



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).....	5
2.1. Test Result	5
2.2. Test Plots.....	5
3. MODULATION CHARACTERISTICS	6
3.1. Test BAND = LTE BAND13.....	6
3.1.1. Test Mode = LTE /TM1 10MHz.....	6
3.1.1.1. Test Channel = MCH.....	6
3.1.2. Test Mode = LTE /TM2 10MHz.....	7
3.1.2.1. Test Channel = MCH.....	7
4. 26dB BANDWIDTH AND OCCUPIED BANDWIDTH	8
4.1. Test Result	8
4.2. Test Plots.....	8
5. BAND EDGE COMPLIANCE.....	13
5.1. Test Plots.....	13
6. SPURIOUS EMISSION AT ANTENNA TERMINAL.....	20
6.1. Test Plots.....	20
7. FIELD STRENGTH OF SPURIOUS RADIATION.....	21
7.1. Test BAND = LTE BAND 13.....	21
7.1.1. Test Mode =LTE/TM1 10MHz.....	21
7.1.1.1. Test Channel = LCH.....	21
7.1.1.2. Test Channel = MCH.....	21
7.1.1.3. Test Channel = HCH	22
7.1.1.4. Spot Check worse mode.....	22
8. FREQUENCY STABILITY.....	24
8.1. Frequency Vs Voltage	24
8.2. Frequency Vs Temperature	24



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



1. Effective (Isotropic) Radiated Power

1.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	23.68	25.98	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#12	23.28	25.58	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#24	23.63	25.93	34.77	PASS
Band13	5MHz	QPSK	23205	12RB#0	22.62	24.92	34.77	PASS
Band13	5MHz	QPSK	23205	12RB#6	22.61	24.91	34.77	PASS
Band13	5MHz	QPSK	23205	12RB#13	22.55	24.85	34.77	PASS
Band13	5MHz	QPSK	23205	25RB#0	22.65	24.95	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#0	23.67	25.97	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#12	23.85	26.15	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#24	23.82	26.12	34.77	PASS
Band13	5MHz	QPSK	23230	12RB#0	22.54	24.84	34.77	PASS
Band13	5MHz	QPSK	23230	12RB#6	22.74	25.04	34.77	PASS
Band13	5MHz	QPSK	23230	12RB#13	22.72	25.02	34.77	PASS
Band13	5MHz	QPSK	23230	25RB#0	22.60	24.90	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#0	23.62	25.92	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#12	24.13	26.43	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#24	23.75	26.05	34.77	PASS
Band13	5MHz	QPSK	23255	12RB#0	22.52	24.82	34.77	PASS
Band13	5MHz	QPSK	23255	12RB#6	22.67	24.97	34.77	PASS
Band13	5MHz	QPSK	23255	12RB#13	22.65	24.95	34.77	PASS
Band13	5MHz	QPSK	23255	25RB#0	22.58	24.88	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#0	22.19	24.49	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#12	22.60	24.90	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#24	21.89	24.19	34.77	PASS
Band13	5MHz	16QAM	23205	12RB#0	21.54	23.84	34.77	PASS
Band13	5MHz	16QAM	23205	12RB#6	21.56	23.86	34.77	PASS
Band13	5MHz	16QAM	23205	12RB#13	21.61	23.91	34.77	PASS
Band13	5MHz	16QAM	23205	25RB#0	21.68	23.98	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#0	22.11	24.41	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#12	22.29	24.59	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#24	22.04	24.34	34.77	PASS
Band13	5MHz	16QAM	23230	12RB#0	21.66	23.96	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	21.64	23.94	34.77	PASS
Band13	5MHz	16QAM	23230	12RB#13	21.50	23.80	34.77	PASS
Band13	5MHz	16QAM	23230	25RB#0	21.72	24.02	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#0	22.23	24.53	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#12	22.44	24.74	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#24	22.19	24.49	34.77	PASS
Band13	5MHz	16QAM	23255	12RB#0	21.48	23.78	34.77	PASS
Band13	5MHz	16QAM	23255	12RB#6	21.55	23.85	34.77	PASS
Band13	5MHz	16QAM	23255	12RB#13	21.31	23.61	34.77	PASS
Band13	5MHz	16QAM	23255	25RB#0	21.51	23.81	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#0	23.60	25.90	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#24	23.95	26.25	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#49	23.62	25.92	34.77	PASS
Band13	10MHz	QPSK	23230	25RB#0	22.53	24.83	34.77	PASS
Band13	10MHz	QPSK	23230	25RB#12	22.71	25.01	34.77	PASS
Band13	10MHz	QPSK	23230	25RB#25	22.50	24.80	34.77	PASS
Band13	10MHz	QPSK	23230	50RB#0	22.58	24.88	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#0	22.30	24.60	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#24	22.34	24.64	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#49	22.31	24.61	34.77	PASS
Band13	10MHz	16QAM	23230	25RB#0	21.59	23.89	34.77	PASS
Band13	10MHz	16QAM	23230	25RB#12	21.58	23.88	34.77	PASS
Band13	10MHz	16QAM	23230	25RB#25	21.60	23.90	34.77	PASS
Band13	10MHz	16QAM	23230	50RB#0	21.70	24.00	34.77	PASS

Remark:

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

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b: SGP=Signal Generator Level



