



REPORT No.: 4788743859-1

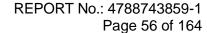
Page 55 of 164

8.4.3. 802.11n HT40 MODE

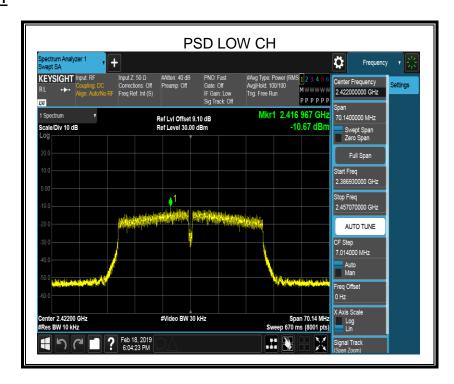
MIMO MODE

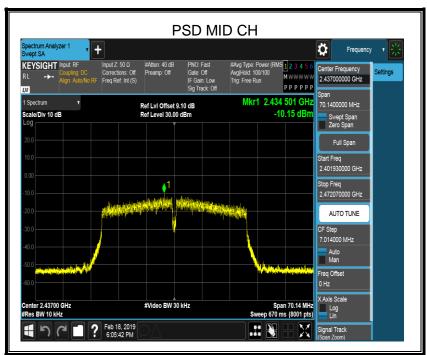
Frequency	ANT	Power Spectral Density (dBm/10kHz)		Limit
(MHz)		Single	Total	(dBm/3kHz)
Low	1	-10.67	-7.99	8
	2	-11.35		
Middle	1	-10.15	-7.40	
	2	-10.69		
High	1	-11.04	-8.50	
	2	-12.03		

Remark: For this product, it has two antennas, antenna1 and antenna2, the 802.11B SISO&802.11G SISO modes are use the SISO technical, but the ant1 and ant2 can transmitter in the same time under these modes. The 802.11N (HT20 & HT40) uses both the SISO and MIMO technical, pre-testing both the SISO and MIMO modes, only the data of worse case is shown in this report.

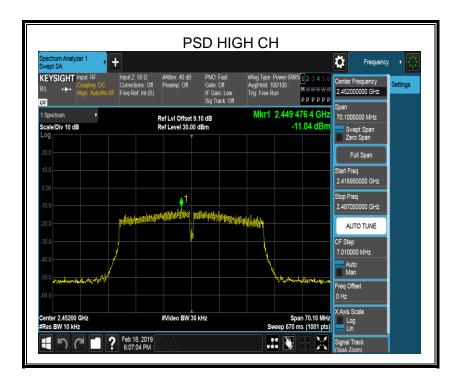






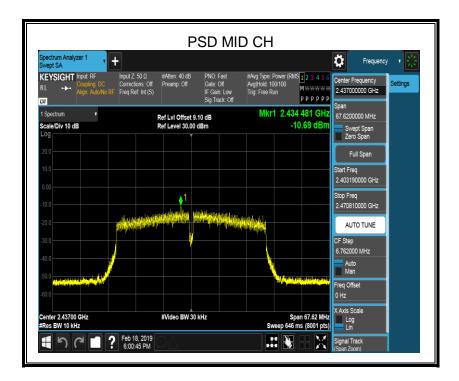


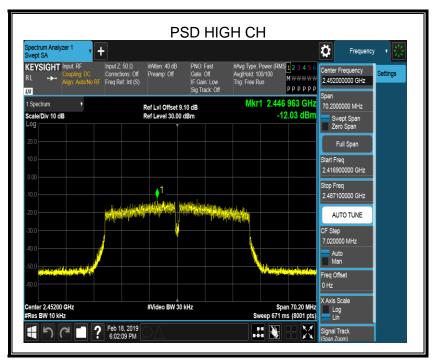














REPORT No.: 4788743859-1

Page 59 of 164

8.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C				
Section	Test Item	Limit		
CFR 47 FCC §15.247 (d)	Conducted Bandedge and Spurious Emissions	at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power		

Remark: For this product, it has two antennas, antenna1 and antenna2, the 802.11B SISO&802.11G SISO modes are use the SISO technical, but the ant1 and ant2 can transmitter in the same time under these modes. The 802.11N(HT20&HT40) uses both the SISO and MIMO technical, pre-testing both the SISO and MIMO modes, only the data of worse case is shown in this report.

