



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-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



CONTENT

1	EFFECTIVE (ISOTROPIC) RADIATED POWER.....	3
1.1.	TEST RESULT	3
2.	PEAK-TO-AVERAGE RATIO (CCDF)	5
2.1.	TEST RESULT	5
2.2.	TEST PLOTS	5
3.	MODULATION CHARACTERISTICS	7
3.1.	TEST MODE = LTE /TM1 10MHz	7
3.1.1.	TEST CHANNEL = MCH	7
3.2.	TEST MODE = LTE /TM2 10MHz	8
3.2.1.	TEST CHANNEL = MCH	8
4.	26DB BANDWIDTH AND OCCUPIED BANDWIDTH	9
4.1.	TEST RESULT	9
4.2.	TEST PLOTS	9
5.	BAND EDGE COMPLIANCE	14
5.1.	TEST PLOTS	14
6.	SPURIOUS EMISSION AT ANTENNA TERMINAL	23
6.1.	TEST PLOTS	23
7.	FIELD STRENGTH OF SPURIOUS RADIATION	25
7.1.	TEST MODE =LTE/TM1 10MHz.....	25
7.1.1.	TEST CHANNEL = MCH	25
8.	FREQUENCY STABILITY	26
8.1.	FREQUENCY VS VOLTAGE	26
8.2.	FREQUENCY VS TEMPERATURE	26



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



1 Effective (Isotropic) Radiated Power

1.1. Test Result

Band	Bandwidth h	Modulation	Channel	RB Config.	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	23.24	13.59	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#12	23.22	13.57	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#24	23.1	13.45	34.77	PASS
Band13	5MHz	QPSK	23205	12RB#0	22.34	12.69	34.77	PASS
Band13	5MHz	QPSK	23205	12RB#6	22.32	12.67	34.77	PASS
Band13	5MHz	QPSK	23205	12RB#13	22.33	12.68	34.77	PASS
Band13	5MHz	QPSK	23205	25RB#0	22.37	12.72	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#0	23.02	13.37	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#12	23.31	13.66	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#24	23.43	13.78	34.77	PASS
Band13	5MHz	QPSK	23230	12RB#0	22.34	12.69	34.77	PASS
Band13	5MHz	QPSK	23230	12RB#6	22.3	12.65	34.77	PASS
Band13	5MHz	QPSK	23230	12RB#13	22.38	12.73	34.77	PASS
Band13	5MHz	QPSK	23230	25RB#0	22.36	12.71	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#0	22.94	13.29	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#12	23.39	13.74	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#24	22.96	13.31	34.77	PASS
Band13	5MHz	QPSK	23255	12RB#0	22.26	12.61	34.77	PASS
Band13	5MHz	QPSK	23255	12RB#6	22.26	12.61	34.77	PASS
Band13	5MHz	QPSK	23255	12RB#13	22.15	12.5	34.77	PASS
Band13	5MHz	QPSK	23255	25RB#0	22.23	12.58	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#0	22.09	12.44	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#12	22.13	12.48	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#24	22.04	12.39	34.77	PASS
Band13	5MHz	16QAM	23205	12RB#0	21.5	11.85	34.77	PASS
Band13	5MHz	16QAM	23205	12RB#6	21.47	11.82	34.77	PASS
Band13	5MHz	16QAM	23205	12RB#13	21.27	11.62	34.77	PASS
Band13	5MHz	16QAM	23205	25RB#0	21.15	11.5	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#0	22.14	12.49	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#12	21.88	12.23	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#24	22.49	12.84	34.77	PASS
Band13	5MHz	16QAM	23230	12RB#0	21.24	11.59	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
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	16QAM	23230	12RB#6	21.41	11.76	34.77	PASS
Band13	5MHz	16QAM	23230	12RB#13	21.33	11.68	34.77	PASS
Band13	5MHz	16QAM	23230	25RB#0	21.36	11.71	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#0	22.02	12.37	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#12	22.24	12.59	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#24	21.91	12.26	34.77	PASS
Band13	5MHz	16QAM	23255	12RB#0	21.22	11.57	34.77	PASS
Band13	5MHz	16QAM	23255	12RB#6	21.25	11.6	34.77	PASS
Band13	5MHz	16QAM	23255	12RB#13	21.08	11.43	34.77	PASS
Band13	5MHz	16QAM	23255	25RB#0	21.04	11.39	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#0	23.41	13.76	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#24	23.57	13.92	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#49	23.12	13.47	34.77	PASS
Band13	10MHz	QPSK	23230	25RB#0	22.33	12.68	34.77	PASS
Band13	10MHz	QPSK	23230	25RB#12	22.23	12.58	34.77	PASS
Band13	10MHz	QPSK	23230	25RB#25	22.34	12.69	34.77	PASS
Band13	10MHz	QPSK	23230	50RB#0	22.37	12.72	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#0	22.43	12.78	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#24	22.56	12.91	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#49	22.25	12.6	34.77	PASS
Band13	10MHz	16QAM	23230	25RB#0	21.37	11.72	34.77	PASS
Band13	10MHz	16QAM	23230	25RB#12	21.51	11.86	34.77	PASS
Band13	10MHz	16QAM	23230	25RB#25	21.36	11.71	34.77	PASS
Band13	10MHz	16QAM	23230	50RB#0	21.1	11.45	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
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

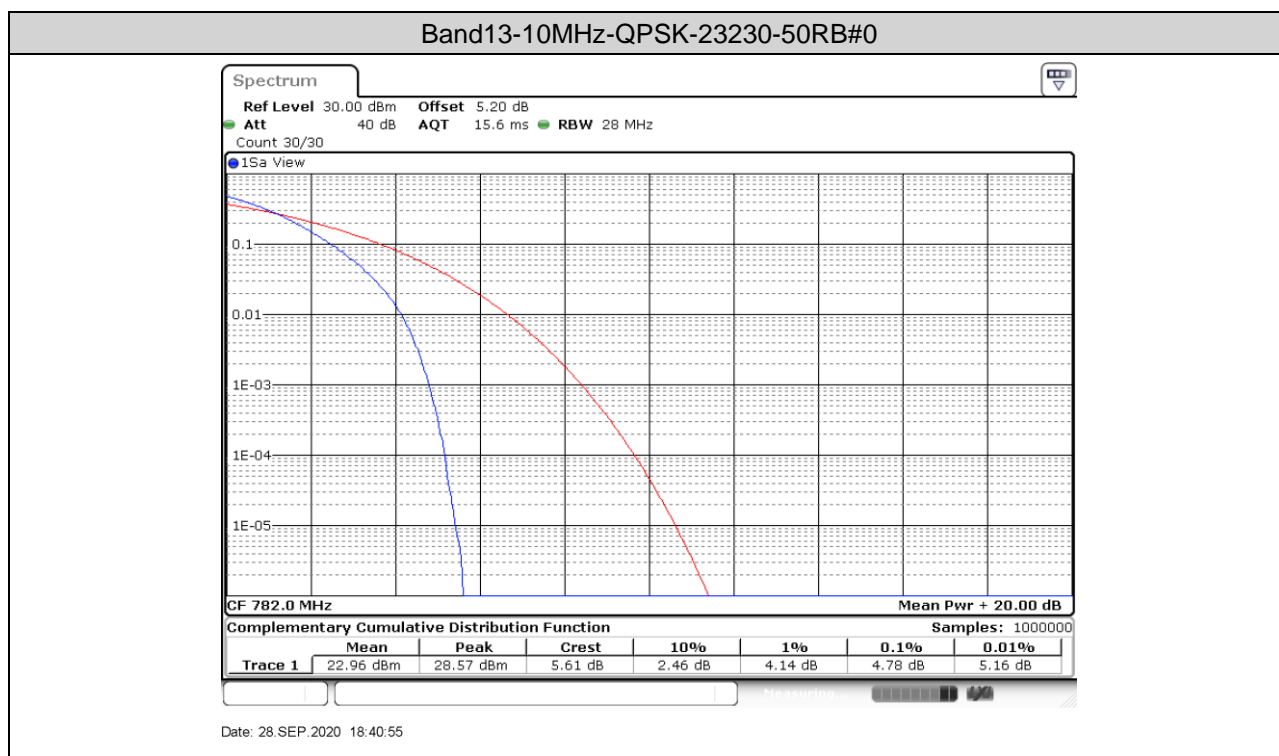


2. Peak-to-Average Ratio (CCDF)

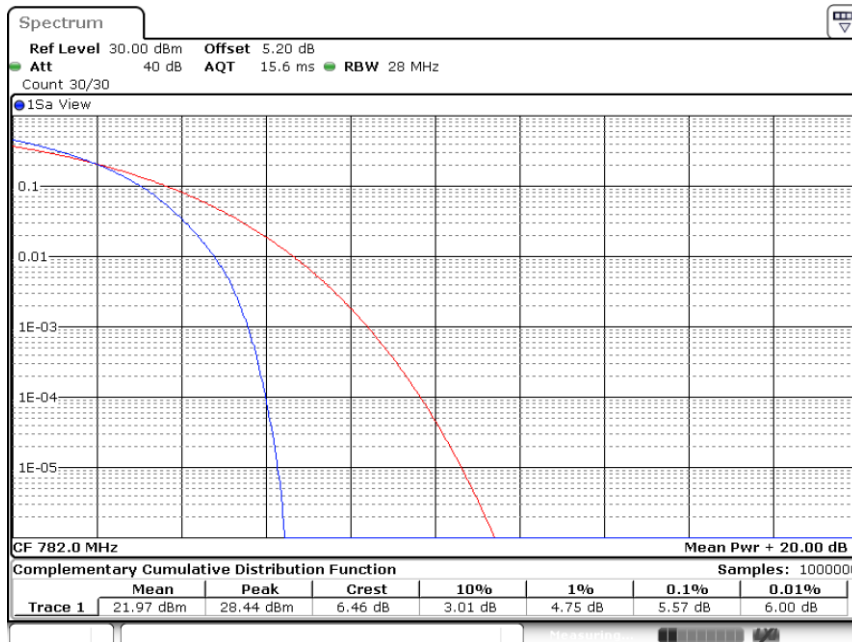
2.1. Test Result

Band	Bandwidth h	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	10MHz	QPSK	23230	50RB#0	4.78	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	5.57	13	PASS

