



Appendix B

E-UTRA Band 4



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

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



CONTENT

1	EFFECTIVE (ISOTROPIC) RADIATED POWER.....	3
1.1.	TEST RESULT.....	3
2.	PEAK-TO-AVERAGE RATIO (CCDF).....	10
2.1.	TEST RESULT.....	10
2.2.	TEST PLOTS.....	10
3.	MODULATION CHARACTERISTICS.....	14
3.1.	TEST MODE = LTE /TM1 20MHZ.....	14
3.1.1.	TEST CHANNEL = MCH.....	14
3.2.	TEST MODE = LTE /TM2 20MHZ.....	15
3.2.1.	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 MODE =LTE/TM1.....	65
7.1.1.	TEST CHANNEL = LCH.....	65
7.1.2.	TEST CHANNEL = MCH.....	65
7.1.3.	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-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 (SGS-CSTC Laboratory)

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



1 Effective (Isotropic) Radiated Power

1.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band4	1.4MHz	QPSK	19957	1RB#0	21.26	21.96	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#2	21.31	22.01	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#5	20.94	21.64	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#0	21.21	21.91	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#2	21.29	21.99	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#3	21.04	21.74	30.00	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	20.15	20.85	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	20.95	21.65	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#2	21.13	21.83	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#5	20.57	21.27	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#0	20.88	21.58	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#2	21.07	21.77	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#3	20.54	21.24	30.00	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	20.01	20.71	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	20.87	21.57	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#2	21.53	22.23	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#5	21.04	21.74	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#0	20.91	21.61	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#2	21.48	22.18	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#3	20.98	21.68	30.00	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	20.23	20.93	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	20.05	20.75	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#2	20.29	20.99	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#5	19.51	20.21	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#0	20.11	20.81	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#2	20.32	21.02	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#3	19.69	20.39	30.00	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	19.00	19.70	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	19.79	20.49	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#2	19.65	20.35	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#5	19.55	20.25	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#0	19.83	20.53	30.00	PASS



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

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



Band4	1.4MHz	16QAM	20175	3RB#2	19.69	20.39	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#3	19.73	20.43	30.00	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	18.96	19.66	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	19.55	20.25	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#2	19.70	20.40	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#5	20.21	20.91	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#0	19.57	20.27	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#2	19.69	20.39	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#3	20.16	20.86	30.00	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	18.99	19.69	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#0	21.21	21.91	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#7	21.30	22.00	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#14	20.92	21.62	30.00	PASS
Band4	3MHz	QPSK	19965	15RB#0	20.15	20.85	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#0	20.23	20.93	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#7	20.03	20.73	30.00	PASS
Band4	3MHz	QPSK	19965	15RB#0	20.17	20.87	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#0	20.92	21.62	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#7	21.11	21.81	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#14	20.57	21.27	30.00	PASS
Band4	3MHz	QPSK	20175	15RB#0	20.14	20.84	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#0	20.13	20.83	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#7	20.04	20.74	30.00	PASS
Band4	3MHz	QPSK	20175	15RB#0	20.00	20.70	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#0	20.86	21.56	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#7	21.48	22.18	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#14	21.04	21.74	30.00	PASS
Band4	3MHz	QPSK	20385	15RB#0	20.16	20.86	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#0	20.25	20.95	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#7	20.17	20.87	30.00	PASS
Band4	3MHz	QPSK	20385	15RB#0	20.22	20.92	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#0	20.08	20.78	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#7	20.25	20.95	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#14	19.55	20.25	30.00	PASS
Band4	3MHz	16QAM	19965	15RB#0	19.02	19.72	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#0	19.09	19.79	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#7	18.92	19.62	30.00	PASS
Band4	3MHz	16QAM	19965	15RB#0	18.94	19.64	30.00	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.

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



Band4	3MHz	16QAM	20175	1RB#0	19.77	20.47	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#7	19.66	20.36	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#14	19.58	20.28	30.00	PASS
Band4	3MHz	16QAM	20175	15RB#0	19.11	19.81	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#0	19.14	19.84	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#7	19.11	19.81	30.00	PASS
Band4	3MHz	16QAM	20175	15RB#0	18.96	19.66	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#0	19.56	20.26	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#7	19.77	20.47	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#14	20.19	20.89	30.00	PASS
Band4	3MHz	16QAM	20385	15RB#0	19.06	19.76	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#0	19.17	19.87	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#7	19.04	19.74	30.00	PASS
Band4	3MHz	16QAM	20385	15RB#0	18.96	19.66	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#0	21.21	21.91	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#13	21.29	21.99	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#24	21.00	21.70	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#0	20.12	20.82	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#6	20.20	20.90	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#13	20.07	20.77	30.00	PASS
Band4	5MHz	QPSK	19975	25RB#0	20.15	20.85	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#0	20.88	21.58	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#13	21.04	21.74	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#24	20.59	21.29	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#0	20.12	20.82	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#6	20.07	20.77	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#13	20.04	20.74	30.00	PASS
Band4	5MHz	QPSK	20175	25RB#0	20.04	20.74	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#0	20.95	21.65	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#13	21.48	22.18	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#24	20.98	21.68	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#0	20.14	20.84	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#6	20.30	21.00	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#13	20.13	20.83	30.00	PASS
Band4	5MHz	QPSK	20375	25RB#0	20.14	20.84	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#0	20.10	20.80	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#13	20.29	20.99	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#24	19.54	20.24	30.00	PASS



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

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



Band4	5MHz	16QAM	19975	12RB#0	18.98	19.68	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#6	19.11	19.81	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#13	18.91	19.61	30.00	PASS
Band4	5MHz	16QAM	19975	25RB#0	18.93	19.63	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#0	19.86	20.56	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#13	19.67	20.37	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#24	19.55	20.25	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#0	19.12	19.82	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#6	19.20	19.90	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#13	19.07	19.77	30.00	PASS
Band4	5MHz	16QAM	20175	25RB#0	18.97	19.67	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#0	19.56	20.26	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#13	19.69	20.39	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#24	20.24	20.94	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#0	19.04	19.74	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#6	19.19	19.89	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#13	19.04	19.74	30.00	PASS
Band4	5MHz	16QAM	20375	25RB#0	19.00	19.70	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#0	21.26	21.96	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#25	21.30	22.00	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#49	20.97	21.67	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#0	20.19	20.89	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#13	20.25	20.95	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#25	20.02	20.72	30.00	PASS
Band4	10MHz	QPSK	20000	50RB#0	20.12	20.82	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#0	20.91	21.61	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#25	21.09	21.79	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#49	20.58	21.28	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#0	20.15	20.85	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#13	20.11	20.81	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#25	20.03	20.73	30.00	PASS
Band4	10MHz	QPSK	20175	50RB#0	20.04	20.74	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#0	20.93	21.63	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#25	21.57	22.27	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#49	21.06	21.76	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#0	20.24	20.94	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#13	20.23	20.93	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#25	20.20	20.90	30.00	PASS



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

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



Band4	10MHz	QPSK	20350	50RB#0	20.18	20.88	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#0	20.07	20.77	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#25	20.30	21.00	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#49	19.60	20.30	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#0	18.99	19.69	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#13	19.08	19.78	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#25	18.88	19.58	30.00	PASS
Band4	10MHz	16QAM	20000	50RB#0	18.98	19.68	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#0	19.81	20.51	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#25	19.69	20.39	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#49	19.65	20.35	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#0	19.16	19.86	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#13	19.17	19.87	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#25	19.07	19.77	30.00	PASS
Band4	10MHz	16QAM	20175	50RB#0	19.02	19.72	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#0	19.50	20.20	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#25	19.69	20.39	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#49	20.16	20.86	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#0	19.11	19.81	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#13	19.17	19.87	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#25	19.05	19.75	30.00	PASS
Band4	10MHz	16QAM	20350	50RB#0	19.01	19.71	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#0	21.18	21.88	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#38	21.27	21.97	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#74	20.98	21.68	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#0	20.16	20.86	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#18	20.23	20.93	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#39	20.01	20.71	30.00	PASS
Band4	15MHz	QPSK	20025	75RB#0	20.15	20.85	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#0	20.89	21.59	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#38	21.13	21.83	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#74	20.61	21.31	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#0	20.19	20.89	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#18	20.11	20.81	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#39	20.01	20.71	30.00	PASS
Band4	15MHz	QPSK	20175	75RB#0	20.02	20.72	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#0	20.88	21.58	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#38	21.57	22.27	30.00	PASS



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

Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 83071443, 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



Band4	15MHz	QPSK	20325	1RB#74	20.98	21.68	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#0	20.14	20.84	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#18	20.29	20.99	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#39	20.23	20.93	30.00	PASS
Band4	15MHz	QPSK	20325	75RB#0	20.22	20.92	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#0	20.08	20.78	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#38	20.28	20.98	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#74	19.53	20.23	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#0	19.03	19.73	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#18	19.06	19.76	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#39	18.91	19.61	30.00	PASS
Band4	15MHz	16QAM	20025	75RB#0	18.98	19.68	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#0	19.78	20.48	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#38	19.69	20.39	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#74	19.60	20.30	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#0	19.12	19.82	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#18	19.17	19.87	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#39	19.04	19.74	30.00	PASS
Band4	15MHz	16QAM	20175	75RB#0	19.01	19.71	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#0	19.53	20.23	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#38	19.71	20.41	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#74	20.18	20.88	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#0	19.07	19.77	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#18	19.21	19.91	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#39	19.08	19.78	30.00	PASS
Band4	15MHz	16QAM	20325	75RB#0	19.03	19.73	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#0	21.36	22.06	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#50	21.46	22.16	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#99	21.11	21.81	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#0	20.30	21.00	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#25	20.38	21.08	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#50	20.19	20.89	30.00	PASS
Band4	20MHz	QPSK	20050	100RB#0	20.30	21.00	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#0	21.08	21.78	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#50	21.44	22.14	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#99	20.76	21.46	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#0	20.29	20.99	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#25	20.23	20.93	30.00	PASS



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

Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 83071443, 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



Band4	20MHz	QPSK	20175	50RB#50	20.14	20.84	30.00	PASS
Band4	20MHz	QPSK	20175	100RB#0	20.20	20.90	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#0	21.06	21.76	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#50	21.68	22.38	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#99	21.18	21.88	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#0	20.34	21.04	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#25	20.43	21.13	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#50	20.33	21.03	30.00	PASS
Band4	20MHz	QPSK	20300	100RB#0	20.34	21.04	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#0	20.21	20.91	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#50	20.42	21.12	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#99	19.71	20.41	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#0	19.14	19.84	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#25	19.21	19.91	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#50	19.08	19.78	30.00	PASS
Band4	20MHz	16QAM	20050	100RB#0	19.10	19.80	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#0	19.96	20.66	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#50	19.83	20.53	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#99	19.75	20.45	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#0	19.29	19.99	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#25	19.33	20.03	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#50	19.22	19.92	30.00	PASS
Band4	20MHz	16QAM	20175	100RB#0	19.13	19.83	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#0	19.69	20.39	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#50	19.88	20.58	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#99	20.36	21.06	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#0	19.21	19.91	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#25	19.34	20.04	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#50	19.20	19.90	30.00	PASS
Band4	20MHz	16QAM	20300	100RB#0	19.14	19.84	30.00	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.

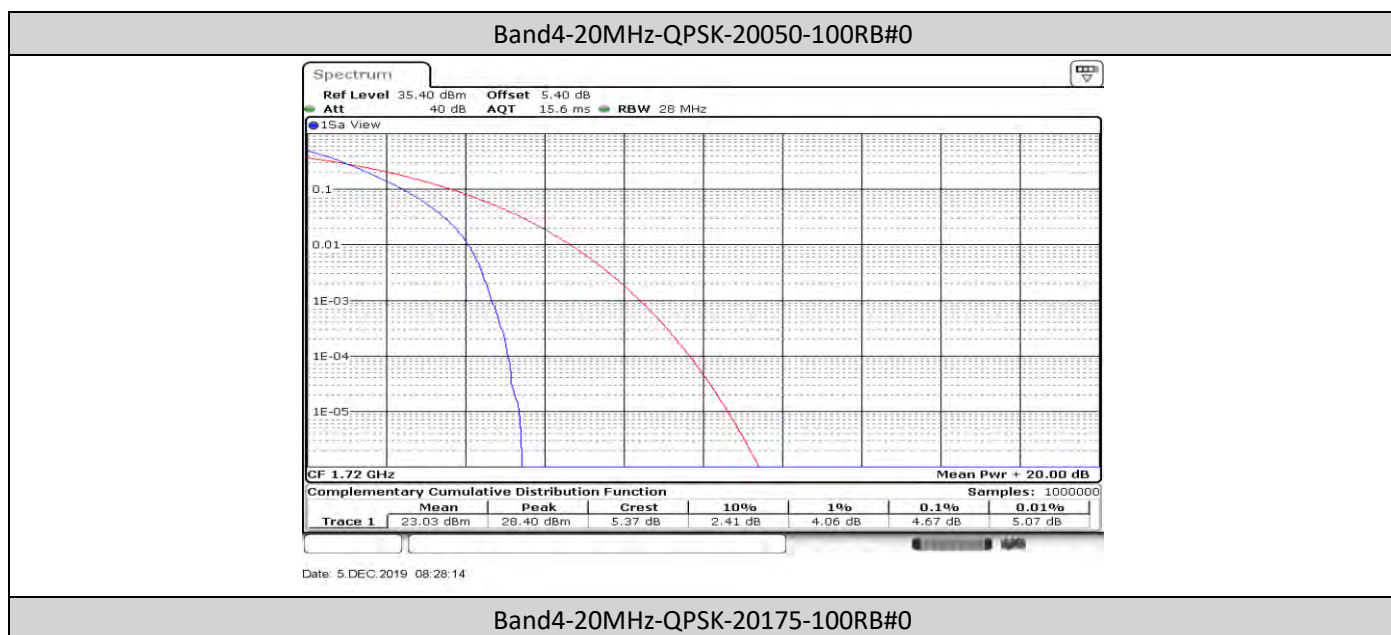
Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: CN.Doccheck@sgs.com
 No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
 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
Band4	20MHz	QPSK	20050	100RB#0	4.67	13	PASS
Band4	20MHz	QPSK	20175	100RB#0	4.87	13	PASS
Band4	20MHz	QPSK	20300	100RB#0	4.96	13	PASS
Band4	20MHz	16QAM	20050	100RB#0	5.62	13	PASS
Band4	20MHz	16QAM	20175	100RB#0	5.77	13	PASS
Band4	20MHz	16QAM	20300	100RB#0	5.86	13	PASS

2.2. Test Plots



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 deemed to have accepted the terms and conditions of the document and to have agreed to be bound by the limitation of 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. Samples are otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

