



Appendix B

E-UTRA Band 13



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	3
1.1.	TEST RESULT	3
2.	PEAK-TO-AVERAGE RATIO (CCDF)	6
2.1.	TEST RESULT	6
2.2.	TEST PLOTS.....	6
3.	MODULATION CHARACTERISTICS	8
3.1.	TEST MODE = LTE /TM1 10MHZ.....	8
3.1.1.	TEST CHANNEL = MCH.....	8
3.2.	TEST MODE = LTE /TM2 10MHZ.....	9
3.2.1.	TEST CHANNEL = MCH.....	9
3.3.	TEST MODE = LTE /TM3 10MHZ.....	10
3.3.1.	TEST CHANNEL = MCH.....	10
4.	26DB BANDWIDTH AND OCCUPIED BANDWIDTH	11
4.1.	TEST RESULT	11
4.2.	TEST PLOTS.....	12
5.	BAND EDGE COMPLIANCE	18
5.1.	TEST PLOTS.....	18
6.	SPURIOUS EMISSION AT ANTENNA TERMINAL	29
6.1.	TEST PLOTS.....	29
7.	FIELD STRENGTH OF SPURIOUS RADIATION	32
7.1.	TEST MODE =LTE/TM1 10MHZ	32
7.1.1.	TEST CHANNEL = MCH.....	32
8.	FREQUENCY STABILITY.....	33
8.1.	FREQUENCY VS VOLTAGE	33
8.2.	FREQUENCY VS TEMPERATURE	34





1 Effective (Isotropic) Radiated Power

1.1. Test Result

Band	Bandwidth h	Modulation	Channel	RB Configuration	Conducted Power(dBm)	ERP (dBm)	limit (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	23.11	22.96	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#12	23.14	22.99	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#24	23.17	23.02	34.77	PASS
Band13	5MHz	QPSK	23205	12RB#0	22.26	22.11	34.77	PASS
Band13	5MHz	QPSK	23205	12RB#6	22.33	22.18	34.77	PASS
Band13	5MHz	QPSK	23205	12RB#13	22.27	22.12	34.77	PASS
Band13	5MHz	QPSK	23205	25RB#0	22.34	22.19	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#0	23.17	23.02	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#12	23.22	23.07	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#24	23.17	23.02	34.77	PASS
Band13	5MHz	QPSK	23230	12RB#0	22.28	22.13	34.77	PASS
Band13	5MHz	QPSK	23230	12RB#6	22.30	22.15	34.77	PASS
Band13	5MHz	QPSK	23230	12RB#13	22.30	22.15	34.77	PASS
Band13	5MHz	QPSK	23230	25RB#0	22.28	22.13	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#0	23.15	23	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#12	23.17	23.02	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#24	23.10	22.95	34.77	PASS
Band13	5MHz	QPSK	23255	12RB#6	22.26	22.11	34.77	PASS
Band13	5MHz	QPSK	23255	12RB#0	22.25	22.1	34.77	PASS
Band13	5MHz	QPSK	23255	12RB#13	22.27	22.12	34.77	PASS
Band13	5MHz	QPSK	23255	25RB#0	22.25	22.1	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#24	21.41	21.26	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#0	21.28	21.13	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#12	21.44	21.29	34.77	PASS
Band13	5MHz	64QAM	23205	12RB#0	20.36	20.21	34.77	PASS
Band13	5MHz	64QAM	23205	12RB#6	20.41	20.26	34.77	PASS
Band13	5MHz	64QAM	23205	12RB#13	20.38	20.23	34.77	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 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



Band13	5MHz	64QAM	23205	25RB#0	20.40	20.25	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#0	21.35	21.2	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#24	21.41	21.26	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#12	21.52	21.37	34.77	PASS
Band13	5MHz	64QAM	23230	12RB#13	20.37	20.22	34.77	PASS
Band13	5MHz	64QAM	23230	12RB#6	20.35	20.2	34.77	PASS
Band13	5MHz	64QAM	23230	12RB#0	20.37	20.22	34.77	PASS
Band13	5MHz	64QAM	23230	25RB#0	20.39	20.24	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#12	21.37	21.22	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#0	21.42	21.27	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#24	21.27	21.12	34.77	PASS
Band13	5MHz	64QAM	23255	12RB#0	20.36	20.21	34.77	PASS
Band13	5MHz	64QAM	23255	12RB#6	20.30	20.15	34.77	PASS
Band13	5MHz	64QAM	23255	12RB#13	20.32	20.17	34.77	PASS
Band13	5MHz	64QAM	23255	25RB#0	20.29	20.14	34.77	FAIL
Band13	5MHz	16QAM	23205	1RB#0	22.34	22.19	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#12	22.36	22.21	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#24	22.43	22.28	34.77	PASS
Band13	5MHz	16QAM	23205	12RB#0	21.30	21.15	34.77	PASS
Band13	5MHz	16QAM	23205	12RB#6	21.35	21.2	34.77	PASS
Band13	5MHz	16QAM	23205	12RB#13	21.33	21.18	34.77	PASS
Band13	5MHz	16QAM	23205	25RB#0	21.29	21.14	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#0	22.42	22.27	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#24	22.41	22.26	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#12	22.48	22.33	34.77	PASS
Band13	5MHz	16QAM	23230	12RB#0	21.34	21.19	34.77	PASS
Band13	5MHz	16QAM	23230	12RB#13	21.36	21.21	34.77	PASS
Band13	5MHz	16QAM	23230	12RB#6	21.32	21.17	34.77	PASS
Band13	5MHz	16QAM	23230	25RB#0	21.25	21.1	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#24	22.35	22.2	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#12	22.39	22.24	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#0	22.55	22.4	34.77	PASS
Band13	5MHz	16QAM	23255	12RB#13	21.25	21.1	34.77	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) Testing 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



Band13	5MHz	16QAM	23255	12RB#6	21.30	21.15	34.77	PASS
Band13	5MHz	16QAM	23255	12RB#0	21.30	21.15	34.77	PASS
Band13	5MHz	16QAM	23255	25RB#0	21.24	21.09	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#24	23.11	22.96	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#0	23.26	23.11	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#49	23.18	23.03	34.77	PASS
Band13	10MHz	QPSK	23230	25RB#25	22.30	22.15	34.77	PASS
Band13	10MHz	QPSK	23230	25RB#0	22.33	22.18	34.77	PASS
Band13	10MHz	QPSK	23230	25RB#12	22.35	22.2	34.77	PASS
Band13	10MHz	QPSK	23230	50RB#0	22.31	22.16	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#49	21.44	21.29	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#0	21.41	21.26	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#24	21.32	21.17	34.77	PASS
Band13	10MHz	64QAM	23230	25RB#25	20.38	20.23	34.77	PASS
Band13	10MHz	64QAM	23230	25RB#0	20.37	20.22	34.77	PASS
Band13	10MHz	64QAM	23230	25RB#12	20.40	20.25	34.77	PASS
Band13	10MHz	64QAM	23230	50RB#0	20.43	20.28	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#24	22.36	22.21	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#49	22.38	22.23	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#0	22.43	22.28	34.77	PASS
Band13	10MHz	16QAM	23230	25RB#12	21.36	21.21	34.77	PASS
Band13	10MHz	16QAM	23230	25RB#0	21.30	21.15	34.77	PASS
Band13	10MHz	16QAM	23230	25RB#25	21.29	21.14	34.77	PASS
Band13	10MHz	16QAM	23230	50RB#0	21.31	21.16	34.77	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]



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 (CMAA) Calibration 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

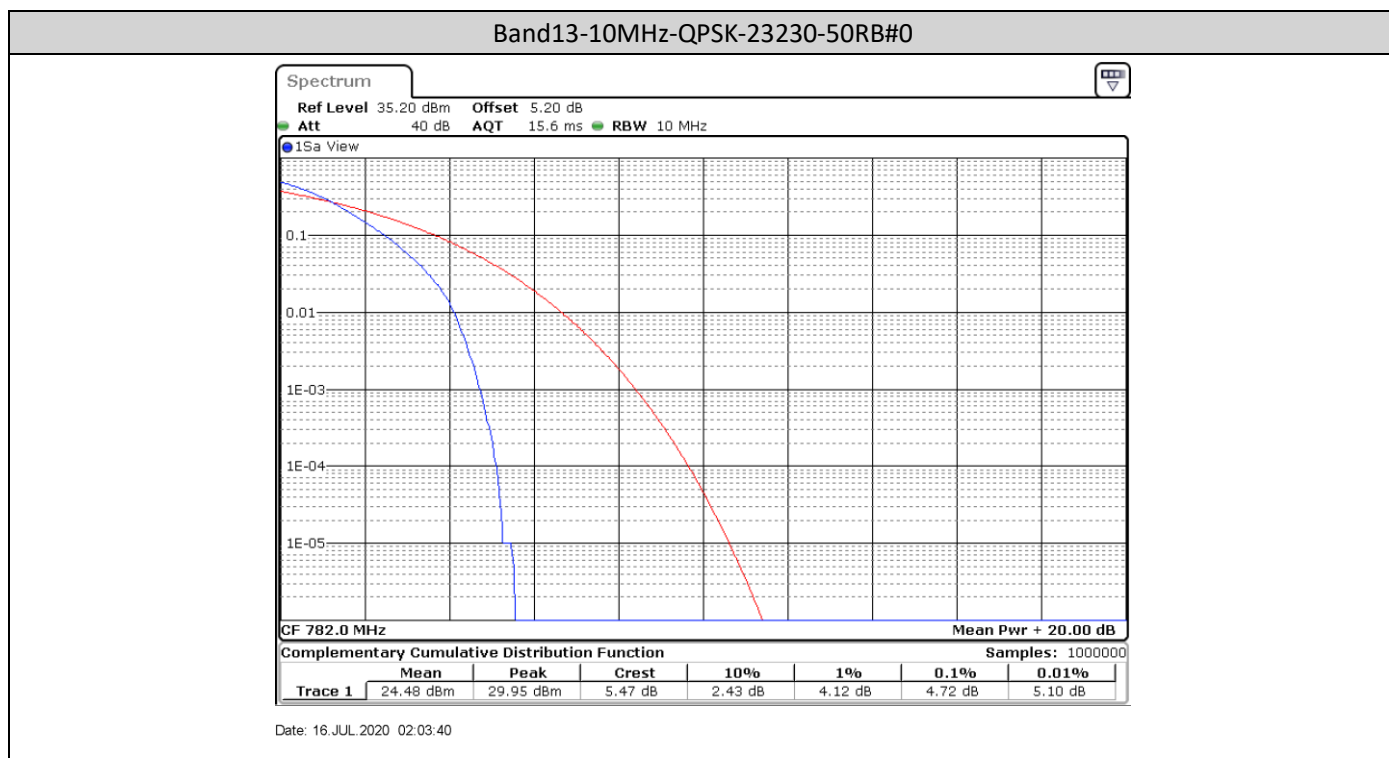


2. Peak-to-Average Ratio (CCDF)

2.1. Test Result

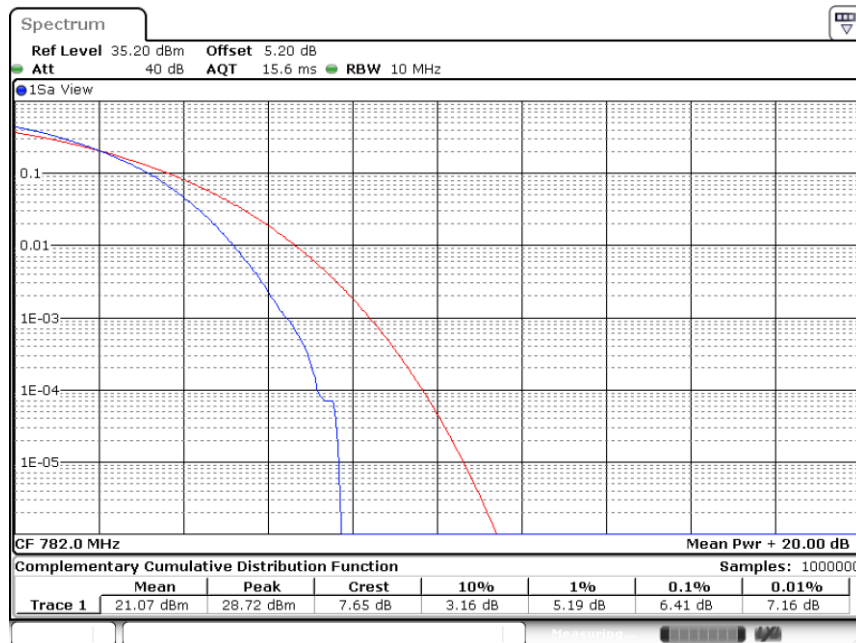
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	10MHz	QPSK	23230	50RB#0	4.72	13	PASS
Band13	10MHz	64QAM	23230	50RB#0	6.41	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	5.77	13	PASS