2.2. Test Plots



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



Date: 28.SEP.2020 18:41:09

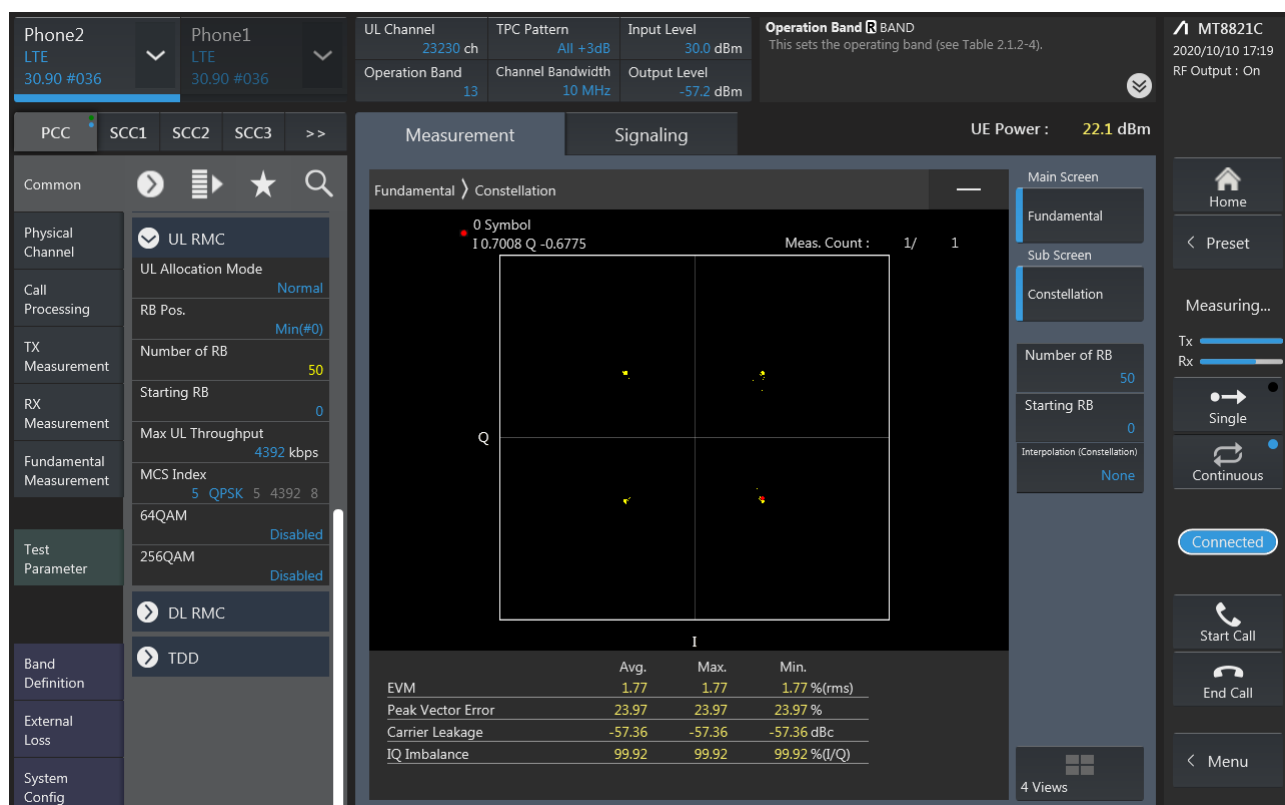




3. Modulation Characteristics

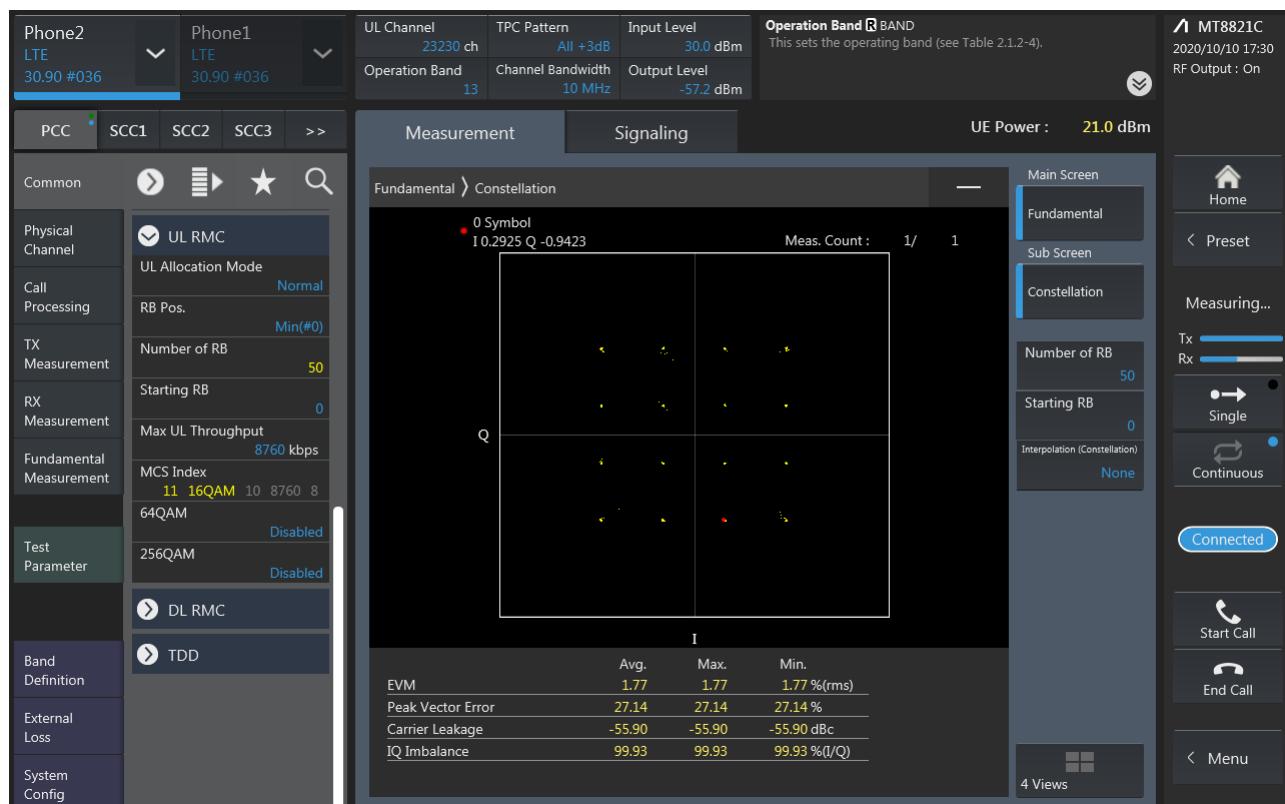
3.1. Test Mode = LTE /TM1 10MHz

3.1.1. Test Channel = MCH



3.2. Test Mode = LTE /TM2 10MHz

3.2.1. Test Channel = MCH



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed on the back, 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-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 in full, without the prior approval of the Company. Any unauthorized reproduction, forgery or falsification of the content or parameters of this document is illegal 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.

