



Appendix B

E-UTRA Band 30



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

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



CONTENT

1	EFFECTIVE (ISOTROPIC) RADIATED POWER	4
1.1.	CONDUCTED POWER TEST RESULT	4
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
4.	26DB BANDWIDTH AND OCCUPIED BANDWIDTH	10
4.1.	TEST RESULT	10
4.2.	TEST PLOTS.....	10
5.	BAND EDGE COMPLIANCE	15
5.1.	TEST PLOTS.....	15
6.	SPURIOUS EMISSION AT ANTENNA TERMINAL	23
6.1.	TEST PLOTS.....	23
7.	FIELD STRENGTH OF SPURIOUS RADIATION	25
7.1.	Test Band = LTE_30 _TM1	25
7.1.1.	Test Channel = Mid Channel	25
7.2.	Test Band = LTE_30 _TM1	26
7.2.1.	Test Channel = Mid Channel	26
7.3.	Test Band = LTE_Band=30 BW=10MHz _TM1	27
7.3.1.	Test Channel = MCH	27
7.4.	Test Band = LTE_Band=30 BW=10MHz _TM1	28
7.4.1.	Test Channel = MCH	28
8.	FREQUENCY STABILITY	29
8.1.	FREQUENCY VS VOLTAGE	29
8.2.	FREQUENCY VS TEMPERATURE	29







1 Effective (Isotropic) Radiated Power

1.1. Conducted Power Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band30	5MHz	QPSK	27685	1RB#12	23.93	28.42	23.98	PASS
Band30	5MHz	QPSK	27685	1RB#24	23.88	28.37	23.98	PASS
Band30	5MHz	QPSK	27685	1RB#0	23.01	27.50	23.98	PASS
Band30	5MHz	QPSK	27685	12RB#0	23.07	27.56	23.98	PASS
Band30	5MHz	QPSK	27685	12RB#6	22.99	27.48	23.98	PASS
Band30	5MHz	QPSK	27685	12RB#13	23.14	27.63	23.98	PASS
Band30	5MHz	QPSK	27685	25RB#0	23.10	27.59	23.98	PASS
Band30	5MHz	QPSK	27710	1RB#0	23.94	28.43	23.98	PASS
Band30	5MHz	QPSK	27710	1RB#12	23.87	28.36	23.98	PASS
Band30	5MHz	QPSK	27710	1RB#24	23.07	27.56	23.98	PASS
Band30	5MHz	QPSK	27710	12RB#0	23.03	27.52	23.98	PASS
Band30	5MHz	QPSK	27710	12RB#6	23.01	27.50	23.98	PASS
Band30	5MHz	QPSK	27710	12RB#13	23.19	27.68	23.98	PASS
Band30	5MHz	QPSK	27710	25RB#0	23.01	27.50	23.98	PASS
Band30	5MHz	QPSK	27735	1RB#24	24.03	28.52	23.98	PASS
Band30	5MHz	QPSK	27735	1RB#0	23.95	28.44	23.98	PASS
Band30	5MHz	QPSK	27735	1RB#12	23.02	27.51	23.98	PASS
Band30	5MHz	QPSK	27735	12RB#6	23.11	27.60	23.98	PASS
Band30	5MHz	QPSK	27735	12RB#0	23.08	27.57	23.98	PASS
Band30	5MHz	QPSK	27735	12RB#13	23.10	27.59	23.98	PASS
Band30	5MHz	QPSK	27735	25RB#0	22.92	27.41	23.98	PASS
Band30	5MHz	16QAM	27685	1RB#12	23.26	27.75	23.98	PASS
Band30	5MHz	16QAM	27685	1RB#0	23.00	27.49	23.98	PASS
Band30	5MHz	16QAM	27685	1RB#24	21.97	26.46	23.98	PASS
Band30	5MHz	16QAM	27685	12RB#13	22.00	26.49	23.98	PASS
Band30	5MHz	16QAM	27685	12RB#6	22.00	26.49	23.98	PASS
Band30	5MHz	16QAM	27685	12RB#0	22.03	26.52	23.98	PASS



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

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

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

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

Band30	5MHz	16QAM	27685	25RB#0	22.10	26.59	23.98	PASS
Band30	5MHz	16QAM	27710	1RB#0	23.20	27.69	23.98	PASS
Band30	5MHz	16QAM	27710	1RB#12	22.86	27.35	23.98	PASS
Band30	5MHz	16QAM	27710	1RB#24	22.16	26.65	23.98	PASS
Band30	5MHz	16QAM	27710	12RB#0	22.20	26.69	23.98	PASS
Band30	5MHz	16QAM	27710	12RB#6	21.94	26.43	23.98	PASS
Band30	5MHz	16QAM	27710	12RB#13	22.15	26.64	23.98	PASS
Band30	5MHz	16QAM	27710	25RB#0	22.02	26.51	23.98	PASS
Band30	5MHz	16QAM	27735	1RB#0	23.26	27.75	23.98	PASS
Band30	5MHz	16QAM	27735	1RB#12	23.00	27.49	23.98	PASS
Band30	5MHz	16QAM	27735	1RB#24	22.09	26.58	23.98	PASS
Band30	5MHz	16QAM	27735	12RB#13	22.16	26.65	23.98	PASS
Band30	5MHz	16QAM	27735	12RB#0	22.08	26.57	23.98	PASS
Band30	5MHz	16QAM	27735	12RB#6	22.04	26.53	23.98	PASS
Band30	5MHz	16QAM	27735	25RB#0	21.99	26.48	23.98	PASS
Band30	10MHz	QPSK	27710	1RB#49	24.06	28.55	23.98	PASS
Band30	10MHz	QPSK	27710	1RB#24	24.00	28.49	23.98	PASS
Band30	10MHz	QPSK	27710	1RB#0	23.79	28.28	23.98	PASS
Band30	10MHz	QPSK	27710	25RB#0	23.21	27.70	23.98	PASS
Band30	10MHz	QPSK	27710	25RB#12	23.38	27.87	23.98	PASS
Band30	10MHz	QPSK	27710	25RB#25	22.99	27.48	23.98	PASS
Band30	10MHz	QPSK	27710	50RB#0	23.30	27.79	23.98	PASS
Band30	10MHz	16QAM	27710	1RB#49	23.16	27.65	23.98	PASS
Band30	10MHz	16QAM	27710	1RB#0	22.17	26.66	23.98	PASS
Band30	10MHz	16QAM	27710	1RB#24	22.18	26.67	23.98	PASS
Band30	10MHz	16QAM	27710	25RB#0	22.15	26.64	23.98	PASS
Band30	10MHz	16QAM	27710	25RB#12	22.27	26.76	23.98	PASS
Band30	10MHz	16QAM	27710	25RB#25	22.33	26.82	23.98	PASS
Band30	10MHz	16QAM	27710	50RB#0	22.15	26.64	23.98	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 (CSTC) Laboratory