2.2. Test Plots



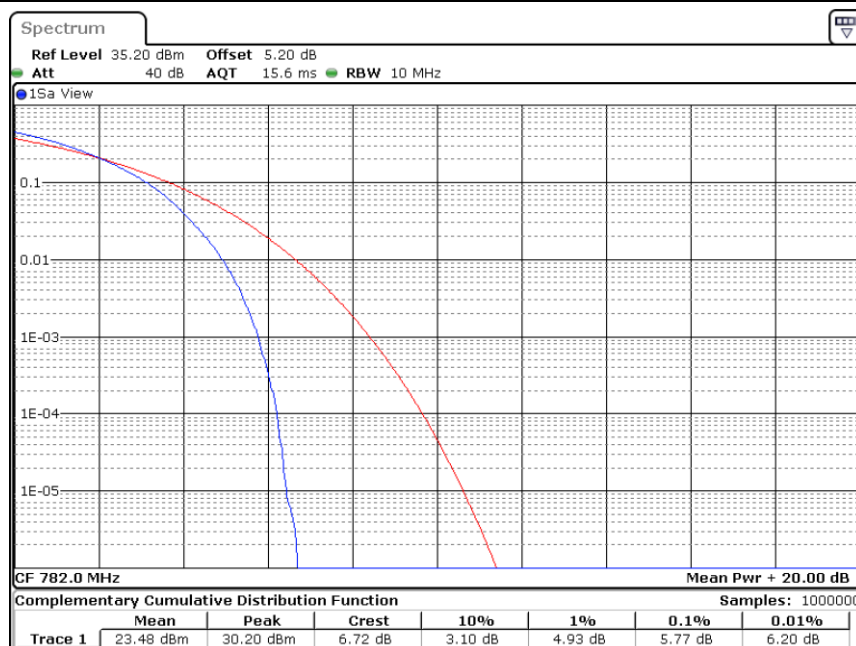


Band13-10MHz-64QAM-23230-50RB#0



Date: 11.AUG.2020 08:50:30

Band13-10MHz-16QAM-23230-50RB#0



Date: 16.JUL.2020 02:03:51



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

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.

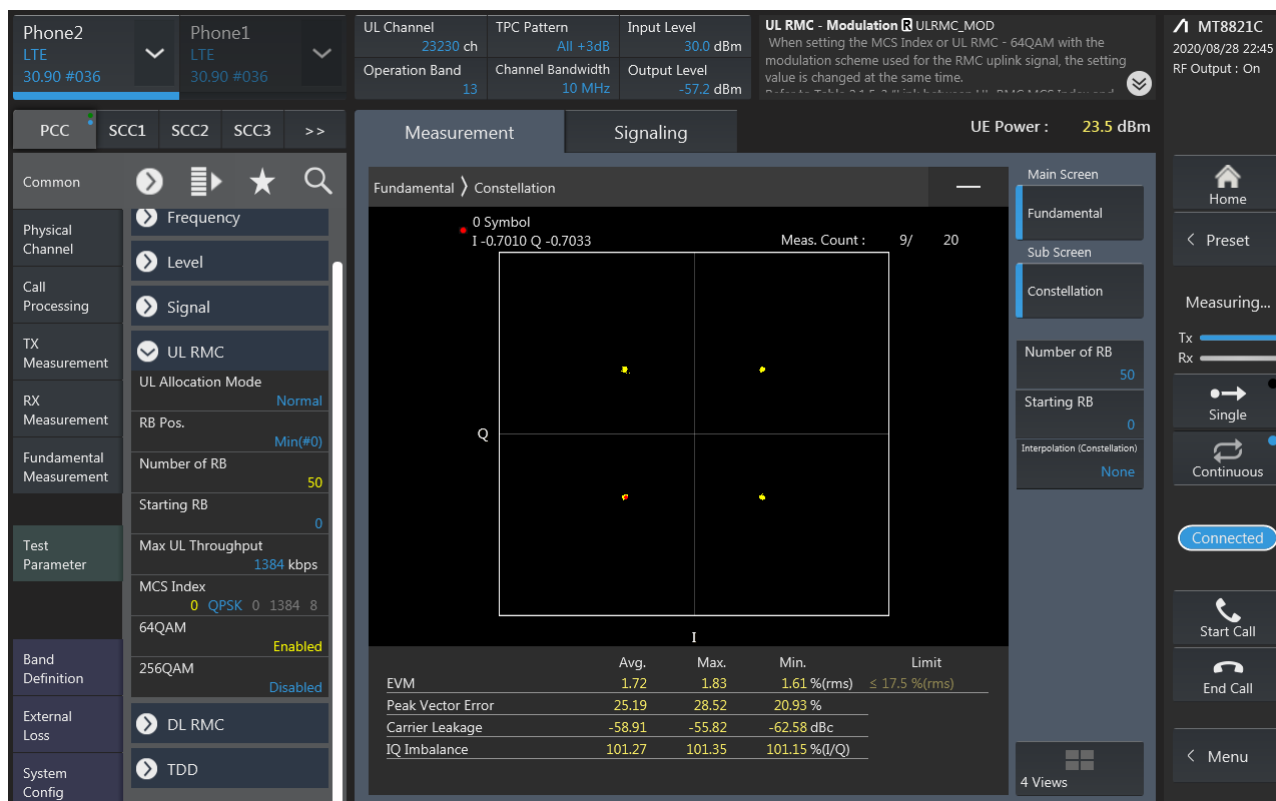
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

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

3. Modulation Characteristics

3.1. Test Mode = LTE /TM1 10MHz

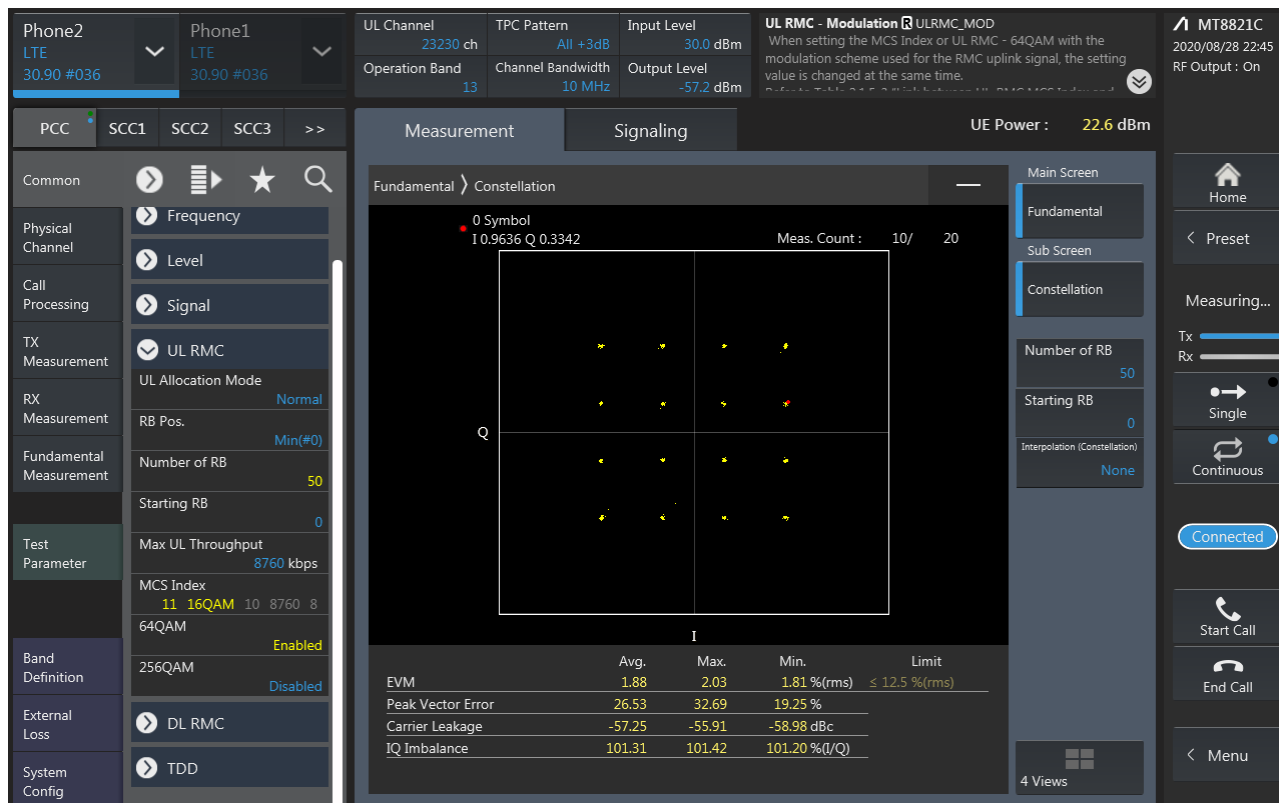
3.1.1. Test Channel = MCH





3.2. Test Mode = LTE /TM2 10MHz

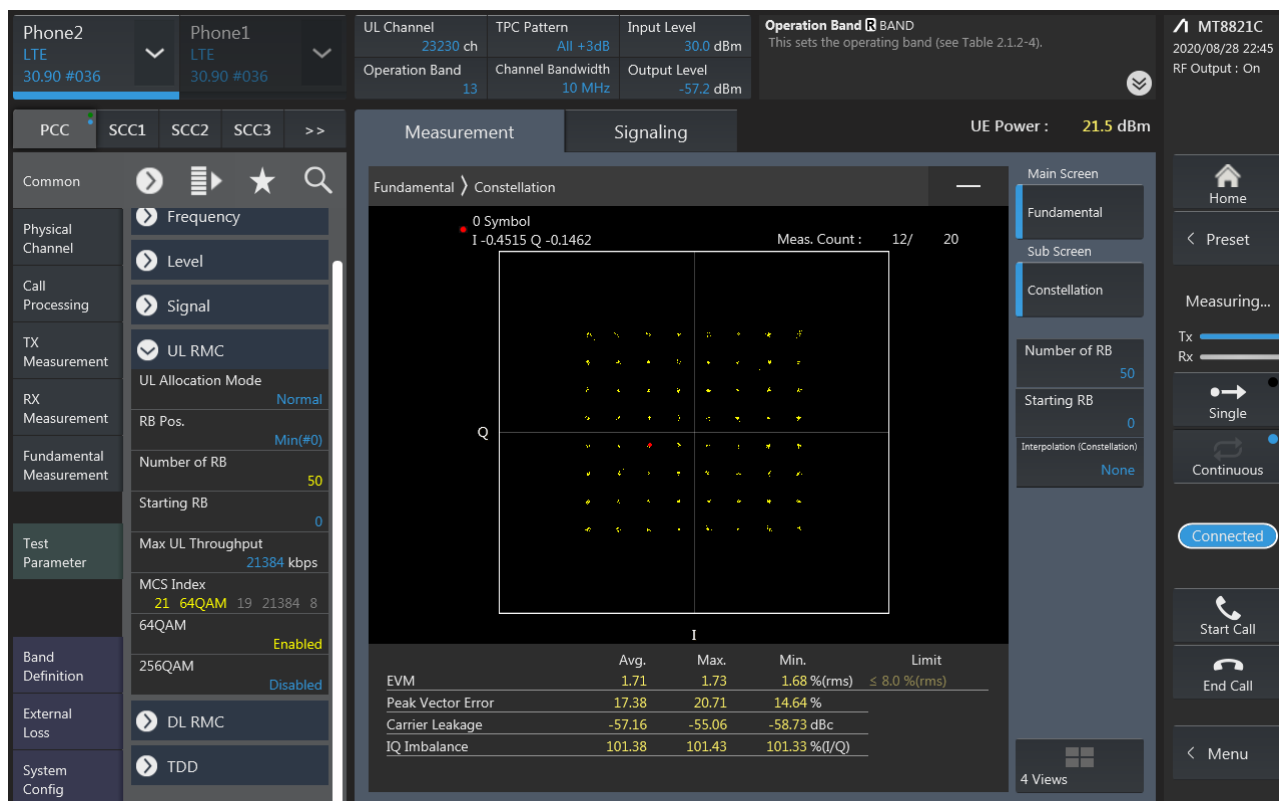
3.2.1. Test Channel = MCH





3.3. Test Mode = LTE /TM3 10MHz

3.3.1. Test Channel = MCH





4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.466	4.880	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.466	4.890	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.466	4.890	PASS
Band13	5MHz	64QAM	23205	25RB#0	4.456	4.820	PASS
Band13	5MHz	64QAM	23230	25RB#0	4.486	4.890	PASS
Band13	5MHz	64QAM	23255	25RB#0	4.466	4.860	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.476	4.890	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.486	4.920	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.476	4.900	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.911	9.660	PASS
Band13	10MHz	64QAM	23230	50RB#0	8.891	9.620	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.931	9.660	PASS



