarzbeck        | BBHA9170     | CZ301058    | 03/22/2022 | 03/21/2023 |
| 10 | Amplifier(30MHz~18GHz)          | PANSHAN TECHNOLOGY | LNA:1~18G    | KSEM010-1   | 01/22/2022 | 01/21/2023 |
| 11 | Amplifier(18~40GHz)             | COM-POWER          | PAM-840A     | KUS1710E001 | 01/22/2022 | 01/21/2023 |
| 12 | RE Test Cable                   | REBES MICROWAVE    | /            | CZ301097    | 11/14/2021 | 11/13/2022 |
| 13 | Temperature & Humidity Recorder | Renke Control      | RS-WS-N01-6J | KSEM024-4   | 01/04/2022 | 31/03/2023 |
| 14 | Software                        | Faratronic         | EZ_EMC-v 3A1 | /           | N/A        | N/A        |



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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

## 6 Radio Spectrum Technical Requirement

### 6.1 Antenna Requirement

#### 6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)

#### 6.1.2 Conclusion

Standard 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.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is Slot Antenna on the main PCB and no consideration of replacement. The best case gain of the antenna is -4.29 dBi.

Antenna location: Refer to internal photo.



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**

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

## 7 Radio Spectrum Matter Test Results

### 7.1 Conducted Peak Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(3)

Test Method: ANSI C63.10 (2013) Section 11.9.1

Limit:

| Frequency range(MHz) | Output power of the intentional radiator(watt)         |
|----------------------|--------------------------------------------------------|
| 902-928              | 1 for $\geq 50$ hopping channels                       |
|                      | 0.25 for $25 \leq$ hopping channels $< 50$             |
|                      | 1 for digital modulation                               |
| 2400-2483.5          | 1 for $\geq 75$ non-overlapping hopping channels       |
|                      | 0.125 for all other frequency hopping systems          |
|                      | 1 for digital modulation                               |
| 5725-5850            | 1 for frequency hopping systems and digital modulation |

#### 7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 24.5 °C

Humidity: 40.9 % RH

Atmospheric Pressure: 1010 mbar

#### 7.1.2 Test Mode Description

| Pre-scan / Final test | Mode Code | Description                                                                         |
|-----------------------|-----------|-------------------------------------------------------------------------------------|
| Final test            | 02        | TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |
| Final test            | 03        | TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |



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](mailto:CN.Doccheck@sgs.com)

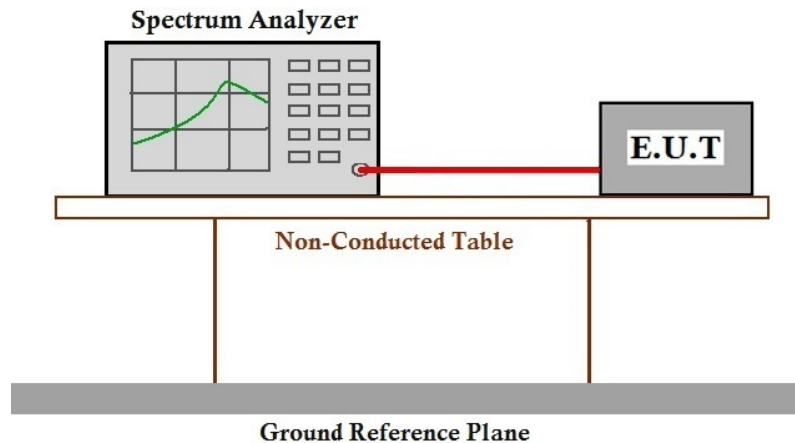
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)

t(86-512)57355888 f(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

### 7.1.3 Test Setup Diagram



### 7.1.4 Measurement Procedure and Data

Note: Since the verify power the same operating range bandwidth and smaller power can be covered by the higher power.

Please Refer to Appendix C for KSCR220500081603



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-Document.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**

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

### 7.2 Minimum 6dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.247a(2)

Test Method: ANSI C63.10 (2013) Section 11.8.1

Limit:  
≥500 kHz

#### 7.2.1 E.U.T. Operation

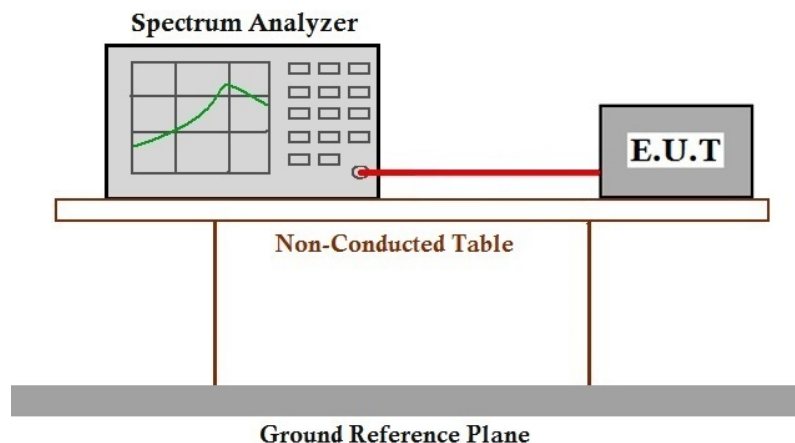
Operating Environment:

Temperature: 24.5 °C Humidity: 40.9 % RH Atmospheric Pressure: 1010 mbar

#### 7.2.2 Test Mode Description

| Pre-scan / Final test | Mode Code | Description                                                                         |
|-----------------------|-----------|-------------------------------------------------------------------------------------|
| Final test            | 02        | TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |
| Final test            | 03        | TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |

#### 7.2.3 Test Setup Diagram



#### 7.2.4 Measurement Procedure and Data

Please Refer to Appendix C for KSCR220500081603



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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)

t(86-512)57355888 f(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

### 7.3 Power Spectrum Density

Test Requirement 47 CFR Part 15, Subpart C 15.247(e)

Test Method: ANSI C63.10 (2013) Section 11.10.2

Limit:

≤8dBm in any 3 kHz band during any time interval of continuous transmission

#### 7.3.1 E.U.T. Operation

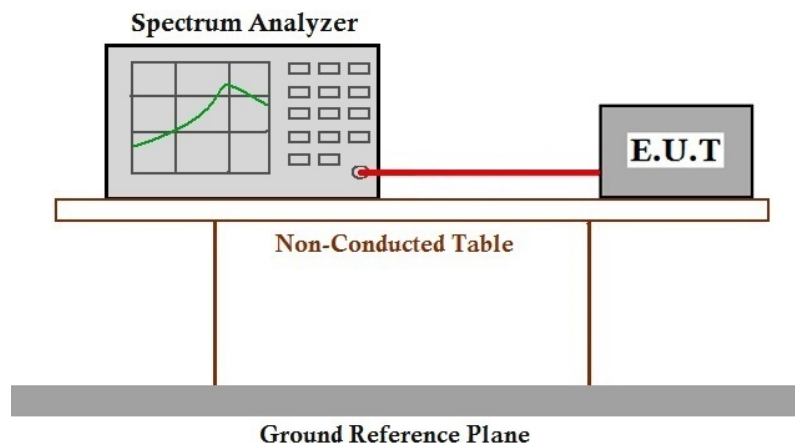
Operating Environment:

Temperature: 24.5 °C Humidity: 40.9 % RH Atmospheric Pressure: 1010 mbar

#### 7.3.2 Test Mode Description

| Pre-scan / Final test | Mode Code | Description                                                                         |
|-----------------------|-----------|-------------------------------------------------------------------------------------|
| Final test            | 02        | TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |
| Final test            | 03        | TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |

#### 7.3.3 Test Setup Diagram



#### 7.3.4 Measurement Procedure and Data

Please Refer to Appendix C for KSCR220500081603



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-Document.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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)

t(86-512)57355888 f(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

## 7.4 Conducted Band Edges Measurement

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)  
 Test Method: ANSI C63.10 (2013) Section 11.13.3.2

### Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

### 7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 24.5 °C Humidity: 40.9 % RH Atmospheric Pressure: 1010 mbar

### 7.4.2 Test Mode Description

| Pre-scan /<br>Final test | Mode<br>Code | Description                                                                         |
|--------------------------|--------------|-------------------------------------------------------------------------------------|
| Final test               | 02           | TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |
| Final test               | 03           | TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |



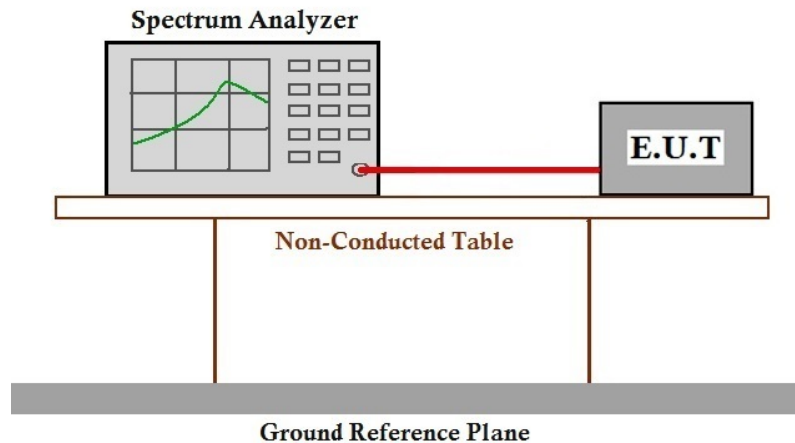
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
 中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 www.sgsgroup.com.cn  
 t/(86-512)57355888 f/(86-512)57370818 sgs.china@sgs.com

### 7.4.3 Test Setup Diagram



### 7.4.4 Measurement Procedure and Data

Please Refer to Appendix C for KSCR220500081603



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-Document.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**

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 www.sgsgroup.com.cn  
t/(86-512)57355888 f/(86-512)57370818 sgs.china@sgs.com

### 7.5 Conducted Spurious Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)

Test Method: ANSI C63.10 (2013) Section 11.11

#### Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

#### 7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 24.5 °C Humidity: 40.9 % RH Atmospheric Pressure: 1010 mbar

#### 7.5.2 Test Mode Description

| Pre-scan / Final test | Mode Code | Description                                                                         |
|-----------------------|-----------|-------------------------------------------------------------------------------------|
| Final test            | 02        | TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |
| Final test            | 03        | TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |



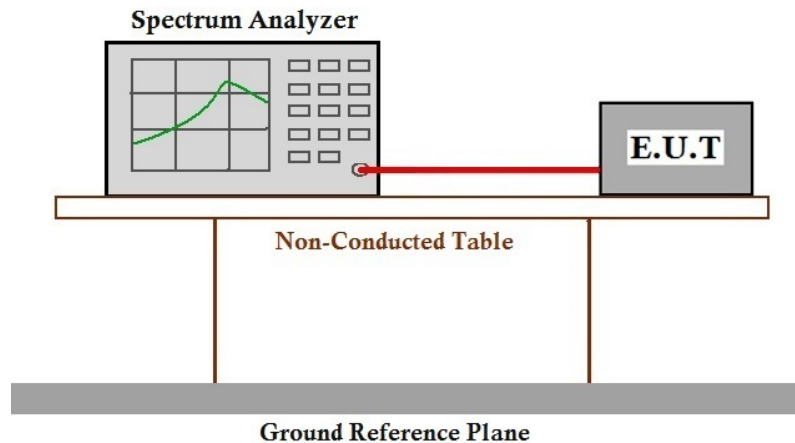
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
t(86-512)57355888 f(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

### 7.5.3 Test Setup Diagram



### 7.5.4 Measurement Procedure and Data

Please Refer to Appendix C for KSCR220500081603



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**

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 www.sgsgroup.com.cn  
t/(86-512)57355888 f/(86-512)57370818 sgs.china@sgs.com

