



Appendix B

E-UTRA Band 7



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

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

CONTENT

1	EFFECTIVE (ISOTROPIC) RADIATED POWER	3
1.1.	TEST RESULT.....	3
2.	PEAK-TO-AVERAGE RATIO (CCDF).....	8
2.1.	TEST RESULT.....	8
2.2.	TEST PLOTS	8
3.	MODULATION CHARACTERISTICS.....	12
3.1.	TEST MODE = LTE /TM1 20MHZ.....	12
3.1.1.	TEST CHANNEL = MCH	12
3.2.	TEST MODE = LTE /TM2 20MHZ.....	13
3.2.1.	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	44
6.1.	TEST PLOTS	44
7.	FIELD STRENGTH OF SPURIOUS RADIATION	51
7.1.	TEST MODE =LTE/TM1 20MHZ	51
7.1.1.	TEST CHANNEL = LCH	51
7.1.2.	TEST CHANNEL = MCH	51
7.1.3.	TEST CHANNEL = HCH	52
8.	FREQUENCY STABILITY.....	53
8.1.	FREQUENCY VS VOLTAGE	53
8.2.	FREQUENCY VS TEMPERATURE	53



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



1 Effective (Isotropic) Radiated Power

1.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	21.61	15.61	33.00	PASS
Band7	5MHz	QPSK	20775	1RB#12	21.77	15.77	33.00	PASS
Band7	5MHz	QPSK	20775	1RB#24	21.55	15.55	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#0	20.84	14.84	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#6	20.83	14.83	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#13	20.71	14.71	33.00	PASS
Band7	5MHz	QPSK	20775	25RB#0	20.83	14.83	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#0	21.57	15.57	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#12	22.04	16.04	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#24	21.59	15.59	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#0	20.8	14.8	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#6	20.74	14.74	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#13	20.76	14.76	33.00	PASS
Band7	5MHz	QPSK	21100	25RB#0	20.73	14.73	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#0	21.51	15.51	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#12	21.91	15.91	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#24	21.69	15.69	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#0	20.91	14.91	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#6	20.92	14.92	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#13	20.97	14.97	33.00	PASS
Band7	5MHz	QPSK	21425	25RB#0	20.98	14.98	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#0	20.65	14.65	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#12	20.94	14.94	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#24	20.53	14.53	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#0	19.9	13.9	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#6	19.96	13.96	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#13	19.85	13.85	33.00	PASS
Band7	5MHz	16QAM	20775	25RB#0	20.05	14.05	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#0	20.71	14.71	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#12	20.55	14.55	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#24	20.34	14.34	33.00	PASS
Band7	5MHz	16QAM	21100	12RB#0	19.7	13.7	33.00	PASS



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

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



Band7	5MHz	16QAM	21100	12RB#6	19.71	13.71	33.00	PASS
Band7	5MHz	16QAM	21100	12RB#13	19.7	13.7	33.00	PASS
Band7	5MHz	16QAM	21100	25RB#0	19.78	13.78	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#0	21.06	15.06	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#12	20.78	14.78	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#24	20.74	14.74	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#0	19.52	13.52	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#6	20.03	14.03	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#13	19.97	13.97	33.00	PASS
Band7	5MHz	16QAM	21425	25RB#0	20.15	14.15	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#0	21.79	15.79	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#24	21.93	15.93	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#49	21.69	15.69	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#0	20.91	14.91	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#12	20.77	14.77	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#25	20.83	14.83	33.00	PASS
Band7	10MHz	QPSK	20800	50RB#0	20.88	14.88	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#0	21.78	15.78	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#24	21.98	15.98	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#49	21.53	15.53	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#0	20.78	14.78	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#12	20.82	14.82	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#25	20.85	14.85	33.00	PASS
Band7	10MHz	QPSK	21100	50RB#0	20.82	14.82	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#0	21.86	15.86	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#24	22.02	16.02	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#49	21.9	15.9	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#0	21	15	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#12	20.9	14.9	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#25	20.94	14.94	33.00	PASS
Band7	10MHz	QPSK	21400	50RB#0	21.04	15.04	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#0	20.75	14.75	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#24	20.85	14.85	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#49	20.87	14.87	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#0	19.91	13.91	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#12	19.79	13.79	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#25	19.89	13.89	33.00	PASS
Band7	10MHz	16QAM	20800	50RB#0	19.91	13.91	33.00	PASS



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

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

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

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



Band7	10MHz	16QAM	21100	1RB#0	20.75	14.75	33.00	PASS
Band7	10MHz	16QAM	21100	1RB#24	21.15	15.15	33.00	PASS
Band7	10MHz	16QAM	21100	1RB#49	21.03	15.03	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#0	20.07	14.07	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#12	19.61	13.61	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#25	20.11	14.11	33.00	PASS
Band7	10MHz	16QAM	21100	50RB#0	19.82	13.82	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#0	21.16	15.16	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#24	21	15	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#49	20.89	14.89	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#0	20.12	14.12	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#12	19.9	13.9	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#25	20.2	14.2	33.00	PASS
Band7	10MHz	16QAM	21400	50RB#0	19.98	13.98	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#0	21.87	15.87	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#38	21.94	15.94	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#74	21.78	15.78	33.00	PASS
Band7	15MHz	QPSK	20825	38RB#0	20.88	14.88	33.00	PASS
Band7	15MHz	QPSK	20825	38RB#18	20.91	14.91	33.00	PASS
Band7	15MHz	QPSK	20825	38RB#37	20.95	14.95	33.00	PASS
Band7	15MHz	QPSK	20825	75RB#0	20.88	14.88	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#0	21.81	15.81	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#38	21.74	15.74	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#74	21.89	15.89	33.00	PASS
Band7	15MHz	QPSK	21100	38RB#0	20.68	14.68	33.00	PASS
Band7	15MHz	QPSK	21100	38RB#18	20.76	14.76	33.00	PASS
Band7	15MHz	QPSK	21100	38RB#37	20.78	14.78	33.00	PASS
Band7	15MHz	QPSK	21100	75RB#0	20.74	14.74	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#0	21.84	15.84	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#38	21.79	15.79	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#74	21.93	15.93	33.00	PASS
Band7	15MHz	QPSK	21375	38RB#0	20.91	14.91	33.00	PASS
Band7	15MHz	QPSK	21375	38RB#18	21.01	15.01	33.00	PASS
Band7	15MHz	QPSK	21375	38RB#37	20.92	14.92	33.00	PASS
Band7	15MHz	QPSK	21375	75RB#0	21.03	15.03	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#0	20.72	14.72	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#38	20.79	14.79	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#74	20.76	14.76	33.00	PASS



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

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

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

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



Band7	15MHz	16QAM	20825	38RB#0	19.87	13.87	33.00	PASS
Band7	15MHz	16QAM	20825	38RB#18	19.89	13.89	33.00	PASS
Band7	15MHz	16QAM	20825	38RB#37	19.93	13.93	33.00	PASS
Band7	15MHz	16QAM	20825	75RB#0	20	14	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#0	20.37	14.37	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#38	20.74	14.74	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#74	20.91	14.91	33.00	PASS
Band7	15MHz	16QAM	21100	38RB#0	19.6	13.6	33.00	PASS
Band7	15MHz	16QAM	21100	38RB#18	19.72	13.72	33.00	PASS
Band7	15MHz	16QAM	21100	38RB#37	19.71	13.71	33.00	PASS
Band7	15MHz	16QAM	21100	75RB#0	19.83	13.83	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#0	20.85	14.85	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#38	21.12	15.12	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#74	21.2	15.2	33.00	PASS
Band7	15MHz	16QAM	21375	38RB#0	19.94	13.94	33.00	PASS
Band7	15MHz	16QAM	21375	38RB#18	19.98	13.98	33.00	PASS
Band7	15MHz	16QAM	21375	38RB#37	19.91	13.91	33.00	PASS
Band7	15MHz	16QAM	21375	75RB#0	20.08	14.08	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#0	21.66	15.66	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#49	22.02	16.02	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#99	21.85	15.85	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#0	20.94	14.94	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#25	20.91	14.91	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#50	20.87	14.87	33.00	PASS
Band7	20MHz	QPSK	20850	100RB#0	20.79	14.79	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#0	21.43	15.43	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#49	21.9	15.9	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#99	21.84	15.84	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#0	20.72	14.72	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#25	20.78	14.78	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#50	20.77	14.77	33.00	PASS
Band7	20MHz	QPSK	21100	100RB#0	20.73	14.73	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#0	22.13	16.13	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#49	22.22	16.22	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#99	22.16	16.16	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#0	20.83	14.83	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#25	20.96	14.96	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#50	20.99	14.99	33.00	PASS



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

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

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

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

Band7	20MHz	QPSK	21350	100RB#0	20.91	14.91	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#0	20.62	14.62	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#49	20.83	14.83	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#99	20.65	14.65	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#0	19.95	13.95	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#25	19.77	13.77	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#50	19.71	13.71	33.00	PASS
Band7	20MHz	16QAM	20850	100RB#0	19.75	13.75	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#0	20.8	14.8	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#49	20.73	14.73	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#99	20.86	14.86	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#0	19.77	13.77	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#25	19.82	13.82	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#50	19.79	13.79	33.00	PASS
Band7	20MHz	16QAM	21100	100RB#0	19.86	13.86	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#0	20.96	14.96	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#49	21.19	15.19	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#99	21.28	15.28	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#0	19.93	13.93	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#25	20.01	14.01	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#50	20.06	14.06	33.00	PASS
Band7	20MHz	16QAM	21350	100RB#0	19.88	13.88	33.00	PASS

Remark:

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

ERP [dBm] = Conducted Power [dBm] + Gain [dBd]

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



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (2019) China CCC Laboratory

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

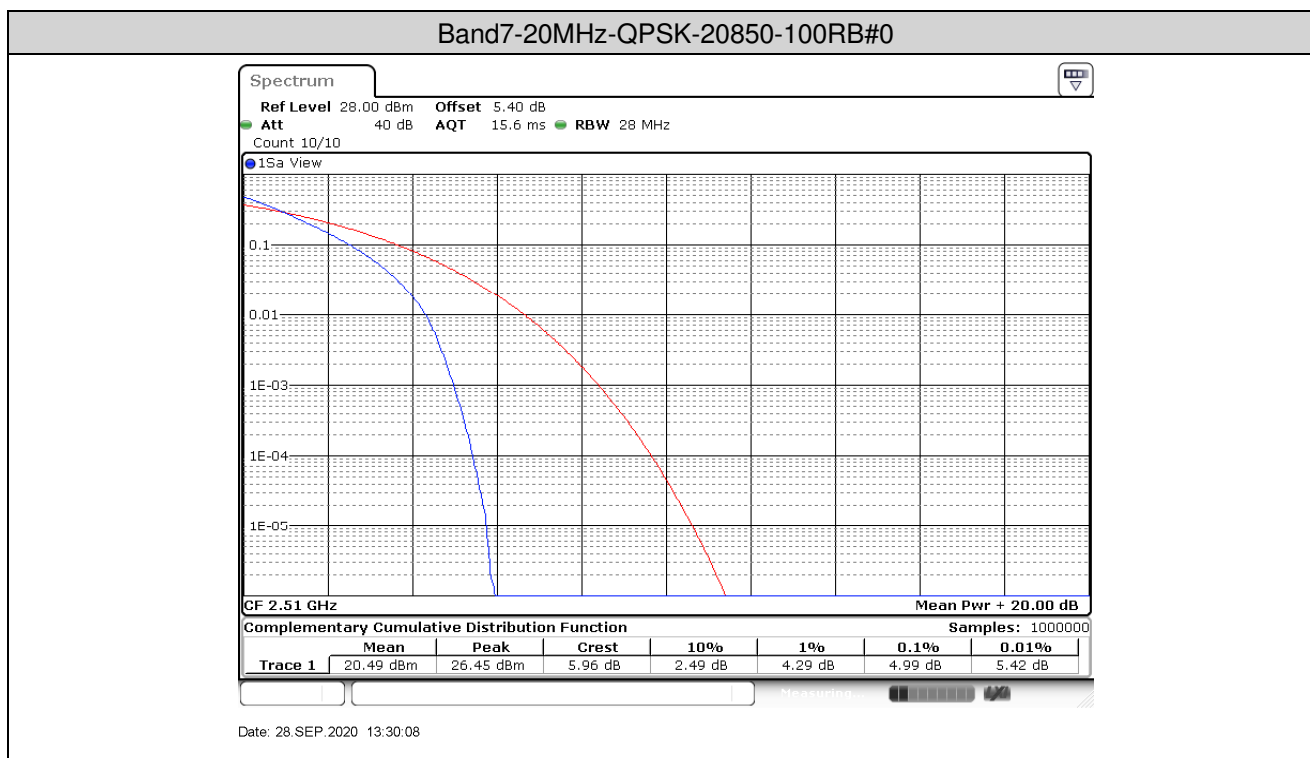
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

2. Peak-to-Average Ratio (CCDF)

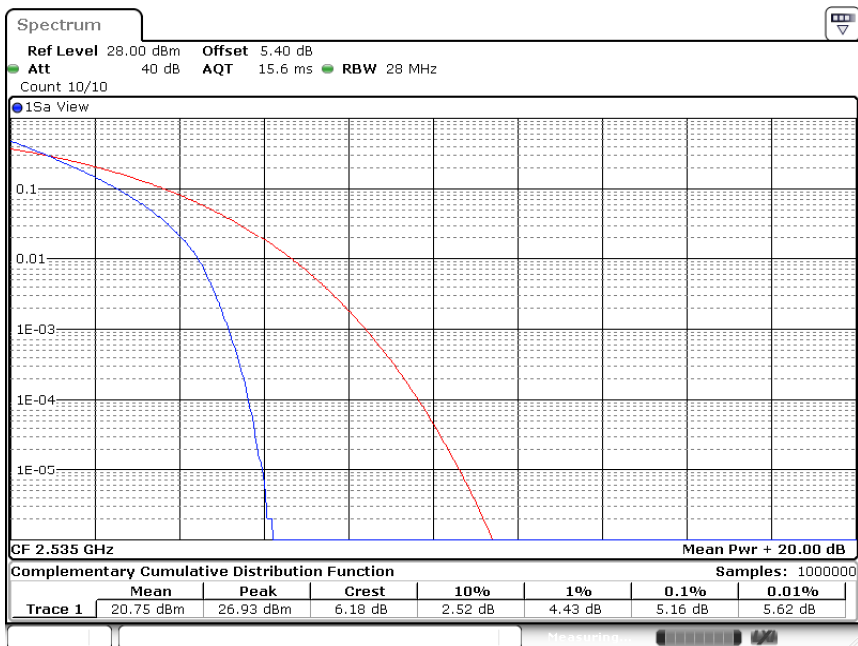
2.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	4.99	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	5.16	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	4.84	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	5.88	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	6.06	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	5.74	13	PASS

