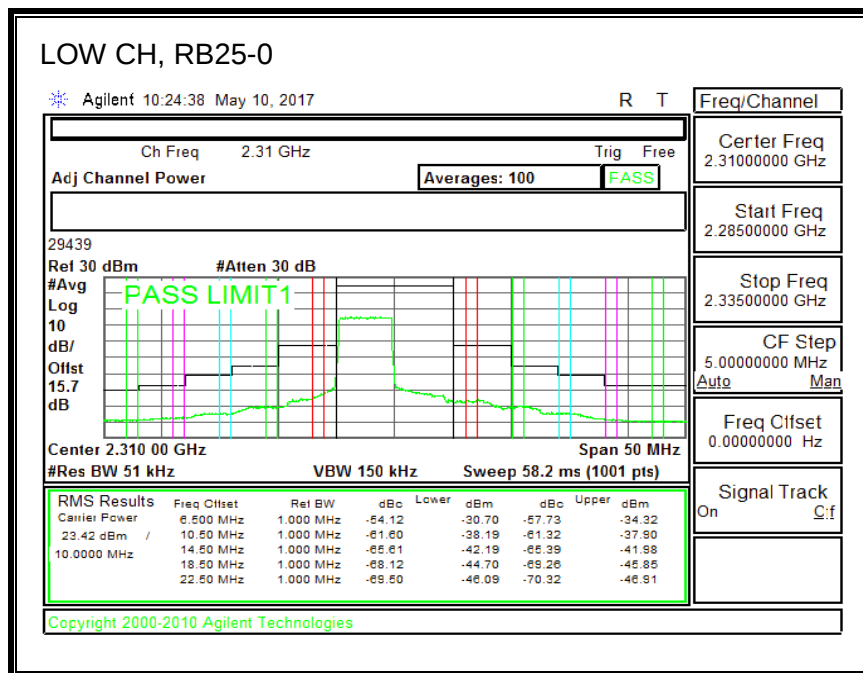
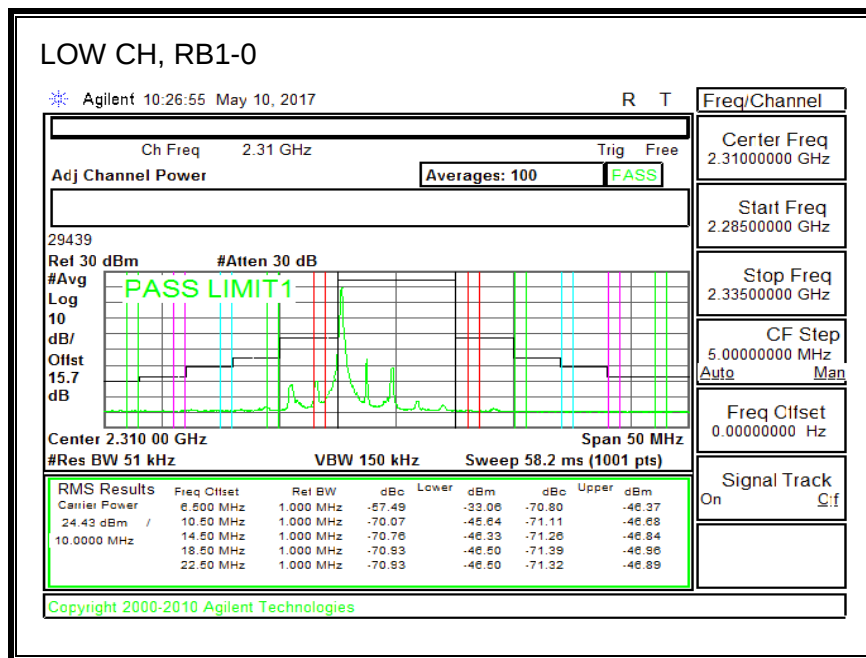
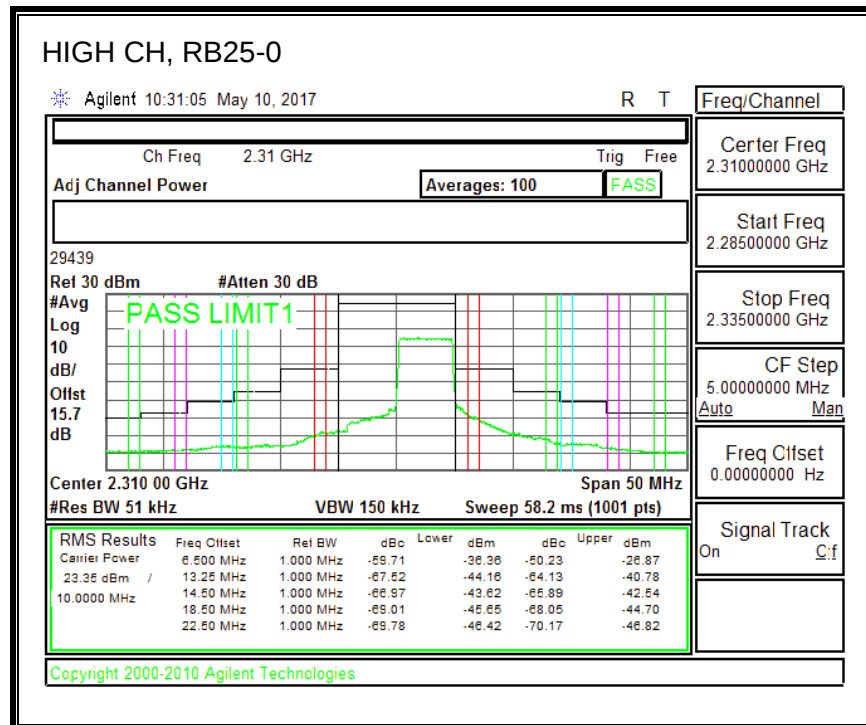
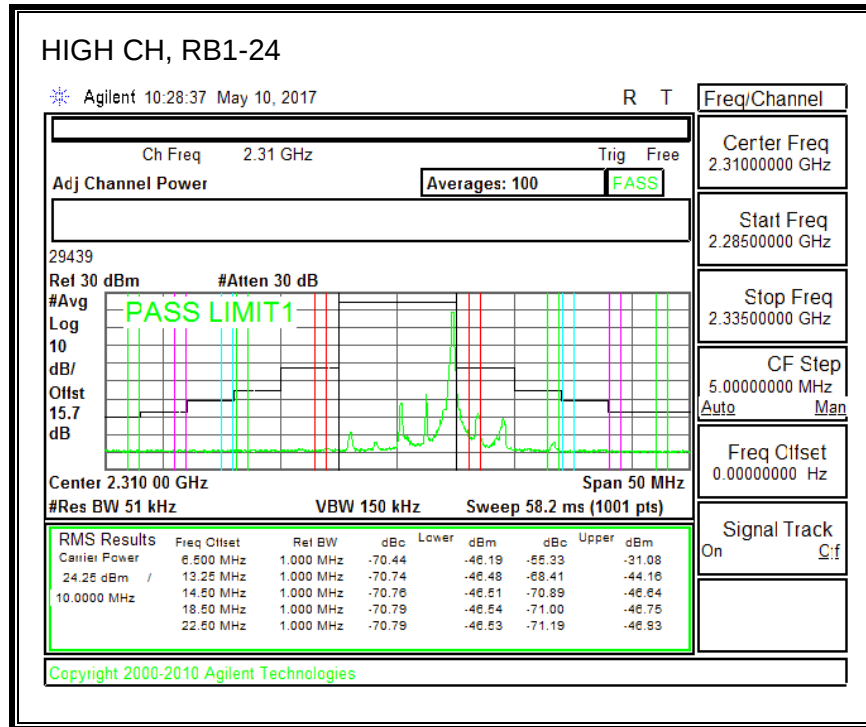


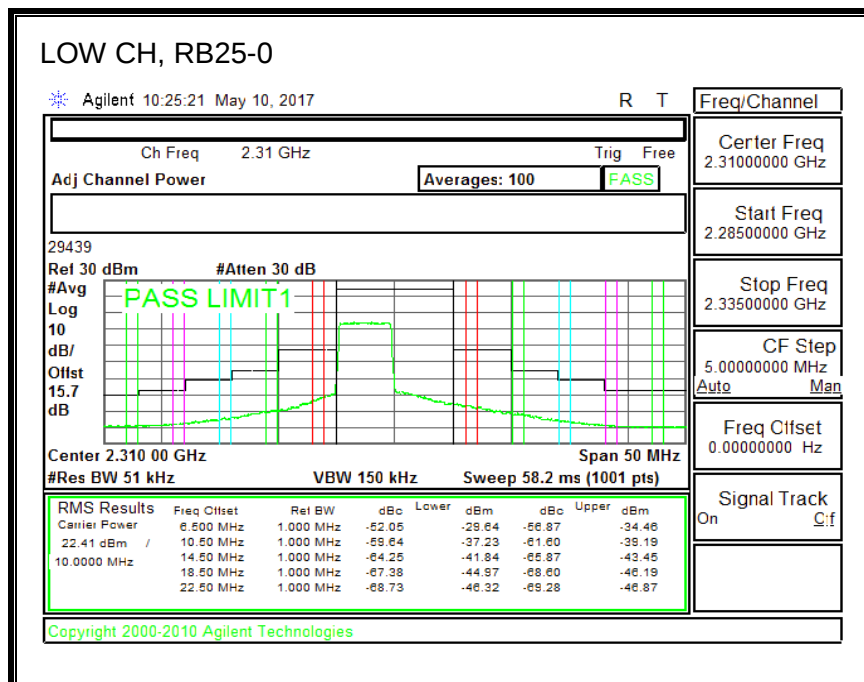
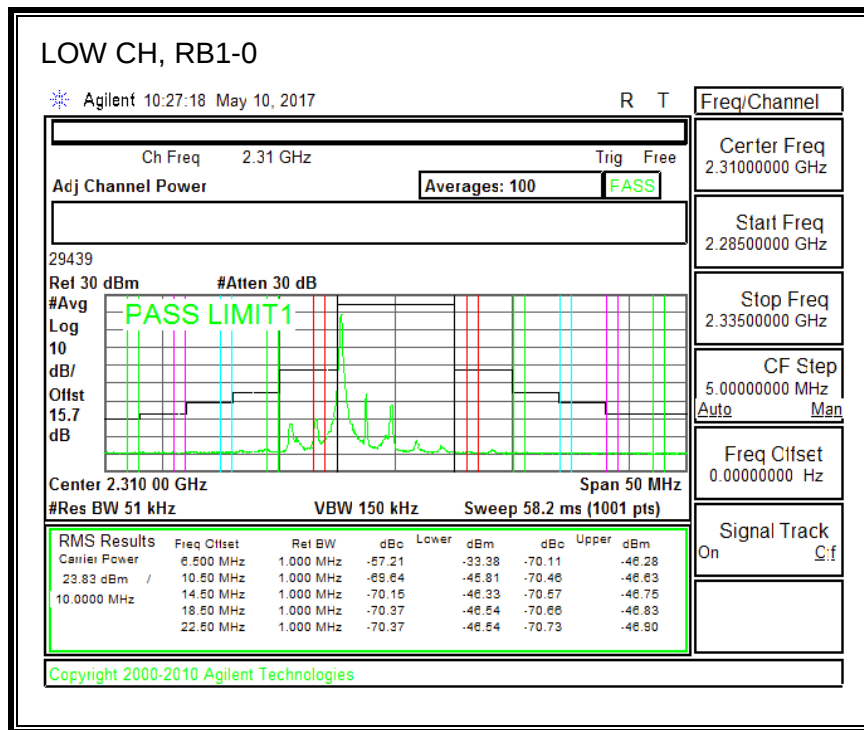
8.2.10. LTE BAND 30 ADJACENT CHANNEL POWER

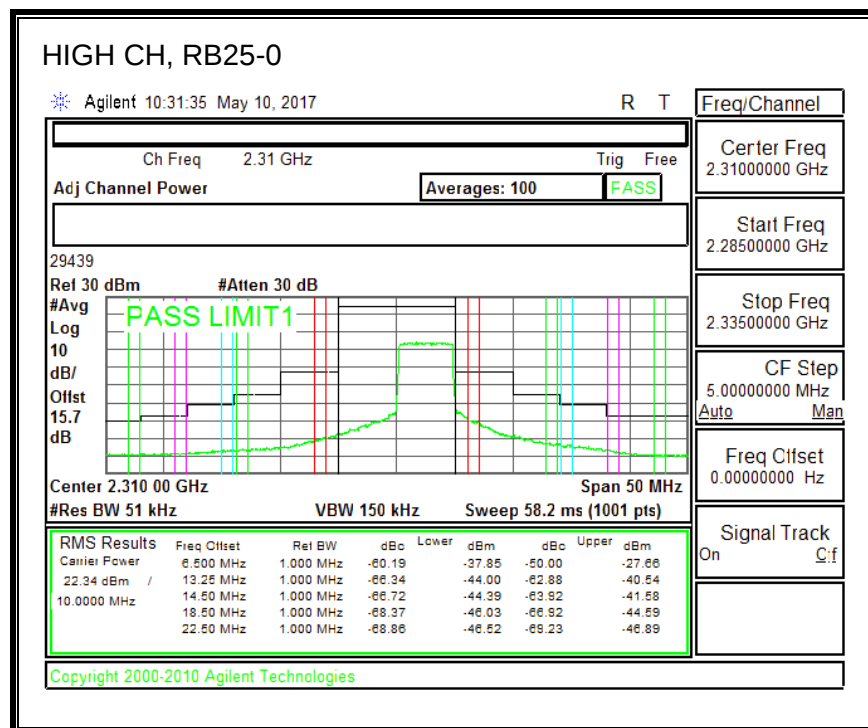
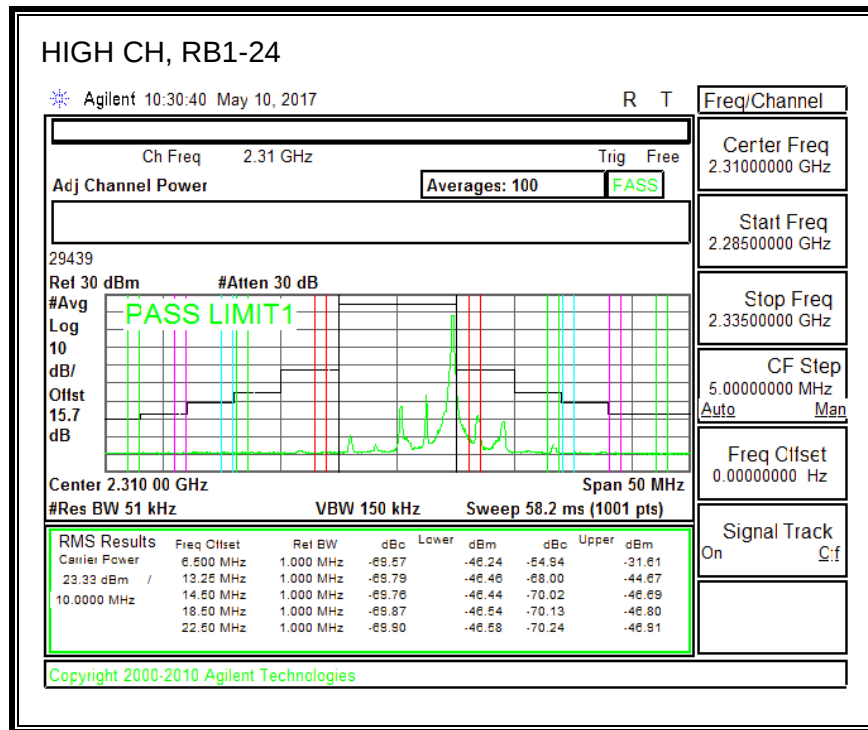
QPSK, (5.0 MHz BAND WIDTH)



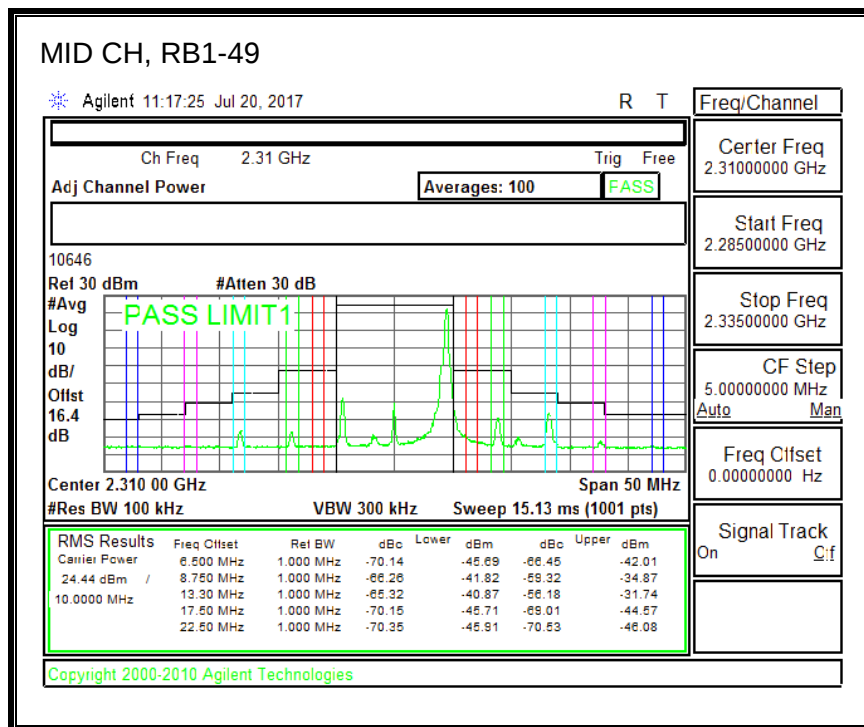
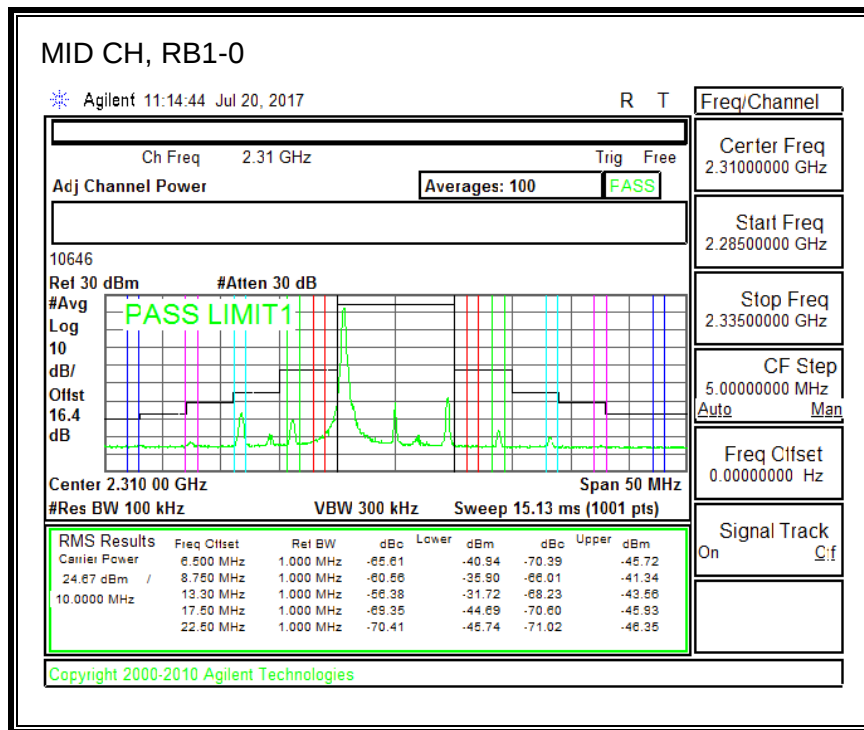


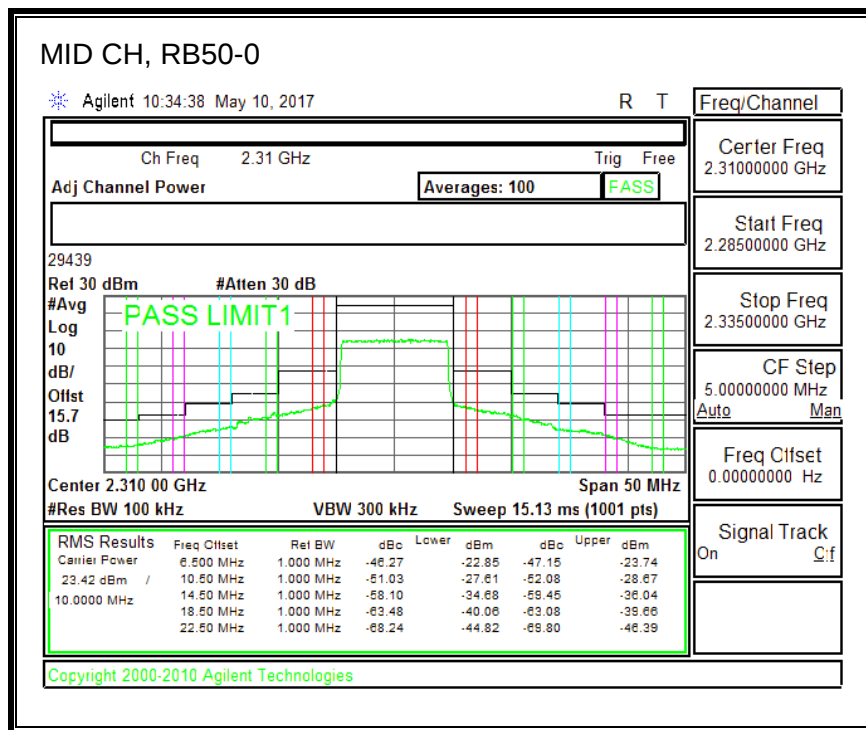
16QAM, (5.0 MHz BAND WIDTH)



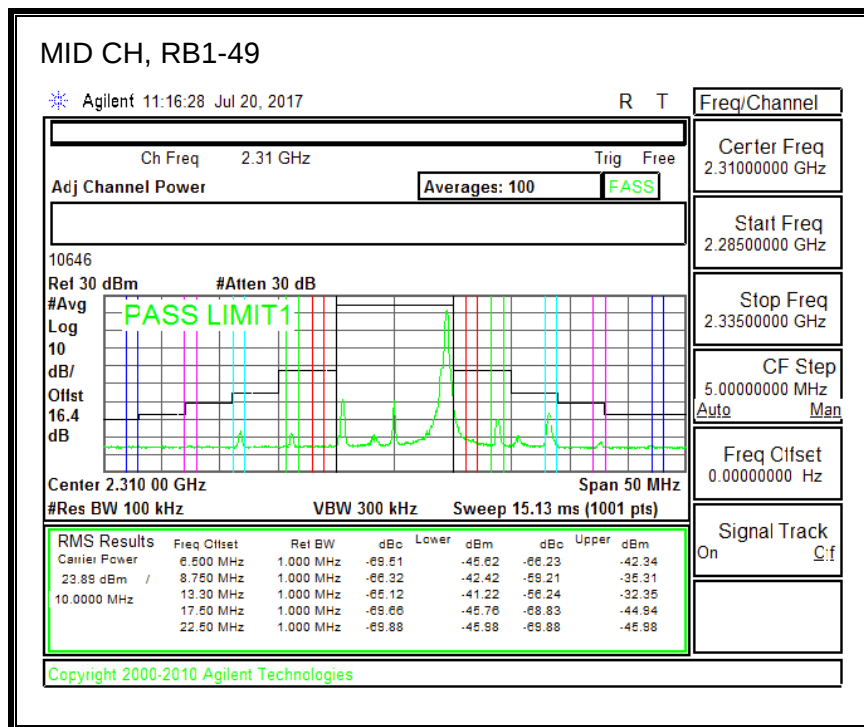
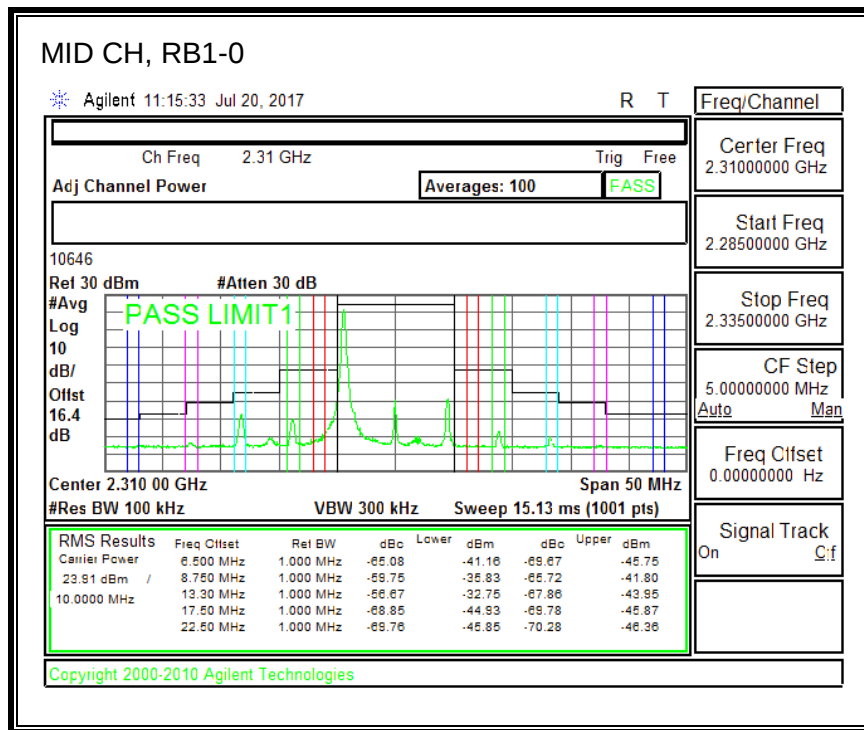


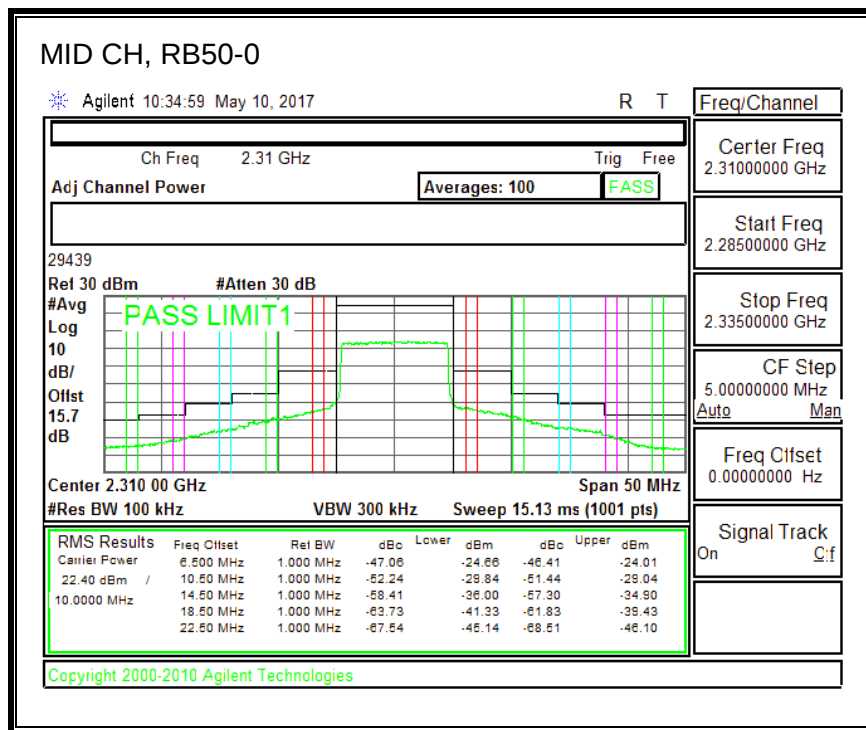
QPSK, (10.0 MHz BAND WIDTH)





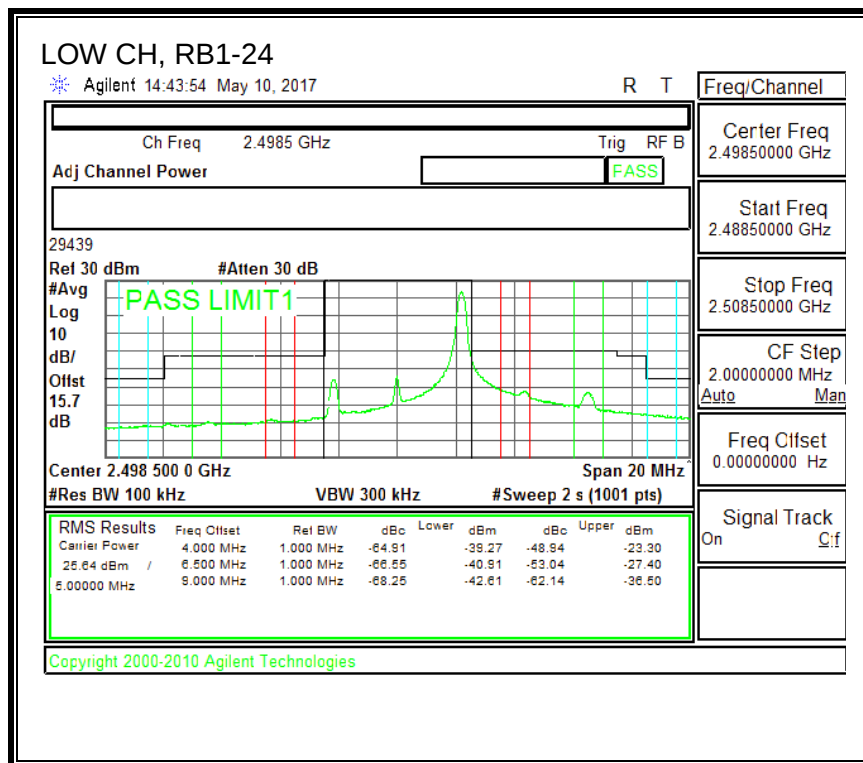
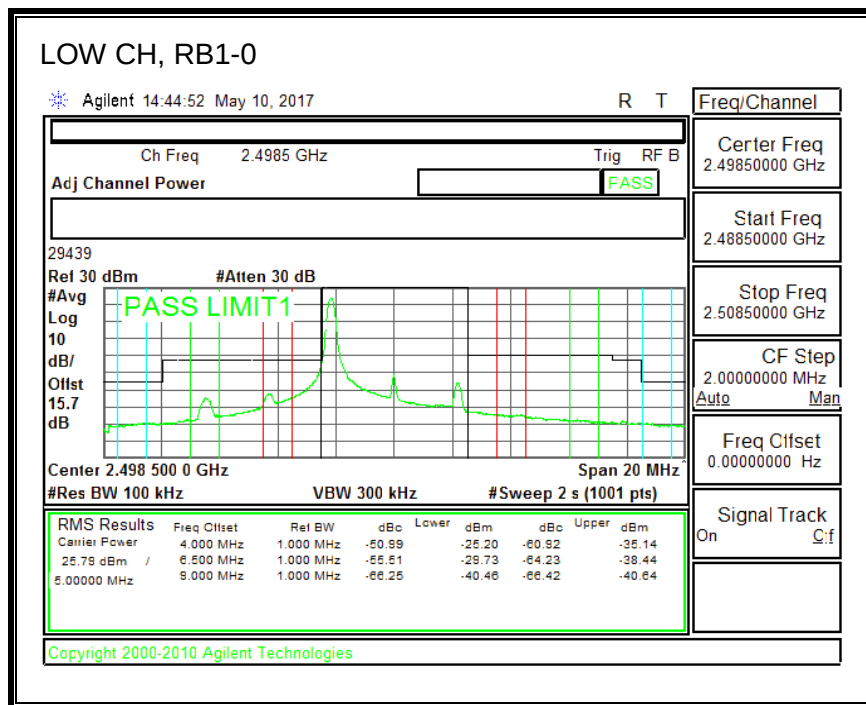
16QAM, (10.0 MHz BAND WIDTH)

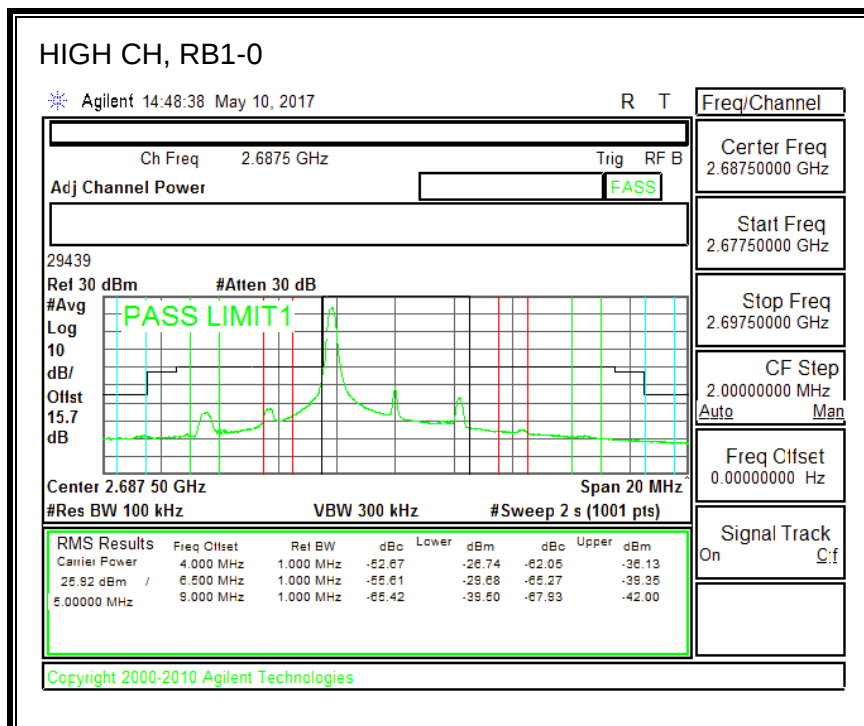
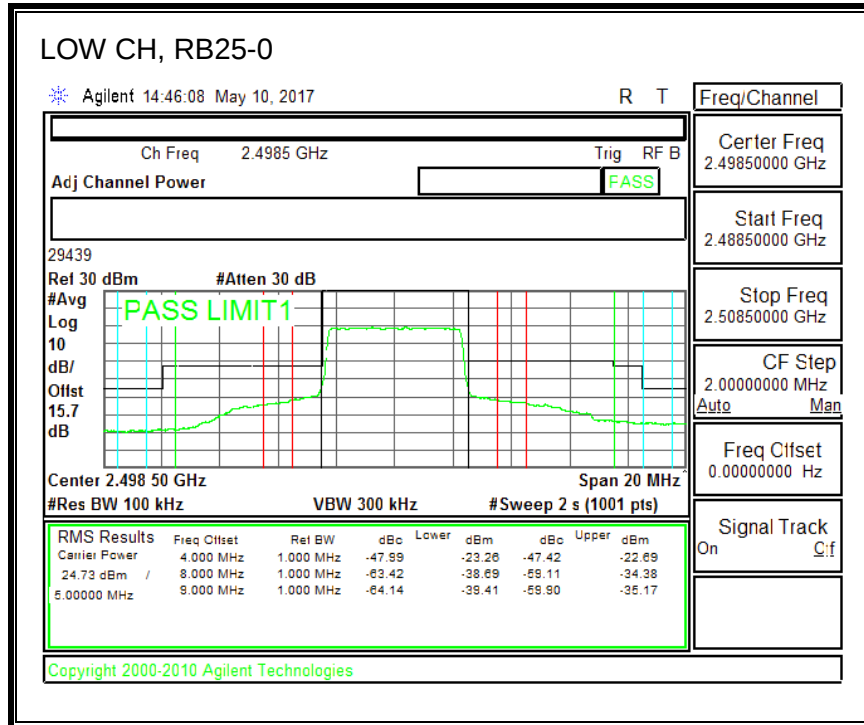


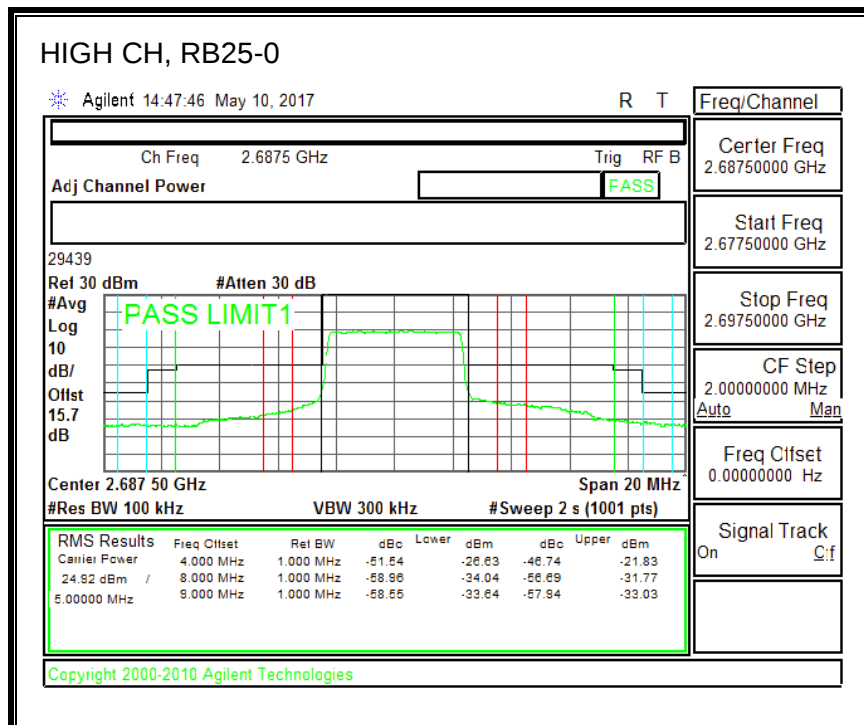
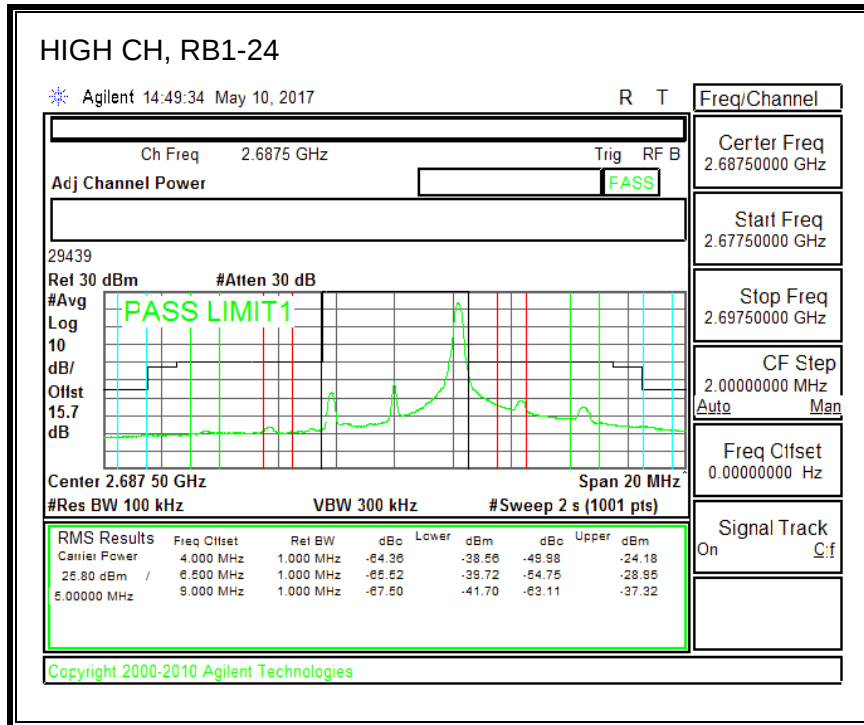


8.2.11. LTE BAND 41 ADJACENT CHANNEL POWER

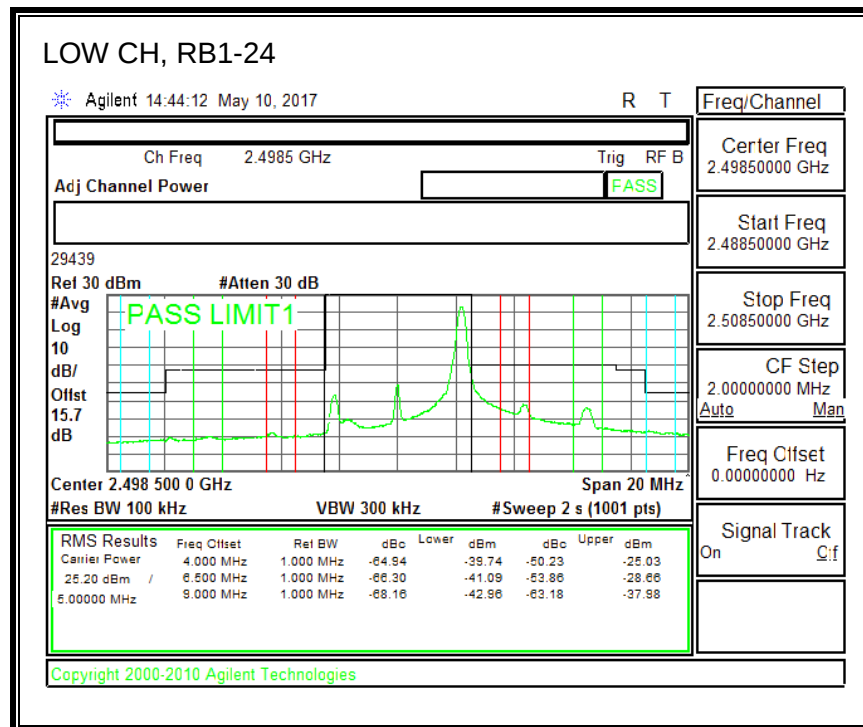
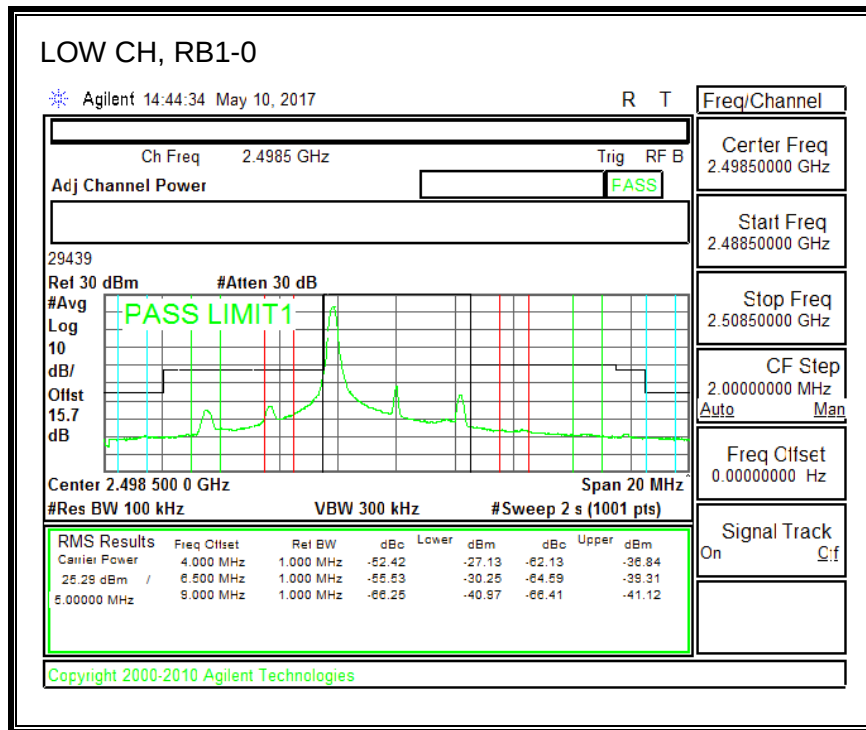
QPSK, (5.0 MHz BAND WIDTH)

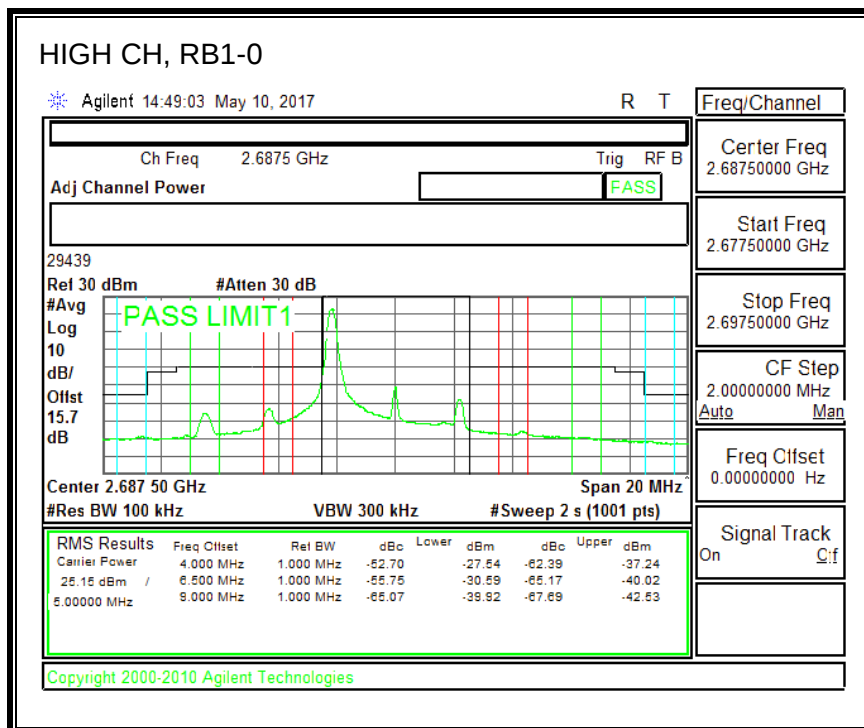
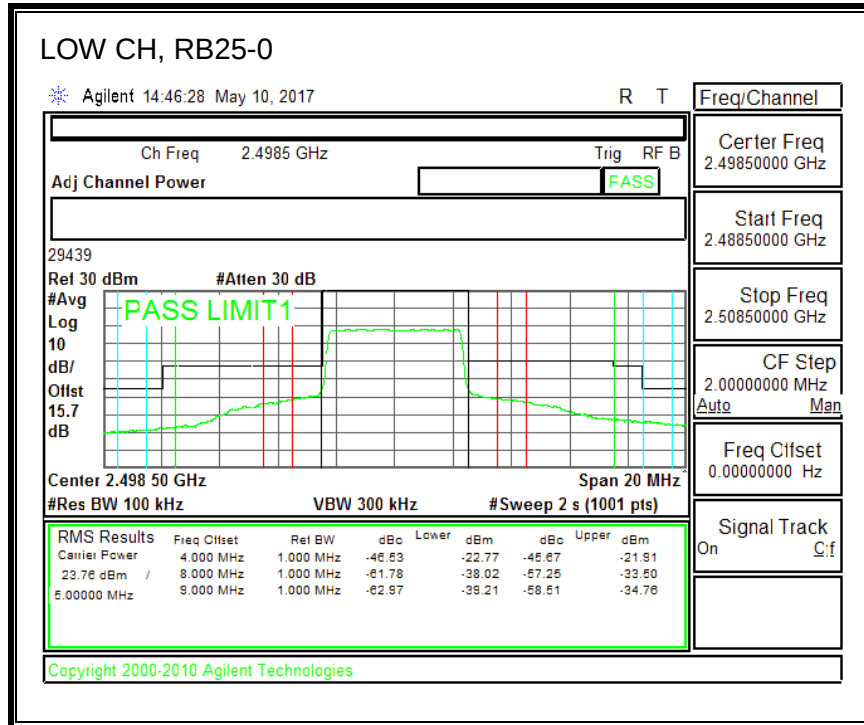


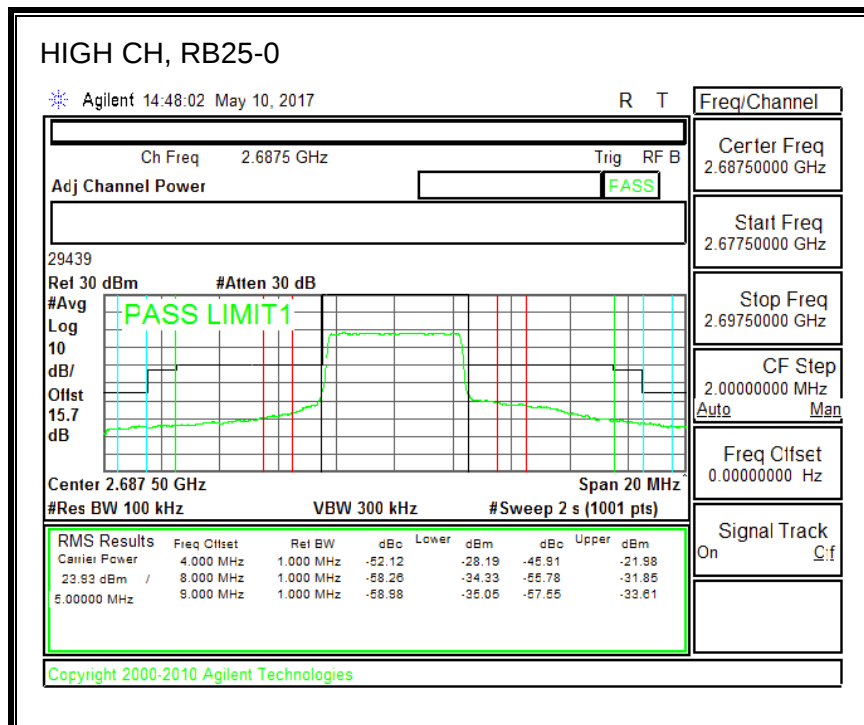
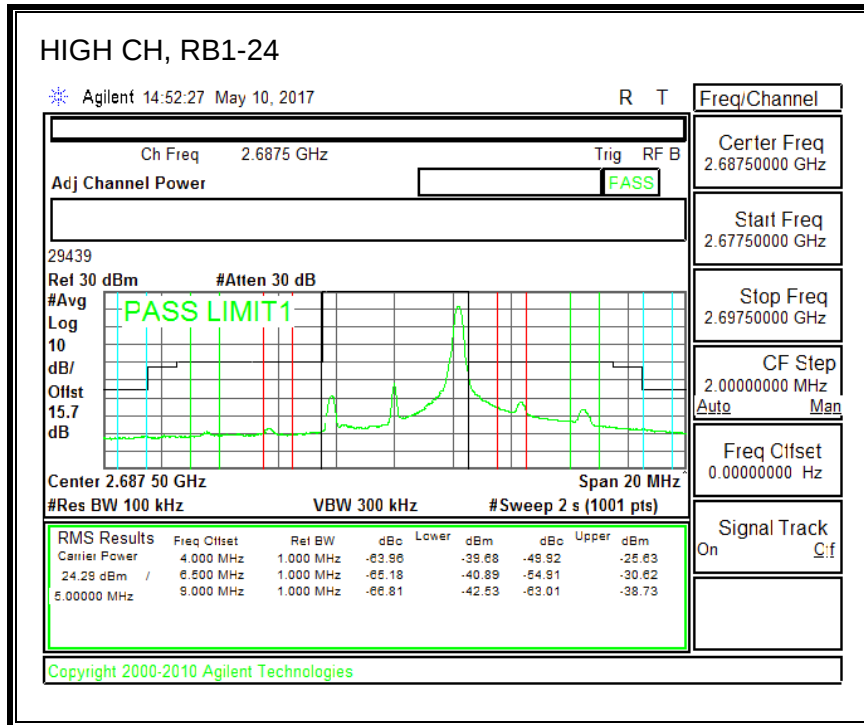




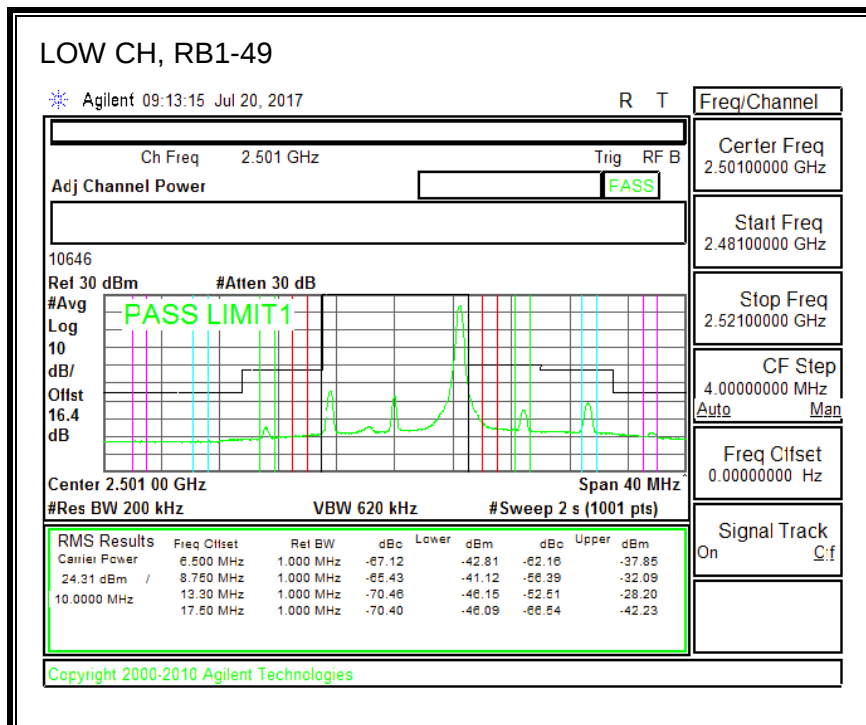
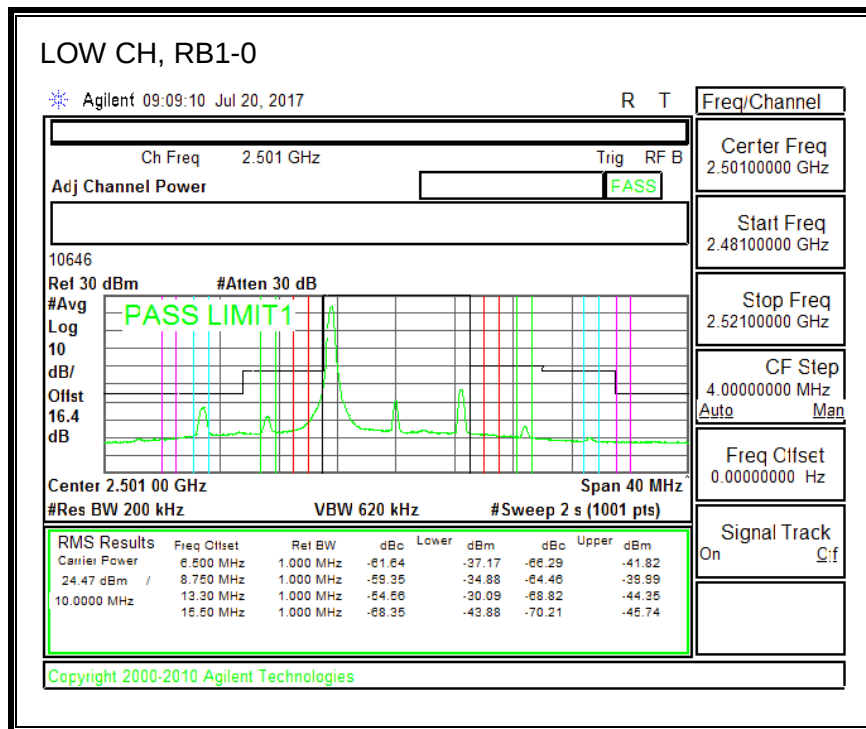
16QAM, (5.0 MHz BAND WIDTH)

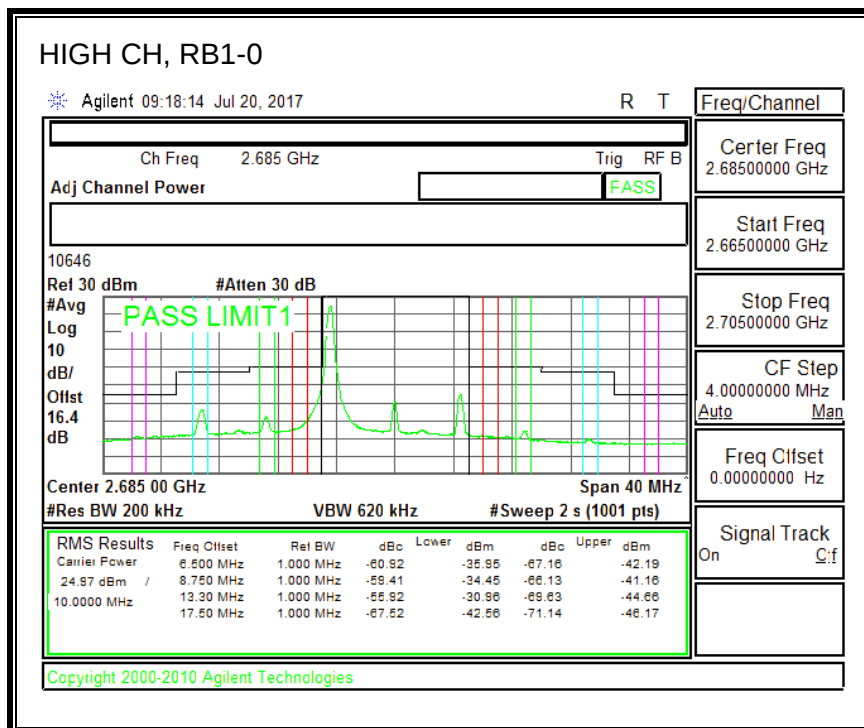
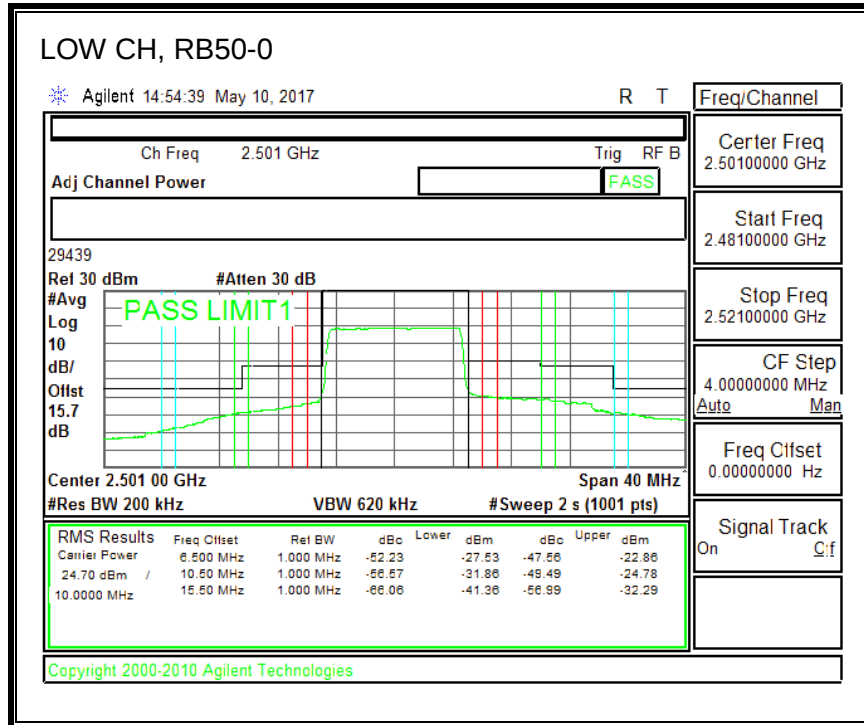


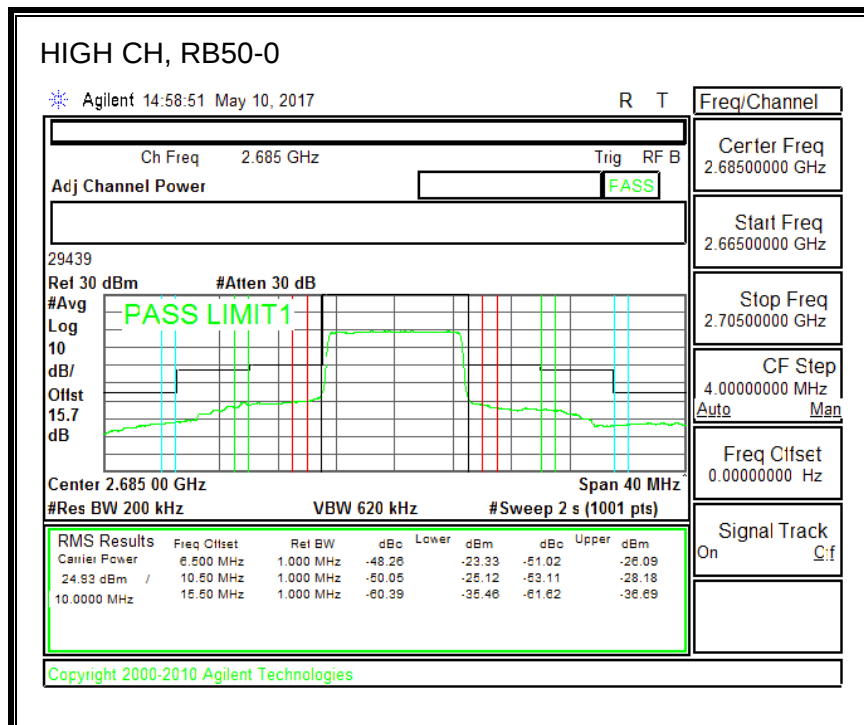
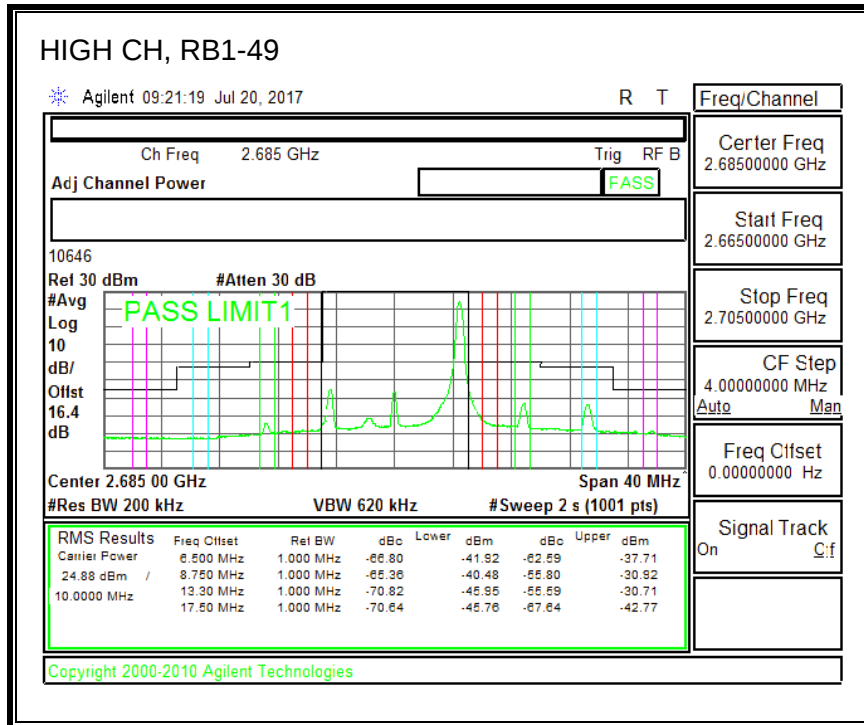




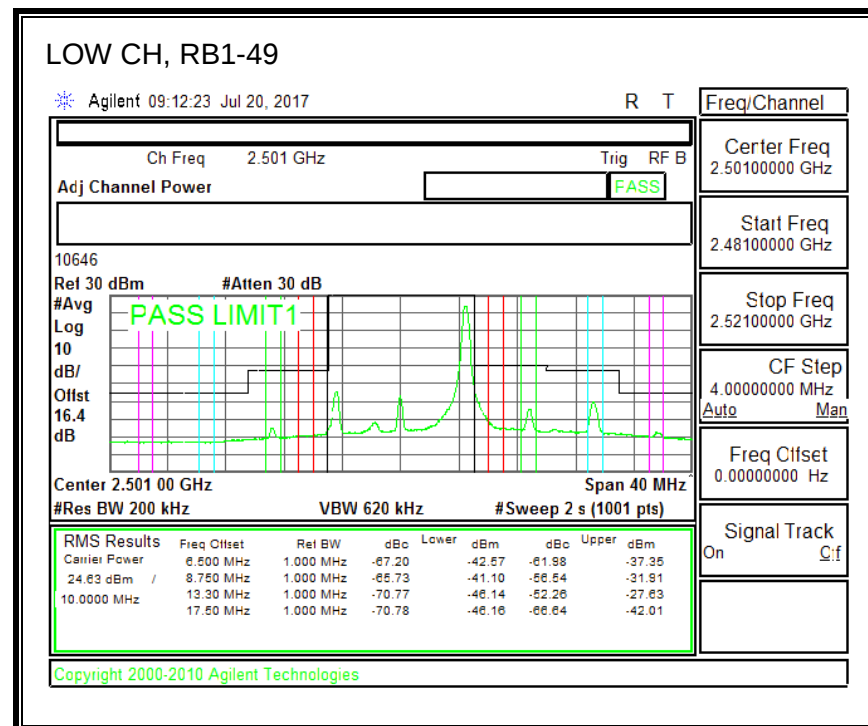
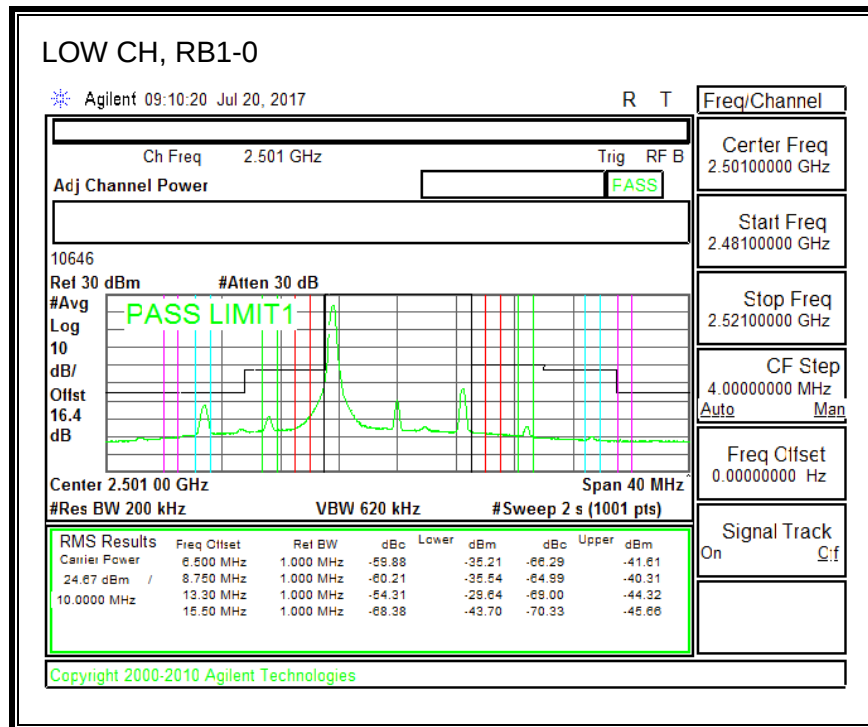
QPSK, (10.0 MHz BAND WIDTH)

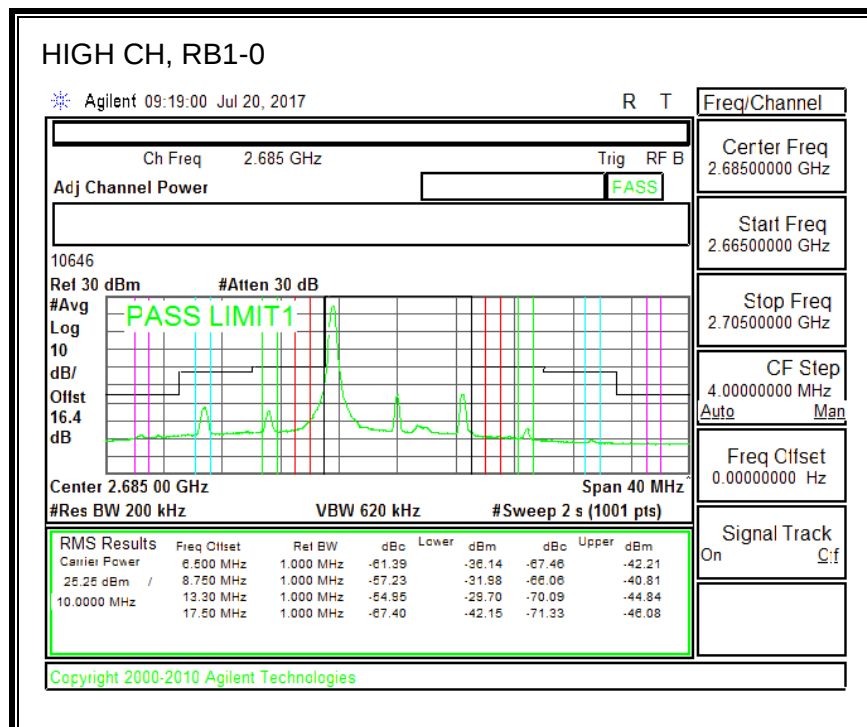
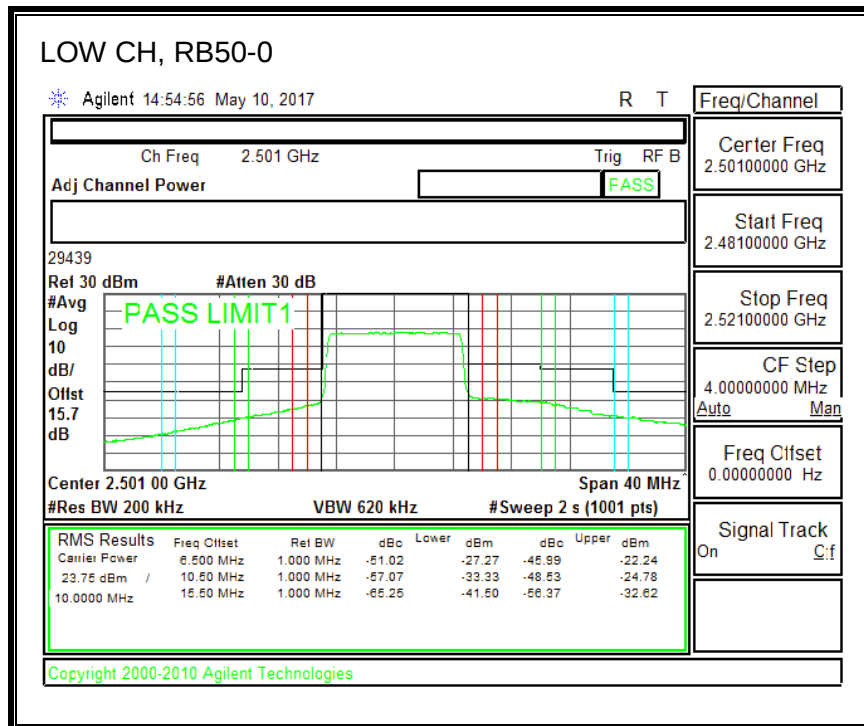


