



Appendix B

E-UTRA Band 12



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



CONTENT

1.	EFFECTIVE (ISOTROPIC) RADIATED POWER	3
1.1.	TEST RESULT	3
2.	PEAK-TO-AVERAGE RATIO(CCDF)	8
2.1.	TEST RESULT	8
2.2.	TEST PLOTS.....	8
3.	MODULATION CHARACTERISTICS	12
3.1.	TEST BAND = LTE BAND 12	12
3.2.	TEST MODE = LTE /TM1 10MHZ.....	12
3.2.1.	TEST CHANNEL = MCH.....	12
3.3.	TEST MODE = LTE /TM2 10MHZ.....	13
3.3.1.	TEST CHANNEL = MCH.....	13
4.	26DB BANDWIDTH AND OCCUPIED BANDWIDTH	14
4.1.	TEST RESULT	14
4.2.	TEST PLOTS.....	15
5.	BAND EDGE COMPLIANCE	27
5.1.	TEST PLOTS.....	27
6.	SPURIOUS EMISSION AT ANTENNA TERMINAL	43
6.1.	TEST PLOTS.....	43
7.	FIELD STRENGTH OF SPURIOUS RADIATION	49
7.1.	TEST BAND = LTE BAND 12	49
7.1.1.	TEST MODE =LTE/TM1 10MHZ.....	49
7.1.1.1.	TEST CHANNEL = LCH	49
7.1.1.2.	TEST CHANNEL = MCH.....	49
7.1.1.3.	TEST CHANNEL = HCH	50
8.	FREQUENCY STABILITY	51
8.1.	FREQUENCY VS VOLTAGE	51
8.2.	FREQUENCY VS TEMPERATURE	51



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

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



1. Effective (Isotropic) Radiated Power

1.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	23.23	24.34	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	23.07	24.18	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.08	24.19	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	23.23	24.34	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	23.37	24.48	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	23.32	24.43	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.33	23.44	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.36	24.47	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.35	24.46	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.25	24.36	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	23.38	24.49	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	23.44	24.55	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	23.30	24.41	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.28	23.39	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.17	24.28	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.27	24.38	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.25	24.36	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	23.39	24.50	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	23.39	24.50	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	23.45	24.56	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.40	23.51	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	21.81	22.92	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	21.84	22.95	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	21.70	22.81	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	22.16	23.27	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	22.37	23.48	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#3	22.32	23.43	34.77	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	21.27	22.38	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	21.91	23.02	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	21.91	23.02	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	21.80	22.91	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	22.29	23.40	34.77	PASS



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



Band12	1.4MHz	16QAM	23095	3RB#1	22.55	23.66	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	22.46	23.57	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.37	22.48	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.15	23.26	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.01	23.12	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	21.86	22.97	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	22.17	23.28	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	22.53	23.64	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	22.58	23.69	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	21.58	22.69	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.23	24.34	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	23.31	24.42	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.06	24.17	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#0	22.23	23.34	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#4	22.32	23.43	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#7	22.35	23.46	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.30	23.41	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.14	24.25	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.55	24.66	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.12	24.23	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#0	22.33	23.44	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#4	22.36	23.47	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#7	22.27	23.38	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.42	23.53	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.28	24.39	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	23.22	24.33	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	23.22	24.33	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#0	22.45	23.56	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#4	22.31	23.42	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#7	22.25	23.36	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.29	23.40	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	21.91	23.02	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	21.83	22.94	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	21.68	22.79	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#0	20.92	22.03	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#4	21.03	22.14	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#7	21.00	22.11	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	21.24	22.35	34.77	PASS



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



Band12	3MHz	16QAM	23095	1RB#0	22.03	23.14	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	22.10	23.21	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	21.47	22.58	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#0	21.05	22.16	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#4	21.07	22.18	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#7	20.99	22.10	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.22	22.33	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	22.19	23.30	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	21.64	22.75	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	21.63	22.74	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#0	21.11	22.22	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#4	21.16	22.27	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#7	21.02	22.13	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.25	22.36	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.02	24.13	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.32	24.43	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.30	24.41	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#0	22.25	23.36	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#6	22.31	23.42	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#13	22.32	23.43	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.26	23.37	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.22	24.33	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	23.58	24.69	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.34	24.45	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#0	22.28	23.39	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#6	22.46	23.57	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#13	22.36	23.47	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.34	23.45	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.34	24.45	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.02	24.13	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	22.86	23.97	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#0	22.47	23.58	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#6	22.25	23.36	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#13	22.19	23.30	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	22.32	23.43	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	21.93	23.04	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	22.02	23.13	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	21.96	23.07	34.77	PASS



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



Band12	5MHz	16QAM	23035	12RB#0	20.91	22.02	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#6	21.11	22.22	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#13	21.12	22.23	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.55	22.66	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	21.69	22.80	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.17	23.28	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	21.76	22.87	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#0	21.00	22.11	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#6	21.20	22.31	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#13	21.04	22.15	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.37	22.48	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	21.73	22.84	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	21.89	23.00	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	21.78	22.89	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#0	21.03	22.14	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#6	21.09	22.20	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#13	20.87	21.98	34.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	21.46	22.57	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	22.90	24.01	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	23.62	24.73	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	22.99	24.10	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#0	22.31	23.42	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#12	22.47	23.58	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#25	22.30	23.41	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	22.27	23.38	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.09	24.20	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	24.24	25.35	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	22.76	23.87	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#0	22.49	23.60	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#12	21.84	22.95	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#25	22.07	23.18	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	21.89	23.00	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.00	24.11	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	22.96	24.07	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	22.92	24.03	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#0	22.07	23.18	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#12	22.08	23.19	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#25	22.08	23.19	34.77	PASS



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



Band12	10MHz	QPSK	23130	50RB#0	21.97	23.08	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	21.96	23.07	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	21.94	23.05	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	22.04	23.15	34.77	PASS
Band12	10MHz	16QAM	23060	27RB#0	21.80	22.91	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	22.18	23.29	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	21.93	23.04	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	21.85	22.96	34.77	PASS
Band12	10MHz	16QAM	23095	27RB#0	22.19	23.30	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	22.07	23.18	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	21.85	22.96	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	22.04	23.15	34.77	PASS
Band12	10MHz	16QAM	23130	27RB#0	21.93	23.04	34.77	PASS

Remark:

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

$$ERP [dBm] = \text{Conducted Power [dBm]} + \text{Gain [dBd]}$$

$$EIRP [dBm] = \text{Conducted Power [dBm]} + \text{Gain [dBi]}$$



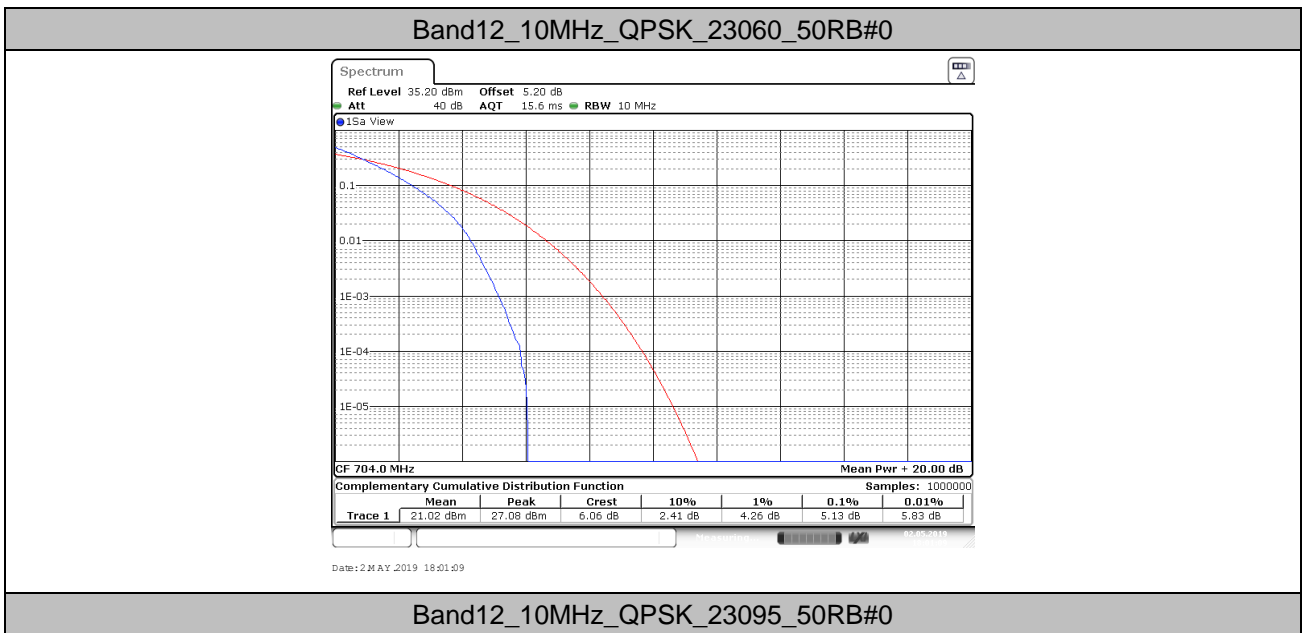
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

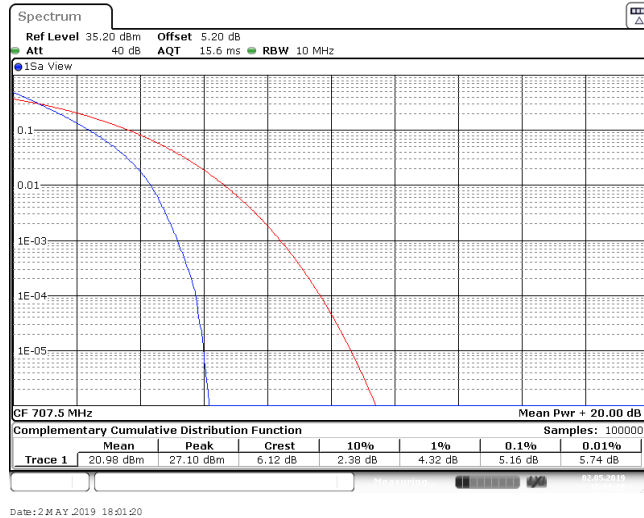
BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	5.13	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.16	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	4.93	13	PASS
Band12	10MHz	16QAM	23060	27RB#0	5.74	13	PASS
Band12	10MHz	16QAM	23095	27RB#0	5.77	13	PASS
Band12	10MHz	16QAM	23130	27RB#0	5.80	13	PASS

2.2. Test Plots



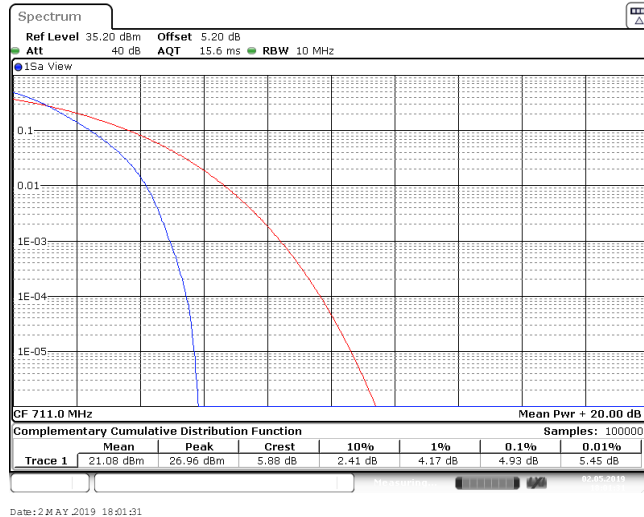
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Date: 2 MAY 2019 18:01:20

Band12_10MHz_QPSK_23130_50RB#0



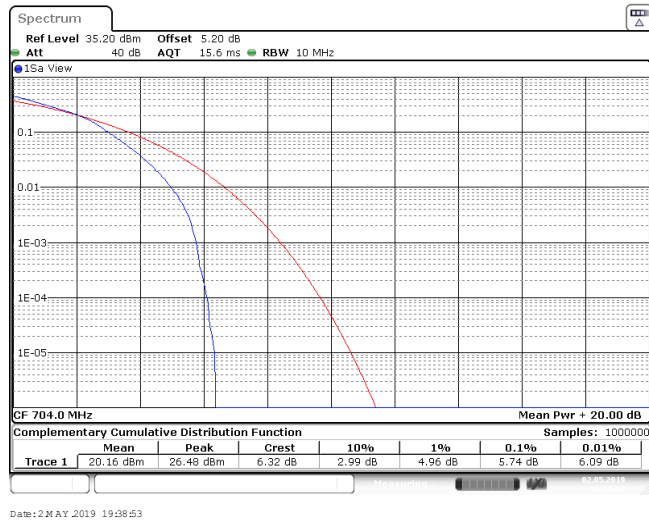
Date: 2 MAY 2019 18:01:31

Band12_10MHz_16QAM_23060_27RB#0



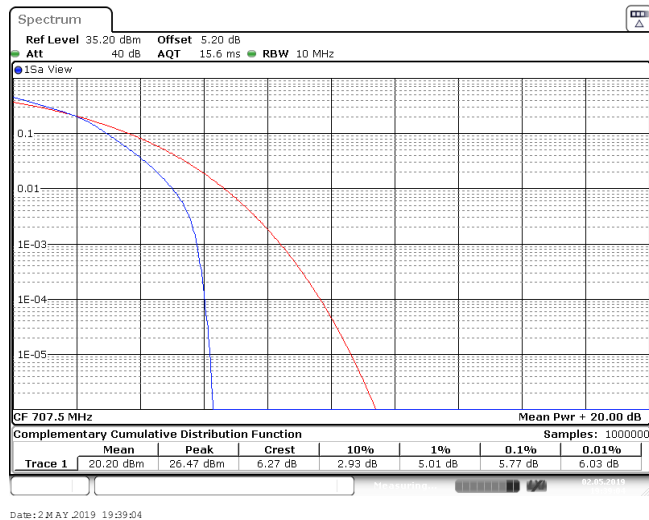
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Date: 2 MAY 2019 19:38:53

