



Appendix B

WCDMA BAND II & V



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



CONTENT

1. EFFECTIVE (ISOTROPIC) RADIATED POWER.....	4
1.1. TEST RESULT	4
2. PEAK-TO-AVERAGE RATIO(CCDF).....	5
2.1. TEST RESULT	5
2.2. TEST PLOTS.....	5
3. MODULATION CHARACTERISTICS	9
3.1. TEST BAND = LTE BAND 2	9
3.2. TEST BAND = WCDMA BAND II.....	9
3.2.1. TEST MODE = UMTS/TM1	9
3.2.1.1. TEST CHANNEL = MCH.....	9
3.3. TEST BAND = WCDMA BAND V	10
3.3.1. TEST MODE = UMTS/TM1	10
3.3.1.1. TEST CHANNEL = MCH.....	10
4. 26DB BANDWIDTH AND OCCUPIED BANDWIDTH	11
4.1. TEST RESULT	11
4.2. TEST PLOTS.....	11
5. BAND EDGE COMPLIANCE	15
5.1. TEST PLOTS.....	15
6. SPURIOUS EMISSION AT ANTENNA TERMINAL	17
6.1. TEST PLOTS.....	17
7. FIELD STRENGTH OF SPURIOUS RADIATION.....	32
7.1. TEST BAND = WCDMA BAND II.....	32
7.1.1. TEST MODE =WCDMA/TM1.....	32
7.1.1.1. TEST CHANNEL = LCH	32
7.1.1.2. TEST CHANNEL = MCH.....	32
7.1.1.3. TEST CHANNEL = HCH	33
7.2. TEST BAND = WCDMA BAND V	33
7.2.1. TEST MODE =WCDMA/TM1.....	33



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

SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (SZ) CSTC Laboratory

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



7.2.1.1.	TEST CHANNEL = LCH	33
7.2.1.2.	TEST CHANNEL = MCH.....	34
7.2.1.3.	TEST CHANNEL = HCH	34
8.	FREQUENCY STABILITY	35
8.1.	FREQUENCY VS VOLTAGE	35
8.2.	FREQUENCY VS TEMPERATURE	35



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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



1. Effective (Isotropic) Radiated Power

1.1. Test Result

BAND	Channel	Conducted Power(dBm)	EIRP(dBm)	Limit(dBm)	Verdict
Band II	9262	23.66	22.16	33.00	PASS
Band II	9400	23.47	21.97	33.00	PASS
Band II	9538	23.41	21.91	33.00	PASS

BAND	Channel	Conducted Power(dBm)	ERP(dBm)	Limit(dBm)	Verdict
Band V	4132	23.10	18.75	38.45	PASS
Band V	4182	23.84	19.49	38.45	PASS
Band V	4233	23.84	19.49	38.45	PASS

Remark: a: For getting the EIRP (Efficient Isotropic Radiated Power), the following formula should be taken to calculate it,

ERP [dBm] = Conducted Power [dBm] + Gain [dBd]

EIRP [dBm] = Conducted Power [dBm] + Gain [dBi]

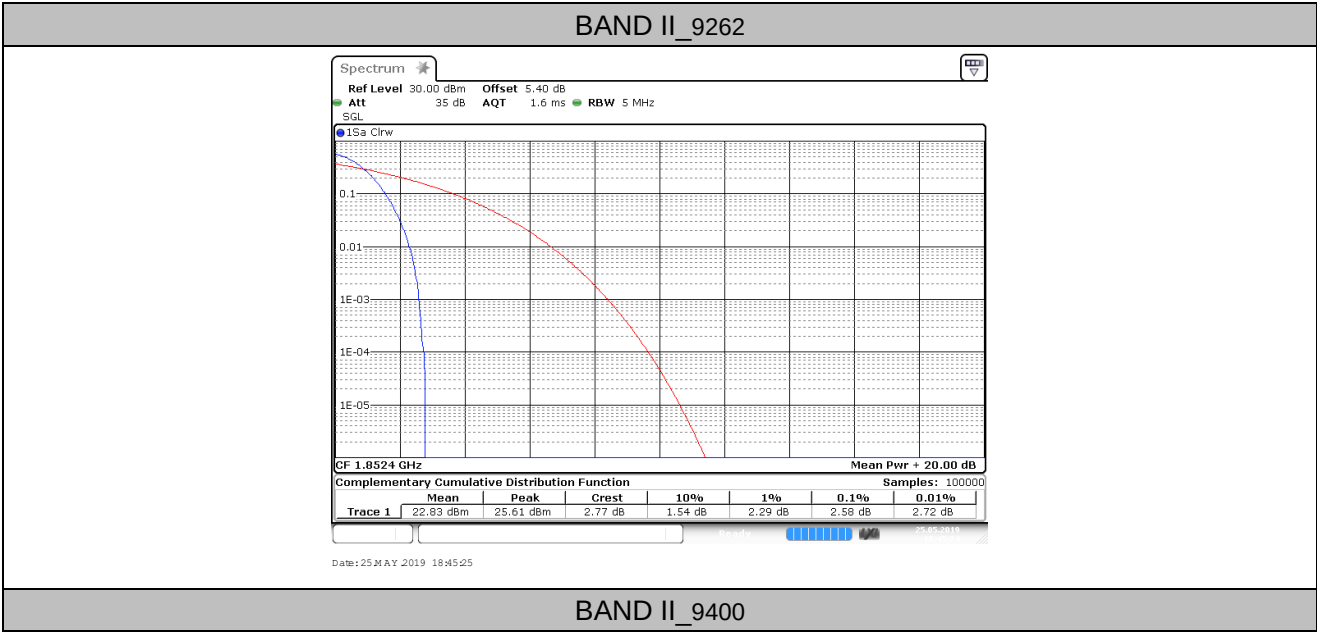


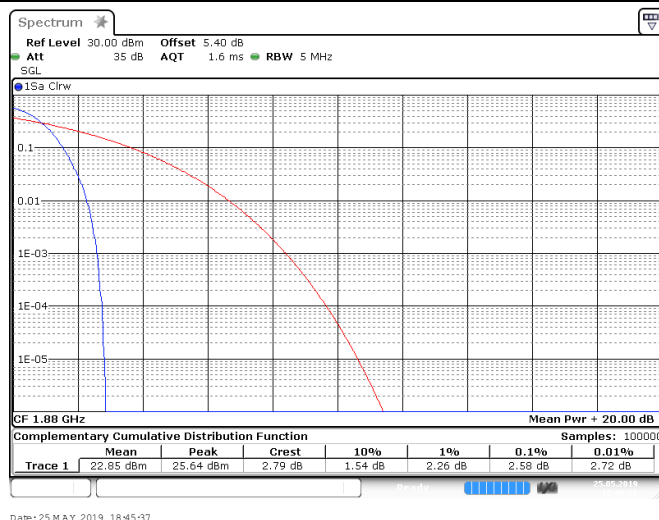
2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

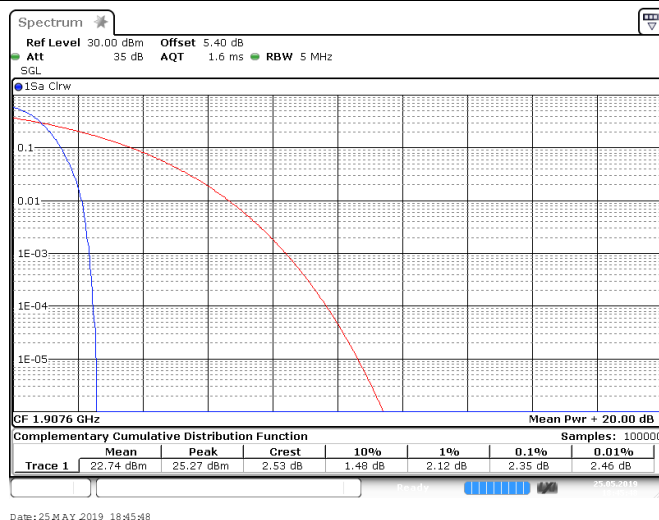
BAND	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band II	9262	2.58	13	PASS
Band II	9400	2.58	13	PASS
Band II	9538	2.35	13	PASS
Band V	4132	2.58	13	PASS
Band V	4182	2.61	13	PASS
Band V	4233	2.52	13	PASS