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



Band4-20MHz-QPSK-20300-100RB#0



Band4-20MHz-16QAM-20050-100RB#0



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



Band4-20MHz-16QAM-20175-100RB#0



Band4-20MHz-16QAM-20300-100RB#0



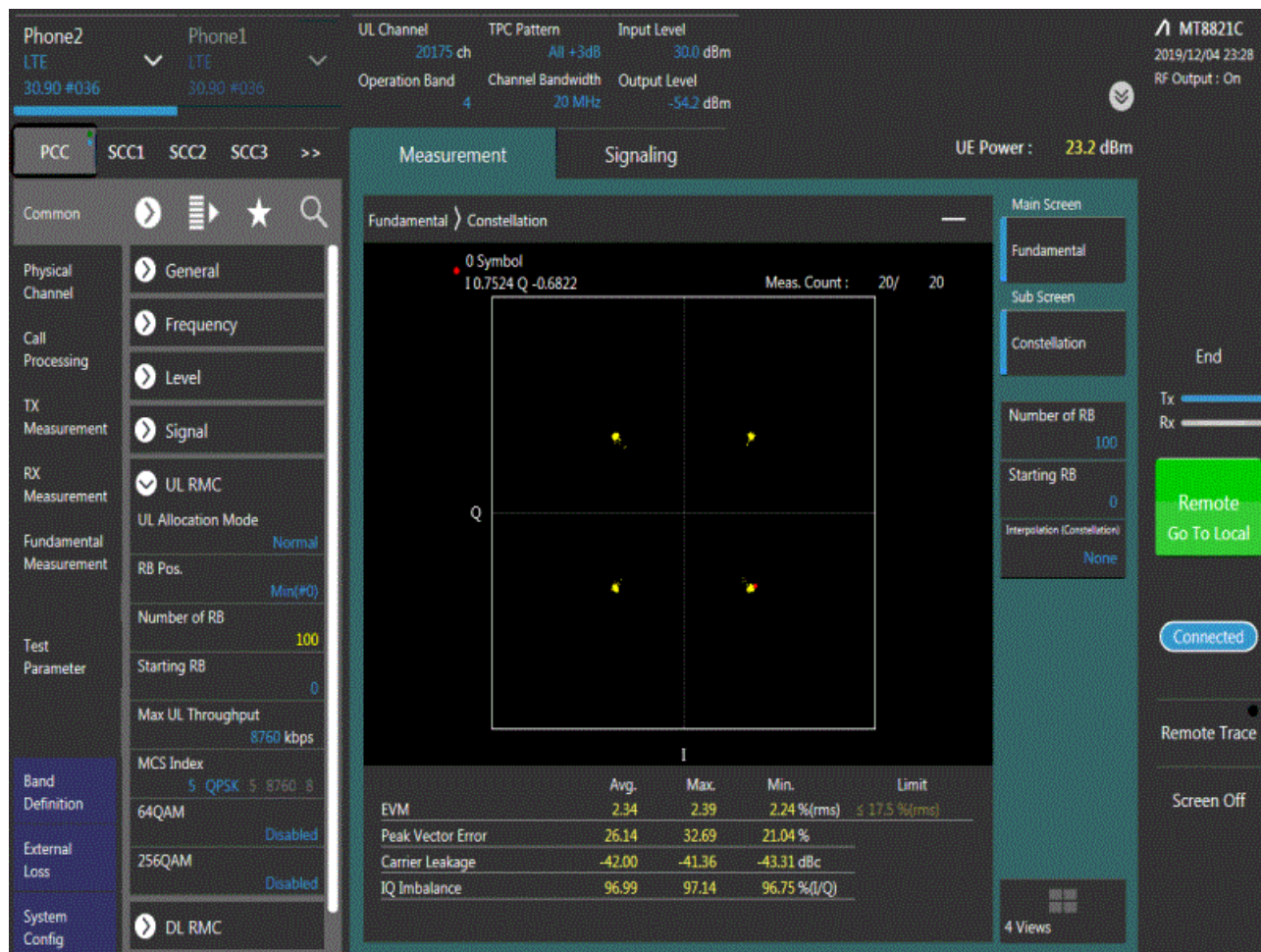




3. Modulation Characteristics

3.1. Test Mode = LTE /TM1 20MHz

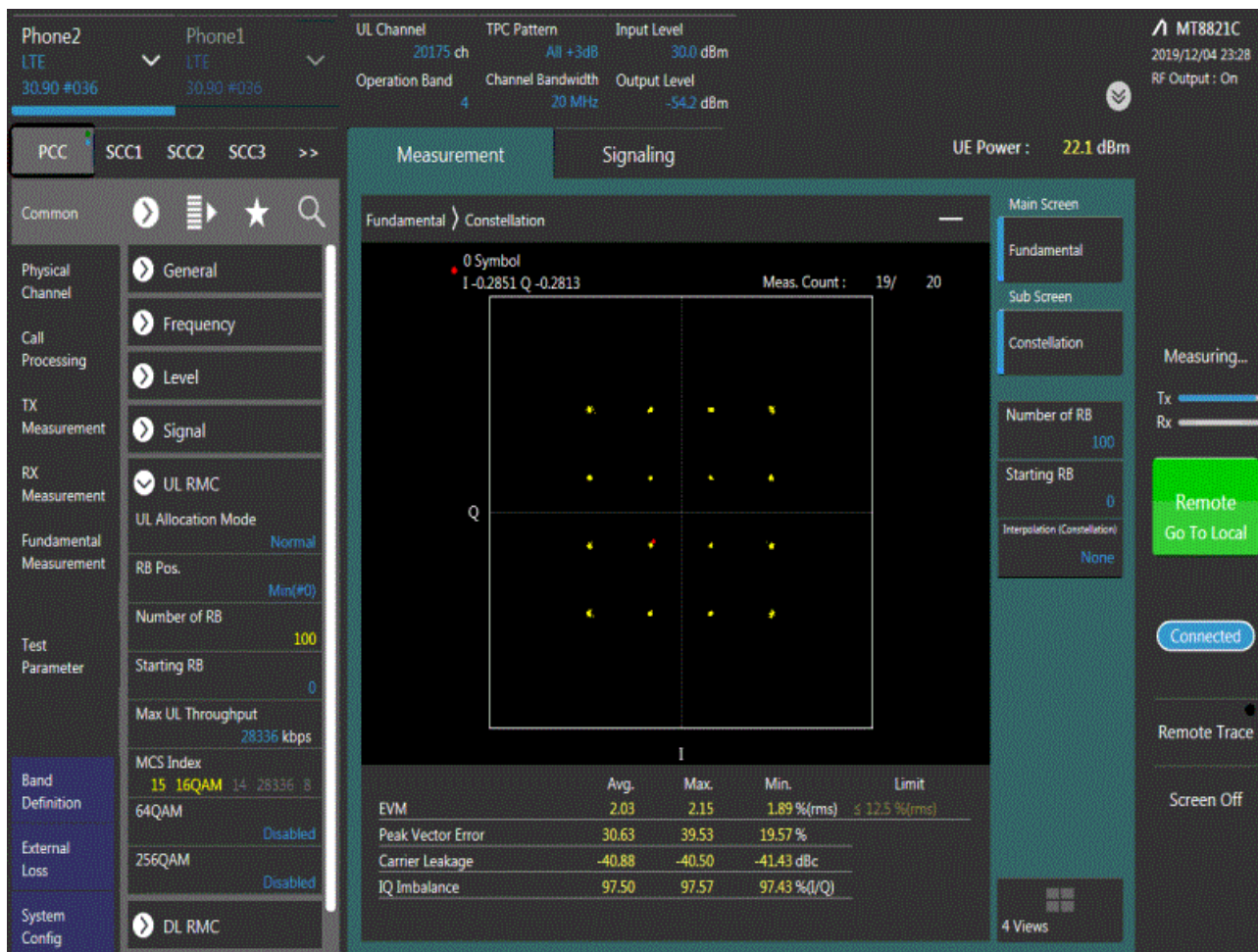
3.1.1. Test Channel = MCH





3.2. Test Mode = LTE /TM2 20MHz

3.2.1. Test Channel = MCH





4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	1.094	1.287	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	1.094	1.275	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	1.091	1.290	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	1.091	1.281	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	1.082	1.260	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	1.091	1.278	PASS
Band4	3MHz	QPSK	19965	15RB#0	2.697	2.982	PASS
Band4	3MHz	QPSK	20175	15RB#0	2.697	2.994	PASS
Band4	3MHz	QPSK	20385	15RB#0	2.697	2.994	PASS
Band4	3MHz	16QAM	19965	15RB#0	2.685	2.970	PASS
Band4	3MHz	16QAM	20175	15RB#0	2.685	2.964	PASS
Band4	3MHz	16QAM	20385	15RB#0	2.685	2.964	PASS
Band4	5MHz	QPSK	19975	25RB#0	4.476	4.910	PASS
Band4	5MHz	QPSK	20175	25RB#0	4.476	4.920	PASS
Band4	5MHz	QPSK	20375	25RB#0	4.476	4.920	PASS
Band4	5MHz	16QAM	19975	25RB#0	4.486	4.960	PASS
Band4	5MHz	16QAM	20175	25RB#0	4.496	4.960	PASS
Band4	5MHz	16QAM	20375	25RB#0	4.496	4.950	PASS
Band4	10MHz	QPSK	20000	50RB#0	8.931	9.720	PASS
Band4	10MHz	QPSK	20175	50RB#0	8.911	9.680	PASS
Band4	10MHz	QPSK	20350	50RB#0	8.931	9.680	PASS
Band4	10MHz	16QAM	20000	50RB#0	8.931	9.720	PASS
Band4	10MHz	16QAM	20175	50RB#0	8.911	9.680	PASS
Band4	10MHz	16QAM	20350	50RB#0	8.911	9.700	PASS
Band4	15MHz	QPSK	20025	75RB#0	13.427	14.730	PASS
Band4	15MHz	QPSK	20175	75RB#0	13.427	14.640	PASS
Band4	15MHz	QPSK	20325	75RB#0	13.457	14.760	PASS
Band4	15MHz	16QAM	20025	75RB#0	13.427	14.670	PASS
Band4	15MHz	16QAM	20175	75RB#0	13.427	14.550	PASS
Band4	15MHz	16QAM	20325	75RB#0	13.427	14.760	PASS
Band4	20MHz	QPSK	20050	100RB#0	17.822	19.360	PASS



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

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

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

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

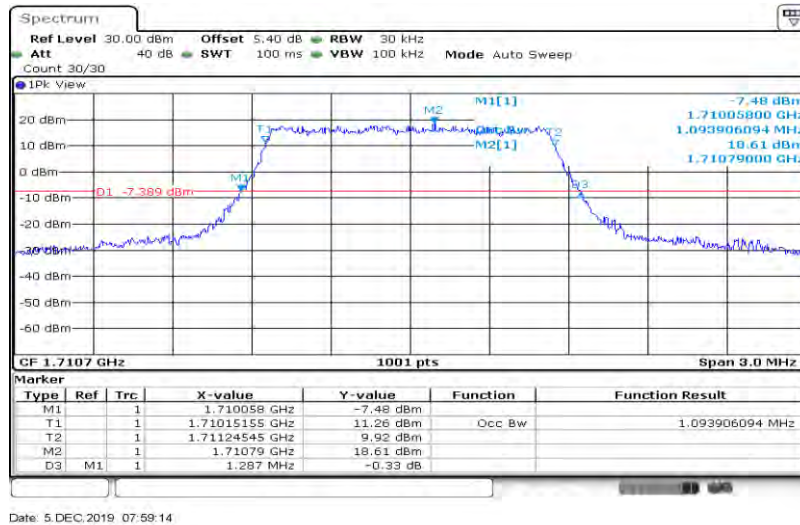
t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



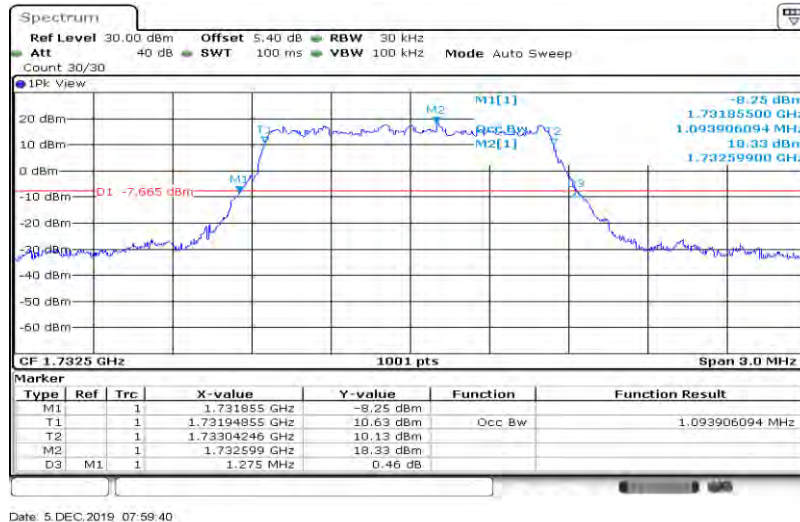
Band4	20MHz	QPSK	20175	100RB#0	17.822	19.400	PASS
Band4	20MHz	QPSK	20300	100RB#0	17.862	19.360	PASS
Band4	20MHz	16QAM	20050	100RB#0	17.862	19.320	PASS
Band4	20MHz	16QAM	20175	100RB#0	17.862	19.400	PASS
Band4	20MHz	16QAM	20300	100RB#0	17.862	19.400	PASS

