

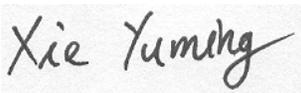
# FCC MEASUREMENT AND TEST REPORT

For

## ZTE Corporation

ZTE Plaza, Hi-tech Park, Nanshan District, Shenzhen,  
Guangdong, China 518057

FCC ID: Q78-R8984ES5100

<b>This Report Concerns:</b> <input checked="" type="checkbox"/> Original Report	<b>Equipment Type:</b> OFDM MIMO Access Point
<p>Test Engineer: Jennie.He </p> <p>Report No: RF20151273RP</p> <p>Test Date: Apr 10 –May 8, 2016</p> <p>Reviewed By: </p> <p>Prepared By: ZTE Corporation.          ZTE Plaza, Hi-tech Park, Nanshan District, Shenzhen,          Guangdong, China 518057, P.R.China Tel: +86-755-26770000          Fax: +86-755-26771999</p>	

Note: The test report is specially limited to the above company and this particular sample only. It may not be duplicated without prior written consent of ZTE Corporation. This report must not be used by the client to claim product certification 、 approval 、 or endorsement by any agency of the US Government.

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# 1 GENERAL INFORMATION

## Product Description for Equipment Under Test (EUT)

The ZTE Corporation's product, model number: ZXSDR R8984E S5100 or the "EUT" as referred to in this report is a OFDM MIMO Access Point.

### Technical specification:

Total Weight: 19kg

Volume: 19L

Dimensions (H\*W\*D): 425 mm x300 mm x 150 mm

Input voltage: -48VDC (-57VDC to -37VDC)

Frequency range: 5150MHz~5250 MHz

Carrier and bandwidth: 1carrier, 20MHz; 4carriers, 20+20+20+20MHz

Max RF output power: 160mW one port

Modulation type of emission: OFDM MIMO Access Point

Appearance of EUT:



Figure 1 External View of the ZXSDR R8984E S5100

## Objective

This Type approval report is prepared on behalf of ZTE Corporation in accordance with Part 2、 Part 15of the Federal Communication Commission rules.

## Related Submittal(s)/GrPort(s)

No related submittal(s).

## Test Methodology

All tests and measurements indicated in this document were performed in accordance with the Code of federal Regulations Title 47 Part 2. as well as the following parts:

Part 24 Wireless Communication Services

Applicable Standards: TIA EIA 137-A, TIA EIA 97-D, TIA/EIA 603-C, Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

All radiated and conducted measurement was performed at ZTE Corporation Reliability Testing Center. The radiated testing was performed at an Portenna-to-EUT distance of 3 meters.

## Test Facility

The Test site used by ZTE Corporation to collect test data is located in the 1/F,B2 Wing, ZTE Plaza, Keji Road South, Shenzhen, Guangdong, 518057, P.R.China, Tel: +86-755-26771609,Fax: +86-755-26770347. Test site at ZTE Corporation has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 373926. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

# 2 SYSTEM TEST CONFIGURATION

## Description of Test Configuration

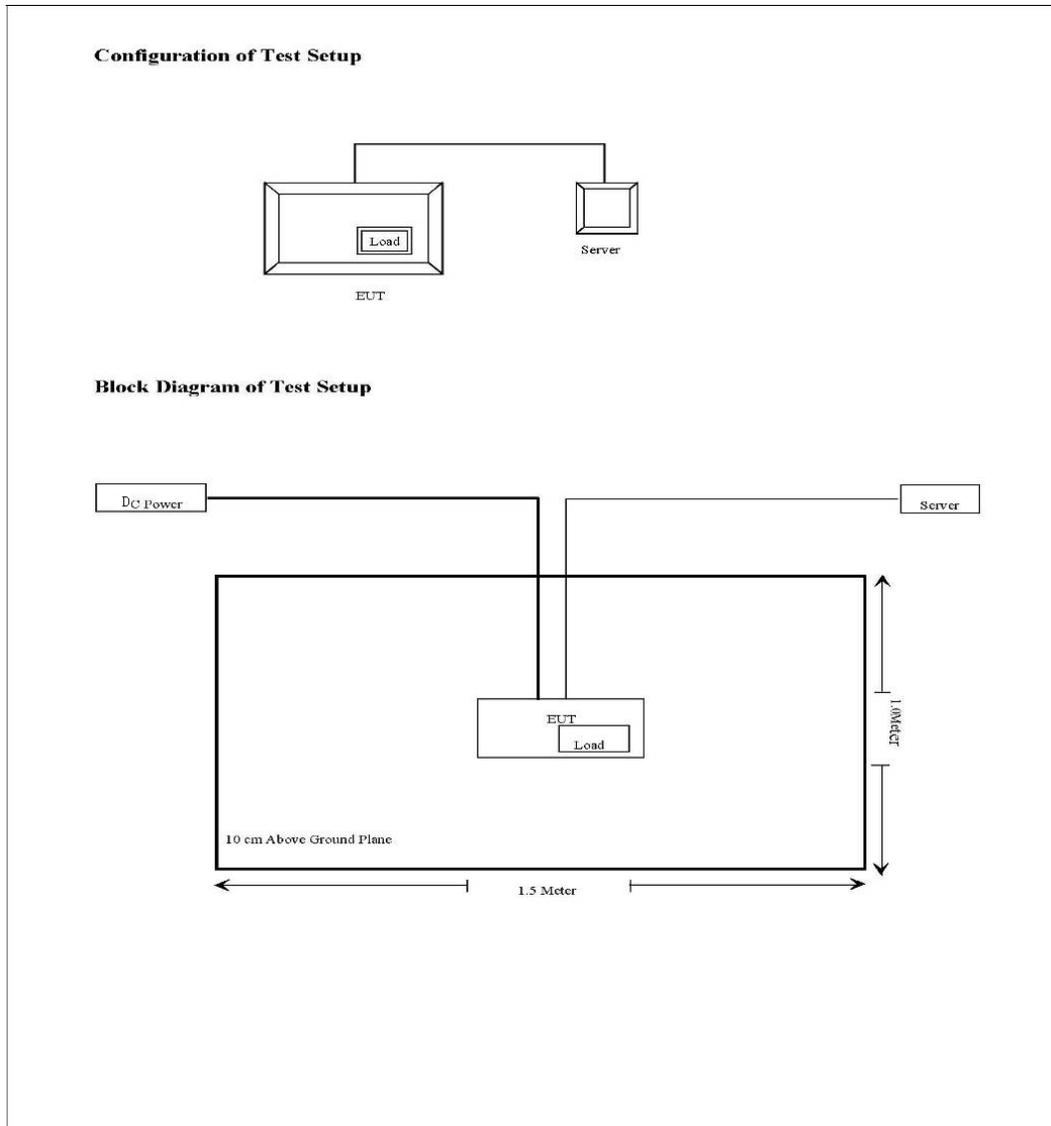
### Justification

The EUT was configured for testing according to TIA/EIA-603C.

The final qualification test was performed with EUT operating at normal mode.

### Equipment Modifications

ZTE Corporation has not done any modification on the EUT.



### 3 SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§2.1049	Occupied Bandwidth	Compliance
§15.407(a)	RF power output	Compliance
§15.407(a)	Power Spectral density	Compliance
§15.407(b)	Spurious emissions	Compliance
§15.407(g)	Frequency stability	Compliance

## 4 OCCUPIED BANDWIDTH

### Applicable Standard: FCC §2.1049

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power.

### Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51240300	2015.12.10	2016.12.10
Grentech	10dB Attenuator	SGR-SJQ-10	09112005	2015.06.13	2016.06.13

**\*statement of traceability:** ZTE Corporation Reliability Testing Center attests that all calibration has been performed per the NVLAP requirements, traceable to NIST.

### Test Procedure

The RF out of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation. 99%Power bandwidth was recorded.

### Environmental Conditions

Temperature:	20 ° C
Relative Humidity:	53%
ATM Pressure:	1009mbar

**Test Result:** Pass**Test Mode:** Transmitting OFDM MIMO Access Point**Test Data**

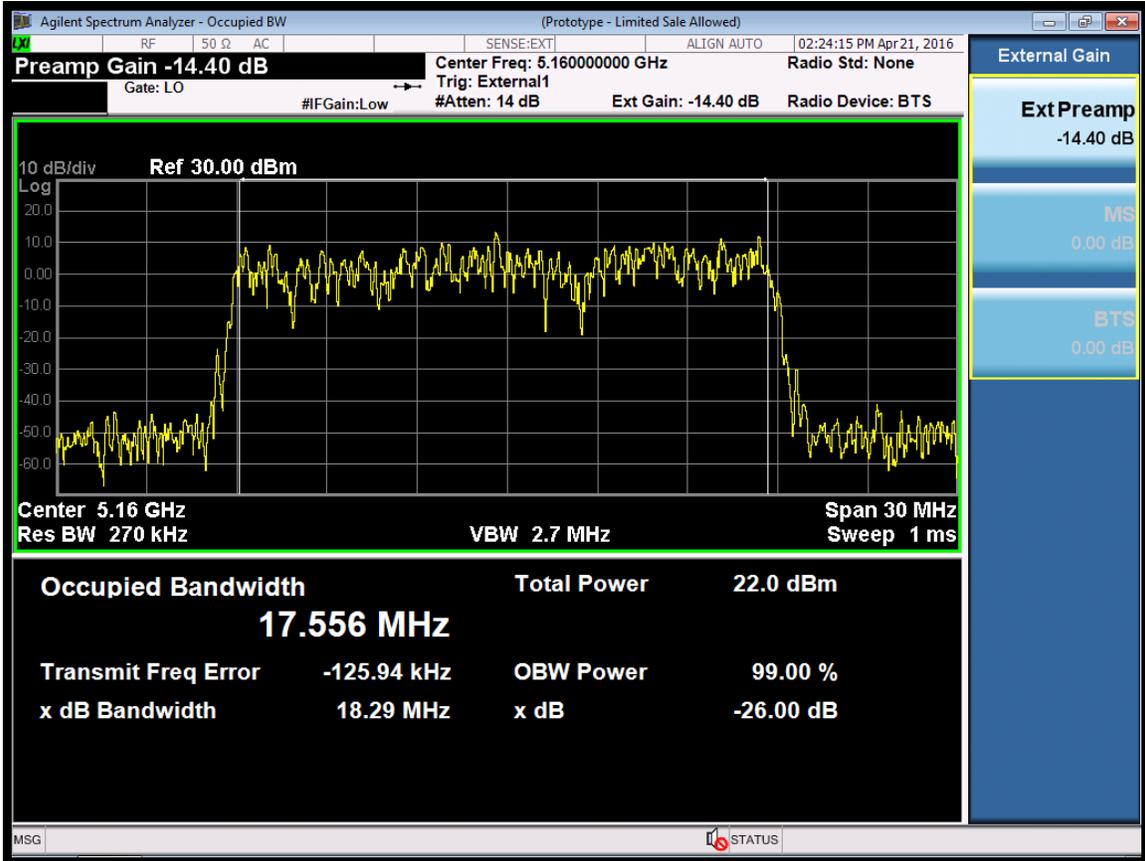
Channel Bandwidth: 20M

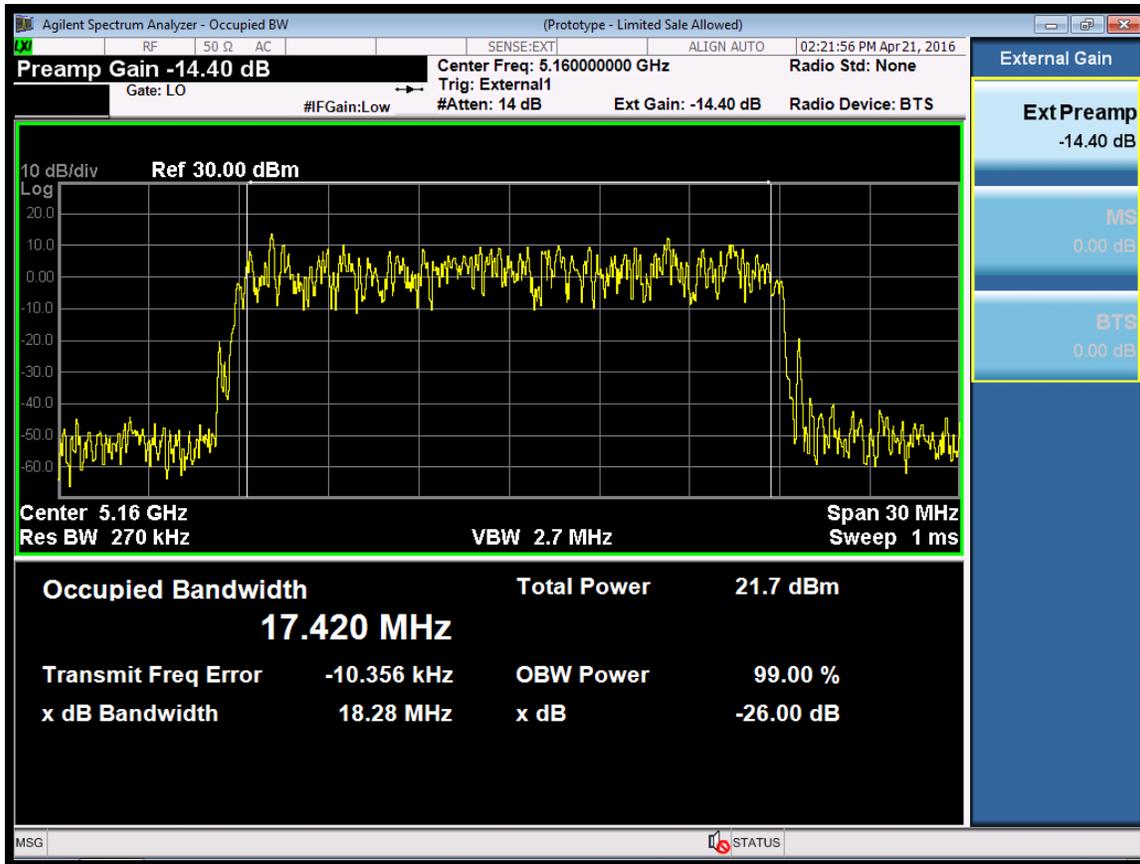
Port	Carrier Freq. (MHz)	Occupied Bandwidth(MHz)		
		QPSK	16QAM	64QAM
0	5160	17.556	17.42	17.781
1		17.555	17.402	17.775
2		17.556	17.414	17.777
3		17.561	17.418	17.781
0	5200	17.566	17.404	17.785
1		17.563	17.419	17.788
2		17.566	17.410	17.786
3		17.568	17.403	17.787
0	5240	17.561	17.417	17.781
1		17.559	17.394	17.78
2		17.554	17.386	17.773
3		17.565	17.42	17.785

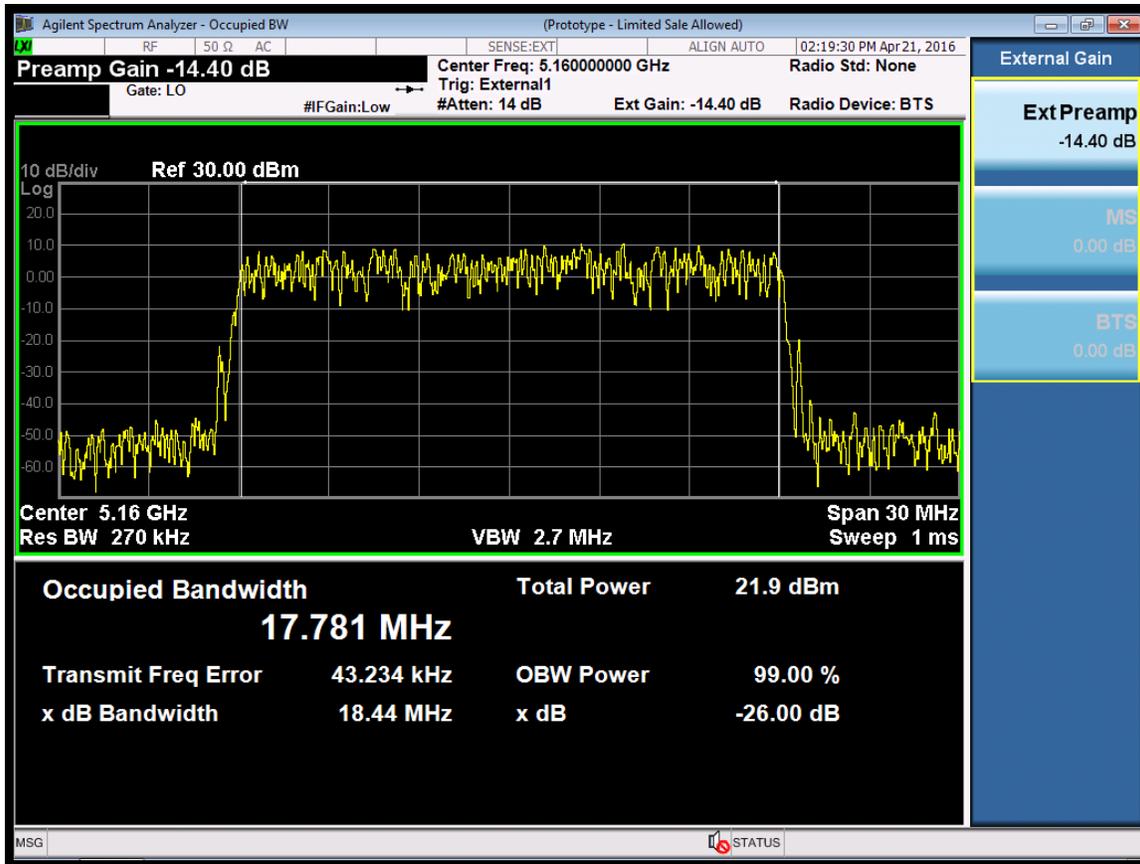
Channel Bandwidth: 20+20+20+20M

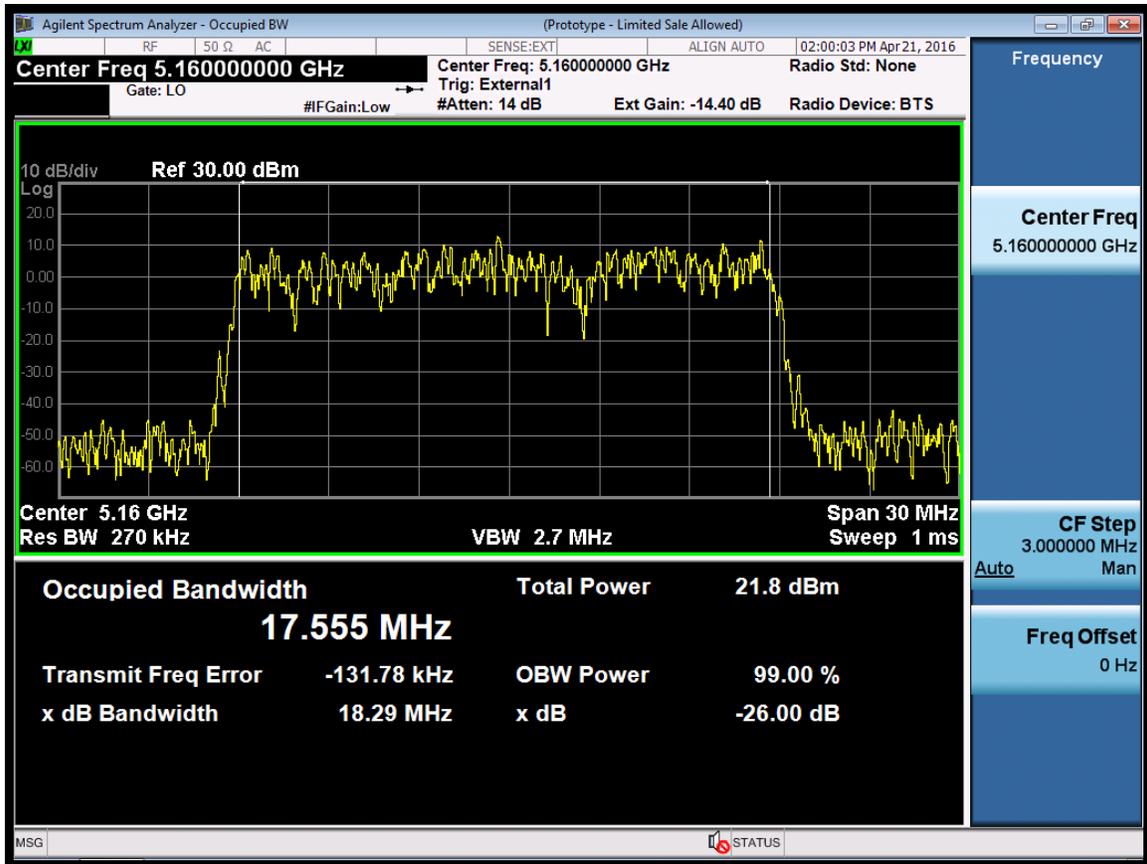
Port	Carrier Freq. (MHz)	Occupied Bandwidth(MHz)		
		QPSK	16QAM	64QAM
0	5160+5180+5200+5220	76.908	77.015	77.201
1		76.897	76.968	77.197
2		76.913	76.954	77.190
3		76.939	77.026	77.221
0	5170+5190+5210+5230	76.927	77.043	77.227
1		76.939	77.050	77.221
2		76.926	77.047	77.224
3		76.925	77.030	77.218
0	5180+5200+5220+5240	76.937	77.046	77.222
1		76.934	77.048	77.229
2		76.936	77.056	77.234
3		76.932	77.054	77.228
0	5160+5180+5220+5240	77.081	76.578	76.675
1		77.074	76.574	76.672
2		77.055	76.57	76.686