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057
中国·深圳·科技园中区M-10栋一号厂房

t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

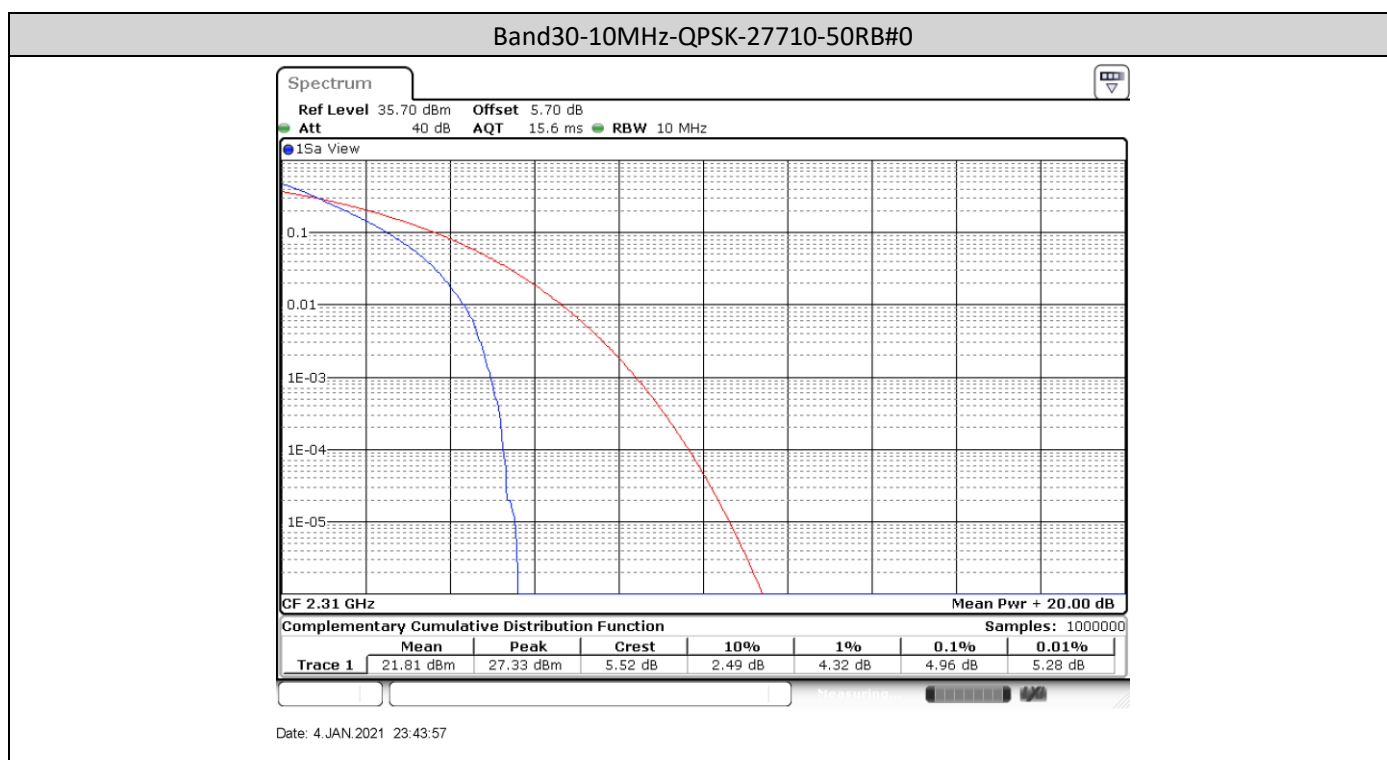


2. Peak-to-Average Ratio (CCDF)

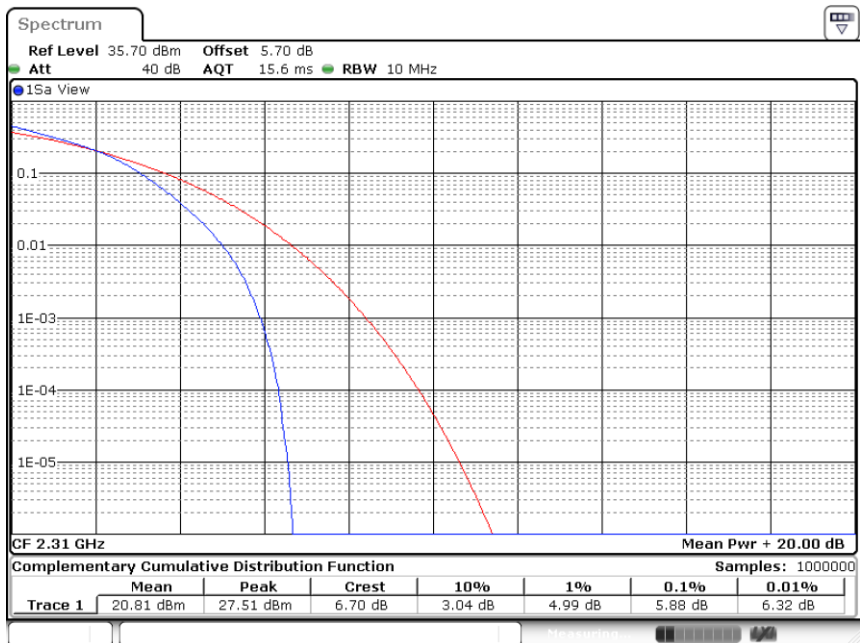
2.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band30	10MHz	QPSK	27710	50RB#0	4.96	13	PASS
Band30	10MHz	16QAM	27710	50RB#0	5.88	13	PASS