Band12_10MHz_16QAM_23095_27RB#0



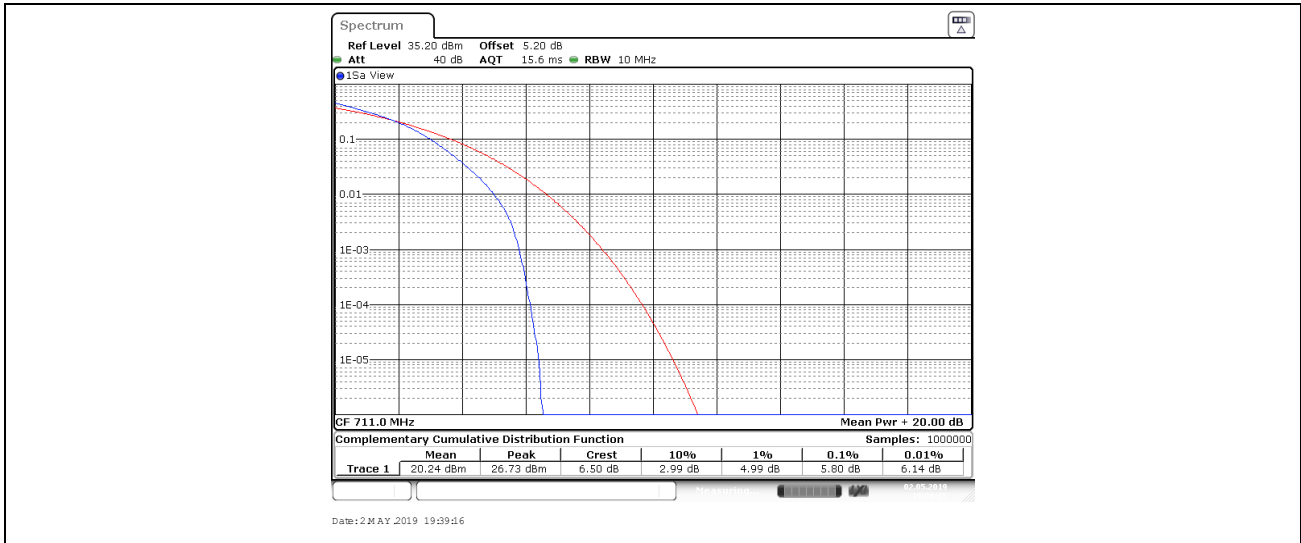
Date: 2 MAY 2019 19:39:04

Band12_10MHz_16QAM_23130_27RB#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



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

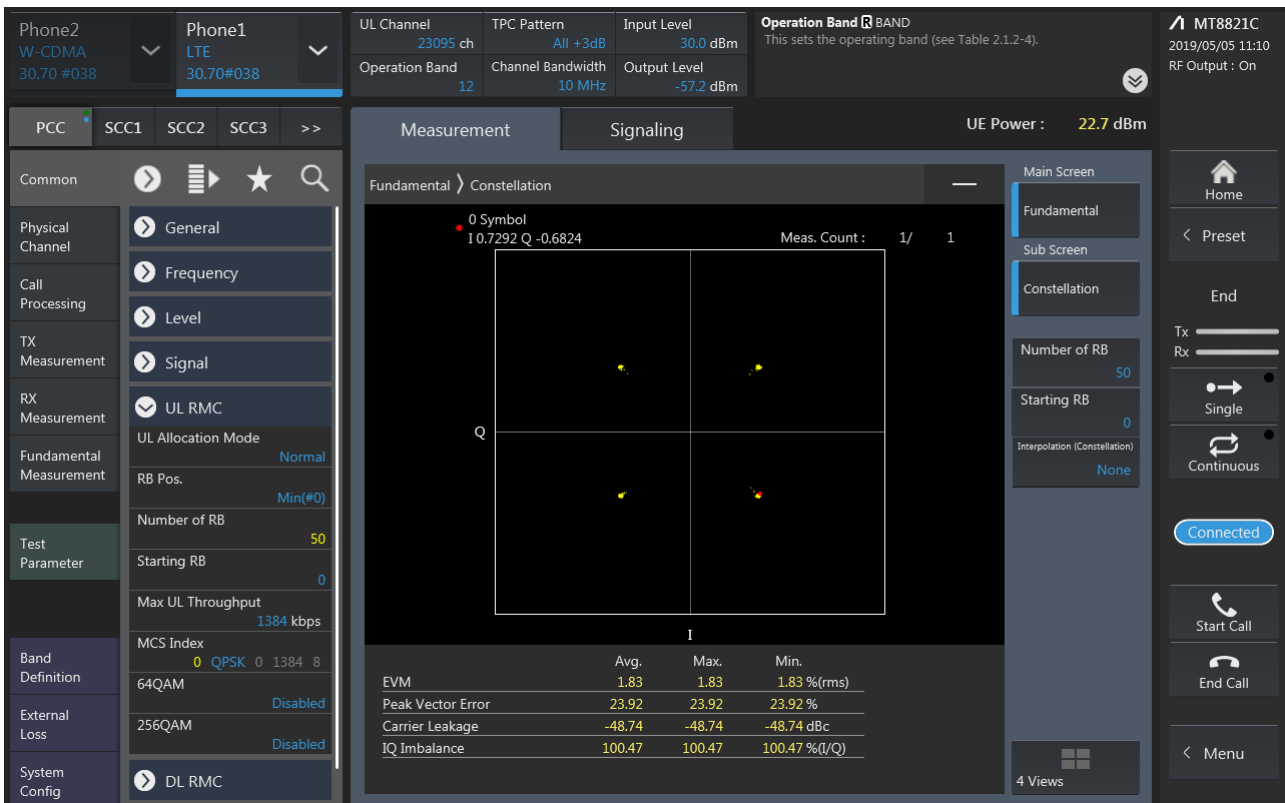


3. Modulation Characteristics

3.1. Test BAND = LTE Band 12

3.2. Test Mode = LTE /TM1 10MHz

3.2.1. Test Channel = MCH



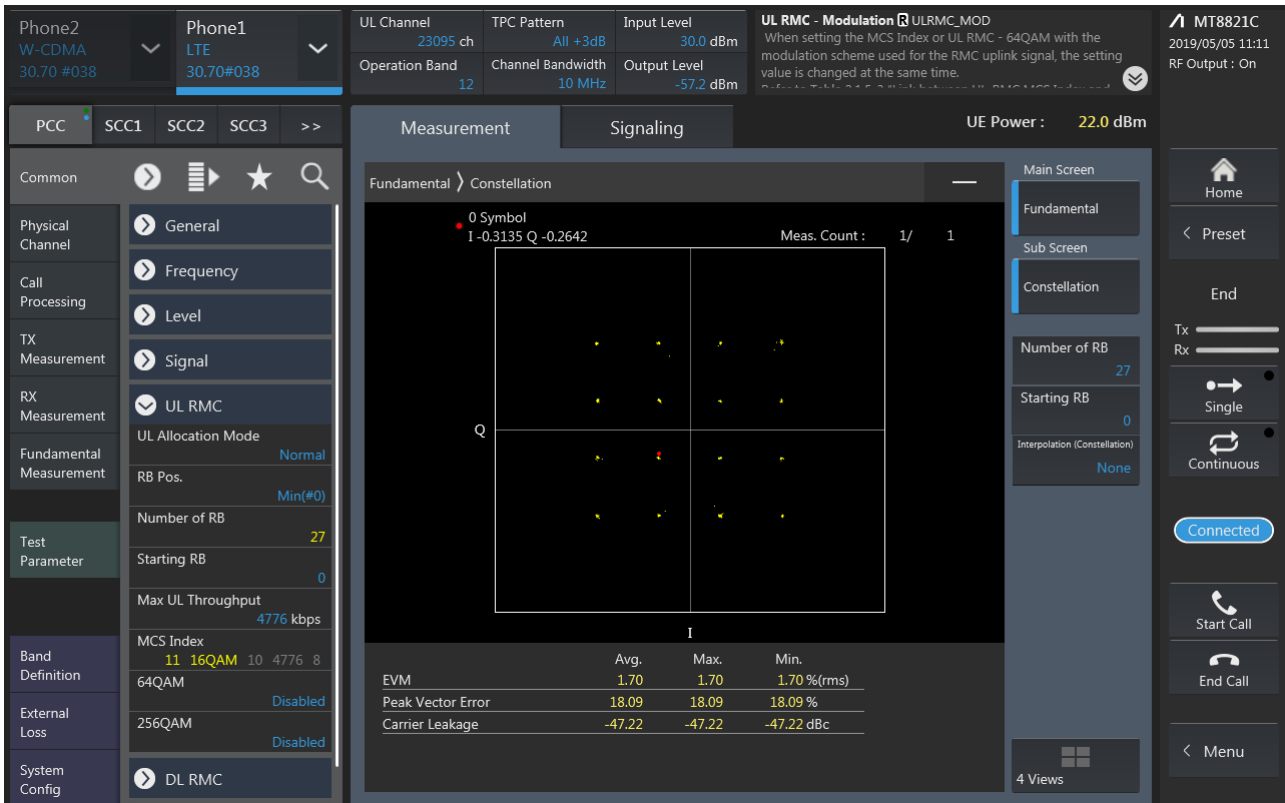
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



3.3. Test Mode = LTE /TM2 10MHz

3.3.1. Test Channel = MCH



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.

4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

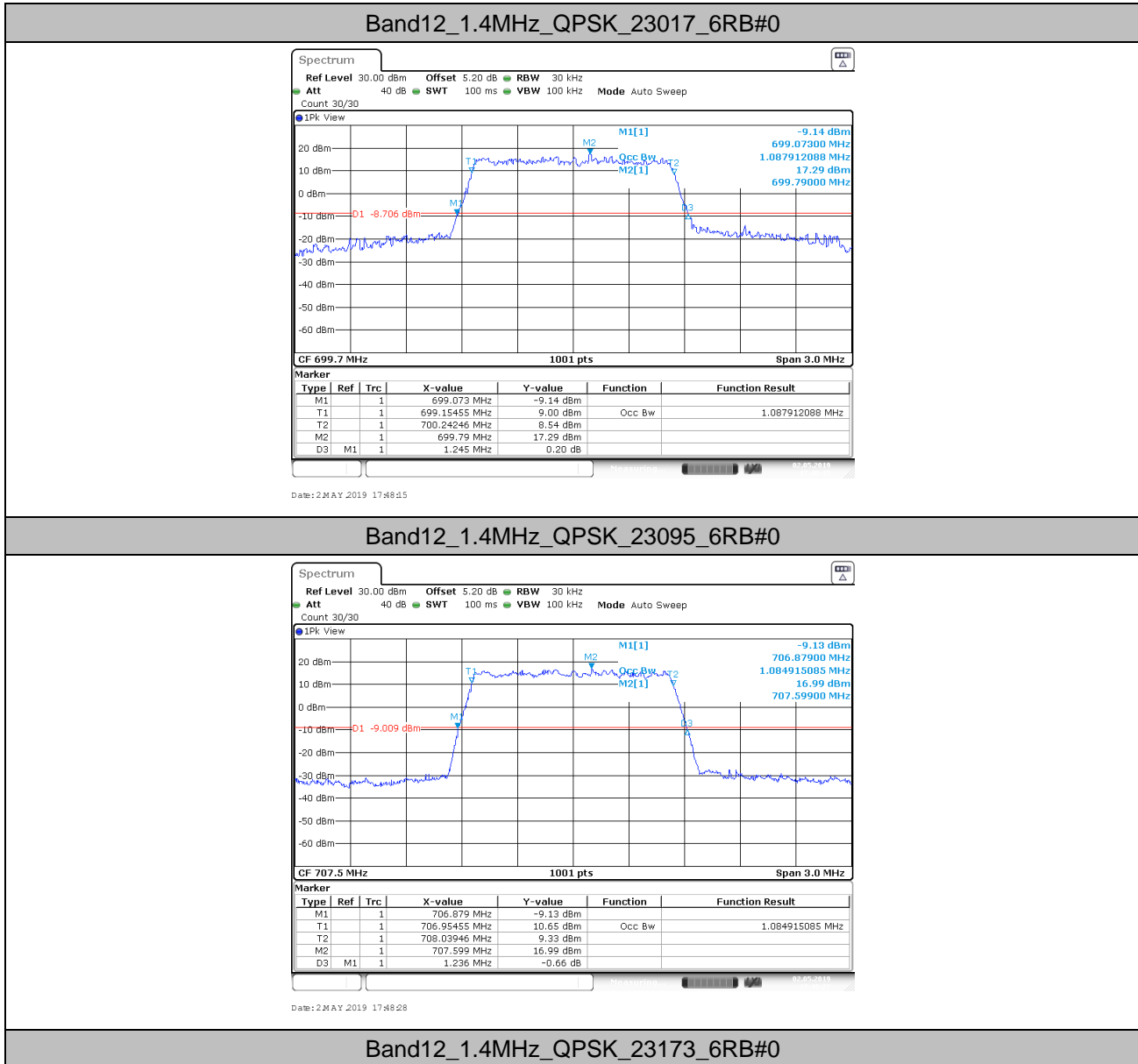
BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.088	1.245	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.085	1.236	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.088	1.233	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.088	1.242	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.088	1.239	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.085	1.227	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.697	3.018	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.697	3.012	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.691	3.024	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.685	2.970	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.685	2.994	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.685	2.982	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.466	4.890	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.476	4.890	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.466	4.900	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.486	4.930	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.496	4.930	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.486	4.920	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.931	9.680	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.931	9.680	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.931	9.660	PASS
Band12	10MHz	16QAM	23060	27RB#0	4.875	5.640	PASS
Band12	10MHz	16QAM	23095	27RB#0	4.855	5.640	PASS
Band12	10MHz	16QAM	23130	27RB#0	4.855	5.680	PASS

