



Appendix B

E-UTRA Band 7



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



CONTENT

1.	EFFECTIVE (ISOTROPIC) RADIATED POWER.....	3
1.1.	TEST RESULT	3
2.	PEAK-TO-AVERAGE RATIO(CCDF).....	8
2.1.	TEST RESULT	8
2.2.	TEST PLOTS.....	8
3.	MODULATION CHARACTERISTICS	12
3.1.	TEST BAND = LTE BAND 7	12
3.2.	TEST MODE = LTE /TM1 20MHZ.....	12
3.2.1.	TEST CHANNEL = MCH.....	12
3.3.	TEST MODE = LTE /TM2 20MHZ.....	13
3.3.1.	TEST CHANNEL = MCH.....	13
4.	26DB BANDWIDTH AND OCCUPIED BANDWIDTH	14
4.1.	TEST RESULT	14
4.2.	TEST PLOTS.....	15
5.	BAND EDGE COMPLIANCE	27
5.1.	TEST PLOTS.....	27
6.	SPURIOUS EMISSION AT ANTENNA TERMINAL	43
6.1.	TEST PLOTS.....	43
7.	FIELD STRENGTH OF SPURIOUS RADIATION.....	49
7.1.	TEST BAND = LTE BAND 7	49
7.1.1.	TEST MODE =LTE/TM1 20MHZ.....	49
7.1.1.1.	TEST CHANNEL = LCH	49
7.1.1.2.	TEST CHANNEL = MCH.....	49
7.1.1.3.	TEST CHANNEL = HCH	50
8.	FREQUENCY STABILITY	51
8.1.	FREQUENCY VS VOLTAGE	51
8.2.	FREQUENCY VS TEMPERATURE	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-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	Modulation	Channel	RB Configuration	Conducted Power(dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	23.22	27.22	33.00	PASS
Band7	5MHz	QPSK	20775	1RB#12	23.23	27.23	33.00	PASS
Band7	5MHz	QPSK	20775	1RB#24	23.12	27.12	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#0	22.29	26.29	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#6	22.32	26.32	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#13	22.22	26.22	33.00	PASS
Band7	5MHz	QPSK	20775	25RB#0	22.36	26.36	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#0	23.2	27.20	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#12	23.04	27.04	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#24	23.05	27.05	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#0	22.21	26.21	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#6	22.15	26.15	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#13	22.07	26.07	33.00	PASS
Band7	5MHz	QPSK	21100	25RB#0	22.18	26.18	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#0	23.17	27.17	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#12	23.1	27.10	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#24	22.72	26.72	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#0	22.53	26.53	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#6	22.25	26.25	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#13	21.94	25.94	33.00	PASS
Band7	5MHz	QPSK	21425	25RB#0	22.24	26.24	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#0	22.52	26.52	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#12	22.3	26.30	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#24	22.55	26.55	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#0	21.41	25.41	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#6	21.34	25.34	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#13	21.3	25.30	33.00	PASS
Band7	5MHz	16QAM	20775	25RB#0	21.34	25.34	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#0	22.37	26.37	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#12	22.25	26.25	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#24	22.18	26.18	33.00	PASS
Band7	5MHz	16QAM	21100	12RB#0	21.22	25.22	33.00	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



Band7	5MHz	16QAM	21100	12RB#6	21.21	25.21	33.00	PASS
Band7	5MHz	16QAM	21100	12RB#13	21.17	25.17	33.00	PASS
Band7	5MHz	16QAM	21100	25RB#0	21.12	25.12	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#0	22.54	26.54	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#12	22.42	26.42	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#24	22.39	26.39	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#0	21.29	25.29	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#6	21.2	25.20	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#13	21.25	25.25	33.00	PASS
Band7	5MHz	16QAM	21425	25RB#0	21.23	25.23	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#0	23.38	27.38	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#24	24.24	28.24	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#49	22.77	26.77	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#0	22.41	26.41	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#12	22.29	26.29	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#25	22.24	26.24	33.00	PASS
Band7	10MHz	QPSK	20800	50RB#0	22.27	26.27	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#0	23.33	27.33	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#24	23.33	27.33	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#49	22.78	26.78	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#0	22.31	26.31	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#12	22.1	26.10	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#25	22.07	26.07	33.00	PASS
Band7	10MHz	QPSK	21100	50RB#0	22.11	26.11	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#0	23.32	27.32	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#24	23.35	27.35	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#49	21.99	25.99	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#0	22.55	26.55	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#12	22.14	26.14	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#25	22.05	26.05	33.00	PASS
Band7	10MHz	QPSK	21400	50RB#0	22.22	26.22	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#0	22.71	26.71	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#24	22.43	26.43	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#49	22.49	26.49	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#0	21.25	25.25	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#12	21.26	25.26	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#25	21.23	25.23	33.00	PASS
Band7	10MHz	16QAM	20800	50RB#0	21.32	25.32	33.00	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.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



Band7	10MHz	16QAM	21100	1RB#0	22.6	26.60	33.00	PASS
Band7	10MHz	16QAM	21100	1RB#24	22.3	26.30	33.00	PASS
Band7	10MHz	16QAM	21100	1RB#49	22.4	26.40	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#0	21.18	25.18	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#12	21.15	25.15	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#25	20.95	24.95	33.00	PASS
Band7	10MHz	16QAM	21100	50RB#0	21.12	25.12	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#0	22.62	26.62	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#24	22.3	26.30	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#49	22.52	26.52	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#0	21.23	25.23	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#12	21.18	25.18	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#25	21.24	25.24	33.00	PASS
Band7	10MHz	16QAM	21400	50RB#0	21.15	25.15	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#0	23.29	27.29	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#38	23.22	27.22	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#74	23.28	27.28	33.00	PASS
Band7	15MHz	QPSK	20825	36RB#0	22.53	26.53	33.00	PASS
Band7	15MHz	QPSK	20825	36RB#18	22.38	26.38	33.00	PASS
Band7	15MHz	QPSK	20825	36RB#39	22.28	26.28	33.00	PASS
Band7	15MHz	QPSK	20825	75RB#0	22.43	26.43	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#0	23.16	27.16	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#38	23.06	27.06	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#74	22.99	26.99	33.00	PASS
Band7	15MHz	QPSK	21100	36RB#0	22.3	26.30	33.00	PASS
Band7	15MHz	QPSK	21100	36RB#18	22.36	26.36	33.00	PASS
Band7	15MHz	QPSK	21100	36RB#39	22.22	26.22	33.00	PASS
Band7	15MHz	QPSK	21100	75RB#0	22.26	26.26	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#0	23.17	27.17	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#38	23.1	27.10	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#74	22.09	26.09	33.00	PASS
Band7	15MHz	QPSK	21375	36RB#0	22.45	26.45	33.00	PASS
Band7	15MHz	QPSK	21375	36RB#18	22.28	26.28	33.00	PASS
Band7	15MHz	QPSK	21375	36RB#39	22.19	26.19	33.00	PASS
Band7	15MHz	QPSK	21375	75RB#0	22.27	26.27	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#0	22.62	26.62	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#38	22.44	26.44	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#74	22.35	26.35	33.00	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.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



Band7	15MHz	16QAM	20825	36RB#0	21.52	25.52	33.00	PASS
Band7	15MHz	16QAM	20825	36RB#18	21.39	25.39	33.00	PASS
Band7	15MHz	16QAM	20825	36RB#39	21.36	25.36	33.00	PASS
Band7	15MHz	16QAM	20825	75RB#0	21.37	25.37	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#0	22.42	26.42	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#38	22.43	26.43	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#74	22.42	26.42	33.00	PASS
Band7	15MHz	16QAM	21100	36RB#0	21.21	25.21	33.00	PASS
Band7	15MHz	16QAM	21100	36RB#18	21.26	25.26	33.00	PASS
Band7	15MHz	16QAM	21100	36RB#39	21.18	25.18	33.00	PASS
Band7	15MHz	16QAM	21100	75RB#0	21.27	25.27	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#0	22.54	26.54	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#38	22.45	26.45	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#74	22.41	26.41	33.00	PASS
Band7	15MHz	16QAM	21375	36RB#0	21.33	25.33	33.00	PASS
Band7	15MHz	16QAM	21375	36RB#18	21.25	25.25	33.00	PASS
Band7	15MHz	16QAM	21375	36RB#39	21.19	25.19	33.00	PASS
Band7	15MHz	16QAM	21375	75RB#0	21.28	25.28	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#0	23.38	27.38	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#49	23.16	27.16	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#99	23.22	27.22	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#0	22.43	26.43	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#25	22.37	26.37	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#50	22.28	26.28	33.00	PASS
Band7	20MHz	QPSK	20850	100RB#0	22.31	26.31	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#0	23.17	27.17	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#49	22.94	26.94	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#99	22.81	26.81	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#0	22.26	26.26	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#25	22.29	26.29	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#50	22.23	26.23	33.00	PASS
Band7	20MHz	QPSK	21100	100RB#0	22.28	26.28	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#0	23.31	27.31	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#49	23.14	27.14	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#99	21.99	25.99	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#0	22.45	26.45	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#25	22.18	26.18	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#50	21.84	25.84	33.00	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.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



Band7	20MHz	QPSK	21350	100RB#0	22.35	26.35	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#0	22.67	26.67	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#49	22.53	26.53	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#99	22.52	26.52	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#0	21.37	25.37	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#25	21.38	25.38	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#50	21.35	25.35	33.00	PASS
Band7	20MHz	16QAM	20850	100RB#0	21.45	25.45	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#0	22.4	26.40	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#49	22.35	26.35	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#99	22.39	26.39	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#0	21.19	25.19	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#25	21.16	25.16	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#50	21.17	25.17	33.00	PASS
Band7	20MHz	16QAM	21100	100RB#0	21.23	25.23	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#0	22.46	26.46	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#49	22.28	26.28	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#99	22.32	26.32	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#0	21.24	25.24	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#25	21.24	25.24	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#50	21.15	25.15	33.00	PASS
Band7	20MHz	16QAM	21350	100RB#0	21.26	25.26	33.00	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 [dBi]

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

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

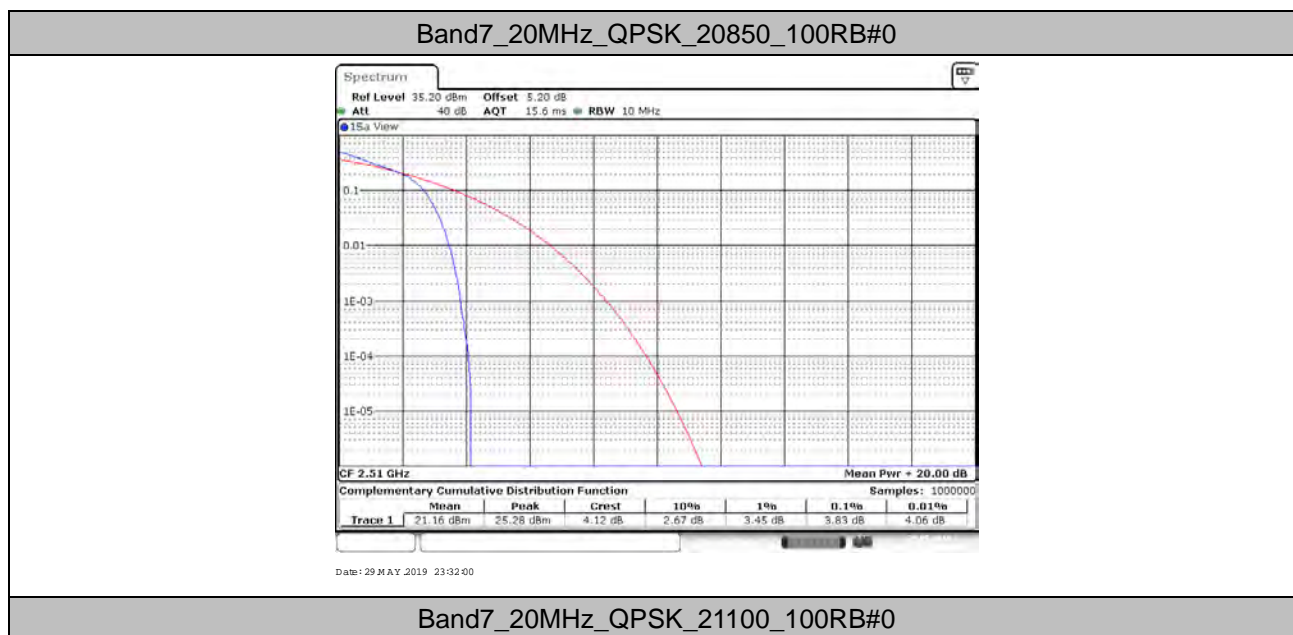


2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	3.83	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	3.91	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	3.91	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	5.62	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	5.65	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	5.68	13	PASS