2.2. Test Plots

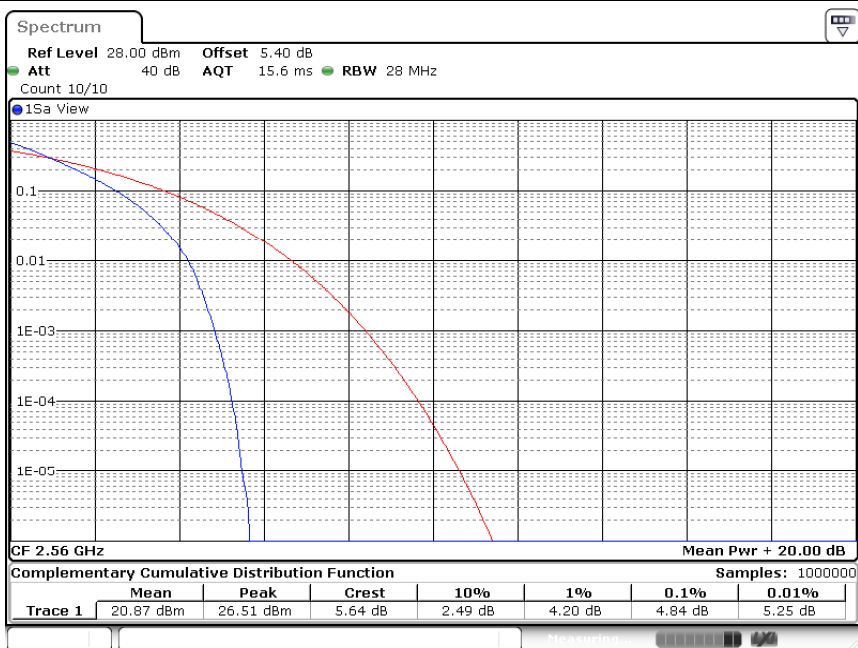


Band7-20MHz-QPSK-21100-100RB#0



Date: 28.SEP.2020 13:30:36

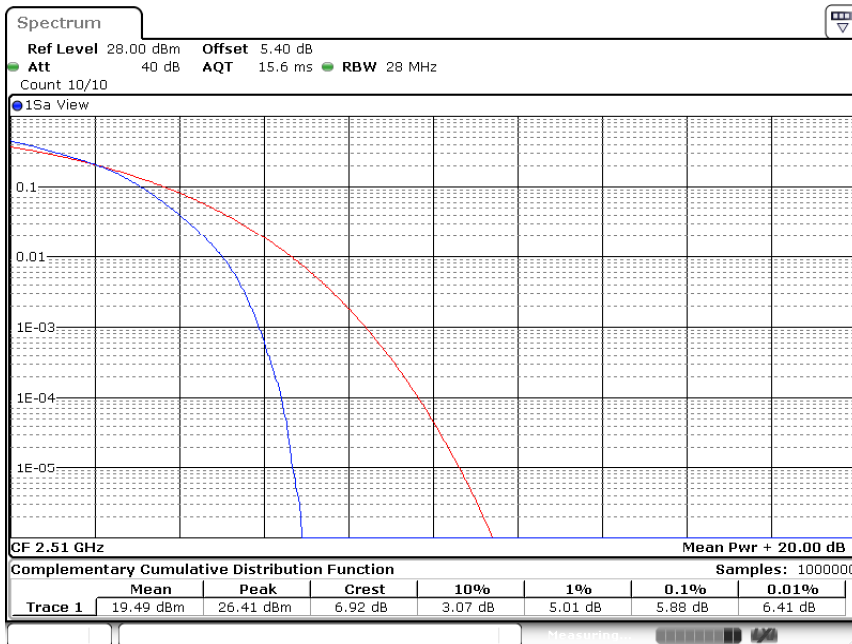
Band7-20MHz-QPSK-21350-100RB#0



Date: 28.SEP.2020 13:31:05

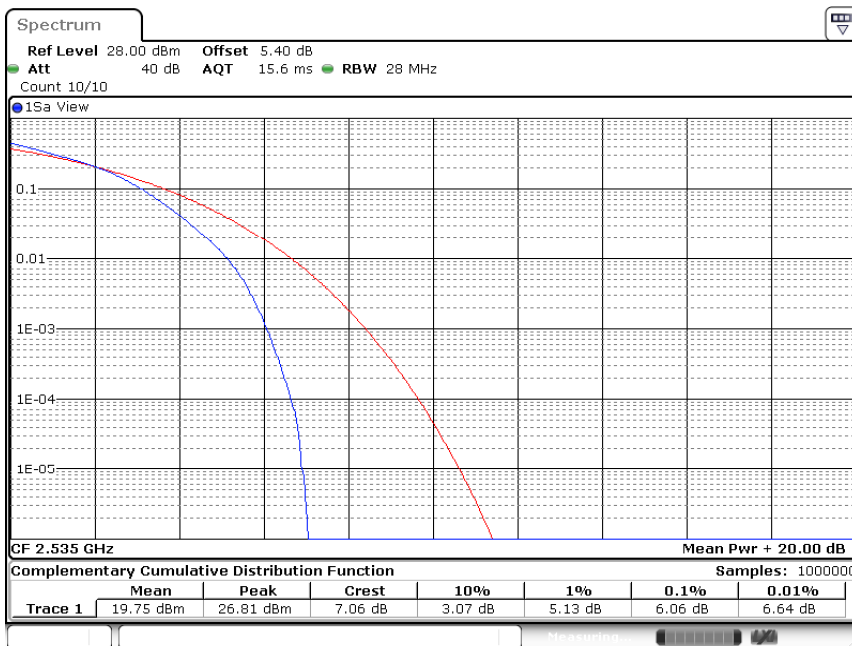


Band7-20MHz-16QAM-20850-100RB#0



Date: 28.SEP.2020 13:30:22

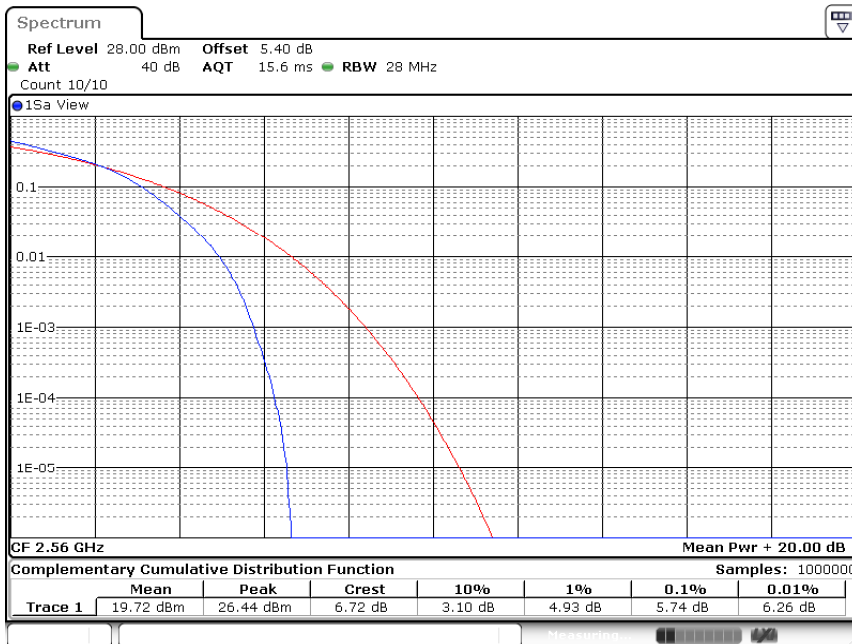
Band7-20MHz-16QAM-21100-100RB#0



Date: 28.SEP.2020 13:30:50



Band7-20MHz-16QAM-21350-100RB#0



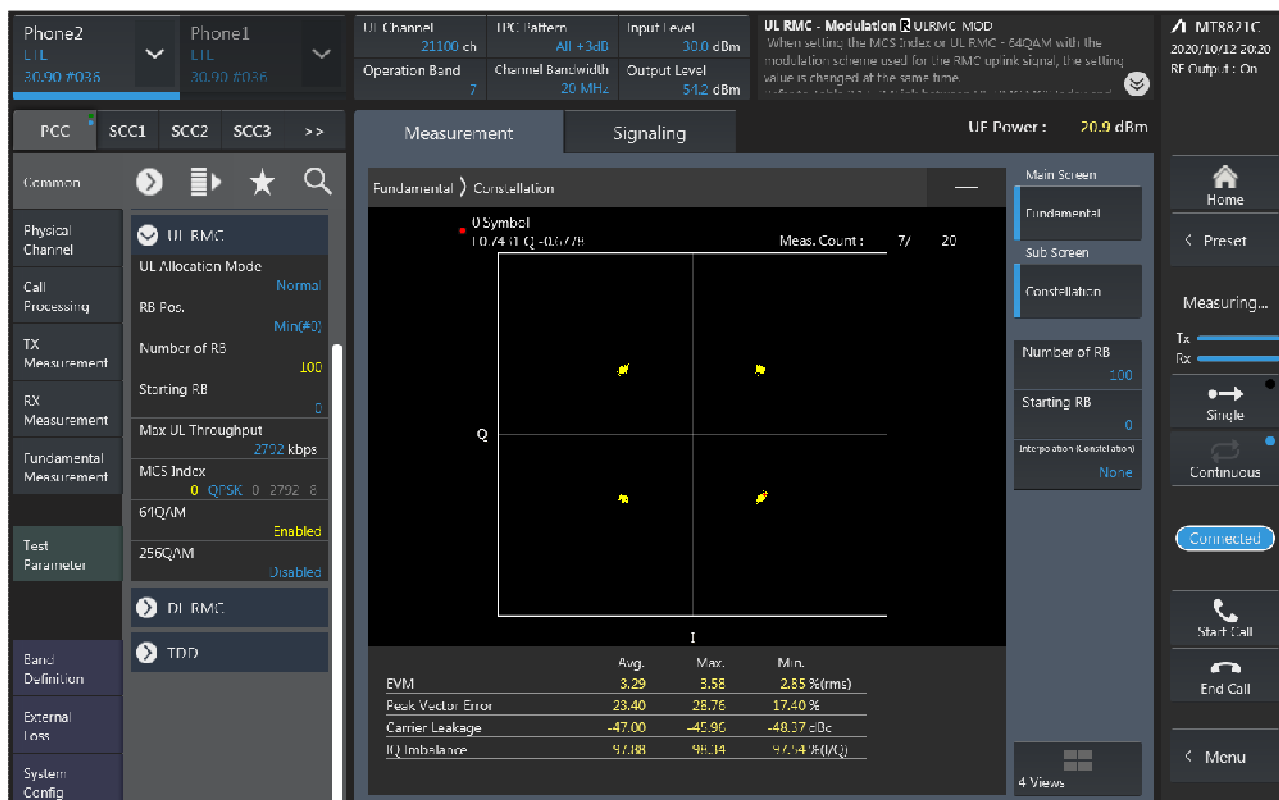
Date: 28.SEP.2020 13:31:19



3. Modulation Characteristics

3.1. Test Mode = LTE /TM1 20MHz

3.1.1. 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.

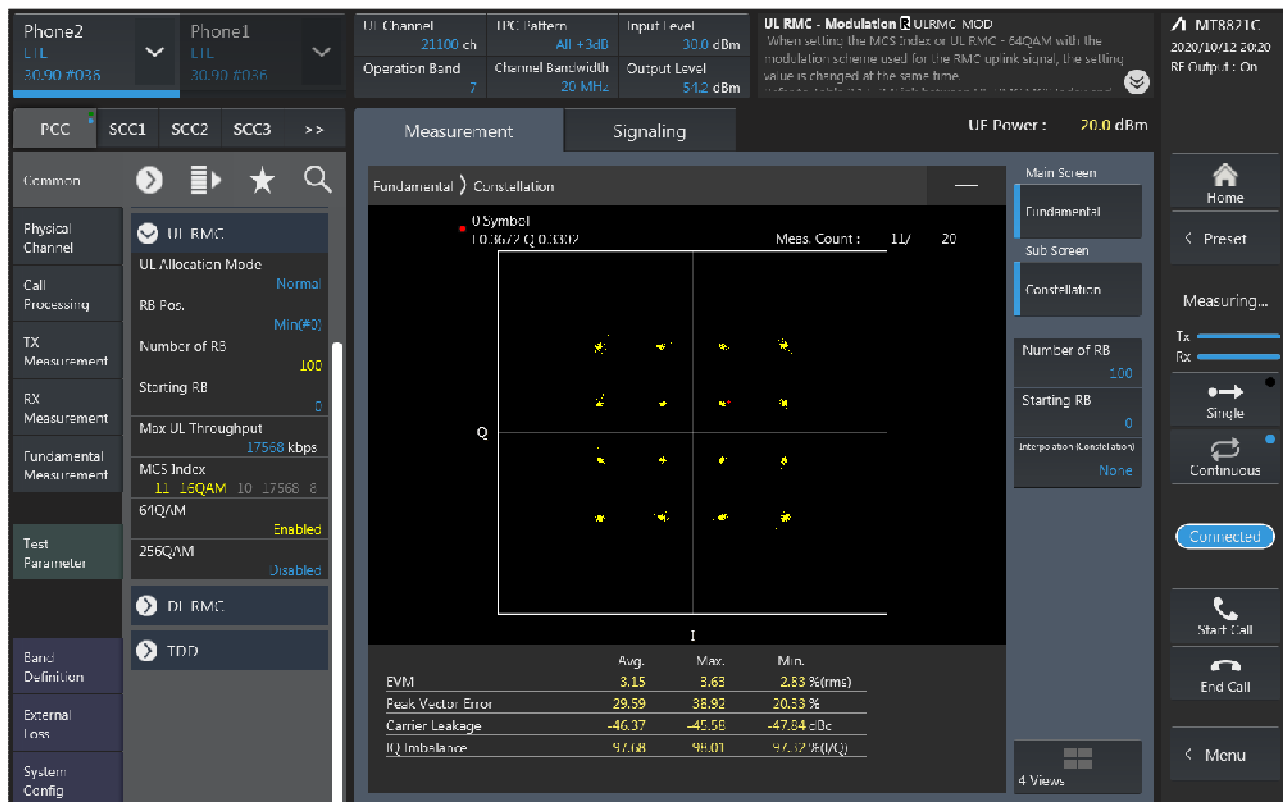
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

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

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.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

3.2. Test Mode = LTE /TM2 20MHz

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

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

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

4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

Band	Bandwidth h	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.466	4.920	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.466	4.880	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.476	4.900	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.486	4.950	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.476	4.930	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.486	4.930	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.931	9.680	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.911	9.720	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.911	9.680	PASS
Band7	10MHz	16QAM	20800	50RB#0	8.911	9.740	PASS
Band7	10MHz	16QAM	21100	50RB#0	8.911	9.740	PASS
Band7	10MHz	16QAM	21400	50RB#0	8.911	9.740	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.397	14.730	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.457	14.760	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.427	14.790	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.397	14.670	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.427	14.730	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.427	14.730	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.862	19.200	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.822	19.400	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.822	19.400	PASS
Band7	20MHz	16QAM	20850	100RB#0	17.902	19.280	PASS
Band7	20MHz	16QAM	21100	100RB#0	17.862	19.480	PASS
Band7	20MHz	16QAM	21350	100RB#0	17.862	19.400	PASS



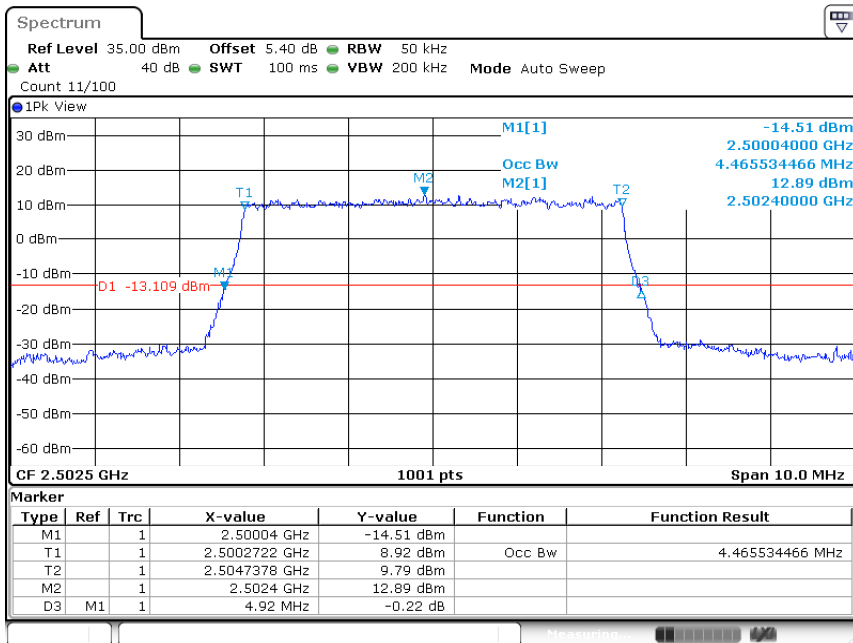
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CMA) Testing Laboratory