## 7.6 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.10.5

Limit:

| Frequency(MHz) | Field strength(microvolts/meter) | Measurement distance(meters) |
|----------------|----------------------------------|------------------------------|
| 0.009-0.490    | 2400/F(kHz)                      | 300                          |
| 0.490-1.705    | 24000/F(kHz)                     | 30                           |
| 1.705-30.0     | 30                               | 30                           |
| 30-88          | 100                              | 3                            |
| 88-216         | 150                              | 3                            |
| 216-960        | 200                              | 3                            |
| Above 960      | 500                              | 3                            |

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

### 7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 22.2 °C Humidity: 48.1 % RH Atmospheric Pressure: 1010 mbar

### 7.6.2 Test Mode Description

| Pre-scan / Final test | Mode Code | Description                                                                         |
|-----------------------|-----------|-------------------------------------------------------------------------------------|
| Final test            | 02        | TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |
| Final test            | 03        | TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |

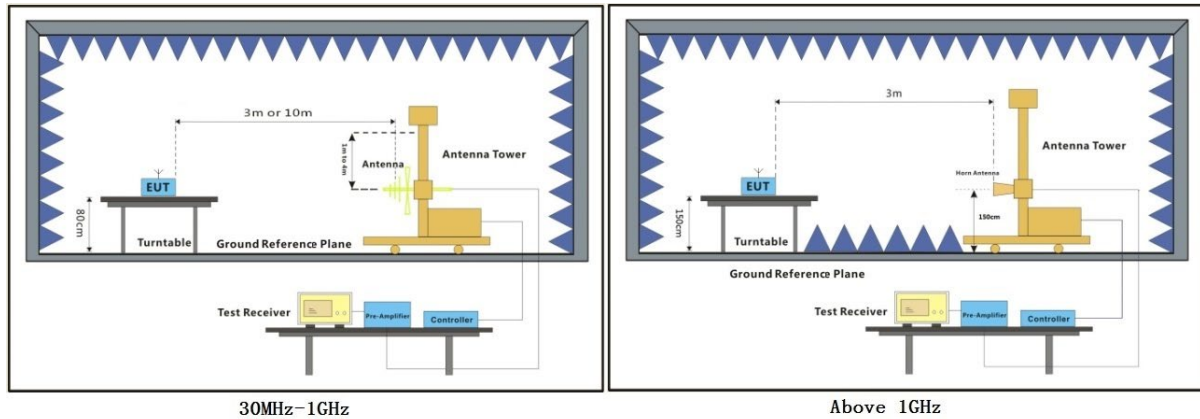


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

### 7.6.3 Test Setup Diagram



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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
t/(86-512)57355888 f/(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

#### 7.6.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. 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.
- e. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. 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.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

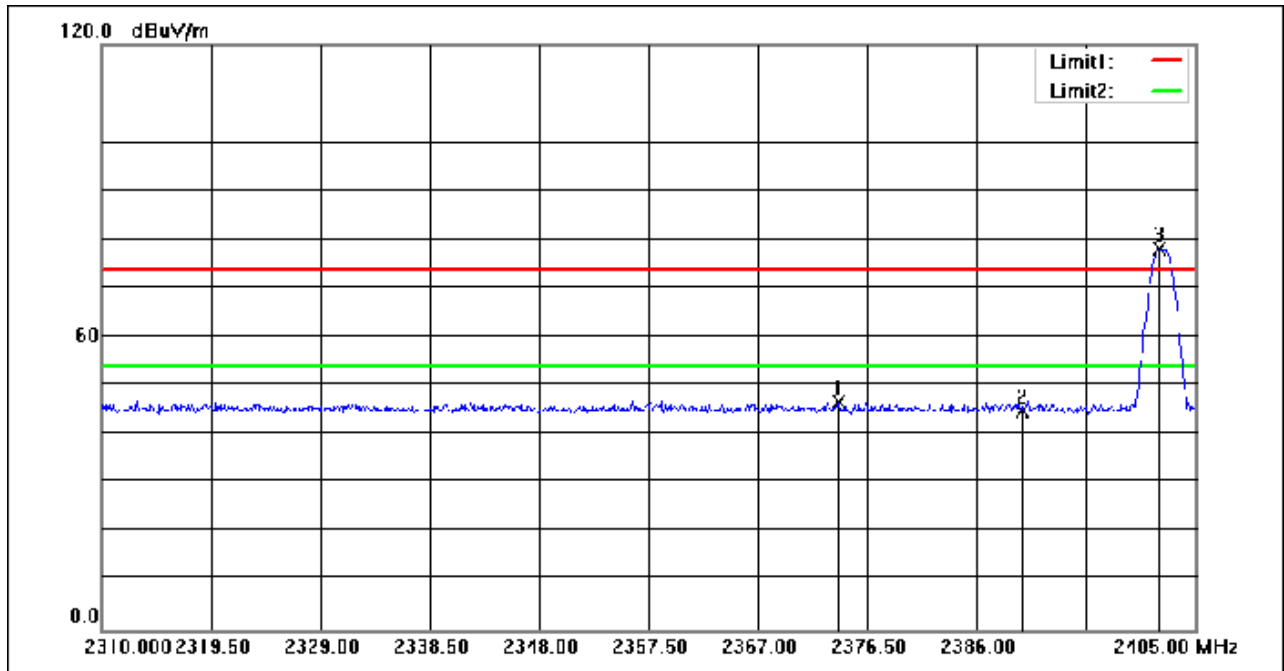


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
t(86-512)57355888 f(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

Test Mode: 02; Polarity: Horizontal; Modulation:GFSK; Channel:Low



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 2374.030        | 60.74          | -14.06                  | 46.68           | 74.00          | -27.32      | peak   |
| 2   | 2390.000        | 58.77          | -14.01                  | 44.76           | 74.00          | -29.24      | peak   |
| 3   | 2401.865        | 92.04          | -13.98                  | 78.06           | 74.00          | 4.06        | peak   |



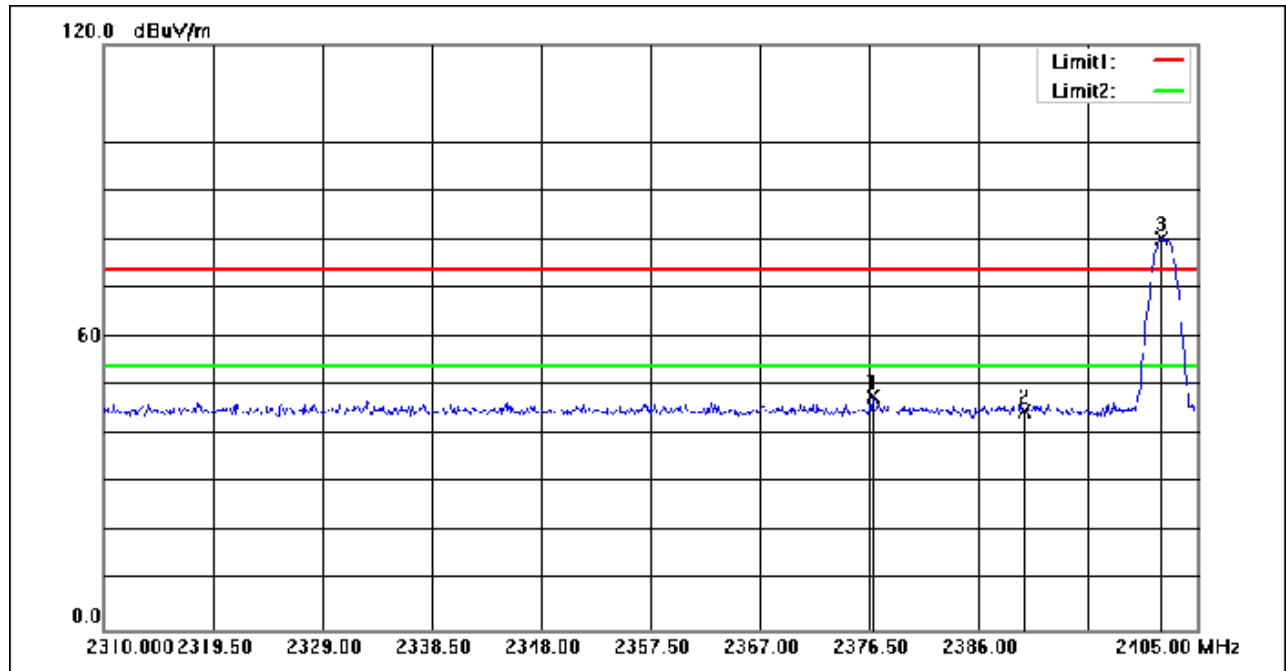
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Test Mode: 02; Polarity: Vertical; Modulation:GFSK; Channel:Low



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 2376.785        | 61.93          | -14.05                  | 47.88           | 74.00          | -26.12      | peak   |
| 2   | 2390.000        | 58.79          | -14.01                  | 44.78           | 74.00          | -29.22      | peak   |
| 3   | 2401.865        | 94.13          | -13.98                  | 80.15           | 74.00          | 6.15        | peak   |



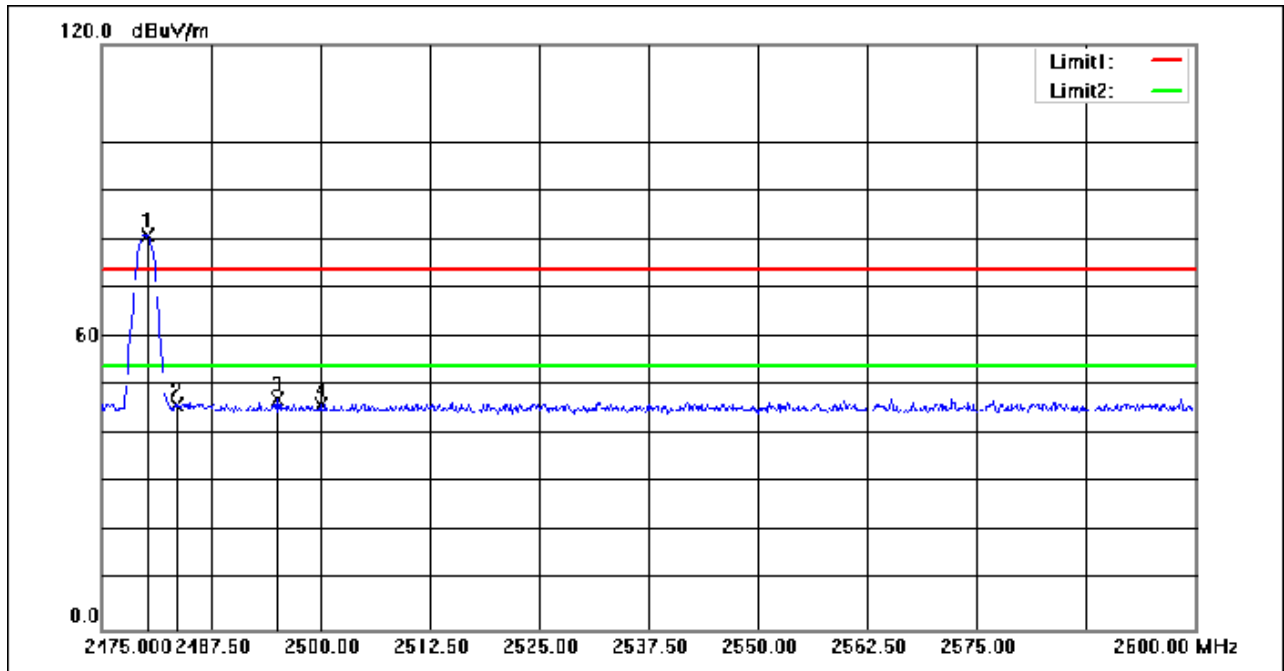
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 www.sgsgroup.com.cn  
t/(86-512)57355888 f/(86-512)57370818 sgs.china@sgs.com