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (26012053) EEC Laboratory

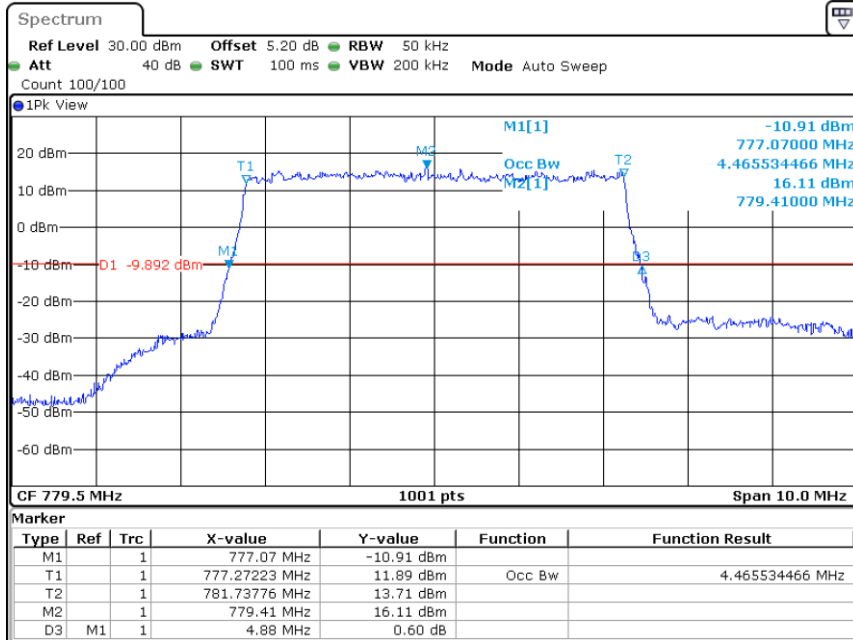
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



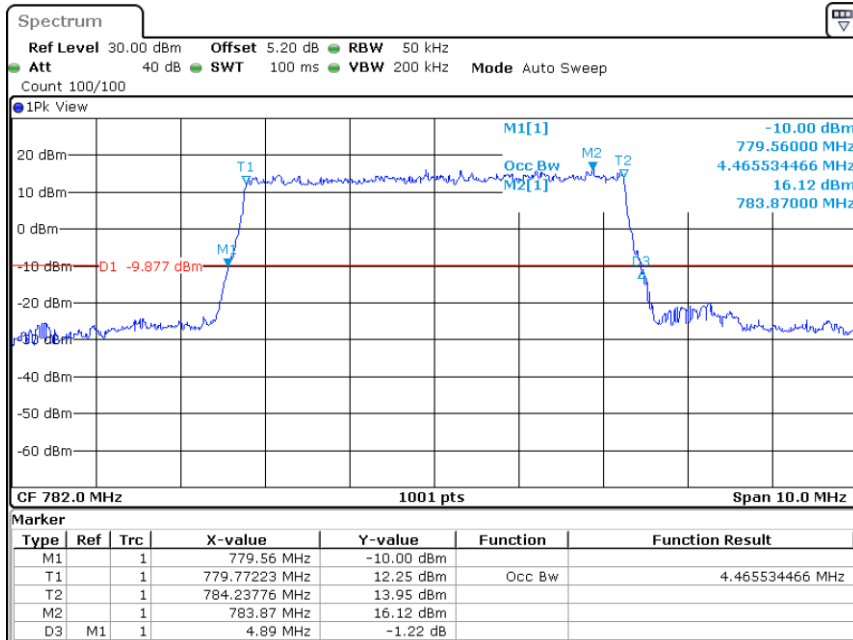
4.2. Test Plots

Band13-5MHz-QPSK-23205-25RB#0-4.466



Date: 16 JUL 2020 01:56:13

Band13-5MHz-QPSK-23230-25RB#0-4.466

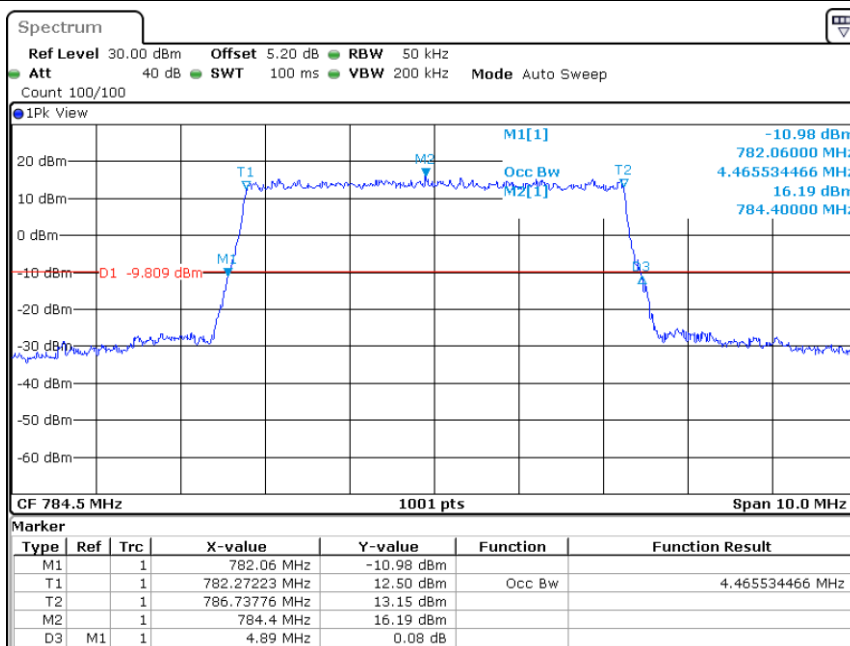


Date: 16 JUL 2020 01:56:52



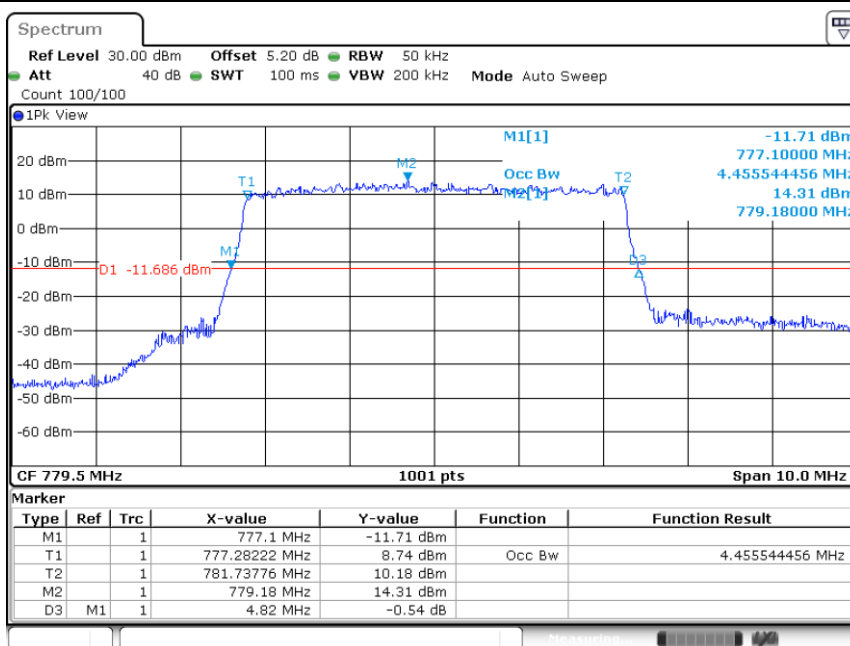


Band13-5MHz-QPSK-23255-25RB#0-4.466



Date: 16 JUL 2020 01:57:32

Band13-5MHz-64QAM-23205-25RB#0-4.456



Date: 11 AUG 2020 08:46:27



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

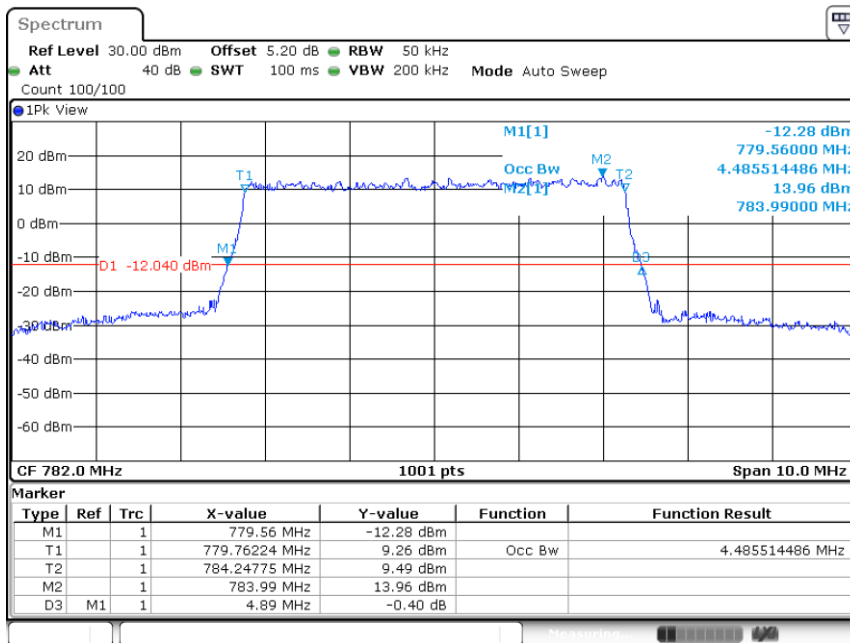
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

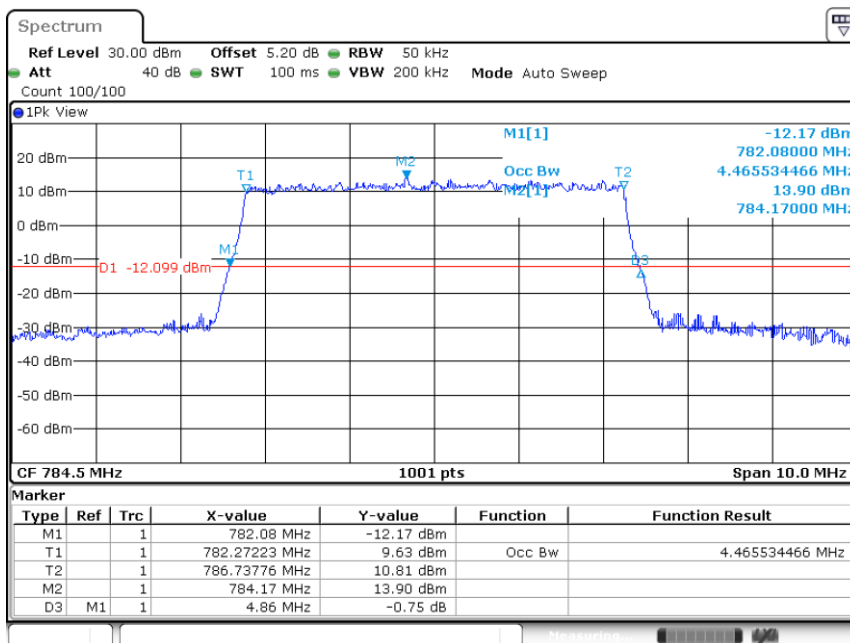


Band13-5MHz-64QAM-23230-25RB#0-4.486



Date: 11.AUG.2020 08:46:47

Band13-5MHz-64QAM-23255-25RB#0-4.466



Date: 11.AUG.2020 08:47:07



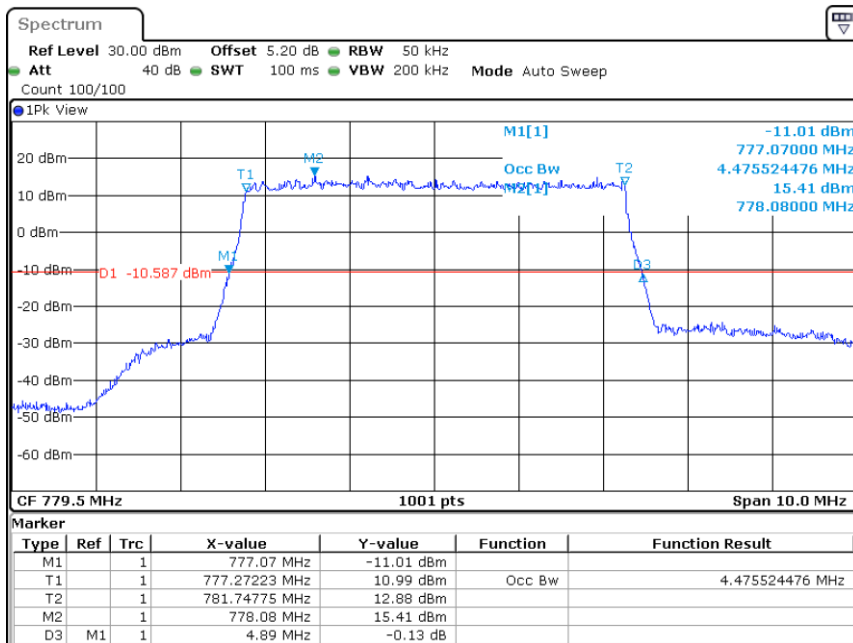
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

