



# Appendix B

## **E-UTRA BAND 26 (814MHz-824MHz)**



## CONTENT

1.	EFFECTIVE (ISOTROPIC) RADIATED POWER .....	3
1.1.	<i>Test Result</i> .....	3
2.	PEAK-TO-AVERAGE RATIO(CCDF) .....	7
2.1.	<i>Test Result</i> .....	7
2.2.	<i>Test Plots</i> .....	7
3.	MODULATION CHARACTERISTICS .....	9
3.1.	<i>Test BAND = LTE BAND26</i> .....	9
3.1.1.	<i>Test Mode = LTE /TM1 10MHz</i> .....	9
3.1.1.1.	<i>Test Channel = MCH</i> .....	9
3.1.2.	<i>Test Mode = LTE /TM2 10MHz</i> .....	10
3.1.2.1.	<i>Test Channel = MCH</i> .....	10
3.1.3.	<i>Test Mode = LTE /TM3 10MHz</i> .....	11
3.1.3.1.	<i>Test Channel = MCH</i> .....	11
4.	26dB BANDWIDTH AND OCCUPIED BANDWIDTH.....	12
4.1.	<i>Test Result</i> .....	12
4.2.	<i>Test Plots</i> .....	13
5.	BAND EDGE COMPLIANCE .....	24
5.1.	<i>Test Plots</i> .....	24
6.	SPURIOUS EMISSION AT ANTENNA TERMINAL .....	41
6.1.	<i>Test Plots</i> .....	41
7.	FIELD STRENGTH OF SPURIOUS RADIATION .....	44
7.1.	<i>Test BAND = LTE BAND 26</i> .....	44
7.1.1.	<i>Test Mode =LTE/TM1 10MHz RB1#0</i> .....	44
7.1.1.1.	<i>Test Channel = MCH</i> .....	44
8.	FREQUENCY STABILITY .....	45
8.1.	<i>Frequency Vs Voltage</i> .....	45
8.2.	<i>Frequency Vs Temperature</i> .....	45



## 1. Effective (Isotropic) Radiated Power

### 1.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
BAND26	1.4MHz	QPSK	26697	1RB#0	23.56	24.41	50.00	PASS
BAND26	1.4MHz	QPSK	26697	1RB#2	23.51	24.36	50.00	PASS
BAND26	1.4MHz	QPSK	26697	1RB#5	23.59	24.44	50.00	PASS
BAND26	1.4MHz	QPSK	26697	3RB#0	23.52	24.37	50.00	PASS
BAND26	1.4MHz	QPSK	26697	3RB#1	23.50	24.35	50.00	PASS
BAND26	1.4MHz	QPSK	26697	3RB#3	23.58	24.43	50.00	PASS
BAND26	1.4MHz	QPSK	26697	6RB#0	22.56	23.41	50.00	PASS
BAND26	1.4MHz	QPSK	26740	1RB#0	23.65	24.50	50.00	PASS
BAND26	1.4MHz	QPSK	26740	1RB#2	23.65	24.50	50.00	PASS
BAND26	1.4MHz	QPSK	26740	1RB#5	23.60	24.45	50.00	PASS
BAND26	1.4MHz	QPSK	26740	3RB#0	23.63	24.48	50.00	PASS
BAND26	1.4MHz	QPSK	26740	3RB#1	23.62	24.47	50.00	PASS
BAND26	1.4MHz	QPSK	26740	3RB#3	23.56	24.41	50.00	PASS
BAND26	1.4MHz	QPSK	26740	6RB#0	22.55	23.40	50.00	PASS
BAND26	1.4MHz	QPSK	26783	1RB#0	23.59	24.44	50.00	PASS
BAND26	1.4MHz	QPSK	26783	1RB#2	23.56	24.41	50.00	PASS
BAND26	1.4MHz	QPSK	26783	1RB#5	23.57	24.42	50.00	PASS
BAND26	1.4MHz	QPSK	26783	3RB#0	23.55	24.40	50.00	PASS
BAND26	1.4MHz	QPSK	26783	3RB#1	23.53	24.38	50.00	PASS
BAND26	1.4MHz	QPSK	26783	3RB#3	23.53	24.38	50.00	PASS
BAND26	1.4MHz	QPSK	26783	6RB#0	22.53	23.38	50.00	PASS
BAND26	1.4MHz	16QAM	26697	1RB#0	22.65	23.50	50.00	PASS
BAND26	1.4MHz	16QAM	26697	1RB#2	22.58	23.43	50.00	PASS
BAND26	1.4MHz	16QAM	26697	1RB#5	22.73	23.58	50.00	PASS
BAND26	1.4MHz	16QAM	26697	3RB#0	22.54	23.39	50.00	PASS
BAND26	1.4MHz	16QAM	26697	3RB#1	22.58	23.43	50.00	PASS
BAND26	1.4MHz	16QAM	26697	3RB#3	22.64	23.49	50.00	PASS
BAND26	1.4MHz	16QAM	26697	6RB#0	21.55	22.40	50.00	PASS
BAND26	1.4MHz	16QAM	26740	1RB#0	22.79	23.64	50.00	PASS
BAND26	1.4MHz	16QAM	26740	1RB#2	22.81	23.66	50.00	PASS
BAND26	1.4MHz	16QAM	26740	1RB#5	22.75	23.60	50.00	PASS
BAND26	1.4MHz	16QAM	26740	3RB#0	22.68	23.53	50.00	PASS
BAND26	1.4MHz	16QAM	26740	3RB#1	22.68	23.53	50.00	PASS
BAND26	1.4MHz	16QAM	26740	3RB#3	22.62	23.47	50.00	PASS



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

Report No.: SZEM180500437001

Page: 4 of 47

BAND26	1.4MHz	16QAM	26740	6RB#0	21.55	22.40	50.00	PASS
BAND26	1.4MHz	16QAM	26783	1RB#0	22.56	23.41	50.00	PASS
BAND26	1.4MHz	16QAM	26783	1RB#2	22.75	23.60	50.00	PASS
BAND26	1.4MHz	16QAM	26783	1RB#5	22.58	23.43	50.00	PASS
BAND26	1.4MHz	16QAM	26783	3RB#0	22.60	23.45	50.00	PASS
BAND26	1.4MHz	16QAM	26783	3RB#1	22.55	23.40	50.00	PASS
BAND26	1.4MHz	16QAM	26783	3RB#3	22.60	23.45	50.00	PASS
BAND26	1.4MHz	16QAM	26783	6RB#0	21.53	22.38	50.00	PASS
BAND26	1.4MHz	64QAM	26697	1RB#0	21.72	22.57	50.00	PASS
BAND26	1.4MHz	64QAM	26697	1RB#2	21.57	22.42	50.00	PASS
BAND26	1.4MHz	64QAM	26697	1RB#5	21.77	22.62	50.00	PASS
BAND26	1.4MHz	64QAM	26697	3RB#0	21.74	22.59	50.00	PASS
BAND26	1.4MHz	64QAM	26697	3RB#1	21.73	22.58	50.00	PASS
BAND26	1.4MHz	64QAM	26697	3RB#3	21.62	22.47	50.00	PASS
BAND26	1.4MHz	64QAM	26697	6RB#0	20.69	21.54	50.00	PASS
BAND26	1.4MHz	64QAM	26740	1RB#0	21.98	22.83	50.00	PASS
BAND26	1.4MHz	64QAM	26740	1RB#2	21.81	22.66	50.00	PASS
BAND26	1.4MHz	64QAM	26740	1RB#5	21.73	22.58	50.00	PASS
BAND26	1.4MHz	64QAM	26740	3RB#0	21.75	22.60	50.00	PASS
BAND26	1.4MHz	64QAM	26740	3RB#1	21.77	22.62	50.00	PASS
BAND26	1.4MHz	64QAM	26740	3RB#3	21.70	22.55	50.00	PASS
BAND26	1.4MHz	64QAM	26740	6RB#0	20.50	21.35	50.00	PASS
BAND26	1.4MHz	64QAM	26783	1RB#0	21.66	22.51	50.00	PASS
BAND26	1.4MHz	64QAM	26783	1RB#2	21.71	22.56	50.00	PASS
BAND26	1.4MHz	64QAM	26783	1RB#5	21.74	22.59	50.00	PASS
BAND26	1.4MHz	64QAM	26783	3RB#0	21.66	22.51	50.00	PASS
BAND26	1.4MHz	64QAM	26783	3RB#1	21.52	22.37	50.00	PASS
BAND26	1.4MHz	64QAM	26783	3RB#3	21.69	22.54	50.00	PASS
BAND26	1.4MHz	64QAM	26783	6RB#0	20.53	21.38	50.00	PASS
BAND26	3MHz	QPSK	26705	1RB#0	23.49	24.34	50.00	PASS
BAND26	3MHz	QPSK	26705	1RB#8	23.58	24.43	50.00	PASS
BAND26	3MHz	QPSK	26705	1RB#14	23.62	24.47	50.00	PASS
BAND26	3MHz	QPSK	26705	8RB#0	22.56	23.41	50.00	PASS
BAND26	3MHz	QPSK	26705	8RB#4	22.55	23.40	50.00	PASS
BAND26	3MHz	QPSK	26705	8RB#7	22.64	23.49	50.00	PASS
BAND26	3MHz	QPSK	26705	15RB#0	22.54	23.39	50.00	PASS
BAND26	3MHz	QPSK	26740	1RB#0	23.58	24.43	50.00	PASS
BAND26	3MHz	QPSK	26740	1RB#8	23.55	24.40	50.00	PASS
BAND26	3MHz	QPSK	26740	1RB#14	23.50	24.35	50.00	PASS
BAND26	3MHz	QPSK	26740	8RB#0	22.62	23.47	50.00	PASS
BAND26	3MHz	QPSK	26740	8RB#4	22.52	23.37	50.00	PASS

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



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

Report No.: SZEM180500437001

Page: 5 of 47

BAND26	3MHz	QPSK	26740	8RB#7	22.54	23.39	50.00	PASS
BAND26	3MHz	QPSK	26740	15RB#0	22.51	23.36	50.00	PASS
BAND26	3MHz	QPSK	26775	1RB#0	23.51	24.36	50.00	PASS
BAND26	3MHz	QPSK	26775	1RB#8	23.56	24.41	50.00	PASS
BAND26	3MHz	QPSK	26775	1RB#14	23.50	24.35	50.00	PASS
BAND26	3MHz	QPSK	26775	8RB#0	22.49	23.34	50.00	PASS
BAND26	3MHz	QPSK	26775	8RB#4	22.53	23.38	50.00	PASS
BAND26	3MHz	QPSK	26775	8RB#7	22.53	23.38	50.00	PASS
BAND26	3MHz	QPSK	26775	15RB#0	22.53	23.38	50.00	PASS
BAND26	3MHz	16QAM	26705	1RB#0	22.64	23.49	50.00	PASS
BAND26	3MHz	16QAM	26705	1RB#8	22.70	23.55	50.00	PASS
BAND26	3MHz	16QAM	26705	1RB#14	22.73	23.58	50.00	PASS
BAND26	3MHz	16QAM	26705	8RB#0	21.56	22.41	50.00	PASS
BAND26	3MHz	16QAM	26705	8RB#4	21.57	22.42	50.00	PASS
BAND26	3MHz	16QAM	26705	8RB#7	21.66	22.51	50.00	PASS
BAND26	3MHz	16QAM	26705	15RB#0	21.53	22.38	50.00	PASS
BAND26	3MHz	16QAM	26740	1RB#0	22.64	23.49	50.00	PASS
BAND26	3MHz	16QAM	26740	1RB#8	22.68	23.53	50.00	PASS
BAND26	3MHz	16QAM	26740	1RB#14	22.51	23.36	50.00	PASS
BAND26	3MHz	16QAM	26740	8RB#0	21.65	22.50	50.00	PASS
BAND26	3MHz	16QAM	26740	8RB#4	21.56	22.41	50.00	PASS
BAND26	3MHz	16QAM	26740	8RB#7	21.55	22.40	50.00	PASS
BAND26	3MHz	16QAM	26740	15RB#0	21.52	22.37	50.00	PASS
BAND26	3MHz	16QAM	26775	1RB#0	22.59	23.44	50.00	PASS
BAND26	3MHz	16QAM	26775	1RB#8	22.70	23.55	50.00	PASS
BAND26	3MHz	16QAM	26775	1RB#14	22.55	23.40	50.00	PASS
BAND26	3MHz	16QAM	26775	8RB#0	21.47	22.32	50.00	PASS
BAND26	3MHz	16QAM	26775	8RB#4	21.53	22.38	50.00	PASS
BAND26	3MHz	16QAM	26775	8RB#7	21.55	22.40	50.00	PASS
BAND26	3MHz	16QAM	26775	15RB#0	21.50	22.35	50.00	PASS
BAND26	3MHz	64QAM	26705	1RB#0	21.77	22.62	50.00	PASS
BAND26	3MHz	64QAM	26705	1RB#8	21.79	22.64	50.00	PASS
BAND26	3MHz	64QAM	26705	1RB#14	21.81	22.66	50.00	PASS
BAND26	3MHz	64QAM	26705	8RB#0	20.54	21.39	50.00	PASS
BAND26	3MHz	64QAM	26705	8RB#4	20.58	21.43	50.00	PASS
BAND26	3MHz	64QAM	26705	8RB#7	20.84	21.69	50.00	PASS
BAND26	3MHz	64QAM	26705	15RB#0	20.69	21.54	50.00	PASS
BAND26	3MHz	64QAM	26740	1RB#0	21.83	22.68	50.00	PASS
BAND26	3MHz	64QAM	26740	1RB#8	21.85	22.70	50.00	PASS
BAND26	3MHz	64QAM	26740	1RB#14	21.52	22.37	50.00	PASS
BAND26	3MHz	64QAM	26740	8RB#0	20.75	21.60	50.00	PASS

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



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

Report No.: SZEM180500437001

Page: 6 of 47

BAND26	3MHz	64QAM	26740	8RB#4	20.74	21.59	50.00	PASS
BAND26	3MHz	64QAM	26740	8RB#7	20.70	21.55	50.00	PASS
BAND26	3MHz	64QAM	26740	15RB#0	20.68	21.53	50.00	PASS
BAND26	3MHz	64QAM	26775	1RB#0	21.76	22.61	50.00	PASS
BAND26	3MHz	64QAM	26775	1RB#8	21.72	22.57	50.00	PASS
BAND26	3MHz	64QAM	26775	1RB#14	21.57	22.42	50.00	PASS
BAND26	3MHz	64QAM	26775	8RB#0	20.65	21.50	50.00	PASS
BAND26	3MHz	64QAM	26775	8RB#4	20.60	21.45	50.00	PASS
BAND26	3MHz	64QAM	26775	8RB#7	20.69	21.54	50.00	PASS
BAND26	3MHz	64QAM	26775	15RB#0	20.48	21.33	50.00	PASS
BAND26	5MHz	QPSK	26715	1RB#0	23.53	24.38	50.00	PASS
BAND26	5MHz	QPSK	26715	1RB#12	23.65	24.50	50.00	PASS
BAND26	5MHz	QPSK	26715	1RB#24	23.63	24.48	50.00	PASS
BAND26	5MHz	QPSK	26715	12RB#0	22.65	23.50	50.00	PASS
BAND26	5MHz	QPSK	26715	12RB#6	22.70	23.55	50.00	PASS
BAND26	5MHz	QPSK	26715	12RB#13	22.68	23.53	50.00	PASS
BAND26	5MHz	QPSK	26715	25RB#0	22.68	23.53	50.00	PASS
BAND26	5MHz	QPSK	26740	1RB#0	23.63	24.48	50.00	PASS
BAND26	5MHz	QPSK	26740	1RB#12	23.56	24.41	50.00	PASS
BAND26	5MHz	QPSK	26740	1RB#24	23.53	24.38	50.00	PASS
BAND26	5MHz	QPSK	26740	12RB#0	22.70	23.55	50.00	PASS
BAND26	5MHz	QPSK	26740	12RB#6	22.68	23.53	50.00	PASS
BAND26	5MHz	QPSK	26740	12RB#13	22.59	23.44	50.00	PASS
BAND26	5MHz	QPSK	26740	25RB#0	22.59	23.44	50.00	PASS
BAND26	5MHz	QPSK	26765	1RB#0	23.54	24.39	50.00	PASS
BAND26	5MHz	QPSK	26765	1RB#12	23.53	24.38	50.00	PASS
BAND26	5MHz	QPSK	26765	1RB#24	23.53	24.38	50.00	PASS
BAND26	5MHz	QPSK	26765	12RB#0	22.60	23.45	50.00	PASS
BAND26	5MHz	QPSK	26765	12RB#6	22.56	23.41	50.00	PASS
BAND26	5MHz	QPSK	26765	12RB#13	22.60	23.45	50.00	PASS
BAND26	5MHz	QPSK	26765	25RB#0	22.52	23.37	50.00	PASS
BAND26	5MHz	16QAM	26715	1RB#0	22.59	23.44	50.00	PASS
BAND26	5MHz	16QAM	26715	1RB#12	22.71	23.56	50.00	PASS
BAND26	5MHz	16QAM	26715	1RB#24	22.77	23.62	50.00	PASS
BAND26	5MHz	16QAM	26715	12RB#0	21.70	22.55	50.00	PASS
BAND26	5MHz	16QAM	26715	12RB#6	21.80	22.65	50.00	PASS
BAND26	5MHz	16QAM	26715	12RB#13	21.78	22.63	50.00	PASS
BAND26	5MHz	16QAM	26715	25RB#0	21.75	22.60	50.00	PASS
BAND26	5MHz	16QAM	26740	1RB#0	22.81	23.66	50.00	PASS
BAND26	5MHz	16QAM	26740	1RB#12	22.64	23.49	50.00	PASS
BAND26	5MHz	16QAM	26740	1RB#24	22.71	23.56	50.00	PASS

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



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

Report No.: SZEM180500437001

Page: 7 of 47

BAND26	5MHz	16QAM	26740	12RB#0	21.78	22.63	50.00	PASS
BAND26	5MHz	16QAM	26740	12RB#6	21.76	22.61	50.00	PASS
BAND26	5MHz	16QAM	26740	12RB#13	21.63	22.48	50.00	PASS
BAND26	5MHz	16QAM	26740	25RB#0	21.63	22.48	50.00	PASS
BAND26	5MHz	16QAM	26765	1RB#0	22.68	23.53	50.00	PASS
BAND26	5MHz	16QAM	26765	1RB#12	22.59	23.44	50.00	PASS
BAND26	5MHz	16QAM	26765	1RB#24	22.61	23.46	50.00	PASS
BAND26	5MHz	16QAM	26765	12RB#0	21.66	22.51	50.00	PASS
BAND26	5MHz	16QAM	26765	12RB#6	21.60	22.45	50.00	PASS
BAND26	5MHz	16QAM	26765	12RB#13	21.63	22.48	50.00	PASS
BAND26	5MHz	16QAM	26765	25RB#0	21.58	22.43	50.00	PASS
BAND26	5MHz	64QAM	26715	1RB#0	21.63	22.48	50.00	PASS
BAND26	5MHz	64QAM	26715	1RB#12	21.70	22.55	50.00	PASS
BAND26	5MHz	64QAM	26715	1RB#24	21.77	22.62	50.00	PASS
BAND26	5MHz	64QAM	26715	12RB#0	20.65	21.50	50.00	PASS
BAND26	5MHz	64QAM	26715	12RB#6	20.99	21.84	50.00	PASS
BAND26	5MHz	64QAM	26715	12RB#13	20.92	21.77	50.00	PASS
BAND26	5MHz	64QAM	26715	25RB#0	20.85	21.70	50.00	PASS
BAND26	5MHz	64QAM	26740	1RB#0	21.88	22.73	50.00	PASS
BAND26	5MHz	64QAM	26740	1RB#12	21.76	22.61	50.00	PASS
BAND26	5MHz	64QAM	26740	1RB#24	21.84	22.69	50.00	PASS
BAND26	5MHz	64QAM	26740	12RB#0	20.80	21.65	50.00	PASS
BAND26	5MHz	64QAM	26740	12RB#6	20.90	21.75	50.00	PASS
BAND26	5MHz	64QAM	26740	12RB#13	20.83	21.68	50.00	PASS
BAND26	5MHz	64QAM	26740	25RB#0	20.71	21.56	50.00	PASS
BAND26	5MHz	64QAM	26765	1RB#0	21.85	22.70	50.00	PASS
BAND26	5MHz	64QAM	26765	1RB#12	21.62	22.47	50.00	PASS
BAND26	5MHz	64QAM	26765	1RB#24	21.70	22.55	50.00	PASS
BAND26	5MHz	64QAM	26765	12RB#0	20.62	21.47	50.00	PASS
BAND26	5MHz	64QAM	26765	12RB#6	20.57	21.42	50.00	PASS
BAND26	5MHz	64QAM	26765	12RB#13	20.70	21.55	50.00	PASS
BAND26	5MHz	64QAM	26765	25RB#0	20.75	21.60	50.00	PASS
BAND26	10MHz	QPSK	26740	1RB#0	23.60	24.45	50.00	PASS
BAND26	10MHz	QPSK	26740	1RB#24	23.66	24.51	50.00	PASS
BAND26	10MHz	QPSK	26740	1RB#49	23.63	24.48	50.00	PASS
BAND26	10MHz	QPSK	26740	25RB#0	22.64	23.49	50.00	PASS
BAND26	10MHz	QPSK	26740	25RB#12	22.62	23.47	50.00	PASS
BAND26	10MHz	QPSK	26740	25RB#25	22.53	23.38	50.00	PASS
BAND26	10MHz	QPSK	26740	50RB#0	22.53	23.38	50.00	PASS
BAND26	10MHz	16QAM	26740	1RB#0	22.74	23.59	50.00	PASS
BAND26	10MHz	16QAM	26740	1RB#24	22.70	23.55	50.00	PASS

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



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

Report No.: SZEM180500437001

Page: 8 of 47

BAND26	10MHz	16QAM	26740	1RB#49	22.70	23.55	50.00	PASS
BAND26	10MHz	16QAM	26740	25RB#0	21.72	22.57	50.00	PASS
BAND26	10MHz	16QAM	26740	25RB#12	21.69	22.54	50.00	PASS
BAND26	10MHz	16QAM	26740	25RB#25	21.56	22.41	50.00	PASS
BAND26	10MHz	16QAM	26740	50RB#0	21.57	22.42	50.00	PASS
BAND26	10MHz	64QAM	26740	1RB#0	21.92	22.77	50.00	PASS
BAND26	10MHz	64QAM	26740	1RB#24	21.79	22.64	50.00	PASS
BAND26	10MHz	64QAM	26740	1RB#49	21.65	22.50	50.00	PASS
BAND26	10MHz	64QAM	26740	25RB#0	20.85	21.70	50.00	PASS
BAND26	10MHz	64QAM	26740	25RB#12	20.68	21.53	50.00	PASS
BAND26	10MHz	64QAM	26740	25RB#25	20.65	21.50	50.00	PASS
BAND26	10MHz	64QAM	26740	50RB#0	20.75	21.60	50.00	PASS

Note:

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

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b: SGP=Signal Generator Level



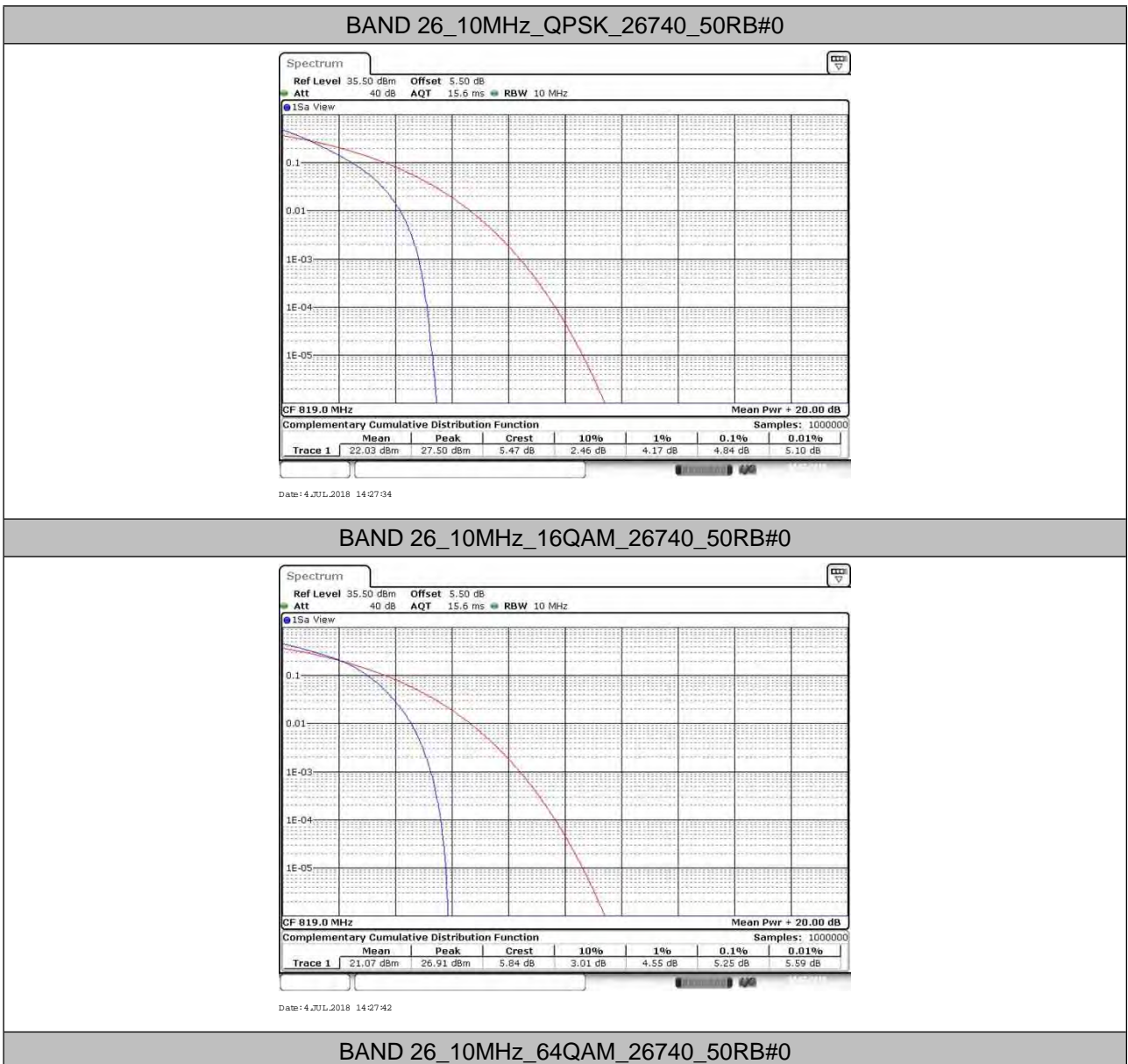


## 2. Peak-to-Average Ratio(CCDF)

### 2.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
BAND 26	10MHz	QPSK	26740	50RB#0	4.84	13	PASS
		16QAM	26740	50RB#0	5.25	13	PASS
		64QAM	26740	50RB#0	5.45	13	PASS