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

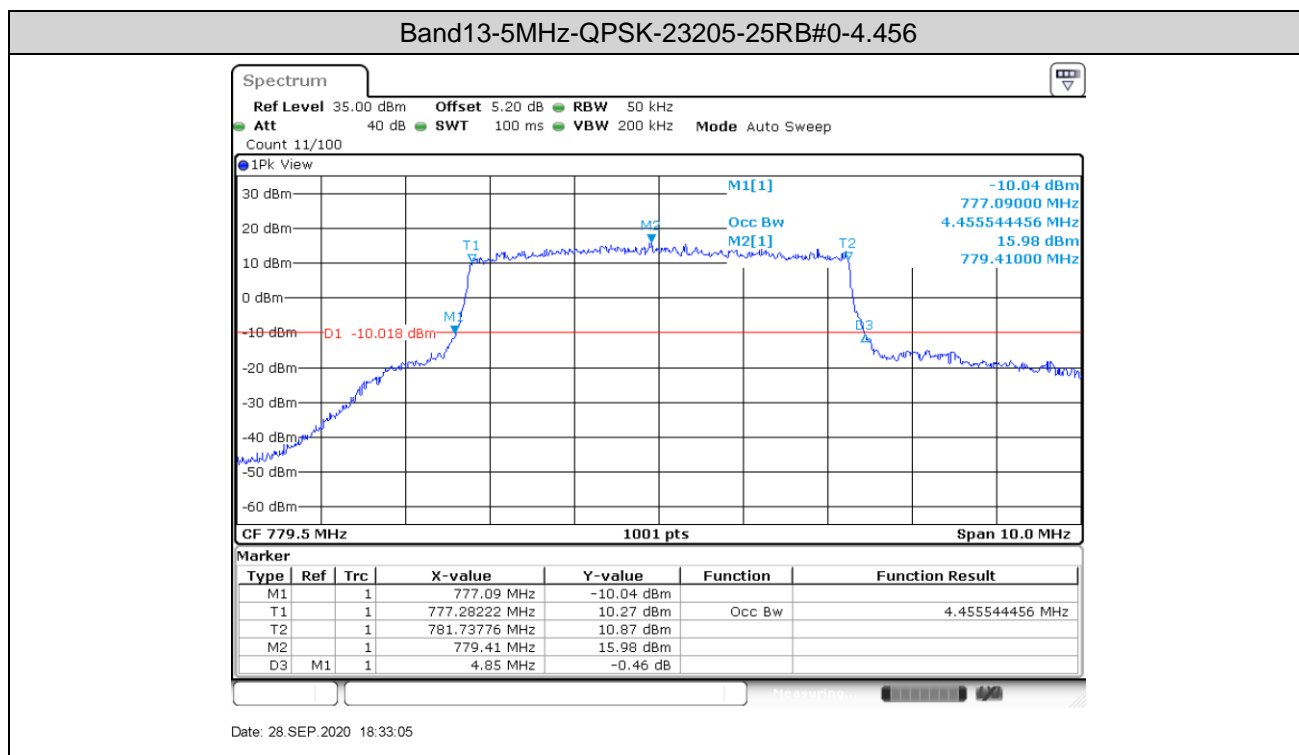


4. 26dB Bandwidth and Occupied Bandwidth

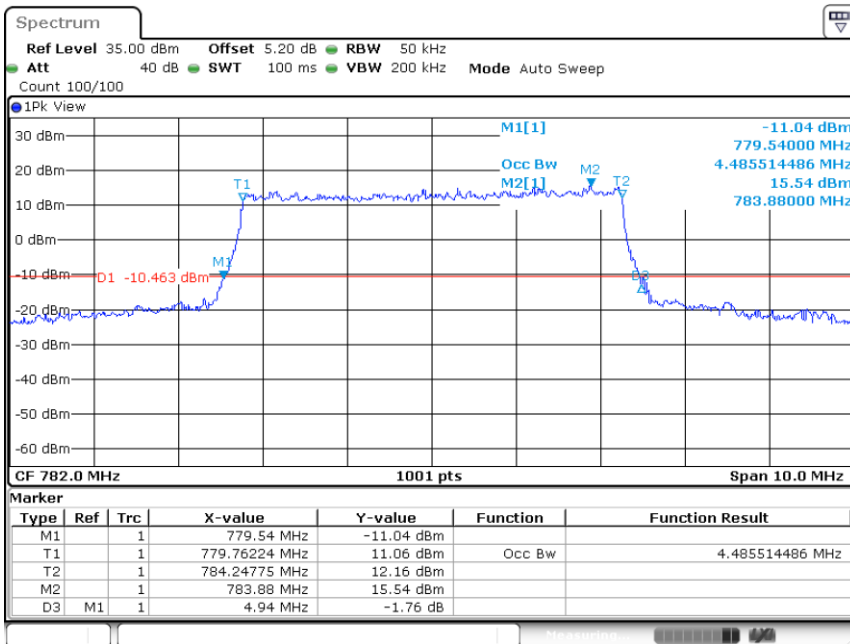
4.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.456	4.850	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.486	4.940	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.446	4.830	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.466	4.900	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.505	4.980	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.456	4.890	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.891	9.600	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.891	9.680	PASS