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

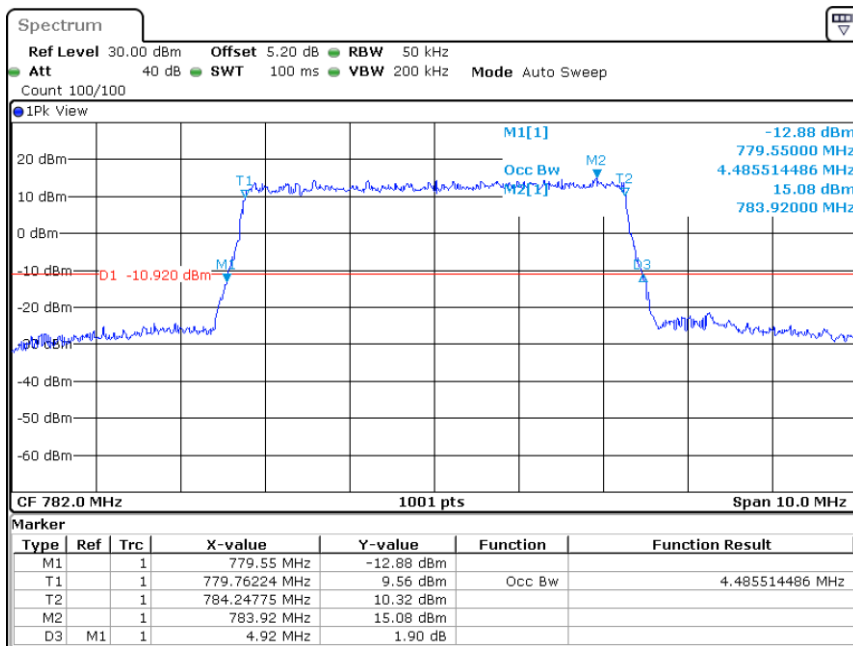
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

Band13-5MHz-16QAM-23205-25RB#0-4.476



Date: 16 JUL 2020 01:56:33

Band13-5MHz-16QAM-23230-25RB#0-4.486

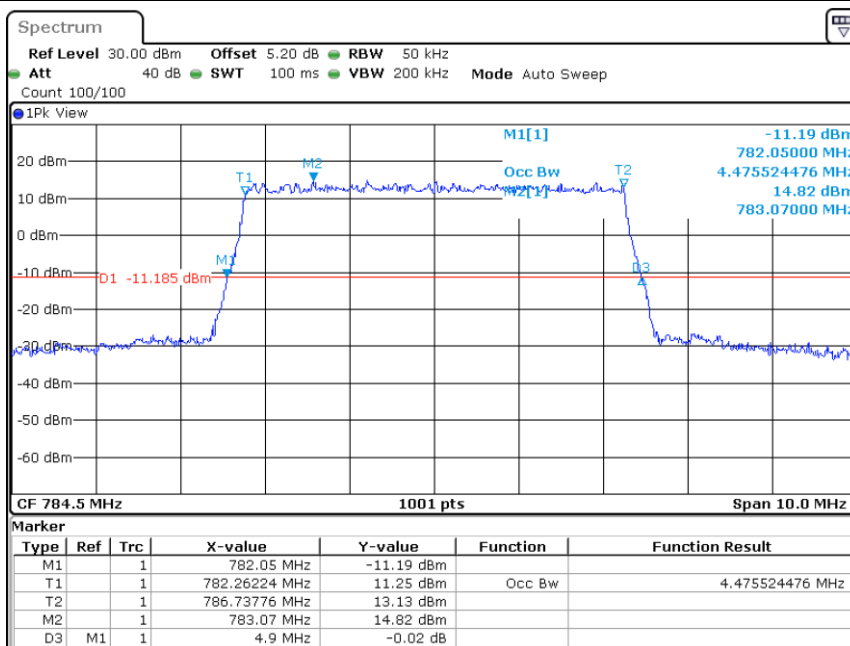


Date: 16 JUL 2020 01:57:12



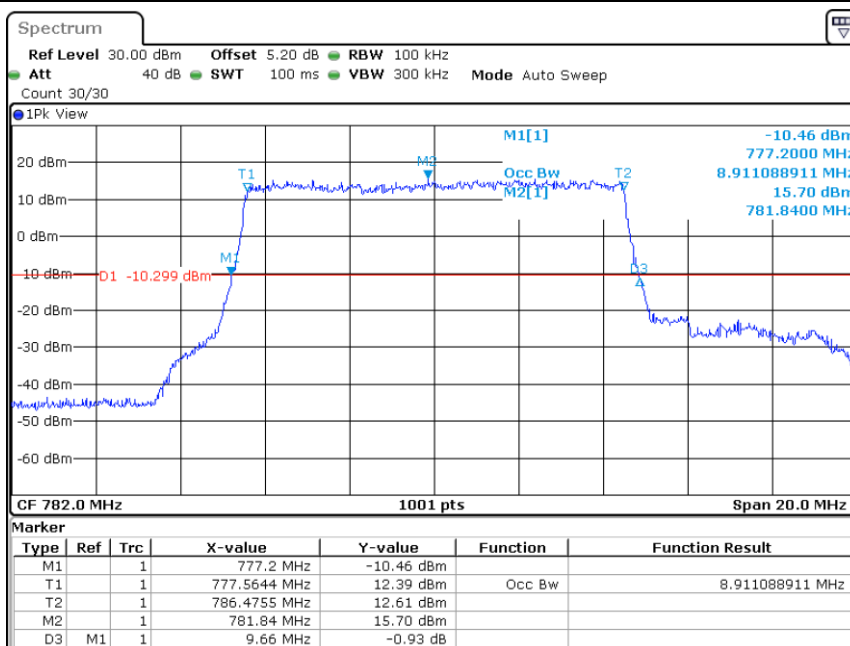


Band13-5MHz-16QAM-23255-25RB#0-4.476



Date: 16 JUL 2020 01:57:51

Band13-10MHz-QPSK-23230-50RB#0-8.911



Date: 16 JUL 2020 01:58:09



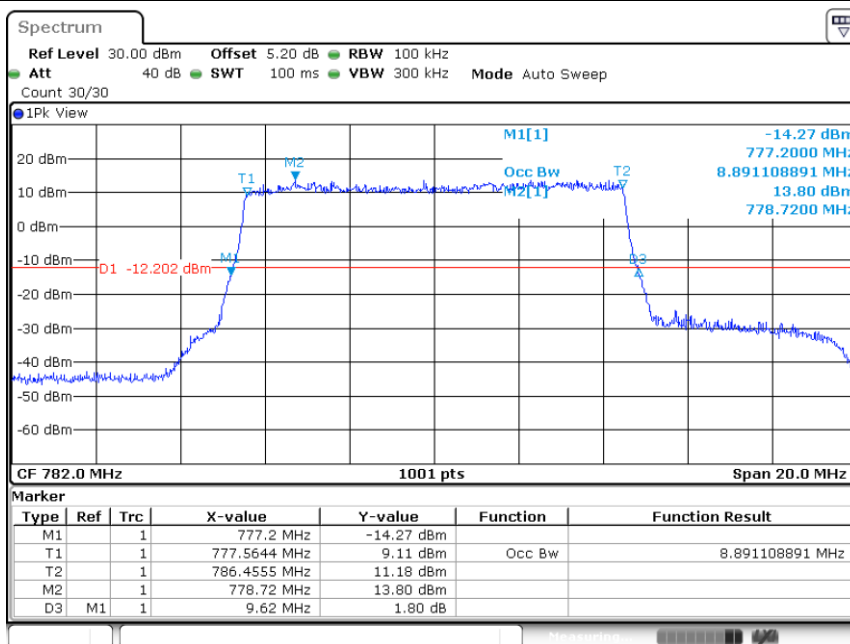
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

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.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

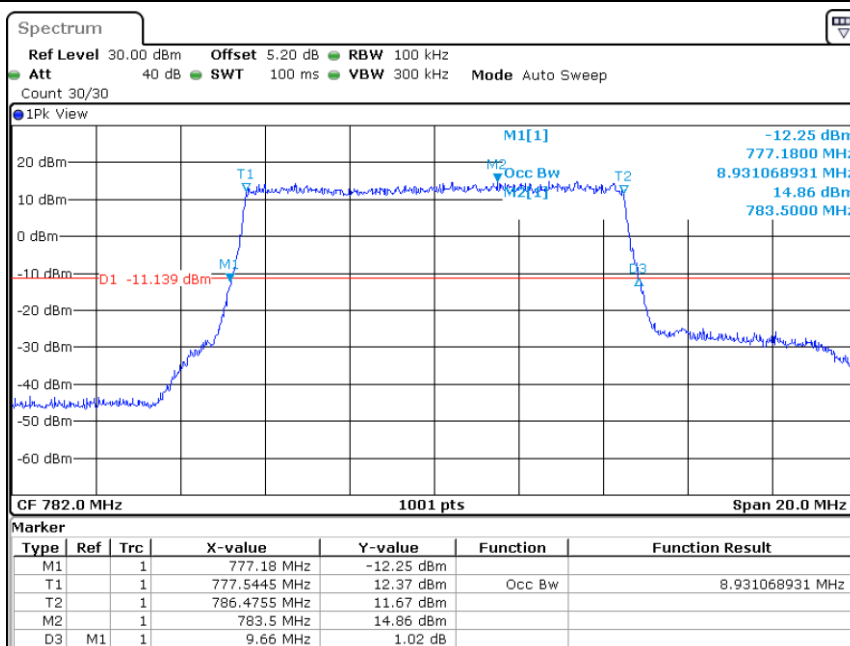


Band13-10MHz-64QAM-23230-50RB#0-8.891



Date: 11.AUG.2020 08:47:27

Band13-10MHz-16QAM-23230-50RB#0-8.931



Date: 16.JUL.2020 01:58:21



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

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.