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

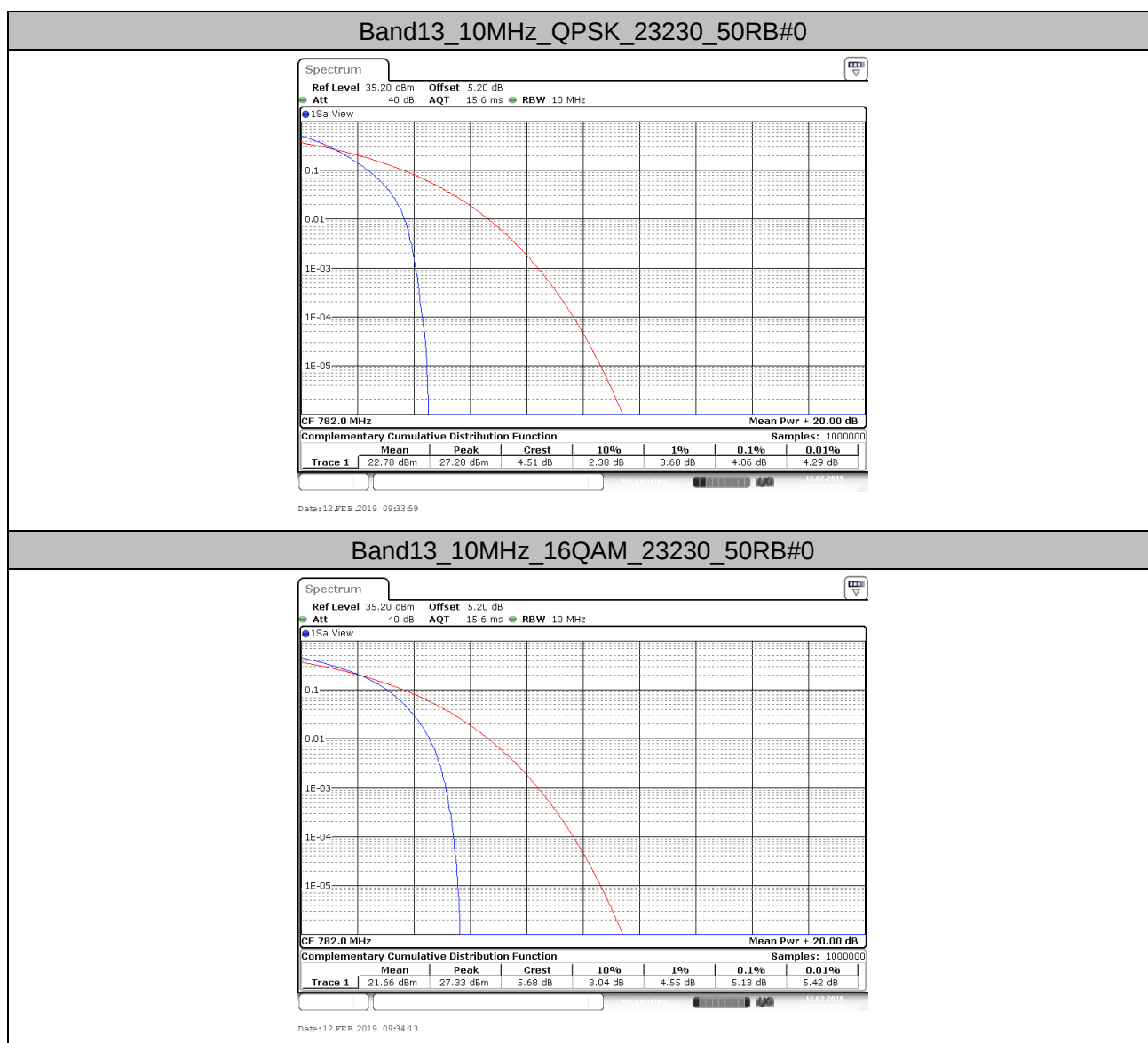


2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	10MHz	QPSK	23230	50RB#0	4.06	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	5.13	13	PASS