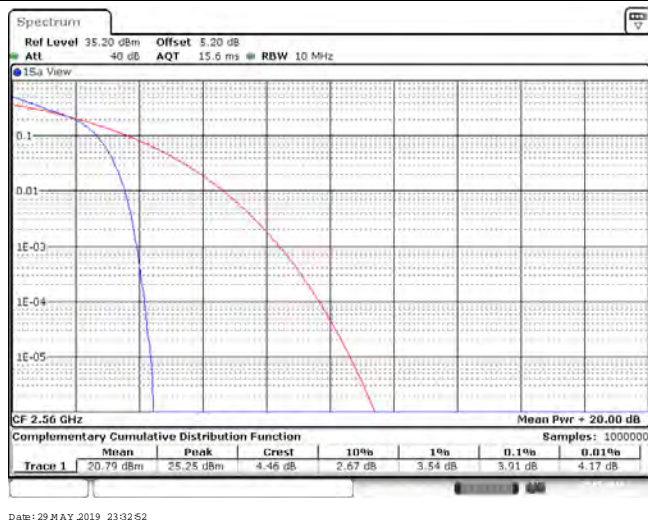
2.2. Test Plots





Date: 29 MAY 2019 23:32:26

Band7_20MHz_QPSK_21350_100RB#0



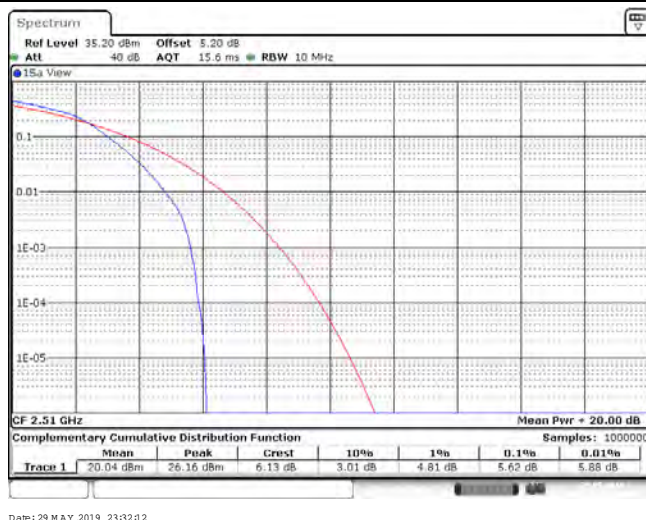
Date: 29 MAY 2019 23:32:52

Band7_20MHz_16QAM_20850_100RB#0



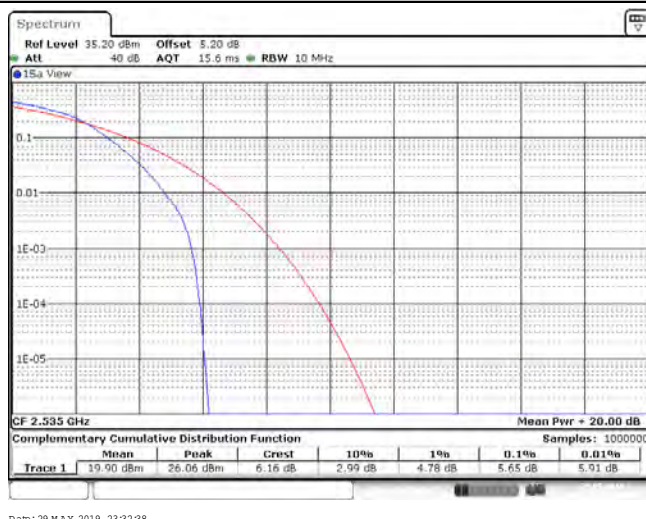
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: 29 MAY 2019 23:32:32

Band7_20MHz_16QAM_21100_100RB#0



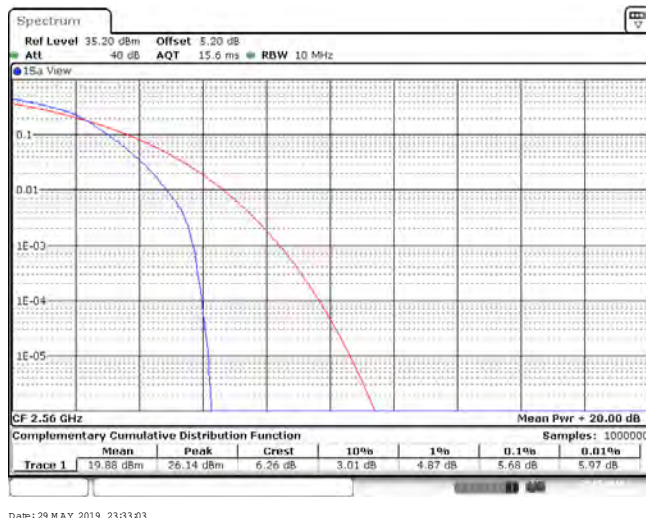
Date: 29 MAY 2019 23:32:38

Band7_20MHz_16QAM_21350_100RB#0



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: 29 MAY 2019 23:33:03



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

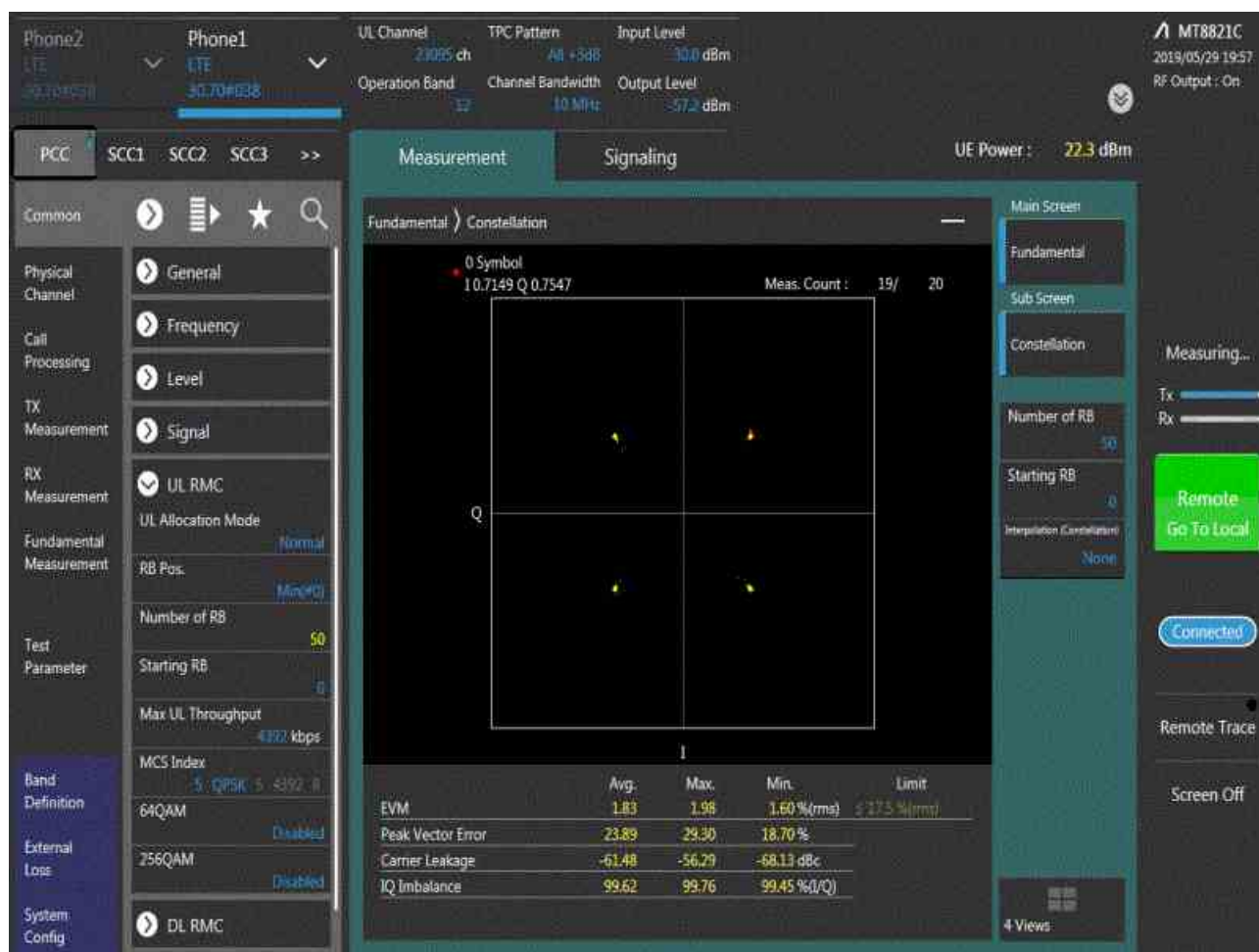
Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
 No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn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

3. Modulation Characteristics

3.1. Test BAND = LTE Band 7

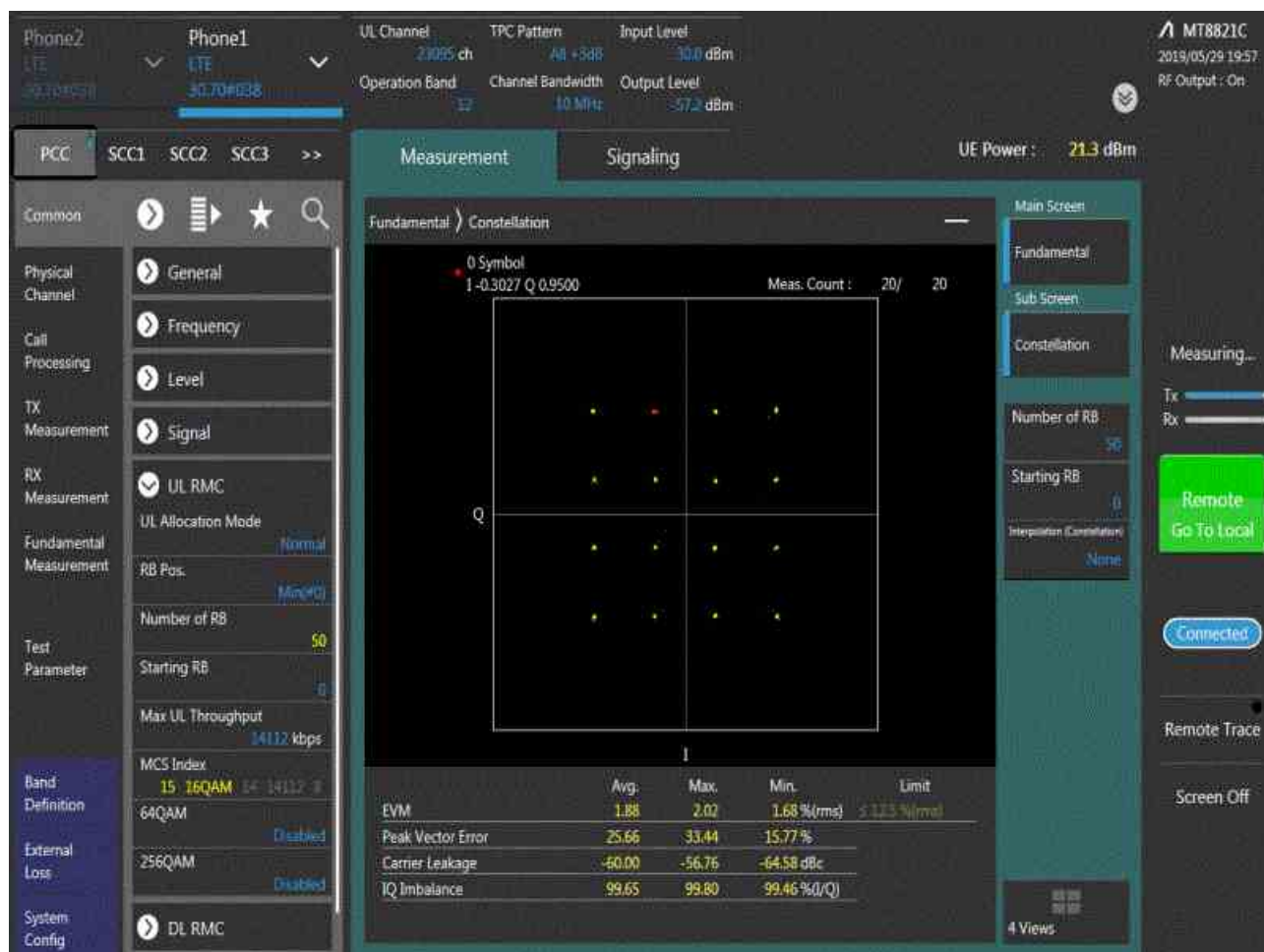
3.2. Test Mode = LTE /TM1 20MHz

3.2.1. Test Channel = MCH



3.3. Test Mode = LTE /TM2 20MHz

3.3.1. Test Channel = MCH





4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.486	4.960	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.466	4.930	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.476	4.930	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.476	4.870	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.476	4.960	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.476	4.950	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.931	9.780	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.931	9.740	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.931	9.760	PASS
Band7	10MHz	16QAM	20800	50RB#0	8.911	9.720	PASS
Band7	10MHz	16QAM	21100	50RB#0	8.951	9.700	PASS
Band7	10MHz	16QAM	21400	50RB#0	8.931	9.640	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.457	14.850	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.427	14.730	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.457	14.880	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.457	14.880	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.487	14.820	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.457	14.760	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.902	19.400	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.942	19.360	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.902	19.560	PASS
Band7	20MHz	16QAM	20850	100RB#0	17.862	19.240	PASS
Band7	20MHz	16QAM	21100	100RB#0	17.902	19.440	PASS
Band7	20MHz	16QAM	21350	100RB#0	17.902	19.440	PASS