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

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

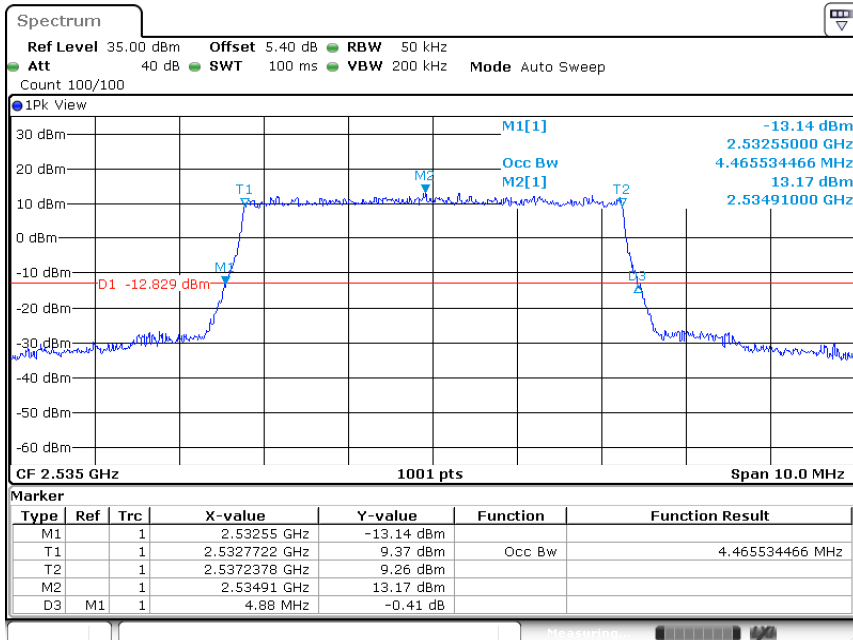
4.2. Test Plots

Band7-5MHz-QPSK-20775-25RB#0-4.466



Date: 28 SEP.2020 13:08:05

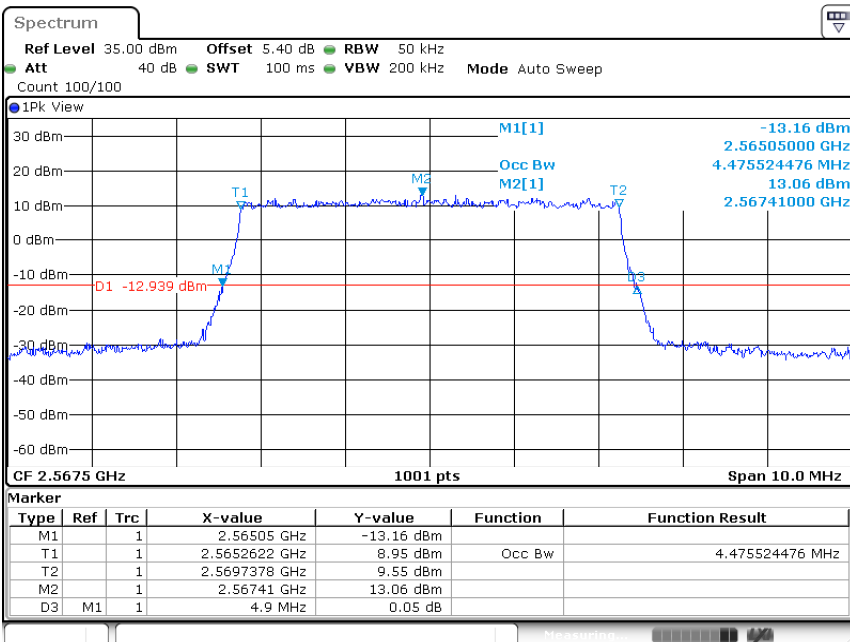
Band7-5MHz-QPSK-21100-25RB#0-4.466



Date: 28 SEP.2020 13:08:51

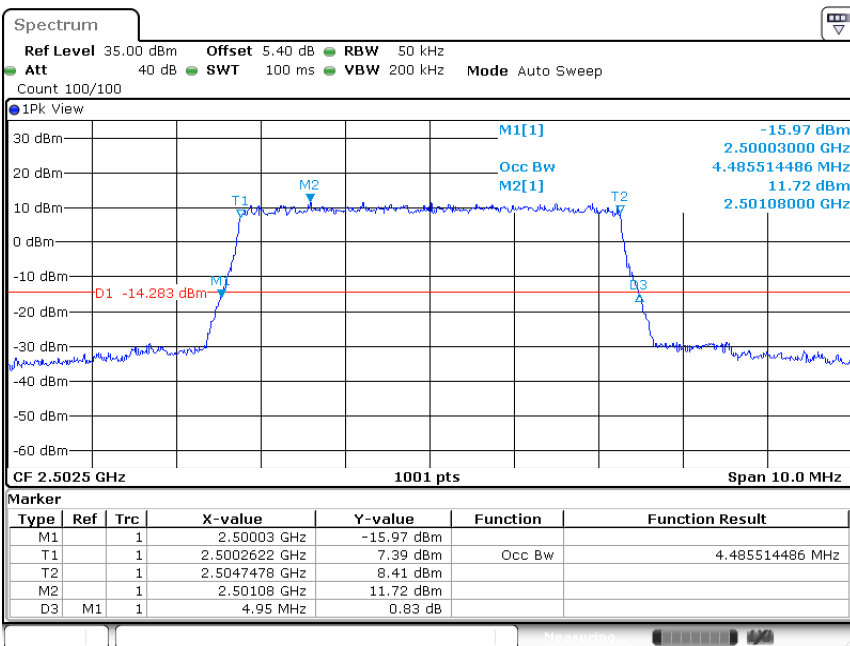


Band7-5MHz-QPSK-21425-25RB#0-4.476



Date: 28.SEP.2020 13:09:37

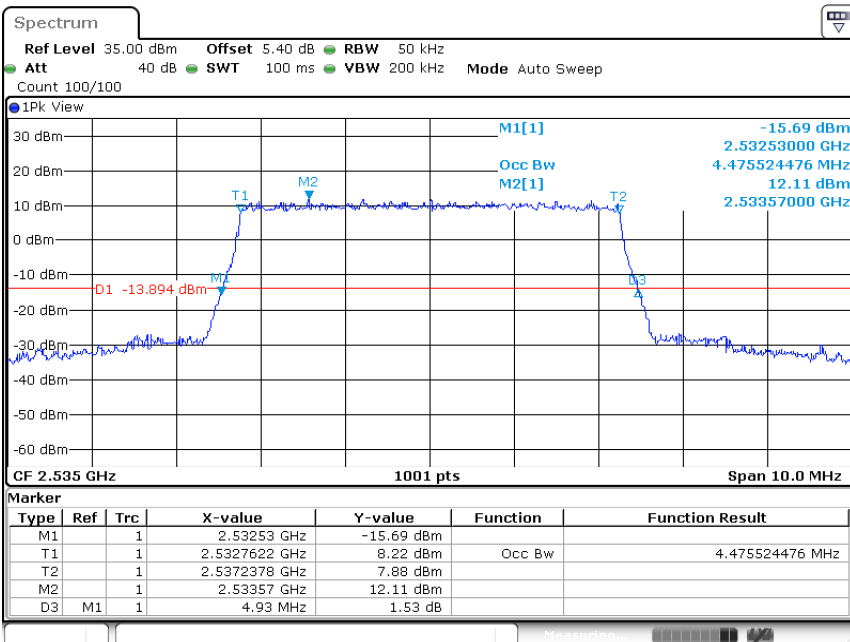
Band7-5MHz-16QAM-20775-25RB#0-4.486



Date: 28.SEP.2020 13:08:28

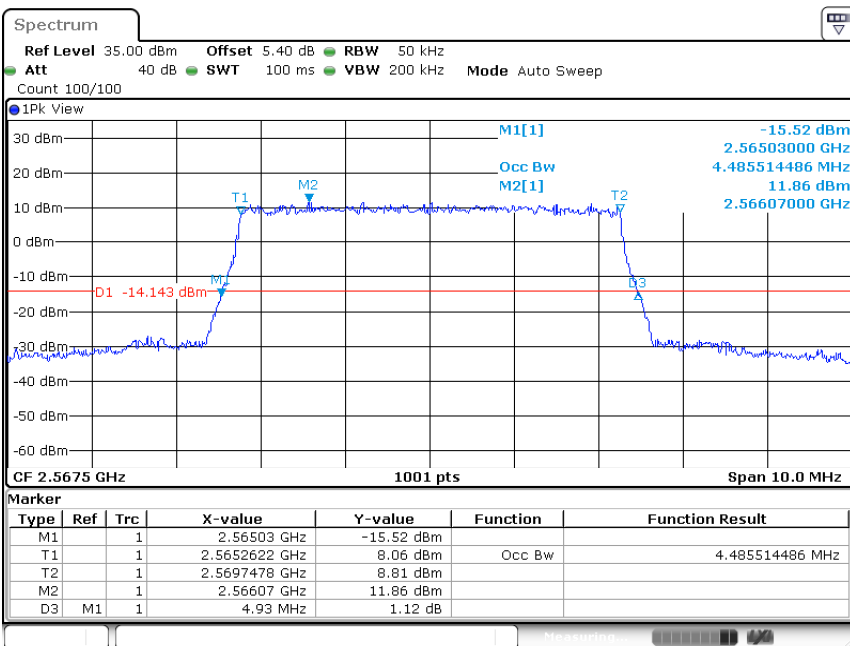


Band7-5MHz-16QAM-21100-25RB#0-4.476



Date: 28.SEP.2020 13:09:14

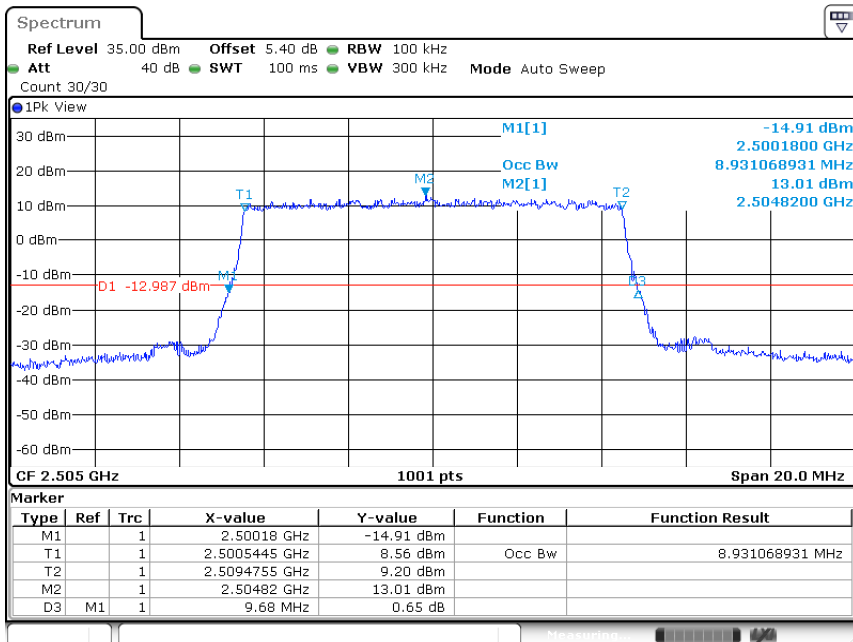
Band7-5MHz-16QAM-21425-25RB#0-4.486



Date: 28.SEP.2020 13:10:00

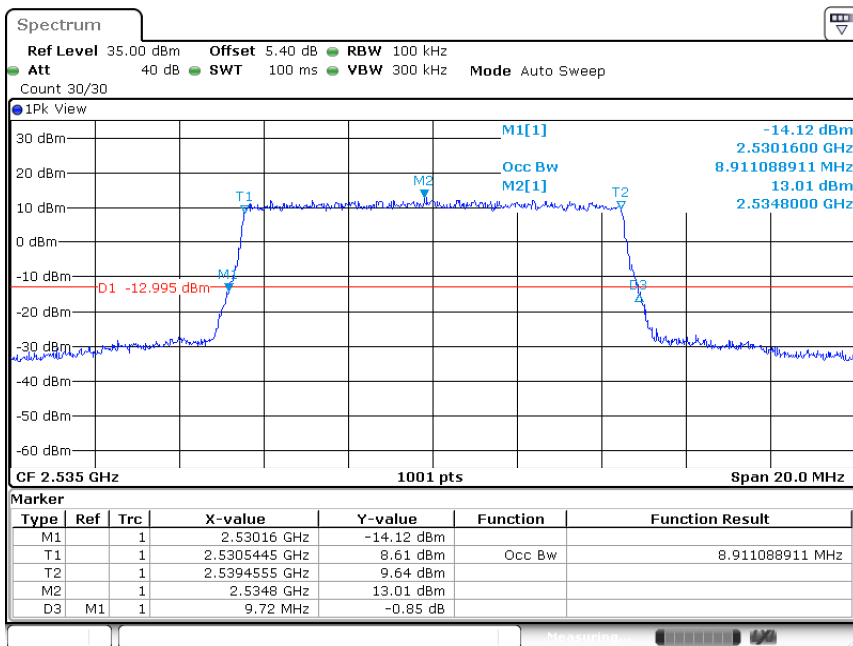


Band7-10MHz-QPSK-20800-50RB#0-8.931



Date: 28.SEP.2020 13:10:21

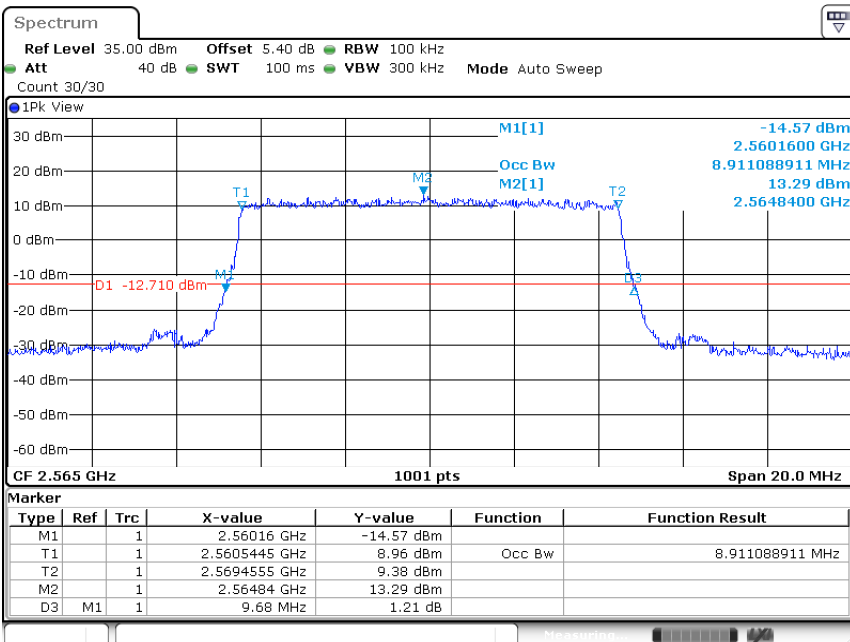
Band7-10MHz-QPSK-21100-50RB#0-8.911



Date: 28.SEP.2020 13:10:53

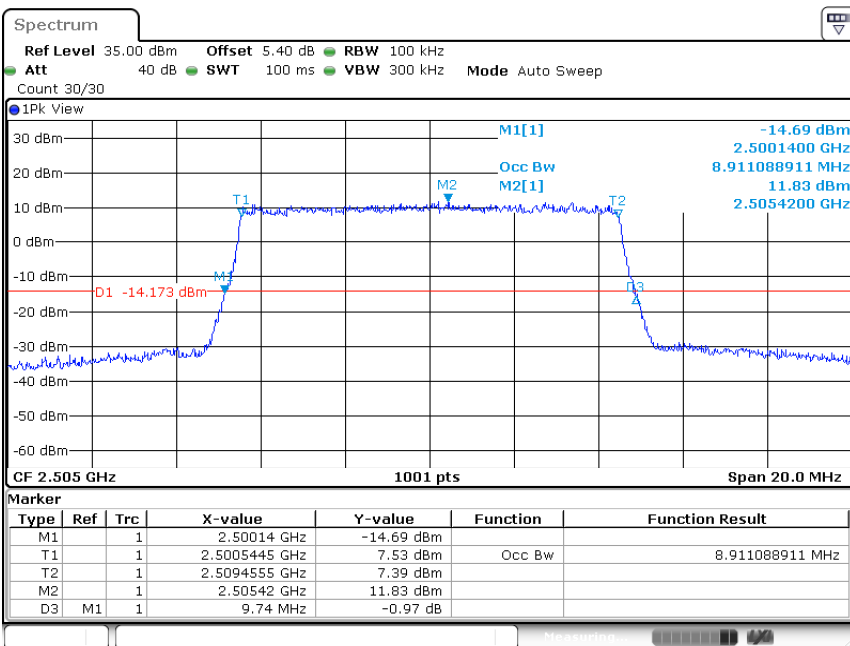


Band7-10MHz-QPSK-21400-50RB#0-8.911



Date: 28.SEP.2020 13:11:24

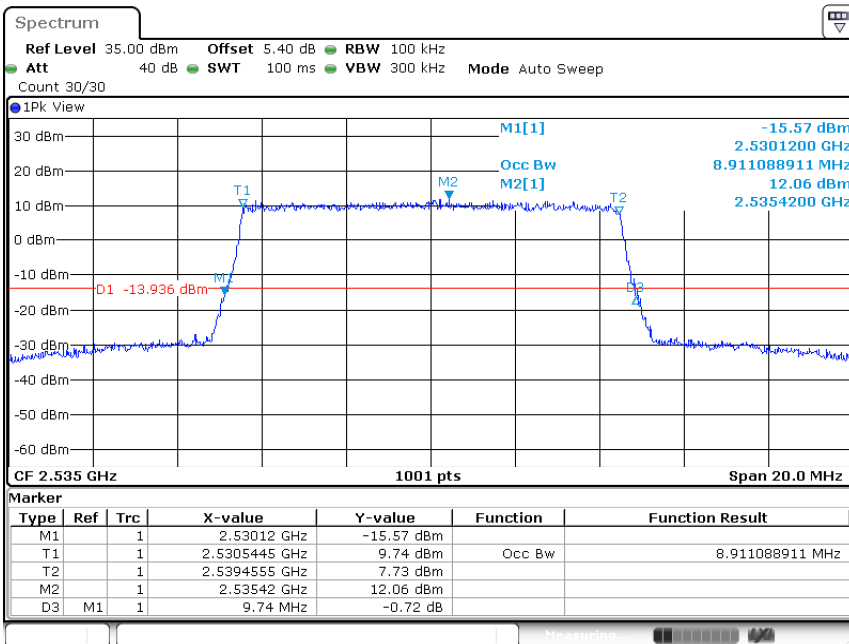
Band7-10MHz-16QAM-20800-50RB#0-8.911



Date: 28.SEP.2020 13:10:37

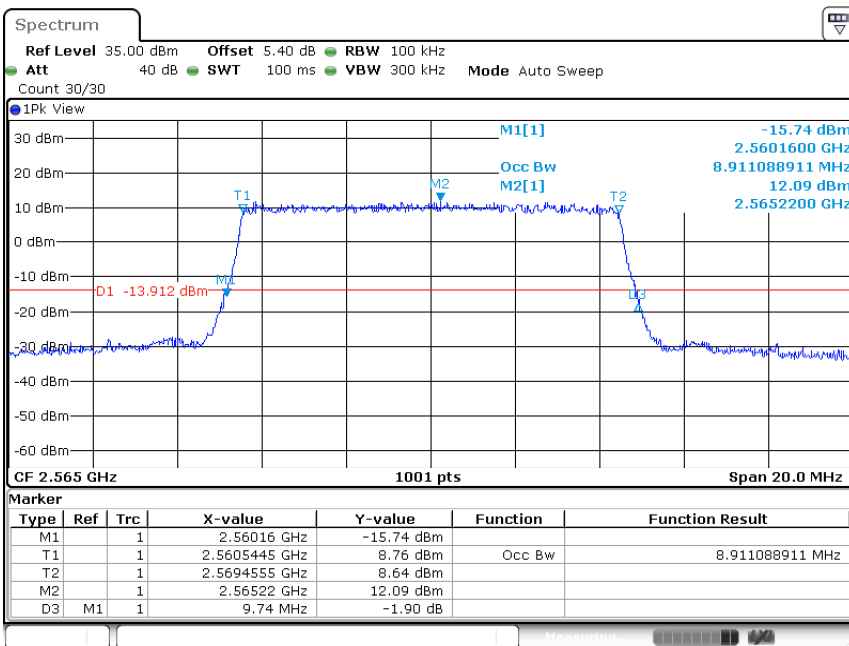


Band7-10MHz-16QAM-21100-50RB#0-8.911