### 2.2. Test Plots

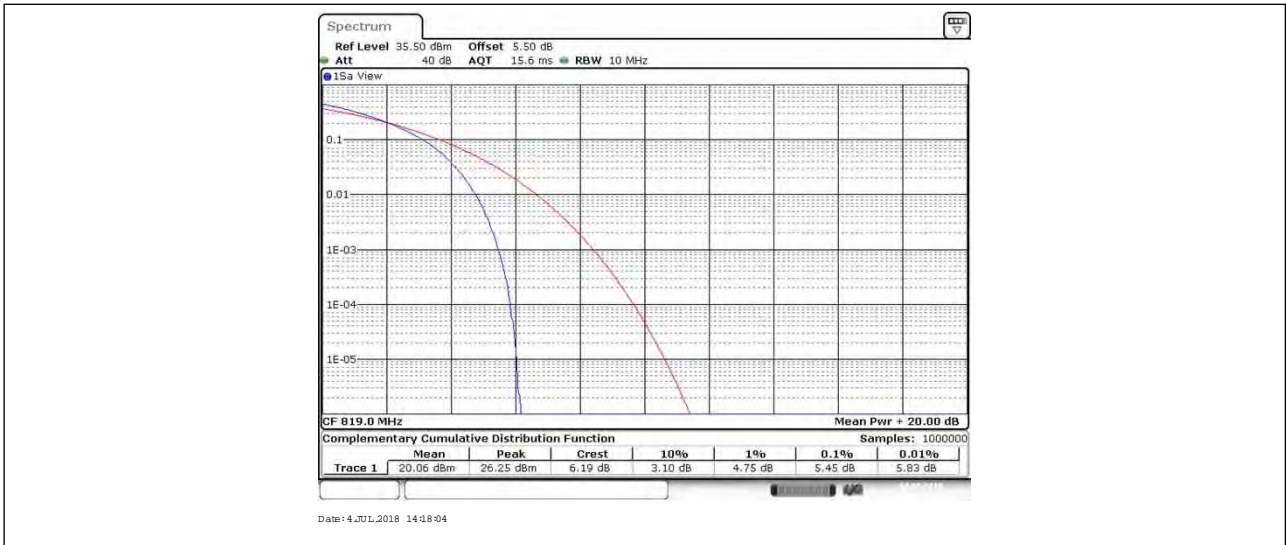




# SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM180500437001

Page: 10 of 47

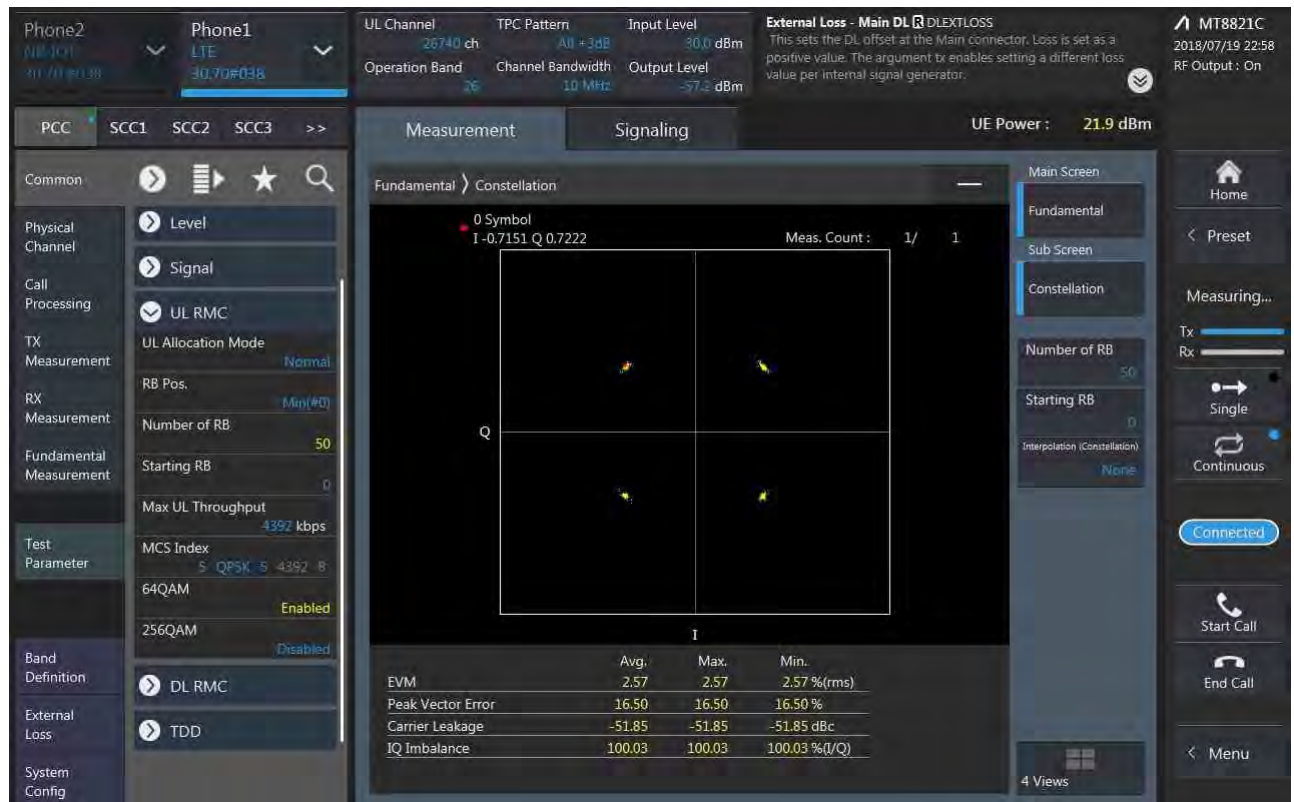


### 3. Modulation Characteristics

#### 3.1. Test BAND = LTE BAND26

#### 3.1.1. Test Mode = LTE /TM1 10MHz

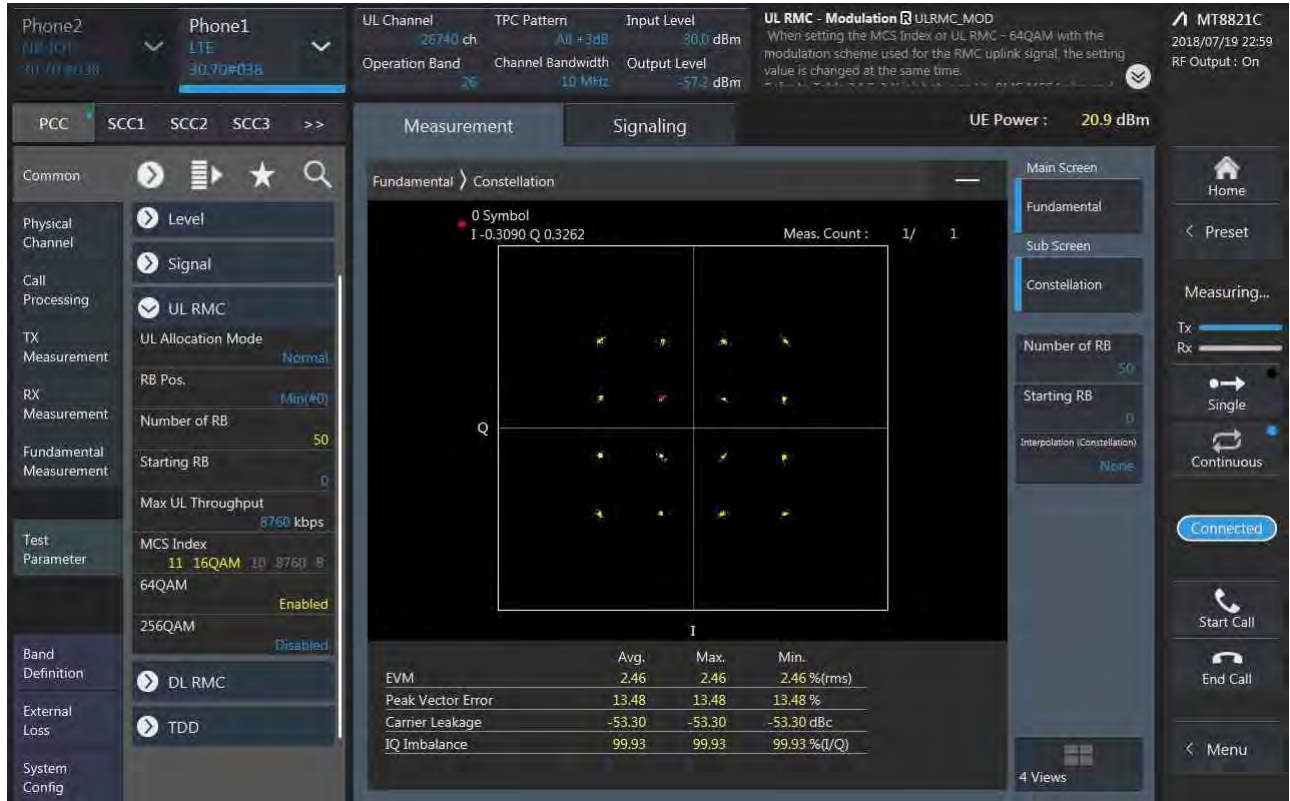
#### 3.1.1.1. Test Channel = MCH





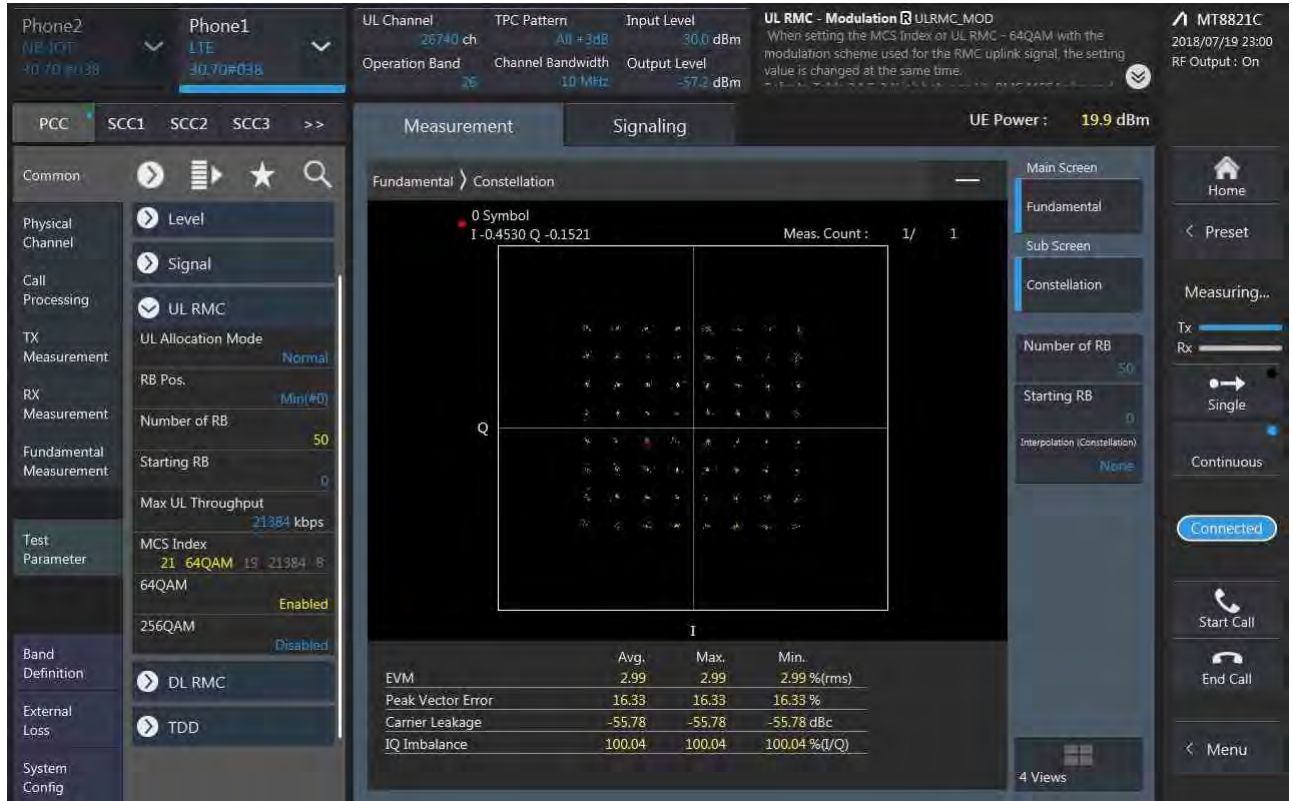
### 3.1.2. Test Mode = LTE /TM2 10MHz

#### 3.1.2.1. Test Channel = MCH



### 3.1.3. Test Mode = LTE /TM3 10MHz

#### 3.1.3.1. Test Channel = MCH





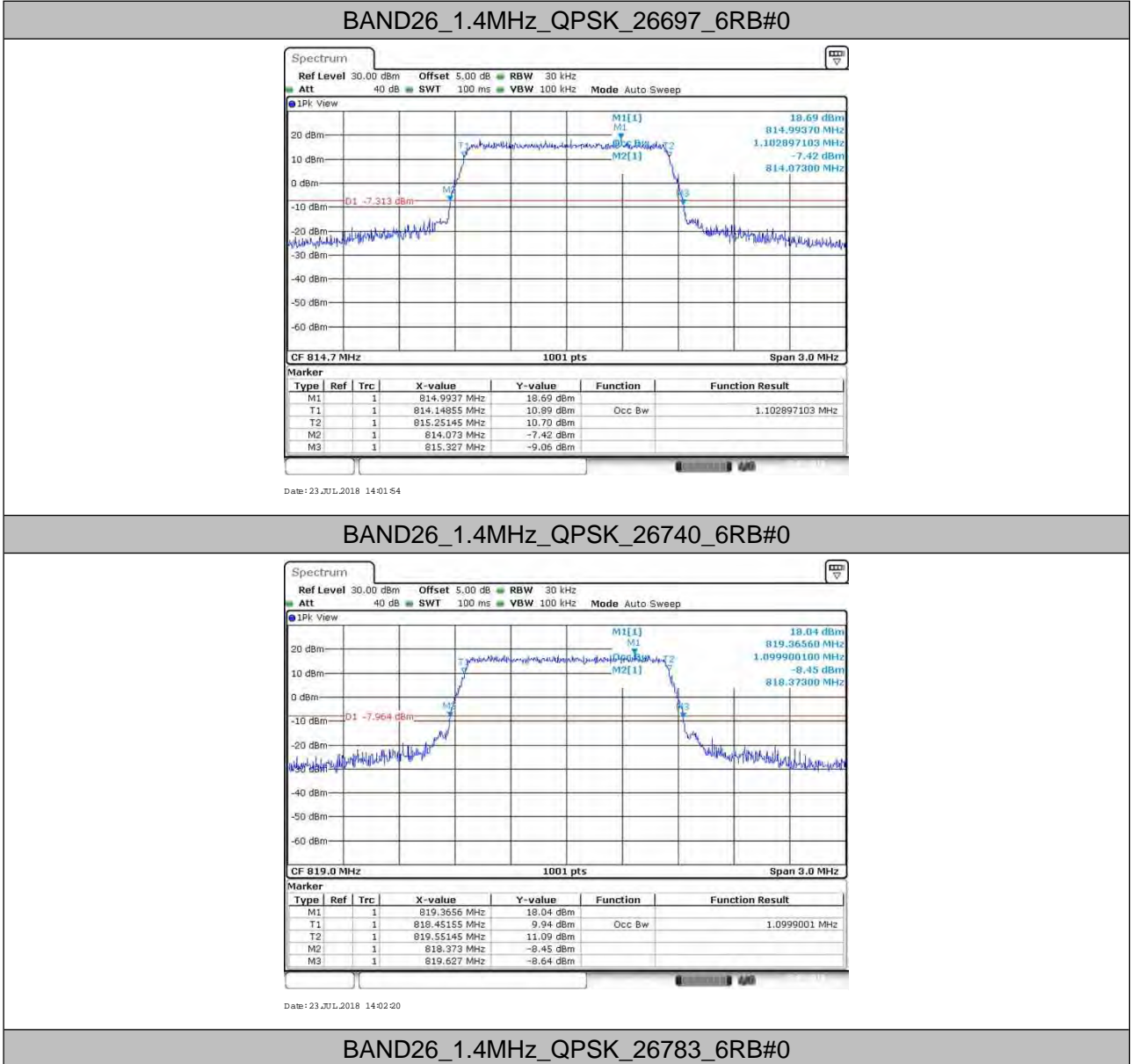
## 4. 26dB Bandwidth and Occupied Bandwidth

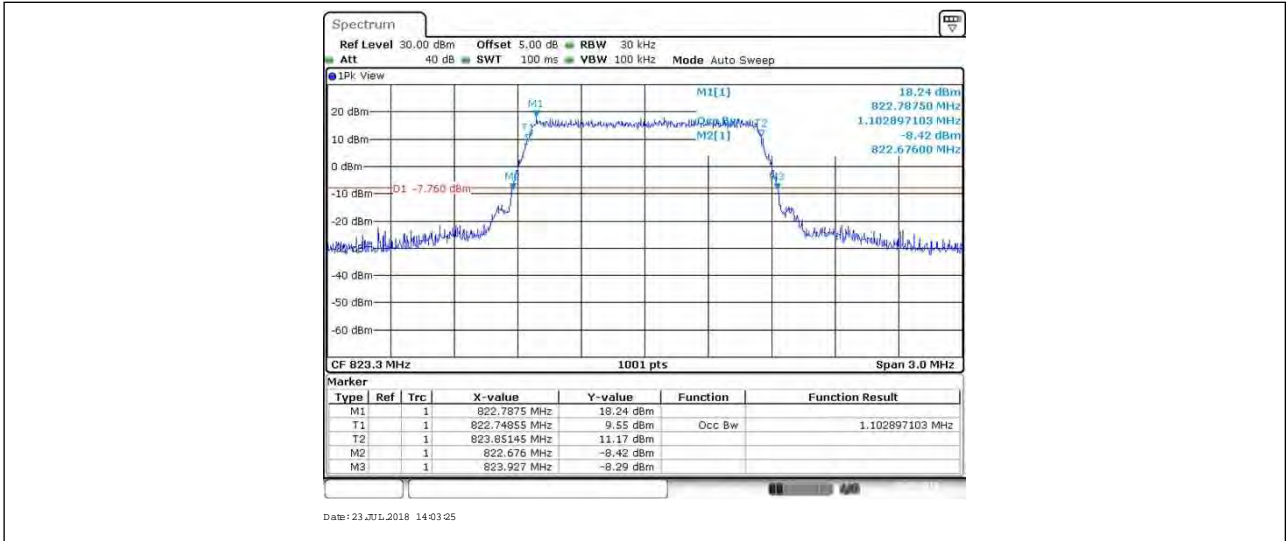
### 4.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
BAND26	1.4MHz	QPSK	26697	6RB#0	1.103	1.254	PASS
			26740	6RB#0	1.1	1.254	PASS
			26783	6RB#0	1.103	1.251	PASS
		64QAM	26697	6RB#0	1.103	1.254	PASS
			26740	6RB#0	1.103	1.257	PASS
			26783	6RB#0	1.103	1.257	PASS
		16QAM	26697	6RB#0	1.109	1.254	PASS
			26740	6RB#0	1.106	1.257	PASS
			26783	6RB#0	1.1	1.251	PASS
	3MHz	QPSK	26705	15RB#0	2.709	3.006	PASS
			26740	15RB#0	2.703	2.988	PASS
			26775	15RB#0	2.703	3.000	PASS
		64QAM	26705	15RB#0	2.709	3.006	PASS
			26740	15RB#0	2.703	2.988	PASS
			26775	15RB#0	2.709	2.994	PASS
		16QAM	26705	15RB#0	2.709	3.000	PASS
			26740	15RB#0	2.709	2.994	PASS
			26775	15RB#0	2.703	3.000	PASS
	5MHz	QPSK	26715	25RB#0	4.486	4.910	PASS
			26740	25RB#0	4.476	4.900	PASS
			26765	25RB#0	4.476	4.910	PASS
		64QAM	26715	25RB#0	4.486	4.900	PASS
			26740	25RB#0	4.476	4.910	PASS
			26765	25RB#0	4.476	4.890	PASS
		16QAM	26715	25RB#0	4.476	4.880	PASS
			26740	25RB#0	4.476	4.920	PASS
			26765	25RB#0	4.476	4.910	PASS
	10MHz	QPSK	26740	50RB#0	8.971	10.280	PASS
		64QAM	26740	50RB#0	8.971	10.340	PASS
		16QAM	26740	50RB#0	8.971	10.260	PASS