TEST PROCEDURE

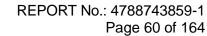
Connect the UUT to the spectrum analyser and use the following settings:

Center Frequency	The centre frequency of the channel under test	
Detector	Peak	
RBW	100K	
VBW	≥3 × RBW	
Span	1.5 x DTS bandwidth	
Trace	Max hold	
Sweep time	Auto couple.	

Use the peak marker function to determine the maximum PSD level.

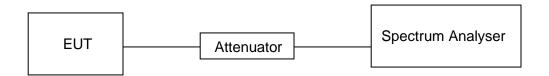
Span	Set the center frequency and span to encompass frequency range to be measured	
Detector	Peak	
RBW	100K	
VBW	≥3 × RBW	
measurement points	≥span/RBW	
Trace	Max hold	
Sweep time	Auto couple.	

Use the peak marker function to determine the maximum amplitude level.





TEST SETUP



TEST ENVIRONMENT

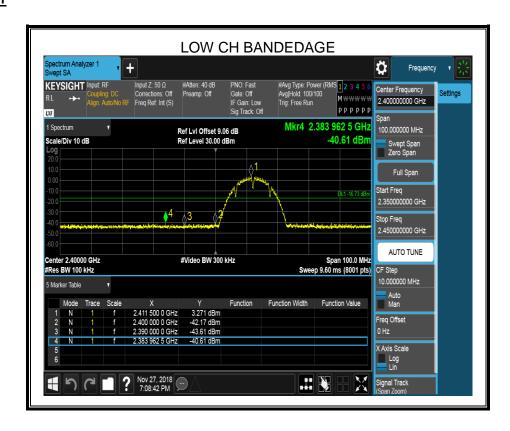
Temperature	25°C	Relative Humidity	58%
Atmosphere Pressure	101kPa	Test Voltage	DC 12.0V