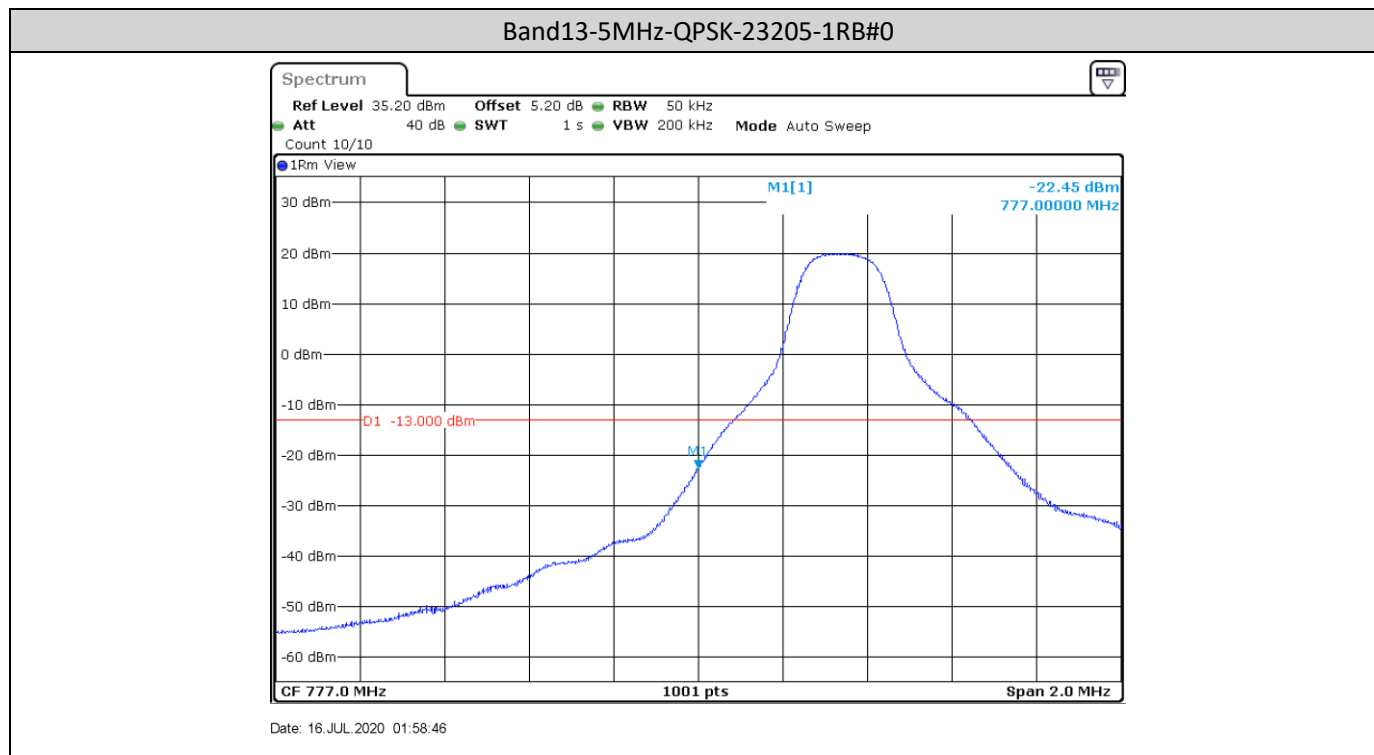
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

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



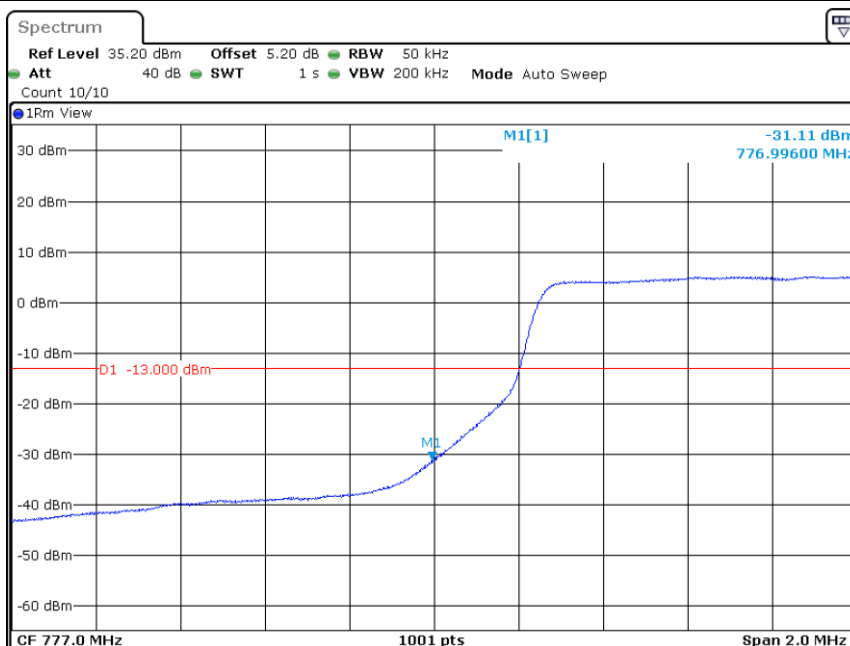
5. Band Edge Compliance

5.1. Test Plots



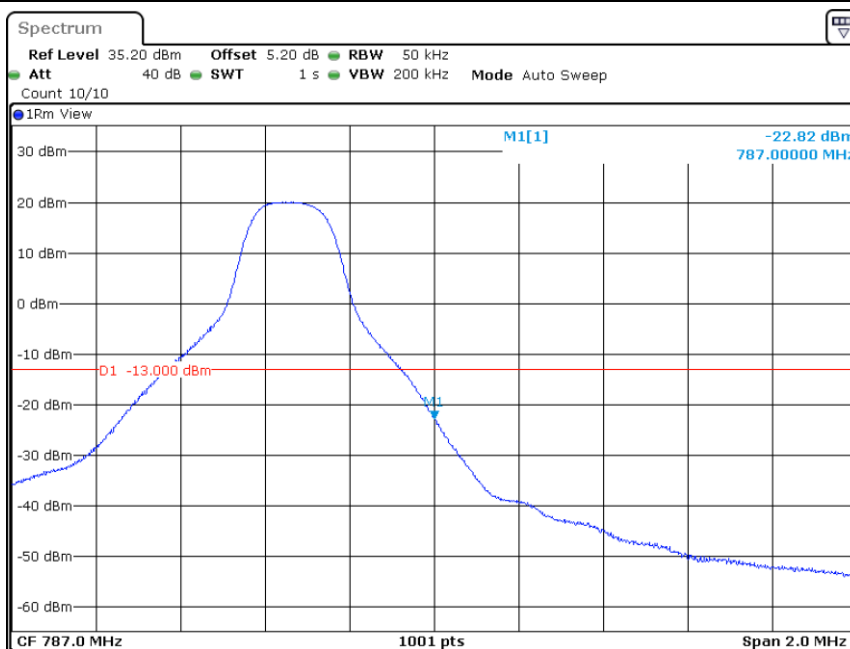


Band13-5MHz-QPSK-23205-25RB#0



Date: 16 JUL 2020 01:59:27

Band13-5MHz-QPSK-23255-1RB#24



Date: 16 JUL 2020 02:00:13



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

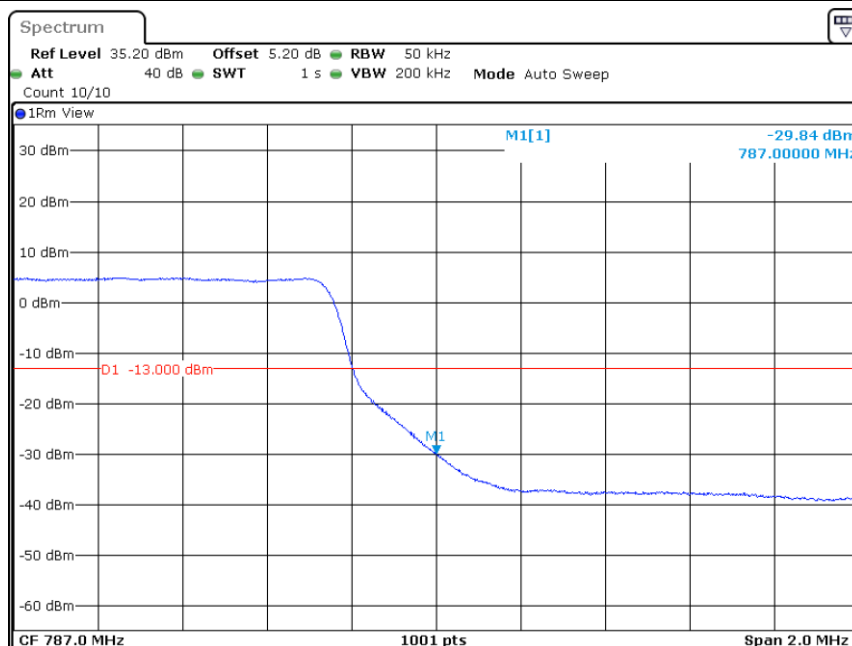
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch, CCC Laboratory

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

Member of the SGS Group (SGS SA)

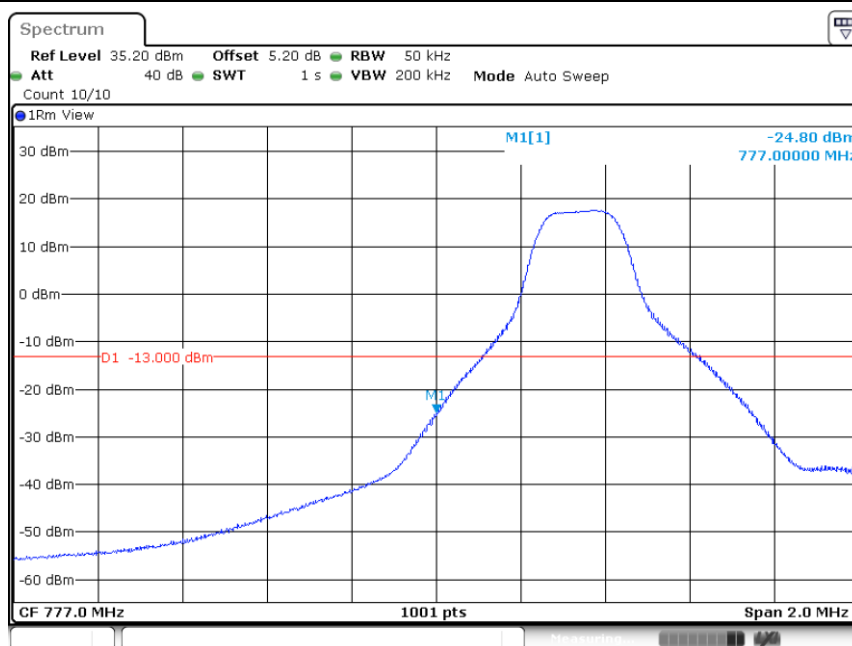


Band13-5MHz-QPSK-23255-25RB#0



Date: 16 JUL 2020 02:00:53

Band13-5MHz-64QAM-23205-1RB#0



Date: 11 AUG 2020 08:47:54



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

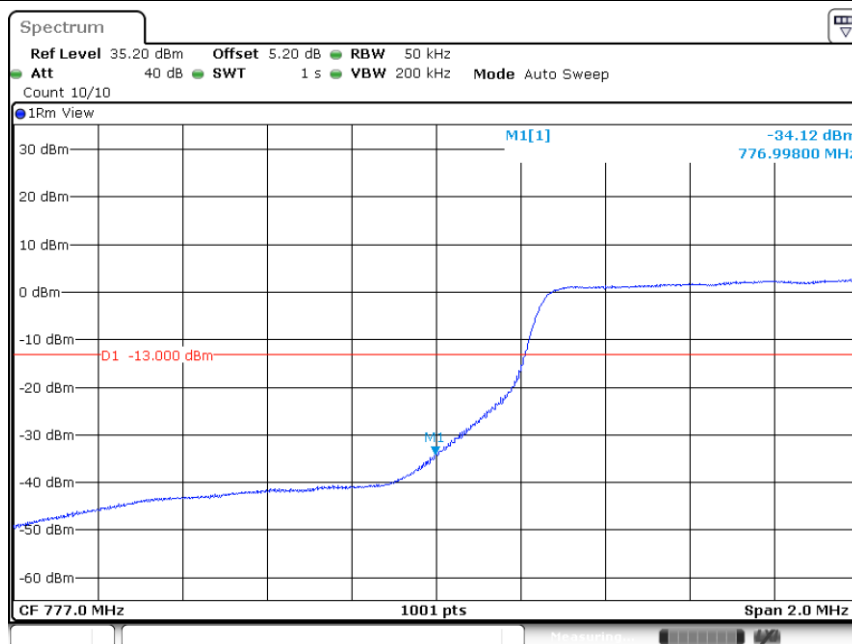
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (2019) China CCC Laboratory

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

Member of the SGS Group (SGS SA)