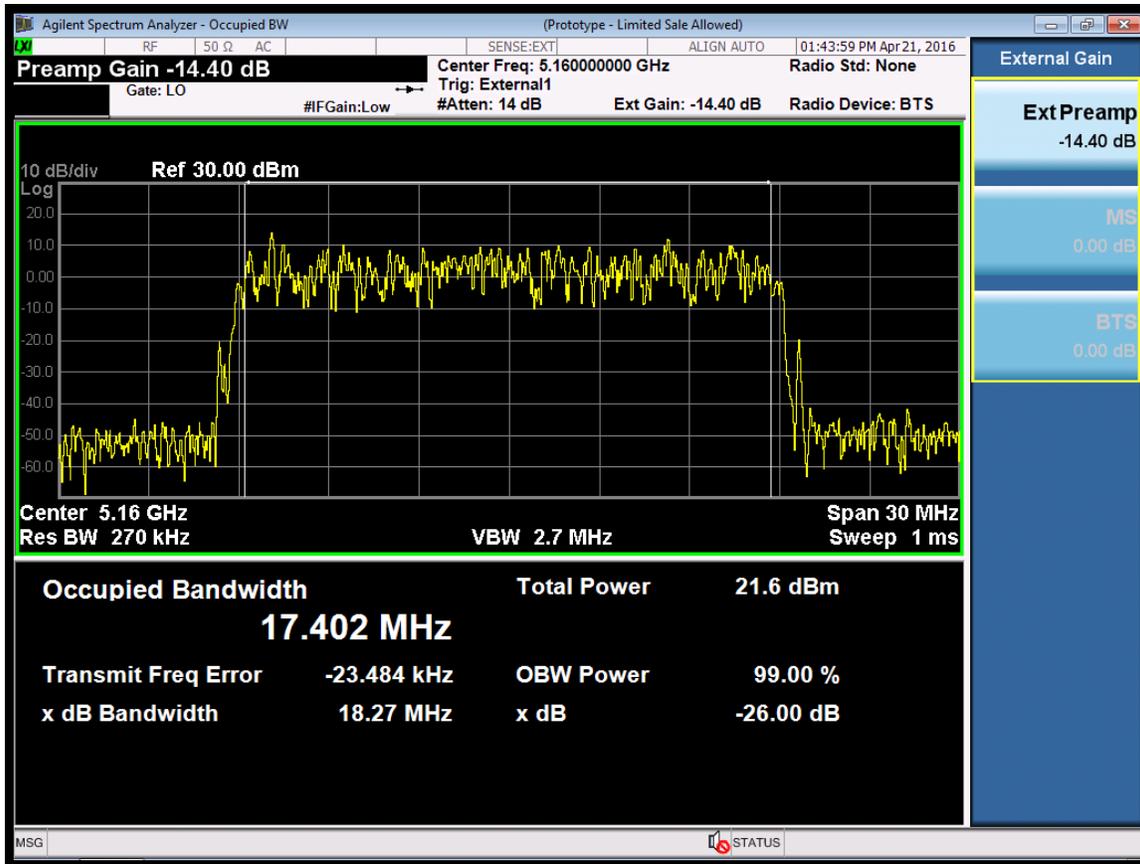
Port	Carrier Freq. (MHz)	Occupied Bandwidth(MHz)		
		QPSK	16QAM	64QAM
3		77.061	76.557	76.629