2.2. Test Plots



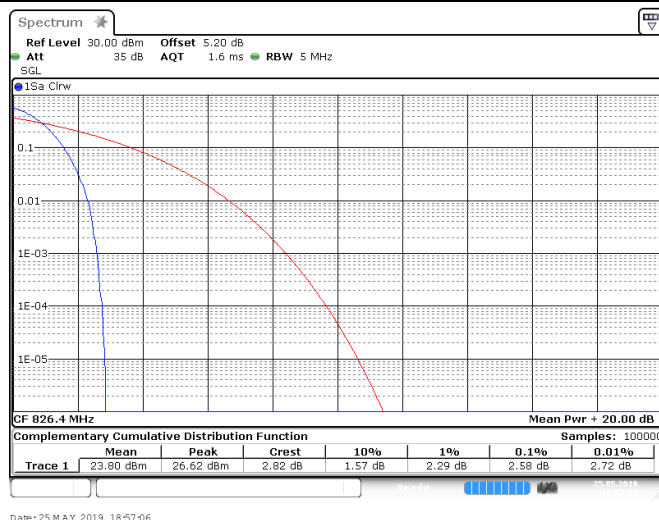


BAND II_9538

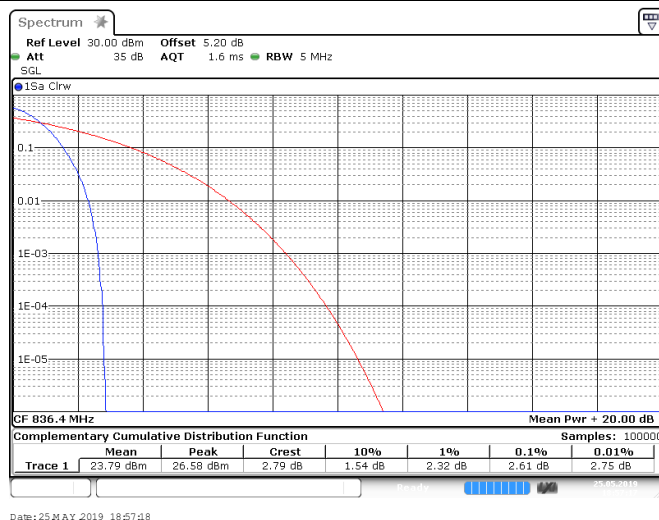


BAND V_4132



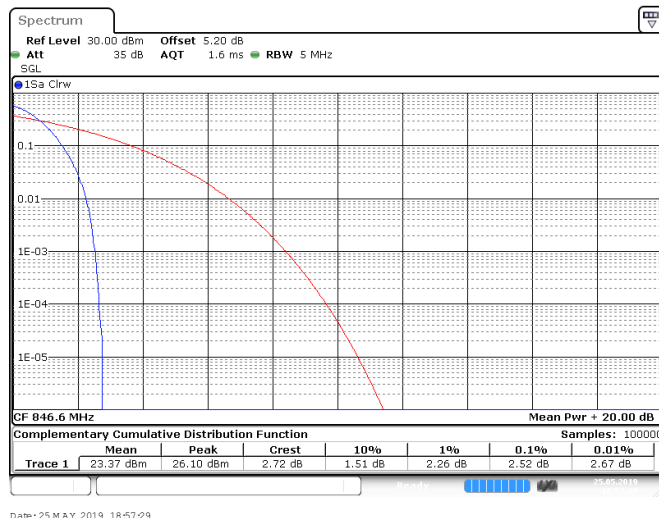


BAND V_4182



BAND V_4233





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

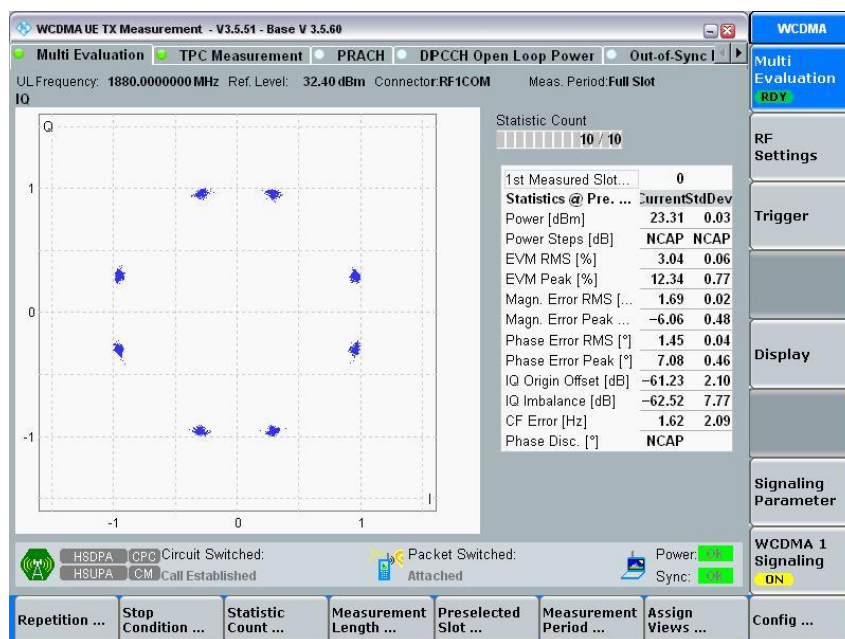
3. Modulation Characteristics

3.1. Test BAND = LTE Band 2

3.2. Test BAND = WCDMA BAND II

3.2.1. Test Mode = UMTS/TM1

3.2.1.1. Test Channel = MCH



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.

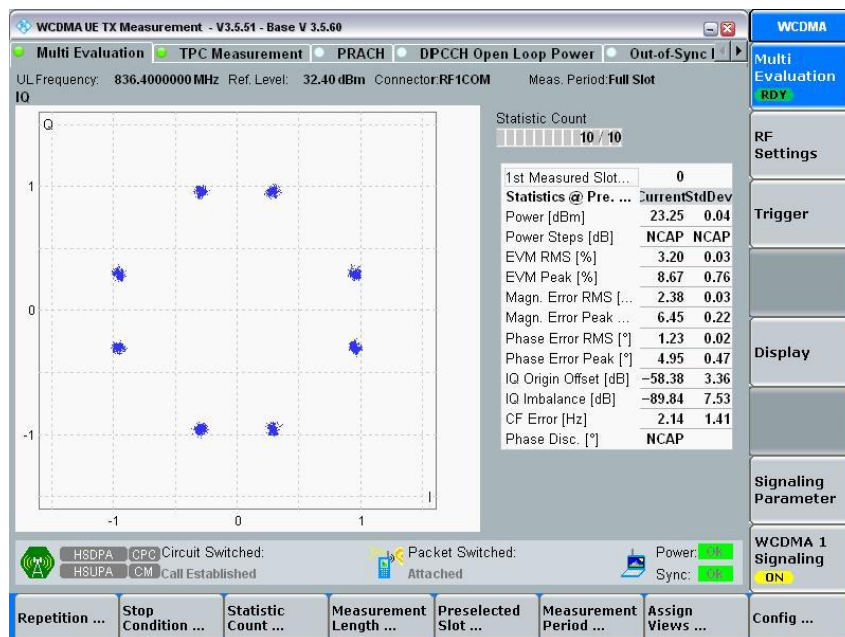
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CCC Laboratory)

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

3.3. Test BAND = WCDMA BAND V

3.3.1. Test Mode = UMTS/TM1

3.3.1.1. Test Channel = MCH



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.