2.2. Test Plots



Band30-10MHz-16QAM-27710-50RB#0



Date: 4 JAN 2021 23:44:08

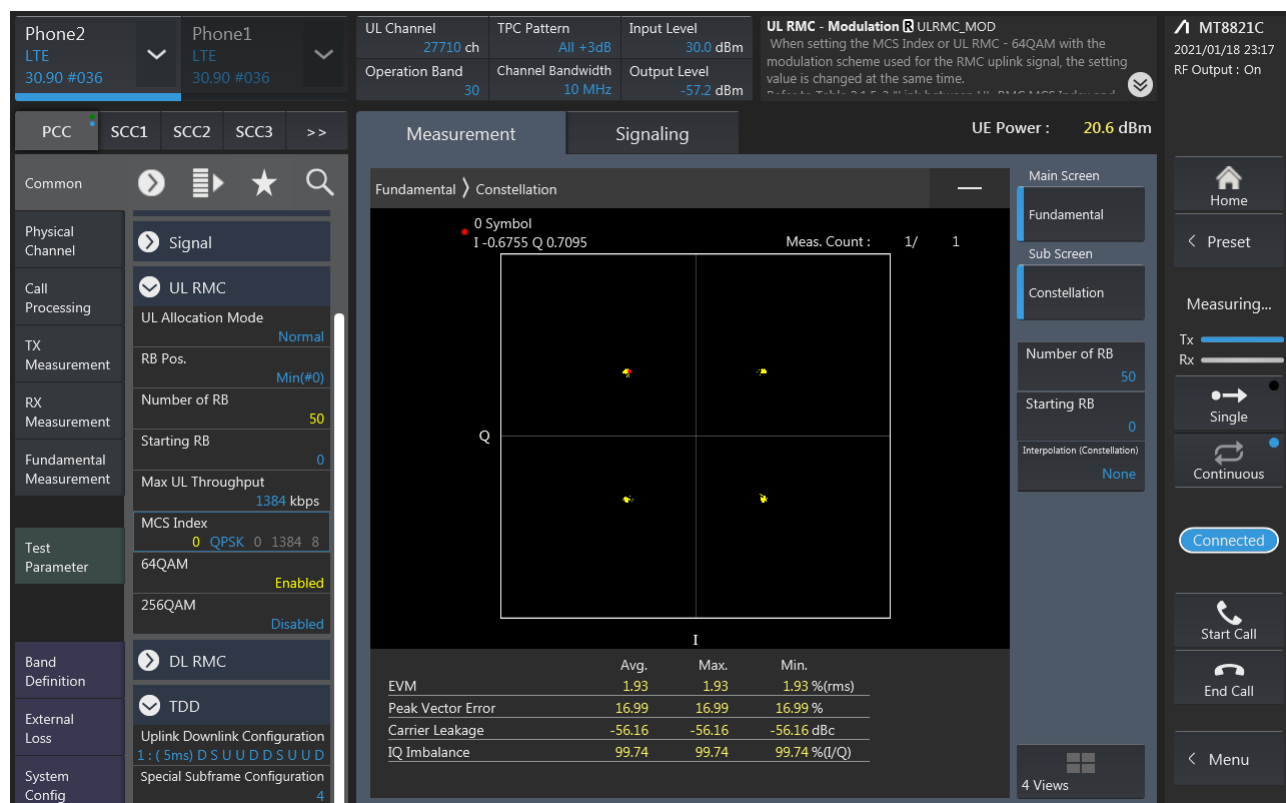




3. Modulation Characteristics

3.1. Test Mode = LTE /TM1 10MHz

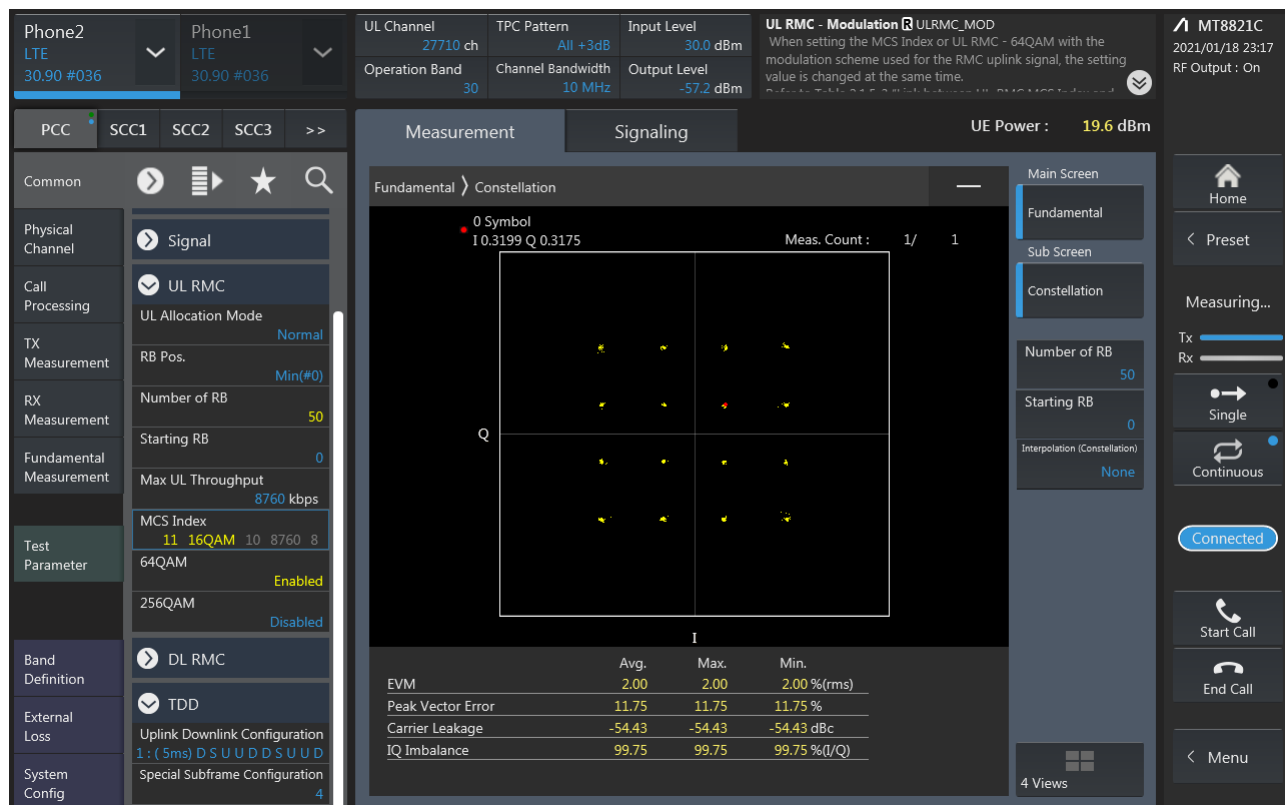
3.1.1. Test Channel = MCH





3.2. Test Mode = LTE /TM2 10MHz

3.2.1. Test Channel = MCH



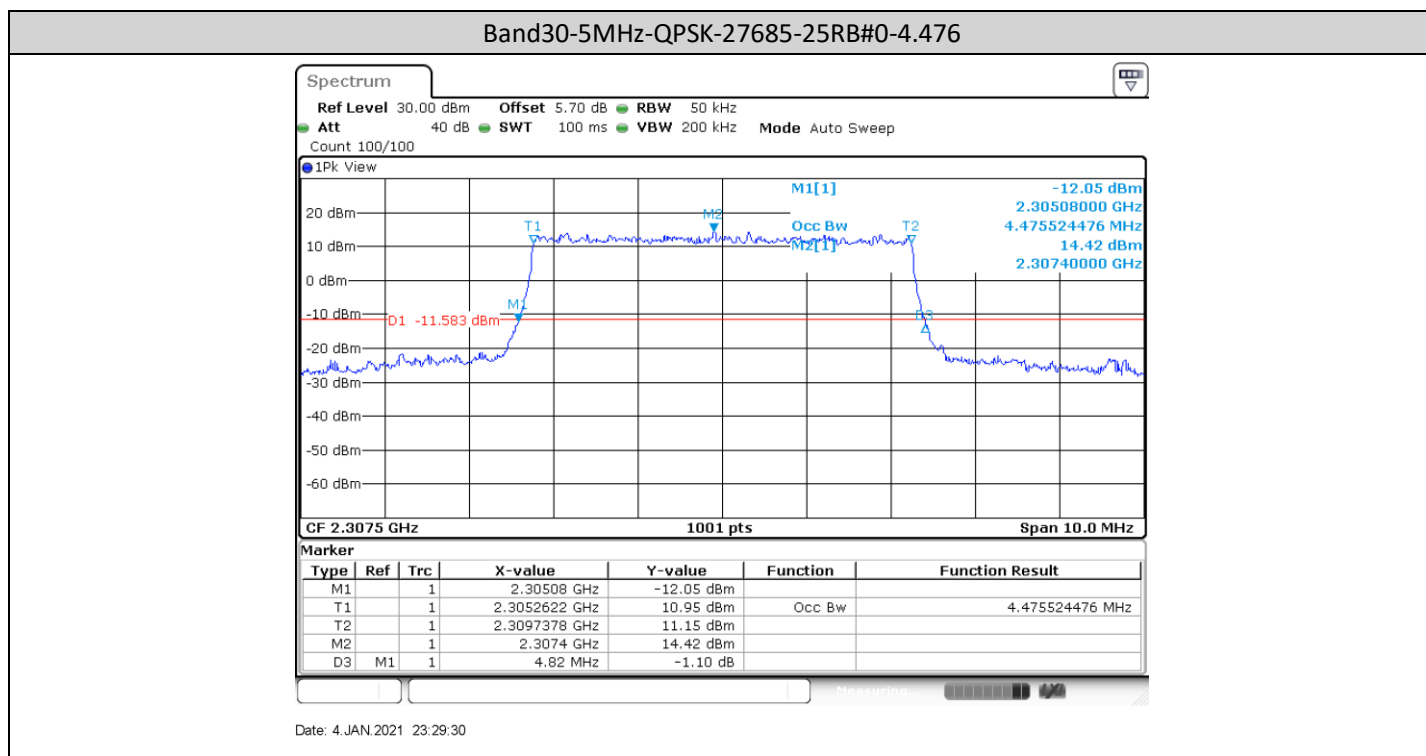


4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

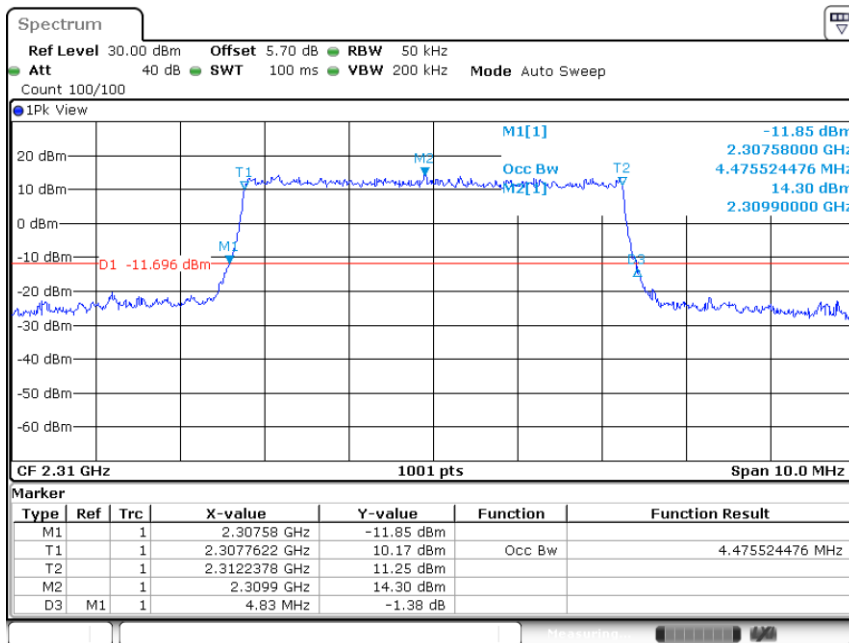
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band30	5MHz	QPSK	27685	25RB#0	4.476	4.820	PASS
Band30	5MHz	QPSK	27710	25RB#0	4.476	4.830	PASS
Band30	5MHz	QPSK	27735	25RB#0	4.476	4.840	PASS
Band30	5MHz	16QAM	27685	25RB#0	4.476	4.850	PASS
Band30	5MHz	16QAM	27710	25RB#0	4.476	4.850	PASS
Band30	5MHz	16QAM	27735	25RB#0	4.476	4.860	PASS
Band30	10MHz	QPSK	27710	50RB#0	8.951	9.620	PASS
Band30	10MHz	16QAM	27710	50RB#0	8.931	9.620	PASS

