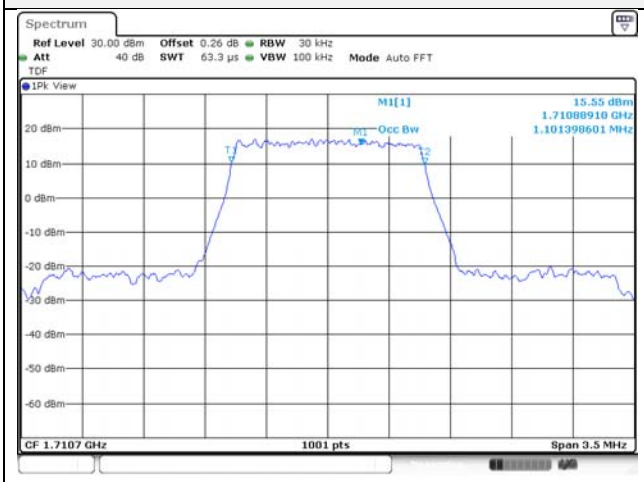
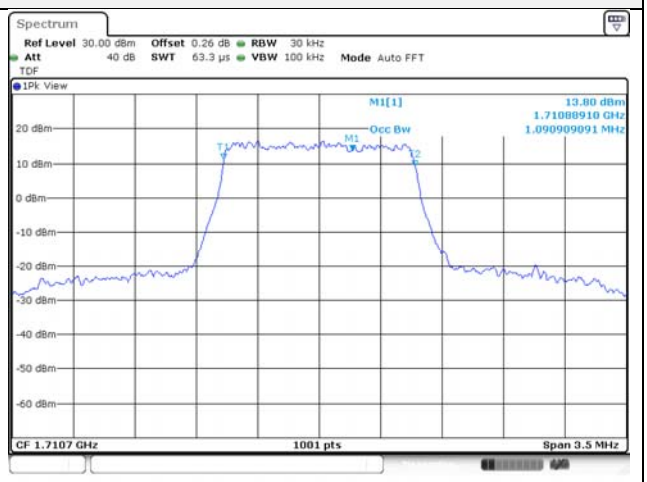
Test mode: LTE Band 66/4

1.4M BW QPSK Low ch.



1.4M BW 16QAM Low ch.



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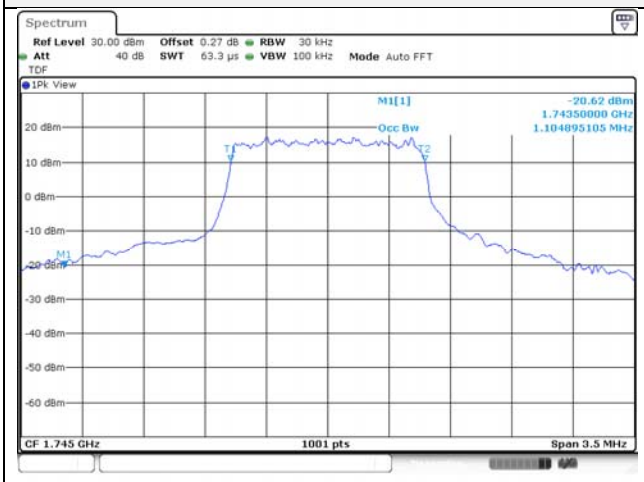
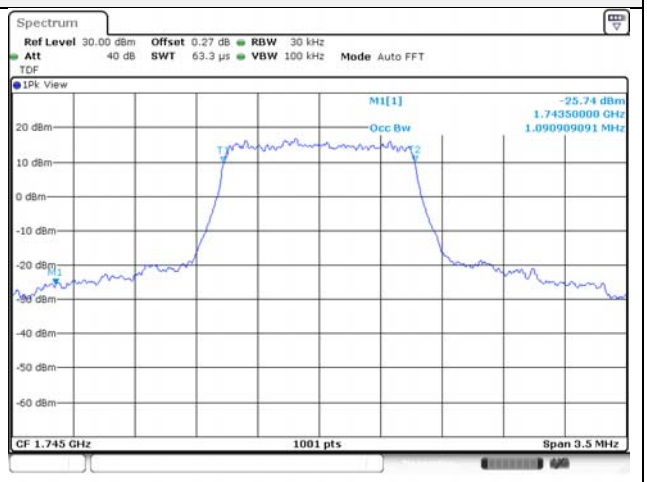


1.4M BW 16QAM Mid ch.



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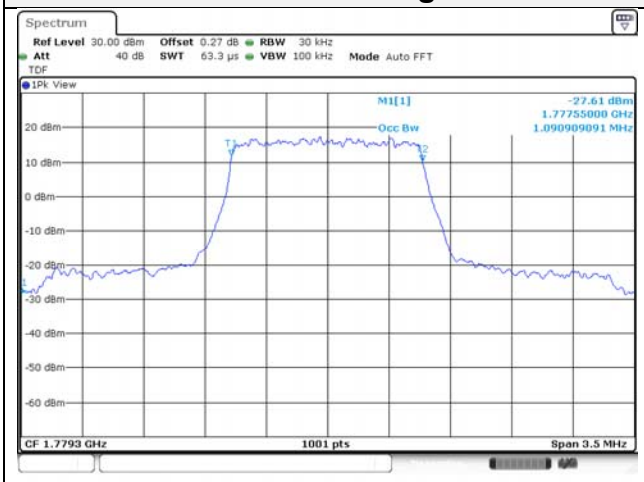
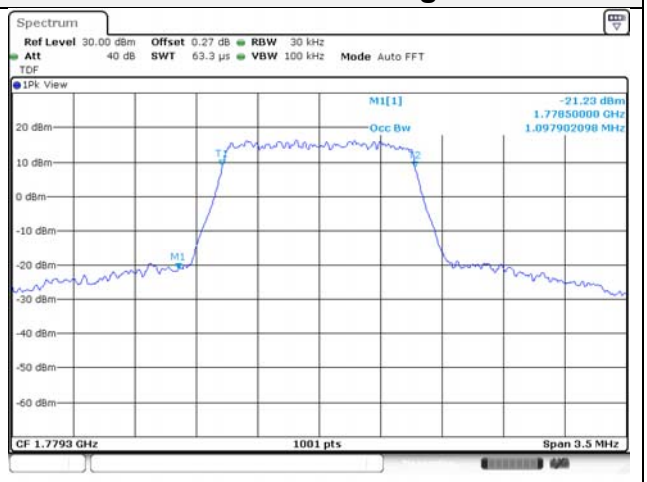
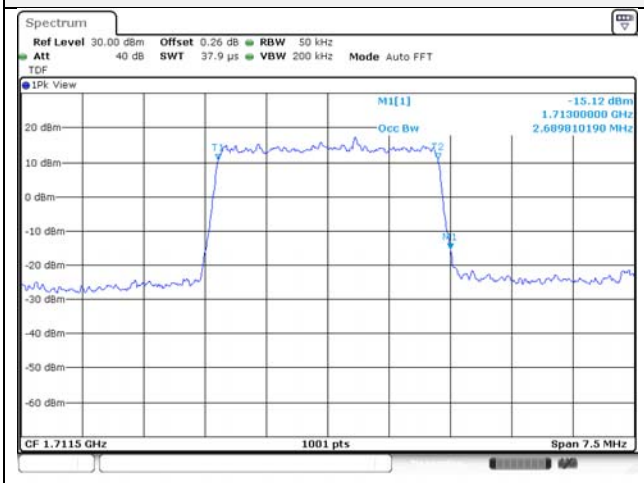


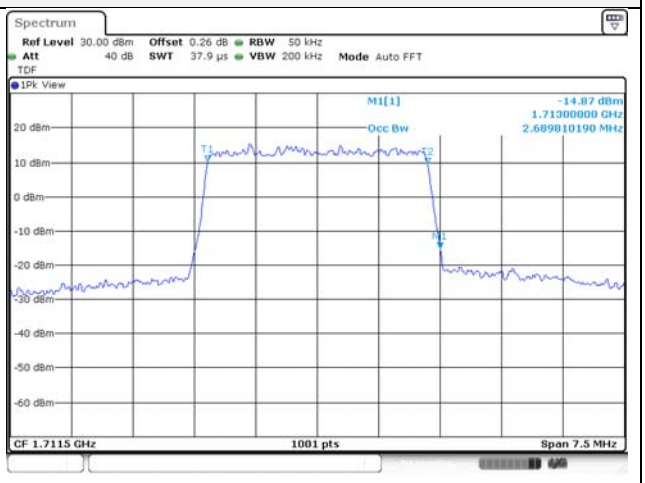
1.4M BW 16QAM High ch.



3M BW QPSK Low ch.



3M BW 16QAM Low ch.



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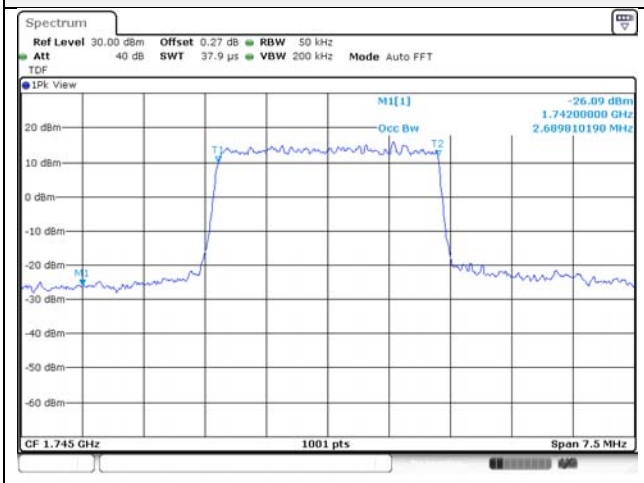

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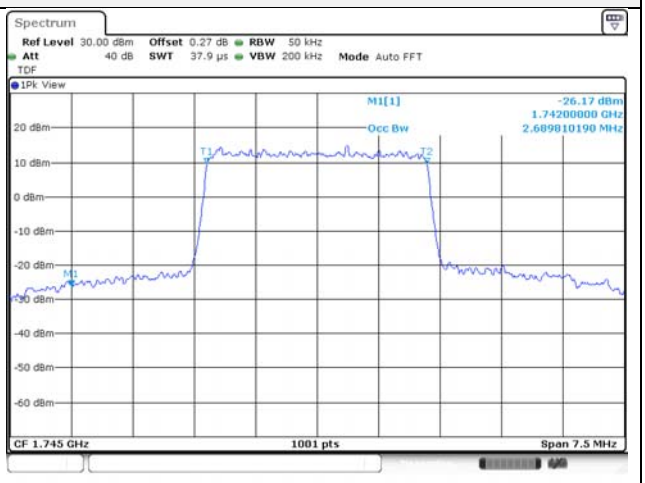

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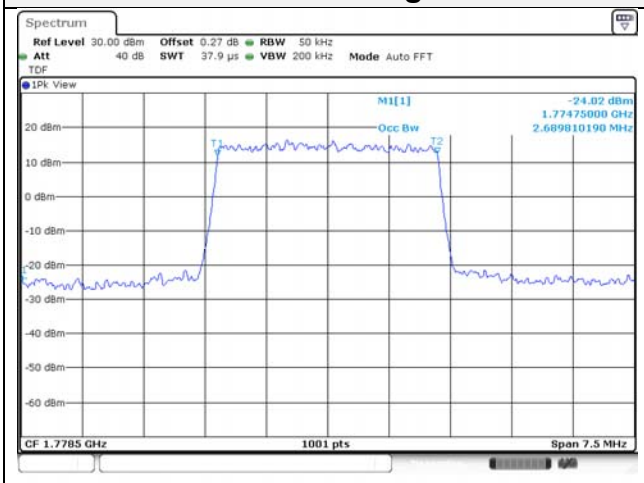

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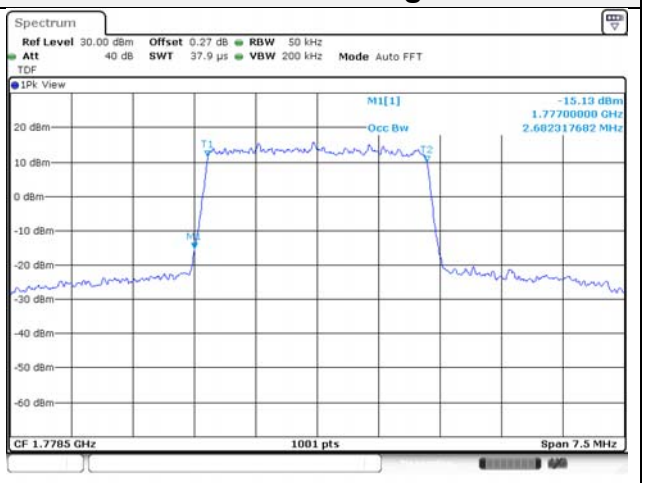
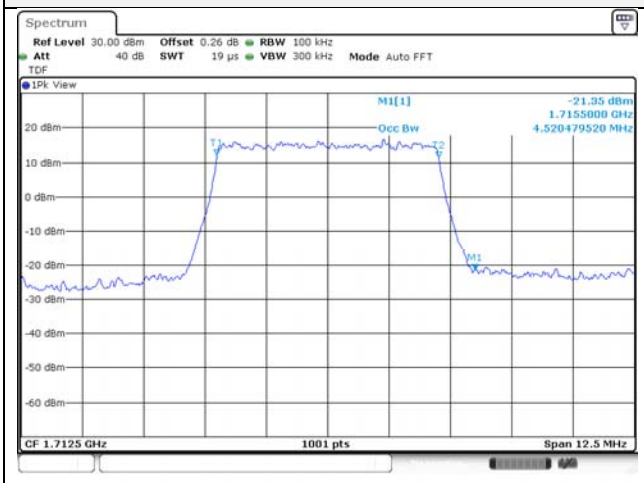
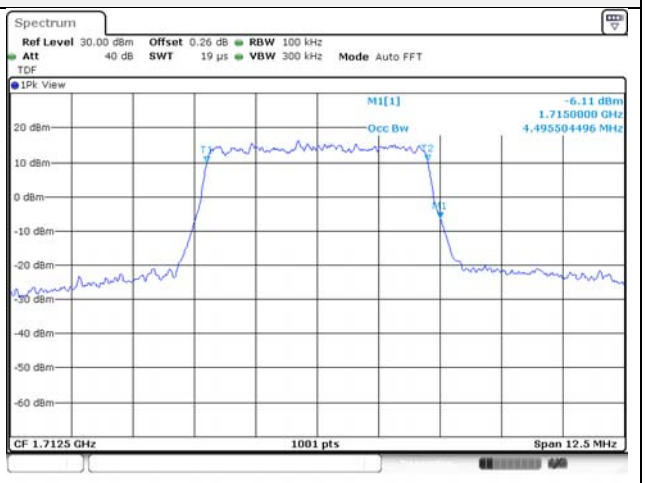


5M BW QPSK Low ch.	5M BW 16QAM Low ch.
	