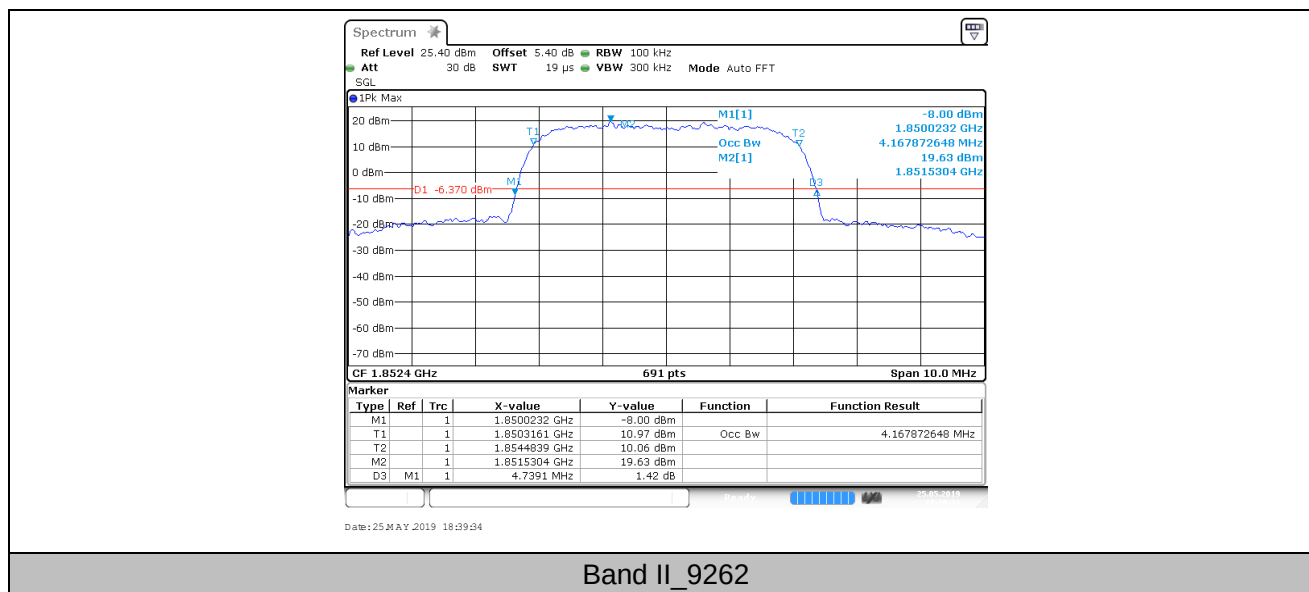


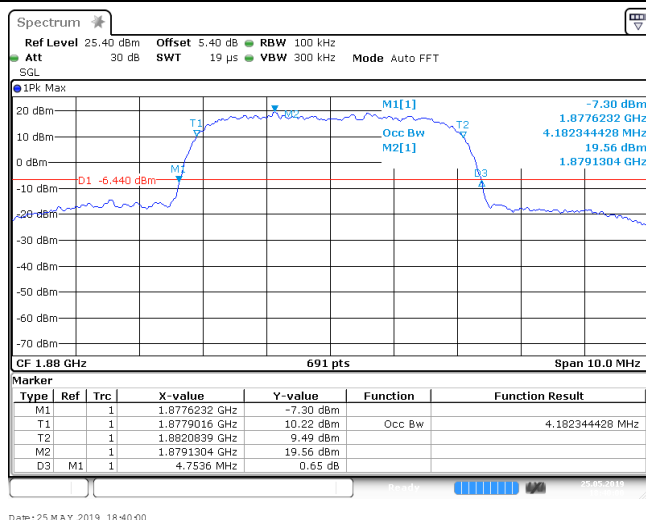
4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

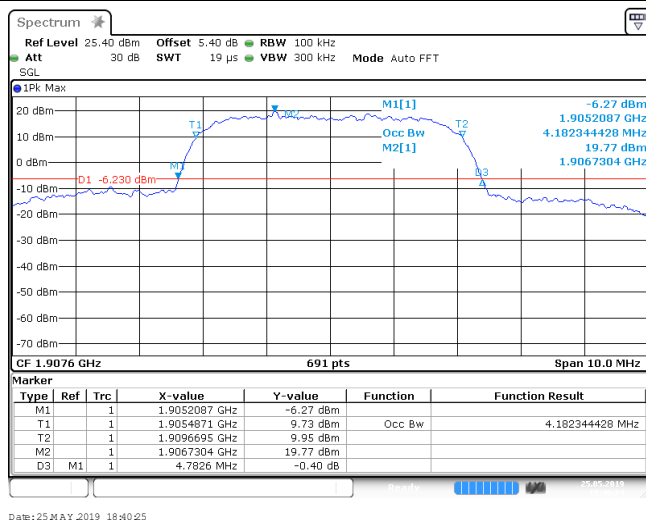
BAND	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
Band II	9262	4167.9	4739	---	PASS
Band II	9400	4182.3	4754	---	PASS
Band II	9538	4182.3	4783	---	PASS
Band V	4132	4153.4	4725	---	PASS
Band V	4182	4138.9	4725	---	PASS
Band V	4233	4138.9	4710	---	PASS

4.2. Test Plots





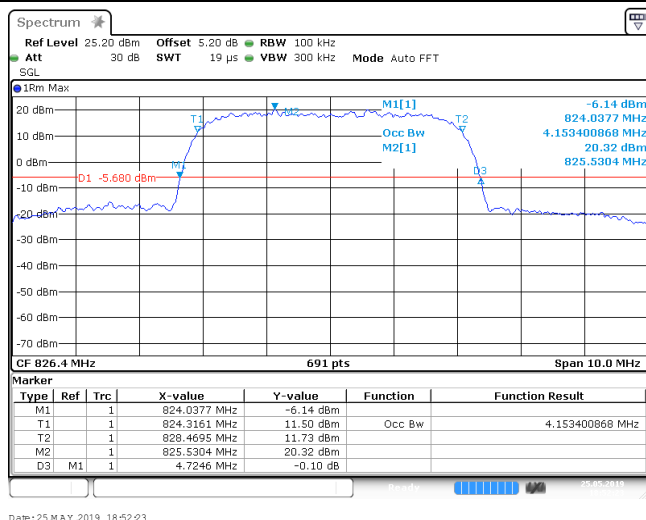
Band II_9400



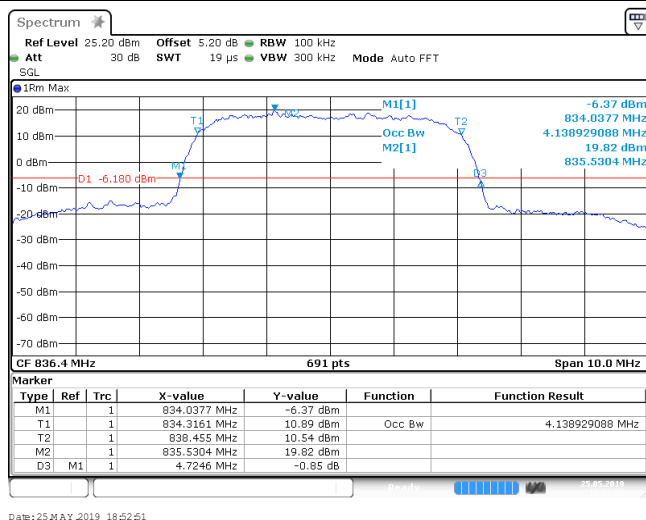
Band II_9538



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.