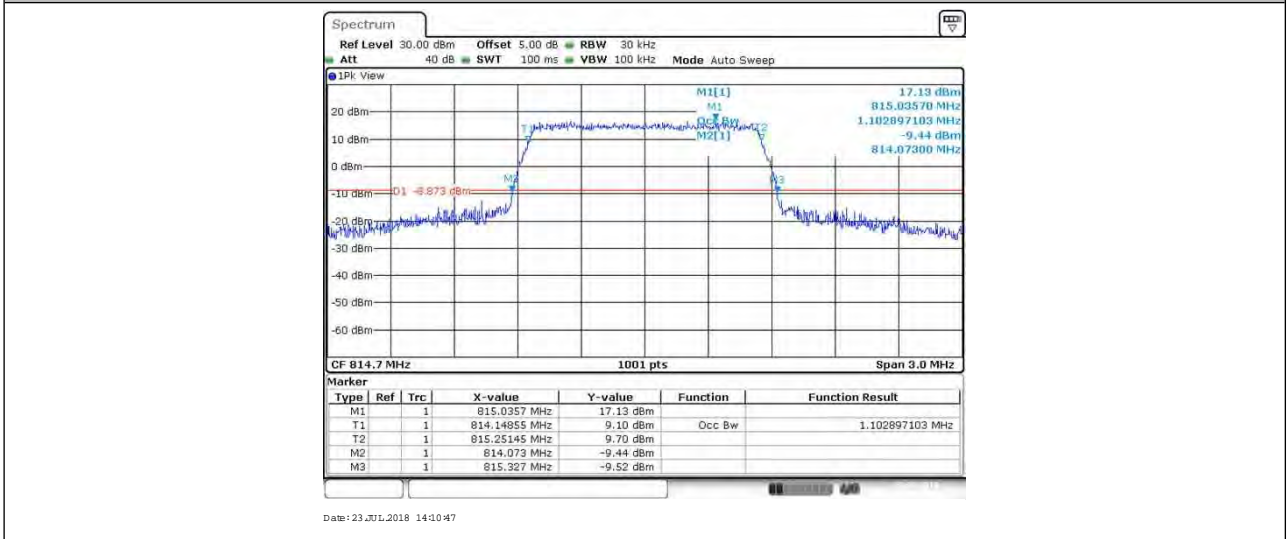


**4.2. Test Plots**

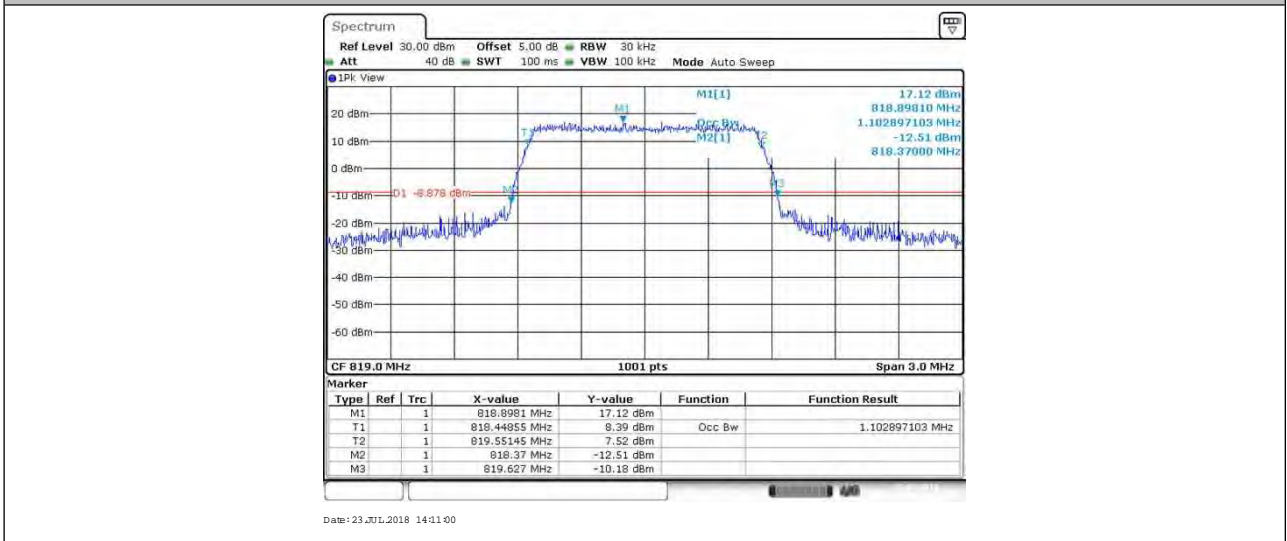




**BAND26\_1.4MHz\_64QAM\_26697\_6RB#0**

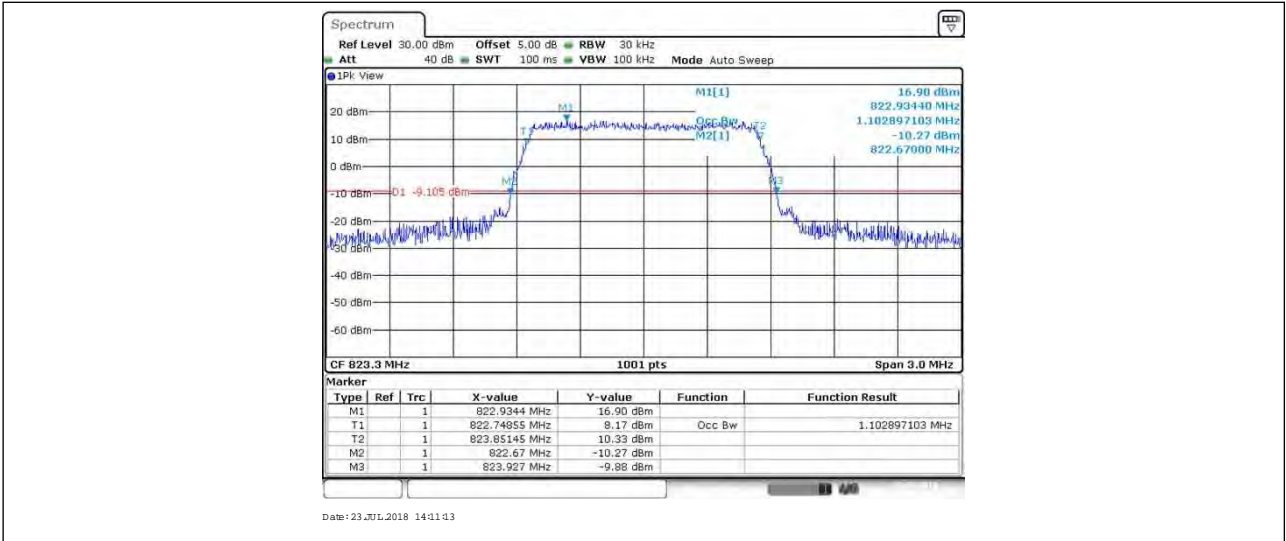


**BAND26\_1.4MHz\_64QAM\_26740\_6RB#0**

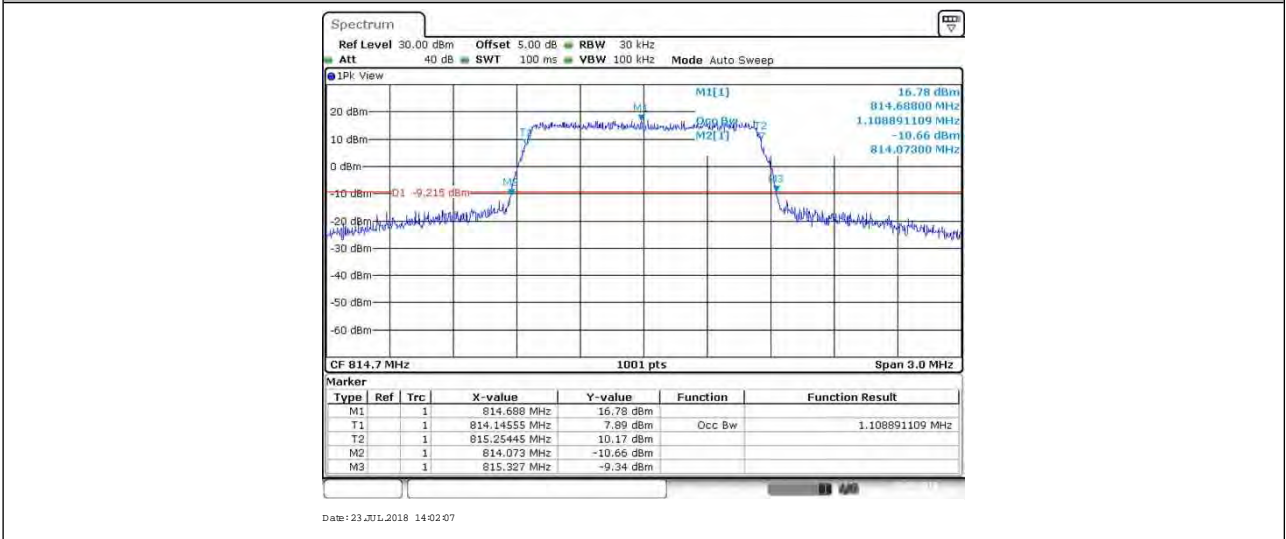


**BAND26\_1.4MHz\_64QAM\_26783\_6RB#0**

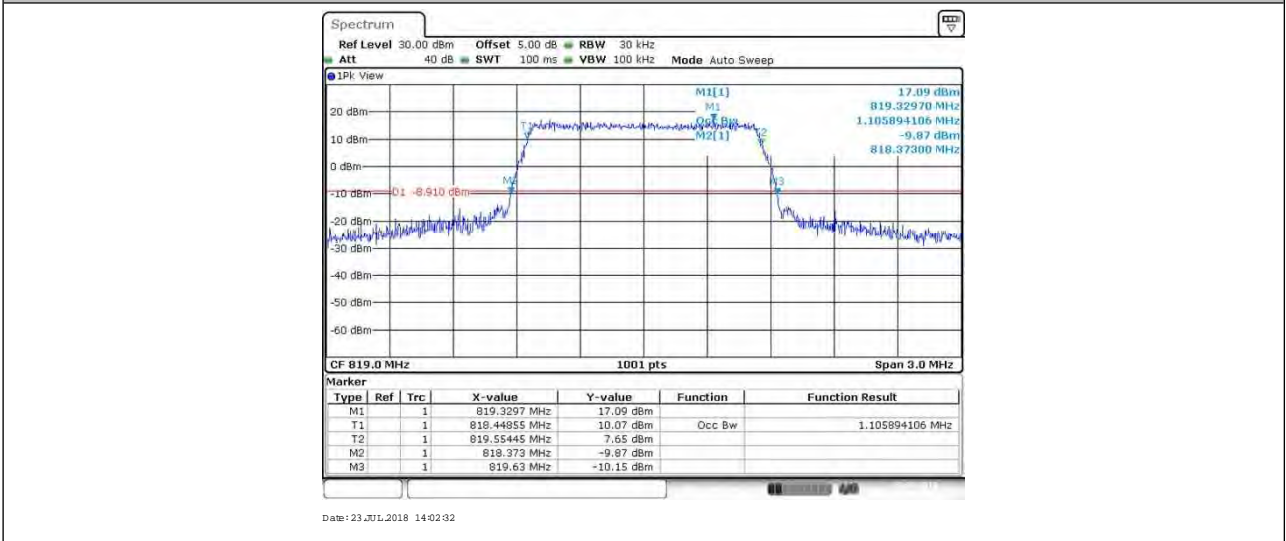




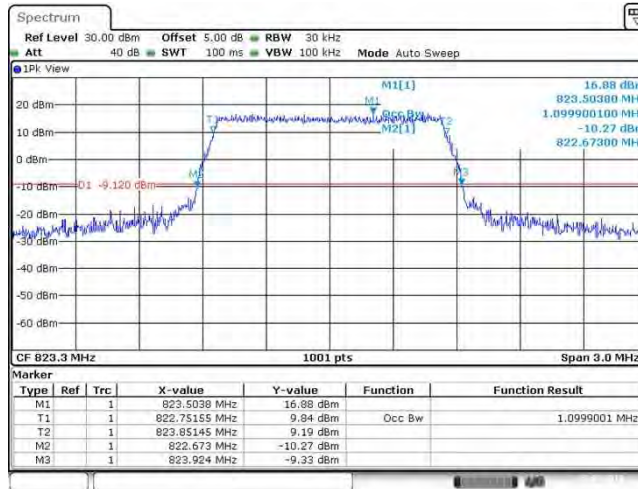
**BAND26\_1.4MHz\_16QAM\_26697\_6RB#0**



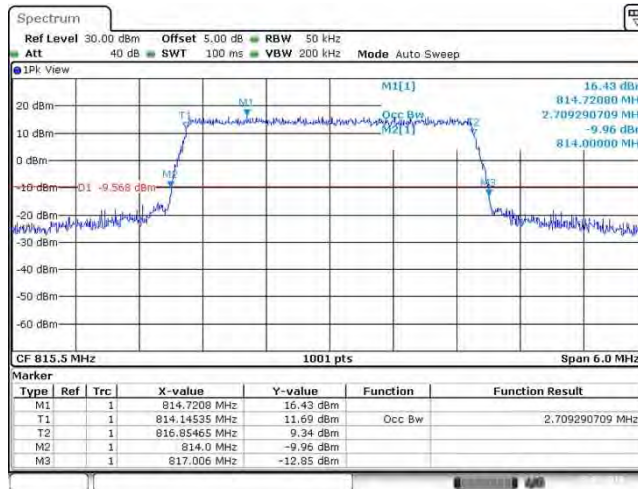
**BAND26\_1.4MHz\_16QAM\_26740\_6RB#0**



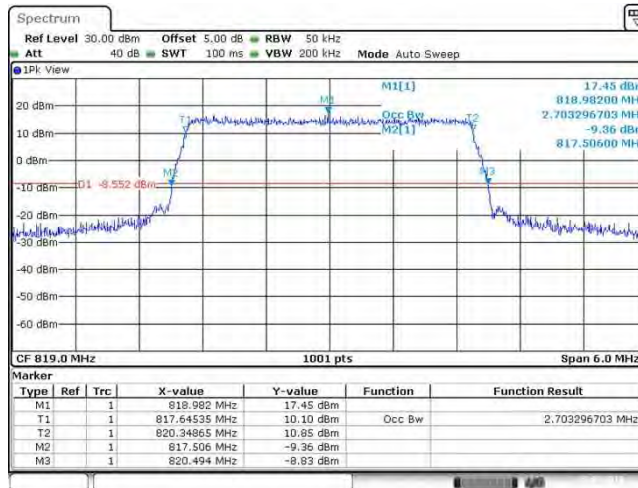
**BAND26\_1.4MHz\_16QAM\_26783\_6RB#0**



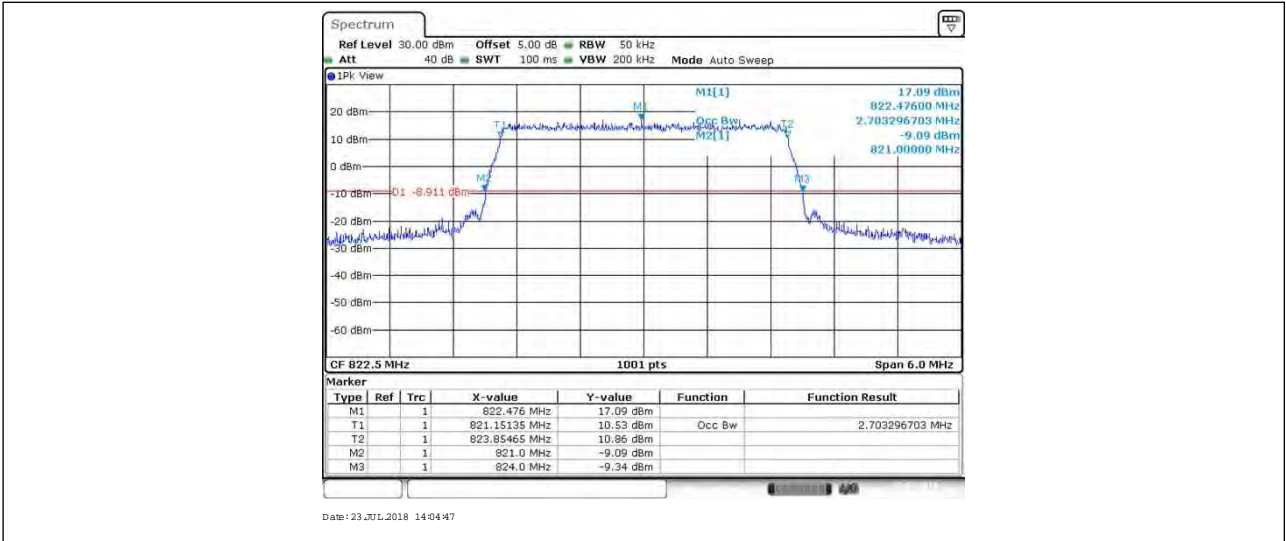
**BAND26\_3MHz\_QPSK\_26705\_15RB#0**



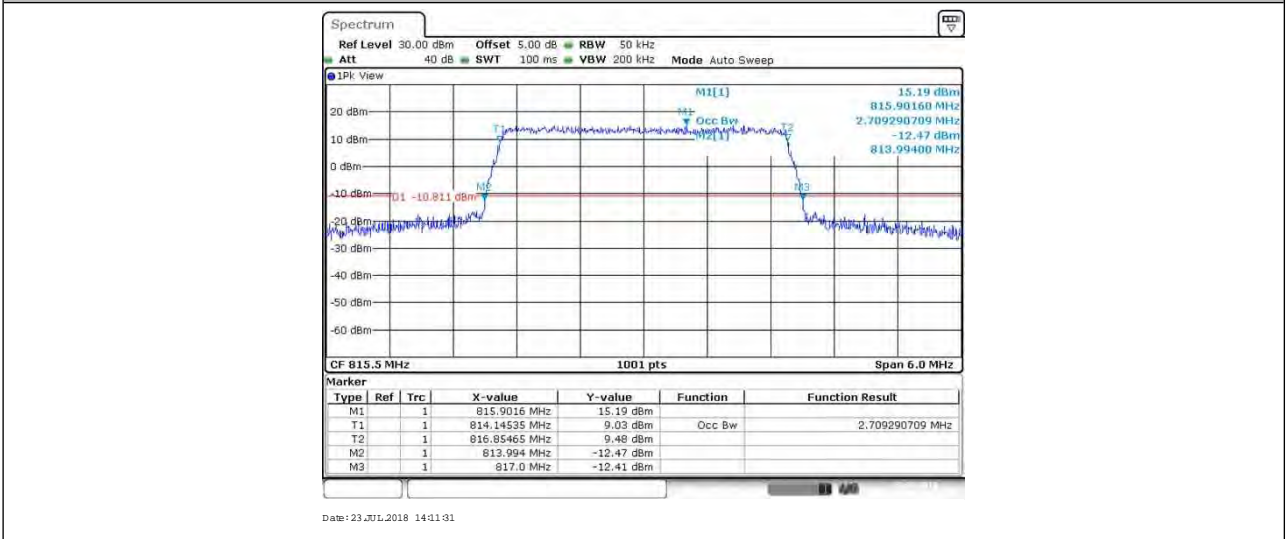
**BAND26\_3MHz\_QPSK\_26740\_15RB#0**



**BAND26\_3MHz\_QPSK\_26775\_15RB#0**



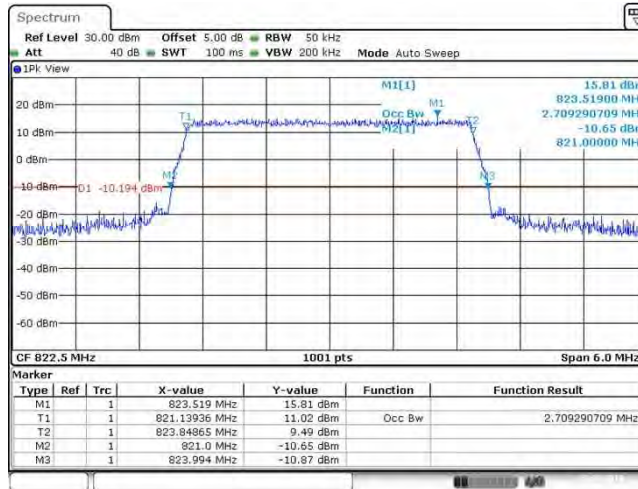
**BAND26\_3MHz\_64QAM\_26705\_15RB#0**



**BAND26\_3MHz\_64QAM\_26740\_15RB#0**

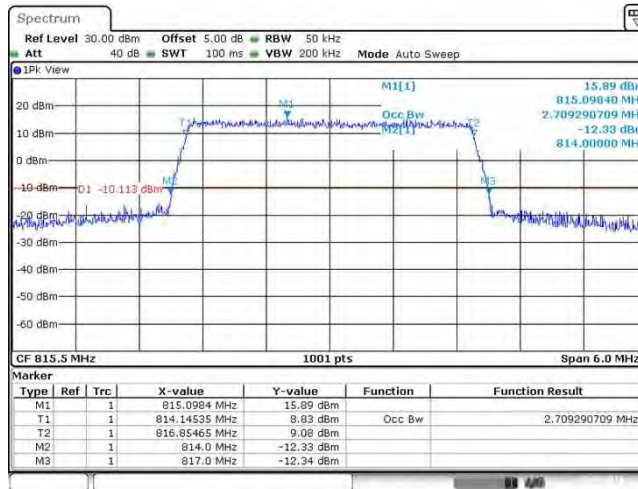


**BAND26\_3MHz\_64QAM\_26775\_15RB#0**



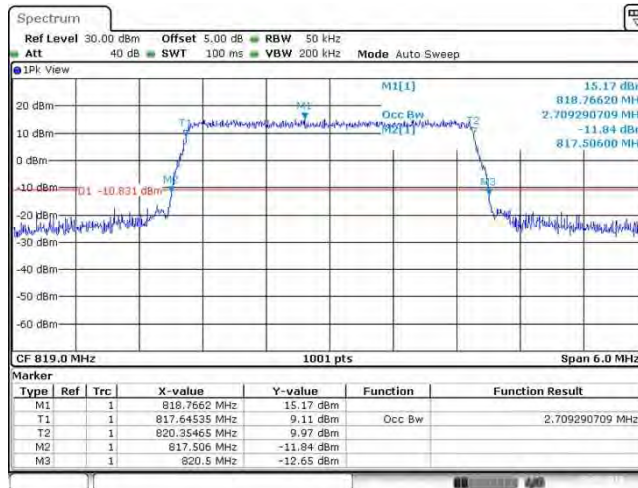
Date: 23.JUL.2018 14:11:57

**BAND26\_3MHz\_16QAM\_26705\_15RB#0**



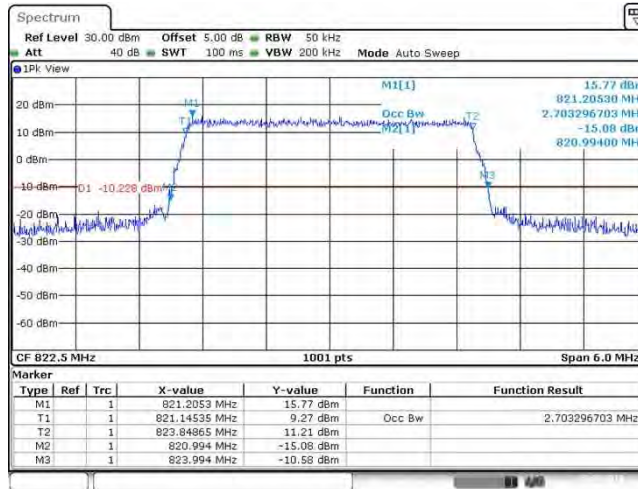
Date: 23.JUL.2018 14:04:08

**BAND26\_3MHz\_16QAM\_26740\_15RB#0**



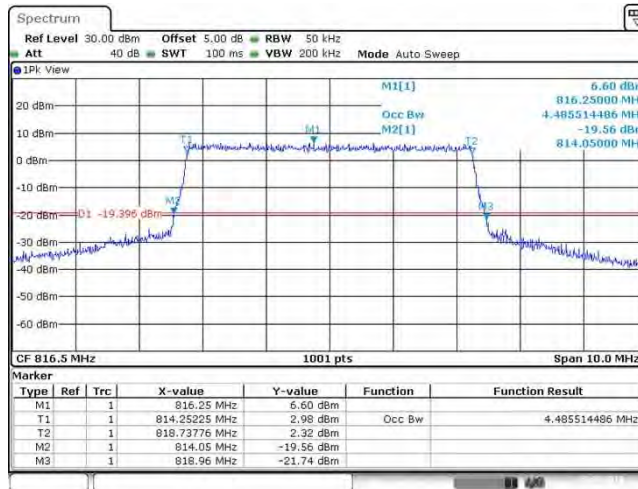
Date: 23.JUL.2018 14:04:34

**BAND26\_3MHz\_16QAM\_26775\_15RB#0**



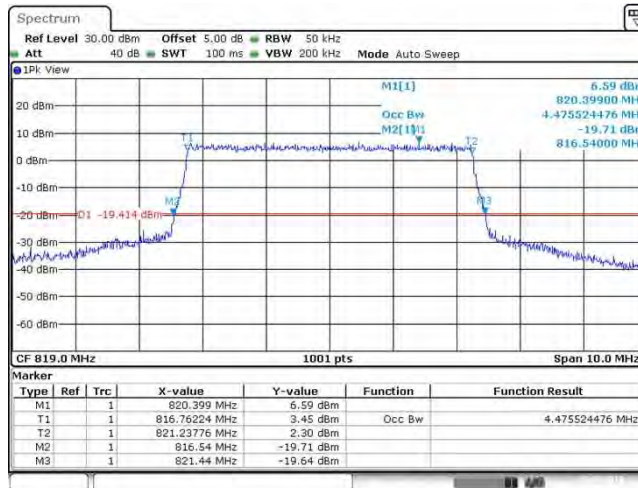
Date: 23.JUL.2018 14:05:00