4.2. Test Plots



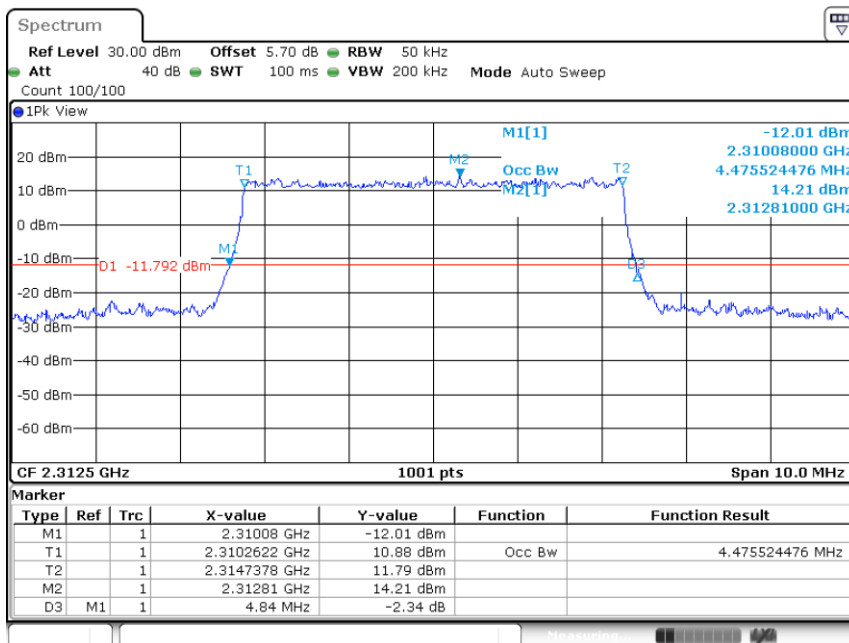


Band30-5MHz-QPSK-27710-25RB#0-4.476



Date: 4.JAN.2021 23:30:10

Band30-5MHz-QPSK-27735-25RB#0-4.476



Date: 4.JAN.2021 23:30:49

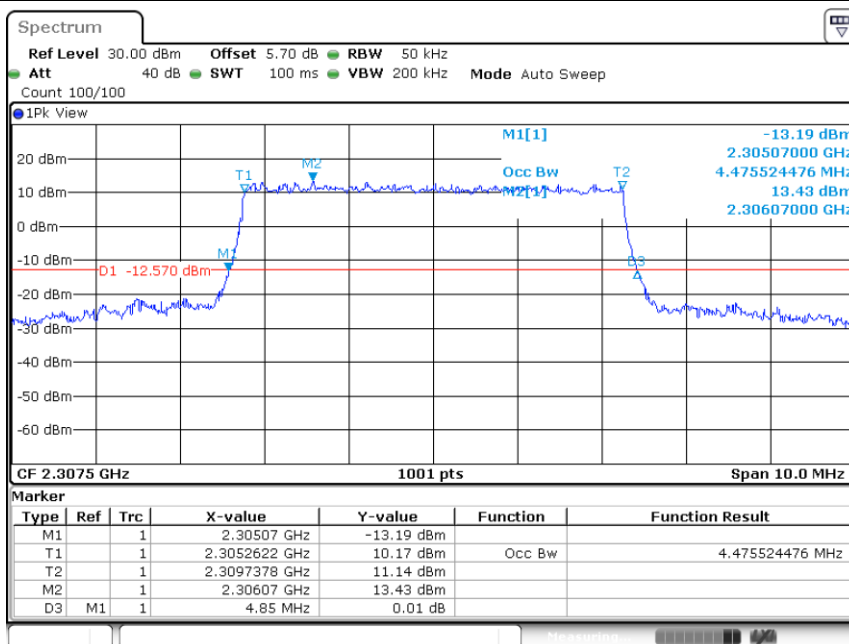


SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

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 herein 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