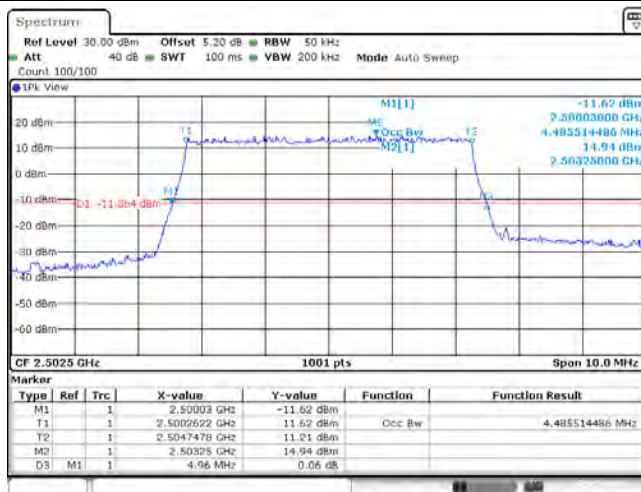


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

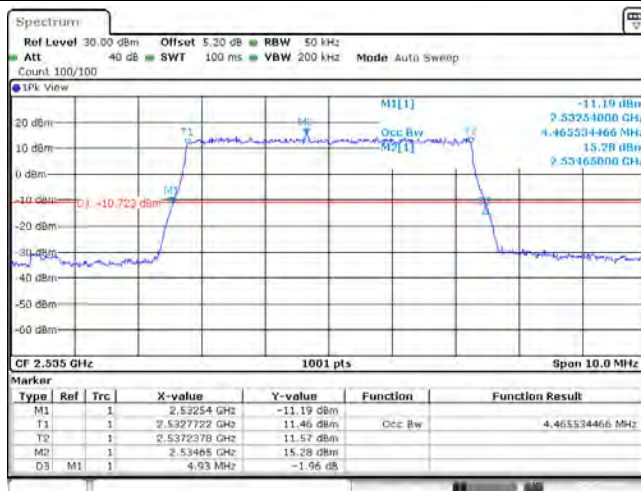
4.2. Test Plots

Band7_5MHz_QPSK_20775_25RB#0



Date: 29 MAY 2019 23:01:11

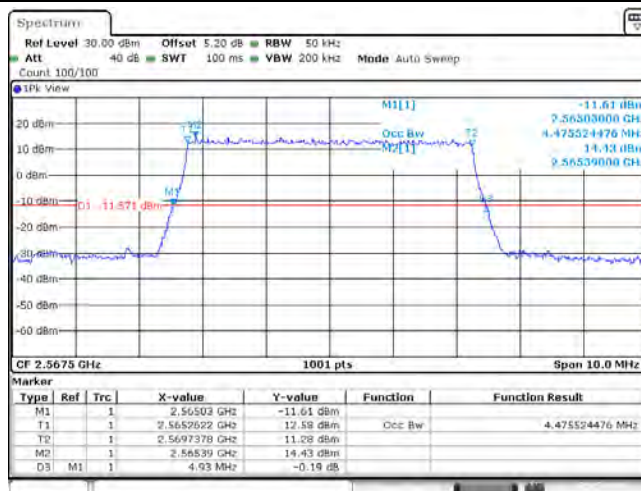
Band7_5MHz_QPSK_21100_25RB#0



Date: 29 MAY 2019 23:01:53

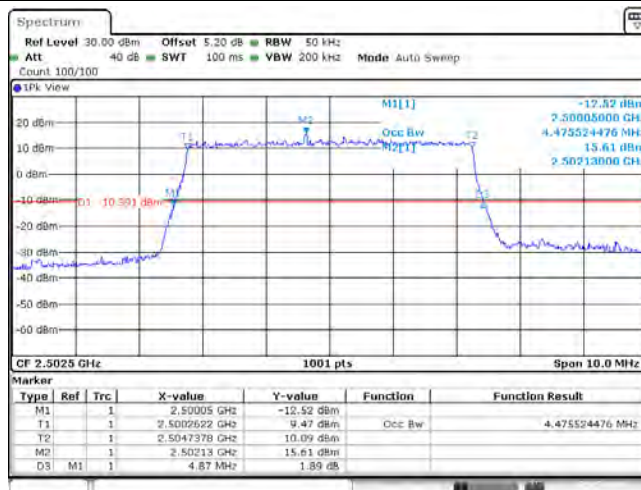
Band7_5MHz_QPSK_21425_25RB#0





Date: 29 MAY 2019 23:02:36

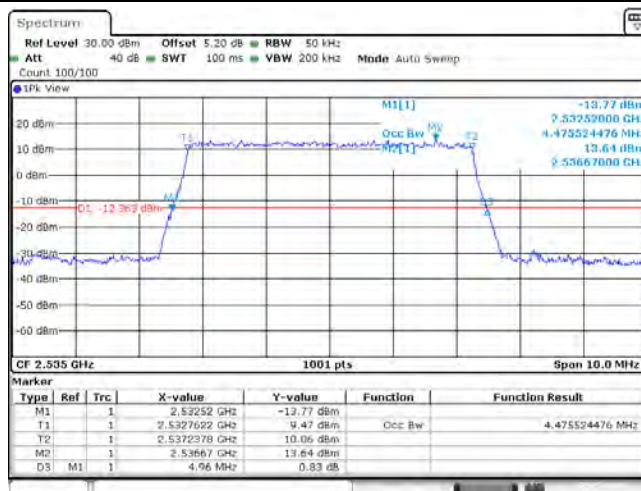
Band7_5MHz_16QAM_20775_25RB#0



Date: 29 MAY 2019 23:01:31

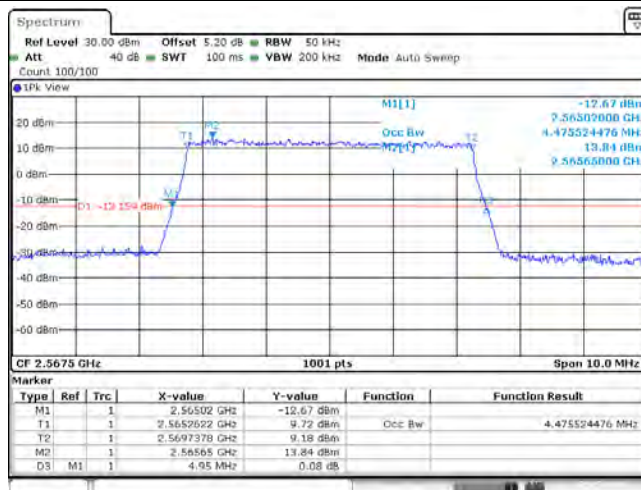
Band7_5MHz_16QAM_21100_25RB#0





Date: 29 MAY 2019 23:02:14

Band7_5MHz_16QAM_21425_25RB#0



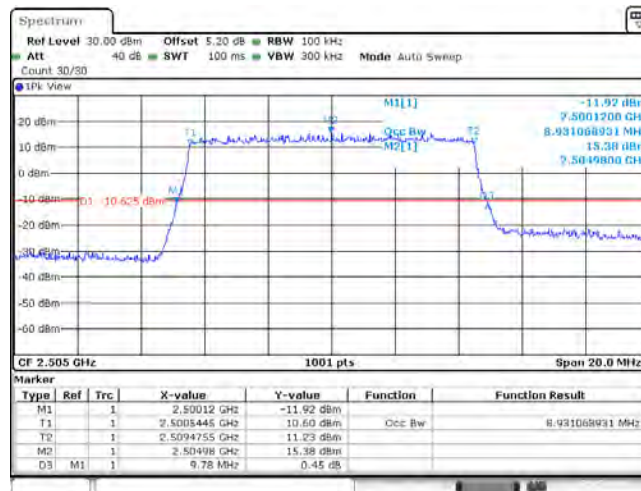
Date: 29 MAY 2019 23:02:56

Band7_10MHz_QPSK_20800_50RB#0



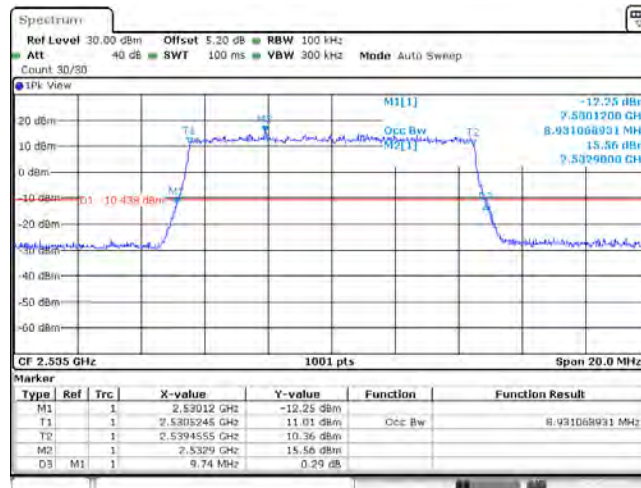
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: 29 MAY 2019 23:04:31

Band7_10MHz_QPSK_21100_50RB#0



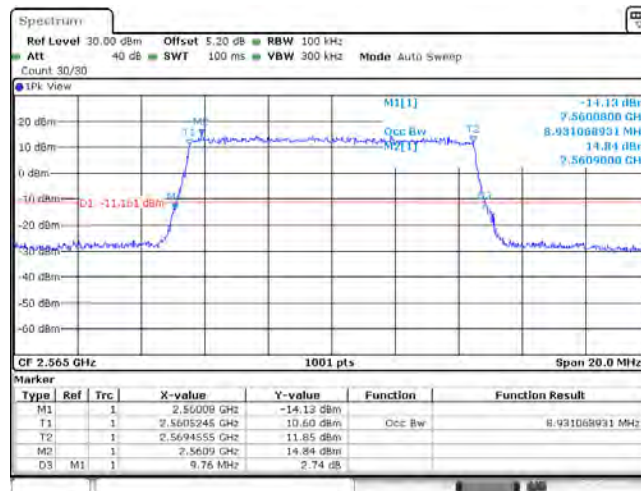
Date: 29 MAY 2019 23:05:00

Band7_10MHz_QPSK_21400_50RB#0



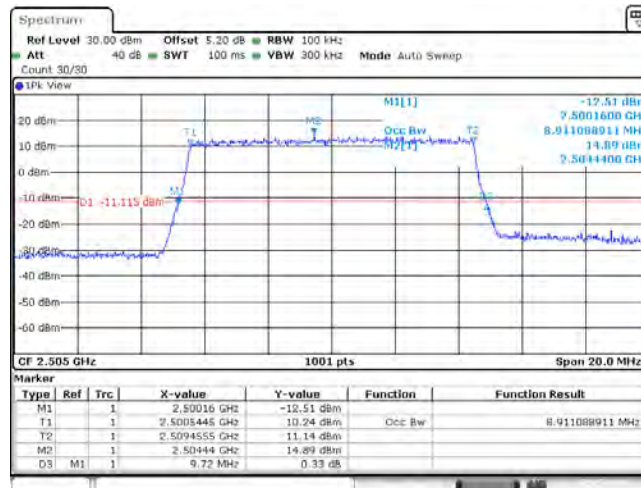
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: 29 MAY 2019 23:05:29