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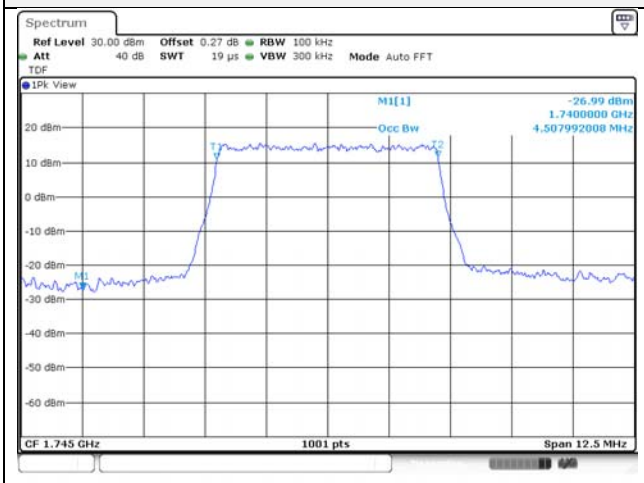	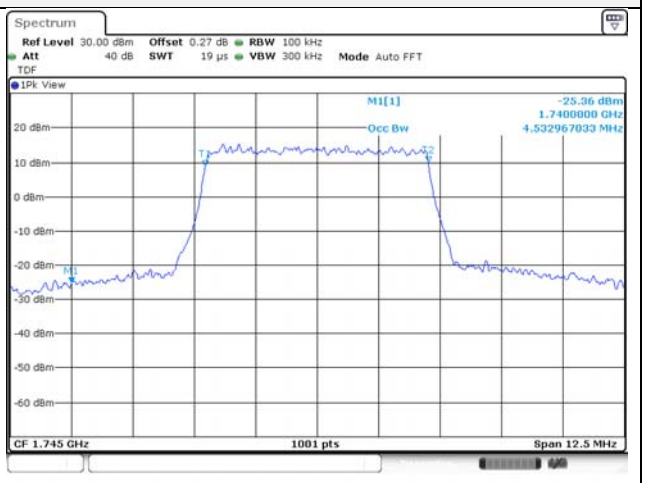
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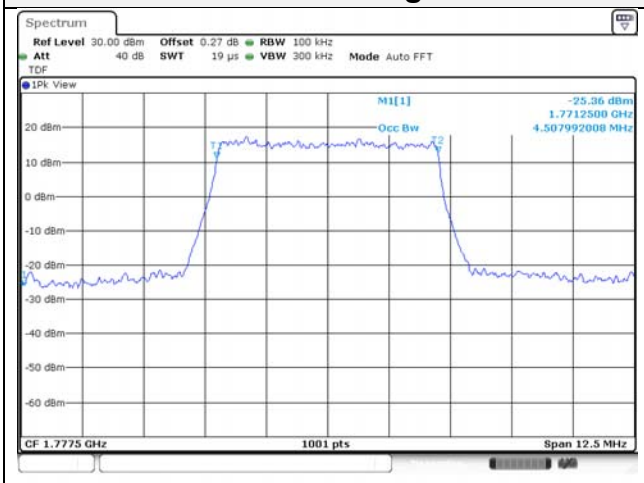
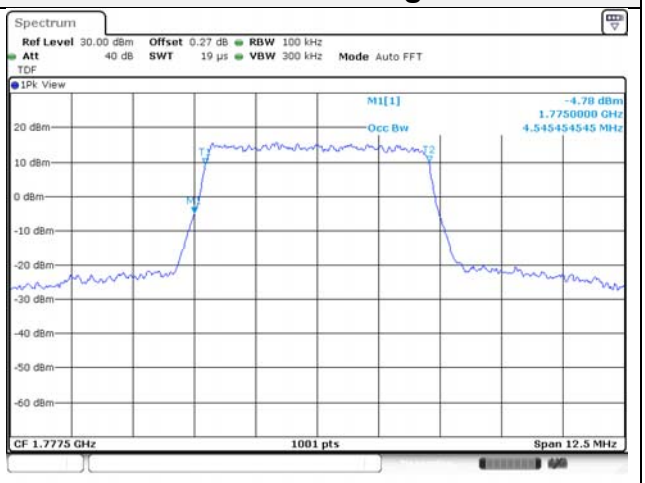
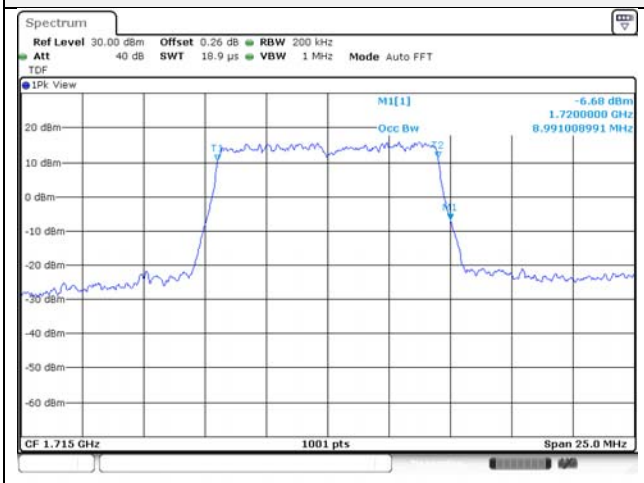
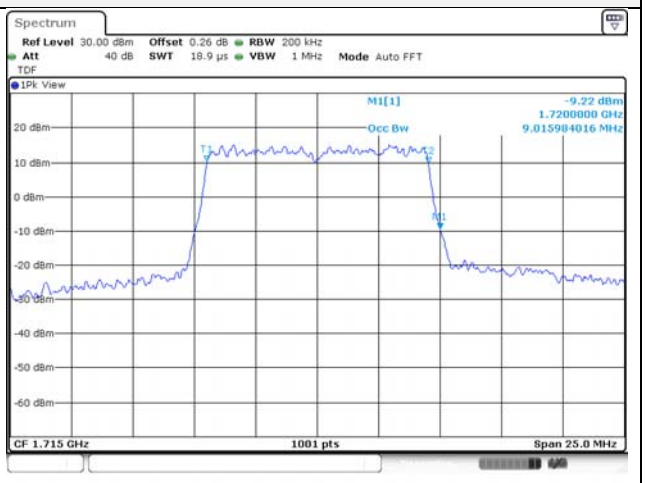
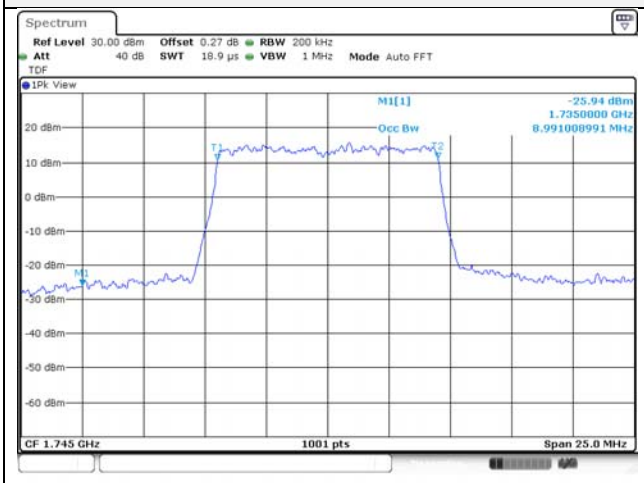
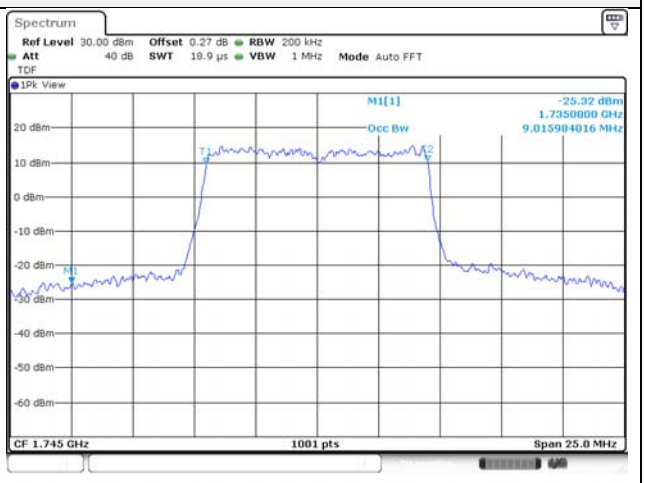
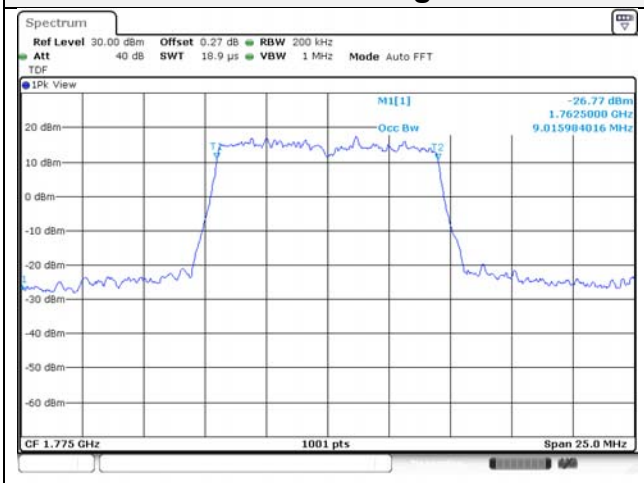
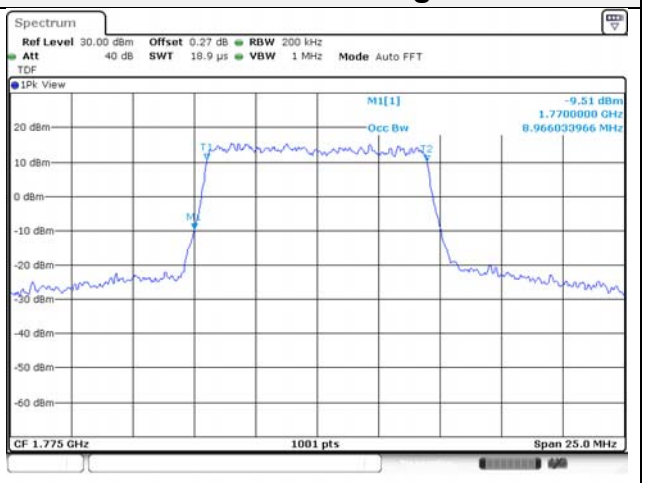
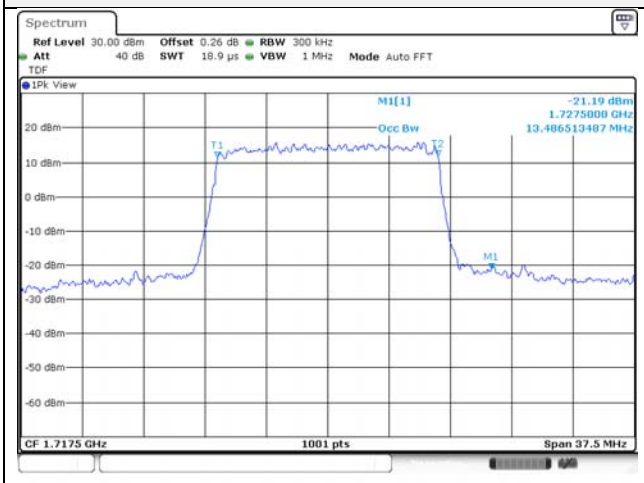
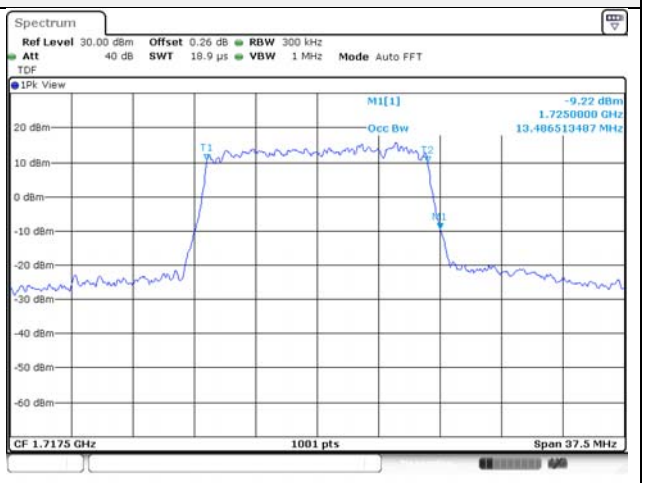
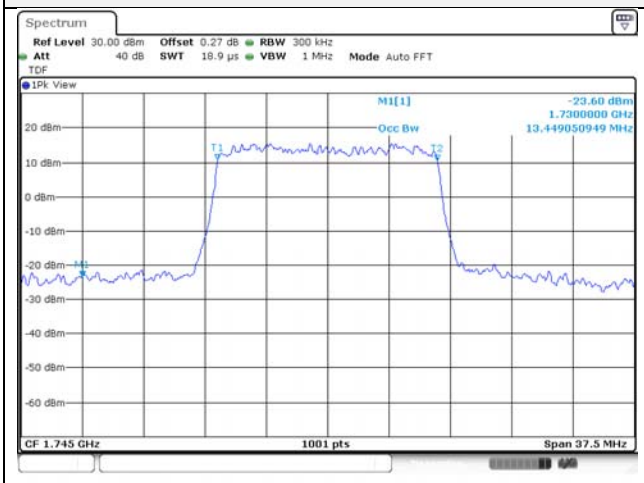
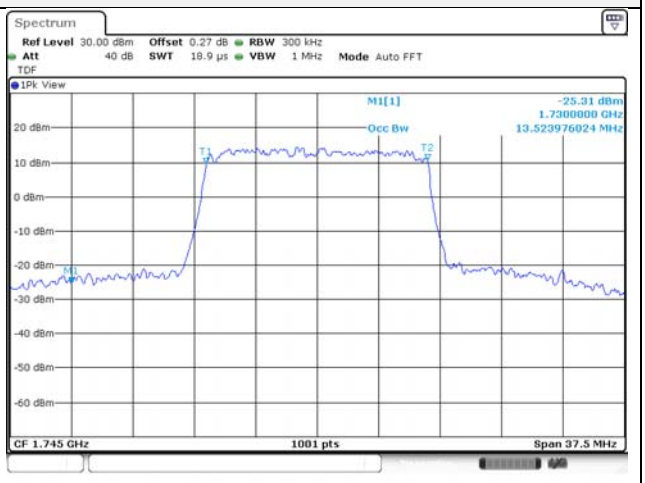
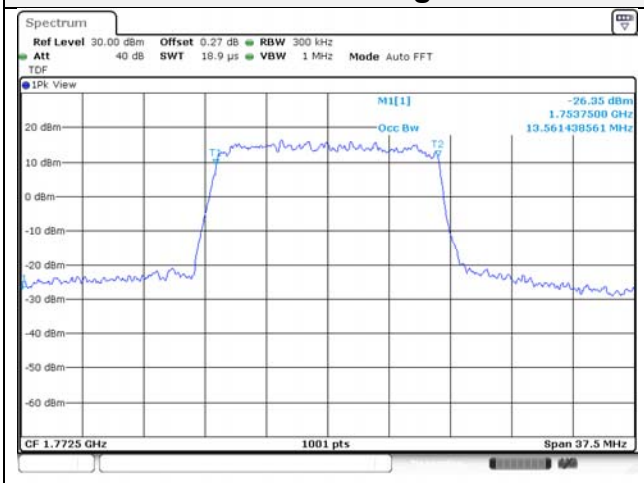
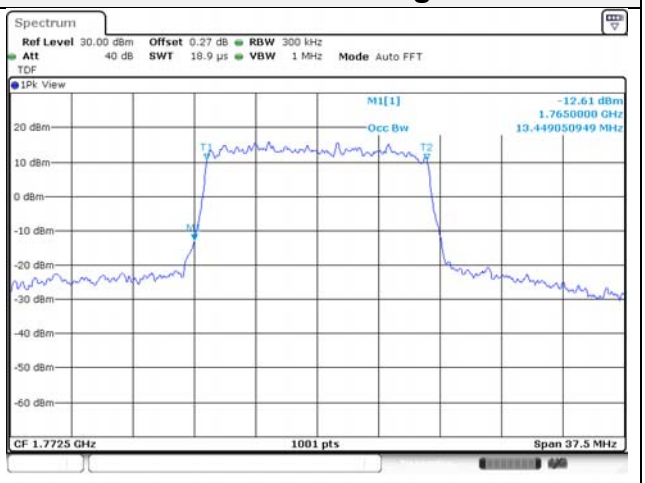
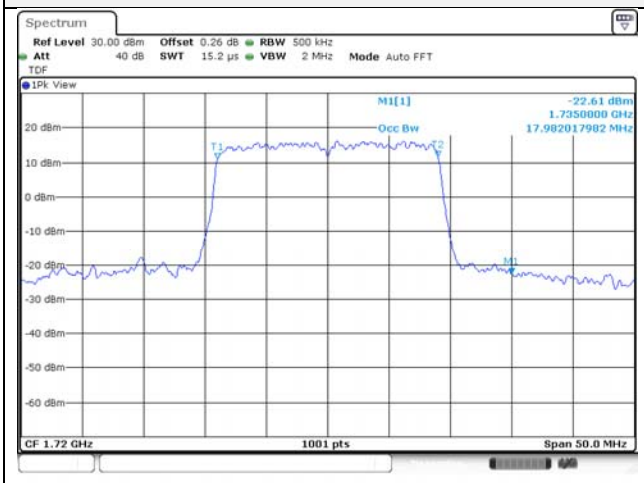
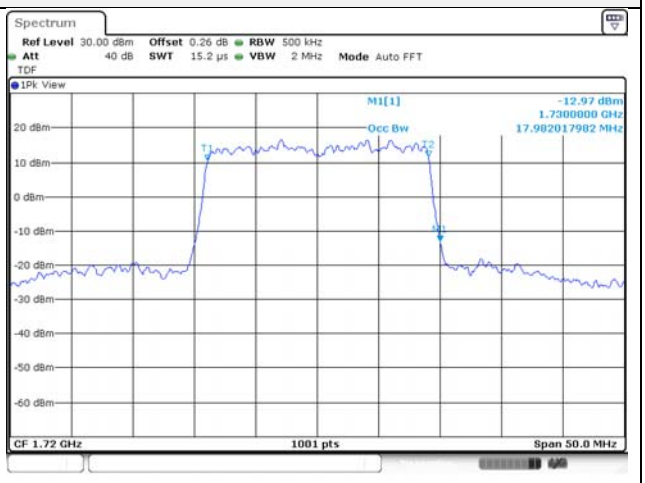
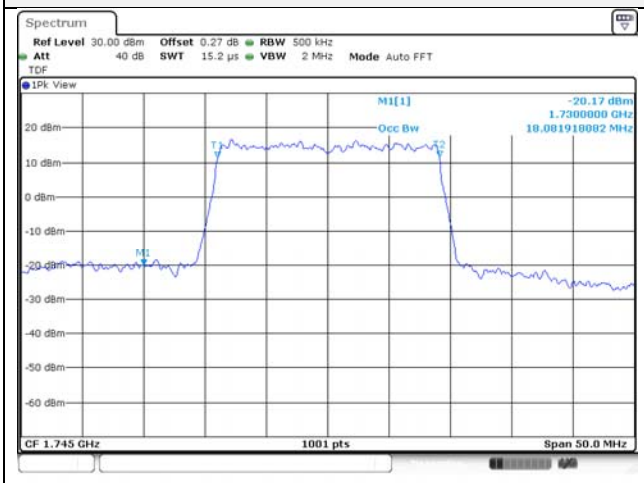
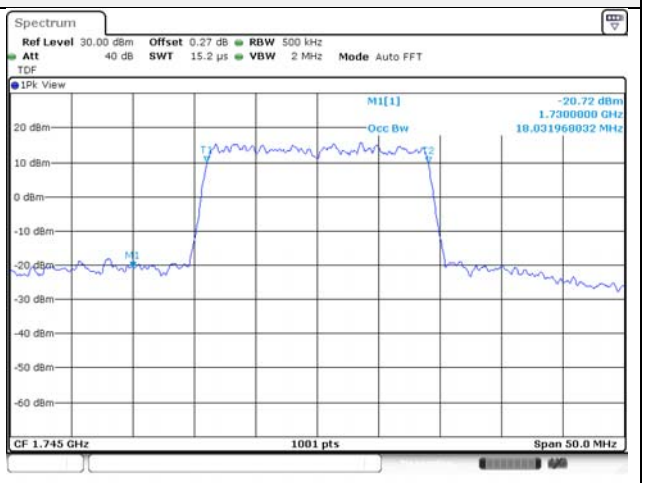
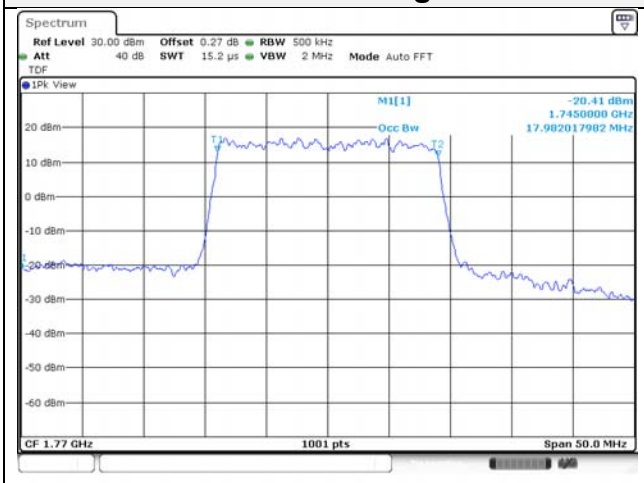
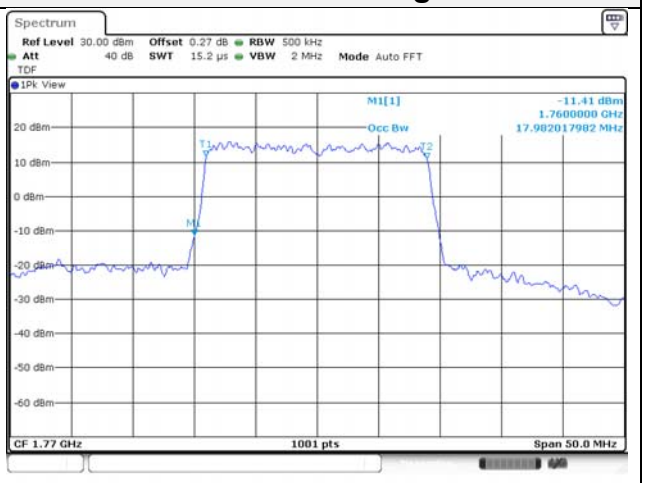
	

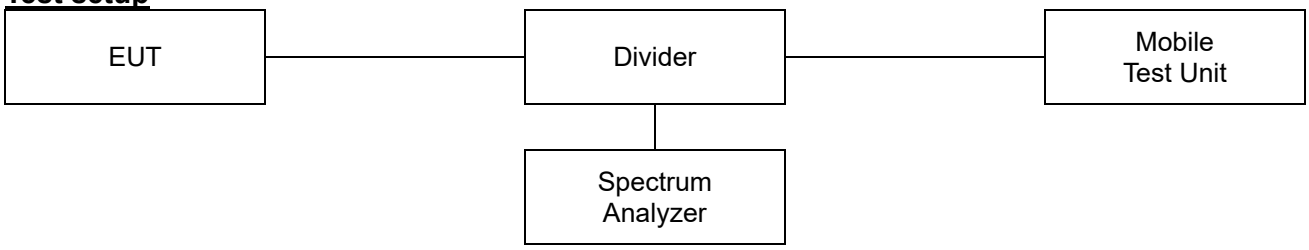
10M BW QPSK Low ch.	10M BW 16QAM Low ch.
	
10M BW QPSK Mid ch.	**10M BW 16QAM Mid ch.**
	
10M BW QPSK High ch.	**10M BW 16QAM High ch.**
	

15M BW QPSK Low ch.	15M BW 16QAM Low ch.
	
15M BW QPSK Mid ch.	**15M BW 16QAM Mid ch.**
	
15M BW QPSK High ch.	**15M BW 16QAM High ch.**
	

20M BW QPSK Low ch.	20M BW 16QAM Low ch.
	
20M BW QPSK Mid ch.	**20M BW 16QAM Mid ch.**
	
20M BW QPSK High ch.	**20M BW 16QAM High ch.**
	

7.3. Spurious Emissions at Antenna Terminal

Test setup



Limit

According to §22.917(a), §24.238(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10log($P_{[Watts]}$) ㏈.

According to §27.53(c)(2), on any frequency outside the 776-788 ㎒ band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10log($P_{[Watts]}$) ㏈.

According to §27.53(g), for operations in the 600 ㎒ band and the 698-746 ㎒ band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10log($P_{[Watts]}$) ㏈.

According to §27.53(h), the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10log($P_{[Watts]}$) ㏈.

According to §27.53(m)(4), the minimum permissible attenuation level of any spurious emission is 55 + 10log($P_{[Watts]}$) ㏈.

Test procedure

971168 D01 v03r01 - Section 6
ANSI 63.26-2015 – Section 5.7

Test settings

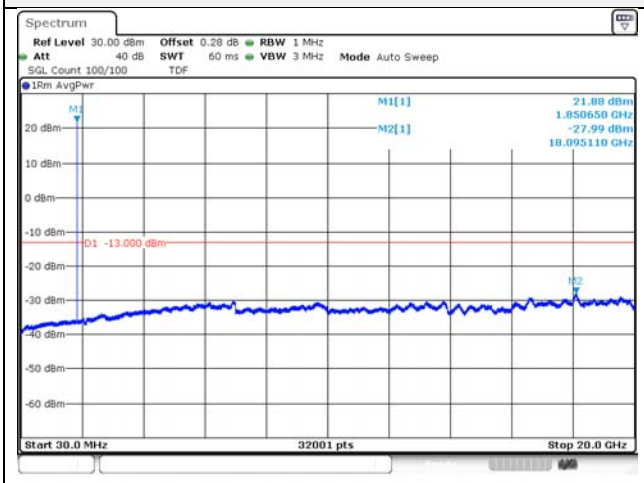
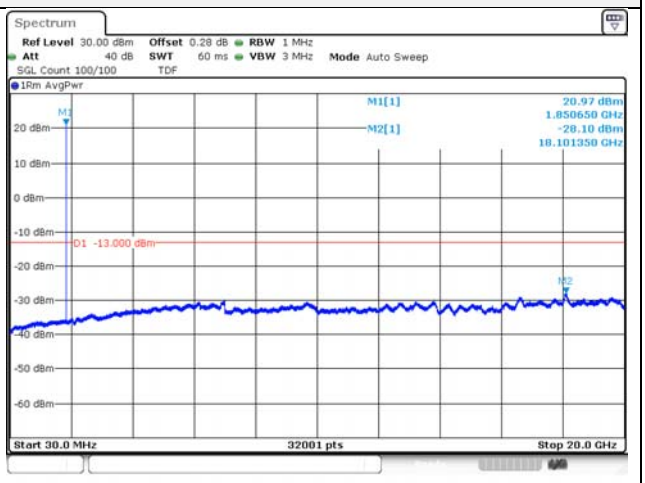
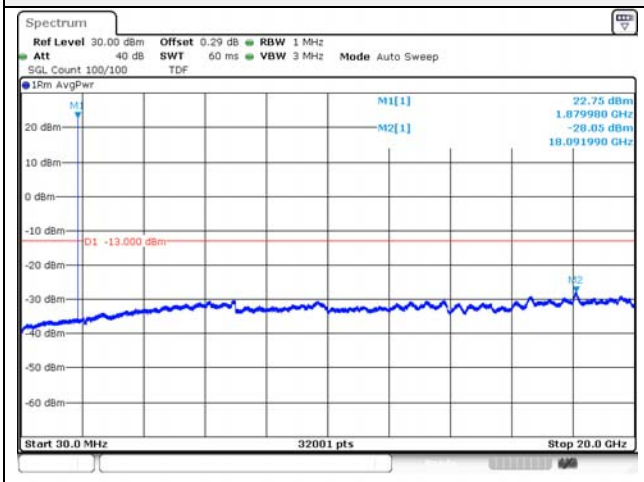
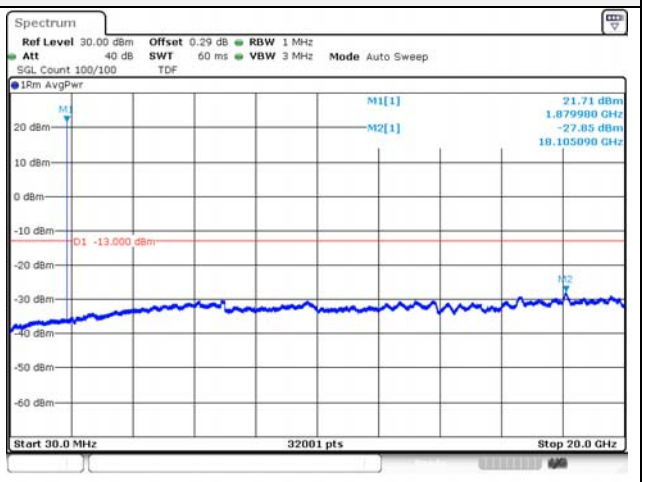
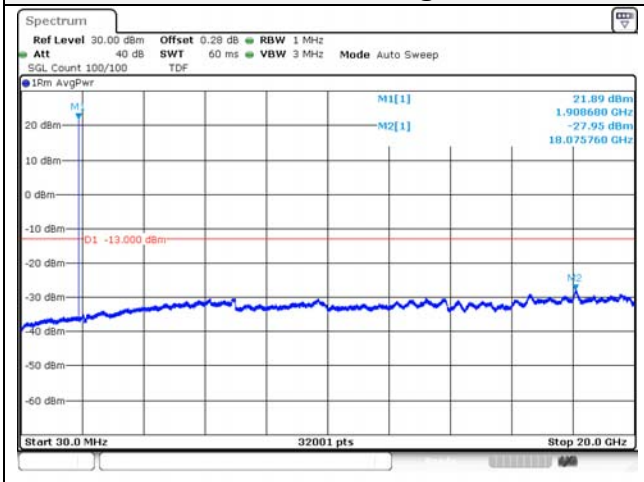
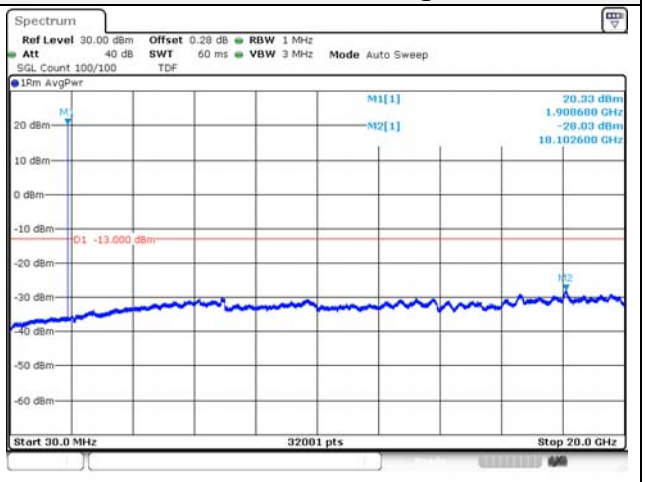
1) Start frequency was set to 30 ㎒ and stop frequency was set to at least 10th the fundamental frequency.
2) Detector = RMS
3) Sweep time = auto couple.
4) Trace mode = trace average
5) Allow trace to fully stabilize.
6) Please see test notes below RBW and VBW settings.