Test Mode: 02; Polarity: Horizontal; Modulation: GFSK; Channel: High



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 2480.250        | 94.54          | -13.71                  | 80.83           | 74.00          | 6.83        | peak   |
| 2   | 2483.500        | 59.75          | -13.71                  | 46.04           | 74.00          | -27.96      | peak   |
| 3   | 2495.125        | 60.95          | -13.67                  | 47.28           | 74.00          | -26.72      | peak   |
| 4   | 2500.000        | 59.76          | -13.64                  | 46.12           | 74.00          | -27.88      | peak   |



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](mailto:CN.Doccheck@sgs.com)

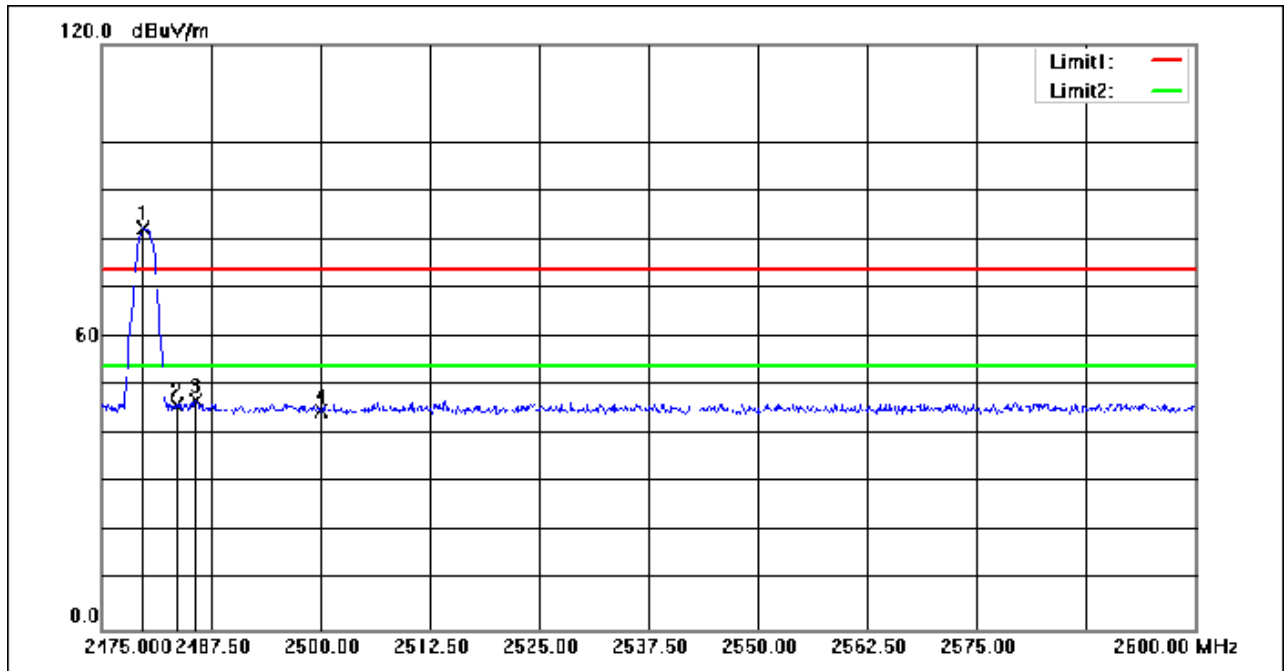
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)

t/(86-512)57355888 f/(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

Test Mode: 02; Polarity: Vertical; Modulation: GFSK; Channel: High



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 2479.750        | 95.93          | -13.71                  | 82.22           | 74.00          | 8.22        | peak   |
| 2   | 2483.500        | 59.68          | -13.71                  | 45.97           | 74.00          | -28.03      | peak   |
| 3   | 2485.750        | 60.77          | -13.70                  | 47.07           | 74.00          | -26.93      | peak   |
| 4   | 2500.000        | 58.55          | -13.64                  | 44.91           | 74.00          | -29.09      | peak   |



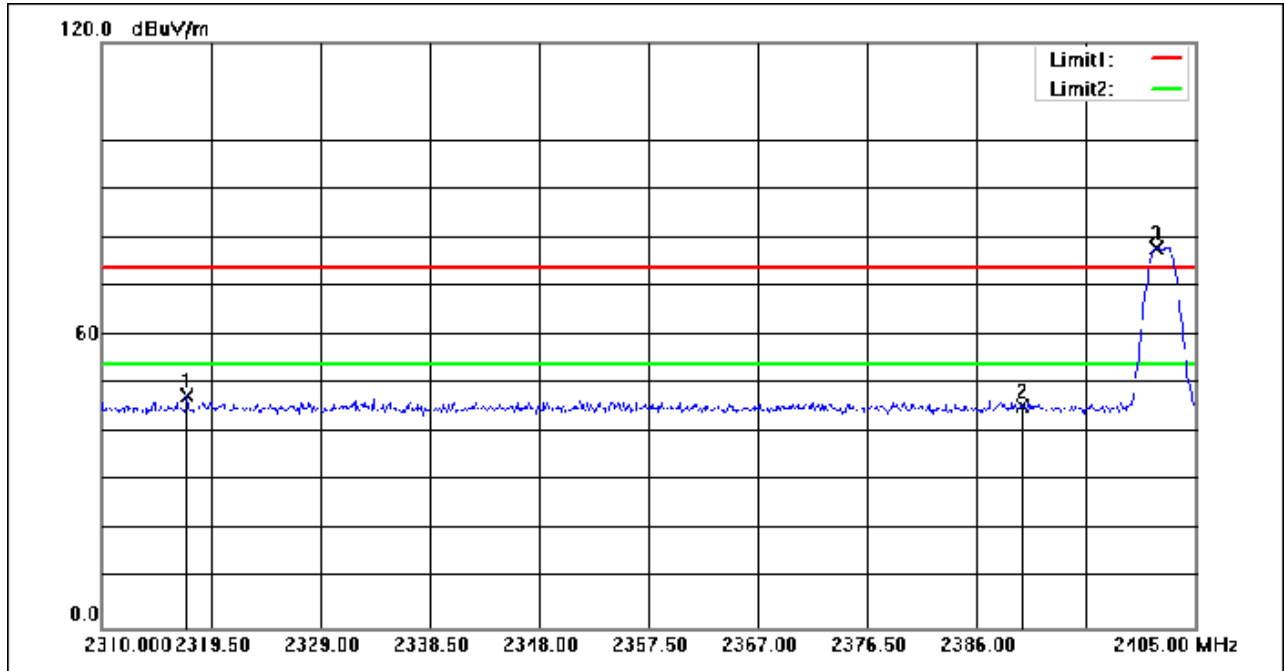
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Test Mode: 03; Polarity: Horizontal; Modulation: GFSK; Channel: Low



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 2317.410        | 61.63          | -14.22                  | 47.41           | 74.00          | -26.59      | peak   |
| 2   | 2390.000        | 59.48          | -14.01                  | 45.47           | 74.00          | -28.53      | peak   |
| 3   | 2401.675        | 91.98          | -13.98                  | 78.00           | 74.00          | 4.00        | peak   |



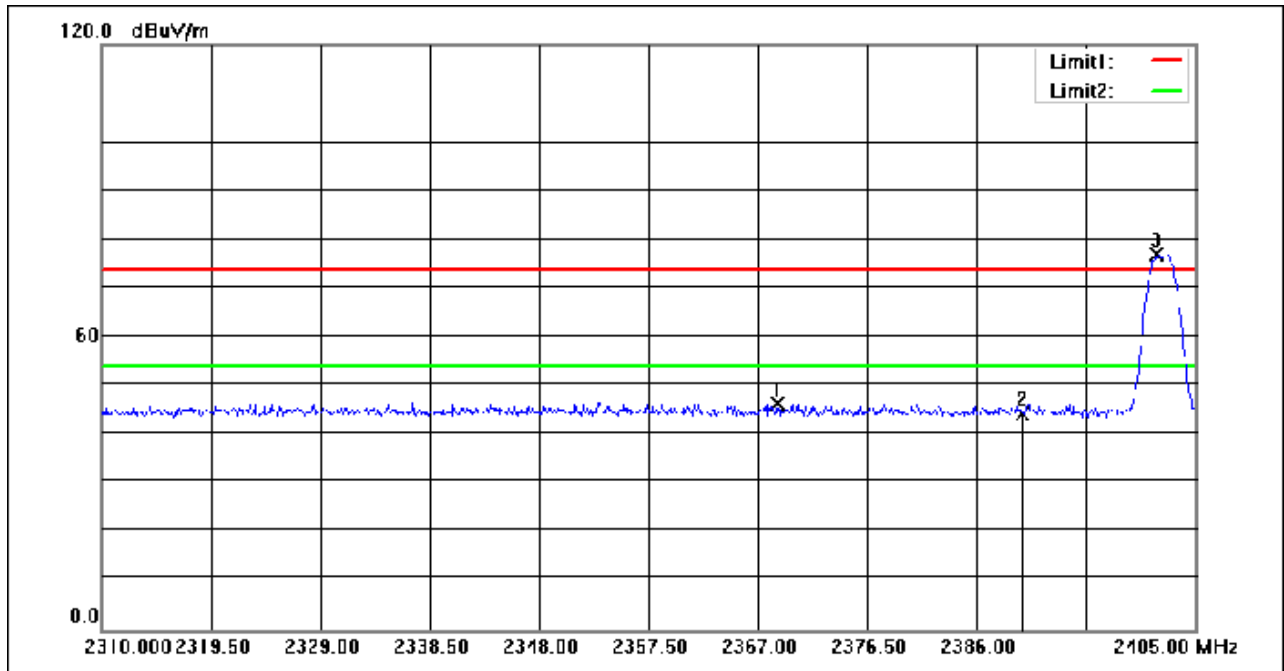
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 www.sgsgroup.com.cn  
t/(86-512)57355888 f/(86-512)57370818 sgs.china@sgs.com

Test Mode: 03; Polarity: Vertical; Modulation:GFSK; Channel:Low



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 2368.710        | 60.48          | -14.07                  | 46.41           | 74.00          | -27.59      | peak   |
| 2   | 2390.000        | 58.40          | -14.01                  | 44.39           | 74.00          | -29.61      | peak   |
| 3   | 2401.675        | 91.05          | -13.98                  | 77.07           | 74.00          | 3.07        | peak   |



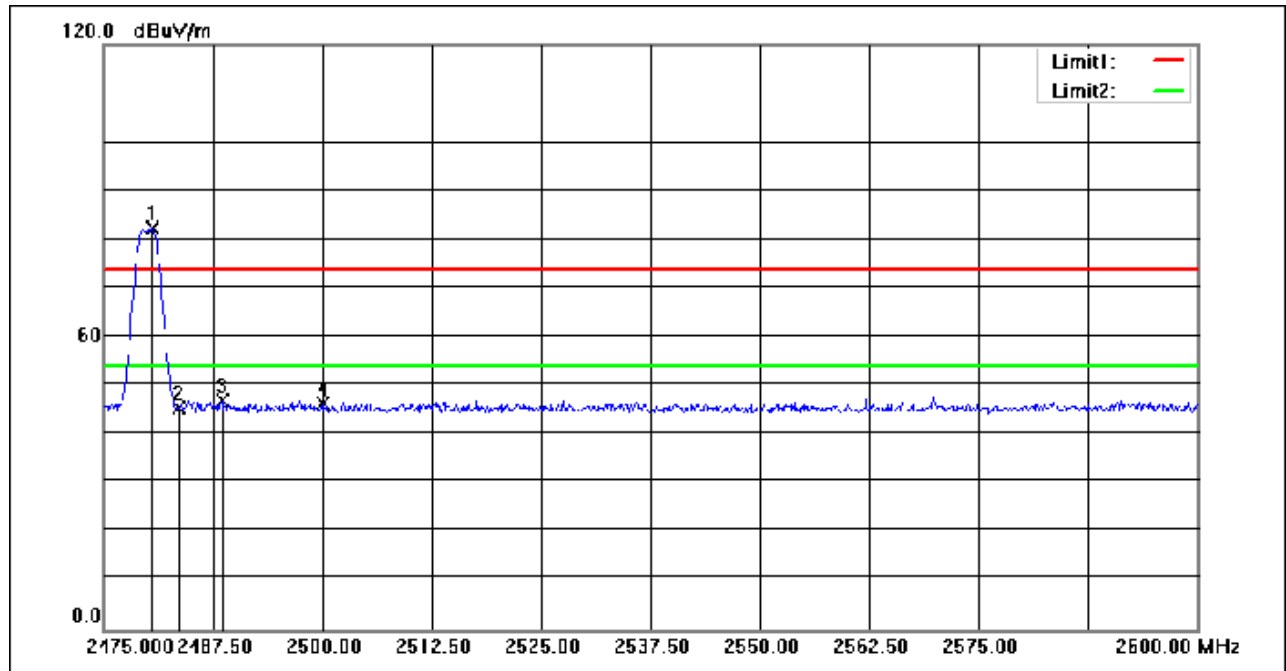
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Test Mode: 03; Polarity: Horizontal; Modulation: GFSK; Channel: High