4.2. Test Plots

Band4-1.4MHz-QPSK-19957-6RB#0-1.094

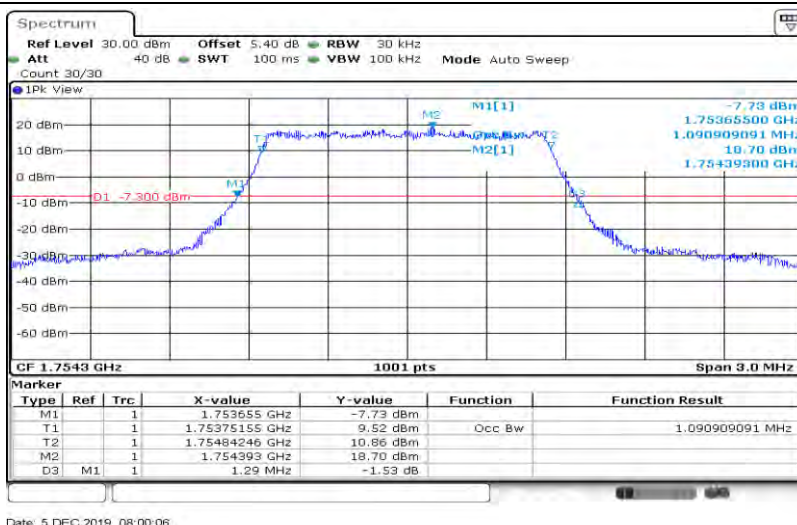


Band4-1.4MHz-QPSK-20175-6RB#0-1.094

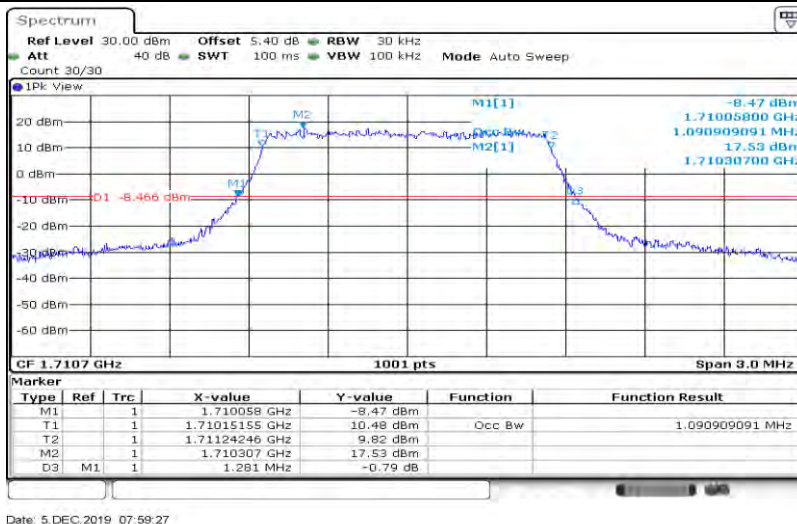


Band4-1.4MHz-QPSK-20393-6RB#0-1.091





Band4-1.4MHz-16QAM-19957-6RB#0-1.091

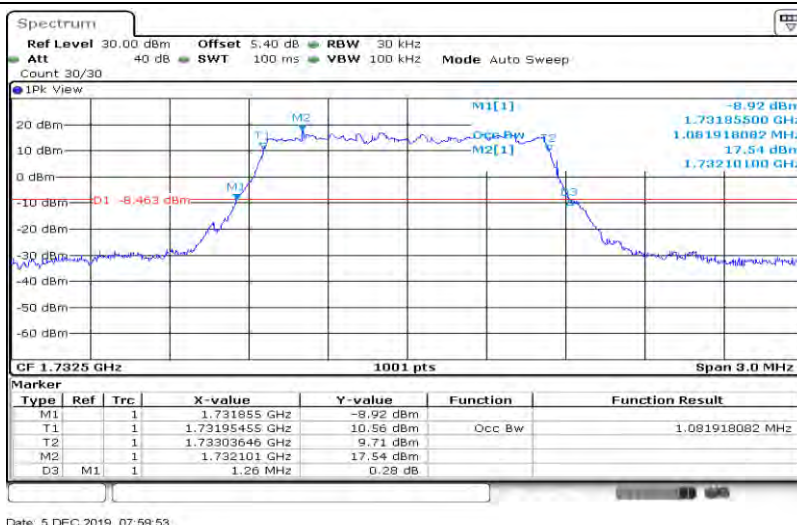


Band4-1.4MHz-16QAM-20175-6RB#0-1.082

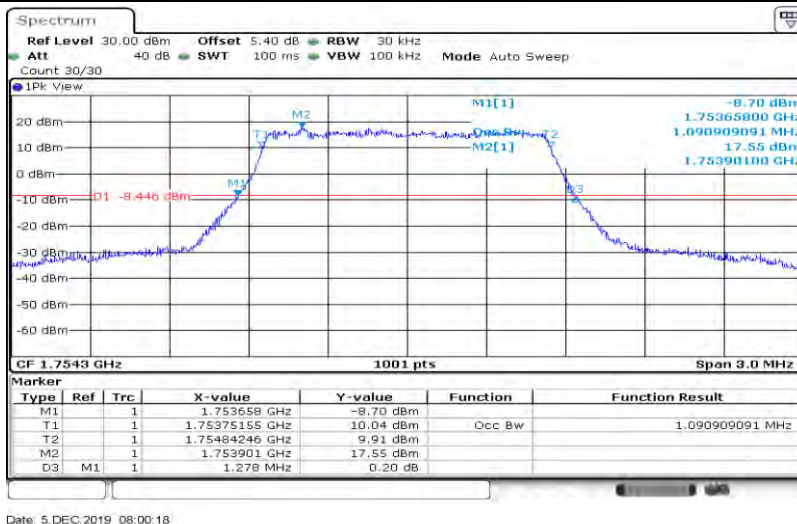


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-1.4MHz-16QAM-20393-6RB#0-1.091

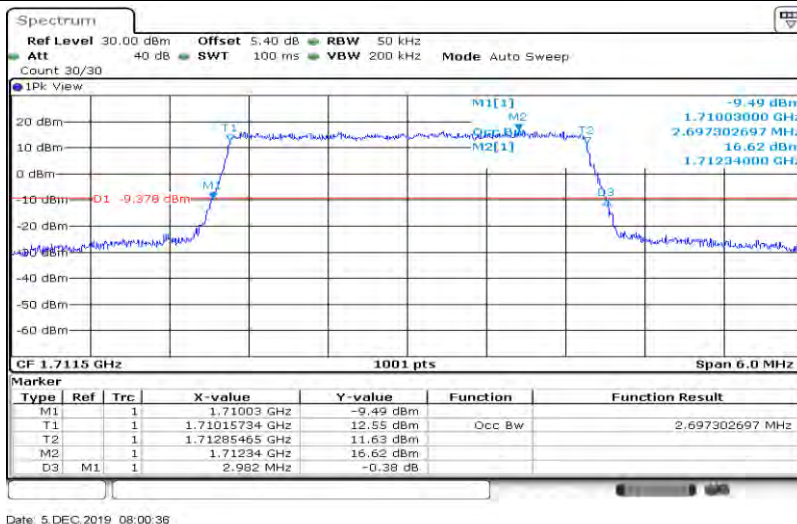


Band4-3MHz-QPSK-19965-15RB#0-2.697

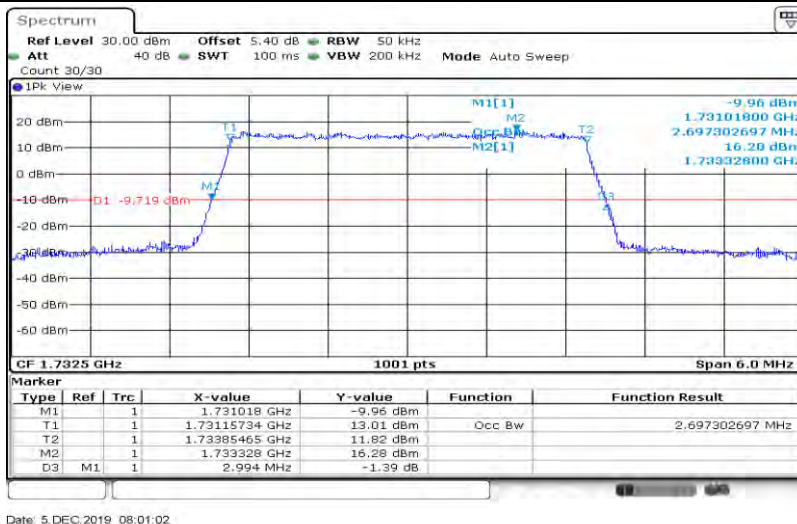


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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) 83071443, 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



Band4-3MHz-QPSK-20175-15RB#0-2.697

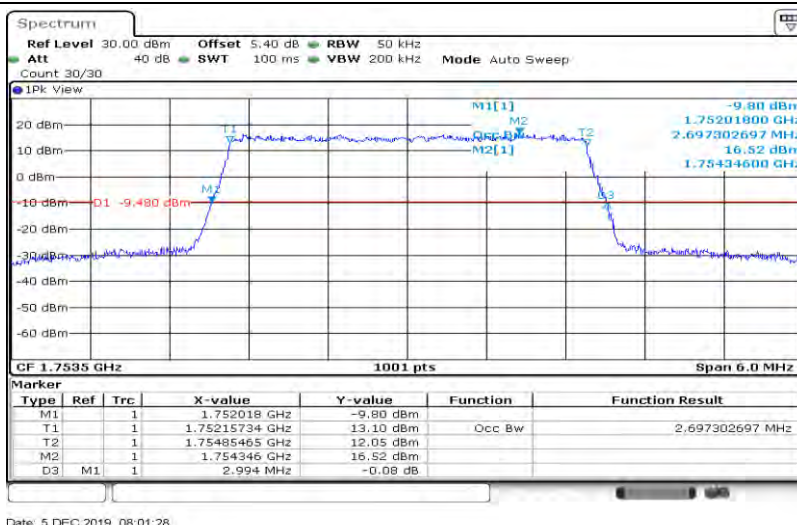


Band4-3MHz-QPSK-20385-15RB#0-2.697

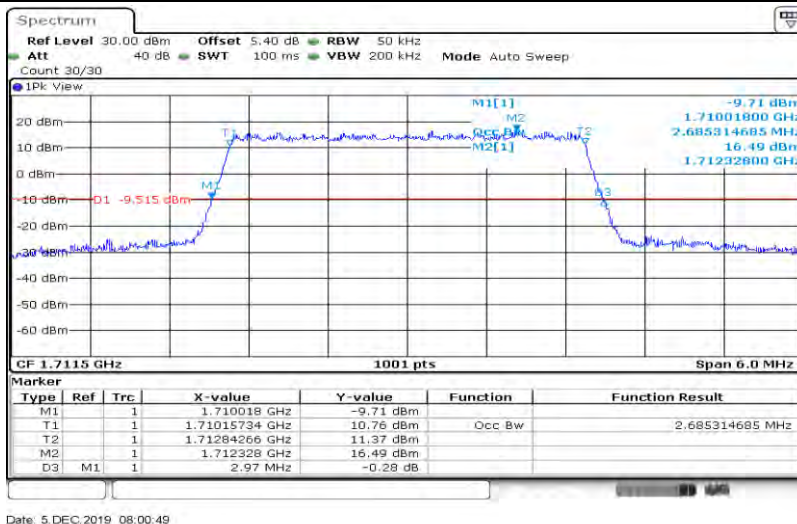


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-3MHz-16QAM-19965-15RB#0-2.685

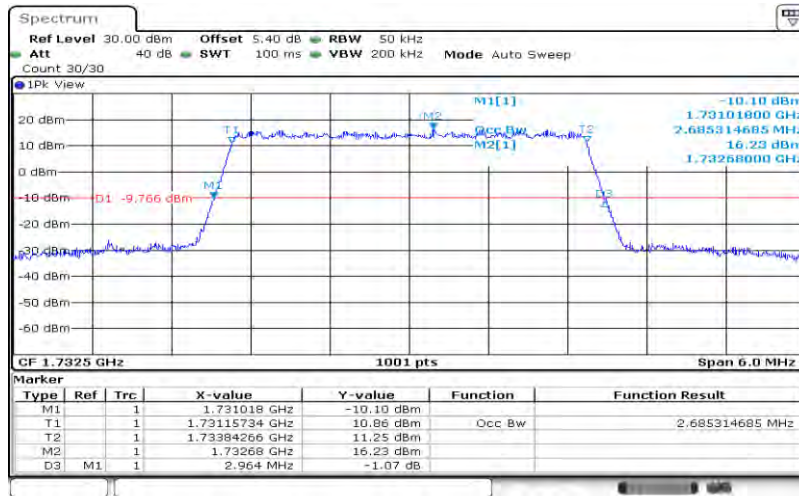


Band4-3MHz-16QAM-20175-15RB#0-2.685



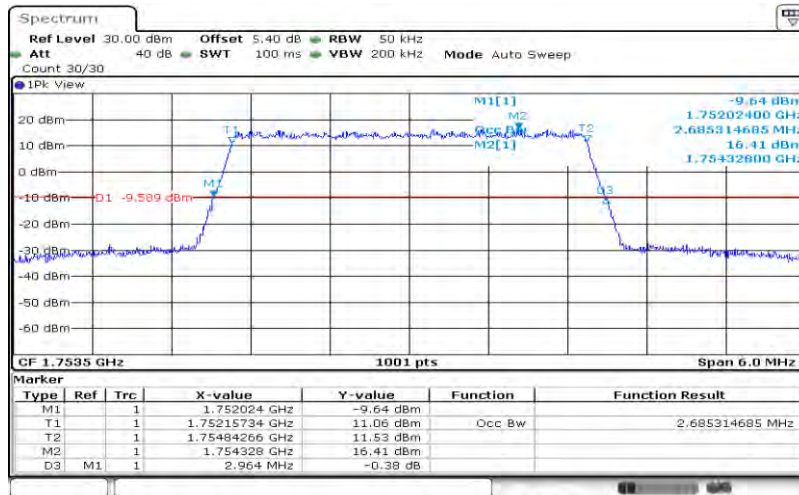
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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) 83071443, 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: 5 DEC. 2019 08:01:15

Band4-3MHz-16QAM-20385-15RB#0-2.685



Date: 5 DEC. 2019 08:01:40

Band4-5MHz-QPSK-19975-25RB#0-4.476



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.