Date: 28.SEP.2020 13:11:08

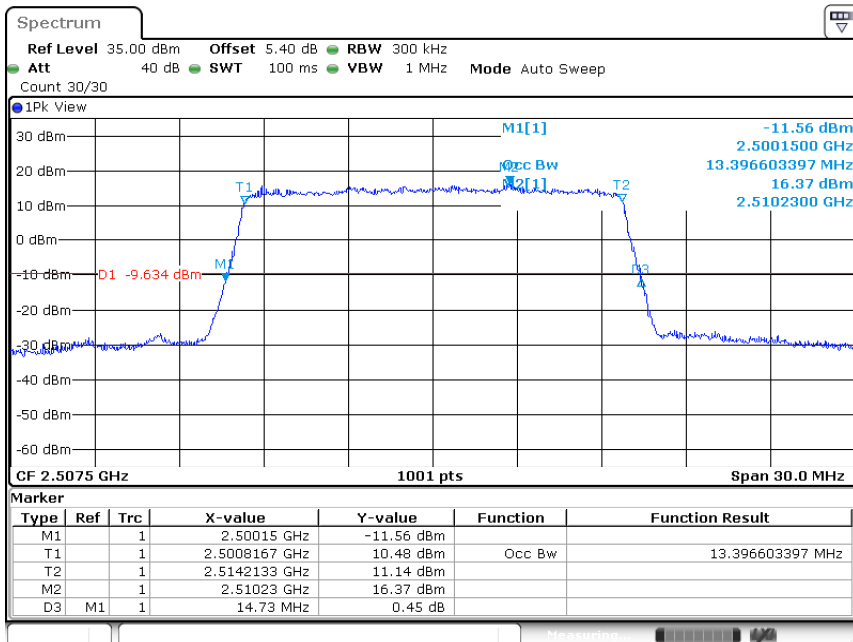
Band7-10MHz-16QAM-21400-50RB#0-8.911



Date: 28.SEP.2020 13:11:40

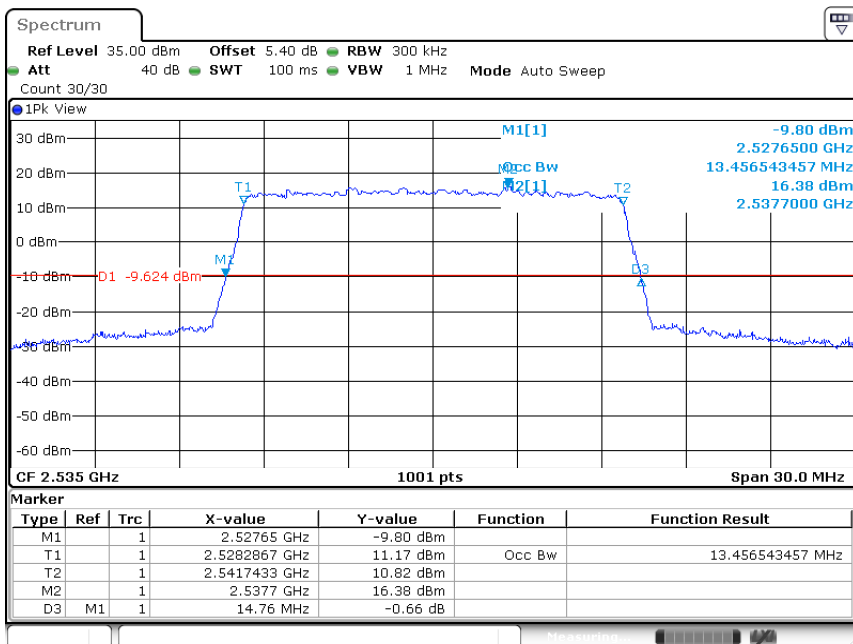


Band7-15MHz-QPSK-20825-75RB#0-13.397



Date: 28.SEP.2020 13:12:01

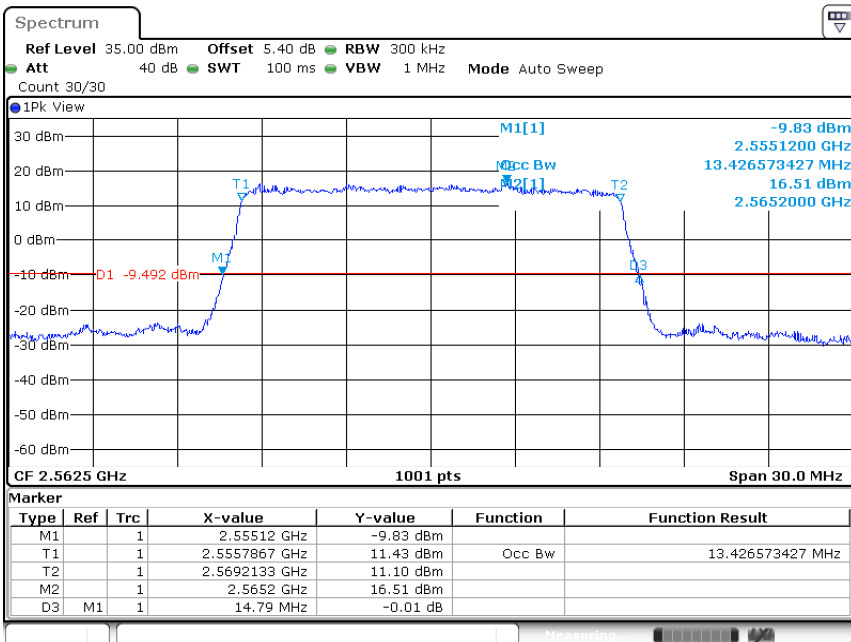
Band7-15MHz-QPSK-21100-75RB#0-13.457



Date: 28.SEP.2020 13:12:33

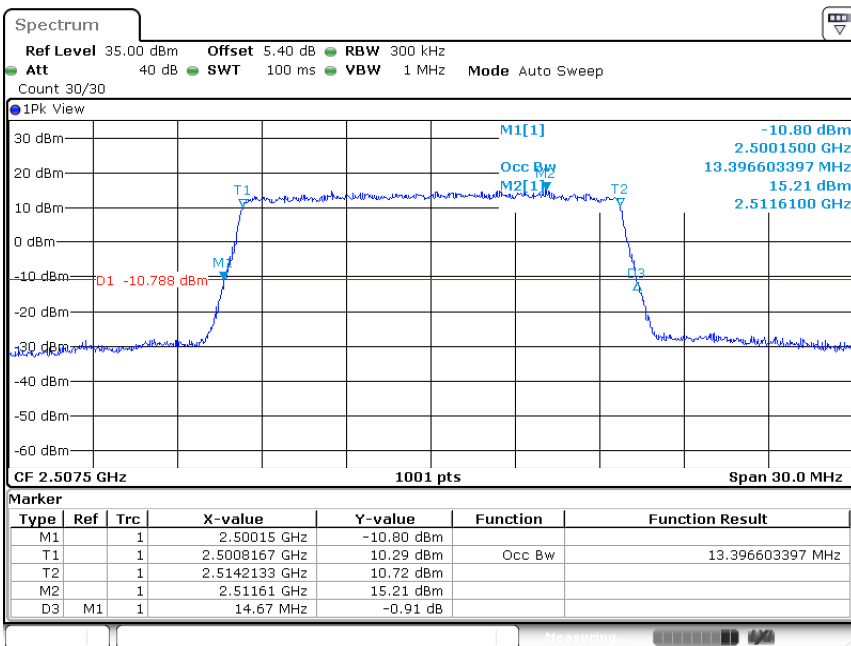


Band7-15MHz-QPSK-21375-75RB#0-13.427



Date: 28.SEP.2020 13:13:05

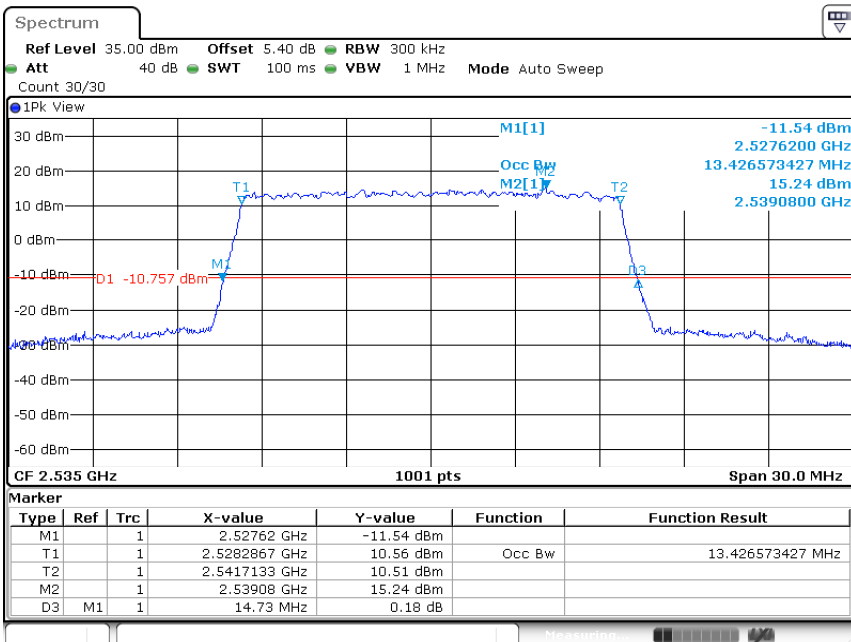
Band7-15MHz-16QAM-20825-75RB#0-13.397



Date: 28.SEP.2020 13:12:17

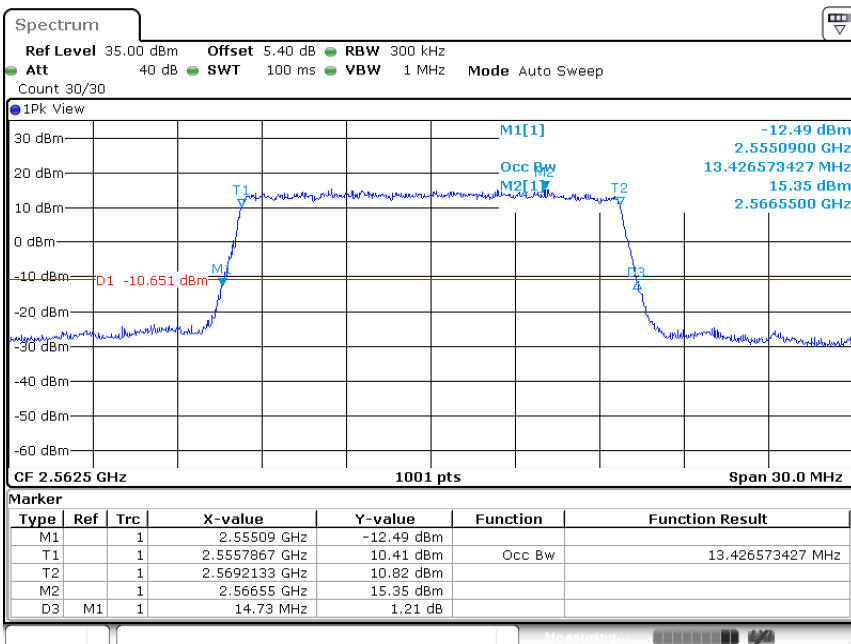


Band7-15MHz-16QAM-21100-75RB#0-13.427



Date: 28.SEP.2020 13:12:49

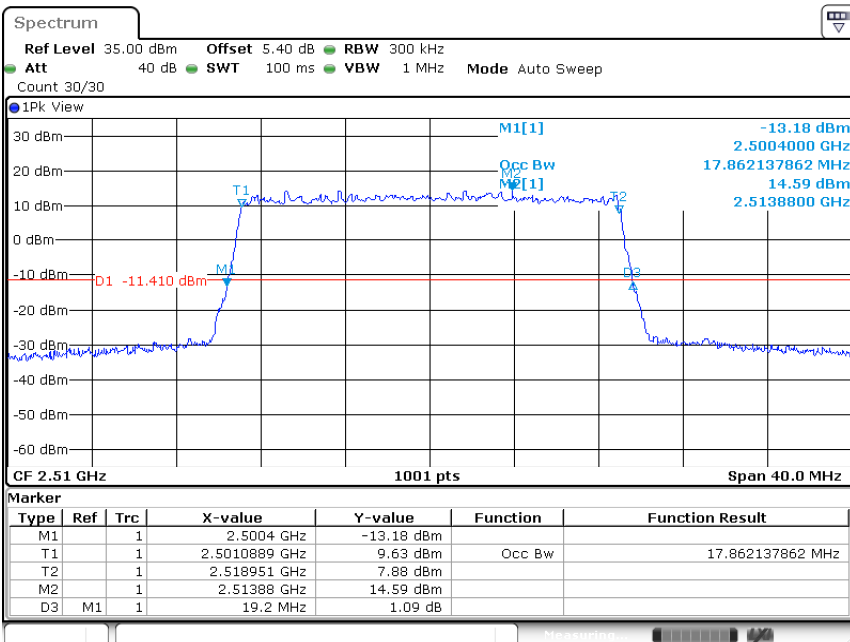
Band7-15MHz-16QAM-21375-75RB#0-13.427



Date: 28.SEP.2020 13:13:21

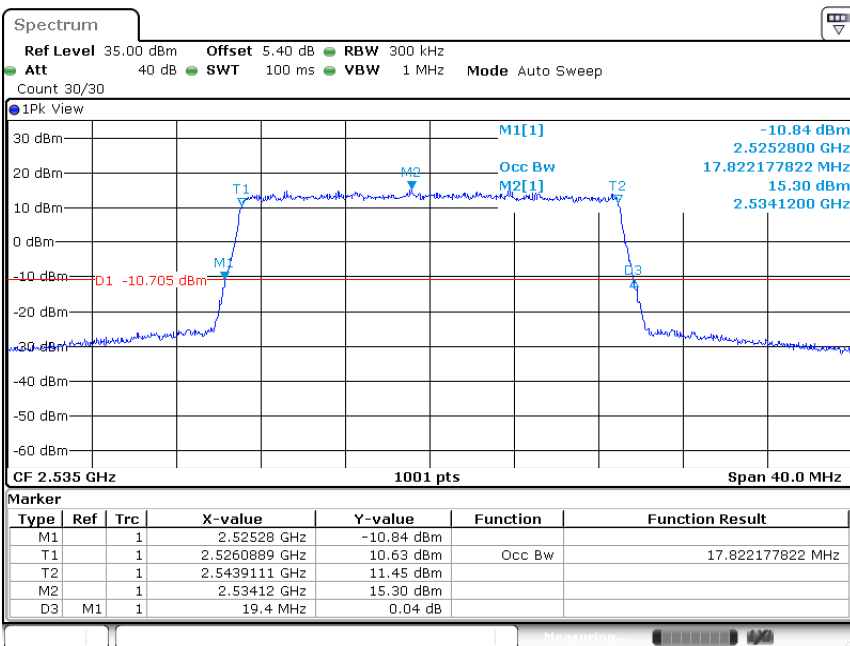


Band7-20MHz-QPSK-20850-100RB#0-17.862



Date: 28.SEP.2020 13:13:42

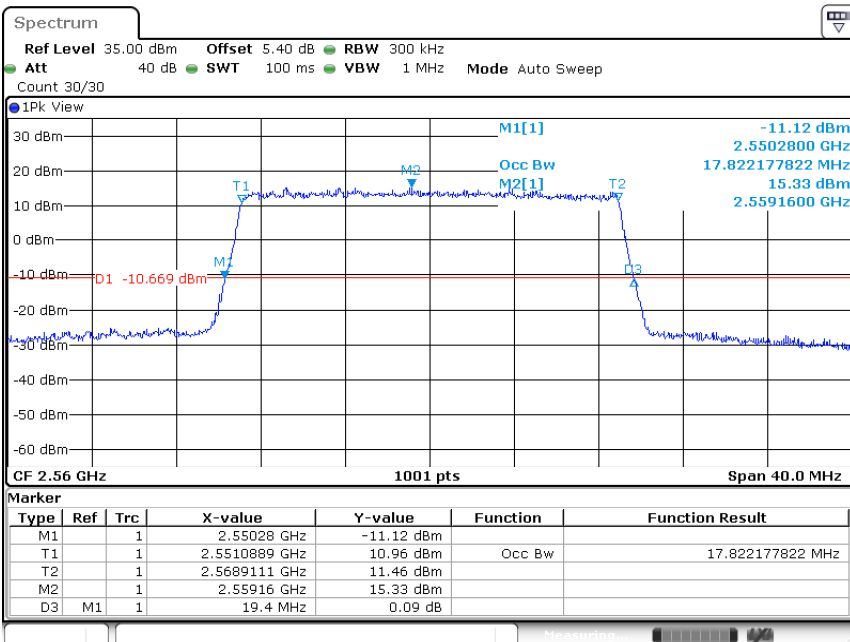
Band7-20MHz-QPSK-21100-100RB#0-17.822



Date: 28.SEP.2020 13:14:13

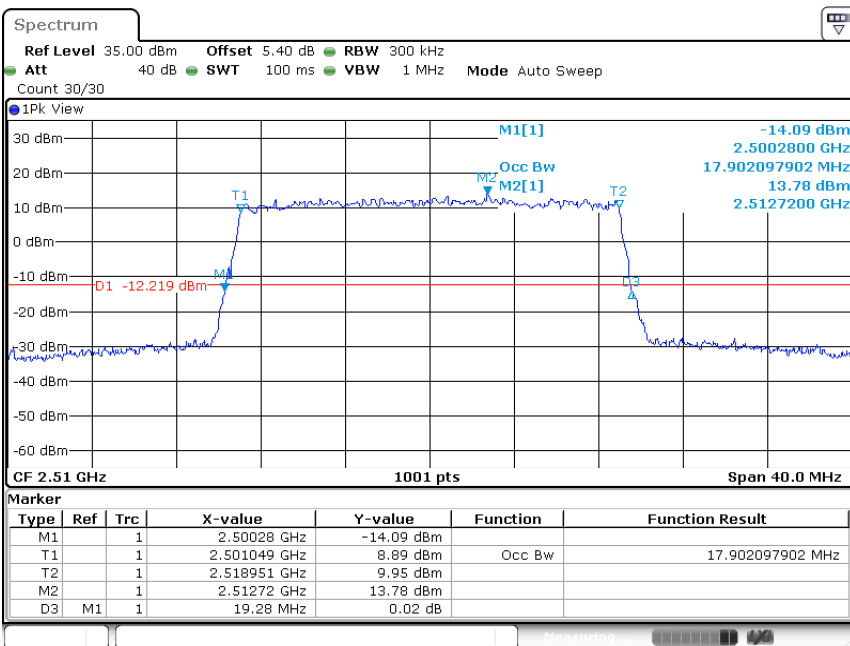


Band7-20MHz-QPSK-21350-100RB#0-17.822



Date: 28.SEP.2020 13:14:45

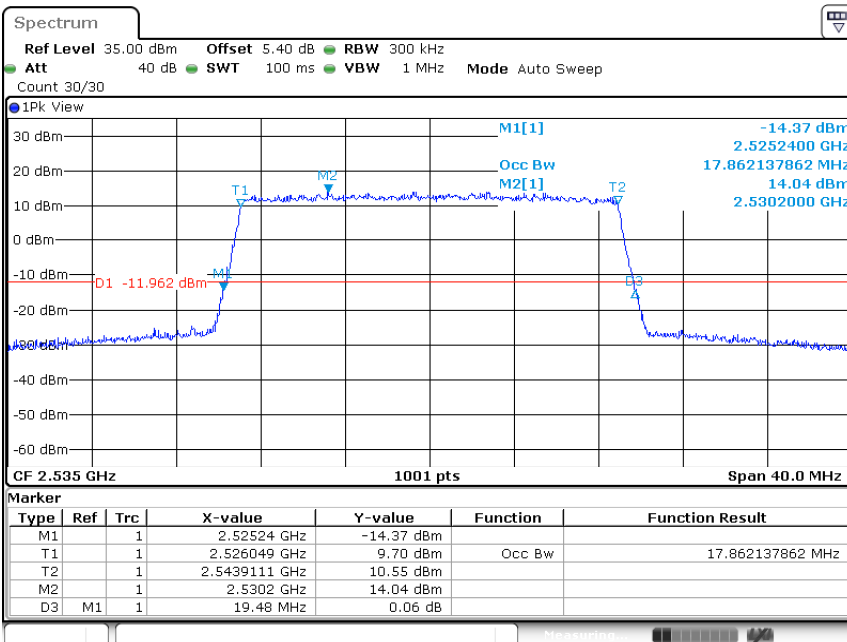
Band7-20MHz-16QAM-20850-100RB#0-17.902



Date: 28.SEP.2020 13:13:57

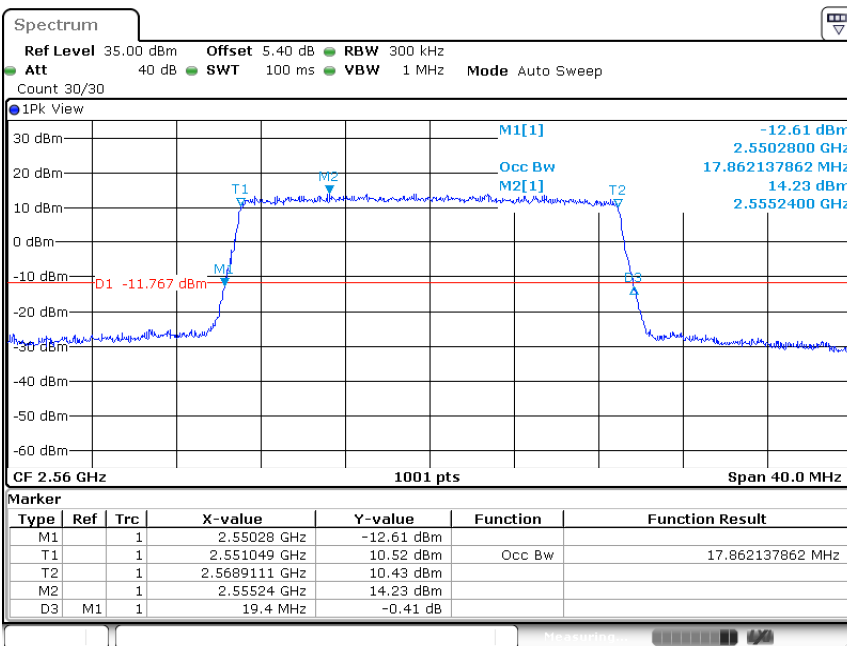