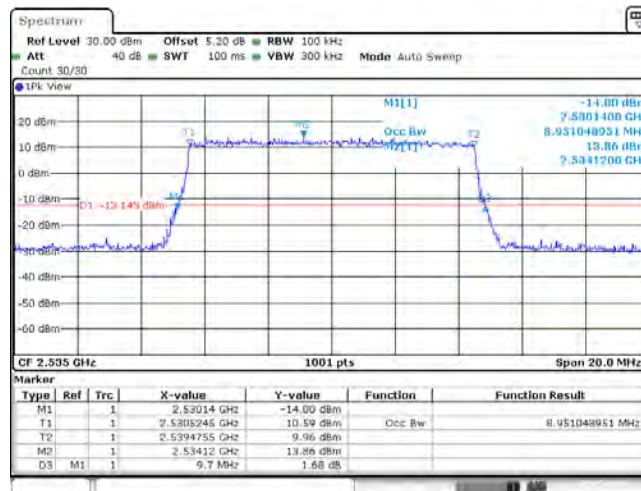
Band7_10MHz_16QAM_20800_50RB#0



Date: 29 MAY 2019 23:04:45

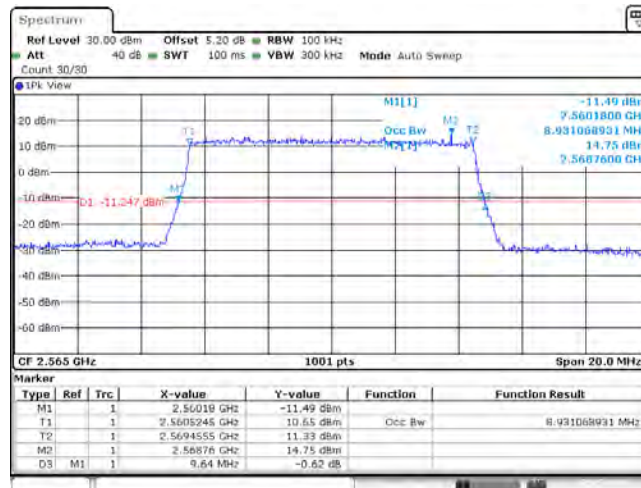
Band7_10MHz_16QAM_21100_50RB#0





Date: 29 MAY 2019 23:05:14

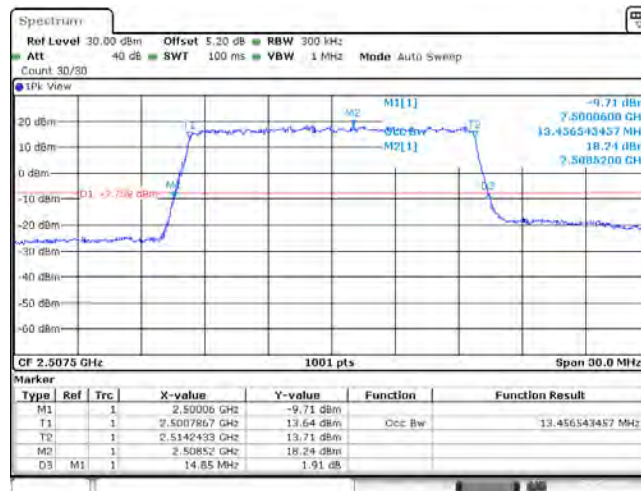
Band7_10MHz_16QAM_21400_50RB#0



Date: 29 MAY 2019 23:05:42

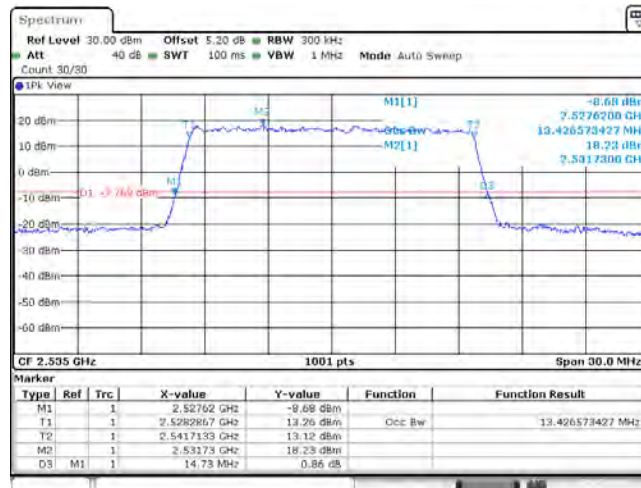
Band7_15MHz_QPSK_20825_75RB#0





Date: 29 MAY 2019 23:07:17

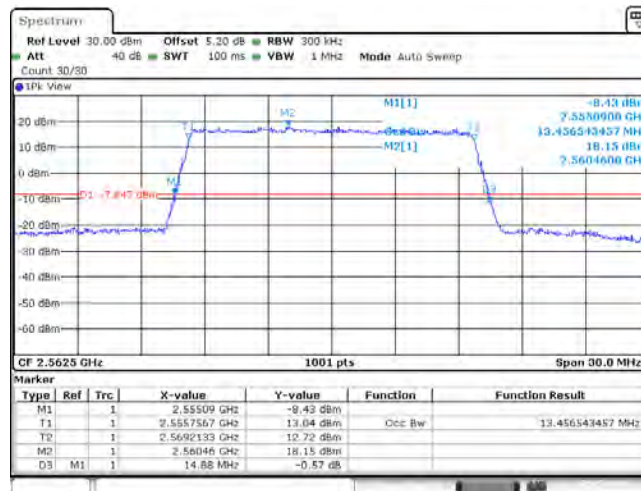
Band7_15MHz_QPSK_21100_75RB#0



Date: 29 MAY 2019 23:07:46

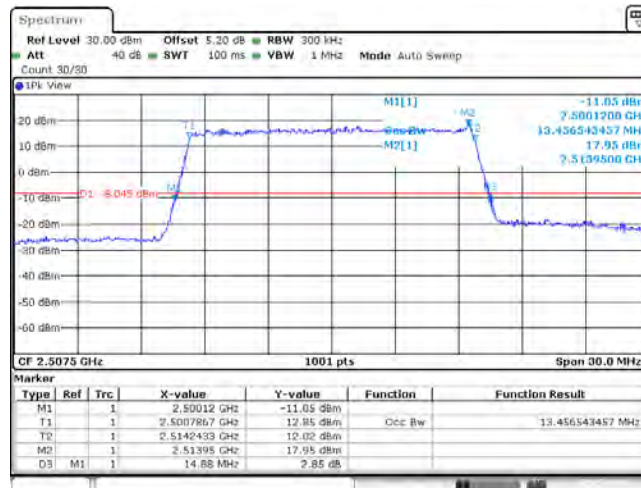
Band7_15MHz_QPSK_21375_75RB#0





Date: 29 MAY 2019 23:08:14

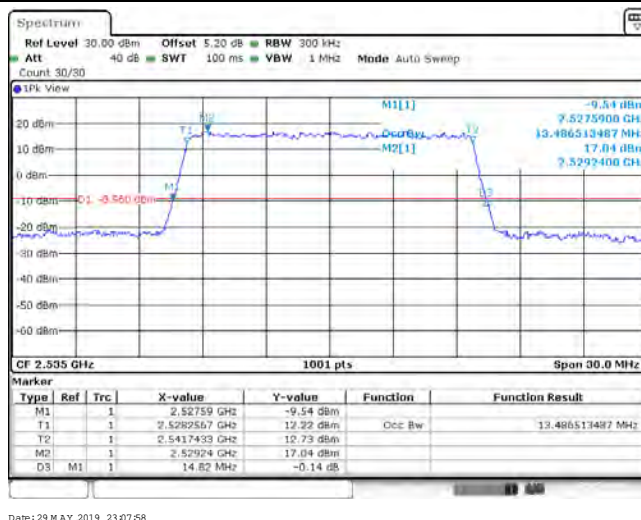
Band7_15MHz_16QAM_20825_75RB#0



Date: 29 MAY 2019 23:07:30

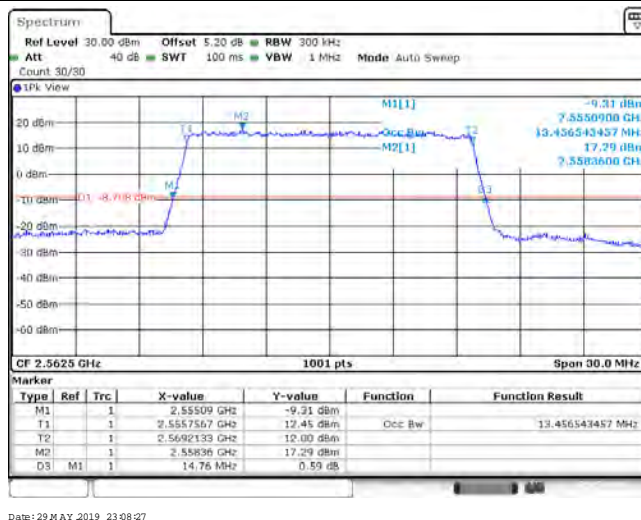
Band7_15MHz_16QAM_21100_75RB#0





Date: 29 MAY 2019 23:07:58

Band7_15MHz_16QAM_21375_75RB#0



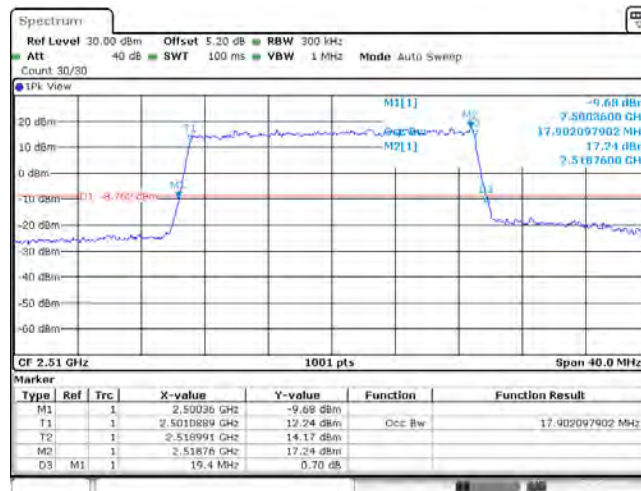
Date: 29 MAY 2019 23:08:27

Band7_20MHz_QPSK_20850_100RB#0



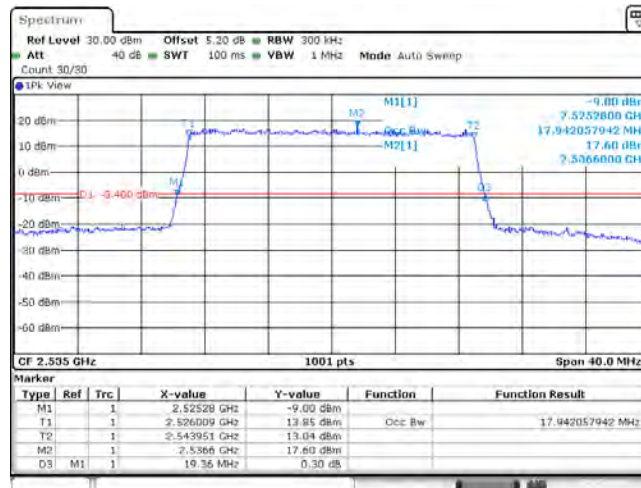
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: 29 MAY 2019 23:11:03

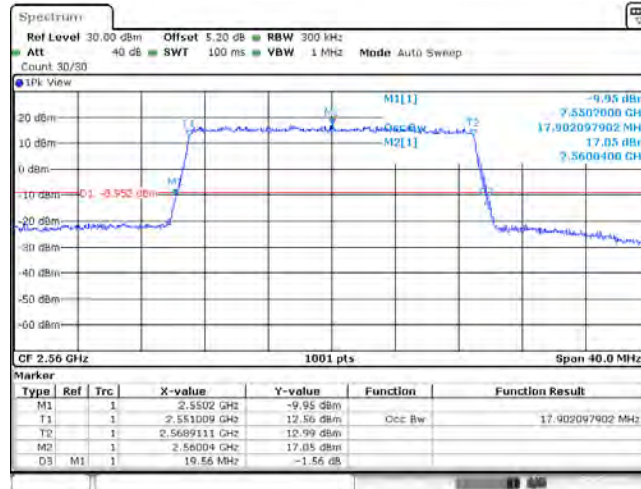
Band7_20MHz_QPSK_21100_100RB#0



Date: 29 MAY 2019 23:11:32

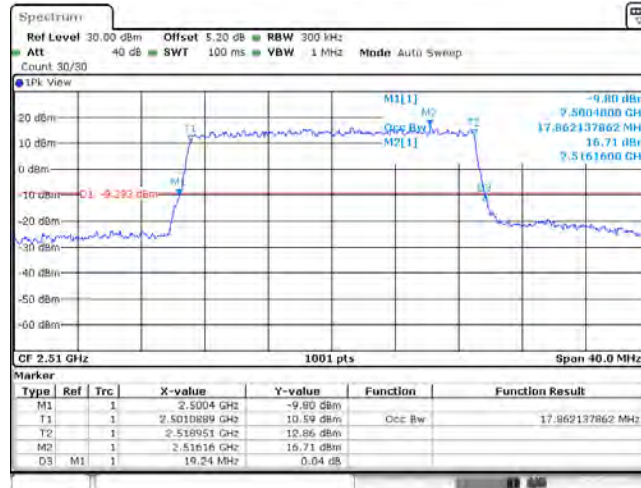
Band7_20MHz_QPSK_21350_100RB#0





Date: 29 MAY 2019 23:12:01

Band7_20MHz_16QAM_20850_100RB#0



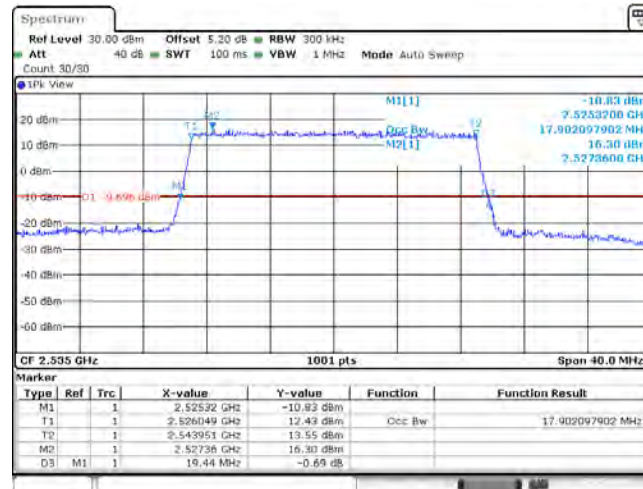
Date: 29 MAY 2019 23:11:16

Band7_20MHz_16QAM_21100_100RB#0



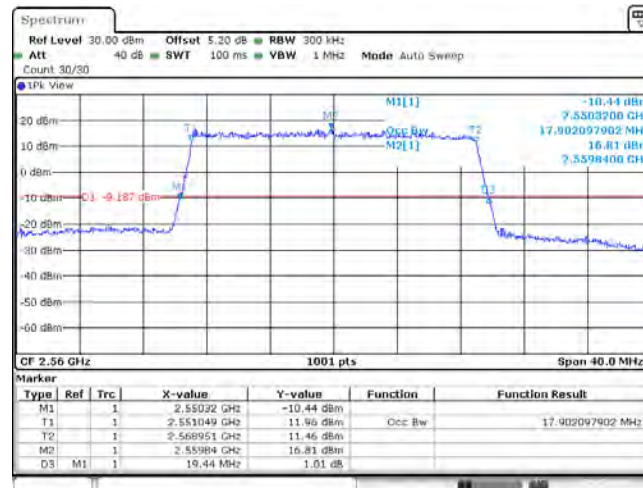
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: 29 MAY 2019 23:11:45

