



Appendix B

E-UTRA Band 2



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

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

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

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



CONTENT

1. EFFECTIVE (ISOTROPIC) RADIATED POWER.....	3
1.1. TEST RESULT	3
2. PEAK-TO-AVERAGE RATIO(CCDF).....	10
2.1. TEST RESULT	10
2.2. TEST PLOTS.....	10
3. MODULATION CHARACTERISTICS	14
3.1. TEST BAND = LTE BAND 2	14
3.2. TEST MODE = LTE /TM1 20MHZ.....	14
3.2.1. TEST CHANNEL = MCH.....	14
3.3. TEST MODE = LTE /TM2 20MHZ.....	15
3.3.1. TEST CHANNEL = MCH.....	15
4. 26DB BANDWIDTH AND OCCUPIED BANDWIDTH	16
4.1. TEST RESULT	16
4.2. TEST PLOTS.....	17
5. BAND EDGE COMPLIANCE	35
5.1. TEST PLOTS.....	35
6. SPURIOUS EMISSION AT ANTENNA TERMINAL	59
6.1. TEST PLOTS.....	59
7. FIELD STRENGTH OF SPURIOUS RADIATION.....	65
7.1. TEST BAND = LTE BAND 2	65
7.1.1. TEST MODE =LTE/TM1 20MHZ.....	65
7.1.1.1. TEST CHANNEL = LCH	65
7.1.1.2. TEST CHANNEL = MCH.....	65
7.1.1.3. TEST CHANNEL = HCH	66
8. FREQUENCY STABILITY	67
8.1. FREQUENCY VS VOLTAGE	67
8.2. FREQUENCY VS TEMPERATURE	67



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
Band2	1.4MHz	QPSK	18607	1RB#0	23.03	27.03	33.00	PASS
Band2	1.4MHz	QPSK	18607	1RB#2	23.02	27.02	33.00	PASS
Band2	1.4MHz	QPSK	18607	1RB#5	23.20	27.20	33.00	PASS
Band2	1.4MHz	QPSK	18607	3RB#0	23.25	27.25	33.00	PASS
Band2	1.4MHz	QPSK	18607	3RB#1	23.31	27.31	33.00	PASS
Band2	1.4MHz	QPSK	18607	3RB#3	23.21	27.21	33.00	PASS
Band2	1.4MHz	QPSK	18607	6RB#0	22.24	26.24	33.00	PASS
Band2	1.4MHz	QPSK	18900	1RB#0	23.09	27.09	33.00	PASS
Band2	1.4MHz	QPSK	18900	1RB#2	23.04	27.04	33.00	PASS
Band2	1.4MHz	QPSK	18900	1RB#5	22.96	26.96	33.00	PASS
Band2	1.4MHz	QPSK	18900	3RB#0	23.18	27.18	33.00	PASS
Band2	1.4MHz	QPSK	18900	3RB#1	23.21	27.21	33.00	PASS
Band2	1.4MHz	QPSK	18900	3RB#3	23.17	27.17	33.00	PASS
Band2	1.4MHz	QPSK	18900	6RB#0	22.15	26.15	33.00	PASS
Band2	1.4MHz	QPSK	19193	1RB#0	23.31	27.31	33.00	PASS
Band2	1.4MHz	QPSK	19193	1RB#2	23.40	27.40	33.00	PASS
Band2	1.4MHz	QPSK	19193	1RB#5	23.15	27.15	33.00	PASS
Band2	1.4MHz	QPSK	19193	3RB#0	23.49	27.49	33.00	PASS
Band2	1.4MHz	QPSK	19193	3RB#1	23.39	27.39	33.00	PASS
Band2	1.4MHz	QPSK	19193	3RB#3	23.31	27.31	33.00	PASS
Band2	1.4MHz	QPSK	19193	6RB#0	22.27	26.27	33.00	PASS
Band2	1.4MHz	16QAM	18607	1RB#0	22.44	26.44	33.00	PASS
Band2	1.4MHz	16QAM	18607	1RB#2	22.59	26.59	33.00	PASS
Band2	1.4MHz	16QAM	18607	1RB#5	22.45	26.45	33.00	PASS
Band2	1.4MHz	16QAM	18607	3RB#0	22.27	26.27	33.00	PASS
Band2	1.4MHz	16QAM	18607	3RB#1	22.35	26.35	33.00	PASS
Band2	1.4MHz	16QAM	18607	3RB#3	22.25	26.25	33.00	PASS
Band2	1.4MHz	16QAM	18607	6RB#0	21.28	25.28	33.00	PASS
Band2	1.4MHz	16QAM	18900	1RB#0	22.59	26.59	33.00	PASS
Band2	1.4MHz	16QAM	18900	1RB#2	22.63	26.63	33.00	PASS
Band2	1.4MHz	16QAM	18900	1RB#5	22.44	26.44	33.00	PASS
Band2	1.4MHz	16QAM	18900	3RB#0	22.28	26.28	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



Band2	1.4MHz	16QAM	18900	3RB#1	22.32	26.32	33.00	PASS
Band2	1.4MHz	16QAM	18900	3RB#3	22.22	26.22	33.00	PASS
Band2	1.4MHz	16QAM	18900	6RB#0	21.21	25.21	33.00	PASS
Band2	1.4MHz	16QAM	19193	1RB#0	22.59	26.59	33.00	PASS
Band2	1.4MHz	16QAM	19193	1RB#2	22.64	26.64	33.00	PASS
Band2	1.4MHz	16QAM	19193	1RB#5	22.49	26.49	33.00	PASS
Band2	1.4MHz	16QAM	19193	3RB#0	22.45	26.45	33.00	PASS
Band2	1.4MHz	16QAM	19193	3RB#1	22.67	26.67	33.00	PASS
Band2	1.4MHz	16QAM	19193	3RB#3	22.36	26.36	33.00	PASS
Band2	1.4MHz	16QAM	19193	6RB#0	21.31	25.31	33.00	PASS
Band2	3MHz	QPSK	18615	1RB#0	23.17	27.17	33.00	PASS
Band2	3MHz	QPSK	18615	1RB#8	23.24	27.24	33.00	PASS
Band2	3MHz	QPSK	18615	1RB#14	23.02	27.02	33.00	PASS
Band2	3MHz	QPSK	18615	8RB#0	22.16	26.16	33.00	PASS
Band2	3MHz	QPSK	18615	8RB#4	22.30	26.30	33.00	PASS
Band2	3MHz	QPSK	18615	8RB#7	22.31	26.31	33.00	PASS
Band2	3MHz	QPSK	18615	15RB#0	22.27	26.27	33.00	PASS
Band2	3MHz	QPSK	18900	1RB#0	23.09	27.09	33.00	PASS
Band2	3MHz	QPSK	18900	1RB#8	23.12	27.12	33.00	PASS
Band2	3MHz	QPSK	18900	1RB#14	23.03	27.03	33.00	PASS
Band2	3MHz	QPSK	18900	8RB#0	22.31	26.31	33.00	PASS
Band2	3MHz	QPSK	18900	8RB#4	22.24	26.24	33.00	PASS
Band2	3MHz	QPSK	18900	8RB#7	22.19	26.19	33.00	PASS
Band2	3MHz	QPSK	18900	15RB#0	22.22	26.22	33.00	PASS
Band2	3MHz	QPSK	19185	1RB#0	23.31	27.31	33.00	PASS
Band2	3MHz	QPSK	19185	1RB#8	23.43	27.43	33.00	PASS
Band2	3MHz	QPSK	19185	1RB#14	23.17	27.17	33.00	PASS
Band2	3MHz	QPSK	19185	8RB#0	22.37	26.37	33.00	PASS
Band2	3MHz	QPSK	19185	8RB#4	22.38	26.38	33.00	PASS
Band2	3MHz	QPSK	19185	8RB#7	22.38	26.38	33.00	PASS
Band2	3MHz	QPSK	19185	15RB#0	22.33	26.33	33.00	PASS
Band2	3MHz	16QAM	18615	1RB#0	22.75	26.75	33.00	PASS
Band2	3MHz	16QAM	18615	1RB#8	22.66	26.66	33.00	PASS
Band2	3MHz	16QAM	18615	1RB#14	22.37	26.37	33.00	PASS
Band2	3MHz	16QAM	18615	8RB#0	21.27	25.27	33.00	PASS
Band2	3MHz	16QAM	18615	8RB#4	21.30	25.30	33.00	PASS
Band2	3MHz	16QAM	18615	8RB#7	21.23	25.23	33.00	PASS
Band2	3MHz	16QAM	18615	15RB#0	21.19	25.19	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



Band2	3MHz	16QAM	18900	1RB#0	22.52	26.52	33.00	PASS
Band2	3MHz	16QAM	18900	1RB#8	22.61	26.61	33.00	PASS
Band2	3MHz	16QAM	18900	1RB#14	22.45	26.45	33.00	PASS
Band2	3MHz	16QAM	18900	8RB#0	21.25	25.25	33.00	PASS
Band2	3MHz	16QAM	18900	8RB#4	21.36	25.36	33.00	PASS
Band2	3MHz	16QAM	18900	8RB#7	21.31	25.31	33.00	PASS
Band2	3MHz	16QAM	18900	15RB#0	21.18	25.18	33.00	PASS
Band2	3MHz	16QAM	19185	1RB#0	22.68	26.68	33.00	PASS
Band2	3MHz	16QAM	19185	1RB#8	22.65	26.65	33.00	PASS
Band2	3MHz	16QAM	19185	1RB#14	22.57	26.57	33.00	PASS
Band2	3MHz	16QAM	19185	8RB#0	21.33	25.33	33.00	PASS
Band2	3MHz	16QAM	19185	8RB#4	21.37	25.37	33.00	PASS
Band2	3MHz	16QAM	19185	8RB#7	21.49	25.49	33.00	PASS
Band2	3MHz	16QAM	19185	15RB#0	21.38	25.38	33.00	PASS
Band2	5MHz	QPSK	18625	1RB#0	23.31	27.31	33.00	PASS
Band2	5MHz	QPSK	18625	1RB#12	23.25	27.25	33.00	PASS
Band2	5MHz	QPSK	18625	1RB#24	23.06	27.06	33.00	PASS
Band2	5MHz	QPSK	18625	12RB#0	22.35	26.35	33.00	PASS
Band2	5MHz	QPSK	18625	12RB#6	22.38	26.38	33.00	PASS
Band2	5MHz	QPSK	18625	12RB#13	22.23	26.23	33.00	PASS
Band2	5MHz	QPSK	18625	25RB#0	22.34	26.34	33.00	PASS
Band2	5MHz	QPSK	18900	1RB#0	23.13	27.13	33.00	PASS
Band2	5MHz	QPSK	18900	1RB#12	23.25	27.25	33.00	PASS
Band2	5MHz	QPSK	18900	1RB#24	22.75	26.75	33.00	PASS
Band2	5MHz	QPSK	18900	12RB#0	22.20	26.20	33.00	PASS
Band2	5MHz	QPSK	18900	12RB#6	22.21	26.21	33.00	PASS
Band2	5MHz	QPSK	18900	12RB#13	22.07	26.07	33.00	PASS
Band2	5MHz	QPSK	18900	25RB#0	22.16	26.16	33.00	PASS
Band2	5MHz	QPSK	19175	1RB#0	23.38	27.38	33.00	PASS
Band2	5MHz	QPSK	19175	1RB#12	23.67	27.67	33.00	PASS
Band2	5MHz	QPSK	19175	1RB#24	22.98	26.98	33.00	PASS
Band2	5MHz	QPSK	19175	12RB#0	22.47	26.47	33.00	PASS
Band2	5MHz	QPSK	19175	12RB#6	22.40	26.40	33.00	PASS
Band2	5MHz	QPSK	19175	12RB#13	22.38	26.38	33.00	PASS
Band2	5MHz	QPSK	19175	25RB#0	22.47	26.47	33.00	PASS
Band2	5MHz	16QAM	18625	1RB#0	22.60	26.60	33.00	PASS
Band2	5MHz	16QAM	18625	1RB#12	22.49	26.49	33.00	PASS
Band2	5MHz	16QAM	18625	1RB#24	22.48	26.48	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



Band2	5MHz	16QAM	18625	12RB#0	21.43	25.43	33.00	PASS
Band2	5MHz	16QAM	18625	12RB#6	21.37	25.37	33.00	PASS
Band2	5MHz	16QAM	18625	12RB#13	21.29	25.29	33.00	PASS
Band2	5MHz	16QAM	18625	25RB#0	21.27	25.27	33.00	PASS
Band2	5MHz	16QAM	18900	1RB#0	22.67	26.67	33.00	PASS
Band2	5MHz	16QAM	18900	1RB#12	22.45	26.45	33.00	PASS
Band2	5MHz	16QAM	18900	1RB#24	22.38	26.38	33.00	PASS
Band2	5MHz	16QAM	18900	12RB#0	21.30	25.30	33.00	PASS
Band2	5MHz	16QAM	18900	12RB#6	21.30	25.30	33.00	PASS
Band2	5MHz	16QAM	18900	12RB#13	21.07	25.07	33.00	PASS
Band2	5MHz	16QAM	18900	25RB#0	21.22	25.22	33.00	PASS
Band2	5MHz	16QAM	19175	1RB#0	22.67	26.67	33.00	PASS
Band2	5MHz	16QAM	19175	1RB#12	22.94	26.94	33.00	PASS
Band2	5MHz	16QAM	19175	1RB#24	22.61	26.61	33.00	PASS
Band2	5MHz	16QAM	19175	12RB#0	21.55	25.55	33.00	PASS
Band2	5MHz	16QAM	19175	12RB#6	21.51	25.51	33.00	PASS
Band2	5MHz	16QAM	19175	12RB#13	21.36	25.36	33.00	PASS
Band2	5MHz	16QAM	19175	25RB#0	21.38	25.38	33.00	PASS
Band2	10MHz	QPSK	18650	1RB#0	23.24	27.24	33.00	PASS
Band2	10MHz	QPSK	18650	1RB#24	23.73	27.73	33.00	PASS
Band2	10MHz	QPSK	18650	1RB#49	22.42	26.42	33.00	PASS
Band2	10MHz	QPSK	18650	25RB#0	22.42	26.42	33.00	PASS
Band2	10MHz	QPSK	18650	25RB#12	22.42	26.42	33.00	PASS
Band2	10MHz	QPSK	18650	25RB#25	22.21	26.21	33.00	PASS
Band2	10MHz	QPSK	18650	50RB#0	22.18	26.18	33.00	PASS
Band2	10MHz	QPSK	18900	1RB#0	23.29	27.29	33.00	PASS
Band2	10MHz	QPSK	18900	1RB#24	23.61	27.61	33.00	PASS
Band2	10MHz	QPSK	18900	1RB#49	22.58	26.58	33.00	PASS
Band2	10MHz	QPSK	18900	25RB#0	22.24	26.24	33.00	PASS
Band2	10MHz	QPSK	18900	25RB#12	22.22	26.22	33.00	PASS
Band2	10MHz	QPSK	18900	25RB#25	22.13	26.13	33.00	PASS
Band2	10MHz	QPSK	18900	50RB#0	22.14	26.14	33.00	PASS
Band2	10MHz	QPSK	19150	1RB#0	23.64	27.64	33.00	PASS
Band2	10MHz	QPSK	19150	1RB#24	23.48	27.48	33.00	PASS
Band2	10MHz	QPSK	19150	1RB#49	22.83	26.83	33.00	PASS
Band2	10MHz	QPSK	19150	25RB#0	22.64	26.64	33.00	PASS
Band2	10MHz	QPSK	19150	25RB#12	22.43	26.43	33.00	PASS
Band2	10MHz	QPSK	19150	25RB#25	22.42	26.42	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