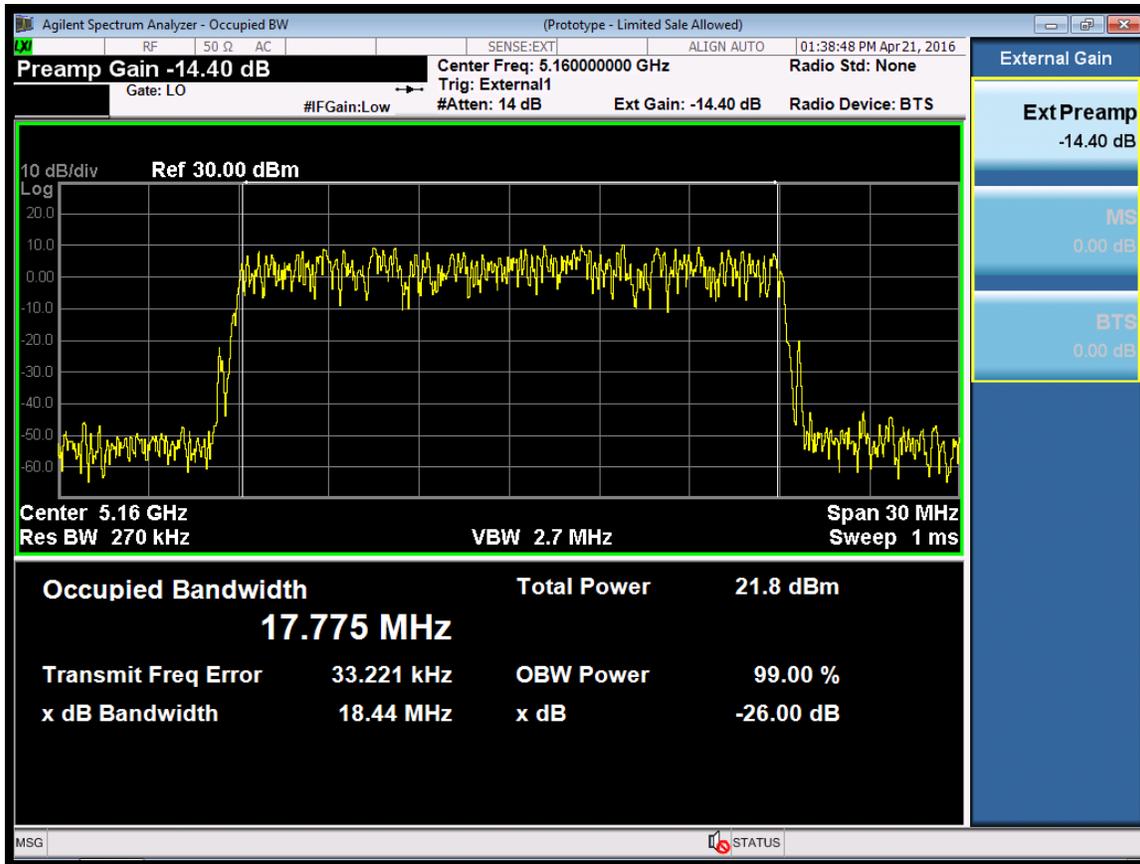


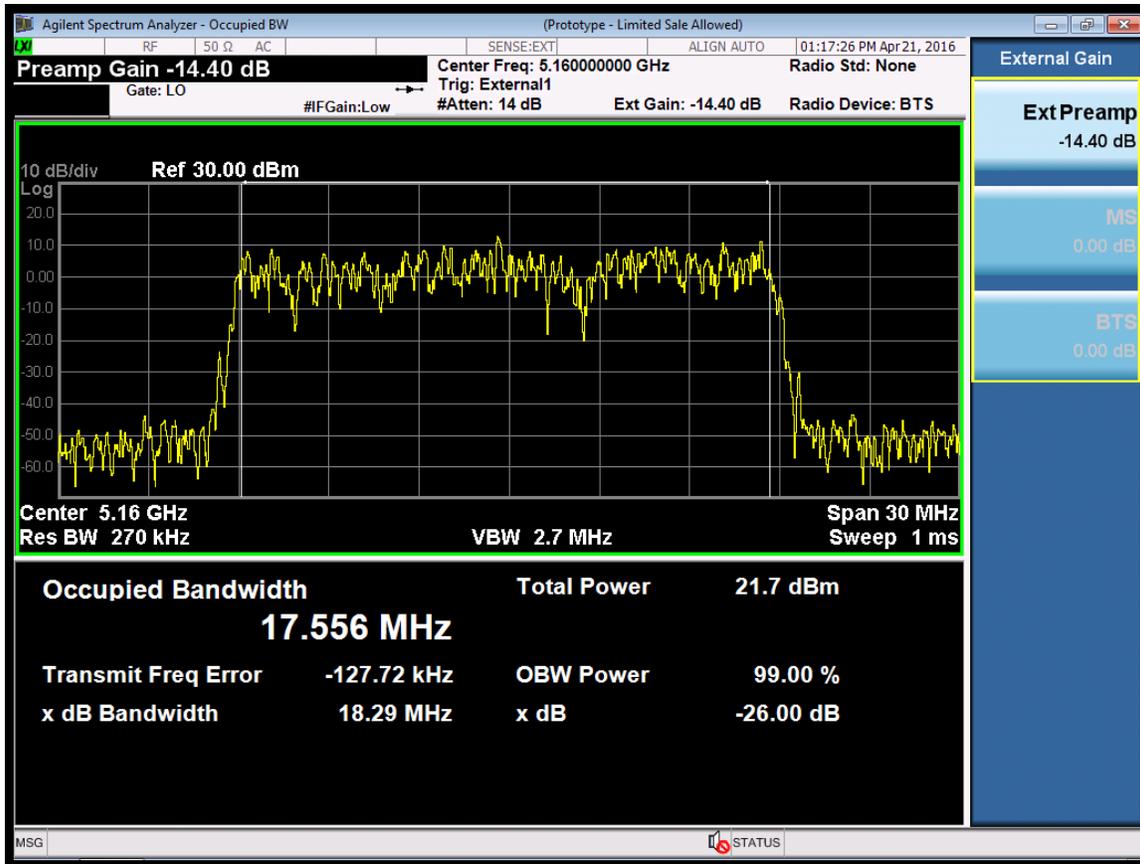


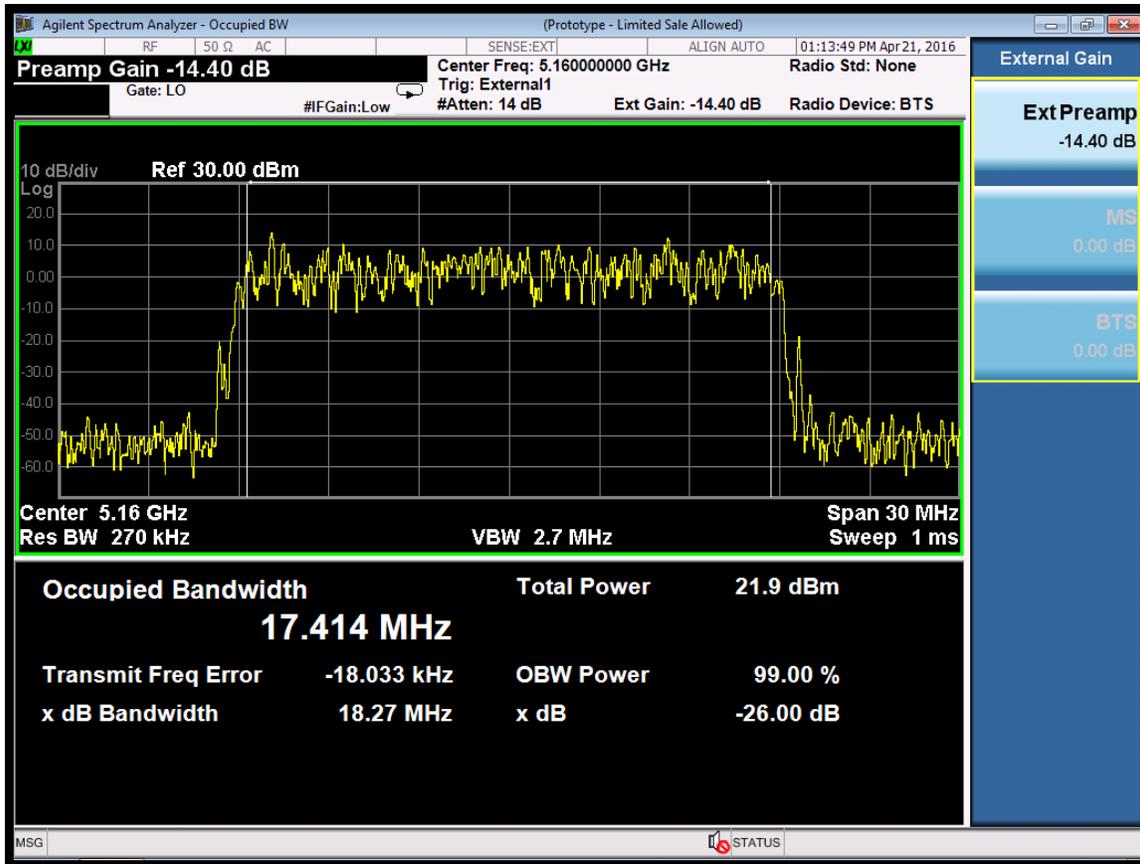


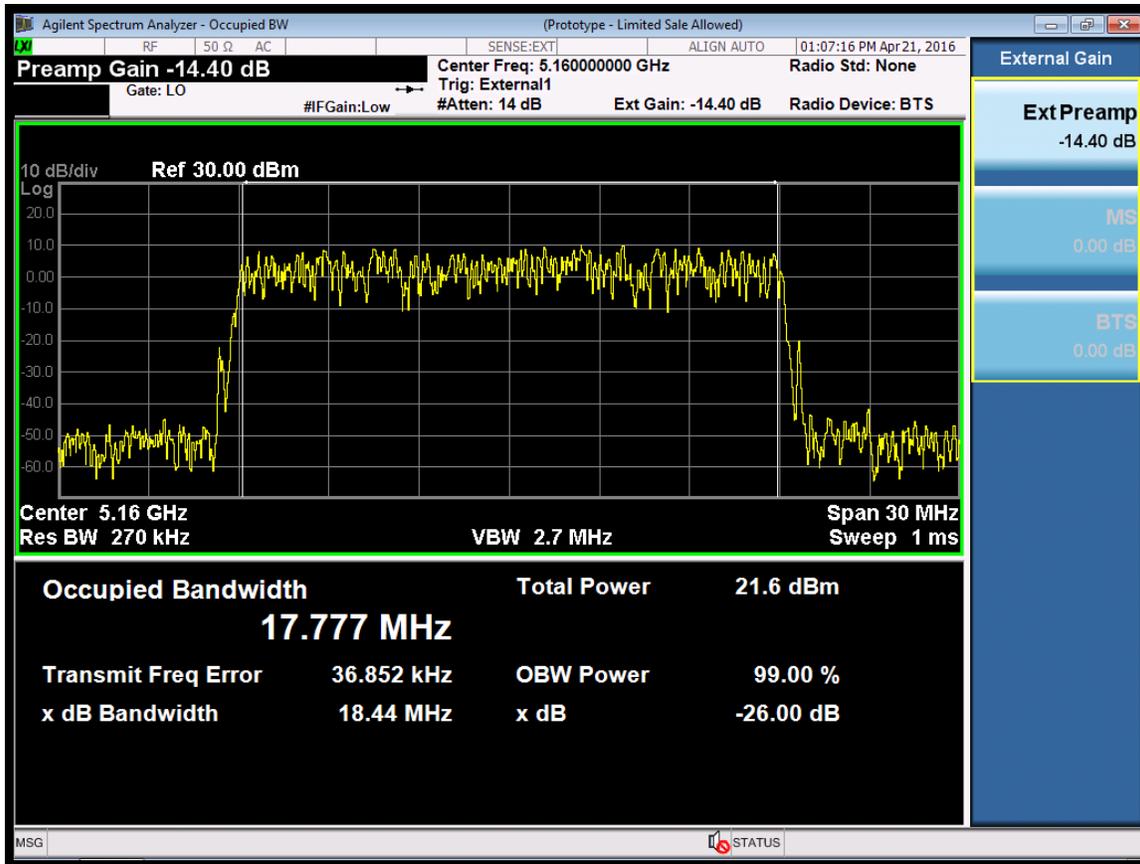


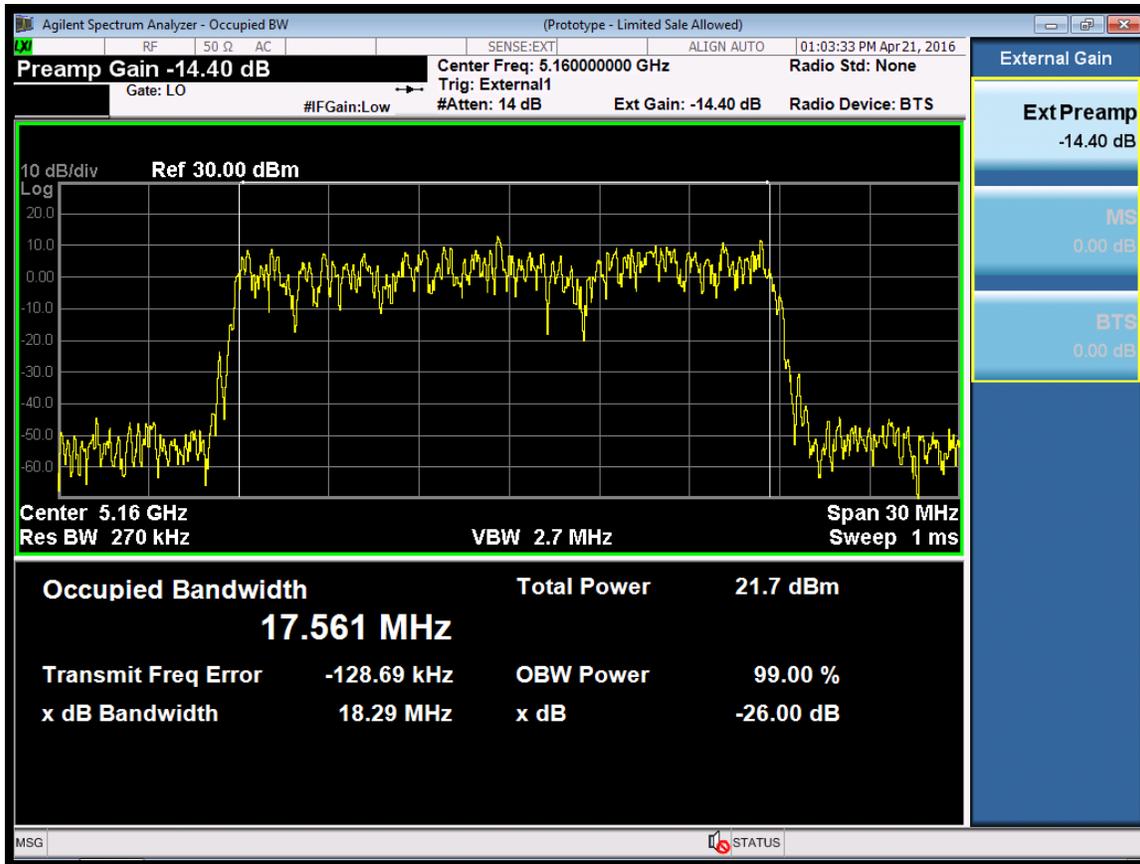


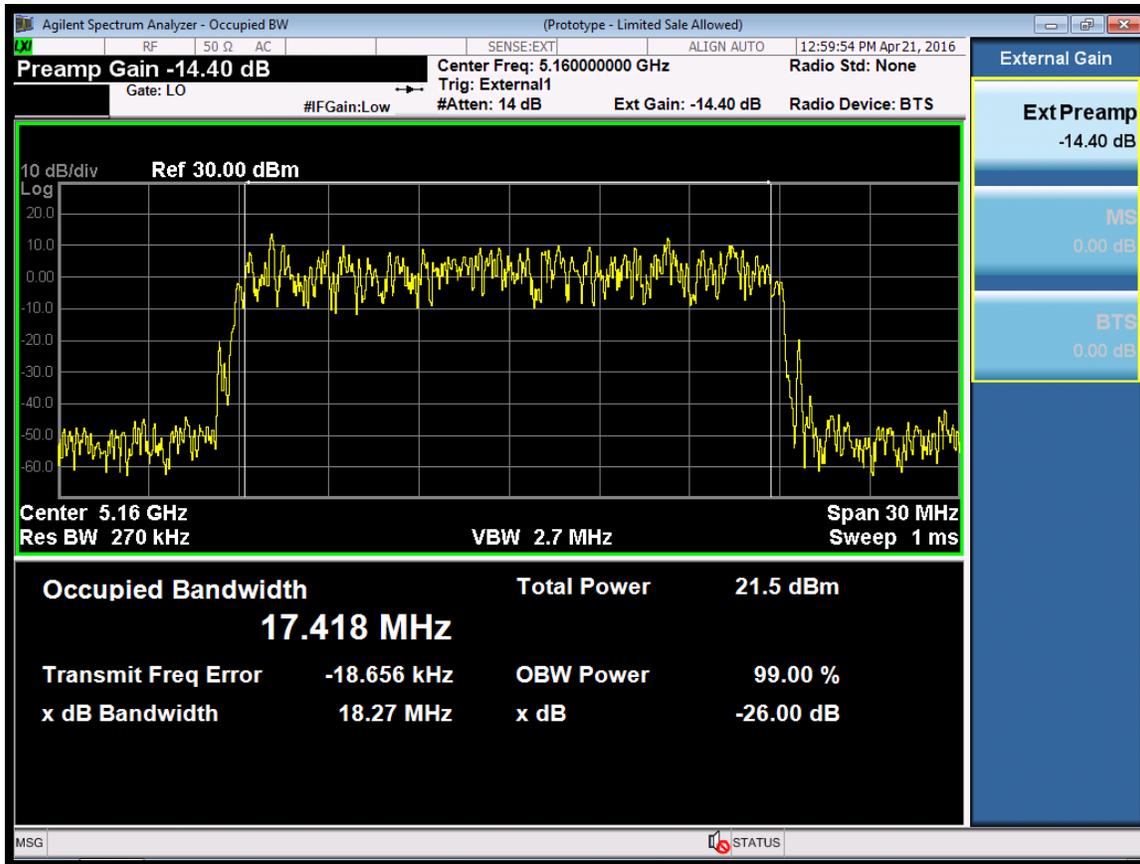


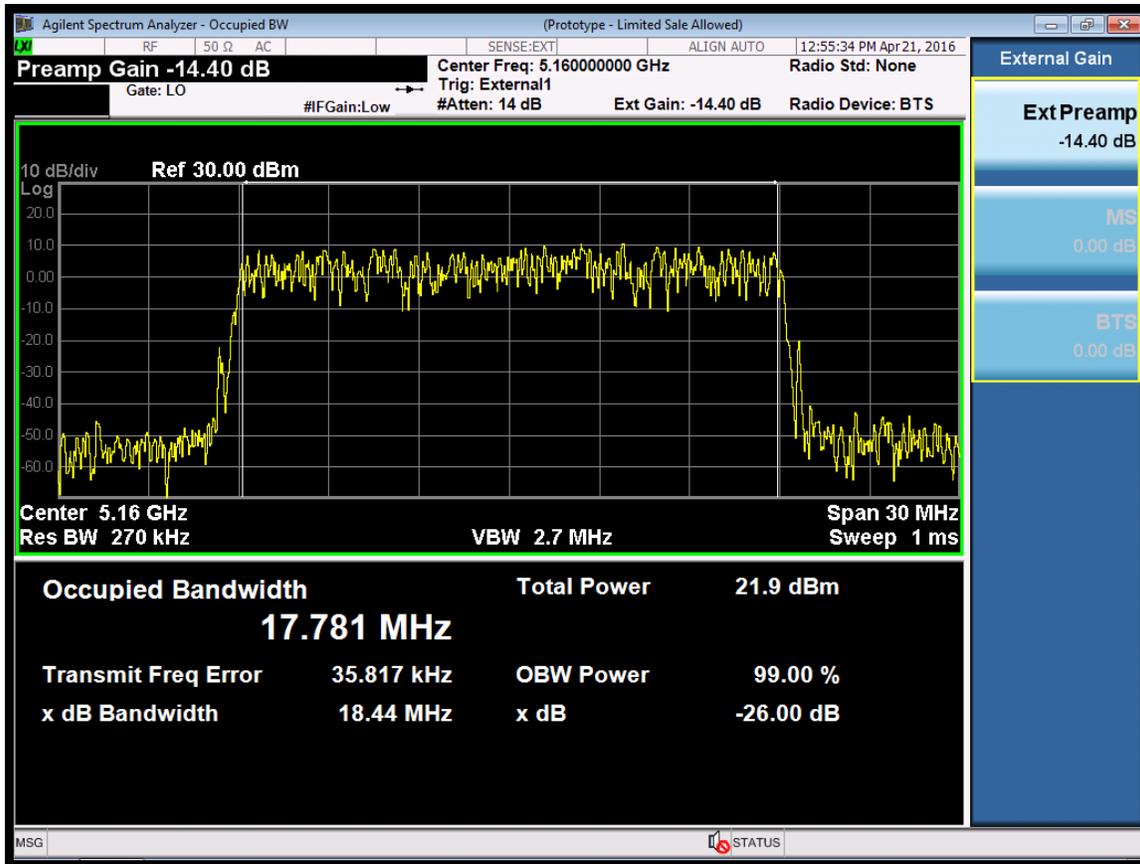


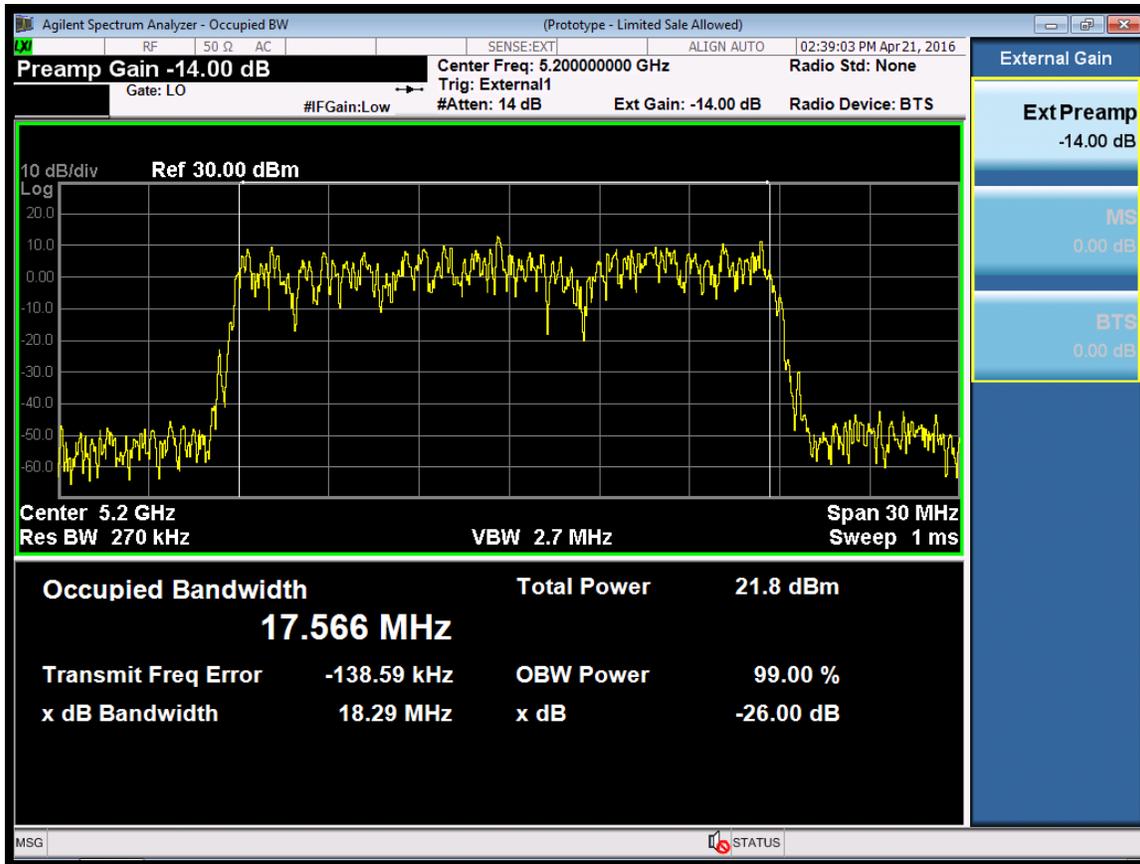