**BAND26\_5MHz\_QPSK\_26715\_25RB#0**



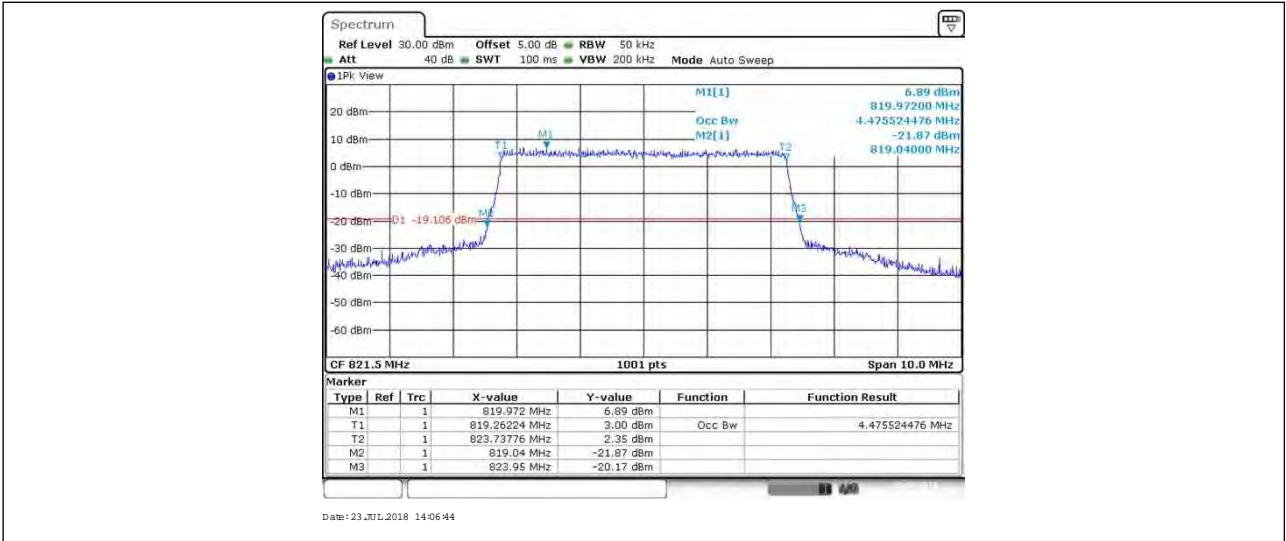
Date: 23.JUL.2018 14:05:24

**BAND26\_5MHz\_QPSK\_26740\_25RB#0**

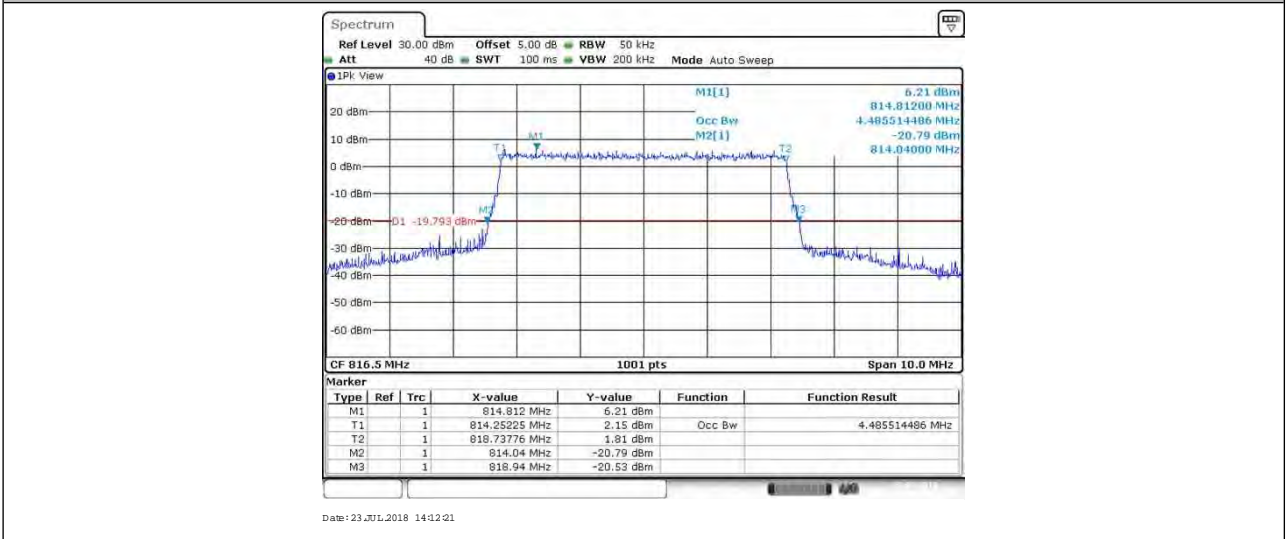


Date: 23.JUL.2018 14:06:04

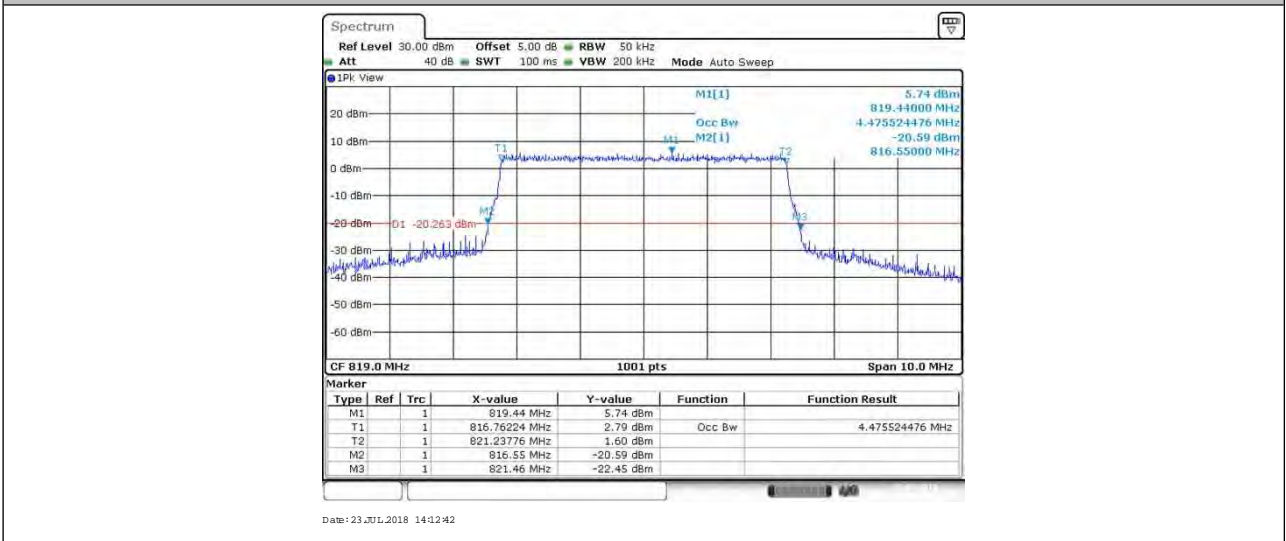
**BAND26\_5MHz\_QPSK\_26765\_25RB#0**



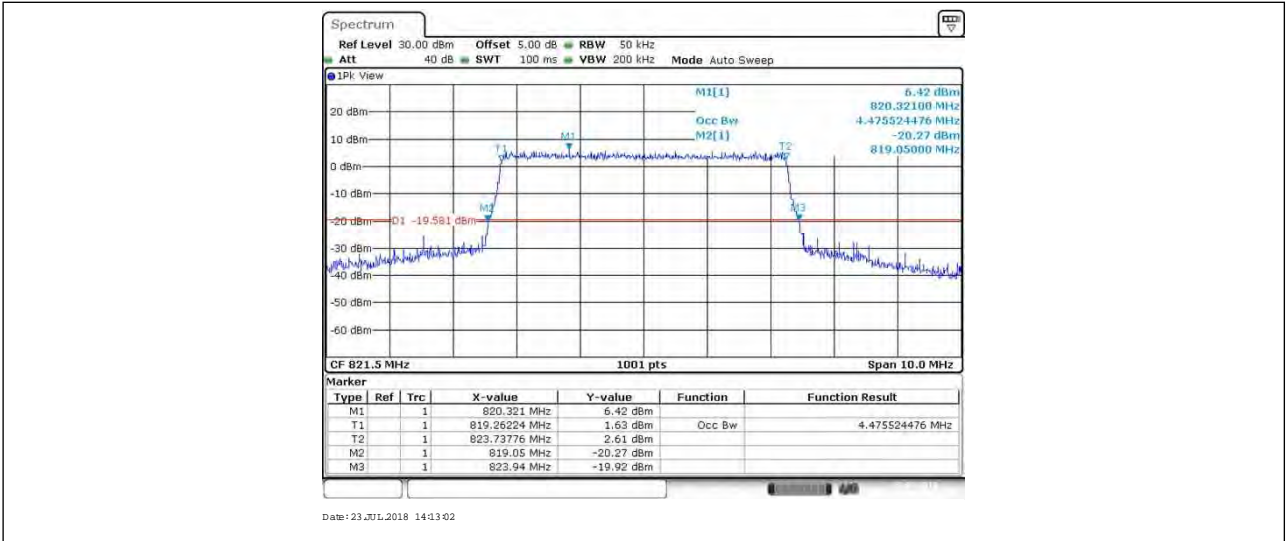
**BAND26\_5MHz\_64QAM\_26715\_25RB#0**



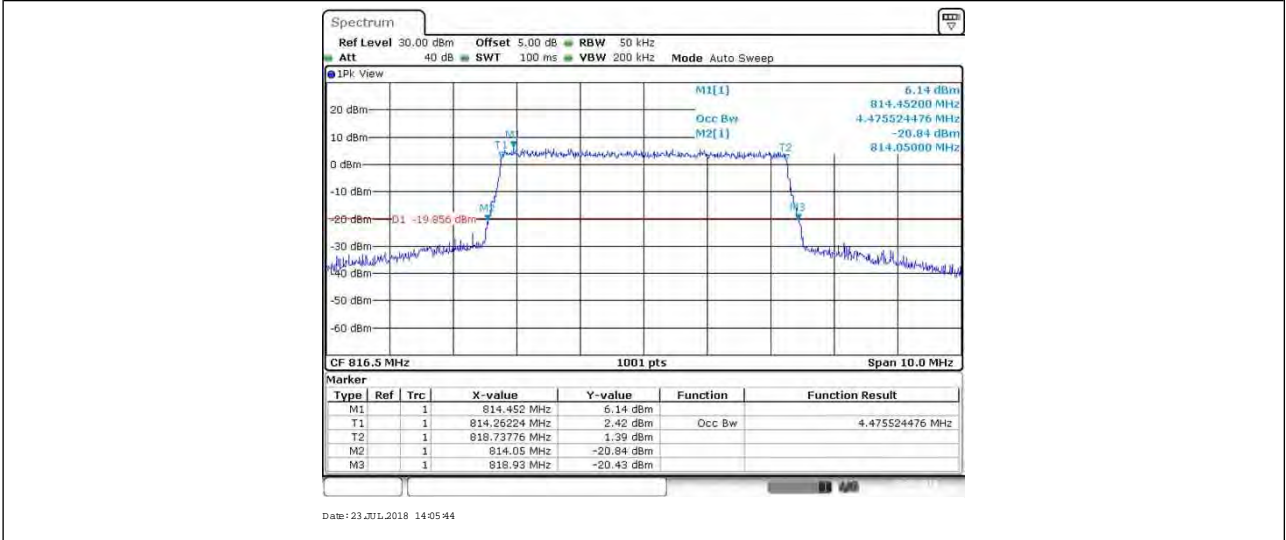
**BAND26\_5MHz\_64QAM\_26740\_25RB#0**



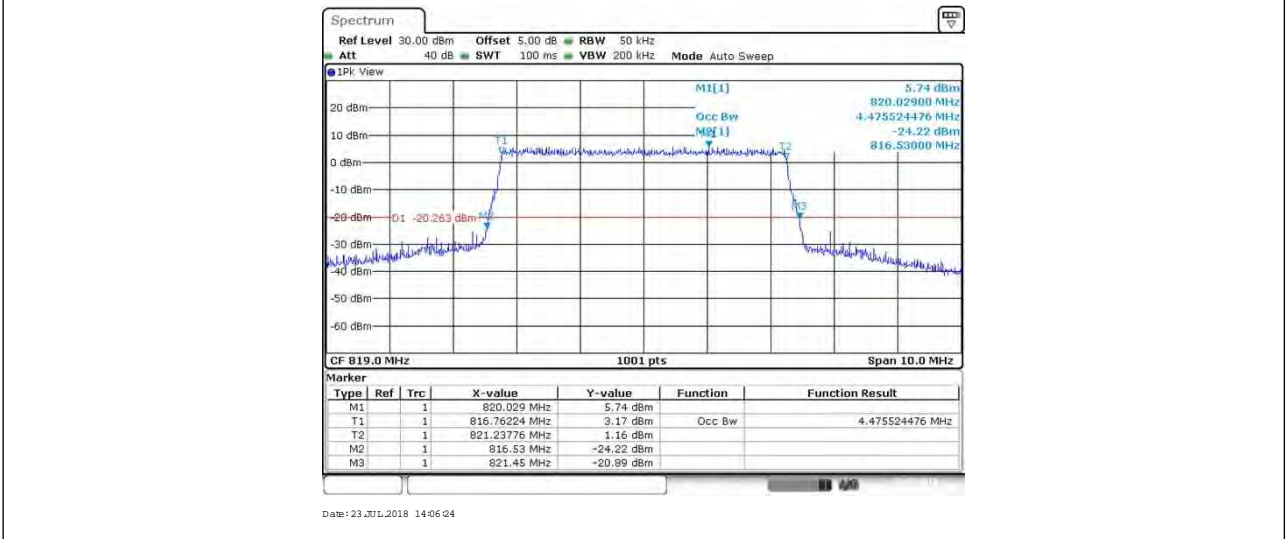
**BAND26\_5MHz\_64QAM\_26765\_25RB#0**



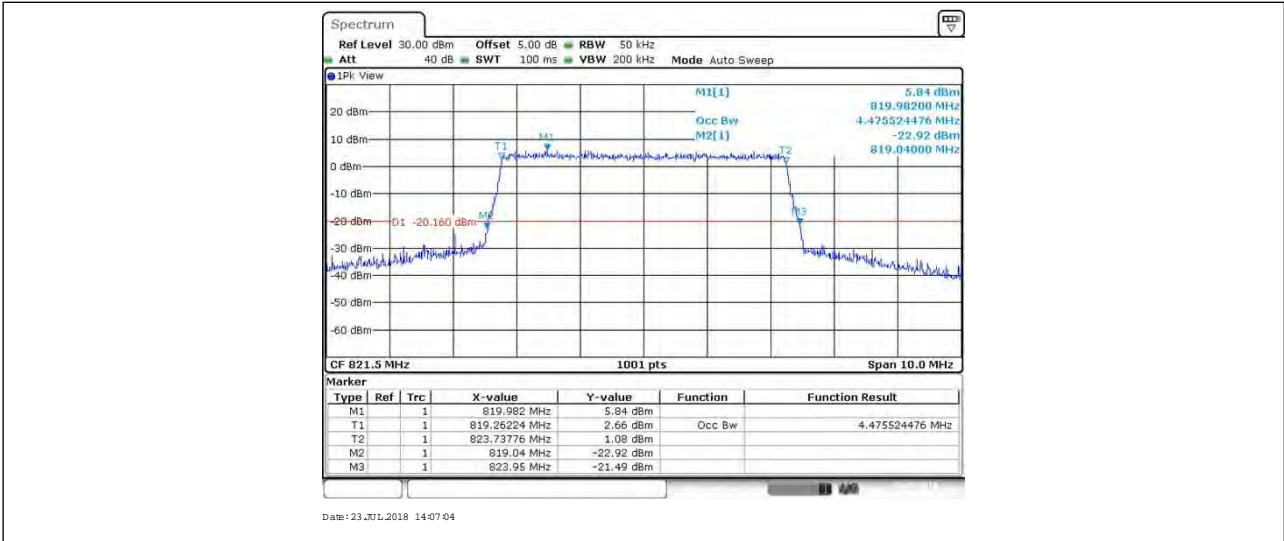
**BAND26\_5MHz\_16QAM\_26715\_25RB#0**



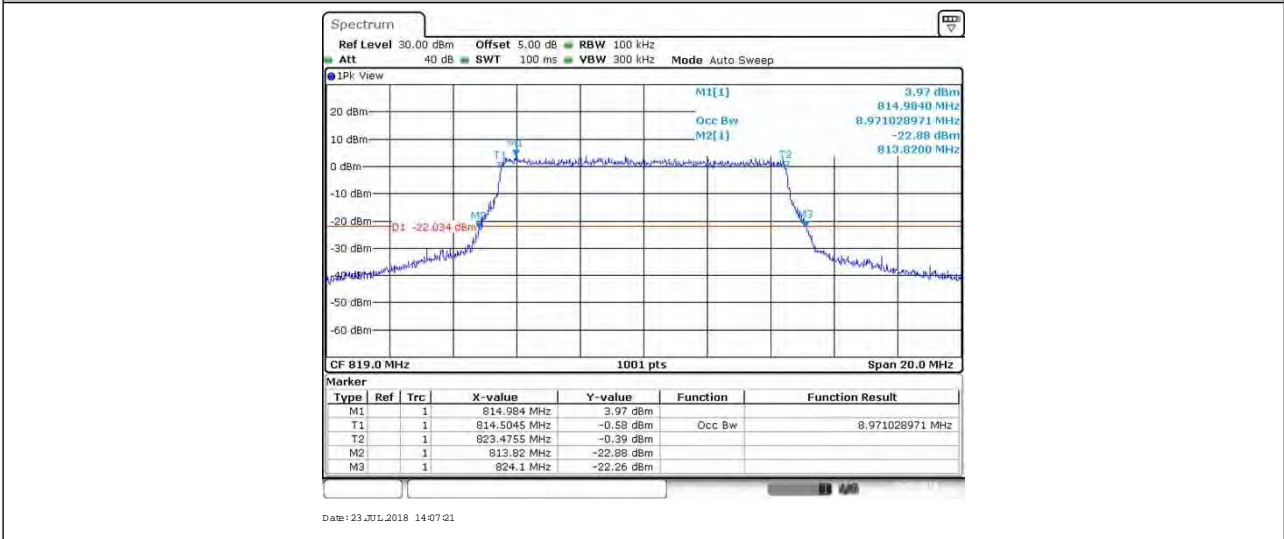
**BAND26\_5MHz\_16QAM\_26740\_25RB#0**



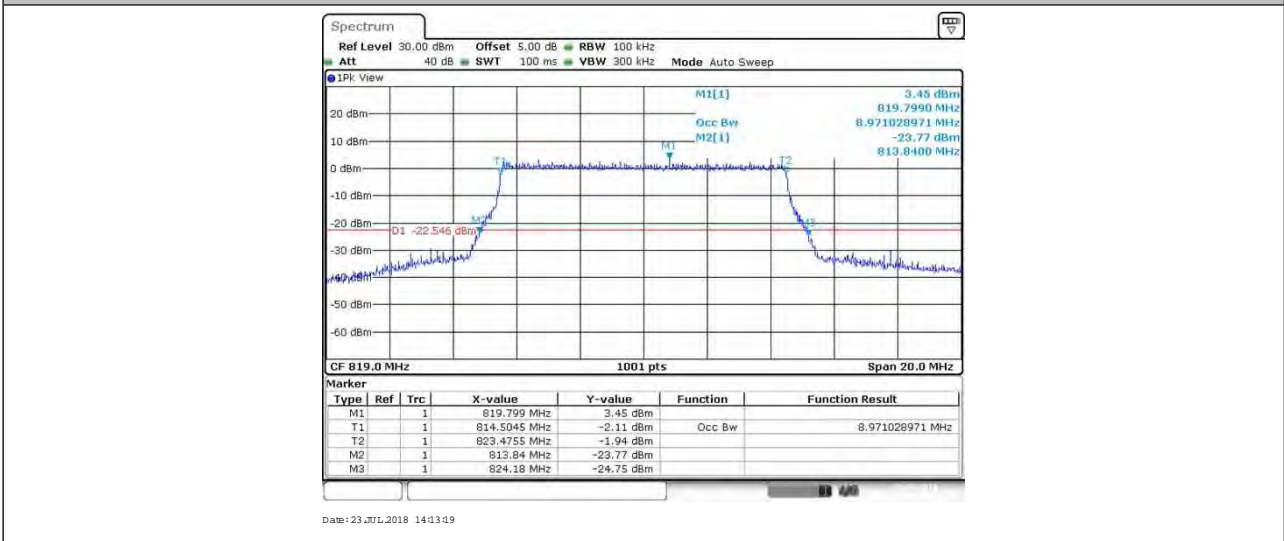
**BAND26\_5MHz\_16QAM\_26765\_25RB#0**



**BAND26\_10MHz\_QPSK\_26740\_50RB#0**



**BAND26\_10MHz\_64QAM\_26740\_50RB#0**



**BAND26\_10MHz\_16QAM\_26740\_50RB#0**

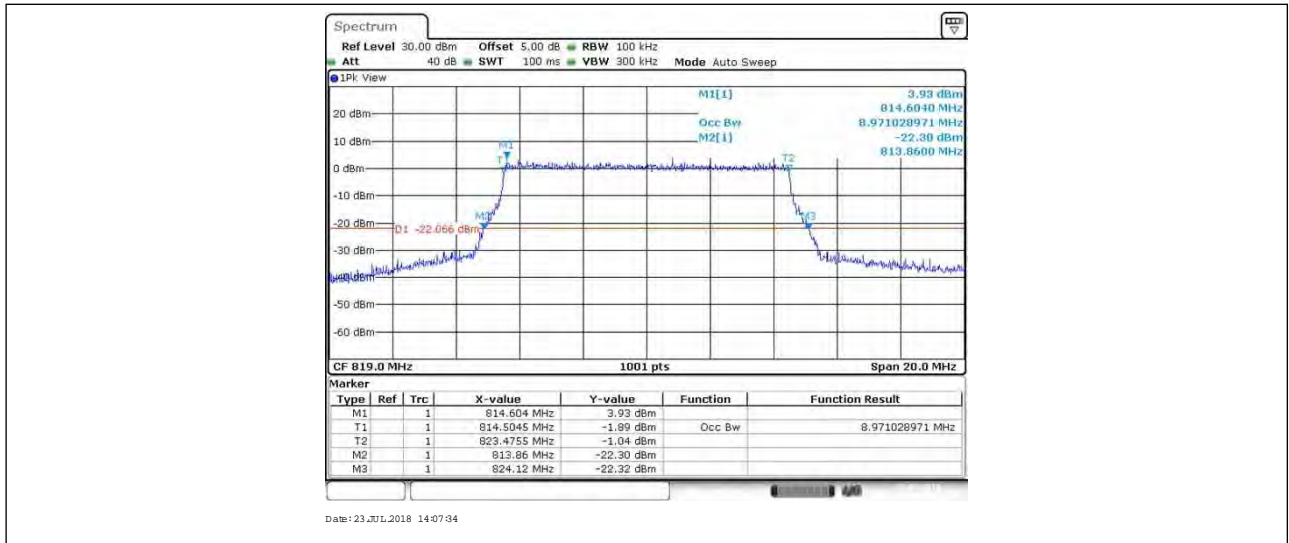




# SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM180500437001

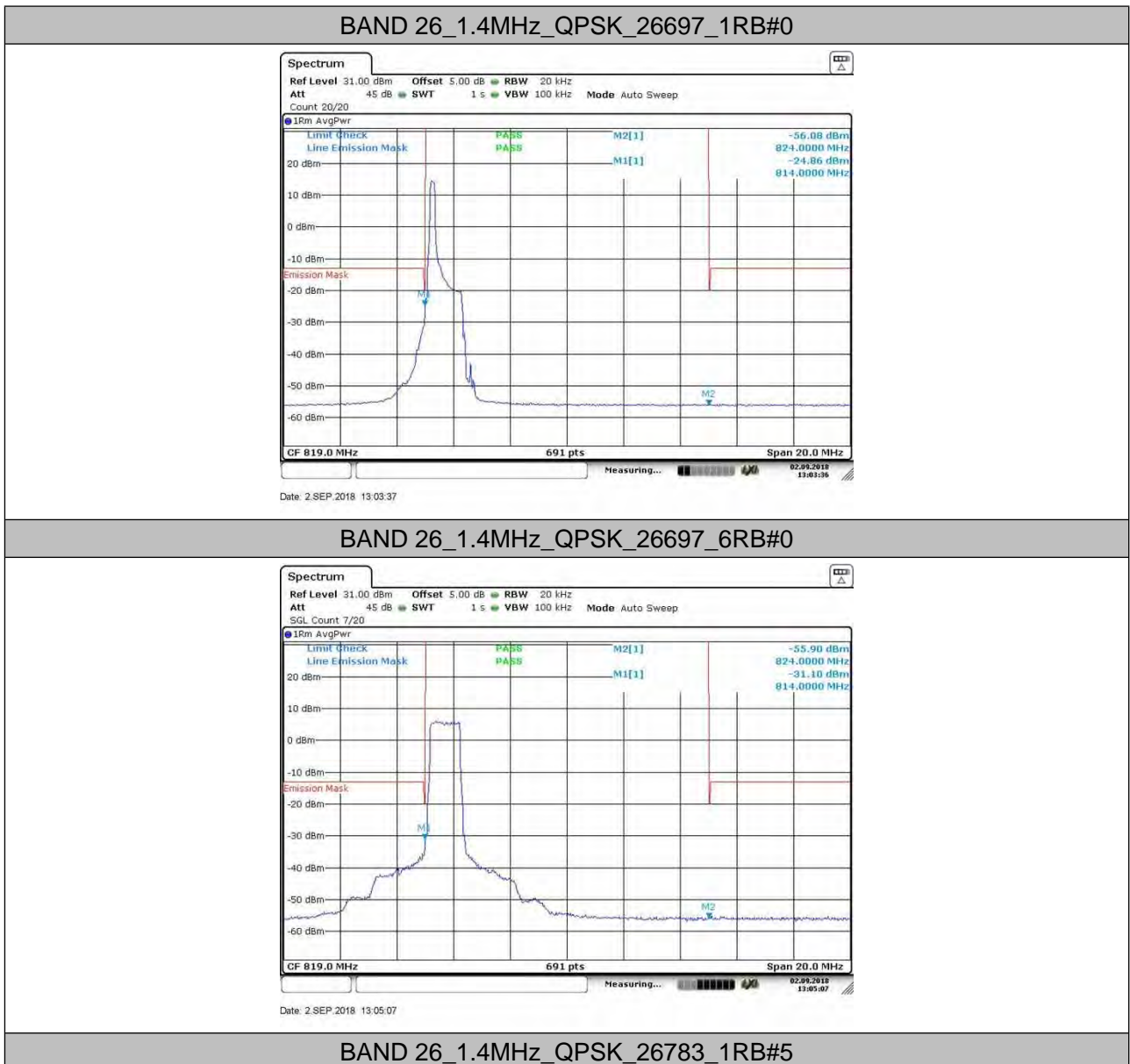
Page: 25 of 47

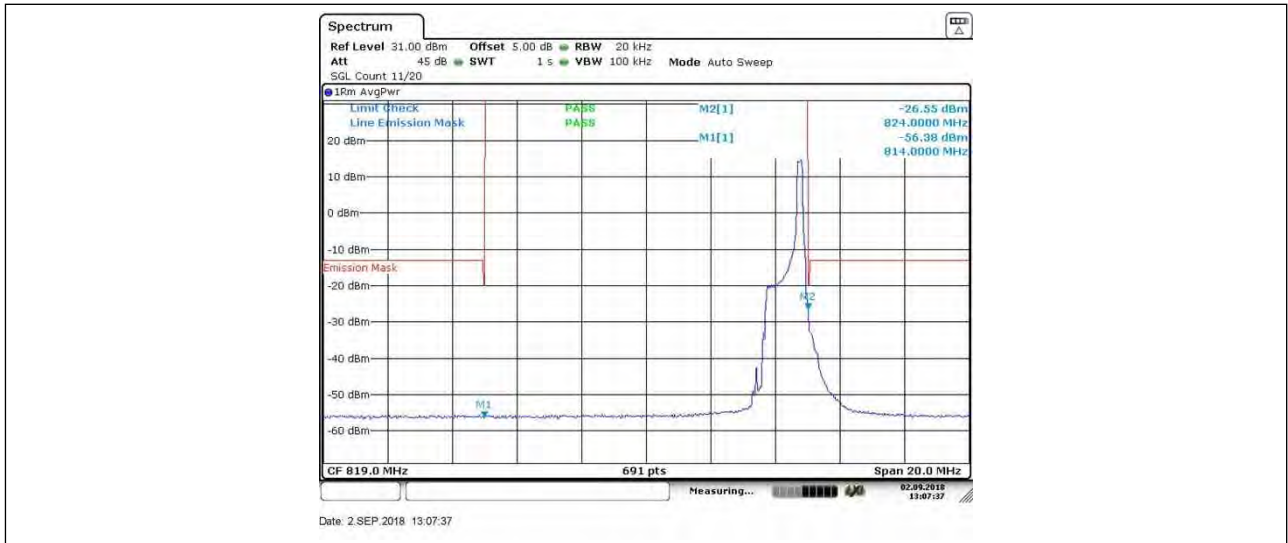




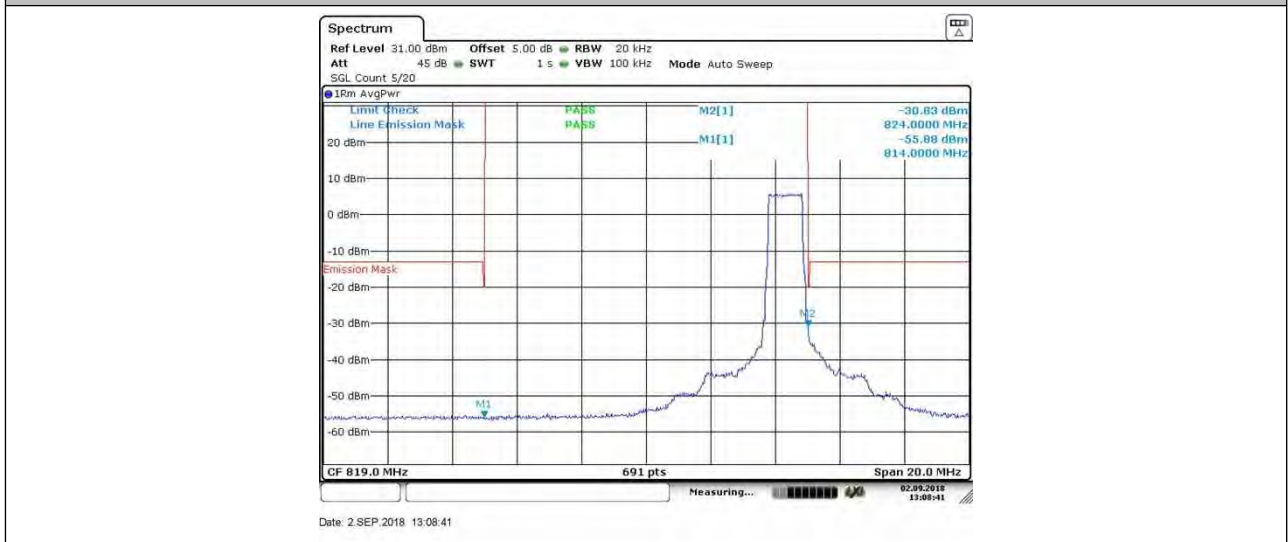
## 5. Band Edge Compliance

### 5.1. Test Plots

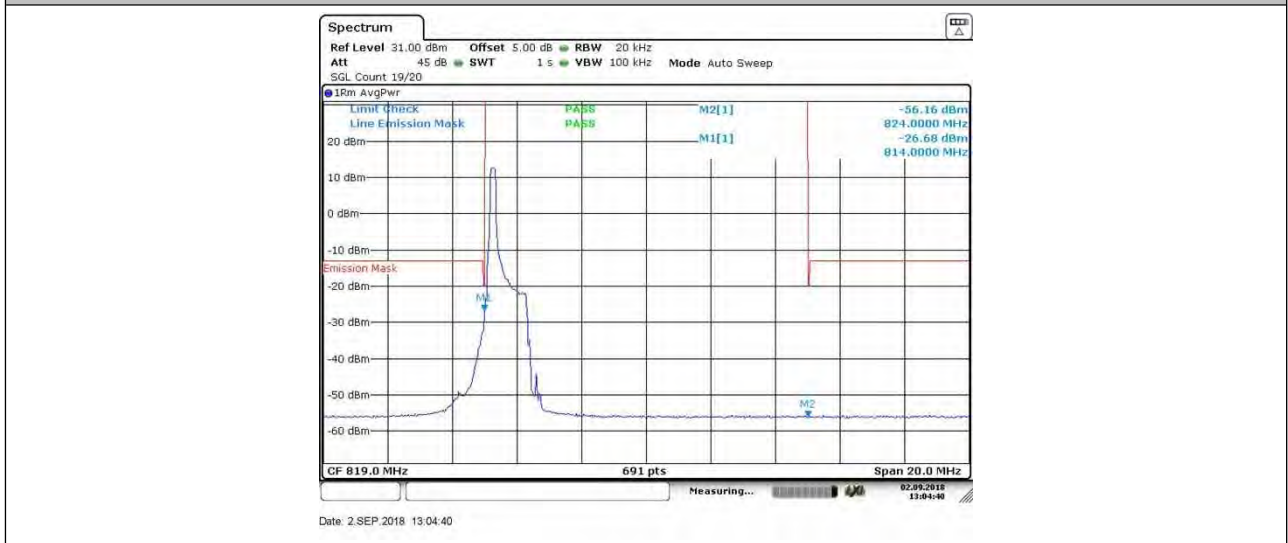




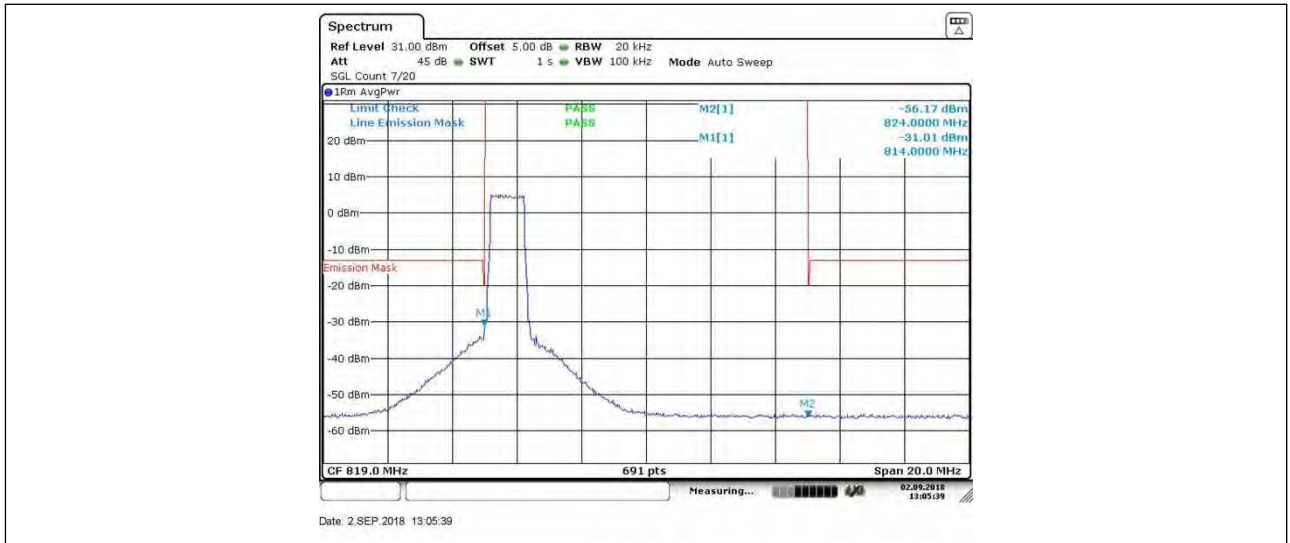
BAND 26\_1.4MHz\_QPSK\_26783\_6RB#0



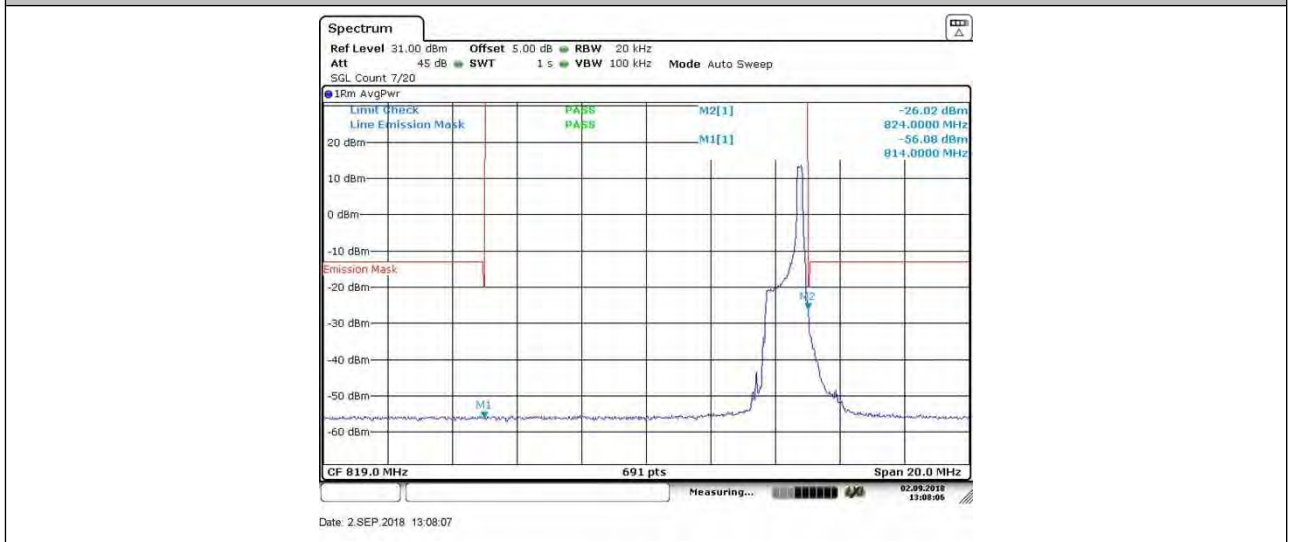