Band2	10MHz	QPSK	19150	50RB#0	22.46	26.46	33.00	PASS
Band2	10MHz	16QAM	18650	1RB#0	22.70	26.70	33.00	PASS
Band2	10MHz	16QAM	18650	1RB#24	22.33	26.33	33.00	PASS
Band2	10MHz	16QAM	18650	1RB#49	22.74	26.74	33.00	PASS
Band2	10MHz	16QAM	18650	25RB#0	21.24	25.24	33.00	PASS
Band2	10MHz	16QAM	18650	25RB#12	21.20	25.20	33.00	PASS
Band2	10MHz	16QAM	18650	25RB#25	21.29	25.29	33.00	PASS
Band2	10MHz	16QAM	18650	50RB#0	21.20	25.20	33.00	PASS
Band2	10MHz	16QAM	18900	1RB#0	22.57	26.57	33.00	PASS
Band2	10MHz	16QAM	18900	1RB#24	22.27	26.27	33.00	PASS
Band2	10MHz	16QAM	18900	1RB#49	22.53	26.53	33.00	PASS
Band2	10MHz	16QAM	18900	25RB#0	21.23	25.23	33.00	PASS
Band2	10MHz	16QAM	18900	25RB#12	21.18	25.18	33.00	PASS
Band2	10MHz	16QAM	18900	25RB#25	21.28	25.28	33.00	PASS
Band2	10MHz	16QAM	18900	50RB#0	21.17	25.17	33.00	PASS
Band2	10MHz	16QAM	19150	1RB#0	22.78	26.78	33.00	PASS
Band2	10MHz	16QAM	19150	1RB#24	22.41	26.41	33.00	PASS
Band2	10MHz	16QAM	19150	1RB#49	23.06	27.06	33.00	PASS
Band2	10MHz	16QAM	19150	25RB#0	21.49	25.49	33.00	PASS
Band2	10MHz	16QAM	19150	25RB#12	21.48	25.48	33.00	PASS
Band2	10MHz	16QAM	19150	25RB#25	21.49	25.49	33.00	PASS
Band2	10MHz	16QAM	19150	50RB#0	21.42	25.42	33.00	PASS
Band2	15MHz	QPSK	18675	1RB#0	23.48	27.48	33.00	PASS
Band2	15MHz	QPSK	18675	1RB#38	23.58	27.58	33.00	PASS
Band2	15MHz	QPSK	18675	1RB#74	22.71	26.71	33.00	PASS
Band2	15MHz	QPSK	18675	36RB#0	22.38	26.38	33.00	PASS
Band2	15MHz	QPSK	18675	36RB#18	22.35	26.35	33.00	PASS
Band2	15MHz	QPSK	18675	36RB#39	22.40	26.40	33.00	PASS
Band2	15MHz	QPSK	18675	75RB#0	22.34	26.34	33.00	PASS
Band2	15MHz	QPSK	18900	1RB#0	23.42	27.42	33.00	PASS
Band2	15MHz	QPSK	18900	1RB#38	23.11	27.11	33.00	PASS
Band2	15MHz	QPSK	18900	1RB#74	23.11	27.11	33.00	PASS
Band2	15MHz	QPSK	18900	36RB#0	22.11	26.11	33.00	PASS
Band2	15MHz	QPSK	18900	36RB#18	22.17	26.17	33.00	PASS
Band2	15MHz	QPSK	18900	36RB#39	22.07	26.07	33.00	PASS
Band2	15MHz	QPSK	18900	75RB#0	22.09	26.09	33.00	PASS
Band2	15MHz	QPSK	19125	1RB#0	23.73	27.73	33.00	PASS
Band2	15MHz	QPSK	19125	1RB#38	23.01	27.01	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



Band2	15MHz	QPSK	19125	1RB#74	23.15	27.15	33.00	PASS
Band2	15MHz	QPSK	19125	36RB#0	22.63	26.63	33.00	PASS
Band2	15MHz	QPSK	19125	36RB#18	22.26	26.26	33.00	PASS
Band2	15MHz	QPSK	19125	36RB#39	22.38	26.38	33.00	PASS
Band2	15MHz	QPSK	19125	75RB#0	22.39	26.39	33.00	PASS
Band2	15MHz	16QAM	18675	1RB#0	23.00	27.00	33.00	PASS
Band2	15MHz	16QAM	18675	1RB#38	22.47	26.47	33.00	PASS
Band2	15MHz	16QAM	18675	1RB#74	22.91	26.91	33.00	PASS
Band2	15MHz	16QAM	18675	36RB#0	21.30	25.30	33.00	PASS
Band2	15MHz	16QAM	18675	36RB#18	21.28	25.28	33.00	PASS
Band2	15MHz	16QAM	18675	36RB#39	21.34	25.34	33.00	PASS
Band2	15MHz	16QAM	18675	75RB#0	21.36	25.36	33.00	PASS
Band2	15MHz	16QAM	18900	1RB#0	22.85	26.85	33.00	PASS
Band2	15MHz	16QAM	18900	1RB#38	22.44	26.44	33.00	PASS
Band2	15MHz	16QAM	18900	1RB#74	22.81	26.81	33.00	PASS
Band2	15MHz	16QAM	18900	36RB#0	21.20	25.20	33.00	PASS
Band2	15MHz	16QAM	18900	36RB#18	21.21	25.21	33.00	PASS
Band2	15MHz	16QAM	18900	36RB#39	21.11	25.11	33.00	PASS
Band2	15MHz	16QAM	18900	75RB#0	21.16	25.16	33.00	PASS
Band2	15MHz	16QAM	19125	1RB#0	22.93	26.93	33.00	PASS
Band2	15MHz	16QAM	19125	1RB#38	22.56	26.56	33.00	PASS
Band2	15MHz	16QAM	19125	1RB#74	23.06	27.06	33.00	PASS
Band2	15MHz	16QAM	19125	36RB#0	21.42	25.42	33.00	PASS
Band2	15MHz	16QAM	19125	36RB#18	21.29	25.29	33.00	PASS
Band2	15MHz	16QAM	19125	36RB#39	21.43	25.43	33.00	PASS
Band2	15MHz	16QAM	19125	75RB#0	21.45	25.45	33.00	PASS
Band2	20MHz	QPSK	18700	1RB#0	23.51	27.51	33.00	PASS
Band2	20MHz	QPSK	18700	1RB#49	23.32	27.32	33.00	PASS
Band2	20MHz	QPSK	18700	1RB#99	22.33	26.33	33.00	PASS
Band2	20MHz	QPSK	18700	50RB#0	23.10	27.10	33.00	PASS
Band2	20MHz	QPSK	18700	50RB#25	22.25	26.25	33.00	PASS
Band2	20MHz	QPSK	18700	50RB#50	22.34	26.34	33.00	PASS
Band2	20MHz	QPSK	18700	100RB#0	22.48	26.48	33.00	PASS
Band2	20MHz	QPSK	18900	1RB#0	23.35	27.35	33.00	PASS
Band2	20MHz	QPSK	18900	1RB#49	22.93	26.93	33.00	PASS
Band2	20MHz	QPSK	18900	1RB#99	22.92	26.92	33.00	PASS
Band2	20MHz	QPSK	18900	50RB#0	22.37	26.37	33.00	PASS
Band2	20MHz	QPSK	18900	50RB#25	22.25	26.25	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



Band2	20MHz	QPSK	18900	50RB#50	22.29	26.29	33.00	PASS
Band2	20MHz	QPSK	18900	100RB#0	22.25	26.25	33.00	PASS
Band2	20MHz	QPSK	19100	1RB#0	23.90	27.90	33.00	PASS
Band2	20MHz	QPSK	19100	1RB#49	22.98	26.98	33.00	PASS
Band2	20MHz	QPSK	19100	1RB#99	23.05	27.05	33.00	PASS
Band2	20MHz	QPSK	19100	50RB#0	22.51	26.51	33.00	PASS
Band2	20MHz	QPSK	19100	50RB#25	22.21	26.21	33.00	PASS
Band2	20MHz	QPSK	19100	50RB#50	22.42	26.42	33.00	PASS
Band2	20MHz	QPSK	19100	100RB#0	22.62	26.62	33.00	PASS
Band2	20MHz	16QAM	18700	1RB#0	22.90	26.90	33.00	PASS
Band2	20MHz	16QAM	18700	1RB#49	22.50	26.50	33.00	PASS
Band2	20MHz	16QAM	18700	1RB#99	22.74	26.74	33.00	PASS
Band2	20MHz	16QAM	18700	50RB#0	21.36	25.36	33.00	PASS
Band2	20MHz	16QAM	18700	50RB#25	21.21	25.21	33.00	PASS
Band2	20MHz	16QAM	18700	50RB#50	21.37	25.37	33.00	PASS
Band2	20MHz	16QAM	18700	100RB#0	21.42	25.42	33.00	PASS
Band2	20MHz	16QAM	18900	1RB#0	22.72	26.72	33.00	PASS
Band2	20MHz	16QAM	18900	1RB#49	22.39	26.39	33.00	PASS
Band2	20MHz	16QAM	18900	1RB#99	22.93	26.93	33.00	PASS
Band2	20MHz	16QAM	18900	50RB#0	21.27	25.27	33.00	PASS
Band2	20MHz	16QAM	18900	50RB#25	21.29	25.29	33.00	PASS
Band2	20MHz	16QAM	18900	50RB#50	21.24	25.24	33.00	PASS
Band2	20MHz	16QAM	18900	100RB#0	21.20	25.20	33.00	PASS
Band2	20MHz	16QAM	19100	1RB#0	22.84	26.84	33.00	PASS
Band2	20MHz	16QAM	19100	1RB#49	22.61	26.61	33.00	PASS
Band2	20MHz	16QAM	19100	1RB#99	22.79	26.79	33.00	PASS
Band2	20MHz	16QAM	19100	50RB#0	21.40	25.40	33.00	PASS
Band2	20MHz	16QAM	19100	50RB#25	21.39	25.39	33.00	PASS
Band2	20MHz	16QAM	19100	50RB#50	21.39	25.39	33.00	PASS
Band2	20MHz	16QAM	19100	100RB#0	21.39	25.39	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 [dBd]

EIRP [dBm] = Conducted Power [dBm] + Gain [dBi]



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

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

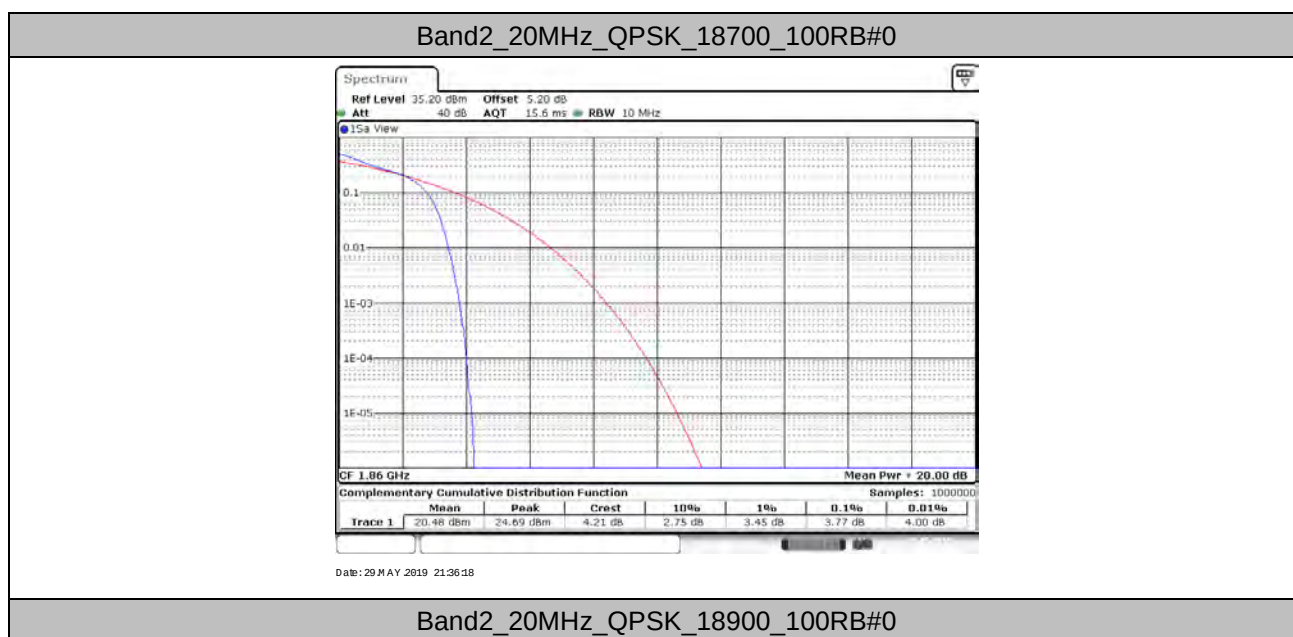


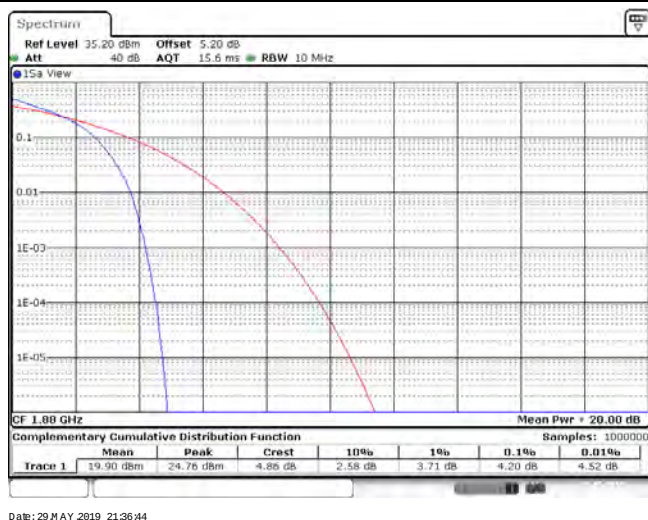
2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

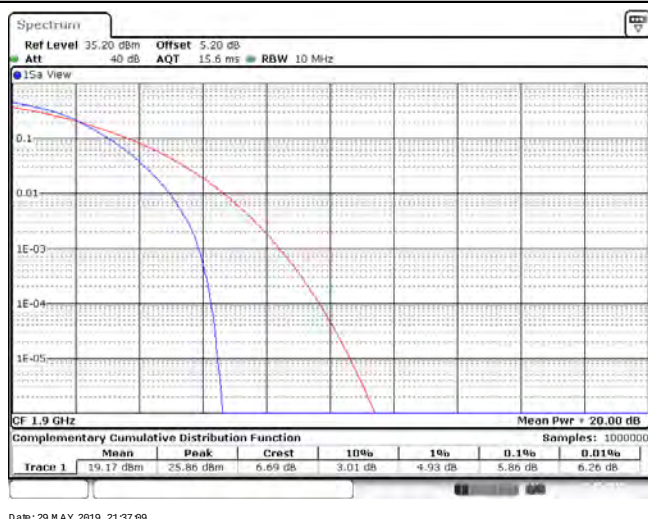
BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band2	20MHz	QPSK	18700	100RB#0	3.77	13	PASS
Band2	20MHz	QPSK	18900	100RB#0	4.20	13	PASS
Band2	20MHz	QPSK	19100	100RB#0	5.86	13	PASS
Band2	20MHz	16QAM	18700	100RB#0	5.57	13	PASS
Band2	20MHz	16QAM	18900	100RB#0	5.86	13	PASS
Band2	20MHz	16QAM	19100	100RB#0	5.86	13	PASS