4.2. Test Plots

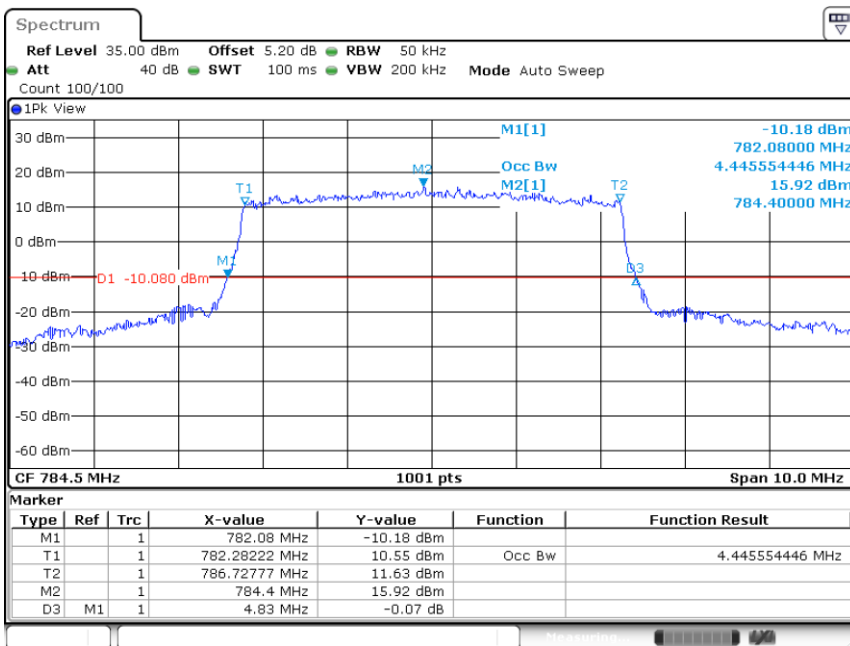


Band13-5MHz-QPSK-23230-25RB#0-4.486



Date: 28.SEP.2020 18:33:51

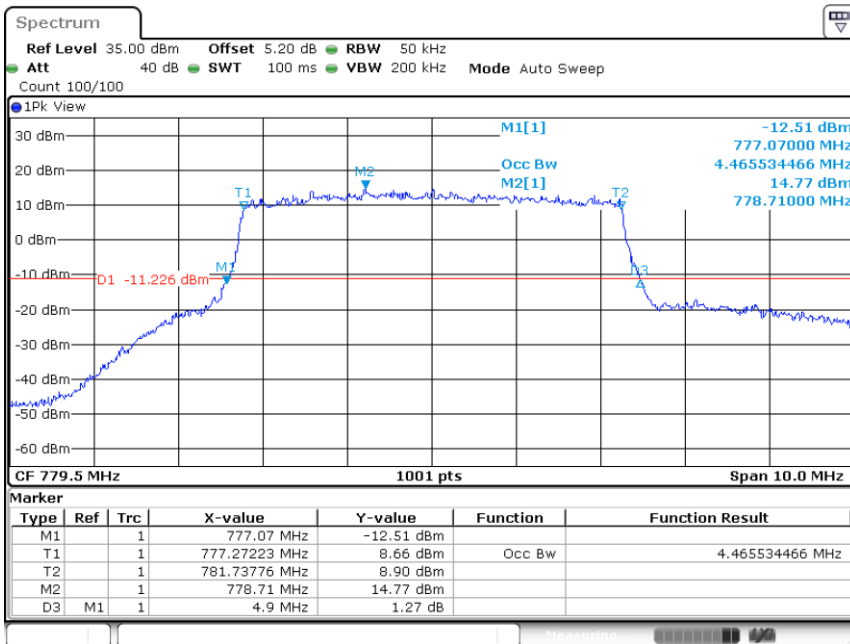
Band13-5MHz-QPSK-23255-25RB#0-4.446



Date: 28.SEP.2020 18:34:37

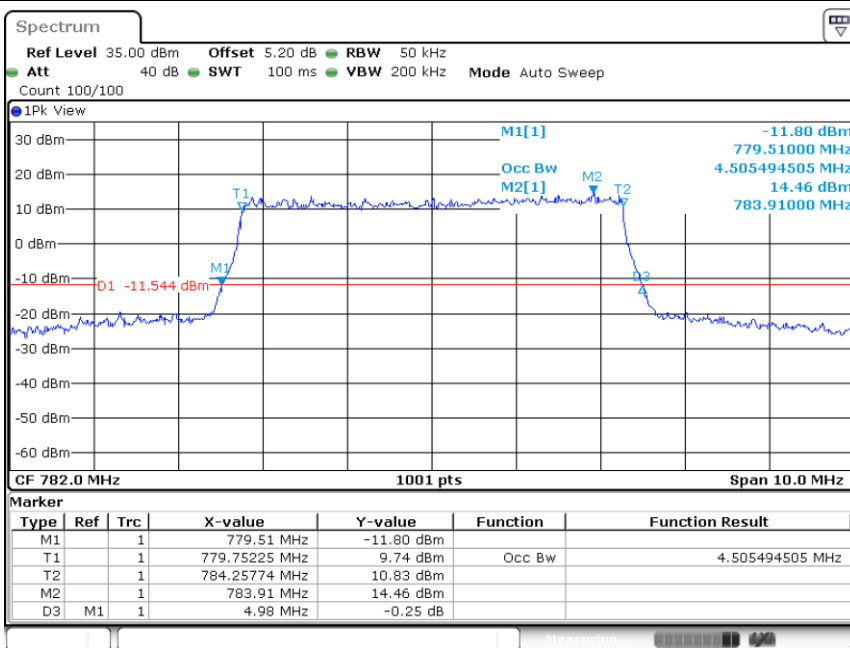


Band13-5MHz-16QAM-23205-25RB#0-4.466



Date: 28.SEP.2020 18:33:28

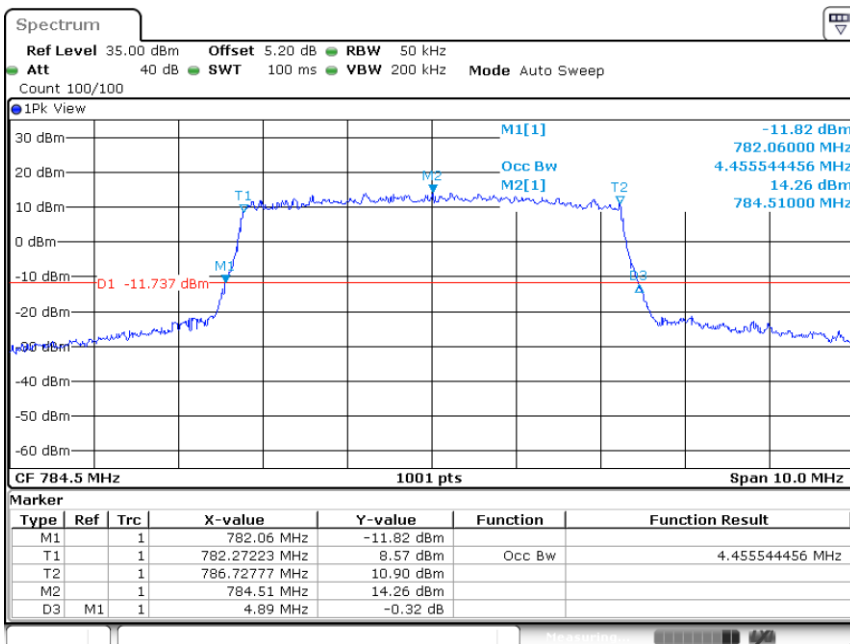
Band13-5MHz-16QAM-23230-25RB#0-4.505



Date: 28.SEP.2020 18:34:14

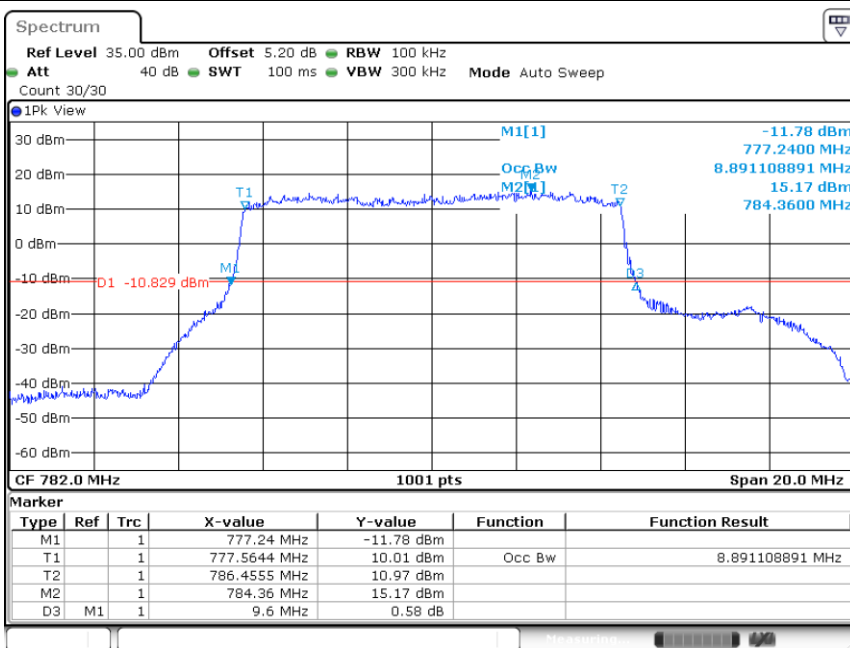


Band13-5MHz-16QAM-23255-25RB#0-4.456



Date: 28.SEP.2020 18:34:59

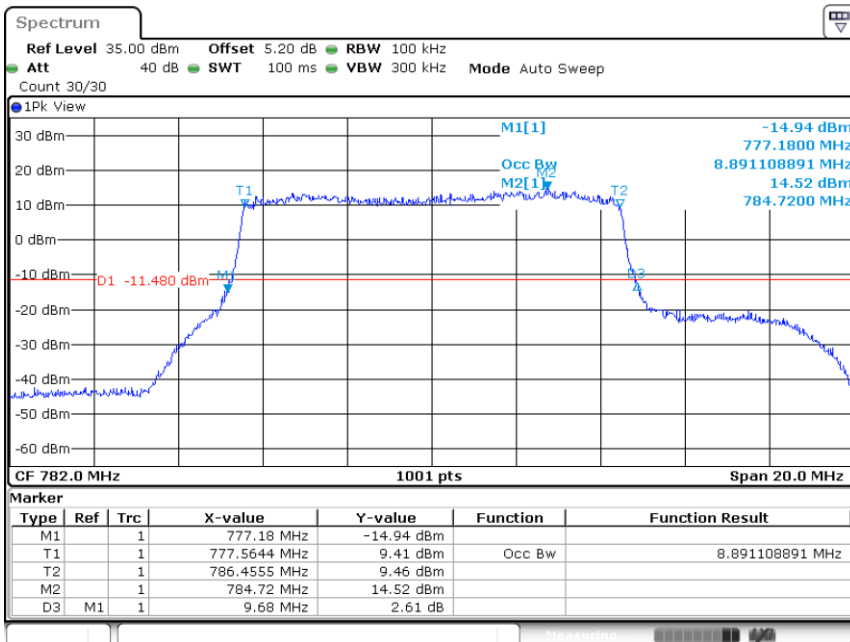
Band13-10MHz-QPSK-23230-50RB#0-8.891