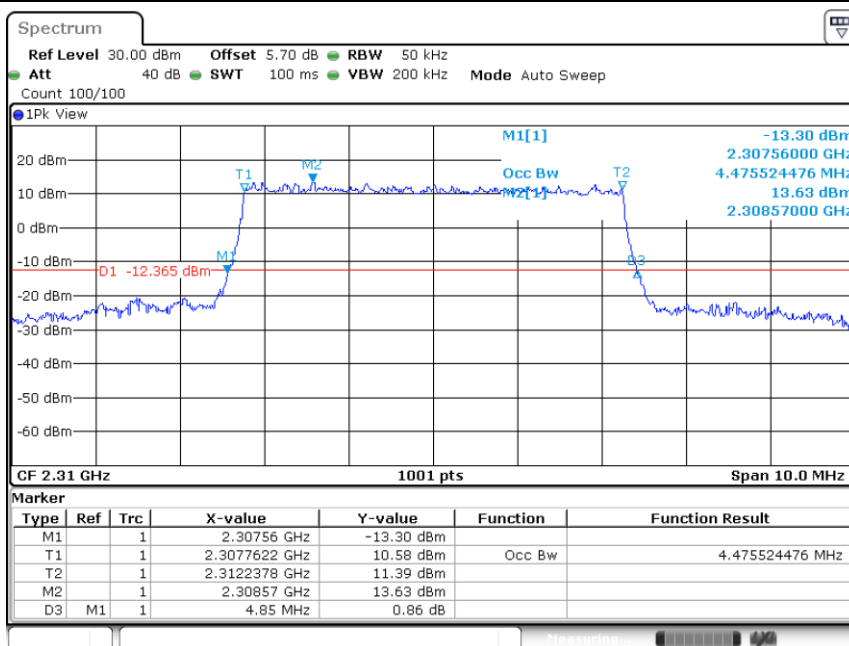


Band30-5MHz-16QAM-27685-25RB#0-4.476



Date: 4.JAN.2021 23:29:50

Band30-5MHz-16QAM-27710-25RB#0-4.476

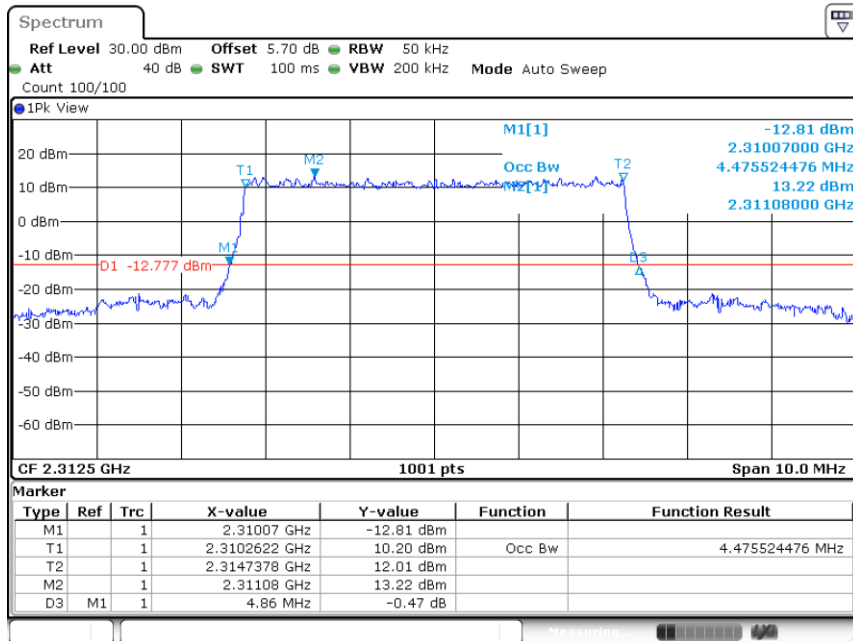


Date: 4.JAN.2021 23:30:29



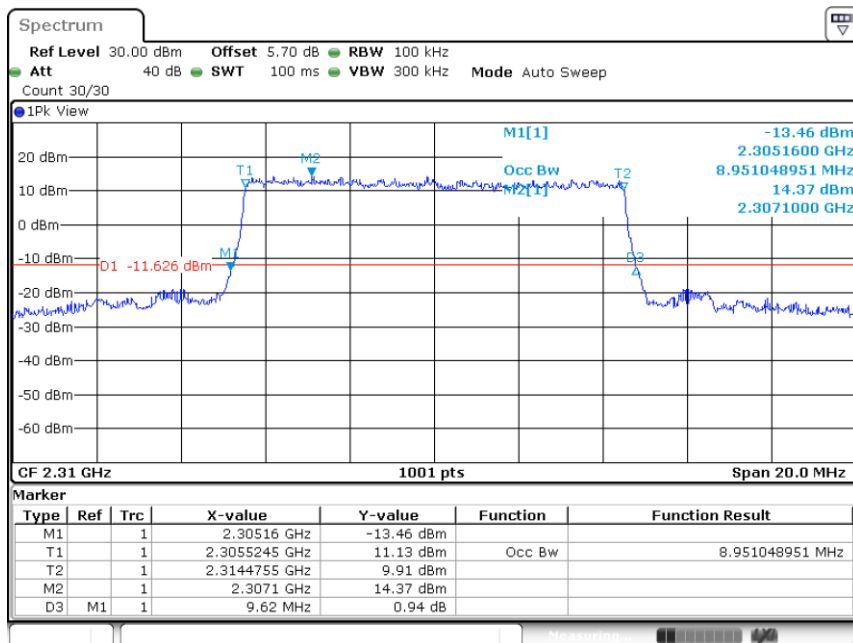


Band30-5MHz-16QAM-27735-25RB#0-4.476



Date: 4.JAN.2021 23:31:09

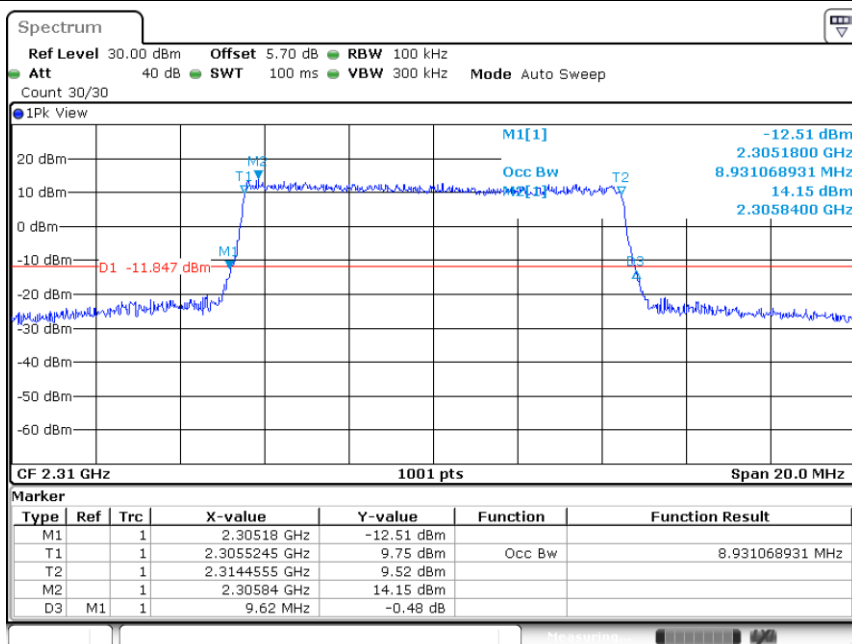
Band30-10MHz-QPSK-27710-50RB#0-8.951



Date: 4.JAN.2021 23:31:27



Band30-10MHz-16QAM-27710-50RB#0-8.931



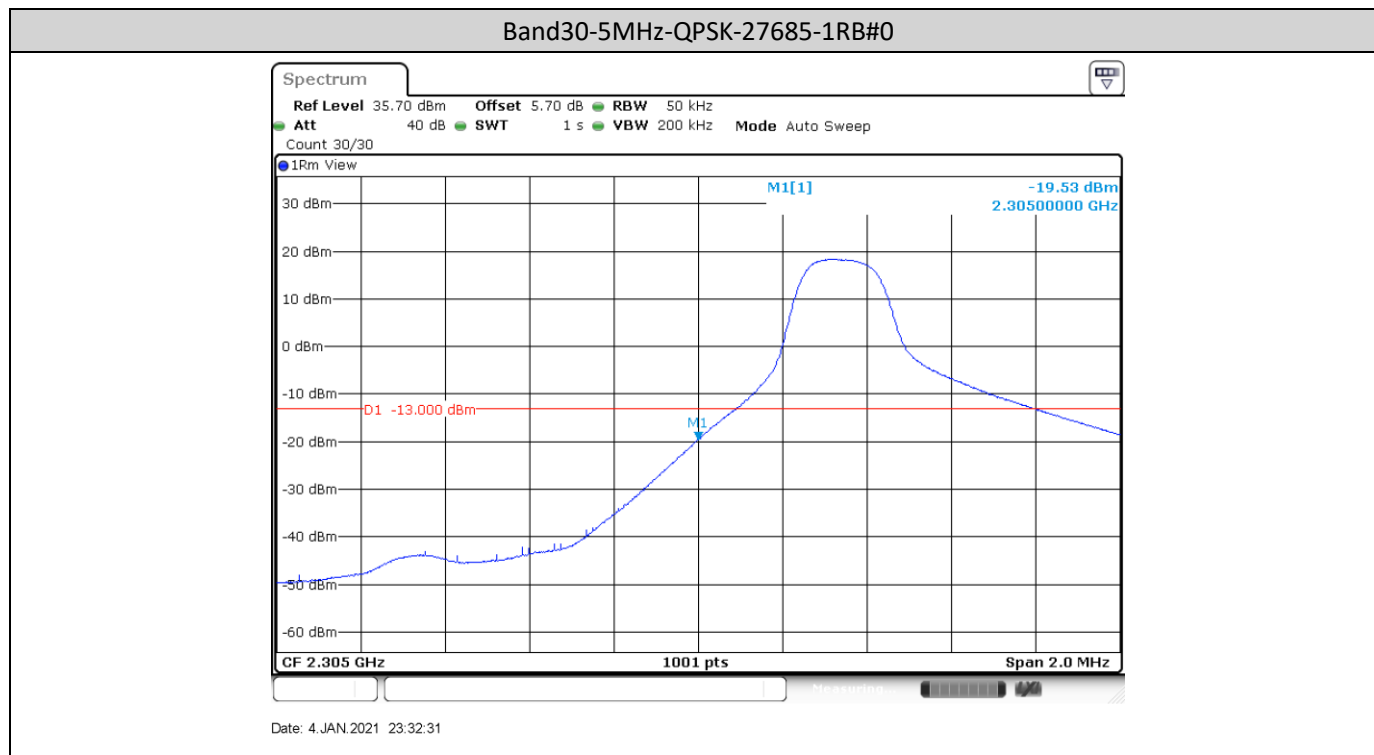
Date: 4.JAN.2021 23:31:39