BAND 26\_1.4MHz\_16QAM\_26697\_1RB#0



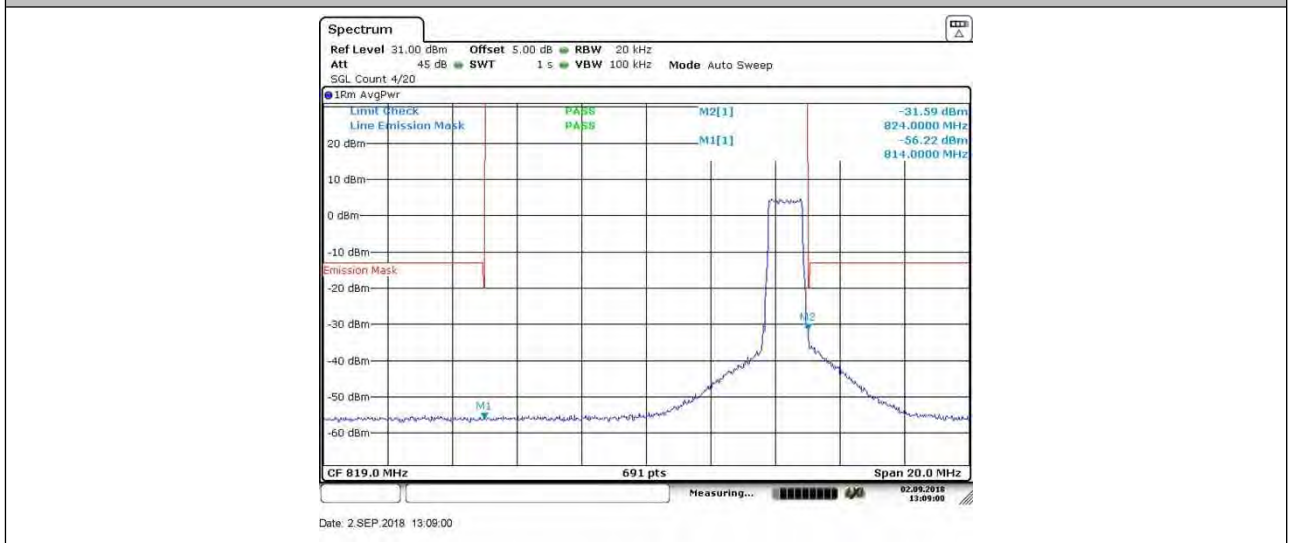
BAND 26\_1.4MHz\_16QAM\_26697\_6RB#0



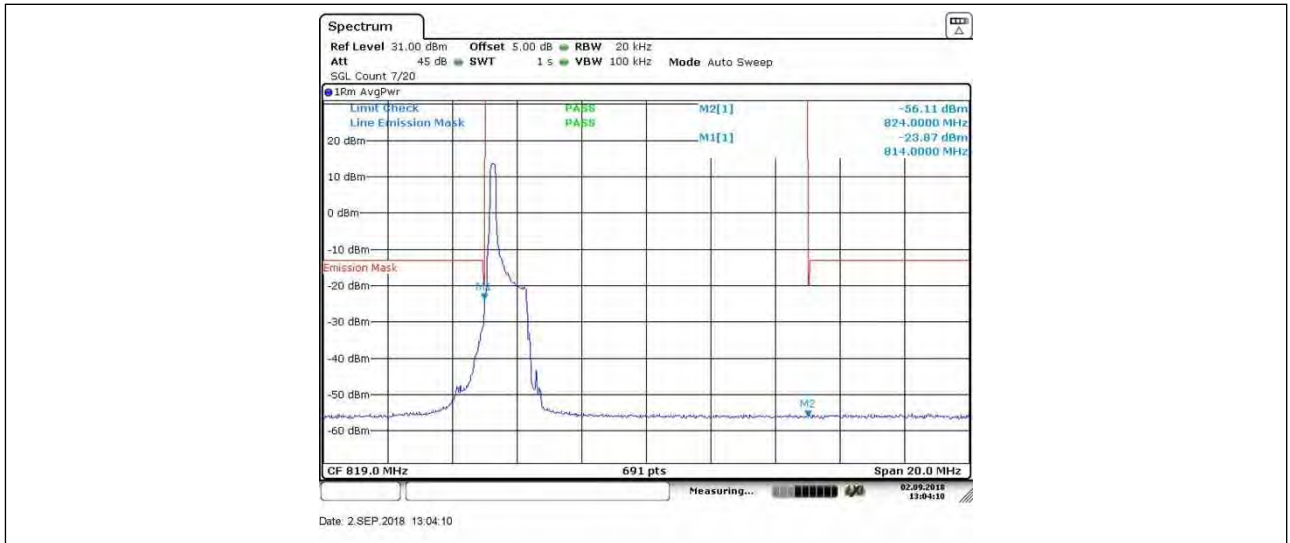
BAND 26\_1.4MHz\_16QAM\_26783\_1RB#5



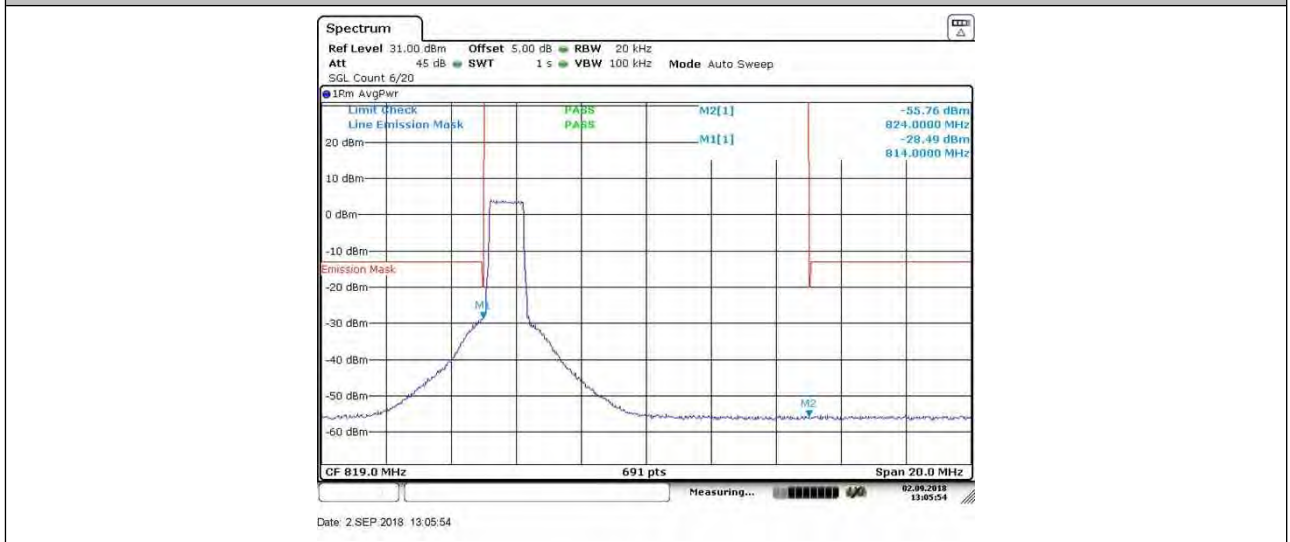
BAND 26\_1.4MHz\_16QAM\_26783\_6RB#0



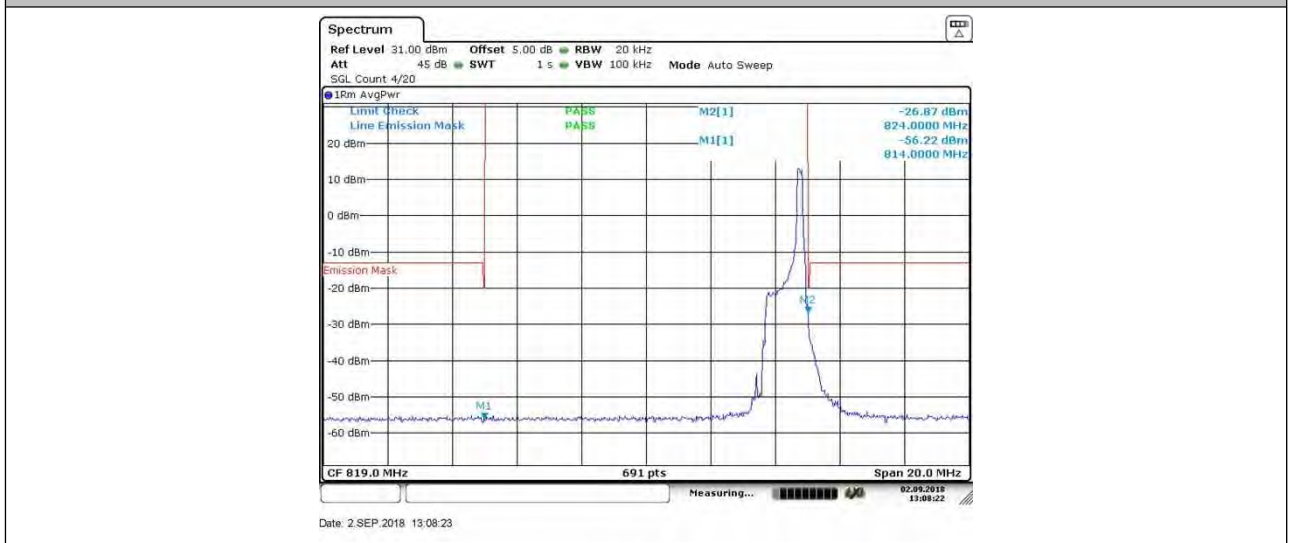
BAND 26\_1.4MHz\_64QAM\_26697\_1RB#0



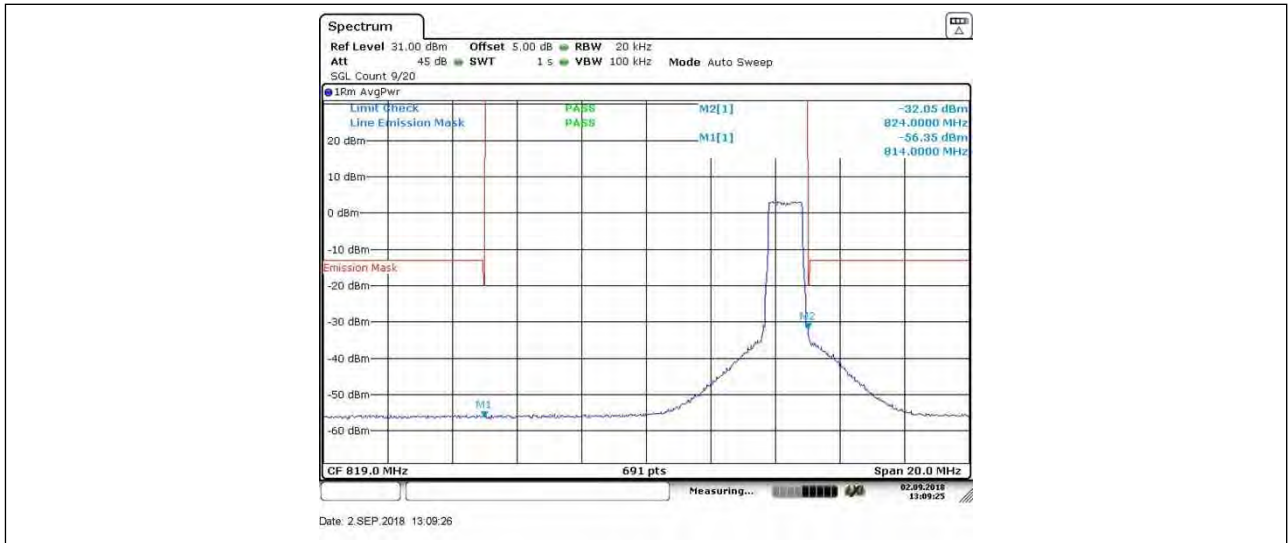
BAND 26\_1.4MHz\_64QAM\_26697\_6RB#0



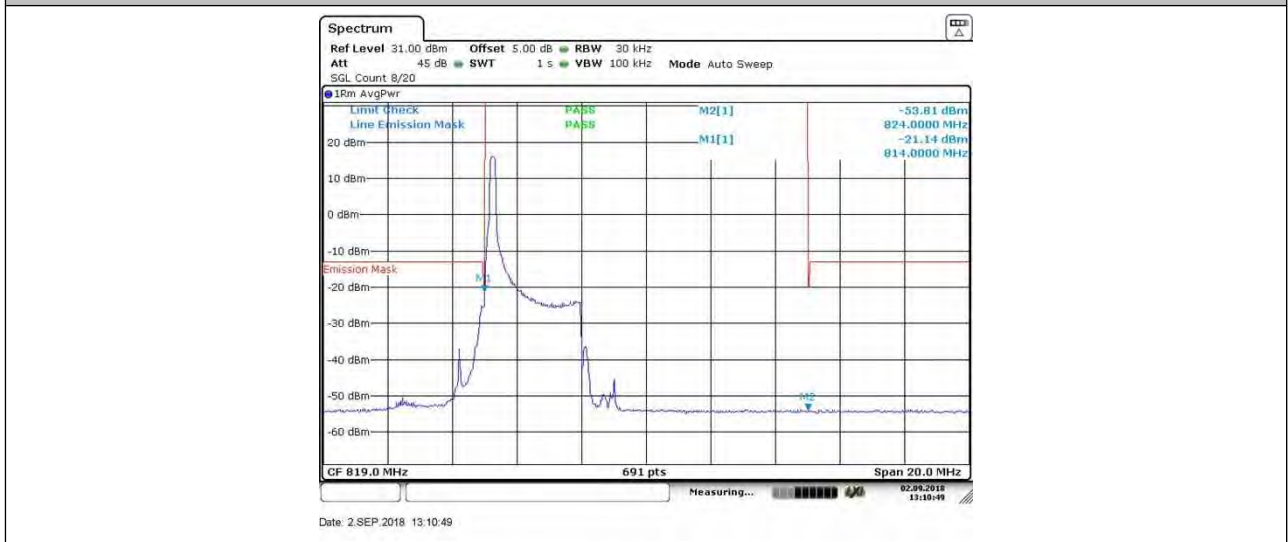
BAND 26\_1.4MHz\_64QAM\_26783\_1RB#5



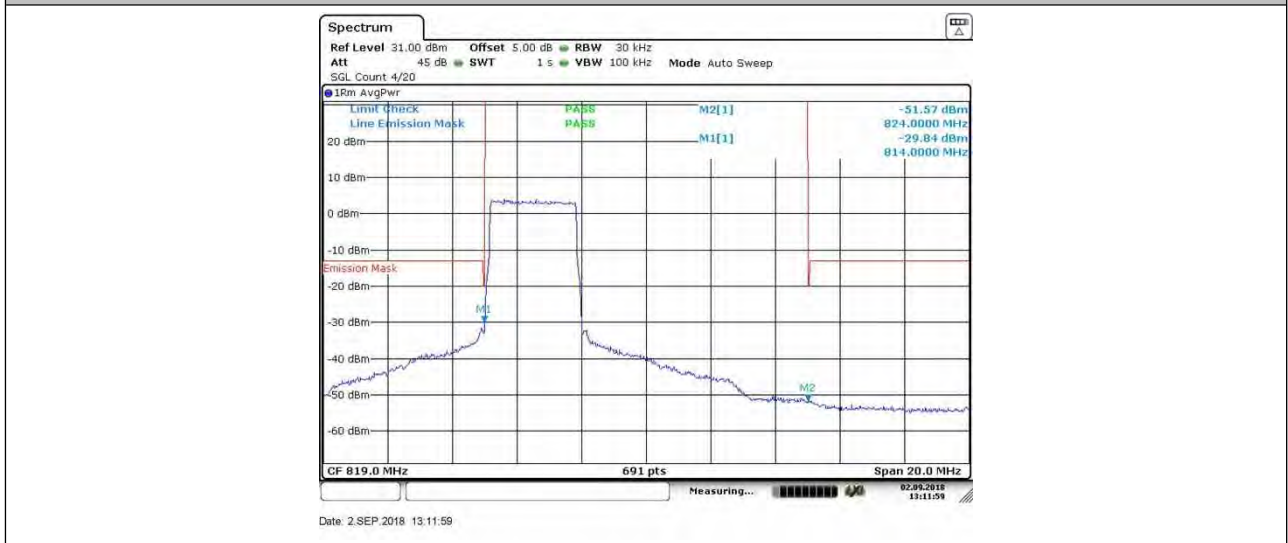
BAND 26\_1.4MHz\_64QAM\_26783\_6RB#0



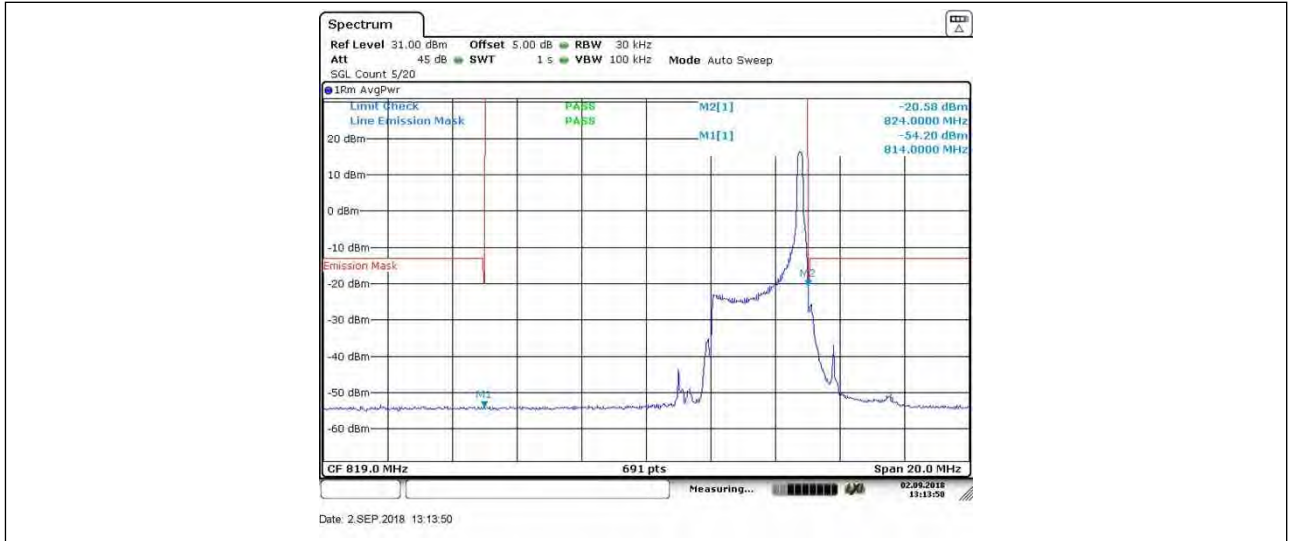
BAND 26\_3MHz\_QPSK\_26705\_1RB#0



BAND 26\_3MHz\_QPSK\_26705\_15RB#0



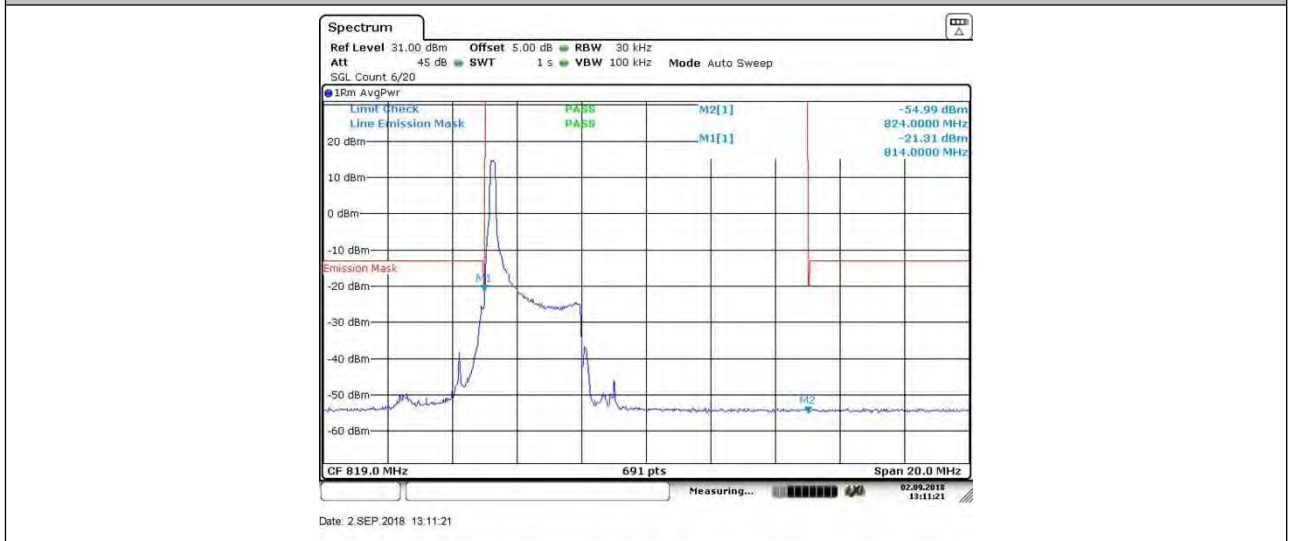
BAND 26\_3MHz\_QPSK\_26775\_1RB#14



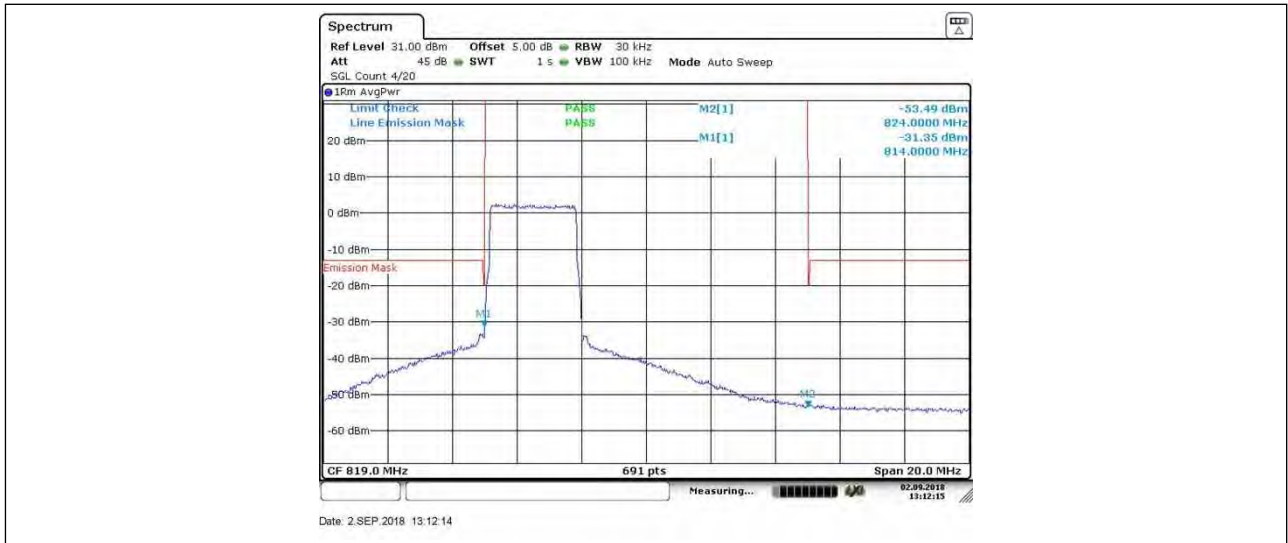
BAND 26\_3MHz\_QPSK\_26775\_15RB#0



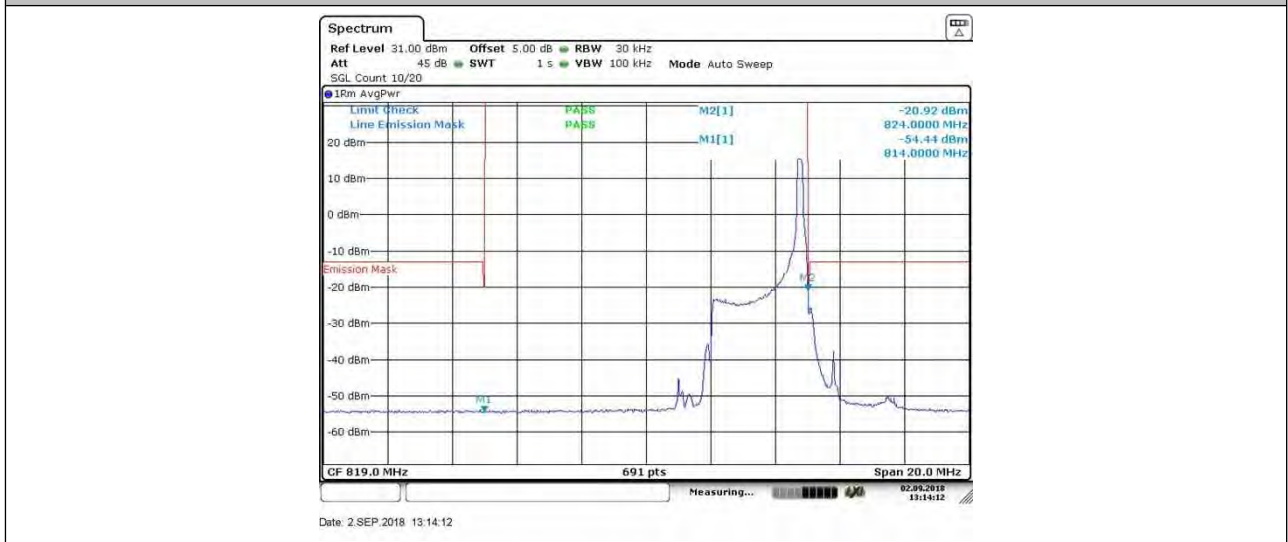
BAND 26\_3MHz\_16QAM\_26705\_1RB#0



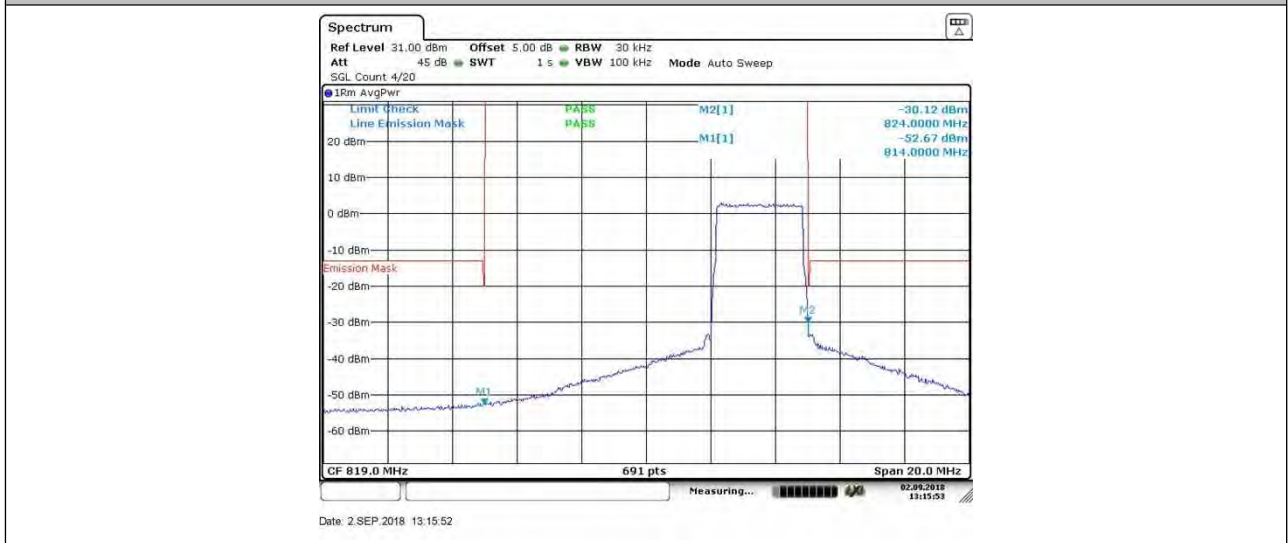
BAND 26\_3MHz\_16QAM\_26705\_15RB#0



BAND 26\_3MHz\_16QAM\_26775\_1RB#14

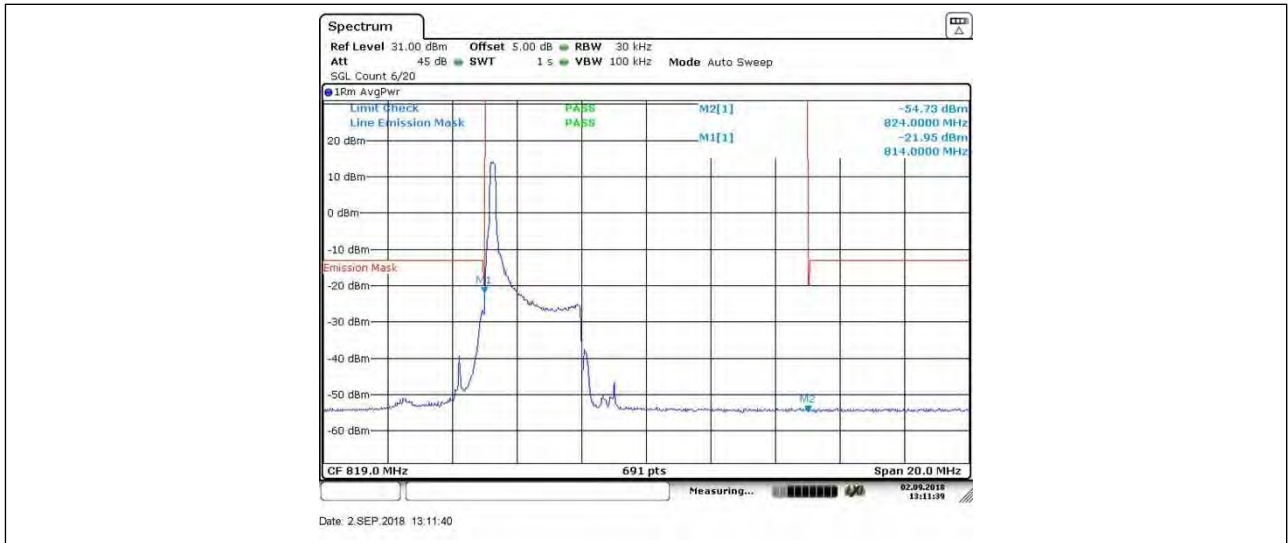


BAND 26\_3MHz\_16QAM\_26775\_15RB#0

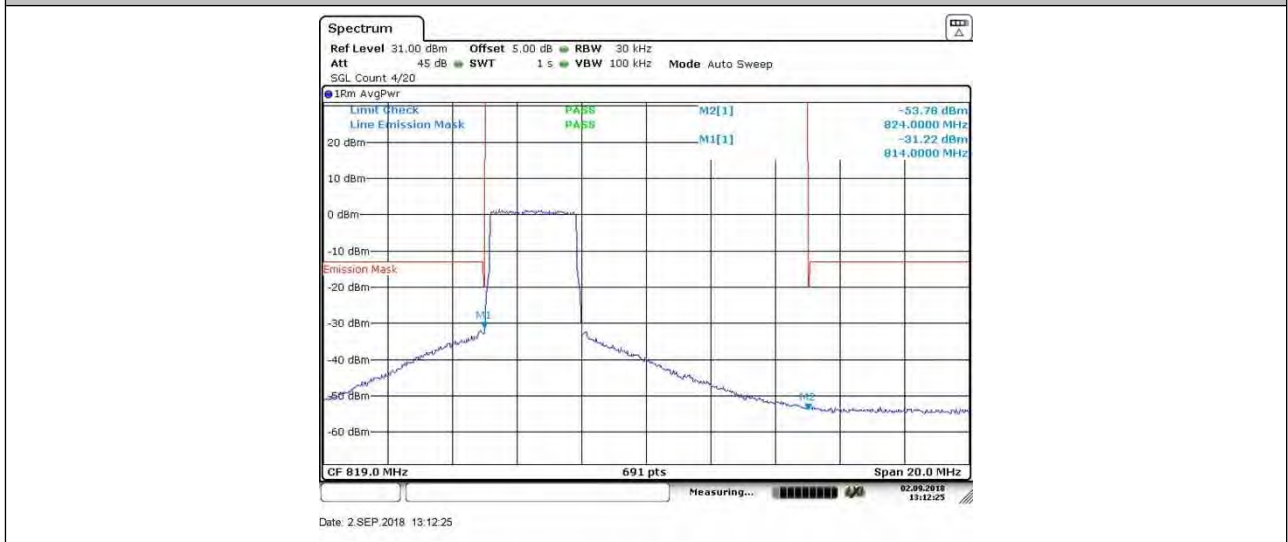


BAND 26\_3MHz\_64QAM\_26705\_1RB#0

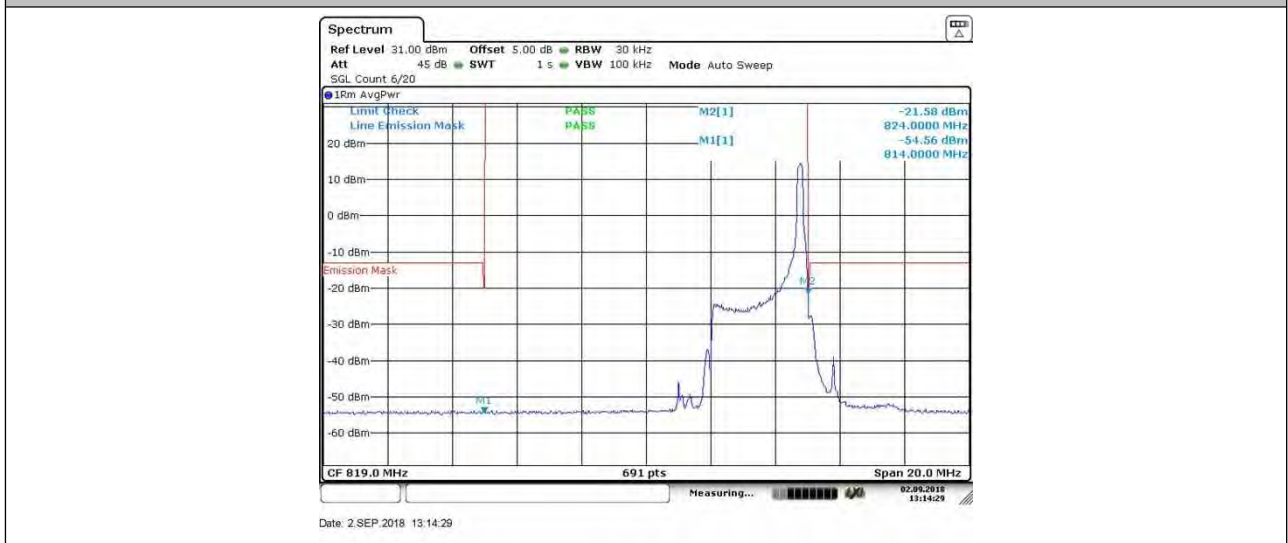




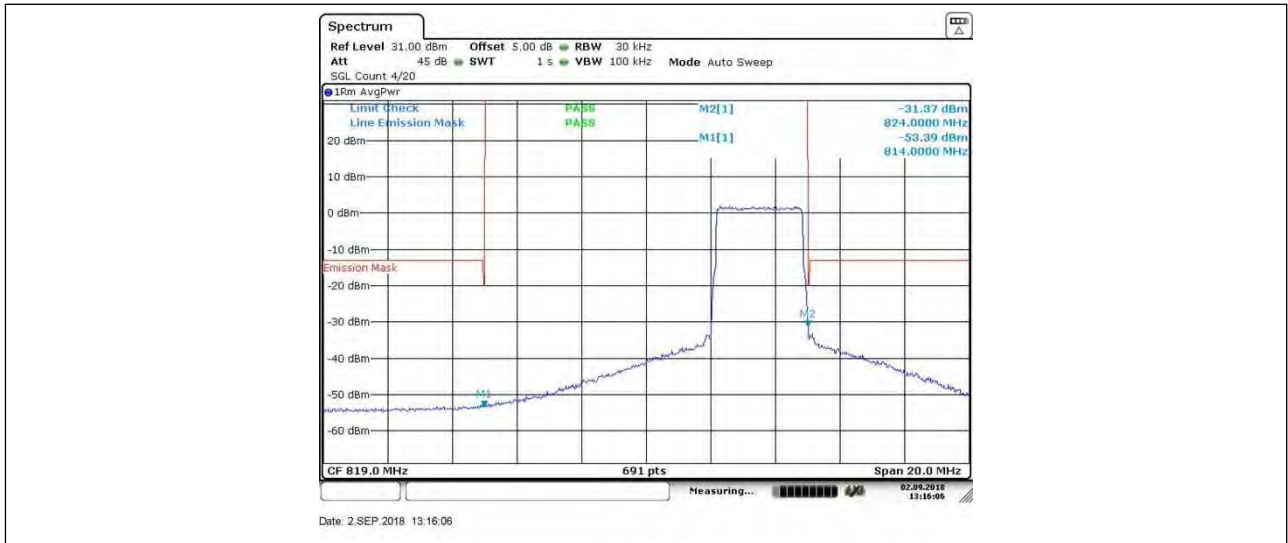
BAND 26\_3MHz\_64QAM\_26705\_15RB#0



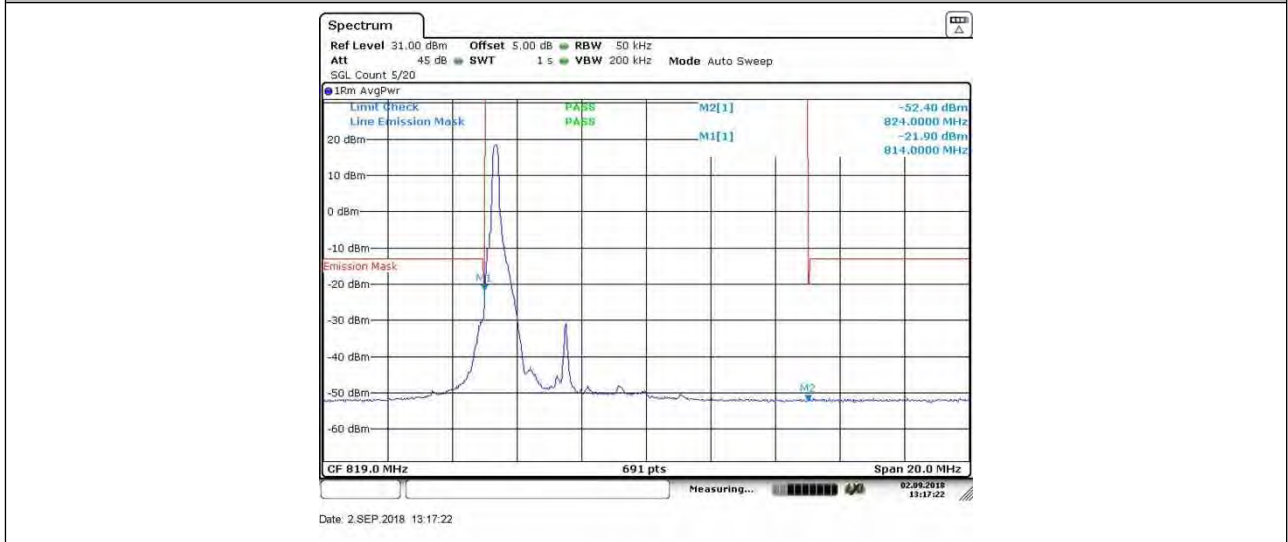
BAND 26\_3MHz\_64QAM\_26775\_1RB#14