Date: 28.SEP.2020 18:35:20



Band13-10MHz-16QAM-23230-50RB#0-8.891

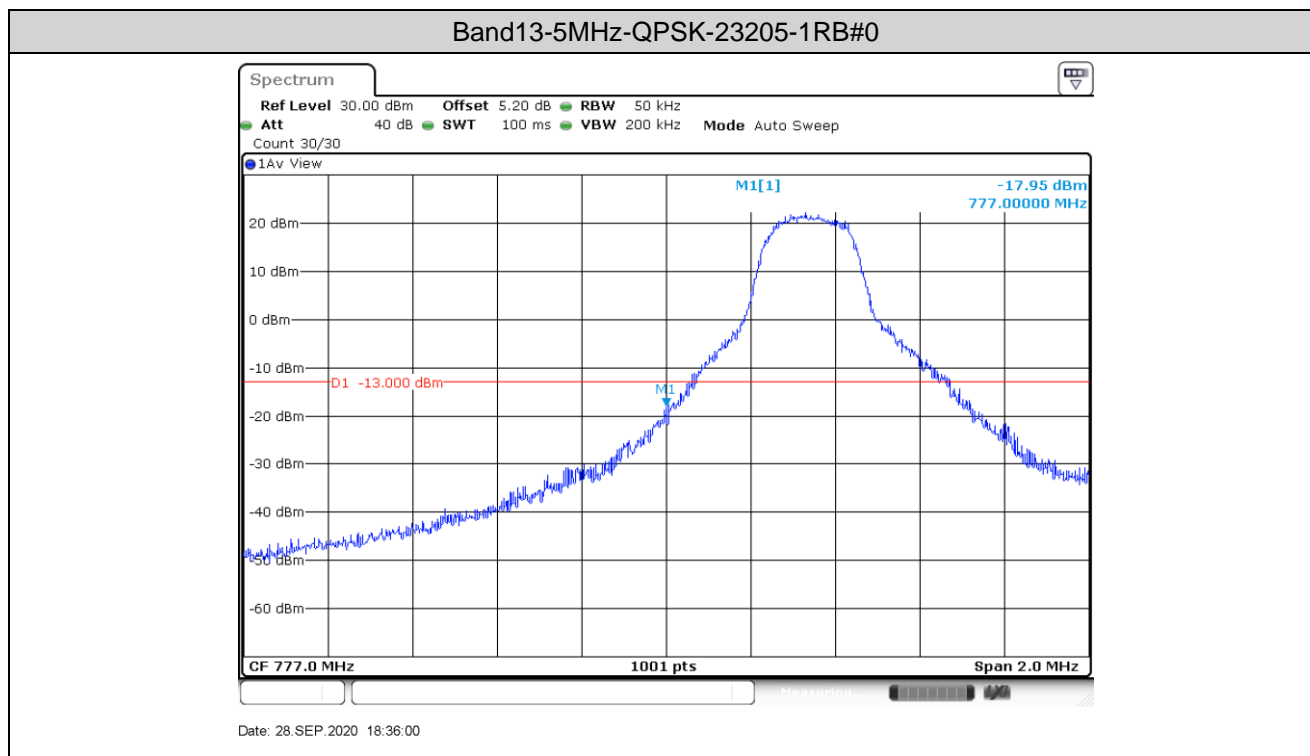


Date: 28.SEP.2020 18:35:36

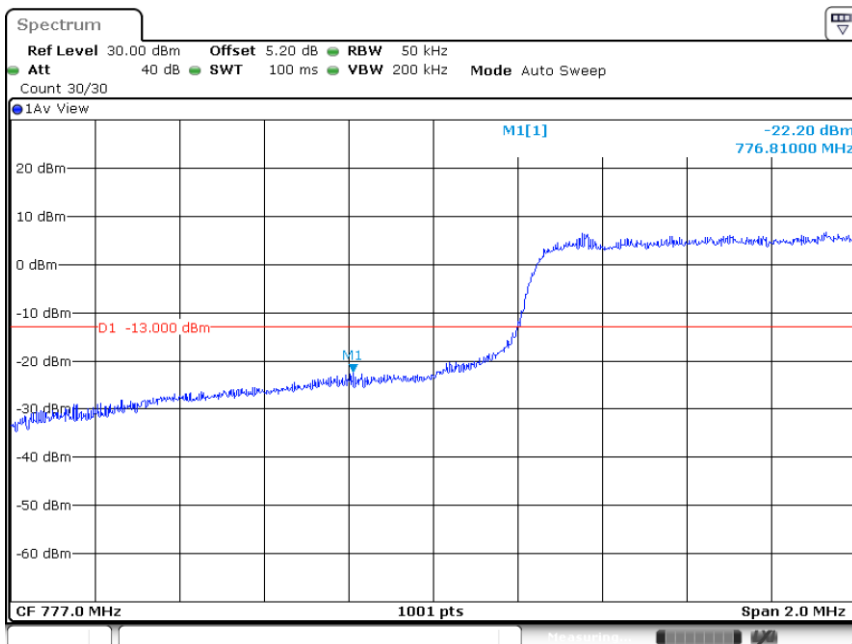


5. Band Edge Compliance

5.1. Test Plots

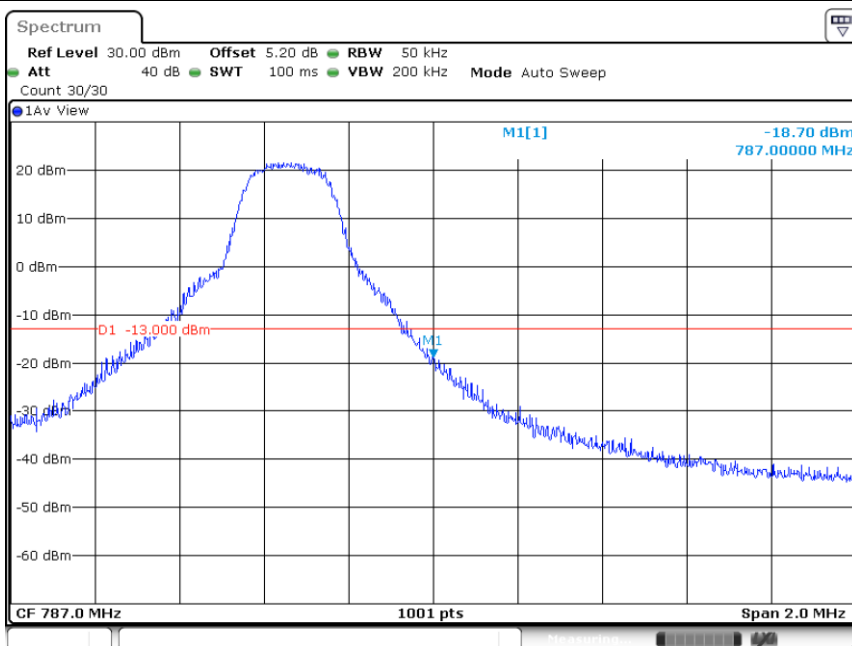


Band13-5MHz-QPSK-23205-25RB#0



Date: 28.SEP.2020 18:36:33

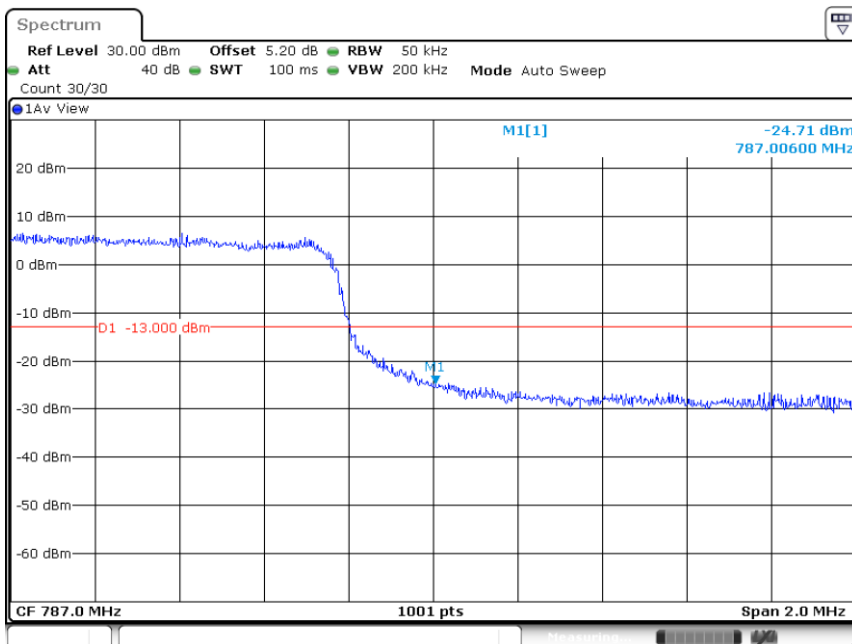
Band13-5MHz-QPSK-23255-1RB#24



Date: 28.SEP.2020 18:37:14

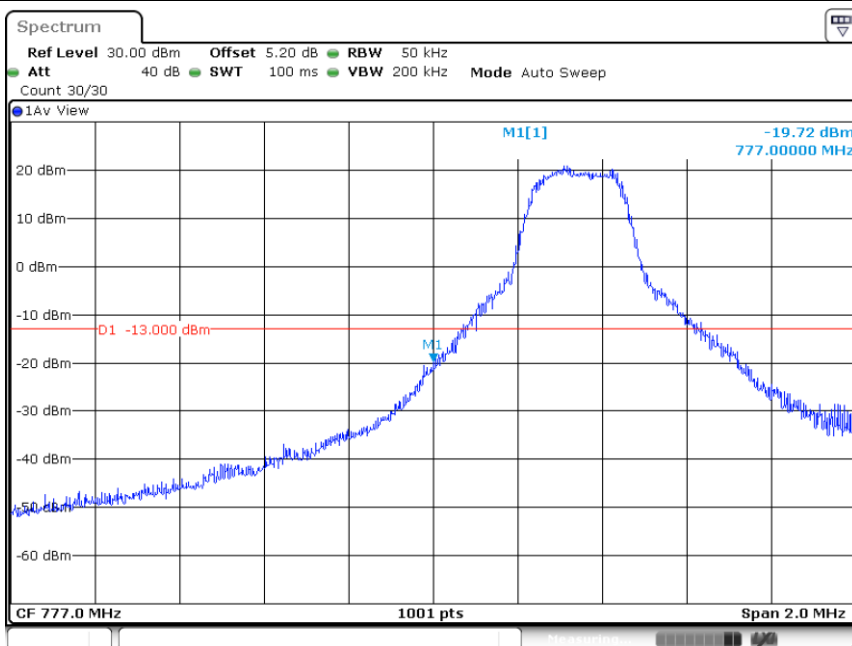


Band13-5MHz-QPSK-23255-25RB#0



Date: 28.SEP.2020 18:37:47

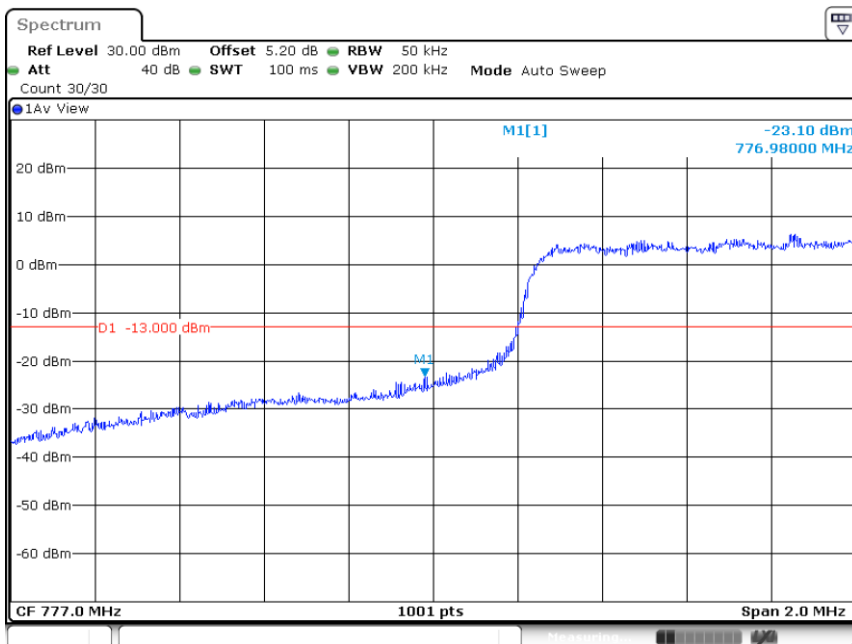
Band13-5MHz-16QAM-23205-1RB#0



Date: 28.SEP.2020 18:36:17