RESULTS

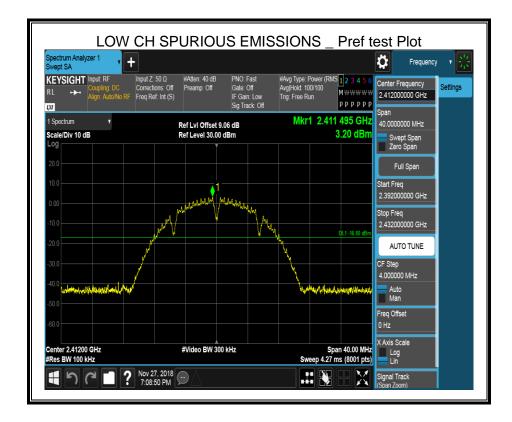


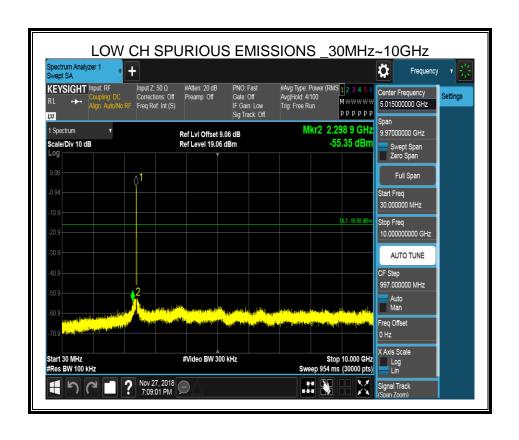
8.5.1. 802.11b MODE

SISO MODE

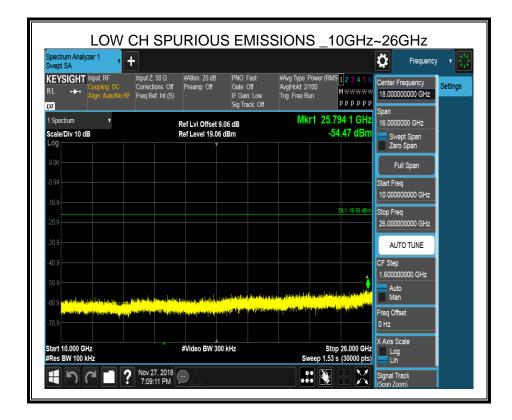


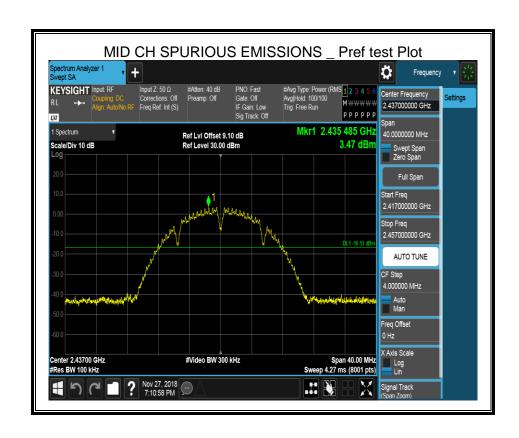




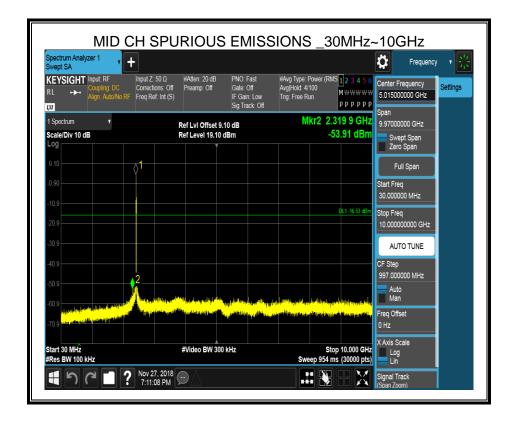


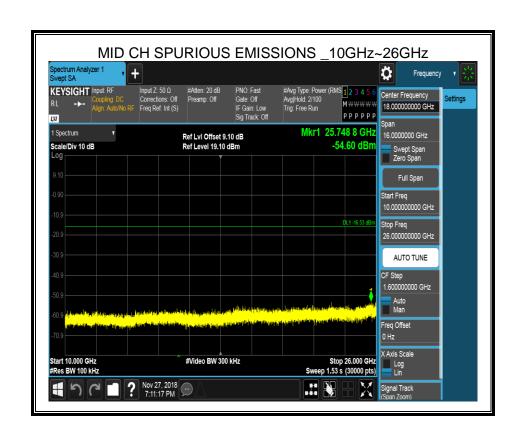




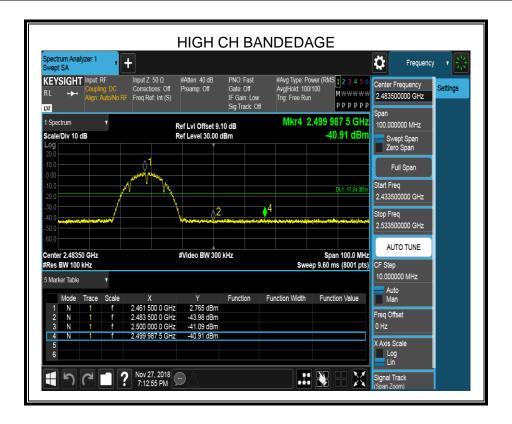


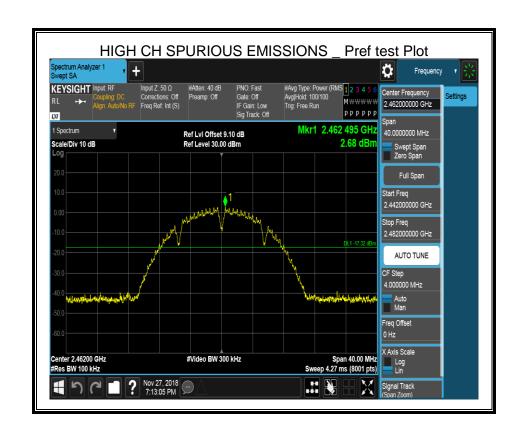




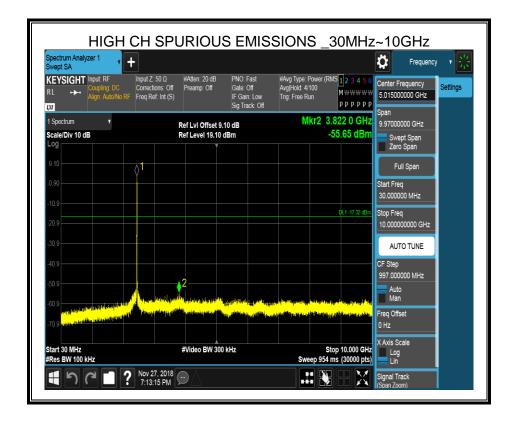


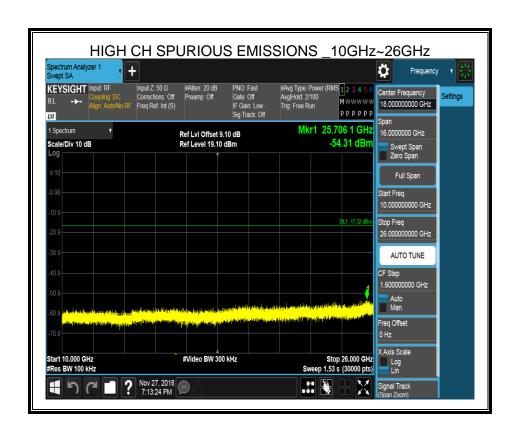






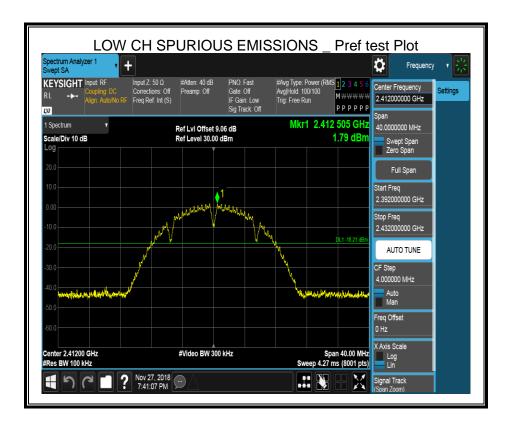




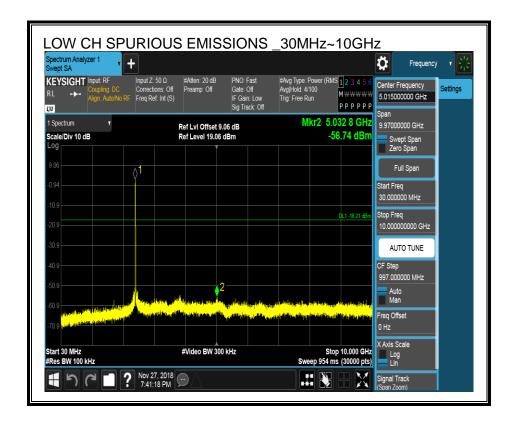


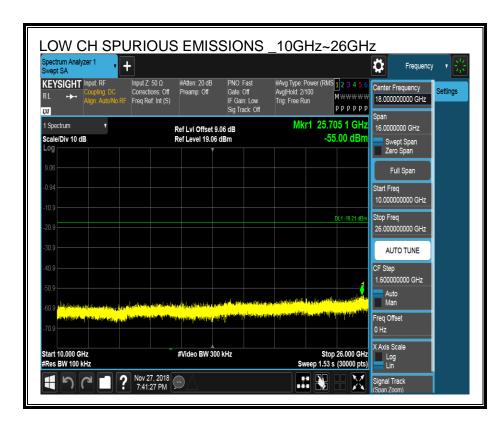






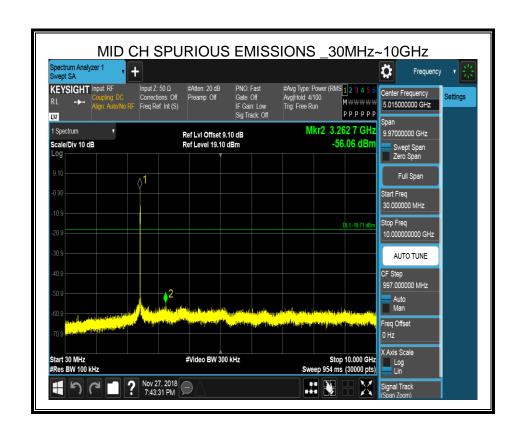




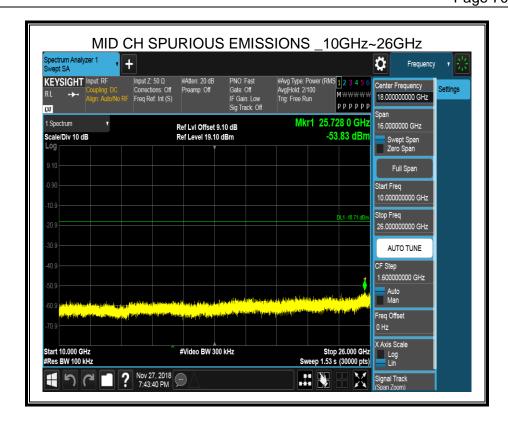