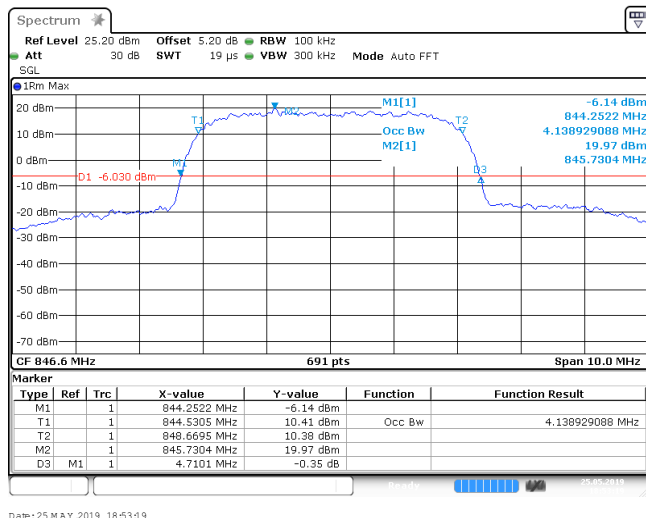


Band V_4132



Band V_4182





Band V_4233

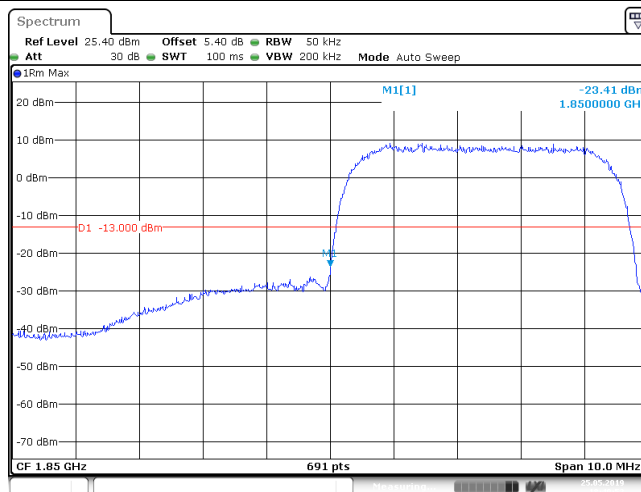


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



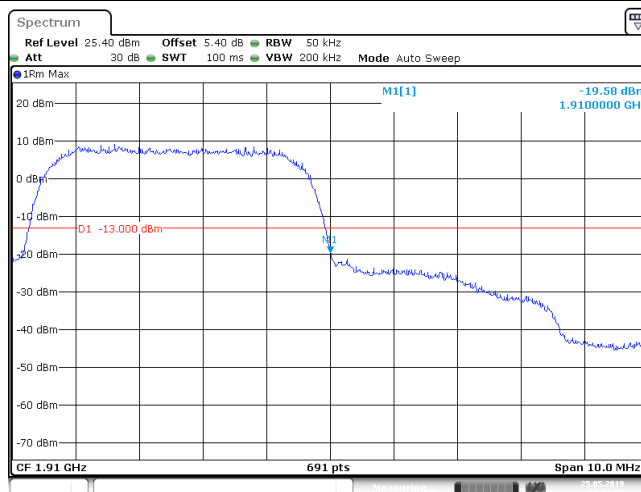
5. Band Edge Compliance

5.1. Test Plots



Date: 25 MAY 2019 18:40:52

Band II_9262



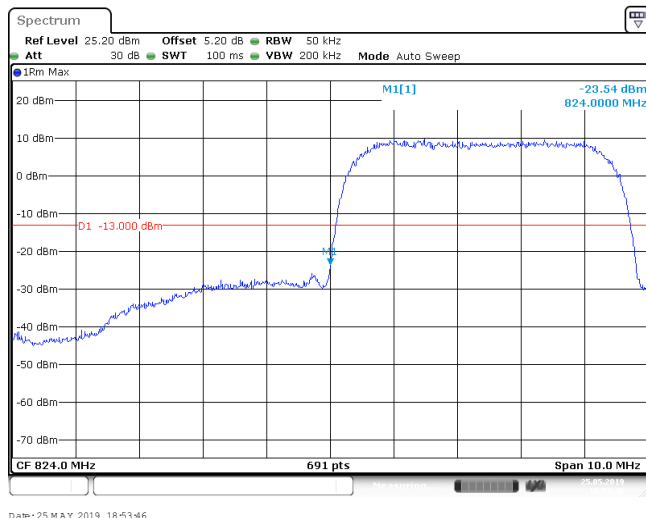
Date: 25 MAY 2019 18:41:09

Band II_9538

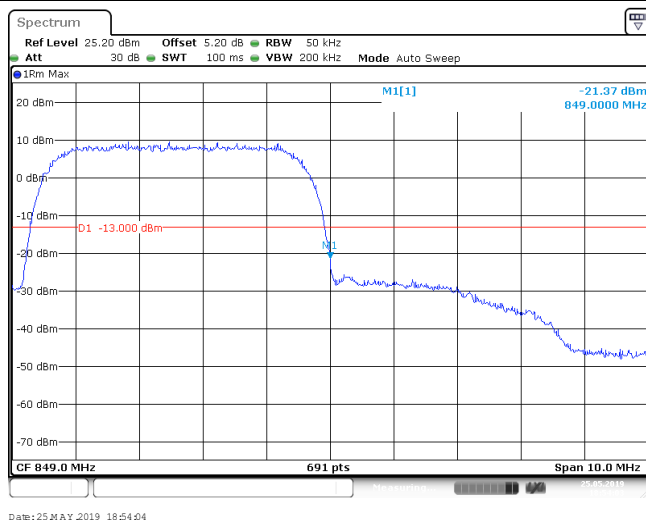


SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CCC Laboratory)

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.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



Band V_4132



Band V_4233



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.

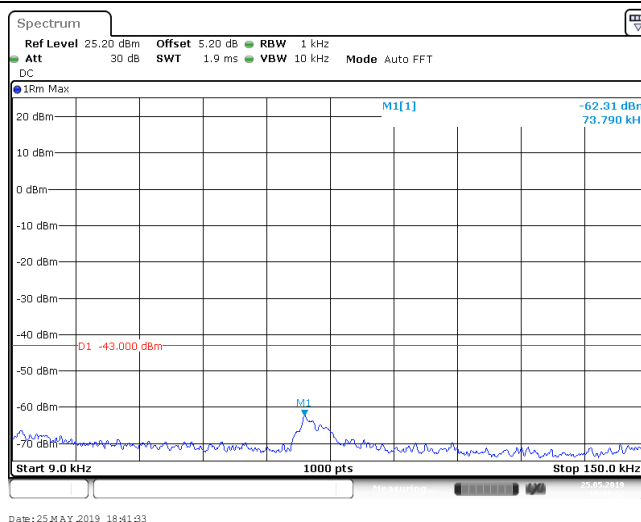
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
 No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
 中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

6. Spurious Emission at Antenna Terminal

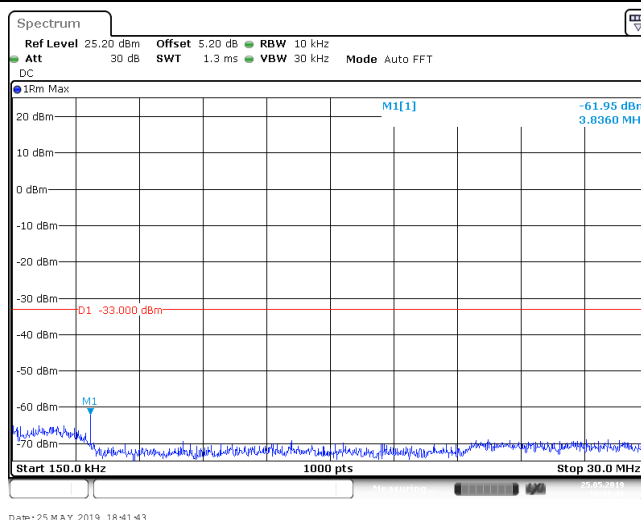
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (\text{Span} / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

Remark2: only the worst case data displayed in this report.