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 2480.500        | 96.04          | -13.71                  | 82.33           | 74.00          | 8.33        | peak   |
| 2   | 2483.500        | 59.22          | -13.71                  | 45.51           | 74.00          | -28.49      | peak   |
| 3   | 2488.500        | 60.66          | -13.68                  | 46.98           | 74.00          | -27.02      | peak   |
| 4   | 2500.000        | 59.85          | -13.64                  | 46.21           | 74.00          | -27.79      | peak   |



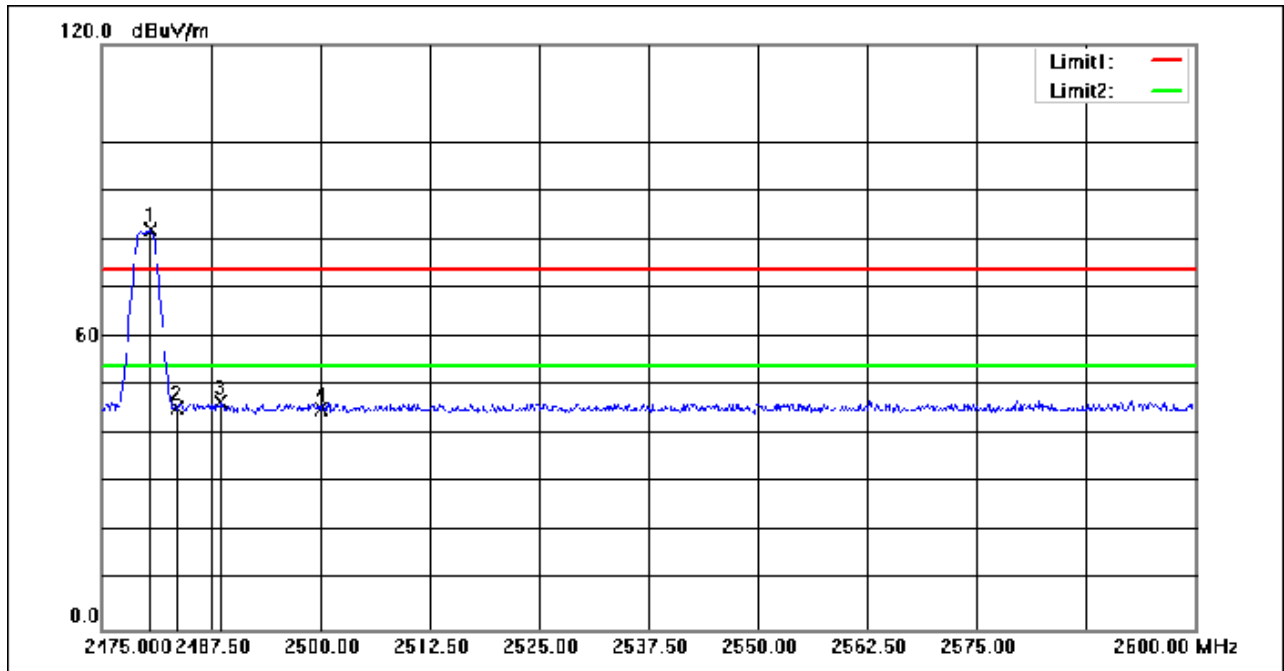
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 www.sgsgroup.com.cn  
t/(86-512)57355888 f/(86-512)57370818 sgs.china@sgs.com

Test Mode: 03; Polarity: Vertical; Modulation: GFSK; Channel: High



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 2480.500        | 95.83          | -13.71                  | 82.12           | 74.00          | 8.12        | peak   |
| 2   | 2483.500        | 59.16          | -13.71                  | 45.45           | 74.00          | -28.55      | peak   |
| 3   | 2488.625        | 60.41          | -13.68                  | 46.73           | 74.00          | -27.27      | peak   |
| 4   | 2500.000        | 58.90          | -13.64                  | 45.26           | 74.00          | -28.74      | peak   |



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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)

t(86-512)57355888 f(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

**7.7 Radiated Spurious Emissions Below 1GHz**

Test Requirement 47 CFR Part 15, Subpart C 15.205 &amp; 15.209

Test Method: ANSI C63.10 (2013) Section 6.4,6.5

Limit:

| Frequency(MHz) | Field strength(microvolts/meter) | Measurement distance(meters) |
|----------------|----------------------------------|------------------------------|
| 0.009-0.490    | 2400/F(kHz)                      | 300                          |
| 0.490-1.705    | 24000/F(kHz)                     | 30                           |
| 1.705-30.0     | 30                               | 30                           |
| 30-88          | 100                              | 3                            |
| 88-216         | 150                              | 3                            |
| 216-960        | 200                              | 3                            |
| 960-1000       | 500                              | 3                            |

**7.7.1 E.U.T. Operation**

Operating Environment:

Temperature: 22.2 °C

Humidity: 48.1 % RH

Atmospheric Pressure: 1010 mbar

**7.7.2 Test Mode Description**

| Pre-scan / Final test | Mode Code | Description                                                                         |
|-----------------------|-----------|-------------------------------------------------------------------------------------|
| Final test            | 02        | TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |
| Final test            | 03        | TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |



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-Document.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.

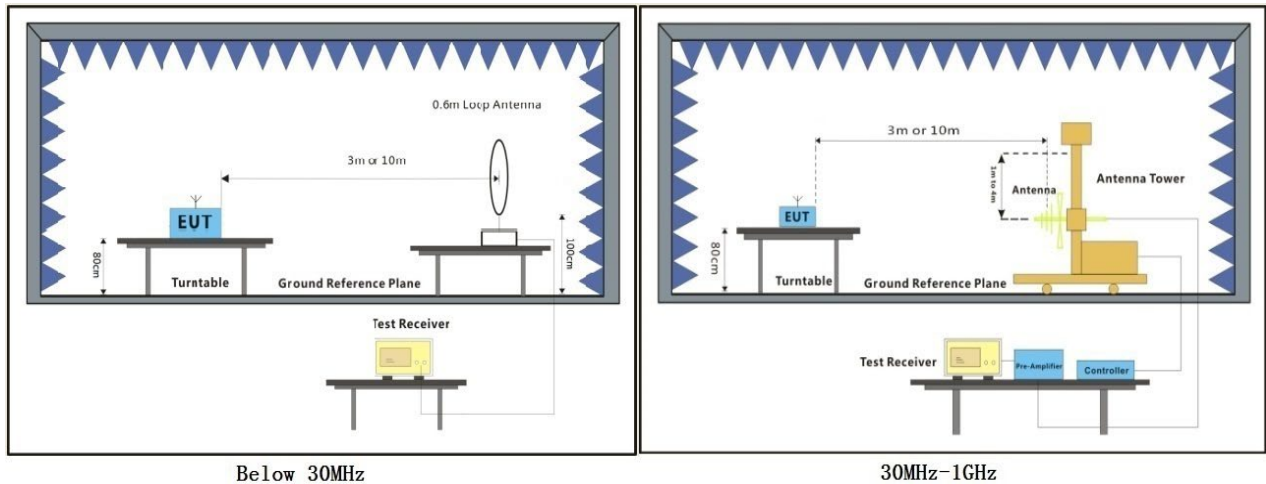
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN.Doccheck@sgs.com](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)t(86-512)57355888 f(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

### 7.7.3 Test Setup Diagram



### 7.7.4 Measurement Procedure and Data

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 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.
- 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- 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 quasi-peak method as specified and then reported in a data sheet.
- Test the EUT in the lowest channel, the middle channel, the Highest channel.
- The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- Repeat above procedures until all frequencies measured was complete.

Remark:

- Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics 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.

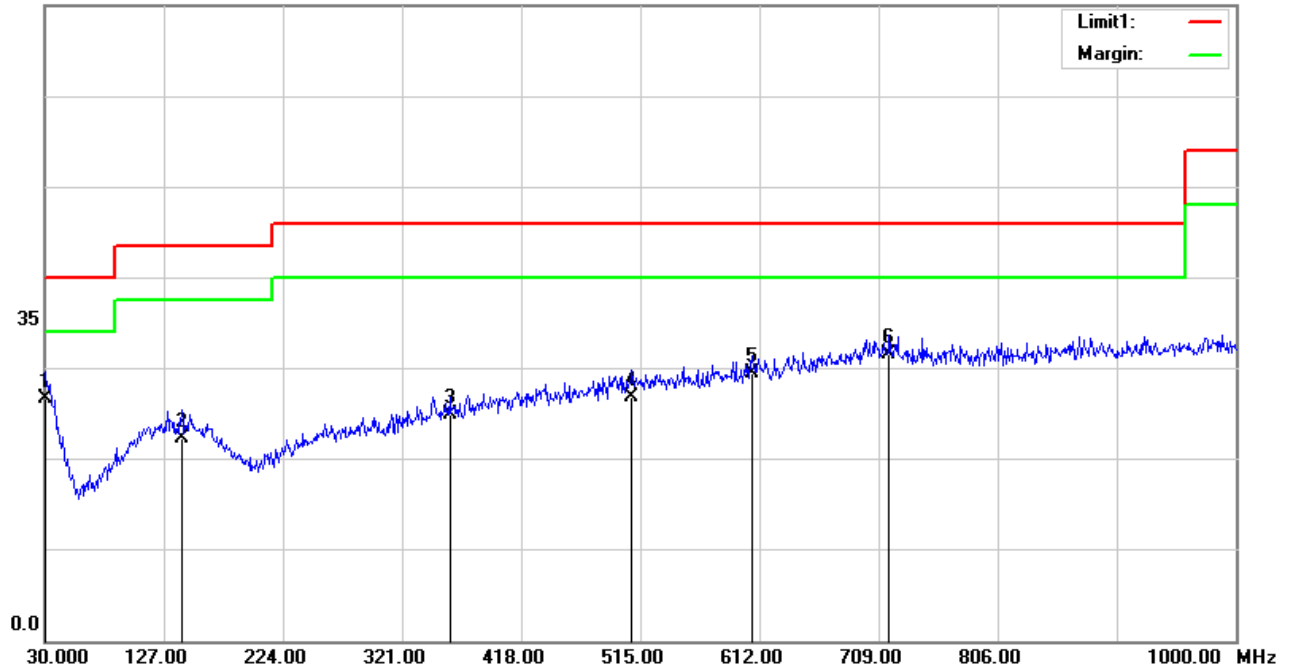
Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN.Doccheck@sgs.com](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.ssgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Test Mode: 02; Polarity: Horizontal