Notes:

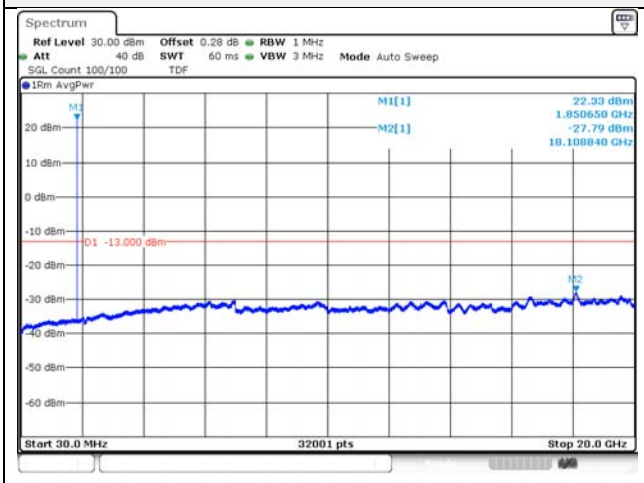
1. Per 22.917(b), 24.238(b), 27.53(c), 27.53(h)(3), 27.53(g) and 27.53(m)(6), compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 100 ㎑ or greater for frequencies less than 1 ㎓ and 1 ㎒ or greater for frequencies greater than 1 ㎓. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 ㏈ below the transmitter power.

Test results

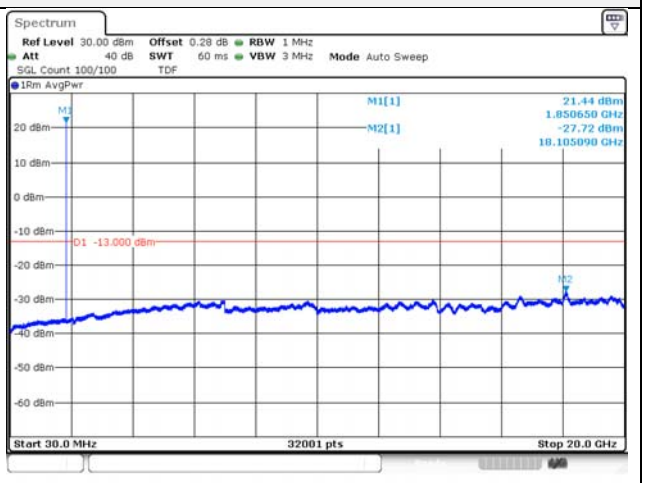
Test mode: LTE Band 2

1.4M BW QPSK Low ch.	1.4M BW 16QAM Low ch.
	
1.4M BW QPSK Mid ch.	**1.4M BW 16QAM Mid ch.**
	
1.4M BW QPSK High ch.	**1.4M BW 16QAM High ch.**
	

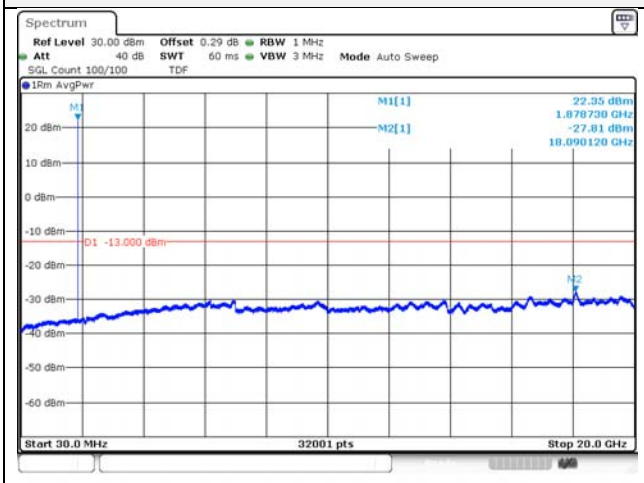
3M BW QPSK Low ch.



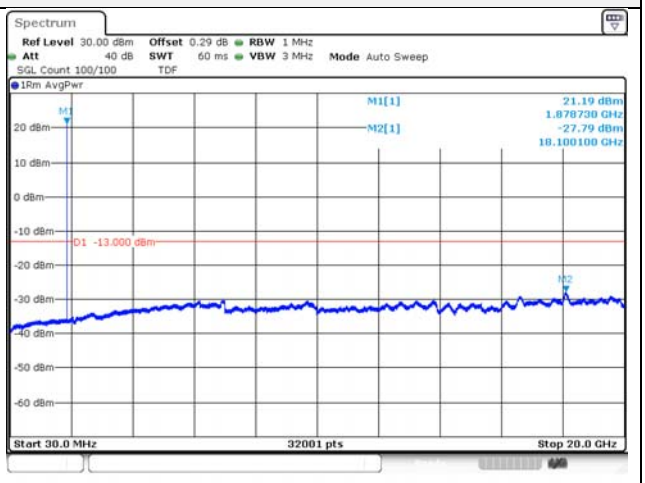
3M BW 16QAM Low ch.



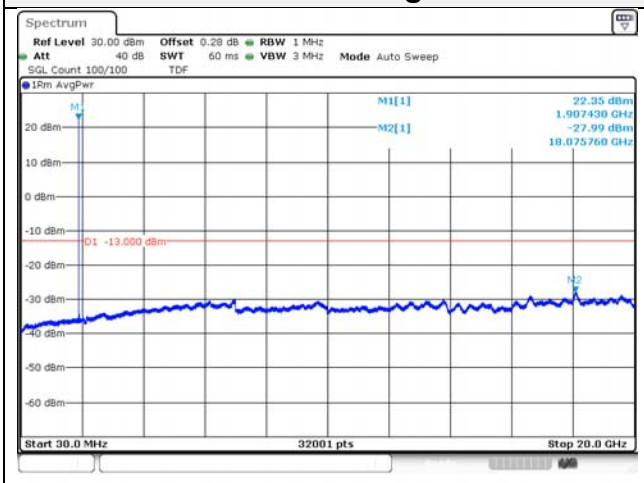
3M BW QPSK Mid ch.



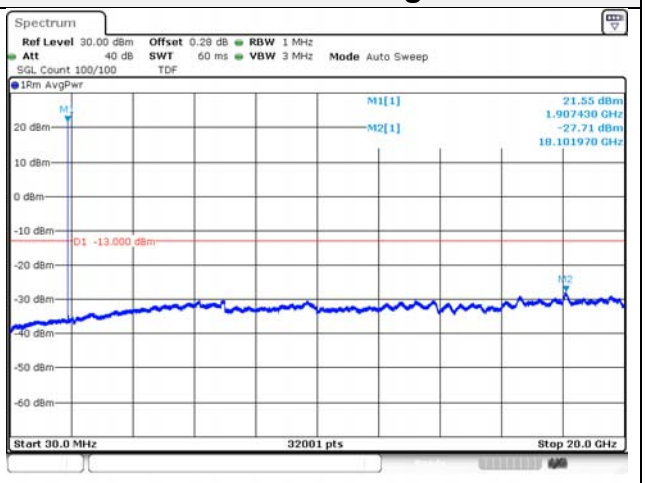
3M BW 16QAM Mid ch.

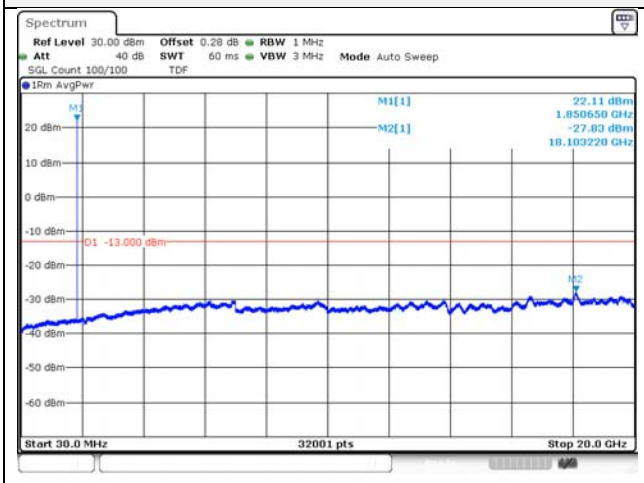
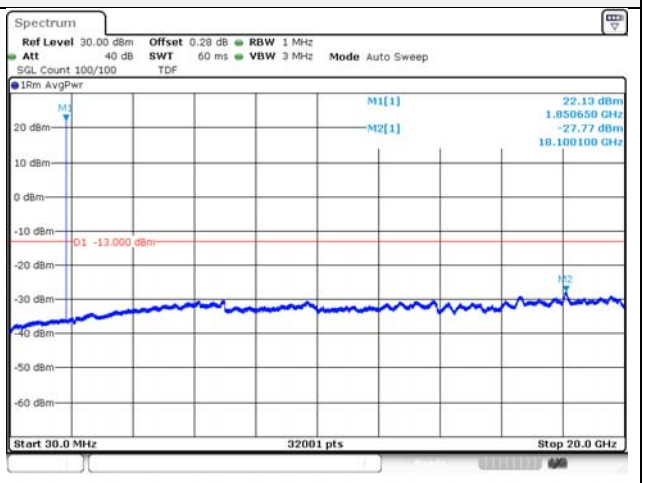
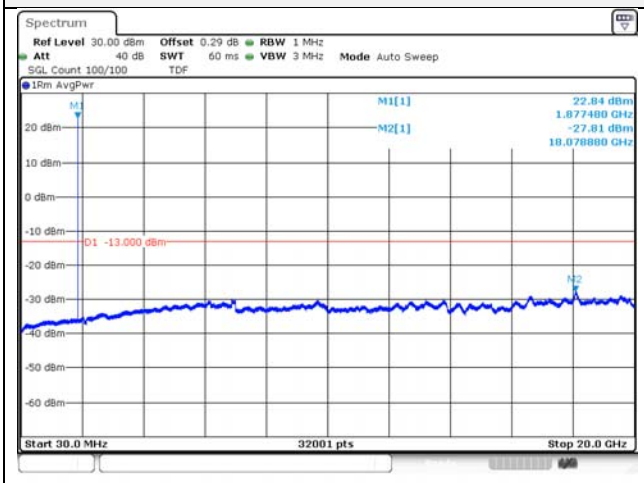
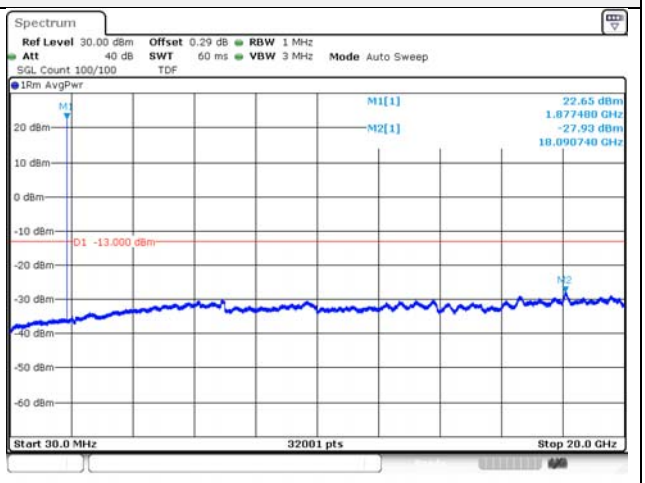
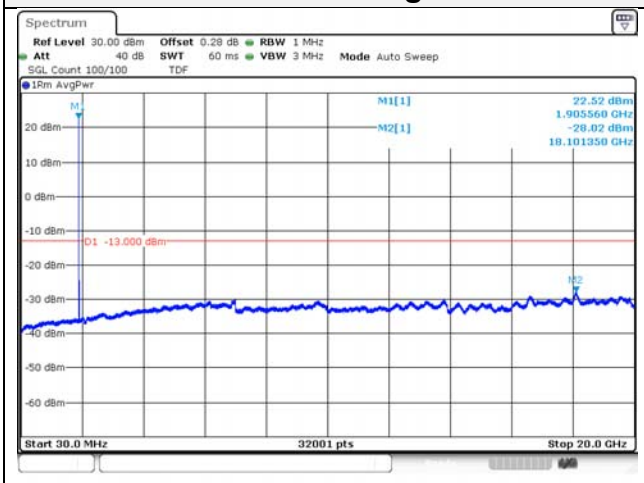
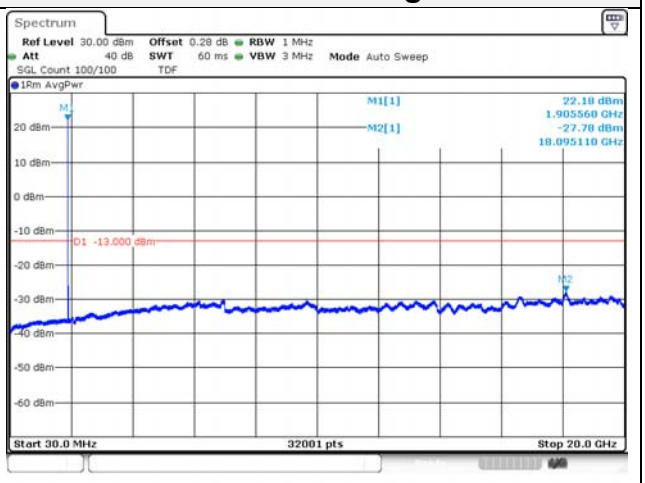


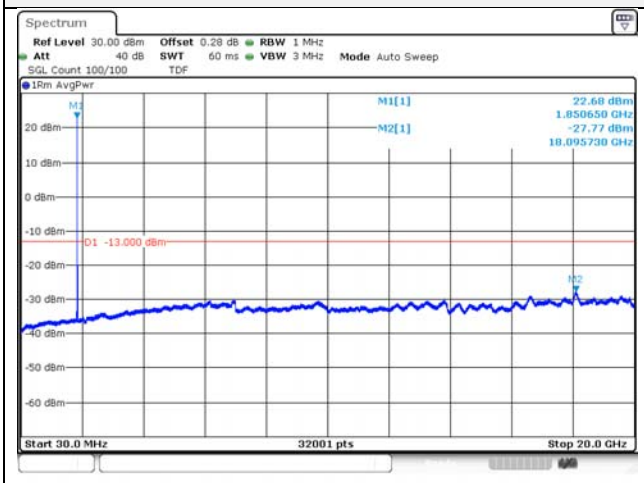
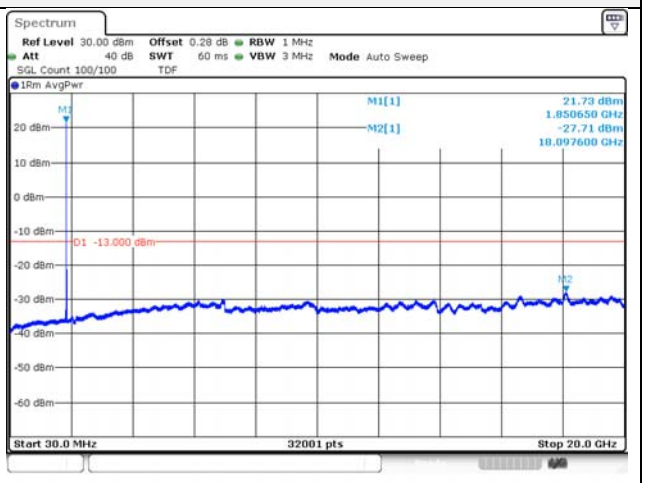
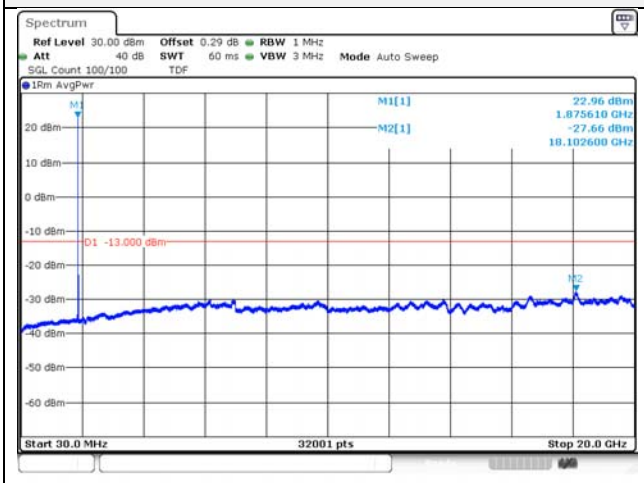
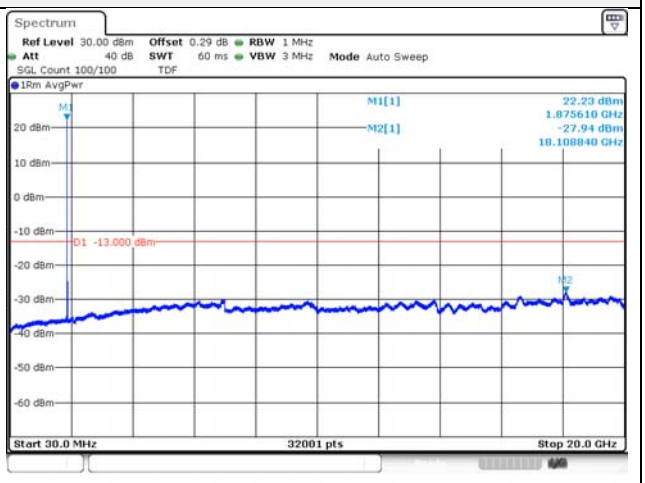
3M BW QPSK High ch.



3M BW 16QAM High ch.



5M BW QPSK Low ch.	5M BW 16QAM Low ch.
	
5M BW QPSK Mid ch.	**5M BW 16QAM Mid ch.**
	
5M BW QPSK High ch.	**5M BW 16QAM High ch.**
	

10M BW QPSK Low ch.	10M BW 16QAM Low ch.
	
10M BW QPSK Mid ch.	**10M BW 16QAM Mid ch.**
	
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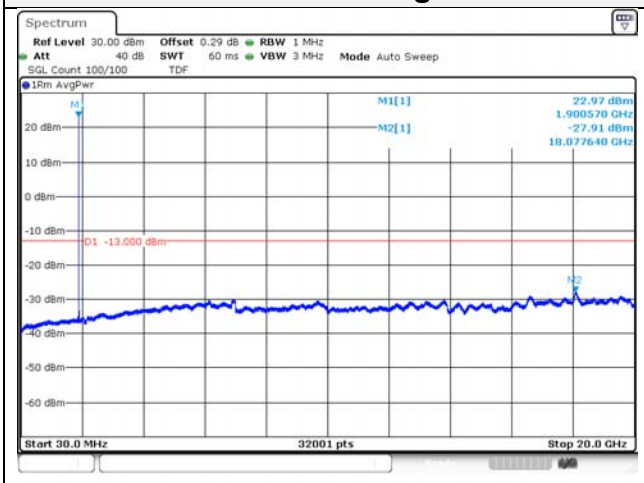
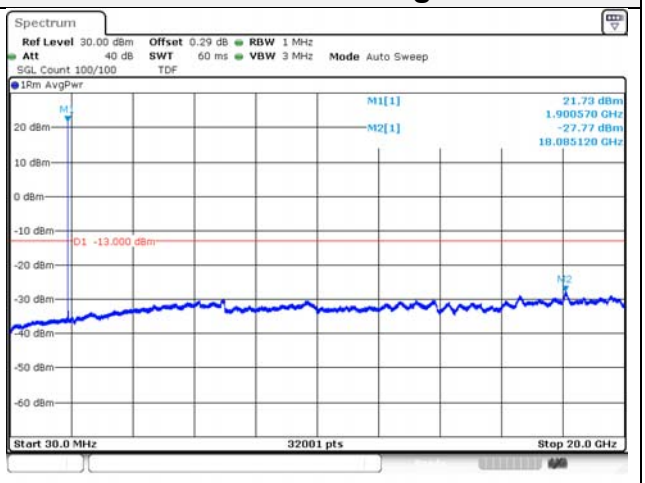
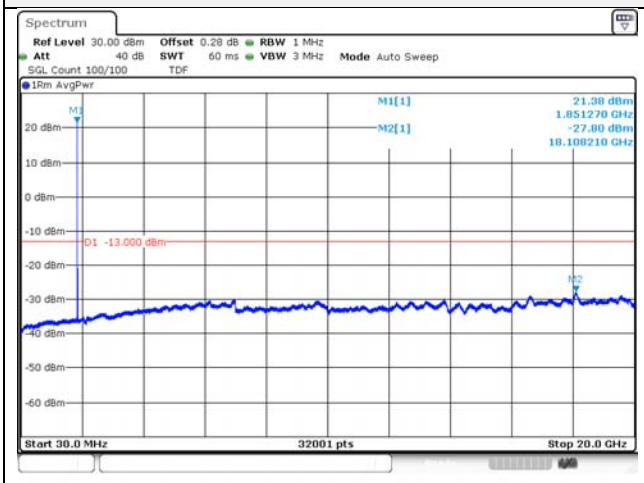
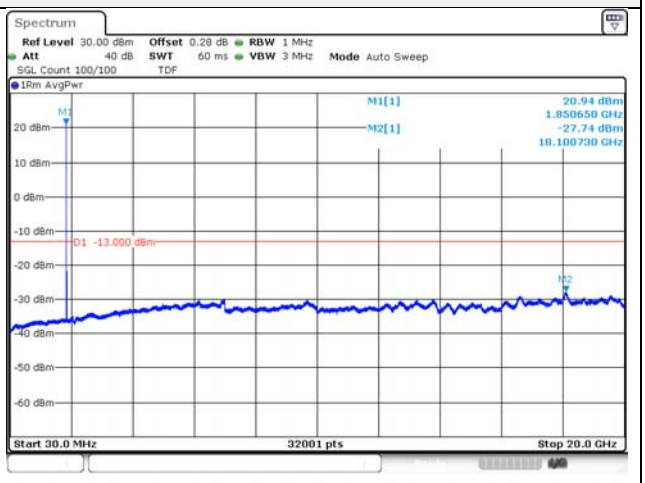
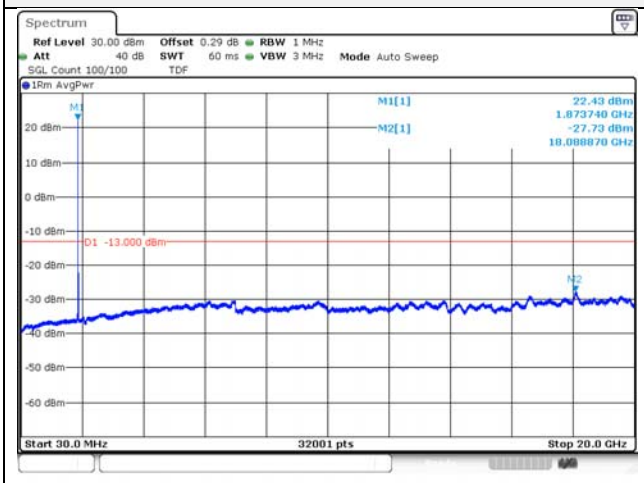
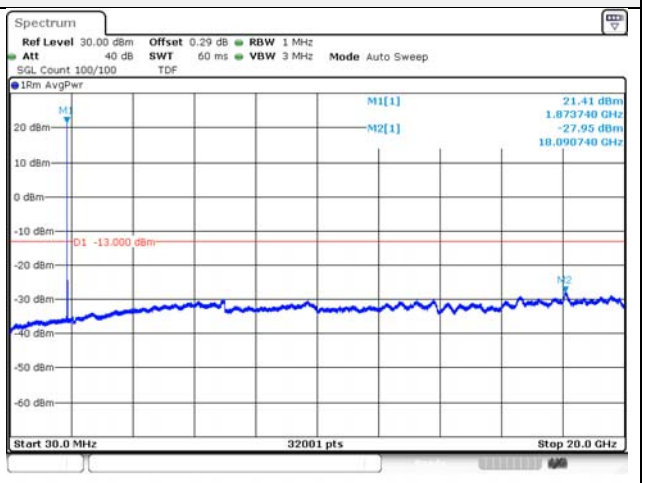
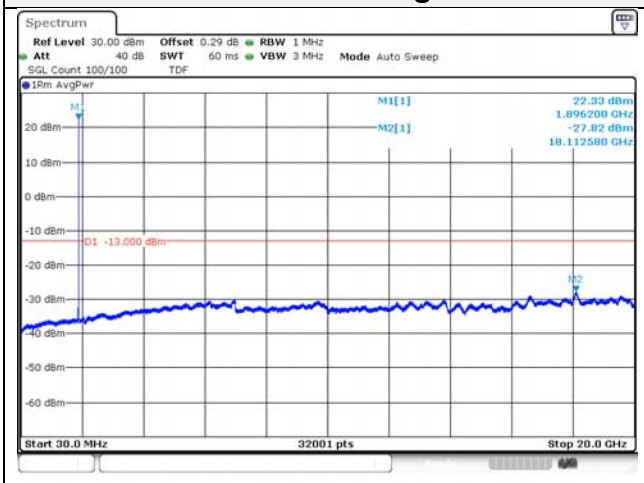
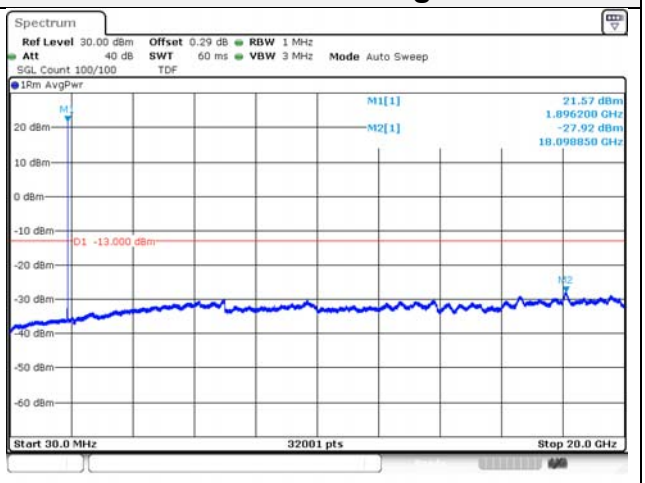
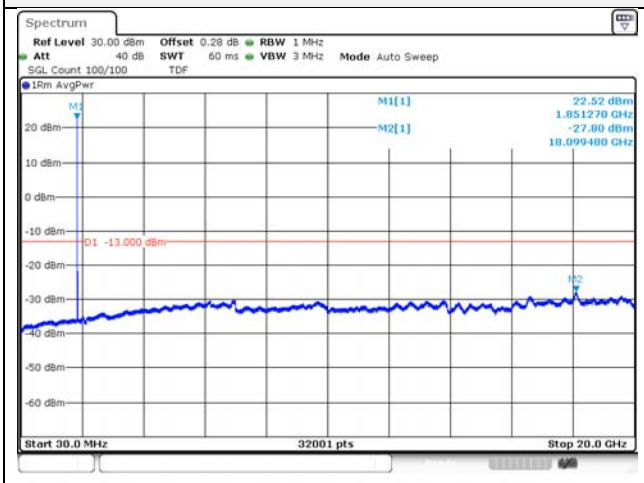
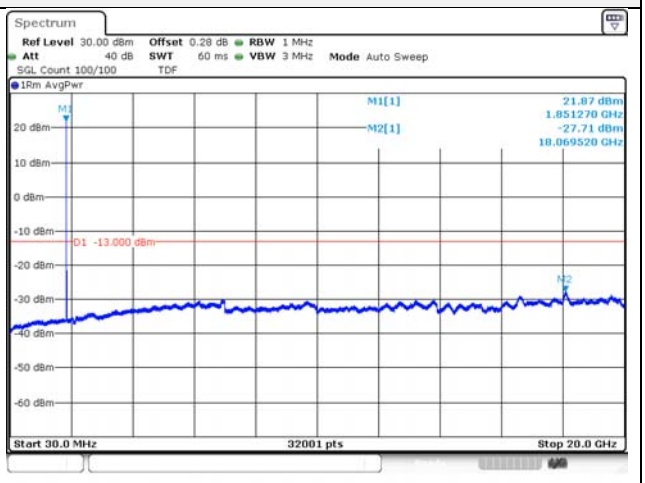
	