6.1. Test Plots

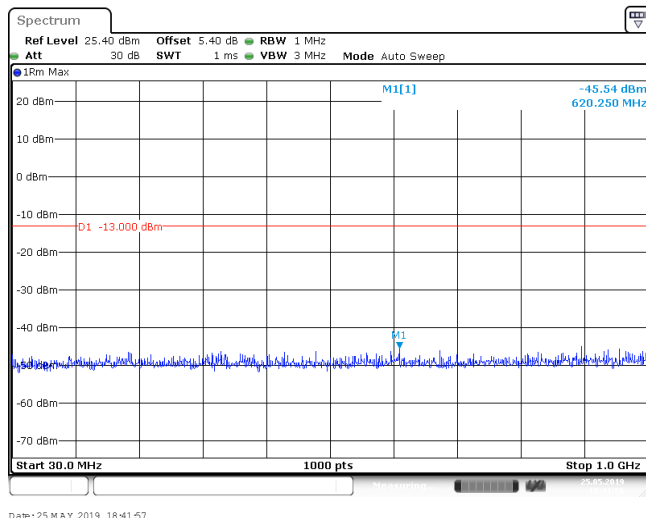


Band II_9262

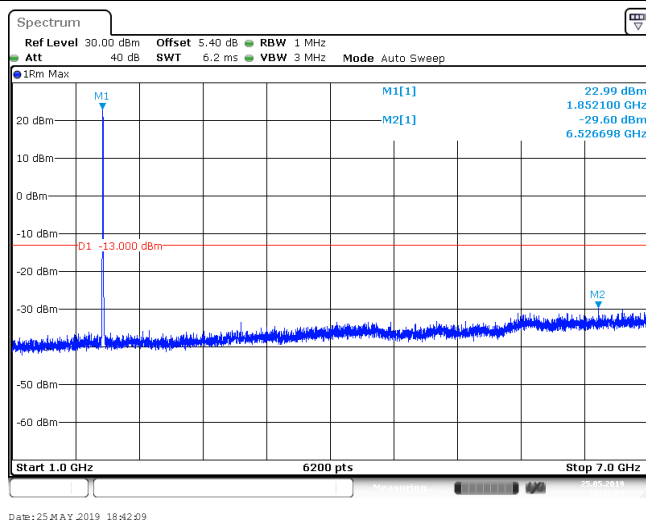


Band II_9262



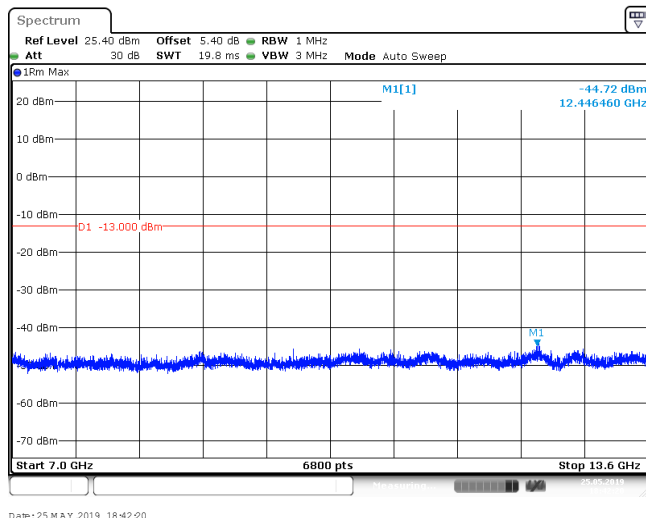


Band II_9262

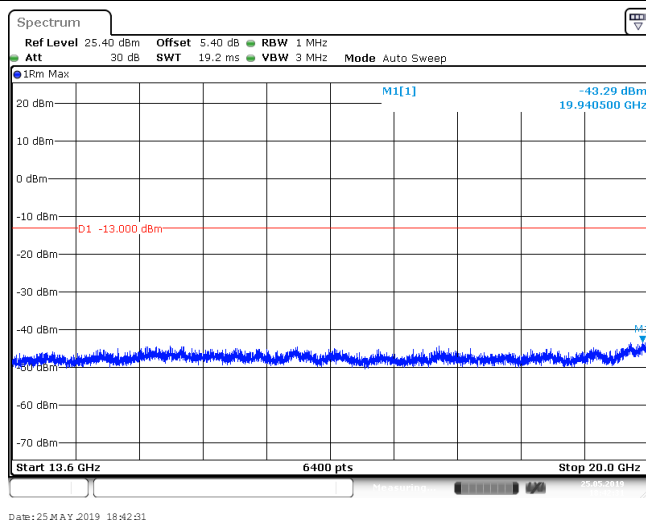


Band II_9262





Band II_9262

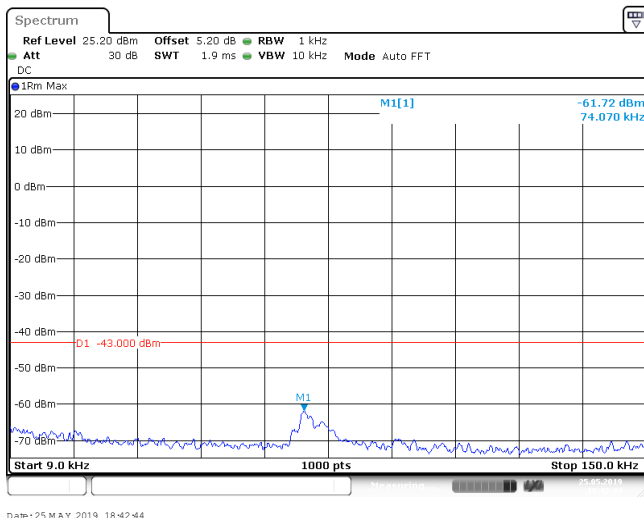


Band II_9262

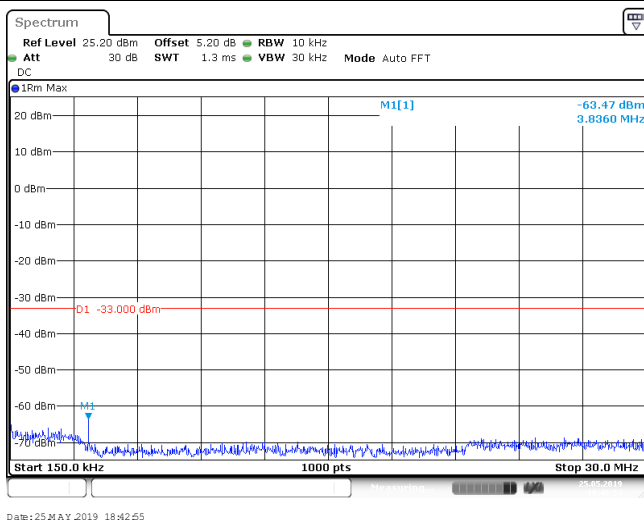


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

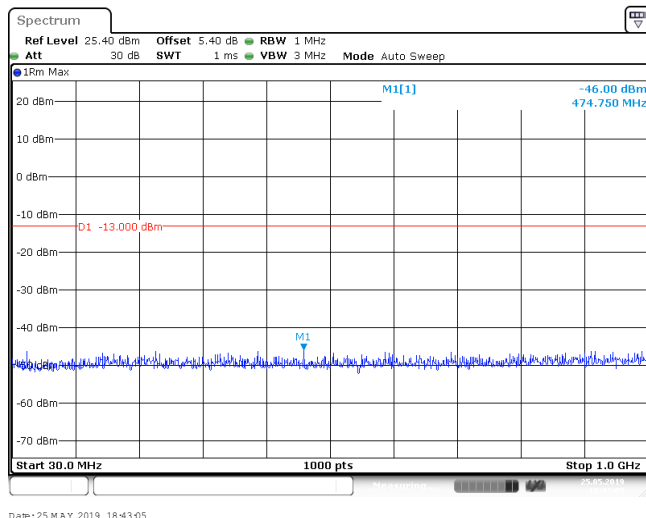


Band II_9400

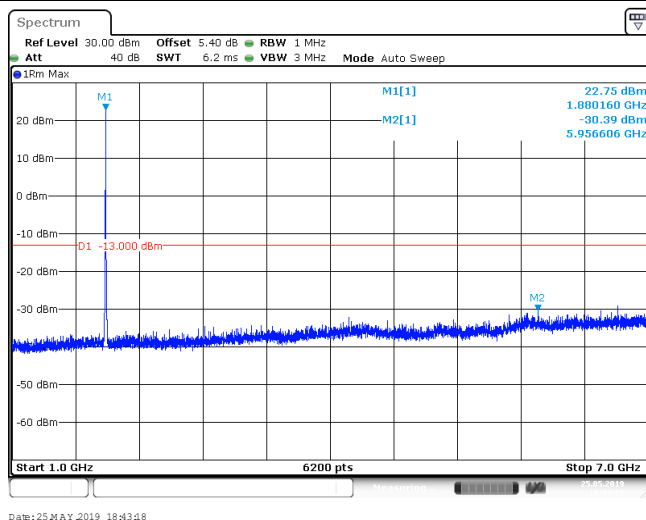


Band II_9400



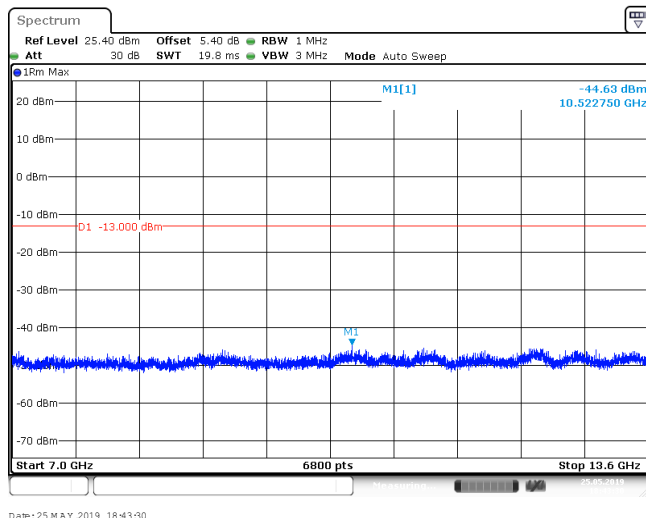


Band II_9400

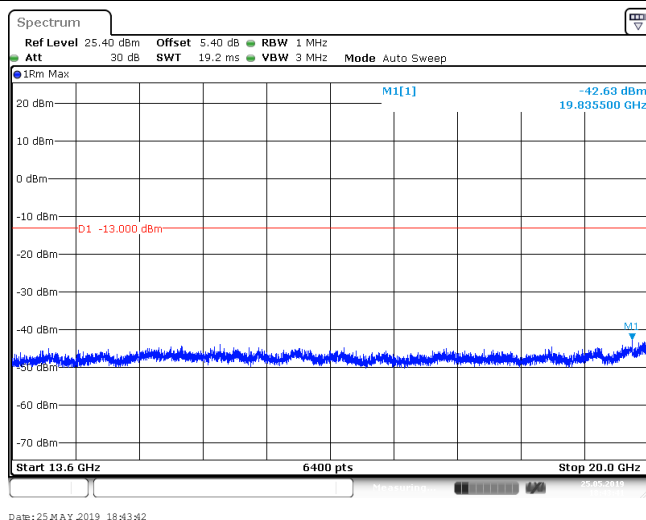


Band II_9400





Band II_9400



Band II_9400

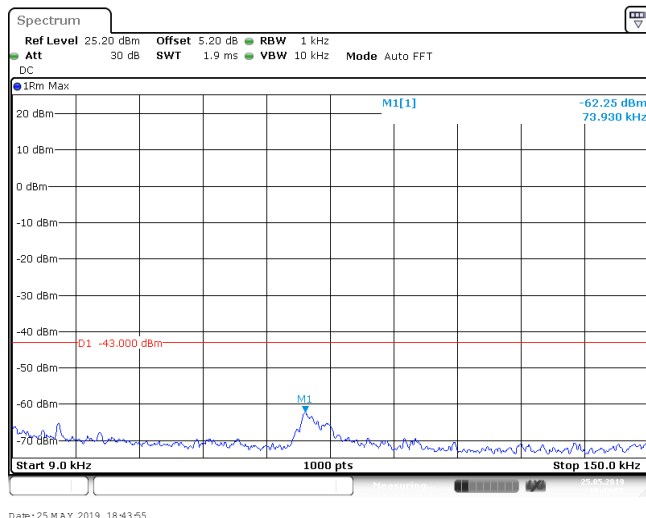


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CCC Laboratory)