2.2. Test Plots

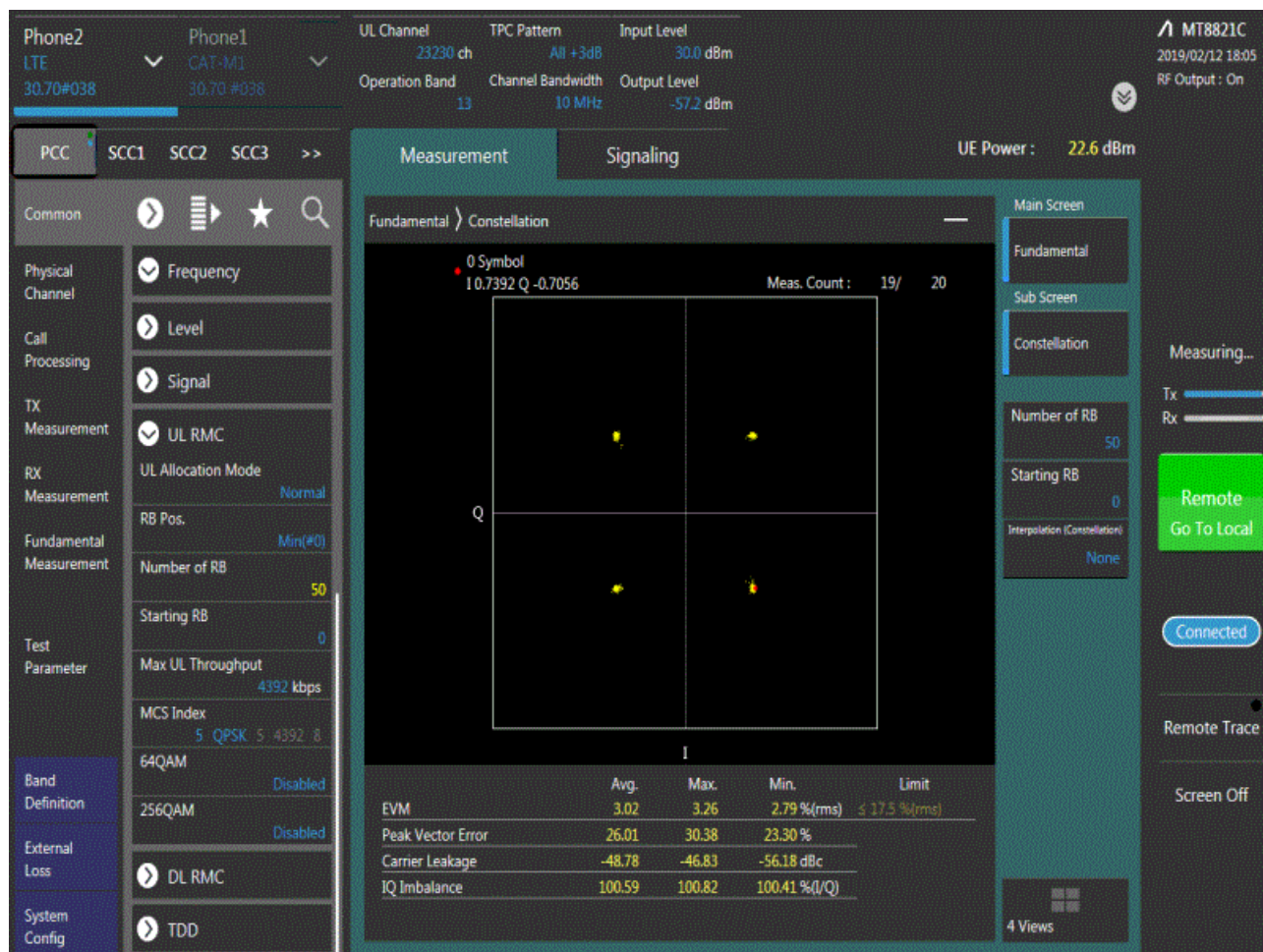


3. Modulation Characteristics

3.1. Test BAND = LTE BAND13

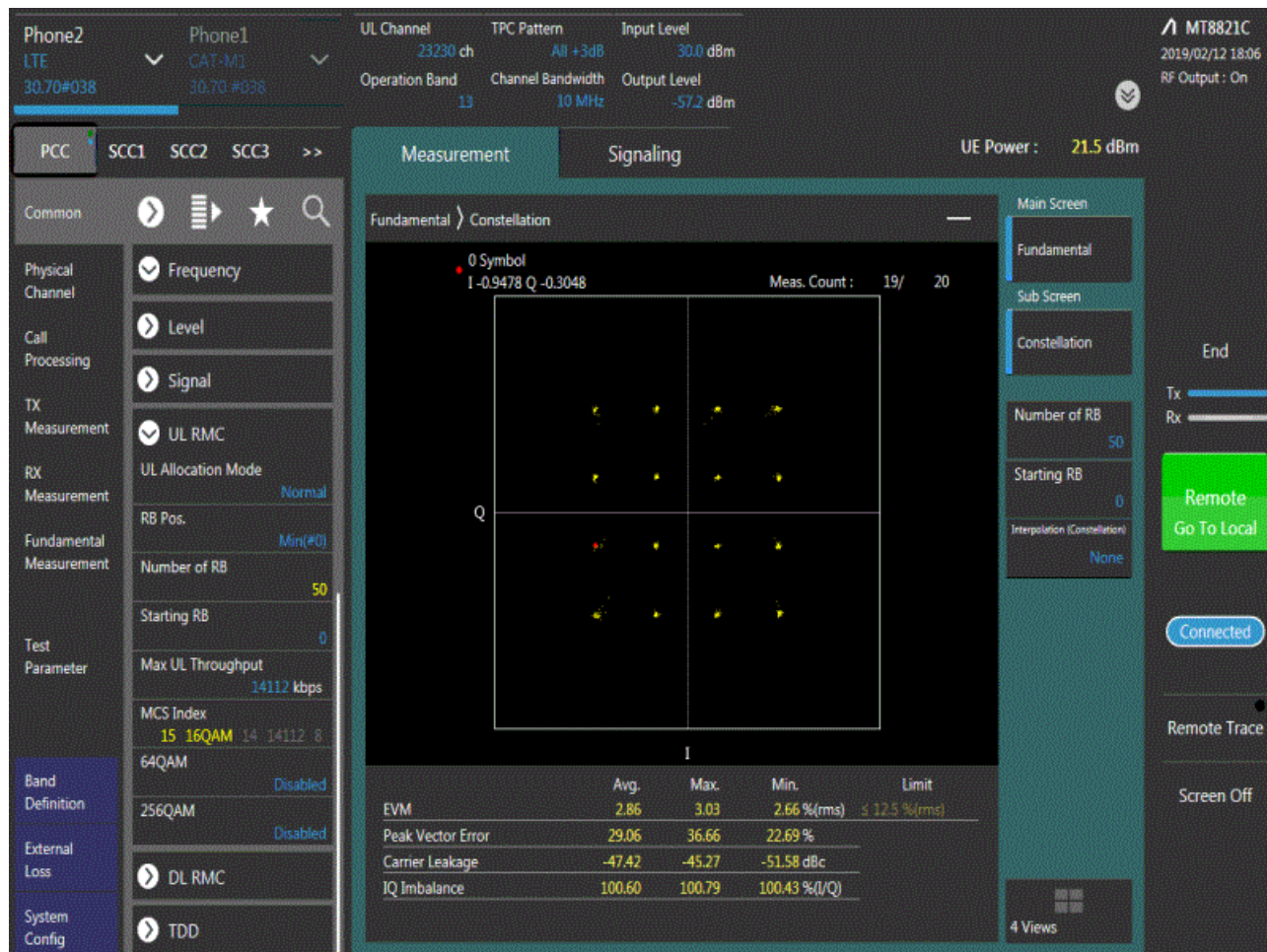
3.1.1. Test Mode = LTE /TM1 10MHz

3.1.1.1. Test Channel = MCH



3.1.2. Test Mode = LTE /TM2 10MHz

3.1.2.1. Test Channel = MCH



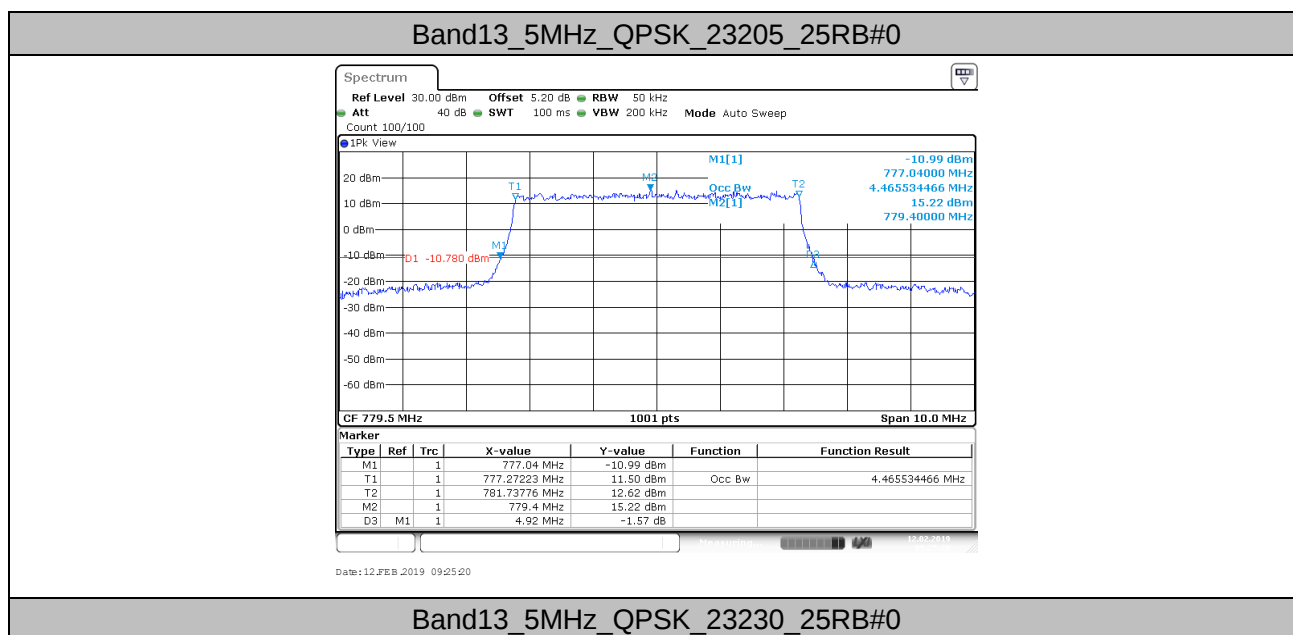


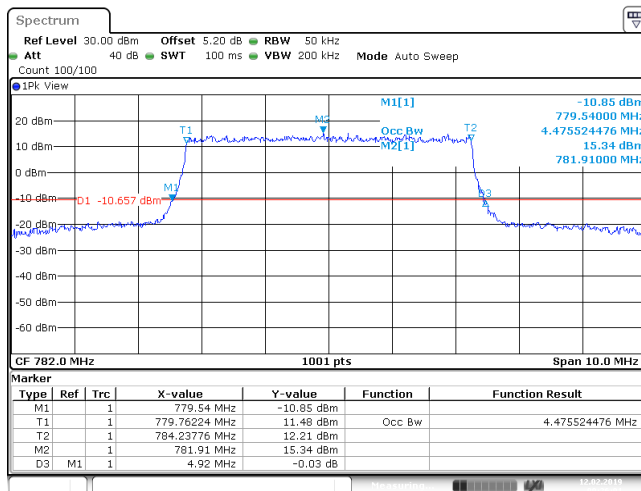
4. 26dB Bandwidth and Occupied Bandwidth

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	4.920	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.476	4.920	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.476	4.950	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.486	