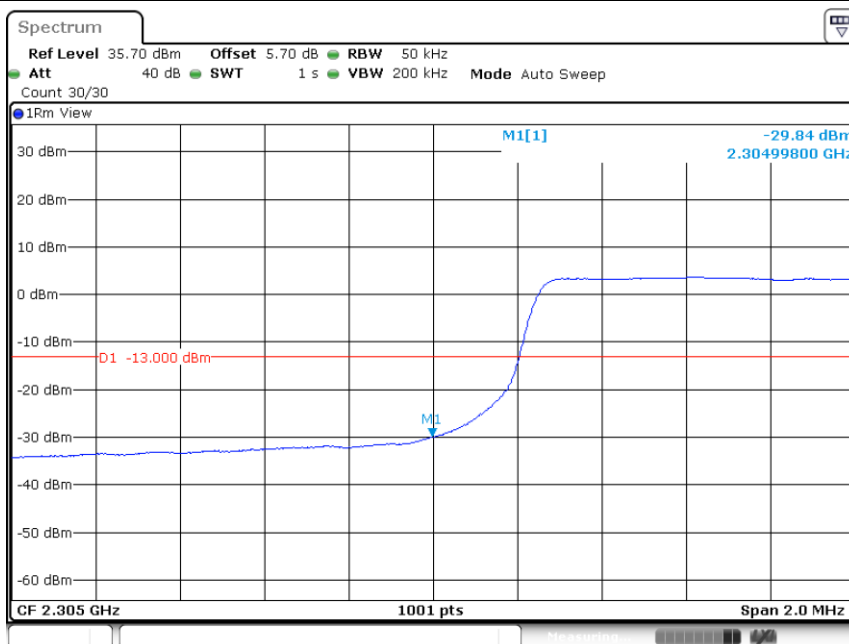
5. Band Edge Compliance

5.1. Test Plots



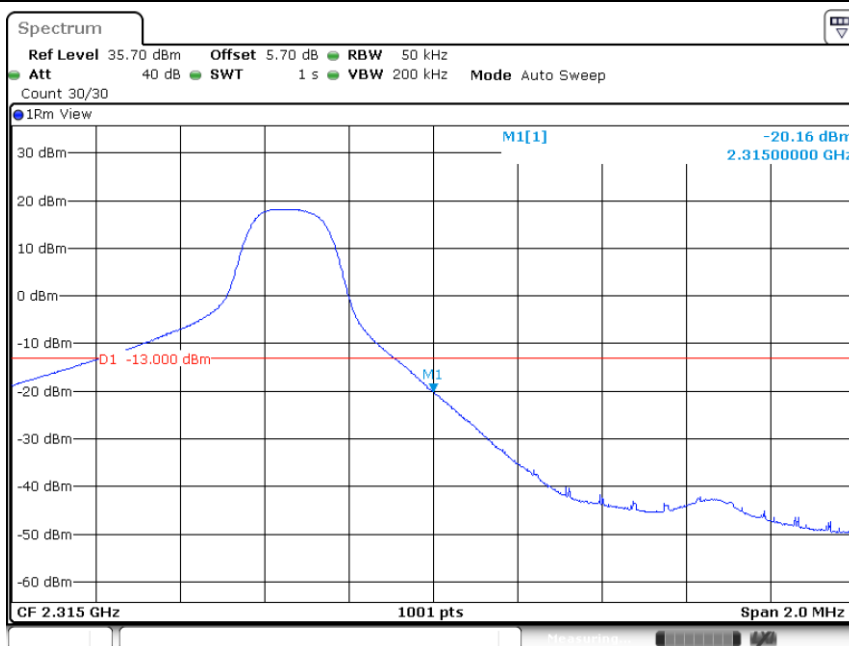


Band30-5MHz-QPSK-27685-25RB#0



Date: 4.JAN.2021 23:34:04

Band30-5MHz-QPSK-27735-1RB#24

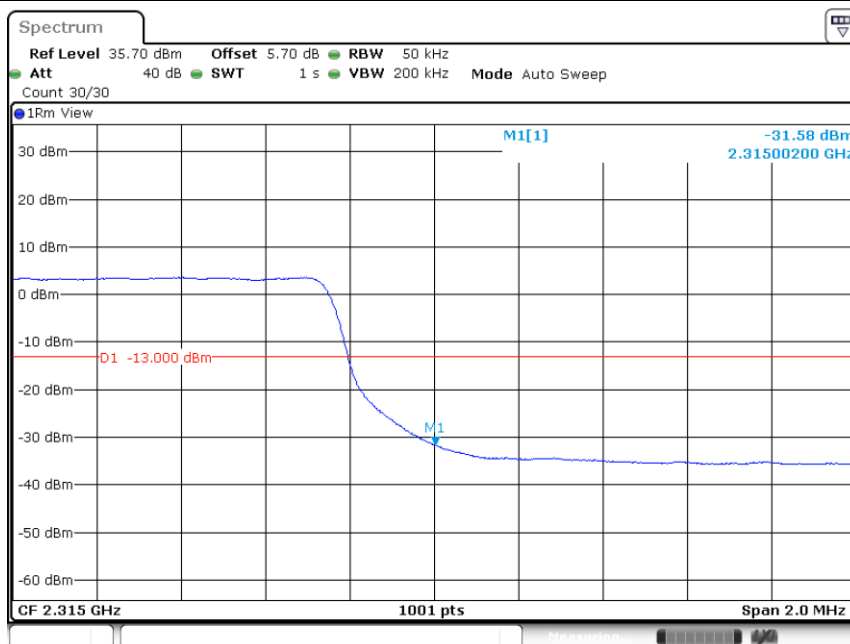


Date: 4.JAN.2021 23:35:41



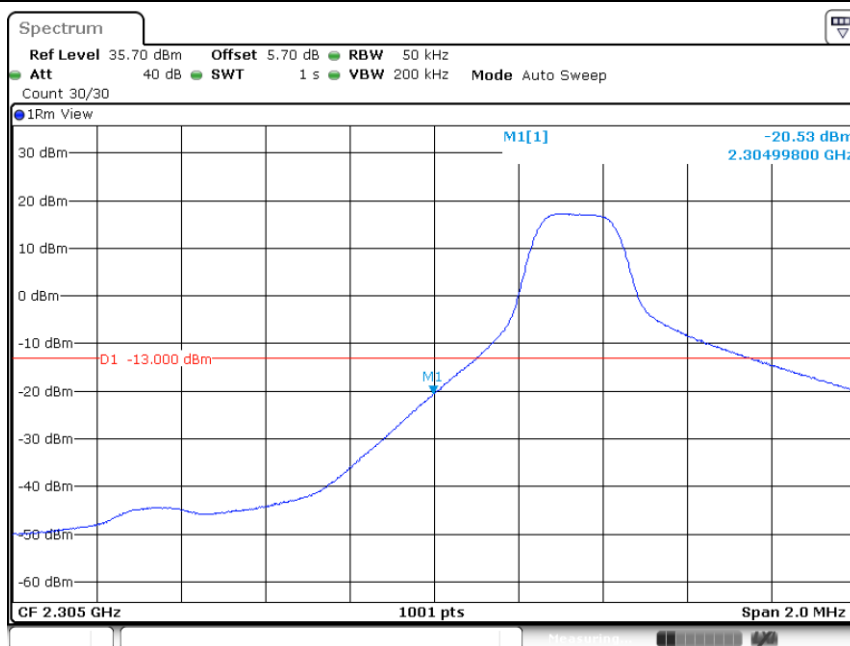


Band30-5MHz-QPSK-27735-25RB#0



Date: 4.JAN.2021 23:37:15

Band30-5MHz-16QAM-27685-1RB#0



Date: 4.JAN.2021 23:33:17



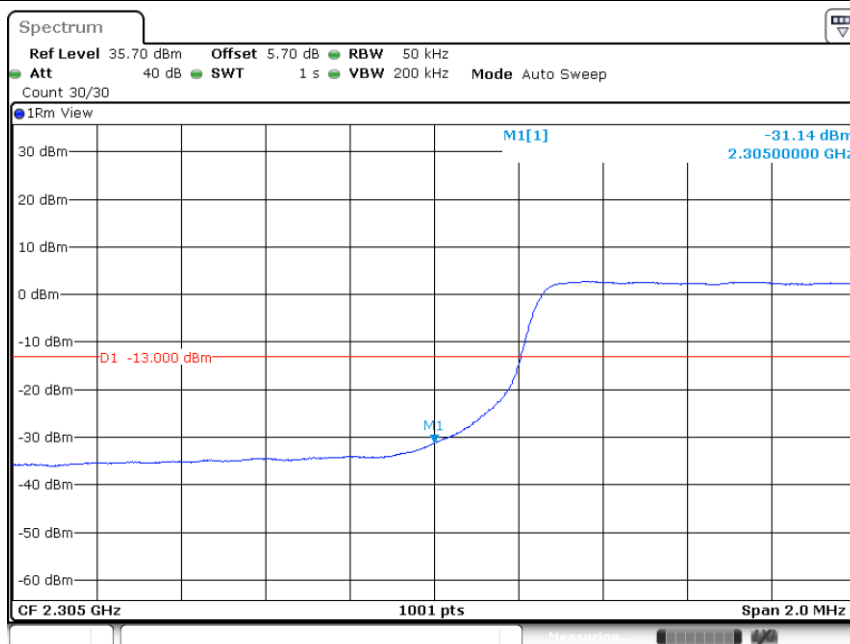
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CCC Laboratory)