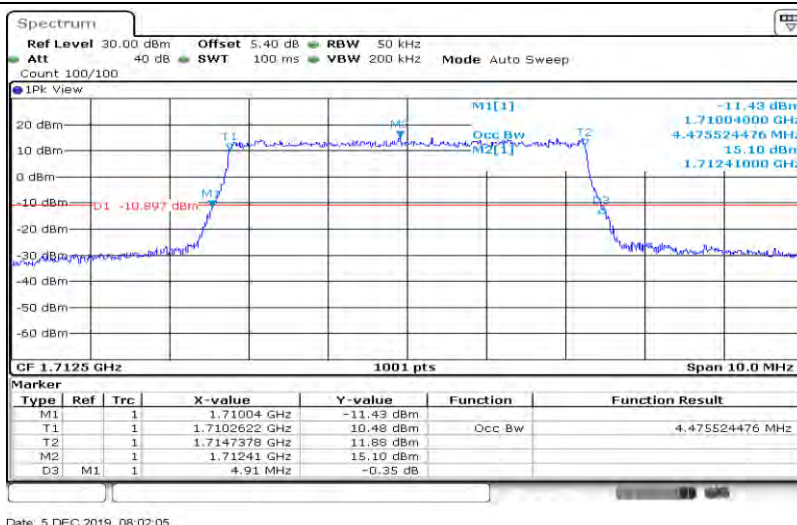
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

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

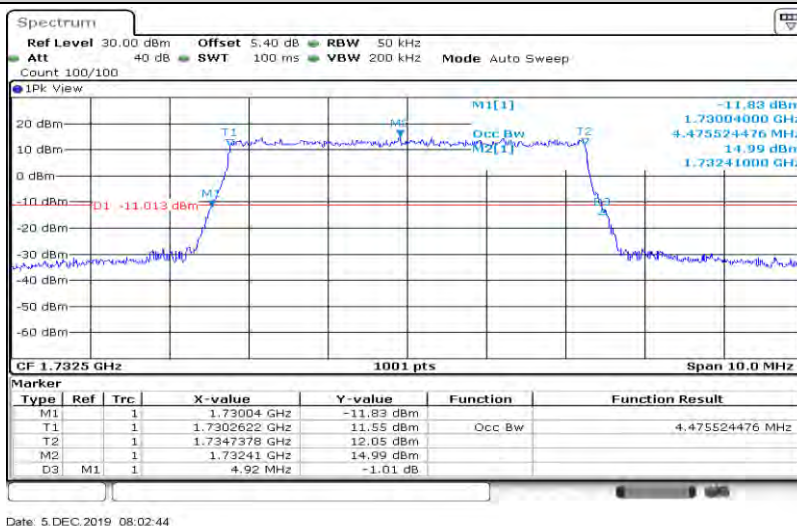
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057
中国·深圳·科技园中区M-10栋一号厂房

t (86-755) 26012053 f (86-755) 26710594
t (86-755) 26012053 f (86-755) 26710594

www.sgsgroup.com.cn
sgs.china@sgs.com



Band4-5MHz-QPSK-20175-25RB#0-4.476

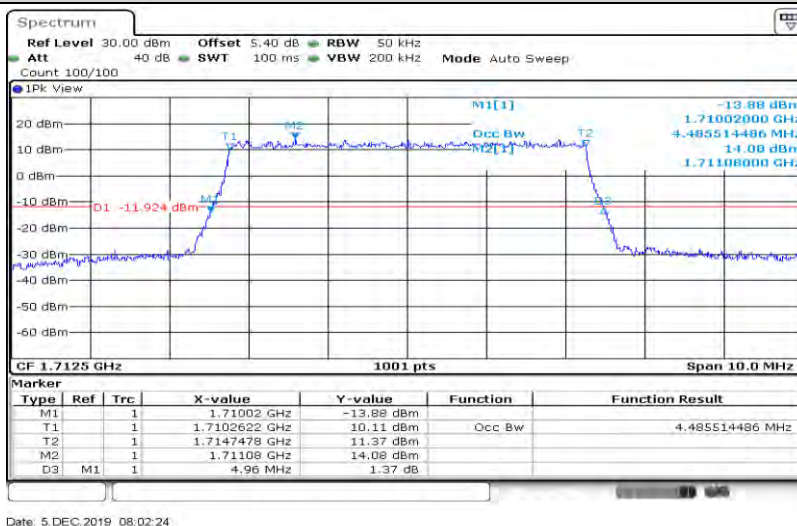


Band4-5MHz-QPSK-20375-25RB#0-4.476





Band4-5MHz-16QAM-19975-25RB#0-4.486

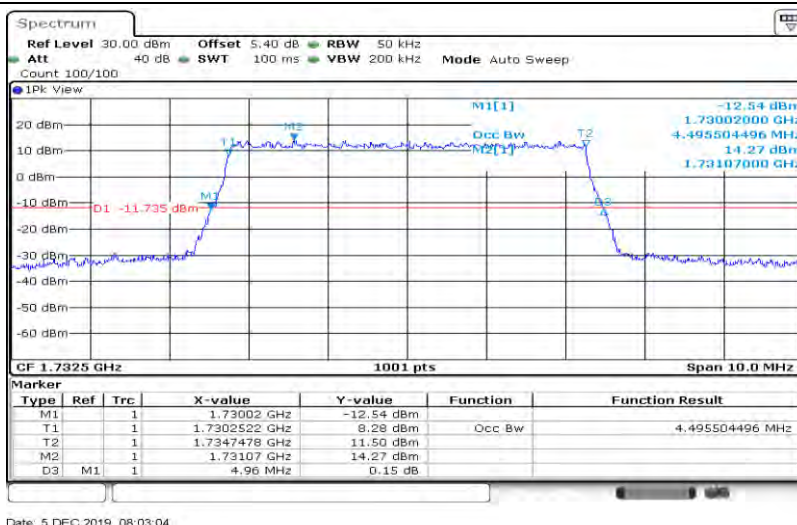


Band4-5MHz-16QAM-20175-25RB#0-4.496

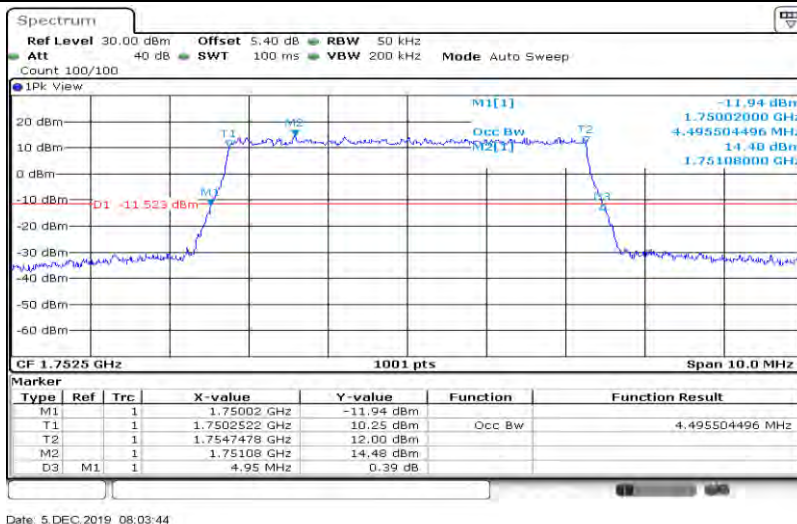


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-5MHz-16QAM-20375-25RB#0-4.496



Band4-10MHz-QPSK-20000-50RB#0-8.931

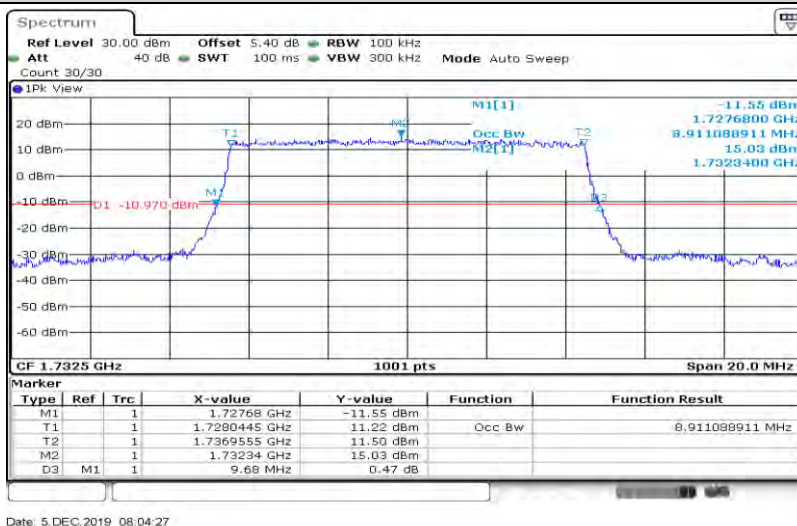


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-10MHz-QPSK-20175-50RB#0-8.911

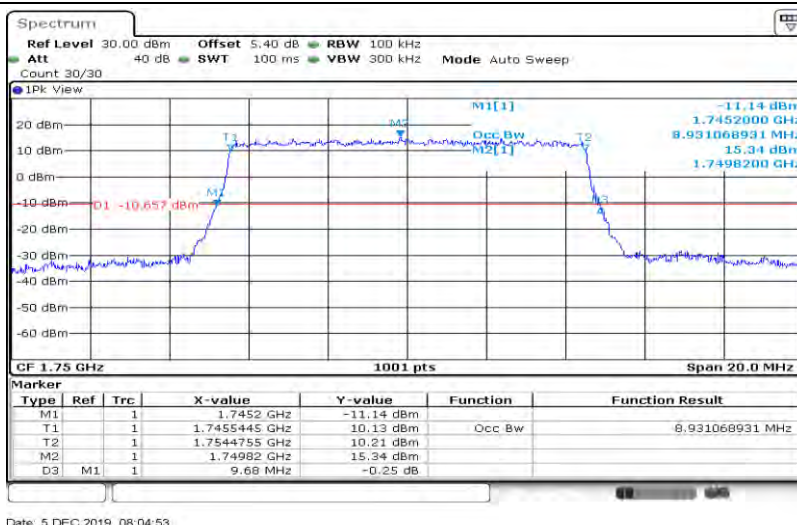


Band4-10MHz-QPSK-20350-50RB#0-8.931

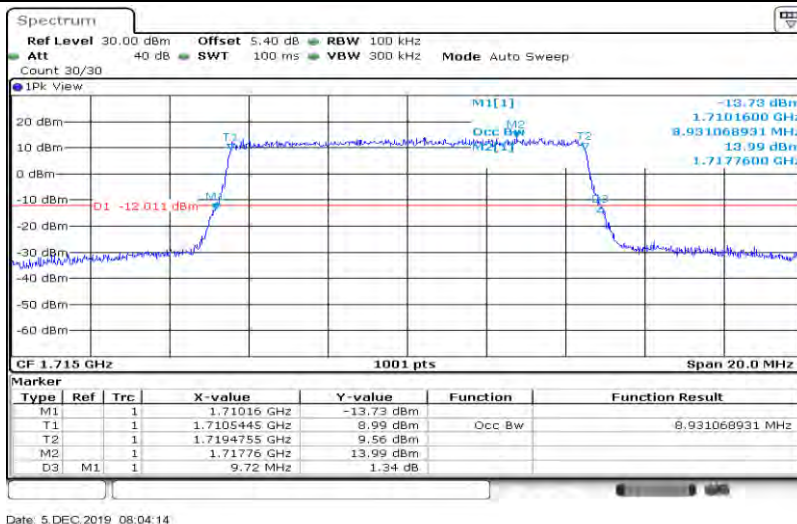


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-10MHz-16QAM-20000-50RB#0-8.931

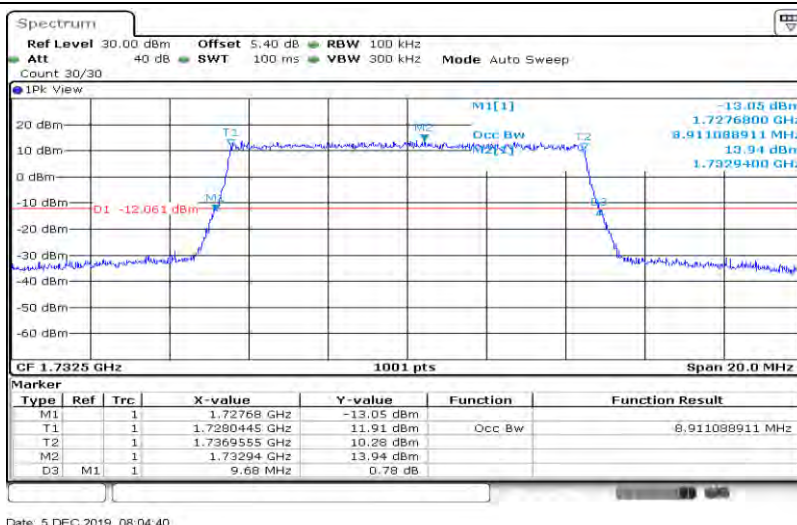


Band4-10MHz-16QAM-20175-50RB#0-8.911

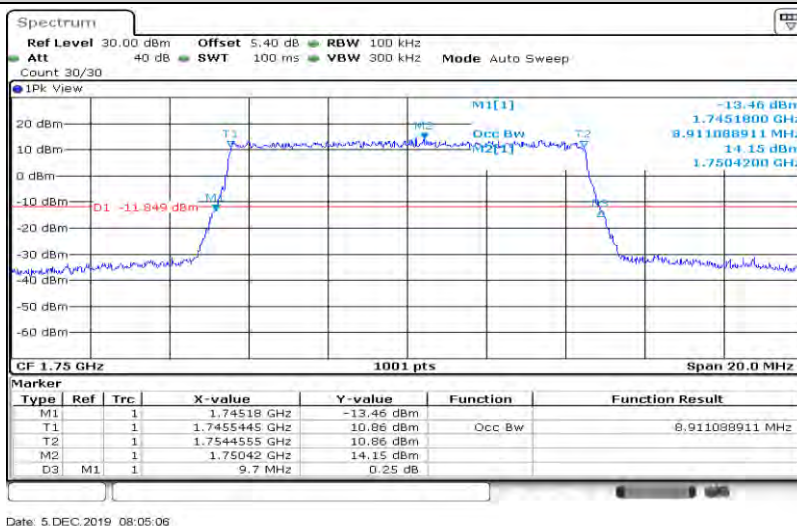


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-10MHz-16QAM-20350-50RB#0-8.911

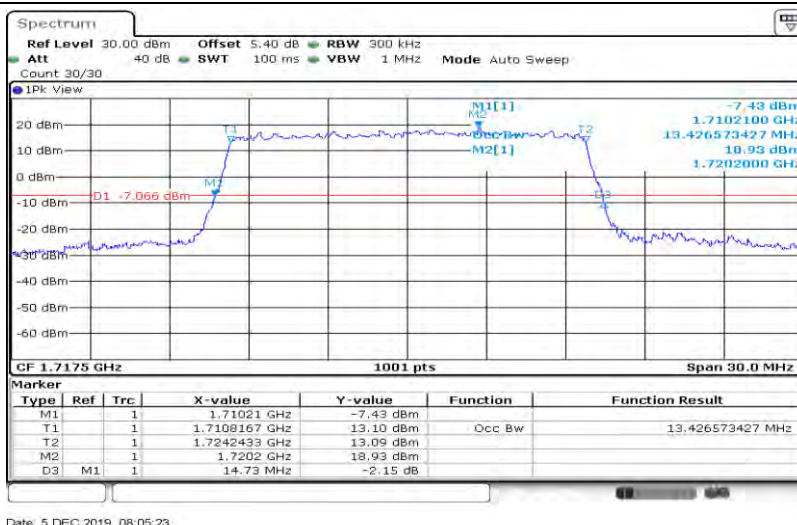


Band4-15MHz-QPSK-20025-75RB#0-13.427

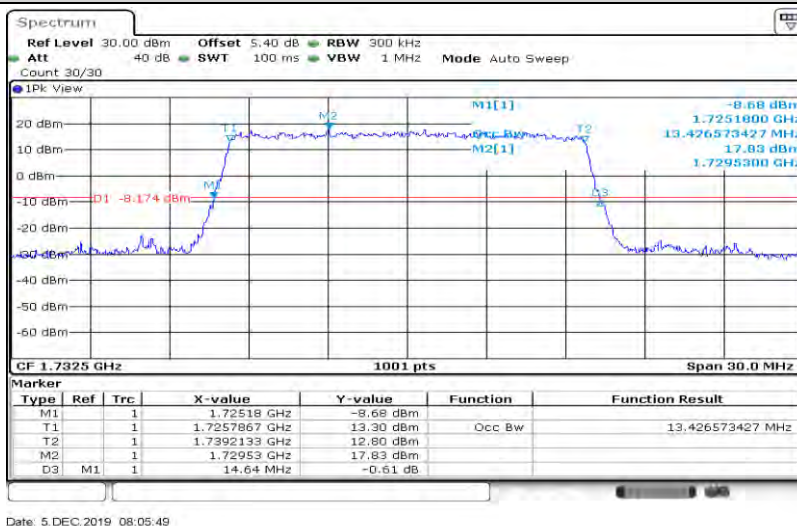


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-15MHz-QPSK-20175-75RB#0-13.427