4.960	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.486	4.970	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.496	4.970	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.911	9.640	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.911	9.740	PASS

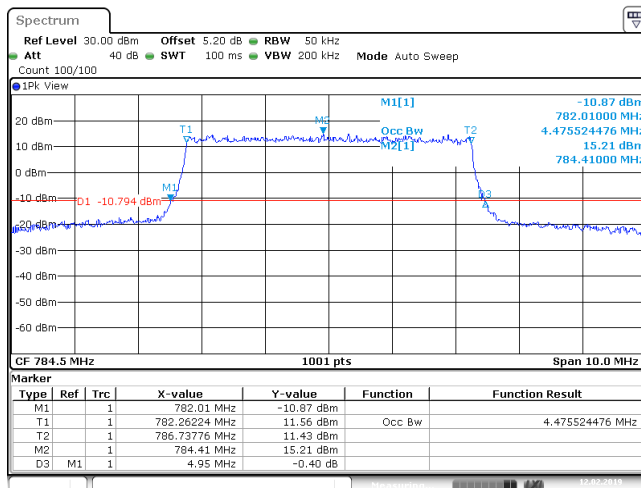
4.2. Test Plots





Date: 12 FEB 2019 09:26:01

Band13_5MHz_QPSK_23255_25RB#0



Date: 12 FEB 2019 09:26:41

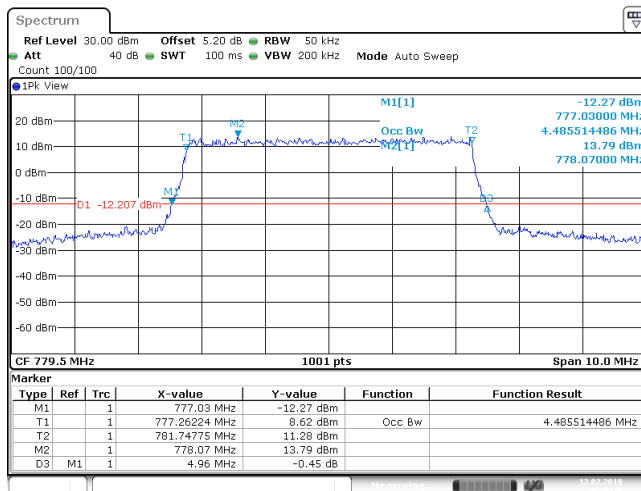
Band13_5MHz_16QAM_23205_25RB#0



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

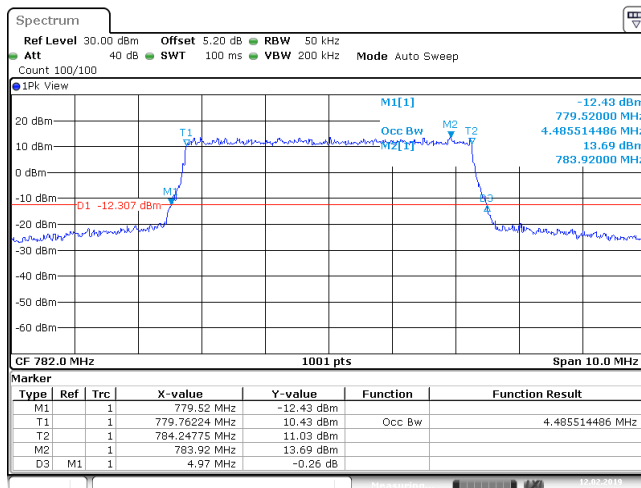
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Date: 12 FEB 2019 09:25:40