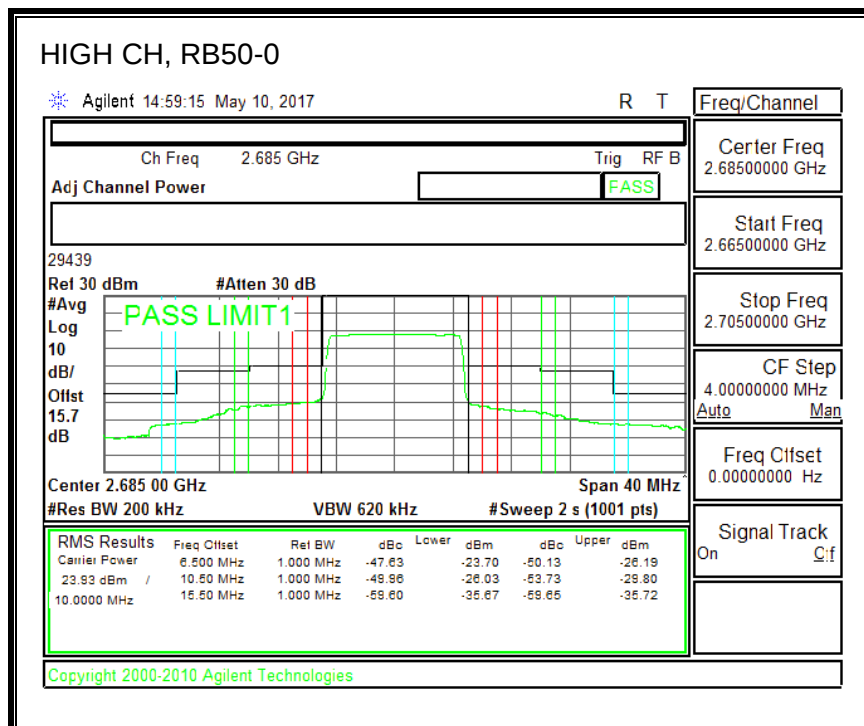
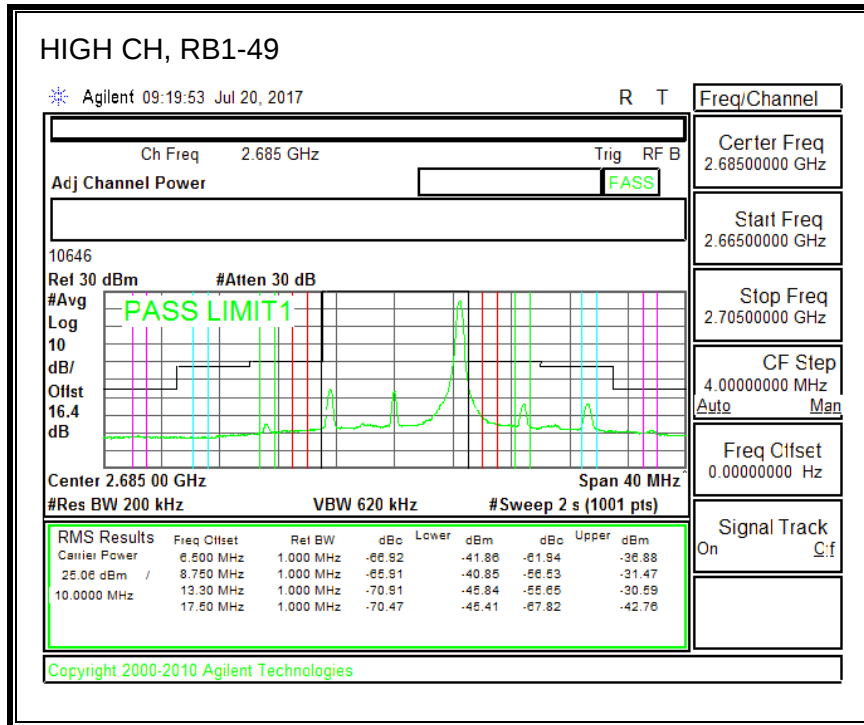




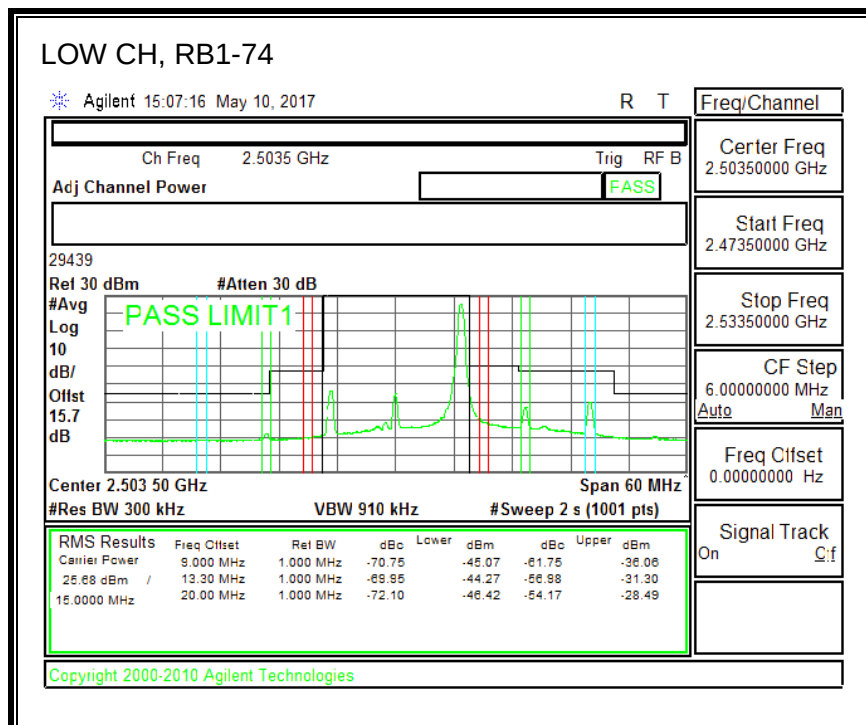
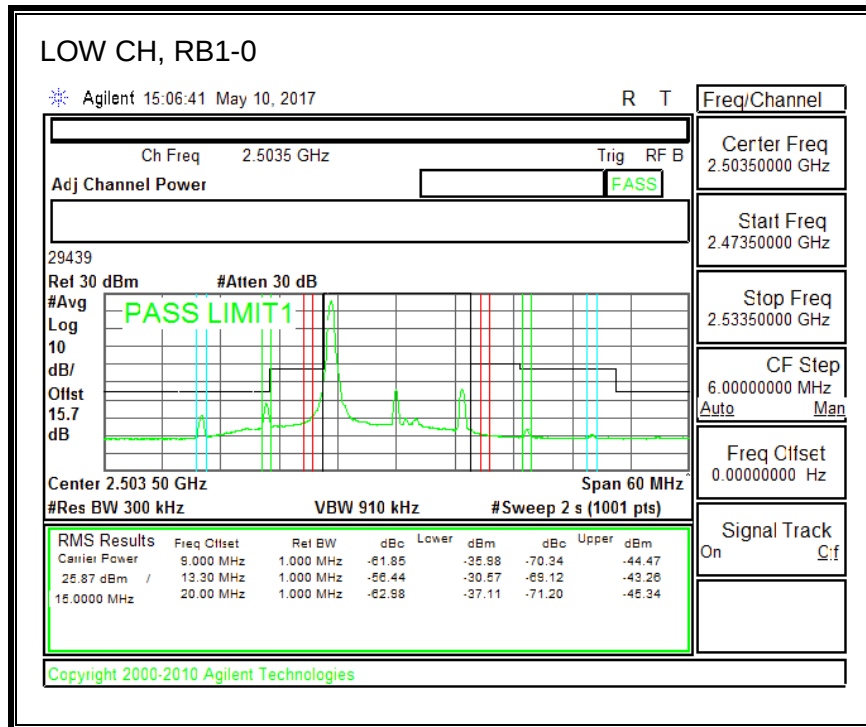
16QAM, (10.0 MHz BAND WIDTH)

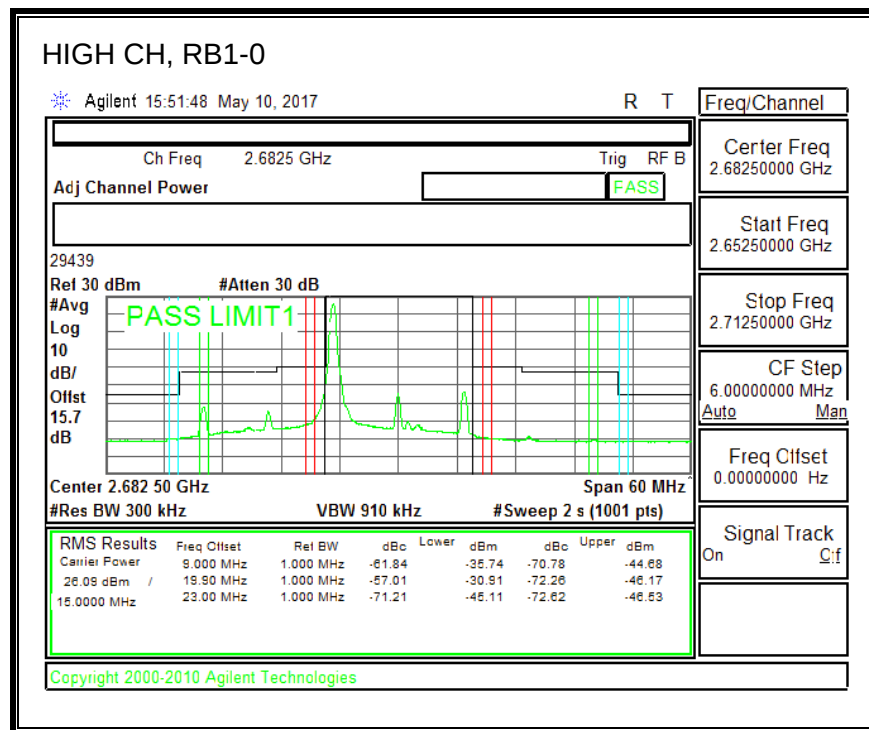
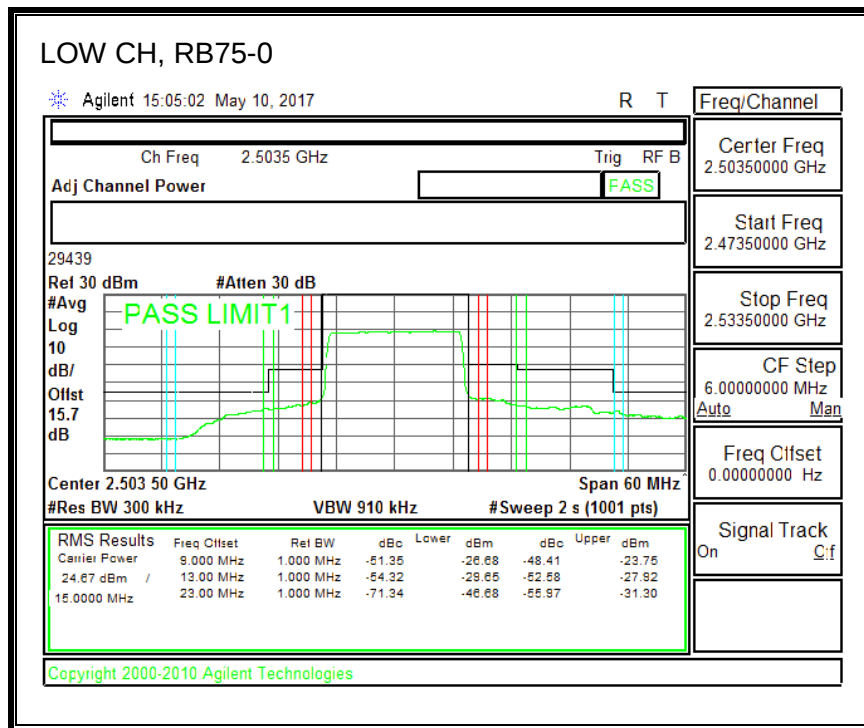


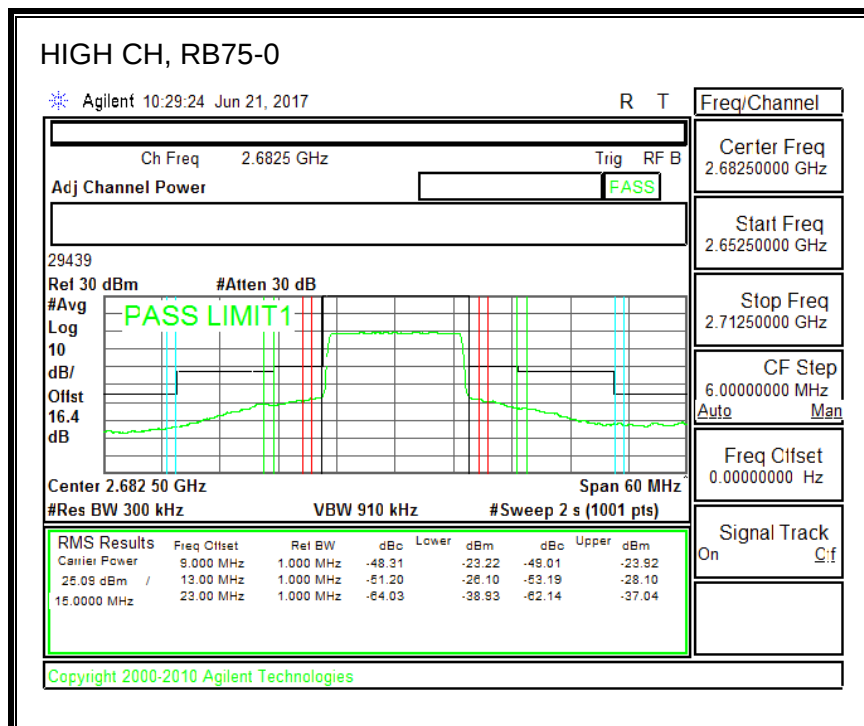
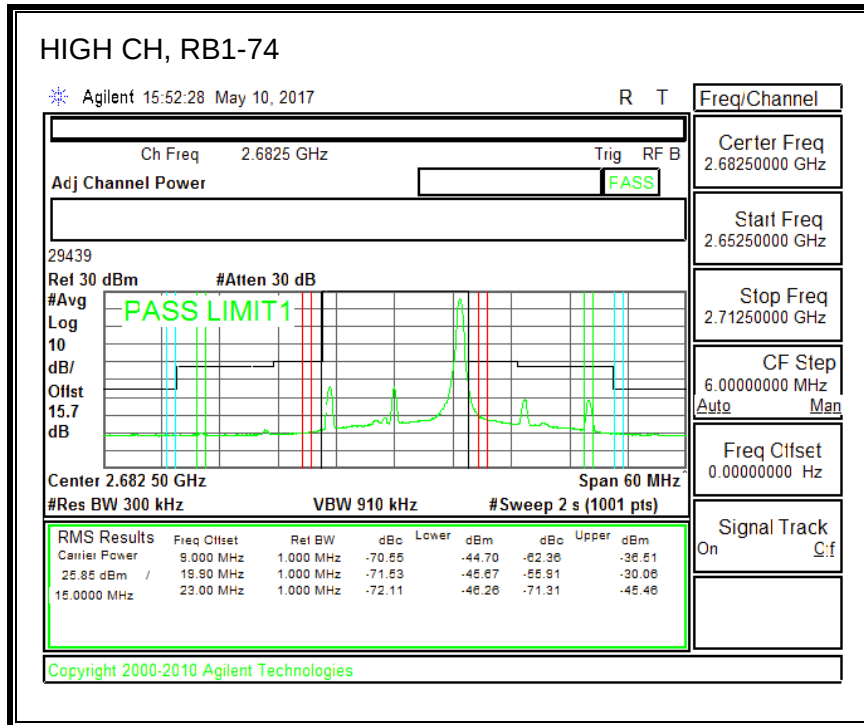




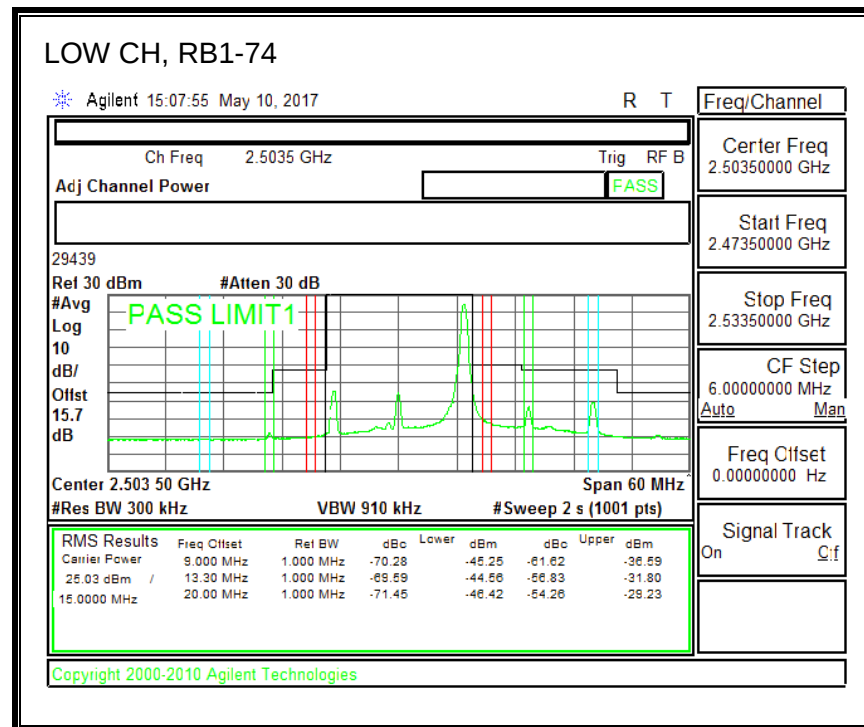
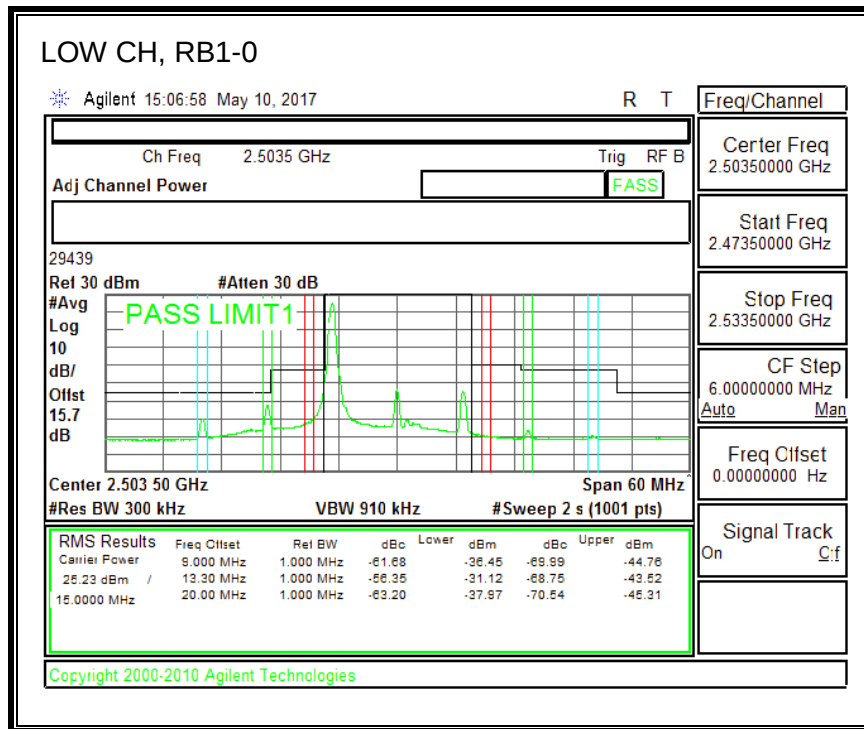
QPSK, (15.0 MHz BAND WIDTH)

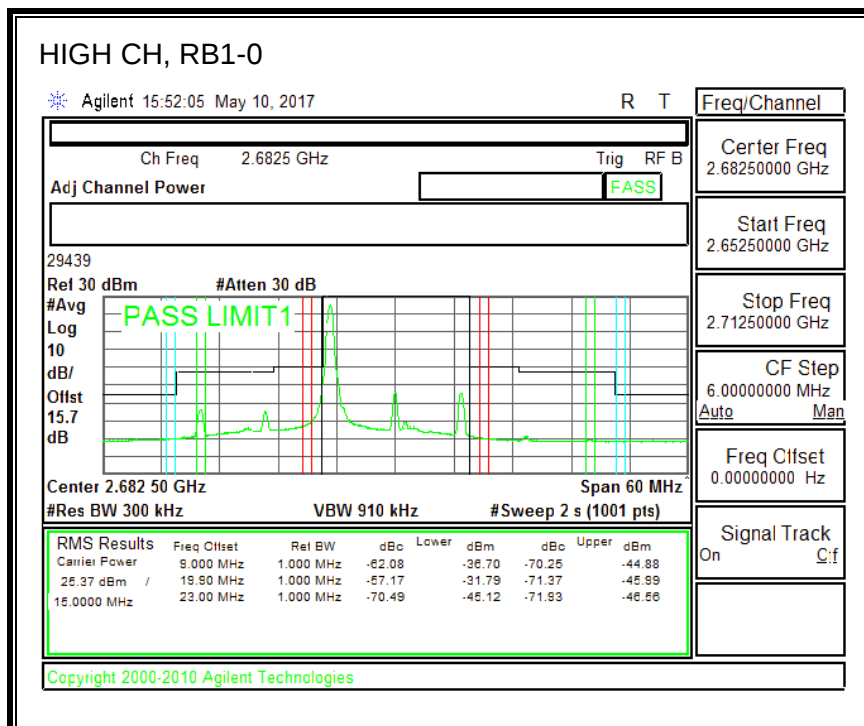
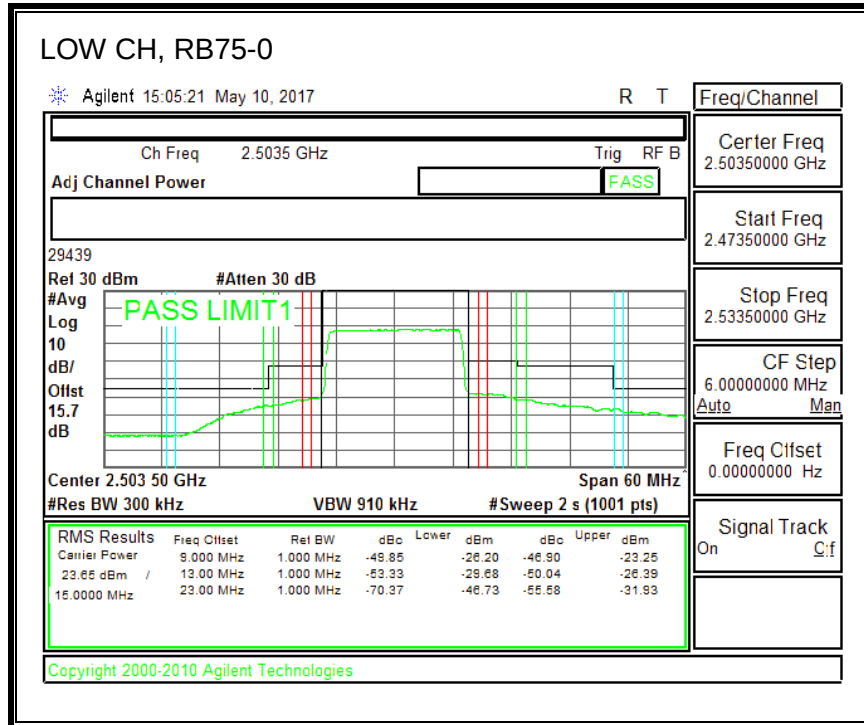


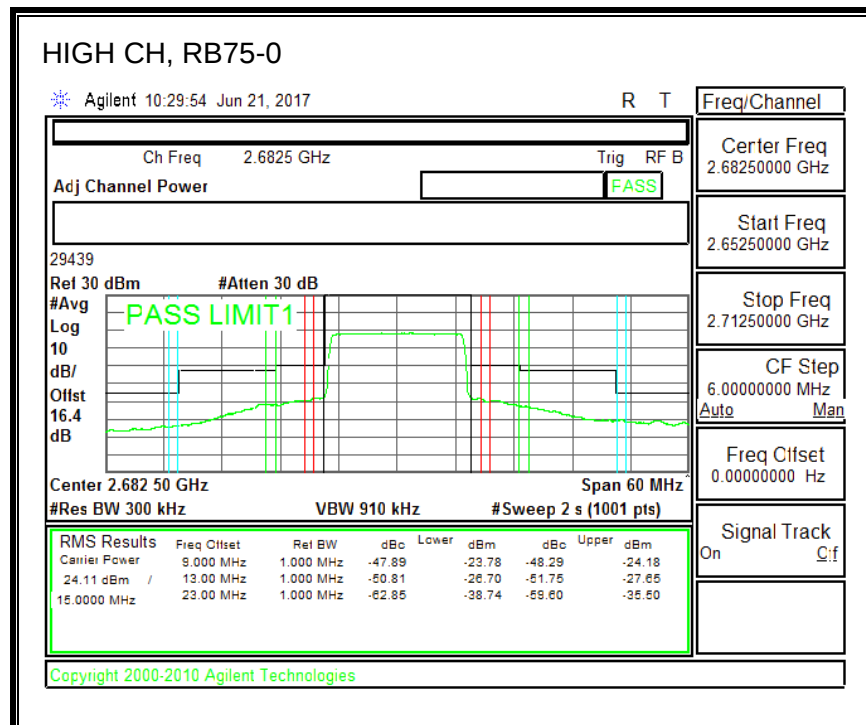
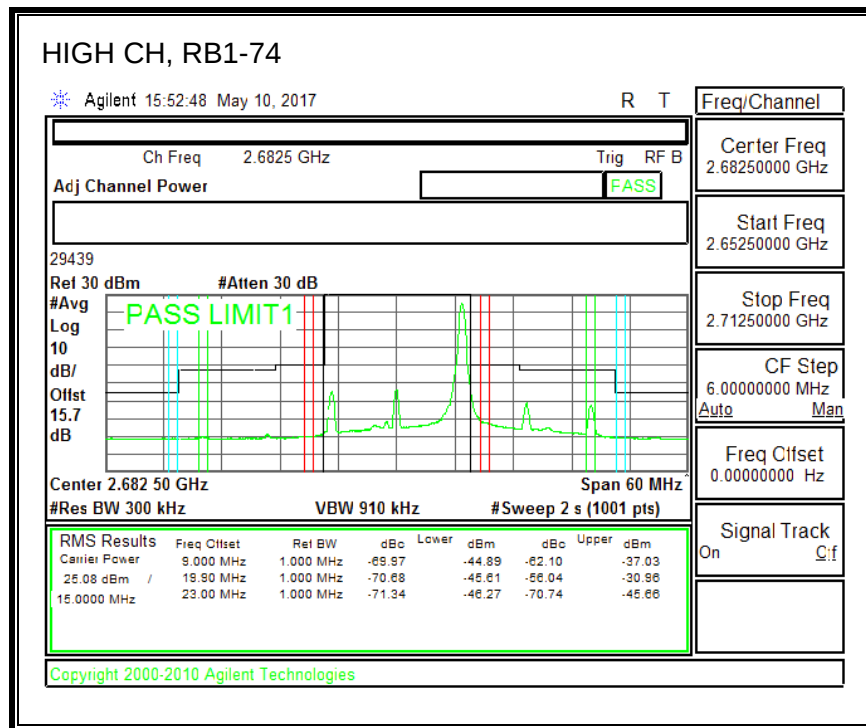




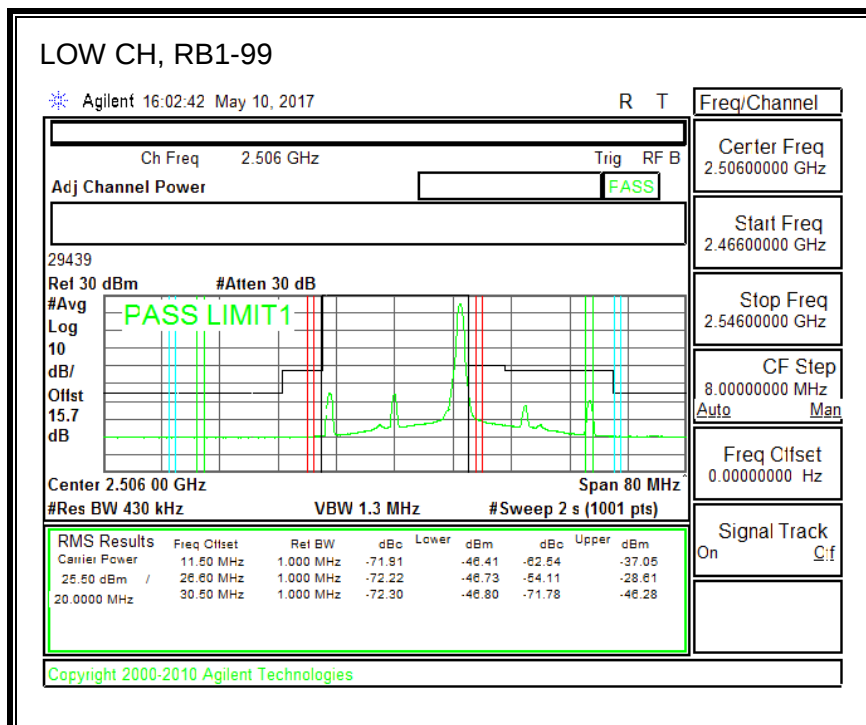
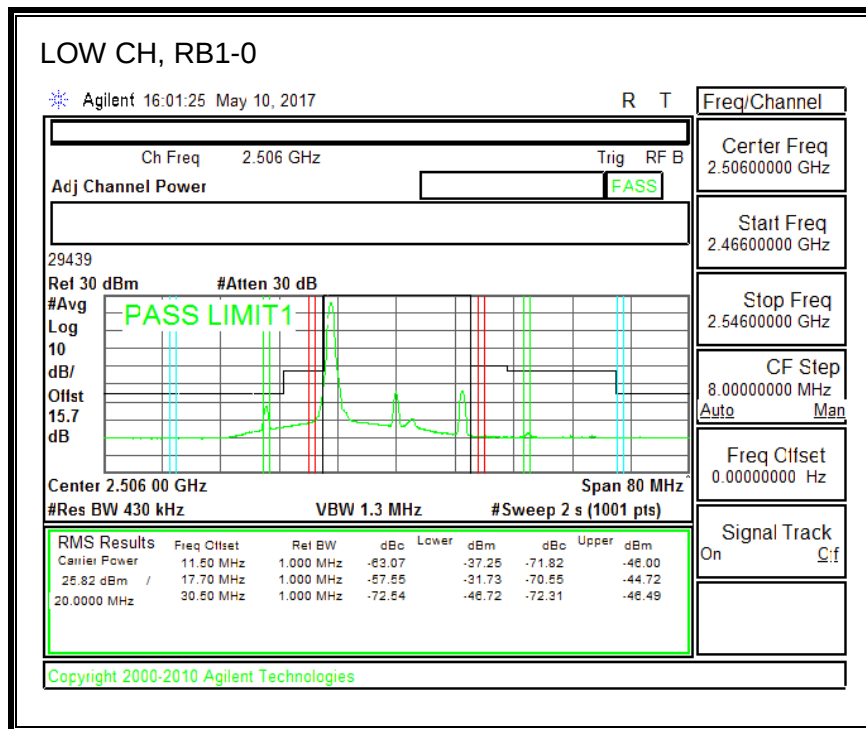
16QAM, (15.0 MHz BAND WIDTH)

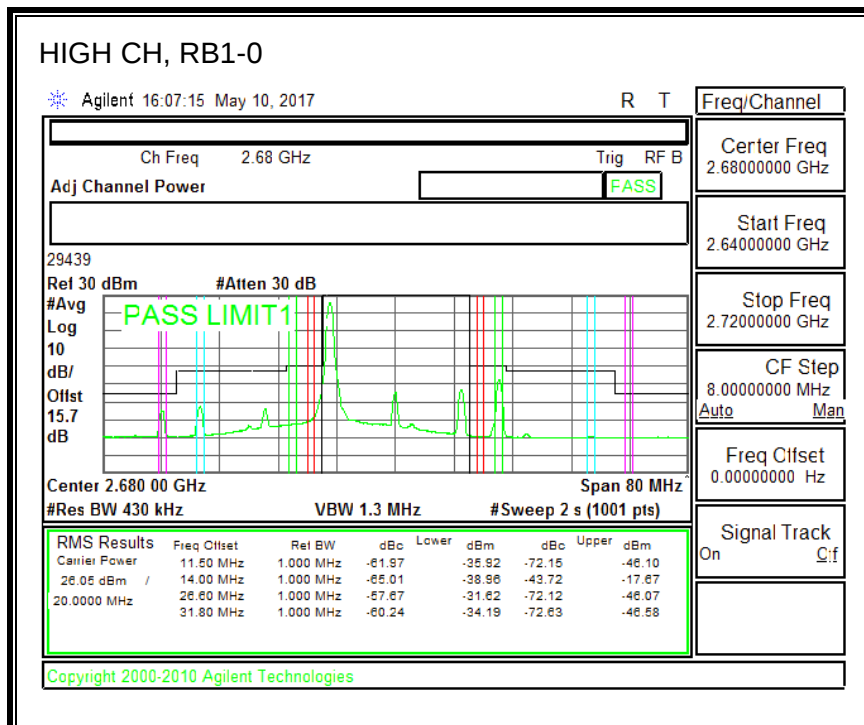
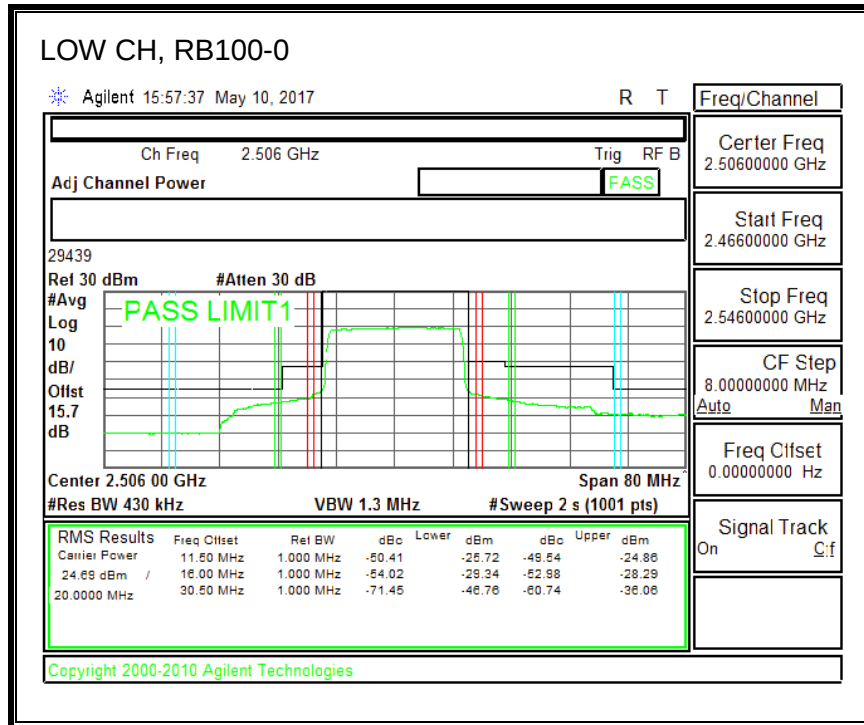


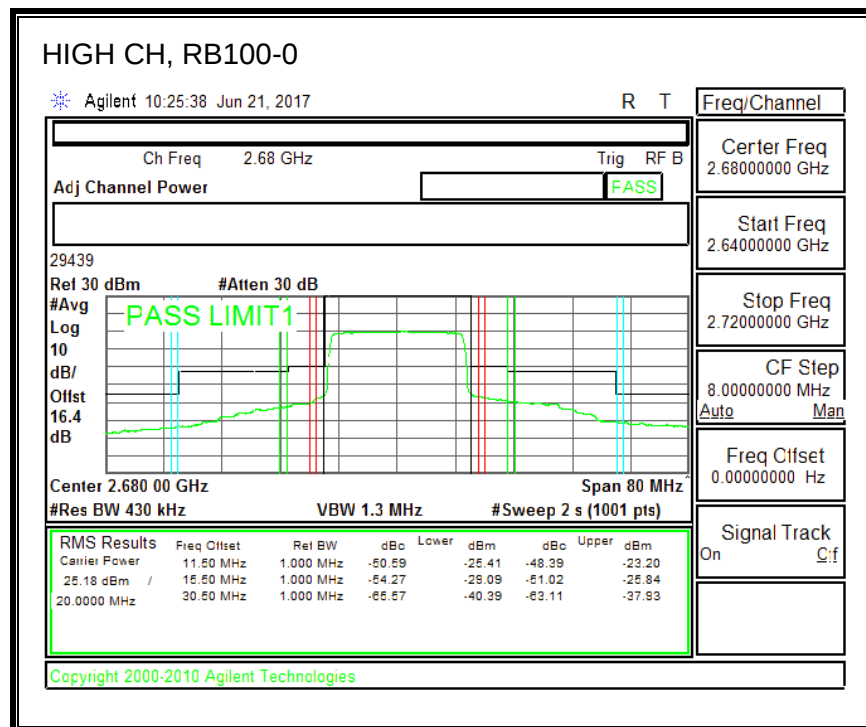
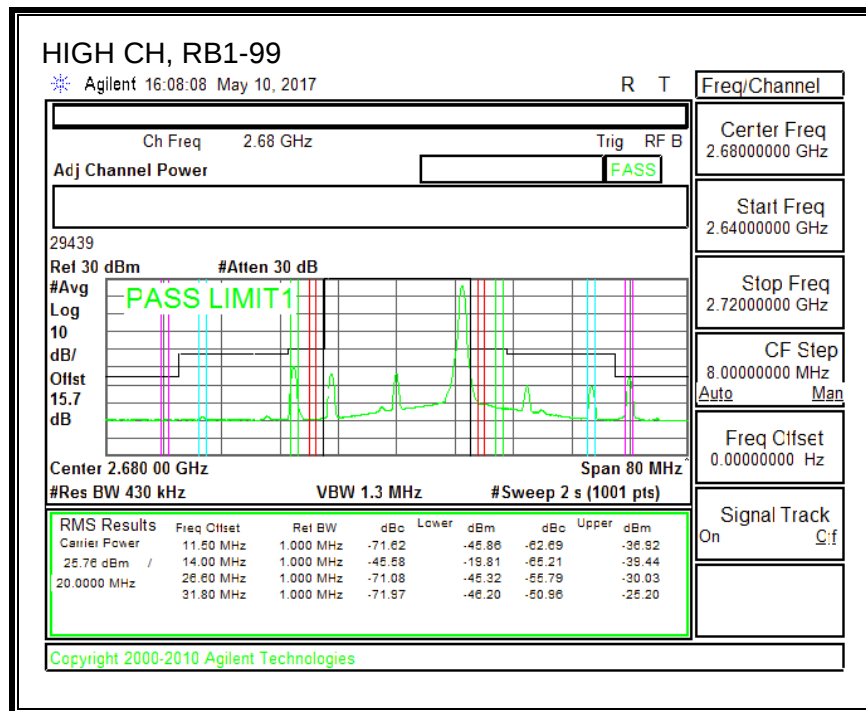




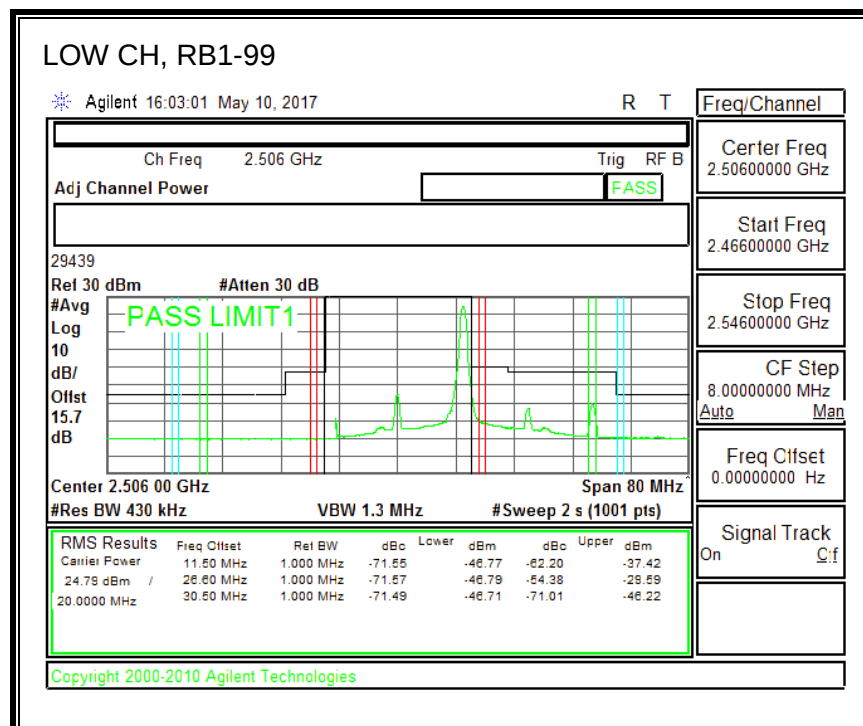
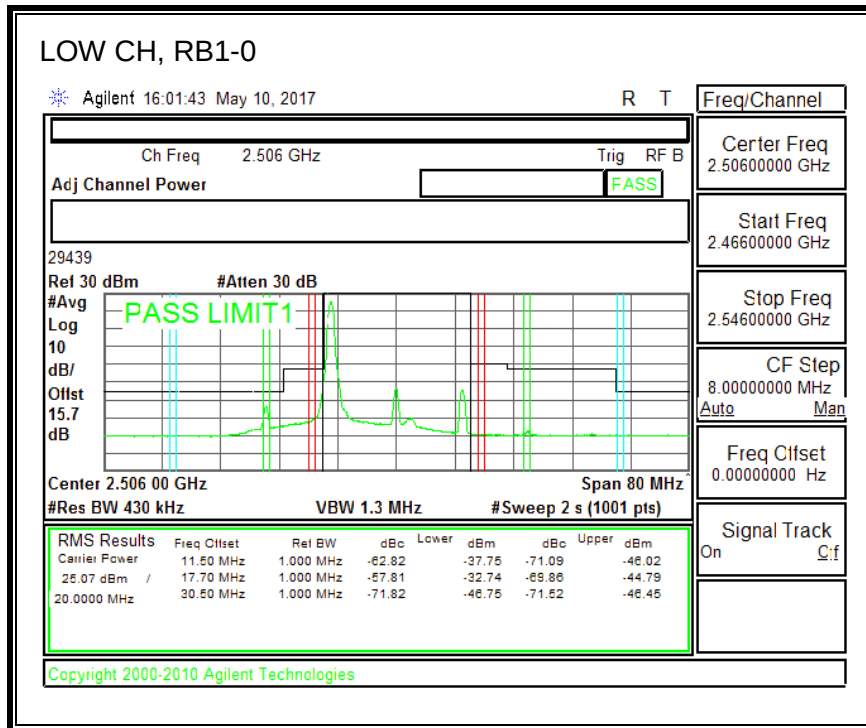
QPSK, (20.0 MHz BAND WIDTH)

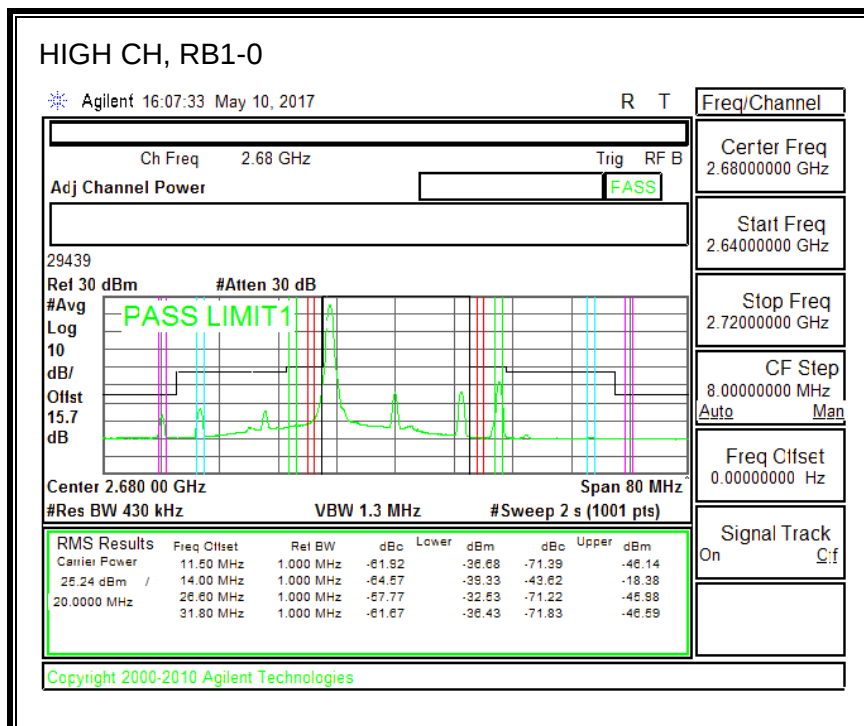
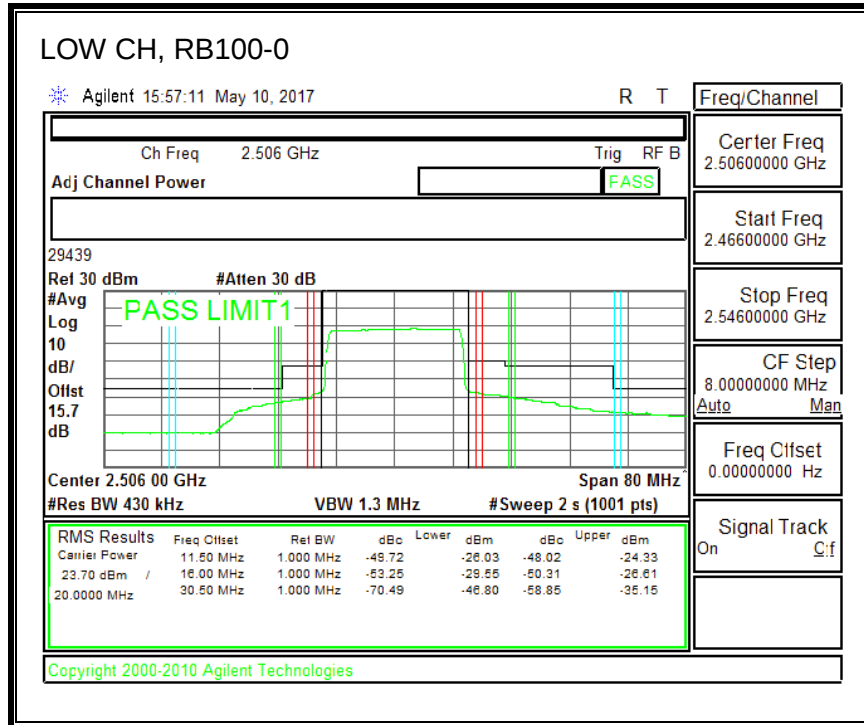


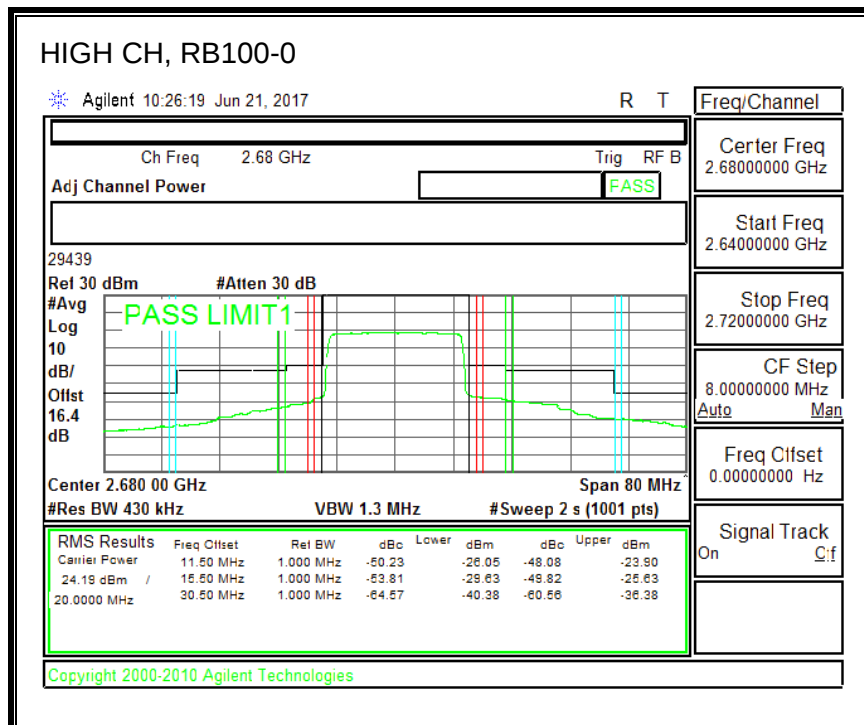
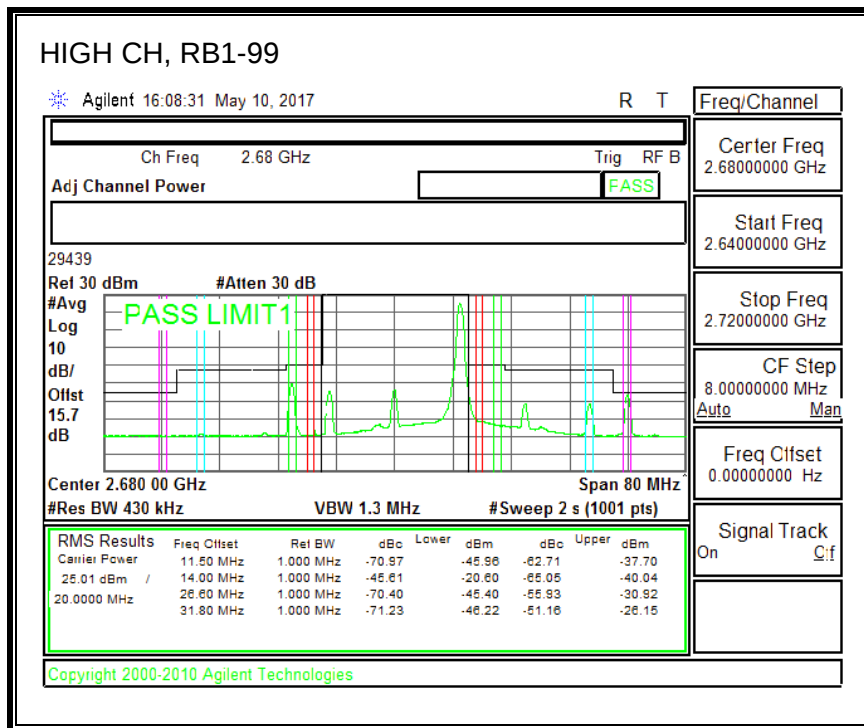




16QAM, (20.0 MHz BAND WIDTH)

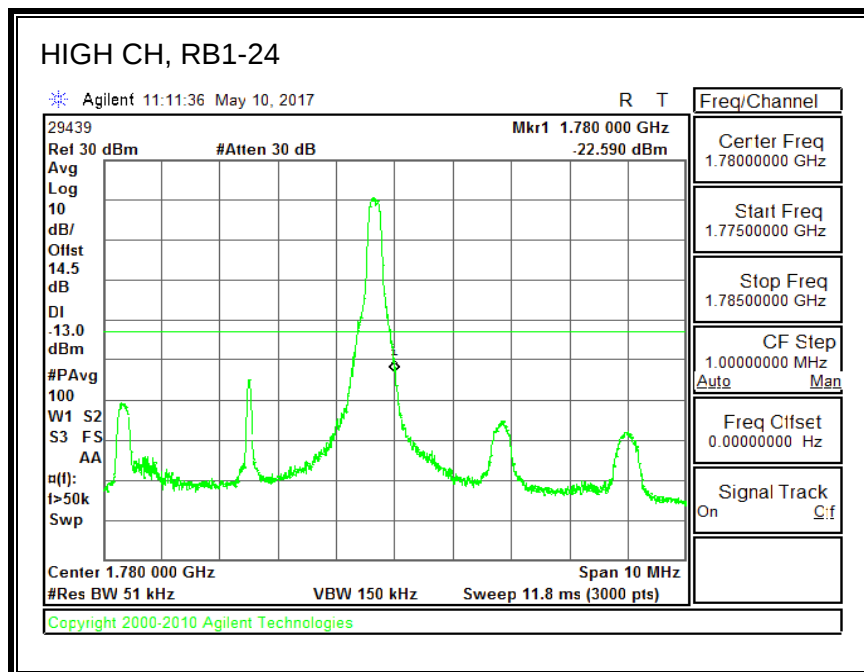
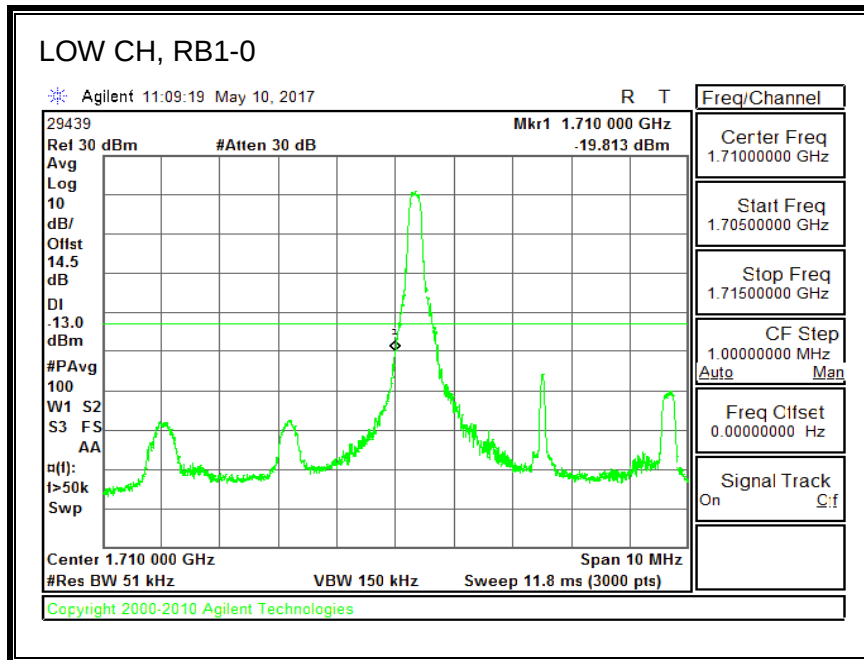


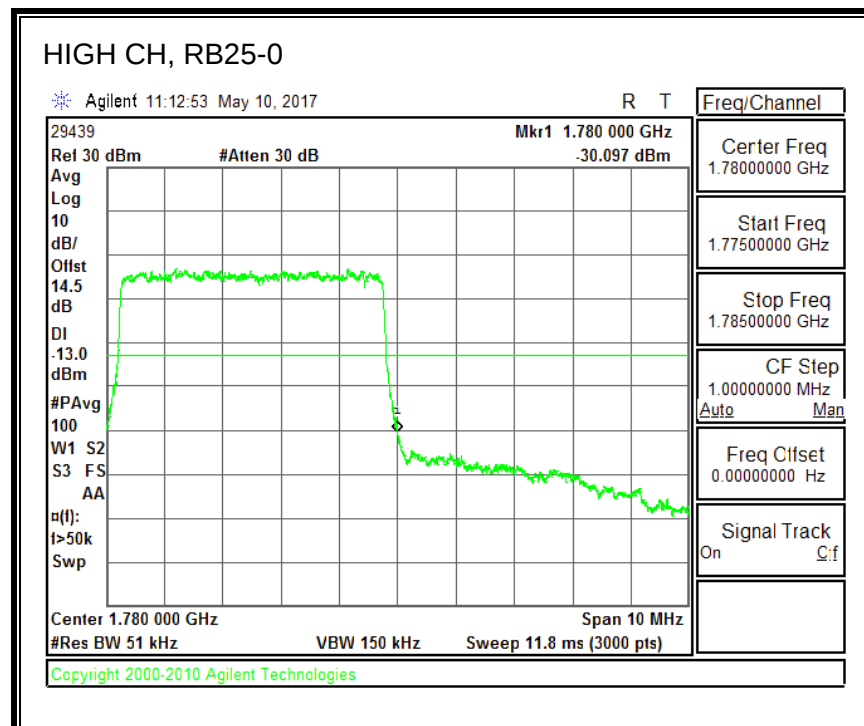
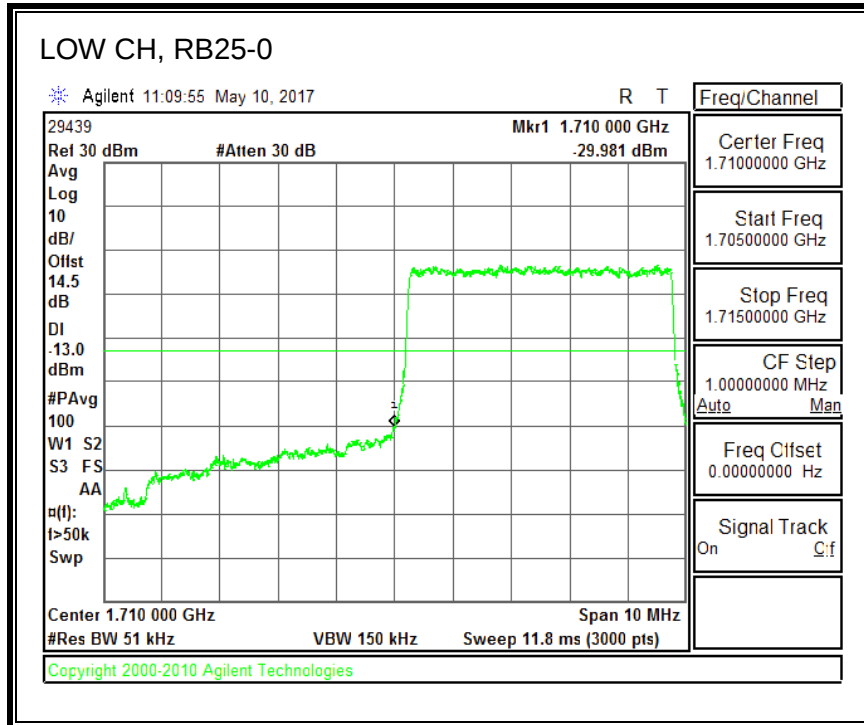




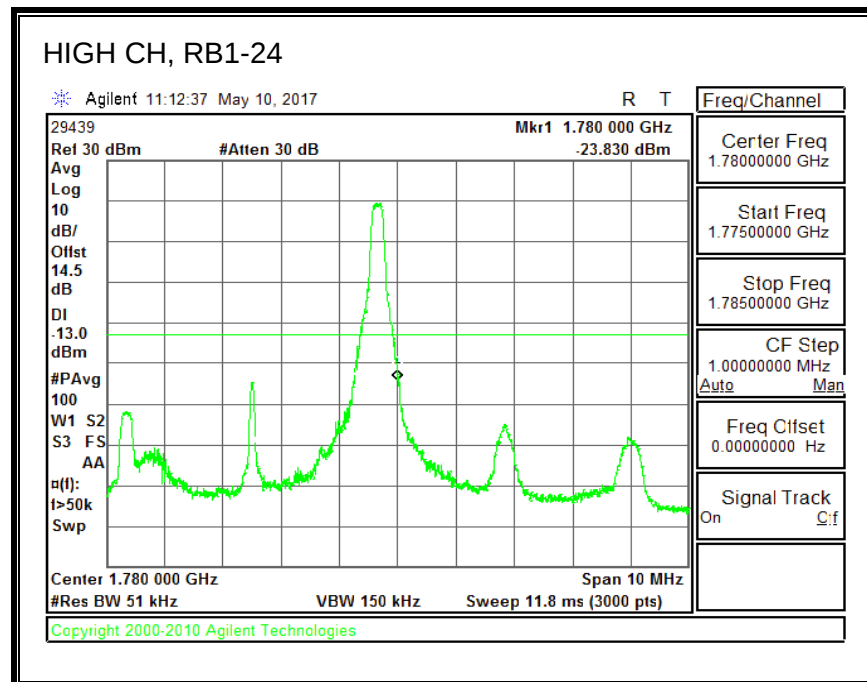
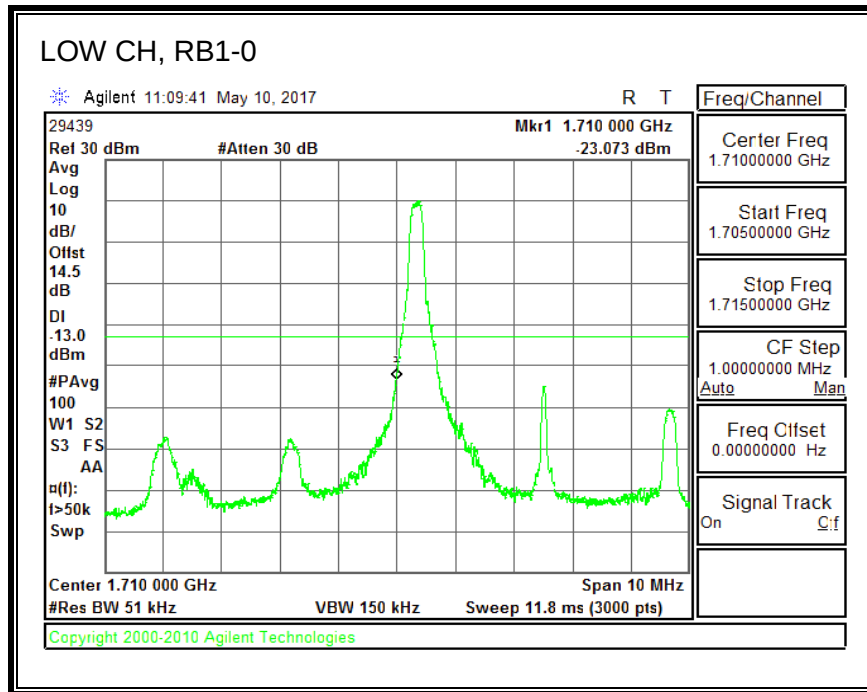
8.2.12. LTE BAND 66 BANDEDGE

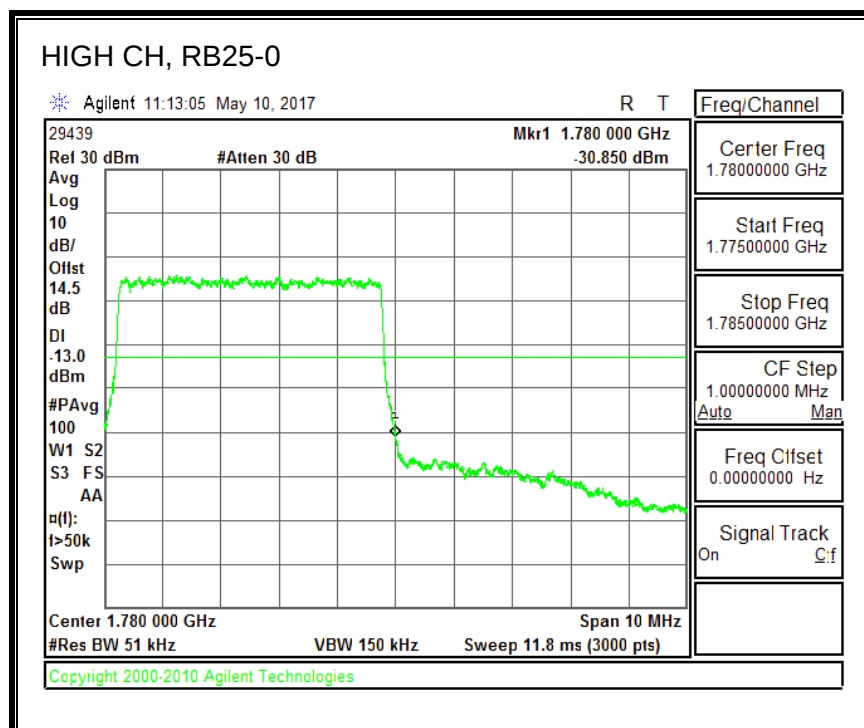
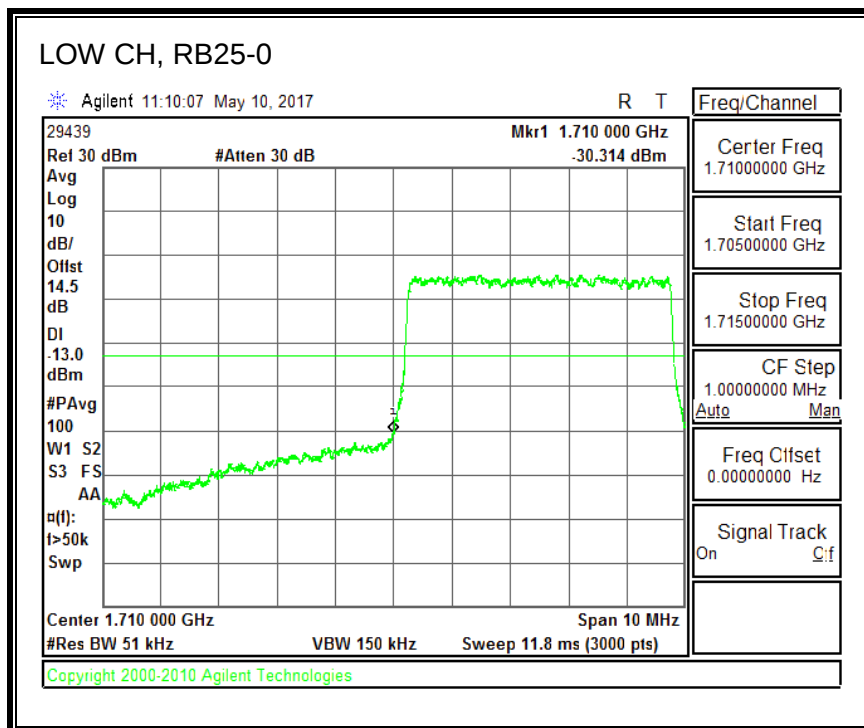
QPSK, (5.0 MHz BAND WIDTH)



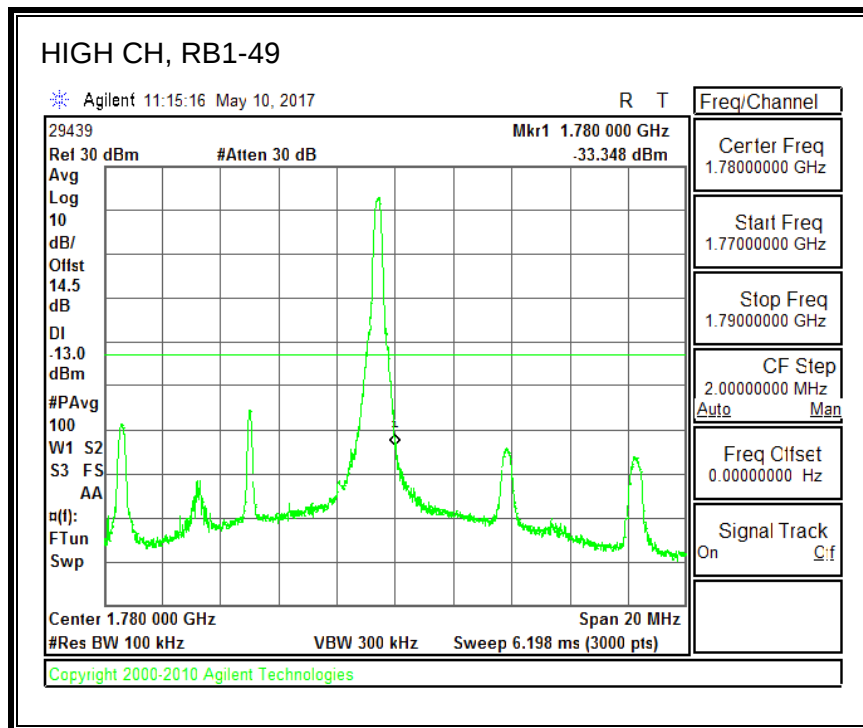
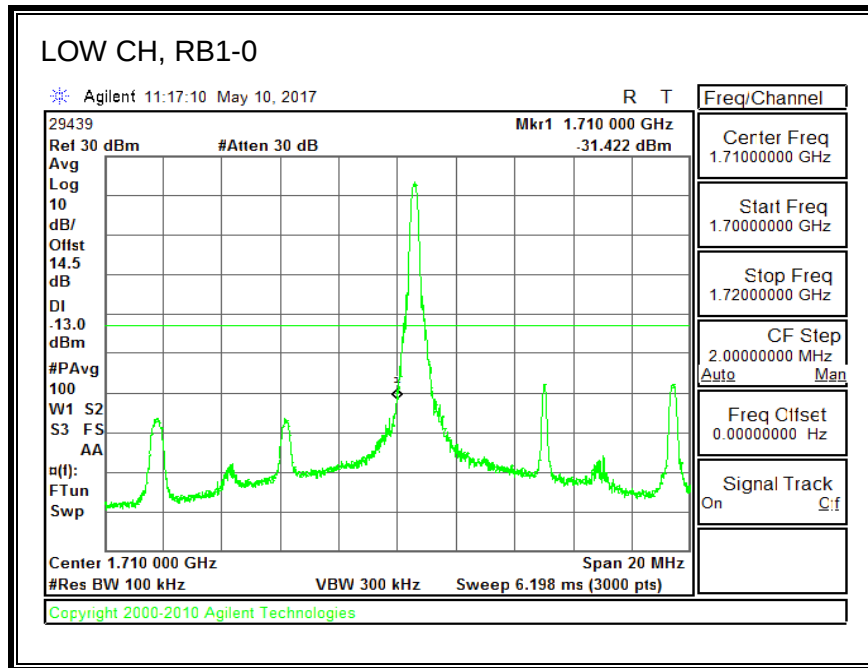


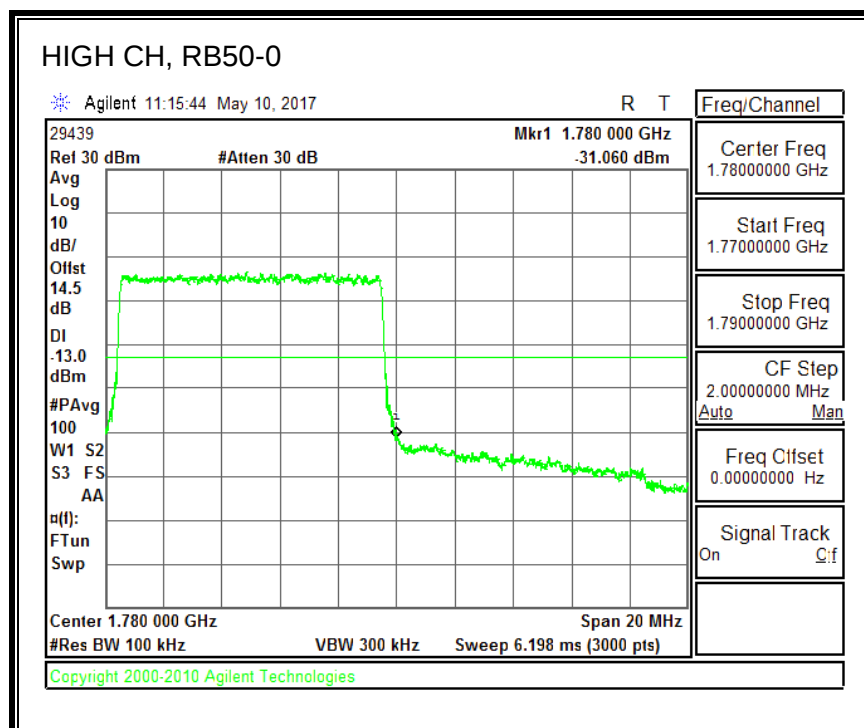
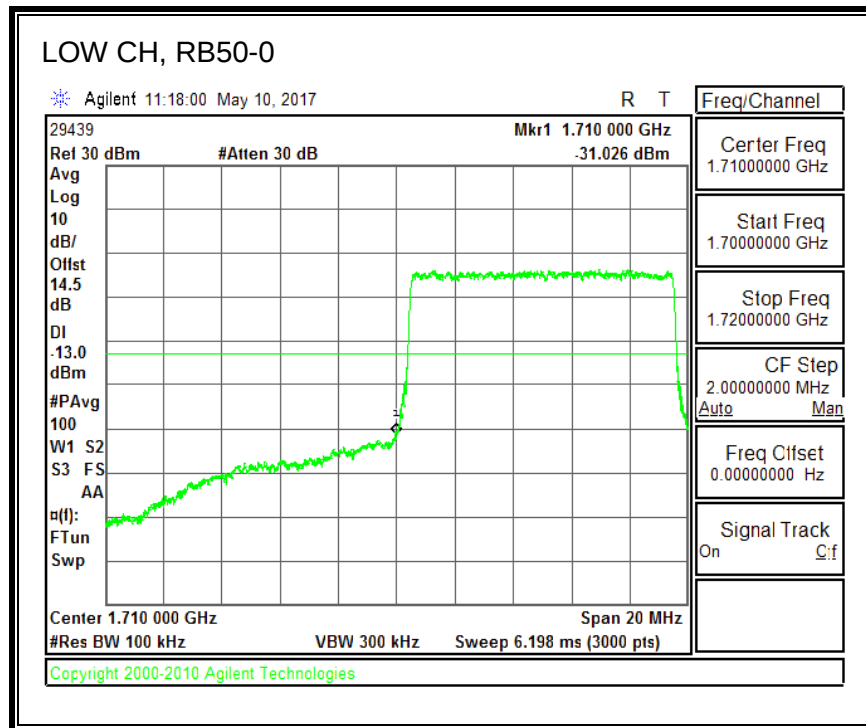
16QAM, (5.0 MHz BAND WIDTH)