Band7-20MHz-16QAM-21100-100RB#0-17.862



Date: 28.SEP.2020 13:14:29

Band7-20MHz-16QAM-21350-100RB#0-17.862

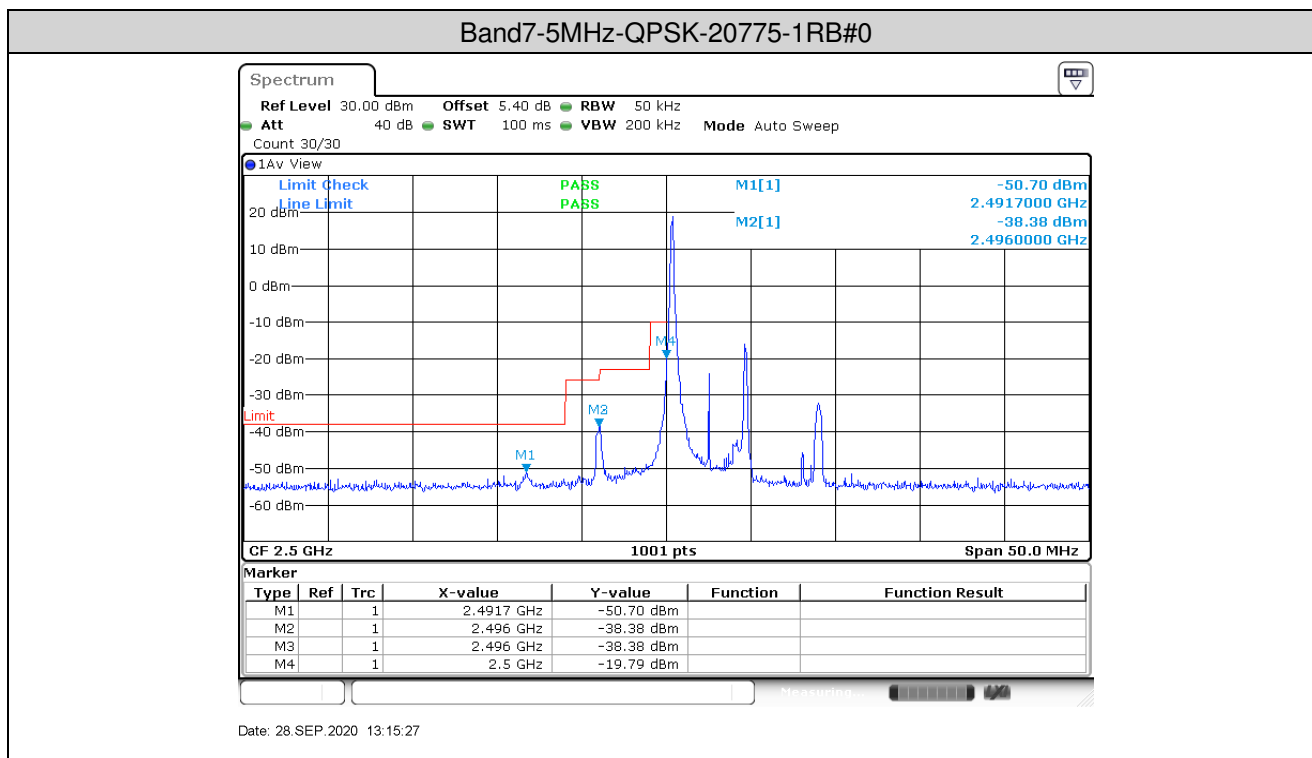


Date: 28.SEP.2020 13:15:01

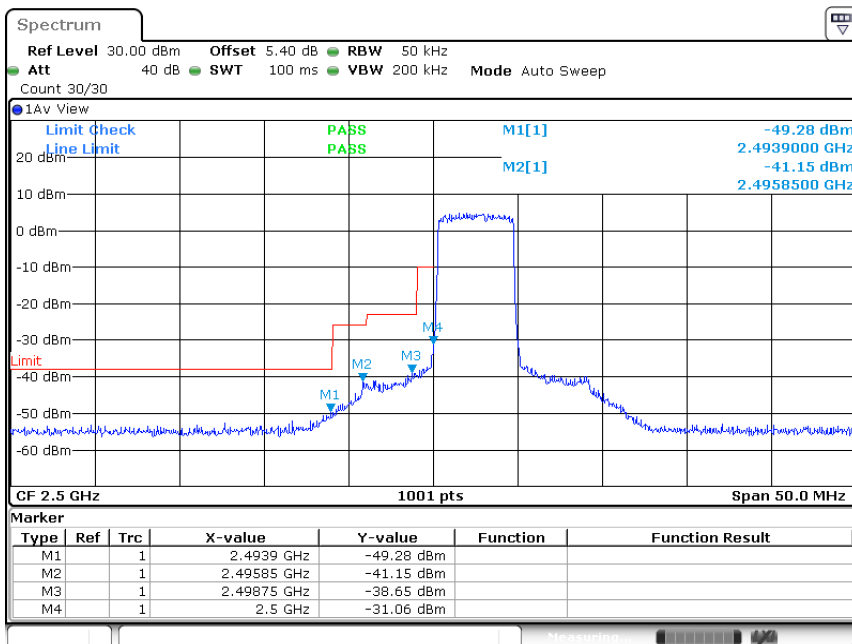


5. Band Edge Compliance

5.1. Test Plots

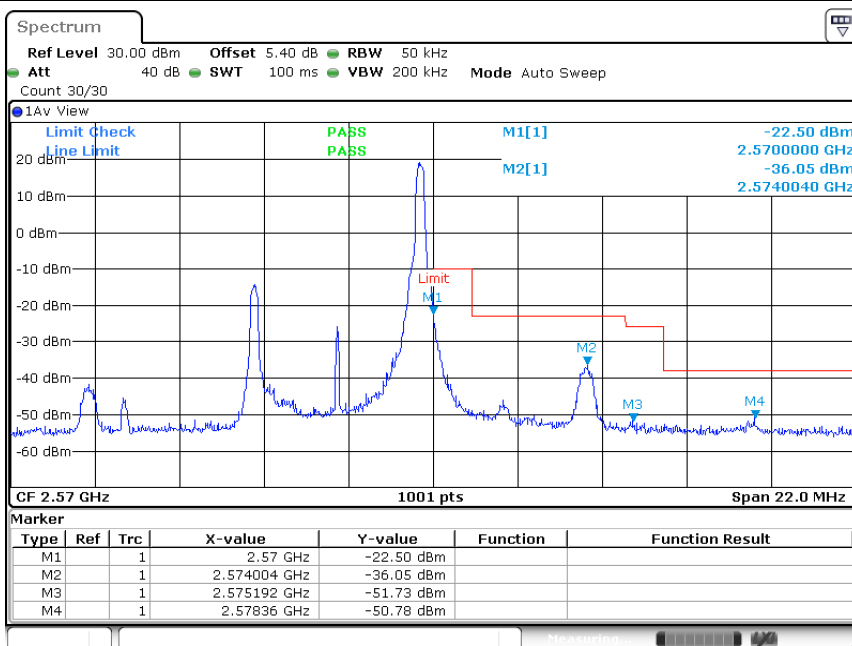


Band7-5MHz-QPSK-20775-25RB#0



Date: 28.SEP.2020 13:16:04

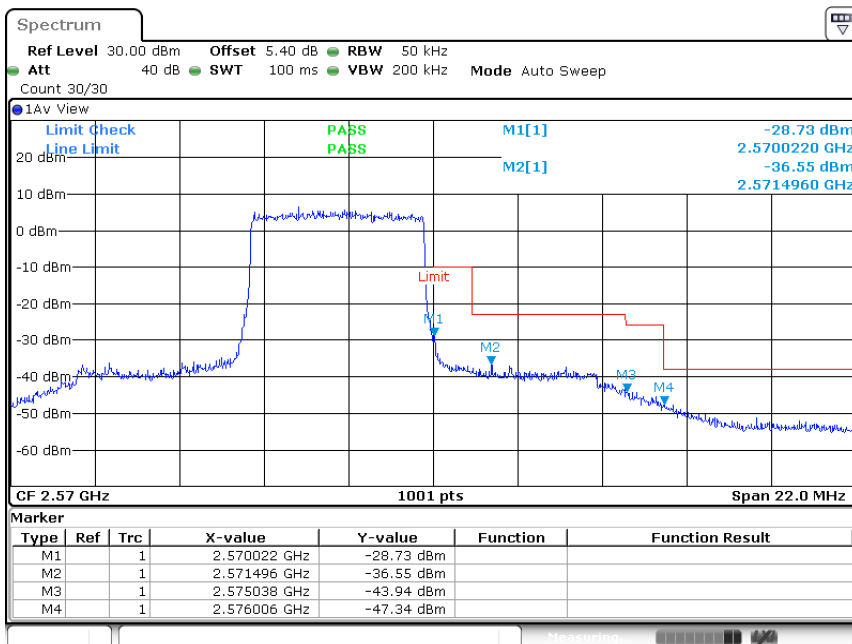
Band7-5MHz-QPSK-21425-1RB#24



Date: 28.SEP.2020 13:16:48

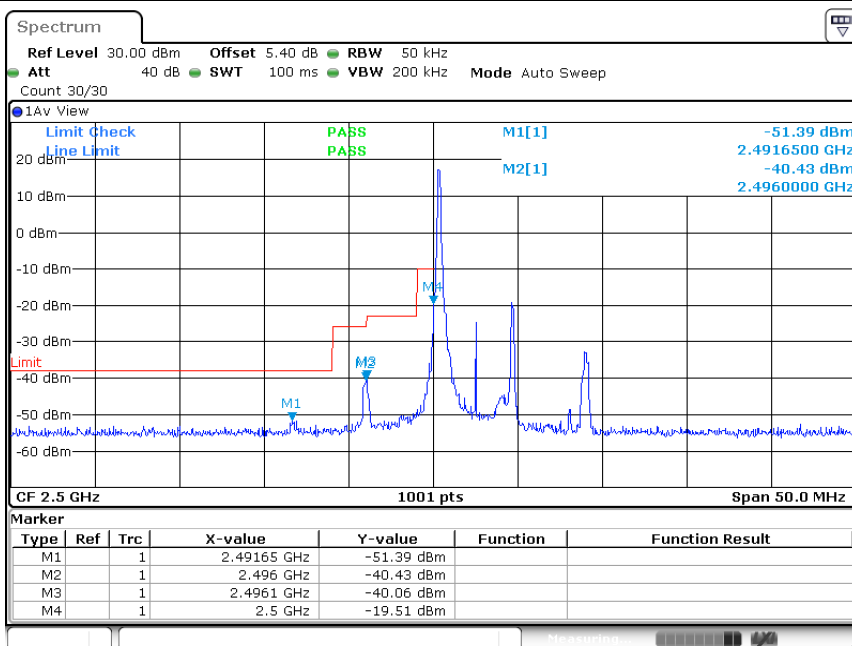


Band7-5MHz-QPSK-21425-25RB#0



Date: 28.SEP.2020 13:17:25

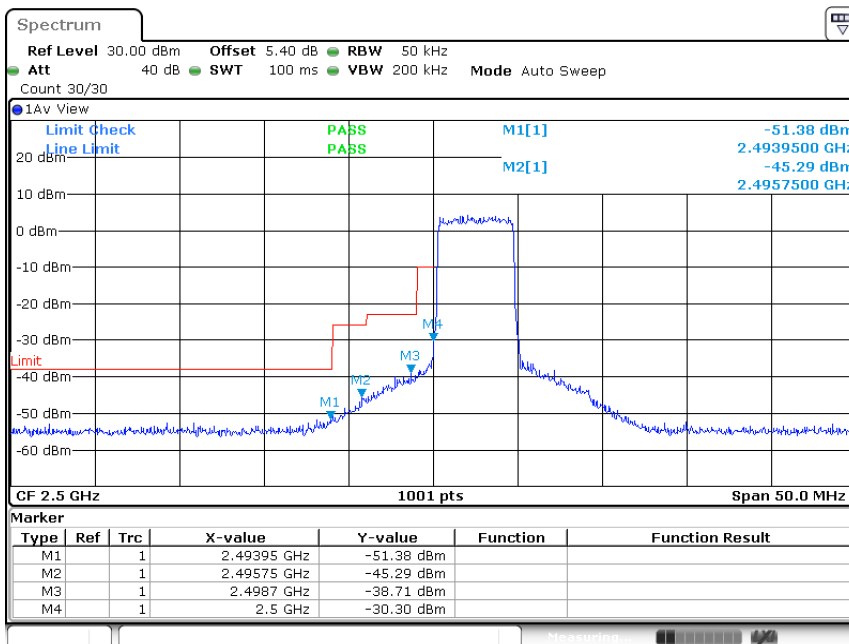
Band7-5MHz-16QAM-20775-1RB#0



Date: 28.SEP.2020 13:15:46

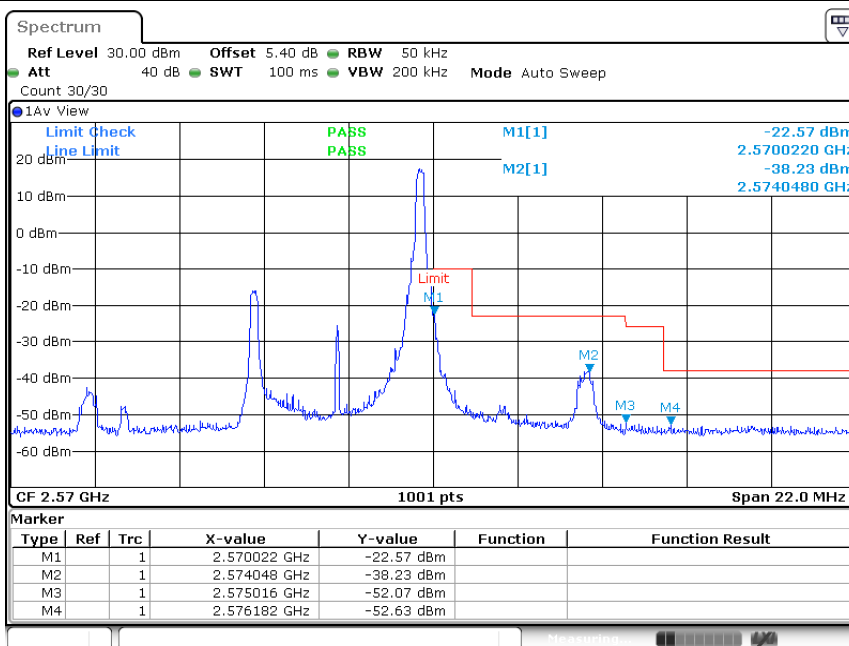


Band7-5MHz-16QAM-20775-25RB#0



Date: 28.SEP.2020 13:16:22

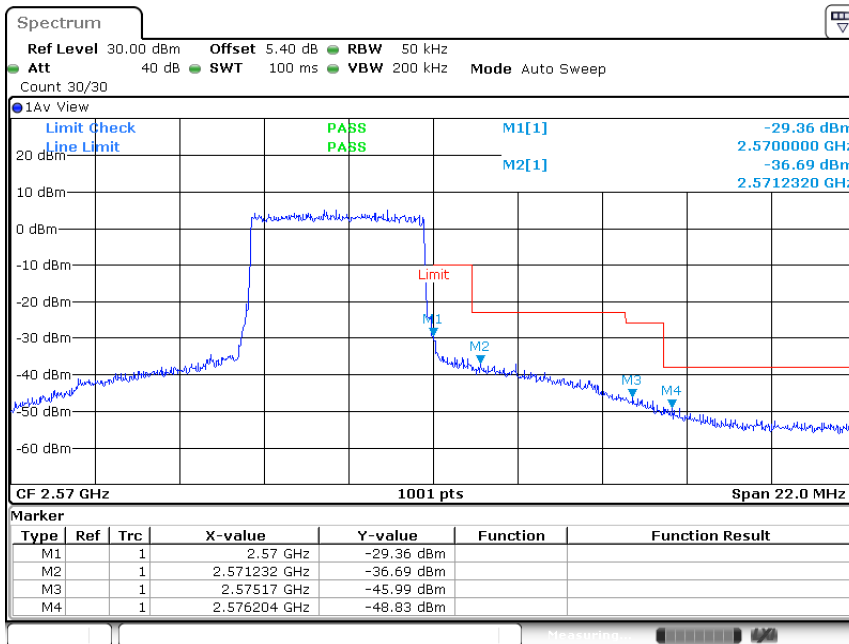
Band7-5MHz-16QAM-21425-1RB#24



Date: 28.SEP.2020 13:17:07

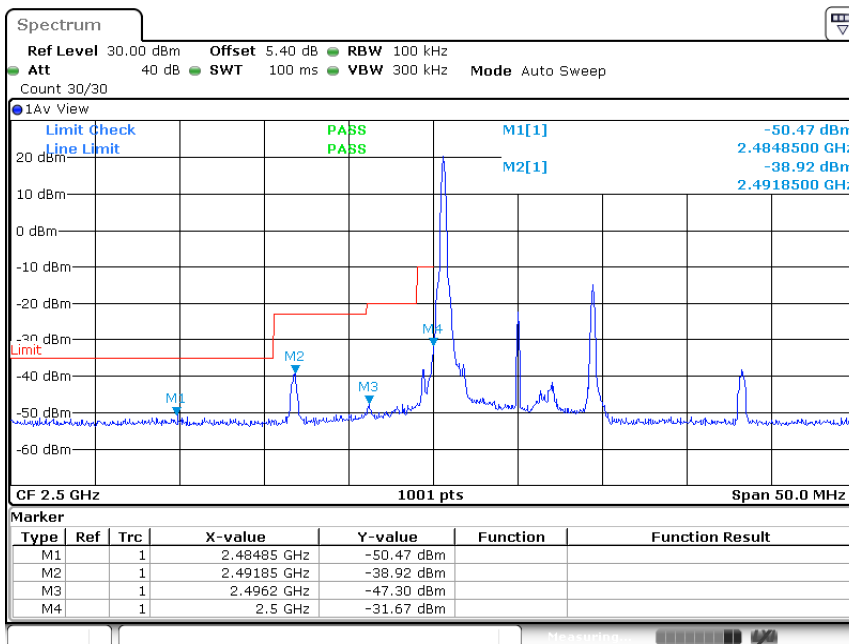


Band7-5MHz-16QAM-21425-25RB#0



Date: 28.SEP.2020 13:17:44

Band7-10MHz-QPSK-20800-1RB#0



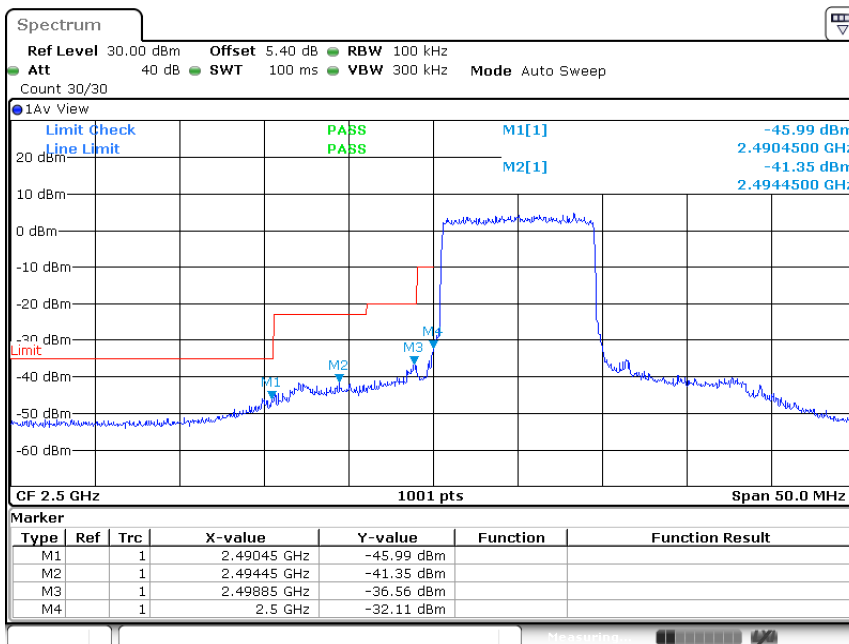
Date: 28.SEP.2020 13:18:10



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.

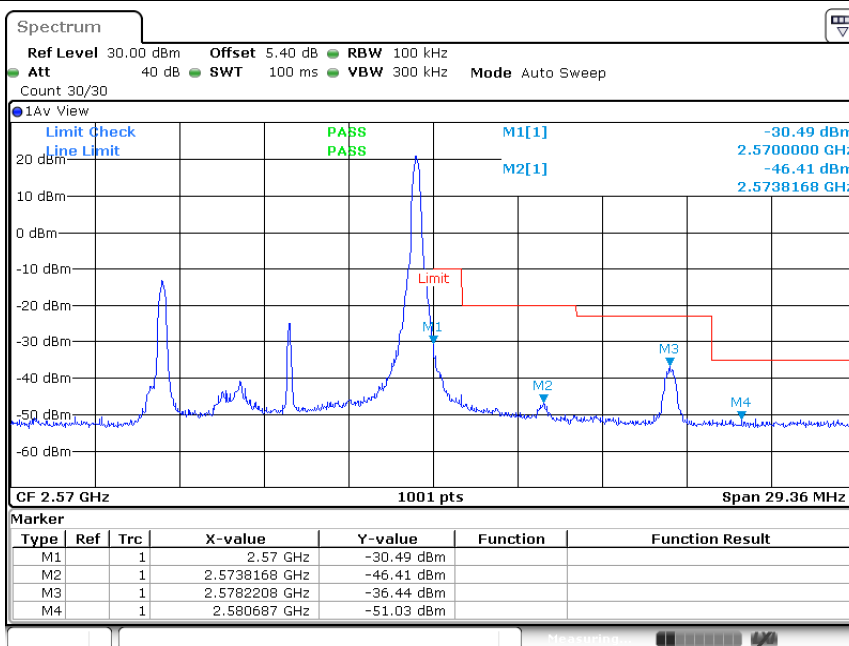
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Band7-10MHz-QPSK-20800-50RB#0