15M BW QPSK Low ch.	15M BW 16QAM Low ch.
	
15M BW QPSK Mid ch.	**15M BW 16QAM Mid ch.**
	
15M BW QPSK High ch.	**15M BW 16QAM High ch.**
	

20M BW QPSK Low ch.



20M BW 16QAM Low ch.



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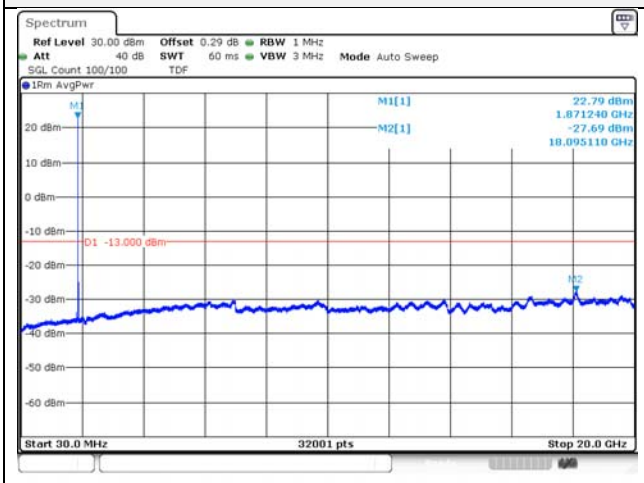
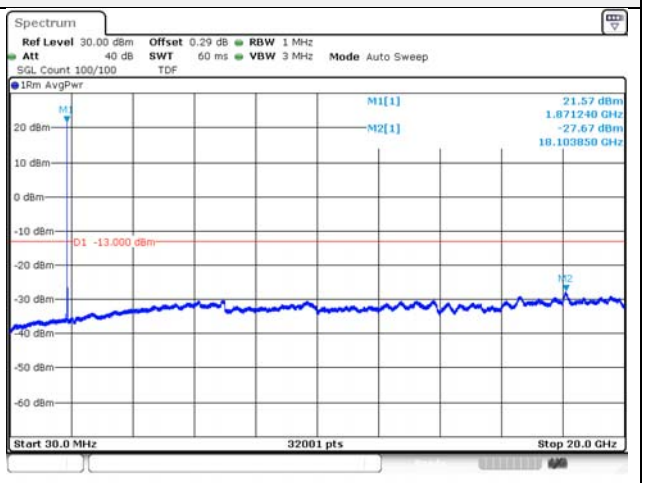
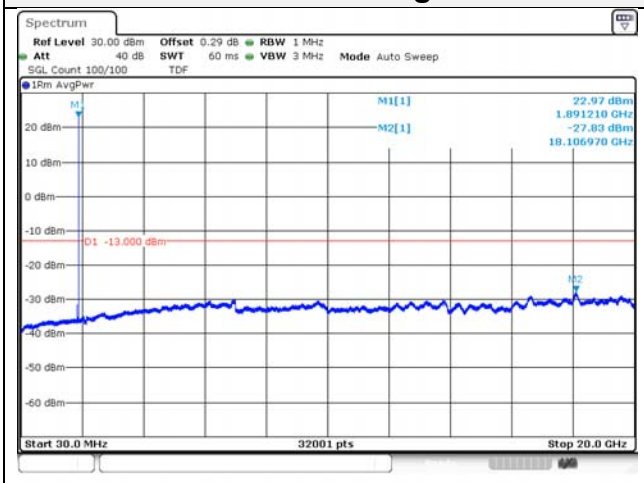


20M BW 16QAM Mid ch.



20M BW QPSK High ch.



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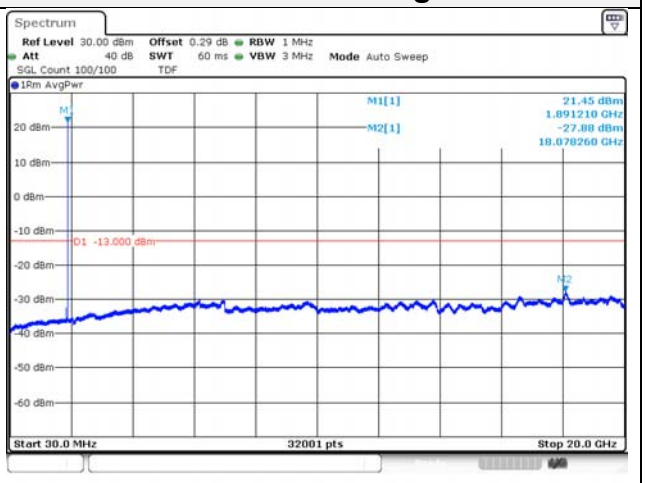
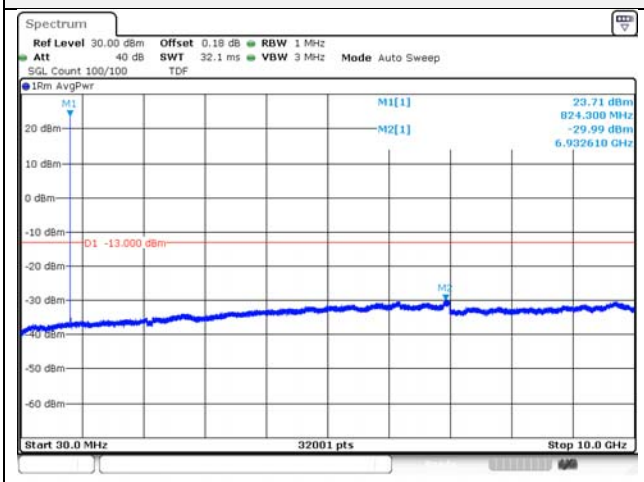
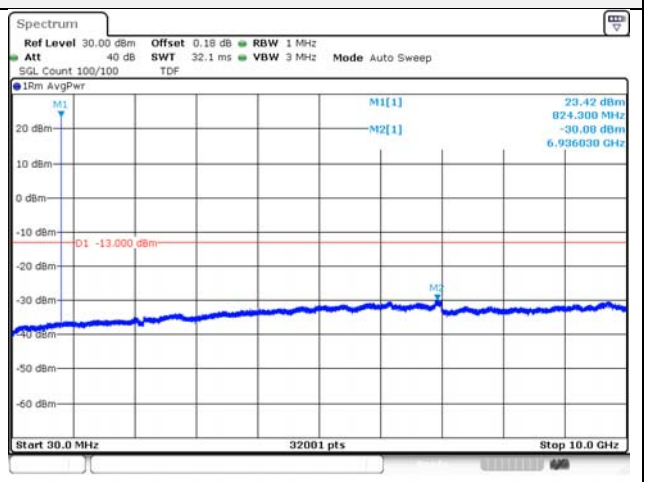


Test mode: LTE Band 5

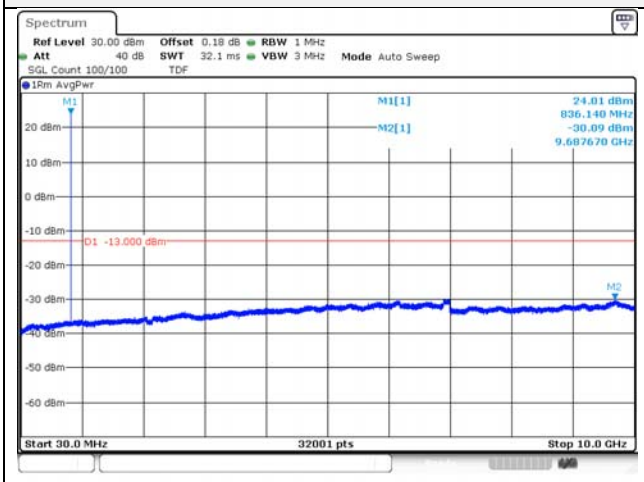
1.4M BW QPSK Low ch.



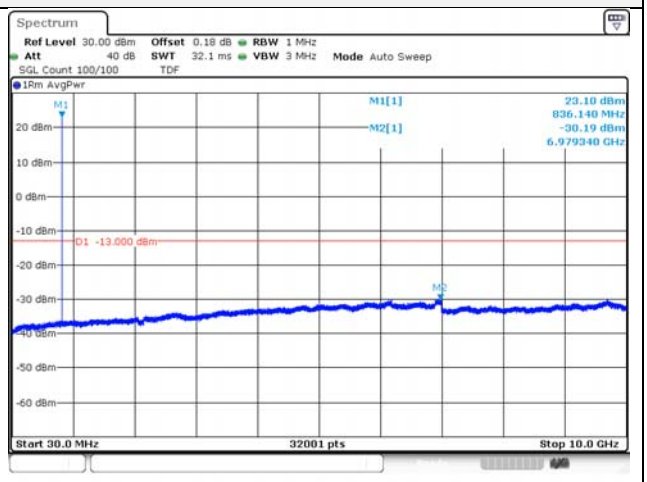
1.4M BW 16QAM Low ch.



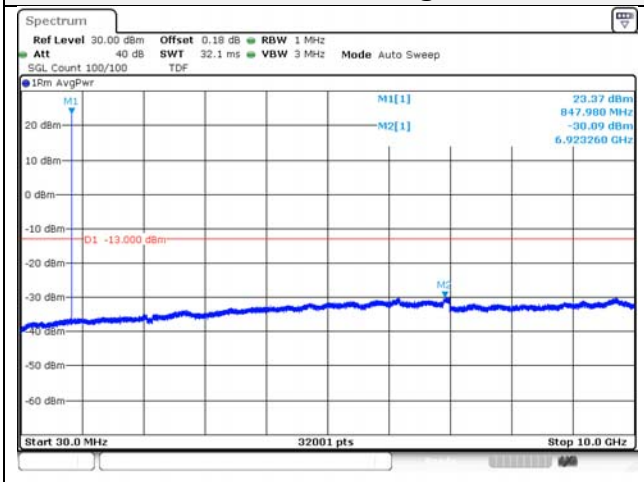
1.4M BW QPSK Mid ch.



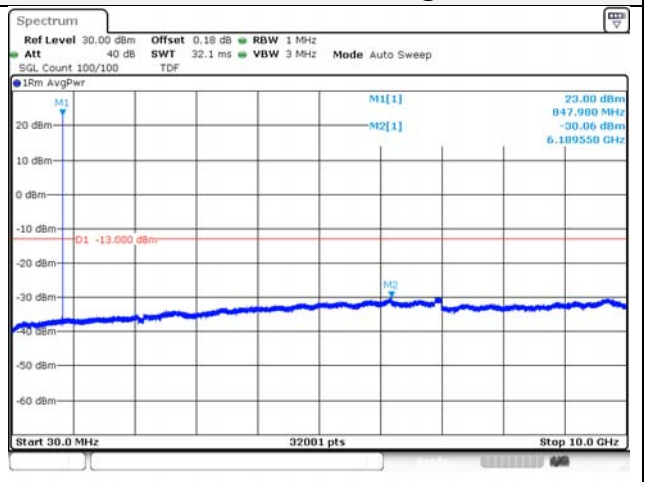
1.4M BW 16QAM Mid ch.

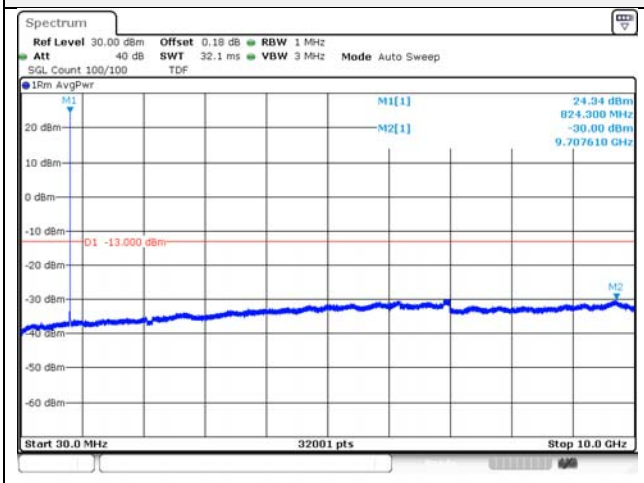
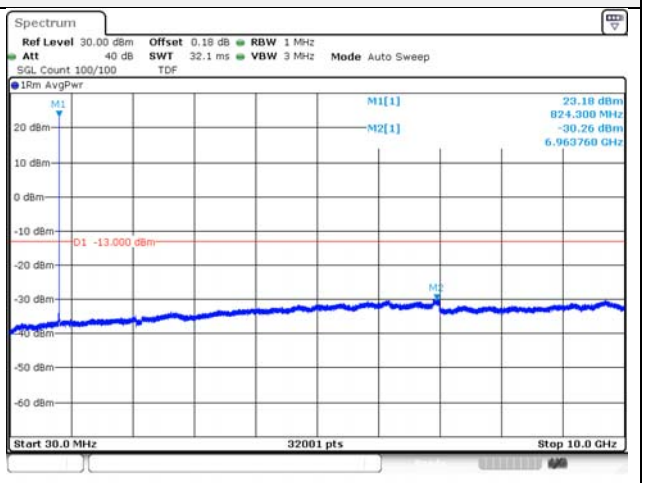
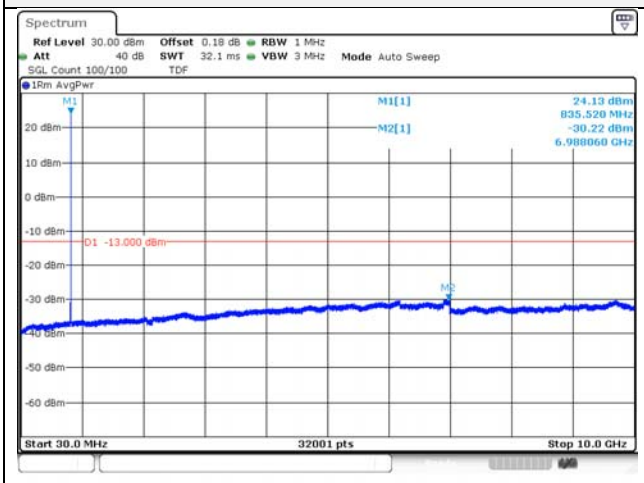
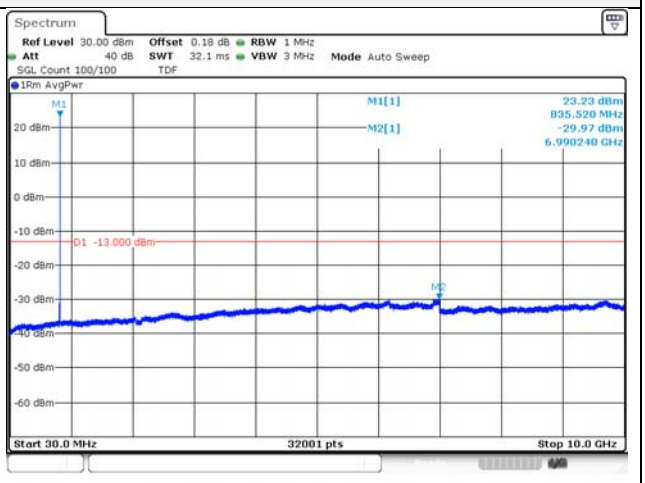
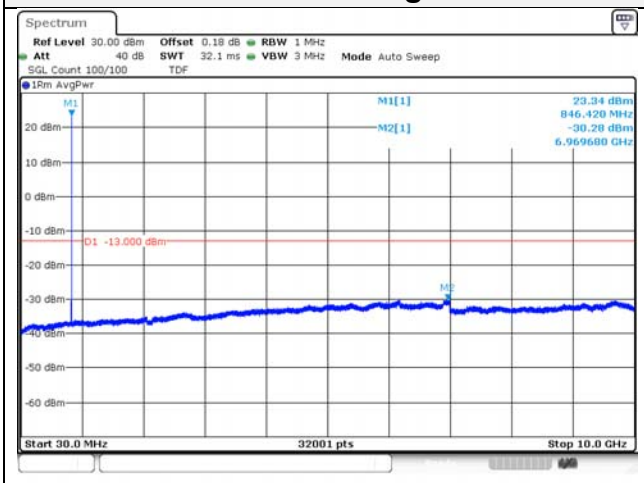
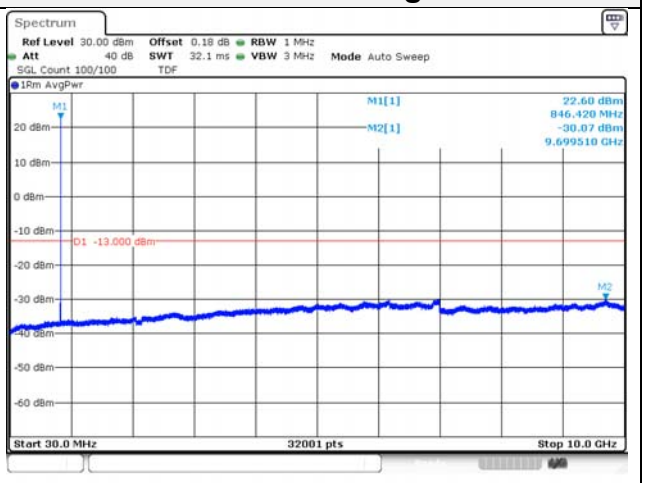