MID CH SPURIOUS EMISSIONS _ Pref test Plot Ö Frequency #Avg Type: Power (RMS 1 2 3 4 5 Avg|Hold: 100/100 Trig: Free Run PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) KEYSIGHT Input RF #Atten: 40 dB Settings MWWW PPPPPP LXI Mkr1 2.436 495 GHz 1 Spectrum 40.0000000 MHz Ref LvI Offset 9.10 dB Ref Level 30.00 dBm 1.29 dBr Scale/Div 10 dB Swept Span Zero Span Full Span Start Freq 2.417000000 GHz 2.457000000 GHz AUTO TUNE CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz X Axis Scale Span 40.00 MHz Center 2.43700 GHz #Video BW 300 kHz Log Lin #Res BW 100 kHz Sweep 4.27 ms (8001 pts) ? Nov 27, 2018 7:43:21 PM # # Signal Track

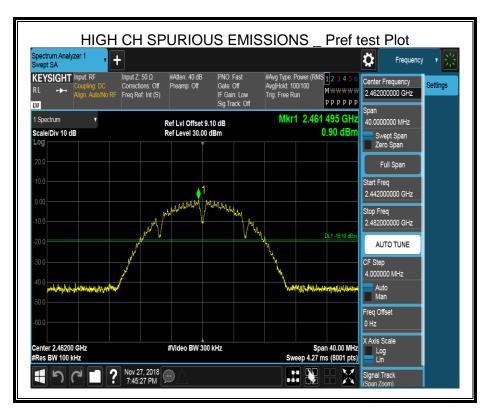