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



Band30-5MHz-16QAM-27685-25RB#0



Date: 4.JAN.2021 23:34:50

Band30-5MHz-16QAM-27735-1RB#24

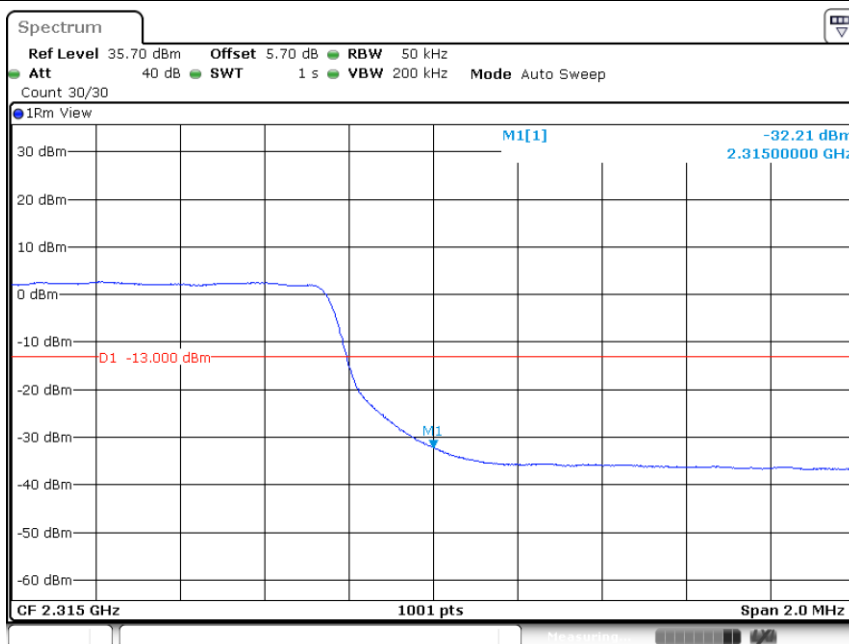


Date: 4.JAN.2021 23:36:28



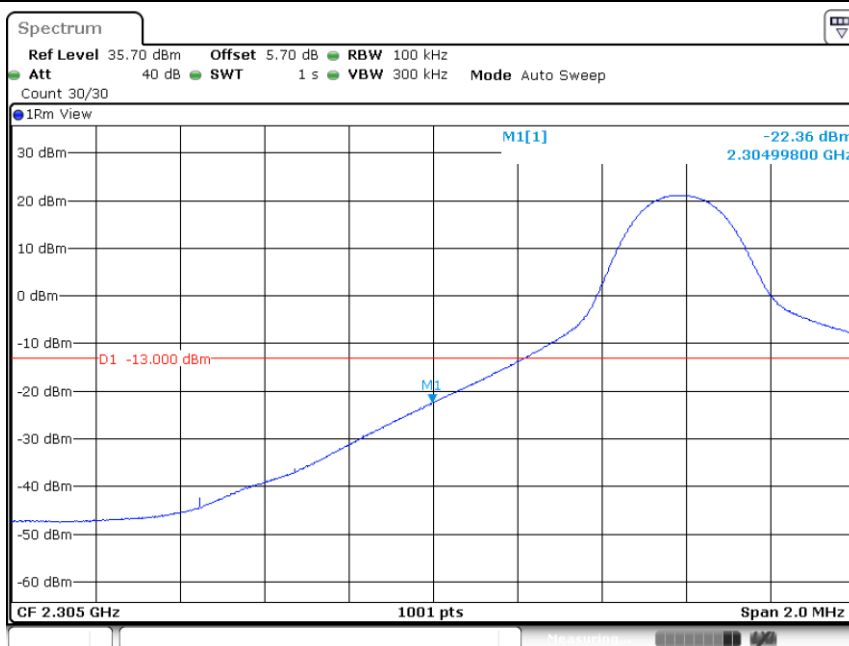


Band30-5MHz-16QAM-27735-25RB#0



Date: 4.JAN.2021 23:38:02

Band30-10MHz-QPSK-27710_Left-1RB#0

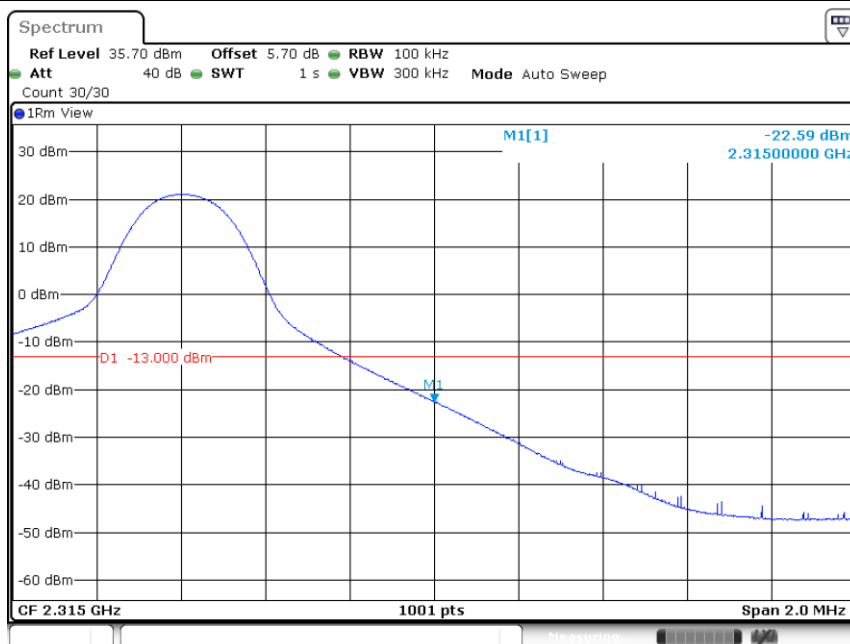


Date: 4.JAN.2021 23:38:53



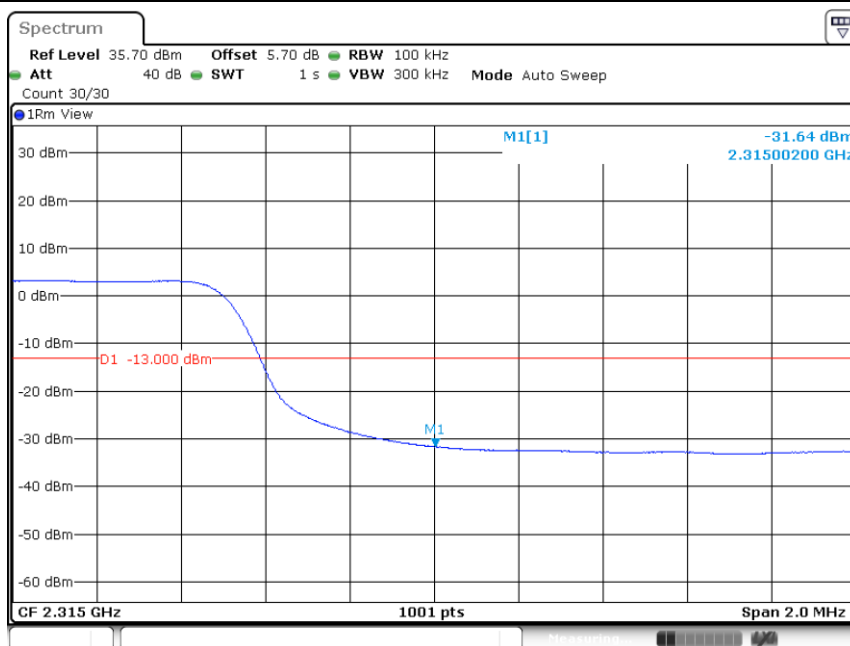


Band30-10MHz-QPSK-27710_Right-1RB#49



Date: 4.JAN.2021 23:40:30

Band30-10MHz-QPSK-27710_Right-50RB#0



Date: 4.JAN.2021 23:42:03



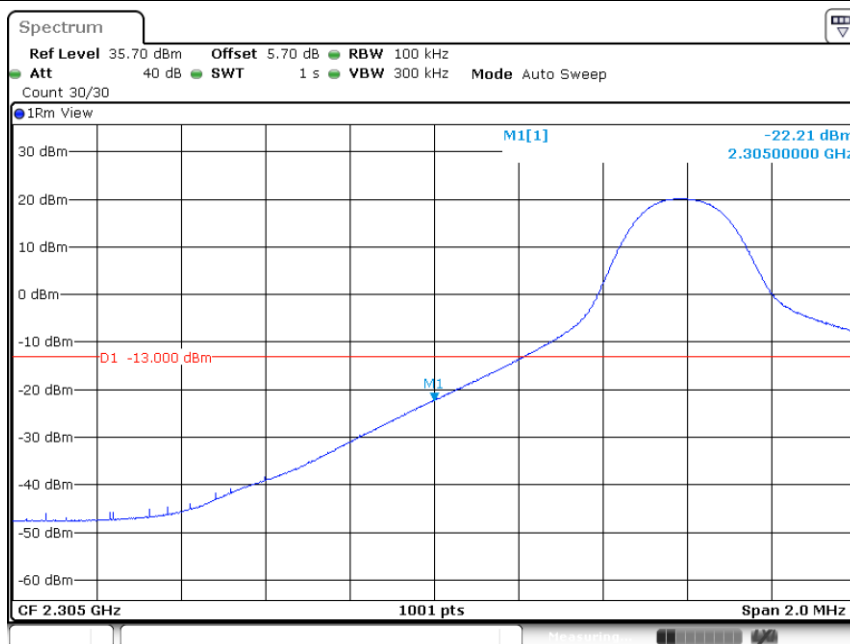
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CCC Laboratory)

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

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

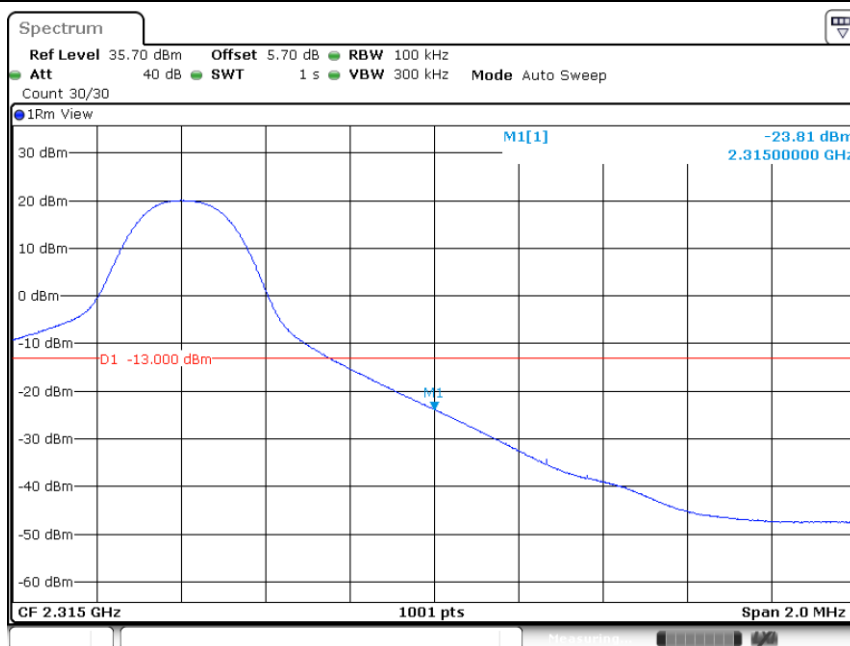


Band30-10MHz-16QAM-27710_Left-1RB#0



Date: 4.JAN.2021 23:39:40

Band30-10MHz-16QAM-27710_Right-1RB#49



Date: 4.JAN.2021 23:41:17



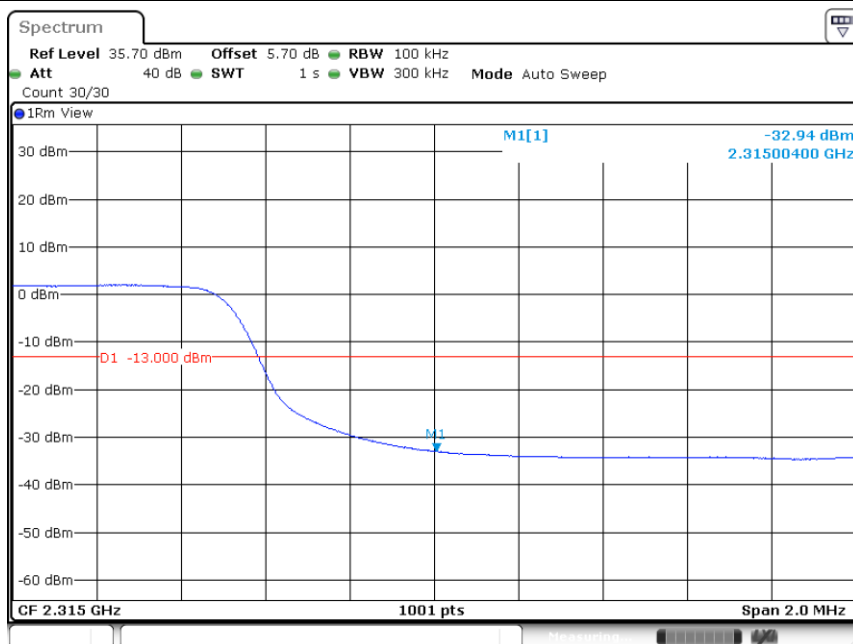
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CMAA Laboratory)