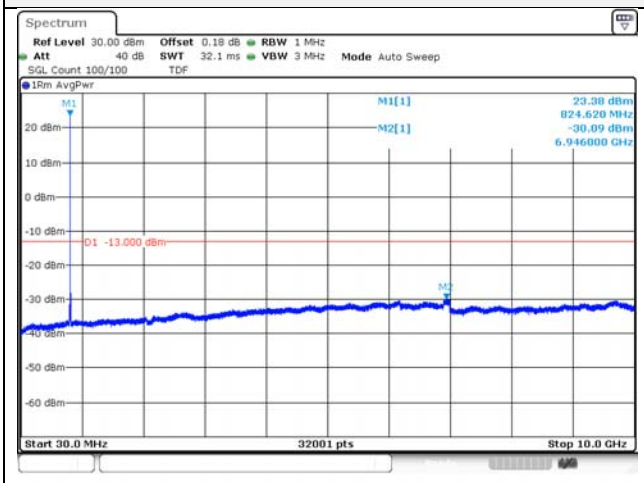
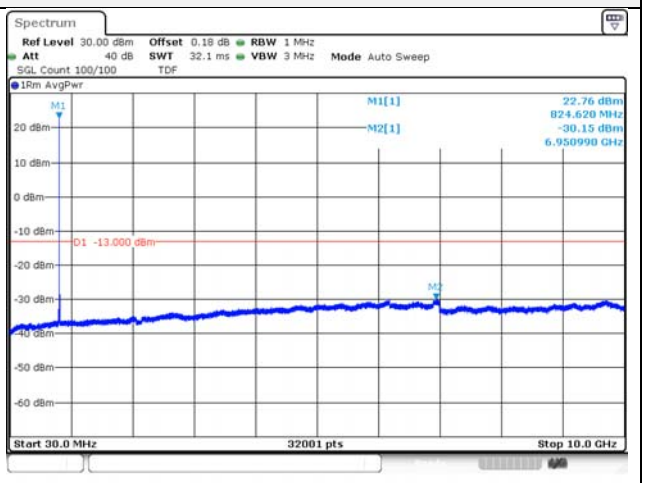
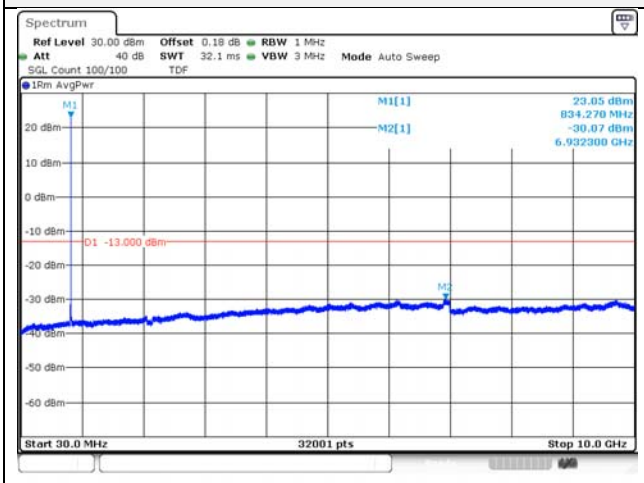
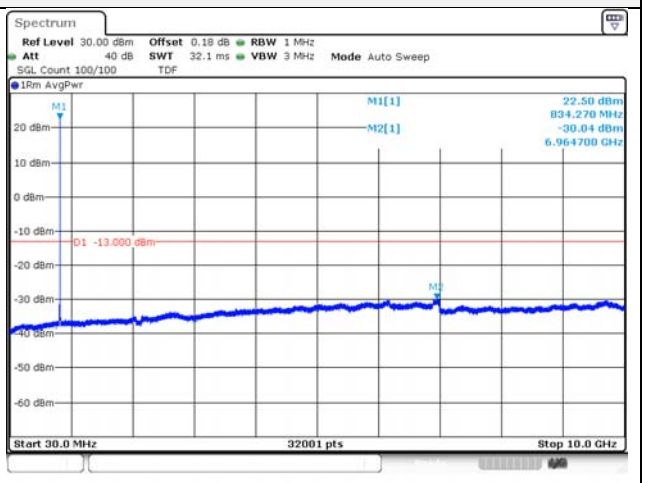
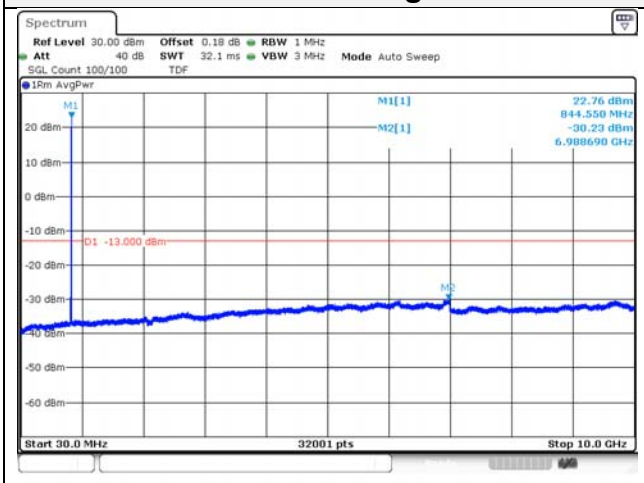
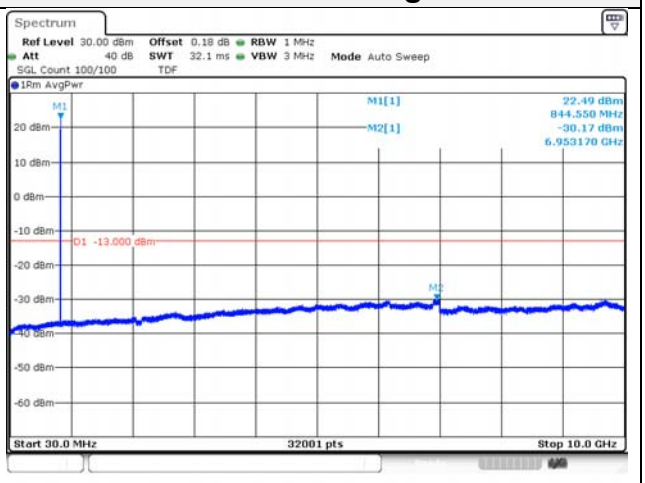
1.4M BW QPSK High ch.

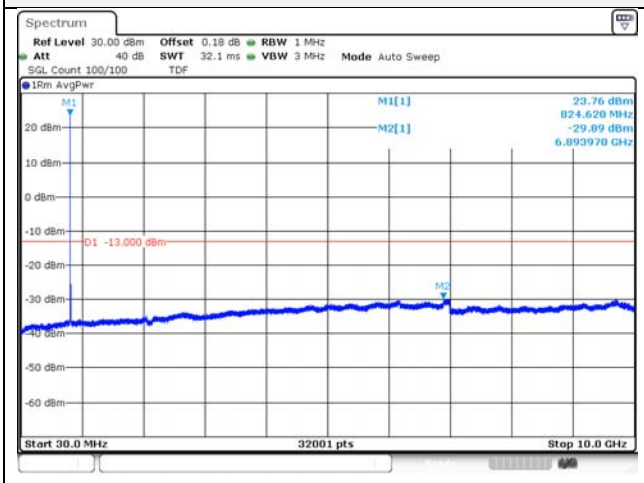
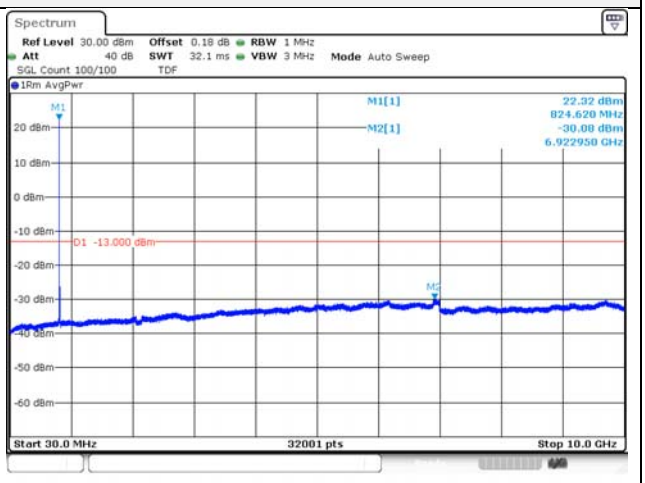
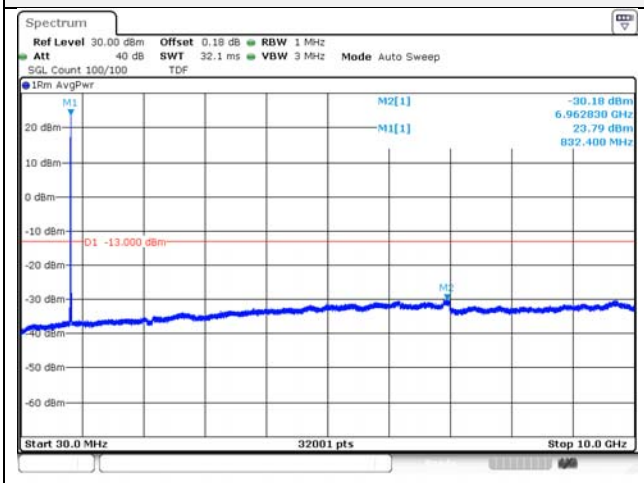
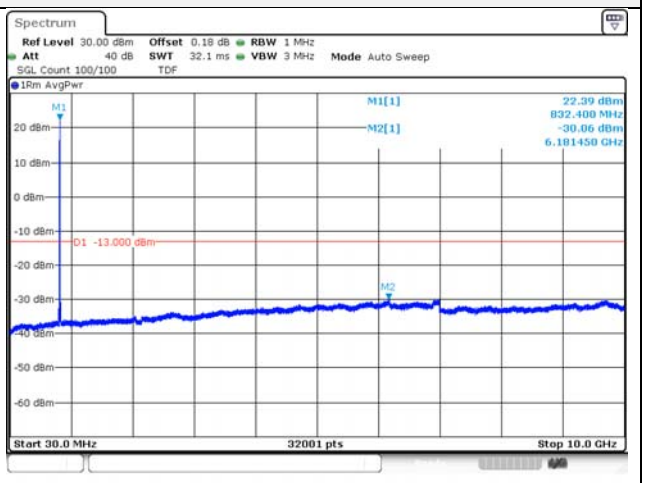
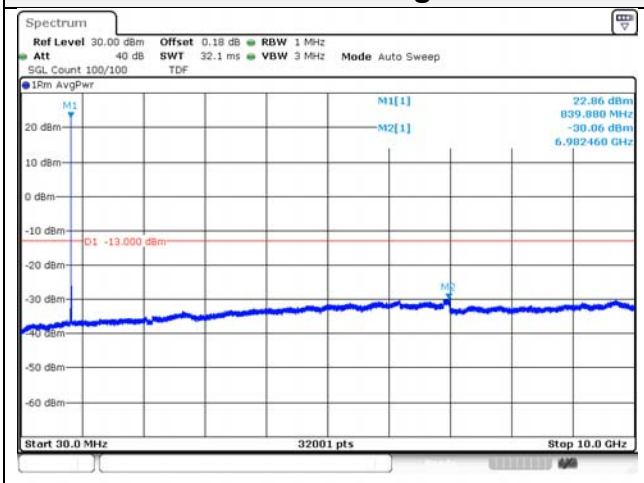
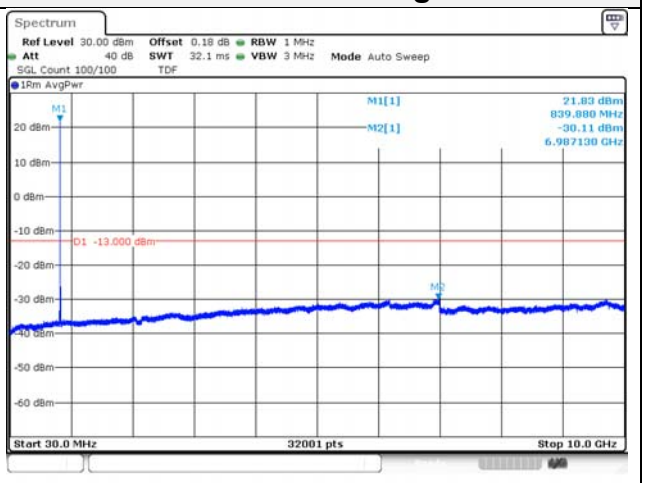


1.4M BW 16QAM High ch.



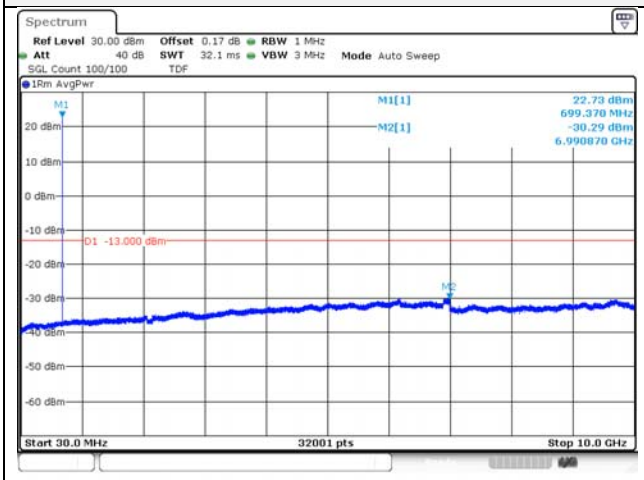
3M BW QPSK Low ch.	3M BW 16QAM Low ch.
	
3M BW QPSK Mid ch.	**3M BW 16QAM Mid ch.**
	
3M BW QPSK High ch.	**3M BW 16QAM High ch.**
	

5M BW QPSK Low ch.	5M BW 16QAM Low ch.
	
5M BW QPSK Mid ch.	**5M BW 16QAM Mid ch.**
	
5M BW QPSK High ch.	**5M BW 16QAM High ch.**
	

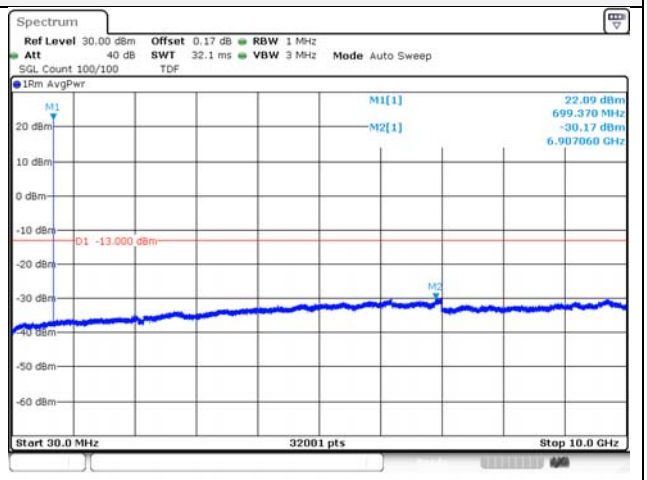
10M BW QPSK Low ch.	10M BW 16QAM Low ch.
	
10M BW QPSK Mid ch.	**10M BW 16QAM Mid ch.**
	
10M BW QPSK High ch.	**10M BW 16QAM High ch.**
	

Test mode: LTE Band 12

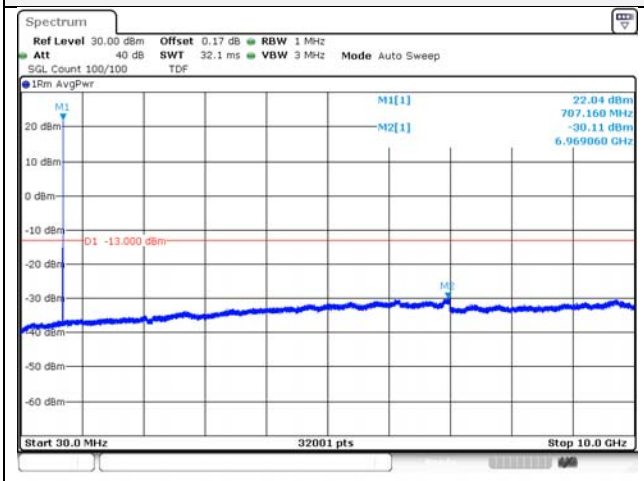
1.4M BW QPSK Low ch.



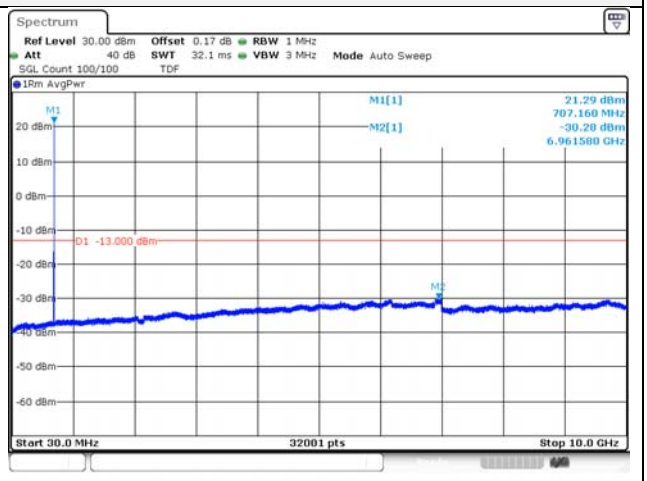
1.4M BW 16QAM Low ch.



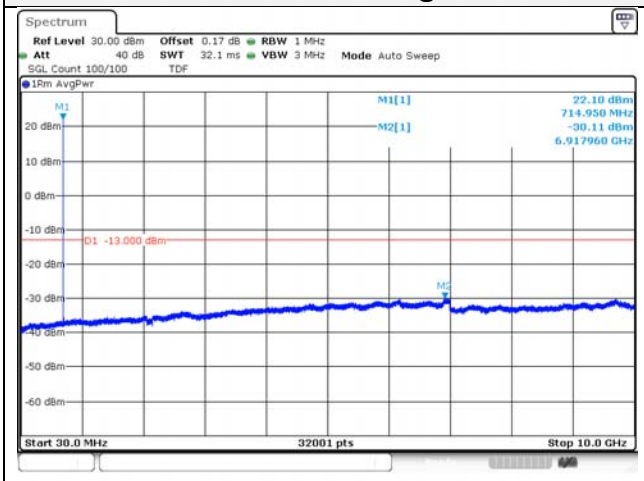
1.4M BW QPSK Mid ch.



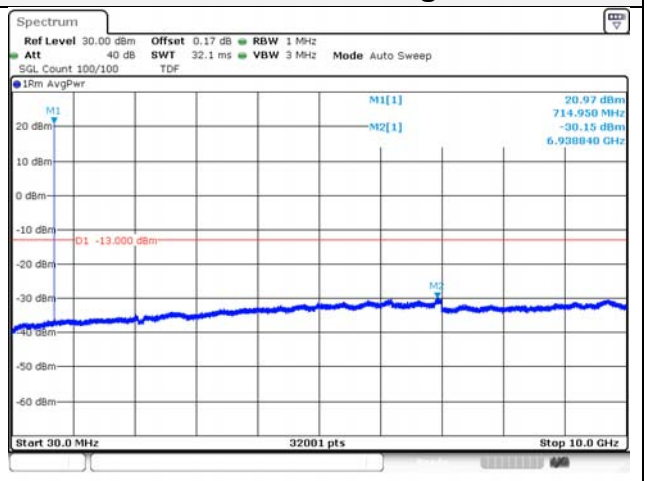
1.4M BW 16QAM Mid ch.

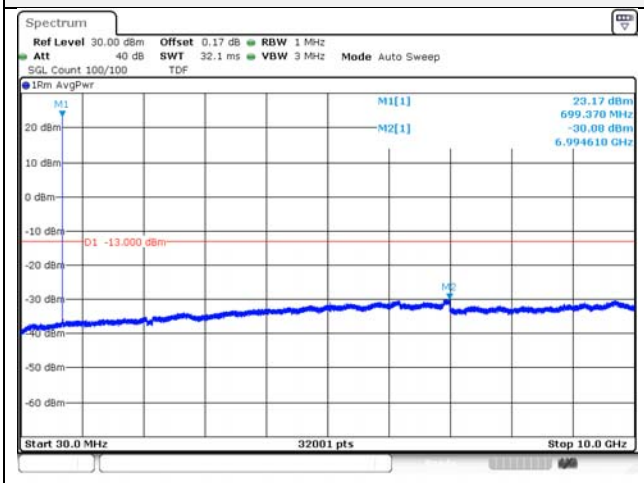
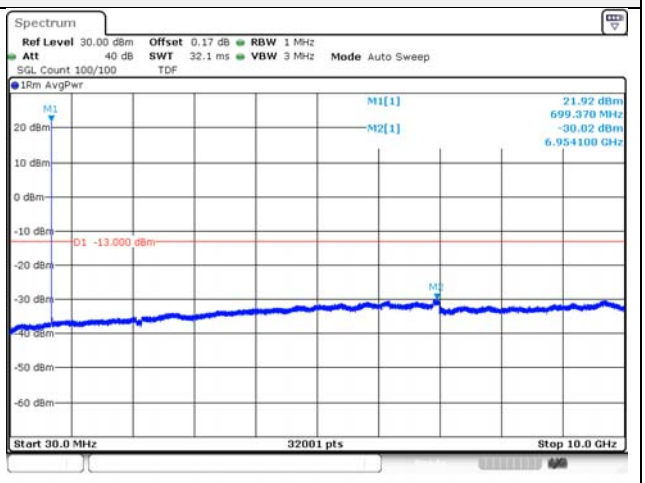
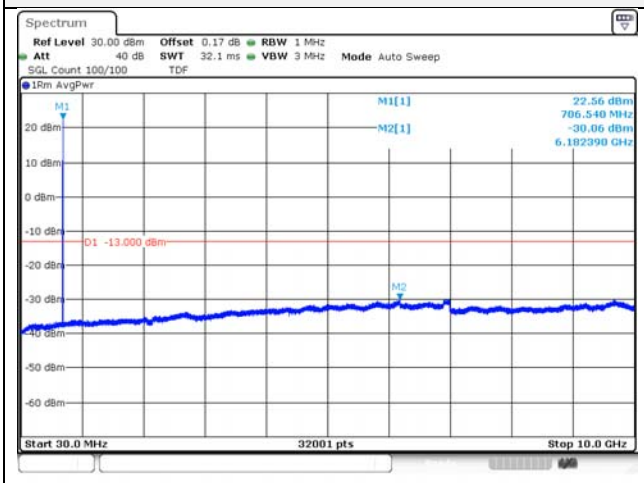
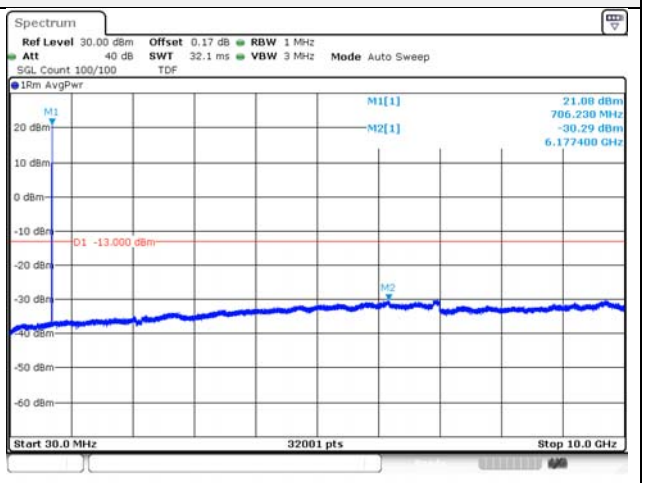
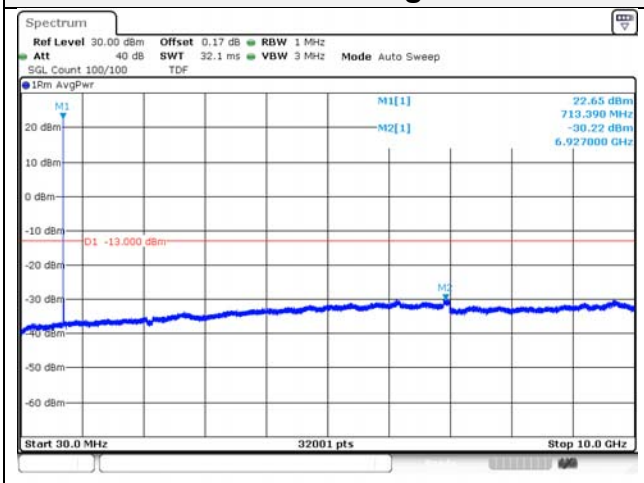
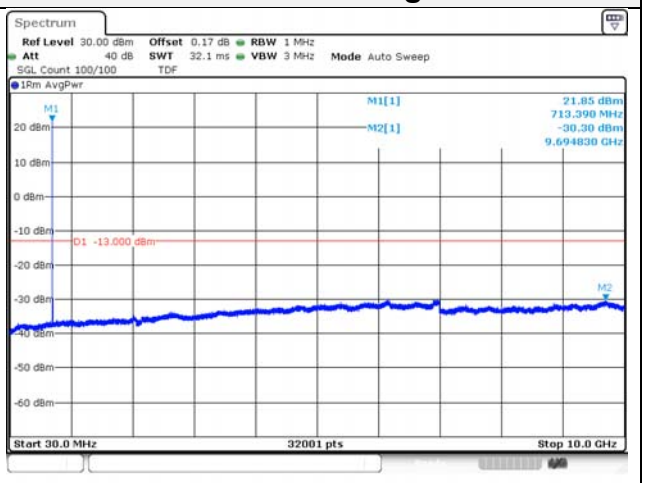


1.4M BW QPSK High ch.