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

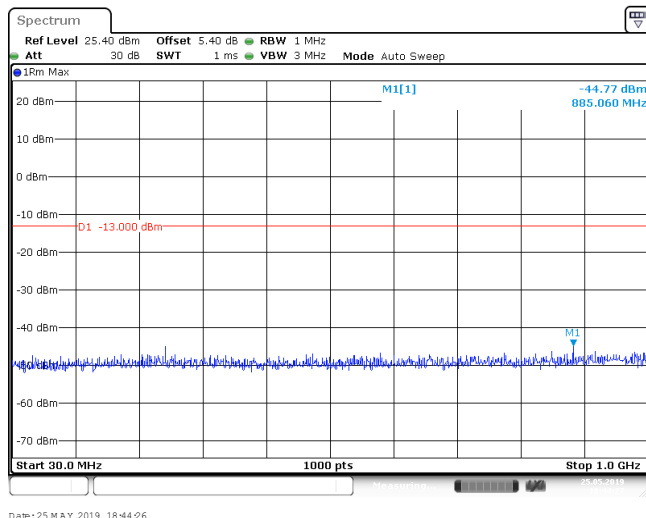


Band II_9538

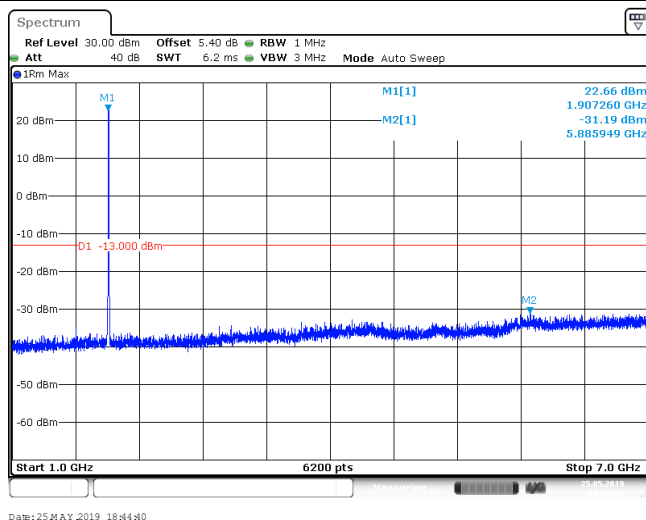


Band II_9538





Band II_9538

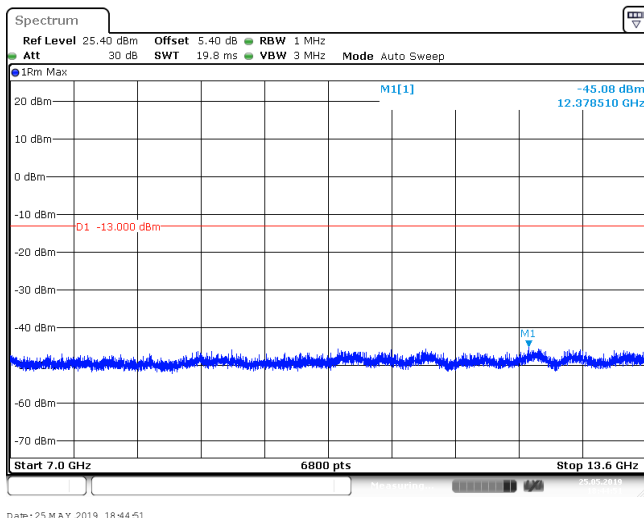


Band II_9538

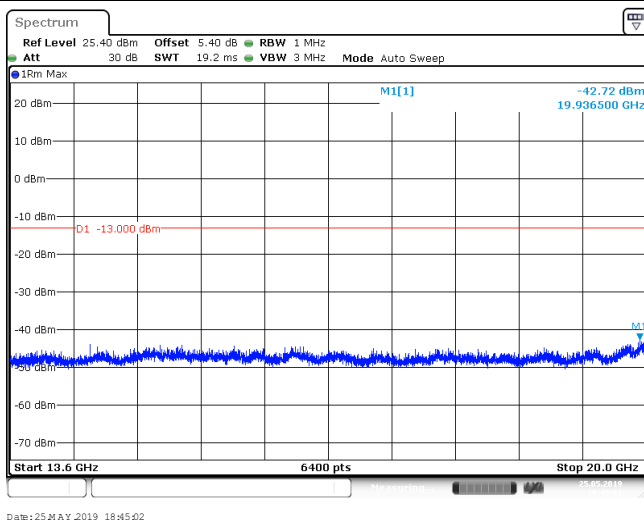


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

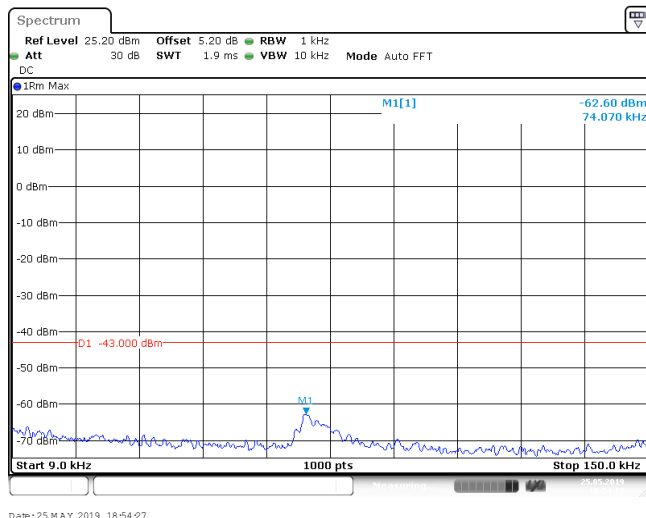


Band II_9538

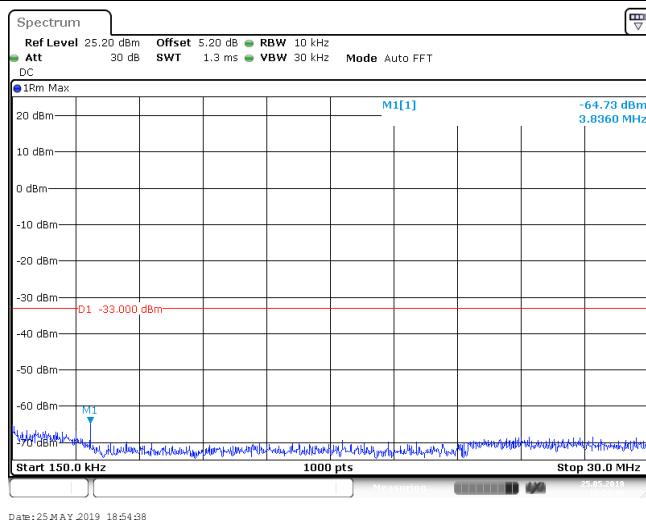


Band II_9538



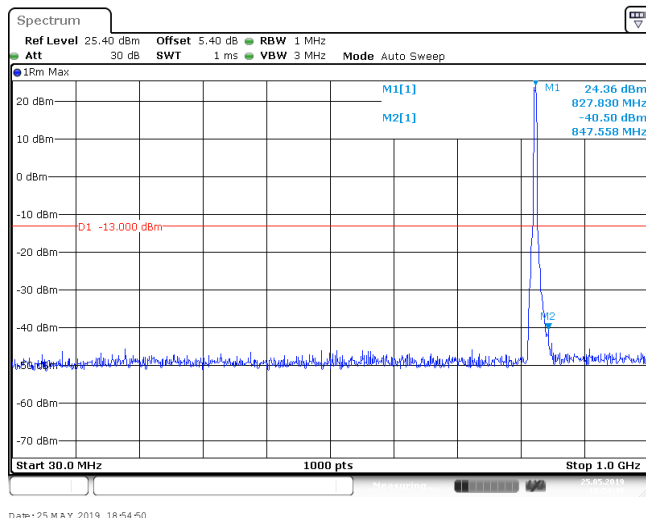


Band V_4132

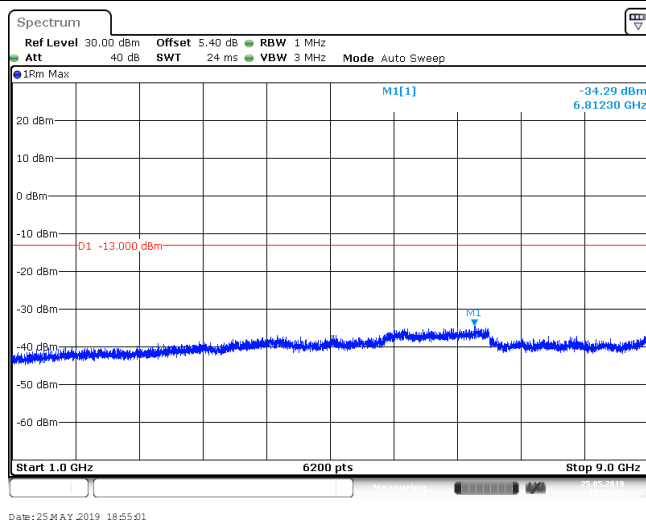


Band V_4132





Band V_4132



Band V_4132

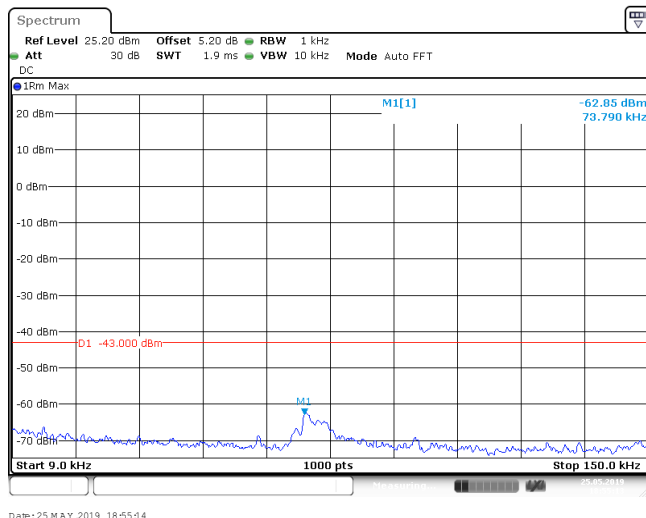


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

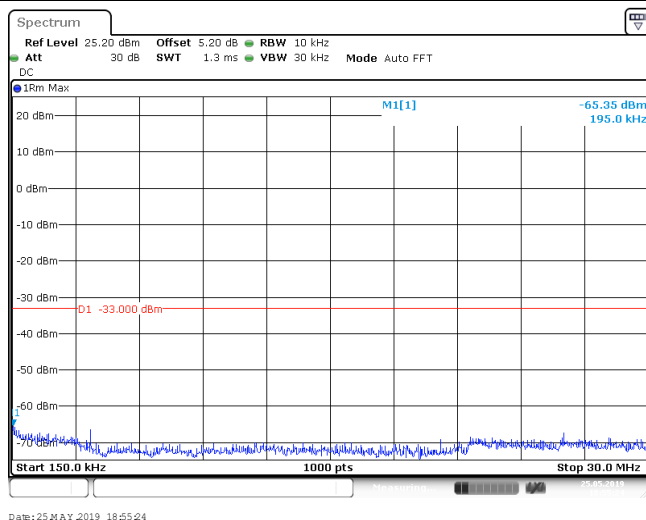
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



Band V_4182



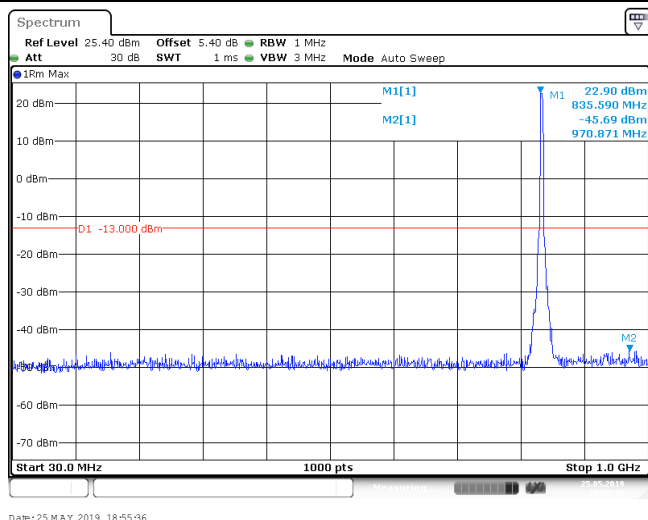
Band V_4182



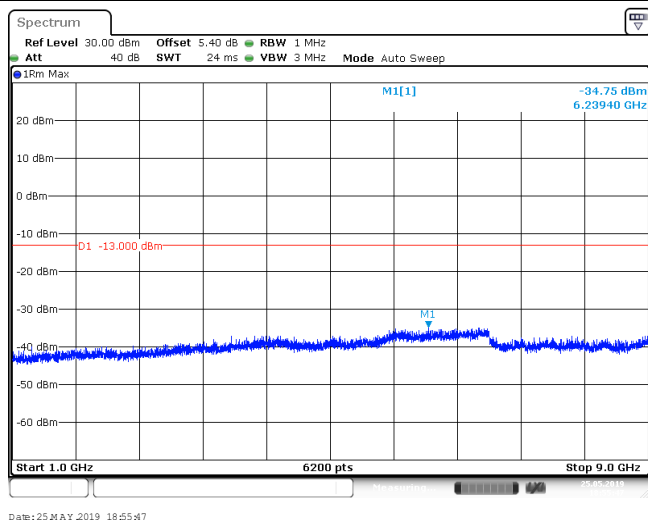
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CCC Laboratory)

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

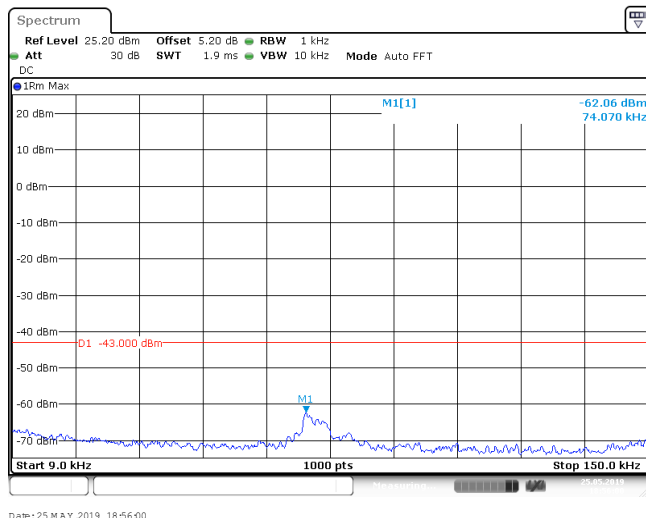


Band V_4182



Band V_4182



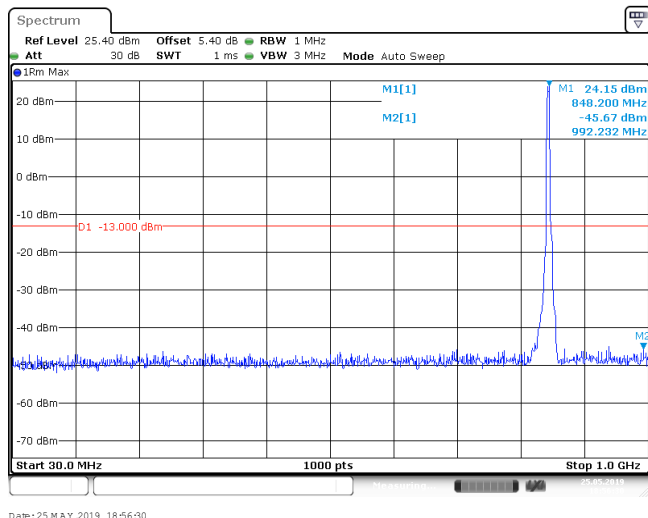


Band V_4233

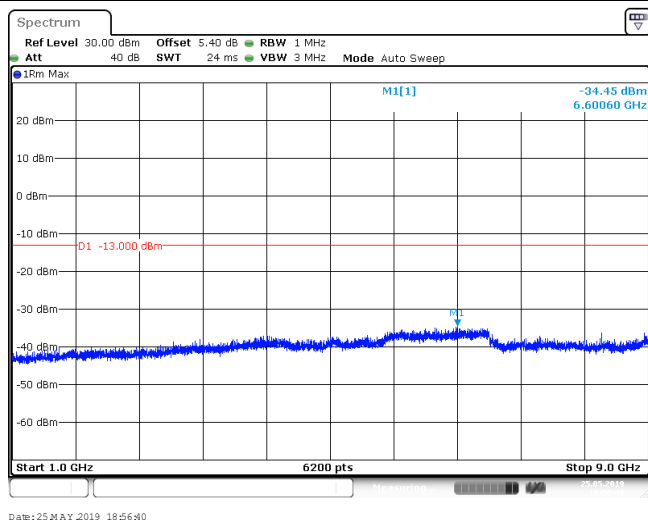


Band V_4233





Band V_4233



Band V_4233