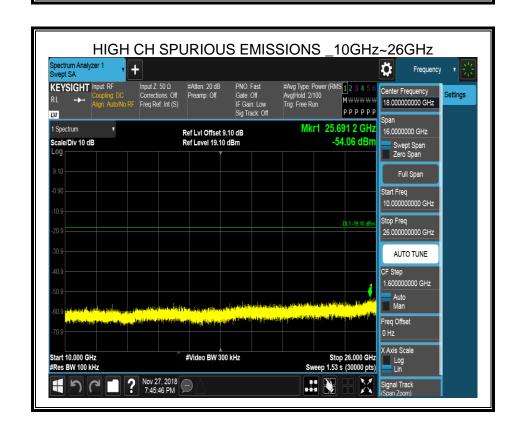








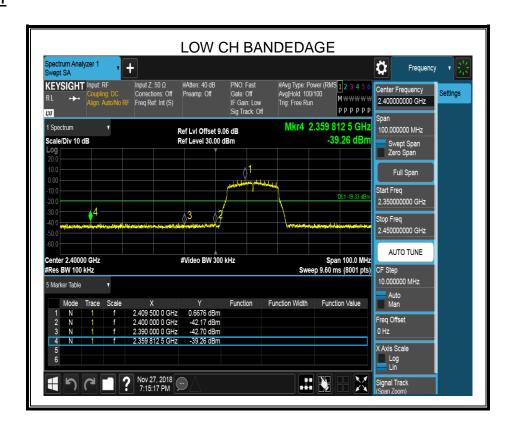
HIGH CH SPURIOUS EMISSIONS _ _30MHz~10GHz Spectrum Analyzer 1 Swept SA Ö + Input Z: 50 Ω Corrections: O #Avg Type: Power (RMS 1 2 3 4 5 Avg|Hold: 3/100 Trig: Free Run KEYSIGHT Input RF Corrections: Off Freq Ref: Int (S) Settings 5.015000000 GHz IF Gain: Low PPPPPP LXI Mkr2 3.863 3 GHz Ref Lvl Offset 9.10 dB Ref Level 19.10 dBm 1 Spectrum 9.97000000 GHz -56.50 dBm Scale/Div 10 dB Swept Span Zero Span Full Span Start Freq 30.000000 MHz Stop Freq 10.000000000 GHz AUTO TUNE 997.000000 MHz Auto Man Freq Offset #Video BW 300 kHz Stop 10.000 GHz Log Lin Sweep 954 ms (30000 pts) ? Nov 27, 2018 7:45:37 PM # ₹