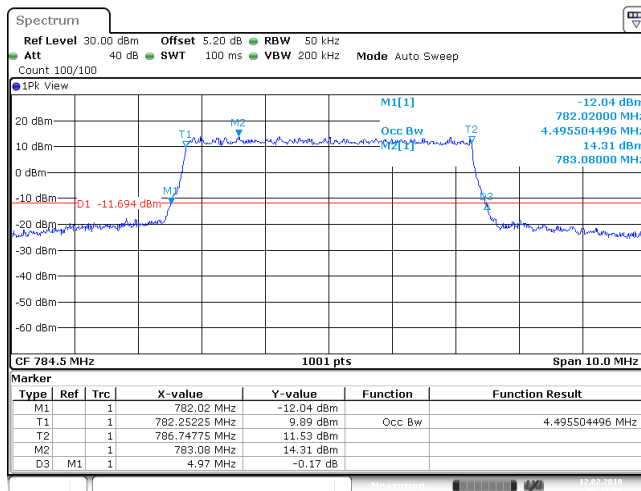
Band13_5MHz_16QAM_23230_25RB#0



Date: 12 FEB 2019 09:26:20

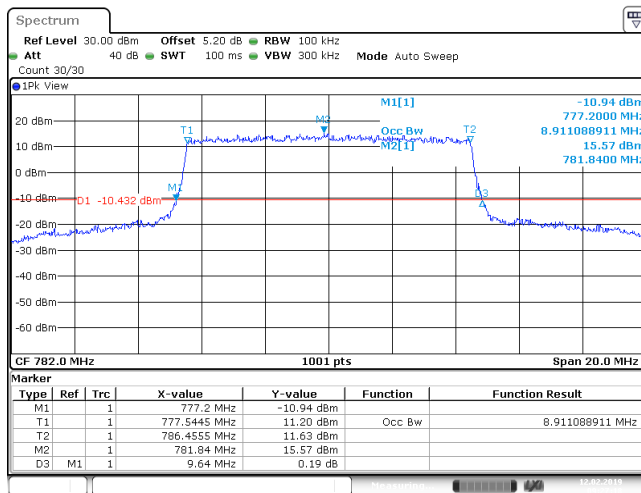
Band13_5MHz_16QAM_23255_25RB#0





Date: 12.FEB.2019 09:27:01

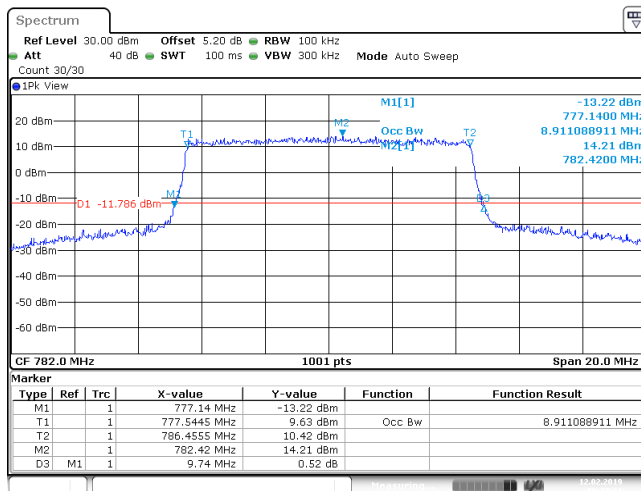
Band13_10MHz_QPSK_23230_50RB#0



Date: 12.FEB.2019 09:27:18

Band13_10MHz_16QAM_23230_50RB#0

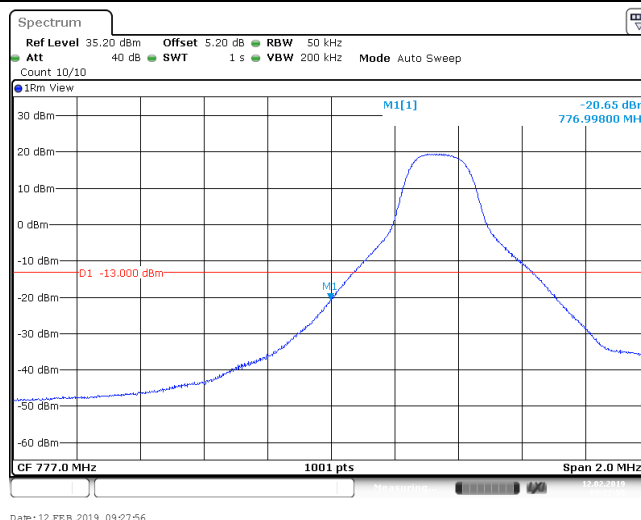




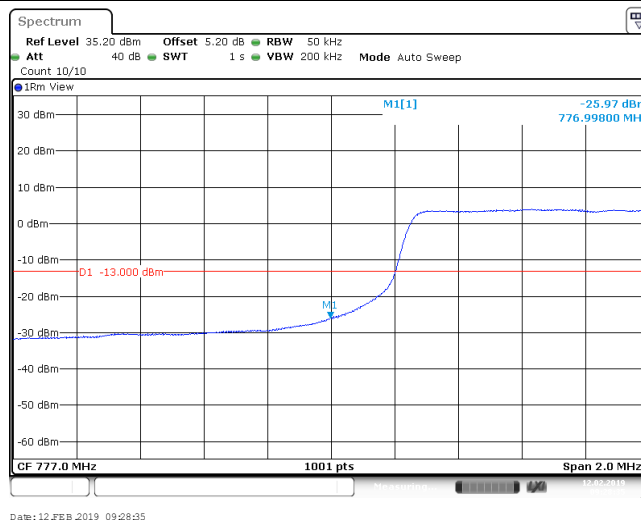
5. Band Edge Compliance

5.1. Test Plots

Band13_5MHz_QPSK_23205_1RB#0

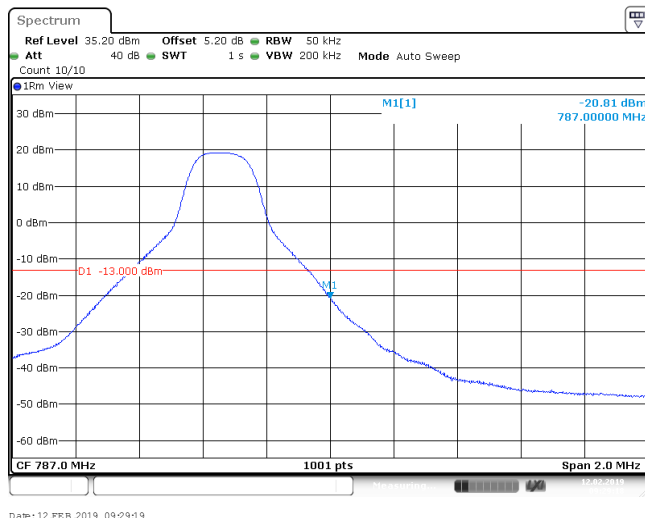


Band13_5MHz_QPSK_23205_25RB#0

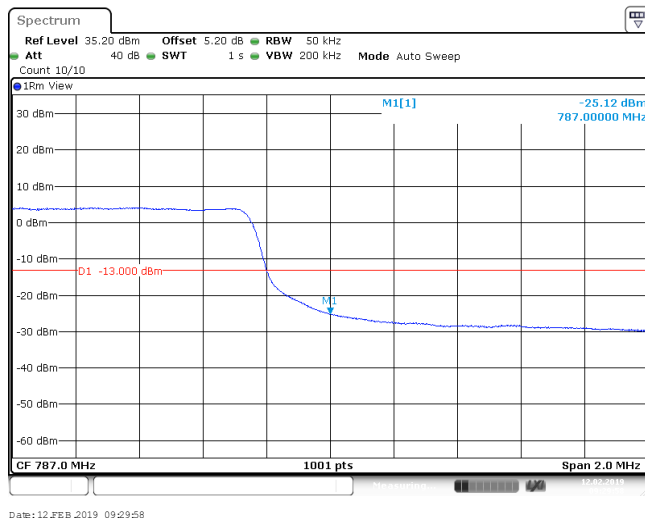


Band13_5MHz_QPSK_23255_1RB#24



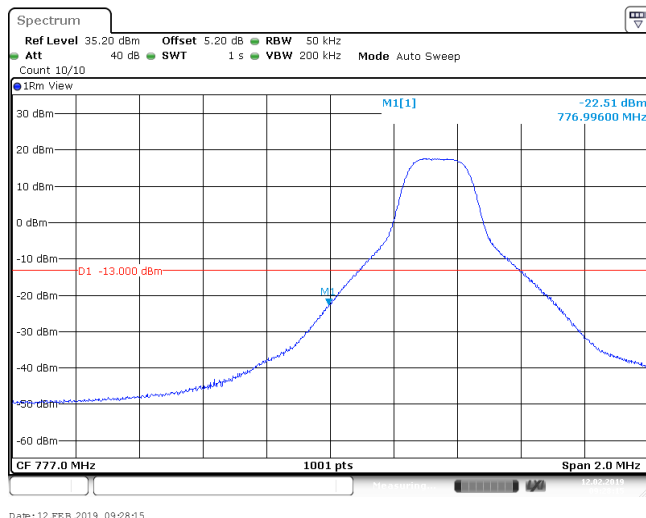


Band13_5MHz_QPSK_23255_25RB#0

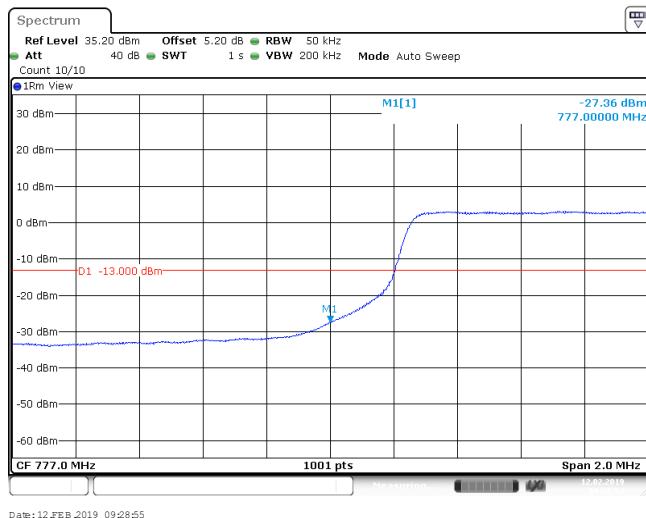


Band13_5MHz_16QAM_23205_1RB#0





Band13_5MHz_16QAM_23205_25RB#0

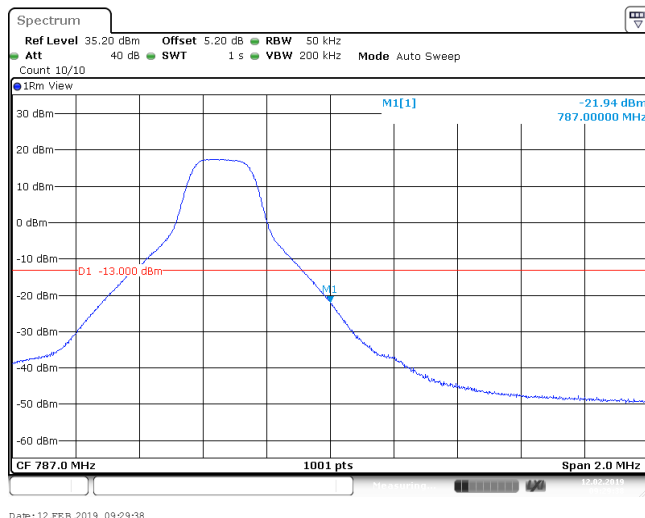


Band13_5MHz_16QAM_23255_1RB#24

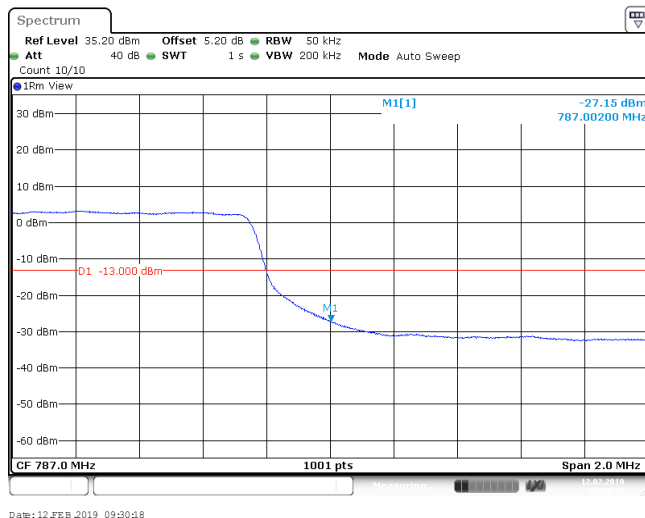


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

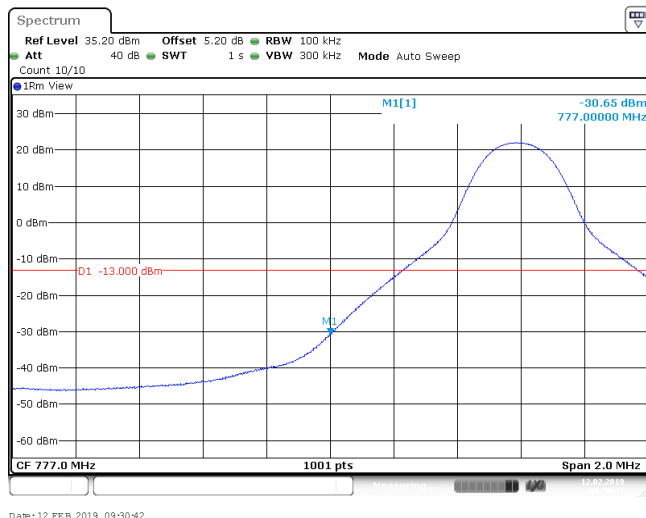


Band13_5MHz_16QAM_23255_25RB#0

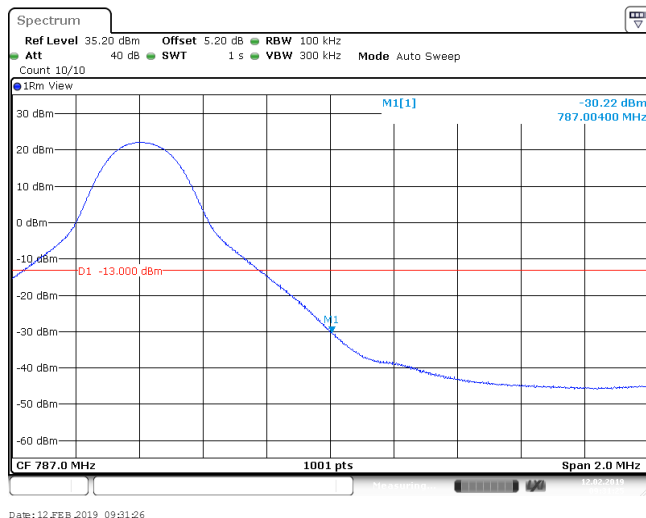


Band13_10MHz_QPSK_23230_Left_1RB#0



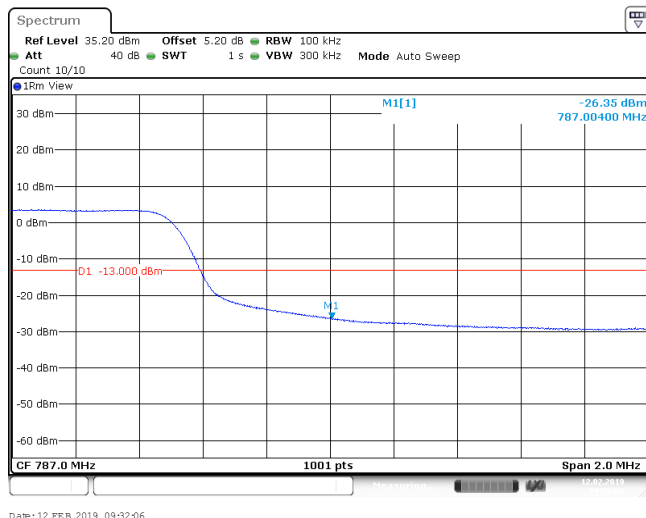


Band13_10MHz_QPSK_23230_Right_1RB#49



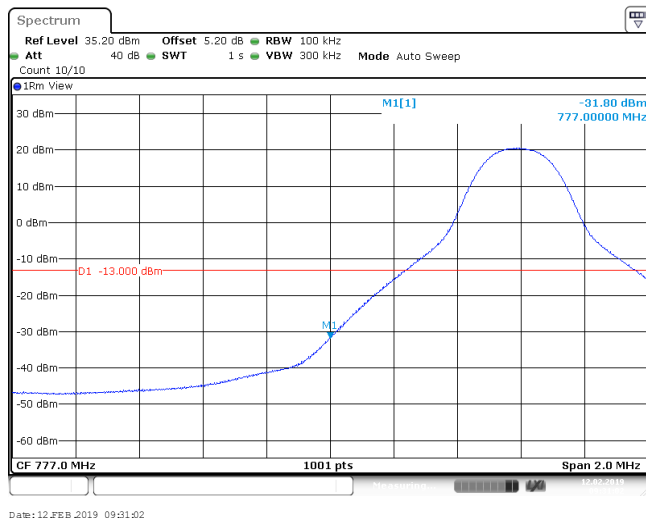
Band13_10MHz_QPSK_23230_Right_50RB#0





Date: 12.FEB.2019 09:32:06

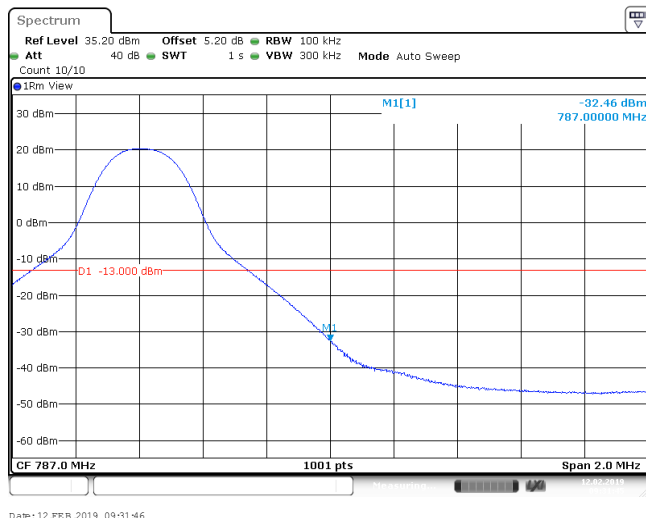
Band13_10MHz_16QAM_23230_Left_1RB#0



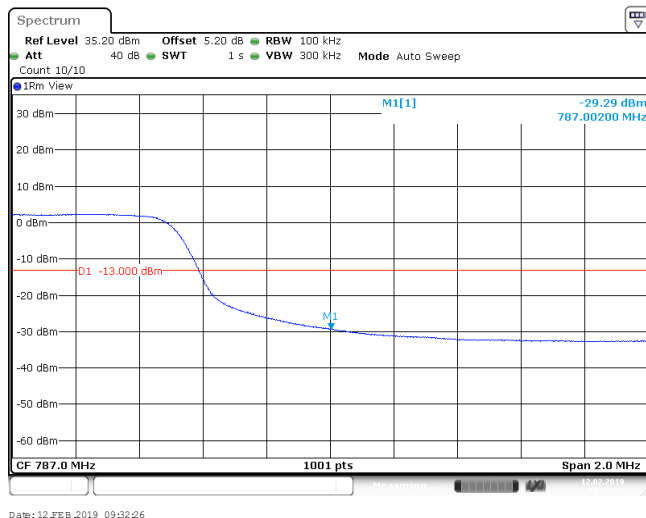
Date: 12.FEB.2019 09:31:02

Band13_10MHz_16QAM_23230_Right_1RB#49