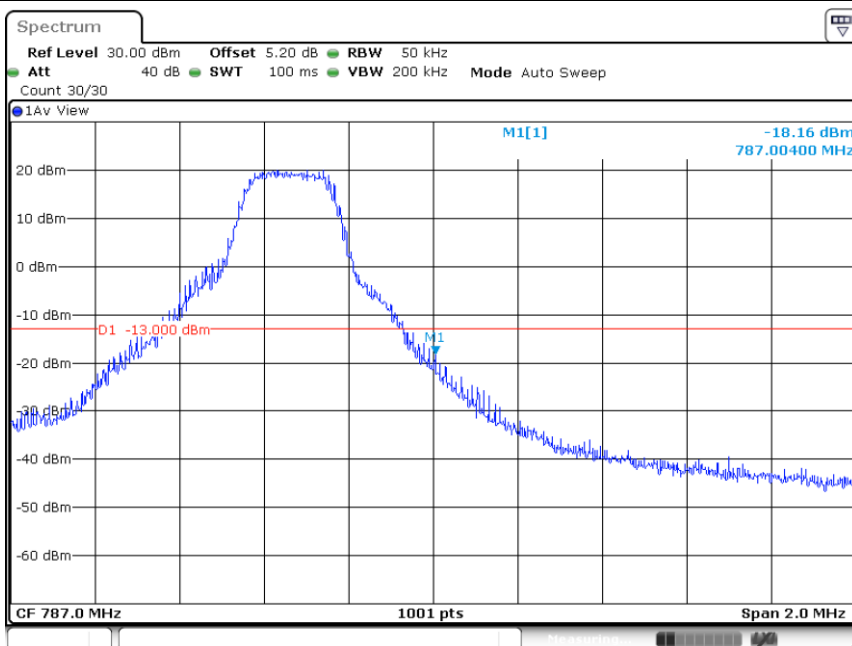


Band13-5MHz-16QAM-23205-25RB#0



Date: 28.SEP.2020 18:36:50

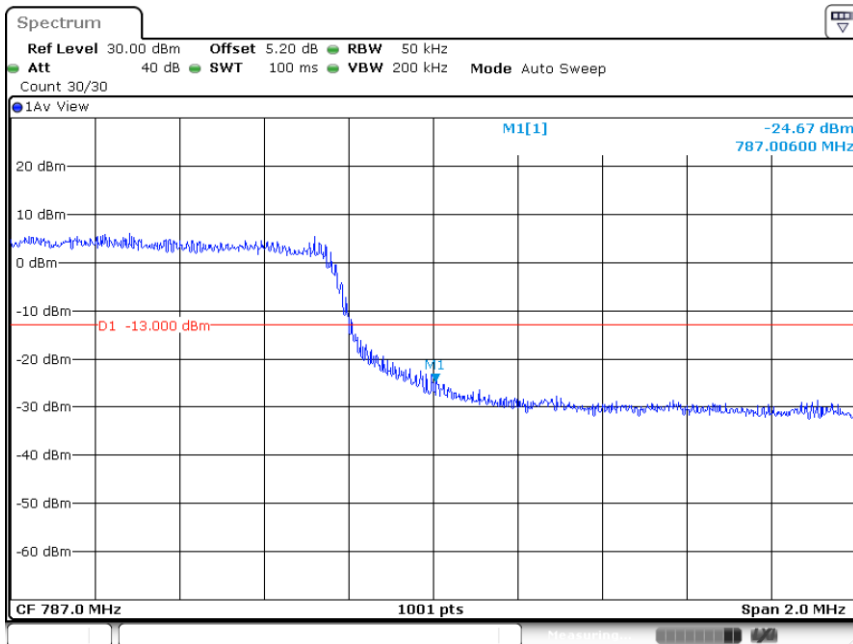
Band13-5MHz-16QAM-23255-1RB#24



Date: 28.SEP.2020 18:37:30

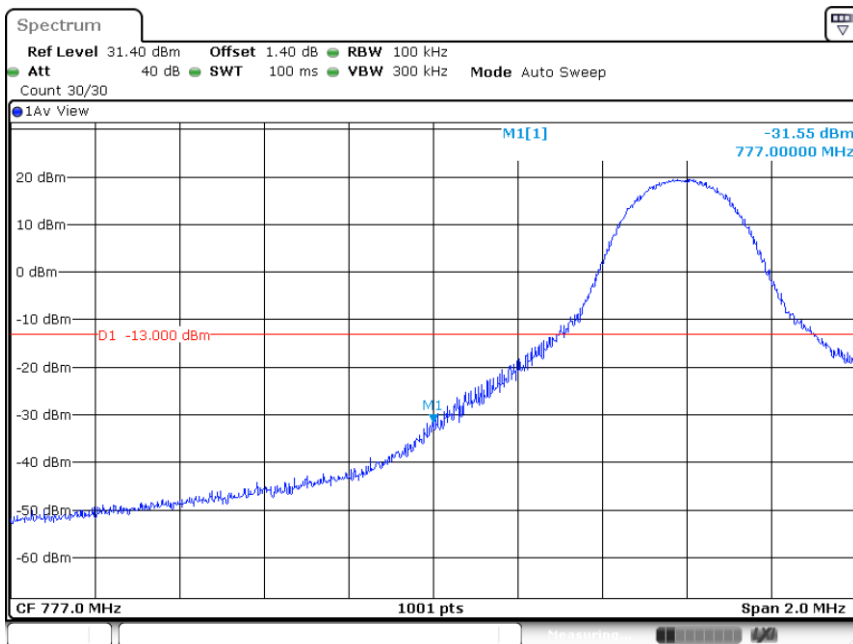


Band13-5MHz-16QAM-23255-25RB#0



Date: 28.SEP.2020 18:38:03

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



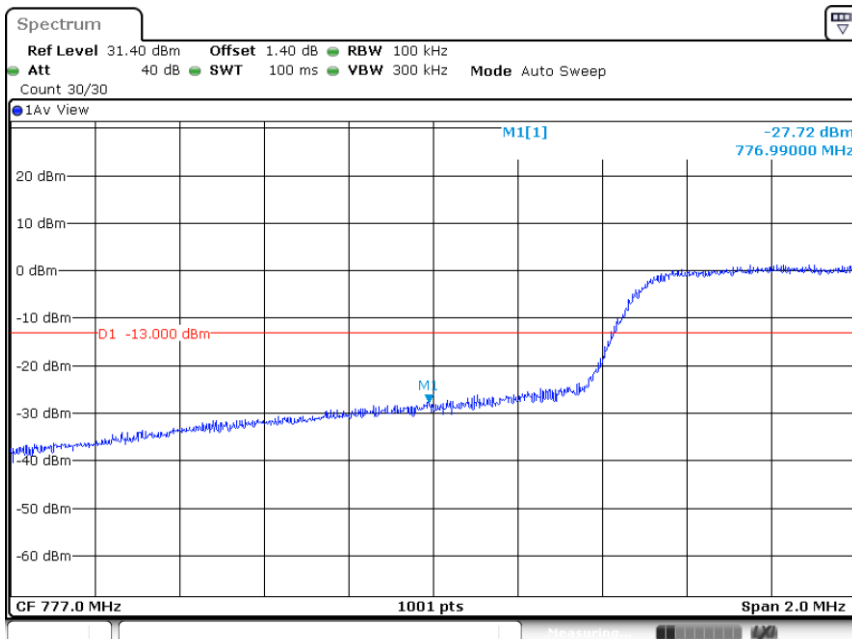
Date: 12.OCT.2020 14:07:51



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

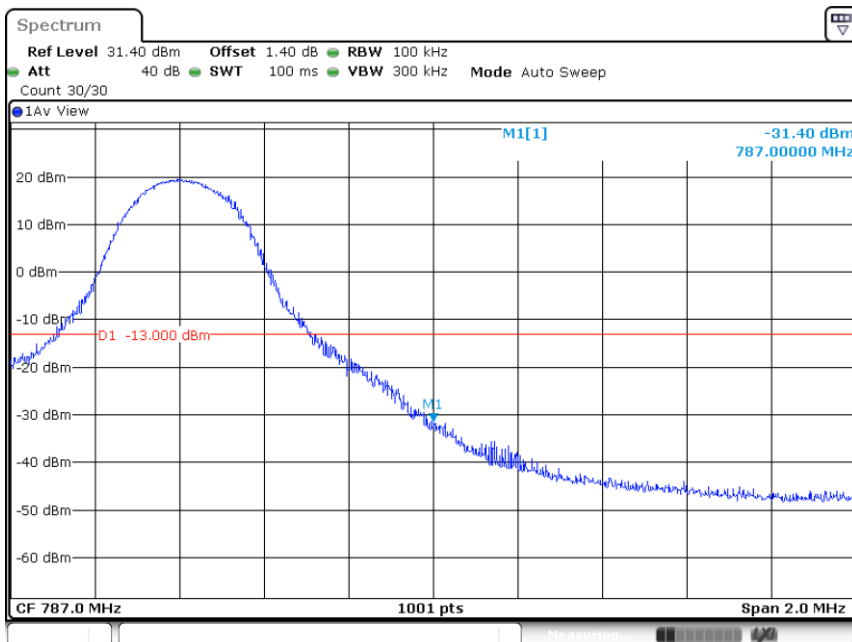
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
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-QPSK-23230_Left-50RB#0