2.2. Test Plots





Band2_20MHz_QPSK_19100_100RB#0



Band2_20MHz_16QAM_18700_100RB#0





Date: 29 MAY 2019 21:36:30

Band2_20MHz_16QAM_18900_100RB#0



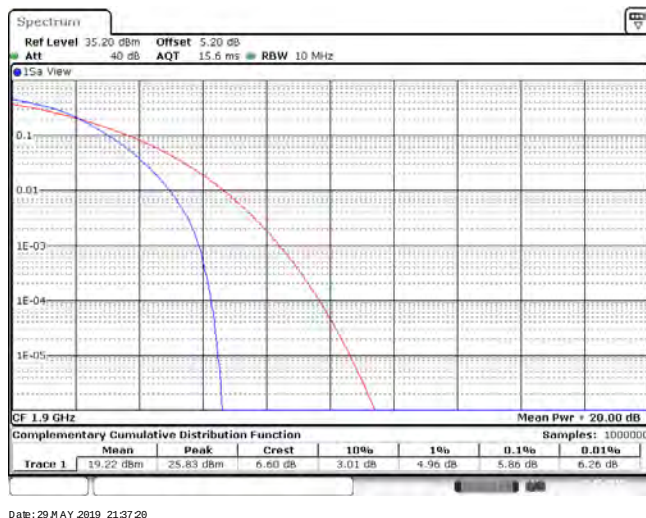
Date: 29 MAY 2019 21:36:55

Band2_20MHz_16QAM_19100_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



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
中国·深圳·科技园中区M-10栋一号厂房

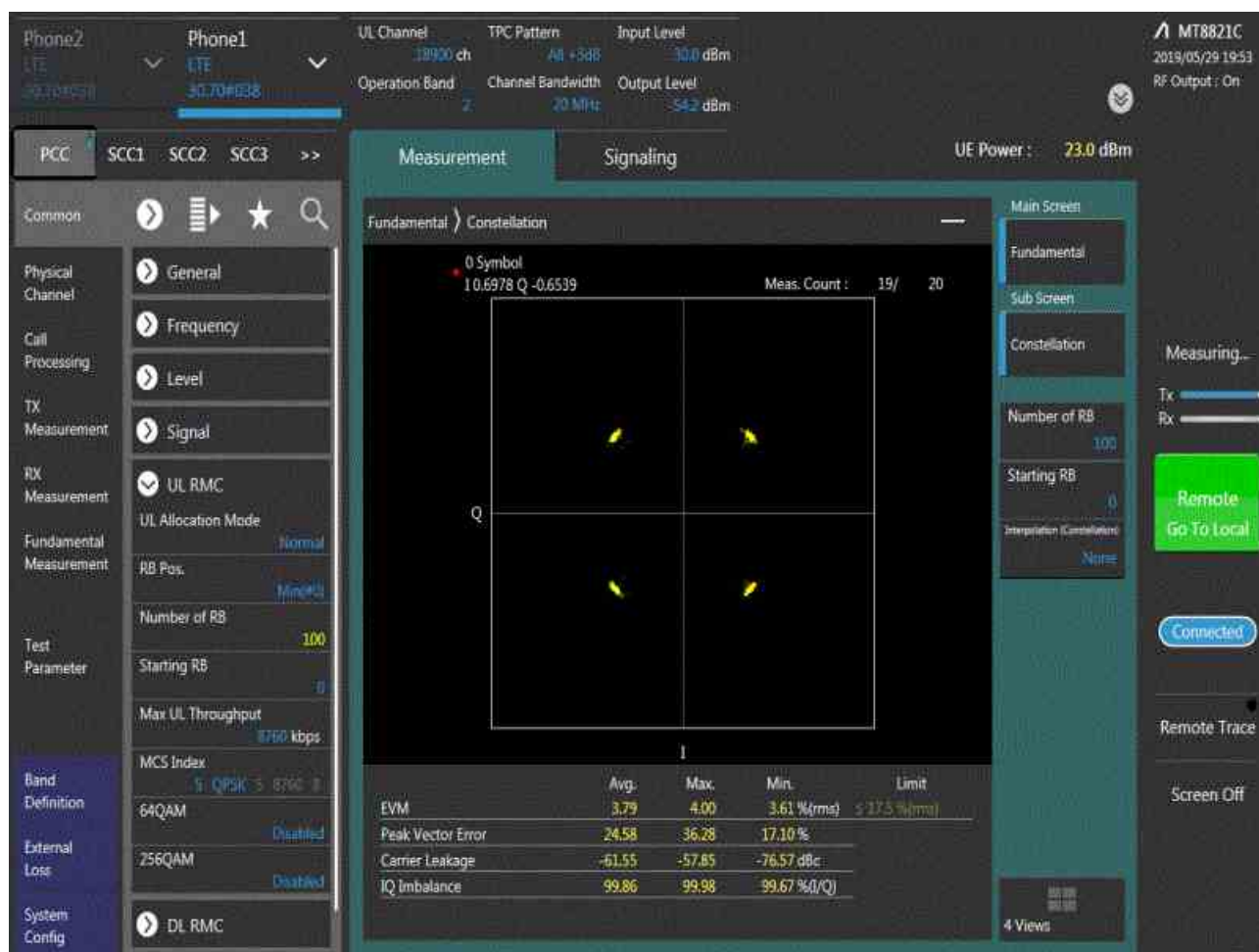
t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

3. Modulation Characteristics

3.1. Test BAND = LTE Band 2

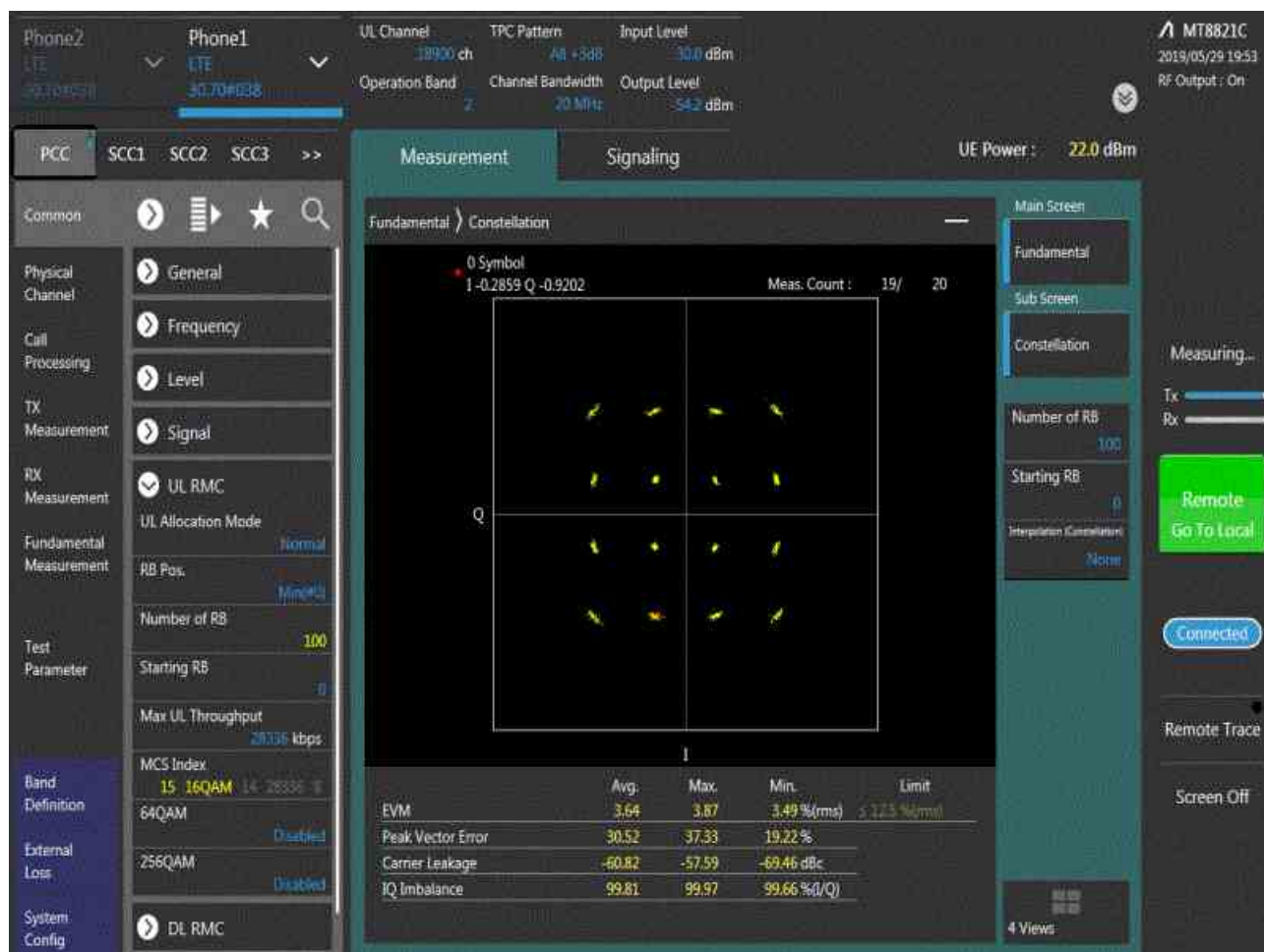
3.2. Test Mode = LTE /TM1 20MHz

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
Band2	1.4MHz	QPSK	18607	6RB#0	1.112	1.575	PASS
Band2	1.4MHz	QPSK	18900	6RB#0	1.109	1.608	PASS
Band2	1.4MHz	QPSK	19193	6RB#0	1.100	1.434	PASS
Band2	1.4MHz	16QAM	18607	6RB#0	1.109	1.578	PASS
Band2	1.4MHz	16QAM	18900	6RB#0	1.106	1.584	PASS
Band2	1.4MHz	16QAM	19193	6RB#0	1.097	1.419	PASS
Band2	3MHz	QPSK	18615	15RB#0	2.703	3.066	PASS
Band2	3MHz	QPSK	18900	15RB#0	2.703	3.066	PASS
Band2	3MHz	QPSK	19185	15RB#0	2.697	3.000	PASS
Band2	3MHz	16QAM	18615	15RB#0	2.691	3.012	PASS
Band2	3MHz	16QAM	18900	15RB#0	2.691	3.006	PASS
Band2	3MHz	16QAM	19185	15RB#0	2.685	2.958	PASS
Band2	5MHz	QPSK	18625	25RB#0	4.466	4.960	PASS
Band2	5MHz	QPSK	18900	25RB#0	4.476	4.940	PASS
Band2	5MHz	QPSK	19175	25RB#0	4.466	4.940	PASS
Band2	5MHz	16QAM	18625	25RB#0	4.486	4.960	PASS
Band2	5MHz	16QAM	18900	25RB#0	4.496	4.970	PASS
Band2	5MHz	16QAM	19175	25RB#0	4.486	4.960	PASS
Band2	10MHz	QPSK	18650	50RB#0	8.911	9.760	PASS
Band2	10MHz	QPSK	18900	50RB#0	8.931	9.740	PASS
Band2	10MHz	QPSK	19150	50RB#0	8.931	9.760	PASS
Band2	10MHz	16QAM	18650	50RB#0	8.931	9.760	PASS
Band2	10MHz	16QAM	18900	50RB#0	8.951	9.820	PASS
Band2	10MHz	16QAM	19150	50RB#0	8.951	9.820	PASS
Band2	15MHz	QPSK	18675	75RB#0	13.427	14.790	PASS
Band2	15MHz	QPSK	18900	75RB#0	13.487	14.790	PASS
Band2	15MHz	QPSK	19125	75RB#0	13.487	14.790	PASS
Band2	15MHz	16QAM	18675	75RB#0	13.397	14.730	PASS
Band2	15MHz	16QAM	18900	75RB#0	13.487	14.850	PASS
Band2	15MHz	16QAM	19125	75RB#0	13.487	14.880	PASS
Band2	20MHz	QPSK	18700	100RB#0	17.822	19.400	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



Band2	20MHz	QPSK	18900	100RB#0	17.902	19.560	PASS
Band2	20MHz	QPSK	19100	100RB#0	17.942	19.480	PASS
Band2	20MHz	16QAM	18700	100RB#0	17.822	19.320	PASS
Band2	20MHz	16QAM	18900	100RB#0	17.942	19.480	PASS
Band2	20MHz	16QAM	19100	100RB#0	17.902	19.440	PASS

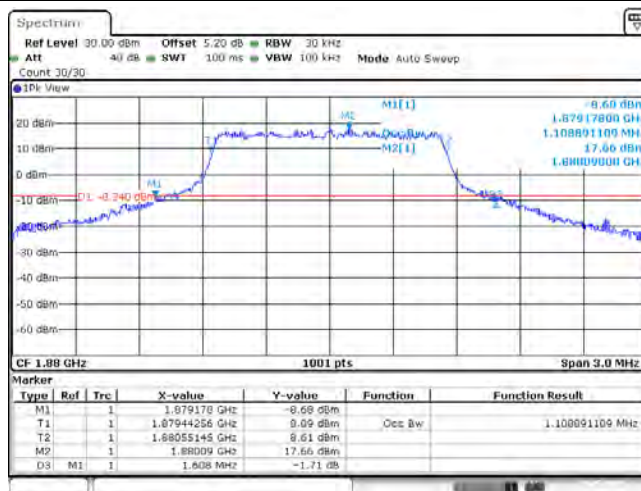
4.2. Test Plots

Band2_1.4MHz_QPSK_18607_6RB#0



Date: 29 MAY 2019 20:16:56

Band2_1.4MHz_QPSK_18900_6RB#0



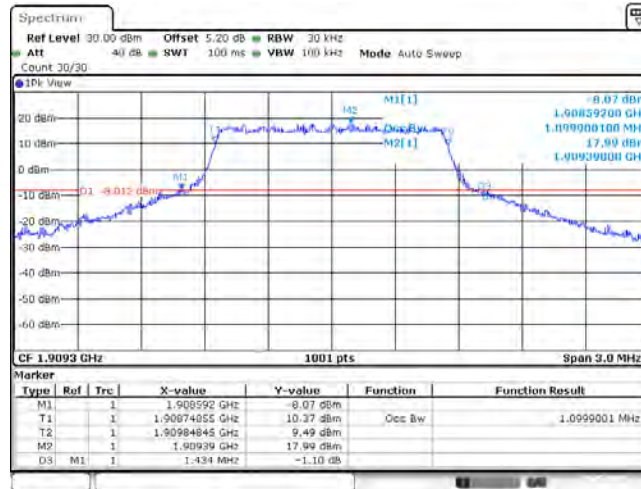
Date: 29 MAY 2019 20:17:27

Band2_1.4MHz_QPSK_19193_6RB#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 20:17:59

Band2_1.4MHz_16QAM_18607_6RB#0



Date: 29 MAY 2019 20:17:11

Band2_1.4MHz_16QAM_18900_6RB#0





Date: 29 MAY 2019 20:17:43

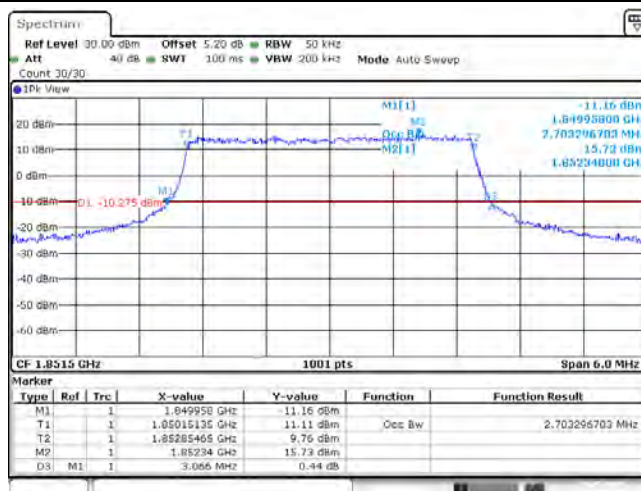
Band2_1.4MHz_16QAM_19193_6RB#0



Date: 29 MAY 2019 20:18:15

Band2_3MHz_QPSK_18615_15RB#0





Date: 29 MAY 2019 20:18:35

Band2_3MHz_QPSK_18900_15RB#0



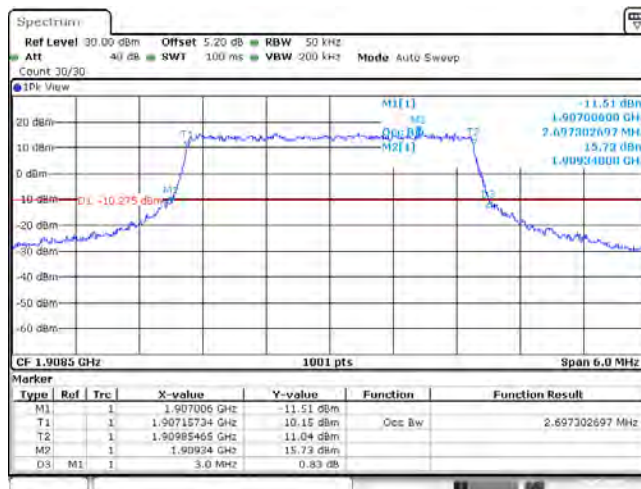
Date: 29 MAY 2019 20:19:07

Band2_3MHz_QPSK_19185_15RB#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 20:19:38