Band13_10MHz_16QAM_23230_Right_50RB#0



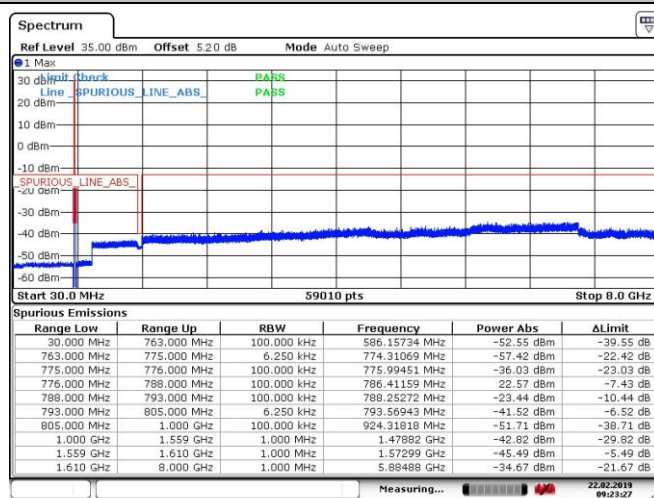
6. Spurious Emission at Antenna Terminal

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.

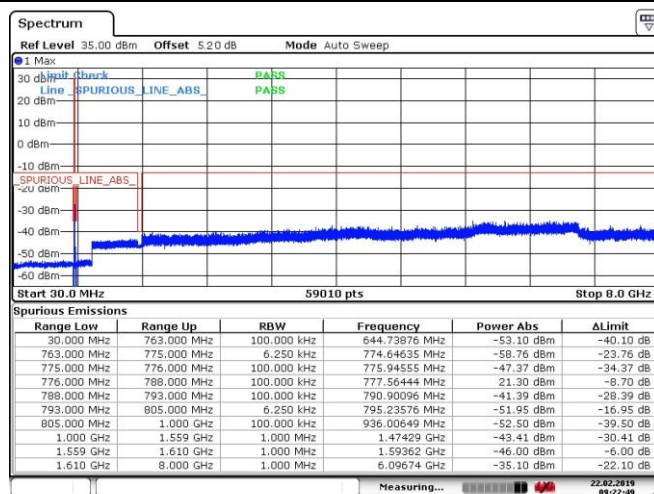
6.1. Test Plots

Band13_10MHz_QPSK_23230_1RB#0



Date: 22 FEB 2019 09:23:27

Band13_10MHz_QPSK_23230_1RB#0



Date: 22 FEB 2019 09:22:49





7. Field Strength of Spurious Radiation

7.1. Test BAND = LTE BAND 13

7.1.1. Test Mode = LTE/TM1 10MHz

7.1.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
77.6294	-69.42	-13.00	56.42	Vertical
106.2458	-65.71	-13.00	52.71	Vertical
468.1224	-67.33	-13.00	54.33	Vertical
1559.7119	-59.56	-40.00	19.56	Vertical
4678.8672	-50.47	-13.00	37.47	Vertical
17998.8000	-33.28	-13.00	20.28	Vertical
43.8717	-65.04	-13.00	52.04	Horizontal
165.8068	-69.77	-13.00	56.77	Horizontal
644.0892	-64.23	-13.00	51.23	Horizontal
1559.7119	-60.84	-40.00	20.84	Horizontal
3119.4048	-56.02	-13.00	43.02	Horizontal
17995.1998	-38.55	-13.00	25.55	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
67.6379	-69.66	-13.00	56.66	Vertical
118.9534	-65.74	-13.00	52.74	Vertical
467.0554	-67.31	-13.00	54.31	Vertical
1554.5109	-56.14	-13.00	43.14	Vertical
4663.8666	-50.34	-13.00	37.34	Vertical
17995.7998	-33.46	-13.00	20.46	Vertical
45.7633	-65.15	-13.00	52.15	Horizontal
150.9165	-69.18	-13.00	56.18	Horizontal



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

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



378.8779	-67.67	-13.00	54.67	Horizontal