70.0 dBuV/m



| No. | Frequency | Reading | Correct      | Result   | Limit    | Margin | Height | Degree | Remark |
|-----|-----------|---------|--------------|----------|----------|--------|--------|--------|--------|
|     | (MHz)     | (dBuV)  | Factor(dB/m) | (dBuV/m) | (dBuV/m) | (dB)   | (cm)   | (deg.) |        |
| 1   | 30.0000   | 0.79    | 25.93        | 26.72    | 40.00    | -13.28 | 100    | 64     | QP     |
| 2   | 141.5500  | 2.48    | 19.86        | 22.34    | 43.50    | -21.16 | 100    | 172    | QP     |
| 3   | 359.8000  | 2.24    | 22.62        | 24.86    | 46.00    | -21.14 | 100    | 0      | QP     |
| 4   | 508.2100  | 1.54    | 25.34        | 26.88    | 46.00    | -19.12 | 100    | 265    | QP     |
| 5   | 606.1800  | 2.85    | 26.58        | 29.43    | 46.00    | -16.57 | 200    | 360    | QP     |
| 6   | 717.7300  | 4.17    | 27.49        | 31.66    | 46.00    | -14.34 | 200    | 21     | QP     |



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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

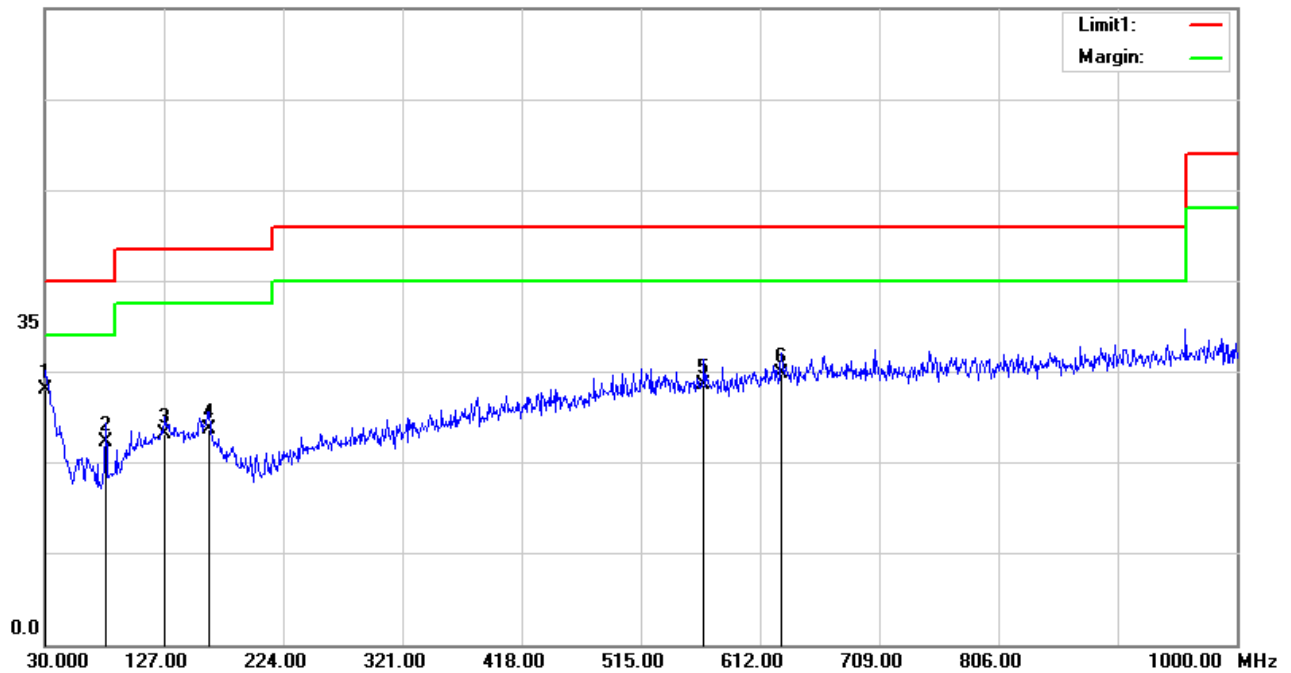
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)

t/(86-512)57355888 f/(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

Test Mode: 02; Polarity: Vertical

70.0 dBuV/m



| No. | Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>Factor(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|--------------------|-------------------|-------------------------|--------------------|-------------------|----------------|----------------|------------------|--------|
| 1   | 30.9700            | 2.73              | 25.38                   | 28.11              | 40.00             | -11.89         | 100            | 324              | QP     |
| 2   | 79.4700            | 6.89              | 15.47                   | 22.36              | 40.00             | -17.64         | 100            | 0                | QP     |
| 3   | 127.9700           | 3.70              | 19.42                   | 23.12              | 43.50             | -20.38         | 100            | 122              | QP     |
| 4   | 163.8600           | 4.64              | 19.06                   | 23.70              | 43.50             | -19.80         | 100            | 232              | QP     |
| 5   | 566.4100           | 2.59              | 26.05                   | 28.64              | 46.00             | -17.36         | 100            | 350              | QP     |
| 6   | 629.4600           | 3.02              | 26.86                   | 29.88              | 46.00             | -16.12         | 100            | 348              | QP     |



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-Document.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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)

t(86-512)57355888 f(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

### 7.8 Radiated Spurious Emissions Above 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.6

Limit:

| Frequency(MHz) | Field strength(microvolts/meter) | Measurement distance(meters) |
|----------------|----------------------------------|------------------------------|
| Above 1000     | 500                              | 3                            |

#### 7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 22.2 °C

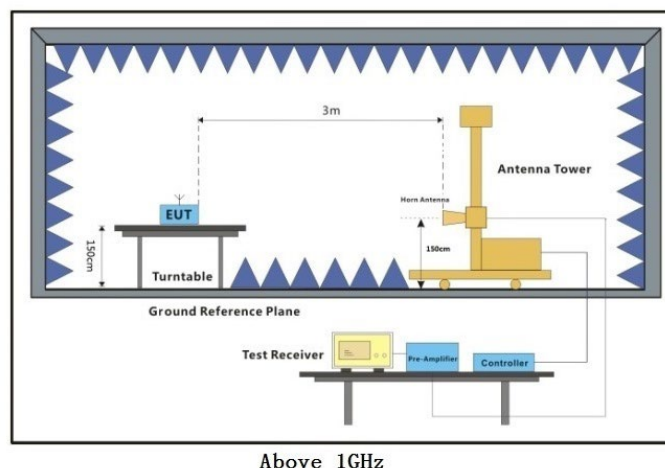
Humidity: 48.2 % RH

Atmospheric Pressure: 1010 mbar

#### 7.8.2 Test Mode Description

| Pre-scan / Final test | Mode Code | Description                                                                         |
|-----------------------|-----------|-------------------------------------------------------------------------------------|
| Final test            | 02        | TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |
| Final test            | 03        | TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |

#### 7.8.3 Test Setup Diagram



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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)

t(86-512)57355888 f(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

#### 7.8.4 Measurement Procedure and Data

- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. 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.
- d. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. 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 or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. Scan from 1GHz to 25GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

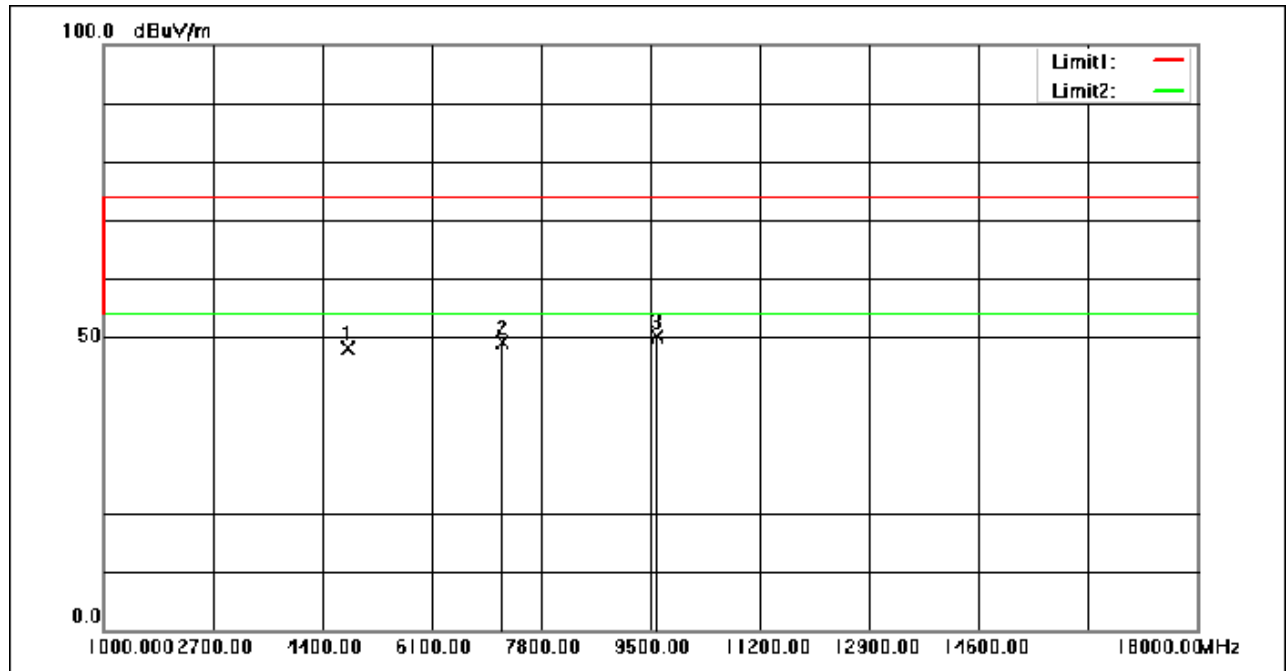


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 www.sgsgroup.com.cn  
t/(86-512)57355888 f/(86-512)57370818 sgs.china@sgs.com

Test Mode: 02; Polarity: Horizontal; Modulation: GFSK; Channel: Low



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 4804.000        | 56.96          | -8.86                   | 48.10           | 74.00          | -25.90      | peak   |
| 2   | 7206.000        | 54.95          | -5.89                   | 49.06           | 74.00          | -24.94      | peak   |
| 3   | 9608.000        | 51.37          | -1.26                   | 50.11           | 74.00          | -23.89      | peak   |



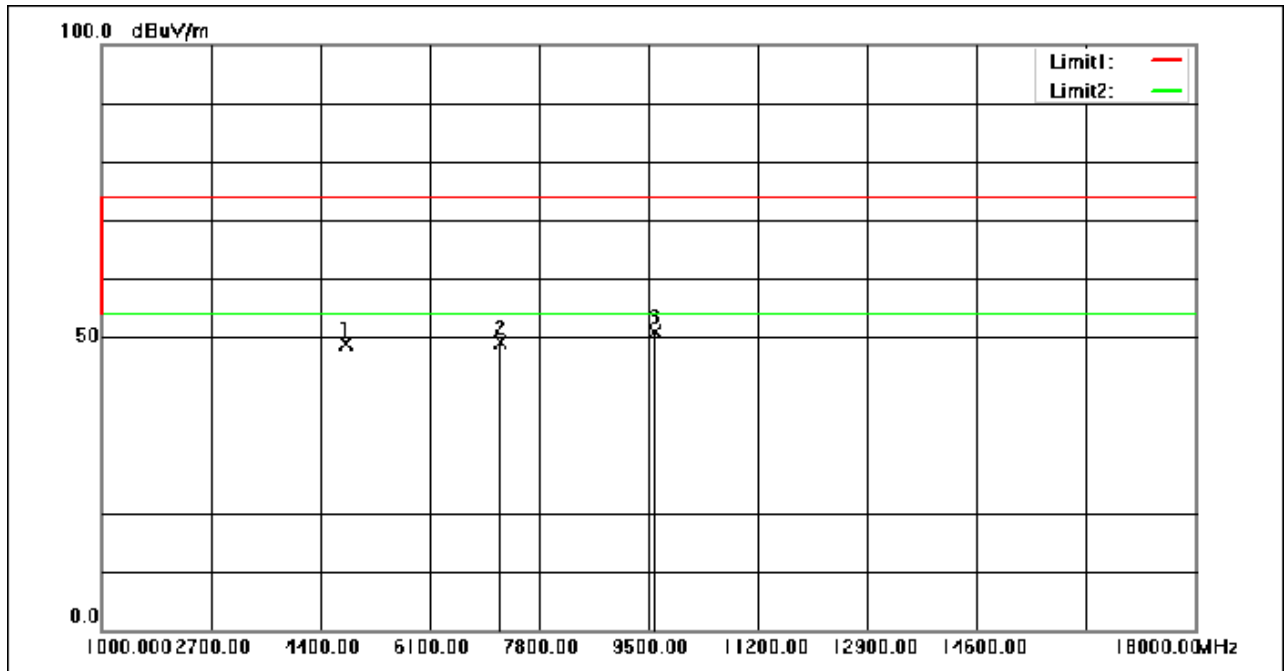
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Test Mode: 02; Polarity: Vertical; Modulation:GFSK; Channel:Low