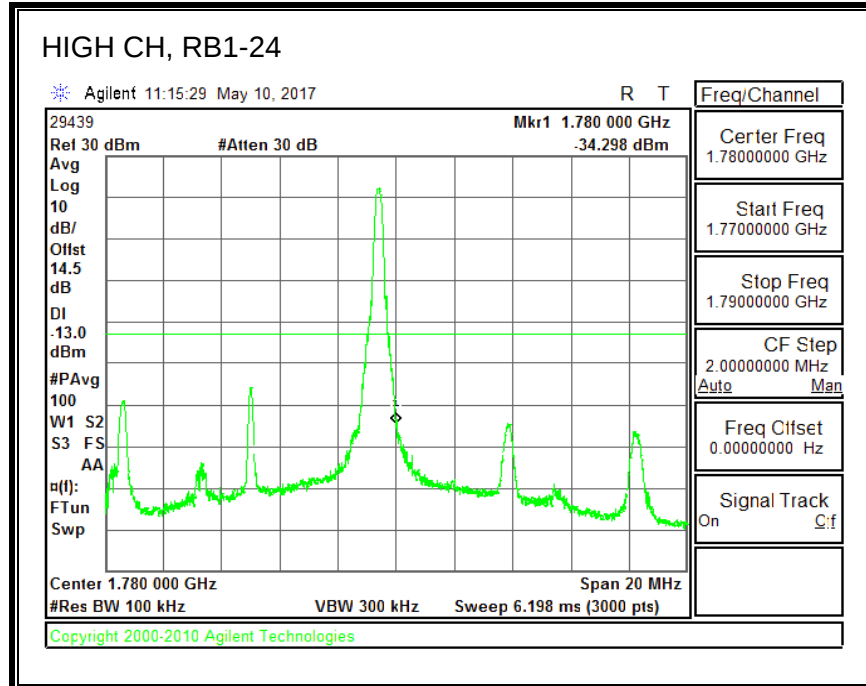
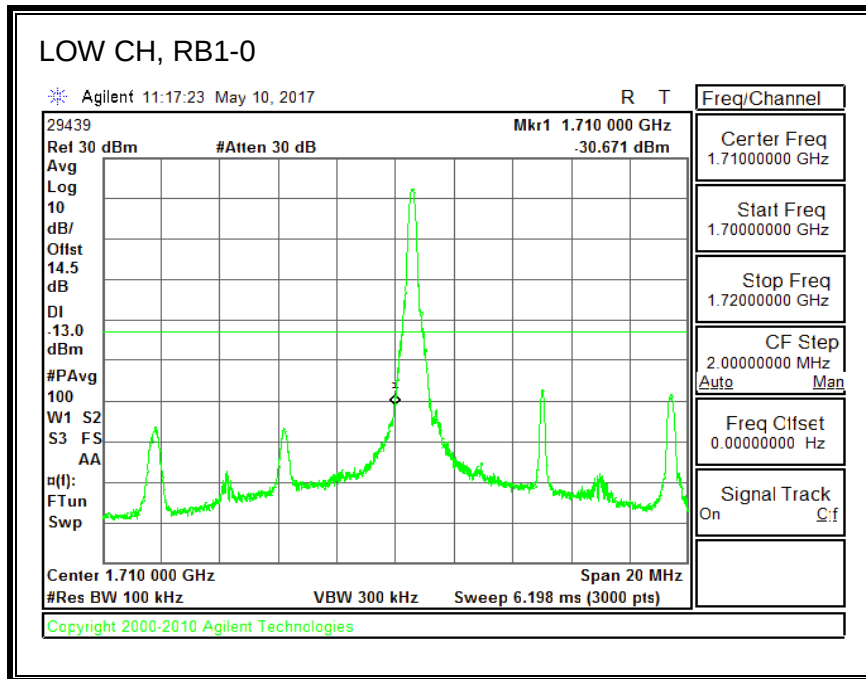


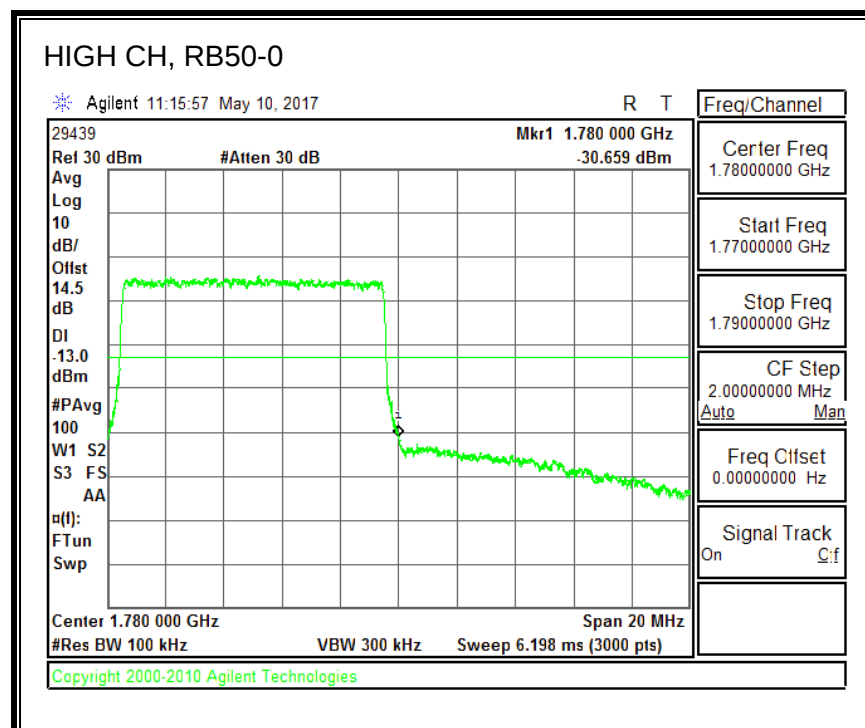
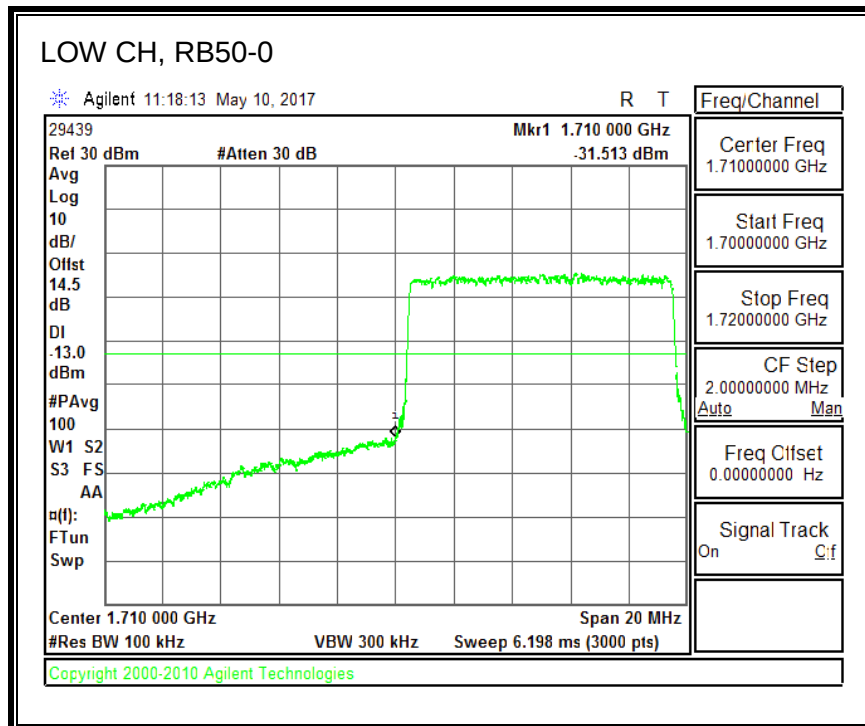
QPSK, (10.0 MHz BAND WIDTH)



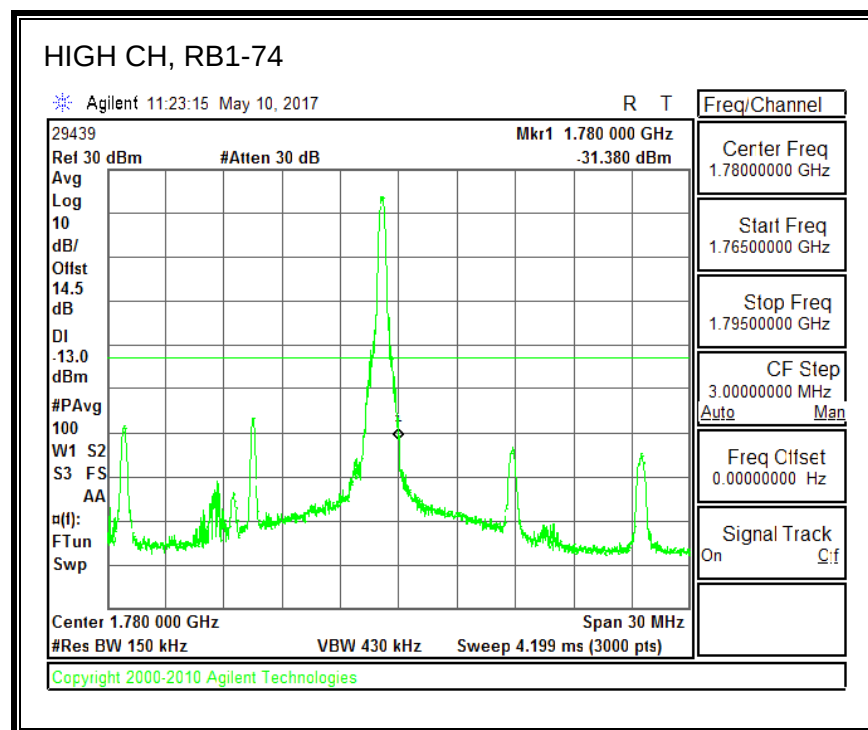
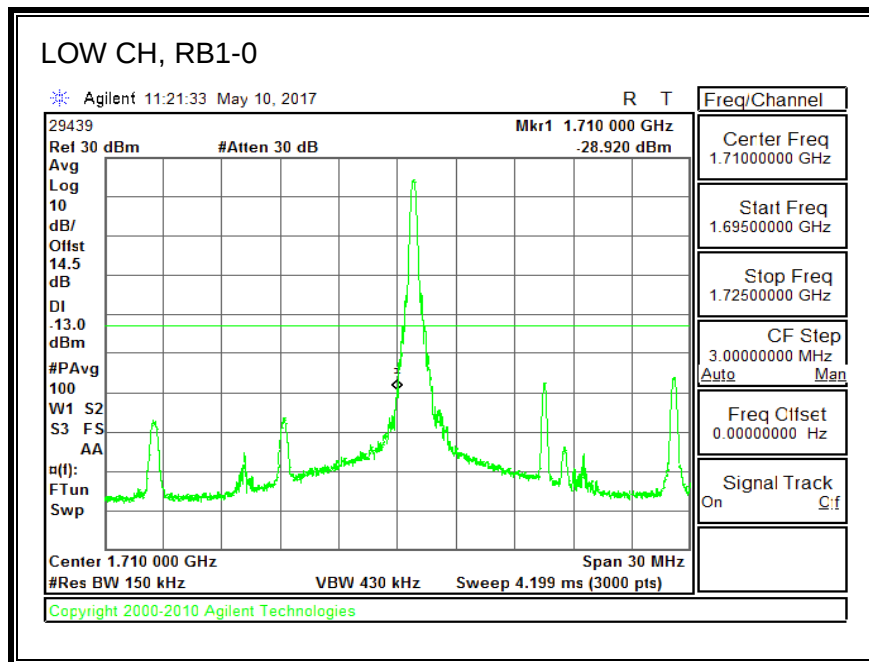


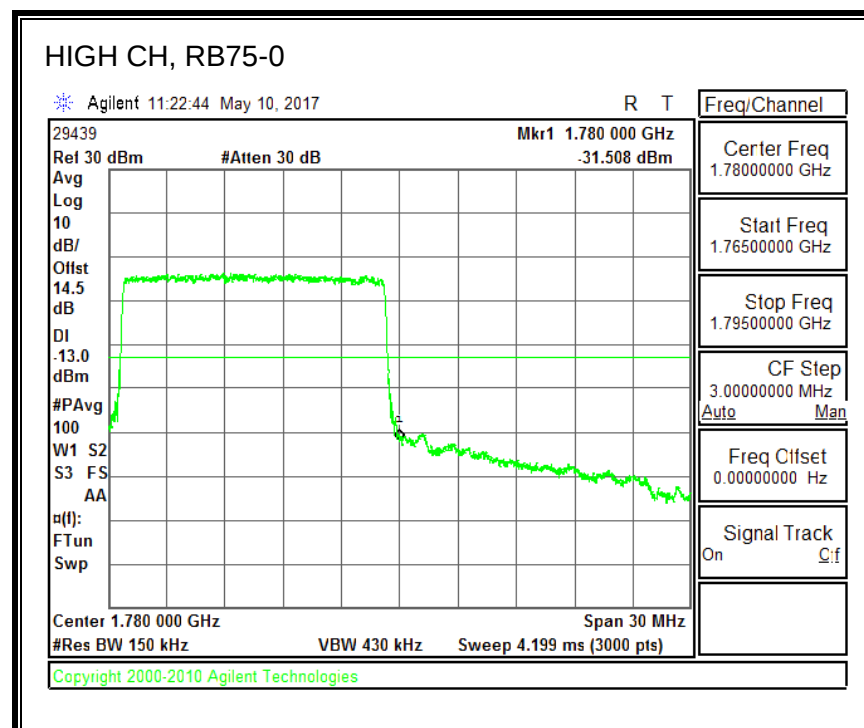
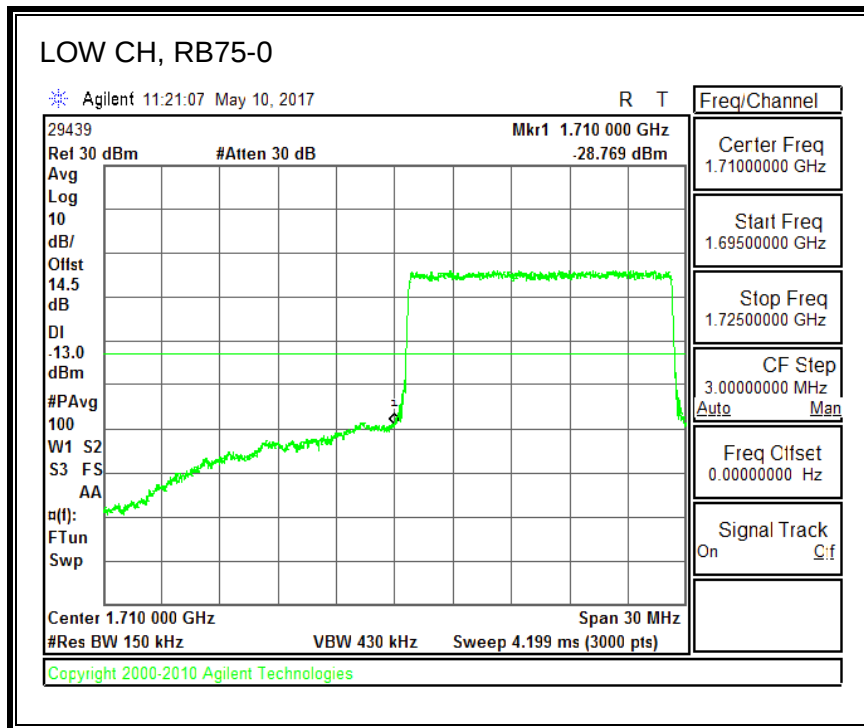
16QAM, (10.0 MHz BAND WIDTH)



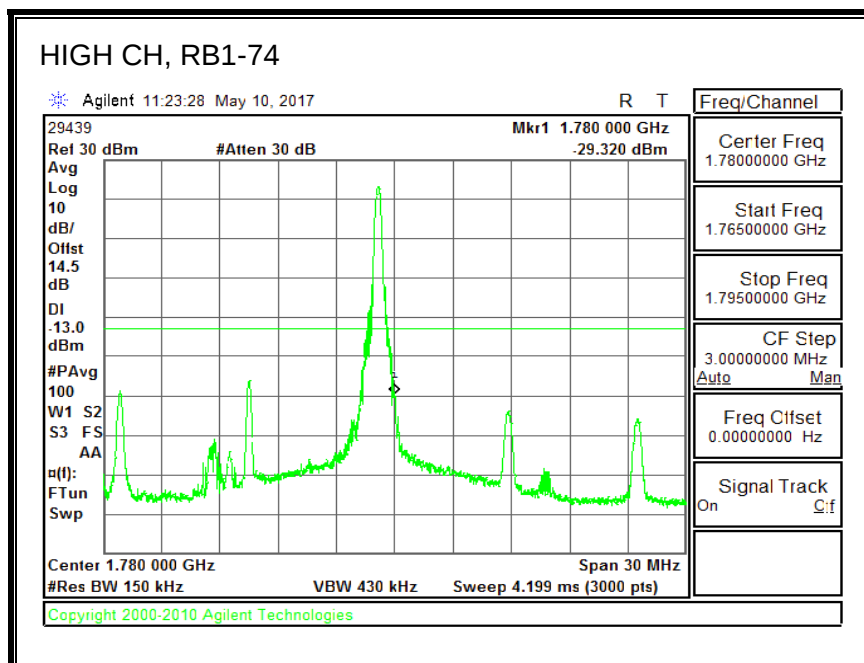
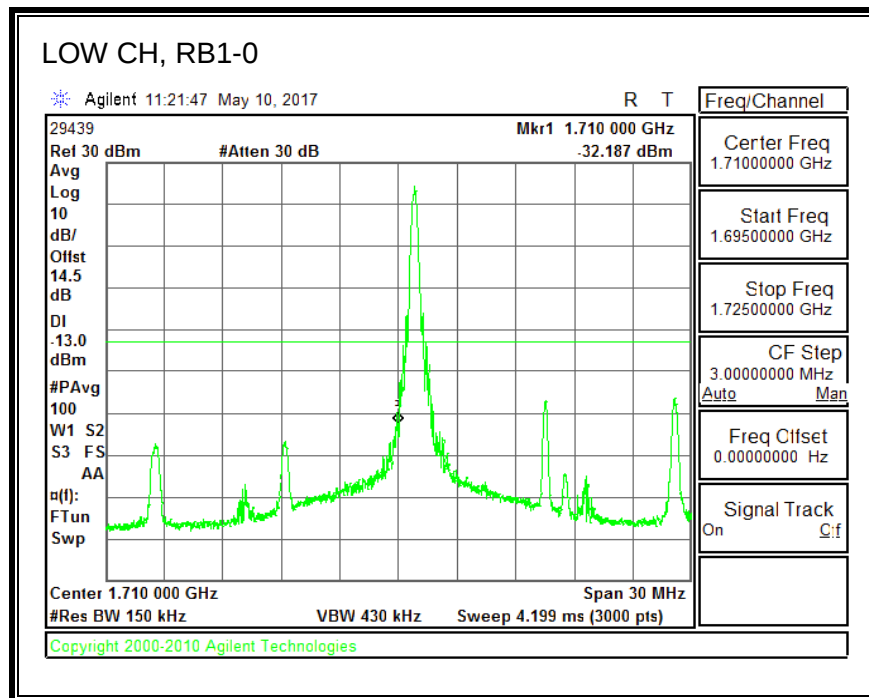


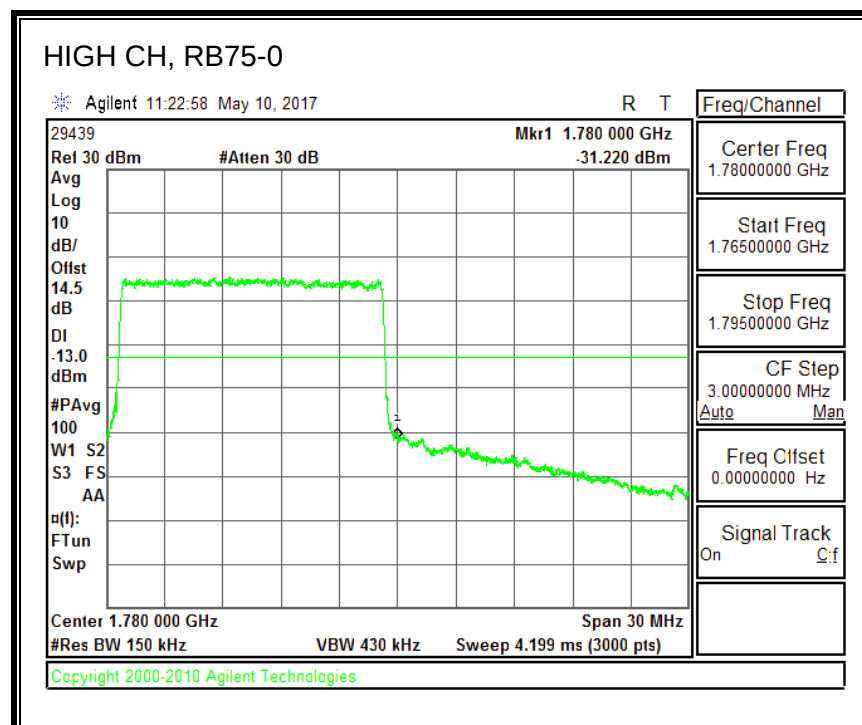
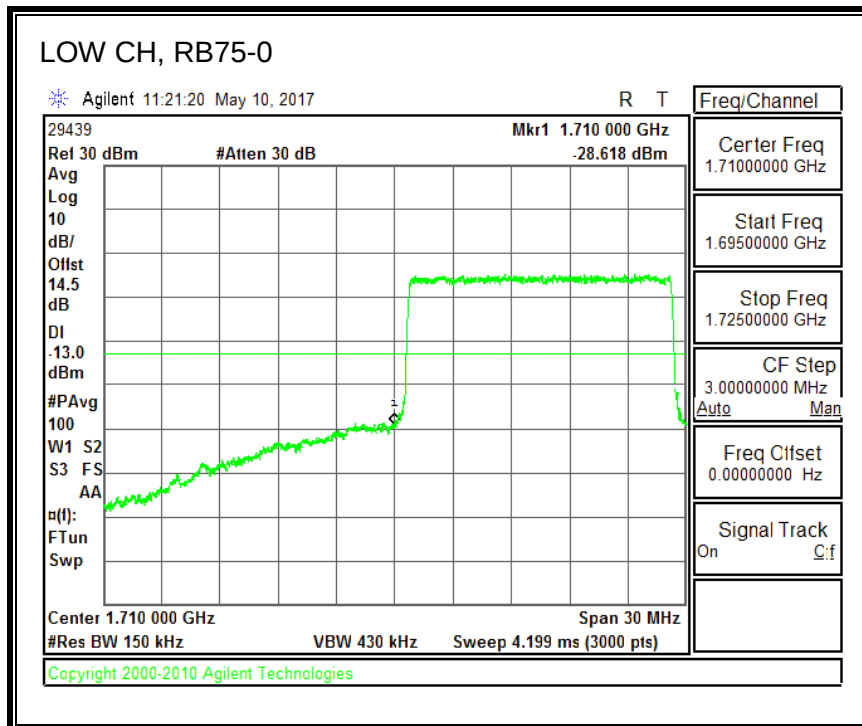
QPSK, (15.0 MHz BAND WIDTH)



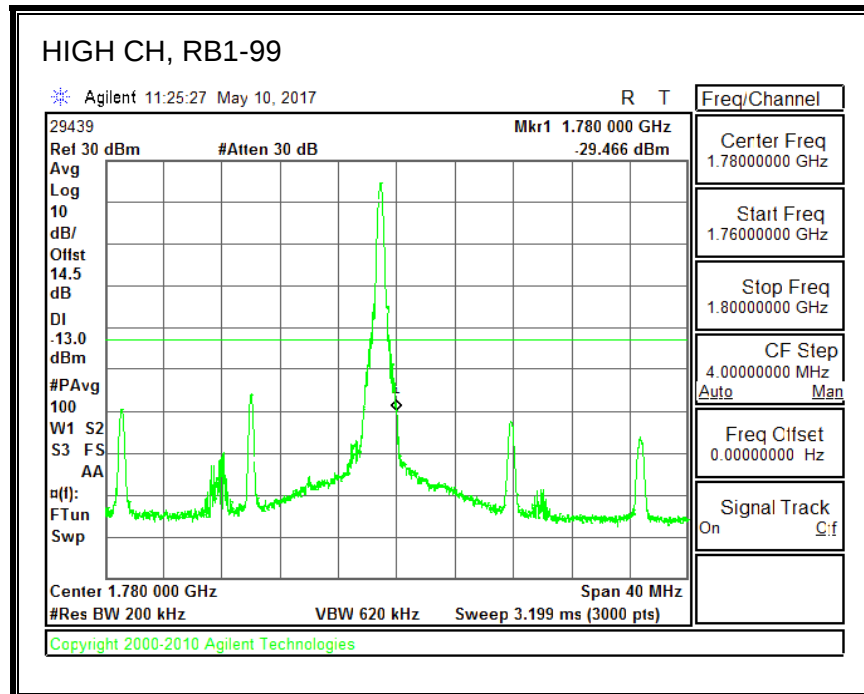
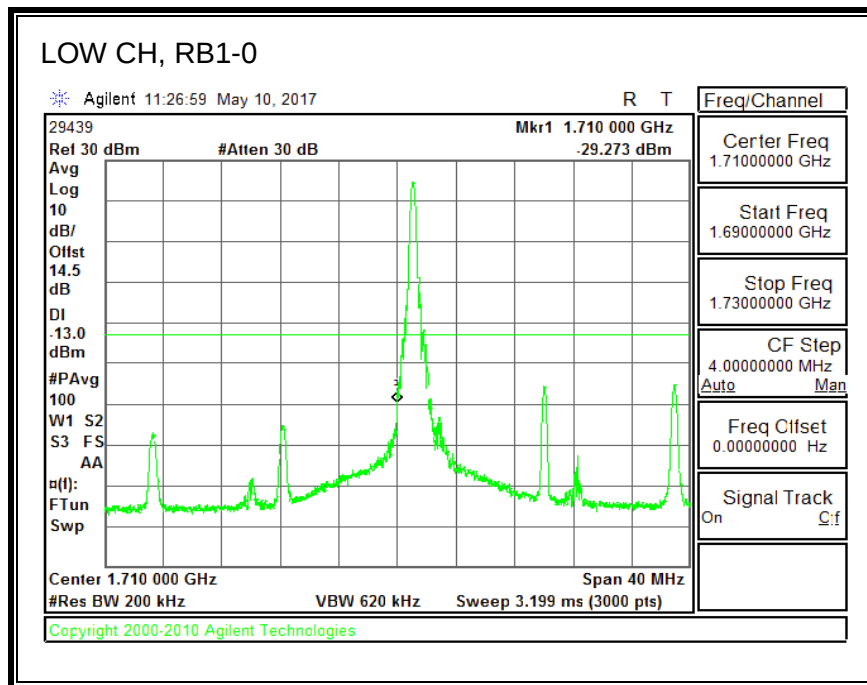


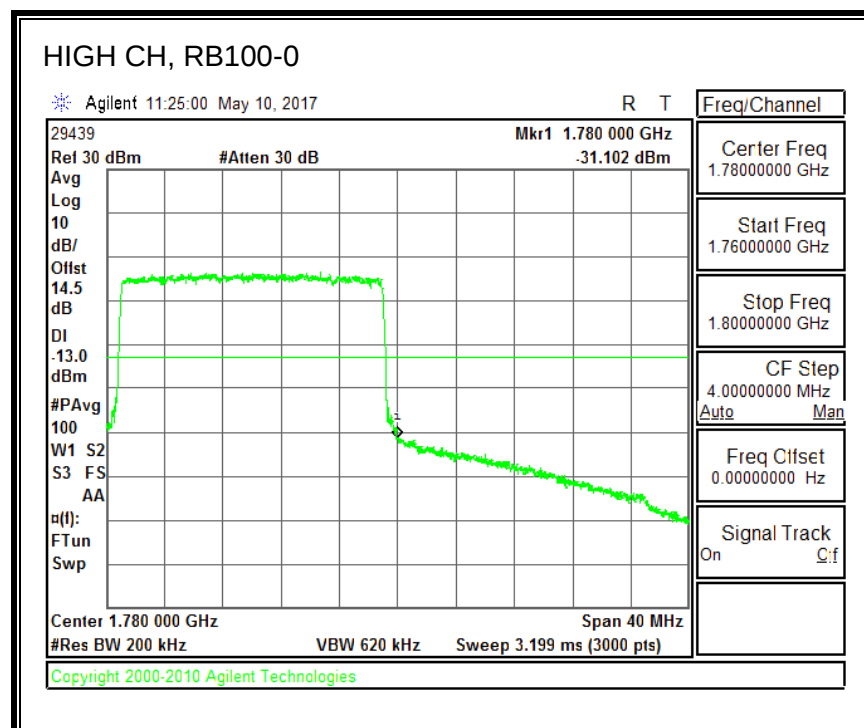
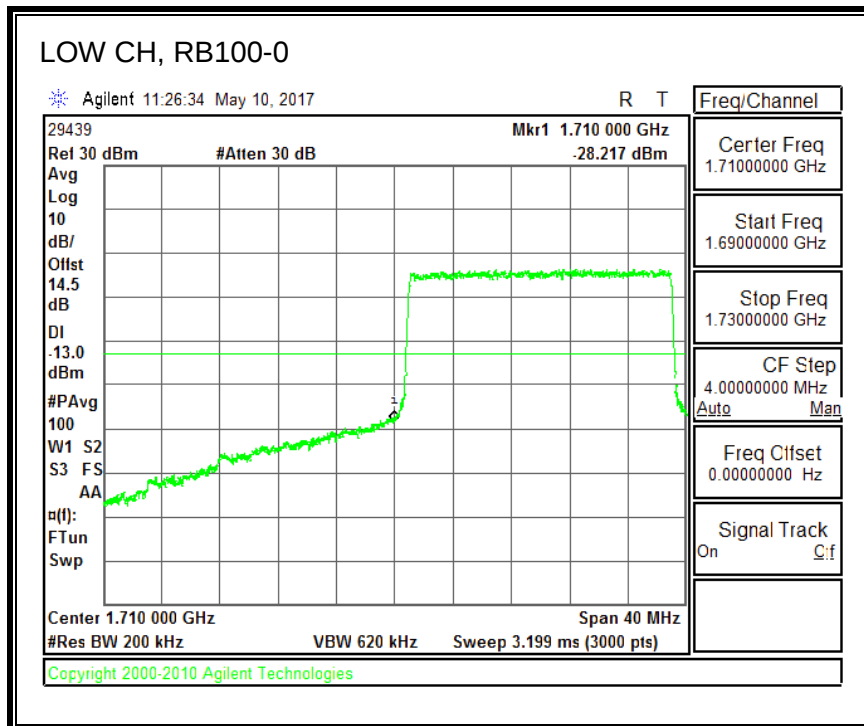
16QAM, (15.0 MHz BAND WIDTH)



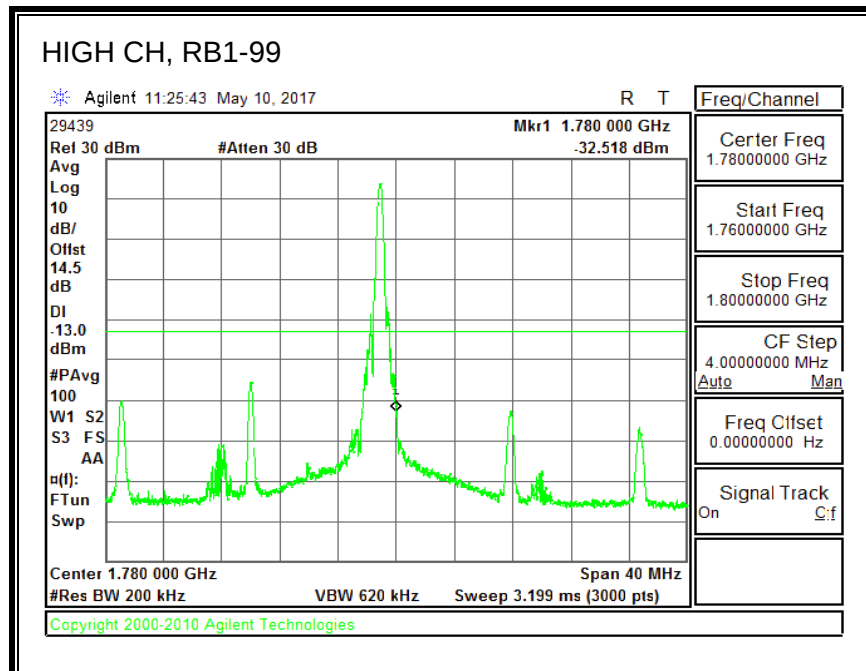
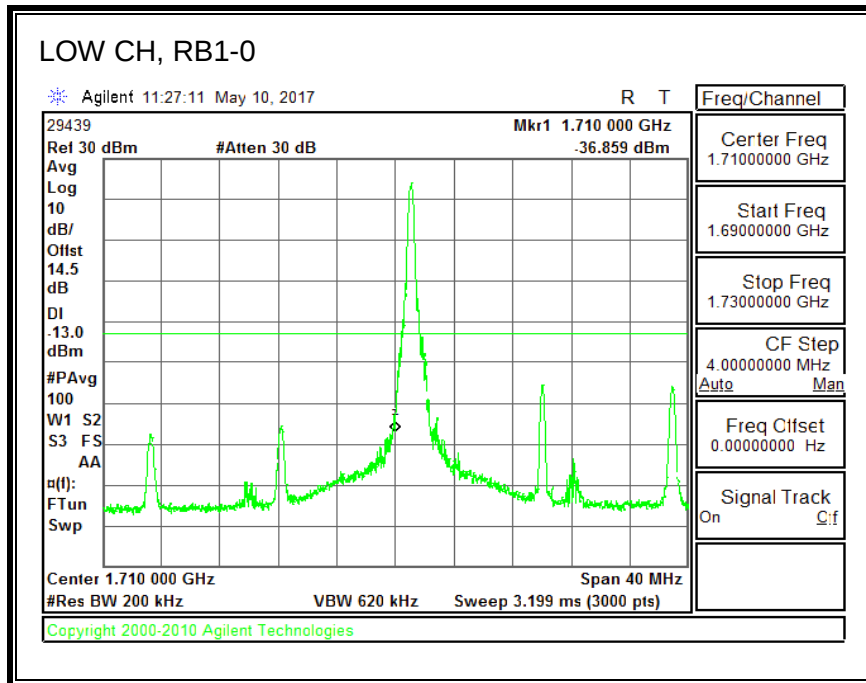


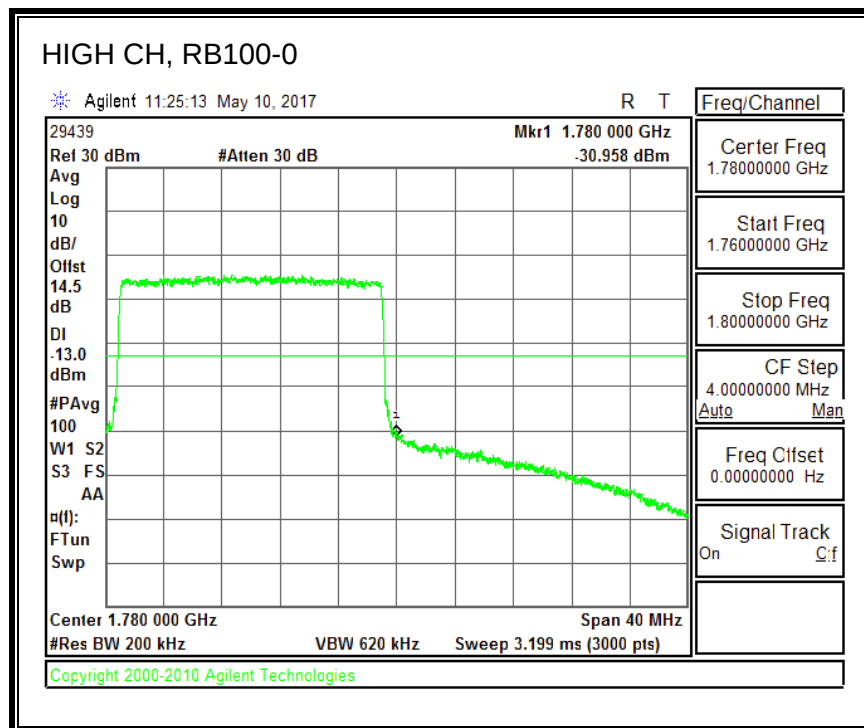
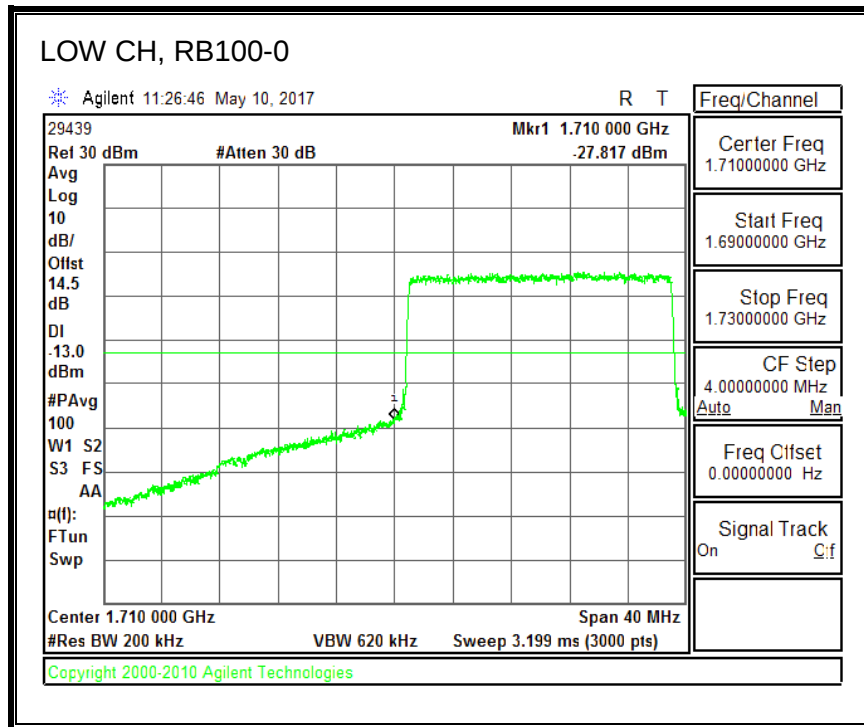
QPSK, (20.0 MHz BAND WIDTH)





16QAM, (20.0 MHz BAND WIDTH)





8.3. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238, §27.53, §90.691

LIMITS

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 $43 + 10 \log (P)$ dB.

For mobile and portable stations operating in the 2305-2315 MHz: by a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2360 and 2365 MHz, and not less than $70 + 10 \log (P)$ dB above 2365 MHz

For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

TEST PROCEDURE

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

For each out of band emissions measurement:

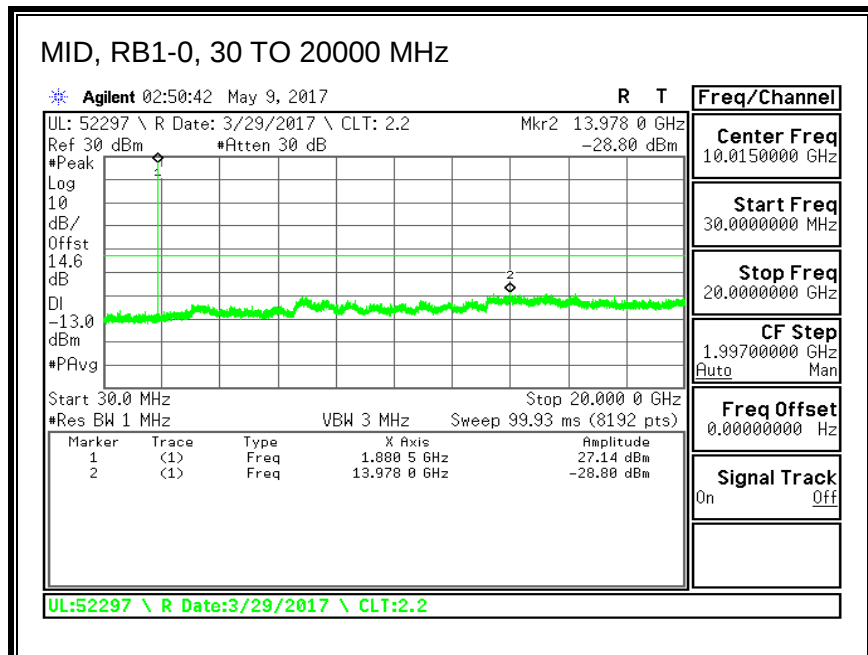
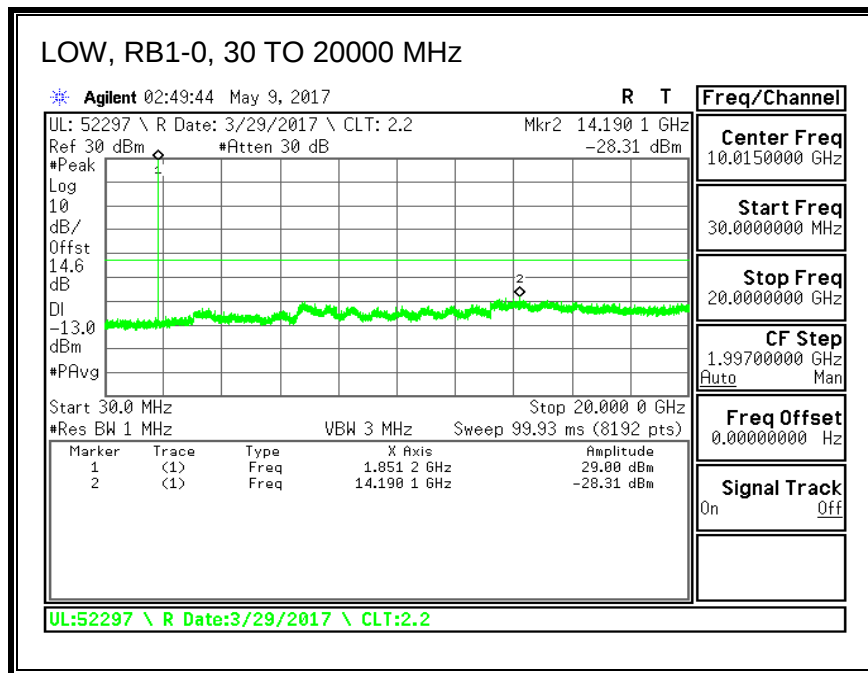
- Set display line at -13 dBm, -25dBm and -40dBm according to the band Limit
- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz. (NOTE: Worst case set RBW/VBW to 1MHz/3MHz)

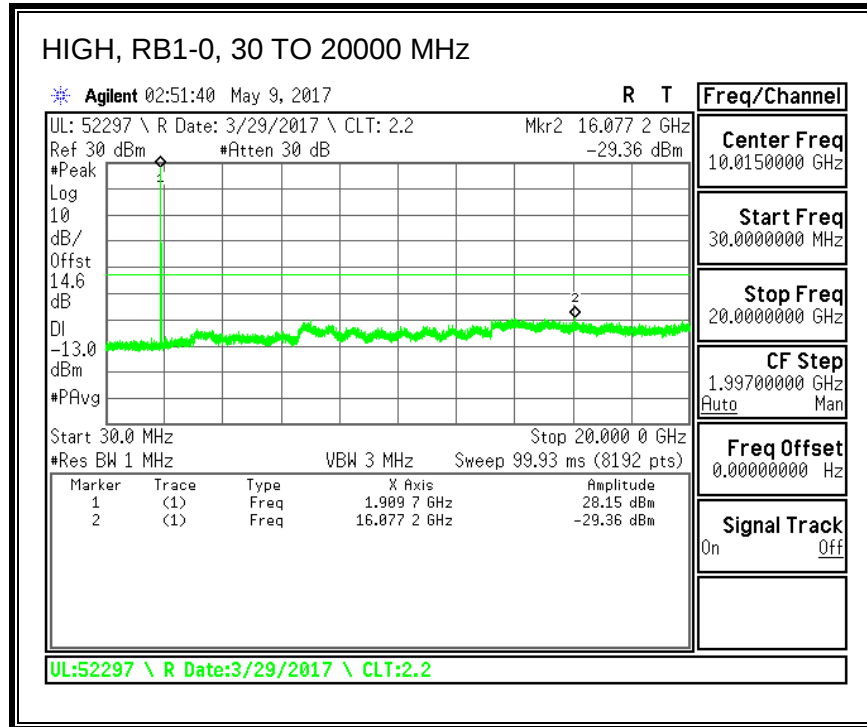
MODES TESTED

- LTE Band 2
- LTE Band 4
- LTE Band 5
- LTE Band 7
- LTE Band 12
- LTE Band 13
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 30
- LTE Band 41
- LTE Band 66

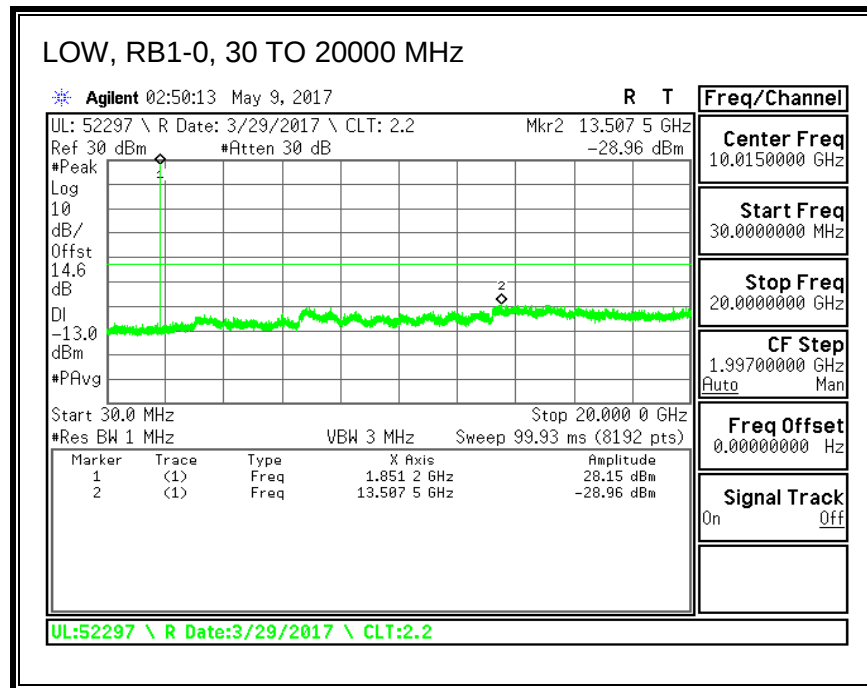
8.3.1. LTE BAND 2

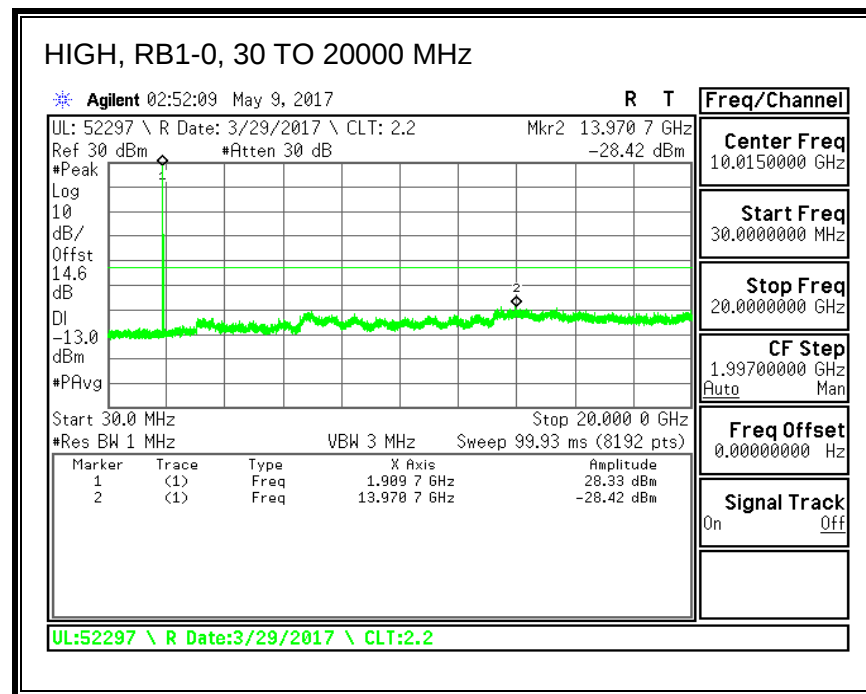
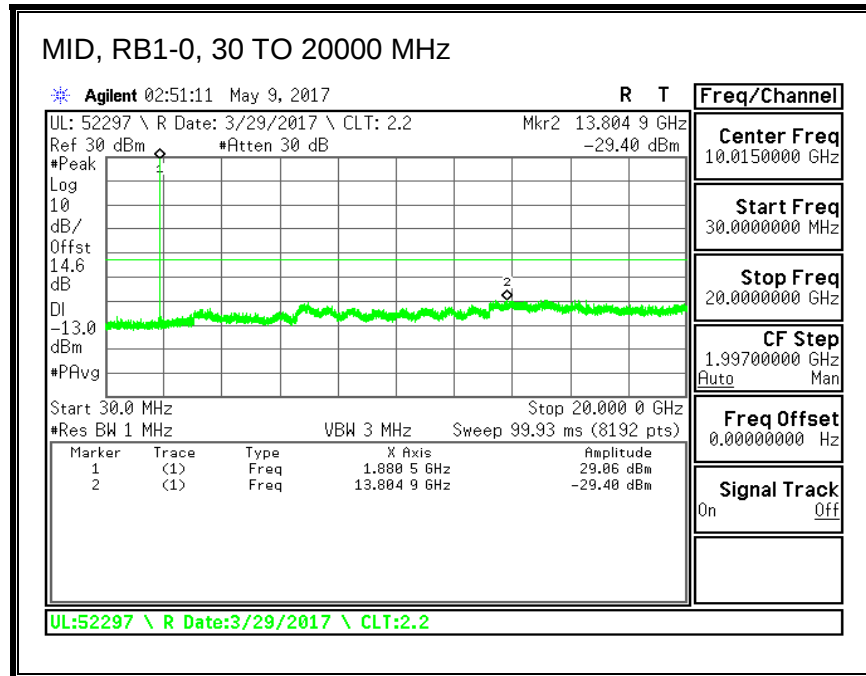
QPSK, (1.4 MHz BAND WIDTH)



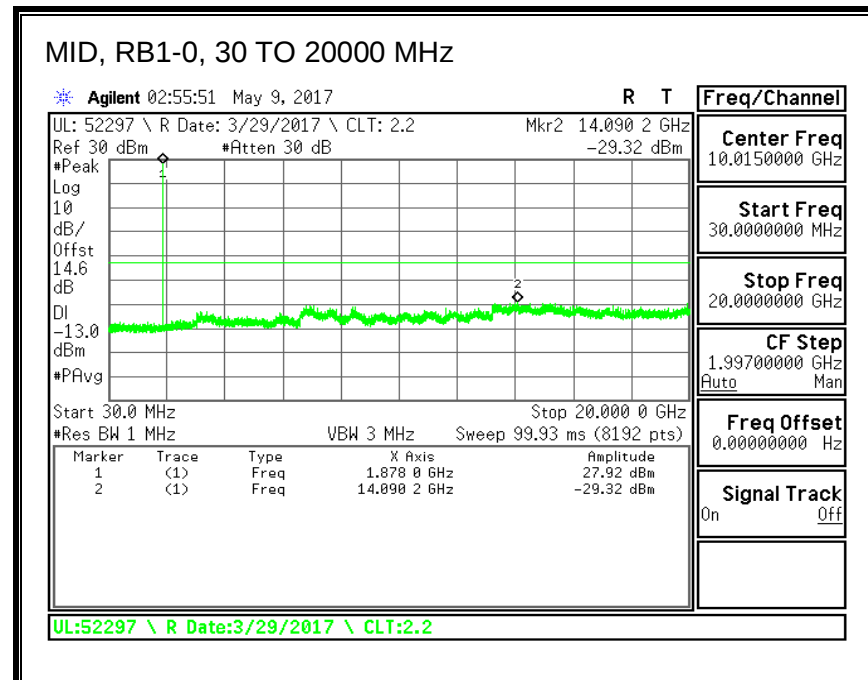
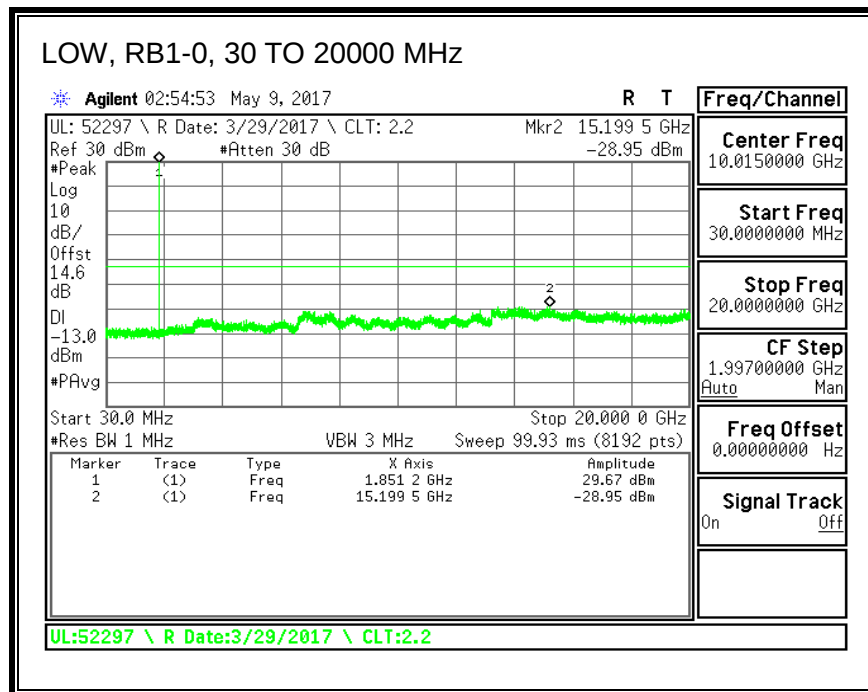


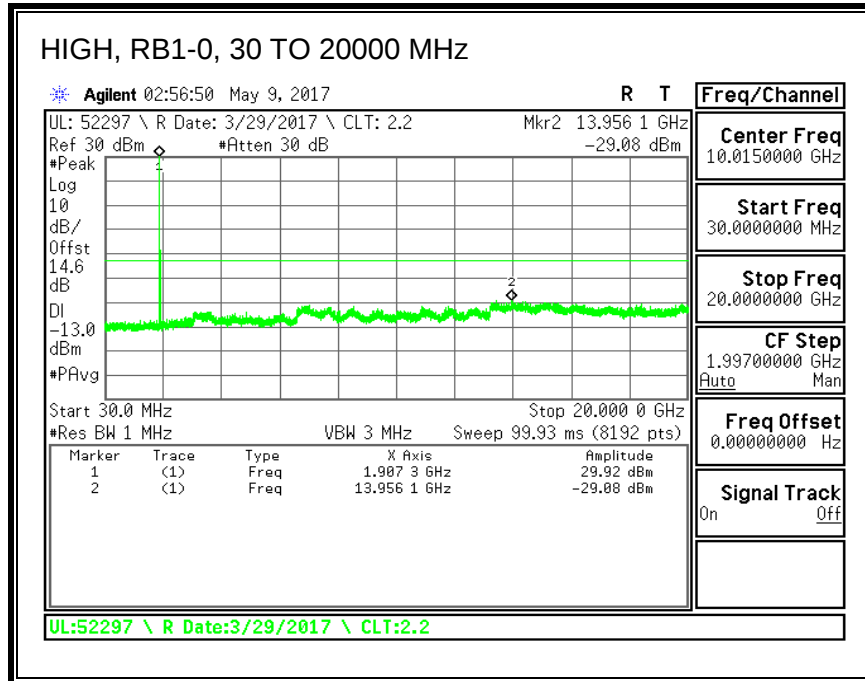
16QAM, (1.4 MHz BAND WIDTH)



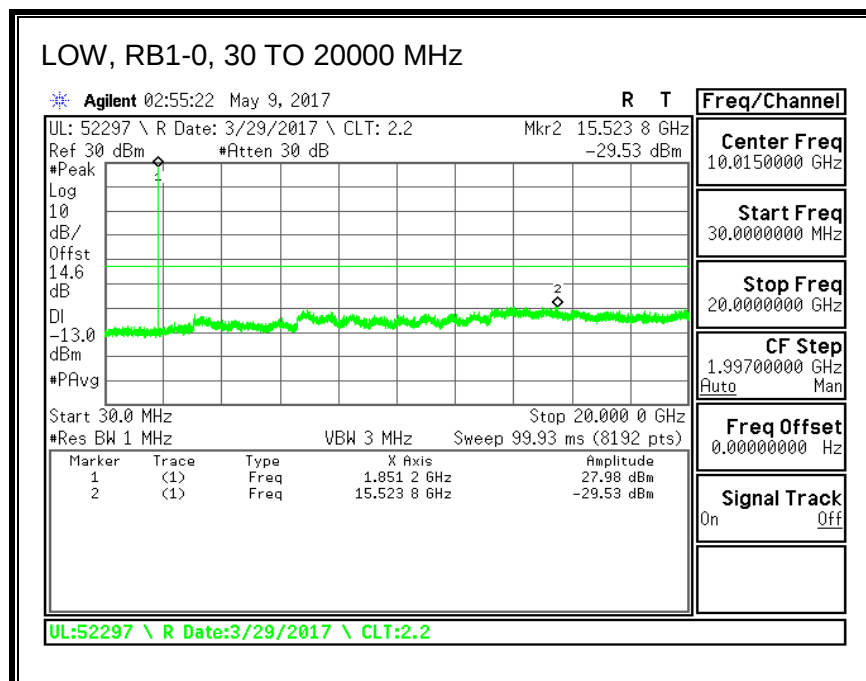


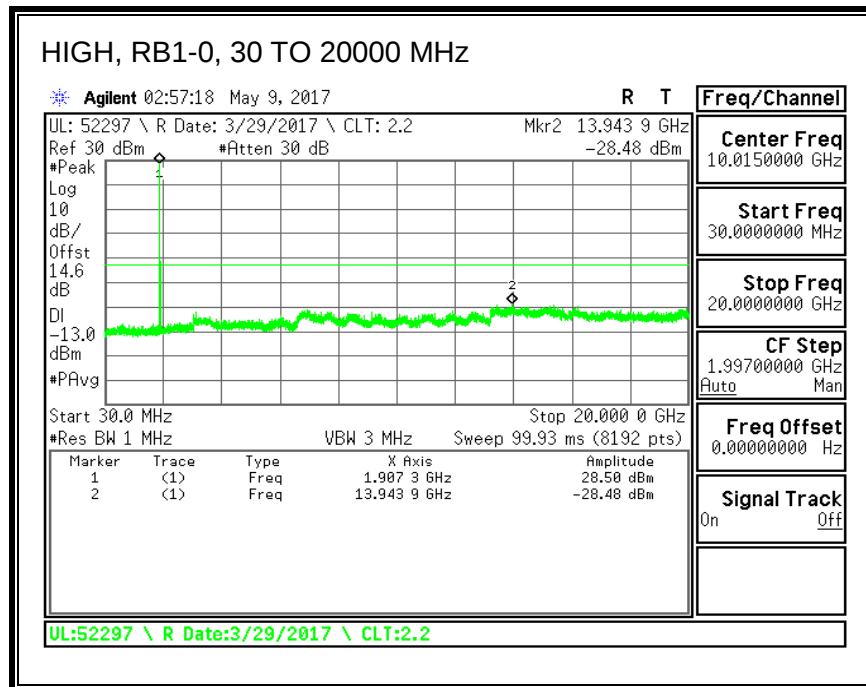
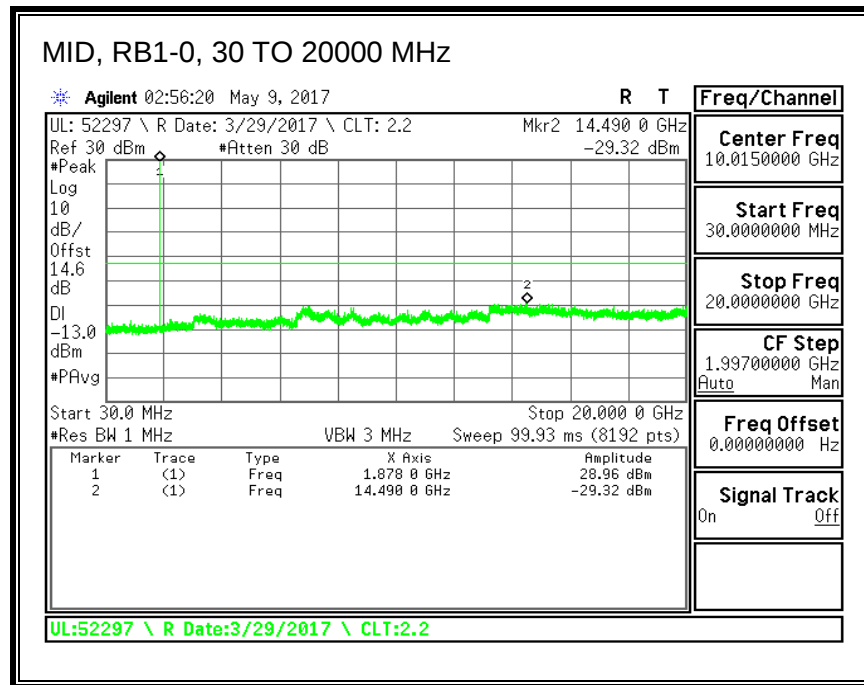
QPSK, (3.0 MHz BAND WIDTH)



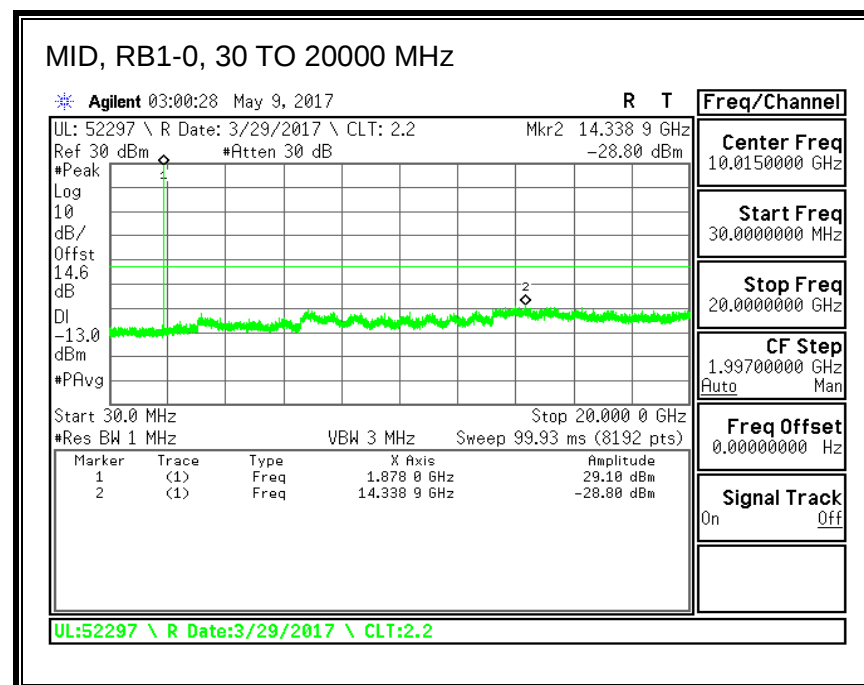
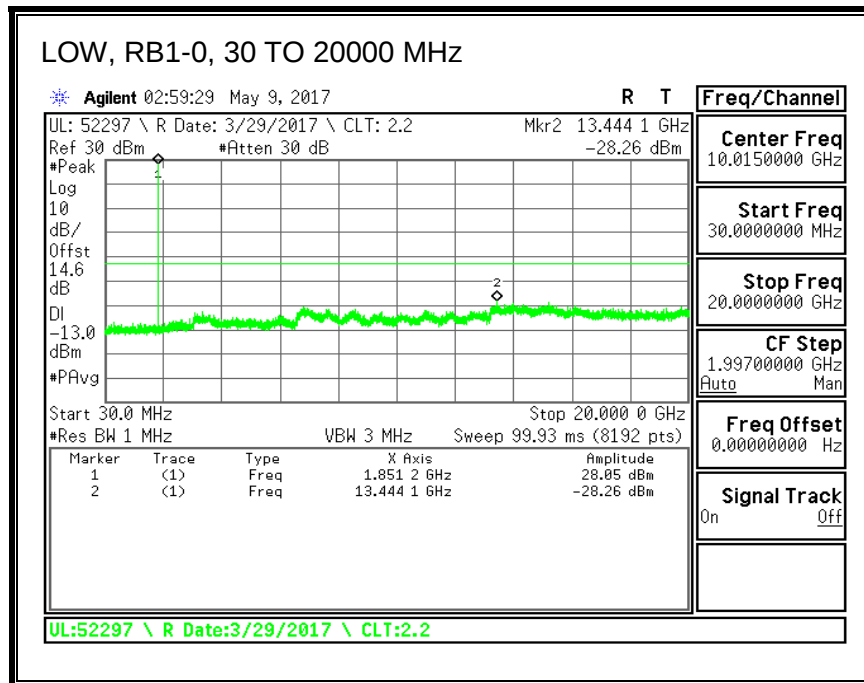


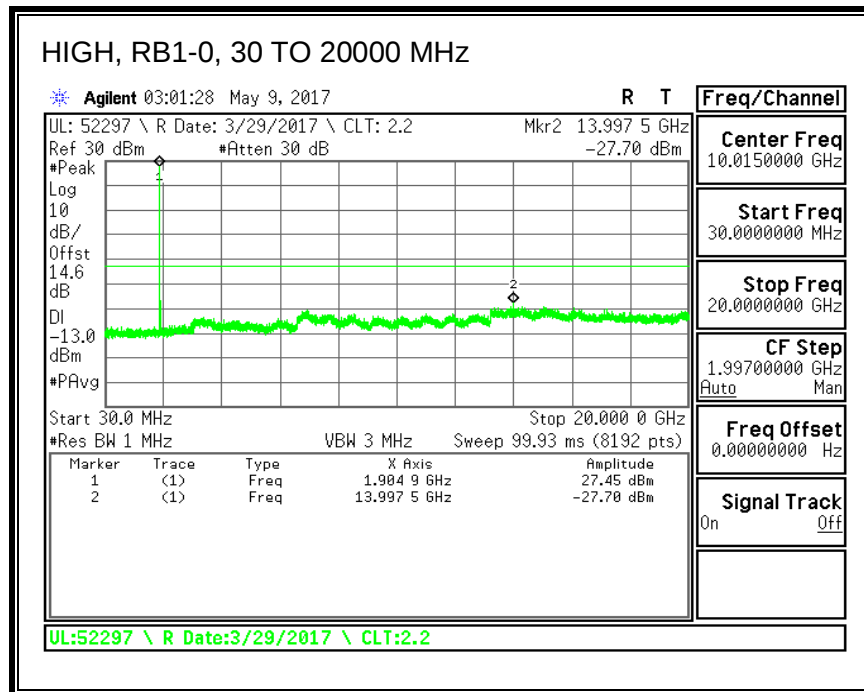
16QAM, (3.0 MHz BAND WIDTH)



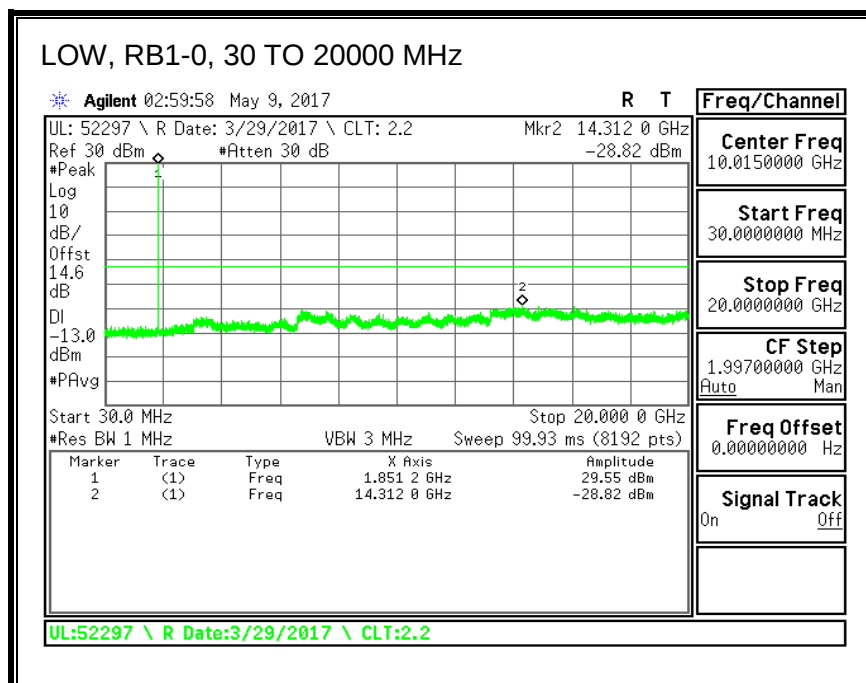


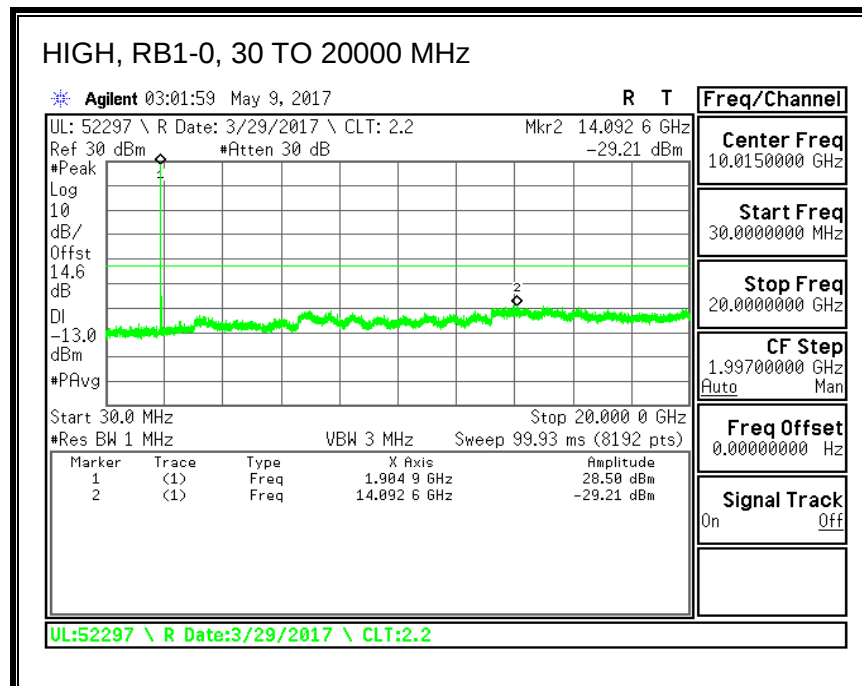
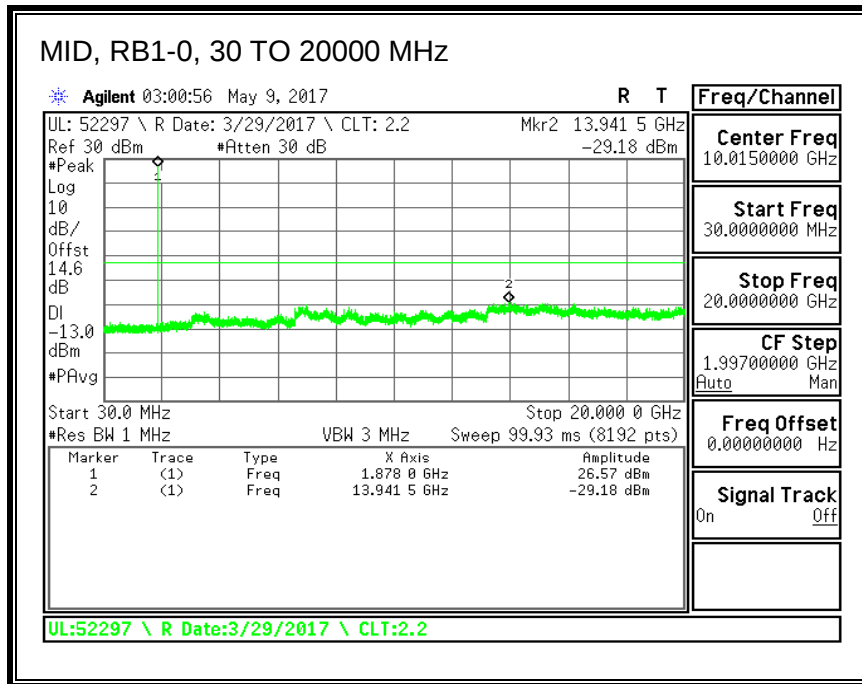
QPSK, (5.0 MHz BAND WIDTH)