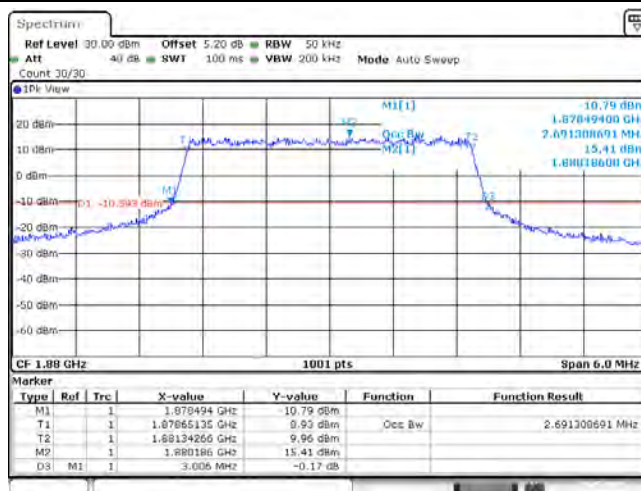
Band2_3MHz_16QAM_18615_15RB#0



Date: 29 MAY 2019 20:18:51

Band2_3MHz_16QAM_18900_15RB#0





Date: 29 MAY 2019 20:19:22

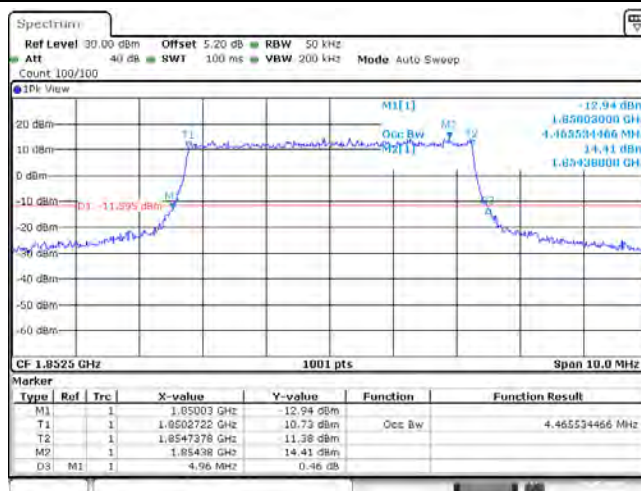
Band2_3MHz_16QAM_19185_15RB#0



Date: 29 MAY 2019 20:19:54

Band2_5MHz_QPSK_18625_25RB#0





Date: 29 MAY 2019 20:28:21

Band2_5MHz_QPSK_18900_25RB#0



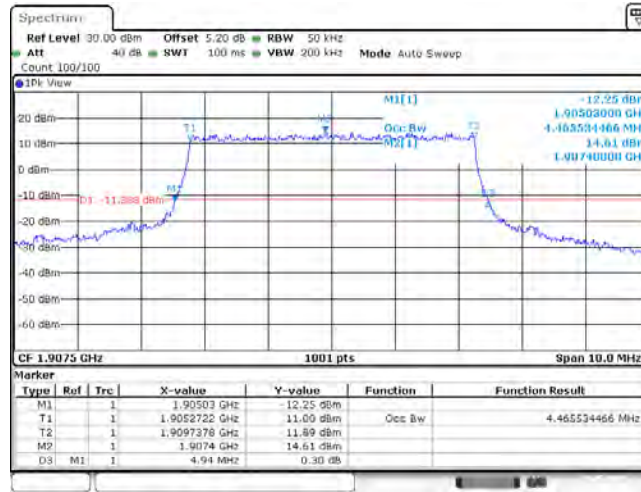
Date: 29 MAY 2019 20:21:07

Band2_5MHz_QPSK_19175_25RB#0



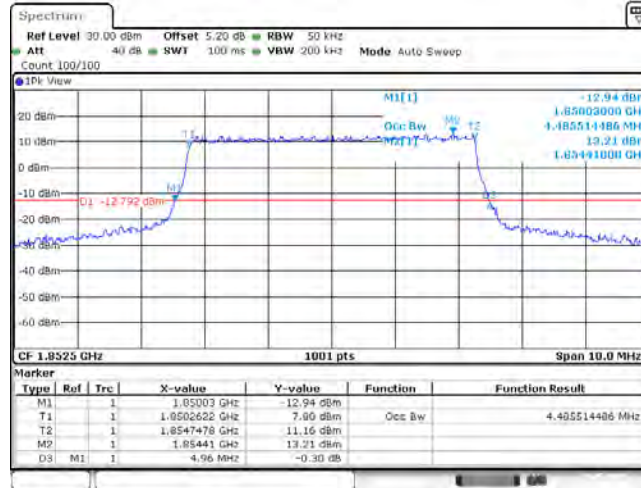
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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 20:21:52

Band2_5MHz_16QAM_18625_25RB#0



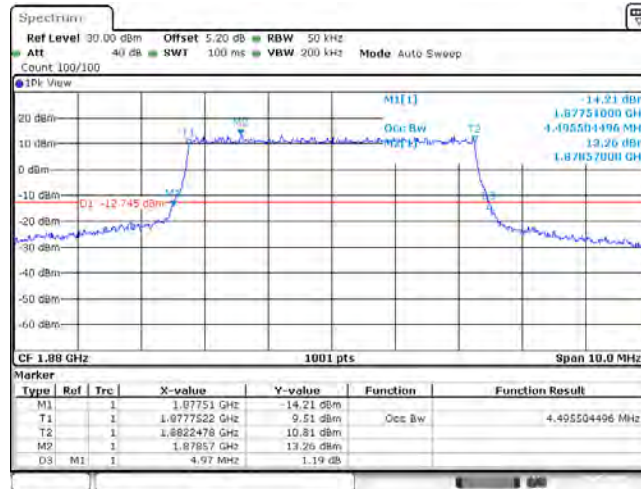
Date: 29 MAY 2019 20:20:44

Band2_5MHz_16QAM_18900_25RB#0



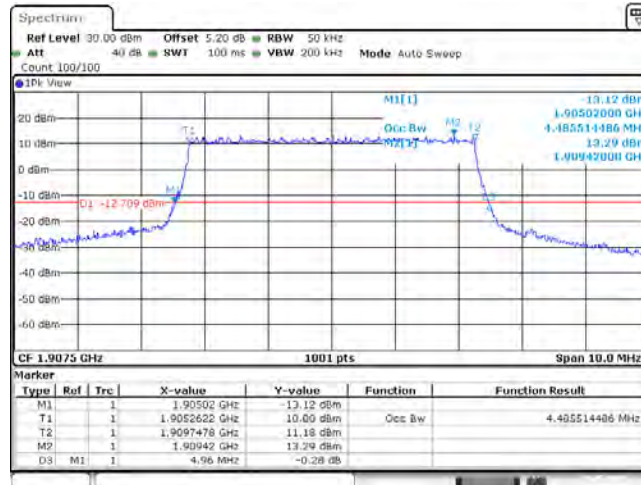
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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 20:21:29

Band2_5MHz_16QAM_19175_25RB#0



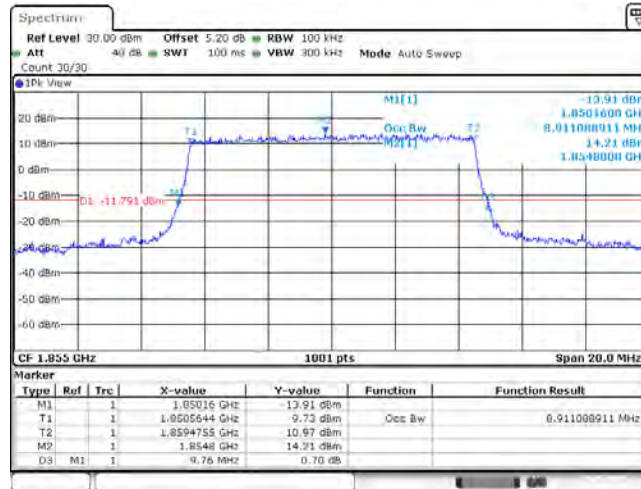
Date: 29 MAY 2019 20:22:15

Band2_10MHz_QPSK_18650_50RB#0



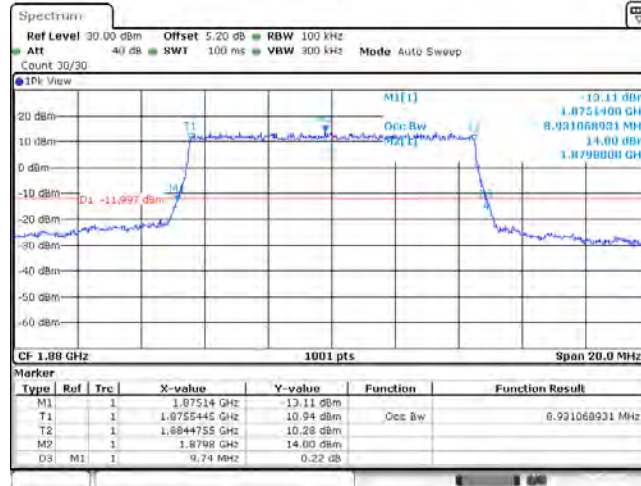
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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 20:22:35

Band2_10MHz_QPSK_18900_50RB#0



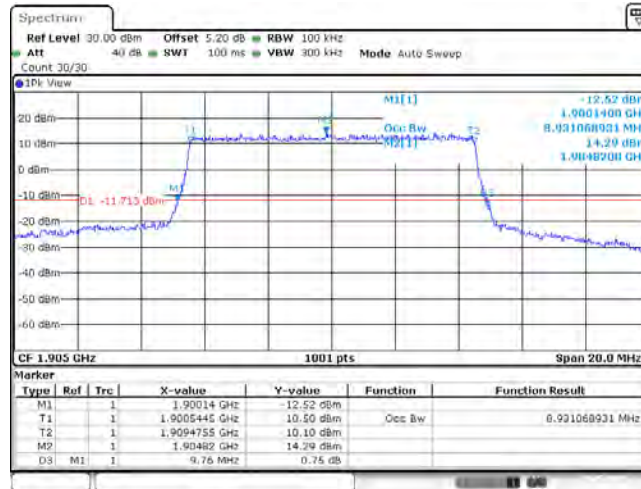
Date: 29 MAY 2019 20:23:06

Band2_10MHz_QPSK_19150_50RB#0



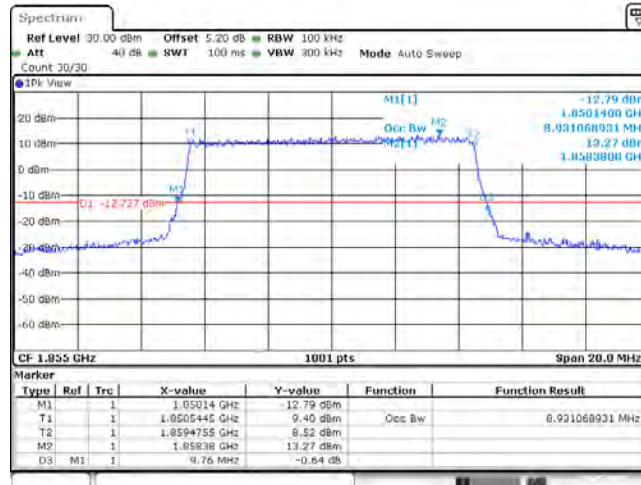
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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 20:23:38

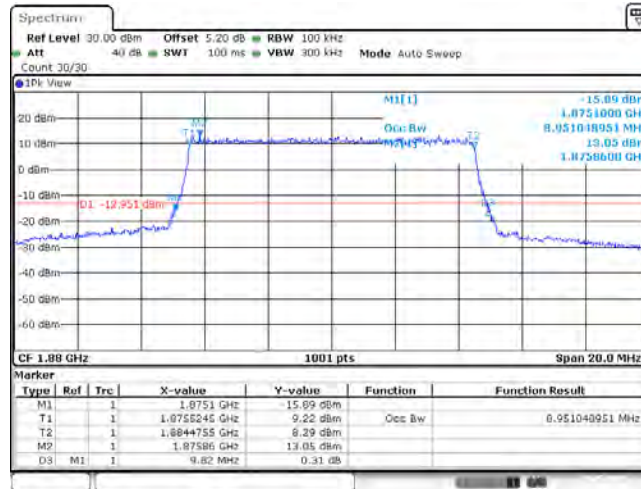
Band2_10MHz_16QAM_18650_50RB#0



Date: 29 MAY 2019 20:22:51

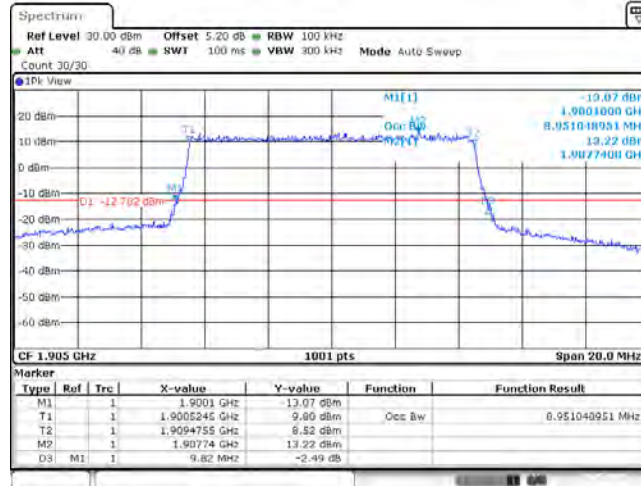
Band2_10MHz_16QAM_18900_50RB#0





Date: 29 MAY 2019 20:23:22

Band2_10MHz_16QAM_19150_50RB#0



Date: 29 MAY 2019 20:23:53

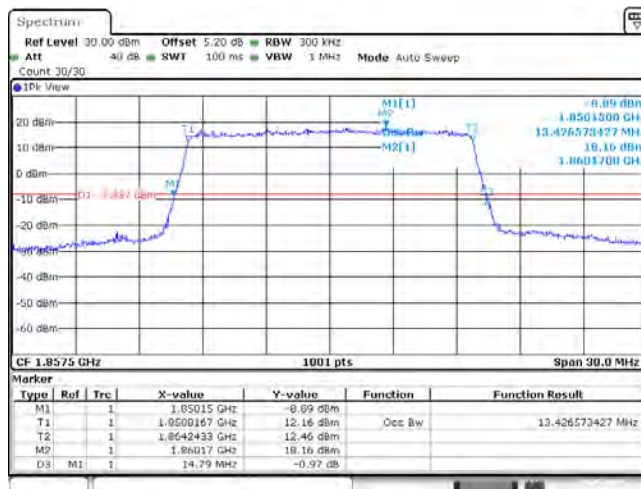
Band2_15MHz_QPSK_18675_75RB#0



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

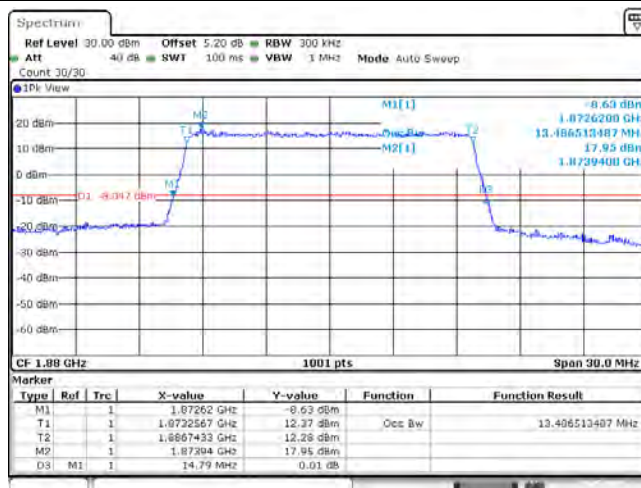
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