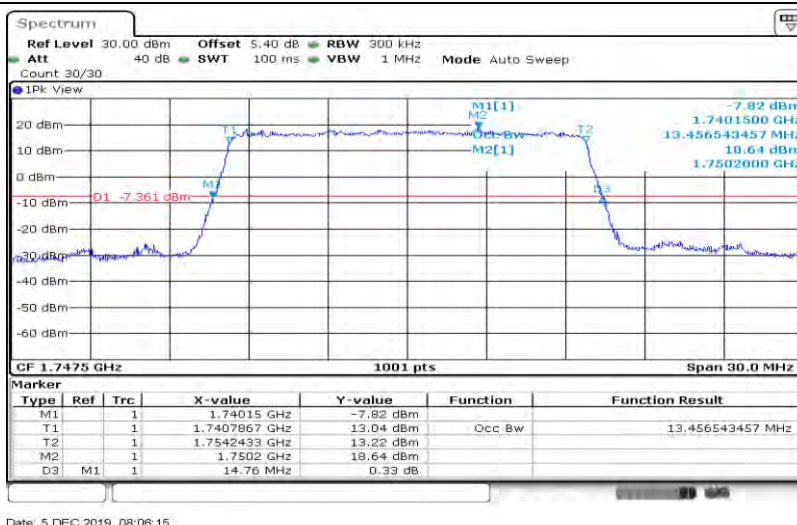


Band4-15MHz-QPSK-20325-75RB#0-13.457

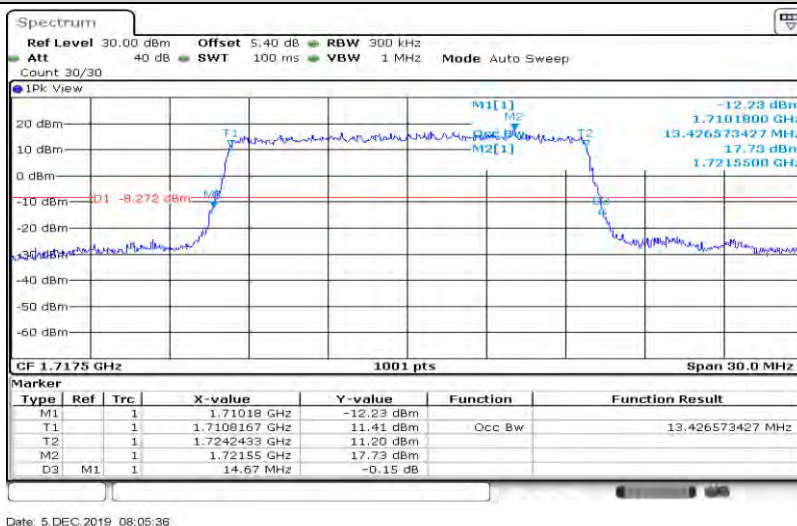


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-15MHz-16QAM-20025-75RB#0-13.427

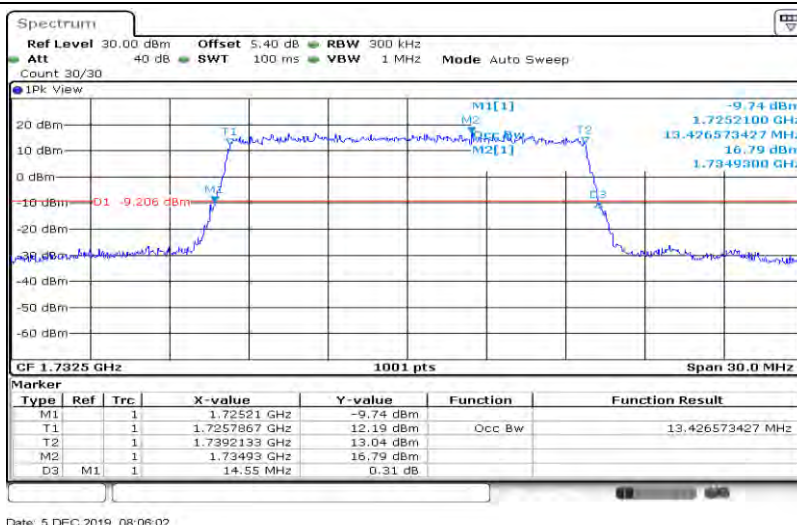


Band4-15MHz-16QAM-20175-75RB#0-13.427

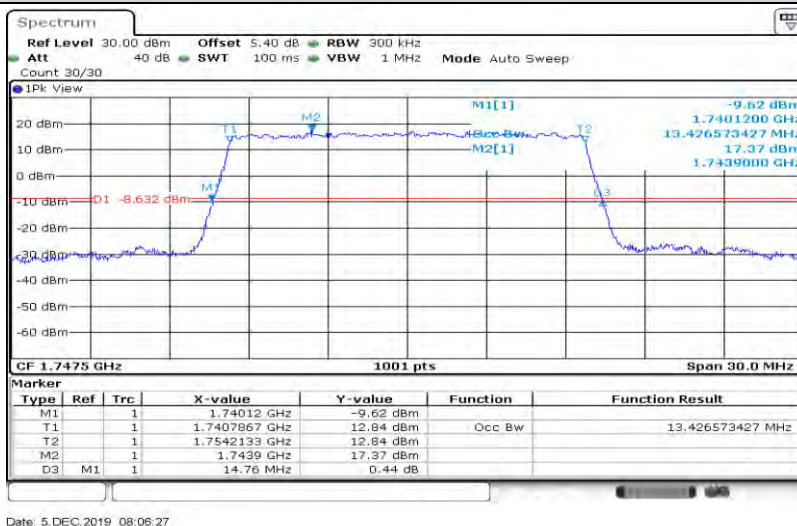


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-15MHz-16QAM-20325-75RB#0-13.427

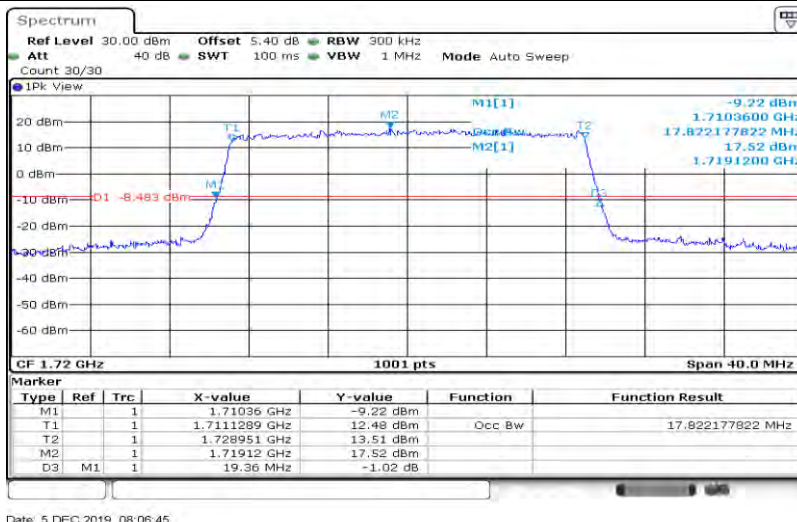


Band4-20MHz-QPSK-20050-100RB#0-17.822

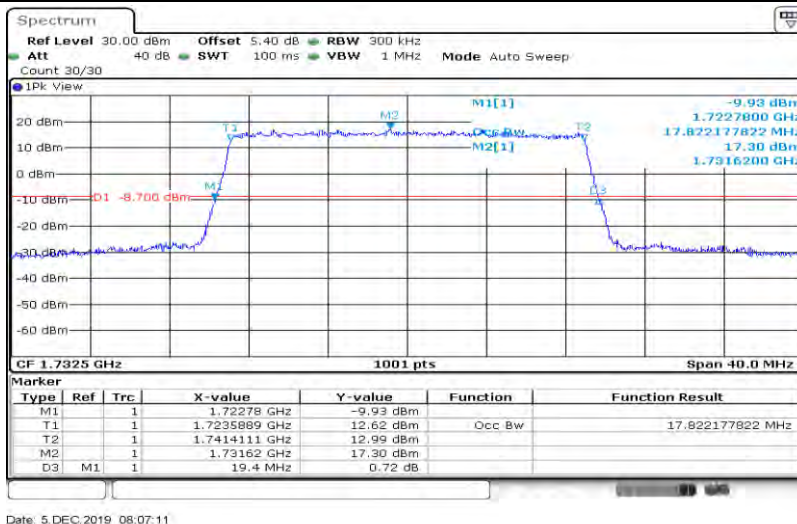


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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) 83071443, 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



Band4-20MHz-QPSK-20175-100RB#0-17.822

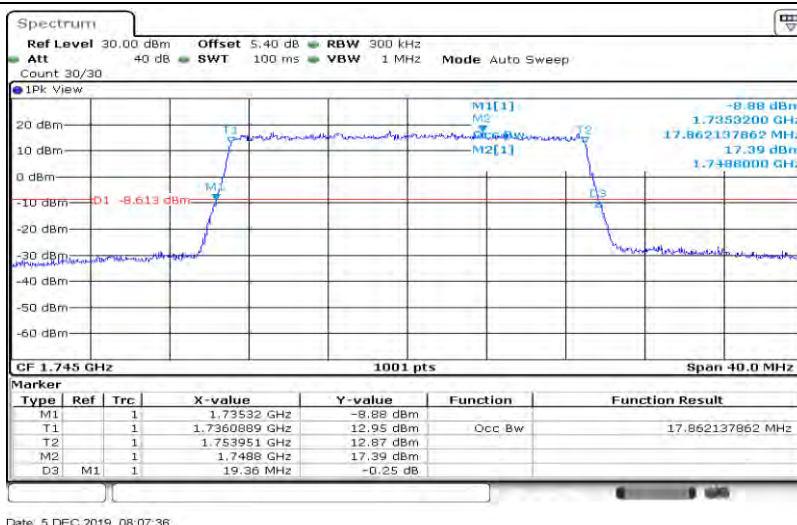


Band4-20MHz-QPSK-20300-100RB#0-17.862

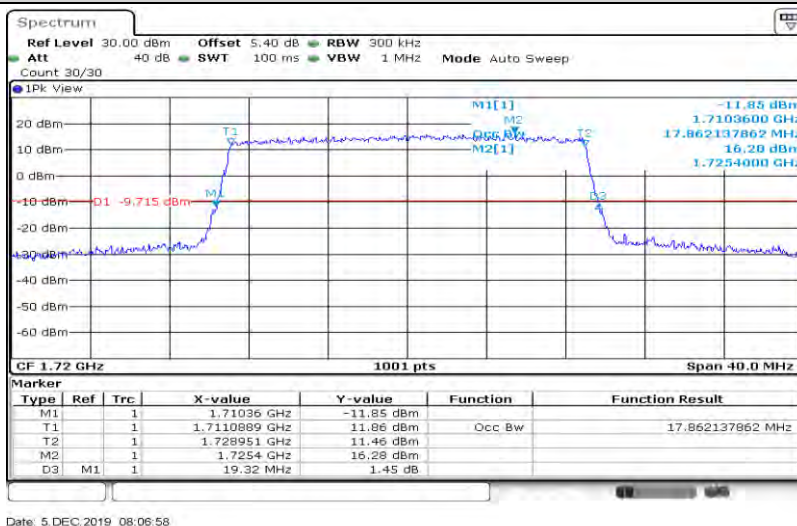


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-20MHz-16QAM-20050-100RB#0-17.862

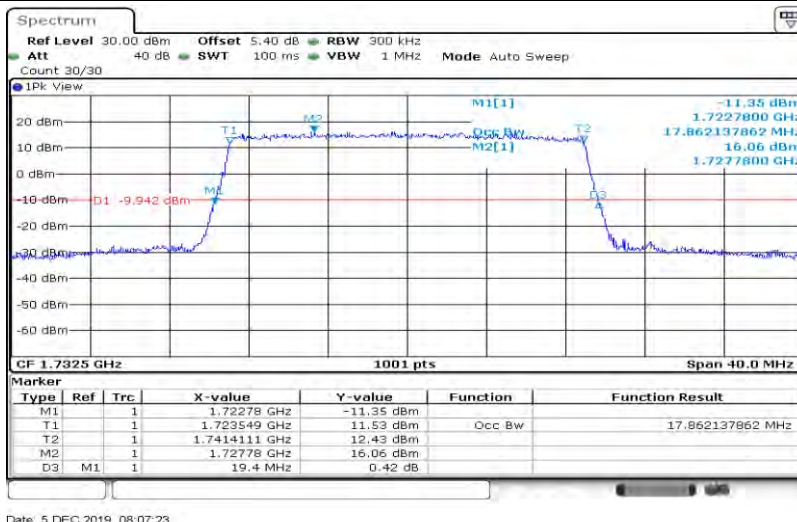


Band4-20MHz-16QAM-20175-100RB#0-17.862



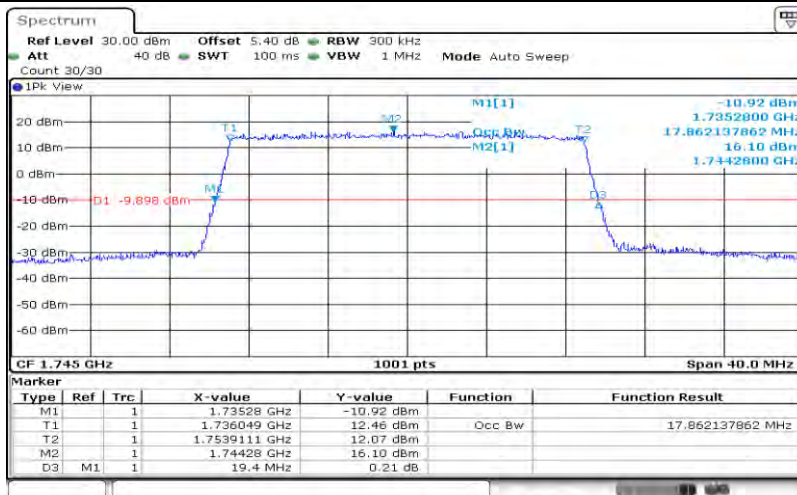
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: 5 DEC. 2019 08:07:23