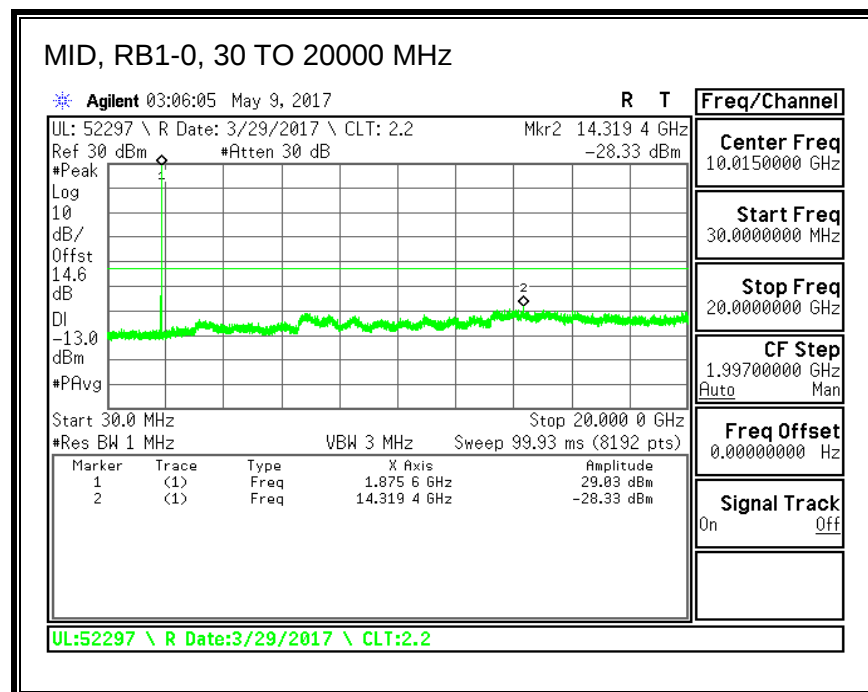
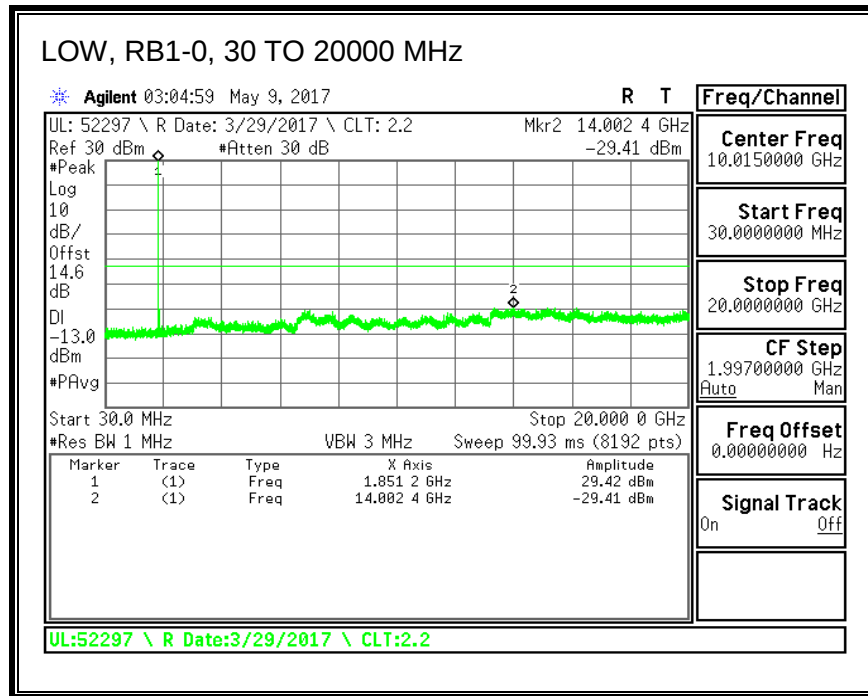


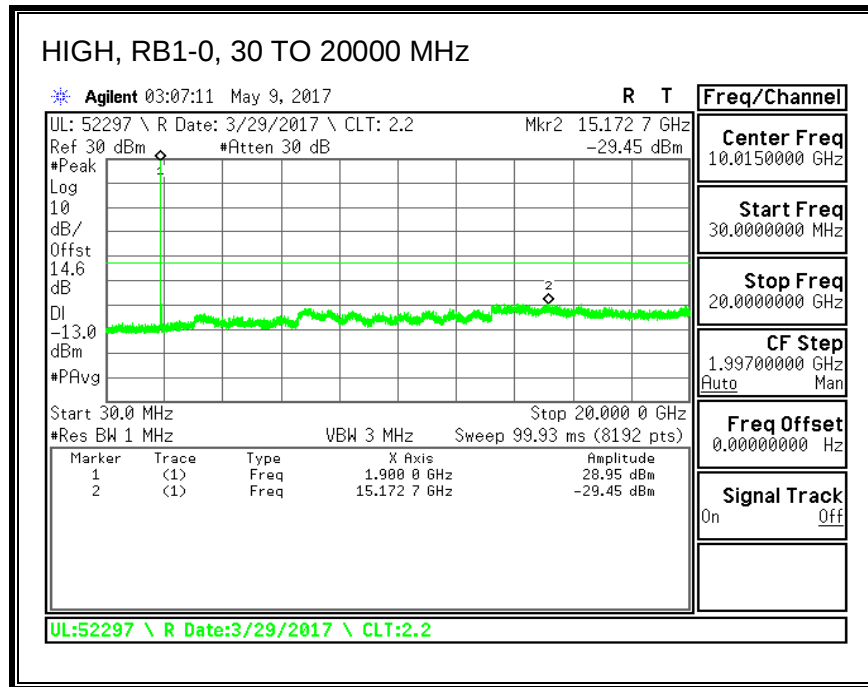
16QAM, (5.0 MHz BAND WIDTH)



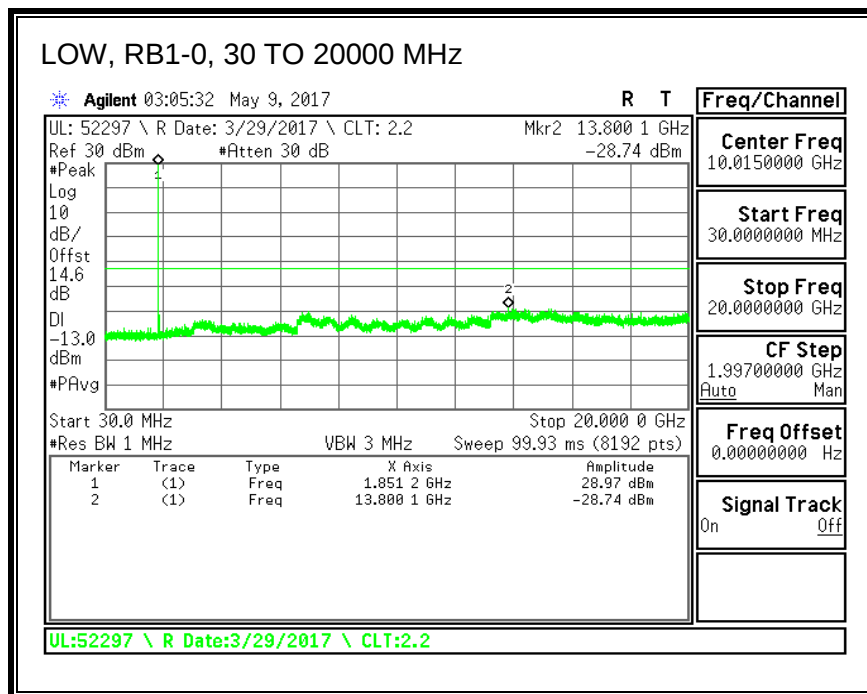


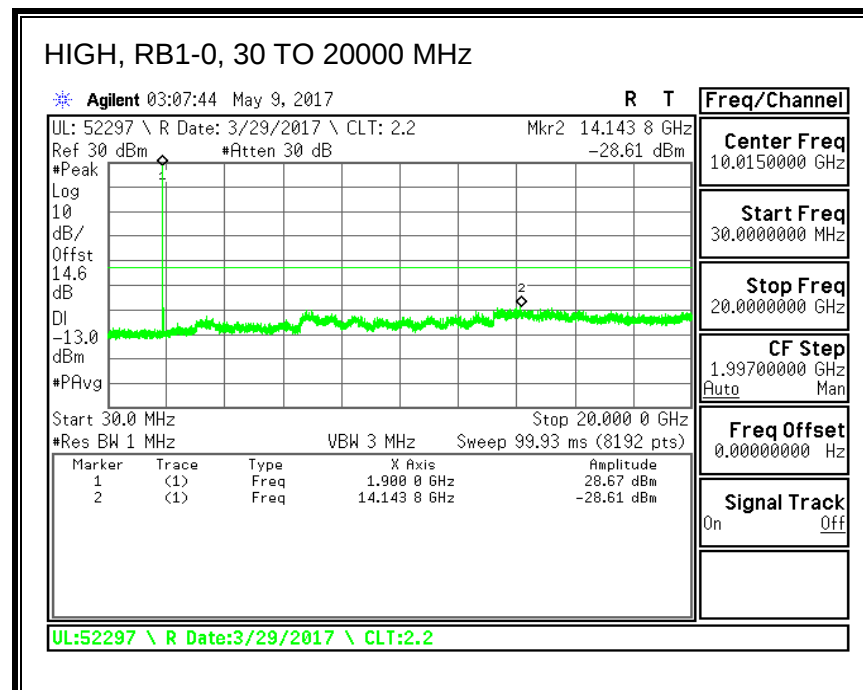
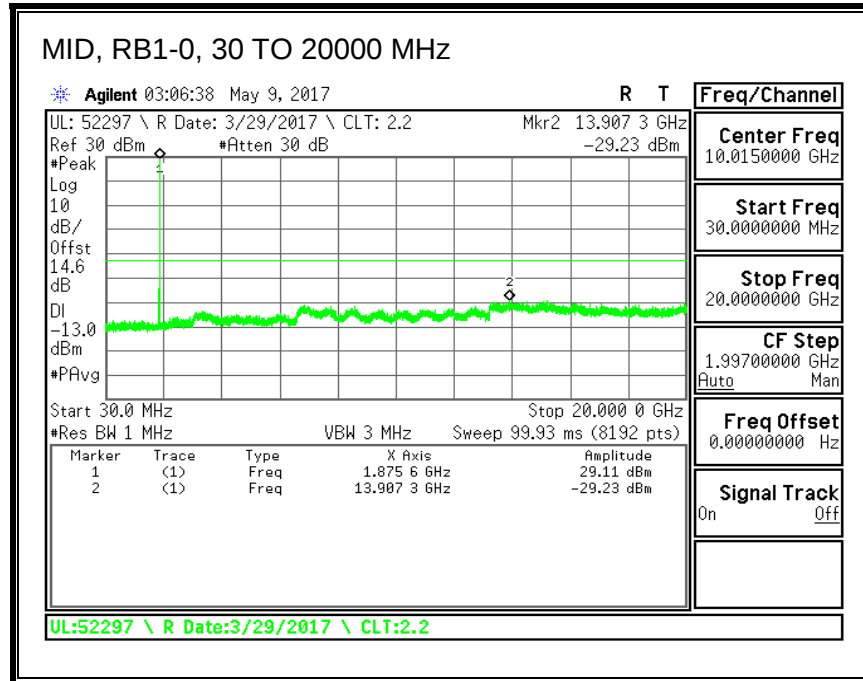
QPSK, (10.0 MHz BAND WIDTH)



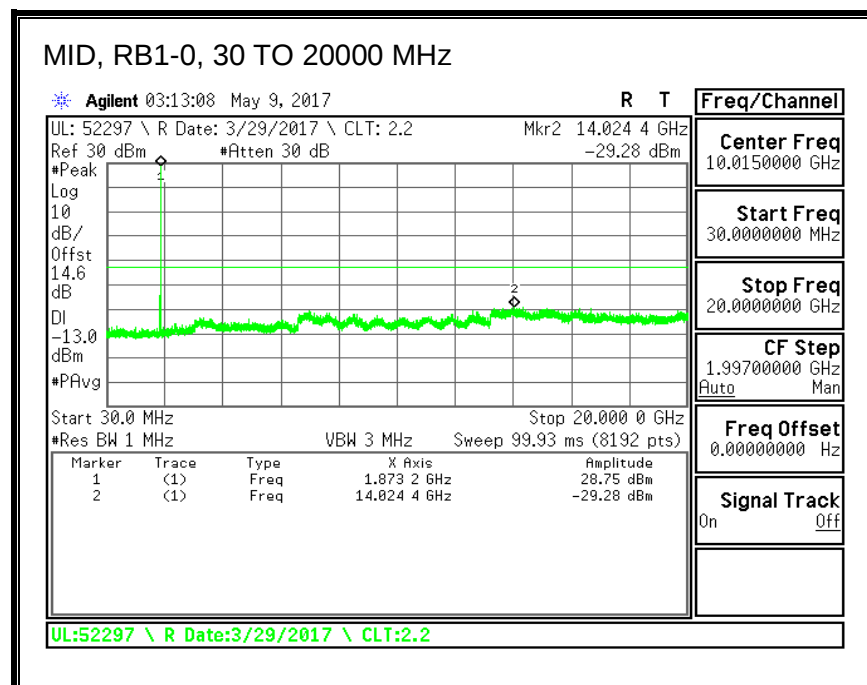
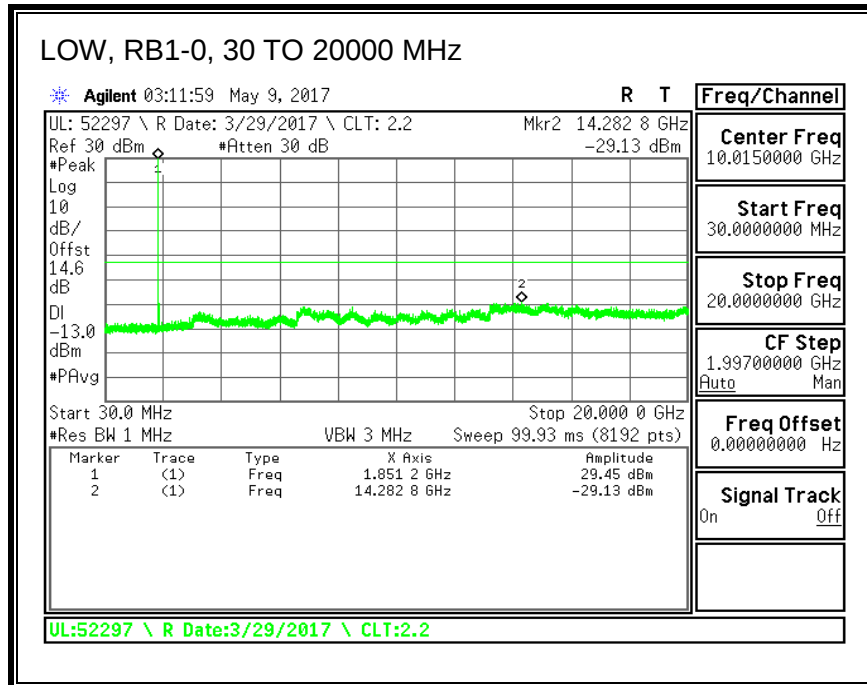


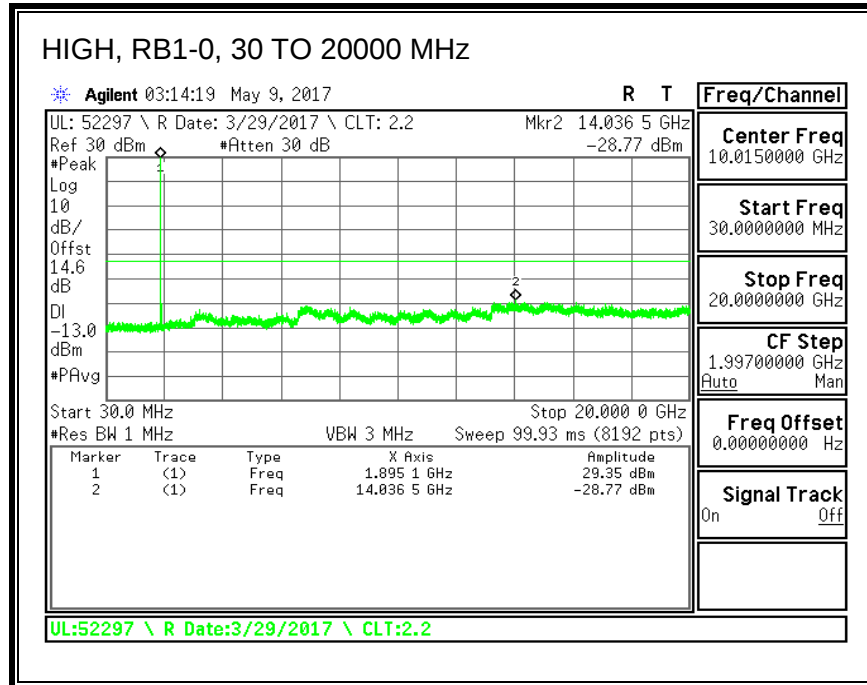
16QAM, (10.0 MHz BAND WIDTH)



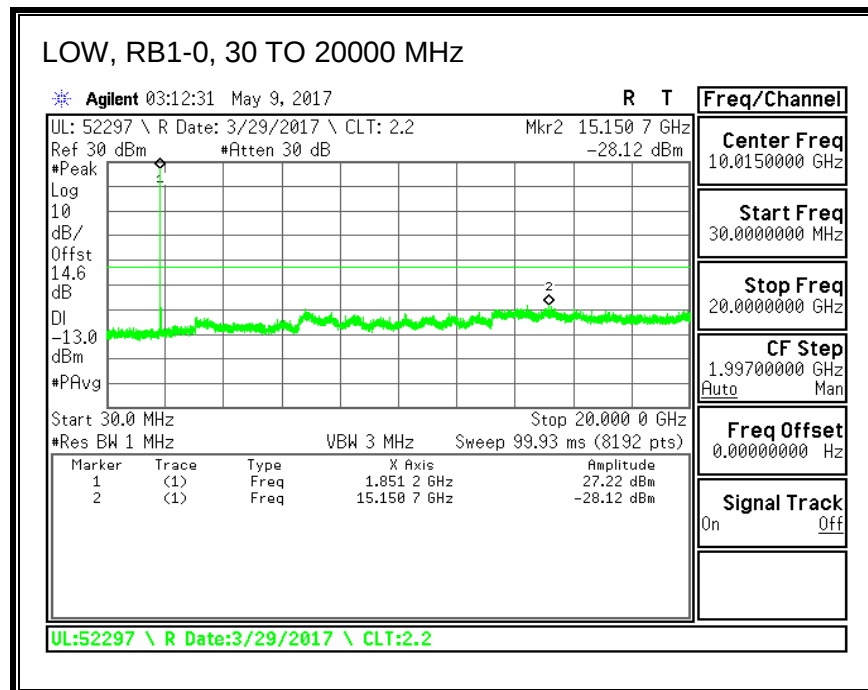


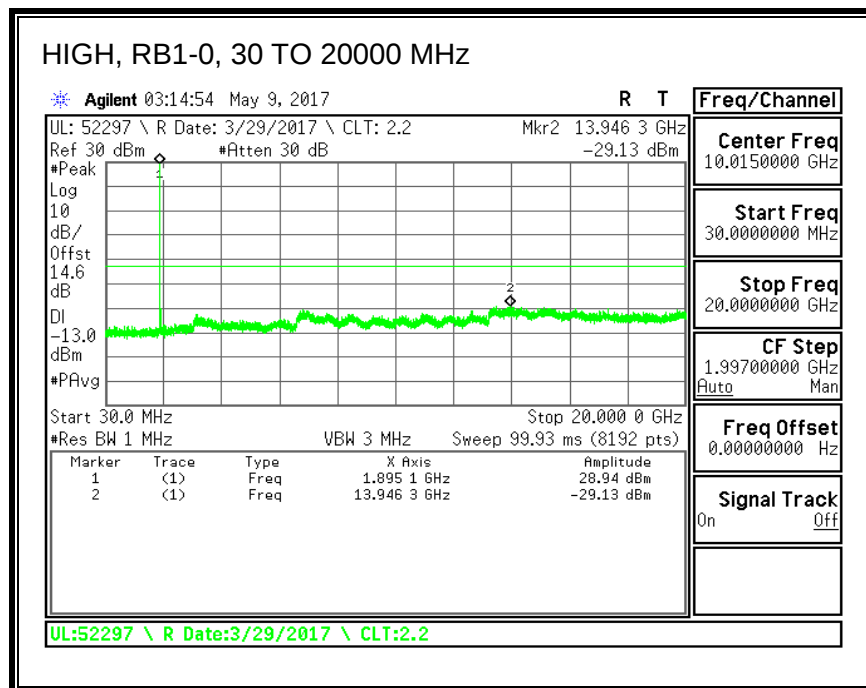
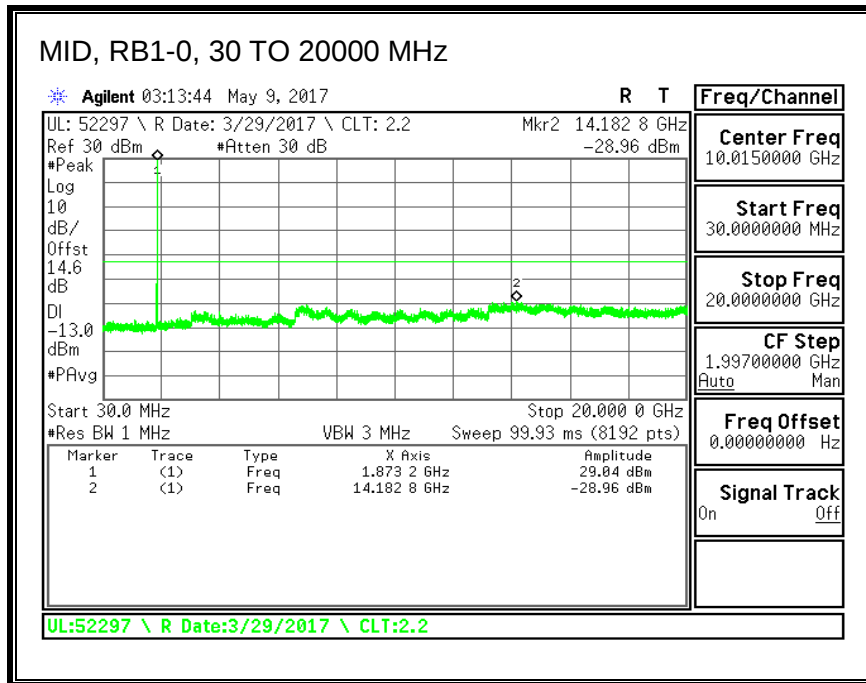
QPSK, (15.0 MHz BAND WIDTH)



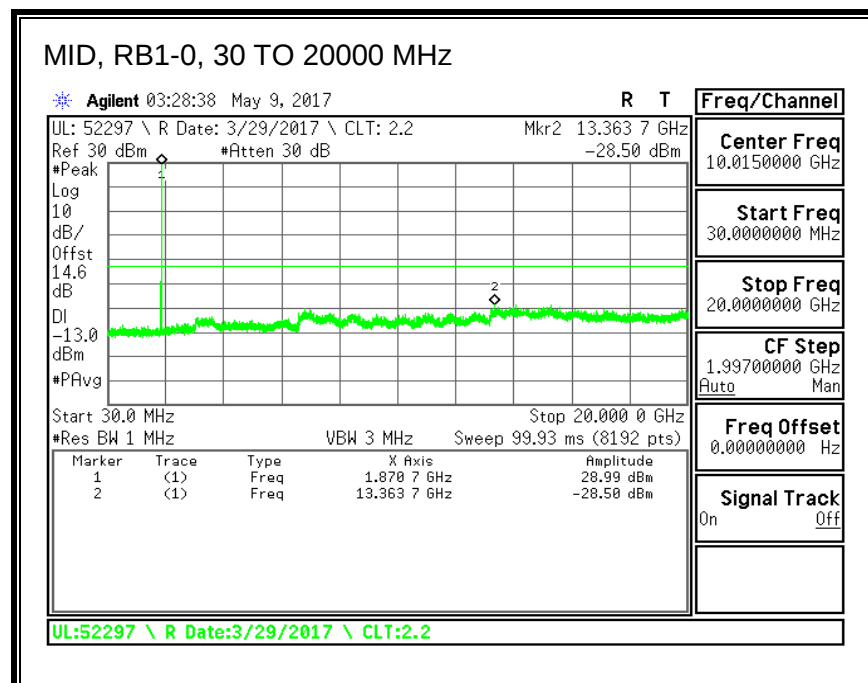
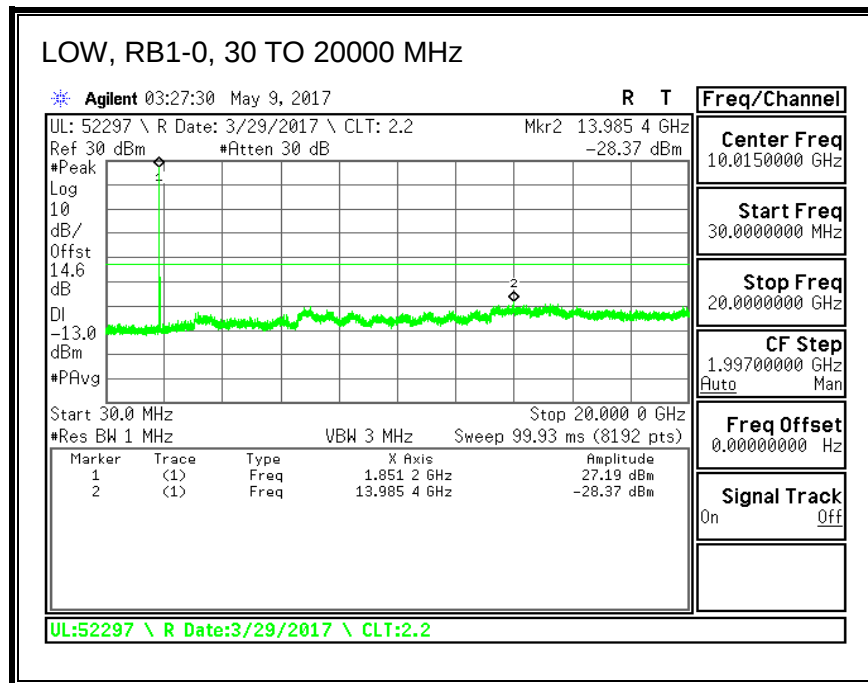


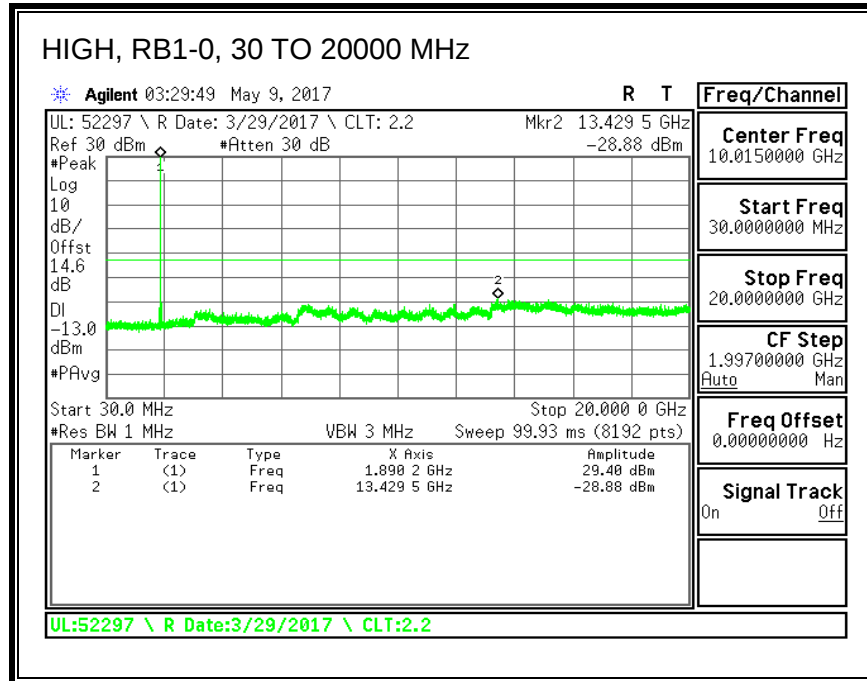
16QAM, (15.0 MHz BAND WIDTH)



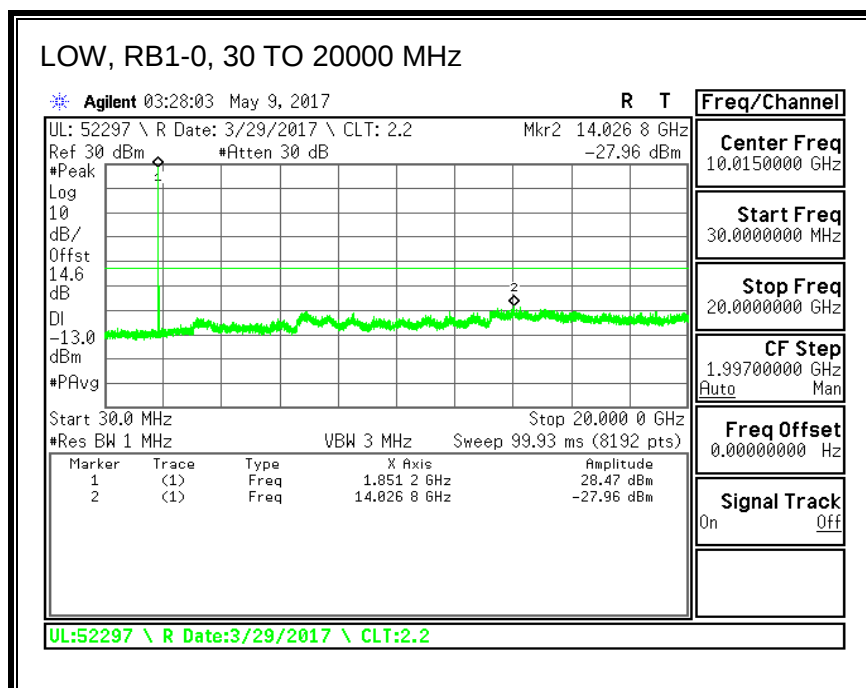


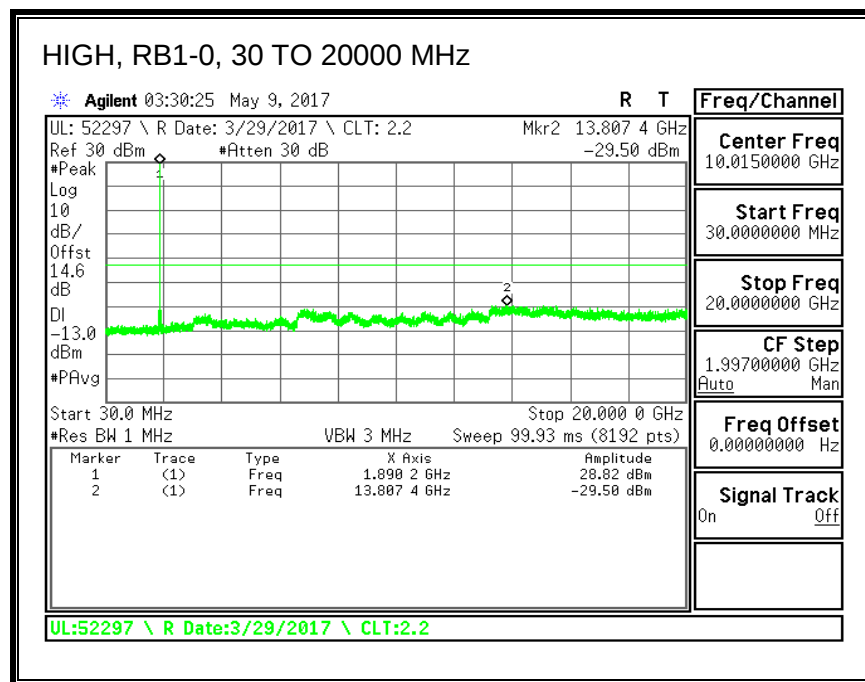
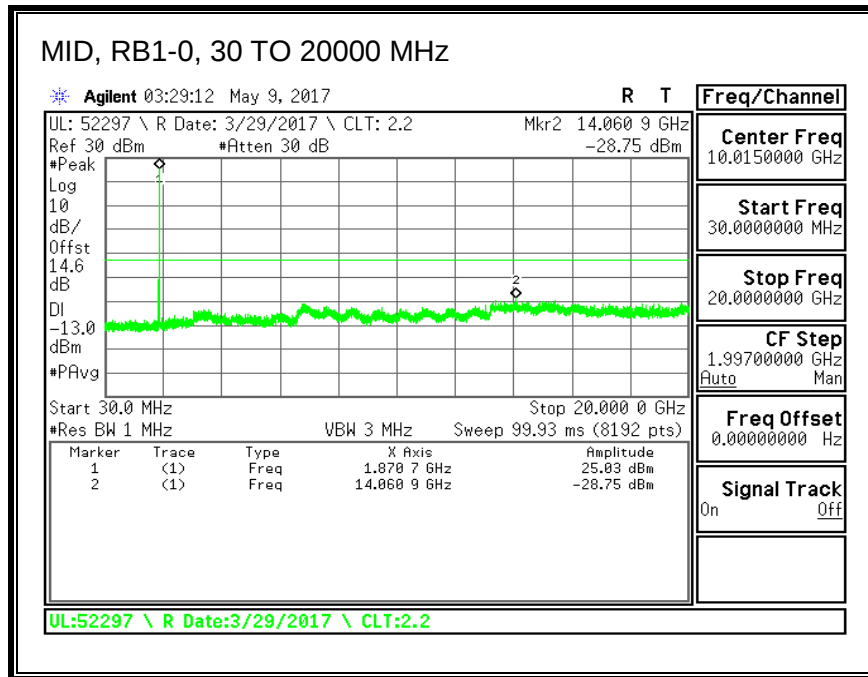
QPSK, (20.0 MHz BAND WIDTH)





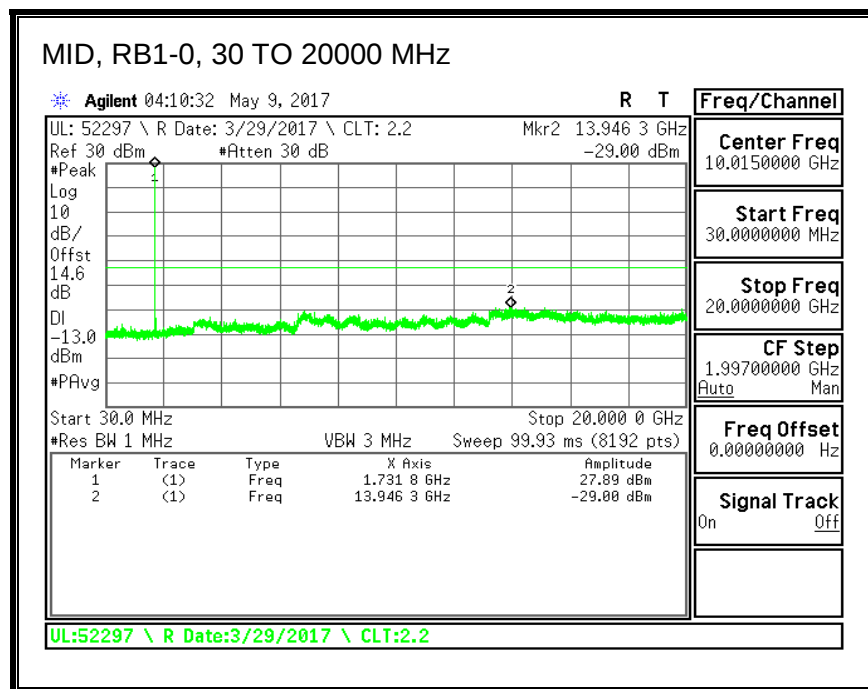
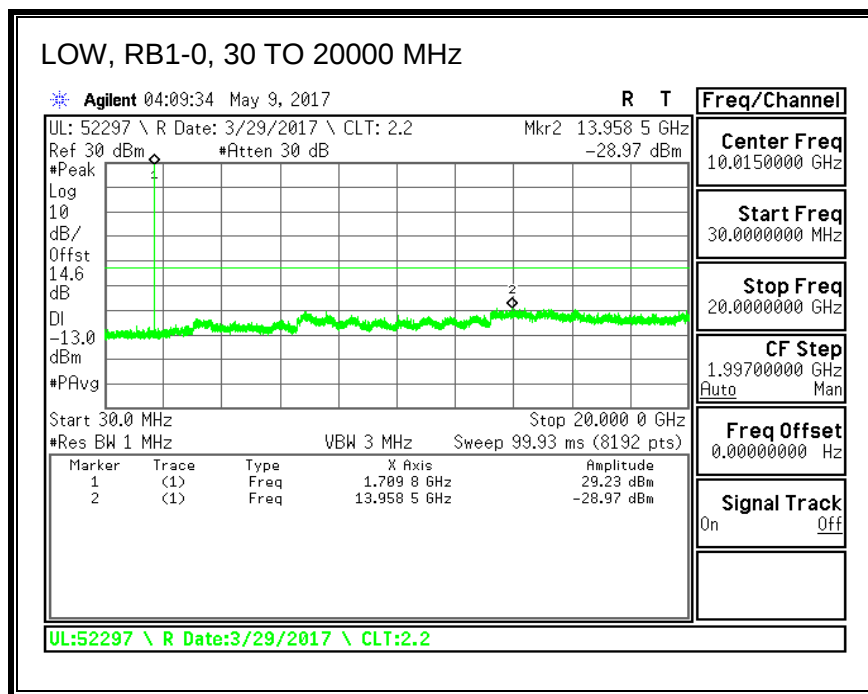
16QAM, (20.0 MHz BAND WIDTH)

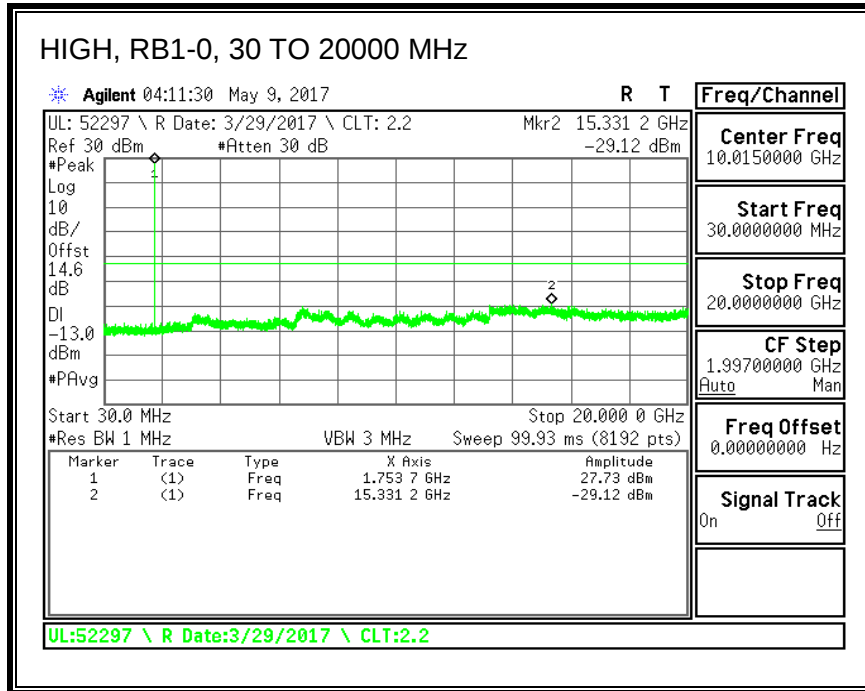




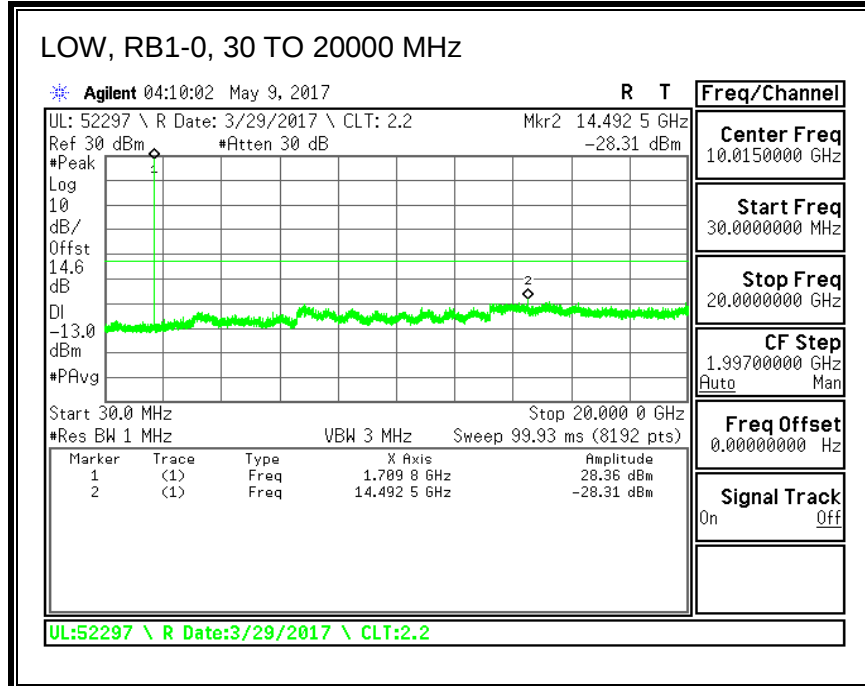
8.3.2. LTE BAND 4

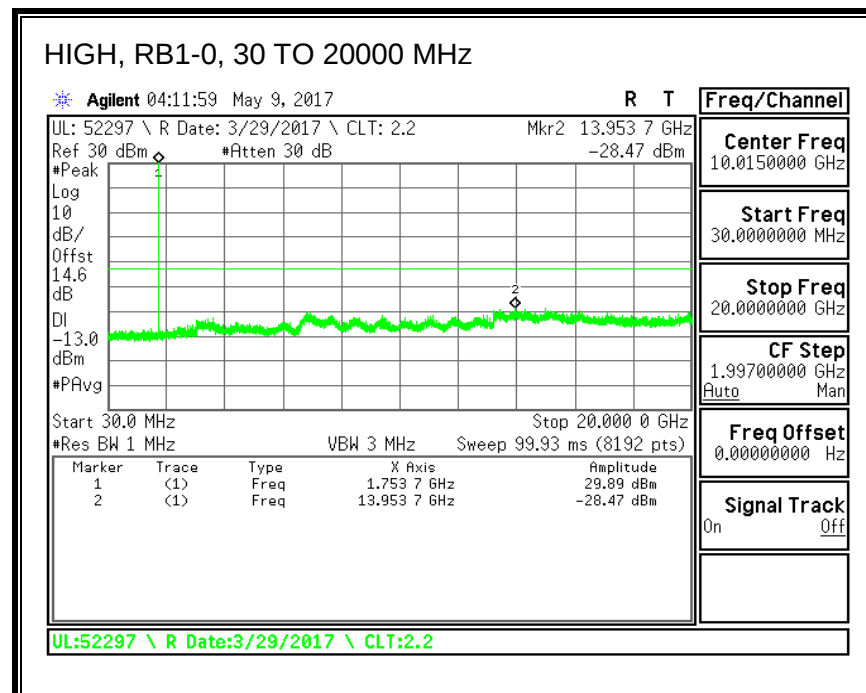
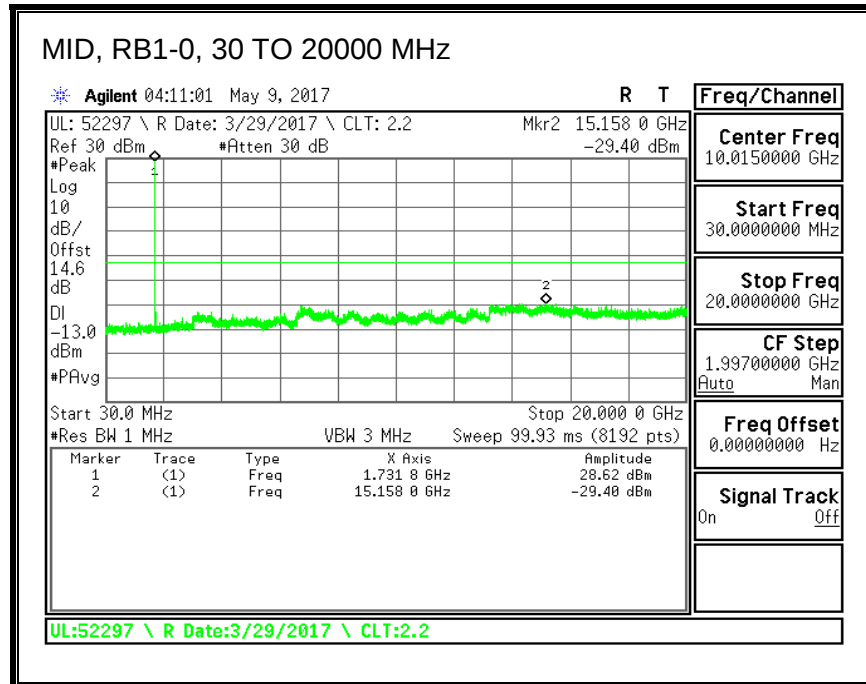
QPSK, (1.4 MHz BAND WIDTH)



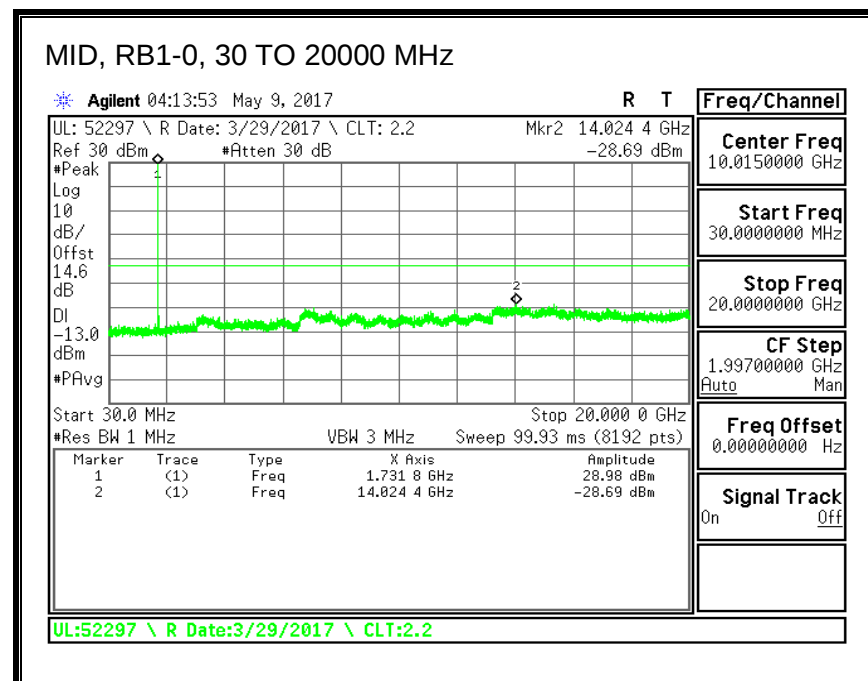
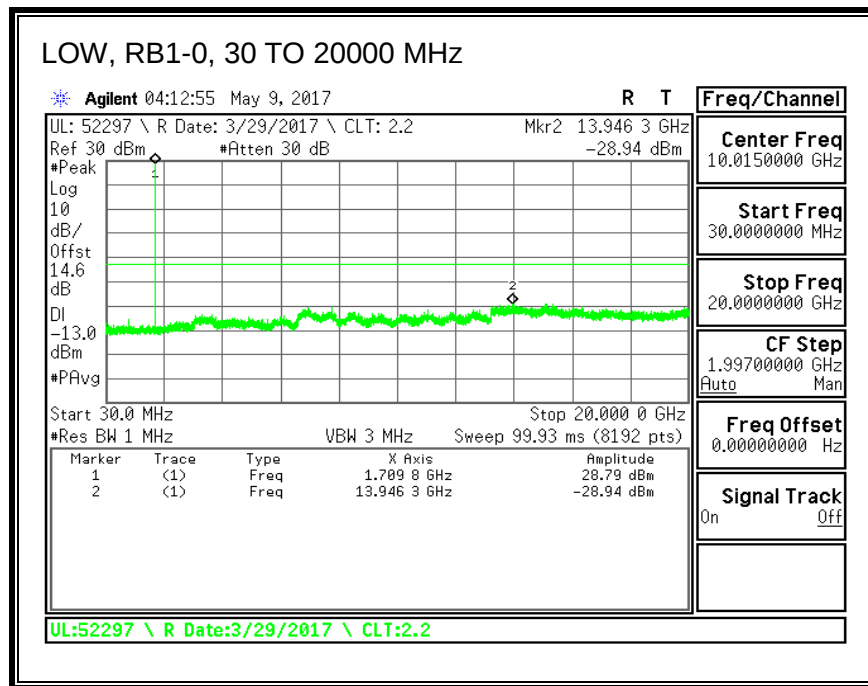


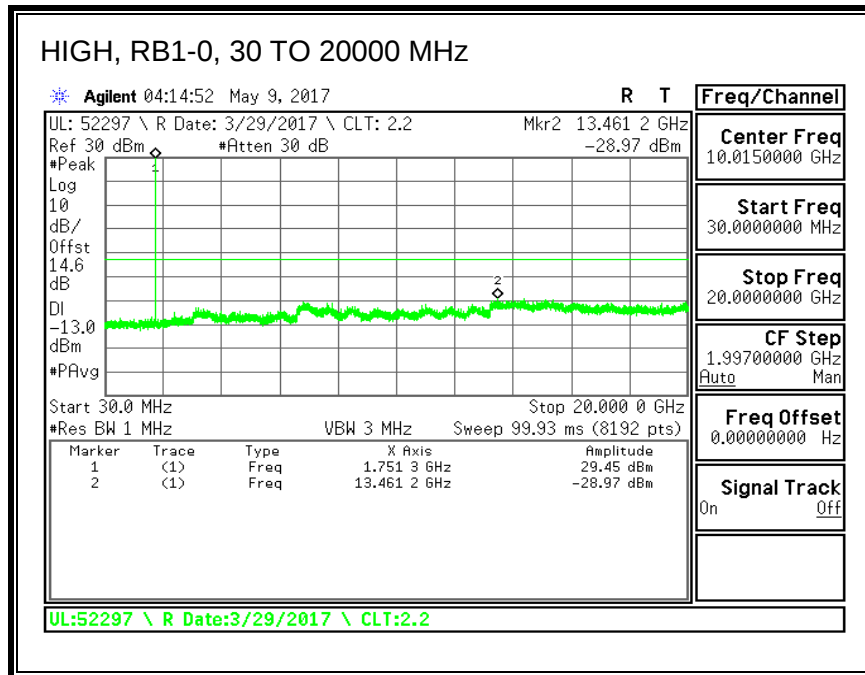
16QAM, (1.4 MHz BAND WIDTH)



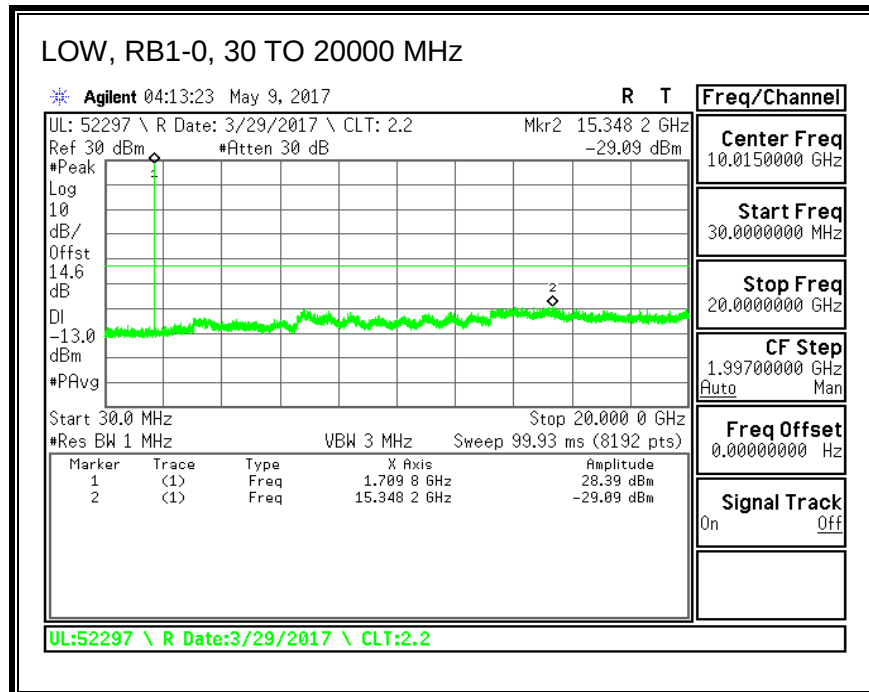


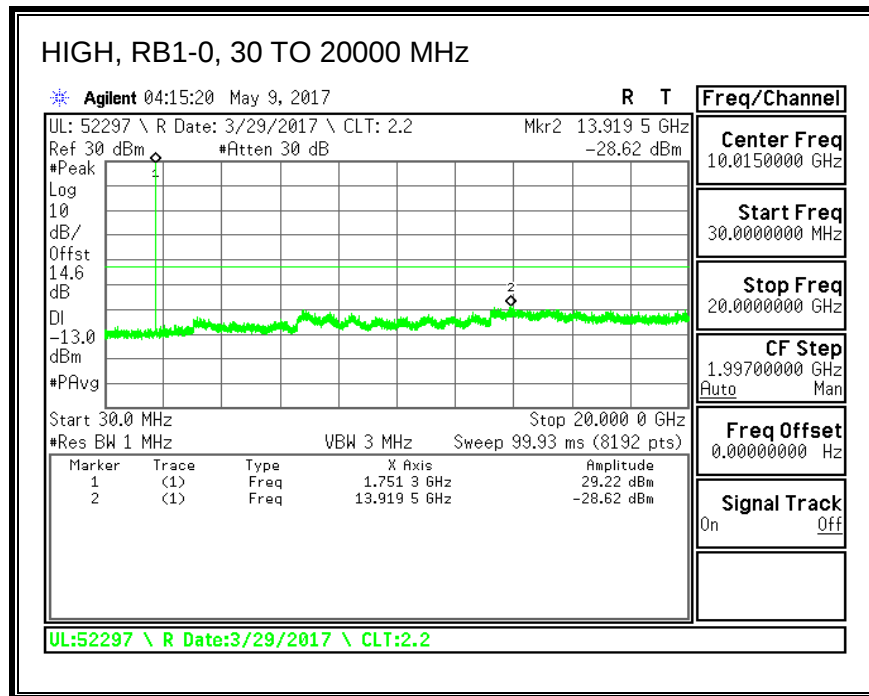
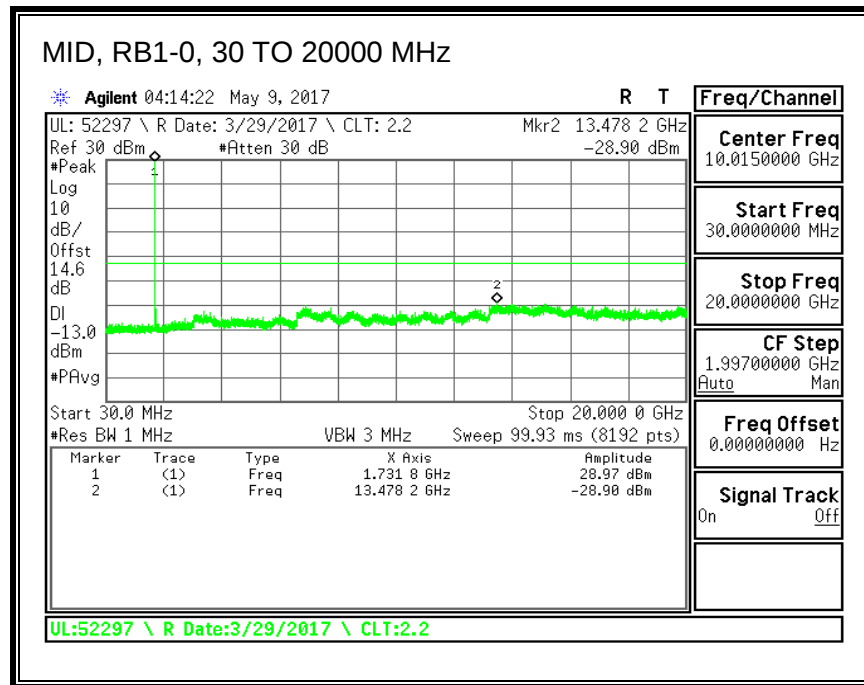
QPSK, (3.0 MHz BAND WIDTH)





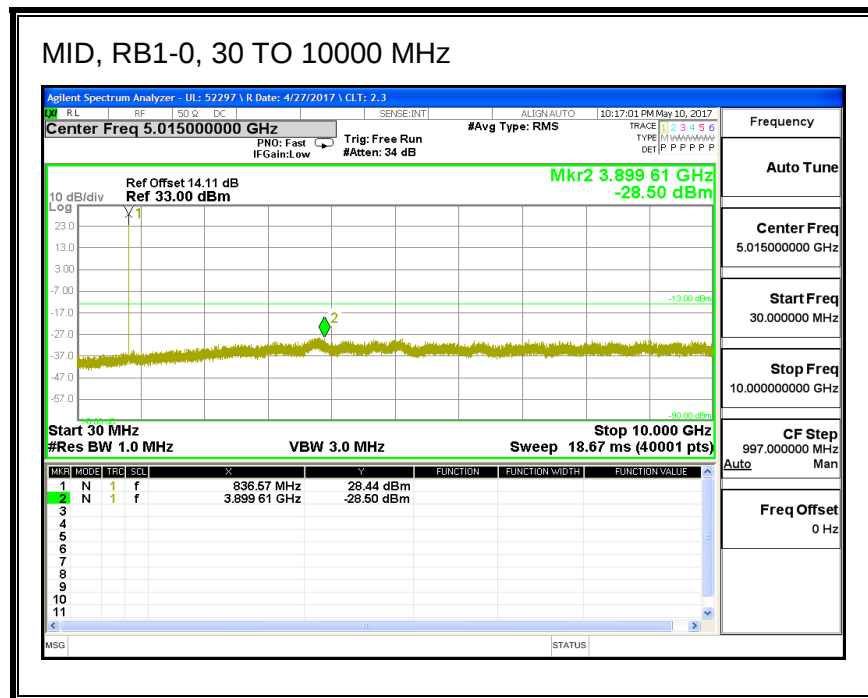
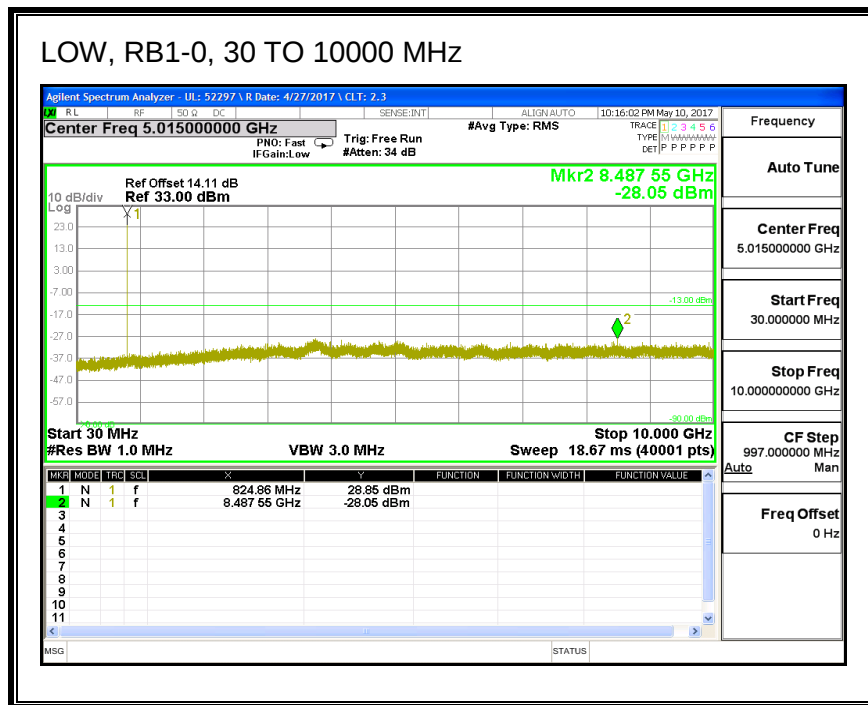
16QAM, (3.0 MHz BAND WIDTH)

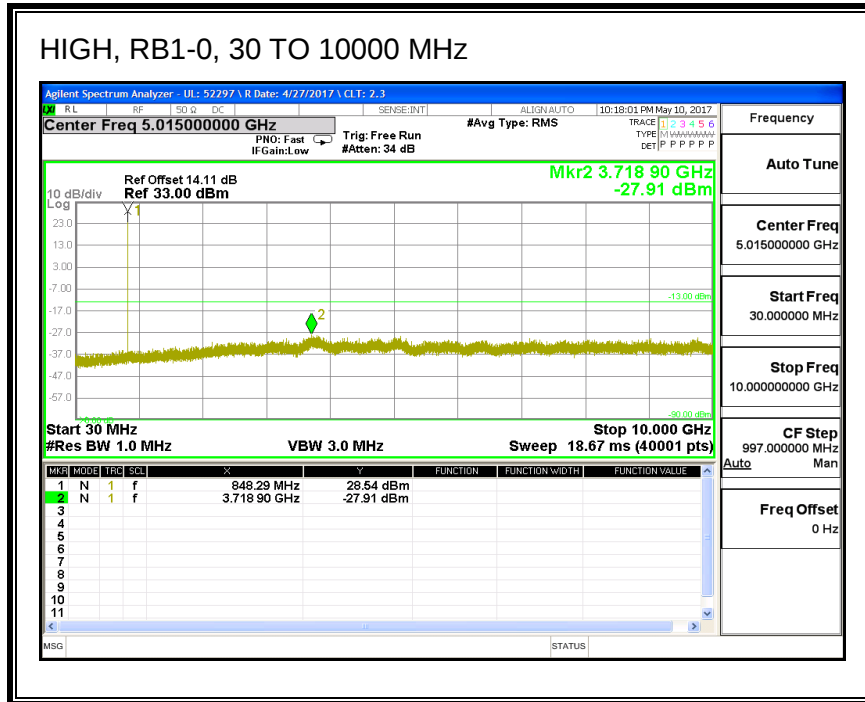




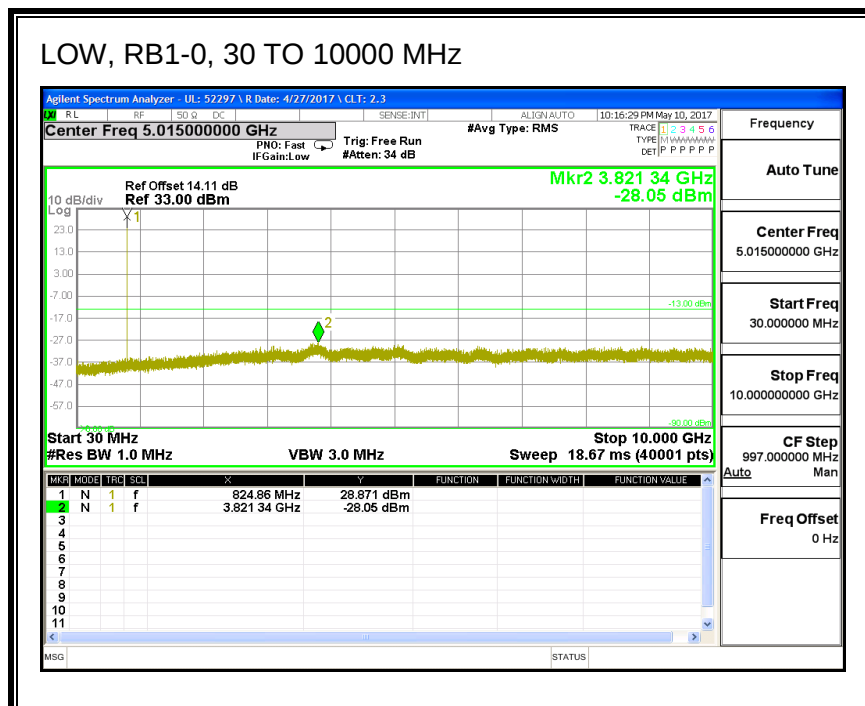
8.3.3. LTE BAND 5

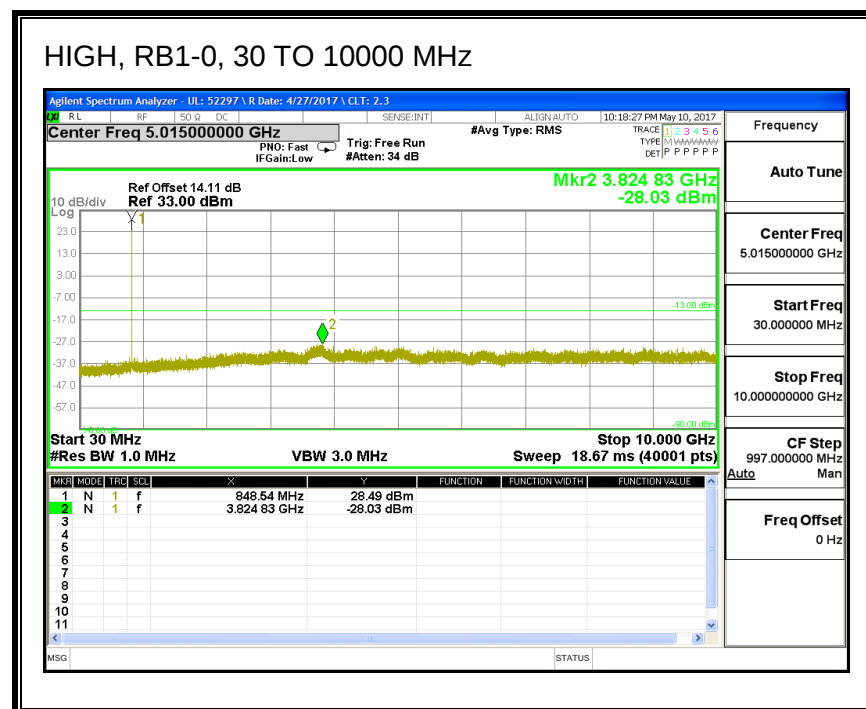
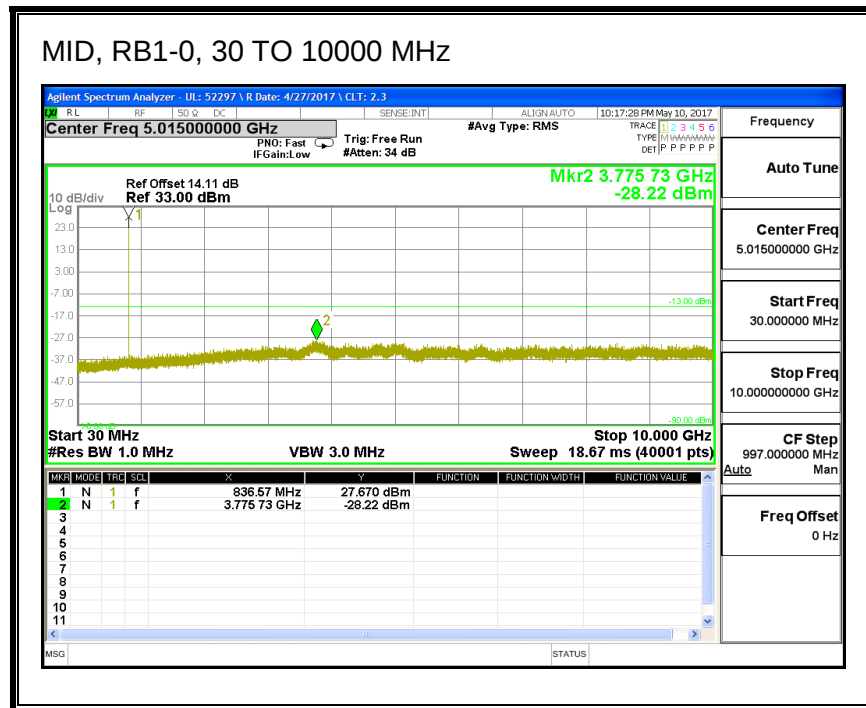
QPSK, (1.4 MHz BAND WIDTH)



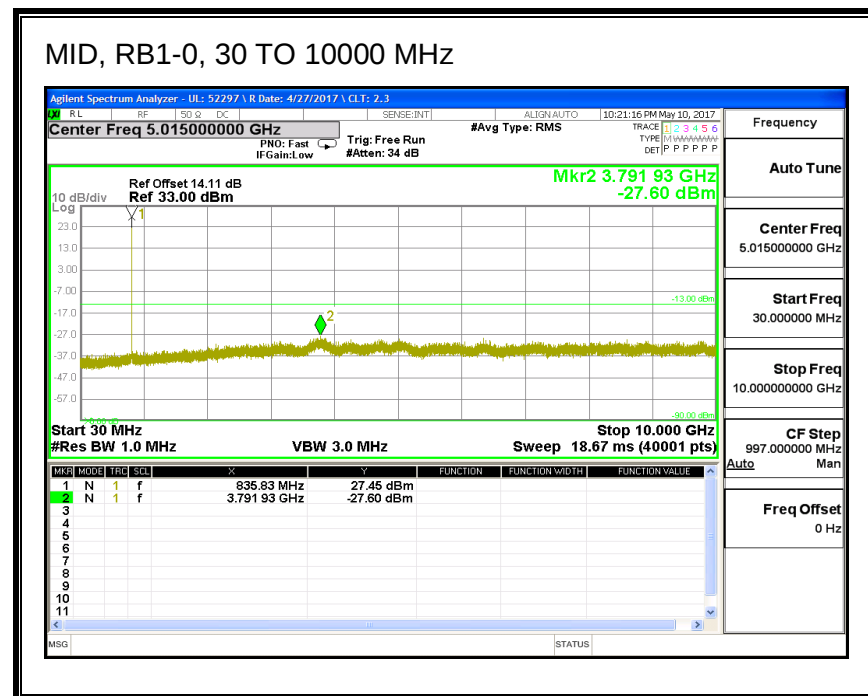
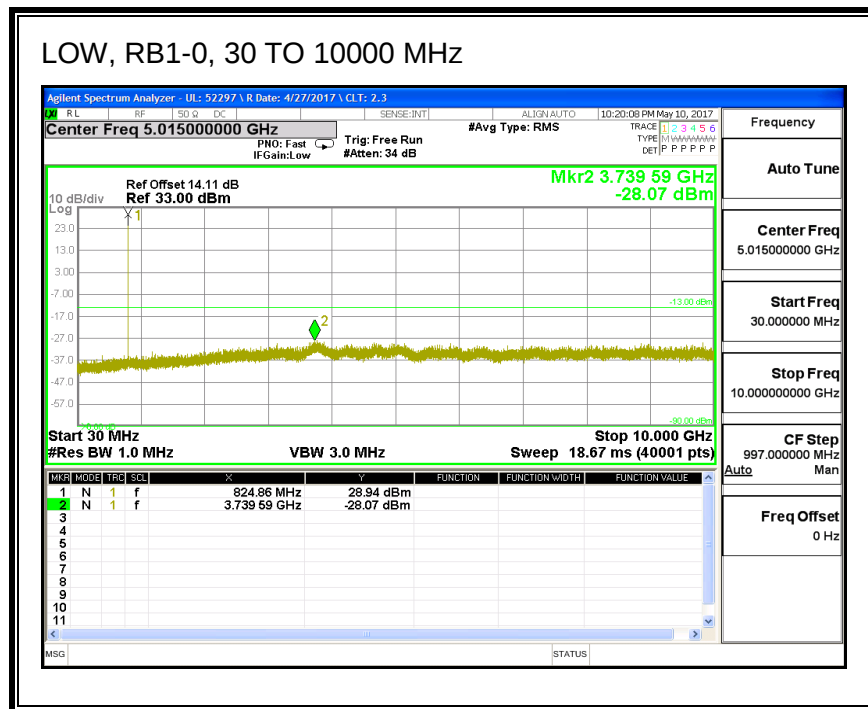