BAND 26\_3MHz\_64QAM\_26775\_15RB#0



BAND 26\_5MHz\_QPSK\_26715\_1RB#0

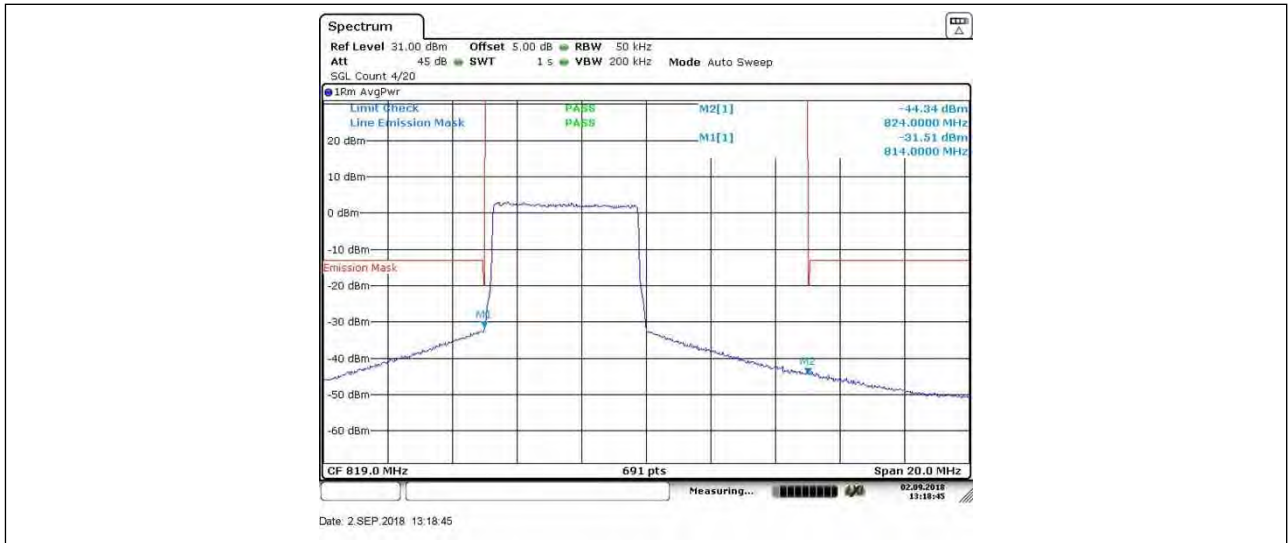


BAND 26\_5MHz\_QPSK\_26715\_25RB#0

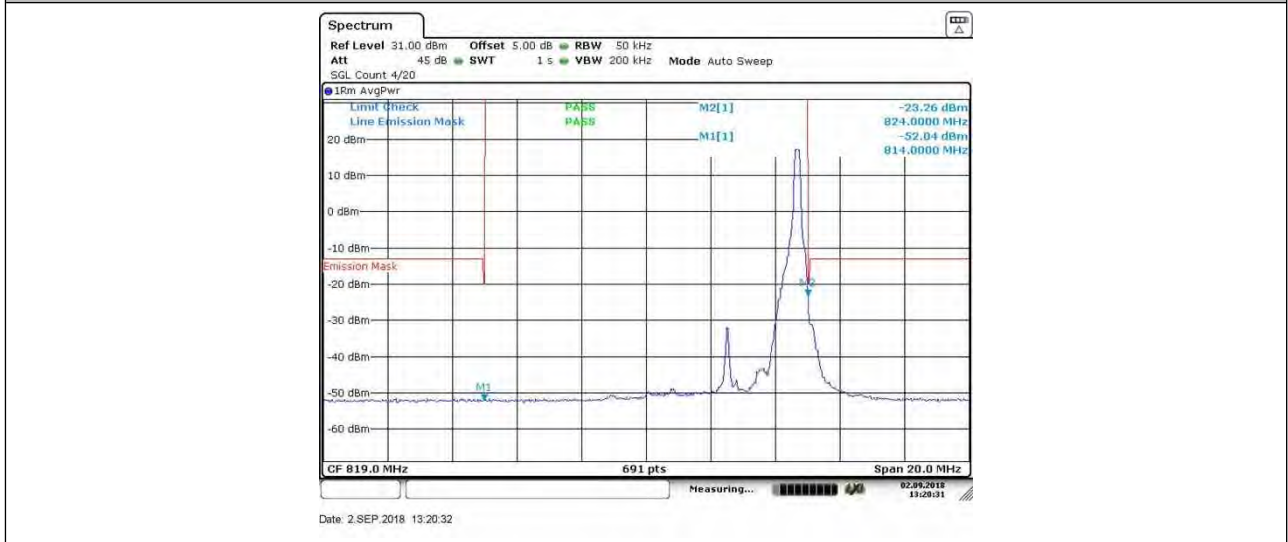


BAND 26\_5MHz\_QPSK\_26765\_1RB#24

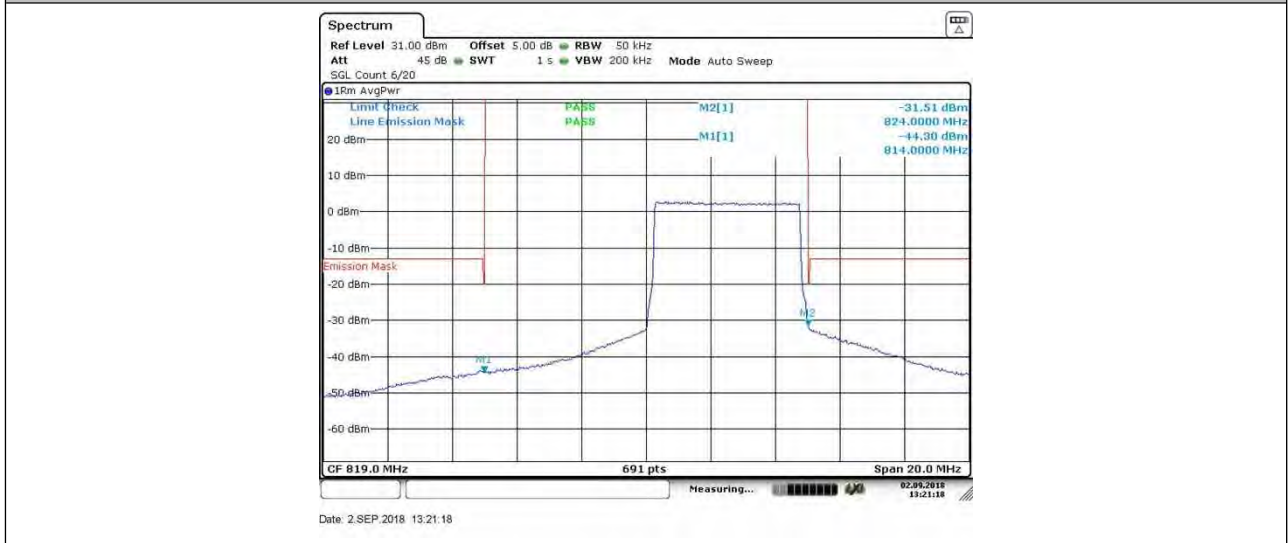




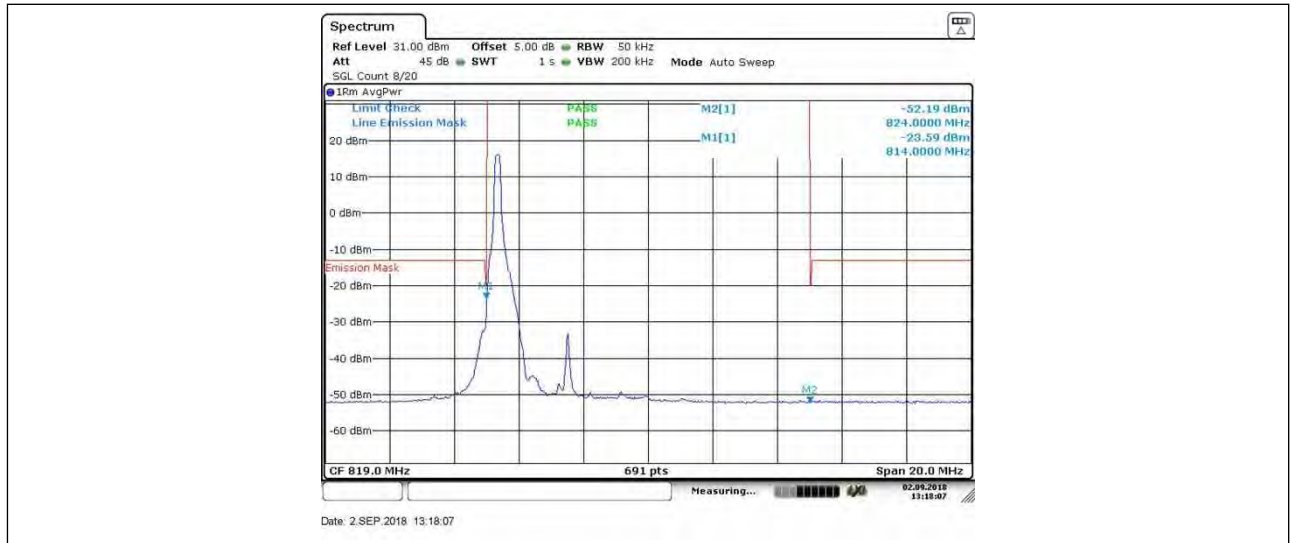
BAND 26\_5MHz\_16QAM\_26765\_1RB#24



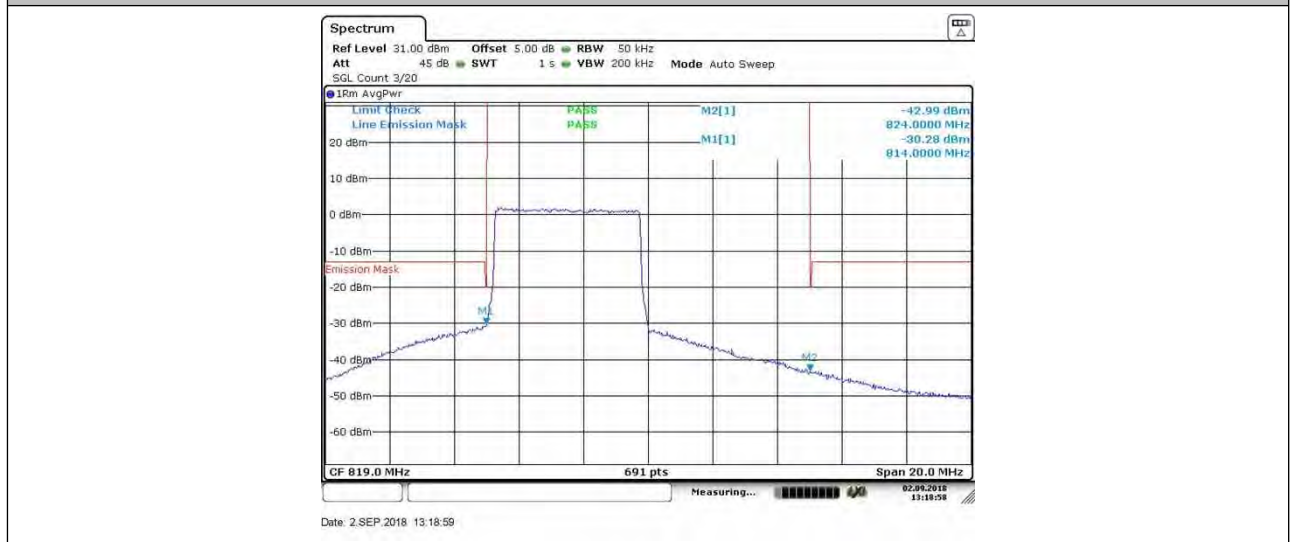
BAND 26\_5MHz\_16QAM\_26765\_25RB#0



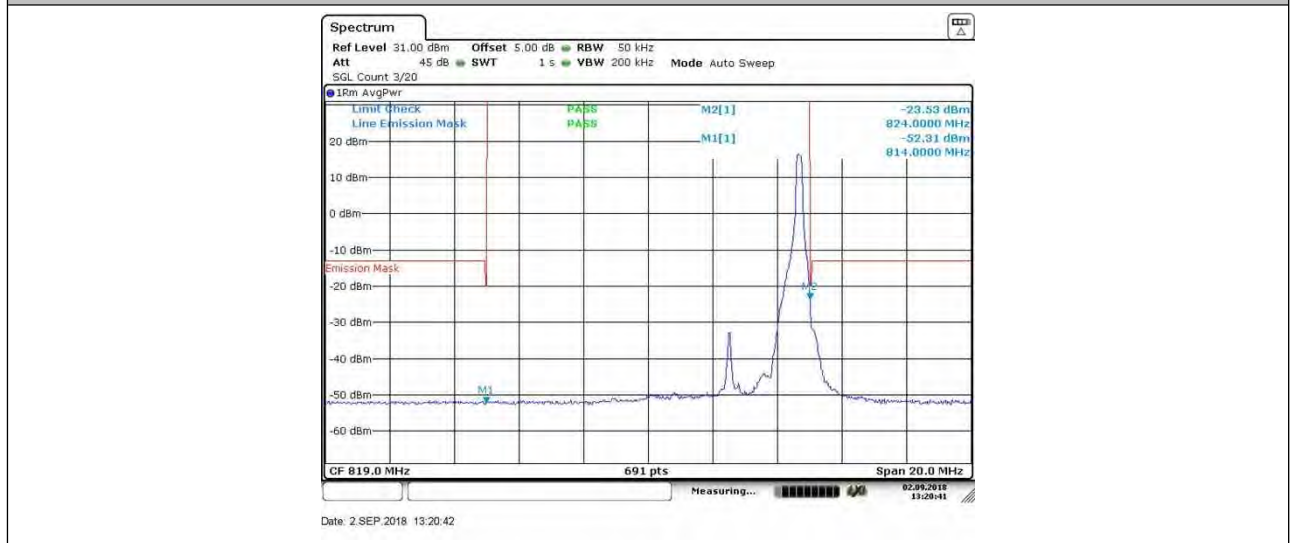
BAND 26\_5MHz\_64QAM\_26715\_1RB#0



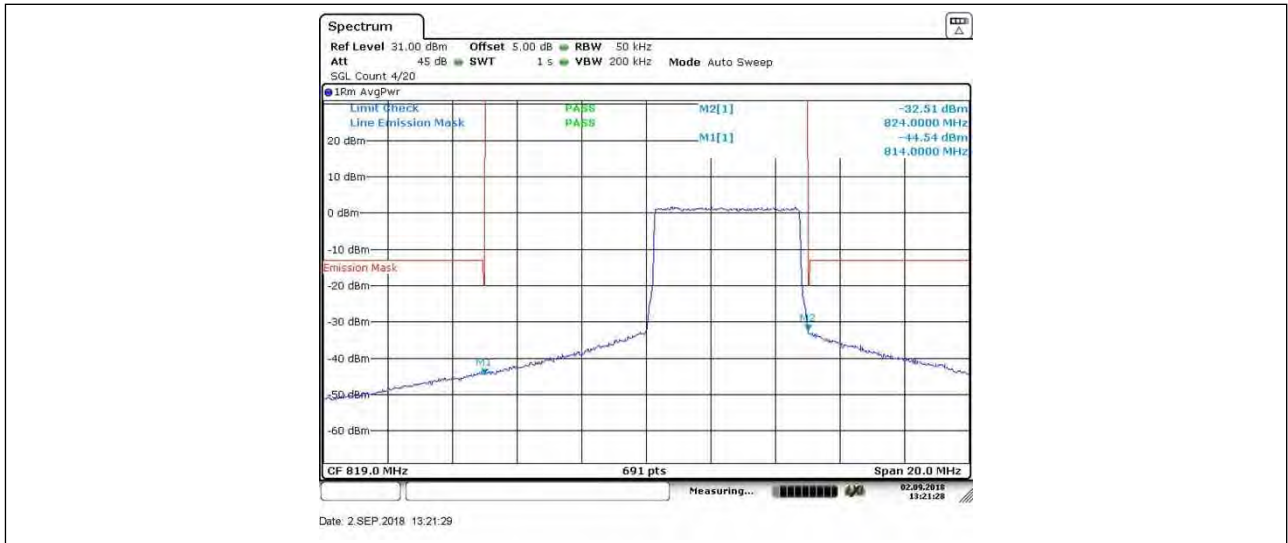
BAND 26\_5MHz\_64QAM\_26715\_25RB#0



BAND 26\_5MHz\_64QAM\_26765\_1RB#24



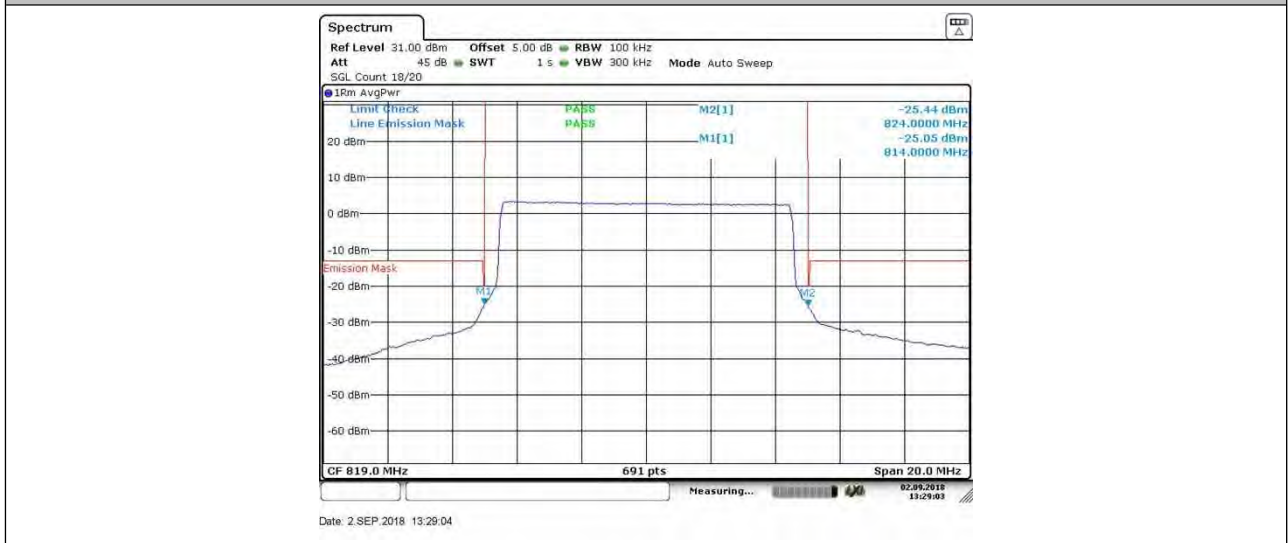
BAND 26\_5MHz\_64QAM\_26765\_25RB#0



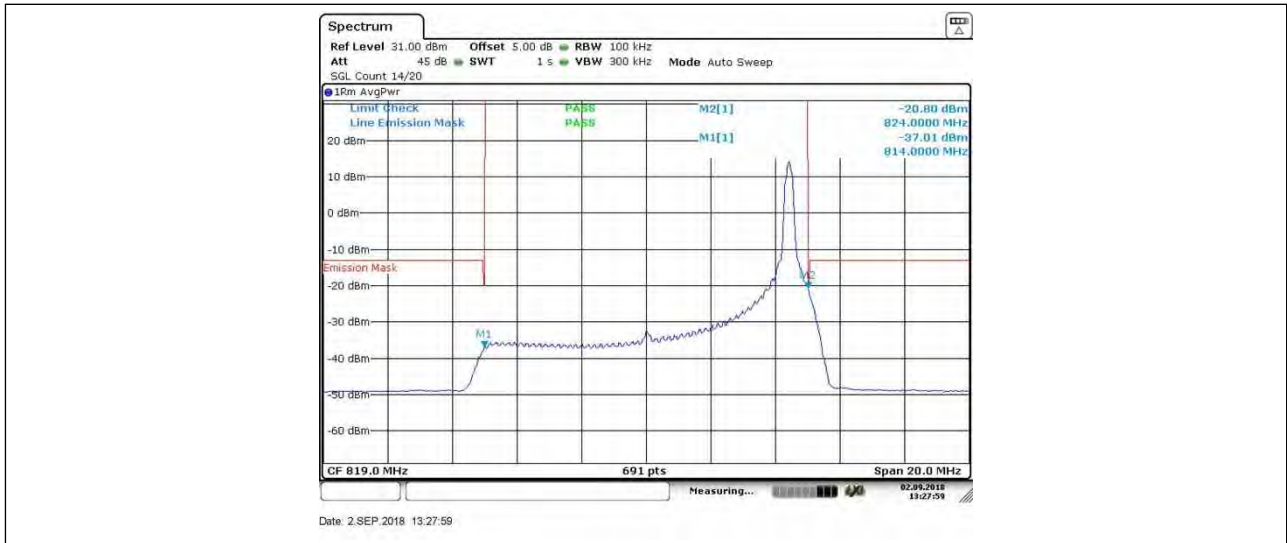
BAND 26\_10MHz\_QPSK\_26740\_1RB#0



BAND 26\_10MHz\_QPSK\_26740\_50RB#0



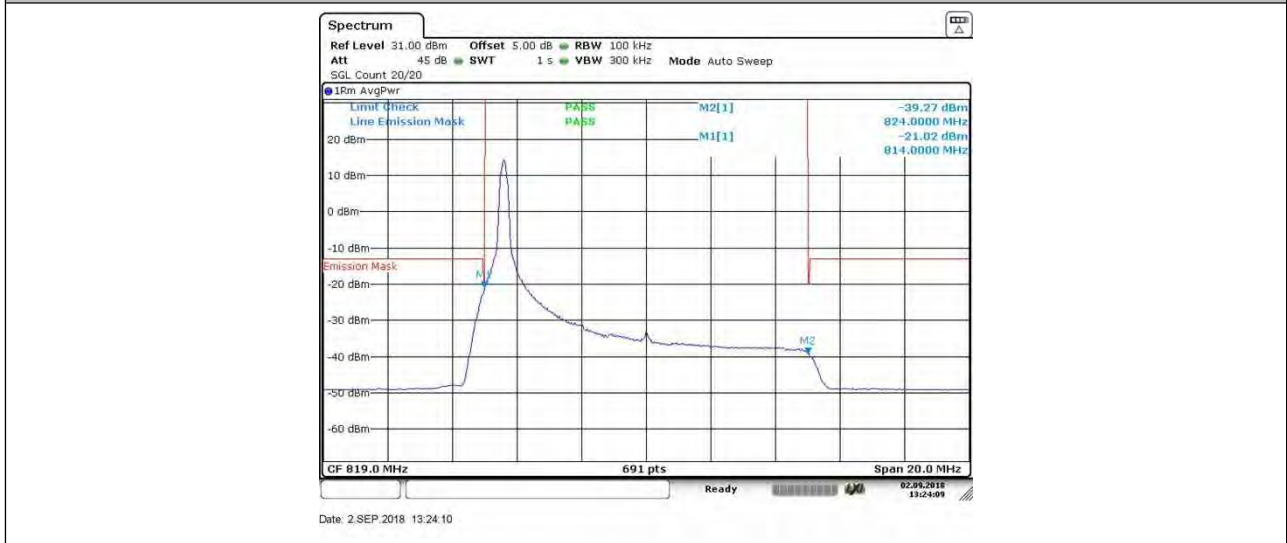
BAND 26\_10MHz\_QPSK\_26740\_1RB#49



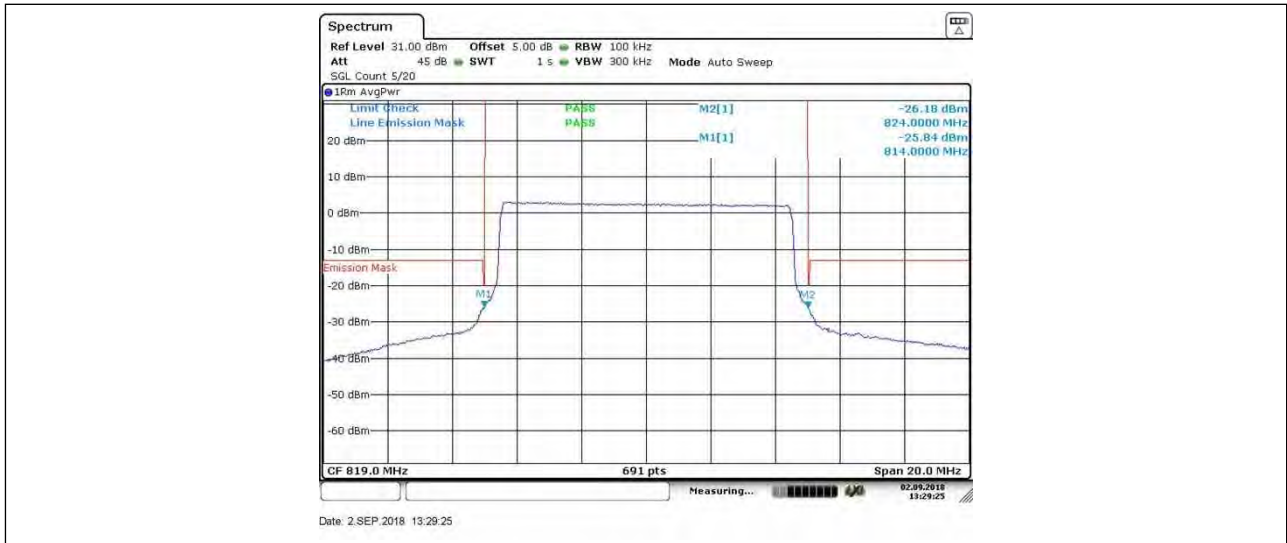
BAND 26\_10MHz\_QPSK\_26740\_50RB#0



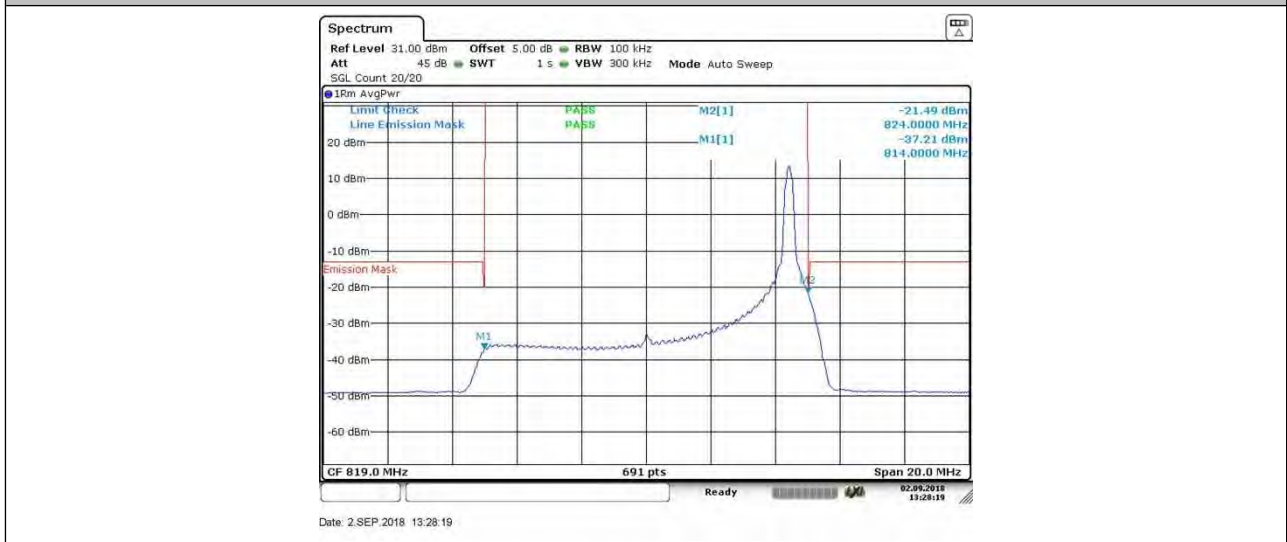
BAND 26\_10MHz\_16QAM\_26740\_1RB#0



BAND 26\_10MHz\_16QAM\_26740\_50RB#0



BAND 26\_10MHz\_16QAM\_26740\_1RB#49

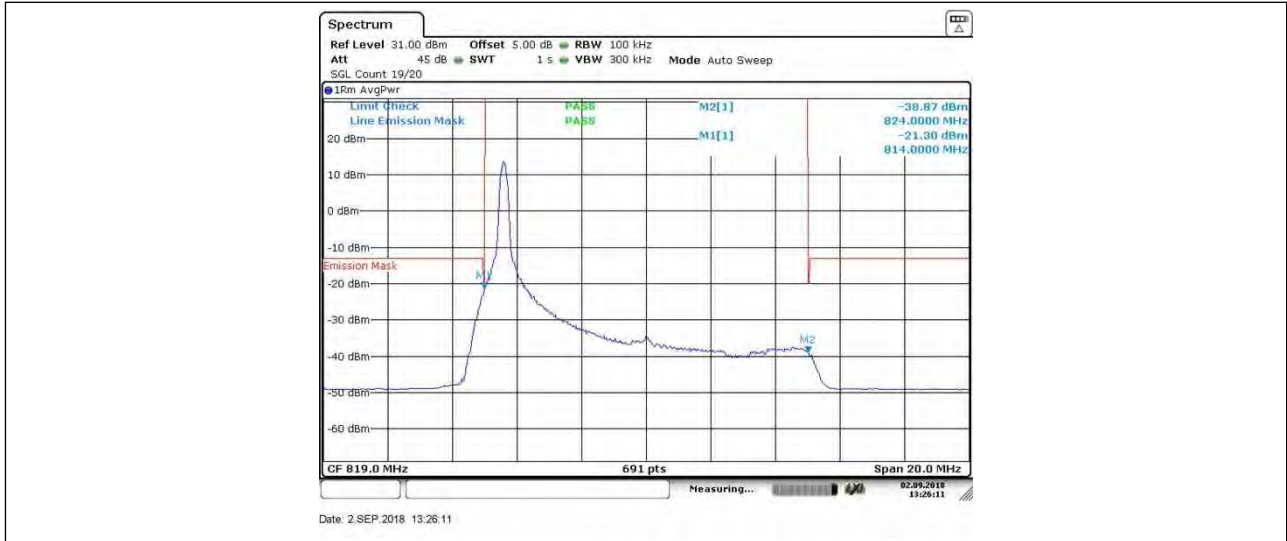


BAND 26\_10MHz\_16QAM\_26740\_50RB#0



BAND 26\_10MHz\_64QAM\_26740\_1RB#0

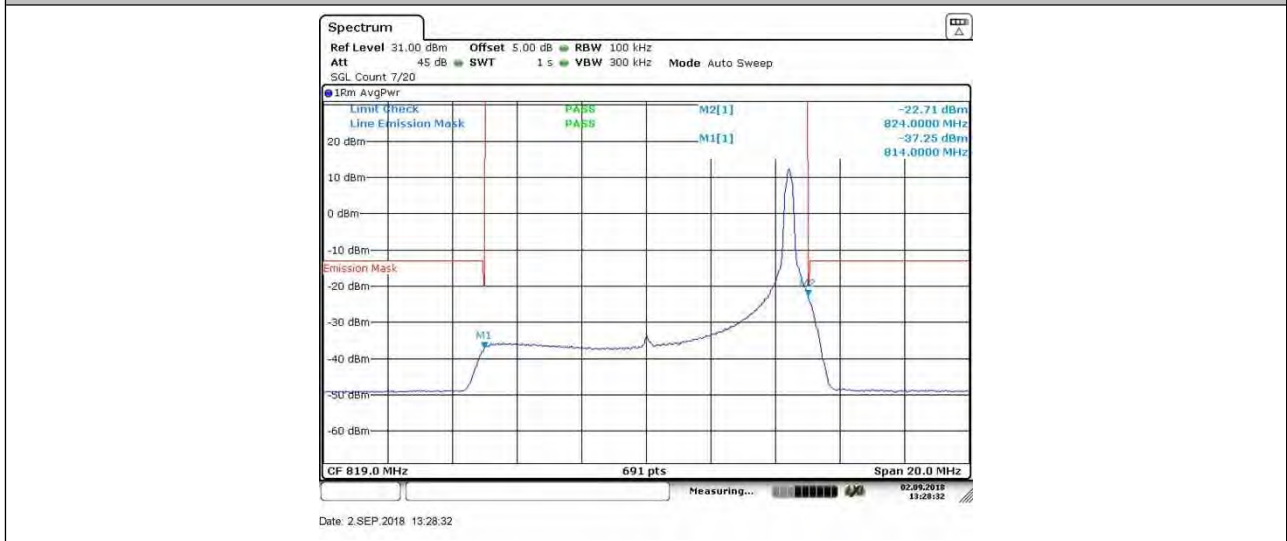




BAND 26\_10MHz\_64QAM\_26740\_50RB#0



BAND 26\_10MHz\_64QAM\_26740\_1RB#49