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 4804.000        | 57.73          | -8.86                   | 48.87           | 74.00          | -25.13      | peak   |
| 2   | 7206.000        | 54.91          | -5.89                   | 49.02           | 74.00          | -24.98      | peak   |
| 3   | 9608.000        | 52.22          | -1.26                   | 50.96           | 74.00          | -23.04      | peak   |



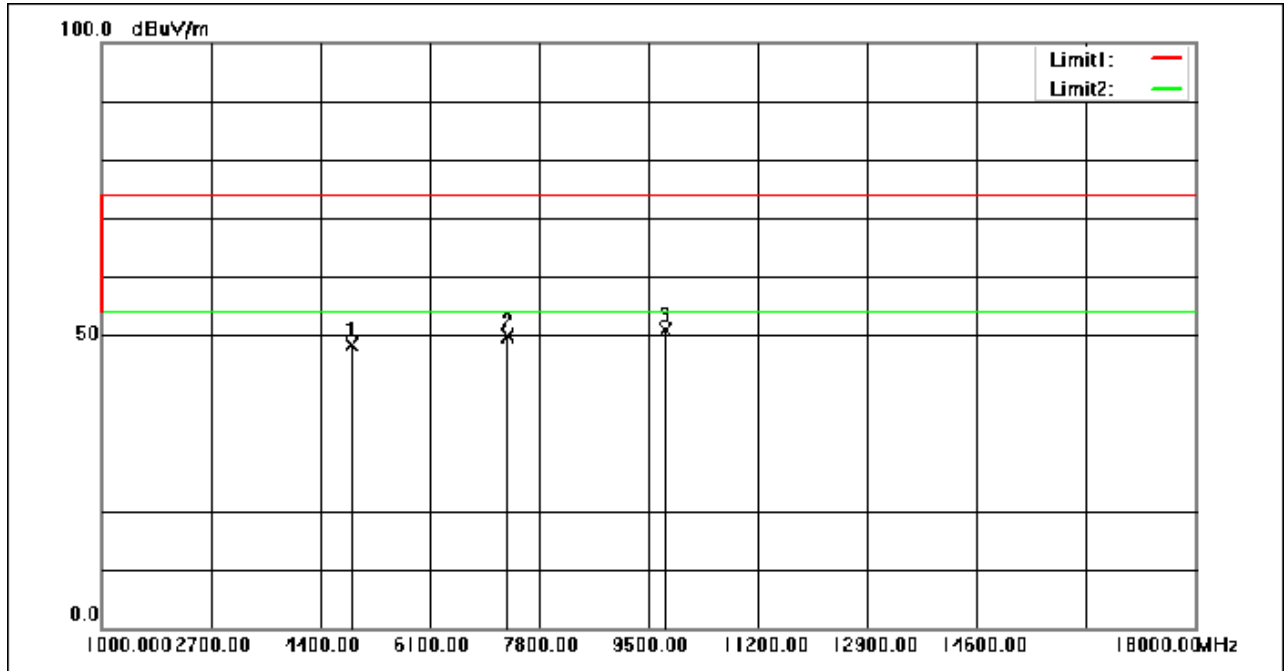
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Test Mode: 02; Polarity: Horizontal; Modulation:GFSK; Channel:middle



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 4880.000        | 56.93          | -8.60                   | 48.33           | 74.00          | -25.67      | peak   |
| 2   | 7320.000        | 55.65          | -5.77                   | 49.88           | 74.00          | -24.12      | peak   |
| 3   | 9760.000        | 52.37          | -1.45                   | 50.92           | 74.00          | -23.08      | peak   |



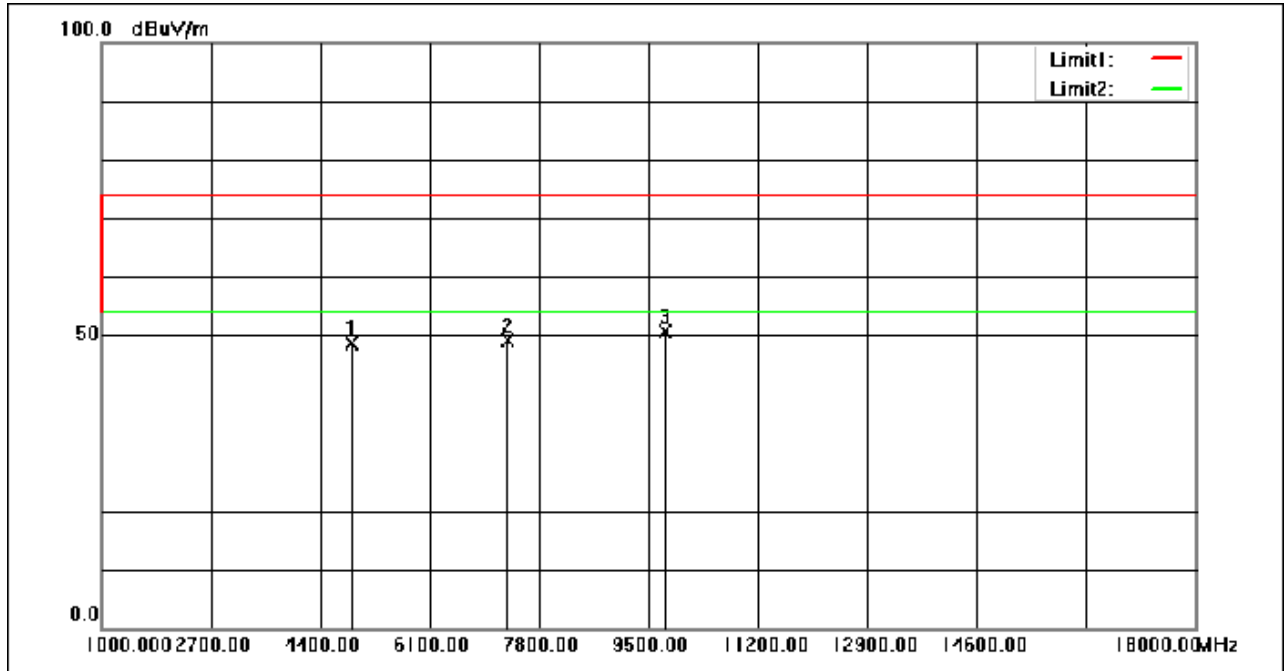
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t/(86-512)57355888 f/(86-512)57370818 www.sgsgroup.com.cn  
t/(86-512)57355888 f/(86-512)57370818 sgs.china@sgs.com

Test Mode: 02; Polarity: Vertical; Modulation: GFSK; Channel: middle



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 4880.000        | 57.14          | -8.60                   | 48.54           | 74.00          | -25.46      | peak   |
| 2   | 7320.000        | 55.00          | -5.77                   | 49.23           | 74.00          | -24.77      | peak   |
| 3   | 9760.000        | 52.02          | -1.45                   | 50.57           | 74.00          | -23.43      | peak   |



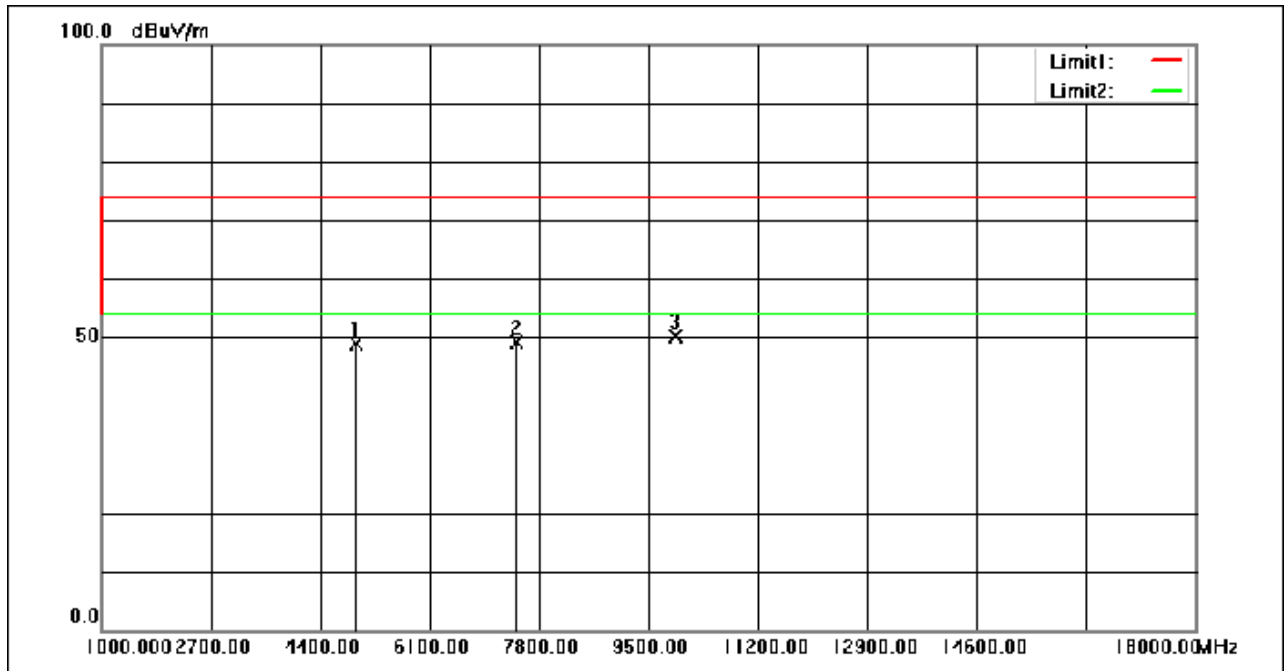
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Test Mode: 02; Polarity: Horizontal; Modulation: GFSK; Channel: High



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 4960.000        | 57.26          | -8.32                   | 48.94           | 74.00          | -25.06      | peak   |
| 2   | 7440.000        | 54.80          | -5.63                   | 49.17           | 74.00          | -24.83      | peak   |
| 3   | 9920.000        | 51.17          | -0.94                   | 50.23           | 74.00          | -23.77      | peak   |