16QAM, (1.4 MHz BAND WIDTH)

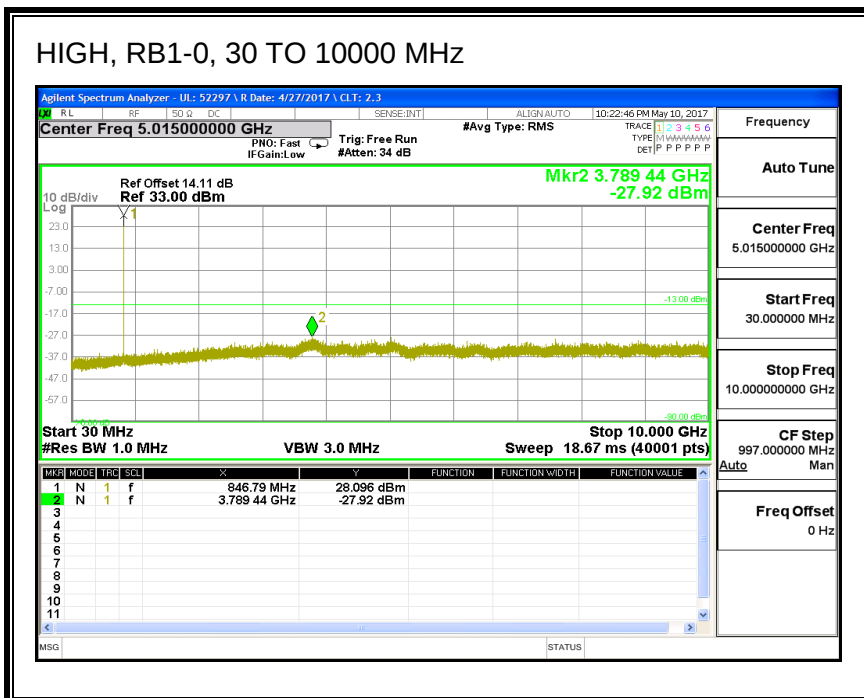
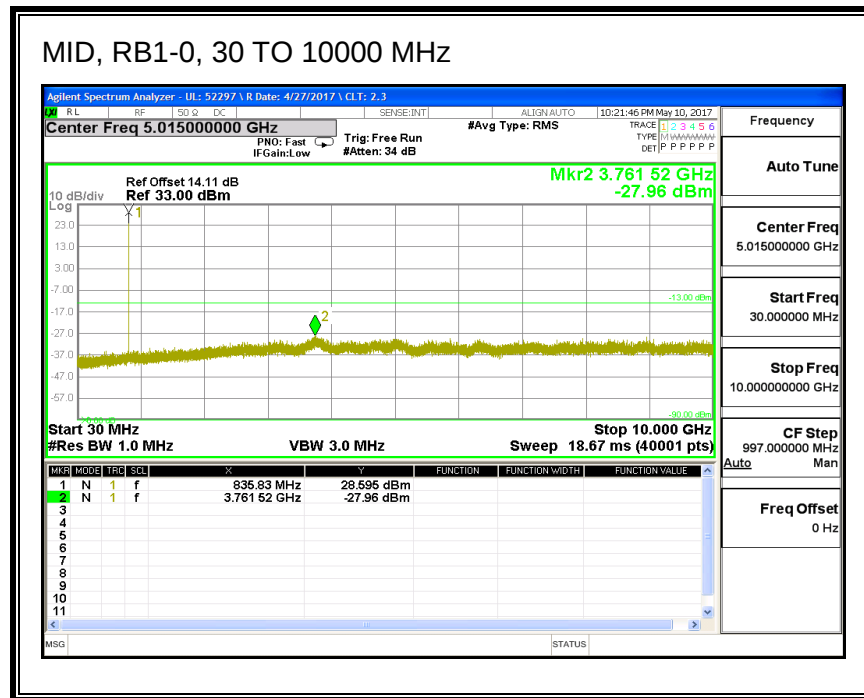




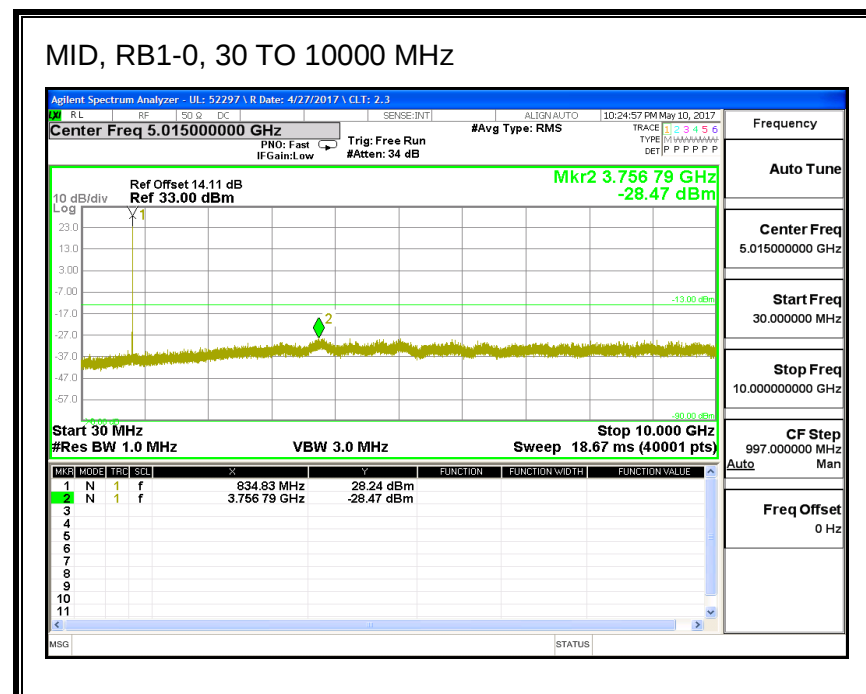
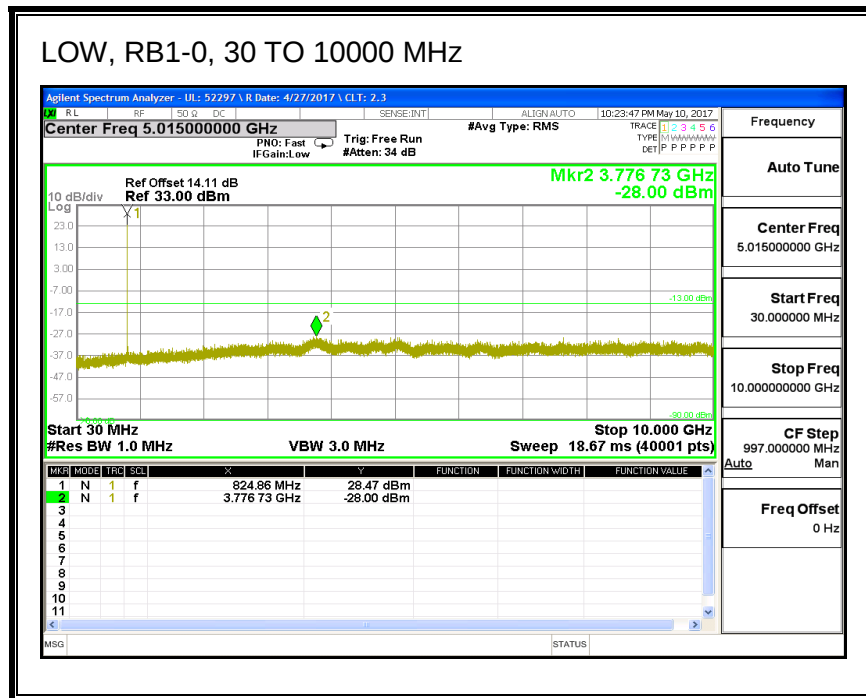
QPSK, (3.0 MHz BAND WIDTH)

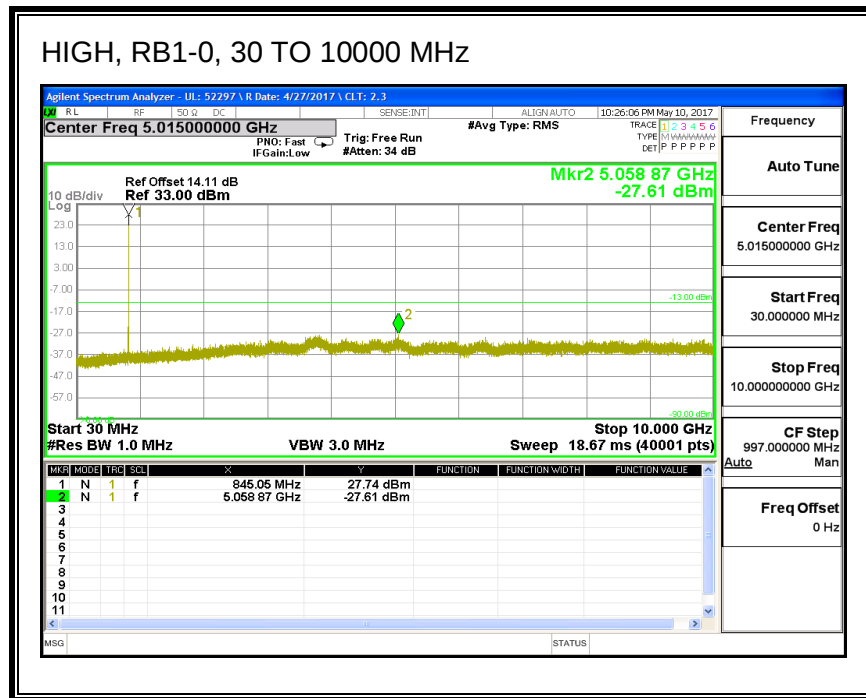




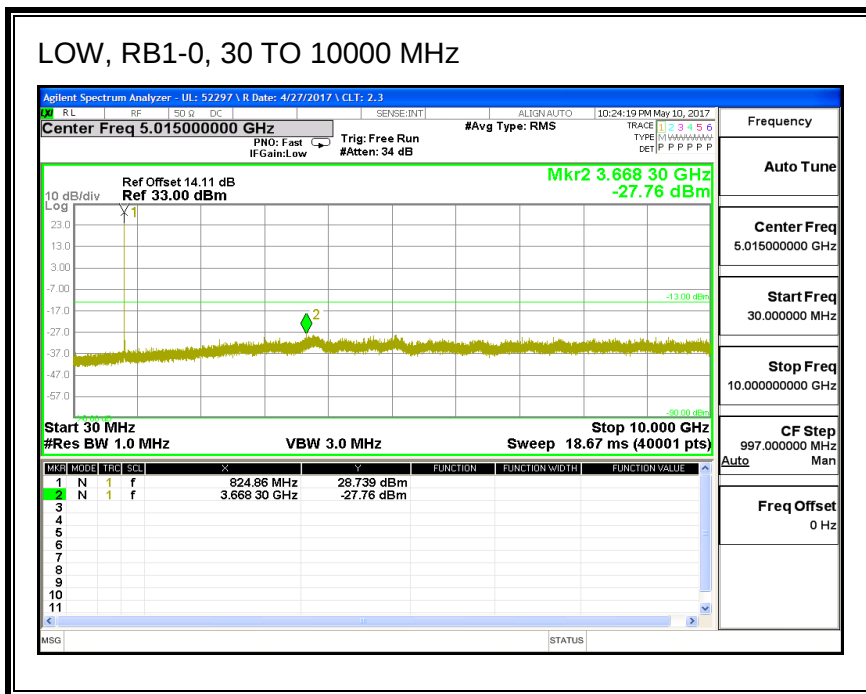


QPSK, (5.0 MHz BAND WIDTH)

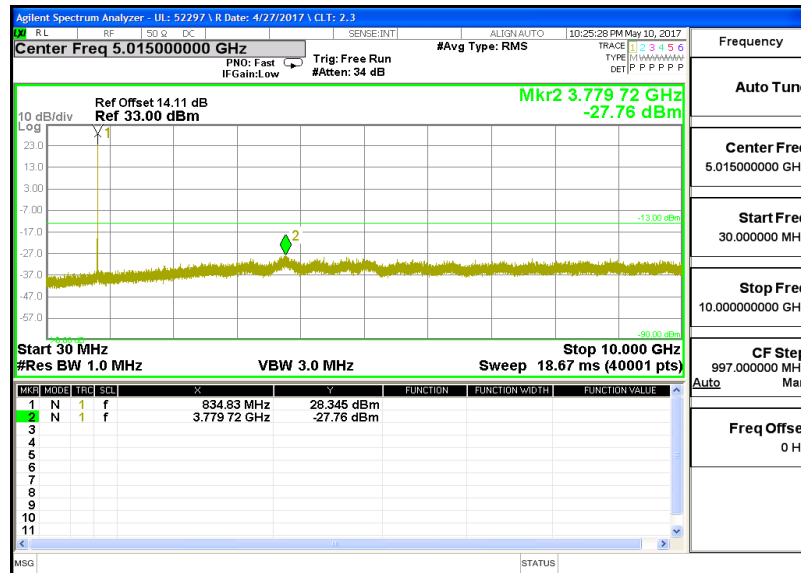




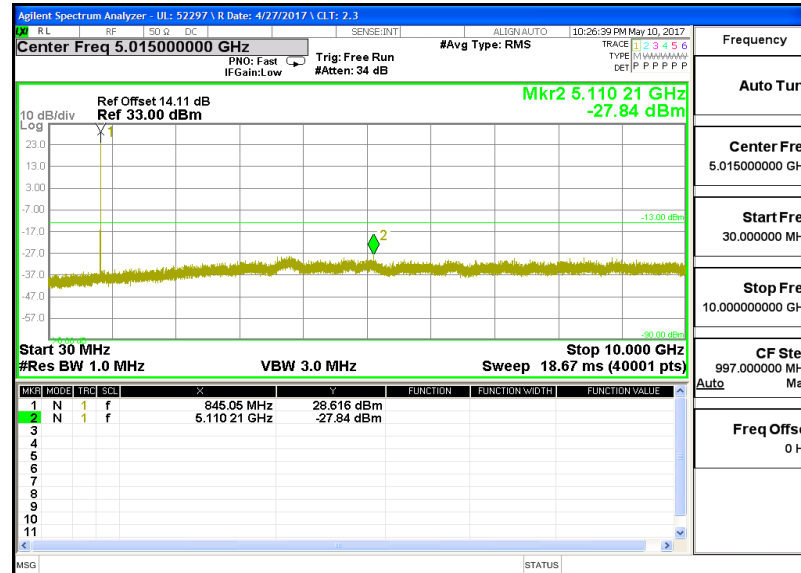
16QAM, (5.0 MHz BAND WIDTH)



MID, RB1-0, 30 TO 10000 MHz

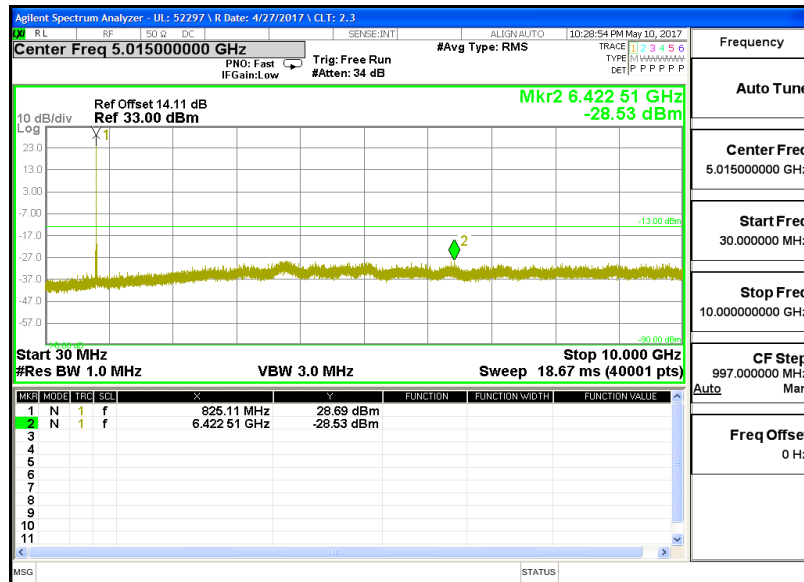


HIGH, RB1-0, 30 TO 10000 MHz

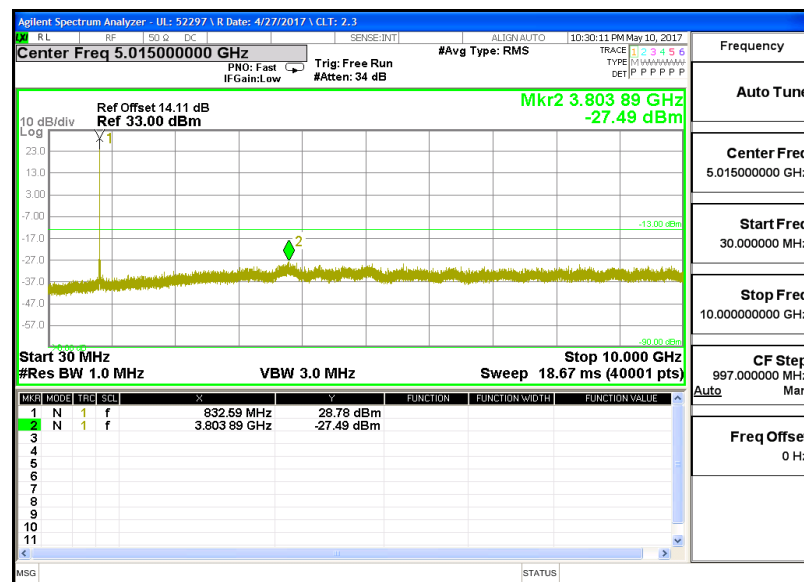


QPSK, (10.0 MHz BAND WIDTH)

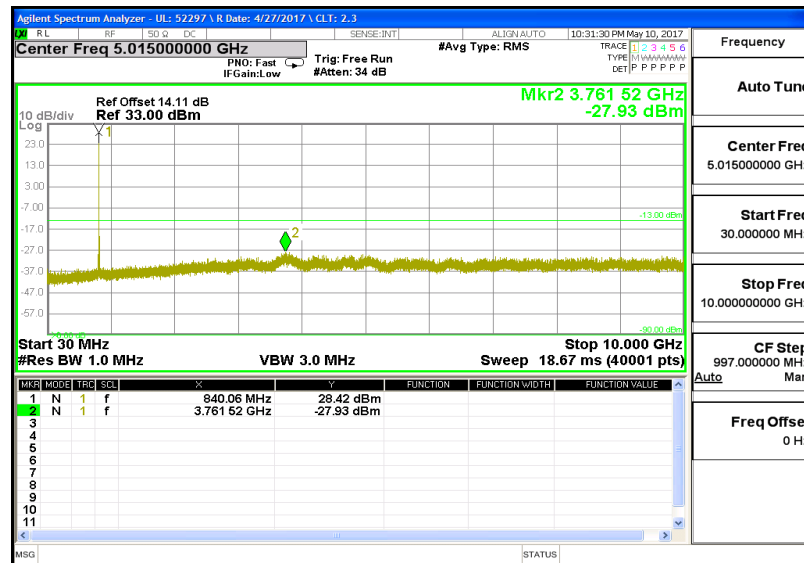
LOW, RB1-0, 30 TO 10000 MHz



MID, RB1-0, 30 TO 10000 MHz

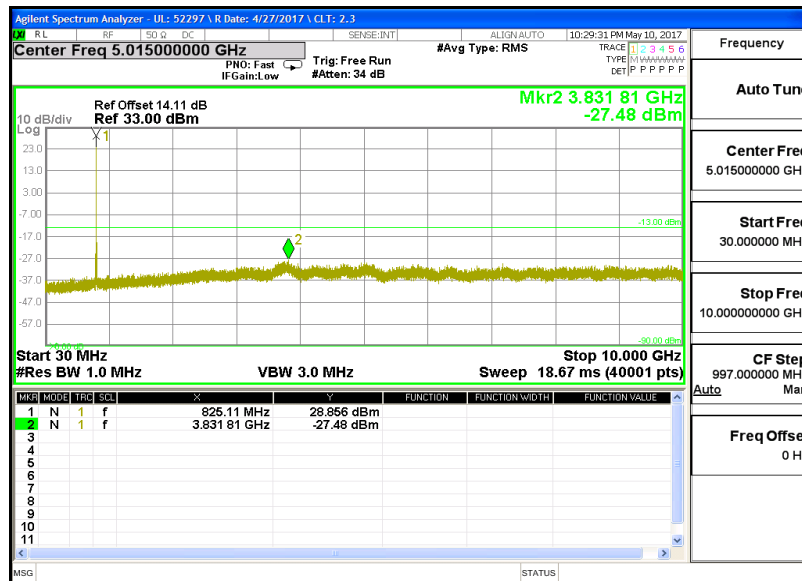


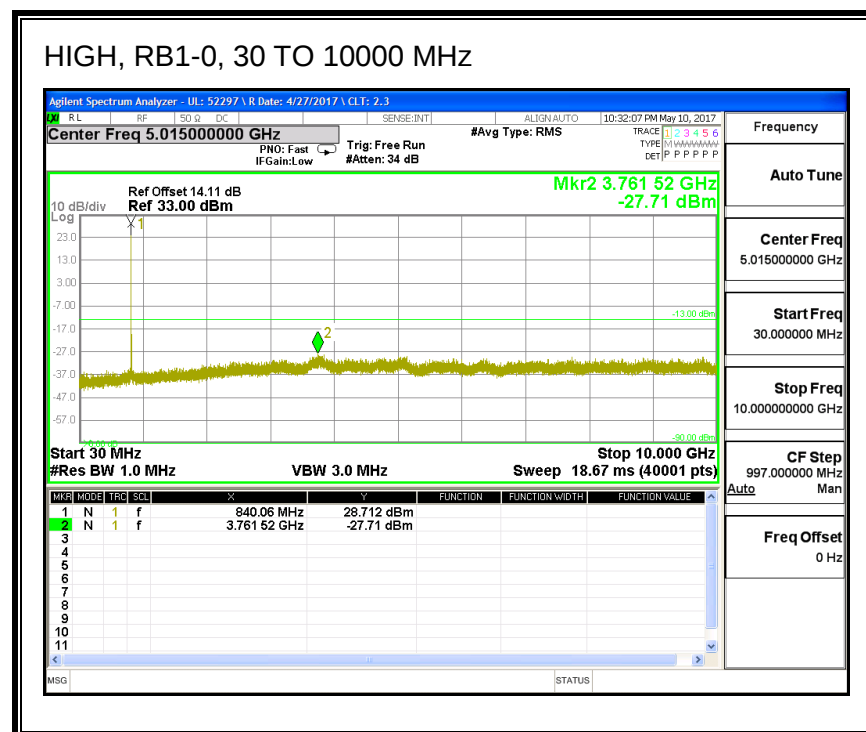
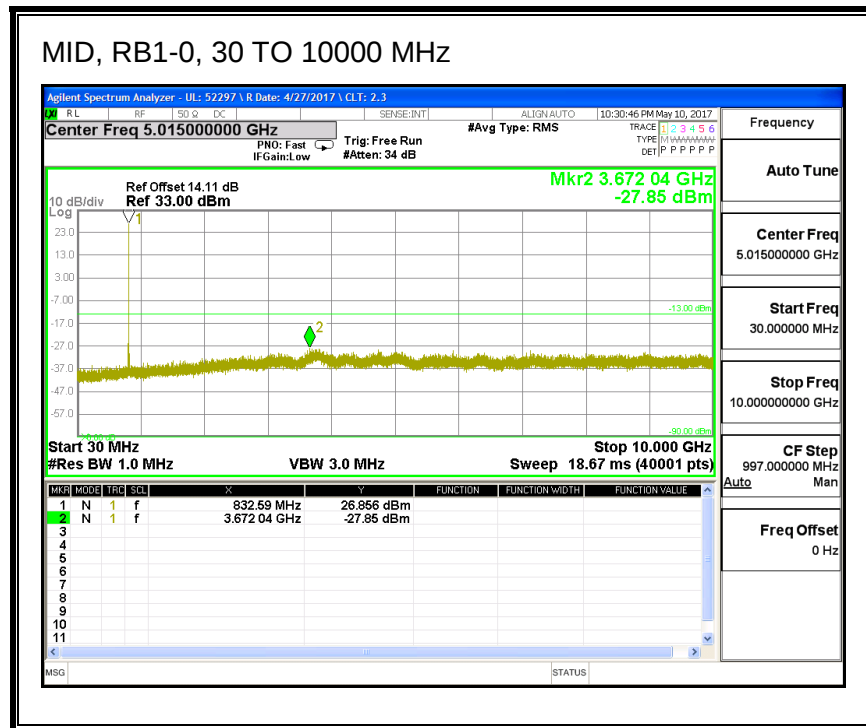
HIGH, RB1-0, 30 TO 10000 MHz



16QAM, (10.0 MHz BAND WIDTH)

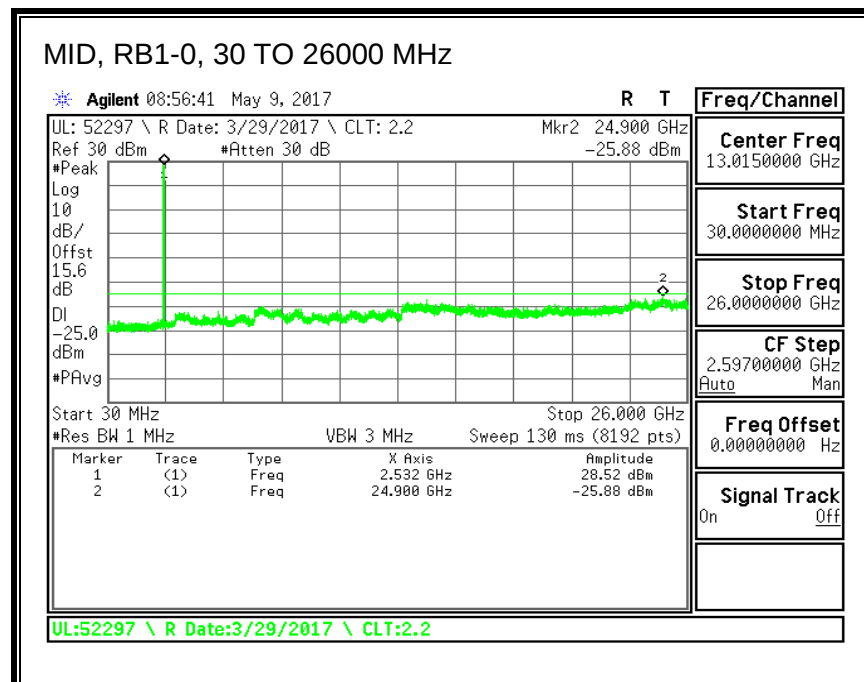
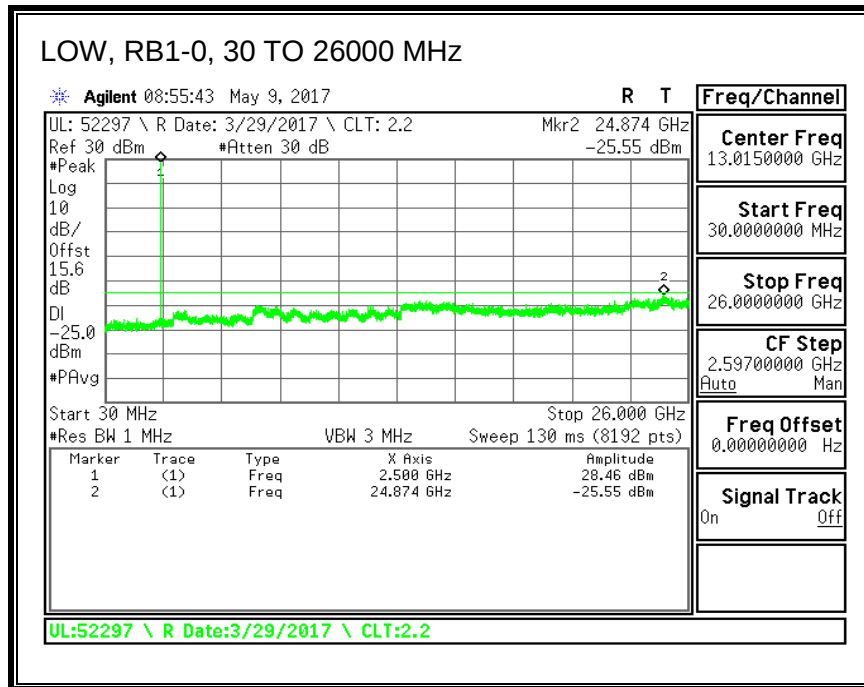
LOW, RB1-0, 30 TO 10000 MHz

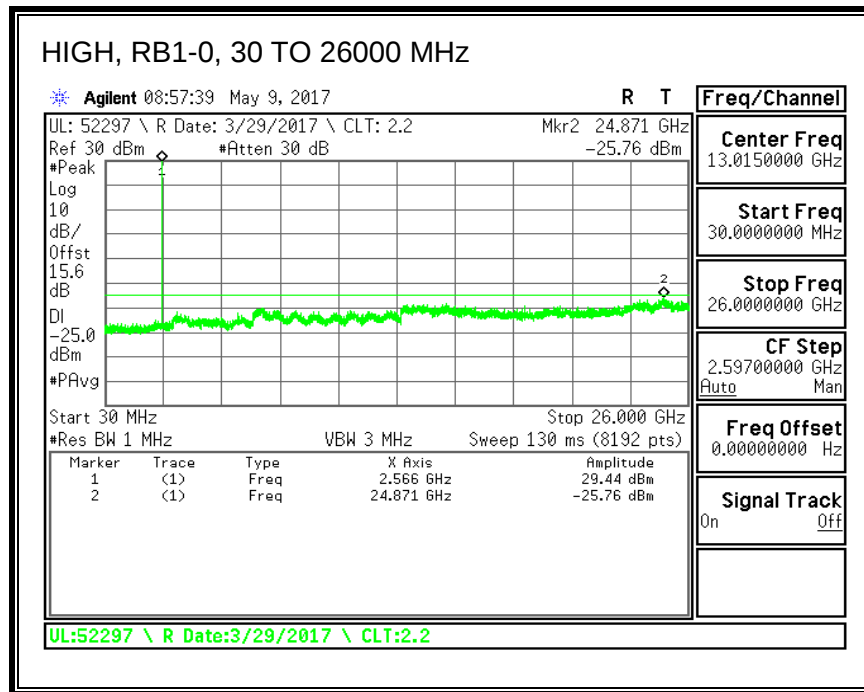




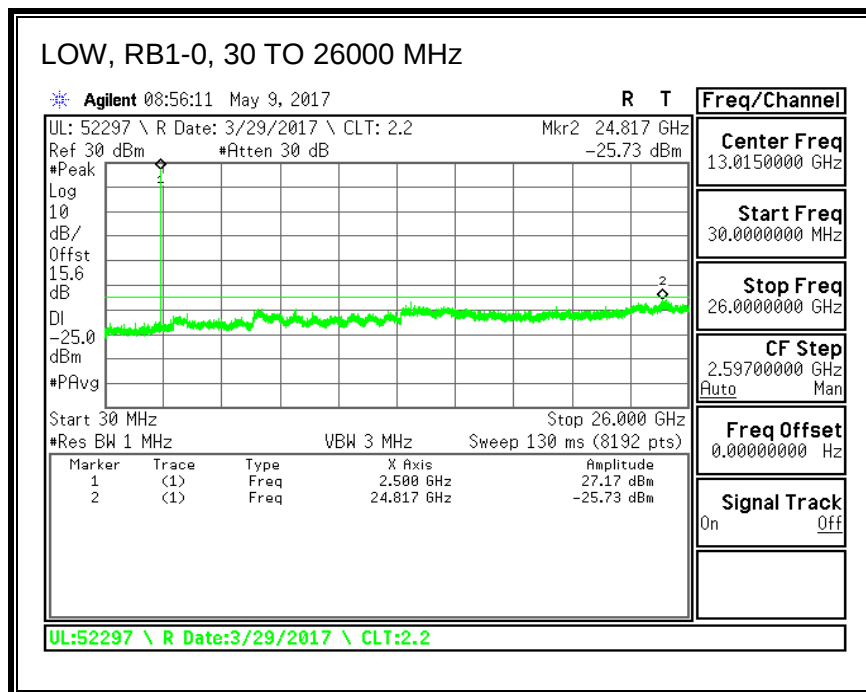
8.3.4. LTE BAND 7

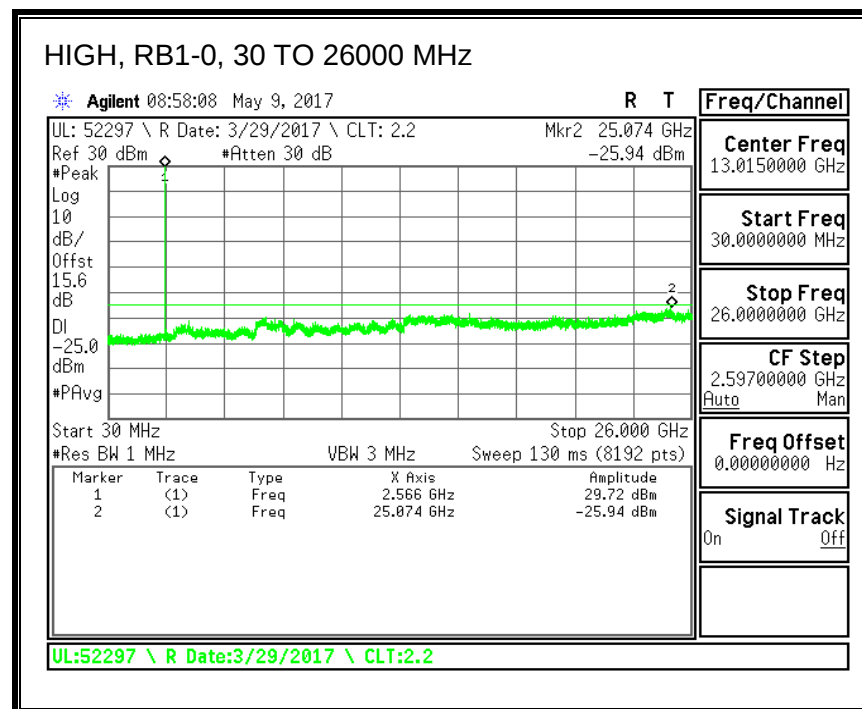
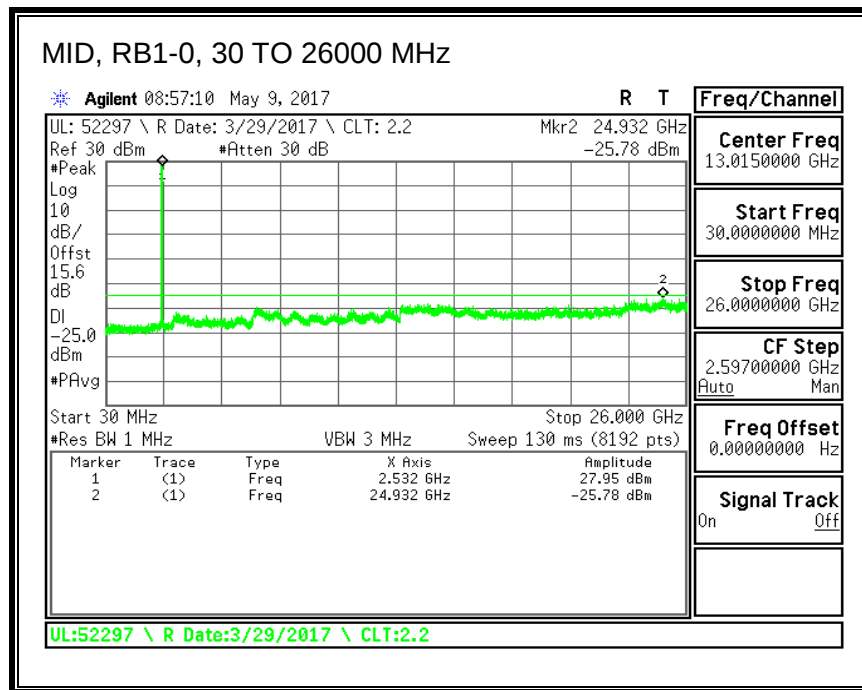
QPSK, (5.0 MHz BAND WIDTH)



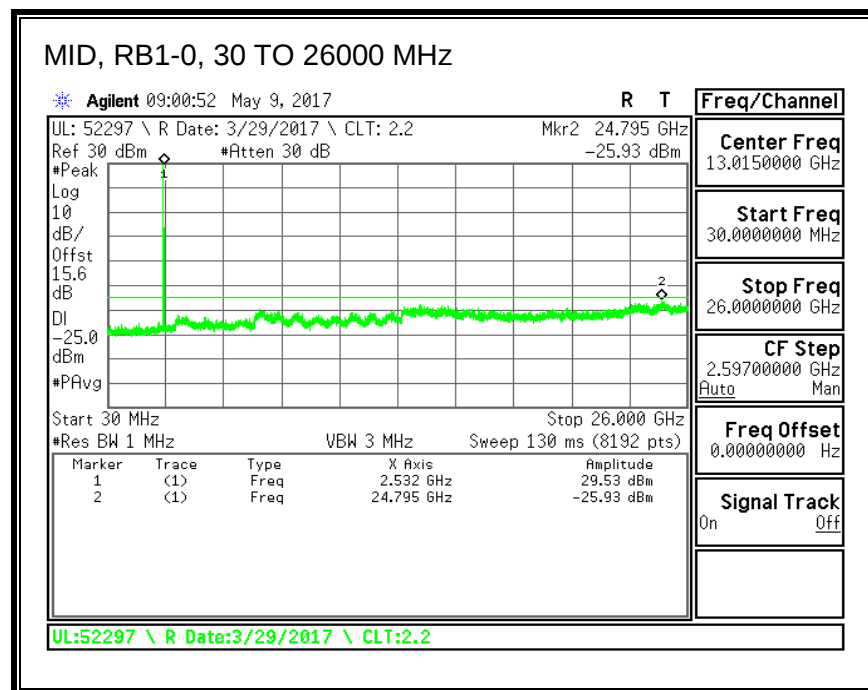
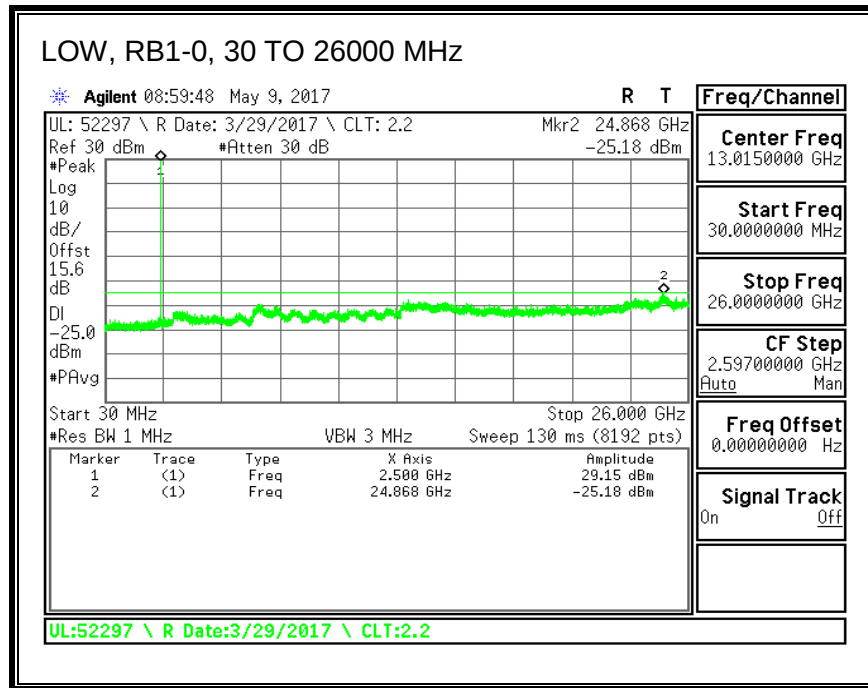


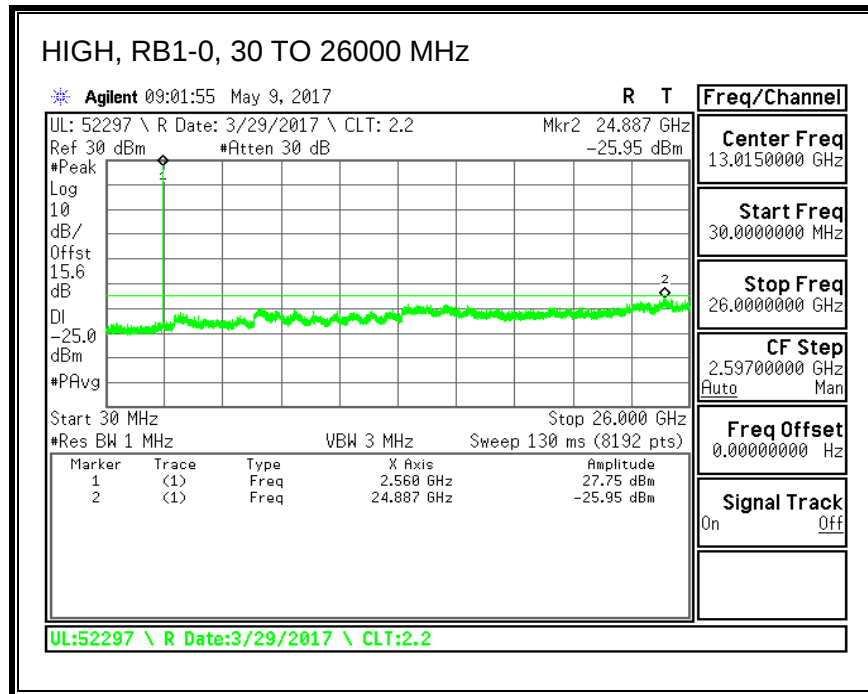
16QAM, (5.0 MHz BAND WIDTH)



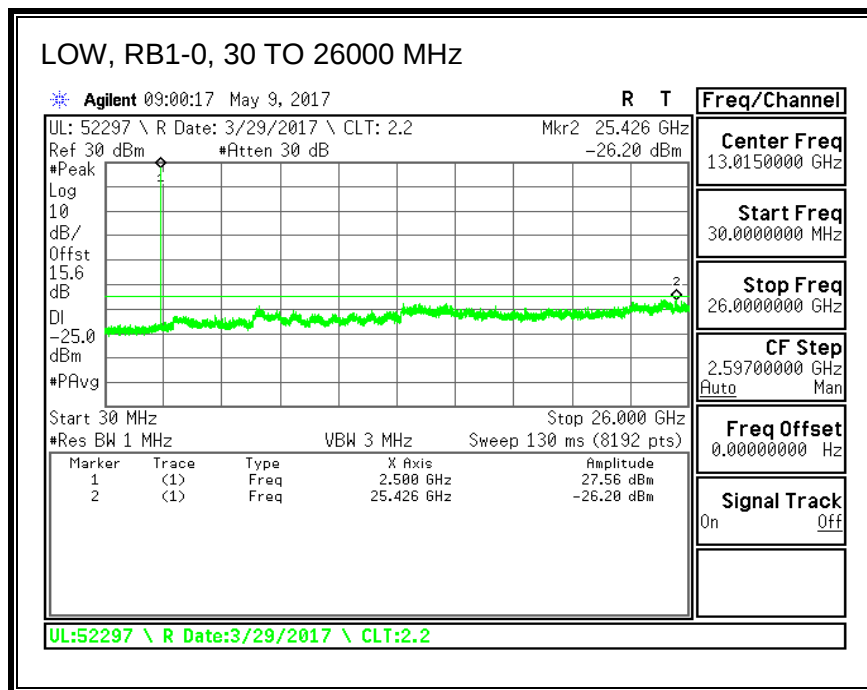


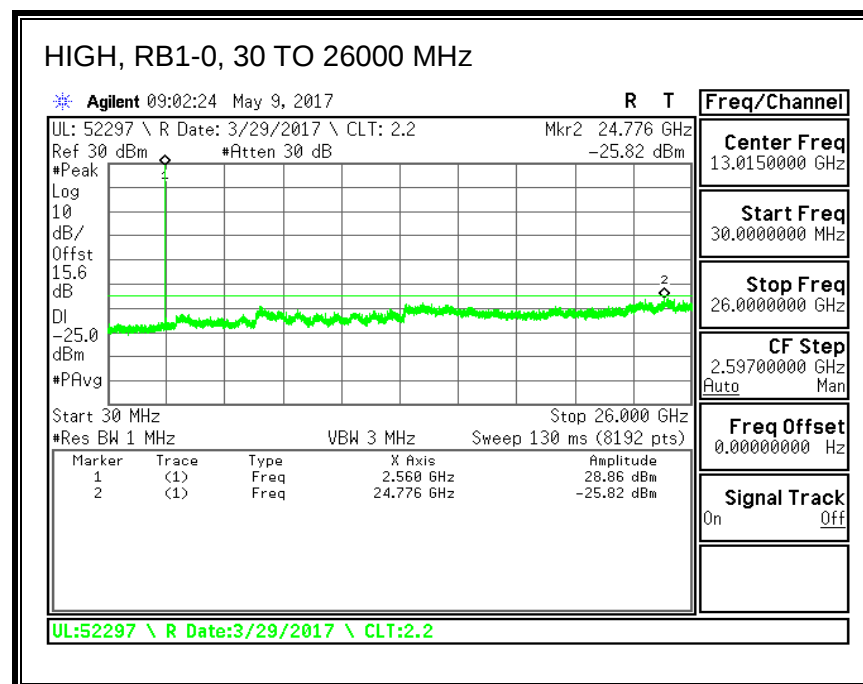
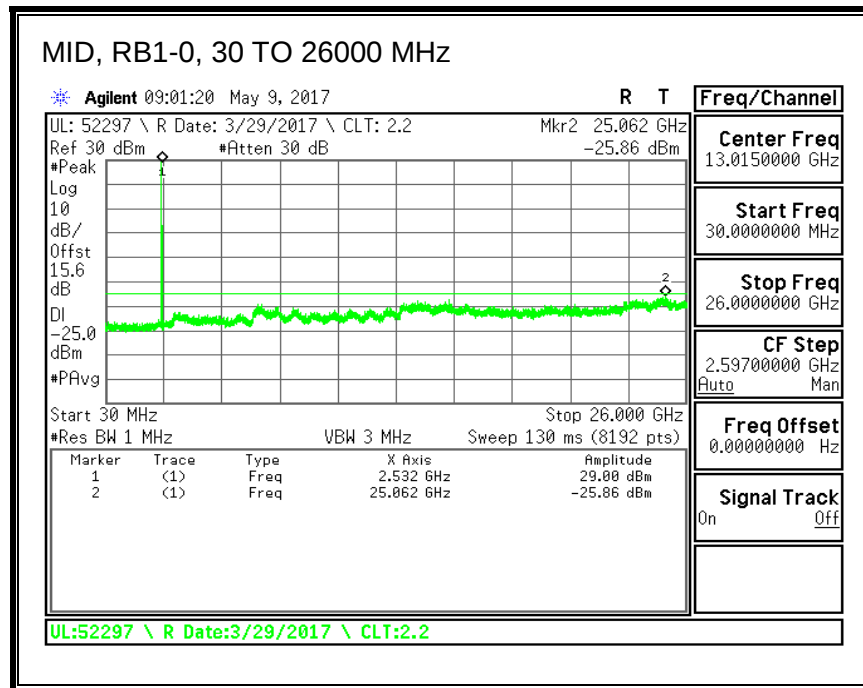
QPSK, (10.0 MHz BAND WIDTH)



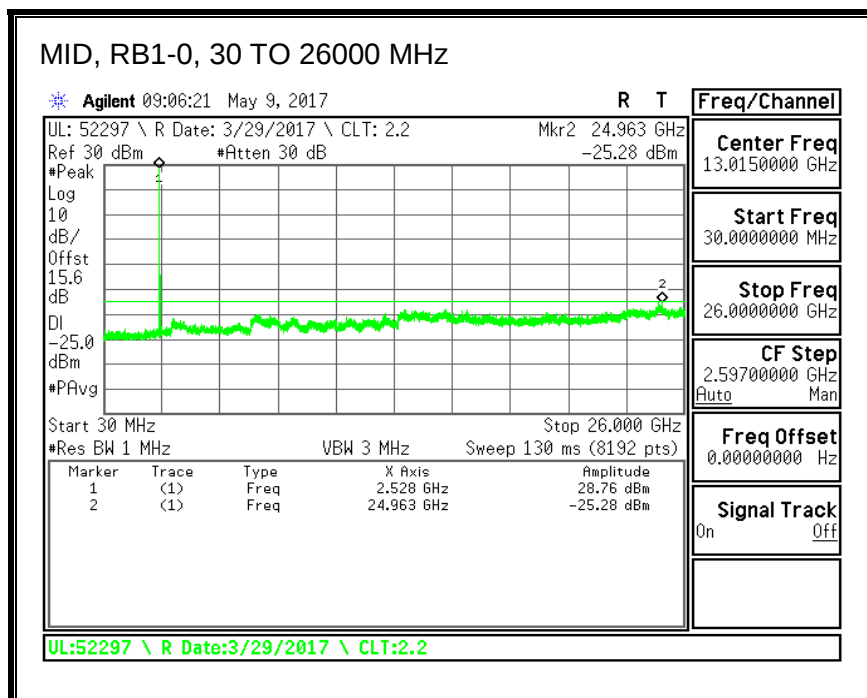
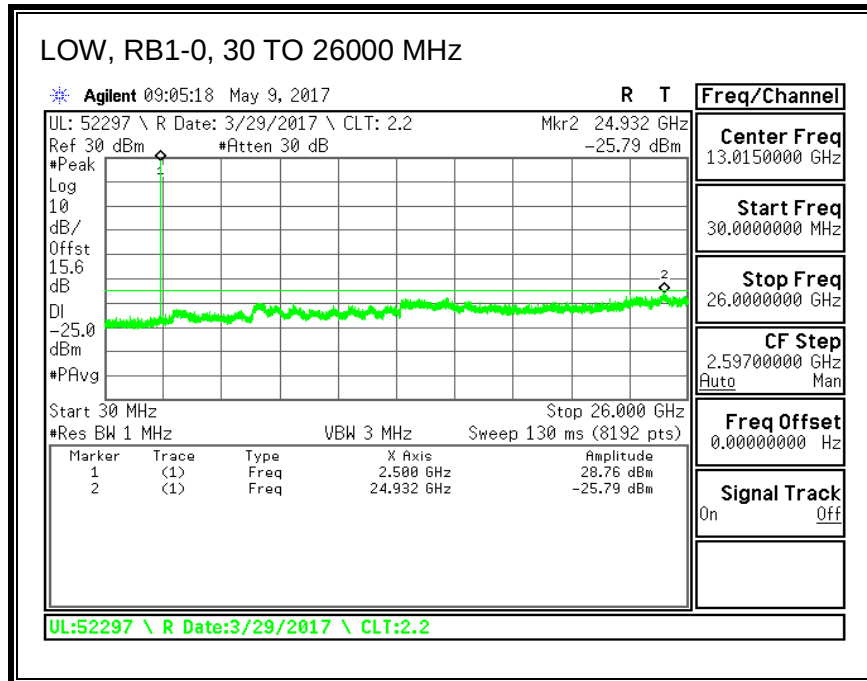


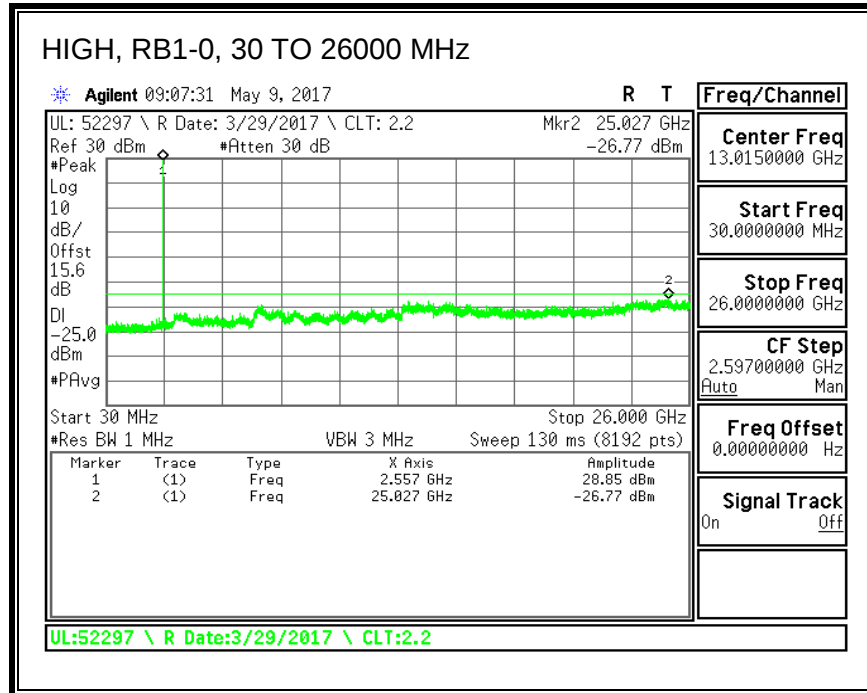
16QAM, (10.0 MHz BAND WIDTH)



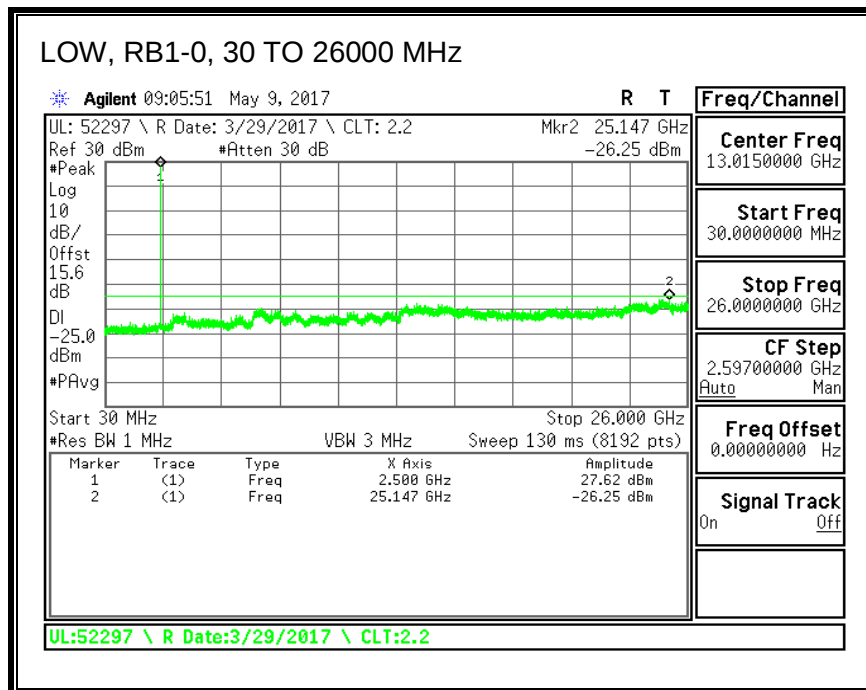


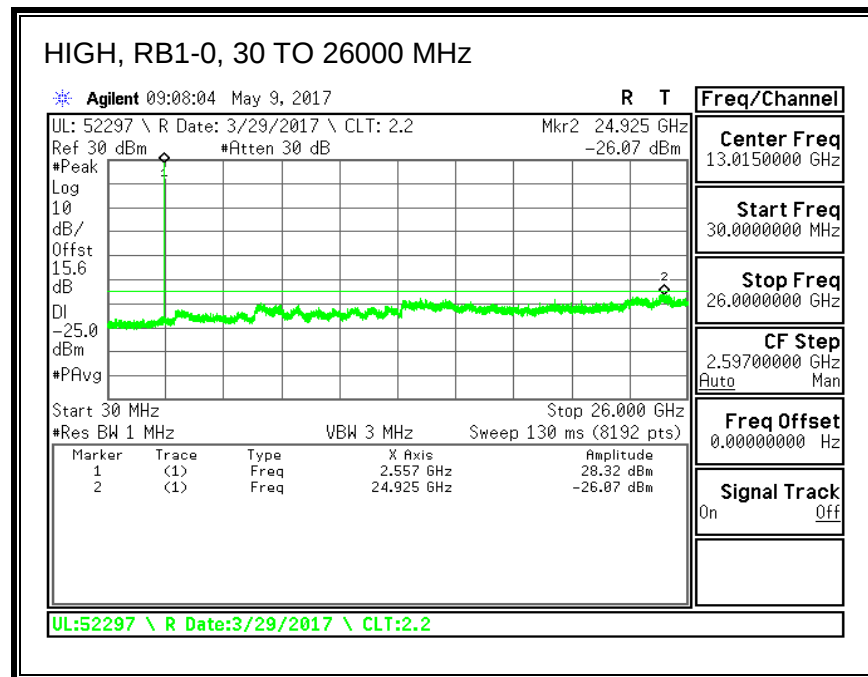
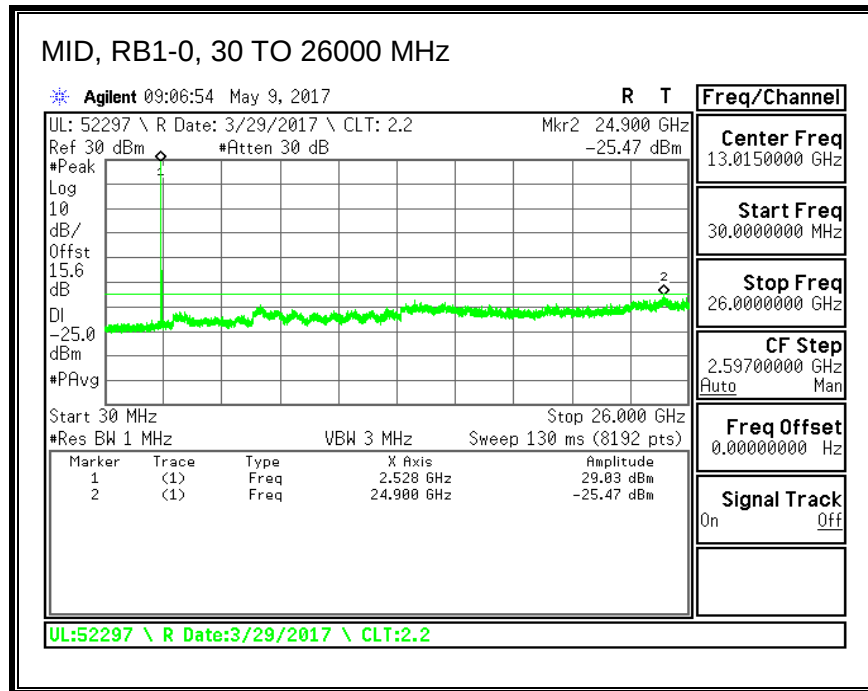
QPSK, (15.0 MHz BAND WIDTH)



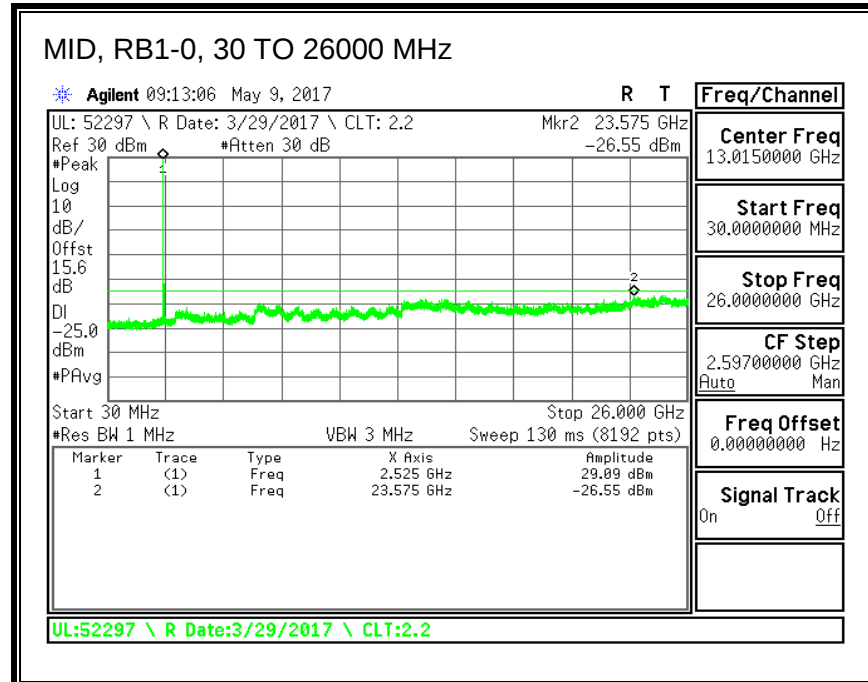
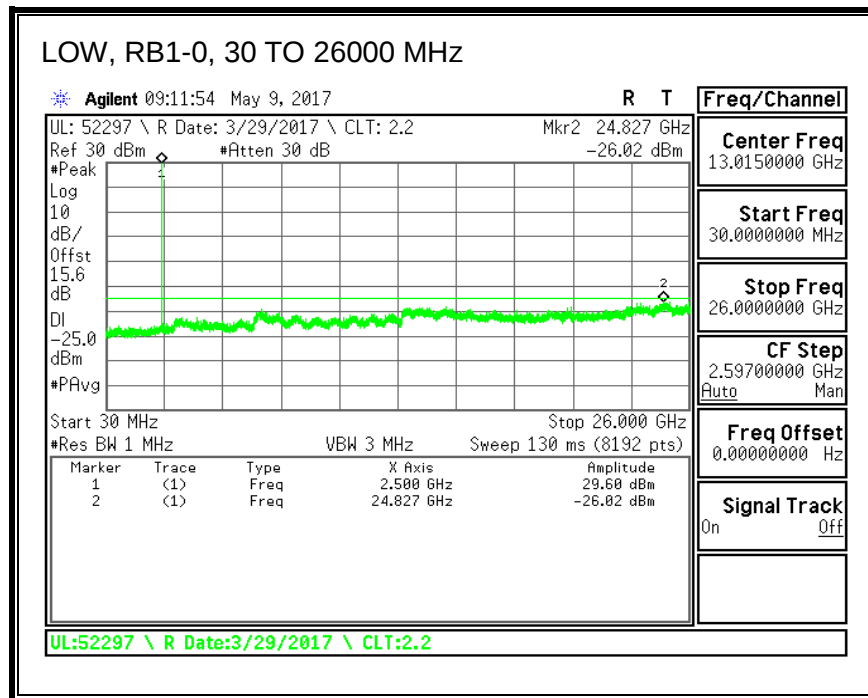


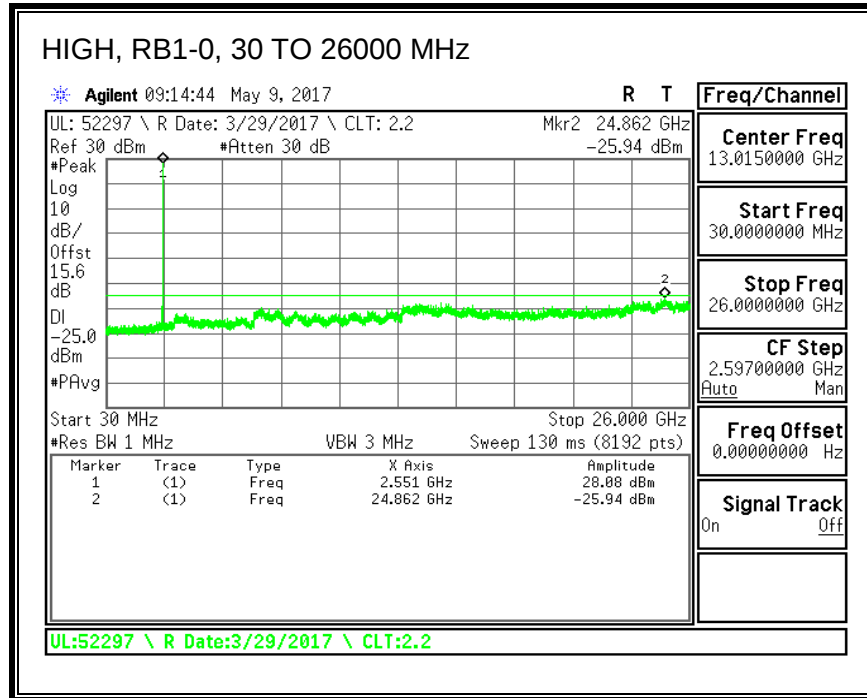
16QAM, (15.0 MHz BAND WIDTH)



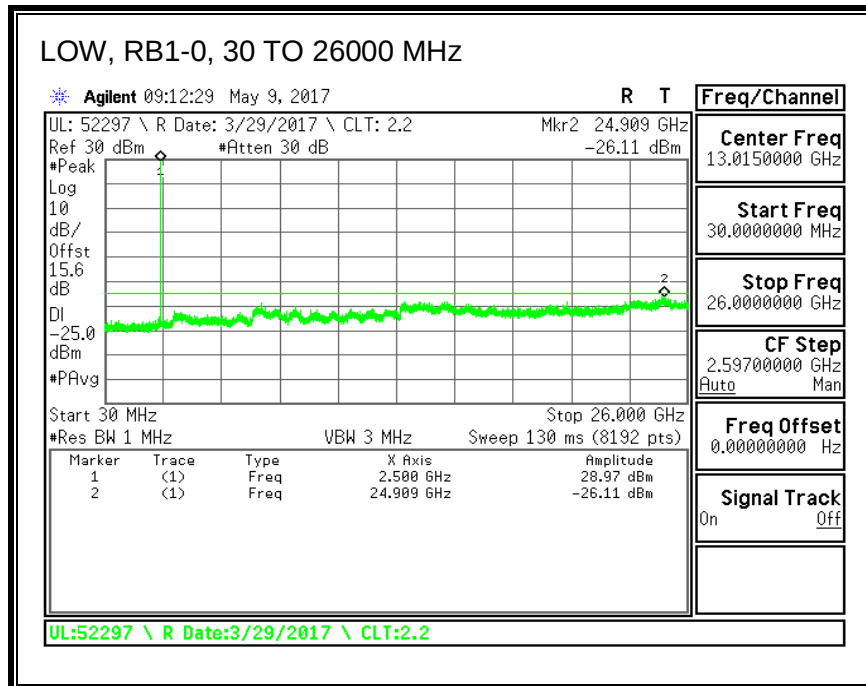


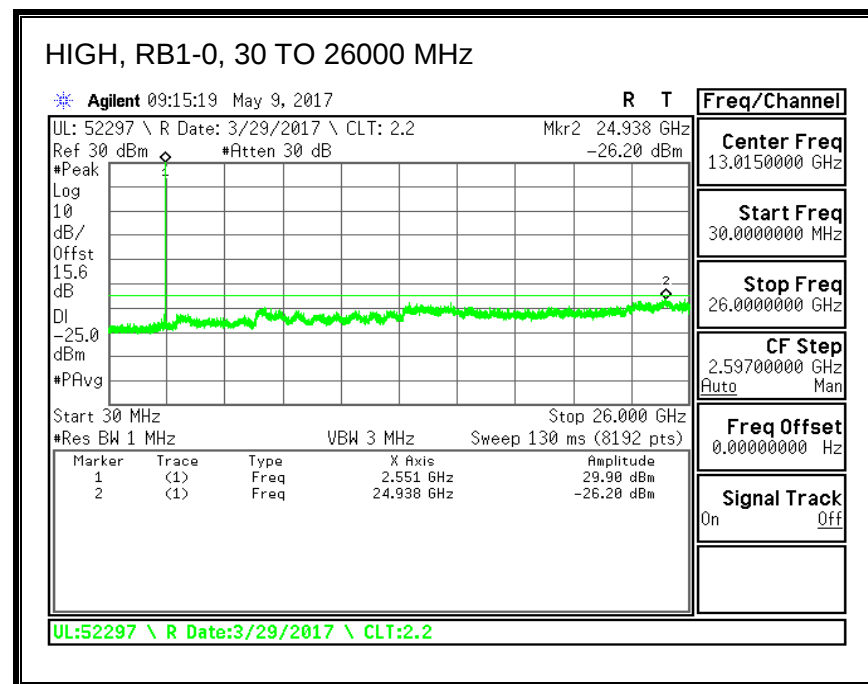
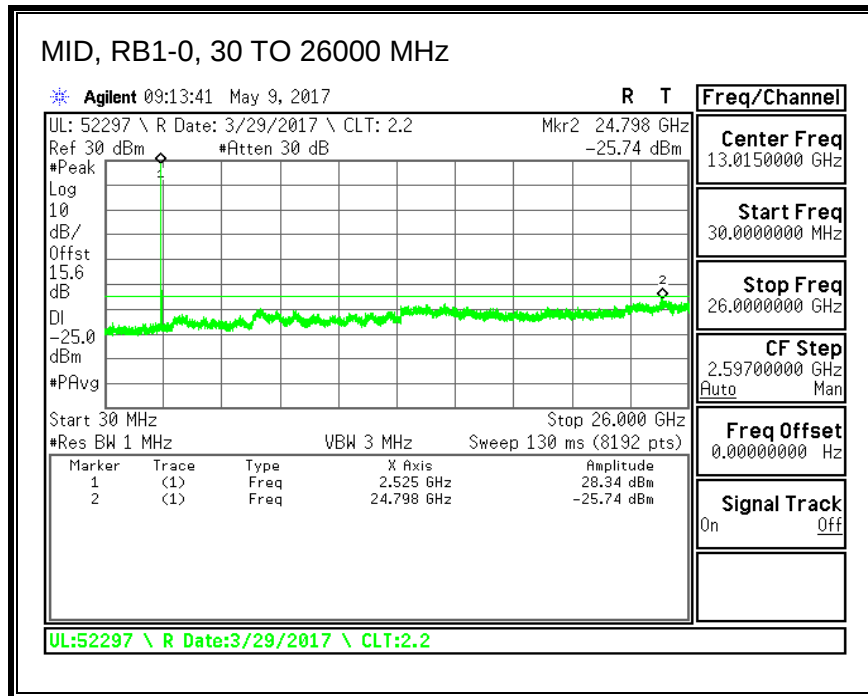
QPSK, (20.0 MHz BAND WIDTH)