Date: 28.SEP.2020 13:18:47

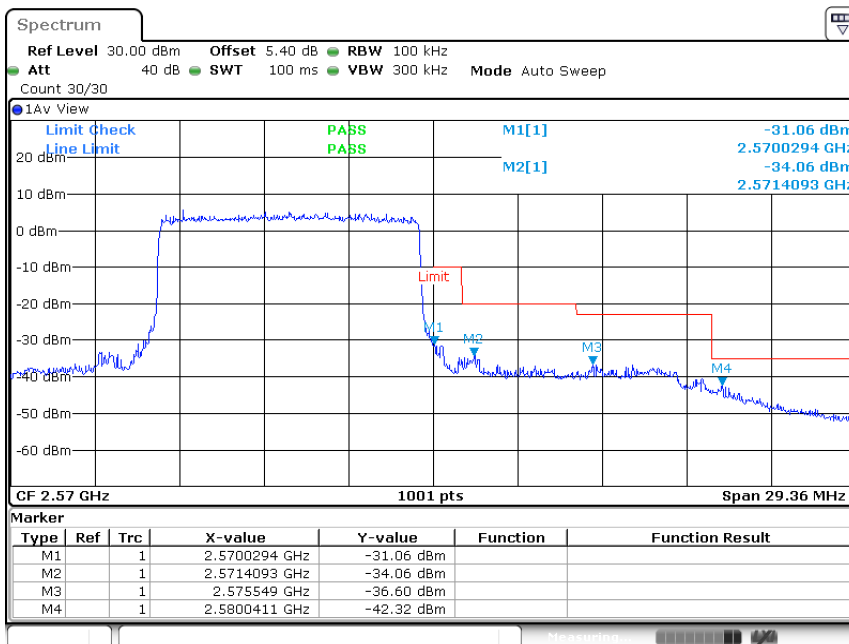
Band7-10MHz-QPSK-21400-1RB#49



Date: 28.SEP.2020 13:19:31

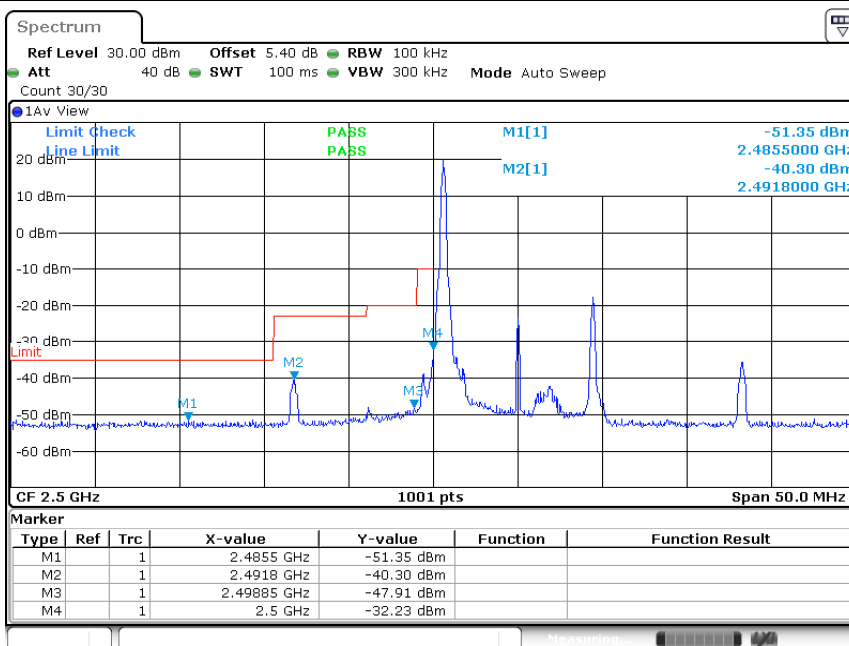


Band7-10MHz-QPSK-21400-50RB#0



Date: 28.SEP.2020 13:20:08

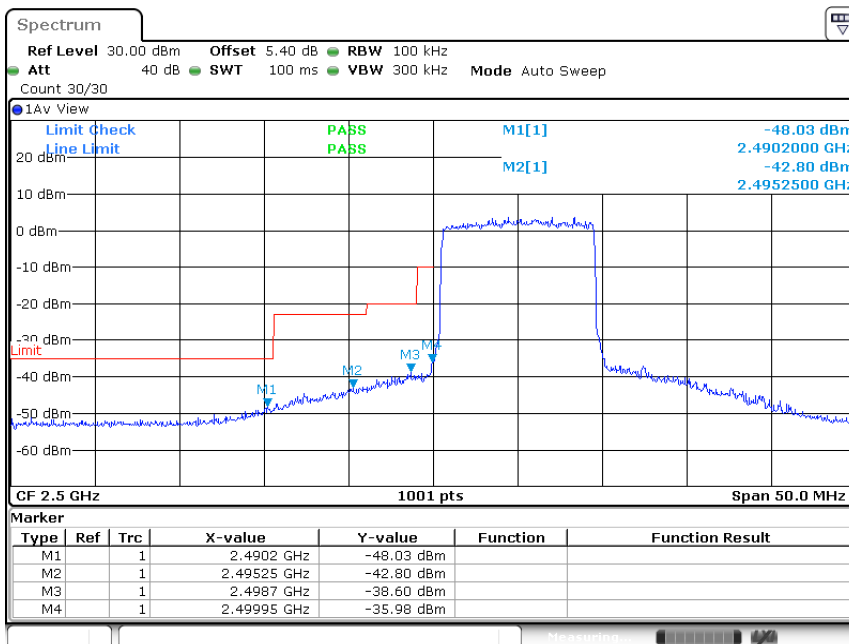
Band7-10MHz-16QAM-20800-1RB#0



Date: 28.SEP.2020 13:18:28

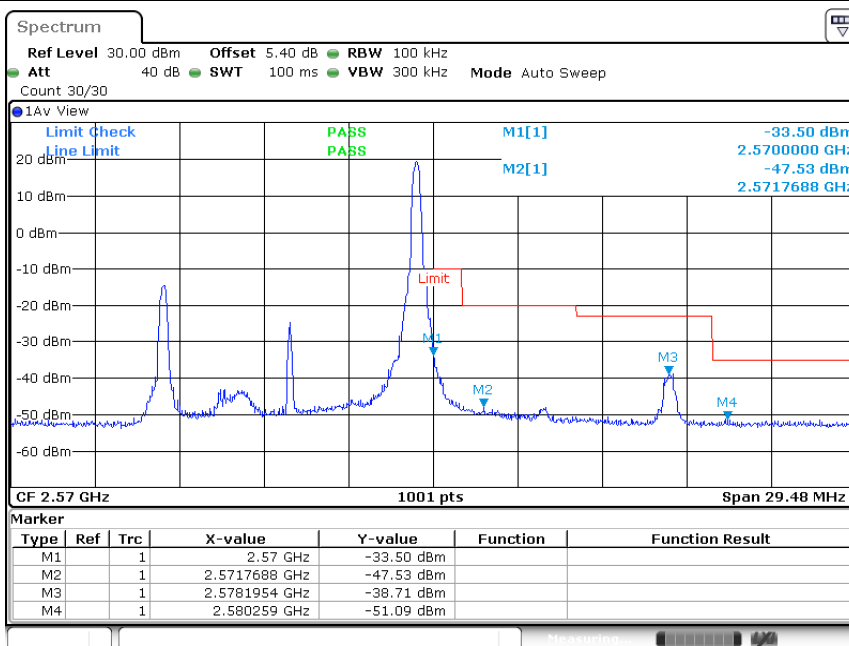


Band7-10MHz-16QAM-20800-50RB#0



Date: 28.SEP.2020 13:19:05

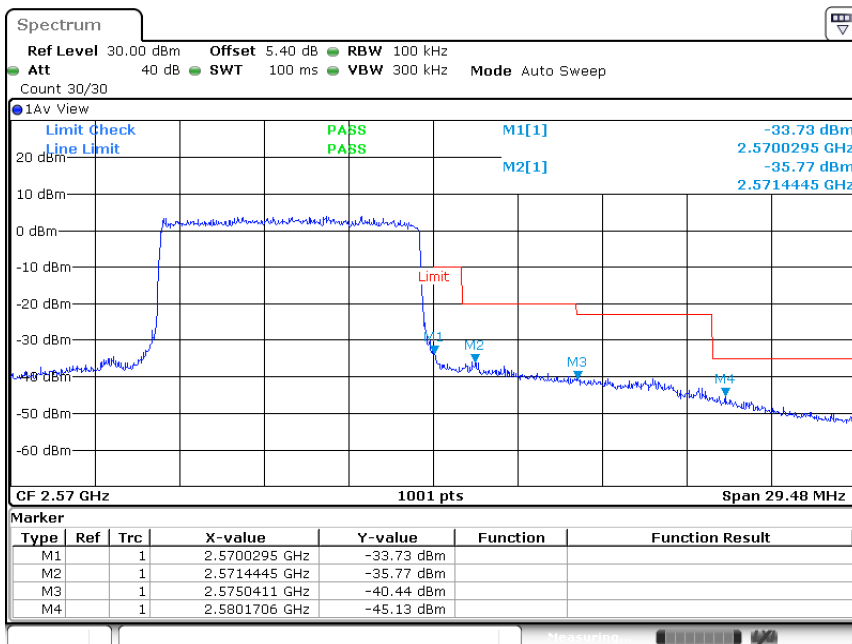
Band7-10MHz-16QAM-21400-1RB#49



Date: 28.SEP.2020 13:19:49

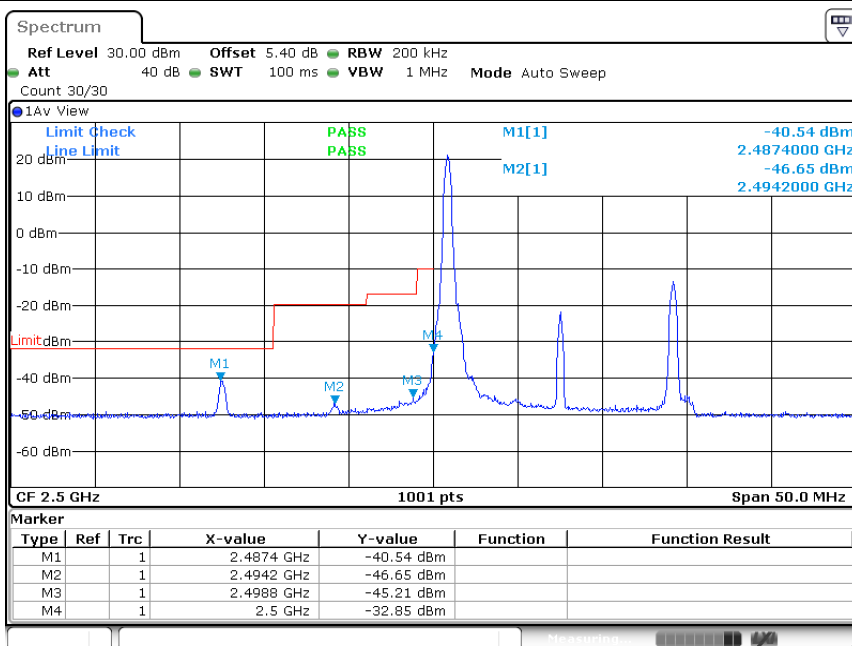


Band7-10MHz-16QAM-21400-50RB#0



Date: 28.SEP.2020 13:20:26

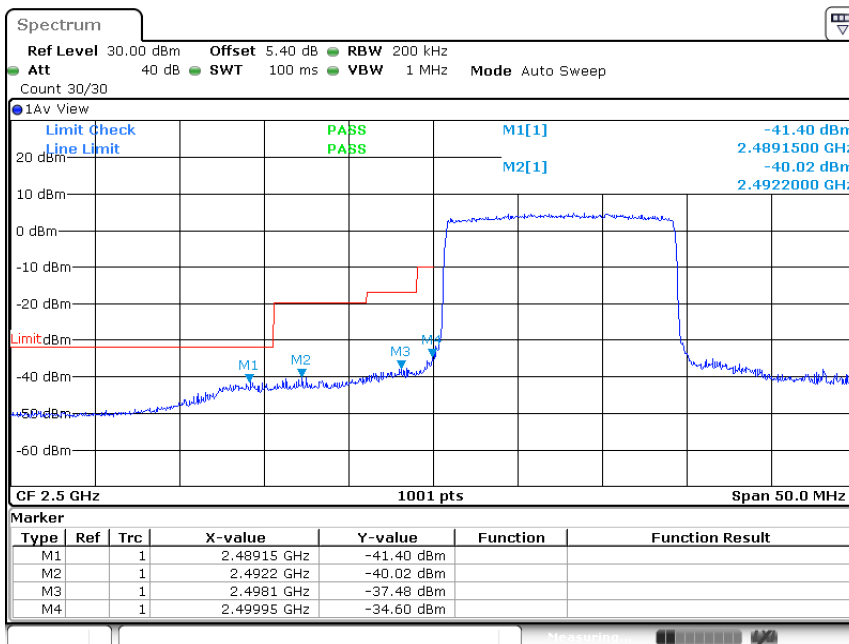
Band7-15MHz-QPSK-20825-1RB#0



Date: 28.SEP.2020 13:20:53

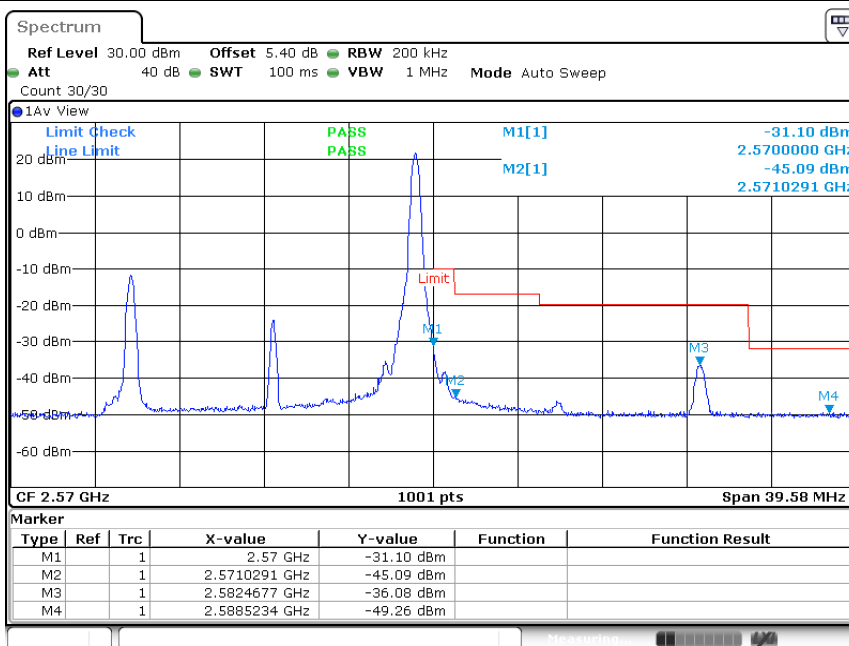


Band7-15MHz-QPSK-20825-75RB#0



Date: 28.SEP.2020 13:21:29

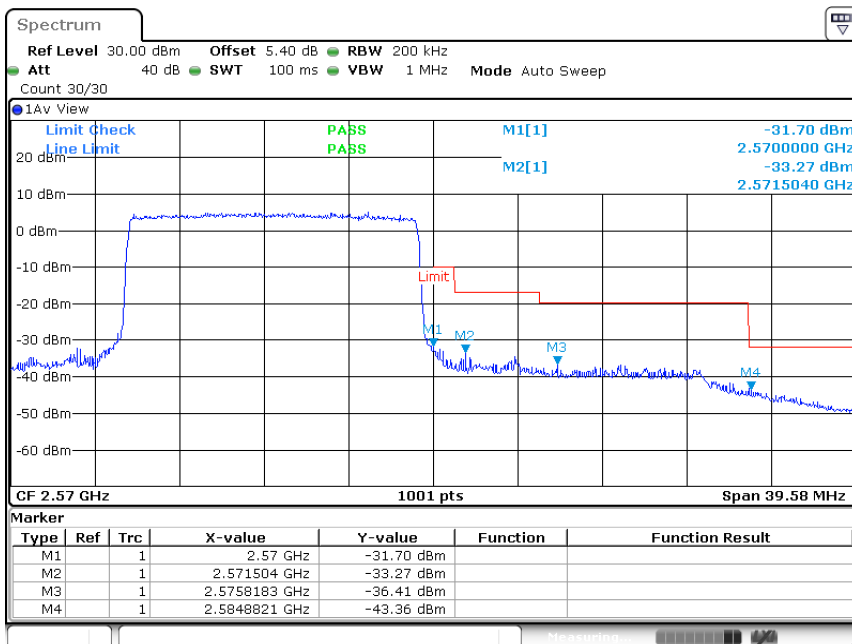
Band7-15MHz-QPSK-21375-1RB#74



Date: 28.SEP.2020 13:22:13

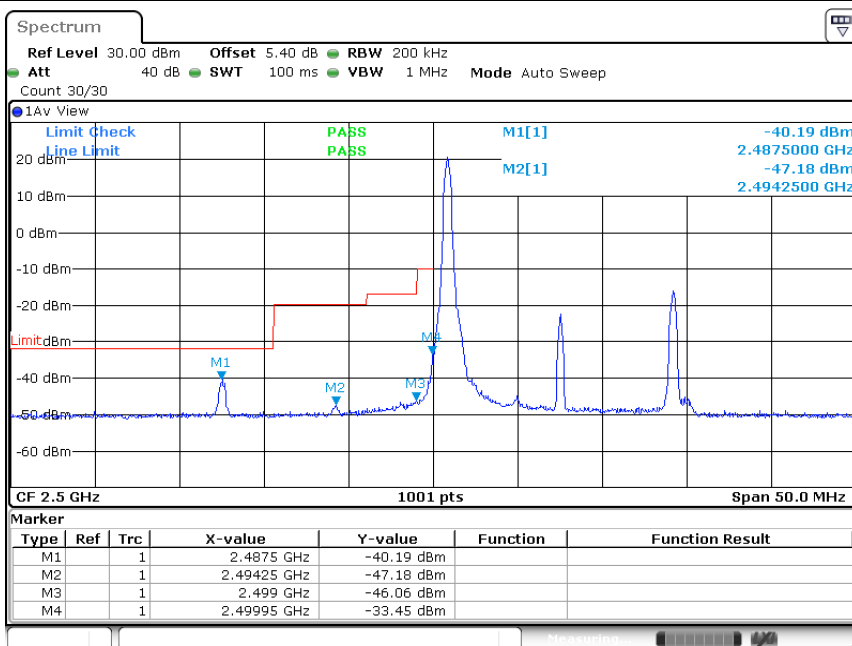


Band7-15MHz-QPSK-21375-75RB#0



Date: 28.SEP.2020 13:22:50

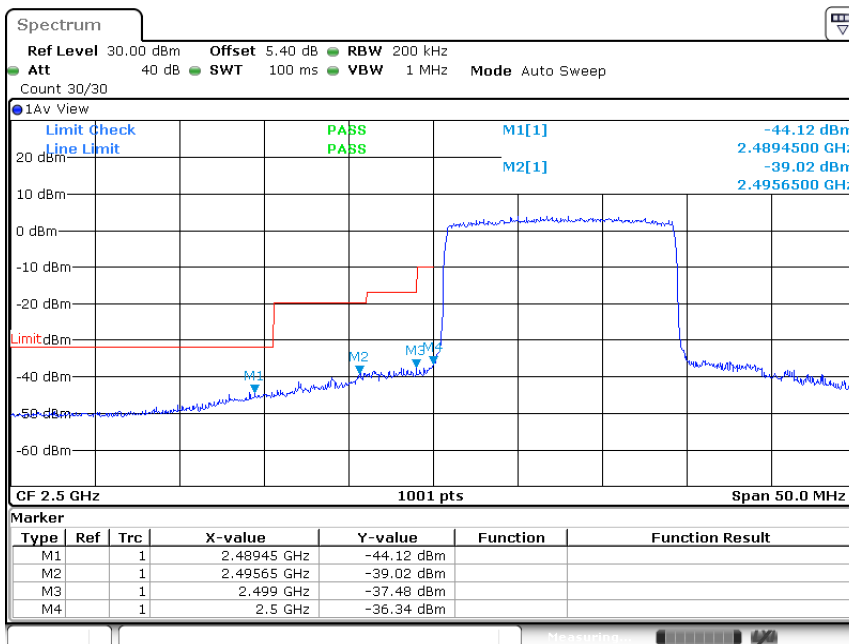
Band7-15MHz-16QAM-20825-1RB#0



Date: 28.SEP.2020 13:21:11

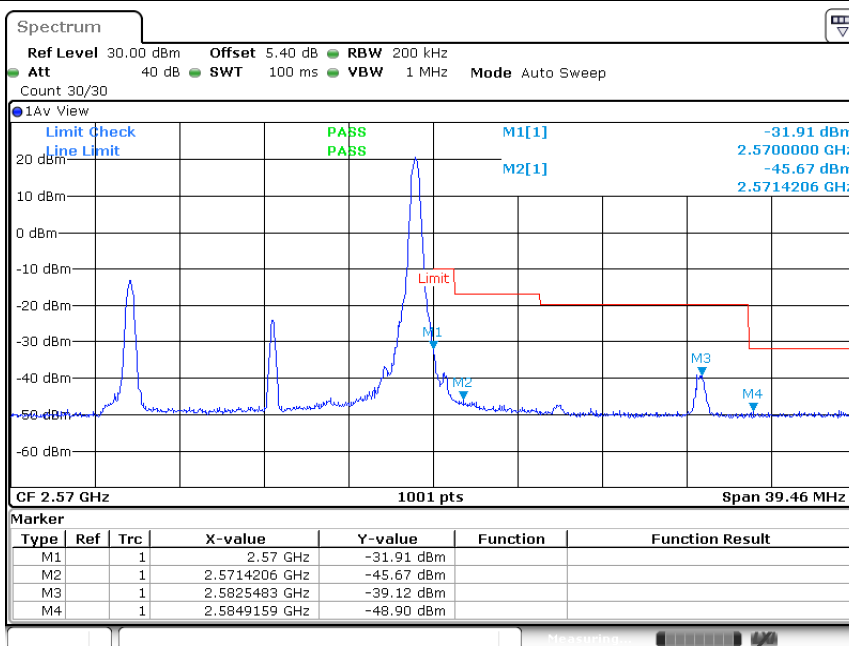


Band7-15MHz-16QAM-20825-75RB#0



Date: 28.SEP.2020 13:21:48

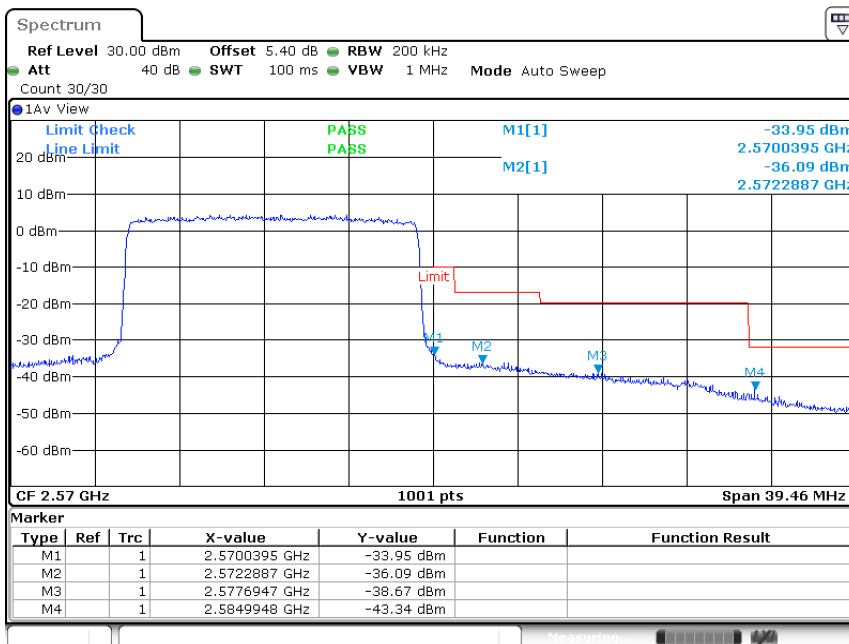
Band7-15MHz-16QAM-21375-1RB#74



Date: 28.SEP.2020 13:22:32

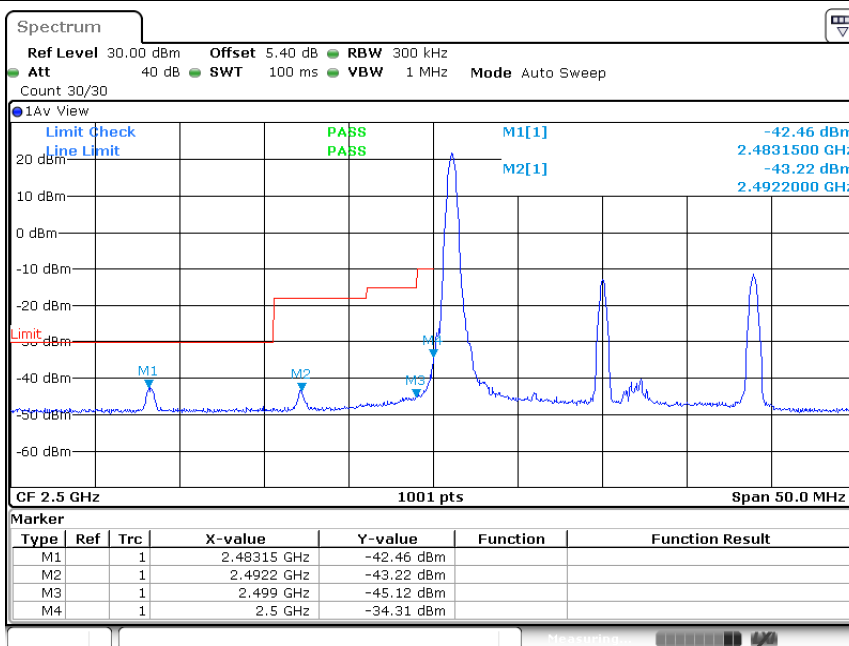


Band7-15MHz-16QAM-21375-75RB#0



Date: 28.SEP.2020 13:23:08

Band7-20MHz-QPSK-20850-1RB#0

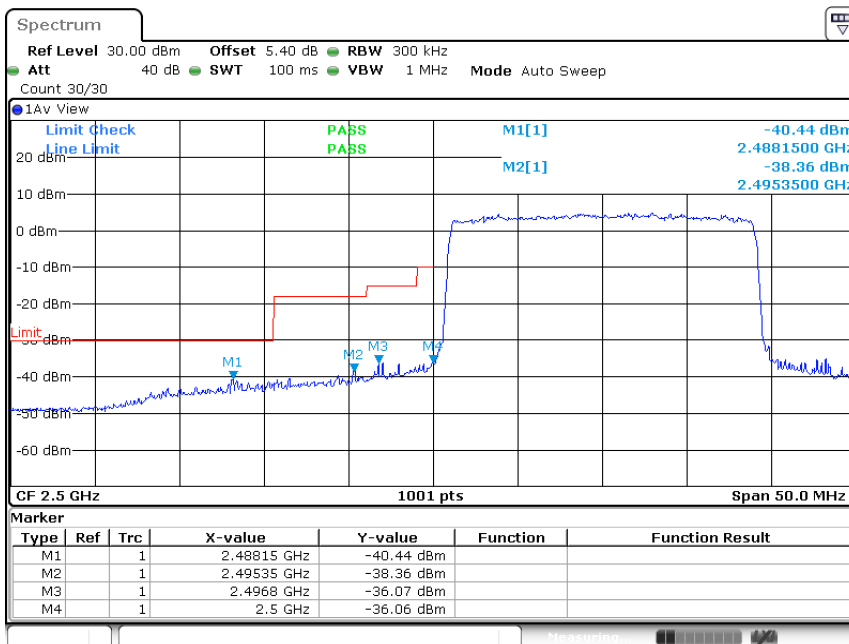


Date: 28.SEP.2020 13:23:35



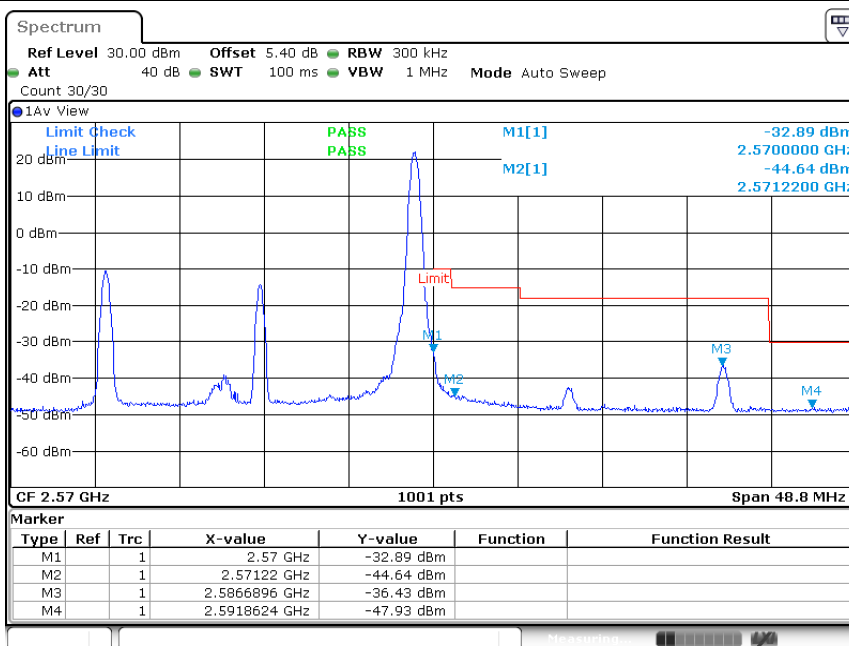
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