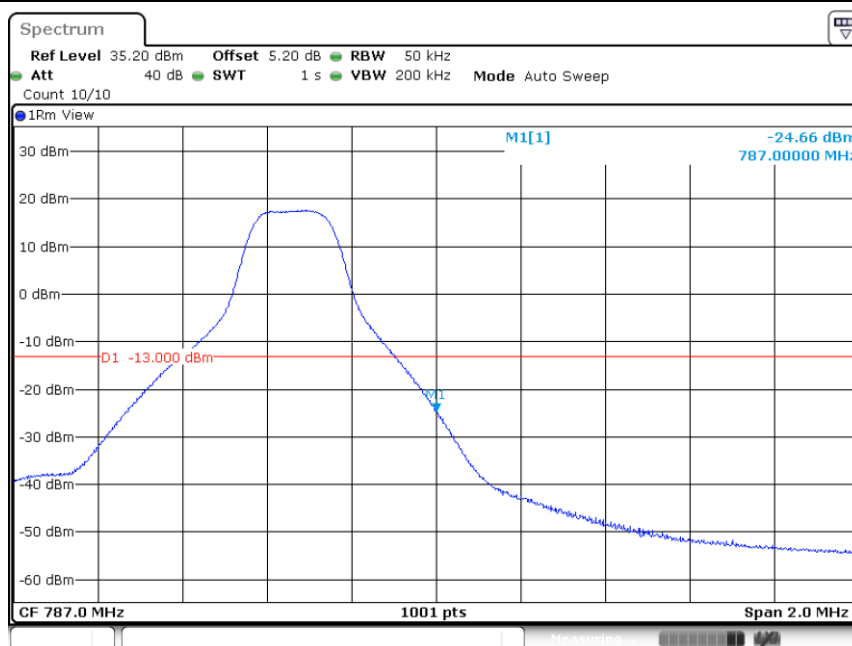


Band13-5MHz-64QAM-23205-25RB#0



Date: 11.AUG.2020 08:48:14

Band13-5MHz-64QAM-23255-1RB#24



Date: 11.AUG.2020 08:48:40



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

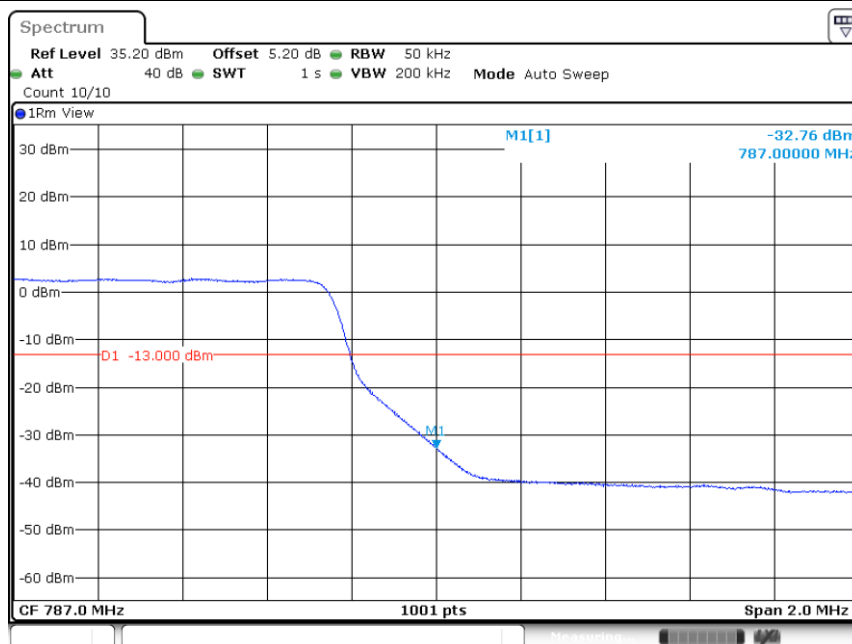
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (SZ) CCC Laboratory

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

Member of the SGS Group (SGS SA)

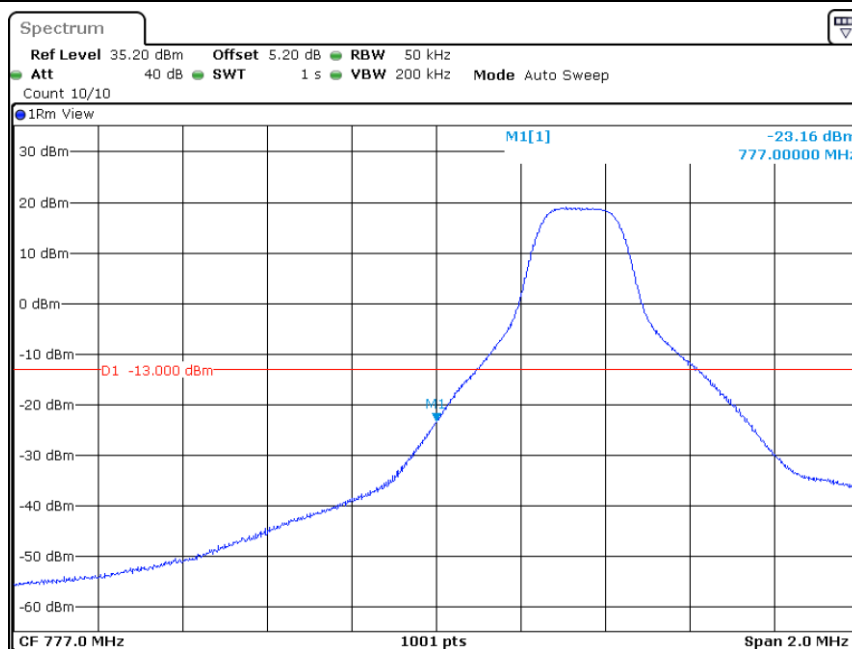


Band13-5MHz-64QAM-23255-25RB#0



Date: 11.AUG.2020 08:49:01

Band13-5MHz-16QAM-23205-1RB#0



Date: 16.JUL.2020 01:59:07



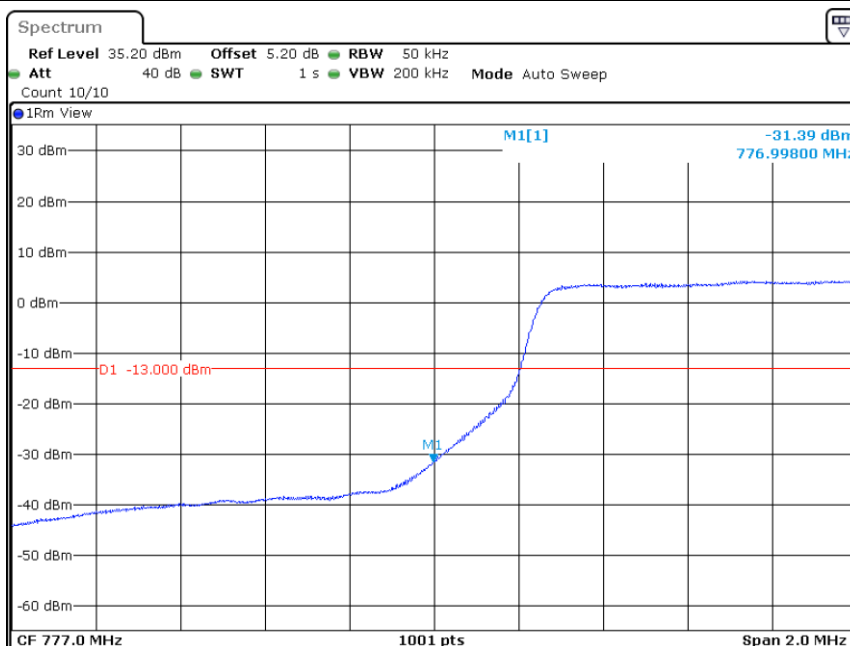
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

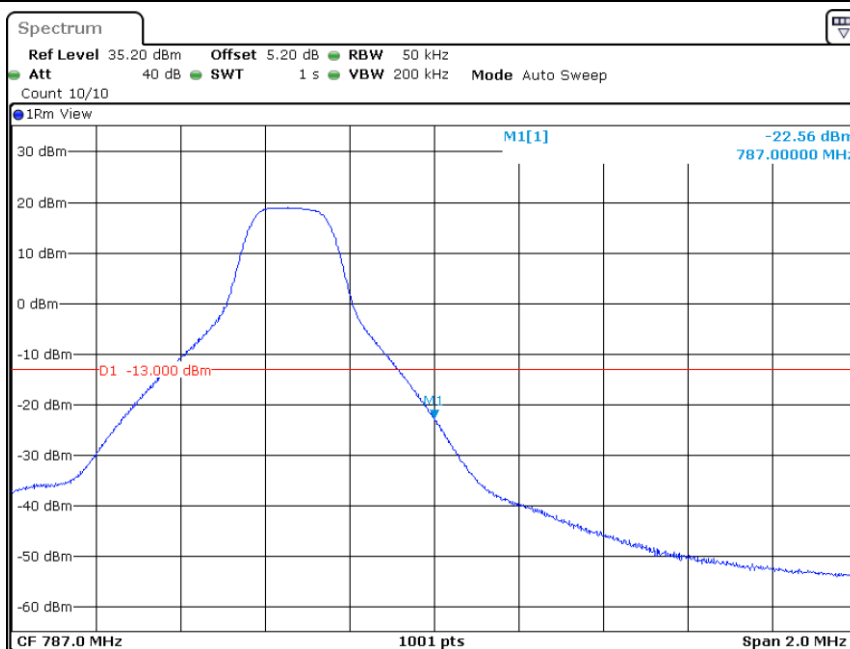


Band13-5MHz-16QAM-23205-25RB#0



Date: 16 JUL 2020 01:59:48

Band13-5MHz-16QAM-23255-1RB#24



Date: 16 JUL 2020 02:00:33



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-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

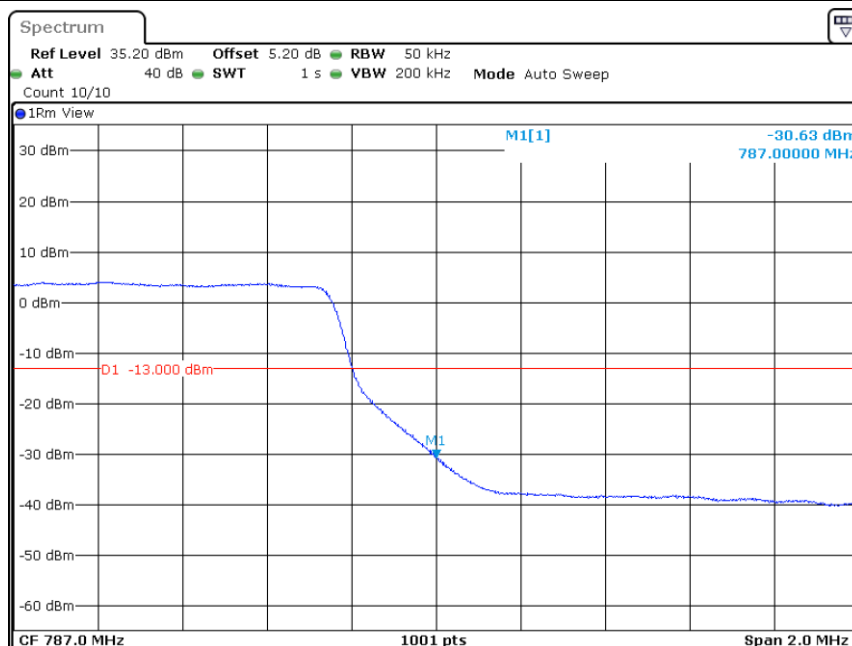
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (2010) China CCC Laboratory

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

Member of the SGS Group (SGS SA)

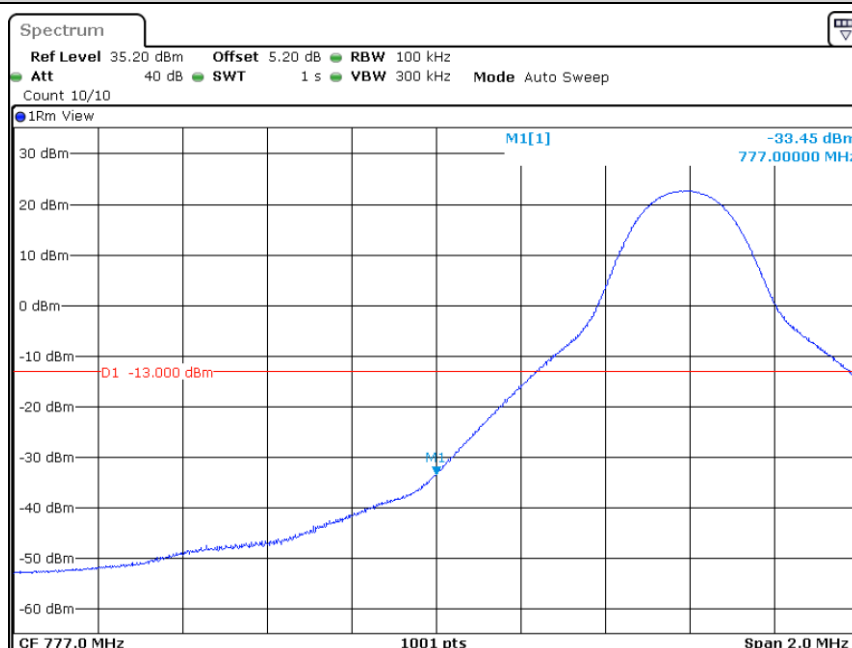


Band13-5MHz-16QAM-23255-25RB#0



Date: 16 JUL 2020 02:01:14

Band13-10MHz-QPSK-23230_Left-1RB#0



Date: 16 JUL 2020 02:01:39



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

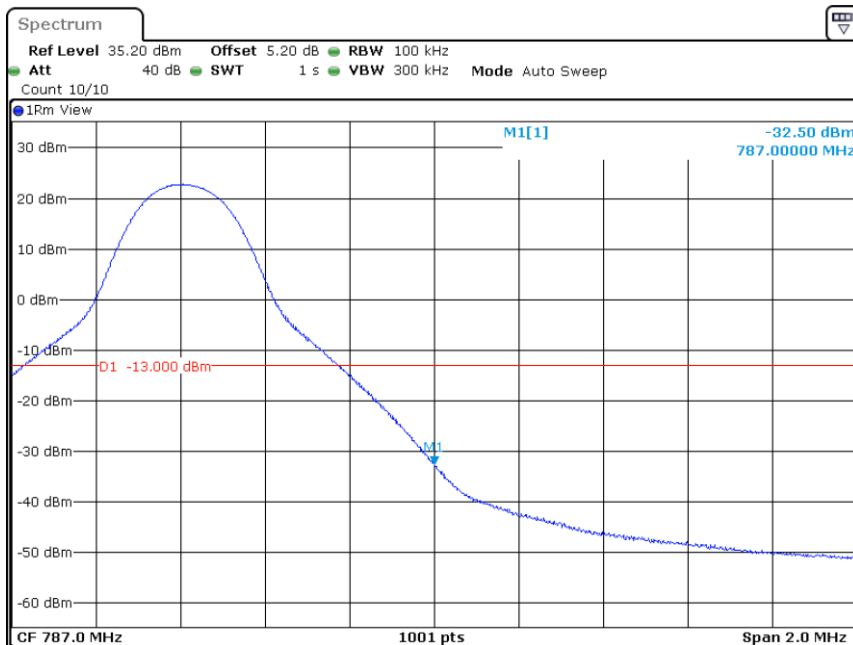
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (SZ) Testing Laboratory