Band4-20MHz-16QAM-20300-100RB#0-17.862



Date: 5 DEC. 2019 08:07:49



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

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

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

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

5. Band Edge Compliance

5.1. Test Plots

Band4-1.4MHz-QPSK-19957-1RB#0



Date: 5 DEC 2019 08:08:14

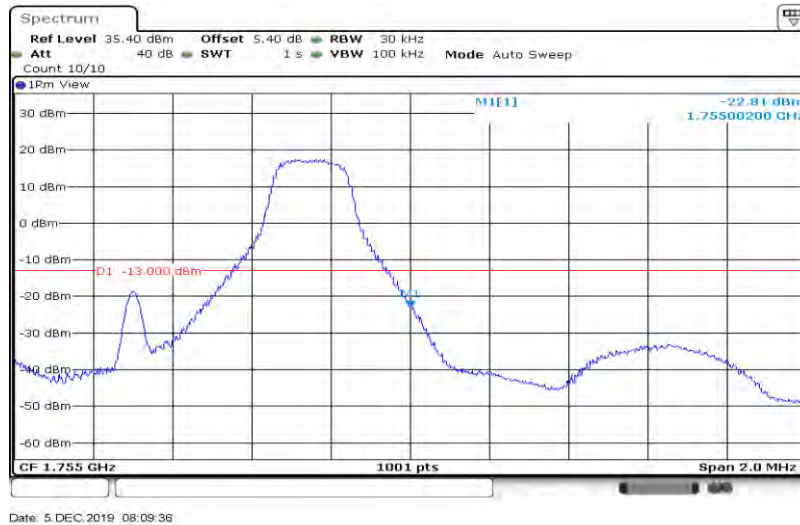
Band4-1.4MHz-QPSK-19957-6RB#0



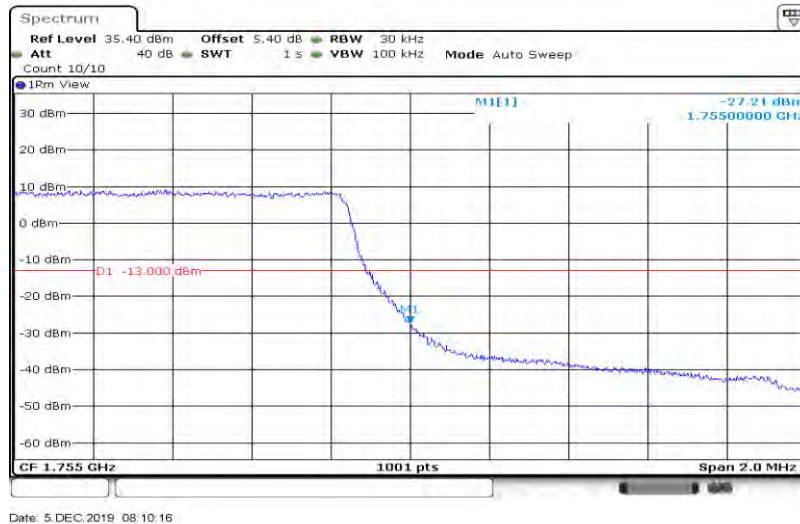
Date: 5 DEC 2019 08:08:53

Band4-1.4MHz-QPSK-20393-1RB#5





Band4-1.4MHz-QPSK-20393-6RB#0



Band4-1.4MHz-16QAM-19957-1RB#0





Band4-1.4MHz-16QAM-19957-6RB#0



Band4-1.4MHz-16QAM-20393-1RB#5



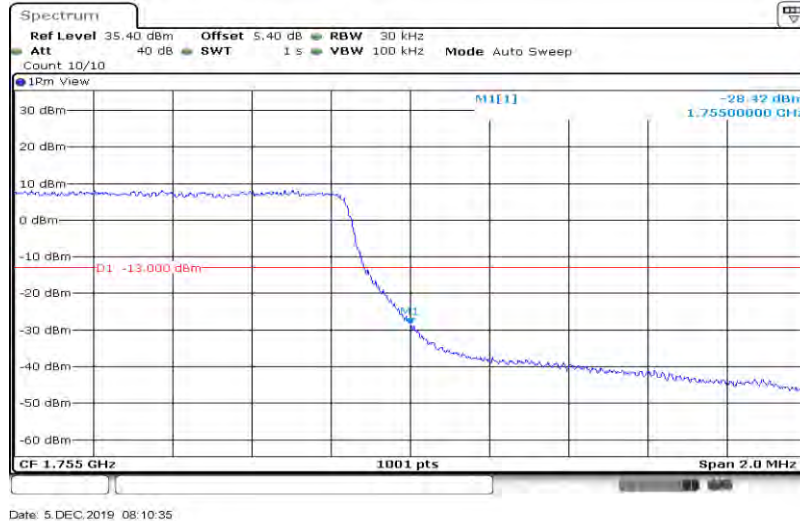
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

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

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



Band4-1.4MHz-16QAM-20393-6RB#0



Band4-3MHz-QPSK-19965-1RB#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

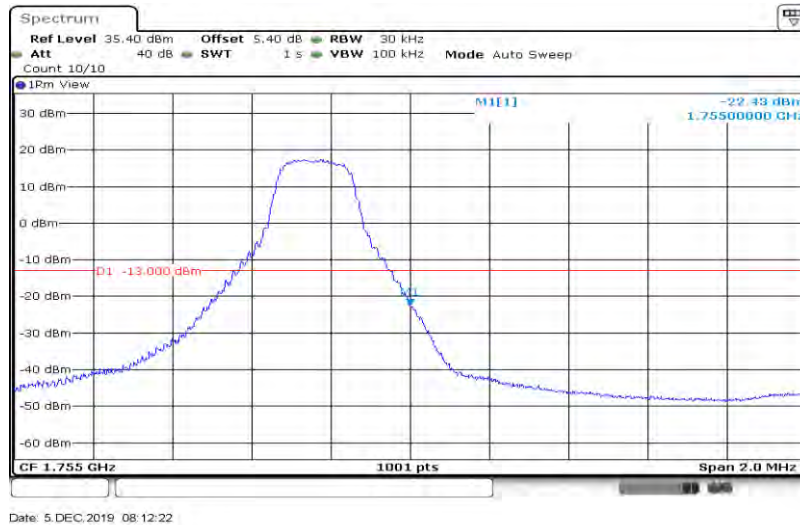


Band4-3MHz-QPSK-19965-15RB#0



Band4-3MHz-QPSK-20385-1RB#14



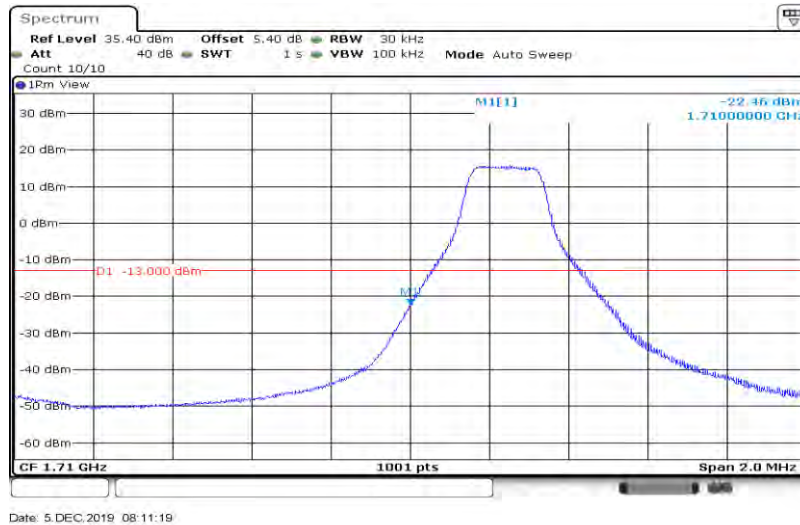


Band4-3MHz-QPSK-20385-15RB#0



Band4-3MHz-16QAM-19965-1RB#0





Band4-3MHz-16QAM-19965-15RB#0



Band4-3MHz-16QAM-20385-1RB#14





Band4-3MHz-16QAM-20385-15RB#0



Band4-5MHz-QPSK-19975-1RB#0





Band4-5MHz-QPSK-19975-25RB#0



Band4-5MHz-QPSK-20375-1RB#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



Band4-5MHz-QPSK-20375-25RB#0



Band4-5MHz-16QAM-19975-1RB#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



Band4-5MHz-16QAM-19975-25RB#0



Band4-5MHz-16QAM-20375-1RB#24





Band4-5MHz-16QAM-20375-25RB#0



Band4-10MHz-QPSK-20000-1RB#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) 83071443, 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

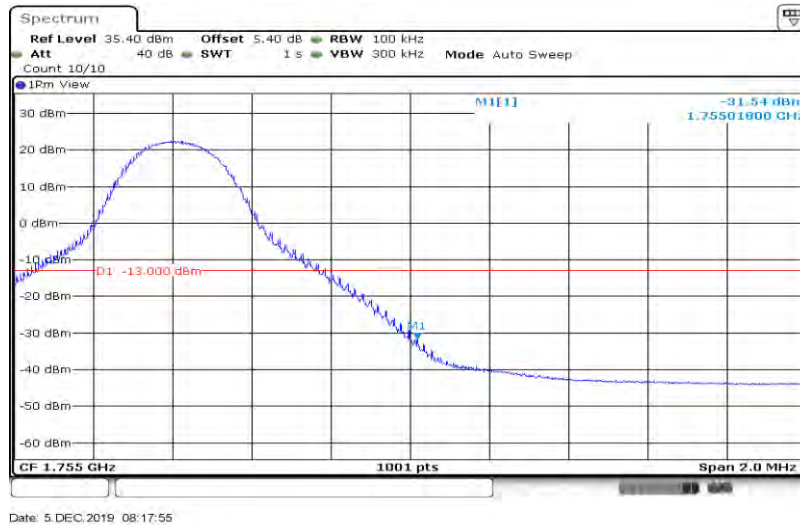


Band4-10MHz-QPSK-20000-50RB#0



Band4-10MHz-QPSK-20350-1RB#49





Band4-10MHz-QPSK-20350-50RB#0



Band4-10MHz-16QAM-20000-1RB#0





Band4-10MHz-16QAM-20000-50RB#0

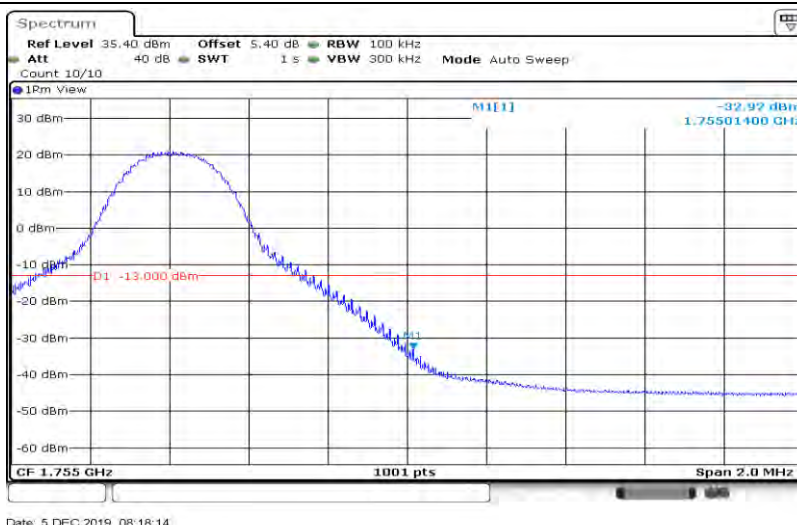


Band4-10MHz-16QAM-20350-1RB#49



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

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



Band4-10MHz-16QAM-20350-50RB#0



Band4-15MHz-QPSK-20025-1RB#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



Band4-15MHz-QPSK-20025-75RB#0



Band4-15MHz-QPSK-20325-1RB#74



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

Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 83071443, 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: 5 DEC 2019 08:20:40