Band7-20MHz-QPSK-20850-100RB#0



Date: 28.SEP.2020 13:24:11

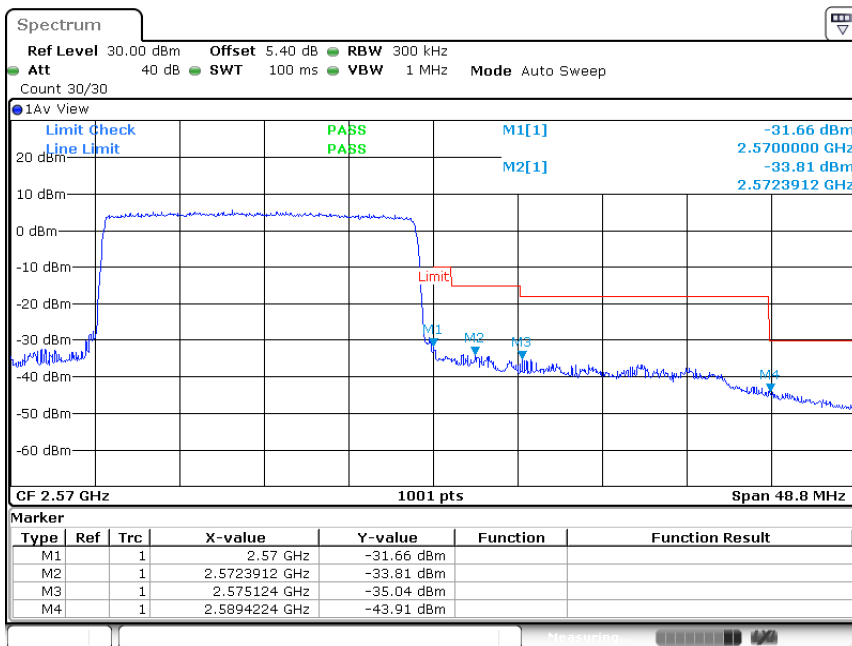
Band7-20MHz-QPSK-21350-1RB#99



Date: 28.SEP.2020 13:24:56

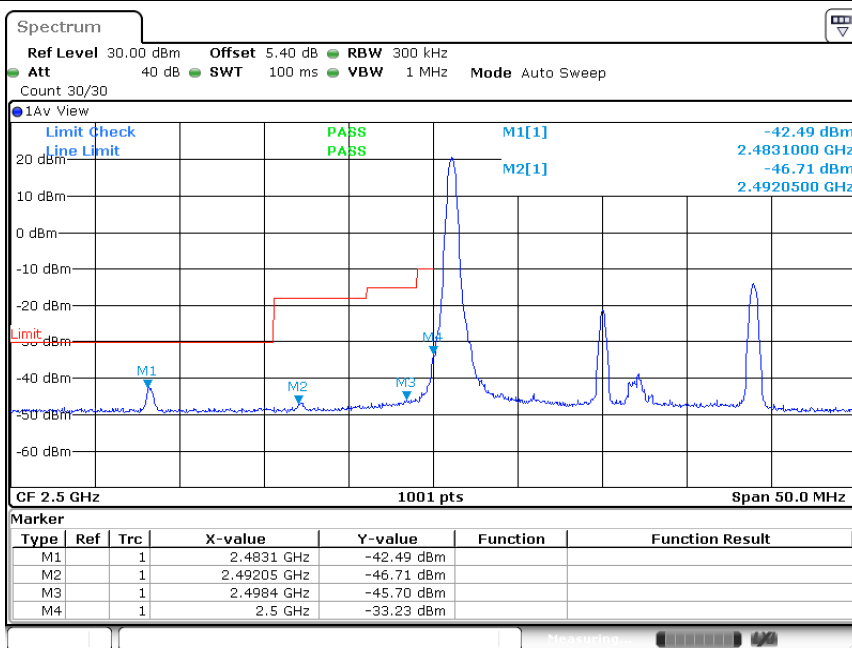


Band7-20MHz-QPSK-21350-100RB#0



Date: 28.SEP.2020 13:25:32

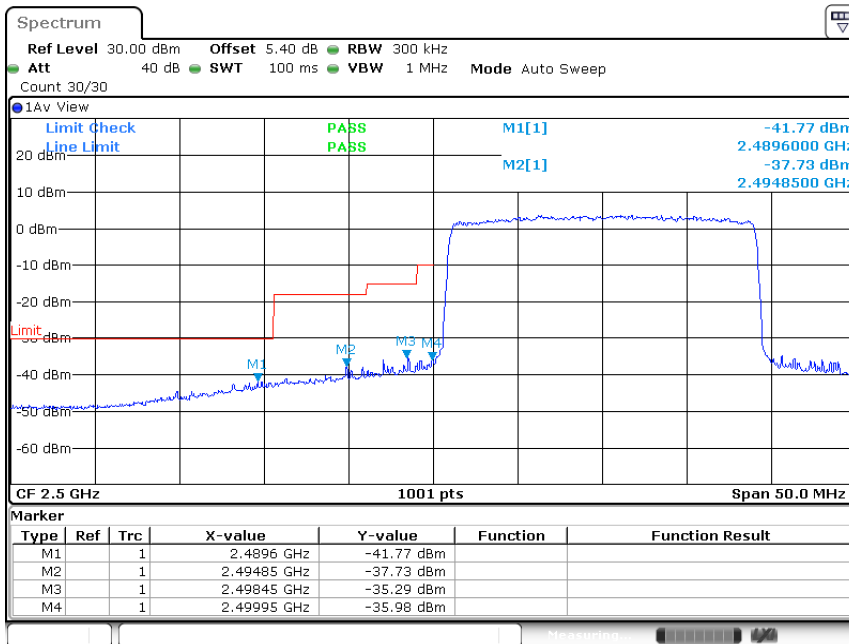
Band7-20MHz-16QAM-20850-1RB#0



Date: 28.SEP.2020 13:23:53

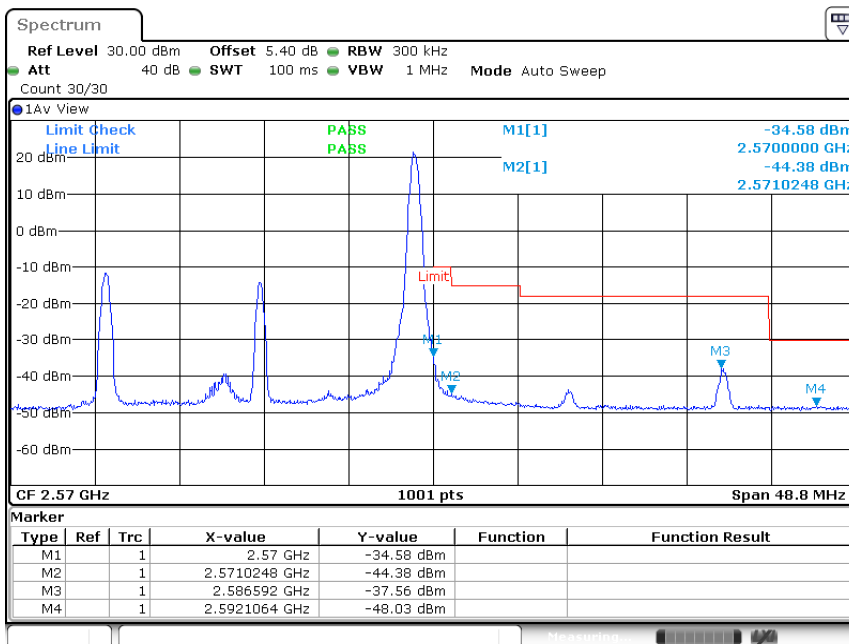


Band7-20MHz-16QAM-20850-100RB#0



Date: 28.SEP.2020 13:24:30

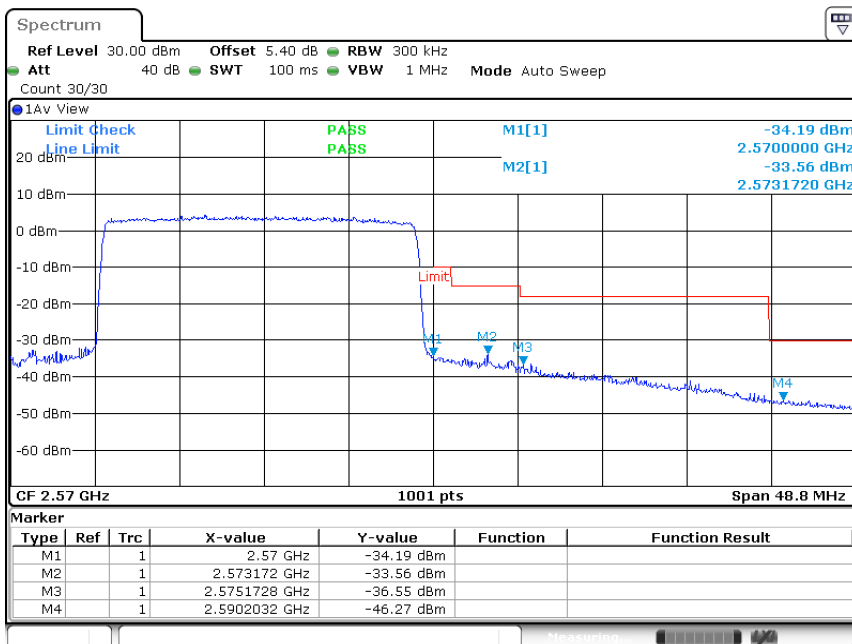
Band7-20MHz-16QAM-21350-1RB#99



Date: 28.SEP.2020 13:25:14



Band7-20MHz-16QAM-21350-100RB#0



Date: 28.SEP.2020 13:25:51

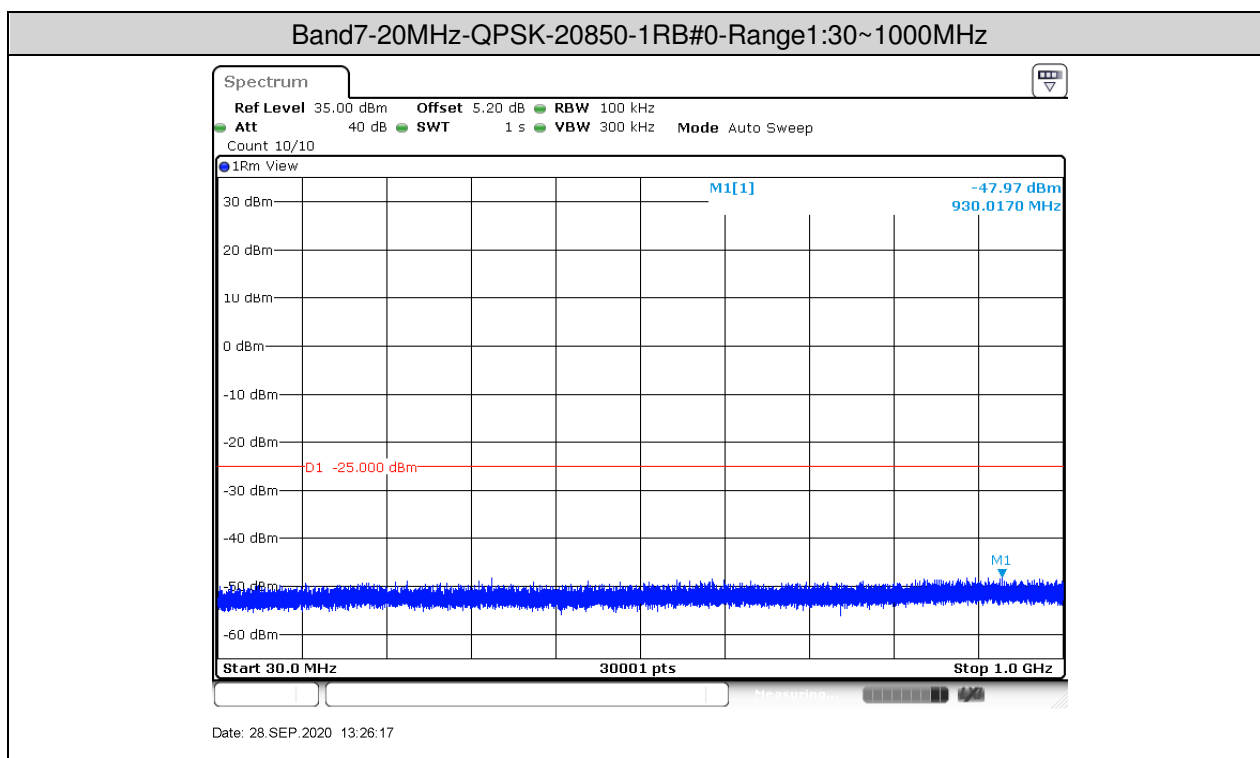


6. Spurious Emission at Antenna Terminal

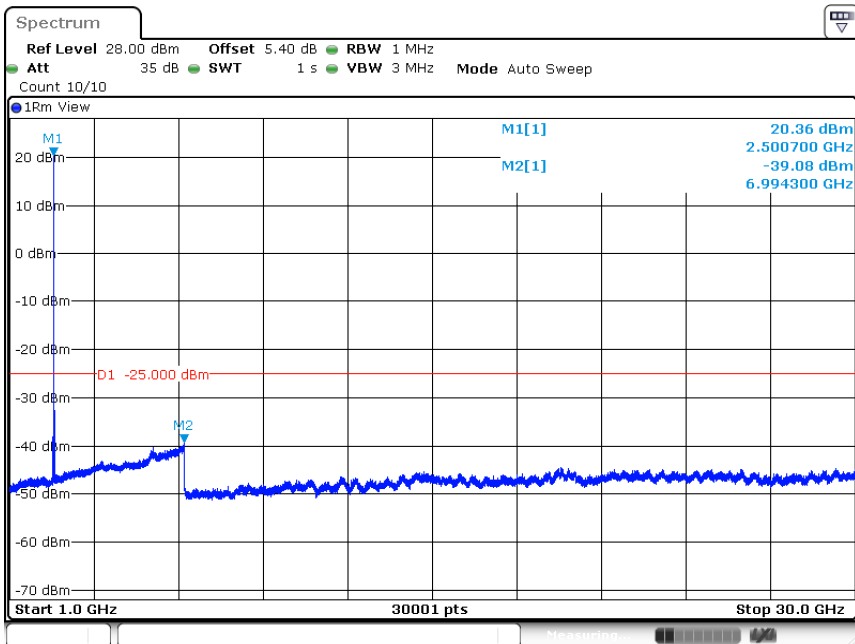
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (\text{Span} / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

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

6.1. Test Plots

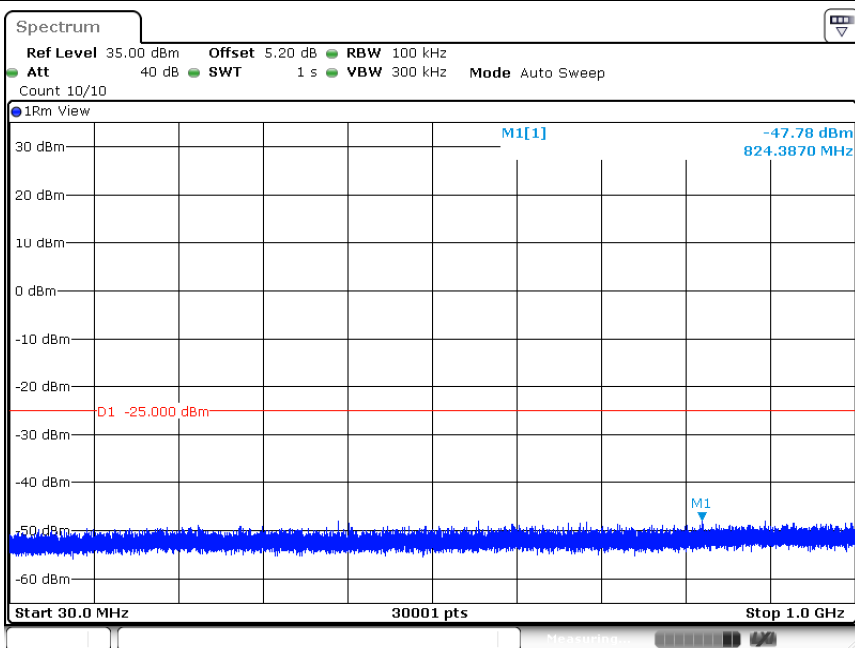


Band7-20MHz-QPSK-20850-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 13:26:34

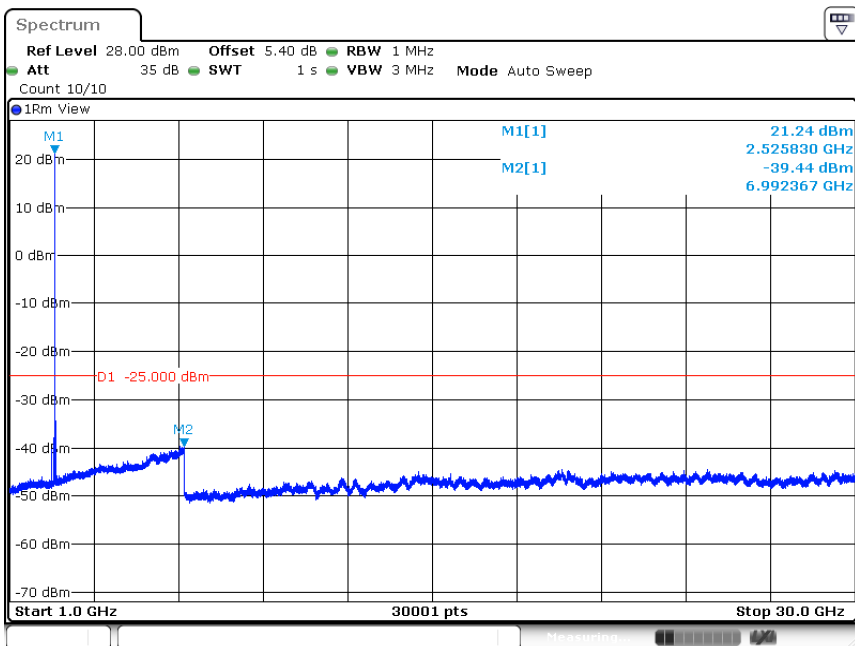
Band7-20MHz-QPSK-21100-1RB#0-Range1:30~1000MHz