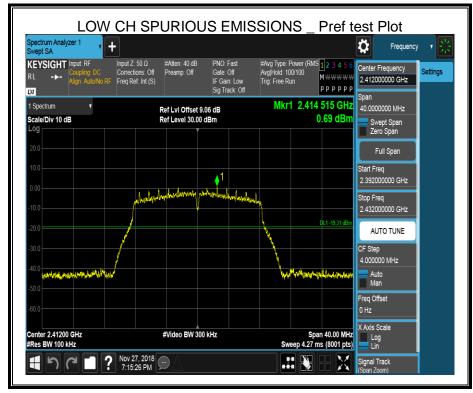




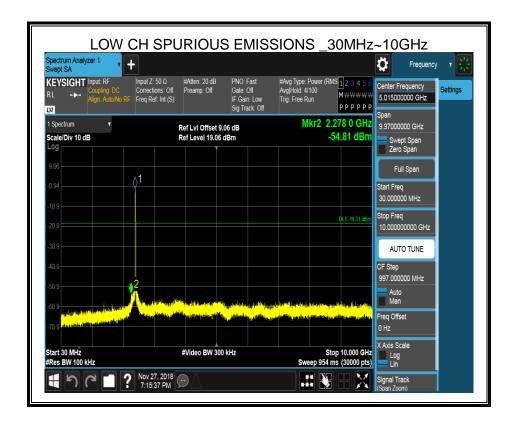
8.5.2. 802.11g MODE

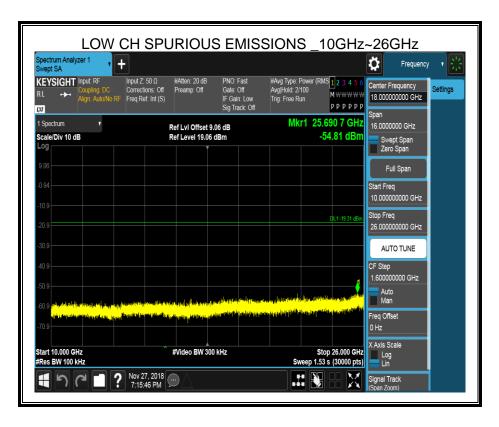
SISO MODE



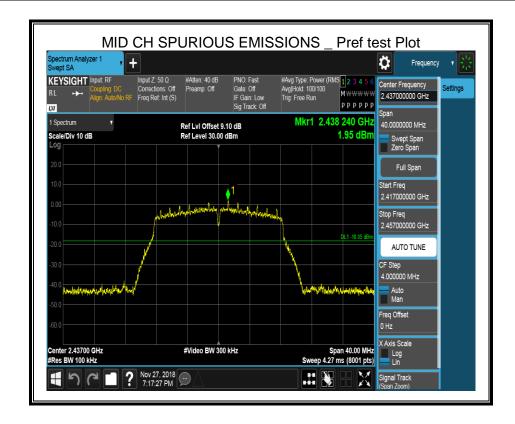


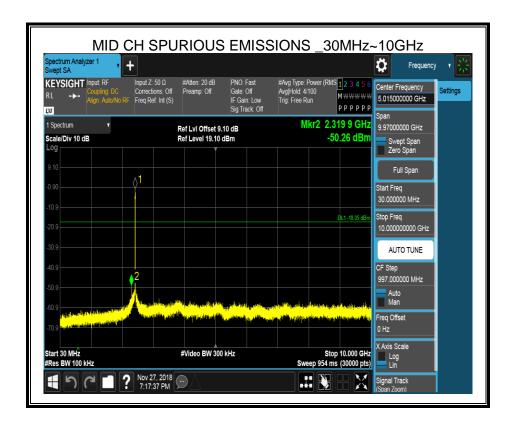




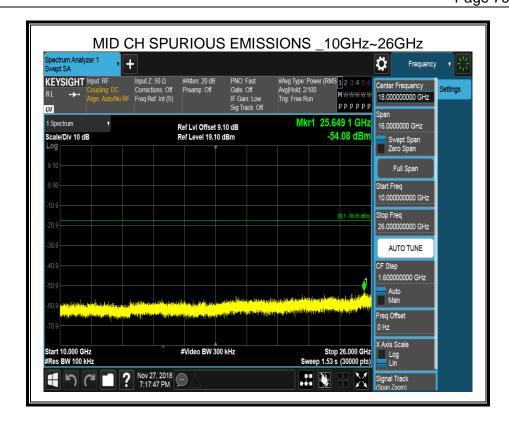