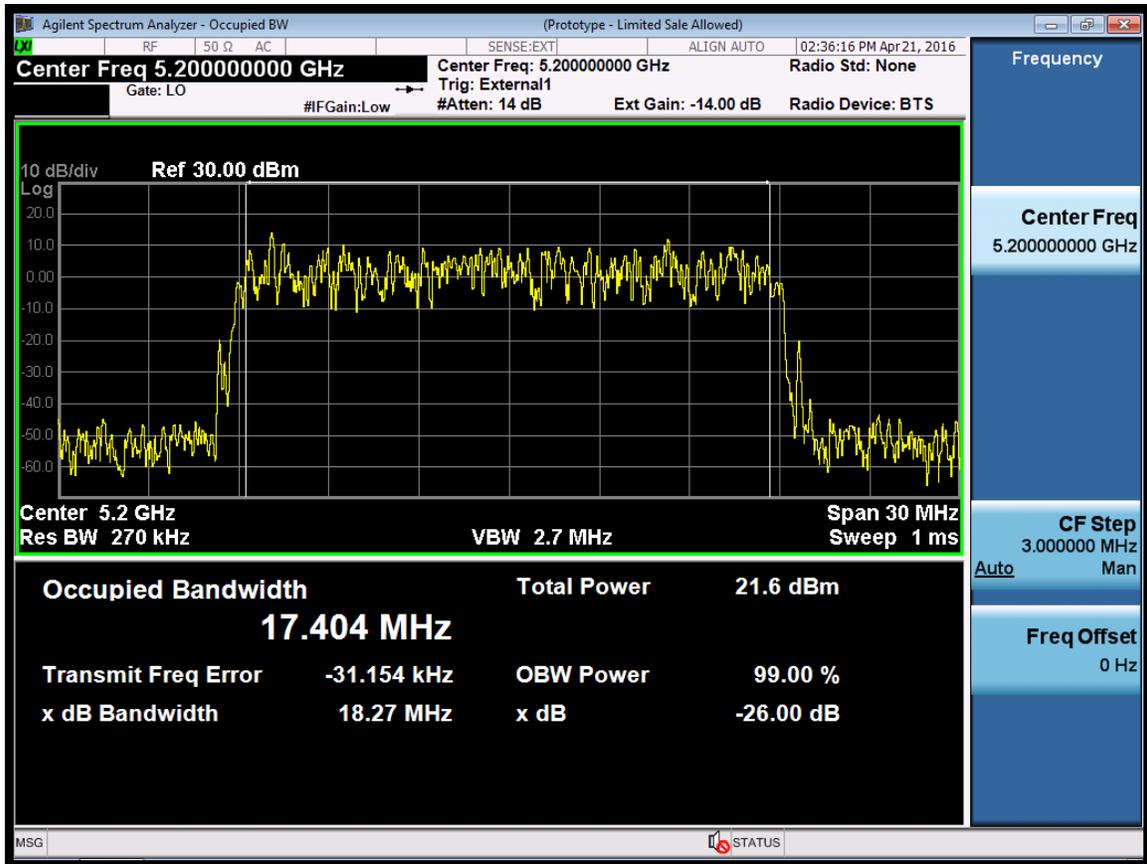


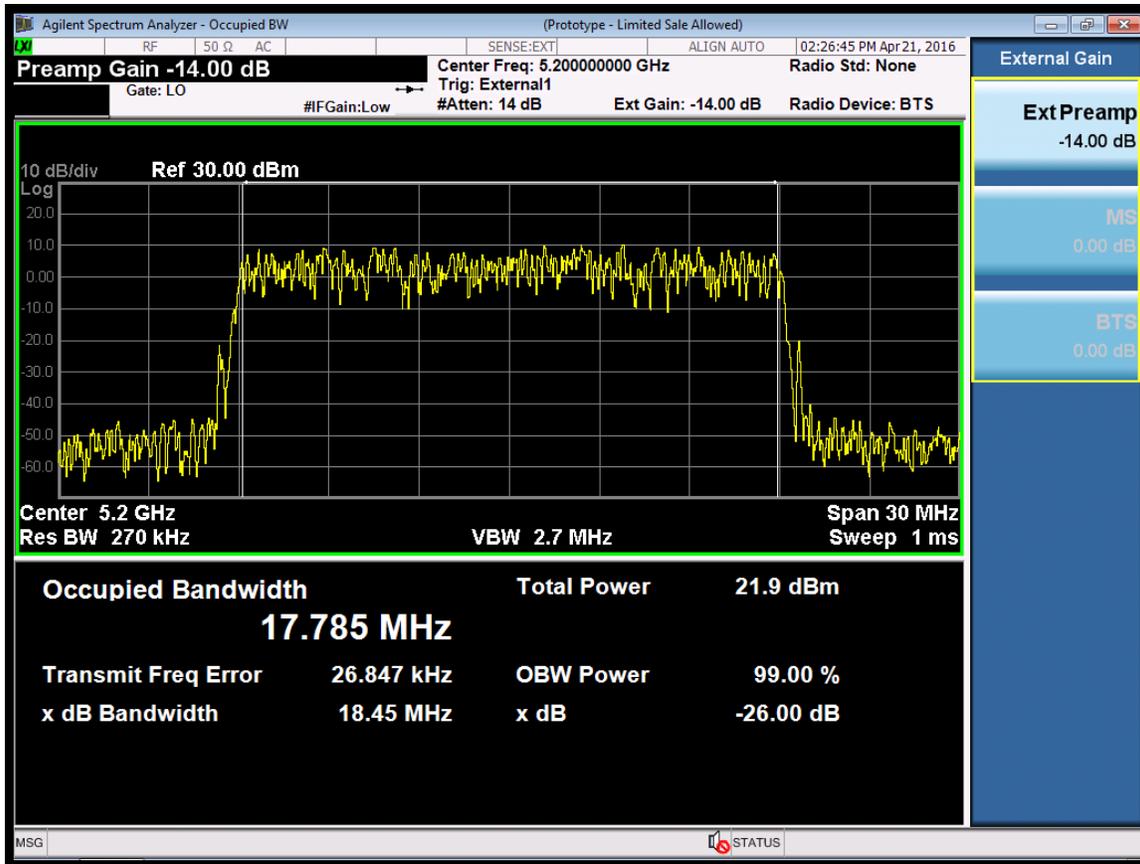


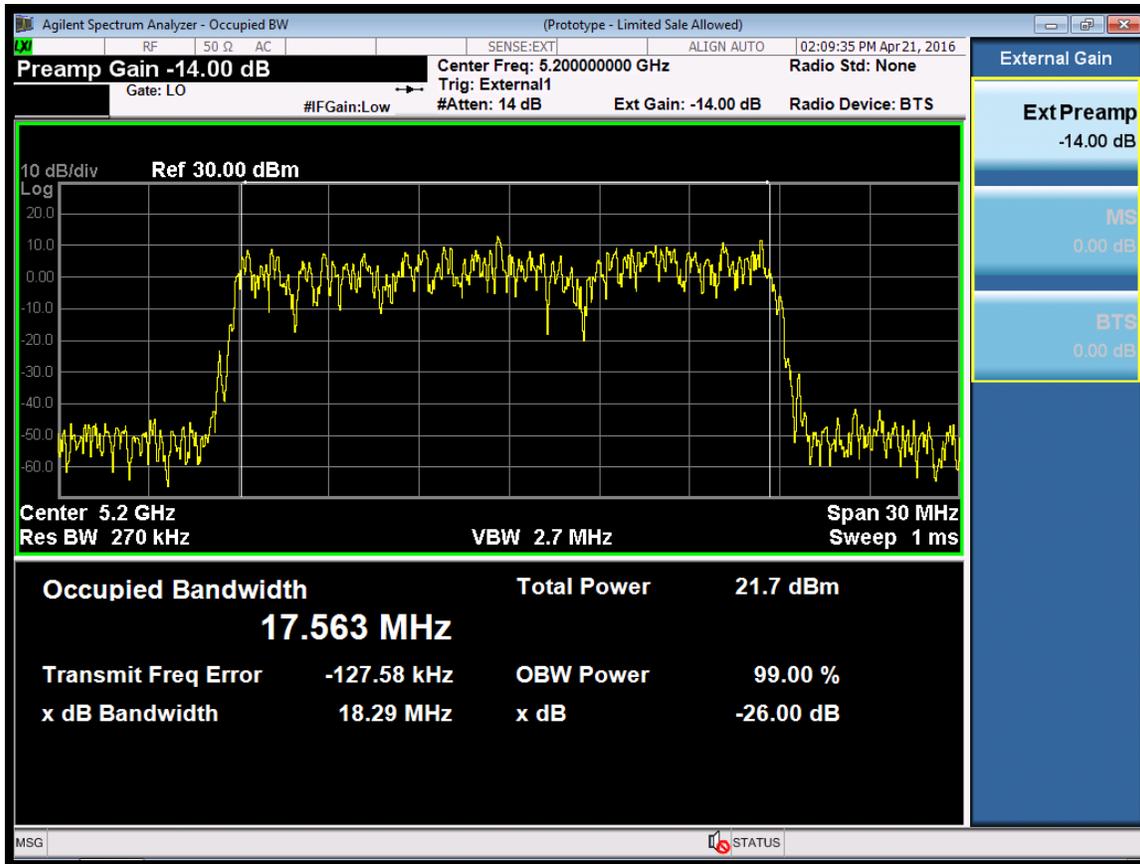


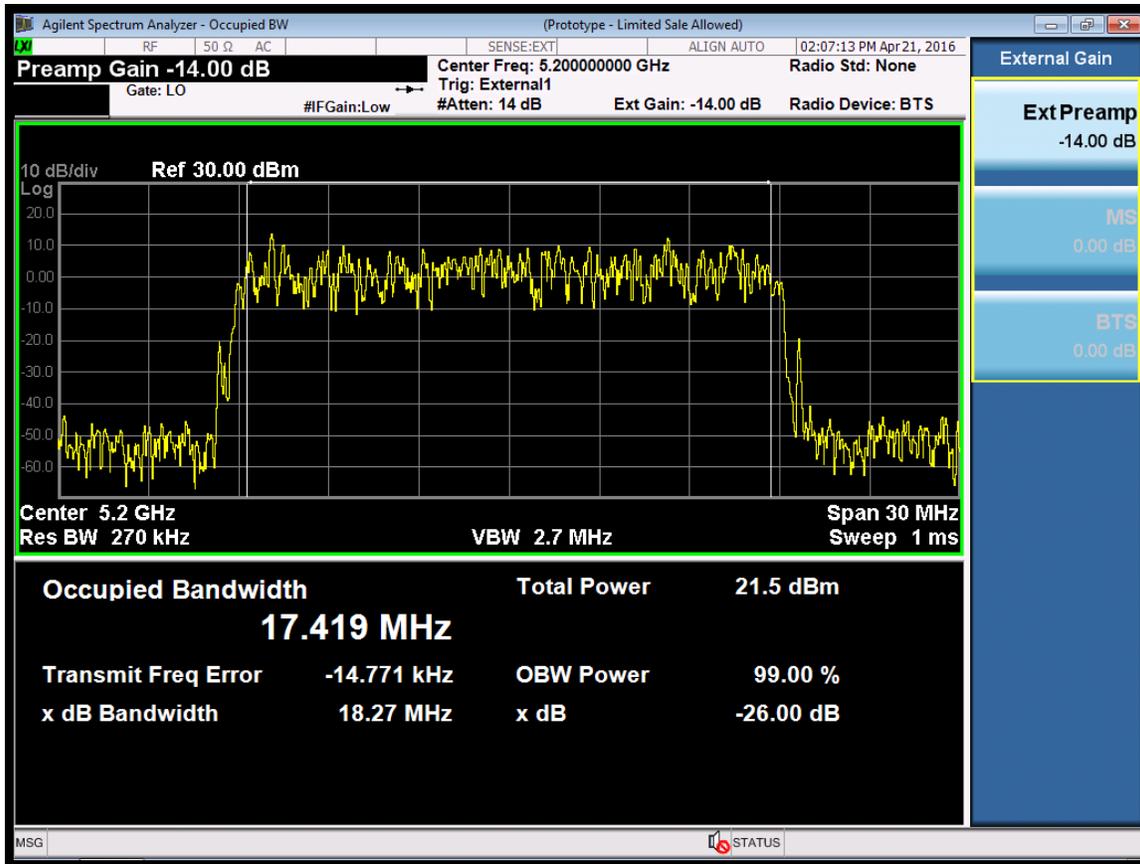


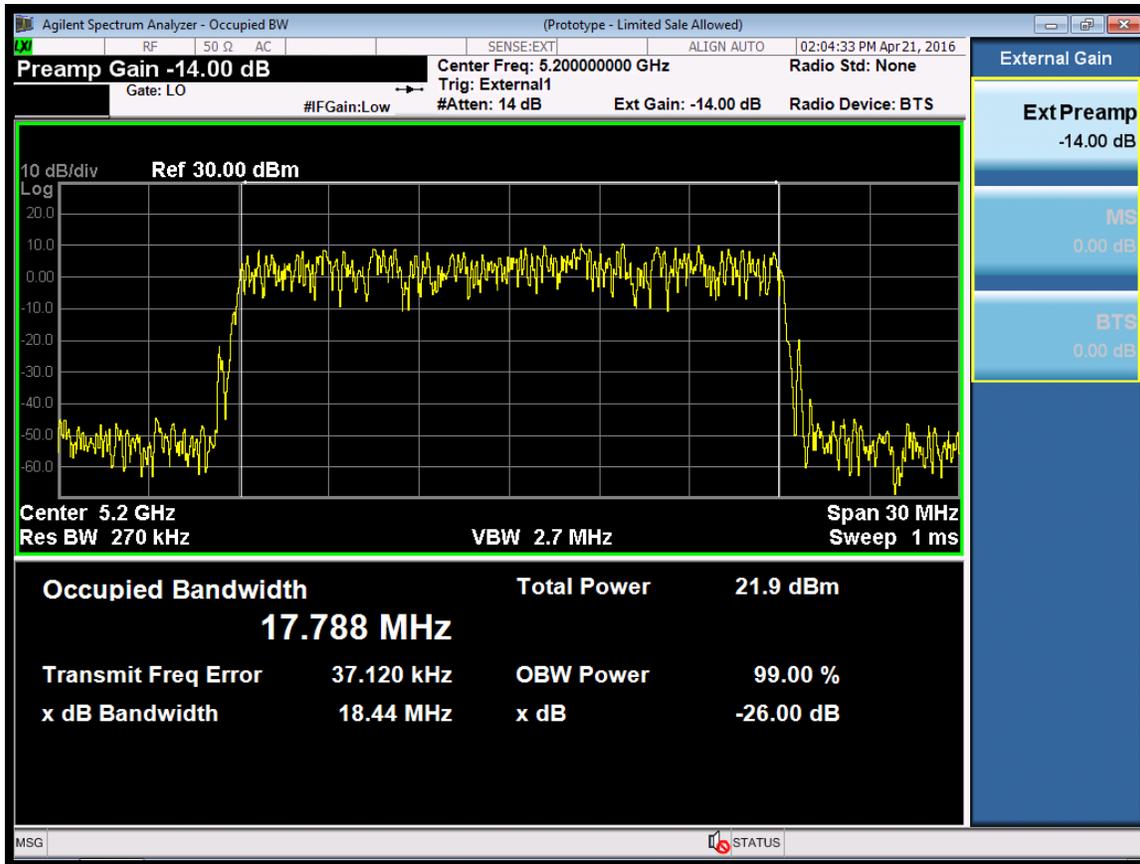


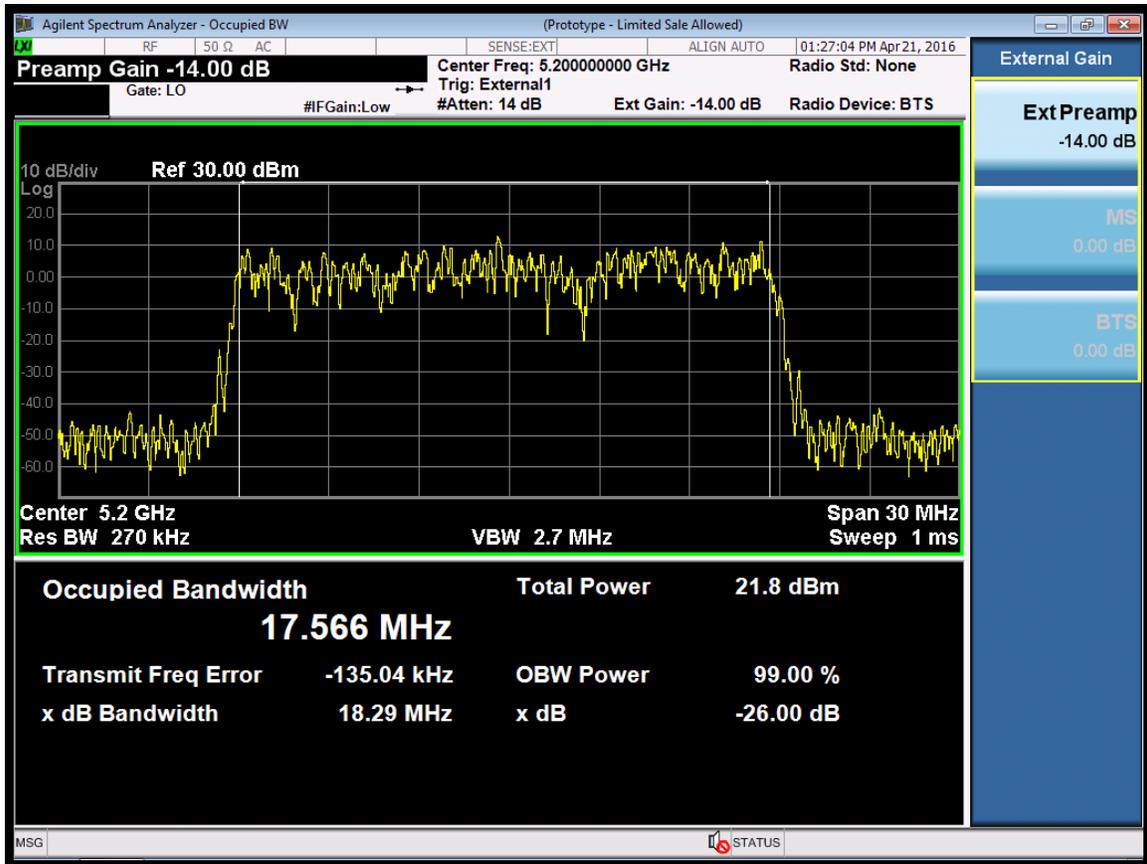


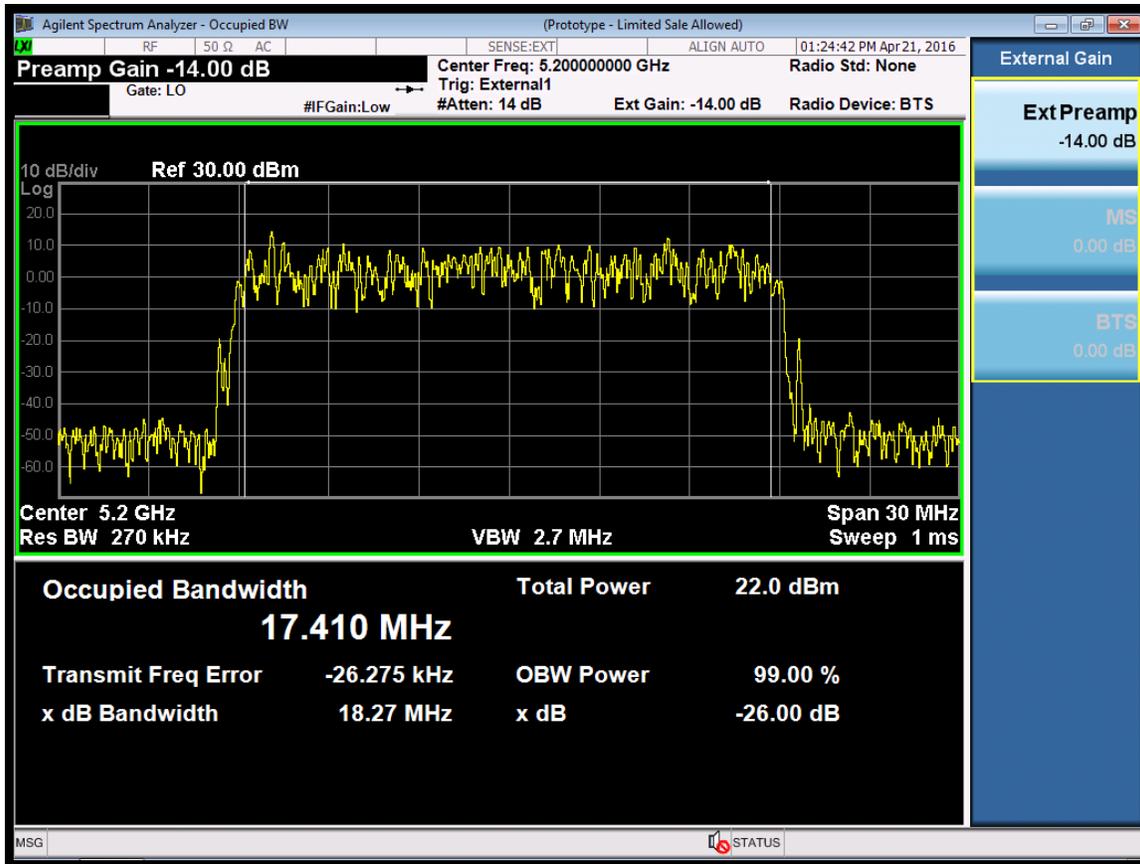


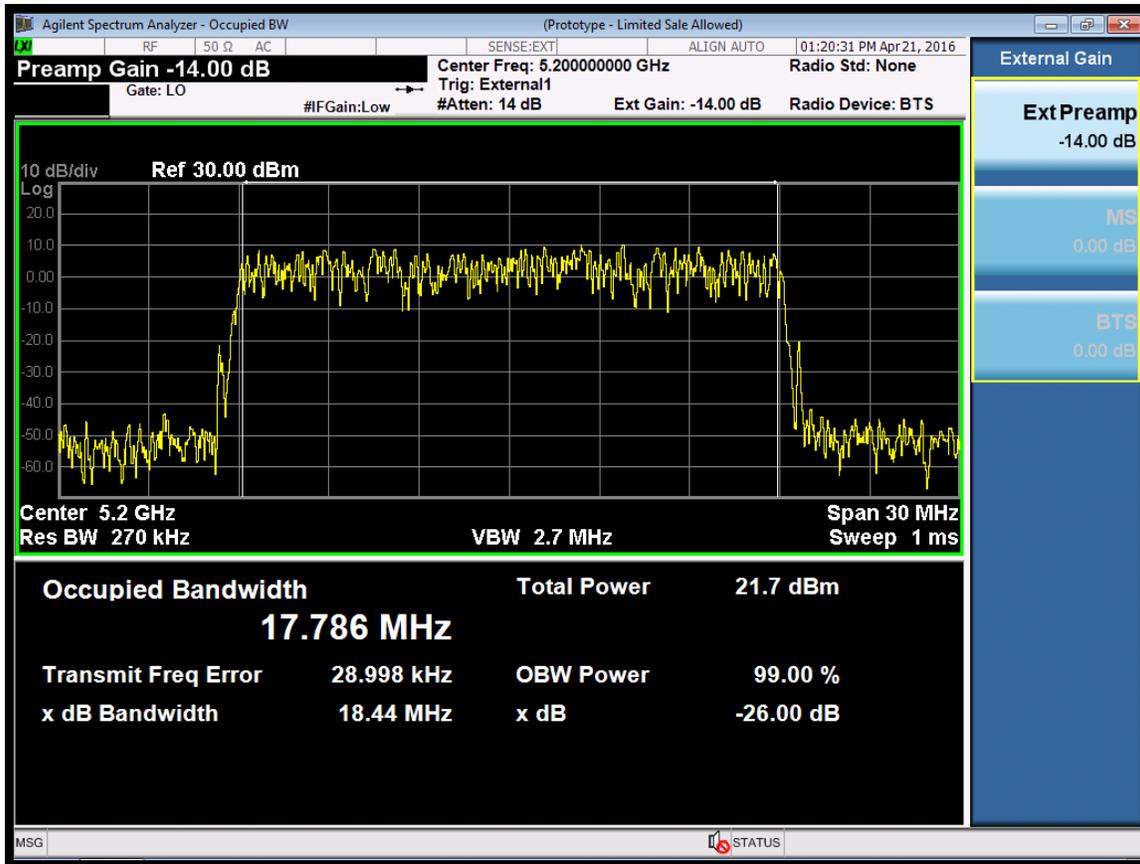


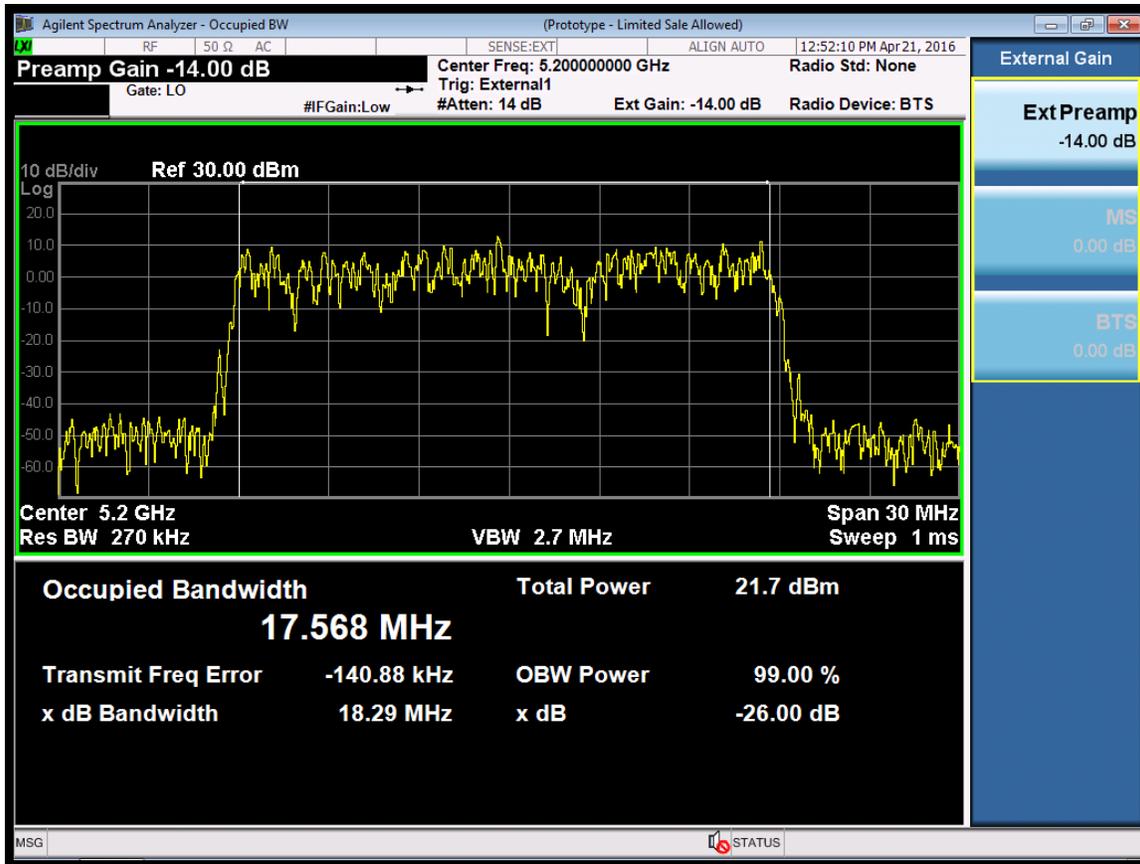