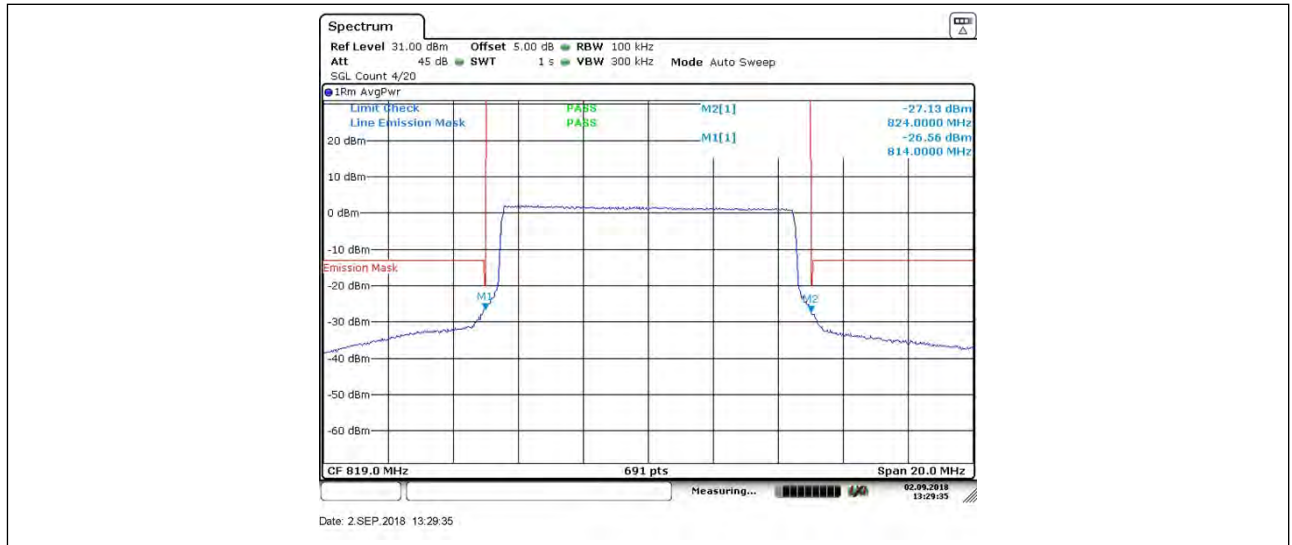
BAND 26\_10MHz\_64QAM\_26740\_50RB#0



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

Report No.: SZEM180500437001

Page: 42 of 47

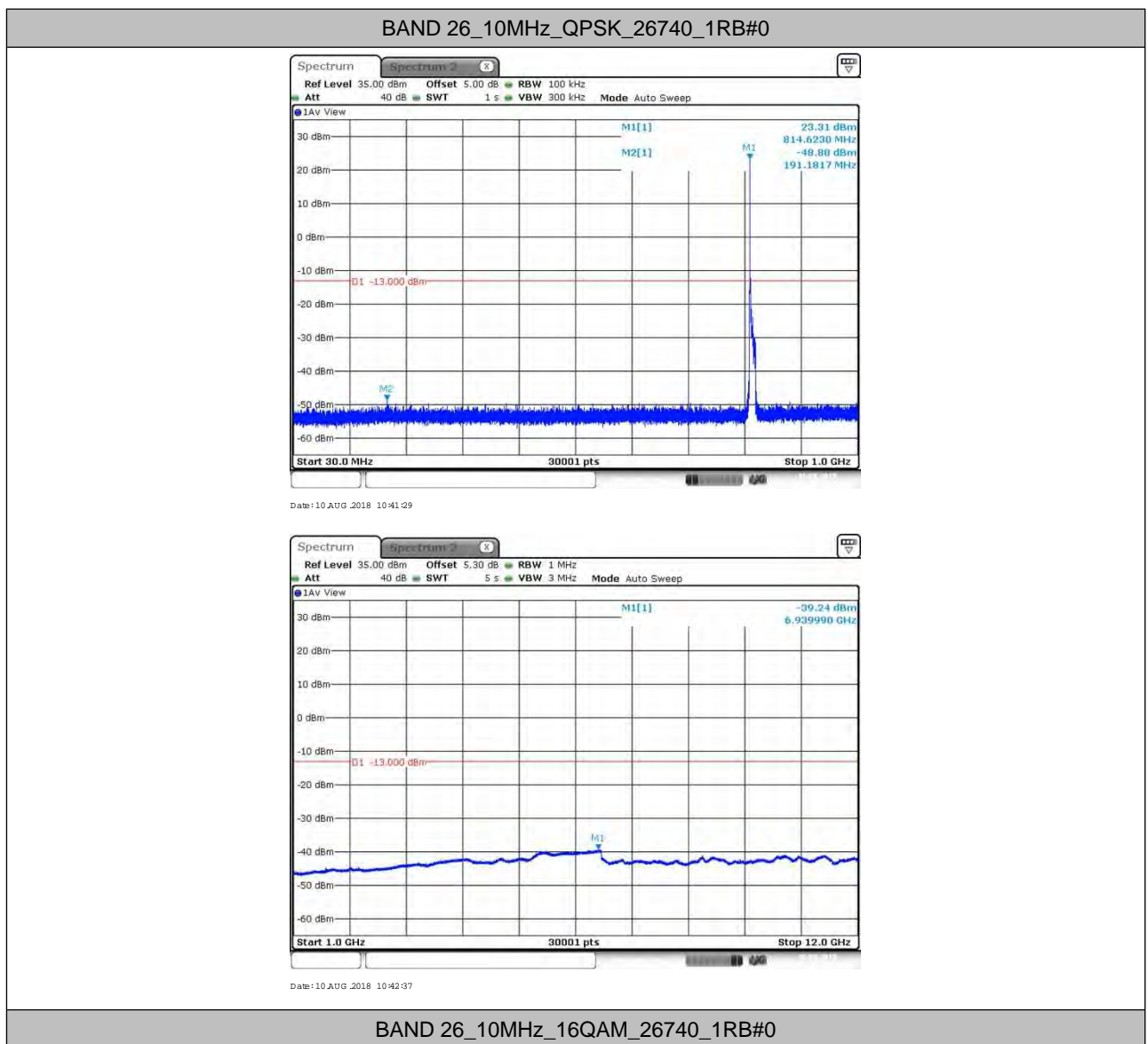


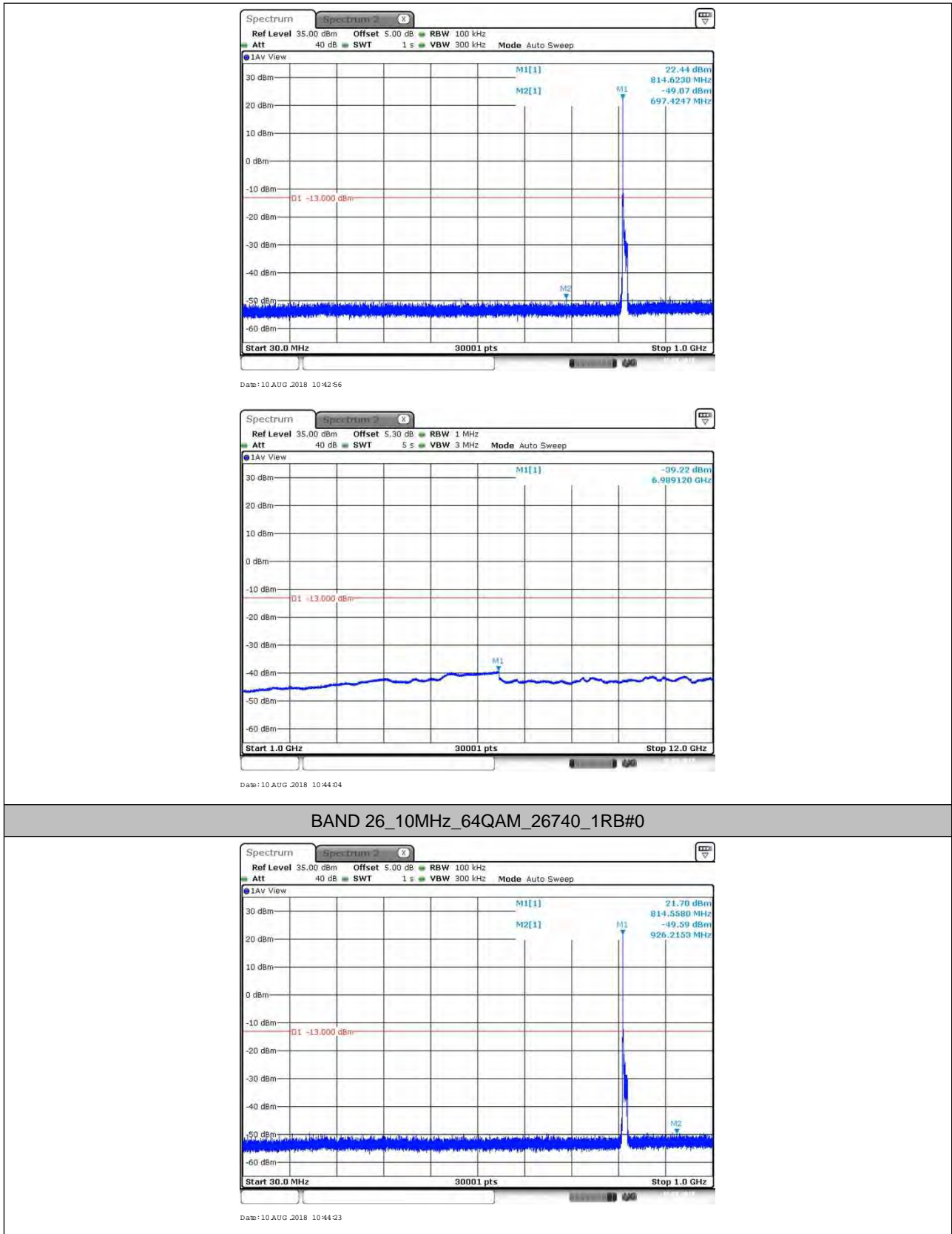
## 6. Spurious Emission at Antenna Terminal

NOTE1: 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.

NOTE2: only the worst case data displayed in this report.

### 6.1. Test Plots





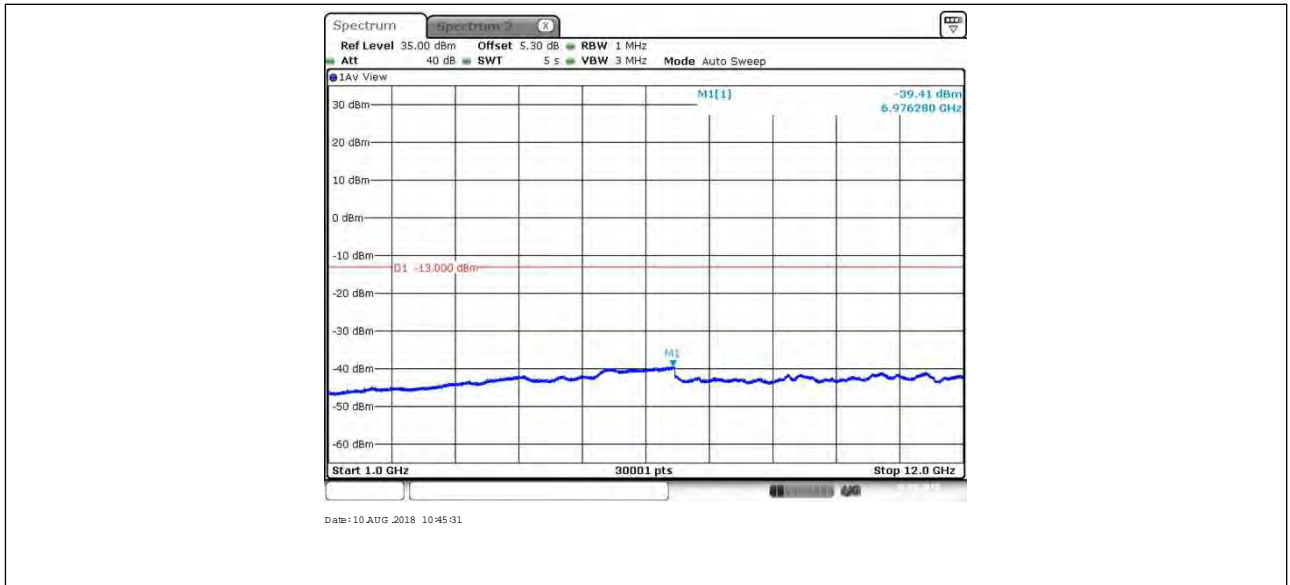
BAND 26\_10MHz\_64QAM\_26740\_1RB#0



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

Report No.: SZEM180500437001

Page: 45 of 47





## 7. Field Strength of Spurious Radiation

### 7.1. Test BAND = LTE BAND 26

#### 7.1.1. Test Mode = LTE/TM1 10MHz RB1#0

##### 7.1.1.1. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.953333	-81.84	-13.00	68.84	Vertical
90.480000	-81.94	-13.00	68.94	Vertical
1629.000000	-65.49	-13.00	52.49	Vertical
2757.500000	-58.11	-13.00	45.11	Vertical
4423.987500	-66.49	-13.00	53.49	Vertical
7922.287500	-63.97	-13.00	50.97	Vertical
63.786667	-78.02	-13.00	65.02	Horizontal
104.293333	-85.87	-13.00	72.87	Horizontal
1629.000000	-65.51	-13.00	52.51	Horizontal
4272.375000	-67.08	-13.00	54.08	Horizontal
6039.562500	-65.54	-13.00	52.54	Horizontal
9453.525000	-64.26	-13.00	51.26	Horizontal

#### NOTE:

- 1) All modes are tested, but the data presented above is the worst case. the disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