1554.5109	-56.93	-13.00	43.93	Horizontal
4663.8666	-54.66	-13.00	41.66	Horizontal
16393.1357	-39.02	-13.00	26.02	Horizontal

7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.6008	-69.84	-13.00	56.84	Vertical
119.5355	-65.61	-13.00	52.61	Vertical
442.7556	-67.56	-13.00	54.56	Vertical
1564.5129	-59.83	-40.00	19.83	Vertical
4693.8678	-51.24	-13.00	38.24	Vertical
17988.5995	-33.65	-13.00	20.65	Vertical
44.8417	-64.04	-13.00	51.04	Horizontal
164.8367	-69.86	-13.00	56.86	Horizontal
517.1584	-66.49	-13.00	53.49	Horizontal
1564.5129	-59.64	-40.00	19.64	Horizontal
4693.8678	-55.94	-13.00	42.94	Horizontal
16387.7355	-38.56	-13.00	25.56	Horizontal

7.1.1.4. Spot Check worse mode

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
71.4696	-68.45	-13.00	55.45	Vertical
110.5625	-64.00	-13.00	51.00	Vertical
384.8437	-67.50	-13.00	54.50	Vertical
1564.9110	-48.42	-40.00	8.42	Vertical
3110.4044	-48.93	-13.00	35.93	Vertical
17993.9998	-33.73	-13.00	20.73	Vertical
41.9316	-63.93	-13.00	50.93	Horizontal
149.5100	-67.76	-13.00	54.76	Horizontal



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

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

243.1197	-67.55	-13.00	54.55	Horizontal
1564.9110	-51.43	-40.00	11.43	Horizontal
3110.4044	-52.29	-13.00	39.29	Horizontal
16401.5361	-38.71	-13.00	25.71	Horizontal

Remark:

- 1) The disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data had been displayed.
- 2) We have tested all modulation and all Bandwidth , but only the worst case data presented in this report.



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



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	-1.10	-0.001407	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VN	NT	0.20	0.000256	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VH	NT	-2.50	-0.003197	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VL	NT	-0.40	-0.000512	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VN	NT	-1.30	-0.001662	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VH	NT	-0.90	-0.001151	±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	-1.80	-0.002302	±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	0	-0.20	-0.000256	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	10	-0.80	-0.001023	±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	-1.60	-0.002046	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	40	-1.90	-0.002430	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	50	-1.70	-0.002174	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-30	0.40	0.000512	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-20	-1.00	-0.001279	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	0	0.60	0.000767	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	10	-0.40	-0.000512	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	20	0.20	0.000256	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	30	1.10	0.001407	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	40	0.40	0.000512	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	50	-0.50	-0.000639	±2.5	PASS

The End