Date: 12.OCT.2020 14:08:22

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



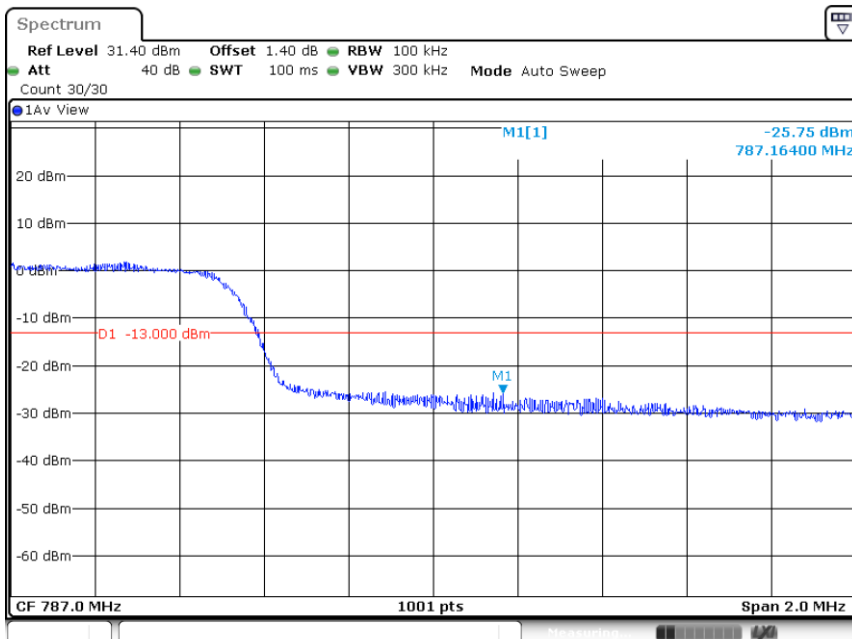
Date: 12.OCT.2020 14:08:59



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

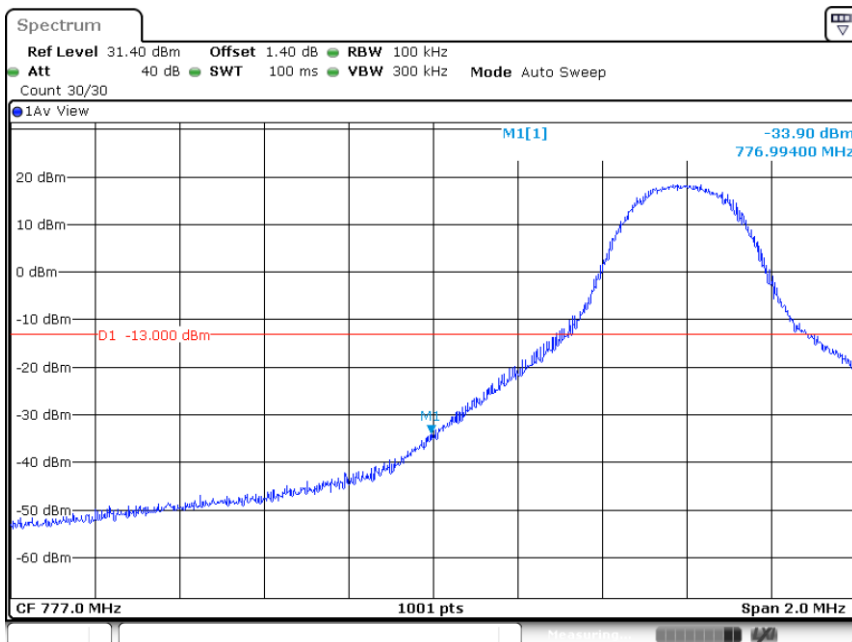
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
 No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
 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-QPSK-23230_Right-50RB#0



Date: 12.OCT.2020 14:09:30

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



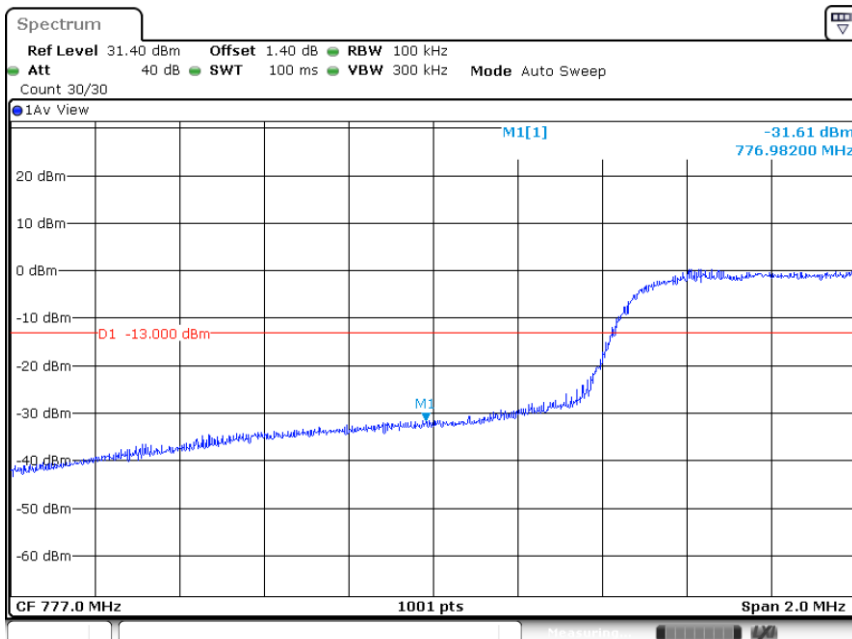
Date: 12.OCT.2020 14:08:06



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.

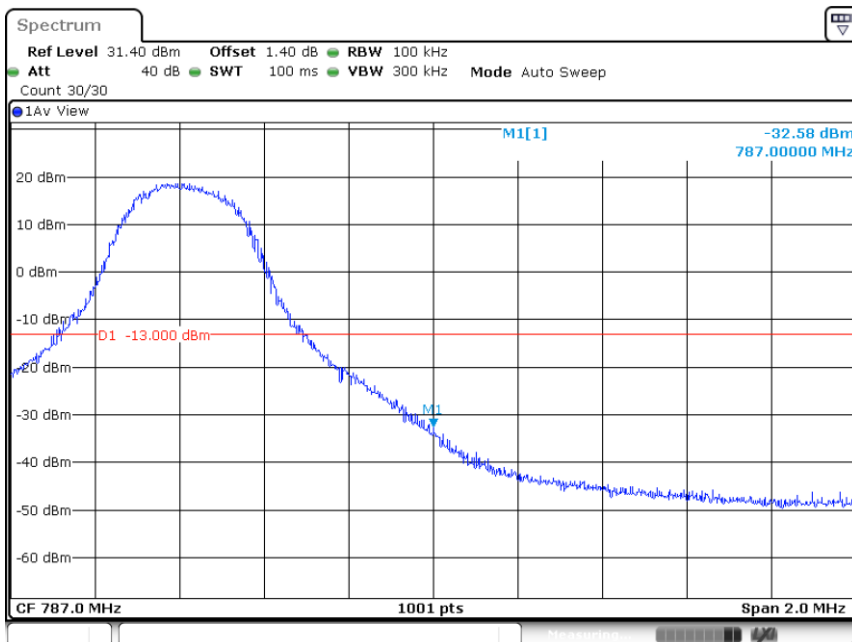
Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn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