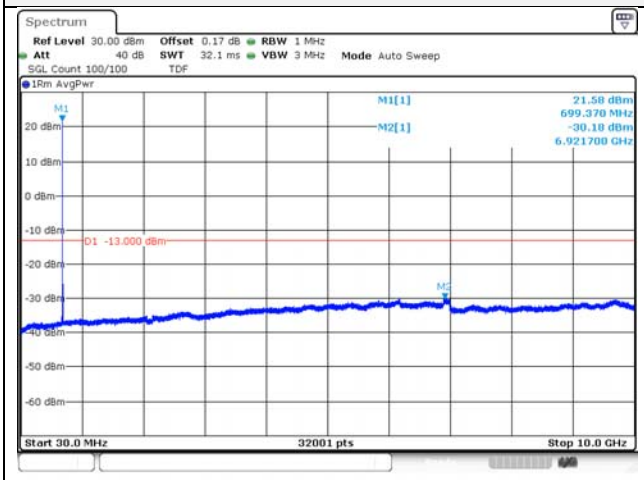
1.4M BW 16QAM High ch.



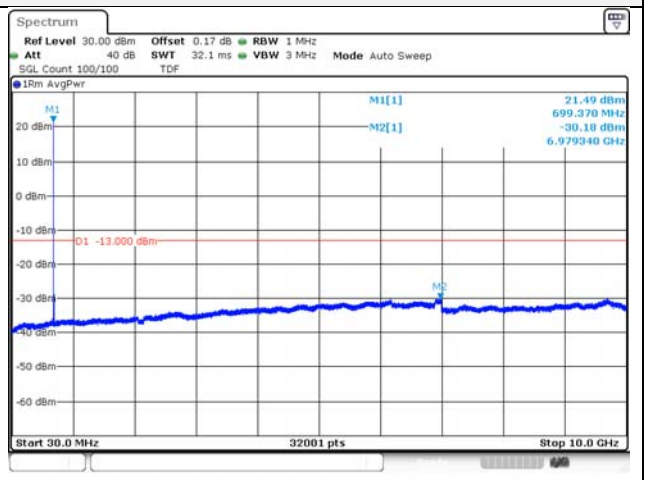
3M BW QPSK Low ch.	3M BW 16QAM Low ch.
	
3M BW QPSK Mid ch.	**3M BW 16QAM Mid ch.**
	
3M BW QPSK High ch.	**3M BW 16QAM High ch.**
	

Test mode: LTE Band 12/17

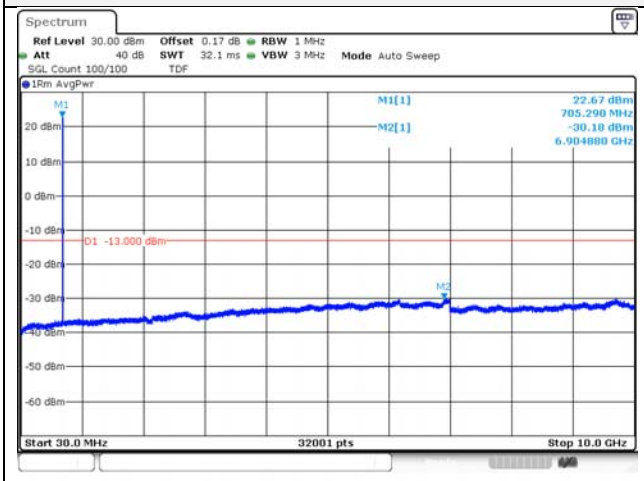
5M BW QPSK Low ch.



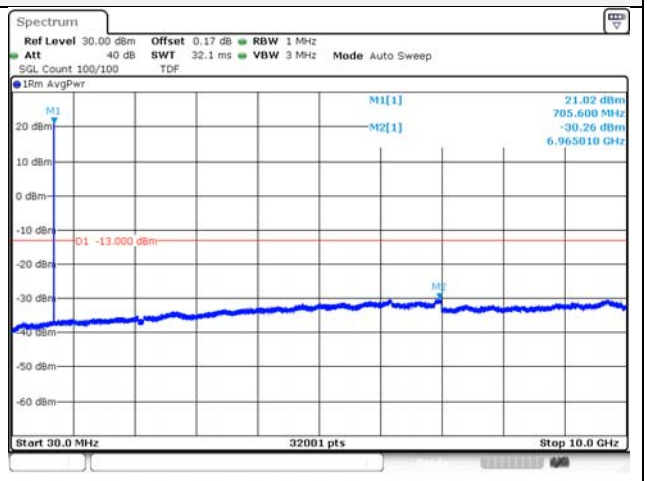
5M BW 16QAM Low ch.



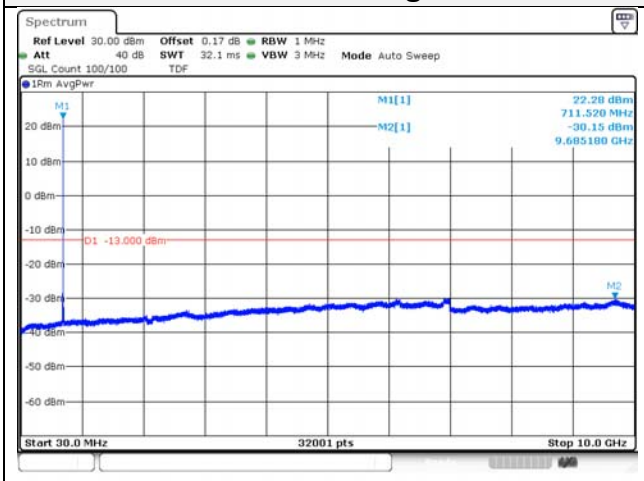
5M BW QPSK Mid ch.



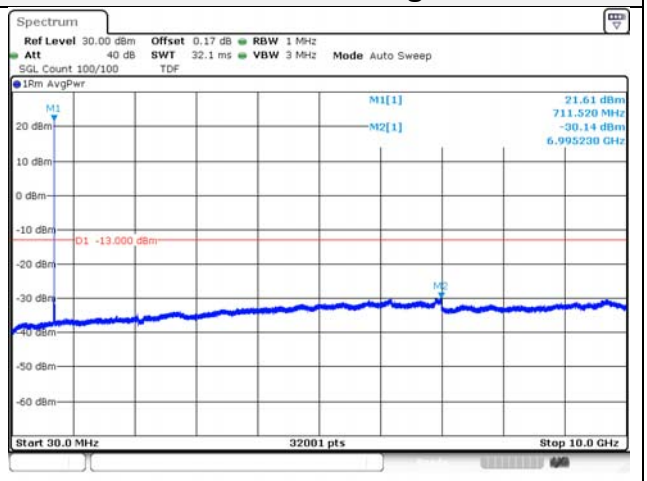
5M BW 16QAM Mid ch.



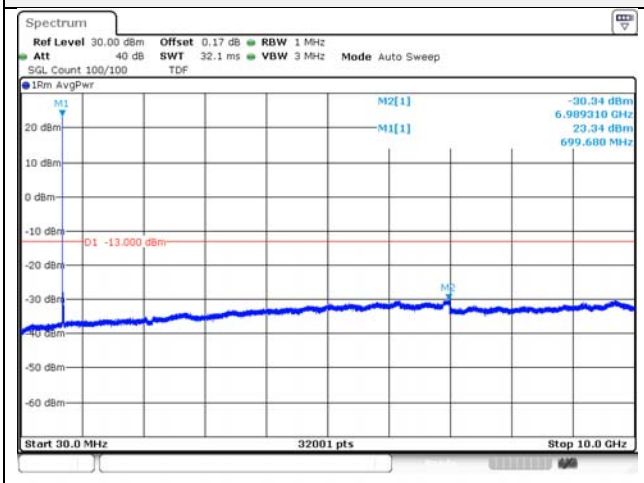
5M BW QPSK High ch.



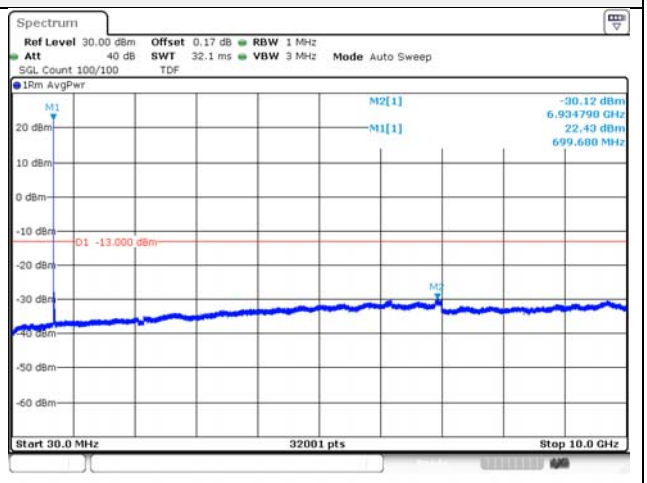
5M BW 16QAM High ch.



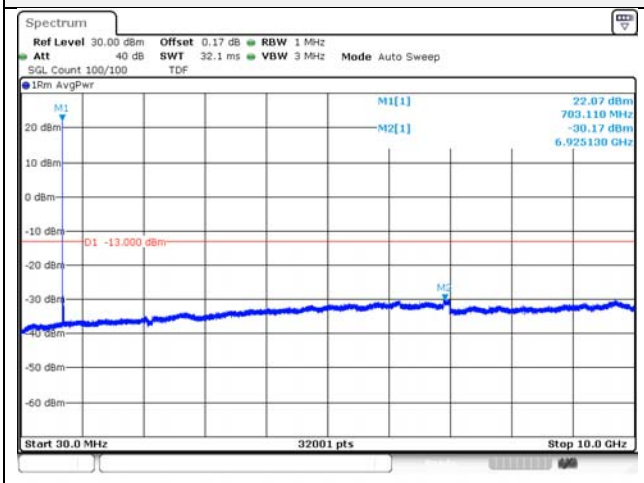
10M BW QPSK Low ch.



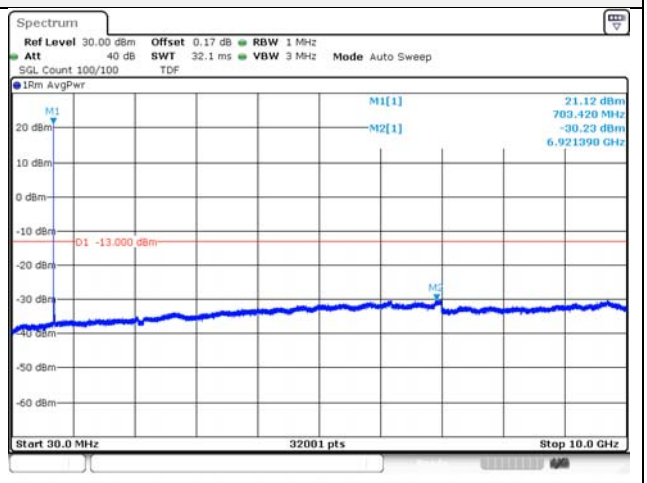
10M BW 16QAM Low ch.



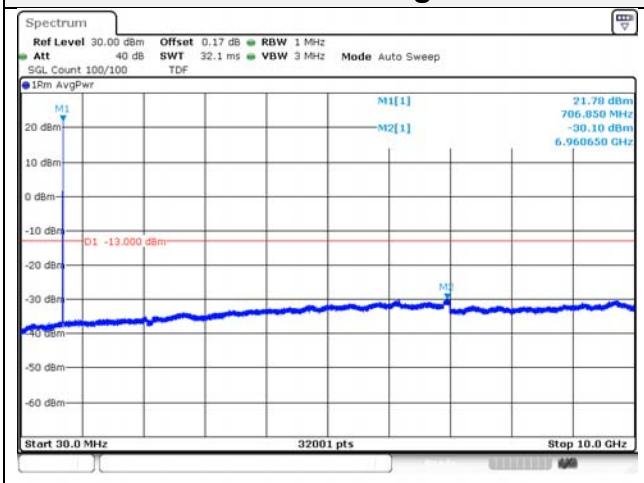
10M BW QPSK Mid ch.



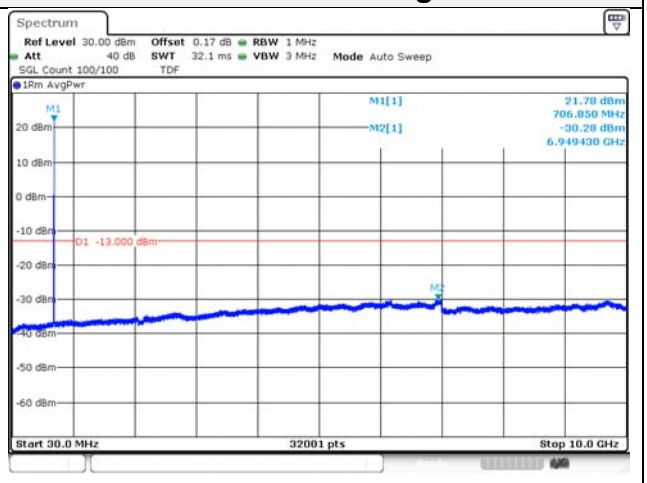
10M BW 16QAM Mid ch.



10M BW QPSK High ch.

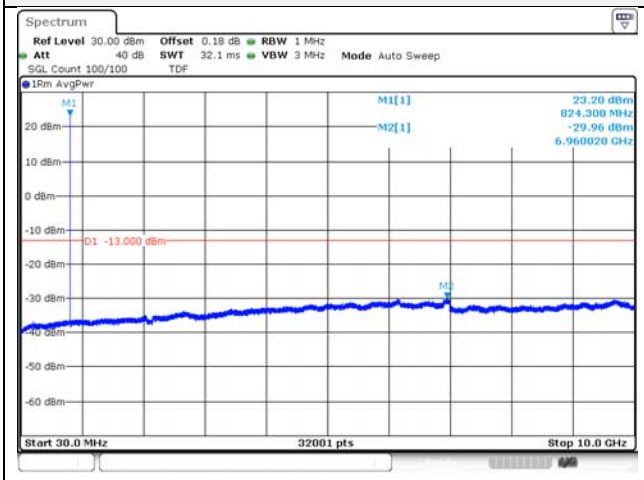


10M BW 16QAM High ch.

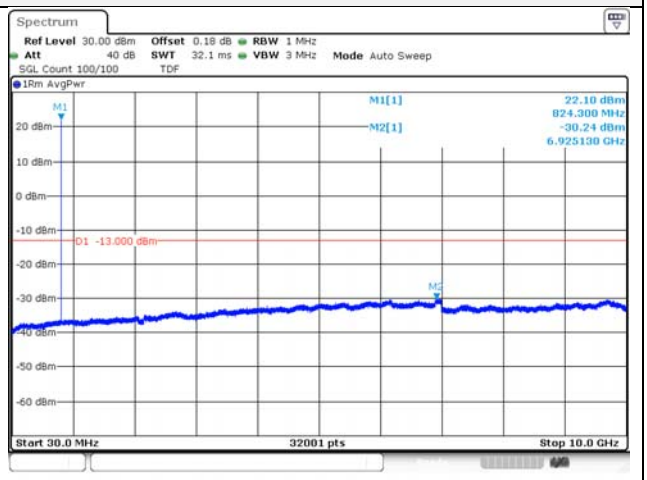


Test mode: LTE Band 26

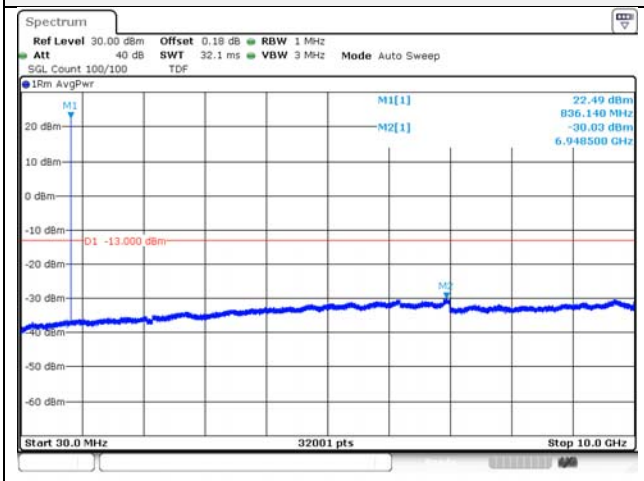
1.4M BW QPSK Low ch.



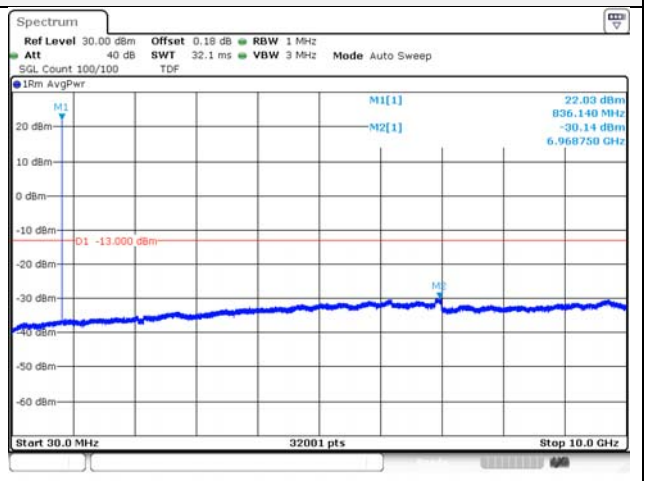
1.4M BW 16QAM Low ch.



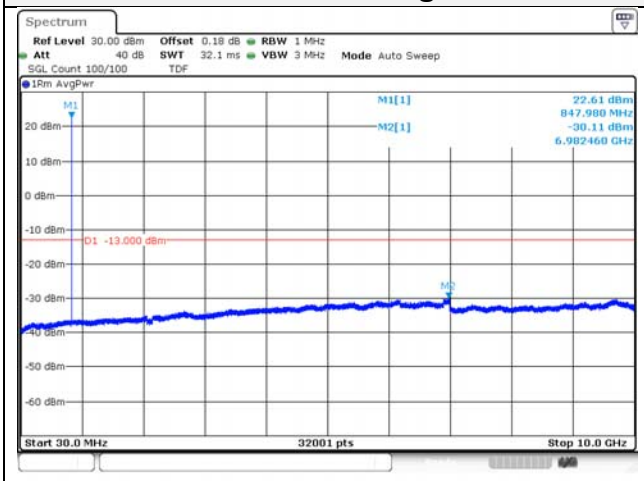
1.4M BW QPSK Mid ch.



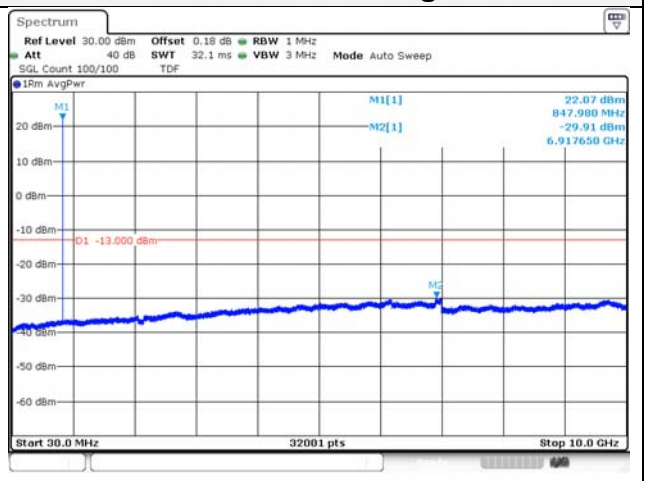
1.4M BW 16QAM Mid ch.