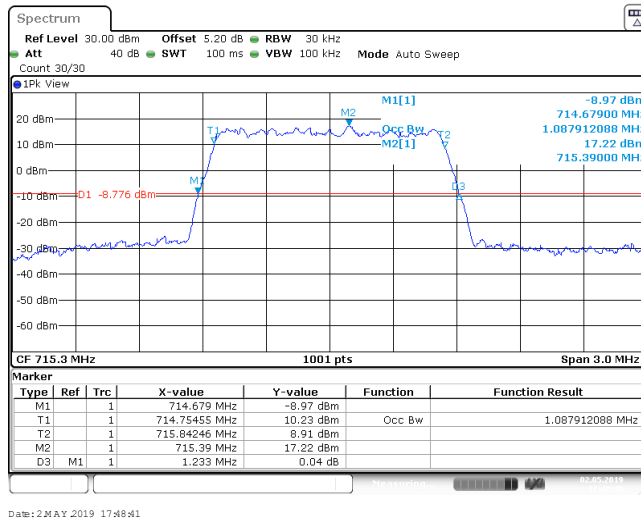


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

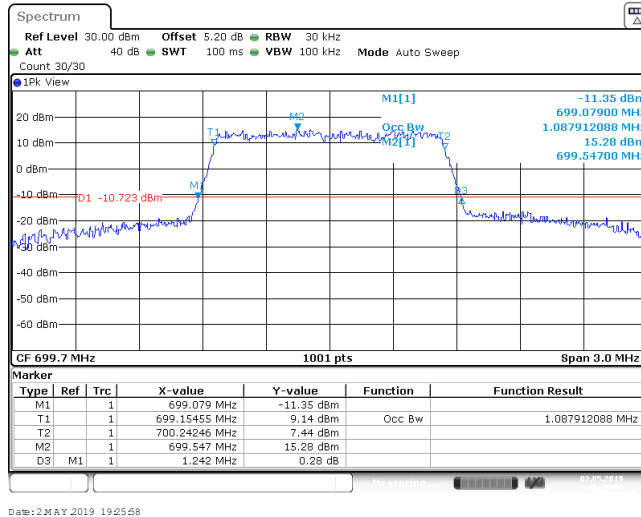
4.2. Test Plots





Date: 2 MAY 2019 17:48:41

Band12_1.4MHz_16QAM_23017_6RB#

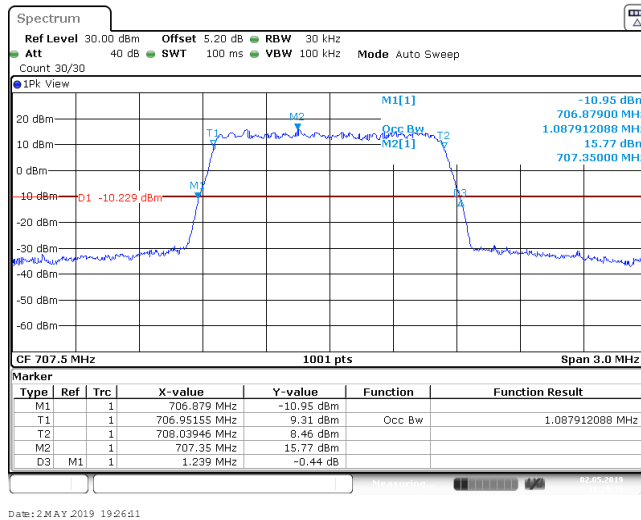


Date: 2 MAY 2019 19:25:58

Band12_1.4MHz_16QAM_23095_6RB#

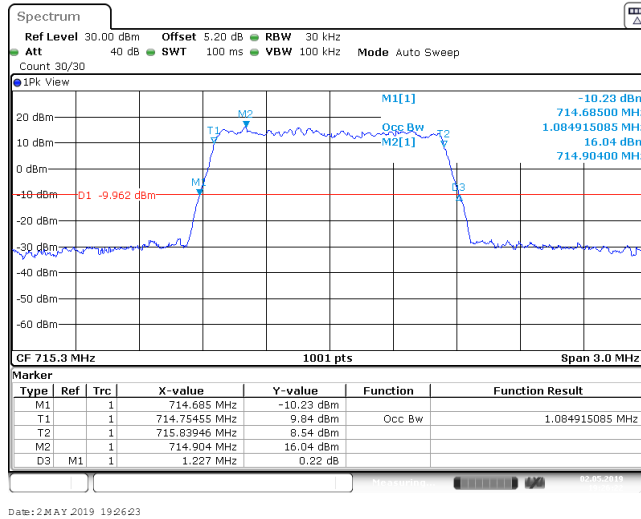


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Date: 2 MAY 2019 19:26:31

Band12_1.4MHz_16QAM_23173_6RB#0

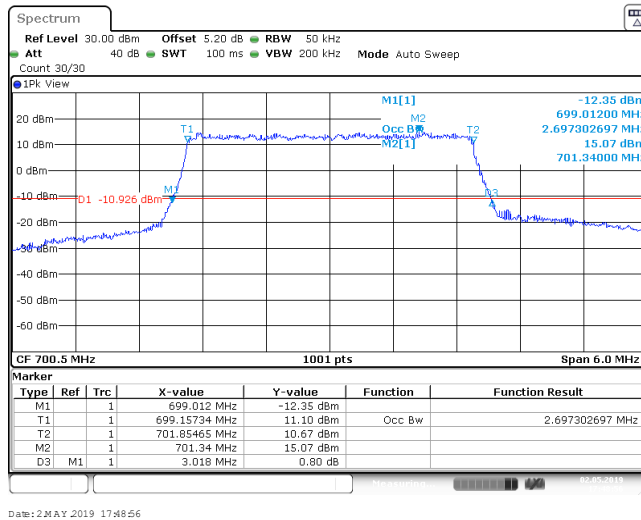


Date: 2 MAY 2019 19:26:23

Band12_3MHz_QPSK_23025_15RB#0

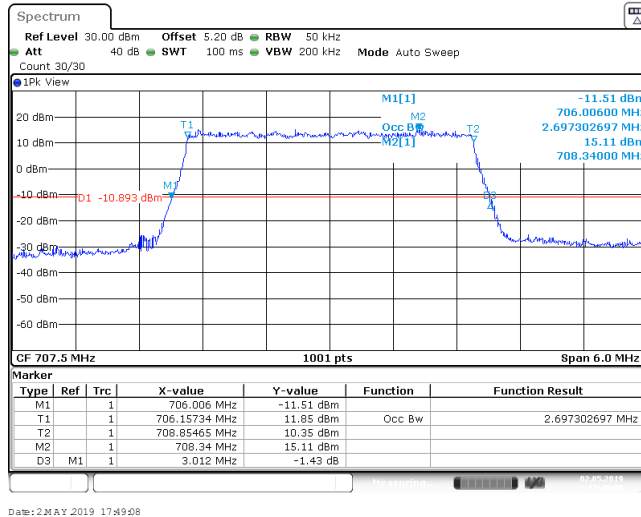


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Date: 2 MAY 2019 17:48:56

Band12_3MHz_QPSK_23095_15RB#0

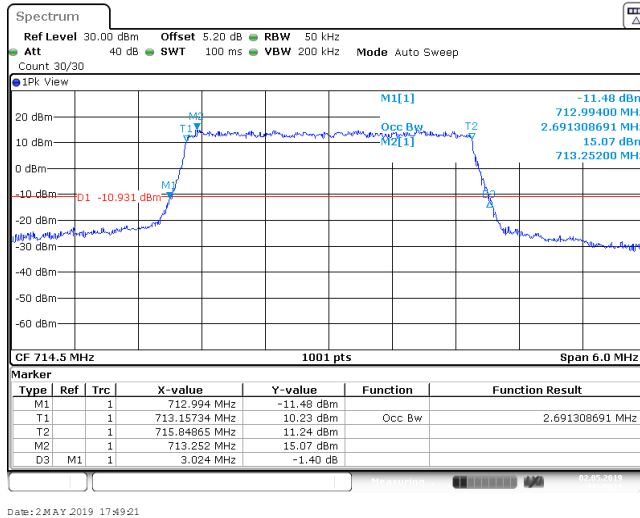


Date: 2 MAY 2019 17:49:08

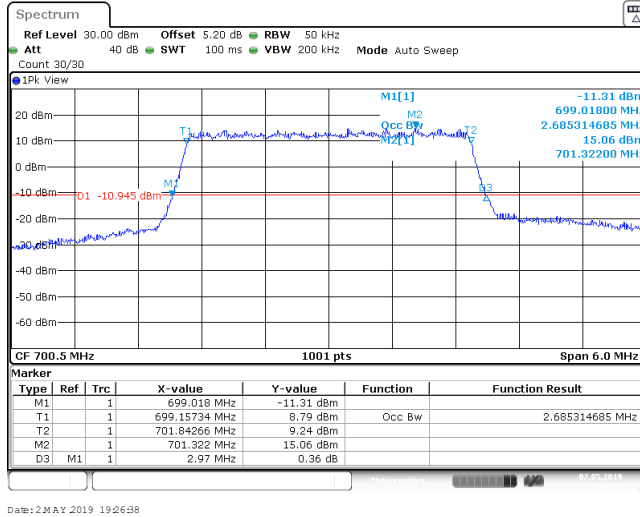
Band12_3MHz_QPSK_23165_15RB#0



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



Band12_3MHz_16QAM_23025_15RB#



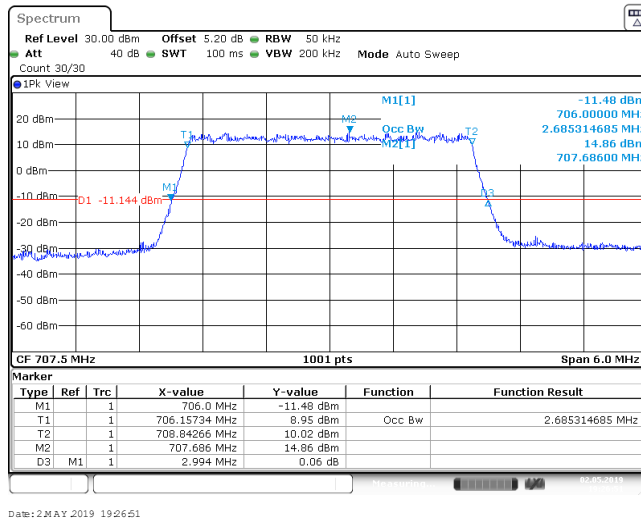
Band12_3MHz_16QAM_23095_15RB#



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

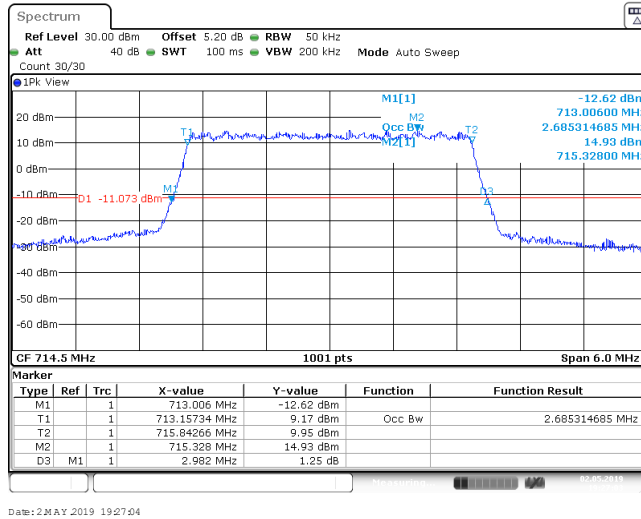
Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