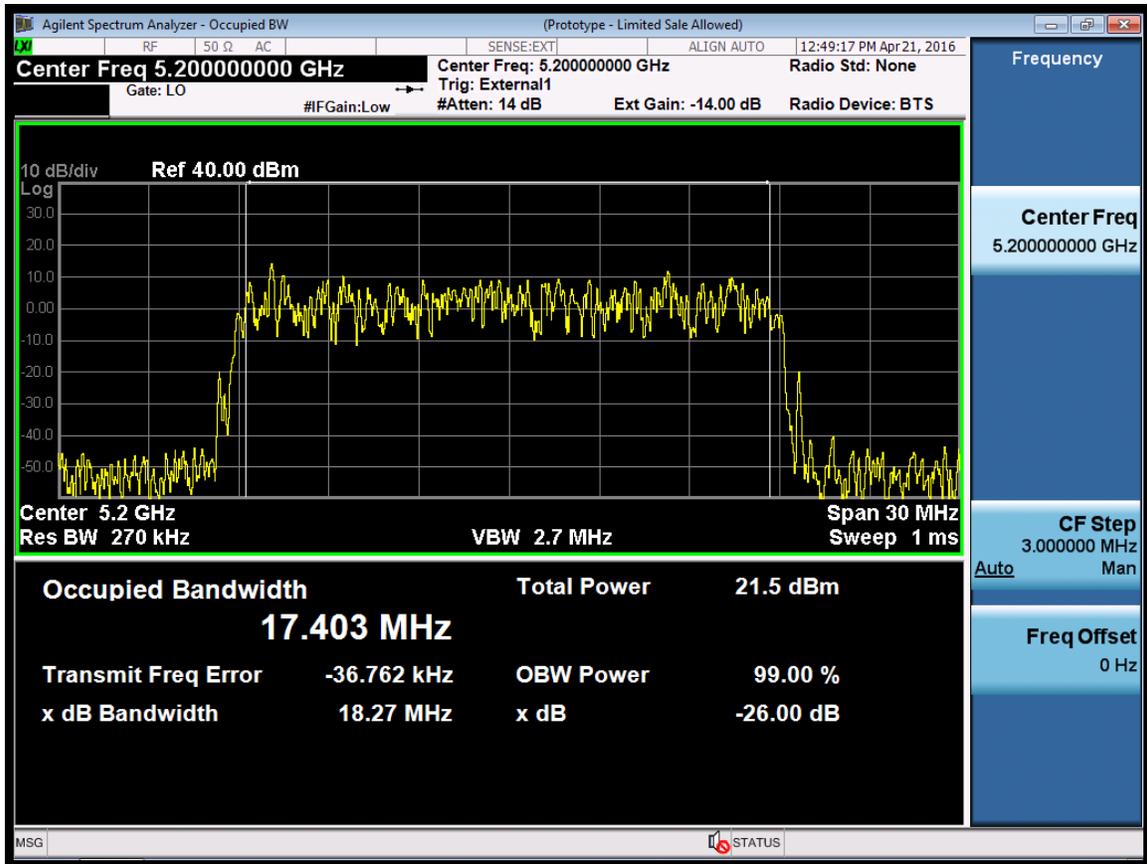


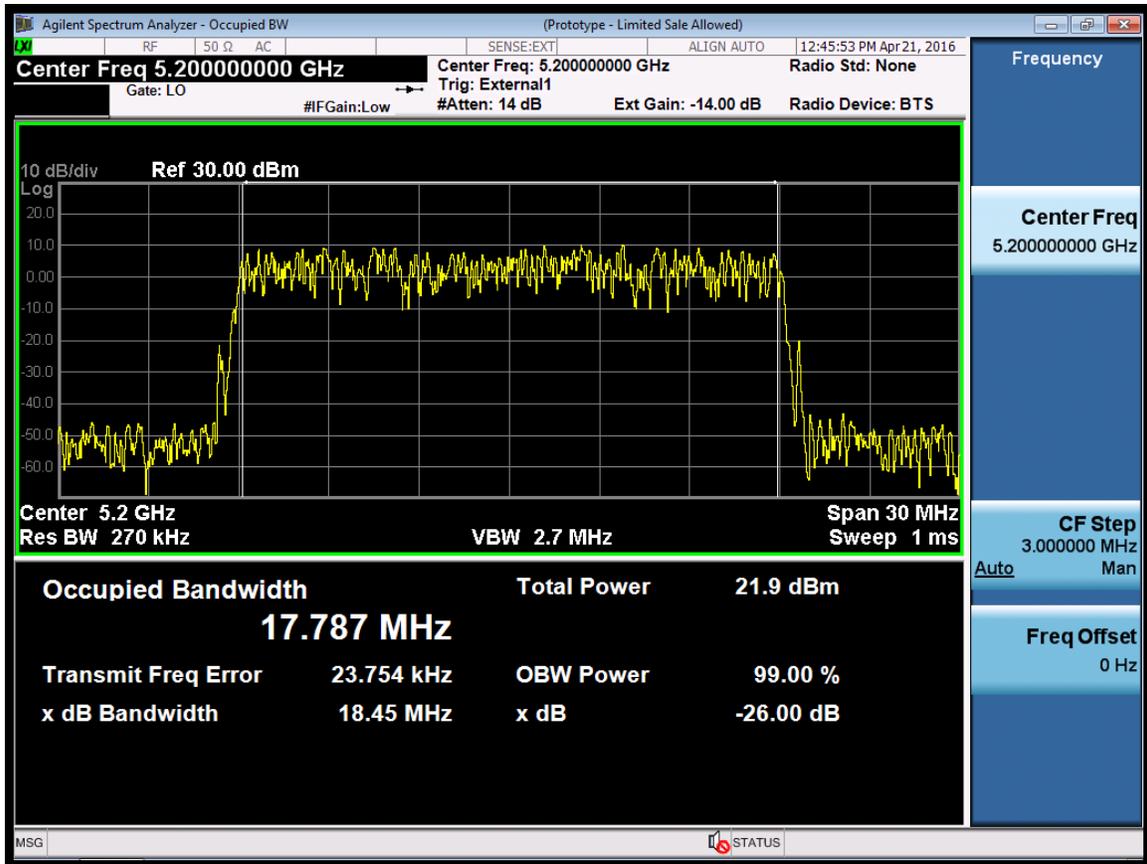


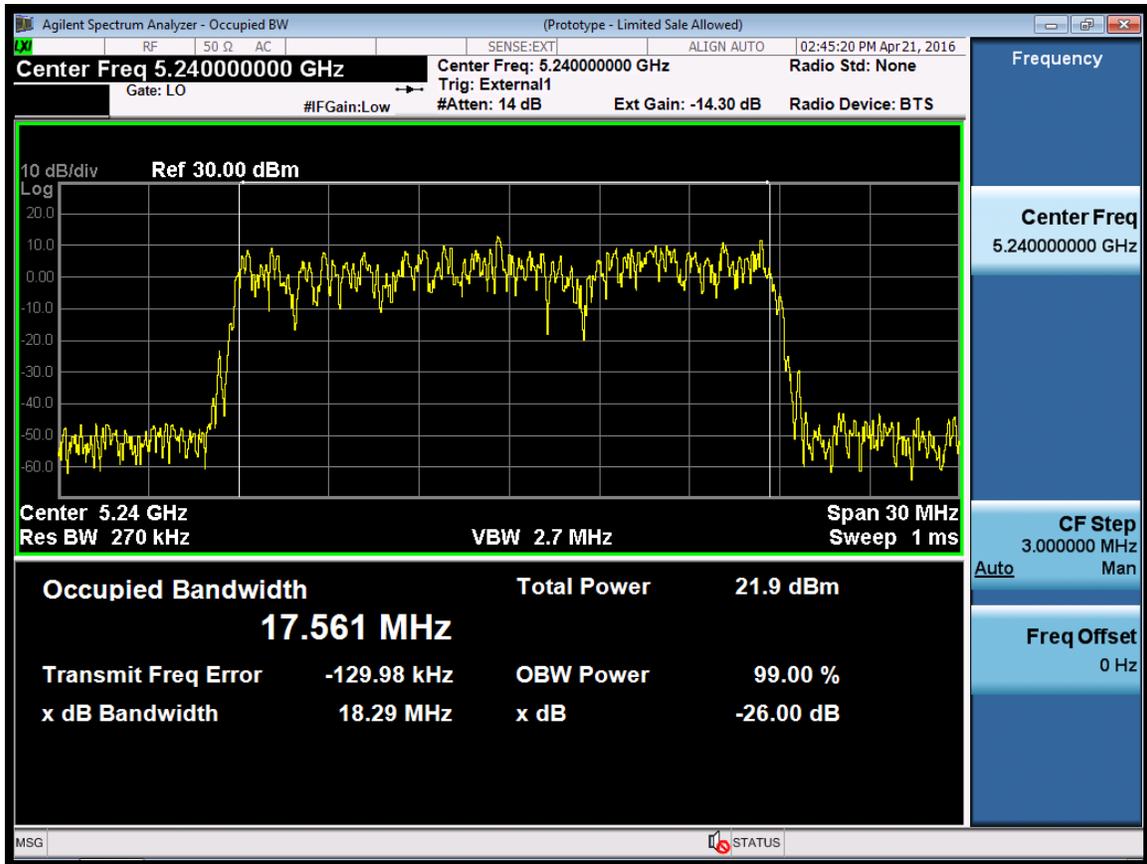


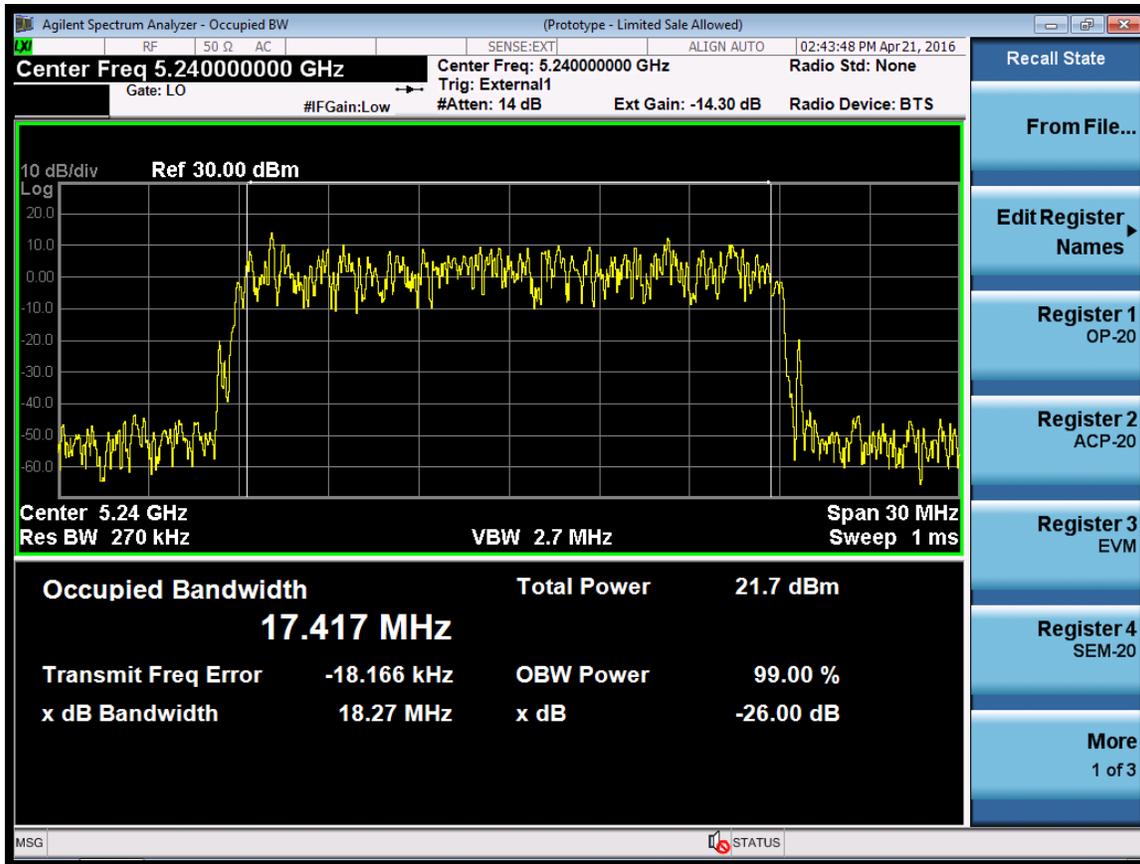


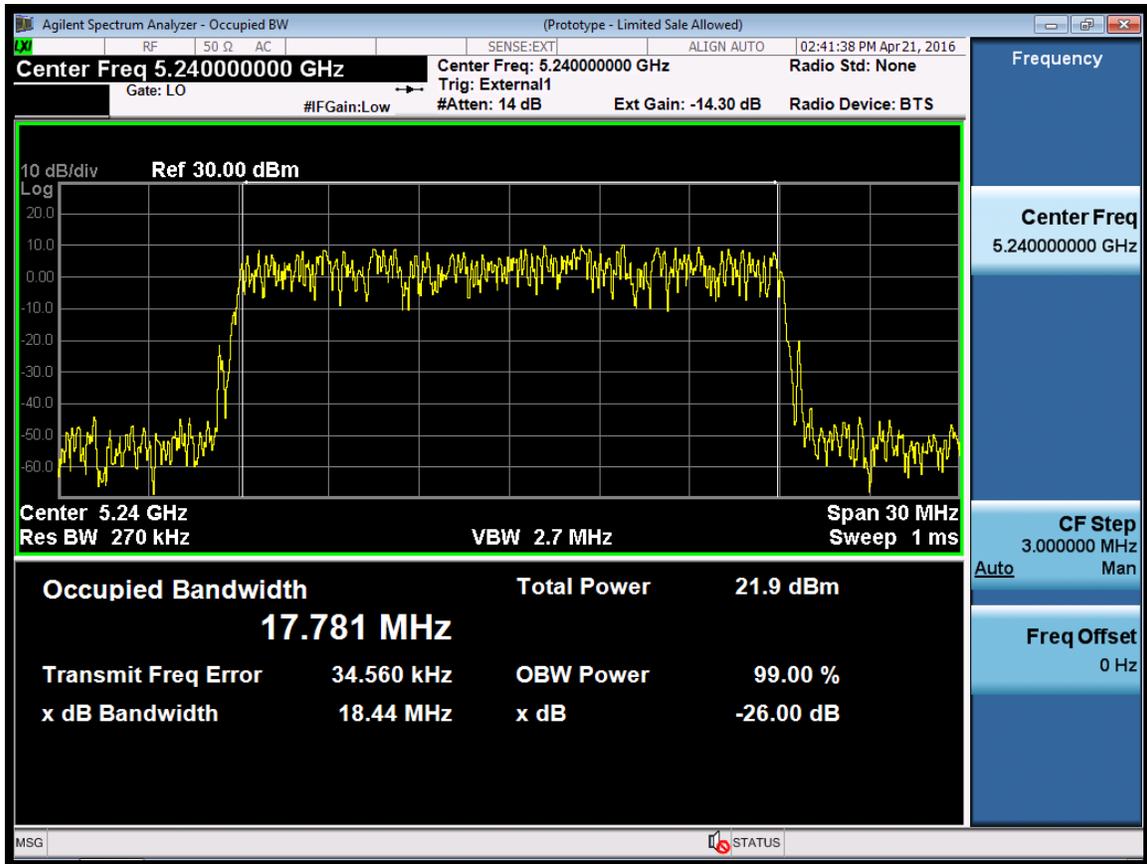


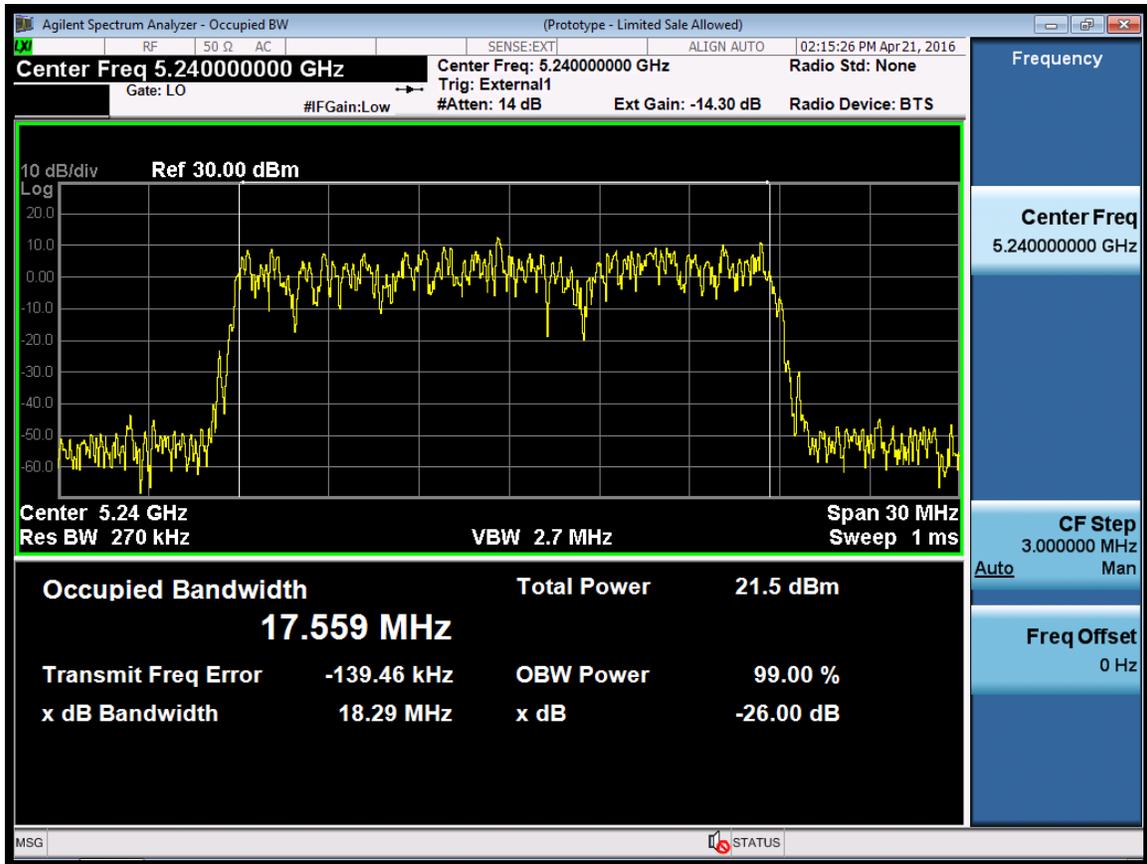


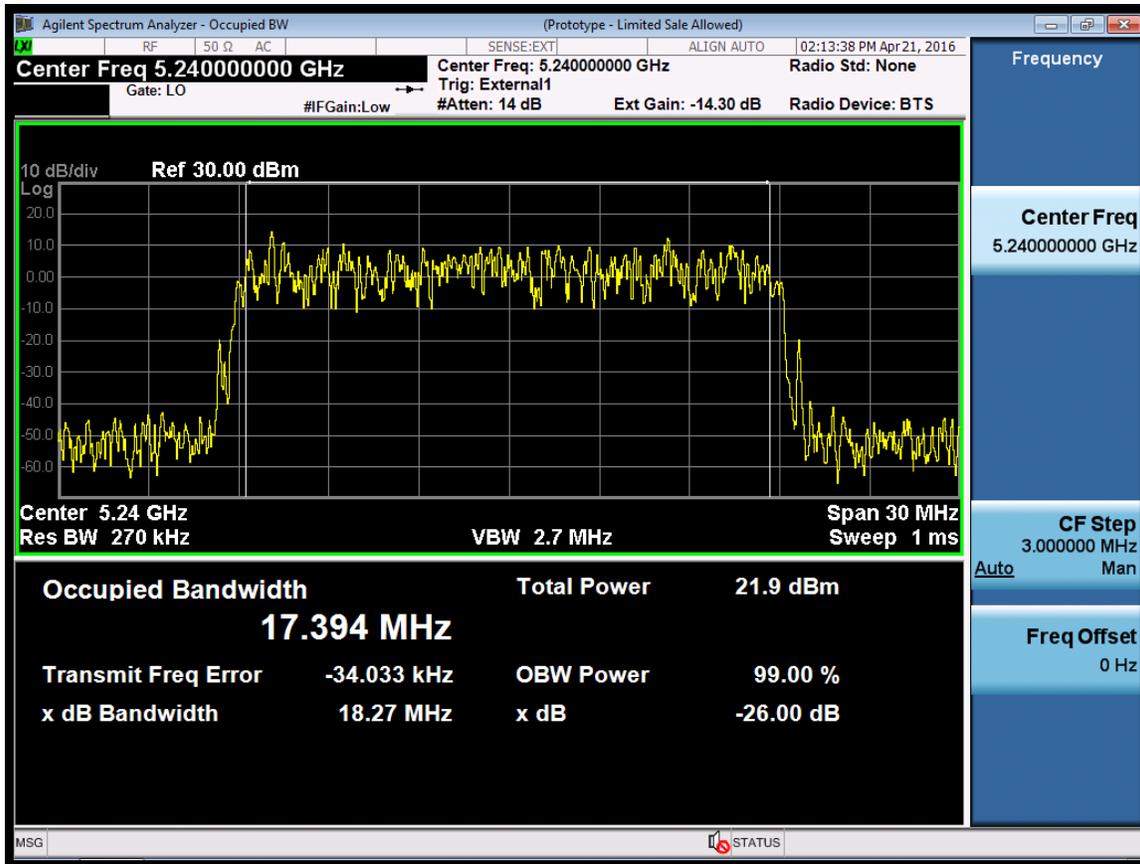


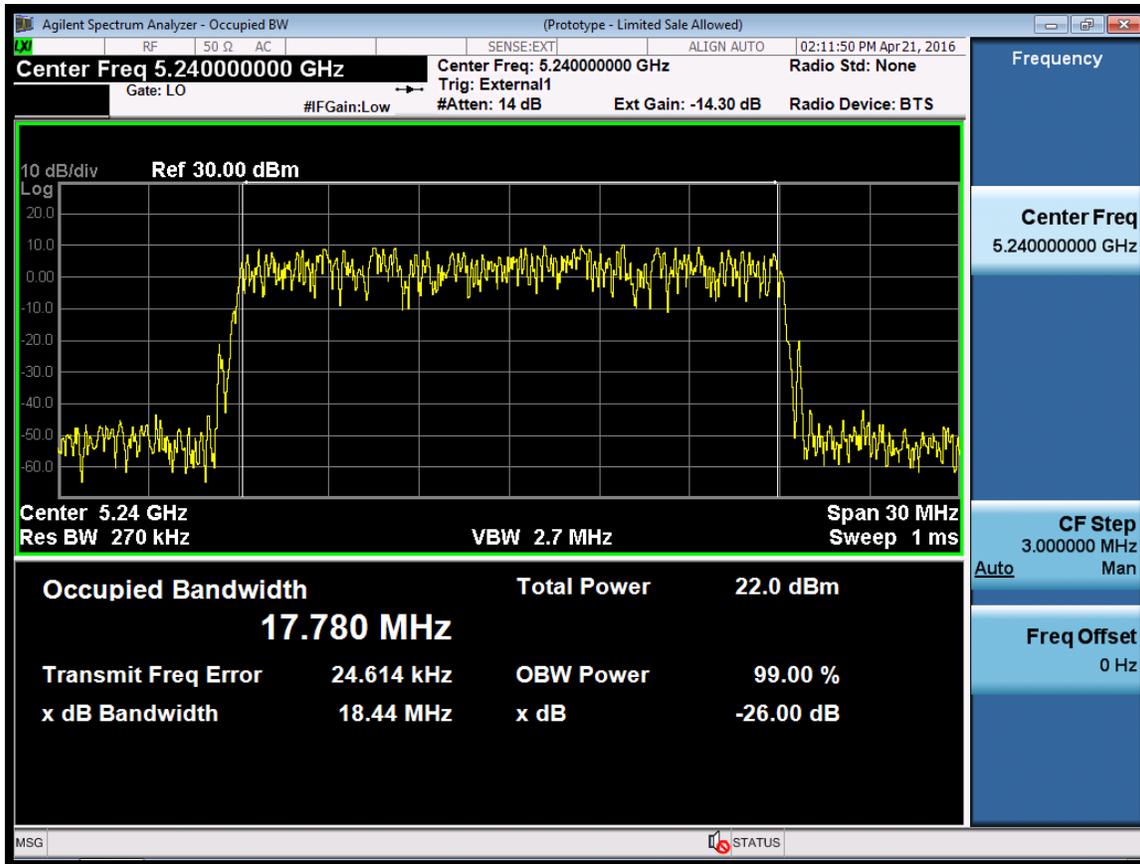