Band4-15MHz-QPSK-20325-75RB#0



Date: 5 DEC 2019 08:21:19

Band4-15MHz-16QAM-20025-1RB#0



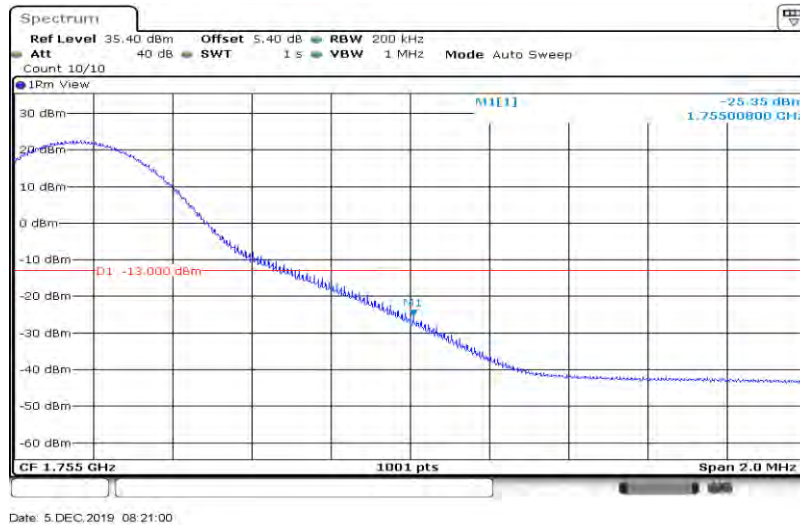


Band4-15MHz-16QAM-20025-75RB#0

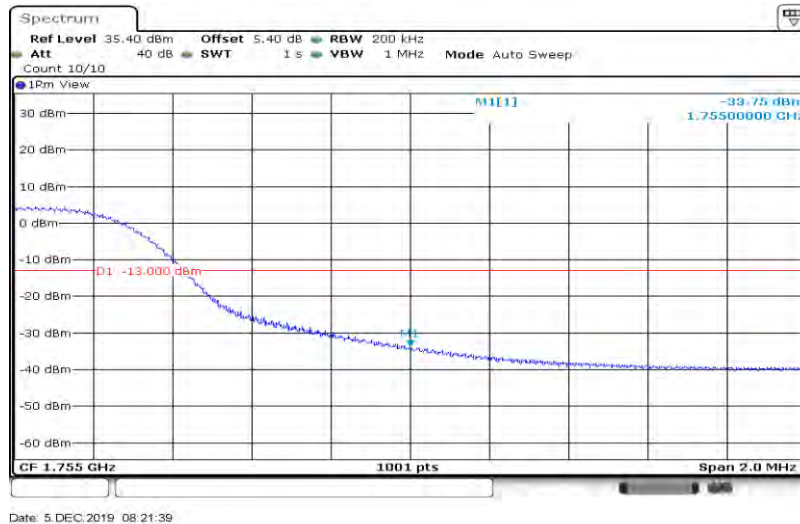


Band4-15MHz-16QAM-20325-1RB#74





Band4-15MHz-16QAM-20325-75RB#0



Band4-20MHz-QPSK-20050-1RB#0





Date: 5 DEC 2019 08:22:03

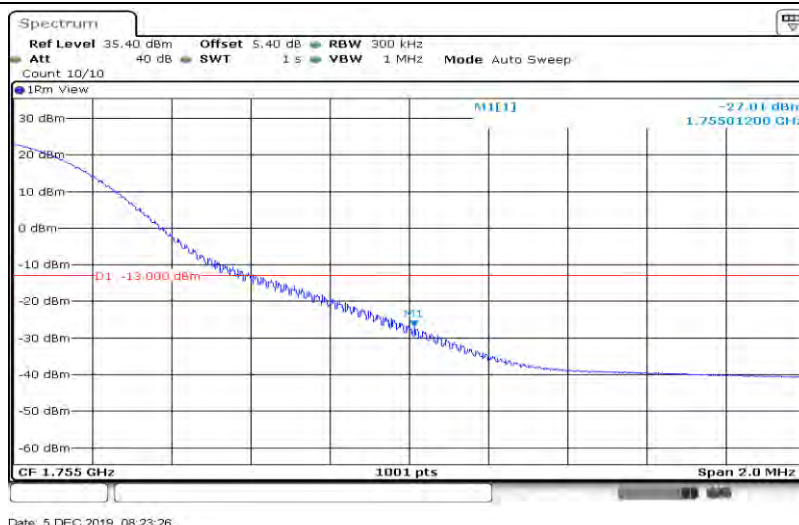
Band4-20MHz-QPSK-20050-100RB#0



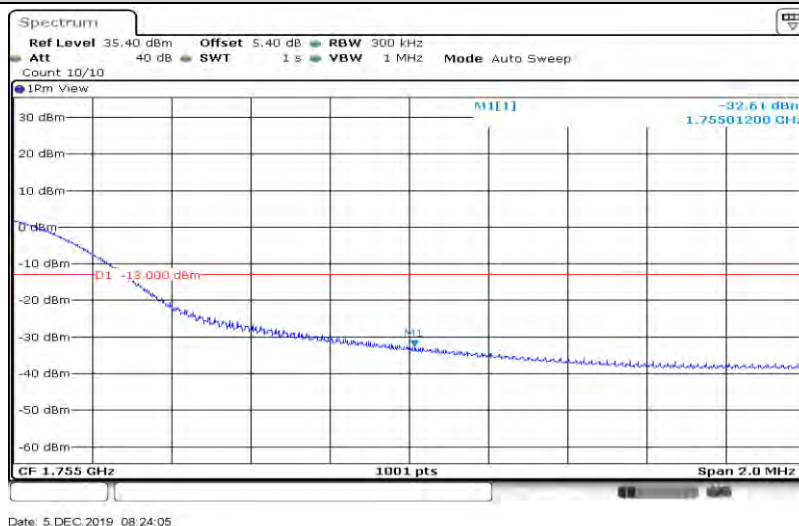
Date: 5 DEC 2019 08:22:42

Band4-20MHz-QPSK-20300-1RB#99





Band4-20MHz-QPSK-20300-100RB#0

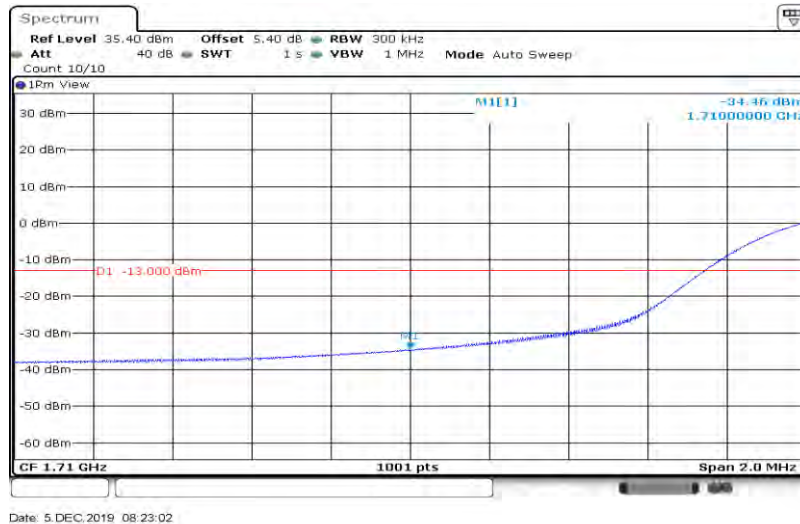


Band4-20MHz-16QAM-20050-1RB#0





Band4-20MHz-16QAM-20050-100RB#0



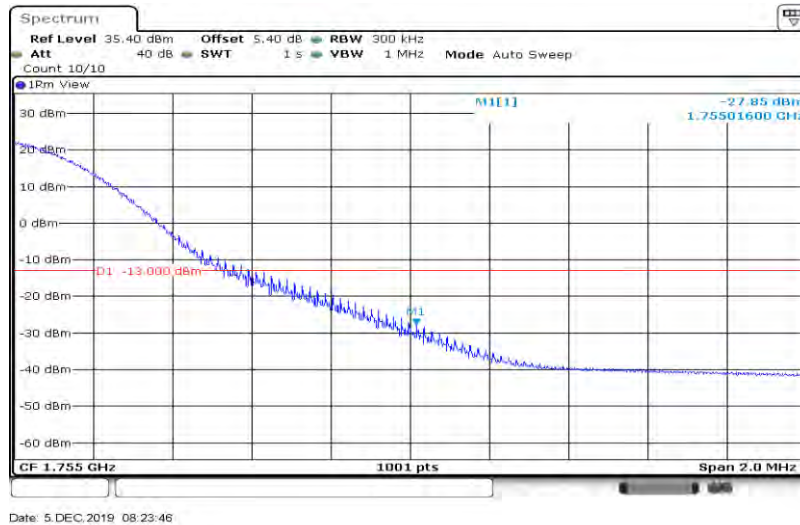
Band4-20MHz-16QAM-20300-1RB#99



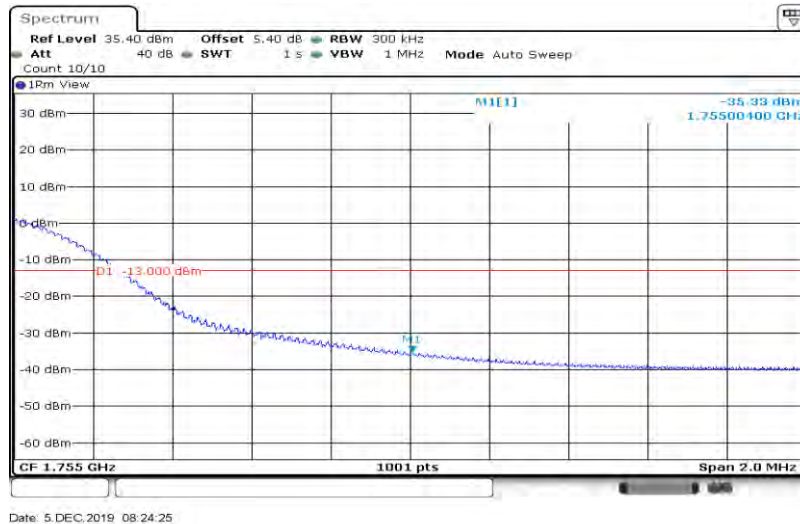
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-20MHz-16QAM-20300-100RB#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



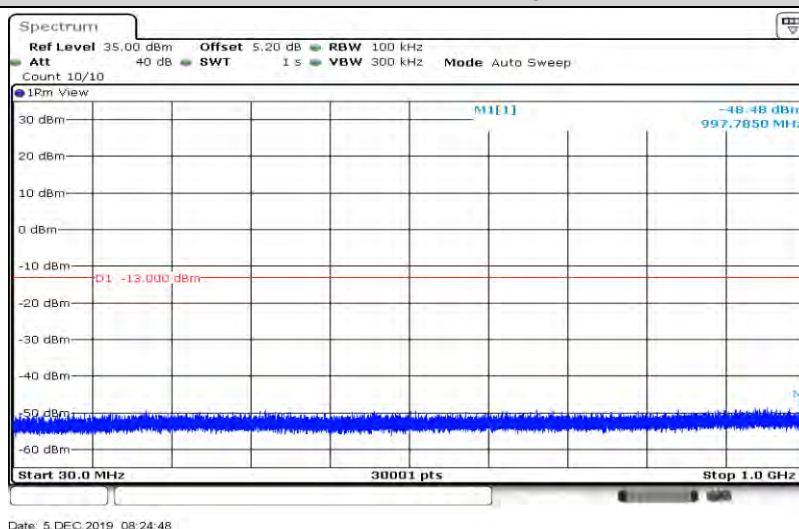
6. Spurious Emission at Antenna Terminal

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.

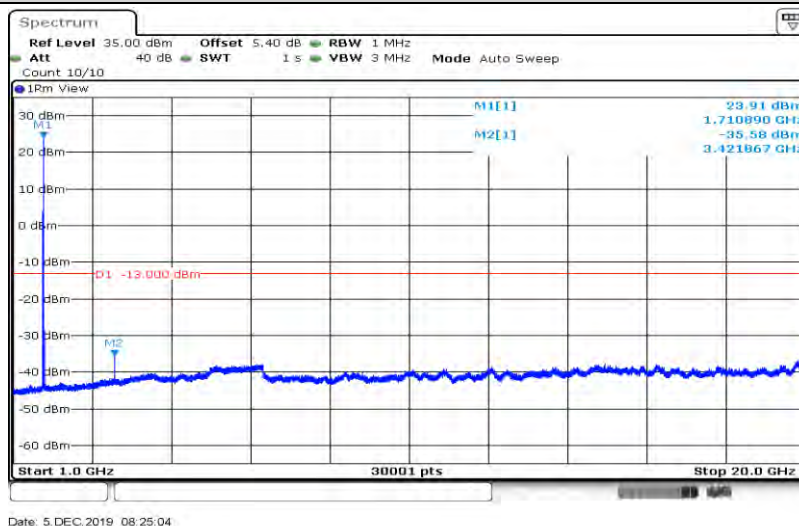
Remark2: only the worst case data displayed in this report.

6.1. Test Plots

Band4-20MHz-QPSK-20050-1RB#0-Range1:30~1000MHz



Band4-20MHz-QPSK-20050-1RB#0-Range2:1000~20000MHz

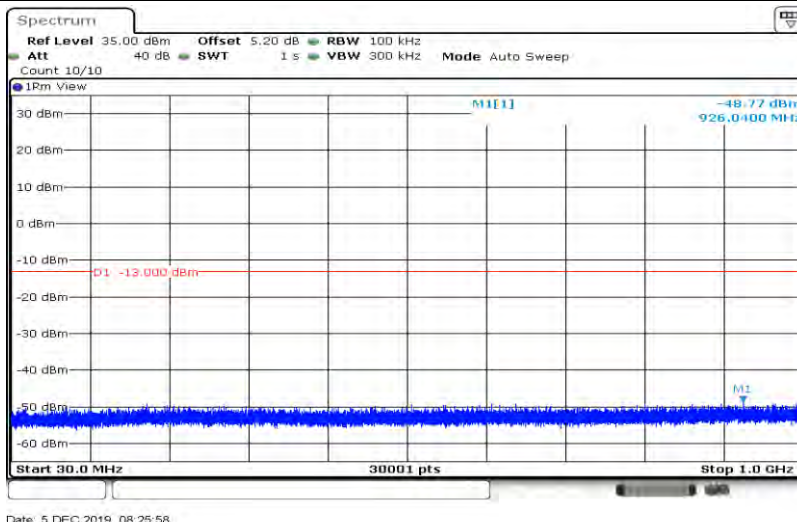


Band4-20MHz-QPSK-20175-1RB#0-Range1:30~1000MHz

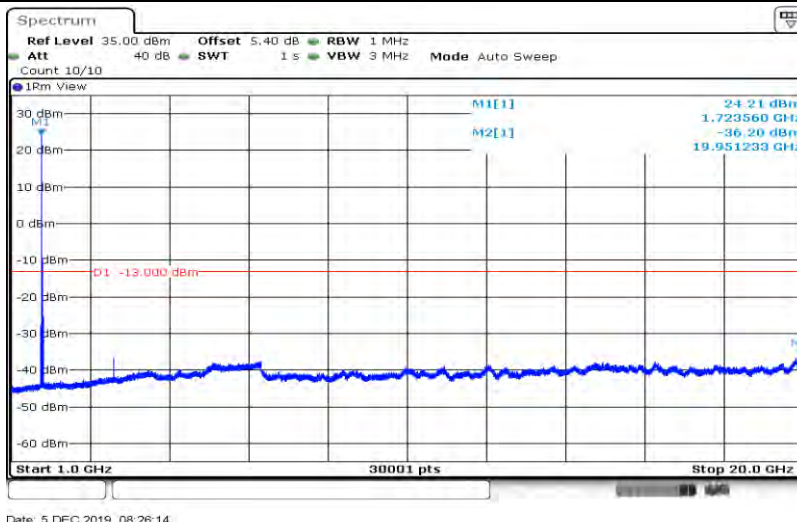


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-20MHz-QPSK-20175-1RB#0-Range2:1000~20000MHz

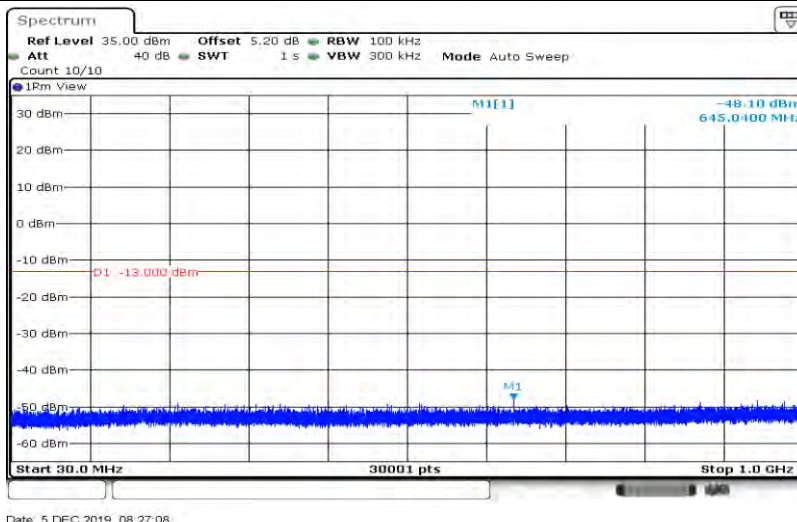


Band4-20MHz-QPSK-20300-1RB#0-Range1:30~1000MHz

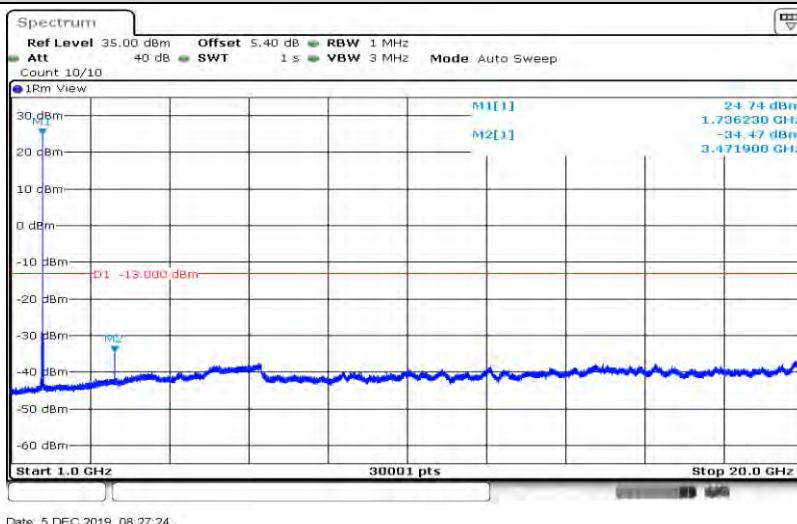


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-20MHz-QPSK-20300-1RB#0-Range2:1000~20000MHz