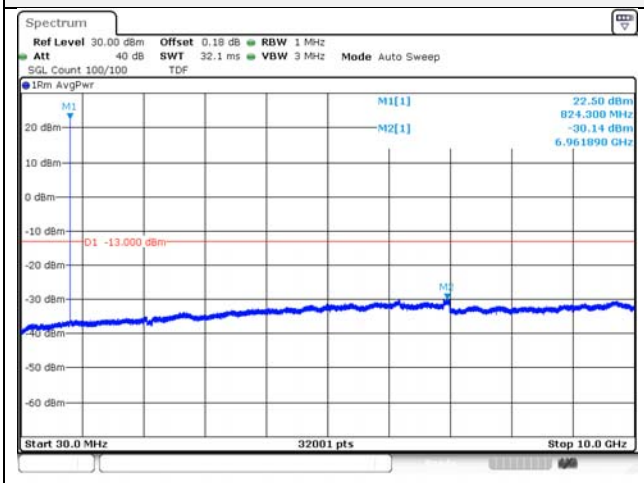
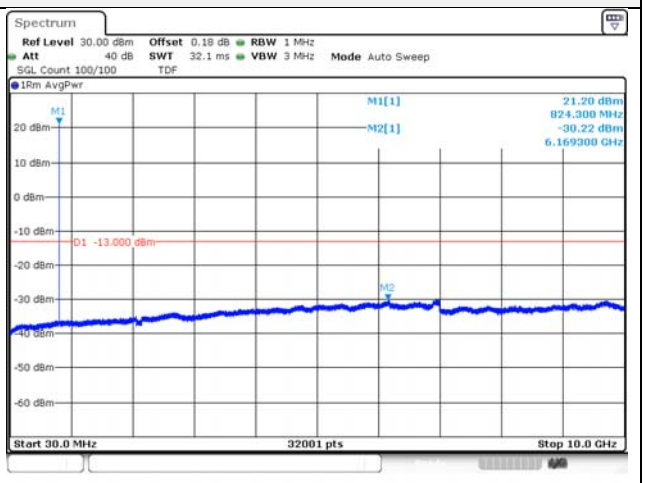
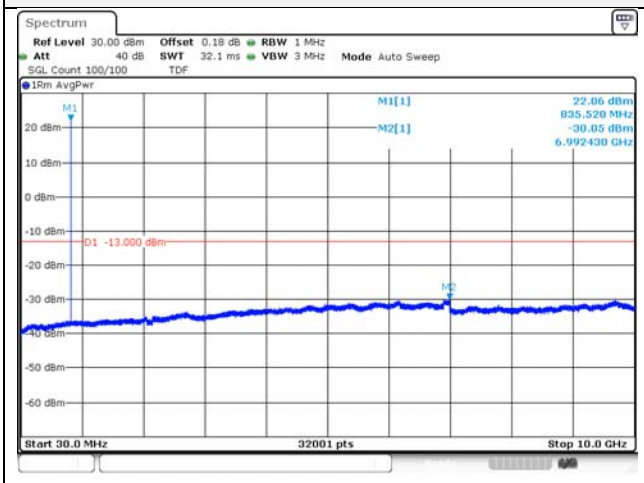
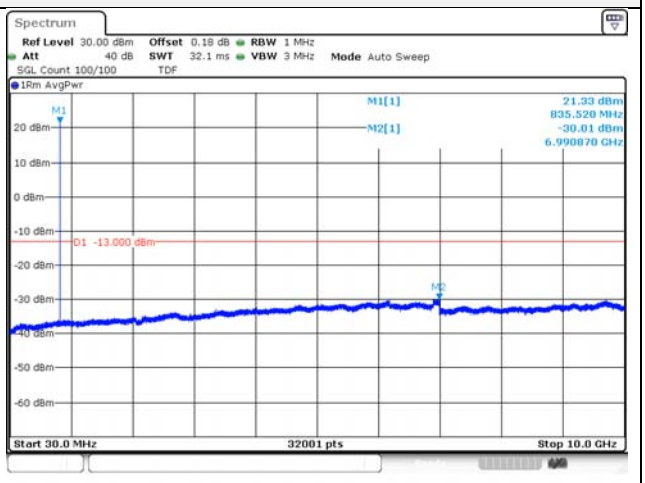
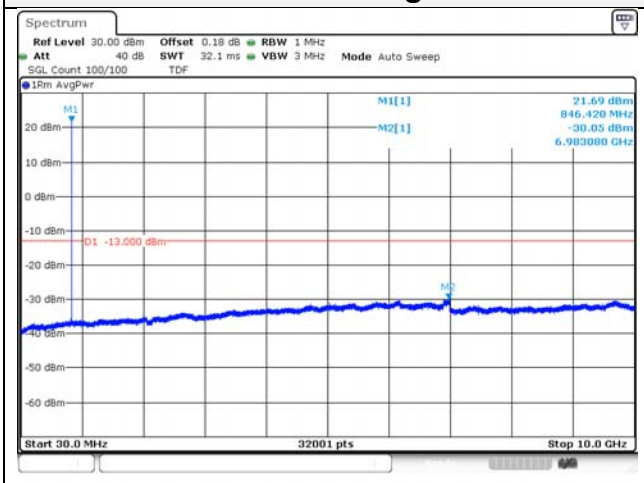
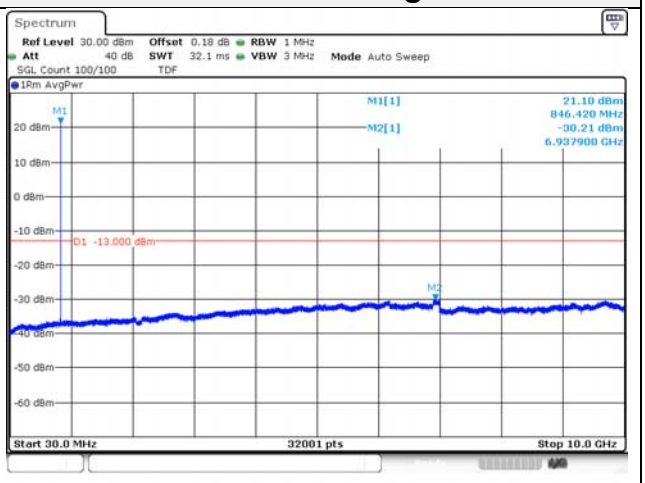


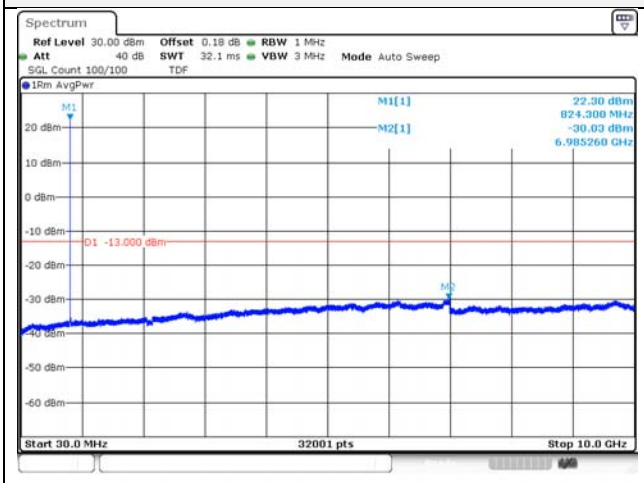
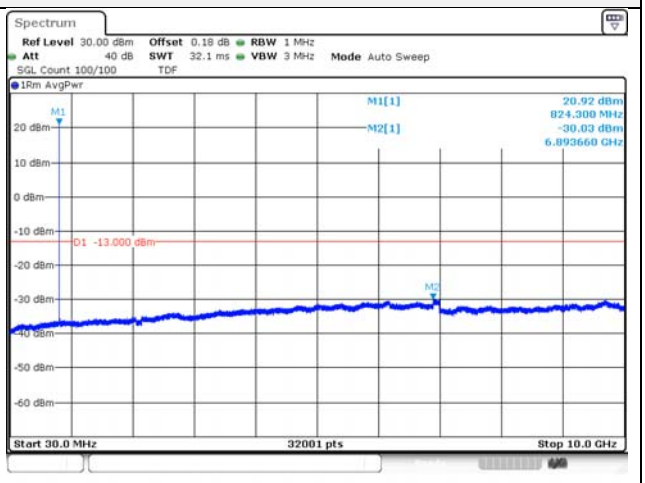
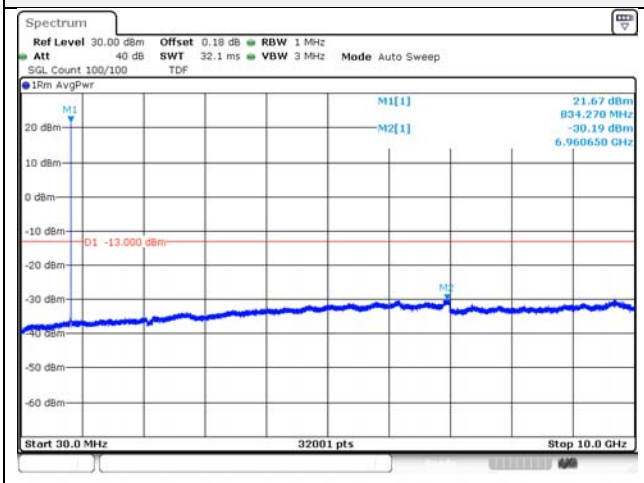
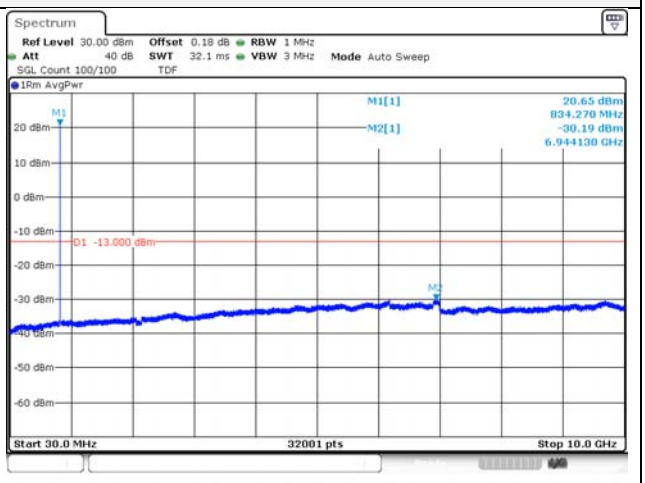
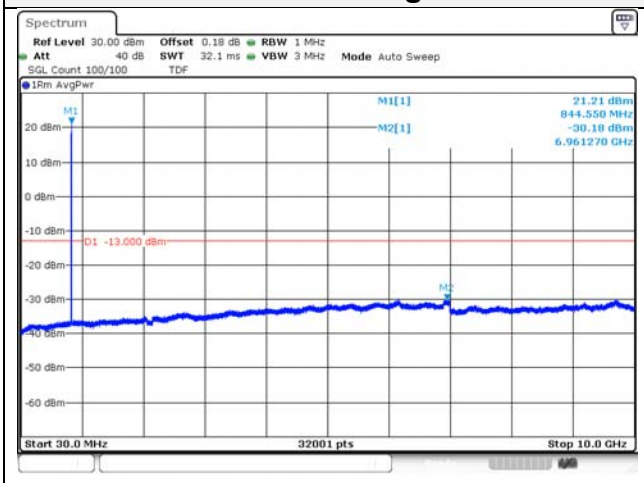
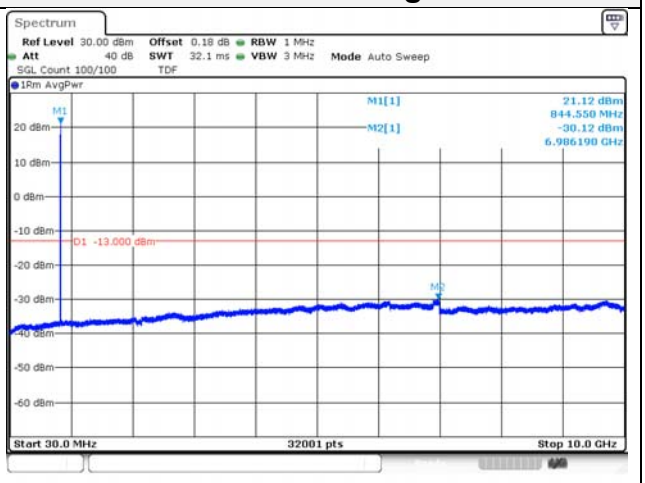
1.4M BW QPSK High ch.

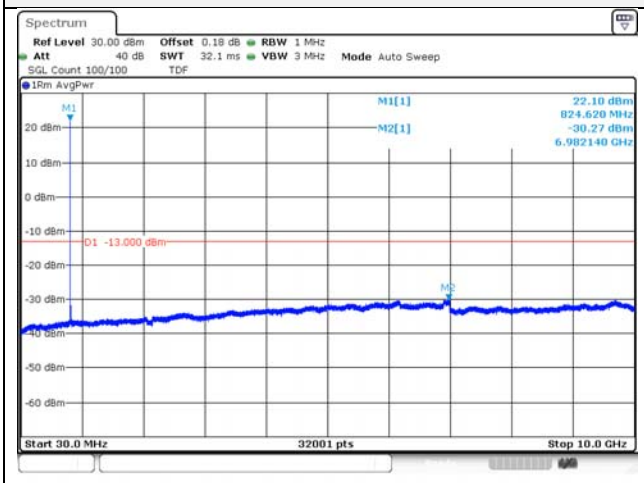
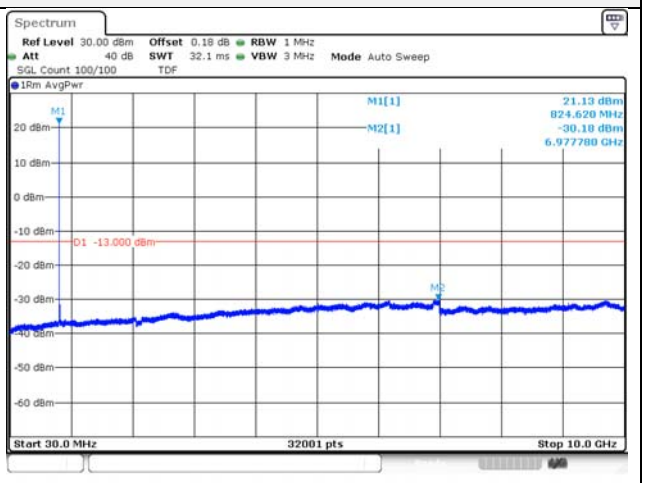
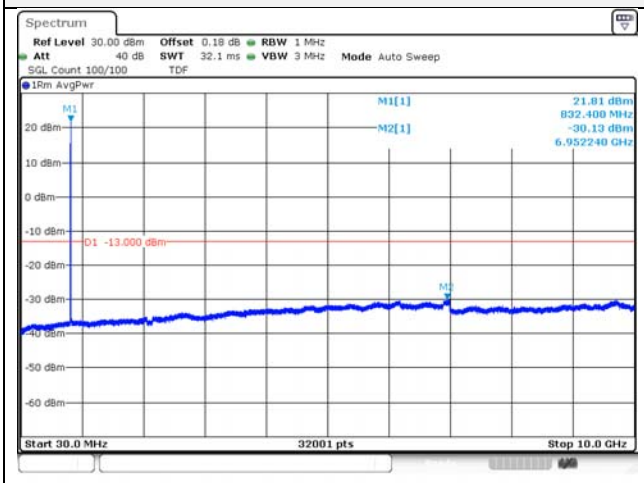
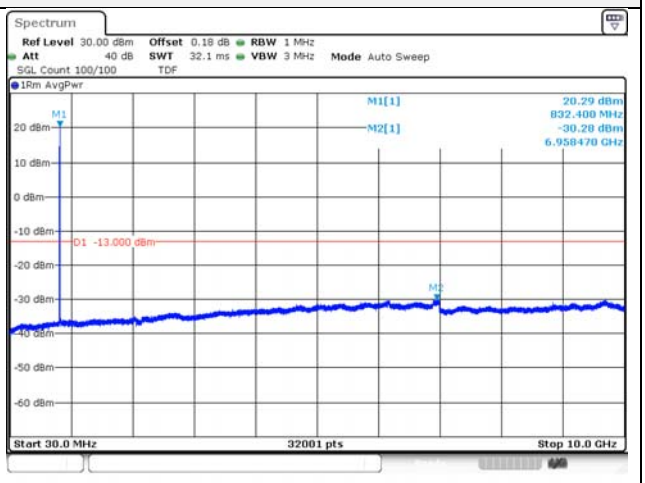
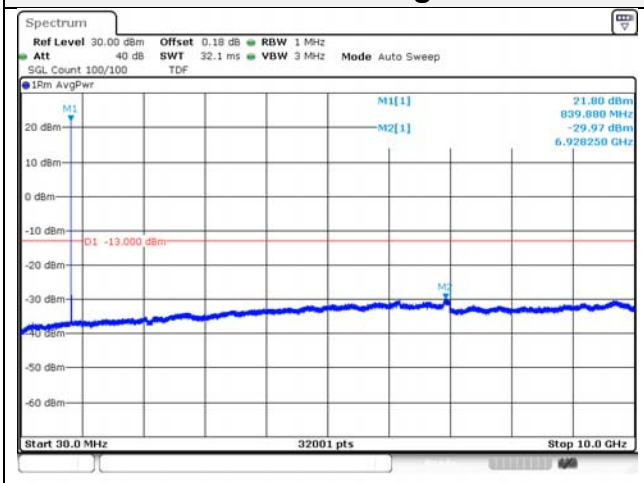
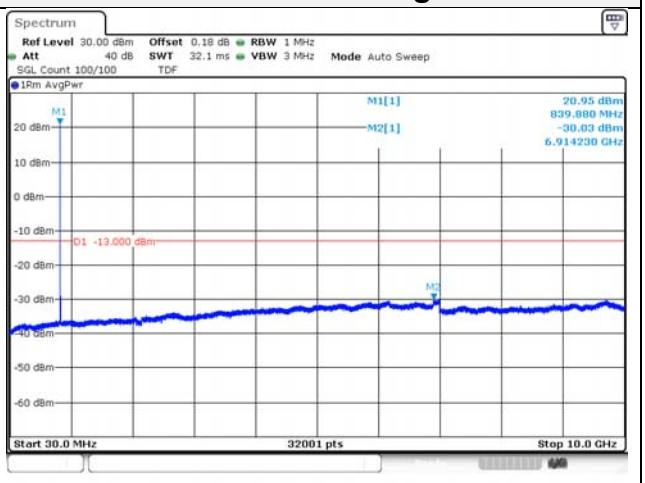


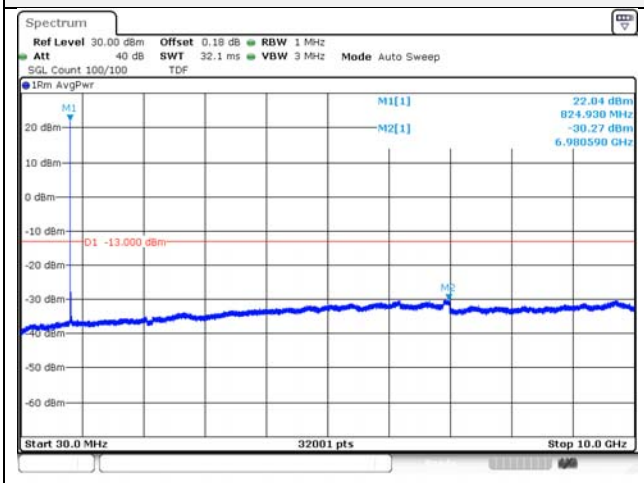
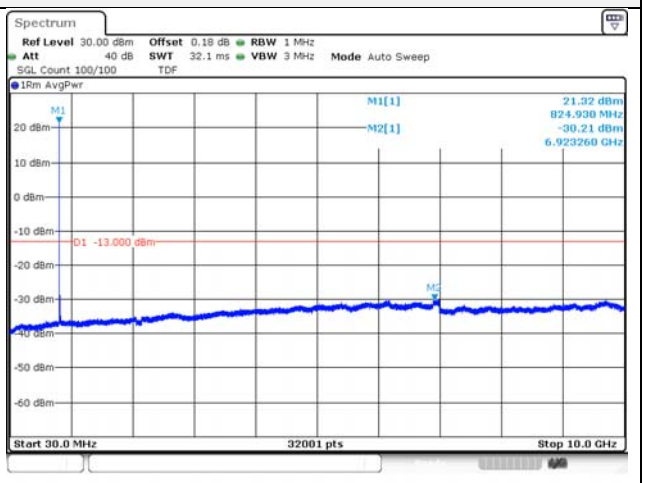
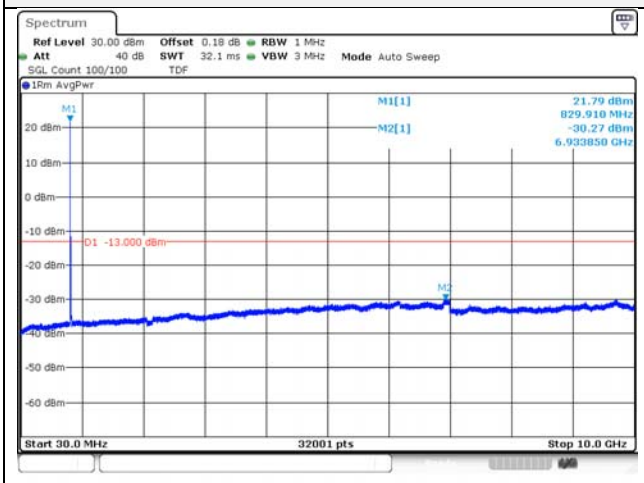
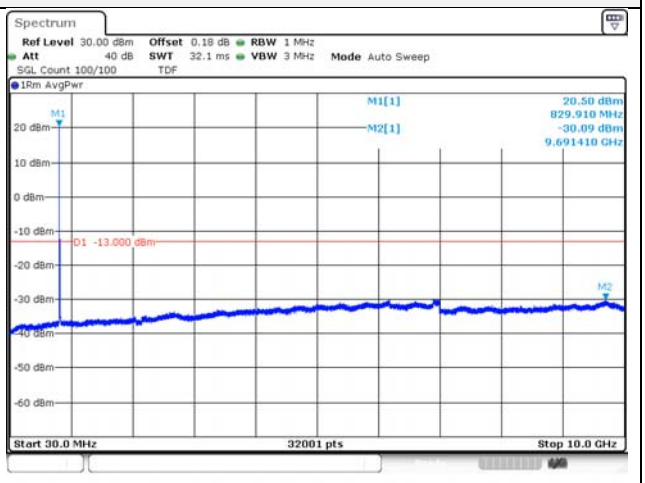
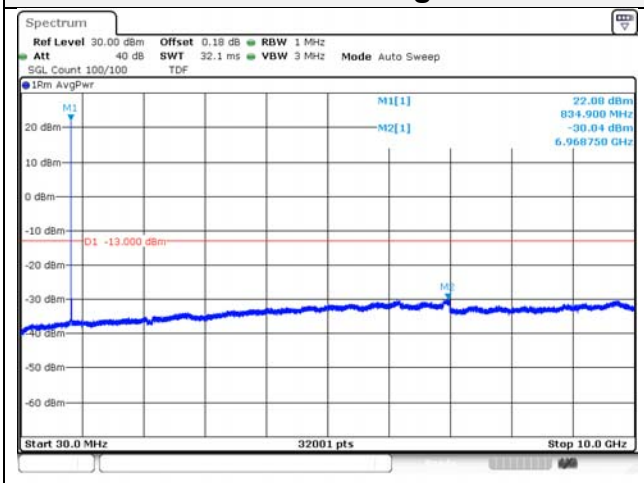
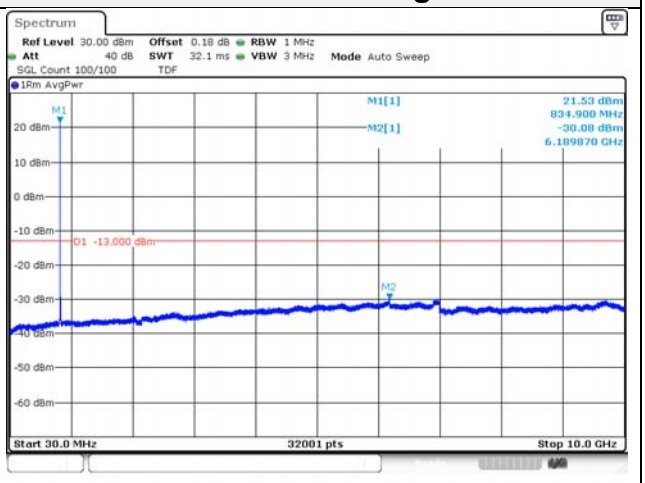
1.4M BW 16QAM High ch.



3M BW QPSK Low ch.	3M BW 16QAM Low ch.
	
3M BW QPSK Mid ch.	**3M BW 16QAM Mid ch.**
	
3M BW QPSK High ch.	**3M BW 16QAM High ch.**
	

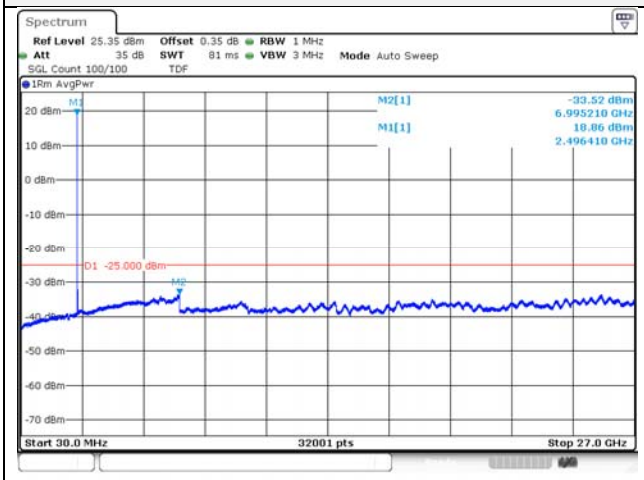
5M BW QPSK Low ch.	5M BW 16QAM Low ch.
	
5M BW QPSK Mid ch.	**5M BW 16QAM Mid ch.**
	
5M BW QPSK High ch.	**5M BW 16QAM High ch.**
	

10M BW QPSK Low ch.	10M BW 16QAM Low ch.
	