Band7_20MHz_16QAM_21350_100RB#0



Date: 29 MAY 2019 23:12:14



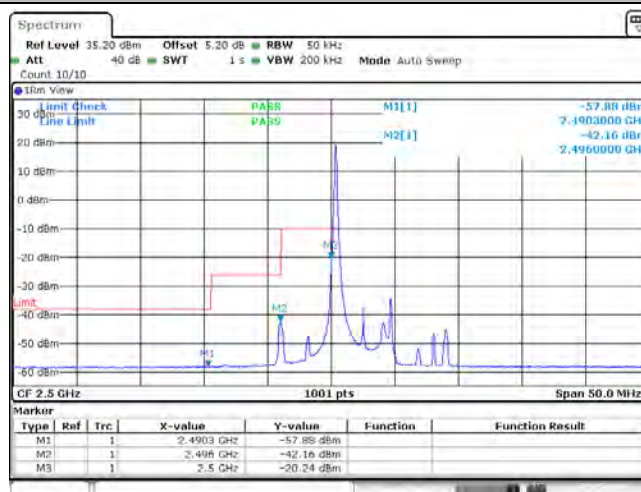
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

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

5. Band Edge Compliance

5.1. Test Plots

Band7_5MHz_QPSK_20775_1RB#0



Date: 29 MAY 2019 23:12:42

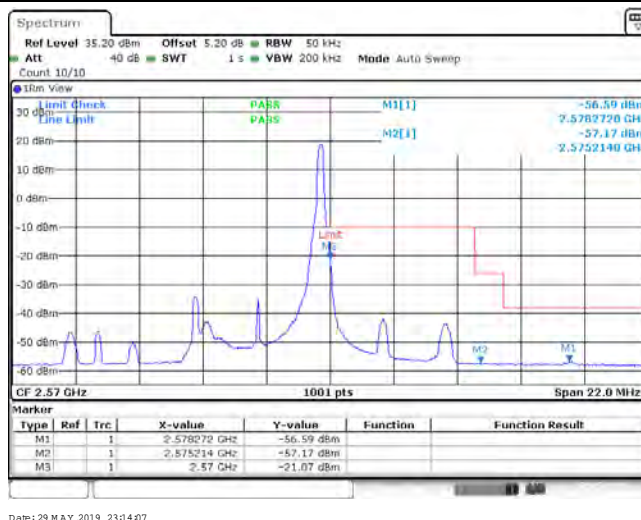
Band7_5MHz_QPSK_20775_25RB#0



Date: 29 MAY 2019 23:13:23

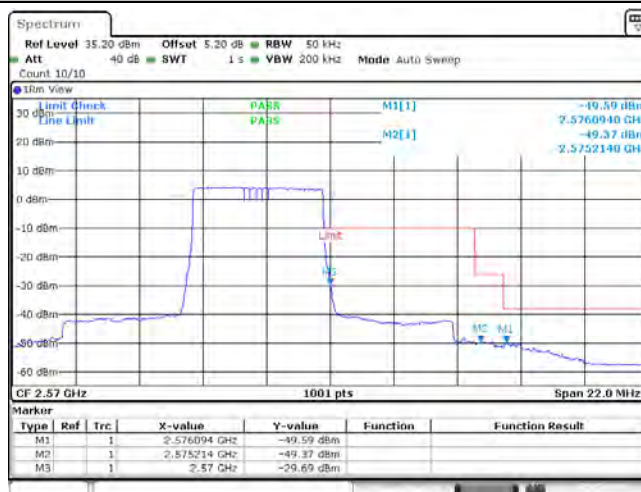
Band7_5MHz_QPSK_21425_1RB#24





Date: 29 MAY 2019 23:14:07

Band7_5MHz_QPSK_21425_25RB#0



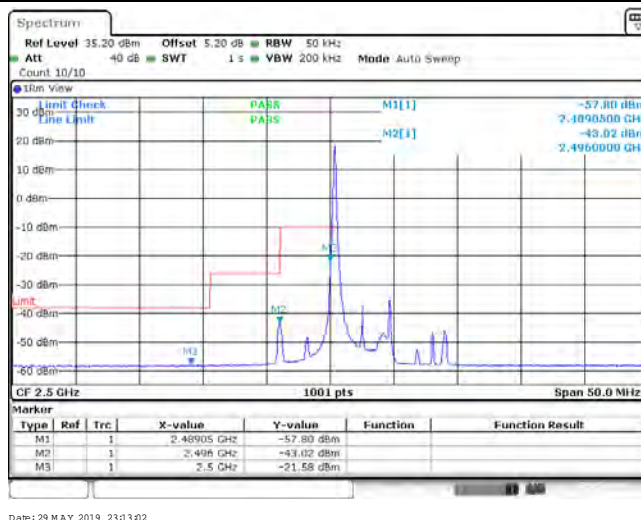
Date: 29 MAY 2019 23:14:48

Band7_5MHz_16QAM_20775_1RB#0



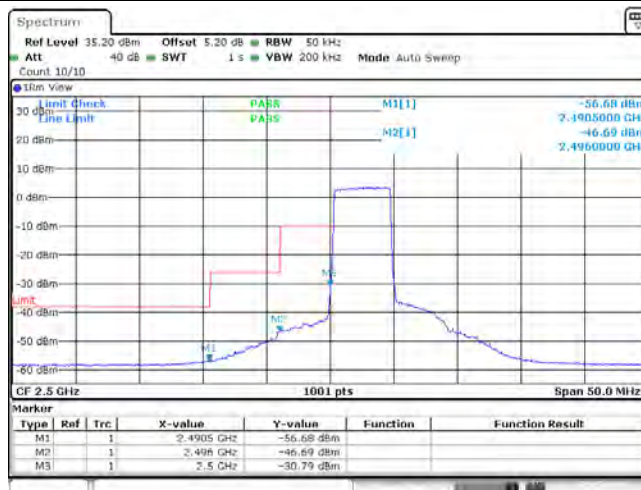
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: 29 MAY 2019 23:13:02

Band7_5MHz_16QAM_20775_25RB#0



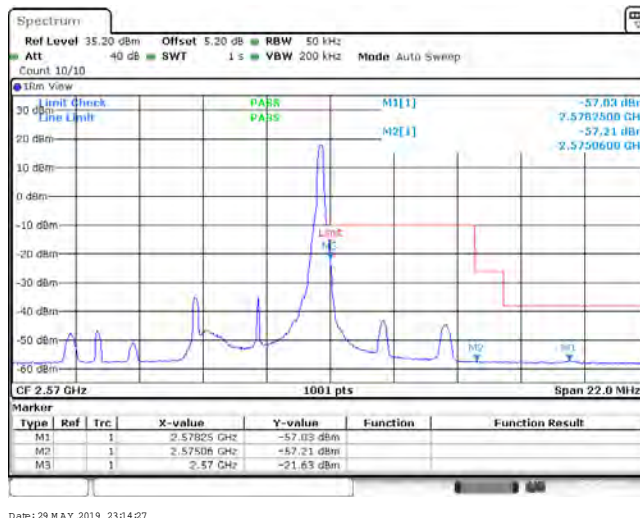
Date: 29 MAY 2019 23:13:43

Band7_5MHz_16QAM_21425_1RB#24



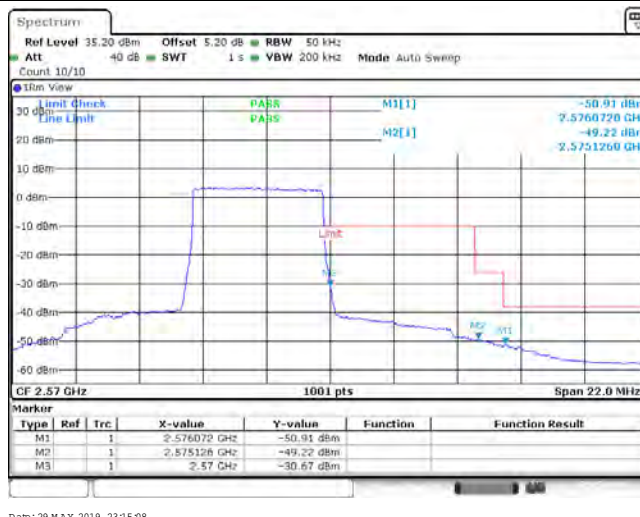
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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
 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: 29 MAY 2019 23:14:27