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

SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



7. Field Strength of Spurious Radiation

7.1. Test BAND = WCDMA BAND II

7.1.1. Test Mode = WCDMA/TM1

7.1.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
44.3567	-69.05	-13.00	56.05	Vertical
115.6553	-64.21	-13.00	51.21	Vertical
2699.9400	-36.58	-13.00	23.58	Vertical
7414.1471	-51.57	-13.00	38.57	Vertical
14696.8899	-42.20	-13.00	29.20	Vertical
17920.4974	-34.88	-13.00	21.88	Vertical
45.8118	-62.58	-13.00	49.58	Horizontal
620.6625	-62.87	-13.00	49.87	Horizontal
2700.7401	-35.42	-13.00	22.42	Horizontal
3706.5236	-54.67	-13.00	41.67	Horizontal
7392.1464	-52.93	-13.00	39.93	Horizontal
16397.9466	-38.19	-13.00	25.19	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
41.3011	-70.31	-13.00	57.31	Vertical
114.1517	-64.99	-13.00	51.99	Vertical
2702.7405	-36.59	-13.00	23.59	Vertical
3762.0254	-55.40	-13.00	42.40	Vertical
5637.0879	-53.93	-13.00	40.93	Vertical
17996.9999	-32.82	-13.00	19.82	Vertical
43.3382	-63.29	-13.00	50.29	Horizontal
231.2366	-68.48	-13.00	55.48	Horizontal
2697.5395	-35.37	-13.00	22.37	Horizontal
3762.0254	-53.65	-13.00	40.65	Horizontal
7515.1505	-51.47	-13.00	38.47	Horizontal
16392.9464	-38.30	-13.00	25.30	Horizontal