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



Date: 29 MAY 2019 20:24:14

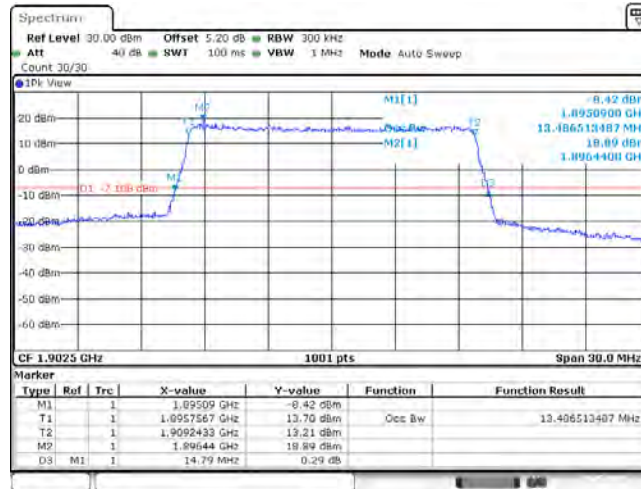
Band2_15MHz_QPSK_18900_75RB#0



Date: 29 MAY 2019 20:24:45

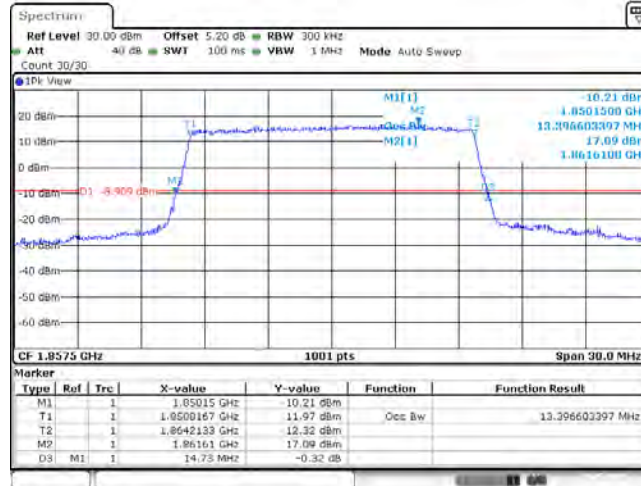
Band2_15MHz_QPSK_19125_75RB#0





Date: 29 MAY 2019 20:25:17

Band2_15MHz_16QAM_18675_75RB#0



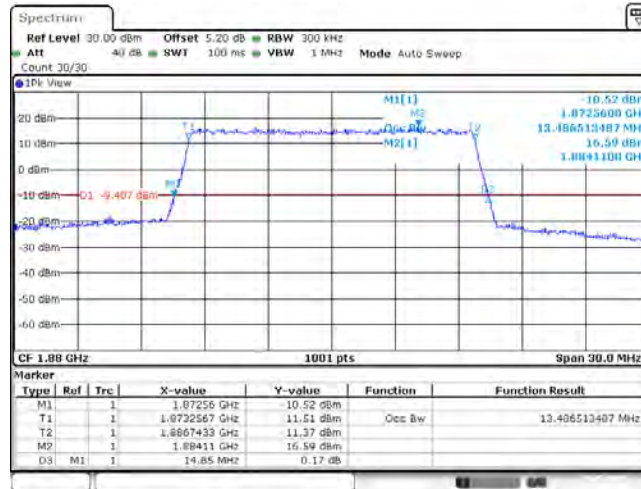
Date: 29 MAY 2019 20:24:29

Band2_15MHz_16QAM_18900_75RB#0



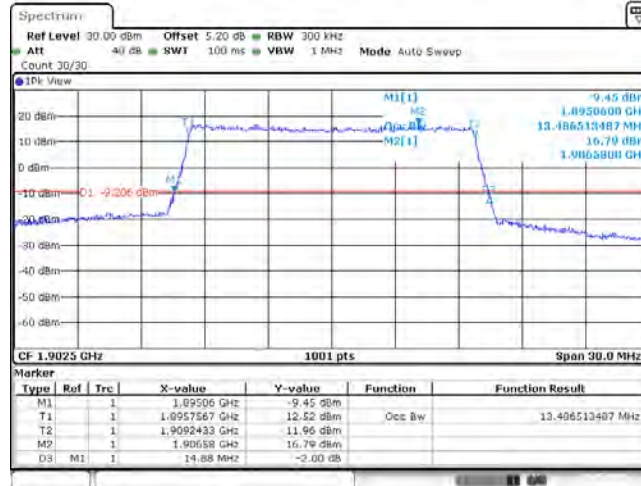
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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 20:25:01

Band2_15MHz_16QAM_19125_75RB#0



Date: 29 MAY 2019 20:25:32

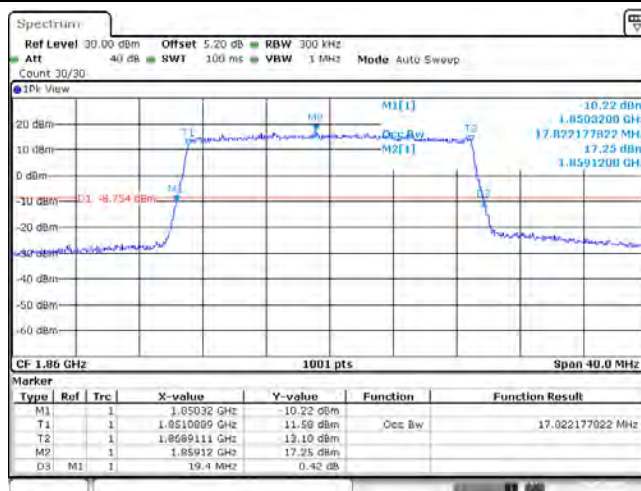
Band2_20MHz_QPSK_18700_100RB#0



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.

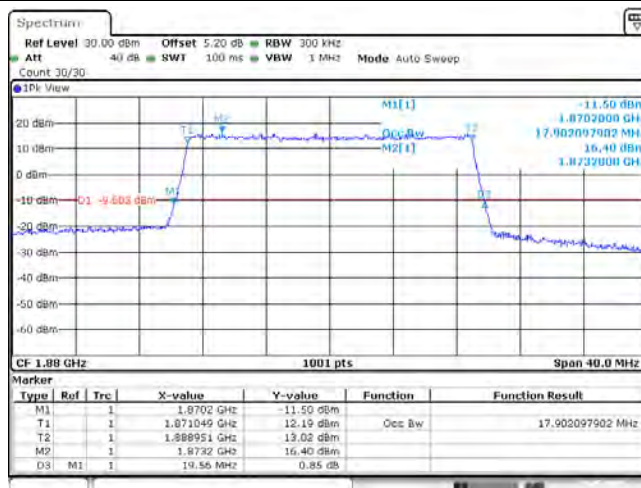
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

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 20:25:53

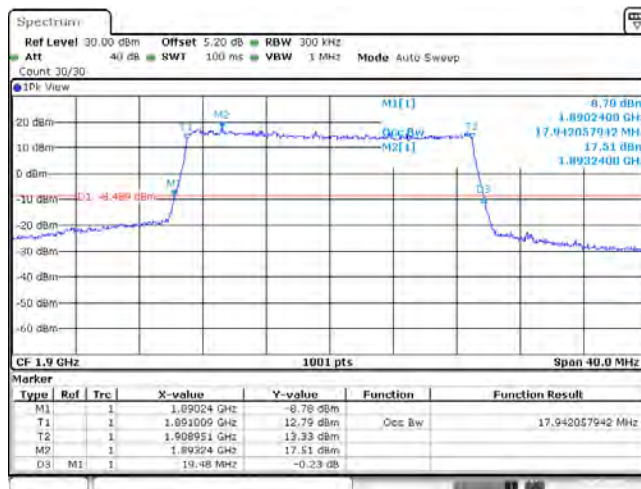
Band2_20MHz_QPSK_18900_100RB#0



Date: 29 MAY 2019 20:26:24

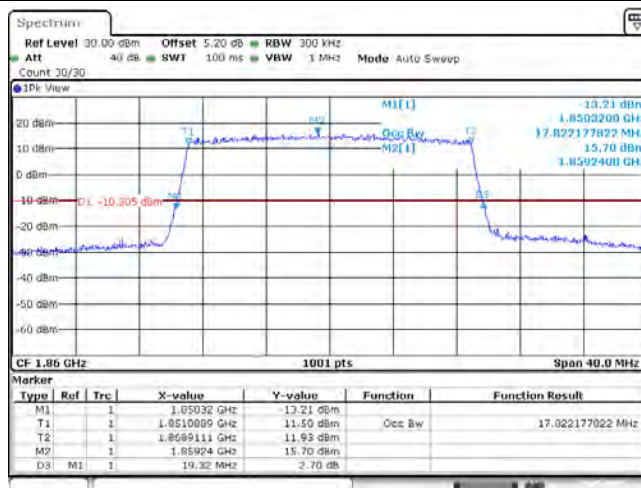
Band2_20MHz_QPSK_19100_100RB#0





Date: 29 MAY 2019 20:26:55

Band2_20MHz_16QAM_18700_100RB#0



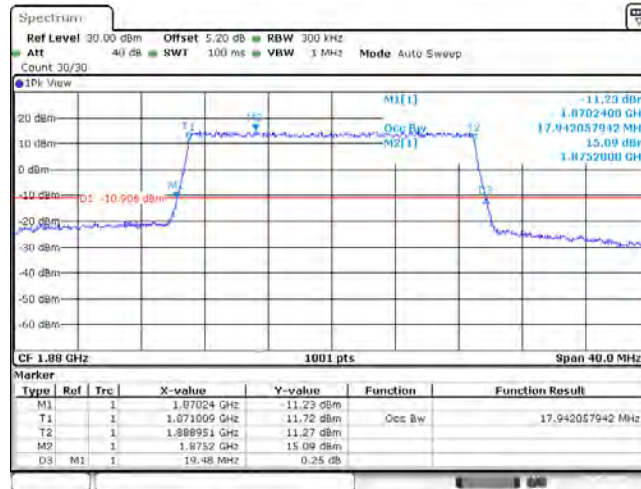
Date: 29 MAY 2019 20:26:58

Band2_20MHz_16QAM_18900_100RB#0



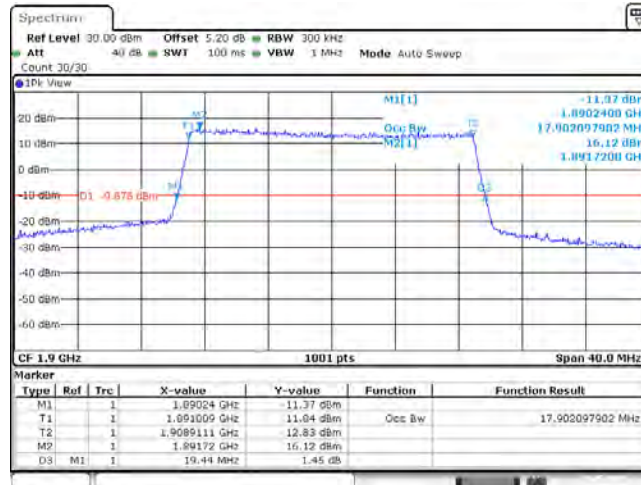
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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 20:26:40