10M BW QPSK Mid ch.	**10M BW 16QAM Mid ch.**
	
10M BW QPSK High ch.	**10M BW 16QAM High ch.**
	

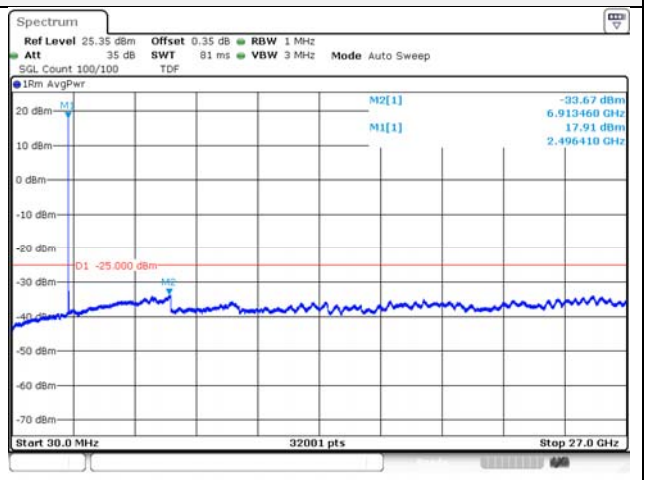
15M BW QPSK Low ch.	15M BW 16QAM Low ch.
	
15M BW QPSK Mid ch.	**15M BW 16QAM Mid ch.**
	
15M BW QPSK High ch.	**15M BW 16QAM High ch.**
	

Test mode: LTE Band 41

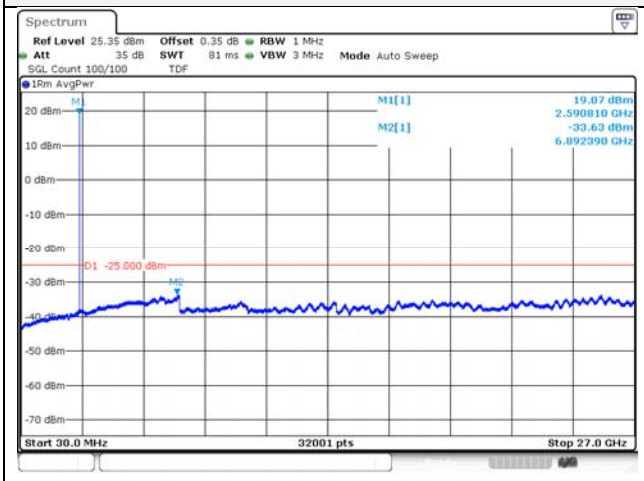
5M BW QPSK Low ch.



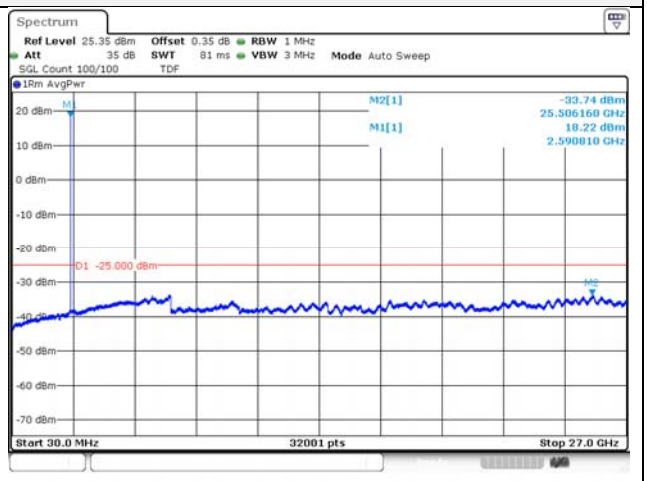
5M BW 16QAM Low ch.



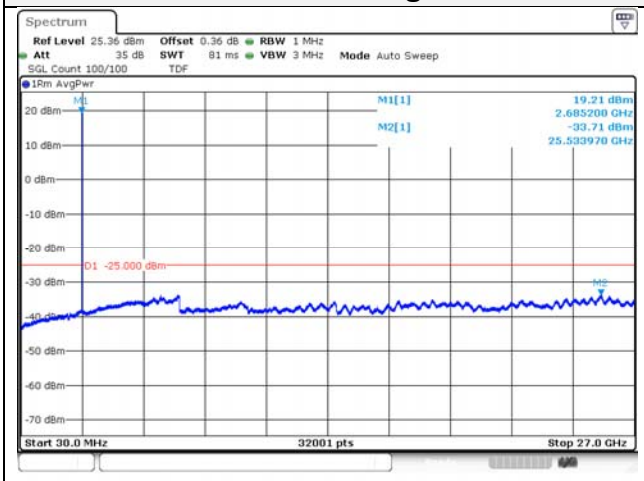
5M BW QPSK Mid ch.



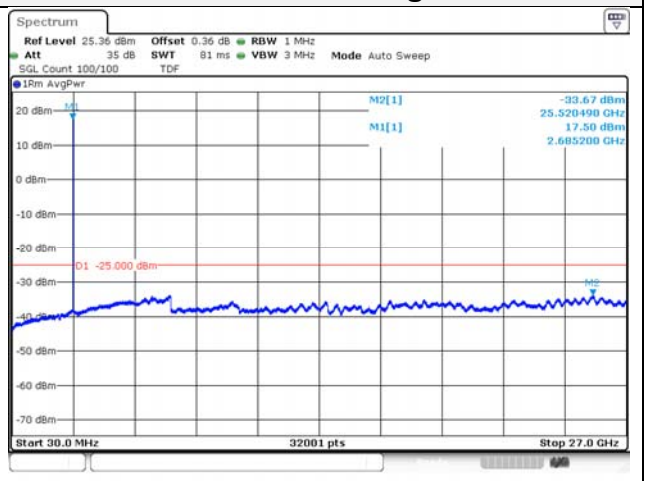
5M BW 16QAM Mid ch.

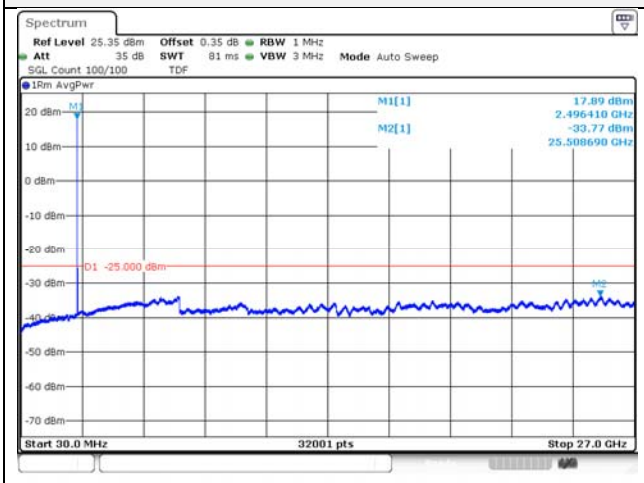
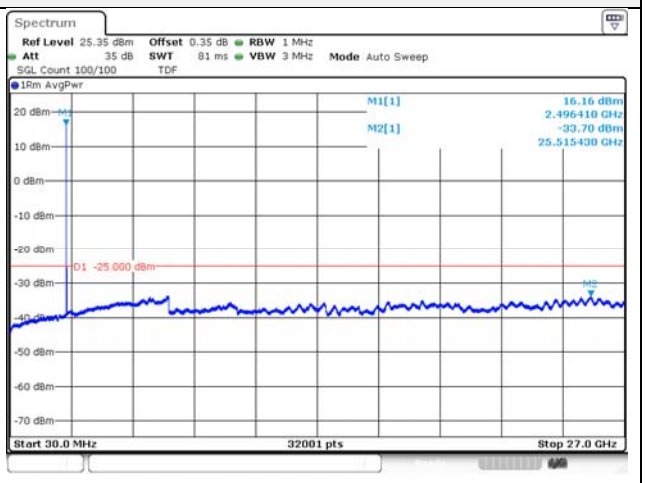
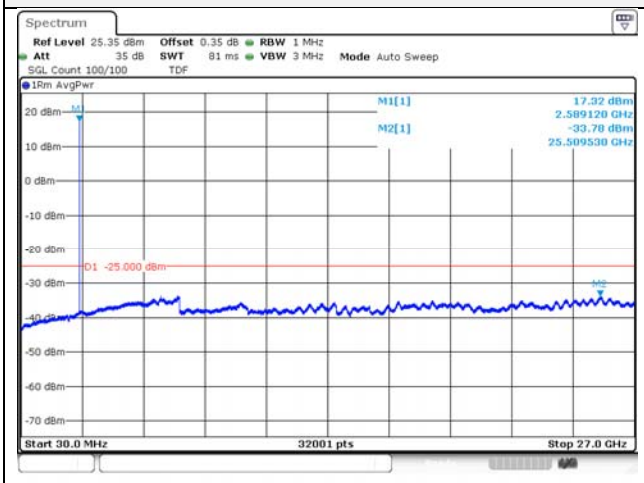
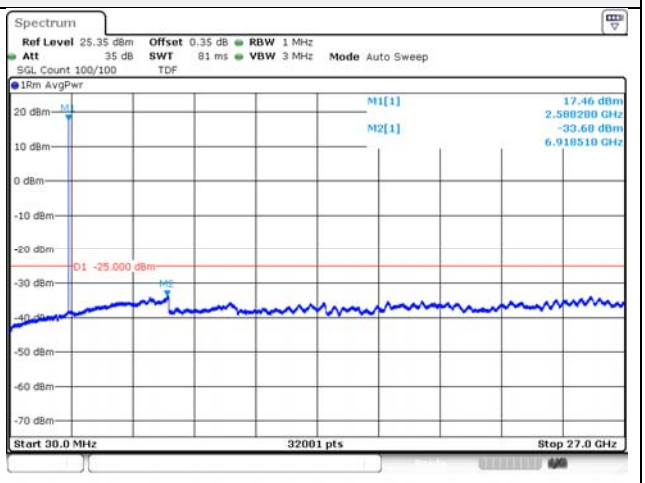
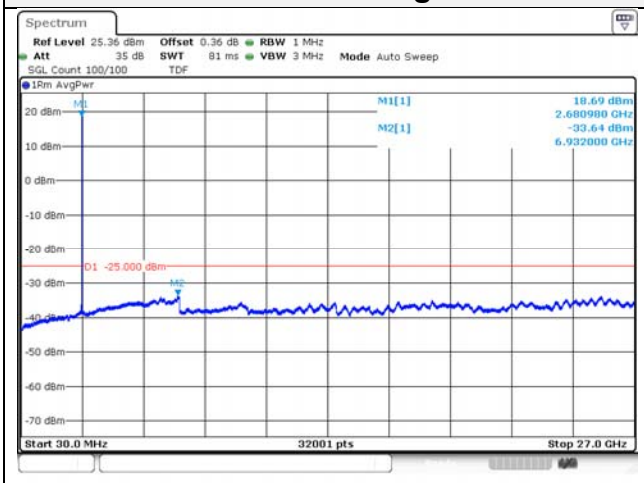
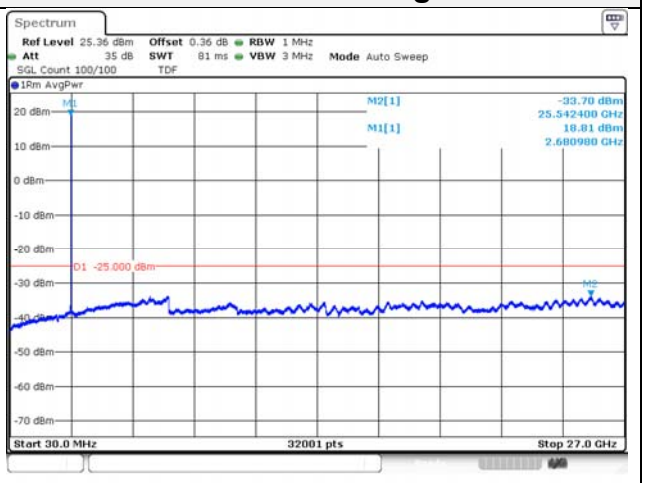


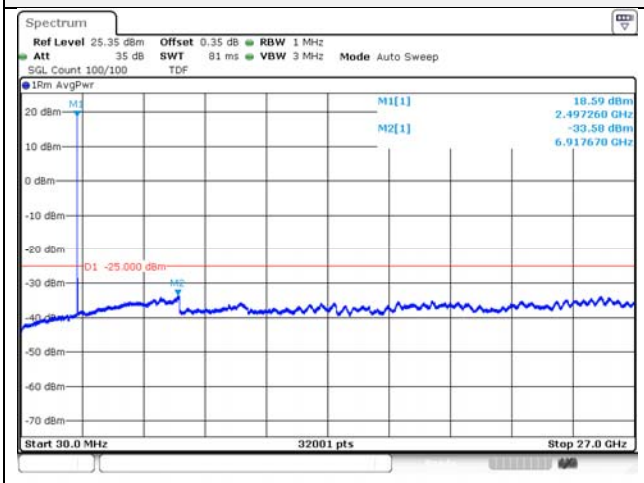
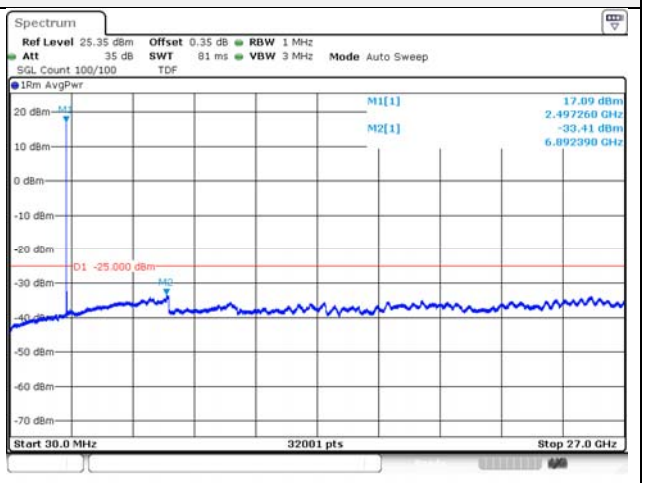
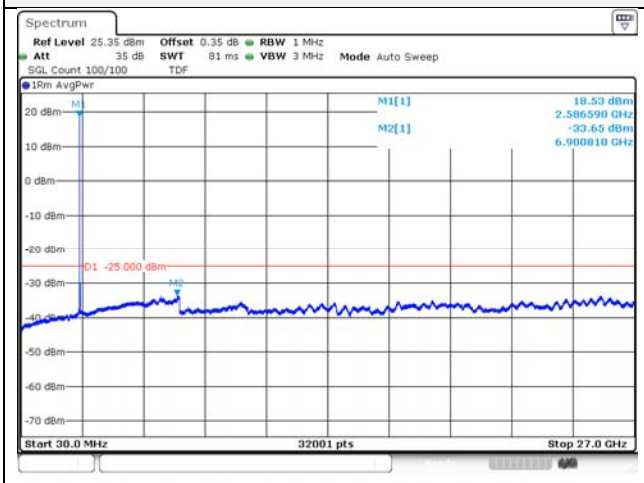
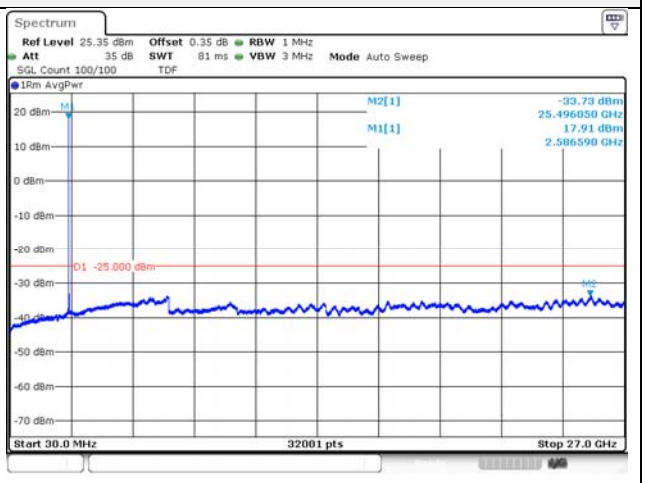
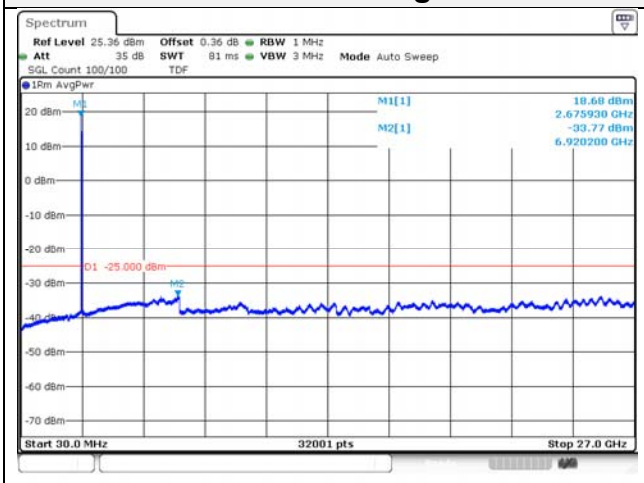
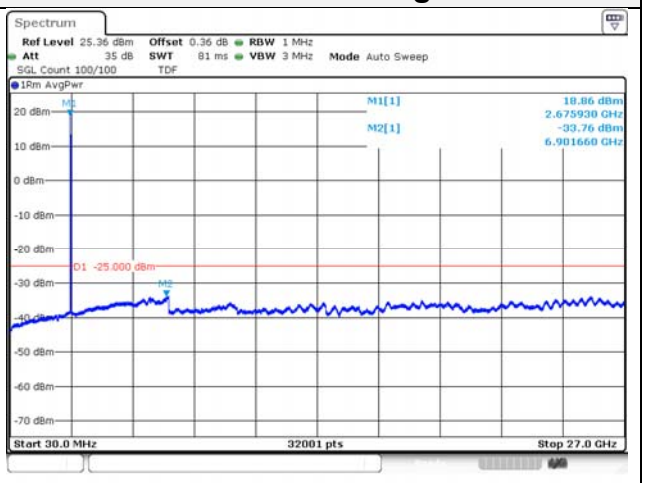
5M BW QPSK High ch.



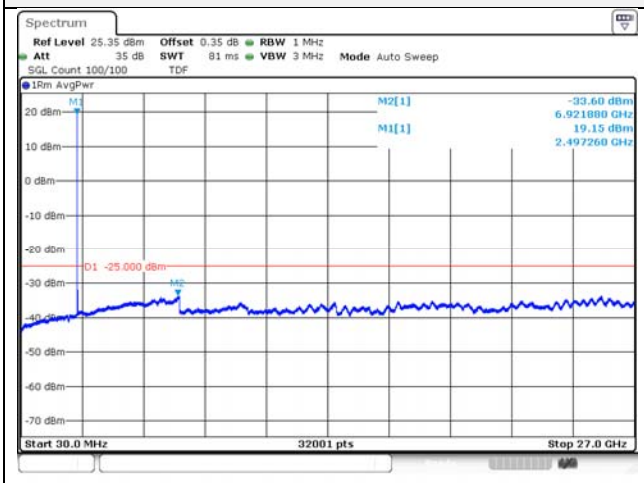
5M BW 16QAM High ch.



10M BW QPSK Low ch.	10M BW 16QAM Low ch.
	
10M BW QPSK Mid ch.	**10M BW 16QAM Mid ch.**
	
10M BW QPSK High ch.	**10M BW 16QAM High ch.**
	

15M BW QPSK Low ch.	15M BW 16QAM Low ch.
	
15M BW QPSK Mid ch.	**15M BW 16QAM Mid ch.**
	
15M BW QPSK High ch.	**15M BW 16QAM High ch.**
	

20M BW QPSK Low ch.



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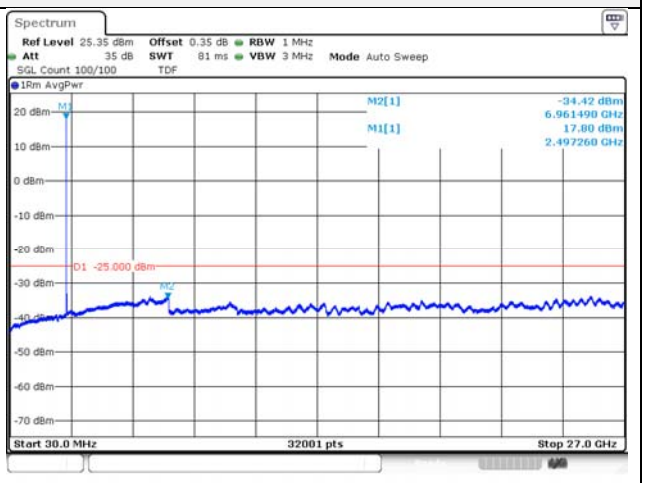

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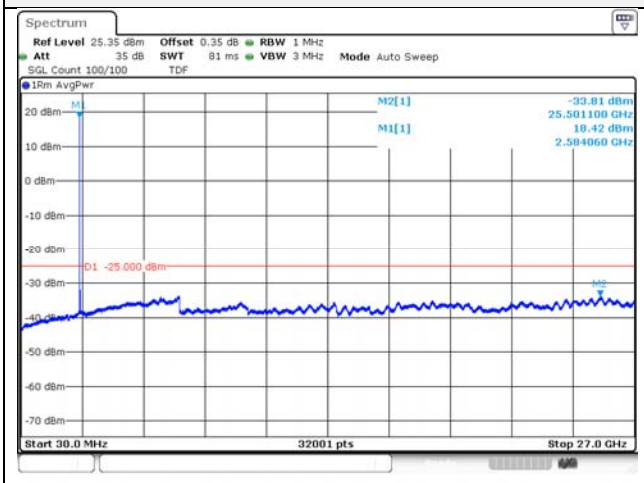

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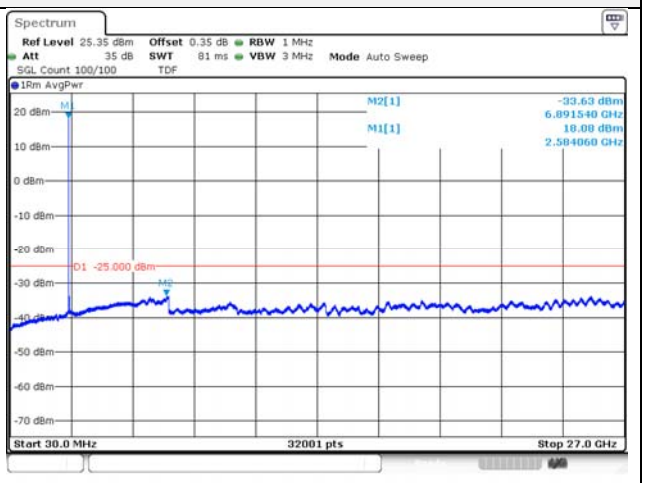
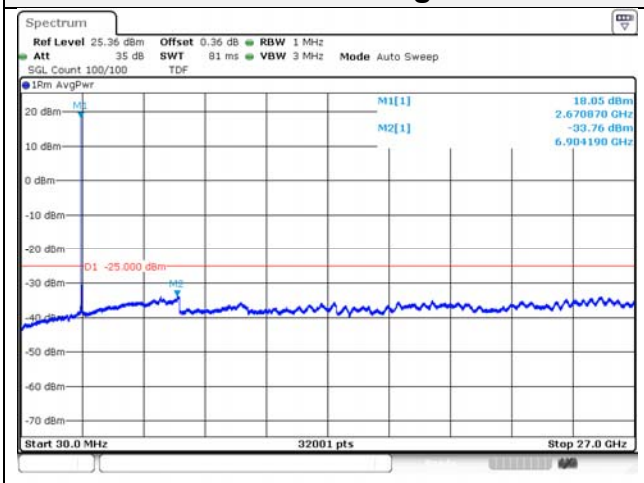


20M BW QPSK High ch.



20M BW 16QAM High ch.