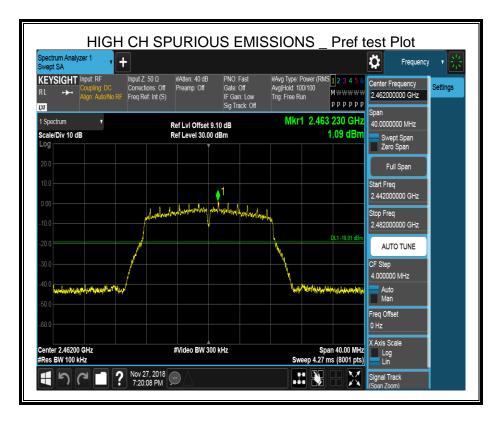




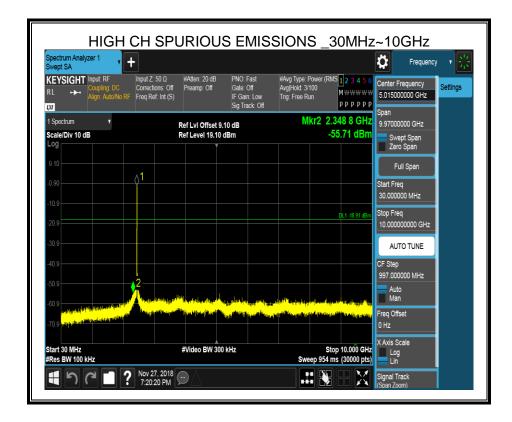


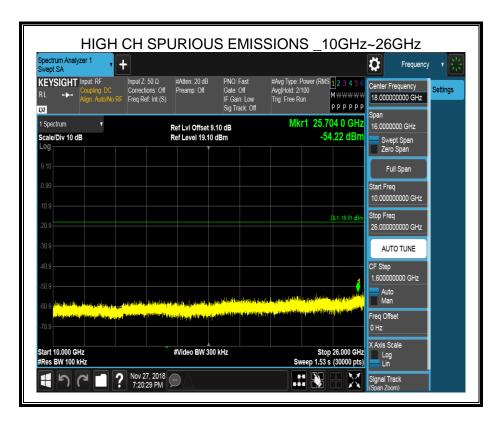




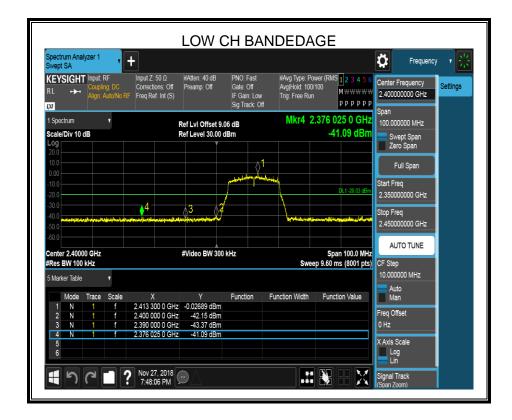






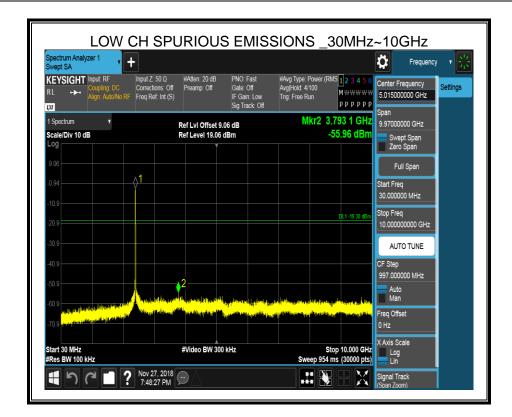


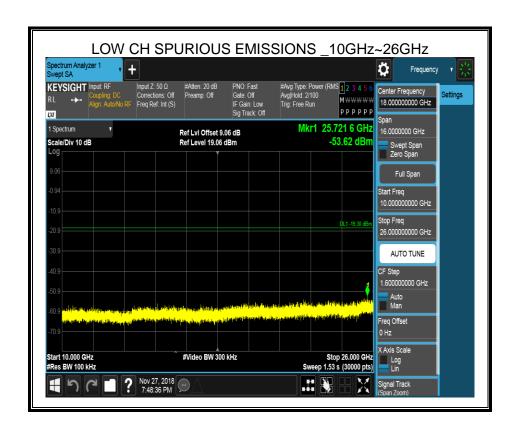














Page 81 of 164