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



Date: 2 MAY 2019 19:26:51

Band12_3MHz_16QAM_23165_15RB#0

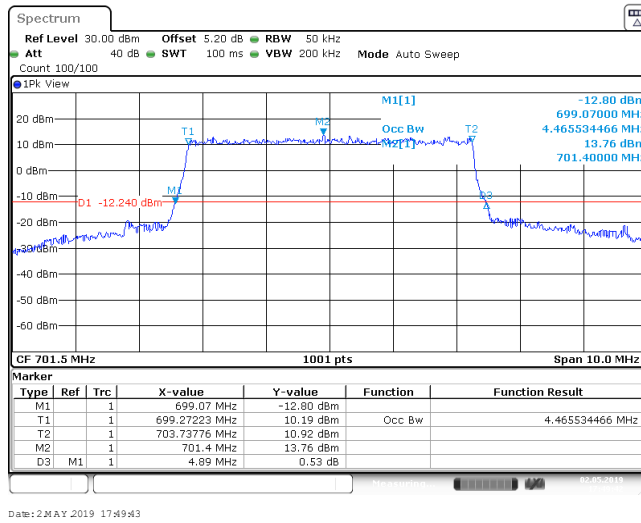


Date: 2 MAY 2019 19:27:04

Band12_5MHz_QPSK_23035_25RB#0

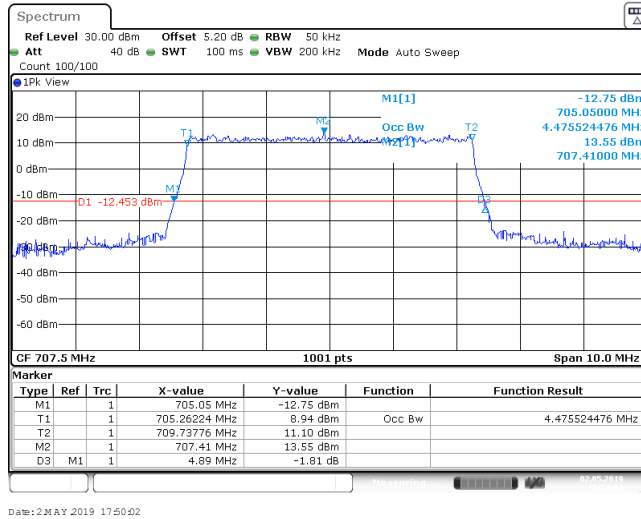


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Date: 2 MAY 2019 17:49:43

Band12_5MHz_QPSK_23095_25RB#0

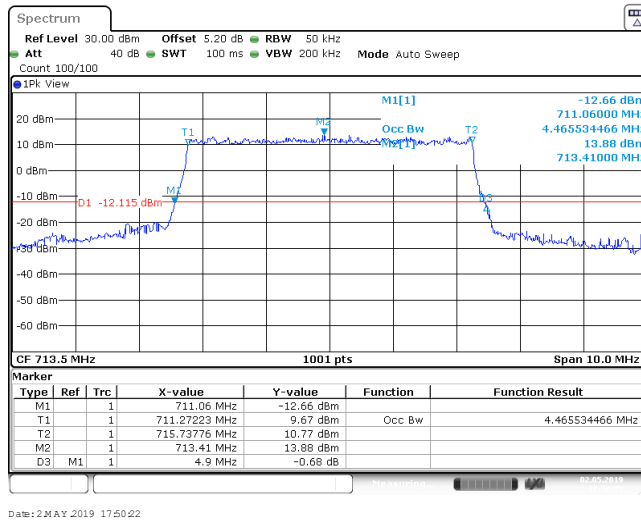


Date: 2 MAY 2019 17:50:02

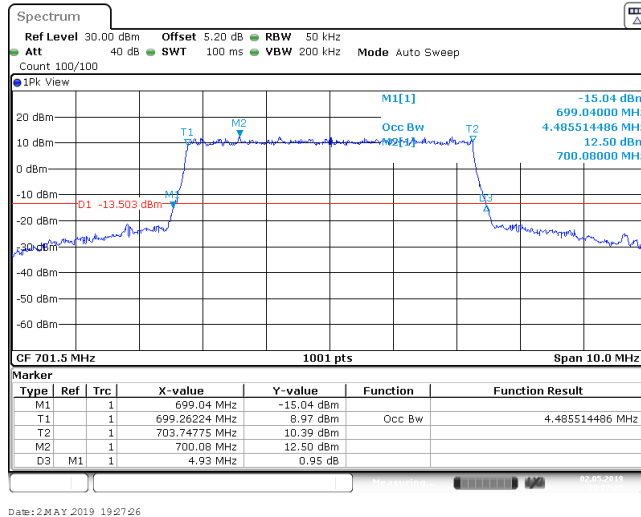
Band12_5MHz_QPSK_23155_25RB#0



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



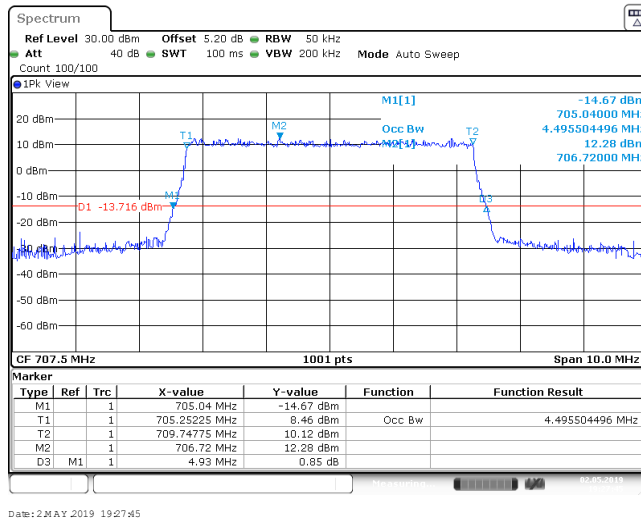
Band12_5MHz_16QAM_23035_25RB#



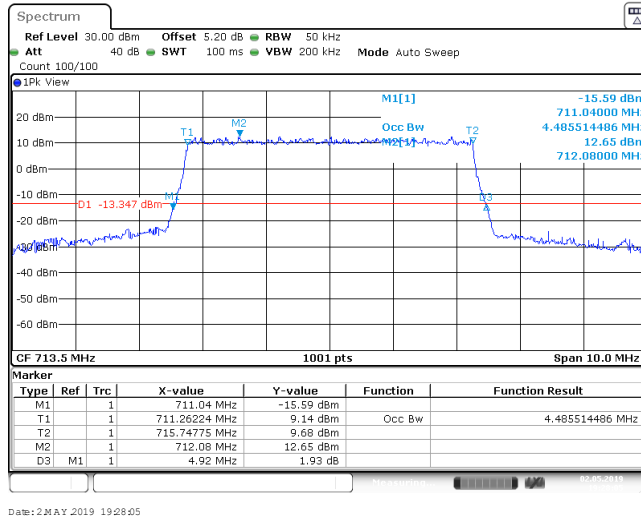
Band12_5MHz_16QAM_23095_25RB#



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.



Band12_5MHz_16QAM_23155_25RB#

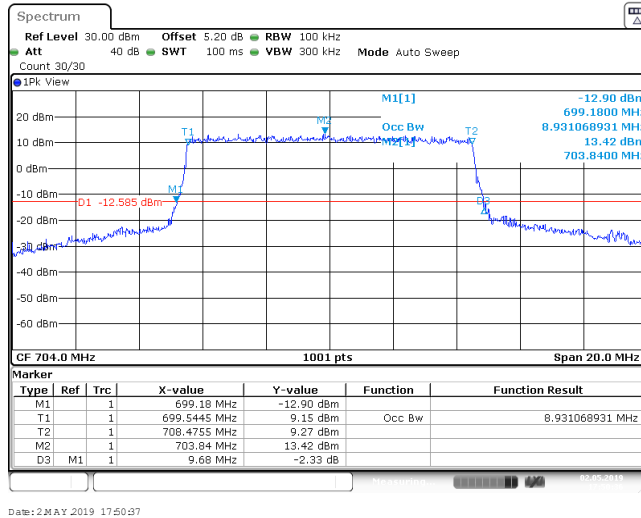


Band12_10MHz_QPSK_23060_50RB#

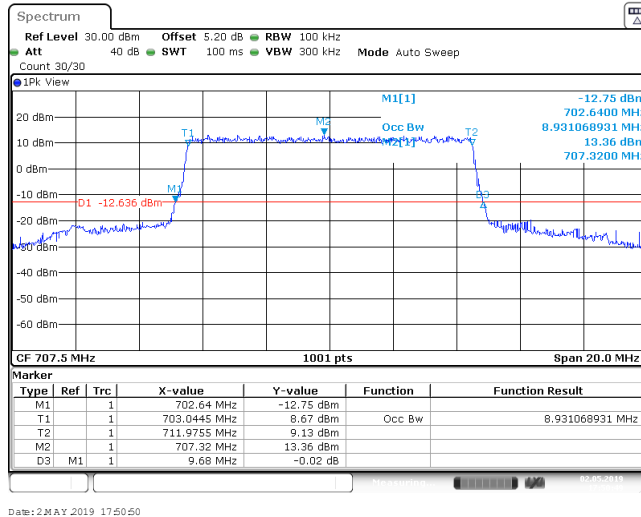


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



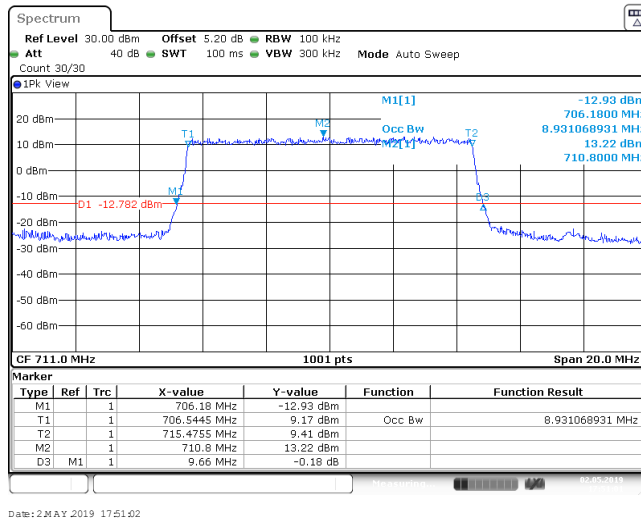
Band12_10MHz_QPSK_23095_50RB#



Band12_10MHz_QPSK_23130_50RB#

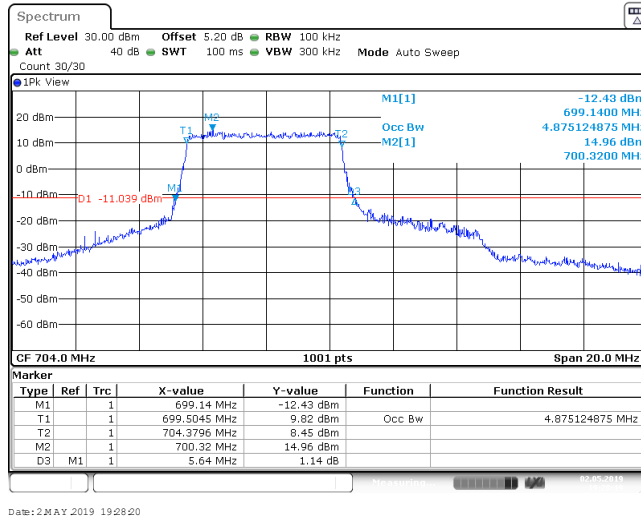


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Date: 2 MAY 2019 17:51:02

Band12_10MHz_16QAM_23060_27RB#0

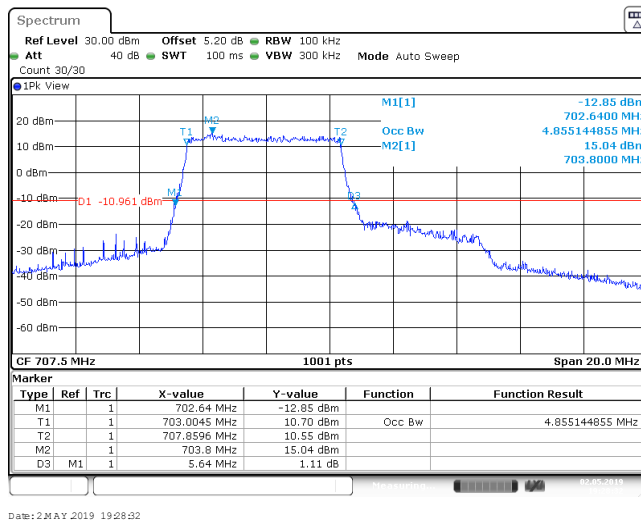


Date: 2 MAY 2019 19:28:20

Band12_10MHz_16QAM_23095_27RB#0

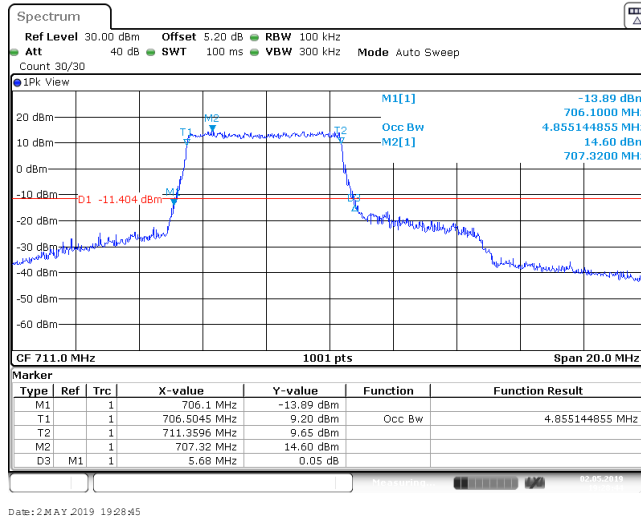


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Date: 2 MAY 2019 19:28:32

Band12_10MHz_16QAM_23130_27RB#0



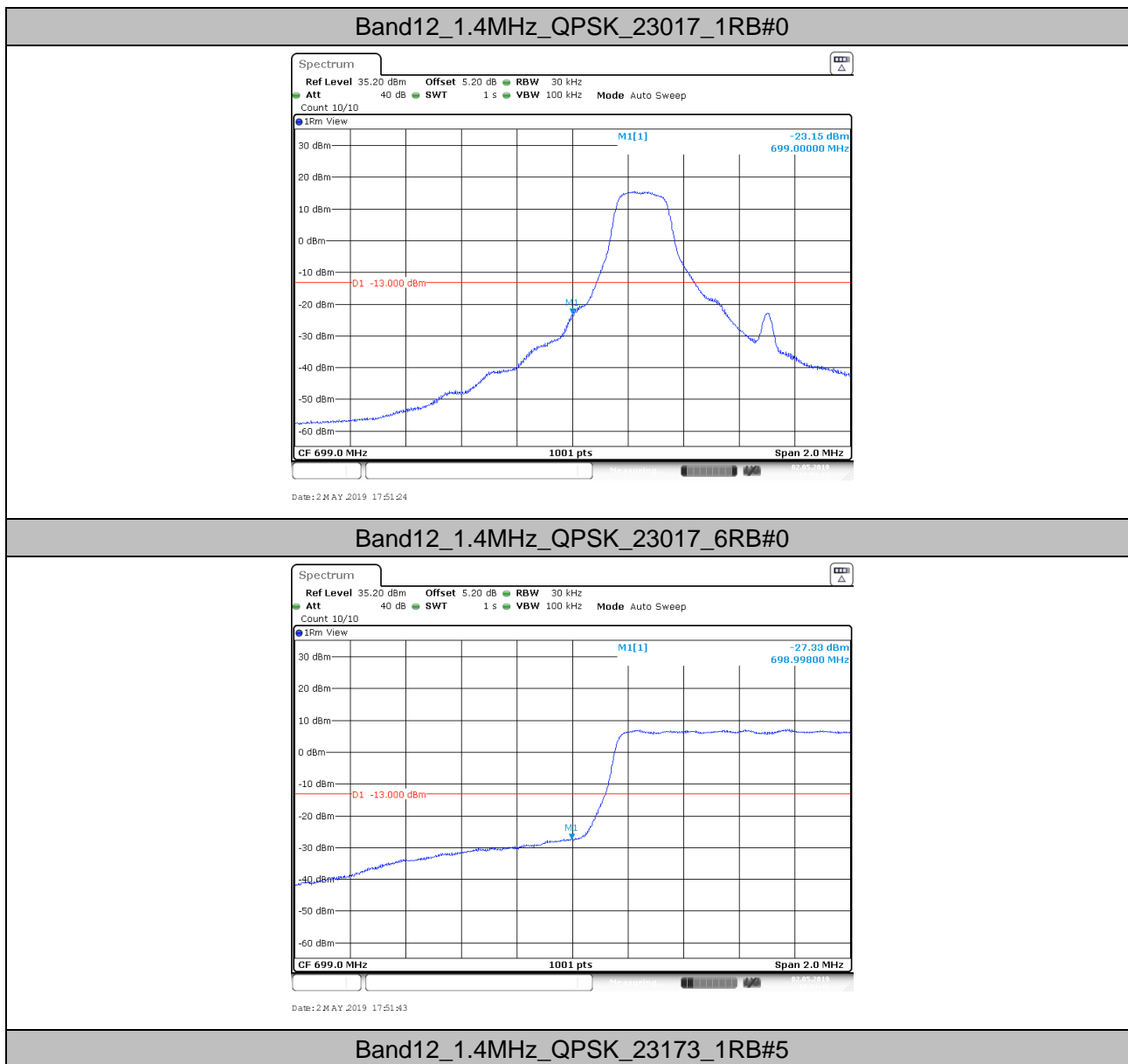
Date: 2 MAY 2019 19:28:45



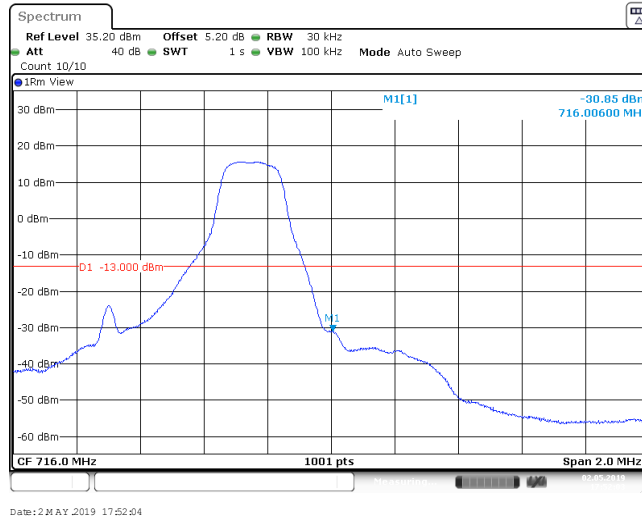
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