Band2_20MHz_16QAM_19100_100RB#0



Date: 29 MAY 2019 20:27:11



5. Band Edge Compliance

5.1. Test Plots

Band2_1.4MHz_QPSK_18607_1RB#0



Date: 29 MAY 2019 21:08:28

Band2_1.4MHz_QPSK_18607_6RB#0



Date: 29 MAY 2019 21:09:06

Band2_1.4MHz_QPSK_19193_1RB#5



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

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



Date: 29 MAY 2019 21:16:50

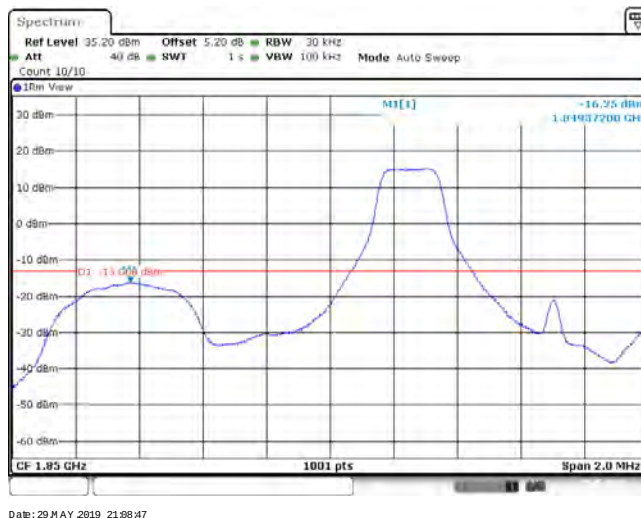
Band2_1.4MHz_QPSK_19193_6RB#0



Date: 29 MAY 2019 21:11:29

Band2_1.4MHz_16QAM_18607_1RB#0





Date: 29 MAY 2019 21:08:47

Band2_1.4MHz_16QAM_18607_6RB#0



Date: 29 MAY 2019 21:09:25

Band2_1.4MHz_16QAM_19193_1RB#5



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 21:11:10

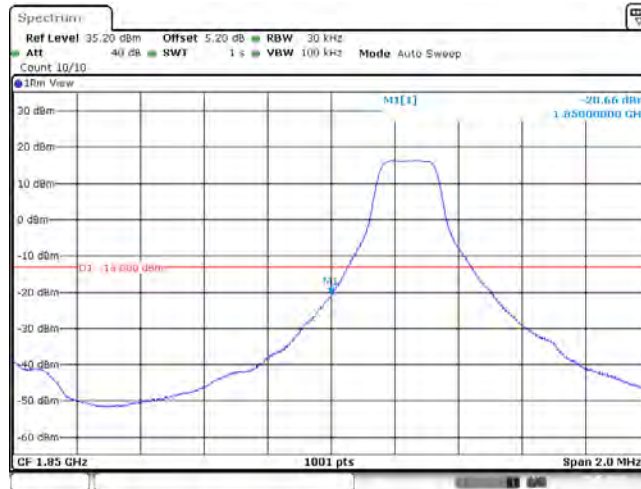
Band2_1.4MHz_16QAM_19193_6RB#0



Date: 29 MAY 2019 21:11:48

Band2_3MHz_QPSK_18615_1RB#0





Date: 29 MAY 2019 21:13:30

Band2_3MHz_QPSK_18615_15RB#0



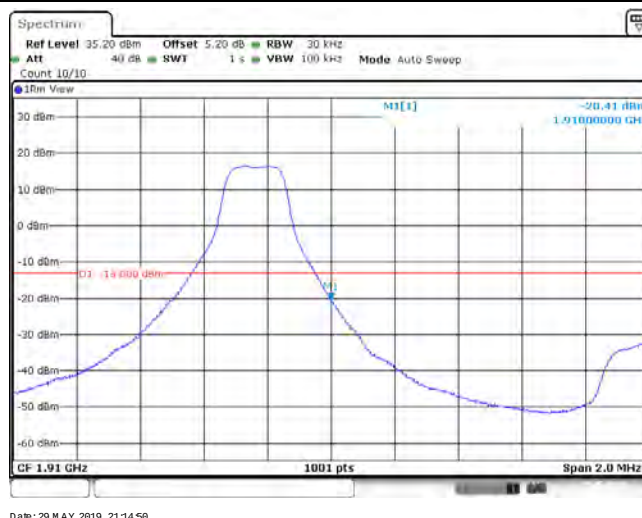
Date: 29 MAY 2019 21:14:08

Band2_3MHz_QPSK_19185_1RB#14

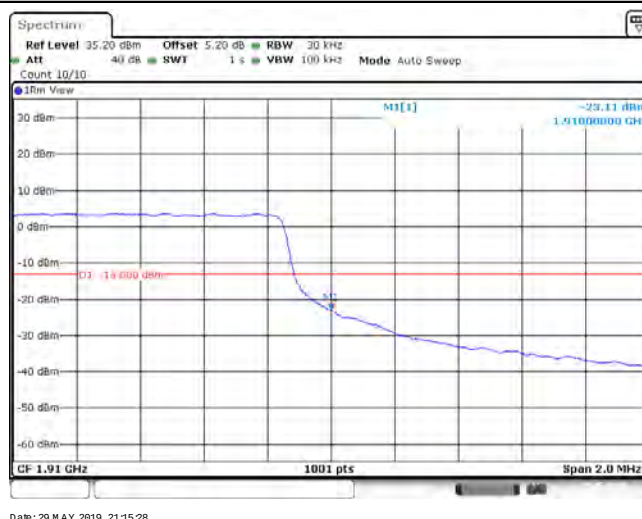


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

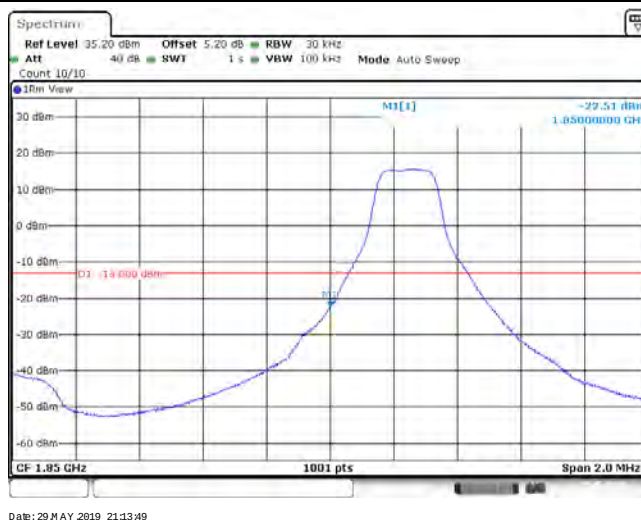


Band2_3MHz_QPSK_19185_15RB#0

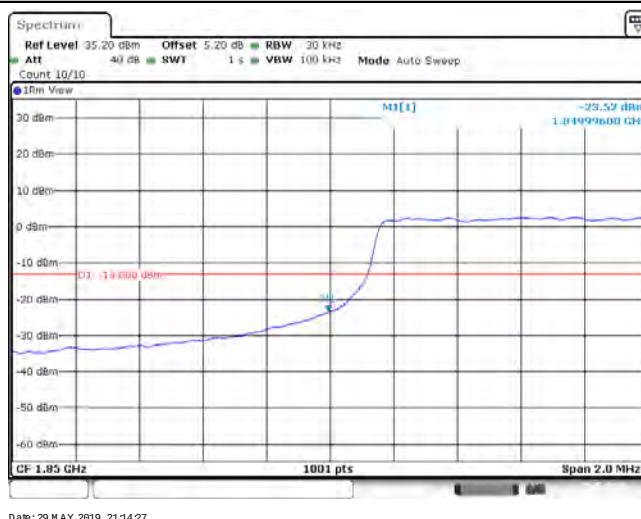


Band2_3MHz_16QAM_18615_1RB#0



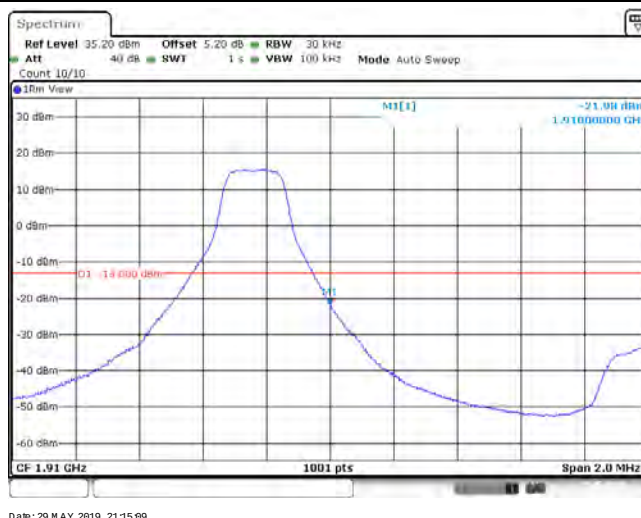


Band2_3MHz_16QAM_18615_15RB#0



Band2_3MHz_16QAM_19185_1RB#14



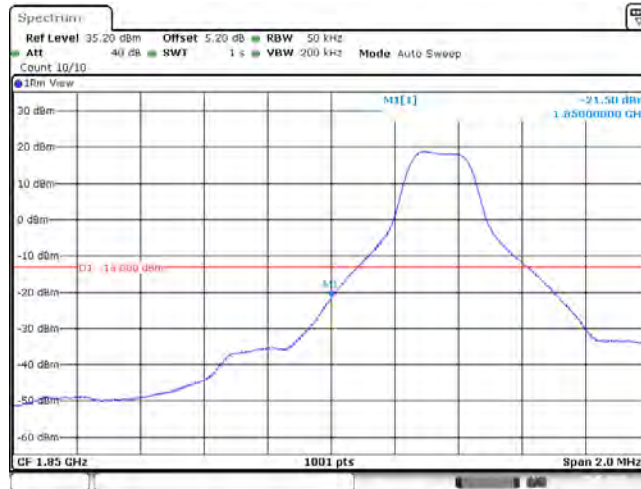


Band2_3MHz_16QAM_19185_15RB#0



Band2_5MHz_QPSK_18625_1RB#0





Date: 29 MAY 2019 21:17:29

Band2_5MHz_QPSK_18625_25RB#0



Date: 29 MAY 2019 21:18:58

Band2_5MHz_QPSK_19175_1RB#24

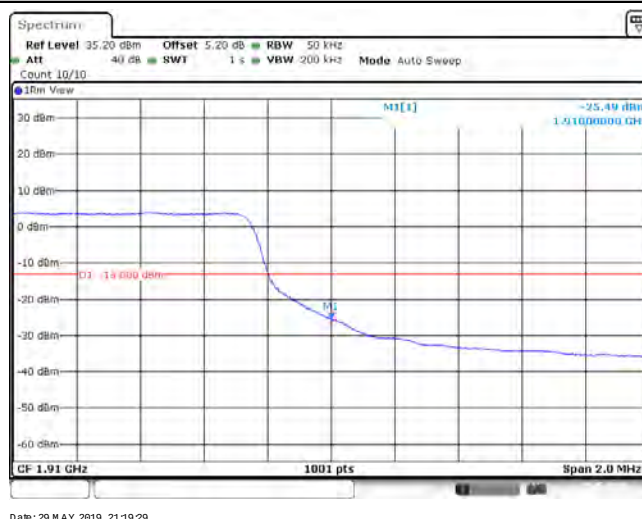


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

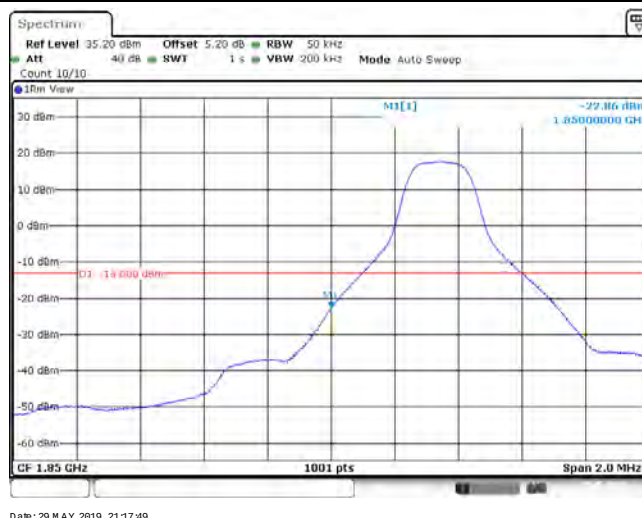


Band2_5MHz_QPSK_19175_25RB#0

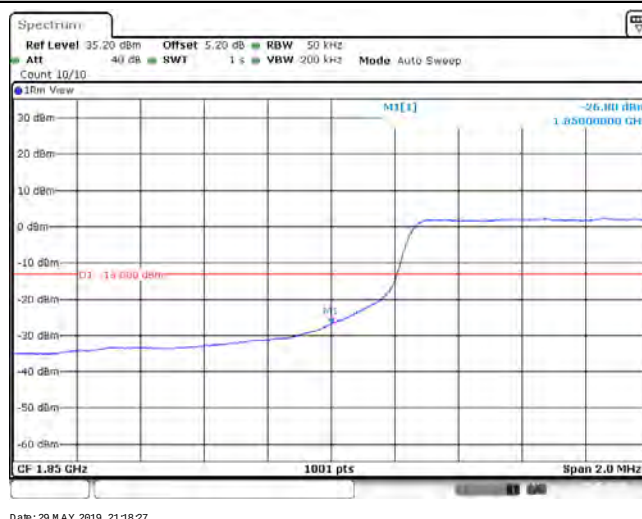


Band2_5MHz_16QAM_18625_1RB#0





Band2_5MHz_16QAM_18625_25RB#0

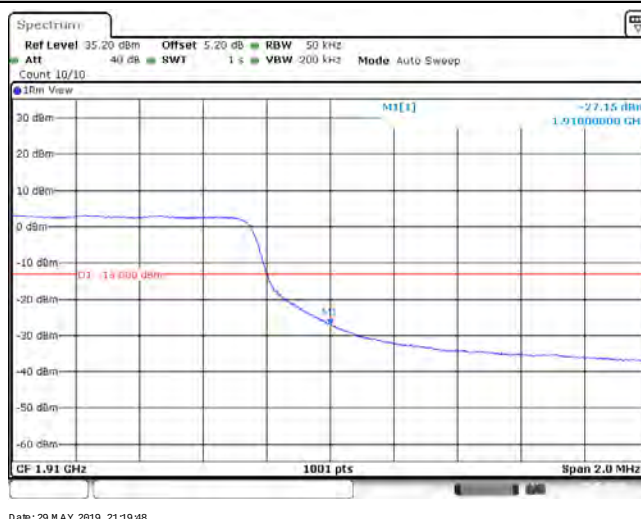


Band2_5MHz_16QAM_19175_1RB#24



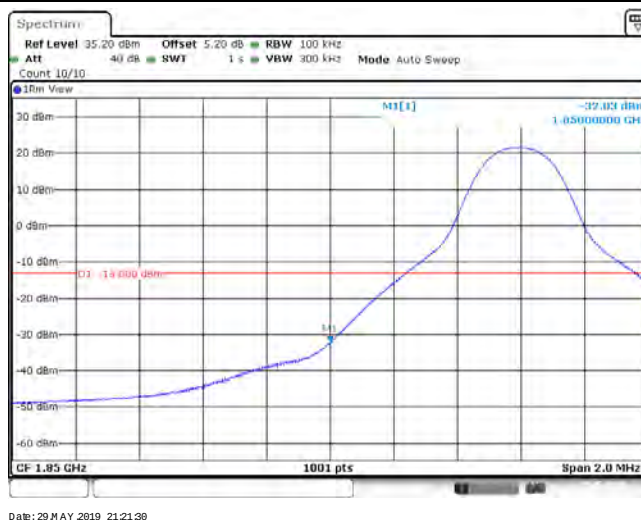


Band2_5MHz_16QAM_19175_25RB#0

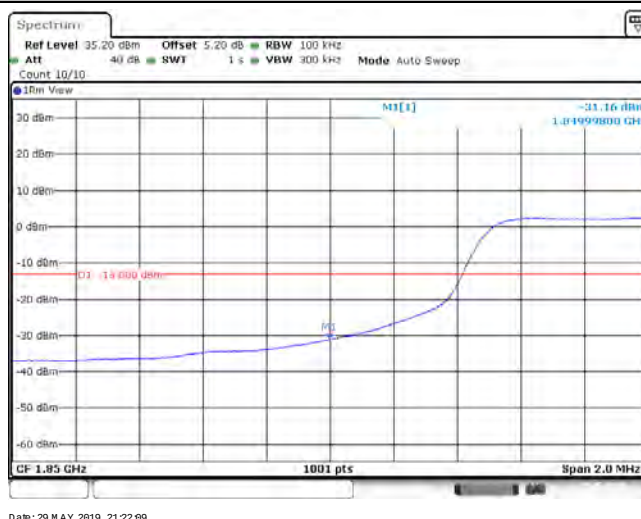


Band2_10MHz_QPSK_18650_1RB#0





Band2_10MHz_QPSK_18650_50RB#0



Band2_10MHz_QPSK_19150_1RB#49





Date: 29 MAY 2019 21:22:52

Band2_10MHz_QPSK_19150_50RB#0



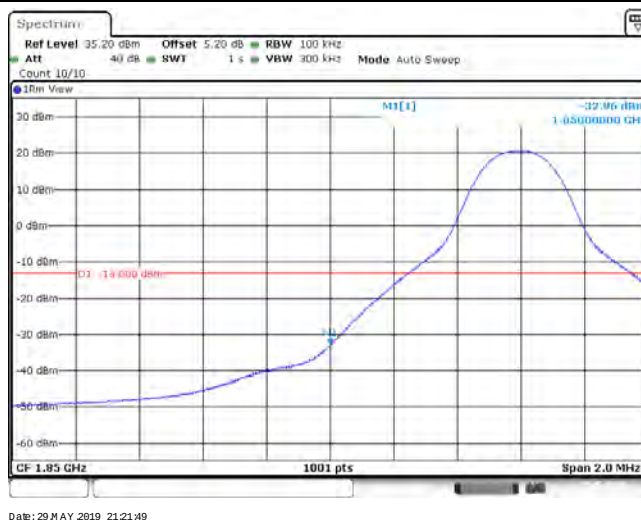
Date: 29 MAY 2019 21:23:31

Band2_10MHz_16QAM_18650_1RB#0

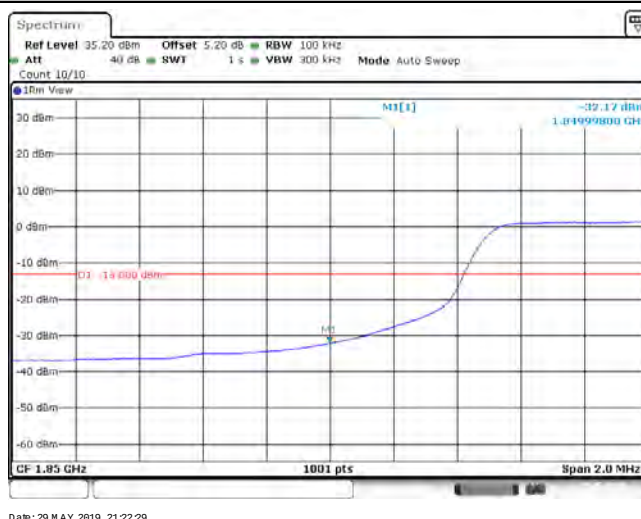


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

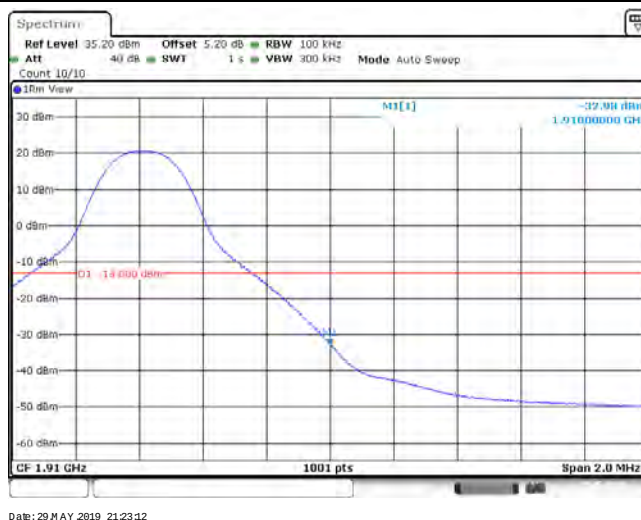


Band2_10MHz_16QAM_18650_50RB#0

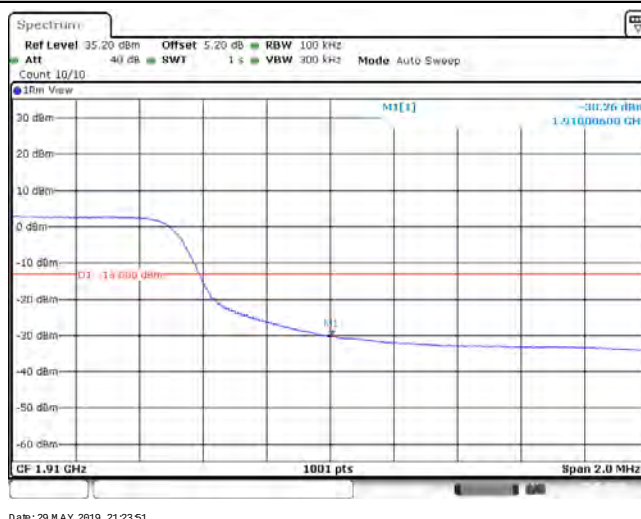


Band2_10MHz_16QAM_19150_1RB#49