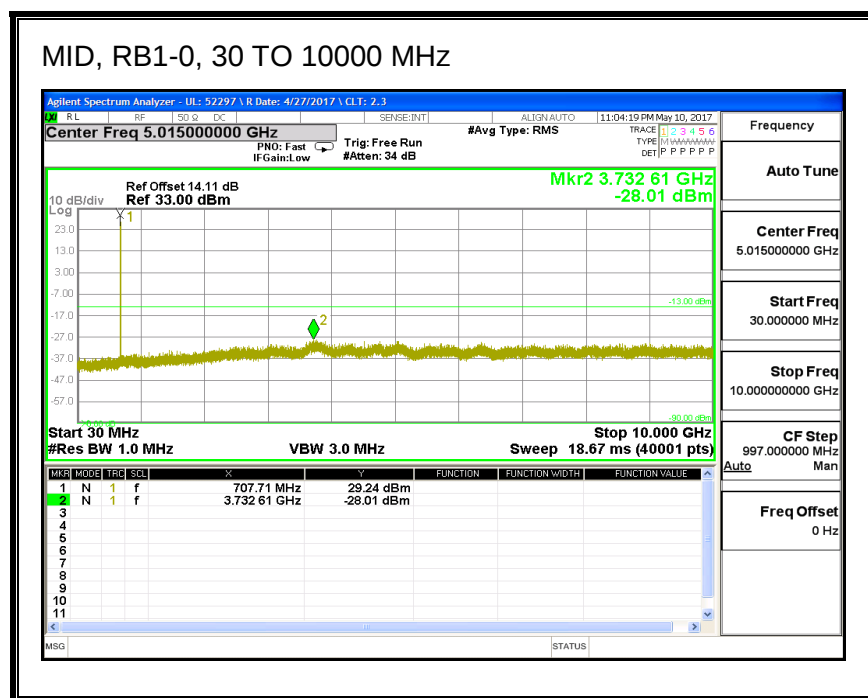
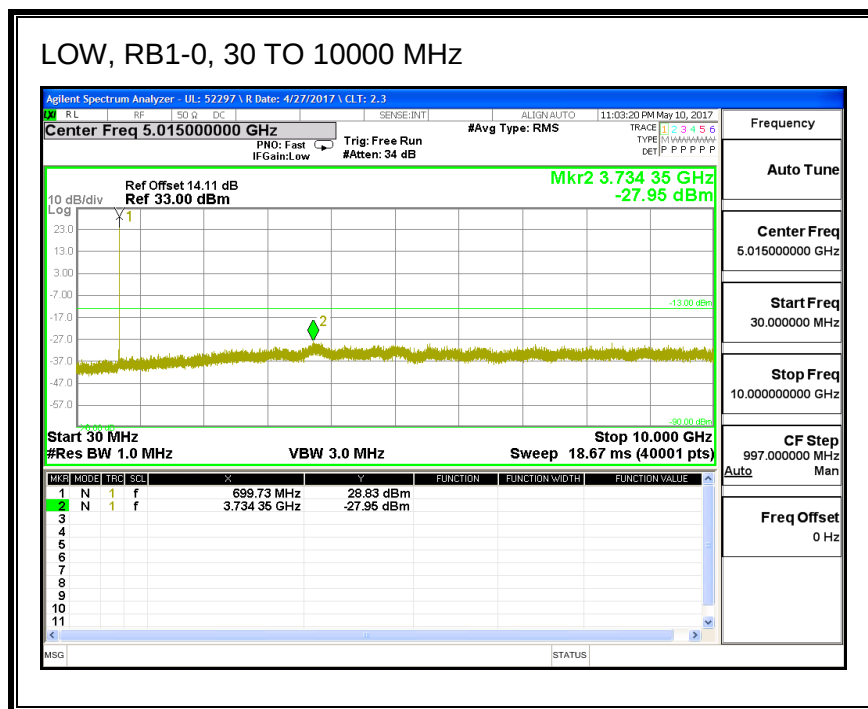
16QAM, (20.0 MHz BAND WIDTH)

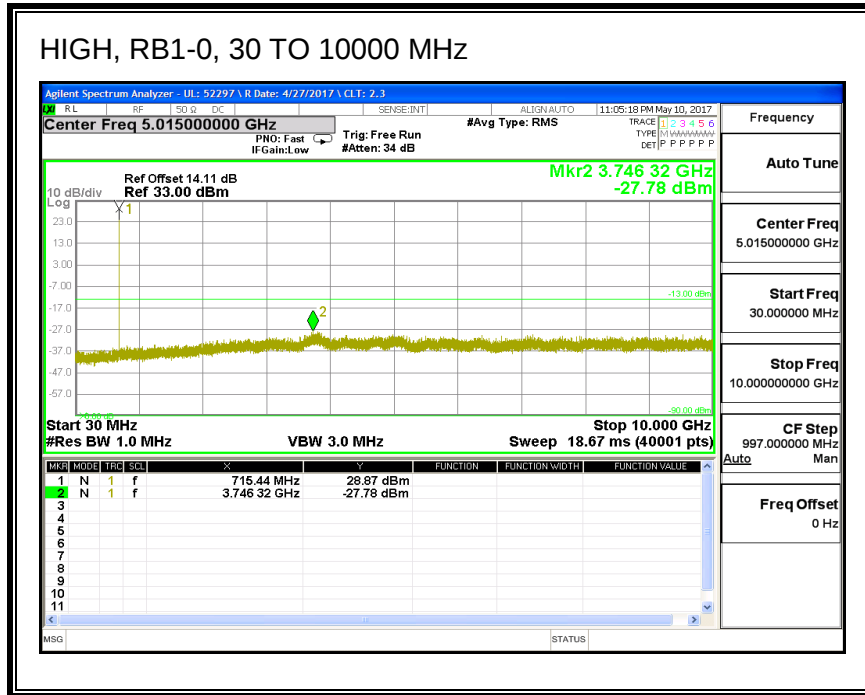




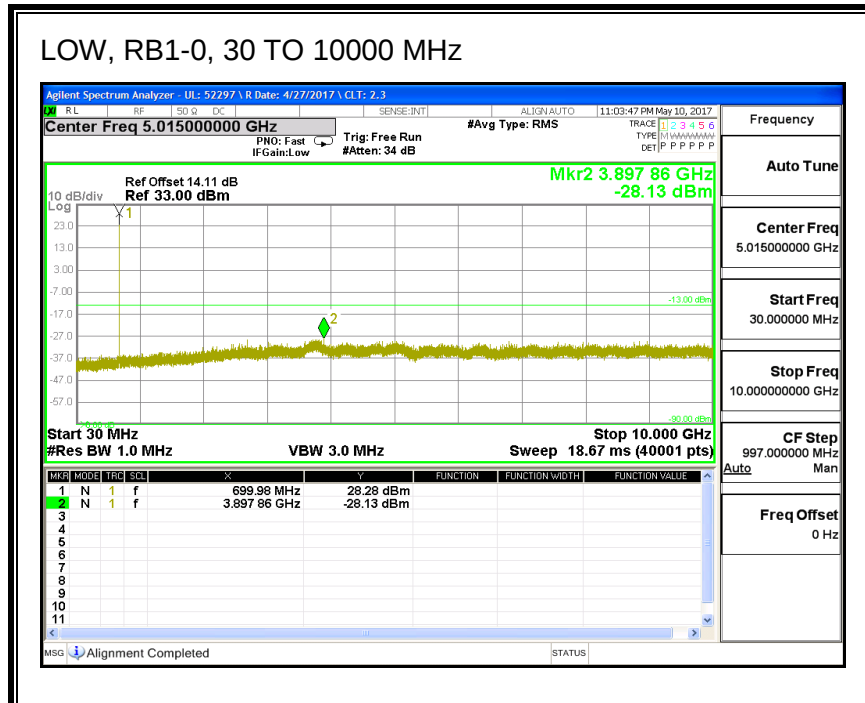
8.3.5. LTE BAND 12

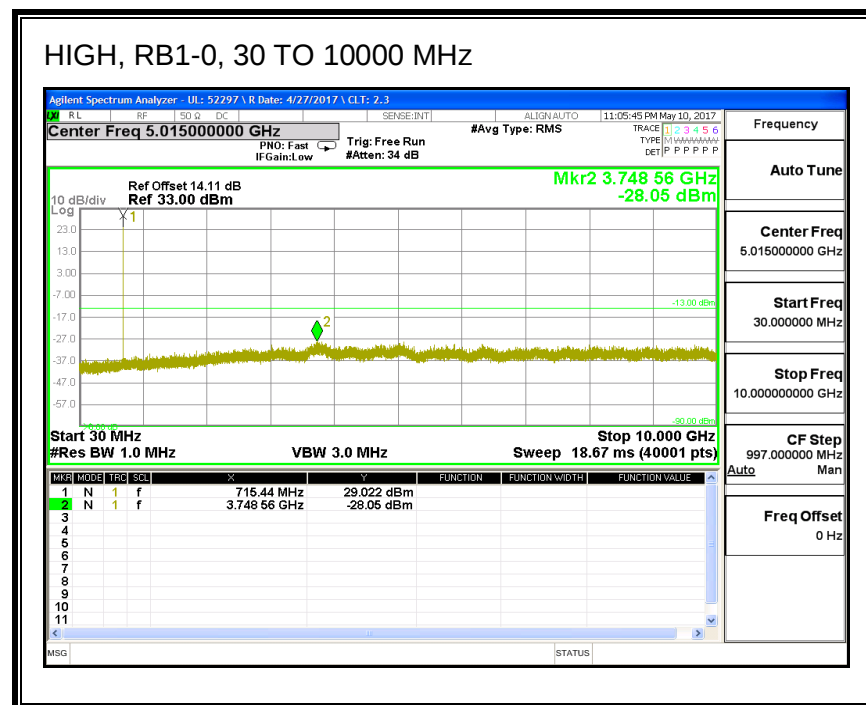
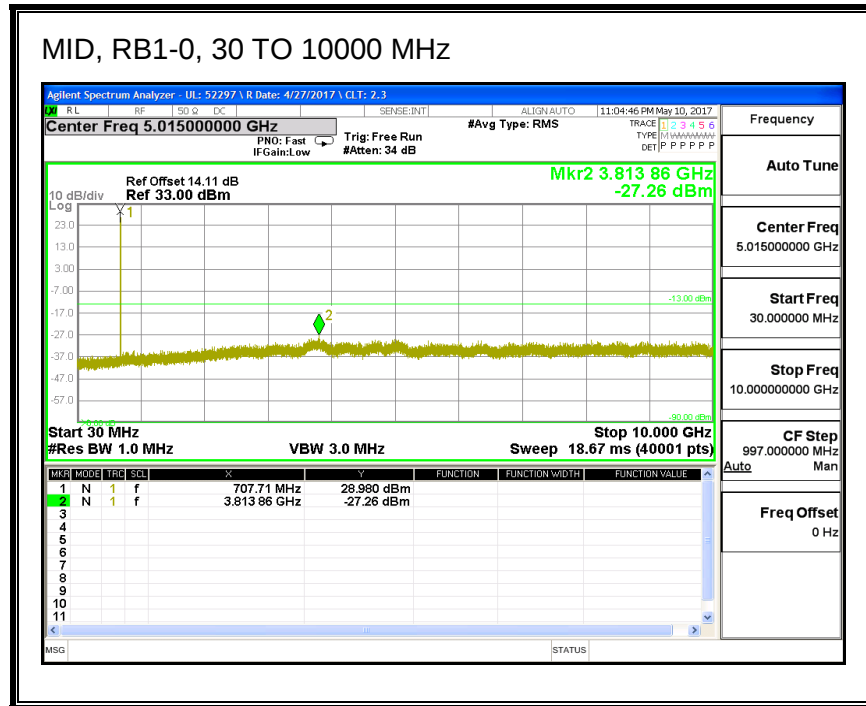
QPSK, (1.4 MHz BAND WIDTH)



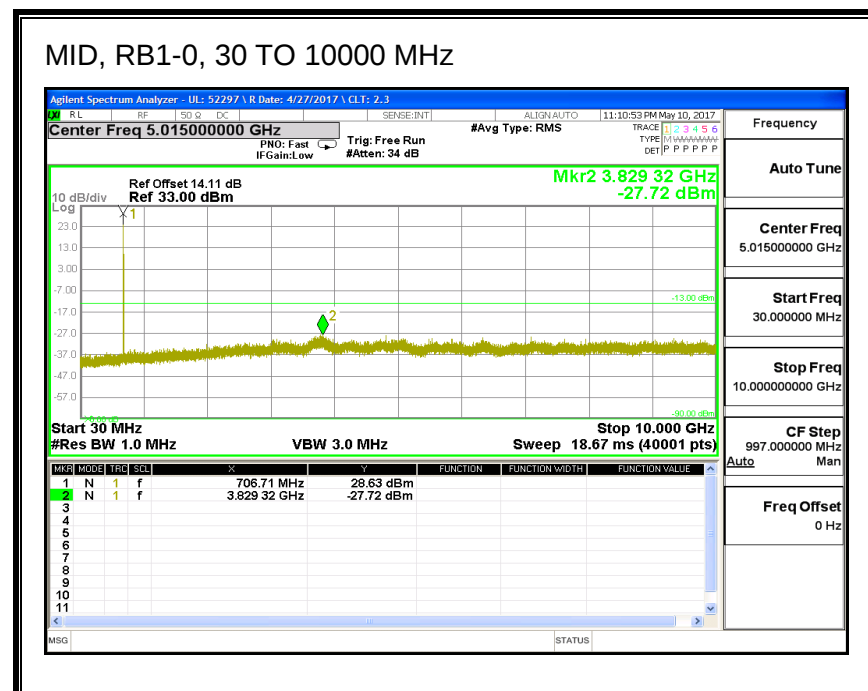
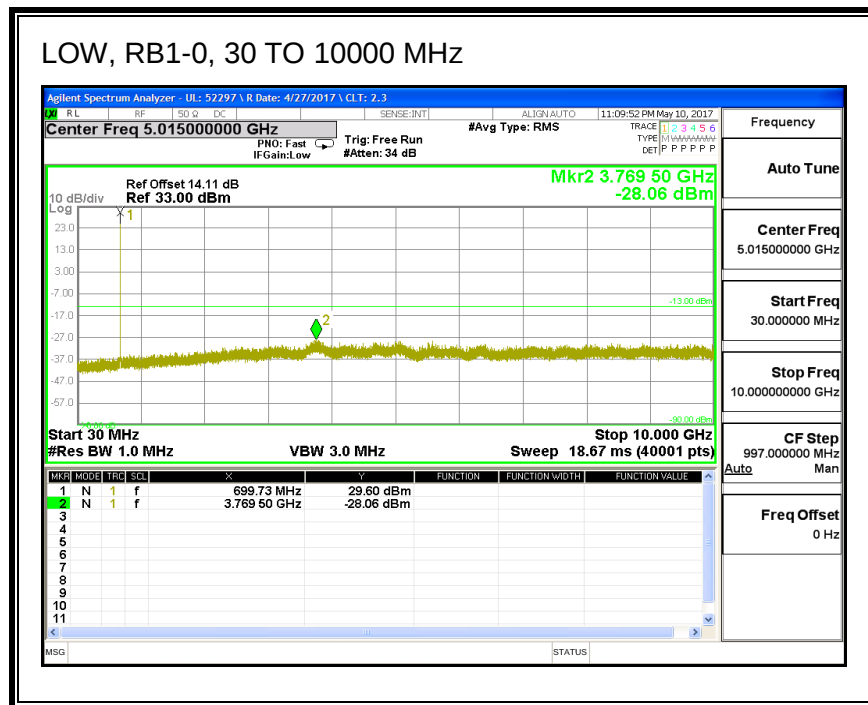


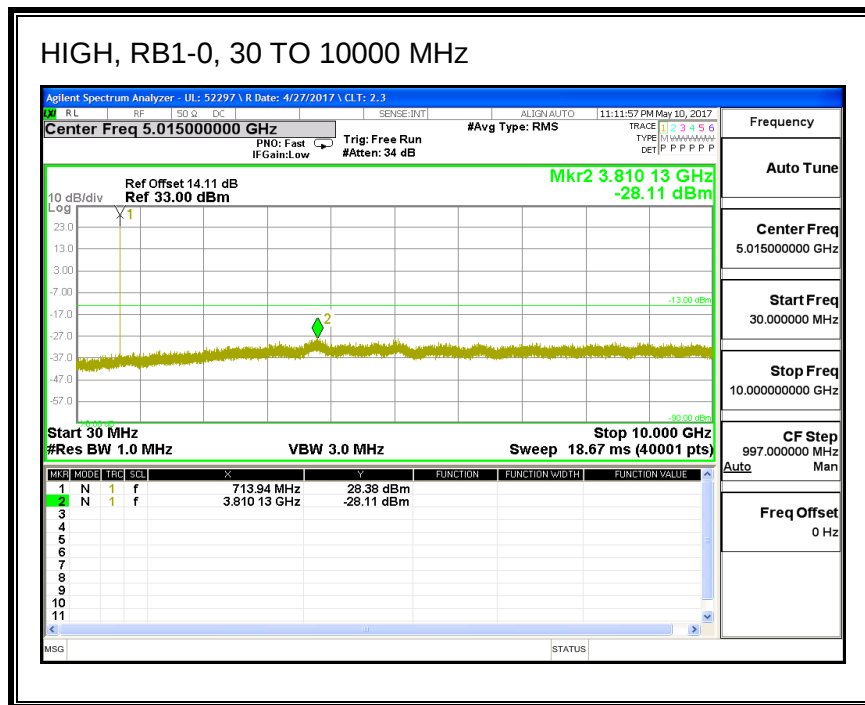
16QAM, (1.4 MHz BAND WIDTH)



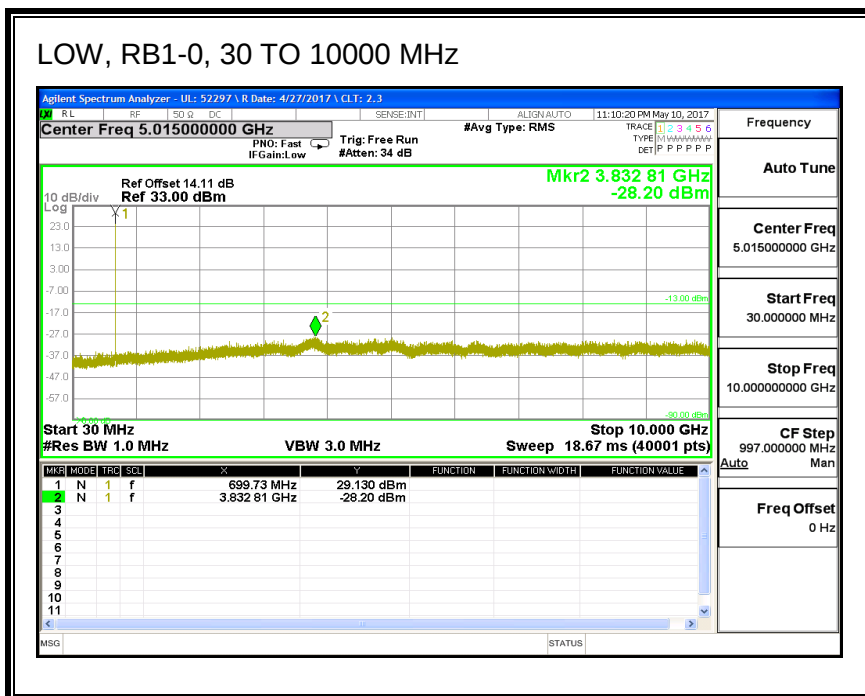


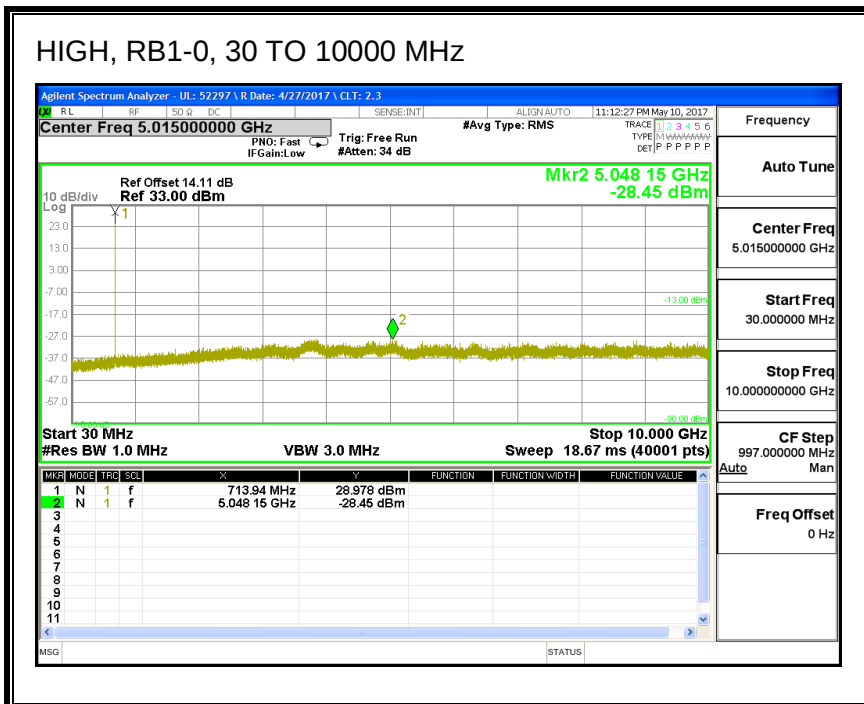
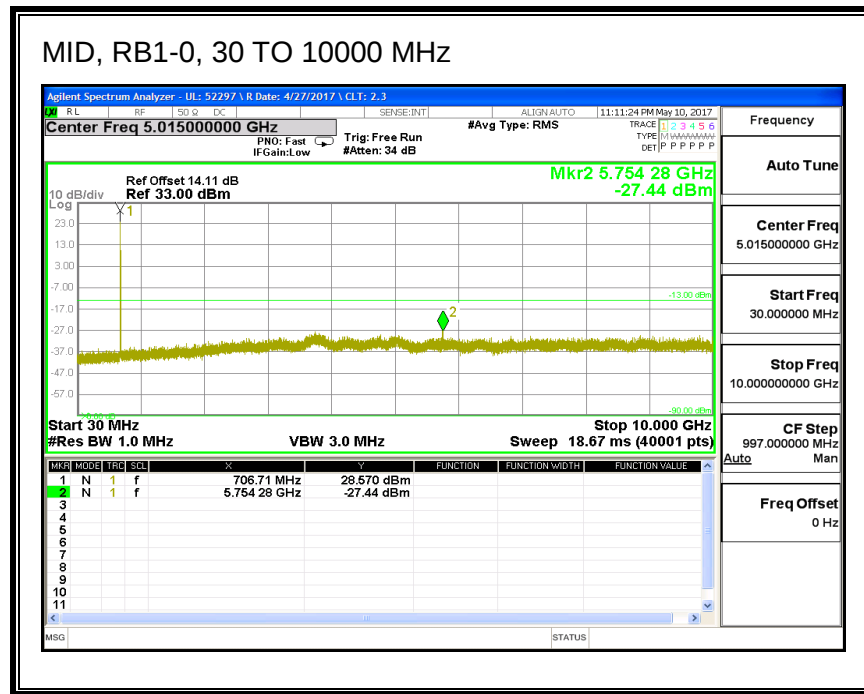
QPSK, (3.0 MHz BAND WIDTH)



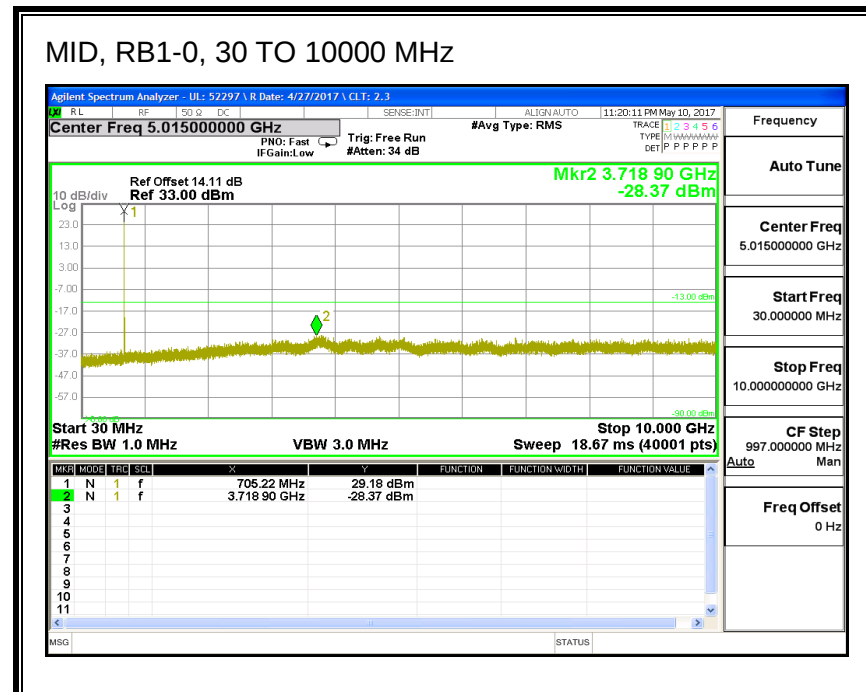
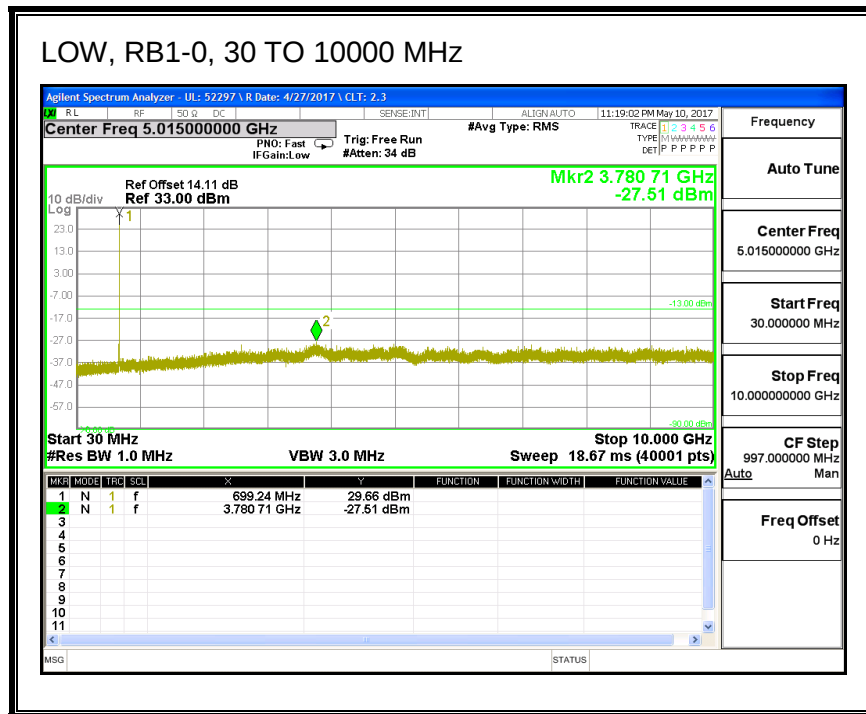


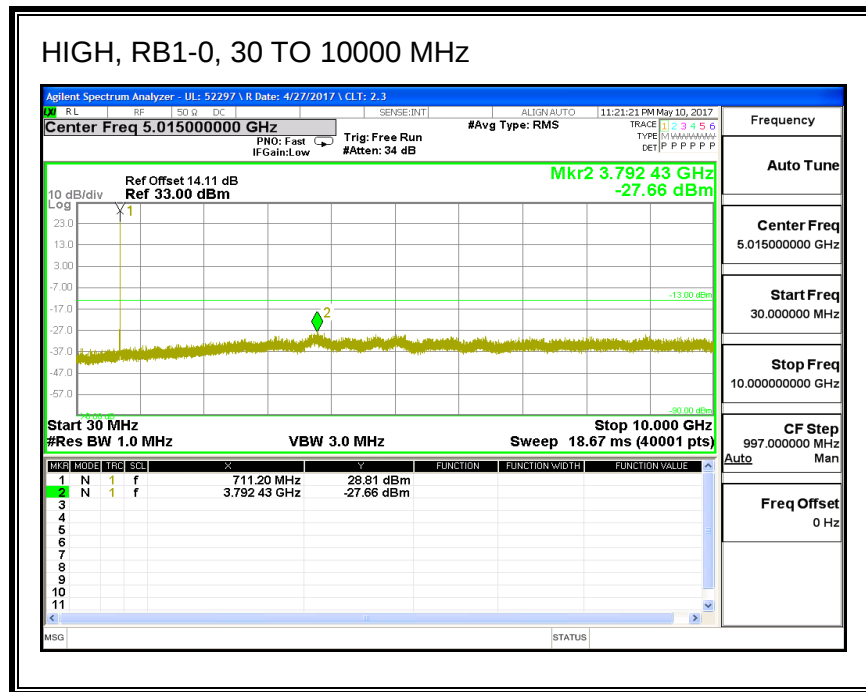
16QAM, (3.0 MHz BAND WIDTH)



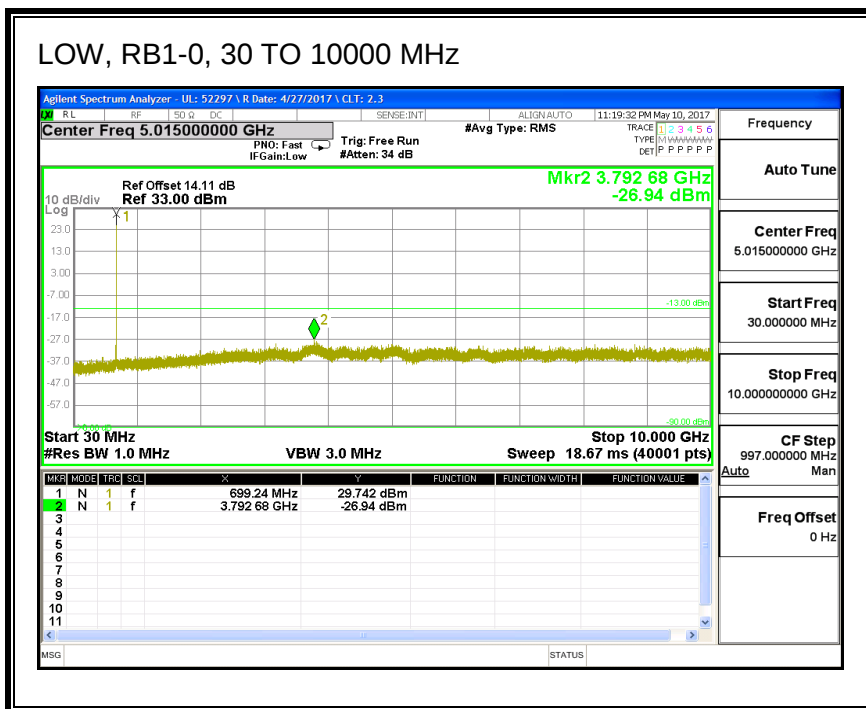


QPSK, (5.0 MHz BAND WIDTH)

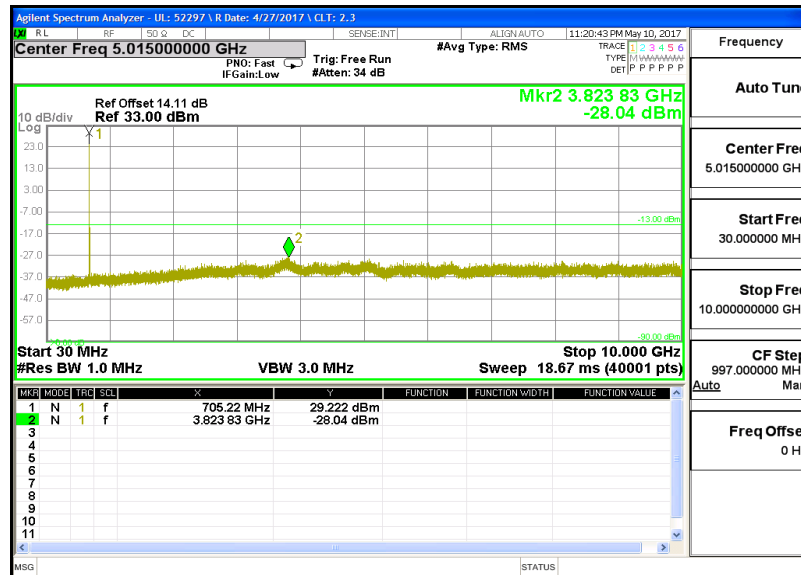




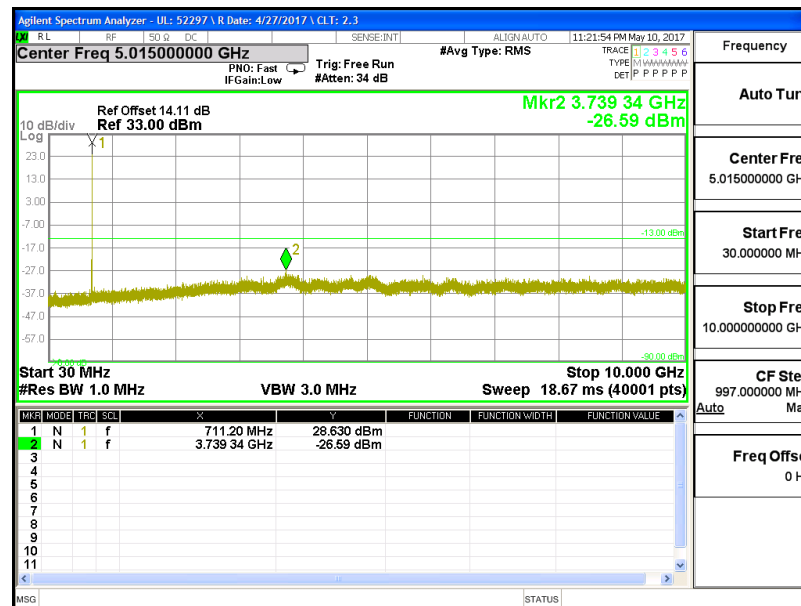
16QAM, (5.0 MHz BAND WIDTH)



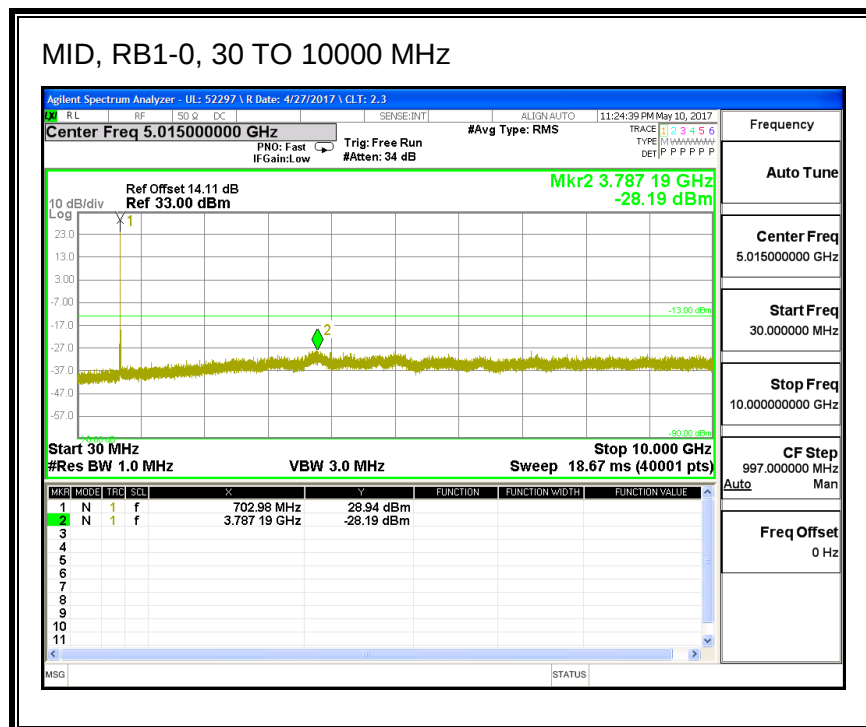
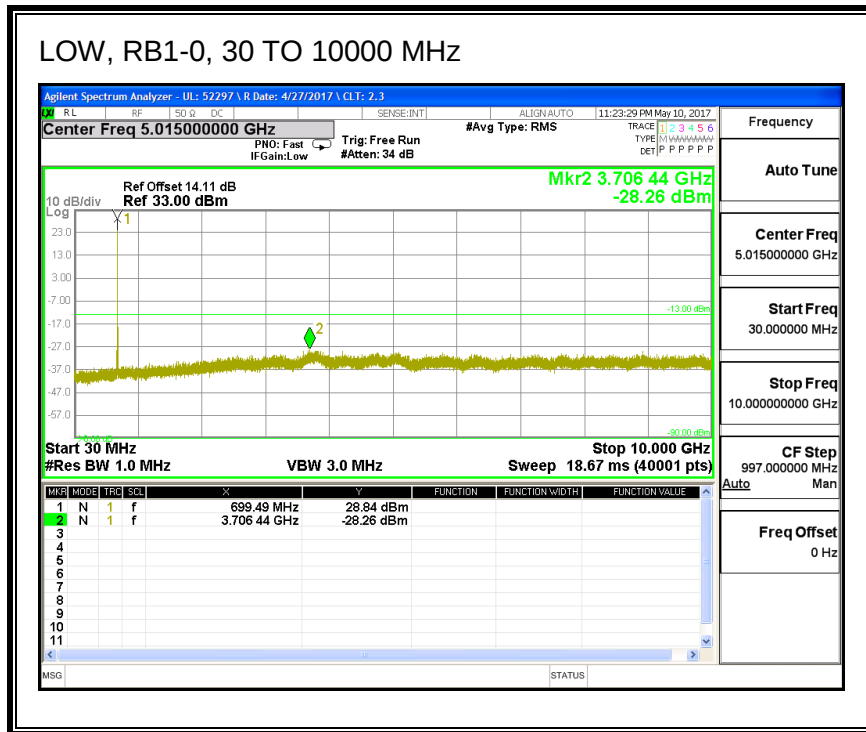
MID, RB1-0, 30 TO 10000 MHz

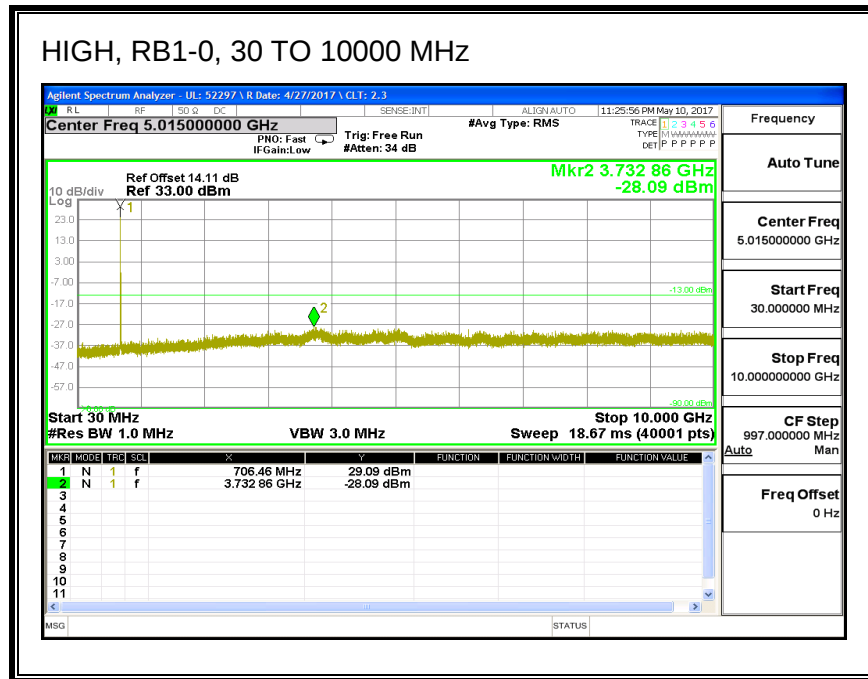


HIGH, RB1-0, 30 TO 10000 MHz

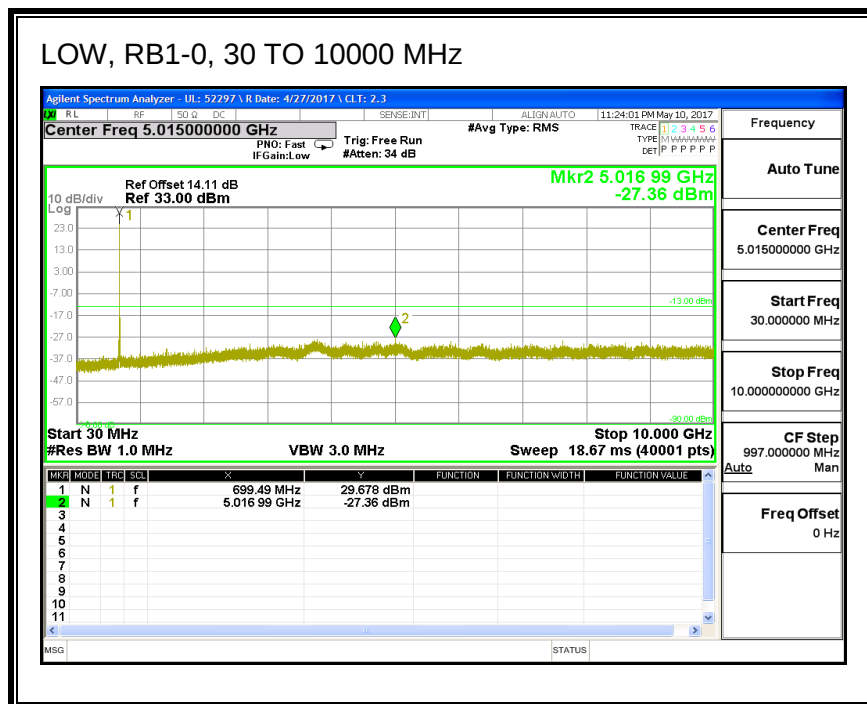


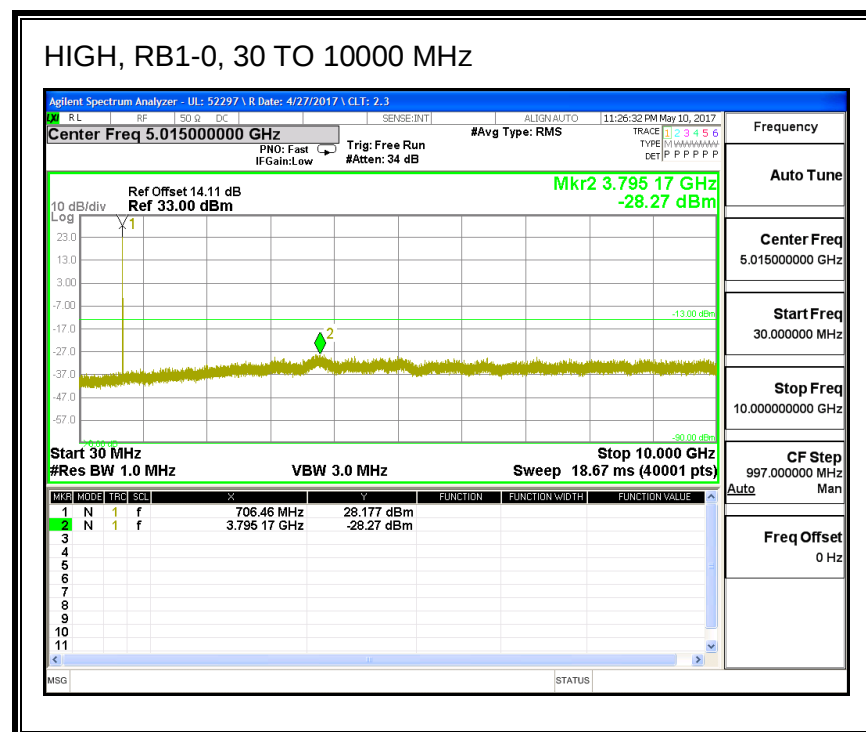
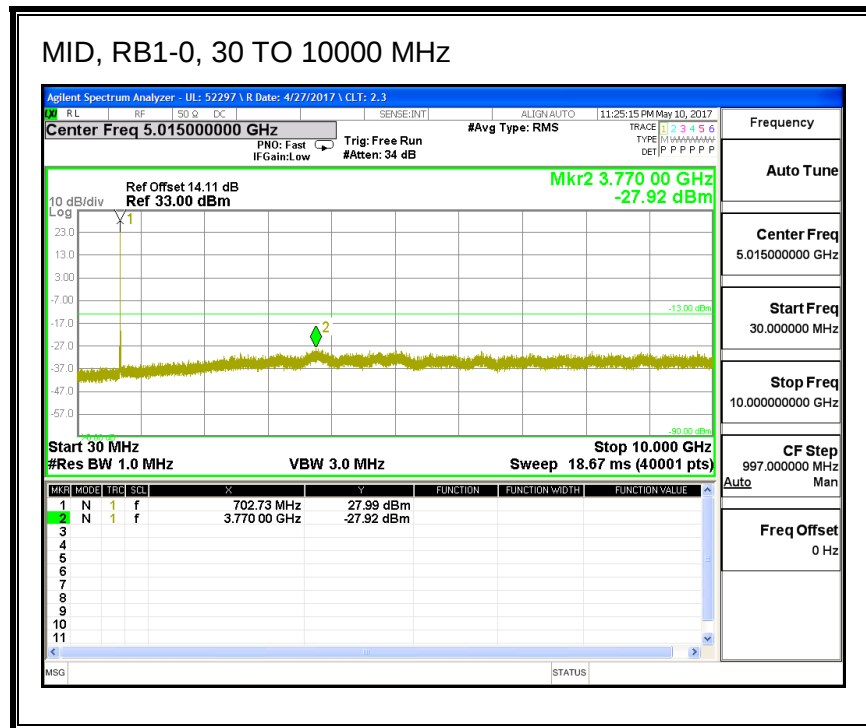
QPSK, (10.0 MHz BAND WIDTH)





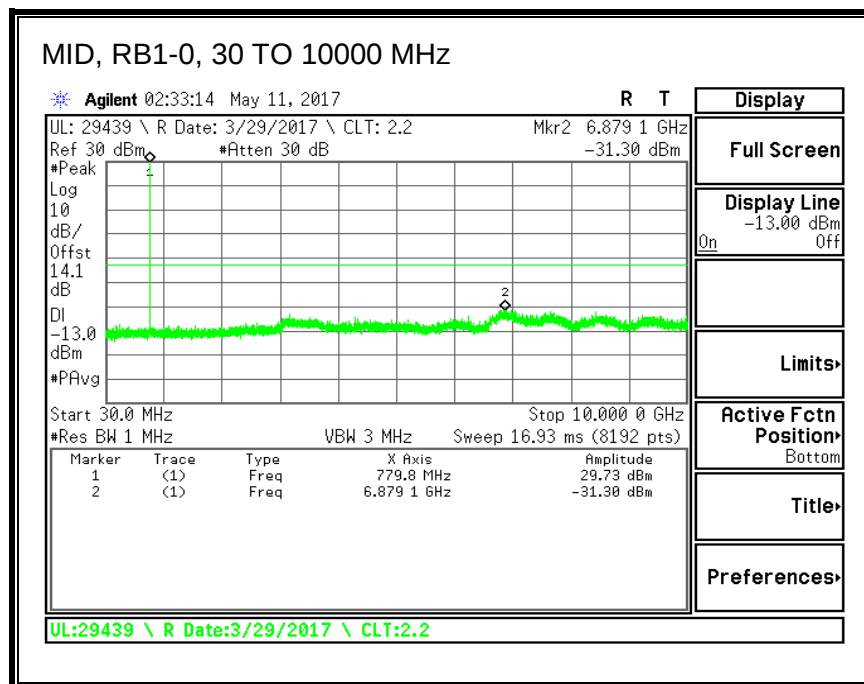
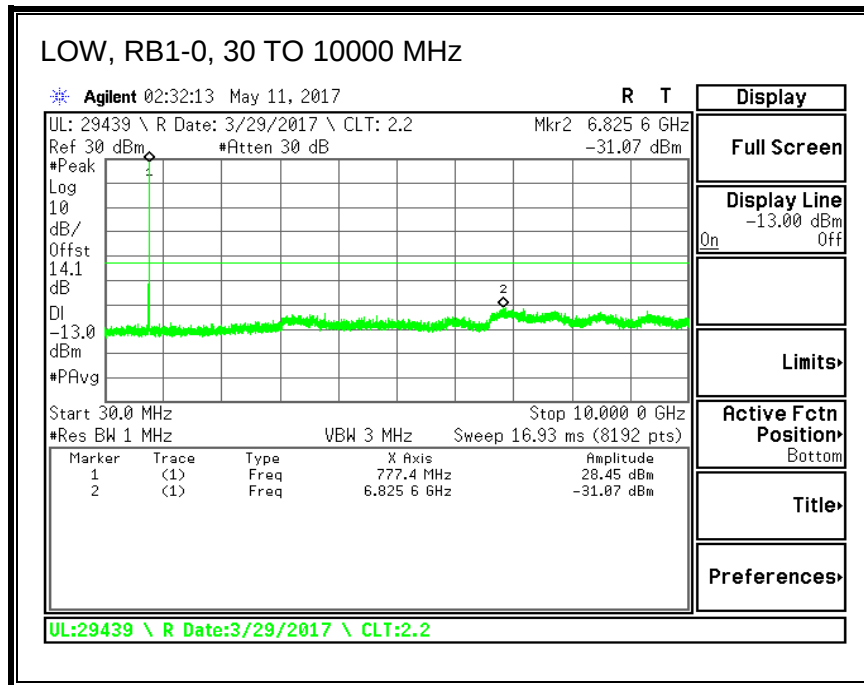
16QAM, (10.0 MHz BAND WIDTH)

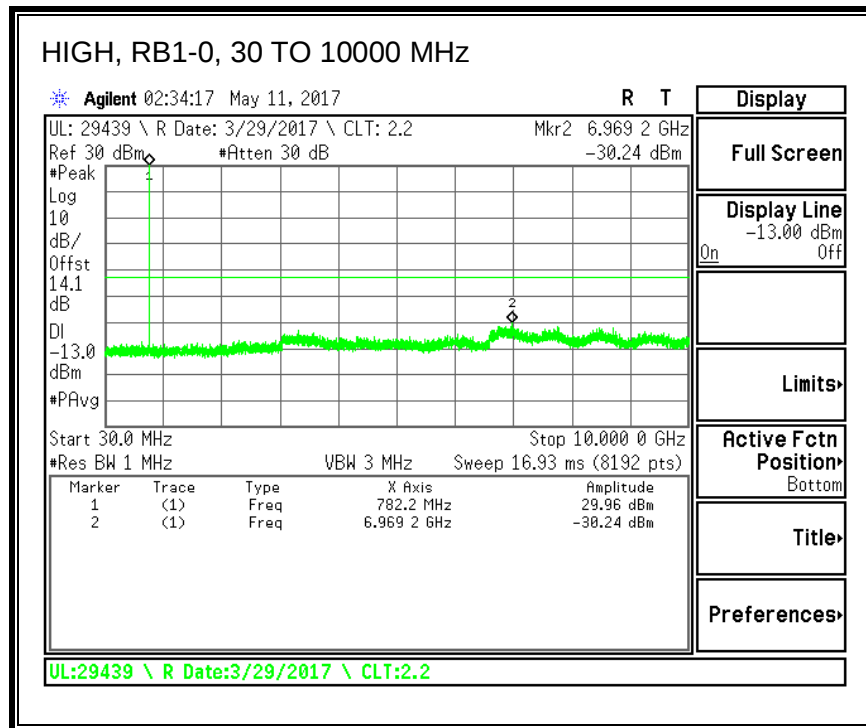




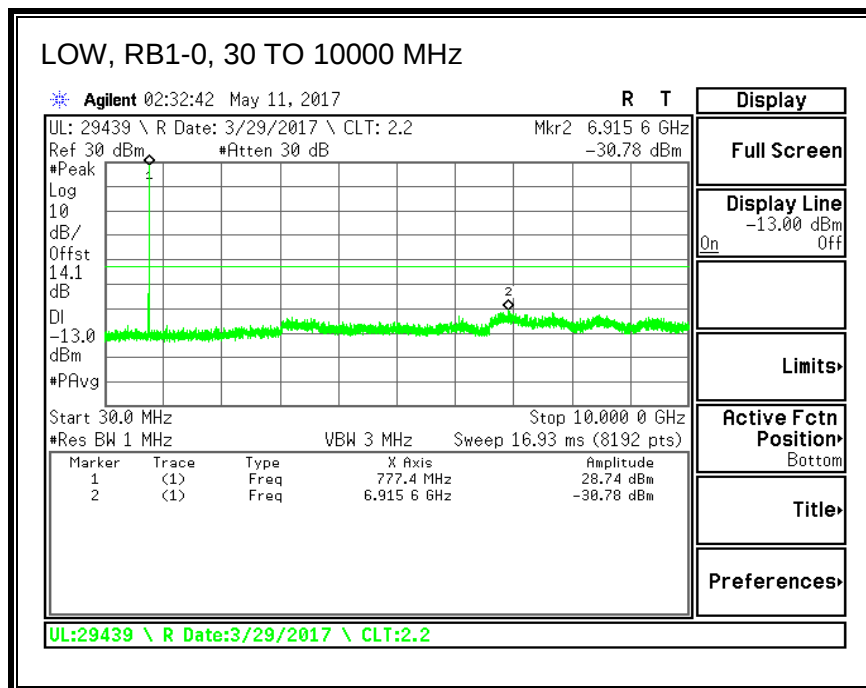
8.3.6. LTE BAND 13

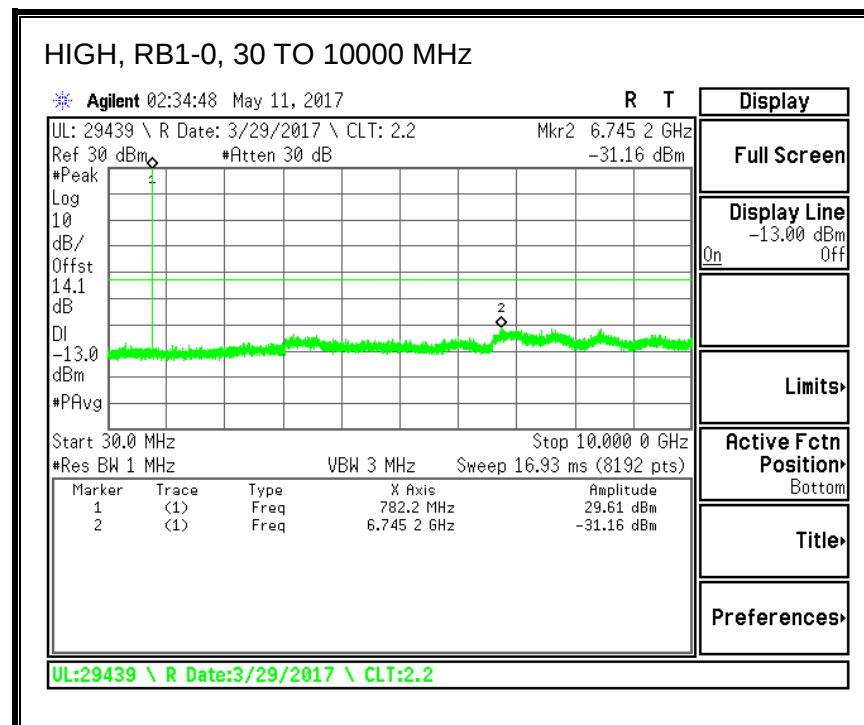
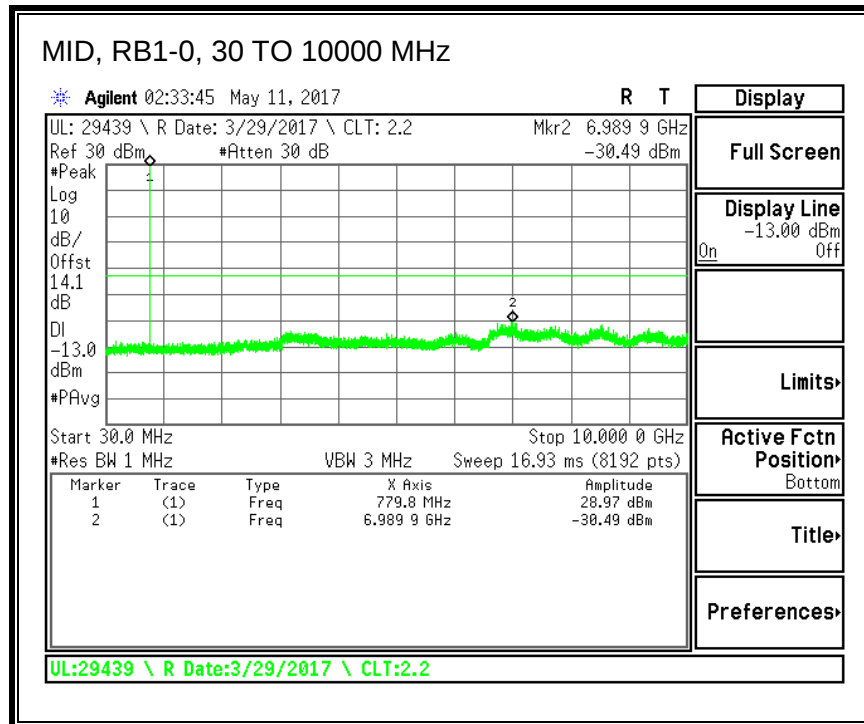
QPSK, (5.0 MHz BAND WIDTH)



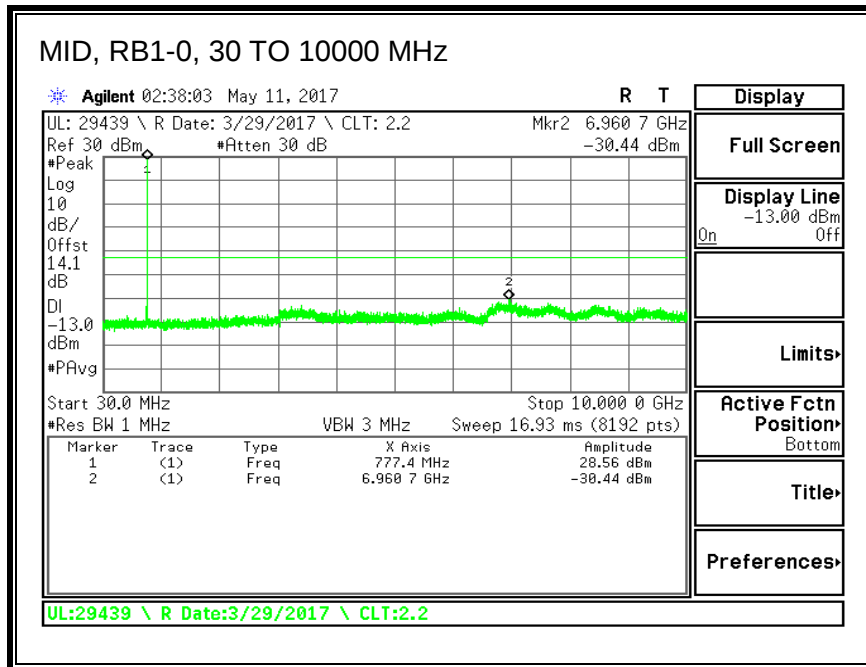


16QAM, (5.0 MHz BAND WIDTH)

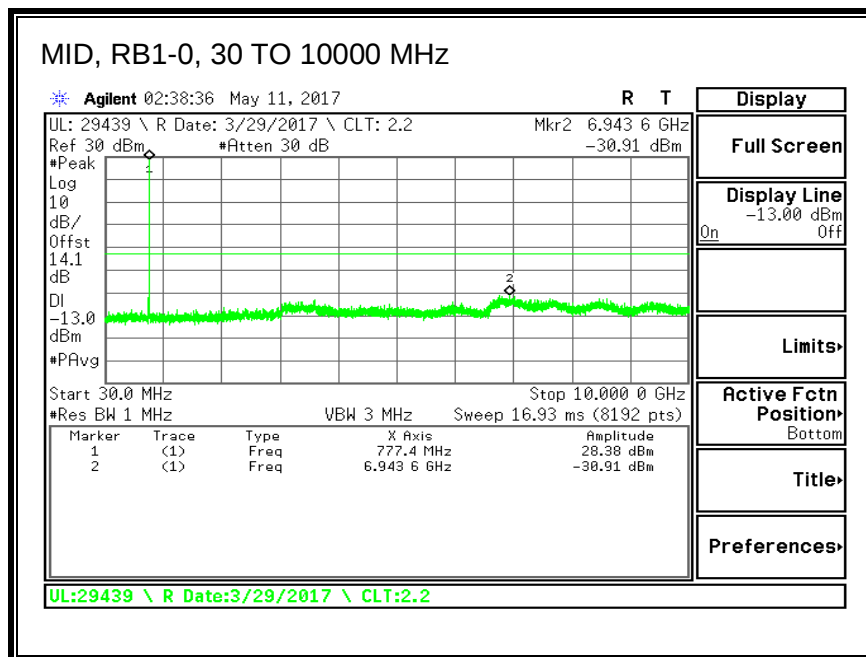




QPSK, (10.0 MHz BAND WIDTH)

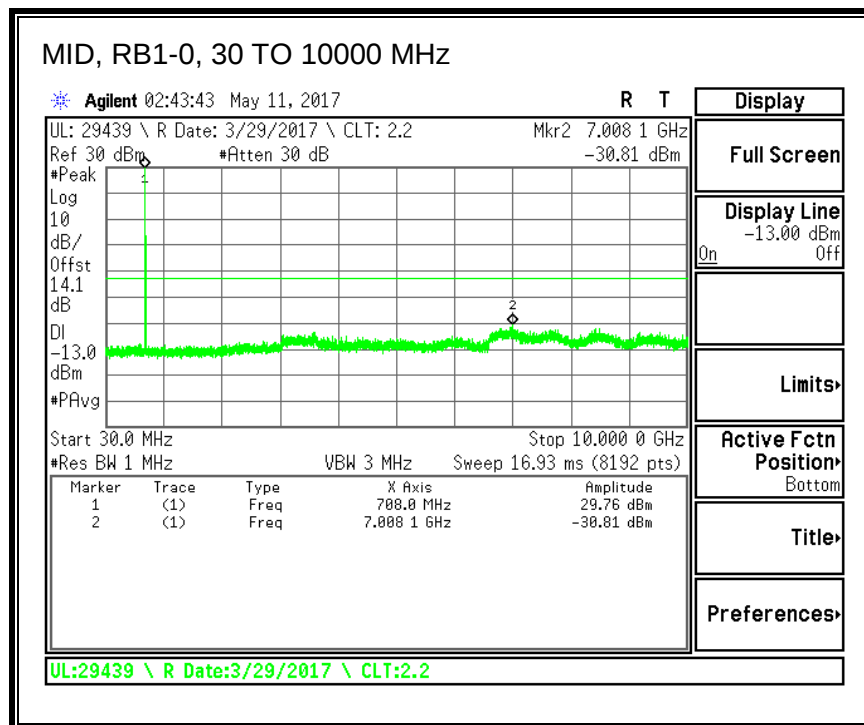
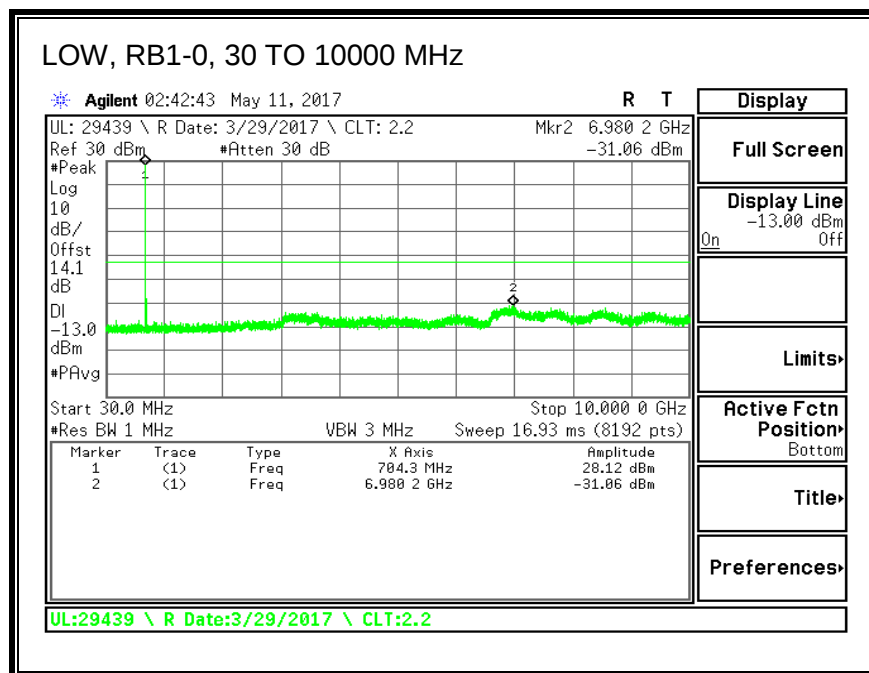


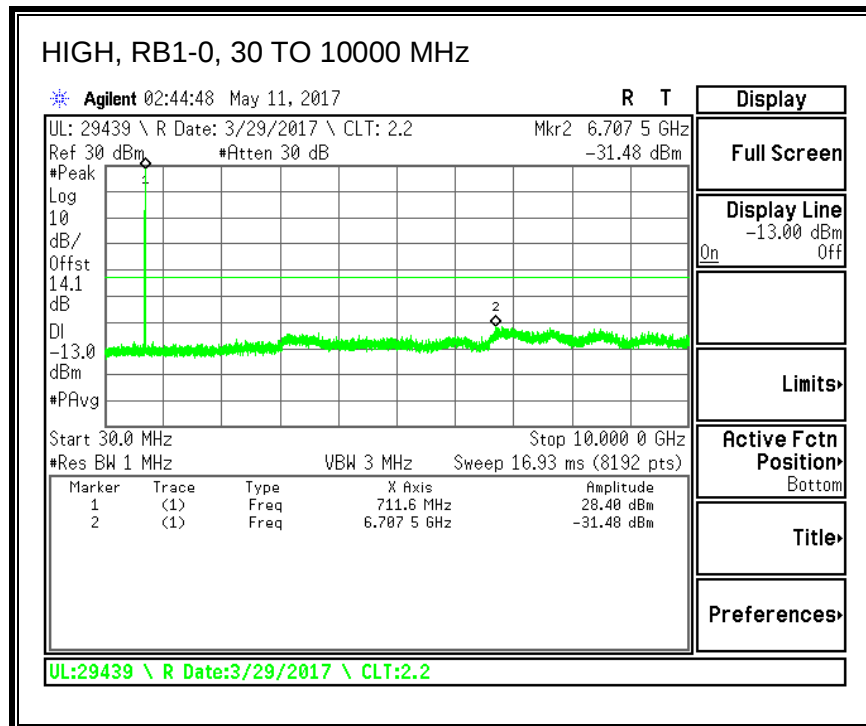
16QAM, (10.0 MHz BAND WIDTH)



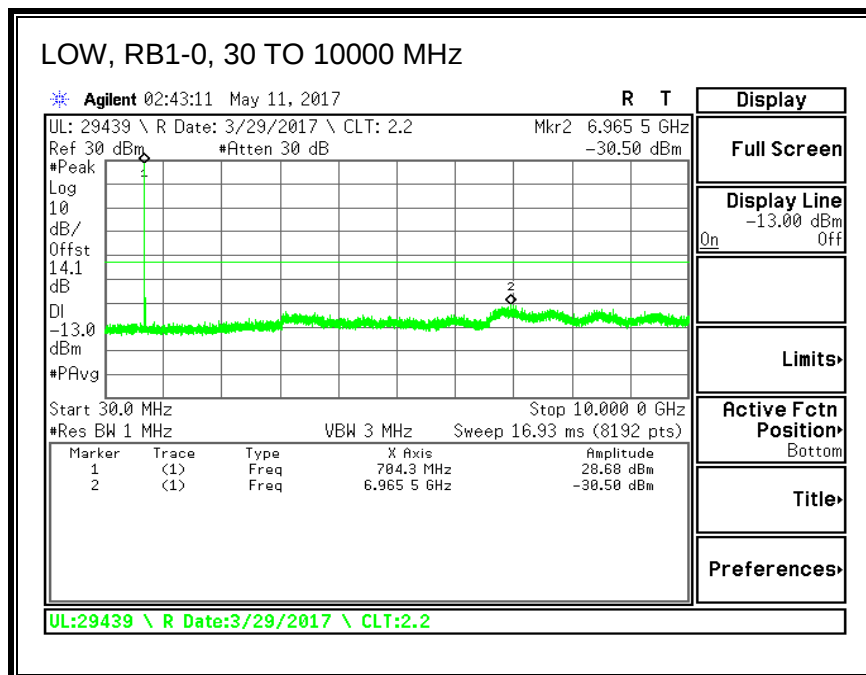
8.3.7. LTE BAND 17

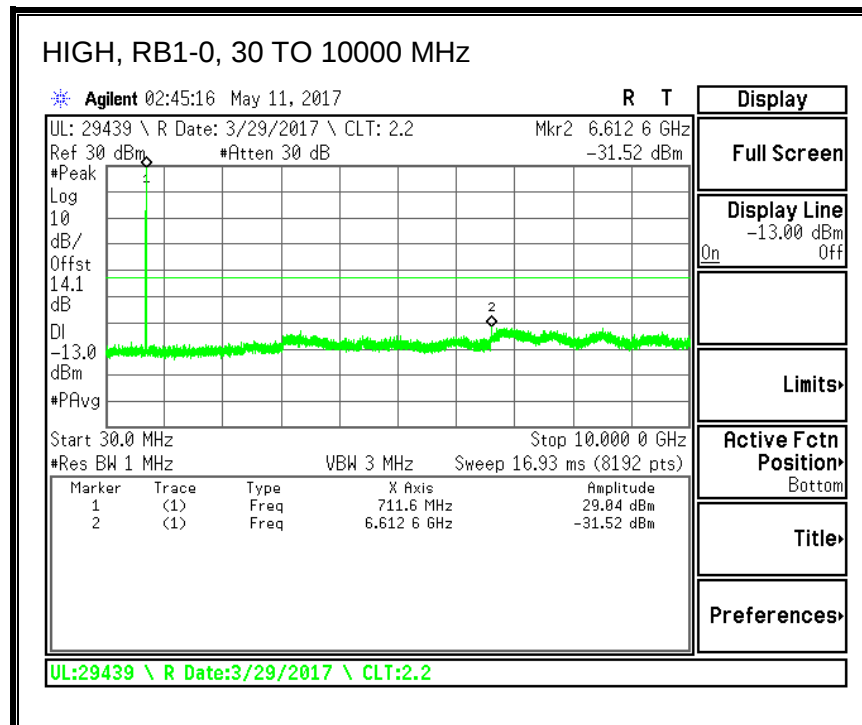
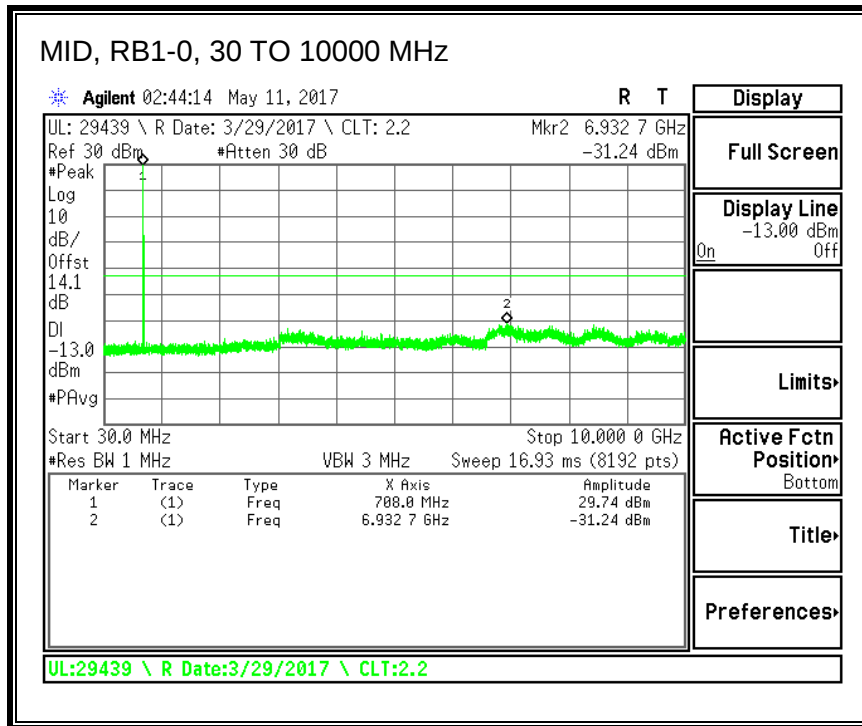
QPSK, (5.0 MHz BAND WIDTH)