5. Band Edge Compliance

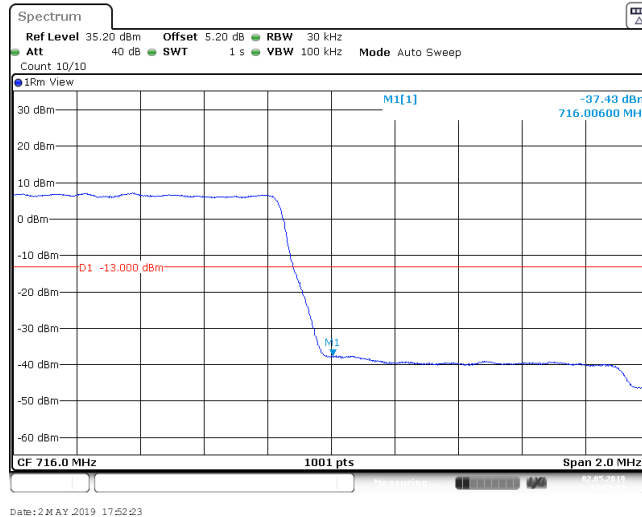
5.1. Test Plots



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 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



Band12_1.4MHz_QPSK_23173_6RB#0

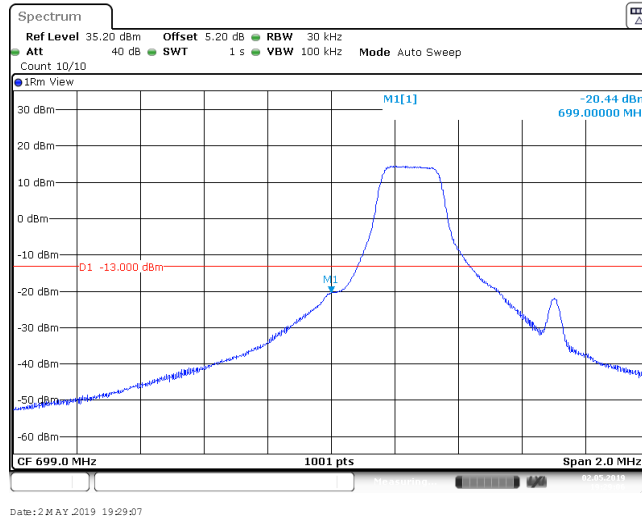


Band12_1.4MHz_16QAM_23017_1RB#0

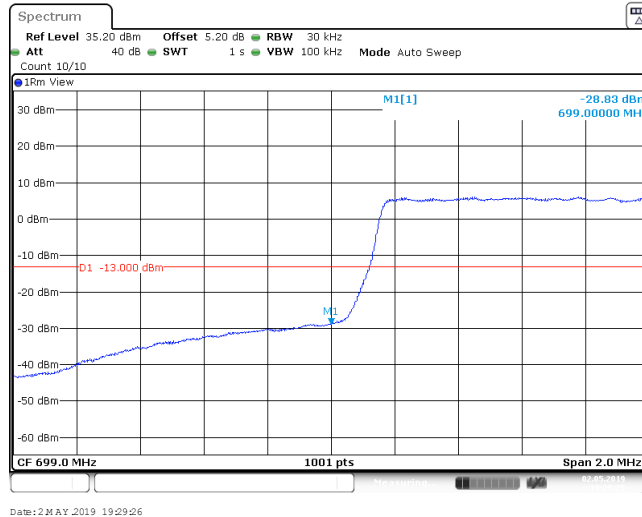


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band12_1.4MHz_16QAM_23017_6RB#0

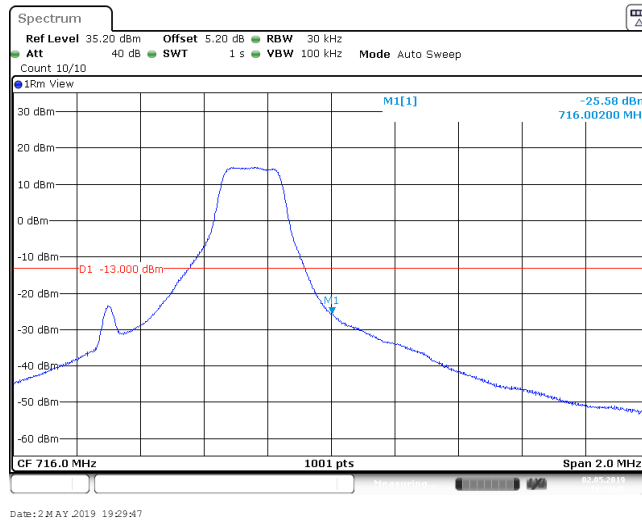


Band12_1.4MHz_16QAM_23173_1RB#5



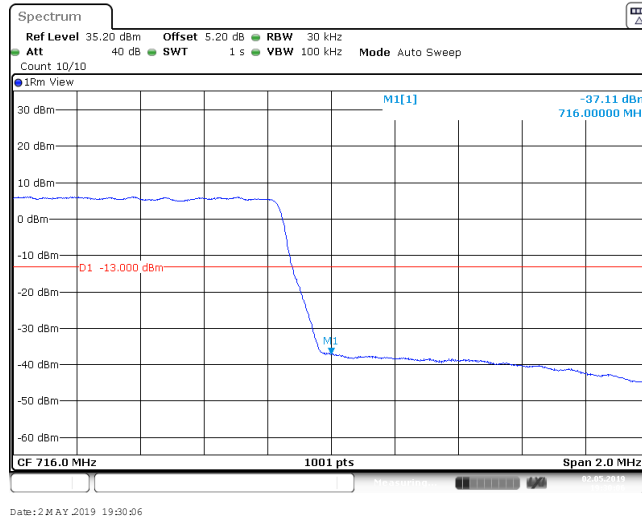
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

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



Date: 2 MAY 2019 19:29:47

Band12_1.4MHz_16QAM_23173_6RB#0

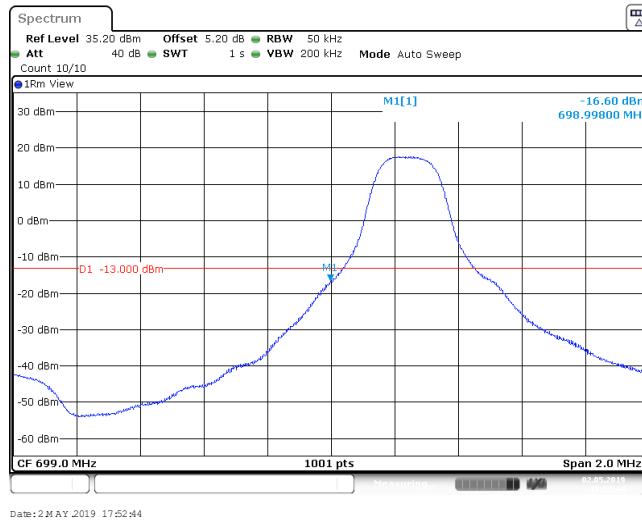


Date: 2 MAY 2019 19:30:06

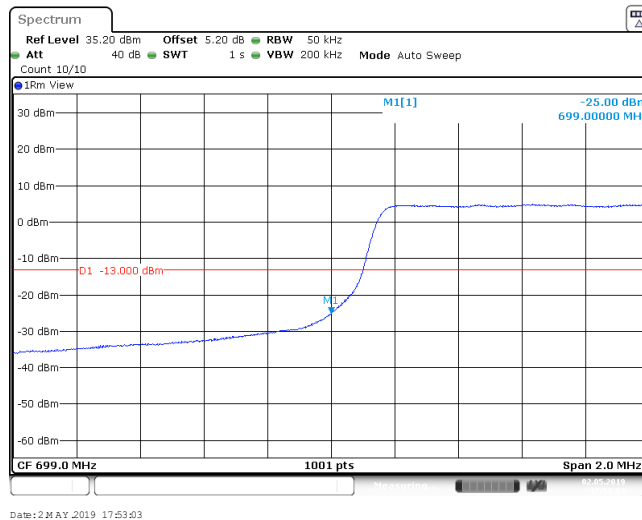
Band12_3MHz_QPSK_23025_1RB#0



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.