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

Member of the SGS Group (SGS SA)

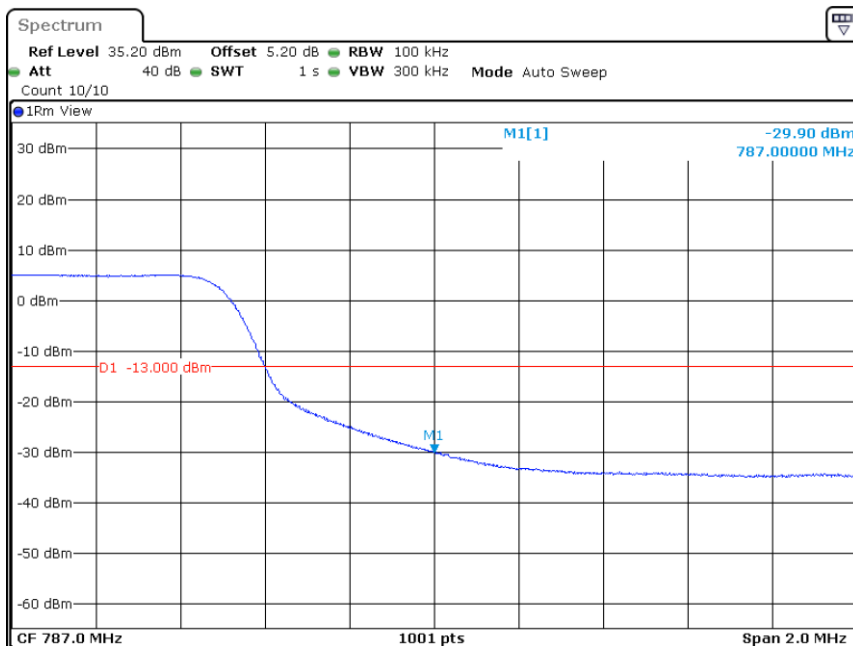


Band13-10MHz-QPSK-23230_Right-1RB#49



Date: 16 JUL 2020 02:02:24

Band13-10MHz-QPSK-23230_Right-50RB#0



Date: 16 JUL 2020 02:03:04



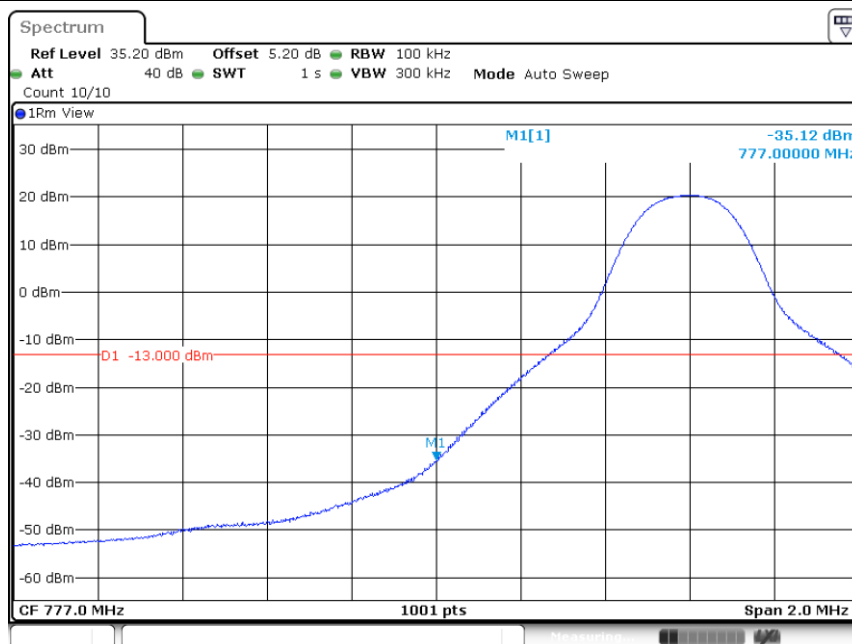
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

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.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

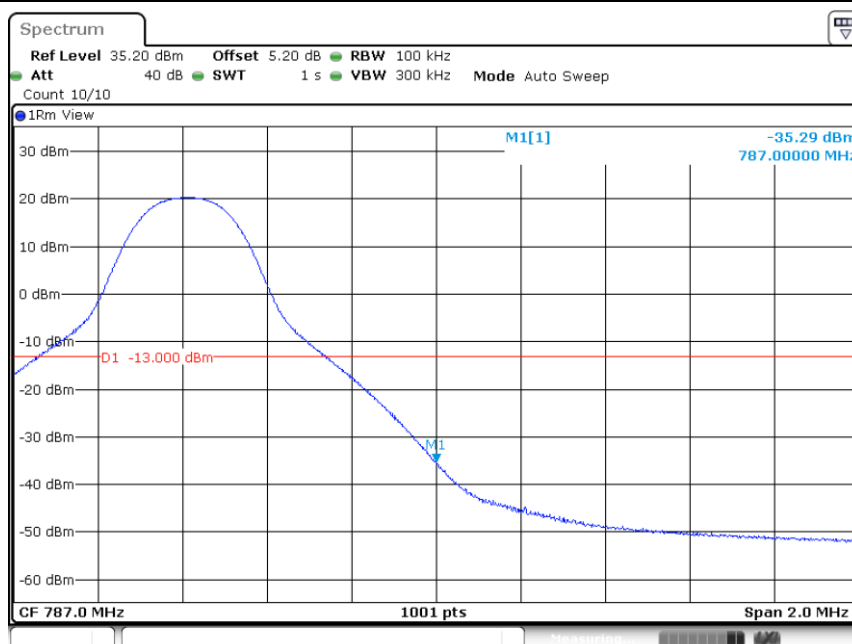


Band13-10MHz-64QAM-23230_Left-1RB#0



Date: 11.AUG.2020 08:49:28

Band13-10MHz-64QAM-23230_Right-1RB#49



Date: 11.AUG.2020 08:49:54



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

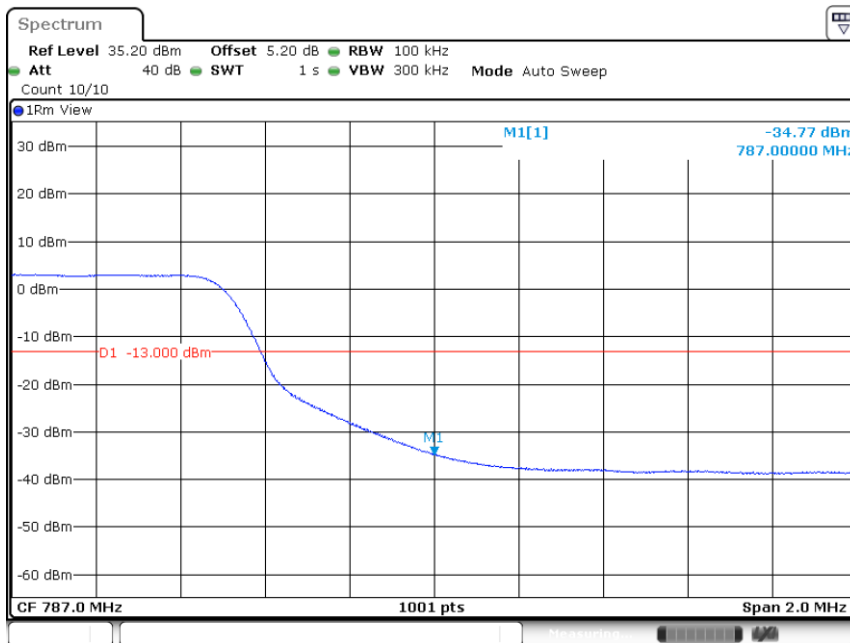
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (SZ) is a member of SGS SA Laboratory.

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

Member of the SGS Group (SGS SA)

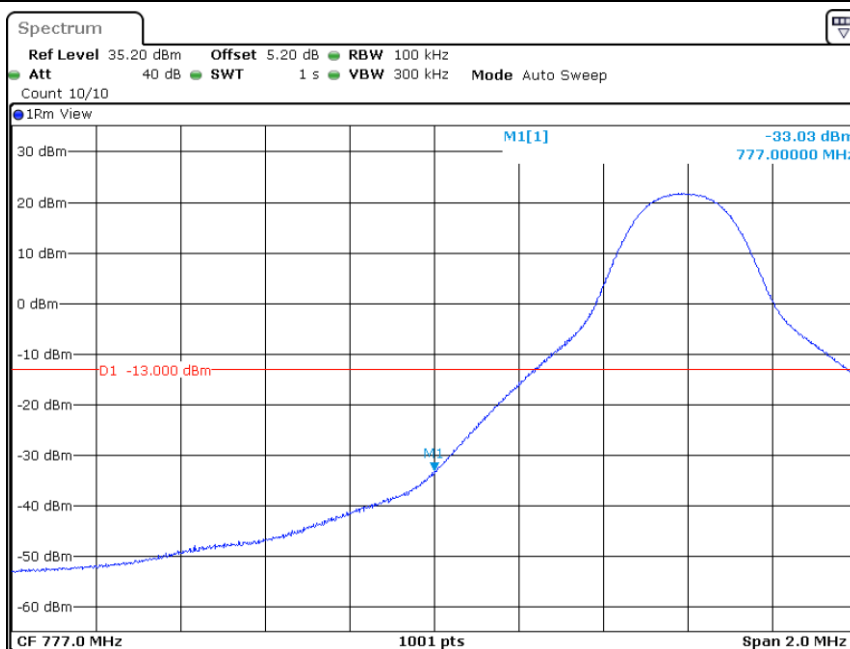


Band13-10MHz-64QAM-23230_Right-50RB#0



Date: 11.AUG.2020 08:50:14

Band13-10MHz-16QAM-23230_Left-1RB#0



Date: 16.JUL.2020 02:01:59



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

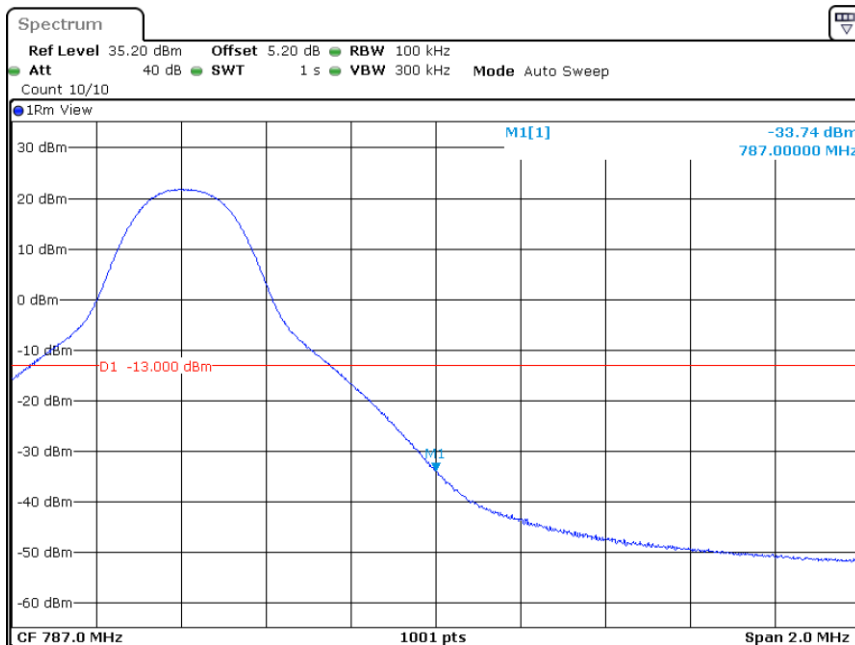
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