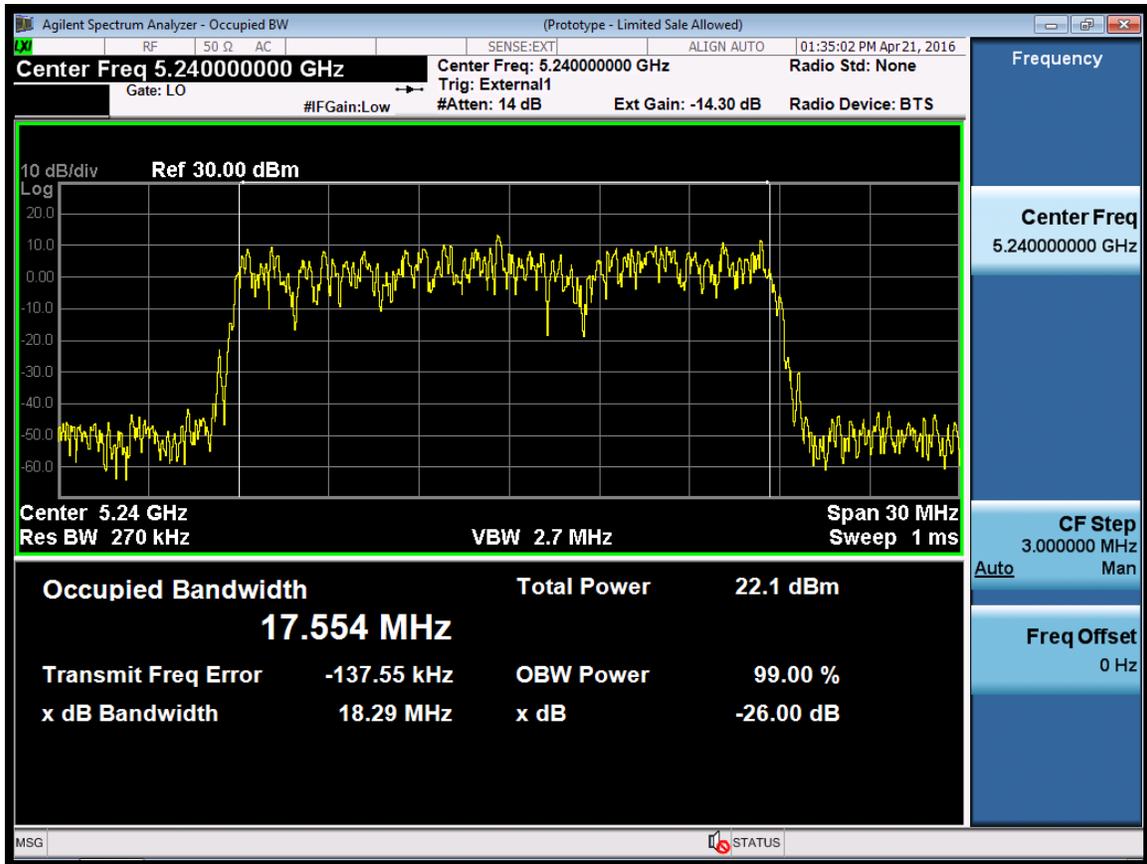


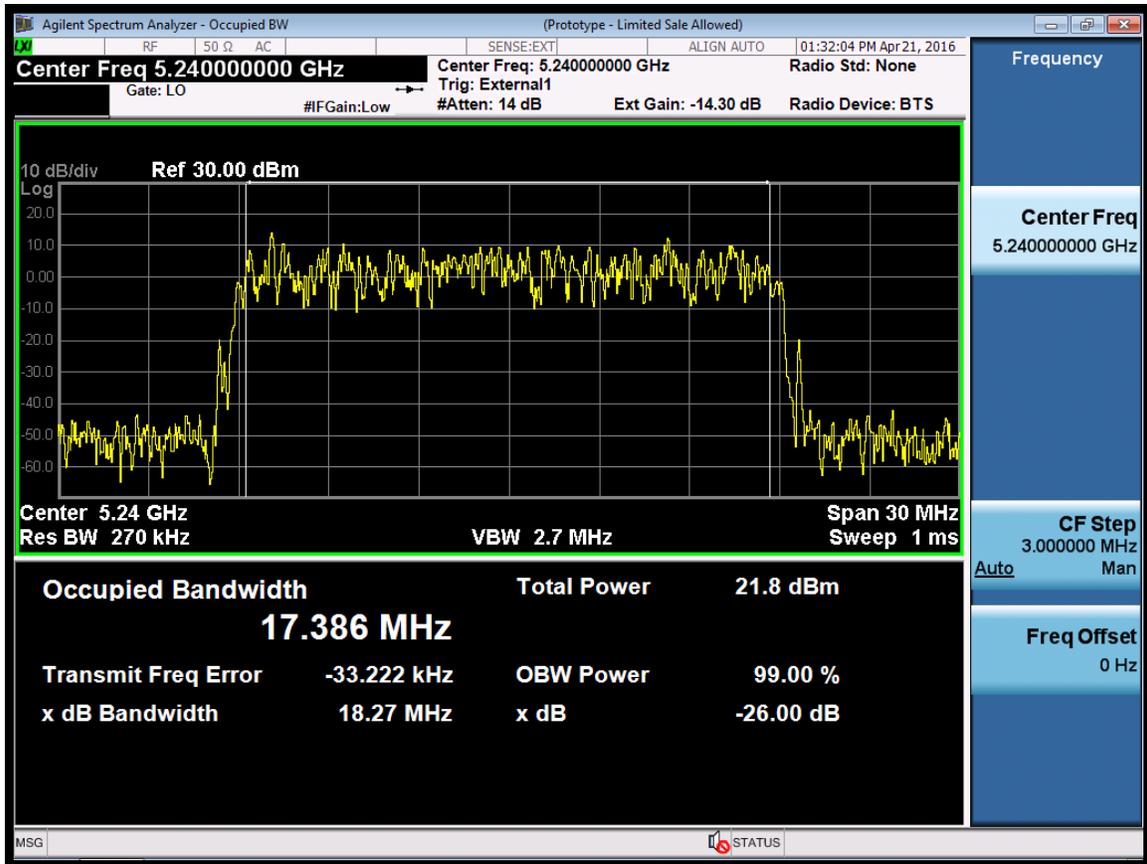


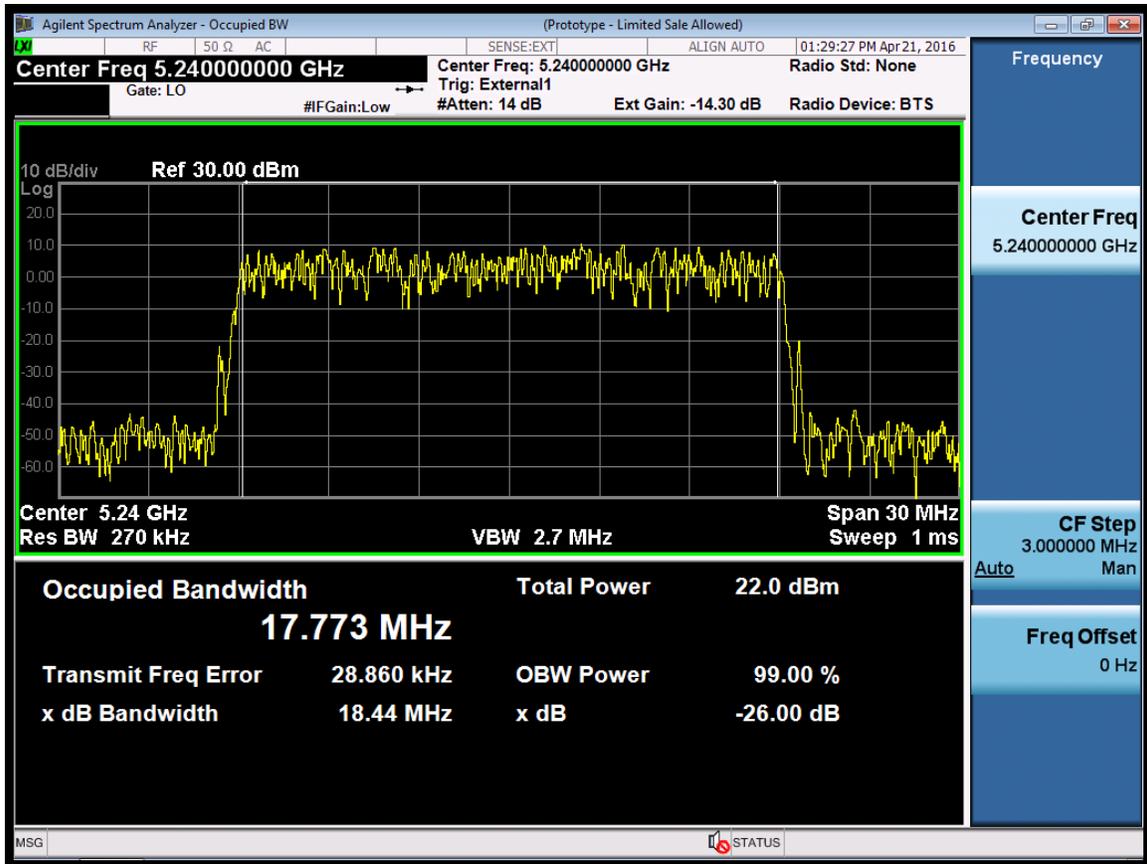


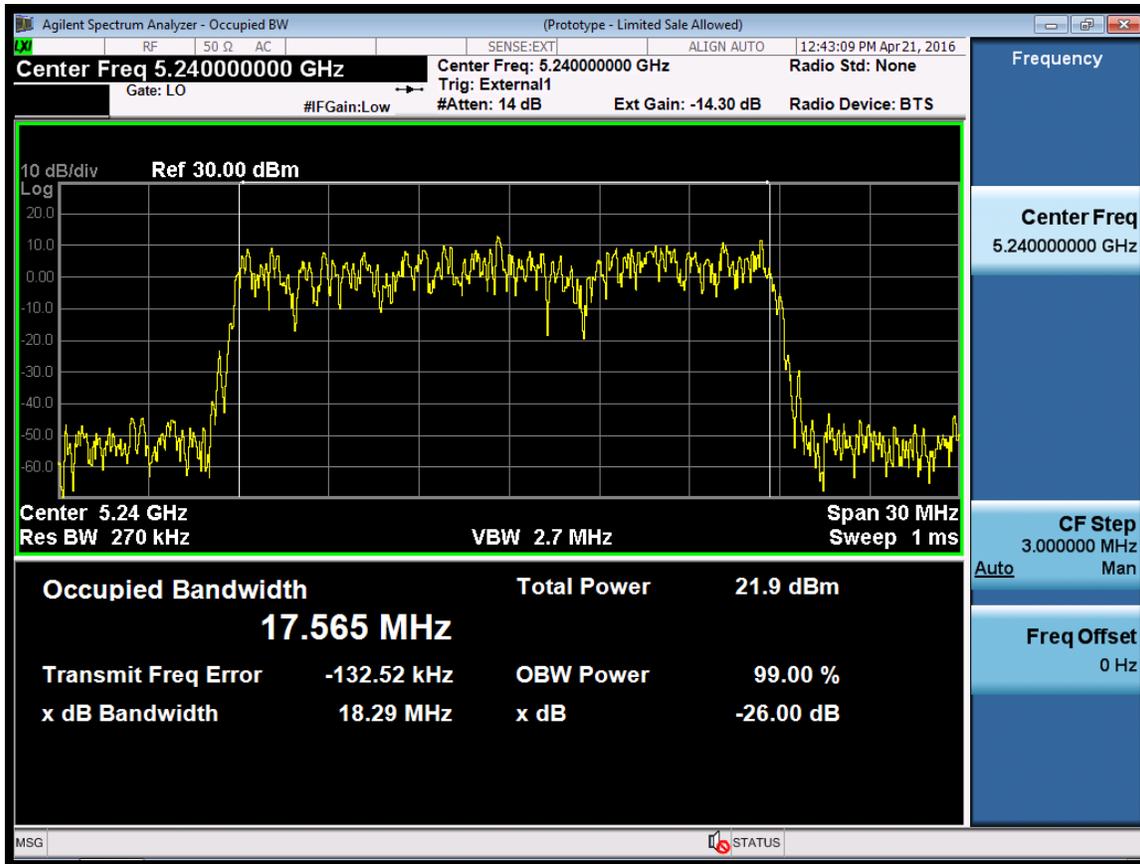


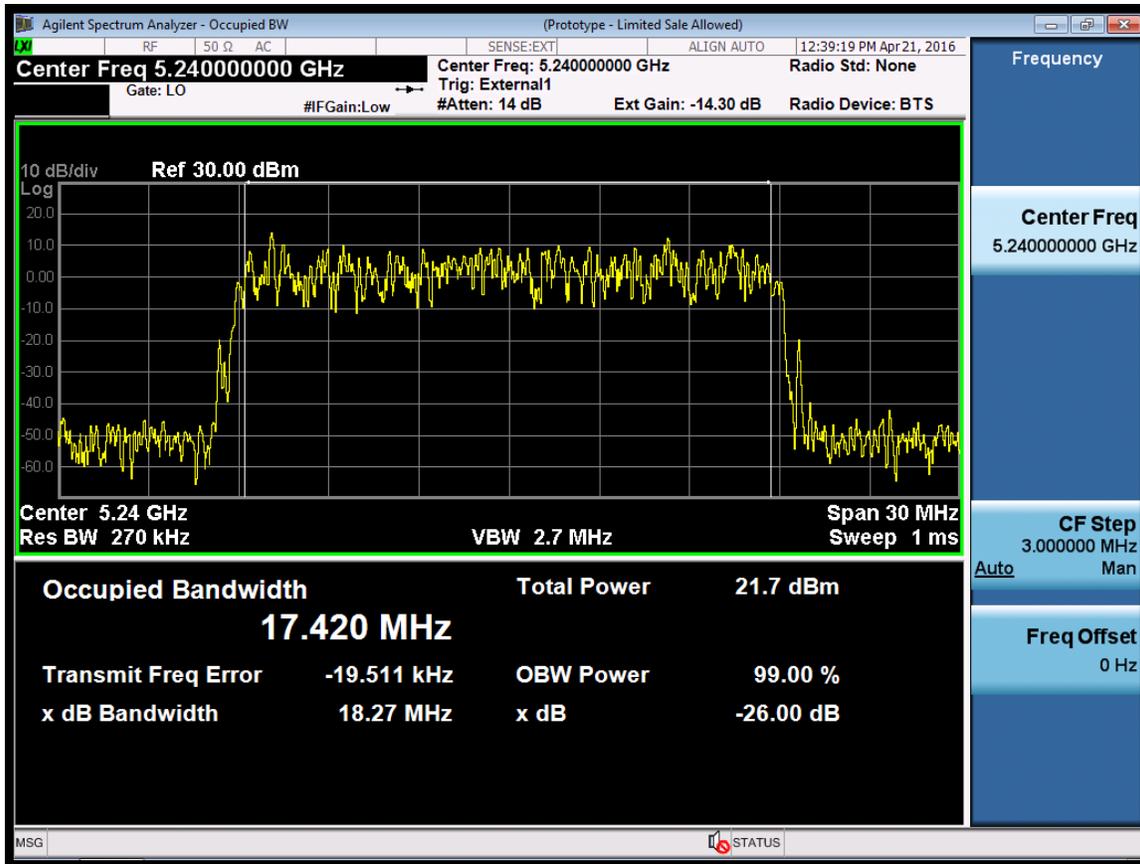


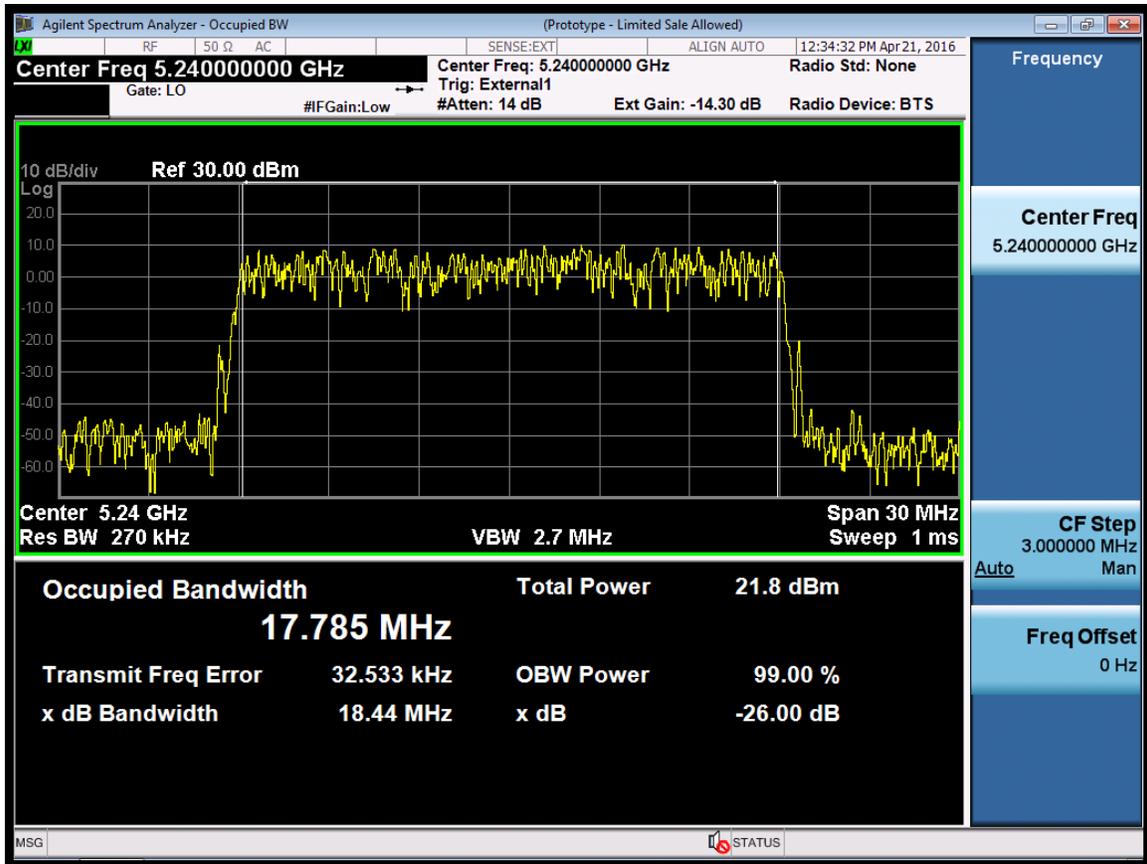


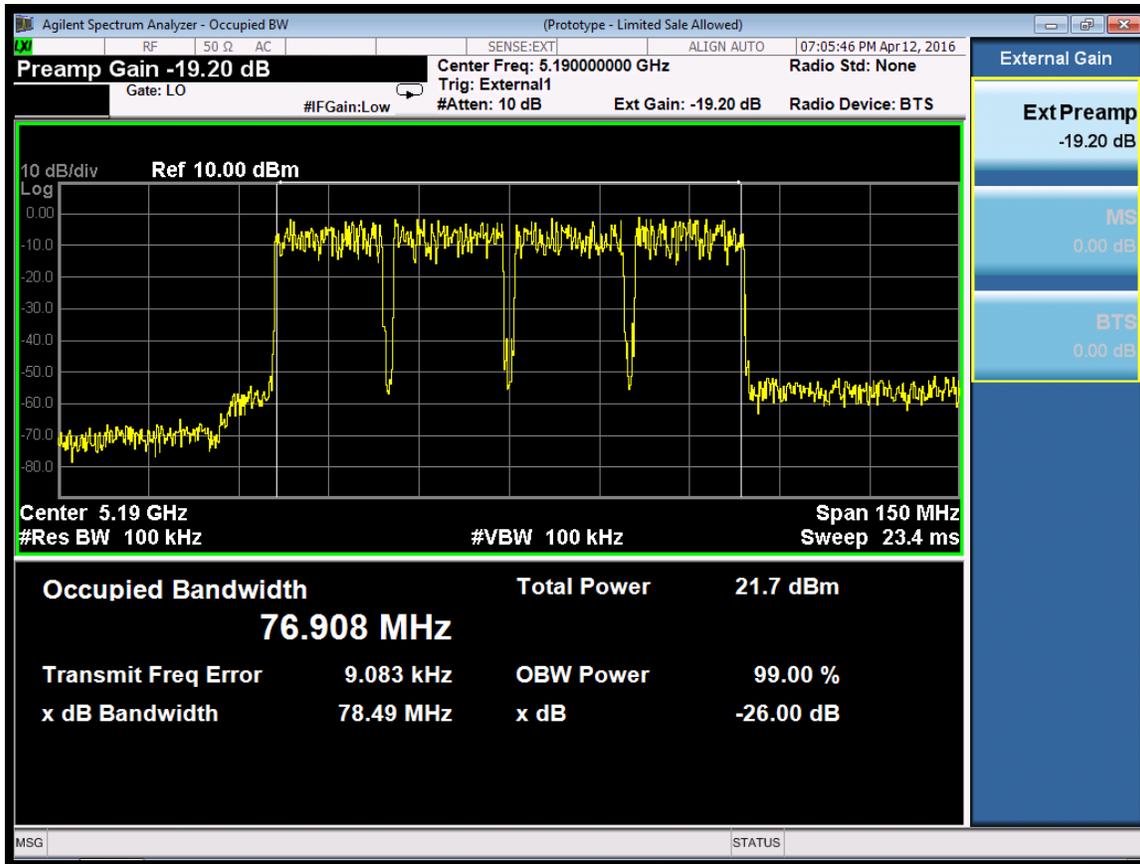


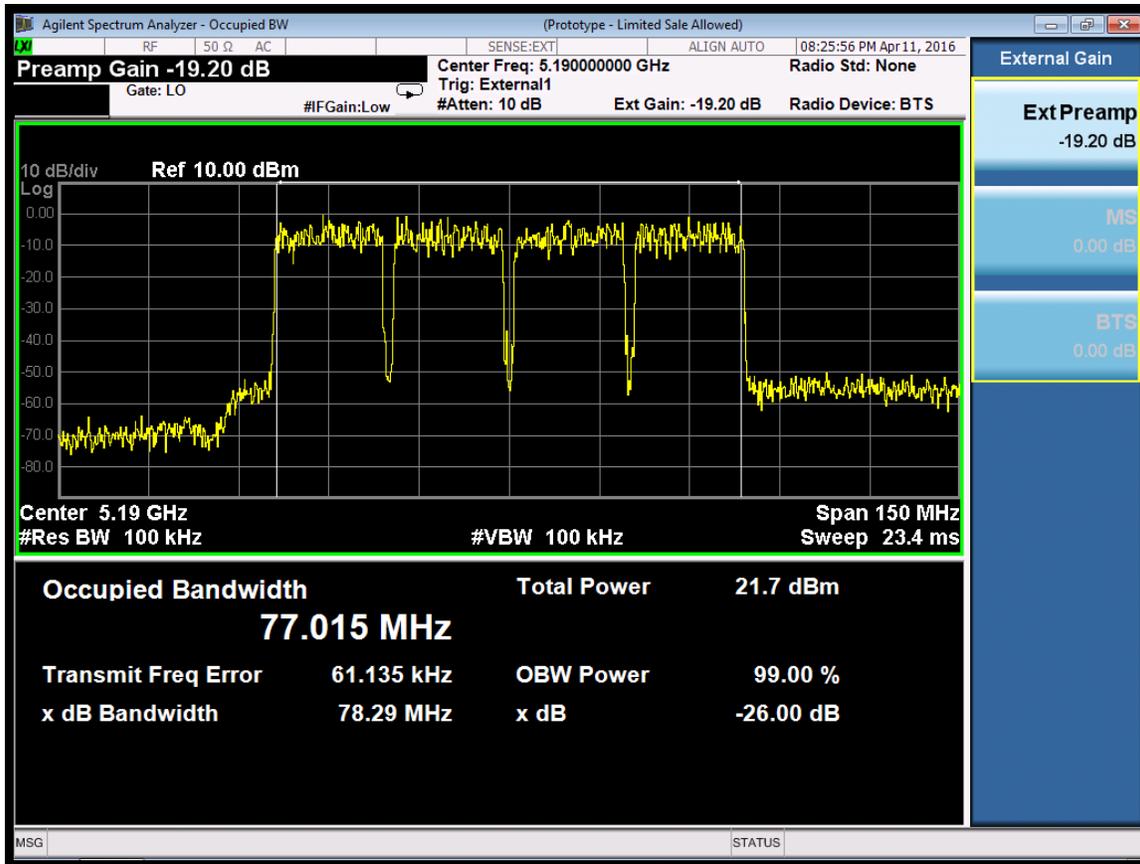


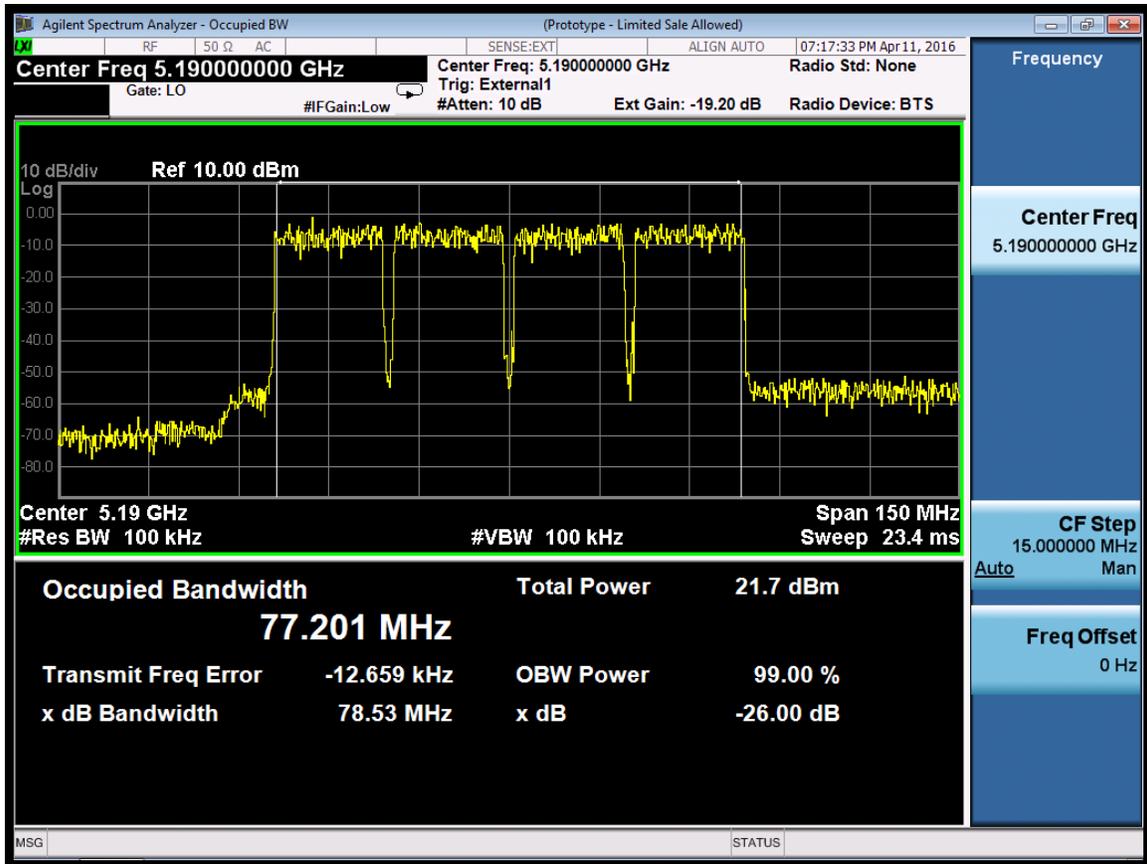