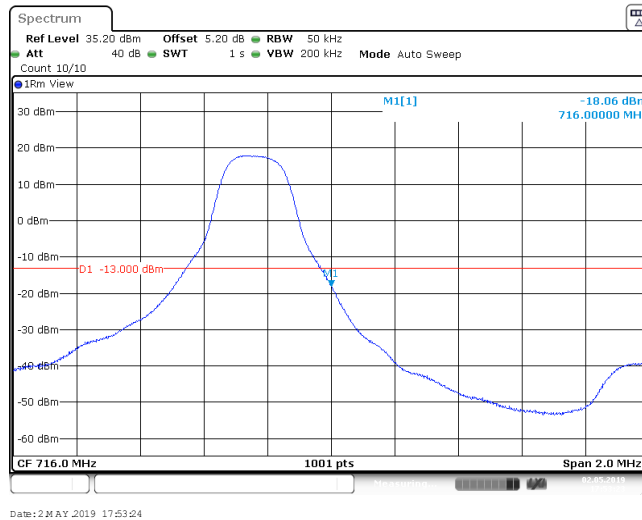
Band12_3MHz_QPSK_23025_15RB#0



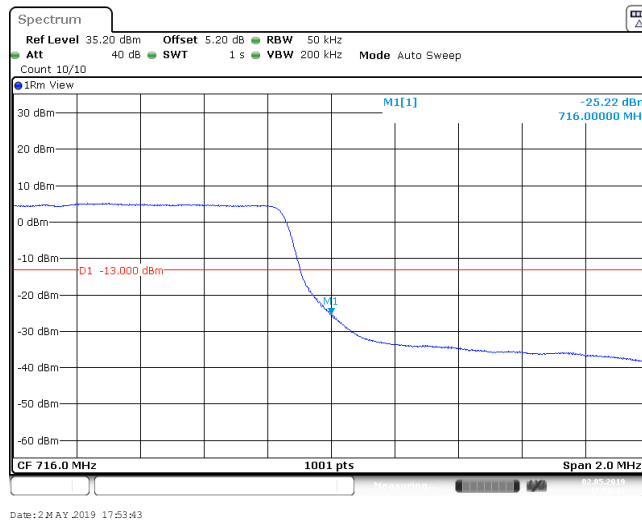
Band12_3MHz_QPSK_23165_1RB#14



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



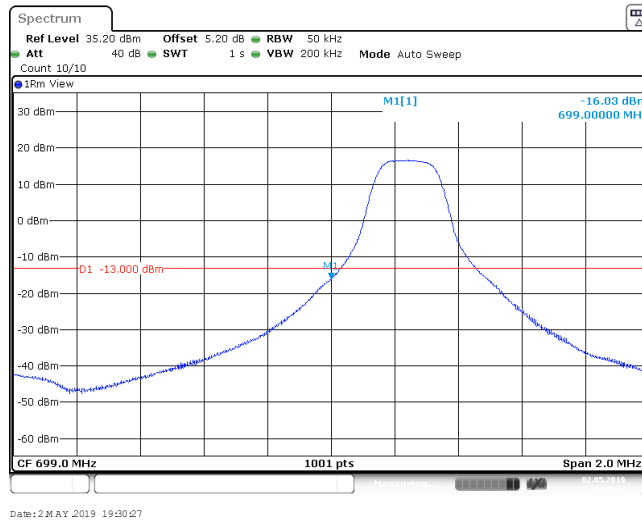
Band12_3MHz_QPSK_23165_15RB#0



Band12_3MHz_16QAM_23025_1RB#0

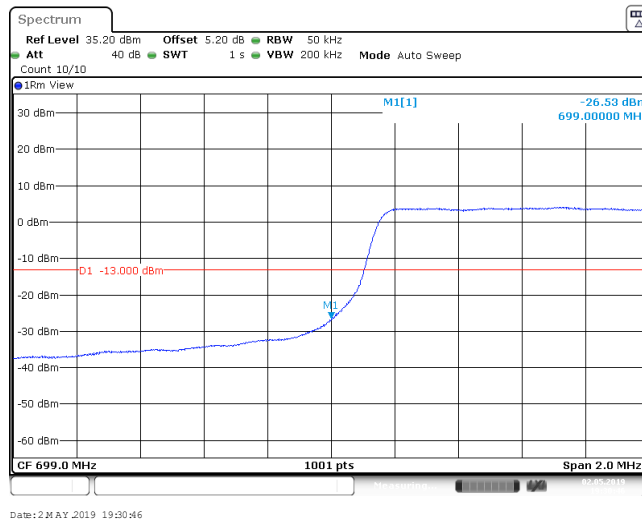


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Date: 2 MAY 2019 19:30:27

Band12_3MHz_16QAM_23025_15RB#0



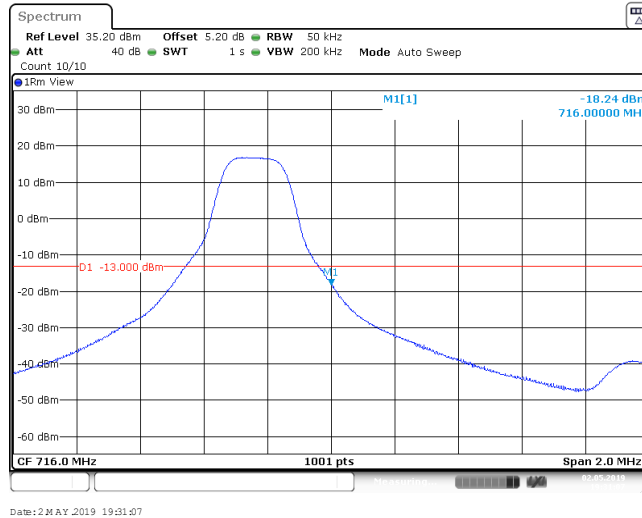
Date: 2 MAY 2019 19:30:46

Band12_3MHz_16QAM_23165_1RB#14

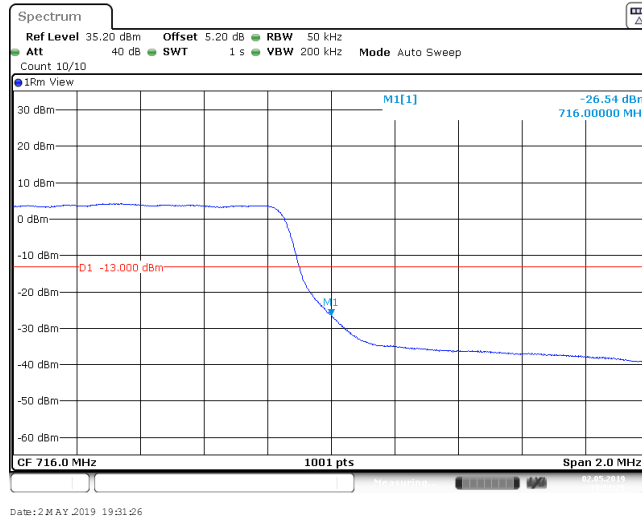


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

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



Band12_3MHz_16QAM_23165_15RB#0

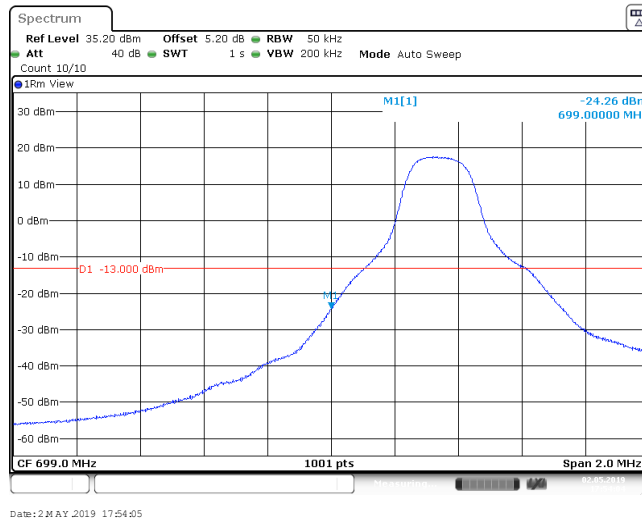


Band12_5MHz_QPSK_23035_1RB#0

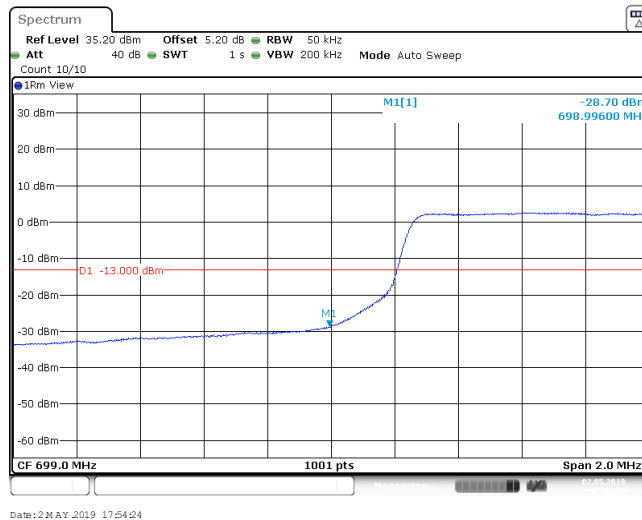


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



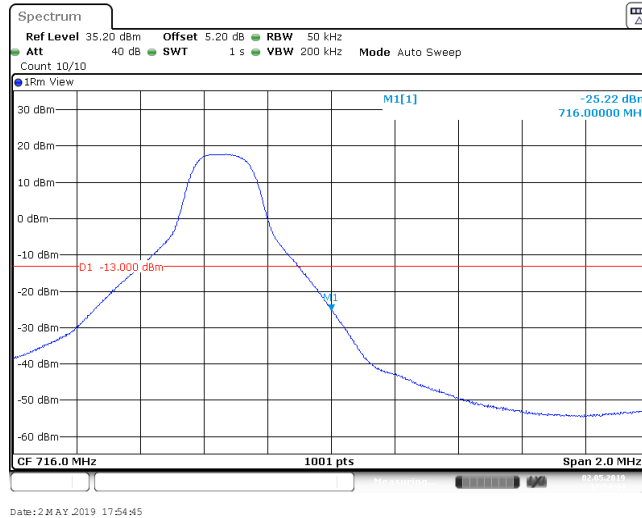
Band12_5MHz_QPSK_23035_25RB#0



Band12_5MHz_QPSK_23155_1RB#24

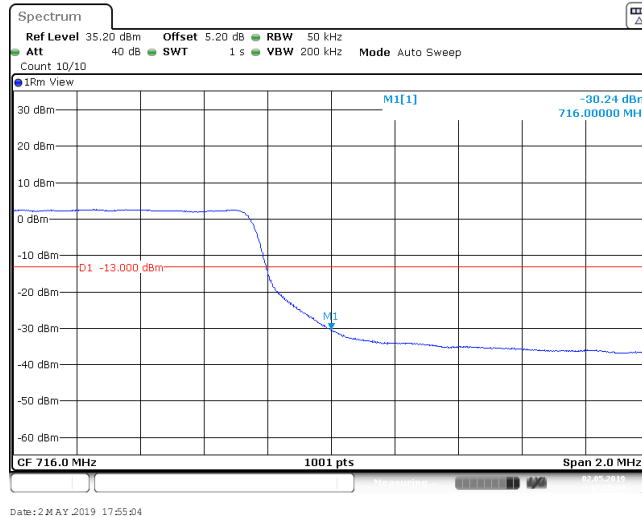


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Date: 2 MAY 2019 17:54:45

Band12_5MHz_QPSK_23155_25RB#0

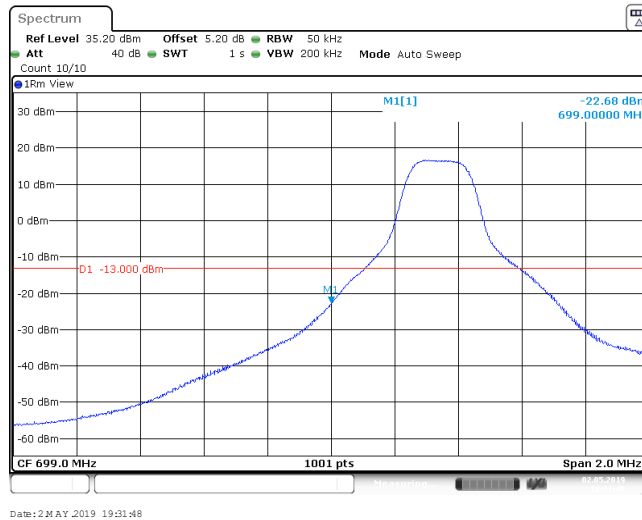


Date: 2 MAY 2019 17:55:04

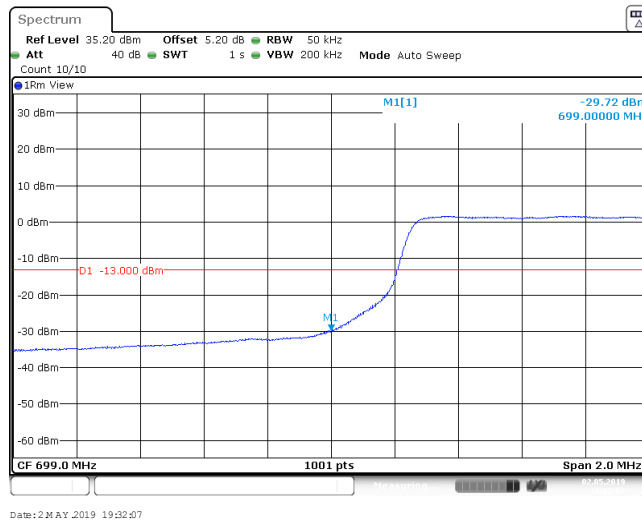
Band12_5MHz_16QAM_23035_1RB#0



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.



Band12_5MHz_16QAM_23035_25RB#0

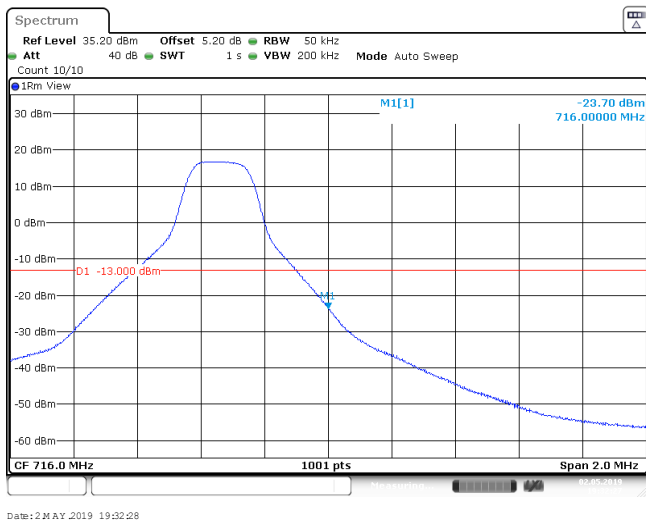


Band12_5MHz_16QAM_23155_1RB#24



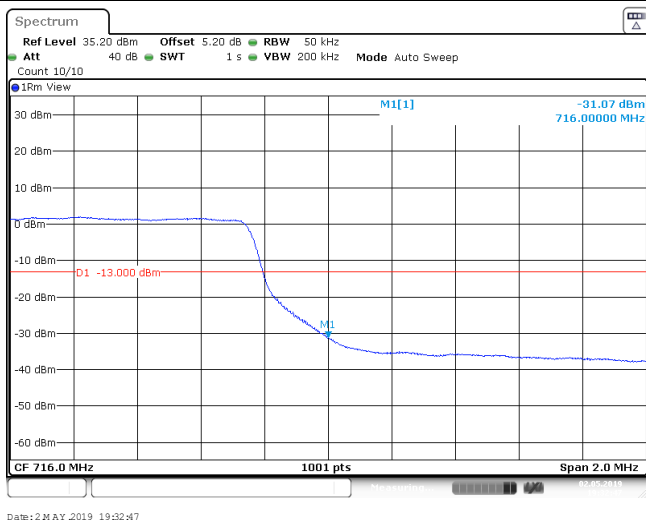
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Date: 2 MAY 2019 19:32:28

Band12_5MHz_16QAM_23155_25RB#0

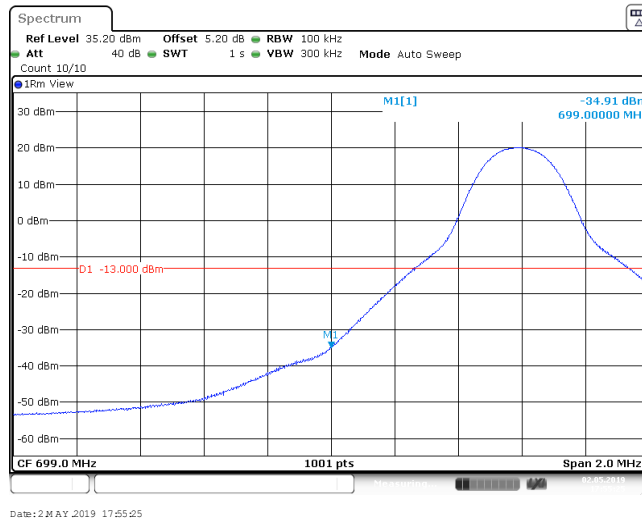


Date: 2 MAY 2019 19:32:47

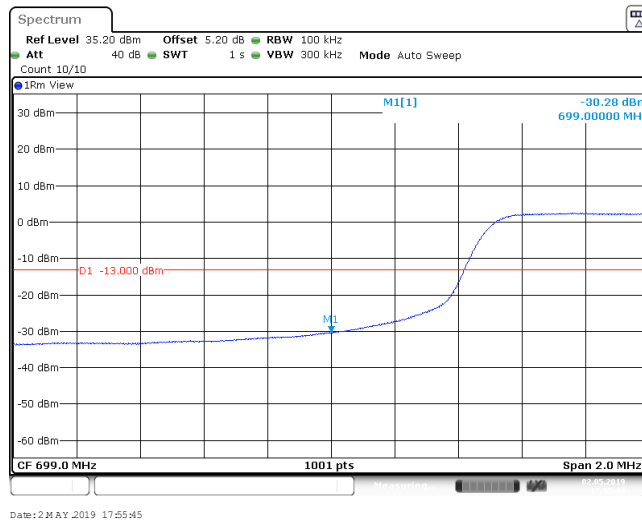
Band12_10MHz_QPSK_23060_1RB#0



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-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