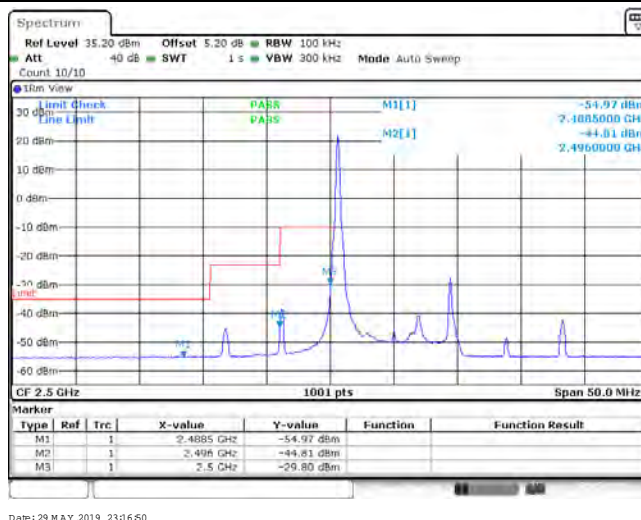
Band7_5MHz_16QAM_21425_25RB#0



Date: 29 MAY 2019 23:15:08

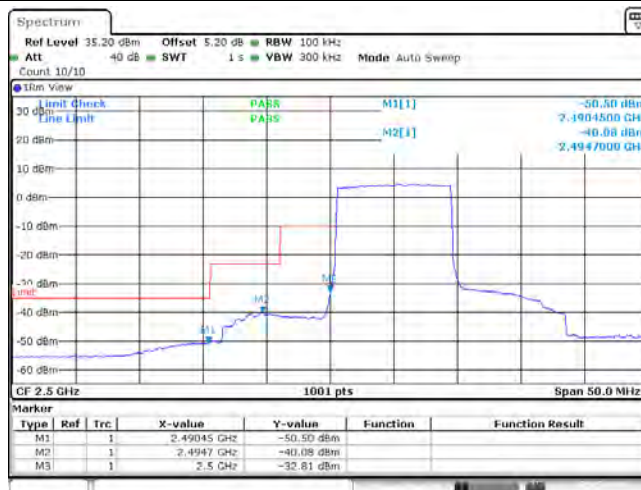
Band7_10MHz_QPSK_20800_1RB#0





Date: 29 MAY 2019 23:16:50

Band7_10MHz_QPSK_20800_50RB#0



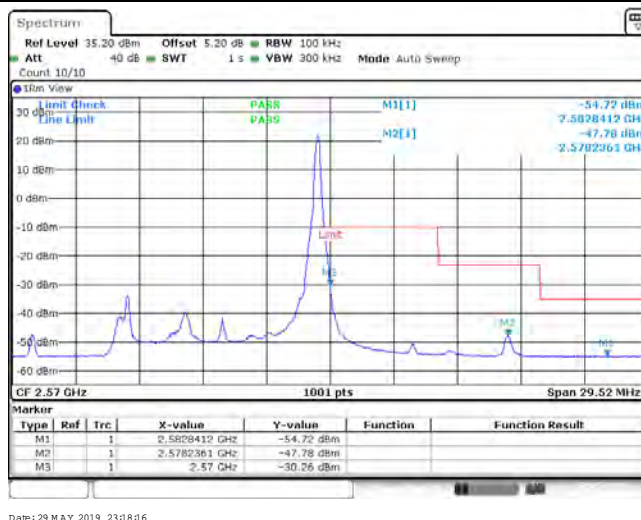
Date: 29 MAY 2019 23:17:31

Band7_10MHz_QPSK_21400_1RB#49

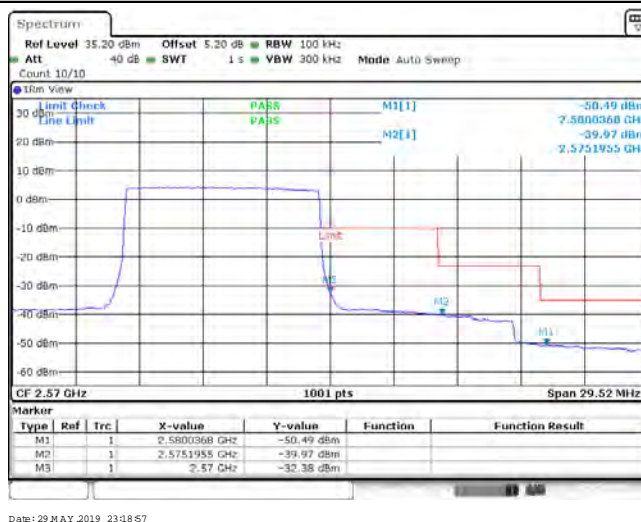


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

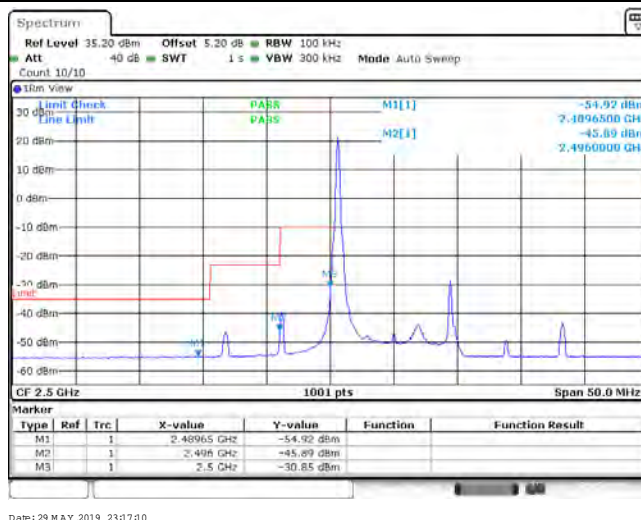


Band7_10MHz_QPSK_21400_50RB#0



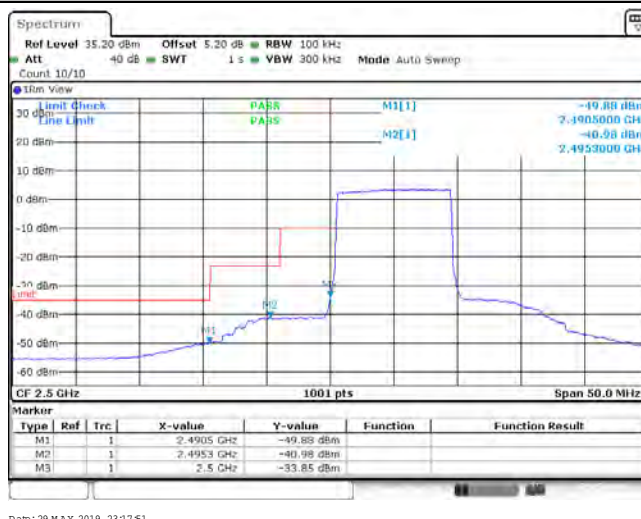
Band7_10MHz_16QAM_20800_1RB#0





Date: 29 MAY 2019 23:17:30

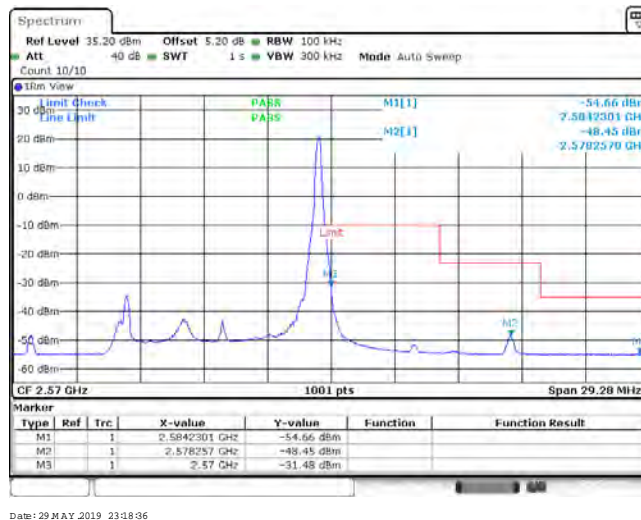
Band7_10MHz_16QAM_20800_50RB#0



Date: 29 MAY 2019 23:17:51

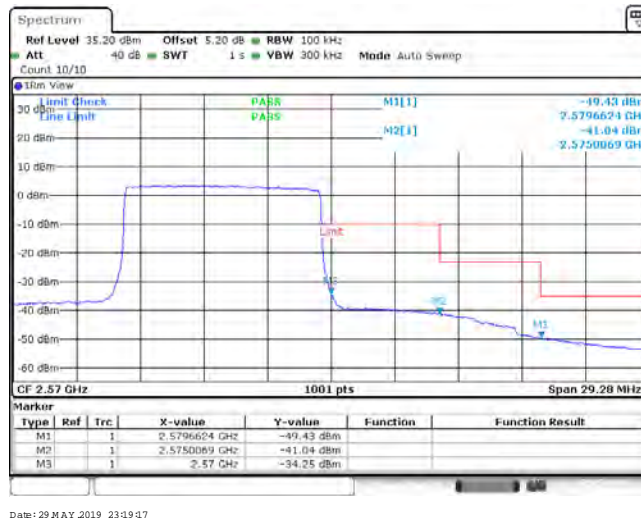
Band7_10MHz_16QAM_21400_1RB#49





Date: 29 MAY 2019 23:18:36

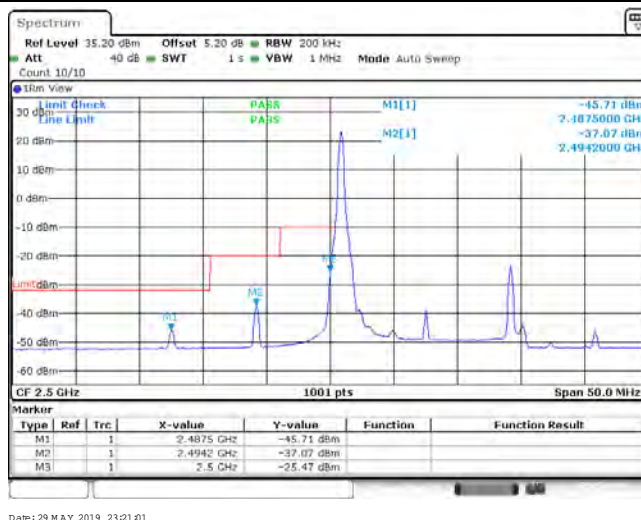
Band7_10MHz_16QAM_21400_50RB#0



Date: 29 MAY 2019 23:19:17

Band7_15MHz_QPSK_20825_1RB#0



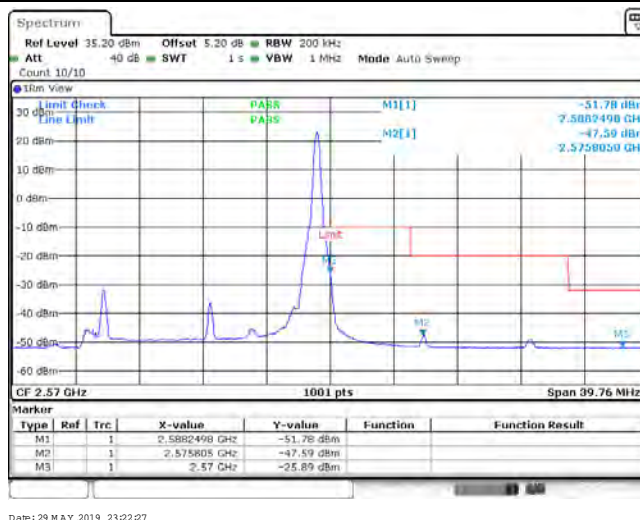


Band7_15MHz_QPSK_20825_75RB#0



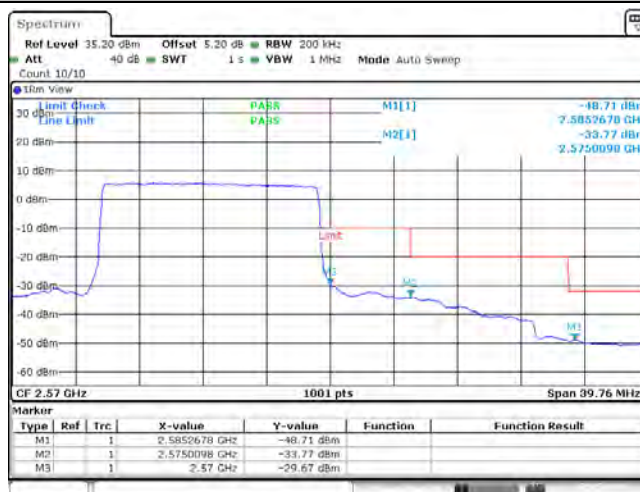
Band7_15MHz_QPSK_21375_1RB#74





Date: 29 MAY 2019 23:22:27

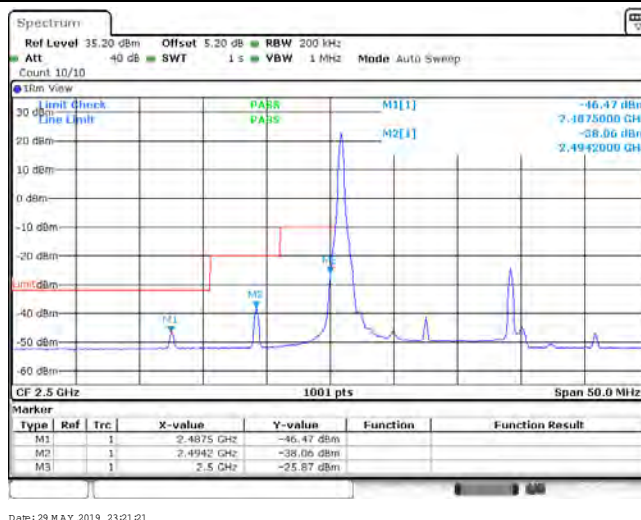
Band7_15MHz_QPSK_21375_75RB#0



Date: 29 MAY 2019 23:23:09

Band7_15MHz_16QAM_20825_1RB#0





Date: 29 MAY 2019 23:21:21

Band7_15MHz_16QAM_20825_75RB#0



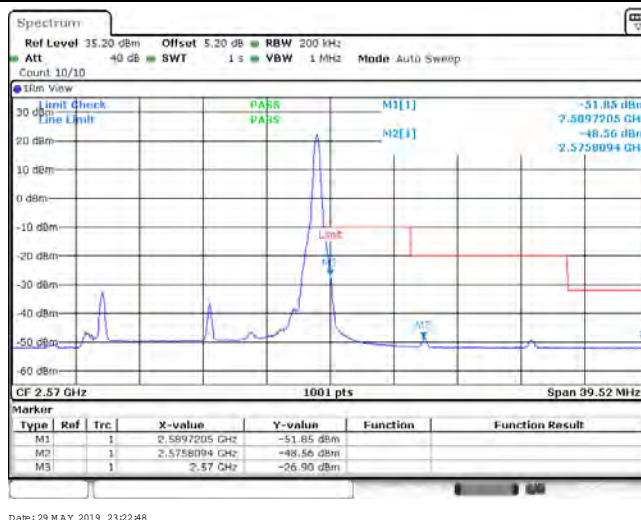
Date: 29 MAY 2019 23:22:03

Band7_15MHz_16QAM_21375_1RB#74



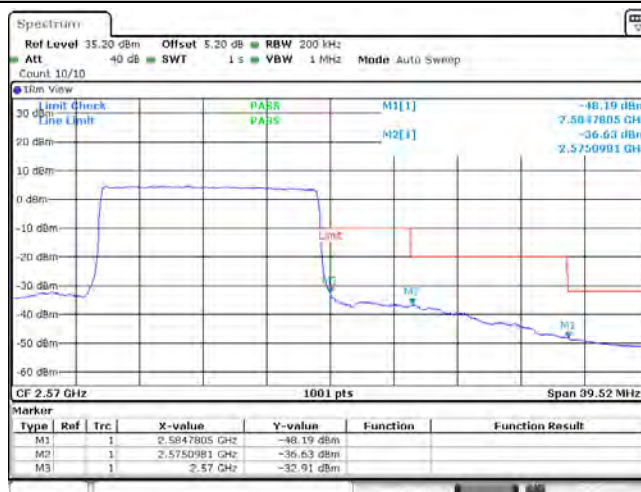
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: 29 MAY 2019 23:22:48