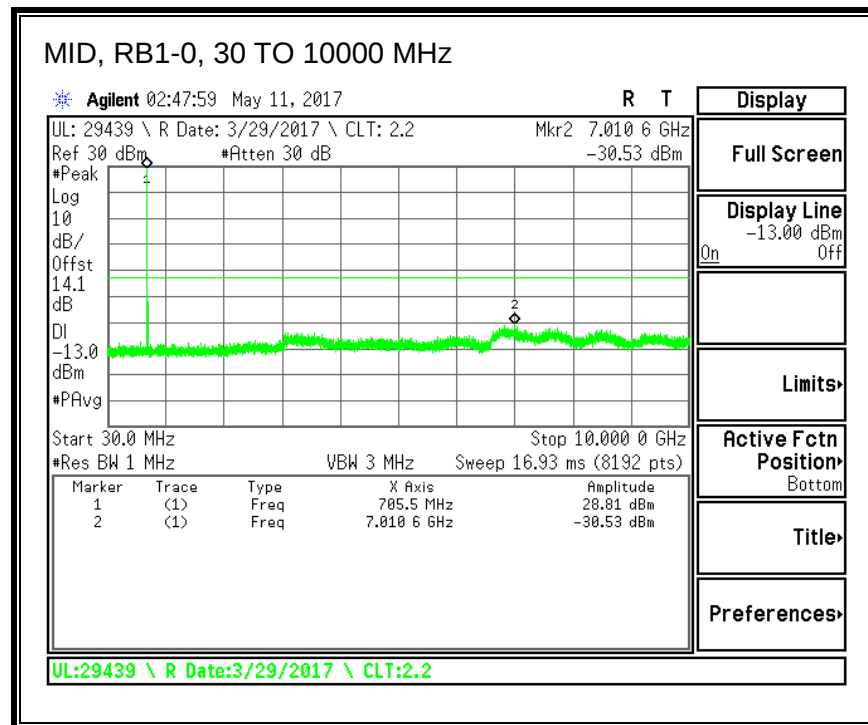
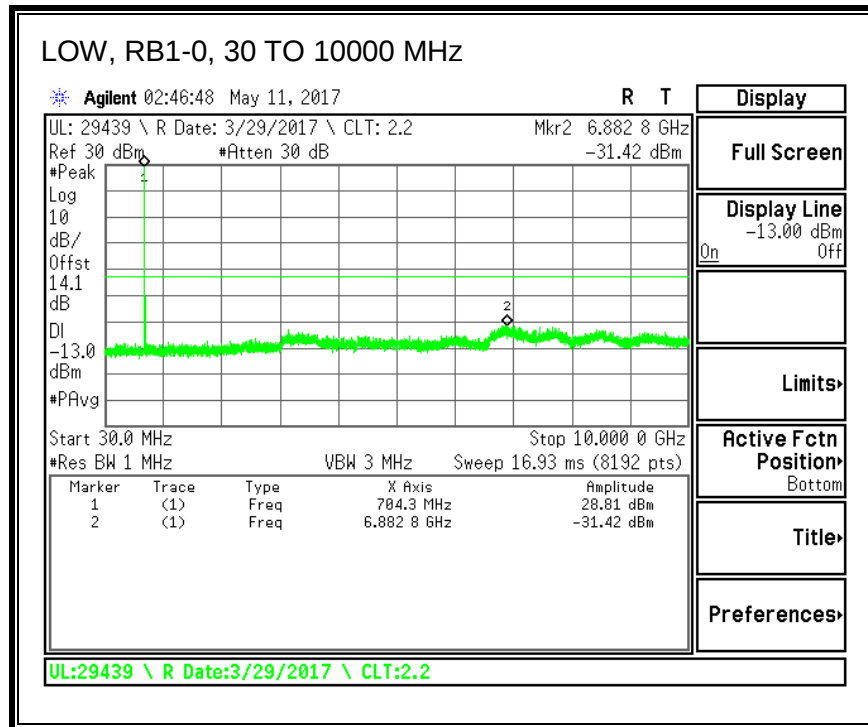


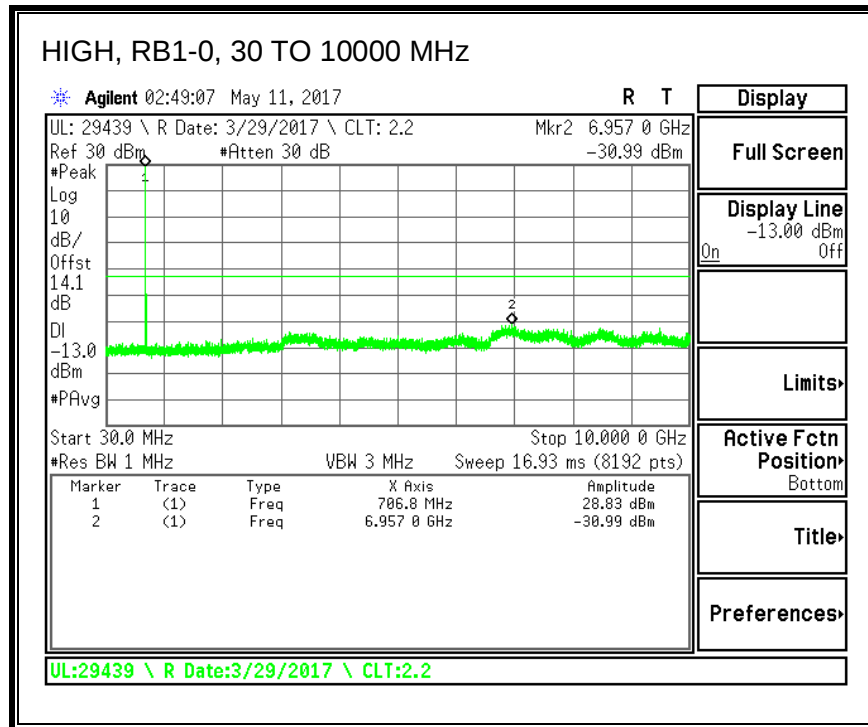
16QAM, (5.0 MHz BAND WIDTH)



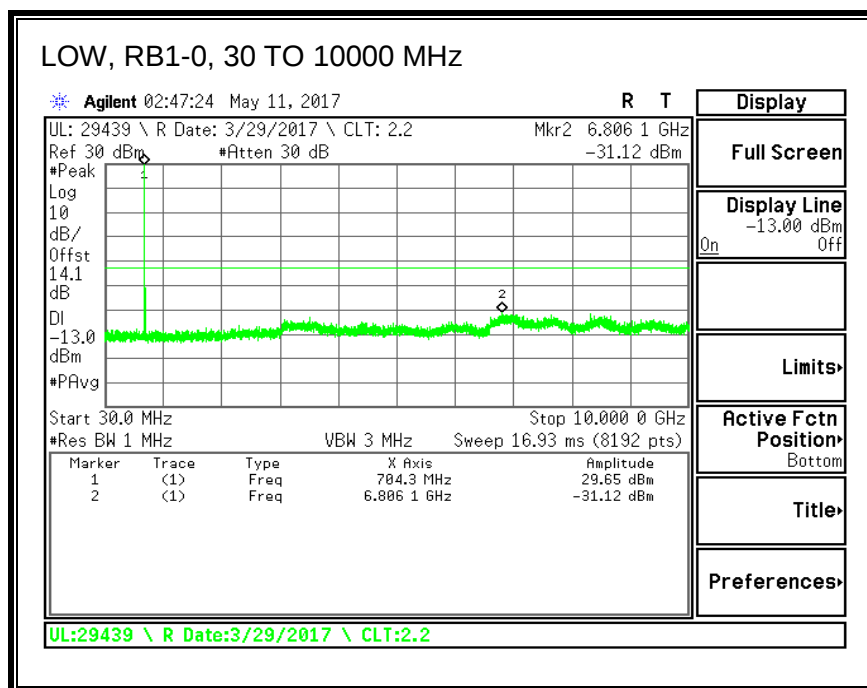


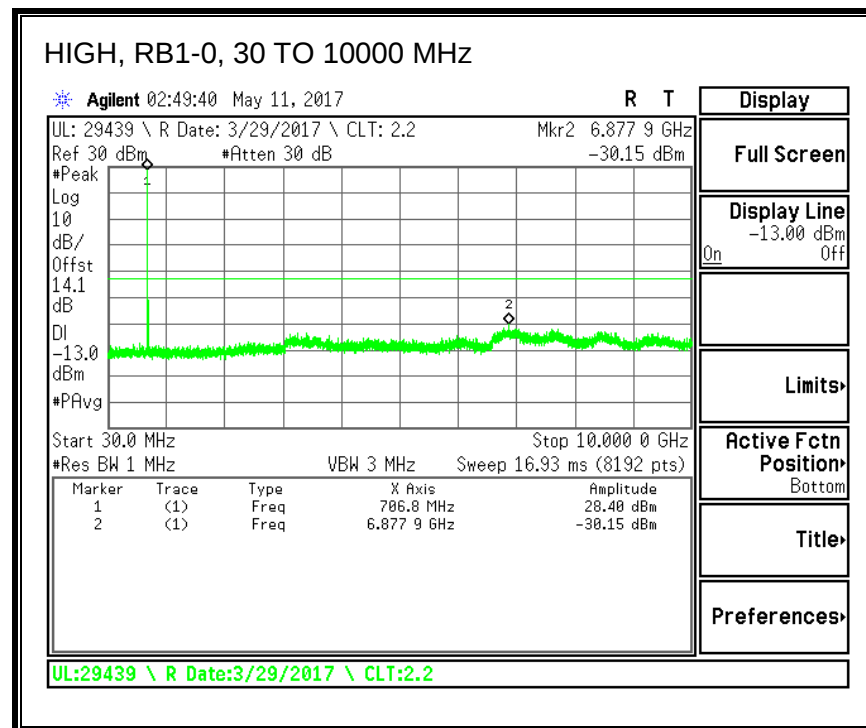
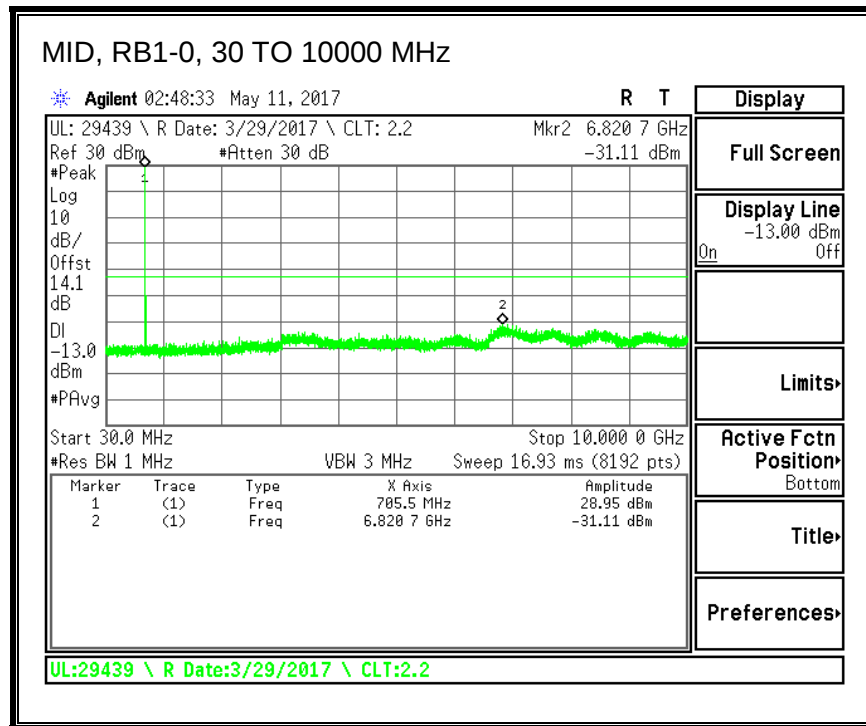
QPSK, (10.0 MHz BAND WIDTH)





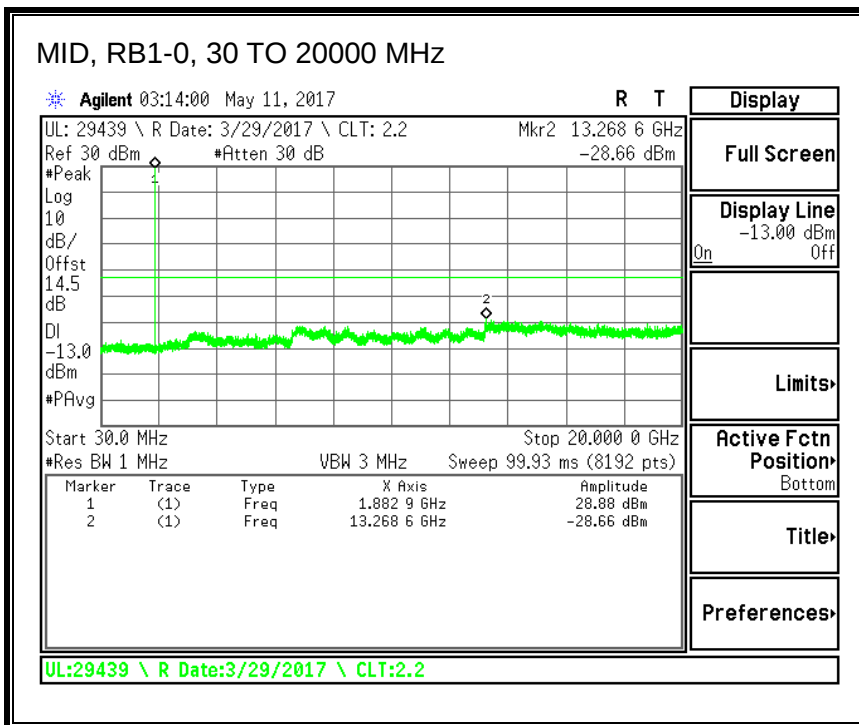
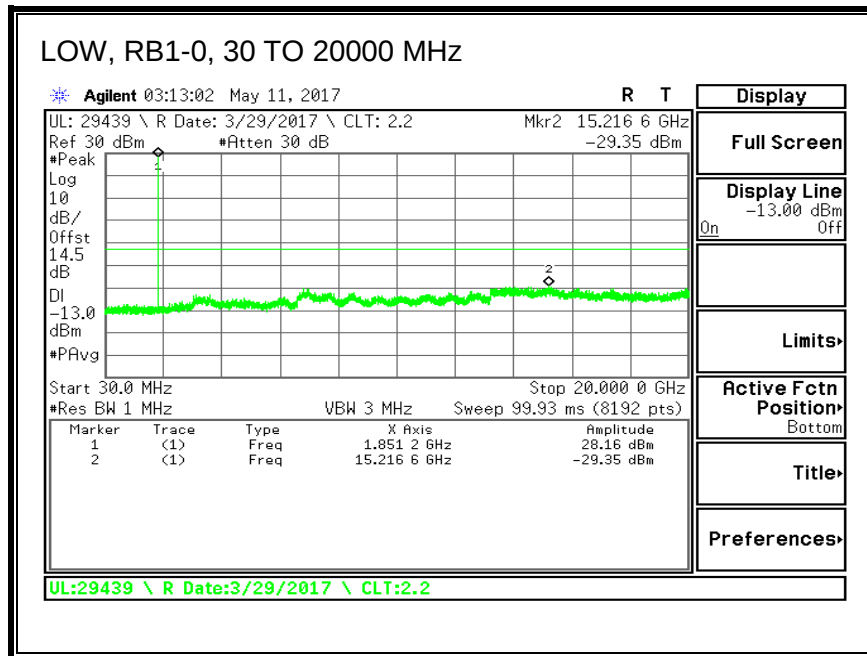
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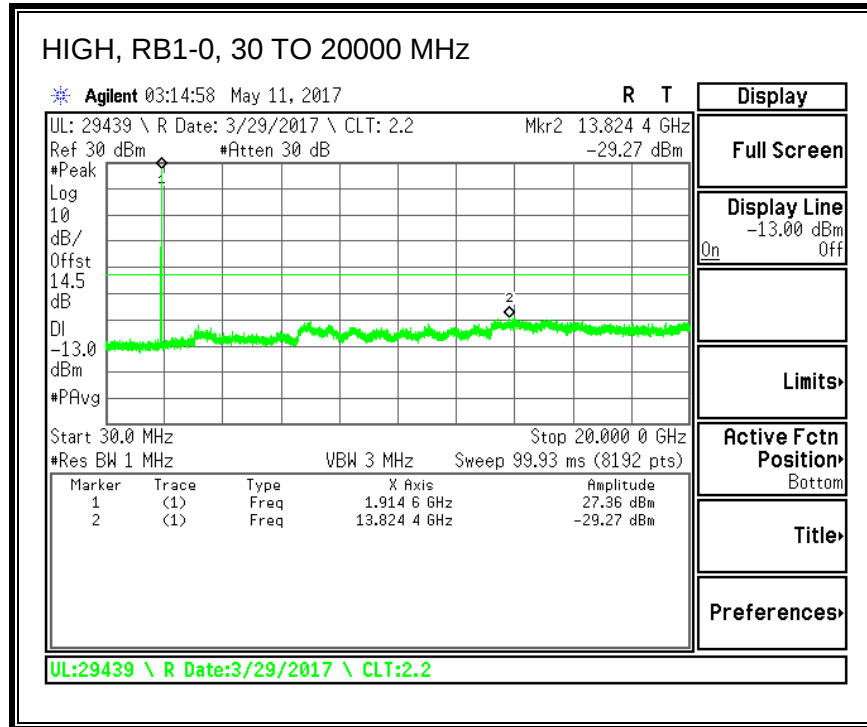




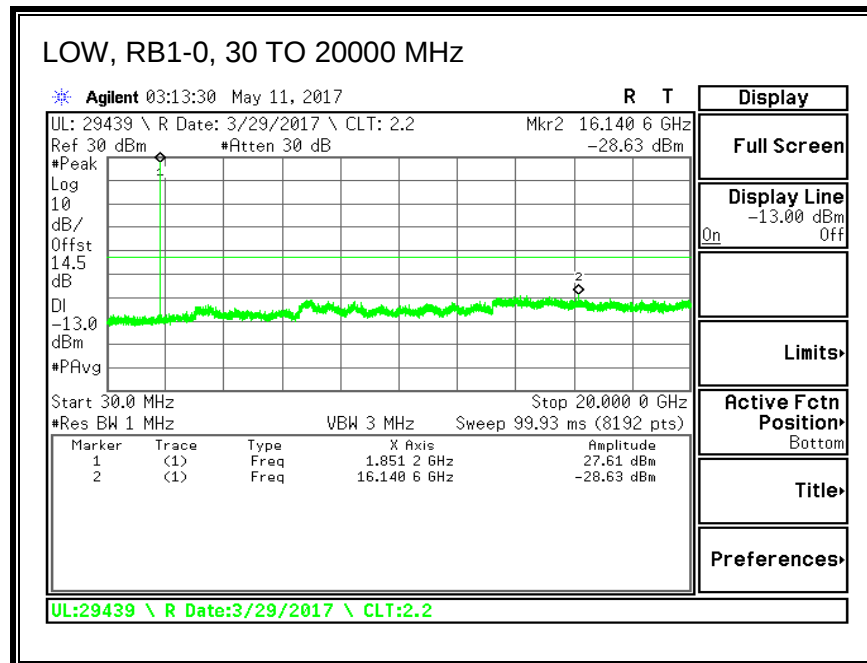
8.3.8. LTE BAND 25

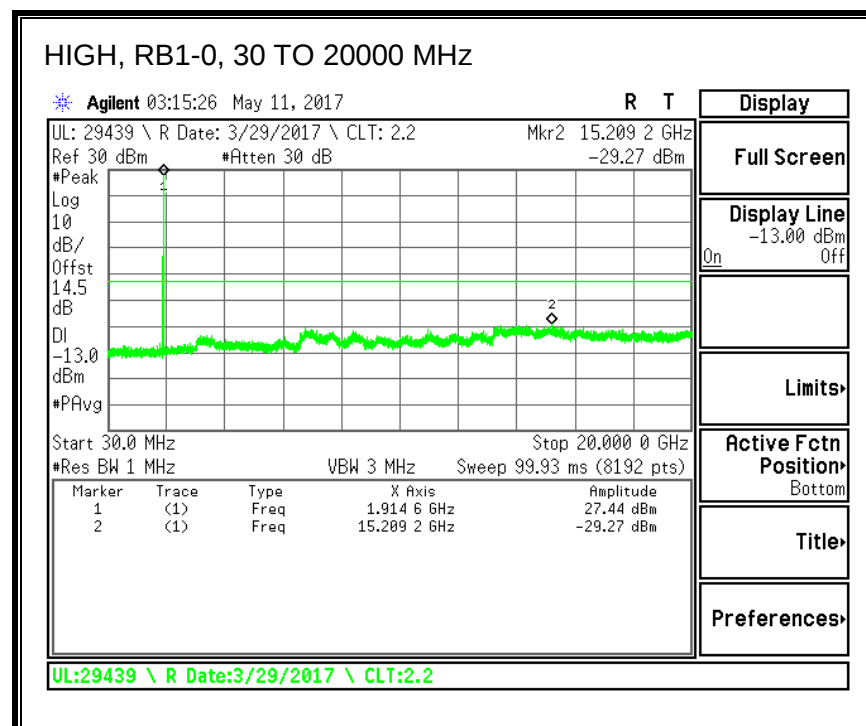
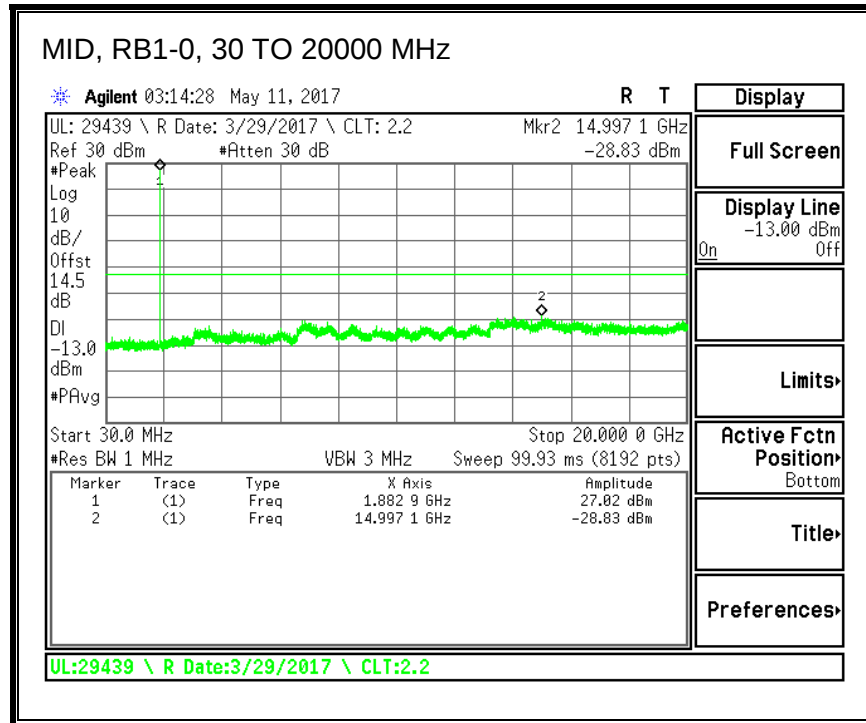
QPSK, (1.4 MHz BAND WIDTH)



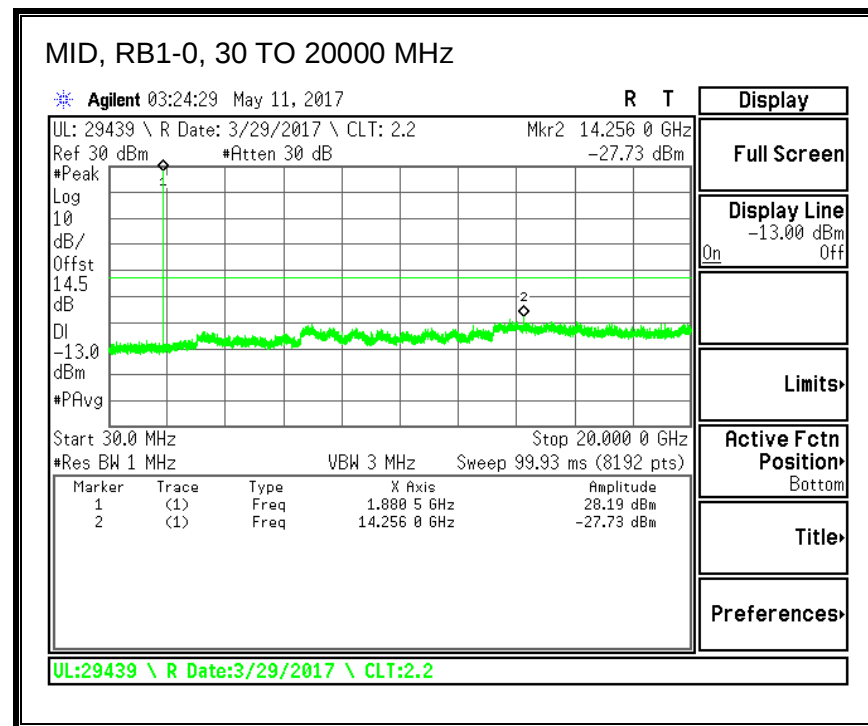
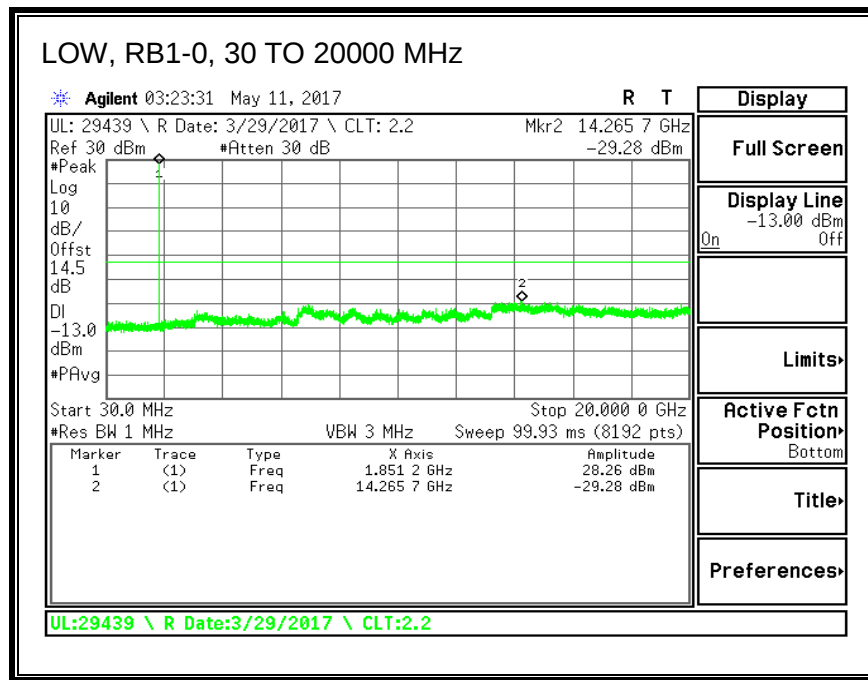


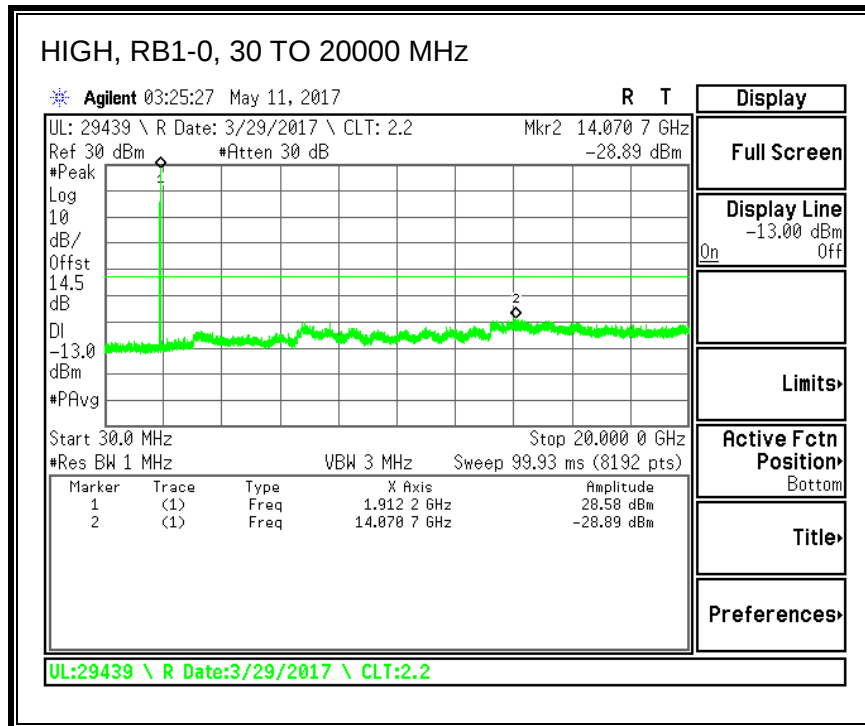
16QAM, (1.4 MHz BAND WIDTH)



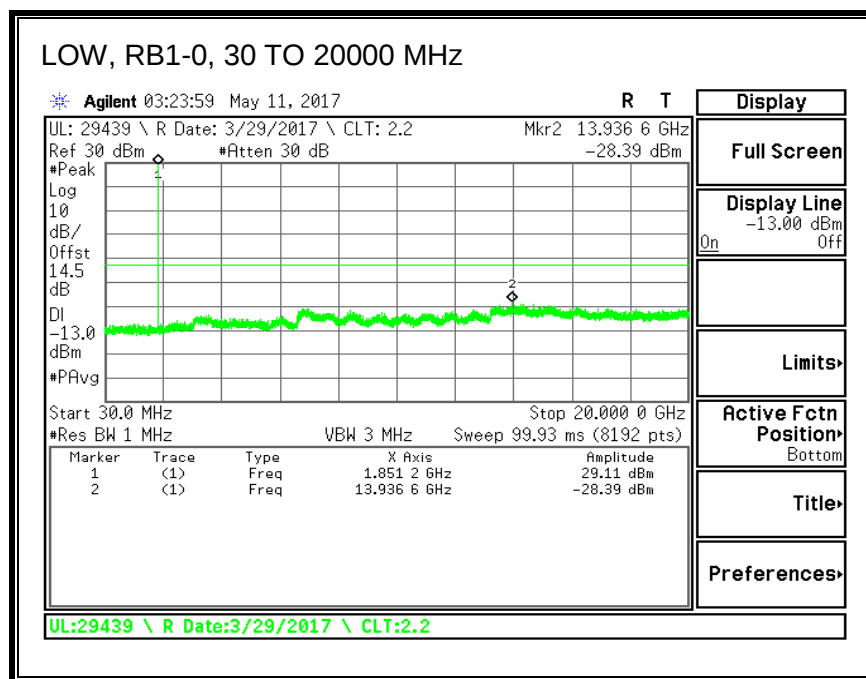


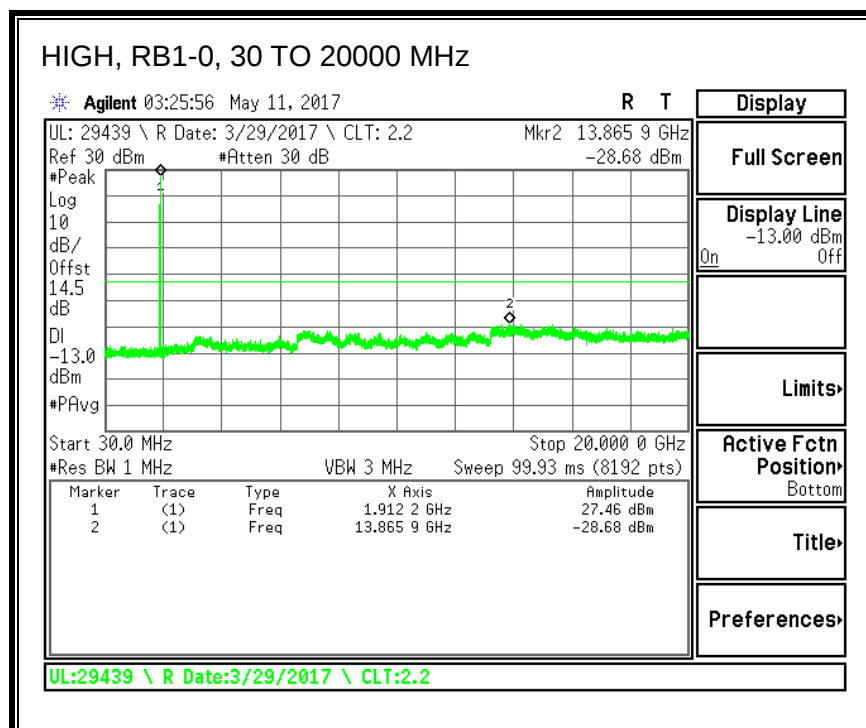
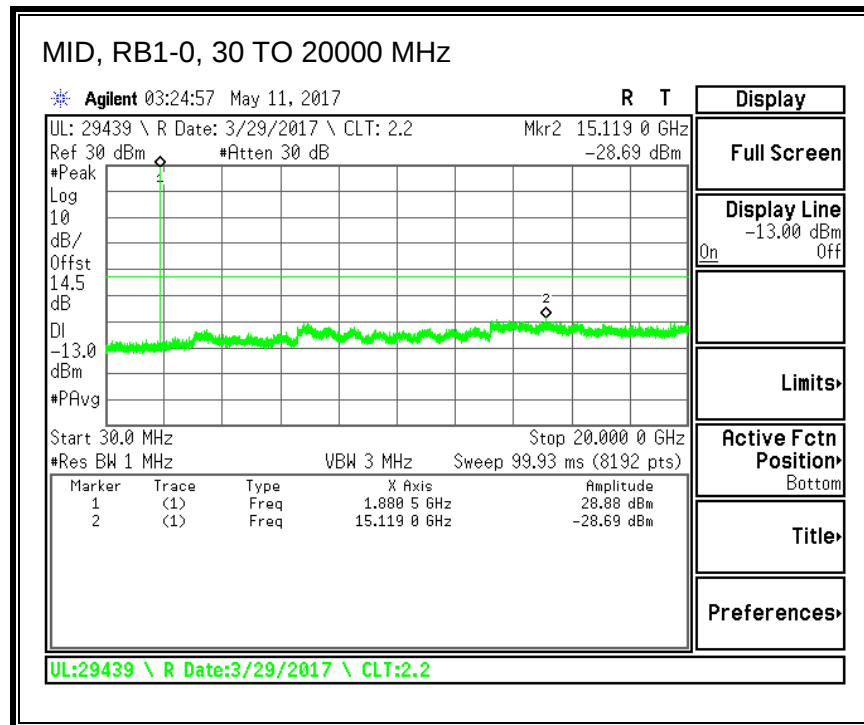
QPSK, (3.0 MHz BAND WIDTH)



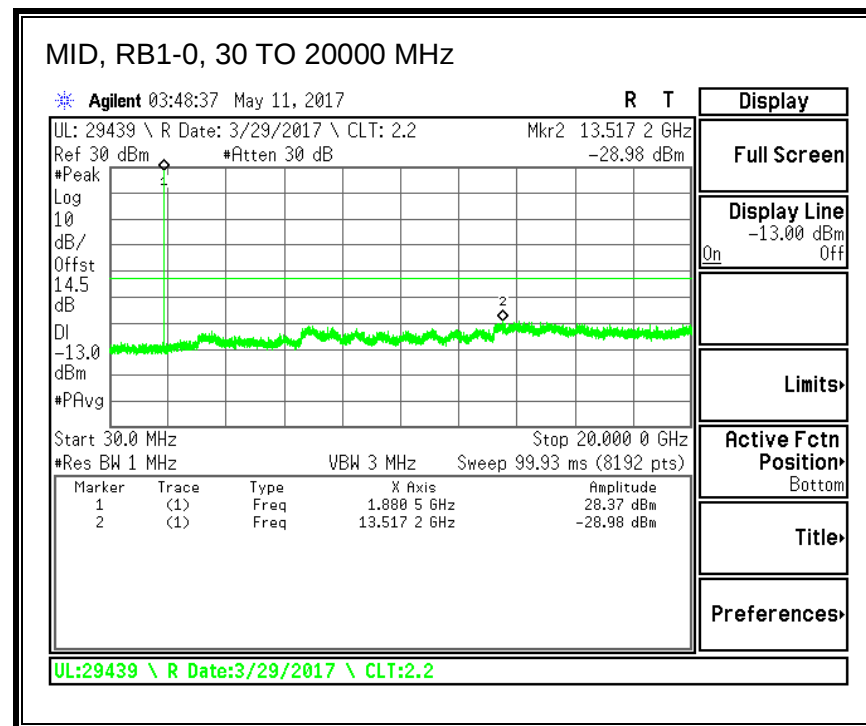
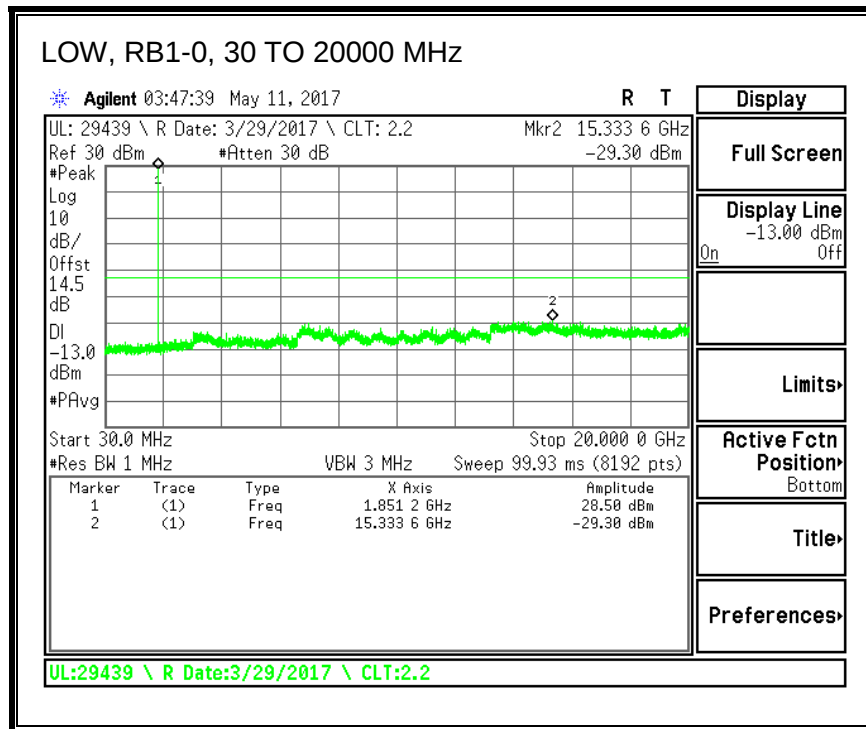


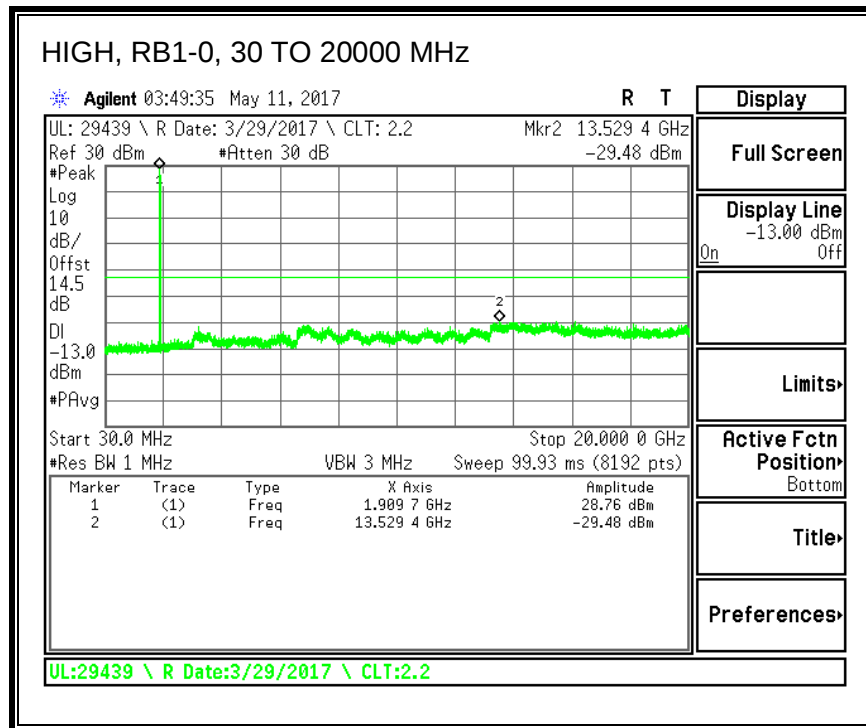
16QAM, (3.0 MHz BAND WIDTH)



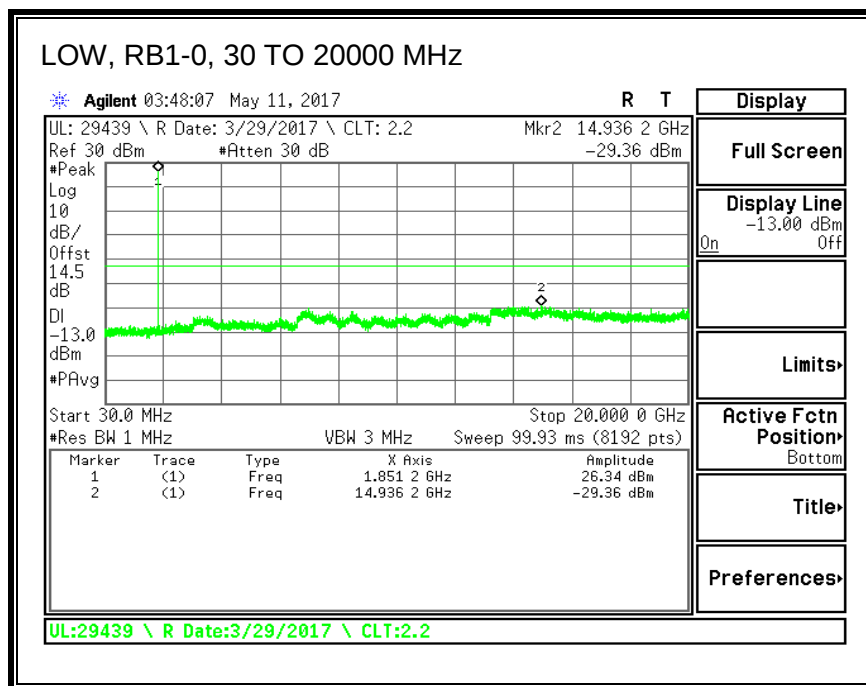


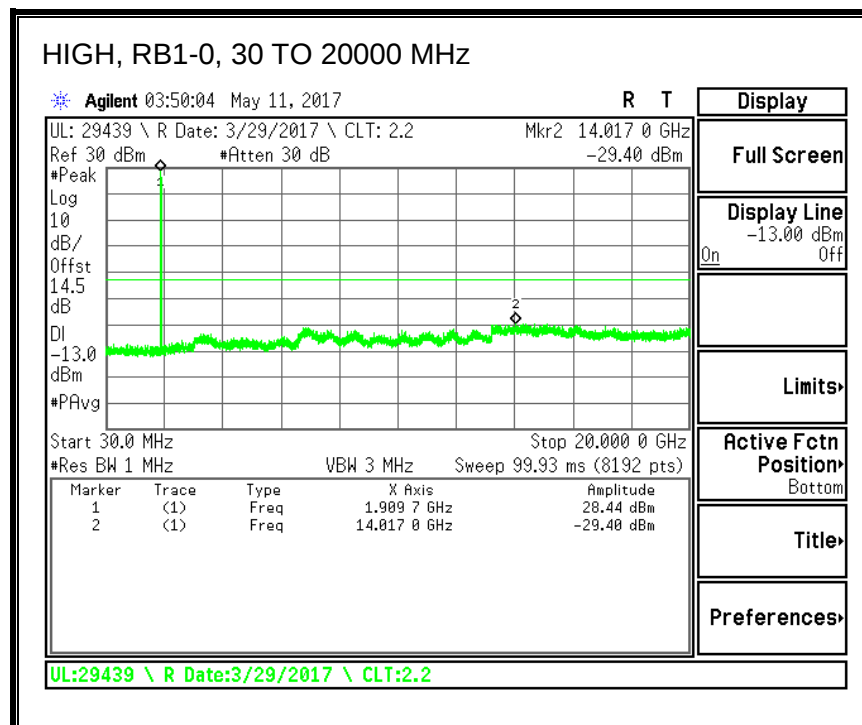
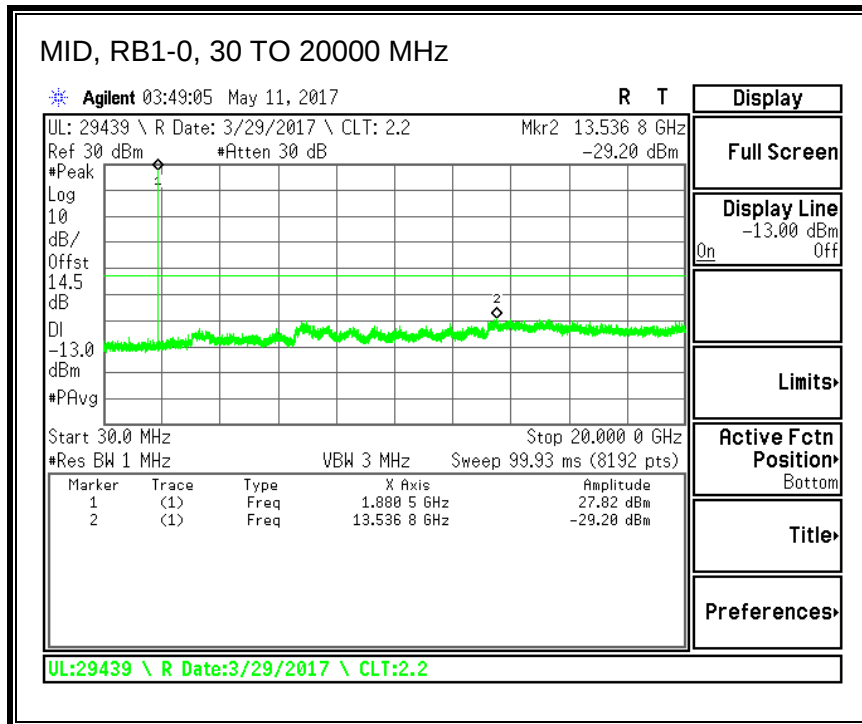
QPSK, (5.0 MHz BAND WIDTH)



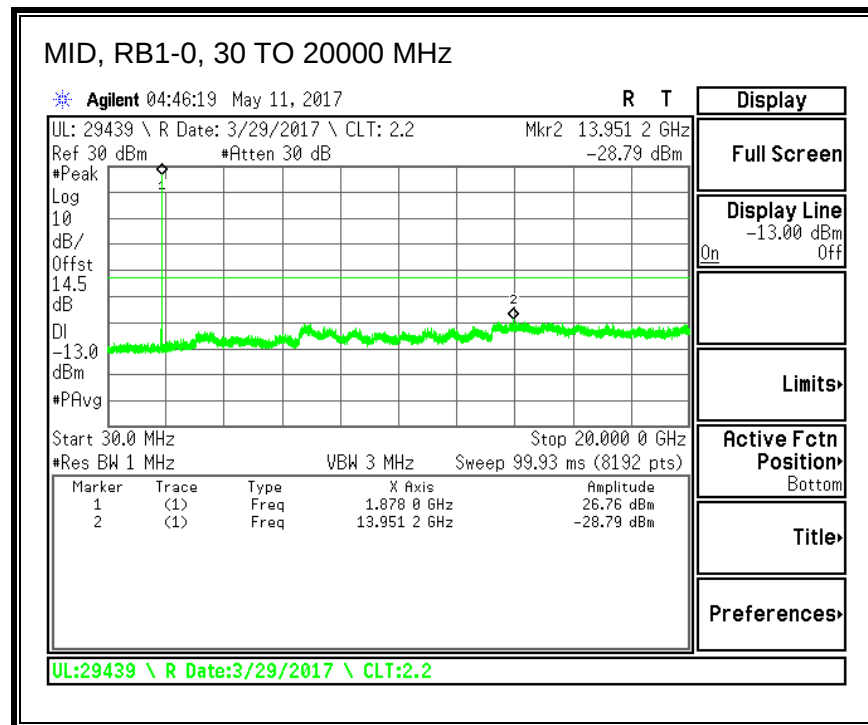
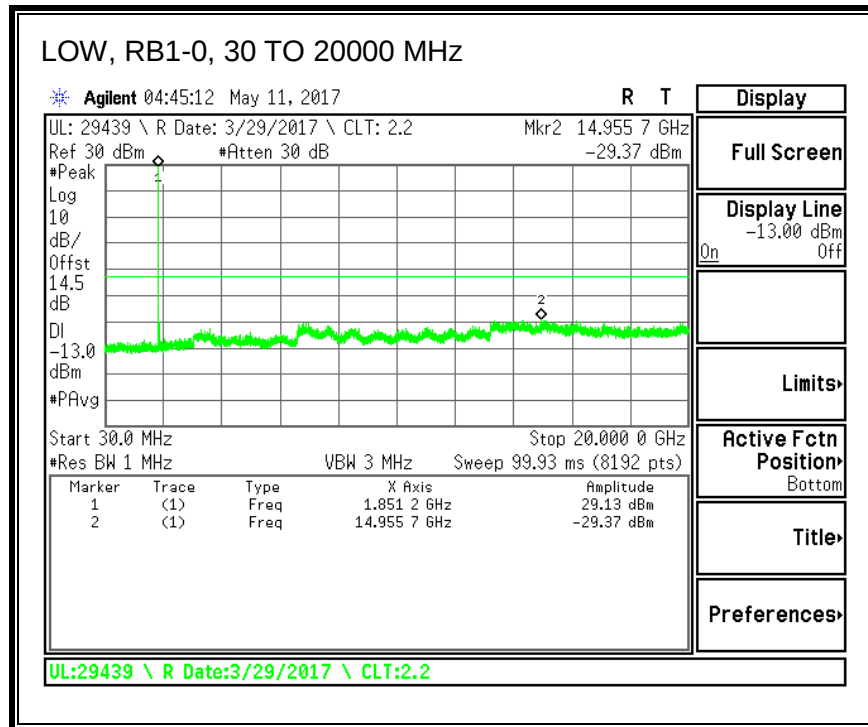


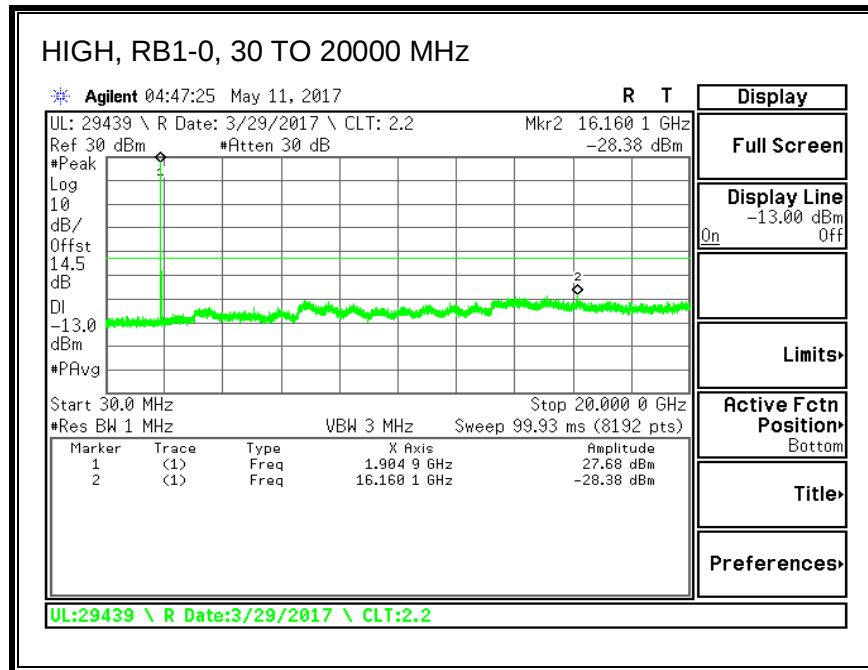
16QAM, (5.0 MHz BAND WIDTH)



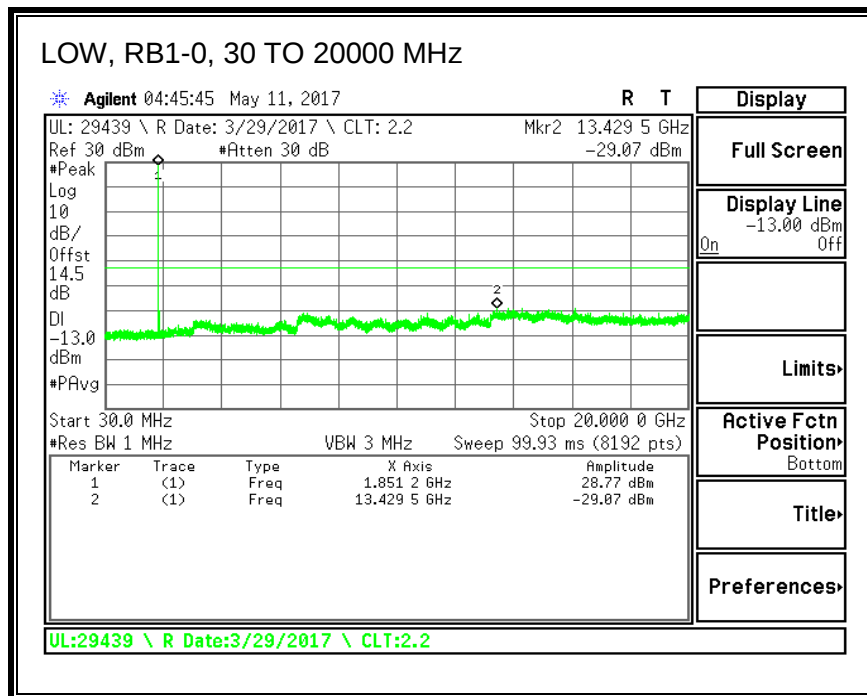


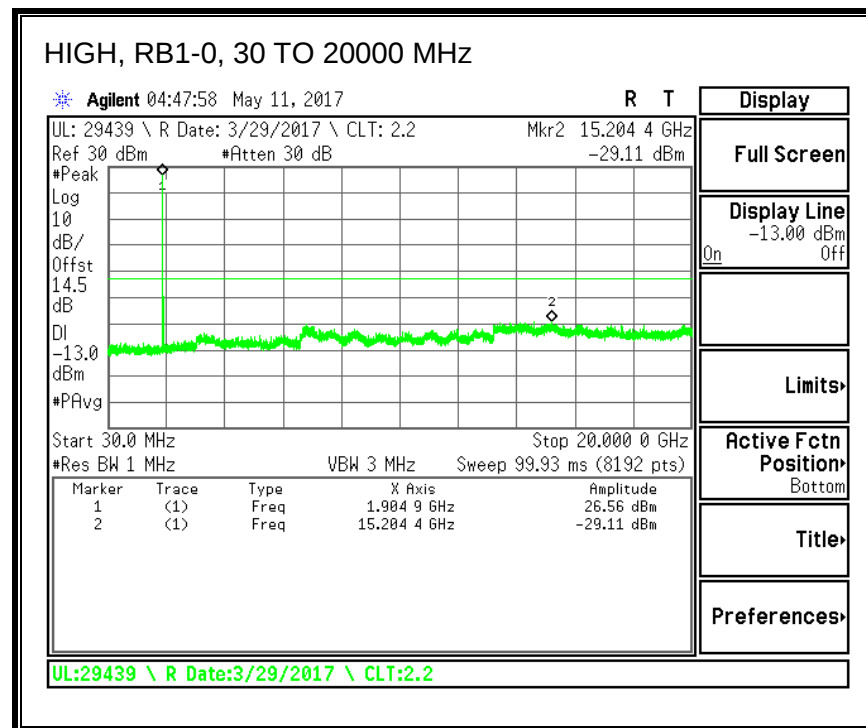
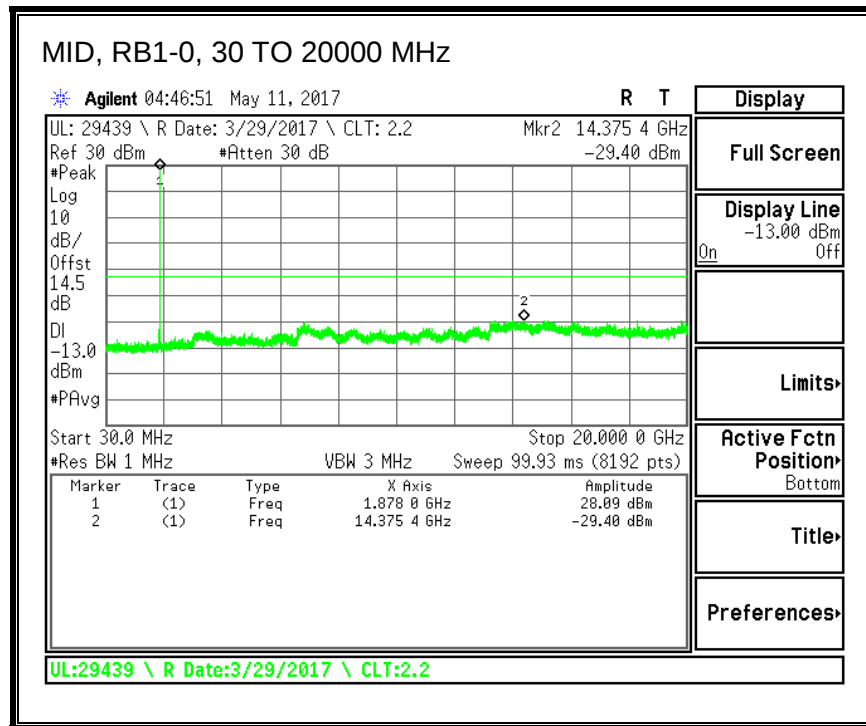
QPSK, (10.0 MHz BAND WIDTH)



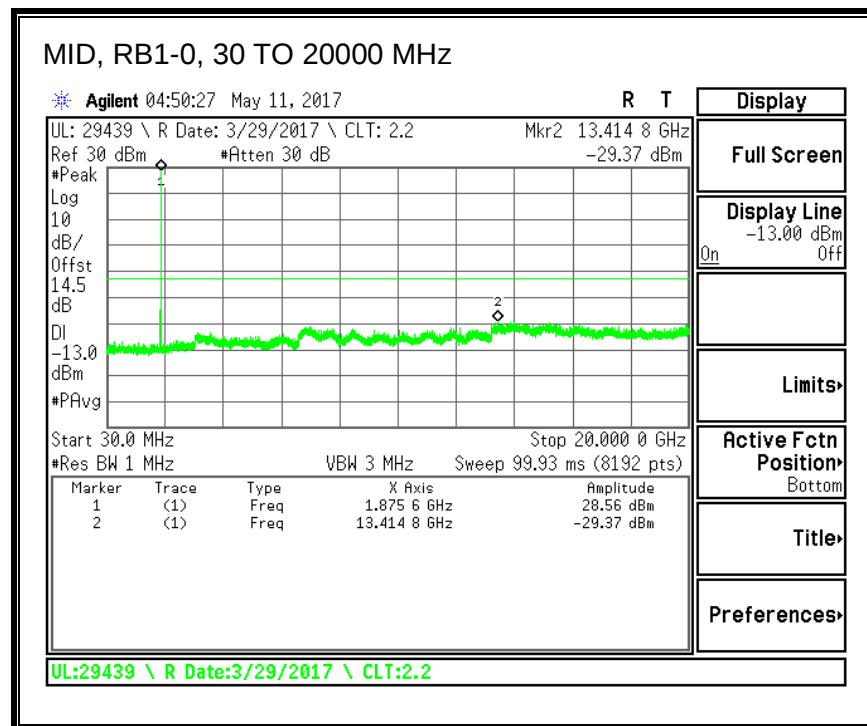
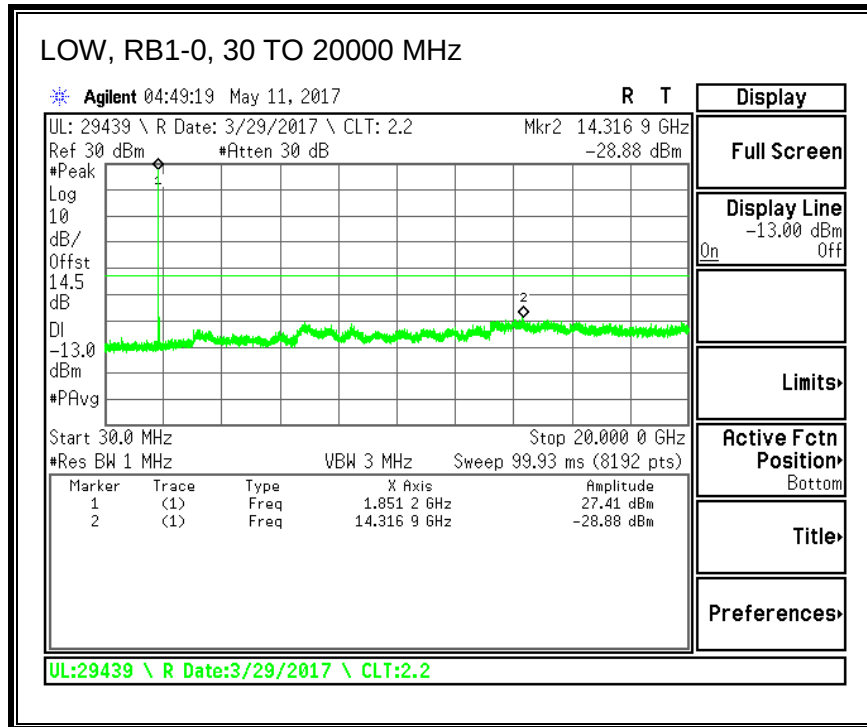


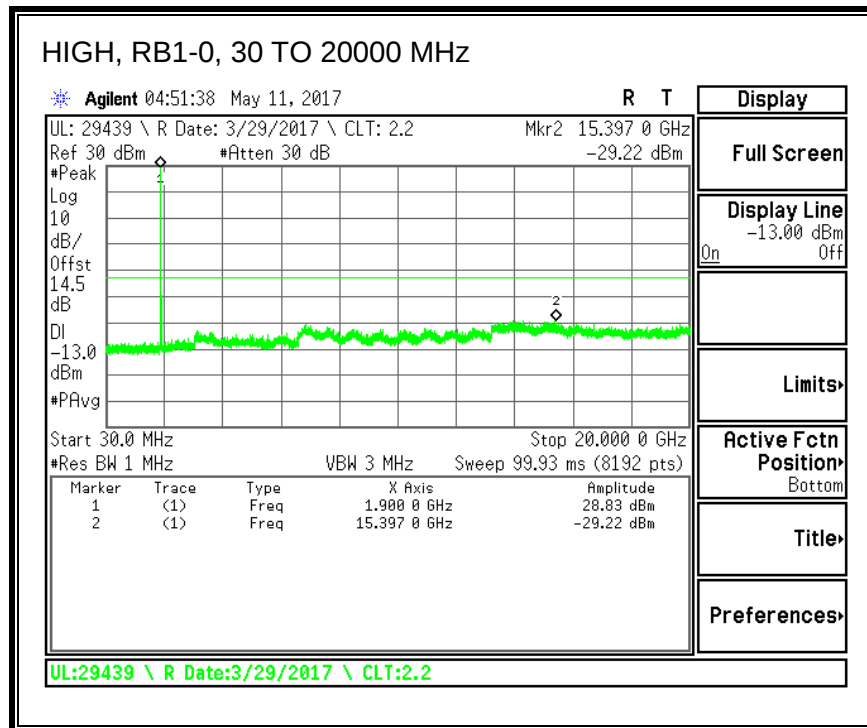
16QAM, (10.0 MHz BAND WIDTH)



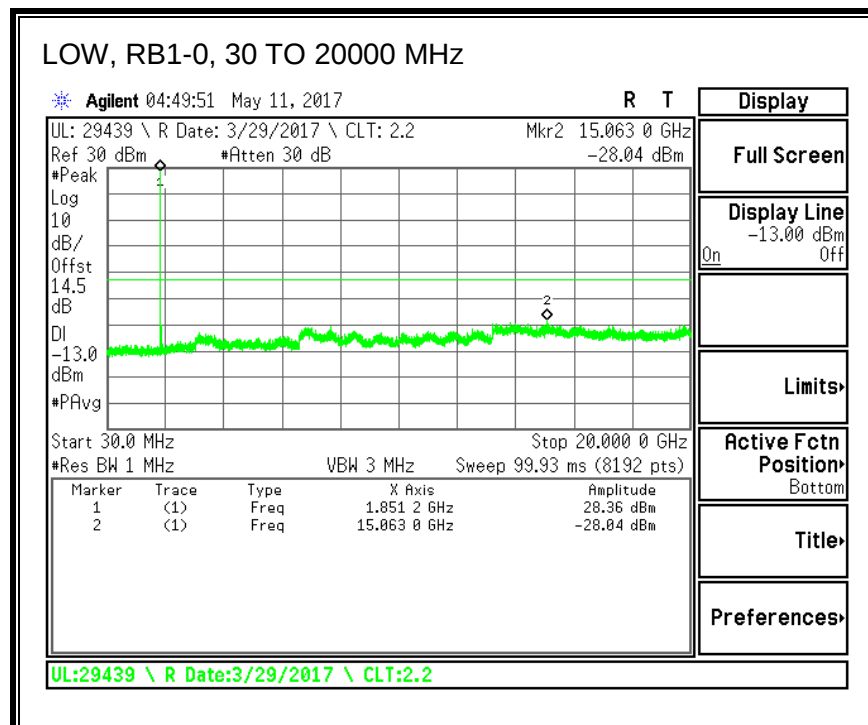


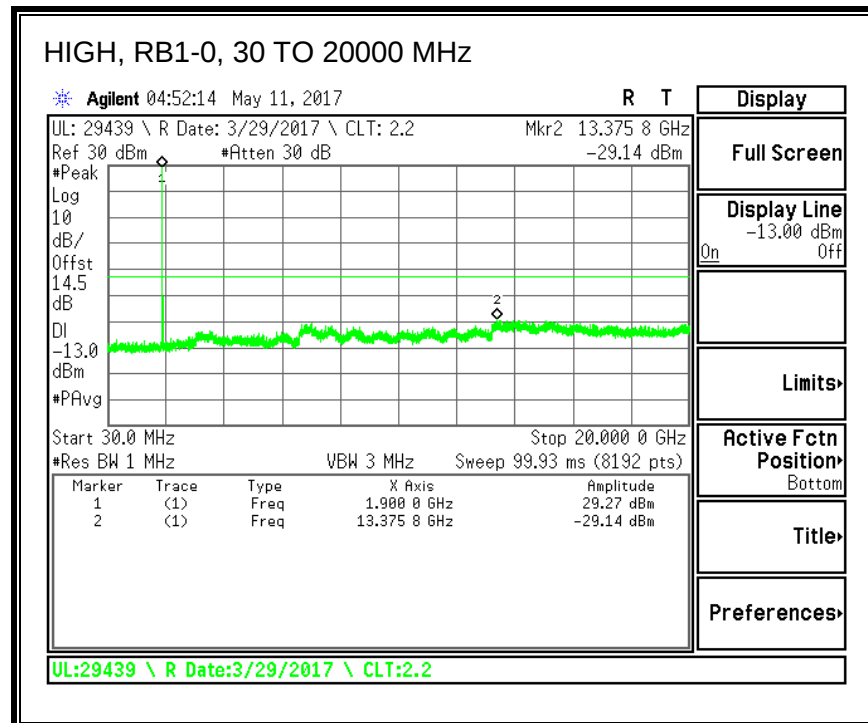
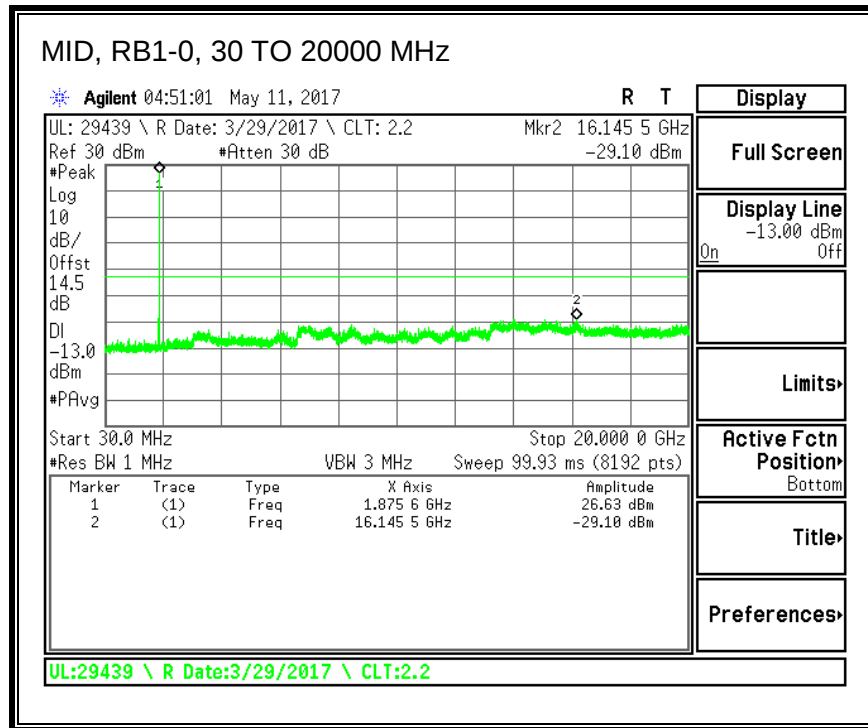
QPSK, (15.0 MHz BAND WIDTH)



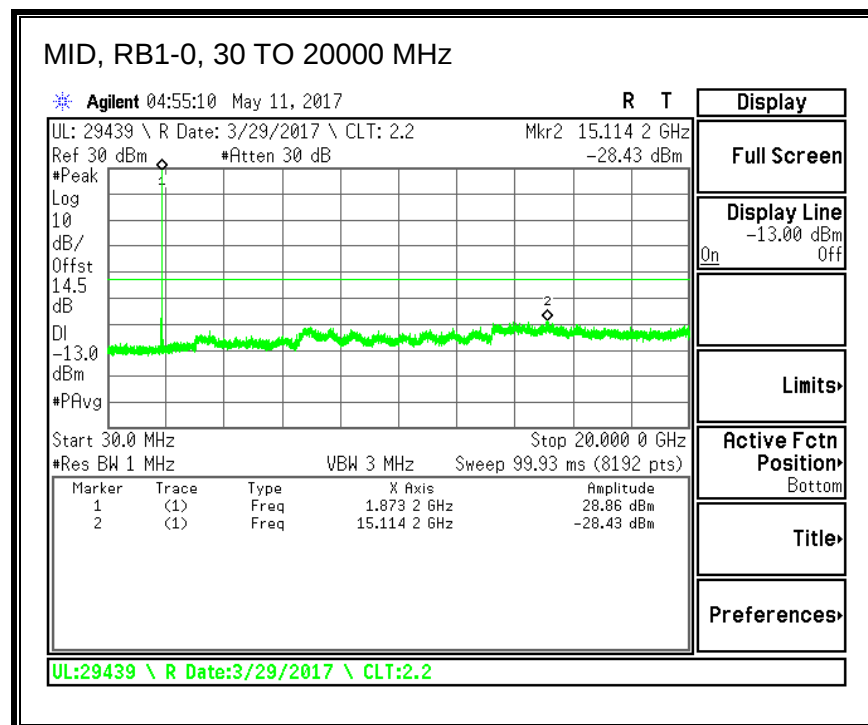
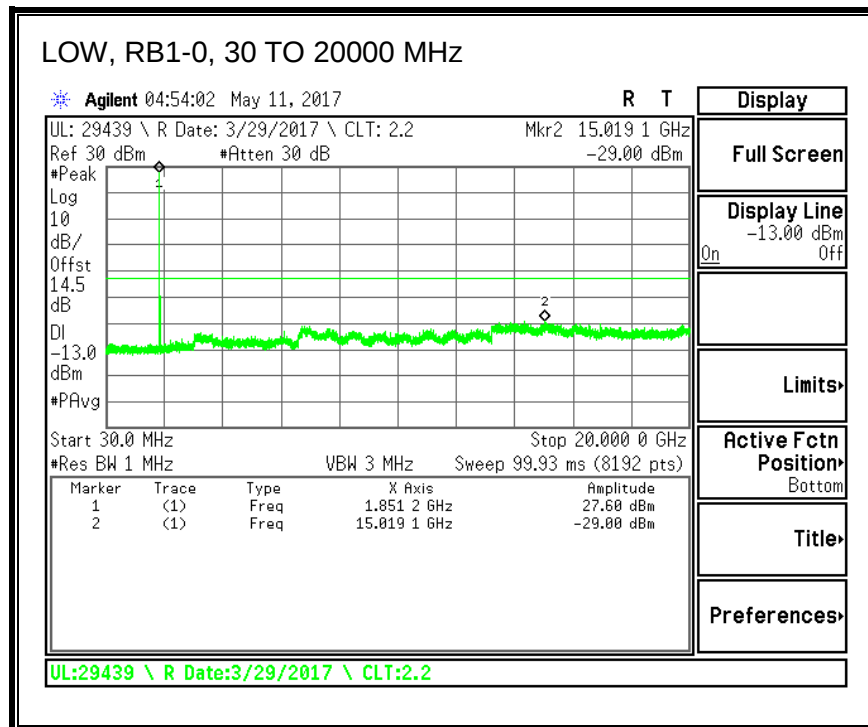