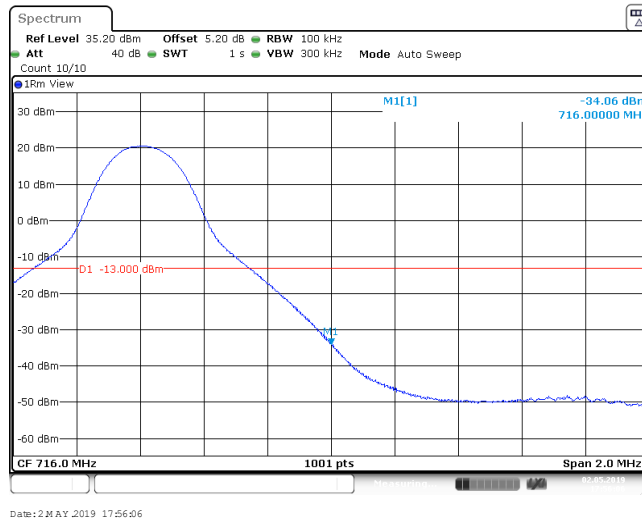
Band12_10MHz_QPSK_23060_50RB#0



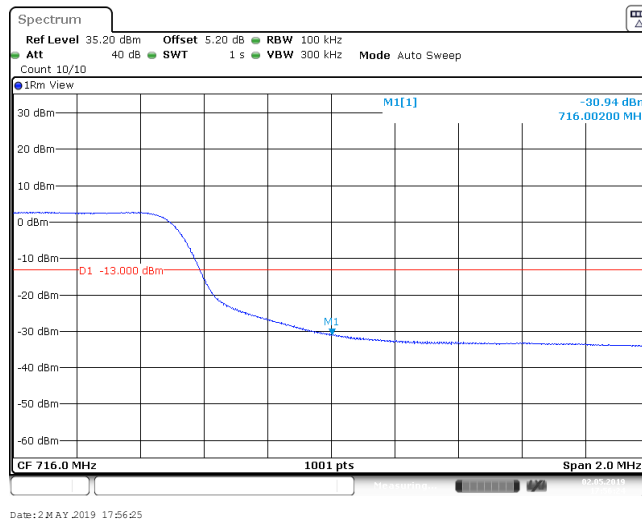
Band12_10MHz_QPSK_23130_1RB#49



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



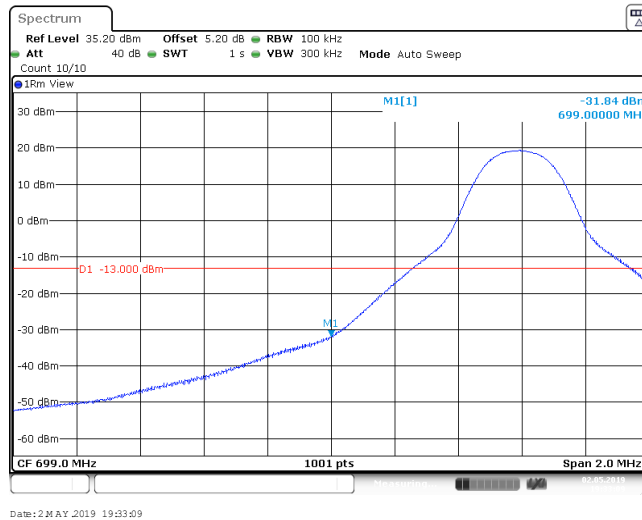
Band12_10MHz_QPSK_23130_50RB#0



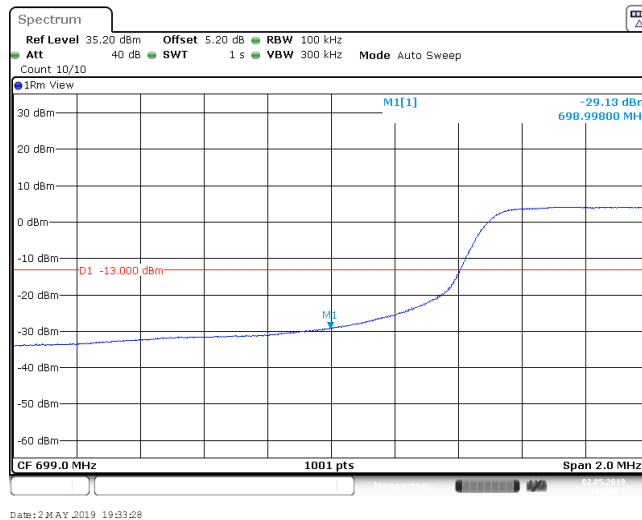
Band12_10MHz_16QAM_23060_1RB#0



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.



Band12_10MHz_16QAM_23060_27RB#0

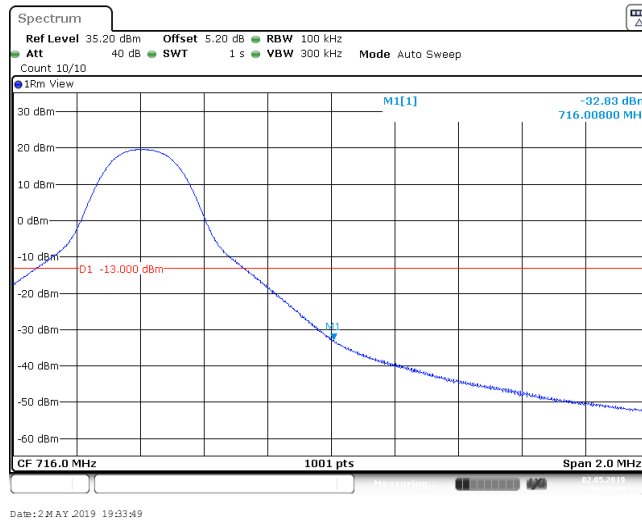


Band12_10MHz_16QAM_23130_1RB#49

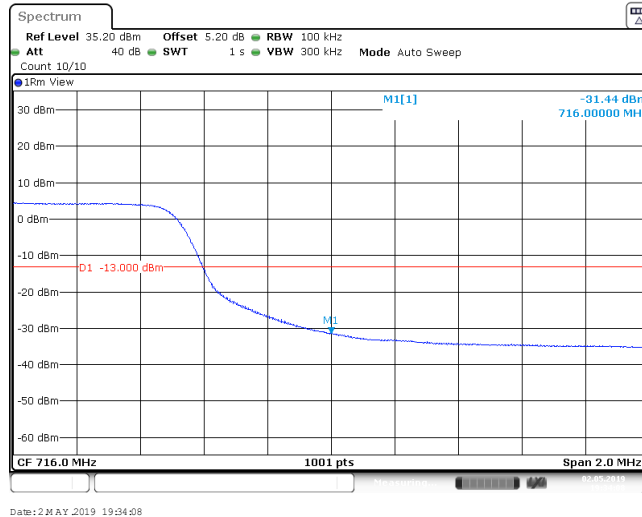


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band12_10MHz_16QAM_23130_27RB#23



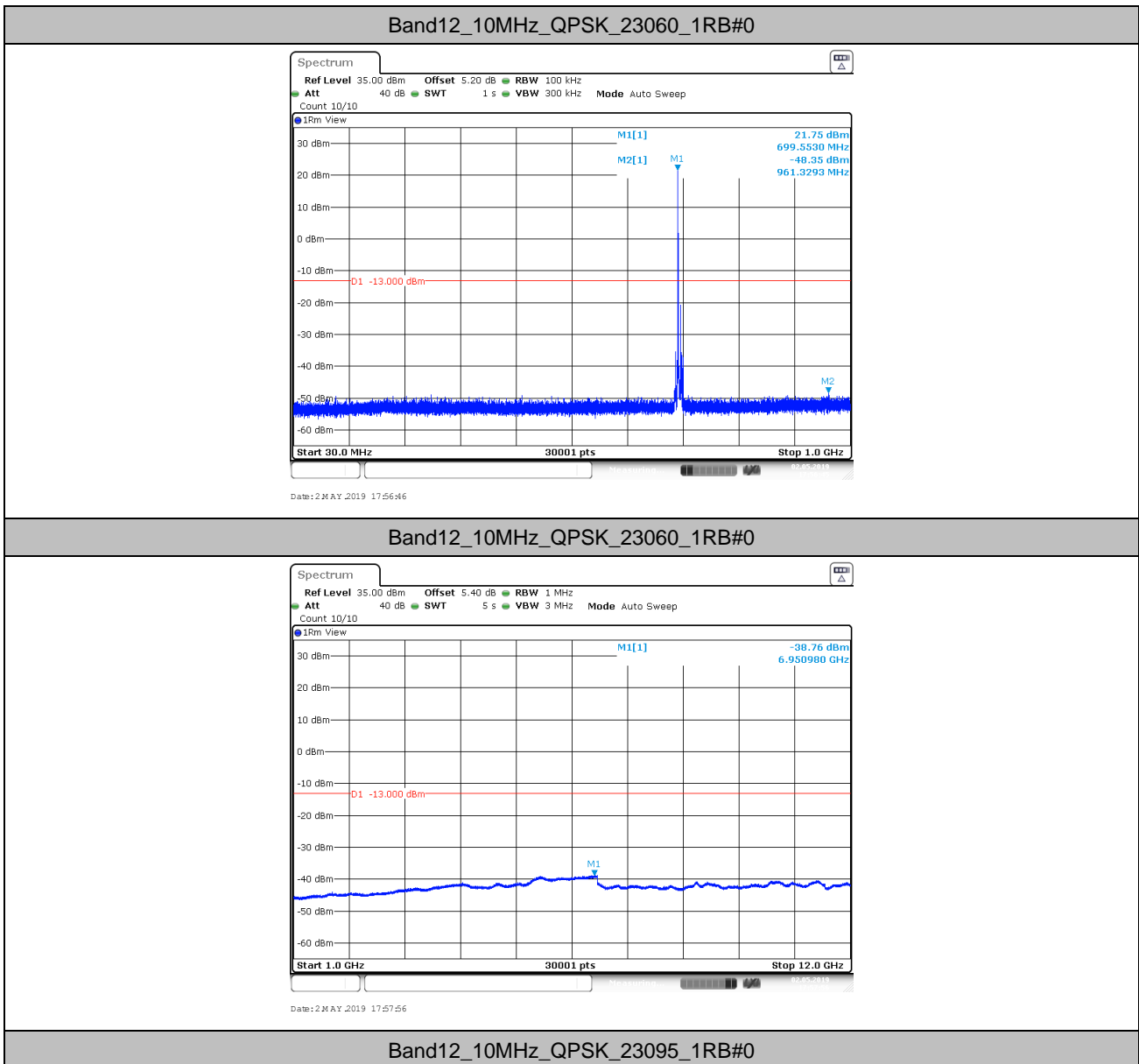
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

6. Spurious Emission at Antenna Terminal

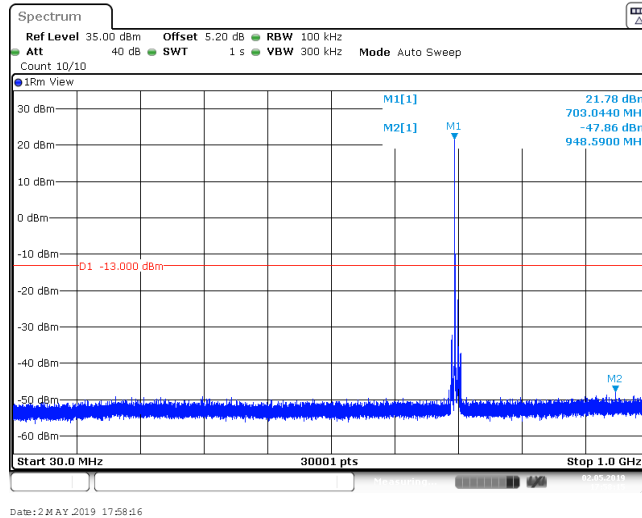
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points =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