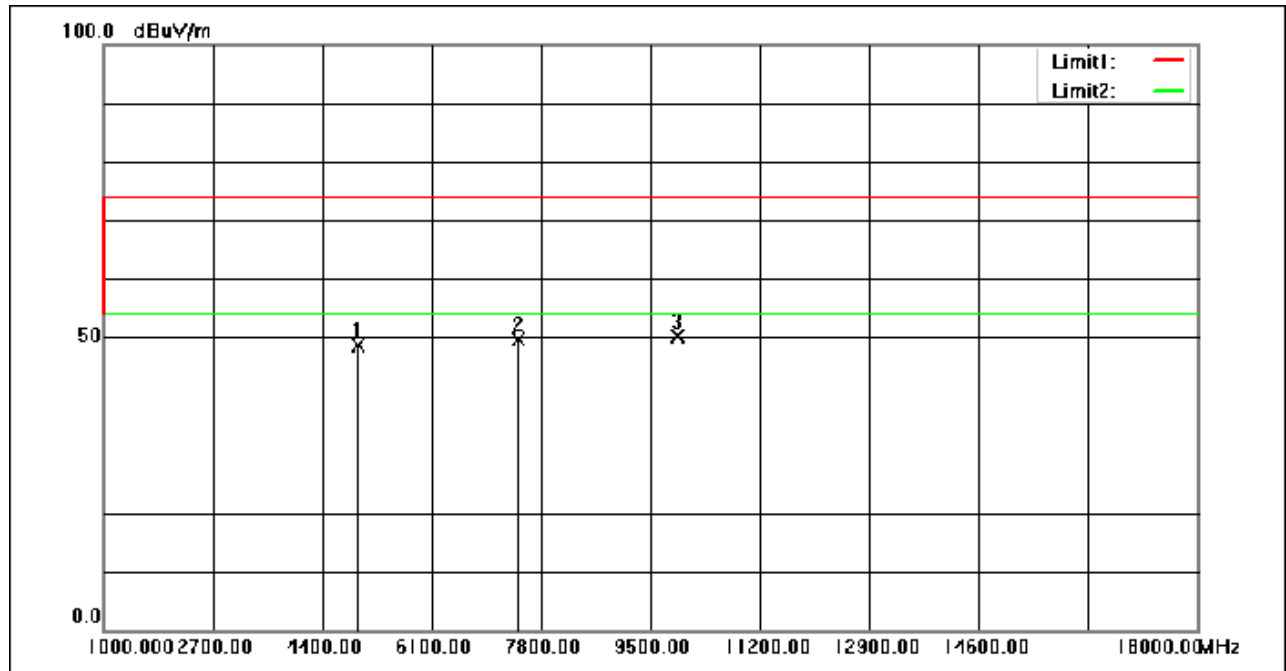
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Test Mode: 02; Polarity: Vertical; Modulation:GFSK; Channel:High



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 4960.000        | 56.92          | -8.32                   | 48.60           | 74.00          | -25.40      | peak   |
| 2   | 7440.000        | 55.18          | -5.63                   | 49.55           | 74.00          | -24.45      | peak   |
| 3   | 9920.000        | 50.99          | -0.94                   | 50.05           | 74.00          | -23.95      | peak   |



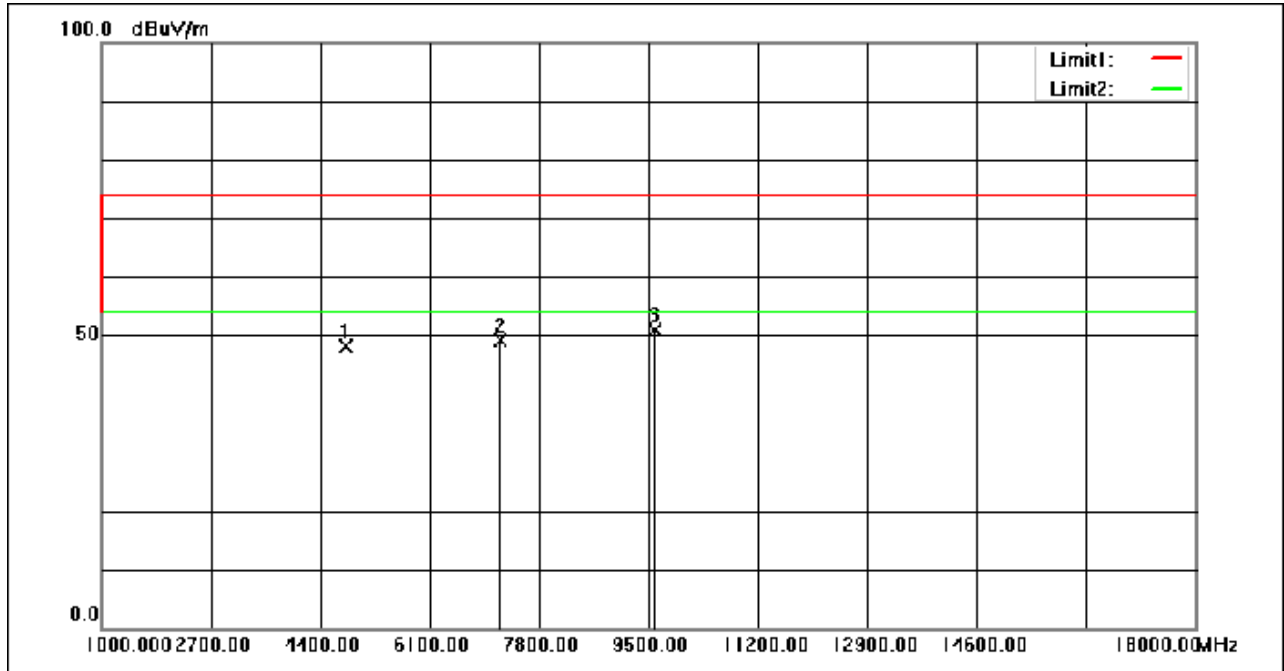
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Test Mode: 03; Polarity: Horizontal; Modulation: GFSK; Channel: Low



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 4804.000        | 56.88          | -8.86                   | 48.02           | 74.00          | -25.98      | peak   |
| 2   | 7206.000        | 55.14          | -5.89                   | 49.25           | 74.00          | -24.75      | peak   |
| 3   | 9608.000        | 52.19          | -1.26                   | 50.93           | 74.00          | -23.07      | peak   |



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](mailto:CN.Doccheck@sgs.com)

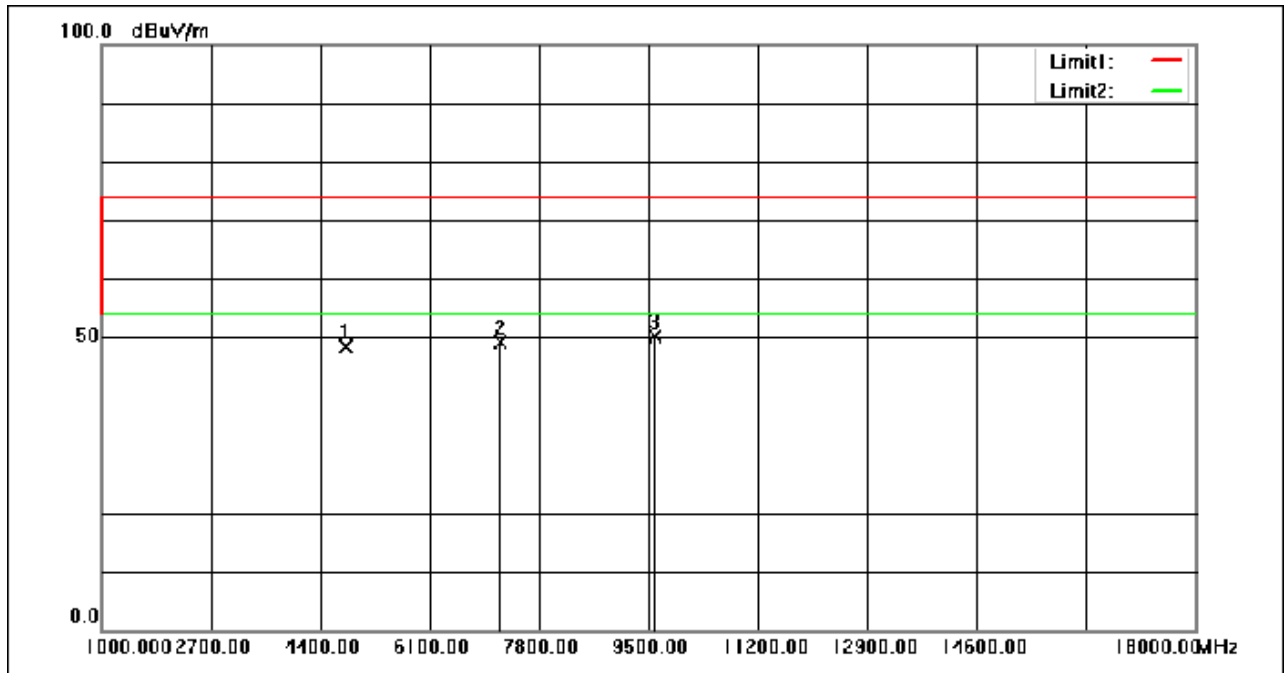
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)

t(86-512)57355888 f(86-512)57370818 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

Test Mode: 03; Polarity: Vertical; Modulation:GFSK; Channel:Low



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 4804.000        | 57.19          | -8.86                   | 48.33           | 74.00          | -25.67      | peak   |
| 2   | 7206.000        | 55.10          | -5.89                   | 49.21           | 74.00          | -24.79      | peak   |
| 3   | 9608.000        | 51.48          | -1.26                   | 50.22           | 74.00          | -23.78      | peak   |



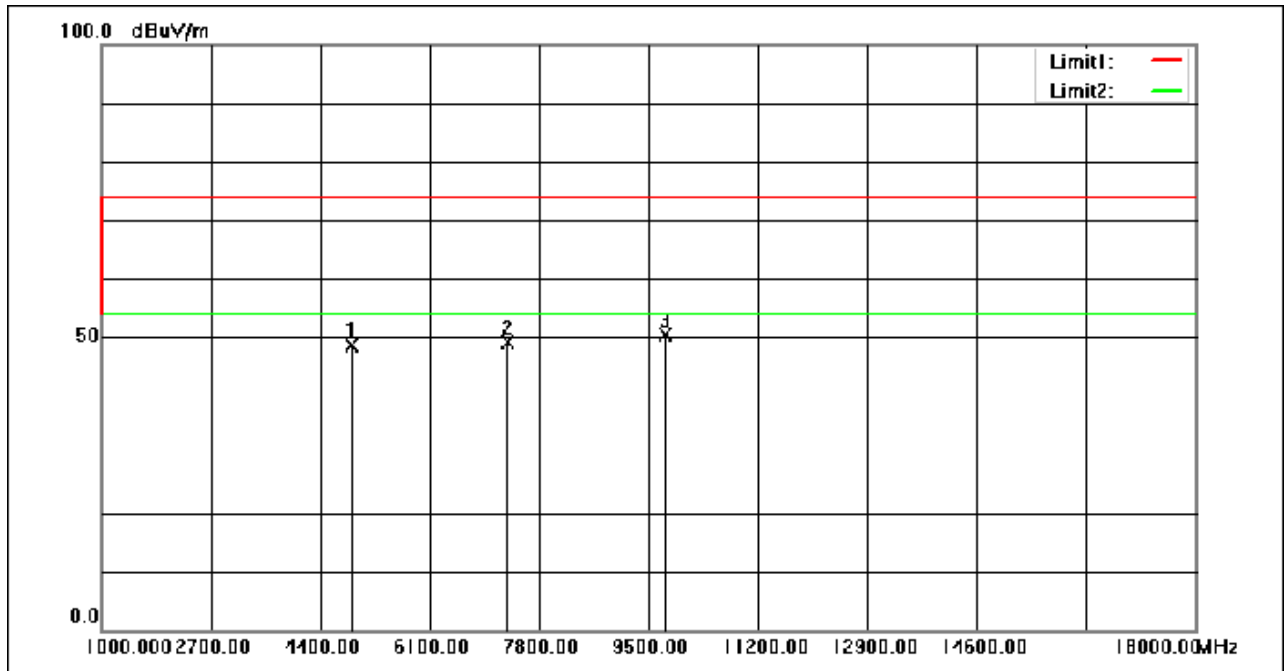
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Test Mode: 03; Polarity: Horizontal; Modulation:GFSK; Channel:middle



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 4880.000        | 57.19          | -8.60                   | 48.59           | 74.00          | -25.41      | peak   |
| 2   | 7320.000        | 54.94          | -5.77                   | 49.17           | 74.00          | -24.83      | peak   |
| 3   | 9760.000        | 51.95          | -1.45                   | 50.50           | 74.00          | -23.50      | peak   |