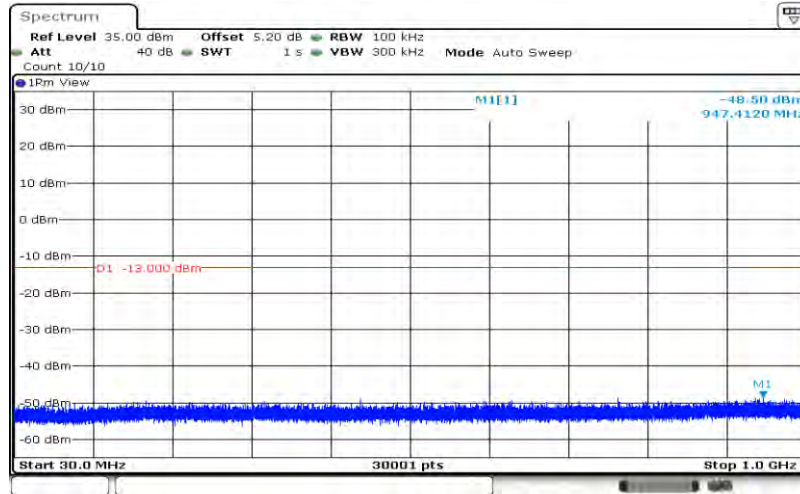


Band4-20MHz-16QAM-20050-1RB#0-Range1:30~1000MHz



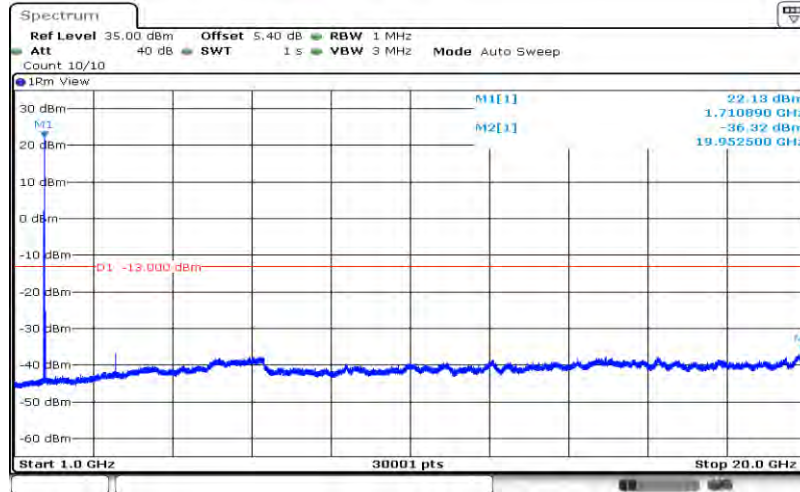
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: 5 DEC 2019 08:25:23

Band4-20MHz-16QAM-20050-1RB#0-Range2:1000~20000MHz



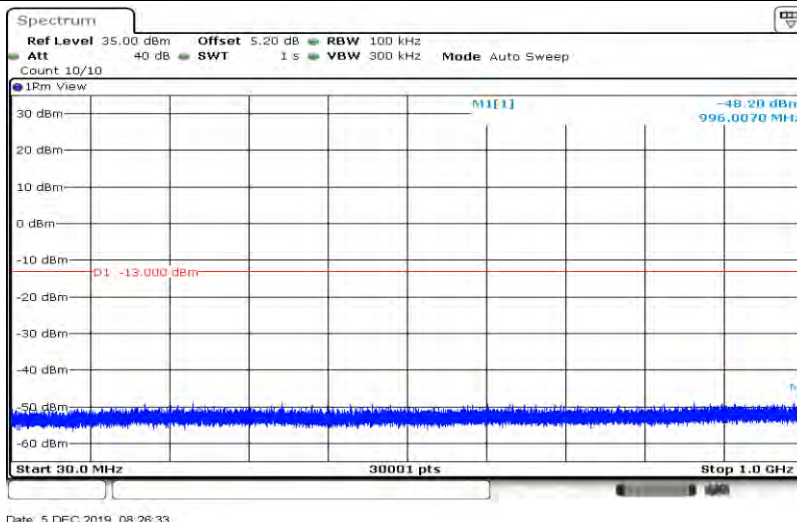
Date: 5 DEC 2019 08:25:39

Band4-20MHz-16QAM-20175-1RB#0-Range1:30~1000MHz

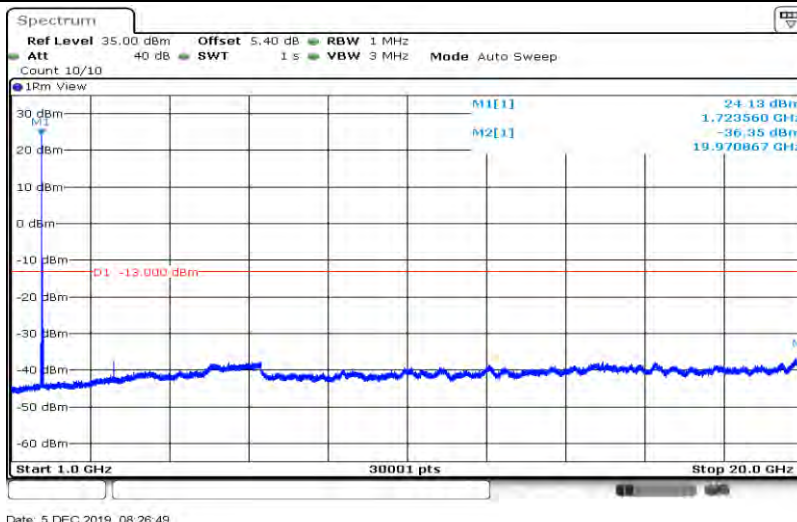


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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) 83071443, 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



Band4-20MHz-16QAM-20175-1RB#0-Range2:1000~20000MHz

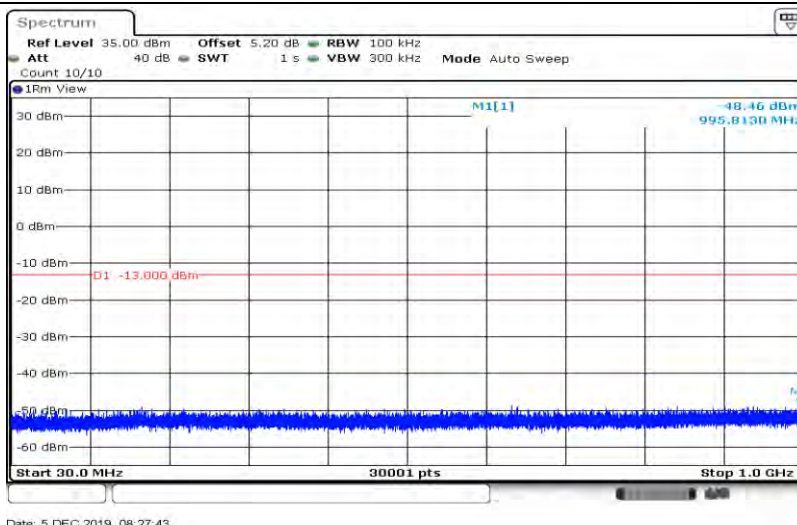


Band4-20MHz-16QAM-20300-1RB#0-Range1:30~1000MHz

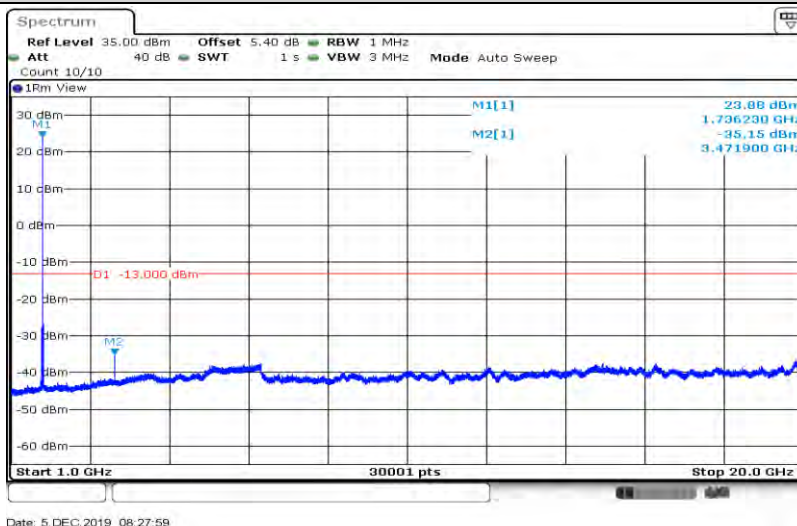


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band4-20MHz-16QAM-20300-1RB#0-Range2:1000~20000MHz



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 Mode =LTE/TM1

7.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
111.2416	-63.81	-13.00	50.81	Vertical
2700.7401	-36.49	-13.00	23.49	Vertical
3447.0149	-43.15	-13.00	30.15	Vertical
5171.0724	-46.89	-13.00	33.89	Vertical
8617.6873	-47.24	-13.00	34.24	Vertical
17996.4999	-33.65	-13.00	20.65	Vertical
43.8232	-64.83	-13.00	51.83	Horizontal
2713.1426	-35.75	-13.00	22.75	Horizontal
3447.0149	-37.15	-13.00	24.15	Horizontal
5170.5724	-49.37	-13.00	36.37	Horizontal
6894.1298	-54.26	-13.00	41.26	Horizontal
17997.9999	-38.61	-13.00	25.61	Horizontal

7.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
108.8649	-65.67	-13.00	52.67	Vertical
2705.9412	-36.58	-13.00	23.58	Vertical
3422.0141	-40.31	-13.00	27.31	Vertical
5133.0711	-49.78	-13.00	36.78	Vertical
8555.1852	-45.98	-13.00	32.98	Vertical
17998.5000	-33.67	-13.00	20.67	Vertical
40.9615	-64.34	-13.00	51.34	Horizontal
2698.7397	-35.06	-13.00	22.06	Horizontal
3422.0141	-34.48	-13.00	21.48	Horizontal
5133.0711	-51.95	-13.00	38.95	Horizontal
8555.1852	-50.29	-13.00	37.29	Horizontal
16401.4467	-38.15	-13.00	25.15	Horizontal



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

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

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

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



7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
112.4056	-65.27	-13.00	52.27	Vertical
2698.7397	-36.55	-13.00	23.55	Vertical
3472.5158	-45.57	-13.00	32.57	Vertical
5208.5736	-49.72	-13.00	36.72	Vertical
14485.3828	-42.71	-13.00	29.71	Vertical
17904.9968	-35.19	-13.00	22.19	Vertical
43.7262	-64.91	-13.00	51.91	Horizontal
2699.1398	-35.21	-13.00	22.21	Horizontal
3472.0157	-37.97	-13.00	24.97	Horizontal
5208.0736	-51.88	-13.00	38.88	Horizontal
16397.9466	-37.98	-13.00	24.98	Horizontal
17989.4997	-38.59	-13.00	25.59	Horizontal

Remark:

- 1 According to 971168 D01 Power Meas License Digital Systems, The amplitudes of unwanted emissions that are attenuated more than 20 dB below the applicable limit are not required to be reported.
- 2 The disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data displayed in this report.
- 3 all modulation and all Bandwidth had been tested, but only the worst case data displayed in this report.



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

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



8. Frequency Stability

8.1. Frequency Vs Voltage

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	VL	NT	1.80	0.001047	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VN	NT	0.90	0.000523	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VH	NT	1.20	0.000698	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VL	NT	0.50	0.000289	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VN	NT	1.70	0.000981	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VH	NT	1.00	0.000577	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VL	NT	-2.90	-0.001662	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VN	NT	-3.70	-0.002120	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VH	NT	-4.10	-0.002350	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VL	NT	2.00	0.001163	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VN	NT	2.10	0.001221	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VH	NT	1.30	0.000756	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VL	NT	-0.30	-0.000173	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VN	NT	2.30	0.001328	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VH	NT	0.70	0.000404	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VL	NT	-3.00	-0.001719	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VN	NT	-2.20	-0.001261	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VH	NT	-2.90	-0.001662	±2.5	PASS

8.2. Frequency Vs Temperature

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	NV	-30	1.30	0.000756	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	-20	1.00	0.000581	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	0	0.90	0.000523	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	10	1.10	0.000640	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	20	2.10	0.001221	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	30	1.30	0.000756	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	40	2.40	0.001395	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	50	2.10	0.001221	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-30	0.00	0.000000	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-20	1.00	0.000577	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	0	-0.30	-0.000173	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	10	0.10	0.000058	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	20	0.50	0.000289	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	30	0.60	0.000346	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	40	-1.00	-0.000577	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	50	-0.40	-0.000231	±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. Shenzhen Branch Laboratory
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



Band4	20MHz	QPSK	20300	100RB#0	NV	-30	-3.40	-0.001948	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-20	-0.80	-0.000458	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	0	-3.80	-0.002178	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	10	-2.60	-0.001490	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	20	-3.50	-0.002006	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	30	-2.50	-0.001433	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	40	-4.00	-0.002292	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	50	-2.60	-0.001490	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-30	2.30	0.001337	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-20	1.90	0.001105	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	0	2.10	0.001221	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	10	1.70	0.000988	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	20	1.40	0.000814	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	30	2.10	0.001221	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	40	1.20	0.000698	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	50	1.90	0.001105	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-30	0.00	0.000000	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-20	0.40	0.000231	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	0	1.80	0.001039	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	10	0.70	0.000404	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	20	0.20	0.000115	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	30	0.10	0.000058	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	40	0.80	0.000462	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	50	0.20	0.000115	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-30	-2.10	-0.001203	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-20	-1.50	-0.000860	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	0	-2.60	-0.001490	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	10	-3.00	-0.001719	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	20	-1.40	-0.000802	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	30	-3.60	-0.002063	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	40	-2.50	-0.001433	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	50	-2.00	-0.001146	±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.
Shenzhen Branch (SGS-CSTC) Laboratory

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