Member of the SGS Group (SGS SA)

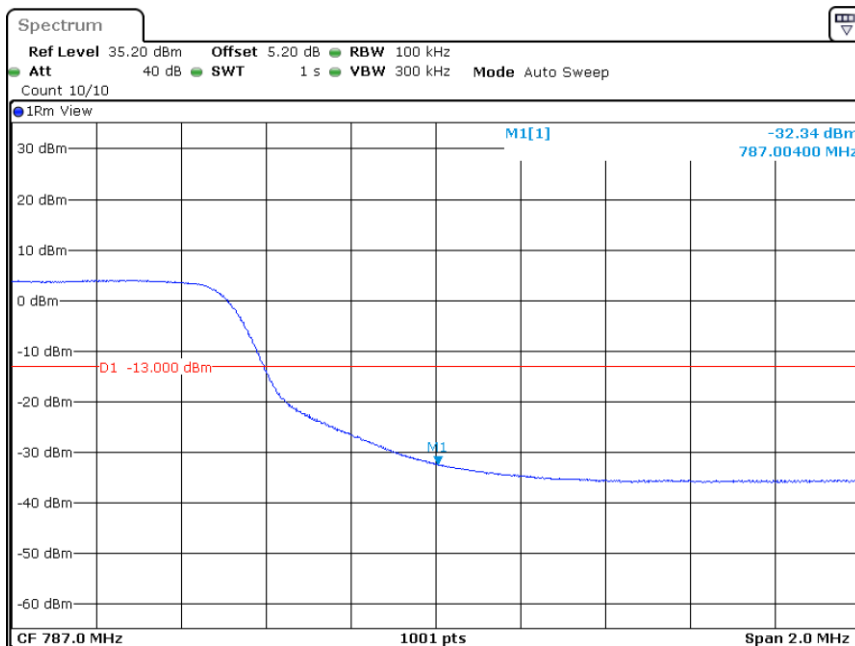


Band13-10MHz-16QAM-23230_Right-1RB#49



Date: 16 JUL 2020 02:02:44

Band13-10MHz-16QAM-23230_Right-50RB#0



Date: 16 JUL 2020 02:03:25



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

Member of the SGS Group (SGS SA)

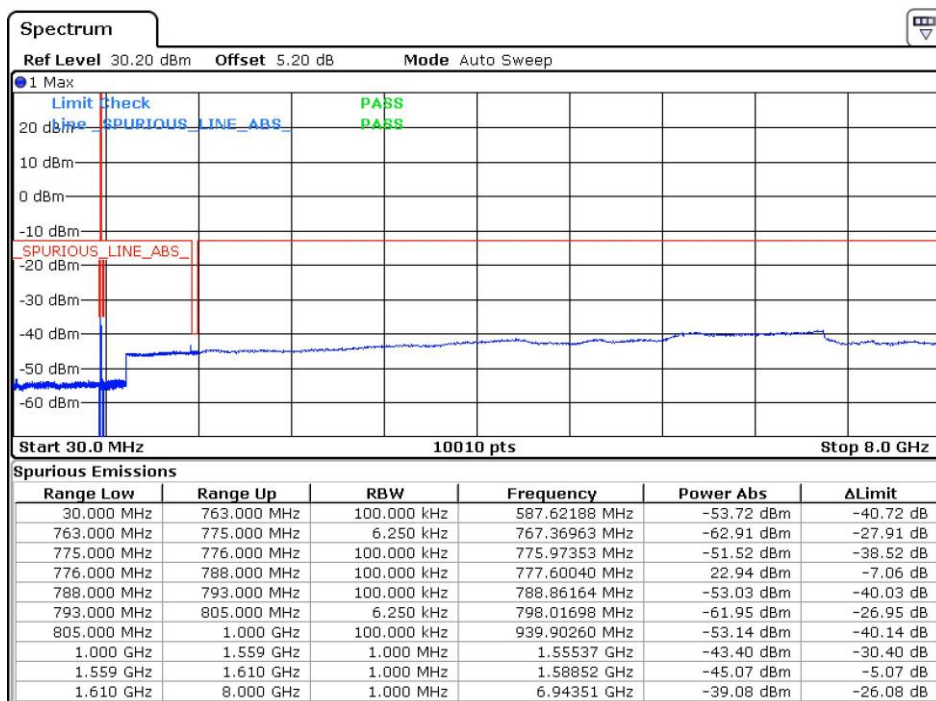
6. Spurious Emission at Antenna Terminal

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

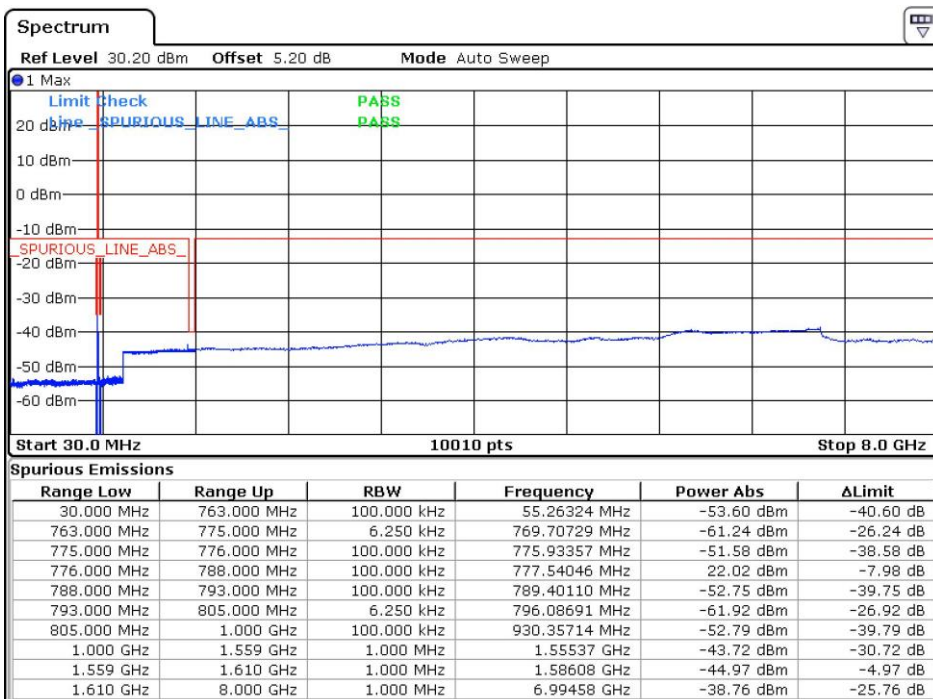
Band13-10MHz-QPSK-1RB#0-23230



Date: 16.JUL.2020 09:14:00



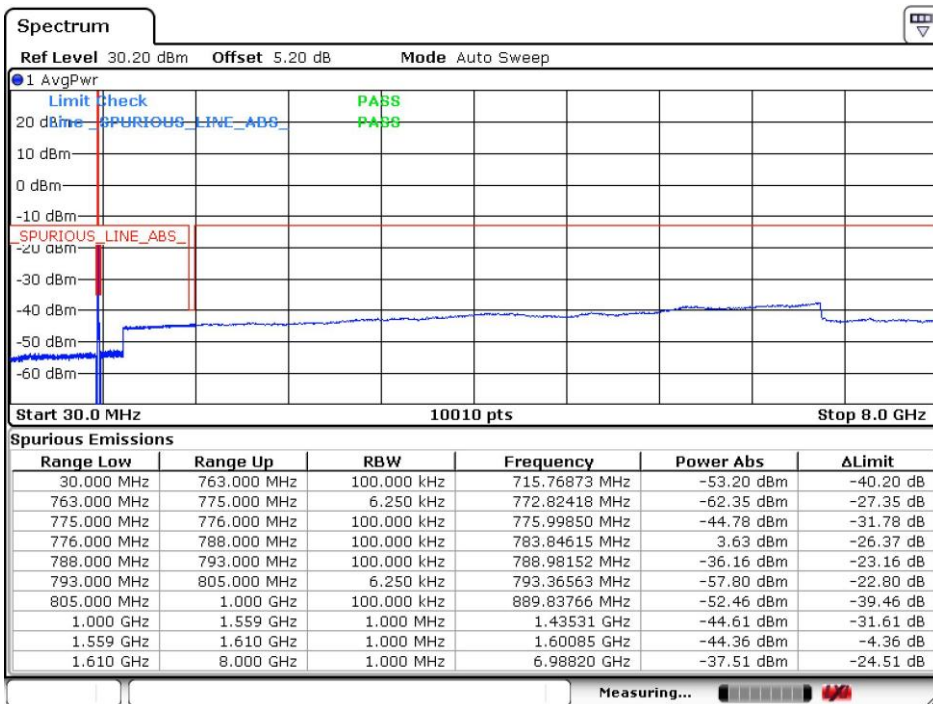
Band13-10MHz-16QAM-1RB#0-23230



Date: 16.JUL.2020 09:13:12



Band13-10MHz-64QAM-1RB#0-23230



Date: 26.AUG.2020 10:59:31

SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (2020) China 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

7. Field Strength of Spurious Radiation

7.1. Test Mode =LTE/TM1 10MHz

7.1.1.Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
73.7977	-66.19	-13.00	53.19	174	119	Vertical
373.3002	-67.75	-13.00	54.75	185	56	Vertical
1699.7399	-62.20	-13.00	49.20	196	155	Vertical
3000.0000	-56.42	-13.00	43.42	213	84	Vertical
7448.5779	-56.07	-13.00	43.07	262	99	Vertical
17994.5998	-40.37	-13.00	27.37	229	227	Vertical
44.6477	-64.93	-13.00	51.93	254	205	Horizontal
230.0725	-69.05	-13.00	56.05	159	56	Horizontal
1554.9110	-62.47	-13.00	49.47	196	254	Horizontal
2696.3393	-56.38	-13.00	43.38	184	22	Horizontal
7452.1781	-56.16	-13.00	43.16	321	141	Horizontal
16399.1360	-43.70	-13.00	30.70	261	56	Horizontal

Remark:

- According to 971168 D01 Power Meas License Digital Systems, The amplitudes of unwanted emissions that are attenuated more than 20 dB below the applicable limit are not required to be reported.
- 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 displayed in this report.
- all modulation and all Bandwidth had been tested, but only the worst case data displayed in this 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

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



8. Frequency Stability

8.1. Frequency Vs Voltage

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	10MHz	QPSK	23230	50RB#0	VL	NT	0.00	0.000000	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VN	NT	3.30	0.004220	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VH	NT	2.80	0.003581	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	VL	NT	0.70	0.000895	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	VN	NT	2.20	0.002813	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	VH	NT	-5.10	-0.006522	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VL	NT	-0.10	-0.000128	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VN	NT	3.70	0.004731	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VH	NT	-4.30	-0.005499	±2.5	PASS



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



8.2. Frequency Vs Temperature

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	10MHz	QPSK	23230	50RB#0	NV	-30	3.80	0.004859	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-20	0.20	0.000256	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	0	-2.80	-0.003581	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	10	4.00	0.005115	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	20	-0.20	-0.000256	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	30	0.20	0.000256	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	40	-3.50	-0.004476	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	50	-2.70	-0.003453	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	-30	1.40	0.001790	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	-20	-4.60	-0.005882	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	0	-4.80	-0.006138	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	10	-3.20	-0.004092	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	20	-4.40	-0.005627	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	30	-1.90	-0.002430	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	40	-3.00	-0.003836	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	50	-1.80	-0.002302	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-30	-4.30	-0.005499	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-20	0.10	0.000128	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	0	0.80	0.001023	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	10	-1.20	-0.001535	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	20	2.60	0.003325	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	30	-4.20	-0.005371	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	40	-2.00	-0.002558	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	50	-4.30	-0.005499	±2.5	PASS

The End