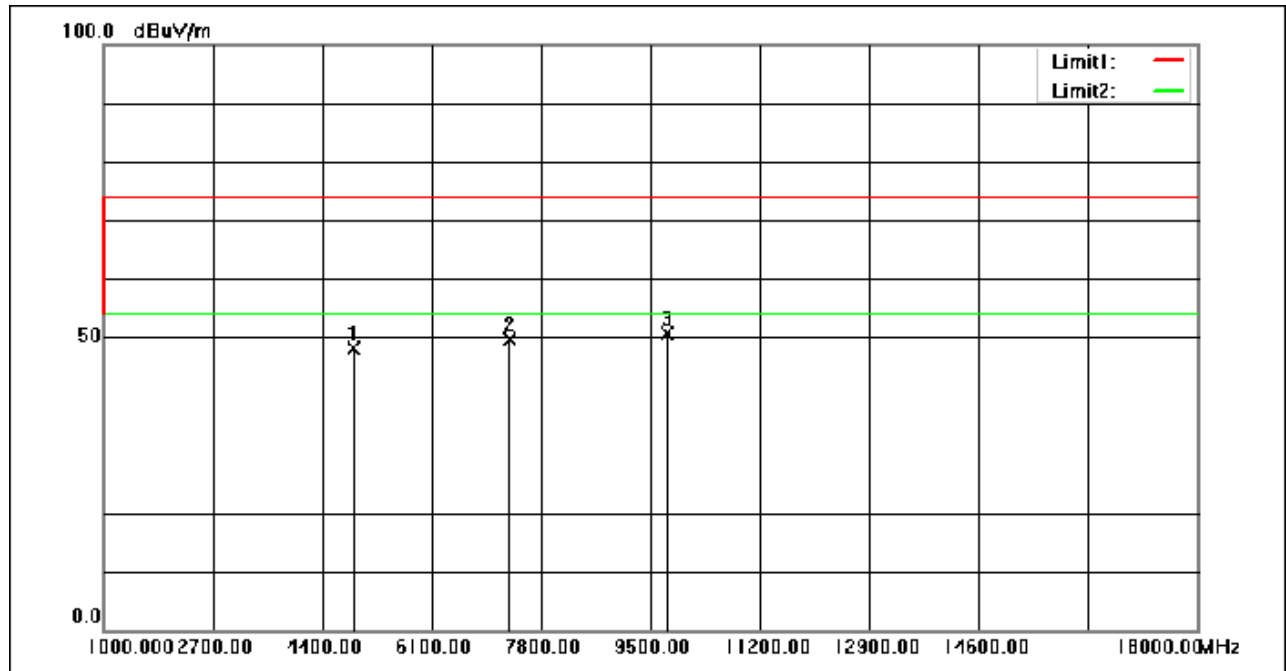


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Test Mode: 03; Polarity: Vertical; Modulation:GFSK; Channel:middle



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 4880.000        | 56.64          | -8.60                   | 48.04           | 74.00          | -25.96      | peak   |
| 2   | 7320.000        | 55.45          | -5.77                   | 49.68           | 74.00          | -24.32      | peak   |
| 3   | 9760.000        | 52.10          | -1.45                   | 50.65           | 74.00          | -23.35      | peak   |

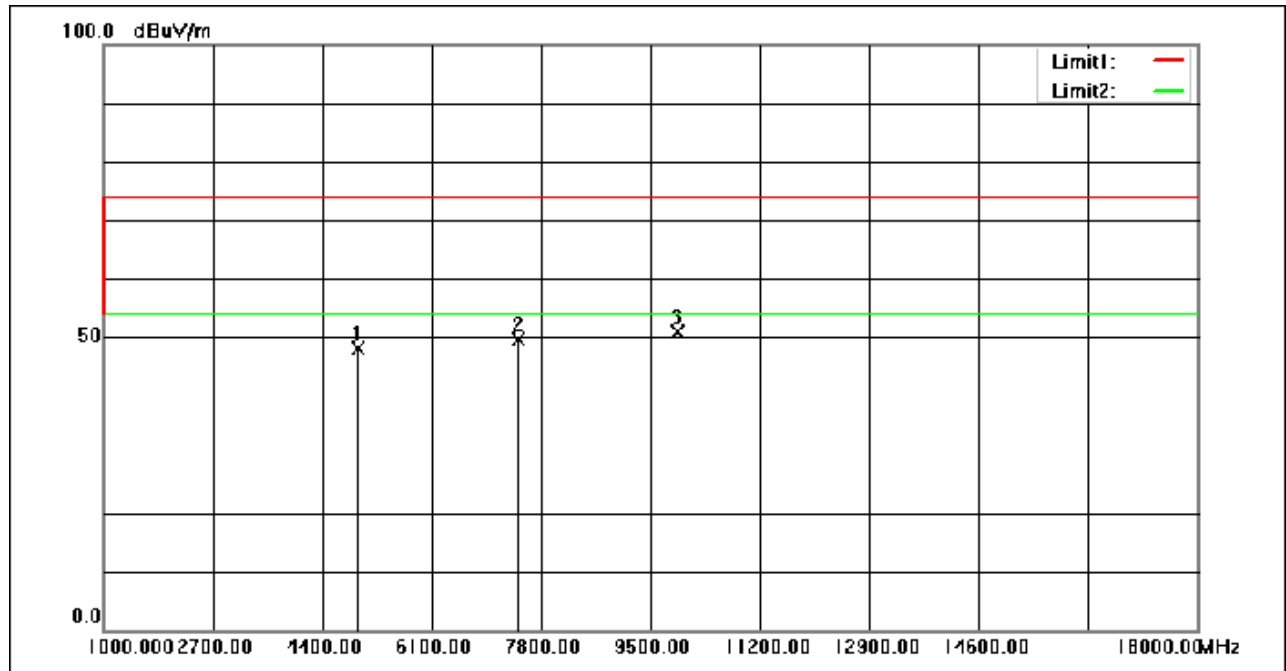


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Test Mode: 03; Polarity: Horizontal; Modulation: GFSK; Channel: High



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 4960.000        | 56.34          | -8.32                   | 48.02           | 74.00          | -25.98      | peak   |
| 2   | 7440.000        | 55.27          | -5.63                   | 49.64           | 74.00          | -24.36      | peak   |
| 3   | 9920.000        | 51.85          | -0.94                   | 50.91           | 74.00          | -23.09      | peak   |



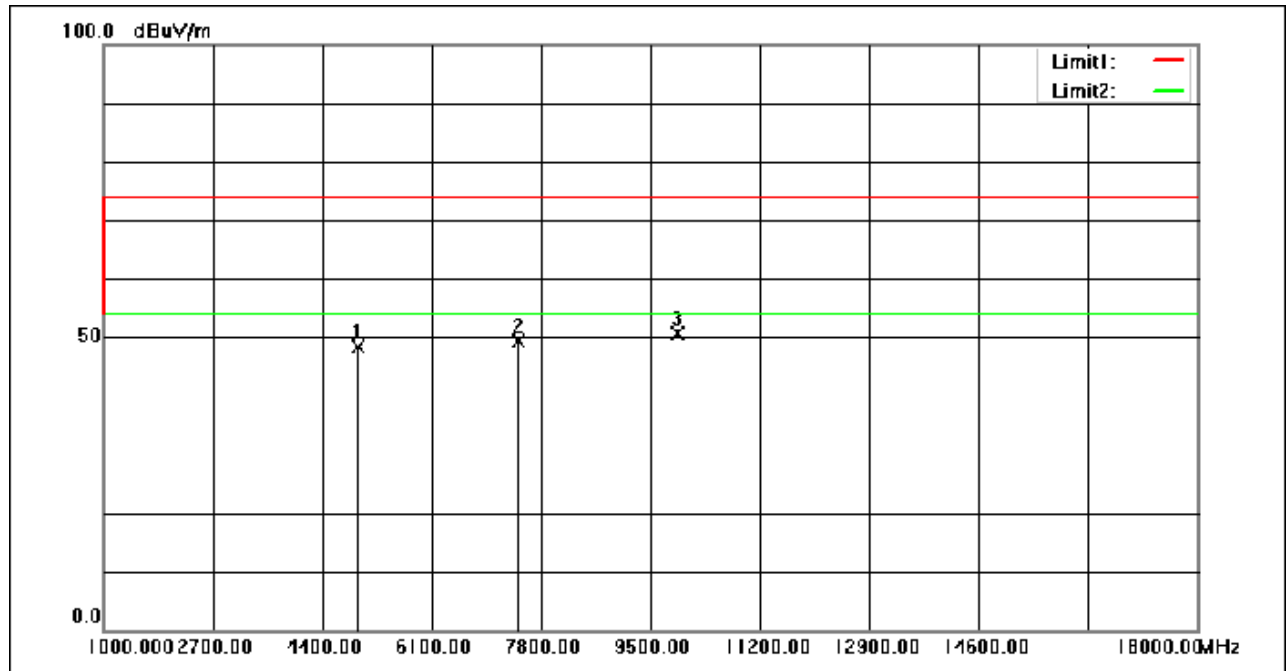
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Test Mode: 03; Polarity: Vertical; Modulation:GFSK; Channel:High



| No. | Frequency (MHz) | Reading (dBuV) | Correction factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-------------------------|-----------------|----------------|-------------|--------|
| 1   | 4960.000        | 56.69          | -8.32                   | 48.37           | 74.00          | -25.63      | peak   |
| 2   | 7440.000        | 55.08          | -5.63                   | 49.45           | 74.00          | -24.55      | peak   |
| 3   | 9920.000        | 51.65          | -0.94                   | 50.71           | 74.00          | -23.29      | peak   |



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-Document.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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

## 7.9 99% Bandwidth

Test Requirement RSS-Gen Section 6.7  
Test Method: ANSI C63.10 Section 6.9.3

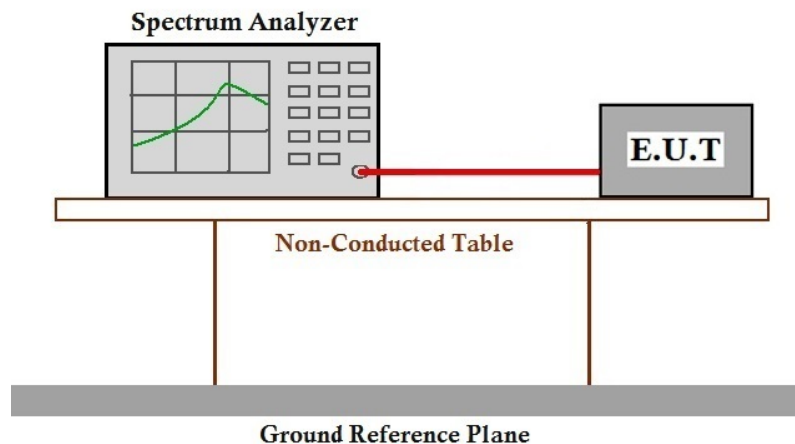
### 7.9.1 E.U.T. Operation

Operating Environment:  
Temperature: 26.4 °C Humidity: 50.3 % RH Atmospheric Pressure: 1010 mbar

### 7.9.2 Test Mode Description

| Pre-scan /<br>Final test | Mode<br>Code | Description                                                                         |
|--------------------------|--------------|-------------------------------------------------------------------------------------|
| Final test               | 02           | TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |
| Final test               | 03           | TX mode(2Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation. |

### 7.9.3 Test Setup Diagram



### 7.9.4 Measurement Procedure and Data

Please Refer to Appendix C for KSCR220500081603



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-Document.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](mailto:CN.Doccheck@sgs.com)

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

## 8 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2205000816AT

## 9 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for KSCR2205000816AT

- End of the Report -



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**

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300  
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn  
t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com