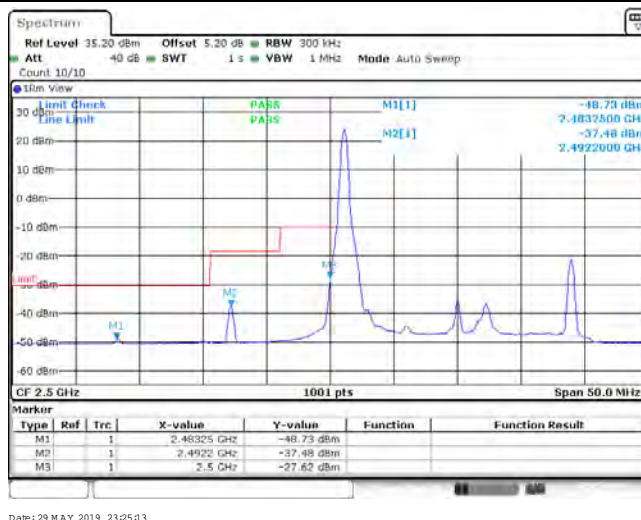
Band7_15MHz_16QAM_21375_75RB#0



Date: 29 MAY 2019 23:23:30

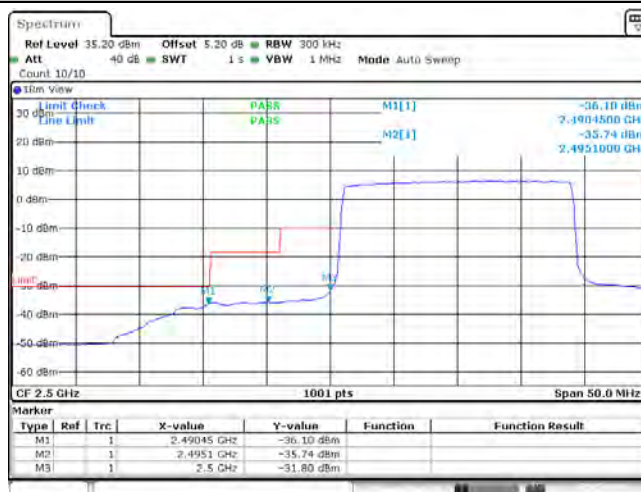
Band7_20MHz_QPSK_20850_1RB#0





Date: 29 MAY 2019 23:25:33

Band7_20MHz_QPSK_20850_100RB#0



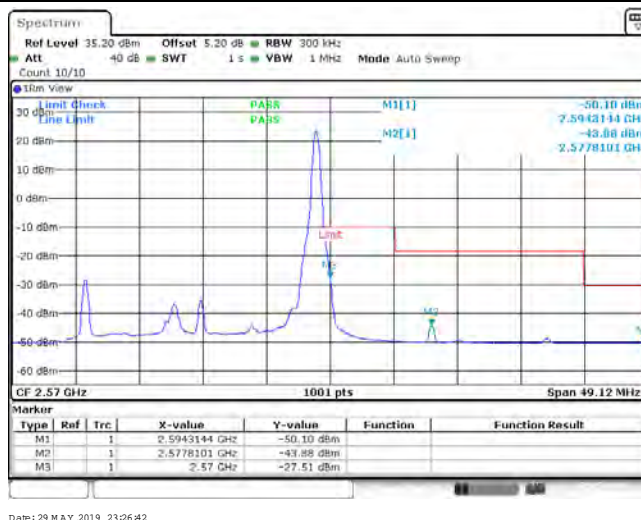
Date: 29 MAY 2019 23:25:56

Band7_20MHz_QPSK_21350_1RB#99



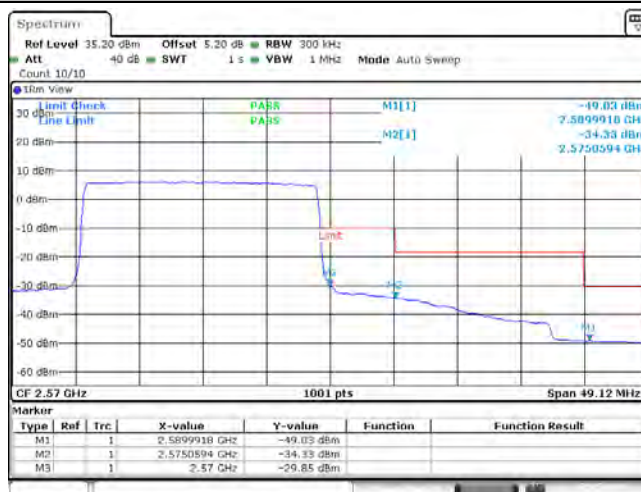
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: 29 MAY 2019 23:26:42

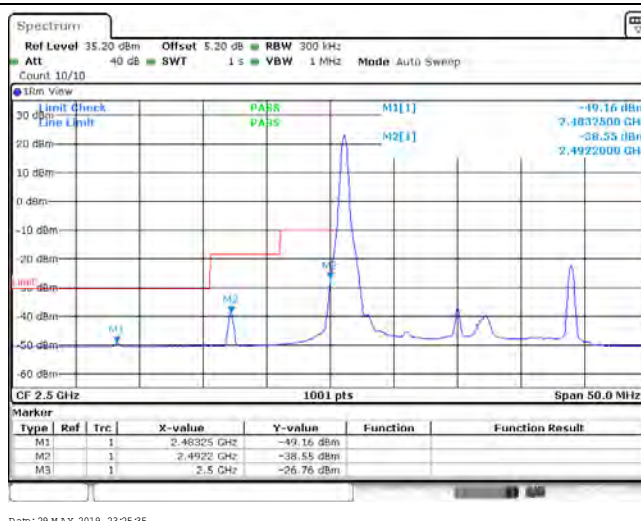
Band7_20MHz_QPSK_21350_100RB#0



Date: 29 MAY 2019 23:27:24

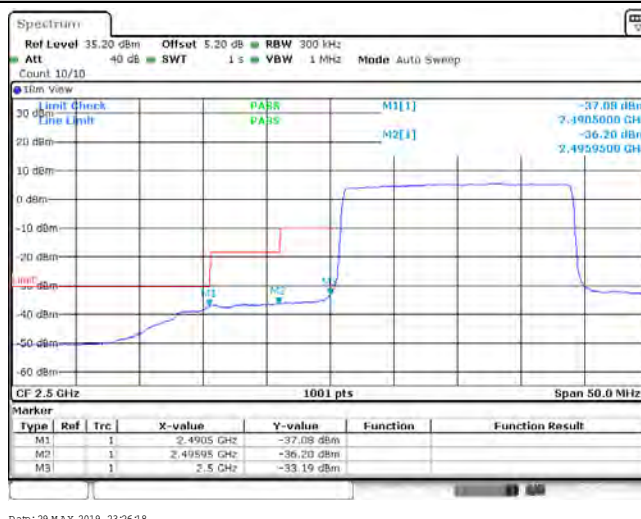
Band7_20MHz_16QAM_20850_1RB#0





Date: 29 MAY 2019 23:25:35

Band7_20MHz_16QAM_20850_100RB#0



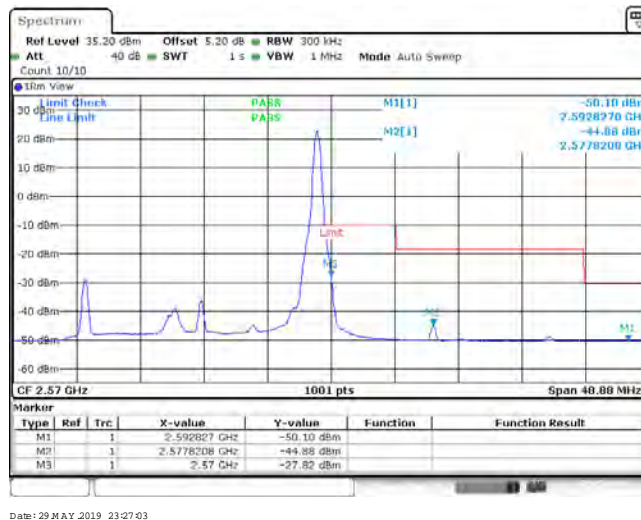
Date: 29 MAY 2019 23:26:48

Band7_20MHz_16QAM_21350_1RB#99

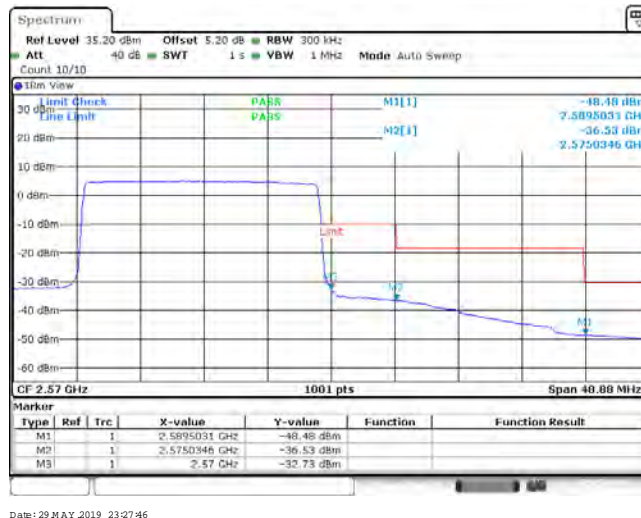


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band7_20MHz_16QAM_21350_100RB#0





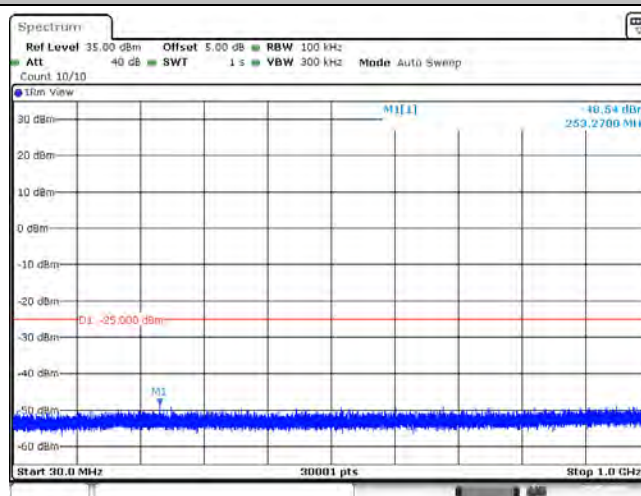
6. Spurious Emission at Antenna Terminal

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.

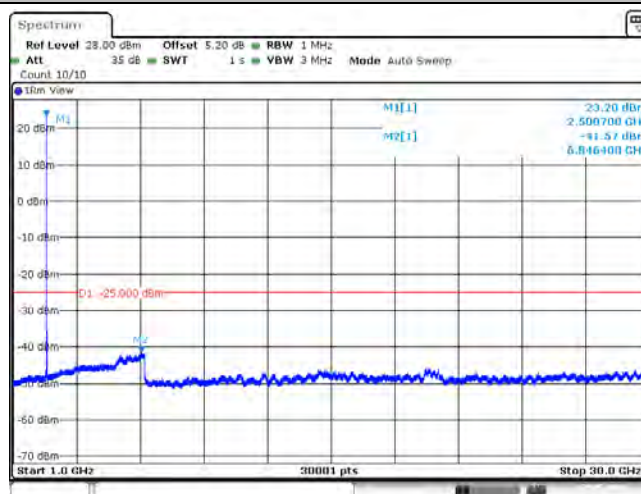
6.1. Test Plots

Band7_20MHz_QPSK_20850_1RB#0



Date: 29 MAY 2019 23:28:08

Band7_20MHz_QPSK_20850_1RB#0



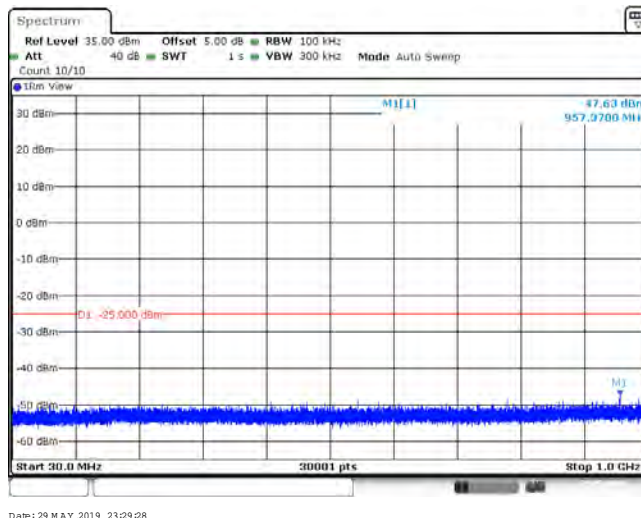
Date: 29 MAY 2019 23:28:27

Band7_20MHz_QPSK_21100_1RB#0

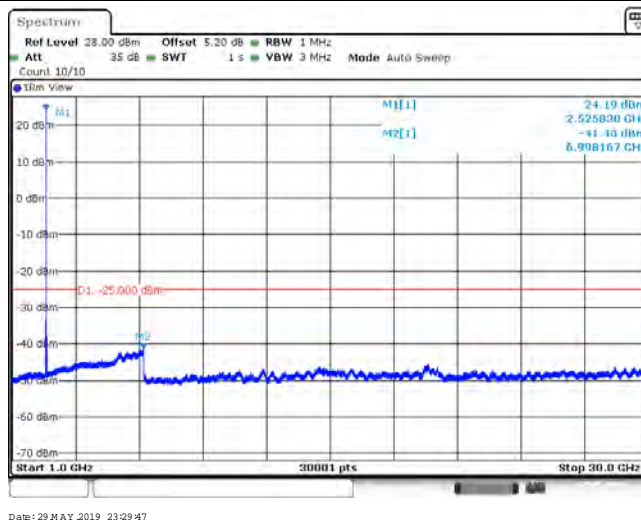


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band7_20MHz_QPSK_21100_1RB#0