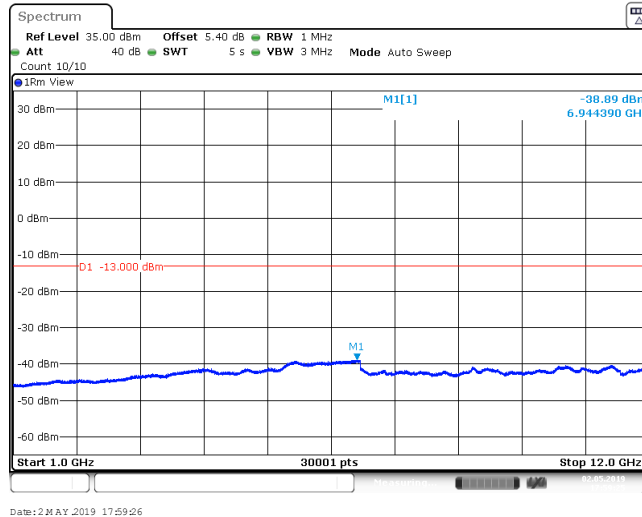
6.1. Test Plots



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



Band12_10MHz_QPSK_23095_1RB#0

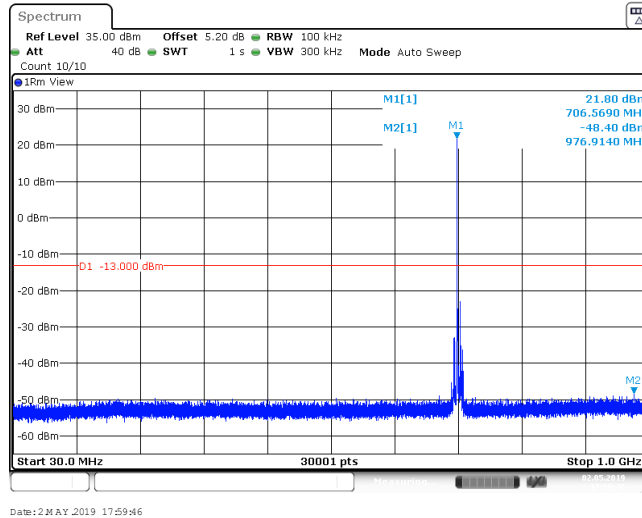


Band12_10MHz_QPSK_23130_1RB#0

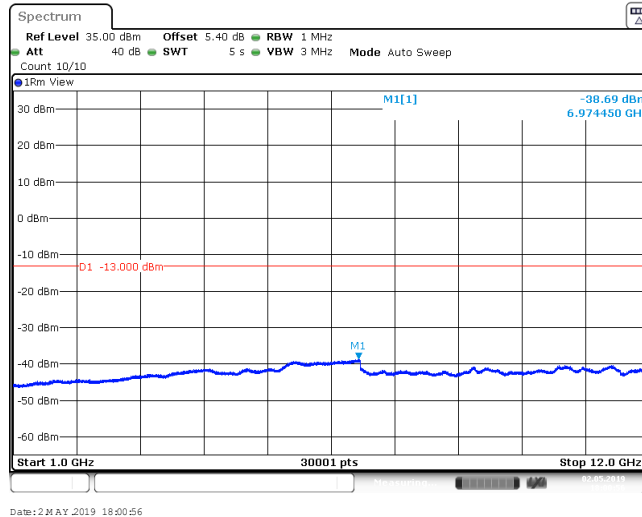


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



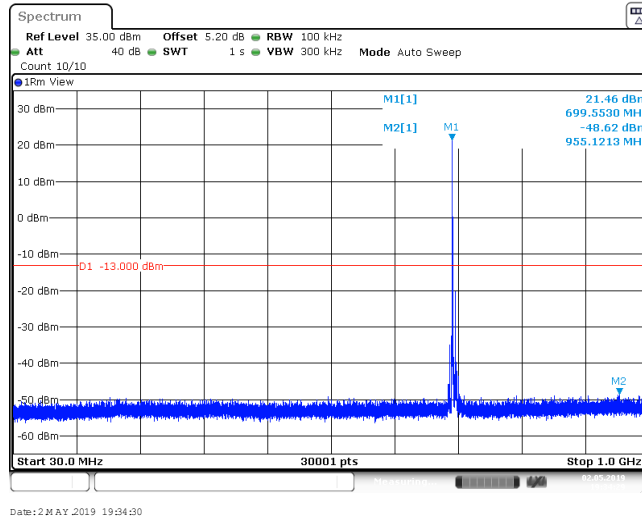
Band12_10MHz_QPSK_23130_1RB#0



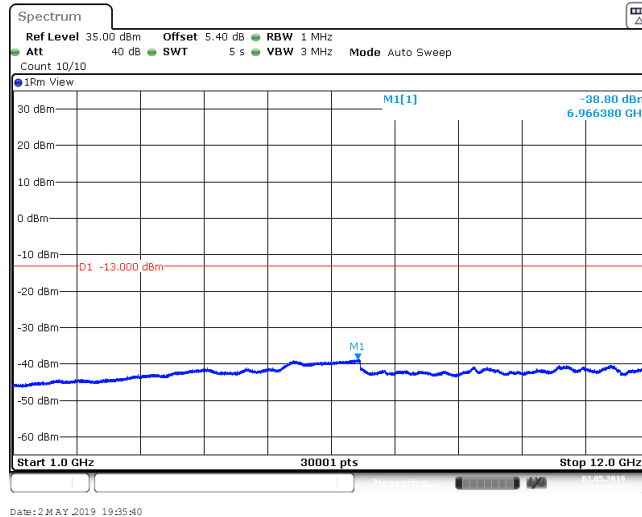
Band12_10MHz_16QAM_23060_1RB#0



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



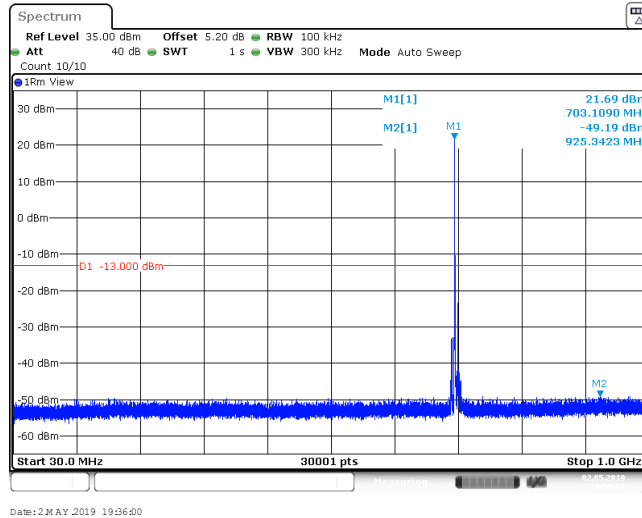
Band12_10MHz_16QAM_23060_1RB#0



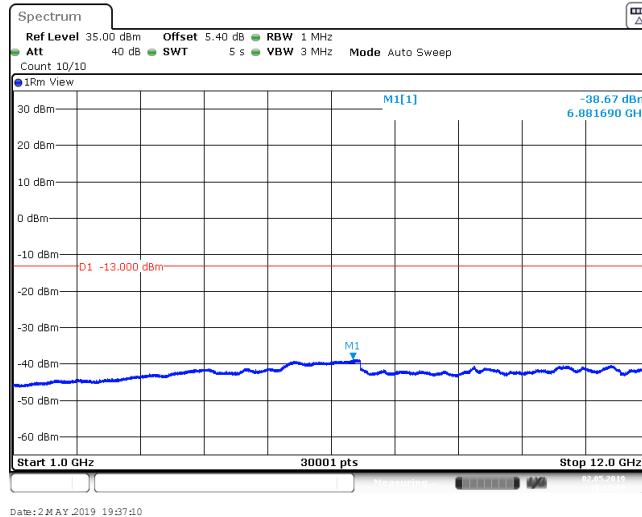
Band12_10MHz_16QAM_23095_1RB#0



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



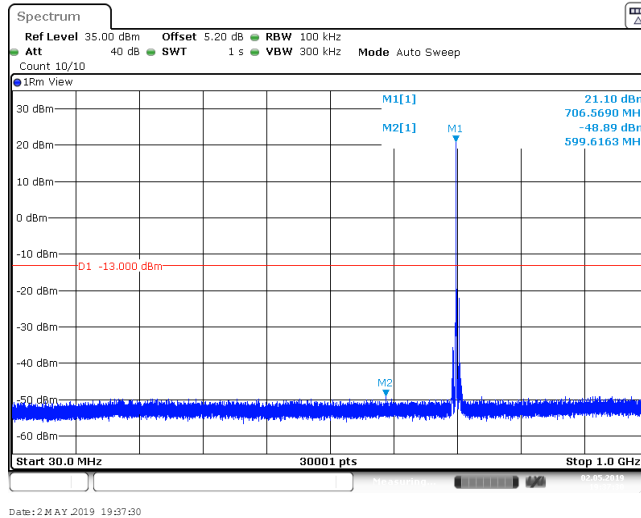
Band12_10MHz_16QAM_23095_1RB#0



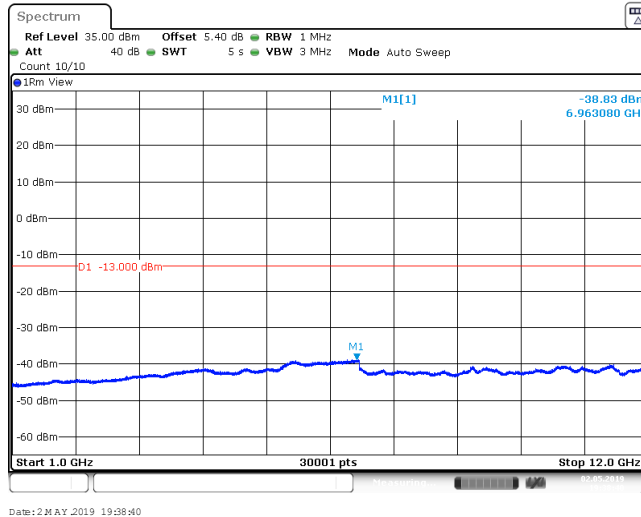
Band12_10MHz_16QAM_23130_1RB#0



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



Band12_10MHz_16QAM_23130_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

7. Field Strength of Spurious Radiation

7.1. Test BAND = LTE Band 12

7.1.1. Test Mode = LTE/TM1 10MHz

7.1.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
67.6383	-66.28	-13	53.28	Vertical
109.9771	-64.55	-13	51.55	Vertical
389.5119	-63.15	-13	50.15	Vertical
1397.9369	-48.30	-13	35.30	Vertical
3001.8329	-43.91	-13	30.91	Vertical
17997.555	-30.67	-13	17.67	Vertical
44.7267	-64.01	-13	51.01	Horizontal
163.6997	-63.32	-13	50.32	Horizontal
389.6814	-67.06	-13	54.06	Horizontal
1396.0459	-37.08	-13	24.08	Horizontal
2985.5304	-47.93	-13	34.93	Horizontal
16397.572	-35.19	-13	22.19	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
47.0733	-66.07	-13	53.07	Vertical
108.2795	-64.86	-13	51.86	Vertical
375.6887	-62.79	-13	49.79	Vertical
1404.7382	-48.00	-13	35.00	Vertical
3002.233	-44.66	-13	31.66	Vertical
17995.755	-30.72	-13	17.72	Vertical
46.1332	-64.80	-13	51.80	Horizontal
163.6027	-63.83	-13	50.83	Horizontal
525.0031	-67.33	-13	54.33	Horizontal
1402.8472	-36.48	-13	23.48	Horizontal
1942.1217	-46.87	-13	33.87	Horizontal
16400.572	-35.91	-13	22.91	Horizontal



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

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

7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
81.122	-65.62	-13	52.62	Vertical
108.9585	-64.92	-13	51.92	Vertical
556.7967	-62.28	-13	49.28	Vertical
1411.9397	-48.92	-13	35.92	Vertical
4948.1108	-43.58	-13	30.58	Vertical
17971.154	-30.48	-13	17.48	Vertical
44.0476	-63.36	-13	50.36	Horizontal
163.6997	-63.12	-13	50.12	Horizontal
503.3226	-66.91	-13	53.91	Horizontal
1409.6486	-37.01	-13	24.01	Horizontal
2699.0731	-48.09	-13	35.09	Horizontal
16387.372	-34.80	-13	21.80	Horizontal

Remark:

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

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



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



8. Frequency Stability

8.1. Frequency Vs Voltage

Voltage										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	VL	NT	1.46	0.002070	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VN	NT	6.83	0.009701	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VH	NT	-5.29	-0.007512	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VL	NT	-7.25	-0.010254	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VN	NT	-7.69	-0.010875	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VH	NT	10.94	0.015468	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VL	NT	9.61	0.013516	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VN	NT	-6.09	-0.008568	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VH	NT	-9.10	-0.012802	±2.5	PASS
Band12	10MHz	16QAM	23060	27RB#0	VL	NT	6.11	0.008675	±2.5	PASS
Band12	10MHz	16QAM	23060	27RB#0	VN	NT	11.42	0.016223	±2.5	PASS
Band12	10MHz	16QAM	23060	27RB#0	VH	NT	-10.62	-0.015082	±2.5	PASS
Band12	10MHz	16QAM	23095	27RB#0	VL	NT	1.03	0.001456	±2.5	PASS
Band12	10MHz	16QAM	23095	27RB#0	VN	NT	13.33	0.018845	±2.5	PASS
Band12	10MHz	16QAM	23095	27RB#0	VH	NT	-7.44	-0.010523	±2.5	PASS
Band12	10MHz	16QAM	23130	27RB#0	VL	NT	11.24	0.015804	±2.5	PASS
Band12	10MHz	16QAM	23130	27RB#0	VN	NT	-0.11	-0.000159	±2.5	PASS
Band12	10MHz	16QAM	23130	27RB#0	VH	NT	2.01	0.002820	±2.5	PASS

8.2. Frequency Vs Temperature

Temperature										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	NV	-30	-3.22	-0.004569	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	-20	-10.84	-0.015396	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	0	-8.85	-0.012578	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	10	10.35	0.014700	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	20	13.92	0.019768	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	30	10.61	0.015071	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	40	12.55	0.017832	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	50	-9.88	-0.014035	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-30	-9.72	-0.013736	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	-0.28	-0.000400	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	0	-7.77	-0.010986	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	10	4.27	0.006029	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	-7.59	-0.010735	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	30	5.99	0.008469	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	40	2.03	0.002870	±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



Band12	10MHz	QPSK	23095	50RB#0	NV	50	-1.95	-0.002753	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-30	8.89	0.012501	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-20	3.62	0.005095	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	0	-0.54	-0.000754	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	10	10.15	0.014270	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	20	-3.62	-0.005086	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	30	4.50	0.006329	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	40	-10.48	-0.014740	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	50	-12.01	-0.016892	±2.5	PASS
Band12	10MHz	16QAM	23060	27RB#0	NV	-30	-14.48	-0.020572	±2.5	PASS
Band12	10MHz	16QAM	23060	27RB#0	NV	-20	-8.77	-0.012464	±2.5	PASS
Band12	10MHz	16QAM	23060	27RB#0	NV	0	5.27	0.007492	±2.5	PASS
Band12	10MHz	16QAM	23060	27RB#0	NV	10	-4.31	-0.006124	±2.5	PASS
Band12	10MHz	16QAM	23060	27RB#0	NV	20	1.49	0.002115	±2.5	PASS
Band12	10MHz	16QAM	23060	27RB#0	NV	30	-10.89	-0.015475	±2.5	PASS
Band12	10MHz	16QAM	23060	27RB#0	NV	40	12.77	0.018144	±2.5	PASS
Band12	10MHz	16QAM	23060	27RB#0	NV	50	1.18	0.001677	±2.5	PASS
Band12	10MHz	16QAM	23095	27RB#0	NV	-30	-7.73	-0.010922	±2.5	PASS
Band12	10MHz	16QAM	23095	27RB#0	NV	-20	-6.09	-0.008613	±2.5	PASS
Band12	10MHz	16QAM	23095	27RB#0	NV	0	11.60	0.016390	±2.5	PASS
Band12	10MHz	16QAM	23095	27RB#0	NV	10	8.62	0.012189	±2.5	PASS
Band12	10MHz	16QAM	23095	27RB#0	NV	20	0.81	0.001139	±2.5	PASS
Band12	10MHz	16QAM	23095	27RB#0	NV	30	-10.10	-0.014277	±2.5	PASS
Band12	10MHz	16QAM	23095	27RB#0	NV	40	8.77	0.012400	±2.5	PASS
Band12	10MHz	16QAM	23095	27RB#0	NV	50	-0.45	-0.000632	±2.5	PASS
Band12	10MHz	16QAM	23130	27RB#0	NV	-30	0.98	0.001374	±2.5	PASS
Band12	10MHz	16QAM	23130	27RB#0	NV	-20	-4.79	-0.006733	±2.5	PASS
Band12	10MHz	16QAM	23130	27RB#0	NV	0	-12.89	-0.018132	±2.5	PASS
Band12	10MHz	16QAM	23130	27RB#0	NV	10	-1.39	-0.001953	±2.5	PASS
Band12	10MHz	16QAM	23130	27RB#0	NV	20	2.19	0.003082	±2.5	PASS
Band12	10MHz	16QAM	23130	27RB#0	NV	30	1.36	0.001918	±2.5	PASS
Band12	10MHz	16QAM	23130	27RB#0	NV	40	8.80	0.012374	±2.5	PASS
Band12	10MHz	16QAM	23130	27RB#0	NV	50	-8.84	-0.012433	±2.5	PASS

The End



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com