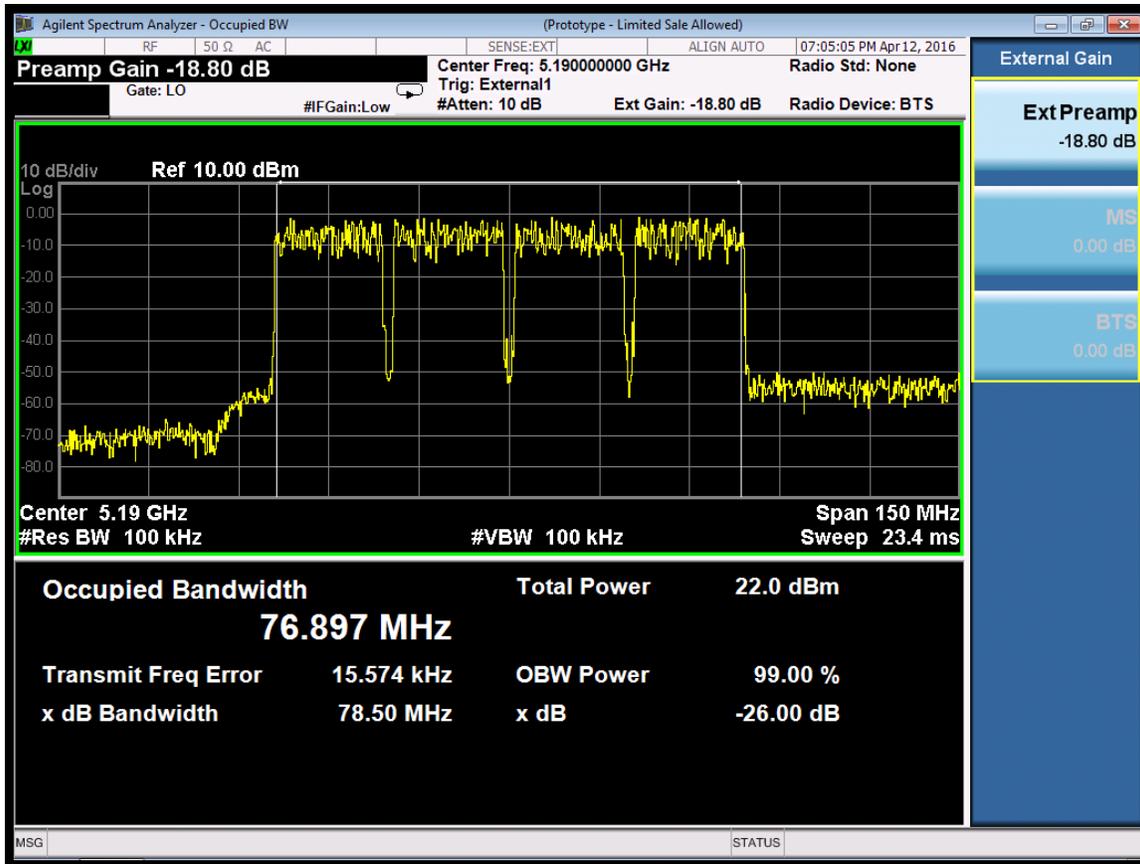


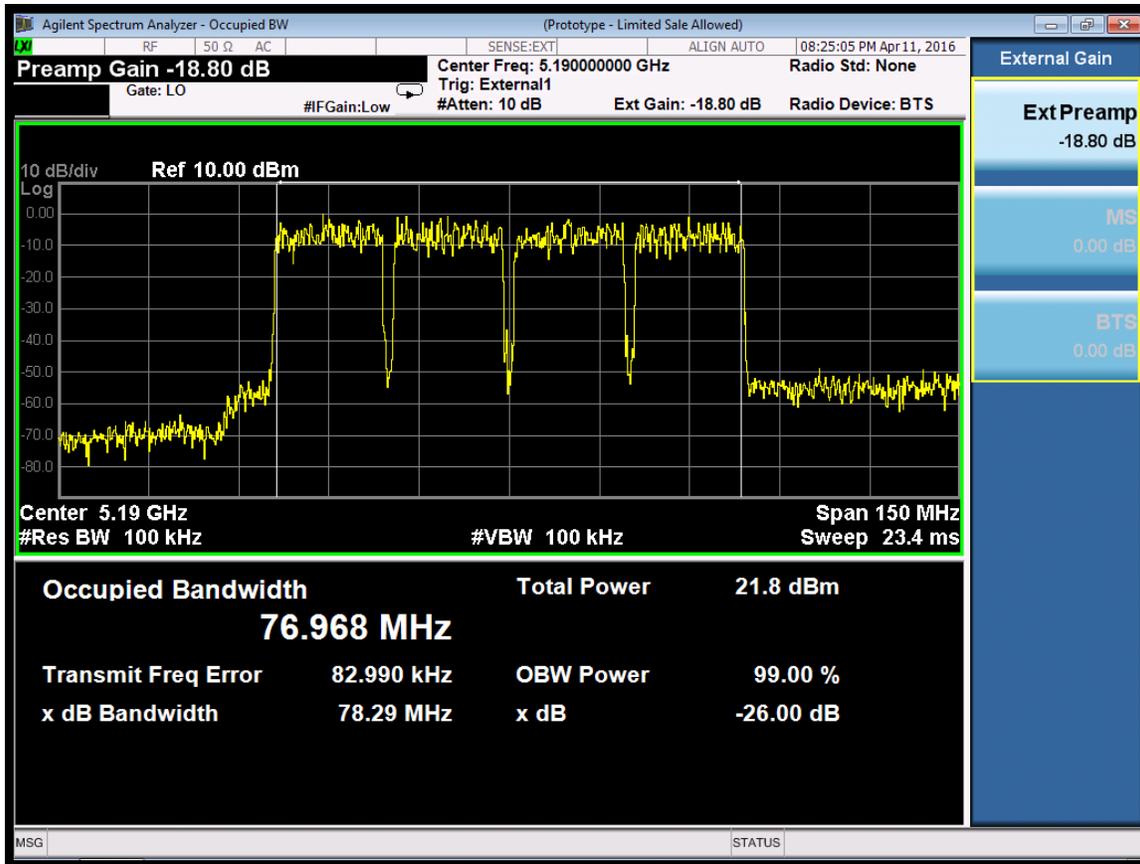


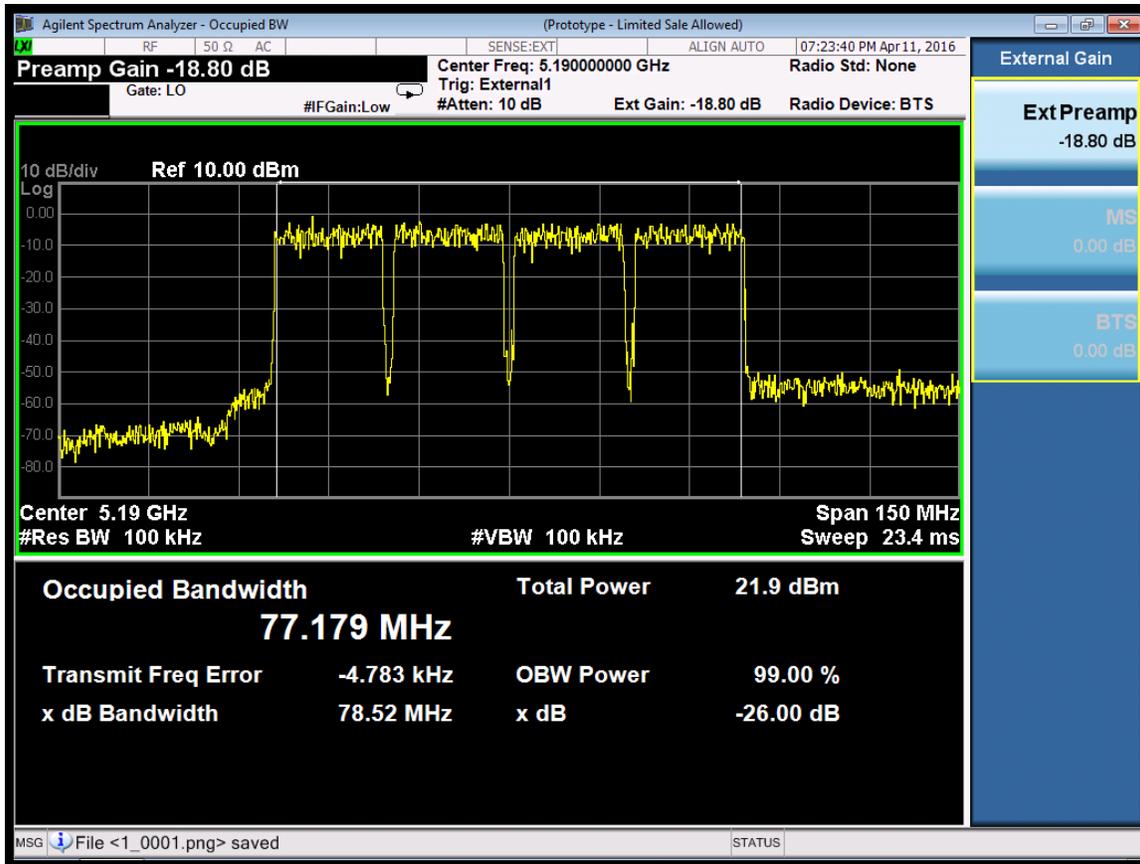


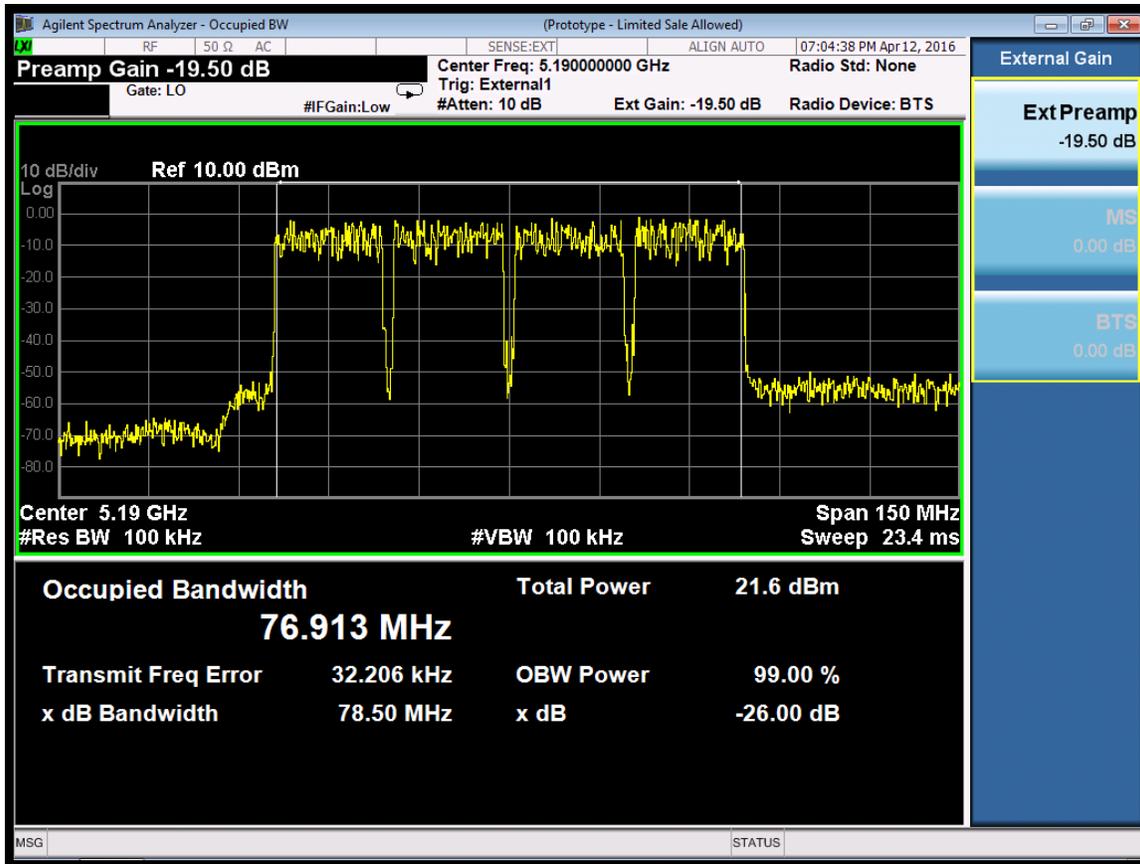


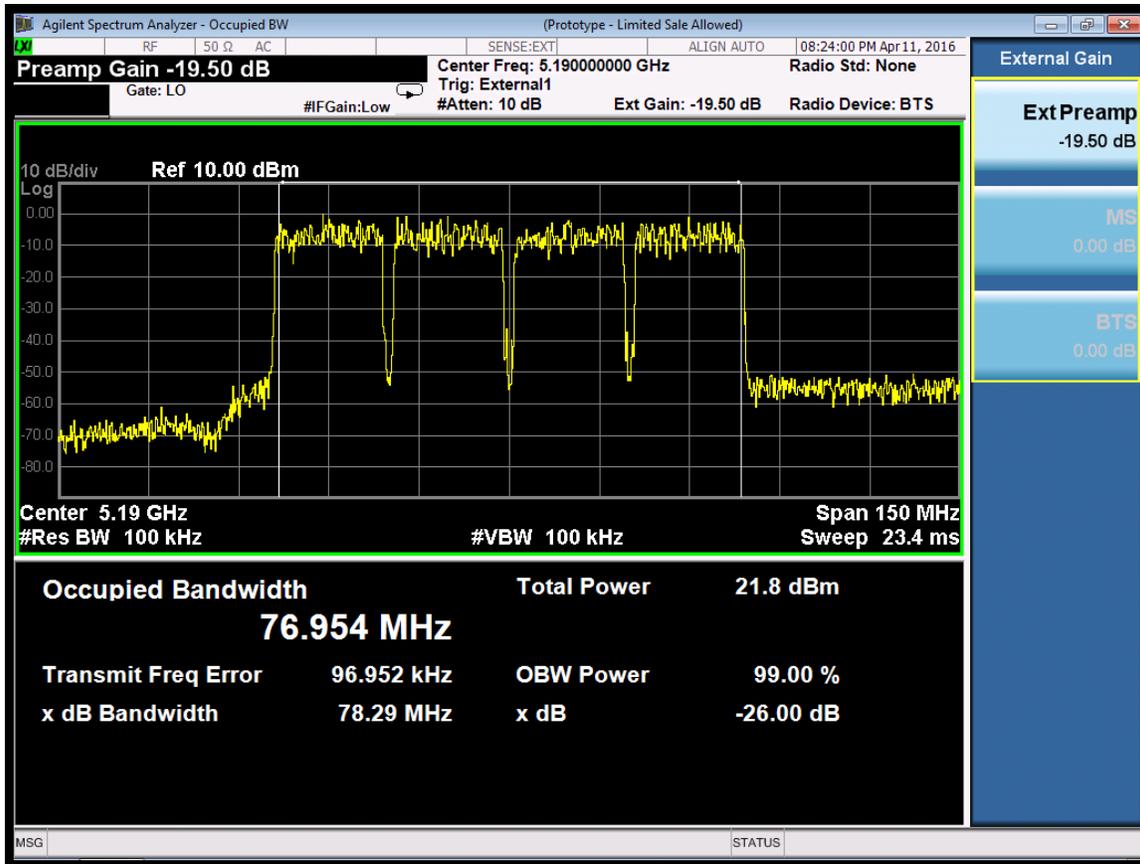


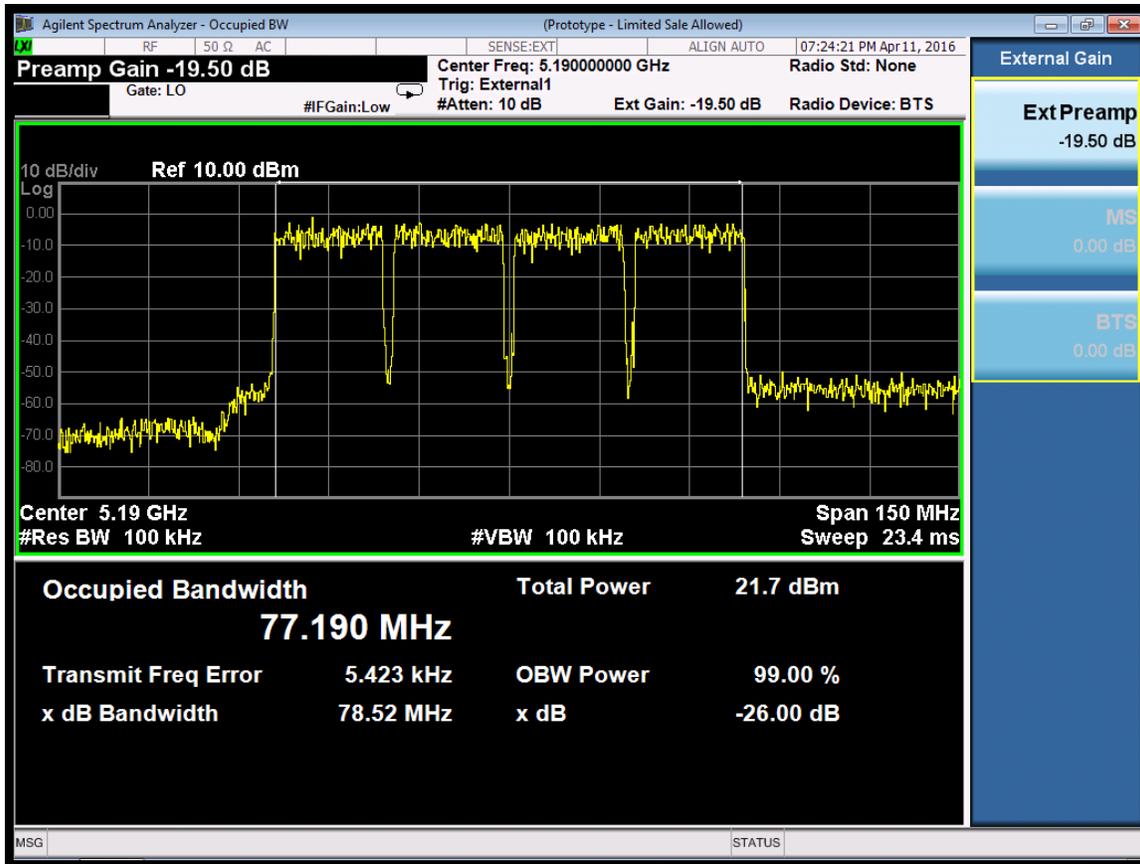


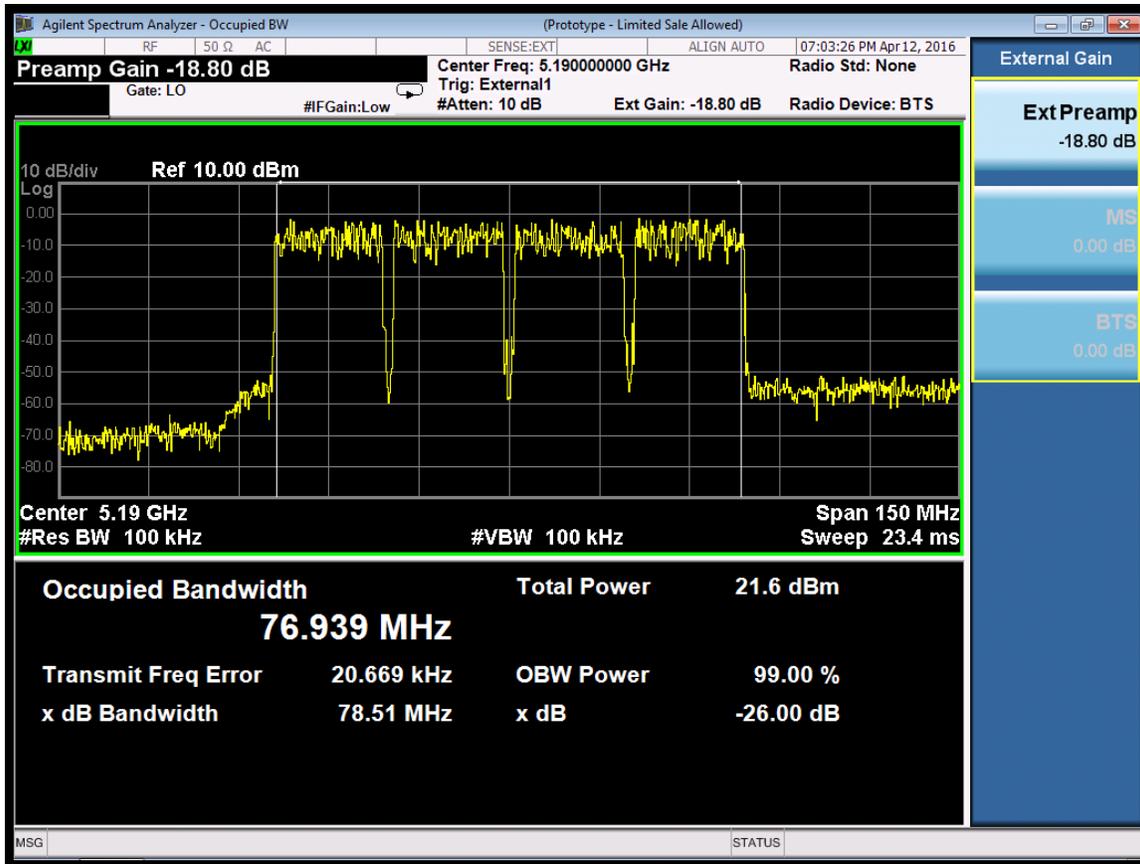


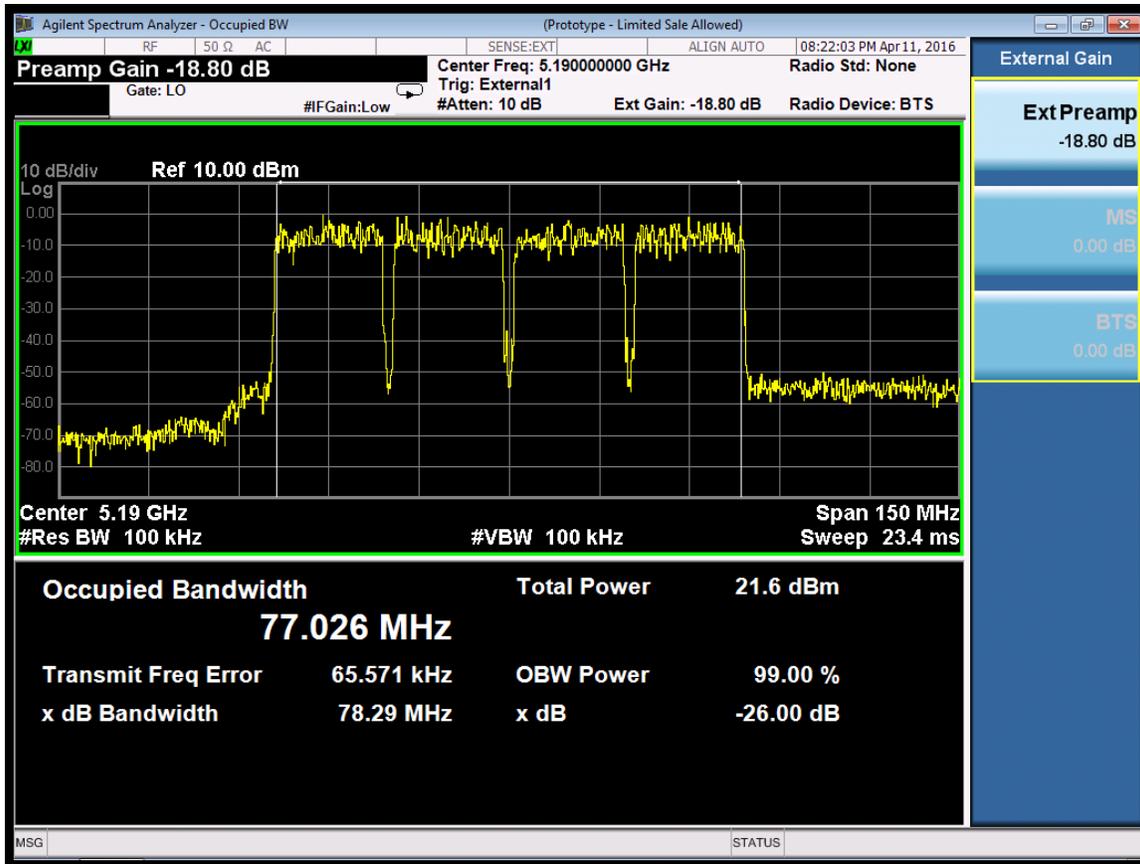