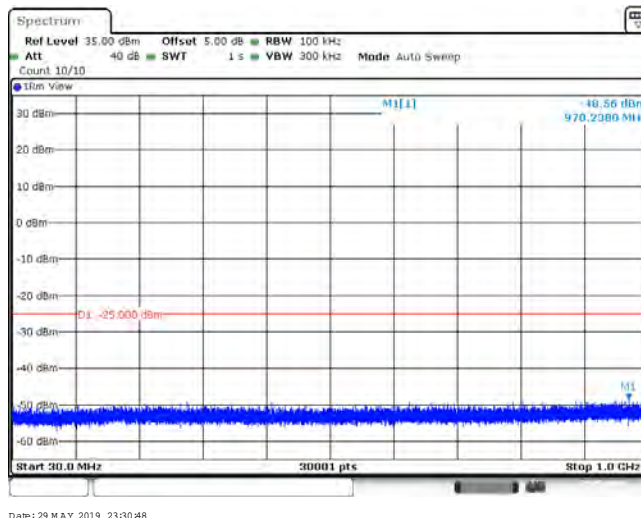


Band7_20MHz_QPSK_21350_1RB#0

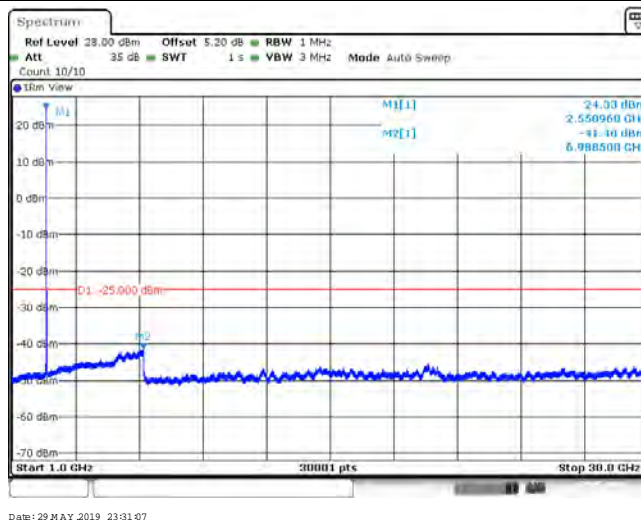


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band7_20MHz_QPSK_21350_1RB#0

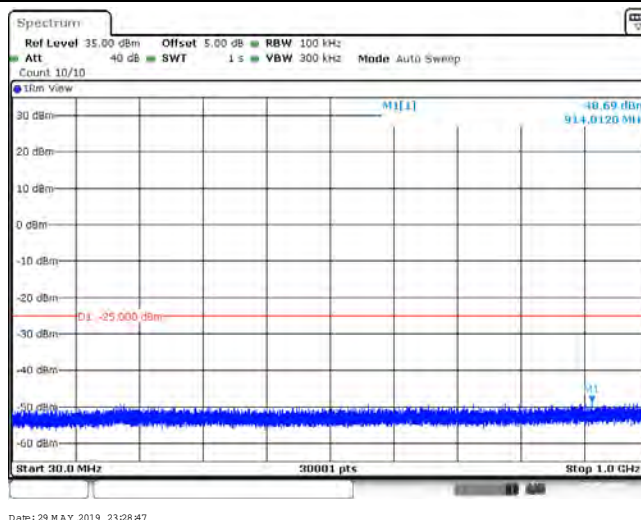


Band7_20MHz_16QAM_20850_1RB#0

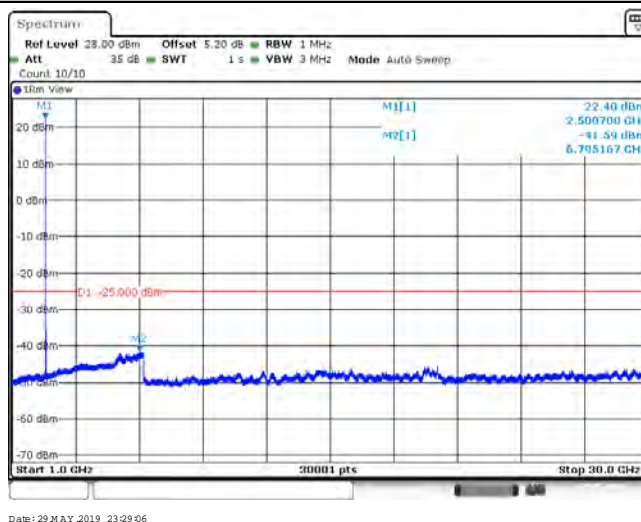


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

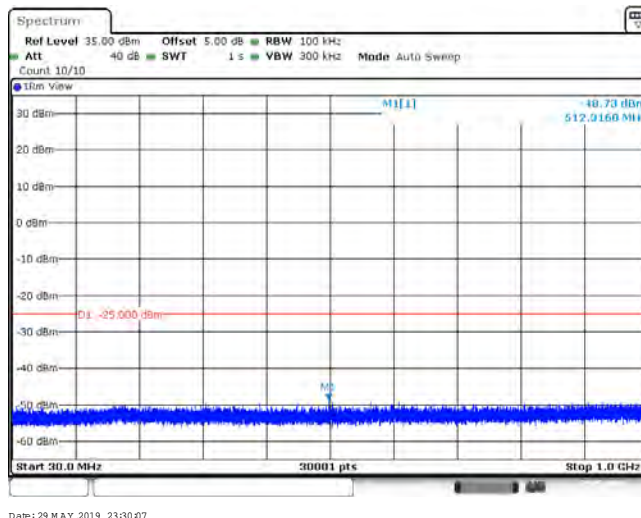


Band7_20MHz_16QAM_20850_1RB#0

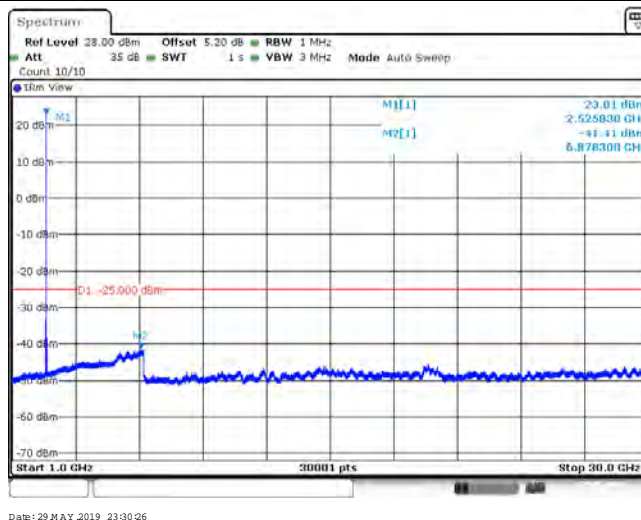


Band7_20MHz_16QAM_21100_1RB#0





Band7_20MHz_16QAM_21100_1RB#0

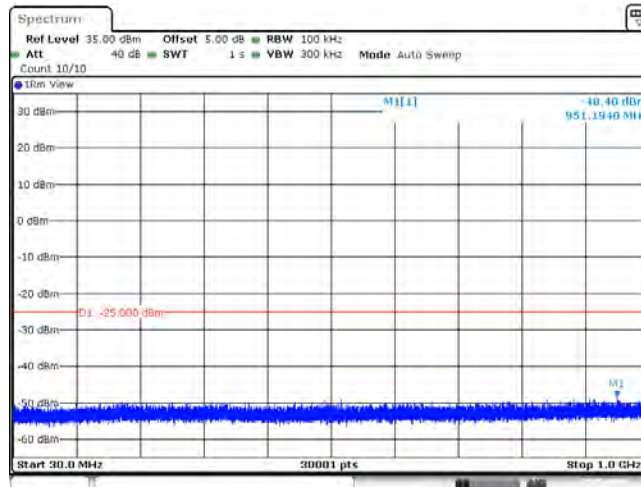


Band7_20MHz_16QAM_21350_1RB#0



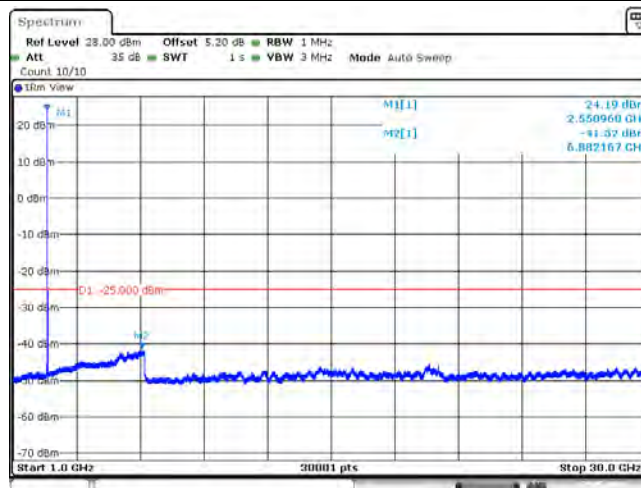
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: 29 MAY 2019 23:31:27

Band7_20MHz_16QAM_21350_1RB#0



Date: 29 MAY 2019 23:31:46



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

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



7. Field Strength of Spurious Radiation

7.1. Test BAND = LTE Band 7

7.1.1. Test Mode = LTE/TM1 20MHz

7.1.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
63.950000	-80.19	-25.00	55.19	Vertical
125.000000	-85.59	-25.00	60.59	Vertical
941.470833	-75.81	-25.00	50.81	Vertical
5002.000000	-52.52	-25.00	27.52	Vertical
7503.525000	-49.34	-25.00	24.34	Vertical
10004.400000	-60.15	-25.00	35.15	Vertical
63.200000	-76.21	-25.00	51.21	Horizontal
621.187500	-80.79	-25.00	55.79	Horizontal
950.912500	-75.59	-25.00	50.59	Horizontal
5002.000000	-60.79	-25.00	35.79	Horizontal
7503.200000	-56.10	-25.00	31.10	Horizontal
10004.075000	-62.19	-25.00	37.19	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
63.400000	-80.49	-25.00	55.49	Vertical
125.000000	-85.34	-25.00	60.34	Vertical
949.125000	-75.65	-25.00	50.65	Vertical
5052.050000	-53.76	-25.00	28.76	Vertical
7578.275000	-51.44	-25.00	26.44	Vertical
10104.500000	-60.17	-25.00	35.17	Vertical
56.700000	-76.08	-25.00	51.08	Horizontal
609.545833	-81.42	-25.00	56.42	Horizontal
953.341667	-75.30	-25.00	50.30	Horizontal
5052.375000	-61.60	-25.00	36.60	Horizontal
7578.275000	-57.46	-25.00	32.46	Horizontal
10635.875000	-61.99	-25.00	36.99	Horizontal





7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.250000	-80.23	-25.00	55.23	Vertical
125.000000	-84.84	-25.00	59.84	Vertical
948.300000	-75.66	-25.00	50.66	Vertical
5101.775000	-55.71	-25.00	30.71	Vertical
7653.025000	-52.02	-25.00	27.02	Vertical
10204.600000	-60.38	-25.00	35.38	Vertical
62.300000	-76.17	-25.00	51.17	Horizontal
767.716667	-78.54	-25.00	53.54	Horizontal
937.208333	-75.91	-25.00	50.91	Horizontal
5101.775000	-60.58	-25.00	35.58	Horizontal
7653.025000	-59.06	-25.00	34.06	Horizontal
10657.975000	-62.41	-25.00	37.41	Horizontal

Remark:

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

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



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 / 深圳分公司 / 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



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
Band7	20MHz	QPSK	20850	100RB#0	VL	NT	3.10	0.001235	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VN	NT	-0.20	-0.000080	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VH	NT	0.80	0.000319	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VL	NT	-0.70	-0.000276	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VN	NT	-4.60	-0.001815	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VH	NT	-4.00	-0.001578	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VL	NT	2.60	0.001016	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VN	NT	-0.80	-0.000313	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VH	NT	1.40	0.000547	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VL	NT	1.70	0.000677	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VN	NT	1.30	0.000518	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VH	NT	0.60	0.000239	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VL	NT	-1.30	-0.000513	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VN	NT	0.00	0.000000	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VH	NT	-2.30	-0.000907	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VL	NT	-1.90	-0.000742	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VN	NT	-0.20	-0.000078	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VH	NT	0.80	0.000313	±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
Band7	20MHz	QPSK	20850	100RB#0	NV	-30	-0.20	-0.000080	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	-20	3.10	0.001235	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	0	0.20	0.000080	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	10	3.00	0.001195	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	20	0.60	0.000239	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	30	3.90	0.001554	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	40	-0.80	-0.000319	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	50	-0.90	-0.000359	±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

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



Band7	20MHz	QPSK	21100	100RB#0	NV	-30	-5.00	-0.001972	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-20	-2.00	-0.000789	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	0	-2.00	-0.000789	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	10	-1.80	-0.000710	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	20	-2.90	-0.001144	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	30	-4.50	-0.001775	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	40	-5.70	-0.002249	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	50	-1.90	-0.000750	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-30	0.30	0.000117	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-20	1.70	0.000664	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	0	1.30	0.000508	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	10	-0.90	-0.000352	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	20	-0.20	-0.000078	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	30	0.00	0.000000	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	40	1.50	0.000586	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	50	2.40	0.000938	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-30	3.00	0.001195	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-20	0.90	0.000359	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	0	1.90	0.000757	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	10	2.10	0.000837	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	20	3.80	0.001514	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	30	3.00	0.001195	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	40	1.20	0.000478	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	50	2.10	0.000837	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-30	-4.10	-0.001617	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-20	-3.80	-0.001499	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	0	-2.60	-0.001026	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	10	-2.00	-0.000789	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	20	-1.40	-0.000552	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	30	-2.10	-0.000828	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	40	-3.60	-0.001420	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	50	-4.20	-0.001657	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-30	-1.00	-0.000391	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-20	2.40	0.000938	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	0	3.00	0.001172	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	10	1.40	0.000547	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	20	2.90	0.001133	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	30	0.90	0.000352	±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.
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



Band7	20MHz	16QAM	21350	100RB#0	NV	40	-1.40	-0.000547	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	50	-0.20	-0.000078	±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.

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