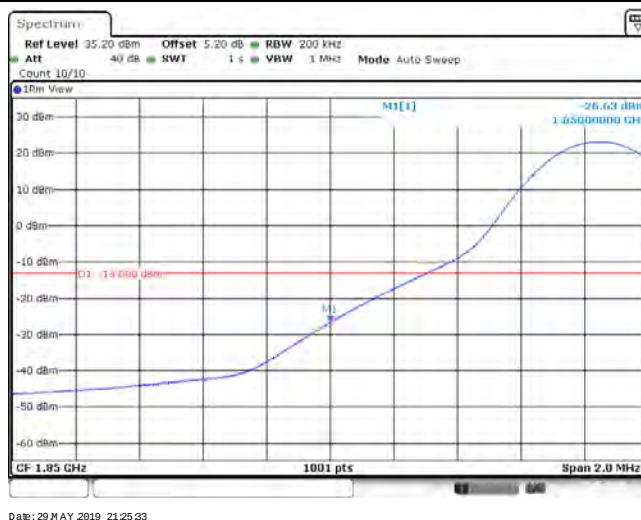


Band2_10MHz_16QAM_19150_50RB#0

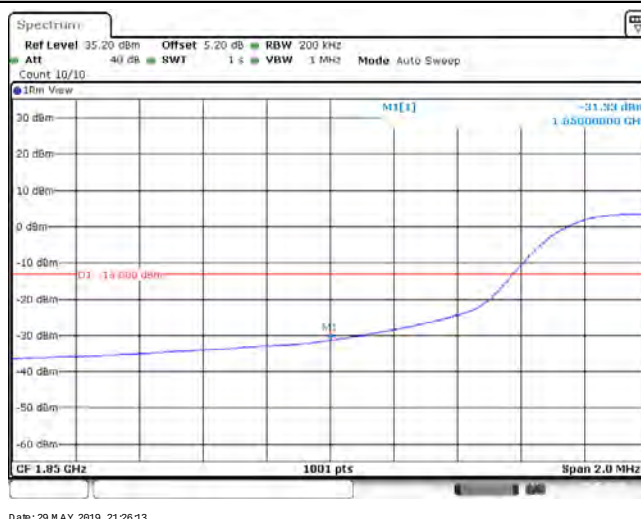


Band2_15MHz_QPSK_18675_1RB#0



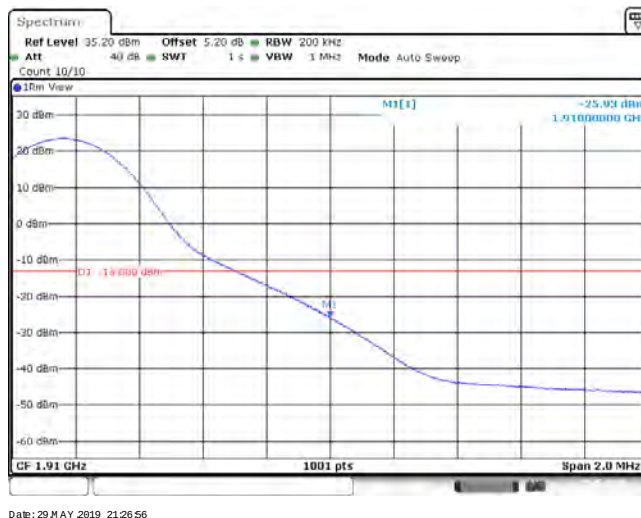


Band2_15MHz_QPSK_18675_75RB#0



Band2_15MHz_QPSK_19125_1RB#74





Band2_15MHz_QPSK_19125_75RB#0

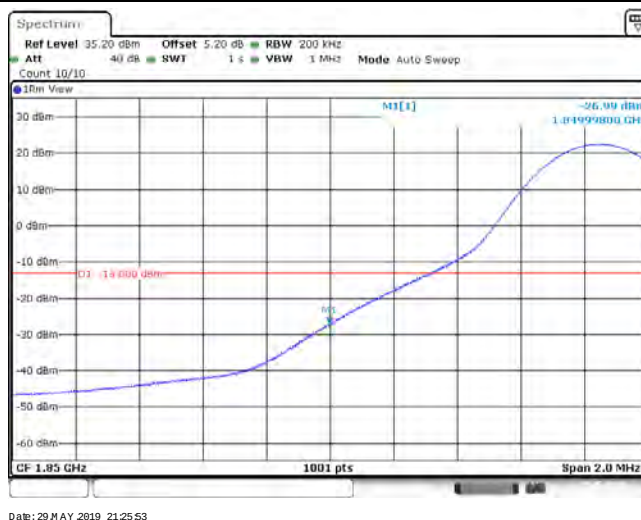


Band2_15MHz_16QAM_18675_1RB#0



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



Band2_15MHz_16QAM_18675_75RB#0

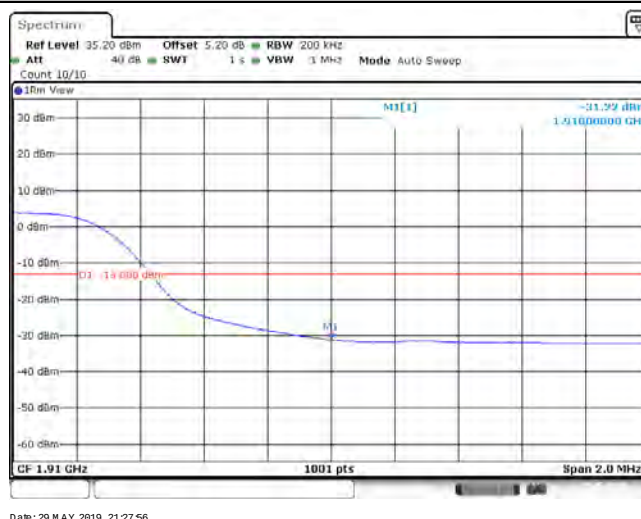


Band2_15MHz_16QAM_19125_1RB#74





Band2	15MHz	16QAM	19125	75RB#0
-------	-------	-------	-------	--------



Band2 20MHz QPSK 18700 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 authorized to use the information contained herein for reference only and is not permitted to use the information for any other purpose without the Client's instructions. Any Company sole responsibility 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 strictly prohibited and may result in severe civil or criminal penalties. The results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Results shown in this test report are only for 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 21:29:39

Band2_20MHz_QPSK_18700_100RB#0



Date: 29 MAY 2019 21:30:28

Band2_20MHz_QPSK_19100_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 21:31:04

Band2_20MHz_QPSK_19100_100RB#0



Date: 29 MAY 2019 21:31:05

Band2_20MHz_16QAM_18700_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 21:39:00

Band2_20MHz_16QAM_18700_100RB#0



Date: 29 MAY 2019 21:39:41

Band2_20MHz_16QAM_19100_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 21:31:25

Band2_20MHz_16QAM_19100_100RB#0



Date: 29 MAY 2019 21:32:06





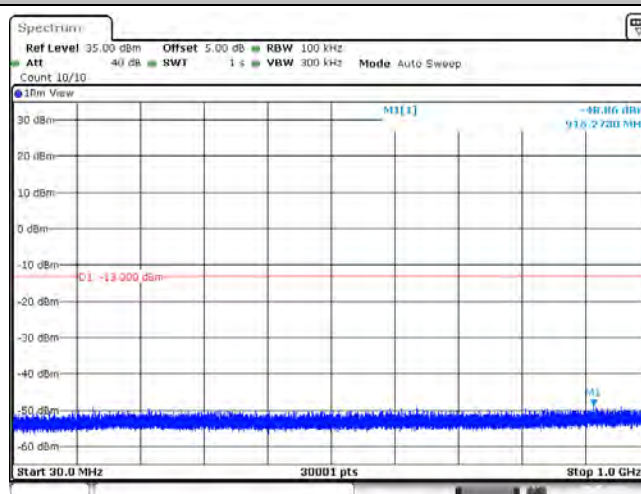
6. Spurious Emission at Antenna Terminal

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.

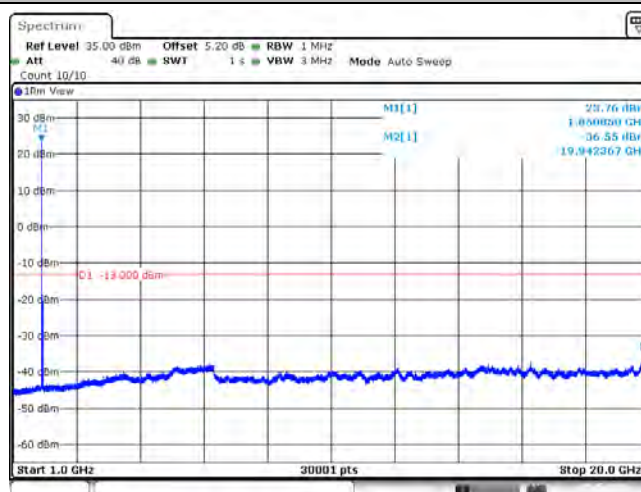
6.1. Test Plots

Band2_20MHz_QPSK_18700_1RB#0



Date: 29 MAY 2019 21:32:28

Band2_20MHz_QPSK_18700_1RB#0



Date: 29 MAY 2019 21:32:47

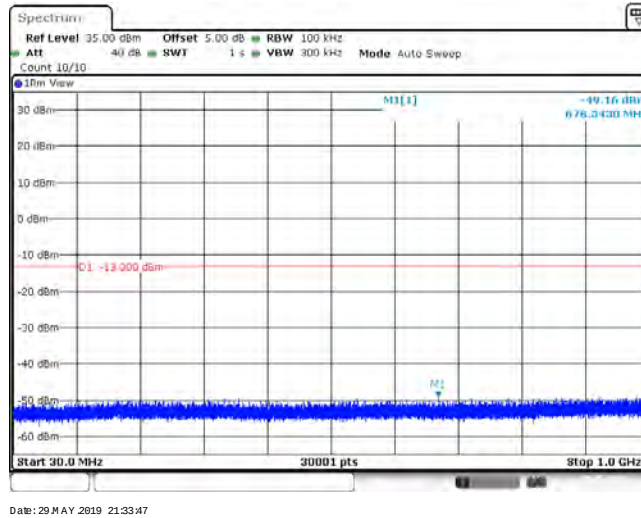
Band2_20MHz_QPSK_18900_1RB#0



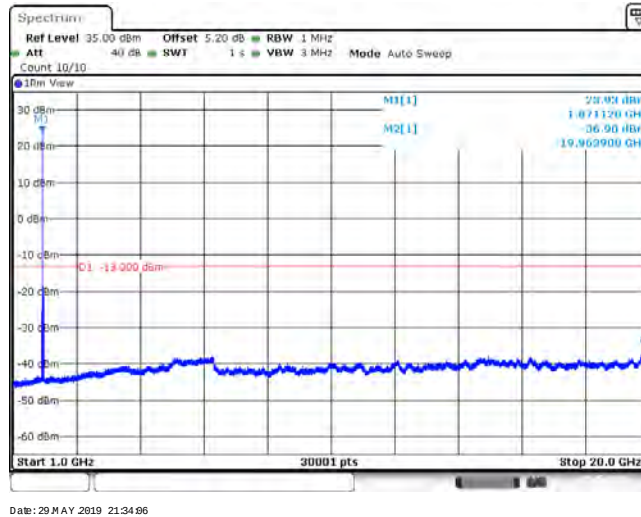
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

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

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



Band2_20MHz_QPSK_18900_1RB#0

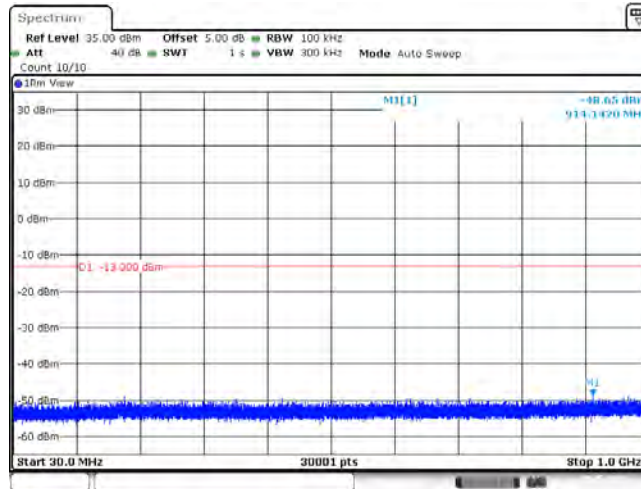


Band2_20MHz_QPSK_19100_1RB#0



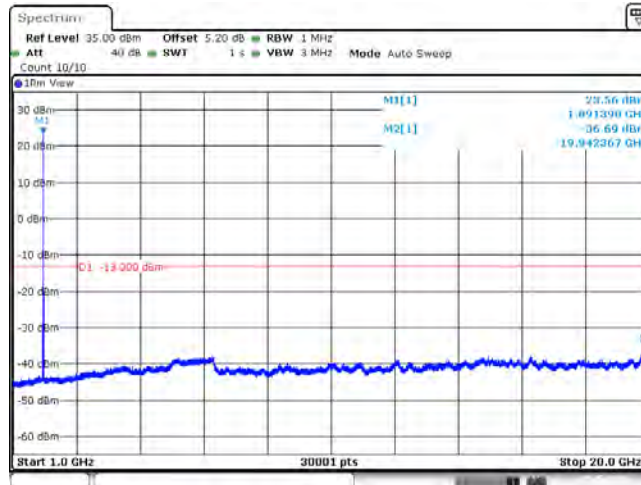
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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 21:35:06