Date: 28.SEP.2020 13:27:35

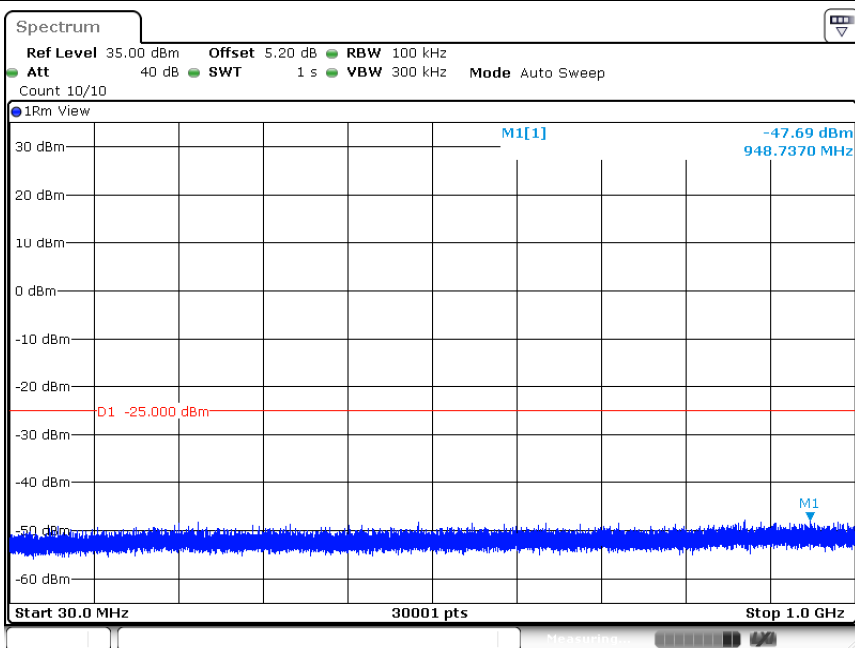


Band7-20MHz-QPSK-21100-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 13:27:52

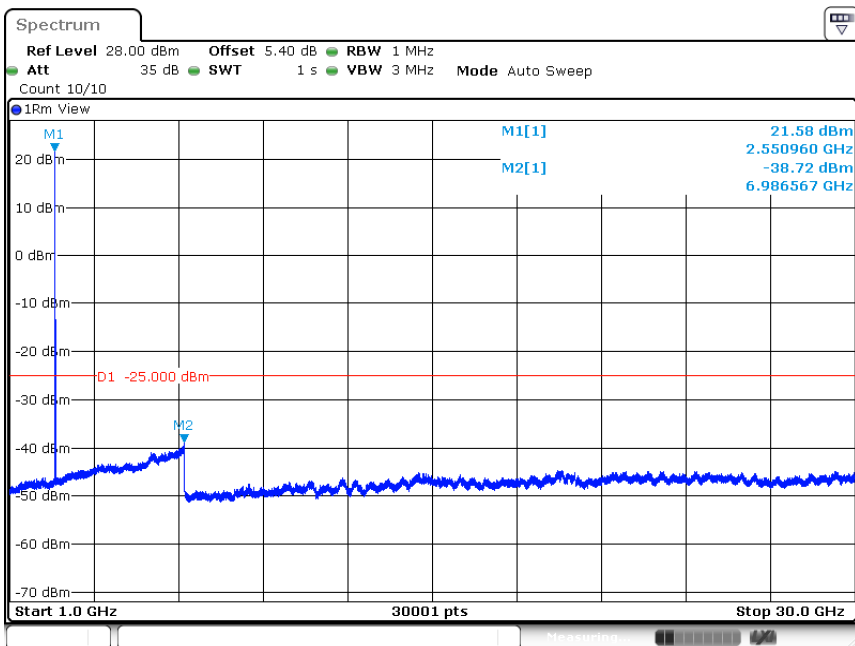
Band7-20MHz-QPSK-21350-1RB#0-Range1:30~1000MHz



Date: 28.SEP.2020 13:28:53

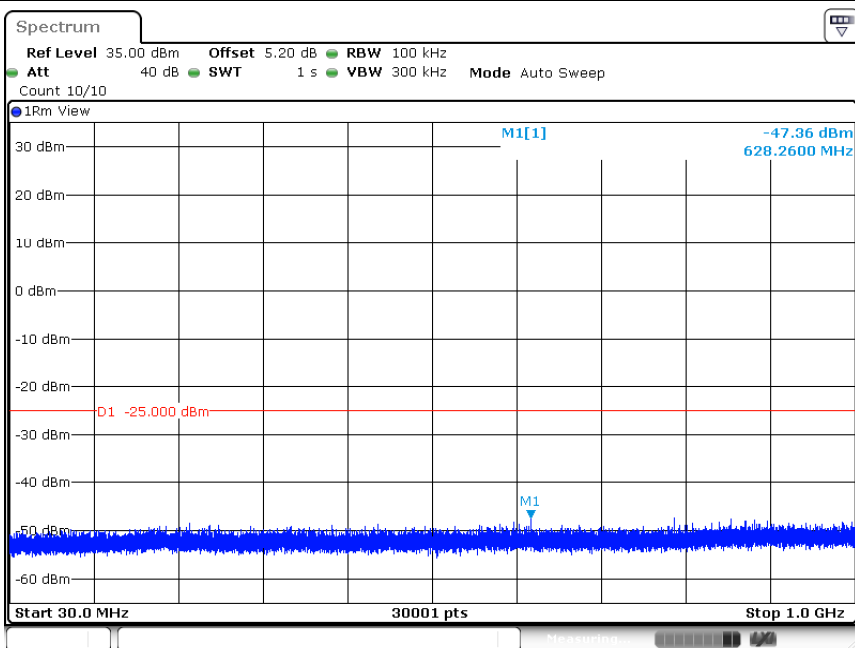


Band7-20MHz-QPSK-21350-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 13:29:10

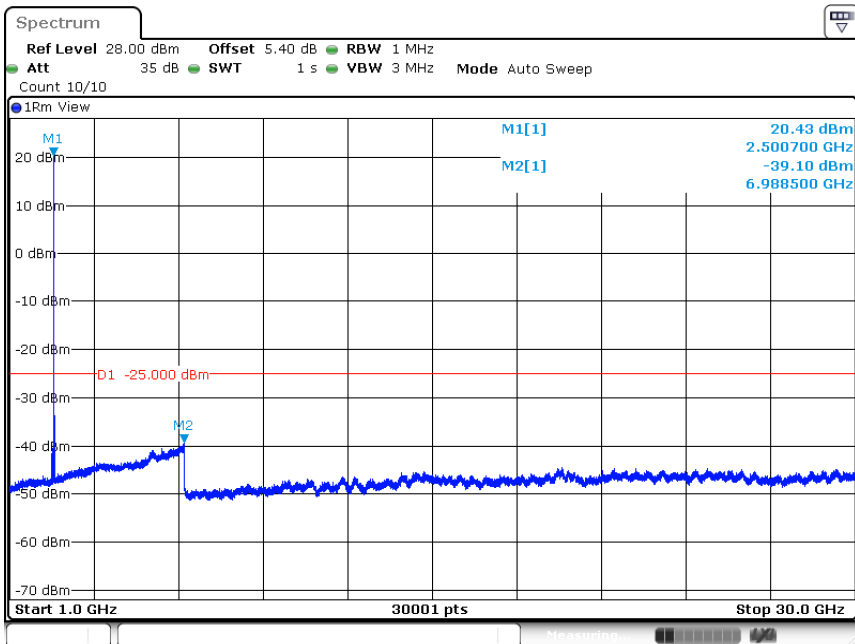
Band7-20MHz-16QAM-20850-1RB#0-Range1:30~1000MHz



Date: 28.SEP.2020 13:26:56

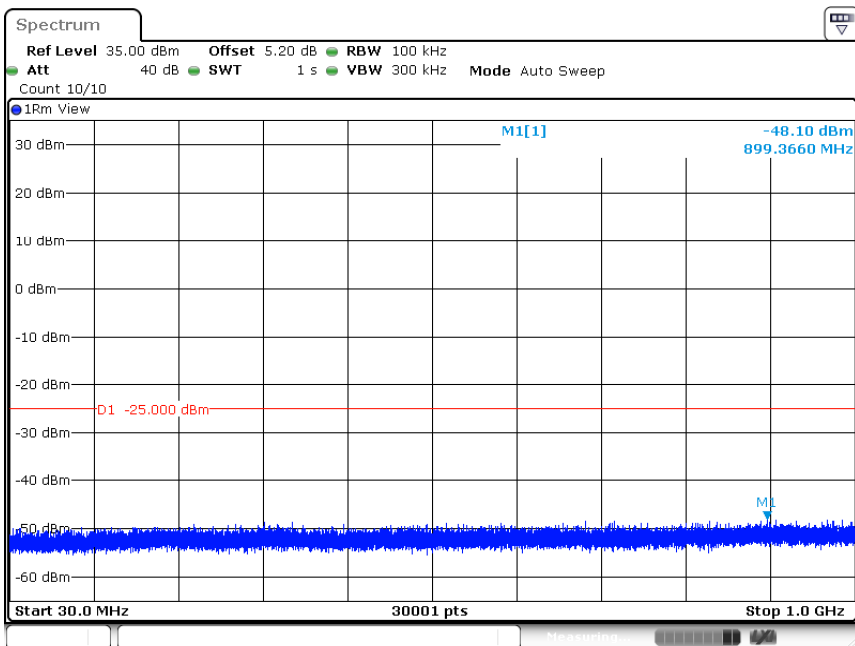


Band7-20MHz-16QAM-20850-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 13:27:13

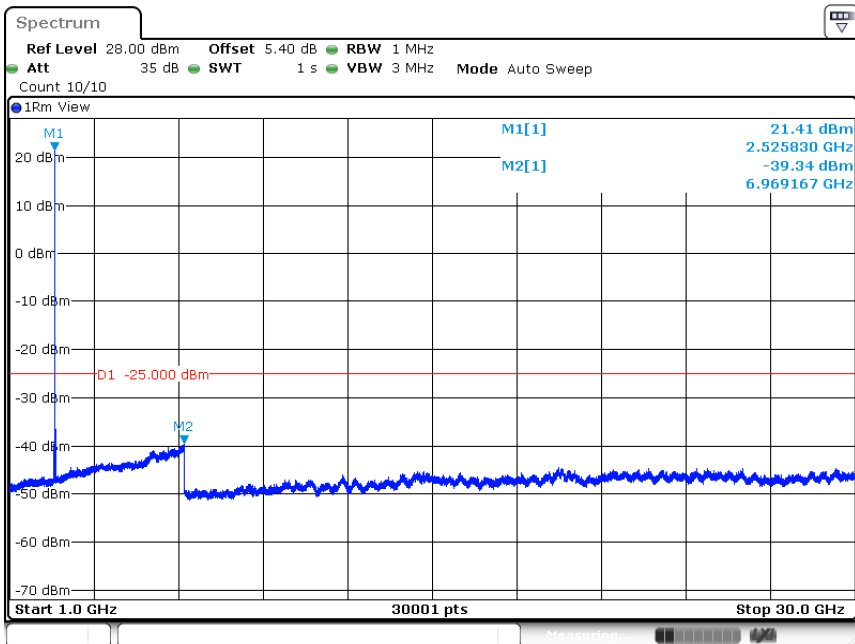
Band7-20MHz-16QAM-21100-1RB#0-Range1:30~1000MHz



Date: 28.SEP.2020 13:28:14

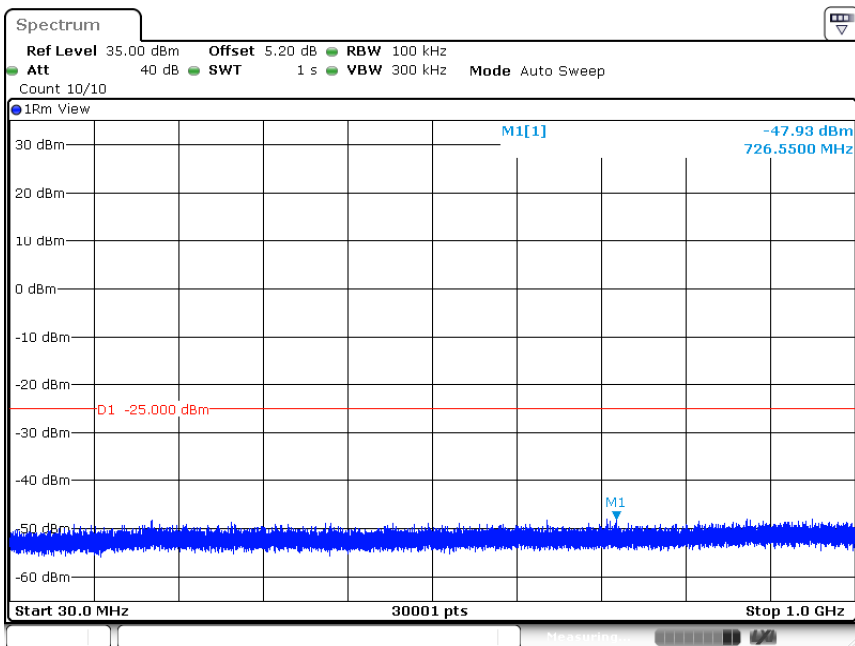


Band7-20MHz-16QAM-21100-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 13:28:31

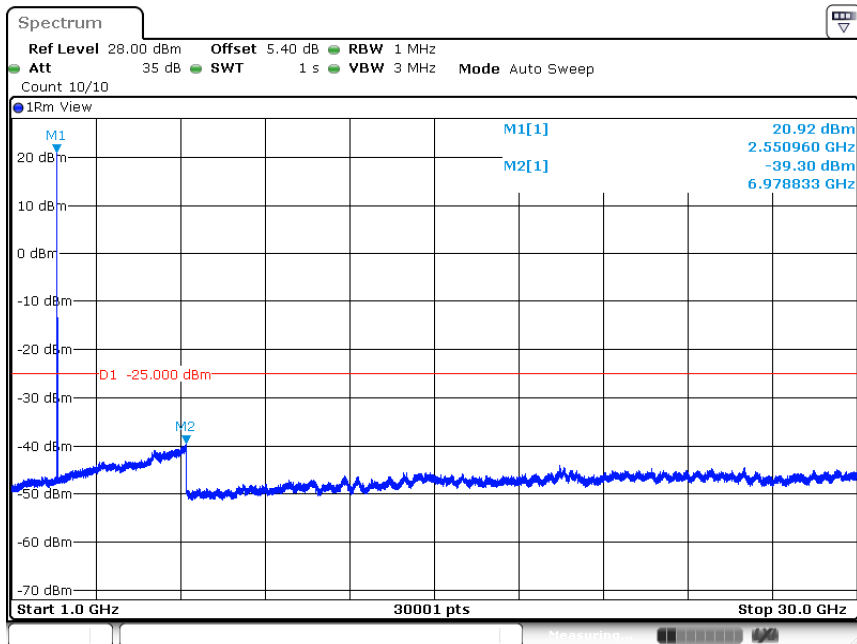
Band7-20MHz-16QAM-21350-1RB#0-Range1:30~1000MHz



Date: 28.SEP.2020 13:29:32



Band7-20MHz-16QAM-21350-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 13:29:49



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

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

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

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



7. Field Strength of Spurious Radiation

7.1. Test Mode =LTE/TM1 20MHz

7.1.1.Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
30.0485	-74.33	-25.00	49.33	Vertical
117.3529	-63.85	-25.00	38.85	Vertical
596.4113	-64.33	-25.00	39.33	Vertical
5062.8825	-64.00	-25.00	39.00	Vertical
10490.0996	-53.88	-25.00	28.88	Vertical
17999.4000	-42.55	-25.00	17.55	Vertical
41.9316	-64.30	-25.00	39.30	Horizontal
108.8164	-76.39	-25.00	51.39	Horizontal
250.3465	-68.99	-25.00	43.99	Horizontal
3634.8254	-63.15	-25.00	38.15	Horizontal
7458.1783	-58.49	-25.00	33.49	Horizontal
16401.5361	-46.02	-25.00	21.02	Horizontal

7.1.2.Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
30.8730	-74.81	-25.00	49.81	Vertical
113.4242	-65.37	-25.00	40.37	Vertical
404.0992	-69.21	-25.00	44.21	Vertical
7362.7745	-58.24	-25.00	33.24	Vertical
14518.0607	-50.04	-25.00	25.04	Vertical
17995.1998	-42.40	-25.00	17.40	Vertical
45.4723	-65.03	-25.00	40.03	Horizontal
86.4083	-76.13	-25.00	51.13	Horizontal
235.0198	-69.63	-25.00	44.63	Horizontal
3510.0204	-62.96	-25.00	37.96	Horizontal
7364.5746	-58.96	-25.00	33.96	Horizontal
16390.1356	-45.72	-25.00	20.72	Horizontal



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

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

7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
30.0000	-74.83	-25.00	49.83	Vertical
109.7380	-65.33	-25.00	40.33	Vertical
474.6217	-67.47	-25.00	42.47	Vertical
3595.8238	-64.37	-25.00	39.37	Vertical
7917.7967	-58.27	-25.00	33.27	Vertical
17996.3999	-42.49	-25.00	17.49	Vertical
42.4651	-64.14	-25.00	39.14	Horizontal
84.0317	-75.13	-25.00	50.13	Horizontal
246.0298	-68.73	-25.00	43.73	Horizontal
3505.8202	-63.56	-25.00	38.56	Horizontal
7443.7778	-58.79	-25.00	33.79	Horizontal
16391.9357	-45.92	-25.00	20.92	Horizontal

Remark:

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



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

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

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

8. Frequency Stability

8.1. Frequency Vs Voltage

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	VL	NT	3.10	0.001235	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VN	NT	2.40	0.000956	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VH	NT	0.00	0.000000	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VL	NT	-3.50	-0.001381	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VN	NT	-3.20	-0.001262	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VH	NT	-1.90	-0.000750	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VL	NT	-0.70	-0.000273	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VN	NT	-1.60	-0.000625	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VH	NT	-1.00	-0.000391	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VL	NT	2.90	0.001155	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VN	NT	2.20	0.000876	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VH	NT	0.00	0.000000	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VL	NT	-6.00	-0.002367	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VN	NT	-0.80	-0.000316	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VH	NT	-2.90	-0.001144	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VL	NT	0.90	0.000352	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VN	NT	-0.30	-0.000117	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VH	NT	0.50	0.000195	±2.5	PASS

8.2. Frequency Vs Temperature

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	NV	-30	5.10	0.002032	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	-20	3.20	0.001275	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	-10	3.50	0.001394	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	0	1.60	0.000637	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	10	4.80	0.001912	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	20	1.60	0.000637	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	30	3.30	0.001315	±2.5	PASS



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

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

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

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



Band7	20MHz	QPSK	20850	100RB#0	NV	40	2.20	0.000876	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	50	2.30	0.000916	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-30	-0.70	-0.000276	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-20	-2.50	-0.000986	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-10	-2.80	-0.001105	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	0	-1.90	-0.000750	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	10	-0.40	-0.000158	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	20	0.10	0.000039	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	30	-0.50	-0.000197	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	40	-1.70	-0.000671	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	50	1.00	0.000394	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-30	0.50	0.000195	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-20	2.70	0.001055	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-10	0.90	0.000352	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	0	3.30	0.001289	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	10	4.20	0.001641	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	20	3.70	0.001445	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	30	2.40	0.000938	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	40	1.20	0.000469	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	50	-2.10	-0.000820	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-30	1.20	0.000478	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-20	2.80	0.001116	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-10	4.10	0.001633	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	0	2.30	0.000916	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	10	4.70	0.001873	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	20	4.50	0.001793	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	30	3.70	0.001474	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	40	2.10	0.000837	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	50	3.40	0.001355	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-30	1.20	0.000473	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-20	-2.30	-0.000907	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-10	0.40	0.000158	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	0	-3.50	-0.001381	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	10	-5.70	-0.002249	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	20	-1.20	-0.000473	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	30	-3.30	-0.001302	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	40	-1.80	-0.000710	±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-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

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

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

Band7	20MHz	16QAM	21100	100RB#0	NV	50	1.60	0.000631	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-30	1.60	0.000625	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-20	-0.90	-0.000352	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-10	3.00	0.001172	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	0	0.10	0.000039	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	10	-0.90	-0.000352	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	20	2.20	0.000859	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	30	1.60	0.000625	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	40	2.00	0.000781	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	50	1.80	0.000703	±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