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



Band30-10MHz-16QAM-27710_Right-50RB#0



Date: 4 JAN.2021 23:42:50



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

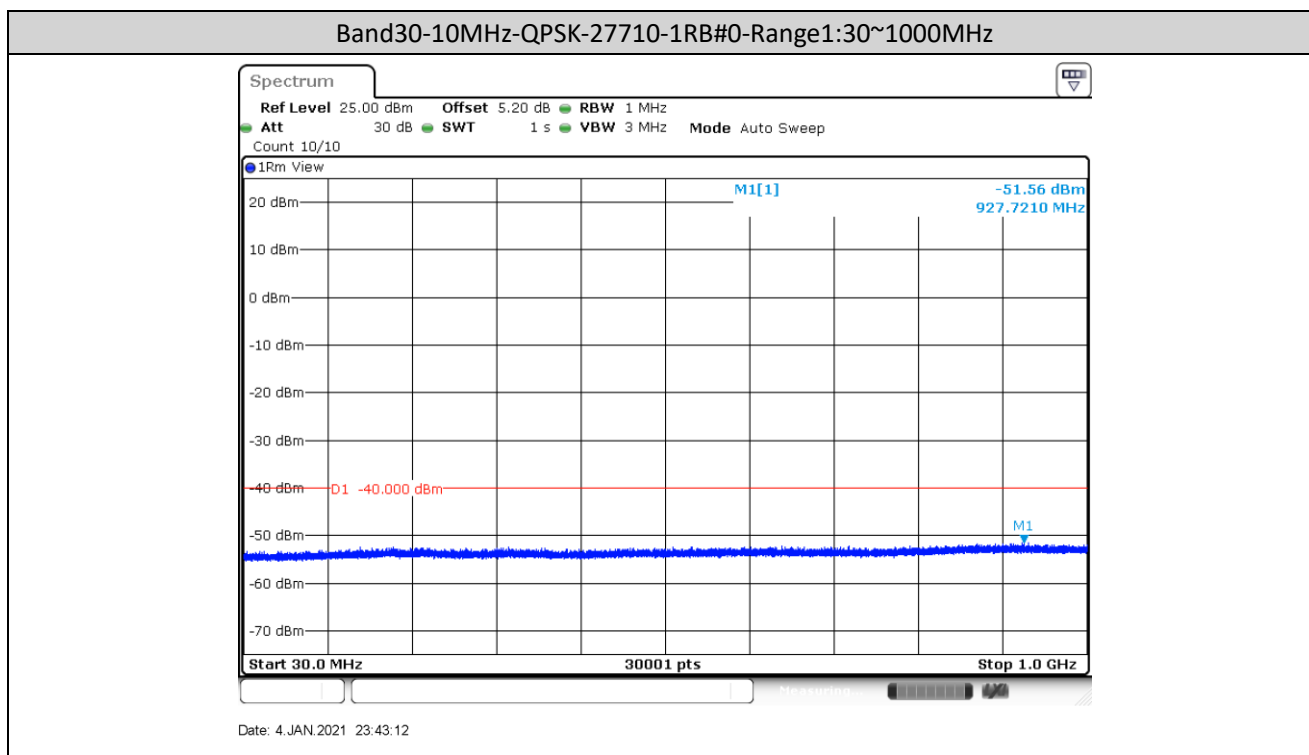


6. Spurious Emission at Antenna Terminal

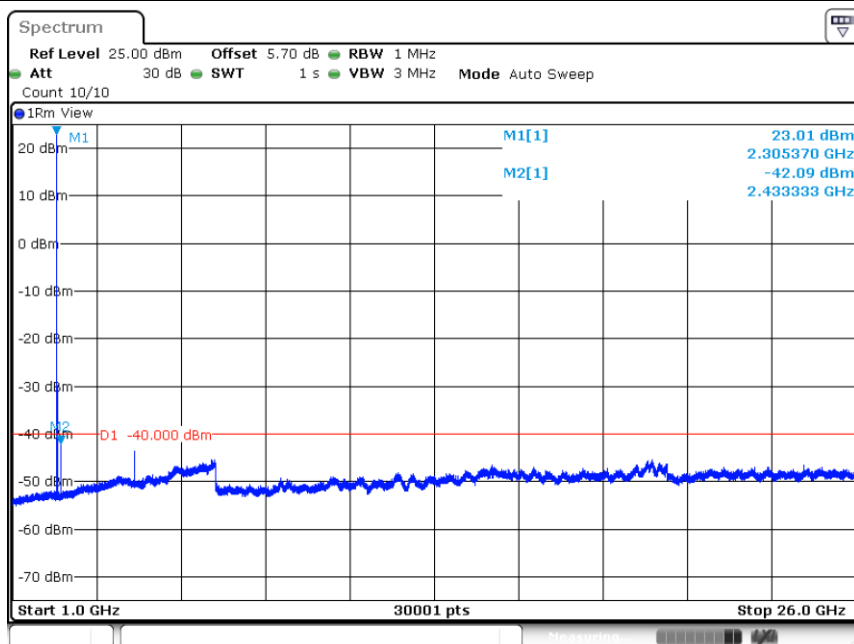
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points =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



Band30-10MHz-QPSK-27710-1RB#0-Range2:1000~26000MHz



Date: 4.JAN.2021 23:43:29



7. Field Strength of Spurious Radiation

7.1. Test Band = LTE_30_TM1

7.1.1. Test Channel = Mid Channel

Suspected Data List					
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	41.1071	-64.12	-40.00	24.12	Horizontal
2	245.2538	-67.81	-40.00	27.81	Horizontal
3	734.9827	-61.05	-40.00	21.05	Horizontal
4	3499.5167	-60.74	-40.00	20.74	Horizontal
5	6917.1306	-51.21	-40.00	11.21	Horizontal
6	17325.477	-46.72	-40.00	6.72	Horizontal



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

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

7.2. Test Band = LTE_30_TM1

7.2.1. Test Channel = Mid Channel

Suspected Data List					
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	82.4796	-59.82	-40.00	19.82	Vertical
2	111.2416	-63.90	-40.00	23.90	Vertical
3	705.7358	-61.78	-40.00	21.78	Vertical
4	6916.6306	-55.86	-40.00	15.86	Vertical
5	14710.890	-47.75	-40.00	7.75	Vertical
6	17996.499	-46.90	-40.00	6.90	Vertical



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

Test on the worst case:

7.3. Test Band = LTE_Band=30 BW=10MHz_TM1

7.3.1. Test Channel = MCH

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	45.5208	-69.88	-63.16	-40.00	23.16	Horizontal
2	245.2538	-69.98	-67.31	-40.00	27.31	Horizontal
3	997.8174	-70.64	-54.15	-40.00	14.15	Horizontal
4	2931.9966	-75.88	-53.09	-40.00	13.09	Horizontal
5	6917.1306	-47.93	-50.71	-40.00	10.71	Horizontal
6	17997.999	-58.90	-45.81	-40.00	5.81	Horizontal



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

7.4. Test Band = LTE_Band=30 BW=10MHz_TM1

7.4.1. Test Channel = MCH

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	82.4796	-59.82	-59.32	-40.00	19.32	Vertical
2	111.2416	-69.70	-63.40	-40.00	23.40	Vertical
3	346.4298	-69.74	-67.38	-40.00	27.38	Vertical
4	991.8031	-70.82	-55.09	-40.00	15.09	Vertical
5	6536.1179	-55.62	-58.63	-40.00	18.63	Vertical
6	14710.890	-59.34	-47.25	-40.00	7.25	Vertical

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.



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

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band30	10MHz	QPSK	27710	50RB#0	VL	NT	-6.10	-0.002641	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	VN	NT	-15.20	-0.006580	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	VH	NT	-3.20	-0.001385	±2.5	PASS
Band30	10MHz	16QAM	27710	50RB#0	VL	NT	3.00	0.001299	±2.5	PASS
Band30	10MHz	16QAM	27710	50RB#0	VN	NT	-9.70	-0.004199	±2.5	PASS
Band30	10MHz	16QAM	27710	50RB#0	VH	NT	-9.00	-0.003896	±2.5	PASS

8.2. Frequency Vs Temperature

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band30	10MHz	QPSK	27710	50RB#0	NV	-30	-2.90	-0.001255	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	-20	-5.70	-0.002468	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	-10	-8.80	-0.003810	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	0	-7.60	-0.003290	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	10	-12.80	-0.005541	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	20	-0.80	-0.000346	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	30	-9.90	-0.004286	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	40	-1.70	-0.000736	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	50	-19.00	-0.008225	±2.5	PASS
Band30	10MHz	16QAM	27710	50RB#0	NV	-30	-12.70	-0.005498	±2.5	PASS
Band30	10MHz	16QAM	27710	50RB#0	NV	-20	-17.90	-0.007749	±2.5	PASS
Band30	10MHz	16QAM	27710	50RB#0	NV	-10	-15.20	-0.006580	±2.5	PASS
Band30	10MHz	16QAM	27710	50RB#0	NV	0	-10.30	-0.004459	±2.5	PASS
Band30	10MHz	16QAM	27710	50RB#0	NV	10	-3.70	-0.001602	±2.5	PASS
Band30	10MHz	16QAM	27710	50RB#0	NV	20	-11.80	-0.005108	±2.5	PASS
Band30	10MHz	16QAM	27710	50RB#0	NV	30	-15.80	-0.006840	±2.5	PASS
Band30	10MHz	16QAM	27710	50RB#0	NV	40	-12.80	-0.005541	±2.5	PASS
Band30	10MHz	16QAM	27710	50RB#0	NV	50	-15.50	-0.006710	±2.5	PASS



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