Band2_20MHz_QPSK_19100_1RB#0



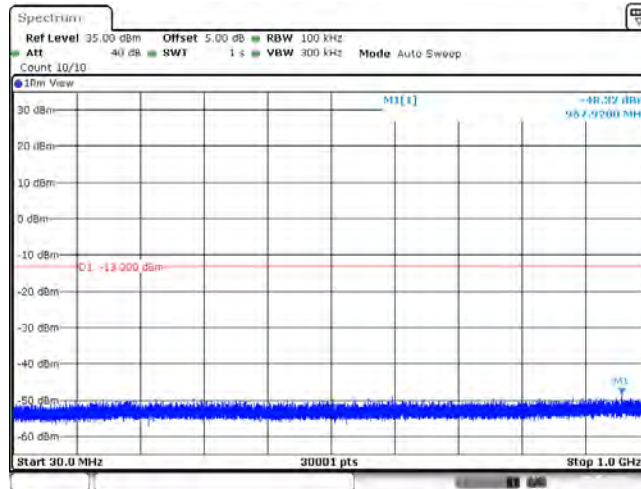
Date: 29 MAY 2019 21:35:25

Band2_20MHz_16QAM_18700_1RB#0



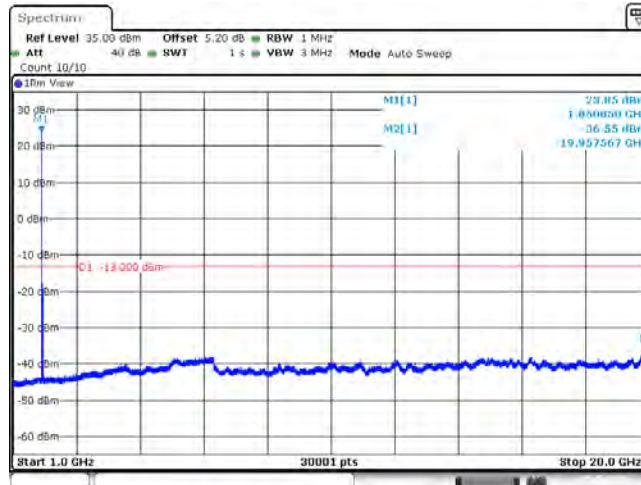
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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 21:33:06

Band2_20MHz_16QAM_18700_1RB#0



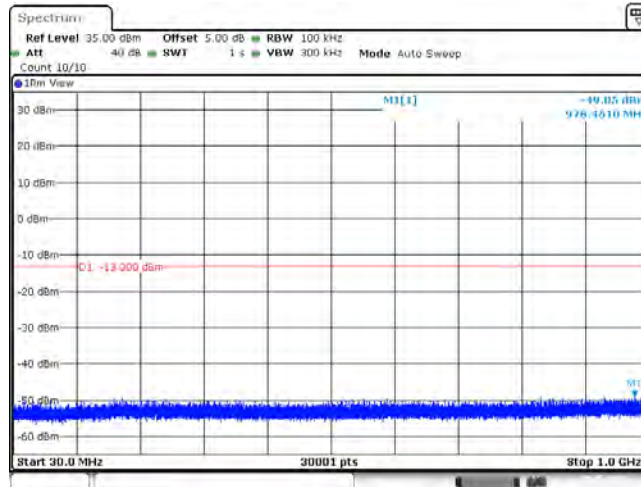
Date: 29 MAY 2019 21:33:25

Band2_20MHz_16QAM_18900_1RB#0



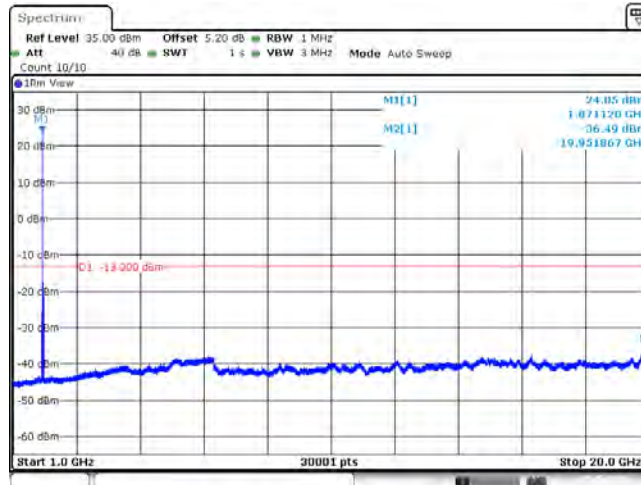
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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 21:34:25

Band2_20MHz_16QAM_18900_1RB#0



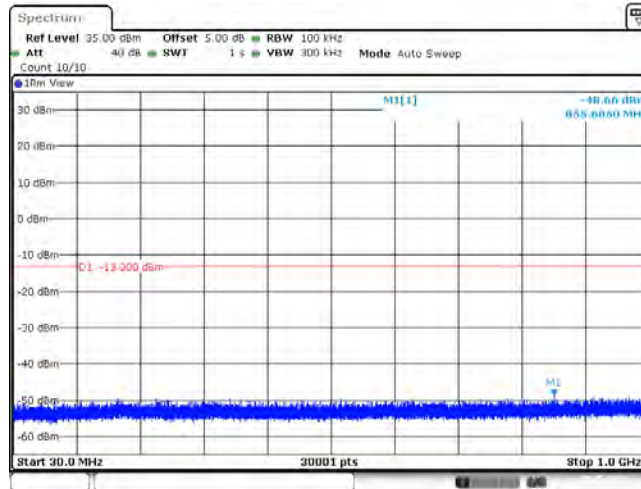
Date: 29 MAY 2019 21:34:44

Band2_20MHz_16QAM_19100_1RB#0



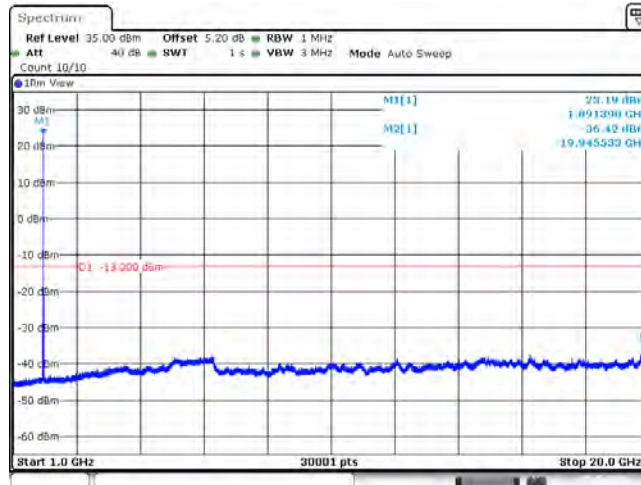
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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 21:35:45

Band2_20MHz_16QAM_19100_1RB#0



Date: 29 MAY 2019 21:36:04



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 2

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
64.700000	-80.72	-13.00	67.72	Vertical
104.300000	-81.82	-13.00	68.82	Vertical
3702.000000	-54.61	-13.00	41.61	Vertical
5553.200000	-53.27	-13.00	40.27	Vertical
7404.075000	-59.48	-13.00	46.48	Vertical
9255.600000	-60.09	-13.00	47.09	Vertical
56.350000	-75.98	-13.00	62.98	Horizontal
224.300000	-72.00	-13.00	59.00	Horizontal
673.025000	-75.44	-13.00	62.44	Horizontal
3702.325000	-54.94	-13.00	41.94	Horizontal
5553.200000	-54.03	-13.00	41.03	Horizontal
9226.350000	-61.51	-13.00	48.51	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.400000	-80.93	-13.00	67.93	Vertical
125.000000	-84.86	-13.00	71.86	Vertical
825.787500	-75.23	-13.00	62.23	Vertical
3741.975000	-61.62	-13.00	48.62	Vertical
5613.000000	-53.05	-13.00	40.05	Vertical
7484.350000	-62.28	-13.00	49.28	Vertical
55.200000	-76.36	-13.00	63.36	Horizontal
104.300000	-86.10	-13.00	73.10	Horizontal
952.837500	-74.66	-13.00	61.66	Horizontal
3741.975000	-63.49	-13.00	50.49	Horizontal
5613.325000	-56.83	-13.00	43.83	Horizontal
7916.925000	-61.94	-13.00	48.94	Horizontal





7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
63.450000	-80.71	-13.00	67.71	Vertical
104.300000	-82.13	-13.00	69.13	Vertical
3781.950000	-54.88	-13.00	41.88	Vertical
5673.125000	-50.56	-13.00	37.56	Vertical
7564.625000	-58.57	-13.00	45.57	Vertical
9455.475000	-61.01	-13.00	48.01	Vertical
62.350000	-76.31	-13.00	63.31	Horizontal
104.350000	-83.38	-13.00	70.38	Horizontal
950.591667	-75.27	-13.00	62.27	Horizontal
3781.950000	-56.15	-13.00	43.15	Horizontal
5673.125000	-56.37	-13.00	43.37	Horizontal
7564.625000	-62.44	-13.00	49.44	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.





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
Band2	20MHz	QPSK	18700	100RB#0	VL	NT	3.40	0.001828	±2.5	PASS
Band2	20MHz	QPSK	18700	100RB#0	VN	NT	1.70	0.000914	±2.5	PASS
Band2	20MHz	QPSK	18700	100RB#0	VH	NT	0.60	0.000323	±2.5	PASS
Band2	20MHz	QPSK	18900	100RB#0	VL	NT	-1.50	-0.000798	±2.5	PASS
Band2	20MHz	QPSK	18900	100RB#0	VN	NT	-0.60	-0.000319	±2.5	PASS
Band2	20MHz	QPSK	18900	100RB#0	VH	NT	-1.40	-0.000745	±2.5	PASS
Band2	20MHz	QPSK	19100	100RB#0	VL	NT	-3.90	-0.002053	±2.5	PASS
Band2	20MHz	QPSK	19100	100RB#0	VN	NT	-2.80	-0.001474	±2.5	PASS
Band2	20MHz	QPSK	19100	100RB#0	VH	NT	-5.40	-0.002842	±2.5	PASS
Band2	20MHz	16QAM	18700	100RB#0	VL	NT	5.10	0.002742	±2.5	PASS
Band2	20MHz	16QAM	18700	100RB#0	VN	NT	1.80	0.000968	±2.5	PASS
Band2	20MHz	16QAM	18700	100RB#0	VH	NT	2.70	0.001452	±2.5	PASS
Band2	20MHz	16QAM	18900	100RB#0	VL	NT	-1.10	-0.000585	±2.5	PASS
Band2	20MHz	16QAM	18900	100RB#0	VN	NT	0.10	0.000053	±2.5	PASS
Band2	20MHz	16QAM	18900	100RB#0	VH	NT	1.80	0.000957	±2.5	PASS
Band2	20MHz	16QAM	19100	100RB#0	VL	NT	-2.90	-0.001526	±2.5	PASS
Band2	20MHz	16QAM	19100	100RB#0	VN	NT	-1.40	-0.000737	±2.5	PASS
Band2	20MHz	16QAM	19100	100RB#0	VH	NT	-2.50	-0.001316	±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
Band2	20MHz	QPSK	18700	100RB#0	NV	-30	2.20	0.001183	±2.5	PASS
Band2	20MHz	QPSK	18700	100RB#0	NV	-20	1.80	0.000968	±2.5	PASS
Band2	20MHz	QPSK	18700	100RB#0	NV	0	2.90	0.001559	±2.5	PASS
Band2	20MHz	QPSK	18700	100RB#0	NV	10	2.70	0.001452	±2.5	PASS
Band2	20MHz	QPSK	18700	100RB#0	NV	20	0.60	0.000323	±2.5	PASS
Band2	20MHz	QPSK	18700	100RB#0	NV	30	2.70	0.001452	±2.5	PASS
Band2	20MHz	QPSK	18700	100RB#0	NV	40	1.00	0.000538	±2.5	PASS
Band2	20MHz	QPSK	18700	100RB#0	NV	50	2.60	0.001398	±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



Band2	20MHz	QPSK	18900	100RB#0	NV	-30	-0.80	-0.000426	±2.5	PASS
Band2	20MHz	QPSK	18900	100RB#0	NV	-20	1.40	0.000745	±2.5	PASS
Band2	20MHz	QPSK	18900	100RB#0	NV	0	-0.60	-0.000319	±2.5	PASS
Band2	20MHz	QPSK	18900	100RB#0	NV	10	2.00	0.001064	±2.5	PASS
Band2	20MHz	QPSK	18900	100RB#0	NV	20	-1.40	-0.000745	±2.5	PASS
Band2	20MHz	QPSK	18900	100RB#0	NV	30	3.20	0.001702	±2.5	PASS
Band2	20MHz	QPSK	18900	100RB#0	NV	40	-0.40	-0.000213	±2.5	PASS
Band2	20MHz	QPSK	18900	100RB#0	NV	50	-2.30	-0.001223	±2.5	PASS
Band2	20MHz	QPSK	19100	100RB#0	NV	-30	-4.10	-0.002158	±2.5	PASS
Band2	20MHz	QPSK	19100	100RB#0	NV	-20	-2.50	-0.001316	±2.5	PASS
Band2	20MHz	QPSK	19100	100RB#0	NV	0	-1.70	-0.000895	±2.5	PASS
Band2	20MHz	QPSK	19100	100RB#0	NV	10	-4.00	-0.002105	±2.5	PASS
Band2	20MHz	QPSK	19100	100RB#0	NV	20	-3.00	-0.001579	±2.5	PASS
Band2	20MHz	QPSK	19100	100RB#0	NV	30	-2.00	-0.001053	±2.5	PASS
Band2	20MHz	QPSK	19100	100RB#0	NV	40	-3.90	-0.002053	±2.5	PASS
Band2	20MHz	QPSK	19100	100RB#0	NV	50	-3.70	-0.001947	±2.5	PASS
Band2	20MHz	16QAM	18700	100RB#0	NV	-30	1.70	0.000914	±2.5	PASS
Band2	20MHz	16QAM	18700	100RB#0	NV	-20	-0.10	-0.000054	±2.5	PASS
Band2	20MHz	16QAM	18700	100RB#0	NV	0	0.00	0.000000	±2.5	PASS
Band2	20MHz	16QAM	18700	100RB#0	NV	10	2.90	0.001559	±2.5	PASS
Band2	20MHz	16QAM	18700	100RB#0	NV	20	1.60	0.000860	±2.5	PASS
Band2	20MHz	16QAM	18700	100RB#0	NV	30	1.10	0.000591	±2.5	PASS
Band2	20MHz	16QAM	18700	100RB#0	NV	40	1.90	0.001022	±2.5	PASS
Band2	20MHz	16QAM	18700	100RB#0	NV	50	-0.30	-0.000161	±2.5	PASS
Band2	20MHz	16QAM	18900	100RB#0	NV	-30	-0.80	-0.000426	±2.5	PASS
Band2	20MHz	16QAM	18900	100RB#0	NV	-20	1.60	0.000851	±2.5	PASS
Band2	20MHz	16QAM	18900	100RB#0	NV	0	-0.30	-0.000160	±2.5	PASS
Band2	20MHz	16QAM	18900	100RB#0	NV	10	0.70	0.000372	±2.5	PASS
Band2	20MHz	16QAM	18900	100RB#0	NV	20	1.20	0.000638	±2.5	PASS
Band2	20MHz	16QAM	18900	100RB#0	NV	30	0.90	0.000479	±2.5	PASS
Band2	20MHz	16QAM	18900	100RB#0	NV	40	2.90	0.001543	±2.5	PASS
Band2	20MHz	16QAM	18900	100RB#0	NV	50	2.40	0.001277	±2.5	PASS
Band2	20MHz	16QAM	19100	100RB#0	NV	-30	-0.60	-0.000316	±2.5	PASS
Band2	20MHz	16QAM	19100	100RB#0	NV	-20	-2.00	-0.001053	±2.5	PASS
Band2	20MHz	16QAM	19100	100RB#0	NV	0	-2.10	-0.001105	±2.5	PASS
Band2	20MHz	16QAM	19100	100RB#0	NV	10	-4.20	-0.002211	±2.5	PASS
Band2	20MHz	16QAM	19100	100RB#0	NV	20	-3.60	-0.001895	±2.5	PASS
Band2	20MHz	16QAM	19100	100RB#0	NV	30	-4.20	-0.002211	±2.5	PASS



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

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



Band2	20MHz	16QAM	19100	100RB#0	NV	40	-1.30	-0.000684	±2.5	PASS
Band2	20MHz	16QAM	19100	100RB#0	NV	50	-3.90	-0.002053	±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