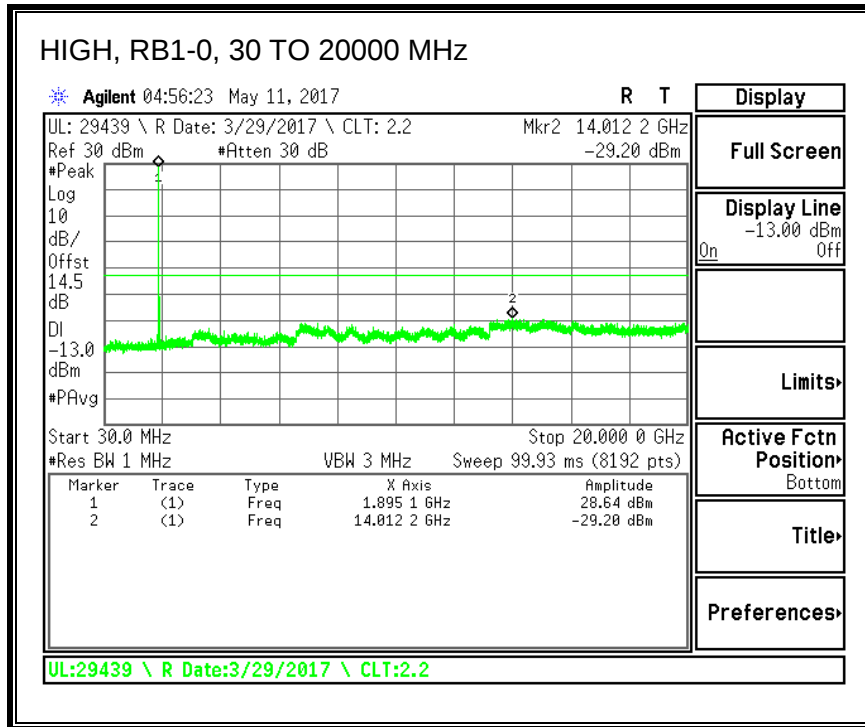
16QAM, (15.0 MHz BAND WIDTH)



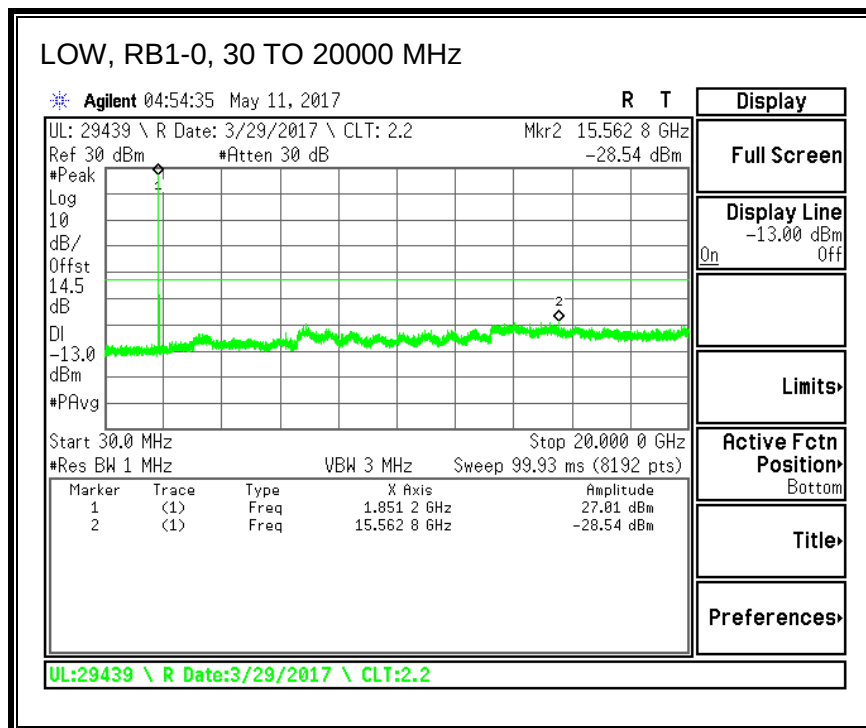


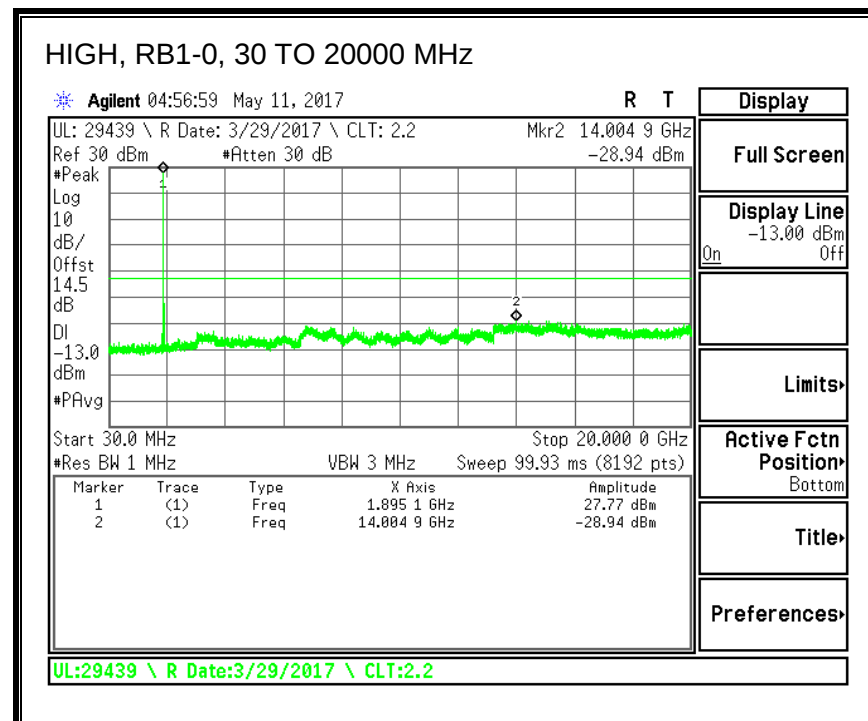
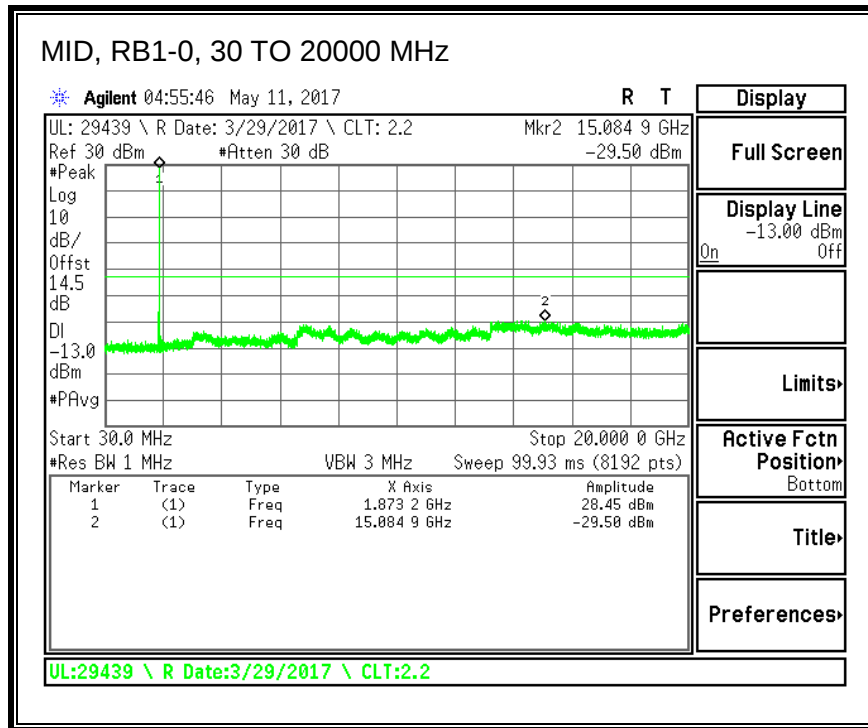
QPSK, (20.0 MHz BAND WIDTH)





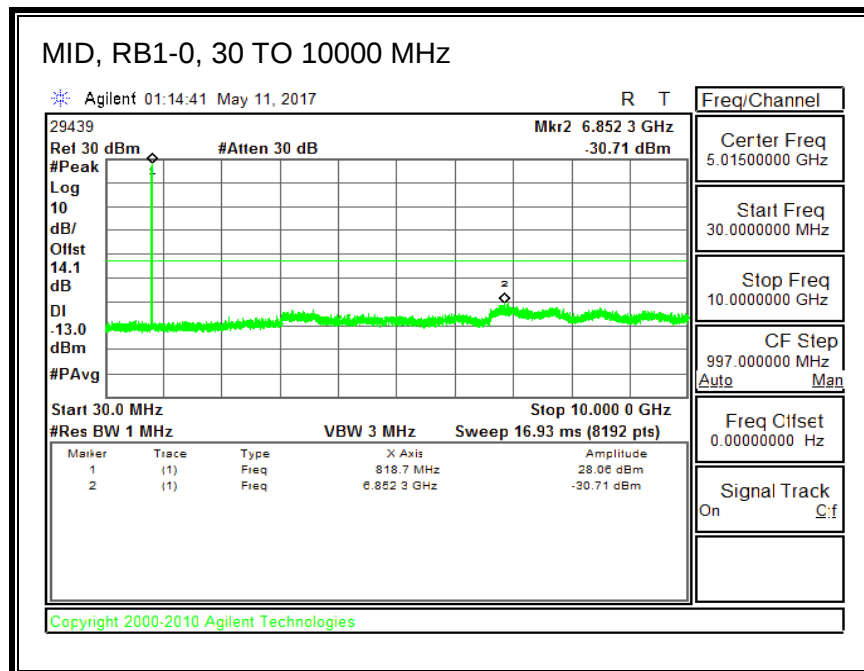
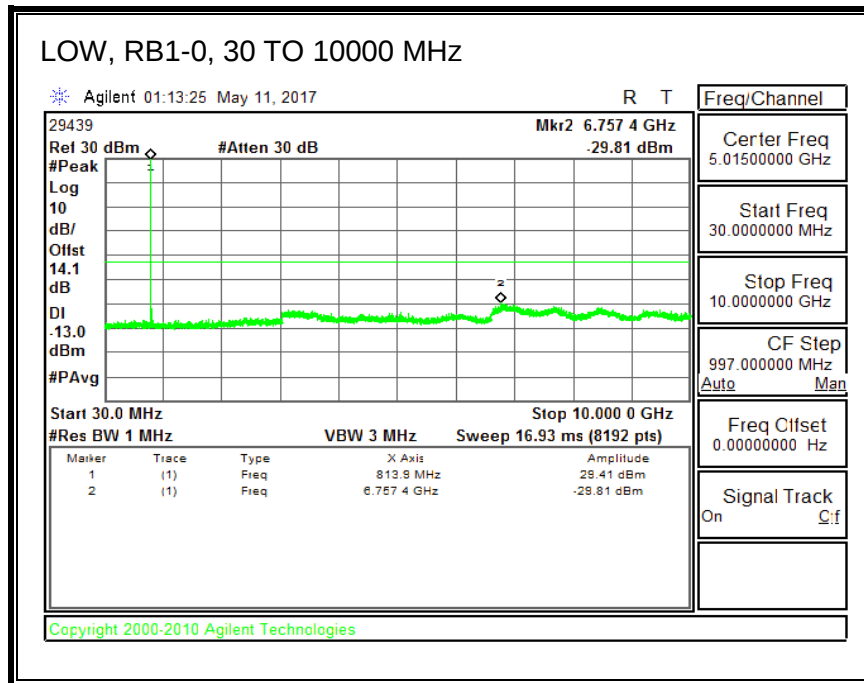
16QAM, (20.0 MHz BAND WIDTH)

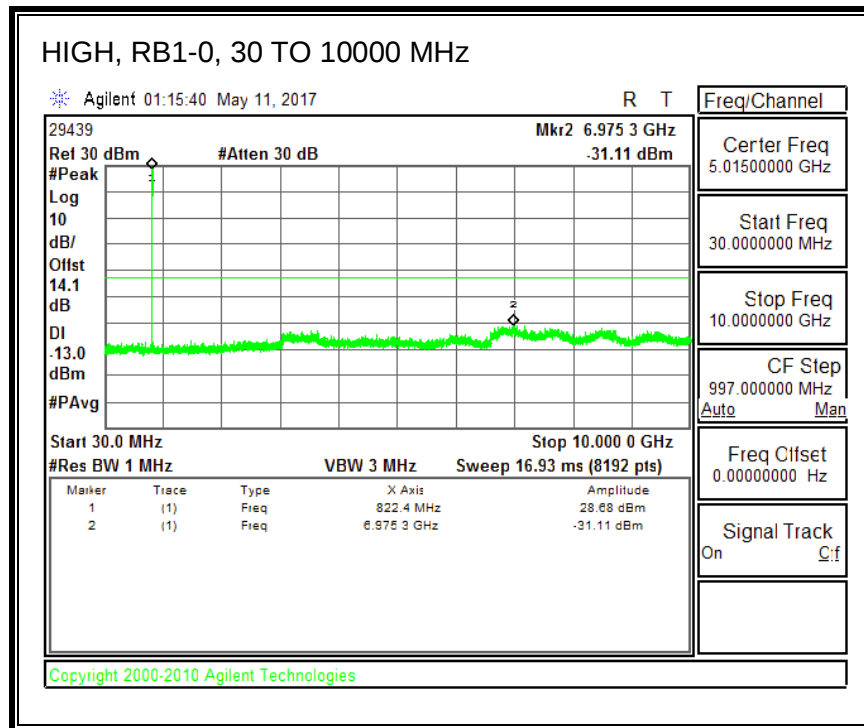




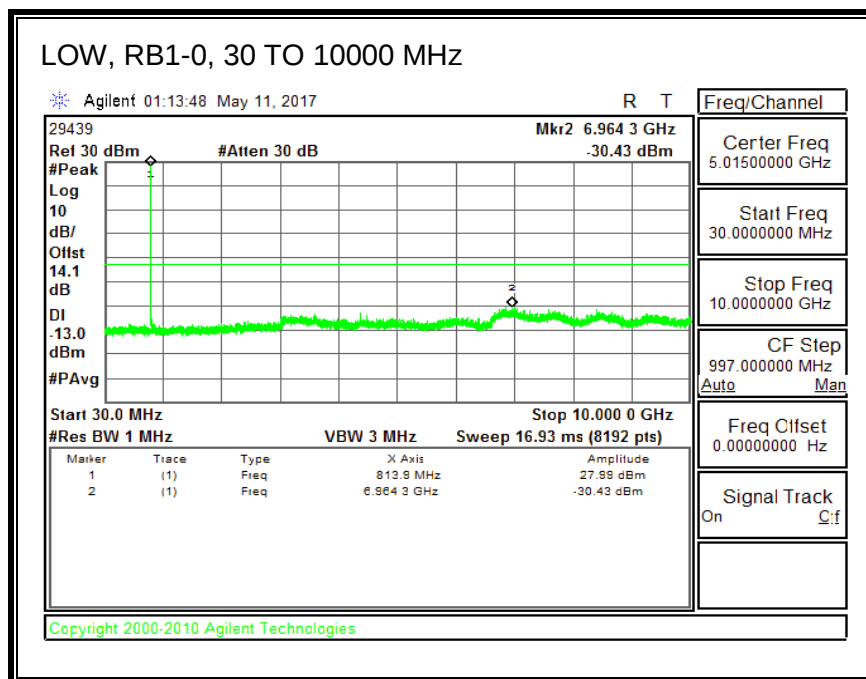
8.3.9. LTE BAND 26

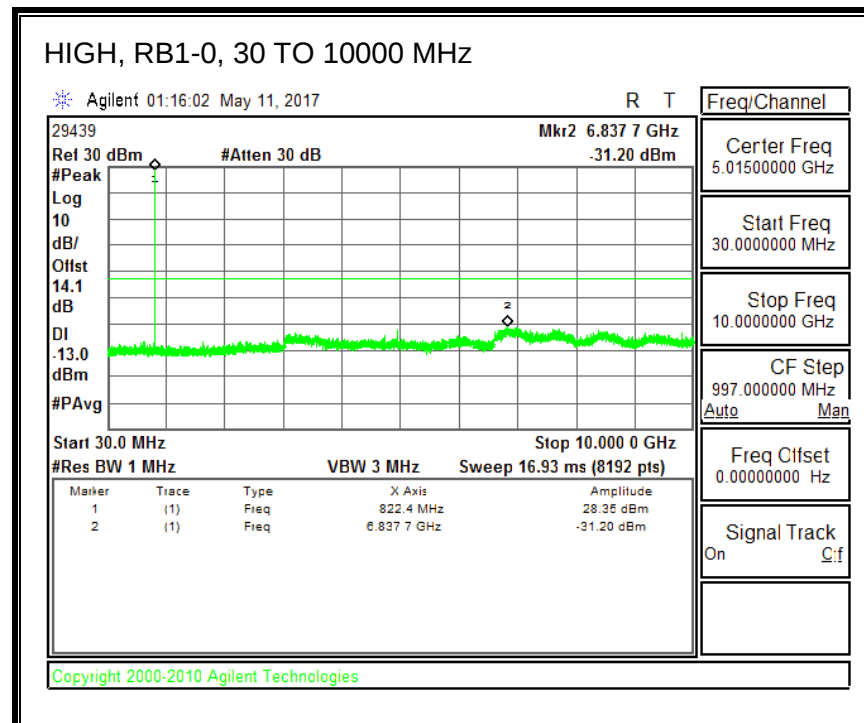
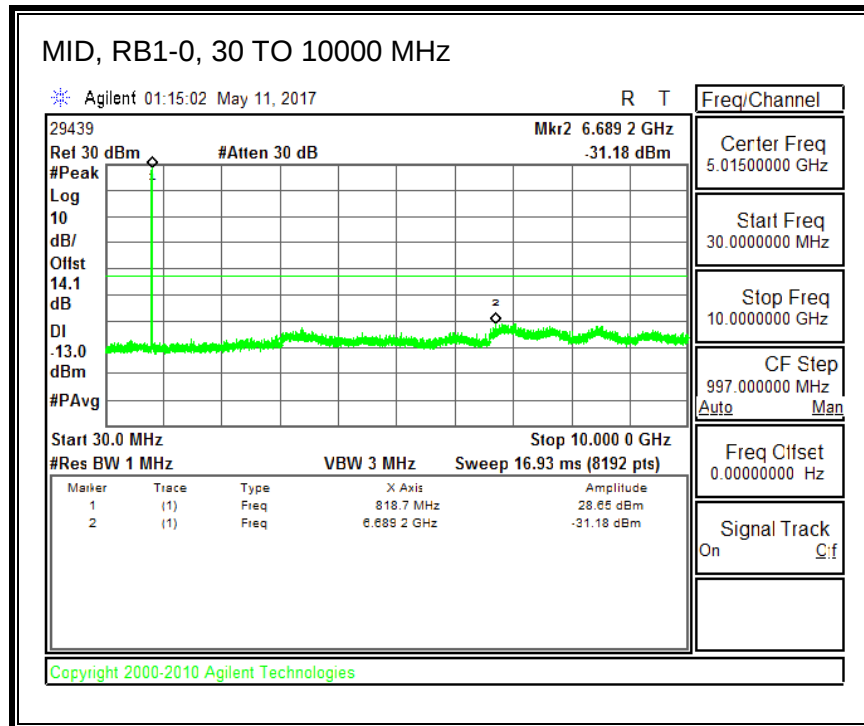
QPSK, (1.4 MHz BAND WIDTH)



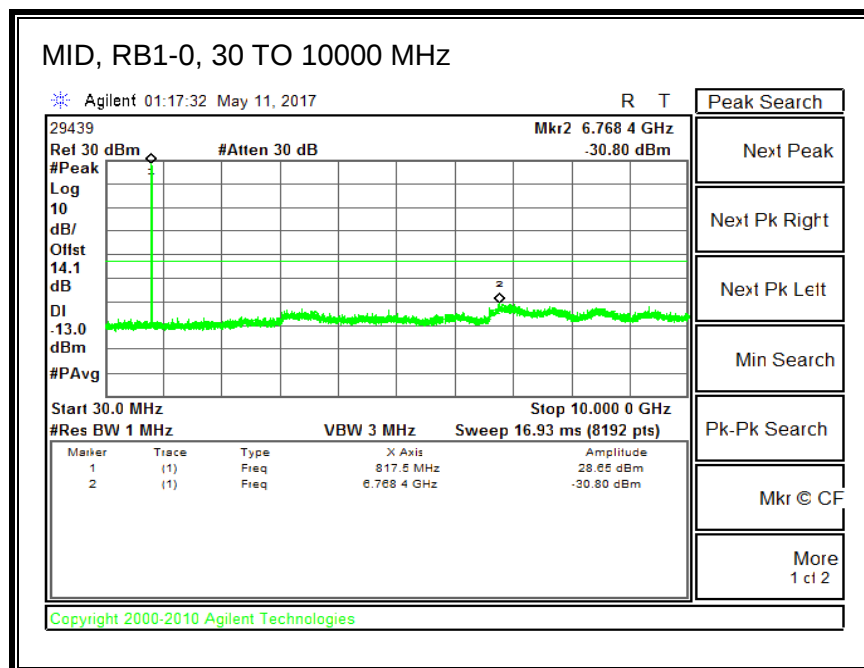
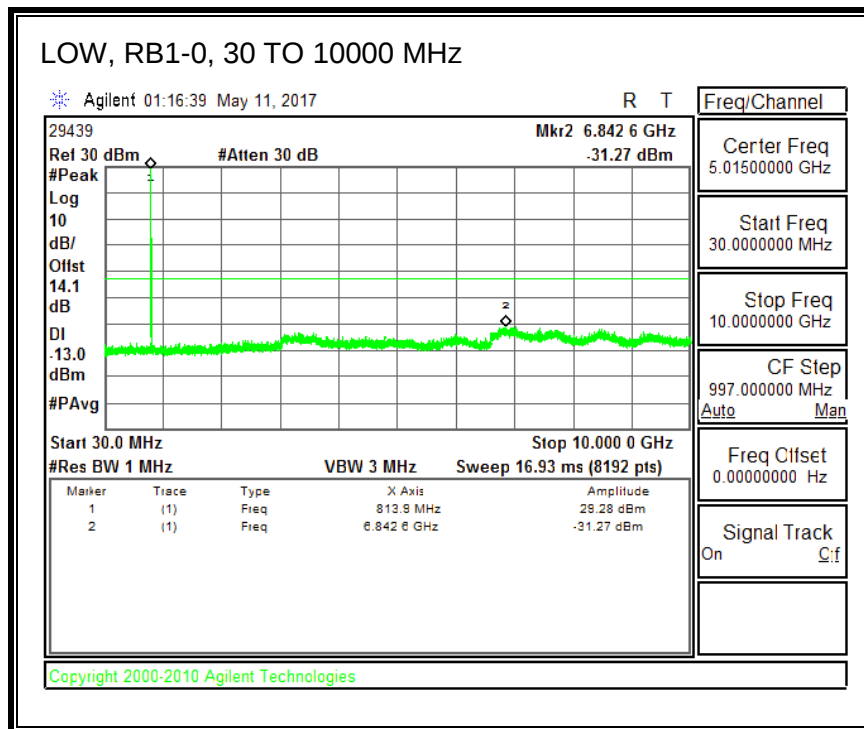


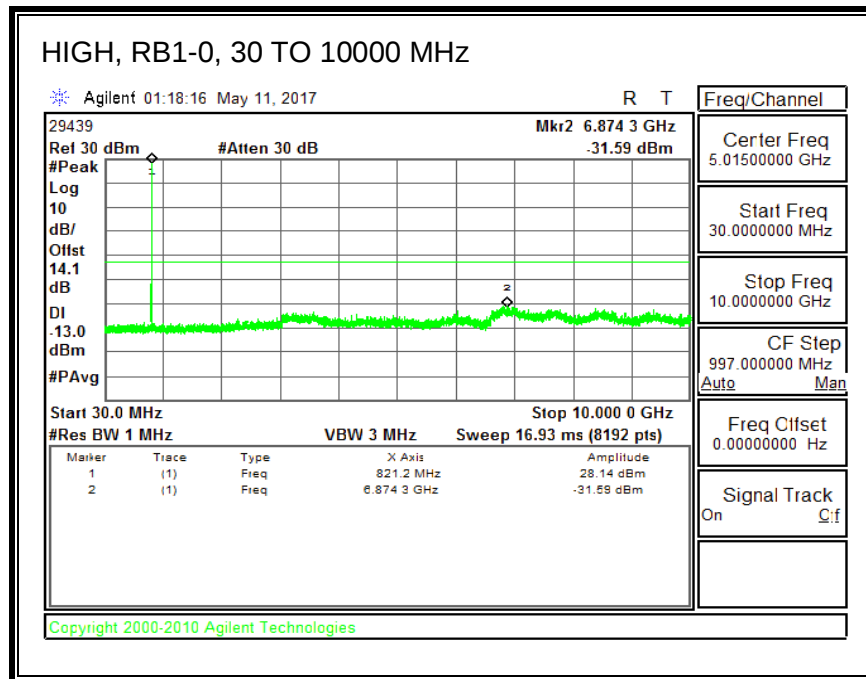
16QAM, (1.4 MHz BAND WIDTH)



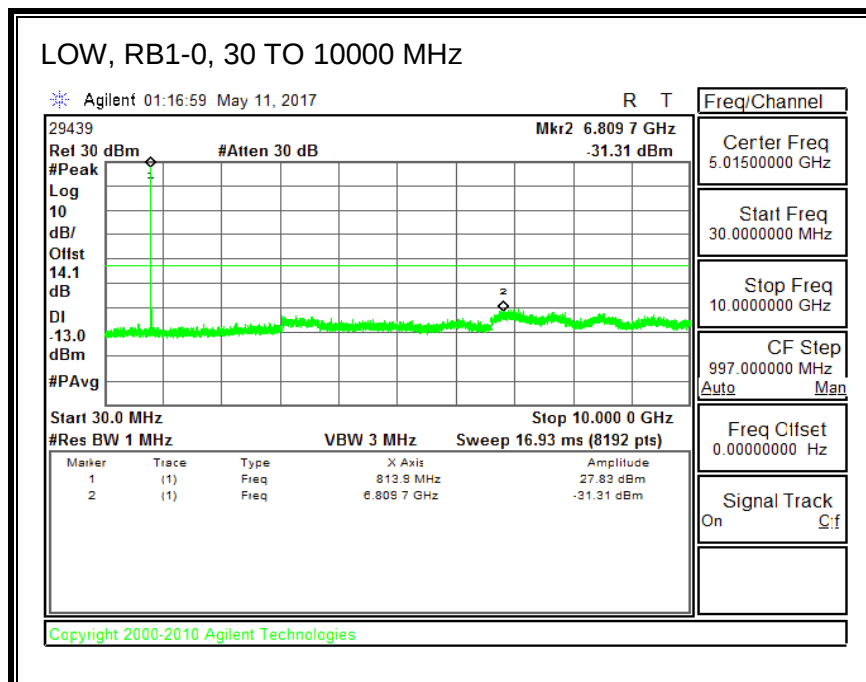


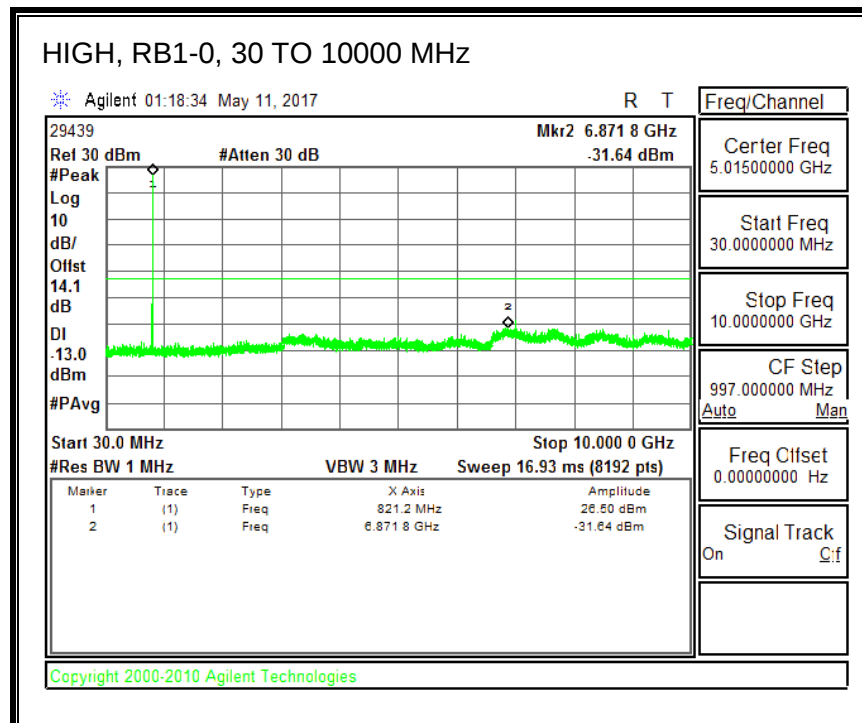
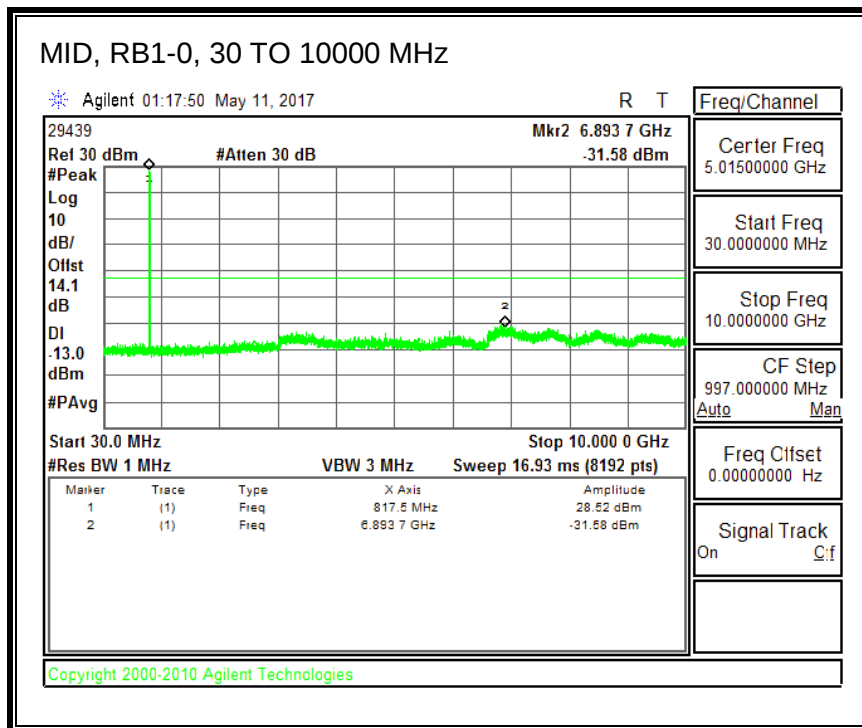
QPSK, (3.0 MHz BAND WIDTH)



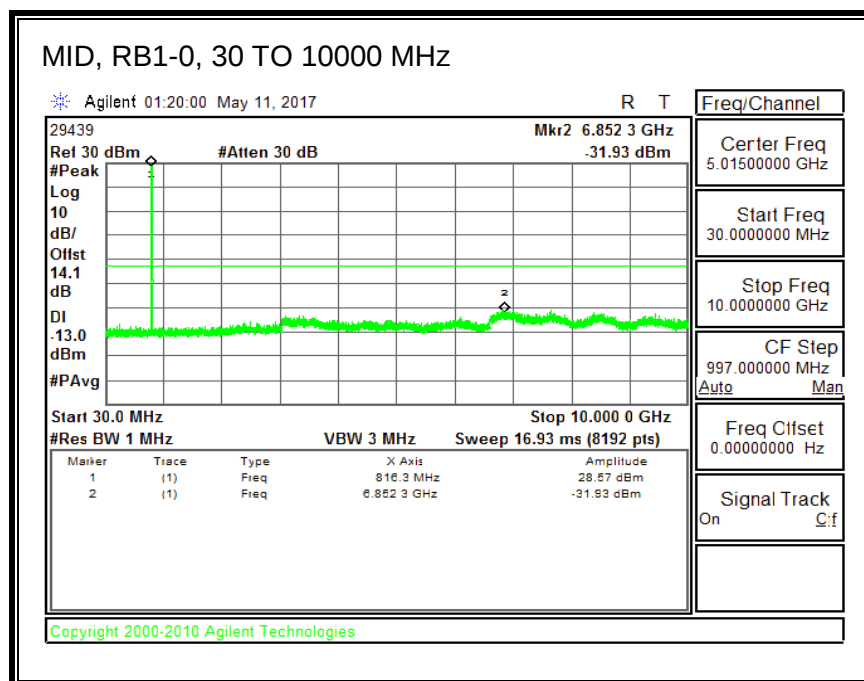
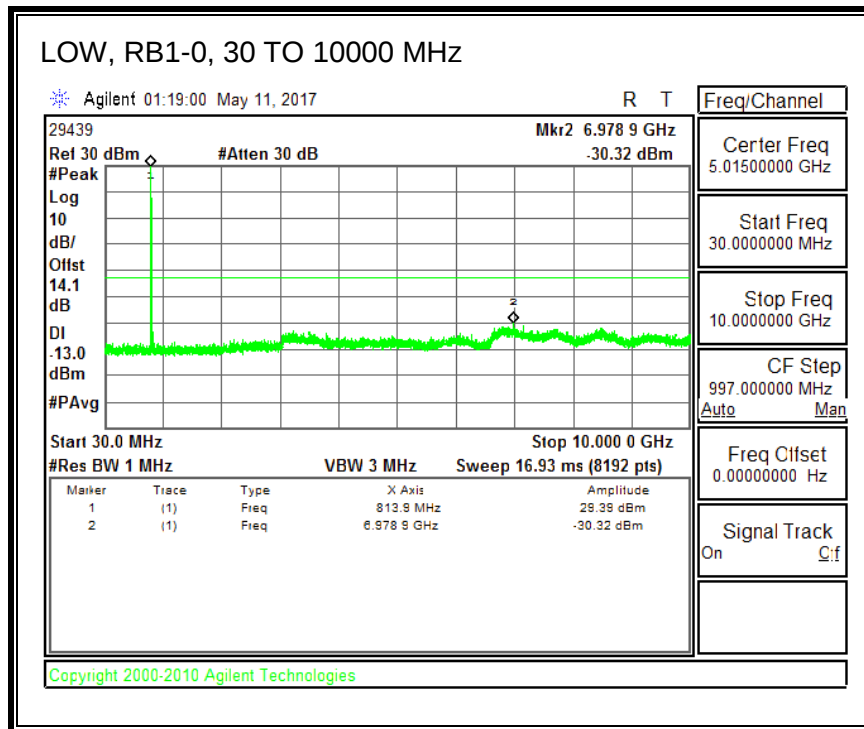


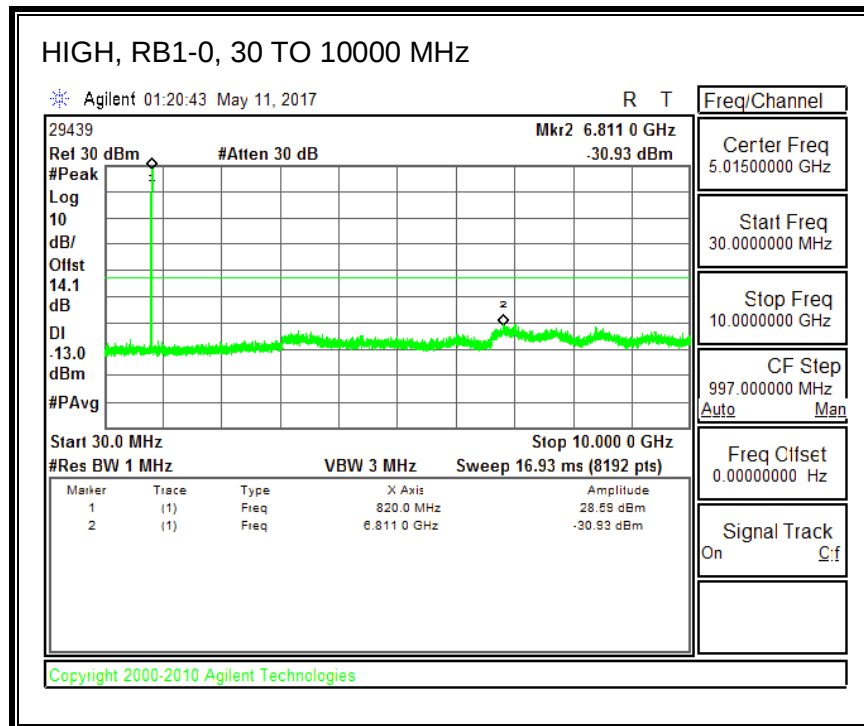
16QAM, (3.0 MHz BAND WIDTH)



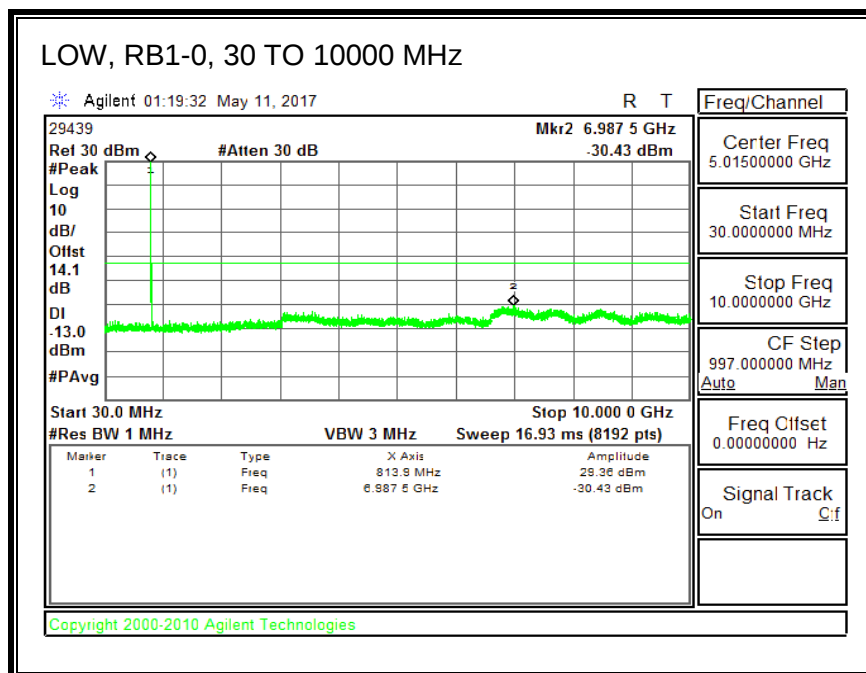


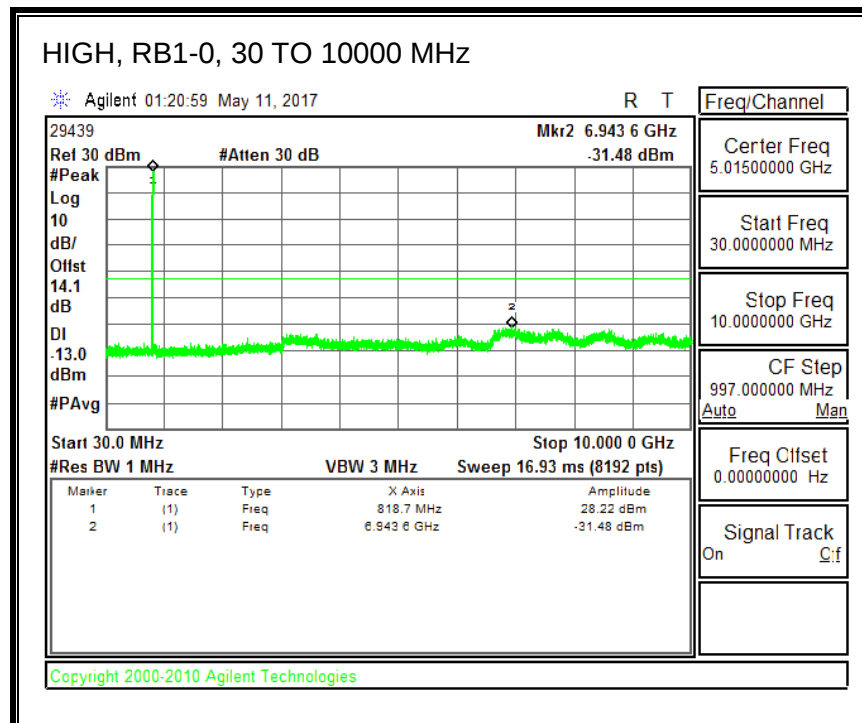
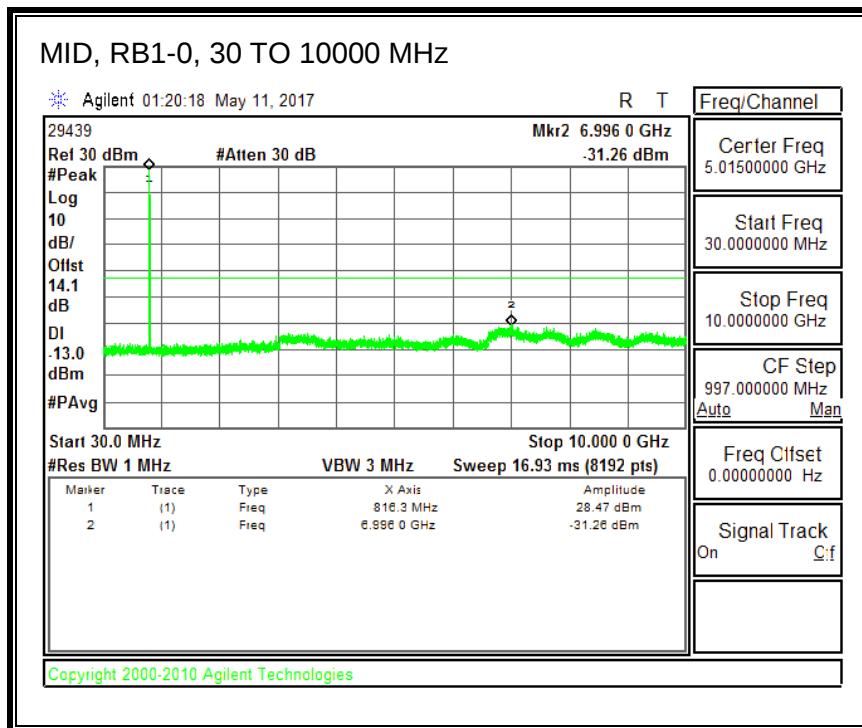
QPSK, (5.0 MHz BAND WIDTH)





16QAM, (5.0 MHz BAND WIDTH)





Agilent 01:21:26 May 11, 2017 R T

29439 Mkr2 6.746 5 GHz
Ref 30 dBm #Atten 30 dB -31.76 dBm

#Peak
Log
10
dB/
Offst
14.1
dB
DI
-13.0
dBm
#PAvg

Start 30.0 MHz Stop 10.000 0 GHz
#Res BW 1 MHz VBW 3 MHz Sweep 16.93 ms (8192 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	815.1 MHz	28.15 dBm
2	(1)	Freq	6.746 5 GHz	-31.76 dBm

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Agilent 01:21:44 May 11, 2017

29439

Ref 30 dBm #Atten 30 dB

Mkr2 6.885 2 GHz -31.46 dBm

#Peak Log 10 dB/ Offst 14.1 dB DI -13.0 dBm #PAvg

Start 30.0 MHz Stop 10.000 0 GHz

#Res BW 1 MHz VBW 3 MHz Sweep 16.93 ms (8192 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	815.1 MHz	27.92 dBm
2	(1)	Freq	6.885 2 GHz	-31.46 dBm

Freq/Channel

Center Freq 5.01500000 GHz

Start Freq 30.0000000 MHz

Stop Freq 10.0000000 GHz

CF Step 997.000000 MHz

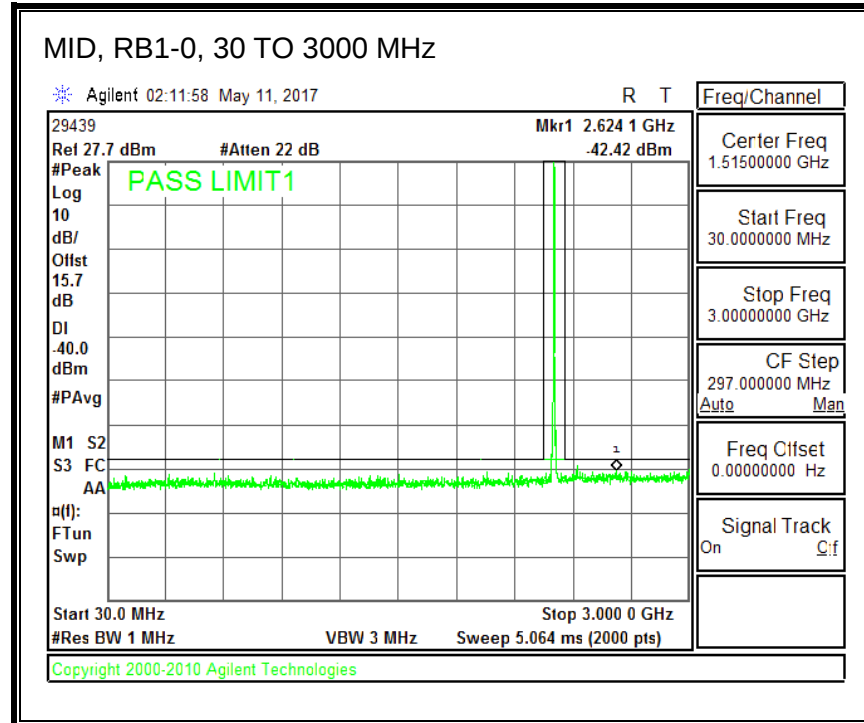
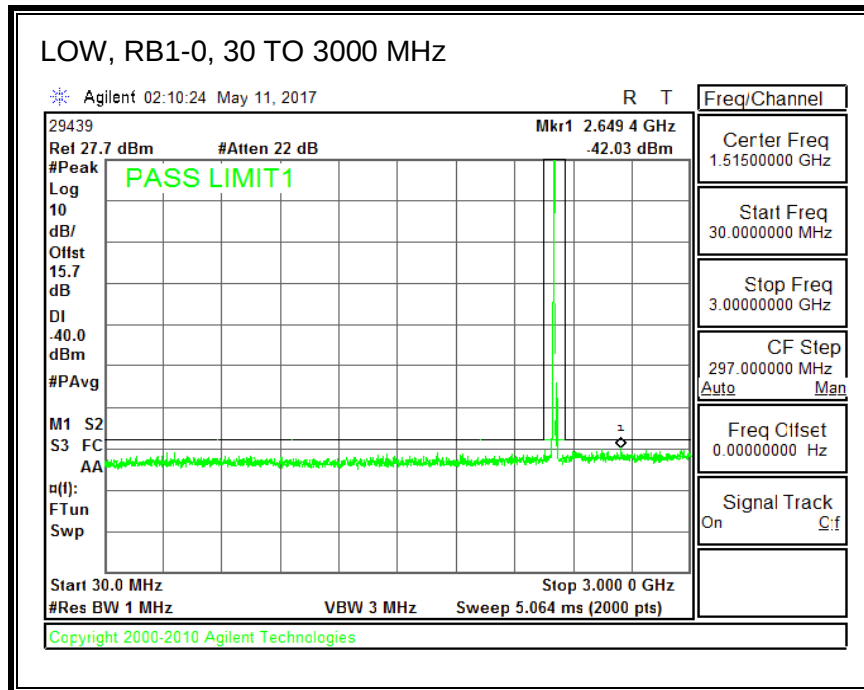
Auto Man

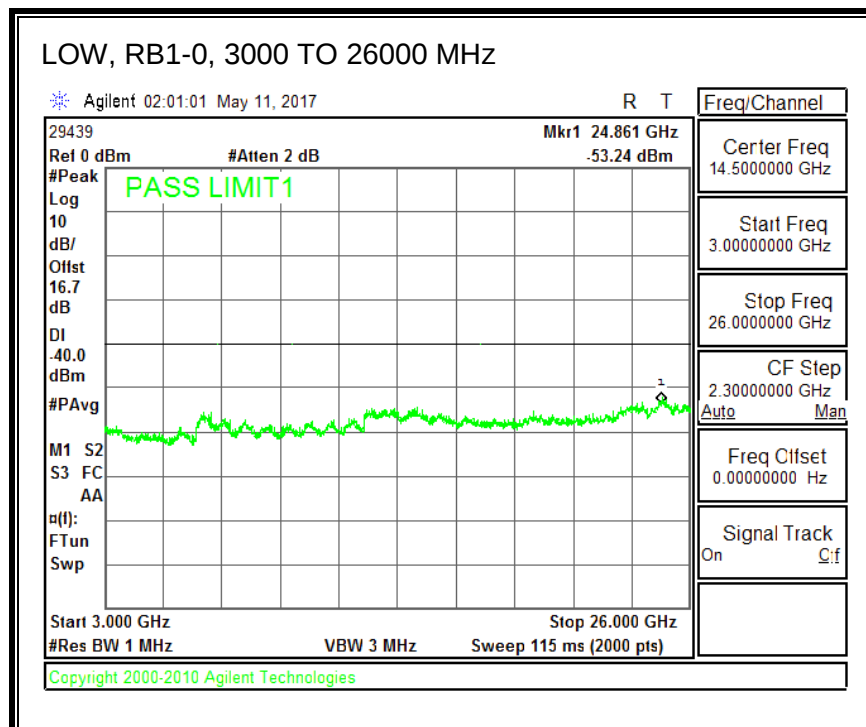
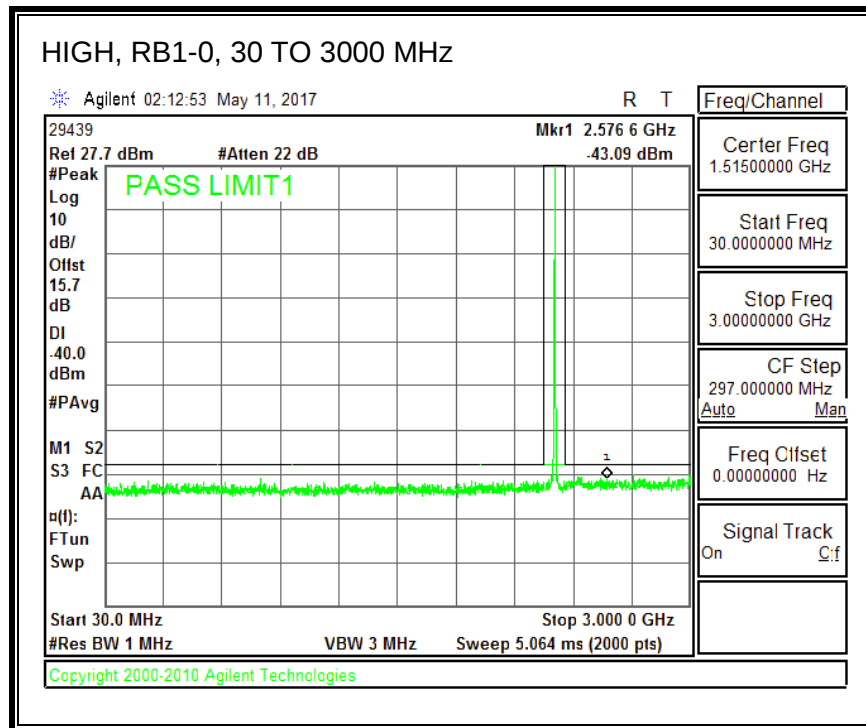
Freq Offset 0.0000000 Hz

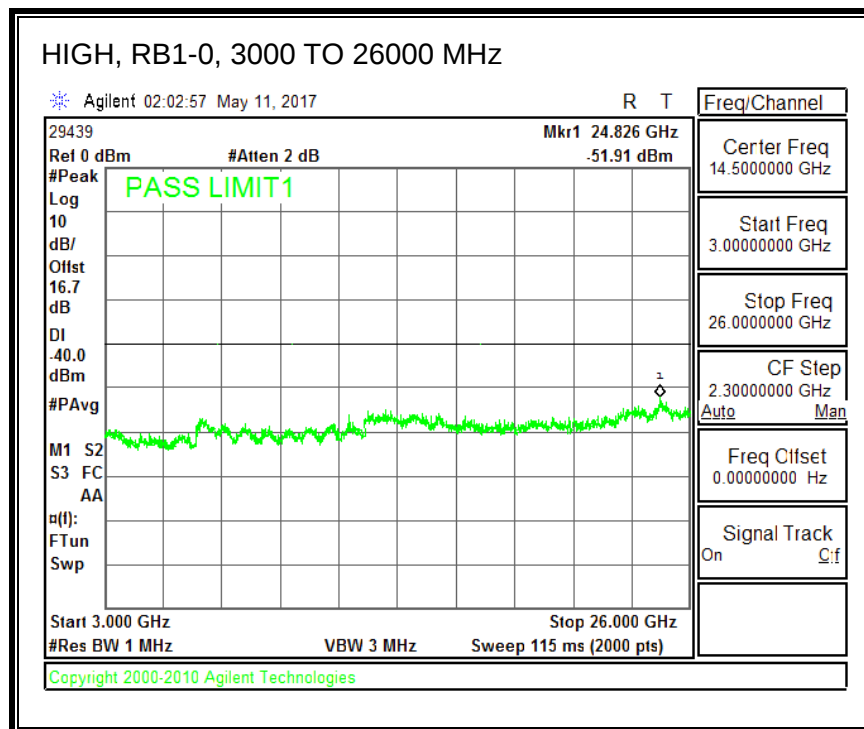
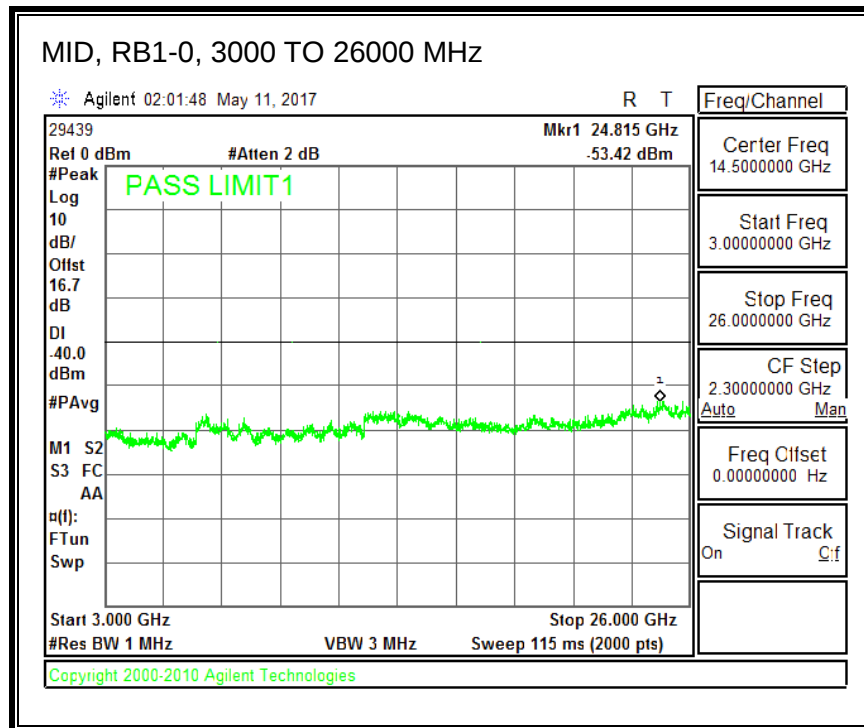
Signal Track On C:f

8.3.10. LTE BAND 30

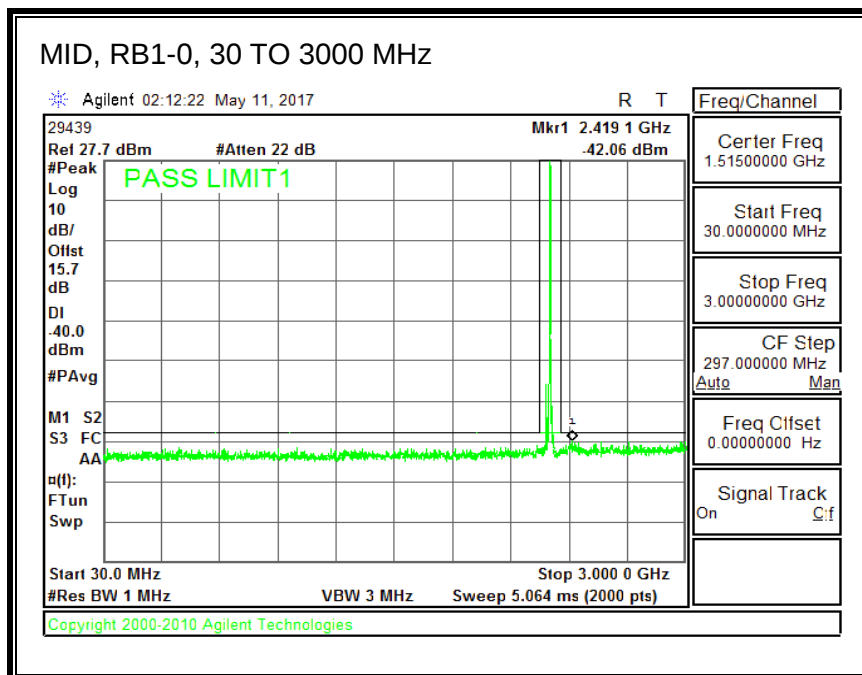
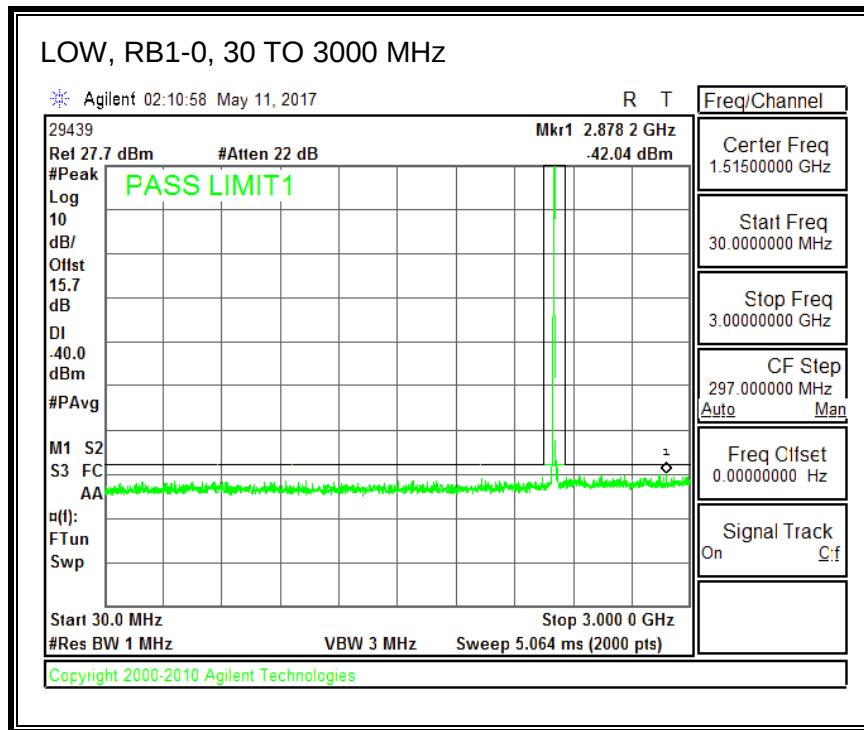
QPSK, (5.0 MHz BAND WIDTH)

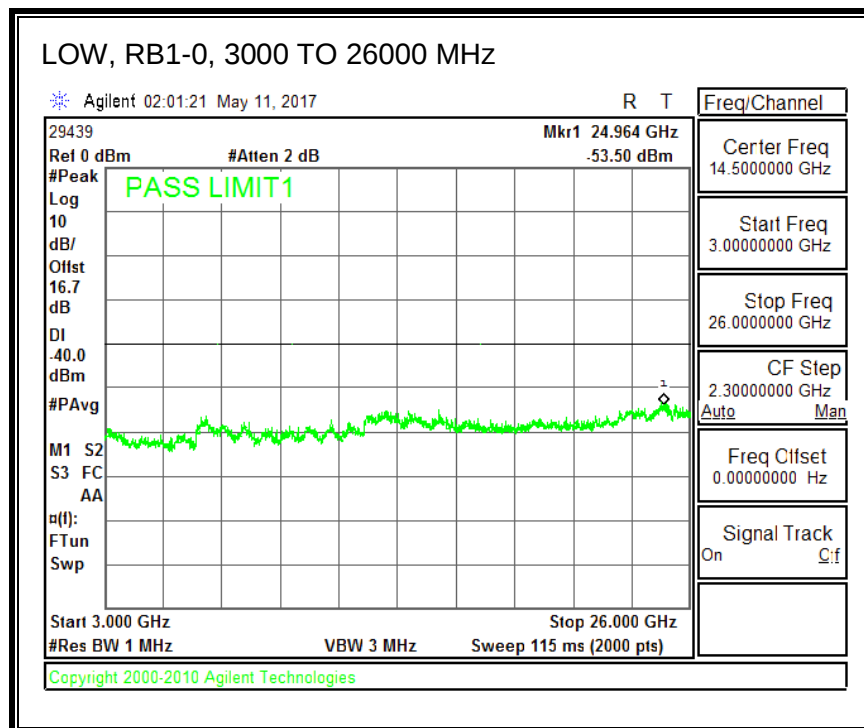
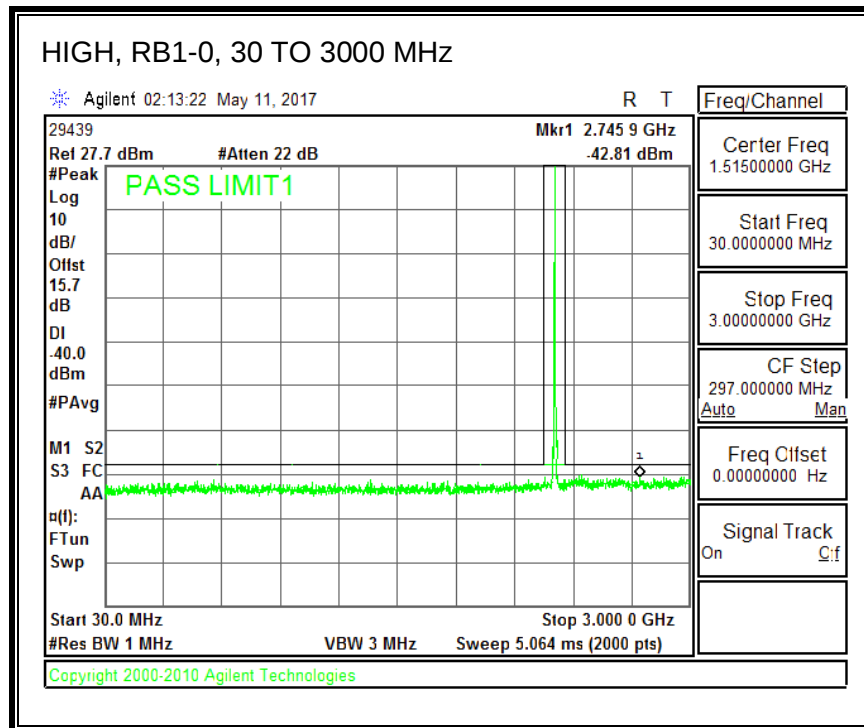


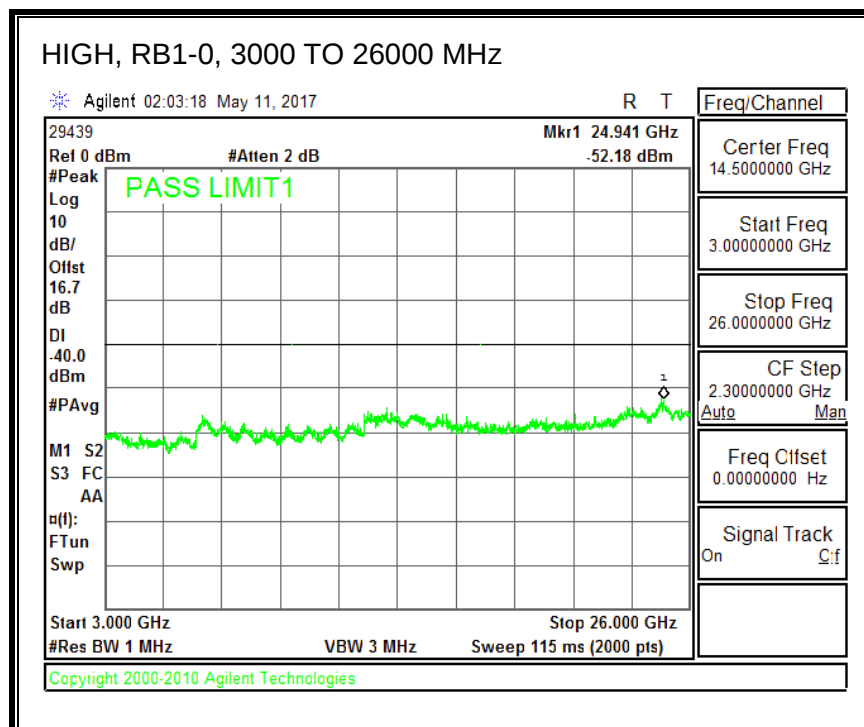
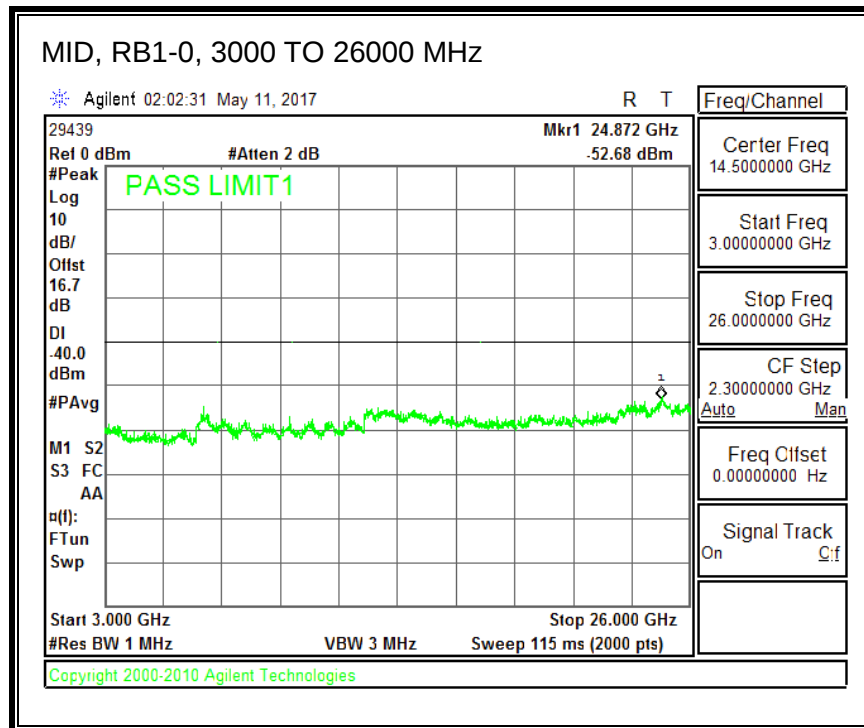




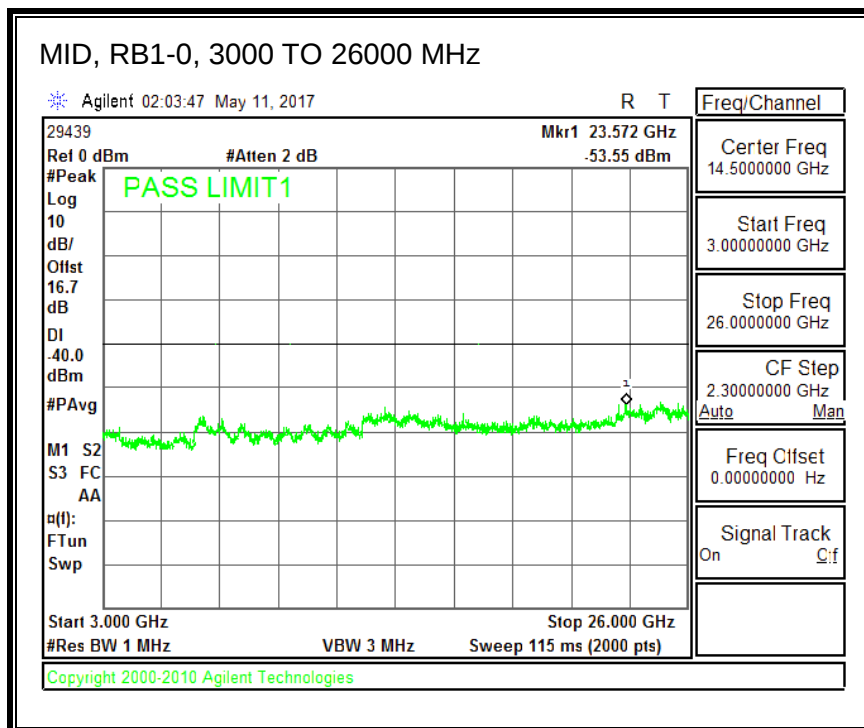
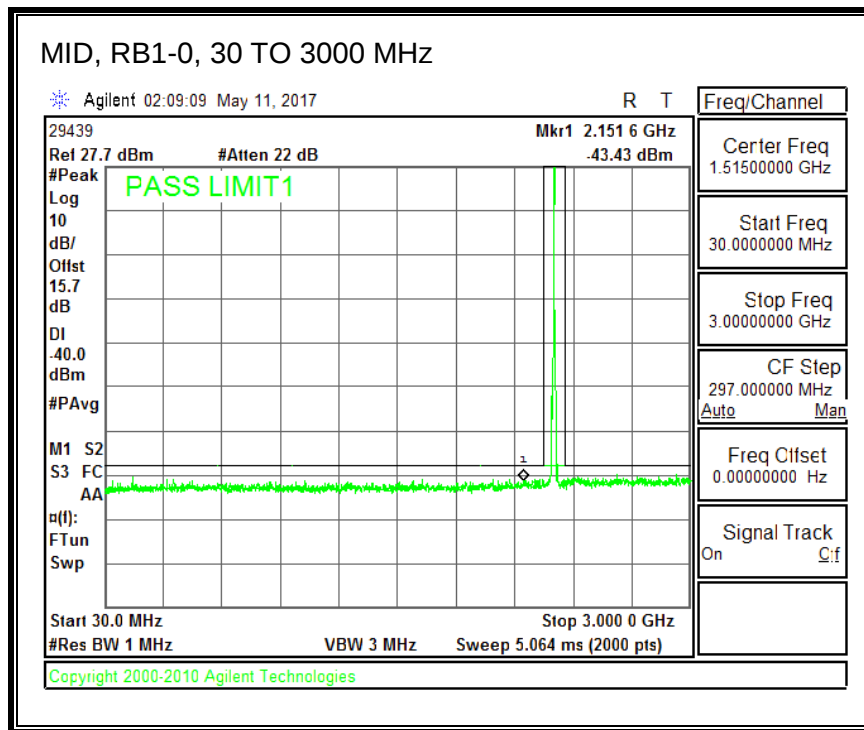
16QAM, (5.0 MHz BAND WIDTH)







QPSK, (10.0 MHz BAND WIDTH)



16QAM, (10.0 MHz BAND WIDTH)