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



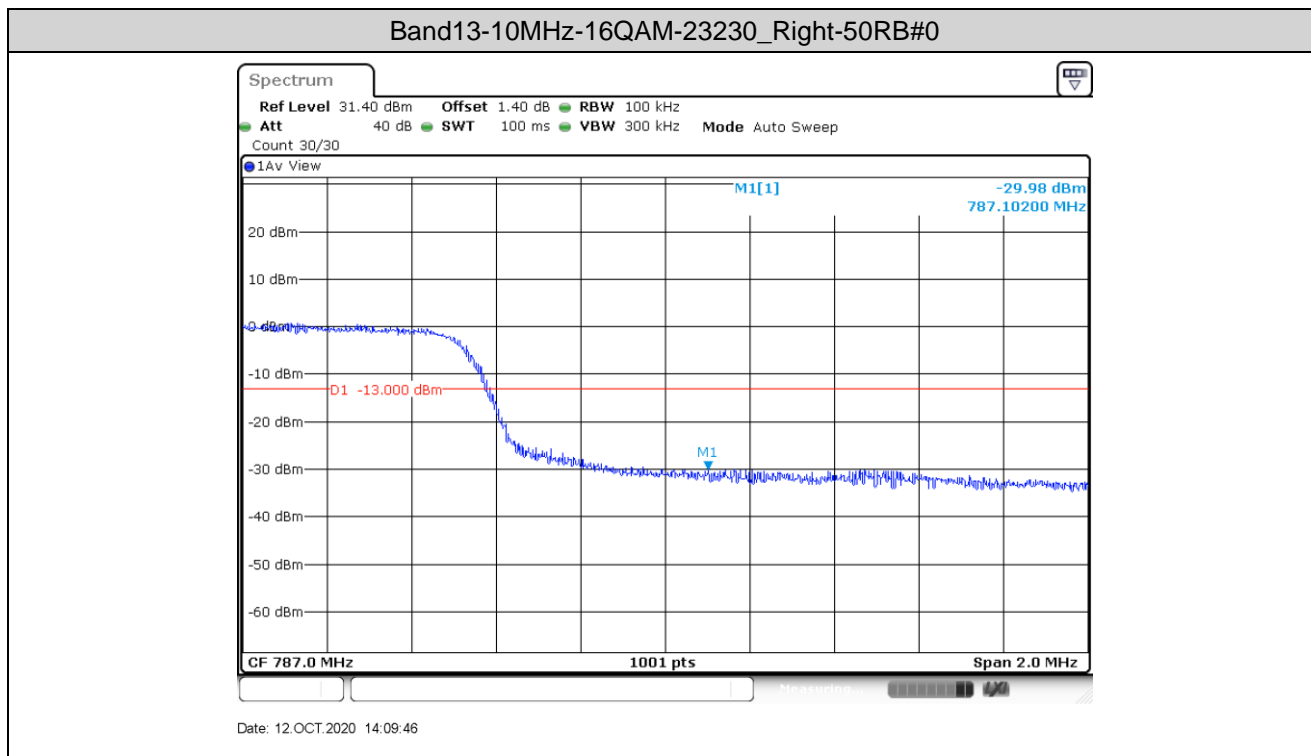
Date: 12.OCT.2020 14:08:38

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



Date: 12.OCT.2020 14:09:15





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.

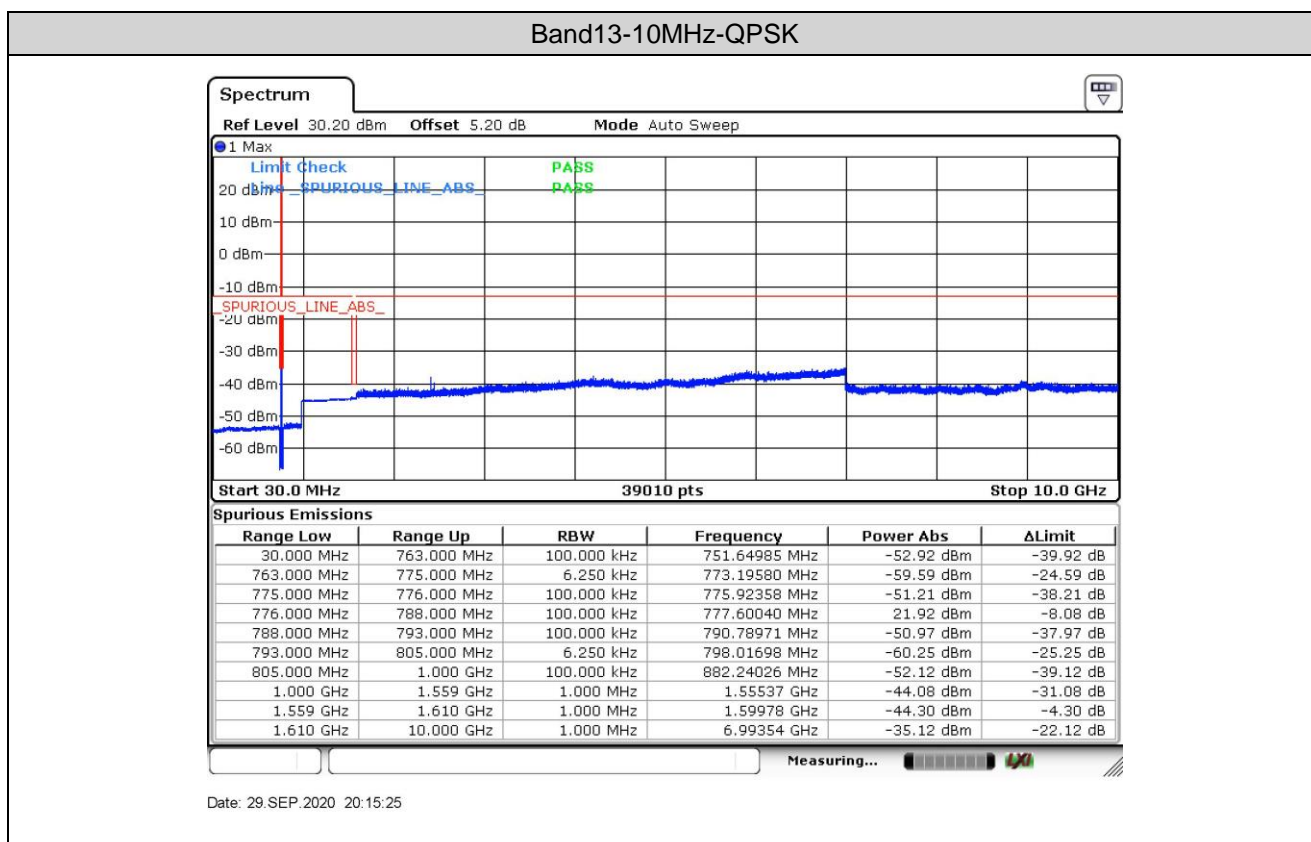
Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

6. Spurious Emission at Antenna Terminal

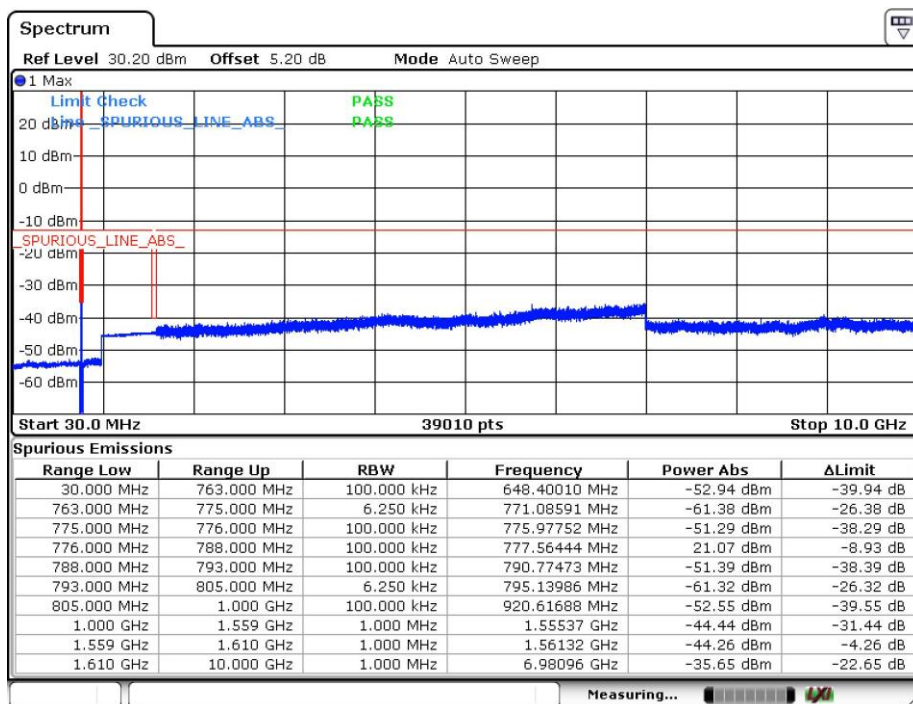
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (\text{Span} / RBW)$ " 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-16QAM



Date: 29.SEP.2020 20:12:47





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
30.6305	-72.66	-13.00	59.66	282	89	Vertical
108.4769	-65.10	-13.00	52.10	233	346	Vertical
303.1172	-69.84	-13.00	56.84	196	239	Vertical
1582.9166	-65.07	-40.00	25.07	143	70	Vertical
2332.6665	-57.58	-13.00	44.58	178	174	Vertical
9912.3565	-52.57	-13.00	39.57	152	47	Vertical
44.4537	-64.97	-13.00	51.97	199	175	Horizontal
104.9847	-75.75	-13.00	62.75	153	112	Horizontal
249.5705	-68.35	-13.00	55.35	252	197	Horizontal
1586.9174	-64.99	-40.00	24.99	117	298	Horizontal
2463.0926	-56.21	-13.00	43.21	186	293	Horizontal
9322.3729	-52.84	-13.00	39.84	131	154	Horizontal

Remark:

- 1 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.
- 2 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.
- 3 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

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



8. Frequency Stability

8.1. Frequency Vs Voltage

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	-0.10	-0.000128	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VN	NT	-7.70	-0.009847	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VH	NT	0.50	0.000639	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VL	NT	-0.90	-0.001151	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VN	NT	0.50	0.000639	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VH	NT	-0.50	-0.000639	±2.5	PASS

8.2. Frequency Vs Temperature

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	-10.30	-0.013171	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-20	-5.70	-0.007289	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-10	-5.10	-0.006522	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	0	-0.20	-0.000256	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	10	-5.30	-0.006777	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	20	0.70	0.000895	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	30	-2.30	-0.002941	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	40	-3.00	-0.003836	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	50	0.10	0.000128	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-30	2.40	0.003069	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-20	1.30	0.001662	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-10	1.80	0.002302	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	0	-0.10	-0.000128	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	10	0.60	0.000767	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	20	0.70	0.000895	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	30	1.80	0.002302	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	40	-0.70	-0.000895	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	50	-0.60	-0.000767	±2.5	PASS

The End



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.

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

Member of the SGS Group (SGS SA)