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



7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
41.2526	-69.45	-13.00	56.45	Vertical
110.9991	-64.81	-13.00	51.81	Vertical
2694.7389	-36.59	-13.00	23.59	Vertical
3813.5271	-55.63	-13.00	42.63	Vertical
5720.0907	-53.34	-13.00	40.34	Vertical
17796.4932	-36.54	-13.00	23.54	Vertical
46.1998	-63.12	-13.00	50.12	Horizontal
233.3222	-67.17	-13.00	54.17	Horizontal
2701.5403	-35.23	-13.00	22.23	Horizontal
3816.5272	-52.95	-13.00	39.95	Horizontal
5725.5909	-51.15	-13.00	38.15	Horizontal
16389.9463	-38.19	-13.00	25.19	Horizontal

7.2. Test BAND = WCDMA BAND V

7.2.1. Test Mode = WCDMA/TM1

7.2.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
45.6663	-69.25	-13.00	56.25	Vertical
110.8535	-65.06	-13.00	52.06	Vertical
534.0857	-66.16	-13.00	53.16	Vertical
2457.4915	-56.64	-13.00	43.64	Vertical
14704.8902	-42.12	-13.00	29.12	Vertical
17996.9999	-32.98	-13.00	19.98	Vertical
44.3567	-61.65	-13.00	48.65	Horizontal
242.5376	-67.63	-13.00	54.63	Horizontal
1650.5301	-62.61	-13.00	49.61	Horizontal
2423.8848	-53.09	-13.00	40.09	Horizontal
16392.4464	-37.10	-13.00	24.10	Horizontal



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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



7.2.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
43.0957	-69.84	-13.00	56.84	Vertical
109.0590	-64.11	-13.00	51.11	Vertical
1923.3847	-51.65	-13.00	38.65	Vertical
8058.1686	-51.95	-13.00	38.95	Vertical
17991.4997	-32.76	-13.00	19.76	Vertical
44.1142	-63.39	-13.00	50.39	Horizontal
250.9285	-68.46	-13.00	55.46	Horizontal
1674.5349	-59.23	-13.00	46.23	Horizontal
7490.6497	-53.08	-13.00	40.08	Horizontal
16400.9467	-37.69	-13.00	24.69	Horizontal

7.2.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
43.6292	-71.52	-13.00	58.52	Vertical
112.2116	-64.65	-13.00	51.65	Vertical
1886.5773	-51.75	-13.00	38.75	Vertical
2444.2889	-38.91	-13.00	25.91	Vertical
14630.3877	-42.31	-13.00	29.31	Vertical
17999.0000	-32.66	-13.00	19.66	Vertical
45.6663	-61.30	-13.00	48.30	Horizontal
234.3892	-68.06	-13.00	55.06	Horizontal
1694.5389	-61.42	-13.00	48.42	Horizontal
2697.5395	-55.19	-13.00	42.19	Horizontal
7478.1493	-52.63	-13.00	39.63	Horizontal
16387.9463	-38.00	-13.00	25.00	Horizontal

Remark:

The disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data had been displayed.

We have tested all modulation and all Bandwidth , but only the worst case data presented in this report.





8. Frequency Stability

8.1. Frequency Vs Voltage

Voltage							
BAND	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band II	9262	VL	TN	-1.87	-0.001008	±2.5	PASS
Band II	9262	VN	TN	-2.09	-0.001127	±2.5	PASS
Band II	9262	VH	TN	-3.12	-0.001683	±2.5	PASS
Band II	9400	VL	TN	3.15	0.001678	±2.5	PASS
Band II	9400	VN	TN	-0.69	-0.000365	±2.5	PASS
Band II	9400	VH	TN	-2.17	-0.001157	±2.5	PASS
Band II	9538	VL	TN	1.24	0.000652	±2.5	PASS
Band II	9538	VN	TN	1.33	0.000697	±2.5	PASS
Band II	9538	VH	TN	-0.68	-0.000356	±2.5	PASS
Band V	4132	VL	TN	-2.83	-0.003419	±2.5	PASS
Band V	4132	VN	TN	-1.88	-0.002276	±2.5	PASS
Band V	4132	VH	TN	-1.49	-0.001800	±2.5	PASS
Band V	4182	VL	TN	-0.87	-0.001043	±2.5	PASS
Band V	4182	VN	TN	-0.09	-0.000103	±2.5	PASS
Band V	4182	VH	TN	2.91	0.003481	±2.5	PASS
Band V	4233	VL	TN	1.07	0.001267	±2.5	PASS
Band V	4233	VN	TN	0.92	0.001090	±2.5	PASS
Band V	4233	VH	TN	-1.10	-0.001301	±2.5	PASS

8.2. Frequency Vs Temperature

Temperature							
BAND	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band II	9262	VN	-30	-0.78	-0.000421	±2.5	PASS
Band II	9262	VN	-20	-0.87	-0.000467	±2.5	PASS
Band II	9262	VN	-10	1.03	0.000556	±2.5	PASS
Band II	9262	VN	0	0.72	0.000390	±2.5	PASS
Band II	9262	VN	10	0.50	0.000270	±2.5	PASS
Band II	9262	VN	20	-4.18	-0.002259	±2.5	PASS
Band II	9262	VN	30	1.32	0.000710	±2.5	PASS
Band II	9262	VN	40	-1.14	-0.000618	±2.5	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-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

SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CSTC) Laboratory

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

Band II	9262	VN	50	-3.31	-0.001788	±2.5	PASS
Band II	9400	VN	-30	0.70	0.000373	±2.5	PASS
Band II	9400	VN	-20	-0.16	-0.000084	±2.5	PASS
Band II	9400	VN	-10	-1.14	-0.000605	±2.5	PASS
Band II	9400	VN	0	-0.46	-0.000247	±2.5	PASS
Band II	9400	VN	10	0.68	0.000361	±2.5	PASS
Band II	9400	VN	20	2.24	0.001191	±2.5	PASS
Band II	9400	VN	30	1.42	0.000753	±2.5	PASS
Band II	9400	VN	40	2.18	0.001160	±2.5	PASS
Band II	9400	VN	50	-0.29	-0.000156	±2.5	PASS
Band II	9538	VN	-30	2.73	0.001432	±2.5	PASS
Band II	9538	VN	-20	2.45	0.001282	±2.5	PASS
Band II	9538	VN	-10	2.30	0.001204	±2.5	PASS
Band II	9538	VN	0	-2.45	-0.001282	±2.5	PASS
Band II	9538	VN	10	0.95	0.000499	±2.5	PASS
Band II	9538	VN	20	0.31	0.000161	±2.5	PASS
Band II	9538	VN	30	-2.81	-0.001474	±2.5	PASS
Band II	9538	VN	40	1.08	0.000566	±2.5	PASS
Band II	9538	VN	50	2.44	0.001279	±2.5	PASS
Band V	4132	VN	-30	-3.61	-0.004371	±2.5	PASS
Band V	4132	VN	-20	-1.33	-0.001610	±2.5	PASS
Band V	4132	VN	-10	-1.67	-0.002025	±2.5	PASS
Band V	4132	VN	0	-3.45	-0.004180	±2.5	PASS
Band V	4132	VN	10	-2.91	-0.003523	±2.5	PASS
Band V	4132	VN	20	-1.49	-0.001800	±2.5	PASS
Band V	4132	VN	30	-1.74	-0.002103	±2.5	PASS
Band V	4132	VN	40	-1.84	-0.002224	±2.5	PASS
Band V	4132	VN	50	-3.58	-0.004328	±2.5	PASS
Band V	4182	VN	-30	2.05	0.002446	±2.5	PASS
Band V	4182	VN	-20	-1.62	-0.001933	±2.5	PASS
Band V	4182	VN	-10	0.07	0.000086	±2.5	PASS
Band V	4182	VN	0	-1.03	-0.001231	±2.5	PASS
Band V	4182	VN	10	-0.27	-0.000325	±2.5	PASS
Band V	4182	VN	20	0.74	0.000881	±2.5	PASS
Band V	4182	VN	30	0.06	0.000068	±2.5	PASS
Band V	4182	VN	40	0.66	0.000787	±2.5	PASS
Band V	4182	VN	50	3.78	0.004524	±2.5	PASS
Band V	4233	VN	-30	1.02	0.001200	±2.5	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-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

SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CSTC) Laboratory

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



Band V	4233	VN	-20	0.11	0.000127	±2.5	PASS
Band V	4233	VN	-10	0.95	0.001124	±2.5	PASS
Band V	4233	VN	0	3.47	0.004098	±2.5	PASS
Band V	4233	VN	10	0.84	0.000988	±2.5	PASS
Band V	4233	VN	20	0.59	0.000693	±2.5	PASS
Band V	4233	VN	30	-0.43	-0.000507	±2.5	PASS
Band V	4233	VN	40	1.03	0.001217	±2.5	PASS
Band V	4233	VN	50	1.40	0.001656	±2.5	PASS

The End