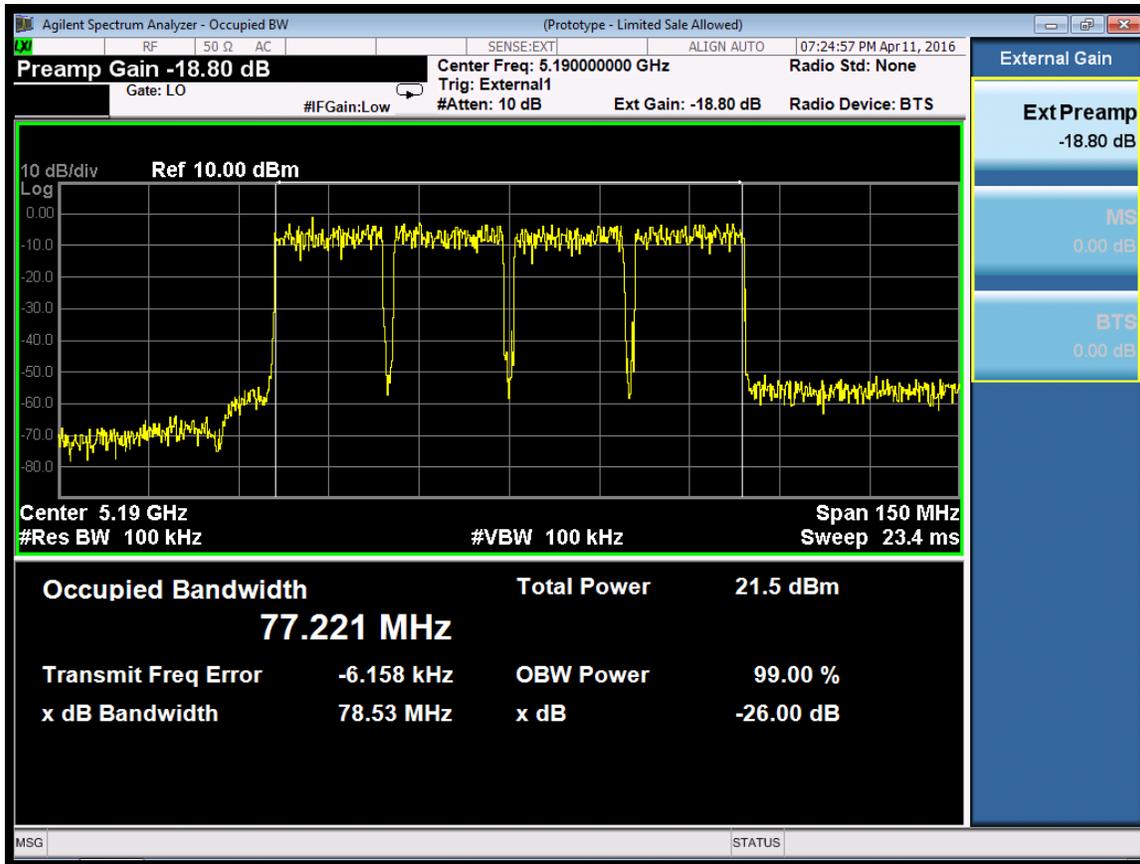


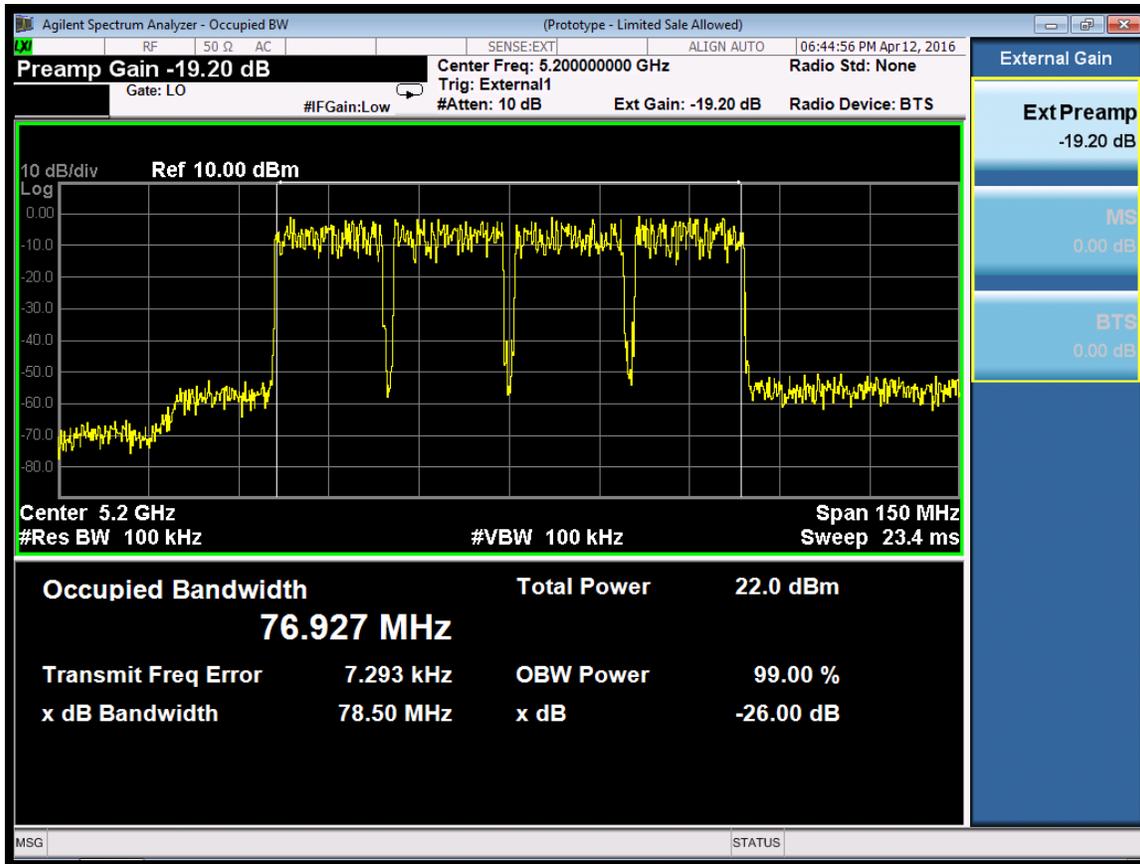


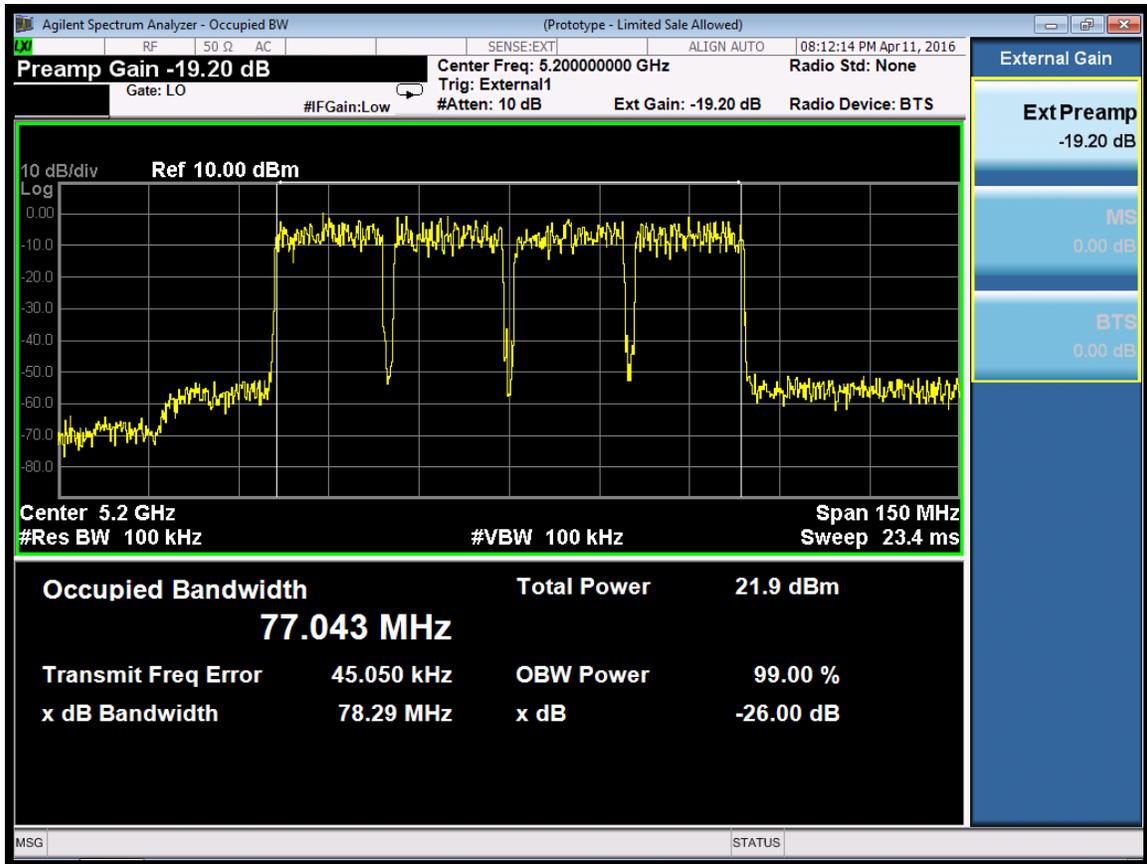


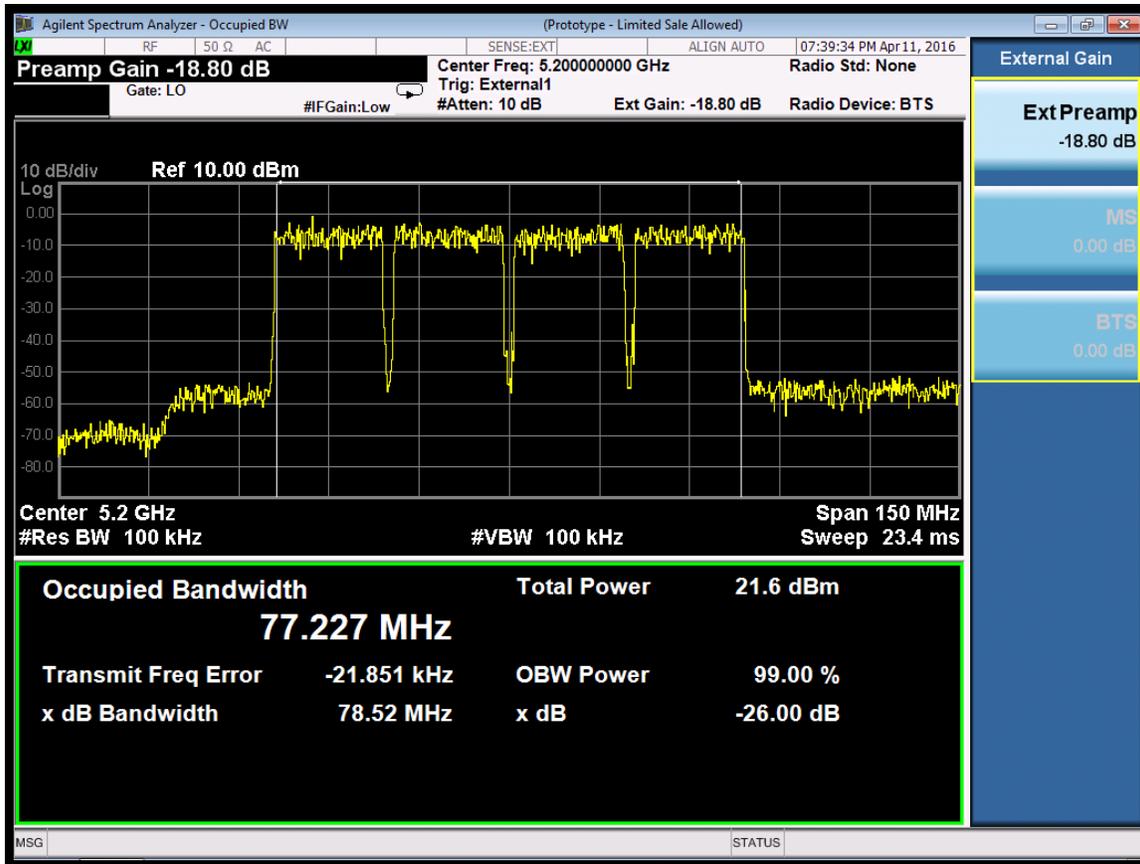


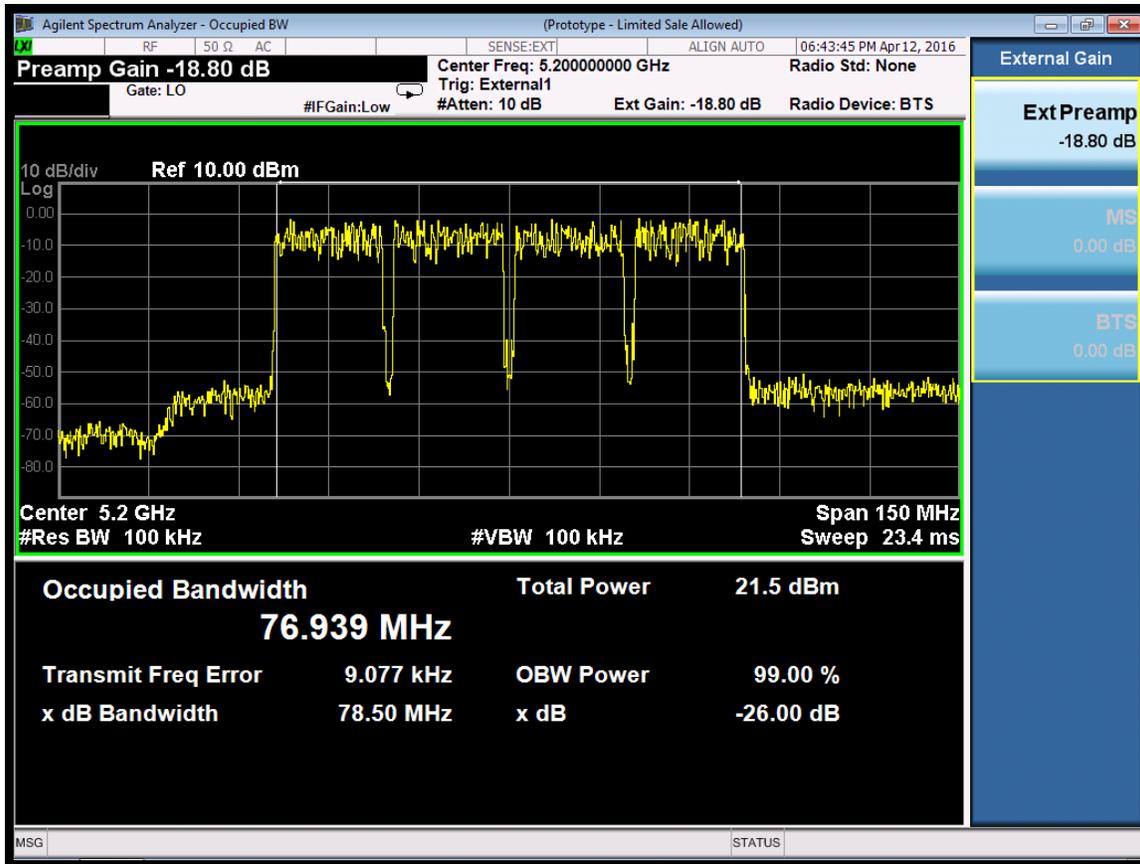


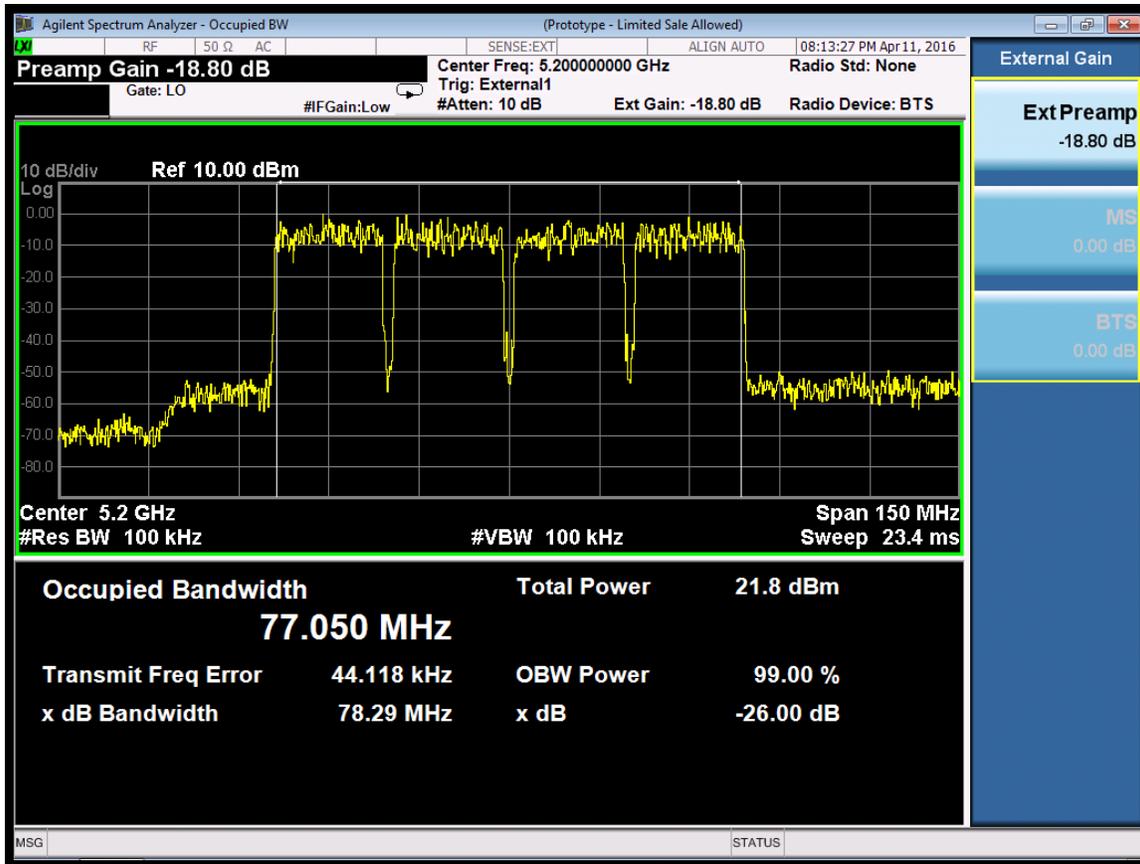


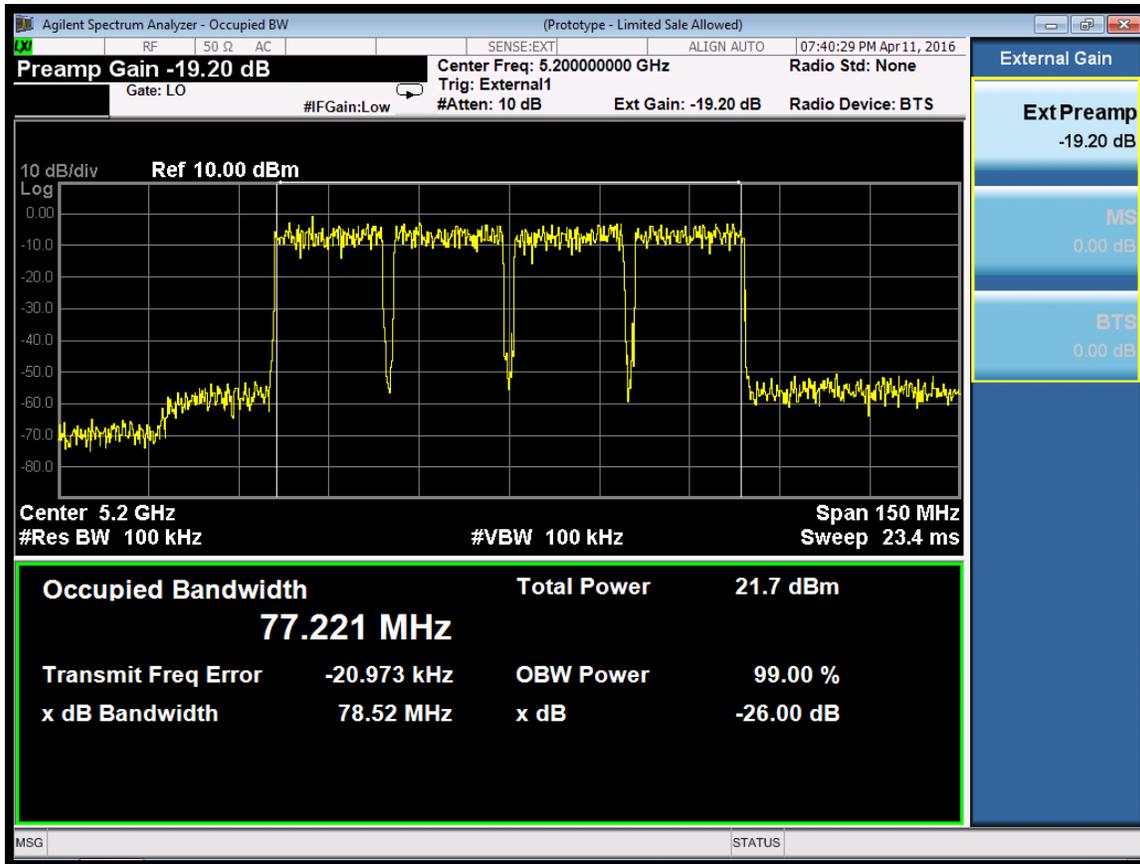












<b>External Gain</b>	
<b>Ext Preamp</b>	-19.20 dB
MS	0.00 dB
BTS	0.00 dB