- 2) We have tested all modulation and all Bandwidth, but only the worst case data presented in this report.



## 8. Frequency Stability

### 8.1. Frequency Vs Voltage

Voltage										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
BAND26	10MHz	QPSK	26740	50RB#0	VL	NT	1.70	0.002076	±2.5	PASS
				50RB#0	VN	NT	3.20	0.003907	±2.5	PASS
				50RB#0	VH	NT	2.50	0.003053	±2.5	PASS
		16QAM	26740	50RB#0	VL	NT	1.80	0.002198	±2.5	PASS
				50RB#0	VN	NT	1.90	0.002320	±2.5	PASS
				50RB#0	VH	NT	3.20	0.003907	±2.5	PASS
		64QAM	26740	50RB#0	VL	NT	2.40	0.002930	±2.5	PASS
				50RB#0	VN	NT	1.70	0.002076	±2.5	PASS
				50RB#0	VH	NT	3.70	0.004518	±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
BAND26	10MHz	QPSK	26740	50RB#0	NV	-30	3.00	0.003663	±2.5	PASS
				50RB#0	NV	-20	1.60	0.001954	±2.5	PASS
				50RB#0	NV	0	3.60	0.004396	±2.5	PASS
				50RB#0	NV	10	2.30	0.002808	±2.5	PASS
				50RB#0	NV	20	3.60	0.004396	±2.5	PASS
		16QAM	26740	50RB#0	NV	-30	4.20	0.005128	±2.5	PASS
				50RB#0	NV	-20	1.90	0.002320	±2.5	PASS
				50RB#0	NV	0	2.00	0.002442	±2.5	PASS
				50RB#0	NV	10	3.60	0.004396	±2.5	PASS
				50RB#0	NV	20	1.00	0.001221	±2.5	PASS
		64QAM	26740	50RB#0	NV	-30	1.70	0.002076	±2.5	PASS
				50RB#0	NV	-20	2.30	0.002808	±2.5	PASS
				50RB#0	NV	0	3.10	0.003785	±2.5	PASS
				50RB#0	NV	10	1.80	0.002198	±2.5	PASS
				50RB#0	NV	20	0.60	0.000733	±2.5	PASS

The End